

60 inch Telescope Log

Observer: J. PetersPI: Huxton/CaldwellSpectrograph: FASTGrating: 600/300Page: 3677Date: 5/1/95

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-1	Comp	Test	Nelson Caldwell	1.5" SLIT	75 <sup>s</sup>	450 = Mic 1.5" SLIT
2-16	<del>Comp</del>	<del>comp</del>	<del>Nelson Caldwell</del>	<del>1.5" SLIT</del>	<del>90<sup>s</sup></del>	<del>Focus = 1120 on Fast Foc</del>
17-31	Bias	300/um	3" SLIT			Redshift Survey
32-46	FLAT	300/um	3" SLIT		10 <sup>s</sup>	" "
47-50	Dark				15 <sup>m</sup>	
51	Comp			↓	15 <sup>s</sup>	
52	Evesky 300	5Tau	22:00	0	1 <sup>s</sup>	Red Shift Survey
53	Comp			↓	60 <sup>s</sup>	
54	Evesky 600			0	20 <sup>s</sup>	Nelson Sky
55	Comp			↓	60 <sup>s</sup>	
56	HD 27141	10 01 17	54 08 04	0	2 <sup>s</sup>	
57	Comp			↓	60 <sup>s</sup>	
58	HD 94286	10 50 31	34 39 05	0	1 <sup>s</sup>	
59	Comp			↓	60 <sup>s</sup>	
60	HD 88884	10 13 38	38 56 00	0	6 <sup>s</sup>	
61	Comp			↓	60	Clouds
62	HD 92588	10 38 37	51 28 41	0	3 <sup>s</sup>	
63	Comp			↓	60 <sup>s</sup>	
64	HD 89125	10 14 29	33 21 27	0	1 <sup>s</sup>	
65	Comp			↓	15 <sup>s</sup>	3" SLIT IN
66	67-1553	08 49 46	11 26 54	10F	1 <sup>s</sup>	
67	Comp	↓	↓	↓	60 <sup>s</sup>	1.5" SLIT IN
68	67-1553	↓	↓	10F	3 <sup>s</sup>	1.5" SLIT IN
69	67-158	08 46 50	12 02 36	10F	2 <sup>s</sup>	
70	67-364	08 47 12	11 52 44	10F	2 <sup>m</sup>	Thin Clouds
71	67-1010	08 48 38	11 59 19	10F	3 <sup>m</sup>	
72	67-1010	↓	↓	↓	2 <sup>m</sup>	
73	67-1084	08 48 42	12 05 09	10F	4 <sup>m</sup>	
74	67-1479	08 49 15	12 06 25	10F	4 <sup>m</sup>	
75	67-1054	08 48 32	12 02 03	10F	5 <sup>m</sup>	

Number	Object	R.A.	Dec.	L/R	Exp	Comments
76	67-989	08 48 37	11 57 22	10F	6M	
77	67-7925	08 48 21	12 03 30	10F	8M	
78	67-1305	08 48 51	12 04 52	↓	8M	
79	67-434	08 47 27	11 30 54	↓	10M	
80	67-674	08 47 39	12 31 12	↓	12M	
81	67-1069	08 48 44	12 03 17	↓	15M	
82	67-1553	08 49 46	11 26 54		1M	1.5" SLIT Repeat
83	Comp P	↓	↓		60°	1.5" SLIT
84	67-1553	↓	↓		40°	3" SLIT
85	Comp P	Survey	CEA	↓	15°	Redshift Survey
86	N 3115	10 02 44	-07 28 30	0	3M	Settings
87	Comp P			↓	15°	
88	N 4486 B	12 28 00	12 45 59	0	5M	
89	Comp P			↓	15°	
90	EG 184	11 34 27	30 04 35	0	2M	In Clouds
91	Comp P			↓	15°	
92	N 4151	12 08 01	39 41 02	6	30°	West Clouded Out
93	Comp P			↓	15°	
94	325.041007	14 14 26	28 30 16	3	10M	In + out Clouds
95	Comp P			↓	15°	
96	325.042184	14 32 51	28 35 15	3	10M	
97	Comp P			↓	15°	
98	325.042309	14 32 13	28 36 02	3	10M	
99	Comp P			↓	15°	
100	325.042673	14 32 20	28 37 10	3	8M	
101	Comp P			↓	15°	
102	325.042825	14 13 43	28 35 43	3	5M	
103	Comp P			↓	15°	
104	325.043829	14 24 37	28 41 19	3	5M	
105	Comp P			↓	15°	

Observer: J. Peters

Grating: 300 + 600

Page: 3679

PI: Huchra et al

Date: 5/1/95

Number	Object	R.A.	Dec.	L/R	Exp	Comments
106	325.043873	14 31 41	28 41 01	3	5M	
107	Comp			↓	15S	
108	325.045631	14 12 57	28 44 49	3	5M	
109	Comp			↓	15S	
110	325.045923	14 37 02	28 46 24	3	5M	
111	Comp			↓	15S	
112	325.048982	14 30 58	28 36 54	3	5M	
113	Comp			↓	15S	Waiting on Clouds
114	325.049129	14 22 30	28 58 02	3	5M	
115	Comp			↓	15S	
116	325.056916	14 25 15	29 22 31	3	5M	
117	Comp			↓	15S	RT Shell Hung UP.
118	325.061489	14 24 33	29 36 14	3	5M	CCD MASTER Sanity
119	325.061489	↓	↓	3'	5M	Wait 16-15-14 -- 1-0
120	Comp			↓	15S	CCD Hardware Timer?
121	HD 136711	15 19 27	18 37 03	0	5S	Sanity Check
122	Comp			↓	15S	
123	SAD 034795	17 01 06	24 35 05	0	6S	THRU Clouds
124	Comp			↓	15S	Wind at Times
125	325.063263	14 26 12	29 41 40	0	15M	Clouds!
126-129	Dark				15M	
130	Comp			↓	15S	Cloudy
131	HD 198858	20 49 50	47 31 07	0	2S	THRU Clouds
132-146	Bias					Open + Clouded OUT
147-161	FLAT				10S	again

1819 = sum of 118 + 119

47 total files transferred to oned archive

TOTAL P.01

P.01

Quinn, 7:00 ...

60 inch Telescope Log  
 Observer: J. Peters  
 PI: J. Kuchta

Spectrograph: Fast  
 Grating: 300/600  
 Date: 5/2/95

Page: 3630

Number	Object	R.A.	Dec	L/R	Exp	Comments
1-15	FLAT <sup>Bin by 3</sup>	600/UMM	1.5"SLT	Project M-67	90°	TILT 450 For Nelson C.
16-30	FLAT	300/UMM	3.0"SLT	Sunway	10°	TILT 60 Bin by 4
31-45	Bias				15 <sup>m</sup>	
46-49	Dark				15 <sup>m</sup>	
50	Comp P			↓	15 <sup>s</sup>	
51	Ever sky 300	Stow	32100	0	15 <sup>s</sup>	
52	Ever sky 300	"	"	0	2 <sup>s</sup>	
53	Comp P	600/UMM	1.5"SLT	MIC 450 ↓	60°	Nelson Caldwell Data
54	HD 88737	10 11 44	31 25 03	10	3°	300/UMM, 1.5"SLT
55	Comp P			↓	60°	
56	HD 91752	16 33 29	36 35 12	10	3°	
57	Comp P			↓	60°	
58	HD 94363	10 30 52	-01 59 15	10	5°	
59	Comp P			↓	60°	
60	HD 93813	10 47 09	-15 55 53	10	15°	
61	Comp P			↓	60°	Seeing ~ 2"
62	HD 89010	16 13 46	23 45 46	10	3°	
63	<del>██████████</del>	08 46 50	12 02 36	10	3 <sup>m</sup>	<del>██████████</del>
64	<del>██████████</del>	↓	↓	↓	60°	1.5"SLT F105 7"
65	67-258	↓	↓	10	4 <sup>m</sup>	<1.5"SLT
66	67-1275	08 48 53	12 01 22	10	15 <sup>m</sup>	
67	67-1639	08 49 48	12 17 46	10	15 <sup>m</sup>	Wind knocking T.L.
68	67-815	08 45 10	12 07 44	10	20 <sup>m</sup>	a little. Seeing ~ 2"
69	67-1239	08 49 00	11 57 43	10	20 <sup>m</sup>	
70	Comp P			↓	60°	
71	67-1485	08 49 07	12 07 08	10	20 <sup>m</sup>	
72	67-794	08 48 13	12 03 38	10	20 <sup>m</sup>	
73	Comp P	↓	↓	↓	60°	
74	<del>██████████</del>	↓	↓	10	15 <sup>m</sup>	3"SLT
75	Comp P			↓	15 <sup>s</sup>	Red Shift Sunway Settings 3"SLT 300/UMM MIC=610 Bin by 4

60 inch Telescope Log  
 Observer: J. Peters  
 PI: J. Humber

Spectrograph: Fast  
 Grating: 300  
 Date: 5/2/95

Page: 3681

Number	Object	R.A.	Dec.	L/R	Exp	Comments
76	N 3379	10 45 11	12 50 48	0	3M	
77	Comp P			↓	15S	
78	EG 184	11 34 27	30 04 35	0	2M	
79	Comp P			↓	15S	
80	N 4151	12 08 01	39 41 02	6	30S	
81	Comp P			↓	15S	
82	N 4486 B	12 28 00	12 45 59	0	5M	
83	Comp P			↓	15S	
84	Feige 98	14 34 04	27 42 38	0	2M	
85	Comp P			↓	15S	
86	N 3548	14 15 43	25 29 01	6	5M	
87	Comp P			↓	15S	
88	HD 136711	15 19 27	18 37 03	0	5S	
89	Comp P			↓	15S	
90	325.063543	14 16 34	29 41 14	3	6M	
91	Comp P			↓	15S	Seeing going Abt
92	325.064988	14 23 36	29 46 58	3	5M	To Hell
93	Comp P			↓	15S	
94	325.065792	14 25 13	29 49 22	3	5M	
95	Comp P			↓	15S	
96	325.065861	14 29 58	29 49 31	3	5M	
97	Comp P			↓	15S	
98	325.066203	14 25 01	29 50 46	3	6M	
99	Comp P			↓	15S	
100	325.066363	14 14 14	29 49 23	3	6M	
101	Comp P			↓	15S	
102	325.066366	14 35 01	29 50 22	3	6M	
103	Comp P			↓	15S	
104	325.067331	14 24 17	29 54 34	3	6M	
105	Comp P			↓	15S	

60 inch Telescope Log

Observer: J. PetersPI: Hucken et al.Spectrograph: FastGrating: 300Page: 3682Date: 5/2/95

Number	Object	R.A.	Dec.	L/R	Exp	Comments
106	325.067378	14 28 51	29 54 37	3	7M	Seeing $\approx 2-4''$
107	Comp P			↓	15S	
108	325.068841	14 13 46	29 57 33	3	7M	
109	Comp P			↓	15S	The Seeing is
110	325.069249	14 17 21	30 00 01	3	7M	ALL over the
111	Comp P			↓	15S	Place at Times
112	325.071466	14 37 31	30 06 37	3	7M	
113	Comp P			↓	15S	
114	325.071637	14 26 46	30 08 53	3	7M	
115	Comp P			↓	15S	
116	325.072647	14 20 23	30 11 44	3	7M	
117	Comp P			↓	15S	
118	325.072819	14 37 38	30 10 59	3	7M	
119	325.072819	↓	↓	↓	7M	
120	Comp P			↓	15S	
121	325.073237	14 32 44	30 13 27	3	5M	
122	Comp P			↓	15S	
123	325.073317	14 38 23	30 12 23	3	7M	
124	Comp P			↓	15S	
125	325.073512	14 17 11	30 13 51	3	7M	
126	Comp P			↓	15S	
127	325.073513	14 28 53	30 14 52	3	5M	
128	Comp P			↓	15S	
129	325.073618	14 29 31	30 15 02	3	6M	
130	Comp P			↓	15S	
131	325.073740	14 21 01	30 15 23	3	5M	
132	Comp P			↓	15S	
133	325.073936	14 29 18	30 16 16	3	5M	
134	Comp P			↓	15S	
135	325.074142	14 17 54	30 14 04	3	6M	

Observer: J. Peters  
 PI: J. Huchra

Grating: 300  
 Date: 5/2/95

Page: 3483

Number	Object	R.A.	Dec.	L/R	Exp	Comments
136	Comp			↓	153	
137	325,074178	14 37 53	30 15 15	3	64	
138	Comp			↓	153	
139	325,074563	14 20 59	30 18 10	3	64	
140	Comp			↓	153	
141	325,074694	14 35 19	30 17 45	3	64	
142	Comp			↓	153	
143	325,075176	14 19 57	30 20 02	3	64	Delay was at 48"
144	Comp			↓	153	for awhile.
145	325,075899	14 37 30	30 21 30	3	64	
146	Comp			↓	153	
147	SAO 084795	17 01 06	24 55 05	0	65	
148	Comp			↓	153	
149	HD 198858	20 49 50	47 31 07	0	22	
150-164	Bias					
165-179	FLATS				103	
180-183	Dark				154	

40  
 3" 300l to W  
 spectrum transferred

60 inch Telescope Log			Spectrograph: <u>FAST</u>		Page: <u>368<sup>1</sup></u>	
Observer: <u>P. Berlind</u>			Grating: <u>600R, 1.5" slit</u>			
PI: <u>Caldwell</u>			Date: <u>5/3/95</u>			
Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	BIAS			0	0s	
11-20	FLAT	300R	3" slit	0	6s	
20-31	FLAT	600R	1.5" slit	10	30s	600R, 1.5" slit ↓
32	COMP			10		binbuff; I did a
<del>33-38</del>	<del>comp</del>	<del>zenith</del>		<del>10</del>	<del>5-45s</del>	<del>Proqfast + changed to binby2</del>
39-40	COMP			10	45s	<del>but it did not change!</del>
41-51	FLAT			10	90s	binby2 - restarted RT sys.
52-53	HD 88281	10:08:08.9	+12:06:22	10	2s	7:50
54	COMP			↑	45s	
55-56	HD 95714	10:19:12.6	+11:29:02	10	5s	thin cloud overhead
57-59	HD 94600	10:22:58.5	+33:46:27	10	5s, 15s	2x5, 1x15
60-62	HD 94669	10:53:23.7	+42:16:36	10	15s	
63-65	HD 95128	10:56:46.3	+40:41:51	10	30s, 15s	seemy ~2"
66-68	HD 95241	10:57:00.9	+43:10:54	10	15s	
69	67-721	08:48:05	+11:46:25	10	4m	3" slit
70	67-721	"	"	10	4m	1.5" slit ↓
71	COMP			10	45s	Man 6:10 +18
72	67-998	08:48:00	+11:59:00	10	20m	thin cloud in M67
73	67-964	08:51:18	+11:42:54	10	20m	→ (star #997 also on
74	67-224	08:51:16.7	+11:50:09	10	20m	slit to East
75	COMP			↑	45s	also weak spectra of #999
76	67-1031	08:51:29	+11:49:13	10	20m	in between)
77	67-1277	08:48:58.1	+12:01:27	10	10m	
78	67-1316	08:48:59.5	+12:08:00	10	4m	
79	67-1074	08:48:28.6	+12:03:59	10	4m	
80	COMP			↑	45s	
81	67-1074	"	"	10	4m	3" slit ↓
82	Ferg 34	10:36:41.1	+43:21:50	10	4m	
83	COMP			↑	20s	thin cloud throughout
84	COMP					test

files 21 + 22 DO NOT EXIST!



