

60 inch Telescope Log

Observer:

P. Barlow

Spectrograph: FAST

Grating: 300L, 3" bnb⁴

Page: 3763

PI:

Huchra/Dikes/Woates

Date: 6/1/95

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	RSBS			0	0s	mostly clear
11-20	FLAT			0	6s	moon
21-25	sky	zenith		0	2s	
26	COMP			↑	10s	
27-31	PGK2PH3928	09:49:20	+13:47:07	0	10s	
32	COMP			↑		
33	N4486B	12:28:00	+12:45:59	0	5m	
34	COMP			↑		
35	N4151	1208:01	+39:41:02	6	30s	
36	COMP			↑		
37	Feige 34	10:36:46.1	+43:28:50	6	1m	
38	COMP			↑		
39	MPK421	11:21:40.6	+38:28:43	6	2m	
40	COMP			↑		
41	11179p0424	11:20:30.5	+04:08:27	1	5m	
42	COMP			↑		
43	11187p0357	11:21:18	+03:41:29	1	5m	
44	COMP			↑		
45	11188p0343	11:21:24.8	+03:27:29	1	10m	hr
46	COMP			↑		
47,49	11201p0417	11:27:43.6	+07:38:31	1	10m	x2
48,50	COMP			↑		
51	I2830	11:27:25.6	+07:49:31	1	10m	
52	COMP			↑		
53	I2758	11:27:01.7	+07:49:30	1	4m	* w of gal on slit
54	COMP			↑		
55	11238p0312	11:26:24.8	+02:58:31	1	10m	clouds outside to W
56	COMP			↑		
57	11256p0417	11:28:13.7	+08:01:31	1	10m	
58	COMP			↑		

60 inch Telescope Log				Spectrograph: <u>FAST</u>		Page: <u>3764</u>
Observer: <u>P. Berlin</u>				Grating: <u>300L</u>		
PI: <u>Huchra/Geller</u>				Date: <u>6/1/95</u>		
Number	Object	R.A.	Dec.	L/R	Exp	Comments
59	11278p0443	11:30:25	+04:27:31	1	10m	main set Ha
60	COMP			↑		
61	11353p0547	11:37:55	+05:31:31	1	10m	Ha
62	COMP			↑		
63	11343p0424	11:36:54.9	+04:08:31	1	10m	Ha
64	COMP			↑		
65	327.035184	15:04:15.83	+28:28:39.2	3	5m	
66	COMP			↑		
67	327.035502	15:03:40.6	+28:28:30.5	3	7m	get on slit to W w/ Ha
68	COMP			↑		now comp is AGN/ Seyfert
69	327.035765	15:04:16.1	+28:34:01.2	3	5m	emission lines big time
70	COMP			↑		
71	327.035924C	15:04:14	+28:29:45.3	3	10m	comp on slit to E; Ha
72	327.035924A	15:04:18.11	+28:29:40.6	3	5m	comp on slit to W same object
73	327.035926	15:04:18.5	+28:30:27.9	3	5m	
74	COMP			↑		
75	327.035931	15:03:14.73	+28:34:27	3	10m	
76	COMP			↑		
77	327.035936N	15:04:10.93	+28:30:26.5	3	5m	north east comp
78	327.035936S	"	"	3	5m	-star
79	COMP			↑		
80	327.036213	15:04:07.39	+28:31:06.7	3	3m	
81	COMP			↑		
82	327.036267	15:03:53.53	+28:31:28.6	3	5m	
83	COMP			↑		
84	327.036387	15:26:23.12	+28:32:28.5	3	5m	
85	COMP			↑		
86	327.036741	15:04:32.18	+28:33:26.7	3	5m	
87	COMP			↑		
88	327.037113	15:25:16.77	+28:36:21.2	3	5m	

60 inch Telescope Log		Spectrograph: <u>FAST</u>		Page: <u>3765</u>		
Observer: <u>P. Berland</u>		Grating: <u>3002</u>				
PI: <u>Geller</u>		Date: <u>6/1/85</u>				
Number	Object	R.A.	Dec.	L/R	Exp	Comments
89	COMP			↑		Scamp 2'
90	327.057599	15-05-1581	+28-36-552	3	4m	
91	COMP			↑		
92	327.057795	15-23-36.9	+28-38-325	3	5m	
93	COMP			↑		
94	327.059184	15-02-4734	+28-41-86	3	5m	Hm
95	COMP			↑		
96	327.039536	15-14-36.75	+28-45-534	3	5m	* on slit to W
97	COMP			↑		
98	327.039778	15-03-3094	+28-44-113	3	5m	
99	COMP			↑		
100	327.040177	15-20-06.9	+28-47-115	3	5m	
101	COMP			↑		
102	327.042918N	15-27-45.2	+28-56-471	3	3m	
103	COMP			↑		
104	327.056650	15-24-0753	+29-53-177	3	5m	
105	COMP			↑		
106	327.059306	15-18-55.14	+30-27.5	3	5m	
107	COMP			↑		
108	327.059746	15-09-4702	+30-08-025	3	5m	
109	COMP			↑		
110	327.060308	15-18-50.06	+30-11-055	3	5m	
111	COMP			↑		
112	327.060350	15-24-17.96	+30-10-28.5	3	5m	
113	COMP			↑		
114	327.060938	15-30-0889	+30-11-114	3	5m	
115	COMP			↑		
116	327.061477	15-09-05.4	+30-15-26.4	3	5m	
117	COMP			↑		
118	327.061521	15-09-1543	+30-15-379	3	7m	

60 inch Telescope Log

Observer: P. BerlindPI: Geller/HuchraSpectrograph: FASTGrating: 300RPage: 3766Date: 6/1/95

Number	Object	R.A.	Dec.	L/R	Exp	Comments
119	COMP			↑		poor seeing
120	327.062728	15:19:13.61	+30:21:36	3	5m	
121	COMP			↑		
122	327.063119	15:28:20.16	+30:21:16.3	3	5m	
123	COMP			↑		
124	327.064661	15:28:25.09	+30:28:25.7	3	5m	stars on slit to E
125	COMP			↑		
126	327.065520	15:25:12.93	+30:33:4.3	3	5m	
127	COMP			↑		
128	327.066764	15:16:51.95	+30:31:48.7	3	5m	
129	COMP			↑		
130	327.067101	15:26:06.04	+30:39:30	3	10m	
131	COMP			↑		
132	RX16381p7325A	16:38:05.3	+73:25:36.8	1	5m	
133	RX16381p7325C	"	"	1	5m	0-0 (all C)
134	COMP			↑		
135	RX16381p7325D	"	"	1	5m	(all D)
136	RX17024p7837	17:02:25.7	+76:37:25.7	1	15m	
137	COMP			↑		not photometric
138	3C7903	18:45:37.6	+71:43:06	6	5m	
139	COMP			↑		
140	PG17086p602	17:08:35.9	+61:15:52	6	3m	
141	COMP			↑		
142	RX17114p4145	17:49:24.7	+42:45:38.7	1	4m	
143	COMP			↑		
144	RX17572p7033A	17:57:11	+70:33:26.3	1	4m	delay @ 48"
145	RX17572p7033B	17:57:14	+70:33:26.3	1	15m	B+C B=E; C=W
146	COMP			↑		
147	NEP 3530E	17:56:43.7	+64:38:53	1	4m	
148	COMP			↑		

60 inch Telescope Log
 Observer: P. Barford
 PI: Hucha

Spectrograph: FAST
 Grating: 3W
 Date: 6/1/95

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Number	Object	R.A.	Dec.	L/R	Exp	Comments
149	NEP 360 B	18-01-13.1	+64-55-32	I	10m	
150	COMP			↑		
151, 152	N7331	22-34-46.9	+31-09-43	O	2m	nucleus
153	COMP			↑		
154-158	HD 198958	20-49-50	+47-31-07	O	4s	
159	COMP			↑		
160-169	BIAS			O	0s	
170-179	FLAT			O	6s	
180-R3	DARK			O	15m	

60 inch Telescope Log

Observer: P. BarthelPI: Huchra/WilkesSpectrograph: FASGrating: 300LPage: 3768Date: 6/2/95

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	BIAS			0	0	clouds to N+W
11-20	FLAT			0	6s	
21-25	sky			0	2s	
26	COMP			↑		
27-30	AS1K2p43928	09:49:20	+43:47:07	0	5s	
31	COMP			↑		
32-33	N3379	10:45:14	+12:50:48	0	3m	
34	COMP			↑		
35	N4466B	12:28:00	+12:45:59	0	5m	
36	COMP			↑		
37	H244	13:21:42	+36:23:38	6	2m	
38	COMP			↑		
39	N5548	14:15:43	+29:22:09	6	2m	
40	COMP			↑		
41	11285p0325	11:31:06.8	+03:09:32	1	5m	H α
42	COMP			↑		
43	11280p0401	11:30:36.9	+03:45:32	1	5m	H α
44	COMP			↑		
45	11289p0621	11:31:31.3	+06:05:32	1	5m	star on slit to W H α
46	COMP			↑		
47	11287p0456	11:31:19.1	+04:40:32	1	5m	H α
48	COMP			↑		
49	11288p0527	11:32:25.2	+05:11:31	1	7m	H α
50	COMP			↑		
51	11304p0206	11:33:00.7	+01:50:32	1	10m	H α
52	COMP			↑		
53	11369p0345	11:39:30.8	+03:29:31	1	5m	H α
54	COMP			↑		
55	11369p0602	11:39:31.3	+07:46:31	1	5m	H α
56	COMP			↑		

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Number	Object	R.A.	Dec.	L/R	Exp	Comments
57	11382p0525	11:40:56.5	+09:09:31		7m	*That's all of the 11 hour load dec
58	COMP			↑		objects
59	13034p0413	13:05:56.7	+03:54:00		5m	H _α
60	COMP			↑		
61	13043p0443	13:06:47.2	+07:28:35		5m	what?!! no H _α ?
62	COMP			↑		
63	N4991	13:09:12.9	+02:22:40		5m	H _α
64	COMP			↑		thru cloud
65	13062p0452	13:08:42.1	+04:37:39		5m	H _α
66	COMP			↑		
67	13072p0244	13:09:42.7	+02:21:41		5m	H _α
68	COMP			↑		
69	13070p0513	13:09:29.9	+04:58:41		4m	
70	COMP			↑		
71	13040p5929	13:06:02.2	+59:14:35		5m	H _α
72	COMP			↑		
73	13076p5933	13:09:34.3	+59:18:42		4m	moon set
74	COMP			↑		
75	N4998	13:08:08.1	+50:41:39		5m	H _α
76	COMP			↑		
77	D89	12:58:56.3	+27:50:16		10m	rotated to position 42; for 11/10/95
78	COMP			↑		
79	327.067267	15:29:03.7	+30:34:32.7	3	5m	
80	COMP			↑		
81	327.067426	15:10:06.28	+30:42:12.9	3	5m	
82	COMP			↑		
83	327.067431	15:18:01.05	+30:42:41.4	3	7m	
84	COMP			↑		
85	327.068652	15:01:54.49	+30:45:25.2	3	7m	
86	COMP			↑		

NOT
Reduced

CAN NOT read file 77

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60 inch Telescope Log

Observer: P. BerlandPI: GellarSpectrograph: FASTGrating: 300LDate: 6/2/95Page: 3710

