

## 60 inch Telescope Log

Observer: J. PetersPI: J. HuchraSpectrograph: FASTGrating: 300Page: 3546Date: 3/1/75

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-15	Bias					
16-29	FLAT				10s	
30-33	Dark				15m	
34	Comp				15s	
35	Evesky	STow	32:00:00	0	2s	OW clouds
36	Evesky	"	"	0	2s	THRU lots clouds
37	Comp			↓	15s	
38	HD 52971	06 57.51	27 13 42	0	2s	
39	Comp			↓	15s	
40	AGK2 P14783	07 17 47	14 59 37	0	10s	↓ closed clouds
41	Comp			↓	15s	
42	09167P0814	09 16 42	08 14 00	1	13m	clouded out!
43	Comp			↓	15s	TILT MIC 570
44	SN 1995D	09 40 54	09 08 26	2	15m	↓ ↓
45	Comp			↓	15s	THRU THW clouds!
46	Feige 34	10 36 41	43 21 50	0	2m	→ TILT=570
47	Comp			↓	15s	TILT=610
48	318.016238	11 28 57	27 47 45	3	9m	clouded out High Hum
49	Comp			↓	15s	
50	318.017363	11 35 52	27 53 32	3	10m	Looking FOR Fuses
51	Comp			↓	15s	FOR gamma Ray
52	318.018185	11 28 07	28 00 25	3	8m	
53	Comp			↓	15s	Clouds
54	318.018914	11 29 26	28 04 53	3	10m	
55	Comp			↓	15s	
56	318.018995	11 34 26	28 04 31	3	6m	
57	Comp			↓	15s	
58	318.020929	11 31 32	28 17 15	3	8m	
59	Comp			↓	15s	
60	318.021504	11 31 07	28 20 55	3	6m	* ↓ closed clouds

60 inch Telescope Log

Observer: J. PetersPI: J. HuchraSpectrograph: FASTGrating: 300Date: 3/1/95Page: 3547

Number	Object	R. A.	Dec.	L/R	Exp	Comments
61	Comp			↓	155	Thin clouds
62	318,021851	11 31 19	28 22 57	3	7M	
63	Comp			↓	155	
64	318,021928	11 28 15	28 23 47	3	7M	
65	Comp			↓	155	
66	318,022125	11 35 20	28 23 25	3	8M	
67	Comp			↓	155	
68	318,025166	11 34 46	28 42 56	3	8M	
69	Comp			↓	155	
70	318,020284	11 31 16	28 13 03	3	7M	
71	Comp			↓	155	
72	318,019618	11 28 18	28 09 33	3	7M	The last ONE!
73	Comp			↓	155	
74	N4486B	12 28 00	12 45 59	0	5M	
75	Comp			↓	155	
76	EG184	11 34 27	30 04 35	0	2M	
77	Comp			↓	155	
78	N4151	12 08 01	39 41 02	6	305	
79	Comp			↓	155	
80	HZ 43	13 14 00	29 21 49	0	3M	
81	Comp			↓	155	
82	N5548	14 15 43	25 22 01	6	5M	
83	Comp			↓	155	
84	HD 136711	15 19 27	18 37 03	0	25	
85	Comp			↓	155	
86	14526 P0255	14 52 36	02 55 00	1	15M	
87	Comp			↓	155	
88	N5790	14 55 06	08 29 00	1	5M	
89	Comp			↓	155	
90	14556 P0337	14 55 36	03 37 00	1	8M	



## 60 inch Telescope Log

Observer: P. BerlindPI: Kirshner/Greiler/HuchraSpectrograph: FASTGrating: 302Date: 3/2/05Page: 3549

Number	Object	R. A.	Dec.	L/R	Exp	Comments
1-2	blueh near 1200		+11-54.2	0	5m, 1m	1200 line grating; 1.1" slit
3-4	greenh near 1200		336.5	0	1m, 5m	for Susan / Michael
5-6	redh near 1200		618.8	0	30s, 90s	
7-16	BIAS			0	0s	
17-26	FLAT			0	10s	300L; 3" slit tilt=610
27	SN1995G	04:43:42	-05:19:40	2	15m	tilt=570
28	COMP			↑		
29	SN1995E	07:52:12	+73:02:W	2	30m	through cloud
30	COMP			↑		
31	G1913213	05:01:31.5	+52:45:52	2	2m	
32	COMP			↑		
33	313.064891	09:11:35.79	+30:01:37	3	5m	tilt=610
34	COMP			↑		lots o' cloud ↓
35	08542p5924	08:54:12	+59:24:W	1	17m	Mk
36	COMP			↑		
37	08550p5205	08:55:W	+52:05:W	1	5m	Mk
38	COMP			↑		
39	U04711	08:56:36	+78:57:W	1	5m	
40	COMP			↑		
41	08580p6400	08:58:W	+64:W:W	1	5m	
42	COMP			↑		
43	U04739	08:59:06	+64:42:W	1	5m	Mk
44	COMP			↑		
45	0904Sp6220	09:04:30	+62:20:W	1	5m	Mk
46	COMP			↑		↑↑ clouds
47	09070p7377	09:07:W	+73:47:W	1	5m	Mk
48	COMP			↑		
49	09074p6213	09:07:24	+62:13:W	1	5m	Mk
50	COMP			↑		
51	U04832	09:08:30	+74:25:W	1	5m	Mk

## 60 inch Telescope Log

Observer: P. BerlindPI: Huchra/Geller/AGNSpectrograph: FASTGrating: redPage: 3550Date: 3/2/95

Number	Object	R. A.	Dec.	L/R	Exp	Comments
52	comp			↑		
53	U04836	09:08:54	+70:18:40	1	5m	
54	comp			↑		
55	09092p6027E	09:09:12	+60:27:40	1	5m	-redo; stopped by clouds
56	comp			↑		
57-61	HDS2971	06:57:51	+27:13:42	0	2s	
62	comp			↑		
63,64	N3079	09:58:34.8	+55:55:24	0	5m	nucleus
65,66	comp			↑		
67,68	N3379	10:45:11.4	+12:50:48	0	3m	nucleus 1204
69	comp			↑		
70,71,72	N3115	10:02:44.4	-07:28:30	0	2m	nucleus 1017
73	comp			↑		
74	313.049171	09:13:17.23	+29:06:58.5	3	7m	H $\alpha$ thin cloud no charts ↓
75	comp			↑		
76	313.053082	09:16:47.69	+29:21:10.6	3	7m	North <sup>w</sup> comp (brightest)
77	comp			↑		
78	313.055422	09:12:59.06	+29:30:16	3	7m	H $\alpha$
79	comp			↑		
80	313.063724	09:13:34.01	+30:00:49.5	3	7m	NE of star; star N of N response
81	comp			↑		H $\alpha$
82	313.063714	09:12:41.76	+30:10:52.3	3	7m	H $\alpha$
83	comp			↑		
84	313.062324	09:16:29.87	+29:55:43.2	3	10m	H $\alpha$
85	comp			↑		
86	313.064076	09:15:12.16	+30:02:05.3	3	10m	H $\alpha$
87	comp			↑		
88	ZCam	08:19:34.5	+73:16:24	6	30s	id? outburst
89	comp			↑		through clouds!
90,91	NGC 3516	11:03:22.8	+72:50:20	6	1m-5m	

## 60 inch Telescope Log

Observer: P. BerlindPI: GellerSpectrograph: FASTGrating: 300LDate: 3/2/95Page: 3551

Number	Object	R. A.	Dec.	L/R	Exp	Comments
92	COMP			↑		variable clouds
93	Mark421	11:01:40.6	+38:28:43	6	5m	
94	COMP			↑		
95	Feige34	10:36:41.1	+43:21:50	6	2m	
96	COMP			↑		
97	317.033998	11:10:26.81	+28:41:13.3	3	5m	
98	COMP			↑		
99	318.025492	11:11:24.29	+28:43:42.3	3	5m	good id; no charts ↓
100	COMP			↑		
101	318.024237	11:10:43	+28:36:19.6	3	5m	star - no chart
102	318.024237	"	"	3	7m	gal next to star
103	COMP			4		H $\alpha$ @ 2320
104	318.024311E	11:13:34.51	+28:37:42.8	3	5m	use #102 ↑
105	COMP			↑		East camp
106	318.024311W	11:13:34.51	+28:37:42.8	3	4m	West camp
107	COMP			↑		
108	318.024212	11:34:39.5	+28:37:09.3	3	5m	H $\alpha$
109	COMP			↑		
110	318.023958	11:34:09.43	+28:35:40.4	3	5m	H $\alpha$
111	COMP			↑		
112	318.022411	11:26:25.18	+28:26:54.6	3	5m	I observed these as
113	318.022370	11:26:24.29	+28:26:38.3	3	7m	E/W camps then
114	COMP			↑		changed names but
115	321.006071	12:53:08.66	+26:21:01.1	3	4m	not coords to reflect
116	COMP			↑		individual ID's
117	321.000182	12:54:31.37	+26:20:40.1	3	5m	
118	COMP			↑		clearing nicely
119	321.000374	12:52:41.87	+26:21:57	3	5m	
120	COMP			↑		
121	MS1220p160	12:20:58.9	+16:06:45	23	5m	

## 60 inch Telescope Log

 Observer: P. Berlind  
 PI: McDowell/Kenyon/Geller
Spectrograph: FASTGrating: 300LPage: 3552Date: 3/4/95

Number	Object	R. A.	Dec.	L/R	Exp	Comments
122	COMP			↑		
123	3C 232	09:55:35	+32:38:23	23	10m	
124	COMP			↑		
125	GD 140	11:34:27.5	+30:04:27	23	2m	
126	COMP			↑		
127	EX Hya	12:49:42.7	-28:58:41	6	2m	!!!
128	COMP			↑		
129, 130	TCrB	15:57:24	+26:03:36	6/12	15s, 30s	
131	COMP			↑		
132-133	AG Dra	16:06:23.2	+66:56:25	12	3s, 30s	
134	COMP			↑		
135	TXCVn	12:42:17.9	+37:02:14	12	60s	nice!y sunk!
136	COMP			↑		
137	A3551E	13:51:24	-30:40:04	9	12m	E; star to E on slit
138	COMP			↑		also obs; 1/26/95 #109 JPH
139, 140	RW Hya	13:31:32	-25:07:29	12	2s, 15s	
141	COMP			↑		
142	321.00127	12:46:20.6	+26:26:08.2	3	5m	
143	COMP			↑		
144	321.00205	12:40:36.32	+26:30:16.1	3	5m	H <sub>γ</sub>
145	COMP			↑		
146	321.002477	12:40:38.71	+26:31:37.6	3	5m	H <sub>α</sub>
147	COMP			↓		
148	321.002453	12:40:25.36	+26:31:27.4	3	5m	
149	321.003282	12:35:36.06	+26:33:59.5	3	5m	
150	COMP			↑		
151	321.003711	12:36:04.87	+26:35:44.5	3	5m	
152	COMP			↑		
153	321.004511	12:35:40.69	+26:36:33.8	3	5m	
154	COMP			↑		

## 60 Inch Telescope Log

Observer: P. Berlind

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

Spectrograph: FASTGrating: 3002Date: 3/2/95Page: 3553

Number	Object	R. A.	Dec.	L/R	Exp	Comments
155	321.004560	12:48:05.18	+26:38:47.7	3	4m	
156	COMP			↑		
157	321.004563	12:52:42.73	+26:39:52.3	3	5m	
158	COMP			↑		
159	321.005516	12:47:5.68	+26:42:30.8	3	5m	
160	COMP			↑		
161	321.005549	12:46:25.25	+26:42:38.6	3	5m	
162	COMP			↑		
163	N4151	12:08:01	+39:41:02	6	30s	
164	COMP			↑		thin cloud 95
165	N4486B	12:28:60	+12:45:59	0	5m	
166	COMP			↑		
167, 168	H243	13:14:40.57	+29:21:49	6/0	1m	
169	COMP			↑		
170	N5548	14:15:43	+25:22:19	6	2m	
171	COMP			↑		
172	14163p0008S	14:16:18	+10:08:60	1	5m	H $\alpha$
173	14163p0008W	14:16:18	+10:08:60	1	7m	H $\beta$
174	14163p0008N	14:16:18	+10:08:60	1	7m	H $\gamma$
175	COMP			↑		
176	14280p0203	14:28:60	+02:03:60	1	5m	H $\alpha$
177	COMP			↑		
178	N5848	15:04:06	+02:12:60	1	3m	
179	COMP			↑		
180, 181	R50ph	17:47:31.6	-66:41:39	12	10s, 2m	
182	COMP			↑		
183, 185	WHer	18:12:26	+70:58:12	12	1m, 15s	
184	COMP			↑		
186	AMHer	18:14:58.8	+49:50:55	12	30s	Astro 2
187	COMP			↑		





60 inch Telescope log

Observer: P. BerlindPI: Kirshner/Wilkes/HuchraSpectrograph: FASTGrating: 3002Page: 3555Date: 3/3/95

