

## 60 inch Telescope Log

Observer: Perry BerlindPI: P. CallananSpectrograph: FASTGrating: 1200 LDate: 7/1/94Page: 3067

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1	COMP					test clearing!
2-6	BIAS					
7	COMP			↓		1200 L grating, 2" slit
8-9	SCO X1	16:17:03	-15:31:15	15	15m	centered at H $\alpha$
10	COMP			↑	15s	seeing ~2"
11-12	SCO X1	"	"	15	15m	
13	COMP			↑	15s	
14	COMP			↓	2m	HB 300
15	SCO X1	"	"	15	15m	HB
16	COMP			↓	15s	H $\alpha$
17-18	SCO X1	"	"	15	15m	H $\alpha$
19	COMP			↓	15s	H $\alpha$
20-21	SCO X-1	"	"	15	15m	H $\alpha$ dome ran away
22	COMP			↑	15s	H $\alpha$ 777.5
23	COMP			↓	2m	HB 300
24	SCO X1	"	"	15	15m	HB
25	COMP			↓	15s	H $\alpha$
26-27	SCO X1	"	"	15	15m	H $\alpha$
28	COMP			↓	15s	
29-30	SCO X1	"	"	15	15m	H $\alpha$
31	COMP			↓		
32-33	SCO X1	"	"	15	15m	H $\alpha$
34	COMP			↓		
35	BIAS			-	0s	
36	SCO X1	"	"	15	15m	H $\alpha$ sec 2-3.3
37	COMP			↑		realtime system crash
38-39	BD p404032	20:06:40	41:06:15	15	3m	std.
40	COMP			↑		
41-42	BD p404032	"	"	15	3m	600 L grating; 2" slit ↓
43	COMP			↑	30s	

## 60 inch Telescope Log

Observer: P. BerlinePI: P. CallananSpectrograph: FASTGrating: 600L/1200LPage: 3068Date: 7/1/94

Number	Object	R. A.	Dec.	L/R	Exp	Comments
44-45	CGX2	21:42:36.9	+38:05:28	15	15m	600L, 2" slit
46	COMP			↓	30s	
47-48	CGX2	"	"	15	15m	
49	COMP			↑	30s	
50	CGX2	"	"	15	15m	
51	COMP			15	30s	
52	SS0019p21	00:17:13.9	+21:40:20	13	15m	1200L, 2" slit, centered 6200
53	COMP			↑	30s	
54	SS0019p21	"	"	13	15m	centered @ 5000Å
55	COMP			↑	30s	"
56	SSm31	22:51:37.1	+20:14:33.2	19	5m	non-stellar 300L, 3" slit
57	COMP			↑	15s	Stuffer weak
58	SSm123	23:06:10.8	+11:34:40.4	19	5m	no H $\alpha$
59	SSm62	23:07:52	+17:10:15.6	19	4m	has fainter companion no H $\alpha$
60	SSm106A	22:56:58.5	+13:18:17	19	3m	NW comp no H $\alpha$
61	SSm106B	"	"	19	3m	SE comp faint no H $\alpha$
62	SSm71	23:14:08	+16:33:03	19	3m	no H $\alpha$ faint
63	COMP			↑		
64-73	BIAS					
74-78	FLAT			19	0.1s	300L, 3" slit
79-83	FLAT			15	0.2s	600L, 2" slit
84-88	FLAT			13	0.8s	1200L, 2" slit, 5000Å
89-93	FLAT			15	1s	1200L, 2" slit, H $\beta$
94-98	FLAT			13	0.8s	1200L, 2" slit, 6200
99-104	FLAT			15	0.8s	1200L, 2" slit 6562 H $\alpha$

only 103 files

60 inch Telescope Log

Observer: Muscarella

PI: Callanan

Spectrograph: FAST

Grating: 1200L/600L

Page: 3069

Date: 7/2/94

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-15	BIAS				0 <sup>s</sup>	
16-30	FLAT				0.8 <sup>s</sup>	1200L @ H $\alpha$ w/ 2" slit
31-45	FLAT				1.0 <sup>s</sup>	1200L @ H $\beta$ w/ 2" slit
46	COMP				120 <sup>s</sup>	1200L @ H $\beta$ w/ 2" slit
47	COMP				15 <sup>s</sup>	1200L @ H $\alpha$ w/ 2" slit
48	COMP			↓	15 <sup>s</sup>	Clouds/lightning - some breaks
49-50	SCOX1	16:17:04.5	-15:31:15		15M	1200L @ H $\alpha$ 2" slit
51	COMP			↕	15 <sup>s</sup>	
52	SCOX1	16:17:04.5	-15:31:15		15M	
53	COMP			↑	15 <sup>s</sup>	
54	COMP			↓	120 <sup>s</sup>	1200L @ H $\beta$ 2" slit
55-56	SCOX1	16:17:04.5	-15:31:15		15M	
57	COMP			↕	120 <sup>s</sup>	
58	SCOX1	16:17:04.5	-15:31:15		15M	
59	COMP			↑	120 <sup>s</sup>	End w/ AirMass 2.1
60	COMP			↓	30 <sup>s</sup>	600L @ H $\alpha$ /H $\beta$ mid pair
61-62	CYGX2	21:42:36.9	38:05:28		15M	
63	COMP			↕	30 <sup>s</sup>	
64-65	CYGX2	21:42:36.9	38:05:28		15M	
66	COMP			↕	30 <sup>s</sup>	
67-68	CYGX2	21:42:36.9	38:05:28		15M	
69	COMP			↑	30 <sup>s</sup>	
70-84	FLAT				0.2 <sup>s</sup>	
85-89	BIAS				0 <sup>s</sup>	300L + 3" slit
90	FLAT				0.1 <sup>s</sup>	

60 inch Telescope Log

Observer: Jim Peters

PI: Huckra et. al.

Spectrograph: Fast

Grating: 300/600/1200

Page: 3070

Date: 8/3/94

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-15	Rias					
16-31	Flat 300 L/mm				22	
32-47	Flat 1200 H.A.	Mic 298	2" SLIT		1 sec	~5000 Å
48-63	Flat 1200 Hd	Mic 277.5	2" SLIT		2 sec	~6200 Å
64-79	Flat 600	Mic=615.0	2" SLIT		2 sec	
80	Comp			↓	15 <sup>s</sup>	300 L/mm 3" SLIT
81	H2 43	13 14 00	29 21 49	0	3m	Clear
82	Comp			↓	15 <sup>s</sup>	
83	N5548	14 15 43	25 22 01	6	5m	
84	Comp			↓	15 <sup>s</sup>	
85	J13005P2658	13 00 32	26 58 21	3	10m	
86	Comp			↓	15 <sup>s</sup>	
87	J13009P2746	13 00 54	27 46 59	3	5m	TV just got full of lines
88	Comp			↓	15 <sup>s</sup>	
89	16544 P 6633	16 54 24	46 33 00	1	10m	Hard To see thru lines
90	Comp			↓	15 <sup>s</sup>	
91	16545 P 6634	16 54 30	46 34 00	1	10m	
92	Comp			↓	15 <sup>s</sup>	
93	N6289	16 58 00	68 35 00	1	5m	
94	16588 P 6837	16 58 48	68 37 00	1	5m	
95	N6288	16 57 42	68 31 00	1	5m	
96	Comp			↓	15 <sup>s</sup>	
97	17118 P 7429	17 11 48	74 29 00	1	15m	
98	Comp			↓	15 <sup>s</sup>	
99	17153 P 7116 W	17 15 18	71 16 00	1	5m	West Object.
100	17153 P 7116 E	↓	↓	1	8m	
101	Comp			↓	15 <sup>s</sup>	
102	PG 1708 P 602	17 08 35	60 13 52	0	4m	STD STAR
103	Comp			↓	15 <sup>s</sup>	
104	I 1261 W	17 24 00	71 18 00	1	8m	

for 300 L/mm used flats for 7/1/94 for 74-78 flat slit 2  
 and " " 7/6/94 for 11-15 flat slit 1

