

Telescope:

iris 306

Frame prefix #: FR85J Day of Week: Sat/Sun

RA offset: 0

Focus: 3548 Humdty: 100 Sheet #: 1

Observers: ww schultz Date MST/UT: Nov 9/10

Dec offset: 2' 5"

Tailpiece: 17

Balance: 70

Temp O/I: 22/26

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.)
✓001	Flat Field	1.7	B	5600					Filled dewar 4:05 P.M. Top of dewar 6:25
✓002	"	"	"	5700					
✓003	"	0.5	V	8500					
✓004	"	"	"	8500					
✓005	"	0.25	R	6700					
✓006	"	"	"	6700					
✓007	"	0.15	I	6600					
✓008	"	"	"	6500					
✓009	Dariz	"	N/A	771					
✓010	DARIC	"	"	753					no good lamp went out
011	FF	240	4060						
✓011	Halley	15	V		9:42:09				top of dewar 1:30 A.M.
✓012	"	30	V	4100/	9:48:00	4:35:34	22:17:15	1:04	Mirror bad
✓13	"	30	V	10000	9:54:40				clouds all around
✓14	"	15	"	3700	10:03:23	4:35:30	22:15:17	1:20	Halley in clear

Telescope:

Frame prefix #: FR95J Day of Week: Wed/Thurs

RA offset:

Focus:

Humdty: 66% Sheet #: 3

Observers: Fink DiSano Date MST/UT: Nov 13/14

Dec offset:

Tailpiece: 17

Balance: 20 Temp O/I: 18/23

Tape file #

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.)
1 ✓	026 Halley	8 s	V	10200	9:37:14	4:05:03.0	22:03:25	1:43W	2exp ~ 3.5" Fw
✓	027 "	25s	"	16000	9:41:03	"	"	1:46	for 3486
✓	028 "	8.0	R	9700	43:25				Partially
✓	029 "	25	"	16000	45:09			1:50W	clear
5 ✓	30 "	15	B	6500	47:38			1:53	
✓	31 "	60	"	16000	49:38			1:55	
✓	32 "	15	I	13000	53:58			1:59	For 3447
✓	33 "	10	I	10000	55:51			2:01W	
✓	34 "	30	I	16000	58:38			2:04	
10 ✓	35 "	60	9180	2000	10:10:03			2:15W	
✓	36 "	50s	"	9600	13:17			2:18	nice!
✓	37 "	"	8600	15000	23:56	4:04:45.3	+22:03:14	2:29W	
✓	38 "	60	"	5300	35:13			2:40	
✓	39 "	"	5980	2760	39:22			2:45	focus lock up → 3487
15 ✓	40 "	300	"	9350/10000	44:07			2:50W	

Telescope:

Frame prefix #: FR85J

Day of Week: Wed/Thurs

RA offset:

Focus:

Humdty: 64% Sheet #: 4

Observers: FINK/DISANKI

Date MST/UT: 13/14 Nov

Dec offset:

Tailpiece:

Balance:

Temp O/I:

16/21

Type file #

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start MST UT	RA set	Dec set	Hour-angle exp-start	Comments (P.A., seeing, Moon, clouds, etc.)
16 ✓	041 Halley	300	6185	9500	10:56:25	4:04:36.5	+22:03:07	3:02 W	
✓	42 "	"	6250	4150	11:05:36			3:11 W	
✓	43 "	60	5139	3500	12:55			3:19 W	
✓	44 "	180	"	9000	15:30			3:21	
20 ✓	45 "	600	6300	2300/850	21:46			3:28 W	
✓	46 "	"	6300	2000/800	39:19			3:45 W	
✓	47 "	300	4965	4000/n	55:24			4:02 W	cut
✓	48 "	300	4060	1600/800	12:08:07			4:14	one Halley image part of another
✓	50 LAN 76281	5.0	V	6600	12:39:45	8:20:17	+14:41:24	0:30 W	No FR85J 049 1.06
25 ✓	51 "	"	R	8000	41:12			0:33 W	1.06
✓	52 "	"	I	3200	42:49			0:33 W	1.06
✓	53 "	15.0	I	8000	44:17				1.06
✓	54 "	5	R	7000	46:16			0:36 W	1.06
✓	55 "	5	V	7150	48:18				1.06
30 ✓	56 "	10	B	6000	50:04			0:40 W	1.06 1.06
✓	57 "	15	B	9400	51:34			0:42	1.06 cut 1.06 cut
✓	58 Dark	1.5 sec							
	59 Dark	1 sec							

Telescope:

Frame prefix #: F185J

Day of Week: Thurs/Fri

RA offset:

Focus:

Humdty: 67 Sheet #: 5

Observers: Fink/Disanti

Date MST/UT: 14/15 Nov.

