

60 inch Telescope Log

Spectrograph: FastObserver: J. PetersGrating: 300Page: 5324PI: e.T. al.Date: 4/8/97

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	Flat	Bin By	4		75	Set Mic To 604
11-20	Bias					
21-30	Bias	Bin By	2			
31-40	Flat	Bin By	2		14 ³	
41	Comp			↑		Test
42	SKY	Stow		○	25	Haze in Sky
43	SKY	"		○	25	
44	SKY	"			25	
45	SKY	"			25	
46	SKY	"			25	
47	Comp			↑		
48	HDS2971	06 57 51	27 12 42	57	55	Haze
49	Comp			↑		
50	DLTaw	04 33 39	25 30 39	12	205	
51	DLTaw	"	"	12	401	
52	Comp			↑		
53	DLTaw	04 47 05	16 58 37	12	103	
54	DLTaw	"	"	12	301	
55	Comp			↑		
56	MRK 421	11 01 40	38 28 43	6	501	
57	Comp			↑		
58	N4051	12 00 36	44 48 35	6	201	
59	Comp			↑		
60	N4151	12 08 01	39 41 01	6	30 ²	
61	Comp			↑		
62	SN1997BQ	10 17 04	73 23 03	2	10 ¹¹	Bin By 2
63	Comp				10 ³	
64	12584P305159	12 58 49	30 51 59	25	10 ¹¹	Bin By 4
65	Comp			↑		
66	125653P301811	12 56 53	30 18 11	25	10 ¹¹	

60 inch Telescope Log

Observer: J. Peters

PI: et.al

Spectrograph: FAST

Grating: 300

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Date: 4/2/97

Number	Object	R.A.	Dec.	L/R	Exp	Comments
67	Comp P			↑		Having Trouble with Guide T.V. Losing Gain, + Image.
68	125651P272539	12 56 51	27 25 39	25	10M	
69	Comp P			↑		
70	125606P263047	12 56 06	26 30 47	25	10M	
71	Comp P			↑		
72	125604P284748	12 56 02	28 47 48	25	10M	
73	Comp P			↑		
74	125932P293538	12 59 32	29 35 38	25	10M	
75	Comp P			↑		
76	125931P255708	12 59 31	25 57 08	25	10M	
77	Comp P			↑		
78	125950P283716	12 59 50	28 37 16	25	15M	
79	Comp P			↑		
80	125955P291316	12 59 55	29 13 16	25	10M	
81	Comp P			↑		
82	125651P272232	12 56 51	27 22 32	25	10M	
83	Comp P			↑		
84	125738P270523	12 57 38	27 05 23	25	15M	
85	Comp P			↑		
86	MRK 279	13 51 53	69 33 13	6	2M	
87	Comp P			↑		
88	N5548	14 15 43	25 22 01	6	2M	
89	Comp P			↑		
90	Ferge 66	12 34 54	25 20 31	56	1M	
91	Comp P			↑		
92	JN1997BP	12 46 55	-11 38 18	2	10M	Bin By 2
93	Comp P			↑	90	Bin By 2
94	Z006360W	12 09 17	44 05 25	60	15M	
95	Comp P			↑		
96	Z006360 E	↓	↓	60		

60 inch Telescope Log
 Observer: J. Peters
 PI: et al

Spectrograph: Fast
 Grating: 300
 Date: 4/8/97

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Number	Object	R.A.	Dec.	L/R	Exp	Comments
97	Comp P			↑		
98	B000223 S	12 09 32	17 48 18	60	20M	
99	Comp P	↓	↓	↑		
100	B000223 N	↓	↓	60	20M	
101	Comp P			↑		
102	N000580	12 13 33	16 06 30	60	15M	2 objects - ^{near} 100 103 E
103	Comp P			↑		
104	Z004400	12 16 00	04 39 02	60	15M	
105	Comp P			↑		
106	Z010309	12 18 10	44 24 01	60	5M	
107	Comp P			↑		
108	Z009507N	12 19 15	06 18 23	60	15M	
109	Comp P	↓	↓	↑		
110	Z009503S	↓	↓	60	20M	
111	Comp P			↑		
112	A000878	12 19 22	12 02 30	60M	5M	
113	Comp P			↑		
114	N002261 S	12 19 41	28 49 31	60	5M	
115	Comp P	↓	↓	↑		
116	N002261 N	↓	↓	60	5M	
117	Comp P			↑		
118	160048P162415	16 00 48	16 24 15	25	6M	
119	Comp P			↑		
120	160125P160528	16 01 25	16 05 28	25	15M	
121	Comp P			↑		
122	160305P163242	16 03 05	16 32 42	25	10M	
123	Comp P			↑		
124	160401P155138	16 04 01	15 51 38	25	10M	
125	Comp P			↑		
126	160357P162724	16 03 57	16 27 24	25	10M	

60 inch Telescope Log

Observer: J. PetalsPI: et. al.Spectrograph: FastGrating: 300Page: 5328Date: 4/9/97

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	Bias	Bin By	4			Mic = 607
11-20	Flat	Bin By	4		7 ^s	
21-30	Flat	Bin By	2		14 ^s	
31-40	Bias	Bin By	2			
41	Comp	TEST	Bin By	2		Test
42	Comp	Bin	By 4	TEST		
43	SKY				2 ^s	
44	SKY				2 ^s	
45	SKY				2 ^s	
46	SKY				2 ^s	
47	SKY				2 ^s	
48	Comp			↑		
49	HD 52971	06 57 51	27 13 42	57	5 ^s	Closed Dome, Wind
50	Comp			↑		Warming around 15
51	SN 1977 BQ	10 17 04	73 23 03	2	20 ^m	Constant in Obs Room.
52	Comp			↑	10 ^s	No Red Liquid showing
53	125529 P 261848	12 55 29	26 18 48	25	20 ^m	Best @ 40 mph
54	Comp			↑		↑ 30 mph Wind Seeing
55	125756 P 271029	12 57 56	27 10 29	25	20 ^m	a little flaky
56	Comp			↑		Guide TV flaky.
57	130037 P 273106	13 00 37	27 31 06	25	20 ^m	
58	Comp			↑		
59	125713 P 294430	12 57 13	29 44 30	25	15 ^m	
60	Comp			↑		
61	125719 P 261244	12 57 19	26 12 44	25	15 ^m	
62	Comp			↑		
63	125732 P 300821	12 57 32	30 08 21	25	20 ^m	
64	Comp			↑		
65	125738 P 301653	12 57 38	30 16 53	25	15 ^m	
66	Comp			↑		