60 inch Telescope Log		Spectrograph: <u>FAST</u>		Page: <u>3685</u>		
Observer: <u>P. Berlind</u>		Grating: <u>300</u>		Date: <u>5/3/95</u>		
PI: <u>Huchra</u>						
Number	Object	R.A.	Dec.	L/R	Exp	Comments
85	11016p0720	11:04:11	+07:04:07	1	4m	3002 gr, 3" slit @ 610 ↓
86	COMP			↑	10s	std. setup
87	11019p0256	11:04:30	+07:41:01	1	3m	checked FAST for row 2/100
88	COMP			↑		
89	11020p0640	11:04:57	+06:23:49	1	10m	H <sub>α</sub>
90	COMP			↑		
91	11025p0451	11:05:07	+04:35:25	1	7m	H <sub>α</sub>
92	COMP			↑		
93	11045p0804	11:04:30	+07:48:12	1	5m	H <sub>α</sub>
94	COMP			↑		
95	11052p0238	11:07:49	+06:21:35	1	4m	seeing 2"
96	COMP			↑		
97	11062p0540	11:08:54	+05:22:31	1	5m	H <sub>α</sub>
98	COMP			↑		
99	11066p0528	11:09:10	+06:10:14	1	5m	H <sub>α</sub> - wide spiral arm
100	COMP			↑		3" to E/W/ H <sub>α</sub> too.
101	11070p0536	11:07:10	+05:28:10	1	4m	
102	11074p0535	11:10:01	+05:17:47	1	5m	
103	COMP			↑		
104	11079p0532	11:10:35	+05:15:58	1	3m	
105	COMP			↑		
106	11084p0508	11:11:03	+04:51:54	1	7m	
107	COMP			↑		
108	11107p0522	11:13:19	+05:05:17	1	4m	
109	COMP			↑		
110	11113p0433	11:13:52	+04:17:20	1	5m	H <sub>α</sub>
111	COMP			↑		
112	RXJ 1230p1306B	12:30:53	+13:06:31.7	9	5m	star
113	COMP			↑		
114	RXJ 1259p0229	12:59:25.8	+12:29:14.9	9	10m	S <sub>γ</sub>

60 inch Telescope log

Observer: P. BerlindPI: HuchraSpectrograph: FASTGrating: 300Date: 5/3/95Page: 3686

Number	Object	R.A.	Dec.	L/R	Exp	Comments
115	COMP			↑		
116	RXJ1326.0013A	13-26-12	+00-13-28	9	60m	galaxy
117	COMP			↑		
118	14484p0009S	14-48-24	+00-09-00	1	3m	
119	14484p0009N	14-48-24	+00-09-00	1	6m	
120	COMP			↑		
121	14510p0012W	14-51-00	+00-12-00	1	5m	
122	14510p0012E	14-51-00	+00-12-00	1	5m	
123	COMP			↑		
124	14523p0050	14-52-18	+00-50-00	1	5m	H $\alpha$
125	COMP			↑		
126, 128	14571p0029	14-57-42	+02-29-00	1	7m	+2 H $\alpha$
127	COMP			↑		
129	14577p0013	14-59-42	+02-13-00	1	7m	H $\alpha$
130	COMP			↑		
131	15019p0050	15-01-34	+05-00-00	1	5m	H $\alpha$
132	COMP			↑		
133	15063p0022	15-06-18	+00-22-00	1	10m	pretty clear skies... clouds to North
134	COMP			↑		
135	15071p0034	15-07-06	+01-34-00	1	7m	H $\alpha$
136	15074p0013S	15-07-24	+01-35-00	1	7m	the dome project az=170 ↳ star on slit to E of gal.
137	COMP			↑		
138	15084p0146	15-08-54	+01-46-00	1	7m	
139	COMP			↑		
140	15090p0157S	15-09-00	+01-57-00	1	5m	
141	15090p0157N	15-09-00	+01-57-00	1	5m	
142	COMP			↑		
143	15092p0050	15-09-12	+00-50-00	1	7m	star on slit E of gal; H $\alpha$
144	COMP			↑		
145	15099p0140	15-09-54	+01-40-00	1	10m	

60 inch Telescope Log

Observer: P. Berthel

PI: Huchra/Gelb

Spectrograph: FAST

Grating: 300R

Date: 5/3/95

Page: 3687

Number	Object	R.A.	Dec.	L/R	Exp	Comments
146	15100p0141W	15:10:00	+01:41:00	1	10m	H $\alpha$ - strong!
147	COMP			↑		
148	15130p0157	15:13:00	+01:57:00	1	15m	H $\alpha$
149	COMP			↑		
150	15132p0137	15:13:12	+01:37:00	1	15m	U09187 LSB
151	COMP			↑		
152	U0919Z	15:13:30	+00:03:00	1	10m	Serpens resolved dwarf system
153	COMP			↑		15'x13' no emission
154	32S.08101S	14:27:13.24	+30:41:14	3	5m	
155	COMP			↑		
156	32S.082169	14:30:6.57	+30:45:23	3	4m	
157	COMP			↑		
158	32S.082448	14:30:27.33	+30:45:12	3	10m	
159	COMP			↑		
160	32S.082689	14:27:35.1	+30:47:05	3	7m	
161	COMP			↑		
162	32S.086216	14:34:31.92	+30:59:19	3	6m	
163	COMP			↑		
164	327.001143	15:19:16.9	+16:23:05	3	6m	
165	COMP			↑		
166	327.001258	15:24:20.15	+16:21:10.8	3	6m	
167	COMP			↑		
168	327.001413	15:08:55.82	+16:23:21.6	3	6m	
169	COMP			↑		
170	R121758 p12108B	17:58:37.7	+22:06:37	9	4m	bright sky
171	R121758 p12108A	17:58:37.7	+22:06:37	9	30s	
172	COMP			↑		
173-175	SAD084705	17:01:06	+24:55:05	0	10s	
176	COMP			↑		
177-185	dwnsky	zenith		0	10s	
186	COMP			↑		

187-196

197-206

207-210

B205

FLAT

DARK

0s

6s

15m

60 inch Telescope Log  
 Observer: P. Ber/mcl  
 PI: Caldwell/Kenyon  
 Spectrograph: FAST  
 Grating: 600L; 1.5"  
 Date: 5/4/95  
 Page: 3688

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	BIAS			0	0s	
11-20	FLAT			0	6s	3000; 3" slit
21-30	FLAT			10	50s	600L; 1.5" slit ↓
31	COMP			10	45s	bin by 2
32-39	even sky	zenith		10	10s, 15s	on thick clouds
40	COMP			↑	60s	close due to cloud
41	BIAS			0	0s	3000; 3" slit, bin by 4 ↓
42	N4486B	12:28:00	+12:45:59	0	5m	clearing @ midnight
43	COMP			↑		windy
44-45	TX Ch	12:42:179	+37:024	12	90s, 5m	
46	COMP			↑		
47-48	Abdun	16:01:23	+16:56:25	12	3s, 30s	
49	COMP			↑		still a lot of cloud
50, 51	TCr B	15:57:24	+26:07:36	12	2m, 5m	
52	COMP			↑		
53, 54	RW Hya	13:34:32	+25:07:25	12	15s, 5m	Clouded out; close 12:30
55	COMP			↑		windy; humidity ↑ 60%
56, 57	W Her	18:12:26	+10:58:12	12	7m, 1m	open @ 3:30
58	COMP			↑		
59, 60, 61	V443 Her	18:20:028	+23:25:48	12	3s	
62	COMP			↑		
63, 64, 65	BFCygn	19:21:55	+29:34:30	12	30s, 5m, 20s	
66	COMP			↑		
67, 68	CH Cyg	19:23:14.2	+50:08:31	12	1s, 5s	
69	COMP			↑		
70, 71	CF Cyg	19:55:20	+39:41:30	12	1s, 2s	
72	COMP			↑		
73, 74	HMS Ge	19:39:41	+16:37:33	12	2s, 4s	
75	COMP			↑		sat; get again
76	V1016 Cyg	19:55:20	+39:41:30	12	1m	Wham! Stopped by clouds



60 inch Telescope Log		Spectrograph: <u>FAST</u>		Page: <u>3690</u>		
Observer: <u>P. Berland</u>		Grating: <u>600L, 1.5"</u>				
PI: <u>Caldwell</u>		Date: <u>5/5/95</u>				
Number	Object	R. A.	Dec.	L/R	Exp	Comments
1-10	BIAS			0	0s	300L; 3" slit ↓ bin by 4
11-20	FLAT			0	6s	
21-30	FLAT			10	50s	600L; 1.5" slit; filter 100
31	COMP			-	45s	bin by 2
32-39	ewesky	zenith		10	10s	
40	COMP			↑		
41	HD 95345	10:57:56.7	+03:53:10	10	10s	
42	HD 98436	11:04:21.1	+02:13:56	10	10s	
43	HD 97907	11:13:15	+13:34:50	10	10s	
44	HD 91859	10:34:02.8	-11:57:40	10	10s	
45	HD 96833	11:06:51.5	+44:46:12	10	4s	
46	HD 99717	11:16:14	+62:03:02	10	10s	
47	HD 100030	11:28:10.4	+48:12:21	10	12s	
48	HD 100010	11:31:17	+37:06:33	10	12s	
49	COMP			↑		
50	67-1016	08:48:33.1	+11:39:32	10	3m	3" slit is M
51	67-1016	"	"	10	3m	1.5" slit ↓
52	COMP			↑		
53	67-1258	08:48:58.2	+12:02:40	10	8m	still too bright for
54	67-756	08:50:58.9	+11:46:11	10	20m	the pri 1 faint stars
55	67-990	08:51:06.5	+11:46:12	10	20m	seeing poor
56	COMP			↑	60s	
57	67-1032	08:51:26.4	+11:49:21	10	20m	clouds to west
58	67-1025	08:51:11.5	+11:48:51	10	20m	
59	67-277	08:46:39	+12:15:32	10	20m	clouds in M67
60	COMP			↑		
61	67-1135	08:48:35.5	+12:29:28	10	5m	clouds
62	67-1135	"	"	10	5m	3" slit
63	H 244	13:21:49.1		10	5m	
64	COMP			↑	30s	

Moon 7:50 +15

60 inch Telescope Log		Spectrograph: <u>FAST</u>			Page: <u>3691</u>	
Observer: <u>P. Berlind</u>		Grating: <u>300L</u>				
PI: <u>Huchra</u>		Date: <u>5/5/95</u>				
Number	Object	R.A.	Dec.	L/R	Exp	Comments
65	N4486B	12:28:40	+12:45:59	0	5m	300L, 3" slit bin by 4
66	COMP			↑	10s	lots of cloud
67	N4151	12:08:01	+39:41:02	6	45s	
68	COMP			↑		
69	H244	13:21:5.1	+36:03:58	6	2m	
70	COMP			↑		
71	N5548	14:15:43	+05:22:01	6	3m	
72	COMP			↑		
73	N357A	10:45:11.9	+16:04:48	0	5m	
74	COMP			↑		
75	12261p5353	12:26:06	+53:53:40	1	5m	clouds; bright man
76	COMP			↑		
77	F801	12:31:24	+52:32:40	1	4m	u0 7717
78	COMP			↑		
79	u08047	12:53:40	+55:25:40	1	5m	seeing 2-3"
80	COMP			↑		
81	N4998	13:06:40	+50:56:40	1	5m	Hk
82	COMP			↑		
83	13065p5217	13:06:30	+52:17:40	1	3m	
84	COMP			↑		
85	13064p5505	13:06:24	+55:05:40	1	5m	Hk - weak spec
86	COMP			↑		
87	N5040	13:11:24	+51:32:40	1	5m	
88	COMP			↑		
89	13126p5405	13:12:36	+54:05:40	1	5m	
90	COMP			↑		
91	u8702	13:43:30	+48:11:00	1	5m	Hk
92	COMP			↑		
93	325.074033	14:17:26.7	+30:20:41.7	3	5m	
94	COMP			↑		

60 inch Telescope Log		Spectrograph: <u>FAST</u>		Page: <u>392</u>		
Observer: <u>P. Bender</u>		Grating: <u>300L</u>				
PI: <u>Gretter</u>		Date: <u>5/5/95</u>				
Number	Object	R.A.	Dec.	L/R	Exp	Comments
95	325.07654	14:26:18.45	+30:24:10	3	5m	
96	COMP			↑		
97	325.07697	14:16:53	+30:23:15	3	5m	
98	COMP			↑		
99	325.07686	14:08:17	+30:26:29	3	8m	more clouds
100	COMP			↑		
101	325.07735	14:47:54.06	+30:26:54	3	5m	
102	COMP			↑		
103	325.07794	14:27:09.48	+30:30:29	3	5m	H <sub>2</sub>
104	COMP			↑		
105	325.08020	14:26:15.71	+30:38:26	3	5m	
106	COMP			↑		
107	325.08063	14:14:09.39	+30:39:16.1	3	5m	H <sub>2</sub>
108	COMP			↑		
109	325.08357	14:21:43.63	+30:49:56.6	3	5m	
110	COMP			↑		
111	325.08489	14:14:54.85	+30:53:19.6	3	5m	
112	COMP			↑		
113	325.08522	14:38:33.54	+30:54:18.4	3	5m	Nicest sky of the night so far
114	COMP			↑		
115	U8603W	13:34:30	+44:51:00	1	3m	
116	U8603E	13:34:30	+44:51:00	1	8m	H <sub>2</sub>
117	COMP			↑		
118	325.08605N	14:13:58	+30:57:18.3	3	5m	H <sub>2</sub> 6980 -19K
119	325.08605S	14:13:58	+30:57:18	3	5m	
120	COMP			↑		
121	325.08142	14:19:11.51	+31:03:48.5	3	4m	
122	COMP			↑		
123	325.08710	14:38:52.8	+31:03:22.1	3	5m	
124	COMP			↑		



60 inch Telescope Log

Observer: P. BarlundPI: Geller/HuchraSpectrograph: FASTGrating: 3028Date: 5/5/95Page: 3693

Number	Object	R.A.	Dec.	L/R	Exp	Comments
125	325.098246	14:14:05.7	+31:07:21	3	5m	
126	COMP			↑		
127	325.098686	14:17:18.55	+31:17:07	3	4m	
128	COMP			↑		
129	325.099076	14:19:45.9	+31:17:33	3	4m	
130	COMP			↑		
131	325.091387	14:04:04.8	+31:19:37	3	7m	HK
132	COMP			↑		
133	325.091227	14:11:26.7	+31:16:03	3	5m	HK
134	COMP			↑		
135	325.092717E	14:24:17.13	+31:24:32.3	3	4m	HK 12K
136	325.092717W	"	"	3	5m	HK on same chart 11.8K
137	COMP			↑		
138	325.093431	14:10:43.18	+31:24:11.1	3	5m	
139	COMP			↑		
140	325.093448	14:13:06.25	+31:25:12.8	3	5m	
141	COMP			↑		
142	325.093523	14:34:50.86	+31:26:51.2	3	5m	HK
143	COMP			↑		
144	325.094703	14:20:20.07	+31:32:40.3	3	4m	
145	COMP			↑		
146	325.095974	14:34:20.58	+31:36:55.9	3	5m	
147	COMP			↑		
148, 150	325.096507	14:32:38.06	+31:38:45.1	3	5m	x2
149	COMP			↑		
151	16169 p 5431	16:16:54	+54:34:06	1	5m	HK
152	COMP			↑		
153	RXJ1652p405A	16:52:45.2	+40:09:42.2	6	10m	-wins the most distant object of the night scan
154	RXJ1652p405B	"	"	6	5m	has faint companion to SW
155	COMP			↑		

60 inch Telescope, Log

Observer: P. Berlind

PI: Huchra

Spectrograph: FAST

Grating: 300L

Date: 5/5/95

Page: 3694

Number	Object	R.A.	Dec.	L/R	Exp	Comments
156	RXJ1719.2-3527	17:19:35.5	+22:47:58	9	10m	Seyfert!
157	COMP			↑		
158	RXJ1738.5-2359	17:38:40	+23:23:59	9	7m	QSO!
159	COMP			↑		
160, 161	RSoph	17:47:36	-06:41:39	12	10s, 2m	
162	COMP			↑		
163-165	V1016 Cyg	19:35:20	+39:41:30	12	5s, 1s, 10s	
166	COMP			↑		
167-169	Puuhi	20:19:01	+21:24:43	12	5s, 2s, 2m	
170	COMP			↑		
171, 172	Cyg OB 139	20:34:23	+41:04:52	12	20s, 10s	
173	COMP			↑		
174, 175	WdK1316A, B	20:36:138	+21:53:52	12	2m	two different objects - both probable mis-ids - high proper motion object
176	COMP			↑		
177	V1057 Cyg	20:57:03	+44:05:46	12	4m	
178	COMP			↑		
179-181	V1329 Cyg	20:49:06	+35:23:57	12	3s, 20s, 3m	
182	COMP			↑		
183-185	AG Pez	21:48:36.2	+12:25:21	12	1/2, 60	
186	COMP			↑		
187, 188	BD 175211	21:48:57.1	+25:57:46	12	20s, 90s	
189	COMP			↑		
190-192	HD 198858	20:49:50	+47:40:1	0	10s	
193	COMP			↑		
194-196	SAD 081795	17:01:06	+21:56:05	0	10s	
197	COMP			↑		
198-201	dunsky	dunsky		0	10s	
205-214	FLAT			0	0s	
215-224	FLAT			0	6s	
225-228	DART				15m	