Number	Object	R.A.	Dec.	L/R	Exp	Comments
→ 97	327.068714	15:27:49.2	+30:46:39.8	3	7m	out of order weak ^{to} _{best}
98	COMP			↑		skipped catalog #
→ 97	327.068751	15:29:03.9	+30:46:18.7	3	7m	long power outage ~ 34min
98	COMP			↑		
99	327.069321	15:27:04.4	+30:49:23.2	3	5m	
90	COMP			↑		
91	327.071764	15:14:31.8	+31:01:49.2	3	5m	
92	COMP			↑		
93	327.072882	15:01:57.2	+31:04:21.9	3	7m	H+
94	COMP			↑		
95	327.073604	15:03:17.6	+31:08:11.2	3	7m	no chart -oops
96	COMP			↑		object came up on slit
→ 99	327.074522	15:10:40.5	+31:14:08.7	3	7m	
100	COMP			↑		
101	327.075011	15:15:09.3	+31:16:46.2	3	7m	
102	COMP			↑		
103	327.075027	15:06:21.2	+31:15:21.6	3	5m	
104	COMP			↑		
105	327.076057	15:15:28.8	+31:21:31.7	3	5m	
106	COMP			↑		
107	327.076231	15:19:59.5	+31:22:10.7	3	5m	
108	COMP			↑		
109	327.076845	15:16:11.5	+31:25:34	3	4m	
110	COMP			↑		
111	327.082118	15:11:46.4	+31:56:26.5	3	5m	
112	COMP			↑		
113	327.083468	15:13:36.1	+31:52:30.4	3	5m	
114	COMP			↑		
115	327.083838	15:21:50.2	+31:58:03.4	3	5m	H+
116	COMP			↑		

60 inch Telescope Log		Spectrograph: <u>FAST</u>				Page: <u>3771</u>
Observer: <u>P. Berlind</u>		Grating: <u>300R</u>				
PI: <u>Geller/Huehner</u>		Date: <u>6/2/95</u>				
Number	Object	R.A.	Dec.	L/R	Exp	Comments
117	327.084365	15:20:13.82	+32:40:30.1	3	5m	
118	COMP			↑		humidity ↑↑
119	327.085484	15:25:47.6	+32:04:32	3	5m	seems pretty clear
120	COMP			↑		seems 2"
121	327.086332	15:22:43.1	+32:04:55.9	3	7m	
122	COMP			↑		
123	327.086490	15:24:26.6	+32:05:16.4	3	5m	
124	COMP			↑		
125	327.086497	15:02:14.1	+32:07:26	3	5m	
126	COMP			↑		
127	327.086925	15:03:41.4	+32:18:51.6	3	5m	
128	COMP			↑		
129	327.089913	15:23:41.5	+32:24:16	3	5m	finishes the plate!
130	COMP			↑		
131	16098p5234	16:11:04	+52:27.9	1	5m	
132	16101p5235	16:11:23.7	+52:27.35	1	4m	
133	COMP			↑		
134	16107p2825B	16:10:42	+28:35.0	1	10m	for Abnrogren; Comp to -
135	COMP			↑		cca galaxy -off
136	17391p5919	17:39:47.7	+51:17:30.35	1	5m	
137	COMP			↑		
138	17372p5710	17:38:02	+51:06:21.9	1	5m	H+
139	COMP			↑		
140	17421p5850	17:42:45.7	+58:48.13	1	10m	H+
141	COMP			↑		
142	17429p6250	17:43:17	+62:48.46	1	5m	*burst
143	COMP			↑		
144	17448p6634	17:44:48	+66:32.53	1	5m	
145	COMP			↑		
146	17491p5938	17:49:45.9	+59:37:13.9	1	10m	

60 inch Telescope Log		Spectrograph: <u>EAST</u>		Page: <u>3772</u>		
Observer: <u>P. Berford</u>		Grating: <u>3002</u>		Date: <u>6/2/95</u>		
PI: <u>Huchra</u>						
Number	Object	R.A.	Dec.	L/R	Exp	Comments
147	COMP			↑		
148	17473 p6141S	17:47:48	+61:40:05	1	7m	South Comp Ha
149	17473 p6141N	17:47:48	+61:40:05	1	7m	North Ha
150	COMP			↑		
151	17469 p5926	17:47:369	+59:25:04	1	4m	Ha
152	COMP			↑		
153	17454 p6447	17:45:363	+64:45:56	1	4m	star on slit to W
154	COMP			↑		
155	N6516	17:55:126	+62:57:38	1	3m	
156	COMP			↑		
157	N6597	18:11:14.56	+61:10:48	1	3m	star on slit to W
158	COMP			↑		sky getting brighter
159	3C3903	18:45:376	+79:43:06	6	5m	
160	COMP			↑		murky but clear
161	PG1708 p602	17:08:355	+60:13:52	6	3m	high humidity
162	COMP			↑		
163-167	AGK2 p24	17:01:06	+24:55:05	0	10s	
168	COMP			↑		
169-173	HP19858	20:49:50	+47:30:07	0	4s	
174	COMP			↑		
175-184	BIAS			0	0s	
185-194	FLAT			0	6s	
195-FIX	DARK			0	15m	

Spectrograph out of focus from 158 on →
to end of night

60 inch Telescope Log		Spectrograph: <u>FAST</u>				Page: <u>3773</u>
Observer: <u>P. Berthel</u>		Grating: <u>300R</u>				Date: <u>6/3/95</u>
PI: <u>Huchra</u>						
Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	BIAS			0	0s	
11-20	FLAT			0	5s	clear!
21-25	sky			0	2s	bright moon
26	COMP			0	10s	
27-31	AGK2p4928			0	10s	
32	COMP			↑		DELAY @ 48"
33	N4486B	12:28:00	+24:59	0	5m	
34	COMP			↑		
35	10071p4713	10:10:13.3	+46:56:24		5m	
36	COMP			↑		
37	10080p4710	10:11:07.1	+46:55:23		3m	
38	COMP			↑		
39	10091p4633	10:12:08.35	+46:17:245		5m	HK
40	COMP			↑		
41	10129p4913	10:16:02.1	+48:58:15		6m	
42	COMP			↑		Pause to re-focus fast
43	10110p5023	10:14:10.1	+50:08:18		5m	Na-Fe-1080 HK
44	COMP			↑		
45	10493p4957	10:52:16.6	+49:41:57		5m	
46	COMP			↑		
47	10498p4952	10:52:16.6	+49:41:77		3m	
48	COMP			↑		
49	11249p4739	11:27:41	+47:23:31		5m	
50	COMP			↑		
51	11320p4716	11:34:44.7	+47:10:34		3m	
52	COMP			↑		
53	11200p5130S	11:22:47.9	+51:30:00		3m	
54	11200p5130N	11:22:55.4	+51:5:35		4m	
55	COMP			↑		
56	11187p6034	11:21:36.4	+60:19:29		5m	

60 inch Telescope Log		Spectrograph: <u>FAST</u>				
Observer: <u>P. Berland</u>		Grating: <u>3002</u>			Page: <u>37M</u>	
PI: <u>Huchra/Geller</u>		Date: <u>6/3/95</u>				
Number	Object	R. A.	Dec.	L/R	Exp	Comments
57	COMP			↑		
58	11298p6243	11:32:40.5	+62:37:32	1	4m	H _α
59	COMP			↑		
60	11368p6253	11:39:36.7	+62:37:31	1	4m	
61	COMP			↑		
62	12117p6622	12:14:44	+66:06:36	1	10m	redd
63	COMP			↑		
64	13064p5505	13:08:28.1	+54:50:40	1	5m	H _α
65	COMP			↑		
66	13065p5217	13:08:36.7	+52:02:40	1	2m	
67	COMP			↑		
68	13077p5917	13:09:40.6	+59:02:42	1	4m	
69	COMP			↑		
70	13062p6150	13:08:07.9	+61:35:39	1	4m	
71	COMP			↑		
72	13034p6125	13:05:21.9	+61:10:34	1	4m	
73	COMP			↑		
74	320.011606	12:14:30.94	+26:56:253	3	5m	
75	COMP			↑		
76,80	320.012620	12:07:28.1	+26:59:43.1	3	5m	x2
77,81	COMP			↑		moonset
78	320.012720	12:08:17.8	+26:59:34	3	7m	H _α
79	COMP			↑		
82	320.011224	12:23:08.54	+26:54:17.7	3	5m	
83	COMP			↑		
84	320.015337	12:18:19.9	+26:52:13.9	3	5m	
85	COMP			↑		
86	320.009571	12:20:41.26	+26:47:53.4	3	4m	
87	COMP			↑		
88	320.008131	12:26:54.46	+26:41:23.6	3	4m	

7680 - 78 + 80

60 inch Telescope Log		Spectrograph: <u>FAST</u>				Page: <u>3775</u>	
Observer: <u>P. Bertini</u>		Grating: <u>300R</u>					
PI: <u>Huchra</u>		Date: <u>6/3/95</u>					
Number	Object	R. A.	Dec.	L/R	Exp	Comments	
89	COMP			↑			
90	13059p5412	13:07:51.2	+53:57:38		4m	H α	
91	COMP			↑			
92	13061p5824	13:07:10.1	+58:10:08		3m	great seeing	
93	COMP			↑			
94	13045p5901	13:06:30.5	+58:46:32		3m		
95	COMP			↑			
96	13044p5720	13:06:26.6	+57:05:36		3m		
97	COMP			↑			
98	13093p4637	13:11:27.9	+46:22:45		3m		
99	COMP			↑			
100	13092p5728	13:11:16.1	+53:13:45		5m	H α	
101	COMP			↑			
102	13205p5505	13:22:27	+54:51:03		4m		
103	COMP			↑			
104	13191p5818	13:20:51.3	+58:34:20		3m		
105	COMP			↑			
106	13278p5520	13:29:45	+55:36:07		3m	H α	
107	COMP			↑			
108	13299p5926	13:31:41	+59:12:19		2m		
109	COMP			↑			
110	15012p5343E	15:02:26.8	+53:32:33		3m	H α	
111	15012p5343W	15:02:26.8	+53:32:33		3m	H α	
112	COMP			↑			
113	15025p5308	15:03:44.7	+52:56:19		3m		
114	COMP			↑			
115	1632p5719	16:32:40.7	+57:52:37		7m	Fred Chaffee for Valentine Lipkin on 48"	
116	COMP			↑		test exposures	
117	FBS 1634p523	16:34:07.9	+52:18:57		4m	1/2 billion yr - youngest galaxy known	
118	COMP			↑			

60 inch Telescope Log		Spectrograph: <u>FAST</u>				Page: <u>3776</u>
Observer: <u>P. Berlind</u>		Grating: <u>300</u>				
PI: <u>Huchra</u>		Date: <u>6/3/95</u>				
Number	Object	R.A.	Dec.	L/R	Exp	Comments
119	1851p6933	18:51:34.6	+68:33:16	1	7m	for Valentine + Chaffee
120	COMP			↑		
121	RXJ16474p0440A	16:47:26.5	+04:40:44.9	1	10m	Gstar
122	RXJ16474p0440B	16:47:26.9	+04:40:44.4	1	20m	related slit to 121
123	COMP			↑		3 objects on slit
124	RXJ16474p0440E	16:47:26	+04:40:44	1	5m	ZSS
125	RX16522p446AK	16:52:13	+44:49:59.9	1	20m	slit related to get all 3
126	COMP			↑		
127	RX17472p4135AB	17:47:11.9	+45:13:10.1	1	30m	3 objects on slit; A, B, E not
128	COMP			↑		
129	RX17535p4937C	17:53:20.3	+49:37:49.7	1	12m	
130	COMP			↑		
131	NEP4180A	18:08:03	+64:52:45	1	15m	
132	COMP			↑		
133	3C3903	18:45:37.6	+78:43:06	6	5m	
134	COMP			↑		
135	PG1708p602	17:08:30.9	+60:13:52	6	3m	
136	COMP			↑		
137	17386p6803	17:38:24	+68:06:26	1	3m	
138	COMP			↑		
139	17406p6829	17:40:21	+68:27:34	1	3m	
140	COMP			↑		
141	17412p7403	17:39:53	+74:01:35	1	4m	
142	COMP			↑		
143	NG601	18:11:49	+61:26:50	1	2m	bright sky
144	COMP			↑		
145-149	HDP98858	20:44:50	+17:31:07	0	4s	
150	COMP			↑		
151-160	BIAS			0	0s	
161-170	FLAT			0	5s	

