

60 inch Telescope log

Observer: Jim Peters

PI: Haber et. Al

Spectrograph: Fast

Grating: 300

Date: 9/3/94

Page: 3134

→
→
→
→

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-77	Test	Files				TEST Files
78	Comp			↓	10 ^s	
79	COMP			↓	10 ^s	Clouds Around
80	21505P0328	21 50 30	03 28 00	21	10 ^m	Humidity going up
81	21505P0328	21 50 30	03 28 00	21	10 ^m	1st Obj with New
82	23169P0050	23 16 54	00 50 00	21	5 ^m	Chip + TV.
83	COMP			↑	10 ^s	
84	Comp			↓	10 ^s	There Are No
85	2028P4311	21 48 57	28 37 48	0	2 ^m	Flats. Chip is
86-95	Bias					Too Fast.
87						→ STD STAR
						Closed High Hum

60 inch Telescope Log

Observer: P. BerlindPI: J. Huchra / M. GellerSpectrograph: FASTGrating: 3W2Date: 9/4/94Page: 3/35

Number	Object	R. A.	Dec.	L/R	Exp	Comments
1-10	BIAS					
11-12	FLAT					
13	Flat du	Flat from	yesterday	divided	into	*12
14	BIAS					
15-24	FLAT				0.1s	1.1" slit 3W line
25-26	test					ugly images lots of spots
27-35	Foctest				15s	FAST focus
36-43	Foctest				15s	725-925 x 25 best @ 86.2
44-49						820-990 x 10
50-60						830-880 x 10
61-63	HD198858	20:49:50.7	+47:31:07	0	1.5, 15s	835-880
64	COMP			↑	10s	starting to clear
65-66	N7331	22:34:46.9	+34:09:43	0	1m, 5m	
67	COMP				10s	
68-72	sig Cyg	21:17:12	+39:22:17	0	0.5, 1s	σ Cyg B9 star
73	COMP				10s	thin cloud
74-75	22527p1848	22:57:42	+18:48:10	21	3, 5m	seeing 2-3" Hk
76	COMP				10s	Rick Groups
77-78	23007p1945	23:00:42	+19:45:00	21	5m	through clouds
79	COMP					
80-81	23009p1940	23:00:54	+19:40:00	21	5m, 10m	
82	COMP				↑	
83-86	rho Cyg	21:33:46.4	+45:34:03	0	1s	G8 III
87	COMP				↑	MMT in cloud
88-90	K peg	21:44:23.8	+25:37:11	0	1s	F5 IV
91	COMP				↑	
92-94	23009p1959	23:00:54	+19:59:00	21	10m	clouds x 2
95-98	COMP				↑	
96	23092p1830	23:09:12	+18:30:00	21	5m	
97	COMP				↑	

KS-F7

60 inch Telescope Log

Observer: P. BerlindPI: Geller/HuchraSpectrograph: FASTGrating: 302, 3"Date: 9/4/94Page: 3136

Number	Object	R. A.	Dec.	L/R	Exp	Comments
98,99	23142p1808	23:14:12	+18:08:40	Z1	Sm, 10m	x2
100	COMP			↑		
101	N7588	23:15:28.3	+18:28:44	Z1	Sm	looks like 2 objects
102	N7598	23:16:03.7	+18:28:35	Z1	Sm	
103	†st			-	1s	c
104	COMP			↑		
105	23183p1921	23:18:18	+19:21:40	Z1	Sm	sky is looking good!
106	COMP			↑		
107	I5314	23:18:42	+19:02:40	Z1	Sm	
108	COMP			↑		
109	4668.0180W	00:23:26.6	-03:12:34	1	Sm	H α for Luis
110-111	4668.0180E	"	"	1	Sm	H α
112	COMP			↑		
113	23195p0112S	23:19:30	+01:12:40	Z1	Sm	H α south camp
114	23195p0112N	"	"	Z1	Sm	H α
115	COMP			↑		
116	23216p0109	23:21:48	+01:09:40	Z1	Sm	H α looked stellar
117	COMP			↑		
118	23222p0045	23:22:12	+10:48:40	Z1	Sm	H α
119	COMP			↑		
120	00207p0133	00:20:42	+01:33:40	Z1	Sm	stars on slit H α
121	COMP			↑		galaxy is most western object
122	00294p0221	00:29:24	+02:21:40	Z1	Sm	
123	COMP			↑		
124	00318p0210	00:31:48	+02:10:40	Z1	Sm	
125	COMP			↑		
126	00365p0136N	00:36:30	+01:36:40	Z1	Sm	H α northeast camp
128	00365p0136S	"	"	Z1	Sm	south west camp
127	COMP			↑		
129	00368m0224	00:36:48	-02:24:40	Z1	Sm	

60 inch Telescope Log

Observer: P. BerlindPI: Huchra/McClintockSpectrograph: FASTGrating: 3002; 3"Date: 9/4/94Page: 3137

Number	Object	R. A.	Dec.	L/R	Exp	Comments
130	COMP			↑		
131-2	M31	00:40:10	+40:59:42	0	1m Sm	The big "A"
133	COMP			↑		
134	COMP	HB		↓	120s	1200 grating; 2" slit
135	SS0019p21	00:17:13.9	+21:40:20	13	450s	centered at SWOA
136	COMP			↓	15s	H _α ↓ seeing 2-3"
137	SS0019p21	"	"	13	450s	
138				↓		
138	4688.1145	01:49:25.9	-05:12:22	1	15m	De Coster SSRSZ
139	COMP			↑		also observed 12/16/93, 11/7/94
140	A262m53	01:47:23.6	+35:23:36	25	Sm	K Band L. F. H _α
141	A262m108	01:48:56.2	+35:23:10	25	Sm	
142	A262m111	01:49:04.4	+35:23:33	25	Sm	H _α
143	COMP			↑		
144	A01476p3644	01:47:34.7	+36:44:40	25	Sm	May need more; ≤ 135
145	A01481p3634	01:48:24.3	+36:34:45	25	Sm	
146	A01488p3639	01:48:51.1	+36:39:48	25	Sm	
147	COMP			↑		
148	A01489p3630	01:48:54.5	+36:30:48	25	Sm	
149-50	A01492p3627	01:49:12.7	+36:27:19	25	Sm	10m
151-53	A01497p3624	01:49:40.2	+36:24:35	25	Sm	10 dome ran away
152	COMP			↑		
154	02292p0005	02:29:12	+02:05:10	1	10m	also observed 11/8/93 H _α
155	COMP			↑		
156	NGC1700	04:54:28	+27:13:42	0	Sm	std gal
157	COMP			↑		
158-165	HD52971	06:57:51	+27:13:42	0	5-15s	10s is best
166	COMP			↑		
167-170	sky flat	zenith		0	2m-5m	
171	COMP			↑		