60 inch Telescope Log

Spectrograph: FastObserver: J. PetersGrating: 300Page: 5339PI: et.alDate: 4/9/97

Number	Object	R.A.	Dec.	L/R	Exp	Comments
67	SN 1997BP	12 46 55	- 11 38 18	2	10 ^m	Bin By 2
68	Comp P				10 ^s	" " "
69	Feige 66	12 34 54	25 20 31	56	1 ^m	Bin By 4
70	Comp P			↑		
71	N4486B	12 30 32	12 29 25	57	5 ^m	
72	Comp P			↑		We have some
73	MRK 279	13 51 53	69 33 13	6	2 ^m	Clouds Around.
74	Comp P			↑		
75	N5548	14 15 43	25 22 01	6	3 ^m	
76	Comp P			↑		
77	N4158	12 16 29	47 34 51	6	5 ^m	
78	Comp P			↑		
79	Z005970W	12 19 45	06 00 21	60	8 ^m	
80	Comp P	↓	↓	↑		Seeing AT TIMES
81	Z005970E	↓	↓	60	5 ^m	Really Sucks
82	Comp P			↑		
83	Z001096N	12 20 38	46 17 31	60	15 ^m	
84	Comp P	↓	↓	↑		
85	Z001096S	↓	↓	60	15 ^m	
86	Comp P			↑		
87	160156P161758	16 01 56	16 17 58	25	15 ^m	Seeing 2-4"
88	Comp			↑		
89	160402P184754	16 04 02	18 47 54	25	20 ^m	
90	Comp P			↑		
91	160238P201252	16 02 38	20 12 52	25	20 ^m	Seeing Bad + Wind
92	Comp P			↑		T.V. up and down, I've
93-102	Bias					had it!!
103-112	Flat				7 ^s	

TOTAL P.02

60 inch Telescope Log

Observer: GroganPI: st. d.Spectrograph: FASTGrating: 3001Page: 5320Date: 4/10/97

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	BIAS	Bin By 4				Partly Cloudy
11-20	FLAT				7s.	
21-30	FLAT	Bin By 2			14s.	
31-40	BIAS					
41-5	SKY	slow		0	2,2,3,3,4	bin by 4
46	COMP			↑		
47	HD 52911	6:57	21:13	57	5s.	veltd
48	COMP			↑		
49	sn 1997bg	10:17	73:23	2	10m.	cloud obscuring; bin by 2
50	COMP			↑		
51	sn 1997bg	"	"	2	20m.	still cloudy
52	COMP			↑		
53	Hiltner 600	6:42	2:11	56	45s.	bin by 2
54	COMP			↑		
55	N4151	12:08	39:41	6	30s.	bin by 4
56	COMP			↑		
57	10423p5850	10:42	58:51	1	20m	LSB
58	COMP			↑		
59	I2601	10:47	72:20	1	10m	
60	COMP			↑		
61	10581+6502	10:58	65:02	1	10m.	
62	COMP			↑		
63	11059+7416	11:09	78:59	1	20m	
64	COMP			↑		
65	11088+6801	11:08	68:01	1	20m	Got Lth E and W on slit
66	COMP			↑		
67	11471-0314	11:49	-3:30	60	20m.	Adjacent star to W
68	COMP			↑		
69	11470-0110	11:49	-1:27	60	5m	
70	COMP			↑		

60 inch Telescope Log		Spectrograph: <u>FAST</u>		Page: <u>5331</u>		
Observer: <u>Grogan</u>		Grating: <u>3006</u>		Date: <u>4/10/97</u>		
PI: <u>et al.</u>						
Number	Object	R.A.	Dec.	L/R	Exp	Comments
71	11471-0317	11:49	-3:34	60	10m.	
72	COMP			↑		
73	11473-0314	11:49	-3:31	60	10m.	
74	COMP			↑		
75	12033-0242	12:05	-2:59	60	20m.	
76	COMP			↑		
77	12046-0058	12:07	-1:15	60	20m.	
78	COMP			↑		
79	12048+0637	12:07	6:21	60	10m.	
80	COMP			↑		
81	sn 19976p	12:46	-11:38	2	10m.	binlog 2
82	COMP			↑		
83	sn 1996cb	11:03	28:54	2	20m.	
84	COMP			↑		
85	H244	13:21	36:23	56	2m.	
86	COMP			↑		
87	12077-0142	12:10	-1:59	60	15m.	binlog 4
88	COMP			↑		
89	N4258	12:16	47:34	6	5m.	AGN
90	COMP			↑		
91	Feige 66	12:34	25:30	56	60s.	
92	COMP			↑		
93	MRK 279	13:51	69:33	6	2m.	
94	COMP			↑		
95	N5548	14:15	25:22	6	3m.	
96	COMP			↑		
97	2558f1	15:03	25:54	42	20m.	
98	COMP			↑		
99	N5991f1	15:11	71:20	42	20m.	
100	COMP			↑		

60 inch Telescope Log

Observer: Grogin
 PI: etal.

Spectrograph: FAST

Grating: 300l

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Date: 4/10/97

Number	Object	R.A.	Dec.	L/R	Exp	Comments
101	N5829 f1	15:00	23:32	42	20m.	
102	COMP			↑		
103	N5829 f2	15:00	23:33	42	20m.	
104	COMP			↑		
105	COMP			↓		
106	2119f1	15:33	21:09	42	20m.	Bright star on slit to E
107	2044f1	15:40	20:32	42	20m.	
108	COMP			↑		
109	I4576f1	15:40	23:48	42	20m.	Clouding
110	COMP			↑		
111	2551 f1	15:49	25:54	42	20m.	Clouded out
112	COMP			↑		
113	976lg10	18:07	-27:52	2	20m.	Microdens crest; clouded out
114	COMP			↑		
115-24	BIAS			0	0s.	Bin By 4
125-34	FLAT			0	7s.	
135-44	FLAT			0	14s.	
145-54	BIAS			0	0s.	Bin By 2
						OVERCAST.

60 inch Telescope Log

 Observer: Grogan
 PI: et al.
Spectrograph: FASTGrating: 300RPage: 5333Date: 4/11/97

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	BIAS	Bin by 4		0	-	Mostly cloudy
11-20	FIAT			0	6s.	
21-30	FIAT	Bin by 2		0	12s.	
31-40	BIAS			0	-	
40-46	sky	Star		0	6.5, 1.8, 2.2, 2.5	bin by 4
47	COMP			↑		
48-9	HD 52971			57	5s.	velist
50	COMP			↑		
51	sn 1997bg	10:17	73:23	2	12 m.	Clouded out NO COMP SHUT DOME 8:15PM
52	11095 + 7112	11:09	77:12	1	15m	OPEN 10:25 AM. Clear to SW cloud obscuration
53	COMP			↑		
54	12367 + 0192	12:39	1:26	60	15m.	
55	COMP			↑		
56	12152 + 0446	12:17	4:28	60	15m.	
57	COMP			↑		
58	12168 - 0020	12:19	-0:36	60	5m.	compact, bright STAR
59	COMP			↑		
60	12187 - 0034	12:21	-0:52	60	10m.	
61	COMP			↑		
62	I 3218	12:22	6:55	60	20m.	
63	COMP			↑		
64	sn 1997bp	12:46	-11:38	2	10m.	Bin by 2
65	COMP			↑		
66	Feige 66	12:34	25:20	56	2m.	
67	COMP			↑		
68	N 4051	12:00	44:48	6	2m	Bin by 4
69	COMP			↑		
70	Feige 66	12:34	25:20	56	1m	
71	COMP			↑		