60 inch Telescope Log

Observer: J. Peters

PI: J. Huchra et al

Spectrograph: FAST

Grating: 300/600/1200

Page: 3071

Date: \_\_\_\_\_

Number	Object	R.A.	Dec.	L/R	Exp	Comments
105	I1261E	17 27 00	71 18 00	1	8 <sup>m</sup>	
106	Comp			↓	15 <sup>s</sup>	
107	17257 P6853	17 25 35	68 53 00	1	10 <sup>m</sup>	
108	Comp			↓	15 <sup>s</sup>	
109	17269 P7318	17 26 54	73 18 00	1	10 <sup>m</sup>	Big Cloud Just South
110	Comp			↓	30 <sup>s</sup>	not here?!
111	Cyg X2	21 42 36	38 05 28	2" SLIT	15 <sup>m</sup>	600 L/mm Ca 2" SLIT
112	Cyg X2	↓	↓	2" SLIT	15 <sup>m</sup>	
113	Comp	↓	↓	↓	30 <sup>s</sup>	
114	Cyg X2	↓	↓		15 <sup>m</sup>	
115	Cyg X2	↓	↓		15 <sup>m</sup>	
116	Comp			↓	30 <sup>s</sup>	
117	BD P284211	21 48 57	28 37 48	0	5 <sup>m</sup>	STD ↑ 600 L/mm 2" SLIT
118	Comp				15 <sup>s</sup>	→ HB 1200 L/mm 2" SLIT
119	SS0019 P21	00 12 13	21 40 20		15 <sup>m</sup>	Jeff McClintock
120	Comp	↓	↓	↓	2 <sup>m</sup>	HB 1200 L/mm 2" SLIT
121	SS0019 P21	↓	↓		20 <sup>m</sup>	
122						
123						
124						
125						
126						
127						
128						
129						
130						
131						
132						
133						
134						

118 centered @ wavelength 6400 Å  
 121 centered @ 4879 Å

5:40  
 Emily  
 9/6/30ff

60 inch Telescope Log

Observer: J. Peters

PI: J. Hechra et al

Spectrograph: FAST

Grating: 300/600

Date: 7/4/94

Page: 3072

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1	Comp	TEST FILE			15 <sup>s</sup>	300/mm with 3" SLIT
2-16	Bias					300/mm 3" SLIT
17-31	Flat				.2	300/mm 3" SLIT
32-46	Flat 600				.2	600/mm 2" SLIT
47	Comp			↓	15 <sup>s</sup>	300/mm 3" SLIT
48	Ferge 67	12 39 18	17 47 24	○	2 <sup>m</sup>	TV full of LINES
49	Comp P			↓	15 <sup>s</sup>	
50	N4486B	12 28 00	12 45 59	○	5 <sup>m</sup>	Seeing good To Poor
51	Comp P			↓	15 <sup>s</sup>	
52	HZ 43	13 14 00	29 21 49	○	3	
53	Comp P			↓	15 <sup>s</sup>	
54	N5548	14 15 43	25 22 01	○	5 <sup>m</sup>	
55	Comp P			↓	15 <sup>s</sup>	
56	J12542P2737	12 54 12	27 37 32	3	15 <sup>m</sup>	Using PERRY method
57	Comp P			↓	15 <sup>s</sup>	on Guide TV almost
58	17280P6226	17 28 00	68 26 00	1	15 <sup>m</sup>	WORKS. Instead of
59	Comp P			↓	15 <sup>s</sup>	Having White Lines
60	17287 P7045	17 28 42	7045 00	1	15 <sup>m</sup>	TV gets Black Lines
61	Comp P			↓	15 <sup>s</sup>	Then Back To White Lines
62	15130P0157	15 13 00	01 57 00	1	15 <sup>m</sup>	Seeing Blew UP North
63	15130 P0157	↓	↓	1	15 <sup>m</sup>	
64	Comp P			↓	15 <sup>s</sup>	
65	15121 P0159	15 12 06	01 59 00	1	15 <sup>m</sup>	
66	Comp P			↓	15 <sup>s</sup>	
67	SA0084795	17 01 06	24 55 00	○	20 <sup>s</sup>	Template STAR
68	Comp P			↓	15 <sup>s</sup>	
69	17026 P6132 N	17 02 36	61 32 00	1	15 <sup>m</sup>	
70	17026 P6132 S	↓	↓	1	7 <sup>m</sup>	
71	Comp P			↓	15 <sup>s</sup>	
72	17316 P5955	17 31 36	59 55 00	1	10 <sup>m</sup>	

used flats for 7/6/94 files 11-15

60 inch Telescope Log

Observer: J. Peters

PI: J. Huehner

Spectrograph: Fast

Grating: 300

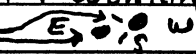
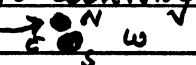
Date: 7/4/94

Page: 3073

Number	Object	R.A.	Dec...	L/R	Exp	Comments
73	17312 P6000	17 31 12	60 00 00	↑	15 <sup>m</sup>	Humidity = 93%
74	Comp P			↓	15 <sup>s</sup>	
75	Rx1702.8 P7252	17 02 48	72 52 59		10 <sup>m</sup>	
76	Comp P			↓	15 <sup>s</sup>	
77	17304 P6722	17 30 24	67 22 00		10 <sup>m</sup>	Getting Wet outside
78	Comp P			↓	15 <sup>s</sup>	Hum in Home 95%
79	Rx2327.4 P1524A	23 27 21	15 24 51		5 <sup>m</sup>	
80	Rx2327.4 P1524B	↓	↓		5 <sup>m</sup>	Hum Too High To open
81	Rx2327.4 P1524C	↓	↓		4 <sup>m</sup>	Fast and change
82	Comp P			↓	15 <sup>s</sup>	GRATING!
83	23590 P1448	23 59 00	14 48 00		15 <sup>m</sup>	Closed @ 2:00AM
84	2359 P1448	↓	↓		15 <sup>m</sup>	Open @ 2:50AM
85						Hum = 90%
86						Hum 95% 4:00AM
87						
88						
89						
90						
91						
92						
93						
94						
95						
96						
97						
98						
99						
100						
101						
102						

60 inch Telescope Log

Observer: Jim PetersPI: J. HuehnerSpectrograph: FASTGrating: 300/600Page: 3074Date: 7/5/94

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-15	Bias					
16-30	Flat	300L/mm	3" SLIT		12	300L/mm 3" SLIT
31-45	Flat 600	600L/mm	2" SLIT		0.2	
46	Comp			↓	15 <sup>s</sup>	
47	HD136711	15 19 24	18 37 00	0	5 <sup>s</sup>	
48	Comp			↓	15 <sup>s</sup>	
49	Feige 67	12 39 18	17 47 24	0	2 <sup>m</sup>	
50	Comp			↓	15 <sup>s</sup>	
51	HS1234P232	12 34 09	23 22 37	8	15 <sup>m</sup>	TV working Good??
52	HS1234P232E	↓	↓	8	15 <sup>m</sup>	
53	Comp			↓	15 <sup>s</sup>	
54	HS1240P213	12 40 34	21 36 44	8	15 <sup>m</sup>	I can't believe TV
55	Comp			↓	15 <sup>s</sup>	is working This Well!
56	HS1257P231N	12 57 28	22 16 12	8	15 <sup>m</sup>	
57	HS1257P231S	↓	↓	8	15 <sup>m</sup>	obj
58	Comp			↓	15 <sup>s</sup>	
59	HS1252P241	12 52 41	24 17 17	8	15 <sup>m</sup>	
60	Comp			↓	15 <sup>s</sup>	
61	H243	13 14 00	29 21 49	0	3 <sup>m</sup>	
62	Comp			↓	15 <sup>s</sup>	
63	H5548	14 15 43	25 22 01	6	5 <sup>m</sup>	
64	Comp			↓	15 <sup>s</sup>	
65	HS1320P230	13 20 00	23 06 40	8	15 <sup>m</sup>	T.L. Limit RA on.
66	Jim	File No	Good	—	—	HA = 4:00
67	Comp			↓	15 <sup>s</sup>	
68	17303P7418	17 30 18	74 18 00	1	15 <sup>m</sup>	TV FILLING WITH LINES?
69	17303P7418	↓	↓	1	15 <sup>m</sup>	
70	Comp			↓	15 <sup>s</sup>	
71	N6414	17 32 00	74 25 00	1	8 <sup>m</sup>	
72	Comp			↓	15 <sup>s</sup>	

used flats from 7/6/94 for 11-15



60 inch Telescope Log

Observer: J. PetersPI: J. HuchraSpectrograph: FASTGrating: 300/600Page: 3075Date: 7/5/94