Number	Object	R. A.	Dec.	L/R	Exp	Comments
1-10	BIAS					heavy cloud
11-20	FLAT					tentatively opening @ lam
21	SNR9SD	09:40:54	+05:08:26	2	15m	tilt = 570 ↓
22	COMP			↑		
23	F34	10:36:41.1	+43:21:50	2	2m	
24	COMP			↑		clouds
25	F34	10:36:41	+43:21:50	6	2m	tilt = 610 ↓
26	COMP			↑		
27	N4151	12:08:01	+39:41:02	6	30s	
28	COMP			↑		lots of clouds
29	N4486B	12:28:00	+12:45:59	0	5m	
30	COMP			↑		
31-32	N3115	10:02:44.4	-07:28:30	6	3m	seeing 2"4
33	COMP			↑		
34	11081p0447	11:08:09.9	+04:46:57.1	1	5m	H <sub>α</sub>
35	COMP			↑		
36	11081p0643	11:08:54	+06:43:00	1	4m	
37	COMP			↑		
38	11098p0402	11:09:48	+04:02:00	1	5m	H <sub>α</sub>
39	COMP			↑		pause to check specimens
40	11094p0319	11:09:27.4	+03:18:59	1	4m	
41	11095p0326	11:09:32.3	+03:24:55	1	4m	
42	COMP			↑		
43	11104p0608	11:10:27	+08:08:00	1	5m	H <sub>α</sub>
44	COMP			↑		
45	11105p0655	11:10:30	+06:55:00	1	5m	H <sub>α</sub>
46	COMP			↑		
47	11105p0758	11:10:30	+07:58:00	1	4m	stopped by clouds - redo
48	COMP			↑		
49	321.005716	12:50:26.64	+26:42:31.2	3	4m	

## 60 inch Telescope log

Observer: P. BertoldPI: GellerSpectrograph: FASTGrating: 5002Date: 3/3/95Page: 3556

Number	Object	R. A.	Dec.	L/R	Exp	Comments
50	COMP			↑		increasing clouds
51	321.006809	12:50:13.55	+26:46:33	3	4m	
52	COMP			↑		
53	321.007135	12:51:0.5	+26:47:39	3	5m	
54	COMP			↑		
55	321.007154	12:50:59.39	+26:47:49	3	5m	
56	COMP			↑		
57	321.007431	12:27:46.57	+26:46:46.1	3	7m	
58	COMP			↑		
59	321.007651	12:28:41.58	+26:47:53.8	3	4m	
60	COMP			↑		
61	321.007708	12:35:38.5	+26:50:11.5	3	5m	
62	COMP			↑		
63	321.008535	12:52:11.8	+26:52:27.7	3	5m	
64	COMP			↑		
65	321.008606	12:49:02.61	+26:53:31.2	3	4m	
66	COMP			↑		seems ~3"
67	321.008653	12:36:04.91	+26:53:45	3	3m	
68	COMP			↑		
69	321.008808	12:49:51.82	+26:54:15.1	3	5m	clouds
70	COMP			↑		
71	321.009409	12:36:12.87	+26:56:27	3	5m	. sup * to SW
72	COMP			↑		partly on s 47
73	321.009423	12:48:09.77	+26:56:15.2	3	5m	High humidity?? MMT included
74	COMP			↑		
75	321.010205	12:53:54.13	+26:57:57.5	3	5m	
76	COMP			↑		
77	321.011767	12:36:04.06	+27:01:39.8	3	5m	
78	COMP			↑		
79	321.011811	12:40:01.17	+27:05:21.8	3	2m	sup *; read in better sky sometime can only get star

60 inch Telescope Log

Observer: P. Berlind

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

Spectrograph: FAST

Grating: 3002

Date: 3/3/95

Page: 3557

Number	Object	R. A.	Dec.	L/R	Exp	Comments
80	COMP			↑		
81	321.012048	12:51:05.43	+27:04:5.4	3	4m	
82	COMP			↑		
83	13351p0343	13:35:06	+03:43:60	1	5m	H $\alpha$ based on weak H $\alpha$ and 2 only
84	COMP			↑		
85	13451p0335	13:45:06	+03:35:40	1	5m	H $\alpha$
86	COMP			↑		
87	I939	13:45:12	+03:39:60	1	5m	
88	I940	13:45:24	+03:42:60	1	4m	H $\alpha$
89	COMP			↑		
90	13487p0233	13:48:12	+02:33:60	1	4m	H $\alpha$
91	U08750	13:48:18	+02:34:60	1	4m	H $\alpha$
92	COMP			↑		
93	13486p0436	13:48:36	+04:36:60	1	5m	H $\alpha$
94	COMP			↑		
95	13336p0345	13:33:36	+03:45:60	1	5m	H $\alpha$
96	13343p0346	13:34:18	+03:46:60	1	4m	H $\alpha$
97	COMP			↑		
98,99,101	Q1700p64	17:00:40.5	+64:16:25	6	2m, 10m	simultaneous w/AstroZ!
100,102	COMP			↑		radio loud QSO
103,104	PG1708p602	17:08:35.9	+60:13:52	6	4m	same thin cloud
105	COMP			↑		seems 2-3"
106	13519.p6933A	13:51:53.6	+69:33:13	1	5m	
107	13519.p6933B	13:51:53.6	+69:33:13	1	2m	H $\alpha$ variable thin cloud
108,109	MRK279	13:51:53.6	+69:33:13	6	2m, 8m	AGN
110	COMP			↑		rough seeing!
111,112,113	H243	13:14:00.7	+29:21:49	6	1m, 4m	
114	COMP			↑		
115	N5548	14:15:43.5	+25:22:01.1	6	2m	
116	COMP			↑		

117-120

BIAS

0s

127-141

FLAT

10s

142-148

DARK

## 50 inch Telescope Log

Observer: P. BerlindPI: ASTRO2/Kirshner/KenyonSpectrograph: FASTGrating: 1200; 300Page: 3558Date: 3/4/95

Number	Object	R. A.	Dec.	L/R	Exp	Comments
1-2	2ndord 1200.1	no spacer	blue filter	tilt=665	10m	1200 R; 1.1" slit; 2 <sup>nd</sup> order
3-4	2ndord 1200.flat				10m	weak
5-8	2nd, sky flat				60s, 90s	sky flat - 1200 line
9-20	BIAS				0s	300 R; 3" slit ↓
21-30	FLAT				10s	tilt=610
31-40	SNFLAT				10s	tilt=570
41	comp	test			15s	some thin cloud
42-43	UGem	07:52:07.8	+22:08:04	6	1m; 5m	ASTRO-2
44	comp			↑		2 day old moon
45-46	YZCNC	08:07:52.6	+28:17:32	6	1m-10m	
47	comp			↑		clouds
48-49	RWTri	02:22:41.5	+27:52:20	6	1m; 5m	
50	comp			↑		
51-52	NGC 1068	02:41:24	-0:08:00	6	3m	J1975 Sy II - next time 12m
53	comp			↑		simultaneous w/ASTRO-2
54-55	G191B2B	05:01:31.5	+52:45:52	6	2m	std
56	comp			↑		
57-58	A0535p26	05:35:18	+26:17:48	6	20s	id? outburst
59	comp			↑		
60-61	Hilt GCO	06:42:37.2	+02:11:25	6	30s	std
62	comp			↑		
63	SN1995G	04:43:42	-05:19:00	2	15m	blue tilt @ 570
64	comp			↑		seeing 1.2"; murky sky
65	SN1995E	07:52:12	+73:02:00	2	20m	
66	comp			↑		
67	G191B2B	05:01:31.5	+52:45:52	2	2m	
68	comp			↑		
69-71	UV Aur	05:18:33.3	+32:27:51	12	5s, 60s, 30s	tilt=610 ↓
72	comp			↑		
73-74	BSX Mon	07:22:54	-03:30:00	12	10s, 60s	

## 60 inch Telescope Log

Observer: P. BerlindPI: HuchraSpectrograph: FASTGrating: 3002Date: 3/4/95Page: 3559

Number	Object	R.A.	Dec.	L/R	Exp	Comments
75	COMP			↑		
76	06575p7330	06:57:30	+73:30:00	1	5m	
77	COMP			↑		
78	09092p6027E	09:09:12	+60:27:00	1	10m	also obs 3/2/95
79	COMP			↑		
80,82	09092p6027W	09:09:12	+60:27:00	1	10m	x2 H+ & 2005? garbage
81,83	COMP			↑		moon set
84	U04846	04:04:42	+62:32:00	1	7m	increasing cloud
85	COMP			↑		
86	09097p7713	09:09:42	+77:13:00	1	5m	H+
87	COMP			↑		stopped by clouds
88,91	HD52971	06:57:51	+27:13:42	0	5s	out of focus; scanned across slit
92	COMP			↑		
93-96	AGK2p14783	07:19:47	+14:59:37	0	15, 10s	ditto
97	COMP			↑		
98	N3079	09:58:34.8	+55:55:24	0	5m	nucleus
99	COMP			↑		
100-101	N3115	10:02:444	-07:78:30	0	3m	x2 "
102	COMP			↑		variable clouds
103,104	N3379	10:45:11.4	+12:50:48	0	3m	
105	COMP			↑		
106	09174p0556	09:17:78	+05:56:00	1	5m	H+
107	COMP			↑		
108	09165p0606	09:16:30	+06:06:00	1	7m	H+
109	COMP			↑		
110	09197p0416	09:19:42	+04:16:00	1	5m	
111	COMP			↑		thin cloud
112-113	N3226	10:22:06	20:01:00	6	1m, 5m	simultaneous w/ASTRO2
114	COMP			↑		J1975 nucleus'
115-116	N3227	10:22:12	+19:59:00	6	1m, 5m	Sy II "

60 inch Telescope Log

Observer: P. Berlind

PI: Huchra/Geller

Spectrograph: FAST

Grating: 3002

Page: 3560

Date: 3/4/95

Number	Object	R. A.	Dec.	L/R	Exp	Comments
117	COMP			↑		
118-121	Feige 34	10:36:41.1	+43:21:50	6	2m, 30s	
122	COMP			↑		
123	09214pos25	09:21:24	+05:25:60	1	5m	H+
124	COMP			↑		
125	09284p0647	09:28:24	+06:47:40	1	7m	H+
126	COMP			↑		
127	09306p0546	09:30:36	+05:46:60	1	5m	H+
128	COMP			↑		
129	09314p0241	09:31:24	+07:41:60	1	7m	H+
130	COMP			↑		
131	313.055748	09:17:4.39	+29:31:16.2	3	7m	H+ screamer
132	COMP			↑		
133	313.058678	09:10:48.69	+29:42:24.7	3	7m	
134	COMP			↑		
135	313059284	09:14:08.71	+29:44:33.2	3	10m	H+
136	COMP			↑		
137	313.060933	09:14:58.18	+29:50:31.3	3	7m	H+
138	COMP			↑		
139	314.066882	09:27:23.89	+29:55:28.9	3	5m	clearing nicely
140	COMP			↑		
141	314, 067894	09:30:01.25	+29:59:30.9	3	10m	
142	COMP			↑		
143	314.068191	09:27:54.45	+29:59:51.7	3	7m	H+
144	COMP			↑		a few clouds still around
145	313.076889	09:17:52.39	+30:47:20.7	3	7m	H+
146	COMP			↑		
147	313054853	09:27:25	+29:25:16.9	3	10m	H+
148	COMP			↑		
149	313.055871	09:29:03.5	+29:28:15.1	3	10m	

quasar

## 60 inch Telescope Log

 Observer: P. Berlind  
 PI: Geller / AGN Pesse
Spectrograph: FASTGrating: 300Page: 3561Date: 3/4/95

Number	Object	R. A.	Dec.	L/R	Exp	Comments
150	COMP			↑		
151	313.060613	09:27:28.51	+29:46:39.7	3	7m	
152	COMP			↑		
153	313.063865	09:28:33.11	+29:58:07.9	3	10m	
154	COMP			↑		
155	313.068600	09:25:47.36	+30:16:05.5	3	10m	speedster! 3k ~ 40k
156	COMP			↑		
157	313.072362	09:26:30.93	+30:29:04.1	3	10m	Hx
158	COMP			↑		
159/161	Mark 421	11:01:40.6	+38:28:43	6	2m	x2
160	COMP			↑		
162	321.012128	12:52:47.75	+27:05:07	3	5m	
163	COMP			↑		
164	321.012234	12:33:06.12	+27:05:39.3	3	7m	Hx
165	COMP			↑		
166	321.013257	12:44:35.02	+27:10:46.1	3	5m	star; no sign of fuzz
167	COMP			↑		but got it anyway!!! Hx
168	321.013528	12:44:26.42	+27:11:32.6	3	5m	Hx
169	COMP			↑		wham! stopped by clouds
170	N4151	12:08:09	+39:41:02	6	5m	
171	COMP			↑		close due to cloud
172-175	N4151	"	"	6	30s, 1m	open 30 min later!
176	COMP			↑		simultaneous w/ ASTRO 2
177-178	G0140	11:34:27.78	+30:04:35	6	2m	clouds
179	COMP			↑		
180	N3516	11:03:22.8	+72:50:20	6	5m	
181	COMP			↑		
182	MRK 279	13:51:53.6	+69:33:13	6	10m	clouds big time
183	COMP			↑		
184	N5548	14:15:43.5	+25:26:01	6	3m	





