

60 inch Telescope Log

Observer: J. Peters

PI: ET. AL

Spectrograph: Fast

Grating: 300

Page: 5417

Date: 5/6/97

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1	Comp	Test			Test	Test
2-11	Bars	Bin By	4			
12-21	FlaT	Bin By	4		63	
22-31	Bars	Bin By	2			
32-41	FlaT	Bin By	2		12.5	
42-46	Sky			#0	15	
47	Comp			↑		
48	Forge 34	10 36 41	43 21 30	#56	90 ^s	Thin Clouds
49	Comp			↑		
50	N3377	10 45 02	14 14 51	#57	3 ^m	Thin Clouds or Thick
51	Comp			↑		
52	N4151	12 08 01	39 41 01	#6	30 ^s	
53	Comp			↑		
54	MARK 421	11 01 40	39 29 43	#6	5 ^m	
55	Comp			↑		
56	12574P 273411	12 57 41	27 34 11	#25	15 ^m	IN OUT Thin Clouds
57	Comp			↑		
58	125634P 29 27 14	12 56 34	29 27 14	#25	15 ^m	
59	Comp			↑		
60	125721P 29 29 40	12 57 21	29 29 40	#25	30 ^m	
61	Comp			↑		Thin Cloud
62	125518P 29 50 43	12 55 18	29 50 43	#25	30 ^m	
63	Comp					
64	15555P 16 31	15 57 46	16 22 24	#1	15 ^m	Partial. Barely Obj
65	Comp			↑		Thin Clouds
66	15594P 18 05	16 01 41	17 37 03	#1	10 ^m	
67	Comp			↑		
68	16062P 16 59	16 08 27	16 51 23	#1	10 ^m	
69	Comp			↑		
70	15582P 18 24	16 00 27	18 15 49	#1	15 ^m	

60 inch Telescope Log		Spectrograph: <u>Fast</u>				
Observer: <u>J. Peters</u>		Grating: <u>300</u>		Page: <u>5418</u>		
PI: <u>et.al</u>		Date: <u>5/6/97</u>				
Number	Object	R.A.	Dec.	L/R	Exp	Comments
71	Comp			↑		Pauline Runby Obj
72	16060P1732	16 08 17	17 24 35	#1	10 ^m	Thin Clouds
73	Comp			↑		
74	16099P1446	16 12 09	14 38 14	#1	15 ^m	Pauline Obj Clouds
75	Comp			↑		
76	15588P1554	16 01 12	15 45 21	#1	15 ^m	Pauline Obj
77	Comp			↑		
78	16109P1928	16 13 11	18 20 50	#1	6 ^m	Pauline Obj
79	Comp			↑		
80	15559P1745	15 58 14	17 36 10	#1	10 ^m	Pauline Obj
81	Comp			↑		
82	15583P1900	16 00 29	18 51 07	#1	30 ^m	Pauline Obj
83	Comp			↑		
84	15589P1655	16 01 10	16 47 08	#1	12 ^m	Pauline Obj
85	Comp	↓	↓	↑		→ Clouded Out
86	15589P1655	↓	↓	#1	8 ^m	West + South Bud
87	Comp					No NOT too good either
88	15579P1831	16 00 09	18 23 03	#1	10 ^m	→ Clouded Out
89	Comp			↑		→ Hole in Clouds
90	MRK 501	16 53 52	39 45 36	#6	3 ^m	Clouds
91	Comp			↑		
92	CICyg	19 50 12	35 41 04	#12	15	
93	CICyg				20 ^s	
94	CICyg				120 ^s	
95	Comp			↑		
96-105	Bias					
106-115	FLAT				6 ^s	I give UP!

