

Start of FAST Run

60 inch Telescope Log				Spectrograph: <u>FAST</u>		
Observer: <u>Aberline</u>				Grating: <u>300; 3" slit; binby 4</u>		Page: <u>4364</u>
PI: <u>Geller & Krishnaer & Paraja</u>				Date: <u>2/9/96</u>		
Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	BIAS			0	0s	clouds to S+W
11-20	FLAT			0	6s	
21-25	SKY			0	2s	Fast Foc = 1220
26	COMP			↑	5s	
27-29	M32	00:39	+40:35	0	30s	
30	COMP			↑		
31-32	N1023	02:40	+39:04	0	90s	
33	COMP			↑		
34,36	471.026821	03:02	+10:50	3	8m/10m	x2
35,37	COMP			↑		
38	471.027681	02:45	+10:53	3	8m	
39	COMP			↑		
40	471.027682	02:57	+10:53	3	8m	
41	COMP			↑		
42	471.029008	03:10	+10:56	3	12m	HK
43	COMP			↑		
44	471.030377	02:52	+11:00	3	12m	HK
45	COMP			↑		
46	471.031174	02:53	+11:02	3	9m	nick lines
47	COMP			↑		
48	471.032264	02:45	+11:07	3	15m	LSB
49	COMP			↑		
50,52,54	SN1995bd	04:45	+11:04	2	20m	bin by 2 x3
51,53,55				↑		
56-59	Hiltner 600	06:42	+02:11	0	30s	x4
60	COMP			↑		
61,63	W153	05:53	+28:25	43	10m, 15m	x2
62,64	COMP			↑		
65	W158	05:57	+28:22	43	15m	
66	COMP			↑		

22

*8.71
1.16*

60 inch Telescope Log			Spectrograph: <u>FAST</u>			
Observer: <u>PB</u>			Grating: <u>300R</u>		Page: <u>4365</u>	
PI: <u>Pantaja/Kirshner/Geller</u>			Date: <u>2/9/96</u>			
Number	Object	R.A.	Dec.	L/R	Exp	Comments
67	W135	05:40	+33:11	43	12m	star close to gal to E
68	COMP			↑		
69	W191	06:22	+10:28	43	15m	
70	COMP			↑		Moon's up
71	W134	05:37	+33:11	43	15m	2 days before
72	COMP			↑		last quarter
73	W132	05:39	+33:30	43	15m	
74	COMP			↑		
75,77	SN1995al	09:50	+33:30	2	20m	bm by 2 +2
76,78	COMP			↑		
79	318.023015	11:10	+28:28	3	7m	em
80	COMP			↑		
81	318.023602	11:15	+28:32	3	4m	
82	COMP			↑		
83	318.023867	11:10	+28:33	3	6m	
84	COMP			↑		
85	318.024222	11:16	+28:37	3	6m	
86	COMP			↑		
87	318.024913	11:10	+28:40	3	6m	
88	COMP			↑		
89	318.011219	11:10	+27:13	3	5m	em++
90	COMP			↑		
91	318.011445	11:20	+27:17	3	5m	
92	COMP			↑		
93	318.013618	11:25	+27:31	3	10m	
94	COMP			↑		
95	318.014132	11:10	+27:32	3	6m	
96	COMP			↑		
97	318.014321	11:12	+27:33	3	5m	
98	COMP			↑		

890-ROCK

60 inch Telescope Log

Observer: FBPI: GellerSpectrograph: FASTGrating: 300RDate: 2/9/96Page: 4366

Number	Object	R.A.	Dec.	L/R	Exp	Comments
99	318.014579	11:12	+27:34	3	5m	bright moon
100	COMP			↑		
101	318.014605	11:12	+27:35	3	4m	CD?
102	COMP			↑		
103	318.014914	11:12	+27:37	3	4m	
104	COMP			↑		
105	318.014956	11:12	+27:37	3	5m	
106	COMP			↑		
107	318.015273	11:11	+27:39	3	6m	
108	COMP			↑		
109	318.015294	11:12	+27:40	3	5m	
110	COMP			↑		
111	318.016269	11:15	+27:46	3	6m	H ₂
112	COMP			↑		
113	318.017011	11:12	+27:50	3	5m	
114	COMP			↑		
115	318.018373	11:12	+28:00	3	5m	H ₂
116	COMP			↑		
117	318.020414	11:21	+28:14	3	5m	
118	COMP			↑		
119,123	318.021289	11:26	+28:20	3	5m	7m x2
120,124	COMP			↑		
121	318.035420	11:19	+28:47	3	5m	
122	COMP			↑		
125	318.035771	11:13	+28:48	3	6m	
126	COMP			↑		
127	318.036124	11:22	+28:52	3	6m	
128	COMP			↑		
129	318.036493	11:28	+29:54	3	8m	em
130	COMP			↑		

60 inch Telescope Log

Observer: PD

PI: Geller/Huchra/Wilkens/Kemp

Spectrograph: FAST

Grating: 3002

Date: 2/9/96

Page: 4369

Number	Object	R.A.	Dec.	L/R	Exp	Comments
131	318.037523	11:23	+30:02	3	7m	H _α
132	COMP			↑		
133	318.038572	11:15	+30:06	3	5m	
134	COMP			↑		
135	318.039058	11:21	+30:11	3	6m	
136	COMP			↑		
137	318.039774	11:33	+30:55	3	6m	
138	COMP			↑		
139	10317p4453	10:34	+44:37	1	5m	chased off this plate by the moon;
140	COMP			↑		at least until I can point
141	10319p4532	10:34	+45:16	1	3m	w/ the zone open to the W
142	COMP			↑		
143	10321p4500	10:35	+44:44	1	4m	
144	COMP			↑		
145	10322p4452	10:35	+44:26	1	5m	H _α
146	COMP			↑		
147	10326p6248	10:36	+67:32	1	7m	H _α
148	COMP			↑		
149	10346p5516	10:37	+55:40	1	6m	
150	COMP			↑		
151-153	Feze34	10:36	+43:21	0	1m	no clouds
154	COMP			↑		~
155	MRK421	11:01	+38:28	6	4m	
156	COMP			↑		
157	M4051	12:00	+44:48	6	2m	
158	COMP			↑		
159	M4151	12:08	+39:41	6	32s	
160	COMP			↑		Moon @ R2H _α
161-163	TXC11a	12:42	+37:02	12	15s, 1m	
164	COMP			↑		

60 inch Telescope Log				Spectrograph: <u>FAST</u>		Page: <u>4368</u>
Observer: <u>PB</u>				Grating: <u>3002</u>		
PI: <u>Greller/Huchra/Wilkos/Kenyon</u>				Date: <u>2/9/96</u>		
Number	Object	R. A.	Dec.	L/R	Exp	Comments
165	318.047887	11:35	+30:43	3	5m	OK; back to business
166	COMP			↑		
167	318.044022	11:10	+30:42	3	6m	
168	COMP			↑		
169	318.044035	11:09	+30:42	3	7m	
170	COMP			↑		
171	318.044099	11:34	+30:46	3	5m	Fast Foc = 1200
172	COMP			↑		
173	318.045401	11:35	+30:53	3	6m	
174				↑		
175	318.046453	11:09	+30:59	3	6m	
176	COMP			↑		
177	318.047605	11:14	+31:09	3	6m	
178	COMP			↑		
179	Comet A96B1	13:06	+49:49	99	12m	Szczepanski
180	sky	13:06	+49:51	99	10m	
181	COMP			↑		
182	N5548	14:15	+25:22	6	2m	
183	COMP			↑		
184	MRK209	13:51	+69:33	6	90s	
185	COMP			↑		
186-187	H244	13:21	+36:23	0	45s	
188	COMP			↑		
189-191	TCrB	15:57	+26:03	12	1,5,30s	
192	COMP			↑		
193-195	AG Dra	16:01	+66:56	12	1,3,30s	
196	COMP			↑		
197-199	VY Her	18:12	+20:58	12	1,60,5s	
200	COMP			↑		clear @ dawn!
201-203	V443 Her	18:22	+23:27	12	60,50	

extracted 179 in regular way (ie with sky subtracted)
 copied 179 to 253 - extracted with sky subtracts
 multiplied file 180 x 1.2 - extracted with 253
 as reference also subtracted for 253 with 20m with

60 inch Telescope Log

Observer: PberlindSpectrograph: FASTGrating: 3000, 3" slit, 6m by 4Page: 4370PI: Geller/KenyonDate: 2/10/96

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	BIAS			0	0s	heavy cloud to west
11-20	FLAT			0	6s	
21-25	SKY			0	2s	
26	COMP			↑	5s	
27-29	HD54665	01:24	+36:53	0	10s	
30	COMP			↑		
31-33	HD54675	01:24	+37:27	0	10s	
34	COMP			↑		
35-37	HD4679	01:25	+35:44	0	10s	
38				↑		
39-41	HD4702	01:25	+28:44	0	10s	
42				↑		
43-45	M32	00:39	+40:35	0	30s	
46	COMP			↑		
47-49	M31	00:46	+40:59	0	30s	
50	COMP			↑		
51-53	M31/sky	00:42	+41:16	0	30s	
54	COMP			↑		
55-57	225m280	00:41	+41:05	0	4m	
58	COMP			↑		
58	180	01:47	+37:10	↑	15m	redo
59	COMP			↑		
60	471.055863	02:48	+12:40	3	4m	broad H α ; strongem
61	COMP			↑		
62	471.055411	02:48	+11:59	3	15m	increasing clouds H α
63	COMP			↑		
64	DRTan	04:44	+16:53	30	1m	
65	COMP			↑		
66	DSTANW	04:47	+29:25	30	4m	
67	DSTANSE	04:47	+25:25	30	3m	

