3

1

Spectr. Temp. ....

Focus............

Spectr. Temp. ....

Exp. Mtr.	Seeing

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ..... 4.

Focus .....

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

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				DAVID DUNLOP OBSERVATORY							
				74" Logbook							
				Vol. 78							
				Plate No. CEO 7814 - CC28343							
				September 1994 - November 1994							

5

pg#1 Fri / Sat

Date 1994 Sep 21 3.... Observers K.K. I.T.....

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	Comparison Exp.
ce0781415	inboard/outboard HARTMANN					2 30W	+30°	ThAr	1/1
16	BIAS (4)	when set at Polaris position							
17	Comp							ThAr	1
18	HD 8890	01 22 36	+88 46	19 53 29					442
19	Comp							ThAr	1
~~20~~	~~Comp~~							ThAr	1
~~21~~ 24	HD8890			20 04 26		0755E			~~126~~
22	Comp							ThAr	1
23	HD8890			20 15 17					103
24	Comp							ThAr	1
25	BIAS (4)								
26	Comp							ThAr	1
27	HD ~~187691~~ 187691	19 46 12	+10 10	20 31 38		0037E			713
28	Comp							ThAr	1
29	HD 187691	19 46 12	+10 10	20 45 11					627
30	Comp							ThAr	1

CCD Spectr. Temp. ..

Focus...240

CCD Spectr. Temp. ..

Exp. Mtr.	Seein
44	
430	~~23~~ 3
410	
74	3
74	

CCD Spectr. Temp. ...-100°C..... Dome Temp./Hum. 15.0°C 55%H Transparency Conditions P.C.A.T. cloudy.....

Focus...240..... ** I found out near end of night that I apparently did not set to -100C as intended

CCD Spectr. Temp. ...90.c.gain... Dome Temp./Hum..... 300 ln/mm X c Lambda Set to "6" instead of "5"

Comparison Exp.	Exp. Mtr.	Seeing	Fig. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1/1					echelle ccd 18.42.1.11	.580 W=60u H=400u		6300Å	1/2		CCDFMT for Focus 0 0 1256 1024 8 1	
									1		0 0 256 1024 4 1 for Rest	
1									3			
442	44		2	F					4ci	kk tellaric pgm	much cloud	
1									3	comp repeat el because of time gap		
126	430	2-3"							5ci		10K ADU max	
1									3			
103	410								6ci		10K ADU max	
1									3ci			
									1			
1									2c0			
713	74	3"	5.11	F8V					4ci	std vel	≈ 11000 ADU max @ center 1.22 Air mass	
1									3c.			
627	74								5	std vel		
1									3			

7

pg #2

Date 1994 Sep 2/3 ..... Observers KK / Th / KM .....

Emulsion Batches:

.....

.....

.....

Spectr. Temp. ...

Focus ... 24

Spectr. Temp. ...

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.	Seeing
ce 07831	Comp							ThAr	1		
32	HD 186791	19 41 30	+10 22	21 01 35		00 11 E			200s	262	3"
33	Comp							ThAr	1		
34	HD186791			21 07 59		00 04 E			196	317	
35	Comp							ThAr	1		
36	BIAS(4)										
37	Comp							ThAr	1		
38	~~HD173739~~ ADS11632A	18 41 48	+59 29	21 31 25		01 49 W			1805	8	3
39	Comp							ThAr	1		
40	HD 173740	18 41 48	+59 29	22 04 52		02 23 W			1811	15	2½
41	Comp							ThAr	1sq	250	
x 42	HD173739			22 37 58		2 56 W			1798	16	
43	Comp							ThAr	1s	320	
44	BIAS(4)										
45	Comp							ThAr	1s		

Spectr. Temp. ..... Dome Temp./Hum. +13°C 70% H Transparency Conditions ... clear again ... 8

Focus ... 1240 .....

Spectr. Temp. ..... Dome Temp./Hum. 11.8°C 72.6% H

Comparison Exp.	Exp. Mtr.	Seeing	Rtg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1					echelle CCD	H = {60μ = 277 / 400μ / = .225}		6300Å	3			
200s	262	3"	272	K3III					4	stellar	5 k ADU max	
1									3			
196	317								4	stellar		
1									3			
1												
1805	8	3	8.90	dM4					4ci	KK pgm	≈ 200 ADU MAX above bkgd Brighter & NORTH of pair	
1									3ci			
1811	15	2"-3"	9.69	dM5					5co		≈ 150 ADU above background at center South one of pair	
1sq	250								2ci		11 k max	
178	16		890	dM4					4			
1s	320								3ci		12 k max	
									1			
1s									3			

9

P903

Emulsion Batches:

Date 1994 Sep 2/3 Observers KK/TAL Kan

Spectr. Temp. ..
Focus ..240
Spectr. Temp. ..

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.	Seeing
CCD 7846	ADS 13256A	19 56 42	+1028	23 27 41					1320	20	
7847	Comparison							ThAr	1s		
7848	ADS 13256 B			23 32 50		2 53 W			1835	7	3"
7849	Comp							ThAr	1s		
7850	HDS 13256 A			00 25 35		3 26 W			1813	17	3"4
7851	Comp							ThAr	1s		
7852	BIAS(4)							~~ThAr~~	~~1s~~		
7853	Comp							ThAr	1s		
7854	HD 212943	22 22 48	+04 12	01 04 21		1 18 W			600	107	3"
7855	Comp							ThAr	1	484	
7856	HD 212943			01 19 39					674	127	
7857	Comp							ThAr	1	489	
7858	Comp								1	505	
7859	ADS 48 A	00 00 12	+45 16 00	01 44 03		00 40 W			1832	7	2"
7860	Comp							ThAr	1	512	

Spectr. Temp. ..... Dome Temp./Hum. +11.4°C 73% Transparency Conditions .. Fine 10

Focus .. 1240 ..... → increasing cloud

Spectr. Temp. ..... Dome Temp./Hum. +10.8°C 70.9%

Comparison Exp.	Exp. Mtr.	Seeing	~~Ptg.~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1320	20		7.60	F2			60μ	6300	3c;	KK pgm	South and Brighter	
1s												
1835	7	3"	7.80						4c;		NORTH & fainter	
1s									2c;			
1883	17	3"-4"	7.60	F2					3c;		Brighter one	
1s									2c;			
1s									1c;			
1s									2c;			
430	107	3"	4.79	KO III-IV					~~6~~	Std Vel	≈ 1400 ADU max	
1	484								2c;			
674	~~1327~~		4.79	KO III-IV					6c;	Std vel		
1	489											
1	505											
1834	7	2"	8.94	dK6					6c;	KK pgm	≈ 250 AM above background NORTH and only slightly brighter at peak.	
1	512								2c;			

4 pg# 4

Date 1994 Sep 21 23 Observers [illegible] / Km / 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	Comparison Exp.
Ce07861	ADS48B	00 00 12	+45 16 00	02 16 23					1940
62	Comp							ThAr	1s
63	ADS48A			02 51 00		01 47W			1810
64	Comp							ThAr	1s
65	BIAS(4)								
66	Comp							ThAr	1s
67	ADS 2122A	02 41 48	+18 57 00	03 32 06		00 14E			1804
68	Comp							ThAr	1s
69	ADS 2122B			04 03 48		00 18W			1783
70	Comp							ThAr	1
71	ADS2122A			04 34 54					
72	Comp								
73	Bias(4)								
74	Comp							ThAr	1
75	HD 8890	01 22 36	+88 46	05 03 49					118

CCD
Spectr. Temp. ...
Focus ... 1240
Spectr. Temp. ...

Exp. Mtr.	Seein
1	2"
1	
25	2"
11	2"
180	

CCD

Spectr. Temp. −111.5°C* Dome Temp./Hum. +10.7°C 72.7% Transparency Conditions. PtAT cloudy

Focus .240 *Must have forgotten to set CCDT to −100 at start of night

Spectr. Temp. Dome Temp./Hum. Actually set to "6" instead of "5" on scale.

Exposure Exp.	Exp. Mtr.	Seeing	H.A. Mag.	Sp.	Inst.	× Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1940	1	2"	9.04	dM0	echelle CCD 300 l/mm 18.42 tilt	.580 H=400	60u	6300R	3c	KK pgm	≤ 200 ADU max above background South one of pair	
ls									2			
1980	1		8.94	dK6					6c			
ls												
ls									2c			
1984	25	2"	7.40	dF9					5c		≤ 600 ADU max Bright one and South of pair	
ls									2			
1983	11	<2"	8.20		(Separation ≤ 3.0" but OK separation in guide view)				6c		≤ 200 ADU max above background	
1									2			
			7.40	dF9					5c		cloading in here	
1	~~150~~		2	F					2		Telescope East Side	
118	180								3			

13

#5

Date 1994 Sep 2/3 .... Observers [K.H.] T.A./K.M.=Kim Kang Win

Emulsion Batches:

.....

.....

.....

Spectr. Temp. ..

Focus ...: 24

ccd #

Spectr. Temp. ..

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.	Seein
C007876	Comp							ThAr	1s		
77	HD8890	012236	+8846	050920		0126W			132	210	
78	Comp										
79	BIAS(4)										
80 84	FLATS x5			using 100+scale		0233W	+25°	TUNG	1.5sec		
85/86	in board/out	Hartmann				0233W	+25	ThAr	1/1		

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions CLEAR in NORTH only 14

Focus ...: 240 .....

Spectr. Temp. (CCD) ...-111.1°C.. Dome Temp./Hum. +100°C 8127

Comparison Exp.	Exp. Mtr.	Seeing	Ag. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1s							60μ 400μ	6300Å	2			
132	210		2	F					3		4k ADU max	
									2			
145e						W= H=	60μ= 500μ=	.277 .215	1ci		MAX 13.5k ADU	
11						H=	500μ	still			Focus FMT 0 0 128 1024 8 1	
		All to Worm & Perseus										

15
pg #1 SAT/SUN

Date 1994 Sep 3/4 Observers [K.K.] T.S. / K.M.

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

CCD Spectr. Temp. ...
Focus ... 247
Spectr. Temp. ..

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.	Seein
CE07887/88	inBOUND/outBOARD HARTMAN					02 30W	+35°	ThAr	1/1		
89	BIAS(4)										
90	Comp							ThAr	1		
91	HD 8890	01 22 36	+88 46	20 1403					100	Tx Hand Tr...	
92	Comp							ThAr	1		
93	HD 8890			20 1913					100	"	
94	Comp							ThAr	1		
95	HD 8890			20 2318		07 41E				"	
96	Comp							ThAr	1		
97	BIAS(4)										
98	Comp							ThAr	1		
99	ADS 12889A	19 41 48	+33 22 00	20 3927		00 04E			1684	3	1.23
CE07900	Comp							ThAr	1		
01	ADS 12889B			21 1011		00 29W			1784	3	
02	Comp							ThAr	1		

CCD
Spectr. Temp. −100°C Dome Temp./Hum. 150 60% H Transparency Conditions Clearing partially 16

Focus 240

Spectr. Temp. Dome Temp./Hum.

c 24 mm BDA

Comparison Exp.	Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst. 300 l/mm	× Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
1					echelle 18.42 Tilt	.580	60μ=.277 400μ=.225	6300Å	1/2		Focus CCD FMT 0 0 128 1024 81	
									1c;		OBSERVING FMT 0 0 256 1024 41	
1									2c;			
100	Too Hard To Reach. noton		2	F					3c;	Kitt pgm	3K ADU max	
1									2c;			
100	〃								4c;			
1									2c			
	〃								4c;			
1									2			
									1			
1									2			
1644	3	<2"-3"	8:30	K3V	DBL sep	≈2.5" N/S			5c;		Not sure if it is Brighter one. North one of Pair >200 ADU above background	
1									2			
1784	3		8:40	〃					6c,		7250 ADU above background, PERHAPS it is the BRIGHTER	
1									2			

17

pg #2

Emulsion Batches:

Date 1994 Sep 3/4 Observers [illegible] Jr. / Kim

Spectr. Temp.

Focus 240

Spectr. Temp.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.	Seein
CE07903	ADS12889A?	19 41 48	+33 22 00	21 41 17		00 48 W			1059	2	42
04	Comp							ThAr	1		
05	BIAS(4)										
06	Comp										
07	HD187691	19 46 12	+10 10	22 04 13		00 58 W			617	28	24
08	Comp							ThAr	1		
09	Comp							"	1		
10	HD186791	19 41 30	+10 22	22 19 38					446	9	
11	Comp							ThAr	1		
12	Comp							"	1		
13	HD212943	22 22 48	+04 12	22 34 15		01 01 E			1051	77	13
14	Comp							ThAr	1		
15	BIAS(4)										
16	HD212943			22 55 13		00 45 E			760	81	
17	Comp							ThAr	1		

Spectr. Temp. ..... Dome Temp./Hum. +13.2°C 66.9% Transparency Conditions Part Cloudy

Focus ...240.....

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

→ complete cloud
→ clearing a bit

Exp.	Exp. Mtr.	Seeing	Pic. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1059	2	<2"	≈8.4	≈K2	echelle	W H	60μ 400μ	6300Å	5c;	[≈150 ADU max]	Cloud @ end The MOATH and again	
1									2c;			
									1			
			5.11	F8 V					2			
647	28	2"	~~2.72~~	~~K3 III~~					3	Std Vel	500 ADU max cloud end	
1									2			
1									2			
446	9		2.72	K3 III					4	Std Vel	thick cloud. ≈200 ADU max	
1									2			
1									2			
1051	77	2-3"	4.79	K0 III-IV					3c;	Std Vel	>2k ADU max some cloud	
1									2			
									1			
710	81		4.79	K0 III-IV					3	Std Vel		
1									2			

1:19

#3

Date 1994 Sep 3/4 ..... Observers [KK]. Ts./. Km .....

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	Comparison Exp	Exp. Mtr.	Seeing
C ceo7918	Comp							ThAr	1s		
19	HD177724	19 00 49	+13 42 53	23 12 52		03 02 W			1185	110	2½
20	Comp							ThAr	1s		
21	Comp							ThAr	1s		
22	HD209790	22 00 54	+64 08	23 39 43		00 19 W			519	20	1½"
23	Comp							ThAr	1se		
24	HD209791	22 00 54	+64 08	23 50 40		00 48 W			1570	73	2"
25	Comp							ThAr	1		
26	HD209790			00 18 02		01 06 W			1031	19	
27	Comp							ThAr	1		
28	BIAS										
29	comp							ThAr	1	24	
30	HD 8890	01 22 3½	+88 46 00	00 48 12		-3 14			193	45	
31	Comp							ThAr	1	40	
32	HD 8890	01 22 3½	+88 46 00	00 53 09		-3 10			200	35	

Spectr. Temp. ...

Focus ... 24.0

Spectr. Temp. ...

Spectr. Temp. ..... Dome Temp./Hum. +28°C 69.6%H Transparency Conditions Part Cloudy 20

Focus 240

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

Comparison Filter	Comparison Exp	Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	X Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
r	1s					echelle CD	.580	60u 400u	6300Å	2			
	110	110	2-3"	2.99	A0Vm					4	Telluric Std	cloudy Max ~~1000~~ ADU	
r	1s	~~120~~								2			
r	1s									2			
	5s	210	<2"	4.80	A3m	X (very windy separated with EW slit)				5	Kk dbl	X indicated to be done with slit NS. ~2.8K ADU max	
	1s									2			
	15	73	2"	5.30	dF9					6		1200 ADU max The faint or west one	
	1									2			
	1s	196		4.80	A3m					5c			
r	1									2			
										1			
r	1	214								2			
	1s	415								3		Max 10K ADU	
	1	~~440~~								2			
	20s	335								3		Max 7K ADU	

21 #4

Date 1994 Sep 3/4 Observers [illegible]

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	Comparison Exp.	Exp. Mtr.	Seeing
ceon9 33	Comp							ThAr	1	773	
34	HD 88P0	~~01 22 36~~ ~~00 58 03~~	+88 46 00	00:58:03		-03 d 0			232	380	
35	Comp							ThAr	1	426	
36	Comp							ThAr	✓	460	
37	HD 3712	00 34 48	+55 59 00	01:09:02	-00 53				146	42	
38	Comp							ThAr	1	434	
39	HD 3712	00 34 48 ~~01 13 02~~	+55 59 00	01:13:03		-00 49 20			160	420	
40	Comp							ThAr	1	444	
41	BIAS 4										
42	Comp							ThAr	1		
43	ADS 48 A	00 00 12	+45 16 00	01 38 58		0 26 W			1496	0	1½
44	Comp							ThAr	1		
45	ADS 48 M	00 00 12	+45 16 00	01 59 08		00 59 W			1795	0	2
46	Comp							ThAr	1		
47	ADS 48 A			02:31:24		01 30 W			1747	0	2
48	Comp										

(cc) Spectr. Temp. ...
Focus 124
Spectr. Temp. ...

CCD
Spectr. Temp. ...10.17 actual/ Dome Temp./Hum. ..... Transparency Conditions ..Past. Cloudy. - Wet 22

Focus ....240.....

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

Comparison Filter	Comparison Exp.	Exp. Mtr.	Seeing	Pig. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Ar	1	473				echelle CCD	60μ 400μ		103a0	2			
	352	380		2	F					3			
Ar	1	486								2			
	1	460											
	106	412		2.23 3.09	KoIII					4	STD VEL	≃Max 7K ADU	
Ar	1	434								2			
	160	420		2.23	KoIII					4			
Ar	1	414								2			
										2			
	1									2		≃ 250 ADU max a bit of RH proper motion?	
	1	0	1-2"	8.94	dK6					6			
	1			9.04 ~~dM0~~						2		≃ 200 ADU max south, fainter one	
	179	0	2	9.04	dM0					5			
Ar	1									2			
	179	0	2	8.94	dK6					6			
										2			

23 #5

Date 1994 Sep 3/4 ..... Observers [KH] TS / KM .....

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	Comparison Exp.
comp 49	BIAS (4)								
50	comp							ThAr	
51	HD 18884	02 57 06	03 42 00	03:14:07		-1.06 E			369
52	comp							ThAr	1
53	HD 18884	02 57 06	03 42 00	03:21:46		-1 01 E			220
54	comp							ThAr	1
55	~~ADS 2122A~~ comp	~~02 41 48~~	~~+18 57 00~~					ThAr	1
56	ADS 2122A	02 41 48	+18 57	03:33:05		-0 10 E			164
57	comp							ThAr	1
58	ADS 2122B	02 41 48	+18 57	04:02:46		0021W			1827
59	comp							ThAr	~~1827~~
60	ADS 2122A	02 41 48	+18 57	04:34:27		00 49W			164
61	comp					"		ThAr	1sec
62	BIAS (4)					"			
63 69	FLATS x8					00 53W	+20°	THG	1.5s

* one may be a miss fire — single wavelength

Spectr. Temp. ..
Focus ... 124
Spectr. Temp. ..

Exp. Mtr.	Seen
369	
391	
220	
410	
10	
49	
5	23
1410	
18	3
100 tsec	

Spectr. Temp. ..... Dome Temp./Hum. +11.0°C 70% Transparency Conditions ... Clear 99% 24

Focus ... 240

Spectr. Temp. ..... Dome Temp./Hum. +10.0°C 74%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
						60μ 400μ	6300Å	1			
								2			
329		2.53	M1.5IIIa					3	STD VEL	10K Max ADU	
311								2			
268		2.53	M1.5IIIa					3	STD VEL		
417								2			
								2			
10		7.40	dF9					4	KK pgm	South & brighter ⇒ 600ADU MAX	
409								2			
5	2.5"	8.20	—					5		≥ 250ADU max fainter & north	
410								2			
18	3"	7.40	dF9					4			
								2			
				✓ Side 10 of optical.				1ci			
using 100 tscale				All to WORMS Perseus				2ci		** one or more may be blank	

Pg #1
25

Sun/Mon

Date 1994 Sep. 4/5 Observers [KK]/Tn/Smt

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

CCD
Spectr. Temp. ..
Focus ... 124
Spectr. Temp. ..

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.	Seein
CCD7970/71	FOCUS TEST INBOARD/OUTBOARD					02 45W	+35°	ThAr		15.5°C	
72	Bias										
73	Comp							ThAr	1		
74	HD8890	01 22 36	+88 46	19 27 45					128	232	
75	Comp							ThAr	1		
76	HD 8890			19 34 12					107	155	
77	Comp							ThAr	1		
78	HD 8890			19 37 49		8 22 E			145	216	
79	COMP							ThAr	1		
80	COMP							ThAr	1		
81	ADS10418A	17 10 06	+143000	19 59 31		1 27W			238	300	3
82	Comp							ThAr	1		
edit 83	ADS10418B	17 10 06	+143000	20 07 09		2 01W			1800	128	3.4
~~84~~	~~Comp~~		Lost, not written					ThAr	1		
84	ADS 10418A			20 34 10		2 07 W			263	310	4"
85	Comp							ThAr	1		

CCD
Spectr. Temp. ...-100°C..... Dome Temp./Hum. 14.9°C / 60.1% Transparency Conditions ...clear.....

Focus ...240.....

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

Note found at end of night, that SLIT H was actually set to .220 = 450μ for night

Comparison Iter	Comparison Exp.	Exp. Mtr.	Seeing	Pl. Mag.	Sp.	Inst.	Grating/ Tilt	* Slit	Emulsion	P.H.	Program	Remarks	Quality
		15.5°C				ECHELLE CCD 18.42	300 ℓ/mm X tilt = .580	60μW 400μH	6300Å			ccd fmt for focus 0 0 128 1024 8 1	
								rotated		1		ccd fmt for observing 0 0 256 1024 4 1	
	1							90° to		3			
	128	232		2	F			make the slit		4ci	KK pgm	max adu ~ 4.6K	
	1							NS		3			
	167	155								4			
	1									3			
	145	216								4		max adu ~ 5K	
	1									3			
	1									3			
	238	300	3"	3.50	M5 I b					5	KK dbl pgm	5.5K ADU MAX Brighter and west of pair.	
	1									3			
	1800	128	3-4"	5.40	G5 III					6a	KK pgm.	2.7K ADU MAX	
	1									3			
	263	300	4"	3.50	M5 I b					5ci	KK pgm	max adu ~ 6K	
	1									3			

27 pg 2

Date 1994 Sep 4/5 Observers [KK]/Tn/Smt

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

Spectr. Temp. ..
Focus ....+24
Spectr. Temp. ..

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.	Seei
ce07986	bias(4)										
87	Comp							ThAr	1		
88	HD187691	19 46 12	10 10 00	21 01 35		0			660	58	3"
89	Comp							ThAr	1		
90	Comp							ThAr	1		
91	HD186791	194130	+10 22	21 1757		0 13 W			180	254	2-3
92	Comp							ThAr	1	53	
93	HD186791			21 22 34		0 20 W			310	248	
94	Comp							ThAr	1		
95	Comp							"	1		
96	HD209790	22 0054	+640800	21 4019		01 28 E			1040	215	2-3
97	Comp							ThAr	1		
98	HP209791	"	"	21 5925		0 56 E			1800	27	3"
99	Comp										
ce08000	HD209790	"	"	22 3156		0 35 E			1071	230	

Spectr. Temp. ..... Dome Temp./Hum. 13.5°C 66% Transparency Conditions ..sl. hazy..... 28

Focus ....240.....

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

Comparison Exp.	Exp. Mtr.	Seeing	Ptg/Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
						W H	60μ 400μ	6300Å	1			
1							(NS)		2			
360	58	3"	5.11	F8 V					4	RV Std.	max adu ~ 1800	
1				~~F8 V~~								
1									3		8K max ADU	
180	254	2"-3"	2.72	K3III					5c	RV stl	"	
1	53											
310	268		~~4.80~~						5	RV Std.	10K max adu.	
1												
1												
1040	215	2-3"	4.80	A3m					6	KK dbl	6200 ADU max Brighter and East one	
1									3			
1800	27	3"	5.30	dF7					4	KK dbl	max adu ~1100 K fainter & eastern	
									2			
1071	230		4.80	A3m					6	KK dbl	max ADU ~ 4.5K brighter Leastern.	

Pg #3
29

Date 1994 Sep 4/5 Observers [KK]/TN/Sut

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	Comparison Exp.	Exp. Mtr.	Seei
ce08001	Comp							ThAr	1		
02	bias (4)			22 51 45							
03	Comp							ThAr	1		
04	HD201041 AOS14636A	21 02 25	38 15 00	23 06 14		0 59 W			1260	133	
05	Comp							ThAr	1		
06	HD201042 AOS14636B	21 02 26	38 15	23 29 49		1 30 W			1697	79	3
07	Comp							ThAr	1	48*	
08	~~AOS14636A bias (4)~~	21 0225	3815	00 00 59		1 57 W			1338	139	3
09	Comp							ThAr	1	89	
10	~~AOS14636B~~	21 0225	38 15	00 25 20		2 21 W			1438	93	3
11	Comp							ThAr	1	300	
12	~~AOS14636A~~	21 0225	38 15	00 51 48		2 39 W			902	120	3
13	Comp							ThAr	1		
14	BIAS (4)										
15	Comp	for HD212943						ThAr	1		

Spectr. Temp. ..... Dome Temp./Hum. 12.0°C / 73.2% Transparency Conditions .. clear but slightly hazy 30

Focus ..... 2.40 .....

Spectr. Temp. ..... Dome Temp./Hum. +11.1°C / 70.0% H

Comparison Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1					ECHELLE CCD 18.46	300 l/mm X tilt = .580	60 μW 400 μH	6300 Å	3			
							(NS)		1			
1									3			
1260	133		5.22	K5V					5	KK pgm.	Also done with E W slit max 400 ~ 4.4K brighter & western HIGH prop	
1									2			
1697	79	3-4"	6.04	KV					4	KK pgm.	(2.8K ADU max) brighter & eastern HIGH prop	
1	48*								3		* max 9K ADU for corr	
338	139	3-4"	5.22	K5V					5c	KK dbl pgm	≈ 3.8 K ADU MAX	
1	89								3			
1438	93	3"	6.04	K7V					4c		≈ 3.2 K ADU max	
1	300								3		max 8.4 K ADU	
942	120	3-4"	5.22	K5V					5c			
1									3			
									1c		CCDT = -101.8°C	
1									2			

31

pg 04

Date 1994 Sep 4/5 Observers [KA] /TH

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Min.	Seeing
ce08016	HD212943	22 22 48	+04 12	01 14 33		01 37 W			677	113	3"
17	Comp							ThAr	1		
18	HD212943	22 22 48	+04 12	01 27 07		01 51 W			768	55	4"
19	Comp							ThAr	1		
20	Comp							2	4		
21	HD213998	22 30 13	−00 37 59	01 44 23		02 04 W			946	260	4"
22	Comp							ThAr	1s		
23	BIAS(4)										
24	Comp							ThAr	1s		
25	HP188884	02 57 06	+03 42	02 07 41		02 12 E			199	300	3"
26	Comp							ThAr	1s		
27	HD188884			02 12 30		02 07 E			181	266	
28	Comp							ThAr	1s		
29	Comp							ThAr	1s		
30	ADS2122A	02 41 48	+18 57	02 23 18		01 17 E			1667	30	2"
31	~~Comp~~ Comp							ThAr	1s		

Spectr. Temp. ..
Focus ... 1246
Spectr. Temp. ..

Spectr. Temp. ..... Dome Temp./Hum. +11.0°C 70:1%H Transparency Conditions Sl. hazy 82

Focus 1240

Spectr. Temp. ..... Dome Temp./Hum. +10.7°C 68:5%H

Comparison Exp.	Exp. Mtr.	Seeing	Pr. Mag.	Sp.	Inst. 300 l/mm echelle	X Grating/ Tilt (300 l/mm)	Slit	Emulsion	P.H.	Program	Remarks	Quality
677	113	3"	4.79	K0III-IV		.580	60μ 400μ (NS Orientation)	6360Å	3	Std vel	≃ 2.6 K ADU max	
1												
768	55	4"	4.79	K0III-IV					3	std vel		
1									2			
7									2			
946	260	4"	4.02	B9 IV-Vn					4c.	Telluric Std	A15 B1n cassegon. (established for B1n) 3 K ADU max	
1s									2			
									1			
1s									2			
199	≃ 300	3"	2.53	M1.5 III					5c0	Std vel	≃ 10 K ADU max	
1s									2			
181	266								5	Std vel	≃ 8.5 K max	
1s									2			
1s									2			
1447	30	2"	7.40	dF9					3c	KK dbl	done also with EW slit ESE and Brighter 700 ADU MAX	
17												

33
pg#5

Date 1994 Sep 4/5 Observers [T.K.] T.H.

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

Spectr. Temp. ..
Focus ..! 240
Spectr. Temp. ..

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.	Seein
CEO 8032	ADS 2122B	02 41 48	+18 57	02 53 32		00 45 E			1768	4	2½
33	Comp							THA	1	R	
34	ADS 2122 A	02 41 48	+18 57	03 25 07		00 16 E			1604	25	3½
35	Comp							THA	1		
36	BIAS (4)										
37	Comp							THA	1		
38	HD 8890	01 22 36	+88 46	04 01 20					140	200	2½
39	Comp							THA	1		
40	HD 8890	01 22 36	+88 46	04 05 36					116	240	
41	Comp							THA	1		
42	HD 8890	01 22 36	+88 46	04 08 57					115	280	
43	Comp							THA	1		
44	HD 8890B	01 22 36	+88 46	04 13 40					1039	0	1½
45	Comp							THA	1		
46 51	FLATS x6					0 0	+50°	TUNG	2 sec		
52	BIAS (4)										

Spectr. Temp. ..... Dome Temp./Hum. 10.6°C ... 69% Transparency Conditions ... slight hazy .....

Focus .. 240 .....

Spectr. Temp. ..... Dome Temp./Hum. +10.3°C ... 69.5% All cloudy at end except Polaris Hole

Comparison Exp.	Exp. Mtr.	Seeing	Pwr. Mag.	Sp.	Inst.	× Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks (>300 ADU MAX above background)	Quality
1768	4	2"3"	8.20	*?	echelle 18.42	.580 H=450	60	6300	4	kk dbl pgm	Separation for guiding BETTER than with E W slit (Good early K type)	
1	← Guiding difficult, but confident that there no "A" contamination								2	*"B" looks Like		
1609	25	3"	740	dF7					3Ci			
1									2			
									1			
1									2			
140	200	2-3'	2	F					5		5.7 K HDM max	
1									2			
116	240								5			
1									2			
115	280								5		5.2 K max	
1									2		Δ 100 ADU above Background.	
1039	0	1-2"	9	Very early					6		SW 20" from A	
1									2			
2	Using 100 Tank, Source fixed manually (~500m Height)								3Ci		max 12 K HDM	
									1			

35

Sun Morning -> through afternoon

Date 1994 Sep 5 Observers Tm

Emulsion Batches:

.....

.....

.....

CCD Spectr. Temp. left

Focus 1240

Spectr. Temp. ....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.	Seeing
ceo 8053 54	FLATS x 2			05		00 00	-33 30	~~FLAT~~ Tung	10s		
55	BIAS (4)								~~10~~		
56	Comp	~~NMTST. BAT 35~~		2:05 35				Th Ar	10		
57 → 91	Comp	Repeat NMTST. BAT 35		05 40 for DARK				Th Ar	10		
92	Comp			184014		00 60	-33 30				
93	Comp			19 0244		image went + to lower col		#s Rel	~~10~~		
94	BIAS ((4)			190351							
95	Comp			191152		(image to lower col #s again Rel to previous.)					

52 BIAS(4)

CCD
Spectr. Temp. ~~Left unregulated~~ −115°C Dome Temp./Hum. +10°C .... 69.3%H Transparency Conditions .. Cloudy morning, but High pressure stayed Today,
@ 0510 EST

Focus .. 1240 .....

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

CCOFmT 322 380 85 200 1 1

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				echelle 18.42	1580 W 60u H 400u		6300Å	3c;	Echelle Non motion series	MHX 11 & ADU	
						SHT N S alignment		1c;			
					90 CCW from NORMAL			4c;			
					CCD Power cable Facing NORTH			5c;		Dome T = +10.5°C @ 05 H	
		CCDT = −110°C			Dome T = +16°C @ 1844			6c;	After arriving for evening		
ceo9092								7	" opening dome shutter		
								1	" focusing PRimary		
		CCDT now −105°C						8			

A very stable High pressure area for whole period.

37

Pg II Mon/Tues

Date 1.9.94. Sep. 5/6..... Observers [KK]..T.n/.Sost.....

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	Comparison Exp	Exp. Min.	Seeing
ce08096/97	inboard/outboard HARTMAN					2 40W	+18°	ThAr	1.4/25	15 sky 120 to scale	
98	BIAS(4)										
99	Comp							ThAr	1s		
ce08100	ADS10075 A	16 2430	+18 37	19 5433		2 29W			1260	30	4"
101	Comp							ThAr	1s		
102	ADS10075 B			20 1856		2 53W			1206	38	4"
103	Comp								1296		
104	ADS10075 A			20 4505		3 20W			1296	34	1"
105	Comp										
106	BIAS(4)										
107	Comp								1		
108	ADS10418 A	17 1006	14 30	21 1338					121	220	
109	Comp							ThAr	1		
110	ADS10418 B			21 1822		2 57W			666	118	4"
111	Comp								1		

Spectr. Temp. ..

Focus...1240

Spectr. Temp. ..

Spectr. Temp. ..... Dome Temp./Hum. +14.7°C ... 55% H Transparency Conditions ... Fine .....

Focus ... 240 .....

Spectr. Temp. ..... Dome Temp./Hum. +14.2 ..... 55.3%

Comparison Filter	Comparison Exp	Exp. Mtr.	Seeing	Pig. Mag.	Sp.	Inst.	X Grating/ Tilt (200/l/mm)	Slit	Emulsion	P.H.	Program	Remarks	Quality
	14/25	using 100 t scale				echelle 18.42 ccd	.580 W / H	60μ = .277 / 400μ = .225	6300A	1/2	Outboard · 3 Rel ; OK for bright	CCD FMTT 0 0 128 1024 8 1	
												0 0 256 1024 4 1	
	1s									3c		West & North of Pair	
	120	30	* <1"	7.70	K1 V	(seems	slightly	brighter of pair)		4c	KK dbl pgm	* 1.30 AIR mass Well Resolved (≤ 1.5 sec sep)	> 100 ADU
	1s									3c		Not well resolved last night ∴ not done then	
	126	38	<1"-1"	7.80	looks just like "A" spectrum					5		800 ADU max still good resolution & guiding	
	1296									3			
	129	34	1"	7.70	K1 V					4		≈ 900 ADU MAX above bkgnd	
										3			
	1												
	121	270		3.50	M5 Ib					2		8 K ADU max	
	1									3		1.50 Air mass	
	666	118	<1"	5.40	G5 III					4		Sep 4" Very Fine separation again	
	1									3		2.6 K ADU	

39

pg #1

Date 1994 Sep 5/6 Observers [Erik] Ted Smith

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	Comparison Exp.	Exp. Mtr.	Seei
ceo8112	ADS10418 A			21 31 15					150	310	
13	Comp							ThAr	1		
14	Comp							ThAr	1		
15	HD161096	17 38 30	04 37 00	21 45 02		2 47 W			171	305	
16	comp							ThAr	1	473	
17	Comp							ThAr	1	382	1-2
18	HD8890	01 22 36	+88 46	22 02 31					96	308	
19	Comp							ThAr	1		
20	HD8890			22 07 13		5 41 E			108	330	
21	Comp							ThAr	1		
22	HD8890			22 12 27		5 44 E			107	360	
23	Comp							ThAr	1	877	
24	HD8890 B			22 18 01					1800	19	
25	Comp							ThAr	1		
	~~blank~~										
26	HD8890			22 52 21					95	300	

Spectr. Temp.

Focus 2

Spectr. Temp.

Spectr. Temp. ..... Dome Temp./Hum. 14.0°C / 55.3% Transparency Conditions ... clear!! 40

Focus ..... 240 .....

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

Comparison Exp.	Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
150	310		3.50	M5 Eb	echelle			6300R	2.	KK pgm	~10K max ADU	
1									3			
1									3			
171	305		~~2.77~~ ~~3.50~~	K2IV ~~M5Eb~~					4	RV STD	~10K max ADU	
1	473								3			
1	382	1"-2"							5		Δα +00 20 35 Δδ +00 00 39	
96	308		2	F					5i	KK	~11K ADU max	
1									3			
168	330								5	KK	~10K max ADU	
1	404								3			
107	300								5	KK	10K max	
1	377								3			
1800	19								6	KK dbl	~380 max ADU = 200 over bg	
1									3			
									1			
105	300								5	KK dbl	~12K max ADU	

41 pg #3

Date 1994 Sep 5/6 Observers [KK]/Tn/Smt

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	Comparison Exp.	Exp. Mtr.	Seein
ceo81 27	comp							ThAr	1		
28	bias(4)										
29	comp							ThAr	1		
30	HD187691	19 46 12	10 10 00	23 05 16					905	118	
31	comp							ThAr	1	313	
32	HD187691			23 23 34		2 30 W			840	38	
33	comp							ThAr	1	412	
34	comp							ThAr	1	416	
35	HD186791	19 40 30	10 22 00	23 48 06		2 49 W			190	345	
36	Comp							ThAr	1		
37	~~HD186791 bias (4)~~			23 54 12		2 53 W			172	318	
38	comp							ThAr	1	422	
39	bias(4)			23 59 54							
40	Comp							ThAr			
41	HD209790	22 00 54	+64 08	00 09 29				505	505	170	1"
42	Comp										

Spectr. Temp. ..
Focus ... 240.
Spectr. Temp. ..

Spectr. Temp. ..... Dome Temp./Hum. +14.2 ... 53.2% Transparency Conditions ... Fine ..., clear & beautiful.

Focus ... 240 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... C LAMBERT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
				echelle 18.42	W H	60μ 400μ	6300Å	3			
								1			
		~~5.11~~	~~F8~~					3			
118		5.11	F8					4	RV STD	max ADU ~ 3200 not the best guiding possible.	
313								3		max ADU ~ 12K!	
38								4	RV STD	max ADU ~ 3200 better guiding	
412								3		max ADU ~ 12.2K	
416								3		max ADU ~ 12.4K	
345		2.72	K3II					5	RV STD	max ADU ~ 13K	
								3			
318								5	RV STD	max ADU ~ 15K	
422								3		max ADU ~ 12.5K	
								1			
								3			
170	1"	4.80	A3m					4	KK dbl	57K ADU	
								3			

43 pg #4

Date 1994 Sep 5/6 Observers [KK] Ta. I. Sm.

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	Comparison Exp.	Exp. Mtr.	Seei
CeO 8143	HD209791	22 00 54	+64 08	00 20 27		1 20 W			1200	73	.5
44	Comp							ThAr	1		
45	HD209790			00 42 35		1 30 W			528	197	
46	Comp							ThAr	1		
47	bias(4)			00 52 58							
CG4042 26/27	HD209791	22 00 54	+64 08	00 56		01 36W		2x	.067		
28/29	"							2x	.067		
48	Comp							ThAr	1	167	
49	HD18884	02 57 06	03 42 00	01 11 06		03 05 E			150	320	
50	Comp							ThAr	1	357	
51	HD18884	02 57 06	03 42 00	01 24 56					184	16	
52	Comp							ThAr	1	445	
53	bias(4)			01 42 39							
54	Comp							ThAr	1	434	
55	AD52390A	03 05 48	36 50	01 47 10		02 10 E			1800	25	

Spectr. Temp. ..... Dome Temp./Hum +13.8°C ..... 54%11+ Transparency Conditions .. clear 44

Focus ..... 240 .....

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

Exp.	Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1200	73	.5"	5:30	dF7			60μ 400ℓ	6300Å	5c;	KK dbl pgm	max ADU ~ 2000 above bg	bg
1									3			
528	197								4	KK dbl pgm	max ADU ~ 5.5K	
1									3			
									1/2			
.067		1.4"		(Good for echelle scale?)			60μ 400ℓ			unofficial seeing test	faint star on slit -26 saturated	
.067				"	"					"	both stars straddling the slit	
1	167		~~4.19~~	~~M1.5III~~					3		max ADU ~ 8K	
150	320		4.19	M1.5III					4	RV Std	guided on strongest emission rate max ADU ~ 10K	
1	357								3		max ADU ~ 9.6K	
103	~~205~~		4.19	M1.5III					4	RV Std	guided on star centre (1st one saturated) max ADU ~ 12.5K	
1	445								3		max ADU ~ 9.8K ∴ not saved only 300 av.	
									1			
1	434								3		max ADU ~ 10K	
1800	25		8.1	G0					4	KK dbl	max ADU ~ 700 above bg	

exposure meter inconsistent for exposures & comps

45pg # 5

Date 1994 Sep. 5/6 Observers [KK]/Jm/Smt

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	Comparison Exp.	Exp. Mtr.	Seeing
ce08156	Comp			~~02 21 3~~				ThAr	1		
57	ADS2390 B	03 05 48	+36 50	02 21 38		1 37 E			1818	29	4½
58	Comp							ThAr	1		
59	ADS2390 A	03 05 48	+36 50	02 56 57		01 02 E			1785	28	4½
60	Comp							ThAr	1	210	
61	bias (4)			03 28							
CG4430	ADS2390 A&B on ~~ce08157~~			.067sec Int.							
ce08162 33 →	Comp							ThAr	1		
163	HD8890	01 22 36	88 46 00	03 43 56		00 12 W			148	200	4
164	Comp							ThAr	1		
65	HD8890			03 49 13					180	258	
66	Comp							ThAr	1	128	
67	HD8890			03 54 36		0 22 W			100	190	
68	Comp							ThAr	1	74	
69	Comp							ThAr	1	44	
70	ADS4200 A	05 30 24	21 56 00	04 03 56		02 29 E			1200	116	

Spectr. Temp. ...
Focus ... 14
Spectr. Temp. ...