229 film on tape

3/15K

↑ instead of ↑

these flats look unusual. Extra counts + new shape the end

60 inch Telescope Log

Observer: J. Peters

PI: J. Huchra

Spectrograph: Fast

Grating: 300/400/4mm

Page: 3695

Date: 5/2/95

Number	Object	R.A.	Dec.	L/R	Exp	Comments
<del>1-15</del>	<del>FLAT 600</del>	<del>600/4mm</del>	<del>6.3° 36.7</del>	<del>Bushy 3</del>	<del>90<sup>s</sup></del>	<del>MIC = 450 - N. Caldwell</del>
16-30	FLAT 300	300/4mm	3° 36.7	Bushy 4	10 <sup>s</sup>	MIC = 610
31-45	Dark	" "	" "	" "		
46-49	Dark				15 <sup>m</sup>	
50	Comp			↓	15 <sup>s</sup>	
51	Evesky	Star	32:00		1 <sup>s</sup>	Done on Clouds
52	Evesky	"	"		2 <sup>s</sup>	" " "
53	Comp			↓	15 <sup>s</sup>	Thin clouds around
54	EG 184	11 34 27	30 04 35	0	2 <sup>m</sup>	sky has haze
55	Comp			↓	15 <sup>s</sup>	
56	N4151	12 08 01	32 41 02	6	30 <sup>s</sup>	Well it snowed
57	Comp			↓	15 <sup>s</sup>	a little today
58	N 4486 B	12 28 00	12 45 59	0	5 <sup>m</sup>	Not bad for May
59	Comp			↓	15 <sup>s</sup>	
60	Feige 98	14 36 04	27 42 28	0	2 <sup>m</sup>	Going East. Away from clouds
61	Comp			↓	15 <sup>s</sup>	
62	N5548	14 15 43	23 22 01	6	5 <sup>m</sup>	
63	Comp			↓	15 <sup>s</sup>	Clouds forming.
64	325.097968	14 22 02	31 44 56	3	10 <sup>m</sup>	
65	Comp			↓	15 <sup>s</sup>	
66	325.098126	14 39 02	31 43 29	3	10 <sup>m</sup>	Closed Hum + Cloud
67	Comp			↓	15 <sup>s</sup>	Still some clouds
68	325.098170	14 13 34	31 42 42	3	10 <sup>m</sup>	Forming and dissip.
69	Comp			↓	15 <sup>s</sup>	
70	325.101089	14 34 36	31 56 26	3	5 <sup>m</sup>	
71	Comp			↓	15 <sup>s</sup>	
72	325.105260	14 35 09	32 12 55	3	6 <sup>m</sup>	
73	Comp			↓	15 <sup>s</sup>	
74	325.105820	14 11 14	32 13 01	3	7 <sup>m</sup>	
75	Comp			↓	15 <sup>s</sup>	

60 inch Telescope Log  
 Observer: J. Peters  
 PI: J. Huchra  
 Spectrograph: Fast  
 Grating: 300  
 Date: 5/7/95  
 Page: 3696

Number	Object	R.A.	Dec.	L/R	Exp	Comments
76	325, 107272	14 25 44	32 21 36	3	7 <sup>m</sup>	
77	Comp			↓	30 <sup>s</sup>	
78	325, 107322	14 21 18	32 21 30	3	6 <sup>m</sup>	
79	Comp P			↓	15 <sup>s</sup>	
80	325, 107378	14 19 17	32 21 26	3	5 <sup>m</sup>	
81	Comp P			↓	15 <sup>s</sup>	
82	325, 107802	14 32 21	32 23 15	3	6 <sup>m</sup>	
83	Comp			↓	15 <sup>s</sup>	
84	325, 108975	14 17 09	32 26 58	3	5 <sup>m</sup>	
85	Comp P			↓	15 <sup>s</sup>	
86	325, 108989	14 21 07	32 27 41	3	8 <sup>m</sup>	Cloud
87	Comp P			↓	15 <sup>s</sup>	
88	324, 002093	14 02 40	26 21 53	3	7 <sup>m</sup>	
89	Comp P			↓	15 <sup>s</sup>	
90	HQ 136711	15 19 27	18 37 03	0	5 <sup>s</sup>	
91	Comp P			↓	15 <sup>s</sup>	
92	SAO 084795	17 01 06	24 55 05	0	5 <sup>s</sup>	
93	Comp P			↓	15 <sup>s</sup>	
94	RX1712.6 3627 A	17 17 35	36 27 12	99	15 <sup>m</sup>	Rosat
95	RX1712.6 3627 C	↓	↓	99	7 <sup>m</sup>	
96	Comp P			↓	15 <sup>s</sup>	
97	RX1729.6 P0720	17 29 34	07 20 50	99	15 <sup>m</sup>	
98-112	FLAT				10 <sup>s</sup>	Clouded Out
113-127	BRAS					
128-131	DARR				15 <sup>m</sup>	

*25 absent*

60 inch Telescope Log

Observer: J. Peters

PI: Huckra et al

Spectrograph: FAST

Grating: 600/300 L/mm

Page: 3697

Date: 5/3/95

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-15	FLAT600	600 L/mm	1.5" SLT	MIC 450	90 <sup>s</sup>	N. Caldwell <sup>Burby 2</sup> FLATs
16-30	FLAT	300 L/mm	3" SLT	MIC 1910	10 <sup>s</sup>	Red Survey, Burby 7
31-45	Bias					
46-49	Dark				15m	
50	Comp P			↓	15 <sup>s</sup>	
51	Evesky	STOW	32:00	0	1 <sup>s</sup>	
52	Evesky	STOW	32:00	0	2 <sup>s</sup>	
53	Evesky	STOW	32:00	0	5 <sup>s</sup>	
54	Comp P			↓	60 <sup>s</sup>	Burby 7, 60 L/mm
55	HD 100920	11 34 23	-00 32 31	0	3 <sup>s</sup>	Thru Clouds
56	HD 100920	↓	↓	0	3 <sup>s</sup>	
57	Comp P			↓	60 <sup>s</sup>	
58	HD 104484	11 38 11	21 37 50	0	3 <sup>s</sup>	
59	HD 104484	↓	↓	0	3 <sup>s</sup>	
60	Comp P			↓	60 <sup>s</sup>	
61	HD 101501	11 38 25	34 29 02	0	3 <sup>s</sup>	
62	HD 101501	↓	↓	0	3 <sup>s</sup>	
63	Comp P			↓	60 <sup>s</sup>	
64	HD 102212	11 43 17	06 48 34	0	1 <sup>s</sup>	
65	HD 102212	↓	↓	0	1 <sup>s</sup>	
66	Comp P			↓	60 <sup>s</sup>	
67	HD 102634	11 46 28	-00 02 26	0	5 <sup>s</sup>	Clouded out
68	HD 102634	↓	↓	0	5 <sup>s</sup>	Thru Clouds
69	Comp P			↓	60 <sup>s</sup>	1.5" SLT
70	67-1195	08 48 35	12 29 28	M67	2m	1.5" SLT THRU clouds
71	67-1195	"	"	"	1m	3" SLT THRU clouds
72	67-978	08 49 33	11 56 39	M67	2m	1.5" SLT ↓
73	67-1001	08 48 24	11 58 28	M67	8m	1.5" SLT ↓
74	67-657	08 47 45	12 19 21	M67	10m	1.5" SLT ↓
75	67-1068	08 48 00	11 59 00	M67	20m	1.5" SLT

## 60 inch Telescope Log

Observer: J. PetersPI: J. H. W. W. W.Spectrograph: FastGrating: 300Date: 5/8/95Page: 3698

Number	Object	R. A.	Dec.	L/R	Exp	Comments
76	67-1033	08 48 00	11 59 00	M67	20 <sup>m</sup>	
77	67-1034	08 48 34	12 00 38	M67	15 <sup>m</sup>	
78	Comp P				60 <sup>s</sup>	1.5" SLIT
79	67-1034	08 48 34	12 00 38	M67	15 <sup>m</sup>	3" SLIT
80	Comp P			↓	15 <sup>s</sup>	300 <sup>l/m</sup> 3" SLIT
81	Eg 184	11 34 27	30 04 35	0	2 <sup>m</sup>	
82	Comp P			↓	15 <sup>s</sup>	
83	N4151	12 08 01	39 41 02	6	30 <sup>s</sup>	
84	Comp P			↓	15 <sup>s</sup>	
85	N4486B	12 38 00	12 45 59	0	5 <sup>m</sup>	
86	Comp P			↓	15 <sup>s</sup>	
87	Feige 67	12 39 18	17 47 24	0	2 <sup>m</sup>	
88	Comp P			↓	15 <sup>s</sup>	
89	Feige 98	14 36 04	27 42 28	0	2 <sup>m</sup>	
90	Comp P			↓	15 <sup>s</sup>	
91	N5548	14 15 43	25 22 01	6	5 <sup>m</sup>	
92	Comp P			↓	15 <sup>s</sup>	
93	324.003154	13 51 36	26 25 47	3	7 <sup>m</sup>	
94	Comp P			↓	15 <sup>s</sup>	
95	324.003745	14 03 16	26 27 56	3	5 <sup>m</sup>	
96	Comp P			↓	15 <sup>s</sup>	
97	324.003934	14 06 48	26 28 01	3	5 <sup>m</sup>	
98	Comp P			↓	15 <sup>s</sup>	
99	324.005046	13 55 38	26 32 59	3	5 <sup>m</sup>	
100	Comp P			↓	15 <sup>s</sup>	
101	324.006107	13 48 52	26 35 32	3	5 <sup>m</sup>	
102	Comp P			↓	15 <sup>s</sup>	
103	324.006350	14 12 13	26 34 52	3	5 <sup>m</sup>	
104	Comp P			↓	15 <sup>s</sup>	
105	324.006504	14 02 03	26 37 47	3	5 <sup>m</sup>	

60 inch Telescope Log

Spectrograph: FAST

Observer: J. Acteas

Grating: 300

Page: 3699

PI: J. H. K. K.

Date: 5/8/95

Number	Object	R.A.	Dec.	L/R	Exp	Comments
106	Comp P			↓	153	
107	324.006628	14 05 17	26 37 42	3	5 <sup>m</sup>	
108	Comp P			↓	153	
109	324.007145	13 46 13	26 38 30	3	5 <sup>m</sup>	
110	Comp P			↓	153	
111	324.008986	14 10 43	26 44 42	3	5 <sup>m</sup>	
112	Comp P			↓	153	
113	324.009180	13 55 25	26 47 37	3	5 <sup>m</sup>	
114	Comp P			↓	153	
115	324.009507	14 03 02	26 48 33	3	5 <sup>m</sup>	
116	Comp P			↓	153	
117	324.010452	14 02 00	26 51 42	3	5 <sup>m</sup>	
118	Comp P			↓	153	
119	324.010969	14 02 03	26 53 42	3	5 <sup>m</sup>	
120	Comp P			↓	153	
121	324.011422	13 45 12	26 53 03	3	5 <sup>m</sup>	
122	Comp P			↓	153	
123	324.013689	13 51 11	27 02 44	3	5 <sup>m</sup>	
124	Comp P			↓	153	
125	324.015318	14 03 59	27 08 28	3	5 <sup>m</sup>	
126	Comp P			↓	153	
127	324.015607	13 49 55	27 09 49	3	5 <sup>m</sup>	
128	Comp P			↓	153	
129	324.015798	14 09 11	27 09 34	3	5 <sup>m</sup>	
130	Comp P			↓	153	
131	324.018560	13 48 15	27 18 19	3	5 <sup>m</sup>	
132	Comp P			↓	153	
133	324.020189	13 48 50	27 23 50	3	5 <sup>m</sup>	
134	Comp P			↓	153	
135	324.021693	14 10 28	27 27 38	3	5 <sup>m</sup>	

60 inch Telescope Log  
 Observer: J. Peters  
 PI: J. Huchra

Spectrograph: FAST  
 Grating: 300  
 Date: 5/8/95

Page: 3700

Number	Object	R.A.	Dec.	L/R	Exp	Comments
136	Comp P			↓	15 <sup>s</sup>	
137	324.022011	13 57 07	27 30 29	3	5 <sup>m</sup>	
138	Comp P			↓	15 <sup>s</sup>	
139	324.024226	14 04 12	27 32 34	3	5 <sup>m</sup>	
140	Comp P			↓	15 <sup>s</sup>	
141	324.024593	13 52 43	27 38 59	3	5 <sup>m</sup>	
142	Comp P			↓	15 <sup>s</sup>	
143	324.024846	14 03 44	27 39 43	3	5 <sup>m</sup>	
144	Comp P			↓	15 <sup>s</sup>	
145	324.025288	13 52 22	27 41 23	3	5 <sup>m</sup>	
146	Comp P			↓	15 <sup>s</sup>	
147	324.026132	13 57 35	27 44 21	3	5 <sup>m</sup>	
148	Comp P			↓	15 <sup>s</sup>	
149	324.026903	13 52 18	27 46 21	3	5 <sup>m</sup>	
150	Comp P			↓	15 <sup>s</sup>	
151	324.027852	13 59 34	27 49 46	3	5 <sup>m</sup>	
152	Comp P			↓	15 <sup>s</sup>	
153	324.028098	14 03 33	27 49 47	3	5 <sup>m</sup>	
154	Comp P			↓	15 <sup>s</sup>	
155	324.029272	14 00 55	27 54 00	3	5 <sup>m</sup>	
156	Comp P			↓	15 <sup>s</sup>	
157	324.033124	13 59 36	28 05 39	3	5 <sup>m</sup>	
158	Comp P			↓	15 <sup>s</sup>	
159	324.033720	13 58 34	28 07 07	3	5 <sup>m</sup>	
160	Comp P			↓	15 <sup>s</sup>	
161	324.033738	14 12 32	28 05 09	3	5 <sup>m</sup>	
162	Comp P			↓	15 <sup>s</sup>	
163	V1057 Cyg	20 07 03	44 03 46	12	3 <sup>m</sup>	
164	Comp P			↓	15 <sup>s</sup>	
165	RX129.690720	17 29 34	07 20 50	99	20 <sup>m</sup>	Talk About Overkill IT didn't look that BRIGHT!