171-174 ZSS

Number	Object	R.A.	Dec.	L/R	Exp	Comments
10	BIBS			0	0s	clear; clear; clear!
11-20	FLAT			0	6s	
21	COMP			-		
22-26	SKY	Zenith		0	2s	Fast foc = 1100
27	COMP			↑		
28-32	AGK2p43928	09:49:20	+43:42:07	0	5s	
33	COMP			↑		
34,35	H244	13:21:19.1	+36:23:58	↑	1m	
36	COMP			0		
37	N4151	12:08:01	+35:41:02	6	30s	
38	COMP			↑		
39	MRK421	11:01:40.6	+36:28:43	6	2m	
40				↑		
41	N5548	14:15:43.5	+25:22:01	6	2m	
42	COMP			↑		
43	N4486b	12:28:00	+12:45:59	0	5m	
44	COMP			↑		
45	TRCUN	12:42:17.9	+57:02:14	2	1m	
46	COMP			↑		
47	11052p4615	11:05:12	+46:15:00	1	5m	H _α
48	COMP			↑		
49	U06186	11:05:24	+54:06:00	1	4m	H _α
50	COMP			↑		
51	11073p4914	11:07:18	+49:44:00	1	6m	H _α
52	COMP			↑		
53	11080p4714	11:08:00	+47:14:00	1	5m	
54	COMP			↑		
55,56	11084p4828	11:08:24	+48:28:00	1	3	x2 gal subbright star H _α
57	COMP			↑		
58	11196p4643	11:19:36	+46:43:00	1	5m	

Moon 10^H +6

5556 = 55 + 56

9:25

60 inch Telescope Log

Observer: R. Barlow

PI: Huchra

Spectrograph: FAST

Grating: 3002

Date: 6/4/85

Page: 3778

Number	Object	R.A.	Dec.	L/R	Exp	Comments
59	COMP			↑		
60	11213p4606	11:21:18	+46:06:00	1	10m	
61	COMP			↑		
62	I 687	11:21:30	+48:08:00	1	3m	
63	COMP			↑		
64	U06957	11:55:48	+57:52:00	1	15m	H _α spiral arms z-machine reds
65	COMP			↑		
66	11263p4578N	11:26:18	+45:78:00	1	10m	H _α
67	11263p4578S	11:26:18	+45:78:00	1	5m	H _α
68	COMP			↑		
69	U06380	11:19:12	+50:53:00	1	2m	
70	COMP			↑		
71	11216p5132	11:21:36	+51:32:00	1	3m	
72	COMP			↑		
73	11249p4759	11:24:54	+47:59:00	1	10m	H _α
74	11252p4740	11:25:12	+47:40:00	1	5m	
75	COMP			↑		
76	11279p4718	11:27:54	+47:18:00	1	7m	H _α
77	COMP			↑		
78-80	RW H _α	13:31:32	-25:07:29	2	15, 25, 30s	symbrif
81	COMP			↑		
82	11353p4745W	11:35:18	+47:45:00	1	4m	R=10...
83	11353p4745E	11:35:18	+47:45:00	1	3m	
84	COMP			↑		
85	U06606EW	11:35:42	+47:43:00	1	5m	E+W comps
86	COMP			↑		
87, 91	11387p4640	11:38:42	+46:40:00	1	10m	z-machine reds
88, 92	COMP			↑		
89	11454p5005	11:45:24	+50:05:00	1	15m	most peculiar; both these H _α gals have z's ⇒ 715 km/sec!
90	COMP			↑		

→

substation

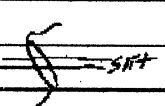
dark tank



broken

1 foot radius light

8791 = 87 + 91

60 inch Telescope Log		Spectrograph: <u>FAST</u>		Page: <u>379</u>		
Observer: <u>P. Bertinet</u>		Grating: <u>3000</u>		Date: <u>6/1/95</u>		
PI: <u>Huchra</u>						
Number	Object	R.A.	Dec.	L/R	Exp	Comments
93	12233p5157	12:23:18	+51:57:40		1.5m	
94	COMP			↑		
95	12231p5037	12:23:06	+50:37:40		4m	
96	COMP			↑		
97	12245p5221	12:24:30	+52:21:40		4m	
98	COMP			↑		
99	12256p5428	12:25:36	+54:28:40		3m	
100	COMP			↑		
101	13164p5420	13:16:24.2	+54:05:56		3m	
102	COMP			↑		
103	13148p6255	13:14:08	+62:40:54		3m	
104	COMP			↑		
105	13144p5312	13:16:26.2	+52:57:53		3m	
106	COMP			↑		
107	13133p6248	13:15:07.5	+62:33:51		4m	H _α weak
108	COMP			↑		
109	13120p5402	13:14:34	+53:50:50		2m	
110	COMP			↑		
111	13112p6938	13:12:47.7	+69:23:48		5m	
112	COMP			↑		
113	13350p5713	13:35:46.5	+57:04:32		2m	
114	COMP			↑		
115	13365p6052	13:38:10.8	+60:08:31		2m	
116	COMP			↑		
117	13365p5647	13:38:12.5	+56:33:31		7m	H _α
118	COMP			↑		
119	13359p6117	13:37:33.6	+61:03:30		4m	
120	COMP			↑		
121	13473p6005	13:44:48.6	+59:51:50		7m	huge bar  H _α
122	COMP			↑		

↓
20506540
73

60 inch Telescope Log				Spectrograph: <u>FAST</u>		Page: <u>3780</u>
Observer: <u>P. Berthel</u>				Grating: <u>300L</u>		Date: <u>6/4/95</u>
PI: <u>Huchra/Wikes/Geller</u>						
Number	Object	R.A.	Dec.	L/R	Exp	Comments
123	13467 p6753	13:47:525	+62:51:49		5m	H α
124	COMP			↑		nice sky!
125	RX1715p0309A	17:15:114	+03:09:346		20m	also ds with BC stars *R
126	COMP			↑		
127	RX1749p4145D	17:49:217	+42:45:38.7		20m	
128	COMP			↑		A - strong lines
129	RX18137p3001A	18:13:41	+30:01:044		20m	A, B, + C comps B+
130	COMP			↑		A+B say faint !! B - class!
131	RX18137p3001D	18:13:41	+30:01:044		10m	
132	COMP			↑		
133	I1225	16:36:56.7	+67:38:459		4m	NEPL H α
134	COMP			↑		
135	16406p6229	16:40:05.018	+62:21:057		4m	
136	COMP			↑		
137	16415p6155	16:42:06	+61:49:24		5m	H α
138	COMP			↑		
139	16493p6850	16:49:04	+68:45:31		3m	H α
140	COMP			↑		
141	16552p7031	16:55:50.4	+70:26:43		5m	
142	COMP			↑		
143/145	I1254	17:11:3657	+72:25:36		5m	x2 NO sign of sp *k
144	COMP			↑		
146	PG1708 p602	17:08:35.9	+40:13:52	6	3m	
147	COMP			↑		
148	3C3903	18:45:37.6	+79:43:06	6	5m	
149	COMP			↑		
150	518.046560	21:37:216	+10:41:201	3	4m	
151	COMP			↑		
152	518.050370	21:51:136	+10:47:41	3	5m	
153	COMP			↑		

Number	Object	R.A.	Dec.	L/R	Exp	Comments
154	S18.054675	21:46:04.6	+10:54:34.8	3	5m	
155	COMP			↑		
156	S18.058813	21:52:51.01	+11:00:02.9	3	7m	Ha
157	COMP			↑		
158	S18.064784	21:47:04.9	+11:10:18.6	3	10m	Ha
159	COMP			↑		
160	V1515Comp	21:45:27	+47:18:08	2	10m	
161	COMP			↑		
162/163	BDp284211	21:48:57	+28:37:48	2	30s	
164	COMP			↑		
165	V1057Comp	20:57:03	+44:03:16	2	3m	
166	COMP			↑		
167-169	V1329Comp	20:49:02.6	+35:23:37	2	20s, 2m	SS
170	COMP			↑		
171-172	YYHer	18:17:26	+20:58:12	2	10s, 3m	
173	COMP			↑		
174-176	V449Her	18:20:02.8	+23:25:48	2	2, 1m	SS
177	COMP			↑		
178-179	CHComp	19:23:14.2	+50:08:31	2	1s, 5s	
180	COMP			2		
181, 182	CTComp	19:48:21	+35:33:24	2	1s, 1m	
183	COMP			↑		
	V1016Comp	19:55:20	+39:41:30	2	0.2ps, 1s	
	COMP			↑		
184-189	PULL	20:19:01.1	+21:24:43	2	1s, 1m, 0.2s	
190	COMP			↑		
191-200	HD191201	20:10:46.8	+40:07:01	2	10s, 3s	
197	COMP			↑		
201-203	AGComp	21:48:36.2	+12:23:27	3	0.2s, 1s, 30s	203 too high
204	COMP			↑		

Spectrograph: FASTGrating: 300LPage: 3781Date: 6/4/95

60 inch Telescope Log

Observer: P. DerlandPI: Geller/Kemp

60 inch Telescope Log
 Observer: PB
 PI: Al1
 Spectrograph: FAST
 Grating: 3000
 Date: 6/4/95
 Page: 3782

Number	Object	R.A.	Dec.	L/R	Exp	Comments
205-209	HD 98858	20:49:50	+17:307	0	35	
210	OMP			↑		clear @ dawn
211-220	BIPS			0	0s	
221-230	FLAT			0	60	
231-234	DARK			↑	15m	

231-233

60 inch Telescope Log
 Observer: P. Berthel
 PI: Huchra

Spectrograph: FAST
 Grating: 300L, 3" bin by 4
 Date: 6/5/95

Page: 3783

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	BIAS			0	0s	clouds lowest
11-20	FLAT			0	5s	bright moon!
21-25	sky	zenith		0	2s	deky @ 45°
26	COMP			↑	10s	60" Dome troubles
27-30	AGK2p45925	09:49:20	+43:42:07	0	10s	
31	COMP			↑		
32-35	HD136711	15:19:27	+18:37:05	0	5s	
36	COMP			↑		
37	N4486B	12:28:20	+12:45:59	0	5m	
38	COMP			↑		
39,40	Feige 31	10:36:41.1	+43:21:50	0	1m	
41	COMP			↑		
42	U05872	10:43:06	+49:48:20	1	5m	
43	COMP			↑		
44	10422p508	10:42:12	+50:08:20	1	5m	
45	COMP			↑		
46	10431p4611	10:43:06	+46:11:20	↑	4m	
47	COMP			↑		
48	10444p4741	10:44:24	+47:41:20	1	4m	
49	COMP			↑		
50,55	U05917	10:46:20	+46:59:20	1	10m	peak x2 sup* to E
51,56	COMP			↑		good luck!
52	U05915	10:46:20	+46:58:20	1	4m	↳ I left chart here to read
53	10467p4811	10:46:42	+46:11:20	1	3m	in darker skies.
54	COMP			↑		
57	10476p4957	10:47:36	+45:57:20	1	10m	H _α
58	COMP			↑		
59	10478p4707	10:47:48	+47:07:20	1	10m	H _β
60	COMP			↑		
61	11042p4606	11:04:12	+46:06:20	1	4m	H _α

OBJECT 61 from this night has the typed wrong velocity!!!

moon 11h +20 45

5055 = sum of 50 + 55

it should be 7523 (the ansao vel, but instead from [unclear] conv vel)

60 inch Telescope Log		Spectrograph: <u>FAST</u>				Page: <u>3784</u>	
Observer: <u>P. Berlind</u>		Grating: <u>3002</u>					
PI: <u>Huchra</u>		Date: <u>6/5/95</u>					
Number	Object	R.A.	Dec.	L/R	Exp	Comments	
62	COMP			↑			
63	U06828	11:48:48	+57:43:00		5m	Seeing poor +2"	
64	COMP			↑		bright moon	
65	U07002	12:03:00	+51:48:00		4m		
66	COMP			↑			
67	12104p6605	12:12:45	+65:48:507		3m		
68	COMP			↑			
69	12129p7555	12:12:54	+75:55:00		10m	Ha via 1300 km/s !	
70	COMP			↑			
71	12144p6606	12:14:24	+66:06:00		5m		
72	COMP			↑			
73	RX15354p0908A	15:35:25.1	+05:08:44.2		4m	* G	
74	RX15354p0908C	15:35:25	+05:08:44		1m	* K	
75	RX15354p0908E	15:35:25	+05:08:44		2s	* K	
76	COMP			↓			
77	RX15354p0908D	15:35:25	+05:08:44		10m	* G	
78	RX15352p1854B	15:35:11.8	+18:54:29.5		5m	* G	
79	RX15352p1854C	15:35:11	+18:54:00		10m	* K	
80	RX15352p1854D	15:35:11	+18:54:00		5m	* G	
81	COMP			↑			
82	13465p6203	13:47:26.5	+61:49:49		4m		
83	COMP			↑			
84	13461p1218	13:46:58.3	+72:05:49		4m	Ha	
85	COMP			↑			
86	13438p5652	13:45:26.1	+56:38:45		3m		
87	COMP			↑			
88	13433p6130	13:44:47.6	+61:16:49		4m		
89	COMP			↑			
90	13354p6189	13:34:04	+61:45:24		5m	Ha	
91	COMP			↑			