60 inch Telescope Log
 Observer: Grogan
 PI: et al.
 Spectrograph: FAST
 Grating: 300l
 Date: 4/11/97
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Number	Object	R.A.	Dec.	L/R	Exp	Comments
72	Mrk 279	13:51	69:33	6	2m.	
73	COMP			↑		
74	N5548	14:15	25:22	6	3m.	
75	COMP			↑		
76	12218-0024	12:24	-0:41	60	20m.	
77	COMP			↑		
78	2538F1	15:12	25:40	42	20m.	
79	COMP			↑		
80	2538F2	15:13	25:38	42	20m.	
81	COMP			↑		
82	2502F1	15:14	25:01	42	15m.	
83	COMP			↑		
84	3948F1	15:27	39:46	42	20m.	
85	COMP			↑		
86	I 1124 F1	15:30	23:37	42	10m.	Bright, compact
87	COMP			↑		
88	2818 F1	15:33	28:04	42	10m.	
89	COMP			↑		
90	2551 F1	15:48	25:53	42	20m.	
91	COMP			↑		
92	N6016F1	15:53	27:03	42	20m.	
93	COMP			↑		
94	2825F1	16:12	28:19	42	10m.	
95	COMP			↑		
96	2825CF3	16:12	28:17	42	20m.	2825 on slit to W
97	COMP			↑		
98	N6102F1	16:15	28:06	42	20m.	
99	COMP			↑		
100	N6102 F2	16:15	28:14	42	20m.	Star on slit edge
101	COMP			↑		

FAX
to: Susan 10:15
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60 inch Telescope Log
 Observer: P. Berlind
 PI: Huchra
 Spectrograph: FAST
 Grating: 3002
 Date: 4/12/97
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Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	BIAS			0	0s	clear skies!
11-20	FLAT			0	6s	
21-30	BIAS			0	0s	bin by 2
31-40	FLAT			0	12s	bin by 2
41-45	sky	Zenith		57	2s	
46	comp			↑		
47-51	HDS2911	06:57	+21:13	57	5s	
52	COMP			↑		
53-55	Hiltner 600	06:42	+02:11	56	45s	
56	COMP			↑		
57	Akn 120	05:16	-10:02	6	2m	
58	COMP			↑		
59-60	N3377	10:25	+14:11	57	2m	
61	COMP			↑		
62-63	N3379	10:45	+12:50	57	2m	
64	COMP			↑		
65	0918p0731	09:15	+07:31	1	8m	bin by 2; gal = middle object
66	COMP			↑		*'s on slit
67	09419p157	09:41	+15:57	1	8m	
68	COMP			↑		
69	09437p0723	09:43	+07:23	1	10m	em
70	COMP			↑		
71	09441p0729	09:46	+07:15	1	5m	
72	COMP			↑		
73	IS66	09:47	+10:00	1	4m	
74	COMP			↑		
75	09590p0330	09:59	+03:50	1	6m	em
76	COMP			↑		
77	IS85	09:57	+13:13	1	4m	
78	COMP			↑		

60 inch Telescope Log

Observer: PBPI: Huchra/KrishnerSpectrograph: FASTGrating: 70RPage: 5337Date: 4/12/97

Number	Object	R.A.	Dec.	L/R	Exp	Comments
79	10051 p 4240	10:05	+42:40	1	4m	
80	COMP			↑		wild parking up
81	10186 p 0622	10:21	+06:22	1	8m	
82	COMP			↑		
83	10070 p 1428	10:07	+14:28	1	8m	
84	COMP			↑		
85	10198 p 1442	10:19	+14:42	1	5m	
86	COMP			↑		
87	10305 p 4419 NW	10:30	+44:19	1	5m	em
88	10305 p 4419 SE	10:30	+44:19	1	8m	
89	COMP			↑		
90	Feyn 34	10:36	+47:21	56	2m	
91	COMP			↑		
92	SN 1997bg	10:17	+73:23	2	20m	poor seeing up here
93	COMP			↑		bin by 2
94	10288 p 2614	10:28	+26:14	1	5m	em
95	COMP			↑		
96	10300 p 2011	10:30	+20:11	1	6m	
97	COMP			↑		
98	10233 p 1935	10:23	+19:35	1	6m	
99	COMP			↑		
100	10229 p 0743	10:22	+07:43	1	7m	
101	COMP			↑		
102	10484 p 1830	10:48	+18:30	1	6m	
103	COMP			↑		
104	10531 p 1508	10:53	+15:08	1	10m	
105	COMP			↑		
106	11018 p 1724	11:01	+17:24	1	8m	
107	COMP			↑		

7th May, 11:25-11:02:23

60 inch Telescope Log

Observer: PB

PI: Wilkes/Geller/Skirshner

Spectrograph: FAST

Grating: 302

Date: 4/12/97

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Number	Object	R.A.	Dec.	L/R	Exp	Comments
108	N4151	12:08	+39:41	6	30s	has
109	COMP			↑		
110	N4051	12:10	+44:48	6	2m	
111	COMP			↑		
112	N4258	12:16	+47:34	6	2m	
113	COMP			↑		
114	MRK 279	13:51	+69:33	6	3m	
115	COMP			↑		
116	N5548	14:15	+25:22	6	3m	11:20
117	COMP			↑		
118	H214	13:21	+36:23	56	2m	
119	COMP			↑		
120-121	N4853	12:58	+27:35	57	5m	
122	COMP			↑		em both comps
123	Z00636(EW)	12:11	+40:39	60	8m	11:35 bin by 2
124	COMP			↑		EW comps
125	B00081	12:20	+38:25	60	10m	L515 em
126	COMP			↑		
127	N000996	12:25	+04:28	60	4m	em +
128	COMP			↑		
129	SN19976p	12:46	-11:36	2	10m	bin by 2
130	COMP			↑		
131	SN19976r	13:20	-22:02	2	10m	bin by 2
132	COMP			↑		
133	Z009505N	12:22	+03:08	60	4m	N em+
134	Z009505S	12:22	+03:08	60	5m	S em
135	COMP			↑		
136	N00178N	12:24	+09:23	60	4m	
137	N00178S	12:24	+09:23	60	5m	
138	COMP			↑		

