

60 inch Telescope Log
 Observer: PB
 PI: 2PH
 Spectrograph: FAST
 Grating: 3000
 Date: 4/17/99
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Number	Object	R. A.	Dec.	L/R	Exp	Comments
1-10	DARK				15s	
11-20	BIAS				0s	
21-30	FLAT				7s	
31-40	BIAS				0s	some thin cirrus
41-50	FLAT				14s	
51-55	sky			57	1s	windy
56	comp			↑	5s	
57-59	HD 52971	06:57	+27	57	4s	
60	comp			↑		
61-63	HD45910	06:70	+05:52	57	4s	
64	comp			↑		
65-67	HD45995	06:71	+11:15	57	2s	
68	comp			↑		
69-70	HD46150	06:31	+14:55	57	4s	
72	comp			↑		
73-75	HD46485	06:33	+10:31	57	5s	
76	comp			↑		
77-78	Feige 34	10:36	+43:71	56	90s	PA=70
79	comp			↑		
80	NG2271	10:20	+20:07	6	3m	PA=90
81	comp			↑		
82	2M070524.7	07:05	+19:04	68	4m	+ to W
83	comp			↑		
84	2M070554.5	07:05	+19:09	68	4m	seeing 2"+
85	comp			↑		
86	2M070652.2	07:06	+24:53	68	8m	thin clouds.
87	comp			↑		
88	2M070655.7	07:06	+24:55	68	5m	
89	comp			↑		

chip gain calc low for bin by 4

gain ~ 1.0P
 noise ~ 7.7

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PI: <u>JPM</u>						
Number	Object	R. A.	Dec.	L/R	Exp	Comments
90	ZM071127.9	07:11	+19:40	68	6m	PA=45° to avoid star
91	COMP			↑		
92	ZM071456.2	07:14	+108:39	68	5m	PA=45° to avoid star
93	COMP			↑		
94	ZM071504.8	07:15	+175:57	68	9m	* to W
95	COMP			↑		
96	SN1999be	08:23	+18:18	2	20m	PA=56
97	COMP			↑		
98	ZM081559.2	08:15	+20:29	68	4m	
99	COMP			↑		
100	ZM081922.7	08:19	+20:13	68	4m	
101	COMP			↑		
102	ZM082202.9	08:22	+15:35	68	4m	
103	COMP			↑		
104	ZM082320.2	08:23	+18:32	68	4m	
105	COMP			↑		
106	ZM082515.3	08:25	+13:42	68	7m	PA=35° to avoid star
107	COMP			↑		
108	SN1999bu	11:31	+31:54	2	20m	PA=10° to avoid nucleus
109	N3786mc	11:39	+31:54	2	90s	nucleus.
110	COMP			↑		
111	ZM091513.7	09:15	+12:05	68	6m	PA=90
112	COMP			↑		
113	ZM091713.4	09:13	+12:53	68	6m	
114	COMP			↑		
115	ZM091736.6	09:13	+13:24	68	10m	* to W
116	COMP			↑		
117	ZM091454.5	09:14	+15:41	68	5m	
118	COMP			↑		

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Number	Object	R. A.	Dec.	L/R	Exp	Comments
119	ZM091514.5	09:15	+22:38	68	8m	PA=35,
120	COMP			↑		
121	ZM091541.3	09:15	+17:42	68	3m	
122	COMP			↑		
123	ZM091717.4	09:17	+20:02	68	4m	
124	COMP			↑		
125	ZM091727.6	09:17	+20:14	68	3m	
126	COMP			↑		
127	ZM092147.6	09:21	+15:38	68	4m	
128	COMP			↑		
129	ZM092376.9	09:23	+13:15	68	3m	
130	COMP			↑		
131	ZM092508.8	09:25	+12:26	68	3m	
132	COMP			↑		
133	ZM092659.5	09:26	+20:53	68	3m	
134	COMP			↑		
135	ZM092715.8	09:27	+22:15	68	5m	
136	COMP			↑		
137	ZM093109.5	09:31	+22:44	68	3m	
138	COMP			↑		
139	ZM093242.2	09:31	+18:59	68	4m	
140	COMP			↑		
141	ZM094124.4	09:41	+22:34	68	5m	
142	COMP			↑		
143	ZM094658.0	09:46	+11:52	68	8m	
144	COMP			↑		
145	ZM102626.2	10:26	+21:39	68	5m	
146	COMP			↑		
147	ZM102716.1	10:27	+18:05	68	4m	bright + low
148	COMP			↑		

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Number	Object	R.A.	Dec.	L/R	Exp	Comments
149	ZM102720.7	10:27	+18:21	68	4m	
150	COMP			f		
151	ZM103158.3	10:31	+16:30	68	4m	
152	COMP			f		
153	ZM103222.9	10:32	+17:38	68	4m	
154	COMP			f		
155	ZM103258	10:32	+20:22	68	4m	
156	COMP			f		
157	ZM103253.0	10:32	+12:05	68	4m	
158	COMP			f		
159	ZM103728.0	10:33	+16:22	68	5m	
160	COMP			f		
161	ZM105002.9	10:50	+16:17	68	3m	
162	COMP			f		
163	ZM105052.6	10:50	+17:27	68	3m	
164	COMP			f		
165	ZM105117.9	10:51	+11:59	68	3m	
166	COMP			f		
167	MIRAC21	11:01	+56:28	68	4m	
168	COMP			f		
169-70	N4151	12:08	+39:46	6	20s, 1m	
171	COMP			f		
172	N4151	12:08	+39:41	6	2m	
173	COMP			f		
174	H244	13:21	+36:23	56	2m	PA=110
175	COMP			f		
176	M9617120.7	12:10	+70:04	59	3m	
177	COMP			f		
178	Z90	12:00	+20:16	59	3m	
179	COMP			f		

