

Frame prefix: SP97A

Telescope: 61"

Sheet #: 7

Date: 1997 Feb 27/28

Focus: 3504

Iris: 2.0

Humidity: 90% / 100%

Tailpiece:

Balance: STD

Temp: 27/32

Guidepoint: 290, 383-3

Observers: Fink, Hicks, Fung

Handley

Exp. #	Object	Exp. time	Filter (slit)	Counts: Peak/Phot	UT time Start	RA $\alpha$	Dec $\delta$	SecZ	Comments: seeing, moon, LHA, VME crashes, clouds, etc.
001	Minturn	600	0.50	Net 600 2220/1600/1200	21:25:04	23:52:37	-08:06:13	2.46	03:39 W <sup>605 peak phot</sup> 500, 2200
002	"	"	"	Net 600 2220/1600/1200	21:35:00			2.67	3:15 W
003	"	"	"	2530/1720/1320	21:46:21	40	-08:05:41	2.95	4:20 W Humidity up to 100% at night
004	"	"	"	2160/1740/1300	21:57:00			3.27	→ 5:6 → 4:21 W
005	BS 695	1.5	1.0	2970/11200	05:13	02:22:45	-23:44:53	2.19	
006	"	"	"						
007	"	"	"						
008	"	"	"	2500/1200					Humidity to 110% cloud up for some hours; secondary was clear.
009	WILD 2	600	0.5	5770/2240/1330	08:10:3	08:01:00	+19:01:43	1.07	High scattered cirrus, Moon is up, Variable striations of cirrus.
010	"	1200	0.5	10670/2320/1320	08:13	08:01:00	+19:01:48	1.08	
011	"	1200	0.5	11910/1900/1340	08:34	08:00:59.36	+19:01:52.1	1.11	
012	"	1200	0.5	11950/1920/1330	08:54	08:00:58	+19:01:56	1.16 → 1.21	Cirrus mostly gone, 02:04 W Moon ~ 3/4 Fair amount of light cirrus.
013	3103 Eger	1200	0.5	4855/2515/1380	09:37:40	10:22:23	+17:26:28	1.04	00:23 W
014	"	"	"	6187/335/1427	9:59			1.05	
015	"	"	"	6578/5637/1447	10:19:13			1.07	Some high cirrus. 1:05 W
016	BS4030	2.0	1.0	24030/1370		10:16:21	23:31:16	1.09	
017	"	"	"	"		"	"		
018	"	"	"	"		"	"		
019	"	"	"	"		"	"		
020	"	4.0	"	"		"	"		
021	"	3.0	"	"	10:50	"	"	1.10	

Frame prefix: SP97A

Telescope: 61"

Sheet #: 2

Date: 1997 Jan 27/28

Focus:

Iris:

Humidity:

Tailpiece: 550

Balance:

Temp:

Observers: Fink, Hicks, Fevig

Monday

Guidepoint:

Exp. #	Object	Exp. time	Filter (slit)	Counts: Peak/Phot	UT time Start	RA $\alpha$	Dec $\delta$	SecZ	Comments: seeing, moon, LHA, VME crashes, clouds, etc.
022	BS 4345	0.1	1.0	31,000/1350	10:56	11:48:55	14:35:28	1.05	
023	"	"	"			"	"		
024	"	"	"			"	"		
025	"	"	"			"	"		
026	"	"	"			"	"	1.05	
<del>027</del>	<del>3103 Eger</del>	<del>1200</del>	<del>0.5</del>		<del>11:06:43</del>	<del>10:22:16</del>	<del>+17:29:21</del>	<del>1.15</del>	Humidity = 110%. Cirrus is heavy.
027	3103 Eger	1200	0.5	5300/2770/1420	11:30	10:22:14	+17:30:08	1.21	
028	3103 Eger	1200	0.5	5035/2910/1420				1.35	Am at end of exposure
029	BS 7162	4.0	1.0	36115/1390	12:25	18:57:02	+32:53:4	2.49	
030	"	"	"						
031	"	"	"						
032	"	"	"						
033	"	"	"					2.40	
034	"	"	"						
035	"	"	"						
036	"	"	"					2.35	
037	SAO 87706	10.0	1.0		12:44	19:49:07	+27:43:38	4.00	
038	"	"	"					3.92	
039	"	"	"	20298/1238				3.85	
040	"	"	"					3.77	
041	"	"	"	15000/1270					
042	"	20.0	"	34060/1250				3.62	
043	"	"	"	36860/1270				3.56	
044	"	"	"	"				3.49	
045	Hale-Bopp	10.0	0.5	7800/1400					Partially Behind
046	"	30.0	0.5	18000/1400	13:10	19:32:25	+13:52:59	3.42	Tree

Frame prefix: SP97A

Telescope: 61"

Sheet #: 3

Date: 1997 Jan 27/28  
Monday

Focus:  
Iris:  
Tailpiece:  
Balance:

Humidity:

Temp:

Guidepoint:

Observers: Fink, Hicks, Fevig

Exp. #	Object	Exp. time	Filter (slit)	Counts: Peak/Phot	UT time Start	RA $\alpha$	Dec $\delta$	SecZ	Comments: seeing, moon, LHA, VME crashes, clouds, etc.
047	Hale-Bopp	30.0	0.5	21000/	13:12			3.31	
048	"	"	"	18500/1450					
049	"	"	"	19300/1500	13:16			3.19	
050	"	"	"	16600/1470	13:18			3.11	
051	"	60.0	0.25	14100/1520	13:21			3.02	
052	"	"	"	22500/1490	13:23			2.93	AM at end of exposure
053	"	"	"	22000/1510	13:25			2.89	
054	"	"	"	17800/1560	13:27			2.81	AM at end of exposure
055	"	"	"	20100/1530	13:29			2.78	

Handwritten notes: + 1.5, 1.5, 7/1/97

Handwritten notes: 006-042 = 25 7/5

Frame prefix: SP97A

Telescope: 61"

Sheet #: H

Date: 1997 Feb 01/02  
Set.