60 inch Telescope Log

Observer: J Peters  
 PI: J Hochra

Spectrograph: FAST  
 Grating: 300  
 Date: 3/6/95

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3/6/95

Number	Object	R. A.	Dec.	L/R	Exp	Comments
1-14	DARK				15m	
5-18	FLAT				10 <sup>s</sup>	
19-33	Bias					
34-42	FAST FOC	TEST				Focus = 1060
43	Comp P			↓	15 <sup>s</sup>	How 66% <sup>JUST</sup> OPEN
44	N3079	09 58 34	55 55 24	0	2m	THRU CLOUDS <sup>WHAT AM I DOING!</sup>
45	Comp P			↓	15 <sup>s</sup>	
46	AGK2P 14783	07 17 47	14 59 37	0	10 <sup>s</sup>	THRU THIN CLOUD
47	Comp P			↓	15 <sup>s</sup>	↓
48	N3379	10 45 11	12 50 48	0	3m	↓
49	Comp P			↓	15 <sup>s</sup>	
50	315,000 507	09 58 43	26 10 55	3	15m	
51	Comp P			↓	15 <sup>s</sup>	
52	315,000 534	09 59 26	26 11 12	3	10m	
53	Comp P			↓	15 <sup>s</sup>	TILT MIC = 570 FOR SN P
54	SN 1995D	09 40 54	05 08 26	2	15m	THIN CLOUDS
55	Comp P			↓	15 <sup>s</sup>	
56	SN 1995F	09 01 02	60 07 56	2	29m	CLOUDS OUT
57	Comp P			↓	15 <sup>s</sup>	LOTS CLOUDS ↑
58	Feige 34	10 36 41	43 21 50	0	2m	TILT 570 ↓
59-67	FAST FOC	TEST				Closed FOR CLOUDS
68	Comp P			↓	15 <sup>s</sup>	
69	SNN 3526	11 04 24	07 26 00	2	10m	Possible SN IN N3526
70	SNN 3526	"	"	2	10m	TILT 610 ↓ " " "
71	Comp P			↓	15 <sup>s</sup>	
72	321,015 524	12 45 48	27 18 19	3	9m	THRU CLOUDS. CLOUDS OUT
73	Comp P			↓	15 <sup>s</sup>	
74	MRK 279	13 51 53	69 33 13		8m	ASTRO 2
75	Comp P			↓	15 <sup>s</sup>	
76	Feige 98	14 36 04	27 42 38	0	2m	CLOUDS

How are you tilt 610



## 60 inch Telescope Log

Spectrograph: FastObserver: J. PetersGrating: 300Page: 3565PI: J. HuchraDate: 3/2/95

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	FLAT 550	TILT MIC	@ 550		10 <sup>s</sup>	Pete Charlis.
11-20	FLAT 570	TILT MIC	@ 570		10 <sup>s</sup>	" "
21-35	FLATS	TILT MIC	@ 610		10 <sup>s</sup>	NORMAL OPERATION
36-50	Bias				15 <sup>m</sup>	
51-54	DARK					
55	Comp			↓	15 <sup>s</sup>	
56	Evesky	STOW	32:00	0	1 <sup>s</sup>	Thin Clouds
57	Evesky	STOW	32:00	0	2 <sup>s</sup>	
58	Evesky	STOW	32:00	0	5 <sup>s</sup>	
59	Comp			↓	15 <sup>s</sup>	
60	BD P 26 595	03 37 08	26 48 01	0	5 <sup>s</sup>	
61	Comp			↓	15 <sup>s</sup>	
62	HZ 15	04 37 56	08 34 30	0	5 <sup>m</sup>	
63	Comp			↓	15 <sup>s</sup>	
64	AKN 120	05 13 37	-00 12 15	6	5 <sup>m</sup>	
65	Comp			↓	15 <sup>s</sup>	
66	HD 52971	06 57 51	27 13 42	0	2 <sup>s</sup>	
67	Comp			↓	15 <sup>s</sup>	
68	AGK 2 P 14783	07 17 47	14 59 37	0	10 <sup>s</sup>	
69	Comp			↓	15 <sup>s</sup>	NOT PHOTOMETRIC
70	UGEM	07 52 07	22 08 04	ASTRO MISSION	5 <sup>m</sup>	
71	Comp			↓	15 <sup>s</sup>	
72	Y2-CNC	08 07 52	28 17 32	ASTRO MISSION	10 <sup>m</sup>	
73	Comp			↓	15 <sup>s</sup>	
74	AOS 35 P 26	05 35 48	26 17 18	ASTRO MISSION	20 <sup>s</sup>	
75	Comp			↓	15 <sup>s</sup>	Stopped by Clouds
76	09140 P 7156	09 14 00	71 56 00	1	15 <sup>m</sup>	
77	Comp			↓	15 <sup>s</sup>	
78	09170 P 7154	09 17 00	71 54 00	1	7 <sup>m</sup>	
79	Comp			↓	15 <sup>s</sup>	

60 inch Telescope Log

Observer: J. Peters  
 PI: J. Huchra

Spectrograph: FAST

Grating: 300

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Date: 3/7/95

Number	Object	R. A.	Dec.	L/R	Exp	Comments
80	AGK2P43928	09 49 20	43 42 07	0	5 <sup>s</sup>	Geez The sky is a
81	Comp			↓	15 <sup>s</sup>	mess I TRULY Hate
82	09163P7521	09 16 18	75 21 00	1	15 <sup>m</sup>	nights Like This!
83	Comp			↓	15 <sup>s</sup>	CLOUDS!
84	09188P6105	09 18 48	61 05 00	1	10 <sup>m</sup>	
85	Comp			↓	15 <sup>s</sup>	
86	N3079	09 58 34	55 55 24	0	5 <sup>m</sup>	THRU Clouds
87	Comp			↓	15 <sup>s</sup>	
88	09368P0640	09 36 48	06 40 00	1	15 <sup>m</sup>	Weird, Strange
89	Comp			↓	15 <sup>s</sup>	Big Obs / Feature
90	09369P0639	09 36 54	06 39 00	1	15 <sup>m</sup>	
91	Comp			↓	15 <sup>s</sup>	
92	09367P0638	09 36 42	06 38 00	1	5 <sup>m</sup>	Clouds ↓
93	Comp			↓	15 <sup>s</sup>	
94	09368P0627	09 36 48	06 27 00	1	15 <sup>m</sup>	
95	Comp			↓	15 <sup>s</sup>	TILT 610
96	Feige 34	10 36 41	43 21 50	0	2 <sup>m</sup>	
97	Comp	TILT 570	↓	↓	15 <sup>s</sup>	TILT 570, KIRSHNER
98	Feige 34.570	10 36 41	43 21 50	0	2 <sup>m</sup>	↓ ↓ ↓
99	Comp	TILT 550		↓	15 <sup>s</sup>	TILT 550 KIRSHNER
100	Feige 34.550	TILT 550		0	2 <sup>m</sup>	↓ ↓
101	Comp			↓	15 <sup>s</sup>	TILT 610 Normal Operation
102	N3115	10 02 44	-07 28 30	0	3 <sup>m</sup>	
103	Comp			↓	15 <sup>s</sup>	Clouds
104	N3379	10 45 11	12 50 48	0	3 <sup>m</sup>	↓
105	Comp			↓	15 <sup>s</sup>	
106	N4151	12 08 01	39 41 02	ASTRO MISSION	1 <sup>m</sup>	ASTRO MISSION
107	Comp			↓	15 <sup>s</sup>	
108	EG184	11 34 27	30 04 35	0	3 <sup>m</sup>	
109	Comp			↓	15 <sup>s</sup>	

\* Asked For By SN People.

60 inch Telescope Log

Spectrograph: FASTObserver: J. PetersGrating: 300Page: 3567PI: J. HuchraDate: 3/7/95

Number	Object	R. A.	Dec.	L/R	Exp	Comments
110	1211P143	12 11 44	14 19 53	ASTRO MISSION	3 <sup>m</sup>	
111	Comp P			↓	15 <sup>s</sup>	
112	MK421	11 01 40	38 28 43	ASTRO MISSION	2 <sup>m</sup>	
113	Comp P			↓	15 <sup>s</sup>	
114	09393P0321	09 39 18	03 21 00	1	10 <sup>m</sup>	
115	Comp P			↓	15 <sup>s</sup>	
116	09398P0335	09 39 48	03 35 00	1	15 <sup>m</sup>	
117	Comp P			↓	15 <sup>s</sup>	
118	09406P0339	09 40 36	03 39 00	1	5 <sup>m</sup>	
119	Comp P			↓	15 <sup>s</sup>	
120	09409P0741	09 40 54	07 41 00	1	10 <sup>m</sup>	We had a hole Now
121	Comp P			↓	15 <sup>s</sup>	some thru clouds back,
122	09416P0243	09 46 36	02 43 00	1	6 <sup>m</sup>	
123	Comp P			↓	15 <sup>s</sup>	
124	N4486B	12 28 00	12 45 59	0	5 <sup>m</sup>	
125	Comp P			↓	15 <sup>s</sup>	
126	N4151	12 08 01	39 41 02	6	30 <sup>s</sup>	2 <sup>nd</sup> Time, SKY a LITTLE
127	Comp P			↓	15 <sup>s</sup>	BETTER
128	EG184	11 34 27	30 04 35	0	2 <sup>m</sup>	
129	Comp P			↓	15 <sup>s</sup>	
130	H243	13 14 00	29 21 49	0	1 <sup>m</sup>	
131	Comp P			↓	15 <sup>s</sup>	
132	N5548	14 15 43	25 22 01	6	5 <sup>m</sup>	
133	Comp P			↓	15 <sup>s</sup>	
134	N3516	11 03 22	72 50 20	ASTRO MISSION	2 <sup>m</sup>	
135	Comp P			↓	15 <sup>s</sup>	TCS + RT shell locked
136	MK279	13 51 53	69 33 13	ASTRO MISSION	8 <sup>m</sup>	UP. Power Plug came
137	Comp P			↓	15 <sup>s</sup>	out of controller.
138	EX.HYA	12 49 42	-28 58 41	ASTRO MISSION	2 <sup>m</sup>	Was starting CEX at
139	Comp P			↓	15 <sup>s</sup>	Time

60 inch Telescope Log

Observer: J. Peters

PI: J. Huchra

Spectrograph: FAST

Grating: 300

Date: 3/7/95

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Number	Object	R. A.	Dec.	L/R	Exp	Comments
140	H0136711	15 19 27	18 37 03	0	5 <sup>s</sup>	
141	Comp P			↓	15 <sup>s</sup>	
142	13542P0546	13 54 12	05 46 00	1	5 <sup>m</sup>	
143	Comp P			↓	15 <sup>s</sup>	The seeing ≈ 2-3"
144	N5373	13 54 36	05 30 00	1	5 <sup>m</sup>	
145	Comp P			↓	15 <sup>s</sup>	
146	13549P0612	13 54 54	06 12 00	1	10 <sup>m</sup>	
147	Comp P			↓	15 <sup>s</sup>	
148	N5387	13 55 54	06 19 00	1	12 <sup>m</sup>	
149	Comp P			↓	15 <sup>s</sup>	
150	13562P0305	13 56 12	03 05 00	1	5 <sup>m</sup>	
151	Comp P			↓	15 <sup>s</sup>	
152	13583P0643	13 58 18	06 43 00	1	15 <sup>m</sup>	
153	Comp P			↓	15 <sup>s</sup>	
154	13597,0449	13 59 42	04 49 00	1	5 <sup>m</sup>	
155	Comp P			↓	15 <sup>s</sup>	
156	14038P0457	14 03 48	04 57 00	1	15 <sup>m</sup>	
157	Comp P			↓	15 <sup>s</sup>	
158	14060P0315	14 06 00	03 15 00	1	12 <sup>m</sup>	
159	Comp P			↓	15 <sup>s</sup>	
160	14060P0339	14 06 00	03 39 00	1	5 <sup>m</sup>	
161	Comp P			↓	15 <sup>s</sup>	
162	14060P0554	14 06 00	05 54 00	1	7 <sup>m</sup>	
163	Comp P			↓	15 <sup>s</sup>	
164	14074P0449	14 07 24	04 49 00	1	7 <sup>m</sup>	
165	Comp P			↓	15 <sup>s</sup>	
166	14155P0518	14 15 30	05 18 00	1	7 <sup>m</sup>	
167	Comp P			↓	15 <sup>s</sup>	
168	14341P1137	14 34 06	11 37 00	1	6 <sup>m</sup>	
169	Comp P			↓	15 <sup>s</sup>	





60 inch Telescope Log

Observer: P. Berlind / Thom HartlyPI: StaufferSpectrograph: FASTGrating: 600L; 1.5" slitPage: 3588Date: 3/21/95

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	BIAS				0s	heavy cloud
11	COMP				10s	test
12	32m2	09:34:06.2	+65:28:56.7	19	15m	
13	COMP			↑	10s	
14	32mla	09:31:17.8	+65:24:27.5	19	15m	
15	COMP			↑		close due to cloud
16-25	FLAT			19	30s	new focus = 1140
26, 28	32m6a	09:33:59.7	+65:44:19.2	19	15m	thinning a bit x2
27, 29	COMP			↑		poor seeing 3/4
30	32mlb	09:31:17.8	+65:24:27.5	19	15m	
31	COMP			↑		
32	32m7a	09:31:23.8	+65:45:16.3	19	15m	increasing cloud
33	COMP			↑		+ bright moon
34	HD107214	12:19:28.53	+24:17:03.7	19	3m	
35	COMP			↑		
36	RASS46a	16:01:04.12	+19:43:53	19	10m	
37	COMP			↑		
38, 39	40m31	16:20:05.22	+21:08:01.2	19	30s, 10s	x2
40	COMP			↑		
41	RASS47a	16:11:34.81	+19:44:30.7	19	3m	
42	COMP			↑		
43	RASS17a	16:06:16.06	+22:07:59.1	19	10m	North Comp of pair
44	RASS17b	"	"	19	3m	stopped by clouds
45	COMP			↑		
46	RASS17c	"	"	19	15m	open again...
47	RASS17b	"	"	19	5m	
48	COMP			↑		
49	RASS33a	16:15:39	+20:57:46.5	19	15m	more clouds
50	COMP			↑		
51	Oph 1	16:11:06.89	-19:04:46.7	19	10m	