60 inch Telescope Log

Observer: P. BerlindPI: J. HuchraSpectrograph: FASTGrating: 3002, 3" slitPage: 3139Date: 9/5/94

Number	Object	R. A.	Dec.	L/R	Exp	Comments
1	BIAS				0s	
2-11	DARK				10m	looks good
12-21	BIAS				0s	clear skies
22-31	FLAT				0.1s	bin x 1 SS to SE
32	COMP					bin x 2
33-34	HD192281	20:10:468	+40:07:01	12	10s	std 5" slit ↓
35	COMP			↑	5s	
36-37	Cygn0139	20:31:23	+41:04:50	12	20s	
38	COMP			↑	8s	
39-40	TLrB	15:57:24	+26:03:36	12	60s, 30s	use 3 0s
41	COMP			↑	8s	
42-44	ArgDrg	16:01:23	+66:56:25	12	5s, 60s, 30s	use 5s + 30s
45	COMP			↑	8s	
46-49	RSoph	17:47:32	-06:41:39	12	5s, 10s, 60s, 120	10s + 120s
50	COMP			↑		
51-52	YHer	18:12:26	+20:58:12	12	60s, 8m	60s + 8m
53	COMP			↑		
54	15574p0407	15:57:24	+04:07:00	21	5m	H _α 3" slit ↓
55	COMP			↑		
56	15599p0122	15:59:54	+04:22:00	21	5m	H _α
57	COMP			↑		
58	16001p0307N	16:00:06	+03:07:00	21	5m	northcomp H _α
59, 61	16001p0307S	"	"	21	5m	south x2
60	COMP			↑		
62	16020p0303	16:02:00	+03:03:00	21	5m	
63	COMP			↑		
64	RXJ1638p7325A	16:38:06.3	+73:25:36.8	99	5m	Roset Field
65	RXJ1638p7325B	"	"	99	10m	m star?
66	RXJ1638p7325C	"	"	99	5m	two stars
67	COMP			↑		

60 inch Telescope Log

Observer: P. Berlind


PI: J. Huchra

Spectrograph: FAST

Grating: 300L; 3" slit

Date: 9/5/94

Page: 3/40

Number	Object	R. A.	Dec.	L/R	Exp	Comments
68,70	RXJ 1643p0511S	16:43:08.4	+51:15:06.8	99	5m	galaxy cluster +10m
69	COMP			↑		
71	RXJ16522p0449AD	16:52:13	+44:49:19	99	5m	A(gal) + D(star to E)
72	RXJ16522p0449B	"	"	99	3m	
73	RXJ16522p0449C	"	"	99	8m	
74	COMP			↓		
75	RXJ16522p0449A	"	"	99	10m	A again
76	RXJ 20417p0721A	20:41:39.1	+07:21:52.2	99	3m	star
77	RXJ20417p0721B	"	"	99	3m	"
78	RXJ20417p0721C	"	"	99	3m	"
79	RXJ20417p0721D	"	"	99	3m	"
80	COMP			↓		
81	RXJ20417p0721E	"	"	99	10m	gal?
82	RXJ20507p0123A	20:50:42.6	+01:23:44.9	99	3m	too small to extract A -  - A's little friend
83	RXJ20507p0123B	"	"	99	3m	
84	RXJ20507p0123C	"	"	99	3m	
85	RXJ20507p0123D	"	"	99	3m	
86	RXJ20507p0123E	"	"	99	2m	
87	COMP			↑		
88	RXJ20511p0215A	20:51:06.1	+02:15:43.9	99	3m	
89	RXJ20511p0215B	"	"	99	3m	
90	RXJ20511p0215C	"	"	99	3m	
91	RXJ20511p0215D	"	"	99	1m	
92	COMP			↑		
93	RXJ21139p0233A	21:13:51.2	+02:33:26.4	99	5m	star (below) object to west(?)
94	B	"	"	99	5m	gal
95	CG	"	"	99	5m	G is east of C
96	COMP			↓		C-gal G=gal
97	RXJ21139p0233D	"	"	99	5m	
98	E	"	"	99		

* NOTE Assume G IS ABOVE C ON SLIT IN REDUCTION

60 inch Telescope Log

Observer: P. BerlindPI: J HuchraSpectrograph: FASTGrating: 3022, 3'slitPage: 3141Date: 9/5/94

Number	Object	R. A.	Dec.	L/R	Exp	Comments
99	RXJ2139p0233F	"	"	99	5m	
100	COMP			↑		
101, 103	RXJ21297p0005A	21:29:39.8	+00:05:48.7	99	10m	x2
102	COMP			↑		
104	RXJ21297p0005B	"	"	99	10m	will need lots more
105	COMP			↑		
106	RXJ21557p1231A	21:55:41.7	+12:31:44.8	99	10m	star on slit w of gal
107	COMP			↑		
108	A00390p080S	00:39:10	+08:05:10	1	5m	
109	00393p080SW	00:39:18	+08:05:10	1	5m	West comp H _α
110	COMP			↑		E comp observed 11/10/93 ST
111	U0049S	00:45:48	+07:04:10	1	3m	
112	COMP			↑		
113	00487p1032A	00:48:42	+10:32:10	1	5m	check chart
114	00487p1032B	00:48:42	+10:32:10	1	5m	H _α et al
115	00487p1032C	00:48:42	+10:32:10	1	5m	H _α
116	COMP			↑		
117	I1534	00:11:06	+17:53:10	1	2m	U00125
118	I1535	00:11:18	+17:53:10	1	3m	U00131 H _α
119	N49	00:11:42	+17:58:10	1	3m	U00136
120	NS1	00:11:54	+17:59:10	1	2m	U00138 H _α
121	COMP			↑		
122	00383p0233	00:38:18	+02:33:10	21	5m	
123	COMP			↑		
124	00590m0133	00:59:10	-01:33:10	21	5m	H _α
125	COMP			↑		
126	01004m0149	01:00:24	-01:49:10	21	3m	
127	COMP			↑		
128	01006m0122	01:00:36	-01:22:10	21	3m	
129	COMP			↑		