60 inch Telescope Log

Observer: PB

PI: Geller/Hucha

Spectrograph: FAST

Grating: 300L

Date: 4/12/97

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Number	Object	R.A.	Dec.	L/R	Exp	Comments
139	N001082L	12:29	+31:26	60	4m	
140	N001082E	12:29	+31:26	60		
141	COMP			↑		
142	Z013752 N	12:54	+28:07	60	6m	N
143	Z013752 S	12:54	+28:07	60	5m	S
144	Z013752 W	12:54	+28:07	60	4m	W
145	COMP			↑		
146	Z00625 N	12:58	+29:07	60	4m	em
147	Z00625 S	12:58	+29:07	60	6m	em
148	COMP			↑		
149	Z010039	12:58	+27:58	60	4m	
150	COMP			↑		
151	Z015754	12:59	+28:55	60	4m	
152	COMP			↑		
153	N001629	12:58	+13:06	60	10m	LSB em!
154	COMP			↑		COUNTS WAY DOWN - ^{poor} 2 solutions
155	B002019	12:58	+14:12	60	5m	em + ; CE=0 ? ; pec
156	COMP			↑		
157	125807 p280107	12:58	+28:02	25	7m	
158	COMP			↑		
159	125740 p28522	12:57	+28:52	25	9m	
160	COMP			↑		
161	125749 p295371	12:57	+29:53	25	7m	
162	COMP			↑		
163	125934 p30774	12:59	+30:17	25	7m	
164	COMP			↑		
165	125834 p272719	12:58	+27:27	25	9m	
166	COMP			↑		
167	125641 p264906	12:56	+26:49	25	10m	em!
168	COMP			↑		

60 inch Telescope Log

Observer: PB

PI: Grogin & Geller

Spectrograph: FAST

Grating: 300R

Date: 4/12/97

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Number	Object	R.A.	Dec.	L/R	Exp	Comments
169	I25555p300706	12:55	+70:07	25	10m	
170	COMP			↑		
171	I4553F2	15:32	+73:58	42	11m	W; also comp in slit to W ↑
172	COMP			↑		
173	I4553F1	15:32	+73:58	42	8m	E
174	COMP			↑		
175	2506C1	15:37	+75:06	42	8m	em++
176	COMP			↑		
177	Z013263	15:23	+08:37	60	5m	N
178	Z013262	15:23	+08:34	60	5m	S
179	COMP			↑		
180	Z006006	15:29	+07:34	60	5m	
181	COMP			↑		
182	A000686	15:31	+07:18	60	5m	
183	COMP			↑		
184	Z011197N	15:33	+05:17	60	4m	N
185	Z011197S	15:33	+05:17	60	4m	S
186	COMP			↑		
187	Z000706	15:36	+43:31	60	4m	em SW
188	Z002372	15:36	+43:32	60	4m	NE
189	COMP			↑		
190	MRK501	16:53	+39:45	6	5m	X-ray flare
191	COMP			↑		
192	3C390.3	18:45	+77:13	6	6m	
193	COMP			↑		clear @ dawn
194	P61708p602	17:06	+60:12	56	4m	
195	COMP			↑		
196-7	9702L610	18:07:07	-27:52:34	2	7m	bin by 2 - crowded field
198	COMP			↑		
199-201	CIC ₉₇	19:50	+35:41	12	2m, 2s, 2s	

60 inch Telescope Log

Observer: P. Berlind

PI: Huchra

Spectrograph: FAST

Grating: 3000, 3" slit, bin by 1

Page: 5342

Date: 4/13/77

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	BIAS			0	0s	
11-20	FLAT			0	6s	
21-30	BIAS			0	0s	bin by 2
31-40	FLAT			0	12s	bin by 2
41-45	SKY	zenith		57	2s	
46	COMP			↑	5s	clear skies!
47-51	HD 52971	06:57	+71:43	57	5s	windy
52	COMP			↑		
53-57	AGK 243928	09:52	+43:58	57	5s	
58	COMP			↑		
59-63	Wilson 6777	09:58	+55:50	57	5s	
64	COMP			↑		
65-67	Hiltner 600	06:42	+02:11	56	45s	
68	COMP			↑		
69-70	DR Tau	04:33	+25:20	12	20s, 3m	
71	COMP			↑		
72-73	DR Tau	04:47	+16:58	12	10s, 3m	
74	COMP			↑		
75-76	N 3115	10:02	-07:28	57	2m	
77	COMP			↑		
78-79	N 3379	10:45	+12:50	57	2m	
80	COMP			↑		
81	11183p 2435	11:18	+24:35	1	5m	
82	COMP			↑		
83	11235p 4426	11:23	+44:26	1	5m	* to E
84	COMP			↑		
85	11298p 0527	11:29	+05:27	1	10m	✓ LSB em!
86	COMP			↑		
87	11536p 1524	11:53	+15:24	1	10m	Wk em; comp to E also on slit
88	COMP			↑		weaker than other comps redone interactively

7:30 H6 Da Luna

60 inch Telescope Log

Observer: PB
 PI: Huchra & Kirshner & Geller

Spectrograph: FAST

Grating: 302

Page: 5343

Date: 4/13/87

Number	Object	R.A.	Dec.	L/R	Exp	Comments
89	12010p0840	12:01	+08:40	1	4m	em
90	COMP			↑		
91	12029p2839	12:02	+28:39	1	6m	wk em; v. blue
92	COMP			↑		
93	12101p4050	12:10	+40:50	1	10m	wk em
94	COMP			↑		
95	12184p3842	12:18	+38:42	1	10m	em
96	COMP			↑		
97	11179p5659EW	11:17	+56:59	1	7m	EW comps; bin by 2
98	COMP			↑		* on slit to far W
99	11113p6221	11:11	+62:21	1	10m	em
100	COMP			↑		
101	SN1997bg	10:17	+73:23	2	20m	bin by 2
102	COMP			↑		
103	Feige 34	10:36	+43:21	56	2m	
104	COMP			↑		
105	Z001629E	11:45	+15:58	60	6m	
106	Z001629W	11:45	+15:58	60	3m	
107	COMP			↑		
108	Z002046	11:45	+15:46	60	2m	W
109	Z004509	11:45	+19:46	60	3m	E
110	COMP			↑		
111	N00047	11:56	+50:25	60	5m	bin by 2; sup *; redo
112	COMP			↑		21cm = 909 km/s
113	Z001333N	11:57	+32:20	60	4m	em ++ HII
114	Z001333S	11:57	+32:20	60	6m	em +
115	Z001333M	11:57	+32:20	60	2m	em +
116	COMP			↑		
117	Z010966E	12:24	+01:12	60	10m	LSB wk em!
118	Z010966W	12:24	+01:12	60	6m	em also for #1 CFA

60 inch Telescope Log

Observer: PBPI: Geller/KirshnerSpectrograph: FASTGrating: 300RPage: 5344Date: 4/13/97