Dec offset:

Tailpiece:

Balance:

Temp O/I: 21/27

Tape file #
1

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start MST/UT	RA set	Dec set	Hour-angle exp-start	Comments (P.A., seeing, Moon, clouds, etc.)
✓ 060	Helium	0.05	0.25	13000/840					
✓ 061	"	0.2	"	1600					
✓ 062	Xe	0.05	1	1200					
✓ 063	"	0.2	"	1600	01:13				
✓ 064	Hartley-Good	600	"	3000/800	02:04:59	18:22:04	+11:12:23	3:54 W	
✓ 065	"	"	"	3000	19:26	22:02	112:42	4:10 W	
7 ✓ 066	10 Lac	.15	1.0	7000/400	4:01:36	22:38:35	+38:57:00	1:36 W	} background with 4000?
067	"	"	"	"	02:53				
068	"	"	"	6600	04:18			1:39 W	
8 ✓ 067	10 Lac	0.4	1.0	8600	4:24:57	22:38:35	+38:56:59	1:58 W	
✓ 068	"	"	1.0	9400	27:48			2:02	
10 ✓ 069	"	"	"	8100	29:53			2:04	
✓ 070	SAO 92183	1.0	0.25	9000	4:53:05	0:57:09	13:35:27	0:09 W	
✓ 071	"	"	"		4:54:27			0:10	
13 ✓ 072	"	"	"	6000	55:31			0:11	

Telescope:

Frame prefix #: **FR85J** Day of Week: **Thurs/Fri**

RA offset:

Focus:

Humdty:

Sheet #: 6

Observers: **FINK/DISANTIS** Date MST/UT: **14/15 Nov**

Dec offset:

Tailpiece:

Temp O/I:

Time file #

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start MST/UT	RA set	Dec set	Hour-angle exp-start	Comments (P.A., seeing, Moon, clouds, etc.)
14 ✓ 073	I ZW 1	300	0.25	7000 Hz 1300 cont	5:07:31	00:52:48	+12:35:20	0:28 W	
✓ 074	"	600	"	13000 Hz Peak 1500 cont 800	16:51	"	"	0:37	
✓ 075	"	600	"	14K Hz 2500 cont	31:42	"	"	0:52	
✓ 076	"	"	"	11K Hz 2K cont	43:11	"	"	1:03 W	
✓ 077	SAO 92183	1.25	"	9000/800	5:59:53	0:57:06.9	13:35:30	1:16 W	
✓ 078	"	"	"	10000 ⁺	6:01:08			1:17	
20x ✓ 079	HALLEY	300	"	12000 ^{peak}	6:13:54	3:57:34.6	+21:50:10	1:30 E	
✓ 080	"	"	"		24:51			1:19 E	
✓ 081	BS1262	1.0	"	210000	38:01	4:04:29.2	+21:56:41	1:13 E	topped off door at 20:45 UT
✓ 082	"	1.0	"	11000 ⁺	7:00:52	:28	"	0:50 E	
✓ 083	"	"	"	10000/800	02:16				
25 ✓ 084	"	2.0	"	28000	06:28			0:45 E	focus → 3540
✓ 085	"	"	"	≈ 10000	09:50			0:41 E	West at "bottom" in <u>V00500</u> spectrum disp
✓ 086	HALLEY	300	"	9000	7:23:19	3:57:08.0	+21:57:45	0:20 E	focus back → 3490
✓ 087	"	1200			42:29	3:56:58.0	+21:57:36	0:01 E	masked nucleus to bring out emissions

Telescope:

Frame prefix # FR855 Day of Week:

RA offset:

Focus:

Humdty:

Sheet #: (7)

Observers: FINK/DISANTI Date MST/UT:

Dec offset:

Tailpiece:

Balance:

Temp O/I:

Tape file #

29

35x

40

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start MST UT	RA set	Dec set	Hour-angle exp-start	Comments (P.A., seeing, Moon, clouds, etc.)
✓ 088	Halley	1800	0.25		8:07:28	3:56:48.2	+21:57:26	0:24W	
✓ 089	BS 1262	1.0	"	~7000	8:45:22	4:04:27.2	+21:56:36	0:55W	
✓ 090	"	"	"	"	47:06			0:56	
✓ 091	"	2.0	"	9000	49:37			0:59W	focus → 3540
✓ 092	"	"	"	~9500	50:58			1:00W	
✓ 093	HALLEY	1800	"		58:52	3:56:29.0	+21:57:09	1:16W	focus back → 3490
✓ 094	"	300	"		9:35:29			1:53W	
✓ 095	"	300	"		42:48			2:00W	
✓ 096	"	180	"		49:27			2:07	
✓ 097	BS 1262	1.0	"	12000	57:02	4:04:26.9	+21:56:38	2:07W	
✓ 098	"	0.8	"	9000	59:04			2:09	
✓ 099	"	"	"	8000	10:02:13			2:12	
✓ 100	"	1.6	"	10000	10:04:42			2:14W	focus → 3540
✓ 101	"	"	"	11000	06:16			2:16	
✓ 102	BS 996		"	7000	10:28:29	3:18:36.3	+3:17:38	3:20W	Comp for Halley Good, focus back → 3490

651

75
30

Telescope:

Frame prefix #: FR65J Day of Week: Fri/Sat

RA offset: 0

Focus: 3589 Humdty:

Sheet #: 9

Observers: Distanti/
Schultz Date MST/UT: Nov 15/16

Dec offset: 2^ms

Tailpiece: 17

Balance: 70 Temp 0/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.)
✓ 111	Hartley Good	10	✓	4800	1:54:50	18:19:22	11:33:12	3:52W	
✓ 112	"	20	✓	9100	1:57:24				
✓ 113	"	60	✓	15768	1:59:20				
✓ 114	"	11	R	13800	2:01:44	18:19:22	11:34:04	3:59W	computer died
✓ 115	"	20	"		2:09:56				
✓ 116	"	10	"		2:12:16				
✓ 117	"	30	B	4800	2:14:01	18:19:21	11:34:19	4:11W	
✓ 118	"	60	B	8300	2:16:06				
✓ 119		20	I	5400	2:19:05	18:19:21	11:34:26	4:16W	Focus 3561
✓ 120		60	"	14356	2:21:07				
✓ 121		120	"	15700	2:23:30				
✓ 122	"	180	B	13000	2:27:39				Focus → 3590
✓ 123	LAN 68-216	2	✓	7000 711	2:42:58				1.10
✓ 124	"	2	✓	6900 723	2:45:17	0:17:33.7	15:41:37	1:16E	1.09
✓ 125	"		R	5700 700	2:46:58				computer died 1.09

Telescope:

Frame prefix #: FR

Day of Week: Fri/Sat

RA offset:

Focus:

Humdty:

Sheet #: 10

Observers: DiSanti
Schultz

Date MST/UT: Nov 15/16

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.)
✓126	LAN ⁶⁶ ₂₁₆	3	R	7500 730	2:51:00			1:10E	1.09
✓127	"	6	B	7300 711	2:52:59				1.08
✓128	"	11	I	8300 700	2:54:32				1.08
✓129	"	5	I	4800 715	2:57:02				1.08
✓130	"	10	I	9600 800	2:58:56	0:17:34	15:41:37	1:02E	1.08
✓131	BD 28-4211	180	9180	7000 725	3:44:13	21:50:31	28:44:38	2:11W	Focus 3542
✓132	"	11	I	6700 728	3:49:13				
✓133	"	120	8600	12000 780	3:54:41				
✓134	"	90	I	9500 750	3:58:52				
✓135	"	11	I	9500 750	4:02:21				
✓136	"	10	8520	6900 700	4:08:51				
✓137	"	11	I	7500 700	4:14:21				computer died
✓138	"	20	5980	5300 700	4:20:28				Focus → 3585
✓139	"	11	I	6700 700	4:22:09				
✓140	"	30	4505	10700	4:32:56				