Start of FAST Run

60 inch Telescope Log		Spectrograph: FAST				
Observer: <u>Caldwell</u>		Grating: <u>600/300</u>			Page: <u>372</u>	
PI: <u>Caldwell/Hutchins/Gallen</u>		Date: <u>5/20/95</u>				
Number	Object	R.A.	Dec.	L/R	Exp	Comments
1	COMP					600 GPM, bin by 2
<del>2-16</del>	<del>FLAT</del>					
17	COMP			↓		
18-32	FLAT					300 GPM, bin by 4
35	COMP					
36-38	eye sky				5	
<del>39</del>	<del>COMP</del>			↑		
40	M67 488				120	600 GPM
41	"				120	
42	"				120	
43	COMP			↓	10	
44	1250				120	
45	"				120	
46	1557				240	
47	1592				240	
48	1279				240	
49	1402				240	
50	1186				900	
51	COMP			↑		
52	H244				300	
53	COMP			↑		
54	H244				300	300 GPM, 3", bin by 4
55	COMP			↑		
56	N4486 B				300	
57	COMP			↑		
58	D26				900	<del>900</del> E
59	COMP			↑		
60	D61				900	LIGHT CLOUDS
61	COMP					
62	326. 2645					

33 + 34 do not exist

60 inch Telescope Log				Spectrograph: <u>FAST</u>		
Observer: <u>Caldwell</u>				Grating: <u>300</u>		Page: <u>37/3</u>
PI: <u>Geller</u>				Date: <u>5/20/95</u>		
Number	Object	R.A.	Dec.	L/R	Exp	Comments
63	326.26615				300	took another - cloudy
64	COMP			↑		
65	326.27829				436	more clouds, stopped
66	"				600	tried again
67	COMP			↑		
68	326.028552				600	
69	COMP			↑		
70	326.028822				600	
71	COMP			↑		
72	326.029123				600	
73	COMP			↑		
74	326.029517				400	gens ok now
75	COMP			↑		
76	326.029935				400	
77	COMP			↑		
78	326.030250				400	
79	COMP			↑		
80	326.030350				600	clouds back
81	COMP			↑		
82	326.030359 E				600	
83	COMP			↑		
84	326.030359 W				600	
85	COMP			↑		
86	326.030417				600	
87	COMP			↑		
88	326.030626				600	
89	COMP			↑		
90	326.031109				600	
91	COMP			↑		
92	326.030955				600	

$$6263 = 62 + 63$$

$$6566 = 65 + 66$$

60 inch Telescope Log  
 Observer: Caldwell  
 PI: Geller  
 Spectrograph: FAST  
 Grating: 300  
 Date: 5/20/95  
 Page: 3714

Number	Object	R.A.	Dec.	L/R	Exp	Comments
93	COMP			↑		
94	326.031238				600	
95	COMP			↑		
96	326.034488				600	A star? very cloudy
97	COMP			↑		
98-100	SAO 084705				10	
101	COMP			↑		
102-103	HD 198858				25	
104	COMP			↑		
105-110	BAS					
120	V443 Her				10	sure hope the
121-122	"				150	records are good,
123	COMP			↑		cause I can't find
124	AS 338				150	the charts!
125	"				5	
126	COMP					noticed Scott wants
						photometric
						(conditions)
						mean & sorry -
						down & clouds

106-110 - BIASES  
 have lined down nicely -  
 DID NOT USE  
 (DID NOT ZERO current)

60 inch Telescope Log

Observer: P. BerndtPI: Hucha/GellerSpectrograph: FASTGrating: 3000, 3" slit, 6mbx4Page: 3715Date: 5/21/95

Number	Object	R.A.	Dec.	L/R	Exp	Comments
10	BIAS			0	0s	
11-20	FLAT			0	7s	some thin cloud
21	COMP			0	10s	clouds to w terrible
22-26	eyesky	zenith		0	5s	the evening sky useless
27-29	AGK2043928	09:49:20	+43:4207	0	10s	bright sky
30	COMP			↑	10s	
31-33	N3115	10:02:44.9	-07:28:30	0	3m	" nucleus
34	COMP			↑		
35	N4486B	12:28:00	+12:45:59	0	5m	
36	COMP			↑		
37	Feige 34	10:26:41.1	+43:21:50	0	90s	
38	COMP			↑		
39	Mark 421	11:01:40.6	+38:28:43	6	2m	for Trevor Weekes
40	COMP			↑		
41	083200022	08:34:31.8	+00:11:35	1	10m	HR
42	COMP			↑		
43	0825200449	08:27:48.5	+01:39:22	1	10m	HR!
44	COMP			↑		
45	316.024929	10:26:49.71	+27:54:18	3	5m	increasing clouds
46	COMP			↑		seeing not so hot either
47, 49	316.026875	10:18:15	+28:01:05.1	3	10m	x2 (I really lookin' spectra)
48, 50	COMP			↑		
51	316.027026	10:25:18.83	+28:03:18.7	3	5m	HR
52	COMP			↑		
53	316.028624	10:28:01.97	+28:05:13.6	3	5m	
54	COMP			↑		
55	316.029161	10:40:38.83	+28:15:39.9	3	5m	
56	COMP			↑		
57	316.032622	10:42:54.16	+28:25:57.7	3	5m	
58	COMP			↑		

N.O. order for this evening

60 inch Telescope Log

Observer: P. BerlindPI: Geller/HuchraSpectrograph: FASTGrating: 300LDate: 5/21/95Page: 3716

Number	Object	R. A.	Dec.	L/R	Exp	Comments
59, 61	316.052745	10:32:10.92	+28:28:57.2	3	7m	+2 thin clouds
60, 62	COMP			↑		↳ H $\alpha$ @ pix 2016!
63	316.056045	10:20:41.12	+28:43:07.2	3	5m	star 2" NW of gal
64	COMP			↑		slightly superposed
65	316.036061	10:38:33.55	+28:47:10.3	3	5m	
66	COMP			↑		
67	316.056268	10:44:56.05	+28:41:50.3	3	7m	
68	COMP			↑		
69	12115p0700	12:14:10.6	+06:44:57	1	5m	H $\alpha$
70	COMP			↑		
71	12136p0127	12:16:04	+01:11:05	1	5m	clouds
72	COMP			↑		
73, 75	12157p0653	12:19:14.4	+06:36:03	1	5m, 10m	x 2 emission line
74, 76	COMP			↑		@ pix 2033
77	1240m1137	12:40:00	+11:37:10	99	10s	9 <sup>th</sup> mag star SW of H104
78	324.035001	13:52:45.34	+28:10:38	3	5m	for 45" people
79	COMP			↑		
80	324.035514	14:10:36.05	+28:10:17.4	3	5m	H $\alpha$
81	COMP			↑		
82	324.035528	13:53:37.53	+28:12:22.2	3	5m	
83	COMP			↑		
84	324.035911	13:51:00.68	+28:13:10.4	3	5m	spindster; v = 34,000 km/s
85	COMP			↑		
86	324.036034	13:53:06.98	+28:13:41.5	3	4m	
87	COMP			↑		@ 20,286
88	325.107661EW	14:10:26	+32:19:10	3	5m	E+W comps on slit 2" sep
89	COMP			↑		w = 20,134
90	U07993	12:48:12	+52:24:10	1	10m	H $\alpha$ nucleus
91	COMP			↑		
92	U06050	12:53:12	+52:32:10	1	2m	

60 inch Telescope Log		Spectrograph: <u>EAST</u>		Page: <u>3717</u>		
Observer: <u>P. Berlind</u>		Grating: <u>300R</u>		Date: <u>5/21/95</u>		
PI: <u>Huchra/Geller</u>						
Number	Object	R.A.	Dec.	L/R	Exp	Comments
93	N4834	12:54:12	+52:34:40	1	5m	face on spiral; H $\alpha$ in the
94	COMP			↑		arms 4 places where they
95	U08109	12:57:30	+52:37:40	1	4m	H $\alpha$ crossed the slit; not in nucleus
96	COMP			↑		
97	13059p5412	13:05:54	+54:12:40	1	4m	H $\alpha$
98	COMP			↑		↑ clouds
99	13092p5328	13:09:12	+53:28:40	1	7m	H $\alpha$
100	COMP			↑		
101	U08347N	13:14:24	+53:12:40	1	4m	9851
102	U08347S	13:14:24	+53:12:40	1	5m	
103	COMP			↑		
104	13177p5220W	13:17:42	+52:20:40	1	5m	strong lines H $\alpha$ del
105	13177p5220C	13:17:42	+52:20:40	1	4m	star on slit to W H $\alpha$ =
106	13177p5220E	13:17:42	+52:20:40	1	4m	MRK251 H $\alpha$ ...
107	COMP			↑		
108	326.03390S	14:37:02.94	+28:16:25	3	5m	ISR ↓
109	COMP			↑		
110	326.03652C	14:43:42.24	+29:01:40.2	3	7m	
111	COMP			↑		
112	326.03744Z	14:44:06.51	+29:06:04.3	3	10m	H $\alpha$
113	COMP			↑		
114	326.03908SS	14:39:09.93	+29:12:58.3	3	7m	South Comp
115	326.03908SN	14:39:10.39	+29:12:49.4	3	5m	North
116	COMP			↑		
117	326.040574	14:42:39.8	+29:20:46.5	3	5m	H $\alpha$
118	COMP			↑		
119	326.04690S	14:39:59.62	+29:53:55.9	3	5m	
120	COMP			↑		
121	326.048266	14:43:02.02	+30:01:58.8	3	5m	H $\alpha$
122	COMP			↑		

60 inch Telescope Log			Spectrograph: <u>FAST</u>			
Observer: <u>P. Berliand</u>			Grating: <u>300L</u>		Page: <u>3118</u>	
PI: <u>Geller/Huchra/Kaupen</u>			Date: <u>5/21/95</u>			
Number	Object	R. A.	Dec.	L/R	Exp	Comments
123	326.048598	14:48:51.53	+30:24:57	3	4m	H <sub>2</sub>
124	COMP			↑		Moon is creeping around
125	326.050125	14:51:08.15	+30:12.54	3	7m	V ≈ 38KT
126	COMP			↑		clearing
127	326.050396	14:56:14.34	+30:13.46	3	5m	
128	COMP			↑		
129	326.051523	14:50:12.55	+30:20.75	3	4m	
130	COMP			↑		
131	326.051886	14:37:11.05	+30:15.79	3	4m	
132	COMP			↑		
133	16567 p0127	16:59:15.7	+01:22.47	1	7m	H <sub>2</sub> + a couple of objects on the slit
134	COMP			↑		↳ straggler object
135	326.052311	14:51:52.85	+30:24.45	3	5m	
136	COMP			↑		
137	326.053573	14:51:00	+30:31:17.4	3	4m	
138	COMP			↑		
139	326.053987	14:47:20.6	+30:32.59	3	3m	
140	COMP			↑		
141	326.054767	14:50:44.06	+30:37.253	3	5m	
142	COMP			↑		
143	RXJ18240639D	18:24:21.7	+63:49.57	9	2m	
144	COMP			↑		
145	RXJ181903307B	18:19:50.3	+37:07.3.7	9	2m	clear ↓
146	RXJ181903307A	"	"	9	1m	
147	RXJ181903307C	"	"	9	2m	
148	RXJ181903307D	"	"	9	7m	star on slit & E
149	COMP			↑		
150,151	TC+B	15:57:24	+26:03:36	12	30,60	5" slit ↓
152	COMP			↑	85	
153,154	AG Dra	16:01:23	+66:56:	12	30,20	



60 inch Telescope Log			Spectrograph: <u>FAST</u>		Page: <u>3719</u>	
Observer: <u>P. Berlind</u>			Grating: <u>300</u>			
PI: <u>Kempton</u>			Date: <u>5/21/95</u>			
Number	Object	R. A.	Dec.	L/R	Exp	Comments
155	COMP				7s	5" slit, clear
156, 157	RSOph			12	10s, 30s	Photometric ↓
158	COMP			↑	↑	
159, 160, 161	AS289	18:07:34	-11:40:55	12	30s, 10s	2m
162	COMP			↑		
163, 164	AS296	18:12:33	-02:19:53	12	10s, 3m	
165	COMP			↑		
166, 167	AP1m9	18:07:19.5	-28:06:20	12	1m, 5m	
168	COMP			↑		
169, 170	AS281	18:07:34.2	-27:58:31	12	1m, 10m	
171	COMP			↑		
172, 173	WHer	18:12:26	+10:58:12	12	2s, 5m	
174	COMP			↑		
175, 176	V443Her	18:20:02.8	+23:25:48	12	3s, 2m	
177	COMP			↑		
178-182	HD 192281	20:10:46.8	-14:07:04	12	1s, 2s	
183	COMP			↑		
184-188	BSOp 284211	21:48:57.1	+58:37:48	12	45s, 30s	
189	COMP			↑		sky getting bright
190-191	V1057	20:57:03	+44:03:46	12	3m	
192	COMP			↑		
193	V1515	21:45:27	+17:18:08	12	5m	bright sky - too bright
194	COMP			↑		garbage
195-201	FLAT				4s	w/ 5" slit ↑
205-214	BIAS				0s	
215-224	FLAT				7s	3" slit
225-229	DARK				15m	↳ these FLATS look different than those at the beginning of the night no clouds at dawn!

Number	Object	R. A.	Dec.	L/R	Exp	Comments
1-10	BIAS			0	0s	
11-20	FLAT			0	5s	
21-25	even sky	zenith		0	2s	on clouds
26	COMP			↑	10s	
27-30	AGK2045228	09:49:20	+43:42:07	0	10s	clouds
31	COMP			↑		
32-35	N3031	09:51:30	+67:18:18	0	60s	nucleus
36	COMP			↑		
37-48	ZILMI	10:07:049	+35:16:01	0	2-15s	43-45 hrs +
49	COMP			↑		2 for Nelson chip tests
50,51	N3115	10:02:444	-07:08:30	0	5m, 3m	still lots of clouds
52	COMP			↑		
53,54	N4151	12:08:01	+37:41:02	6	30s	
55	COMP			↑		
56	H244	13:21:4.1	+38:23:38	6	2m	through clouds
57	COMP			↑		
58	N5548	14:15:43	+25:22:01	6	2m	
59	COMP			↑		ok down to 6iz
60	316.078211	10:31:322	+32:21:202	3	7m	still through clouds
61	COMP			↑		
62	316.077485	10:41:084	+32:15:416	3	7m	high wind
63	COMP			↑		gusts to +30 mph
64	316.075423	10:25:3726	+32:07:364	3	5m	
65	COMP			↑		
66	316.074239	10:30:453	+32:04:405	3	5m	
67	COMP			↑		
68	316.074316	10:24:5054	+32:01:395	3	5m	H <sub>α</sub>
69	COMP			↑		
70	316.071762	10:46:458	+31:44:211	3	7m	35K
71	COMP			↑		

25

60 inch Telescope Log

Observer: P. Berlind

PI: Geller/Huchra

Spectrograph: FAST

Grating: 300L

Date: 5/22/95

Page: 3721

Number	Object	R. A.	Dec.	L/R	Exp	Comments
72	316.070910	10:41:28.06	+31:42:06.2	3	5m	clearing
73	COMP			↑		
74	316.069980	10:43:49.49	+31:36:32.5	3	4m	
75	COMP			↑		
76	316.067082	10:41:20.57	+31:40:36.6	3	5m	broad H $\alpha$ ; $\lambda \approx 11K$
77	COMP			↑		
78	316.069988	10:23:52.06	+31:38:9.9	3	5m	
79	COMP			↑		
80	316.069209	10:17:36.35	+31:33:01.9	3	5m	
81	COMP			↑		
82	11032p0658N	11:05:46	+06:40:41	1	10m	H $\alpha$ North Camp
83	11032p0658S	11:05:46	+06:40:41	1	5m	South
84	COMP			↑		
85	11051p0332	11:07:33.5	+03:15:11	1	5m	H $\alpha$
86	A1105p0333	11:07:43.6	+03:16:03	1	10m	H $\alpha$
87	COMP			↑		
88	11005p0522	11:03:04	+05:06:00	1	10m	H $\alpha$
89	COMP			↑		
90	11001p0539	11:02:42	+05:23:29	1	5m	clouds coming through
91	COMP			↑		
92	10594p0331	11:02:00.4	+03:35:29	1	5m	
93	COMP			↑		
94	RXJ1301p2752B	13:01:10.3	+27:52:53	9	4m	*
95	RXJ1301p2752A	"	"	9	4m	*
96	RXJ1301p2752C	"	"	9	8m	*
97	COMP			↑		
98	324.036524	14:11:36.28	+28:12:57	3	5m	pause to refocus FAST
99	COMP			↑		new foc = 1060
100	3211.036820	13:54:21.57	+28:16:16	3	5m	1
101	COMP			↑		1060 4.1-4.0

42 Comps before new focus not very good - ah! - I was wondering

60 inch Telescope Log

Observer: P. BerlindPI: GellerSpectrograph: FASTGrating: 200Date: 5/22/95Page: 3722

Number	Object	R.A.	Dec.	L/R	Exp	Comments
102	324.038039	13:50:06.52	+28:18:55	3	Sm	
103	COMP			↑		1080
104	324.038351	13:49:39.8	+28:19:45	3	Sm	
105	COMP			↑		
106	324.038416	14:03:02.17	+28:20:58	3	Sm	
107	COMP			↑		
108	324.040588	13:54:53.05	+28:27:07	3	Sm	
109	COMP			↑		
110	324.042196	14:01:19.49	+28:31:06.4	3	Sm	cluster
111	COMP			↑		
112	324.042345	13:56:25.48	+28:31:33.2	3	Sm	H <sub>α</sub>
113	COMP			↑		
114	324.042754	14:02:36.77	+28:32:05.6	3	Sm	H <sub>α</sub>
115	COMP			↑		
116	324.042780	14:00:18.68	+28:32:21	3	Sm	seems 2-3"
117	COMP			↑		
118	324.043979	13:46:28.57	+28:33:12.6	3	Sm	
119	COMP			↑		
120	324.044073	13:58:48.9	+28:38:27	3	Sm	
121	COMP			↑		
122	324.045378	13:55:32.21	+28:38:40.5	3	Sm	
123	COMP			↑		
124	324.046946	13:47:02.96	+28:41:47.4	3	Sm	
125	COMP			↑		
126	324.068652	13:46:21.49	+29:46:24.1	3	Sm	
127	COMP			↑		
128	324.068673	13:44:57.79	+29:46:13.4	3	Sm	
129	COMP			↑		
130	324.069342	13:44:25.72	+29:48:11.9	3	7M	H <sub>α</sub>
131	COMP			↑		

60 inch Telescope Log

Observer: P. BerndPI: GellerSpectrograph: FASTGrating: 300LDate: 5/22/85Page: 3723