9.1
1.2

60 inch Telescope Log		Spectrograph: <u>FAST</u>				
Observer: <u>PB</u>		Grating: <u>300R</u>			Page: <u>4571</u>	
PI: <u>Kenyon/Beller/Pantaja</u>		Date: <u>2/10/96</u>				
Number	Object	R.A.	Dec.	L/R	Exp	Comments
68	COMP			↑		
69	UY Aur	04:48	+30:42	30	2m	30s x2
70	COMP			↑		
71	GM Aur	04:51	+30:17	30	90,30,5m	x3
75	COMP			↑		
76	471.056470	03:03	+12:00	3	10m	still some clouds H α
77	COMP			↑		
78	471.057424	02:43	+12:05	3	10m	weak
79	COMP			↑		clouds...
80	471.060697	02:52	+12:01	3	15m	20m x2 weak H α
81	COMP			↑		
84	p06m12m006	04:18	+36:01	43	7m	
85	COMP			↑		
86	p05m12m001	04:43	+31:18	43	1m	star
87	COMP			↑		
88	p05m13m001	05:11	+32:43	43	30s	star W
89	COMP			↑		
90	p05m13m002	05:11	+32:43	43	30s	W star
91	p05m13m003	05:11	+32:43	43	30s	E star
92	COMP			↑		CATlog; charts; list all have
93	p05m14m001	05:37	+31:49	43	30s	star different names
94	COMP			↑		more stars; not observed
95	0505.4p1718	05:05	+17:16	43	6m	broad H α
96	COMP			↑		
97	05165p1739	05:16	+17:39	43	6m	7 broad H α 6676
98	COMP			↑		
99	05193p1802	05:19	+18:02	43	4m	8
100	COMP			↑		
101	0624.4p3533	06:22	+35:32	43	8m	H α
102	COMP			↑		

60 inch Telescope Log

Observer: PLBPI: PantyaSpectrograph: FASTGrating: 300RPage: 4372Date: 2/10/96

Number	Object	R.A.	Dec.	L/R	Exp	Comments
103	0638.0 p1525	06:41	+25:22	43	10m	
104	COMP			↑		
105	0648.8 p1526	06:48	+15:26	43	6m	nice galaxy! 1
106	COMP			↑		
107	0645.9 p1702	06:46	+16:58	43	8m	H α
108	COMP			↑		
109	0649.1 p1621	06:51	+16:47	43	3m	
110	COMP			↑		
111	0649.3 p1935	06:52	+19:37	43	6m	wide lines
112	COMP			↑		
113	0652.2 p2419	06:55	+24:15	43	2m	H α
114	COMP			↑		
115	0655.8 p1843	06:58	+18:38	43	9m	
116	COMP			↑		
117	0700.0 p1836	07:02	+18:31	43	4m	
118	COMP			↑		
119	0702.0 p1854	07:04	+18:49	43	2m	3" E of gal on slit
120	COMP			↑		
121	0703.4 p2052	07:06	+20:47	43	3m	
122	COMP			↑		
123	0704.5 p1835	07:07	+18:30	43	6m	H α
124	COMP			↑		
125/127	0704.6 p1850	07:07	+18:45	43	6m, 10m	x2 v=2600 km/s
126/128	COMP			↑		
129	0705.0 p2035	07:07	+20:30	43	5m	
128	COMP			↑		
129	0720.6 p0252	07:23	+02:45	43	3m	
130	COMP			↑		
131	0720.8 p0300	07:23	+02:54	43	3m	
132	COMP			↑		

60 inch Telescope Log			Spectrograph: <u>F15T</u>			
Observer: <u>PB</u>			Grating: <u>302</u>		Page: <u>4573</u>	
PI: <u>Rantson/Geller</u>			Date: <u>2/10/86</u>			
Number	Object	R. A.	Dec.	L/R	Exp	Comments
133	07208 p0300	07:23	+02:54	43	5m	H _α
134	COMP			↑		
135	07226 p0319	07:25	+03:13	43	12m	
136	COMP			↑		
137	07235 p0205	07:26	+04:58	43	4m	Moon's up
138	COMP			↑		still some clouds
139	07247 p0415	07:26	01:32	43	4m	
140	COMP			↑		thin clouds all over!
141	318.047650	11:20:46	+31:10	3	7m	em++
142	COMP			↑		
143	318.048243	11:19	+31:14	3	6m	
144	COMP			↑		increasing clouds
145	318.048450	11:09	+31:13	3	8m	
146	COMP			↑		
147	318.048682	11:20	+31:16	3	6m	
148	COMP			↑		
149	318.049747	11:12	+31:22	3	15m	
150	COMP			↑		
151	318.050080	11:20	+31:27	3	10m	H _α
152	COMP			↑		
153	318.050787	11:12	+31:29	3	10m	
154	COMP			↑		
155	318.051427	11:10	+31:33	3	6m	
156	COMP			↑		
157	318.052500	11:37	+31:29	3	12m	bright sky
158	COMP			↑		
159	318.052683	11:20	+31:43	3	10m	"
160	COMP			↑		
161	09209 p65415	09:20:54	+15:41	1	8m	
162	COMP			↑		

60 inch Telescope Log		Spectrograph: <u>FST</u>		Page: <u>4374</u>		
Observer: <u>PB</u>		Grating: <u>3002</u>				
PI: <u>Hachra/Geller/Witkes</u>		Date: <u>2/10/96</u>				
Number	Object	R.A.	Dec.	L/R	Exp	Comments
163	10352 p 1506	10:35	+45:06	1	6m	bright moon; lots of clouds
164	COMP			↑		
165	10353 p 5903	10:35	+59:03	1	6m	
166	COMP			↑		
167	318.052686	11:16	+71:43	3	7m	Hd
168	COMP			↑		
169	318.052758	11:21	+71:44	3	8m	
170	COMP			↑		
171	318.055188	11:29	+71:59	3	10m	
172	COMP			↑		
173	10412 p 5201	10:41	+52:43	1	6m	
174	COMP			↑		
175, 176	N4151	12:08	+59:44	6	20s, 1m	x2
177	COMP			↑		
178	N5548	14:15	+25:22	6	4m	
179	COMP			↑		
180	MRK27A	13:51	+61:33	6	3m	
181	COMP			↑		
182-183	Ferze34	10:36	+43:21	0	2m	clouds
184	COMP			↑		stopped by clouds - 3:30
185-86	abled	10:08	+4:59	0	0.5	
189	COMP			↑		
190-192	mu UMa	10:22	+41:31	0	3s	
193	COMP			↑		
194-196	74 UMa	11:19	+58:25	0	3s	
197	COMP			↑		
198-201	VCM	12:44	+45:27	0	3-20s	
202				↑		
203	11146 p 5348	11:17:25	+58:32	1	6m	5:00 sucker hole
204	COMP			↑		

File 200 NO GOOD

60 inch Telescope Log
 Observer: PB
 PI: Huchra
 Spectrograph: FAST
 Grating: 3000
 Date: 2/10/96
 Page: 4375

Number	Object	R. A.	Dec.	L/R	Exp	Comments
205	11147p5157	11:14	+51:33	1	5m	
206	COMP			↑		
207	12233p5157	12:23	+51:57	1	4m	
208	COMP			↑		
209	12245p5221	12:24	+52:21	1	5m	clouded out
210	COMP			↑		
211-220	BIAS			0	0s	
221-230	FLAT			0	6s	

60 inch Telescope Log
 Observer: Pler/ind
 PI: Geller/Wilkes
 Spectrograph: FAST
 Grating: 3002
 Date: 2/11/96
 Page: 4376

Number	Object	R.A.	Dec.	L/R	Exp	Comments
10	BIAS			0	0s	heavy cloud
11-20	FLAT			0	6s	open @ 2:15 am in
21	318.057126	11:35	+72:09	3	10m	murky skies
22	COMP			↑		
23, 25, 27	318.057115	11:31	+71:49	3	10m, 10m, 15m	weak H α
24, 26, 28	COMP			↑		
29	318.057827	11:31	+72:14	3	10m	weak H α
30	COMP			↑		
31	318.057920	11:25	+72:16	3	10m	
32	COMP			↑		
33	318.058227	11:16	+72:17	3	10m	redo in better sky
34	COMP			↑		
35	318.058741	11:24	+72:22	3	15m	noisy but ok
36	COMP			↑		
37, 38	N4151	12:08	+75:01	6	20s, 1m	
39	COMP			↑		
40	N5548	14:15	+75:22	6	5m	
41	COMP			↑		
42, 43	H244	13:21	+76:23	0	90s	
44	COMP			↑		
45	MRX271	13:51	+69:33	6	5m	weak
46	COMP			↑		stopped by thick clouds
47-56	BIAS			0	0s	
57-66	FLAT			0	6s	

21 back
 25 "

1.18
 8.81

60-inch Telescope Log
 Observer: P. Berlin / D. Kwanji
 PI: Kemp / R. B. Geller
 Spectrograph: FAST
 Grating: 300R; 345 slit; bmbly4
 Date: 2/13/96
 Page: 4377

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	BIAS			0	0s	big hail storm after sunset
11-20	FLAT			0	6s	
21	HBC 351	03:49	+24:30	30	5m	
22	COMP			↑		
23	HBC 352	03:51	+31:54	30	5m	SW
24	HBC 353	03:51	+31:54	30	6m	NE (some spill over from #352 to W) close for cloud
25	COMP			↑		
26	OC 380 p 2525	06:38	+25:25	43	12m	MMT in cloud close poor seeing
27	COMP			↑		
28	07249 p 2630	07:24	+26:30	1	12m	H _α
29	COMP			↑		
30	07200 p 2331	07:22	+23:31	1	12m	
31	COMP			↑		
32	318.05227	11:46	+32:17	3	15m	red from 2/11/96
33	COMP			↑		
34	318.058472	11:25	+32:19	3	10m	
35	COMP			↑		
36	318.058524	11:25	+32:20	3	12m	
37	COMP			↑		
38	318.058669	11:21	+32:21	3	7m	
39	COMP			↑		
40	318.010213	11:29	+27:09	3	12m	H _α
41	COMP			↑		finishes the plate!
42	319.049248	11:43	+30:45	3	8m	
43	COMP			↑		
44	319.000060	11:46	+26:03	3	9m	
45	COMP			↑		
46	319.001370	11:43	+26:10	3	7m	
47	COMP			↑		
48	319.001559	11:43	+26:12	3	9m	H _α

318.05227
 318-470

4800 5360 5800

8.33
 1.12

60 inch Telescope Log

Observer: R. G. ... / ...

