

Telescope: 61"

Iris:

Frame prefix #: SP94A

Day of Week: THUR

Focus: 5480

Humidity: 45% Sheet #: 1

Tailpiece:

Observers: HICKS, GRUNDY Date MST/UT: 6/7 JANUARY

Balance: 1800 Temp 0/1: 20/26 start

Guidepoint: 388.8 413.0

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start UT	RA set	Dec set	Hour-angle exp-start	SecZ	Comments: VME crashes, seeing, Moon, clouds, etc.
001	P/Ende	360	0.5	100 c at 300	1:46	22:28:46	02:42:29	3:00	1.61	clear and cold very low continuum
002	"	600	0.5	200 c at 300	1:54	22:28:46	02:43:21	3:08	1.68	most light in emissions CN 600 c above sky
003	"	1200	0.5	400 c at 300		22:28:46	02:43:18	3:19	1.75	
004	"	1200	0.5	400 c	2:25			3:40	1.96	2.26 ending air mass
005	"	600	0.5		2:48	22:28:46	02:43:08	4:03	2.27	-2.58
006	^{BS} 8792	10	0.5	434	3:05	23:06:11	14:52:34	3:42	1.54	
007	"	6	0.5	224	3:07			3:44	1.60	
008	"	6	0.5	184					1.61	
009	"	6	0.5	174					1.61	
010	"	6	0.5						1.63	
011	BS 300	6	0.5	104	3:17	01:03:00	-29:23:28		2.65	BAD SEEING
012	"	10	0.5	274	3:19				2.66	
013	"	10	0.5	494						VARIABLE SEEING
014	"	8	0.5	274					2.69	
015	"	8	0.5	254					2.71	

94A

Telescope: 61"

Iris:

Frame prefix #: SP94A

Day of Week: Thur

Humidity: 55 Sheet #: 2

Observers: GRUNDY
HICKS

Date MST/UT: 6:17 January

Focus:
Tailpiece:
Balance:

Temp O/I: 15/21

Guidepoint:

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start UT	RA set	Dec set	Hour-angle exp-start	SecZ	Comments: VME crashes, seeing, Moon, clouds, etc.)
016	BS 718	1.0	1.0	23K	3:34	2:27:48	08:26:06	0:49	1.12	
017	"	"	"	28K	3:35				1.12	
018	"	"	"	33K	3:36				1.12	
019	"	"	"	34K	3:37				1.12	
020	BS 2141	2	1.0	23K	6:59	6:05:44	35:23:4	10:37	1.01	
021	"	"	1.0	31K					1.01	
022	"	"	1.0	26K					1.01	WE PAUSE WHILE GED IMPACTS STARS
023	1620 GEOGRA	1200	1.0	1400K	7:18	7:44:19	49:03:38	-0:42	1.06	
024	BS 2141	1.0	1.0	12K	8:13	6:05:44	35:23:34		1.09	
025	BS 2141	2.0	1.0	24K	8:14				1.09	
026	GEOPH	1200	1.0		8:23	7:44:09	49:03:49	+0:22	1.05	CAMERA READS OUT GARBAGE
027	"	1200	1.0	2100K	8:59	7:41:04	49:04:03	+0:59	1.07	WE HEAT UP GOLD BOX WITH
028	BS 2141	2.0	1.0	21K	9:24	6:05:44	35:23:35	+3:03	1.26	HEAT GUND ELECTRIC BLANKET
029	"	"	1.0		9:26				1.27	SHIFTED! AT BOTTOM ROWS
030	"									STILL SHIFTED BELOW EDGE OF SPECTRUM

93A

Telescope: 61"

Iris:

Frame prefix #: SP44A

Day of Week: THUR

Focus:

Humidity: Sheet #: 3

Observers: HICKS
GRUNDY

Date MST/UT: JAN 6/7

Tailpiece:

Balance: Temp O/I: 15/19

Guidepoint: 388.8 413

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start UT	RA set	Dec set	hour-angle exp-start	SecZ	Comments: VME Crashes, seeing, Moon, clouds, etc.
031	SAO 041936	20	1.0	20K	9:35	7:41:10	44:05:17		1.10	I turn up thermostat and camera returns to normal
032	GEOGRAPHS	1200	1.0	1900	9:38	7:43:58	44:04:08	+1:38	1.10	
033	"	11	1.0	1100	9:50			1:59	1.13	
034	BS 2141	2.0	1.0		10:24			4:02	1.54	shifted in middle of frame
035	"	2.0	1.0		10:25				1.55	normal?
036	"	2.0	1.0	20K					1.55	perhaps a shift
037	GEOGRAPHS	1200	1.0	1300	10:35	7:43:51	44:04:30	2:35	1.20	
038	BS 2141	2.0	1.0	12K	11:00	6:05:43	35:22:32	4:39	1.82	
039	"	"	1.0	17K	11:01				1.83	
040	"	"	1.0	17K	11:02				1.84	
041	BS 3625	2.0	1.0	23K	11:08	9:08:78	+33:54:33		1.08	
042	"	2.0	1.0	23K					1.09	
043	"	2.0	1.0						1.08	
044	GEO	1200	1.0		11:34	7:43:30	+44:02:45	3:51	1.42	CAMERA FLICKS - UP. WENURSE
045	GEO	1200	1.0	700	12:29	7:43:34	44:02:45	4:25	1.60	IT AGAIN

9.4 A

Telescope: 61"

Iris:

Frame prefix #: SP44A

Day of Week: FR1

Focus: 3440

Humidity: 36

Sheet #: 5

Observers: Hicks

Date NST/UT: JAN 7/8

Tailpiece:

Temp 01: 20133

Balance:

Guidepoint: 3080 413

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start UT	RA set	Dec set	hour-angle exp-start	SecZ	Comments: VME crashes, seeing, Moon, clouds, etc.
053	MEYER 93A	600	1.0	3000	1:34	21:31:48	41:19:50	13:49	1.65	CIRRUS AND CLOUDS ABOUT
X	COMET	DROPS	INTD	CLOUDS	WE DO NOT TAKE					FURTHER EXPOSURES
054	P/W-K-I	1200	0.5	500 Counts	3:17	04:17:41	31:14:43	-1:13	1.04	SLITWORKING IN HEADER
055	"	1200	0.5	500	3:41	4:17:37	31:15:22	-0:48	1.02	JUMP IN EAST EXP-15"
056	"	1200	0.5	500	4:05	4:17:37	31:15:59	-0:25	1.00	SKY UP, CIRRUS NO, DAYS GUIDE HISTORY
057	"	1200	0.5	600	4:48	4:17:36	31:16:38	0:17	1.00	SUPER CRASHES - BAIL OUT OF NEXT EXP
058	"	1200	0.5	700	5:12	4:17:35	31:17:42	0:44	1.01	TOT OF SHORT CAMERA GUIDE CRASHES
059	"	1200	0.5	500	5:34			1:06	1.03	
060	"	1200	0.5	500	5:58	4:17:34	31:18:50	1:28	1.06	GRADING STAR AT EDGE OF SLIT
061	^{BS} 2141	300	0.5	18K				0:08	1.00	
062	"	"	0.5	12K	6:27	6:05:45	35:23:32		1.00	
063	"	"	"	21K				0:11	1.00	
064	"	"	"	17K	6:31			0:12	1.00	
065	"	"	"	17K	6:32				1.00	
066	"	"	"	20K						

