

Telescope: 61"

IRIS: 298

Frame prefix #: FR85H

Day of Week: Thu/Fri RA offset:

Focus: 4951 Humdty: 55% Sheet #: ①

Observers: Schneider
Schultz, WellsDate ~~12~~/UT: Sept 13/14 Dec offset:Tailpiece: 290
Balance: 7516 Temp O/I: 62/60

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.)
✓ 000	Flufield	360.0	Dφ						Filled dewar 3:30 PM
✓ 001	flufield	360.0	Dφ						
✓ 002	dark	0.05	Dφ						
✓ 003	dark	0.05	Dφ		3:56:07				
✓ 004	DARK	0.05	Dφ						
✓ 005	DARK	0.05	Dφ						
✓ 006	DARK	0.05	Dφ						
✓ 007	DARK	0.05	Dφ		3:01:13				Tel. vertical
✓ 008	DARK	0.05	Dφ						
✓ 009	DARK	0.05	Dφ						MANY CRASHES ↓
✓ 010	THAR	120.0	Dφ		~3:26				narrow slit DEWAR FILLED 8:00 PM
✓ 011	THAR	120.0	Dφ		~3:30				375 slit
✓ 012	SAQL	60.0	Dφ		~3:49				Star #1 mv=2.99
✓ 013	SAQL	300.0	Dφ	4500	03:55:17	19 ^h 04 ^m	+13°50 ^m		
✓ 014	LAQL	300.0	Dφ	2500	~04:07	19 ^h 05 ^m	-04°55 ^m		Star #2 mv=3.44

Telescope:

Frame prefix #:

Day of Week:

RA offset:

Focus:

Humdty:

Sheet #: 2

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.)
✓ 015	DARK CAP	300 ^s	Dφ	0!	04:26:50	21 04 56	-17 18 36		focus was 4931, now 4910 m _v = 4.07
✓ 016	θ CAP	300 ^s	Dφ	3000	04:35	"	"		shutter disconnected last exp!
✓ 017	α PEG	300 ^s	Dφ	11000	~04:48	23 03 52	+15:06:17		
✓ 018	Jup	60 ^s	Dφ	2200	~05:13				
✓ 019	THAR	120 ^s	Dφ		~5:17	20 41 30	-19 12 34		
✓ 020	DARK	0.05	Dφ		~5:20				
✓ 021	Jup	10 ^s	Dφ						SLIT WIDEST! SOME OCCULTING BY DOME
✓ 022	SKY 375	500 ^s	Dφ		5??				See NMS 2006 p 68 for offsets Comp. confirmed
✓ 023	Jup	10 ^s	Dφ	3800	5:40				Dome OK
✓ 024	SKY 5	500 ^s	Dφ	0?					
✓ 025	Jup	10 ^s	Dφ		~06:04				Good return by offsetter
✓ 026	THAR	10 ^s	Dφ						
✓ 027	SKY 375	500 ^s	Dφ						
✓ 028	DARK	0.05	Dφ		~6:20				
✓ 029	Jup	60 ^s	Dφ	2000	6:24:05				slit now 375

Telescope:

Frame prefix #:

Day of Week:

RA offset:

Focus:

Humdty:

Sheet #: 3

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.)
✓ 030	THAR	120 ^s	Dφ		~6:27	20 41	-19 12		375 slit
✓ 031	IO+EM	60 ^s	Dφ	750-500	6:34:25				v. clear!
✓ 032	IO	600 ^s	Dφ	2200					mostly IO some vignetting
✓ 033	EUROPA	120 ^s	Dφ	968	07:00:00	almost	touching		FUCKING COMPUTER
✓ 034	IO	1200 ^s	Dφ		7:31:56				good seeing
✓ 035	THAR	120 ^s	Dφ		7:				
✓ 036	JUP	60 ^s	Dφ		7:39:40				FUCKING COMPUTER
✓ 037	IO	1200 ^s	Dφ						guiding problems-use TV
✓ 038	JUP	240 ^s	Dφ		8:09:45				
✓ 039	THAR	60 ^s	Dφ		8:16:57				
✓ 040	Flatfield	360 ^s	Dφ						
✓ 041	Flatfield	360 ^s	Dφ						
✓ 042	DARK	0.05	Dφ						
✓ 043	DARK	0.05	Dφ						
✓ 044	DARK	0.05	Dφ						flashlight?

Telescope:

with echelle

Frame prefix #: PR65H

Day of Week: Thu/Fri

RA offset:

Focus: 3810

Humdty: 72 Sheet #: (S)

Observers: Schultz, Fialk

Date MST/UT: Sept 12/13

Dec offset:

Tailpiece: 17

Balance:

Temp O/I: 40

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.)
✓ 046	LAN 68 216	2.0	V	8000	10:27:10			2:15 W	1.22
✓ 47	"	2.0	"		10:28:15	0:		2:16	1.22
✓ 48	"	2.0	R	4800		0:17:32	15:42:30		1.23
✓ 49	"	4.0		10000	10:25:21	'		2:33 W	1.23
✓ 50	"	4.0	I	3200	10:35:24			2:23 W	1.24
✓ 51	"	8.0	I	6800	10:37:06			2:25 W	1.25
✓ 52	"	4.0	B	6300	10:37:58			2:27	1.26
✓ 53	"	6.0	B	9000	10:40:23				1.26
✓ 54		2.0	V	8600	10:41:57			2:30	1.27
✓ 55	G2	10.0	V	6800	10:41:57			3:01 E	
✓ 56	"	15.0	"	17500	10:56:40	6:02:48.	20:22:48	2:57	
✓ 57		15	R	8000	11:01:31	6:02:47.5	20:22:38	2:55	
✓ 58	"	30	I	9200	11:03:47	6:02:48	20:22:30	2:52	
✓ 59	"	"	I		11:05:43	6:02:49	20:22:24	2:50	
✓ 60	"	30	B	6800	11:07:32	6:02:49	20:22:17	2:49.	

