Frame prefix: 1R94E = IRAF format / WF94E = FITS format

Telescope: 61"

Date: July 9/10 1994

Focus: 1280 dec

Iris: 300

Humidity: 43%

Sheet #: 1

Tailpiece: silver box south

Observers: HICKS GRUNDY Sat./Sun. UT

Balance: no guider box, weights back

Temp: 66/69 °F

Guidepoint:

Note: Date is DD/MM/YY in header

| 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. |
|---|---|---|---|---|---|---|---|---|---|
| 1 | SL-9 | 60 | R | sky ~3000 | | | | | some Jupiter scattered light. |
| 2 | " | 300 | R | sky ~9000 | 4:10 | 4:07:44 | -12:07:23 | 1.61 | Jup. is ~30° away |
| 3 | " | " | " | | 4:19 | | -12:06:17 | | |
| 4 | " | " | " | | 4:28 | | -12:05:28 | 1.69 | ← bad image, jumped |
| 5 | " | " | " | | 4:36 | | -12:04:50 | 1.74 | |
| 6 | " | " | " | | | | | | ← too much Jupiter |
| 7 | " | " | " | | 4:54 | 14:07:44 | -12:04:49 | 1.87 | |
| 8 | " | " | " | | | 14:07:44 | -12:03:38 | ~1.9 | |
| | | | | | | | | | clouds in West |
| 9 | Kuiper search | 60 | Open | sky ~2400 | 8:04 | 20:57:26 | -00:16:44 | 1.23 | -1:06 (J2000 20:09/0:0: |
| 10 | K.S. 1 | 600 | " | sky ~12000 | 8:09 | 20:57:56 | -0:04:06 | 1.22 | (see map on |
| 11 | " 2 | " | " | | 8:22 | 20:57:56 | -0:19:26 | 1.21 | -:49 reverse side |
| 12 | " 3 | " | " | | 8:35 | 20:56:56 | -0:19:24 | 1.20 | -:31 of log sheet) |
| 13 | " 4 | " | " | | 8:48 | 20:56:56 | -0:04:04 | 1.19 | -:20 ← totally clouded |
| 14 | " 1 | " | " | | 9:56 | 20:56:57 | -0:04:05 | 1.21 | +:47 out. (FLAT FIEL |
| 15 | " 1 | " | " | | 10:09 | 20:57:56 | -0:03:41 | 1.22 | +:59 |
| 16 | " 2 | " | " | | 10:22 | 20:57:57 | -0:19:01 | 1.24 | +1:12 |
| 17 | " 3 | " | " | | 10:35 | 20:56:57 | -0:18:58 | 1.27 | +1:25 T = 58°/62° |
| 18 | 4 | " | " | | 10:47 | 20:56:57 | -0:03:38 | 1.30 | +1:38 asteroid trail |

Telescope: 61"

Sheet #: 2

Frame prefix: 1R94E

Date: UT 7/11/1994

Focus: 1279

Iris:

Tailpiece:

Balance:

Humidity: 55%

Observers: HICKS GRUNDY MST SUN/MON.