60 inch Telescope Log				Spectrograph: <u>FAST</u>		Page: <u>5419</u>	
Observer: <u>J. Peters</u>				Grating: <u>300</u>			
PI: <u>et. al</u>				Date: <u>5/2/97</u>			
Number	Object	R.A.	Dec.	L/R	Exp	Comments	
1-10	Bias	Bin By	4				
11-20	FLAT	Bin By	4		6 ^s		
21-30	Bias	Bin By	2				
31-40	FLAT	Bin By	2		12 ^s		
41-45	SKY				2 ^s		
46	Comp			↑		Some clouds around	
47	Faige 34	10 36 41	43 21 50	56	90 ^s	To West	
48	Comp			↑			
49	N3379	10 45 11	12 50 48	57	3 ^m		
50	Comp			↑			
51	N4051	12 00 36	44 49 35	6	2 ^m		
52	Comp						
53	MARK 379	13 51 53	69 33 13	6	2 ^m		
54	Comp			↑			
55	SN1997BP	12 46 53	-11 38 33	2	15 ^m	Bin By 2 Seeing 2"	
56	SN1997BP	↓	↓	2	15 ^m	Bin By 2 "	
57	Comp			↑	10 ^s	Bin By 2	
58	infall. b. 01	12 43 06	25 57 30	64	20 ^m	Very faint, No guide	
59	Comp			↑		starts, Hope Til Tracks	
60	infall. b. 02	12 43 44	26 09 23	64	15 ^m	OK on it	
61	Comp			↑			
62	infall. b. 03	12 44 03	26 00 23	64	15 ^m		
63	Comp			↑			
64	infall. b. 05	12 45 10	26 12 26	64	20 ^m	No Guide Star Obj	
65	Comp			↑		Very faint	
66	infall. b. 05	↓	↓	64	20 ^m	Good Luck!	
67	Comp			↑			
68	SN1997BR	13 20 42	-22 02 12	2	15 ^m	Thru clouds	
69	SN197BR	↓	↓	2	15 ^m	" "	
70	Comp				10 ^s		

60 inch Telescope Log

Spectrograph: FastObserver: J. PetersGrating: 300Page: 5430PI: at.alDate: 5/7/97

Number	Object	R.A.	Dec.	L/R	Exp	Comments
71	infall. b. 04	12 45 15	26 04 58	64	20M	In out clouds
72	Comp					
73	16084P1911	16 10 38	19 08 26	1	15M	Barnby Obj
74	Comp			↑		
75	16076P1749	16 09 49	17 40 43	1	10M	Barnby Obj
76	Comp			↑		
77	15566P1920	15 58 47	19 11 41	1	10M	Barnby Obj
78	Comp			↑		
79	16044P1550	16 06 38	15 41 51	1	10M	Barnby Obj
80	Comp			↑		Clouded out!
81	N5548	14 15 43	25 28 01	6	3M	Thru clouds
82	Comp			↑		Clouded out!
83	16050P1559	16 07 19	15 50 58	1	15M	Barnby Obj
84	Comp			↑		Clouds
85	15579P1827	16 00 07	19 19 00	1	8M	Barnby Obj
86	Comp			↑		
87	16047P1618	16 06 58	16 09 43	1	8M	Barnby Obj
88	Comp			↑		
89	16014P1459	16 03 39	14 50 58	1	8M	Barnby Obj
90	Comp			↑		
91	R121.02	16 18 21	35 10 40	59	5M	No Cata Log STAR
92	Comp			↑		
93	R121.03	16 18 23	35 10 25	59	7M	↓
94	Comp			↑		
95	R121.04	16 18 24	35 19 33	59	5M	
96	Comp			↑		
97	R121.05	16 18 32	35 29 08	59	5M	
98	Comp			↑		
99	R121.06	16 18 34	35 56 23	59	8M	
100	Comp			↑		

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Observer: <u>J. PETERS</u>				Grating: <u>300</u>		
PI: <u>et.al</u>				Date: <u>5/7/97</u>		
Number	Object	R.A.	Dec.	L/R	Exp	Comments
101	R121.07	16 18 42	35 39 58	59	2M	STAR
102	Comp			↑		
103	R121.08	16 18 54	35 09 11	59	8M	
104	Comp			↑		
105	R121.09	16 19 29	36 52 27	59	7M	
106	Comp			↑		
107	R121.10	16 19 32	36 31 13	59	7M	
108	Comp			↑		
109	R121.11	16 19 53	35 52 15	59	7M	STAR NOT THE GAL? STAR
110	Comp			↑		
111	R121.12	16 20 33	36 21 46	59	6M	
112	Comp			↑		
113	R121.13	16 20 36	36 21 54	59	10M	
114	Comp			↑		
115	R121.14	16 20 40	35 07 47	59	20M	
116	Comp			↑		
117	R121.15	16 20 48	35 32 08	59	6M	
118	Comp			↑		
119	R121.16	16 20 55	36 17 51	59	6M	
120	Comp			↑		
121	R121.17	16 21 08	35 30 29	59	15M	
122	Comp			↑		
123-132	Bras					
133-142	FLAT				63	