Number	Object	R. A.	Dec.	L/R	Exp	Comments
73	17344 P6230	17 34 24	62 30 00	1	15 <sup>m</sup>	Both E+W obj's in slit
74	Comp P			↓	15 <sup>s</sup>	
75	17473 P6141N	17 47 18	61 41 00	1	15 <sup>m</sup>	TV full of lines
76	17473 P6141S	↓	↓	1	15 <sup>m</sup>	
77	Comp P			↓	15 <sup>s</sup>	
78	17267 P5942S	17 26 42	59 42 00	1	15 <sup>m</sup>	
79	17267 P5942N	↓	↓	1	10 <sup>m</sup>	
80	Comp P			↓	15 <sup>s</sup>	
81	17327 P7153	17 32 42	71 53 00	1	10 <sup>m</sup>	
82	Comp P			↓	15 <sup>s</sup>	
83	17329 P6923	17 32 54	69 23 00	1	15 <sup>m</sup>	
84	Comp P			↓	15 <sup>s</sup>	
85	HD 192281	20 10 46	40 07 01	0	5 <sup>s</sup>	
86	Comp P			↓	15 <sup>s</sup>	
87	23104 P7719	23 10 24	77 19 00	1	15 <sup>m</sup>	
88	Comp P			↓	15 <sup>s</sup>	
89	23356 P0713	23 35 36	07 13 00	1	15 <sup>m</sup>	
90	23356 P0713	↓	↓	1	15 <sup>m</sup>	
91	Comp P			↓	15 <sup>s</sup>	
92	21381 P2457	21 38 06	24 57 00	1	15 <sup>m</sup>	
93	Comp P			↓	30 <sup>s</sup>	600µm 2" SLIT
94	Cyg X2	21 42 36	38 05 28		15 <sup>m</sup>	
95	Cyg X2	↓	↓		15 <sup>m</sup>	
96	Comp P			↑	30 <sup>s</sup>	
97	Comp P			↓	30 <sup>s</sup>	
98	BD P284211	21 48 57	28 37 48	0	5 <sup>m</sup>	STD ↓ ↓
99						
100						
101						
102						

60 inch Telescope Log

Observer: P. BerlindPI: J. Huchra / C. ProsserSpectrograph: FASTGrating: 3000/600RPage: 3076Date: 7/6/94

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	BTA5					
11-15	FLAT			1	0.1s	300R; 3" slit, bin x 2
16-20	FLAT			20	1/16	600R; 1.1" slit - Prosser
22-23	Sig Boo	14:34:41	+29:45:00	20	3/16 sec	
74.	COMP			↑	1/16	
25-28	B Com	13:11:52	+27:53:00	20	5/10 sec	
29	COMP			↑	455	
30-32	80 UMa	13:25:13	+55:00:00	20	10.15	sat to redox
33	COMP			↑	457	
34-35	13130 p0045	13:13:00	+00:45:00	1	5m	300R; 3" slit ↓ <sup>point</sup> 1995
36	COMP			↑		Hx and that all
37-38	12442 p0316	12:44:12	+03:16:00	1	5m	needs more; garbage
39	COMP			↑		
40	13336 p0345	13:55:36	+03:45:00	1	5	Hx
41	COMP			↑		
42	13343 p0346	13:34:18	+03:46:00	1	5m	
43	COMP			↓		
44/46	13351 p0343	13:35:06	+03:43:00	1	5m	Hx
45	COMP			↑		
47	U08690	13:42:00	+05:02:00	1	5m	superposed star Hx
48	COMP			↑		
49	13448 p0401	13:44:48	+01:01:00	1	5m	Hx also observed 5/5/94 - 1st time
50	COMP			↑		
51	13451 p0335	13:45:06	+03:35:00	1	5m	
52	± 939	13:45:12	+03:39:00	1	3m	also observed 5/7/94
53	COMP			↑		
54	13482 p0233	13:48:12	+02:33:00	1	5m	Hx
55	U08750E	13:48:18	+02:34:00	1	5m	east comp Hx also faint comp
56, 58	U08750W	13:48:18	+02:34:00	1	5m	west comp see chart
57	COMP			↑		

## 60 inch Telescope Log

Observer: P. Berlind

PI: \_\_\_\_\_

Spectrograph: FASTGrating: 300Date: 7/6/94Page: 3077

Number	Object	R. A.	Dec.	L/R	Exp	Comments
59	13486 p0436	13:48:36	+04:38:00	1	Sm	H <sub>α</sub>
60	COMP			↑		
61	13493 p0342	13:49:18	+03:42:00	1	Sm	H <sub>α</sub>
62	COMP			↑		
63	13505 p0230	13:50:30	+02:30:00	1	Sm	H <sub>α</sub>
64	COMP			↑		
65	13531 p0602	13:53:06	+06:02:00	1	Sm	
66	COMP			↑		
67	U06857	13:53:54	+04:38:00	1	Sm	H <sub>α</sub>
68	COMP			↑		
69	13562 p0305	13:56:12	+03:05:00	1	Sm	
70	COMP			↑		
71	RX14403 p0331	14:40:19	+03:31:58.7	1	Sm	Reset J2000 galaxy
72	COMP			↑		
73	COMP			↓		seeing 2-3"
74	RX16595 p6826A	16:59:20.6	+68:26:21.8	1	Sm	A
75	RX16595 p6826B	"	"	1	Sm	B
76	RX16595 p6826C	"	"	1	Sm	star C
77	RX16595 p6826D	"	"	1	Sm	D
78	RX16595 p6826E	"	"	1	Sm	E
79	COMP			↑		
80	17310 p7122	17:31:00	+71:22:00	1	Sm	E+W comps H <sub>α</sub>
81	COMP			↑		
82	17334 p7354	17:33:24	+73:54:00	1	Sm	
83	COMP			↑		
84	17338 p7048	17:33:48	+70:48:00	1	3m	
85	U10912	17:34:12	+70:52:00	1	3m	
86	COMP			↑		
87	RX17303 p7422A	17:30:15.7	+74:22:22	1	3m	J2000 A
88	RX17303 p7422B	"	"	1	Sm	B star on slit to W of gal

60 inch Telescope Log

Observer: P. SerlindPI: J. HuchraSpectrograph: FASTGrating: 300Date: 7/6/94Page: 3078

Number	Object	R.A.	Dec.	L/R	Exp	Comments
89	RX17303p7422C	17:30:15.7	+74:22:22	1	5m	
90	COMP			9		
91	17346p7300	17:34:36	+73:40:40	1	5m	
92	COMP			↑		
93	RX17181p5639A	17:18:08.9	+56:39:51.1	1	10m	2200 H $\alpha$
94	RX17181p5639B	"	"	1	5m	star
95	COMP			↑		
96	K57	17:45:56.4	+05:48:45	20	12m	600 $\mu$ ; centered 2440 $\text{\AA}$ , 1.15 $\mu$
97	COMP			↑	45s	IC4665 ↓
98	K34	17:44:41.6	+05:14:45	20	12m	for Prosser
99	COMP			9		
100	K37	17:44:48.3	+05:25:34	20	18m	tu noise band
101	COMP			↑	45s	
102	K53	17:45:41.1	+05:33:45	20	15m	
103	COMP			↑		
104	K48	17:45:29	+06:01:47	20	20m	
105	COMP			↑		
106	COMP			↓		
107-109	61C49A	21:06:54	+38:44:40	20	15s <sup>30</sup> <sub>60</sub>	
110-112	61C49B	21:06:55	+38:44:40	20	3,4,60	set. for C.P.
113	COMP			15	↓	600 $\mu$ ; 2" slit; centered 5713
114-115	CV6X2	21:42:36.9	+38:05:28	15	15m	for Callanan
116	COMP			↓		
117-118	CV6X2	"	"	15	15m	
119	COMP			↑	30s	
120	B0p284211	21:48:57.1	+28:39:48	15	5m	std
121	COMP			↑	30s	
122	SS0019p21	00:17:13.9	+21:40:20	13	10m	1200 $\mu$ , 2", centered 500 $\text{\AA}$
123	COMP			↑	30s	
124	SS0019p21	"	"	13	10m	1200 $\mu$ , 2", centered 620 $\text{\AA}$