Focus: 3555

Iris: 297

Humidity: 69%

Tailpiece:

Balance: 450

Temp: 36/32

Observers: Fink, Hicks, Farn, Collins

Guidepoint: 3923, 3850

Exp. #	Object	Exp. time	Filter (slit)	Counts: Peak/Phot	UT time Start	RA $\alpha$	Dec $\delta$	SecZ	Comments: seeing, moon, LHA, VME crashes, clouds, etc.
056	Wirtanen	600	0.50	5610/2480/1400 2180/1100/1400	02:21	00:06:57.38	-05:57:02.7	2.34	Peak phot. see 13m & see 388
057	"	"	0.25	2700/2140/1410 2200/1680/1480	2:31	Net: 7w Net: 5w		2.59	
058	"	"	"	2770/2400/1440 2180/1660/1490	2-45	Net: 7w Net: 5w		2.84	104.09"
059	"	"	"	2710/2010/1440 2000/1700/1460	2:56			3-16	04.15"
060	"	"	"	2084/1833/1510 2600/2100/1500	3:19	00 07:05.7	-05:55:40	4-20	Peak phot. VTR image 4.91 sky for light Jump in the East
061	1627 Ivar	600	0.50	2200/1650/1565		08:27:55	+17:51:57	1.21	
062	1627 Ivar	"	"	2650/1680/1570	4:51:26			1.19	
063	"	1200	"	3800/1780/1550	5:02:21	08:27:50.6	+17:52:08.4	1.16	
064	"	"	"	3760/1780/1570	-			1.11	
065	"	"	"	3841/1734/1578	05:44			1.08-	1.06
066	BS 3626	2.0	1.0	35K	6:15	9:08:37	+26:39:13	1.06	VARIABLE SEEING!
067	"	"	"					"	
068	"	"	"					"	
069	"	"	"					"	
070	"	"	"					"	
071	"	"	"					"	
072	"	"	"					1.05	
073	"							1.05	
074	BS 2067	3.0	1.0			5:55:53	13:55:31	1.20	
075	"	"	"					1.21	Possible Clouds
076	"	"	"					1.21	"
077	"	"	"					"	"
078	"	"	"					"	
079	"	"	"					1.22	
080	"	"	"					"	
081	"	"	"					"	

Frame prefix: SP97A

Telescope: 61"

Sheet #: 5

Date: 1997 Feb 01/02  
Sat

Focus:

Iris:

Humidity:

Tailpiece:

Balance:

Temp:

Guidepoint:

Observers: Fink, Hicks, Fevig, Collins

Exp. #	Object	Exp. time	Filter (slit)	Counts: Peak/Phot	UT time Start	RA $\alpha$	Dec $\delta$	SecZ	Comments: seeing, moon, LHA, VME crashes, clouds, etc.
082	BS 1322	2.5	1.0					2.10	
083	" (comp.)	1.0	1.0	24K		04:15:18	+06:11:44	2.12	
084	"	"	"					2.14	
085	"	"	"		6:56			2.20	Trouble with guiding
086	"	"	"					2.22	
087	"	"	"					2.24	
088	"	"	"					2.26	
089	"	"	"					2.28	
090	"	"	"					2.29	
091	"	"	"					2.32	
092	"	"	"					2.34	
093	"	"	"					2.35	
094	"	"	"					2.36	
095	BS 1532	1.5	1.0	27K	7:11	04:47:28.3	-16:55:23.6	3.01	Guiding OK again
096	" (comp.)	"	"					3.74	
097	"	"	"					3.78	
098	"	"	"					3.81	
099	"	"	"					3.84	
100	"	"	"					3.87	
101	"	"	"					3.91	
102	"	"	"					3.95	
103	"	"	"					3.99	
104	"	"	"					4.03	
105	"	"	"					4.07	
106	"	"	"					4.11	
107	BS 3314	0.5	1.0	19K		08:25:30.5	-03:53:04.8	1.25	
108	" (standard)	"	"		7:33			"	
109	"	"	"					1.26	
110	"	"	"					1.26	
111	"	"	"					1.26	
112	"	"	"					1.26	
113	Wild 2	1200	0.5	14200/1900/1570	7:49	07:56:56	+19:30:12	1.08	
114	"	"	"	14700/1850/1510	8:11			1.11	

Frame prefix: SP97A

Telescope: 61"

Sheet #: 6

Date: 1997 Feb 01/02

Focus:

Humidity:

Iris:

Tailpiece:

Balance:

Temp:

Guidepoint:

Observers: Fink, Hicks, Fevig, Collins

Exp. #	Object	Exp. time	Filter (slit)	Counts: Peak/Phot	UT time Start	RA $\alpha$	Dec $\delta$	SecZ	Comments: seeing, moon, LHA, VME crashes, clouds, etc.
115	Wild 2	1200	0.5		8:34	07:56:54	+19:30:23	1.16	
116	1997 BR	1100	0.5	2081/1644/1452	9:07	10:06:0	+32:42:12	1.01	BIAS PARTS INCORRECT AT START
117	"	"	"	2226/1658/1464	9:27			1.02	
118	"	"	"	2199/1631/1457	9:48			1.04-1.06	
119	<sup>3199</sup> NEFERTITI	1200	0.5	3825/1710/1538	10:38	11:13:42	+38:58:04	1.02	LHA +:52
120	"	"	"	3565/1711/1551	10:58			1.04	
121	"	"	"	3577/1705/1532	11:19			1.07	
122	"	"	"	3152/1751/1528	11:19			1.10-1.13	
123	BS 7569 comp	20	0.5	4570	12:47	19:52:01	+11:38:06	5.2	
124	"	"	"					5.08	
125	"	"	"					4.98	
126	"	"	"					4.85	
127	"	"	"	18,000				4.77	
128	Hale-Bopp	30	0.5	34000/ 1400	12:56	19:44:18	16:14:01	3.43	
129	"	"	"	36000/ 1400	12:58			3.34	
130	"	"	"	58000	13:00			3.28	
131	"	"	"	40000	13:01			3.23	

Frame prefix: SP97A

Telescope: 61"

Sheet #: 7

Date: 1997 Feb 01/02

Focus:  
Iris:  
Tailpiece:  
Balance:

Humidity: 77% ← Encl

Observers: Fink, Hicks, Fevig, Collins

Temp: 31/27 ← Guidepoint:

Exp. #	Object	Exp. time	Filter (slit)	Counts: Peak/Phot	UT time Start	RA $\alpha$	Dec $\delta$	SecZ	Comments: seeing, moon, LHA, VME crashes, clouds, etc.
132	Hale-Bopp	20	0.5	44,000	13:03	19:44:19	16:14:12	3.17	
133	"	"	"	34,000	13:05			3.11	
134	"	"	"	40,000	13:06			3.07	
135	"	40	0.25	48,000	13:15			2.79	
136	"	"	"	23,700	13:16			2.77	
137	"	"	"					2.72	
138	"	"	"	41,000	13:19			2.68	
139	SKY	40	0.25		13:21			2.54	
140	"	"	"		13:23			2.51	
141	Hale-Bopp	40	0.25	28 K	13:25			2.56	
142	"	"	"	62 K	13:26			2.53	
143	"	30	"	37 K	13:28			2.49	
144	"	"	"	48 K	13:30			2.45	
145	"	"	"	40 K	13:31			2.43	
<hr/> <p>Feb. 02/05 <del>from with white tailpiece + 90° + (760) N. GP 393</del> <sup>raw</sup> <sup>cal.</sup> 286 <math>\Gamma</math> 30/32 H=78%</p>									
146	1627 IVAR	1200	0.5	3062/1480/1262	04:27	08:26:39	+17:58:15	1.24	LHA = -2:28 Jump in PA = -59.7° the East
147	"	"	"	3185/1435/1272	04:48			1.18	LHA = -2:07 PA = -57.5°
148	"	600	"	1987/1344/1266	05:09			1.13	LHA = -1:46 Shortened exposures due PA = -53.9° to a close star

↓W

Frame prefix: SP97A

Telescope: 61"

Date: 1997 Feb 02/03

Focus:

Iris:

Tailpiece:

Balance:

Sheet #: 8

At the beginning of the evening

Humidity: 78%

Temp: 36/32

Guidepoint: 393, 386

Observers: Fink, Hicks, Fevig, Collins Sunday

Exp. #	Object	Exp. time	Filter (slit)	Counts: Peak/Phot	UT time Start	RA $\alpha$	Dec $\delta$	SecZ	Comments: seeing, moon, LHA, VME crashes, clouds, etc.
149	(Comp) BS 2141	3	1.0	27K	5:27	06:05:55	+35:22:38	1.02	LHA = +0:53 PA = +102°
150	"	"	"					"	
151	"	"	"					"	
152	"	"	"					"	
153	"	"	"					"	
154	"	"	"					"	
155	BS 660	1.5	1.0	38K	5:38	02:16:50	+34:12:36	1.98	LHA = 4:52 PA = 69.5°
156	"	"	"					1.99	
157	"	"	"					2.00	
158	"	"	"					2.01	
159	"	"	"					2.02	
160	"	"	"					2.03	
161	"	"	"					2.04	
162	BS 4529	5	1.0	9,000	5:52	11:48:18	-10:17:52	4.15	
163	"	"	"					4.07	
164	"	"	"					4.03	
165	"	"	"					3.98	
166	"	"	"					3.94	
167	"	"	"					3.90	
168	"	"	"					3.85	
169	"	"	"					3.80	
170	"	"	"					3.75	
171	"	"	"					3.71	
172	"	"	"					3.67	
173	"	"	"					3.63	
174	"	"	"					3.60	
175	BS 3314	0.75	1.0	35 K	6:13	08:25:29	-03:54:01	1.26	PA = -13.9°
176	"	"	"					"	
177	"	"	"					"	
178	"	"	"					"	
179	"	"	"					1.25	



Frame prefix: SP97A

Telescope: 61"