Telescope:

with eckelle

Frame prefix #: FR85H

Day of Week: Thu/Fri

RA offset:

Focus: 3810 Humdty:

Sheet #: 6

Observers: Fink Schulte

Date MST/UT: Sept 12/13

Dec offset:

Tailpiece: 17

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.)
✓ 61	G2	40.0	B		11:15:32	6:02:40	20:21:50	2:44	
✓ 62	"	15	V		11:17:19				
✓ 63	"	15	R		11:18:23				
✓ 64	"	30	R		11:19:45				
✓ 65	"	60	V		11:21:53				
✓ 66	"	120	"		11:28:10	6:02:43	2:21:01	2:27	
✓ 67	"	120	B		11:31:17				
✓ 68	Halley	60.0	V	9500	11:42:05	6:14:21.0	19:31:17	2:20	
✓ 69	"	180	V		11:50:09	6:14:22	19:30:49	2:16	
✓ 70	"	60	R	7800	11:54:48			2:13	
✓ 71	"	120	B	7000	11:57:23				
✓ 72	"	120	I		12:09:32	6:14:22.3	19:30:49	2:03	
✓ 73	"	180	R		12:07:45			2:00	
✓ 74	"	180	V		12:12:22				
✓ 75	FlatField	0.5	V	9000					

Telescope: 61"

Frame prefix #: FR85H

Day of Week: Fri/Sat

RA offset:

Focus:

Humdty:

Sheet #: 8

Observers: Fink wells

Date MST/UT: Sept 13/14

Dec offset:

Tailpiece:

Balance:

Temp O/I:

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.)
✓ 086	Dark	0.05	Dφ						
✓ 087	Dark	"	"						
✓ 088	"	"	"						
✓ 089	"	"	"						
✓ 090	"	"	"						
✓ 091	"	"	"						
✓ 092	"	"	"						
✓ 093	"	"	"						
✓ 094	flat field	360.0	Dφ		1:19:17				mirror covers cloud during first run!
✓ 095	flat field	360.0	Dφ		1:27:01				
✓ 096	TH-AR	120.0	Dφ						dark no TH-AR lamp on narrowest slit
✓ 097	TH-AR	120.00	Dφ						0.375 slit making best narrowest slit
✓ 098	TH-AR	120.00	Dφ						0.375 slit
	✓ Tur rings			RR85H098	✓	RR85H098			were also written
RR85H099	Jupiter	300c			2:13:44	201.91 30.2	-19 13 09	2'16" E	

not-credit for RR?

Frame prefix #: FR85H

Telescope: 61"

Day of Week: Fri/Sat

RA offset:

Focus: 4950

Humdty: 76%

Sheet #: (9)

Observers: Kent, Fil

Date MST/UT: 13/14 Fri/Sat

Dec offset:

Tailpiece: 240

Balance:

Temp O/I: 58/60

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.)
RR85H ✓	Callisto	360			2:20:32	20:41:49.4	-19 12 02	2:12 E	
RR85H ✓	Io/Europa	600			2:27:52	41:38.8	-19 12 30		Europa & Io slit
FR85H ✓	"	600			2:39:59	40.0	83		
" ✓	"	600			2:51:35	38.8	88	1:41 E	
" ✓	"	270			3:08:04	39.2	88		No display
" ✓	"	"			3:13:13	40.0	89	1:14 E	
" ✓	"	"			3:18:18	40.0	41	1:14 E	
" ✓	"	"			2:51:19	39.0	41	1:09	
" ✓	"	"			28:27	39.6	41		
" ✓	"	"			33:38	39.0	42	0h:19 E	
" ✓	"	600			39:18	40.0	42	0h 53 E	
" ✓	"	"			50:44	38.5	42		really getting more
" ✓	"	"			4:02:02	39.5	42	0 30 E	
" ✓	Io debris	360			4:15:26	37.1	52	0h 19 E	
" ✓	Callisto	"			20:39	42	30	0h 12 E	

RR85H
FR85H
2166

Telescope: 61"

Frame prefix #: FR8511

Day of Week: Fri/Sat.

RA offset:

Focus:

Humdty: 87% Sheet #: 10

Observers: Kent/Fib

Date MST/UT: 13/14

Dec offset:

Tailpiece:

Balance:

Temp O/I: 57/60

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.)
✓ 115	Syrte	300			80:15				
✓ 116	Empyr	600			04:38:24	20:41:39.0	-19:12:43	0 ^h 06 ^m 15 ^s	computer crash
✓ 117	Th-Az	120	S		15:30				
✓ 118	Agel	300			05:31:22	19:05:28	-04 55 45	2 ^h 35 ^m W	
✓ 119	"	"			05 39:54	"	43	2 ^h 43 ^m W	
✓ 120	"	300	S		61 11:48	80.2	41	3 ^h 12 ^m W	
✓ 121	S Agel	300			6:25:00				some water residue on dome 07/14
✓ 122	dark	0.05							
✓ 123	"	0.05							
✓ 124	"	"							
✓ 125	"	"							
✓ 126	"	"							
✓ 127	S Agel	300			6:37:00				
✓ 128	dark	0.05							
✓ 129	dark	0.05							

Telescope: 61"

Frame prefix #: FR254

Day of Week: Fri/Sat

RA offset: -

Focus: 4910

Humidity: 80%

Sheet #: 12

Observers: Fink/Kut

Date MST/UT: 13/14

Dec offset: 1'20"

Tailpiece: 307

Balance:

Temp O/I: 54/58

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.)
✓ 136	BS 718	300s	narrowest	700/100	9:37:08	2 27 22.5	08°22'25"	0h 40m E	PA=90° 26" E → W
✓ 137	"	120	"	1270/100	9:45:29	2 27 22.8	24	31 E	star clear at 3 scattered clouds
138	A-2	600	"	—	10:41:12	6 20 6 14.2	19:00 42	3h 17 E	black } shutter
139	"	600	"	—	11:16:11	6 20 6 12.6	18 58 47	2h 39 E	black } cable
140	"	120	"	—	11:34:40	6 20 6 14.9	18 57 40	2h 22 E	black } no good
141	TH-A2	120	"	—	11:14	—	—	—	black } slipped at
142	"	120	wider	—	12:04	—	—	—	black } shutter closed
Sept. 14/15									
✓ 138	TH-A12	3000 3600	Dφ	—	slit funds again keep gain med above 416				
✓ 139	Flatfield	3600	Dφ	—					
✓ 140	Flatfield	3600	Dφ	—					
✓ 141	TH-AP	3000	Dφ	—	narrowest slit				
7 ✓ 142	dark	0.05	Dφ	—					
✓ 143	"	"	"	—					
9 ✓ 144	"	"	"	—					

FEYSH

FRYSH

Telescope: 61"

13

Frame prefix #: PR8514

Day of Week: Sat/Su

RA offset: 0

Focus: 490

Humdty: 72% Sheet #: 13

Observers: Willo Funk

Date MST/UT: 14/15

Dec offset: 1:20"

Tailpiece: 290

Balance: .

Temp O/I: 56/60

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.)
10 ✓ 145	DARK	0.05	DD						
✓ 146	"	"	"						
✓ 147	"	"	"						
✓ 148	"	"	"						
14 ✓ 149	"	"	"						
✓ 150	Spire	300c	transmit	1150 / 500	2: 58:30	20:41:14.2	-19:14 14	1 ^h 49 ^m E	
✓ 151	Europa	360s	"	960 / 500	3: 05:35 2: 58:45	21.8	15 39	1 ^h 28 ^m E	
✓ 152	Europa IO	1200s	"	1600 / 530	3: 15:19			1 ^h 12 E	
✓ 153	Ganymede	1200s	"	1800 / 550	3: 38:57 (47)	07.0	14 38	0 ^h 46 ^m E	~ 20% clear
✓ 154	"	"	"	1600 / 550	4: 01:48 (51)	06.6	48	0 ^h 25 ^m E	abs. ~ the zone
✓ 155	"	"	"	1200 / 500	24:02 (45)	07.7	47	0 04 E	abs. clear
✓ 156	Io	360c	"	700 / 510	46:12 (22)	05.0	56	0 ^h 18 ^m W	Cirrus
✓ 157	Ganymede	1200	"	1000 / 500	53:56 (20) 45:10 (20) 55:20 (20)	07.1	14 46		Cirrus near 24
✓ 158	Th-A2	120	"	—	5: 15:45 (30)	—	—		
10 ✓ 159	Ganymede	1200	"	1200 / 500	11:19 (35)	07.2	45	0 ^h 51 ^m W	Cirrus near the thin

24 available rings on tape

84
24
85

Telescope: 61"

Frame prefix #: FR85H

Day of Week: Sat/Sun

RA offset:

Focus:

Humdty: 83 Sheet #: 14

Observers: Wells, Fish

Date MST/UT: 14/15

Dec offset:

Tailpiece:

Temp O/I: 54/57

Balance:

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.)
✓ 160	D ₀	360	monost		05:21:41 ^S	20 41 09.8	-19 14 52	1 ^h 13 ^m W	apparently clean
26 ✓ 161	Th-Az	120	"		05:49:21 ^{PS}	20 41 07.0	-19 14 44		* exposure is long, had to rebrk. at end a dark for lead out chip.
22 ✓ 162	Garnet	1200	"	120/50	05 58:57 [⊙]	07.2	42	1 ^h 30 ^m W	rem recently clean
23 ✓ 163	"	1200	"	110/50	06 20:31 [⊙]	08.8	39	1 ^h 52 ^m W	"
✓ 164	Emyre	1200	"		06 43:32	16.8	-14 13 58	2 ^h 15 ^m W	"
165	Synth	300	"	190/50	07:06:02 ^{2*}	12.5	14 15	2 ^h 38 ^m W	"
✓ 166	Th-Az	120	"		13:50				"
✓ 167	Garnet	1200	"	1300/70	07 17:34	10.8	24	2 ^h 49 ^m W	gap very close to 24
✓ 168	2 Del	600	"	1200/50	07:50:10	20:38:59.8	+14:50 09	3 ^h 27 ^m W	
✓ 169	"	4		1200/50	08 07:34	59.7	10	3 ^h 42 ^m W	
✓ 170	"	"	"	1600/60	08 32:02	39:00.8	15	4 ^h 03 ^m W	
✓ 171	B5 718	600	E0 0.340	1400/50	09 14:52	2:27:22.8	08:22 17	1 ^h E	pretty good 605T ^{permitt} 200 um!
✓ 172	"	"	0.340	1700/50	09 27:22	23.8	17	0 ^h 46 ^m E	
✓ 173	G-Z	6000	"		09:57:17	6109:29.8	17:40:52	4 04 E	black
✓ 174	B5 2007	120	0.340 wide		10:14:11	5:55:11.6	13 54 12	3 ^h 27 ^m E	slit very wide

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.)
✓ 174	BS 2067	120	wide	740 550	10: 21:14	5: 55: 11.6	13: 54: 10	3 ^h 20 ^m	
✓ 175	G = 7	600	"		10: 37: 03	6: 09 31.2	17: 38 19	3 ^h 18 ^m	cut off line barely visible
✓ 176	"	1800	0.337	620 570	10: 56: 22	35.0	36 51	2 ^h 58 ^m	Some cirrus but G = 7 seems to be in the den
✓ 177	"	"	0.367		11 33: 10	40.5	34 32	2 ^h 22 ^m	halved slit width line got narrower but also dimmer
✓ 178	Flatfield	3600	Eq	crank settings 6055					
✓ 179	Flatfield	3600 3000	Eq	" "	" "				
✓ 180	Flatfield	3000	Dq	crank settings 4660					
✓ 181	Flatfield	3600	Dq						
✓ 182	Dark	0.05	Dq						
✓ 183	"	"	"						
✓ 184	"	"	"						
✓ 185	Dark	"	"						
✓ 186	"	"	"						
✓ 187	"	"	"						
✓ 188	"	"	"						
✓ 189	"	"	"						