Spectr. Temp. ..... Dome Temp./Hum. 13.4°C / 53.8% Transparency Conditions . clear ..... 46.

Focus ..... 240 clouding in

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

Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				ECHELLE CCD		60 μm 400 μH	6300 Å	3			
29	<1"	8.3	G0?					5c:	kk dbl	AIRMASS 1.09 max ADU ~ 800 above bg very fine separation	
								3			
28	<1"	8.1	G0?					4	KK dbl.	max ADU ≥ 1000 above bg. western & slightly brighter	
210								3			
								1/2			
				FOR SEEING TEST (AIR ABOVE 60μ SLIT)				3	non standard	seeing Test times No FANS, close SE	
								4		max ADU ~ 3200 above bg	
200	4"	2	F					4	KK pgm	Tel East Side	
								3			
258					Tel E Side			4	KK pgm	max ADU ~ 3500 above bg Tel East side -	
128								3		max ADU ~ 8.5K	
190								4	KK pgm	max ADU ~ 3200 above bg Tel E side	
79								3		max ADU ~ 8.3K	
464					Tel W Side			3	Tel W side	max ADU ~ 10.4K	
16		7.20	F8?					4	kk dbl	max ADU ~ 200 over bg 350 total some time spent focussing, trying desperately to resolve the pair.	

47pg #6

Date 1994 Sep 5/6 Observers [KK]/Tn/Smt

Emulsion Batches:

.....

.....

.....

Spectr. Temp.

Focus.....

Spectr. Temp.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.	Seei
ce08171	Comp							ThAr	1	440	
72	ADS4200 B	05 30 24	21 56 00	04 26 33		2 06 E			1200	14	
73	Comp							ThAr	1	443	
74	ADS4200 A	05 30 24	21 56 00	04 49 37		1 46 E			982	13	
75	Comp							ThAr	1	445	
76	bias(4)										
77 - 83	FLATS x 7					02 50W	+8°	TUNG	1.5		45%

Spectr. Temp. ..... Dome Temp./Hum. 11.1°C / 62.2% Transparency Conditions ..few thin clouds..... 48
clouding in.

Focus .....2.40.....

Spectr. Temp. ..... Dome Temp./Hum. +10.7°C / 64.6%

Comparison Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1	490				ECHELLE CCD 18.46	300 l/mm xtilt=.580	60μW 400μH	6300Å	3		max ADU ~ 10K	
1200	14		1.80	F8?					5	KK dbl	max ADU ~ 270 or 100 above bg faintest & westernmost getting close to dawn.	
1	493								3		max ADU ~ 9.8K	
982	13		1.20	F8?					4	KK dbl.	max ADU ~ 320 or 110 above bg	
1	495								3		max ADU ~ 9.6K	
									1&2			
1.5	.	using 100		TSCALE and		manually switched on	H=500μ=.215		3		MAX 13K ADU to 12.9K	

ALL TO WORM & PERSEUS

Date Sept 6 1994 Observers AK-Ri

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

Spectr. Temp.
Focus
Spectr. Temp.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.	Seei
CE08184	flexure test					09" E		THAr	1 scan		
CE08185	"					08" E		THAr	2 scan		
6						7					
7						6					
8						5					
9						4					
CE08190						3					
CE08191						2					
2						1					
3						0					
4						1W					
5						2W					
6						3W					
7						4W					
8						5W					
9						6W					

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions 5.0

Focus .....

Format 00 128 1024 8 1

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

shift

Comparison Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1sec					Reticon CCD	300 l/mm xT/H = .50	60μ W 400μ H	6300Å	1		90 cgain	1.53
2sec									2		0 cgain	1.65
									3			1.63
									4			1.49
									5			1.25
									6			.89
									7			.56
									8			.33
									9			.18 .00
												↙ −.04
												.04
												.16
												.15
												↙
												.66
												.80

51

Date Sept 7/8 ... 1994 ... Observers ... Hmd/Smt ...

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	Comparison Exp
CC25739/40	Focus Test Comp/STELLAR			~~21:10~~ 22:10	~~21:25~~			FeAr	40/65
41	bias (4)								
42	~~HD147394~~ comp	~~16h 16m 44s~~	~~46° 33' 05"~~					FeAr clear	60s
43	HD147394	16h 16m 44s	46° 33' 04"	22:29	22:45	5h 16m			90/65
44	comp			22:46				FeAr Clear	60s
	~~HD160760~~	~~17h 26m 38s~~	~~46° 03' 39"~~						
45	bias (4)			23:10					
46-50	flat x 5					0	platform (~~33~~ ?)		

Spectr. Temp. ....
Focus 6.74
Spectr. Temp. ....

Exp. Mtr. | Seeing

telescope

Spectr. Temp. -100.7°C Dome Temp./Hum. 16.2°C/66.4% Transparency Conditions Cloud.y. clearing a bit. 52 mostly cloudy with holes and fast moving cloud.

Focus 6.74

Spectr. Temp. ..... Dome Temp./Hum. 16.2°C/66.4% @ end.

415 ⊙ 50 1024 4 1 cadfast

Comparison Filter Exp	Exp. Mtr.	Seeing	Pt. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ Cloud da	~~P.H.~~ Cl	Program	Remarks	Quality
					CCP Cass	G=4446 1800	300μm	4298Å	3/4	Hml	FANS OFF	
									1/2			
			3.9	BK II					5	Hml	~~through fast cloud~~	
	30170		3.89	BK II					6	Hml max alt 10.1	through fast cloud cirrus at start ~ 1.589	
									7			
											increasing cloud.	
									1		max APU ~ 13.1K → 12.1K	
	telescope parked. All: to			&	WORM Perseus				8/9		↓ RAIN! YIKES! focus is same as one done conditions.	

53 pg#1 Thurs/Fri

Date . 1991. Sep. 8/9..... Observers . [B/w]... Tn./Smt.....

Emulsion Batches:

.....

.....

Note CSS Time probably fast ~ .6 secs. tonight.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCD 5751 752	Comp/Stellar	Hartman				0009W	+32°	FeAr clear	~~60s~~
753	BIAS(4)								
54	Comp							FeAr clear	60
55	HD1061	00 09 50	08 16 00	* 20 01 12		04 51 E			1690
56	Comp							FeAr clear	60
57	HD1061			20 33 11					670
58	Comp							FeAr clear	60
59	bias(4)								
60-79	FLAT x 20					0	-33°		
80	bias(4)			01 00					
81	Comp							FeAr clear	60s
82	HD 1061	0009 50	08 16 00	01 03 26		0 03 W			1200
83	Comp							FeAr clear	60s
84	Comp							"	"
85	BD+26 3835	20 09 36	+26 27	01 33 09		05 07 W			360
86	Comp							FeAr	60

CCD Spectr. Temp. ...
Focus.....6.7
Spectr. Temp. ...

Exp. Mir. 23a Green Filter	Seeing
60/74	
681	
* 225	4-6"
674	
1470	
CCD T-	
~700	
5180	3-5"
749	
1290	4"

Spectr. Temp. CCD -100°C ..... Dome Temp./Hum. 18.2°C / 63.3% Transparency Conditions partly cloudy with gradual clearing 54

Focus 6.74 .....

Spectr. Temp. ..... Dome Temp./Hum. 15.1°C / 74.8% @ line GREEN FILTER IN EXP. METER (BG39)

chamber 415 0 501024 4 1 CCDFMT (Hot pixel cd 28)

Comparison Filter	Comparison Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks (Row 144)	Quality
		239 Green Filter 60/74				CASS CCD	1800 l/mm G=4558	306u	4475Å	3/4 c.			
										1			
	60	681								5			
	1690	* 2225	4"-6"	B= 6.15	A9s		S/N ~ 110:1			6	Bln pgm	*clear by 20:15 *500 cnts previous to 20:15 part cloudy	
	60	674								7			
	620	1470								6	Bln pgm		
	60									7			
										8/9/10		clouded in with lightning opened up again. clearing now	
		CCD Temp setting untouched for closed period.											
	60s	~700								11			
	1200	5780	3"-5"	B= 6.15	A9s		S/N ~ 200:1			12	Bln pgm		
	10s	749								13			
										14			
	310	1290	4"	8.5 9.5	B8		S/N ~ 85:1			15	Bln Sp Bin	some cloud @ end	
	60									16			

Pg #255

Date 1994 Sep 8/9 Observers [Bln]/Tn./Smt.

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	Comparison Exp.
cc25787	bias(4)								
88	Comp							FeAr clear	60
89	HD1061	00 09 50	+08 16 00	02 34 08		01 26 W			698
90	Comp							FeAr clear	60
91	Comp							"	"
92	HD235679	21 55 00	54 01 00	03 27 54		04 57W			1966
93	Comp							FeAr clear	60
94	BIAS(4)			04 03					
95	Comp							FeAr Clear	60
96	HD1061	00 09 50	+08 16 00	04 11 14		3 04 W			741
97	Comp							FeAr clear	60
98	Comp							"	"
99	HD21364	03 21 48	09 23 00	04 31 08		00 03 W			232
cc25800	Comp							FeAr Clear	60
01	BIAS(4)								

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

Exp. Mtr.	Seei
KG 39 Filter	
4890	3
1020	3
4880	
15 400	

Spectr. Temp. ..... Dome Temp./Hum. 15.1°C/68.5% Transparency Conditions partly cloudy, mostly clear 56

Focus ..... 6.74 .....

Spectr. Temp. ..... Dome Temp./Hum. +13.6°C 69.3% H

Comparison Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ central wavelength	P.H.	Program	Remarks	Quality
	RG 39 Filter				CASS CCD	1800 l/mm G = 4558	306μ	4475 Å	1			
60									17			
698	4890	3"	B = 6.15	A9s					18	Bln pgm	through some thin cloud	
60									19			
"									20			
1468	1020	3"	B = 9.21	B2.5 Ib					21	Bln Sp. bin. pgm	had trouble finding ∴ drew updated finder field	
65									22			
									1c:			
64									23			
741	4880		B = 6.15	A9s					~~18~~	Bln ...	max ADU ~2.5K readout into wrong code.	
60									23			
"									~~23~~			
732	15,408		3.66	A9s					24		10K ADU max	
63									25			
									1			

57

Pyr #3

Date 1994 Sep 8/9 Observers [illegible] T.A. Smith

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	Comparison Exp.
CG404 34 37	HD25022	03 53 24	+39 44	≈0450				4x	67ms
38 39								2x	133ms
CG380 3 6	Comp/Stellar Hartmann					≈0°	40°	FoA	60/75

Spectr. Temp. ..

Focus ... 6.7

Spectr. Temp. ..

Exp. Mtr.	Seein

Spectr. Temp. ..... Dome Temp./Hum 13.6°/69.6% Transparency Conditions ... Fine 58

Focus ... 6:74 .....

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

Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
67m3							ABOVE 306m	S1.4		Seeing Test		
13m										"		
6m15								4475Å				

Pg #159 [Fri/Sat]

Emulsion Batches:

Date 1994 Sep. 9/10 Observers [Rm]/Tn/Smt

CSS 38(Time set to WWV Time

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.	Seeing
CC25804/5	FOCUS TEST COMP / STELLAR							FeAr clear	60/65	FILTER OG560	
06	BIAS(4)			19 27							
07	COMP							FeAr clear	60	10 983	
08	HD 173927	18 3920	-20 45	19 3201		00 10 W			1500	2944	4"
09	Comp							FeAr clear	60	11 000	
10	Comp							"	"		
11	HD 180583	19 1200	+2745	20 0611		00 01 E			600	4300	3"
12	Comp							FeAr clear	60		
13	BIAS(4)			20 18							
14	COMP							FeAr clear	60		
15	HD 331970	20 08 27	+32 34 16	20 24 55		00 19 E			1800	944	
16	COMP							FeAr clear	60		
17	HD 331970	20 08 27	+32 3416	21 01 21		00 17 W			1800	959	3"
18	COMP							FeAr Clear	60		
19	BIAS(4)			21 33							

Spectr. Temp. -100.7 Dome Temp./Hum. +14.8°C 58.3%H Transparency Conditions ... Fine ... 60/14 A.L.

Focus ... 6.74 ...

Spectr. Temp. ... Dome Temp./Hum. +12.1°C 66%H

DOME FANS OFF

Exp.	Exp. Mtr.	Seeing	Pix. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ c lambda	~~P.H.~~ c.	Program	Remarks	Quality
60/65	FILTER OG560				CASS CCD	1800 l/mm G = 5910	306μ	6400Å	3/4	FOCUS TEST		
									1/2			
60	10 983								5			
1500	2944	4"-6"	7.48	G0Ib					6c	Rm pgm	S/N ≲ 300:1 max ADU ~ 6.4K	
60	11 000								7			
"									8			
600	4300	3"	6.19	F6I -IIb					9	Rm pgm	max ADU ~ 8K S/N ~ 320:1 1.49 da period	
60									10			
									1/2			
60			9.1-9.8						11			
1800	944		~~F0 G2I6~~	F8-G2I6					12	Rm pgm	max ADU ~ 1.7K S/N ≲ 160:1	
60									13			
1800	959	3"-4"							14	Rm pgm		
60									15			
									1/2			

Pg #2 61

Date 1994 SEP 9/10 Observers [Rm]/Tn/Smt

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

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

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr. Filter	Seeing
CC25820	COMP							FeAr clear	60		
21	HD187691	19 46 12	10 10 00	21 39 53		0 52 W			300	4040	
22	COMP							FeAr clear	60		
23	COMP							FeAr clear	60		
24	HD203156	21 15 23	37 49 00	21 52 14		0 20 E			481	4100	
25	COMP							FeAr Clear	60	1240	
26	COMP							FeAr clear	60		
27	HD214795	22 36 55	56 18 24	22 13 44		0 59 E			1800	633	
28	COMP							FeAr clear	60		
29	BIAS(4)			22 46							
30	COMP							FeAr Clear	60		
31	HD180583	19 12 00	27 45 00	23 06 24		3 00 W			600	4950	
32	COMP							FeAr clear	60		
33	COMP							FeAr Clear	60		
34	HD177724	19 00 49	13 42 53	23 24 40		3 20 W		*	70	5000	
35	Comp							FeAr Clear	60	4900	3

Spectr. Temp. -99.7°C Dome Temp./Hum. 12.0°C / 66.9% Transparency Conditions clear Ag 262

Focus 6.74

Spectr. Temp. ____ Dome Temp./Hum. +10.8°C / 70.8%

Exp.	Exp. Mtr. (ULTR ORANGE FILTER)	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ Clarity	R.H.	Program	Remarks	Quality
60					CASS CCD	1200 R/mm G=5910	306μ	6400Å	16			
300	4090		5.11	F8V					17	~~Rm pgm~~ RV Std.		
60									18			
60									19			
900	4100		5.8-5.9	F2					20	Rm pgm.		
60	1240								21			
60									22			
1800	1633		8.40	~60Ib					23	Rm pgm.		
60									24			
									1/2			
60									25		reset spec. contr.	
600	4350		6.19	F6I -Ib					26	Rm pgm		
60									27			
60									28			
70	5000 ~~4000~~	3"	2.99	AOIn					29	Tell. Std.	1162 HIR NOES 1HX=10K ADU.	
10									7			

C3 Pg#3

Date 1994 Sep 9/10 Observers [Rm]/Tn/Smt

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

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

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.	Seei
CC25836	COMP							FeAr Clear	60s		
37	HD222368	233448	+0505	23 3527		01 03 E			160	5400	
38	Comp							FeAr Clear	60		
39	BIAS(4)			23 40							
40	COMP							FeAr Clear	60s		
41	HD223094	23 41 23	28 08 54	23 45 45		00 48 E			844	4100	3"
42	Comp							FeAr Clear	60s		
CG40440 → -43	HD223094	234123	+280854			67		4x	67ms		
CG40444 45	"	"	"			00 25E		2x	133ms		
CC25843 → 862	FLATS x20		Before seeing tests			00 30E	+28°	TUNG Ap 1/4	7sec		
CC25863	Comp							FeAr Clear	60s		
64	VY Per	02 2019	+582806	00 3428		02 15 E			2400	318	2-3"
65	Comp							FeAr Clear	60s		
66	BIAS(4)			01 17							
67	VY Per			01 18 48		01 28 E			2435	298	3"
68	COMP							FeAr Clear	60		

Spectr. Temp. -100.0°C Dome Temp./Hum 1.0°C 70.8% H Transparency Conditions ... Fine ... pg 45
Focus ... 6.74 ... increasing haze
Spectr. Temp. ... Dome Temp./Hum. +10.0°C 74% c LAMBDA

Comparison Exp.	Exp. Mtr.	Seeing	Hg Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
60s					CASS CCD	1800/mm G=5910	306u	6400A	30			
160	5400		4.13	F7 V					6c0	Std vel	max ADU ~ 13.9K	
60									7			
									1/2			
60s									8			
844	4100	3"	7.45	k5 III					9	RV std.	8.4K ADU max	
60									10			
67m			7.45	K5 III			306u slit			Seeing Test	DOME SSW No Fans, medium N wind	
133m												
7m									11 c1		MAX = 12K ADU	
60s									13			
2400	* partly From SKY 318	2-3"	10.8 -11.66	F5 -F9					14	Rm pgm	Field checks out well PERHAPS TOO FAINT FOR good signal	max ADU 3K S/N ~ 85:1
60s									15			
									1/2			
2435	298	3"							16	Rm pgm		
60									18			

65 Pg #4

Date 1994...Sep.9/10... Observers [RM]/TN/SMT.....

Emulsion Batches:

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

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.	Seein
cc25869	Comp							FeAr Clear	60sec		
70	HD25361	03 56 41	+58 23	02 09 36		02 26 E			1800	4200	3
71	Comp							FeAr Clear	60	8091	
72	BIAS(4)			02 42							
73	COMP							FeAr clear	60		
74	HD203156	21 15 23	37 49 00	02 49 05		04 37 W			500	4200	3
75	COMP							FeAr clear	60		
76	COMP							FeAr clear	60		
77	HD30282	04 41 05	+36 32 36	03 08 38		02 20 E			1172	4288	3
78	Comp							FeAr Clear	60s		
79	BIAS(4)			03 31							
80	COMP							FeAr clear	60		
81	HD29587	04 34 30	41 57 00	03 38 48		01 47 E			940	2540	3
82	Comp							FeAr Clear	60		

Spectr. Temp. ..... Dome Temp./Hum. 9.8°C 75% Transparency Conditions ....CLEAR..... pg. #46

Focus .....6.74.....

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

c LAMBDA

Exp. Mtr.	Seeing	Pkg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
				CASS CCD	1800 l/mm	306u	6400Å	19			
4200	3"	7.30 -807	FG 16 -G216					20	Rm pgm	11K ADU max	
8097								21			
								1/2			
~~HE70~~								22			
4200	3"	5.8-5.9	F2					23	Rm pgm	9.7K ADU max	
								24			
			must be much brighter then This,					25		spec. contr. reset.	
4288	3"	~~7.9~~ -8.8	~~FG~~ -G1 ~~Rm~~					26	Rm pgm	9.7K max ADU	
								27			
								1/2			
								28			
2540	3"	7.29	dG2					29	Std vel	5.8K ADU max	
								30			

67 py#5

65

Date 1994 Sep. 9/10 ..... Observers [Rm]./T.s./Smt.....

Emulsion Batches:

.....

.....

.....

Spectr. Temp. -1

Focus 674

Spectr. Temp. ....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp	Exp. Mtr.	Seeing
CC25883	COMP							FeAr Clear	6s		
84	HD44990	06 1948	+0708	04 03 04		3 10 E			6095	4995	3"
85	Comp							FeAr Clear	60s		
86/87	Comp / Stellar HARTMAN							FeAr Clear	60/70		J=
88	BIAS(4)			04 30		0 0	235°				

Spectr. Temp. −10.7°C actual / Dome Temp./Hum. +9.3°C 76.5% H Transparency Conditions ... SI. hazy ..... P.F. 4.5

Focus ..... 6.74 .....

Spectr. Temp. ..... Dome Temp./Hum. +9.1°C ... 78% H

Exp. Mtr.	Seeing	Tel. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 l/mm G=5910	30μ	6400Å	5			
4595	3".4	6.5 −8.0	F7 Lab −K1 Lab					6c;	Rmpgm	10.6K ADU max 1.85 Airmass	
								7			
	T=+9.2°C							3/4	Focus Test		
								1/2			
		All to Persens & WORM									

69 #1 SAT/Sun — 2 Large Tours - M15 very good + Ring nebula

Date 1.994. Sep 10./11. ..... Observers [Blm]. Jn./Sat. .....

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	Comparison Exp.
CG40446-49	HD 176844	18 57 03	+40 32 36					4x	67ms
CG40450-51	HD 176844	"	"	≈1930		00 38 E	+40 41	2x	133ms
Cc25889-90	Comp / Stellar	HARTMAN				00 47W	+54 26	FeHr Clear	60/60
cc25891	Comp							FeHr Clear	60s
92	HDE235679	21 55 00	+54 01 00	02 07 05		03 58 W			2710
93	Comp							FeHr Clear	60s
94	bias (4)								
95	Comp							FeHr Clear	60s
96	HD 209833	22 01 03	+28 08 41	03 04 20		04 14 W			720
97	Comp							FeHr Clear	60
98	Bias (4)								
99-cc25918	FLATS x20			≈0330		02 W	+29°	TUNG Ap 1/4	6s
19/20	BIAS(4)								
cc25920 #1	Comp / stellar	HARTMAN				02 W	+29°	FeHr Clear	60/60

CCD Spectr. Temp. ... Focus ... 6.7 Spectr. Temp. ...

Exp. Mtr.	Seeing
G560 Filter	
	3"
1351	4"
4550	4"
T:	+10

CCD
Spectr. Temp. −100°C ..... Dome Temp./Hum. +11.0°C 7721.H Transparency Conditions ..... Fine/Cloudy/clear.

Focus .... 6.78 .....

Spectr. Temp. ..... Dome Temp./Hum. +10.0°C 80.0%H

Both Fans on 40 min's before seeing Test. Then just NE one for Test.

Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
OG560 Filter		6.65	M211			ABOVE 306m	6604Å Slit		Seeing Test	Before Tours	
	3"								"	Dome WSW medium NNW wind	
				CASS CCD	1800 l/mm G-6065	306m	6604Å	3/4	focus test	- Then cloud	
				"	"	"	"	5c;	Temp now	+11.3°C in Dome. ~8600 ADU max e H2 emission	
1351	4"	8.86	B25TB					6c;	Sp bin Bln		
								7			
								1/2			
								8			
4550	4"	5.63	B9Tn					9	Telluric Std	1.56 Air mass	
								10			
								1 c;			
								12c0		MAX 13.7K ADU → 13.0K ADU	
T=	+10.0°C							3/4	focus test		

71

pg#1 Sun/Mon

Date ..1994.1.1/12..Sept Observers [V.g.s.]/gm/..Km./..Ta...

Emulsion Batches:

.....

.....

.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC259 22 23	Comp/Stellar	HURT				00	+3846		20/30
24	Comp							FeNe Clear	20s
25	BD+45 2743	18 32 26	+45 39 53	19 31 36		00 15 W			740
26	Comp							FeNe Clear	20s
27	BIAS(4)								
28	Comp					00 16 W		FeNe Clear	20s
29	AC+3 2528-176	18 45 01	+02 58 45	20 02 28		00 49 W		1851	600
30	Comp							FeNe Clear	20s
31	bias.								
32	comp					00 55 W		FeNe clear	20 s
33	AC+54 1780-45	18 54 12	54 22 09	20 48 29		01 53 W			3221
34	Comp							FeNe Clear	20s
35	BIAS(4)								
36	Comp							FeNe Cloud	20
37	AC+39 60670	21 32 36	+39 00 29	21 52 38		00 09 E		1941	
38	comp							FeNe	20

CCD Spectr. Temp. ..

Focus..6.7.6 gain

Spectr. Temp. ..

Exp. Mtr.	Seei
380	1
Filter Wanted	
544	1
389	1
855	1"

CCD
Spectr. Temp. −100°C ..... Dome Temp./Hum. +15°C 66% H Transparency Conditions Fine 72
− some haze
Focus 6.78 .....
gain
Spectr. ~~Temp.~~ 9.0 cg qin ... Dome Temp./Hum. +13.0°C 73.5% H
C Lambda

Exp. Mtr.	Seeing	PW Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
				CASSCCD	1800 g/mm G=5115	306u	5303	3/4			
								5			
~~OG560 Filter~~ 380	1½"	9.83	MO					6a	RV std (MARCY)	= 60/1 S/N	
Filter Removed								7			
								½			
								8			
566	1"-2"	10.7	MO					9	Vys pgm	60/1 S/N	
								10			
								11		SBIG used. PROBably 2secs would be BETTER	
389	1"-2"	120	MO					12	Vys pgm	Autoguide 5sec int 40/1 S/N	
								13			
								13			
855	1"	10.17	MO					14	Vys pgm	175/1 S/N	

73

Pg #2 SUN/MOON

Date 10/11/12 Sept. Observers [V4s] pgm/Km/Tn

Emulsion Batches:

.....

.....

.....

Spectr. Temp. .

Focus 6.7

Spectr. Temp. .

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.	Seein
CC2F9 39	Comp							FeNG	20	1.8	
40	AC +7 166 -12	22 05 46	07 24 53	22 36 07		00 1P W			2836	616	1-2
41	comp			23 24 44							
42	bias (4)										
43	Comp			23 36 21		~~23 35~~		FeNG clear	20	2.172	
44	AC +31 68884	22 18 56	31 57 15	23 37 54		00:52 W			1846	565	1-2
45	Comp							FeNG clear	20		
46	Comp							"	20		
47	HD 223094	23 41 23	+28 08 54	00 14 34		E				≤2000	1-2
48	Comp							FeNG clear	20		
49	BIAS(4)										
CG40452 CG 55	HD 223094	23 41 23	+28 08 54					4x	67ms		1-2
CG40456 57	"				=00 24	≤00 10E		2x	133ms		
CC25950	Comp							FeNe clear	20s		
51	HD 216899	22 51 48	+16 02	00 29 46		00 50W			60	1.50	1"
52	Comp								20		

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ..Fine, slight haze..... 74

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

Spectr. Temp. ..... Dome Temp./Hum. +12°C 82%H

Exp. Mtr.	Seeing	Plt. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1645							5303J	15			
616	1-2"	10.9	M0					16	Vys pgm	15/1 S/N	
								17			
37172		~~10.7~~	~~M0e~~					18			
565	1-2"	10.7	M0e					19	Vys pgm		
								20			
								21			
≥2000	1-2"	7.45	K5III					2	Std vel	IAU one.	
								22			
								1			
	1-2"	7.45	K5III		HBOC 30 ea slit				Seeing Test	very light N wind Dome W SW	
1150	1"	8.66	M2					24	Std vel	(mARCY) S/N >100/1	
								25			

75

pg 3

Date . 1994 Sep 11/12 ..... Observers .. Vys ... Km .. Ta ....

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC25953	Comp							FeNe Clear	20s
54	AC+17 303-138	00 03 19	+16 52 12	00 46 44		00 31 W			2750
55	Comp							FeNe Clear	20s
56	BIAS(4)			01:34:29					
57	comp							FeNe Clear	20
58	AC+9 2-34	00 13 08	+09 38 50	01:41:16		01 07 W			2194
59	Comp							FeNe Clear	20
60-68	Flat x10					01 14W	+10 08	Tung Ap1/2	4s
70	BIAS(4)								
71/72	Comp / Stellar Hartman					01 14W	+10 08	FeNe Clear	20/30 [illegible]

Spectr. ~~Temp.~~ CCD Temp. −100.5 actual Dome Temp./Hum. +12.1°C 82.8% Transparency Conditions Sl. hazy → foggy 76

Focus 6.78

Spectr. Temp. ..... Dome Temp./Hum. +10.5°C 89% LAMPDAY

Exp. Mtr.	Seeing	Pkg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 l/mm G=5115	306u	5303A				
~~70~~ 1	1"	1.073	M0					16a	Vys pgm	SBIG used ~1K 65/1	
36733								27			
								1			
574	1"2"	1.04	M0					29	Vys pgm	≥55/1 S/N	
								31		= 12.8K ADUmax	
T= +10.5°C								3/4a	Focus		
					All Warmed			c	Perseided	c	

77 pg#1 Mon/Tues

Date ...1.P.P.4.....Sep..12/13 Observers .[Bln]..J.n./..K.m.....

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

CCD Temp.
Spectr. Temp.
Focus.....6.7
Spectr. Temp.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr. Filter	Seeing
cc25975 74	Focus Test					0 0	+39°	FeAr clear	60/90	Green BG39	
75	BIAS(4)										
76	Comp			18:43:00				clear FeAr	60s		
XX 77	BD+26 3835	20 09 36	+26 27	18:46:37		00 33E	~~00 33 E~~	2632→ ~~2659~~		1639	[illegible]
~~78~~ 78	Comp							FeAr clear	60s		
79	BIAS(4)										
80	Comp							Fe/Ar clear	60s		
81	HD 1061	00 09 50	08 1600	20.53:25		3 43 E			1678	1560	2.3
82 83	Comp							FeAr clear	60s		
cc26002	FLATS x20					≈3 20E	+8° 47	TUNG clear	15s		
003	Comp							FeAr clear	60s		
004	HD 1061	00 0950	+08 1600	21 53 06		2 54 E			1067	1950	3"
5	Comp							FeAr clear	60s		
6	BIAS(4)										
~~7~~	~~Comp~~	~~for HD 235679~~		No go				FeAr clear	60s		

CCD To
Spectr. Temp. -100 °C Dome Temp./Hum. 19.7°C 70.0% Transparency Conditions ... P4RT Cloudy ... 78
To increasingly cloudy
Focus ... G:7.8 ...
Spectr. Temp. ... / ... Dome Temp./Hum. 18.3°C 73.8% 415 0 50 1024 4 1 CCOFMT

Exp. Mtr. Filter	Seeing	Rel. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Green BG 39		Bmag		CASS CCD	1800lm/m G=4558	306m	4475Å	3/4			
								1/2			
								5			
1639	1~2"	8.6 -9.3	B8					6	S B Bln	≥100/1 S/N	
	~~1~2"~~	~~8.6 -9.3~~	~~B8~~					~~6~~ 7			
								1			
								8			
1560	2-3"	6.15	A9s					9	Bln pgm	≥90/1 S/N most signal after 21:07 in & out of cloud	
								11			
								12		MAX 11.5K ADU	
								11			
1450	3"	6.15	A9s					13	Bln pgm	cloud at end	
								14			
								1			
								14			

79 pg 02

Date 1994 Sep 12/13 Observers [Bh] T.n./K.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	Comparison Exp.
~~cc26008~~	~~HD235679~~	~~21 55~~	~~+54 01~~	~~22 2051~~	No go				
cc26007/08	Comp/Stellar HARTMAN					02 09E	+8 48	FeAr clear	60/90
cc26009	Comp							FeAr clear	60s
10	HD1061	00 09 50	+8 16	23 04 53		01 37E			1347
11	Comp							FeAr clear	60s
12	BIAS(4)								
CG404 58/61	HD18525	23 03 35	+44 01 14					4x	67ms
CG404 62/63	"				23 41	00 16E	+44 31	2x	133ms
cc26013	Comp							FeAr clear	60s
14	HD1061	00 09 50	+8 16	23 51 30		00 45E			1657
15	Comp							FeAr clear	60s
16	BIAS(4)								
17	Comp								
18	HD210459	22 05 53	+32 41	00 34 37					369
19	Comp								

CCD
~~Spectr~~. Temp. -100.4 (Actual @ 00:30 EST) Dome Temp./Hum. +18.4°C 73.4% Transparency Conditions P.P.A.T. cloudy 80

Focus ... 6.78 .....

Spectr. Temp. ..... Dome Temp./Hum. +17.9°C 77% seeing getting much worse quickly

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
BG 39 Filter	1-2"	~~9.21~~	~~B25Ib~~	CASS CCD	1800/mm G=~~4558~~	306u	4475Å	15i	~~SC~~ Bln	thin cloud here	
	~~1-2"~~	~~9.21~~ R	T= +18.2°C					~~15~~,34	~~SC~~ Bln	(Then too cloudy) [still set for slightly cooler]	
								16i			
3640	2½"	G15	A9s					17i	Bln pgm	150/1 S/N clear whole exposure	
								18			
								1/2i			
	3"	G34	A0		Above 306u slit				Seeing Test	Dome WNW	
									" "	medium WSW wind	
								19i			
1430	3¼"	G15	A9s					20i	Bln pgm	some cloud.	
								21			
								1/2i			
								22			
420		4.3	F6 II					23	Bln Ashell	Too cloudy	
								24			
									All TO Perseus c WORM		

Pg #1 [Sat/Sun]
81

Date 1914...Sep..17/18.. Observers [Bm]/Smt.....Bln as backup

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

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

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.	Seeing
cc26020/21	FOCUS TEST COMP/STELLAR					4 41 W	28°	FeAr clear	60/65		
22	BIAS(4)			00 26							
23	COMP							FeAr clear	60		
24	HD180583	19 12 00	27 45 00	00 32		4 58 W			600	4400	
25	COMP							FeAr clear	60		
26	COMP							F "	"		
27	4021+975	22 36 55	56 18 24			1 44 W			120	481	
28	COMP							FeAr clear	60		
29-34	FLAT x 6					0 PARKED	-34°	Lumy Ag Appr.	7s		
35	BIAS(4)			01 17							
36/37	FOCUS TEST COMP/STELLAR							FeAr clear	60/65		

Spectr. Temp. -100.4°C Dome Temp./Hum. 13.0°C / 80.4% Transparency Conditions .... clear ..., humid 82

Focus ..... 6.74 .....

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

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ c lambda	~~P.H.~~ cl	Program	Remarks	Quality
				CASS CCD	600 l/mm G=5910	34μ	6400Å	3/4		ccdint 430 0 50 1024 4	
				"	"	"	"	1		ccdint 415 0 50 1024 4	
								3			
~~4400~~ 4400		6.19	F6 I - II b					4	Rm pgm	max ADU ~ 5000	atmos 1.97
								5			
								6			
4581		8.40	V601b					7	Rm pgm.	max ADU ~ 840	
								8			
								9		max ADU ~ 13K – 12.5K	
								1			
								10/11			
		All to Persons & WORM									

83 Pg #1 [Sun/Mon]

Date 1994 Sep 18/19 Observers Bln/Smt

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	Comparison Exp	Exp. Mtr.	Seeing
CCD26038/39	FOCUS TEST COMP/STELLAR HARTMANN							Fe Ar clear	30/50		
40	COMP							Fe Ar clear	40		
41	SKY			20 24 13		00 00 26W	44 01 45 N		900	68	
42	BIAS(4)										
43	COMP							Fe Ar clear	60		
44	SKY			21 02		"	"		3600	290	
45	SKY			22 09 18		"	"		3000	240	
46	BIAS(4)			23 00							
47	SKY			23 01 34		"	"		600	50	
48	SKY			23 23 08		"	"		3600	249	
49	BIAS(4)			00 24							
50	COMP							Fe Ar clear	60	1060	
51-53	FLAT x 3							Tung clear	1		
54	BIAS(4)										
55	DARK			01 05 06		00 00 26W	-35°		3600		
56	BIAS(4)					"	"				

CCD Spectr. Temp. ...
Focus 6.8
Spectr. Temp. ...

CCD
Spectr. Temp. -100.5°C Dome Temp./Hum. 15.5°C/61.5% Transparency Conditions clear 84

Focus 6.82

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

DOME FANS ON
400 0 50 1024 4 1 ccdfmt

Comparison Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ clear	P.H.	Program	Remarks	Quality
30/50					CASS CCD	600 g/mm G=2545	306μ	~~3400Å~~	1/2			
40								~3900Å	3			
900	68								4	Bl$_0$	dome azimuth 270°, full moon	
						G=2565		3900Å	~~1/2~~		390 0 50 1024 4 1 ccdfmt	
60									3			
3600	290								4	Bl$_4$	dome azimuth 270°, full moon	
3000	240								4	"	"	
									1/2			
600	~~250~~ 50								4	Bl$_4$	"	
3600	249								4	Bl$_4$	"	
									1/2			
60	10600								5			
1									6		max ADU ~10K	
3600									3		RUN BY BATCH FILE WHILE TELESCOPE PARKED AFTER CLOSING UP.	
									1/2			

85

Pg#2

Date 1994 Sep. 18/19 Observers [illegible]/Smt ... Paul Hickey as backup Mki

Emulsion Batches: .....

Spectr. Temp. ...

Focus .....

Spectr. Temp. ...

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.	Seeing
CL26 057	DARK					00 00 26W	-35°		3600		
58	BIAS(4)					"	"				
59	DARK					"	"		3600		
60	BIAS(4)					"	"				

Spectr. Temp. −100-5°C Dome Temp./Hum. 14.0°C / 68.5% Transparency Conditions .. done..closed..... 86

Focus ..... DOME FANS OFF

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

Comparison filter	Comparison Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ cte-bda	~~P.H.~~ cc	Program	Remarks	Quality
	300					CASS CCD	600 ℓ/mm G=2565	306μ	3400Å	3		by batch	
										1			
	3600									3		by batch.	
										1			
						All to WORM & Persens							

Pg # 1 [MON/TUE]

Date 1994 Sep 19/20 Observers KK/KM/SMT

Emulsion Batches:

.....

.....

..... ND 1.2 filter

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.	Spectr. Temp. / Focus / Spectr. Temp. / Seeing
FIT01132	COMP						ND 1.2	FeNe 1/8 A	200	7/7E
133	HD194071	20 18 30	27 55 00			0 45 E			1000	8.2MB
134	COMP								200	
135	~~SS CYG~~ almost	21 38? 47	43 07? 47	20 30 _		01 13 E			1281	0.3MB
136	SS CYG	21 38 47	43 09 47	21 01 50		00 33 E			~~1800~~ 1800	6.2 MB
137	COMP								200	
138	BD+57 2735?	23 19 54	57 20 00	21 54		01 22 E			1800	2.0 MB
139	COMP								110	
140	HD 216598	22 49 06	37 23 00	22 39 00		00 06 E			1800	3.1 MB
141	COMP			23 13 38				FeNe 1/8 up	200	
142	HD1326	00 12 58	43 27 44	23 30 00	00 00 00	00 40 E			1800	0.04B
143	COMP							F3 NE 1/8 up	200	
144	Vys 858 AC+63 32399	23 02 02	63 23 24	00 30		01 32 W			1800	0.9 MB
145	COMP								200	
146	Vys 309 AC+71 532	00 55 26	71 08 49	01 21 45		0 27 W			1800	1.5 MB

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ..... clear, full moon 88

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. 13.1°C / 63.8% FANS OFF

~~Exp. Mtr.~~ 106 FLG	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ Clambda	P.H.	Program	Remarks	~~Quality~~ average
312E				FIBRE-FED PCS	831 ℓ/mm f/1141.0°		6563Å				
8.2MB											~500
0.3MB											
6.2MB										offsets α -005, δ -002	~50
											~50
2.0MB		10.05	M2e						{V45}		~350
3.9MB		8.51 -9.39	68V								~800 -400
10.0MB		8.07	M1Ve								~1600 -2000
						All to WORM & Perseus					
0.9MB		10.8	M0						{V45}	strong Hα emission	~150 ~200
1.85MB		10.06	dM4e						{V45}		~360

89 Pg #2

Date 1994 Sep 19/20 Observers ... Km./Smt.....

Emulsion Batches:

.....

.....

..... ND 1.2 filter

Spectr. Temp. ..

Focus .....

Spectr. Temp. ..

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.	Seein
CG 40464 -67	HD 10006	01 32 36	45 50 00						.067		
CG 40468/9	"	"	"						.133		
ETO 1147	tungsten							A = 1/8 ND 1.2	7200		
		ALL TO WORK & Perseus									

Spectr. Temp. ..... Dome Temp./Hum. 12.8°C/64.6% Transparency Conditions .. clear .....

Focus .....

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

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ Lambda	P.H.	Program	Remarks	Quality
				FIBRE-FED PCS	831 l/mm 41.0° tilt		6563Å		SEEING TEST		
									11		

91 Pg #1

Date 1994 Sep 20/21 Observers Km/Smt...[KK] & {Vys}

Emulsion Batches:
.....
.....
.....NA 1.2 filter

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
FITO1148	COMP							FeNe 1/8 Ap.	200
149	Vys 322 BD+68 946	17 36 56	68 24 47	19 15 —		01 50 W	+68°		1800
150	COMP							FeNe 1/8 Ap	200
151	V603 Aquilae? (Nova #3)	18 46 24 (1950)	00 32 00	20 04 —					1800
152	" ?	"	"	20 36 —					"
153	COMP							FeNe 1/8 Ap.	200
154	SS Cyg	21 38 47	43 07 42	21 26 39	21:57	03 E			1800
155	COMP							FeNe 1/8 Ap.	200
156	S193	R.A (2000) 21 51 58	Dec (2000) +14 06 54	22 39 10	~~22~~ 58	01 00 W			1800
157	COMP							FeNe 1/8 Ap	200
158	Vys 858 AC+63 32399	23 02 02	63 23 24	23 36 —					1800
159	COMP							FeNe 1/8 Ap	200
160	~~Vys~~ Ross 226	22 50 30	60 28 00	00 24 —					600
161	COMP							FeNe 1/8 Ap	200
162	HD 216 598	22 49 06	37 23 00	00 59 —		02 18 W			1800

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

Exp. Mir. Tilt Size	Seeing
7.6MB	
0.26MB	
0.35MB	
0.35MB	
0.31MB.	
2.3MB!	
0.15MB	
2.1MB	

Spectr. Temp. ..... Dome Temp./Hum. 19.5°/62.2% Transparency Conditions. clearish, wispy high 92 clouds ~~about~~ around. really good seeing full moon.