Number	Object	R.A.	Dec.	L/R	Exp	Comments
132	324.069415	13:44:11.32	+29:48:13.3	3	5m	
133	COMP			↑		
134	324.069494	14:02:20	+29:50:51.1	3	7m	
135	COMP			↑		
136	324.071273	13:44:05.8	+29:54:02.4	3	5m	
137	COMP			↑		
138	324.071329	13:44:24.91	+29:54:12	3	5m	
139	COMP			↑		
140	324.071383	14:02:5.58	+29:46:11.2	3	5m	
141	COMP			↑		
142	324.071843	13:44:37	+29:56:05.5	3	7m	
143	COMP			↑		
144	324.071846	13:44:19.48	+29:55:55.5	3	5m	
145	COMP			↑		
146	324.075106	13:44:13.5	+30:06:32.7	3	5m	
147	COMP			↑		
148	324.075805	13:44:09.52	+30:09:58.2	3	5m	Hk
149	COMP			↑		
150	324.077392	14:11:55.22	+30:13:94	3	7m	MOON'S UP
151	COMP			↑		
152	324.078558	14:11:43.21	+30:17:44.6	3	7m	
153	COMP			↑		
154	324.074429	13:55:13.03	+30:23:05.5	3	5m	
155	COMP			↑		
156	324.079458	14:11:26.6	+30:20:43.8	3	5m	
157	COMP			↑		
158	324.079945	14:09:22.74	+30:23:12.6	3	5m	Hk
159	COMP			↑		
160	324.095362	14:11:26.22	+31:16:02.5	3	5m	COMP on slit Wolf 551. Hk
161	COMP			↑		

60 inch Telescope Log

Observer: P. BerthelPI: KenyonSpectrograph: F&SGrating: WOLDate: 5/22/95Page: 5024

Number	Object	R.A.	Dec.	L/R	Exp	Comments
162	3C903	18:45:37.6	+79:43:06	6	5m	seeing ~2"
163	COMP			↑		clear
164	PG1708p602	17:08:35.9	+80:15:52	6	3m	
165	COMP			↑		
166-170	HD192281	20:10:46.8	+40:07:01	12	25	
171	COMP			↑	75	
172	V1515Cyg	21:45:27	+47:18:08	12	15m	has faded big time
173	COMP			↑		via K <sup>th</sup>
174-176	BDP284211	21:48:57.1	+28:57:48	12	30s	
177	COMP			↑		
178-180	BFCyg	19:21:55	+29:34:30	12	25, 3m, 15s	
181	COMP			↑		
182-183	CHCyg	19:23:42	+50:08:31	12	15, 5s	
184	COMP			↑		
185-186	CECyg	19:48:21	+35:33:24	12	15, 2m	
187	COMP			↑		seeing pretty rough in
188, 189	AS270	18:02:35.2	-20:20:52	12	1m, 5m	the far south
190	COMP			↑		
191	HZm36	18:02:51.5	-28:17:23	12	1m	all lines
192-193	SS129	18:03:54	-29:36:50	12	1m, 3m	
194	COMP			↑		
195, 196	Hen1591	18:04:25.8	-25:54:10	12	20, 4m	
197, 198	VZ756 Ser	18:11:22.5	-29:50:19	12	1m, 4m	
199, 200	He2m374	18:12:30.9	-21:32:24	12	30s, 5m	
201, 202	Hen1674	18:17:24.4	-26:24:10	12		
203	COMP			↑		
204-216	HD198858	20:49:50.71	+47:31:07	0	15-15s	std; also for Nelson F&S
217	COMP			↑		
218-227	FLAT			12	45	5" slit for Scott
228-237	BTAS			0	0s	
238-247	FLAT			0	5s	
248-257	FLAT					

Number	Object	R. A.	Dec.	L/R	Exp	Comments
60 inch Telescope Log						
Observer: <u>P. Berlind</u>						
PI: <u>Huchra</u>						
				Spectrograph: <u>FAST</u>		
				Grating: <u>3000, 3" slit, baby</u>		Page: <u>3725</u>
				Date: <u>5/23/95</u>		
110	BTAS			0	0s	clear stars!
11-20	FLAT			0	6s	
21	COMP			0	10s	Fast focus has been all over
27-26	evesky	zenith		0	5s, 7s	the place lately
27, 28	COMP			↑	10s	New FAST loc = 1100
29-32	AGK2p43928	09:49:20	+43:42:07	0	10s	
33	COMP			↑		
34-36	N3031	09:51:30	+69:18:18	0	1m	
37	COMP			↑		
38-39	N35F	10:45:114	+72:50:48	0	3m	
40	COMP			↑		
41	N4456B	12:29:40	+12:45:59	0	5m	
42	COMP			↑		
43, 44	EG67	09:43:294	+44:08:33	0	90s	1230
45	COMP			↑		
46	08355p5347	08:39:18.6	+53:31:12	1	5m	H <sub>α</sub> @ fit 213
47	COMP			↑		
48	08364p5612	08:40:154	+56:02:44	1	7m	H <sub>α</sub>
49	COMP			↑		
50	08368p5354	08:40:34.1	+53:44:26	1	4m	
51	COMP			↑		
52	08370p6007N	08:41:06.7	+53:51:13	1	5m	check coords
53	08370p6007S	08:41:02.3	+53:53:37	1	5m	"
54	COMP			↑		E <sub>2</sub> 11,900 ; W <sub>2</sub> 12,000 km/s
55	11074p0545EW	11:10:05	+07:28:30	1	7m	E+W comps; 0.5 sec sep.
56	COMP			↑		West Comp has H <sub>α</sub>
57	11075p05734	11:10:08	+07:16:28	1	10m	H <sub>α</sub>
58	COMP			↑		
59	11078p0517	11:10:25	+05:01:26	1	5m	H <sub>α</sub>
60	COMP			↑		

again xgobi w/d

11355

## 60 inch Telescope Log

Observer: P. BerlindPI: Huchra/Kirshner/Falco/GellerSpectrograph: FASTGrating: 300RDate: 5/23/95Page: 376

Number	Object	R.A.	Dec.	L/R	Exp	Comments
61	11083p0500S	11:10:56.6	+04:43:29	1	4m	H $\alpha$
62	11083p0500N	11:10:56.4	+04:43:40	1	7m	
63	COMP			↑		
64	11108p0249N	11:13:20.8	+02:33:15	1	6m	North Comp 23,300
65	11108p0249S	11:13:21.4	+02:32:45	1	5m	South lots of little
66	11108p0249W	11:13:20.2	+02:32:55	1	5m	West fuzzies around
67	COMP			↑		
68	1111p0658	11:13:43.4	+06:42:26	1	10m	
69	COMP			↑		
70,72	12442p0316	12:44:12	+03:16:40	1	15m	also obs 7/6/99 3076/37,38 x2
71,73	COMP			↑		still leaky
74	316.058124	10:43:52.02	+32:50:10.2	3	5m	
75	COMP			↑		
76,78	316.061573	10:45:29.5	+30:49:20.9	3	7m	x2
77,79	COMP			↑		mega H $\alpha$ emission
80,82	SN1995N	14:47:28	-10:10:15.4	2	30m	x2 2" slit ↓
81,83	COMP			↑		mag 18.5!
84	1640p3940	16:39:48.9	+39:40:16	31	30m	only one object!
85	COMP			↑		try again
86	1701p379	17:01:24.6	+37:55:2	31	20m	QSO + star
87	COMP			↑		
88	326.055385	14:49:14.54	+30:40:42	3	5m	H $\alpha$ 3" slit ↓
89	COMP			↑		
90	326.058087	14:54:27.09	+30:54:28.7	3	5m	
91	COMP			↑		
92	326.058194	14:39:32.59	+30:53:33	3	5m	H $\alpha$
93	COMP			↑		
94	326.059202	14:52:27.56	+31:10:43.3	3	5m	object on slit to W
95	COMP			↑		
96	326.060077	14:36:52.4	+31:03:26.7	3	5m	



60 inch Telescope Log		Spectrograph: <u>FAST</u>				Page: <u>3727</u>	
Observer: <u>P. Ber Lind</u>		Grating: <u>300L</u>					
PI: <u>Geller &amp; Wilkes &amp; Kenyon</u>		Date: <u>5/23/95</u>					
Number	Object	R. A.	Dec.	L/R	Exp	Comments	
97	COMP			↑		clear skies	
98	326.06085	15:01:57	+31:01:22	3	5m		
99	COMP			↑			
100	326.060678	14:47:04.47	+31:06:524	3	5m		
101	COMP			↑			
102	326.060845	15:03:174	+31:08:112	3	5m		
103	COMP			↑			
104	326.06164	14:40:57.19	+31:09:45	3	5m		
105	COMP			↑			
106	326.062037	14:54:51.27	+31:16:34	3	5m	H <sub>α</sub>	
107	COMP			↑			
108	3C3902	18:45:376	+49:43:06	6	5m		
109	COMP			↑			
110	PGC 1708 p602	17:08:359	+60:13:52	6	3m		
111	COMP			↑			
112-115	HD 192281	20:10:46	+40:07:01	12	2s	5" slit ↓	
116	COMP			↑			
117-123	V1016 Cyg	19:55:20	+39:41:30	12	1s, 5s, 5s	15s, 1m, 5m	
124	COMP			↑			
126-129	HMSge	19:39:41	+16:37:33	12	1s, 10s, 1m	3m	
130	COMP			↑			
131-133	PUVul	20:19:01.1	+21:24:45	12	2s, 20s	5m	
134	COMP			↑			
135, 136	V1297 Cyg	20:49:06	+35:23:37	12	15s, 5m		
137	COMP			↑			
138-140, 142	AGApy	21:48:36.2	+22:3:27	12	3s, 1s,	1m (sat) 15s	
141	COMP			↑			
143-147	BD p284211	21:48:51.1	+28:57:49	12	30s		
148	COMP			↑			
149-150	V1057 Cyg	20:57:03	+44:03:46	12	3m		



60 inch Telescope Log

Observer: P. BerlindPI: Huchra / Kirshner / GellerSpectrograph: FASTGrating: 3000, 3", band 4Page: 3729Date: 5/24/95

Number	Object	R.A.	Dec.	L/R	Exp	Comments
10	BTS			0	0s	a few thin clouds
11-20	FLAT			0		
21-25	clear sky			0	2s	clear
26	COMP			0	10s	
27-31	AGK 2043728	09:49:40	+43:42:07	0	10s	
32	COMP			↑		lost for 1120
33-34	N3115	10:00:44.4	-07:28:30	0	3m	
35	COMP			↑		
36	N4486B	12:28:00	+12:45:59	0	5m	
37	COMP			↑		
38	Ferg 34	10:36:41.1	+43:21:50	6	2m	
39	COMP			↑		
40	MRK 421	11:01:40.6	+38:28:43	6	2m	
41	COMP			↑		
42	08385sp256	08:42:12.3	+52:47:48	1	4m	
43	COMP			↑		
44	08406p511	08:44:26.5	+54:51:10	1	4m	A, B is done
45	COMP			↑		
46	08375sp506	08:41:20.7	+53:57:07	1	7m	
47	COMP			↑		
48	08379p5126	08:41:32.8	+51:16:53	1	10m	H <sub>2</sub>
49	COMP			↑		
50-52	SNR 95D	09:38:17.53	+05:22:06.6	2	20m	
51, 53	COMP			↑		
54	Ferg 34	10:36:41.1	+43:21:50	2	2m	
55	COMP			↑		
56	316.068732	10:18:14.77	+31:30:48	3	5m	
57	COMP			↑		
58	316.068803	10:14:45.42	+31:29:31.7	3	5m	
59	COMP			↑		

1920

60 inch Telescope Log		Spectrograph: <u>FAST</u>				Page: <u>3730</u>
Observer: <u>P. B. Inghel</u>		Grating: <u>300R</u>				
PI: <u>Geller</u>		Date: <u>5/24/95</u>				
Number	Object	R.A.	Dec.	L/R	Exp	Comments
60	316.056410	10:48:48.84	+28:44:05.7	3	5m	
61	COMP			↑		
62	316.050708	10:35:27.29	+29:55:25.9	3	5m	
63	COMP			↑		
64	316.052485	10:22:17.75	+30:02:46	3	5m	
65	COMP			↑		
66	316.052628	10:43:02.18	+30:07:29.7	3	5m	H <sub>α</sub>
67	COMP			↑		
68	316.055182	10:38:11.05	+30:18:25.8	3	5m	
69	COMP			↑		
70	316.056304	10:41:48.74	+30:23:46	3	4m	
71	COMP			↑		
72, 74	316.056699	10:26:30.93	+30:27:05.8	3	5m	x2
73	COMP			↑		
75	316.057118	10:34:40.34	+30:24:20.1	3	5m	Finishes the plate!
76	COMP			↑		
77	13095p0155	13:09:30	+1:54:38	5	5m	30273 H <sub>α</sub>
78	COMP			↑		
79	13098m0231	13:09:51	-2:31:38	5	10m	northern part of 616 H <sub>α</sub>
80	COMP			↑		
81	13096p0408	13:09:36.5	+04:07:57	5	5m	H <sub>α</sub>
82	COMP			↑		
83	13084p0225	13:08:25	+01:24:38	5	5m	H <sub>α</sub>
84	COMP			↑		
85	13098m0241	13:09:44	-02:10:26	5	1m	star
86	COMP			↑		
87	N5027	13:10:49	+6:19:33	5	4m	H <sub>α</sub>
88	COMP			↑		
89	13109p0818	13:10:54	+06:18:00	5	10m	
90	COMP			↑		

7274. 316.056699 sum of 72 + 74

60 inch Telescope Log

Observer: P. Berndt  
 PI: Grueter & Falco

Spectrograph: FAST  
 Grating: 300R  
 Date: 5/24/95

Page: 3731

Number	Object	R.A.	Dec.	L/R	Exp	Comments
91	13110p0229	13:11:00	+07:09:00	S	5m	H <sub>α</sub>
92	COMP			↑		
93	13112m0520	13:11:15.8	-03:20:28.8	S	3m	
94	COMP			↑		
95	13113p0249	13:11:19	+02:48:76	S	7m	H <sub>α</sub>
96	COMP			↑		
97/99	13116m0010	13:11:34	-00:10:36.6	S	5m	x2
98	COMP			↑		
100	13120m0322	13:12:00	-03:22:00	S	10m	H <sub>α</sub>
101	COMP			↑		
102	324.080511	13:49:56.56	+30:26:06	3	5m	ISR ↓
103	COMP			↑		
104	324.082968	13:55:17.76	+30:35:11.2	3	5m	
105	COMP			↑		
106	324.083728	13:58:02.79	+30:37:48	3	5m	
107	COMP			↑		
108	324.085735	14:02:27.13	+30:44:12.7	3	5m	
109	COMP			↑		
110	324.085255	14:03:58.57	+30:40:13.0	3	5m	
111	COMP			↑		
112	324.085989	14:05:24.26	+30:44:38	3	5m	
113	COMP			↑		
114	324.086307	14:08:31.65	+30:44:56.5	3	5m	
115	COMP			↑		
116	324.084439	14:05:28.53	+30:45:58.8	3	4m	seeing excellent telescope focus very good
117	COMP			↑		
118, 120	1640p3940	16:34:48.9	+39:40:16	31	30m	x2 <sup>lens candidate</sup> <del>60-250</del> vice versa?
119, 121	COMP			↑		both visible: both in slit
122	327.002676	15:06:33.37	+16:28:20	3	4m	FAST rotated; guided right also observed yesterday
123	COMP			↑		

9799 - sum of 97 + 99  
 1820 - sum of 118 + 120  
 37 24 39

60-250 star  
 K2-FIT K2-FAST

60 inch Telescope Log		Spectrograph: <u>FAST</u>		Page: <u>3732</u>		
Observer: <u>P. Berlind</u>		Grating: <u>300</u>				
PI: <u>Geller &amp; Wilkes</u>		Date: <u>5/24/95</u>				
Number	Object	R.A.	Dec.	L/R	Exp	Comments
124	327.003599	15:19:47.2	+26:28:32.9	3	5m	
125	COMP			↑		
126	327.004057	15:05:11.48	+26:32:48.2	3	5m	
127	COMP			↑		
128	327.004866	15:09:25.2	+26:37:32.2	3	5m	
129	COMP			↑		
130	327.005358	15:06:57.91	+26:38:06.8	3	5m	
131	COMP			↑		
132	327.005575	15:05:20.56	+26:38:18.7	3	5m	
133	COMP			↑		
134	327.005882	15:05:27.98	+26:38:40.5	3	5m	
135	COMP			↑		
136	327.006555	15:14:14.85	+26:44:20.5	3	5m	
137	COMP			↑		
138	327.008176	15:18:22.31	+26:52:10.1	3	7m	
139	COMP			↑		
140	327.008612	15:17:51.34	+26:52:35.3	3	5m	
141	COMP			↑		
142	30903	18:45:57.6	+77:45:06	6	10m	
143	COMP			↑		
144, 146	RG 1708 p102	17:08:35.9	+60:15:52	6	3m	2 STAR - not seen
145	COMP			↑		
147-150	N7531	22:34:46.9	+34:04:43	0	3m	nucleus
151	COMP			↑		
152-156	HD 198858	20:49:50	+47:31:07	0	10, 5s	
157	COMP			↑		
158-162	AGK2 p24	17:01:05.72	+24:55:05.3	0	10s	
163	COMP			↑		
164-173	BIAS			0	0s	
174-183	FLAT			0	6s	
184-187	DARK				15m	