Sheet #: 9

Date: 1997 Feb 02/03

Focus:

Humidity:

Iris:

Tailpiece:

Balance:

Temp:

Guidepoint: 3

Observers: Fink, Hicks, Fevig, Collins *Sunday*

Exp. #	Object	Exp. time	Filter (slit)	Counts: Peak/Phot	UT time Start	RA $\alpha$	Dec $\delta$	SecZ	Comments: seeing, moon, LHA, VME crashes, clouds, etc.
180	Wild 2	1200	0.25	6965/1396/265	6:29	07:56:11	+19:34:39	1.03	Terrible seeing ~ 5"
181	"	"	"	7024/1431/1282	6:50			1.03	+00:26 = LHA PA = +23.5
182	"	"	"	7409/1439/1285	7:11			1.04	PA = +37.2
X	WE BREAK			FOR U+R IMAGING					high background with wind GRASH
183	Wild 2	"	"	1311/ <sup>3067</sup> <del>3067</del> /3069	8:07	7:56:07	19:34:56	1.10	HICKS BACK IN THE SADDLE, EVERYONE SLEEPING
184	"	"	"	7500/1820/1370	8:28			1.16	
185	"	"	"	7940/1680/1450	8:49			1.22	→ 1.22 sec 02:26 PA = 61.4
186	Fluore	1200	0.50	<sup>1500</sup> 2900/ <sup>1500</sup> 1600/1450	9:21	9:19:59	34:31:10	1.06	01:33W PA = 90°
187	"	"	"	3000/1600/1400	9:42			1.09	01:14 = 87.4
188	"	"	"	2900/1600/1400	10:03			1.13	PA 84.3
189	"	"	"	✓	10:23			1.18	82.9
190	Eye <sup>3103</sup>	"	"	5000/2100/1400	10:56	10:11:40	22 04 03	1.18	02:16 PA = 64°
191	"	"	"	4100/2070/1400	11:16			1.24	02:56 down condy; filled with N <sub>2</sub> 65.1 during exposure
192	"	"	"	<sup>2200</sup> 4200/1500/1500	11:37			1.31	65.7 CLOUDS ↓
193	"	"	"	4700/1500/1500	11:57			1.41	03:18 65.9 on and off
194	AS 7569	8000	0.50	8000/1200	12:00	19:52	11:37	4.69	PA = 59° <i>Rotated frame</i>
195	"	"	"	10000/1200	12:53			4.13	05:25 -59°
196	"	"	"	9200				4.22	
197	"	"	"	1200				4.13	variable photometry
198	"	"	"	1700	12:50			4.04	

N  
↓

Mistake: slit is ⊥ to refraction direction!!!

seeing very long

Frame prefix: SP97A

Telescope: 61"

Sheet #: 10

Date: Feb 2/3

Focus: 2520

Iris: 298

Humidity: 75%

Tailpiece: P80 name

Balance: 480

Temp: 24/27 cel

Guidepoint:

Observers: Fink Hichs

Exp. #	Object	Exp. time	Filter (slit)	Counts: Peak/Phot	UT time Start	RA $\alpha$	Dec $\delta$	SecZ	Comments: seeing, moon, LHA, VME crashes, clouds, etc.
199	Hole-Bagg	50	0.50	61000	13:13	19:47	16:43	2.79	LHA - 50m   Rotate tail piece to other PA-61°   w/ 200 (N.K. read 60)   <i>Hand</i>
200	"	20	"	18000	13:14	"	"	2.74	
201	"	"	"	23000	13:16	"	"	2.71	-GL3
202	"	"	"		13:17	"	"	2.68	"
203	"	40	0.25	50000	13:26			2.47	LHA - 0.9 247 -616
204	"	"	"	57000	13:28	"	"	2.44	
205	"	30	"	25000	13:30	"	"	2.40	
206	"	"	"	48000	13:31			2.38	good exposure
207	"	"	"	35000	13:33			2.35	
208	"	"	"	57000	13:34	"	"	2.33	
209	"	"	"	38000/520/1200	13:35			2.30	
<p>Moved tailpiece the way we go for cap star!</p> <p>Rotated 30° the other way for Hole Bagg (halfway to correct angle)</p> <p>We did not rotate the required 60° because we were afraid of losing the G.P.</p>									
<p>deleted SPHAM-099</p> <p>100-209 = 303 Hg</p>									
<p>not with us 820</p> <p>rotated 30° (but needed to rotate 60°)</p> <p>set by 820</p>									

W  
↓

Perfectly clear for all Hole-Bagg exposures

Frame prefix: SP97A

Telescope: 61"

Sheet #: 11

Date: 97 Feb 03/04  
Mansfield

Focus:  
Iris:  
Tailpiece: 900  
Balance: (name) 900  
410

Humidity: 55%

Observers: Fink, Hicks, Collins

Temp: 36/32

Guidepoint:

Exp. #	Object	Exp. time	Filter (slit)	Counts: Peak/Phot	UT time Start	RA $\alpha$	Dec $\delta$	SecZ	Comments: seeing, moon, LHA, VME crashes, clouds, etc.
210	Wirtana	600	0.25	Net 470 200/156/120	01:59	00:12:48.2	-05:05:19	2.03	Er 29.5 +03:21 PA=48.3 392.48, 392.33
211	"	"	"	Net 550 200/140/120	2:10			2.17	+03:31 PA=49.5 Photo=1400
212	"	"	"	Net 500 192/142/120	2:20			2.33	+03:42 =50.6 2000
213	"	"	"	Net 400 192/142/110	2:31	02.9	04:30	2.52	03:53 =52.6
214	"	600	0.50	600 Net 246/120/120	3:01	02:12:57.8	-05:05:49.3	3.34	04:22 PA 536
215	"	"	"	600 Net 246/130/120	3:12			3.80	4.35 Broadband NITS in place 19:55 546 Photo=2900 392.3
216	BS 2141	600	1.0	44 mo	3:37	06:05:53	+35:23:42	1.02	PA=62
217	"	300	"	44 mo		"	"		
218	"	300	"	42 mo		"	"		
219	"	"	"	51 mo	3:42			1.02	PA=104
220	"	"	"	48 mo	3:43				
221	BS 4027	300	"	3180	3:51	10:16:23	+28:41:34	2.11	PA=67
222	"	"	"	2640		"	"	2.08	
223	"	"	"	32K				2.07	
224	"	"	"	25K				2.05	
225	"	"	"	24K					
226	"	"	"	31K	3:55			2.04	
227	BS 185T	1.0	"	16-2K 26K		5:31 48.8	-07:18:10	1.30	HA=00:04 PA=1.5
228	"	"	"						
229	"	1.0	"	32K				1.30	PA=27°
230	"	"	"	30K	4:04				
231	BS 2882	5.0	"	28K		7:30 35	-57:20:24	3.53	PA=22°
232	"	"	"	25K				3.51	
233	"	"	"	25K				3.50	

Frame prefix: SP97A

Telescope: 6" <sup>4</sup>

Sheet #: 12

Date: 97 Feb 03/04

Focus:

Iris:

Humidity:

Tailpiece:

Balance:

Temp:

Guidepoint:

Observers: Ferry, Collins by Hannelis for a few hours

Exp. #	Object	Exp. time	Filter (slit)	Counts: Peak/Phot	UT time Start	RA $\alpha$	Dec $\delta$	SecZ	Comments: seeing, moon, LHA, VME crashes, clouds, etc.
234	BS 2882	50	1.0	50K	4:17	07:30:35	-37:20:23	5.48	
235	"	"	"	29K		"	"	5.46	
236	"	"	"	29K		"	"	5.45	
237	"	"	"	28K	4:19	"	"	5.44	
None of circs circ in right after the object.									
238	3122 Florence	1200	0.5	3429/1669 1490	06:03	09:17:59.7	+34:25:20	1.07	$\phi$ 390
239	"	"	"	3261/1604/1441	06:24	"	"	1.04	PA: -92.1, LHA: -01:18 $\phi$ 390
240	"	"	"	3114/1582/1405	06:45	09: " "	"	1.02	PA: -96.2, LHA: -00:57 $\phi$ 391
241	"	11	11	2845/1724/1384	07:06	"	"	1.01	PA = -103.6 LHA = -00:36 $\phi$ 391
Noted lots-o- clouds to the southwest and a few to the east - so, some clouds may have passed overhead during exposures 239 and 240 - guider photometry looks OK though. No clouds near our object now.									
We are continuing to observe intrepid young astronomers that we are.    Possible high cirrus passing overhead at UT 07:10, during exposure 241. UT 7:22 - 60% drop in guider photometry									
242	1997BR	1200	0.5	Not 3w 2350/2055/1437	07:53	10:03:58	+34:25:04	1.00	PA = +110.7, LHA = 00:25
Sporadic clouds overhead. We're taking data anyway, photometry varied a lot. Exp 242 probably TRASH									
243	1997BR	1200	0.5		09:30	10:03:56	+34:27:38	1.03	PA = +95.3 LHA = +01:02
<del>X</del> WRONG GP, RAIL INTO N2 I THINK BACK TO NORMAL									
244	1997 BR	12w	0.5	Not 6w 2300/1670/1400	10:05	10:03:54	34:29:17	1.07	PA 86.5 $\phi$ 391
245	"	1200	0.5	Not 6w 2250/1600/1300	10:26			1.10	-1.19 $\phi$ 391
246	"	1200	0.50	not 6w 0	10:52	10:03:51	34:20:50	1.16	42:25 PA=84 solid cloud over mark in got nice train w/ty scattered light spectrum.

W

Frame prefix: SP97A

Telescope: 61"

Sheet #: 13

Date: 97 Feb 04/05  
Wednesday

Focus:  
Iris:  
Tailpiece:  
Balance:

Humidity:  
Temp:

Observers: Fink, Hicks, Fung

Guidepoint: 392.3 385

Exp. #	Object	Exp. time	Filter (slit)	Counts: Peak/Phot	UT time Start	RA $\alpha$	Dec $\delta$	SecZ	Comments: seeing, moon, LHA, VME crashes, clouds, etc.
244	1994 PC1	600	0.5	2200/1400/1200	2:27	21:49:25	+52:36:28	2.63	Windy. Poor seeing. Refilled dewar LHA = +06:19 PA = +65.6
X 248	"	1200	"	2450/1620/1300	2:38:17	"	"	2.88 @ 2:42	LHA = +6:30 PA = +63
X	Had to insert dark slide @ 02:50:10 ... telescope hit the limit. Effective exposure Rotated tailpiece back. was app. 10 minutes.								
249	3990 Heindel	1200	0.5	Net 1430 2430/1520/1230	3:45	05:36:59	+11:27:52	1.07	LHA = -00:09 PA = -5.5°
250	"	"	"	"	4:06			1.07	00:12 7.4
251	"	"	"	Net 1400 2820/1480/1200	4:27			1.08	00:33 14.0
252	"	"	"	3860/1720/2800	4:48	at end of exposure cloud visible very fast		1.10	00:54 20.0 zone marked light for top on 50.0 platform
253	AS2101 Comp	300	1.0	58K	5:27	06:20:55	35:23:40	1.08	PA = 60° repoint to change by parts of 10 inches Circus camera Int.
254	"	300	"	12K					
255	"	240	"	314	6:01			1.07	CLOUDS GONE
256	"	"	"					"	
257	"	"	"					"	
258	"	"	"					"	
259	"	"	"					1.07	
260	"	"	"					"	
261	"	"	"					"	
262	SAO 100038 <sup>comp</sup>	4.0	"	38K	6:16	12:19:03	+16:33:31	2.02	
263	"	"	"	37K				1.99	
264	"	"	"	32K				1.88	Had to delete some files to make room
265	"	"	"		6:31			1.84	
266	"	"	"					1.83	
267	"	"	"		6:33			1.82	
268	"	"	"	32K	6:34			1.81	

Frame prefix: SP97A

Telescope: 61"

Sheet #: 14

Date: 97 Feb 09/05

Focus: 3520

Iris: 298

Humidity: 78

Tailpiece:

Balance: 350

Temp: 24/20

Guidepoint: 392.3, 385

Observers: Fink, Hicks, Feary, Collins

Exp. #	Object	Exp. time	Filter (slit)	Counts: Peak/Phot	UT time Start	RA $\alpha$	Dec $\delta$	SecZ	Comments: seeing, moon, LHA, VME crashes, clouds, etc.
269	BS 4328	5	A0	21K	6:37	11:07:45	-30:09:31	3.61	
270	"	"	"	"	"	"	"	3.57	
271	"	"	"	"	6:40	"	"	3.54	
272	"	"	"	34K	"	"	"	3.52	
273	"	"	"	"	6:42	"	"	3.49	
274	"	"	"	"	"	"	"	3.47	
275	"	"	"	32K	6:43	"	"	3.44	
276	"	"	"	"	6:44	"	"	3.42	
277	"	"	"	"	"	"	"	"	
278	"	"	"	"	6:46	"	"	3.38	
279	"	"	"	"	6:47	"	"	3.36	
280	BS 3314 (STO)	0.5	"	32K	6:55	08:25:30	-03:53:48	1.24	
281	"	"	"	"	6:57	"	"	"	
282	"	"	"	"	"	"	"	"	
283	"	"	"	39K	6:58	"	"	"	
284	1997 BR	1200	0.5	1922/1455/1279	8:47	10:01:34	+36:12:19	1.09	LHA = 00:29; PA = +120.3
285	"	"	"	1953/1443/1244	9:13	"	"	1.02	LHA = 00:57; PA = +104.4
286	"	"	"	1979/1429/1331	9:37	"	"	1.04	LHA = +118; PA = +98
287	"	"	"	1906/1506/1300	10:03	"	"	1.08	Terrible seeing, Humidity up to 80% LHA = +145 PA = +92.6
288	1999 Nephelitic	120	0.10	Net 1800 530/1500/1300	11:08	10:57:52.6	37 58 47	1.09	- Spin a Plan with the box; Miller Firt had on
289	"	"	"	Net 1700 3250/1530/1320	11:28:55	"	"	"	
290	"	"	"	390/1520/130	11:49	"	"	1.18	
291	"	"	"	3600/1400/1250	12:10:20	" 32.7	"	1.29 - 1.31	



Frame prefix: FR7A

Telescope: 68 MON

Focus: 3504

Sheet #: 1

Date: JAN 27/28

Iris:

Humidity: 90%

Observers: HICKS, FINK, FEVIG (SPOUSE VISITING ALSO)

Tailpiece:

Temp: 27.32

Balance: 550

Guidepoint: 390.0, 388.5

Exp. #	Object	Exp. time	Filter (slit)	Counts: Peak/Phot	UT time Start	RA $\alpha$	Dec $\delta$	SecZ	Comments: seeing, moon, LHA, VME crashes, clouds, etc.
X	WE HUNT FOR P/WIRTAUEN								FIND IT NO PROBLEM
001	P/WIRT	60	B/DI	500 PFA 22K PHOT	2:25	23:52:37	-8:06:13	2.47	
002	"	"	"		2:36	23:52:38	-8:05	2.67	
002	"	"	"		2:51	23:52:40	-8:05	3.05	
X	DR FINK SAYS HUMIDITY NOW 100%								DEW ON CATWALK, ONE
X	MORE SPEC EXT THAN COMPS.								
X	WE BREAK, COME BACK FOR WILD2								MOON IS UP
004	P/WILD2	30	B/DI	75K PHOT	8:04	8:01:01	+19:01:43	1.02	PHOT DROPPING
X				86K	8:12				PHOT GOING BACK UP
005	"	"	"	94K	8:30	8:00:59	+19:01:53	1.12	
006	"	"	"			8:00:59	+19:01:54	1.13	
007	"	"	"		8:49	8:00:59	19:01:56	1.15	
008	"	"	"		8:53	8:00:59	19:01:55	1.15	
X	CIRRUS MOSTLY GONE								MOON STILL UP
009	"	"	"		8:54			1.17	
010	"	"	"		9:02			1.15	
X	TEMP 25/30 HUM 98%								FAIR AMOUNT OF CIRRU 9:15
X	WE HUNT FOR 3103 ETGER								FND W/ JPL EPHEM 13K IN 30 SEC