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. ..... DOME FANS OFF

~~Exp. Mtr.~~ TAG SIZE	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ clambda	P.H.	Program	Remarks	average ~~Quality~~ count
				FIBRE-FED PCS	831 ℓ/mm tilt = 41.0°		6563 Å				
7.6 MB		9.15	M5						{V45}	hard to tell if the emission is real probably not but good test data for an uninteresting star spec controller reset during 1st attempt	1300 – 1450
		11.1 → 11 or further									
0.26 MB									KK	spec. controller reset twice @ beginning	40
0.28 MB									"		50
											215
0.35 MB		8.2 – 12.1	Al-dGap						KK		90
0.31 MB.		12.° – 14.°							KK		~~55~~ ~50
2.3 MB!		10.8	M0						{V45}		400
0.15 MB		13.2	M4						{V45}?	no emission spec controller reset.	80 → 90
6.1 MB		8.51 – 9.39	G8V						KK	eclipsing binary start period of eclipse.	1400 → 1450

93 Pg # 2

Date 1994 Sep 20/21. Observers [KK]/Km/Smt & {Vys}

Emulsion Batches:

.....

.....

.....MD1.2Alte

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
FITO1163	COMP							FeNe ½ Ap.	200
164	Vys 410A AC+55 19224	02 49 10	+55 02 14	02 47 -		00 03 W			1800
165	Vys 410B AC+55 19225	02 49 12	+55 02 32	03 20 -		00 36 W			1800
166	COMP							FeNe ½ Ap.	200
167	Vys 419AB AC+23 368-59	03 18 13	+23 25 51	04 09 -		00 58 W			1800
168	COMP							FeNe ½ Ap.	200
~~169~~	~~Vys 226 AC+53 2250-45~~	~~03 49 06~~	~~+53 16 23~~						
169	Vys 9 MD 36395	05 26 18	-3 41 00	05 10 -					363
170	COMP							FeNe ½ Ap.	200

Spectr. Ter
Focus....
Spectr. Ter

Exp. Mtr.

3.3 MB

1.1 MB

1.6 MB

3.0 MB

Spectr. Temp. ..... Dome Temp./Hum. 17.9°C / 66.4% Transparency Conditions clear ... full moon

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. 15.5°C / 75.9% @ end of night.

DOME FANS OFF BUT NOSEEING TEST DONE ∴ OKAY, I THINK. Sat.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	~~Quality~~ counts
				FIBRE-FED PCS	831 ℓ/mm tilt = 41.0°		6563 Å			spec contr. reset.	
3.3 MB		10.5	MO						KK & {Vys}	some emission of some sort. but not Hα.	500 -600
1.1 MB		11.2	MO						"	"	200
1.06 MB		10.47	MO						KK & {Vys}	Hα emission	230 -300
		~~10.5~~	~~MO~~	TOO FAINT NOW.							
3.0 MB		7.97	M1						KK & {Vys}	no Hα emission though there may be other spikes.	3000 -4000
				All to WORM & Perseus.							

95

pg#1

Date 1994 Sep 21/22 Observers K.K./T.n/Smt...&..E.Vgs}

Emulsion Batches:

.....

.....

..... ND1.2 filter

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
FIT0171	Comp							FeNe Y&Ap	200
172	HD 213947	22 29 54	26 05 00	19 13 22		3 26 E			563
173	COMP							FeNe Y&Ap.	200
174	V 603 Aql ?	18 46 24	1950 +00 3200	19 45 52					943
175	V 603 Aql ?	"	"	20 14 17		1 40 W			1800
176	COMP							FeNe Y&Ap.	200
177	SS Cyg	21 38 47	43 07 42	21 00		0 47 E			540
178	COMP							FeNe Y&Ap	200
179	HD 201092	21 02 26	+38 15 00	21 22 28		0 21 W			1200
180	COMP							FeNe Y&Ap	200
181	AC +39 Vgs 831 AB 60670	21 32 36	+39 00 29	21 58		0 38 W			1800
182	Comp							FeNe Y&A	200
183	HD 213947	22 24 54	26 05 00	22 44		0 06 W			416
184	COMP							FeNe Y&Ap	200
185	HD 223094	~~23 00 00~~ 23 41 30	+28 09 00	23 06 20		0 34 E			1201

Spectr. Temp. ..... Dome Temp./Hum. +18.7°C..64.8% Transparency Conditions. clear..., full moon, rising.

Focus .....

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

FANS OFF

CSS 386 about 15 sec ahead of [illegible]

Exp. Mtr., ~~T116 5172~~	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	~~Quality~~ average counts
				Fiber tool PCS	831 ℓ/mm tilt = 41.0°	7×50μ	6563Å				
~~H. Stds~~		7.53	K4III						RV Std.		3000 100 bg
78 KB									KK	some uncertainty – not showing too much emission	40 3 bg
714 KB									KK	less uncertainty. now showing emission nicely.	40 3 bg
											40 3 bg
38 KB									KK		
"											→ 240/sec
—		6.3	K7V						KK Hα	STD 5 neutral density filter 0.6	1500 90 bg
1.25 MB	3"	10.17	M0						Vgs pgm	no emission, I don't think.	A 250 B 5
		~~7.53~~	~~K4III~~								
—		7.53	K4III						RV STD	same as above, oops.	3000 100 bg
—		7.45	K5III						RV STD		

97
Pg # 2

Date 1994 Sep 21/22 Observers Km/Tn/Smt [KK] & {Vys}

Emulsion Batches:
.....
.....
..... ND1.2 filter

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
FIT 01186	COMP							FeNe ½ Ap	200	
187	Vys 858 AC+63 32399	23 02 02	63 23 24	23 47 20		0 57 W			1800	1.27 mB
188	COMP							FeNe ½ Ap	200	
189	HD 216598	22 49 06	37 23 00	00 32		01 55 W			1800	3.6 mB
190	Comp							FeNe ½ Ap	200	
191	Vys 84 BD+40 45	00 11 52	+40 23 33	01 09					600	1.95 mB
192	COMP							FeNe ½ Ap	200	
193	Vys 99 AC+45 130-26	03 02 48	+45 21 19	01 37		1 15 E			1800	2.74 mB
194	COMP							FeNe ½ Ap	200	
195	FLAT							Tung ½ Ap	7200	

Spectr. Temp. ..... Dome Temp./Hum. +15.4°C 82% H Transparency Conditions. clear, ..foggy..slightly 98

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. +14.8°C 88% H FANS OFF

Exp. Mtr.	Seeing	Pg/ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	aural Quality comments
				Fiber fed PCS	831 l/mm 41.0°		6563Å				
1.24 mB									{Vys}	strong Hα emission	200-
3.6 mB	3"	8.51 -9.37	G8 V						Kk ecl Bin		600/se
											= 200/se
1.95 mB		9.00	M0						Vys pgm		800
2.74 mB		10.2	M0						{Vys}		400
										97% cat wk, done wet fog in S. : close.	
			All to WORM & Perseus. except 195								

99 Pg#1 Thurs/Fri

Date 1994 Sep 22/23 Observers T.n./Smt [Rm]

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	Comparison Exp.
GG404 71 -74	HD176844	18 57 03	+40 32 36						.06 7s
FCG404 75/76	"								.133s
CCD 60 61 62	Comp / Stellar Hartmann					00 50 W	+27 56	FeAr Clear	~~[illegible]~~ 60/70
63	BIAS(4)			20 00 16					
64	COMP							FeAr Clear	60
65	HD180583	19 12 00	+27 45 00	20 32 26		01 17 W			660
66	COMP							FeAr Clear	60
67	BIAS(4)			20 47 54					
68	COMP							FeAr Clear	60s
69	HD214975	22 36 55	+56 18 24	20 56 06		01 20 E			2063
70	Comp							FeAr Clear	60s
71	BIAS(4)			21 33 25					
72	Comp							FeAr Clear	60s
73	HD331970	20 08 27	+32 34 16	21 46 01		01 58 W			2058
74	COMP							FeAr Clear	60
75	Comp							n	1

CCD Spectr. Temp.

Focus ...

Spectr. Temp.

Exp. Mtr.	Se
No filter Fe	
Eq Rock I	
5000	
rest Hdt @ same pt	
1630	

CCD Spectr. Temp. −100.4°C Dome Temp./Hum. 17°C 77%H Transparency Conditions. ~~Cl.~~ mostly cloudy 100

Focus ~~6.60~~ 6.75

Spectr. Temp. ~~90~~ again Dome Temp./Hum. 15.6°C 77%H C LAMBELL

415 0 50 1024 41 ccdfast

NE FAN ON.

Comparison Filter	Comparison Exp	Exp. Mtr.	Seeing	~~Prg.~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	~~Pdt.~~ ci	Program	Remarks	Quality
	.06	No follow FOR Eq Mode		6.65	M2 III	CASS CCD	1800 ℓ/mm G=5910	306μ	6400Å		SEEING TEST	DOME W, CLOUDY, MEDIUM E WIND, ABOVE 306μ.	
	.13	"		"	"						"		
										3/4 c:	Focus test		
										1/2			
	60									5			
	60	5000		6.19	F6I-IIb					6	Rm PGM	through some cloud now beginning. max 400 ~ 6K	S/N ~ 260:1
	60									7			
										1/2			
	60									8			
	2003	reset itself at some point	3"	⟨V⟩ = 8.40	Sp ~ G0Ib					9	Rm PGM	Some cloud	S/N ~ 200:1
	60									10			
										1/2			
	60									11			
	2058	1630	2'-3'	~9.1-9.8	F8-G2Ib					12	Rm PGM	some cloud again	S/N 160/1
	60									13			
	1									14			

'101 pg #2

Emulsion Batches:

Date 1994 Sept. 22/23 Observers [R.M.] T.M./S.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	Comparison Exp.	Exp. Mtr.
CC26076	HD 203156	21 15 23	+37 49	22 28 04		01 27 W			294	5180
77	Comp							FeAr Clear	60s	
78	BIAS(4)			22 35 47						
79	Comp							FeAr Clear	60s	
80	HD 187691	19 46 12	+10 10 00	22 40 55		02 43 W			191	5190
81	Comp							FeAr Clear	60s	
82	HD 213014	22 ~~23 24~~	~~16 46 00~~	23 10 03		0 47 W			900	2730
83	COMP							FeAr Clear	60s	
84	COMP							"	"	
85	HD 180 583	19 12 00	27 45 00	23 37 17		04 24 W			660	8000
86	COMP							FeAr Clear	60	
87	BIAS(4)			23 51 12						
~~88~~	COMP							FeAr Clear	60	
89	HD 214975	22 36 55	56 18 24	23 58 34		01 38 W			1200	3140
90	COMP							FeAr Clear	60	

CCD
Spectr. Temp. −100.4°C Dome Temp./Hum. 15.0°C / 84.7% Transparency Conditions PGR.I. cloudy 102

Focus 6.75

Spectr. Temp. 90 gain Dome Temp./Hum.

Comparison Filter	Comparison Exp	Exp. Mtr.	Seeing	Fig. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ Lambda	P.H.	Program	Remarks	Quality
	294	5180	3"	5.8 −5.9	F2	CASS CCD	1800 l/mm G=5910	306u	6400Å	15:	Rm pgm	MAX ≃ 6700 ADU	
	60s									16			
										10			
	60s									17			
	191	5690	3"-4"	5.11	F8V					18	Stdvel	no second comp written. sorry.	
	65s									19		comp for HD213014!	
	100	2730		7.70	d68					20	RV Std	DOUBLE STAR AS RV STD?	
	60s									21			
	11									22			
	660	8000		6.19	F6 I −IIb					23	Rm PGM	max ADU ~8K	
	60									24			
										1/2			
	60									25			
	1200	3190		⟨V⟩= 8.40	sp~ 60I b					26	Rm PGM		
	60									27			

103 pg #3

Date 1994 Sep. 22/23 Observers [Rm] Tn/Smt

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	Comparison Exp.
CG 40470 ~~70~~ 77→80 ~~CG 40480~~	HD 3765	00 35 18	+39 40 00						.067
CG 40480 –82	"								.133
CC 26091	BIAS(4)			00 46 45					
92	COMP							Fe Ar clear	60
93	HD 3765	00 35 18	+39 40 00	00 50 04		0 23 W			1400
~~94~~	COMP							Fe Ar clear	60
95	COMP							"	"
96	HD ~~4055~~ 204833	22 01 03 ~~07 01 82~~	+28 28 47 ~~+35 23 05~~	01 22 21		03 13 W			360
97	COMP							Fe Ar clear	60
" ~~98~~	~~BIAS(4)~~					~~0 0~~	~~–8°~~		
98 – 107	FLATS × 10					0 0	–8	Tung Yu Ap	1 s.
108	BIAS(4)			01 39 40					
109/110	COMP/STELLAR HARTMANN					0	38°	Fe Ar clear	60/70

CCD
Spectr. Temp. -100.4°C Dome Temp./Hum. 14.8°C / 84.5% Transparency Conditions .. clear with some cloudy ~~clear~~ patches.

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

Spectr. Temp. ..... Dome Temp./Hum. +14.1°C 85.5%

Exp. Mtr.	Seeing	~~Pig.~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
		7.36	dK5	CASS CCD	1800h/mm 6 = 5410	30μ	6400Å	—	SEEING TEST	DOME W, MED. E WIND PARTLY CLOUDY. above sht.	
		"	"					—	"	some cloud to left through	
								1/2			
								28			
1860		7.36	dK5					29	RV STD.	some cloud.	
								30			
		~~5.63~~	~~B9 In~~					5			
~~1800~~ 5600		5.63	B9 In					6	Telluric STD.	max ADU ~ 62	
								7		humidity >95% catwalk, dome damp	
/	/	/	/	/	/	/	/	~~1/2~~	/	CLOSED UP. / max ADU ~ 12.8K - 12K	/
								8			
								1/2			
								?	FOCUS TEST		
		All to Perseus & WORM.									

105 Pg # 1

Date 1994 Sep 27/28 Observers KK/Km/Smt

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

Spectr. Tem
Focus.....
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	Comparison Exp.	Exp. Mtr.
RF00100	FLAT			12 36				Tung clear	~~50~~	
101	COMP							FeNe clear	20s	
102	DARK								180	
103	COMP							FeNe clear	20s	
104	HD217675	22 57 19	+41 47 00	~~22 30~~	22 30 10				1354s	~100
105	COMP							FeNe clear	20s	
106-9	FLAT x 4							Tung clear	~~50~~ 5s	

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

Focus .....

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

Comparison Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
250					FIBRE-FED RETICON	831 ℓ/mm 41.0° = tilt	pinhole	6560 Å				
20s												
180												
20s												
134s	~ 7000		~3'	B6?							through cloud – weak exposure	
20s												
250 40s												

All to Persons & WORM

(as RE00...) (as RF00...)

107 Pg# #1

Date 1994 Sep 28/29 Observers KK/Km/Smt

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	Comparison Exp.	Exp. Mtr.
RF00110	FLAT							Tung Clear	50s	
111	COMP							FeNe Clear	20s	
112	HD217675	22 57 19	41 47 00		21 53 04				875	12000
113	COMP							FeNe Clear	20s	
114	HD217675	"	"		22 21 10				1489	12000
115	COMP							FeNe Clear	20s	
116	HD172167	18 33 33	38 41 00		22 34 32				294	6000
~~117~~	~~COMP~~							FeNe Clear	20s	
118	COMP with telescope moving for comparison							"	"	
118-121	FLATS							TUNG CLEAR	50s	
122-123	Darks (short)								1s	
124	DARK								3600s	

Spectr. Temp. ..... Dome Temp./Hum. ~~.....~~ 11.3°C/84.4% Transparency Conditions rainy. then CLEAR. then closing in. – still wet.

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. ..... high gain, heater thermostat control off.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				FIBRE-FED RETICON	831 l/mm 41.0°	20μ pinhole	6560Å				
12000		3.63	B6p						Be	through considerable cloud	250
12860		"	"							"	270
50·000		0.0	AOT						Srd.	"	1400
				All to WORM						with grating covered.	
				Some to Perseus as of Sep 30/94							

109 Pg #1

Date 1994 Sep. 29/30. Observers ..Km/Smt.....

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

Spectr. Tem
Focus .....
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	Comparison Exp.	Exp. Mtr.
KF00125	FLAT							Tung clear	50s	
126	COMP			0 13 37				FeNe clear	20s	
127	HD217675	22 57 19	41 47 00	0 21 59	0 45 24	02 01 W				Set High Current and 20s exp + 1 sec
128	COMP			0 48 17				FeNe clear	20s	
129	HD217675	"	"	0 50 11	01 16 08	02 32 W				45 000
130	COMP			01 17 18				FeNe clear	20s	
131	HD 3712	00 34 48	55 59 00	01 24 38	01 34 35	01 12 W				50 000
132	COMP			01 36 30				FeNe clear	20s	
133	HD172167	18 33 33	38 41 00	01 50 16	01 54 55	07 37 W				50 000
134	COMP			01 56 43				FeNe clear	20s	
135	HD217675	22 57 19	41 47 00	02 04 46	02 25 57	03 42 W				40 000
136	COMP							FeNe clear	20	
137	HD217675	"	"	02 30 58	02 59 08	04 16 W				45 000
138	COMP			03 00 20				FeNe clear	20	
139-143	FLAT x 5					04 19 W	42°	Tung clear	50	
144-146	DARK x 2 (SHORT) + DARK (LONG)								1s/2s	

Spectr. Temp. ..... Dome Temp./Hum. 9.1°C / 70.8% Transparency Conditions. clear!... seeing not so great since it just cleared quickly

Focus ..... yes, in focus .....

Spectr. Temp. ..... Dome Temp./Hum. 7.5°C / 78.2% @ 02:20 FANS OFF

Comparison Exp.	Exp. Mtr.	Seeing	~~V~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
50s					FIBRE-FOD RETICON	831 l/mm 41.0°	pinhole	6560 Å			dispheater thermostat off	
20s												
	reset itself @ around 29 000 so... 20000+9000		3.63	B6p						Be?		
21s											chip heater thermostat on.	
	45 000		"	"						Be?		
20s												
	50 000		2.23	KOIII						RV Std.	through some cloud. increasing cloud now in E	
20s												
	50 000		0.0	A0 II			tel. E of piers.			Std.		
20s							"					
	70 000		3.63	B6p			tel. E side of piers			Be?		
20							"					
	45 000		"	"			tel. E side of piers			Be?		
20							"					
50			All to WORM but RF00146				"				clock drive turned off.	
15/20			None to Persius as of Sept 30/94								chip heater thermostat turned off for long dark when hel grating cooled and telescope parked.	

"Pg # 1 [Fri / Sat]

Date 1994 ~~Sep 30~~ / Oct 1 Observers [Bln] / Tn / Smt

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	Comparison Exp.
cc261 11/12	FOCUS TEST COMP/STELLAR	[noticed that grating handle was up, upon closing]				01 W	+3846	Fe Ar Clear	40/70

Spectr. Tem
Focus ...6
Spectr. Tem

Exp. Mtr.

T=11.

Spectr. Temp. -100.5°C ..... Dome Temp./Hum. 12.0°C / 72.6% Transparency Conditions . partly cloudy → increasing cloud

Focus ... 6.80 .....

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

c LAMBDA

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
T = +11.7°C				CASC CCD	1800 l/mm	306u	4475Å	3/4	FOCUS TEST	THEN CLOSED UP -	

113
pg #1 SAT sun. CSS 386 Time Reset 1st

Emulsion Batches:

Date 1994 Oct 1/2 Observers [Bln]/Tn/Smt

2 Large viewing Tours

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.(s)
CC26113	BIAS(4)								
14/15	COMP/STELLAR HARTMANN					0 16 W	+39°		
16	COMP							FeAr clear	60
17	HD1061	00 09 50	08 16 00	22 34 55		00 58 E			999
18	Comp							FeAr clear	60s
19	Comp							"	"
20	BD+26 3835	20 09 36	+26 27 00	23 01 59		?			2316
21	COMP							FeAr Clear	60
22	BIAS(4)			23 43					
23	Comp			23 49				FeAr clear	60
24	HD1061	00 09 50	08 16 00	23 49 31		0 16 W			934
25	Comp							FeAr Clear	60
26	COMP							"	"
27	HDE235679	21 55 00	+54 01 00	00 17 10		03 34 W			3013
28	COMP							FeAr Clear	60

Spectr. Temp. -100.4°C Dome Temp./Hum. 9.0°C / 85.2% Transparency Conditions clear & humid 114

Focus 6.85 bad seeing

Spectr. Temp. ..... Dome Temp./Hum. ..... 430 0 ~~1224~~ 50 1024 41 ccd int

Exp. Mtr. & Filter	Seeing	~~Ptg~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ Lambda	P.H.	Program	Remarks	Quality
				LASS CCD	1800 gl/mm 6 = 4558	306μ	4475Å	1/2			
								3/4	FOCUS TEST		
								5			
*No Filter 12,200	5-6"	m_{pg} = 6.15	A9s					6	Bln pgm	≈ 16th column centered should be more like 20 col a stitt owid hot pixel	S/N ~ 200:1
								7			
								8			
B6 39 Filter in 1500		B 8.6 −9.3	B8					9	Bln ORVul pgm	~70:1 S/N	
								10			
								1/2			
								11			
6600		m_{pg} = 6.15	A9s					12	Bln pgm		S/N ~ 200:1
								13			
								14			
RESET ITSELF -1430 + 230		B = 9.21	B2.5Ib					15	Bln pgm		S/N < 100:1
								16			

115 Pg #2

Date 1994 Oct 1/2 Observers [Bln]/Tn./Smt

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	Comparison Exp.	Spectr. Temp / Focus / Spectr. Temp Exp. Mtr.
G CC26129	BIAS(4)									18639
30	COMP							FeAr clear	60	
31	HD1061	00 09 50	08 16 00	01 16 17		1 45 W			1092	7300
32	COMP							FeAr clear	60	
CG 40485 -88	HD130113	02 02 18	+43 59 07					4x	.067s	
89 90	"	"	"		01 48			2x	.133	
CC26133	COMP							FeAr clear	60	
34	HD21364	03 21 48	+09 23 00	01 55 17		1 02 E			237	15000
35	COMP							FeAr clear	60	
36	BIAS(4)									
37	COMP							FeAr clear	60	
38	HD1061	00 09 50	08 16 00	02 07 12		2 36 W			1075	6700
39	COMP							FeAr clear	60	
40	Comp							"	60	
41	HD217675	22 57 19	41 47 00	02 31 39		3 58 W			132	9500
42	COMP							FeAr clear	60	

Spectr. Temp. ..... Dome Temp./Hum. 7.5°C / 79.6% Transparency Conditions .. clear 116

Focus ..... 6.85 .....

Spectr. Temp. ..... Dome Temp./Hum. +7.2°C 83.2%H

Comparison Filter	Comparison Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
		BG39				CASS CCD	1800 l/mm G=4558	306μ	4475Å	1/2			
V	60									17			
	102	7300	5"	Mpg = 6.15	A9s					18	Bln pgm	> 200/1 S/R	
V	60									19			
X	0.05 s		5"	V ~640	GB171					—	Seeing Test	red NW wind, dome wind No fans	
X	133		"	"	"					—	" "	Cold clear AIR moving in facing dt.	
V	60									20			
	237	15000		B = 3.66	B8p					21	Bln pgm		
V	60									22			
										1/2			
	60									8			
	105	6700		Mpg = 6.15	A9s					12	Bln pgm		
	60									13			
	60			R						14			
	132	9500		3.63	B6p					15	Rg 0 And Aequest.	MHX 4600ADq - I know, (rds not HS)	
V	60									16		4471Å abs strong	

117
pg#3

Date 1994 Oct 12 Observers [Blg] / Tn / Smt

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

Spectr. Tem
Focus .....
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	Comparison Exp.	Exp. Mtr.
cc26143	BIAS(4)									BG39 Filter
44	Comp							Feat Clear	60	
45	HD1061	00 09 50	+8 16 00	02 43 27		3 13 W			129	1000
46	Comp							Feat Clear	60	
47	Comp							"	"	
48	HD37017	05 30 25	-04 34 00	03 10 43		1 40 E			1122	4900
49	COMP							Feat Clear	60	
50	BIAS(4)									
51	COMP							Feat Clear	60	
52	HD1061	00 09 50	+8 16 00	03 37 39		4 07 W			1095	5880
53	COMP							Feat clear	60	
54	COMP							"	"	
55	HD217675	22 51 19	+41 47 00	04 02 15		5 29 W			132	6600
56	COMP							Feat clear	60	
51 - 76	FLAT x 20					5 33 W	+42 20	Tung Clear	15	

Spectr. Temp. ..... Dome Temp./Hum. +7.3°C 82.8%H Transparency Conditions ... Fine .....

Focus ..... 6.85 .....

Spectr. Temp. ..... Dome Temp./Hum. +6.6°C 74.8%H .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
BG39 Filter				CASS	1800 G 4558	306μ	4475H	1/2			
								17			
6000	8"-5"	6.15	A9s					18	Bln dbl pgm		
								19			
								20			
4900	~6"	6.56	B2V					21	Bln pgm.	Most Southerly of Rich field.	
								22			
								1/2			
								22			
5880	~6"	mig= 6.15	A9s					12	Bln pgm.		
								13			
								13			
6600		6.56	B6p					14	σ Andromedae (4471 He strong abs)		
								16			
								17		using ~~FLAT.BAT~~ FLAT15.BAT	
										MAX ≈ 9-10K ADU →	

11a pg # 4

Date 1999 Oct 1/2 Observers [Bln]/Tn/Smt

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	(s) Exp.
CC26177	COMP							FeAr Clear	60
78	HD217675	22 57 19	41 47 00	04 26 23		05 54 W			183
79	COMP							FeAr Clear	60
80	BIAS(4)								
81	COMP							"	"
82	HD14386	02 14 18	-03 26	04 45 43		3 17 W			443
83	COMP							FeAr Clear	60
84-88	FLAT x 5					00 00	+2 46	TUNG Clear	22
89	BIAS(4)								
90/91	COMP/STELLAR	HARTMANN				0	43°		40/70

Spectr. Temp. ..... Dome Temp./Hum. 7.0°C / 71.6% Transparency Conditions . clear 120

Focus ..... 6.85 .....

Spectr. Temp. ..... Dome Temp./Hum. 15.8°C 74%

< LAMBDA = H X Region

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
60				CASS CCD	1800 l/mm 6 = 4446	306μ	4298Å	5			
183	8960		B.65	Bkp				6	Rg Request		
60								7			
11								7			
1320	6"-8"	V= 2.0 -10	gMbe					8	~~Rg~~ rG	Mira near H X	
								10			
22								11		max ADU ~ 11.5k - 10.9k	
								1/2			
40/70	+5.8°C							3/4	FOCUS TEST		
										CCD T = -100.2°C	
			All to WORK X Perseus								

Pg #1 [Sun/Mon]

Date 1994 Oct 2/3 Observers [Bln]/Tn/Smt

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	Comparison Exp.
CL26192/93	COMP/STELLAR	HARTMANN						Fe Ar Clear	60/60
94	BIAS(4)			18 44 39					
95	COMP							Fe Ar Clear	60
96	HD172167	18h 33 33	+38° 41	18 47 47					18
97	COMP							Fe Ar Clear	60
98	COMP							"	"
99	HD177724	19h 00 49	+13° 42 53	19 01 22		0 26 W			94
CL26200	COMP							Fe Ar Clear	60
01	COMP							"	"
02	HDE235679	21h 55 00	+54° 01 00	19 13 38		01 41 E			236
03	COMP							Fe Ar Clear	60
04	BIAS(4)			19 55					
05	COMP							Fe Ar Clear	60
06	HD217675	22 57 19	+41 47 00	20 00 30		02 31 E			62
07	COMP							Fe Ar Clear	60

CCD
~~Spectr.~~ Temp. -100.5 °C Dome Temp./Hum. 09.5°C / 55% Transparency Conditions . clear 122

Focus 6.80

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

DOME FANS ON
420 0 50 1024 41 ccdfmt

Comparison Exp.	Exp. Mtr. FILTER IN	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ Lambda	P.H.	Program	Remarks	Quality
60					CASS CCD	1800 ℓ/mm G=606 S	30µm	6604 Å	3/4	FOCUS TEST		
									1/2			
60									5		SE DOME FAN NOW OFF	
18	≥ 8000		0.0	AOV					6		MAX 14K ADU	
61									7			
11									8			
94	6150		2.99	AOIIn					9	Telluric Std.	MAX ADU ~ ~~15K~~ 12 SK	
60									10			
11									11			
2½	1122	2"-3"	B= 9.21	B2.5Ib					12	Blu pgm	MAX @ Hα em 8100 ~~8~~ ADU	
60									13			
									1/2			
60									14			
62	3175		V= 3.65	B6p					15	rG?	MAX ADU ~ 9K	
60	~~29~~								16			

123 Pg #2

Date 1994 Oct 2/3 Observers [Bln]/Tn/Smt

Emulsion Batches: .....

.....

.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End ~~End~~	Declination	Comparison Type/Filter	Comparison Exp.
CC26208 -27	FLAT x 20					02 26 E	+42° 18	Tung ½Ap.	7
28/29	COMP/STELLAR	HARTMANN				"	"	FeAr clear	60/60
CC26239/31	COMP/STELLAR	HARTMANN				"	"	FeAr clear	40/70
32	BIAS(4)			20 39					
33	Comp							FeAr Clear	60
34	BD+26 3835	20 09 36	+26 22 00	20 51 27		01 45 W			2322
35	Comp							FeAr clear	60
36	Comp							"	"
37	HD10761	00 09 50	+08 16	21 38 13		01 49 E			1121
38	Comp							FeAr Clear	60
39	BIAS(4)			21 59 37					
CG40491 93	HD 214199	02 36	+36 15	22 05				4x	.067s
94 95	"	"	"					2x	.133s
CC26240	Comp							FeAr Clear	60s
41	HD 1061	00 09 50	+08 16	22 19 24		01 04 E			1300

CCD
Spectr. Temp. -106.5°C Dome Temp./Hum. 8.3°C / 59.8% Transparency Conditions ... clear

Focus ..... 6.80 @6604Å / 6.84 @4475Å NE FAN ON

Spectr. Temp. ..... Dome Temp./Hum. ..... 920 0 50 1024 41 ccdfast.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	~~P.H.~~	Program	Remarks	Quality
				CASS CCD	1800 l/mm G=6065	306μ	6604Å	18		max ADU ~ 13K –	
								3/4	FOCUS TEST		
T=	8-	Set	6.84	CASS CCD	1800 l/mm G=4558	306μ	4475Å	3/4	FOCUS TEST.		
BG39 FILTER								1/2			
								19c			
1690	3"-4"	B=8.6 -9.3	B8					20c	DR Val for Bln	100/1 S/N	
								21			
								22			
7076	3"-5"	6.15	A9s					23	Bln SB Pgm		
								24			
								1/2			
	3"	V= 7.50	K5III						Seeing Test Dome SW		
									" " BAR PRESSURE STILL		
								25		Rising.	
8300		6.15	A9s					26	Bln SB Pgm	max ADU ~ 4500	

125 pg #3

Date 1994 Oct 2/3 Observers [Blm]/Tn/Smt

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	Comparison Exp(s)
cc26242	COMP							FeAr Clear	60
43	HD1061	00 09 50	+08 16 00	22 45 33		0 35 E			1400
44	COMP							FeAr Clear	60s
45	BIAS(4)			23 12					
46	Comp							FeAr Clear	60s
47	BD+26 3835	20 09 36	+26 27	23 19 15		04 16 W			2486
48	Comp							FeAr Clear	60s
49	BIAS(4)			00 05					
50	Comp							FeAr Clear	60
51	HD1061	00 09 50	+08 16	00 09 56		00 44 W			1171
52	Comp							FeAr Clear	60
53	Comp							"	"
54	HD 21364	03 21 48	+09 23	00 36 44		02 15 E			348
55	Comp							FeAr Clear	60s
56	Comp							"	60s

CCD
Spectr. Temp
Focus
Spectr. Temp

BG 39 Exp. Mtr. FILTER IN

CCD
Spectr. Temp. -100.7°C Dome Temp./Hum. +6.5°C/64% Transparency Conditions Clear 126

Focus 6.84

Spectr. Temp. 90 gain Dome Temp./Hum. 14.8°C 67.8% H

NE FAN ON
Good Green/white Aurora in North noted after 23 EST
#20 0 50 1024 41 ccd fnt.

BG 39

Exp. Mtr. FILTER IN	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ Clarkdale	~~P.H.~~ Ci	Program	Remarks	Quality
				CASS CCD	1800 l/mm G=4558	30μ	4475Å	27			
9100		6.15	A9s					28	Bln 5B pgm	max 400 ~ 7500	
								29			
								1/2			
								5c,			
1460	3"6	8.6 9.3	B8					6cr	DR Vul again	S/N approaching 100:1	
								7			
								1/2			
								1			
7300	4"	6.15	A9s					8c,	Bln S Bin		
								10			
								11			
18,600	5"	3.66	B8p					13	Bln Sp Bin		
								14			
								16			

127
Pg 24

Date 1994 Oct 2/3 Observers [Blg] / Tn / Smt

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	Comparison Exp.	Exp. Mtr.
cc26257	HD1061	00 09 50	+8 16	00 50 07		01 22 W			1037	6639 7600
58	Comp							FeAr Clear	60s	
59	BIAS(4)			01 10						
60	HD1061	00 09 50	+8 16	01 11 24		01 45 W			1153	5145
61	Comp							FeAr Clear	60s	
62	COMP							"	"	
63	HD37007	05 30 25	-04 34 00	01 39 19		0301 E			1518	5445
64	Comp							FeAr Clear	60s	
65	BIAS(4)			02 11						
66	COMP							FeAr Clear	60	
67	HD19832	03 06 17	+26 52 48	02 15 13		0 16 E			662	7400
68	COMP							FeAr Clear	60	
69	COMP							"	"	
70	HD37007	05 30 25	-04 34 00	02 38 49		202 E			1430	6400
71	COMP							FeAr Clear	60	

Spectr. Ten
Focus... 6
Spectr. Ten

Spectr. Temp. ..... Dome Temp./Hum. +4.5°C ... 68.4% H Transparency Conditions ... Fine .....

Focus ... 6:84 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... 420 0 50 1024 4 1 CCDFMT

Comparison Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1037	BG 39 7000	5"	6.15	A9s	C455	1800 G4558	306u	4475	17½	Sp Bin Bln		
60s									21			
									½		CCDT = -101.8°C	
1153	8145		6.15	A9s					23	Sp Bin Bln		
60s									24			
"									25			
1518	5400	5"	6.56	B2V					26	Bln		
60s									27			
									½			
60									27			
60	7600	6"	V= 5.79	B8(Si)					28	Bln He-weak	max 400 ~ 4000	
60									29			
"									5			
1430	6400		6.56	B1V					6	Bln		
60									7			

129

pg#5

Date 1994 Oct 2/3 Observers [Blm]/Tn/Smt

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	Comparison Exp(s)
CC 26272 -91	FLAT x 20					1 56 E	−4° 30	Tung Clear	15
92/93	COMP/STELLAR HARTMANN					"	"	FeAr Clear	40/20
94	BIAS(4)			03 24					
95/96	COMP/STELLAR HARTMANN							FeAr Clear	40/60
97	COMP							"	60
98	HD217675	22 57 19	+41 47 00	03 48 02		5 18 W			92
99	COMP							FeAr Clear	60
CC26300	COMP							"	"
01	BM Cas	00 48 36	+63 33 00	04 07 41		4 21 W			2278
02	COMP							FeAr Clear	60
03	BIAS(4)			04 49					
04	COMP							FeAr Clear	60
05	HD14386	02 14 18	−03° 26 00	04 57 14		3 20 W			682
06	COMP							FeAr Clear	60
07	COMP							"	"

Spectr. Temp. ..... Dome Temp./Hum. ~~3.7°C~~/10.0% Transparency Conditions ..clear..:..aurora..way..N730

Focus .....6.84..for..4475Å NE DOME FAN ON

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

420 0 50 1024 4 1 ccdtest

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
36 39 FILTER IN				CASS CCD	1800 ℓ/mm G=4558	306μ	4475 Å	10			
								3/4	FOCUS TEST		
								1/2			
36 39 FILTER IN				CASS CCD	1800 ℓ/mm G=4800	306μ	4835 Å (Hβ)	5/6	FOCUS TEST.		
								7			
5180		3.69	B6p					8	vG ?		
								11			
								14			
781	4"	V=8.82 -9.33	?					15	Mki pgm	Tel East Side Δ RA −00 00 28 Δ dec −00 01 42	
								110			
								1/2			
								19			
685		V= 2-10	gM6e	(V=2 M5.5IIIe – V=10 M9 III e)				22	vG (Mira)		
								24			
								24			

1 131 pg #6

Date : 1994 Oct 2/3 Observers Jn/Smt

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	Comparison Exp.
CC26308	HD18884	02 57 06	03 42 00	~~05 14 55~~ 05 21 26		~~2 46 W~~ 2 50 W			~~169~~ 66
09	COMP							Fe Ar Clear	60
10	COMP							"	"
11	HD22484	03 31 48	00 05 00	05 29 20		2 26 W			187
12	COMP							Fe Ar Clear	60
13-22	FLAT x 10					2 28 W	0 23 N	Tung Clear	6
23	BIAS(4)			05 46					
24/25	COMP/STELLAR	HARTMANN				2 28 W	0 23 N	Fe Ar Clear	40/60

Spectr. Temp
Focus
Spectr. Temp
Exp. Mtr.

Spectr. Temp. ..... Dome Temp./Hum. 2.5°C / 72.4% Transparency Conditions . clear 132

Focus ..... 6.84 .....

Spectr. Temp. ..... Dome Temp./Hum. 2.8°C / 73.1% @ FOCUS TEST.

Comparison Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
88	G350 ~~18400~~		V = 2.53	M1.5II	CASS CCD	1800 l/mm G = 4800	306μ	~4835Å	25	RV STD.	Satisfied on first attempt so redid comp ~~star~~ (previous) and star.	✓
60									26			
11									27			
187	4760		4.28	F8V					28	RV STD		
60									29			
6									30		Max ADU ~ 13.8K - 13.0K	
									1/2		DOME CLOSED	
40/80									5/6	FOCUS TEST		

All to WORM & Perseus

1133 Pg#1 Wed-Thurs

Date ..1994..Oct..5/6.. Observers .....Tn./..Knk.....

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

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

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mir.
cc26326/7	Comp / Stellar HARTMAN					3 00 10W	+39°	FeAr Clear	90/90	No Filter at this
cc26328	Bias (4)									
329	Comp							FeAr clear	90s.	
330	BD +61154	0h 37m 30s	61 22'00	18 50 11					487	25s
331	Comp	"	"	1 "				FeAr Clear	90s	
332	BD +61154	0h 37m 30s	61° 22'09	19 09 19		-4 30 E			1602	576
334	Comp							FeAr Clear	90s	
333	BD+61154	0h 37m 30s	61° 22'00	19 37 23		-3 58E			1634	640
335	Bias (4)									
cc26 336-341	Flats x5					03 47E	+61 54	Tung Clear	11s	
342	Comp							FeAr/Clear	60s	
343	BD+61 154	00 37 30	+61 22	20 26 36		3 25E			720	No Filter still 165
344	Comp							FeAr Clear	60s	
345	BIAS (4)									
346 353	FLATS x6					03 17E	61 54	Tung Clear	22s	

CCD
Spectr. Temp. −100°C ..... Dome Temp./Hum. 9.8°C 57.8% Transparency Conditions ....clear..-some cloud.. 134
→ much cloud

Focus .....6.84.....

Spectr. Temp. ..... Dome Temp./Hum. ..... 45 0 50 1024 41 CCDFLAT

Exp. Mtr.	Seeing	Ptg: Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no Filter at this λ				CASS CCD	G=5545 1800l/mm	306μ	AC. 5890				
								1			
								5			
258		9.5						6ci	Koh pgm		
								8ci	~~Koh pgm~~	HAD to Reset AC. and Bring up CCD3 again	
576	1-2"	9.5	emission					9ci	Koh pgm	≤(800 ADU max at No D em)	
								11ci			
640								10	Koh pgm	~~128~~ Coadd to end	
								1			
								12		≳12000 ADU max	
					1800l/mm G=4446		4298Å	14			
no Filter still 165	2"	9.5						15	Koh pgm	cloudy	
								16			
								1/2			
								17		11K ADU max	

135

Pg #2

Emulsion Batches:

Date 1994 Oct 5/6 Observers K.o.k. / I.Tn

Spectr. Ten
Focus
Spectr. Ten

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
cc 26354/5	Comp / Stellar	HARTMAN				00 03 HE	+8°	Fe Ar Clear	60/100	
356	BIAS(4)									

Spectr. Temp. .... Dome Temp./Hum. 8.0°C .... 67.6% H Transparency Conditions .... Cloudy ....

Focus .... 6.84 ....

