

60 inch Telescope Log

Spectrograph: FASTObserver: J. PetersGrating: 300Page: 3483PI: J. HuchraDate: 2/1/85

Number	Object	R. A.	Dec.	L/R	Exp	Comments
1-8	Flat	TEST	TEST	TEST	—	
10-24	Bras	↓	↓	↓	↓	Brk Border was at Top of Flat. Got Nelson
25-40	Flat					*Low, Low found
41-43	Test					Plastic spacer missing
44	Comp	Wave length			15 <sup>s</sup>	on Bottom supports of
45	Comp			↓	15 <sup>s</sup>	The Collimator mirror
46	AK P26595	03 37 08	26 48 01	0	5 <sup>s</sup>	
47	Comp			↓	15 <sup>s</sup>	Late START Low Fix
48	H215	04 37 56	08 34 50	0	5 <sup>m</sup>	
49	Comp			↓	15 <sup>s</sup>	
50	AKN120	05 13 37	-00 12 15	6	5 <sup>m</sup>	Prog 6
51	Comp			↓	15 <sup>s</sup>	
52	MK1009	01 48 23	34 48 26	25	12 <sup>m</sup>	Prog #25
53	MK1009	↓	↓	25	12 <sup>m</sup>	
54	Comp			↓	15 <sup>s</sup>	
55	01493P3455S	01 49 18	34 54 37	25	15 <sup>m</sup>	South Obj
56	01493P3455N	01 49 20	34 54 58	25	15 <sup>m</sup>	North Obj
57	Comp			↓	15 <sup>s</sup>	
58	01476P3503	01 47 39	35 03 02	25	15 <sup>m</sup>	Obj #61 on Chart
59	01476P3503	↓	↓	25	15 <sup>m</sup>	
60	Comp			↓	15 <sup>s</sup>	
61	AGK2P14783	07 17 47	14 57 31	0	10 <sup>s</sup>	
62	Comp			↓	15 <sup>s</sup>	
63	313.070674	09 00 10	30 23 15	3	7 <sup>m</sup>	
64	Comp			↓	15 <sup>s</sup>	
65	313.070865	09 13 39	30 26 18	3	7 <sup>m</sup>	
66	Comp			↓	15 <sup>s</sup>	
67	313.072831	09 18 23	30 32 33	3	5 <sup>m</sup>	
68	Comp			↓	15 <sup>s</sup>	
69	313.073112	09 11 00	30 33 59	3	15 <sup>m</sup>	

60 inch Telescope Log

Observer: J. PetersPI: Huchra et alSpectrograph: FASTGrating: 300Page: 3484Date: 2/1/95

Number	Object	R. A.	Dec.	L/R	Exp	Comments
70	Comp			↓	15 <sup>s</sup>	
· 71	313,074160	09 07 18	30 37 29	3	5 <sup>m</sup>	
72	Comp			↓	15 <sup>s</sup>	
· 73	313,074331	09 01 40	30 36 36	3	6 <sup>m</sup>	
74	Comp			↓	15 <sup>s</sup>	
· 75	313,077094	09 25 39	30 46 17	3	15 <sup>m</sup>	
76	Comp			↓	15 <sup>s</sup>	
· 77	313,077127	09 02 57	30 47 01	3	5 <sup>m</sup>	
78	Comp			↓	15 <sup>s</sup>	
· 79	313,077311	09 23 40	30 47 45	3	15 <sup>m</sup>	
80	Comp			↓	15 <sup>s</sup>	
· 81	313,077892	09 26 17	30 49 05	3	15 <sup>m</sup>	
82	Comp			↓	15 <sup>s</sup>	
· 83	313,078577	09 08 43	30 53 26	3	8 <sup>m</sup>	
84	Comp			↓	15 <sup>s</sup>	
· 85	313,078647	09 04 07	30 52 56	3	8 <sup>m</sup>	
86	Comp			↓	15 <sup>s</sup>	
· 87	313,078693	09 29 20	30 50 40	3	15 <sup>m</sup>	
88	Comp			↓	15 <sup>s</sup>	
· 89	313,079746	09 04 05	30 57 05	3	8 <sup>m</sup>	
90	Comp			↓	15 <sup>s</sup>	
· 91	313,079860	09 16 55	30 58 29	3	15 <sup>m</sup>	
92	Comp			↓	15 <sup>s</sup>	
· 93	AGKQ P43928	09 49 20	43 42 07	0	5 <sup>s</sup>	
94	Comp			↓	15 <sup>s</sup>	
· 95	N3115	10 02 44	-07 28 30	0	3 <sup>m</sup>	
96	Comp			↓	15 <sup>s</sup>	
· 97	N3379	10 45 11	12 50 48	0	3 <sup>m</sup>	
98	Comp			↓	15 <sup>s</sup>	
· 99	313,080241	09 26 35	30 57 27	3	8 <sup>m</sup>	

60 inch Telescope Log

Spectrograph: FastObserver: J. PetersGrating: 300Page: 3485PI: J. Huchra et alDate: 2/1/95

Number	Object	R. A.	Dec.	L/R	Exp	Comments
100	Comp			↓	155	
101	313, 081189	09 14 22	31 03 35	3	15M	
102	Comp			↓	155	
103	313, 081287	09 14 20	31 03 58	3	15M	
104	Comp			↓	155	
105	313, 081516	09 11 48	31 04 46	3	15M	
106	Comp			↓	155	
107	313, 082300	09 17 07	31 07 32	3	7M	
108	Comp			↓	155	
109	313, 082302	09 16 27	31 07 39	3	12M	
110	Comp			↓	155	
111	MARK 421	11 01 40	38 28 43	99	2M	
112	MARK 421 COM	↓	↓	99	7M	Faint Galaxy To NW of 421
113	Comp			↓	155	
114	EG 184	11 34 27	30 04 35	0	2M	
115	Comp			↓	155	
116	NGC 4151	12 08 01	39 41 02	6	305	
117	Comp			↓	155	
118	NGC 4486 B	12 28 00	12 45 59	0	5M	
119	Comp			↓	155	
120	J2432	09 02 00	05 43 00	1	5M	
121	Comp			↓	155	
122	09022 P 0814	09 02 12	08 14 00	1	4M	
123	Comp			↓	155	
124	09033 P 0724	09 03 18	07 24 00	1	5M	
125	Comp			↓	155	
126	09043 P 0323	09 04 18	03 23 00	1	15M	
127	Comp			↓	155	
128	09053 P 0329	09 05 18	03 29 00	1	15M	
129	Comp			↓	155	



## 60 inch Telescope Log

Observer: J. PetersPI: J. HuckraSpectrograph: FASTGrating: 300/1200Date: 2/2/95Page: 3487

Number	Object	R. A.	Dec.	L/R	Exp	Comments
1-4	Dark				15 <sup>m</sup>	
5-18	FLAT				10 <sup>s</sup>	
19-33	Bias					
34	JO-Blue	00 17 13	21 40 20	13	15 <sup>m</sup>	
35	Comp Blue	↑	↑	13	2 <sup>m</sup>	
36	FLAT Blue				60 <sup>s</sup>	
37	HILT102 Blue	01 05 53	62 31 32		2 <sup>m</sup>	
38	Comp Blue	↑		↑	2 <sup>m</sup>	
39	JO-Red			13	15 <sup>m</sup>	
40	Comp Red				12 <sup>s</sup>	
41	FLAT Red				30 <sup>s</sup>	
42	HILT102 Red				2 <sup>m</sup>	
43	Comp Red				12 <sup>s</sup>	
44	Bias					
45	Bias					120 <sup>s</sup> 120 <sup>s</sup>
46	Comp			↓	15 <sup>s</sup>	
47	BDP26595	03 37 08	26 48 01	0	5 <sup>s</sup>	300
48	Comp			↓	15 <sup>s</sup>	
49	H215	04 37 56	08 35 00	0	5 <sup>m</sup>	
50	Comp			↓	15 <sup>s</sup>	
51	AKN120	05 13 37	-06 12 15	6	5 <sup>m</sup>	
52	Comp			↓	15 <sup>s</sup>	
53	AGK2P14783	07 17 47	14 59 37	0	10 <sup>s</sup>	
54	Comp			↓	15 <sup>s</sup>	
55	08027P6742	08 02 42	67 42 00	1	15 <sup>m</sup>	
56	Comp			↓	15 <sup>s</sup>	
57	08039P5650	08 03 54	56 50 00	1	5 <sup>m</sup>	
58	Comp			↓	15 <sup>s</sup>	
59	08038P6431	08 03 48	64 32 00	1	5 <sup>m</sup>	
60	Comp			↓	15 <sup>s</sup>	

## 60 inch Telescope Log

Observer: J. PetersPI: J. HuchraSpectrograph: FASTGrating: 300Page: 3488Date: 2/2/65

Number	Object	R. A.	Dec.	L/R	Exp	Comments
61	08047P 7931	08 04 42	79 31 00	1	6 <sup>m</sup>	
62	Comp			↓	15 <sup>s</sup>	
63	08052P 5759	08 05 12	57 59 00	1	6 <sup>m</sup>	
64	Comp			↓	15 <sup>s</sup>	
65	08057P 5804	08 05 42	58 04 00	1	5 <sup>m</sup>	
66	Comp			↓	15 <sup>s</sup>	
67	AGK2P 43928	09 49 20	43 42 07	0	5 <sup>s</sup>	
68	Comp			↓	15 <sup>s</sup>	
69	313.084085	09 21 06	31 13 39	3	15 <sup>m</sup>	
70	Comp			↓	15 <sup>s</sup>	
71	313P 084153	09 14 44	31 14 50	3	20 <sup>m</sup>	
72	313P 084153	↓	↓	3	15 <sup>m</sup>	
73	Comp			↓	15 <sup>s</sup>	
74	313.084604	09 01 38	31 14 31	3	10 <sup>m</sup>	
75	Comp			↓	15 <sup>s</sup>	
76	313.085527	09 22 06	31 19 02	3	10 <sup>m</sup>	
77	Comp			↓	15 <sup>s</sup>	
78	313.085553	09 05 16	31 19 32	3	15 <sup>m</sup>	
79	Comp			↓	15 <sup>s</sup>	
80	313.087206	09 18 42	31 26 39	3	8 <sup>m</sup>	
81	Comp			↓	15 <sup>s</sup>	
82	313.088152	09 18 20	31 30 40	3	8 <sup>m</sup>	
83	Comp			↓	15 <sup>s</sup>	
84	313.090203	09 23 58	31 37 37	3	10 <sup>m</sup>	
85	Comp			↓	15 <sup>s</sup>	
86	313.090961	09 01 24	31 40 13	3	15 <sup>m</sup>	
87	Comp			↓	15 <sup>s</sup>	
88	313.091392	09 08 04	31 43 34	3	15 <sup>m</sup>	
89	Comp			↓	15 <sup>s</sup>	
90	N3079	09 58 34	55 55 24	0	5 <sup>m</sup>	