14A

Telescope: 61"

Iris:

Frame prefix #: SP94A

Day of Week: FRI

Focus:

Humidity:

Sheet #: 6

Observers: HICKS
5020

Date MST/UT: JAN 7 1978

Tailpiece:

Balance:

Temp 0/1:

Guidepoint: 288.8 413

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start UT	RA set	Dec set	Hour-angle exp-start	SecZ	Comments: VME Crashes, seeing, Moon, clouds, etc.)
067	B3 2251	3	0.5	17 K	6:41	6:16:45	5:06:10	+0:12	1.13	
068	"	"	0.5	10 K	6:42				1.13	DEFOCUSED IN JAWS?
069	"	"	0.5	10 K					1.13	
070	2251	5	0.5	20 K					1.13	
071	"	"	0.5	14 K	6:46				1.13	
072	"	"	0.5						1.13	
073	6 STD 1855	1.0	1.0	8 K	6:56	65:31:36	-07:18:25	+1:12	1.37	
074	"	3.0	1.0	26 K	6:57			1:13	1.37	
075	"	3.0	1.0	41 K	6:58				1.37	
076	"	2.0	1.0	25 K					1.38	
X	STRONG CIRRUS			MOVES IN,		I THINK STD WERE AFFECTED				
X	WE RETURN WHEN CLEAR									
077	SW2	1200	0.5	5.5 K	9:45	8:38:31	17:28:51	0:54	1.06	
078	"	1200	0.5	6.5 K	10:09	8:38:31	17:29:03	1:18	1.09	
079	"	1200	0.5	6 K	10:32			1:41	1.12	

94A

his:

Focus: 35/19

Quantity: 35 Sheet #:

7

Tailpiece!

Temp O/T: 21/21;

Tailpiece Balance!

Guidepoint: 388.8 413

8.8 413

[illegible]

Telescope: 61"

Iris:

Frame prefix #: SP94A

Day of Week: Sun / Mon

Humidity: 40

Sheet #: 8

Observers: Hicks

Date MST/UT: JAN 9/10

Balance:

Temp O/I: 27/32

Guidepoint: 388.8 413

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start UT	RA set	Dec set	Hour-angle exp-start	SecZ	Comments: VME Crashes, seeing, Moon, clouds, etc.)
88	MUELLER	300	0.5	2.6K	1:54	23:01:03	-9:44:44	+2:47	1.89	
89	"	600	0.5	5K	2:02				1.96	
90	"	600	0.5	5K					2.09	-2.21
91	"	600	0.5	5K	2:27	23:01:04	-9:45:17	+3:20	2.25	-2.40
92	COMP BS 8737	5	0.5	20K	2:44	22:58:15	9:14:51		1.78	star defocused in slit
93	"	5	0.5		2:45				1.70	
94	"	5	0.5		2:46				1.79	
95	"	6	0.5	13K	2:47				1.80	focus worse
96	"	6	0.5		2:48				1.81	
97	COMP BS 154	5	0.5	31K		0:37:02	-24:47:48		2.38	
98	"	4	0.5		2:55				2.39	
99	"	4	0.5		2:56				2.40	
100	"	4	0.5	30K					2.41	
101	"	4	0.5						2.41	
102	BS 718	0.75	1.0	33K					1.11	refocused

941A

Telescope: 61"

Iris:

Frame prefix #: SP9414 Day of Week: SUN/MON
 Observers: Hicks Date MST/UT: JAN 9/10

Focus: Humdty: Sheet #: 9
 Tailpiece: Temp 0/I: 9
 Balance: Guidepoint: 388.8 413

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start UT	RA set	Dec set	hour-angle exp-start	SecZ	Comments: VME crashes, seeing, Moon, clouds, etc.
103	BS 718	0.75	1.0	37K	3:09	2:27:49	8:26:24		1.11	
104	"	"	1.0		3:10				1.11	
105	"	"	1.0		3:11				1.11	
106	"	"	1.0	41K	3:12				1.11	
X	WE TOP OFF			SHORT CAMERA, REFOCUS						
107	BS 2141	2.0	1.0		3:32	6:05:44	35:23:14	-2:38	1.19	
108	BS 2141	2.0	1.0	26K	3:33				1.19	
109	BS 2141	2.0	1.0		3:34				1.19	
110	BS 2141	2.0	1.0	23K	3:35				1.10	
111	¹²⁰ GEO	1200	1.0	1.5K	3:55	7:34:25	+49:07:17	-3:43	1.40	WEATHER LOOKS GOOD
112	GEO	1200	1.0	1.2K					1.33	STRANGE DEC CHANGE PROBLEM
113	BS 2141	2.0	1.0	33K	4:43	6:05:51	35:13:46	-1:27	1.06	
114	"	2.0	1.0	33K	4:44				1.05	
115	"	2.0	1.0	35K	4:45				1.05	
116	GEO	1200	1.0	5.5K	4:54	7:24:14	49:08:40	-2:44	1.22	

Telescope: 61"

Iris:

Frame prefix #: SP94A

Day of Week: SUN/MON

Focus:

Humidity:

Sheet #: 10

Observers: Hicks

Date MST/UT: JAN 9/10

Tailpiece:

Balance:

Temp 0/I:

Guidepoint: 388.8 413

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start UT	RA set	Dec set	Hour-angle exp-start	SecZ	Comments: VME crashes, seeing, Moon, clouds, etc.
117	GEO	1200	1.0	3K	5:15	7:34:16	+49:08:42	-2:23	1.17	slightly trailed in Dec
X	WE	TOP	OFF	SHORT	CAMERA	UT = 5:40				TOP
118	BS 2141	2.0	1.0	25K	5:46	6:05:51	35:23:46	-0:24	1.01	
119	BS 2141	2.0	1.0		5:47			-0:23	1.01	
120	BS 2141	2.0	1.0	29K	5:48				1.00	
121	GEO	1200	1.0	1.5K	5:59	7:34:08	44:08:50	-1:39	1.10	
X	WE PAUSE		TO	LET	GEO SAIL BY	FIELD STAR, AND TAKE A STD.				
122	STD BS 1855	1.0	1.0	24K	6:30	5:31:38	-7:18:20	+0:53	1.34	
123	"	1.0	1.0	27K	6:31				1.34	
124	"	1.0	1.0	27K	6:32				1.34	← DR. FINK CALLS
125	GEO	1200	1.0	23K	6:40			-0:49	1.06	
126	GEO	1200	1.0	26K	7:09			-0:20	1.05	
127	BS 2141	2.0	1.0		7:35	6:05:45	35:24:02	+1:25	1.05	
128	BS 2141	2.0	1.0		7:36				1.05	
129	BS 2141	2.0	1.0	26K	7:37				1.05	