60 inch Telescope Log

Spectrograph: FAST

Observer: J. Peters

Grating: 300

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PI: et al

Date: 5/8/97

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	Bias	Bin By	4			
11-30	FLAT	Bin By	4		6 ^s	AT PRESENT SKY IS CLEAR
31-30	Bias	Bin By	2			over head but big pile
31-40	FLAT	Bin By	2		12 ^s	of clouds to West
41-45	SKY				2 ^s	
46	Comp			↑		
47	Feige 34	10 36 41	43 21 50	56	90 ^s	Seeing ~ 2-3" ugh
48	Comp			↑		
49	N3327	10 45 02	14 19 51	57	3 ^m	
50	Comp			↑		
51	SN1997BQ	10 17 05	73 23 02	2	15 ^m	Slight Delay Trying
52	SN1997BQ	↓	↓	2	15 ^m	To get best focus
53	Comp			↑	10 ^s	with this seeing!
54	infall. b. 07	12 46 10	25 10 36	64	20 ^m	
55	Comp			↑		
56	infall. b. 11	12 46 39	25 13 16	64	15 ^m	
57	Comp			↑		
58	infall. b. 12	12 46 41	25 23 01	64	20 ^m	
59	Comp			↑		
60	SN1997BY	13 27 27	-27 19 22	2	15 ^m	Really faint
61	SN1997BY	↓	↓	2	15 ^m	Bigger
62	Comp			↑		
63	infall. b. 16	12 47 17	24 46 51	64	15 ^m	Good Grief These obj
64	Comp					are hard to see
65	infall. b. 17	12 47 23	25 16 34	64	15 ^m	
66	Comp			↑		
67	infall. b. 18	12 47 37	24 36 53	64	15	
68	Comp			↑		
69	infall. b. 19	12 47 39	24 47 52	64	15 ^m	
70	Comp			↑		



*Fax
to Susan Takatz*

60 inch Telescope Log

Observer: P. Berlin

PI: Wilkes

Spectrograph: FAST

Grating: 300 R, 3" Slit, bin by 4

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Date: 5/10/97

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	BIAS				0s	
11-20	FLAT				6s	
21-30	BIAS				0s	bin by 2
31-40	FLAT				12s	bin by 2
41-45	sky			57	2s	solid clouds
46	COMP			↑	5s	big thunderstorm today
47	N4151	12:10	+79:24	6	45s	
48	COMP			↑		sucker hole @ 10:30
49	H244	13:21	+78:23	56	3m	
50	COMP			↑		
51	N5548	14:15	+75:22	6	6m	wx
52	COMP			↑		
53-62	BIAS			0	0s	
63-74	FLAT			0	6s	
						Starting to clear at sunrise...

60 inch Telescope Log

Observer: P. BerlindPI: Wilkes/Krusher/SchellerSpectrograph: FASTGrating: 300LDate: 5/11/97Page: 5430

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	BIAS			0	0s	
11-20	FLAT			0	6s	
21-30	BIAS			0	0s	
31-40	FLAT			0	12s	
41-45	SKY			57	2s	solid clouds
46	COMP			↑		clearing ~9pm
47-48	Ferz66	12:34	+25:10	56	1m	
49	COMP			↑		
50	CRAB 70508	06:53	+79:16	0	8m	180 mag γ-ray burst! NOTHING ON SLIT
51	COMP			↑		came up empty - hit limits
52	N4051	12:08	+44:18	6	2m	
53	COMP			↑		
54	N4151	12:08	+39:41	6	35s	
55	COMP			↑		
56	N4258	12:16	+47:34	6	2m	
57	COMP			↑		
58	N5548	14:15	+25:22	6	4m	
59	COMP			↑		poor seeing
60,62	SN1997br	12:46	+1:38	2	15m	bin by 2
61,63	COMP			↑		
64,66	SN1997br	13:20	-22:02	2	15m	increasing clouds
65,67	COMP			↑		
68	H244	13:21	+36:23	56	3m	
69	COMP			↑		
70	085.C1.28	13:37	+34:45	59	11m	stopped by clouds - delay
71	COMP			↑		
72	MRK501	16:53	+79:45	6	3m	2:30
73	COMP			↑		
74	200685N	16:49	+36:13	60	6m	broad em
75	200685S	16:49	+36:13	60	8m	more clouds

60 inch Telescope Log

Observer: PB

PI: _____

Spectrograph: FAST

Grating: 30R

Date: 5/11/97

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Number	Object	R.A.	Dec.	L/R	Exp	Comments
76	WMP			f		
77	ZOO6543	16:32	+50:24	60	8m	redo
78	WMP			f		
79-88	BIAS			0	0s	
89-98	FLAT			0	6s	
99-108	BIAS			0	0s	
109-118	FLAT			0	17s	