Temp: 60 °F

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. |
|---|---|---|---|---|---|---|---|---|---|
| 19 | 0 (KB.) | 120 | open | | 8:39 | 22:27:31 | 9:44:36 | 1.22 | -1:57 J2000 22:30:00 |
| 20 | 1 | 600 | " | | 8:44 | 22:28:01 | 9:52:15 | 1.21 | -1:53 +10:00:00 |
| 21 | 2 | " | " | | 8:57 | 22:28:01 | 9:36:55 | 1.18 | -1:39 |
| 22 | 3 | " | " | | 9:10 | 22:27:01 | 9:36:57 | 1.15 | -1:26 |
| 23 | 4 | " | " | | 9:22 | 22:27:01 | 9:52:16 | 1.13 | -1:13 |
| 24 | 5 | " | " | | 9:35 | 22:27:31 | 10:07:36 | 1.11 | -1:01 |
| 25 | 1 | " | " | | | 22:28:01 | 9:52:14 | 1.10 | |
| 26 | 2 | " | " | | 10:01 | 22:28:01 | 9:37:44 | 1.09 | -:36 |
| 27 | 3 | " | " | | 10:13 | 22:27:01 | 9:37:46 | 1.09 | -:22 |
| 28 | 4 | " | " | | 10:26 | 22:27:01 | 9:53:06 | 1.08 | -:09 |
| 29 | 5 | " | " | | 10:39 | 22:27:31 | 10:08:25 | 1.08 | +:03 |
| | | | | | | | | | temp 60/62 |
| | | | | | | | | | Hum 55% END |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Compromise guidepoint 390.8, 420.8

Frame prefix: FR94E

Telescope: 61"

Focus: 3852 decimal

Sheet #: 1

Date: UT: July 15, 1994 (MST night of Thurs. July 14)

Iris: 300

Humidity: 42%

Tailpiece: 730/640 alternate

Observers: GRUNDY, HICKS

Balance: rear

Temp: 65/67

Guidepoint: (390.8, 413) Tailpiece 730

| 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. |
|---|---|---|---|---|---|---|---|---|---|
| | FK4 * | 0.1 | | | | | Tailpiece rotated 90° to 640 | | |
| | #1388 | | | (Iris = 360) | | | → Guidepoint | | (390.4, 420.8) Tailp. 730 |
| 1 | Sky, flat B | 2 | B/dic. | 8000 | | 14:53:23 | 6:37:00 | | |
| 2 | " | 4 | " | 13000 | 3:05 | " | " | | (Some smoke to east |
| 3 | " | 7 | " | 17000 | 3:06 | 14:53:39 | 6:37:00 | | from Rincon fire) |
| 4 | " | 10 | " | 20000 | 3:07 | 14:54:34 | 6:37:00 | +:21 | 1.11 |
| 5 | " | " | " | 16000 | 3:09 | 14:55:22 | 6:37:00 | | (recooled |
| 6 | " | 15 | " | 17000 | 3:10 | 14:56:09 | 6:37:00 | | camera) |
| 7 | " | 20 | " | 17000 | 3:12 | 14:57:03 | 6:37:00 | +:23 | 1.11 |
| 8 | Jupiter | .01 | " | | | | | | |
| 9 | " | " | " | | | | | | |
| 10 | " | " | " | | 3:18 | 14:12:29 | -12:07:14 | +:15 | 1.49 |
| | Iris | moved | | to 300 | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Times wrong in headers

Times accurate in headers from now on.

Frame prefix: FR94E

Telescope: 61"

Date: UT 7/15/94

Focus: 3852
Iris: 300
Tailpiece: 730
Balance:

wind ~5 MPH
Humidity: 42%
Temp:

Sheet #: 2

Observers: GRUNDY, HICKS

Guidepoint (390.8, 420.8

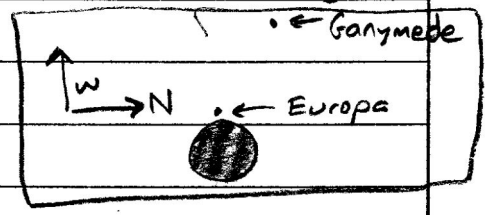
| Exp. # | Object | Exp. time | Filter (slit) | Counts: Peak/Phot | UT time Start | RA α | Dec δ | SecZ | Comments: seeing, moon, LHA, VME crashes, clouds, etc. |
|---|---|---|---|---|---|---|---|---|---|
| 11 | Field SP3 | .1 | B/dick | | 3:43 | 14:12:37 | -12:07:39 | 1.56 | Jupiter barely visible west of frame |
| 12 | F4 | .01 | " | | 3:46 | 14:12:36 | -12:07:38 | 1.58 | ☽ Moon up, shining in dome |
| 13 | F5 | " | " | | 3:52 | 14:12:36 | | 1.60 | |
| 14 | F6 | " | " | | 3:57 | 14:12:35 | | 1.62 | |
| 15 | F7 | " | " | | 4:03 | 14:12:34 | | 1.65 | |
| 16 | F8 | " | " | | 4:09 | 14:12:34 | -12:07:38 | 1.68 | |
| 17 | F9 | " | " | | 4:13 | 14:12:27 | -12:07:38 | 1.70 | ← Jupiter in view |
| 18 | F10 | " | " | | 4:17 | 14:12:21 | | 1.73 | |
| 19 | F11 | " | " | | 4:24 | 14:12:21 | -12:07:38 | 1.77 | |
| 20 | F12 | " | " | | 4:30 | 14:12:20 | | 1.81 | +2:26 |
| 21 | F13 | " | " | | 4:36 | 14:12:19 | -12:07:37 | 1.85 | |
| 22 | F14 | " | " | | 4:41 | 14:12:19 | | 1.89 | +2:37 |
| 23 | F15 | " | " | | 4:47 | 14:12:18 | -12:07:37 | 1.95 | +2:43 |
| 24 | F16 | " | " | | 4:55 | 14:12:25 | -12:09:46 | 2.03 | +2:51 South of Jupiter |
| 25 | F17 | " | " | | 5:02 | 14:12:24 | -12:09:46 | 2.09 | +2:58 South-west of Jupiter |
| 26 | F18 | " | " | | 5:08 | 14:12:23 | -12:09:45 | 2.16 | +3:04 " |
| 27 | F19 | " | " | | 5:13 | 14:12:31 | -12:09:54 | 2.21 | +3:09 south-east of J |
| 28 | F20 | " | " | | 5:20 | 14:12:31 | -12:05:21 | 2.32 | +3:15 North-east of J |

West ← Jupiter O → East

moving west 0.7 sec

hopsize 1

hopsize -1.4 sec



Frame prefix: FR94E

Telescope: 61"

Date: July 15, 1994 UT

Focus:

Iris:

Tailpiece:

Balance:

Humidity:

Temp:

Sheet #: 3

Observers: GRUNDY/HICKS

Guidepoint: (390.8, 420)

| 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. |
|---|---|---|---|---|---|---|---|---|---|
| 29 | F 21 | 0.01 | B/dichr | | 5:25 | 14:12:23 | -12:05:21 | 2.41 | +3:21 Northwest of J |
| 30 | Neptune/tilt | 15 | " | 2k peak | 6:50 | 19:34:22 | -21:02:39 | 1.70 | Ganymede in field |
| 31 | " | " | " | 66k Phot | 7:20 | 19:34:22 | -21:02:40 | 1.67 | -:06 |
| 32 | " | " | " | | 7:53 | 19:34:21.5 | -21:02:31 | 1.69 | +:28 |
| 33 | " | " | " | | 8:23 | 19:34:21 | -21:02:34 | 1.75 | +:57 Smoke! |

Frame prefix: FR94E

Telescope: 61"

Date: July 17/18

Focus: 3872
Iris: 300
Tailpiece: 730
Balance:

Humidity: 92%

Sheet #: 4

Observers: HICKS

Temp: 47/52

Guidepoint: 390.8 420.8

| 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. |
|---|---|---|---|---|---|---|---|---|---|
| 034 | F1 | 0.01 | B/D | | 3:34 | 14:13:06.37 | -12:10:58.8 | 1.57 | HOP SIZE = -0.7 sec |
| 035 | F2 | " | " | | 3:39 | 14:13:05.78 | -12:10:58.9 | 1.60 | MISNAMED IN HEADER |
| 036 | F3 | " | " | | 3:45 | 14:13:05.09 | -12:10:58.9 | 1.62 | |
| 037 | F4 | " | " | | 3:50 | 14:13:04.51 | -12:10:58.9 | 1.65 | NAME CORRECT |
| 038 | F5 | " | " | | 3:56 | 14:13:03.94 | -12:10:58.9 | 1.68 | 256x256 now |
| 039 | F6 | " | " | | 4:02 | 14:13:03.31 | -12:10:58.9 | 1.70 | |
| X | THICK CLOUDS ROLL IN, WE STOP, LAST EXP | | | | | | | | MUST BE AFFECTED |
| | | | | | | | | | |
| | | | | | | | | | |
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| | | | | | | | | | |

Frame prefix: FR94E

Telescope: 61''

Date: July 18 19

Focus: 3770

Iris:

Tailpiece:

Balance:

Humidity: 86

Temp: 51/55

Sheet #: 5

Observers: HICKS, NICOLE

Guidepoint: 390.8, 413

| 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. |
|---|---|---|---|---|---|---|---|---|---|
| 40 | Jupiter | 0.01 | B/D | | 3:25 | 14:13:07 | -12:11:55 | 1.56 | HOP SIZE -0.70 |
| 41 | F1 | 0.01 | " | | 3:35 | 14:13:17.28 | -12:11:54.7 | 1.56 | |
| 42 | F2 | " | " | | 3:42 | 14:13:16.68 | -12:11:54.7 | 1.62 | |
| 43 | F3 | " | " | | 3:46 | 14:13:16.65 | -12:11:54.7 | 1.64 | |
| X | F4 | " | " | | 4:00 | 14:13:15.62 | -12:11:54.7 | | NOT SAVED |
| 44 | F5 | " | " | | 4:10 | 14:13:13.76 | -12:11 54.6 | 1.78 | SAVED |
| 45 | F6 | " | " | | 4:15 | 14:13:12.84 | -12:11:54.6 | 1.81 | |
| 46 | F7 | " | " | | 4:27 | 14:13:02.03 | -12:12:01.4 | 1.91 | |
| 47 | F8 | " | " | | 4:34 | 14:13:01.12 | -12:12:01.0 | 1.96 | |
| 48 | F9 | " | " | | 4:34 | 14:13:00.26 | -12:12:00.9 | 2.02 | |
| X | THICK CLOUDS W/ FEW PATCHS, WE TURN TO IMAGING | | | | | | | | |
| 49 | JUP | 0.01 | B/D | | 5:08 | 14:13:07.77 | -12:11:53.2 | 2.38 | |
| 50 | " | " | " | | 5:09 | " | " | 2.39 | |
| 51 | " | " | " | | 5:10 | | | | |
| 52 | " | 0.1 | 8600 | | 5:16 | | | 2.50 | |
| 53 | " | " | " | | 5:17 | | | 2.53 | |
| 54 | " | " | " | | 5:19 | | | 2.56 | |
| 55 | " | " | " | | 5:20 | | | 2.58 | |

Telescope:

Sheet #: 6

Frame prefix:

Focus:

Date:

Iris:

Humidity:

Tailpiece:

Observers:

Balance:

Temp:

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. |
|---|---|---|---|---|---|---|---|---|---|
| 056 | JUP | 0.1 | CN | 31K | 5:23 | 14:13:08 | -12:11:51 | 2.64 | |
| 057 | " | " | " | | 5:24 | | | 2.66 | |
| 058 | " | " | " | | 5:25 | | | 2.67 | |
| 059 | " | " | " | | 5:26 | | | 2.71 | |
| 060 | " | " | " | | 5:27 | | | 2.73 | |
| 061 | DOME FLAT | 5 | B/D | 27K | 7:45 | | | | |
| 062 | " | " | " | | | | | | |
| 063 | " | " | " | | | | | | |
| 064 | " | " | B600 | 33K | | | | | |
| 065 | " | " | " | | | | | | |
| 066 | " | " | " | | | | | | |
| 067 | " | " | CN | | | | | | |
| 068 | " | " | " | | | | | | |
| 069 | " | " | " | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
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| | | | | | | | | | |