60 inch Telescope Log		Spectrograph: <u>FAST</u>		Page: <u>3733</u>		
Observer: <u>P. Berlind</u>		Grating: <u>300L-3", 6mm</u>				
PI: <u>Huchra</u>		Date: <u>5/25/95</u>				
Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	BIAS			0	0s	clear
11-20	FLAT			0	6s	dark haze to W
21	COMP			↑	10s	
22-26	evesky	zenith		0	2s	
27	COMP			↑		
28-31	Ak2p5128	09:49:20	+17:42:07	0	10s	
32	COMP			↑		
33-37	N3031	09:51:20	+69:18:18	0	1m	nucleus
38	COMP			↑		
39	N4486B	12:28:00	+72:45:59	0	5m	
40	COMP			↑		
41	8413p5509	08:45:10	+54:56:30	1	5m	
42	COMP			↑		
43	08459p5104	08:45:32	+50:52:38	1	4m	
44	COMP			↑		
45	08462p5342	08:49:59	+53:29:59	1	4m	
46	COMP			↑		
47	08484p5307	08:52:06	+52:55:22	1	4m	
48	COMP			↑		
49	08511p5353	08:54:53	+53:40:35	1	7m	H <sub>α</sub>
50	COMP			↑		
51	08530p5209	08:56:35	+51:55:30	1	3m	
52	COMP			↑		
53	08540p5515	08:57:42	+55:03:27	1	3m	
54	COMP			↑		
55	08575p535E	09:01:07.3	+53:13:16	1	4m	
56	08576p5325W	09:01:01.9	+53:12:49	1	4m	
57	COMP			↑		
58	08578p5514W	09:01:29.6	+55:02:15	1	3m	
59	08578p5514E	09:01:32.3	+55:01:32	1	5m	

60 inch Telescope Log

Observer: P. BarthelPI: Huchra & GellerSpectrograph: FASTGrating: 3002Page: 3734Date: 5/25/85

Number	Object	R. A.	Dec.	L/R	Exp	Comments
60	COMP			↑		
61	08599p5211	09-03-27.9	+55-35-09	1	4m	H <sub>α</sub>
62	COMP			↑		
63	11118p0300	11-14-24.6	+04-10-27	1	10m	H <sub>α</sub>
64	COMP			↑		
65	11121p0417E	11-14-42.8	+04-01-27	1	4m	
66	11121p0417W	11-14-40.9	+04-01-34	1	5m	
67	COMP			↑		
68	11200p0324	11-20-00	+03-24-60	1	5m	H <sub>α</sub>
69	COMP			↑		
70	11205p0305	11-20-30	+03-05-60	1	5m	
71	11206p0304	11-20-36	+03-04-60	1	4m	
72	COMP			↑		
73	11186p0538	11-18-36	+05-38-60	1	3m	
74	COMP			↑		
75	11211p0317	11-21-06	+03-17-60	1	5m	H <sub>α</sub>
77	11213p0322	11-21-18	+03-22-60	1	5m	
76	COMP			↑		
78	11215p0630	11-21-30	+06-30-60	1	4m	broad H <sub>α</sub>
79	COMP			↑		
80	11224p0527	11-22-24	+05-27-60	1	5m	
81	COMP			↑		
82	11228p0511	11-22-48	+05-11-60	1	5m	
83	COMP			↑		
84	11232p0341	11-23-12	+03-41-60	1	10m	H <sub>α</sub>
85	11235p0346	11-23-30	+03-46-60	1	5m	H <sub>α</sub>
86	COMP			↑		
87	324.086449	13-49-38	+30-46-35	3	5m	
88	COMP			↑		
89	324.087644	13-49-20.2	+30-50-11.6	3	5m	



60 inch Telescope Log		Spectrograph: <u>FAST</u>				Page: <u>3735</u>
Observer: <u>P. Berland</u>		Grating: <u>WOL</u>				
PI: <u>Geller</u>		Date: <u>5/25/95</u>				
Number	Object	R.A.	Dec.	L/R	Exp	Comments
90	COMP			↑		
91	324.088100	13:49:884	+30:57:368	3	5m	
92	COMP			↑		
93	324.088718	13:53:430	+30:55:015	3	4m	
94	COMP			↑		
95	324.089927	13:46:451	+30:57:261	3	5m	
96	COMP			↓		
97	324.089588	13:46:3645	+30:57:172	3	5m	H <sub>α</sub>
98	324.090266	13:44:0853	+30:57:475	3	5m	star on slit to E
99	COMP			↑		
100	324.093116	13:44:4287	+31:07:578	3	5m	H <sub>α</sub>
101	COMP			↑		
102	324.093573	14:05:2247	+31:11:451	3	4m	
103	COMP			↑		
104	324.095379	13:44:3741	+31:16:115	3	5m	
105	COMP			↑		
106	324.095902	14:07:1836	+31:17:357	3	7m	H <sub>α</sub>
107	COMP			↑		
108	324.097281	14:10:4087	+31:24:124	3	5m	H <sub>α</sub>
109	COMP			↑		
110	324.099771	14:11:3874	+31:33:249	3	5m	H <sub>α</sub> big time
111	COMP			↑		
112	324.102721	13:48:3881	+31:16:504	3	5m	
113	COMP			↑		
114	324.103324	13:45:003	+31:48:08	3	5m	H <sub>α</sub>
115	COMP			↑		
116	324.106376	13:48:1999	+32:01:342	3	5m	
117	COMP			↑		
118	324.109703	13:59:5165	+32:16:076	3	5m	
119	COMP			↑		

60 inch Telescope Log			Spectrograph: <u>FAST</u>		Page: <u>3736</u>	
Observer: <u>P. Berthel</u>			Grating: <u>20R</u>			
PI: <u>Geller/Huchra</u>			Date: <u>5/25/95</u>			
Number	Object	R.A.	Dec.	L/R	Exp	Comments
120	324.011089	13:50:22.11	+32:17:03.1	3	4m	H $\alpha$
121	COMP			↑		
122	324.111165	13:50:39.99	+32:20:48.9	3	4m	
123	COMP			↑		* on slit
124	324.112592	14:02:21.1	+32:26:44.9	3	3m	finishes the plate
125	COMP			↑		
126	N5548	14:15:43	+25:27:01	6	2m	
127	N5548W	14:17:56	+25:06:12	6	20m	v. faint galaxy west of N5548
128	COMP			↑		north part of N5548 on slit
129	Faye 98	14:36:04.1	+27:42:38	6	2m	
130	COMP			↑		
131	326.062201	14:57:52.03	+31:16:31.9	3	7m	
132	COMP			↑		
133	326.062449	14:42:23.65	+31:17:16.8	3	5m	
134	COMP			↑		
135	326.063375	14:53:41.81	+31:23:12.9	3	5m	
136	COMP			↑		
137	326.063980	14:53:37.71	+31:26:15	3	5m	
138	COMP			↑		
139	326.064485	14:43:56.81	+31:28:11.4	3	4m	
140	COMP			↑		
141	326.064788	15:05:01.44	+31:28:25.6	3	5m	H $\alpha$
142	COMP			↑		
143	326.065260	14:43:50.45	+31:31:26.4	3	5m	
144	COMP			↑		
145	326.065283	14:58:26.21	+31:33:23	3	4m	* on slit
146	COMP			↑		
147	327.009122	15:03:11.77	+26:52:28.1	3	5m	
148	COMP			↑		
149	327.005165	15:07:41.24	+26:40:24.5	3	5m	

60 inch Telescope Log		Spectrograph: <u>F15</u>		Page: <u>3737</u>		
Observer: <u>P. Bernd</u>		Grating: <u>300L</u>				
PI: <u>Geller/Wilkes</u>		Date: <u>5/25/95</u>				
Number	Object	R.A.	Dec.	L/R	Exp	Comments
150	COMP			T		
151	327.006292	15:09:20	+26:42:47	3	5m	
152	COMP			T		
153	327.009355	15:03:42.0	+26:53:30.9	3	5m	H+
154	COMP			T		
155	327.009416	15:10:01.5	+26:55:24.2	3	5m	
156	COMP			T		
157	327.009423	15:08:08.46	+26:54:56.1	3	5m	
158	COMP			T		
159	327.010382	15:20:17.7	+26:51:11.6	3	5m	star on slit 6E
160	COMP			T		
161	327.011039	15:12:11.5	+27:01:44.3	3	4m	
162	COMP			T		
163	327.011148	15:18:00.62	+27:02:17.2	3	5m	
164	COMP			T		
165	327.011822	15:04:03.12	+27:00:56.2	3	5m	
166	COMP			T		
167	303903	18:45:37	+79:43:06	6	5m	
168	COMP			T		
169	PG1708p02	1708:35.5	+60:13:52	6	3m	
170	COMP			T		
171	E 4706	18:13:44	+61:08:58	1	5m	H+
172	COMP			T		
173	18370p7605	18:30:23	+74:07:15	1	5m	H+
174	COMP			T		
175	18270p6205	18:27:28	+62:06:58	1	5m	
176	COMP			T		
177	19038p6702	18:03:42	+67:03:09	1	5m	H+
178	COMP			T		
179-183	AGK2 p24	1701:06	+24:55:05	1	10s	



60 inch Telescope Log

Observer: Huchra

Spectrograph: FAST

Grating: 300R

Page: 3739

PI: Ad, GELLER, HUCHRA, KRUMHOLTZ

Date: May 26, 1995

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-3	Dark					
4-13	B1A3					
14-23	FLAT					
24	Comp	Zenith		↓		
25	sky	"		⊙	100	
26	sky			⊙	60	
27	Comp			↓		
28	Page 34			○	30	Std flw
29	Comp			↓		
30	N3115	10 <sup>h</sup> 02 <sup>m</sup> 44.4	-07 <sup>o</sup> 28'30"	○	300	Temp
31	Comp			↓		
32	MA421	11 01 40	+38 28 43	6	120	AGW
33	Comp			↓		
34	N4486B	12 28 00	+12 45 59	○	300	Temp
35	Comp			↓		
36	N4151	12 <sup>h</sup> 08 01	+39 41 02	6	200	AGW
37	Comp			↓		
38	SN1993 J	09 51 19	+69 15 20	2	1800s	SN Broad H <sub>α</sub>
39	SN1993 J			2	1800	SN
40	SN1993 J			2	1800	SN
41	Comp			↑		
42	Comp			↓		
43	11 11 3 p 0433	11 <sup>h</sup> 11 17.8	+04 33 48	1	600	H <sub>α</sub> at 6700
44	11 11 8 p 04 26	11 11 48.0	+04 26 00	1	360	] H <sub>α</sub> ?
45	11 11 8 p 04 26	"	"	1	360	
46	Comp			↓		
47	11 14 8 p 0243	11 <sup>h</sup> 14 48	+02 43 00	1	480	H <sub>α</sub> at 6700
48	Comp			↓		
49	13011 p 08 10	13 <sup>h</sup> 01 06	+08 10 00	1	360	] 3C273+25
50	13011 p 08 10	"	"	1	300	
51	Comp			↓		

60 inch Telescope Log		Spectrograph: <u>FAST</u>				
Observer: <u>Huckra</u>		Grating: <u>300</u>			Page: <u>3740</u>	
PI: <u>Huckra/Geller/Wilkes</u>		Date: <u>May 20, 1995</u>				
Number	Object	R.A.	Dec.	L/R	Exp	Comments
52	13019 p0811 N	13 <sup>h</sup> 01 56	+08 11 46	1	300	North Camp
53	13019 p0811 S	"	"	1	480	South Camp
54	camp			↑		
55	13032 p0749	13 03 12	+07 49 00	1	600	Hd of 6955
56	13043 p0743	13 04 18.6	+07 42 40	1	240	
57	camp			↓		
58	13 082 p018	13 08 10	+00 17 52	1	300	Hd? ~6810
59	13 082 p018	"	"	1	240	- last done - prob no good.
60	camp			↓		
61	13167 p0742	13 16 42.6	+07 41 36	1	360	
62	camp			↓		
63	13170 p0745	13 17 00	+07 45 00	1	300	seeing poor
64	13170 p0745	"	"	1	300	Hd? ~6800
65	camp			↓		
66	N 5075	13 16 35.6	+08 05 37	1	180s	
67	E 4223 E	13 16 24.5	+08 03 30	1	300s	Main camp
68	E 4223 N	13 16 25.7	+08 04 10	1	480s	North camp.
69	camp			↓		
70	N 5548	14 15 43	+25 22 01	6	120s	W. Wilkes
71	Feise 98	14 26 04	+27 42 38	0	20s	
72	camp			↓		
73	326.065789	14 43 22	+31 25 08	3	300s	
74	camp			↓		
75	326.065956	14 43 20.6	+31 35 56	3	240s	
76	camp			↓		
77	326.066769	14 48 52	+31 40 57	3	240	
78	camp			↓		
79	326.066377	14 57 48.6	+31 38 40	3	360	
80	326.066377	"	"	3	160	
81	camp			↓		

NOT HERE

60 inch Telescope Log			Spectrograph: <u>F2.5</u>		Page: <u>3741</u>	
Observer: <u>Huchra</u>			Grating: <u>300R</u>		Date: <u>May 26, 1995</u>	
PI: <u>General</u>						
Number	Object	R.A.	Dec.	L/R	Exp	Comments
82	326.067300	14 53 48	+31 44 20	3	240	
83	Comp			↓		
84	326.067540	14 55 52	+31 44 53	3	360	
85	Comp			↓		
86	326.067626	14 37 03	+31 45 24	3	480	
87	Comp			↓		
88	326.067811	14 55 14.7	+31 46 34	3	760	North Comp.
89	326.067811 S	14 55 17	+31 46 17	3	360	South comp. H <sub>2</sub>
90	Comp			↓		
91	326.068014	14 58 57.0	+31 47 10	3	300	]
92	326.068014	"	"	3	300	
93	Comp			↓		
94	326.068924	14 52 44	+31 52 45	3	300	
95	Comp			↓		
96	326.069354	14 50 37.0	+31 55 16	3	300	
97	Comp			↓		
98	16253 p 7019	16 25 18	+70 14 00	1	300	
99	Comp			↓		
100	2C 300.3	18 45 37.6	+79 43 06	6	300	ABN
101	Comp			↓		
102	P61708 p 602	17 08 35	+60 13 52	0	120	SID STAR
103	Comp			↓		
104	ABH2 +24	17 01 06	+24 55 05	0	6s	Template
105	ABH2 +24			0	6	
106	ABH2 +24			0	6	
107	ABH2 +24			0	6	
108	ABH2 +24 DF			0	12	O <sub>2</sub> focussed
109	ABH2 +24 DF			0	12	
110	Comp			↓		
111	H0 198 858	20 49 50	+47 31 67	0	5s	Temp Defocusing





60 inch Telescope Log			Spectrograph: <u>FMS7</u>			
Observer: <u>Huchra</u>			Grating: <u>300E</u>		Page: <u>3743</u>	
PI: <u>Huchra</u>			Date: <u>May 27, 1995</u>			
Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	BIAS					
11-15	DARK				900s	
16-20	BIAS					
21	Comp	Zench		↓		
22-27	Sky			0	6s-600s	
28-28	Comp			↑		
29	Comp			↓		
30-31	AGN2 + 43923	09 49 20	+43 42 67	0	10s	
32	Comp			↓		
33	Feyl 34	10 36 41	+43 21 50	0	60s	
34-43	FLATS			0		FLATS
44	Comp			↓		
45	M4421	11 01 40	+38 28 93	6	120s	For Wakes AGN
46	Comp			↓		
47	N3115	10 02 44	-07 28 30	0	180	Template
48	Comp			↓		
49	N4451	12 08 39	+39 41 02	6	60	AGN
50	Comp			↓		
51	N4486B	12 28 00	+12 45 59	0	300	Template
52	N4486B	"	"	0	300	Template
53	Comp			↓		
54	A1033 - 4	10 13 54	+35 18 00	9	600	
55	Comp			↓		
56	A1033 - 1	10 28	+35	9	600	
57	Comp			↓		
58	1125 p0421	11 12 30	+04 21 00	1	300	
59	Comp			↓		
60	1124 p0353	11 12 24	+03 53 00	1	240	
61	Comp			↓		
62	1121 p0417 NE	11 12 06	+04 17 00	1	300	NE Comp