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

mparison ter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
60/10					CASS CCD	1800 l/mm G=4446	306um	4298Å				
							1/2					

All to WORM & Perseus

137 pg #1

Emulsion Batches:

Date ...Oct 6/94..... Observers .....Hmd/Smt.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
CC 1635 7/8	comp/stellar Focus test Hartmann			~~18:11~~		0	39°?	FeAr Clear	60/100	6.5 Filter
59	Bias(A)			18:12:35						
60	comp			18:45				FeAr	60	
61	HD147394	$16^h16^m44^s$	46°33'5"	18:48		3^h14^mW			90s	9 100
62	comp			18:51				FeAr	60s	
63	HD147394			18:54		3^h20^mW			155	9 100
64	comp			18:58				FeAr	60s	
65	HD147394			19:00		3^h27^mW			156s	15 075
66	comp			14:04				FeAr	60s	
67	Comp			19:03				FeAr	60s	
68	HD160762	$17^h36^m38^s$	46°03'34"	19:12		2^h19^mW			120s	5 100
69	comp			19:15				FeAr	60s	
70	~~HD160762~~ Bias(A)			19:17						
71	HD160762			19:19		2^h26^mW			135s	1 100
72	Comp			19:22				FeAr	60s	
73	HD160762			19:25		2^h32^mW			145	1 100

Spectr. Temp. -10.7°C Dome Temp./Hum. 13.0°/70.0 Transparency Conditions clear 138

Focus 6.89

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

BOTH DOME FANS ON

415 0 50 1024 4 1 coadd

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ Claerbak	~~P.H.~~ E.	Program	Remarks	Quality
BG39 Filter				Cass CCD	6=4446 1200l/mm	306μ	4298	3/4			
								½			
								5	Hml		
8100		3.89	B5IV					6		airmass ~1.208 ated. ~5800 maxadu.	
								7			
15010								8		Zair ~1.22 ated 11.7K maxadu	
								9			
15075								10		Zair ~ 1.237 ated 11.7K maxadu	
								11			
15100		3.80	B3III					12 13		Zair ~1.0995 ated. 12.9K maxadu.	
								14			
								½			
15100								15		maxadu ~ 11.5K Zair ~ 1.1104 ated	
								16			
15200								15		maxadu ~ 9.9K ated Zair ~ 1.225 ated ⇒ why the prop- with [illegible]	

139 pg#2

Date Oct 6/7/99 Observers Hval/Smt

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	Comparison Exp.
CC263 #5	comp			19:30				FeAr clear	60s
75	HD160762	17h36m38s	46°03'34"	19:32		2h 39m W			1325
76	comp			19:35				FeAr clear	60s
77	HD160762			19:37		2h44m W			1265
78	comp			19:41				FeAr clear	60
~~79~~	~~HD20 comp~~			19:58				~~FeAr clear~~	~~60s~~
	~~HD20805 7~~ (Brac A)	~~21h48m38~~	~~25°27'00"~~						
79	Brac(A)			20:02					
80	comp			20:04				FeAr Clear	60s
81	HD208057	21h48m30s	25°27'00"	20:06		-0h54m E			385
82	comp			20:15				FeAr Clear	60s
83	HD208057			20:18		-0h43m E			400s
84	comp			20:26				FeAr clear	60s
85	HD208057			20:28		-0h32m E			426s
86	comp			20:37				FeAr Clear	60s

Spectr. Temp. – Dome Temp./Hum. 12.6°C/73.2% Transparency Conditions ..Clear..140.

Focus ..6.84..

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

415 0 50 1024 4 1 ccdfmt

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
~~15~~				Cass CCD	G=444 1800 l/mm	30μ	4298	~~16~~	Hnd	~~max 2.11~~	
15050		3.80	B3V					15		zenrated 1.1328 maxadu 11.4 Kadu.	
								16			
15000								15		maxadu 18.2K zenrated ~1.143	
								16			
								17			
		~~5.08~~	~~B3V~~					~~16~~		ccd switch format to 430 0 50 1024 4 1	
								1/2		switch ccd format to 430 0 50 1024 4 1	
								3			
14600		5.08	B3V					4		turnoff SE fan maxadu 11.8K.	
								5			
14760								4		maxadu 11.9K	
								~~15~~			
15050								~~14~~		max adu 11.1 K adu	
								~~15~~			

141 pgs

Date Oct 6/7 1994 Observers Hml/Smt

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	Comparison Exp.
CL26387	HD208057	21h48m30s	25°27'00"	20:40		-0h20mE			442s
88	Comp			20:48				FeAr Clear	60s
89	bias(4)			20:50				1	
90	comp			20:56				FeAr Clear	60s
91	HD208947	21h59m30s	65°41'00"	20:58	21:18				1200s
92	comp							FeAr Clear	60
93	comp			21:30				FeAr Clear	60s
94	HD218440	23h03m00s	59°13'00"	21:32	21:53	-0h29mE			1200s
95	comp			21:57				FeAr Clear	60s
96	bias(4)			21:59					
96	comp			22:01				FeAr Clear	60s
98	HD218440			22:06		0 04 W			1200
99	comp			22:28				FeAr Clear	60s
A100	HD218940			22:33	22:53	0h30mW			1200
101	comp							FeAr Clear	60s

Spectr. Ten
Focus
Spectr. Ten
Exp. Mtr.

Spectr. Temp. −100.05 Dome Temp./Hum. 12.3° / 76.4% Transparency Conditions .... Clear, Hazy, Little, 142

Focus ..... 6.84 .....

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

4 30 050 1024, 41

Exp.	Exp. Mtr. (6 28 FILTER)	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ Clam da	P.H.	Program	Remarks	Quality
9425	16015		5.08	B3V	Coss CCD	E-9446 1800g/mm	30 μm		4	Hrl	13.9K max adu	
60									4			
									1/2			
60									5			
1200	11770		6.29	B2V					8		Double star Binary - not mentioned in BSC catalog. max adu 8.5K.	
60									5			
60									8			
1200	11860		6.26	B2II					9		max adu ~7.9K	
60									8			
									1/2			
60									8			
1200	12770								9		max ADU ~ 10.9K	
60									8			
1200	12470								9		max adu ~ 10.0K	
60									10			

143 fg#4

Date .Oct 6/7...1994..... Observers ....Hml./Smt.....

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	Comparison Exp.
CC 26402	Brad(A)			23:00					
03	Comp			23:02				Fe Ar Clear	60s
04	HD886	$0^h 8^m 6^s$	$14°38'00''$	23:05		$-0^h 22^m$			5 1/5
05	comp			23:06				Fe Ar Clear	60s
06	HD886			23:09		$-0^h 18^m$			5 1/5
07	comp			23:11				Fe Ar Clear	60s
08	HD886			23:13		$-0^h 14^m$			5/5
09	Comp			23:15				Fe Ar Clear	60,
10	HD886			23:18		$-0^h 8^m$			6 2s
11	comp			23:21				Fe Ar Clear	60s
12	HD886.			23:23		$-0^h 4^m$			53s
13	comp			23:25				Fe Ar Clear	60s
CG40497-500 501/02	HD224720	23 55 06	+46 23 00						.067s
	"				00 24	0 29 W			.133s
14	Comp			23:50				Fe Ar Clear	60s

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

Spectr. Temp. ~ 10.5°C Dome Temp./Hum. 11.2°/17.2% Transparency Conditions .. clear, hazy 144

Focus ..... 6.84 .....

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

Exp. Mtr. (36 EXP FILTER)	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ Cassette	P.H. Ei	Program	Remarks	Quality
				CCD Coude	4446 1800 l/mm	30u	4293	12	Hzl		
								11			
15100		2.83	B21V					12		max adu 19.9K	
								11			
15100								12		max adu ~ 13.7K	
								11			
15100								12		max adu ~ 12.2K	
								11			
17200								12		11.8K max adu	
								11			
15100								12		12.0K max adu	
								11			
		7.3	AZV					—	SEEING TEST	DOME W, LIGHT W BREEZE, HAZY, ~~HOME~~ 85% CERRO AK HUMIDITY ABOVE 30mm, JUST AFTER RE-ALUMINIZATION	
								—	11		
								13i			

145 pg #5

Date Oct. 6/7 ... 1994 .... Observers .... Hrnl/Smt .....

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	Comparison Exp.	Exp. Mtr.
CC26415	HD3360	00h31m24s	53° 20' 48"	23:54	23:55				97s	15250
16	comp			23:56				Fe Ar clear	60s	~~15050~~
17	HD3360			23:59	00:00	0h8m W			103s	15050
18	comp			00:01				Fe Ar Clear	60s	
19	blank			00:03						
20	comp			00:05				Fe Ar Clear	60s	
21	HD 3360			00:07	00:09	0h11m W			94s	15100
22	Comp			00:10				Fe Ar Clear	60s	
23	HD 3360			00:13:35					91	15000
24	COMP			00:16				Fe Ar clear		72
25	Comp			00:27				Fe Ar Clear	60s	
26	HD3901	00h36m29s	49° 58' 00"	00:30	00:35	0h38m W			286s	15090
27	comp			00:36				Fe Ar Clear	60s	
28	HD 3901			00:39	00:42	0h47m W			293s	15050
29	comp			00:47				Fe Ar Clear	60s	

Spectr. Temp. −10.1°C Dome Temp./Hum. 10.7°/78.8% Transparency Conditions Clear, hazy 146

Focus 6.84

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

Comparison Exp.	Exp. Mtr. (36 3rd FILTER)	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	~~Slit~~	~~Emulsion~~ Cloudbda	P.H.	Program	Remarks	Quality
90s	15250		3.66 ~~B25H~~	B25N	COD Cass	4446=6 1800l/mm	30u	4298	14	Hml	moradu 13.5k	
60s	~~15050~~								15			
103s	15050								16		moradu ~ 13.8k	
60s									17			
									1/2			
60s									18			
90s	15100								19		moradu ~ 17.9k	
60s									20			
91	15000								21			
	7/2								22			
60s									23			
230s	15090		4.79	B32V					24		moradu ~ 14k.	
60s									~~23~~			
90s	15050								24		moradu 12.8k.	
60s	1								23			

147 pg #6

Date Oct 6/7 1994 Observers Hall/Smt

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	Comparison Exp.	Spectr. Temp / Focus / Spectr. Temp / Exp. Mtr.
EC2A 30	HD 3901	$00^h36^m29^s$	$49°58'$	00:50	00:55	0^h58^mW			26s	K504
31	comp			00:57				Fe Ar Clear	60s	"
32	HD 3901			00:59	01:04	1^h7^mW			24s	15040
33	comp			01:06				Fe Ar Clear	60s	
34	Bias (4)			01:08						
35	comp			01:18				Fe Ar Clear	60s	
36	HD 4180	$00^h39^m04^s$	$47°49'$	01:21	01:25	1^h26^mW			25s	15030
37	comp			01:31				Fe Ar Clear	60s	
38	HD 4180			01:35	01:39	1^h40^mW			23s	15100
39	comp			01:43				Fe Ar Clear	60s	
40	HD 4180			01:47	01:50	1^h51^mW			20s	15040
41	comp			01:52				Fe Ar Clear	60s	
42	comp			01:56				Fe Ar Clear	60s	
43	HD 4727	$0^h44^m18^s$	$40°32'$	01:59	02:03	1^h59^mW			22s	15040
44	comp			02:04				Fe Ar Clear	60s	

Spectr. Temp. -101°C Dome Temp./Hum. 10.5°C / 71.6% Transparency Conditions . clear, haze 148

Focus . 6.84

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

Comparison Filter Exp.	Exp. Mtr. (36 39 Filter)	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ Lambda	~~P.H.~~ (-)	Program	Remarks	Quality
2.6s	15004		4.79	B2V	CCD Cass	4446=6 1800 l/mm	30μ	4298	24	Hd	~13K maradu	
60s									23			
2.9s	15040								24		~10.5K maradu	
60s									23			
									1/2			
60s									25			
2.6s	15030		4.57	B2V					26		maradu ~10K — gonsiin in Hline?	
60s									25			
2.5s	15700								26		9.5K maradu	
60s									27			
2.6s	15040								28		10.7K maradu	
60s									29			
60s									5			
2.3s	15040		4.53	B5V					6		10.9K maradu	
60s									7			

149 pg 47

Emulsion Batches:

Date Oct 6/7 1954 Observers Hml/fmt

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Spectr. Tem / Focus / Spectr. Tem / Sp. Mtr.
CC26445	HD4727	00h49m18s	40° 32′	02:06		2 06 W			22 1	5000
46	bias(4)			02:13 →						
47	COMP			02 14				Fe Ar Clear	60	
48	HD ~~5083~~ 4727	~~0h34m21s~~	~~0° 06~~	02:15	02:21	2h17m W			232	5000
49	comp			02:23				Fe Ar Clear	60s	
50	~~HD Hes 87 comp~~			02:30				Fe Ar Clear	60s	
51	HD16582	02h34m21s	0°06′	02:33	02:36	0h43m W			194s	5000
52	Comp			02:39				Fe Ar Clear	60s	
53	HD16582			02:41	02:44	0h50m W			193s	5000
54	comp			02:45				Fe Ar Clear	60s	
55	HD16582			02:47	02:50	0h56m W			173s	5000
56	comp			02:51				Fe Ar Clear	60s	
57	comp			02:58				Fe Ar Clear	60s	
58	HD22928	03h35m48s	4° 28′ 04″	03:00	03:01	0h4m W			49s	5300
59	comp			03:03				Fe Ar Clear	60s	

Spectr. Temp. ....-100.5°..... Dome Temp./Hum. ..10.2°/80.4% Transparency Conditions . clear, hazy 150

Focus .....6.84.....

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

ccdfint. 430 050 029 41

Exp. Mtr. (3639 FILTER)	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion (lambda)	P.H. c=	Program	Remarks	Quality
15000		4.53	B5V	CCD Cass	G=4446 1800 l/mm	30du	4298	8	Hmd	maxADU ~ 9.8K	
								½			
								10			
15022		~~4.07~~	~~B2IV~~					11		9.1K maxadu Zair ~1.39 ated.	
								10			
								11			
15022		4.07	B2IV					12		maxadu ~9.3K	
								13.			
15000								14.		~10.9K maxadu Zair ~1.914 ated.	
								15			
15150								16		~ 11.5K maxadu Zair ated 1.423	
								17			
								18			
5300		3.01	B5III					19			
								20			

151 page 8

Date Oct. 6/7 1999 Observers Hall/Smit

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	Comparison Exp.
CC26460	HD229238	$03^h35^m48^s$	+28°04"	03:05	03:06	0^h9^m W			5 1/5
61	comp			03:08				FeAr Clear	60s
62	HD 229238			03:11	03:12	0^h15^m W			53s
63	comp			03:13				FeAr Clear	60s
64	HD 229238			03:15	03:17	0^h20^m			47s
65	comp			03:18				FeAr Clear	60s
66	bias(4)			03:20					
67	comp			03:23				FeAr Clear	60s
68	HD32630	$04^h54^m30^s$	41°05'58"	03:26	03:27	-0^h53^m			58s
69	comp			03:28				FeAr Clear	60s
70	HD 32630			03:30	03:31	-0^h49^m			58s
71	comp			03:32				FeAr Clear	60s
72	HD 32630			03:34	03:35	-0^h45^m			60s
73	comp			03:37				FeAr Clear	60s
74	HD 32630			03:39	03:40	-0^h40^m			54s

Spectr. Temp. ...-100.5°C... Dome Temp./Hum. 10.2°/79.8% Transparency Conditions . clear, haze on horizon 152

Focus ..... 6.84 .....

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

Comparison Exp.	Exp. Mtr. (B6 34 Filter)	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ Lambda	~~P.H.~~ Ci	Program	Remarks	Quality
90s	15200		~~B301~~	BSIII	CCD Cass	G=4446 18000l/mm	300u	4298	21	Hml	maxadu ~15,4K	
60s									22			
53s	15100								23		~15.8 K maxadu.	
60s									24			
47s	15000								25		~15.5K maxadu	
60s									26			
									~~26~~			
									27			
60s												
58s	15100		3.17	B3V					28	Mar	~13.4K maxadu	
60s									29			
58s	15050								28		~19.6K maxadu	
60s									29			
60s	15100								28		~ 11.8K maxadu.	
60s									29			
59s	15200								28		~12.4K maxadu.	

153
pg#9

Date Oct 6/7 1997 Observers Hml/Smk

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	Comparison Exp.
CC26475	comp			03:41				FeAr clear	60s
76	HD32630	$04^h 54^m 30^s$	41° 05' 58"	03:43	03:44	$-0^h 36^m$			6 1/2s
77	comp			03:44				FeAr clear	60s
78	comp			04:08				FeAr clear	60s
79	HD34759	$05^h 19^m 44^s$	41° 42' 00"	04:10	04:18	$-0^h 18^m$			427s
80	comp			04:19				FeAr clear	60s
81	HD34759			04:22	04:30	$-0^h 6^m$			439s
82	comp			04:31				FeAr clear	60s
83	~~bias~~ HD34759 (4)			04:33	04:41	$-0^h 5^m$			471s
84	comp			04:42				FeAr clear	60s
85	bias(4)			04:48					
480–505	FLAT x 20					0 09 W	41° 45 45N	Tung clear	22s
~~86/87~~	COMP/~~STELLAR HARTMANN~~ not saved!!					"	"	FeAr clear	40/70

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

Spectr. Temp. −100.5°C Dome Temp./Hum. ...10.1°/80.4% Transparency Conditions ..Cleary, hazy → clear.....154

Focus .....6.84.....

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

Comparison Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ Clambda	~~P.H.~~ ET	Program	Remarks	Quality
60s					CCD Casa	G=4446 1800l/mm	30μ	4298	29	Hnl		
6 1/3	15100		3.17	B3V					28		~19.9K maxadu	
60s									29			
60s									5			
42 1/3	15023		5.09	B5V					6	eAur	~10K maxadu	
60s									5			
39 1/3	15150								6			
60s									~~37~~ 7		~11.3K maxadu	
47 1/3	15020								~~42~~ 8		~11.1K maxadu	
60s									9			
									1/2			
22s									10	1st flat maxadu 11.7K 2nd flat maxadu 11.5K	→ 10.588 K	
30/20									3/4	FOCUS TEST		
					All to WORK & Perseus					except cc26507!! ∴ cc26506 overwritten.		

KSP Pg # 1

Date 1994 Oct 7/8 Observers Km/Smt

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	(s) Exp.	Exp. Mtr.
CC26506 07	COMP/STELLAR HARTMANN							FeAr clear	60/65	
08	BIAS(4)									
09	COMP							FeAr clear	60	
10	Vys 836AB AC + 39 60670	21 32 36	39 00 29	21 03 51		0 25 45 W			600	298
11	COMP							FeAr clear	60	
12/13	COMP/STELLAR HARTMANN					0	35° 35' N	FeNe clear	5/10	
14	BIAS(4)			23 53						
15	COMP							FeNe clear	10	
16	HD6860	01 04 08	35 05 26	00 24 18		0 05 W			60	18 000
17	COMP							FeNe clear	10	2700?
18	HD6860			00 29 13		0 10 W			60	20 000
19	COMP							FeNe clear	10	1065
20	COMP							"	"	
21	HD1013	00 09 21	-08 20 13	00 41 51		1 28 W			660	1010
22	COMP							FeNe clear	10	

CCD
Spectr. Temp. -100.4°C ..... Dome Temp./Hum. 12.9°C / 11.1% Transparency Conditions ..clear → cloudy → clear again
Thin to medium cloud.

Focus ..... 6.74 / 6.90 @ 6563Å / @ 4200Å

Spectr. Temp. ..... Dome Temp./Hum. 12.2°C / 76.4% at beginning of exposure (1st one)

DOME FANS OFF

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 l/mm G=6020	306μ	6563Å	3/4	FOCUS TEST	420 0 50 1024 41 ccdfix	
								1/2		waited for cloud to pass	
								5			
298		10.17	M6					6	Km test exposure	no emission?	
								7		clouded in again.	
				CASS CCD	600 l/mm G=2622	150μ	~4200Å (little redder)	3/4		450 0 50 1024 41 ccdfix.	
								1/2			
								5			
18 000		2.06	M0III					6	Km	max ADU ~13.5k	
~~17000~~?								7			
20 000		2.06	M0III					8	Km	max ADU ~16.2k !!!	
10 065								9			
								10			
8270		4.80	M2III					~~8~~	Km	through cloud.	
								9			

~~157~~
Pg#2

Date 1994. Oct. 7/8 Observers Km/Smt

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

CCD Spectr. Tem
Focus.....
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	Comparison Exp.	Exp. Mr.
CCD26523	BIAS(4)			00 55				~~FC~~		BG 39 FILTER NOW IN.
24	~~HD4~~ COMP							FeNe clear	20	
25	HD214680	22 34 ~~09~~ 47	+38 31 47	~~01 21 12~~ ~~01 03 19~~		~~3 35 W~~ ~~3 21 W~~			~~240~~ ~~480~~	~~2200~~ ~~4000~~
26	COMP							FeNe clear	20	2190
27	COMP							"	"	2430
28	HD12929	02 ~~01~~ 32	22 59 23	01 39 09		0 22 W			48	4560
29	COMP							FeNe clear	20	2389.
30	HD12929			01 43 41					45	300
31	COMP							FeNe clear	20	2406
32	COMP							"	"	2387
33	HD21389	03 21 55	58 31 55	01 56 18		0 38 E			360	350
34	COMP							FeNe clear	20	
35	BIAS(4)			02 05						
36	COMP							FeNe clear	20	
37	HD21389			02 08 10		0 27 E			300	2110
38	COMP							FeNe clear	20	

CCD Spectr. Temp. -101.5°C Dome Temp./Hum. 12.0°C/81.2% Transparency Conditions. med. cloud → clearing. 1.58.

Focus 6.90

Spectr. Temp. Dome Temp./Hum.

DOME FANS OFF

450 0 50 1029 41 coolant

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
BG 39 FILTER				CASS CCD	600 ℓ/mm G=2622	150μ	~4200Å	½			
NOW IN.								11			
~~2280~~ ~~4000~~		4.88	O9V					12	Km MK pgm	max ADU ~ 5600 (saturated on 1st attempt)	
2190								13		max ADU ~ 2724	
2430								14		max ADU ~ 3000	
4500		2.90	K2III					15	Km MK pgm	max ADU ~ 10.7K	
2389.								16		max ADU ~ 2940	
5300								15	Km MK pgm	max ADU ~ 14K	
2406								16		max ADU ~ 3000 consistent enough.	
2377								17			
4350		4.54	A0Ia					18	Km MK pgm	max ADU ~ 11.3K S/N ~ 270:1	
								19			
								½			
								20			
2170								21	Km MK pgm	through some cloud. max ADU ~ 6750	S/N ~ 190:1
								22			

159
Pg#3

Date 1994 Oct 7/8 Observers Km./Smt

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	Comparison Exp.	Exp. Mtr.
CC26539	Comp							← FeNe 2 clear		FILTER IN 20
40	HD20902	03 17 11	49 30 19	02 21 51		0 1 E?			60	2850
41	COMP							FeNe clear	20	
42	HD20902			02 25 49		0 4 E			240	1880
43	COMP							FeNe clear	20	
44	HD20902			02 32 20		0 0 0			40	1400
45	COMP							FeNe clear	20	
46	COMP							11	11	
47	HD 20630	03 14 07	03 00 13	02 44 42		0 22 W			360	2070
48	COMP							FeNe clear	20	
49	HD 20630			02 53 56		0 30 W			360	2450
50	COMP							FeNe clear	20	
51	BIAS(4)			03 02						
CC40503-6	HD ~~125072~~	03 53 24 ~~03 00 56~~	+39 44 00 ~~39 55 21~~						.067	
7/8	11								.133	

Spectr. Temp. ~100.4°C ... Dome Temp./Hum. 12.1°C/83.7% Transparency Conditions ... medium cloud ... but not enough to stop this pgm! 160

Focus ..... 6.90 .....

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

DOME FANS OFF
450 0 50 COM 4 ccd bf

Exp. Mtr. BG 39	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ cloudy	P.H.	Program	Remarks	Quality
FILTER IN ~20				CASS CCD	600 ℓ/mm G=7622	150μ	~4200Å	23			
60 2850		1.79	FS II$_b$					24	Km MK pgk	max ADU ~ 8700	
20								25			
240 1880								26	Km	through cloud, thick cloud max ADU ~ 5100	
20								27			
40 4900								26	Km	max ADU ~ 15.5K	
20								27			
11								28			
360 2070	-6"	4.83	GSV					29	Km	through cloud. max ADU ~ 4600	
20								30			
360 2450								29	Km	through cloud max ADU ~ 5300	
20								30			
								1/2		spec. controller reset after bias.	
.067		6.84 ~~6.91~~	AOV ~~AOV~~ m					—	SEEING TEST	Dome WSW, no wind, just clouds, above 150μ slit!! (Earthgrams)	
.133								—	"		

Pg #64

Date 1994 Oct 7/8 Observers Km./Smt

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	Comparison Exp.	Exp. Mtr.
CC26552	COMP							FeNe clear	20	
53	HD 22049	03 28 13	-09 47 48	03 23 11		0 43 W			180	2350
54	COMP							FeNe clear	20	
55	HD22049			03 29 40		0 49'35W			180	2500
56	COMP							FeNe clear	20	
57	COMP							"	"	
58	HD30652	04 44 25	06 47 12	03 04 46		0 13 20 E			100	3200
59	Comp							FeNe clear	20	
60	HD 30652			03 59 31		0 00			180	3745
61	COMP							FeNe clear	20	
62	BIAS(4)			04 11						
63	COMP							FeNe clear	20	
64	HD31398	04 50 29	33 00 28	04 12 44		0 13 W			128	5000
65	COMP							FeNe Clear	20	1385
66	HD31398			04 23 35		0 18 W			100	5390
67	COMP							FeNe Clear	20	

Spectr. Temp. −100.5°C Dome Temp./Hum. 12.3°C / 83.6% Transparency Conditions ..just cleared up..but some haze left over 162

Focus ..... 8.90.....

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

Comparison Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
20					CASS CCD	600 ℓ/mm δ=26.22	150μ	~4200Å	5		spec. cam reset again	
180	2350		3.73	K2V					6	Km MK pgm	max ADU ~ 4550 S/N ~ 110:1	
20									7			
180	2500								8	Km	max ADU ~ 5200	
20									9			
"									10		"	
100	3200		3.19	F6V					11	Km	max ADU ~ 9500 Centred on column 31 due to rack position @ 11900	
20									12			
180	3745								13	Km	Centred on column 31 due to rack again.	
20									14			
									15			
20									15			
120	5000		2.68	K3III					16	Km	max ADU ~ 11.5K	
20	2385								17			
100	5000								18	Km	max ADU ~ 12K	
20									19			

163 Pg #5

Date 1994 Oct 7/8 Observers Km / Smt

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	(s) Exp.	Exp. Mtr.
cc26568	COMP.							FeNe Clear	20	439 FeNe Clear
69	HD32630	04 59 30	041 05 58	04 32 38 ~~04 30 49~~		0 17 30 W			100	4300
70	COMP							FeNe Clear	20	
71	HD32630			04 37 34		0 22 W			90	5000
72	COMP							FeNe clear	20	
73	COMP							"	"	
74	HD34085	05 09 44	-08 (P 0	04 49 15		0 25 W			30	4760
75	COMP							FeNe clear	20	
76	HD34085			04 55 04		0 29 W			13 ~~30~~	5100 4000
77	COMP							FeNe Clear	20	
78	COMP							"	"	
79	HD39801	05 49 45	07 23 19	05 03 34		0 1 E			13	5180
80	COMP							FeNe Clear	20	
81	HD39081			05 07 14					20	2350
82	COMP							FeNe Clear	20	

CCD
~~Spectr~~. Temp. -101.5°C ..... Dome Temp./Hum. 12.0°C/84.4% Transparency Conditions . clear, a bit of haze down low

Focus ..... 6:90 .....

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

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H. C1	Program	Remarks	Quality
3639 FILTER 1				CASS CCD	600 l/m G=2622	150μ	~4200Å	20			
4300		3.17	B3V					21	Km	max ADU ~ 13.6K	
								22			
5000								23	Km		
								24			
								25			
4700		0.12	B8 Ia					26	Km	max ADU ~ 12.6K RIGEL	
								27			
~~5000~~ 9000								28	Km	max ADU ~ 15.8K	
								29			
								5			
5180		0.50	M2Ib					6	Km	max ADU ~ 10.3K BETELGEUSE	
								7			
8000								8	Km	max ADU ~ 7560	
								9			

'65 #6

Date 1994 Oct 7/8 Observers Km/Smt

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	Comparison Exp.
CC26583	BIAS(4)			05 11					
84	COMP							FeNe clear	20
	↓								
85	HD41117	05 57 59	20 08 27	05 16 53		0 8 30 W		~~FeNe clear~~	320
86	COMP							FeNe clear	
87	HD41117			05 24 51		0 16 W			306
88	COMP							FeNe clear	20
89	COMP							"	"
90	HD47839	06 35 29	09 59 18	05 39 18		0 06 E			303
91	COMP							FeNe clear	20
92	HD47839			05 47 04		0 0 E			200
93	COMP							FeNe clear	20
94-613	FLAT x20					0 02 51 W	9° 52' 46"	Tung clear	13
614	BIAS(4)			06 14					
615/16	COMP (STELLAR HARTMANN					0 02 51 W	9° 52' 36"	FeNe clear	5/10

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

CCD
Spectr. Temp. ..-100.5°C.. Dome Temp./Hum. ..12.5°C/86.9%.. Transparency Conditions ...clear.....
Focus .....6.90.....
Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	600 ℓ/mm G=2622	150μ	~4200Å	1/2			
								10			
5011		4.63	B2I					11	Km	max ADU 12.2K	
								12			
5000								13	Km	max ADU ~ 12.4K	
								14			
								15			
5400		4.66	07					16	Km	max ADU ~ 16K!	
								17			
3685								18	Km		
								19			
								20		max ADU ~ 14K → 13K	
				All to WORM & Perseus.				1/2			
								3/4	FOCUS TEST		

Pg #1
167

[Sun/Mon]

Date 1994 Oct 9/10 Observers [KK]/Smt & [rG] & [Bln]

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	(s) Exp.
CC26617/18	COMP/STELLAR HARTMANN					0	44° 15'	FeAr clear	60/65
19	BIAS(4)			21 38					
20	COMP							FeAr clear	60
21	HD217675	22 57 19	41 47 00	22 12 49		0 05 W ?			204
22	COMP							FeAr clear	60
23	HD217675			22 20 26		0 19 W			198
24	COMP							FeAr clear	60
25	HD217675			22 27 29		0 28 W			362
26	COMP							FeAr clear	60
27	BIAS(4)			22 36					
28	COMP							FeAr clear	60
29	HDE235679	21 55 00	54 01 00	23 09 24		02 48 W			2400
30	COMP							FeAr clear	60
31	BIAS(4)			00 24					
32	COMP								

CCD Spectr. Temp. ..... -100.5°C Dome Temp./Hum. ..9.7°C/64.0% Transparency Conditions cleared up.. quickly.. seeing is awful.

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

Spectr. Temp. ..... 90 again .... Dome Temp./Hum. ..7.6°C/68.7% by cc26628

DOME FANS OFF

415 0 50 1024 4 1 ccdfs

Exp. Mtr. GG 560	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
FILTER IN USE				CASS CCD	1800 ℓ/mm G=6065	306μ	6604 Å	3/4	FOCUS TEST		
								1/2			
								5			
8000	8"-10"	3.6 B	B6p					6	rG & others	max ADU ~ 12.3K centred on column 17.	
								7			
8000								8		max ADU ~ 13.7K	
								9			
8000								10		through cloud. max ADU ~ 13.5K	
								11			
								1/2			
								12			
1124	6"-9"	B= 9.21	B2.5Ib					13	Bin Sp. B.n. pgm	cleared again whopping the emission. ~4 times continuum	
								14			
								~~13~~ 1/2			
								15			

169 Pg # 2

Date 1994 Oct 9/10 Observers [KK] / Smt

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	Comparison Exp.
CC26633	HD47129	06 32 00	06 13 00	00 59 06		4 20 E		~~Fe Ar Clear~~	~~1200s~~
34	COMP							Fe Ar Clear	60
35	BIAS(4)			0122					
36-40	FLAT x 5					0	44°	Tung 4 Ap.	7
41/42	COMP/STELLAR	HARTMANN				"	"	Fe Ar Clear	60/65

CCD Spectr. Tem
Focus.....
Spectr. Tem
Exp. Mtr. 4425

CCD
~~Spectr~~. Temp. ....-100.5°C Dome Temp./Hum. ..06.2°C./.73.2% Transparency Conditions .clear., seeing..atrocious. 170

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

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

DOME FANS OFF

415 0 50 1024 41 rod ft

Comparison Exp.	Exp. Mtr.	Seeing	~~V-Ptg~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1200s	~~26500 mA~~ FILTER 4425		6.05	08e	CASS CCD	1800 Red G=6065	36μ	6604 Å	16	KK for Dany Gies		
60									17			
									1/2			
7									18		max ADU ~ 12K → 11.5K	
60/65									19/20	FOCUS TEST		

All to M & Perseus

171 pg#1 Mon/Tues Thanksgiving Day

Date 1994 Oct 10/11 ..... Observers [r.G.]/[T.n.]/[S.m.t.] & [Bln] & [KK]

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	Comparison Exp.
cc26643/44	Comp/Stellar	HARTMANN				0	39°	FeAr clear	60/65
45	BIAS(4)			18 ~~19~~ 20					
46	COMP							FeAr clear	60
47	HDE235679	21 55 00	54 01 00	18 51 26		01 24E			2584
48	COMP							FeAr clear	60
49	BIAS(4)			19 20 1SL					
50	Comp							FeAr Clear	60s *
51/52	PU Vul	20 16 48	+21 15	~~19~~ 49 04	20 02 18	0 39 W/0 46 W			65/85
53	Comp							FeAr Clear	60s
GG 40509-12	HD201150	21 06 30	+36 24						.067
13/14	"								.133
cc26654 55	BIAS(4) COMP			20 22 1SL				FeAr clear	60
56	HD217675	21 57 19	+41 47	20 34 17		01 ~~37~~ 25 E			~~134~~ 124
57	COMP							FeAr Clear	60
58	HD217675			20 40 18		01 17 E			~~177~~ 139

CCD
Spectr. Temp. −100°C ..... Dome Temp./Hum. +8.6°C .. 56.7%H Transparency Conditions .. Fine, .. but some clouds ...

Focus ..... 6.62 .....

Spectr. Temp. .. 90.C.g.9in .... Dome Temp./Hum. .....

Grating not moved from previous night's tilt. Grating left "disabled"

Exp. Mtr. OG 560	Seeing	Pl. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
FILTER IN				CASS CCD	+1800/4/m G=6065	306u	6604 Å	3/4	focus test		
								½			
								5			
1532	~~FUZZ~~	B = 9.21	B2.5Ib					6	Bln Sp. bin pgm		
								7			
								½			
*Sp control failed, leaving source on forever. Exposure is stronger??								8:			
71/32		≈10	Em					8/9	MK: suggest	cc26654 Hα saturated badly. then 52 → max ADU ~ 9000.	
~~FF~~* No, this 60sec exp same strength as cc26650.								10	Faint star seen NORTH 1' from PLANET		
								—	SEEING TEST	Dome SW, med.-strong NNW wind.	
								—		clear	
								I / II			
~~8000~~ 7500		3.63	B6p					12	rG	first attempt saturated continuum. max ADU ~ 14.6K	
								13			
~~8000~~ 5000								12	rG	Through some cloud and saturated on first attempt.	

Plg # 2

Date 1994 Oct 10/11 Observers [rG]/[kk]/[km]/Tn/Smt

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	Comparison Exp.
cc 26659	COMP							Fe Ar clear	60
60	Comp							Fe Ar clear	60
61	HD177724	19 00 49	13 42 53	21 02 26		2 59 W			72
62	COMP							Fe Ar clear	60
63	BIAS(4)			21 08					
64-83	FLAT x 20					$03^h 03^m$ W	$13^\circ 52'$ N	Tung ¼ Ap	7
cc 26684/85	Comp / Stellar Hartmann					02 22W	+2 44	Fe Ar clear	40/60
86	COMP							Fe Ar clear	60
87	BD+26 3835	20 09 36	+26 27	21 42 17					240
88	COMP							Fe Ar clear	60
89	BIAS(4)								
90	Comp							Fe Ar clear	60
91	HD 21364	03 21 48	+92300	22 36 51		3 44E			283
92	Comp							Fe Ar Clear	
CGM 515 – 518	HD 223094	23 41 23	+28 08 54			00 13W	+29°	4x	066 sec
CGx 19 20	"							2x	1133 sec

Spectr. Temp. ..... Dome Temp./Hum. 46.2°C...66.1% Transparency Conditions ...Some cloud now...1.7.4

Focus ...6.82 @6604Å / 6.85 @4475Å ...

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

Exp. Mtr.	Seeing	Pfg. V Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
OG 560											
FILTER				CASS CCD	1800 l/mm G=6065	306μ	6604Å	13			
								14			
7500		2.99	AOIIIn					15	Telluric Std.	max ADU ~ 14.5K	
								16			
								1/2			
								17		max ADU ~ 12.9K →	
36 39 FILTER					1800 l/mm G=4558		4475Å	3/4	FOCUS TEST		
								18			
2222		8.6 -9.3	B8					19	Bln Sp. Bin pgm.		
								20			
								1c			
								21			
21,400	3"	3.66 B	B8p					22	Bln Sp Bin	MAX 13 K ADU	
								23			
		7.45 V	K5III						Seeing Test " "	Dome SW Light NNW wind "Breeze"	

175 pg#3 Mon/Tues

Date 1994 Oct 10/11 Observers [Blnj] T.b./Smt

Emulsion Batches:

CSS 386 noted to be 10 secs ahead of WWV Time

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC26693	Comp							FeAr Clear	60s
94	BD+26 3835	20 09 36	+26 27	23 07 12		4 35 W			2458
95	Comp							FeAr Clear	60s
96	BIAS(4)			23 50					
97	Comp							FeAr Clear	60s
98	HD 37017	05 30 25	-04 34	00 03 04		4 09 E			1300
99	Comp							FeAr clear	60
700-719	FLAT x 20					4 05 E	-4° 30' (S)	Tung clear	15
720	COMP							FeAr Clear	60
21	HD37017			00 52 42		3 26 E			900
22	COMP							FeAr Clear	60
23	BIAS(4)			01 15					
24/25	COMP/STELLAR HARTMANN					3 18 E	-4° 30' (S)	FeAr clear	40/60
26/27	COMP/STELLAR HARTMANN					2 07 W	+6 40	FeAr Clear	60/60

Spectr. Temp. ..... Dome Temp./Hum. +5.0°C ..... 70% Transparency Conditions ... Fine now 176

Focus ..... 6.85 NE DOME FAN ON.

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

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ clarkdale	~~F.H.~~	Program	Remarks	Quality
BG 39 F:1Her				CASS CCD	1800 l/mm G=4558	306μ	4475Å	24c;			
1979	3-4"	8.6 -9.3	B8					25c;	DR Vul for Blu		
								26			
								1/2c;			
								27c;			
4280 ish		6.56	B2V					28c;	Blu pgm	max ADU ~ 2800	
								29			
								30		max ADU ~ 13.2K → 12.1K	
								27			
4520								28	Blu pgm	max ADU ~ 2500	
								29			
								1/2			
								3/4	FOCUS TEST		
					1800 l/mm G=6070		6605Å	3/4	focus test	still 6.85 due to T decline	

Rg #4

Emulsion Batches:

Date 1994...Oct..10/11. Observers [KK]/..Tn./.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	Comparison Exp.
CCZ6528	Comp							FeAr Clear	60
29	Vys 858 AC +63 32399	23 02 02	63 23 24	02 07 41		4 18 W			~~600~~ 900
30	COMP							FeAr Clear	60
31	BIAS(4)			02 22					
32	COMP							FeAr Clear	60
33	Vys 858 AC +63 32399			02 34 57		5 12 W			2400
34	COMP							FeAr Clear	60
35	BIAS(4)								
36	Comp							FeAr Clear	60 sec
37	HD47129	06 32 00	+06 13	03 24 52		2h 0m E			600
38	Comp							FeAr Clear	60 sec
39	COMP							FeAr Clear	60s
40	HD23862	03 43 14	+23 50	~~03 53 17~~ ~~03 46 12~~ 03 57 24		1 11 W			50 ~~235~~
41	Comp							FeAr Clear	60
42	BIAS(4)			04 01					

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

Exp. Mtr.

FILTER

98

06 560 FILTER

800 ish

5237

2000 ~~2400~~ 2400

Spectr. Temp. ..... Dome Temp./Hum. 38°C./71.6% Transparency Conditions .. clear 176

Focus ..... 6.85 .....