27-99

211

60 inch Telescope Log

Observer: P. BerlindPI: J. HuchraSpectrograph: FASTGrating: 300L; 3" slitPage: 3142Date: 9/5/94

Number	Object	R.A.	Dec.	L/R	Exp	Comments
130	01018m0122	01:01:48	-01:22:40	21	5m	H α
131	COMP			↑		
132-3	01537p0315	01:53:42	+03:15:40	21	5m	x2
134	COMP			↑		
135	01550p0328	01:55:40	+03:28:40	21	5m	H α
136	COMP			↑		
137	A01487p3712	01:48:40.1	+37:12:27	25	5m	Kband LF H α
138	COMP			↑		#100
139	A01479p3752	01:47:53	+37:52:56	25	5m	#75
140	A01480p3815	01:48:01	+38:15:18	25	5m	#80
141	COMP			↑		
142	A01477p3723	01:47:40.1	+37:23:40	25	5m	#62
143	A01478p3724	01:47:48.6	+37:24:33	25	5m	#68 H α
144	COMP			↑		
145	A01504p3606	01:50:24.8	+36:06:52	25	8m	#160
146-7	A01477p3703	01:47:45.3	+37:03:09	25	5m, 10m	#64 - this object was a star, but I observed
148	COMP			↑		
149	A01490p3704	01:49:01.1	+37:04:31	25	10m	#110 H α galaxy right
150	A01481p3701	01:48:05.7	+37:01:50	25	10m	#85 next to it see chart
151	COMP			↑		71=48K z=0.16 w/ correct mag
152	A01494p3649	01:49:22.1	+36:49:49	25	5m	#127
153	A01502p3653	01:50:11.4	+36:53:41	25	5m	#153
154	COMP			↑		
155	A01488p3553	01:48:49.1	+35:53:16	25	5m	#103
156-7	A01499p3554	01:49:54.0	+35:54:20	25	5m	#144 +10m
158	COMP			↑		
159	A01477p3605	01:47:45.5	+36:05:09	25	10m	#65
160	A01478p3640	01:47:46.9	+36:06:51	25	10m	#66
161	COMP			↑		
162	A01487p3620	01:48:41.2	+36:20:38	25	10m	#101 H α

60 inch Telescope Log

Observer: P. Berlind

PI: J. Huchra

Spectrograph: FAST

Grating: 300L; 3'slit

Date: 9/8/94

Page: 3143

Number	Object	R.A.	Dec.	L/R	Exp	Comments
163	A01489p360	01:48:55	+36:00:15	2S	10m	#107
164	COMP			↑		
165,6	A01486p3404	01:48:364	+34:04:28	2S	10m	#96 x2 13s
167	COMP			↑		"20 a star?
168	02331p0222	02:33:06	+02:22:00	21	5m	twilight big time Hk
169	COMP			↑		
170-179	BIAS				0s	
180-186	test focus					

1324 16

790
810
36
50
33

910

60 inch Telescope Log

Observer: P. Berlind
 PI: J. Huchra

Spectrograph: FAST
 Grating: 300
 Date: 9/6/94

Page: 3144

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1	CEX					1.1" slit test
2-11	BIAS				0s	
12-21	FLAT			1	0.1s	bin x1, 3" slit
22-23	test			-	-	clouds + 44 bin x2
24	RXJ15354 p0906A	15:35:25.1	+09:08:44	99	5m	lots of work today
25	RXJ15354 p0906C	"	"	99	3m	on aligning the chip
26	RXJ15354 p0906E	"	"	99	5m	
27	RXJ15354 p0906D	"	"	99	3m	
28	RXJ15354 p0906B	"	"	99	30s	clouds.. -
29	COMP			↑		
30	S18.045122	21:33:41.3	+10:38:38	3	5m	15 R Survey
31	COMP			↑		
32	S18.040769	21:39:20.21	+10:31:25.1	3	5m	
33	COMP			↑		
34	S18.075146	21:35:48.46	+11:26:21.2	3	5m	
35	COMP			↑		
36, 38	S18.077977	21:31:51.35	+11:30:09.7	3	5m	x2 H _α clouds
37	COMP			↑		
39	S18.081175	21:33:20.99	+11:35:35.4	3	5m	stopped by
40, 42	S18.082181	21:33:17.03	+11:37:12.8	3	5m	x2 48m clouds
41	COMP			↑		
43-83	tests			-	-	chip re-aligned; still poor
84	02034 p0031	02:03:24	+0:31:00	21	5m	still a lot of clouds
85	COMP			↑		around but workable
86	I204	02:04:54	-01:40:00	21	8m	H _α
87	COMP			↑		
88	02086 p0050	02:08:36	+0:50:00	21	5m	H _α
89	COMP			↑		
90	N868	02:13:25.4	-00:56:47	21	5m	U01748 ^{star} 60-901
91	N868A	02:13:26.2	-00:56:14	21	1m	its a star ^{up 1x}

55-93

4, 3

45
51.2

60 inch Telescope Log

Observer:

P. Berlind

PI:

J. Huchra / M. Geller

Spectrograph:

FAST

Grating:

3002; 3"

Date:

9/6/94

Page:

3/45

Number	Object	R. A.	Dec.	L/R	Exp	Comments
92	COMP			↑		
93	02150m0044	02:15:00	-00:44:00	21	18m	clouds needs more
94	COMP			↑		
95	S23.015684	23:46:10.29	+10:33:36.8	3	5m	
96	COMP			↑		
97	S23.015843	23:55:11.31	+10:32:57.9	3	5m	
98	COMP			↑		
99	S23.018218	23:51:11.71	+10:41:21	3	5m	sparky crashed: reboot
100	COMP			↑		
101	S23.018469	23:42:01.42	+10:42:53.9	3	3m	
102	COMP			↑		
103	S23.019526	23:32:27.08	+10:45:49	3	5m	
104	COMP			↑		
105	S23.024476	23:32:12.15	+11:01:42.3	3	5m	H ₂
106	COMP			↑		
107	S23.025787	23:35:48.3	+11:06:29.1	3	5m	
108	COMP			↑		
109	S23.023738	23:41:21.96	+10:51:51.8	3	5m	
110	COMP			↑		
111	S23.024409	23:55:26.57	+11:01:07.9	3	5m	
112	COMP			↑		
113	S23.025148	23:42:13.55	+11:04:32.2	3	5m	H ₂
114	COMP			↑		
115	02150m0044	02:15:00	-00:44:00	21	5m	
116	COMP			↑		
117	02179m0032	02:17:54	-00:32:00	21	5m	
118	COMP			↑		
119	U01824	02:19:06	+10:02:00	21	5m	
120	COMP			↑		
121	02235p0048	02:23:30	+10:48:00	21	5m	H ₂