~~FAX~~
to Susan Tokara
pg 1 of 2

60 inch Telescope Lgs
Observer: PBerthel
PI: Wilkesy Geller

Spectrograph: FAST
Grating: 30R
Date: 5/12/97

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Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	BIAS				0s	
	FLAT				6s	
11-20	BIAS				0s	bunby 2
21-30	FLAT				12s	bunby 2
31-40	FLAT				2s	lots of clouds again
41-45	sky			57	5s	
46	COMP			↑		
47-48	F07266	12:34	+25:20	56	1m	⇒ stop
49	COMP			↑		
50	N5548	14:15	+25:22	6	4m	
51	COMP			↑		
52	M82A	13:53	+69:18	6	4m	⇒ stop
53	COMP			↑		
54	Z00531W	15:26	+41:40	60	4m	em ⇒ stop
55	COMP			↑		
56	Z00531E	15:26	+41:40	60	3m	
57	COMP			↑		
58	Z011736	15:27	+28:55	60	7m	
59	COMP			↑		clearing @ 2:30
60	N001337S	15:38	+26:15	60	7m	
61	N001337N	15:38	+26:15	60	5m	
62	COMP			↑		
63	N002976E	15:38	+29:27	60	10m	
64	COMP			↑		
65	Z010161	15:40	+32:47	60	5m	
66	COMP			↑		
67	Z013606E	15:42	+23:48	60	6m	comp to E (*)
68	Z013606W	15:42	+23:48	60	10m	
69	COMP			↑		
70	A000738S	15:42	+23:46	60	5m	
71	A000738N	15:42	+23:46	60		

60 inch Telescope Log

Observer: PB

PI: Geller

Spectrograph: FAST

Grating: 300R

Date: 5/12/97

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Number	Object	R. A.	Dec.	L/R	Exp	Comments
72	FAST			↑		
73	Z000950	15:53	+12:00	60	5m	
74	COMP			↑		
75	Z01316EW	16:50	+04:26	60	6m	E+W → wide separation
76	COMP			↑		---
77	Z003580	11:48	+18:42	60	3m	em + v. blue
78	COMP			↑		
79	Z012032	16:33	+50:24	60	7m	em; faint comp to W of Ha tail
80	Z008810	16:33	+50:24	60	4m	
81	Z005543	16:32	+50:24	60	3m	
82	COMP			↑		
83	Z004702	16:31	+39:49	60	3m	
84	COMP			↑		
85	MRK509	20:41	-10:54	6	3m	
86	COMP			↑		
87-89	CIC 88	19:50	+38:11	12	2m, 2x2s	
90	COMP			↑		
91-95	HDI 192081	20:10	+10:07	6	5s	
96	COMP			↑		a few clouds lingering
97-106	BTAS			0	0s	@ Jan
107-116	FLAT			0	6s	
117-120	DARK			0	15m	

60 inch Telescope Log
 Observer: J. Peters
 PI: et.al
 Spectrograph: FAST
 Grating: 300
 Date: 5/13/97
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Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	Bias	Bin By	4			
11-20	FLAT	Bin By	4		6 ^s	
21-30	FLAT	Bin By	2		12 ^s	
31-40	Bias	Bin By	2			Bright Moon, some
41-45	SKY				2 ^s	Thin clouds around
46	Comp P			↑		
47	Fege 34	10 36 41	43 21 50	56	90 ^s	
48	Comp P			↑		
49	N3377	10 45 02	14 14 51	57	3 ^m	Thin clouds around
50	Comp P			↑		
51	MRK 421	11 01 40	39 28 43	6	5 ^m	
52	Comp P					
53	N4051	12 00 36	44 48 35	6	2 ^m	
54	Comp P			↑		
55	N4151	12 08 01	39 41 01	6	30 ^s	
56	Comp P			↑		
57	N4258	12 16 29	47 34 51	6	2 ^m	
58	Comp P			↑		
59	MRK 279	13 51 53	69 33 13	6	2 ^m	
60	Comp P			↑		
61	N5548	14 15 43	25 22 01	6	3 ^m	
62	Comp P			↑		
63	SN 1996CB	11 03 41	28 54 14	2	20 ^m	Bin By 2 84
64	SN 1996CB	↓	↓	2	20 ^m	Bin By 2
65	Comp P				5 ^s	Only 5 sec exp hope
66	infall 16.25	12 49 40	25 46 17	64	20 ^m	This weeks was busy
67	Comp P					at 48° and forgot to
68	infall 16.26	12 49 49	24 50 34	64	15 ^m	do this for 10 ^s
69	Comp P			↑		
70	infall 16.27	12 50 25	25 20 09	64	15 ^m	IN OUT Thin clouds

60 inch Telescope Log

Observer: J. PetersPI: et.alSpectrograph: FASTGrating: 300Page: 5435Date: 5/13/97