PI: Geller/Huchra

Spectrograph: FAST

Grating: 300 / 3'SLT / 31M-4

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Date: 2/13/86

Number	Object	R.A.	Dec.	L/R	Exp	Comments
49	COMP			↑		
50	319.002345	11:43:	+26:16	3	5m	
51	COMP			↑		
52	319.002825	11:59	+26:18	3	7m	Hx
53	COMP			↑		
54	319.002825	11:59	+26:18	3	15m	SEEING NOT SO GOOD. Hx
55	COMP			↑		
56	319.003444	11:47:04	+26:23:57.6	3	7m	Hx
57	COMP			↑		
58	319.004232	11:58:10.2	+26:27:10.8	3	7m	
59	COMP			↑		a few local clouds
60	319.004328	11:57:26	+26:27:21	3	7m	SEEING ~ 2''+
61	COMP			↑		
62	319.004799	11:44:33	+26:31:20	3	7m	
63	COMP			↑		
64	319.004966	11:58:7.63	+26:31:21.2	3	7m	
65	COMP			↑		
66	319.006098	11:40:15	+26:38:50.7	3	7m	
67	COMP			↑		
68	UGL680	11:40:26	+19:56:02	1	6m	} reads from ??
69	COMP			↑		
70	11409 p1954	11:40:54	+19:54:00	1	7m	increasing clouds
71	COMP			↑		
72	11158 p5854	11:16	+58:38	1	10m	lots of clouds
73	COMP			↑		
74	11162 p5810	11:19	+58:04	1	4m	em p
75	COMP			↑		
76	11126 p5544	11:15	+55:28	1	7m	redo stopped by clouds
77	COMP			↑		close a while
78	95 4081 -gal01	11:36	+22:25	33	7m	em

60 inch Telescope Log			Spectrograph: <u>FAST</u>		Page: <u>4399</u>	
Observer: <u>PB/DK</u>			Grating: <u>300L</u>			
PI: <u>Barton</u>			Date: <u>2/13/96</u>			
Number	Object	R.A.	Dec.	L/R	Exp	Comments
79	CMP			↑		open again; hole to N
80	11466p7617	11:49	+76:00	1	3m	weak H α
81	CMP			↑		stopped by clouds
82	gr1406-gal01	12:40	+26:43	33	2m	open again...
83	CMP			↑		
84	gr1406-gal02	12:40	+26:31	33	6m	em+
85	CMP			↑		
86	gr1406-gal03	12:41	+26:04	33	5m	Wow. bright SB lots of line structure
87	CMP			↑		
88	gr1406-gal04	12:39	+25:40	33	7m	weak
89	CMP			↑		
90	gr1406-gal05	12:40	+26:30	33	7m	
91	CMP			↑		
92	gr1406-gal06	12:43	+25:28	33	6m	H α
93	CMP			↑		
94	gr1406-gal07	12:41	+26:58	33	8m	em+
95	CMP			↑		
96	gr1406-gal08	12:40	+25:33	33	4m	clouds moving in again - weak
97	CMP			↑		
98	N4151	12:08	+39:41	6	1m	
99	CMP			↑		
100	MRK279	13:51	+66:33	6	2m	
101	CMP			↑		
102	N5518	14:16	+25:22	6	1m	swamped by clouds at dawn
103	CMP			↑		
104,105	H344	13:21	+76:03	0	1m	
106	CMP			↑		
107-116	BTAS			0	0s	
117-126	FLAY			0	6s	

60 inch Telescope Log			Spectrograph: <u>FAST</u>			
Observer: <u>D. KORANYI</u>			Grating: <u>3002/6in. 374</u>		Page: <u>4380</u>	
PI: <u>GALLER/KENTON</u>			Date: <u>2/14/96</u>			
Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	BIAS			0	0s	
11-20	FLAT			0	6s	
21	SUN			0	6s	} THESE ARE NOT SUNS; } MIRROR WAS AT COMP! } WILL DO SUNS IN MORNINGS.
22	SUN			0	20s	
23	SUN			0	40s	
24	COMP			↑		
25-27	M32	00:29:58.2	+07:5:30	0	30s	(1950 COORDS)
28	471.054911	2:52:25	+2:07:45	3	15m	FORGET TO COMP EQ M32!
29	COMP			↑		
30-32	M32	00:29:58.2	+07:5:30	0	30s	(1950)
33	COMP			↑		
34	471.057924	2:43:57.9	+2:5:8.2	3	15m	THIS IS A REDD
35	COMP			↑		
36	471.059437	2:55:57.9	+2:06:55.5	3	15m	FAINT!?
37	COMP			↑		
38	471.074063	2:44:21.8	+2:42:29.4	3	15m	FAINT! REDD?
39	COMP			↑		
40	Hyades 64	21:23:47.65	+16:38:07.3	46	60s	FAR JANG LUV (81950)
41	COMP			↑		
42	471.074144	2:46:44.89	+2:42:44.0	3	20m	
43	COMP			↑		
44	HRC 354	3:51:34.7	+25:24:25	30	6m	
45	COMP			↑		
46	HRC 355	3:51:35.0	+25:24:22	30	5m	
47	COMP			↑		
48	HRC 356	4:00:12.2	+25:44:45	30	5m	
49	COMP			↑		
50	HRC 358	4:00:46.9	+26:02:42	30	6m	HRC359 ALSO ON SUNT: <u>357</u>
51	COMP			↑		
52	HRC 359	4:00:46.6	+26:02:43	30	7m	HRC354 ALSO ON SUNT: <u>359</u>

med files 25-27 were purged because velocities were incorrect (COMP really does matter!!)

8.85
1.16

velocities were not around 120 km/s

60 inch Telescope Log

Spectrograph: FASTObserver: D. K. PANYIGrating: 300 / 62 by 4Page: 4381PI: KINTON/GALLERDate: 2/14/96

Number	Object	R.A.	Dec.	L/R	Exp	Comments
53	COMP			↑		
54	HRC 360	4:01:42.1	+21:50:11	30	7m	BIT OF HRC 361 ON SLIT; 362
55	COMP			↑		
56	HRC 361	4:01:42.6	+21:50:23	30	7m	HRC 360 ALSO ON SLIT: 361 362
57	COMP			↑		
58	HRC 362	4:02:33.8	+21:47:05	30	7m	362? ?
59	COMP			↑		
60	W167	6:22:49.9	+3:41:54	43	15m	NOT ENOUGH TIME?
61	COMP			↑		
62	W169	6:05:40.6	+22:30:34	43	20m	
63	COMP			↑		
64	319.007040	11:47:51.8	+26:45:37	3	12m	
65	COMP			↑		
66	319.008133	11:45:20.3	+26:52:24.6	3	12m	
67	COMP			↑		
68	319.008610	11:42:0.71	+26:54:51.1	3	9m	
69	COMP			↑		
70	319.008730	11:45:37.56	+26:56:16.6	3	8m	
71	COMP			↑		
72	319.008940	11:41:59.56	+26:56:58.8	3	7m	
73	COMP			↑		
74	319.009868	11:50:00.81	+27:02:16.2	3	7m	
75	COMP			↑		
76	319.009946	11:44:21.95	+27:03:24.2	3	15m	
77	COMP			↑		
78	319.010339	11:44:02.37	+27:05:40.1	3	7m	
79	COMP			↑		
80	319.010534	11:56:19.03	+27:06:31.3	3	15m	
81	COMP			↑		
82	319.012205	11:42:56.04	+27:16:37.5	3	8m	

60 inch Telescope Log			Spectrograph: <u>FAST</u>		Page: <u>4382</u>	
Observer: <u>D. KORANYI</u>			Grating: <u>300 / 31W x 4</u>		Date: <u>2/14/86</u>	
PI: <u>CASLR</u>						
Number	Object	R.A.	Dec.	L/R	Exp	Comments
83	COMP			↑		
84	319.017957	11:37:20.45	+27:19:09.4	3	9m	
85	COMP			↑		
86	319.015031	11:56:42.85	+27:32:01.6	3	8m	
87	COMP			↑		
88	319.015358	11:51:54.24	+27:34:40.6	3	6m	
89	319.015574	11:56:45.01	+27:35:01.2	3	10m	FORGET TO COMP #86!
90	COMP			↑		
91	319.016431	11:41:13.21	+27:39:53.2	3	7m	
92	COMP			↑		
93	319.016443	11:40:08.84	+27:39:44.2	3	6m	
94	COMP			↑		
95	319.016584	11:53:31.58	+27:41:02.1	3	7m	
96	COMP			↑		
97	319.016953	12:03:00.80	+27:40:35.4	3	8m	GETTING WINDY...
98	COMP			↑		
99	319.017342	11:51:44.97	+27:45:29.2	3	7m	
100	COMP			↑		
101	319.017785	12:02:18.25	+27:44:32.4	3	8m	
102	COMP			↑		
103	319.017798	11:40:07.89	+27:46:39.9	3	8m	
104	COMP			↑		
105	319.018545	11:50:49.65	+27:51:48.3	3	9m	
106	COMP			↑		
107	319.019224	11:35:52.08	+27:53:21.8	3	6m	
108	COMP			↑		
109	319.019388	12:03:53.52	+27:53:11.7	3	10m	
110	COMP			↑		
111	319.021086	11:50:41.15	+28:05:12.6	3	9m	
112	COMP			↑		