60 inch Telescope Log

Observer: P. Berlind

PI: J. Huchra

Spectrograph: FAST

Grating: 300

Date: 1/16/81

Page: 307

Number	Object	R.A.	Dec.	L/R		Comments
125	COMP			↑	300	for McCall's 6/23/81
126	U11728	21:18:54	+26:03:60	1	5m	300L, 3" slit, std.
127	COMP			↑		
128	21238p3731	21:23:45	+37:31:60	1	5m	superposed stars
129	COMP			9		
130	21282p3528	21:28:12	+35:28:00	1	5m	light...
131	COMP			↑		
<del>132-136</del>	<del>FLAT</del>	<del>600L</del>	<del>2" slit</del>	<del>0.7</del>	<del>0.7</del>	<del>for Paul Callanan</del>
<del>137-141</del>	<del>FLAT</del>	<del>1700.2</del>	<del>2" slit</del>	<del>0.5</del>	<del>0.5</del>	<del>5 diff. McCall's</del>
142-146	FLAT	1700.2	2" slit	0.5	0.5	
147-151	FLAT					



60 inch Telescope log

Observer: P. BarlinelPI: J. HuchraSpectrograph: FASTGrating: 3002Date: 7/7/94Page: 508

Number	Object	R. A.	Dec.	L/R	Exp	Comments
65,66	14009p0245S	14:40:54	+02:45:40	1	5m	South comp
67	14009p0245N	"	"	1	5m	North H <sub>α</sub>
68	COMP			↑		
69,70	14034p0457	14:03:48	+04:57:40	1	5m	H <sub>α</sub>
71	COMP			↑		
72	14126p0510	14:12:36	+05:10:40	1	5m	
73	14127p0506	14:12:42	+05:06:40	1	5m	H <sub>α</sub>
74	COMP			↑		
75-78	14401p0534	14:40:06	+05:34:40	1	5m	also observed 6/22/93
79	COMP			↑		
80-81	14526p0255	14:52:36	+02:55:40	1	5m	H <sub>α</sub>
82	COMP			↑		
83	15142p0126	15:14:12	+01:26:40	1	5m	H <sub>α</sub>
84	15151p0132	15:15:06	+01:32:40	1	5m	H <sub>α</sub>
85	COMP			↑		
86,87	U09787	15:13:12	+01:37:40	1	5m	
88	COMP			↑		
89,90	U10609	16:53:48	+69:58:40	1	5m	v. diffuse
91	COMP			↑		
92,93	U10614	16:54:12	+65:22:40	1	5m	v. diffuse
94	COMP			↑		
95,96	U10669	17:10:42	+70:22:40	1	5m	v.v. diffuse needs more
97	COMP			↑		
98	17222p6011	17:22:12	+60:11:40	1	8m	ETW comps on slit H <sub>α</sub>
99	COMP			↑		
100	I1260	17:26:42	+58:32:40	1	3m	
101	I1258	17:26:31.3	+58:31:32	1	3m	star on slit E of gal
102	F1259EW	17:26:39.2	+58:33:24	1	5m	ETW comps on slit
103	COMP			↑		
104	17346p6704	17:34:36	+67:04:40	1	5m	H <sub>α</sub>

DID NOT EXTRACT 95 + 96  
TOO DIM!

6669 6571 6716  
7307 7109 1004



60 inch Telescope Log

Observer: P. BerlindSpectrograph: FASTGrating: 300LPage: 3082PI: J. HuchraDate: 7/7/94

Number	Object	R. A.	Dec.	L/R	Exp.	Comments
105	17346p6704E	17:34:36	+67:04:00	1	5m	Emp. Ho
106	COMP			↑		
107	17346p6802	17:34:36	+68:02:00	1	5m	
108	COMP			↑		
109	17348p6326	17:34:48	+63:26:00	1	5m	Ho
110	COMP			↑		
111	17386p6803	17:38:36	+68:03:00	1	3m	
112	17387p6803	17:38:42	+68:03:00	1	3m	
113	COMP			↑		
114	N6461	17:39:54	+73:32:00	1	5m	Ho
115	COMP			↑		
116	17406p6829	17:40:24	+68:29:00	1	3m	
117	COMP			↑		
118	17506p6250EW	17:50:36	+62:50:00	1	5m	EW camps on slit
119	17506p6250N	"	"	1	5m	North camp
120	COMP			↑		
121	18014p6521E	18:01:24	+65:21:00	1	5m	East
122	18014p6521W	"	"	1	5m	
123	COMP			↑		
124	18130p6330	18:13:00	+63:30:00	1	5m	star to W Ho
125	COMP			↑		
126	U11183	18144p6800	+68:00:00	1	7m	Ho 1 superposed to
127	COMP			↑		2nd pixel 2006
128-9	RX18272p6134	18:27:14.6	+61:34:32	1	7m	J2000
130	COMP			↑		
131-32	HD192281	20:10:46.8	+40:01:20	12	6030s	5" slit ↓ use 30s
133	COMP			↑	15s	5" slit ↓
134	Cyg OB2	20:31:23	+41:04:50	12	2m	#9, star use 2m
135	COMP			↑		use 5m
136, 139	BFCyg	19:21:55	+29:34:30	12	1 <sup>m</sup> 15 <sup>s</sup> 10 <sup>s</sup>	use 8sec + 5m

5m



60 inch Telescope Log

Observer: P. Berlind

PI: J. Hucha

Spectrograph: FAST

Grating: 300L

Date: 7/7/99

Page: 3065

Number	Object	R.A.	Dec.	L/R	Filter	Comments
140	COMP			↑	15s	air = seeing
141-143	CH Cyg	19:23:14.2	+50:08:31	12	15:20s, 10s	use 1s + 10s
144	COMP			↑		
145-147	CH Cyg	19:48:21	+35:33:21	12	10s, 20s, 2m	use 20s + 2m
148	COMP			↑		
149-151	AG Peg	21:48:56.2	+12:23:27	12	1s, 5s, 4s	
152	COMP			↑		
153	BDp 284211	21:48:57.1	+28:37:48	12	2m	use 5m!
154	COMP			↑		
155	Cyg OB2	20:31:23	+41:04:50	12	5m	again saturated at red end
156	COMP			↑		
157-158	CGX2	21:42:36.9	+38:05:28	15	15m	nicey sunk in slit! 600L, 2m
159	COMP			↑	15s	
160	BDp 284211	21:48:57.1	+28:37:48	15	5m	
161	COMP			↑	30s	
162	CGX2	21:42:36.9	+38:05:28	15	8m	twilight...
163	COMP			↑	30s	photometric night
164-173	FLAT				0.2s	for Paul Callanan 600L, 2m
174-178	BIAS					looks good!
179						
180						ccd will not bin by!

60 inch Telescope Log

Observer: P. Berlind

PI: J. Huehner

Spectrograph: FAST

Grating: 3002

Date: 7/8/94

Page: 3089

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-16	BIAS				0s	FAST chip programming
1-25	FLAT	3002	3" slit		0.1s	screwed up
26	COMP			↓		No overscan on images
27	IES18M071C	15:18:13	-07:10:36	X	5m	cannot bin by 1
28	IES18M071A	"	"	X	5m	
29	IES18M071B	"	"	X	3m	
30,32	A1423	11:57:47.5	+33:42:43	9	10m	2" slit ↓
31,33	COMP			↑		
34	A1610	12:47:45.66	+30:04:37	9	10m	2" slit
35	COMP			↑		
36	A1828	13:58:37.19	+18:25:02	9	5m	
37	COMP			↑		
38	13298p0150	13:29:48	+01:50:00	1	5m	3" slit 15 min ↓ HL
39	COMP			9		
40	13301p0107	13:30:06	+01:07:00	1	5m	
41	COMP			9		
42	13313p0218	13:31:18	+02:18:00	1	5m	HL
43	13316p0201	13:31:36	+02:01:00	1	5m	chip hung up during readout → garbage
44-48	BIAS	stew			0s	
49	14449p0211	14:44:54	+02:11:00	1	5m	no comp, either long delay to get it
50	COMP			9		
51	14474p0045	14:47:24	+0:45:00	1	5m	HL fixed (1/2 hour)
52	COMP			↑		clouds around
53	14484p0009	14:48:24	+0:09:00	1	3m	
54	14484p0009B	14:48:24	+0:09:00	1	5m	
55	COMP			↑		
56	14510p0012W	14:51:00	+0:12:00	1	5m	
58	14510p0012E	14:51:00	+0:12:00	1	5m	
57	COMP			↑		
59	COMP			↑		

NO COMP

↓

USED 41 for 42 + 43 - but we v. careful about relay read

60 inch Telescope Log

Observer: P. BerlindPI: J. HuchraSpectrograph: FASTGrating: 3002Date: 7/8/94Page: 3085