Moon 16:40 -20°

1/2/95



## 60 inch Telescope Log

Observer: P. Berlind/T. HeartyPI: StaufferSpectrograph: FASTGrating: 6000; 15"Page: 3590Date: 3/22/95

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	BIAS				6s	thin cloud
11-20	FLAT				30s	
21	COMP				10s	test
22-24	HD 260655	06:37:14.9	+17:33:79	19	30s	
25	COMP			↑		
26-28	HD 70178	08:21:33.8	+28:49:034	19	15s	
29	COMP			↑		
30-32	HD 78277	09:08:03.03	+27:33:35.1	19	10s	
33	COMP			↑		
34-37	HD 83110	09:42:14.99	+77:32:523	19	20s, 40s	
38	COMP			↑		
39, 40	GG 405	06:39:40.78	+08:58:52.44	19	5m	x2
41	COMP			↑		
42, 43	W108	06:40:51.7	+09:14:463	19	4m	x2
44	COMP			↑		
45	32m7a	09:31:23.8	+65:45:16.3	19	15m	
46	COMP			↑		
47	32m7c	09:31:23.8	+65:45:16.3	19	15m	clouds!
48	COMP			↑		spectra = 1060
49	32m5a	09:32:14.8	+65:39:044	19	15m	
50	COMP			↑		
51	32m13b	09:35:18.4	+16:30:18.8	19	5m	
52	COMP			↑		
53	32m7c	09:31:23.8	+65:45:16.3	19	15m	
54	COMP			↑		
55, 57	32m3a	09:34:18.7	+65:36:41.7	19	15m	
56, 58	COMP			↑		
59, 61	32m6b	09:33:50	+65:44:17.2	19	15m	
60, 62	COMP			↑		
63	30E1Sa	09:42:46.8	+70:01:563	19	1m	

## 60 inch Telescope Log

Observer: PB/THPI: SkullerSpectrograph: FASTGrating: 6002Page: 3591Date: 3/22/95

Number	Object	R.A.	Dec.	L/R	Exp	Comments
64	30E15a	09:42:46.8	+70:01:56.3	19	1.5m	
65	COMP			↑		
66	31Wb	09:17:48.2	+71:17:59.5	19	10m	
67	COMP			↑		
68,69	30E3	09:38:10.6	+70:37:47.2	19	30s	
70	COMP			↑		
71,73	30E2a	09:36:41.1	+70:30:37.4	19	15m	x2
72,74	COMP			↑		
75	30W5a	09:21:39.9	+70:53:16	19	30s	
76	30W5b	09:21:39	+70:53:31	19	15m	
77	COMP			↑		
78	30W7a	09:24:56.9	+70:57:28.4	19	5m	
79,81	30W7b	09:24	+70:57	19	10m	x2
80,82	COMP			↑		
83	30E13a	09:42:13.2	+70:54:32.8	19	5m	
84	30E13b	09:42	+70:54	19	15m	increasingly clouds
85	COMP			↑		
88	30E8b	09:39:57.8	+71:06:40.9	19	15m	
89	COMP			↑		moon's up
90	30W3a	09:21:06	+71:04:07.1	19	5m	
91	COMP			↑		
92	RASS36a	16:10:52.8	+20:36:56.3	19	15m	. thin cloud
93	COMP			↑		
94	P3a	16:09:39.1	+22:07:04.8	19	15m	
95	COMP			↑		
86	30W7c	09:24:56.9	+70:57:28.4	19	15m	out of order
87	COMP			↑		
96	RASS8d	16:16:09.58	+22:41:09	19	15m	
97	COMP			↑		
98	RASS29	16:01:27.7	+21:16:07.7	19	15m	more clouds

## 60 inch Telescope Log

Observer: PS/HHPI: StufferSpectrograph: EASTGrating: 600 LDate: 3/22/95Page: 3592

Number	Object	R.A.	Dec.	L/R	Exp	Comments
99	COMP			↑		
100	RASS32A	16:04:39.9	+21:03:35.9	19	10m	
101	COMP			↑		
102	P10a	16:06:42.8	+21:52:02.9	19	15m	
103	COMP			↑		clouds big time
104	RASS48b	16:20:31.6	+19:40:08.6	19	75m	
105	COMP			↑		
106	RASS11a	16:20:55.5	+22:33:11.4	19	15m	
107	COMP			↑		
108	COMP			—	10s	test 1200lineg ↓
109,110,112	Ophi	16:11:08.89	-19:04:46.17	19	10m, 5m	
111,113	COMP			↑	20s	
114	RASS34	16:15:25.27	+20:57:20.3	19	15m	clouds... x2
115	COMP			↑	20s	
116,118	2P19	16:04:22.6	+20:35:01.8	19	10m, 5m	stopped by clouds
117	COMP			↑	20s	
119,120	RASS05a	16:22:00.89	+22:50:16.3	19	15m	x2
121	COMP			↑	20s	
122,123	RASS21	16:05:37.8	+21:53:38	19	60s, 30s	
124	RASS16b	16:05:15.38	+22:10:53	19	5m	2" southwest of A
125,126	RASS16a	"	"	19	30, 1m	
127	COMP			↑		
128-137	BIAS			19	0s	
138-147	FLAT			19	1m	

# CCD LOG SHEET

3593

DATE: 23/03/95 OBSERVATORY: F.L. WHIPPLE OBSERV. PAGE 1 of 3.  
 OBSERVERS: JANSEN, FABRICANT INSTRUMENT: FAST  
 PROGRAM: NEARBY FIELD GALAXY SURVEY INST.FOC.: 1060 P.A.SLIT: 170°  
 WEATHER: FEW BUT FAST MOVING CLOUDS TEL.FOC.: 118915 TILTPOS: 609

Obs.no.	Object	Disp.	Exp.	Time	H.A.	Airmass	Comments
	test frame	300f					
	"						
	"						
	"						
	"						
0007	COMP		5 s.	18:30?	0:00	1:00	changed tiltpos to 609
0008	FLAT		10 s.	18:55	0:00	1:00	
0027	FLAT		10 s.	19:03	0:00	1:00	
0028	BIAS		0 s.	19:03	0:00	1:00	
0047	BIAS		0 s.	19:06	0:00	1:00	
0048	test exposure		1 s.	19:36	-0:43	1.02	Star from FK4 Catalog (#305) to pub spectrum in middle of CCD
0049	" "		1 s.	19:37	-0:43	1.02	
0050			1 s.	19:40	-0:41	1.01	
0051	PG0846p249		60 s.	20:09	-0:58	1.03	to faint
0052	COMP		5 s.				
0052	<del>COMP</del>		5 s.				
0053	COMP ↓		5 s.	20:54	-00:20	1.07	
0054	NGC 2692		1800 s.	20:54	-00:20	1.07	observed scan = 11" clouds came in @ 21:20 scanned spectrum
0055	COMP ↑		5 s.	21:24	+00:10	1.07	
!!	New Setup after reboot!			21:40		!!	Reboot after false keypress
0056	COMP ↓		5 s.	22:10	+00:55	1.09	
0057	NGC 2692		1800 s.	22:11	+00:56	1.09	scanned
0058	COMP ↑		5 s.	22:41	+01:27	1.11	
0059	NGC 2692		300 s.	22:50	+01:35	1.12	Nuclear spectrum

PA slit = 170° ⇔ 140° on Rotator scale

comparison spectra: command "cexv" accepts parameter  
 cexv 5 is comp. of 5 sec exposure

motion menu: scanning rates in RA and DEC and scanning time  
 position menu: apply offset

\* it's not possible to obtain the theoretically required scanning distance due to gobbling up of motion due to backlash in the telescope drives !! Have to scale up scanning time!

# CCD LOG SHEET

DATE: 23/03/95 OBSERVATORY: F.L.W.O PAGE 2 of 2  
 OBSERVERS: JANSEN, FABRICANT INSTRUMENT: FAST 60"  
 PROGRAM: N.F.G.S INST.FOC.: 1060 P.A.SLIT: 170.  
 WEATHER: CLOUDY TEL.FOC.: 108675 TILTPOS: 609..

Obs.no.	Object	Disp.	Exp.	Time	H.A.	Airmass	Comments
0060	COMP ↑	300f	5s	23:05		1.14	
0061	Feige 34		60s	23:13	+0:16	1.02	
0062	COMP ↓		5s	23:15	+0:17	1.02	
0063	COMP ↓		5s	23:21	+0:14	1.10	
0064	A1046+0711		1200s	23:22	+0:15	1.10	Nuclear spec much less clouds now
0065	COMP ↓		5s	23:43	+0:36	1.11	
0066	A1046+0711		1800s	23:45	+0:38	1.11	scanned
0067	COMP ↑		5s	0:16	+1:09	1.15	
0068	A1046+0711		1800s	0:17	+1:10	1.15	scanned
0069	COMP ↓		5s	0:47	+1:40	1.21	
0070	COMP ↓		<del>200</del> 5s	0:50	+0:31	1.17	
0071	A1159+6237		1200s	0:52	+0:33	1.17	Nuclear spec.
0072	COMP ↓		5s	1:12	+0:53	1.18	
0073	A1159+6237		1800s	1:16	+0:57	1.18	scanning
0074	COMP ↓		5s	1:46	+1:27	1.21	
0075	A1159+6237		1800s	1:47	+1:28	1.21	scanning ↑ moon is up and rising ↓
0076	COMP ↓		5s	2:18	+1:59	1.24	
0078	COMP ↓ ↘		40s	2:27	+0:46	1.02	
0079	HZ 44 ↘		5s	2:29	+0:48	1.02	terrible seeing 5"
0079	COMP ↓		5s	2:31	-0:59	1.04	telec.focus: 98955
0080	NGC 5888		900s	2:33	-0:57	1.04	Nuclear Spec.
0081	COMP ↓		5s	2:48	-0:42	1.03	
0082	NGC 5888		1800s	2:51	-0:39	1.02	scanning
0083	COMP ↓		5s	3:21	-0:00	1.02	
0084	NGC 5888		1800s	3:22	-0:08	1.02	scanning ↓







# CCD LOG SHEET

DATE: 25/03/95 OBSERVATORY: F.L.W.O. PAGE 1 of ..  
 OBSERVERS: JANSEN, FABRICANT INSTRUMENT: 60" FAST  
 PROGRAM: NEARBY FIELD GALAXY SURVEY INST.FOC.: 1060 P.A.SLIT: 170°  
 WEATHER: HIGH CIRRUS, BANDS OF CIRRUS TEL.FOC.: 95505 TILTPOS: 585

Obs.no.	Object	Disp.	Exp.	Time	H.A.	Airmass	Comments
↑ 0001	BIAS	3000	0s	16:12	0:00	1.00	binby 8
0010	BIAS		0s	16:14	0:00	1.00	
0011	BIAS		0s	16:17	0:00	1.00	binby 4
0020	BIAS		0s	16:19	0:00	1.00	
deleted 0021	FLAT		5s	17:28	0:00	1.00	binby 8
0040	FLAT		5s	17:31	0:00	1.00	
0041	FLAT		10s	17:	0:00	1.00	binby 4
↓ 0060	FLAT		10s	17:	0:00	1.00	
							binby 8
0001	COMP	3000		18:00			binby 8
0002-0021	FLAT		5s	18:15			binby 8
0022-0041	FLAT		10s	18:20			binby 4
0042-0061	BIAS		0s	18:26			binby 4
0062-0081	BIAS		0s	18:30			binby 8
0082	COMP ↓		5s	20:06	-01:04	1.09	binby 4 <span style="border: 1px solid black; padding: 2px;">heavy high cirrus all over</span>
0083	A0856+5242		1200s	20:07	-01:03	1.09	Nuclear spec. object disappears on start off
0084	COMP ↑		5s	20:27	-0:42	1.08	
0085	COMP ↓		3s	20:28	-0:42	1.08	binby 8 clouds are not as bad
0086	A0856+5242		1800s	20:30	-0:43	1.08	Scanning drymsee
0087	COMP ↓		3s	21:01	-00:08	1.07	
0088	A0856+5242		1800s	21:02	-00:08	1.07	Scanning nearby photons
0089	COMP ↑		3s	21:32	-00:22	1.07	
0090	COMP ↓		5s	21:36	+00:18	1.00	binby 4
0091	A0904+3328		1200s	21:37	+00:19	1.00	Nuclear spec.
0092	COMP ↑		5s	21:57	+00:40	1.01	

3300 - 7265 A @ tiltpos 585

we shifted blue wards for the purpose of getting a grip on the blue light that comes in second order at the position on the CCD where in first order light 7000-7500 falls.

# CCD LOG SHEET

DATE: 26/03/95 ..... OBSERVATORY: F.L.W.O. .... PAGE 1 of ..  
 OBSERVERS: JANSEN - FABRICANT ..... INSTRUMENT: 60" FAST .....  
 PROGRAM: NEARBY FIELD GALAXY SURVEY ..... INST.FOC.: 1060 ..... P.A.SLIT: 17° .....  
 WEATHER: CLEAR, PHOTOMETRIC ..... (SOME CIRRUS LOW AT S-E HORIZON) ..... TEL.FOC.: 87055 ..... TILTPOS: 585.