60 inch Telescope Log

Observer: D KORANYIPI: GELLER/BARTONSpectrograph: FASTGrating: 3002 / 31W04Page: 4383Date: 2/14/96

Number	Object	R.A.	Dec.	L/R	Exp	Comments
113	319.021475	11:42:31.29	+28:08:00.4	3	9m	
114	COMP			↑		
115	319.022383	11:51:05.23	+28:13:06.1	3	9m	
116	COMP			↑		
117	319.022496	11:57:53.44	+28:12:54.5	3	10m	
118	COMP			↑		
119	319.022714	11:49:50.55	+28:14:59.1	3	10m	
120	COMP			↑		
121	319.022839	11:43:14.50	+28:15:28.9	3	10m	
122	COMP			↑		
123	319.023868	11:55:29.58	+28:20:27.9	3	20m	
124	COMP			↑		
125	319.024764	11:35:20.53	+28:23:24.9	3	12m	3 obj on slit; galaxy @ row #40.
126	COMP			↑		
127	HYAKUTAKE (139)	11:40:11	-24:25:38	46	2m	COMET FOR JANG LUN (B1950)
128	COMP			↑		
129	gC1406_gal09	12:40:25.20	+26:31:27.38	33	7m	
130	COMP			↑		
131	gC1406_gal10	12:40:48.43	+25:45:21.17	33	7m	
132	COMP			↑		
133	MRK 421	11:01:40.6	+38:28.43	6	4m	
134	COMP			↑		
135	M4051	12:00:36.4	44:48:35	6	2m	
136	COMP			↑		
137	M4151	12:09:01.7	39:41:01	6	30s	
138	COMP			↑		
139	MRK 279	13:51:53.6	67:33:13	6	30s	
140	COMP			↑		
141	M5518	14:25:43.5	+25:22:01	6	2m	
142	COMP			↑		

60 inch Telescope Log			Spectrograph: <u>FAST</u>			
Observer: <u>D KORANYI</u>			Grating: <u>300L - 80x4</u>		Page: <u>4385</u>	
PI: <u>GELLER/HUCURA</u>			Date: <u>2/15/86</u>			
Number	Object	R.A.	Dec.	L/R	Exp	Comments
10	BIAS			0	05	
11-20	FLAT			0	65	
21-25	SKY			6	75	
26	COMP			↑		
27-29	M32	00:39:58.2	+40:35:30	0	305	
30	COMP			↑		
31	471.0740112	2:49:59.83	+12:43:23.4	3	15m	
32	COMP			↑		
33	471.076132	2:54:46.23	+12:47:41.1	3	20m	2 OBJ. on SLIT: -- FAST OTHER OBJ
34	COMP			↑		RESO? NOT MUCH SIGNAL...
35	471.077309	2:54:48.61	+12:49:06.4	3	20m	2 OBJ. on SLIT. MUCH OTHER OBJ
36	COMP			↑		
37	471.077783	2:57:04.07	+12:51:21.8	3	20m	VERY FAINT? NO VELOCITY
38	COMP			↑		
39	471.079490	2:57:13.74	+12:55:06.2	3	20m	2 OBJ. on SLIT: OBJ SOME SIGNAL OBJ
40	COMP			↑		
41	471.081819	2:57:55.5	+13:00:24.8	3	20m	
42	COMP			↑		
43	W164	6:00:12.00	+25:10:27	1	20m	
44	COMP			↑		
45	W166	6:01:49.50	+25:15:30	1	20m	CANNOT DO phot. FOR SOME REASON
46	COMP			↑		
47	W168	6:06:10.50	+25:36:15	1	20m	
48	COMP			↑		
49	W167	6:04:34.0	+25:33:55	1	20m	VERY, VERY FAINT - RESO?
50	COMP			↑		
51	319.025621	11:36:35.5	+29:29:23.6	3	20m	
52	COMP			↑		
53	319.025850	11:38:29.9	+29:30:43.4	3	6m	
54	COMP			↑		

8.86
1.17

60 inch Telescope Log		Spectrograph: <u>FAST</u>		Page: <u>4386</u>		
Observer: <u>D. KORANYI</u>		Grating: <u>3000 - BIN x 4</u>		Date: <u>2/15/96</u>		
PI: <u>GULLER/KORANYI</u>						
Number	Object	R.A.	Dec.	L/R	Exp	Comments
55	319.026159	12:02:27.7	+09:30:20.9	3	15m	
56	COMP			↑		
57	m610-08	11:39:56.8	+10:39:16.9	35	20m	
58	COMP			↑		
59	m610-11	11:40:03.7	+09:55:15.7	35	15m	
60	COMP			↑		
61	m610-12	11:40:04	+10:45:19.4	35	20m	V. FAINT
62	COMP			↑		
63	m610-16	11:40:21.5	+10:46:50.7	35	10m	
64	COMP			↑		
65	m610-17	11:40:27.9	+09:57:46.8	35	10m	
66	COMP			↑		
67	m610-18	11:40:31.6	+10:06:10.7	35	15m	
68	COMP			↑		
69	m610-19	11:40:39.1	+10:26:07.8	35	20m	
70	COMP			↑		
71	m610-20	11:40:39.7	+10:07:21.3	35	10m	
72	COMP			↑		
73	m610-21	11:40:43.5	+10:24:43.6	35	10m	THIN CLOUDS TO THE NORTH...
74	COMP			↑		
75	m610-35	11:41:46.7	+9:47:11.8	35	10m	
76	COMP			↑		
77	m610-36	11:41:50.8	+10:16:37.4	35	12m	
78	COMP			↑		
79	m610-37	11:41:52.9	+10:18:25.4	35	5m	
80	COMP			↑		
81	m610-38	11:41:57.9	+10:12:24.3	35	12m	
82	COMP			↑		
83	m610-39	11:42:07.0	+09:55:47.9	35	10m	
84	COMP			↑		

60 inch Telescope Log

Observer: D. KORANYIPI: KORANYISpectrograph: FASTGrating: 300L - 15mm/4Page: 4387Date: 7/15/96

Number	Object	R.A.	Dec.	L/R	Exp	Comments
85	mkw10-40	11:42:02.1	+10:55:59.9	35	10m	CLOUDS... ^{FREE} (BRING) ^{CGM} ¹⁸⁵
86	COMP			↑		SHEET OF CLOUDS MISSING FROM E.
87	mkw10-43	11:42:05.9	+10:21:04.9	35	6m	
88	COMP			↑		
89	mkw10-45	11:42:11.1	+10:16:39.4	35	5m	
90	COMP			↑		
91	mkw10-51	11:42:23.7	+10:15:51.2	35	5m	
92	COMP			↑		
93	mkw10-63	11:43:54.3	+10:47:06.8	35	7m	
94	COMP			↑		
95	mkw10-62	11:43:41.7	+10:14:44.2	35	7m	
96	COMP			↑		
97	mkw10-42	11:42:04.5	+10:27:27.3	35	15m	
98	COMP			↑		
99	mkw10-58	11:43:28.0	+10:09:43.9	35	15m	
100	COMP			↑		
101	mkw10-60	11:43:29.4	+10:20:42.1	35	15m	
102	COMP			↑		
103	mkw10-61	11:43:35.1	+10:47:47.8	35	20m	
104	COMP			↑		
105	N4151	12:08:01.1	+39:41:01	6	30s	
106	COMP			↑		
107	MRK 273	13:51:53.6	+67:33:13	6	90s	
108	COMP			↑		
109	N5548	19:15:43.5	+25:22:01	6	2m	
110	COMP			↑		
111-112	H744	23:21:13.0	+76:23:39	0	60s	
113	COMP			↑		
114-123	BIAS			0	0s	
124-133	FLAT			0	6s	

60 inch Telescope Log

Observer: D. KORANYI

PI: KANTON/GALLER

Spectrograph: FAST

Grating: 300L - 31/24

Page: 4388

Date: 2/16/96

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	BIAS			0	0s	
11-20	FLAT			0	6s	
21-25	SKY			0	2s	
26	COMP			↑		
27-29	M32	20:39:58.2	+40:35:30	0	30s	
30	COMP			↑		
31	UCC1	4:10:58.5	+28:11:35	30	6m	too bright still for galaxies...
32	COMP			↑		
33	Amn 1	4:10:21.5	+28:08:22	30	5m	
34	COMP			↑		
35	471.082160	2:50:53.7	+13:01:55.9	3	20m	
36	COMP			↑		
37	471.084176	2:45:04.9	+12:05:40.2	3	20m	NOT IN CATALOG photo 471.1007
38	COMP			↑		(BUT IT IS IN THE BINDER)
39	471.084586	3:02:55.5	+13:05:45.7	3	20m	
40	COMP			↑		
41	471.086715	2:51:09.03	+12:51:14.2	3	20m	2000? REDSHIFT IS 1977.
42	COMP			↑		
43	471.087602	2:47:44.32	+12:17:15.5	3	20m	
44	COMP			↑		
45	Hyndas 64	02:23:47.65	+16:38:07.3	46	70s	FOR JANELCUN
46	COMP			↑		
47-48	SN	04:37:35.5	+08:40:56	2	20m	SN x 2
49	COMP			↑		SPLIT SHOULD BE 1-5 BUT THIS ONE
50	VFFSTan	04:11:07.3	+28:04:41	30	3m	BIN x 4
51	COMP			↑		
52	FNTan	4:11:07.8	+28:05:19	30	6L	
53	COMP			↑		
54	FNTan	4:11:08.6	+28:20:27	30	5m	
55	COMP			↑		

could NOT read file 47

8.29
1.10

60 inch Telescope Log

Observer: D. KORANYISpectrograph: FASTGrating: 300L-31Wx4Page: 4389PI: K3N0N/KORANYIDate: 2/16/96