60 inch Telescope Log		Spectrograph: <u>FAST</u>				
Observer: <u>P. Bernhard</u>		Grating: <u>300R</u>			Page: <u>3785</u>	
PI: <u>Huchra</u>		Date: <u>6/5/95</u>				
Number	Object	R. A.	Dec.	L/R	Exp	Comments
92	1326p5644	13:24:25.3	+56:00:24		5m	
93	COMP			↑		
94	13273p6210	13:29:01.2	+61:2:14		3m	* on slit to E
95	COMP			↑		
96	13261p5617	13:27:59.6	+56:03:12		4m	
97	13260p5616	13:27:53.6	+56:02:12		4m	
98	COMP			↑		
99	13260p6201	13:27:42.2	+62:47:12		4m	
100	COMP			↑		
101	NS040	13:13:28.9	+51:17:48		1m	
102	COMP			↑		
103	NS113	13:21:48.4	+57:44:01		10m	strong lines
104	COMP			↑		
105	NS163	13:26:52.5	+52:47:10		2m	
106	COMP			↑		
107	NS255	13:57:47	+57:08:30		2m	main set
108	COMP			↑		
109	RX17192p0511A	17:19:09.1	+09:11:32		7m	Cis on slit to E *
110	RX17192p0511B	17:19:09	+09:11:32		7m	
111	COMP			↑		
112	RX17562p5522C	17:56:14.9	+55:22:06.3		4m	seeing 6.2"
113	COMP			↑		
114	RX17562p5522AB	17:56:14.9	+55:22:06.3		20m	slit related to 115
115	COMP			↑		√A -B (center)
116	RX18244p5402AB	18:24:28.9	+54:03:10.4		20m	related 141
117	COMP			↑		
118	RX18198p3307A	18:19:50.3	+33:02:43.7		4m	seeing getting worse
119	RX18198p3307B	"	"		4m	
120	RX18198p3307E	"	"		7m	K
121	COMP			↑		

145 141

60 inch Telescope Log		Spectrograph: <u>FAST</u>		Page: <u>3786</u>		
Observer: <u>P. Berlind</u>		Grating: <u>3002</u>		Date: <u>6/5/95</u>		
PI: <u>Huchra / Geller</u>						
Number	Object	R.A.	Dec.	L/R	Exp	Comments
122	1746p6802	17:34:25.3	+08:00:08	1	4m	
123	COMP			↑		
124	17494p6721	17:49:57.9	+67:20:13	1	10m	H _α
125	COMP			↑		
126	NG6058	18:12:13.8	+61:19:52	1	10m	H _α
127	COMP			↑		
128	518.067928	21:45:58.9	+11:15:3.8	3	7m	H _α
129	COMP			↑		
130	518.069795	21:34:58	+11:17:46	3	10m	H _α -weak
131	COMP			↑		
132	518.070036	21:38:38	+11:18:40	3	5m	
133	COMP			↑		
134	518.070852	21:32:01	+11:19:05	3	7m	
135	COMP			↑		
136	518.073240	21:32:56.4	+11:22:57	3	10m	H _α
137	COMP			↑		
138	518.074497	21:37:47.4	+11:25:16	3	10m	other objects on slit
139	COMP			↑		
140	518.076460	21:51:40.1	+11:29:04.2	3	5m	poor seeing
141	COMP			↑		
142	2C3903	18:45:52.6	+79:43:06	6	5m	
143	COMP			↑		
144	PG17058p602	17:06:35.9	+60:17:52	6	3m	
145	COMP			↑		
146	18154p7620E	18:17:23	+76:46:02	1	3m	
147	18154p7620W	18:17:23	+76:46:02	1	4m	
148	COMP			↑		
149-153	HDP8658	20:49:50	+17:3:07	0	4s	
154	COMP			↑		
155-164	BIAS			0	0s	End of FAST run!
165-174	FLAT			0	5s	
175-176	DARK			0	15m	

35

Start of FAST run

60 inch Telescope Log

Observer: P. BertoldPI: Huchra/WilkosSpectrograph: FASTGrating: 300L, 3" slit, babyPage: 3822Date: 6/2/95

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-20	IRAS			0	0s	Chip has been rebaked since
21-40	FLAT			0	6s	last run. Cosmetically it
41	COMP			-	10s	looks much better +
42-51	sky	zenith		0	2s, 4s	sensitivity is as good or better
52	COMP			↑		FAST 600=1040
53-57	HD176711	15:19	18:37	0	5s	defocussed + trailed...
58	COMP			↑		
59-61	N3379	16:45	+12:50	0	1m	
62	COMP			↑		
63	N4151	12:06	+31:41	6	30s	
64	COMP			↑		
65/66	H2M	13:21	+32:23	6	90s	
67	COMP			↑		
68	N5598	14:15	+32:22	6	2m	
69	COMP			↑		
70	MPK44	11:01	+38:28	6	2m	
71	COMP			↑		
72, 73	N448613	12:28	+12:45	0	4m	1609 Km/sec + 1534 Km/sec ?
74	COMP			↑		
75	11112p5559	11:11:12	+55:59:40	1	4m	H ₂
76	COMP			↑		
77	11126p5544	11:12:36	+55:44:40	1	7m	
78	COMP			↑		
79	11146p5348	11:14:24	+53:48:40	1	4m	11:14:43 +5347:46
80	COMP			↑		
81	11147p5133	11:14:42	+51:33:40	1	3m	
82	COMP			↑		
83	11191p5315	11:19:06	+53:15:40	1	3m	
84	COMP			↑		
85	12133p5240	12:15:45	+52:21:39	1	15m	LSB H ₂ et al

60 inch Telescope Log

Observer: P. Berlind
 PI: Geller/Falco/Huchra

Spectrograph: FAST
 Grating: 3022
 Date: 6/21/95

Page: 3823

Number	Object	R.A.	Dec.	L/R	Exp	Comments
86	COMP			↑		
87	12117p6622	12:14:08	+66:05:36	1	10m	LSB +Z; H α ; V α - 100K/s?!
89	COMP			↑		there is a bright α nearby but this was all α
90	D85	12:59:54.8	+27:47:44.6	1	15m	for Nelson C.; Coma cluster gal
91	COMP			↑		
92	328.000664	15:29:20.5	+26:21:11.6	3	5m	H α
93	COMP			↑		
94	328.005058	15:36:51	+26:34	3	5m	
95	COMP			↑		
96	328.005564	15:50:37.9	+26:44:48	3	5m	
97	COMP			↑		
98	328.010312	15:54:58.1	+26:49	3	7m	
99	COMP			↑		
100	328.010867	15:57:16	+26:50:46	3	5m	
101	COMP			↑		
102	328.011794	15:46:28	+26:55	3	5m	
103	COMP			↑		
104	328.013464	15:34:29.28	+26:54:54	3	5m	
105	COMP			↑		
106	328.016303	15:34:55.17	+27:07:35.3	3	5m	
107	COMP			↑		
108	BTAS			31	0s	bin by 2 for Falco ↓
109	1640p3940	16:39:48.9	+39:40:16	31	30m	slit rotated to 120
110	COMP			↑	15s	great sky!
111	BTAS			-	0s	bin by 4 ↓
112	NEP3302ABC	17:54:04.7	+64:51:50	1	30m	slit rotated
113	COMP			↑		ROSAT/VLA since V α 18-19
114	328.016749	15:36:39.45	+27:05:16.7	3	5m	
115	COMP			↑		
116	328.017699S	15:50:20	+27:11:41	3	5m	South comp

60 inch Telescope Log			Spectrograph: <u>FAST</u>		Page: <u>3824</u>	
Observer: <u>P. Berland</u>			Grating: <u>300</u>			
PI: <u>Geller & Huchra & Wilkes</u>			Date: <u>6/21/95</u>			
Number	Object	R.A.	Dec.	L/R	Exp	Comments
117	328.017699N	15:50:20	+27:11:41	3	3m	*; * on slit to W
118	COMP			↑		
119	328.018743	15:35:53.99	+27:14:45.3	3	5m	
120	COMP			↑		
121	328.021110	15:37:29.2	+27:22:11.7	3	10m	
122	COMP			↑		
123	328.021395	15:35:42	+27:22:30	3	5m	
124	COMP			↑		
125	328.021456	15:35:16.04	+27:22:04.9	3	5m	
126	COMP			↑		
127	328.021582	15:35:20.73	+27:22:08.4	3	5m	
128	COMP			↑		
129	328.019202	15:47:01.92	+27:16:41.5	3	5m	
130	COMP			↑		
131	328.019255	15:50:17.29	+27:16:03.1	3	4m	
132	COMP			↑		
133	328.021804	15:44:13	+27:23:50	3	4m	
134	COMP			↑		
135	328.022012	15:53:29.6	+27:23:21	3	4m	
136	COMP			↑		
137	328.023405	15:52:12.94	+27:21:55.1	3	6m	
138	COMP			↑		
139	328.023806	15:54:01.04	+27:24:7.3	3	5m	
140	COMP			↑		
141	PXJ1819p3307C	18:19:50.3	+33:07:43.7	1	8m	
142	COMP			↑		
143	PG1708P60Z	17:08:35.9	+60:13:52	6	3m	
144	COMP			↑		
145	3C390.3	18:45:37	+79:43:06	6	5m	
146	COMP			↑		

60 inch Telescope Log

Observer: P. BerlindPI: GellerSpectrograph: FASTGrating: 700LDate: 6/21/95Page: 3825

Number	Object	R.A.	Dec.	L/R	Exp	Comments
147,149	518.079008	21:32:40.91	+11:32:03.4	3	5m	x2 weak features
14850	COMP			↑		
151	518.080478	21:39:53.86	+11:35:13.9	3	5m	
152	COMP			↑		
153	518.082360	21:35:11.12	+11:37:45.7	3	5m	
154	COMP			↑		
155	518.090302	21:39:44.9	+11:51:05.2	3	6m	weak H α
156	COMP			↑		
157	518.091534	21:33:11.09	+11:52:27.9	3	5m	
158	COMP			↑		
159	518.108420	21:51:05.96	+12:20:12	3	6m	
160	COMP			↑		
161	518.116014	21:38:02.69	+12:32:08	3	7m	
162	COMP			↑		
163	518.117460	21:40:03.1	+12:34:53	3	6m	Finally! decent H α
164	COMP			↑		
165	518.119354	21:30:27.7	+12:38:08.9	3	5m	
166	COMP			↑		
167	318.0126016	21:36:07.81	+12:48:41.5	3	6m	
168	COMP			↑		
169	318.127793	21:54:35.4	+12:51:37.5	3	10m	H α twilight
170	COMP			↑		2 more to go for the plate
171	MRK509	20:41:26	-10:54:18	6	2m	
172	COMP			↑		
173,174	BDp284211	21:48:57	+28:37:48	6	30s	x2
175	COMP			↑		
176-180	M32	00:31:58.2	+40:35:30	0	30s	← look who is back
181	COMP			↑		
182-186	M31	00:40:00	+40:39:42	0	30s	nucleus
187	COMP			↑		

wrong name!
518!
M32
check reader
etc in header

60 inch Telescope Log

Observer: PB

PI: Alt/Falco

Spectrograph: FAB

Grating: 300L

Date: 6/21/95

Page: 3826

Number	Object	R.A.	Dec.	L/R	Exp	Comments
188-192	HCP98858	20:49:50	+73:157	0	4s	uneven series
193	COMP			↑		
194-213	BIAS			0	0s	
214-233	FLAT			0	6s	
234-238	BIAS			31	0s	bin by 1; for Emulio
239-248	FLAT			31	25s	"
249-252	DARK			0	15m	bin by 4