19"

'telescope:

his:

Q4A

Frame prefix #: 5P941A

Day of Week: SUN/MON

Focus: 3476

Quantity: 62 Sheet #: 11

Observers: Hicks

Date MST/UT: JAN 9/10

Tailpiece:

Temp O/I: 25/28

Guidedpoint: 388,8 413

[illegible]

Telescope: 61"

Iris: 320

Frame prefix #: FR94A

Day of Week: Wed/Thurs

Focus: Variable Humidity: 55% Sheet #:

Tailpiece: marks

Observers: Grundy, Hicks

Date MST/UT: Jan. 5/6 1994

Balance: rear Temp 0/I: 0/2 °C

Guidepoint: 388.8, 413

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start UT	RA set	Dec set	Hour-angle exp-start	SecZ	Comments: VME crashes, seeing, Moon, clouds, etc.)
	West Kohoutek Munira	30	Open	Peak 2k over- Phot 83k	10:30			Way over	3.7+	looking for comet too faint, at limit
	Swatch 2	"	"	18k peak 850k phot	10:46	8:39:28	17:20:18	1:48	1.14	← now that's a comet!
	SW 2	"	V	~3300 pk 183k phot	10:50				1.14	seeing not great, thin clouds, Moon has risen.
1	"	120	"	17k peak 708k phot	10:57	8:39:27	17:20:10	1:58	1.16	$\alpha = -.0048 \delta = .003$ VME crashed
	Chiron	60	"	3500 pk 70k phot	11:00	10:33:33.8	2:27:59	0:09	1.15	Note: time in header is not correct.
	Tempel I	"	"	1000 pk 25k phot	11:31	12:43:12	9:15:32	-1:31	1.17	wind gusts to 40 MPH ← too faint
	S.L.9	"	"		11:43			-3:00	2.30	lots of moon Hopeless
2	Moon	.01	"	terminator	11:59	14:13:06	16:34:03	-2:00		
3	"	"	"	terminator meets limb	12:02					$T_{\text{out}} = 27^{\circ} \text{F}$
										$T_{\text{in}} = 30^{\circ} \text{F}$
										Wind ~ 20 MPH avg
										gusts to 45
										Humidity ~ 65%
	Encke	60	B/did.	600 peak 32 k phot						

24/14

Telescope: 61"

Iris:

Frame prefix #: FR94A

Day of Week: Thurs/Fri.

Humidity: 45% Sheet #: 2

Observers: Hicks, Grundy

Date MST/UT: 6/7 Jan 1994

Focus:
Tailpiece: marks

Balance: rear Temp 0/I: 20°F out 26°F in

Guidepoint: (388.8, 413)

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start UT	RA set	Dec set	hour-angle exp-start	SecZ	Comments: VME crashes, seeing, Moon, clouds, etc.)
4	Bias	1	N/A	~520					1.0	Times in headers are good to 1 second UT
5	sky Flat	3	V	14k	1:03	near stow			"	focus 4700 actual
6	"	5	"	16k					"	- moved telescope
7	"	6	"	12k					"	- moved
8	"	10	"	14k					"	mild wind, but
9	Bias	1	N/A						"	poor seeing.
10	SKY FLAT	30	B/dichr	11k					"	- moved
11	"	45	"	12k					"	- moved
12	"	60	"	13k					"	- moved?
13	"	90	"	11k					"	
14	Bias	1	N/A	~477					"	← disturbingly low counts in bias
	Encke	60	B/dichr	600 peak 32k phot	1:37	2:28:46	2:43:32	+2:54		Nice comet, tail
15	"	"	"			$\alpha = -.0018$	$\delta = -.0005$			extends to west.
										Seems to be very blue, with little continuum.
16	Bias	1	N/A	~600	3:00					[rather low]

Telescope: 61"

Wind ~ 5 MPH WNW
Iris:

3

Frame prefix #: FR94A Day of Week: Thurs/Friday
Observers: Hicks, Grundy Date MST/UT: 6/7 Jan 1994

Focus:
Tailpiece:
Balance:

Humidity:

Temp 0/I:

Guidepoint: 388.8, 413

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start UT	RA set	Dec set	hour-angle exp-start	Sec Z	Comments: VME crashes, seeing, focus, clouds, etc.
	Stars		B/dichr					West		Poor seeing so we can't focus well.
17	Dome Flat	1sec	B/dichr	bias = 615 13K	~3:45		-65°			VariaC = 75
18	"	"	"	"						one/eight lamp blown
19	"	"	"	"						bias = 619.1
20	"	1sec	✓	"						VariaC = 45
21	"	"	"	"						"
22	"	"	"	"						" bias = 614.6
	T = 16°F outside, 21°F inside, Humidity = 53%									
23	lan 95-74	60	B/dichr	22K peak 1.2M phot	4:48	3:55:10.6	-0:10:26	+1:37	1,20	Wind ~ 3 MPH
24	"	120	"		4:51.5			+1:39.5	1,20	note: not perfectly photometric tonight
25	"	"	"		4:54.5			+1:42.5	1,21	
26	"	"	"		5:03	7:41:16	49:04:51	-2:55	1,25	bias = 584.1
27	SAD 041936	7sec	"	30K pk 1.3M PH	5:04			-2:53	1,24	
28	"	"	"	29K 1.4M						

→ tape 2
→ Tape 1

Telescope: 61"

Iris:

Focus: Humdty: 55% Sheet #: 4
Tailpiece: on marks

Frame prefix #: FR94A Day of Week: Thurs/Fri

Observers: Grundy, Hicks Date MST/UT: 6/7 Jan. 1994

Balance: rear Temp 01: 15°F/20°F
Guidepoint: 388.8, 413

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start UT	RA set	Dec set	hour-angle exp-start	SecZ	Comments: (VME crashes, seeing, Moon, clouds, etc.)
29	BS 2141	0.5sec	B/dichr	30K 1.1M	5:34	6:05:45	35:23:29	-1:48	1.02	pointing is quite unstable in East
30	"	"	"	27K	5:20				"	bias = 568.1
31	Geographos	120	"	600 PK 24K phot	5:50	7:44:37	49:03:22	-2:11	1.15	monitor on Black rack is deteriorating.
32	"	"	"	893 25K phot	5:54	$\alpha = -0.364$	$\delta = .0026$		1.14	Grey rack is non-functional.
33	"	"	"		5:59.5			-2:02	1.14	And we can't get it to work.
34	"	"	"		6:04	7:44:35	49:03:22	-1:59?	1.13	in spite of many attempts.
35	"	"	"							
36	"	"	"		6:06.5				1.12	
37	"	"	"		6:09.5			-1:52	1.12	
38	"	"	"		6:13	7:44:33	49:03:21	-1:48	1.12	
39	SAO* *	7	"	41K 1.5M						} close to same secZ
40	"	5	"							} as Geographos
41	Geographos	"	"	32K phot	6:20				1.11	
42	"	"	"	36K	6:24	7:44:32	49:03:25	-1:37	1.10	
43	"	"	"		6:27			-1:34	1.10	