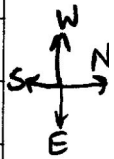
Frame prefix: FR94E  Telescope: 61"  Focus: 3789  Sheet #: 7

Date: JULY 20, 1994 UT  Iris: 300  Tailpiece:  Humidity:

Observers: GRUNDY, HICKS Tues/Wed  Balance:  Temp:  Guidepoint: (390.8, 413.0)

400 x 256

| 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. |
|---|---|---|---|---|---|---|---|---|---|
| 70 | Jupiter | .01 | B/Bidn | | 3:21 | 14:13:18 | -12:13:04 | 1.56 | ~1:35 • Ganymede |
| 71 | F81 | " | " | | 3:30 | 14:13:09 | -12:13:04 | 1.59 | +1:45 |
| 72 | F82 | " | " | | 3:36 | 14:13:10 | -12:13:04 | 1.62 | 1:50 • 10 |
| 73 | F83 | " | " | | 3:42 | 14:13:10 | -12:13:04 | 1.64 | 1:56 |
| 74 | F84 | " | " | | 3:48 | 14:13:11 | -12:13:04 | 1.68 | 2:03 • Europa |
| 75 | F85 | " | " | | 3:54 | 14:13:12 | -12:13:04 | 1.71 | 2:09 ↙ Callisto |
| 76 | F86 | " | " | | ~~3~~ 4:00 | 14:13:13 | -12:13:04 | 1.74 | 2:15 Io in slit |
| 77 | F87 | " | " | | 4:05 | 14:13:13 | -12:13:04 | 1.77 | 2:20 |
| 78 | F88 | " | " | | 4:11 | 14:13:14 | -12:13:04 | 1.81 | 2:26 |
| 79 | F89 | " | " | | 4:19 | 14:13:22 | -12:13:05 | 1.87 | 2:34 |
| 80 | F90 | " | " | | 4:24 | 14:13:24 | -12:13:05 | 1.91 | 2:39 ↙ step size increased |
| 81 | F91 | " | " | | 4:32 | 14:13 | -12:13:05 | 1.99 | 2:47 |
| 82 | F92 | " | " | | 4:36 | 14:13:27 | -12:13:04 | 2.02 | 2:51 |
| 83 | F93 | " | " | | | 14:13:27 | -12:13:04 | 2.08 | 2:57 |
| 84 | F94 | " | " | | 4:47 | 14:13:28 | -12:13:04 | 2.15 | 3:02 ↙ more $N_2$ in short camera |
| 85 | F95 | " | " | | 4:59 | 14:13:17 | -12:16:14 | 2.30 | 3:13 |
| 86 | F96 | " | " | | 5:05 | 14:13:22 | -12:16:14 | 2.39 | 3:19 |
| 87 | F97 | " | " | | 5:10 | 14:13:22 | -12:10:13 | 2.46 | 3:24 |
| 88 | F98 | " | " | | 5:15.5 | 14:13:18 | -12:10:12 | 2.57 | 3:30.5 |



Frame prefix: FR94E

Telescope: 61"

Date: July 20, 1994 Tues/Weds UT

Focus:
Iris:
Tailpiece:
Balance:

Humidity:

Temp:

Sheet #: 8

Observers: GRUNDY, HICKS

Guidepoint (390.8, 413)

| 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. |
|---|---|---|---|---|---|---|---|---|---|
| 89 | Jupiter | .01 | B/dich | | | 14: | | | |
| 90 | " | " | " | | | | | | |
| 91 | " | " | " | | 5:21 | 14:13:19.3 | -12:13:01 | 2.67 | |
| 92 | " | " | " | | | | | | |
| 93 | " | " | " | | 5:22 | 14:13:21 | -12:12:25 | 2.71 | |
| 94 | " | 0.1 | 8600 | | 5:26 | 14:13:19 | -12:13:23 | 2.79 | |
| 95 | " | " | " | | 5:27 | | | 2.80 | |
| 96 | " | " | " | + dichroic | 5:27 | | | 2.81 | NO GOOD |
| 97 | " | " | " | (oops!) | 5:28 | 14:13:20 | -12:13:03 | 2.83 | |
| 98 | " | " | " | | 5:29 | | | 2.85 | ← Put mirror in |
| 99 | " | " | " | | 5:34.5 | | | 3.00 | |
| 100 | " | " | " | | 5:35 | | | 3.02 | |
| 101 | " | " | " | | 5:36 | | | 3.04 | Use these only |
| 102 | " | " | " | | 5:37 | | | 3.06 | |
| 103 | " | " | " | | 5:37 | | | 3.08 | |
| ~~104~~ | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Frame prefix: FR94E

Telescope: 61"

Date:

Focus:
Iris:
Tailpiece:
Balance:

Humidity: ~70%

Temp:

Sheet #: 4

Observers: Grundy, Hicks

Guidepoint (390.8, 413)

| 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. |
|---|---|---|---|---|---|---|---|---|---|
| 150² 104 | Jupiter | 0.1 | B/die | | see headers | 14:13:31 | -12:14:38 | 2.73 | Times good to ±1 sec in header |
| 105 | | | | | | | | | |
| 106 | | | | | | | | | |
| 107 | | | | | | | | | |
| 108 | | | | | | | | | |
| 109 | | | | | | | | | |
| 110 | | | | | | | | | clouds worse |
| 111 | | | | | | | | | |
| 112 | | 0.2 | | | | | | 2.82 | |
| 113 | | " | | | 5:24 | | | 2.83 | |
| 114 | | 0.1 | | 8000 | | | | | |
| 115 | | " | | | | | | 2.87 | |
| 116 | | " | | | | | | | |
| 117 | | 0.2 | | 40k | 5:27 | | | 2.91 | |
| 118 | | .05 | | 10 k | | 14:13:32 | -12: | 2.92 | |
| 119 | | " | | 13 k | | | | 2.95 | |
| 120 | | " | | 2400 | 5:29 | | | 2.96 | |
| 121 | | .1 | | 13 k | | | | | |

Frame prefix: FR94E

Telescope: 61"

Date: July 21, 1994 UT Wed/Thurs

Focus:

Iris:

Tailpiece:

Balance:

Humidity:

Temp:

Sheet #: 10

Observers: WG, MH

Guidepoint (370.8, 413)

| 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. |
|---|---|---|---|---|---|---|---|---|---|
| 122 | Jupiter | .1 | B/dic | 12 k | 5:31 | | | 3.00 | |
| 123 | " | | | 15 k | | | | 3.02 | |
| 124 | | | | 13 k | | | | | |
| 125 | | | | 7000 | | | | 3.06 | |
| 126 | | | | 12 k | | | | 3.08 | |
| 127 | | | | 7000 | 5:34 | 14:13:31.5 | -12:14:45 | 3.10 | |
| 128 | | | | 6000 | | | | 3.12 | (no open) |
| 129 | | | | 3 k | | | | 3.17 | |
| 130 | | | | | | | | | |
| 131 | | | | | | | | | |
| 132 | | | | 11 k | | | | | |
| 133 | | | | 13 k | | | | 3.24 | |
| 134 | | | | | | | | 3.29 | |
| 135 | | | | 16 k | | | | | |
| 136 | | | | 24K | | | | 3.31 | |
| 137 | | 0.05 | | | | | | 3.31 | |
| 138 | | 0.1 | | | | | | 3.36 | |
| 139 | | 0.1 | | | | | | 3.39 | |

Frame prefix: F91

Telescope: 61"