Number	Object	R.A.	Dec.	L/R	Exp	Comments
71	Comp P			↑		LOTS Thin Clouds
72	Wfall, b. 29	12 52 00	26 09 28	64	8 ^m	
73	Comp P			↑		
74	Wfall, b. 31	12 52 25	25 12 21	64	15 ^m	Sort of a hole
75	Comp P			↑		
76	Wfall, b. 32	12 52 34	25 03 05	64	15 ^m	
77	Comp P			↑		
78	Wfall, b. 33	12 52 54	25 03 55	64	20 ^m	
79	Comp P			↑		
80	Wfall, b 33	↓	↓	64	15 ^m	
81	Comp P			↑		
82	R123.05	16 35 03	36 55 18	59	15 ^m	
83	Comp P					
84	R123.04	16 34 28	35 40 01	59	20 ^m	In out clouds
85	Comp P			↑		
86	R123.08	16 35 31	36 11 38	59	20 ^m	In out Clouds
87	Comp P			↑		
88	R123.09	16 35 34	36 32 54	59	15 ^m	IN - 0.0 W
89	Comp P			↑		
90	R123.11	16 26 33	36 09 12	59	20 ^m	Clear Spot???
91	Comp P			↑		
92	R123.12	16 36 24	35 58 30	59	20 ^m	
93	Comp P			↑		
94	R123.13	16 36 27	36 49 32	59	7 ^m	superposed star but galaxy has emission!
95	Comp P			↑		
96	R123.14	16 36 35	35 53 59	59	20 ^m	
97	Comp P			↑		
98	R123.16	16 37 16	35 58 42	59	15 ^m	
99	Comp P			↑		
100	3C 390, 3	18 45 37	79 43 07	6	6 ^m	

LAMP SCREWED UP

CAN WE USE THIS DATA ???
 REENTERED INTO DATABASE 6/16/97
 ← SPECTRA RECHECKED 6/12/97 - SOME DIFFERENCES

BUT IN SOME BALANCE

60 inch Telescope Log
 Observer: J. Peters/A. Mahdavi
 PI: et.al
 Spectrograph: Fast
 Grating: 300
 Date: 5/28/97
 Page: 5448

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1	Test					2.1 to 2.8
2	Test					Counts on Fast geom
3	Test					To be down by a
4	Cexv = 10 ^s				10 ^s	Factor of 2-3.
5	Test					5/13 P 305 = ~ 2713 ↙
6	Test					5/19 P 305 = ~ 835 ↘
7	Flat	Test			6 ^s	5/13 P 1972 = ~ 10106 ↗
8	Bias	Test				5/18 P 1970 = ~ 4847 ↘
9-19	Bias					Bad lamp?
19-29	Flat				6 ^s	
30	Comp	Test				
31-35	Sky				2 ^s	1972
36	Comp			↑	10 ^s	
37	Comp	Test			10 ^s	Test
38	MRK 421	11 01 40	38 29 43	6	5 ^m	
39	Comp			↑	10 ^s	
40	N4051	12:00:36.4	44:48:35	6	2 ^m	Thin clouds around
41	Comp			↑	10 ^s	
42	N4151	12:08:01.1	39:41:01	6	30 ^s	
43	Comp			↑	10 ^s	
44	N4258	12:16:29.8	47:39:51	6	2 ^m	
45	Comp			↑	10 ^s	
46	MRK 279	13:51:53.6	69:33:13	6	2 ^m	
47	Comp			↑	10 ^s	
48	N5548	14:15:43.5	25:22:01	6	3 ^m	
49	Comp			↑	10 ^s	
50	MRK 501	16:53:52.1	39:45:36	6	5 ^m	
51	Comp			↑	10 ^s	
52	SN1997br	13:26:42.4	-22:02:12.3	2	15 ^m	Bin by 2
53	SN1997br	"	"	2	15 ^m	