Telescope: 61"

Iris:

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Frame prefix #: FR94A

Day of Week: Thurs/Fri

Humidity:

Focus:

Tailpiece:

Observers: Hicks, Grundy Date MST/UT: 6/7 Jan, 1994

Balance:

Temp O/I:

Guidepoint: 388.8, 413

Sheet #:

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start UT	RA set	Dec set	Hour-angle exp-start	SecZ	Comments: VME Crashes, seeing, Moon, clouds, etc.
44	Geographos	120	B/dichr		6:32				1.09	
45	"	"								talking to Uwe
46	"	"								in Berlin
47	"	"			6:43				1.08	
48	"	"			6:49.5				1.07	← Jump in East
49	BS2141	0.5		40k pk	6:58	6:05:44	35:23:41	:36	1.01	
50	"	0:3			7:01				"	
51	SAO *	5 _{sec}		20k pk	7:03				1.06	← jump in east
52	Bias	"			7:04.5	7:41:12	49:05:04	-153	1.06	bias = 545.2
53	Sao *	"			7:06				1.06	
54	Geograph	120			7:07				1.06	
55	"	"								
56	"	"								
57	"	"		1600 24K	7:18	7:44:19.5	49:03:38	-142	1.06	
58	"	"		20K	7:21				1.05	

Telescope: 61"

Iris:

Frame prefix #: F29BA

Day of Week: Thurs (Fri)

Focus:

Humidity:

Sheet #: 6

Date MST/UT: 6/7 Jan '94

Tailpiece:

Balance:

Temp O/I:

Observers:

Guidepoint:

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start UT	RA set	Dec set	hour-angle exp-start	SecZ	Comments: (VME crashes, seeing, Moon, clouds, etc.)
59	Geographos	120	8/dichr	19k	7:28				1.05	VME crashed again
60	"	"		16k		7:44:17	49:03:40	-1:30±	1.05	
61	"	"		14k	7:34			-1:27	1.05	
62	"	"		12k	7:37				1.05	topped off dewars while object goes past 2 stars
63	"	"		16k	later				1.05	
64	BS2141	0.3		21k						
65	"	"			8:13	6:05:44	35:23:39		1.09	
66	SAO *	5 s		1.1 m phot	8:16.5			1:19	1.05	VME crashed again
67	"	"			8:18	7:41:11	49:05:09	1:22	1.05	
68	Geogr.	120		20k	8:49				1.05	
69	"	"		22k	8:22				1.05	
70	"	"		21k	8:25.5				1.05	
71	"	"		24k	8:29	7:44:09	49:03:53	+1:28	1.05	
72	"	"		27k	8:32				1.05	
73	"	"		26k	8:35				1.05	

↑ tape 2

↑ tape 3

Telescope: 61"

Iris:

7

Frame prefix #: FR94A

Day of Week: Thurs./Fri.

Focus:

Humidity:

Sheet #:

Observers: Hicks, Gundy

Date MST/UT: 6/7 JAN '94

Tailpiece:

Temp O/I:

Guidepoint:

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start UT	RA set	Dec set	hour-angle exp-start	SecZ	Comments: (VME crashes, seeing, Moon, clouds, etc.)
74	Geographos	120	B/dichr	25K					1.05	
75	"	"		27K	8:41	7:44:07	49:03:57	+1:41	1.05	(other VME crashed) (Camera failure)
76	"	"		30K	8:44.5				1.06	
77	"	"		29K	8:48				1.06	
78	SAO *	5		24K 830K	8:51				1.06	
79	"	"			8:53	7:41:11	49:05:15	+1:55	1.06	
80	Geographos	120		32K	8:53			+1:53	1.06	
81	"	"		29K	8:57	7:44:06	49:04:00	+1:57	1.06	
82	"	"		30K					1.07	← now other camera is working again
83	"	"		27K	9:03	7:44:04	49:04:05	+1:03	1.07	
84	"	"		27K	9:06				1.07	
85	"	"		27K	9:09				1.07	
86	"	"		28K	9:12.5	7:44:02	49:04:08	+1:12	1.08	
87	"	"		30K	9:15.5			+1:15	1.08	Bias = 536.7
88	BS 2141	0.3		15K peak 520K phot	9:22			+3:00	1.26	

Telescope: 61"

Iris:

Frame prefix #: FR94A Day of Week: Thurs/Fri.

Focus: bad Humdty: Sheet #:

Tailpiece:

Balance: good Temp 0/I: 15°F/19°F

Observers: GRUNDY, HICKS Date MST/UT: Jan. 6/7, 1994

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start UT	RA set	Dec set	Hour-angle exp-start	SecZ	Comments: VME crashes, seeing, Moon, clouds, etc.
89	BS 2141	0.3	61 µm		9:24	6:05:44	35:23:36		1.26	↑ poor seeing frequent VME crashes
90	SAO *	5 sec		26 k peak 951 k peak	9:30.5				1.10	
91	(041936)	"			9:32	7:41:11	49:05:17	+1:35	1.10	
92	"	"			9:34				1.10	
93	Geographos	120 sec		20 k	9:35				1.10	
94	"	"		24 k	9:38	7:43:58	49:04:08	1:38	1.10	
95	"	"		23 k	9:41				1.11	
96	"	"		19 k	9:45			1:45	1.11	
97	"	"		20 k	9:48			1:48	1.11	
98	"	"		17 k	9:51			1:51	1.12	
99	"	"		17 k	9:55			1:55	1.12	
100	"	"		13 k	9:58			1:58	1.13	
101	"	"		13 k	10:01			2:01	1.13	
102	"	"		12 k	10:05			2:05	1.14	
103	"	"	V	11 k	10:08	7:43:54	49:04:18	2:08	1.15	

9.3 meg

Telescope: 61"

Iris:

Frame prefix #: FR94A

Day of Week: Thurs./Fri.