Date: JULY 20/21

Sheet #: 11

Observers: MH, WG

Focus:
Iris:
Tailpiece:
Balance:

Humidity:

Temp:

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. |
|---|---|---|---|---|---|---|---|---|---|
| 140 | 7 | 0.05 | | 17K | | | | 3.42 | |
| 141 | | " | | 10K | 5:44 | | | 3.44 | |
| 142 | | 0.1 | | | | | | 3.47 | |
| 143 | | " | | | | | | 3.50 | |
| 144 | | " | | | | | | 3.53 | |
| 145 | | " | | 10K | 5:48 | | | 3.56 | |
| 146 | | " | | | | | | 3.60 | |
| 147 | | " | | | 5:49 | | | 3.63 | |
| 148 | | " | | | 5:50 | | | 3.66 | |
| 149 | | 0.5 | | | | | | 3.71 | |
| 150 | | 0.1 | | | | | | | |
| 151 | | 0.5 | | | | | | 3.78 | |
| 152 | | | | | | | | | |
| 153 | | | | | | | | | |
| 154 | | | | | | | | | |
| 155 | | | | | | | | | |
| 156 | | | | | | | | | |
| 157 | | | | | | | | | |

Frame prefix: FR94E Telescope: 61" 1994 Sheet #: 12

Date: UT July 22 Thrs/Fri Focus: Iris: Tailpiece: Balance: Humidity: 61%

Observers: GRUNDY HICKS Temp: Guidepoint: (389.81, 413)

| 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. |
|---|---|---|---|---|---|---|---|---|---|
| 152 | 4 111 | .01 | B/Dic | | | | | | Full moon + |
| 153 | 112 | " | | | | | | | thin clouds |
| 154 | 113 | " | | | | | | | |
| 155 | 114 | " | | | | | | | |
| 156 | 115 | " | | | | | | | |
| 157 | 116 | " | | | | | | | |
| 158 | 117 | " | | | | | | | |
| 159 | F119 | " | | 4:05:50 | | 14:13:37.7 | -12:15:46 | 1.83 | |
| 160 | " | " | | 4:07:19 | | | | | |
| 1 | F120 | " | | 4:08:17 | | 14:13:37 | -12:15:46 | 1.85 | |
| 2 | " | " | | 4:09:02 | 4:10 | | | 1.86 | |
| 3 | " | " | | 4:10:02 | | | | 1.87 | |
| 4 | " | " | | 4:10:45 | | 14:13:37 | -12:15:46 | 1.87 | ← use this one for |
| 5 | | | | 4:11:26 | | | | | mid-exposure |
| 6 | | | | 4:12:12 | | | | | Arg! Clouds |
| 167 | FLAT FIELD | 30 | | 5000 | | | | | moved in. |
| 168 | " | 60 | | 20 k | | | | | |
| 169 | " | 30 | | 12 k | | | | | |

Frame prefix: FR94E Telescope: 61" Sheet #: 13

Date: UT 7/22 Thurs/FRI. Focus: Iris: Tailpiece: Humidity:

Observers: Balance: Temp: Guidepoint:

| 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. |
|---|---|---|---|---|---|---|---|---|---|
| 170 | | .01 | B/d | | | | | 2.20 | Shutter stuck open |
| 1 | | " | " | | | 14:13:37.6 | -12:15:44 | 2.21 | |
| 2 | | 1 | CO | 7000 | | | | 2.31 | |
| 3 | | 1 | " | Saturate | | | | 2.33 | |
| 4 | F121 Q1 | " | " | | | 14:13:38 | -12:15:43 | 2.35 | |
| 5 | " | " | " | | | | | 2.36 | – nothing (clouds) |
| 6 | | | | | | | | | |
| 7 | | | | | | | | | |
| 8 | | | | | | | | 2.50 | |
| 9 | | | | | | | | 2.51 | |
| 180 | | | | | | | | | – dancing w/ |
| 1 | | | | | | | | 2.55 | ← clouds |
| 2 | | | | | | | | 2.61 | |
| 3 | | | | | 5:12 | | | 2.64 | |
| 4 | | | | | | | | 2.66 | |
| 5 | | 1.0 | | | | | | 2.81 | ← nice hole |
| 6 | | | | | | | | 2.83 | in clouds |
| 7 | | | | | | | | 2.88 | |