Frame prefix: FR97A

Telescope: 61"

Sheet #: 3

Date: FEB 01/02

Focus: 3555

Humidity: 63%

Iris: 3.00

Tailpiece:

Balance: 450

Temp: 31/37

Observers: HICKS, FINK, COLLINS, FEVIG SAT

Guidepoint: 392.30 505.00

Exp. #	Object	Exp. time	Filter (slit)	Counts: Peak/Phot	UT time Start	RA α	Dec δ	SecZ	Comments: seeing, moon, LHA, VME crashes, clouds, etc.
X	AFTER 3 HOURS DOWN FOR SPRAGUE WE ARE BACK IN FORCE								
016	WE HAD A LOT OF CIRCUS TODAY BUT LOOKS CLEAR NOW								
X	SKUNK PROBLEM IN DORM, WHERE ARE THE PEANUTS?								
>	P/WILD2	30	B/DI	<sup>500 PEAK</sup> MK/NOT	2:23	00:06:57	-5:56:59	2.37	
016	"	60	V+R	15K PEAK	3:08	60:07:04	-5:55:47	3.68	
017	"	120	"	29K PEAK	3:10			3.75	
018	"	"	"		3:13			3.89	-3.99
X	SO, AFTER MUCH OBSERVING, WE NOW DO A COMET, P/WILD2								
019	P/WILD2	30	B/DI	9BK	7:53	7:56:56	19:30:14	1.60	
020	"	"	"		8:45	9:56:54	+19:30:25	1.19	
021	"	"	"		8:52			1.21	
X	1997 R	30	B/DI	2.2K Phot	9:13	10:06:04	32:44:15	1.01	
022	P/WILD2	60	V+R	43K Peak	10:17	07:56:52.15	+19:31:02	1.64	
023	"	60	"	1.5110 <sup>6</sup> Phot	10:19	07:56:52.07	+19:31:02	1.65	
024	"	"	"		10:22	07:56:52.07	+19:31:03	1.67	
X	3199 Aferiti	30	B/DI	9.7K Phot	10:38	11:13:42	+38:58:02	1.03	
025	M67	10	V+R		12:05	08:51:11.3	+11:47:53.0	2.62	
026	"	"	"					2.67	

027

028

"

"

"

"

"

"

12:14

12:16

1.83

2.87

Frame prefix: FK 17A

Telescope: 61"

Sheet #: 4

Date: F<sub>1</sub>

Focus:

Iris:

Humidity:

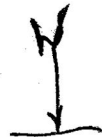
Tailpiece:

Balance:

Temp:

Observers: HICKS, FINCK, FEVIC

Guidepoint: 392.50 385



Exp. #	Object	Exp. time	Filter (slit)	Counts: Peak/Phot	UT time Start	RA $\alpha$	Dec $\delta$	SecZ	Comments: seeing, moon, LHA, VME crashes, clouds, etc.
029	HALE-BOPP	0.1	VIR	20K	13:08	19:44:19	16:14:12	3.00	
030	"	0.2	"		13:09			2.96	
031	"	"	"		13:11			2.94	
032	"	2	"		13:12			2.91	
033	"	"	"		13:12			2.89	
X	FEB 2/3		AFTER DINNER			WE DO			DOME FLATS
X	VARIAC		65						
034	D FLAT	7	BID	35K	00:11				
035	"	"	"						
036	"	"	"						
37	"	"	"						
38	"								
39	D. FLAT	2.5	VIR	35K	00:22				VARIAC 40
40	"	"	"						
41	"	"	"						
42	"	"	"						
43	"	"	"						

Telescope:

Frame prefix #:

Day of Week:

RA offset:

Focus:

Humdty:

Sheet #: 5

Observers:

Date MST/UT: Feb 23  
SUN

Dec offset:

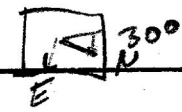
Tailpiece:

Balance:

Temp O/I:

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start MST	RA set	Dec set	Hour-angle exp-start	Comments (P.A., seeing, Moon, clouds, etc.)
X	WE ROTATE TAIL PIECE					SOUTH, 56=180		GP 393, 386	
X	CLOUDS ALL OVER								BUT WE TRY
X	WE FIND PIWIRT.								PHOT RANGES FROM 10K TO 2K VERSUS 14K OF YESTERD
X	WE BREAK FOR CLOUDS,								TRY AGAIN, TONIGHT
X	WE HAD NO BETTER LUCK					W/ 199D B6,			BACK TO IVAR 7K PHOT 30sec
44	PIWIRT	60	VTR	46K 1.55 x 10 <sup>6</sup>	7:35	7:56:08	19:34:53	AM=1.06	
45	"	"	"	46K 1.64 x 10 <sup>6</sup>	7:38	7:56:08	19:34:53	AM=1.07	
46	"	"	"	46K 1.68 x 10 <sup>6</sup>	7:40	"	"	"	
47	M67	7	"		7:48	08:51:11	+11:46:55	AM=1.08	
48	"	"	"		7:52			1.08	
49	"	"	"		7:53			1.08	
X	<sup>3103</sup> EMER								PHOT = 15K PHOT 30 SEC B/DI
X	WE ROTATE TAILPIECE							GP = 392.40, 388.22	+30 (-30 IN SC) HALE BOPP
050	HALE BOPP	1.0	3/171		13:11	19:46:50	+16:43:00	2.75	
051	"	"	"		13:17			2.18	

THIS IS THE WRONG WAY WE TRY AGAIN!