60 inch Telescope Log

Observer: J. PetersPI: J. HuchraSpectrograph: FASTGrating: 300Page: 3489Date: 2/2/95

Number	Object	R.A.	Dec.	L/R	Exp	Comments
91	Comp			↓	15 <sup>s</sup>	Sky Sucks Seeing
92	N 3115	10 02 44	-07 28 30	0	3 <sup>m</sup>	Not very good
93	Comp			↓	15 <sup>s</sup>	Maybe Thin Clouds?
94	313.091533	09 08 09	31 44 02	3	10 <sup>m</sup>	
95	Comp			↓	15 <sup>s</sup>	
96	313.092733	09 21 07	31 48 37	3	12 <sup>m</sup>	
97	Comp			↓	15 <sup>s</sup>	
98	313.092797	09 24 47	31 47 56	3	12 <sup>m</sup>	
99	Comp			↓	15 <sup>s</sup>	
100	313.094300	09 18 42	31 55 07	3	15 <sup>m</sup>	
101	Comp			↓	15 <sup>s</sup>	
102	313.097584	09 28 58	32 05 15	3	15 <sup>m</sup>	
103	Comp			↓	15 <sup>s</sup>	
104	313.097743	09 20 16	32 08 44	3	20 <sup>m</sup>	
105	Comp			↓	15 <sup>s</sup>	
106	313.098614	09 23 42	32 11 04	3	10 <sup>m</sup>	
107	Comp			↓	15 <sup>s</sup>	
108	313.101278	09 27 04	32 19 31	3	15 <sup>m</sup>	
109	Comp			↓	15 <sup>s</sup>	
110	EG 184	11 34 27	30 04 35	0	2 <sup>m</sup>	
111	Comp			↓	15 <sup>s</sup>	
112	NGC 4151	12 08 01	39 41 02	6	30 <sup>s</sup>	
113	Comp			↓	15 <sup>s</sup>	
114	N 4486 B	12 28 00	12 45 59	0	5 <sup>m</sup>	
115	Comp			↓	15 <sup>s</sup>	
116	11138 P 0436	11 13 48	04 36 00	1	20 <sup>m</sup>	
117	Comp			↓	15 <sup>s</sup>	
118	11138 P 0459	11 13 48	04 59 00	1	20 <sup>m</sup>	
119	1 Comp			↓	15 <sup>s</sup>	
120	MARK 421	11 01 40	38 28 43	99	2 <sup>m</sup>	





## 60 inch Telescope Log

Observer: J. PetersPI: J. HuchraSpectrograph: FASTGrating: 300Page: 3491Date: 2/3/95

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-4	Dark				15 <sup>m</sup>	
5-19	FLAT				10 <sup>s</sup>	
20-34	Bias					
35	Comp	TEST			15 <sup>s</sup>	Shifted Wavelength
36	evesky	STOW			1 <sup>s</sup>	Mic IS Now 610 Not 590.
37	Comp				15 <sup>s</sup>	
38	evesky	Saturated			2 <sup>s</sup>	
39	evesky	Good	Sky		1 <sup>s</sup>	
40	Comp			↓	15 <sup>s</sup>	Dome Not Working
41	evesky				3 <sup>s</sup>	Running in Manual
42	Comp			↓	15 <sup>s</sup>	
43	HD 12623	02 02 18	62 56 03	0	2 <sup>s</sup>	
44	Comp			↓	15 <sup>s</sup>	
45	M31	00 40 00	40 59 42	0	1 <sup>m</sup>	
46	SKY	20 <sup>m</sup> N of	M31	0	1 <sup>m</sup>	was an object in it
47	Comp			↓	15 <sup>s</sup>	
48	M32	00 39 58	40 35 30	0	1 <sup>m</sup>	
49	Comp			↓	15 <sup>s</sup>	
50	163-217	06 40 33	41 11 02	0	400 <sup>s</sup>	
51	Comp			↓	15 <sup>s</sup>	
52	225-280	00 41 45	41 05 01	0	400 <sup>s</sup>	
53	Comp			↓	15 <sup>s</sup>	
54	Abell 44A	00 29 31	12 02 59	9	12 <sup>m</sup>	
55	Comp			↓	15 <sup>s</sup>	
56	Abell 44B	00 29 47	12 04 06	9	15 <sup>m</sup>	
57	Comp			↓	15 <sup>s</sup>	
58	Abell 44C	00 29 47	12 03 00	9	15 <sup>m</sup>	
59	Comp			↓	15 <sup>s</sup>	
60	01085P0427	01 08 30	04 27 00	21	12 <sup>m</sup>	
61	Comp			↓	15 <sup>s</sup>	

## 60 inch Telescope Log

Observer: J. PetersPI: J. HuchraSpectrograph: FASTGrating: 300Date: 2/3/95Page: 3492

Number	Object	R. A.	Dec.	L/R	Exp	Comments
62	01123P0446	01 12 18	04 46 00	21	10 <sup>m</sup>	
63	Comp P			↓	15 <sup>s</sup>	
64	BDP26595	03 37 08	26 48 01	0	5 <sup>s</sup>	
65	Comp P			↓	15 <sup>s</sup>	
• 66	H215	04 37 56	08 35 00	0	5 <sup>m</sup>	
67	Comp P			↓	15 <sup>s</sup>	
• 68	AKN120	05 13 37	-00 12 15	6	5 <sup>m</sup>	
69	Comp P			↓	15 <sup>s</sup>	
70	I0518N1310	05 18 34	-13 10 33	1	20 <sup>m</sup>	
71	Comp P	↓	↓	↓	15 <sup>s</sup>	
72	I0518N1310	↓	↓	1	20 <sup>m</sup>	
73	Comp P			↓	15 <sup>s</sup>	
74	AGK2P14783	07 17 47	14 59 37	0	10 <sup>s</sup>	
75	Comp P			↓	15 <sup>s</sup>	
76	313.101703	09 07 37	32 23 14	3	10 <sup>m</sup>	
77	Comp P			↓	15 <sup>s</sup>	
78	313.102650	09 15 52	32 27 55	3	5 <sup>m</sup>	Superposed *
79	Comp P			↓	15 <sup>s</sup>	
80	313.102684	09 17 46	32 28 03	3	6 <sup>m</sup>	
81	Comp P			↓	15 <sup>s</sup>	
82	314.004147	09 35 12	26 30 10	3	6 <sup>m</sup>	
83	Comp P			↓	15 <sup>s</sup>	
84	314.004434	09 38 52	26 31 12	3	6 <sup>m</sup>	
85	Comp P			↓	15 <sup>s</sup>	
86	314.005051	09 45 17	26 32 50	3	7 <sup>m</sup>	
87	Comp P			↓	15 <sup>s</sup>	
88	314.005098	09 31 16	26 32 58	3	8 <sup>m</sup>	
89	Comp P			↓	15 <sup>s</sup>	
90	314.005563	09 43 59	26 35 03	3	6 <sup>m</sup>	
91	Comp P			↓	15 <sup>s</sup>	

7072 = sum of 70 + 72

## 60 inch Telescope Log

Observer: J. PetersPI: J. HuchraSpectrograph: FASTGrating: 300Page: 3493Date: 2/3/95

Number	Object	R.A.	Dec.	L/R	Exp	Comments
91	314.005607	09 44 24	26 35 05	3	5M	
93	Comp P			↓	15S	
94	314.005879	09 26 25	26 34 32	3	6M	
95	Comp P			↓	15S	
96	314.006003	09 26 38	26 35 09	3	8M	
97	Comp P			↓	15S	
98	314.006731	09 49 26	26 38 16	3	5M	
99	Comp P			↓	15S	
100	314.007824	09 38 11	26 44 10	3	8M	
101	Comp P			↓	15S	
102	314.008294	09 28 39	26 44 32	3	6M	
103	Comp P			↓	15S	
104	314.008408	09 36 28	26 46 14	3	8M	
105	Comp P			↓	15S	
106	314.009177	09 29 15	26 47 45	3	12M	
107	Comp P			↓	15S	
108	314.009286	09 42 26	26 49 26	3	8M	
109	Comp P			↓	15S	
110	314.009398	09 31 06	26 49 10	3	10M	
111	Comp P			↓	15S	
112	314.009916	09 27 22	26 50 12	3	5M	
113	Comp P			↓	15S	
114	N 3115	10 02 44	-07 28 30	0	3M	*
115	Comp P			↓	15S	
116	314.011726	09 29 05	26 57 14	3	5M	
117	Comp P			↓	15S	
118	314.012209	09 29 02	26 59 02	3	5M	
119	Comp P			↓	15S	
120	314.012427	09 48 14	26 59 30	3	8M	
121	Comp P			↓	15S	

## 60 inch Telescope Log

Observer: J. PetersPI: J. HuchraSpectrograph: FastGrating: 300Page: 3494Date: 2/3/95