60 inch Telescope Log

Observer: P. Barlow

PI: Huchra

Spectrograph: FAST

Grating: 3000, 3", 6" by 4" + 5"

Page: 3827

Date: 6/22/95

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	BARS				0s	
11-20	FLAT				6s	
21-25	SKY				2s	7:45
26	COMP			-	10s	
27-31	HD156711	15:21	+18:24	0	4s	
32	COMP			↑		
33-35	H214	13:21	+36:23	0	90s	5" slit, for Nelson + Dan F.
36	COMP			↑	7s	~12
37, 38	MRK421	11:01	+38:28	6	2m	Emitio is also doing this @ 48"
39	COMP			↑	7s	5" slit
40-42	H214	13:21	+36:23	0	90s	5" slit
43	COMP			↑	7s	
44, 45	N4486B	12:28	+12:45	0	4m	3" slit is back in +90
46	COMP			↑		1501 1988
47	317.03149S	11:11:13.3	+28:41:45	3	4m	8600 South Comp
48	317.03149N	11:11:13.2	+28:42:40	3	5m	4825 North
49	COMP			↑		
50	DZ25	12:58:29.4	+28:48:01.5	1	10m	for Nelson
51	COMP			↑		
52	11449p0303	11:47:37.7	+02:47:30	1	5m	H _α
53	COMP			↑		
54	12003p0523	12:03:00.1	+05:37:31	1	10m	H _α
55	COMP			↑		
56	I353	12:19:39.9	+05:24:42	1	5m	H _α
57	COMP			↑		
58	N4266	12:19:49.0	+05:33:42	1	4m	
59	COMP			↑		
60	12194p0523	12:22:07.9	+05:07:26	1	4m	* on slit to W
61	COMP			↑		
62	12203p0524	12:22:57.8	+05:08:45	1	4m	H _α

60 inch Telescope Log

Observer: P. BerlandSpectrograph: FASTGrating: 300L, 3"Page: 3828PI: Huchra/KesslerDate: 6/22/95

Number	Object	R.A.	Dec.	L/R	Exp	Comments
63	COMP			↑		
64	12204p0502	12:23:038	+02:46:45	1	5m	
65	COMP			↑		
66	13034p0413	13:05:56.7	+03:59:00	1	4m	
67	COMP			↑		
68	13142p0757W	13:14:12	+07:57:00	S	4m	
69	13142p0757E	13:14:12	+07:57:00	S	5m	* + W
70	COMP			↑		
71	13272m0002	13:27:14.7	-00:02:116	S	10m	H _α
72	COMP			↑		
73	13290m0146	13:28:57	-04:45:418	S	10m	H _α
74	COMP			↑		
75	N5202	13:29:26.0	+76:32	S	8m	
76	COMP			↑		
77	13299p0503	13:29:54	+05:03:00	S	8m	H _α
78	COMP			↑		
79	13299p0351	13:29:57.7	+03:51:07.57	S	8m	H _α
80	COMP			↑		
81	14417p2952	14:41:43.7	+29:52:51	1	5m	for Chaffee/Lipovetsky
82	COMP			↑		
83	14406p2916	14:40:34.2	+29:16:40	1	10m	
84	COMP			↑		
85	14399p2855	14:39:57	+28:55:46	1	10m	10 ₂
86	COMP			↑		
87	328.023413	15:45	+27:28	3	5m	
88	COMP			↑		
89	328.023601	15:45	+27:29	3	5m	
90	COMP			↑		
91	328.024232	15:40	+27:28	3	4m	
92	COMP			↑		

CR 02021

2110
2100 = 6725
242

60 inch Telescope Log

Observer: P. BarlowPI: GellerSpectrograph: F&TGrating: 3002Date: 6/22/95Page: 3829

Number	Object	R.A.	Dec.	L/R	Exp	Comments
93	328.028562	15:51	+27:20	3	4m	
94	COMP			↑		
95	328.028557	15:52	+27:53	3	4m	
96	COMP			↑		
97	328.028520	15:53	+27:40	3	10m	
98	COMP			↑		
99	328.028547	15:47	+27:48	3	4m	
100	COMP			↑		
101	328.031087	15:40	+27:45	3	7m	
102	COMP			↑		
103	328.031003	15:54	+27:49	3	5m	
104	COMP			↑		
105	328.032385	15:52	+27:51	3	4m	
106	COMP			↑		
107	328.032542	15:51026	+27:52	3	4m	bright star to W on slit
108	COMP			↑		
109	328.032625	15:42	+27:53	3	5m	
110	COMP			↑		
111, 113	328.032863	15:36	+27:53	3	4m	2/16 x2
112, 114	COMP			↑		
115	328.032896	15:37	+27:54	3	5m	
116	COMP			↑		
117	328.033001	15:51	+27:53	3	5m	
118	COMP			↑		
119	328.033144	15:50	+27:51	3	5m	
120	COMP			↑		
121	328.033445	15:47	+27:55	3	5m	
122	COMP			↑		
123	328.034262	15:48	+27:57	3	5m	
124	COMP			↑		

1113 = sum of 111 + 113

60 inch Telescope Log		Spectrograph: <u>FAST</u>		Page: <u>3830</u>		
Observer: <u>P. Berland</u>		Grating: <u>3000</u>		Date: <u>6/22/85</u>		
PI: <u>Huchra/Wilkos/Geller</u>						
Number	Object	R.A.	Dec.	L/R	Exp	Comments
125	378.036207	15:41:35	+28:02:36	3	4m	
126	COMP			↑		
127	15504p6113	15:51	+41:01	1	3m	Comp on slit to W H _α
128	COMP			↑		should be readable
129	15597p5852	15:59	+58:29	1	4m	H _α
130	COMP			↑		
131	16073p5805	16:08	+57:57	1	2m	
132	COMP			↑		
133	NG688A	16:10	+57:28	1	2m	North
134	NG688B	16:10	+57:28	1	5m	South Comp strong H _α
135	COMP			↑		
136	16098p5237	16:11	+52:27	1	3m	
137	COMP			↑		moon's up
138	16105p5855	16:11	+58:47	1	2m	
139	COMP			↑		
140	NG698	16:35	+57:30	1	2m	
141	COMP			↑		
142	16403p5926	16:40	+59:20	1	4m	H _α
143	COMP			↑		
144	16469p4942	16:48	+49:36	1	3m	
145	COMP			↑		
146	PG1706p602	17:08:35.9	+60:13:52	6	3m	
147	COMP			↑		
148	3C3903	18:45:57	+77:43:06	6	5m	
149	COMP			↑		
150	S18.126104	21:43:28.27	+12:49:24.3	3	10m	Finishes the plate! H _α
151	COMP			↑		
152	S19.032869	22:02:58	+10:38:08	3	8m	H _α
153	COMP			↑		
154	S19.033805	22:11:16.73	+10:38:28	3	8m	

60 inch Telescope Log

Observer: P. BerndtPI: KaplanSpectrograph: FASTGrating: 30LDate: 6/22/95Page: 3831

Number	Object	R. A.	Dec.	L/R	Exp	Comments
155	COMP			↑		
156-159	BDp284211	21:48:57.1	+78:57:48	12	30s	
160	COMP			↑		
161	V1515Cyg	21:45:27	+47:18:04	12	15m	
162	COMP			↑		
163	V1057Cyg	20:57:03	+44:03:46	12	3m	
164	COMP			↑		
165, 166	YHer	18:12	+70:58	12	10s, 3m	
167	COMP			↑		
168, 169, 171	V443Her	18:20	+73:25	12	3s, 2m, 1m	
170	COMP			↑		
172, 173, 174	B3Fcyg	19:21:55	+29:34:30	12	15s, 2m, 3s	
175	COMP			↑		
176, 177	CHCyg	19:23:14.2	+50:08:31	12	0.5s, 3s	
178	COMP			↑		
179, 180	HMSqe	19:39:41	+16:37:33	12	1s, 2s	
181	COMP			↑		
182, 183, 185	CECyg	19:48	+35:33	12	1s, 4s, 30s	
184	COMP			↑		
186, 187, 188	V1016Cyg	19:55	+39:41	12	0.5s, 1s, 30s	
189	COMP			↑		Does not end as comp
190, 191	Pumi	20:19	+71:24	12	1s, 30s	
192	COMP			↑		
193, 194	V1329Cyg	20:49	+35:23	12	3s, 2m	
195	COMP			↑		
196, 197, 199	AGPcyg	21:48	+12:23	12	3s, 0.5s, 12s, 8s	
198	COMP			↑		
200-203	ZAnd	23:31:15	+48:52	12	2s, 0.5s, 12s, 25s	
204	COMP			↑		
205-207	EGAnd	00:41	+40:24	12	1s, 0.5s, 2s	

189, 190

191

192, 193

194

195, 196, 197, 198

60 inch Telescope Log

Observer: PB
 PI: Al/Kenyon

Spectrograph: FAST
 Grating: 300
 Date: 6/22/95

Page: 3832

Number	Object	R.A.	Dec.	L/R	Exp	Comments
204	COMP			↑		fast for getting a little off (4.5)
209-213	HD192781	20:10	+40:07	12	4s, 2s	x(9)
214	COMP			↑		4:15
215	Z25m280	00:44:45.1	+10:51:2	0	3m	sky a little too bright
216	COMP			↑		
217-219	M32	00:59:58.2	+40:35:30	0	30s	all ~150!
220	COMP			↑		
221-223	M31	00:40:20	+40:59:42	0	30s	all ~165!
224	COMP			↑		
225-229	HD198856	20:49:50	+41:50:7	0	4s	
230	COMP			↑		focus 21020
234-240	BARS			0	0s	
241-250	FLAT			0	6s	
251-254	DARK			0	15m	

60 inch Telescope Log

Observer: P. BerlinPI: Huchra/Geller/WikesSpectrograph: FASTGrating: 3000, 3550, baby 4Page: 3832Date: 6/23/95

Number	Object	R.A.	Dec.	L/R	Exp	Comments
10	BIAS			0	0s	
11-20	FLAT			0	6s	
21-25	sky	zenith		0	2s	7-16
26	COMP			↑	10s	
27-31	HD155711	15:19:27	+18:37	0	4s	clouds to W+S but clear overhead
32	COMP			↑		
33	N4151	12:08	+39:41	6	30s	
34	COMP			↑		
35,36	H214	13:21	+76:23	6	90s	
37	COMP			↑		
38	N5548	14:15	+25:22	6	2m	
39	COMP			↑		
40	MRK 421	11:01:40	+38:28	6	2m	
41	COMP			↑		
42,43	N4480	12:28:20	+12:15	0	4m	22 poor seeing
44	COMP			↑		wind picking up
45	11150p0734	11:17:37.5	+07:16:26	1	4m	
46	COMP			↑		
47	11154p0724	11:18:01.5	+07:08:26	1	5m	H α
48	COMP			↑		
49	11154p0857	11:18:01.6	+07:51:27	1	3m	
50	COMP			↑		
51	CMMAZ	10:51:16.29	+28:56:43.1	3	15m	← get it! 35K
52	COMP			↑		
53	11171p0752	11:19:43.6	+07:36:27	1	4m	broad H α
54	COMP			↑		
55	I 686	11:23:07.3	+05:37:34	1	2m	H α
56	COMP			↑		
57	12286p0452	12:31:05	+04:36:53	1	4m	H α
58	COMP			↑		