Number	Object	R. A.	Dec.	L/R	Exp	Comments
60	14523 p0050	14:52:18	+00:50:00	1	5m	clouds HL
61	COMP			↑		delay of cloud
62	A5205	16:11:31.4	-18:38:25.1	19	2m	Stauffer HL
63	COMP			↑		
64	40m18B	16:01:26.3	+21:17:14.9	19	3m	
65	40m18A	16:01:27.8	+21:16:15.2	19	5m	MSTH
66	COMP			↑		
67	20433 p2303	20:43:18	+23:03:00	1	5m	HL
68	COMP			↑		
69	U11641	20:48:36	+21:41:00	1	3m	HL
70	COMP			↑		
71	20528 p2350	20:52:48	+23:50:00	1	5m	HL
72	COMP			↑		
73	20551 p2259	20:55:06	+22:59:00	1	5m	HL
74	COMP			↑		
75	20557 p2454	20:55:42	+24:54:00	1	5m	HL
76	COMP			↑		
77	20562 p2318	20:56:12	+23:48:00	1	3m	HL
78	COMP			↑		
79	20588 p2214	20:58:48	+22:14:00	1	3m	HL
80	COMP			↑		
81	21217 p3923	21:21:42	+39:23:00	1	2m	
82	COMP			↑		
83	21264 p3503	21:26:24	+35:05:00	1	5m	
84	COMP			1		
85	21366 p2435	21:36:36	+24:35:00	1	5m	
86	COMP			↑		Total Power Failure on HL
87	<del>SSmtA</del> SSmtB	22:57:54	+24:13:43	19	3m	Low Boyd hooked up HL
88	<del>SSmtA</del> SSmtA	"	"	19	5m	generator at 60% HL
89	COMP			↑		

60 inch Telescope Log

Observer: P. BerlmelPI: Huchra / StaufferSpectrograph: FASTGrating: 300LDate: 7/8/94Page: 3086

Number	Object	R.A.	Dec.	L/R	Exp	Comments
90	SSm24A	22:57:54	+20:58:51	19	5m	300L; 3" slit
91	SSm24B	"	"	19	2m	
92	COMP			↑		
93	SSm30	23:03:22.43	+20:18:29	19	2m	looks like galaxy (both)
94	comp			↑		
95	SSm3	22:56:43	+23:38:52	19	2m	
96	SSm27A	22:56:19.6	+20:52:26	19	2m	0-15 H $\alpha$ emission
97	SSm27B	"	"	19	3m	
98	COMP			↑		
99	SSm10A	22:56:65	+22:44:42	19	3m	
100	SSm10B	"	"	19	5m	
101	COMP			↑		
102	SSm58	22:59:58	+17:39:25	19	2m	H $\alpha$ emission
103	SSm53A	23:00:14	+18:35:07	19	5m	galaxy
104	SSm53B1	"	"	19	3m	0-15 B2
105	SSm53B2	"	"	19	2m	B1
106	COMP			↑		
107	SSm60	23:03:115	+17:31:45	19	1m	
108	SSm94A	23:03:26	+14:45:20	19	1m	slightly broadened
109	SSm94B	"	"	19	5m	galaxy nice H $\alpha$ tail
110	SSm103	23:02:14	+13:56:48	19	2m	
111	COMP			↑		
112	SSm137A	22:52:11	+09:56:43	19	2m	H $\alpha$ emission cool
113	SSm137B	"	"	19	2m	
114	SSm131A	22:55:46	+10:33:06	19	2m	
115	SSm131B	"	"	19	5m	QSO!?!?
116	COMP			↑		
117	SSm114A	23:06:10	+12:36:5	19	30s	H $\alpha$ emission
118	SSm114B	"	"	19	2m	
119	SSm72A	23:07:02	+16:32:13	19	2m	

60 inch Telescope Log

Observer: P. Berlind

PI: Huchra / Straubert / Callanan

Spectrograph: FAST

Grating: 3002/6022

Page: 3087

Date: 7/8/94

Number	Object	R.A.	Dec.	L/R	Exp	Comments
120	SSm72B	"	"	19	2m	
121	COMP			↑		
122-126	BIAS			-	DS	
127-129	CYG X2	21:42:26.7	+51:05:28	15	15m	127, 129: 600 Å, 2
128, 130	COMP			↑	DS	DS: 15s
131	COMP			↓		clouds: 15s lit
132, 133	paper 2	23:07:47	+5:18:58	19	15m	600 Å; centered at 600
134	COMP			↑		
135, 136		stopped		of clouds		chip crashed again
134	BIAS					lots of clouds
135-6	M15	21:29:07	12:09:00	1	5m	scan of M15 for John H.
137	M15	"	"	1	10m	drifted @ 2"/sec in δ
138	COMP			↑		across the cluster
139-140	SKY	"	"		5m	close to M15
141	COMP			↑	10m	→ twilight
142	SKY				10m	what a night...
143	COMP			↑		
144-153	BIAS				DS	
154-163	FLAT				0.5	600 line: 1.5" slit
164						

60 inch Telescope Log

Observer: J. Peters

PI: \_\_\_\_\_

Spectrograph: FASTGrating: 300/600/1200Page: 388Date: 7/9/94

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-15	Bias	300L/mm				See Has Problems
16-30	FaLT	300L/mm				Had Bias
31-47	FLAT 2000	600L/mm	2" SLIT	HA		FLAT 2000
48-68	FLAT 1200	1200L/mm	2" SLIT	HB		FLAT 1200
69-84	FLAT 1800	1800L/mm	2" SLIT			FLAT 1800
85	Comp			↓	150	Lots Problems Chip
86	0302019	17 17 19	56 43 18	1	15M	would Run Slow
87	Bias			↑		Then Problems of
88	Comp			↓	150	my own doing.
89	RX1832.6P6848A	18 32 34	68 48 11	1	5M	STAR
90	RX1832.6P6848B	↓	↓	1	5M	STAR
91-105	Bias					
106	Comp			↓	150	
107	RX1910.4P6741A	19 10 22	67 41 06	1	15M	Seeing 1-3"
108	RX1910.4P6741B	↓	↓	1	5M	
109	Bias					
110	Comp				150	
111	RX2228P2037C	22 28 33	20 37 26	1	15M	
112	RX2228P2037B	↓	↓	1	7M	
113	RX2228P2037A	↓	↓	1	5M	
114	Comp			↓	150	
115	BOP2842 11	21 48 57	28 37 48	0	1M	570 STR.
116	Bias					
117	Comp			↓	150	
118	RX2333P2141	23 33 54	21 41 02	1	15M	
119	Bias				↑	Thin clouds Around.
120	Comp	2" SLIT	600L/mm		300	600L/mm 2" SLIT
121	Cyg X2	21 42 36	38 05 28		15M	
122	Cyg X2	↓	↓		15M	
123	Bias			↑		





60 inch Telescope Log

Observer: J. Peters

PI: J. Huckra

Spectrograph: Fast

Grating: 300/600

Date: 7/10/94

Page: 3090

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-15	Bias					
16-30	Flat				.2	<sup>Saturated</sup> 300 $\mu$ m 3" SLIT
31-45	Flat 600	600 $\mu$ m	MIC 6.5		.2	600 $\mu$ m 2" SLIT
46	Comp		Test		15 <sup>s</sup>	
47	Comp		Test		15 <sup>s</sup>	
48	Comp			↓	15 <sup>s</sup>	
49	14403P0053	14 40 18	00 53 00	1	15 <sup>m</sup>	
50	Bias					
51	Comp			↓	15 <sup>s</sup>	
52	14418P0015N	14 41 48	00 15 00	1	15 <sup>m</sup>	
53	14418P0015S	↓	↓	1	10 <sup>m</sup>	
54	Bias					
55	Comp			↓	15 <sup>s</sup>	
56	16533P6958	16 53 18	69 58 00	1	15 <sup>m</sup>	3 spots on slit in corner due to lens flare
57	16533P6958	↓	↓	1	15 <sup>m</sup>	
58	Bias					
59	1 Comp			↓	15 <sup>s</sup>	
60	17007P7022	17 00 42	70 22 00	1	15 <sup>m</sup>	During This Obj - Blind
61	17007P7022	↓	↓	1	15 <sup>m</sup>	This is a Waste of Time
62	Bias					
63	RX1737.4P7123	17 37 24	71 23 56	1	15 <sup>s</sup>	No Comp. - NOT reduced
64	Bias					Clouds
65	Comp					Clouds
66	J2243P1303	22 40 53	12 47 42	3	15 <sup>m</sup>	Clouds
67	J2243P1303	22 40 53	12 47 42	3	15 <sup>m</sup>	Clouds
68	Bias					
69	Comp			↓	15 <sup>s</sup>	
70	B0P284211	21 48 57	28 37 48	0	1 <sup>m</sup>	Clouds
71	Bias					
72	Comp					