Number	Object	R. A.	Dec.	L/R	Exp	Comments
122	314.012531	09 48 19	27 00 02	3	5M	
123	Comp			↓	15 <sup>s</sup>	
124	314.014660	09 35 54	27 08 42	3	5M	
125	Comp			↓	15 <sup>s</sup>	
126	314.014869	09 36 31	27 09 32	3	7M	
127	Comp			↓	15 <sup>s</sup>	
128	314.015641	09 36 31	27 12 26	3	6M	
129	Comp			↓	15 <sup>s</sup>	
130	314.016559	09 35 11	27 15 17	3	5M	
131	Comp			↓	15 <sup>s</sup>	
132	314.015887	09 34 38	27 13 14	3	9M	
133	Comp			↓	15 <sup>s</sup>	
134	314.016625	09 35 50	27 15 55	3	6M	* to E
135	Comp			↓	15 <sup>s</sup>	
136	314.016767	09 35 02	27 16 14	3	6M	
137	Comp			↓	15 <sup>s</sup>	
• 138	MARK 421	11 01 40	38 28 43	99	2M	
139	Comp			↓	15 <sup>s</sup>	
• 140	EG 184	11 34 27	30 04 35	0	2M	
141	Comp			↓	15 <sup>s</sup>	
• 142	NGC 4151	12 08 01	39 41 02	6	30 <sup>s</sup>	
143	Comp			↓	15 <sup>s</sup>	
144	N4486B	12 28 00	12 45 59	0	5M	
145	Comp			↓	15 <sup>s</sup>	
146	I 686	11 20 30	05 50 00	1	9M	
147	Comp			↓	15 <sup>s</sup>	
148	11207P0608	11 20 42	06 08 00	1	6M	
149	Comp			↓	15 <sup>s</sup>	
150	N 4322	12 20 30	16 10 54	1	15M	
151	Comp			↓	15 <sup>s</sup>	



60 inch Telescope Log

Observer: P. Berlind

PI: Huchra

Spectrograph: FAST

Grating: 002

Date: 2/4/95

Page: 3496

Number	Object	R. A.	Dec.	L/R	Exp	Comments
1-10	BIAS				0s	
11-20	FLAT				10s	
21	COMP				15s	test
22-24	sky			0	60s/20s	zenith
25	COMP			↑		
26-27	sky	+3hrs	+32	0	2m	+3 hrs West
28	COMP			↑		
29-32	B0pZ6595	03:37:08.17	+26:48:03	0	5s	30 min at top of slit after trim (I cut each edge spectrum to see that they are centered)
33	COMP			↑		
34-36	M31	00:40:10	+40:59:42	0	30s; 1m	
37	COMP			↑		
38-39	M32	00:59:58.2	+40:35:30	0	1m	
40	COMP			↑		
41	163m217	00:40:33.3	+41:11:20	0	7m	
42	COMP			↑		
43	A3154D	03:39:57.7	-32:13:03	9	5m	
44	COMP			↑		
45	A3154G	03:39:28.4	-32:06:18	9	7m	
46	COMP			↑		
47, 49	A3154B	03:40:05.8	-32:13:09	9	5m, 7m	x2
48, 50	COMP			↑		
51	A3154A	03:40:05.3	-32:12:34	9	7m	
52	COMP			↑		
53	A3161D	03:42:50.7	-35:50:26	9	7m	X thin cloud needs more
54	COMP			↑		
55	A3161E	03:43:29.5	-35:55:17	9	7m	
56	COMP			↑		
57	A3161H	03:44:08	-35:42:10	9	10m	
58	COMP			↑		
59	A3161D	03:42:50.7	-35:50:26	9	10m	also #53 still weak



Moon: | +8

M31 (jobs 34-36)  
 reduced with APALL  
 (not DOFAST)  
 NO SKY SUBTRACTION!

## 60 inch Telescope Log

Observer: P. BerlindPI: Geller/HuchraSpectrograph: FASTGrating: 300LDate: 2/4/95Page: 3497

Number	Object	R.A.	Dec.	L/R	Exp	Comments
60	COMP			↑		
61	02344m022S	02:34:24	-02:25:40	21	5m	Rich Camp Hk
62	COMP			↑		
63/65	472.02115S	03:32:43.22	+10:31:16.8	3	10m	ISR + x2
64/66	COMP			↑		
67	472.063018N	03:18:22.09	+12:37:34.9	3	5m	6753 Hk North Camp
68	COMP			↑		
69	472.063018S	03:18:22.09	+12:37:34.9	3	7m	Weak low pri
70	COMP			↑		
71	472.063079	03:26:09.13	+12:37:21.7	3	5m	
72	COMP			↑		
73/75	472.068775	03:31:34.26	+12:51:27.4	3	7m	x2
74/76	COMP			↑		
77	472.072362	03:31:20.9	+13:01:5.8	3	7m	
78	COMP			↑		
79	08095p5817W	08:09:30	+58:17:40	3	7m	
80	08095p5817E	08:09:30	+58:17:40	3	2m	
81	COMP			↑		
82	08106p5807W	08:10:36	+58:07:40	3	4m	U04280
83	08106p5807E	08:10:36	+58:07:40	3	5m	superposed * to NW <2
84	COMP			↑		
85	U04281W	08:10:36	+58:23:60	3	4m	
86	U04281E	08:10:36	+58:23:60	3	5m	
87	COMP			↑		
88	08092p6430W	08:09:12	+64:30:60	3	4m	
89	08092p6430E	08:09:12	+64:30:60	3	5m	
90	COMP			↑		
91	U04282	08:10:48	+77:40:60	3	4m	Hk
92	COMP			↑		
93	08116p6047	08:11:36	+60:47:60	3	5m	double nucleus Hk

## 60 inch Telescope Log

Observer: P. BerlindPI: Geller / Huchra / KenyonSpectrograph: FASTGrating: 300LDate: 2/4/95Page: 3498

Number	Object	R. A.	Dec.	L/R	Exp	Comments
94	COMP			↑		
95	08120p5810	08:12:00	+58:10:00	1	5m	
96	COMP			↑		
97	08134p6006	08:13:24	+60:06:00	1	3m	
98	COMP			↑		
99	U04322	08:15:30	+62:59:00	1	3m	not-photometric
100	COMP			↑		
101-102	EX Mon	07:22:54	-03:30:00	12	10s, 45s	Symbiot
103	COMP			↑		
104	H1+60	06:42:37	+62:11:25	17	30s	std
105	COMP			↑		
106	314.01824N	09:34:07.2	+27:21:25.9	3	5m	ISR ↓ North Comp
107	314.01824S	"	"	3	5m	South Comp
108	COMP			↑		
109	314.018654N	09:34:02.62	+27:22:32.5	3	4m	North
110	314.018654S	09:34:02	+27:22:32	3	5m	South Hk
111	COMP			↑		
112	314.018741	09:37:35.34	+27:23:41.2	3	10m	Hk
113	COMP			↑		
114	314.019036	09:47:42.11	+27:23:13.8	3	5m	
115	COMP			↑		clouds...
116	314.019670	09:31:53.94	+27:25:58.5	3	7m	
117	COMP			↑		
118	314.020283	09:39:53.65	+27:28:46.1	3	5m	Hk
119	COMP			↑		
120	314.020837	09:36:12.52	+27:30:49.6	3	5m	Hk
121	COMP			↑		
122	314.020914	09:26:32.06	+27:29:10.3	3	5m	
123	COMP			↑		
124	314.021178	09:29:28.71	+27:31:03.7	3	5m	



## 60 inch Telescope Log

Observer: P. BerlindPI: GellerSpectrograph: FASTGrating: 3002Date: 2/4/94Page: 3499

Number	Object	R.A.	Dec.	L/R	Exp	Comments
125	COMP			↑		15R Survey ↓
126	314.021624	09:28:52.32	+27:32:17.7	3	5m	light cloud; good seeing
127	COMP			↑		
128	314.023652	09:50:26.95	+27:38:26.2	3	5m	
129	COMP			↑		
130	314.024301	09:40:21.47	+27:42:21.5	3	7m	Hx
131	COMP			↑		
132	314.024381	09:25:57.02	+27:40:27.8	3	5m	
133	COMP			↑		
134	314.025428	09:40:59.98	+27:46:13.8	3	5m	
135	COMP			↑		
136	314.027759	09:41:24.6	+27:53:41.5	3	5m	
137	COMP			↑		
138	314.029305	09:54:43.5	+27:55:05	3	5m	
139	COMP			↑		
140	314.030214	09:50:00.73	+27:59:45.7	3	5m	Hx
141	COMP			↑		
142	314.030254	09:51:13.27	+27:59:30.6	3	5m	Hx
143	COMP			↑		
144	314.032094	09:37:47.62	+28:07:45.7	3	5m	Hx
145	COMP			↑		
146	314.632226	09:46:14.41	+28:07:24.1	3	5m	
147	COMP			↑		
148	314.032238	09:30:17.44	+28:07:20.9	3	5m	Hx
149	COMP			↑		
150	314.033751	09:35:09.73	+28:13:14.3	3	5m	
151	COMP			↑		
152	314.036862	09:42:43.47	+28:23:17.4	3	5m	Hx
153	COMP			↑		
154	314.039687	09:51:13.68	+28:21:28.4	3	10m	

## 60 inch Telescope Log

Observer: P. BerlindPI: GellerSpectrograph: FASTGrating: 300LDate: 2/4/94Page: 3500

Number	Object	R. A.	Dec.	L/R	Exp	Comments
155	COMP			↑		
156	314.037302	09:26:34.53	+28:22:56.3	3	5m	H <sub>α</sub>
157	COMP			↑		
158	314.039146	09:49:06.72	+28:29:02.9	3	5m	
159	COMP			↑		
160	314.040873	09:36:56.47	+28:35:52.9	3	10m	H <sub>α</sub>
161	COMP			↑		
162	314.046565	09:28:45.87	+28:52:33.9	3	5m	
163	COMP			↑		
164	314.047967	09:40:31.55	+28:58:08.2	3	5m	H <sub>α</sub>
165	COMP			↑		
166	314.050728	09:36:07.69	+29:06:43.7	3	5m	H <sub>α</sub>
167	COMP			↑		
168	314.062725	09:28:17.98	+29:42:20.1	3	4m	
169	COMP			↑		
170	314.071436	09:28:34.6	+30:10:59.8	3	5m	H <sub>α</sub>
171	COMP			↑		
172	314.071783	09:28:08.37	+30:11:52.3	3	7m	
173	COMP			↑		
174	314.072400	09:28:11.48	+30:13:49.9	3	5m	H <sub>α</sub>
175	COMP			↑		
176	314.080914	09:31:07.4	+30:44:07.3	3	5m	
177	COMP			↑		↑ clouds
178	314.085019	09:31:38.5	+30:58:30.2	3	10m	H <sub>α</sub>
179	COMP			↑		
180	N3115	10:07:44.4	-07:28:30	0	3m	template
181	COMP			↑		
182	N3379	10:45:11.4	+12:50:48	0	3m	
183	COMP			↑		
184	Mark421	11:01:40.6	+38:28:43	6	2m	for Throtes