Focus: bad

Humidity:

Sheet #: 9

Observers: GRUNDY

Date MST/UT: Jan 6/7, 1994

Tailpiece:

Temp 0/I:

Guidepoint: (388.8, 413.0)

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start UT	RA set	Dec set	Hour-angle exp-start	Sec Z	Comments: VME crashes, seeing, Moon, clouds, etc.
104	Geographos	120	B/pdr	9k	10:12			2:12	1.15	
105	"	"		9k	10:15			2:15	1.16	
106	"	"		9k	10:18.5			2:18.5	1.16	
107	BS 2141	0.3		12k 430k	10:23	6:05:49	35:23:33	4:01	1.54	
108	"	"			10:25				1.55	
109	SAO 41936	5 sec.		20k 752k	10:28			2:31	1.19	
110	"	"				7:41:11	49:05:33		1.19	
111	Geographos	120s		8k	10:30.5			2:30.5	1.19	
112	"	"		8k	10:34			2:34	1.20	
113	"	"		9k	10:37	7:43:50	49:04:30	2:37	1.20	
114	"	"		9k	10:40			2:40	1.21	
115	"	"		9k	10:43			2:43	1.22	
116	"	"		9k	10:46.5	7:43:48.5	49:04:35	2:47	1.22	
117	"	"		12k	10:49			2:50	1.23	
118	"	"	V	14k	10:52			2:53	1.24	Bias = 589.1

TAPE 4
Tape 3
↑

Telescope: 61"

Iris:

Frame prefix #: FR94A

Day of Week: Thurs/Fri.

Focus: BAD!

Humidity:

Sheet #: 10

Observers: Hicks, Grundy

Date MST/UT: Jan. 6/7, 1994

Tailpiece:

Balance:

Temp 0/I:

Guidepoint: (388.8, 413.0)

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start UT	RA set	Dec set	hour-angle exp-start	SecZ	Comments: VME crashes, seeing, Moon, clouds, etc.)
119	BS:2141	0.3	B/Dichr	590K	11:01	6:05:44	35:23:33	4:39	1.83	comp star
120	"	"	"	"	11:02	"	"	"	1.83	"
121	BS:3625	"	"	13K 550K	11:05	9:08:28.5	33:54:31	1:41	1.07	comp star
122	"	"	"	11K 530K	11:06	"	"	"	1.07	"
123	SAD 41936	5 sec.	"	BIAS	11:18	7:41:11	49:03:33	3:21	1.32	← shutter failed to open
124	"	"	"	"	11:20	"	"	"	1.33	"
125	"	"	"	"	11:20	"	"	3:23	1.33	"
126	GEOGRAPHOS	120	"	"	11:21.5	"	"	3:22	1.32	no asteroid?
127	"	"	"	"	"	"	"	"	"	(lost object?)
128	"	"	"	"	"	"	"	"	1.37	lost object.
129	"	"	"	"	11:39	"	"	3:39	1.38	Found it.
130	"	"	"	21K	11:44	7:43:40	49:02:42	"	1.41	"
131	"	"	"	23K	11:48	"	"	"	1.42	"
132	"	"	"	22K	11:51	"	"	3:52	1.43	← VME crashed again
133	"	"	"	19K	11:57.5	"	"	"	1.46	"

Telescope: 61"

Iris:

Frame prefix #: FR94A

Day of Week: Thurs/Fri

Focus:
Tailpiece:

Humidity:

Sheet #: 11

Observers: GRUNDY,
HICKS

Date MST/UT: JAN 6/7, 1994

Balance:

Temp 0/1:

Guidepoint (388.8, 413.0)

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start UT	RA set	Dec set	hour-angle exp-start	SecZ	Comments: VME Crashes, seeing, Moon, clouds, etc.
134	GEORG.	120	B/DICHA	17k	12:01				1.47	
135	"	"	1	16k	12:04				1.49	
136	"	"	1	16k	12:07.5			4:08	1.51	
137	"	"		17k	12:10.5	7:43:36.4	49:02:46	4:11	1.52	
138	"	"		16k	12:14			4:14.5	1.54	← switched flexure map on
139	"	"		15k	12:17.0			4:17.5	1.56	
140	"	"		13k	12:20			4:21	1.58	
141	"	"		13k	12:23				1.60	
142	"	"		12k	12:26.5			4:27.5	1.61	
143	"	"		18 9k	12:30			4:30.5	1.63	
144	"	"		7k	12:33				1.65	
145	"	"		6k	12:36.5				1.67	
146	"	"		7k	12:40				1.69	
147	SAD	5			12:45				1.74	
148	"	"	V		12:46				1.75	

Telescope: 61"

Frame prefix #: FR94A Day of Week: Thurs/Fri

Observers: HICKS, GRUNDY Date MST/UT: JAN. 6/7, 1994

Iris:

Focus:

Tailpiece:

Balance:

Guidepoint: 3885, 413.0

Humidity:

Temp O/I: 20°F / 21°F

Sheet #: 12

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start UT	RA set	Dec set	Hour-angle exp-start	SecZ	Comments: VME crashes, seeing, Moon, clouds, etc.
149	BS 3625	0.3	B/DICMR	8k 363k	12:48.5			3:24	1.35	
150	"	"		10k 400k	12:50	9:08:29	33:54:32	3:26.5	1.36	Bias = 601.6
151	GEOGRAPHIDS	120								← something wrong
152	"	"		4k	12:57				1.81	
153	"	"		4k	13:00				1.84	
154	"	"		4k	13:04				1.87	
155	"	"		4k	13:08				1.91	
156	SAO *	5 sec							1.96?	
157	"	"		12k 496k	13:13	7:41:11	49:		1.97	
158	BS-3625	0.3		11k peak 380k phot	13:14.5				1.49	
159	"	"			13:16			3:52	1.49	
160										
161										
162										
163										

TAPE 4

Telescope: 61"

44A

Iris:

Frame prefix #: FR94A

Day of Week: Fri/Sat

Focus:

Humidity: Sheet #: 13

Tailpiece:

Observers: HICKS Date MST/UT: Jun 7/8

Balance:

Temp O/I:

Guidepoint: 288.8 413

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start UT	RA set	Dec set	hour-angle exp-start	SecZ	Comments: VME Crashes, seeing, Moon, clouds, etc.
X	WE HUNT		FOR	MUELLER 93A, CIRRUS IS EVERYWHERE, WE						
X	FIND IT EASILY									
X	M 93E	10	B/D	P/K=2.4K 21K phot	1:27	21:31:47	19:19:54	+3:42	1.54	
X	WE SEARCH		FOR	P/WEST-KOH-IKE, FIND IT						
160	W-K-I	60	B/D	752 8.5K	3:10	4:17:41	31:41:34	-1:17	1.04	
X	After clouds clear			we search for SW2, found easily						
161	SW2	60	B/D	834 phot	9:47	8:38:32	17:28:56	0:57	1.06	
X	WE CAPTURE SL-9			AND RESET GP TO 367, 362 TO AVOID DEFECT						
162	SL9	600	V	11:37	11:37	14:25:35	-15:15:47	-3:00	2.30	
163	BIAS	1	-							
164	SL9	600	V		11:49				2.14	I EXAMINE 162. LOOKS SMERLED. IS IT FLEXTURE MAP? TURN IT OFF
165	BIAS	1	-	BRIGHTEST NUC						
166	SL9	600	V	50K					1.90	(END)
167	BIAS	1	-							
168	SL9	600	V		17:19				1.85	-1.80

169 BIAS

MOON RISES, I STOP

Telescope: 61"