Number	Object	R. A.	Dec.	L/R	Exp	Comments
56	CW Tau	4:11:11.3	+28:03:27	30	5m	
57	COMP			↑		
58	C19 A=1	4:11:12.1	+27:58:38	30	10m	
59	COMP			↑		
60	319.026872	11:51:55.14	+28:35:06.2	3	18m	
61	COMP			↑		
62	319.026881	11:50:29.45	+28:35:38.6	3	15m	
63	COMP			↑		
64	319.027816	11:38:17.3	+28:33:45.1	3	15m	
65	COMP			↑		
66	319.027849	11:40:15.5	+28:40:55.2	3	20m	
67	COMP			↑		
68	mkw10-22	11:40:46.6	+10:05:04.8	35	20m	WINDY...
69	COMP			↑		
70	mkw10-23	11:40:58.5	+10:43:03.6	35	20m	
71	COMP			↑		
72	mkw10-24	11:41:03.6	+10:17:28.6	35	20m	TOO FAINT, I THINK.
73	COMP			↑		
74	mkw10-26	11:41:04.4	+10:35:03.5	35	20m	
75	COMP			↑		
76	mkw10-27	11:41:05.9	+10:49:36.8	35	20m	
77	COMP			↑		
78	mkw10-28	11:41:14.9	+10:41:15.9	35	20m	
79	COMP			↑		
80	mkw10-29	11:41:15.1	+10:43:15.0	35	20m	
81	COMP			↑		
82	mkw10-30	11:41:16.6	+10:45:19.9	35	20m	
83	COMP			↑		
84	mkw10-32	11:41:16.3	+09:36:49.5	35	20m	
85	COMP			↑		

60 inch Telescope Log

Observer: D. KORANYI

PI: KORANYI

Spectrograph: FAST

Grating: 300L-31N44

Page: 4390

Date: 2/16/86

Number	Object	R.A.	Dec.	L/R	Exp	Comments
86	mkw10-33	11:41:36.8	+08:43:34.3	35	20m	
87	COMP			↑		
88	SN in M47 052509	13:48:48	+13:35:00	2	20m	} BIN 2, ALMOST NO SIGNAL, BUT CLEARLY VISIBLE ON GUIDE TV
89	COMP			↑		
90	HYAKUTAKE_82	11:40:50	-24:22:00	46	2m	COMET FOR SAME LUN/BIN 44
91	COMP			↑		
92	mkw10-34	11:41:44.7	+08:41:31.5	35	20m	
93	COMP			↑		
94	mkw10-41	11:42:04.7	+08:41:50.9	35	20m	
95	COMP			↑		
96	mkw10-48	11:42:17.5	+10:17:30.1	35	20m	
97	COMP			↑		
98	mkw10-73	11:45:00.5	+09:38:21.7	35	20m	
99	COMP			↑		
100	N4151	12:08:01.1	+39:41:00	6	30s	
101	COMP			↑		
102	MRK 273	13:51:53.0	+69:33:13	6	90s	
103	COMP			↑		} CATHOD LIGHT ALREADY...
104	N5548	14:05:43.5	+25:22:01	6	2m	
105	COMP			↑		
106-107	H344	15:21:19.0	+36:23:39	0	60s	
108	COMP			↑		
109-118	BIAS			0	0s	} BIN 24
119-128	FLAT			0	6s	
129-138	BIAS			0	0s	} BIN 24
139-148	FLAT			0	6s	

60 inch Telescope Log

Observer: D. KOBAYASHI

PI: KIPPON/GELER

Spectrograph: FAST

Grating: 3000

Page: 4301

Date: 2/17/96

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	BIAS			0	05	THIN CLOUDS ABOUT; EST. TO W.
11-20	FLAT			0	65	
21	SKY			0	205	TRABLENS OPENING MICROLR COVERS -
22-25	SKY			0	305	IT'S GETTING DARK...
26	COMP			↑		FOCUS OK.
27	H32			0	305	
28	COMP			↑		
29	LLC23	4:11:42.8	+27:45:05	30	6m	
30	FPTan	4:11:43.5	+26:38:58	30	5m	FORGOT TO COMP AGAIN!!
31	COMP			↑		
32	FO Tan	4:11:43.6	+28:05:22	30	5m	
33	COMP			↑		
34	CT Tan	4:11:44.0	+26:40:42	30	5m	
35	COMP			↑		
36	471.088353	2:47:55.8	+13:14:30.0	3	20m	COMP STARTING SPINNING FOR NO
37	COMP			↑		REASON? DID A "STOP"!
38	471.088324	2:47:24.4	+13:17:25.3	3	20m	
39	COMP			↑		
40	471.088742E	2:51:15.7	+13:18:23.7	3	20m	
41	COMP			↑		
42	471.091286	2:48:06.2	+13:22:01.0	3	20m	
43	COMP			↑		
44	471.093630	2:48:19.5	+13:27:17.3	3	20m	SWITCHING TO 4300
45	COMP			↑		REST ARE TOO FAINT!
46	CZDA-2	4:11:59.6	+29:01:18	30	7m	
47	COMP			↑		
48	LLC24	4:13:22.4	+26:50:13	30	6m	STAR BRIGHT...
49	COMP			↑		
50	CT Tan	4:14:22.7	+26:15:29	30	6m	
51	COMP			↑		

0.98
7.48

60 inch Telescope Log

Observer: Dr. K. RAYPI: KENTON [KORAMY]Spectrograph: FASTGrating: 300Page: 4392Date: 2/17/96

Number	Object	R.A.	Dec.	L/R	Exp	Comments
52	LkCa5	4:14:52.6	+78:25:43	30	6m	
53	COMP			↑		
54	CIDAM-3	4:14:43.4	+78:27:18	30	12m	
55	COMP			↑		
56	V410 Tau	4:15:24.8	+78:20:52	30	3m	
57	COMP			↑		
58	DD Tau	4:15:20.1	+78:09:15	30	6m	
59	COMP			↑		
60	CETal	4:15:25.6	+78:09:44	30	8m	
61	COMP			↑		
62	319.029134	11:44:10.6	+79:49:25.9	3	10m	
63	COMP			↑		
64	319.039785	11:43:17.6	+29:47:00.3	3	10m	CLOUDS...
65	COMP			↑		
66	anm2-04	12:12:45.4	+74:26:55.9	35	10m	
67	COMP			↑		
68	anm2-22	12:14:05.0	+74:04:02.8	35	15m	CLOUDS.
69	COMP			↑		
70	anm2-25	12:14:15.6	+73:59:26.0	35	10m	
71	COMP			↑		
72	anm2-27	12:14:36.6	+74:16:25	35	10m	
73	COMP			↑		
74	anm2-28	12:12:41.36	+73:51:09.7	35	10m	
75	COMP			↑		
76	anm2-32	12:14:57.4	+73:54:24.0	35	10m	
77	COMP			↑		
78	anm2-33	12:14:56.8	+73:52:07.3	35	10m	
79	COMP			↑		
80	anm2-34	12:14:58.6	+73:47:28.8	35	10m	
81	COMP			↑		

60 inch Telescope Log

Spectrograph: FASTObserver: D. KORNBYGrating: 3002Page: 4393PI: KORNBYDate: 7/17/86

Number	Object	R. A.	Dec.	L/R	Exp	Comments
82	awm2-35	12:15:00.7	+23:46:52.4	35	20m	
83	COMP			†		
84	awm2-36	12:15:01.4	+23:48:22.6	35	20m	
85	COMP			†		
86	mkw10-36	11:41:50.8	110-16:53.4	35	20m	REGO FROM 7/15
87	COMP			†		
88	mkw10-40	11:42:02.1	+09:55:53.9	35	20m	REGO FROM 7/15
89	COMP			†		
90	awm2-39	12:15:15.9	+23:57:29.5	35	15m	
91	COMP			†		
92	awm2-41	12:15:22.0	+23:59:39.8	35	20m	LONG SECURE
93	COMP			†		
94	awm2-43	12:15:25.2	+23:56:54.1	35	20m	
95	COMP			†		
96	awm2-45	12:15:28.9	+24:05:32.3	35	20m	
97	COMP			†		
98	awm2-47	12:15:33.9	+24:00:11.8	35	20m	
99	COMP			†		
100	awm2-49	12:15:37.6	+23:58:54.3	35	10m	
101	COMP			†		
102	MRL421	11:01:40.6	+38:28:43	6	4m	
103	COMP			†		
104	N4051	12:00:56.4	+44:48:35	6	2m	
105	COMP			†		
106	N4151	12:08:01.1	+39:41:01	6	30s	
107	COMP			†		
108	MRL279	13:51:53.6	+69:33:13	6	90s	
109	COMP			†		
110	N5548	14:15:43.5	+15:22:01	6	2m	
111	COMP			†		