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

CCDFMT
416 0 50 1024 4 1

* Had to make G=6070 rather than 6065 to match former

Comparison Exp.	Exp. Mtr. '86 39	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
60	FILTER				CASS CCD	* 1460 l/mm G=6070	306μ	6605Å *	5	Called CLAMBDA 6605Å to separate from	RANGE	
900	98		10.8	MO (e should be e		max ADU ~ 1200 <100:1 S/N			6	Earlier 6600 Region observing Vy≤858	Tel E side of I.P. is	
60									7			
									1/2			
60	06 560 FILTER								11			
2400	800 ish		10.8	MO (e)					12	≤ Vy≤? @ ~~Hα~~ Hα KK/Km/Smt...	max ADU @ Hα ~ 2600	
60									13			
									1/2			
60sq												
600	5237	3"	6.05	08e					15½	KK pgm	max ADU ~ 12K	
60sq												
60s									17			
50 254	~~2000~~ 5180 ~~868~~		5.09	88p (e!)		Hα emission	6x ~~con~~ continuum		18	28 Tau for KK	max ADU @ Hα ~ 8000 saturated 1st 2 attempts.	
60									20			
									1/2			

Pg #5

Date 1994 Oct 10/11 Observers [KK/Mki]/Tn/Smt ~13 1n

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	Comparison Exp.
CC26743	COMP							FeAr clear	60
44	BM Cas	00 48 36	63 33 00	04 10 07		4 50 W			1951
45	COMP							FeAr clear	60
46	COMP							FeAr clear	60s
47	NOVA CAS 93	23 36 59	56 57 45	04 55 01		6 33 W			1675
48	Comp							FeAr clear	60s
49	BIAS(4)			05 16					
50	COMP							FeAr clear	60
51	HD47129	06 32 00	06 13 00	05 24 17		0 0 E			659
52	COMP							FeAr clear	60
53	Comp							"	"
54	HD87901	10 03 03	+12 27	05 43 36		3 22E			17
55	Comp							FeAr clear	60s
56 65	FLATS x 10					3 19E	+12°	TUNG Ap 1/4	7sec
66	BIAS(4)								
67/68	Comp / Stellar Hartman					0 0	+35	FeAr clear	60/60

Spectr. Temp
Focus
Spectr. Temp

Exp. Mtr.	
20 300 FILTER	
1220	
29	
5000	
4600	

Spectr. Temp. ..... Dome Temp./Hum. 3.4°C / 69.2% Transparency Conditions beautifully clear 180
(constellations look like nanosec)
Focus ..... 6.85 .....
Spectr. Temp. ..... Dome Temp./Hum. 3.2°C 68.4%H

Exp. Mtr.	Seeing	√ ~~Ptg.~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
OG 560 FILTER				CA-55 CCD	1800 G=6070	306μ	6605R	21			
1270		8.52–9.33	?					22	Mki pgm	max ADU ~12.5K double peaked Hα emission separated by Hα absorption.	
								23			
								24			
~~167~~ 29				max ADU ~ 850				25 26	B/n pgm almost wrong standard	Nova Cas 93 quite a bit brighter than triangle of field stars to SW (~~0.5~~ 0.5' SW of Nova)	
								1/2			
								27			
5000	2"	6.05	08e					28	KK pgm	max ADU ~13.5K CCD T ok @ -100.3°C	
								29			
								5			
4600		1.36	B7V					6	Telluric Std	MAX 7K ADU 1.68 Airmass	
								7			
								10c		max 13.2K → 12.1K ADU	
				Note	CCD Temp	-98°C		bg 3/4	06 EST.: focus test	Just starting to warm up. All to Horses and warm	

18(?

p4#1 Tues/Wed

Date 1994 Oct 11/12 Observers Tn/Smt...service...

Emulsion Batches:

.....

.....

.....

CCD Spectr. Temp

Focus ... 6.

Spectr. Temp

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
CC2676 9/70	Comp/Stellar	HARTMAN				00 10W	+44°	FeAr clear	60/60	CC360 FILTER
71	BIAS(4)			19 03						
72	COMP							FeAr clear	60	
73	HD187235	19 43 55	38 09 36	19 06 48		0h 30 W			350	5000
74	COMP							FeAr clear	60	
75	COMP							FeAr clear	60	
76	NOVA CYG 92	20 27 43	52 17 39	19 23 40		0h 27 W			1816	39
77	COMP							FeAr clear	60	
78	BIAS(4)			19 59						
79	Comp							FeAr Clear	60	
80	Nova Cas 93	23 36 59	56 57 45	20 07 48		01 46E			2632	95
81	COMP							FeAr Clear	60	
82	BIAS(4)			20 55						
83	COMP							FeAr Clear	60	
84	Vys 806B AC+54 1780-45	18 54 12	54 22 09	21 02 39		03h 34 W			1364	34
85	COMP							FeAr Clear	60	

CCD
Spectr. Temp. -100°C ..... Dome Temp./Hum. 7.8.2°C ... 47.1%H Transparency Conditions ..... Fine 1.42

Focus ... 6.180 .....

Spectr. Temp. 90 gain .... Dome Temp./Hum. .....

415 0 50 1024 4 1 CCDFOTT
FANS OFF

Exp. Mtr.	Seeing	Pte Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	C1 P.H.	Program	Remarks	MAK ADU Quality
OG 560 FILTER				CASS CCD	1800 l/mm G-6035	306u	6563 Å	3/4	focus test		
								1/2			
								5			
5000	<2"	5.77	B8V					6	Telluric Std.	air mass = 1.0076	13K
								7			
								8			
39		VERY FAINT						9	Bln pgm	MANUALLY GUIDED WITH SBIG AS DISPLAY	200 e Pk above Continuum
								10			
								1/2			
								11			
95	<2"	NOT AS FAINT AS NOVALYGR						12	Bln pgm		3600
								13			
								1/2			
								14			
134		12.0	M0					15	3 Vesta Km pgm.	H2 absorption, no obvious emission	

183
Vg # 2

Emulsion Batches: .....

Date 1994...Oct. 11./12... Observers [Bh./r.6./KK./km./[V4553]] / Tn / Smt service .....

.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC26786	COMP							FeAr Clear	60
87	V45 893C BD+23 4575C	22 32 41	23 24 52	21 50 36		0h 22 39W			313
88	V45 893C BD+23 4575C			21 57 28		?			2024
89	COMP							FeAr Clear	60
90	BIAS(4)			22 55					
91	COMP							FeAr Clear	60
92	HD187235	19 43 55	38 09 36			4h 08 W			527
93	COMP								
94-813	FLAT x 20							Tung V4 4p	7
814/15	Comp / Stellar Hartmann					4 11W	+26 44	FeAr Clear	50/70
16	COMP							"	60s
17	BD+26 3835	20 09 36	+26 27	23 23 37		4 51 W			2207
18	COMP								
19	BIAS(4)								
20	Comp (after Spectr control Reset)					4 30E	-4°	FeAr Clear	60s

Spectr. Temp. ..... Dome Temp./Hum. 6.3°C / 62.2% Transparency Conditions .. clear 184

Focus ... 6.80 @6563Å ~ 6.88 @4475Å

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

Comparison Filter	Comparison Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	MMT APO Quality
	60	OG 560 FILTER				CASS CCD	1800 l/mm G=6035	326μ	6563Å	16c			
	313	171		12.2	8	[no Hα emission.]				17	Km / {V_HS}	seems too bright brighter of close pair	580
	2024	156				"				18	Km / {V_HS}	dim SW companion of above	
	60									19			
										½			
	60									20			
	527	4850								21	Telluric Std.	air mass @ beginning 1.40Z	8400
										22			
	7									23			11K → 10K
	50/70	OG 560 FILTER STILL IN	6.8	T= 4.8°C			1800 l/mm G=4558		4475Å	3/4	focus test		
	60s									5			
	2007	1779	8.6	8.6-73	8					6	DR Vul for Bln	MAX 1800 ADU	
		BG 34 FILTER								7			
										1/2			
	60s									8c			

185 pg 03

Date 1934 Oct 11/12 Observers {Bl. T.n. / Smt

Emulsion Batches:

* CSS 386 noted to be .10 secs ahead of WWV

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
cc26821	HD37017	05 30 25	-04 34	00 17 39		3 56 E			1006	4639 Filter
22	Comp							Fe Ar Clear	60s	4240
23	Comp							4	4	
24	HD21364	03 21 48	+09 23	00 45 49		1 33 E			161	27K
25	Comp							Fe Ar Clear	60s	
26	Comp							4	60	
27	HD37017	05 30 25	-04 34	00 57 45		3h 20 E			719	4660
28	Comp							Fe Ar Clear	60	
29	BIAS(4)			01 12						
CG40521 24	HD13013	02 02 18	43 59 07	01 23		00 22 W	+45° 59	4x	67ms	
CG40525 26	"	"	"					2x	133ms	
cc26830	COMP							Fe Ar Clear	60	
31	HD37017	05 30 25	-04 34	01 42 11		2h 28 E			1200	8200
32	COMP							Fe Ar Clear	60	
33	BIAS(4)			02 06						

CCD
Spectr. Temp. ~~-100.3°C~~ ..... Dome Temp./Hum. 14.8°C ... 70%H Transparency Conditions ... Fine 126

Focus . 6.88 .....

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

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H. C.	Program	Remarks	~~max ADU Quality~~
RG39 Filter 4240	4"	6.56	B2V	CASS CCD	1800 G-4558	30u	4415	15:	Bln pgm		
								16:			
								19			
22K	<2"	3.66	B8p					20	Bln Pgm	15K ADU MAX	
								22			
								23			
4660		6.56	B2V					24	Bln pgm		3000
								26			
								1/2			
	<2"	64	G8III					-	Seeing Test, Dome West		
								-	very light East ground wind		
								23			
8200	3"	6.56	B2V					24	Bln pgm		70K
								26			
								1/2			

187 pg# 4

Emulsion Batches:

Date 1994 Oct 11/12 Observers [Bln] .../.../Tn/Smt

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC 26834 -33	FLAT x 20					2^h 22 E	$-4°34$	Tung Clear	15
54	COMP							FeAr clear	60
55	HD ~~37017~~ HD 37017	05 30 25	-04 34	02 27 16		1^h 50 E			762
56	COMP							FeAr clear	60
57/58	COMP/STELLAR HARTMANN					0^h	$+42°$ N	FeAr clear	60/90
59/60	COMP/STELLAR HARTMANN					"	"	FeAr clear	60/60
61	BIAS(4)			03 12					
62	COMP							FeAr clear	60
63	HD217675	22 57 19	+41 47 00	03 17 33		5^h 21 W			64
64	COMP							FeAr clear	60
65	HD217675			03 22 37		5^h 27 W			75
66	COMP							FeAr clear	60
67	HD217675			03 28 03		5^h 33 W			63
68	COMP							FeAr clear	60
69	COMP							"	"

CCD Spectr. Tem
Focus 6.9 @ 4
Spectr. Tem
Exp. Mtr.
to 39 FILTER
5995
SEE
86 540 FILTER
5600
5700
4990

CCD
Spectr. Temp. −100.4°C Dome Temp./Hum. 04.6°C / 71.6% Transparency Conditions . Clear 188

Focus . 6.88 @ 4475Å / 6.85 @ 6604Å

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

CCD FMT
415 0 50 1024 41

Comparison Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Max ADU Quality
15	BG 34 FILTER				CASS CCD	1800 l/mm G=4558	306μ	4475Å	27			14K
60									28			
762	5995	3"	6.56	BLV					29	Bln pgm		3700
60									30			
60 40	Set G-88								3/4	FOCUS TEST		
60 60	GG 560 FILTER					1800 G=6065	306m	6604Å	3/4	FOCUS TEST	set @ 6.85	
									1/2			
60									5			11.8K
64	5000		3.63	BLp					6	vG		
60									7			
75	5000								8	vG		11.5K
60									7			
63	5000								6	vG		9.2K
60									5			
"									10			

189
pg #5

Date 1994 Oct 11/12 Observers [KK]/Tn./Smt...

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	Comparison Exp.
CC268 70	HD47129	06 32 00	+06 13 00	03 38 23		1h 44 E			400
71	COMP							FeAr Clear	60
72	COMP							"	"
73	HD23862	03 43 14	2350 00	04 02 21 ~~03 55 21~~		1h 19 W			33
74	COMP							FeAr Clear	60
75	Comp							"	"
76	HD42545	06 06 17	16 09 11	04 14 42		00 48E			200
77	Comp							FeAr Clear	60
78	BIAS(4)			04 21					
79	Comp							FeAr Clear	60s
80	HD47129	06 37 00	+06 13	04 26 13		0h 56 E			530
81	Comp							FeAr Clear	60s
82	HD47129			04 41 26		0h 44 E			360
83	COMP							FeAr Clear	60
84	COMP							"	"

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

Exp. Mtr. 340
FILTER 4370
4800
5140
2650

CCD
Spectr. Temp. −101.7°C ..... Dome Temp./Hum. 4.1°C / 77.1% Transparency Conditions ..Clear..... KPD

Focus .....6.85.....

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

Exp. Mtr.	Seeing	Pkg Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	~~max Hdr Quality~~
400 ~~60 560~~ FILTER 4370		6.05	08e	CASS CCD	1800 l/mm 6=6046	306μ	6604Å	11	KK	Plaskett's, Hα emission	9.3K
60								13			
11								14			
33 ~~800 1000~~		5.09	B8p					15	KK		12.1K
60								16			
'								19			
200	4600		4.95	B5Vn				20	Telluric Std.	1.15 Hi R MASS ~~HOLE~~	16.5
60								22			
								½			
60								23			
540	5140		6.05	08e				24	KK pgm	Note very slightly saturated on 15th column @ Hα	
60								25			
360	3600							24	KK	Plaskett's	9K
60								25			
11								28			

1994 pg #6

Date 1994 Oct 11/12 Observers [KK] An/Smt

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	Comparison Exp.
CL26885	HD87901	10 03 03	12 27 00	04 55 05		4 06 E			14s
86	Comp							Fe Ar Clear	60sec
87-96	FLAT x10					4h 3m E	+11° 55'	Tung ¼ Asp	7
97	BIAS(4)								

Spectr. Ten
Focus
Spectr. Ten

Exp. Mtr.
4300

Spectr. Temp. ..... Dome Temp./Hum. +4.1°C 82.8% Transparency Conditions ... sl. hazy .....

Focus ..... 6.85 .....

Spectr. Temp. ..... Dome Temp./Hum. +4.1°C 85.6% H

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	max Adu Quality
4300		1.36	BTV	CASS CCD	1800 l/mm 6=6065	30μm	6604 Å	29	Telluric Std.		
								30			
								27			12.3K → 11.2K
								1/2			
					All to	Perseus & Worm.					

1973

pg#1 Wed/Thurs

Date 1994 Oct 12/13 Observers [Service] Tn/Smt

Emulsion Batches: .....

.....

CSS 386 Time set to WWV... Time.....

Spectr. Ten

Focus.....

Spectr. Ten

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr. 05 40
CC26898 99	Comp/Stellar							FeAr Clear	60/60	FILTER
CC26'900	Comp							FeAr Clear	60	
901	HD187235	19 43 54	380936	18 44 51					455	
902	Comp							FeAr clear	60	
903	BIAS(4)			18 55 28						
904	Comp							FeAr Clear	60	
905	HD 182917	19 21 54	+50 02	19 07 01		00 54W			180s	1370
906	HD 182917	"	"	19 16 08		01 01W		FeAr Clear	60	500
907	Comp							FeAr Clear	60s	
908	COMP							"	"	
909	HD207076	21 41 26	-02 40 00	19 27 56		01h 08 W			100	4400
910	COMP							FeAr clear	60	
911	COMP							FeAr Clear	60	
912	PU Vul	20 16 48	+21 15	19 42 42		0h 40 W			244	41
913	COMP							FeAr clear	60	

Spectr. Temp. −100 or so.... Dome Temp./Hum. 9.7°C/60.7% Transparency Conditions clear 1924

Focus 6.78 415 0 50 1024 41 ccdfast

Spectr. Temp. ..... Dome Temp./Hum. ..... NE DOME FAN ON.

parison Exp.	Exp. Mtr.	Seeing	Fig/ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Max ADU Quality
60/60	FILTER				CASS CCD	K600 R/mm G=6065	306μ	6604 Å	3/4			
60									5			
455			5.77	B8V					6	Telluric Std.		
60									7			
									1/2			
60			7.4	< (7.3-8.2) according to AAVSO					8			
180	1370		-9.1	Mb		(with .10 mag flickering (5-30 min period))			9	CH Cyg Prism	H2 saturated But saved anyway	
60	500	2"	"	"					10cc	" " "	MAX = 10KADU of H2	
60									11			
"									12			
100	4400			M7III	(c).				13	CH Cyg Std.	H2 emission.	12.8K @ H2
60									14			
60									15			
244	41	1-2"	11.77	e					16		He em too	11.5K H2
60			(From AAVSO circular)						17		H2 emission	

195
Pg #2

Date 1994 Oct 12/13 Observers [service]/Tn/Smt.

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	Comparison Exp.
CC26914	BIAS(4)								
15	Comp							FeAr Clear	60s
16	HD27675	225718	+41 47	20 0705		1 45 E			64
17	Comp							FeAr Clear	60s
18	HD217675			20 1216					66
19	Comp							FeAr Clear	60
20	HD217675			20 1738					64
21	Comp							FeAr Clear	60
22	Comp							"	"
23	BPMGs	004836	+63 3300	20 3100		2 57 E			1122
24	Comp							FeAr Clear	60s
25	BIAS(4)								
26	Comp							FeAr Clear	60
27	HD235679	54 01 00	21 55 00	21 00 15		0h 48 W			2214
28	COMP							FeAr Clear	60

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

Exp. Mtr.
CG530 F, Inz
4100
4200
4100
815
639

Spectr. Temp. ..... Dome Temp./Hum. +83°C ..... 64 56 H Transparency Conditions ... v. slight Hy. hazy 1986

Focus ... 6.76 .....

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

MHx HDY

Exp. Mtr.	Seeing	Rg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
OG580 Filter				CHS CCD	1800 l/mm G=6065	30μ	6604 P				
		~~3.63~~ ~~B6p~~						18			
4100	1"2"	3.63	B6y					19	rG pgm	13.5 k HDY max	
								20			
4200								21	rG pgm	11.5 k	11.5K
								22			
4100								23	rG pgm		10.6K
								24			
								25			
875	1"2"	8.8 -9.3						26	MKi pgm		10.5K
								27i			
								1/2			
								28			
1639		8.86	B25Ib					29	Bln pgm	Hα emission.	CHx 13.3K
								30			or 9K ideal Condition

1977
pg# 3

Date 1994 Oct 12/13 Observers [service] / Tn / Smt

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	Comparison Exp.	Exp. Mtr.
CC26929	COMP							FeAr clear	60	C6560 filter
30	HD187235	19 43 54	38 09 00	21 46 36		3h 17 W			574	4700
31	COMP							FeAr clear	60	
32	BIAS(4)			22 00						
33	Comp							FeAr Clear	60	
34	HD 23862	03 43 18	+23 51 00	22 09 41		4h 29 E			65	8852
35	Comp							FeAr Clear	60	
36	COMP							"	"	
37	HD14386	02 14 18	-03 26 00	22 19 34		2h 49 E			66	1750
38	COMP									
	~~COMP~~ ~~30+26 3835~~ COMP	~~20 04 36~~	~~+26 27 00~~							
39-~~58~~	FLAT x20					00 27W	+19°	Tung 4 Ap	7	
59/60	Comp / Stellar	HARTMANN				"	"	FeAr Clear	60/6	

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

Spectr. Temp. -101.7°C Dome Temp./Hum. 7.4°C / 10.8% Transparency Conditions ... clear ... 1.98

Focus ... 6.78 ...

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

Exp. Mtr.	Seeing	~~Ptg.~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Lambda~~ ~~Emulsion~~	~~P.H.~~	Program	Remarks	max ADU ~~Quality~~
06560 Filter				CASS CCD	1800 l/mm G=6065	30μ	6604 Å	7			
4700		5.77	B8 V n					8	Telluric Std.	air mass = 1.23 → 2.01	11K
								~~11~~			
								1/2			
								12			
852		5.01	B8 p					15	Pleione (KKpgm)		@ Hα 10K
								17			
								18			
1750		2-10	gM6e					19			@ Hα 5K
								20	CCDT = -101.8°C		
											13K -12K
								3/4	ci focus test		

199
Pg # 4

Date 1994 Oct 12/13 ..... Observers [illegible] J.S. / Sect .....

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	Comparison Exp.	Exp. Mtr.
cc2696/2	Comp / Stellar	Hartman				0027W	+26°	FeAr Clear	70/100	
63	Comp							FeAr Clear	60s	BG39 + Heat
64	BIAS(4)									
65	BD+26 3835	20 09 36	+26 27	230739		0437W			2075	1700
66	Comp							FeAr Clear	60s	
67	Comp							"	"	
68	HD37617	05 30 25	-04 34	235858		0409E			1136	3000
69	Comp							FeAr Clear	60s	
70	BIAS(4)									
71	COMP							FeAr Clear	60	
72	HD21364	03 21 42	09 23 00	00 42 12		1 27 E			207	22600
73	COMP							FeAr Clear	60	
74	COMP							"	"	
75	HD37017	05 30 25	-04 34	00 59 05		3h 02 E			1400	5180
76	COMP							FeAr Clear	60	

Spectr. Temp. ..... Dome Temp./Hum. +68°C ...74%H Transparency Conditions . Slight Haze 200

Focus . . 6.86 .....

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

415 0 50 1024 4 1

Comparison Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
30/60					CASS CCD	1800/mm G-4558	306u	4415A	6/5	focus test (Right on)		
60	BG 39 + 1 Herin								7			
									1/2			
2075	1700	3.4	8.6 -9.3	BG					8	Bln pgm	DR Val	900ADU
60												
4												
11136	3000		6.56	BJV	Note	Slit guiding image at extreme Bottom of TV view. Hard to guide.			15	Bln pgm	Note South one of a group of 4 stars.	1416
60									17c9			
									1/2			
60									18			
207	22600		8.66	BBJ					19	Bln pgm.		13K
60									20			
11									21			
14400	6180								25	Bln pgm		3600
60									24			

pg #5

Date 1994 Oct 12/13 Observers [Bin]/[KK]/Tn/Smt

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	Comparison Exp.	Exp. Mtr.
cc26977	BIAS(4)			01 26 23						
78-97	~~26~~ FLAT x 20					0^h 01 W	+38°55'	Tung clear	15	
CG405 27 30	HD19279	03 00 56	+46 55	0205				4x	67ms	
CG405 31 32	"	"						2x	133ms	
cc26998	Comp							FeAr clear	60	
99	HD37017	05 30 25	-04 34	021829		1^h 50 E			1020	5500
cc27000	COMP							FeAr clear	60	
01	BIAS(4)			02 39						
02/03	COMP/STELLAR HARTMANN					1^h 44 E	+24°41	FeAr clear	70/100	
cc27004	Comp							FeAr clear	60s	
05	HD37017	05 30 25	-04 34	025333		1 17 E			900s	5200
06	Comp							FeAr clear	60s	
07/08	Comp/Stellar	Hartman				5 32 W	+42°	"	60/60	6182
09	COMP							FeAr clear	60	
10	HD217675	22 57 19	+41 47 00	03 29 01		5 38 W			109	4135
11	COMP							FeAr clear	60	

Spectr. Temp. ..... Dome Temp./Hum. 6.9°C / 73.4% Transparency Conditions .. slight haze 202

Focus ..... 6.86 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... NE FAN on only, Both on as NORMAL at START of NIGHT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	~~P.H.~~	Program	Remarks	~~Quality~~
				CASS CCD	1800 R/mm G=4558	300μ	4475Å	1/2			
								22		clock drive off.	13K → 12K
	2"	V 6.41	A3V m						Seeing Test	Dome W, light NE wind	
									1 4		
								24c			
5500		656	B2V					25c	Bln pgm.		3300
								27			
								1/2			
								3/4	FOCUS TEST	6.5°C	
								24c			
5200	3"	6.56	B2V					25c	Bln pgm		3.4K
6.82	T= 6.5°C				1800 G=6065	306μ	6605Å	3/4			
								5			
4135		B.63	B6p					6	rG		8K
								7			

203 pg #6

Date 1994 Oct 12/13 Observers [KK]/Tn./Smt

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	Comparison Exp.	Exp. Mtr.
CC27012	BIAS(4)			03 39						
13	COMP							Featr Clear	60	
14	HD47129	06 32 00	+06 13 00	03 41 07		1h 30 E			482	3700
15	COMP							Featr Clear	60	
16	HD47129			03 56 31		1h 24 E			426	4000
17	COMP							Featr Clear	60	
18	Comp							〃	〃	
19	HD87901	10 03 03	+12 27	04 12 47		4 45 E			15	4200
20	Comp							Featr Clear	60s	
21-25	FLAT x5							Tung. Yu Ap	7	
26	BIAS(4)									

Spectr. Temp. -101.6°C Dome Temp./Hum. 6.6°C / 83.0% Transparency Conditions ~~Cl.~~ hazy - some cloud 202

Focus 6.82

Spectr. Temp. ..... Dome Temp./Hum. 6.7°C 86%

CCDFMT
415 050 1024 4 1

Comparison Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Max Quality
						G=6065	306	6605A	1/2			
60									11			
482	3700	2"	6.05	08e					12	KK pgm		8400
60									17			
426	4000		605	08e					18	KK		10K
60									20			
"									24			
15	4000		1.36	B7V					25	Telluric Std	2.76 Air mass	88K
65									27			
7									22			13.7K →
						Hill to Perseus &			WORM			

205

Thurs/Fri

Date 1994 Oct 13/14 Observers [R.G.] T.n./Smt./Pm/

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	Comparison Exp.	Exp. Mtr.
CC270 27/28	Comp/Stellar	HARTMAN				≈ 00 20W	+46°	FeAr Clear	60/60	DG560 FILTER
29	BIAS(4)									
30	Comp							FeAr clear	60s	
31	HD217675	22 57 18	+41 47	235032		2 18 W			10/4	980
32	Comp							FeAr Clear	60	
33	HD217675			00 1205					407	450
34	Comp							FeAr Clear	60s	
35	BIAS(4)									
36 - 45	FLATS ×10					2 45W	+42°	TUNG AD1/4	7sec	
46	Comp							FeAr Clear	60	
47	HD217675	22 57 18	+41 47	005719		3 20W			743	1700
48	Comp							FeAr Clear	60s	
49	BIAS(4)									

CCD Spectr. Tem

Focus ... 6

Spectr. Tem

CCD
Spectr. Temp. ...-100°C..... Dome Temp./Hum. 9.5°C 72%H Transparency Conditions ..P.Cr.T. Cloudy..... 296

Focus ...6:80.....

Spectr. Temp. ..... Dome Temp./Hum. 9.1°C 70.3%H - mostly cloudy

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
OG560 Filter				CASS CCD	1800 l/mm G=6065	306u	6604B	3/4	focus		
								1/2			
								5			
980	3"	3.63	B6p					7	r6 pgm	cloudy	
								8			
450								9		much cloud	
								10	Sky	em seen in He line	
								1/2			
								2		~~12K~~	12K
								11		PARTIAL clearing	
1700								12		AIRMASS 1.22	24K
									Dewar Topup	@ 01:30 EST	
								1/2		-07 -30	

207
pg#1 Fri/Sat

Date 1994 Oct 14/15 ..... Observers .....Tm.....rG./Hdg. checking

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	Comparison Exp.
cc270 59/51	Comp / Stellar	HERTMAN				00 18W	+38°	Fe Ar clear	60/60
52	BIAS(4)								
53	Comp							Fe Ar clear	60s
54	HD187235	19 43 54	+38 09	182504		00 04E			146
55	~~Comp~~	———	Lost					Fe Ar clear	60
55	Comp							"	"
56	HD217675	22 57 18	+41 47	183606					37
57	Comp							Fe Ar clear	60s
58	BIAS (4)								
59 – 73	FLATS x 15			≈20 30		00 40E	−7°	TUNG Apl/4	6sec
74	BIAS(4)								
75	Comp							Fe Ar clear	60s
76	HD217675	22 57 18	~~41~~ 47	21 00 32		00 44 E			99
77	Comp							Fe Ar clear	60s
78	Comp							"	"

Spectr. Temp. CCD −100°C Dome Temp./Hum. +120°C 64.5%H Transparency Conditions ... Fine 208

Focus ... 6:7.7 rG class TOUR moon & Saturn seen.

Spectr. Temp. ... 90's gain ... Dome Temp./Hum. ... TBH x Apm

Exp.	Exp. Mtr.	Seeing	Fig. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
60/60	~~OG560 filter~~				CASSCCD	1800 l/mm G=6065	30μ	6604Å	3/4	focus test		
									1/2			
60s									5ci			
14s	no filter 3950		377	B8Vm					7ci	for rG pgm	Telluric Std	2.2K
60s									~~8ci~~			
4	OG560								8ci			
57	4300		3.63	B6p					9ci	rG pgm (o And)		10K
60s									10ci			
									1/2			
60s									2		7 secs saturated sections NOT done with Batch	15K
									1/2			
60s									11			
99	4200	<2"	3.63	B6p					13	o And-		12K
60									~~14~~			
4									14			

207

PM #7

Date 1994 Oct 14/15 ..... Observers ..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	Comparison Exp.
cc27079	HD187235	19 43 54	+38 09	21 15 53		02 54 W			467
80	Comp							FeAr clear	60sec
81	Comp							"	"
82	HD197433	20 38 46	+75 14 18	21 38 31		2 28 W			608
83	Comp							FeAr clear	60s
84	BIAS(4)								
85	Comp							FeAr clear	60s
86	HD197433	20 38 46	+75 14 18	22 08 51		2 59 W			661
87	Comp							FeAr clear	60s
88	Comp							"	60
89	BM Cyg	00 48 36	+63 33	23 33 14		00 40 E			1498
90	Comp	~~00 48 36~~	~~+63 33~~	23 00				FeAr clear	60s
91	BIAS(4)								
92	Comp							FeAr clear	60s
93	HD 3765	00 35 18	+39 40	23 07 17					603
94	Comp							FeAr	60

Delay
Spectr. Ten
Focus ....
Spectr. Ten

Exp. Mtr.
06560 Filter
4200
2000
2000
3100
2100

Dewar (CCD)
Speetr. Temp. ...-101-8°C... Dome Temp./Hum. +9.6°C ... 71.6% H Transparency Conditions ... Fine ... sl. hazy ... 2.10:

Focus ... G77 .....

Spectr. Temp. ..... Dome Temp./Hum. +7.8°C 67.7% H

MAX 404

Comparison Exp.	Exp. Mtr.	Seeing	Pic. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
467	OG560 FeHer	2"	5.77	B&V$_n$	CASS CCD	G=6065	306μ	6604Å	15	Telluric Std	AIA MASS 1.18	8K
60sec	4200	~~2"~~	~~5.77~~	~~B&V$_n$~~					16	~~"~~		
4									17			
608	2000	2"	7.8 - 8.21	G5 +K0V					19c$_e$	Hdy pgm	(Tel East side) VW Cep	5K
60s									20			
60s									21c$_i$			
661	2000	2"	7.8 - 8.21	G5 +K0V					22	Hdy pgm		
60s												
60s									23c$_i$		Tel westside again	
1498	1900	1"-2"	8.8 - 9.3						24	Mki pgm	"	6.2K
60s									25			
									1/2			
60s									25			
603	2000	1-2"	7.36	dK5					27	Std vel		
60									2			

211
Pg# 3

Date 1994 Oct 14/15 Observers TY

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

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 Type/Filter	Comparison Exp.	Exp. Mtr.
CG405 33 37	HD 3765	00 35 18	+39 40					4x	67 ms	
CG405 38 39	"	"	"			00 02E	+40°	2x	133 ms	
cc27095	Comp							Fe Ar Clear	60	
96	HD 23862	03 43 18	+25 51	23 32 07					59	860
97	"	"	"	23 34 11		2 57E			4	800
98	Comp (Break)							Fe Ar Clear	60	
99	Comp	@						"	"	
cc27100	HD 23862	03 43 18	+25 51	00 04 52					65	810
101	Comp							Fe Ar Clear	60	
102	BIAS (4)									
103	Comp							Fe Ar Clear	60	
104	HD 47129	06 32	+6 13	00 16 22		4 52E			726	1060
105	Comp							Fe Ar Clear	60	
106/107	Comp / Stellar	Hartman				00 26W	6°5'	"	60/60	
108	Comp	Back to Plasketts *						"	60s	

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ... s/ hazy 212

Focus ... 6.77 .....

~~Spectr.~~ CCD Temp. ..... Dome Temp./Hum. +7.0°C 66%

Exp. Mtr.	Seeing	Plg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	2"	7.36			G=6065	ABOVE 306m	6604		Seeing Test	Dome west, Light East wind.	
									" "		
						~~306m~~		28c,			
860	<2	5.09	88p			306m		30			10K
800								30	KK pgm		8K
								31			
								31			
810	3"							32	KK pgm		10K
								5c;			
								1/2			
								8c			
2060	8"	6.05	08e					10	KK pgm	AIRMASS 3.8 !! Pluskett's star	3K
								11			
								3/4	focus test	set slightly warmer for λ	
								14			

23 Pg #4

Date 1994 Oct 19/15 Observers TG

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	Comparison Exp.
cc27109	HD47129	06 32	+6 13	00 48 18		4 19 E			790
H0	Comp (Lost; Grating wheel went home)							Fe Ar Clear	60s
110	Comp @ H & hopefully, Yes							Fe Ar Clear	60s
111	HD47129	0632	+6 13	01 09 55		04 02 E			498
112	Comp							Fe Ar Clear	60s
113 – 120	FLATS x 8					00 00	-22	TUNG Clear	4 sec
121	BIAS (4)								
122/123	Comp / Stellar HARTMAN					00 00	+27	Fe Ar Clear	50/70

Spectr. Temp
Focus. 67
Spectr. Temp
Exp. Mtr.
3200
Set 68

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions .OK..... 214

Focus .6.77 for 6604Å.....

Spectr. Temp. ..6.83 for 4835Å Dome Temp./Hum. +64°C....68%H

CCD FmT 415 0 50 1024 41

Exp. Mtr.	Seeing	Pkg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
3200	6"	6.05	08e			306	6604Å	15	KK Plate	Kett (2.165 AIR MASS)	
(STILL OG560 2200					1800 l/m G=4800		4835Å	16e	KK Plate	Kett pgm	
		6.05	08e					20e			26K
								21			
								23		=	10K
								1/2			
Set 6.83 T=+6.5°C								3/4	focus test	[Righton @ Row 450]	

215 pg#1 Sat/Sun

Emulsion Batches: .....

Date 1994. Oct. 15/16 ..... Observers T.n... H.k.chatting..... .....

CSS Time still matches WWV Time.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
CC271 24/25	Comp/Stellar	HARTMAN				00 06W	+45 12	FeNe Clear	40/60	No Filters Temp=4
26	BIAS(4)									
27	Comp							FeNe Clear	20	
28	AC+32528-176	18 45 01	+02 58 45	18 43 27		01 47W			1963	750
29	Comp							FeNe Clear	20	
30	BIAS(4)									
31	Comp							"	20	
32	AC+8 147-294	19 30 16	+08 14 48	19 24 17		01 37W			1667	870
33	Comp							FeNe Clear	20	
34	Comp							"	20s	
35	H0216 899	22 51 48	+16 02	19 58 22		01 27E			663	1330
36	Comp							FeNe Clear	20s	
37	BIAS(4)									
38	Comp							FeNe Clear	60s	
39	AC+63 32399	23 02 02	+63 23 24	20 18 10		00 57E			1892	800
40	Comp							FeNe Clear	60s	
41	BIAS(4)									

CCD
Speetr. Temp. ~100°C..... Dome Temp./Hum. +10.3°C 54.5%H Transparency Conditions ..Fine..... 21.6.

Focus ...6.80.....

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

Exp. Mtr.	Seeing	Hz. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	S/N Quality
No Filters Temp=+9.6		Set 6.80		CASS CCD	1800 l/mm	306u	5303A	3/4	focus test		
								1/2			
								5			
750	2"	10.7	M2					6	Vys pgm	Looks Like M type	370/1
								7			
								1/2 8			
870	2"	10.4	M0					9	Vys pgm	(Faint close companion to NORTH ~~East~~ ~~not sure~~ Yes (I see it))	
								10			
								11			
1830	1-2"	8.66	M2					12	MARCY Std Vel		
								13			
								1/2			
								14c			
800	1"	10.8	M0					15c	Vys pgm	(The one with Hx em)	
								16			

27 pg#0 SAT/Sun

Date 1994 Oct 15/16 Observers Jn Hdg. checking..

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	Comparison Exp.	Exp. Mtr.
CC27142	Comp							FeNe Clear	60s	
143	HC+39 60670	21 32 36	+39 00 29	20 56 52		01 11 W			1847	1300
144	Comp							FeNe Clear	60s	
145	Comp							"	"	
146	BD+57 2735	23 19 54	+57 20	21 34 46		00 06 W			2141	1600
147	Comp							FeNe Clear	60s	
148	BIAS (4)									
149	Comp							FeNe Clear	60s	
150	BD+40 45	00 11 52	+40 23 33	22 16 29		00 24 E			986	1500
151	Comp							FeNe Clear	60s	
152	Comp							"	"	
153	HD 3765	00 35 18	+39 40	22 39 08		00 36 E			325	1700
154	Comp							FeNe Clear	60s	
CG 40 43	HD 3765	00 35 18	+39 40					4x	67ms	
44 – 45	"	"	"			00 31 E		2x	133ms	
CC27155	BIAS (4)									

Spectr. Temp. ..... Dome Temp./Hum. +8.1°C 61.4%H Transparency Conditions . increasing cloud in south 240

Focus ....6.80.....

Spectr. ~~Temp~~ CCD Gain 90..... Dome Temp./Hum. .....

BRT Moon to South

S/N

Exp. Mtr.	Seeing	Pic. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CHSCCD	1800 l/m G=5115	306u	5303Å	17			
1360	1-2"	10.17	m0					17	Vys pgm		100/1
								18			
								19			
1600	1"	10.05	m2e					20	Vys pgm	increasing haze	>100/1
								21			
								1/2			
								22			
1500	1"	9.00	m0					23	MARCY ~~MARC~~ std vel		
								24			
								25		CCDT=-99.6°C	
1700	1-2"	7.36	dK5					26	Reg IAU STD vel · (thin cloud)		
								27			
	1-2"	7.36	dK5			Above 306u slit			Seeing test	No Funs VERY light NE breeze	

217
pg 3

Date 1994 Oct 15/16 .... Observers [R.m.] J.n. ..... Paul .. Holy helped.

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	Comparison Exp.	Exp. Mtr.
cc27156 → 165	FLATS x10					00 26E	+40 08	Tung Ap 1/2	4se	
cc27166	BIAS(4)									
167	Comp							Fe Ar Clear	60s	
168	HD 214975	22 36 55	+56 18 24	00 07 00		03 08 W			1257	4050
169	Comp							Fe Ar Clear	60s	
170	Comp							"	"	
171	HD 29587	04 34 30	+41 57	00 37 17		02 35 E			517	3430
172	Comp							Fe Ar Clear	60s	
173	Comp							"	"	
174	HD 30282	04 41 06	+36 32	00 51 28		02 24 E			686	3450
175	Comp							Fe Ar Clear	60s	
176	BIAS(4)									
177 → 186	FLATS x10					02 18 E	+36 41	Tung Ap 1/4	7se	
187	Comp							Fe Ar Clear	60s	
188	VY Per	02 20 19	+58 28 06	01 44 42		01 21 W			1603	460
18	Comp							Fe Ar Clear	60s	

Spectr. Temp. ..... Dome Temp./Hum. +67°C 62.2%H Transparency Conditions .. PART cloudy + haze 2.40

Focus .. 6.80 .....

Spectr. Temp. ..... Dome Temp./Hum. +6.2°C ... 58%

MAX ADU

Exp. Mtr.	Seeing	Prg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					1800 G5115	306u	5303Å	2c:		MAX = 10K ADU	
no filter	2"				1800/mm G=5910	306u	6400Å	3c:			
4050	2"	8.40	G01b					4c:	Rm pgm	1.15 Airmass 1st priority. MAX 55K	
								5			
								6	~~std vel~~		
3430	1"	7.29	dG2					7	std vel		
								8			
								9			
3450	1-2"	7.9* -8.8	F6 -G1					10	Rm pgm	*seems like 7.4 using like HD 29587	50K
								11			
								1/2		CCDT = -101.9°C	
								~~12d~~		MAX 12 K ADU	
								12c:			
600	1"-2"	10.8 -11.66	F5 -F9					13c:	Rm pgm	~~MAX 10K~~ Sky too bright from moon illumination of haze	1?/1

22
Pg #4

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

Date 1994 Oct. 15./16..... Observers [R.m.]..Tn.....Hdq. stacking

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
CC27189	Comp							FeAr Clear	60s	
190	BIAS (4)									
191	Comp							FeAr Clear	60s	
192	HD42545	06 06 12	+16 09	02 37 41		2 11 E			159	8/100
193	Comp							FeAr Clear	60s	
194/195	Comp / Stellar.					02 08 E	+16°	FeAr Clear	60/60	

CCD
Spectr. Temp. -100.9°C Dome Temp./Hum. ..... Transparency Conditions Hazy again 222

Focus 6.80

Spectr. Temp. ..... Dome Temp./Hum. +1.60°C 59% H

CLAIMBDA S/N

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
60s				CASS CCD	1800 l/mm G=5910	306u	6400Å	14ci		~~m24~~	~~Poor~~
								1/2s			
60s								15			
159	8/100	1.2"	495	B5 V9				16ci	Telluric Std	1.3 AirMass	mA 4.4A
60s								17ci			
60/80								18/19	Focus test	(CCD T -100.5°C) Right on @ 420 Raw	
					All to Perseus & WORAN						

Exp.

223 part 1
Sun / Mon

Date 1994 Oct 16/17 Observers Km / Tn

Emulsion Batches:

GG560 filter for Comp

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC27196/97	Comp / Stellar *	Hartmann				00 27 W	+45°	FeAr Clear	60/60
98	BIAS (4)								
99	Comp							FeAr Clear	60s
200	BD+45 2745 (Vys 182A)	18 32 26	+45 39 53	19 16 26		02 16 W			600s
201	Comp							FeAr Clear	60s
202	Comp							"	60s
203	(Vys 68) AC +3 2528-176	18 45 01	02 58 45	19 36 05	19 48 15	02 23 W			730s
204	Comp							FeAr	60s
205	BIAS (4)			19 51					
206	~~AC +54 1780-45~~ (Vys 8066) Comp							Fe/Ar	60s
207 ~~208~~	AC +54 1780-45	18 47 12	54 22 09	20 01 23	20 23 5	02 51 W			1350
208	Comp							FeAr Clear	60s
209	Comp							"	"
210	(Vys 8 AB) AC+8 147-294	19 30 16	08 14 48	20 39 59		02 58 W			1747
211	AC+8 147-294	19 30 16	+08 14 48	21 09 41		03 16 W			1014
212	Comp							FeAr Clear	60s

CCD
Spectr. Temp. -100°C Dome Temp./Hum. +10.5°C 46% Transparency Conditions ... Fine 22?