94A

iris:

Frame prefix #: FR94A Day of Week: SAT/SUN

Humidity: Sheet #: 14

Observers: Hicks Date MST/UT: JAN 8/9

Temp O/I:

Focus:
Tailpiece:
Balance:

Guidepoint:

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start UT	RA set	Dec set	Hour-angle exp-start	Sec Z	Comments: VME crashes, seeing, Moon, clouds, etc.)
X	WE SEARCH		FOR	W-KI, FIND IT EARLY, WAIT FOR					IT	TO SAIL
X	PAST FIELD			STAR						
170	W-KI	60	B/DI	300pk 12k	2:58	4:17:04	31:50:28	-1:28	1.66	
171	"	60	"		3:37	4:17:04	31:51:37	-0:45	1.01	STAR OCCULTATION?
172	"	60	"		3:40				1.01	"
173	"	60	"		3:42				1.01	"
174	"	60	"		3:53				1.01	STAR HAS MOVED AWAY
175	"	60	"		4:03				1.00	"
176	"	60	"		4:13				1.06	
177	"	60	"		4:15				1.00	CIRARS MOVES
178	BIAS	1	-	729.53	4:32					6mm 2-1.13
179	BIAS	0.1	-	740.34	5:49					
180	BIAS DOMG FLAT	5	B/DI	22k	5:52					
181	"	"	"							
182	"	"	"							

183 " " 717.20 6:00
184 BIAS 0.1

19

Telescope:

Frame prefix #: FR941A

Day of Week:

sun/Mon

Observers: Hicks

Date MST/UT: J2n 9110

Balance: Temp O/I: 27/32

Guidepoint: 388.8 413

[illegible]

94A

1310
1300
1250
1200
1150
1100
1050
1000
950
900
850
800
750
700
650
600
550
500
450
400
350
300
250
200
150
100
50
0

Telescope: 61"

iris:

Frame prefix #: WFG4A

Day of Week: MON/TUE

Focus:

Humidity: 58 Sheet #: 1

Observers: HICKS,
GRUNDY

Date MST/UT: 10/11 JAN

Tailpiece:

Temp O/I: 21/25

Guidepoint:

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start UT	RA set	Dec set	hour-angle exp-start	SecZ	Comments: VME crashes, seeing, Moon, clouds, etc.
001	SAO 76	10	OPEN		5:08	8:20:28	14:42:28	-3:13	1.47	
002	76-0	600	"		5:18	8:18:40	14:15:37	-3:01	1.41	WE FORGET TO REMOVE BINNING
003	76-0	600	"		5:31	8:18:40	14:15:36	-2:49	1.36	Binning removed
004	76-1	600	"		5:44	8:18:43	14:33:37	-2:35	1.30	traziled E-W
005	76-2	600	"		5:58	8:18:43	14:51:37	-2:21	1.24	net
006	76-2	600	"		6:11	8:18:43	15:09:36	-2:08	1.20	saved
007	76-4	600	"		6:25	8:19:55	15:09:38	-1:55	1.17	
008	76-5	600	"		6:38	8:19:55	14:51:35	-1:43	1.15	
009	76-6	600	"		6:51	8:19:55	14:33:35	-1:29	1.12	
010	76-7	600	"		7:03	8:19:55	14:15:36	-1:16	1.10	
011	76-0	600	"		7:16	8:18:40	14:15:37	-1:02	1.09	small trail evident NE Portion
012	76-1	600	"		7:36	8:18:40	14:33:35	-0:48	1.07	traziled E-W
013	76-1	600	"		7:44	8:18:40	14:33:55	-0:33	1.06	redo not saved
014	76-2	600	"		7:57	8:18:42	14:31:36	-0:21	1.05	
015	76-3	600	"		8:10	8:18:43	15:09:36	-0:08	1.05	

944A

Telescope: 61"

Iris: 1675 focus

Frame prefix #: WF94A

Day of Week: MON / TUE

Humidity: 53 Sheet #: 2

Observers: HICKS

Date MST/UT: 16111 JAN

Focus:

Temp O/I: 24/31

Guidepoint:

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start UT	RA set	Dec set	hour-angle exp-start	SecZ	Comments: VME crashes, seeing, Moon, clouds, etc.
016	76-4	600	OPEN		8:23	8:19:55	+15:09:36	0:02	1.05	
017	76-5	600	OPEN		8:36	8:19:55	-14:51:35	+0:16	1.05	
018	76-6	600	OPEN		8:50	8:19:55	+14:33:35	0:30	1.06	
019	76-7	600	OPEN		9:03	8:19:55	14:15:35	0:43	1.07	
020	76-0	600	OPEN		9:15	8:18:40	14:15:37	+0:57	1.08	
021	76-1	600	OPEN		9:28	8:18:42	14:35:37		1.09	
022	76-2	600	OPEN		9:41	8:18:42	14:51:37	1:22	1.11	
023	76-3	600	OPEN		9:55	8:18:43	15:09:37	1:36	1.13	
024	76-4	600	OPEN		10:07	8:19:55	15:09:36	1:47	1.15	
025	76-5	600	OPEN		10:20	8:19:55	14:51:35	2:06	1.18	
026	76-6	600	OPEN		10:32	8:19:55	14:33:35	2:13	1.22	
027	76-7	600	OPEN		10:45	8:19:55	14:15:35	2:25	1.26	
028	76-8	600	OPEN		10:58	8:18:40	14:15:35	2:39	1.31	
029	SA-76	10	OPEN		11:10	8:20:28	14:42:38	2:50	1.34	NO 30
031	SL-9	300	OPEN		11:30	14:26:52	-15:23:24	-3:05	2.24	-2.16

Telescope: 61"

Frame prefix #: WF-441

Day of Week: TUE 10/12

Observers: CHANDLER
HICKS

Date MST/UT: 11/12

Iris:

Focus: 1675

Tailpiece:

Balance:

Humidity: 55 Sheet #: 3

Temp O/I: 23/28

Guidepoint:

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start UT	RA set	Dec set	Hour-angle exp-start	SecZ	Comments: VME crashes, seeing, Moon, clouds, etc.)
032	SKK FLAT	10	OPEN	7.5K	1:17					
033	SKK FLAT	60	OPEN		1:40					very nice night
034	3RA-17D.0	600	OPEN		4:15	3:00:00	17:00:02	1:19	1.09	wind: S. ~ 5MPH
035	3RA-17D.1	600	OPEN		4:28	2:58:36	17:00:02	1:33	1.11	
036	3RA-17D.2	600	OPEN		4:41	2:57:12	17:00:02	1:46	1.14	
037	3RA-17D.3	600	OPEN		4:53	2:55:48	17:00:02	2:01	1.17	
038	SA-52	60	OPEN		5:15	8:30:43	29:41:02		1.33	
039	SA-52.0	600	OPEN		5:26	08:30:57	29:17:18	-3:01	1.28	
040	SA-52.1	600	OPEN		5:38	08:30:58	29:31:24	-2:48	1.23	
041	SA-52.2	600	OPEN		5:52	08:30:58	29:50:36	-2:35	1.19	
042	SA-52.3	600	OPEN		6:04	08:30:58	30:09:47	-2:23	1.16	
043	SA-52.4	600	OPEN		6:17	08:29:30	30:09:48	-2:09	1.13	
044	SA-52.5	600	OPEN		6:29	08:29:30	29:50:35	-1:56	1.10	
045	SA-52.6	600	OPEN		6:43	08:29:30	29:31:25	-1:43	1.08	
046	SA-52.7	600	"		6:55	8:29:30	29:12:15	-1:31	1.06	