56-57  
if extracted  
where  
everything else  
is extracted  
V. dis. effect

USED FLATS  
FROM 7/12/94 (21:140)

reduced  
FILE 63  
on 10/1/97  
Kings file 59P  
on



60 inch Telescope Log

Observer: J. Peters

PI: J. Huckra

Spectrograph: FAST

Grating: \_\_\_\_\_

Date: 7/10/94

Page: 369/

Number	Object	R.A.	Dec.	L/R	Exp	Comments
73	J2243 P1256	22 40 50	12 40 22	3	15M	
74	J2243 P1256	↓	↓	3	15M	
75	Bias					
76	Comp					600/um 2" slit
77	BOP284211	21 48 57	28 37 48	0	1M	STD STR
78	Comp			↓	15M	
79	CygX2	21 42 36	38 05 28		15M	600/um 2" slit
80	CygX2	↓	↓		15M	" " " "
81						
82						
83						
84						
85						
86						
87						
88						

60 inch Telescope Log

Observer: J. PetersPI: J. HuchraSpectrograph: FastGrating: 300/600Page: 3092Date: 7/11/94

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-15	Bias					300 L/mm 3" SLIT
16-30	FLAT				.2	300 L/mm 3" SLIT
31-45	FLAT 600				.2	600 L/mm 2" SLIT
46	Comp	600 L/mm	1" SLIT	TEST	30s	600 L/mm 2" SLIT
47	Comp			↓	15s	CLOUDS AROUND
48	SAO 084795	17 01 06	24 35 00	0	20s	
49	Comp			↓	15s	
50	HD 136711	15 19 24	18 37 00	0	10s	
51	Comp			↓	15s	
52	H243	13 14 00	29 21 49	0	3M	
53	Comp			↓	15s	
54	N5548	14 15 43	25 22 01	6	5M	
55	Comp			↓	15s	
56	Ferje 67	12 39 18	17 47 24	0	2M	
57	Comp			↓	15s	
58	N4486B	12 28 00	12 45 59	0	5M	
59	Comp			↓	15s	CLOUDS
60	SN1994S	12 28 48	29 26 00	2	20M	Use H243 or Ferje 67s STD
61	Comp			↓	15s	SN 1994T NOT SEEN
62	J12582P2810	12 58 13	28 10 55	3	10M	SN 1994Q NOT SEEN
63	Comp			↓	15s	322.033349
64	J12582P2625	12 58 13	26 25 36	3	15M	322.006186
65	Comp			↓	15s	
66	J12584P1936	12 58 36	27 36 43	3	10M	322.055955 LIMIT BRIGHT
67	Comp			↓	15s	
68	RX1720.1P2637	17 20 08	26 37 29		15M	POSA T
69	RX1720.1P2637	↓	↓		15M	
70	Comp			↓	15s	
71	RX1735.9P1659A	17 35 51	16 59 19		15M	
72	RX1735.9P1659B	↓	↓		8M	

FLATS (300 L/mm) are SATURATED

USED FLATS FROM 7/12/94

60 inch Telescope Log

Observer: J. Peters

PI: J. Huchra

Spectrograph: FAST

Grating: 300/600

Date: 7/11/94

Page: 3093

Number	Object	R. A.	Dec.	L/R	Exp	Comments
73	Comp P			↓	15 <sup>s</sup>	
74	RX1819.9P5709C	18 19 54	57 09 51		15 <sup>m</sup>	
75	RX1819.9P5709C	↓	↓		15 <sup>m</sup>	
76	Comp P	↓	↓	↓	15 <sup>s</sup>	
77	RX1819.9P5709B	↓	↓		15 <sup>m</sup>	
78	RX1819.9P5709A				15 <sup>m</sup>	
79	Comp P			↓	15 <sup>s</sup>	
80	RX1921.4P7434A	19 21 26	74 34 22		15 <sup>m</sup>	
81	RX1921.4P7434A	↓	↓		15 <sup>m</sup>	
82	Comp P	↓	↓	↓	15 <sup>m</sup>	
83	RX1921.4P7434B	↓	↓		8 <sup>m</sup>	
84	RX1921.4P7434C	↓	↓		15 <sup>m</sup>	
85	RX1921.4P7434C	↓	↓		15 <sup>m</sup>	
86	Comp P			↓	15 <sup>s</sup>	
87	RX1927.3P6533A	19 27 20	65 33 46		8 <sup>m</sup>	
88	RX1927.3P6533B	↓	↓		15 <sup>m</sup>	Bingo
89	RX1927.3P6533C	↓	↓		6 <sup>m</sup>	Did in RENAME May NOT
90	RX1927.3P6533D	↓	↓		8 <sup>m</sup>	have Name IN COMMENT
91	RX1927.3P6533E	↓	↓		15 <sup>m</sup>	field
92	Comp P	600L/Min	2" SLIT	↓	30 <sup>s</sup>	600L/Min 2" SLIT
93	Cyg X2	21 42 36	38 05 28		15 <sup>m</sup>	
94	Cyg X2	↓	↓		15 <sup>m</sup>	
95	Comp P			↓	30 <sup>s</sup>	
96	BDP284211	21 48 57	28 57 48		1 <sup>m</sup>	
97	Comp P			↓	15 <sup>s</sup>	
98	BDP284211	21 48 57	28 57 48		1 <sup>m</sup>	300L/Min 3" SLIT
99-113	Bias					
100						
101						
102						

## 60 Inch Telescope Log

Observer: P. BerlindPI: J. HuchraSpectrograph: FASTGrating: 300Date: 7/12/94Page: 3094

Number	Object	R. A.	Dec.	L/R	Exp	Comments
1-10	BIAS				0s	great sky
11-25	FLAT	300	3" slit		0.1s	
26-34	COMP	focus	test			NEW FAST focus = 850
35	H244	13:21:19.1	+36:23:38	0	5m	
36	COMP			↑		photometric
37	N4151	12:08:01	+39:41:02	0	5m	
38	COMP			↑		
39	N4572	12:33:54	+71:31:00	1	5m	UO T775 H $\alpha$ !
40	COMP			↑		
41	13316p0201	13:31:36	+02:01:00	1	3m	H $\alpha$
42	COMP			↑		
43	13323p0158	13:32:18	+01:58:W	1	3m	
44	13335p0159	13:33:30	+01:59:W	1	3m	H $\alpha$
45	COMP			↑		
46	13344p0127	13:34:24	+01:27:W	1	3m	H $\alpha$
47	13345p0029	13:34:30	+0:29:W	1		H $\alpha$
48	COMP			↑		
49	13387p0202S	13:38:42	+02:02W	1	2m	screamin' H $\alpha$
50	13387p0202N	13:38:42	+02:02:W	1	3m	H $\alpha$
51	13397p0206	13:39:42	+02:06:W	1	2m	
52	COMP			↑		
53	U08666W	13:39:24	+02:19:W	1	2m	star on slit $\frac{1}{2}$ E
54	U08666M	"	"	1	3m	Middle comp
55,57	U08666E	"	"	1	3m	East comp x2
56	COMP			↑		
58	N5285	13:41:54	+02:21:W	1	2m	
59	COMP			↑		
60	13426p022	13:42:36	+0:22:W	1	2m	
61	COMP			↑		
62	13485p0005	13:48:30	+0:05:W	1	2m	