Focus 6.85

CCDFMT for 1200l/mm

Spectr. Temp. ..... Dome Temp./Hum. 370 0 50 1024 4 1

Exp. Mtr.	Seeing	Pix Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
GG385 in Stellar Beam				CASS CCD	1200l/mm G=4500	306μ	6563Å	7/8	focus test	*Note "Ghosts" in "stellar frame"	S/N
								1/2			
								3c:			
640	1"	9.83	MO					4c:	Vgs Hα	~~S/N ~ 130~~	130/1
								5G			
								6G			
325	1"	10.7	M2					9G			100/1
								10G			
								1/2G			
								12.			
290		12.0	MO					11G			
								13G			
								14G			
260	<1"	B	M (type as well)					15G	Vgs Hα (Faint Companion Star)		60/1
640	1"	10.4	MO					16c:	Vgs Hα		
								17c:			

225
PM #2

Emulsion Batches:

Date 1994 Oct 16/17 Observers K.M./J.T.

CCD Spectr. Ten
Focus
Spectr. Ten

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
CCD7213	BIAS(4)									GG385 & Stellar Bar
214	Comp							FeAr Clear	60s	
215	AC +31 68884 (V435 Cyg AB)	22 18 56	31 57 15	21:38:30		00 50 W			630 sec	40
216	" Nothern ONE	"	"	21 52 42		01 05 W			690 sec	185
217	" Southern ONE	"	"	22 05 34		01 20 W			1011 sec	359
218	Comp							FeAr		
219	Comp							FeAr	60sec	
220	AC +63 32399 (V358 Cas)	23 02 02	63 23 24	22 49 39		01 28		~~FeAr~~	1243	184
221	Comp			23:11:50				FeAr Clear	60sec	0.88
222	~~Comp~~ BIAS(4)									
223	Comp							FeAr Clear	60s	
224	Rock 226	22 50.30	60 28 00	23 31 57		02 52 W			2970	366
225	Comp							FeAr Clear	60s	
226	BIAS(4)									
227	Comp			00 31 13				FeAr	60s	
~~228~~										

CCD
Speetr. Temp. ..... Dome Temp./Hum. +9.6°C 47% Transparency Conditions 2.2.6

Focus ..... 6.85 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... c LilimBDA MAX AM

Exp. Mtr.	Seeing	Rtg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
GG385 in Stellar Beam				CASS CCD	1200 l/mm G4500	306u	6563Å	1/2			
								18			
260	1"	10.7	Moe					19	Hα Vgs pgm	guided between 2 components aligned N-S sep ≈ 15"	37K
185	1"	"	"					20	"	NORTH component only	23K
359	1"	(seem SS lightly fainter than N component)						21	"		50K
								22			
								23			
584	1"	10.8	M0					24	Hα Vgs pgm	Vgs 858 Still exist Hα emission	
10338								25			
								1/2			
								26			
366	1"	13.2	M4	75/1 S/N	(670ADU max)			27	Hα Vgs pgm	(SBIG in "Focus" mode to see Int) some thin cloud seems no Hα emission.	
								28			
								1/2			
								29			

227 Pg #3

Date 1994 Oct 16/17 Observers Kim / Jay

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	Comparison Exp.	Exp. Mtr.
cc 27228	HD 1326	00 12 42	+43 27	00 34 2		01 47 W			39 1/3	1930
229	Comp							FeAr Clear	60s	
230	Comp			00:55:50				"	"	
231	AC+71 532	00 55 26	+71 08 49	00:57:50		01 40 W				1200
232	Comp							FeAr Clear	60s	
233	Comp							"	"	
234	HD 42545	06 06 12	+16 09 00	01 39 51		03 15 E			62	3850
235	Comp							FeAr Clear	60s	
236	BIAS (4)									
237	Comp							FeAr Clear	60s	
238	V_{ys} 396 B	02 30 52	+06 24 57	01 45 02		01 13 W			23 47s 24	3700
239	Comp							FeAr Clear	60s	
240	Comp									
241	AC +20 821-80	02 30 14	+19 47 07	02 42 53		01 56 W			1 1/20	570
242	comp			03 08 04						

Spectr. Temp. ..... Dome Temp./Hum. +9.0 38% Transparency Conditions P.C.A.T. Cloudy 2.2

Focus 6.85

Spectr. Temp. ..... Dome Temp./Hum. +8.2°C 40%

Exp. Mtr. 66385	Seeing	Rtg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1930	1"	8.07	M1Ve		1200h/m G=4500	306u	6563	30ci	Many Stds!	MAX 8.7	
								3ci			
								6ci			
1200	<1"	10.06	dM4e					9ci	Hα Vys pgm	no obvious emission some cloud	MAX 5
								12ci			
3850	1"	4.95	B5Vn					13	Telluric Stds	But Hα emission This Time !! ~~not last night~~ ~~don't think I~~	
								14			
								1v			
								3ci	~~Vys pgm~~	hazy	
≥700	1"	11.66	M					5ci	Vys pgm Hα	SI Hazy Full moon 30° To SW >	SIX 10/1
								1			
570	1"	10.7	M2					11	Vys pgm Hα		10/1
								12			

229 Pg #4

Date 1994 Oct 16/17 Observers Km/JT

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	Comparison Exp.	Spectr. Tem / Focus / Spectr. Tem / Exp. Mtr.
CG 40546 – 549	HD29587	04 3430	+41 57			00 04W	+4208			GG385 Filter in Stellar
CG 550 51	"									
CC7243	Comp							Feat Clear	6E	
44	HD29587	04 3430	+41 57	032432		00 12W			238	1750
45	Comp							Feat Clear	60	
46	BH5(4)									
47	Comp							Feat Clear	60	
48	AC+51 257663	04 5058	+50 4735	034728		W			P35	8/6
49	Comp							Feat Clear	60	
50	Comp							"	"	
51	HD36395	05 26 18	-03 41 00	04 1135		0023W			1069	150
52	Comp							Feat Clear	60	
53	Comp							"	"	
54	HD 87901	10 0303	+12 27	04 41 19	04 44 39	-3 58E			200	240
55	Comp							Feat Clear	60	

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions . Part. Cloudy 230

Focus ..... 6.85 .....

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

Exp. Mtr.	Seeing	Rg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
GG385 Filter in Stellar	<1"	7.29	dG2			306μ ABOVE Slit			Seeing test	No wind NE Fan on	✓
				CHSS CCD	1200 l/mm G=4500		6563Å	~~14~~		Dome west	3.8K
1750	<1"	7.29	dG2					14	Stdvel		✓ 3.8K
										CCDT = −100.3°C	
								3c;			
186	<1"	10.98	M0					15	Vys Hz pgm	hazy	
								3			
550	1"	7.97	M1					16	Marcy Stdvel	Thick cloud	✓
								3			
2140		1.3	~~B~~ V					~~B~~17	Telluric	AIRMASS 2.0	

231
pg 5

Date 1994 Oct 16/17 Observers K.m./J.T.

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

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

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
cc272 56/65	FLATS x10					0 0	+12°	Tung Ap1/4	4ea	
					Note GG385 Filter placed in Comparison		Filter for	FLATS,		Note
cc272 66/67	Comp/Stellar	HARTMAN				0 0	+12	Fe Ar Chem.	60/60	Set 6
						GG 385 Filter IN				

Spectr. Temp. ~~-100.3°C~~ Dome Temp./Hum. ..... Transparency Conditions ..Cloudy..now...23?

Focus 6.85

Spectr. Temp. ..... Dome Temp./Hum. 82°C....39.5% H

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					1200 l/mm G=4500	30μ	6563Å	6 c		MAX 15.K HDC i	
Note That Previous night, 1800 l/mm @ 6400Å with 7sec exp had MAX of 12K.											
					1200 l/mm ∴ 2>2x as fast.						
Set 6.85 T=8.2°C								32/33	Focus		
		All to Perseus & WORM									

23

Date 1994 Oct 20/21 Observers Km/Smt

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	Comparison Exp.
CC27268/6P	COMP/STELCAR Focus Test	HARTMANN				PARKED 0h	−35°	06 560 FILTER IN COMPARISON TRAY.	
270	BIAS (4)								
271	Comp							clear Fe Ar	60s
272	AC+9 166-62 (Vgs 305-AB)	22 05 46	07 24 53	23:18:02		03 07 W			1030s
273	Comp							Fe Ar	60s
274-283	FLAT x10					0h 2m E 66 385	~~+~~39° FILTER →	Tung ½ Ap	4
84	BIAS(4)								
85	BIAS (4)								

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

Exp. Mtr.

250

CCD Spectr. Temp. -100.5°C Dome Temp./Hum. 11.8/82.3 Transparency Conditions. Partially Cloudy → VERY FAST 234 CONDITIONS CHANGING QUICKLY

Focus 6.80

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

370 0 50 1024 4 1 CCDFMT

GG 385 FILTER IN STELLAR TRAY

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	~~Max ADU~~ Quality
				CASS CCD	1200g/mm G=4500	306μ	6563 Å	3/4 G	FOCUS TEST	COMP → NO GHOSTS STELLAR → GHOSTS.	
								1			
								5 G		COMPARISONS HAVE "GHOST" MAKES PRESUMABLY 1ST & REDDER ORDER	
								6 G	Vys Hα pgrm ↓	clear @ start then through cloud.	
250		10.9	Mo								< 500
								7			15.7K → 14.6K for flats
								8		cutwalk humidity 94%	
		All to Perseus & WORM						1			
								1			

235

Fri / SAT

Date 1994 Oct 21/22 Observers Smith, I.T.a

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc27286	BIAS ~~(5)~~ (one only)								
87	FLAT		492	507		0 0	+33°	TUNG Ap 1/4 +ND2.0	5sec
~~88~~	~~FLAT~~								
88	FLAT		452.7				~~Filter +OG560~~	TUNG Clear	5 sec
89	FLAT		408.8				FILTER +OG560	TUNG Clear	5sec
90	FLAT		543	510			+ND2.0	TUNG Ap 1/8	5sec
91	FLAT		553.7					TUNG Clear	20sec
92	"		529.6					TUNG ~~4~~ Ap	5 sec
93	"		435	533			+ND2.0	TUNG Clear	5sec
94	"		421.6				OG560	TUNG Ap 1/4	5sec
95	"		423.6				OG560	TUNG Ap 1/4	5sec
96	"		486	529			ND2.0	TUNG Ap 1/4	5sec
97	"		459.1				none	TUNG Clear	5sec
98	"		440.8				OG560	TUNG Clear	5sec

CCD
Spectr. Temp. ~-100°C Dome Temp./Hum. +13°C 70%H Transparency Conditions 236

Focus G-80

Spectr. Temp. 0 Cgain Dome Temp./Hum. APROX = CHAMBER CCD FMT 0 0 1024 1024 1 1

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1200 l/mm G=1780	306u	ZEROth ORDER		(grating Alignment Tests)	13K max	
	Grating "E"				1200 l/mm G=3775		4900Å			MAX 1.1 KADU	
					1200 l/mm G=5800		=9300Å			MAX 4.5 KADU	
					600 l/mm G=1780		ZEROTH			max 8.3 KADU	
	GRATING "C"				600 l/mm G=2450		3400Å			max 0.7K ADU	
					600 l/mm G=3200		7000Å			MAX 2.9 KADU	
					150 l/mm G=1780		Zeroth			MAX 14.7 KADU	
	GRATING "A"				150 l/mm G=2200		8840Å	in 1st ORDER most likely		MAX 6.7 KADU	
					150 l/mm G 2470		7000Å	2nd ORDER		max 5.0 K/100	
					831 l/mm G=1780		Zeroth			max 5.3 KADU	
					831 l/mm G=3240		5200			max 4.2 KADU	
	GRATING "D"				831 l/mm G=4500		9500Å			9.7	

237
pg #2

Date 1994 Oct 21/22 Observers Smt/ITg

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

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination +33°	Comparison Type/Filter	Comparison Exp.
CC07299	FLAT			507	469	00	ND 2.0	TUNG Ap1/4	5sec
300	FLAT		487.1				OG 560 ~~Aclear~~	TUNG Ap1/4	5sec
301	FLAT		487.5				OG560	TUNG Ap1/4	5sec
302	FLAT			535	538		ND 2.0	TUNG Ap1/8	5sec
303	"		531.0				none	TUNG clear	30sec
304	"		505.8				none	TUNG Ap clear	5sec
305	Comp (Showing "GHOST" lines at blue end)						GG385	FeAr clear	60sec

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

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions 2.6

Focus 6-80

Spectr. Temp. ..... Dome Temp./Hum. +12°C 73% H
Approx ± LAMBDA

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	600 ln/mm G=1780	306u	Zeroth		Grating aligned	2.8K ADU	
	GRATING "J"				600 ln/mm 3100		H+			3.2K ADU	
					600 ln/mm 3800	≈ 1u 10000Å				1.5K ADU	
	GRATING "F"				1800 ln/mm G=1780		Zeroth			MAX 7.9K ADU	
					1800 G=3830	≈ 3350Å				400 ADU	
					1800 G=6700	≈ 7300Å				4.9K ADU	
	GRATING "E"				1200 G=4500		6563Å		Ghost image @ ≈ 723 Kou ±		

~~29~~ #1

SAT/Sun

Date 1994 Oct 22/23 Observers [Rm/Sh] ~~Tn~~ /Smt

Emulsion Batches:

CSS Time set to WWV Time

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	(s) Exp.
CC27306/7	Comp/Stellar	Hartman				0h	45° 30'	Fe Ar clear	60/60
08	BIAS(4)			18 05					
09	COMP							Fe Ar clear	60
10	HD173297	18 39 24	-20 45	18 22 48		1h 51 W			950
11	COMP							Fe Ar clear	60
12	Comp							"	"
13	HD 180583	19 12	+27 45	18 49 46		1h 32 W			611
14	Comp							Fe Ar Clear	60
15	BIAS(4)			1905					
16	COMP							Fe Ar clear	60
17	HD 204867	21 26 18	-06. 01	19 08 52		0h 28 E			397
18	COMP							Fe Ar clear	60
~~19~~	~~Comp~~								
~~20~~ 19	~~HD177724~~	~~19 0048~~	~~+13 43~~	~~19~~					
-28	FLAT x10					0h 3m W	-27° 40'	Tung Fe Ar	1

CCD Spectr. Ten
Focus ....
~~Spectr. Ten~~
Exp. Mtr.
560
TER
1500
2059
2282

Spectr. Temp. CCD −100°C ..... Dome Temp./Hum. 11.2°C ..... 71.8% H Transparency Conditions ..Part. clear - cloudy. pg#1.

Focus .... 6.80 .....

Spectr. Temp. ...90.CGAIN.... Dome Temp./Hum. ..... c LAMBDA 415 0 50 1024 4 1 CCDFILT

Exp. Mtr.	Seeing	V Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	maxADU Quality
OG560 FILTER				CHSS CCD	1800bl/mm G=5910	306μ	6400 Å	3/4	FOCUS TEST		
								1			
								5		Telescope East Side	
1500	4"	⟨V⟩= 7.48	~60Ib					6	V350 Sgr Rm pgm	through haze cloud-lateral	3150
								7			
								8			
2058	3"	6.19	FGI-D6					9	V473 Lyr Rm pgm	1.49 day period Some cloud tel. E side	4380
								10			
								1			
								11			
2282		2.91	60Ib					12	RV Std.	through cloud. tel. E side	4350
								13			
								~~14~~			
									~~Feltzer~~		
								14			15K → MK

24 pg #2

Emulsion Batches:

Date 1994 Oct 22/23. Observers [Rm]/Tm/Smt

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc 27329	Comp							FeAr Clear	60sec
330	HD204770	21 25 48	+662200	22:00:48		2 25 W			294
31	Comp							FeAr Clear	60s
32	BIAS (4)				22 08				
33	Comp							FeAr Clear	60s
34	HD203156	21 15 24	+37 49	22 13 18		2h 48 W			394
35	Comp							FeAr Clear	60s
36	COMP							"	"
37	HD180583	19 12 00	27 45 00	22 26 25		5 09 W			645
38	Comp							FeAr Clear	60s
39	COMP							"	"
40	HD214975	22 36 54	56 19 00	22 44 37		2 42 W			3000
41	COMP							FeAr Clear	60
42	BIAS(4)			23 41					

Spectr. Tem
Focus....
Spectr. Tem

Exp. Mtr.	
06580	
2777	
3250	
3029	
2880	

Spectr. Temp. ..... Dome Temp./Hum. 10.3°C 76%H Transparency Conditions Part cloudy Pg 282

Focus 6.80

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

Exp. Mtr. Filter	Seeing	Pic Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ Camera	P.H.	Program	Remarks	Quality
OG560				CASS CCD	1800/mm G=5410	306	6400Å	15		Telescope westside now	
2777	3"	544	B7V					16	Telluric Std	(Obs list) AIR MASS 1.15	7K
3250	2-3"	5.8 -5.9	F2						V1334 Cyg Rm pgm.		8K.
								20			
3029	4"	(V) 6.19	F6I -II6					21	V473 Lyr Rm pgm	S/N ~ 260:1 (2nd exp of night)	5.5K
								22			
								23			
2880								24	Rm Z Lac pgm	S/N ~ 250:1	5660
								25			
								1			

24B pg# 3

Emulsion Batches:

Date 1994 Oct 22/23 Observers [Rm]/Tn/Smt

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
CC27343	COMP							FeAr Clear	60	06 560 FILTER
44	HD25361	03 56 42	58 23 00	23 44 39		2^h 09 E			1360	2480
45	COMP							FeAr clear	60	
46	COMP							"	"	
47	HD29587	04 34 36	41 57 00	00 15 24		2^h 20 E			1005	2800
48	COMP	[Be* careful of using this comparison]					*	FeAr clear	60	
49	BIAS(4)									
50/51	COMP/STELLAR HARTMANN					0^h	42° 30'	FeAr Clear	65/60	

Spectr. Temp
Focus
Spectr. Temp

Spectr. Temp. ..... Dome Temp./Hum. 9.0°C / 8.3% Transparency Conditions . clear, humid .....

Focus ..... 6.80 .....

Spectr. Temp. ..... Dome Temp./Hum. +8.7°C 87.0%

Exp. Mtr.	Seeing	~~Ptg.~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	~~Quality~~
06 560 FILTER				CASS CCD	1800 l/mm G=5910	306μ	6400 Å	26			
2780		7.30 →8.07	F6Ib →G2Ib					27	RV Cam Rm pgm		7K
								28			
								5			
2800	2"-3"	7.29	d62					6	RV Std.		
								7		* Dome & Hex Telescope moved 10 days & 15m of ra	
								1			
		All to	WORM & Perseus.					3/4	FOCUS TEST		

245
Pg#L Sun/Mon

Date 1994 Oct 23/24 Observers [illegible]

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	Comparison Exp
cc27 352/53	Comp/Stellar	HURTMAN				00 06 W	+43 06	FeAr Clear	60/60
54	B/HS(4)								
55	COMP							FeAr Clear	60
56	HDE 235679	21 55	+54 00	20 58 17		1 25 W			2032
57	Comp							FeAr Clear	60s
58	COMP							x	11
59	HD211211	22 10 30	42 28 00	21 37 55		1 24 W			564
60	COMP							FeAr Clear	60s
61	B/HS(4)				21 49				
62	Comp							FeAr Clear	60s
63	HD187235	19 43 54	+38 09	21 53 37		4 09 W			649
64	Comp							FeAr Clear	60s
65	Comp							4	11
66	HD217675	22 57 18	41 47 00	22 10 22		1h 1 W			58
67	comp							FeAr Clear	60s
68-87	FLAT x 20					1h 4m W	42°	Twng 4 AP	6

CCD set to
Spectr. Temp. ...-100°C..... Dome Temp./Hum. +11.5°C 62%H Transparency Conditions ...Clearing..... 246

Focus ..6.77.....

~~Spectr.~~ CCD Temp. ...-101.7°C.. Dome Temp./Hum. .....

DOME FANS OFF
CCD FMT
415 0 50 1024 4 1

Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	max ADU / ~~Quality~~
OG560 filter				CASS CCD	1800 l/mm G-1065	306μ	6604 R	3/4c.	Focus Test		
								1/2c			
								5			
1426	4"	8.86	B2.5I6					6	B/n pgm		9K
								7			
								~~8~~			
4800		5.68	A2Vm					8	Telluric Std	1.03 AIRMASS extend	11K
								9			
								1/2			
								10			
4500	4"	5.77	B8Vm					11	Telluric Std	highest AIRMASS = 1.040	9K
								12			
								12			
3465		3.63	B6p					13	~~Eg~~ Bg pgm	0 - And.	8.7K
								14			
								15			12.3K

247 pg #2

Date 1994 Oct 23/24 Observers [Bh]./Snt/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	Comparison Exp.	Exp. Mtr.
cc27388/89	Comp/Stellar					01 05W	+47 18	FeAr Clear	50/70	
90	BIAS(4)			2231						
91	Comp							FeAr Clear	60s	1639 Hg in
92	HD1061	00 09 48	+8 16	22 35 35		00 29 W			978	8000
93	Comp							FeAr Clear	60s	
94	Comp							4	4	
95	HD37017	05 30 24	-04 34	23 04 28		04 16 E			1358	2400
96	Comp							FeAr Clear	60s	
97	BIAS(4)			23 29						
98	Comp							FeAr Clear	60s	
99	HD1061	00 09 48	+8 16	23 33 48		01 26 W			900	8280
cc27400	Comp							FeAr Clear	60s	
01	COMP							11	11	
02	HD37017	05 30 24	-04 34	00 01 36		03h 18 E			1360	1100
03	COMP									

Spectr. Temp. ..... Dome Temp./Hum. +9.8°C ... 65.6% Transparency Conditions ... Fine ... 248

Focus .. 6.82 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... C LAMEDA MAX ADC

Comparison Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
50/70					C ASSCD	1800 l/mm G:4558	306μ	4475Å	3/4	Focus test	(Right on)	
									1/2			
60s	BG 39 Filter in								5c;			
978	8000	4"	615	A9s					6c;	Bln pgm	UU Psc	4.4K
60s									7c;			
4									7c;			
1358	2400	6-10"	6.56	B2V					11	Bln pgm.		1.3K
60s												
									1/2c;			
60s									14			
900	8280		615	A9s					15	Bln pgm	UU Psc	4.4K
60s									16			
11									16			
1340	4100		6.56	B2V					17	Bln pgm	*170/1 S/N	2.1K
									18			

249
Pg#3

Date 1994 Oct 23/24 Observers [Bln.]/Tn./Smt...

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	Comparison Exp.
CCZ7404	BIAS(4)			00 30					
05	COMP							FeAr clear	60
06	HD1061	00 09 48	08 16 00	00 33 05		2h 27 W			976
07	Comp							FeAr clear	60s
08	Comp							"	"
09	HD37017	05 3025	-04 34	00 5622		2 31 E			930
10	Comp							FeAr Clear	60s
11	Comp							"	"
12	HD1061	00 09 48	08 16	01 19 05		3 15 W			1094
13	Comp							FeAr clear	60s
14	BIAS(4)				01 44				
15	HD1061	00 0948	08 16	01 45 04		3 40 W			1078
16	Comp							FeAr Clear	60s
17	Comp							"	"
18	HD37017	05 3025	-04 34	02 1026		1h 17 E			903
19	Comp							FeAr clear	60s

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

Exp. Mtr.
1480
1600
1250
1200
1215

Spectr. Temp. ..... Dome Temp./Hum. 8.3°C/67.7% Transparency Conditions clear 250

Focus 6.82

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

Comparison Exp.	Exp. Mtr.	Seeing	~~Ptg.~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ CLAMBDA	P.H.	Program	Remarks	MAX ADU ~~Quality~~
					CASS CCD	1800 l/mm G=5910	306μ	4475 Å	1			
60									18			
976	7980	4"	6.15	A9s					19	Bln UV Fsc pgm.	> 200/1 S/N	4K
60s									20			
4									21		CCD T = -101.6°C	
930	4600	4"	6.56	B2V					11	Bln pgm		
10s									12			
7									12			
994	8250	3.5"	6.15	A9s					13	Bln UV Fsc pgm		
10s									14			
									1/2			
1078	5900	4.7"	6.15	A9s					15c;	Bln UV Fsc pgm		
60s									16			
11									18	Bln pgm		
903	4815	4"	6.56	B2V					11c0			
60s												

25
pg #4

Date 1994 Oct 23/24 Observers [Bln] T.h./Smt

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	Comparison Exp.
CC27420	COMP							FeAr Clear	60
21	HD21364	03 21 42	+9 23	02 31 47		1h 2m W			280
22	COMP							FeAr Clear	60
23	BIAS(4)				02 38				
24	Comp							FeAr Clear	60s
25	HD37017	05 30 25	-4 34	02 43 44		0h 42m E			990
26	Comp							FeAr Clear	60s
CG40 552–555	HD35476	05 19.9	+43 55	03 14				4x	67ms
CGA0 556–57	"	"	"			00 19E		2x	133ms
CC27427/28	Comp / Stellar	HUMTMAN				00 13E	+44°	FeAr Clear	70/100
CC27429	Comp							FeAr Clear	60s
30	HD37017	05 30 25	-4 34	03 32 45		00 06 W			983
31	Comp							FeAr Clear	60s
32–51 →	FLATS x20					00 11W	-4 32	TuNG Clear	15sec
52	BIAS(4)			04 07					

CCD

Spectr. Temp. −101.3°C Dome Temp./Hum. +7.5°C 71.9% Transparency Conditions . Mostly Clear 252

Focus 6.82

Spectr. Temp. ..... Dome Temp./Hum. +6.8°C 77.5% complete cloud by 4

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
BG 39 Filter					1800 k/mm G=4552	306u	4415A	14			
22200		366	B8p					22.	Bkn pgm		11K
								23			
								1/2			
								24			
5920								11	Bkn pgm		3.5K
								24			
	poor 4"?	V 7.48	K0III		ABOVE	306u	slit		Seeing Test, Dome west.		
									Light	west wind	
Dome T = +6.8°C								3/4cl	focus test	(set slightly for warmer)	
								25cl			
5250	3"	6.56	B2V					11cl	Bkn pgm		
								26			
								27		14 K IHA X	
								1/2			

2891
pg 45

Date 1994 Oct 23/24 Observers [Bl...] T.../S...t.....

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

CCD Spectr. Tem
Focus.....
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	Comparison Exp.	Exp. Mtr.
CC27453	COMP							FeAr Clear	60s	B539 Filter
54	HD37017	05 30 25	-04 34	04 15 31		00 50 W			1033	720
55	COMP							FeAr Clear	60s	
56	Comp							"	"	
57	HD 36079	05 24 00	-20 50	04 38 52		01 07 W				
58	Comp							FeAr Clear	60s	
59	Comp							"	"	
60	HD37017	053025	-04 34	044939	"	1h 22 W			849	1880
61	Comp							FeAr Clear	60s	
62	B/HS(A)									

CCD
Spectr. Temp. -101.5°C ... Dome Temp./Hum. 6.9°C / 75.8% Transparency Conditions partly cloudy 2524

Focus 6.82 Lots of Cloud again

Spectr. Temp. ... Dome Temp./Hum. 6.5°C / 77.2%

Comparison Exp.	Exp. Mtr.	Seeing	~~Prg.~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ CLAMBDA	~~P.H.~~ Ct.	Program	Remarks	mv 200 Quality
60s	BG39 Filter				CASS CCD	1800 l/mm G=4558	316u	4475 Å	28			
1033	4720	4"	6.56	B2V					11	Bln pgm.		
60s									29			
4									~~30~~			
			V 2.84	G5II					30	Std vel		
60s									31			
4									10			
849	4880	4"	6.56	B2V					11	Bln Pgm		2450
60s									12			
									1/2			
					HH to Perseus &			WORN				

255

Emulsion Batches:

Date 1994 Oct 25/26 Observers 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	Comparison Exp.
cc274 63 64	Comp / Stellar	Hartman		≈ 00 20		0 0	+33°	FeAr clear	70/100
65 66	Comp / Stellar	Hartman				0 0	"	"	60/60
67 68	Comp / Stellar	Hartman				"	"	+ OG 560	60/66
69 70	Comp / Stellar	Hartman						+ BG 39	60/60
71 72	" "	"						FeNe clear	5/8
73 74	" "	"						FeAr clear	30/30

CCD
Spectr. Temp. Left at -120°C ... Dome Temp./Hum. +6.3°C .. 67% Transparency Conditions .....

Focus ..... Dome closed

~~Spectr. Temp.~~ ..T.O. C.gain .... Dome Temp./Hum. .....

Comparison Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
30/60	~~682~~ T= +6.3, set 6.82				CHSS CCD	1800 l/mm G=4558	306	4475Å	1/2	focus Tests	set for too warm a temp	
60/60						1800 l/mm G=6065		6604Å	3/4	" "	Set just Right	
45/60	T= +6.2°C			set 682		1200 l/mm G=4500		6563Å	1/2	" "	1st ORDER - set slightly warm	
60/60	T= +6.0°C			Set 682		1200 l/mm G=5960		exactly 4862	3/4	Hgeta focus test	2nd ORDER/Right on	
5/8	T= 6.8°C			Set 6.90		600 l/mm G=2545		~~3790~~Å	5/6	focus 1st ORDER	A50 0 50 1024 +1 coo print set 51 too warm still	
30/30	T= 6.7°C			Set 6.90		600 l/mm G= 3100		6563Å	7/8	focus 1st ORDER	Right on	

25.7
pg #1 Wed/Thurs

Date 1994 Oct 26/27 Observers J.n., H.dg. checking

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	Comparison Exp.	Exp. Mtr.
cc27475	Comp			2255		0408E	-845	FeAr Clear	60s	No filter
	~~HD~~								~~66s~~ 65	
476	HD33328	05 0422	-0853	230804					177	539
477	HD33328			231233		345E			418	700
478	Comp							FeAr Clear	60sec	
(488 479 ~~480~~ 487)	BIAS(4)									
~~488~~	FLATS x 9					335E	-846	TUNG Ap 1/4	6sec	
cc27489	Comp							FeAr clear	60s	
90	HD33328	050422	-0853	233744		321E			413	5140
91	Comp							FeAr Clear	60s	
92	Comp							4	4	
93	HD213998	223013	-003759	235353		339W			1027	2090
94	Comp							FeAr Clear	64	
95	BIAS(4)			0017						
96/97	Comp/Stellar Hart			0026		0027W	+25°	FeAr Clear	60/60	5945

CCD Spectr. Tem
Focus ..6
Spectr. Tem

CCD
Speetr. Temp. −100°C ..... Dome Temp./Hum. +6.2°C ... 73.9% Transparency Conditions ... Cloudy ... mostly ... 2.0

Focus .. 6.82 .....

CCDFMT
415 0 50 1024 4 1

Speetr. Temp. .. 90 c gain ..... Dome Temp./Hum. 15.5°C ... 77.3% MAXADU

C LAIMBDA

Exp. Mtr.	Seeing	Pix Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				CASSCCD	1800 l/m G=6065	30μ	6604Å	3ci			
65	6"	~~427~~	~~B2IV~~				6604Å	~~4ci~~	~~λ Eri~~	MUCH cloud Aborted!	
539		427	B2IV				6604Å	5ci	λ Eri	out of Cloud after 300 sec	
700								6ci		3.5 AIR MASS - cloud TOO	450
								7ci			
								1/2		CCD T = 100.3°C	
								8ci		MAX 12K ADU	
								9			
5140		427	B2IV					10	λ Eri	2.97 AIR MASS (Hz parts = light)	4.2K
								11 co			
								11			
2090		4.02	B9IV −V1					12	Telluric STD	2.30 AIR MASS (mid exp)	1.7K
								13			
								1/2		Then Dewar Topup	
	5.9	5.5°C	Set 6.82					13/14		Refocus	

259
pg #2

Emulsion Batches:

Date 1994 oct 26/27 Observers Jn ... Initi (a bit)

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
CC27498	Comp							FeAr Clear	60s	no filters
499	HD33328	05 04 22	-085300	00 35 07		02 21 E			487	890
500	Comp							FeAr Clear	60s	
501	BIAS(4)									
502	HD 33328			00 49 38		02 05 E				9100
503	Comp							FeAr Clear	60s	
504	Comp							4	4	
505	HD33328	05 04 22	-085300	01 09 14		01 57 E			270s	19.5K
506	Comp							FeAr Clear	60s	
507 - 513	FLATS x 7					01 44 E	-8 47	Tung Att 1/4	6 sec	
514	BIAS(4)									
515	HD33328	05 04 22	-0853	01 26 03		01 28 E			604	800
516	Comp							FeAr Clear	60s	
517	Comp									
518	HD87901	10 03 03	+12 27	02 23 21		05 36 E			267	7450
519	Comp							FeAr Clear	60s	

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions .. Cloudy 260

Focus ... 6.82 .....

Spectr. Temp. ..... Dome Temp./Hum. 7.4.9°C ... 81%

MAX ADU

Exp. Mtr.	Seeing	Rtg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filters				CH5 CCD	1800 l/mm G=6065	306μ	6604Å				
890		427	B2 IV					16	λ Eri	2.09 Air mass	
								17			
								1/2		CCD T = −100.3 °C	
9000								18	λ Eri	Blue Hα peak slightly higher	7K
								19			
					1800 l/mm G=5920	306	6410Å	20c		≈15Å overlap with 6604Å region	
19.5K		427	B2 IV					21c	λ Eri	To get Si 6340Å lines	11K
								22			
								23			13K
								1/2			
800		427	B2 IV					24	λ Eri		
								25			
								26c			
7700		1.36	B7 V					27	Telluric	4.6 AIR MASS Much cloud	44

261 pg 43

Emulsion Batches:

Date 1994 Oct 26/27 Observers T.H. Hdq checking till 3:30 Dome getting wet anyway

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
520	BIAS(4)								
CC27521	Comp							Fe Ar Clear	60s
22	HD 33328	05 04 22	-08 53	02 45 22		00 16 E			197
523	Comp							Fe Ar Clear	60s
524	Comp							Fe Ar Clear	60s
525	HD 33328	05 04 24	-08 53	03 06 55		00 04 W			123
526	Comp							Fe Ar Clear	60s
527 536	FLATS x10					00 12 W	-08 47	TUNG Clear	4 sec
537	HD 33328	05 04 22	-08 53	03 20 20		00 20 W			269
538	Comp							Fe Ar Clear	60s
539 /40	Comp / Stellar					00 00	+33°	Fe Ar Clear	90/120

Spectr. Temp. ..... Dome Temp./Hum. +4.7°C 81.2% H Transparency Conditions ... Part. Cloudy 262

Focus ..... 6·82 ..... ~ 6·86 for H Beta

Spectr. Temp. ..... Dome Temp./Hum. +4.5°C ....

MAK

Exp. Mtr.	Seeing	Prg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800k/mm G= 5920	306μ	6410Å	29			
13,400		4·27	B2IV					30	λ Eri		
								29			
Filter BG 39 Set focus →		6·86			1800k/mm G= 4800		4835Å	17ci			
6600		4·27	B2IV					19ci	λ Eri	@ H beta	3·8K
								~~22ci~~			
								22ci		MAX 11K ADU	
13,200								23ci	λ Eri		12.5K
								26ci			
4.5°C		6·86						13/14	focus	OK, set was too cool	
		All to		Worm & Perseus.							

263
pg #1

Date 1994 Oct 27/28 Observers Km Smt

Emulsion Batches:
06 560 in comp tray
GG 385 filter in stellar tray

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
CC 2754 42	COMP/STELLAR HARTMANN							FeAr clear ap	40/60	
543	BIAS (4)									
544	comp							clear FeAr	60	
545	Vys 844 AC +18 1074-6	22 23 56 ~~16 25 18~~	18 25 18 ~~22 23 56~~	19 09 14		-0 00 E ~~00~~			700	40
546	comp.							FeAr clear	60	7
547	comp							FeAr clear	60	
548	HD 216899 (Vys 854)	22 51 48	16 02 00	1 P 30 08		-1 14 E			200	310
549	Comp							FeAr	60	
550	comp							FeAr	60	9800
551	AC +3 2781-116 Vys 343	23 03 00	02 47 05	1 P 45 00		-00 56 E.			1200	277
552	comp.							FeAr	60	
553	BiAc (4)			19 36 38						
554	comp			20 14 21				FeAr	60	
555	AC +18 1074-115 Vys 840	23 11 42	19 04 39	20 16 36		0h 30 E			1374	310
556	comp							FeAr clear	60	

60
Spectr: Ten
Focus
Spectr. Ten

CCD

Spectr. Temp. -100.5°C Dome Temp./Hum. 7.7°C/..... Transparency Conditions hazy, bright sky 2624

Focus 6.88

Spectr. Temp. ..... Dome Temp./Hum. ..... DOME FANS OFF

400 0 50 1024 41 ccdfmt

Exp. Mtr.	Seeing	Ptg Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1200 ℓ/mm G=4500	30μ	6563Å	4/3	FOCUS TEST		
								1			
								5			
200	2"-3"	10.7	M0					6	km EV453 Hα scan for emission	HARD TO FIND!! S/N~80	max 90 ADU
0								7			
								8			
310		8.6	M2					9		S/N~110	max 1640 ADU
								10			
9800								11			
277		10.9	M0					12			
								13			
								1/2			
								14			
310		11.1	M0					15			1100
								16			

265
pg # 2

Date 1994 Oct 27/28 Observers KM/SMT

Emulsion Batches:
GG 560 filter in comp tray
GG 385 " " stellar "

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Spectr. Tem / Focus / Spectr. Tem / Exp. Mtr.
CC27557	BIAS(4)			20 45						
558	COMP									
559	Vys 870 B AC+11 1710 - 70	23 48 28	+11 33 07	20 52 18		-0 10 E			2hrs	310
560	comp									
561	BIAS(4)			21 46						
562	COMP									
563	Vys 351 AC +17 303 - 138	00 03 19	+16 52 12	21 52 26					910	
564	comp							TeAr	60	
565	comp							TeAr	60	
566	~~AC +80~~ BD -9 40 Vys 385	00 12 34	-0 14 23	22 26 48					800?	345
567	comp			22 48 33				TeAr	60	
568	BD -9 40 Vys 385	00 12 34	-0 14 23	22 52 25					1272	340
569	comp									
570	bias (4)			23 17 06						
571	comp							TeAr	60	
572	AC -06 2360-60 (Vys385)	01 58 49	-05 23 33	23 32 13					980	320

Spectr. Temp. ..... Dome Temp./Hum. 6.6°C / 67.7 Transparency Conditions clear

Focus 6.88

Spectr. Temp. ..... Dome Temp./Hum. 5.6°C / 74.0

Exp. Mtr.	Seeing	√ Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Peak Av Quality
				CASS CCD	1200 l/mm G=4500	306μ	6563Å	1			
								17			
310	1"	12.2	MO					18	Km's Evans? Hα emission search.	∃ emission	
								19			
								~~20~~ 21			
								20			
910		10.73	MO					21			~1000
60								22			
60								23			
80?	245	10.98	MO					24		bright sky line @ what appears to be Hα	~660 max
60								25	CSS 386 rebooted due to Desqview failure.	no emission this frame.	
1272	300	10.98	MO					26			
								27			
								1			
60								28			
980	200	11.2	M					29			800

267 Pg #3

Date 1994 Oct 21/28. Observers Km / Smt

Emulsion Batches:
06.5.60 FILTER IN COMP TRAY
66.365 " " STELLAR "

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
cc27573	comp			23 53 30				FeAr clear	60	
574	~~comp~~ bias (4)			00 25						
575	comp.							FeAr clear	60	
576	AC+45 99 130-246	03 02 48	+45 21 1P	00 31 0P		-0° 22 E			500	258
577	Comp							FeAr clear	60	
578	comp.							" "	"	
579	AC+11 20-183	02 38 56	+10 32 07	00 49 55		0h 27 E			180	152
580	comp									
581	AC+11 20-183 ~~comp~~ comp	"	"	01 08 39		1h 05 W			1P0	
582	~~AC +26 7021 02 46 32 +26 33 59~~									
583	comp									
584	AC +26 7021	02 46 32	+26 33 59	01 57 07		1 20 W			480	114
585	comp							FeAr	60	
586	~~comp~~ bias (4)			02 17						
~~587~~	~~AC +26 7021 02 46 32 +26 33 59~~									
587	Comp							FeAr	60	

Spectr. Temp. ~101.7°C Dome Temp./Hum. 5.3°C / 75.0% Transparency Conditions fine 268

Focus 6.88

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

Comparison Exp.	Exp. Mtr.	Seeing	~~Ptg.~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	max 200 ~~Quality~~
10					CASS CCD	1200 l/mm G=4500	306μ	6563Å	30			
									1/2			
60									5			
500	258		10.2	MO					6	Kin SUVS? Hα emission search		1170
60									7			
"									8			
180	152	2"	10.98	MO					9		emission! @ Hα	1250 @ Hα
									10			
1800	~~280~~ 380	"	"	"					~~9~~		emission	2175 @ Hα
									10			
									11			
480	11P		10.8	MO					12			
60									13			
			~~10000~~ 490						~~13~~			
60									13			

269
Pg #4

Date 1994 Oct 27/28 Observers Km/Smt

Emulsion Batches:
DG 560 FILTER IN COMP TRAY
GG 385 " " STELLAR "

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
CC27588	AC +2 2282-5 (Vys 430)	03 42 47	02 29 10	02 19 12		00 45 W			401	98
589	comp							FeAr Clear	60	
590	comp							"	"	
591	~~AC~~ BD -09 956 (Vys 452AB)	04 35 43	-09 23 20	02 44 05		0h 16 W			240	104
592	comp							FeAr Clear	60	
593	COMP							"	"	
594	HD 33328	05 04 22	-08 53 00	02 56 12		0h 2m E			60	4300
595	COMP									
CG40558-61	HD 35476	05 19 54	43 56 00			0h 2m E			.067	
62/63	"	"	"						.133	
CC27596-605	FLAT x 10				GG 385 FILTER	0h 2m W	44° N	Tung Xy Ap FeAr clear	4	
606/607	COMP/STELLAR HARTMANN				IN COMP TRAY	"	"			

CCD
Spectr. Temp. -101.7°C ..... Dome Temp./Hum. 4.9°C / 78.6% Transparency Conditions ..hazy.. humid..... 240

Focus .....6.88.....