Obs.no.	Object	Disp.	Exp.	Time	H.A.	Airmass	Comments
0001	BIAS	300f.	0s	18:35	0:00	1.00	binby 8 ; PA slit = 17°
0020	BIAS		0s	18:38	0:00	1.00	
0021	BIAS		0s	18:39	0:00	1.00	binby 4
0040	BIAS		0s	18:42	0:00	1.00	
0041	FLAT		8s	19:01	0:00	1.00	binby 4
0060	FLAT		8s	19:08	0:00	1.00	
0061	FLAT		4s	19:08	0:00	1.00	binby 8
0080	FLAT		4s	19:11	0:00	1.00	
0081	COMP ↓		5s	19:28	2:41	1.36	binby 4 ; <sup>seeing = 2"</sup> PA slit = 120°
0082	HZ14		300s	19:31	2:43	1.37-1.39	
0083	COMP ↑		5s	19:36	2:48	1.39	
0084	HZ14		300s	19:39	2:51	1.41	
0085	COMP ↑		5s	19:44	2:56	1.43	
0086	COMP ↓		5s	19:56	-1:28	1.06	binby 4 ; PA slit = 17°
0087	NGC 2824		900s	19:57	-1:27	1.06	Nucl. spec. *
0088	COMP ↑		5s	20:12	-1:12	1.04	
0089	COMP ↓		3s	20:13	-1:11	1.04	binby 8
0090	NGC 2824		1800s	20:17	-1:08	1.04	scanning
0091	COMP ↑		3s	20:47	-0:38	1.01	
0092	NGC 2824		1800s	20:47	-0:38	1.01	scanning
0093	COMP ↑		3s	21:18	-0:07	1.00	
0094	COMP ↓		5s	21:25	-0:54	1.17	focus set at 83720 ; binby 4
0095	NGC 3165		1200s	21:25	-0:54	1.16	seeing 1.5" Nuclear spec
0096	COMP ↑		5s	21:46	-0:33	1.15	
0097	COMP ↓		3s	21:46	-0:32	1.15	binby 8

\* seeing is quite a bit better than in the previous nights ;  $\approx 2''$

# CCD LOG SHEET

DATE: 26/03/95 OBSERVATORY: F.L.W.O. PAGE 2 of .  
 OBSERVERS: JANSEN, FABRICANT INSTRUMENT: 60" FAST  
 PROGRAM: N.F.S. INST.FOC.: 1060 P.A.SLIT: 170°  
 WEATHER: CLEAR, PHOTOMETRIC, SEEING 1.5" TEL.FOC.: 83720 TILTPOS: 585

Obs.no.	Object	Disp.	Exp.	Time	H.A.	Airmass	Comments
0098	NGC 3165 **)	300f.	1800s	21:49	-0:30	1.14	Scanned; binby 8
0099	COMP ↓		3s	22:19	-0:00	1.13	
0100	NGC 3165 **)		1800s	22:19	-0:00	1.13	scanned
0101	COMP ↑		3s	22:50	+0:30	1.14	
0102	COMP ↘		5s	22:53	+0:08	1.02	binby 4
0103	Feige 34		120s	22:54	+0:08	1.02	
0104	COMP ↘		5s	23:01	+0:23	1.10	binby 4
0105	NGC 3264		1200s	23:01	+0:23	1.10	Nucl. spec.
0106	COMP ↑		5s	23:23	+0:44	1.11	
0107	COMP ↘		3s	23:23	+0:49	1.11	binby 8
0108	NGC 3264 *)		1800s	23:30	+0:52	1.12	scanning
0109	COMP ↓		3s	0:00	+1:22	1.14	
0110	NGC 3264 *)		1800s	0:01	+1:23	1.14	scanning
0111	COMP ↑		3s	0:31	+1:53	1.17	
0112	COMP ↘		5s	0:34	-0:08	1.01	binby 4; focus @ 81490
0113	Feige 66		60s	0:35	-0:07	1.01	
0114	COMP ↘		5s	0:40	+1:30	1.06	binby 4
0115	NGC 3510		900s	0:40	+1:30	1.06	
0116	COMP ↑		5s	0:56	+1:46	1.09	
0117	COMP ↘		3s	0:57	+1:47	1.09	binby 8
0118	NGC 3510		1800s	0:59	+1:49	1.09	scanned
0119	COMP ↑		3s	1:29	+2:20	1.16	binby 8
0120	COMP ↘		5s	1:31	+0:02	1.00	binby 4, f: 81445
0121	HZ 44		120s	1:32	+0:03	1.00	seeing is abt worse
0122	COMP ↘		3s	1:36	+2:27	1.18	binby 8

\*\* ) star (red) also appears in slit

\*) star also appears in slit (but should be weak)

NOTE: POS. ANGLE IN HEADER NOT CORRECT; WE FORGOT TO CHANGE IT BACK TO 170° AFTER FRAME 81, 82 (HZ 14)

# CCD LOG SHEET

DATE: 26/03/95 OBSERVATORY: PAGE 3 of  
 OBSERVERS: JANSSEN, FABRICANT INSTRUMENT: 60" EAST  
 PROGRAM: N.F.S.S. INST.FOC.: 1060 P.A.SLIT: 170°  
 WEATHER: CLEAR, PHOTOMETRIC, seeing ~1.5" TEL.FOC.: 81445 TILTPOS: 585

Obs.no.	Object	Disp.	Exp.	Time	H.A.	Airmass	Comments
0123	NGC 3510	300f.	1800 s.	1:38	2:28	1.18	scanned; binby8
0124	COMP ↑		3 s.	2:08	2:58	1.28	binby8
0125	COMP →		5 s.	2:11	1:18	1.10	binby4
0126	A1244+5155 *)		1200 s.	2:12	1:19	1.10	
0127	COMP ↑		5 s.	2:33	1.40	1.13	binby4
0128	COMP →		3 s.	2:34	1.42	1.13	binby8
0129	A1244+5155		1800 s.	2:36	1.44	1.13	scanning
0130	COMP ↓		3 s.	3:06	2:14	1.18	
0131	A1244+5155		1800 s.	3:07	2:14	1.18	scanning
0132	COMP ↑		3 s.	3:37	2:45	1.24	binby8
0133	COMP ↓		3 s.	3:39	-0:59	1.03	binby8;
0134	NGC 6185 **)		1800 s.	3:42	-0:56	1.02	scanning
0135	COMP ↓		3 s.	4:12	-0:26	1.01	
0136	NGC 6185 **)		1800 s.	4:13	-0:25	1.01	scanning; seeing 1.6"-1.7"
0137	COMP ↑		3 s.	4:43	+0:04	1.00	binby8   moon is up
0138	COMP →		3 s.	4:45	+0:07	1.02	binby8 ↓
0139	NGC 6181		1800 s.	4:46	+0:08	1.02	Kennicutt; scanned
0140	COMP ↑		3 s.	5:16	+0:38	1.03	binby8 ↓
0141	COMP →		5 s.	5:28	+3:59	1.53	binby4; PA slit = 100°
0142	HZ 44		120 s.	5:28	+3:59	1.54	
0143	COMP ↓		5 s.	5:31	+4:02	1.55	binby4
0144	HZ 44		120 s.	5:31	+4:02	1.56	
0145	COMP ↑		5 s.	5:34	+4:05	1.57	binby4
0146	Twilight Sky		30 s.	5:40	+0:03	1.00	binby4
0147	COMP ↓		5 s.	5:40	+0:04	1.00	

\*) galaxy appears to have a PA of 90° i.e. 50° on the tv. screen, USC gives [5], however. maybe there is a faint disk with given PA; Check on 48" image (Give this galaxy priority one!)

\*\*) brightest star appears in slit towards NNW of galaxy

PA slit = 90° : on CCD image E is down, W is up  
 PA slit = 170° : on CCD image SSE is down, NNW is up



# CCD LOG SHEET

DATE: 27/03/95 OBSERVATORY: JFLWO PAGE 1 of 1  
 OBSERVERS: JANSEN INSTRUMENT: 60" FAST  
 PROGRAM: NEARBY FIELD GALAXY SURVEY INST.FOC.: 1060 P.A.SLIT: 112°  
 WEATHER: CLEAR ; CIRRUS ALONG SOUTHERN HORIZON TEL.FOC.: 86950 TILTPOS: 585

Obs.no.	Object	Disp.	Exp.	Time	H.A.	Airmass	Comments
0001	BIAS	300f			0:00	1.00	binby 8
0002	BIAS		05	19:00	0:00	1.00	binby 8
0021	BIAS		05	19:02	0:00	1.00	
0022	BIAS		05	19:02	0:00	1.00	binby 4
0041	BIAS		05	19:05	0:00	1.00	
0042	FLAT		8s	19:15	0:00	1.00	binby 4
0061	FLAT		8s	19:20	0:00	1.00	
0062	FLAT		4s	19:20	0:00	1.00	binby 8
0081	FLAT		4s	19:23	0:00	1.00	
0082	COMP ↘		5s	19:33	+2:50	1.40	binby 4 PA slit = 58° → rotator 28°
0083	HZ14		300s	19:34	+2:50	1.40	binby 4; inst.foc = 930*)
0084	COMP ↑		5s	19:41	+2:57	1.43	
0085	HZ14		300s	19:43	+2:59	1.45	binby 4; inst.foc = 1060
0086	COMP ↑		5s	19:48	+3:05	1.48	
0087	COMP ↘		5s	20:00	-1:09	1.06	binby 4; PA = 112°
0088	NGC 2799		1200s	20:01	-1:18	1.06	Nuclear spec.   focus: 8600
0089	COMP ↑		5s	20:22	-0:57	1.04	binby 4
0090	COMP ↘		3s	20:24	-0:55	1.04	binby 8
0091	NGC 2799		1800s	20:25	-0:54	1.04	Scanned
0092	COMP ↑		3s	20:55	-0:24	1.02	
0093	NGC 2799		1800s	20:58	-0:21	1.02	Scanned; focus 81595
0094	COMP ↑		3s	21:28	+0:08	1.02	binby 8
0095	COMP ↘		5s	21:31	-0:38	1.05	binby 4
0096	A1004+4716		1200s	21:32	-0:36	1.05	Nucl. Spec.
0097	COMP ↑		5s	21:53	-0:15	1.04	binby 4

PA 58° → 28° on rotator dial  
 PA 112° → 82° on rotator dial ; on CCD ~~PA~~ is down, ~~PA~~ is up

\* ) due to leaving TCS, focus was unset to default 930! check all previous frames for usability

# CCD LOG SHEET

DATE: 27/03/95 OBSERVATORY: FLWO PAGE 2 of ..  
 OBSERVERS: JANSEN INSTRUMENT: 60" FAST  
 PROGRAM: N.F.S.S. INST.FOC.: 1060 P.A.SLIT: 1.12°  
 WEATHER: CLEAR; PHOTOMETRIC; seeing 1.5-2" TEL.FOC.: 81595 TILTPOS: 585.

Obs.no.	Object	Disp.	Exp.	Time	H.A.	Airmass	Comments
0098	COMP ↓	300 <sup>l</sup>	3s	21:54	-0:14	1.04	binby8
0099	A1004+4716		1800s	21:57	-0:11	1.04	Scanned
0100	COMP ↑		3s	22:27	+0:18	1.04	
0101	A1004+4716		1800s	22:28	+0:48	1.04	scanned; focus set @ 800 <sup>l</sup>
0102	COMP ↑		3s	22:58	+0:48	1.05	binby8
0103	COMP ↓		5s	23:04	+0:23	1.02	binby4
0104	Feige 34		120s	23:05	+0:23	1.02	seeing ~2.5"
0105	COMP ↑		5s	23:07	+0:25	1.03	binby4 focus 73740
0106	COMP ↓		5s	23:10	+0:01	1.04	binby4
0107	A1106+4705		900s	23:10	-0:01	1.04	Nucl. Spec.
0108	COMP ↑		5s	23:25	+0:14	1.04	binby4
0109	COMP ↓		3s	23:26	+0:14	1.04	binby8
0110	A1106+4705		1200s	23:28	+0:16	1.04	Scanned
0111	COMP ↑		3s	23:48	+0:36	1.04	
0112	A1106+4705		1200s	23:49	+0:37	1.05	Scanned
0113	COMP ↑		3s	0:09	+0:57	1.06	binby8
0114	COMP ↓		5s	0:40	+0:42	1.09	binby4
0115	IC 692		1200s	0:10	+0:43	1.09	Nucl. spec.; seeing 1.5
0116	COMP ↑		5s	0:31	+1:03	1.11	binby4
0117	COMP ↓		5s	0:33	-0:05	1.01	
0118	Feige 66		60s	0:34	-0:04	1.01	binby4
0119	COMP ↓		3s	0:38	+1:10	1.12	binby8
0120	IC 692		1800s	0:38	+1:11	1.12	Scanning
0121	COMP ↑		3s	1:09	+1:48	1.18	binby8
0122	COMP ↓		5s	1:17	-0:07	1.00	binby4



# CCD LOG SHEET

DATE: ..... 27/03/95 ..... OBSERVATORY: ..... F.L.W.Ø ..... PAGE 3 of ..  
 OBSERVERS: JANSEN ..... INSTRUMENT: 60" FAST .....  
 PROGRAM: N.F.G.S. .... INST.FOC.: 1060 ..... P.A.SLIT: 112° .....  
 WEATHER: CLEAR; ~~overcast~~ ..... TEL.FOC.: 72960 ..... TILTPOS: 585 .....