Telescope:

Frame prefix #: FR85J

Day of Week: Fri/Sat

RA offset: 0

Focus:

Humdty: 50% Sheet #: 11

Observers: DiSanti
Schultz

Date MST/UT: Nov 15/16

Dec offset: 3m5

Tailpiece: 17

Balance: 70

Temp O/I: 34/37

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.)
✓141	BD 28-4211	20	4505	6700	4:34:54				
✓142	"	60	4060	4900	4:39:20				
✓143	"	"	"	5600	4:41:41				
✓144	"	240	6300	5300	4:52:13				computer died
✓145	"	"	"	5600	5:00:00				
✓146		90	6250	10500	5:06:28			3:33w	
✓147		60	"	7800	5:09:55				
✓148		20	6185	6600	5:13:36				
✓149	"	"	"	5800	5:15:15				
✓150	"	70	5139	7300	5:19:59				
✓151	"	"	"	$\frac{10000}{200}$	5:21:25				
✓152	Halley	60	5139	10200	5:44:49				
70.36 ✓153		180		15700	5:48:55	3:48:40	21:47:27	1142 E	
73.62 ✓154	"	1800	6300	9600	5:56:19			1:35 E	Temp 39/35 Hum 50%
76.88 ✓155		1800	6300 TLT	7800	6:37:02	3:48:23	21:47:10	53 E	Temp 39/35 Hum 49%

Telescope: 61"

12

Frame prefix #: FR85J

Day of Week: Fri/Sat

RA offset: 0

Focus:

Humdty:

Sheet #:

Observers: DISANTI
Schultz

Date MST/UT: Nov 15/16

Dec offset:

Tailpiece: 17

Balance: 70

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.)
80.130 ✓ 156	Halley	600	6250	12700	7:11:01	3:48:10	21:46:58	19 ^m E	computer died
✓ 157	"	300	"	11500	7:26:01	3:48:01	21:46:31	4 ^m E	
new tape 1 ✓ 158	"	180	"	7500	7:33:30	3:47:59	21:46:28	3 ^m W	
✓ 159	"	90	6185	11000	7:39:03			9 ^m W	
✓ 160	"	60	"	5200	7:42:31			12 ^m W	
✓ 161	"	180	"	15500	7:45:18	3:47:53	21:46:23	15 ^m W	
✓ 162	"	11	5139	15900	7:50:37			20 ^m W	
✓ 163	"	30	"	5300	7:55:20			25 ^m W	
✓ 164	"	180	9180	9200	8:08:48	3:47:44	21:46:17	39 ^m W	Focus 35-42
✓ 165	"	540	"	15200	8:14:48	3:47:43	21:46:15	45 ^m W	RA 154 - RA 160 rate
✓ 166	"	60	8600	5800	8:26:22	3:47:37	21:46:09	56 ^m W	
✓ 167	"	90	"	7800	8:29:24	3:47:36	21:46:08	1 ^{hr} W	
10 ✓ 168	"	300	"	15700	8:33:05			1:03	Rate 158 computer died
✓ 169	"	30	8520	11600	8:43:06			1:13	
✓ 170	"	15	"	6900	8:45:20				

Telescope:

Frame prefix #: FR85 J

Day of Week: Fri/Sat

RA offset:

Focus:

Humdty:

Sheet #:

Observers: DISANT
SCHULTZ

Date MST/UT: Nov/5/16

Dec offset:

Tailpiece: 17

Balance: 70

Temp O/I:

13

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.)
✓ 171	Halley	120	8520	15800	8:47:29	3:47:30	21:46:01	1 ^h 18 ^m W	
✓ 172	"	120	5980	11700	8:53:06				Focus 3586
15 ✓ 173	"	90	"	9000	8:57:02	3:47:26	21:45:58	1 ^h 27 ^m W	
✓ 174		300	"	15700	9:07:25	3:47:20	21:45:53	1 ^h 38 ^m W	
✓ 175		180	4565	6800	9:21:50	3:47:16	21:45:47	1 ^h 52 ^m	
✓ 176	"	600	"	15500	9:27:03			1 ^h 58 ^m	
✓ 177		420	4060	3300	9:40:24	3:47:08	21:45:40	2 ^h 11 ^m	
20 ✓ 178		1200	"	5900	9:49:56	3:47:04	21:45:36	2 ^h 21 ^m W	
✓ 179		3	✓	6400	10:26:52	3:46:50	21:45:23	2 ^h 58 ^m	
✓ 180		5	"	11200	10:28:48				
✓ 181		15	"	15600	10:32:15				
✓ 182		5	R	11200	10:34:46			3 ^h 06 ^m	
25 ✓ 183		3	R	7100	10:36:31				
✓ 184		15	"	15600	10:38:30				
✓ 185		10	B	9000	10:40:52				

Telescope:

Frame prefix #: FR85J

Day of Week: Fri/Sat

RA offset:

Focus:

Humdty:

Sheet #: 14

Observers: DiSANTI
Schulz

Date MST/UT: Nov 15/16

Dec offset:

Tailpiece: 17

Balance: 70

Temp O/I:

AM

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.)
28 ✓	Halley	30	B	15500	10:42:57	3:46:44	21:45:17	3 ^h 14 ^m	
29 ✓	"	5	I	8800	10:46:15				Focus 3546
New tape 1 ✓	"	15	I	15600	10:48:00			3 ^h 20 ^m	
✓	"	45	"	15700	10:50:04	3:46:41	21:45:14	3 ^h 22 ^m	
✓	"	45	R	15700	10:53:26				Focus 3587
✓	LAN 76-281	1.2	V	4800	11:15:04	8:20:16.8	14:43:37	51 ^m E	computer died 1.07
5 ✓		2.0	"	6700	11:17:33				1.07
✓		"	R	6600	11:18:56				1.07
✓		"	"	6600	11:20:14				1.07
✓		4.0	B	5300	11:21:58				1.07
✓		6.0	"	9000	11:23:19				1.07
10 ✓		8.0	I	7000	11:25:21				1.06
✓		"	"	8300	11:26:41				1.06
✓	DARK	1.5	N/A	663					
✓	"	"	"	665					

Telescope:

Frame prefix #:

Day of Week:

RA offset:

Focus:

Humdty:

Sheet #: 15

Observers:

Date MST/UT:

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.)
14 ✓ 201	FF	0.2	I	9900					Focus → 3545
✓ 202	"	"	"	9900					
✓ 203	"	0.25	R	8000					Focus → 3585
✓ 204	"	"	"	7900					
✓ 205	"	0.4	V	8100					
✓ 206	"	0.4	V	"					
20 ✓ 207	"	2.0	B	8100					
✓ 208	"	"	"	"					
✓ 209	"	60	6300	8200					
✓ 210	"	12	6210	7310					
✓ 211	"	12	6250	7350					
25 ✓ 212	"	12	"	7200					
✓ 213	"	5	6185	7000					
✓ 214	"	"	"	6900					
✓ 215	"	7	5139	7400					

Telescope:

Frame prefix #: FR855 Day of Week: Fri/Sat
 Observers: Schultz/DiSanto Date MST/UT: 15/16 Nov.

RA offset:
 Dec offset:

Focus:
 Tailpiece:
 Balance:

Humdty: Sheet #: 16

Temp O/I:

Top
 29

33

NEW TAP
 1

10

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.)
216	FF	7	5139	7200					
217	"	3	9180	7400					Focus → 3545
218	"	"	"	7350					
219	"	2.5	8600	7250					
220	"	"	"	7200					
221	"	0.6	8520	8400					
222	"	"	"	8400					
223	"	7	5980	7400					focus → 3585
224	"	7	"	7300					
225	"	60	456	9100					
226	"	"	"	9100					
227	"	300	4060	5100					
228	"	"	"	"					
229	Dark	1.5	—	~660					
230	"	"	—	"					