## 60 inch Telescope Log

Observer: P. BerlindPI: HuchraSpectrograph: FASTGrating: 300LDate: 2/4/95Page: 3501

Number	Object	R. A.	Dec.	L/R	Exp	Comments
185	COMP			↑		thin cloud
186	11313p5133	11:31:18	+51:33:W		4m	CFA ↓
187	11325p5127	11:32:30	+51:27:W		5m	
188	COMP			↑		
189	11346p4603	11:34:36	+46:03:W		10m	H <sub>α</sub>
190	COMP			↑		
191	U06755	11:44:18	+50:59:W		3m	
192	COMP			↑		
193	11471p5049	11:47:06	+50:49:W		5m	
194	U06811	11:48:W	+50:50:W		2m	
195	COMP			↑		
196	11494p5035	11:49:24	+50:35:W		5m	H <sub>α</sub>
197	COMP			↑		
198	U06919	11:54:W	+55:54:W		5m	H <sub>α</sub>
199	COMP			↑		
200	N4181	12:10:24	+53:11:W		3m	
201	COMP			↑		
202	12118p5136	12:11:48	+51:36:W		2m	
203	COMP			↑		
204	N4198	12:11:54	+56:17:W		2m	U07246
205	COMP			↑		
206	12132p5508	12:13:12	+55:08:W		5m	H <sub>α</sub>
207	COMP			↑		
208	13145p0205	13:14:30	+02:05:W		5m	H <sub>α</sub>
209	COMP			↑		
210	13296p0152	13:29:36	+01:52:W		2m	
211	13298p0150	13:29:48	+01:50:W		5m	H <sub>α</sub>
212	COMP			↑		
213	13494p0205	13:49:24	+02:05:W		5m	H <sub>α</sub>
214	13495p0215	13:49:30	+02:15:W		3m	

60 inch Telescope Log

Observer: P. BerlindPI: Huchra/KenyonSpectrograph: FASTGrating: 300LDate: 2/4/95Page: 3502

Number	Object	R.A.	Dec.	L/R	Exp	Comments
215	COMP			↑		thin cloud
216	13511p0018	13:51:06	+0:18:00	1	3m	
217	COMP			↑		*burst
218	13557p0123EW	13:55:42	+0:23:00	1	7m	E+W w-H + big time F-H
219	COMP			↑		
220	N4486B	12:28:00	+12:45:59	0	5m	template
221	COMP			↑		
222-223	RWHya	13:31:32	-25:07:29	12	2s, 15s	Symbiot
224	COMP			↑		
225	TXCUa	12:42:17.9	+37:02:14	12	60s	
226	COMP			↑		
227	H244	13:21:19	+36:23:39	12	2m	
228	COMP			↑		
229, 230	TCrB	15:57:24	+26:03:36	12	30s, 10s	
231	COMP			↑		
232-234	AG Dra	16:01:23.2	+66:56:25	12	5s, 30s, 3s	
235	COMP			↑		
236	15304p0036	15:30:24	+0:36:00	1	4m	
237	COMP			↑		
238	15475p0020	15:47:20	+0:20:00	1	4m	
239	COMP			↑		
240	N5866	15:05:07.2	+55:57:18	0	3m	nice dust lane
241	COMP			↑		
242-243	HD136711	15:19:27	+18:37:03	0	10s	
244	COMP			↑		
245-247	AGK 2p24	17:01:06	+24:55:00	0	6s	
248	COMP			↑		
249-258	FLAT				10s	
259-268	BIAS				0s	
269-273	DARK				15m	

272 files (only 4 DARKS)  
127 extractions

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60 inch Telescope Log

Observer: P. BerlindPI: McClintock / GellerSpectrograph: FASTGrating: 300L/1200LDate: 2/5/95Page: 3503

Number	Object	R. A.	Dec.	L/R	Exp	Comments
1-10	BIAS			0	0s	clear skies!
11-20	FLAT			0	10s	300L; 3"
21	COMP				2m	*st
22	FLAT1200B			13	1m	1200 line; 2" slit ↓
23	COMP			↓	2m	
24	Hilt102B	01:05:53.8	+62:31:32	13	2m	mic = 350; blue
25	COMP			↓	2m	
26	JO-Blue	00:17	+21:40	13	15m	
27	BIAS			13	0s	
28	FLAT1200R			13	30s	mic = 705; red ↓
29	COMP			↓	11s	decent seeing ~1.5"
30	JO-Red			13	15m	
31	COMP			↓	11s	
32	Hilt102R	01:05	+62:31	13	2m	bright moon
33	BIAS			13	0s	
34	472.075073	03:32:57.28	+13:07:36.2	3	5m	300L; 3" slit ↓ Hilt
35	COMP			↑		
36	473.025820	03:40:58.24	+10:44:07.9	3	5m	Hilt
37	COMP			↑		
38	473.027952	03:55:50.93	+0:48:38	3	5m	comp on slit to W
39	COMP			↑		
40	473.040468	03:47:49.6	+11:32:30.5	3	7m	LSB cnts?
41	COMP			↑		weak H $\alpha$ @ 2109
42	473.644135	03:53:29.15	+11:44:45.3	3	5m	
43	COMP			↑		
44	473.067609	03:32:57.23	+13:07:37.8	3	5m	
45	COMP			↑		
46	U04292	08:12:12	+79:23:60	1	3m	sup * to W. difficult to adjust
47	COMP			↑		sky bright up here, too
48	U4335	08:16:54	+54:16:00	1	2m	

Moon 1.50 +12

## 60 inch Telescope Log

Observer: P. BerlindPI: HuchraSpectrograph: FASTGrating: 3022Date: 2/5/95Page: 3504

Number	Object	R. A.	Dec.	L/R	Exp	Comments
49	COMP			↑		bright sky
50	08168p5639	08:16:18	+56:39:00		1m	
51	COMP			↑		
52	U4339	08:19:00	+62:48:00		5m	
53	08194p6226	08:19:24	+62:26:00		4m	
54	COMP			↑		
55	08202p5330	08:20:12	+53:30:00		2m	H <sub>α</sub>
56	COMP			↑		
57	U4379	08:20:30	+61:42:00		5m	H <sub>α</sub>
58	COMP			↑		
59	08223p6004	+08:22:18	+60:04:00		3m	
60	COMP			↑		
61	08194p7440	08:19:24	+74:40:00		4m	H <sub>α</sub>
62	COMP			↑		
63	08220p7534	08:22:00	+75:34:00		5m	H <sub>α</sub> v. diff to get 2nd
64	COMP			↑		
65	08210p8114	08:21:00	+81:14:00		4m	
66	COMP			↑		
67,69	08130p8506	08:13:00	+85:06:00		5m	x2 H <sub>α</sub> @ 2003
68	COMP			↑		
70	U04297	08:13:00	+85:47:00		2m	
71	COMP			↑		
72	U04396	08:23:00	+84:29:00		10m	H <sub>α</sub>
73	COMP			↑		
74	U4423	08:24:54	+74:51:00		5m	H <sub>α</sub> + cosmic ray
75	COMP			↑		
76	08249p7100	08:24:54	+71:00:00		3m	
77	08253p7104	08:25:18	+71:04:00		3m	
78	COMP			↑		
79	08250p7018	08:25:00	+70:18:00		3m	H <sub>α</sub>

## 60 inch Telescope Log

Observer: P. BerlindPI: Huchra/GellerSpectrograph: FASTGrating: 3002; 3"Date: 2/5/95Page: 3505

Number	Object	R. A.	Dec.	L/R	Exp	Comments
80	COMP			↑		photometric; bright main
81	08256p6913	08:25:36	+69:13:40	1	3m	
82	COMP			↑		
83	08287p6158S	08:28:42	+61:58:20	1	4m	Hk @ 2030 ~3450Å/s
84	08287p6158N	08:28:42	+61:58:40	1	5m	fainter north comp Hk
85	COMP			↑		
86	08170p8609	08:17:40	+86:09:40	1	10m	
87	COMP			↑		
88	08180p8607	08:18:40	+86:07:40	1	10m	X
89	COMP			↑		
90	404454	08:29:40	+80:44:40	1	4m	*burst
91	COMP			↑		
92	08299p5659	08:29:54	+56:59:40	1	4m	Hk
93	COMP			↑		
94	313.065167	09:11:22.79	+30:05:45.2	3	4m	Hk
95	COMP			↑		
96	314.068433	09:27:57.88	+30:40:57.7	3	5m	+2 ↓
97	COMP			↑		
98	314.068896	09:28:01.13	+30:02:11	3	4m	
99	COMP			↑		
100	314.068433	09:27:57.88	+30:10:37.7	3	10m	it needed more time
101	COMP			↑		
102	314.072785	09:28:31.47	+30:15:13.3	3	4m	
103	COMP			↑		
104	314.074875	09:28:22.63	+30:22:23.6	3	4m	
105	COMP			↑		
106	314.077396	09:28:09.69	+30:31:48.5	3	5m	Moon set!
107	COMP			↑		
108	314.081210	09:46:40.27	+30:44:42.1	3	5m	
109	COMP			↑		

## 60 inch Telescope Log

Observer: P. BerlindPI: Geller/HuchraSpectrograph: FASTGrating: 300Date: 2/5/95Page: 3506

