

Telescope: 61"
 Frame prefix #: SP89H

Day of Week: Wed

RA offset:

Focus: 3517 Humdty: 85 Sheet #: 7/

Observers: Rick / Amy

Date MST/UT: Dec 20/21

Dec offset:

Tailpiece: 54.3
 Balance: 4w Temp O/I: 26/31

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	SW1	600s	0.50 _m	4w/11w		23:11:58	0:30:47	2:51	1.70 Max plot 4w 7w 11w
002	SW2	1200	0.10	7w/11w	4:02	11 38.9	11	3:02	1.57 AM 1.70 at cell
003	Chim	1200	11	12w/11w	9:21	7:10:20	15:23 48	+10:57	1.08 9:00 plot
004	RS2208	7.0	11	82w/11w					↑ 1st run with debris - Moon Caly in (at plastic) line
005	"	1.0	11	78w					
006	"	11	11	82w		6:12 49	10:36 44	+2:30	1.32
007	"	"	11	81w		"	"		
008	"	"	11	77w				2:34	1.34
009	Chim								
010	Chim	1200	11	~12w/11w		7:10 56	15:23 58	1:55	1.17 stars in field
011	"	"	11	✓		11 54	11 59	2:16	1.23 / 1.20 stars in field
012	Tot 4A		11		13:02	13 17 47	-6 09 54	-1:55	1.41 12w Plot
									A banded H = 99%
									colors fuzzy last object.
									T = 23/28

had 3 trials

comp

W

* bad periodic noise along columns (~ 5x std noise level) even after run!
 no extra noise along rows!

Telescope: 61"

Frame prefix #: SP89H

Day of Week: Friday

RA offset:

Focus:

Humidity: 56 Sheet #: 4

Observers: Fil/gray

Date MST/UT: Dec 22/23

Dec offset:

Tailpiece:

Balance:

Temp O/I: 22/24

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.)
036	SW1	12w	0-50	^{4w} 1820/14w	3:36	22:55:04.7	53:31:50	21:49	1.45 ^{best photo} ~2w ~50w 60c ap
037	"	"	"	"	3:37			8:05	1.78 ^{GP 366, 428} fine grainer 1.74
038	BS448	1w	"	930		1:33:13	-7:04:27		1.43
039	"	"	"	1100		"	"		
040	"	0.8	"	780	4:30	"	"	+1:40	1.45
041	Chiron	6w	"	^{4w} 1520/11w	7:20	02:59:24.7	15:25:28	-0:55	1.07 ^{max} 6FD ^{Plot} 1000 60c
042	"	12w	"	^{8w} 2000/12w	7:31	"	"	-0:44	1.06
043	"	"	"	^{4w} 1920/12w	7:33	23.8	22	-0:22	1.05 ^{H=46} T58/40!
044	"	"	"	^{6w} 1850/12w		23.0	20	-00	1.05
045	"	"	"	^{8w} 1840/12w	8:37	22.6	19	+0:20	1.05
046	BS3026	1.5	"	830	9:01	9:08:19.1	26:40:21		1.06
047	"	1w	"	720	9:04	"	"		
048	"	"	"	920		"	"		
049	"	"	"	1000	9:05	"	26:40	-1:18	1.05
050	BS3314	0.2	1w	810					Star

Telescope: 61"

Frame prefix #: SP89H

Day of Week: Sat

RA offset:

Focus: 3535 Humdty: 42% Sheet #: 6

Observers: Fish, Lynch

Date MST/UT: Dec 23/24

Dec offset:

Tailpiece:

Balance: Temp O/I: 40/43

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.)
056	BC 8931 ^{HP}	2.0	0.5	5000		22 30 16	-4 08 37		HP 1-42
057	"	"	"	4080		"	"	+11 53	1-42
058	"	2.0	"	10 000	2:41	"	"	1:16	1-43
059	"	2.0	"	10 500				2:10	1-44
060	SW1	12.0	"	⁴⁰ 1820/1940	2:51	25 37 24.4	5 35 17	2:02	1-29 ^{HP} 200 ^{HP} 5000 ↑ track with seeing by A
061	"	"	"	⁴⁰ 1770/1820	3:13	29.8	18	2:24	1-27 ^{200 clouds} ^{HP} 200 ^{HP} 5000 ^{AD object}
062	"	"	"	⁴⁰ 1820/1940	3:34	25.3	22	2:45	1-46
062	"	"	"	⁴⁰ 1850/1920	3:57	26.0	25	2:06	1-19 / 1-25 end
064	BC 170	1.0	"	5000		1:15:22	+1 48 11	+1:12	1-22 ^{comp}
065	"	2.0	"	9700					200 clouds?
066	"	1.0	"	8300				1:18	1-23
067	"	"	"	8310	4:30 [✓]			1:22	1-24
068	BC 718	0.4	1.0m	9000		2:27:37	+ 8:25 02	+1:10	1-13 ^{HP} ^{200 clouds} ^{HP} 200 ^{HP} 5000
069	"	0.4	"	10500					with ^{HP} 200 ^{HP} 5000 ^{AD object}
070	"	"	"	10700					to ~ 5%
071	"	"	"	9600	4:48			1:07	1-14

Telescope: 61^u

Frame prefix #: SP8914

Day of Week: Sat

RA offset:

Focus:

Humdty:

Sheet #: 7

Observers: Fil, Long

Date MST/UT: Mar 25/14

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.)	
071	BS7B	0.4	1-u	9600/100	~9:28			+1:07	1.14 SD	
072	Chim	120	0.5	1030 ⁹⁰ /1200	5:57	6 59 139	15:25:57	-2:22	1.29	
073	"	"	"	1500 ⁵⁰ /1200	8:20	9.6	40	-1:57	1.16	min. P.A. 700 P.A. 650 dark by den
				had to break & pumpy onto Chim (but 072a has min. flared den)						
074	Chim	600	0.5	1460/1120	~8:00	7.3	21	-0:22	1.05	
075	"	1200			8:12	6.7	18	0:00	1.05	sample GP shipped to STU!
076	BS2251	1.0	0.5	8000		6:16:41	5:06:10	1:38	1.23	relatively minor but in 300'
077	"	1	h	10200	9:09	"	5:06:10		1.	
078	"	"	"	11570	9:10	"	"	1:42	1.29	
079	"	"	"	10000	9:15	"	"	1:45	1.25	
079	Chim	600	"	1570 ^{~90} /1140	9:28	6:19 047	15:25 126	1:10	1.09	
080	"	1200	"	1870 ⁶⁰ /1200	9:34	04.2	12.5	1:23	1.11	good den
081	"	"	"	1800/1500	9:17	3.9	12.1	1:44	1.15	min. P.A. ~800 ~750 OK
082	"	"	"		10:17	3.6	11.3	2:06	1.20 / 1.26 end	
				star very on top of Chim						

IMAGES

Telescope: 61"

Frame prefix #: FR89H Day of Week: Wed/Thurs

RA offset:

Focus: 3920 Humdty: 80% Sheet #: 1

Observers: Frk, Gundy Date MST/UT: 20/21

Dec offset:

Tailpiece: 34.4

Balance: 400 Temp O/I: 25/29

ins: 300

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.)
	FK4 star		(saturated)						Gives guidepoints: (365.5, 429)
512 ²	1 Triton?	60	Open		3:13				Guide: FK4
"	2 SW-1	60	Open		3:40				Guide SW11.6H
"	3 "	60	Blue Dichr	7000 ph	4:				
256 ²	4 "	"	"		4:22				1.7
512 ²	5 CHIRON	60	OPEN		4:35				
"	6 CHIRON	60	OPEN		8:39				GH: CHI89H
"	7 "	"	"		9:04				
256 ²	8 "	"	Blue Dichr	9000 ph	9:30				
"	9 "	"	"		9:43				
"	10 "	"	"	10000 ph	10:18				
"	11 "	"	"		10:29				
"	12 "	"	"		10:39				
"	13 "	"	"		10:49				
"	14 "	"	"		11:00				

Telescope: 61"

Frame prefix #: FR89H Day of Week: TH/F
 Observers: FINK/GRUNDY Date MST/UT: 2/22