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

Spectrograph: FAST
 Grating: 300
 Date: 5/28/97

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Number	Object	R.A.	Dec.	L/R	Exp	Comments
54	COMP			↑	20 ^s	
55	SN 1997cn	14:09:57.76	17:32:32	2	15 ^m	
56	COMP			↑	20 ^s	
57	SN 1997cn	"	"	2	15 ^m	
58	COMP			↑	20 ^s	
59	FLAT				12 ^s	Bin by 2
60	FLAT				12 ^s	" " "
61	BIAS				-	" " "
62	BIAS				-	" " "
63	N 5866	15:05:09.2	55:59:18	57	60 ^s	Bin by 4
64	COMP			↑	10 ^s	
65	N 5866	"	"	57	5 ^m	
66	COMP			↑	10 ^s	
67	160147p163657	16:01:47.76	16:36:57.3	25	10 ^m	Thin clouds
68	Comp			↑		
69	160236 P 162026	16:02:36	16:20:26	25	10 ^m	
70	COMP			↑	10 ^s	
71	160236 P 162026	↓	↓		10 ^m	
72	COMP			↑	10 ^s	
73	160006p160803	16:00:06.2	16:08:05.6	25	15 ^m	
74	COMP			↑	10 ^s	
75	PG 1708 p 602	17:08:35.9	60:13:52	56	5 ^m	
76	COMP			↑	10 ^s	
77	160322p155706	16:03:22.7	15:57:06.3	25	20 ^m	
78	COMP			↑	10 ^s	
79	160337p162813	16:03:37.5	16:28:13.4	25	20 ^m	
80	COMP			↑	10 ^s	
81	160030p153551	16:00:30.16	15:35:51.4	25	20 ^m	
82	COMP			↑	10 ^s	
83	160030p153551					

NEW LAMP INSTALLED

60 inch Telescope Log

Observer: J Petrus/A Mahdavi

PI: et. al.

Spectrograph: FAST

Grating: 300

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Date: 5/29/97

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1	COMP				7s	Lamp changed this morning; looks good
2-11	BIAS					Bin by 4
12-21	FLAT				6s	Bin by 4
22-31	FLAT				12s	Bin by 2
32-41	BIAS					Bin by 2
42-46	SKY				2s	Bin by 4
47	COMP			↑	10s	
48	MIRK 279	13:51:53.6	69:33:13	6	2m	Thin clouds
49	COMP			↑	7s	
50	N5548	14:15:43.5	25:27:01	6	3m	Non-photometric night.
51	COMP			↑	7s	
52	FEIGE 66	12:34:54.7	25:20:31	56	1m	
53	COMP			↑	7s	
54	SN1997bp	12:46:55	-11:38:18	2	15m	Bin by 2
55	COMP	↓	↓	↑	14s	↓
56	SN1997bp	↓	↓	2	15m	↓
57	COMP	↓	↓	↑	14s	↓
58	SN1997cn	14:09:57.8	17:32:32	2	15m	Thin Clouds
59	COMP	↓	↓	↑	14s	↓
60	SN1997cn	↓	↓	2	15m	↓
61	COMP	↓	↓	↑	14s	↓
62	N5866	15:05:07.2	55:57:18	57	5m	Bin by 4
63	COMP			↑	7s	
64	awm 3-46	14:25:33.0	25:41:49	35	20m	Clouds (Thin)
65	COMP			↑	7s	
66	awm 3-47	14:30:40.7	25:35:40	35	20m	
67	COMP			↑	7s	
68	awm 3-50	14:30:25.4	25:41:43	35	20m	
69	COMP			↑	7s	
70	awm 3-49	14:27:28.7	25:37:55	35	15m	

60 inch Telescope Log

Observer: J Petros / A MahdaviPI: et. al.Spectrograph: FASTGrating: 300Page: 5452Date: 5/29/97

Number	Object	R. A.	Dec.	L/R	Exp	Comments
71	COMP			↑	7s	
72	awm 3-51	14:25:36.4	26:20:57	35	20m	Still clouds
73	COMP			↑	7s	
74	awm 3-39	14:27:20.2	26:09:27	35	20m	
75	COMP			↑	7s	
76	awm 3-40	14:27:50.3	25:52:35	35	20m	
77	COMP			↑	7s	
78	awm 3-41	14:26:49.0	25:43:34	35	15m	A little better
79	COMP			↑	7s	
80	awm 3-43	14:30:11.3	25:29:00	35	15m	
81	COMP			↑	7s	
82	r123.17	16:37:20.8	35:20:33	59	15m	
83	COMP			↑	7s	
84	r123.18	16:37:31.8	35:58:30	59	20m	
85	COMP			↑	7s	
86	r123.21	16:37:48.6	36:03:35	59	10m	Cleared up.
87	COMP			↑	7s	
88	r123.23	16:39:35.2	35:56:01	59	15m	
89	COMP			↑	7s	
90	MRIK 509	20:41:26.0	-10:54:18	6	2m	
91	COMP			↑	7s	
92	3C3903	18:45:37.0	79:48:07	6	6m	
93	COMP			↑	7s	
94	CICy9	19:50:12	35:41:04	12	2s	other star in slit
95	↓	↓	↓	12	20s	↓
96	↓	↓	↓	12	170s	↓
97	COMP			↑	7s	
98	Z And	23:33:40	48:49:06	12	3s	
99	↓	↓	↓	12	10s	
100	COMP			↑	7s	