60 inch Telescope Log

Observer: J. PetersPI: J. Hutchace et alSpectrograph: FASTGrating: 300Page: 3146Date: 9/7/94

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-7	TEST	FRAMES				
8-22	FLAT			↓	0.1	Bin By 1
23-37	Bias			↓		Bin By 2
78	Comp. ms					
79	Comp			↓	10 ^s	Clouds AROUND
80	SAD084795	17 01 06	24 55 00	0	10 ^s	STD STAR
81	Comp			↓	10 ^s	We Tried To move
82	HD 192281	20 10 46	40 07 01	0	5 ^s	guide TV around To
83	Comp			↓	10 ^s	get Row 80 on CCD
84	BOP284211	21 48 57	28 37 48	0	25 ^s	in center of Guide
85	Comp			↓	10 ^s	T.V. No Luck need
86	518.084736	21 33 16	11 41 22	3	6 ^m	a crow bar To move
87	Comp			↓	10 ^s	IT.
88	518.092259	21 37 02	11 54 20	3	7 ^m	Lost AN Obj in Thin
89	Comp			↓	10 ^s	clouds Purged IT.
90	518.093111	21 30 50	11 54 43	3	7 ^m	
91	Comp			↓	10 ^s	
92	518.103180	21 38 11	12 11 37	3	7 ^m	
93	Comp			↓	10 ^s	
94	518.111472	21 52 29	12 24 39	3	5 ^m	closed @ 10:00 PM
95	Comp			↓	10 ^s	Clouds coming in.
96	518.121876	21 33 45	12 41 27	3	5 ^m	open 11:05 PM
97	Comp			↓	10 ^s	Closed 11:15 PM
98	518.126340	21 36 29	12 49 06	3	6 ^m	Open 12:30 AM
99	Comp			↓	10 ^s	
100	518.132850	21 30 10	12 59 11	3	7 ^m	
101	Comp			↓	10 ^s	
102	518.133192	21 30 39	12 59 54	3	5 ^m	Extinction $V = 2.7675$ can see H&K
103	Comp			↓	10 ^s	
104	518.137766	21 37 27	13 09 00	3	6 ^m	

60 inch Telescope Log

Observer: J. Peters

PI: J. Huchra

Spectrograph: Fast

Grating: 300 (605)

Page: 3147

Date: 9/7/94

Number	Object	R.A.	Dec.	L/R	Exp	Comments
105	Comp			↓	10s	
106	518.139983	21 47 27	13 13 08	3	4m	(2 obj in slit. Hd
107	Comp			↓	10s	2nd obj on slit = star
108	518.142651	21 43 44	13 17 57	3	1m	Looks like a star
109	Comp			↓	10s	
110	518.146126	21 44 50	13 23 37	3	7m	
111	Comp			↓	10s	
112	518.148356	21 34 21	13 26 36	3	8m	
113	Comp			↓	10s	
114	518.149329	21 44 23	13 29 07	3	8m	
115-130	FLAT ^{4500A°} _{5500A}	1200L/mm	2" SLIT	↓	0.2"	336.5 grating setting
131	Comp	5700-6700A°		↓	10s	2" SLIT 1200L/mm
132	550019P21	00 17 13	21 40 20	13	20m	703.5 TILT 5700-6700A°
133	Comp	4500-5500A°		13	120	TILT 336.5
134	550019P21	00 17 13	21 40 20	13	20m	
135-149	FLAT	5700-6700A°		13	0.2"	TILT=703.5 5700-6700A°
150	Comp	300L/mm	3" SLIT	↓	10s	1200L/mm 2" SLIT
151	G191B2B	05 01 31	52 45 52	0	60s	STD STAR
						Focus for spectrograph was 825 for the night it should have been 1000!

6200A°

60 inch Telescope Log

Observer: J. PetersPI: J. HuchraSpectrograph: FASTGrating: 300 3" SLIT Page: 3148Date: 7/1/94

Number	Object	R. A.	Dec.	L/R	Exp	Comments
1-15	Flat				.1	Bin By 1 2700x321
16-30	Bias					Focus = 1000
31	Comp			↓	10 ^s	Bin By 2 2720x101
32	HD 192 281	20 10 46	46 07 01	0	5 ^s	3" SLIT 300 L/mm
33	Comp			↓	10 ^s	
34	PG 1708 P 602	17 08 35	60 13 52	0	10 ^m	Clouds Around.
35	Comp			↓	10 ^s	
36	NGC 6500	17 53 48	18 20 40	23	10 ^m	Clouds
37	Comp			↓	10 ^s	
38	J16261 P 2718	16 26 09	27 18 19	3	15 ^m	Put Back in Box NOTHING Needs more ON SLIT
39	Comp			↓	10 ^s	
40	519.035073	22 07 18	10 40 14	3	8 ^m	Thin clouds around
41	Comp			↓	10 ^s	
42	519.039330	21 57 59	10 46 44	3	5 ^m	
43	Comp			↓	10 ^s	
44	519.049507	22 00 29	11 05 13	3	5 ^m	
45	Comp			↓	10 ^s	
46	519.053752	22 12 11	11 14 00	3	5 ^m	
47	Comp			↓	10 ^s	
48	519.058293	22 16 52	11 21 54	3	7 ^m	obj one BAT STR
49	Comp			↓	10 ^s	
50	519.059030	22 16 37	11 23 19	3	5 ^m	
51	Comp			↓	10 ^s	
52	519.059914	22 03 50	11 24 16	3	5 ^m	
53	Comp			↓	10 ^s	
54	519.063259	21 58 15	11 29 23	3	5 ^m	
55	Comp			↓	10 ^s	
56	519.067311	22 06 38	11 37 59	3	6 ^m	
57	Comp			↓	10 ^s	
58	519.070769	21 59 25	11 42 43	3	5 ^m	