60 inch Telescope Log

Observer: PBPI: GellerSpectrograph: FASTGrating: 300RDate: 6/23/95Page: 3833

Number	Object	R.A.	Dec.	L/R	Exp	Comments
59	13070 pos 13	13-09-249	+09-58-41	1	3m	
60	COMP			↑		
61	G2817	13-00-138	+28-49-40.8	1	8m	for Nelson
62	COMP			↑		
63	e1393mcN	12-59-79	+28-53-53	3	2m	Cent. Survey
64	COMP			↑		
65	13022 pos 14	13-02-12	+08-11-00	S	10m	
66	COMP			↑		
67	13147 pos 56	13-14-12	+07-56-00	S	10m	
68	COMP			↑		Wind steady 2-20
69	13148 pos 79	13-14-52.2	+07-59-20	S	10m	seeing ~2"
70	COMP			↑		
71	13146 pos 17	13-14-37	+07-47-26	S	15m	
72	COMP			↑		
73	13258 pos 24	13-29-48	-02-13-45.7	S	10m	
74	COMP			↑		
75	13293 pos 24	13-29-17	-02-14-30	S	10m	H+
76	COMP			↑		
77	13296 pos 24	13-29-34	-02-29-55	S	10m	H+
78	COMP			↑		
79	e1390mB5	14-41-56.7	+29-17-55	3	10m	
80	COMP			↑		
81	e1390mC1	14-44-41.2	+29-26-51	3	3m	star; no sign of E ₄ 22
82	COMP			↑		
83	c8mFK	15-24-57.7	+29-24-31.7	3	10m	
84	COMP			↑		
85	c8mFS	15-25-32	+29-10-18	3	8m	
86	COMP			↑		
87	c9mCB	15-32-41.6	+29-24-10	3	7m	
88	COMP			↑		

4/15/98 1/2

MSC 9/82 Hartland 82

60 inch Telescope Log

Observer: PBPI: Geller & HuchraSpectrograph: FASTGrating: 300RDate: 6/23/95Page: 3834

Number	Object	R.A.	Dec.	L/R	Exp	Comments
89	C9mCQ	15:34:44.6	+29:19:06	3	10m	
90	COMP			↑		
91	C9mDG	15:36:59.73	+29:24:19	3	10m	
92	COMP			↑		
93	C9mDH	15:39:06	+29:51:04	3	10m	
94	COMP			↑		
9597	C9mDM	15:42:15.7	+29:03:51	3	10m	* 2
9698	COMP			↑		
99	16108p6017	16:11:25	+60:09:33	1	5m	* on slit Ha
100	COMP			↑		
101	16143p6154	16:14:47	+61:46:44	1	2m	Ha
102	COMP			↑		
103	16154p6033	16:15:59	+60:25:47	1	4m	
104	COMP			↑		
105	16165p58258	16:17:44	+58:20:48	1	3m	* on slit
106	COMP			↑		
107	16206p5849	16:21:17.8	+58:42:04	1	4m	Ha
108	COMP			↑		seeing getting worse
109	16211p5724	16:21:53.1	+57:17:03	1	3m	
110	COMP			↑		
111	16230p5830	16:23:47.5	+58:23:10	1	8m	
112	COMP			↑		
113	N6176	16:27:19.6	+57:34:24	1	3m	
114	COMP			↑		
115	N6187	16:31:20.4	+57:42:39	1	3m	
116	COMP			↑		
117	16322p6246	16:32:34.5	+62:40:37	1	15m	LSB Ha
118	COMP			↑		
119	16515p5110	16:52:40.4	+51:03:22	1	5m	
120	COMP			↑		

9597 = 95 + 97

2.9
117

60 inch Telescope Log

Observer: P. Berlind
PI: Wilkes & Huchra & GellerSpectrograph: FASTGrating: 302Page: 3835Date: 6/23/95

Number	Object	R.A.	Dec.	L/R	Exp	Comments
121	PG17084602	17:08:35.9	+60:13:52	6	3m	seeing just improved!
122	COMP			↑		
123	3C3903	18:45:57.6	+79:43:06	6	5m	
124	COMP			↑		
125	N6285	16:58:13.7	+58:58:16	1	4m	H _α
126	N6286	16:58	+58:58	1	2m	H _α what a strange galaxy
127	COMP			↑		would be nice to rotate the slit for H _α and as it was
128	16575psys6	16:58:27.5	+54:57:07	1	4m	2 H _α
129	COMP			↑		
130	16577pss12	16:58:19.2	+59:07:15	1	3m	
131	COMP			↑		still windy!
132	16598pss10	17:00:40.5	+55:05:21	1	10m	H _α
133	COMP			↑		
134	S19.044046	22:18:09.21	+10:58:31.6	3	7m	
135	COMP			↑		
136	S19.045388	22:17:52.8	+10:59:07.6	3	10m	H _α
137	COMP			↑		
138	S19.048095	22:18:49.8	+11:03:42.2	3	7m	
139	COMP			↑		
140	S19.049219	22:15:46	+11:06:01	3	8m	
141	COMP			↑		
142	S19.059307	22:10:21.9	+11:22:46.8	3	8m	H _α
143	COMP			↑		
144	S19.062056	22:02:31.25	+11:28:25.5	3	6m	
145	COMP			↑		
146/147	225m280	00:41:45.1	+41:05:12	0	4m	#2
148	COMP			↑		
149	163m217	00:44:53.3	+41:11:20	0	4m	
150	COMP			↑		
151-155	M32	00:39:58	+40:35:30	0	30s	nucleus

60 inch Telescope Log

Observer: PB

PI: All

Spectrograph: FAST

Grating: 30R

Page: 3836

Date: 6/23/95

Number	Object	R.A.	Dec.	L/R	Exp	Comments
156	COMP			↑		
157-161	M31	00:40:00	+40:59:42	0	30s	nucleus
162	COMP			↑		
163-167	HDF18858	20:49:50	+17:1:07	0	4s	def flat
168	COMP			↑		
169-178	BTS			0	0s	
179-188	FLAT			0	6s	
189-192	ANNUL					clear at dawn, too!

60 inch Telescope Log		Spectrograph: <u>FAST</u>		Page: <u>3837</u>		
Observer: <u>P. Bernhard</u>		Grating: <u>300L</u>		Date: <u>6/24/95</u>		
PI: <u>Huchwa/Keller</u>						
Number	Object	R.A.	Dec.	L/R	Exp	Comments
79	fastex					weird, will check again later
10-19	BIAS			0	0s	It's hot in the dome ~75°
20-29	FLAT			0	6s	
30-34	sky			0	2s	
35	COMP			↑	10s	
36-40	H026711	15-19	+18-37	0	4s	
41	COMP			↑		
42-43	H244	13-21	+73-23	0	90s	
44	COMP			↑		
45	N4151	12-08	+37-41	6	30	
46	COMP			↑		
47	N5548	14-05	+55-12	6	2m	
48	COMP			↑		
49	MRK421	11-01	+38-58	6	2m	
50	COMP			↑		
51,52	N4446B	12-28	+12-45	0	4m	
53	COMP			↑		
54	11148 pos 243	11-17-24.9	+02-27-26	1	10m	H+
55	COMP			↑		
56	11149 pos 58	11-17-30.6	+03-02-26	1	5m	H+
57	COMP			↑		
58	11157 pos 108W	11-18-14.8	+03-52-26	1	5m	
59	11157 pos 108E	11-18-18.8	+03-52-26	1	10m	H+
60	COMP			↑		COMPARISON NOT OK !!
61	11168 pos 29	11-19-24.7	+03-12-27	1	5m	
62	COMP			↑		
63	13015 pos 08	13-01-30	+05-06-40	5	7m	H+
64	COMP			↑		
65	13029 pos 54W	13-02-54	+07-54	5	5m	
66	13029 pos 54E	13-02-54	+07-54	5	5m	

398-292

dark new = 2.
Dark corrected

60 inch Telescope Log		Spectrograph: <u>FAST</u>		Page: <u>3838</u>		
Observer: <u>PB</u>		Grating: <u>300L</u>				
PI: <u>Geller</u>		Date: <u>6/24/95</u>				
Number	Object	R.A.	Dec.	L/R	Exp	Comments
67	COMP			↑		
68	13044 pos 00EW	13-04:24	+05-02-00	S	7m	Et W comps H+
69	COMP			↑		
70	13020 pos 00Y	13-02-00	+05-01-00	S	6m	W comp is a star; sort of a middle comp w/ mega H+
71	COMP			↑		
72	13151 pos 00YS	13-15:06	+4-45-00	S	5m	
73	COMP			↑		
74	13156 pos 00ZA	13-15:35	+0-29-55	S	10m	H+
75	COMP			↑		
76	13161 pos 00OS	13-16:09	+00-05-07	S	5m	Seemy 2"
77, A	13164 pos 000Y	13-16:23.5	+00-03-50.5	S	6m	
78	COMP			↑		
80	C9MEF	15-47:52.5	+29-26-06	3	7m	Century Survey
81	COMP			↑		
82	C9MEG	15-48:00.7	+29-41-36	3	15m	H+
83	COMP			↑		
84	C9MEI	15-48:15.6	+29-07-53	3	15m	
85	COMP			↑		
86	C9MEK	15-48:36.2	+29-00-07.6	3	10m	
87	COMP			↑		
88	C9MEZ	15-50:32.7	+29-36-01.9	3	10m	H+
89	COMP			↑		
90, 91	C9MFB	15-50:53.9	+29-07-13.5	3	5m, 15m	→ use log of it!! try row 2=38 Vix 28, 600K star w/ attached fuzz mostly +, good luck!
92	COMP			↑		
93	C9MFM	15-52:54.6	+29-43-12.3	3	15m	
94	COMP			↑		
95	C9MFP	15-53:56.45	+29-44-24	3	15m	H+
96	COMP			↑		
97	C9MFR	15-54:07.7	+29-35-19.7	3	8m	H+
98	COMP			↑		

60 inch Telescope Log

Observer: PB/CCPI: GellerSpectrograph: FASTGrating: 300Date: 6/24/95Page: 3839

Number	Object	R. A.	Dec.	L/R	Exp	Comments
99	C9mF7	15:54:50.9	+28:51:51.9	3	8m	
100	COMP			↑		
101	C21mCG	16:01:26.38	+29:29:21.9	3	20m	H _α
102	COMP			↑		
103	C21mCJ	16:01:37.7	+29:27:05.7	3	10m	
104	COMP			↑		
105	C21mHL	16:18:35.0	+29:49:02	3	8m	
106	COMP			↑		
107	PR 170 & p602	17:08:35.9	+60:13:52	6	3m	
108	COMP			↑		
109	3C 390.3	18:45:37.6	+79:43:06	6	5m	
110	COMP			↑		
111	16586 + 5608	16:58:36	+56:08	1	5m	use 10655
112	COMP			↑		
113	Xc 519. 067151	22:06:40.0	+11:37:46	3	7m	H _α
114	COMP			↑		
115	Xc 519. 067796	22:10:24.8	+11:42:45	3	6m	
116	COMP			↑		
117	Xc 519. 071080	22:12:36.3	+11:45:01	3	7m	
118	COMP			↑		
119	Xc 519. 073123	22:06:16	+11:48:07	3	7m	
120	COMP			↑		
121	Xc 519. 074051	22:19:34.6	+11:50:01	3	15m	* to W
122	COMP			↑		
123/124	Xc 519. 082683	22:02:25.7	+12:05:13	3	2m, 10m	star w/ fuzz needs more starcraft
125	COMP			↑		
126-130	M32	00:39	+40:33	0	30s	
131	COMP			↑		
132-136	M31	00:46	+40:59	0	30s	
137	COMP			↑		

60 inch Telescope Log

Observer: PB/CC

Spectrograph: FAST

Grating: 300

Page: 3840

PI: AM

Date: 6/21/95

Number	Object	R.A.	Dec.	L/R	Exp	Comments
138-142	HDP8858	20:49	47:31	0	45	
143	COMP			9		
144-153	BIAS			0	05	
154-163	FLAT			0	65	
164-167	DARK					clear & down

60 inch Telescope Log			Spectrograph: <u>FAST</u>			
Observer: <u>P. Clemens / P. Berlind</u>			Grating: <u>300</u>		Page: <u>3841</u>	
PI: <u>Hachra/Geller et al</u>			Date: <u>6/25/95</u>			
Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	Bias					light clouds in areas
11-20	Flat					
21	comp			↑		
23-27	Sky					
28	comp					Perry left !!
29	N 4486 B	12:28:00	+12:45:59	0	5m	sky too bright
30	comp			↑		
31	<u>Suddenly (!)</u> 0041. COMP.	ms				a file appeared from nowhere!! (.pix and .imh)
42	N 4486 B			0	5m	
43	comp			↑		
44	11161 P 0746	11:16:06	+07:46	1	10m	sec z = 1.9
45	comp			↑		
46	N 3624	11:18:50	+07:33	1	5m	sec z = 2.1 clouds?
47	comp			↑		(14.7 mag)
48	N 5163	13:24:54	+53:01	1	5m	sec z = 1.3 (nice spect! ha Susana??)
49	Comp			↑		
50	C21-EU	16:11:09	+28:59	3	7m	dim; sec z = 1 (focussed telescope before # 50)
51	comp			↑		
52	C21-EU			3	7m	dim little guy
53	comp			↑		
54	C21-GG	16:12:40	+29:10:45	3	10m	drifted w in slit (saved by Ha ??)
55	comp			↑		
56	C21-HJ	16:17:15	+29:41:27	3	8m	
57	comp			↑		
58	N 5902 N	15:12:48	+50:33	1	5m	North comp (dimmer)
59	comp			↑		
60	N 5902 S			1	5m	South (brighter)
61	comp			↑		
62	I 1111	15:14:36	+54:40	1	7m	UGC 09800 Star on N edge of slit (above ??)