Number	Object	R. A.	Dec.	L/R	Exp	Comments
110	314.081793	09:37:51.82	+30:47:58	3	5m	H $\alpha$ ISR $\downarrow$
111	COMP			$\uparrow$		clear; seeing ~2'
112	314.081854	09:37:50.55	+30:47:22	3	5m	
113	COMP			$\uparrow$		
114	314.084436	09:30:11.06	+30:56:59.9	3	5m	H $\alpha$
115	COMP			$\uparrow$		
116	314.085089	09:26:35.57	+30:57:22.5	3	5m	
117	COMP			$\uparrow$		
118	314.087185	09:53:16.38	+31:04:06.6	3	5m	H $\alpha$
119	COMP			$\uparrow$		
120	314.088343	09:39:39.2	+31:11:21.4	3	5m	
121	COMP			$\uparrow$		
122	314.090094	09:47:48.25	+31:16:38.4	3	5m	
123	COMP			$\uparrow$		
124	313.081134	09:29:25.54	+30:59:39.5	3	5m	on Emilio's to do list (email)
125	COMP			$\uparrow$		delay looking for plate flaws/objects
126	314.092655	09:40:16.94	+31:27:40.6	3	5m	
127	COMP			$\uparrow$		
128, 130	A065013	08:35:21	+36:55:53	9	10m	x2
129, 131	COMP			$\uparrow$		
132	314.095152	09:34:25.29	+31:36:48.1	3	5m	K+H
133	COMP			$\uparrow$		
134	314.095939	09:34:32.81	+31:36:21.5	3	5m	
135	COMP			$\uparrow$		
136	314.096419	09:32:51.31	+31:41:42.5	3	5m	
137	COMP			$\uparrow$		
138	314.100793	09:30:56.76	+31:58:40.5	3	4m	
139	COMP			$\uparrow$		
140	314.102068	09:30:24.47	+32:04:43.7	3	5m	
141	COMP			$\uparrow$		



60 inch Telescope Log

Observer: P. BerlindPI: GellerSpectrograph: FASTGrating: 300Page: 3507Date: 2/5/95

Number	Object	R.A.	Dec.	L/R	Exp	Comments
142	314.102402	09:30:27.8	+32:05:20	3	5m	
143	COMP			↑		
144	314.102472	09:28:58.57	+32:05:15.9	3	5m	Needs more x2
145	COMP			↑		
146	314.104806	09:30:38.57	+32:14:53.7	3	5m	
147	COMP			↑		
148	314.102472	09:28:58.57	+32:05:15.9	3	10m	redo
149	COMP			↑		
150	314.106080	09:29:08.57	+32:18:51.4	3	4m	
151	COMP			↑		
152	314.107315	09:31:11.57	+32:24:07.9	3	7m	-? superposed *?
153	COMP			↑		Na @ 6244Å looks ok
154	314.108592	09:28:30.51	+32:27:56.3	3	5m	
155	COMP			↑		
156	314.109689	09:39:8.9	+32:33:19.4	3	7m	
157	COMP			↑		
158	314.111088	09:42:00.55	+32:34:04.2	3	7m	
159	COMP			↑		
160	SN1994ae	10:44:23	+17:32:18	2	15m	
161	COMP			↑		
162	F34	10:36:41.1	+43:21:50	2	1m	
163	COMP			↑		
164	N3115	10:02:44.4	-07:28:30	0	3m	template
165	COMP			↑		
166	N3379	10:45:11.4	+12:50:48	0	3m	
167	COMP			↑		
168	Mark421	11:01:40.6	+38:28:43	6	5m	
169	COMP			↑		
170	11302mo155	11:30:09.8	-01:55:56.4	5	5m	H <sub>α</sub>
171	COMP			↑		

## 60 inch Telescope Log

Observer: P. BerlindPI: GrellerSpectrograph: FASTGrating: 300Page: 3508Date: 2/5/95

Number	Object	R.A.	Dec.	L/R	Exp	Comments
172	11316m0118	11:31:35.71	-01:19:07.42	S	5m	H <sub>α</sub>
173	COMP			↑		
174	11318p0332	11:31:48	+03:32.0	S	5m	H <sub>α</sub>
175	COMP			↑		seeing 2"
176	11322p0031	11:32:13.3	+00:30.42d	S	4m	
177	COMP			↑		
178	11327p0155	11:32:41.93	+01:54.548	S	5m	H <sub>α</sub>
179	COMP			↑		
180	11344p0546	11:34:22.94	+05:45.58.97	S	5m	H <sub>α</sub>
181	COMP			↑		
182	11346p0822	11:34:32.465	+08:22.091	S	7m	H <sub>α</sub>
183	COMP			↑		
184	11361p0404	11:36:06	+04:04.0	S	10m	LSPB H <sub>α</sub>
185	COMP			↑		
186	13146p0110	13:14:36	+01:10.0	I	10m	
187	COMP			↑		
188	13192p0028	13:19:12	+00:28.0	I	10m	
189	COMP			↑		
190	13193p0024	13:19:18	+00:24.0	I	5m	
191	COMP			↑		
192	13301p0107	13:30:06	+01:07.0	I	5m	
193	COMP			↑		
194	13313p0218	13:31:18	+02:18.0	I	7m	H <sub>α</sub>
195	COMP			↑		
196	13316p0201	13:31:36	+02:01.0	I	7m	H <sub>α</sub>
197	COMP			↑		
198	13323p0158	13:32:18	+01:58.0	I	5m	
199	13335p0159	13:33:30	+01:59.0	I	5m	H <sub>α</sub>
200	COMP			↑		
201	N4486B	12:28:00	+12:45:59	O	5m	calibration/template

60 inch Telescope Log

Observer: P. Berlind

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

Spectrograph: FAST

Grating: 300

Date: 2/5/95

Page: 3509

Number	Object	R. A.	Dec.	L/R	Exp	Comments
202	COMP			↑		
203	N4151	12:08:01	+39:41:02	6	30s	
204	COMP			↑		
205	HZ44	13:21:19.1	+36:23:38	6	2m	
206	COMP			↑		
207	HZ43	13:14:00.7	+29:21:49	6	2m	
208	COMP			↑		
209-210	N5548	14:15:43.5	+25:22:01	6	1m, 2m	
211	COMP			↑		
212-220	HD136711	15:19:27	+18:37:03	0	10s; 1s	
221	COMP			↑		
222-231	AGK2p24	17:01:06	+24:55:00	0	6s; 5s; 1s	
232	COMP			↑		end of the night focus run
233-242	FLAT				10s	shows focussed changed
243-245	BIAS				0s	to 930 during night
246-248	DARK				15m	
						End of FAST run
243-252	BIAS					
253-256	DARK					

110 spots

## 60 inch Telescope Log

Observer: Jim PeterPI: J. HuchraSpectrograph: FASTGrating: 300Page: 3515Date: 2/22/95

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-15	Bias					
16-30	FLAT				10 <sup>s</sup>	
31	Comp				10 <sup>s</sup>	
32-35	DARK				15 <sup>m</sup>	
36	Comp	TEST			15 <sup>s</sup>	Seeing ≈ 2"-4"
37	Comp			↓	15 <sup>s</sup>	Thin Clouds Around
38	N4486B	12 28 00	12 45 59	○	5 <sup>m</sup>	Focus = 930
39	Comp			↓	15 <sup>s</sup>	
40	N3115	10 02 44	-07 28 30	○	3 <sup>m</sup>	↓
41	Comp			↓	15 <sup>s</sup>	Focus 1080
42	HZ43	13 14 00	29 21 49	○	3 <sup>m</sup>	
43	Comp			↓	15 <sup>s</sup>	Thin Clouds, Seeing ≈ 2"-4"
44	N5548	14 15 43	25 22 01	6	5 <sup>m</sup>	
45	Comp	TEST	980	↓	15 <sup>s</sup>	Clouds
46	Comp	TEST	1000		15 <sup>s</sup>	Clouded out ≈ 2:30 AM
47	Comp	TEST	1020		15 <sup>s</sup>	
48	Comp	TEST	1040		15 <sup>s</sup>	
49	Comp	TEST	1060		15 <sup>s</sup>	
50	Comp	TEST	1080		15 <sup>s</sup>	Best Focus
51	Comp	TEST	1100		15 <sup>s</sup>	
52	Comp	TEST	1120		15 <sup>s</sup>	
53	Comp	TEST	1140		15 <sup>s</sup>	
54	DARK				15 <sup>m</sup>	
55	DARK				15 <sup>m</sup>	
56	DARK				15 <sup>m</sup>	
57	DARK				15 <sup>m</sup>	
58						
59						
60	No 54-57					
61	DARKS ON TRANSFER TAPE ONLY					
		53 files				

## 60 inch Telescope Log

Observer: P. BerlindHI: Huchra/GellerSpectrograph: FASTGrating: 300L, 3" slitDate: 2/23/95Page: 3526

Number	Object	R. A.	Dec.	L/R	Exp	Comments
1-10	BIAS				0s	clearing...
11-20	FLAT				10s	
21	COMP				10s	
22-34	H052971	06:57:51.4	+27:13:42.4	0	10s, 5s, 1s	Std/Templ ↓
28, 35	COMP			↑		
36, 38	NGC1700	04:54:28.1	-04:56:30	0	5m	a few clouds; poor seeing
37, 39	COMP			↑		
40, 42	472.074825	03:11:42.92	+13:08:15	3	7m	ISR ↓ x2 week
41, 43	COMP			↑		
44, 46	472.080832	03:17:11.13	+13:23:35	3	5m,	15m x2 reduce file #46
45, 47	COMP			↑		
48	U04505	08:32:30	+50:36:00	1	4m	H <sub>α</sub>
49	COMP			↑		
50	08306p7047	08:30:36	+70:47:00	1	4m	
51	COMP			↑		
52	U04500	08:34:06	+71:53:00	1	7m	strong H <sub>α</sub>
53	COMP			↑		
54	U04517	08:36:54	+73:52:00	1	5m	H <sub>α</sub>
55	COMP			↑		
56	08344p6136	08:34:24	+61:36:00	1	5m	strong H <sub>α</sub>
57	COMP			↑		
58	313.045572	09:15:50.57	+28:53:59.7	3	10m	ISR ↓ H <sub>α</sub>
59	COMP			↑		
60	313.04734	09:17:24.57	+29:00:10.2	3	10m	
61	COMP			↑		
62, 64	313.047111	09:17:23.53	+28:59:29.6	3	10m	clouds
63, 65	COMP			↑		x2 reduce #64 for best results!
66	313.061605	09:10:28.49	+29:53:15.3	3	7m	
67	COMP			↑		
68	313.062296	09:13:54.79	+29:55:43.2	3	5m	