(1) #32 Two objects - v. close together - extracted separately; A - nearest bottom, B nearest top

60 inch Telescope Log

Observer: J. PetersPI: J. HuckraSpectrograph: FastGrating: 300 3" SLITPage: 3149Date: 9/8/94

Number	Object	R. A.	Dec.	L/R	Exp	Comments
59	Comp			↓	10 ^s	
60	519.072802	22 11 11	11 48 01	3	7 ^m	
61	Comp			↓	10 ^s	
62	519.085517	22 11 19	12 11 03	3	7 ^m	
63	Comp			↓	10 ^s	
64	519.086301	22 12 12	12 12 18	3	7 ^m	
65	Comp			↓	10 ^s	
66	519.086526	22 01 21	12 11 47	3	5 ^m	
67	Comp			↓	10 ^s	
68	519.089396	22 17 08	12 18 09	3	6 ^m	
69	Comp			↓	10 ^s	
70	519.091450	22 12 53	12 21 56	3	6	
71	Comp			↓	10 ^s	
72	519.091982	22 11 01	12 22 25	3	5 ^m	
73	Comp			↓	10 ^s	
74	519.096781	22 17 24	12 31 20	3	5 ^m	
75	Comp			↓	10 ^s	
76	519.101513A	22 03 31	12 37 31	3	5 ^m	FIX NAME; SHOULD HAVE A APPENDED
77	Comp			↓	10 ^s	
78	519.104941	22 15 27	12 45 31	3	5 ^m	
79	Comp			↓	10 ^s	
80	519.114118	22 07 06	13 01 56	3	6 ^m	
81	Comp			↓	10 ^s	
82	519.117825	22 16 00	13 08 50	3	5 ^m	
83	Comp			↓	10 ^s	
84	519.121935	22 15 55	13 16 18	3	5 ^m	
85	Comp			↓	10 ^s	
86	519.123614	22 17 44	13 19 11	3	6 ^m	
87	Comp			↓	10 ^s	
88	519.126286	22 02 08	13 23 21	3	5 ^m	

60 inch Telescope Log

Observer: J. PetersPI: J. HuchraSpectrograph: FASTGrating: 300Page: 3150Date: 9/8/94

Number	Object	R. A.	Dec.	L/R	Exp	Comments
89	Comp			↓	10 ^s	
90	519.127098	22 16 52	13 25 31	3	6 ^m	
91	Comp			↓	10 ^s	
92	519.129042	22 14 29	13 29 25	3	5 ^m	
93	Comp			↓	10 ^s	
94	520.019854	22 43 17	10 30 01	3	5 ^m	
95	Comp			↓	10 ^s	
96	520.024313	22 20 45	10 41 46	3	5 ^m	
97	Comp			↓	10 ^s	
98	520.029937	22 25 23	10 56 57	3	8 ^m	
99	Comp			↓	10 ^s	
100	520.030477	22 22 01	10 58 00	3	8 ^m	
101	Comp			↓	10 ^s	
102	520.031491	22 40 45	11 00 59	3	7 ^m	
103	Comp			↓	10 ^s	
104	520.031818	22 26 21	11 02 11	3	6 ^m	
105	Comp			↓	10 ^s	
106	520.032798	22 18 50	11 03 47	3	5 ^m	
107	Comp			↓	10 ^s	
108	520.033167	22 33 11	11 05 52	3	7 ^m	
109	Comp			↓	10 ^s	
110	520.034640	22 36 38	11 09 31	3	5 ^m	
111	Comp			↓	10 ^s	
112	520.035550	22 43 59	11 11 09	3	8 ^m	
113	Comp			↓	10 ^s	
114	520.040569	22 42 16	11 24 20	3	5 ^m	
115	Comp			↓	10 ^s	
116	520.041834	22 39 25	11 27 53	3	5 ^m	
117	Comp			↓	10 ^s	
118	520.044312	22 34 39	11 34 24	3	5 ^m	

60 inch Telescope Log

Observer: J. PetersPI: J. HuckraSpectrograph: FASTGrating: 300Date: 9/8/94Page: 3151

Number	Object	R.A.	Dec.	L/R	Exp	Comments
119	Comp			↓	10 ^s	
120	S20.046107	22 38 56	11 38 37	3	5 ^m	
121	Comp			↓	10 ^s	
122	S20.046453	22 34 55	11 39 42	3	5 ^m	
123	Comp			↓	10 ^s	
124	S20.049406	22 30 25	11 46 45	3	5 ^m	
125	test			↓	1 ^m	
126	Comp			↓	10 ^s	
127	PG 0205 P134	02 05 21	13 22 18	0	15 ^m	
128	Comp			↓	10 ^s	
129	BDP 26595	03 37 08	26 48 01	0	10 ^s	
130	Comp			↓	10 ^s	
131	PKS 0214 P10	02 14 26	10 50 18	23	20 ^m	HST Snapshots
132	Comp			↓	10 ^s	SKY CLEAR good seeing
133	PG 0216 P032	02 16 43	03 13 08	0	1 ^m	STD for HST Snapshots
134	PG 0216 P032	↓	↓	0	15 ^m	
135	Comp			↓	10 ^s	
136	AKN120	05 13 37	-00 12 16	23	10 ^m	
137	Comp			↓	10 ^s	
138	BDP 26595	03 36 54	26 47 00	0	5 ^s	
139						
140						
141						
142						
143						
144						
145						
146						
147						
148						

60 inch Telescope Log

Observer: P. BerlindPI: M. GellerSpectrograph: FASTGrating: 402, 3" slitDate: 9/10/74Page: #3152