Moon 13: 401

60 Inch Telescope Log

Observer: P. Berlind

PI: J. Huchra

Spectrograph: FAST

Grating: 3002

Date: 7/12/94

Page: 3095

Number	Object	R. A.	Dec.	L/R	Exp	Comments
63	COMP					
64	13494p0205	13:49:24	+02:05:00	1	3m	H $\alpha$
65	13495p0215	13:49:30	+02:15:00	1	2m	
66	13500p0211	13:50:00	+02:11:00	1	2m	H $\alpha$
67	COMP			↑		
68	13502p0222	13:50:12	+02:22:00	1	5m	H $\alpha$
69	13511p0018	13:51:06	+01:18:00	1	2m	
70	13507p0040	13:50:42	+01:40:00	1	2m	H $\alpha$
71	COMP			↑		
72	13508p0217	13:50:18	+02:17:00	1	3m	H $\alpha$
73	COMP			↑		
74, 76	0152106D	14:42:18.41	+22:18:10.1	1	3m	"D" = #4 6190 N $\alpha$
75	COMP			↑		15163
77	I1010	14:24:48	+01:15:00	1	3m	U09254
78	COMP			↑		
79	14280p0203	14:28:00	+02:03:00	1	5m	H $\alpha$
80	COMP			↑		
81	1428Sp0129	14:28:30	+01:27:00	1	3m	H $\alpha$
82	COMP			↑		
83	14399p0105	14:39:54	+01:05:00	1	3m	
84	COMP			↑		
85	14416p0125N	14:41:24	+01:25:00	1	3m	
86	14416p0125S	14:41:24	+01:25:00	1	3m	star superposed to E of H $\alpha$
87	COMP			↑		
88, 89	14425p0044	14:42:30	+01:44:00	1	3m, 5m	H $\alpha$
90	COMP			↑		
91	14400p0142	14:40:00	+01:42:00	1	3m	
92	N5738	14:41:30	+01:18:00	1	2m	check coords *unsH?
93	COMP			↑		
94	14563p0213	14:56:18	+02:13:00	1	2m	

29a  
→

60 Inch Telescope Log

Observer: P. Ber Lind

PI: Huchra / Prosser

Spectrograph: FAST

Grating: 300L

Date: 7/12/94

Page: 3096

Number	Object	R.A.	Dec.	L/R	Exp	Comments
95	14577p0229	14:57:42	+02:29:60	1	5m	FKK 7/06 #11
96	COMP			9		
97-98	BTAS			-	0s	
99,101	RXJ 17534-5205B	17:53:24	+52:05:60	1	5m	B
100	RXJ 17534-5205A	"	"	1	5m	A 37
102	COMP			↑		
103	bst			-	30s	1.1" slit; 600L grating ↓
104	P19	17:45:36.8	+05:42:43	20	15m	centered at 4400 Å
105	COMP			↓	45s	Prosser 419.7
106	P38	17:46:25.6	+05:31:10	20	22m	
107	COMP			↑	45s	2139
108	P27	17:45:56.7	+05:22:34	20	18m	
109	COMP			↑	45s	
110	P12	17:45:19.6	+05:36:56	20	18m	
111	COMP			↑	45s	
112	P6	17:44:54.4	+05:25:13	20	10m	
113	COMP			↑		
114/115	BDe1	20:37:33	+14:36:60	20	3,10s	10s sat at red end
116	COMP			↑		
117	HD164922	18:60:28	+26:19:108	15	1m	600L; 2" slit → 615 Callanus
118	HD182488	19:21:40	+33:07:17	15	45s	LKOV G8V
119	COMP			45	45s	
120	HD184385	19:31:16	+21:44:026	15	45s	G5V
121	HD186858	19:43:39	+33:07:07	15	45s	K3V
122	COMP			↑	30s	
123	CXGK2	21:42:36.9	+38:05:28	15	20m	
124	COMP			↑	30s	
125-6	5Ry	21:37:30	+19:17:37	15	5,10s	FOV
127	pileup	22:09:44.6	+33:09:04	15	1s	F3 III
128	COMP			↑	30s	

## 60 Inch Telescope Log

Observer: P. BerlindPI: Huchra/StaufferSpectrograph: FASTGrating: 300Page: 3077Date: 7/12/94

Number	Object	R. A.	Dec.	L/R	Exp	Comments
129-30	paper 2	23:03:47	+15:18:58	19	15m	6000; 1.5" slit Stauffer
131	COMP			↑		centered @ 6600 Å
132-33	paper 2	"	"	19	15m	133p. inh = sum of all 4
134	COMP			↑		
135	SSm157A	22:52:11.7	+09:56:42	19	10m	H $\alpha$
136	COMP			↑		
137	SSm58	22:57:53	+17:39:25	19	10m	H $\alpha$
138	COMP			↑		
139	SSm114A	23:06:23	+12:36:30	19	5m	H $\alpha$
140	COMP			↑		
141	SSm27A	22:56:15.6	+22:43:42	19	8m	H $\alpha$ <span style="float: right;">● - A-H<math>\alpha</math> ● - B-nultra</span>
142	COMP			↑		
143	SSm1A	22:57:33	+24:13:49.6	19	10m	H $\alpha$
144	COMP			↑		
145	SS0019p21	+00:17:13.9	+21:40:20	13	10m	12000; 2" slit, 376.5-500
146	COMP			↑	30s	centered at 5000
147	SS0019p21	"	"	13	10m	centered @ 6200-675
148-9	COMP			↑	15s, 30s	
150-159	FLAT	12000; 2" slit, 675; 6200	0.8			Jeff #13
160-169	FLAT	12000; 2" slit 376.5; 5000	0.8			Jeff #13
170-184	FLAT	6000; 1.5" slit; 6000	0.5s			Stauffer #19
185-194	FLAT	6000; 2" slit at 615	0.3s			Callanan #15
195-204	FLAT	6000; 1.1" slit @ 4195	1s			Prosser #20
205-214	FLAT	6000; 1.1	"		5s	Prosser #20
215-224	FLAT	6000; 1.1	4119		30s	blue end is weak! for Prosser
225-234	BIAS					
235-243	lockst					750-950 x 25 843 810-860 x 10

FILE 146 .COMP - NO GOOD

## 60 Inch Telescope Log

Observer: P. BerlindPI: J. HuchraSpectrograph: FASTGrating: 300L, 3" slitPage: 3098Date: 7/13/94

Number	Object	R. A.	Dec.	L/R	Exp	Comments
1	Dark				5m	clear
2-11	BIAS				0s	some cloud to far west
12-21	FLAT	300L	3" slit		0.1s	+ SE
22	COMP			↑		best
23	HZ44	13:21:19	+36:23:58	0	5m	
24	COMP			↑		
25	N4151	12:08:01	+39:41:02	6	5m	
26	COMP			↑		
27	N5548	14:15:43	+25:22:01	6	5m	
28	COMP			↑		
29	J13124p2832	13:12:26	+28:22:13	3	5m	H <sub>α</sub>
30	COMP			↑		
31	J13131p2748	13:13:27	+27:18:06	3	5m	
32	COMP			↑		
33	J13150p2910	13:15:02	+29:10:47	3	5m	
34	COMP			↑		
35-36	J13182p2815	13:18:12.4	+28:45:03	3	3m	H <sub>α</sub>
37	COMP			↑		seeing pretty good
38	J13210p2921	13:21:06	+29:21:53	3	5m	
39	COMP			↑		
40	J13099p3002	13:09:59.8	+30:02:21	3	3m	H <sub>α</sub>
41	COMP			↑		
42	J13105p3126	13:10:20.9	+31:26:37	3	3m	
43	COMP			↑		
44	J13110p2938	13:11:01.7	+29:38:10	3	3m	
45	J13110p2934	13:11:01.9	+29:34:41	3	3m	
46	COMP			↑		
47	14009p0058	14:00:54	+0:58:00	1	5m	H <sub>α</sub>
48	14011p0104	14:01:06	+01:04:00	1	5m	H <sub>α</sub>
49	14015p0107	14:01:30	+01:09:00	1	5m	H <sub>α</sub>



60 Inch Telescope Log

Observer: P. BerlindPI: J. HuchraSpectrograph: 1751Grating: 302Date: 7/13/94Page: 3099