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

Comparison Exp.	Exp. Mtr.	Seeing	Rec. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40	98		~~11.2~~	Mo					14			
60									15	Km {V455} Hα emission		
"									16			
240	~~104~~ 104		10.3	Mo					17		no emission	440
60									18			
"									19			
60	4300		4.27	?					20	vG (λ Eri)		10K
									21			
1067			7.48	K0 III					—	SEEING TEST	Dome W, light to med. S wind, clear,	
1133			"	"					—	"	92% catwalk humidity, above 30%	
4					GG 385 FILTER NOW IN COMPARISON TRAY				22		DOME DRIPPING. . CLOSE	15.5K → 14.3K
									3/4	FOCUS TEST		
			All to Persens & WORM									

27 pg #1

Emulsion Batches:

.....

.....

..... 06.560 FILTER

Date 1994 Oct 28/29 Observers [Rm.] Smt ..... Km. as backup

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
cc27608/9	COMP/STELLAR HARTMANN					9^m W	+43°	FeAr clear	60/60	
10	BIAS(4)			18 09						
11	COMP							FeAr clear	60	
12	HD180583	19 12 00	+27 45	18 29 37		$1^h 48^m$ W			1400	1572
13	COMP							FeAr clear	60	
14	BIAS(4)			19 01						
15	COMP							FeAr clear	60	
16	HD196504	20 32 48	26 07 00	19 04 09		$0^h 55^m$ W			1000	958
17	COMP							FeAr clear	60	
18 - 22	FLAT x 10					0^h	+2° 39'	Tung ¼ Ap.	7	

Spectr. Tem

Focus .....

Spectr. Tem

Night #1

Spectr. Temp. -101.7°C Dome Temp./Hum. 10.8°C / 60.8% Transparency Conditions: thin cloud all over 272
thicker on horizon (of course)

Focus 6.79

Spectr. Temp. ____ Dome Temp./Hum. 10.7°C / 59.3% @ close.

DOME FANS ON

415 0 50 1024 4 1 ccdfmt

FILTER Comparison Exp.	Exp. Mtr.	Seeing	~~Ptg.~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	~~P.H.~~	Program	Remarks	~~Quality~~
60/60					CASS CCD	1800 l/mm 6=5910	306μ	6400A°	3/4			
									1/2			
60									5			
1400	1872		6.19	F6I -IIb					6	Rm P6M	a bit spread out. S/N > 200:1	4300
60									7			
									1/2			
60									8			
1000	958		5.59	B9IV					9	Telluric Std.	thicker cloud now SB	1700
60									10			
7									11		CLOSED DOME DUE TO CLOUD.	14.95K → 13.51K

All to Perseus & WORM

27
pg#1 Wed - Thurs

Date 1994 Nov 2/3 Observers T.n./Smt. for [KK]

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	Comparison Exp.
CEG82094/61	INBOARD/OUTBOARD	HARTMANN				03 02W	+45 16	ThAr	~~30~~ 20 / 30/18
202	BIAS (4)				18 40.				
03	COMP							ThAr	15
04	HD 182640	19 20 30	02 55 00	18 45 23		02^h 22 W			1868
05	COMP							ThAr	15
06	Comp							?	4
07	HD 183912	19 29 54	+27 55	19 23 06		02 51 W			1660
08	Comp							ThAr	15s
09	BIAS (4)				19 52				
10	COMP							ThAr	15
11	HD 196524	20 32 54	+14 15	20 37 04		03 06W			2084
12	Comp							ThAr	15
13	BIAS (4)				21 13				
14	Comp							ThAr	15s
15	HD 202109	21 08 42	+29 49	21 18 15		03 07W			1819
16	Comp							ThAr	15s

Spectr. Tem
Focus
Spectr. Tem

Exp. Mtr.
944
3140
1950
3080

Spectr. Temp. -102.2 Dome Temp./Hum. 1.9.2 / 58.5% Transparency Conditions hazy - cloudy partly 274

Focus .248

~~Spectr. Temp~~ Gain 90 Cygnus Dome Temp./Hum. +5.9°C 70.0%H

c LAMBDA ccdfmt 0 0 256 1024 41 (redundant, I know)

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst. Echelle Tilt	X Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	~~Quality~~
				ECHELLECCD 12.17.80	1200l/mm .4460	60u 600u HK	3960Å	3/4		60u width = .277 micrometer	
								1/2			
								3			
1944	2"-3"	B= 3.68	F0IV					4	KK	Reject ORDER →	~500
								3			
	2							3			
3140	2"	B= 4.2	K5II?					5	KK		550
								3			
								1/2			
								3		Comp MAX	8K
1950	3"	V= 3.78	F5IV					6	KK		460
								3			
								1/2			
								3c			
3080	2-3"	B 4.2	G8II					4c	KK	UV Std	550

275
pg#2 Wed/Thurs

Date 1994 Nov 2/3 Observers [illegible] Tn/Smt

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

CCD Spectr. Temp
Focus ...
Spectr. Temp

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.	S
ce08217	Comp							ThAr	15se		
18	HD215182	22 3818	+29 4200	21 5432		0212W			1741	340	
19	Comp							ThAr	15se		
20	BIAS(4)										
21	Comp							ThAr	15s		
22	HD217675	22 5718	+4147	22 3017		0236W			2170	300	
23	Comp							ThAr	15s		
24	Comp							ThAr	15s		
25	HD6582	01 0136	+5426	231735		0122W			2464	600	
26	Comp							ThAr	15s		
27	BIAS(4)										
28	Comp							ThAr	15s		
29	HD6961	01 05	+5137	000745		0204W			2144	1,200	
30	Comp							ThAr	15s		
31	Comp							"	"		

CCD
Spectr. Temp. ~102.0°C... Dome Temp./Hum. +5.7°C....70.9%H Transparency Conditions ...MOSTLY clear.....276

Focus ...248.....

Spectr. Temp. ..... Dome Temp./Hum. ..... C LAMBDA MAXADY

Comparison Lt.	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst. Echelle	X Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	15se					CCD 17.80	1200M/mm .4460	60u W 600u H	3960Å	3c;			
	1741	3400	2"	B 3.8	G8II ? +F?					5c;	kk pgm		800
	15se									3c;			
										1/2			
	15s									3c;			
	2170	3500	1-2"	B 3.6	B6p					6c	kk pgm	ó Andromeda	
	15s									3c;			
	15s									3c;			
	2469	600	1-2"	B 5.81	G5Vp					4c;	kk pgm		370
	15s									3c;			
										1/2			
	15s									3			
	2144	1,200	2"	B 4.50	A7V					5c;	kk pgm	some cloud	930
	15s									3c;			
	n									3c;			

277
p943

Wed / Thurs

Date 1.9.24. Nov 2/3..... Observers [KK]..T.n./.Smt.....

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	Comparison Exp
CE 08232	HD34029	05 09 18	+45 54	00 50 37		01 47 E			423
233	Comp							ThAr	15
234	HD34029	05 09 18	+45 54	01 00 36					550
235	Comp							ThAr	15
236	HD34029	05 09 18	+45 54	01 11 34		01 25 E			502
237	Comp							ThAr	15
238	BIAS (4)			01 22					
239	Comp							ThAr	15
240	HD209790	22 00 54	+64 08	01 33 30		6h 32m W			1800
241	COMP							ThAr	15
42	BIAS(4)				02 16				
43	COMP							ThAr	15
44	HD29316	04 32 00	+53 17	02 22 14		00 51 W			2225
45	Comp							ThAr	15
46	HD29316	"	"	03 01 38		01 26 W			1929
47	Comp							ThAr	15

CCD Spectr. Temp. −100.5°C ..... Dome Temp./Hum. +5.4°C ... 74% H Transparency Conditions .. thin cloud 278

Focus ... 248 .....

CCD Spectr. Temp. ..... Dome Temp./Hum. ..... max 1

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst. Echelle	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
9,700		V 0.08	G5 III +G0 III	CCD 17.80	1200 l/mm 4460	60u width 600u H	3960?	6c;	KK pgm	Capella	~~3~~400
								3			
11000								4c;	KK pgm		3,200
								3			
11,200								~~7~~6c;	KK pgm		
								3c;			
								1/2c;			
								2c;	Tel Eastside now.		~~250~~
365	2"	B 3.8	G8 III? +F?					5c;			200
								3			
									Tel W side now		
	1½"							3			
420	1-2½"	V AB 5.36	A5 m					6c;	KK pgm.		420
								2c;		∠ of 3c;	
400	1-3"							6c;	KK pgm		
								3c;			

279 pg# 1 Wed/Thurs

Date 1994 Nov 2/3 Observers [illegible] Th./Sat.

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	Comparison Exp.
ce08248	BIAS(4)				03 36				
249	Comp							ThAr	15s
250	HD47105	06 31 54	+16 29	03 47 13		0h 1m W			1176
251	Comp							ThAr	15s
52	COMP							"	"
53	HD33328	05 04 22	-08 53 00	04 16 41		2h 4m W			1418
54	COMP							ThAr	15s
55	BIAS(4)			04 43					
56	Comp							ThAr	15s
57	HD29139	04 30 12	+16 19	04 48 56		2h 59m W			806
58	Comp							ThAr	15s
59	COMP							"	"
60	HD81797	09 22 42	-08 14	05 11 46		1h 12m E			1833
61	COMP							ThAr	15
62	BIAS(4)				05 44				

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

Spectr. Temp. ..... Dome Temp./Hum. +4.8°C ... 76.5% H Transparency Conditions ... Quat. Cloudy, hazy. 280

Focus ... 248 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... c LAMBDA

Comparison Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst. ~~echelle~~	× Grating/ Tilt	Slit	~~Emulsion~~	~~P.H.~~	Program	Remarks	~~Max Abs~~ Quality
					1748	1200m/mm 14460	60u W 600u H	3960Å	1/2			
15									2c			
1176	4091	5"	B 19.	A0 IV					4c	Kt pyn		2400
15									3			
11									3			
1418	462	4"	V= 4.27	B2 IV					5	λ Eri		
15									3			
15									2c:			
806	6530	4"	V 0.85	K5+ III					5c:	Std Vel		350
15									3c:			
11									3		CCOT = −101.8°C	
1833	3415	4"-6"	V= 1.98	K3 II-III					6	Std vel.	through thick haze.	400
15									3			
									1/2			

Date 1994 Nov 2/3 Observers [illegible] Smt. / T.H.

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	Comparison Exp.
CCD8263	Comp							ThAr	15s
64	HDG2509	07 39 12	+28 16	05 50 12		00 45 W			460
65	Comp							ThAr	15s
CCD8266 —270	FLATS x	5				03 24 W	+5 45°	TUNG	140s
271	BIAS(4)				06 28				
272 /73	Inboard / Outboard		Hartman				+15 45	ThAr	30/18
				Nov 3/4/94	00	128 1024	8 1	CCD FLAT	
CCD8274/75	Inboard / Outboard		Hartman	19 08		3 00 W	≈35°	ThAr	30/39
CCD82 76/77	Inboard / Outboard		Hartman	1924		3 00 W	≈35°	ThAr	30/40

CCD Spectr. Temp
Focus ...
Spectr. Temp
Exp. Mir.
825
T=43.
T=40

CCD Spectr. Temp. -100.8°C ... Dome Temp./Hum. +3.0°C ... 83% H Transparency Conditions ... Clouding in now 28i

Focus ... .248 ...

Spectr. Temp. ... Dome Temp./Hum. +3.2°C ... 83% H

MAX

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					1200 l/mm	60u W 600u H	3960 A				
825	4"	B 214	KO IIIb					4c;	Std vel		320
								3c;			
						60u width 800u Height = .185		5c;		CCD T = -101 °C	5000
						600u Height = .205					
								1/2c;	focus test	0 0 1281024 8 1 CCDFMT for Focus (Set for slightly warmer T)	
		All to Perseus & WORM.								CCD T @ TOP UP = -98.5°C	
T = +9.8°C		Set = .248 still untouched, seems Right though				60u width 600u Height		1/2c;	focus Test	CCDT = -118°C	
T = +10.0°C		set .245					3960 A	3/4	focus test	CCDT = -100°C	OK but light
							Also to	Perseus &	WORM. Nov 4/94		

289

Sun / Mon

Date 1994 Nov 6/7 ..... Observers Tn ..... Ian & Paul checking

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	Comparison Exp.	Exp. Mtr.
CCD 276 28 29	Comp / Stellar	Hartman				00 24W	34°	FeAr Clear	60/60	No Filter in
30	BIAS(4)									
31	HR 15	1994.5 00 0806	+290336	21 3138					61s	
32	Comp at HR15 position							FeAr Clear	60s	
33	Comp	@ START (Telescope pos'n)				encoders	also logged	FeAr Clear	60s	
34	Cloud / Sky	00 05	−8 45	21 4148		0432E	−8 45		825	1260
35	Comp							FeAr Clear	60s	
36	Comp							"	"	
37	HD 33328	05 0422	−08 5300	22 1500		0358E			552	2750
38	Comp							FeAr Clear	60s	
39	BIAS(4)									
→ 40 49	FLATS × 10					0350E	−17°	TUNG Ap 1/4	6sec	

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

Spectr. Temp. ccn -100°C..... Dome Temp./Hum. +6.7°C 56%H Transparency Conditions Mostly cloudy 284

Focus 6.79.....

Spectr. Temp. ..... Dome Temp./Hum. 7.66°C 63.7%H

[Caught some rain But was low down then MAX 884]

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
No filter in				CASS CCD	1800 l/mm G=6065	306u	6604Å	3/4	focus		
								1/2			
		V 2.06	*BGP Hg Mn					5	*Just a test But looked ODD as it should be?	(Tel. esope encoder normalizatn Star)	
								6			
								7			
1260	DRive	turned	off at	a 21:52				8c	Cloud near	End of when clearing Star Tel Eri	750
								9c			
								10c9			Hd 1300
2750	8"	V 4.27	B2IV	n				11c	RG pgm + (But	3.90 AIR MASS @ end "KoK" part-mostly cloudy improving → exp end)	
								12			
								1/2			
								13/14			14K
						All to WORMS Parsons and me. Tn					

nparison
er Exp.

285

Mon / Tues

Date 1994 Nov 7/8 ..... Observers ..MK/JH...t...Student Demo

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	Comparison Exp.
cc27650	BIAS(4)								
51	Comp							FeAr Clear	60s
52	SKY (Cloudy)	220230 @ START	-94045	191221		DRIVE OFF 0000	-9 41		989
53	Comp							FeAr Clear	60s
54 → 63	FLATS x10					0000	-9 41	TUNG Ap/4	6 sec
64	Comp							FeAr Clear	60s
65	SKY (Cloudy, Uniform 20 37 still)		-9 4030	194844		0201 W			991
66	Comp							FeAr Clear	60s
67	BIAS(4)								
68 69	Comp / Stellar HARTMAN					0052 E	+2910	FeAr Clear	60/60
70	Comp								
71	HR15	19945 000806	+290336	20 5442					262
72	Comp							FeAr Clear	60s
73	SKY (again)		-10 13	21 1142					
74	Comp		-10 17				-1013	FeAr Clear	60s
75	BIAS(4)								

CCD
Spectr. Tem
Focus 6
Spectr. Tem

Exp. Mtr.	
n 6/4q	
150	
020	
I=78	
2:500	

Spectr. Temp. CCD ~100°C ..... Dome Temp./Hum. +8.7°C ... 61% Transparency Conditions .. Cloudy. but dry 226

Focus .... 6.79 .....

Spectr. Temp. ..... Dome Temp./Hum. +8.0°C .... 64.5% MAX

C LAMBDA

parison Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
	no filter				CASS CCD	1800 ln/mm G=6065	60u	6604P	1/2			
60s									3			
989	1150								4	Test of Sky lines (done as an previous night)		(455 blued)
60s									5c;			
60s									6c;			<1/5t
60s									7c;			
991	1020								8c;	Sky.	Cloud not uniform at Larger Hr Ls west ie DARKER at 3hr west	
60s									9c;			
60/10	T=+8.2°C		Set	6.79					10/11	focus test.		
									12			
762	26500		V 2.06	B9P Hg Mn					14	Demo for Students	PART Cloudy	
60s									15			
					All to Persons & WORM				16	Sky again	bright Cloud	
60s									17a			
									12			

287
Mt #1

Emulsion Batches:

Date 1994 Nov 10/11 Observers [Bln] /Smt ..... iks/Bln as backup.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC27676/7	COMP/STELLAR HARTMANN					0^h	+44°	FeAr clear	40/70
678	BIAS(4)				20 40				
79	COMP							FeAr clear	60
80	HR 15	00 08 06	29 03 36	20 51 05		0^h 13 E			54
81	COMP							FeAr clear	60
82	HR 15			20 58 19		0^h 3^m E			260
83	COMP							FeAr clear	60
84	BIAS(4)				21 12				
685→704	FLAT x 20					0^h 10^m W	+29°	Tung clear	15
705	COMP							FeAr clear	60
06	BD+26 3835	20 09 36	+26 27 00	21 49 43		5^h 7^m W			1665
07	COMP							FeAr clear	60
08/09	COMP/STELLAR HARTMANN					0^h	+43°		
10	BIAS(4)				23 18				

CCD
Spectr. Temp. −100.2°C Dome Temp./Hum. 2.6°C / 57.5% Transparency Conditions: cloudy → mostly clear with 8th some fast moving clouds → increasing cloud

Focus 6.87

Spectr. Temp. ..... Dome Temp./Hum. 1.8°C / 58.5% FANS ON

430 6 50 1024 4 1 ccdfint

Exp.	Exp. Mtr. FILTER	Seeing	Pig. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion CLAMBDA	C1 P.H.	Program	Remarks	Max ADU Quality
40					CASS CCD	1800 ℓ/mm G=4558	306μ	4475Å	3/4	FOCUS TEST	hot @ col. 25!!	
									½			
60									5			
54	11 000		2.00	B9 P Hg Mn					6	α And. [Blk]	through cloud — tried to spread out signal.	4000
60									7			
260	17 430								8	α And Blk	through cloud S/N ~ 350:1	10 K
60									9			
									½		5 FAN OFF NOW	
15									10		hot shows up!!! ← well, maybe only one! was called for.	14 K → 13.5K
60									11			
345	349		8.6 −9.3	B8					12 8	Blk	through thick cloud. not much hope for it.	—
60									13		GRATING REMOVED & REPLACED	
						1800 ℓ/mm G=4558	306μ	4475Å	3/4	FOCUS TEST	6.89 @ 1.8°C	
									½			

289 Pg #2

Emulsion Batches:

Date 1994 Nov 10/11 Observers [Bln]/Smt ..... iks/Hdy as backup

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc27711	COMP							Fe Ar Clear	60
12	BD+26 3835	20 09 36	+26 27 00	23 35 02		$6^h 54^m$ W			600
13	COMP							Fe Ar clear	60
14	BIAS(4)				00 10				
15	COMP							FeAr Clear	60
16	HD37017	05 30 25	-04 34	00 24 20		$1^h 52^m$ E			900
17	COMP							FeAr Clear	60
18	COMP							"	"
19	HD1061	00 09 48	+08 16 00	01 05 17		$4^h 09^m$ W			900
20	COMP							FeAr clear	60
21	BIAS(4)				01 23				
22	COMP							FeAr clear	60
23	HD37017			01 32 41		38^m E			1260
24	COMP							FeAr clear	60
25	COMP							"	"

CCD Spectr. Temp. -100.5°C Dome Temp./Hum. 15°C/57.1% Transparency Conditions. clear again 290

Focus 6.89 N FAN ON

Spectr. Temp. Dome Temp./Hum. 430 0 50 1024 4 1 ccdfast

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
39 FILTER				CASS CCD	1800 l/mm G=4558	306μ	4475Å	14			
317	~10"	8.6-9.3	B8		Tel.	E side		15	Bln DR Vul	SEEING IS HORRENDOUS WAY LOW ON HORIZON	
								16			
								1/2			
								17			
5094	~4"	6.56	B2II					18	Bln		2600
								19		— break to get food. 10 min.	
								20			
5385	~5"	6.15 ~~6.56~~	A1s					21	Bln UV Psc		2100
								22			
								1/2			
								23			
7245	~3"	6.56	B2V					~~23~~ 18	Bln		4.3K
								~~25~~ 19			
								23			

:297
pg #3

Emulsion Batches:

Date 1994 Nov 10/11 Observers [Bln]./Smt Hdy as backup

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
				(SORRY TOM)						
CC27726	HD1061	0 09 48	+08 16	02 08 08		$5^h\ 2^m$ W			330	400
27	COMP							FeAr clear	60	
28	BIAS(4)				02 30					
29	COMP							FeAr clear	60	
30	HD37017	05 30 25	-04 34	02 37 53		$0^h\ 21^m$ W			900	5520
31	COMP							FeAr clear	60	
32	COMP							"	"	
33	HD21364	03 21 42	+09 23 00	03 03 04		$2^h\ 43^m$ W			229	19000
34	COMP							FeAr clear	60	
35	BIAS(4)				03 10					
CC40564-7	HD40722	05 55 40	+43 22 39						.067	Can, 184, S, 199 Sp, 241
68/69	"	"	"		03 27				.133	
36	COMP									
37	HD37017	05 30 25	-04 34	03 35 37		$1^h\ 24^m$ W			1200	6990
38	COMP									

CCD Speetr. Temp. ...-100.9°C... Dome Temp./Hum. 0.0°C/58.4% Transparency Conditions .. clear 292

Focus .....6.89.....

Spectr. Temp. ..... Dome Temp./Hum. -0.4°C/59.8% @ seeing test.

Comparison Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ CLAMBDA	~~P.H.~~ Ci	Program	Remarks	max ADU Quality
330	1400	~5"	6.15	A9s		Tel E		Side.	24	Bln	TOOK A WHILE TO GET TELESCOPE REVERSED	~680
60					CASS CCD	1800 l/mm G=4558	30μ	4475Å	25		Hot saturated.	
									1/2			
60									26			
900	5520		6.56	B2 V					27	Bln		2800
60									28			
"									"			
229	19000		3.66	B8p					29	Bln	hot @ 15.3K	10K
60									30			
									1/2			
.161	206, 189, 185, 199	~5"							-	SEEING TEST	DOME W, LITE NNW WIND, ABOVE 30μ CLEAR, AFTER CLOUDY STRETCH	
.133	250, 241								-	"	5 HOURS AGO. ~5" N fan on	
									26			
1200	6990		6.56	B2 V					27	Bln		3500
									28			

203
pg # 4

Date 1994 Nov 10/11 Observers [Bln] Smt Hdy. backup.

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	Comparison Exp.
CC27739	BIAS(4)				03 59				
40-59	FLAT x 20					$1^h 30^m$ W	−4°	Tung clear	15
60	COMP							FeAr clear	60
61	HD37017	05 30 25	−04 34 00	04 37 31		$2^h 28^m$ W			1300
62	COMP							FeAr clear	60
63	BIAS(4)				05 06				
CG40570-B	HD70647	8 18 00	+42 20						.067
74/75	"				05 22				.133
64	COMP							FeAr clear	60
65	HD37017	5 30 25	−04 34	05 31 50		$3^h 18^m$ W			1060
66	COMP							FeAr clear	60
67/68	COMP/STELLAR HARTMANN					$0^h 1^m$ E	+42°	FeAr clear	40/70
69	BIAS(4)				06 09				

Spectr. Temp. ..... Dome Temp./Hum. -0.6°C/60.0% Transparency Conditions ..clear..... 2024

Focus .....6.89.....

Spectr. Temp. ..... Dome Temp./Hum. -0.4°C/59.8% @ seeing test

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	max ADU ~~Quality~~
				CASS CCD	1800 l/mm G=4558	30μm	4475Å	1/2			
15								1			15.5K → 15K
60								17			
1300	6285		6.56	BZ V				18	Bln	S/N ~ 215:1	2900
60								19			
								1/2			
.067	164, 177, 157, 186		6.18	gK5				—	SEEING TEST	Dome W, light NNW wind, clear	
.133	225, 218							—	#2	above 30μm N fan on	
60								17			
1060	4686		6.56	BZ V				18	Bln		
60								19			
40/70								19/20	FOCUS TEST	comp shifted stellar stayed same } reduce to other	6.89 focus test
				All to Perseus & WRM							

295
pg #1

Fri/Sat

Date 1994 Nov 11/12 Observers [Bln] Tn / Smt

Emulsion Batches:

CSS noted to be 6 secs ahead of WWV time

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC2770 71	Comp/Stellar	Hartmann				00 13W	+45 15	FeAr Clear	60/60
72	BIAS(4)				17 45				
73	COMP							FeAr Clear	60
74	HD196504	20 37 49	+26 06 50	18 03 03		0h 41m W			560
75	COMP							FeAr Clear	60
76	Comp							"	"
77	Nova Cyg 92	20 27 43	+52 17 39	18 23 37		1h 35m W			2182
78	Comp							FeAr Clear	60
79	BIAS(4)				19 03				
80	COMP							FeAr Clear	60
81	Nova Cas 93	23 36 59	+56 57 45	19 08 30		0h 50m E			2180
82	COMP							FeAr Clear	60
CG40516-9	HD218525	23 03 36	+44 01 00						.067
80/81	"				20 00 or so				.133
83	BIAS(4)				20 00				
84-803	FLAT x 20					02h 36m W	+26° 30'	Tung V4 Ap	1

CCD Spectr. Temp. -101.8°C Dome Temp./Hum. +4.4°C 51.4%H Transparency Conditions Fine 296

Focus 6.84 FANS OFF

Spectr. Temp. ..... Dome Temp./Hum. ..... CAMBDA HR 7924 Tel normalization 5ci

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
OG560 Filter				CASS CCD	1800l/mm G=6035	306	6563Å	3/4			
								1/2			
								6			
6300	<2"	V 5.54	B9V					7	Telluric Std.		12.3K
								8			
								8E			
57	<1"	* Faint						9c	Nova Cyg 92	* ok for guiding @ 100ms integ	200 dpm 0/3
								10			
								1/2			
								11			
100	<1"							12	Bln		
								13			
225, 222, 199, 222		6.34	A0					—	SEEING TEST	DOME W, NO WIND, CLEAR, HAZE, 306μ, FANS OFF. GREAT.	
228, 237		A	"					—		"	
								1/2		spec controller failed - twice.	
								14			15.9K → 14.9K

297 pg # 2

Date 1994 Nov 11/12 Observers [Bln] rm Tn/Smt

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	Comparison Exp.
cc27804	COMP							Fe Ar clear	60
05	HD196504	20 32 49	+26 06 50	20 28 23		03 06 W			512
06	COMP							Fe Ar clear	60
07	Comp							Fe Ar Clear	60
08	HD196504	20 32 49	+26 06 50	20 43 55		03 20 W			407
09	Comp							Fe Ar Clear	60
10	Comp							"	4
11	HD180583	19 12	+27 45	20 56 33		4 55 W			502
12	Comp							Fe Ar Clear	60
13	BIAS(4)		=	21 08					
14	Comp							Fe Ar Clear	60
15	HD335970	20 08 27	+32 34 16	21 12 01		4 40 W			2033
16	Comp							Fe Ar Clear	60
17	Comp							"	"
18	HD 203156	21 15 24	+37 49	21 52 46		3 45 W			300
19	Comp							Fe Ar Clear	60

CCD Speetr. Temp. -100.5°C Dome Temp./Hum. 2.4°C / 63.7% Transparency Conditions CLEAR... BETTER THAN FINE! 2900

Focus 6.84 Pg #2

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

Comparison Exp.	Exp. Mtr. Filter	Seeing	V Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion CLAMBDA	P.H. CI	Program	Remarks	Quality
60					CASS CCD	1800 ℓ/mm G=6035	306μ	6563 Å	15			
512	6000	1-2"	5.59	B9V					16	Telluric Std.	Air mass- 1.30@start	12.5K
60									17			
60						1800 ℓ/mm G=5940		6400 Å	18			
107	4660	2"	5.59	B9V					19	Telluric Std.		10.5K
60									20			
4									30			
507	4830	3"	6.19	F6I-II					21	Rmpgm	V473 Lyr	10.5K
63									22			
									1/2			
60									22			
2033	1380	1-2"	9.1 -9.8	F8 -G2Ib					23	Rmpgm	MW Cyg	7K
60												
4									24			
300	4590	1½"	5.8 -5.9	F2					25	Rmpgm		9.5K
60												

299
pg#3

Emulsion Batches:

Date 1994. Nov. 11.12..... Observers [Rm.]...T.A./Swt.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC27820	BIAS(4)								
21	Comp							FeAr Clear	60s
22	HD214975	22 36 54	+56 M	22 12 28		3 13 W			
23	Comp							FeAr Clear	60s
24	Comp							"	"
25	VY Per	02 20 19	+58 28 04	22 56 04		0 12 W			2225
26	Comp							FeAr Clear	60s
27	BIAS(4)			23 36					
28	VY Per	02 20 19	+58 28 04	23 37 27		0 57 W			2046
29	Comp							FeAr Clear	60s
30	Comp							"	"
31	HD22L368	23 34 48	+5 05	00 21 56		3 52W			168
32	COMP							FeAr Clear	60
33	BIAS(4)				00 30				
34	COMP							FeAr Clear	60

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

Exp. Mtr.	
CG560 Filter	
278	
277	
275	

Spectr. Temp. CCD −100.5 °C Dome Temp./Hum. +2.3°C 67.5% Transparency Conditions .. Fine, some haze 300

Focus ... 6.84 ...

Spectr. Temp. ... Dome Temp./Hum. ... c LAMBDA

pg#3

MAX

Exp. Mtr.	Seeing	Pg Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
OG560 Filter				CASS CCD	1800 l/m G=5410	30µ	6400Å	1/2			~~75K~~
								26			
278	2"	8.40	GOI6					27	Rm pgm		4.4K
								28			
								29			
277	1"-2"	10.8 −11.66	F5 −~~F9~~					29c.	Rm pgm -	increasing cloud 65/1 S/N	350 above background
								30s			
								1/2			
275	1-2"	10.8 −11.66	F5 −F9					7c.	Rm pgm	Clearer This time	
								10c.			
?	3"	4.13	FTV					12	Std vel		
								13			
								1/2			
								15			

30T pg #4

Date 1994 Nov 11/12 Observers [Rm]/Tn/Smt

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	Comparison Exp.	Exp. Mtr.
cc21835	HD25361	03 56 42	+58 23	00 45 37		$0^h 18^m$ W			1800	5895
36	COMP							Fe Ar Clear	60	
37	BIAS(4)				01 20					
38	COMP							Fe Ar Clear	60	
39	HD30282	04 41 05	+36 32 36	01 24 34		$0^h 09^m$ W			1500	4500
40	COMP							Fe Ar Clear	60	
41	COMP							"	"	
42	HD44990	06 19 48	+7 08	01 59 03		$1^h 4^m$ E			900	5250
43	COMP							Fe Ar Clear	60	
44	BIAS(4)				02 17					
45	COMP							Fe Ar Clear	60	
46	HD32963	05 01 48	+26 12 00	02 23 24		$0^h 55^m$ W			1900	5175
47	COMP							Fe Ar Clear	60.	
48	BIAS(4)				03 08					
49	COMP							Fe Ar Clear	60	

Spectr. Temp. ..... Dome Temp./Hum. +1.0°C / 71.5% Transparency Conditions ..clear.., little hazy 302

Focus .....6.84.....

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

pg #4

Comparison Exp.	Exp. Mtr.	Seeing	~~Ptg.~~ V Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ clamshell	~~P.H.~~ Ci	Program	Remarks	Quality
1800	5845		7.30 -8.07	F6Ib -G2Ib	CASS CCD	1800 l/mm G=5910	306μ	6400 Å	16	Rm RX Cam		13.3K
60									17			
									½			
60									18			
1500	4500		B=7.9 -8.8	F6 -G1					19.	Rm AW Per		9.6K
60									20			
"									20			
900	5250		B=6.5 -8.0	F7Iab K1Iab					21	Rm T Mon		13.7K
60									22			
									½			
60									24			
1900	2175	3"-4"	7.72	G2IV					25	RV Std.		4.4K
60.									26		ope Contr. reset itself.	
									½			
60									28			

303
pg #5

Date 1994 Nov 11/12 Observers [Rm] Tn [Smt]

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	Comparison Exp.
cc21850	HD42818	06 07 48	+69 21	03 11 59		$0^h 6^m$ W			300
51	COMP							FeAr Clear	60
52	COMP							"	"
53	HD29587	04 34 30	41 57 00	03 28 14		$2^h 18^m$ W			1400
54	COMP							FeAr Clear	60
55/56	COMP/STELLAR	HARTMANN				0^h	+42°	FeAr Clear	60/60
57-66	FLAT x 10					"	"	Tung & Ap	7
67	BIAS(4)				04 13				
68/69	COMP/STELLAR	HARTMANN				0^m	+42°	FeAr Clear	40/70
70	COMP							FeAr Clear	60
71	HD42111	06 03 48	+02 31 00	04 48 27		$1^h 52^m$ W			300
72	COMP							FeAr Clear	60
73	HD42111 (comparison)			04 57 13		$1^h 59^m$ W			200
74	COMP							FeAr Clear	60
75	BIAS (4)				05 08				

CCD Spectr. Temp. −101.3°C Dome Temp./Hum. +0.4°C / 79.7% Transparency Conditions Little bit of thin cloud. 30th pg 5

Focus 6.84 / 6.92

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

ccdfmt 415 0 50 1024 4 1

Comparison Exp.	Exp. Mtr. FILTER	Seeing	V ~~Pos.~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ CCAMBO4	~~P.H.~~ Ct	Program	Remarks	max ADU Quality
300	4190	3-4"	4.80	A0Vn	CASS CCD	1800 l/mm G=5410	306μ	6460Å	29	Telluric Std.		13.9K
60			~~4.80~~	~~A0Vn~~					30			
11									11			
1400	3000		7.29	d62					12	RV Std.	CCD STARTING TO WARM AT END OF EXPOSURE	6.1K
60									13		CCD T = −95°. ∴ PARTIAL TOPUP	
60/60					T=10.2°	6.84 FOCUS			17/18	FOCUS TEST	DURING FOCUS TEST.	
7									14		FILL TUBE STILL IN, RISE 14.8K IS THAWING.	→15.9K
									½			
40/40	BG 39 FILTER				CASS CCD	1800 l/mm G=4558	306μ	4475Å	3/4	FOCUS TEST	430 0 50 1024 4 1 ccdfmt 6.92 @ +0.5°C	
60									6			
300	2000	5"	5.73	A3Vn					7	Wde A-Stell	brightest of triplet. S/N > 100	1100
60									8			
200	636		~6.9						9	Wde A-Stell	2nd brightest one	450
60									10			
									½			

305 pg #6

Date 1994 Nov 11/12 Observers [Wde.] Tn / Smt

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	Comparison Exp.
cc27876	COMP							FeAr clear	60
77	HD66141	07 57 06	+2 36	05 27 03		00 44 W			682
78	COMP							FeAr clear	60
79	Comp							"	"
80	HD77190	08 55 54	+28 18	05 46 21		00 01 W			528
81	Comp							FeAr Clear	60
82 →90	FLATS x 9					00 05W	+28°	TUNG Clear	15s
91	BIAS(4)								
92 /93	Comp / Stellar HARTMAN					00 05W	+28°	FeAr Clear	40/70
	1994 Nov 12/13	Focus Tests		Scaling / Tilt Relation,					
cc27894 /95	Comp / Stellar HARTMAN			23 04		00 12W	+30°	FeNe Clear	30/50
cc27896 /97	FLAT							TUNG Clear	10s
cc27897 /98	Comp / Stellar HARTMAN							FeNe Clear	30/50
99	FLAT							TUNG Clear	10s
cc27900	BIAS (4)								

CCD
Spectr. Temp. −101.2°C Dome Temp./Hum. −0.2°C / 84.3% Transparency Conditions clear., high humidity 306

Focus 6.92

Spectr. Temp. ..... Dome Temp./Hum. 0.00 83.6%H

Exp.	Exp. Mtr. FILTER	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ CLAMBDA	P.H. Ci	Program	Remarks	max ADU Quality
60					CASS CCD	1800l/mm G=4558	306u	4475Å	11			
682	12000	2"-3"	V 439	K2IIIb +F2-0.5					12	Stdvel		5.8K
60									13			
4									14			
528	4910	3"	V 607	A8V n					15	Wide A star		22K
68									20c;			
15s									15			15K
									1/2			
4/20	T= 0.00								24/26	focus test		
					All to Perseus & WORM						CCD FINT 415 050 1024 4	
30/50	T= +6.7°C	set 6.95				1800l/mm G=4558	306u	4475Å	1/2	focus Test T. CCD T = −100°C		
10s									3			
30/50	T= +6.7°C	set 6.85							4/5		In focus @ Row # 438	
10s									6			
									7c;			

367

Continued from end of last page

Date 1994 Nov 12/13 ... Observers 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	Comparison Exp.
cc2790/02	Comp/Stellar	HURTMAN				00 12W	+30°	FeNe Clear	30/50
03/04	Comp/Stellar	HURTMAN						FeAr Clear	60/60
05/06	"		"					"	"
07/08	Comp/Stellar	HURTMAN		[FOR This set,	The focus set was taken To High number,			TUNG Ap 1/4	5 sec
09	FLAT								
10/11	Comp/Stellar	HURTMAN				00 12W	+30°	FeAr Clear	40/60
12/13	" "	"				"	"	"	"
14	FLAT							TUNG Ap=1/8	6 s
15	BIAS								
16/17	Comp/Stellar	HURTMAN						FeNe Clear	10/20
18/19	"	"			00 40				10/20
20	FLAT							TUNG Clear	10 s

Spectr. Temp. ..... Dome Temp./Hum. +6.7°C .. 74% H Transparency Conditions .....

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. +6.7°C .. 75.5% H

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Set	6.75	T= 6.7°C		CASS CCD	1800 l/mm G=4310	306u	4101Å	8/9ci	focus tests		
Set	6.75	T= 6.7°C			1800 l/mm G=6130		6670Å	10/11			
"	6.65	T= 6.7°C			"		"	12/13			
										Note All up to This point were set by progressively setting to lower set numbers.	
	6.85	T= 6.7									
and then	set to		6.85	from much higher set # (backlash)				14/15			
								16c			
+6.7°C		Set 7.00		CASS CCD	600 l/mm G=3110	306u	6600Å	17/18	focus test * Firm	* 450 0 20 1024 41 CCOFMT Note. Nov 26, about mounting of grating and effect on Y Origin	
+6.7°C		6.80						19/20			
								21		MAX 11K ADU	
								22			
+6.7°C		7.10			600 l/mm G=2510		3600Å	23/24	C Grating		
+6.7°C		6.90						25/26			
								27		MAX 10K ADU	

307 pg #1

Emulsion Batches:

Date 1994 Nov 15/16 Observers Blk/Tn

CSS 14 secs ahead of WWV Time

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC279 21/22	Comp/Stellar Hartman					00 28W	+45 13	FeAr Clear	40/70
23	BIAS(4)								
24	Comp							FeAr Clear	60s
25	HD192518	20 10 12	+28 24	17 55 58		01 13W			595
26	Comp		(CSS 386 Time set to correct WWV Time)					FeAr Clear	60s
27	Comp							FeAr Clear	60s
28	HD210459	22 05 33	+32 41 15	18 15 31		00 27E			347
29	Comp							FeAr Clear	60s
30	BIAS(4)								
CG40 582 585	HD207754	21 46 12	+43 25					4x	67ms
CG40 586 587	HD207754					00 05W	+43 50	2x	133ms
CC279 31	Comp							FeAr Clear	60s
32	BD+26 3835	20 09 36	+26 27	18 44 00		02 41W			289
33	Comp							FeAr Clear	60s
34	BIAS(4)								

CCD
Spectr. Temp. —100°C Dome Temp./Hum. +6.1°C 58% Transparency Conditions Part cloudy 3.10

Focus 6.90

CCD
Spectr. Temp. —100.3°C Dome Temp./Hum. +4.4°C 65.5% C LAMBDA

415 0 50 1024 4 1 CCDFLAT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	MAX Quality ADU
BG 39 Filter in				CASS CCD	1800 l/mm G-1558	30μ	4475 Å	3/4c	focus.		
								1/2			
								5c			
10,800	4"	B= 536	A7 III n					6c	Wide A shell pgm	(S/N ≈ 250/1)	4.7K
								7c			
								8c			
12,800	4"	B 4.75	F5 III					9c	A shell pgm (wide)		5.0K
								10c			
								11/2c			
					Above	30μ	S/H		Seeing Test Dome West, no wind		
		V 7.32	K0 III		"	"	"		" "	NO FANS Tonight.	
								11			
1720	4"	8.6 -9.3	B8					12	B/n pgm	Intermittent cloud around 19:20 S/N 100/1	
								13			
								1/2			

3.19
pg#2

Emulsion Batches:

Date 1994 Nov 15/16 Observers Blair / Tan

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC27935	Comp			1941				FeAr Clear	60s
36	HD222368	23 3448	+5 05	194250		0024E			681
37	Comp							FeAr Clear	60s
38 – 46	FLATS x 9					0020E	+20°	TUNG Clear	13s
CC27947	BIAS(4)								
48	Comp							FeAr Clear	60s
49	HD2364	03 2142	+9 23	20 2023		0333E			677
50	Comp							FeAr Clear	60s
51/52	Comp / Stellar	HARTMAN				0026	+17°	FeAr Clear	40/70
53	BIAS(4)								
54/55	Comp / Stellar					0016E	34°	FeAr Clear	20/40
56	Comp							FeAr Clear	40
57	HD206267	21 3554	+5702	210403		254W			392
58	Comp							FeAr Clear	40
59	BIAS(4)								

CCD
Spectr. Temp. −100.3°C ..... Dome Temp./Hum. +4.3°C 66% H Transparency Conditions . Half cloudy 3/2

Focus . . 6.90 .....