Frame prefix: FR97A

Telescope: Mon

Sheet #: 7


Date: FEB 3/4

Focus:  
Iris:  
Tailpiece: 900  
Balance:

Humidity:  
Temp:

Observers: FINK HICKS COLLINS FELIG

Guidepoint: 392.43 5823

Exp. #	Object	Exp. time	Filter (slit)	Counts: Peak/Phot	UT time Start	RA $\alpha$	Dec $\delta$	SecZ	Comments: seeing, moon, LHA, VME crashes, clouds, etc.
<del>SK</del>	WE WAIT FOR SKY TO DIM ENOUGH FOR P/WIRTAHEL								
X	FIND IT			500 PEAK 14K PHOT.					TAILPIECE ROTATED
X	+50 deg (850 to 900) SG FILE 40 (as opposed to 90 normally)								
056	P/WIRT	120	V+R		2:44	00:12:54	-05:04:14	2.82	
057	"	"	"					2.98	(END)
058	"	300	"		2:51	00:12:55	-05:04:06	2.91	-3.15
059	M67	7	V+R		4:34	08:51:18	11:47:09	1.36	Alot of cirrus
060	"							1.32	}
061	"							1.32	
X	Closed dome due to cirrus (everywhere) @ 4:50								
062	Dome Flat .05	V+R		20K	5:15				
063	"								
064	"								
065	"								
X	Cirrus began to clear @ 05:35. Went to 3122 Florence. Phot. $\approx$ 6K <sub>1.30</sub>								
X	Cirrus began to return @ 07:10. We finished our last spectral image								
X	of 3122 Florence, then targeted and acquired 1997 BR. Guided								
X	on 1997 BR until 8:50 in the hope that the clouds would clear. Attempted @								
X	8:50 when phot $\approx$ 2k, 30 sec, spectral line shifted to 375. Took one more spectral								
X	image (SP97A243) before correcting spectral line in image SP97A244. Phot $\approx$ 3k, 30 sec.								

Frame prefix: **FR07A**

Telescope: **61"**

Sheet #: **8**

Date: **WED 5/6**

Focus:

Humidity:

Iris:

Tailpiece:

Balance:

Temp:

Observers: **Hans Fink, Feng, Collins FEB**

Guidepoint: **392.3 385**

Exp. #	Object	Exp. time	Filter (slit)	Counts: Peak/Phot	UT time Start	RA $\alpha$	Dec $\delta$	SecZ	Comments: seeing, moon, LHA, VME crashes, clouds, etc.
X	WE ROTATE		TAIL	PIECE +	63°	(-63° to	27° IN GET	GUIDE	FILE) FOR PHOTICI
X	WE FIND		1994	PCI	PHOT =	6.7K	PEAK	500 IN	30 sec B/D)
X	3390		HELM	DAL	PHOT =	6.4K	PEAK		
66	wild 2	60	V+R	49K	7:29	08:01:56	+18:54:46	1.07	Our V+R Filter
67	"	"	"	50K	7:36			1.08	"
68	"	"	"		7:39			1.09	"
69	"	120	"		7:41			1.09	Ray Newborn's V+R Filter
70	"	120	"		7:44			1.10	"
71	"	60	V+R	50K	7:55			1.12	Ray Newborn's V+R Filter
72	"	"	"		7:57			1.12	"
73	M67	7	"		8:05	08:51:18	+11:47:09	1.10	"
74	"	"	"		8:07			1.10	"
75	"	"	"		8:08			1.10	"
76	"	6	V+R		8:16			1.11	Our V+R Filter
77	"	"	"		8:18			1.11	"
78	"	"	"		8:19			1.12	"
X	Found		1997	BR	@ 8:35			30 sec	PHOT = 2.7K in B/Di
X	3191		MEPERTI		0.8K	PHOT		IN	30 sec B/DI

Frame prefix:

Telescope:

Sheet #:

Date:

Focus:

Humidity:

Iris:

Tailpiece:

Balance:

Temp:

Guidepoint:

Observers:

Exp. #	Object	Exp. time	Filter (slit)	Counts: Peak/Phot	UT time Start	RA $\alpha$	Dec $\delta$	SecZ	Comments: seeing, moon, LHA, VME crashes, clouds, etc.
<del>X</del>	WE ROTATE TO			- 60	(+60	N 56) FOR	HALE-130PT	GP= 393.2, 386	
<del>X</del>	HALE BOPP			PHOT= 1.2x10 <sup>4</sup>	IN	1 SEC	B/DI		
79	"	0.2	VAR	44K	13:22	19:54:48	19:17:36	2.41	VAL 545 (VIMS ERROR)
80	"	"	"		13:24			2.38	↓
81	"	2.0	"		13:25			3.36	"DEEP"

← 2