Frame prefix #: FR85H

Telescope: 61"
Day of Week: Sun/Mon

RA offset:

IRIS: 303

Focus: 500 ^{1/2} ~~lens~~

Humdty: 55% Sheet #: 16

Observers: Fink/R'Sant

Date MST/UT: 15/16

Dec offset:

Tailpiece: 17

Balance: Temp O/I: 57/62

Take
Fr #

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.)
12	He	1.0	6A130 6m						169 ^{at 167}
13	"	5.0	0.01m						31 ang
14	exp	0.5	"	700/700					Varin ~ 10% 51 ang
15	te	50	4						
16	te	20	"						
17	MCG-2-58	5 min	1.0	8200/700	6:17:53				
18	"	10 min	"	14K	6:32:46			13" E	
19	"	"	"	"	6:45:46			1M E	
20	"	"	"	"	6:59:43	23:03:580	-8:47:32	12" W	
199	Dark	1 sec			~7:35				Ave ~ 567 (11745 Pts)
200	Dark	1 sec			~7:39				
201	Flat Field	3 Sec	1.0						Tailpiece rotated to position 92° (90°)
202	"	3 sec	1.0						ie, slit E-W
25	"	3	1.0						
204	"	12	0.25						
205	"	"	"						
206	"	"	"						

28 →

Telescope:

IRIS 310

Frame prefix #: FE9SH

Day of Week: Mon/Tue

RA offset:

Focus: 3802

Humdty: 64

Sheet #: 18

Observers: D. S. Zanti

Date MST/UT: Sept 16/17

Dec offset:

Tailpiece: 927

Balance:

Temp O/I: 55/59

Schultz

4869

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	✓ 212 SAO 31405	10	0.25	8400	4:10:37	19:07:54.6	50:15:57	1 ^h 33 ^m W	Filed Down 8PM Tailpiece = 17 windy
2	✓ 213 "	"	"	9100	4:15:47			1 ^h 38 ^m	
3	✓ 214 NGC 6764	300	"		4:48:28	19:07:58	50:53:02	2 ^h 01 ^m	
4	✓ 215 "	600	0.5	2600	5:04:09			2 ^h 17 ^m	
5	✓ 216 SAO 31405	5	"	4000	5:23:30			2 ^h 37 ^m	
6	✓ 217 MEG-2 -58-22	300	0.25	3000H	5:51:08			0 ^h 52 ^m E	
7	✓ 218 "	900	"	< 10K (H)	6:02:47				10:12 close 11:15 open
8	✓ 219 "	"	"	13K (H)	6:26:29			17 ^m E	33:35 close 34:25 open
9	✓ 220 "	"	"	7500	6:44:25	23:08:58.3	-08:47:30	1 ^m W	lifted off alt depos
10	✓ 221 "	"	"	513K	7:04:09			21 ^m W	less 1 ^m (guide check)
11	✓ 222 "	"	"	12K	7:22:18			57^m W	" 57 ^s "
12	✓ 223 "	"	"		7:39:31			57 ^m W	" 51 ^s "
13	✓ 224 29PSC	0.4	"	7500	8:19:47	00:01:04.5	-3:08:06	40 ^m W	
14	✓ 225 "	"	"		8:32:02			44 W	
15	✓ 226 "	"	"		8:32:18			50 ^m W	redone (centering)
16	✓ 227 "	"	"		8:38:55			49 W	

Telescope:

Frame prefix #: F655H

Day of Week: Mon/Tue

RA offset:

Focus: 3794

Humdty:

Sheet #: 19

Observers: Di Santo
Schulze

Date MST/UT: Sept 16/17

Dec offset:

Tailpiece: 17

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.)	
17	✓ 228	BS 718	0.15	1.0	8000	9:09:25	2:29:22.5	8:22:13	56 ^m	
18	✓ 229	11	11	11		9:10:59			54 ^m	top of dewar 2:20 A.M.
19	✓ 230	29 PSC	0.5	0.25	5300	9:32:35	0:01:04.5	-3:08:05	1 ^h 53 ^m	
20	✓ 231	11	0.8	11	12000	9:35:02			1 ^h 55 ^m	
21	✓ 232		0.60	11		9:55:29	0:01:05.3	-3:08:04	2 ^h 15 ^m	computer died
22	✓ 233	BS 2067	20	11	5100	10:24:44	5:55:12.4	13:53:59	3 ^h 8 ^m	3976 out of focus
23	✓ 234	11	11	11	4900	10:29:05			3 ^h 6 ^m	
24	✓ 235	11	5	1.0	5200	10:35:13			2 ^h 58 ^m	
25	✓ 236	11	11	11	6000	10:37:07			2 ^h 56 ^m	
26	✓ 237	Halley	600	11	2800	10:59:19	6:14:55.6	19:36:38	2 ^h 53 ^m	
27	✓ 238	11	1200	0.25	1100	11:16:23	6:14:56.2	19:36:38	2 ^h 36 ^m	25:42 closed 26:38 opened
28	✓ 239	11	11	11	2200	11:40:13		19:36:36	2 ^h 12 ^m	99:57 closed 51:18 opened
29	✓ 240	BS 2067	20	11	4400	12:09:01	5:55:12	13:53:55	1 ^h 24 ^m	3975 out of focus
30	✓ 241	11	11	11		12:12:27				
31	✓ 242	11	5	1.0	5200	12:15:21				

Telescope:

Frame prefix #: FRESH

Day of Week:

RA offset:

Focus:

Humdty:

Sheet #:

Observers: Wells/DiSantiDate MST/UT: Sept 21/22
1985

Dec offset:

Tailpiece:

Balance:

Temp O/I:

AM

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.)
✓ 303	LAN 68-216	2.0	R	11000	8:42:08	0,17:32,4	15:44:50	1101W	Focus = 3440 (1.08)
✓ 304	"	1.5	R	8300	8:43:44				Header says 1.08
✓ 305	"	1.5	R	9200	8:46:00				✓ filter 1.08
✓ 306	"	1.5	V	~9000	8:47:59			1107	Computer Died 1.08 after reboot
✓ 307	"	1.5	V	9400	8:51:34				1.09
✓ 308	"	4.0	B	8000	8:54:00			1113W	1.09
✓ 309	"	4.0	B	8500	8:55:17				1.09
✓ 310	"	4.0	I	7200	8:57:42			1117W	1.10
✓ 311	"	4.0	I	6800	9:00:05			0h25m	1.10
✓ 312	BS 718	0.3	9180 ours	5000	9:27:30			0h28E	Seems a bit 1.08 out of focus
✓ 313	"	"	"	"	9:29:00			0h21E	
✓ 314	"	0.2	9280	4800	9:32:02			0h18E	
✓ 315	"	0.2	"	5800	9:36:11			0h14E	
✓ 316	"	0.2	8600	7800	9:42:08			0h08E	focus better 1.08
✓ 317	"	0.2	"	8100	9:43:36			0h06E	

Telescope:

Frame prefix #:

Day of Week:

RA offset:

Focus:

Humdty:

Sheet #:

Observers:

Date MST/UT:

Dec offset:

Balance:

Temp \emptyset /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.)
16 ✓ 318	BS 718	0.04	8520/91		9:48:02	2:27:22	+8:24:17	0:02 ^m E	focus still not as good as w/ BVRI } 3440
✓ 319	BS 718	"	"		9:49:24				BVRI
✓ 320	HALLEY	600	V	8125/1200	10:31:56	6:15:9.8	19°44'05"	3:06	focus = 3465
✓ 321	"	180	"	16000/2100	10:34:39			3:03	
✓ 322	"	180	R	16000/2000	10:39:42			2:58E	
✓ 323	"	60	"	6200/1100	10:44:35			2:53	
✓ 324	"	60	I	3900/1200	10:47:56			2:50	
✓ 325	"	180	"	10200/2300	10:57:19			2:47	
✓ 326	"	120	B	5700/900	10:57:16			2:41E	
25 ✓ 327	"	300	B	12500/1300	11:01:17			2:36E	
LOST (lost) } 328	6-7	15	V	6300/900	11:31:56			2:20	
329	"	45	V	16000/1000	11:35:18			2:15	
26 ✓ 330	"	45	B	6100/800	11:38:25	6:27:45.6	+9:34:24	2:12	
27 ✓ 331	"	120	B	16000/1000	11:41:56			2:09	
28 ✓ 332	"	15	R		11:46:18			2:04	

Telescope:

Frame prefix #: FRESH Day of Week: Fri/SAT

RA offset:

Focus:

Humdty:

Sheet #:

Observers: Wells/DiSanti Date MST/UT: Sept 20/21

Dec offset:

Tailpiece:

Balance:

Temp O/I:

Tape Pos	Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start	RA	Dec	Hour-angle	Comments (P.A., seeing, Moon, clouds, etc.)
						MST/UT	set	set	exp-start	
29	✓ 333	G-2	45 sec	R	11000/900	11:48:02	6:27:47	+9:34:11	2:02E	
	✓ 334	"	"	I	8800	11:50:46			1:59	
	✓ 335	"	15	I	300	11:53:04			1:57	
	✓ 336	"	90	I	16000	11:55:20			1:55	
	✓ 337	"	75	R	16700/120	11:58:20			1:52	
	✓ 338	Dark	0.05	—						
35	✓ 339	"	"	—						
New tape 1	✓ 340	Flat Field	0.15	I	7400					
	✓ 341	"	"	II	"					
	✓ 342	"	"	II	"					
	✓ 343	"	0.25	R						
	✓ 344	"	"	R						
	✓ 345	"	"	R						
	✓ 346	"	0.3	V						
	✓ 347	"		V	7000					

Frame prefix #:

Telescope:

Day of Week:

RA offset:

Focus:
Tailpiece:

Humdty:

Sheet #:

Observers:

Date MST/UT:

Dec offset:

Balance:

Temp O/I:

Tape Pos

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.)
9 ✓	348 FLAT FIELD	0.3s	✓						
10 ✓	349 "	2.0	B						
11 ✓	350 "	"	"						
12 ✓	351 "	"	"						
13 ✓	352 DARK	.05	-						
14 ✓	353 DARK	.05	-						

#15
IS
FR85H
403

Telescope: 61"

Frame prefix #: FR85A

Day of Week: Sat/Sun

RA offset:

Focus: 360

Humdty: 66% Sheet #:

Observers: Fnk/Disk

Date MST/UT: 21/22

Dec offset:

Tailpiece: 17

Balance: with rebelle

Temp 0/I: 42/44

Toppe #1

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.)
✓ 356	N7603	30s	V	9800	6:56:36	23:18:13.5	0009 16	0 ^h 19 ^m W	{ Hender says
✓ 357	"	60	V	16K	6:59:02			0:21	} N/A " for filter,
✓ 358	"	60	R	15K	7:01:46				
✓ 359	"	30	R	9600	7:05:40				
✓ 360	"	30	I	5700	7:07:45				
✓ 361	"	90	I	16K	7:10:09			0:32	
✓ 362	"	45	I	8000	7:13:04			0:36:53	
✓ 363	"	60	B	4200	7:15:56				
✓ 364	"	240	B	16K	7:18:30				
✓ 365	BS718	03 sec	9180	4400	7:22:56	2:27:22.0	+8:20:19	2:04 E	trans with mV.
✓ 366	"	"	"	4600	7:25:15			2:01	
✓ 367	"	"	9280	5700	7:27:28			1:59	
✓ 368	"	"	"	6000	7:28:35			1:58	
✓ 369	"	"	8600	9700	7:30:18				
15 ✓ 370	"	"	"	10800	51:26			1:55	