60 inch Telescope Log

Observer: J Petrus / A Madani

Spectrograph: FAST

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PI: etal

Date: 5/29/1997

Number	Object	R.A.	Dec.	L/R	Exp	Comments
101	BDD284211	21:46:59.1	78:37:78	56	1 ^m	
102	COMP			↑	75	
103	N7469	23:03:13.3	08:57:25	6	2 ^m	
104	COMP			↑	75	
105-114	FLAT				65	Bm by 4
115-124	BIAS					Bm by 4
125-129	DARK				15 ^m	

60 inch Telescope Log

Observer: A. Mahdavi

PI: ct al

Spectrograph: FAST

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Date: 5/30/97

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Number	Object	R.A.	Dec.	L/R	Exp	Comments
L	COMP				7s	
2-4	BIAS					
12-21	FLAT				6s	Bin by 4
22-31	FLAT				12s	↓
32-41	BIAS					Bm by 2
42-46	sky				3s	↓
47	COMP			↑	7s	Bin by 4
48	N4151	12:08:01.1	39:41:01	6	30s	Thin
49	COMP			↑	7s	Clouds. Non-photometric
50	N4258	12:16:29.8	47:37:51	6	2m	night.
51	COMP			↑	7s	
52	MIRK 279	13:51:53.6	69:33:13	6	2m	
53	COMP			↑	7s	
54	SN1997 b9	10:17:05.3	73:28:02	2	15m	Tough to see SN. Inter-
55	COMP	↓	↓	↑	14s	mittent clouds.
56	SN1997 b9	↓	↓	2	15m	Bin by 2
57	COMP	↓	↓	↑	14s	
58	H2 44	13:21:19.0	36:23:34	56	2m	Bin by 2
59	COMP	↓	↓	↑	14s	↓
60	H2 44	↓	↓	56	2m	Bin by 4
61	COMP	↓	↓	↑	7s	
62	infall. b. 34	12:52:59.8	24:24:00	64	20m	
63	COMP			↑	7s	
64	infall. a. 02	12:55:00.5	24:10:13	64	5m	Star? YES STAR
65	COMP			↑	7s	
66	infall. a. 06	12:55:32.8	25:34:00	64	15m	Refocus a little bit;
67	COMP			↑	7s	Star in slit to the W
68	infall. a. 10	12:56:47.0	25:29:50	64	15m	very near galaxy.
69	COMP			↑	7s	
70	infall. a. 11	12:57:07.2	25:09:17	64	15m	

60 inch Telescope Log

Observer: A. MahdaviPI: et alSpectrograph: FASTGrating: 300Page: 5455Date: 5/30/97

Number	Object	R.A.	Dec.	L/R	Exp	Comments
71	COMP			↑	7s	
72	infall.a.13	12:57:40.4	25:52:41	64	20 ^m	
73	COMP			↑	7s	
74	infall.a.14	12:57:55.2	26:02:33	64	20 ^m	
75	COMP			↑	7s	
76	SN1997cn	14:09:57.8	17:32:32	2	15 ^m	Bm by 2
77	COMP	↓	↓	↑	14s	↓
78	SN1997cn			2	15 ^m	
79	COMP	↓	↓	↑	14s	↓
80	PG1708p602	17:08:35.9	60:13:52	56	5 ^m	
81	COMP	↓	↓	↑	14s	↓
82	PG1708p602			56	5 ^m	Bm by 4
83	COMP	↓	↓	↑	7s	
84	N5548	14:15:43.5	25:22:01	6	3 ^m	
85	COMP			↑	7s	
86	N5866	15:05:07.2	55:57:18	57	5 ^m	Clearing up...
87	COMP			↑	7s	
88	r123,24	16:39:43.8	36:42:02	59	20 ^m	
89	COMP			↑	7s	
90	awm3-42	14:30:54.5	25:40:30	35	15 ^m	
91	COMP			↑	7s	
92	16407p6552	16:46:42.0	65:51:00	43	10 ^m	
93	COMP			↑	7s	
94	16459p6537	16:45:54.0	65:37:00	43	5 ^m	
95	COMP			↑	7s	
96	16463p6538	16:46:42	65:32:00	43	5 ^m	
97	COMP			↑	7s	
98	N6260	16:51:24.0	63:47:00	43	5 ^m	
99	COMP			↑	7s	
100	16516p6517	16:51:30.0	63:47:00	43	10 ^m	

60 inch Telescope Log

Observer: A. Mahdavi

Spectrograph: FAST

Grating: 300

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PI: et. al.