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	BIAS					clearing @ midnight
11	2339 Sp0403	23:39:30	+04:03:00	#21	4m	H α rain + ss @ sunset
12	COMP			\uparrow		Rich Groups
13	01069 p0548	01:06:54	+05:48:00	#21	4m	H α
14	COMP			\uparrow		
15	23402 p2734	23:40:12	+27:34:00	#21	4m	*burst
16	COMP			\uparrow		
17	23459 p2740	23:45:54	+27:40:00	#21	4m	
18	COMP			\uparrow		
19	23496 p2748	23:49:24	+27:48:00	#21	4m	H α
20	COMP			\uparrow		
21	23542 p2937	23:54:12	+29:37:00	#21	4m	H α
22	COMP			\uparrow		
23	23562 p2749	23:56:12	+27:49:00	#21	3m	
24	COMP			\uparrow		
25	23572 p2801	23:57:12	+28:01:00	#21	3m	
26	COMP			\uparrow		
27	00072 p2812	00:07:12	+28:12:00	#21	3m	
28	COMP			\uparrow		
29	00133 p2948	00:13:18	+29:48:00	21	4m	H α
30	A00133 p2946	00:13:18	+29:46:00	21	4m	H α
31	U0252	00:13:54	+29:39:00	21	5m	H α
32	COMP			\uparrow		
33	00082 p2776	00:08:12	+27:36:00	21	4m	
34	COMP			\uparrow		
35	00127 p2905	00:12:42	+29:05:00	21	4m	
36	COMP			\uparrow		
37	523.069044	23:32:53.78	+13:21:29.2	3	5m	ISR Survey
38	COMP			\uparrow		
39	523.058596	23:33:50.8	+12:49:06.1	3	5m	

60 inch Telescope Log

Observer: P. BerlindPI: M. Geller & J. HuchraSpectrograph: FASTGrating: 300L, 3" slitDate: 9/10/94Page: 3/53

Number	Object	R.A.	Dec.	L/R	Exp	Comments
40	COMP			↑		
41	S23.054398	23:33:50.06	+12:36:21.7	3	5m	
42	COMP			↑		
43	S23.060263	23:38:19.14	+12:51:44.7	3	5m	
44	COMP			↑		
45	S23.053165	23:45:45.91	+12:33:52.8	3	8m	H _α
46	COMP			↑		
47	S23.056039A	23:44:31.66	+12:41:44.7	3	5m	South Comp
48	S23.656039B	23:44:31.69	+12:42:02.2	3	4m	
49	COMP			↑		
50	S23.057536	23:46:35.32	+12:46:22.9	3	8m	H _α way out there
51	COMP			↑		
52	S23.057617	23:45:34.69	+12:45:30.1	3	5m	
53	COMP			↑		
54	S23.050476	23:51:49.11	+12:24:29	3	10m	H _α
55	COMP			↑		
56	A 01273m0255	01:27:18	-02:55:00	1	10m	
57	COMP			↑		
58,60	A 01493p3359	01:49:16.1	+33:59:54	2S	5m	#120 x 2
59	COMP			↑		
61,62,63	A 01469p3703	01:46:57.26	+37:03:38.9	2S	5m ^{+10m}	superposed star aka K 033:12 (also observed) 12/10/93 2665/913; R27095
64	COMP			↑		
65	A 01472p3706	01:47:12	+37:06:00	2S	5m	63% of star (2m) H _α
66	COMP			↑		
67	A 02332m1541	02:33:12	-15:41:43	1	5m	H _α NO SPECTRUM
68	COMP			↑		
69	A 01492p3759	01:49:13.8	+37:59:11	2S	5m	#119 H _α
70	A 01492p3757	01:49:16.7	+37:57:27	2S	5m	#122 H _α
71	COMP			↑		
72	A 01510p3811	01:51:01.8	+38:11:04	2S	5m	#186

Re-aligned FAST CCD Today!

60 inch Telescope Log

Observer: P. Berlind
 PI: J. Huchra / M. Geller

Spectrograph: FAST
 Grating: 3002, 3" slit
 Date: 9/11/94

Page: 3155

Number	Object	R A.	Dec.	L/R	Exp	Comments
1	test					rain + 1/2
2-4	DARK				10m	clearing after sunset
5-14	BIAS				0s	focus @ 1000
15-24	FLAT				0.1s	bin by 1
25-28	AGK2p24	1701:05.72	+24:55:05.3	0	10s, 30s	std 2 stars here
29	COMP			↑	10s	cloud + moon
30-33	HD 198958	20:49:50.71	+17:31:07.1	0	5s, 15s	→ SAO 84795
34	COMP			↑	10s	
35	RXJ17074p7831B	1707:21.2	+78:31:15	99	15m	B H _α
36	COMP			↑		
37	RXJ17074p7831C	"	"	99	10m	C
38	COMP			99		
39	RXJ17047p7831A	"	"	99	15m	A
40	COMP			↑		
41	RXJ17047p7831D	"	"	99	10m	D
42	COMP			↑		
43	S20.069423	22:19:47.57	+12:34:35.8	3	8m	screamer! H _α
44	COMP			↑		v _r 37,500 km/s ≈ 0.125
45	S20.076168	22:23:51.75	+12:51:36.9	3	5m	
46	COMP			↑		
47	S20.081249	22:26:29.2	+13:01:15.3	3	5m	screamer! v = 39800 km/s
48	COMP			↑		z = 0.133
49	S20.063794	22:24:44.36	+12:21:38.8	3	5m	H _α
50	COMP			↑		
51	S20.064757	22:27:44.97	+12:24:11.7	3	5m	H _α
52	COMP			↑		
53	S20.069383	22:41:34.97	+12:34:48.7	3	5m	
54	COMP			↑		
55	S20.081402	22:38:42.92	+13:04:44.4	3	5m	
56	COMP			↑		

30-33 spectrum is double peaked - why? are these two stars here?? extracted as one

25-28 same thing - also extracted as one

966-1040220

60 inch Telescope Log

Observer: P. BerlinPI: M. GellerSpectrograph: FASTGrating: 300LDate: 9/11/94Page: 3156