Telescope:

Frame prefix #: *FR85H*

Day of Week: *SAT/SUN*

RA offset:

Focus:

Humdty:

Sheet #:

Observers: *FINK/DISANT* Date MST/UT: *2/22 Sept*

Dec offset:

Tailpiece:

Balance:

Temp \emptyset /I:

Page 85

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.)
<i>16</i> ✓	<i>B5718</i>	0.05 <i>0.05</i>	<i>8520</i>	<i>11700</i>	<i>7:53:56</i>	<i>2:27:22.6</i>	<i>+8:20:19</i>	<i>1:53E</i>	<i>computer failed after readout</i>
<i>17</i> ✓	<i>u</i>	0.03 <i>0.03</i>	<i>u</i>	<i>8570</i>	<i>59:34</i>			<i>1:47</i>	
✓	<i>u</i>	<i>0.5</i>	<i>6300</i>	<i>9960</i>	<i>8:21:28</i>			<i>1:25</i>	
✓	<i>u</i>	0.03 <i>0.03</i>	<i>u</i>	<i>5100/690</i>	<i>24:55</i>			<i>1:24</i>	
✓	<i>u</i>	<i>u</i>	<i>6300</i>	<i>7570</i>	<i>26:50</i>			<i>1:20</i>	
✓	<i>u</i>	<i>u</i>	<i>u</i>	<i>8000</i>	<i>28:10</i>			<i>1:18</i>	
✓	<i>u</i>	<i>0.05</i>	<i>5980</i>	<i>5300</i>	<i>40:02</i>			<i>1:06E</i>	<i>need to detrus telescope FOCUS = 3541</i>
✓	<i>u</i>	<i>0.08</i>	<i>u</i>	<i>9600</i>	<i>41:44</i>			<i>1:05</i>	
✓	<i>u</i>	0.04 <i>0.04</i>	<i>5995</i>	<i>9700</i>	<i>45:06</i>			<i>1:02</i>	
<i>25</i> ✓	<i>u</i>	<i>u</i>	<i>u</i>	<i>11500</i>	<i>46:19</i>				
✓	<i>u</i>	<i>0.10</i>	<i>6250</i>	<i>9300</i>	<i>53:12</i>			<i>0:53</i>	
✓	<i>u</i>	<i>u</i>	<i>u</i>	<i>7100</i>	<i>54:20</i>			<i>0:52</i>	
✓	<i>u</i>	<i>0.05</i> <i>0.05</i>	<i>6185</i> <i>6185</i>	<i>9100</i>	<i>9:07:12</i> <i>9:07:12</i>			<i>0:47</i>	
✓	<i>u</i>	<i>0.04</i> <i>0.04</i>	<i>u</i>	<i>5800</i>	<i>02:40</i>			<i>0:44</i>	
<i>30</i> ✓	<i>u</i>	<i>0.04</i>	<i>5139</i>	<i>9800</i>	<i>09:07</i>			<i>0:37</i>	

Telescope:

Frame prefix #: *FR85H* Day of Week: *SAT/SUN* RA offset: Focus: Humdty: Sheet #:
 Observers: *FINK/DISANT* Date MST/UT: *21/22 Sept* Dec offset: Tailpiece: Balance: Temp \emptyset /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.)
31 ✓ 386	<i>B5 718</i>	<i>0.04</i>	<i>5139</i>	<i>14000</i>	<i>9:11:57</i>	<i>2:27:21.6</i>	<i>+8:20:21</i>	<i>0:36^mE</i>	
✓ 387	<i> </i>	<i>0.10</i>	<i>485</i>	<i>8400</i>	<i>13:34</i>			<i>0:33</i>	
✓ 388	<i> </i>	<i> </i>	<i> </i>	<i>11000</i>	<i>14:50</i>			<i>0:32</i>	
✓ 389	<i>G-Z</i>	<i>120</i>	<i>5139</i>	<i>3000/700</i>	<i>35:46</i>	<i>6:30:08</i>	<i>+8:20:24</i>	<i>4:13E</i>	
✓ 390	<i> </i>	<i>240</i>	<i> </i>	<i>5600/</i>	<i>44:45</i>			<i>4:04</i>	
✓ 391	<i> </i>	<i>300</i>	<i>485</i>	<i>2675</i>	<i>55:05</i>	<i>6:30:11</i>	<i>8:22:17</i>	<i>3:54</i>	
✓ 392	<i> </i>	<i>300</i>	<i>6250^{cont}</i>	<i>2880</i>	<i>10:03:12</i>			<i>3:46</i>	
✓ 393	<i> </i>	<i>300</i>	<i>6185^{HP}</i>	<i>6500</i>	<i>12:47</i>			<i>3:36</i>	
✓ 394	<i> </i>	<i>600</i>	<i> </i>	<i>11500/82</i>	<i>23:10</i>	<i>6:30:15.8</i>	<i>8:20:41</i>	<i>3:26</i>	
40 ✓ 395	<i> </i>	<i>120</i>	<i>695K^{HP}</i>	<i>4300</i>	<i>43:35</i>			<i>3:05</i>	
✓ 396	<i> </i>	<i>180</i>	<i>5980</i>	<i>4200</i>	<i>47:40</i>			<i>3:01</i>	
✓ 397	<i> </i>	<i>600</i>	<i>6300^{K^{HP}}</i>	<i>2100</i>	<i>53:02</i>	<i>6:30:19.</i>	<i>8:18:59</i>	<i>2:56</i>	
✓ 398	<i> </i>	<i>600</i>	<i>6300</i>	<i>2580</i>	<i>11:05:34</i>			<i>2:44</i>	
✓ 399	<i> </i>	<i>60</i>	<i>8520^{K^{HP}}</i>	<i>4900</i>	<i>23:41</i>	<i>6:30:24</i>	<i>8:17:18</i>	<i>2:25</i>	<i>focus lowered from 3537 → 3500</i>
✓ 400	<i> </i>	<i>240</i>	<i>8600</i>	<i>3800</i>	<i>39:40</i>			<i>2:10</i>	<i>Computer crashed!</i> <i>died again!</i>