Summed 40+42

319685

## 60 inch Telescope Log

Observer: P. BerlindPI: Geller/KirshnerSpectrograph: FASTGrating: 300RDate: 2/23/95Page: 3527

Number	Object	R. A.	Dec.	L/R	Exp	Comments
69	COMP			↑		tilt = 610
70	313.061802	09:24:56.62	+29:51:59.8	3	5m	Ha
71	COMP			↑		
72	313.063832	09:24:21.99	+29:59:32.3	3	7m	TV camera just died!
73	COMP			↑		lost 45min
74	313.074906	09:11:46.76	+30:40:34.2	3	7m	Many thanks to Lou Boyard
75	COMP			↑		for fixing it asap!!
76	COMP	test ; tilt = 550 ;	extra blue v			power supply arcing out
77	SN1995E	09:52:12	+73:02:40	2	15m	inside camera head
78	COMP			↑		tilt = 550 ↓
79	SN1995D	09:40:54.8	+05:08:26	2	15m	
80	COMP			↑		
81	N2726sn	09:01:02	+60:07:56	2	15m	SN XX 3" Eofgal ; Ha
82	COMP			↑		↳ = SN1995F
83	F34	10:36:41.2	+43:21:50	2	2m	wind picking up ; +25
84	COMP			↑		
85	SN1994ae	10:44:23	+17:32:18	2	20m	
86	COMP			↑		
87	N3115	10:02:44.4	-07:28:50	0	3m	tilt = 610 = normal ↓
88	COMP			↑		
89	313.063568	09:13:37.8	+29:59:41	3	5m	
90	COMP			↑		
91	313.064168	09:13:34.15	+30:02:21.7	3	5m	weak
92	COMP			↑		
93	313.071330	09:13:42.74	+30:27:56.2	3	7m	
94	COMP			↑		
95	313.080903	09:15:50	+31:02:24.1	3	7m	
96	COMP			↑		
97	313.064339	09:25:17.56	+30:40:57.8	3	7m	
98	COMP			↑		

## 60 inch Telescope Log

Observer: P. BerlindPI: M. GellerSpectrograph: FASTGrating: 3002Date: 2/23/95Page: 3528

Number	Object	R. A.	Dec.	L/R	Exp	Comments
99	314.070347	09:29:59.8	+70:07:37.3	3	7m	15R H <sub>α</sub>
100	COMP			↑		still a few clouds around
101	314.073874	09:32:06.52	+70:09:39.7	3	7m	
102	COMP			↑		
103	314.075852	09:26:21.97	+70:25:05.6	3	7m	
104	COMP			↑		
105	314.075873	09:31:35.2	+70:26:31.9	3	7m	
106	COMP			↑		
107	317.024517	11:11:43.96	+77:53:11.5	3	7m	
108	COMP			↑		
109	317.026621	11:09:09.28	+78:04:34	3	7m	H <sub>α</sub>
110	COMP			↑		
111	317.028789	11:09:41.94	+78:15:08.8	3	10m	H <sub>α</sub>
112	COMP			↑		
113	317.030619	11:08:14.77	+78:24:50.1	3	7m	H <sub>α</sub>
114	COMP			↑		clouds, clouds
115	317.031346	11:10:42.7	+78:27:8.1	3	5m	
116	COMP			↑		
117	317.031455	11:10:13.4	+78:28:24.6	3	7m	
118	COMP			↑		
119	317.031504	11:10:55.45	+78:28:09.5	3	7m	H <sub>α</sub>
120	COMP			↑		
121	317.031688	11:10:34.01	+78:29:34.4	3	7m	
122	COMP			↑		
123	317.032105	11:08:14.7	+78:32:27	3	7m	
124	COMP			↑		
125	317.032294	11:11:25.12	+78:32:12.6	3	7m	
126	COMP			↑		
127	317.032512	11:10:54.55	+78:33:42.3	3	7m	
128	COMP			↑		

## 60 inch Telescope Log

Observer: P. BerlindPI: M. Geller / HuchraSpectrograph: FASTGrating: 300LDate: 2/23/95Page: 3529

Number	Object	R. A.	Dec.	L/R	Exp	Comments
129	318.011799	11:30:53.77	+27:19:254	3	7m	H $\alpha$ clouds. big time ✓
130	COMP			↑		
131	N4486B	12:28:00	+12:45:59	0	5m	moon's up
132	COMP			↑		
133	H214	13:21:19.1	+36:23:78	0	2m	
134	COMP			↑		clouds ↓
135	13344p0127	13:34:24	+01:27:00	1	5m	H $\alpha$
136	COMP			↑		
137	13345p0029	13:34:30	+00:29:00	1	5m	H $\alpha$
138	COMP			↑		
139	N5285	13:41:54	+02:21:00	1	5m	
140	COMP			↑		
141	13426p0022	13:42:36	+0:22:00	1	4m	
142	COMP			↑		
143	13485p0005	13:48:30	+0:05:00	1	4m	
144	COMP			↑		
145	13500p0211	13:50:00	+02:11:00	1	4m	H $\alpha$
146	13508p0217	13:50:48	+02:17:00	1	4m	H $\alpha$
147	COMP			↑		
148	13507p0040	13:50:42	+0:40:00	1	4m	H $\alpha$
149	COMP			↑		
150	13572p0119	13:57:12	+01:19:00	1	5m	
151	COMP			↑		
152	13596p0000	13:59:36	+00:00:00	1	5m	ridin' the equator ?
153	COMP			↑		
154	14009p0058	14:00:54	+0:58:00	1	7m	
155	COMP			↑		
156	14011p0104	14:01:06	+01:04:00	1	5m	H $\alpha$
157	COMP			↑		
158	14015p0109	14:01:30	+01:09:00	1	7m	H $\alpha$



60 inch Telescope Log

Observer: P. Berlmet

PI: Huchra

Spectrograph: FAST

Grating: 300R

Date: 2/23/95

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Number	Object	R. A.	Dec.	L/R	Exp	Comments
159	COMP			↑		
160	14059 p0006	14-09:54	+00-06-40	1	7m	H <sub>β</sub>
161	COMP			↑		
162	14084 p0116	14-08:24	+01-16-00	1	5m	H <sub>β</sub>
163	COMP			↑		
164	14086 p0218	14-08:36	+00-48-00	1	5m	
165	COMP			↑		
166	14093 p0011N	14-09:18	+01-11-00	1	7m	North discrepancy between em + emca + cmv
167	14093 p0011S	14-09:18	+01-11-00	1	5m	twilight
168	COMP			↑		
169-179	HD136711	15-19-27	+18-37-03	0	10s, 5s,	1s
172, 176, 180	COMP			↑		
181-190	B+AS				0s	
191-200	FLAT				10s	
201-204	DARK				15m	

## 60 inch Telescope Log

Observer: P. BerlindPI: All/GellerSpectrograph: FASTGrating: 3000; 3" slitPage: 3531Date: 2/24/75

Number	Object	R. A.	Dec.	L/R	Exp	Comments
1-10	BTAS				0s	clear; clouds on horizon
11-20	FLAT				10s	
21-25	SKY	Zenith		0	5s	
26	COMP			↑		
27-31	SKY	Zenith		0	10s	
32	COMP			↑		
33-37	HD12623	02:02:18.77	+62:56:03.8	0	10s, 5s	2 objects? <sup>extracted</sup> <del>in one</del>
38	COMP			↑		
39-43	HD52971	06:57:51	+27:13:42	0	2s	
44	COMP			↑		
45-49	AGK 2014783	07:17:47.4	+14:51:37.7	0	30s, 10s	
50	COMP			↑		
51, 53	NGC1700	04:51:28.1	-04:56:30	0	5m	
52, 54	COMP			↑		
55	471.029790	02:47:04.72	+10:58:44.7	3	7m	HK ISR ↓
56	COMP			↑		
57	471.037231	02:56:03.58	+11:16:44.6	3	7m	
58	COMP			↑		
59	471.057308	02:49:47.58	+12:04:02.7	3	7m	
60	COMP			↑		
61	471.066776	02:56:01.74	+12:25:41.7	3	7m	HK
62	COMP			↑		
63	471.069231	02:44:57.1	+12:31:17.9	3	7m	
64	COMP			↑		
65	471.070394	02:51:57.16	+12:31:20.7	3	7m	
66	COMP			↑		
67	471.071063	02:44:21.84	+12:42:59.4	3	7m	HK
68	COMP			↑		
69	471.074421	02:49:57.47	+12:43:40.8	3	7m	
70	COMP			↑		

## 60 inch Telescope Log

Observer: P. BerlindPI: Huchra/Falco/GellerSpectrograph: FASTGrating: 3000Page: 3532Date: 2/24/95

Number	Object	R. A.	Dec.	L/R	Exp	Comments
71	08370p6007N	08:37:40	+60:07:40	1	5m	
72	08370p6007S	08:37:40	+60:07:40	1	4m	Delay to recollimate telescope -
73	COMP			↑		much better!
74	HB890640p450A	08:40:24.7	+45:03:36	31	15m	"stars 1 and 2"
75	COMP			↑		slit rotated to pos 75
76	HB89040p450B	08:40:24.7	+45:03	31	30m	QSD and companion
77	COMP			↑		
78	HB89040p501	08:40:40	+50:10:00.3	31	30m	QSD + comp. rot = 131
79	COMP			↑		
80	313.064891	09:11:35.8	+30:04:57	3	4m	ISR ↓ (A. Mahdavi thesis)
81	COMP			↑		
82	317.032788	11:12:19.84	+28:34:12	3	7m	Hk
83	COMP			↑		
84	317.032929	11:08:25.19	+28:36:31.6	3	7m	Hk et al
85	COMP			↑		
86	317.033046	11:11:49.42	+28:35:51.3	3	7m	
87	COMP			↑		
88,90	317.033517	11:11:31.67	+28:38:72.6	3	7m	x 2 Hk
89,91	COMP			↑		
92	317.033813	11:09:39.8	+28:40:32.5	3	7m	Hk
93	COMP			↑		
94	317.033934	11:10:58.72	+28:40:34	3	5m	
95	COMP			↑		
96	317.034009	11:10:40.77	+28:40:51.5	3	5m	
97	COMP			↑		
98	317.034298	11:09:28.95	+28:43:07.3	3	7m	
99	COMP			↑		
100	317.034580	11:10:37.6	+28:43:55.7	3	5m	
101	COMP			↑		
102	318.017857	11:11:51.99	+27:56:14.8	3	5m	pause to check spec. focus