Number	Object	R.A.	Dec.	L/R	Exp	Comments
57	S20.084961	22:36:55.24	+13:13:32.6	3	5m	
58	COMP			↑		
59	S20.085554	22:33:01.4	+13:15:01.3	3	5m	
60	COMP			↑		
61	S20.059495	22:29:22.36	+12:11:34.5	3	10m	H _α
62	COMP			↑		
63	S20.063378	22:32:02.6	+12:20:51.2	3	5m	
64	COMP			↑		
65	S20.052090	22:42:12.66	+11:52:36.7	3	5m	
66	COMP			↑		
67	S20.057359	22:39:36.13	+12:05:55.8	3	5m	
68	COMP			↑		
69	S20.058480	22:39:06.27	+12:06:47.2	3	5m	H _α
70	COMP			↑		
71	S22.016364	23:22:26.98	+10:32:32.1	3	5m	
72	COMP			↑		
73	S22.017816	23:23:05.5	+10:37:07.7	3	5m	
74	COMP			↑		moon set
75	S22.019086	23:23:23.59	+10:41:01.8	3	5m	
76	COMP			↑		
77	S22.022425	23:22:58.61	+10:52:12.7	3	5m	H _α
78	COMP			↑		
79	S22.022642	23:30:29.86	+10:51:44.0	3	5m	H _α
80	COMP			↑		
81	S22.024732	23:08:03.9	+10:51:01.3	3	5m	
82	COMP			↑		
83	S22.024857	23:32:09.64	+10:58:23.3	3	2m	its a star; no fuzzball apparent in field
84	COMP			↑		
85	S22.025429	23:18:12.06	+11:01:29.2	3	6m	H _α
86	COMP			↑		

60 inch Telescope Log

Observer: P. BerlindPI: M. GellerSpectrograph: FASTGrating: 3002, 3"Date: 9/11/94Page: 3157

Number	Object	R. A.	Dec.	L/R	Exp	Comments
87	S22.025978	23:32:11.89	+11:06:41.7	3	8m	H α ISR ↓
88	COMP			↑		
89	S22.027332	23:29:31.23	+11:06:22.3	3	5m	H α
90	COMP			↑		
91	S22.025368	23:23:26.62	+11:01:03	3	4m	
92	COMP			↑		
93	S22.027179	23:09:29.33	+11:06:35.4	3	4m	
94	COMP			↑		
95	S23.063091	23:45:02.77	+13:03:37.7	3	5m	
96	COMP			↑		
97	S23.063491	23:55:46.12	+13:08:45.8	3	5m	
98	COMP			↑		
99	S23.063790	23:49:21.62	+13:05:23.3	3	5m	
100	COMP			↑		
101	S23.063911	23:44:21.12	+13:06:14.5	3	5m	scyfert
102	COMP			↑		
103	S23.064902	23:55:45.13	+13:08:01.9	3	5m	
104	COMP			↑		
105	S23.065221	23:55:28.47	+13:09:08.5	3	5m	star to W on slit
106	COMP			↑		
107	S23.068212	23:47:59.14	+13:19:15.1	3	5m	H α
108	COMP			↑		
109	S23.068233	23:54:54.32	+13:18:13.2	3	5m	
110	COMP			↑		
111	S23.070527	23:49:35	+13:26:20.4	3	5m	companion on slit to W
112	COMP			↑		
113	S23.070715	23:55:41.61	+13:26:10.9	3	5m	
114	COMP			↑		
115	S3411353	01:20:22.2	+33:13:43	22	5m	S3 Poor Clustered
116	COMP			↑		

60 inch Telescope Log

Observer: P. BerlindPI: IanSpectrograph: FASTGrating: 3002Date: 9/11/94Page: 3/58

Number	Object	R. A.	Dec.	L/R	Exp	Comments
117	S3411357	01:20:54.1	+33:09:21	22	8m	S7
118	COMP			↑		
119	S3411358	01:21:10.1	+33:04:17	22	10m	S8
120	COMP			↑		
121	S3411359	01:20:34.5	+33:07:16	22	5m	S9
122	COMP			↑		
123	S34113510	01:21:38.4	+33:04:30	22	7m	S10
124	COMP			↑		
125	S34113511	01:21:23.1	+33:08:18	22	15m	S11 H _α
126	COMP			↑		
127	S3411358	01:21:10.1	+33:04:17	22	10m	S8 again - it needed it
128	COMP			↑		
129	S34113513	01:21:47.2	+32:55:28	22	7m	S13 ct3
130	COMP			↑		
131	S34113514	01:21:58.2	+33:05:06	22	15m	S14
132	COMP			↑		
133	S3411356	01:20:33.7	+33:03:16	22	10m	S6 star - gal
134	COMP			↑		
135	S34113512	01:20:11.5	+33:01:55	22	15m	S12 H _α
136	COMP			↑		
137	S3411351	01:20:04.1	+33:09:09	22	5m	S1
138	COMP			↑		
139, 141	S3411352	01:20:17.9	+32:55:47	22	5m	S2 x2 star?
140	COMP			↑		
142	S3411354	01:20:39.5	+32:49:22	22	5m	S4 ^{-star} -4
143	COMP			↑		
144	S3411355	01:21:36.6	+33:08:51	22	5m	S5
145	COMP			↑		
146	S34113515	01:20:25.2	+33:08:54	22	10m	S15 H _α
147	COMP			↑		

60 inch Telescope Log

Observer: P. BerlindPI: J. Huchra / S. KenyonSpectrograph: FASTGrating: 300L; 3"Date: 9/12/94Page: 3160

Number	Object	R. A.	Dec.	L/R	Exp	Comments
1-3	DARK				10m	clear skies; bright new
4-13	BIAS				0s	
14-23	FLAT				0.1s	bin x 1 66 58
24-29	DARK				5m	68 52
30-32	HD192281	20:10:46.8	+40:07:01	12	5s	5"
33	COMP			↑	0.8s	
34-36	CYG0B29	20:31:23	+41:04:50	12	20s	
37	COMP			↑	7s	187s
38-41, 43	CH Cyg	19:23:14	+50:08:31	12	1s, 5s	+30s (#43)
42	COMP			↑	7s	
44-47	BFCyg	19:21:55	+29:34:30	12	5s, 120s	5s + 120s
48	COMP			↑	7s	
49-52	V443Her	18:20:03	+23:25:48	12	10s, 90s	10s + 90s
53	COMP			↑	7	
54-57	HMS61E	14:39:41	+16:37:33	12	5s	no cont
58	COMP			↑	7	
59-61	CI Cyg	19:48:21	+35:33:24	12	90, 30, 5m	clouds coming up
62	COMP			↑	7	from south
63-65	UID16Cyg	19:55:20	+39:41:30	12	5, 2s	use 2s no cont
66	COMP			↑	7	clouds passing by; not cont
67-68	PUL	20:19:01	+21:24:43	12	5s + 2m	use 5s little cont; 2m?
69	COMP			↑	7	
70-71	U1329Cyg	20:49:06	+35:23:57	12	30s, 5m	
72	COMP			↑		
73-75	AG Peg	21:48:36.2	+12:23:27	12	1s, 30	
76	COMP			↑		
77-79	HD192281	20:10:46.8	+40:07:01	12	5s	
80	COMP			↑		
81-83	CYG0B29	20:31:23	+41:04:50	12	20s	
84	COMP			↑		