No files 31 - 40

5052 = 50452

60 inch Telescope Log

Observer: C. ClemensPI: Huchra/Geller et alSpectrograph: FASTGrating: 300 l/mmPage: 3842Date: 6/25/95

Number	Object	R. A.	Dec.	L/R	Exp	Comments
63	comp			↑		
64	15432p 5549	15:43:12	+55:49	1	6m	ugc 10013 nice!
65	comp			↑		
66	15497p 5157	15:49:42	+51:57	1	8m	ugc 10071 HX
67	comp			↑		
68	15434p 5251	15:43:24	+52:51	1	5m	zw = 15.5; I say 15.0!
69	comp			↑		(Very compact)
70	15520p 5452	15:52:00	+54:52	1	6m	
71	comp			↑		
72	15591p 5303	15:59:06	+53:03	1	5m	uh... HX
73	comp			↑		
74	16046p 5530	16:04:36	+55:30	1	6m	
75	comp			↑		
76	16520+ 5455	16:52:00	+54:55	1	7m	
77	comp			↑		
78	16529p 5158	16:52:54	+51:58	1	7m	
79	comp			↑		
80	16557p 5808	16:55:42	+58:08	1	7m	
81	comp			↑		
82	16565p 5229	16:56:30	+52:29	1	7m	
83	comp					
84	RX 20576p 1334	20:57:35.8	+13:34:13		15m	2 stars very near slit
85	comp					object A
86	RX 21039p 0400	21:03:53.8	+04:00:24		30m	
87	comp			↑		
88	PR 1708p 602	17:08:36	+60:14	#6	3m	
89	comp					
90	3C 3903	18:45:37.6	+79:49:06	#6	5m	
91	comp					
92	XE 520.026823	22:41:45	+10:48:43	#3	10m	

60 inch Telescope Log
 Observer: C. Clemens
 PI: Huchra / Geller et al
 Spectrograph: FAST
 Grating: 300 μ m
 Date: 6/25/95
 Page: 3843

Number	Object	R.A.	Dec.	L/R	Exp	Comments
93	comp			↑		
94	xe 520.029201	22:35:05	10:55:26	6	8m	
95	comp					
96	xe 520.030619	22:39:04	+10:58:49	6	10m	star to East in slit
97	comp			↑		
98	xe 520.031623	22:42:02	+11:00:43	6	7m	
99	comp			↑		
100	xe 520.032120	22:33:26	+11:03:09	6	8m	needs more
101	comp			↑		
102	" "	" "	" "	6	8m	getting more
103	comp			↑		
104	xe 520.032953	22:22:53	+11:04:29	6	15m	clouds?? (3:45 am) NOT WORTH EXTRACTING
105	comp					
106-110	HD 198858				4s	(107 says unnamed)
111	comp					
112-121	BIAS				0s	
122-131	Flat				6s	
132-135	DARK					wispy clouds @ dawn

100 + 102 = 1020

60 inch Telescope Log		Spectrograph: <u>FAST</u>				Page: <u>3844</u>
Observer: <u>C. Clemens</u>		Grating: <u>350 L/mm</u>				
PI: <u>Huchra/Geller</u>		Date: <u>6/26/95</u>				
Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	BIAS			0	0s	cloudy outside!!
11-20	FLAT			0	6s	rain on the horizon at 8pm (dome closed) <u>hot pixel at 675</u> 8:35 no stars visible 9:00 stars through clouds and lightning (dome still closed)
10:00	patchy clouds (sucker holes); no lightning;					<u>opening dome</u>
21-25	SKY			0	7s	~6000 counts
26	comp			↑		<u>FLATS</u> (not sky)
	11:00 clouds; <u>closing</u> again					
27	328.040189	15:51:01	+28:12	3	5m	clouds dominating (z~1)
28	comp			↑		
29	328.041719	15:50:51	+28:15:51	3	15m	clouds!!!
30	comp			↑		
	another file number jump !!					
41	comp			↑		
42	PG 1708+602	17:08:36	+60:13:82	6	5m	
43	comp			↑		
44	3C 390.3	18:45:38	+79:43	3	10m	
45	comp			↑		
46	520.033005	22:43:15	+11:04:34	3	10m	
47	comp			↑		
48	520.035486	22:23:59	+11:11:24	3	10m	
49	comp			↑		
50	520.036939	22:25:08	+11:12:42	3	10m	

files 21-25 are flats, not sky.

60 inch Telescope Log

Observer: C. ClemensPI: Huchra/GellerSpectrograph: FASTGrating: 300 l/mmPage: 3845Date: 6/26/95

Number	Object	R.A.	Dec.	L/R	Exp	Comments
51	Comp			↑		sky dimmer; clouds thinner
52	520.037539	22:39:23	+11:16:58	3	10m	star in slit (west side)
53	Comp			↑		
54	520.038027	22:30:42	+11:18:33	3	10m	sky brightening again
55	Comp			↑		
56	520.038231	22:31:26	+11:19:11	3	10m	
57	Comp			↑		
58	520.038496	22:28:27	+11:19:38	3	10m	sky too bright for this one.
59	Comp			↑		
60	520.038885	22:33:33	+11:20:47	3	10m	
61	Comp			↑		
62	520.040879	22:40:43	+11:25:26	3	10m	
63	Comp			↑		
64	520.041812	22:37:07	+11:27:56	3	7m	dawn creeping in
65	Comp			f		
66	520.042480	22:32:36	+11:29:55	3	7m	racing dawn
67	Comp			↑		
68	HD 198858	20:49:30	+47:31:07	0	4s	
69	Comp			↑		
70-79	BIAS			0	0s	
80-89	FLAT			0	6s	
						Susan -
						Hideous weather
						in the beginning of
						the night!!
						Hope you can get
						some C2's from
						this data!!
						Cathy

60 inch Telescope Log			Spectrograph: <u>FAST</u>			
Observer: <u>C. Clemens</u>			Grating: <u>300 l/mm</u>		Page: <u>3846</u>	
PI: <u>Huchra/Geller</u>			Date: <u>6/27/95</u>			
Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	BIAS					few clouds at dusk
11-20	FLAT					blumpy over a film
21	HD 136711	15:19:28	18:37:03	0	4s	
41, 42	comp			↑		
43	12320 p 0604	12:32:00	+06:04	1	10 m	yuck!!!
44	comp			↑		
45	12320 p 0604	"	"	1	10 m	has g.m.s files!!
46	comp			↑		
47	13072 p 0244	13:07:12	+02:44	1	10 m	
48	comp			↑		
49	13072 p 0629	13:07:12	+06:29	5	15 m	
50	comp			↑		
51	13072 p 0645	13:07:12	+06:45	5	20 m	
52	comp			↑		did a cc 50 (after this)
53	PG 1708 p 602	17:08:36	+60:13:52	6	3 m	
54	comp			↑		
55	3C 3903	18:45:38	+79:43	6	7 m	barely visible on T.V.
56	comp			↑		did a cc 100 after this
57	328. 033809	15:27:48	+27:56:32	3	8 m	star in slit to west?
58	comp			↑		clouds increasing ↗
59	328. 034188	15:46:19	+27:57.8	3	8 m	star in slit to west?
60	comp			↑		
61	14506 p 6056	14:50:36	+60:56	1	7 m	
62	comp			↑		
63	SAO 084795	17:01:06	+24:55	0	2 s	
64	comp			↑		
65	15027 p 5242	15:02:42	+52:42	1	5 m	skies seem clear
66	comp			↑		
67	15039 p 6255	15:03:54	+62:55	1	5 m	
68	comp					

510 + 2
 514

60 inch Telescope Log

Observer: C. ClemensPI: HuchraSpectrograph: FASTGrating: 300 l/mmPage: 3847Date: 6/27/95

Number	Object	R.A.	Dec.	L/R	Exp	Comments
69	15102p6119	15:10:12	+61:19	1	5m	
70	comp			↑		
71	15133p5902	15:13:18	+59:02	1	7m	
72	comp			↑		
73	15170p6123			1	5m	huge star just to West
74	comp			↑		
75	15161p5651			1	5m	
76	comp			↑		
77	I 1212	16:15:17	+64:13:46	1	5m	
78	comp			↑		
79	I 1214	16:16:01	+65:57:46	1	5m	
80	comp			↑		
81	N 6252	16:32:21	+82:35:52	1	5m	
82	comp			↑		
83	15572p7918	15:57:12	+79:18	1	7m	
84	comp			↑		
85	15580p8158	15:58:00	+81:58	1	7m	
86	comp			↑		
87	I 1154	15:52:16	+70:23	1	5m	
88	comp			↑		
89	N 6024	15:52:54	+64:56	1	5m	nice one, if I do say so!
90	comp			↑		
91	15572p6409	15:57:12	+64:09	1	7m	
92	comp			↑		
93	15509p6417	15:50:54	+64:17	1	10m	very low surf brightness
94	comp			↑		
95	15508p6719	15:50:48	+67:19	1	7m	
96	comp			↑		
97	520_044004	22:23:26	+11:33:09	3	10m	low surf brightness
98	comp					

60 inch Telescope Log

Observer: C. Clemens
 PI: Geller

Spectrograph: FAST
 Grating: 300 l/mm
 Date: 6/27/95

Page: 3818

Number	Object	R. A.	Dec.	L/R	Exp	Comments
99	520.044183	22:34:37	+11:34:08	3	15m	
100	comp			↑		
101	520.045572	22:34:48	+11:37:26	3	10m	star to east (in slit?)
102	comp			↑		
103	520.046428	22:37:57	+11:39:29	3	10m	star to east! in slit!!
104	comp			↑		
105	M32	00:39	+40:35	0	30s	
106	comp			↓		
107-110	M32	00:39	+40:35	0	30s	
111-115	M31	00:40	+40:59	0	30s	
116	comp			↑		
117-121	HD 198858	20:49:50	+47:31	0	4s	
122	comp			↑		
123-132	SKY			0	12s	
133	comp			↑		
134-143	BIAS			0	0s	very light clouds
144-153	FLAT			0	6s	at dawn

117-121 - extracted slope is "sunny" - really off

60 inch Telescope Log			Spectrograph: <u>FAST</u>			
Observer: <u>C. Clemens</u>			Grating: <u>300L/mm</u>		Page: <u>3849</u>	
PI: <u>Huchra</u>			Date: <u>6/28/95</u>			
Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	BIAS			0	0	cloudy; rain to W
11-20	FLAT			0	6s	10,000 counts
21-25	SKY			0	60s	had to delay opening due to clouds
26	Comp			↑		
27-31	HD136711	15:19:27	+18:37:03	0	4s	
32	Comp			↑		
33	N5548	14:15:43	+25:22	6	3m	
34,41	Comp			↑		
42,43	H2 44	13:21:19	+36:23:37	6	90s	
44	Comp			↑		
	9:15 socked	in w/clouds every where; closed up				
	10:00 opening	again; clearest skies are to the west				
45	328.034747	15:41:46	+27:59:16	3	10m	star to E in slit
46	Comp			↑		
				(until midnight)		fweeding thumbs (clouds)
47	UGC 10772 S	17:13:00	+29:13	1	5m	southern comp of pair
48	Comp			↑		
49	UGC 10772 N	17:13:00	+29:13	1	7m	northern comp (clouds)
50	Comp			↑		
51	PG 1708 p 602	17:08:36	+60:13:52	6	3m	clouds !!
52	Comp			↑		
53	3C 5903	18:45:38	+79:43	6	6m	
54	Comp			↑		
55	328.047671	15:49:42	+28:31:34	3	8m	clear!?!
56	Comp			↑		
57	328.045346	15:51:10.7	+28:24:52	3	8m	so much for clear (sigh)
58	Comp			↑		
59	328.044103	15:52:15	+28:21:54	3	10m	needs more
60	Comp			↓		
61	328.044103	"	"		10m	getting more

Programs for 47+49 are incorrect: s/b #1: CFA Reds / Huchra
 The hot pixel at 675 (on 40) from the past 2 nights seems to be gone.