Number	Object	R.A.	Dec.	L/R	Exp	Comments
119	COMP			↑		
120	Z008251 EW	12:26	+09:01	60	5m	bin by 2; close pair
121	COMP			↑		
122	N001616	12:26	+12:28	60	10m	wk, 250 cents
123	COMP			↑		
124	A000678 N	12:27	+03:18	60	6m	em
125	A000678 S	12:27	+03:18	60	8m	
126	COMP			↑		
127	Z005123	12:31	+00:36	60	4m	
128	COMP			↑		
129	12155p0558	12:15	+05:58	1	8m	
130	COMP			↑		
131	1216Sp0622	12:16	+06:22	1	8m	
132	COMP			↑		
133	SN1997bp	12:46	-11:38	2	10m	bin by 2
134	COMP			↑		
135	SN1997br	13:20	-22:02	2	10m	bin by 2
136	COMP			↑		
137	N002096	12:32	+11:47	60	10m	em
138	COMP			↑		
139	A000007N	12:43	+11:34	60	2m	em
140	A000007S	12:43	+11:34	60	1m	
141	COMP			↑		
142	N002613 N	12:54	+05:20	60	6m	
143	N002613 S	12:54	+05:20	60	6m	em
144	COMP			↑		
145	Z005199 N	12:54	+02:38	60	4m	em +
146	Z005199 S	12:54	+02:38	60	4m	wk em
147	COMP			↑		

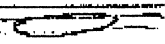
60 inch Telescope Log

Observer: PBPI: Wilkes/HudsonSpectrograph: FASTGrating: 3WLPage: 5345Date: 4/12/97

Number	Object	R.A.	Dec.	L/R	Exp	Comments
148	N002614E	12:55	+07:53	60	8m	em
149	N002614W	12:55	+07:53	60	8m	em
150	COMP			↑		
151	N4151	12:08	+39:41	6	30s	
152	COMP			↑		
153	MRK279	13:51	+69:33	6	2m	
154	COMP			↑		
155	N5548	14:15	+25:22	6	3m	
156	COMP			↑		
157	H244	13:21	+36:23	56	2m	
158	COMP			↑		
159	125525p252612	12:55	+25:26	25	10m	
160	COMP			↑		
161	125621p220648	12:56	+29:06	25	10m	
162	COMP			↑		
163	125756p270328	12:57	+27:03	25	11m	
164	COMP			↑		
165	125505p273827	12:55	+27:38	25	15m	em pix 2783
166	COMP			↑		
167	125511p282049	12:55	+28:20	25	10m	
168	COMP			↑		
169	130007p284228	13:00	+28:42	25	12m	
170	COMP			↑		
171	125459p253539	12:54	+25:35	25	10m	
172	COMP			↑		
173	125540p300412	12:55	+30:04	25	10m	Na @ 630
174	COMP			↑		
175	130034p273042	13:00	+27:30	25	12m	
176	COMP			↑		

60 inch Telescope Log

Observer: PBPI: Huchra/KoranyiSpectrograph: FASTGrating: 30RPage: 5346Date: 4/13/97

Number	Object	R.A.	Dec.	L/R	Exp	Comments
177	125835p21739	12:58	+27:17	2S	12m	
178	COMP			↑		
179	125946p282757	12:59	+28:27	2S	12m	
180	COMP			↑		
181	13315pos21	13:31	+08:21	1	4m	
182	COMP			↑		
183	14266p1310	14:26	+13:40	1	4m	
184	COMP			↑		
185	14316p0049	14:31	+0:49	1	3m	
186	COMP			↑		
187	awm3_01	14:28	+25:50	3S	2m	
188	awm3_04	14:28	+25:50	3S	2m	
189	COMP			↑		
190	awm3_02	14:28	+25:33	3S	5m	em
191	COMP			↑		
192	awm3_03	14:27	+25:30	3S	5m	
193	COMP			↑		
194	awm3_05	14:31	+25:29	3S	4m	wk; wken; yuck
195	COMP			↑		
196	awm3_06	14:28	+25:56	3S	3m	
197	COMP			↑		
198	awm3_07	14:28	+25:42	3S	6m	wken! = 
199	COMP			↑		
200	awm3_08	14:30	+25:30	3S	4m	
201	COMP			↑		
202	awm3_09	14:27	+25:50	3S	4m	great seeing
203	COMP			↑		
204-205	97BLG10	18:07	-27:52	2	7m	binby 2 MACHO
204	COMP			↑		fainter than yesterday!

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★ Start of FAST Run ★

60 inch Telescope Log
 Observer: P. Berlind
 PI: Wilkesy Kirshner
 Spectrograph: FAST
 Grating: 300, 3" slit, bin by 4
 Date: 4/28/97
 Page: 5401

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-20	BIAS			0	0s	
21-40	FLAT			0	6s	
41-50	BIAS			0	0s	bin by 2
51-60	FLAT			0	12s	bin by 2
61-65	sky	zenith		57	2s	
66	COMP			↑	6s	new HENEAR lamp
67-72	HDS2971	06:57		57	5s	
73	COMP			↑		
74-77	AGK2#3928			57	5s	
78	COMP			↑		clouds moving through
79-80	Fery34	10:36	+43:21	56	2m	
81	COMP			↑		
82-83	N3115	10:02	-07:28	57	3m	
84	COMP			↑		
85-86	N3377	10:45	+4:14	57	3m	
87	COMP			↑		
88	N4051	12:00	+44:48	6	6m	
89	COMP			↑		
90	N4258	12:16	+47:34	6	3m	
91	COMP			↑		
92	N4151	12:08	+37:41	6	40s	
93	COMP			↑		
94	MRK421	11:01	+38:28	6	5m	
95	COMP			↑		
96-97	Fery34	10:36	+43:21	56	2m	much nicer sky
98	COMP			↑		
99, 01	SN1977bg	10:17	+73:23	2	15m	bin by 2
100, 102	COMP			↑	12s	focus
103	IC19050503	12:19	+05:03	1	5m	
104	COMP			↑		

60 inch Telescope Log

Observer: PBPI: Geller & KirshnerSpectrograph: FASTGrating: 302Date: 4/28/97Page: 5402

Number	Object	R.A.	Dec.	L/R	Exp	Comments
105	12223p0702	12:22	+07:02	1	8m	
106	COMP			↑		
107	I3457	12:29	+12:58	1	10m	LSB
108	COMP			↑		
109	I3492E	12:30	+13:08	1	8m	there is no sup * ; pec
110	I3492W	12:30	+13:08	1	8m	
111	COMP			↑		
112	N00153S	12:32	+08:02	60	12m	LSB
113	COMP			↑		
114	Z004817N	12:33	+07:50	60	3m	N
115	Z0048137S	12:33	+07:50	60	5m	S
116	COMP			↑		
117	Z012876EW	12:34	+02:28	60	11m	bin by 2 E+W comps
118	COMP			↑		em W comp
119,121	SN9976p	12:46	-11:38	2	15m	bin by 2
120,122	COMP			↑		
123,125	SN9976r	13:20	-22:02	2	15m	bin by 2
124,126	COMP			↑		
127	SN9976r host	13:20	-22:02	2	12m	ESO 576-40 em
128	COMP			↑		
129	Z000300S	12:36	+11:14	60	2m	em
130	Z000300N	12:36	+11:14	60	3m	em
131	COMP			↑		
132	N00201	12:40	+08:10	60	10m	S comp
133	COMP			↑		
134	Z006164	12:35	-0:12	60	4m	em tt
135	Z006164	12:35	-0:12	60	10m	wh em
136	COMP			↑		
137	Z009383S	12:42	+01:20	60	8m	em; HI region em also @ row 51
138	Z009383N	12:42	+01:20	60	5m	