60 inch Telescope Log

Observer: P. BerlindPI: M. GellerSpectrograph: FASTGrating: 300, 3"Date: 9/12/94Page: 3/61

Number	Object	R. A.	Dec.	L/R	Exp	Comments
85	S22.042929	23:07:34.35	+11:54:35.6	3	5m	3" slit 1SR ↓ H
86	COMP			↑		bright moon + clouds
87,88	S22.036894	23:08:15.94	+11:36:29.4	3	5m	increasing clouds H
89	COMP			↑		close for clouds
90	S22.036894	"	"	3	5m	2 open again
91	COMP			↑		more like it
92	S22.060444	23:10:24.93	+12:50:09.1	3	5m	
93	COMP			↑		
94	S22.063048	23:11:42.4	+12:58:23.6	3	3m	star * ↑ more clouds
95	COMP			↑		
96	S22.064673	23:18:39.46	+13:03:46.6	3	5m	H
97	S22.064981	23:18:43.86	+13:01:49.7	3	8m	H
98	COMP			↑		
99	S22.071534	23:18:33.66	+13:26:16.8	3	5m	H
100	COMP			↑		
101	00152p2953	00:15:12	+29:53:W	21	5m	
102	COMP			↑		
103	00156p2940	00:15:36	+29:40:W	21	5m	
104	COMP			↑		
105	I 5293	23:12:12	+24:52:W	21	3m	
106	I 5297	23:13:30	+24:45:W	21	3m	
107	COMP			↑		
108	23358p2632	23:35:48	+26:32:W	21	5m	clouds ↓
109	COMP			↑		humidity ↑↑ now 80%
110	23373p2706	23:37:18	+27:06:W	21	5m	
111	23384p2714	23:38:24	+27:14:W	21	5m	
112	COMP			↑		
113	23412p2625	23:41:12	+26:25:W	21	4m	
114	COMP			↑		
115	S22.028045	23:25:50.52	+11:09:12.5	3	5m	H

60 inch Telescope Log

Observer: P. BerlindPI: M. GellerSpectrograph: FASTGrating: 300L; 3" slitDate: 9/12/94Page: 3162

Number	Object	R. A.	Dec.	L/R	Exp	Comments
116	COMP			↑		ISR ↓
117	S22.028209	23:26:32.82	+11:09:29.6	3	Sm	
118	COMP			↑		
119	S22.032371	23:22:40.07	+11:23:02.1	3	Sm	
120	COMP			↑		
121	S22.034909	23:24:51.4	+11:30:31.6	3	Sm	
122	COMP			↑		
123	S22.038932	23:30:51.93	+11:41:58.2	3	Sm	
124	COMP			↑		
125	S22.039110	23:18:18.66	+11:43:45	3	Sm	
126	COMP			↑		
127	S22.040581	23:13:51.52	+11:49:26.2	3	Sm	
128	COMP			↑		
129	S22.044709	23:21:40.15	+12:00:36.8	3	Sm	
130	COMP			↑		
131	S22.046092	23:20:29.85	+12:04:51.2	3	Sm	
132	COMP			↑		
133	S22.047165	23:20:20.64	+12:06:32.1	3	Sm	
134	COMP			↑		
135	S22.046135	23:21:35.61	+12:04:28.3	3	Sm	
136	COMP			↑		
137	S22.050656	23:24:32	+12:19:15.8	3	Sm	Hk
138	COMP			↑		
139	S22.052856	23:32:06.47	+12:25:05.1	3	1m	star? gal w/ r.0005
140	COMP			↑		
141	S22.072156	23:30:19.8	+13:26:55.2	3	3m	moon set
142	COMP			↑		
143	S22.072170	23:29:34.11	+13:27:16.7	3	8m	Hk
144	COMP			↑		
145	S22.072451	23:30:13.61	+13:28:00.3	3	Sm	

60 inch Telescope Log

Observer: P. BerlindPI: McDonnell/Kenyon/GellerSpectrograph: FASTGrating: 300RDate: 9/12/99Page: 3/63

Number	Object	R. A.	Dec.	L/R	Exp	Comments
146	COMP			↑		300R; 3" slit ↓
147-149	Feige 110	23:17:23.5	-05:26:22	23	30s, 2m	
150	COMP			↑		
151	Q0017p0209	00:17:51	+02:09:47	23	15m	
152	COMP			↑	10s	
153	Q0017p0209	"	"	23	15m	5" slit ↓
154	COMP			↑	7s	
155-6	Feige 110	23:17:23.5	-05:26:22	23	2m	
157	COMP			↑		
158-160	Z And	23:31:15.3	+18:32:32	12	5s, 60s	Ss + 60s
161	COMP			↑		
162-164	EG And	00:41:52.7	+40:24:22	12	1, 3s	3s
165	COMP			↑		
166-168	AX Per	00:41:52.7	+40:24:22	12	10s, 4s,	90s use 10+90
169	COMP			↑		
170	S23.037845	23:32:31.89	+11:44:43.1	3	5m	3" slit ↓ ISR ↓
171	COMP			↑	10s	
172	S23.038038	23:42:53.3	+11:46:10.2	3	5m	HK
173	COMP			↑		
174	S23.038342	23:36:35.8	+11:47:01	3	5m	star + faint fuzzy
175	COMP			↑		seeing getting pretty bad!
176	S23.042912	23:37:45.62	+12:01:07.3	3	8m	HK 3-5"
177	COMP			↑		
178	S23.045327	23:33:55.82	+12:08:19.9	3	5m	HK
179	COMP			↑		
180	S23.046061	23:34:51.47	+12:10:52.9	3	5m	
181	COMP			↑		
182	S23.049283	23:33:91.42	+12:21:08.3	3	5m	
183	COMP			↑		
184	S23.048731	23:44:45.78	+12:19:47.5	3	5m	