NB: ⇒ I always get the file number skip when I exp of fast.

TOTAL P.02
P.02

60 inch Telescope Log				Spectrograph: <u>FAST</u>		Page: <u>4850</u>	
Observer: <u>C. Clemens</u>				Grating: <u>300 l/mm</u>		Date: _____	
PI: _____							
Number	Object	R. A.	Dec.	L/R	Exp	Comments	
62	comp			↑			
63	328.037857	15:41:55	+28:07:20	3	12m	faint bugger (37° elev)	
64	comp			↑			
65	15046 p 5337	15:04:36	+53:37	1	15m	low surface brightness	
66	comp			↑			
67	15234 p 6850	15:23:24	+68:50	1	10m	clear skies	
68	comp			↑			
69	15493 p 7124E	15:49:18	+71:24	1	10m	East component (bright)	
70	comp			↑			
71	15493 p 7124W	15:49:18	+71:24	1	15m	West (dimmer)	
72	comp				10m		
73	15498 p 7125	15:49:48	+71:25	1	15m	low surf brightness	
74	comp			↑			
75	520.046872	22:18:59	+11:39:37	3	15m	no surface brightness	
76	comp			↑			
77	520.046959	22:19:05	+11:39:51	3	15m	low surface brightness	
78	comp			↑			
79	520.048170	22:22:15	+11:43:06	3	15m	low surf brightness	
80	comp			↑			
81	520.050205	22:29:31	+11:48:18	3	8m	down coming	
82	comp			↑			
83-93	HD 198858			0	4s	(said repeat, not repeat)	
94	comp			↑			
95-104	DIA3			0	0		
105-114	FLAT			0	6s		
115-118	PARK					clear at dawn overhead clouds on eastern horizon	

83-93 very badly out of focus.

60 inch Telescope Log			Spectrograph: <u>FAST</u>			
Observer: <u>C. Clemens</u>			Grating: <u>300 /mm</u>		Page: <u>3851</u>	
PI: <u>Huchra/Geller</u>			Date: <u>6/29/95</u>			
Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	DIAS					clear at dusk!!
11-20	FLAT					
21-25	SKY					~ 7:15
26	comp					~ 8:20 (oops)
27-43	HD 136711	15:19:4	+18:37	0	45	have a standard or 2 (or 17)
44	comp			↑		
45,46	H $\frac{7}{2}$ ↑↑	15:21:19	+36:23:39	0	90s	
47	comp			↑		
48	N4151	12:08:01	+39:41:02	0	30 s	
49	comp			↑		
50	SN 1994 Y	15:53:30.6	+44:2:33	2	30m	(host = N5371) ✓ SN slit →
51	comp			↑		
52	SN 1994 Y	"	"	2	30m	←
53	comp					totally clouded out during last 2 minutes
54	13066p 0607	13:06:36	06:07:00	5	10m	sporadic clouds (thin)
55	comp			↑		
56	13068p 0746	13:06:48	07:46:00	5	10m	low elevation
57	comp			↑		
58	13079p 0636	13:07:54	06:36:00	5	10m	
59	comp			↑		
60	328. 042500	15:41:38.6	+28:19:12	3	8m	star to West
61	comp			↑		
62	328. 042614	15:52:43	+28:18:05	3	8m	
63	comp			↑		
64	328. 042889	15:28:56.6	+28:17:21	3	8m	
65	comp			↑		
66	328. 043474	15:54:23.8	+28:19:45	3	8m	
67	comp			↑		

windy night (10-20 mph)

60 inch Telescope Log

Observer: C. ClemensPI: Huchra/GellerSpectrograph: FASTGrating: 300 l/mmPage: 3852Date: 6/29/95

Number	Object	R.A.	Dec.	L/R	Exp	Comments
68	14015p 6159	14:01:30	+61:59	1	20m	very low surf brightness
69	Comp			↑		
70	1421p 6155			1	20m	
71	Comp			↑		
72	N5540	14:14:59	+60:00	1	10m	clouds in + out
73	Comp			↑		
74	N5870	15:05:12	+55:40	1	15m	Huge star to E in slit
75	Comp			↑		
76	15064p 5243	15:06:24	+52:43	1	6m	
77	Comp			↑		
78	15064p 5522	15:06:21	+55:22	1	6m	UGC 9737
79	Comp			↑		
80	15066 + 5231	15:06:36	+52:31	1	5m	clear sky
81	Comp			↑		
82	15094 + 5239	15:09:24	+52:31	1	5m	
83	Comp			↑		
84	I 1083	14:55:23	+68:26	1	8m	
85	Comp			↑		
86	N5836	14:59:17	+73:54	1	8m	shooting star through E end of slit
87	Comp			↑		
88	I 1145	15:43:54	+72:26	1	8m	big edge-on spiral
89	Comp			↑		
90	I 1147	15:50:06	+69:35	1	6m	
91	Comp					
92	520. 048419	22:32:44	+11:44:29	3	10m	
93	Comp					
94	520. 049871	22:31:11	+11:47:57	3	10m	
95	Comp					
96	520. 050205	22:29:31	+11:48:18	3	15m	
97	Comp					

60 inch Telescope Log

Observer: C. Clemens

PI: Geller

Spectrograph: FAST

Grating: 300 L/mm

Date: 6/29/95

Page: 3853

Number	Object	R. A.	Dec.	L/R	Exp	Comments
98	520.051152	22:35:21	+11:50:56	3	15m	very dim; clouds
99	Comp			↑		clouded out + telescopes coords became confused.
100-109	BIAS			0	0	
110-119	FLAT			0	6s	
120-123	DARK					partly cloudy at dawn

60 inch Telescope Log				Spectrograph: <u>FAST</u>		Page: <u>3854</u>
Observer: <u>C. Clemens</u>				Grating: <u>300 L/mm</u>		Date: <u>6/30/95</u>
PI: <u>Huchra/Kirshner</u>						
Number	Object	R.A.	Dec.	L/R	Exp	Comments
				0	0	5 pm: Very cloudy; rain occasionally
5:30 1-20	BIAS			0	0	smooth
21-40	FLAT			0	6	10,000 counts
8:00 41-45	SKY			0	12.5	
46	comp			↑		cirrus everywhere
47-51	HD 136711	15:19:27	+18:37:03	0	4s	
52	comp			↑		
53	N 4486 B	12:28:00	+12:45:59	0	5m	
54	comp			↑		
55	N 4486 B	"	"	0	5m	
56	comp			↑		
57	10256 p 5914			1	8m	clouds! star to W in slit
58	comp			↑		
59	I 687	11:24:18	+47:52	1	8m	more clouds; cirrus
60	comp					
61	N 5255	13:37:17	+57:08	1	8m	huge star to E in slit
62	comp			↑		
63	JN 1794 Y	13:53:31	+40:42:38	2	30m	
64	comp			↑		
65	13438 p 5652	13:43:48	+56:52	1	5m	14.8
66	comp			↑		
67	13465 p 6203	13:46:30	+62:03	1	5m	15.2 star to W
68	comp			↑		
69	13473 p 6005	13:47:18	+60:05	1	8m	15.3
70	comp			↑		
71	13475 p 5711	13:47:30	+57:11	1	8m	small star to W? clouds
72	comp			↑		
73	13495 p 6205	13:49:50	+62:05	1	8m	some clouds; clouded over
74	comp			↑		

windy: 15-20 mph

60 inch Telescope Log

Observer: C. ClemensPI: Huchra/Wilkes/GellerSpectrograph: FASTGrating: 3002/mmPage: 3855Date: 6/30/95

Number	Object	R.A.	Dec.	L/R	Exp	Comments
75	P9 1708 p 602	17:08:36	+60:13:52	6	3m	P.I. s/b Wilkes
76	comp			↑		
77	3C 3903	18:45:37.6	+79:43:06	6	5m	thin cloud film
78	comp			↑		
79	14054 p 5647	14:05:24	+56:47	1	8m	shooting star W slit
80	comp			↑		
81	14060 p 5502	14:06:00	+55:02	1	7m	star to E (small) near slit
82	comp			↑		
83	14082 p 5703	14:08:12	+57:03	1	7m	
84	comp			↑		
85	14302 p 5610	14:30:12	+56:10	1	8m	
86	comp			↑		
87	14315 p 5330	14:31:30	+53:30	1	8m	
88	comp			↑		
89	14316 p 5328	14:31:36	+53:28	1	5m	
90	comp			↑		
91	14370 p 5134	14:37:00	+51:34	1	8m	^{big} superposed star (N side)
92	comp			↑		
93	I 1074	14:50:24	+51:29	1	5m	
94	comp			↑		
95	14529 p 5325	14:52:54	+53:25	1	8m	
96	comp			↑		
97	14556 p 5232	14:55:36	+52:32	1	5m	ngc 9629
98	comp					
99	15032 p 5154			1	5m	
100	comp					
101	15042 p 5129			1	6m	
102	comp					
103	329.001728	16:09:08	+26:31	3	6m	
104	comp					

Southwest skies clouded over; north is clear (mostly)

60 inch Telescope Log

Observer: C. ClemensPI: GellerSpectrograph: FASTGrating: 300 l/mmPage: 3856Date: 6/30/95

Number	Object	R.A.	Dec.	L/R	Exp	Comments
105	329. 008508	16:19:07	+26:45:27	3	6m	
106	Comp			↑		
107	329. 010373	16:13:51	+26:50:31	3	6m	
108	Comp			↑		
109	520. 051226	22:19:34.8	+11:50:02	3	10m	low surface brightness
110	Comp			↑		
111	520. 053668	22:26:49	+11:57:10	3	10m	mousetrap sprung
112	Comp			↑		
113	520. 054538	22:32:49	+11:59:27	3	10m	star in slit to West
114	Comp			↑		
115	520. 054674	22:37:31.5	+11:59:34	3	10m	
116	Comp			↑		
117	520. 056842	22:39:08	+12:04:38	3	15m	
118	Comp			↑		
119	520. 057193	22:27:27	+12:05:40	3	20m	
120	Comp			↑		
121	520. 057502	22:39:06	+12:06:25	3	15m	
122	Comp			↑		
123	520. 058550	22:17:14	+12:08:10	3	15m	
124	Comp			↑		
125	520. 062764	22:30:13	+12:19:32	3	8m	star just to E in slit
126	Comp			↑		down arriving
127-131	M 32	00:39:58	+40:35:30	0	30 s	
132	Comp			↑		
133-137	M 31	00:40:00	+40:59:42	0	30 s	
138	Comp			↑		
139-148	BIAS			0	0	
149-158	FLAT			0	6	
159-162	DARK					

TOTAL P.03