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Observer: PB

PI: Andi

Spectrograph: FAST

Grating: 300L

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Number	Object	R.A.	Dec.	L/R	Exp	Comments
180	Mrab 177.276	12:01	+20:29	S9	4m	
181	COMP			↑		
182	.277	12:01	+20:49	S9	3m	
183	COMP			↑		
184	.280	12:01	+20:44	S9	2m	
185	COMP			↑		
186	.281	12:01	+20:57	S9	4m	
187	COMP			↑		
188	.282	12:01	+20:24	S9	3m	
189	COMP			↑		
190	.284	12:02	+21:10	S9	3m	
191	COMP			↑		
192	.286	12:02	+20:58	S9	4m	
193	COMP			↑		
194	.287	12:02	+20:32	S9	4m	
195	COMP			↑		
196	.288	12:02	+21:09	S9	2m	
197	COMP			↑		
198	.289	12:03	+20:48	S9	2m	
199	COMP			↑		
200	.299	12:03	+19:43	S9	2m	
201	COMP			↑		
202	.301	12:03	+20:58	S9	4m	
203	COMP			↑		
204	.302	12:03	+20:01	S9	3m	
205	COMP			↑		
206	.309	12:04	+20:20	S9	3m	
207	COMP			↑		
208	.310	12:04	+20:13	S9	2m	
209	COMP			↑		

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Number	Object	R.A.	Dec.	L/R	Exp	Comments
210	Argo 177-311	12:04	+20:14	S9	4m	
211	COMP			↑		
212	.312	12:04	+20:14	S9	100s	
213	COMP			↑		
214	.315	12:04	+20:20	S9	100s	
215	COMP			↑		
216	.317	12:04	+20:24	S9	100s	
217	COMP			↑		
218	.319	12:04	+20:12	S9	3m	
219	COMP			↑		
220	.323	12:04	+20:18	S9	2m	S9 2
221	COMP			↑		
222	.324	12:04	+20:12	S9	2m	
223	COMP			↑		
224	.325	12:04	+20:13	S9	4m	
225	COMP			↑		
226	.328	12:04	+19:14	S9	3m	
227	COMP			↑		
228	.335	12:05	+21:12	S9	100s	
229	COMP			↑		
230	.338	12:05	+20:18	S9	2m	
231	COMP			↑		
232	.352	12:05	+20:28	S9	2m	
233	COMP			↑		
234	.355	12:05	+20:34	S9	100s	
235	COMP			↑		
236	NS9416	14:25	+25:22	G	3m	
237	COMP			↑		
238	MRK 271	13		G	3m	
239	COMP			↑		

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Number	Object	R.A.	Dec.	L/R	Exp	Comments
240	α 21996.071	16:41	+41:49	64	5m	
241	COMP			↑		
242	.072	16:41	+39:07	64	3m	
243	COMP			↑		
244	.074	16:42	+39:52	64	3m	
245	COMP			↑		
246	.075	16:42	+39:27	64	5m	+ to E
247	COMP			↑		
248	.078	16:43	+38:55	64	6m	
249	COMP			↑		
250	.079	16:44	+38:55	64	5m	close E-W pair 00
251	COMP			↑		
252	.080	16:44	+39:59	64	4m	PA=30 to avoid star
253	COMP			↑		
254	.081	16:45	+37:26	64	6m	"
255	COMP			↑		
256	.082	16:46	+42:27	64	5m	
257	COMP			↑		
258	.083	16:46	+43:01	64	5m	
259	COMP			↑		
260	.084	16:46	+38:58	64	6m	
261	COMP			↑		
262	.085	16:47	+39:03	64	2m	
263	COMP			↑		
264	SN 1996S	18:01	+07:40	2	20m	PA=90 great seeing S 200
265	COMP			↑		
266	α 2199.56	16:47	+40:04	64	5m	
267	COMP			↑		
268	.087	16:47	+42:41	64	3m	
269	COMP			↑		

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Number	Object	R.A.	Dec.	L/R	Exp	Comments
270	QZ1946-088	16:47	+76:42	64	3m	
271	COMP			↑		
272	.081	16:48	+71:57	69	10s	
273	COMP			↑		
274	.090	16:48	+71:56	69	6m	E+W comps
275	COMP			↑		
276	.092	16:49	+78:56	64	3m	
277	COMP			↑		
278	.093	16:49	+76:12	64	3m	
279	COMP			↑		
280-282	XYOPH	17:13	-06:16	57	2s	
283	COMP			↑		
284	H2Her	16:57	+76:20	57	2m	
285	COMP			↑		clear & down
286-288	HD192281	20:10	+40	56	4s	
289	COMP			↑		
290-292	HD151941	17:06	+23:58	57	3s	
293	COMP			↑		
294-303	BIAS				0s	
304-313	FLAT				7s	
314-323	BIAS				0s	
324-333	FLAT				15s	
334-346	DARK					

274 - both objects have H α -
see following images