60 inch Telescope Log

Observer: PBPI: GretterSpectrograph: FASTGrating: 302Date: 4/28/97Page: 5103

Number	Object	R.A.	Dec.	L/R	Exp	Comments
139	COMP			↑		
140	ZO11110S	12:43	+07:33	60	5m	
141	ZO11110N	12:43	+07:33	60	5m	em
142	COMP			↑		
143	ZO11679 N	12:40	+26:31	60	5m	em +
144	ZO11679 S	12:40	+26:31	60	6m	
145	ZO11679 W	12:40	+26:31	60	5m	
146	COMP			↑		
147	B5006162	12:32	+12:46	60	7m	VLSB - nothing - shadow
148	COMP			↑		
149	N5596	14:45	+28:22	6	3m	
150	COMP			↑		clouds
151	MRK279	13:51	+69:33	6	2m	
152	COMP			↑		
153-S4	B2p33062	15:50	+33:05	56	1m	
155	COMP			↑		circus
156	Z008103	13:60	+28:21	60	4m	
157	COMP			↑		
158	Z007575W	13:01	+48:03	60	5m	em +
159	Z007575E	13:01	+48:03	60	5m	em +
160	COMP			↑		
161	Z008104	13:01	+27:48	60	3m	
162	COMP			↑		
163	Z004008	13:01	+27:50	60	3m	
164	COMP			↑		increasing clouds
165	Z004616N	13:01	+29:02	60	5m	seemy worse
166	Z004616S	13:01	+29:02	60	6m	
167	COMP			↑		
168	Z013204E	13:55	+11:21	60	6m	
169	Z013204W	13:55	+11:21	60	9m	

60 inch Telescope Log
 Observer: PJ
 PI: Geller/Hoch
 Spectrograph: FAST
 Grating: 3M
 Date: 4/28/97
 Page: 5404

Number	Object	R.A.	Dec.	L/R	Exp	Comments
170	COMP			↑		
171	Z013582S	13:55	+12:01	60	4m	
172	Z013582N			60	3m	
173	COMP			↑		
174	Z00489N	13:56	+17:30	60	4m	
175	Z00489S	13:56	+17:30	60	6m	em!
176	COMP			↑		
177	A000476	13:57	+28:47	60	8m	em +
178	COMP			↑		
179	Z004637	13:58	+07:27	60	8m	em
180	COMP			↑		
181	15049 p0050	15:01	+10:50	1	6m	em
182	COMP			↑		
183	15328 p0718	15:32	+07:18	1	8m	em
184	COMP			↑		
185	15558 p0435	15:32	+04:35	1	8m	± on slit
186	COMP			↑		more clouds
187	16282 p0608	16:28	+06:08	1	10m	
188	COMP			↑		
189	N001322S	16:01	+15:38	60	4m	
190	N001322N	16:01	+15:38	60	8m	wk em
191	COMP			↑		
192	Z013446	16:02	+15:53	60	8m	em
193	COMP			↓		
194	Z00969S	16:02	+15:55	60	4m	circus all over & down
195	Z00969N	16:02	+15:55	60	4m	
196	Z005329	16:02	+15:58	60	4m	
197	COMP			↑		
198	Z01145Z	16:02	+16:25	60	5m	redo
199	COMP			↑		

200-209 BIAS 0 0s
 210-219 FLAT 0 6s
 220-229 IDEAS 0 0s
 230-239 FLAT 0 12s
 240-249 DARK 0 15m

bin 2
bin 2

Fax to Susan Tokarz
pgy 1 of 6

60 inch Telescope Log

Observer: P BerlinPI: AllSpectrograph: FASTGrating: 300L, 35 slit; bin by 4Page: 5405Date: 4/29/97

Number	Object	R.A.	Dec.	L/R	EXP	Comments
1-10	BIAS			0	0s	
11-20	FLAT			0	6s	
21-30	BIAS			0	0s	bin by 2
31-40	FLAT			0	12s	bin by 2
41-45	sky	zenith		57	2s	
46	COMP			↑	5s	
47-49	HD 71155	06:25	-63:54	57	1s	some thin clouds around
50	COMP			↑		
51-53	HD 74280	08:47	+03:23	57	1s	
54	COMP			↑		
59-63	HD 52971	06:57	+21:13	57	5s	
64	COMP			↑		
65-66	Foige 34	10:36	+4:3	57	1m	
67	COMP			↑		
68	N 4151	12:08	+39:41	6	30s	
69	COMP			↑		
70	N 4258	12:06	+47:34	6	2m	used 71 m comp. ^{even though} possible not ^{arent}
71	COMP	10:45	+12:50	↑		because very dim comp
72-73	N 3579	10:45	+12:34	57	2m	
74	COMP			↑		
75-76	HD 62910	07:44	-37:54	57	1m	
77	COMP			↑		
78-79	HD 65565	07:59	-28:44	57	90s	
80	COMP			↑		
81	13024 p 2518	13:02	+05:48	1	4m	
82	COMP			↑		
83	12367 p 042E	12:36	+01:42	1	8m	
84	12367 p 042W	12:36	+01:42	1	9m	
85	COMP			↑		

55-57. HD 62285

58 comp

60 inch Telescope Log			Spectrograph: <u>FAST</u>		Page: <u>5406</u>	
Observer: <u>PB</u>			Grating: <u>3002</u>			
PI: <u>Kirshner/Huchra/Boller</u>			Date: <u>4/29/97</u>			
Number	Object	R.A.	Dec.	L/R	Exp	Comments
86	SN 1997bn	08:19	+21:11	2	20m	bin by 2
87	COMP			↑		
88	SN. Ab 128	11:22	+01:11	2	20m	bin by 2
89	COMP			↑		
90	11064 p 1828	11:06	+48:28	1	8m	LSB - em!
91	COMP			↑		bin by 2; nearby *
92	11179 p 311	11:17	+63:41	1	10m	em
93	COMP			↑		
94	11180 p 69:44	11:18	+69:44	1	6m	
95	COMP			↑		
96	11184 p 69:34	11:18	+69:34	1	5m	
97	COMP			↑		
98	11210 p 5805	11:21	+58:05	1	5m	
99	COMP			↑		
100, 102	SN 1997cb	11:03	+78:54	2	20m	
101, 103	COMP			↑		
104-106	HE 44	13:21	+36:23	SG	90s	
106	COMP			↑		
107	Z007392E	13:02	+27:38	60	3m	
108	Z007392W	13:02	+27:38	60	4m	
109	COMP			↑		
110	Z013786	13:02	+28:12	60	5m	em
111	Z008585S	13:02	+28:13	60	3m	
112	Z008585N	13:02	+28:13	60	5m	
113	COMP			↑		
114	Z004121E	13:02	+50:26	60	4m	nice spectra! WKA emission
115	Z004121W	13:02	+50:26	60	7m	em
116	COMP			↑		
117	Z00 916	13:02	+28:02	60	3m	
118	COMP			↑		