## 60 inch Telescope Log

Observer: P. BerlindPI: M. GellerSpectrograph: FASTGrating: 300LDate: 2/24/95Page: 3533

Number	Object	R. A.	Dec.	L/R	Exp	Comments
103	COMP			↑	↑	
104	318.019413	11:10:27.47	+28:05:45.5	3	5m	for Andy Mahdavi's thesis
105	COMP			↑		
106	318.019867	11:10:15.21	+28:08:31.9	3	7m	H <sub>α</sub>
107	COMP			↑		
108	318.019966	11:10:43.63	+28:09:21.1	3	10m	
109	COMP			↑		
110	318.020386	11:11:51.92	+28:12:20.8	3	7m	
111	COMP			↑		
112	318.020447	11:11:05.06	+28:12:27.4	3	7m	H <sub>α</sub>
113	COMP			↑		
114	318.020571	11:10:54.81	+28:13:16.2	3	7m	
115	COMP			↑		
116	318.020824	11:13:12.78	+28:15:28.3	3	7m	
117	COMP			↑		
118	318.021029	11:12:27.23	+28:16:39.1	3	7m	H <sub>α</sub>
119	COMP			↑		
120	318.021719	11:10:13.86	+28:20:07.6	3	7m	
121	COMP			↑		
122	Mark 421	11:01:40.6	+28:28:43	6	2m	outburst; brighter than Crab = 8 mag!
123	COMP			↑		
124	318.021806	11:10:06.97	+28:20:35.1	3	7m	H <sub>α</sub>
125	COMP			↑		
126	318.022262	11:13:27.91	+28:24:26.5	3	7m	
127	COMP			↑		
128	318.026169	11:12:53.99	+28:48:40.8	3	7m	
129	COMP			↑		
130	318.032540	11:12:10.61	+29:27:45.6	3	7m	
131	COMP			↑		
132	318.611982	11:27:55.34	+27:20:47	3	10m	

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5/9/77

## 60 inch Telescope Log

Observer: P. BerlindPI: Geller/HuchraSpectrograph: EASTGrating: 300LDate: 2/24/95Page: 3534

Number	Object	R.A.	Dec.	L/R	Exp	Comments
133	COMP			↑		H $\alpha$ , both comps
134	318.012282	11:28:53.99	+27:22:52.5	3	10m	companion galaxy on slit to E
135	COMP			↑		delay @ 45"
136	318.012460	11:28:27.41	+27:23:48.4	3	7m	
137	COMP			↑		
138	318.012736	11:32:01.42	+27:24:49.5	3	5m	H $\alpha$ - superposed * but gal is clinched!
139	COMP			↑		
140	318.013102	11:28:56.31	+27:27:47.9	3	7m	
141	COMP			↑		
142	318.013941	11:29:12.25	+27:33:12.5	3	5m	
143	COMP			↑		
144	318.014514	11:32:38.2	+27:36:21.2	3	7m	
145	COMP			↑		
146	318.014583	11:28:20.02	+27:37:18.1	3	5m	
147	COMP			↑		
148	318.014660	11:28:40.87	+27:37:56.9	3	7m	
149	COMP			↑		
150	H244	13:21:19.1	+36:23:38	0	2m	Moon's Up
151	COMP			↑		
152	H243	13:14:00.7	+29:21:49	0	2m	
153	COMP			↑		
154	U08666E	13:39:24	+02:19:W	1	10m	East Camp
155	U08666M	13:39:24	+02:19:W	1	7m	Middle
156	U08666W	13:39:24	+02:19:W	1	7m	West str on slit to E
157	COMP			↑		
158	13397p0206	13:39:42	+02:06:W	1	3m	
159	COMP			↑		
160	A3551B	13:15:20.2	-30:40:40	9	10m	
161	COMP			↑		
162	A3551A	13:15:18.8	-30:40:16	9	15m	

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14,6  
35,6

60 inch Telescope Log

Observer: P. Berlind

PI: Huchra

Spectrograph: FAST

Grating: 3002

Date: 2/24/95

Page: 3535

Number	Object	R. A.	Dec.	L/R	Exp	Comments
163	COMP			↑		
164	14118p0002W	14:11:48	+10:02:W	1	7m	HK - nice rotation curve
165	14118p0002E	14:11:48	+10:02:W	1	7m	
166	COMP			↑		
167	14148p0015	14:14:48	+10:15:W	1	5m	
168	COMP			↑		
169	14153p0045	14:15:18	+10:15:W	1	4m	comp on slit to W w/ same velocity
170	COMP			↑		
171	14207p0112	14:20:42	+01:12:W	1	5m	HK
172	COMP			↑		
173	N5632	14:25:48	+10:10:W	1	5m	star on slit 5" E of gal
174	COMP			↑		2 H <sub>α</sub>
175	14261p0046	14:26:06	+10:46:W	1	5m	HK
176	COMP			↑		
177	14322p0105	14:32:12	+01:05:W	1	3m	
178	COMP			↑		
179	N5680	14:33:12	+10:11:W	1	3m	
180	COMP			↑		
181	I1054	14:44:10	+01:29:W	1	3m	U09514
182	COMP			↑		
183-192	BIAS			0	0s	
193-202	FLAT			0	10s	

60 inch Telescope Lpg

Observer: P. BerlingPI: Kenyan / HuchraSpectrograph: FASTGrating: 300Date: 2/25/95Page: 3536

Number	Object	R. A.	Dec.	L/R	Exp	Comments
110	BIAS				0s	
1120	FLAT				10s	heavy cloud
21	COMP					
22	V410Tau	04:15:24.8	+28:20:02	30	60s	PMS stars
23	COMP			↑		
24	BPTau	04:16:08.1	+28:59:13	30	60s	
25	COMP			↑		
26	HBC 736	04:15:59.1	+17:16:01	30	60s	
27	COMP			↑		
28	LKCa7	04:16:35.8	+27:42:28	30	60s	
29	COMP			↑		
30	IPTau	04:21:52.1	+27:05:08	30	2m	
31	COMP			↑		cloud city
32	471.074493	02:50:01.4	+12:43:53.1	30	7m	
33	COMP			↑		
34	471.081685	02:44:30.92	+12:59:41.7	30	7m	
35	COMP			↑		
36	471.078997	02:50:45.34	+12:54:06.9	3	7m	
37	COMP			↑		
38	U04522	08:37:30	+71:09:10	1	5m	Flr
39	COMP			↑		
40	08379p7947	08:37:54	+79:47:40	1	3m	
41	COMP			↑		
42	08387p6809	08:38:42	+68:09:40	1	5m	
43	COMP			↑		
44	08395p6901	08:39:30	+69:01:40	1	3m	
45	COMP			↑		
46	U04547	08:40:12	+73:11:10	1	7m	<del>Flr</del>
47	COMP			↑		
48	N2641	08:42:48	+73:05:10	1	3m	

60 inch Telescope Log

Observer: P. Terling  
 PI: Huchra / Kirshner

Spectrograph: FAST  
 Grating: 300  
 Date: 2/25/95

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Number	Object	R. A.	Dec.	L/R	Exp	Comments
49	COMP			↑		
50	08465p016	08:46:30	+60:16:40	↓	5m	clouds
51	COMP			↑		
52	08467p5733	08:46:42	+57:35:40	↓	4m	check words/chart
53	COMP			↑		
54	08487p6840	08:48:42	+68:40:40	↓	3m	
55	COMP			↑		
56	08495p6806N	08:49:30	+68:06:40	↓	4m	
57	08495p6806S	08:49:30	+68:06:40	↓	5m	
58	COMP			↑		
59	U04644	08:49:48	+71:55:40	↓	5m	
60	COMP			↑		
61	08503p7254	08:50:18	+72:54:40	↓	3m	
62	COMP			↑		
63	U04665	08:51:36	+64:28:40	↓	5m	
64	COMP			↑		
65	08520p6233	08:52:40	+62:33:40	↓	3m	comp on slit too
66	COMP			↓		use this comp for #67
67	SN1995F	09:01:02	+60:07:56	2	15m	normal tilt as per
68	SN1995E	07:52:12	+73:02:40	2	15m	Pete C. request
69	COMP			↑		extra tilt towards
70	SN1995D	09:40:54.8	+05:08:26	2	15m	blue; tilt = 570
71	COMP			↑		delay at 48" throughout
72	09078p0335	09:07:48	+03:35:40	↓	5m	tilt at 610-normal ↓
73	09062p0339	09:06:12	+03:39:40	↓	10m	→ abstracto +4
74	COMP			↑		
75	F34	10:36:41.1	+43:21:50	2	2m	
76	COMP			↑		
77	F34	10:36:41.1	+43:21:50	2	2m	tilt towards blue 610, 500
78	COMP			↑		



60 inch Telescope Log

Observer: P. Berlind

PI: Huchra

Spectrograph: FAST

Grating: 302

Date: 2/25/95

Page: 3538

Number	Object	R.A.	Dec.	L/R	Exp	Comments
79	09106 p0549	09:10:36	+05:49:10	1	7m	normal filt = G10
80	COMP			↑		
81	09107 p0204	09:10:42	+02:01:10	1	5m	humidity ↑
82	COMP			↑		
83,85	09155 p0731	09:15:30	+07:31:10	1	5m	*2 superposed * redo
84,86	COMP			↑	↑	
87	Mark 421	11:01:40.6	+35:28:43	6	3m	lots o' cloud!
88	COMP			↑		
89	A0947 p729A	09:47:06	+72:19:10	1	3m	star
90	A0947 p729B	"	"	1	5m	star
91	COMP			↑		clouded out
92-101	BINS				0s	
102-111	FLAT				10s	

83 + 85 summed - 8385. \* <sup>ms</sup> 1/2 mgh ?