Obs.no.	Object	Disp.	Exp.	Time	H.A.	Airmass	Comments
0123	HZ44	300 <sup>l</sup>	120 s.	1:19	-0:05	1.00	binby4
0124	COMP ↓		5 s.	1:21	-0:03	1.00	
0125	HZ44		120 s.	1:22	-0:02	1.00	seeing ~2.5-2.0
0126	COMP ↑		5 s.	1:24	-0:00	1.00	binby4
0127	COMP ↓		3 s.	1:28	+0:56	1.04	binby8
0128	NGC 4485 *)		600 s.	1:36	+1:03	1.04	Kennicutt's; Scanned bi.?
0129	NGC 4485		600 s.	1:48	+1:16	1.05	Kennicutt's binby8 . scanned
0130	COMP ↑		<del>5</del> 4 s.	1:58	+1:26	1.06	binby8
0131	COMP ↓		5 s.	2:01	-0:01	1.01	binby4
0132	NGC 5407		900 s.	2:02	-0:00	1.01	Nucl. spec.
0133	COMP ↑		5 s.	2:17	+0:14	1.01	binby4
0134	COMP ↓		3 s.	2:17	+0:15	1.01	binby8
0135	NGC 5407		1800 s.	2:18	+0:16	1.01	Scanned
0136	COMP ↓		3 s.	2:48	+0:46	1.02	
0137	NGC 5407		1800 s.	2:49	+0:47	1.02	Scanned <span style="border: 1px solid black; padding: 2px;">Hint of CIRRUS</span>
0138	COMP ↑		3 s.	3:19	+1:17	1.05	binby8 ↓ ??
0139	COMP ↓		5 s.	3:21	+0:47	1.08	binby4 <b>NOT</b>
0140	A1430+1149		1200 s.	3:22	+0:47	1.08	Nucl. spec. <b>SO!</b>
0141	COMP ↑		5 s.	3:42	+1:07	1.11	binby4
0142	COMP ↓		3 s.	3:43	+1:09	1.11	binby8
0143	A1430+1149 <b>***)</b>		1800 s.	3:44	+1:09	1.11	Scanned
0144	COMP ↑		3 s.	4:14	+1:40	1.16	
0145	A1430+1149		1800 s.	4:14	+1:40	1.16	scanned
0146	COMP ↑		3 s.	4:45	+2:10	1.24	
0147	COMP ↓		3 s.	4:48	+2:28	1.20	

\*) originally started as an exposure of 1800 sec but stopped due to scanning problem after 600 sec

\*\*\*) due to typing error 5878 Å overexposed.

\*\*\*\*) possibly a star is superposed on galaxy

# CCD LOG SHEET

DATE: 27/03/95 OBSERVATORY: F.L.W.O. PAGE 4 of ..  
 OBSERVERS: JANSEN INSTRUMENT: 60" FAST  
 PROGRAM: N.F.S.S. INST.FOC.: 1060 P.A.SLIT: 112  
 WEATHER: CLEAR, PHOTOMETRIC TEL.FOC.: 72960 TILTPOS: 585..

Obs.no.	Object	Disp.	Exp.	Time	H.A.	Airmass	Comments
0148	NGC 5548	300L	1200 s.	4:40	2:29	1.20	Kennicutt's ; binby 8; Scan
0149	COMP ↗		3 s.	5:08	2:49	1.26	binby 8
0150	COMP ↘		5 s.	5:18	3:53	1.50	binby 4 ; PA slit = 78°
0151	HZ 44		120 s.	5:19	3:54	1.50	
0152	COMP ↓		5 s.	5:21	3:56	1.51	
0153	HZ 44		120 s.	5:22	3:57	1.52	
0154	COMP ↗		5 s.	5:24	3:59	1.53	
0155	COMP ↘		3 s.	5:30	0:03	1.00	binby 8
0156	Twilight Sky		60 s.	5:31	0:04	1.00	binby 8
0157	Twilight Sky		60 s.	5:34	0:07	1.00	
0158	Twilight Sky		60 s.	5:39	0:12	1.00	
0159	Twilight Sky		60 s.	5:41	0:14	1.00	
0160	COMP ↗		3 s.	5:43	0:16	1.00	binby 8
0161	COMP ↘		5 s.	5:43	0:16	1.00	binby 4
0162	Twilight Sky		40 s.	5:44	0:17	1.00	
0163	Twilight Sky		40 s.	5:46	0:19	1.00	
0164	Twilight Sky		40 s.	5:48	0:21	1.00	
0165	COMP ↗		5 s.	5:49	0:22	1.00	binby 4
0166-0185	FLAT		8 s.	6:00	0:00	1.00	binby 4
0186-0205	FLAT		4 s.	6:06	0:00	1.00	binby 8
0206-0225	BIAS		0 s.	6:10	0:00	1.00	binby 8
0226-0245	BIAS		0 s.	6:12	0:00	1.00	binby 4
0246	DARK		1800 s.	6:23	0:00	1.00	binby 4
0247	DARK		1800 s.	6:53	0:00	1.00	binby 4
0248	DARK		1800 s.	7:	0:00	1.00	binby 4

PA = 78° → 48° on rotator dial

Night was photometric !!

# CCD LOG SHEET

DATE: 28/03/95 OBSERVATORY: F.L.W.O PAGE 01 of ..  
 OBSERVERS: JANSEN INSTRUMENT: 60' FAST  
 PROGRAM: NEARBY FIELD GALAXY SURVEY INST.FOC.: 1060 P.A.SLIT: 111°  
 WEATHER: CLEAR, PHOTOMETRIC TEL.FOC.: 74080 TILTPOS: 505

Obs.no.	Object	Disp.	Exp.	Time	H.A.	Airmass	Comments
0001	COMP	300p.	3 s.	16:25	0:00	1.00	binby8
0002	BIAS		0 s.	16:52	0:00	1.00	binby8
0021	BIAS		0 s.	16:54	0:00	1.00	binby8
0022	BIAS		0 s.	16:54	0:00	1.00	binby4
0041	BIAS		0 s.	16:57	0:00	1.00	binby4
0042	FLAT		8 s.	16:58	0:00	1.00	binby4
0061	FLAT		8 s.	17:03	0:00	1.00	binby4
0062	FLAT		4 s.	17:07	0:00	1.00	binby8
0081	FLAT		4 s.	17:10	0:00	1.00	binby8
0082	COMP		5 s.	17:13	0:00	1.00	binby4
** 0083	COMP		3 s.	21:40	-0:18	1.13	binby8 everything's OK.
0084	COMP ↘		5 s.	21:44	+0:02	1.00	binby4
0085	PG0939+262		60 s.	21:45	+0:03	1.00	binby4 centered ok. once
0086	PG0939+262		360 s.	21:47	+0:06	1.01	binby4
0087	COMP ↗		5 s.	21:54	+0:12	1.01	
0088	COMP ↘		5 s.	21:56	-0:02	1.12	binby4
0089	A0957+0439		1200 s.	21:57	-0:02	1.12	Nuclear Spec.
0080	COMP ↗		5 s.	22:17	+0:18	1.13	binby4
0091	COMP ↘		3 s.	22:19	+0:20	1.13	binby4 *)
0092	A0957+0439		1800 s.	22:19	+0:20	1.13	Scanned binby4 *)
0093	COMP ↗		3 s.	22:50	+0:51	1.15	binby4 *)
0094	COMP ↘		5 s.	22:56	+0:19	1.02	binby4
0095	Feige 34		120 s.	22:57	+0:19	1.02	seeing 2" <del>ok</del>
0096	COMP ↘		3 s.	23:02	+1:03	1.17	binby8
0097	A0957+0439		1800 s.	23:03	+1:04	1.17	Scanned spec.

\*) forgot to change to binby8!

\*\*> late start due to scheduled maintenance pointing program TCS system.

# CCD LOG SHEET

DATE: ..... 28/03/95 ..... OBSERVATORY: ..... F.L.W.O. .... PAGE 2 of ..  
 OBSERVERS: JANSSEN ..... INSTRUMENT: ..... 60" FAST .....  
 PROGRAM: ..... N.F.S.S. .... INST.FOC.: ..... 1060 ..... P.A.SLIT: ..... 111" .....  
 WEATHER: ..... CLEAR, PHOTOMETRIC; seeing 1.5 ..... TEL.FOC.: ..... 71770 ..... TILTPOS: 585.

Obs.no.	Object	Disp.	Exp.	Time	H.A.	Airmass	Comments
0098	COMP ↗	300f.	3s.	23:33	+1:34	1.22	binby 8
0099	COMP ↘		3s.	23:36	+0:12	1.08	binby 8
0100	IC 692		1800s.	23:37	+0:13	1.08	scanned spec.
0101	COMP ↗		3s.	0:07	+0:43	1.09	binby 8
0102	COMP ↘		5s.	0:09	-0:25	1.01	binby 4
0103	Feige 66		60s.	0:10	-0:25	1.01	binby 4
0104	COMP ↘		5s.	0:13	-0:19	1.32	binby 4
0105	A1233+7230		1200s.	0:14	-0:18	1.32	Nucl. spec.; focus 71335
0106	COMP ↗		5s.	0:34	+0:01	1.32	binby 4
0107	COMP ↘		3s.	0:35	+0:02	1.32	binby 8
0108	A1233+7230		1800s.	0:35	+0:02	1.32	Scanned spec.
0109	COMP ↗		3s.	1:06	+0:33	1.32	binby 8
0110	COMP ↘		5s.	1:09	-0:12	1.00	binby 4
0111	HZ 44		120s.	1:13	-0:08	1.00	binby 4; focus 66560
0112	COMP ↘		3s.	1:17	+0:44	1.33	binby 8
0113	A1233+7230		1800s.	1:17	+0:44	1.33	scanned
0114	COMP ↗		3s.	1:47	+1:15	1.34	binby 8
0115	COMP ↘		5s.	1:50	+0:14	1.00	binby 4
0116	A1336+3323		1200s.	1:51	+0:15	1.00	Nucl. Spec.
0117	COMP ↗		5s.	2:11	+0:35	1.01	binby 4
0118	COMP ↘		3s.	2:12	+0:36	1.01	binby 8
0119	A1336+3323		1800s.	2:13	+0:37	1.01	scanned spec.
0120	COMP ↕		3s.	2:43	+1:07	1.03	binby 8
0121	A1336+3323		1800s.	2:44	+1:08	1.03	scanned spec.
0122	COMP ↗		3s.	3:14	+1:38	1.07	binby 8

\* spccd to WNW is down; ESE is up for PA slit = 111"

# CCD LOG SHEET

DATE: 28/03/95 OBSERVATORY: F.L.W.O. PAGE 3 of ...  
 OBSERVERS: JANSEN INSTRUMENT: 60" FAST  
 PROGRAM: N.F.S.S. INST.FOC.: 1060 P.A.SLIT: 111°  
 WEATHER: CLEAR; PHOTOMETRIC; SEEING 2.0" TEL.FOC.: 66560 TILTPOS: 585

Obs.no.	Object	Disp.	Exp.	Time	H.A.	Airmass	Comments
0123	COMP ↘	300f.	5s.	3:17	+0:56	1.04	binby4
0124	NGC 5608 *)		1800 s.	3:17	+0:57	1.04	Nucl. Spec.
0125	COMP ↗		5s.	3:48	+1:27	1.07	binby4
0126	COMP ↘		3s.	3:49	+1:28	1.07	binby8
0127	NGC 5608		2400 s.	3:49	+1:28	1.07	Scanned Spec.
0128	COMP ↓		3s.	4:29	+2:09	1.13	binby8
0129	NGC 5608		2400 s.	4:30	+2:09	1.13	scanned Spec.
0130	COMP ↗		3s.	5:10	+2:50	1.22	binby8
0131	COMP ↘		5s.	5:19	+3:58	1.52	binby4; PA slit = 78°
0132	HZ44 **)		120 s.	5:20	+3:59	1.53	binby4
0133	HZ44		120 s.	5:22	+4:01	1.54	binby4
0134	COMP ↗		5s.	5:25	+4:04	1.56	binby4
0135	COMP ↘		3s.	5:28	+0:00	1.00	binby8
0136	Twilight Sky		60 s.	5:33	+0:06	1.00	
0139	Twilight Sky		60 s.	5:37	+0:10	1.00	
0140	COMP ↗		3s.	5:38	+0:11	1.00	binby8
0141	COMP ↘		5s.				binby4
0142	Twilight Sky		60 s.				<del>binby4</del>
0145	Twilight Sky		60 s.				<del>binby4</del>
0146	COMP ↗		5s.				<del>binby4</del>
0147-0166	FLAT		8s.				<del>binby4</del>
0167-0186	FLAT		4s.				<del>binby8</del>
0187-0206	BIAS		0s.				<del>binby8</del>
0207-0226	BIAS		0s.				<del>binby4</del>
0227-0229	DARK		1800 s.				<del>binby8</del>

\*) Extreme zwak sterretje!  $M_B = -15.16$  No central core visible on tv-screen

~~PHOTOMETRIC NIGHT !!~~

At dawn: cirrus ("schopenwolven") SO NOT PHOTOMETRIC AFTER ALL !!!