60 inch Telescope Log

Observer: Huckert

PI: Huckert

Spectrograph: FAST

Grating: 300R

Page: 3744

Date: 5/27/95

6364  
6768  
7071  
8889  
use

Number	Object	R.A.	Dec.	L/R	Exp	Comments
63	11121 p0417 SW	11 12 06	+04 17 00	1	600s	clouds
64	11121 p0417 SW			1	600s	sun
65	Comp			↑		
66	Comp			↓		
67	11124 p0353 N	11 12 24	+03 53 00	1	600	clouds
68	11124 p0353 N			1	600	
69	Comp			↓		
70	11149 p0318	11 14 54	+03 18 00	1	480	clouds
71	11149 p0318	"	"	1	480	-load, clouds very poor should not add
72	Comp			↓		
73	N5548	14 15 48	+25 22 01	6	600	Clouds AGN
74	N5548	"	"	6	600	
75	Comp			↓		
76	Feyr 98	14 36 04	+27 42 38	0	30	STO
77	Feyr 98	"	"	0	120s	
78	Comp			↓		
79	Agh2 p24	17 01 06	+24 55 05	0	10s	Temple
80	"			0	10s	
81	"			0	10s	
82	"			0	120s	Clouds - stopped by clouds
83	16487 m0243	16 48 46	-02 46 17	1	600s	clouds
84	Comp			↓		
85	16487 m0243	"	"	1	600s	clouds
86	16487 m0243			1	600s	Very beautiful! - don't add
87	Comp			↓		
88	16487 m0222	16 <sup>h</sup> 48 42	-02 22 00	1	480s	each of these is fine by itself!
89	16487 m0222			1	420s	
90	Comp			↓		
91	326.07210	14 58 36	+32 12 36	3	600s	072910
92	Comp			↓		

60 inch Telescope Log

Spectrograph: FMS7

Observer: Hickert

Grating: 3rd

Page: 3745

PI: Gibson

Date: 5/27/95

Number	Object	R.A.	Dec.	L/R	Exp	Comments
93	326.073038	15 <sup>h</sup> 00 47.6	+32 12 29	3	720	
94	Comp			↓		
95	326.073075	15 03 24	+32 12 12	3	600	
96	Comp			↓		
97	326.073363	14 55 19.6	+32 15 07	3	600	
98	Comp			↓		
99	326.074699	15 03 41.2	+32 18 52	3	360	
100	Comp			↓		
101	326.076333	14 46 19.7	+32 26 57	3	480s	] caly
102	326.076333	"	"	3	300s	
103	Comp			↓		
104	326.075167	14 52 48	+32 22 45	3	480	
105	Comp			↓		
106	327.011727	15 15 15.9	+27 09 29	3	240	
107	Comp			↓		
108	327.011751	15 02 42	+27 02 11	3	300	
109	Comp			↓		
110	327.011826	15 21 26.8	+27 04 29	3	600	] sum
111	327.011826	"	"	3	420	
112	Comp			↓		
113	327.013270	15 03 00.6	+27 08 10	3	600	] sum
114	327.013270	"	"	3	360	
115	Comp			↓		
116	RX1715 p 0309	17 15 11.4	+03 09 39	1	600	] sum
117	RX1715 p 0309			1	360	
118	Comp			↓		
119	30390.3	18 <sup>h</sup> 45 57.6	+79 43 06	6	300	ASN
120	Comp			↓		
121	DD p 28 4211	21 48 57	+28 37 48	⊙	30	STD
122-26	BIAS			-	-	
127-36	FLATS			0	6	
137-140	DARKS			0	900	

1102

1011

1314

1617

60 inch Telescope Log		Spectrograph: <u>FAST</u>				
Observer: <u>HUCHERA</u>		Grating: <u>300</u>			Page: <u>3746</u>	
PI: <u>HUCHERA, WILKES</u>		Date: <u>May 28, 1995</u>				
Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-5	BIAS			0	-	
6-20	FLAT			0	6	
21-25	BIAS			0		
26-29	DARK			0	900	
30-34	BIAS			0	-	
35	DARK			0	900	After Fil.
36	comp			↓		Focus 1120
37-41	SKY			0	25	sky for template
42	comp			↑		
43	comp			↓		
44	AG42 p43	09 <sup>h</sup> 49 <sup>m</sup> 20	+43 <sup>o</sup> 42 <sup>'</sup> 07	0	55	Temp defocused
45	AG42 p43			0	55	"
46	AG42 p43			0	55	focused
47	AG42 p43			0	105	defocused
48	AG42 p43			0	105	
49	comp			↓		
50	Fuze 34	10 36 41.1	+43 21 50	0	605	STD
51	comp			↓		
52	N4151	12 03 09	+39 41 02	0	605	AGN
53	comp			↓		
54	N4486 B	12 28 00	+42 45 59	0	300	Template
55	comp			↓		
56	N3115	10 02 44	-07 <sup>o</sup> 28 <sup>'</sup> 30	0	180	Template
57	comp			↓		
58	10011 p 0355	10 03 41.8	+03 40 31	1	480	H2
59	comp			↓		
60	10017 p 0355	10 04 17.8	+03 40 31	1	360	H2
61	10017 p 0355			1	300	
62	comp			↓		
63	10014 p 0239	10 03 57.1	+02 24 31	1	240	

60 inch Telescope Log				Spectrograph: <u>PAST</u>		Page: <u>3747</u>	
Observer: <u>Hucera</u>				Grating: <u>300</u>			
PI: <u>Hucera</u>				Date: <u>5/28/95</u>			
Number	Object	R.A.	Dec.	L/R	Exp	Comments	
64	Comp			↓			
65	10020 p0503	10 04 36.5	+04 48 30	1	180		
66	Comp			↓			
67	10026 p0547	10 05 12.9	+05 24 30	1	180		
68	Comp			↓			
69	10027 p0244	10 05 17.2	+02 29 30	1	240		
70	Comp			↓			
71	10030 p0317	10 05 35.5	+03 02 30	1	360		
72	Comp			↓			
73	10056 p0242	10 08 10.44	+02 23 20	1	150	] add	
74	10056 p0242			1	240	] extensions?	
75	Comp			↓			
76	1149 p0318	11 14 54	+03 18 00	1			
77	Comp.			↓			
78	11157 p0408 W	11 15 42	+04 08 00	1	300	W comp. 4+	
79	11157 p0408 E			1	480	E comp. emission!	
80	Comp			↓			
81	11171 p0752	11 17 06	+07 52	1	180		
82	Comp			↓			
83	11181 p0754	11 18 06	+07 34 00	1	480		
84	Comp			↓			
85	11 190 p0454	11 19 00	+04 54 00	1	360	Both comp. on 5.7	
86	Comp			↓		Extract separately if possible	
87	11 195 p0740	11 19 30	+03 40	1	360	E to higher of 5.	
88	Comp			↓			
89	13145 +0637	13 14 30.3	+06 37 13	1	200s		
90	Comp			↓			
91	13171 p0317	13 17 04.3	+03 17 41	1	200s		
92	Comp			↓			
93	N5071	13 16 06.6	+03 11 54	1	180s		

60 inch Telescope Log				Spectrograph: <u>F457</u>		Page: <u>3748</u>
Observer: <u>Hucina A/</u>				Grating: <u>300</u>		Date: <u>5/28/95</u>
PI: <u>Hucina A / Gahn / Parker / Falco / Wilky</u>						
Number	Object	R.A.	Dec.	L/R	Exp	Comments
94	Comp			↓		
95	13161 p0816	13 <sup>h</sup> 16 00	+08 16 00	S	300s	
96	Comp			↓		5007 ~ 5100 Å
97	13167 p0411	13 16 42	+04 11 00	S	600s	Strong emission OIII, H $\beta$ .
98	Comp			↓		
99	13200 p0734	13 30 01	+07 23 02	I	200s	
100	Comp			↓		
101	13281 p0748	13 28 13	+07 47 15	I	240s	
102	Comp			↓		
103	13278 p0745	13 27 48	+07 45	S	480	Main jet + H $\beta$ region on slit. Out to higher #s
104	Comp			↓		
105	H $\beta$ 89 - 1306 p293	13 08 42.7	+29 02 05	31	900s	2nd object on slit
106	H $\beta$ 89 - 1306 p293			31	900s	Arc on slit
107	H $\beta$ 89 - 1306 p293			31	900s	
108	H $\beta$ 89 - 1306 p293			31	600s	
109	H $\beta$ 89 B			31		Object B
110	Comp			↓		
111	SN 1994 Y	13 <sup>h</sup> 53 30	+40 42 32	2	1800s	
112	SN 1994 Y			2	1800	
113	SN 1994 Y			2	1800s	
114	Comp			↓		
115	RX1729 p0720 A	17 <sup>h</sup> 29 34	+07 20 50	I	200	object A
116	RX1729 p0720 B			I	180	object B
117	RX1729 p0720 A			I	600	object A again
118	RX1729 p0720 D			I	240	object D
119	Comp			↓		
120	RX1935 p6734 A	19 35 22	+07 34 14	I	600	
121	Comp			↓		
122	3C 390.3			6	300s	
123	Comp			↓		

60 inch Telescope Log			Spectrograph: <u>FAST</u>		Page: <u>3749</u>	
Observer: <u>HUCHA</u>			Grating: <u>300R</u>		Date: <u>5/28/95</u>	
PI: <u>HUCHA</u>						
Number	Object	R.A.	Dec.	L/R	Exp	Comments
124	PG1708 p602	17 <sup>h</sup> 08 35	60 15 52	0	120	SED
125	comp			↓		
126	Rx1831 p6453 AB	18 <sup>h</sup> 31 21	164 53 53	1	300	A lower #s B higher
127	Rx1831 p6453 C			1	120	C
128	Rx1831 p6453 A			1	60	A
129	comp			↓		
130	H0 198 858	20 49 50	47 31 07	0	45	Template darkened
131	H0 198 858			0		
132	H0 198 858			0		
133	H0 198 858			0		
134	BD+284211	21 <sup>h</sup> 48 57	+28 37 48	0	105	
135	comp			↑		
136	comp			↓		
137-39	sky			0	105	
140	comp			↑		
141-150	BIAS			0	-	
151-160	FLAT			0	65	
161-168	DARK			0	9003	
4						

60 inch Telescope Log		Spectrograph: <u>EAST</u>				
Observer: <u>Hucura</u>		Grating: <u>300</u>			Page: <u>3750</u>	
PI: <u>Hucura/Wicks/Wickel</u>		Date: <u>5/29/95</u>				
Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	BIAS			0	-	255
11-15	DARK			0	900	256
16-20	BIAS			0	-	
21-30	FLAT			0	6s	
31-35	BIAS			0		clouds
36	COMP			↓		Focus 1120
37	sky			0	300s	
38	COMP			↓		
39-41	A0A2 p 43928	09 <sup>h</sup> 49 20	+43 42 07	0	10s	Defocused Template
42-44	A0A2 p 43928	"	"	0	10s	"
45	COMP			↓		clouds
46	Page 34	10 36 41.1	+43 21 52	0	60s	
47	COMP			↓		
48	MVH 421	11 01 40	+38 28 43	6	120s	wickes
49	COMP			↓		
50	N4451	12 08 01	+34 41 02	6	60	Wicks
51	COMP			↓		
52	N4486B	12 28 00	+12 45 59	0	300	Template
53	COMP			↓		
54	N3115	10 <sup>h</sup> 02 44	-07 <sup>v</sup> 28 30	0	180s	Template
55	COMP			↓		
56	10057 p 0404	10 06 17.9	+03 49 29	1	300s	
57	COMP			↓		
58	10079 p 0625	10 07 54	+06 <sup>v</sup> 25	1	300s	Coord off?
59	COMP			↓		clouds!
60	10080 p 0523	10 10 37	+05 08 23	1	360s	H <sub>α</sub>
61	COMP			↓		
62	10080 p 0749	10 10 38	+07 34 23	1	240	
63	COMP			↓		
64	10085 p 0801	10 11 08.1	+07 46 22	1	240	H <sub>α</sub>



## 60 inch Telescope Log

Observer: HucutaSpectrograph: FASTGrating: 300LPage: 3751PI: Hucuta/Geller/hr.1400Date: 5/29/95

Number	Object	R.A.	Dec.	L/R	Exp	Comments
65	Comp			↓		
66	10087 p0608	10 11 19.1	+05 53 22	1	300	H $\alpha$ ~6750Å
67	Comp			↓		
68	10044 p0335 S	10 11 59.7	+03 20 21	1	300	South Comp
69	10044 p0335 N			1	240	North Comp
70	Comp			↓		
71	10101 p0504	10 12 42	+04 49 20	1	240	
72	Comp			↓		
73	10552 p0818	10 58 49.8	+08 02 32	1	240	Dome rain water!
74	10552 p0818			1	300	
75	Comp			↓		
76	10556 p0750	10 58 13.6	+07 34 32	1	300	
77	Comp			↓		
78	10557 p0451	10 58 18.7	+04 35 32	1	300	
79	Comp			↓		
80	10559 p0454	10 58 20	+04 38 32	1	420	H $\alpha$ at 6700
81	Comp			↓		
82	11193 p0553	11 19 18	+05 53	1	480	H $\alpha$ at 6950? yes!
83	11193 p0553			1	480	" "
84	Comp			↓		
85	11196 +0541	11 19 36	+05 41	1	420	Sum
86	11196 +0541			1	420	
87	Comp			↓		
88	11278 +0458	11 27 48	+04 58	1	660	possible H $\alpha$
89	Comp			↓		
90	13276 p0046 S	13 27 32.47	+00 46 02	5	450	S comp.
91	13276 p0046 N			5	360	N comp - strong H $\alpha$ at 7050Å
92	Comp			↓		
93	N5548	14 15 43.5	25 22 01	6	120	ASN
94	Comp			↓		

old 73 + 74

## 60 inch Telescope Log

Observer: HUCKERSpectrograph: F427Grating: 300Page: 3752PI: HUCKER/GELLER/PAULDate: 5/29/95

Number	Object	R.A.	Dec.	L/R	Exp	Comments
95	Feix 98			0	60	
96	Comp			↓		
97	H 61306 p 301	15 <sup>h</sup> 06 47	+30 08 44	31	1800	567 NS N to higher #5
98	H 61506 p 301	"	"	31	1800	
99	Comp			↓		
100	327.013527	15 <sup>h</sup> 03 29.1	+27 09 15	3	300	
101	Comp			↓		
102	327.013539	15 08 43.2	+27 10 43	3	300	
103	Comp			↓		
104	327.013806	15 16 31.1	+27 12 29	3	240	
105	Comp			↓		
106	327.014859	15 08 03.9	+27 <sup>o</sup> 15 43	3	300	
107	Comp			↓		
108	327.015903	15 25 17.8	+27 19 30	3	240	
109	Comp			↓		
110	327.016003 S	15 05 59.26	+27 19 6.7	3	420	S Comp
111	327.016003 N	15 05 59.08	+27 19 29.5	3	360	N Comp
112	Comp			↓		
113	327.019304	15 28 41.9	+27 31 03	3	240	
114	Comp			↓		
115	327.019901	15 19 40.7	+27 35 04.7	3	240	
116	Comp			↓		
117	327.020279	15 14 58.2	+27 36 33	3	360	
118	Comp			↓		
119	327.020381	15 29 22.8	+27 34 43	3	300	
120	Comp			↓		
121	327.021042	15 10 48.9	+27 39 00	3	300	H <sub>2</sub>
122	Comp			↓		
123	F15093 p 2656 A	15 09 17.0	+26 56 32	1	720	H <sub>2</sub> at 7400 Å
124	Comp					

## 60 inch Telescope Log

Observer: HuchraPI: Ceder/HuchraSpectrograph: FASTGrating: 300Page: 3753Date: 5/29/95