9/4/14
x 0.65

Telescope: 61"

Iris:

Frame prefix #: WFA94M

Day of Week: TUE WED

Focus: 1675

Humidity: 55 Sheet #: 4

Observers: HICKER
GRUNBY

Date MST/UT: 11/12

Tailpiece:

Temp O/I: 22/27

Guidepoint:

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start UT	RA set	Dec set	Hour-angle exp-start	SecZ	Comments: VME crashes, seeing, Moon, clouds, etc.
047	SA-52.0	600	OPEN		7:09	8:30:58	29:12:10	-1:18	1.05	
048	SA-52.1	600	OPEN		7:21	8:30:58	29:31:24	-1:05	1.07	
049	SA-52.2	600	OPEN		7:33	8:30:58	29:50:36	-0:54	1.02	
050	SA-52.3	600	OPEN		7:46	8:30:58	30:09:47	-0:41	1.01	
051	SA-52.4	600	OPEN		7:59	8:29:30	30:09:47	-0:27	1.01	
052	SA-52.5	600	OPEN		8:12	8:29:30	29:50:35	-0:13	1.00	
053	SA-52.6	600	OPEN		8:25	8:29:30	29:31:22	-0:00	1.00	
054	SA-52.7	600	OPEN		8:37	8:29:31	29:12:15	+0:11	1.00	
055	SA-52.0	600	OPEN		8:50	8:30:58	29:12:19	+0:23	1.01	
056	SA-52.1	600	OPEN		9:02	8:30:58	29:31:24	+0:35	1.01	
057	SA-52.2	600	OPEN		9:15	8:30:58	29:50:36	0:48	1.02	
58	52.3	"	"		9:28	8:30:58	30:09:48	1:01	1.03	
059	SA-52.4	600	OPEN		9:41	8:29:30	30:09:47	1:14	1.04	
60	52.5	"	"		9:53	8:29:30	29:50:35	1:27	1.06	
61	52.6	"	"		10:06	8:29:30	29:31:23	1:40	1.03	

62 52.7

19"

iris:

Day of Week: Tues/Wed

Day of Week: Tues/Wed

Date MST/UT:

Date MST/UT: Jan 11/12 1994

Focus:

Tailpiece:

Balance!

Guideline:

[illegible]

BS
B2
15-16
94A

Telescope: 6"

im94a0

Frame prefix #:

WF94A

Day of Week:

WED/THUR

Focus: 1650

Humidity:

Sheet #: 6

Tailpiece:

Date NST/UT: 12/13/24

Balance:

Temp O/I:

Observers: GRUNDY

HICKS, FLENNIK

Guidepoint:

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start UT	RA set	Dec set	Hour-angle exp-start	SecZ	Comments: VME crashes, seeing, Moon, clouds, etc.)
X		-	V							
74	sky FLAT	2	V							
75	sky FLAT	5	V	20K						
76	sky FLAT	10	V	18K						
77	sky FLAT	20	V	15K						
78	sky FLAT	60	V	18K						
			V							
79	3RA-17D.0	600	OPEN		4:17	3:00:00	+17:00:00		1.10	telescope test
80	3RA-17D.1	600	OPEN		4:31	2:58:36	+17:00:00		1.13	
81	3RA-17D.2	600	OPEN		4:44	2:57:12	+17:00:00	1:55	1.15	
82	3RA-17D.3	600	OPEN		4:58	2:55:48	+17:00:00	2:09	1.19	
83	SA 95-74	30	V	35K	5:28	3:55:12	-0:00:30	1:40	1.31	
84	SA 95-74	30	V		5:31	3:55:13	-0:10:16	1:43	1.32	center and 9, 12, 14, 15
85	"	"	V	38K	5:32				1.32	wind loops surround bright objects: filter, 2
86	SAD 4M36	1.5	V	20K	5:46	7:41:10	49:01:55		1.12	name wrong in header

Telescope: 61"

IM94A

Frame prefix #: WF94A

Day of Week: Weds/Thurs

Observers: Hicks, Grundy

Date MST/UT: Jan. 12/13 1994

Iris:

Focus: 1650

Tailpiece:

Balance:

Guidepoint:

Humidity: 51 Sheet #: 7

Temp 011:29/32

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start UT	RA set	Dec set	Hour-angle exp-start	SecZ	Comments: VME crashes, seeing, Moon, clouds, etc.
87	SAO 41936	1.5	V		5:47			-1:46	1.11	
88	"	"	"		5:49				1.11	
89	Geographos	600		trailed	5:51	7:23:09	49:03:13	-1:24	1.09	searching for asteroid
90	"	300		PK 14K		7:23:09	49:01:47		1.07	$\alpha = -.0394 \quad \delta = -.0019$
91	"	300		12K	6:12	7:23:09	49:01:04	-1:03	1.07	wind ~ 12 MPH
92	"	"		11K peak	6:25	7:23:08	49:01:03	-1:57	1.06	from WNW
93	"	400		16K	6:32	7:23:07.5	49:01:02.5	-1:51	1.06	
94	"	"		14K	6:33	7:23:06	49:01:01.5	-1:43	1.06	
95	"	300		12K	6:41	7:23:05	49:01:00	-1:35	1.05	
96	"	"		10K		7:23:04	49:00:00		1.05	
97	SAO *	1.5		35K	6:55	7:41:10	49:01:35	-0:39	1.05	
98	"	"		55K	6:56				1.05	
99	Geogr.	300		8K	6:58.5	7:23:03	49:00:59	-1:17	1.05	
100	"	"		8K	7:04.5	7:23:02	49:00:58	-1:11	1.05	
101	"	"	V	6.5K	7:11.5	7:23:01	49:00:57	-1:04	1.04	

94A

Telescope: 61"

M94A

Frame prefix #: WFAA

Day of Week: WED/THU

Focus: 1650

Humidity: 8

Tailpiece:

Date MST/UT: JAN 12/13 1994

Balance:

Observers: HICKS
GRUNDY

Temp O/I:

Guidepoint:

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start UT	RA set	Dec set	hour-angle exp-start	SecZ	Comments: VME crashes, seeing, Moon, clouds, etc.)
102	Geographos	300	V	5.6 k		7:23:00	49:00:56.5	+103	1.04	transit
103	"	1		5.2 k	7:24	7:22:59	49:00:56	:08	1.04	Lightcurve Min.
104	"	"		6.7 k	7:30	7:22:58	49:00:55	:14.5	1.05	
105	"	"		6.5 k	7:37	7:22:57	49:00:54	:21	1.05	
106	"	"		7.0 k	7:43	7:22:56	49:00:54	:27.5	1.05	
107	"	"		8.6 k	7:49	7:22:55.5	49:00:53	:34	1.05	
108	Sao 41936	1.3s		40 k	7:56	7:41:11	49:01:29	:22	1.05	
109	"	1.3s		44 k	8:00			:47	1.05	
110	GEOG.	300		11 k	8:02.5	7:22:54	49:00:53		1.06	
111	"	"		13 k	8:08.5	7:22:53	49:00:52	:53	1.06	
112	"	"		12 k	8:15	7:22:53	49:00:53	:57.5	1.07	
113	"	"		12 k	8:21	7:22:52	49:00:51	1:05.5	1.07	
114	"	"		12 k	8:27	7:22:51	49:00:51	1:11.5	1.07	
115	"	"		12 k	8:34	7:22:50	49:00:50	1:19	1.08	bigged failed
116	"	"		13 k	8:52	7:22:47	49:00:48	1:36.5	1.10	

Telescope: 61"

Iris:

Frame prefix #: M94A Day of Week: WED/TH

Humidity:

Sheet #: 9

Focus: Tailpiece:

Observers: Hicks, Grundy Date MST/UT: JAN. 12/13, 1994

Balance: Temp O/I:

Guidepoint:

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start UT	RA set	Dec set	hour-angle exp-start	SecZ	Comments: VME crashes, seeing, Moon, clouds, etc.
117	Geograph	300	V			7:22:46	49:00:48		1.11	
118	SAO 41936	1.3s		53k	9:04	7:41:11	49:01:30	+1:30s	1.09	← 18AP crashed
119	"	1.0s		44k	9:07			+1:33s	1.10	
120	GEOG.	300		14k	9:09	7:22:45	49:00:47	+1:54	1.12	
121	"	"		12k	9:15	7:22:44	49:00:47	+1:60	1.13	
122	"	"		14k	9:21	7:22:43	49:00:46.5	2:06	1.14	
123	"	"		13k	9:27	7:22:42.5	49:00:46	2:12	1.15	$\alpha = -0.0394 \delta = -0.0023$
124	"	"		10k	9:33	7:22:42	49:00:45	2:18	1.16	
125	"	"		9.8k	9:39	7:22:40	49:00:44		1.18	
126	"	"		8.1k	9:45.5	7:22:40	49:00:44	2:30.5	1.19	
127	"	"		7.1k	9:52	7:22:39	49:00:43	2:36	1.20	Star obstruction anyway
128	SAO 41936	1.0		45k	9:58	7:41:11	49:01:29	2:24	1.18	
129	"	"		44k	9:59			2:26	1.18	
130	Geographos	300	V	6.0k	10:03	7:22:34	49:00:42	2:48	1.23	(Star a bit close)
131	"	"		6.5k	10:10	7:22:33	49:00:42	2:55	1.24	

Telescope: 61"

Iris:

Frame prefix #: 94A

Day of Week: W/TH

Focus:

Humidity:

Sheet #: 10

Observers: GRUNDY
HICKS

Date MST/UT: JAN 12/13 1994

Tailpiece:

Balance:

Temp O/I:

Guidepoint:

Exp #	Object	Exp time	Filter slit	Comp. exposure ^{PEAK}	Exp start UT	RA set	Dec set	hour-angle exp-start	SecZ	Comments: VME crashes, seeing, Moon, clouds, etc.
132	GEOGRA.	300	V	6.9k	10:15.5	7:22:32	49:00:41	3:01	1.26	
133	"	"	/	7.0k	10:22	7:22:31	49:00:40	3:07	1.28	star obstruction caused delay
134	"	"	/	10k	10:37.5	7:22:29	49:00:39	3:23	1.33	
135	"	"	/	10k	10:44			3:29	1.35	
136	"	"	/	12k	10:50	7:22:27	49:00:38	3:35	1.37	
137	"	"	/	12k	10:56			3:41	1.39	
138	SAO 41936	1.0	/	48k	10:02	7:41:11	49:01:29	3:29	1.35	
139	"	"	/	30k	11:04			3:30	1.35	
140	Geograph.	300	/	15k	11:05.5	7:22:25	49:00:38	3:51	1.43	
141	"	"	/	14k	11:12			3:57	1.46	
142	"	"	/	13k	11:18	7:22:23	49:00:36.5	4:03	1.49	
143	"	"	/	12k	11:24			4:09.5	1.52	
144	"	"	/	11k	11:30.5	7:22:21.5	49:00:36	4:16	1.55	
145	"	"	/	12k	11:38			4:23	1.59	
146	"	"	/	8.1k	11:44.5	7:22:19	49:00:37	4:30	1.63	image a bit smeared

Telescope: 61"

Frame prefix #: 94A

Day of Week: W/TH

Date MST/UT: JAN 12/13 1994

Observers: WG, M.H.

Focus: 111

Tailpiece: 11

Balance: 11

Humidity: 11

Temp 0/I: 11

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start UT	RA set	Dec set	Hour-angle exp-start	SecZ	Comments: VME crashes, seeing, Moon, clouds, etc.)
147	GEOG.	300	V	11k	11:51.5	7:22:18	49:00:35	4:37	1.67	$\alpha \rightarrow -1387 \delta \rightarrow -0028$
148	"	"	"	11k	11:58			4:43	1.71	
149	SAO	1sec	V	33k	12:04	7:41:11	49:01:31	4:31	1.63	
150	"	"	"	39k	12:06			4:25	1.64	
151	GEOG.	300	V	11k	12:08.5	7:22:16	49:00:34	4:54	1.79	
152	SL-9	300	OPEN	~ 100 above sky	12:27.5	14:28:11	-15:28:50	-1:52	1.73	$\alpha = +0053 \delta = -0016$
153	"	"	"		12:35				1.70	
154	"	"	"		12:42			-1:37	1.67	
155	"	"	"						1.64	Times in headers
156	"	"	"		12:56			-1:23	1.62	are 7 seconds
157	"	"	"		13:02				1.59	early.
158	"	"	"		13:09	14:28:12	-15:28:55	-1:11	1.58	
159	"	"	"						1.56	
160	SKY FLAT	100	OPEN	27k	13:29:59	11:00:00	00:00:00	2:33	1.54	
161	"	30	"	15k	13:35				1.58	

600x600

14x11x14

1800x1800

19

his:

Frame prefix #:

Day of Week: W/TH

Focus:

Tailpiece:

Observers: WG, MH

Date MST/UT: JAN 12/13 1994

Temp O/I:

Guideline:

[illegible]

1800 + 0575