60 inch Telescope Log

Observer: PBPI: Kirshner/Huchra/Geller/WilkosSpectrograph: FASTGrating: 30RPage: 5407Date: 4/29/97

Number	Object	R.A.	Dec.	L/R	Exp	Comments
119	SN1997by	13:27	-27:18	2	20m	Abell 1736 cD host
120	COMP			↑		
121	12593p0541	12:59	+05:41	1	10m	
122	COMP			↑		
123	12593p0516	12:59	+05:16	1	10m	
124	COMP			↑		
125	13301p0107	13:30	+01:07	1	6m	
126	COMP			↑		
127	Z013038	13:04	+03:45	60	5m	
128	COMP			↑		
129	N002617N	13:05	+07:35	60	5m	
130	N002617S	13:05	+07:35	60	9m	em
131	COMP			↑		
132	Z011124E	13:13	+06:57	60	3m	
133	Z011124W	13:13	+06:57	60	3m	em
134	COMP			↑		
135	B000163N	13:14	+10:01	60	6m	em
136	B000163S	13:14	+10:01	60	6m	em
137	COMP			↑		
138	Z009687	13:15	+12:53	60	6m	em
139	COMP			↑		
140	Z013763E	13:07	+26:43	60	3m	
141	Z013763W	13:07	+26:43	60	3m	em
142	COMP			↑		
143	N5548	14:15	+25:22	6	3m	
144	COMP			↑		
145	MRK219	13:51	+67:33	6	2m	
146	COMP			↑		
147	1310p0502	13:10	+50:50	1	5m	
148	COMP			↑		

60 Inch Telescope Log

Observer: PBPI: GellerSpectrograph: FASTGrating: 302Page: 5408Date: 4/29/97

Number	Object	R.A.	Dec.	L/R	Exp	Comments
149	13226p4356	13:22	+43:56	1	12m	
150	COMP			↑		
151	A000929	13:17	+20:35	60	4m	em
152	Z011553N	13:17	+20:36	60	3m	
153	Z011553S	13:17	+20:36	60	5m	
154	COMP			↑		
155	Z006314E	13:20	+33:08	60	3m	
156	Z006314W	13:20	+33:08	60	3m	
157	COMP			↑		
158	Z005357N	13:21	+22:25	60	9m	
159	Z005357S	13:21	+22:25	60	3m	
160	COMP			↑		circus clouds
161	Z006138N	13:48	+45:25	60	4m	em+
162	Z006138S	13:48	+45:25	60	4m	em
163	COMP			↑		
164	N002229E	13:48	+25:43	60	3m	
165	N002229W	13:48	+25:43	60	4m	
166	COMP			↑		
167	Z005360N	13:50	+21:57	60	3m	
168	Z005360S	13:50	+21:57	60	4m	
169	COMP			↑		
170	N002299	13:50	+24:40	60	5m	very LSB + large; redder than
171	COMP			↑		
172	Z008679E	13:44	+37:09	60	4m	em
173	Z008679W	13:44	+37:09	60	3m	
174	COMP			↑		stellar nucleus
175	Z002705	13:54	+33:35	60	2m	pec; strong H abs !!
176	Z002705N	13:54	+33:35	60	7m	em
177	COMP			↑		

60 inch Telescope Log		Spectrograph: <u>FAST</u>		Page: <u>5409</u>		
Observer: <u>PB</u>		Grating: <u>30R</u>				
PI: <u>Geller</u>		Date: <u>4/25/97</u>				
Number	Object	R.A.	Dec.	L/R	Exp	Comments
178	Z01379	13:54	+30:53	60	4m	
179	COMP			T		
180	MRK501	16:53	+39:45	6	6m	
181	COMP			T		
182	NG675N	16:28	+40:45	1	4m	
183	NG675S	16:26	+40:45	1	4m	
184	COMP			T		
185	Z01145Z	16:02	+16:25	60	8m	
186	COMP			T		
187	Z00347N	16:02	+16:20	60	3m	
188	Z00347S	16:02	+16:20	60	3m	
189	COMP			T		
190	AC00909	16:02	+16:07	60	3m	
191	COMP			T		
192	N001341	16:03	+25:04	60	3m	
193	COMP			T		
194	Z003418	16:04	+17:45	60	4m	
195	Z003418	16:04	+17:45	60	4m	
196	COMP			T		
197	Z013450	16:04	+16:28	60	4m	
198	COMP			T		
199	Z009860	16:04	+16:54	60	3m	
200	COMP			T		
201	ZC390.3	18:45	+78:43	6	6m	
202	COMP			T		
203-205	CIC 888	19:50	+95:41	12	2m, 20m, 2m	
206	COMP			T		
207-211	HDFR2281	20:10	+10:07	56	5s	
212	COMP			T		
213-215	HDF68461	18:20	-72:10	57	10s	

Cirrus all over 2 diam

*FAST to Susan Takatz
pg 1 of 6*

60 inch Telescope Log

Observer: P Berlin
PI: AM

Spectrograph: FAST

Grating: 30L

Date: 4/30/97

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Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	BIAS			0	0s	
11-20	FLAT			0	6s	
21-30	BIAS			0	0s	
31-40	FLAT			0	12s	scattered clouds to W
41-45	sky			57	2s	
46	COMP			↑		
47-49	HD50019	06:52	+33:57	57	1s	
50	COMP			↑		
51-53	HD52971	06:57	+07:13	57	1s	
54	COMP			↑		
55-57	HD 48099	06:41	+06:21	57	5s	
58	COMP			↑		
59-61	HD 48134	06:43	+03:55	57	5s	
62	COMP			↑		
63-65	HD 46119	06:38	+05:04	57	5s	
66	COMP			↑		
67-69	HD 46485	06:33	+04:31	57	5s	
70	COMP			↑		
71-73	HD 48434	06:43	+03:55	57	5s	
74	COMP			↑		
75-76	Feige 34	10:36	+4:3	56	1m	
77	COMP			↑		
78	N4151	12:06	+79:41	6	30s	
79	COMP			↑		
80	N4051	12:00	+40:18	6	2m	
81	COMP			↑		
82	N4258	12:16	+47:34	6	2m	
83	COMP			↑		
84-85	N4486B	12:30	+12:29	57	4m	
86	COMP			↑		