Number	Object	R.A.	Dec.	I/R	Exp	Comments
125	327.022005	15 <sup>h</sup> 24 23.2	+27 41 45	3	300	
126	Comp			↓		
127	Z 8434A +B	21 04 53	+14 01 29	1	900	] Also B Bonslit also to higher #s
128	Z 8434A +B	"	"	1	660	
129	Comp			↓		
130	RX1824p6349 B	18 <sup>h</sup> 24 27.7	+63 49 57	1	180	Objct B, same as A higher
131	RX1824p6349 A			1	60	objct A
132	comp			↓		
133	3C390.3	18 45 37	+79 43 06	6	300	AGN TW.1647!
134	Comp			↓		
135	BD 234211	21 48 57	+28 37 48	0	50s	STD
136	Comp			↓		
137	H018858	20 49 50	+47 31 67	0	5s	Defocused.
138	↓			0	5s	Template
139	↓			0	5s	
140	↓			0	5s	
141	Comp			↓		
142	Abh2 p24	17 <sup>h</sup> 01 06	+24 55 05	0	10s	defocused
143	↓			0	40s	Template
144	↓			0	60s	
145	Comp			↑		
146-150	BIAS			0	-	
151-160	FLATS			0	6	
161-164	DARK			0	900s	

60 inch Telescope Log			Spectrograph: <u>FAS 7</u>			
Observer: <u>HUCHLA</u>			Grating: <u>300L</u>		Page: <u>3754</u>	
PI: <u>Huchla/BELSER/WILKES/Walker</u>			Date: <u>5/30/95</u>			
Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-5	BIAS			0	—	
6-9	DARK			0	900s	
10-15	BIAS			0	—	
16-25	FLAT			0	6s	
26-30	BIAS			0	—	
31	comp			↓		
32	sky			0	60s	
33	sky			0	60s	
34	Comp			↓		
35	ADR2 p43422	04 <sup>h</sup> 49 20	+434207	0	10s	defocused Template
36	" "			0	10s	"
37	" "			0	10s	"
38	Comp			↓		
39	Feige 34	10 30 41.1	+432150	0	60s	STD
40	Comp			↓		
41	M42	11 01 40.6	+332843	6	120s	Weakly
42	Comp			↓		
43	N4151	12 08 01.0	+394102	6	60s	Walker
44	Comp			↓		
45	N4436B	12 28 00	+124559	0	300s	Template
46	Comp			↓		
47	N3115	10 02 44	-072830	0	180s	Template
48	Comp			↓		
49	1025 POSS5 E	10 12 30	+0555	1	240s	E comp scan error!
50	1025 POSS5 W			1	300	
51	Comp			↓		
52	10193 p083	10 21 52.3	+001817	2	300	Ha!
53	Comp			↓		
54	10193 p0040	10 21 52	+002507	2	300	
55	Comp			↓		

60 inch Telescope Log				Spectrograph: <u>F457</u>		Page: <u>3755</u>	
Observer: <u>Huffman</u>				Grating: <u>200</u>			
PI: <u>Huffman</u>				Date: <u>5/30/95</u>			
Number	Object	R.A.	Dec.	L/R	Exp	Comments	
56	10 202.0 0440	10 20 48	+03 45 05	1	300		
57	Comp			↓			
58	10 223 p0400	10 24 54	+03 51 03	1	300	H <sub>2</sub> 6700	
59	Comp			↓			
60	10 249 p0309	10 27 30	02 54 00	1	300		
61	Comp			↓			
62	10 490 p 0826	10 51 38	+08 10 37	1	600	] H <sub>2</sub> ~ 6680? no??	
63	10 490 p0826			1	600	] This one is hard!	
64	Comp			↓			
65	10 514 p0700	10 54 01	+06 44 35	1	300	H <sub>2</sub> 6720	
66	Comp			↓			
67	10 526 p0607	10 52 06	+06 07	1	300	Nice H <sub>2</sub>	
68	Comp			↓			
69	10 539 p0551	10 56 31	+05 35 23	1	420	H <sub>2</sub> 6700, cm.	
70	Comp			↓			
71	10 541 p0555	10 56 43	+05 39 33	1	300	H <sub>2</sub> 6800	
72	Comp			↓			
73	11 252 p0625	11 25 12	+06 25 20	1	300	] H <sub>2</sub> 6750?	
74	11 252 p0625	"	"	1	300	] Yes!	
75	Comp			↓			
76	RX1215 p0500 A	12 15 00	+05 00	1	600	A <sup>QSO</sup> , consist H <sub>2</sub> lines	
77	Comp			↓			
78	320.000014	12 26 20.8	+26 08 40	3	240		
79	Comp			↓			
80	320.000046	12 28 37.9	+26 09 55	3	420	H <sub>2</sub> at 6700?	
81	Comp			↓			
82	320.000806	12 09 21	+26 12 43	3	480	H <sub>2</sub> 6790	
83	Comp			↓			
84	320.003015	12 27 48	+26 27 20	3	240		
85	Comp			↓			

60 inch Telescope Log			Spectrograph: <u>FAST</u>			
Observer: <u>HUTCH</u>			Grating: <u>300</u>		Page: <u>3756</u>	
PI: <u>GENERAL</u>			Date: <u>5/30/95</u>			
Number	Object	R.A.	Dec.	L/R	Exp	Comments
86	320.007527	12 22 13	+26 23 06	3	240	
87	Comp			↓		
88	320.003820	12 24 04	+26 25 07	3	240	H <sub>2</sub> + a6
89	Comp			↓		
90	320.006445	12 05 33	+26 35 07	3	360	
91	Comp			↓		
92	320.003959	12 21 58	+26 25 57	3	300	
93	Comp			↓		
94	320.006526	12 26 42	+26 35 17	3	360	
95	Comp			↓		
96	327.022086	15 08 20.0	+27 42 08	3	300	
97	Comp			↓		
98	N5548	14 15 43	+25 22 01	6	120	with
99	Comp			↓		
100	Fuse 98	14 36 04	+27 42 58	0	30	S20
101	Comp			↓		
102	F15028 p 3533C	15 02 49	+35 33 47	1	480	}
103	F15028 p 3533C	"	"	1	480	
104	Comp			↓		
105	327.022140	15 08 06	+27 42 32	3	300	
106	Comp			↓		
107	327.022295	15 22 29	+27 42 44	3	480	Class! H <sub>2</sub> at 4600
108	Comp			↓		
109	327.02235 N	15 22 28	+27 43 02	3	480	"
110	Comp			↓		
111	327.022384	15 24 33	+27 43 10	3	360	Sy 2
112	Comp			↓		
113	327.022907	15 24 15	+27 44 59	3	300	
114	Comp			↓		
115	327.023529	15 12 42	+27 47 57	3	360	

60 inch Telescope Log				Spectrograph: <u>FAST</u>		Page: <u>3757</u>	
Observer: <u>HUTCHER</u>				Grating: <u>3002</u>			
PI: <u>Geller/WILKES/HUTCHER</u>				Date: <u>5/30/95</u>			
Number	Object	R. A.	Dec.	L/R	Exp	Comments	
116	COMP			↓			
117	327.023885	15 <sup>h</sup> 1214	+27 49 08	3	360		
118	COMP			↓			
119	16068 p 2918 A	16 <sup>h</sup> 06 47.9	+29 18 44	1	900	for focus in (A)	
120	16068 p 2918 A			1	900	sum 220.16	
121	COMP			↓			
122	327.023947	15 04 49	+27 47 49	3	360	H <sub>2</sub>	
123	COMP			↓			
124	327.024076	15 12 18	+27 49 32	3	400		
125	COMP			↓			
126	327.024318	15 12 18	+27 50 39	3	300	} sum	
127	327.024318	"	"	3	300		
128	COMP			↓			
129	327.031352	15 28 28	+28 13 44	3	360	H <sub>2</sub> ~ 700	
130	COMP			↓			
131	327.032384	15 28 56	+28 17 20	3	360		
132	COMP			↓			
133	RX 1734 p 7844 C	17 34 53	+78 44 00	2	200	object C 6500	
134	RX 1734 p 7844 A			1	30	object A 11500	
135	COMP			↓			
136	3C 390.3	18 45 37	+79 43 06	6	300	NOT EXTRACTED PROBLEM WITH OBSERVATION	
137	COMP			↓			
138	RX 1824 p 6349 C	18 24 27	+63 49 57	2	1503		
139	COMP			↓			
140	B0 p 284211	28 <sup>h</sup> 48 57	+28 37 48	0	503	focus in	
141	B0 p 284211	"	"	0	503		
142	COMP			↓			
143	H0 198 858	20 <sup>h</sup> 49 50	+47 31 07	0	53	Template	
144	"	"	"	0	"		
145	"	"	"	0	"		





60 inch Telescope Log			Spectrograph: <u>FAST</u>		Page: <u>3759</u>	
Observer: <u>P. Berland</u>			Grating: <u>300</u>			
PI: <u>Huchra</u>			Date: <u>5/31/95</u>			
Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	BIAS			0	0s	Clouds to N+W
11-20	FLAT			0	6s	
21	COMP			0	10s	Foghorn = 1100
22-26	SKY			0	2s	zenith ~7-25
27	COMP			↑	10s	
28-31	AGK2043928	05:45:20	+13:42:07	0	10s	
32	COMP			↑		
33-34	N44086B	12:28:00	+12:45:59	0	5m	
35	COMP			↑		
36	K05410707	10:56:46	+06:51:04.6	1	5m	
37	COMP			↑		
38	K054205110	10:56:51	+06:54:14	1	10m	H $\alpha$ et al!
39	COMP			↑		
40	K05490558	10:57:31	+05:41:52	1	4	
41	COMP			↑		
42	K11950458	11:19:30	+04:38:00	1	5m	* b/w on slit H $\alpha$
43	COMP			↑		
44	I-2758EW	11:19:24	+08:05:00	1	7m	E+W comps
45	COMP			↑		E+W comp - H $\alpha$
46	K11990747	11:19:54	+07:47:00	1	10m	H $\alpha$ ! @ pix 2180
47	K112010717	11:20:06	+07:47:00	1	10m	weak; H $\alpha$ @ pix 280 again
48	COMP			↑		
49	K112380312	11:23:48	+03:12:00	1	10m	H $\alpha$ pix 2217
50	COMP			↑		delay @ 48"
51	I-2830	11:24:48	+08:05:00	1	10m	
52	COMP			↑		
53	K112560517	11:25:36	+08:17:00	1	7m	H $\alpha$
54	COMP			↑		
55	K112570407	11:25:42	+04:37:00	1	4m	
56	COMP			↑		

60 inch Telescope Log

Observer: P. BerlandPI: Huchra & GellerSpectrograph: F151Grating: 300RPage: 3760Date: 5/3/85

Number	Object	R. A.	Dec.	L/R	Exp	Comments
57	11272p0446	11:27:12	+04:46:40	1	7m	He clouds! ; <sup>wide</sup> position curve
58	11278p0443	11:27:48	+04:43:40	1	7m	He
59	COMP			↑		
60	12350m048	12:35:54	-03:18:47	1	5m	also 36273 survey
61	COMP			↑		brood He Sy!
62	12521p0222	12:52:084	+02:22:28.1	1	5m	He
63	COMP			↑		wind picking up
64	13045m0051	13:04:31.55	-00:51:35.68	1	5m	He
65	COMP			↑		
66	13064m0325	13:06:23.73	-03:21:26	1	3m	star; star to W
67	COMP			↑		
68	13063m0031	13:06:21.32	-00:32:07.1	1	3m	
69	COMP			↑		
70	13133m0328 S	13:13:19.11	-03:28:34.7	1	5m	South Camp
71	13133m0328 N	13:13:19	-03:28:34	1	4m	North He
72	13134m0323	13:13:22.4	-03:23:25	1	3m	
73	COMP			↑		
74	13146m0156	13:14:36.9	-01:56:16.8	1	5m	
75	COMP			↑		
76	13149m0255	13:14:53.7	-02:54:55.05	1	10m	star to Edgal of He
77	COMP			↑		
78	327.029939	15:04:44.47	+28:05:28.1	3	5m	
79	COMP			↑		
80	327.030779	15:21:17.04	+28:11:18.7	3	5m	
81	COMP			↑		
82	327.031523	15:04:23.15	+28:14:37.5	3	5m	
83	COMP			↑		
84	327.031813	15:19:58.57	+28:17:25.6	3	5m	
85	COMP			↑		
86	327.031920	15:21:30.45	+28:17:34	3	5m	

very  
diff to  
explain

## 60 inch Telescope Log

Observer: P. BarthelPI: GelkerSpectrograph: FASTGrating: 3002Page: 3761Date: 5/31/95

Number	Object	R.A.	Dec.	L/R	Exp	Comments
87	COMP			↑		
88	327.032702	15:19:0242	+28:20:291	3	5m	
89	COMP			↑		
90	327.032708	15:24:0847	+28:19:589	3	5m	done on galaxy H <sub>α</sub>
91	COMP			↑		
92	327.032906N	15:05:1689	+28:20:122	3	7m	g <sup>o</sup> -W comp on slit also
93	COMP			↑		g <sup>o</sup> -South comp (not done)
94	327.033237	15:25:1326	+28:21:318	3	5m	
95	COMP			↑		
96	327.033314	15:05:1247	+28:21:473	3	5m	
97	COMP			↑		
98	327.033338	15:15:0894	+28:23:37	3	7m	
99	COMP			↑		
100	327.033471	15:05:5865	+28:22:54	3	4m	
101	COMP			↑		
102	327.033484	15:22:2468	+28:22:51	3	5m	H <sub>α</sub> !
103	COMP			↑		
104	327.034303	15:15:2109	+28:26:395	3	6m	
105	COMP			↑		
106,111	327.034567	15:09:0663	+28:26:476	3	7m	H <sub>α</sub> weak x2
107,112	COMP			↑		
108,110	327.034792	15:04:2469	+28:26:085	3	5m	comp on slit to W x2
109	COMP			↑		+ star on slit to E
113	327.035025	15:25:917	+28:27:44	3	5m	
114	COMP			↑		
115	327.035187	15:19:459	+28:29:613	3	5m	
116	COMP			↑		
117	327.035190	15:13:0202	+28:27:32	3	6m	
118	COMP			↑		
119	327.036166	15:24:670	+28:31:572	3	5m	

60 inch Telescope Log		Spectrograph: <u>FAST</u>		Page: <u>3762</u>		
Observer: <u>P. Barlow</u>		Grating: <u>300R</u>		Date: <u>5/31/95</u>		
PI: <u>Falko Huchra</u>						
Number	Object	R.A.	Dec.	L/R	Exp	Comments
120	COMP			↑		
121	4C6229	17:45:58.1	+62:27:55.8	31	15m	nice sky, rotated to +21
122	COMP			↑		QSO + star
123	RXJ17381p6006B	17:38:03.2	+60:06:13.7	1	4m	
124	COMP			↑		
125	RXJ1747p6835D	17:47:08.8	+68:35:39.3	1	5m	gal
126	RXJ17471p6835C	"	"	1	5m	Seyfert!
127	RXJ17471p6835B	"	"	1	5m	
128	RXJ17471p6835A	"	"	1	5m	
129	COMP			↑		
130	RXJ17472p4513	17:47:11	+45:13:10	1	10m	gal; v2 50,000 km/sec
131	RXJ17472p4513	"	"	1	10m	
132	COMP			↑		rock-steady seeing! <u>CJ</u>
133	RXJ17535p4937B	17:53:32.3	+49:37:19.7	1	10m	QSO!
134	COMP			↑		
135	3C3903	18:45:37.6	+79:43:06	6	5m	
136	COMP			↑		twilight
137	RXJ1708p602	17:08:35.5	+60:13:52	6	3m	
138	COMP			↑		
139	NEP3510B	17:56:01.6	+67:00:37	1	4m	
140	COMP			↑		
141	RXJ17574p7716	17:57:25.2	+77:31:05.9	1	3m	C; plus comp to W + E
142	COMP			↑		
143	NEP3360E	17:54:51	+64:48:8	1	5m	emission line galaxy
144	COMP			↑		
145,146	A7331	22:34:46.9	+34:09:43	0	2m	nucleus
147	COMP			↑		
148-152	HD R6856	20:44:50	+47:31:07	0	5s	
153	COMP			↑		
154-163	BIAS			0	0s	
164-173	FLAT			0	6s	
174-177	DARK			0	15m	

summed 106 + 111 = 0611  
 summed 108W + 110W = 0810W

602 670 6739

TOTAL P.05

P.05