\*\*\*) seeing ~ 2.0" - 2.5"

# CCD LOG SHEET

DATE: ..... 29/03/95 ..... OBSERVATORY: ..... F.L.W.O. .... PAGE 1.... of ..  
 OBSERVERS: JANSSEN ..... INSTRUMENT: 60" FAST .....  
 PROGRAM: ... NEARBY FIELD GALAXY SURVEY ..... INST.FOC.: 1060 ..... P.A.SLIT: 77° .....  
 WEATHER: ... CIRRUS WITH OPEN PATCHES IN BETWEEN TEL.FOC.: 73335 ..... TILTPOS: 585 .....

Obs.no.	Object	Disp.	Exp.	Time	H.A.	Airmass	Comments
0001	COMP	300s	3s	16:35	0:00	1.00	binby 8 PA slit = 58°
0002	BIAS		0s	16:37	0:00	1.00	binby 8
0021	BIAS		0s	16:39	0:00	1.00	binby 8
0022	BIAS		0s	16:41	0:00	1.00	binby 4
0041	BIAS		0s	16:43	0:00	1.00	binby 4
0042	FLAT		8s	16:44	0:00	1.00	binby 4
0061	FLAT		8s	16:50	0:00	1.00	binby 4
0062	FLAT		4s	16:50	0:00	1.00	binby 8
0081	FLAT		4s	16:54	0:00	1.00	binby 8
0082	COMP		5s	16:55	0:00	1.00	binby 4
0083	BIAS		0s	19:11	-0:08	1.00	binby 8; lots of cirrus !!
0092	BIAS		0s	19:12	-0:08	1.00	binby 8
0093	BIAS		0s	19:12	-0:07	1.00	binby 4
0102	BIAS		0s	19:13	-0:06	1.00	binby 4
0103	COMP ↴		5s	19:27	+2:51	1.40	binby 4; focus set at 733
0104	HZ 14		300s	19:28	+2:52	1.41	binby 4; seeing 1.5
0105	COMP ↓		5s	19:33	+2:58	1.44	binby 4
0106	HZ 14		300s	19:35	+2:59	1.45	clouds moved in after 3 min
0107	COMP ↗		5s	19:40	+3:05	1.47	binby 4 PA slit = 58°
0108	COMP ↴		5s	19:56	-1:47	1.09	binby 4; PA slit = 77°
0109	NGC 3011		900s	19:57	-1:47	1.08	Nucl. Spec.    seems clear toward obj
0110	COMP ↗		5s	20:12	-1:32	1.06	binby 4
0111	COMP ↴		3s	20:14	-1:29	1.06	binby 8
0112	NGC 3011		1800s	20:15	-1:29	1.06	Scanned spec. ↓
0113	COMP ↓		3s	20:45	-0:58	1.02	

PA 58° → 28° on rotator dial  
 PA 77° → 47° on rotator dial

# CCD LOG SHEET

DATE: 29/03/95 OBSERVATORY: F.L.W.O. PAGE 2 of 2  
 OBSERVERS: JANSEN INSTRUMENT: 60" FAST  
 PROGRAM: N.F.G.S. INST.FOC.: 1060 P.A.SLIT: 77°  
 WEATHER: CIRRUS; ~~CLEAR~~ TEL.FOC.: 73335 TILTPOS: 585.

Obs.no.	Object	Disp.	Exp.	Time	H.A.	Airmass	Comments
0114	NGC3011	300f.	1800s.	20:45	-0:58	1.02	
0115	COMP ↑		3s	21:16	-0:27	1.01	binby8
0116	COMP ↓		5s	21:20	-0:33	1.05	binby4 ; focus: 6557
0117	A0955+4758		<sup>900s.</sup> <del>1800s.</del>	21:20	-0:32	1.05	Nucl. Spec. clouds move after 13 min exposure stopped after 900 sec
0118	COMP ↑		5s	21:36	-0:16	1.04	binby4
0119	COMP ↓		3s	21:38	-0:14	1.04	binby8
<del>0120</del>	<del>A0955+4758</del>		<del>1800s.</del>	<del>21:41</del>	<del>-0:12</del>	<del>1.04</del>	<del>Scanned spec</del>
<del>0121</del>	<del>COMP</del>		STOPPED!				clouds coming in !!!
0120	SN candidate ?*		300s.	21:48	+0:33	1.52	SN candidate for Peter Challis
0121	COMP ↑ SN?		5s	21:52	+0:30	1.52	binby4
0122	COMP ↓		3s	22:23	+0:30	1.05	binby8
0123	A0955+4758 **)		1800s.	22:24	+0:31	1.05	Scanned spec through cir
0124	COMP ↑		3s	22:57	+1:04	1.07	binby8 (Closed dom)
0125	COMP ↓		5s	2:58	-0:00	1.17	binby4 (open dup again)
0126	IC 1100 ***)		1200s.	2:59	-0:00	1.17	Nucl. spec.; focus 6400
0127	COMP ↑		5s	3:19	+0:19	1.17	binby4 (bright sky conditions)
0128	COMP ↓		3s	3:26	+0:26	1.18	binby8
0129	IC 1100		1800s.	3:26	+0:26	1.18	Scanned Spec.
0130	COMP ↑		3s	3:57	+0:57	1.19	
0131	IC 1100 XX)		1800s.	3:57	+0:57	1.19	Scanned spec.
0132	COMP ↑		3s	4:18	+1:18	1.20	binby8
0133	COMP ↓		5s	4:29	+0:43	1.08	binby4
0134	NGC 6007 (00)		1200s.	4:30	+0:43	1.08	binby4 Nucl. Spec
0135	COMP ↑		5s	4:50	+1:03	1.00	binby4
0136	-COMP ↓		3s	4:52	+1:05	1.10	binby8

?\* 09h 17m 54s -16° 19' 00" Nob So. Just a bright star.

\*\* Nauwetyks signaal door alle bewolking; wasredeloos !!

\*\*\* Still very cloudy

XX Stopped after 18 minutes because of dome problem. Dome hoisted without apparent reason !! → Telescope almost points to RA axis support! → go to new object.

# CCD LOG SHEET

DATE: 29/03/95 OBSERVATORY: F.L.W.O. PAGE 3 of ..  
 OBSERVERS: JANSEN INSTRUMENT: FAST 60"  
 PROGRAM: N.F.G.S. INST.FOC.: 1060 P.A.SLIT: 77°  
 WEATHER: CIRRUS ALL OVER, BUT SOMEWHAT CLEARER NOW TEL.FOC.: 63110 TILTPOS: 585

Obs.no.	Object	Disp.	Exp.	Time	H.A.	Airmass	Comments
0137	NGC 6007 *)	3006	1800S	4:53	+1:06	1.10	Scanned spec binby8
0138	COMP ↑		3S	5:23	+1:36	1.15	binby8
0139	COMP ↓		5S	5:29	+4:12	1.62	binby4
0140	H244 **)		<b>120S</b>	5:30	+4:13	1.62	binby4
0141	BIAS		0S	5:47	0:00	1.00	binby8
0160	BIAS		0S	5:49	0:00	1.00	binby8
0161	BIAS		0S	5:49	0:00	1.00	binby4
0180	BIAS		0S	5:52	0:00	1.00	binby4
0181	FLAT		8S	5:52	0:00	1.00	binby4
0200	FLAT		8S	6:00	0:00	1.00	binby4
0201	FLAT		4S	6:01	0:00	1.00	binby8
0220	FLAT		4S	6:04	0:00	1.00	binby8
0221	COMP at star		3S	6:05	0:00	1.00	binby8
0222	COMP at star		5S	6:06	0:00	1.00	binby4
0223	DARK		1800S	6:07	0:00	1.00	binby8
0224	DARK		1800S	6:37	0:00	1.00	binby8
0225	DARK		1800S	7:07	0:00	1.60	binby8
					0		
NON PHOTOMETRIC NIGHT //							

\*) two stars superposed on galaxy.

\*\*) started 6 min exposure, but stopped after exactly 2 min = 120 sec. check whether usable at all.



# CCD LOG SHEET

DATE: 30/03/95 OBSERVATORY: F.L.W.O. PAGE 1 of 1  
 OBSERVERS: JANSEN INSTRUMENT: 60" FAST  
 PROGRAM: NEARBY FIELD GALAXY SURVEY INST.FOC.: 1060 P.A.SLIT: 77  
 WEATHER: CLOUDY; CIRRUS TEL.FOC.: 73335 TILTPOS: 585

Obs.no.	Object	Disp.	Exp.	Time	H.A.	Airmass	Comments
0001	BIAS	300f.	05	16:49	0:00	1:00	binby8
0020			05	16:51			
0021	BIAS		05	16:56			binby4
0040			05	16:59			
0041	FLAT		85	17:28			binby4
0060			85	17:34			
0061	FLAT		45	17:37			binby8
0080			45	17:40			
0081	COMP estw		35	19:08	0:00	1.00	binby8
0082	COMP ↘		55	19:37	+3:05	1.48	binby4
0083	HZ14		3605	19:38	+3:06	1.48	focus 69725
0084	COMP ↗		55	19:44	+3:12	1.49	binby4
0085	COMP ↘		55	20:00	-1:07	1.05	binby4
0086	NGC 2798 ⊥		9005	20:00	-1:07	1.05	Kennicutt's; Nucl. spec.
0087	COMP ↗		55	20:15	-0:51	1.03	binby4
0088	COMP ↘		35	20:16	-0:51	1.03	binby8
0089	NGC 2798 *) ⊥		18005	20:17	-0:50	1.03	Kennicutt's; Scanned spec.
0090	COMP ↗		35	20:47	-0:20	1.02	binby8
0091	COMP ↘		55	20:54	-1:30	1.15	binby4
0092	NGC 3279 ⊥		12005	20:55	-1:30	1.14	Nucl. spec.
0093	COMP ↗		55	21:15	-1:10	1.11	binby4
0094	COMP ↘		35	21:20	-1:04	1.11	binby8 CIRRUS!
0095	NGC 3279 ⊥		18005	21:21	-1:03	1.10	Scanned spec.
0096	COMP ↘		35	21:52	-0:33	1.08	
0099	NGC 3279 ⊥		18005	21:52	-0:32	1.08	Scanned spec. focus 5897

PA slit = 77° → 47° on robotax dial  
 PA slit = 58° → 28° on robotax dial

\*) clouds come in after 6 min....!!!! Totally clouded out!  
 ⊥ galaxy major axis is very large; therefore these are scanned perpendicular to the major axis. Their  
 is ~ 90° off the PA slit = 77°

# CCD LOG SHEET

DATE: 30/03/95 OBSERVATORY: F.L.W.D. PAGE 2 of 2  
 OBSERVERS: JANSEN INSTRUMENT: 60" FAST  
 PROGRAM: N.F.G.S. INST.FOC.: 1060 P.A.SLIT: 77°  
 WEATHER: CLOUDY, CIRRUS, CLEARING UP TEL.FOC.: 58975 TILTPOS: 585

Obs.no.	Object	Disp.	Exp.	Time	H.A.	Airmass	Comments
0098	COMP ↓	300l.	3 s.	22:31	+0:07	1.07	binby 8
0099	NGC 3279 ↓		1800 s.	22:32	+0:08	1.07	Scanned spec.
0100	COMP ↑		3 s.	23:03	+0:38	1.08	binby 8
0101	COMP ↓		5 s.	23:04	+0:34	1.03	binby 4 ; seeing ~ 2.5'
0102	Feige 34		120 s.	23:06	+0:37	1.03	binby 4 ; focus 56660
0103	COMP ↓		5 s.	23:11	+0:00	1.13	binby 4
0104	NGC 3633		1200 s.	23:11	+0:00	1.13	Nucl. spec.
0105	COMP ↑		5 s.	23:31	+0:21	1.14	binby 4
0106	COMP ↓		3 s.	23:32	+0:22	1.14	binby 8
0107	NGC 3633		1800 s.	23:33	+0:22	1.14	Scanned spec.
0108	COMP		3 s.	0:03	+0:52	1.16	binby 8
0109	NGC 3633		1800 s.	0:03	+0:53	1.16	Scanned spec.
0110	COMP ↑		3 s.	0:34	+1:23	1.21	binby 8
0111	COMP ↓		5 s.	0:35	+0:08	1.01	binby 4 ; focus 55315
0112	Feige 66		60 s.	0:36	+0:09	1.01	seeing ~ 2"
0113	COMP ↓		5 s.	0:39	+1:08	1.04	binby 4
0114	A1137+2840		1200 s.	0:39	+1:09	1.04	Nucl. spec.
0115	COMP ↑		5 s.	0:59	+1:29	1.06	binby 4
0116	COMP ↓		3 s.	1:01	+1:31	1.06	binby 8
0117	A1137+2840		1800 s.	1:02	+1:31	1.06	Scanned spec.
0118	COMP ↑		3 s.	1:32	+2:02	1.12	binby 8
0119	COMP ↓		5 s.	1:34	+0:20	1.01	binby 4
0120	HZ 44		120 s.	1:34	+0:21	1.01	seeing ~ 1.5" focus 54
0121	COMP ↓		3 s.	1:38	+2:07	1.13	binby 8
0122	A1137+2840		1800 s.	1:38	+2:08	1.13	Scanned spec.