Date: 5/31/1997

Number	Object	R.A.	Dec.	L/R	Exp	Comments
1	COMP				7s	Test
2-11	BIAS					Bin by 4
12-21	FLAT				6s	↓
22-31	FLAT				12s	Bin by 2
32-41	BIAS					↓
42-46	SKY					Bin by 4
47	COMP			↑	7s	
48	N4051	12:00:36.4	44:48:35	6	2 ^m	Clear skirts; 2-3" seeing.
49	COMP			↑	7s	Photometric Night -
50	N5548	14:15:43.5	25:22:01	6	3 ^m	
51	COMP			↑	7s	
52	FEIGEB6	12:34:54.7	25:20:31	56	1 ^m	
53	COMP			↑	7s	
54	MIRK 279	13:51:53.6	69:33:13	6	2 ^m	
55	COMP			↑	7s	
56	infall.b.36	12:54:23.4	25:29:50	64	20 ^m	Identical to infalla.01
57	COMP			↑	7s	
58	SN1997by	13:27:27.5	-27:19:22	2	15 ^m	Bin by 2
59	COMP			↑	14s	
60	SN1997bx			2	15 ^m	↓
61	COMP			↑	14s	
62	infall.b.08	12:46:26.7	25:20:12	64	20 ^m	Bin by 4
63	COMP			↑	7s	
64	infall.a.03	12:55:02.8	25:30:37	64	20 ^m	
65	COMP			↑	7s	
66	infall.a.07	12:55:37.8	25:55:24	64	20 ^m	
67	COMP			↑	7s	
68	infall.a.12	12:57:18.9	25:28:55	64	20 ^m	
69	COMP			↑	7s	
70	infall.a.15	12:58:03.4	23:45:34	64	10 ^m	*

60 inch Telescope Log

Observer: A. Mahdavi
 PI: et. al.

Spectrograph: FAST

Grating: 300

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Date: 5/31/1997

Number	Object	R.A.	Dec.	L/R	Exp	Comments
71	COMP			↑	7s	
72	COMP	12:58:18	23:34:33	64	20 ^m	Star? (Very Faint) YES*
73	COMP			↑	7s	
74	infall. a. 21	12:58:51.7	23:55:23	64	10 ^m	AGN? Sy
75	COMP			↑	7s	
76	infall. a. 22	12:59:11.6	24:01:17	64	15 ^m	
77	COMP			↑	7s	
78	SN 1997cn	14:09:59.8	17:37:32	2	15 ^m	Bm by 2
79	COMP	↓	↓	↑	14s	↓
80	SN 1997cn	↓	↓	2	15 ^m	
81	COMP	↓	↓	↑	14s	
82	arm 3-44	14:29:24.6	26:16:08	35	20 ^m	Bm by 4
83	COMP			↑	7s	
84	arm 3-45	14:26:32.0	25:29:59	35	20 ^m	Bm by 4 / Bright Star in slit to the east.
85	COMP			↑	7s	
86	16528p6433	16:52:48.0	64:33:00	43	7 ^m	Star in slit to the west.
87	COMP			↑	7s	
88	16535p7031	16:53:20	70:37:00	43	5 ^m	
89	COMP			↑	7s	
90	16542p6522	16:54:17.0	65:22:00	43	20 ^m	
91	COMP			↑	7s	
92	16544p6633	16:54:24.0	66:33:00	43	5 ^m	
93	COMP			↑	7s	
94	16545p6634	16:54:30.0	66:34:00	43	5 ^m	
95	COMP	↓	↓	↑	7s	
96	16545p6634B	↓	↓	43	5 ^m	
97	COMP			↑	7s	
98	16588p6837	16:58:42	62:37:00	43	5 ^m	
99	COMP			↑	7s	
100	17032p6413	17:03:12	64:13:00	43	7 ^m	

60 inch Telescope Log

Observer: A Mahdavi

PI: ct al

Spectrograph: FAST

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Date: 5/31/1997

Number	Object	R.A.	Dec.	L/R	Exp	Comments
101	COMP			↑	7s	
102	1703707252	17:03:42	72:57:00	43	7m	
103	COMP			↑	7s	
104	CICy g	19:50:12	35:41:04	12	2s	
105	CICy g			12	20s	
106	CICy g	↓	↓	12	120s	
107	COMP			↑	7s	
108	ZAnd	23:33:40	48:49:06	12	3s	
109	ZAnd	↓	↓	12	90s	
110	COMP			↑	7s	
111	N7469	25:03:15.3	08:57:25	6	2m	
112	COMP			↑	7s	
113	N7331	22:34:46.9	34:09:43	57	4m	
114	COMP			↑	7s	
115	BDp284211	21:48:57.1	28:37:48	56	1m	
116	COMP			↑	7s	
117-126	FLAT				6s	
127-136	BIAS					
137-140	DARK				15m	