60 inch Telescope Log

Observer: P. BerndtPI: All/HuchraSpectrograph: FASTGrating: 300Date: 2/25/95Page: 3559

Number	Object	R. A.	Dec.	L/R	Exp	Comments
10	BTAB			0	0s	
11-20	FLAT			0	10s	
21-30	HD52971	06:57:51.14	+07:13:42.4	0	2s, 10s	heavy cloud
26, 31	COMP			↑	15s	
32-36	AGK2p14783	07:17:47	+14:51:37	0	10-60s	clouded out
37	COMP			↑		clearing @ 3am...
38	I871	13:15:24	+04:40:00	1	2m	U044058
39	I873	13:15:48	+04:40:00	1	3m	
40	I876	13:16:00	+04:45:00	1	2m	Ha
41	COMP			↑		
42	13300 p0734	13:30:00	+07:34:00	1	5m	
43	N5209	13:30:00	+07:36:00	1	2m	U08522
44	COMP			↑		
45	13303 p0739	13:30:18	+07:39:00	1	5m	
46	13304 p0733	13:30:24	+07:33:00	1	5m	
47	COMP			↑		
48	N4486B	12:28:00	+72:45:59	0	5m	
49	COMP			↑		humidity ↑
50	13308 p0635	13:30:48	+06:35:00	1	4m	
51	COMP			↑		
52	13310 p0724	13:31:00	+07:24:00	1	4m	
53	COMP			↑		
54	13313 p0334	13:31:18	+03:34:00	1	4m	
55	13314 p0332	13:31:24	+03:32:00	1	1m	
56	COMP			↑		
57	U08543	13:31:30	+05:00:00	1	4m	
58	COMP			↑		
59	13326 p0334	13:32:36	+03:34:00	1	4m	
60	COMP			↑		
61	N5224	13:37:36	+06:44:00	1	2m	

## 60 inch Telescope Log

Observer: P. BerlindPI: HuchraSpectrograph: FASTGrating: 300Date: 2/26/95Page: 3540

Number	Object	R.A.	Dec.	L/R	Exp	Comments
62	COMP			↑		
63	U08569	13:33:40	+06:27:40	1	4m	
64	COMP			↑		
65	U08572	13:33:06	+07:48:40	1	2m	
66, 68	NS239	13:33:54	+07:38:40	1	2m, 5m	U08589, x2, use #68
67	COMP			↑		
69	NS231	13:33:12	+03:15:40	1	2m	U08574 H <sub>α</sub>
70	COMP			↑		
71	NS231	13:33:30	+06:50:40	1	3m	U08582 H <sub>α</sub>
72	U08596	13:34:12	+06:45:40	1	4m	H <sub>α</sub>
73	COMP			↑		clouds
74	NS245	13:33:48	+04:09:40	1	4m	
75	COMP			↑		
76	NS246	13:34:54	+04:21:40	1	3m	U08612 H <sub>α</sub>
77	COMP			↑		
78	1337Sp0456	13:37:30	+04:56:40	1	5m	H <sub>α</sub>
79	COMP			↑		
80	U08690	13:42:40	+05:02:40	1	3m	sup #; gal has H <sub>α</sub>
81	COMP			↑		
82	13448p0750	13:44:48	+07:50:40	1	5m	strong H <sub>α</sub>
83	COMP			↑		
84	13493p0342	13:49:18	+03:42:40	1	4m	H <sub>α</sub>
85	COMP			↑		
86	13531p0602	13:53:06	+06:02:40	1	5m	H <sub>α</sub>
87	COMP			↑		
88	U08857	13:53:54	+04:38:40	1	4m	H <sub>α</sub>
89	COMP			↑		
90-94	HD136711	15:14:27	+18:37:03	0	10s, 5s	template
95	COMP			↑		
96-105	BIAS			0	0s	
106-115	FLAT			0	10s	

6) inch Telescope Log

Observer: Jim PetersPI: J. HuchraSpectrograph: FASTGrating: 300Page: 3541Date: 2/27/95

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-15	Bias					
16-30	FLAT				10s	
31-34	Dark				15m	
35	Comp			↓	15s	
36	HZ15	04 37 56	08 35 00	0	5m	Thru Thin Clouds
37	Comp			↓	15s	
38	AKN120	05 13 37	-00 12 15	6	5m	Thru Thin Clouds
39	Comp			↓	15s	
40	HD 52971	06 57 51	27 13 42	0	2s	Thru Clouds
41	Comp			↓	15s	
42	AGK2P14783	07 17 47	14 59 37	0	10s	Thru Clouds
43	Comp			↓	15s	
44	0159P0540	01 59 00	05 40 00	21	15m	Hole Thru Clouds
45	Comp			↓	15s	
46	312.043190	09 02 09	28 30 40	3	8m	Thin Clouds Around
47	Comp			↓	15s	
48	312.043259	08 46 19	28 33 34	3	8m	
49	Comp			↓	15s	
50	312.044023	08 40 48	28 35 16	3	8m	
51	Comp			↓	15s	Delay @ 48"
52	312.044418	08 44 32	28 37 07	3	8m	
53	Comp			↓	15s	Clouds Around
54	312.075194	08 40 19	30 11 38	3	8m	
55	Comp			↓	15s	
56	312.075560	08 53 05	30 13 40	3	8m	
57	Comp			↓	15s	
58	312.076160	08 34 54	30 13 11	3	8m	
59	Comp			↓	15s	
60	312.078006	08 58 22	30 19 57	3	8m	
61	Comp			↓	15s	

60 inch Telescope Log

Observer: J. PetersPI: J. HuebraSpectrograph: FastGrating: 300Page: 3542Date: 2/7/95

Number	Object	R.A.	Dec.	L/R	Exp	Comments
62	312.078237	08 57 58	30 20 35	3	8m	→ ⊙
63	Comp			↓	15s	
64	312.078528	08 49 54	30 22 59	3	8m	
65	Comp			↓	15s	
66	SN1995E	07 52 12	73 02 00	2	±8m	→ TILT MIC SET TO 570
67	SN1995E	↓	↓	2	15m	HIT WITH CLOUDS
68	Comp			↓	15s	Did SN1995E again
69	SN1995 D	09 40 54	05 08 26	2	15m	→ TILT MIC SET TO 570
70	Comp			↓	15s	Thin Clouds
71	Feige 34	10 36 41	43 21 50	0	2m	→ TILT MIC SET TO 570
72	Comp	↓	↓	↓	15s	→ TILT MIC SET TO 610
73	Feige 34	↓	↓	0	2m	Thin Clouds
74	Comp			↓	15s	
75	SN1995F	09 01 02	60 07 56	2	15m	→ TILT MIC = 610
76	SN1995F SKY	SKY FOR	SN1995F	2	15m	We have a LOT of
77	Comp			↓	75s	Clouds coming from West!
78	N4486B	12 28 00	12 45 59	0	5m	Clouded out at 11:40 PM
79	Comp			↓	15s	→ Open 3:45 AM - Thru Clouds
80	N4151	12 08 01	39 41 02	6	30s	Thru Clouds
81	Comp			↓	15s	
82	EG184	11 34 27	30 04 35	0	2m	
83	Comp			↓	15s	
84	N5548	14 15 43	25 22 01	6	5m	
85	Comp			↓	15s	Getting These in
86	H243	13 14 00	19 21 49	0	4m	case get clouded
87	Comp			↓	15s	OUT again!
88	HD 136711	15 19 27	18 37 03	0	5s	
89	Comp			↓	15s	
90	SAO 084795	17 01 06	24 55 00	0	6s	
91	Comp			↓	15s	



## 6" inch Telescope Log

Observer: J. PetersPI: J. HuckraSpectrograph: FASTGrating: 300Page: 3544Date: 2/28/95

Number	Object	R. A.	Dec.	L/R	Exp	Comments
1-15	Bias					looks like another
16-30	FLAT				10 <sup>s</sup>	Night of fight the clouds!
31-34	Dark				15 <sup>m</sup>	
35	SKY				5 <sup>s</sup>	ON CLOUDS
36	SKY				5 <sup>s</sup>	ON CLOUDS
37	Comp			↑	15 <sup>s</sup>	Closed Closed
38	Comp			↓	15 <sup>s</sup>	THRU CLOUDS
39	HD 52971	06 57 51	27 13 42	0	2 <sup>s</sup>	↓ ↓
40	Comp			↓	15 <sup>s</sup>	
41	AGK2P14783	07 17 47	14 59 37	0	10 <sup>s</sup>	↓ ↓
42	Comp			↓	15 <sup>s</sup>	
43	312.079305	09 00 10	30 23 14	3	10 <sup>m</sup>	THRU CLOUDS AT TIMES
44	Comp			↓	15 <sup>s</sup>	ANOTHER ROTTEN NIGHT.
45	312.079931	09 46 34	30 27 24	3	6 <sup>m</sup>	
46	Comp			↓	15 <sup>s</sup>	
47	312.082317	08 38 13	30 33 27	3	6 <sup>m</sup>	CLOUDS CLOUDS CLOUDS
48	Comp			↓	15 <sup>s</sup>	
49	312.083425	08 44 26	30 38 00	3	7 <sup>m</sup>	
50	Comp			↓	15 <sup>s</sup>	
51	312.085071	08 55 46	30 42 39	3	8 <sup>m</sup>	
52	Comp			↓	15 <sup>s</sup>	
53	312.085890	08 38 05	30 44 33	3	10 <sup>m</sup>	
54	UNNamed	TEST	SHOT	↓	1 <sup>m</sup>	
55	1Comp			↓	15 <sup>s</sup>	
56	N3115	10 02 44	-07 28 30	0	3 <sup>m</sup>	
57	Comp			↓	15 <sup>s</sup>	
58	AGK2P43928	09 44 20	43 42 07	0	5 <sup>s</sup>	
59	Comp			↓	15 <sup>s</sup>	
60	N3079	09 58 34	55 55 24	0	3 <sup>m</sup>	
61	Comp			↓	15 <sup>s</sup>	