RA offset: Focus: 3523 Humdty: Sheet #: 5
 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.)
42				new Guidepoints: (388, 448)		= center of			
43		wrong in name header		GH file = FIE89H		512 ² field			
43	F1N	600	VR	sky 9000	10:37	9:15:33	14:15:42	+0:02	1.05 (MOON rose 1 hour ago)
44	F1N(M)	600	VR	sky 9400	10:52				
45	F1N(M)	600	IJ	sky 12600	11:06	9:15:42.7	14:17:44	+30	1.06
46	F1N	600	IJ	sky	11:22				1.08
47	F1N	120	open	3520	11:40				
48	LAN 76-280	2	open	17000p	11:57			2:18	1.24
49	"	"	"		11:59				
50	"	"	VR	11000p	12:2				
51	"	"	"	10000p	12:04				
52	"	"	IJ	2500p	12:				
53	"	"	"	2600p	12:08				
54	"	"	B	2200p	12:10				
55	"	"	"	2300p	12:11				

512²

"

"

"

"

256²

"

Telescope: 61"

Frame prefix #: FR89H

Day of Week: TH/F

RA offset:

Focus: 3525 Humdty: 60% Sheet #: 6

Observers: Gandy/Fink

Date MST/UT: 12-21/22

Dec offset:

Tailpiece:

Balance:

Temp O/I: 27/29

Ris 303

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.)
56	Lon ⁷⁶⁻ ₂₈₀	2	R	6000	10:12				
57	"	2	R		12:14				
58	"	"	B Dichr	1900	12:15				
59	"	"	"	2100	12:16				
60	FLAT	.5	"						Variac = 85
61	"	.5	"	7500	12:25				dec offset =
62	"	.5	"						- 65
63	"	.01	Open						
64	"	.01	"	14000	12:32				
65	"	.01	"						All exposures (#1
66	"	.02	IJ	11000					to #71 (inclusive))
67	"	.02	"						Beam from telescope
68	"	.02	"		12:41				partly blocked by
69	"	.02	VR	6000					foam ring.
70	"	.02	"						
71	"	.02	"	6600	12:45				

256²512²

"

"

"

"

-

} filter may be
wrong in
header

Telescope: 61"

Frame prefix #: FR89H

Day of Week: F/Sa

RA offset:

Focus:

Humdty: 51% Sheet #: 7

Observers: FINK, GRUNDY Date MST/UT: 22/23

Dec offset:

Tailpiece:

Balance:

Temp O/I: warm front
coming in

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.)
512 ²	72 SW-1	600	CO ⁺		2:44	23:35:07	5:34:04	1:51	1.26 bright star in field
"	73 SW-1	1200	CO ⁺		2:56			2:06	1.30 no ion tail visible
256 ²	74 SW-1	60	Blue Dichr	5400 phot	3:36		Guiding for spectra		Guidepoint: (368, 428)
"	75 "	"	"		3:55				
"	76 "	"	"		4:11				
512 ²	77 ORT97EL	180	Open	sky 12000	4:47	5:27:24.2	0:02:18	-2:27	1.48 24s east from central star (in hops)
	78 E2	"	"		4:53	(JUMPED ~ 4:59)		-2:20	1.45
	79 E3	"	"		5:03	(JUMPED ~ 5:09)		-1:43	1.43 lousy tracking (redone)
	80 E4	"	"		5:13	5:38:36		-1:40	1.40 tracking better
	81 E5	"	"	10800	5:19	5:50:19.00		-1:57	1.36
	82 E6	"	"		5:24	5:59:24		-1:52	1.34 bright*
	83 E7	"	"		5:28	5:59:48		-1:48	1.33
	84 E8	"	"		5:33	6:00:12		-1:44	1.32
	85 E9	"	"		5:38	6:00:36		-1:40	1:31
	86 E10	"	"		5:42	6:01:00		-1:36	1:30

Telescope: 61"

Frame prefix #: FR89H Day of Week: F/SA

RA offset:

Focus: 3420

Humdty:

Sheet #: 10

Observers: FINK GRUNDY Date MST/UT: 22/23

Dec offset:

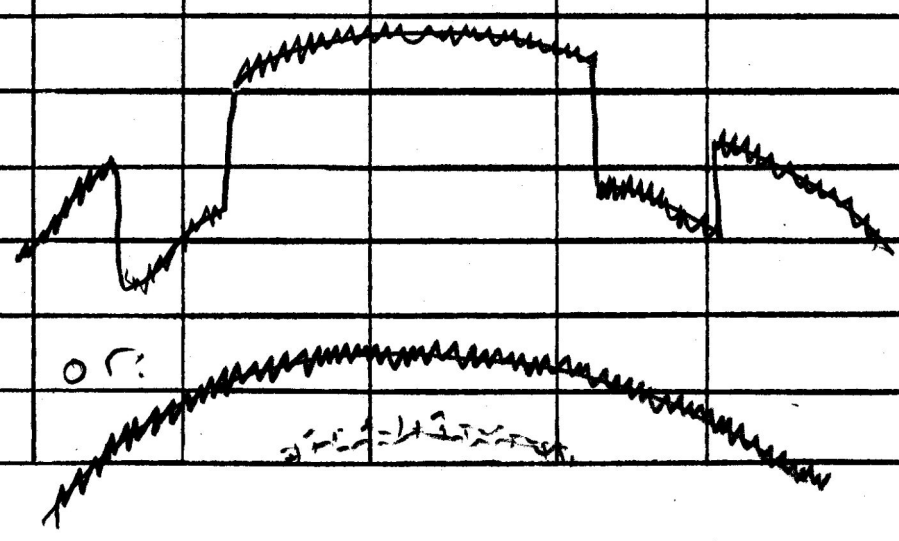
Tailpiece:

Balance:

Temp O/I: 39/40°F

512²
"
256²

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.)
110	Russell 4	60	OPEN		11:12	can't	see it		stellar bias rate
111	TUT	60	OPEN	6800 sta	11:43	very	faint comet		moon up
112	"	60	Blue DICHR	2400 ph	12:01	tracking is			(12:18 +)
113	"	"	"		12:27	awful in	East		
114	"	"	"		12:46		~ -2:00		
115	FLAT	.	OPEN			A to D converter			Variac = 65
116	"	.	"			seems to be	loosing it.		
117	"	.	"			Drop outs	all over:		



Telescope: 61"

Frame prefix #: FR89H

Day of Week: SA/SU

RA offset:

Focus: 3540 Humdty: 42 Sheet #: 11

Observers: FINK, GRUNDY





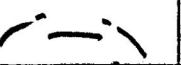
Date MST/UT: 23/24

Dec offset:

Tailpiece:

Balance: Temp O/I: 43/45

warmer telescope

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	FLAT	.02	open			BAD	A to D(?)		Variac = 63
116	"	"	"		1:32				causes dropouts,
117	"	.01	"						steps: 
118	"	"	"						
119	FLAT	.02	V+R	ALL BAD					Variac = 85
120	"	.04	"						
121	FLAT	.02	IJ						
122	"	"	"						 " Also clouds building up
123	SWH	60	BLUE DICHR	Photometry no good	3:02				Guidepoint (366, 428) Bais: (0; -.002)
124	"	"	"	OK!	3:11				clouds approach
125	"	"	"		3:22				
126	"	"	"	5500 ph	3:31				clouds move off
127	"	"	"		3:45				Dropouts ruin
128	"	"	"		3:52				well behaved (no dropouts) photometry, guiding
129	"	"	"		4:04				bad focus 3552 (diffed there)

8122
focus = 3420 (blurred)

12562

Telescope: 6 1/2"

Frame prefix #: FR89H Day of Week: SA/SU

RA offset:

Focus:

Humdty:

Sheet #: 12

Observers: FINK, GRUNDY Date MST/UT: 23/24

Dec offset:

Tailpiece:

Balance:

Temp O/I:

256²

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.)
129	SW-1	60	Blue Dichr	~4700 phot	4:06				
130	"	"	"	4300	4:13				1.6 = sec Z
131	CHIRON	"	open		5:01	()			← difficult to search deep
132	"	"	blue dichro	6000 ph	5:33				Topped dewar
133	"	"	"	6000	5:51				
134	"	"	"	7200	6:10				
135	"	"	"	7600	6:37				
136	" + Star	"	"	~20000	7:36	+ Star			Body passes behind a star
137	CHIRON	"	"	10000	7:59				
138	"	"	"	9200	8:12				
139	"	"	"	9200	8:28				← Dichroic shifted? (crossed meridian)
140	"	"	"	9400	8:34				← check guidepoint: (366, 428 ok)
141	"	"	"		9:20				← re focus: focus = 3517
142	"	"	"	~8000	9:34				
143	"	"	"	7700	9:55				