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

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks For 1800 l/mm	Quality
BG 39				CASS CCD	1800 l/mm G=4558	30u	4475Å	14			
9000	4"	V 4.13	F7V					15	Std vel	some cloud ~~STK 7 Oct~~	MAX 5K
			B					16			
								17		12.6 to 404 max	
								1/2			
								18			
20350	6"	B 3.66	B8p					19	Bln pgm	some cloud	MAX 9K
								20			
T = +40°C, Set 6.90				1800 W/mm	~~600 l/mm G=2650~~	30u	~~4475 4300Å~~	3/4		~~not std Y orig. 450 0 50 1024 4 1~~	
					600 l/mm		4300Å	1/2		CCDT = −99.3°C	
T=40, Set 6.96					G 00 l/mm G=2650			3/4	focus Test	*450 0 50 1024 4 1 CCD FMT.	
MAX = 2K for comparison								5		(*430 more std)	
4000	4"	5.83	065V					6	0 star pgm	ΔR −00 0016 ΔS −00 00 48 S/N 300/1	MAX 7.5K
								7			
								1/2			

313 pg#3

Date 1994 Nov. 15/16 Observers Bka / 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	Comparison Exp.
cc27960	Comp							FeAr Clear	40s
61	HD 206183	21 35 18	+56 32	21 17 14		3 21 W			1187
62	Comp						+53° Ap=1/2	FeAr Clear	40
63 – 65	FLATS x 3					2 10 W		TUNG ~~Ap Clear~~ FeAr Clear	8 sec 60s
66	Comp								
67	HD 218915	23 06 42	52 31	22 12 02					1720
68	Comp							FeAr Clear	60s
69	BIAS(4)			23 49					
70	Comp							FeAr Clear	~~40~~ 60s
71	HD 5005	00 47	+56 05	22 55 52		2 10 W			26
72	Comp							FeAr Clear	40s
73	Comp							FeAr Clear	40
74	HD 17505	02 43 24	+60 01	23 49 12		0 48 W			167
75	Comp							FeAr Clear	40
76	BIAS(4)								

Spectr. Temp. ..... Dome Temp./Hum. +3.8°C 69% Transparency Conditions O.K. - (Full moon Bright)

Focus G-96 .....

Spectr. Temp. ..... Dome Temp./Hum. +3.8°C 69% CCDFmt 450 0 50 1024 4 1

* Not proper Y origin use 430

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
BG39 Fi Hear				CASS CCD	600m G-2650	306	4300Å	8			
2750	5-8"	7.54	09.5V					9	Blu 0*		
								10			
								11		MAX 15.6K ADU	
								14	CCDFmt Changed. 430 0 50 1024 4 1		
5040		7.20	09.5 Tab					15	0* Blu	Thin cloud for part of exposure	8K
								16			
								18			
2700	6"	B 7.85	06.5V					19	Blu 0*	2 close companions ? to South & Southeast	S/N 250/1
								20			
								20			
2850	4-8"	B 7.46	06.5 V(F)					21	Blu 0*	some cloud	
								22			

.315 Pg #4

Emulsion Batches:

Date 1994 Nov 15/16 .... Observers [B.L.] 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	Comparison Exp.
cc27977	Comp							Fe Ar clear	40
78	HD3712	00 34 48	+55 59	00 31 12 ~~00 37 02~~		3 ~~W~~ W		37 secs	~~60~~ 37 secs
79	Comp							Fe Ar clear	40
80 – 82	FLATS x 3					3 18 W	+56°	TUNG Apl/2	8 sec
83 84	Comp / Stellar Hartmann					0 0	+29°	Fe Ar clear	40/70
85	B/AS(4)								

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

Exp. Mtr. Filter

BG39
3 17k

CCD
Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ..... Part. clouds, South Part 236

Focus ... 6.96 .....

Spectr. Temp. ..... Dome Temp./Hum. 1 36°C 73% Note "Hot" pixel, Row #144 effects columns 430, 0 50 1024 4 1 CCDFMT
19 through 29 in This CCDFMT

Exp. Mtr. Filter	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
BG39 3.7k					600 l/m G=2650	306μ	4300Å	23			
~~B~~		V 2.23	KOMEA					~~23~~	Std Vel	26c	
								27			
								28		MAX 15K ADU	
J= 3.6°C set 6.96						306μ		29/30	focus test	(Just about Right)	
								1/2c.	- Then Topup		
				All to wgpm & Perseus.							

Comparison Exp.
40
~~40~~ 30s
40
8sec
20/30

317
pg #1 Wed / Thurs

Date 1994 Nov. 16/17 .... Observers ..Tn .[.Bln] .....

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	Comparison Exp.	Exp. Mtr.
CC279 86/87	Comp / Stellar	HURTMAN				00 14W	+45 16	FeAr Clear	60/60	CC580 Filter
88	BIAS(4)									
89	Comp							FeAr Clear	60s	
90	HD 187235	19 43 54	+38 09 00	18 06 32		01 54W			543	4420
91	Comp							FeAr Clear	60s	
92	Comp							"	"	
93	HDE 235679	→ It's in Encoder HD catalogue 21 55 00	+54 00	18 22 52		00 33W			7566	1600
94	Comp							FeAr Clear	60s	
95	BIAS(4)									
96	Comp							FeAr Clear	60s	
97	HD 217675	22 57 18	+41 47	19 14 48		00 20E			65s	4200
98	Comp							FeAr Clear	60s	
99 CC28018	FLATS x20					00 10E	+42 17	Tung H1/4	6s	
28019	Comp							FeAr Clear	60s	
20	HD 223094	23 41 30	+28 09	19 43 46		00 31E			300s	2460
21	Comp							FeAr Clear	60s	

CCD
Spectr. Temp. -100°C ..... Dome Temp./Hum. 5.9°C 57.5% Transparency Conditions ... Fine ..... 318.

Focus ... 6.83 .....

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

CCD FMT (goal column centering)
CLAMPA 415 0 50 1024 4 1

Exp. Mtr.	Seeing	Fig. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
OG560 Filter				CCD	1800 l/mm G=6065	30μ	6604Å	3/4	focus		MAX ADU
								1/2			
								5c:			
4420	2-3"	5.77	B8V					6c:	Telluric Std	Air Mass = 1.07	7.4K
								7c:			
		V 8.86	~~B25V~~					8c:	Sp Bin Blk		
1600	2-3"	V 8.86	B2.5V					9ci	Sp Bin Blk	A+H →	9.0K
								10c:			
								11c:		CCD T = -100.4°C	
								11			
4200		3.63	B6p					12	Rg pgm		
								13			
								14			13K
								15			
2460	2"	7.45	K5III					16	Std Vel		6K

319 pg #2 Wed/Thurs

Date 1994 Nov 16/17 Observers [B.M.] T.A.

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
CG40588 – 91	HD 223094	23 41 30	+28 09	19 54				4x	.067	
CG40592 – 93	"	"	"			00 24 E	+28 40	2x	.133	
CC28022	BIAS (4)									
23	Comp							FeAr Clear	60s	
24	HD 187235	19 43 54	+38 09	20 04 16		03 57 W			837	6300
25	Comp							FeAr Clear	60s	
26/27	Comp/Stellar Hartman for 6604A					04 00 W	+38 23	FeAr Clear	60/60	3.6°C
28/29	Comp/Stellar Hartman for 4475A					04 15 W	"	FeAr Clear	40/70	3.6°C 24 meter Filter #5739
CC28030	Comp							FeAr Clear	60s	
31	HD 192518	20 10 12	+28 24	20 47 33		04 04 W			561	4pk
32	Comp							FeAr Clear	60	
33	BIAS (4)									
34	Comp							FeAr Clear	60s	
35	HD 210459	22 05 30	+32 41	21 00 37		02 22 W			311	1344
36	Comp							FeAr Clear	60s	

Spectr. Temp. ..... Dome Temp./Hum. +4.0°C ... 70.8% Transparency Conditions ..... FINE 320

Focus 6.83 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... ONLY NE FAN on by now MAX

Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	2"	7.45	K5III		Above 306 slit				Seeing	Dome SSW, Light EAST wind	
				CASS CCD	1800 l/mm G=6065	306	6604Å	1/2			
								18			
6300	2"	5.77	B8V					19	Telluric Std	AIRMASS = 1.34	10.5K
								20			
3.6°C	Set 6.83		still					20/21	focus test		
3.6°C (Exp meter Filter) BG39	Set 6.92			CASS CCD	1800 l/mm G=4556	306	4475Å	22/23		422 0 50 1024 4 1 CCD FMT S/N 2250/1	IDEAL
								24			
≈10K	2-3"	B 5.36	A7IV					25	A shell wide.		
								26			
								1/2			
								26			
13.4K	2-3"	B 4.75	F5III					27	A shell wide		6.2K
								28			

32A pg#3

Emulsion Batches:

Date 1994 Nov 16/17 Observers [Bh/Wde] JN Plate SS 386 Time 1.2 secs. a kadd 4 WW

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
CC28037	Comp							FeAr Clear	60s	E639
38	HD222368	233448	+5 05	211345		01 05 W			275	2000
39	Comp							FeAr Clear	60s	
40	Comp							"	"	
41	HD21364	032142	+9 23	212857		02 28 E				3550
42	Comp							FeAr Clear	60s	
43	Comp							"	"	
44	HD37017	053025	-4 34	214043		04 07E			1224	3700
45	Comp							FeAr Clear	60s	
46	BIAS(4)									
47	Comp							FeAr Clear	60s	
48	HD1061	000948	+8 16	221152		01 37W			810	5900
49	Comp							FeAr Clear	60s	
50	HD1061	00 09 48	+8 16	222813		01 52W			733	6200
51	Comp							FeAr Clear	60s	

Spectr. Temp. ..... Dome Temp./Hum. +2.8°C ... 74% H Transparency Conditions ... Fine 322
But Full Moon
Focus .... 6.92 .....
Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
BG 39				CHSCCD	1800m G=4558	306μ	4475B	28			max
12000		V 4.13	F7V					29	Std Vel		6K
								30			
								31	Blk pgm		
20,550		B 3.66	B8p					6c	" "	ABOUT 15° FROM FULL MOON SKY VERY CLEAR THROUGH	10K
								7c			
								8		South end of many	
3700	5"	6.56	B2V					9c	Blk pgm		1.5K
								10c			
								11c		CCD T = −100.4°C	
								11			
5400	4"-2"	6.15	A9s					12	Blk pgm	Phase tele covered	S/N 180/1
								13			
6200	2"-3"	6.15	A9s					16	Blk pgm	" " "	
								15			

323 pg#4

Emulsion Batches:

Date 1994 Nov 16/17 Observers [B.M.] 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	Comparison Exp
CC28052	HD1061	00 09 48	+8 16	22 43 04		2 07 W			725
53	Comp							Fe Ar Clear	60s
54	HD1061	00 09 48	+8 16	22 58 10		2 23 W			787
55	Comp							Fe Ar Clear	60s
56	BIAS (4)								
57	Comp							Fe Ar Clear	60s
58	HD37017	05 30 25	-04 34	23 20 20		2 33 E			910
59	Comp							Fe Ar Clear	60s
60	Comp							"	"
61	HD112028	12 48 24	+83 57	23 45 25		9 31 E			398
62	Comp							Fe Ar Clear	60
63	Comp							"	"
64	HD372	00 34 48	+55 59	00 00 17		2 48 W			50
65	Comp							Fe Ar Clear	60s
66	BIAS (4)			00 08					

Spectr. Temp. ..... Dome Temp./Hum. 11.9°C ... 76% Transparency Conditions Fine 3224

Focus .... 6.92 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... 472 0 50 1024 4 1 CCDFMT

Comparison filter	Comparison Exp.	Exp. Mtr. BG 39	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	125	6,500	2"	615	A9s	CASSCCD	1800 l/mm G-4558	306u	4475Å	17ci	Bln pgm	Hot pixel at co/026	MAX ADU
	64s									18ci			
	787	6 500		615	A9s					19	Bln pgm		
	64s									24			
										1/2			
	60s									5ci			
	910	5000	3"-4"	656	B2V					6ci	Bln pgm	~~15 +00 00 45~~ 15s	2.6K
	60s									7cc			
	4									7ci			
	398	7640	3"-4"	B 525	A1 III	Shell				8ci	Shell Astar Wide	Δα +00 00 45 Indeed Δδ −00 01 15 The South one	5.0K
	60									10ci			
	1												
	50	12K	2	V 2.23	K0 III a					12	Std Vel for Wide	(Fast guided up & Down N & S)	7.5K
	64s									13			
										1/2			

325

Dy #5

Date 1994 Nov 16/17 Observers [Blitz/Wade] TG

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	Comparison Exp
cc28067	Comp							FeAr Clear	60s
68	HD37017	05 30 25	-04 34	00 11 53		01 52 E			159
69	Comp							FeAr Clear	60s
70	HD37017	05 30 25	-04 34	00 20 05		01 38 E			613
71	Comp							FeAr Clear	60s
72	Comp							"	"
73	HD42111	06 03 48	+2 31	00 37 45		01 57 E			431
74	Comp							FeAr Clear	60s
75	HD42111 B	06 03 48 ?	+2 31 ?	00 48 26		01 38 E			
76	Comp							FeAr Clear	60s
77	B/115(4)			01 06					
78	Comp							FeAr	60s
79	HD37017	05 30 25	-04 34	01 11 15		00 43 E			837
80	Comp							FeAr	60
81	Comp							"	"

CCD
Spectr. Temp. −100.5°C ... Dome Temp./Hum. +1.7°C ... 70.3%H Transparency Conditions. Fine ... s/haze 326
Focus ... 6.92 ... Rel Humidity actually going down
Spectr. Temp. ... Dome Temp./Hum. +1.9°C ... 72%H

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
BG 39					1800h G=4558	306	4475A	15			MAX 404
1200	4"	6.56	B2V					16	Bln pgm	Spectrograph control failed — terminated early.	
								18			
5780	3"							16	Bln pgm		
								5c;	[illegible]		
								5c;			
6850	3"	5.80	A3V n					17c;	A shell Wide		4+
								5c;			
4900	2.3"	=69						25	Companion — Also taken by Smt Nov 12		
								5			
								1/2			
								5			
6100	2.4"	6.56	B2V					6	Bln pgm	5' South of slightly Brighter Star.	3.0k
								7			
								7			

327 pg #6

Date 1994 Nov 16/17 Observers [Blundell] ... Ty

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	Comparison Exp.
CC 28082	HD 77190	08 55 54	+28 18	01 35 18		03 48 E			673
83	Comp							FeAr Clear	60s
84	Comp							"	"
85	HD 37017	05 30 25	-04 34	01 55 57		00 03 W			911
86	Comp							FeAr Clear	60s
87	BIAS (4)			02 13					
88 → CC 28107	FLATS x 20			02 14		00 05 W	-4 33	JUNG Clear	13s
108	Comp							FeAr Clear	60s
109	HD 37017	05 30 25	-04 34	02 38 01		00 46 W			956
110	Comp							FeAr Clear	60s
111	BIAS (4)			02 57					
112	Comp							FeAr Clear	60s
113	HD 88195	10 05 09	-7 55 01	03 22 47		03 08 E			714
114	Comp							FeAr Clear	60s
115	Comp							"	"

CCD Spectr. Temp. −100.4°C Dome Temp./Hum. +1.9 77% Transparency Conditions Sl. hazy 328

Focus 6.9.2

Spectr. Temp. Dome Temp./Hum. +1.3°C 76%H

Exp. Mtr. BG 39	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality (max)
6950	4"	6.07	A8V$_n$	CASS CCD	1800h G=4556	306u	4475Å	8c	A shell wide		4.3
								6			
								5c;			
6200	3"-4"	6.56	B2V					6c;	Bln pgm		
								5c;			
								1/2		CCDT −100.3°C	
								2			13.6 h
								7c.			
6350	3"	6.56	B2V					6c;	Bln pgm		
								7c;			
								1/2		CCDT = −99.6 °C	
								5		Then Topup just in case	
4570	4-5"	B 5.93	A1V					9	A shell Wide	Spectr contr failure during exposure S/N 170/1	
								10		Should be no problems with this. Just	
								10		slight delay to get test comparison on.	

329 pg #7

Emulsion Batches:

Date 1994 Nov 16/17 Observers [Blundell] 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	Comparison Exp
CC28116	HD 37017	05 30 25	-4 34	03 42 29		01 52 W			1042
17	Comp							FeAr Clear	60
18	BIAS (4)								
19	Comp							FeAr Clear	60
20	HD 98058	11 11 35	-30 6 18	04 07 50		3 36 E			305
21	Comp							FeAr Clear	60
22	Comp							"	"
23	HP 37017	05 30 25	-4 34	04 20 19		2 30 W			1051
124	Comp							FeAr Clear	60
125									
126	Comp / Stellar	HUA TIN AN				0 0	+13°	FeAr Clear	40 1/2
127	BIAS (4)								

CCD
Spectr. Temp. -100.4 °C Dome Temp./Hum. ..... Transparency Conditions ... Slight Haze 330

Focus ... 6.92 .....

Spectr. Temp. ..... Dome Temp./Hum. +00.7°C 81%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
6100	3"	6.56	B2V		1800 G=4558	306	4475	6	Blk pgm		
								5c:			
								1/2			
								7			
7300	4"	B 4.68	A7IVn					8	A Shell Wide		MAX 3.2K
								10			
								10			
5300	5-6"	6.56	B2V					6	Blk pgm		
								5c:			
								3/4	Focus test		
T= 00.7°		Set 6.92						1/2			
				All to WORM & Perseus.							

331

Date 1994 Nov 17/18 Observers Km/Smt

Emulsion Batches:
GG 389 FILTER IN STELLAR TRAY
OG 560 " " COMP "

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
CC28128/9	COMP/STELLAR HARTMANN							Feat Clear	60/6'	
130	BIAS (4)									
131	COMP							Feat clear	60	
132	BD+57 2735 (VBS 211)	23 1P 54	+57 20 00	19 07 19		-0h 37m E			380	310
133	COMP							Feat clear	60	
134	COMP			19 50 39				"	60	
135	AC +69 173	00 ~~21 09~~	~~+68 35 29~~	19 ~~55~~ 21		-0 47 E			830	300
136	COMP							"	60	
137	BIAS (4)									
138-140	FLAT x 3		GG 389 FILTER IN COMP FOR FLATS			4 3m E	+70°	Tung 1/4 Ap	4	
141-143	FLAT x 3			"		"	"	"	"	
144	COMP		OG 560 FILTER IN		COMP AGAIN			Feat Clear	60	
145	AC +9 2-34 (VBS 356)	00 13 08	09 38 50	20 46 18		0 15 W			920	333
146	COMP							Feat Clear	60	
147	BIAS (4)									
~~148~~	~~BIAS (4)~~									
148-167	FLAT x 20		GG 389 FILTER IN COMP FOR FLATS			0h	+41°	Tung 1/4 Ap	3	

CCD Spectr. Temp
Focus
Spectr. Temp

CCD ~~Spectr~~. Temp. -101.2°C Dome Temp./Hum. 5.7°C / 62.1% Transparency Conditions ... thin cloud in some spots 332

Focus ..... 6.90 ..... DOME FANS OFF.

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

400 0 50 1024 41 ccdfint

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	~~P.H.~~ C.	Program	Remarks	~~Max 400 Quality~~
				CASS CCD	1200 l/mm G=4500	306μ	6563 Å	3/4	FOCUS TEST		
								1/2			
60								5			
300		10.05	M2e					6	Km Hα	no obvious Hα emission S/N~ 65/1	1200
60								7			
										390 0 50 1024 4 1 ccdfint	
60								8			
830		10.4	MO					9	Km Hα {V45}	no obvious Hα emission	
60								10			
								1/2			
4								11		@ 390 ... ccdfint	16K → 15.7K
"								12		@ 400 ... ccdfint.	MS 75 # → 15.3K
60								13		415 0 50 1024 4 1 ccdfint	
920		10.4	MO	GG385	IN STELLAR BEAM AGAIN			14	Km {V45} Hα	(WAS dyslexic & read off noise instead of a real comp column)	
40								15			
								1/2		CLOUDED IN FAST!! FROM THE S.	
3								16			13K → 12.1K

333
pg #2

Date 1994 Nov 11/18 Observers Km / Smt

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	Comparison Exp.
CC 2818 ~~89~~	COMP			00 39				Fe Ar clear	60
169	HD 36395 (Vys 9)	05 26 18	-3 41 00	00 39 53		-1 17 E			160
170	COMP							Fe Ar clear	60
171	BIAS (4)				00 46				
172	COMP								
173	AC +16 777 -16 (Vys 467)	05 36 15	15 18 54	00 54 50		-1 05 E			680
174	COMP								
175/6	COMP / stellar Hartmann					0^h	+41° 35′	Fe Ar clear	60/60
178	BIAS (4)				02 00				

CCO Spectr. Ten
Focus.....
CCO Spectr. Ten

Exp. Mtr.
430
330

CCD Spectr. Temp. -100.4°C Dome Temp./Hum. 7.6°C / 63% Transparency Conditions Thin cloud / thick haze 334

Focus 6.90

CCD Spectr. Temp. -101.2°C @ CLOSE Dome Temp./Hum. 7.2°C / 63.8% @ FOCUS TEST FANS OFF

415 0 50 1024 4 1 adfut

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				"	"	"	"	17			
430		7.97	M1					18	Km $\frac{EUV}{H\alpha}$		
								19			
								20			
								1/2			
330		10.61	M0					21			
								22		CLOUDED OVER AGAIN TOPPED UP POWER BEFOREHAND	
								23/24	FOCUS TEST		
								1/2			
		All to		WORM & Perseus							

333 pg # 8

Emulsion Batches:

Date 1994 Nov 18/19 Observers Km/Smt

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC28178/9	COMP/STELLAR HARTMANN							FeNe clear	20/20
180	BIAS (4)				22 17				
181	COMP							FeNe clear	30sec
182	HD 222404 (Cep)	23 35 14	77 04 27	22 29 57		2 27 W			97sec
183	comp							FeNe clear	30
184	COMP							FeNe clear	30
185	HD 4817	00 45 18	+61° 16′	22 46 32		1 45 W			780sec
186	COMP								30
187	BIAS (4)				23 22				
188	COMP								30
189	HD 6130	00 57 24	60° 32′	23 28 55					480
190	COMP			23 38 50					30
191	COMP			23 48 49					30
192	HD 10465	01 37	+48 01′	23 50 50		1 50 W			600
193	COMP								30
194	COMP								30
195	HD 23475	03 40 24	+65 13′	00 12 07		0h 2m W			240

CCD
Spectr. Temp. -100.4°C Dome Temp./Hum. 9.9°C / 45.4% Transparency Conditions bright moon, ~~fair~~ fine 336

Focus 6.93 ~~NE FANS ON~~ DOME FANS ON WINDY!

Spectr. Temp. Dome Temp./Hum. 430 0 50 1024 41 ~~cool~~

Exp. Mtr. FILTER	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	Gi	Program	Remarks	Quality
				CASS CCD	600 g/mm G=2622	150μ	4200	3/4 Gi			
								1/2			
								5 Gi			
4200		3.21	K1 ~~III~~					6	Km MK Std	Tel E side.	13K
								7			
								8			
2100		6.07	K2Ib	CN-2				9	"	Tel E Side.	
								10			
								11			
2475		5.92	F0II					12		Tel E Side	
								13			
								14			
175		7.00	M2SII					15		Tel E Side	500 store Vg
								16			
								17			
2700		4.47	M2 II ab					18		Tel E Side	

337 Vol #2

Emulsion Batches:

Date 1994 Nov 18/19 Observers Kon./Smt.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
196	COMP							FeNe clear	30
197	BIAS(4)				00 19				
198	COMP			05 31 30				"	30
199	HD27022	04 11 18	+64 54	00 33 42	00 08 E →				300
200	COMP							"	30
201	COMP							"	30
202	HD27397	04 14 18	+13 48	00 51 04		0h 14m W			510
203	COMP							"	30
CG40582-5	HD29587	04 34 30	+41 57						.067
86788 ~~84789~~	"								.133
204	BIAS (4)				01 29				
205	COMP							"	30
206	HD36512	05 27 06	-07 22 31	01 32 38		0h 14m E			612
207	COMP							"	30
208	COMP								

Spectr. Temp. ..... Dome Temp./Hum. 8.0°C / 47.9% Transparency Conditions . bright moon but fine. 338 wind dying down — a few low clouds → quite gusty again by seeing test end.

Focus ..... 6.93 .....

Spectr. Temp. ..... Dome Temp./Hum. 7.3°C / 56.7% @ end of seeing test

Comparison Exp.	Exp. Mtr. FILTER	Seeing	~~Prg.~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ CLAMBDA	~~P.H.~~ C.	Program	Remarks	Max ADU Quality
30					CASS CCD	600 l/mm G = 2622	150μ	~4200Å	19			
									1/2		SE FAN TURNED OFF	
30									20			
300	2360		5.3	G5IIIb					21	Km MKStd.	TEL W side	~7600
30									22			
30									23			
510	3520		5.59	F0IV					24	"	close to moon, subtract sky for sure.	10K
30									25			
,067	185, 150, 105 190		7.29	dG2					—	SEEING TEST	through cloud at times tried for Ides	
,133	152, 255 167		"	"					—		DOME W, W wind, mostly cloudy, dry, near moon, sky bg bright!!	
30									26			
612	3000		4.6	B0V					27	Km MK Std.	Through clouds. at beginning	7280
30									28			
									29			

339 pg #3

Emulsion Batches:

Date 1994 Nov 18/19 Observers Km / Smt

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Ex	Spectr. Temp. / Focus / Spectr. Temp.
209	HD 36673					$0^h 5^m$ E			90	4000
210	comp							FeNe Clear	30	
211	comp							"	"	
212	HD37160 ~~HD37128~~	05 31 ~~24 08~~	+09 14 ~~-01 15 59~~	02 16 45 ~~02 00 15~~		$0^h 20^m$ W			300 ~~25~~	2850 ~~2300~~
213	comp							FeNe Clear	30	
214	comp							"	30	
215	HD ~~37160~~ 37128	05 31 ~~08~~	~~-01 15 59~~ 09 14 00	02 29 16		$0^h 29^m$ W			24	4000
216	comp							"	30	
217	BIAS(4)				02 33					
~~218~~	comp								30	
219	HD53138	06 58 51	-23 41 13	02 37 20		0 48 E			120	3000
~~220~~	comp								30	
~~221~~	comp								30	
222	HD ~~54605~~	07 04 20	-26 14 04	02 46 33		$0^h 44^m$ E			120	3500
~~223~~	comp									

Spectr. Temp. ..... Dome Temp./Hum. 7.0°C / 52.4% Transparency Conditions partly cloudy → fast. evening 340°
low clouds

Focus ..... 6.93 .....

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

Comparison Filter	Comparison Exp.	Exp. Mtr. FILTER	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	max ADU Quality
	90	4000		2.58	F0 Ib	CASS CCD	600 l/mm G=2622	150μ	~4200 Å	30	Km MK Std.		9K
	30									28			
	11									5			
	360	2850		4.09	K0III b	CN_2							5000
	25	~~2800~~		~~1.70~~	~~B0I~~					6	"	through cloud.	~~6000~~
	30									7			
	10									8			
	24	4,000		1,70	B0 I	CN_2				9		through clouds.	11K
	30			~~4.09~~	~~K0III~~	CN_2				10			
										1/2			
	30									11			
	120	3 500		3.02	B3 I					12			6850
	30									13			
	32									14			
	120	3500		1.84	F8Ia					15			5200
										16			

3/9 #4

Date 1994 Nov 18/19 Observers Km / Smt

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	Comparison Ex
~~224~~	COMP							FeNe clear	30
~~225~~	HD 58350	07 20 08	-29 06 29	02 57 12		$0^h\ 49^m$ E			120
~~226~~	COMP								30
227 ~~226~~	COMP								30
~~228~~	HD 62345	07 38 25	24 38 16	03 10 12		0 50 E			500
229 ~~228~~	COMP								~~30~~
230 ~~229~~	COMP								30
231	HD 62509	07 39 12	28 16 04	03 30 24		0 33 E			400
232	COMP								30
233	BIAS (4)				03 40				—
234	COMP								30
235	HD 69267	08 11 06	+9° 30′	03 57 49		0 32 E			640
236	COMP								
~~237~~	~~COMP~~								
~~238~~	~~HD 103287~~	~~11 48 34~~	~~54 15 07~~						

Spectr. Temp. ..... Dome Temp./Hum. 6.7°C / 55.5% Transparency Conditions partly cloudy 342
Focus 6.93
Spectr. Temp. ..... Dome Temp./Hum. ..... → completely overcast with thick clouds

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	max ADU Quality
								17			
3900		2.45	B5I					18			6200
								19			
		~~3.57~~	~~G8III~~					20			
2360		3.57	G8III					21			max 5.8K
								22			
								23			
3136.		1.14	K0III					24			6.8K
								~~25~~			
								1/2			
								26			
1885		3.52	K4III	Ba0.5				27			2800
								28			
								~~29~~			
		~~2.44~~	~~A0V~~					~~30~~			

38B
pg #5

Date 1994 Nov 18/19 Observers Km / Smt

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	Comparison Exp
CC28237-56	FLAT x 20					0^h	$+40^\circ$	Tung clear	10
57/58	COMP/STELLAR HARTMANN					"	"	FeNe clear	20/40
59	BIAS(4)				04 56				

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

CCD
Spectr. Temp. -101.3°C Dome Temp./Hum. 6.3°C/55.3% Transparency Conditions too cloudy to see anything. 341

Focus 6.93 @ FOCUS TEST

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

Comparison Iter	Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	10					CASS CCD	600(C) 8.5mm G=26 22	150μ	~4200 Å	29		spec. controller reset	13.6K →12.4K
	20/40									3/4	FOCUS TEST		
										1/2			
				Backed up to Perseus & WORM									

345
19 #1

Date 1994 Nov. 19/20 Observers Km / Smt

CSS 386 CLOCK 4s AHEAD OF WWV

Emulsion Batches:
GG 385 FILTER FOR STELLARS & FLATS
GG 560 FILTER FOR COMPS

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
CC28260/61	COMP/STELLAR HARTMANN					0^h	+41°	Fe Ar clear Ap	60/60
62	BIAS(4)			17 40					
63	COMP							"	60
64	BD+68 946 {Vgs 322}	17 36 56	+68 24 47	18 01 32		$4^h 10^m$ W			385
65	COMP							"	60
66	COMP							"	"
67	AC+62 26749 (Vgs 626)	17 34 30	+61 45 00	18 19 45		4^h 32 W			60C
68	COMP							"	60
CG40589-92	HD214199	22 31 36	+36 15 00						.067
93/94	"	"	"		19 00	$0^h 1^m$ W			.133
69	BIAS(4)			19 02					
70	COMP							Fe Ar clear Ap	60
71	AC+55 19225 {Vgs 440B}	02 49 12	+55 02 32	19 19 09					1100
72	Comp								60
73	~~Comp~~ BIAS(4)			20 08					
~~74~~	~~AC+58 20564 Vgs 440B~~	~~03 08 [illegible] +59 48 08~~							

CCD
Spectr. Temp. ..... −100.4°C..... Dome Temp./Hum. 6.5°C / 54.5% Transparency Conditions ..clear..dry.....→ increasing cloud 346

Focus .....6.89..... FANS OFF

Spectr. Temp. ..... Dome Temp./Hum. 5.6°C / 55.4% 400 0 50 1024 4 1 CCDFMT

Exp. Mtr.	Seeing	~~V Pig.~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	~~P.H.~~ C!	Program	Remarks	maxADU Quality
				CASS CCD	1200 ℓ/mm G = 4500	306μ	6563 Å	3/4	FOCUS TEST		
								1/2			
60								5			
385 400		9.15	M5		S/N > 100			6	Km {V45} Hα emission search	no obvious. close to hot!	1600
60								7			
"								8			
600 330	2"-3"	9.95	MITe					9	"		1250
60								10			
.167 183, 185, 175, 161		7.50	KS III					—	SEEING TEST	Dome SW, W breeze, clear, above 306μ, 70% catwalk	
.133 177, 212		"	"					—	"	"	
								1/2			
60								11			
1107 ~~300~~ 198								12		increasing cloud.	
60								13			
								1/2 ~~13~~			
		~~10.0~~	~~110~~					~~13~~			

347
pg #2

Date 1994 Nov 19/20 Observers Km / Smt

Emulsion Batches:
@ 4200 Å : 1363 9 FILTER
USED IN EXP. MTR

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
CC 2874-83	FLAT X 10 ~~COMP~~		66	385 FILTER USED		0h	+42°	Tung ¼ Ap	3	
84/85	COMP / STELLAR HARTMANN		06	560 FILTER USED		"	"	Fe+r clear	60/60	
86	BIAS (4)			20 43						
87/88	COMP / STELLAR HARTMANN					"	"	FeNe clear	20/50	5 31 LTR
89	BIAS (4)			21 23						
90	COMP							FeNe clear	30	
91	HD22 4427	23 52.7	+24° 03'	21 37 29	01 25 W →				400	3170
92	COMP							Fe Ne clear	30	
93	COMP							"	30	
94	HD 6903	01h 4.5m	+19° 7'	21 53 35		0h 49m W			1622	2850
95	COMP							"	30	
96	BIAS (4)			22 23					0	
97	COMP							"	30	
98	HD10761	01 40 06	+08 34	22 29 26					455	4000
99	COMP							"	30	

Spectr. Temp. ..... Dome Temp./Hum. 4.7°C / 57.8% Transparency Conditions .. mostly cloudy 348

Focus .... 6.89 / 7.05 .. @ 6563 Å @ ~4200 Å

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

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ CLAMBDA	~~P.H.~~ C:	Program	Remarks	Quality MAX MIN
				CASS CCD	1200 ℓ/mm G = 4500	30μ	6563 Å	14			13.3K → 12.4K
								15	FOCUS TEST		
								½		400 0 50 1024 4 1 CCDFMT	
36 39 FILTER				CASS CCD	600ℓ/mm(c) G = 2622	150μ	~4200 Å	3/4	FOCUS TEST	430 0 50 1024 4 1 CCDFMT	
								½			
								16			
3170	4.66	M3III						17	Km MK Stds.	THROUGH CLOUD	MAX ~5700
								18			
								19			
2880	5.55	G0III						20	"	THROUGH CLOUD	5550
								21			
								½			
								22			
4000	4.26	G8III						23	"	THROUGH CLOUD	10K
								24			

349
p.13

Date 1994 Nov 19/20 Observers Km/Smt

~~Emulsion Batches:~~
BG 39 FILTER IN
EXPOSURE METER

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC28300	COMP							Fine clear	30
01	HD 13611	$02^h\ 7.7^m$	$+8^\circ\ 23'$	22 44 50		$0^h\ 30^m$ W		"	1175
02	COMP							"	30
03	BIAS(4)				23 09				—
04	COMP							"	30
05	HD17709	02 45 24	+34 39 00	23 14 27					1800
06	COMP			23 46 42				"	30
07	COMP							"	30
08	HD 23180	$03\ 38.0^m$	$+31^\circ\ 58'$	00 04 20					120
09	COMP							"	30
10	COMP							"	"
11	HD17918	02 47 36	+16 05 00	00 18 28		$1^h\ 24$ W			1223
12	COMP							"	30
13	BIAS(4)				00 42				—
14	COMP							"	30

Spectr. Temp. -101.4°C Dome Temp./Hum. 3.3°C / 63.7% Transparency Conditions ... cloudy → clearing ... 350

Focus 7.05

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

430 0 50 1024 4 1 CCDFMT

~~86-39~~ Exp. Mtr. FILTER	Seeing	~~V Pkg.~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ CCAMBOA	~~P.H.~~ CI	Program	Remarks	1982 Quality
				CASS CCD	600 l/mm (c) G=2622	150μ ~~80~~	~4200Å	25			
3000		4.37	G6 III					26	Km MK Stds.		6400
								27			
								1/2			
								~~28~~			
2190		4.53	K7 III					29	"		MAX 3.6K
								30			
~~4200~~								31			
4200		3.83	B1 III					32	"	clear now	MAX 11.6K
								~~30~~ 5			
								5			
4000	3"	6.31	F3 III					6	"		
								7	"		↑ 9K
								1/2			
								8			

3E 3/4
p.4

Date 1994 Nov 19/20 Observers Km / Smt

Emulsion Batches:
B6 39 FILTER IN
EXPOSURE METER

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC28315	HD26015	04 02 00	+14 54	00 46 48		$0^h 35^m$ W			1014
16	COMP							Fe Ne Clear	30
CG40595-98	HD29587	04 34 30	+41 57						.067
CG40599/600	"	"	"			$0^h 12^m$ W			.133
17	COMP							Fe Ne Clear	30
18	HD27022	04 11 18	+64 54	01 28 02		$0^h 58$ W			723
19	COMP							"	30
20	BIAS(4)			01 43					-
21	COMP							"	30
22	HD27383	$04^h 14$ 12	$+16^\circ$ 15	01 52 36		$1^h 45^m$ W			2000
23	COMP							"	30
24	COMP							"	"
25	HD27397	$04^h 14$ 18	$+13^\circ$ 48	02 34 33		$2^h 09^m$ W			878
26	COMP							"	30
27	BIAS(4)				02 57				

Spectr. Temp. ..... Dome Temp./Hum. 2.8°C / 66.9% Transparency Conditions ... fine ... bright - full moon. 352

Focus ..... 7.05 .....

Spectr. Temp. ..... Dome Temp./Hum. 2.3°C / 69.2% @ end of seeing test.

430 0 50 1024 4 1 CCDFAST

Comparison Exp.	Exp. Mtr. / FILTER	Seeing	V ~~Pg.~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ CLAMBDA	~~P.H.~~ C.	Program	Remarks	MAY 1990 Quality
1014	4000	3"-4"	6.01	F3V	CASS CCD	600 ℓ/mm C G = 2622	150μ	~ 4200Å	9	Km MK Std.		8.6K
30									10			
1,067	172, 222 76, 173 241, 120		7.29	dG2	EEV CCD				-	SEEING	Dome W, no wind, clear, above 150m.	
1,133			"	"					-	TEST		
30								ACTUALLY FOUND TO BE 4220 Å	11			
723	9400		5.27	G5IIb					12	Km MK STDS		11.7K
30									13			
-									-			
30									14			
2000	2845		6.89	F7V + G3V					15	"	CLOSE TO MOON	6.6K
30									16			
"									16			
878	4900!		5.59	F0III					17	"	CLOSE TO MOON	11.3K
30									18			
									½			

Date 1994 Nov 19/20 Observers Km/Smt

Emulsion Batches:
B6 39 FILTER IN EXP. MTR.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC28328	COMP							FeNe clear	30
29	HD27524	04h 15 36	+20° 49	03 00 06		2h 39m W			1300
30	COMP							"	30
31	COMP							"	"
32	HD30652	04h 44 24	+6° 47	03 29 23		2h 21m W			130
33	COMP							"	30
34	COMP							"	"
35	HD36512	05h 27 06	-07° 23	03 40 40		1h 55m W			423
36	COMP							"	30
37	BIAS(4)				03 54				
38	COMP							"	30
39	HD37018	05h 30m 24	-04° 54	03 56 03		2h 5m W			300
40	COMP							"	30
41	COMP							"	"
42	HD39400	05h 47m 12	+01° 50	04 12 10		2h 6m W			465
43	COMP							"	30
			CONTINUED IN NEXT BOOK — #79						

Spectr. Temp. ..... Dome Temp./Hum. 2.0°C / 71.6% Transparency Conditions bright (near) full moon, clear 352
increasing thin cloud/haze.

Focus 7.05

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

FANS STILL OFF.

430 0 50 1024 4 1 CCDFMT

Comparison Exp.	B6337 Exp. Mtr. = 1L TPR	Seeing	~~V Prg.~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	~~P.H.~~ Ci	Program	Remarks	Quality MUK ATSU
30		3"-4"			CASS CCD	600 l/mm C G=2622	150μ	4220Å	19			
1300	2470	↓	6.80	F3V					20	Km MK STDS.	VERY CLOSE TO MOON	4900
30									21			
"									22			
130	4220		3.19	F6V					23	"		10.2K
30									24			
"									25			
473	4000		4.62	B0V					26	"	THROUGH HAZE, STILL CLOSE TO MOON.	11.2K
30									27			
30									28 1/2			
30	4000	4"-5"	4.59	B1V					29	"		10.6K
30									30			
"									5			
46	4000	4"	4.78	K1.5IIb					6	"		6.8K
30									7			

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

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

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Ex