Telescope:

Frame prefix #: **FR95H**

Day of Week: **Sat/Sun**

RA offset: 0

Focus:

Humdty: **67%**

Sheet #: 1

Observers: **Distanti**
Fink

Date MST/UT: **Sept 21/22**

Dec offset:

Tailpiece:

Balance: 202

Temp O/I: **40/45**

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.)
401	G-2	120	9280	2200	11:48:07	6:30:27	+8:16:03	2:03E	7/1/99 near G-2 RA
402	"	11	9180	1660	11:50:02			1:59E	
403	"	300	11	3100	53:58			1:55	
404	"	600	6300 TILTED	2000	12:04:51	6:30:29	8:15:02	1:44E	Focus back → 35
405	"	600	KP6300 TILTED	2um/1um	12:06	6:30:31	8:14:11	1:28	dam image appears to be a bit off focus about 2000 at N2
1985 Sept. 22/23 Sun/Mon									
406	RF	80s	6300	7700	23:29	18° 22"	-10°	0° 11"E	done at 5:30 in afternoon
407	"	60s	"	7700	232	"	"	"	covered up west on W side
408	"	"	6300 KP6300	9400	236	"	"	"	Smoky with blanket and black cloth
409	"	"	"	9400	239	"	"	"	
410	"	10s	5980	10360	242	"	"	"	
411	"	9s	"	9200	244	"	"	"	
412	"	4s	5985 KP6300	7800	247	"	"	"	
413	"	"	"	7800	241	"	"	"	
414	"	15	6200	8470	00:01	"	"	"	

46 ✓
Control temp #353
15 ✓
16 ✓
17 ✓

Telescope: 61"

Frame prefix #: FR8011

Day of Week: Su/M

RA offset: —

Focus:

Humdty: 65% Sheet #:

Observers: FRK

Date MST/UT: 22/23

Dec offset: —

Tailpiece:

Balance:

Temp 0/I: 48 | 52

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.)
✓ 415	FF	15.0	6210	8440	00:202	"	"	"	
✓ 416	"	2.0	6185	8980	205	"	"	"	
✓ 417	"	"	"	8810	206	"	"	"	
✓ 418	"	8.0	5139	7760	209	"	"	"	"
✓ 419	"	8.0	"	7690	209	"	"	"	
✓ 420	"	50.0	4565	7140	218	"	"	"	
✓ 421	"	"	"	7090	20:19	"	"	"	
✓ 422	"	9.0	9180	9160	227	"	"	"	
✓ 423	"	"	"	8960	228	"	"	"	
✓ 424	"	2.0	9280 KP	8660	232	"	"	"	
10 ✓ 425	"	"	1110	8514	232	"	"	"	
✓ 426	"	4.0	860	10980	235	"	"	"	
✓ 427	"	3.5	"	9670	237	"	"	"	
✓ 428	"	0.7	8520 KP	9806		"	"	"	
✓ 429	"	"	"	9890	241	"	"	"	

FR 854

CCD Spectrometer Observing Log

Tel: _____
Balance: _____Local Date: _____
UT Date: _____Temp. In: 49 Hum: 67% Winds: _____ Tape ID: _____
Out: 46 Clouds: _____

Frame	Object	RA (11st) (Obs)	DEC (11st) (Obs)	H.A. (Obs)	UT Start Time of Exp.	Exp. time	Width Height Filter	Slit Orient. Cant	Est. see'g	Remarks
✓ 470	HILTNER 102	1:08:13.6	+62:43.00	^{u m} 0:12 W	8:35:41	5.05	5139	1000/700		FILTER 5139
✓ 471	"			0:14 W	8:38:00	5.05	5139	8500/700		
✓ 472	"				8:	2.0	6185	4200/700		
✓ 473	"				8:22:45	4.05	6185	9100/650		
✓ 474	"				8:44:32	8.005	6250	6300/640		
✓ 475					8:46:22	10.005	6250	7200/650		
✓ 476					8:48:36	30.00	6300	5200/640		
✓ 477					8:50:49	40.00	6300	4700/630		
✓ 478					8:56:31	20.00	4565	9100/650		
✓ 479					8:58:24	20.05	4565	9600/650		
✓ 480					8:01:06	30.00	4060	2500/650		
✓ 481				0:48 W	8:05:52 8:9:35	60.00	4060	4900/650 640		
✓ 482				0:54 W	9:17:21	4.05	5980 5980	5640/600		
✓ 483				0:56 W	9:19:36	6.005	5980	10000/600		FOCUS 3182

CCD Spectrometer Observing Log

Tel: _____ Local Date: _____ Temp. In: _____ Hum: _____ Winds: _____ Tape ID: _____
 Balance: _____ UT Date: _____ Temp. Out: _____ Clouds: _____