60 inch Telescope Log

Observer: PB

PI: Andy

Spectrograph: FAST

Grating: 30R

Date: 4/30/97

Page: 5412

Number	Object	R.A.	Dec.	L/R	Exp	Comments
87	11210 p 5805	11:121	+58:05	1	8m	
88	COMP			↑		
89	11335 p 6323	11:33	+63:23	1	3m	
90	COMP			↑		
91	11330 p 6346	11:33	+63:46	1	3m	
92	COMP			↑		
93,95	SN1997bg	10:17	+78:23	2	15m	
94,96	COMP			↑		
97	r 044.G.08	11:43	+33:25	S9	3m	
98	r 044.G.09	11:43	+33:25	S9	3m	
99	COMP			↑		
100	r 044.G.11	11:44	+33:32	S9	3m	
101	r 044.G.13	11:44	+33:28	S9	3m	
102	COMP			↑		
103	r 044.G.14	11:44	+33:21	S9	6m	em
104	COMP			↑		
105	r 044.G.15	11:44	+32:50	S9	7m	
106	r 044.G.16	11:44	+33:03	S9	7m	em
107	COMP			↑		
108	r 044.G.17	11:44	+33:29	S9	4m	
109	r 044.G.18	11:44	+33:48	S9	6m	
110	COMP			↑		
111	r 044.G.19	11:45	+33:20	S9	3m	
112	r 044.G.20	11:45	+33:09	S9	7m	
113	COMP			↑		
114	r 044.G.21	11:45	+34:02	S9	7m	
115	r 044.G.22	11:45	F44.00	S9	7m	H α @ 7520 A (?)
116	COMP			↑		
117	r 044.G.23	11:45	+33:12	S9	6m	em
118	COMP			↑		

60 inch Telescope Log

Observer: PB

PI: Andy

Spectrograph: F16T

Grating: 300L

Date: 4/30/97

Page: 5413

Number	Object	R. A.	Dec.	L/R	Exp	Comments
119	1044. G. 27	11:47	+33:47	S9	3m	em +
120	COMP			↑		
121	1044. G. 28	11:47	+33:56	S9	3m	
122	1044. G. 26	11:47	+33:09	S9	4m	
123	COMP			↑		
124, 126	SN 1997br	13:20	-22:02	2	15m	
125, 127	COMP			↑		
128, 130	SN 1997by	13:07	-21:19	2	15m	
129, 131	COMP			↑		
132	H244	13:23	+8:04	S6	2m	
133	COMP			↑		
134	1044. G. 25	11:47	+33:00	S9	5m	
135	COMP			↑		
136	1044. G. 24	11:46	+33:43	S9	12m	em
137	COMP			↑		
138	1044. G. 30	11:47	+33:19	S9	8m	em
139	COMP			↑		
140	1044. G. 31	11:48	+33:27	S9	6m	
141	COMP			↑		
142	1085 G. 01	13:30	+31:54	S9	5m	
143	1085 G. 02	13:30	+31:38	S9	4m	
144	COMP			↑		
145	1085 G. 03	13:31	+31:32	S9	5m	
146	1085 G. 04	13:31	+31:32	S9	3m	
147	COMP			↑		
148	MRX 279	13:51	+69:33	6	2m	
149	COMP			↑		
150	N000221	14:28	+13:46	60	12m	em
151	COMP			↑		

60 inch Telescope Log

Observer: PB
 PI: Andy S Den

Spectrograph: FAST

Grating: 300L

Date: 4/30/97

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Number	Object	R. A.	Dec.	L/R	Exp	Comments
152	N5548	14:15	+25:22	6	3m	
153	COMP			↑		
154	1085 Cl. 05EJ	13:31	+34:03	59	8m	bin by 2 emb both camps
155	COMP			↑		
156	1085 Cl. 06	13:32	+33:30	59	3m	
157	1085 Cl. 07	13:32	+34:09	59	4m	em
158	COMP			↑		
159	1085 Cl. 08	13:33	+33:52	59	3m	
160	1085 Cl. 09	13:33	+33:49	59	3m	
161	COMP			↑		
162	1085 Cl. 10	13:34	+34:45	59	4m	
163	1085 Cl. 11	13:34	+33:57	59	4m	em
164	COMP			↓		
165	1085 Cl. 12	13:34	+34:11	59	4m	
166	1085 Cl. 13	13:34	+34:55	59	2m	
167	1085 Cl. 14	13:34	+33:41	59	3m	wind picking up
168	COMP			↑		
169	awm3-10	14:26	+26:11	35	3m	
170	awm3-12	14:26	+25:43	35	4m	
171	COMP			↑		
172	awm3-11	14:28	+26:01	35	2m	
173	awm3-13	14:28	+25:44	35	5m	ok
174	COMP			↑		
175	awm3-14	14:25	+25:22	35	6m	em
176	awm3-15	14:26	+25:28	35	5m	
177	COMP			↑		
178	awm3-16	14:27	+25:53	35	5m	em
179	awm3-17	14:28	+25:49	35	4m	
180	COMP			↑		
181	awm3-18	14:29	+26:03	35	5m	

60 inch Telescope Log

Observer: PBSpectrograph: FASTGrating: 3002Page: 5415PI: Koranyi & GellerDate: 4/30/97

Number	Object	R.A.	Dec.	L/R	Exp	Comments
182	awm3-19	14:28	+25:49	35	5m	100cents-wk
183	COMP			↑		
184	awm3-20	14:25	+25:15	35	3m	
185	awm3-21	14:26	+25:24	35	5m	
186	COMP			↑		
187	awm3-22	14:30	+25:38	35	5m	Seemg worse
188	COMP			↑		
189	awm3-23	14:27	+25:27	35	12m	em
190	COMP			↑		
191	awm3-24	14:28	+25:32	35	10m	em
192	COMP			↑		
193	awm3-25	14:25	+25:46	35	10m	
194	awm3-26	14:27	+25:28	35	8m	em
195	COMP			↑		
196	160343 p164242	16:03	+16:42	25	11m	for Pauline wk on sbt
197	COMP			↑		em
198	160346 p16535	16:03	+16:18	25	11m	"
199	COMP			↑		poor seeing
200	2005330N	16:04	+17:13	60	3m	
201	2005330S	16:04	+17:13	60	4m	
202	2005330S	16:04	+17:43	60	4m	
203	COMP			↑		
204	2011455N	16:05	+17:46	60	3m	
205	2011455E	16:05	+17:46	60	3m	
206	2011455S	16:05	+17:46	60	3m	
207	COMP			↑		
208	MRK509	20:41	-10:54	6	3m	
209	COMP			↑		
210-212	Clayton	19:50	+35:41	12	2m, 20s, 2s	
213	COMP			↑		