60 inch Telescope Log			Spectrograph: <u>FAST</u>			
Observer: <u>D. KORANYI</u>			Grating: <u>3002</u>		Page: <u>4385</u>	
PI: <u>KANTON/LELLER</u>			Date: <u>2/16/96</u>			
Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	TRIAS			0	0s	CLOUDY, esp. to WEST.
11-20	FLAT			0	6s	DON'T GET MUCH SIGNAL.
21-25	SKY			0	2s	
26	COMP			↑		
27	M32	00:39:58.2	+40:35:30	0	30s	NOT MUCH SIGNAL
28	COMP			↑		
29	M32	00:39:58.2	+40:35:30	0	2m	BETTER.
30	COMP			↑		
31	HBC 372	04:15:25.7	+16:51:30	30	8m	CLEAR @ 20 WITH
32	COMP			↑		
33	V892 Tau	04:15:34.5	+26:12:02	30	8m	
34	COMP			↑		
35	Hubble 4	4:15:42.9	+26:12:54	30	6m	
36	COMP			↑		
37	HBC 376	04:15:59.1	+13:16:21	30	5m	
38	COMP			↑		
39	FQ Tau	04:16:06.4	+26:22:11	30	8m	Obj. or star <u>1.1m</u>
40	COMP			↑		
41	471.090719	2:48:37.7	+78:20:30.1	3	20m	FRANK ONLY - TRY & CALL IT
42	COMP			↑		WASHING OUT DUE TO CLOUDS... NO GOOD
43	471.092433	03:21:26.9	+13:24:21.4	3	20m	ISABELLY VISIBLE, NO FINDING
44	COMP			↑		CHART - CLOUDS!
45	471.093264	2:57:13.66	+8:26:16.3	3	10m	FAINT. QUESTIONABLE SIGNAL.
46	COMP			↑		
47	471.093670	2:48:18.51	+7:27:13.3	3	20m	STILL CLEAR! BUT ONLY SIGNAL
48	COMP			↑		
49	BP Tau	4:16:06.1	+26:59:13	30	10m	GETTING FUZZY - HORRIBLE SEEING
50	COMP			↑		
51	V619 Tau	4:16:19.9	+26:19:03	30	8m	
52	COMP			↑		

1.18
8.80

60 inch Telescope Log

Spectrograph: FASTObserver: D. KORANYIGrating: 3004Page: 4396PI: KORANYI / GEMER / KORANYIDate: 2/18/96

Number	Object	R. A.	Dec.	L/R	Exp	Comments
53	LkCa7	4:16:35.8	+27:47:28	30	7m	
54	COMP			↑		
55	HBC 357	4:00:12.2	+25:44:45	30	5m	NO FINDING CHART, GUESSED @ STAR
56	COMP			↑		
57	Hya 64	04:23:47.6	+26:38:07.3	46	60s	FOL JANE LW
58	COMP			↑		
59	J 2m157	04:17:55.6	+17:39:36	30	15m	CLOUDS!
60	COMP			↑		
61	DETA	04:18:49.8	+27:48:05	30	5m	
62	COMP			↑		
63	319.040210	11:41:10.81	+29:50:52.4	3	10m	
64	COMP			↑		
65	319.040385	11:47:16.46	+29:52:33.2	3	20m	
66	COMP			↑		
67	319.040686	11:44:56.25	+29:54:21.5	3	20m	
68	COMP			↑		
69	319.040984	11:38:07.7	+29:53:26.6	3	20m	
70	COMP			↑		
71	319.041073	11:57:24.1	+29:55:35.8	3	20m	
72	COMP			↑		
73	avm 2-56	12:15:55.1	+23:55:44.3	35	20m	
74	COMP			↑		
75	avm 2-59	12:16:12.0	+23:50:31	35	20m	
76	COMP			↑		
77	avm 2-63	12:16:23.5	+23:55:04.7	35	20m	
78	COMP			↑		
79	avm 2-66	12:16:29.6	+23:49:40.5	35	20m	
80	COMP			↑		
81	avm 2-71	12:16:55.3	+23:55:28.8	35	20m	CLOUDS!
82	COMP			↑		

60 inch Telescope Log

Observer: D. KORANYI

PI: KORANYI

Spectrograph: FAST

Grating: 300L

Page: 4397

Date: 2/16/96

Number	Object	R. A.	Dec.	L/R	Exp	Comments
83	g1717 - gal 01	13:28:41.05	136:57:16.5	33	20m	✓ CLOUDY; LOSE SEVERAL MAG.
84	COMP			↑		NO (???)
85	319. 042038	11:57:32.4	170:00:49.7	3	20m	CLOUDY. PROBABLY USELESS.
86	COMP			↑		
87	Hyabatake-32	14:47:47.5	14:09:40	46	10m	COVER FOR JANE LN
88	COMP			↑		CLOUDS... LOW INACTIVITY.
89	M4151	12:08:01.1	139:41:01	6	60s	STOPPING EARLY DUE TO CLOUDS.
90	COMP			↑		
91	M4279	13:51:53.6	169:35:13	6	3m	
92	COMP			↑		
93	M5518	14:05:43.5	125:22:01	6	6m	
94	COMP			↑		
95-96	M244	13:21:18.0	136:23:39	0	3m	
97	COMP			↑		
98-107	BIAS			0	0s	
108-117	FLAT			0	6s	

60 inch Telescope Lpg

Observer: P BerlinPI: Kenyon/Pantoja/GrellerSpectrograph: FASTGrating: 300X, 3" slit, bmk 4Page: 4398Date: 2/19/96

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	BIAS			0	0s	lots of clouds!
11-20	FLAT			0	6s	
21-25	sky			0	2s	
26	COMP			↑	5s	
27-29	del Ori			0	0.5s	
30	COMP			↑		
31-34	BDP26595			0	5s	
35	COMP			↑		
36-39	eta Ori	05:21	-02:23	0	0.5s	
40	COMP			↑		
41, 42	IPTau	04:21	+12:05	35	3m 5m	
43	COMP			↑		
44-46	TTau	04:19	+17:25	35	2m 1/2	
47	COMP			↑		
48	FSTau	04:22	+25:57	35	7m	Weak
49	COMP			↑		
50	471.023243	02:43	+10:42	3	20m	Weak C ₂ = 24,500
51	COMP			↑		
52	471.023131	02:56	+10:41	3	20m	
53	COMP			↑		
54	471.020711	02:55	+10:45	3	18m	H ₂
55	COMP			↑		
56, 57	0514.0001	05:36	+31:51	43	90, 8m	LSB gal w/ bright x superpos on nucleus * 56 is all star
58	COMP			↑		* 57 has extended H ₂ @ pix 2005
59	03099	04:36	+20:36	43	6m	
60	COMP			↑		
61	03095	04:35	+18:20	43	10m	redo in better sky
62	COMP			↑		stopped by clouds
63	3A.041991	11:46	+30:07	3	10m	lost 3 hours
64	COMP			↑		

8.39
1.12

60 inch Telescope Log			Spectrograph: <u>FAST</u>		Page: <u>4399</u>	
Observer: <u>PB</u>			Grating: <u>3002</u>			
PI: <u>Greller/Kirshner/Falco/Berton</u>			Date: <u>2/19/96</u>			
Number	Object	R.A.	Dec.	L/R	Exp	Comments
65	319.043370	11:59	+30:06	3	10m	
66	COMP			↑		
67,69	319.043114	11:59	+30:06	3	10m	x2
68,70	COMP			↑		
71	319.046433	11:47	+30:28	3	8m	
72	COMP			↑		
73	319.045803	11:51	+30:24	3	8m	
74	COMP			↑		
75	319.043332	12:01	+30:07	3	10m	
76	COMP			↑		
77	319.044521	12:02	+30:14	3	10m	em
78	COMP			↑		
79	319.042038	11:57	+30:02	3	8m	redo from 2/18/96 #85
80	COMP			↑		
81	319.044638	12:01	+30:15	3	8m	
82	COMP			↑		
83	319.044649	11:59	+30:16	3	8m	
84	COMP			↑		Nice hole in clouds
85	SN199CC	13:48	+45:55	2	20m	bin by 2 Kirshner
86	COMP			↑	8s	
87	1245p676	12:47:33	+67:23:16	4/1	15m	bin by 4 Falco
88	COMP			↑		
89	H2M4	13:21	+36:23	0	2m	
90	COMP			↑		
91	gr4081-gr113	11:36	+22:25	33	8m	weak em
92	COMP			↑		
93	gr4081-gr114	11:36	+21:39	33	15m	
94	COMP			↑		good cloud gap
95	gr4081-gr115	11:37	+22:02	33	12m	
96	COMP			↑		

102	COMP			↑		
103	gr 4081 gal 20	11:35	+22:22	33	9m	Seamy worse
104	COMP			↑		
105	gr 4061 gal 12	11:37	+22:19	33	8m	
106	COMP			↑		
107	gr 4081 gal 11	11:38	+22:14	33	7m	
108	COMP			↑		
109	gr 4081 gal 10	11:36	+22:30	33	7m	H _a
110	COMP			↑		
111	gr 4081 gal 09	11:38	+21:50	33	5m	
112	COMP			↑		
113	1558p595	15:59	+59:24	41	8m	Falco
114	COMP			↑		
115	gr 1712 gal 01	13:29	+36:54	33	4m	H _a ; reds (bright sky)
116	COMP			↑		from 2/18/96
117	gr 1712 gal 02	13:23	+37:08	33	4m	H _a
118	COMP			↑		
119	gr 1712 gal 03	13:20	+36:26	33	6m	H _a
120	COMP			↑		
121	gr 1712 gal 04	13:25	+36:22	33	10m	LSB H _a 2189 (?)
122	COMP			↑		
123	gr 1712 gal 05	13:25	+36:26	33	8m	em++
124	COMP			↑		
125	gr 1712 gal 06	13:26	+36:44	33	6m	
126	COMP			↑		