Frame	Object	RA (11st) (Obs)	DEC (11st) (Obs)	H.A. (Obs)	UT Start Time of Exp.	Exp. time	Width/ Height FILTER	Slit Orient. Counts	Est. see'g	Remarks
✓ 484				1:00 W	9: 28:00 ^{27:07}	20.0	9180	7100 / 700		FOCUS 3745
✓ 485				1:05 W	9: 28:06	20.0	9180	6700 / 700		
✓ 486				1:09 W	9: 30:45 ^{32:52}	10.0	8600	10600 / 630		
✓ 487				1:12 W	9: 35:36	8.0	8600	9400 / 630		
✓ 488				1:15 W	9: 39:04	1.0	8520	6700 / 630		
✓ 489				1:18 W	9: 39:50	1.0	8520	7900 / 630		
✓ 490				1:27 W	9: 46:08 ^{51:01}	40.0	6300 Tilted	6100 / 630		FOCUS 3782
✓ 491				1:30 W	9: 53:31	40.0	6300 TILTED	5060 / 630		
✓ 492	G/2	6:32:53	7° 06' 33"	3:31 E	10: 16:01 ^{20:13}	2400 / 600	5139	5700 /		
						2400				
✓ 493				3:20 E	10: 21:32	3000	6185	6000 /		
✓ 494				3:11 E	10: 35:40	3000	6250	3000 /		
✓ 495				3:04 E	10: 43:21	6000	6300 TILTED	2000 /		
✓ 496				2:46 E	11: 01:15	6000	6300	2300 /		

CCD Spectrometer Observing Log

Tel: _____
Balance: _____

Local Date: _____
UT Date: _____

Temp. In: _____ Hum: _____
Out: _____ Clouds: _____

Winds: _____ Tape ID: _____

Frame	Object	RA (11st) (Obs)	DEC (11st) (Obs)	H.A. (Obs)	UT Start Time of Exp.	Exp. time	Width/ Height	FILTER	Orient. CA	Est. see'g	Remarks
								Slit			
✓ 497	Halley	6:15:038	19°45'18"	2:07E	11:21:24	240.0	5139		3300/		
✓ 498	"			2:00E	11:29:11	300.0	6185		3200/		
✓ 499	"			1:52E	11:36:44	600.0	6300		1100/100		
✓ 500	"			1:35E	11:54:15	600.0	6300	TILTED	1100/700		
		Mercury	Sep 23/24	1:127E	12:02:21						
✓ 501	FF	16°20'	-13°43'	0°E	23 32:49	60s	6300		7170		
✓ 502	"	"	"	"	"	"	"		7016		
✓ 503	"	"	"	"	"	15s	6270		8870		
✓ 504	"					"	"		9108		
✓ 505	"				43:20	7.5	6185		9030		
✓ 506	"					"	"		8870		
✓ 507	"	"	"	"	48:36	8.0s	5139		7830		
✓ 508	"					"	"		7910		
✓ 509	"				23:57	10.0	4565		7500		
✓ 510	"					"	"		7300		

Munday

CCD Spectrometer Observing Log

Tel: _____ Local Date: Mr/Apr Temp. In: _____ Hum: _____ Winds: _____ Tape ID: _____
 Balance: _____ UT Date: Sept 23/24 PT Out: _____ Clouds: _____

Frame	Object	RA (11st) (Obs)	DEC (11st) (Obs)	H.A. (Obs)	UT Start Time of Exp.	Exp. time	Width/Height	Slit Orient. Cont	Est. see'g	Remarks
✓ 511	FR	16:10	-1543	090 ^m	00:09:26	1.00	4060	1760		1215, 310
✓ 512	"	"	"	"	00:12:39	2.00	"	2970		
✓ 513	"	"	"	"	00:16:21	4.00	9180	4700		
✓ 514	"	"	"	"	00:20:25	4.00	"	8600		
✓ 515	"	"	"	"	00:25:25	3.50	8600	9300		
✓ 516	"	"	"	"		1	8600	9200		
✓ 517	"	"	"	"	00:30:30	0.7	8520	9020		
✓ 518	"	"	"	"	00:31:31	11	"	9990		
✓ 519	"	"	"	"	00:34:34	9	5980	8910		
✓ 520	"	"	"	"	00:35:35		"	1900		denon stopped work on the chn
✓ 521	BS718	2:27:25	8:24:30	1:03	8:36:00	0.15		5700		Balance = 6300 FOCUS = 3800
✓ 522	"				8:40:58	0.155	6700	6700		
✓ 523	"				8:45:00	0.20		7400		
✓ 524	"				8:46:32	0.20		7200		shift
✓ 525	BS2067	5:55:12	13:57:17	4:05	9:04:35	10.00		2000		FOCUS 4000

CCD Spectrometer Observing Log

5

Tel: _____
Balance: _____

Local Date: 24
UT Date: 24

Temp. In: _____ Hum: _____
Out: _____ Clouds: _____

Winds: _____ Tape ID: _____

Frame	Object	RA (11st) (Obs)	DEC (11st) (Obs)	H.A. (Obs)	UT Start Time of Exp.	Exp. time	Width/Height	Slit Orient. Count	Est. see'g	Remarks
✓ 526	BS2067	5:55:12	13:57:17	3:58	9:07:28	30.00		5000		FOCUS 4000 skipe
✓ 527	"			3:51	9:14:46	30.00		6000		
✓ 528	"			3:49	9:16:27	30.00		5800		skipe
✓ 529	6-7	6:35:26	5:53:58	4:14 E	9:31:48	1320.00		5500		FOCUS 3800
				3	in 37:43 out 38:08	in 45:22 out 45:35	→ guiding			
✓ 530	6-7			3:47	9:58:52	1320.00		4500		skipe
					in 10:45:59 out 10:46:24	in 10:12:58 out 10:13:26				
✓ 531	BS2067	5:55:13	13:56:55	2:35	10:30:18	30.00		5500		FOCUS 4000
✓ 532	"			2:33	10:32:20	30.00		5700		"
✓ 533	"			2:24	10:41:14	30.00		5000		skipe
✓ 534	"			2:22	10:43:04	30.00		5700		"
✓ 535	HALLEY	6:14:59	19:48:36	2:29	10:56:10	1320.00		2500		FOCUS = 3800
				in 11:13:13 out 11:13:35	in 11:14:10 out 11:14:34					
✓ 536	HALLEY	"	"	2:02	11:22:38	2400.00				
				in 11:31:02 out 11:31:12	in 11:42:25 out 11:42:43	in 11:53:39 out 11:54:05		3800		10 + 14 + 26 = 50