Number	Object	R. A.	Dec.	L/R	Exp	Comments
50	COMP			↑		
51	14059 p0026	14:05:54	+00:06:00	1	3m	Hk
52	COMP			↑		
53	14084 p0116	14:08:24	+01:16:00	1	3m	Hk
54	14086 p0048	14:08:36	+00:48:00	1	3m	
55	14087 p0130	14:08:42	+01:30:00	1	3m	
56	COMP			↑		
57	14093 p0011 S	14:09:18	+01:11:00	1	3m	South Comp
58	14093 p0011 N	"	"	1	3m	Hk
59	COMP			↑		
60	14118 p002 SE	14:11:48	+01:02:00	1	5m	Hk
61	14118 p002 NW	"	"	1	5m	Hk
62	COMP			↑		
63	14148 p015	14:14:48	+01:15:00	1	3m	
64	COMP			↑		
65	14153 p0045	14:15:18	+01:45:00	1	3m	
66	COMP			↑		
67	I 942	14:15:42	+01:07:00	1	3m	1409147 Hk
68	COMP			↑		moon set
69	14761 p046	14:26:06	+00:46:00	1	3m	Hk
70	COMP			↑		
71	14380 p046	14:38:00	+00:46:00	1	5m	Hk
72	COMP			↑		
73, 75, 77	HH32 AEW	19:18:07.9	+10:56:21	13	10m	32A, 32A, star W
74, 76, 78	COMP			↑		traded Salvador for an hour of
79, 81	Cy9 X AEW	20:55:11.4	+30:50:52	13	10m	center, 2A, 3" S his time tomorrow
80, 82	COMP			↑		
83	0432085A	17:50:15.1	+35:04:05	1	3m	A
84	0432085B	"	"	1	3m	B
85	0432085C	"	"	1	3m	

1895

60 Inch Telescope <sup>op.</sup>Observer: P. BerlandPI: J. HuebraSpectrograph: FASTGrating: 300L, 3" slitDate: 7/13/94Page: 3/00

Number	Object	R. A.	Dec.	L/R	Exp	Comments
86	043206SD	17:50:15.1	+35:04:50.9	1	3m	
87	043206SE	"	"	1	5m	H $\alpha$
88	COMP			↑		
89	RX1920p6316A	19:20:07.5	+63:16:29	1	5m	covered by extended object
90	RX1920p6316B	"	"	1	3	*
91	RX1920p6316D	"	"	1	3	*
92, 94	RX1920p6316E	"	"	1	5m	gal x2
93	COMP			↑		
95	J2242p1221	22:42:58.05	+12:21:24	3	5m	15R Survey
96	COMP			↑		H $\alpha$ @ 7345A - 37,7 km/s
97	J2244p1148	22:44:41.1	+11:48:38	3	5m	
98	COMP			↑		
99	J2246p1147	22:46:23.8	+11:47:38	3	5m	H $\alpha$
100	J22467p1143	22:42:44.7	+11:43:49	3	5m	
101	COMP			↑		
102	J22467p1229	22:46:45.9	+12:29:34	3	5m	broad H $\alpha$ - Sun??
103	COMP			↑		
104	J22470p1214	22:47:01.42	+12:14:17	3	5m	
105	J22472p1219	22:47:02.12	+12:19:57	3	5m	H $\alpha$
106	J22471p1218	22:47:06.68	+12:18:34	3	5m	H $\alpha$
107	COMP			↑		
108, 110	J22471p1154	22:47:07	+11:54:58	3	5m	x2
109	J22471p1218B	22:47:08	+12:18:45	3	5m	H $\alpha$
111	COMP			↑		
112, 114	J22472p1227	22:47:13.2	+12:27:35	3	5m	x2
113	J22473p1216	22:47:19.24	+12:16:39	3	5m	
115	COMP			↑		
116	J22474p1145	22:47:25.6	+11:45:15	3	5m	H $\alpha$
117-118	J22479p1305	22:47:53	+13:05:46	3	5m	x2
119	COMP			91		

extracted  
middle object  
on file 89

60 Inch Telescope Log

Observer: P. BerlinPI: J. HuchraSpectrograph: FASTGrating: 302Date: 7/13/94Page: 3101

Number	Object	R. A.	Dec.	L/R	Exp	Comments
120-121	J22480p1204	22:48:02.2	+12:04:02	3	5m	
122	COMP			↑		
123,124	J22479p1226	22:47:58.9	+12:06:19	3	5m	
125	COMP			↑		
126-127	Z3515p1713	23:51:30	+47:13:00	1	5m	superposed to use #126
128	COMP			↑		
129,130	RXJ21039p0404A	21:03:53.8	+04:02:24	1	5m	*
130	COMP			↑		
132,134	RXJ21049p1401A	21:04:52.1	+14:01:27	1	5m	x2 gal
133	RXJ21049p1401B	"	"	1	3m	star
135,136	RXJ21049p1402	"	"	1	5m	x2 gal
137	RXJ21049p1403	"	"	1	3m	star
138	COMP			↑		
139,140	eCep	22:15:02	+57:03:00	20	295s	602; 1.1" slit, 440A
141	COMP			↑		
142,143	SAO11483	00:53:42.4	+68:46:36	20	1m, 2m	
144	COMP			↑		
145,146	SAO11547	01:00:23.4	+61:40:10	20	1m, 2m	
147	COMP			↑		
148,149	the Cas	01:11:06	55:09:00	20	5s	
150	the COMP			↑		
151,152	HR8419	22:03:25.7	+64:34:00	20	5s	
153	COMP			↑		
154-155	HR 8665	22:46:04.1	+12:06:31	20	5, 10s	
156	COMP			↑		
157-157	FLAT			20	0.9s	↓
168-177	BIAS				0s	

## 60 inch Telescope log

Observer: P. Berlind/CaricPI: HuchraSpectrograph: FASTGrating: 300R/1700LPage: 3102Date: 7/14/94

Number	Object	R. A.	Dec.	L/R	Exp	Comments
1-4	COMP				test	
5-17	DARK				10m	
18-32	FLAT	12022	1.1" slit	HK	0.8s	Caric
33-47	FLAT	3002	1.1" slit		0.3s	Caric
48-57	FLAT	3002	3" slit		0.6	Huchra
58-67	BIAS				0s	
68	H244	13:21:19.1	+36:23:36	3	5m	
69	COMP			↑		
70	N4486B	12:28:00	+1245:59	3	5m	velocity std.
71	COMP			↑		
72	14193p021SE	14:19:18	+02:15:00	3	5m	HK
73	14193p021SW	"	"	3	5m	HK
74	COMP			↑		
75	14163p0008E	14:16:08	+0:08:00	3	5m	HK
76	14163p0008W	"	"	3	5m	HK
77	14163p0008N	"	"	3	5m	HK
78	COMP			↑		
79	14207p0112	14:20:42	+01:12:00	3	5m	HK
80	U0229W	14:22:06	+01:24:00	3	3m	S
81	U0229E	"	"	3	5m	superposed PK
82	COMP			↑		
83	HH32	19:18:09.41	+10:56:14.7	<del>1200</del> 1.1"	15m	
84	COMP			"	45s	
85	HH32	"	"	<del>1200</del> 1.1"	15m	
86	COMP			"	45s	
87	HH32	"	"	<del>1200</del> 1.1"	15m	
88	COMP			"	45s	
89	HH32S	"	"	<del>1200</del> 1.1"	15m	
90	COMP			"	45s	
91	HH32S	"	"	<del>1200</del> 1.1"	15m	

Caric dark mean is 5.9; dark corrected  
 flats have an odd shape

## 60 inch Telescope Log

Observer: S. Curjel / P. VerlindPI: CurjelSpectrograph: FASTGrating: 300 L / 1200 LDate: 7/14/94Page: 3103

Number	Object	R. A.	Dec.	L/R	Exp	Comments
92	COMP			<del>1200</del> 61"	45s	
93	HH325	19:18:09.41	+10:56:14.7	<del>1200</del> 61"	15m	
94	COMP					
95	HH3252	19:18:09.41	+10:56:14.7	<del>1200</del> 61"	15m	
96	COMP					
97	HH3252	"	"	"	15m	
98	COMP					
99	HH3252	"	"	<del>1200</del> 61"	15m	slit N-S
100						
101	Cyg XA	20:55:11.40	+30:50:52	<del>1200</del> 61"	15m	slit N-S; almost centered on star
102	COMP					
103	Cyg XA	"	"	"	"	
104	Cyg XA	"	"	"	"	centered on XA
105	COMP					
106	Cyg XA	"	"	"	"	center on XA
107	COMP					
108	Test	"	"	"	"	test position of
109	Test	"	"	"	"	
110	Cyg XA					
111	COMP					
112	Cyg XAE20	20:55:12.95	"	"	15m	center on XA; trough #2
113	COMP					
114	Cyg XAE20	"	"	"	"	"
115	COMP					
116	Cyg XAE20					"
117	COMP					
118	Cyg XAW20	20:55:19.85	"	"	15m	center on XA; trough #3
119	COMP					
120	Cyg XAW20	"	"	"	"	"
121	COMP					