47

P. 4400

60 inch Telescope Log

Observer: PB

PI: Barton/Wilkes

Spectrograph: FAST

Grating: 302

Date: 2/19/96

Page: 4401

Number	Object	R.A.	Dec.	L/R	Exp	Comments
127	qr1712-gal07	13:26	+8:47	33	6m	
128	COMP			↑		
129	N5548	14:15	+25:22	6	2m	
130	COMP			↑		
131	MRK279	13:51	+6:33	6	90s	
132	COMP			↑		
133	N4151	12:08	+39:41	6	30s	
134	COMP			↑		
135-136	Ferpa66	12:34	+25:20	0	1m	
137	COMP			↑		
138-139	N4486B	12:28	+12:46	0	3m	
140	COMP			↑		
141-142	RCor Bar	15:48	+20:09	0	2m	
143	COMP			↑		
144-147	TCor Bar	15:59	+25:55	0	10s	fill 146 no good
148	COMP			↑		clouds all over
149-158	BIAS			0	0s	⊙ down
159-168	FLAT			0	6s	
169-178	BIAS			2	0s	blank 2
179-188	FLAT			2	12s	

60 inch Telescope Log				Spectrograph: <u>FAST</u>		Page: <u>4402</u>
Observer: <u>P Berlin</u>				Grating: <u>3000</u>		
PI: <u>Kenyon/Pantoja</u>				Date: <u>2/20/96</u>		
Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	BIAS			0	0s	
11-20	FLAT			0	6s	late start due to heavy cloud cover
21,22	RY Tau	04:18	+28:19	30	20s, 2m	} nice Lithium!!
23	COMP			↑		
24,25	HD 283572	04:18	+28:11	30	10s, 1m	
26	COMP			↑		
27,28	J 4872 NE	04:22	+26:11	30	2m, 4m	NE Comp. close pair
29	COMP			↑		increasing clouds
30	J 4872 SW	04:22	+26:11	30	10m	SW
31,32	DE Tau	04:23	+25:35	30	10m, 3m	
33	COMP			↑		
34,35	DG Tau	04:21	+25:59	30	5m, 2m	oh my... PCog profiles
36	COMP			↑		
37	HBC 388	04:24	+17:44	30	2m	
38	COMP			↑		
39	FY Tau	04:29	+24:13	30	10m	SW
40	FZ Tau	04:29	+24:13	30	10m	NE
41	COMP			↑		
42,43	UZ Tau	04:29	+25:46	30	2m, 2s	close EW pair
44	COMP			↑		
45	UZ Tau	04:29	+25:46	30	2m	bin by 1 to separate comps
46	COMP			↑		low z/c
47	JH112	04:29	+27:46	30	10m	
48	COMP			↑		
49	0700p1852	07:02	+18:31	43	9m	
50	COMP			↑		variable clouds
51	06558p1843	06:58	+18:38	43	15m	
52	COMP			↑		
53	07034p2052	07:06	+20:47	43	7m	
54	COMP			↑		

8.78

1.16

60 inch Telescope Log

Observer: PBSpectrograph: FASTGrating: 3002Page: 4403PI: Bartels/Geller/Barton/Wilkens/FalcoDate: 2/20/96

Number	Object	R.A.	Dec.	L/R	Exp	Comments
55	07020p1854	07:07	+18:49	43	15m	H+
56	COMP			↑		clouds all around
57	07048p1850	07:07	+18:45	43	12m	
58	COMP			↑		some overkill on S/N; w/ no
59	07045p1835	07:07	+18:30	43	7m	mags listed + clouds
60	COMP			↑		
61	07050p2035	07:07	+20:30	43	7m	
62	COMP			↑		
63	03911	07:34	+23:06	43	7m	
64	COMP			↑		
65	0902p468	09:06:15	+46:26:19	41	10m	FALCO
66	COMP			↑		
67/69	319.046639	11:38	+30:28	3	5m, 15m	x2 clouds...
68/70	COMP			↑		
71	319.046731	11:42	+30:30	3	10m	redo all cloud
72	COMP			↑		
73	319.049081	11:47	+30:45	3	15m	
74	COMP			↑		
75	319.048936	11:44	+30:44	3	13m	stopped by clouds
76	COMP			↑		
77	of 4081 gal 02	11:37	+21:47	33	10m	
78	COMP			↑		
79	of 4081 gal 104	11:35	+21:43	33	12m	
80	COMP			↑		
81	of 2284 gal 03	11:39	+20:27	33	9m	
82	COMP			↑		
83	MRK421	11:01	+38:28	6	6m	
84	COMP			↑		
85	N4081	12:00	+44:48	6	5m	
86	COMP			↑		

60 inch Telescope Log			Spectrograph: <u>FAST</u>		Page: <u>4404</u>	
Observer: <u>PB</u>			Grating: <u>3002</u>			
PI: <u>Wilkes/Geller</u>			Date: <u>2/20/96</u>			
Number	Object	R.A.	Dec.	L/R	Exp	Comments
87-88	N4151	12:08	+39:41	6	1m	
89	COMP			↑		
90-91	H244	13:21	+36:23	0	2m	
92	COMP			↑		
93	N5548	14:25	+25:22	6	5m	junk
94	COMP			↑		
95-97	betaleo	11:49	+14:34	0	5s	
98	COMP			↑		
99-101	deltaleo	11:14	+20:31	0	10s	
102	COMP			↑		
103-107	thetaleo	11:14	+15:25	0	1m	
106	COMP			↑		
108-111	alp3oo	14:15	+19:12	0	5s	stopped by clouds
112	COMP			↑		
113	MRK275	13:51	+69:33	6	5m	
114	COMP			↑		
115	N5548	14:15	+25:22	6	7m	
116	COMP			↑		
117	322.041485	13:07	+28:42	3	6m	
118	COMP			↑		
119	322.0410376	12:56	+28:37	3	8m	
120	COMP			↑		
121	322.041723	12:58	+28:42	3	12m	H ₂
122	COMP			↑		
123	322.050601	13:05	+29:16	3	12m	
124	COMP			↑		
125	322.007185	12:56	+26:29	3	8m	H ₂ stopped by clouds.
126	COMP			↑		
127	322.011818	12:59	+26:48	3	5m	
128	COMP			↑		

60 inch Telescope Log

Observer: PB
 PI: Geller

Spectrograph: FAST

Grating: 300R

Date: 2/20/66

Page: 4405

Number	Object	R. A.	Dec.	L/R	Exp	Comments
129	327.010810	13:08	+26:48	3	7m	Ha
130	COMP			↑		
131	322.001520	13:03	+26:31	3	5m	clouds.. Ha
132	COMP			↑		
133	327.017432	12:57	+26:51	3	10s	solid cloud again
134	COMP			↑		
135-139	BIAS			30	0s	bin by 1 for Kenyon (file 45)
140-144	FLAT			30		"
145	COMP				20s	test
146-155	BIAS			0	0s	bin by 4
156-165	FLAT			0	6s	
166-170	sky	zenith		0	10s	
171	COMP			↑		

60 inch Telescope Log

Observer: P. BerlindPI: Kemper/HuchraSpectrograph: FASTGrating: 300LDate: 2/21/96Page: 4406

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	BARS			0	0s	late start due to
11-20	FLAT			0	6s	heavy cloud
21	GHTAU	04:30	+24:03	30	5m	S
22	V807Tau	04:30	+24:03	30	3m	N
23	COMP			↑		
24	V830Tau	04:30	+24:27	30	5m	
25	COMP			↑		
26	L1551m55	04:29	+17:56	30	5m	
27	L1551m55 SW	"	"	30	4m	Not PMS
28	COMP			↑		
29	GHTau	04:30	+24:15	30	5m	NW
30,32	GKTAu	04:30	+24:14	30	5m/1m	SE
31	COMP			↑		
33,34	DLTAu	04:30	+25:14	30	10m, 2m	
35	COMP			↑		
36,37	HNTau	04:30	+17:45	30	10m, 1m	
38	COMP			↑		
39	ITTAu	04:30	+26:07	30	10m	stopped by clouds
40	COMP			↑		
41-43	N3031	09:51	+69:18	0	1m	
44	COMP			↑		
45	N3079	09:58	+55:55	0	5m	
46	COMP			↑		
47-54	Wilson 637	09:58	+55:50	0	10s, 30s	
50,55	COMP			↑		
56	11123p5849	11:15	+58:33	1	10m	em
57	COMP			↑		
58	10416p5636	10:44	+56:22	1	10m	
59	COMP			↑		
60	10396p6035	10:42	+60:19	1	10m	emf

8.57
1.13

60 inch Telescope Log

Observer: P. BerlindPI: Huchra/GellerSpectrograph: FASTGrating: 3002Date: 2/21/96Page: 4407