# CCD LOG SHEET

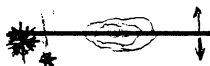
DATE: 30/03/95 OBSERVATORY: F.L.W.O. PAGE 3 of 3  
 OBSERVERS: JANSEN INSTRUMENT: 60" FAST  
 PROGRAM: N.F.G.S. INST.FOC.: 1060 P.A.SLIT: 77°  
 WEATHER: CLEARISH TEL.FOC.: 54485 TILTPOS: 58.5

Obs.no.	Object	Disp.	Exp.	Time	H.A.	Airmass	Comments
0123	COMP ↑	300l	3s	2:09	+2:38	1.21	binby8
0124	COMP ↓		5s	2:21	-0:21	1.14	binby4 Dome lost coordinates
0125	IC 1066		1200s	2:22	-0:20	1.14	Nucl. spec.
0126	COMP ↑		5s	2:42	-0:00	1.13	binby4
0127	COMP ↓		3s	2:43	+0:00	1.13	binby8
0128	IC 1066 * *)		1800s	2:43	+0:00	1.13	Scanned spec.
0129	COMP ↓		3s	3:13	+0:31	1.14	binby8
0130	IC 1066		1800s	3:14	+0:31	1.15	Scanned spec.
0131	COMP ↑		3s	3:44	+1:01	1.18	binby8
0132	COMP ↓		5s	3:45	+0:26	1.01	binby4
0133	IC 1124		1200s	3:46	+0:26	1.01	Nucl. spec
0134	COMP ↑		5s	4:06	+0:47	1.03	binby4
0135	COMP ↓		3s	4:07	+0:48	1.03	binby8
0136	IC 1124		1800s	4:08	0:48	1.03	Scanned spec.
0137	COMP ↑		3s	4:38	1:18	1.06	binby8
0138	COMP ↓		3s	4:40	0:57	1.09	binby8
0139	NGC 6007 **)		1800s	4:41	0:58	1.09	Scanned spec focus: 53985
0140	COMP ↑		3s	5:11	1:28	1.13	binby8
0141	COMP ↓		5s	5:13	04:00	1.53	binby4
0142	HZ44		120s	5:13	4:00	1.54	
0143	HZ44		120s	5:16	4:03	1.56	
0144	COMP ↑		5s	5:18	4:05	1.57	binby4
0145	COMP @stow		3s	5:22	0:02	1.00	binby8
0146	Twilight Sky		60s	5:30	0:09	1.00	binby8
0147	Twilight Sky		60s	5:31	0:10	1.00	binby8

\*) get another scanned exposure tomorrow.

\* big star will appear in stb (at edge CCD)

\*\* two stars superimposed on galaxy




Actually it turns out to lie just off the CCD. So no worries, m



# CCD LOG SHEET

DATE: ..... 31/03/95 ..... OBSERVATORY: ..... F.L.W.O. .... PAGE 1 of 1  
 OBSERVERS: JANSSEN ..... INSTRUMENT: 60" FAST .....  
 PROGRAM: N.F.G.S. .... INST.FOC.: 1060 ..... P.A.SLIT: 0°  
 WEATHER: CLEAR; PHOTOMETRIC ..... TEL.FOC.: 57740 ..... TILTPOS: 58.5

Obs.no.	Object	Disp.	Exp.	Time	H.A.	Airmass	Comments
0001	BIAS	300f.	0s	19:06	0:00	1.00	binby4
0010	BIAS		0s				binby4
0011	BIAS		0s	19:09	0:00	1.00	binby8
0030	BIAS		0s				binby8
0031	FLAT		8s	19:12	0:00	1.00	binby4
0050	FLAT		8s				binby4
0051	FLAT		4s	19:30	0:00	1.00	binby8
0070	FLAT		4s				binby8
0071	COMP esbow		5s	19:36	0:00	1.00	binby4
0072	COMP ↓		5s	19:39	+3:11	1.51	binby4; PA slit = 58°
0073	HZ14		300s	19:40	+3:12	1.52	seeing 2.5; wind in den
0074	COMP ↑		5s	19:45	+3:17	1.56	binby4; PA slit = 58°
0075	COMP ↓		3s	19:58	-1:05	1.04	binby8; PA slit = 80°
0076	NGC 2798 *)		1800s	19:59	-1:04	1.04	Scanned spec Kennicut
0077	COMP ↑		3s	20:29	-0:34	1.02	binby8
0078	COMP ↓		5s	20:32	-0:30	1.08	binby8
0079	A0912+5303 **)		1200s	20:33	-0:29	1.08	Nucl. spec.
0080	COMP ↑		3s	20:53	-0:09	1.07	binby8
0081	COMP ↓		3s	20:56	-0:06	1.07	binby8
0082	A0912+5303		1800s	20:56	-0:06	1.07	Scanned spec.; seeing ~
0083	COMP ↓		3s	21:26	+0:24	1.08	binby8
0084	A0912+5303		1800s	21:27	+0:24	1.08	Scanned spec.
0085	COMP ↑		3s	21:57	+0:55	1.09	binby8
0086	COMP ↓		3s	22:01	+0:15	1.04	binby8
0087	A0955+4758		1800s	22:01	+0:16	1.04	Scanned spec.


\*) slit is aligned perpendicular to major axis galaxy, because galaxy is just too large to be measured otherwise. Scan is therefore along the major axis instead of minor axis (PA galaxy is 160°) 

\*\*\*) several faint stars superposed (?) on this very faint extended galaxy

# CCD LOG SHEET

DATE: ..... 31/03/95 ..... OBSERVATORY: ..... F.L.W.O. .... PAGE 1 of 1  
 OBSERVERS: JANSSEN ..... INSTRUMENT: 60" FAST .....  
 PROGRAM: N.F.G.S. .... INST.FOC.: 1060 ..... P.A.SLIT: 0°  
 WEATHER: CLEAR; PHOTOMETRIC ..... TEL.FOC.: 57740 ..... TILTPOS: 58°

Obs.no.	Object	Disp.	Exp.	Time	H.A.	Airmass	Comments
0001	BIAS	300f.	0s	19:06	0:00	1.00	binby4
0010	BIAS		0s				binby4
0011	BIAS		0s	19:09	0:00	1.00	binby8
0030	BIAS		0s				binby8
0031	FLAT		8s	19:12	0:00	1.00	binby4
0050	FLAT		8s				binby4
0051	FLAT		4s	19:30	0:00	1.00	binby8
0070	FLAT		4s				binby8
0071	COMP esbow		5s	19:36	0:00	1.00	binby4
0072	COMP ↓		5s	19:39	+3:11	1.51	binby4; PA slit = 58°
0073	HZ14		300s	19:40	+3:12	1.52	seeing 2.5; wind in den
0074	COMP ↑		5s	19:45	+3:17	1.56	binby4; PA slit = 58°
0075	COMP ↓		3s	19:58	-1:05	1.04	binby8; PA slit = 80°
0076	NGC 2798 *)		1800s	19:59	-1:04	1.04	Scanned spec Kennicut
0077	COMP ↑		3s	20:29	-0:34	1.02	binby8
0078	COMP ↓		5s	20:32	-0:30	1.08	binby8
0079	A0912+5303 **)		1200s	20:33	-0:29	1.08	Nucl. spec.
0080	COMP ↑		3s	20:53	-0:09	1.07	binby8
0081	COMP ↓		3s	20:56	-0:06	1.07	binby8
0082	A0912+5303		1800s	20:56	-0:06	1.07	Scanned spec.; seeing ~
0083	COMP ↓		3s	21:26	+0:24	1.08	binby8
0084	A0912+5303		1800s	21:27	+0:24	1.08	Scanned spec.
0085	COMP ↑		3s	21:57	+0:55	1.09	binby8
0086	COMP ↓		3s	22:01	+0:15	1.04	binby8
0087	A0955+4758		1800s	22:01	+0:16	1.04	Scanned spec.

\*) slit is aligned perpendicular to major axis galaxy, because galaxy is just too large to be measured otherwise.  
 Scan is therefore along the major axis instead of minor axis (PA galaxy is 160°) 

\*\*) several faint stars superposed (?) on this very faint extended galaxy

# CCD LOG SHEET

DATE: ..... 31/03/95 ..... OBSERVATORY: ..... F.L.W.O. .... PAGE 2. of .  
 OBSERVERS: JANSSEN ..... INSTRUMENT: 60" FAST .....  
 PROGRAM: ..... N.F.G.S. .... INST.FOC.: 1060 ..... P.A.SLIT: 80° .....  
 WEATHER: ..... CLEAR : PHOTOMETRIC ..... TEL.FOC.: 54430 ..... TILTPOS: 585 .....

Obs.no.	Object	Disp.	Exp.	Time	H.A.	Airmass	Comments
0088	COMP ↓	300s	35	22:31	00:46	1.05	binby8; focus 54430
0089	A0955+4758		1800s	22:32	00:47	1.05	Scanned spec.
0090	COMP ↑		35	23:02	01:17	1.08	binby8
0091	COMP ↓		55	23:06	-0:36	1.12	binby4
0092	A1154+5813		1200s	23:07	-0:36	1.12	Nucl. spec.
0093	COMP ↑		55	23:27	-0:15	1.12	binby4
0094	COMP ↓		35	23:28	-0:15	1.12	binby8
0095	A1154+5813		1800s	23:28	-0:14	1.12	Scanned spec.
0096	COMP ↑		35	23:58	+0:15	1.12	binby8
0097	COMP ↓		55	0:02	-0:21	1.01	binby4
0098	Feige 66		60s	0:03	-0:20	1.01	seeing ~1.5
0099	COMP ↓		35	0:06	+0:23	1.12	binby4 (forgot to rebin.)
0100	A1154+5813		1800s	0:06	+0:23	1.12	binby8
0101	COMP ↑		35	0:37	+0:53	1.13	binby8
0102	COMP ↓		55	0:38	+0:43	1.03	binby8
0103	A1206+4201		1200s	0:41	+0:46	1.03	Nucl. spec.; focus=4879
0104	COMP ↑		55	1:01	+1:06	1.04	binby4
0105	COMP (↗)		35	1:03	+1:08	1.05	binby8
0106	COMP ↓		55	1:05	-0:04	1.00	binby4
0107	HZ 44		120s	1:06	-0:03	1.00	standard; seeing 1"-1.5"
0108	COMP ↓		35	1:09	+1:14	1.05	binby8
0109	A1206+4201		1800s	1:10	+1:15	1.05	Scanned spec
0110	COMP ↓		35	1:40	+1:45	1.09	binby8
0111	A1206+4201		1800s	1:40	+1:45	1.09	Scanned spec.
0112	COMP ↑		35	2:11	+2:16	1.14	binby8

# CCD LOG SHEET

DATE: ..... 31/03/95 ..... OBSERVATORY: ..... F.L.W.O ..... PAGE 3 of ..  
 OBSERVERS: JANSSEN ..... INSTRUMENT: 60" FAST .....  
 PROGRAM: N.F.G.S. .... INST.FOC.: 1060 ..... P.A.SLIT: 80"  
 WEATHER: CLEAR ; PHOTOMETRIC ..... TEL.FOC.: 48790 ..... TILTPOS: 585

Obs.no.	Object	Disp.	Exp.	Time	H.A.	Airmass	Comments
0113	COMP ↓	300p.	5 s.	2:13	+0:16	1.11	binby4
0114	NGC5491		900 s.	2:14	+0:17	1.11	Nucl. spec.
0115	COMP ↑		5 s.	2:29	+0:32	1.11	binby4
0116	COMP ↓		3 s.	2:30	+0:33	1.12	binby8
0117	NGC5491 *)		1800 s.	2:30	+0:34	1.12	Scanned spec.
0118	COMP ↓		3 s.	3:01	+1:04	1.15	binby8
0119	NGC5491		1800 s.	3:01	+1:05	1.15	Scanned spec.
0120	COMP ↑		3 s.	3:31	+1:35	1.20	binby8
0121	COMP ↓		5 s.	3:33	+0:46	1.04	binby4
0122	A1459+4454		900 s.	3:34	+0:47	1.04	Nucl. Spec.
0123	COMP ↑		5 s.	3:49	+1:02	1.05	binby4
0124	COMP ↓		3 s.	3:50	+1:03	1.05	binby8
0125	A1459+4454		1200 s.	3:50	+1:03	1.05	Scanned spec.
0126	COMP ↓		3 s.	4:10	+1:24	1.07	binby8
0127	A1459+4454		1200 s.	4:11	+1:25	1.07	Scanned spec.
0128	COMP ↑		3 s.	4:32	+1:45	1.10	binby8
0129	COMP ↓		3 s.	4:34	+1:19	1.06	binby8
0130	IC1124 **)		1800 s.	4:35	+1:19	1.06	Scanned spec.
0131	COMP ↑		3 s.	5:05	+1:50	1.11	binby8
0132	COMP ↓		3 s.	5:10	+1:19	1.07	binby8
0133	NGC6052		600 s.	5:10	+1:20	1.07	Scanned spec. Kennic bright sky conditions !!
0134	COMP ↑		3 s.	5:20	+1:30	1.09	binby8
0135	COMP ↓		5 s.	5:22	+4:13	1.62	binby4 ; seeing 1"-1.5"
0136	HZ44		120 s.	5:22	+4:13	1.62	
0137	COMP ↑		5 s.	5:25	+4:16	1.64	binby4

\*) has stars very close by ; ~~may~~ will appear in the slit

\*\*\*) star superposed on galaxy (ENE side of galaxy @ 30" from nucleus)