Number	Object	R.A.	Dec.	L/R	Exp	Comments
61	COMP			↑		
62	10404p5602	10:43	+55:46	↑	8m	
63	COMP			↑		
64	10407p5600	10:43	+55:54	↑	7m	em++ very blue galaxy
65	COMP			↑		
66	10355p5649	10:35	+56:49	↑	12m	H _α
67	COMP			↑		
68	10259p6434	10:29	+64:18	↑	5m	
69	COMP			↑		
70	10320p7251	10:35	+72:35	↑	3m	
71	COMP			↑		
72	10387p5612	10:41	+58:56	↑	12m	H _α
73	COMP			↑		
74	11126p5544	11:15	+55:28	↑	9m	redo from 2/13/96 H _α
75	COMP			↑		
76	319.049253	11:35	+30:43	3	10m	poor seeing; clouds
77	COMP			↑		
78	322.013283	12:58	+26:54	3	8m	
79	COMP			↑		
80	322.013869	12:54	+26:8	3	10m	
81	COMP			↑		
82	322.014024	12:56	+26:57	3	4m	
83	COMP			↑		
84	322.014580	12:56	+26:59	3	3m	
85	COMP			↑		
86	322.014717	13:14	+27:0	3	9m	H _α
87	COMP			↑		
88	322.015997	12:51	27:04	3	7m	
89	COMP			↑		
90	322.016147	12:54	+27:04	3	3m	

60 inch Telescope Log

Observer: PBPI: GellerSpectrograph: FASTGrating: 300RDate: 2/21/96Page: 4408

Number	Object	R.A.	Dec.	L/R	Exp	Comments
91	COMP			↑		
92	322.016774	12:58	+27:06	3	5m	
93	COMP			↑		
94	322.016782	12:53	+27:05	3	4m	emp
95	COMP			↑		
96,98	322.016709	12:58	+27:08	3	10m, 5m	x2
97,99	COMP			↑		
100	322.016864	13:06	+27:10	3	12m	
101	COMP			↑		
102	322.017459	12:59	+27:11	3	7m	
103	COMP			↑		
104	322.020252	12:57	+27:22	3	12m	
105	COMP			↑		
106	322.020668	12:59	+27:24	3	7m	
107	COMP			↑		
108	322.021532	12:58	+27:26	3	6m	
109	COMP			↑		
110	322.021949	13:07	+27:29	3	10m	all cloud - redo
111	COMP			↑		
112-113	N4851	12:08	+79:41	6	1m	
114	COMP			↑		
115,116	N8548	14:15	+25:22	6	4m	close due to cloud
117	COMP			↑		
118-129	BIAS			0	0s	
128-139	FLAT			0	6s	

TOTAL P.01

60 inch Telescope Log
 Observer: P. Berlind
 PI: Kenyon / Muchra / Geller
 Spectrograph: FAST
 Grating: 3000, 3" slit, binby 4
 Date: 2/22/96
 Page: 4/409

Number	Object	R.A.	Dec.	L/R	EXP	Comments
1-10	BIAS				0s	
11-20	FLAT				6s	note: new grating tilt
21	COMP				5s	@ 607
22	HBC200	06:29	+10:33	30	7m	late start due to heavy clouds!
23	COMP			↑		(spectacular sunset)
24	HBC201	06:28	+10:35	30	7m	
25	COMP			↑		
26	HBC202	06:28	+10:28	30	6m	extra * on slit
27	COMP			↑		+ extended rebake
28	HBC521	06:28	+10:28	30	8m	Ted guider tests...
29	COMP			↑		close due to fog bank
30	313.070299	09:06	+30:24	3	14m	th ² open again @ Midnight
31	COMP			↑		close again @ 12:10! fog.
32	G16Sm7	15:31	+30:29	12	7m	stark broadened H lines
33	COMP			↑		
34	11170 p5444	11:19	+58:28	1	10m	
35	COMP			↑		Valley below Mt. Wrightson
36	I2601	12:53	+52:18	1	2m	full of fog
37	COMP			↑		
38	12167 p0634	12:19:16	+06:17:17	1	15m	South em
39	COMP			↑		
40	12167 p0635	12:19:15	+06:18:08	1	12m	North
41	COMP			↑		
42	319.046731	11:42	+30:30	3	9m	em
43	COMP			↑		
44	319.047224	11:40	+30:35	3	5m	
45	COMP			↑		
46	319.048205	11:58	+30:58	3	10m	
47	COMP			↑		
48	319.048774	11:58	+30:42	3	15m	clouds.

9.09
1.19

60 inch Telescope Log

Observer: PBPI: Geller/Kenyon/WilkesSpectrograph: FABGrating: 300LPage: 4410Date: 2/22/96

Number	Object	R.A.	Dec.	I/R	Exp	Comments
49	COMP			↑		
50	319.049115	11:58	+30:44	3	13m	increasing clouds
51	COMP			↑		
52-53	AD Hg _α	13:34	-25:22	12	30, 2m	
54	COMP			↑		
55-56	BD _α 21x3873	14:16	-26:45	12	30, 3m	
57	COMP			↑		solid cloud
58-64	74UMg	12:29	+58:25	0	10s	δ Del
62	COMP			↑		
63-66	YCWn	12:49	+45:27	0	10s	CS, S
67				↑		
68-71	DYDoo	14:07	+43:52	0	10s	M4.5, III
72	COMP			↑		
73-74	HZM	13:21	+36:33	0	3m	
75	COMP			↑		
76, 77	Foige 92	14:09	+50:21	0	3m	
78	COMP			↑		also observed yesterday
79	322.021949	13:07	+27:29	3	6m	enough counts?
80	COMP			↑		stopped short by clouds
81	N4151	12:06	+59:44	4	90s	
82	COMP			↑		
83	MRK279	13:51	+69:33	6	5m	
84	COMP			↑		
85	N5548	14:15	+25:22	6	4m	
86	COMP			↑		
87-89	AOCWn	13:17	+40:35	0	10s	F2 III
90	COMP			↑		
91-93	iBo	15:05	+47:39	0	10s	G EB
94	COMP			↑		
95-104	BEAS			0	0s	Mtn. fog.
105-114	FLAT			0	6s	

60 inch Telescope Log

Observer: PberlindPI: KenyonSpectrograph: FAST
Grating: 3002, 3" Slit, binby?Page: 4411Date: 2/23/96

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	BIAS			0	0s	it's still cloudy
11-20	FLAT			0	6s	
21-25	SKY			0	2s	on cloud
26	COMP			↑	5s	
27-31	HDS2977	06:57	+27:13	0	10s	def + tr1
32	COMP			↑		
33-35	EGAnd	00:44	+10:40	12	1-10	through clouds bright main
36	COMP			↑		
37-40	AXBr	01:36	+54:15	12	1-120	
41				↑		
42-43	V711Per	01:58	+52:23	12	5m, 2m	
44	COMP			↑		
45-47	G191B20	05:01	+52:45	0	2m	
48	COMP			↑		
49-51	UVAr	05:21	+52:30	12	10s	
52	COMP			↑		
53-54	DXMon	07:25	-03:35	12	20, 2m	
55	COMP			↑		
56-58	Hiltner600	06:42	+02:11	0	60s	
59	COMP			↑		
60, 61	HLX2Tau	04:28	+18:07	30	3m, 4m	HL Tau is ^{west} east of XZ Tau
62	COMP			↑		XZ = row 40 ; HL = row 30
63, 64	CITau	04:30	+22:44	30	2m, 5m	
65	COMP			↑		
66, 67	DMTau	04:30	+18:03	30	5m	
68	COMP			↑		
69, 70	DOTau	04:35	+26:01	30	5m, 4m	
71	COMP			↑		
72, 73	HVTau	04:35	+26:04	30	5m	
74	COMP			↑		

112

9.02

1.19

60 inch Telescope Log				Spectrograph: <u>FAST</u>		Page: <u>4412</u>
Observer: <u>PB</u>				Grating: <u>3002</u>		Date: <u>2/23/96</u>
PI: <u>Kengon</u>						
Number	Object	R.A.	Dec.	L/R	Exp	Comments
75,76	VV Tau	04:36	+22:42	30	5m	clouds everywhere! {
77	COMP			↑		
78,79	LK Cas	04:36	+22:45	30	1m, 3m	
80	COMP			↑		
81,82	IW Tau	04:34	+24:45	30	1m, 4m	
83	COMP			↑		
84	Coku Tau / 4	04:38	+28:34	30	8m	
85	COMP			↑		
86,87	DQTau	04:44	+16:54	30	5m, 1m	
88	COMP			↑		
89	Har 6 m 35	04:44	+16:57	30	10m	Faint comp to NE out of slit
90	COMP			↑		
91-94	AB Aur	04:55	+30:28	30	1m, 20s	PK44; + W cool star
95	COMP			↑		
96-97	SU Aur	04:55	+30:29	30	1m, 5m	
98	COMP			↑		
99-100	HBC 427	04:52	+30:16	30	5m,	NW 4
101	COMP			↑		
102-103	RW Aur	05:01	+30:24	30	5m	
104	COMP			↑		
105	HBC 205	06:29	+10:27	32	10m	junk; stopped by clouds
106	COMP			↑		
107-109	R Gem	07:07	22:43	0	10s	S
110	COMP			↑		
111-113	RC 48			0	10s	
114	COMP			↑		
115-116	XCNC	08:55	+17:14	0	10s	
117	COMP					
118-127	DIAS			0	0s	
128-137	FLAT			0	6s	that's it for the night

107 mtd

60 inch Telescope Log			Spectrograph: <u>FLAT</u>		Page: <u>4413</u>	
Observer: <u>JAH</u>			Grating: <u>300</u>		Date: <u>Feb 24, 1996</u>	
PI: <u>ALL</u>						
Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	BIAS			-	-	
11-20	FLAT			-	6s	
21-23	DARK			-	600s	
24	HENRIETTA			-	6s	
25-34	BIAS			-	-	

Clouds all night lens opened for 30 sec hole 3:30 AM. NO data.