Frame prefix: FR94E Telescope: 61" Focus: Sheet #: 17

Date: UT 7/22/94 Thurs./Fri. Iris: Humidity:

Tailpiece:

Observers: Balance: Temp: Guidepoint:

| 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. |
|---|---|---|---|---|---|---|---|---|---|
| 188 | Jup. | 1.0 | CO/B | Saturated | | | | 2.90 | clouds parted |
| 9 | | 0.1 | | | | 14:13:39 | -12:15:44 | 2.92 | |
| 190 | | " | | | | | | 2.95 | |
| 1 | | " | | 7000? | 5:25:24 | | | 2.96 | |
| 2 | | | | | | | | 2.99 | |
| 3 | | | | 15k | | | | 3.00 | |
| 4 | | | | 15k | | | | 3.03 | |
| 5 | | | | 15k | | | | 3.05 | |
| 6 | | | | | | | | 3.07 | |
| 7 | | | | | | | | | |
| 8 | F123 | | | | 5:31 | 14:13:38 | -12:15:42 | 3.13 | |
| 9 | | | | | | | | | |
| 200 | | | | | | | | 3.17 | |
| 1 | | | | 15k | | | | 3.20 | |
| 2 | | | | 12k | | | | 3.22 | |
| 3 | | | | 9.5k | 5:35 | | | 3.25 | |
| 4 | | | | | | | | 3.27 | |
| 5 | | | | | | | | | |

Frame prefix: FR94E

Telescope: 61"

Date: UT 7/22/94

Focus:

Iris:

Tailpiece:

Balance:

Humidity:

Temp:

Sheet #: 15

Observers: Th/Fr

Guidepoint: (389.81, 413.0

| 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. |
|---|---|---|---|---|---|---|---|---|---|
| 206 | F124 | 0.1 | CO/dic | 7k | 5:37 | 14:13:37.4 | -12:15:36.0 | 3.32 | Clouds getting |
| 7 | | " | | 6.8 k | | | | 3.36 | worse again |
| 8 | | " | | 5.8 k | | | | | |
| 9 | | " | | 3.2 k | | | | 3.405 | |
| 210 | | 1.0 | | 22 k | 5:40 | | | 3.44 | |
| 1 | | " | | | | | | 3.46 | |
| 2 | | " | | | | | | | |
| 3 | | " | | 43k | 5:43 | | | 3.53 | not saved ? |
| 213 | CO FLAT | 100 | | 2000 max | | | | | |
| 214 | " | 100 | | 2600 max | | | | | |
| 215 | " | 100 | | 1800 max | | | | | |
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Frame prefix: SP94E

Telescope: 61"

Date: JULY 14/15

Focus: 3852

Iris:

Tailpiece:

Balance:

Humidity: 42%

Temp: 67/65

Sheet #: 1

Observers: HICKS, GRUNDY

Guidepoint: (390.8, 420.8)

| 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 | Jupiter | 0.1 | 0.25 | 30K | 3:29 | 14:12:26.95 | -12:07:39.0 | 1.52 | |
| 002 | " | " | " | " | 3:31 | | | 1.52 | |
| 003 | Io Torus | 300 | " | 3.7 | 3:38 | 14:12:36.78 | -12:07:38.6 | 1.55 | |
| 004 | " | 300 | " | 4.1K | 3:44 | 14:12:36.16 | -12:07:38.4 | 1.57 | ↑ |
| 005 | " | " | " | 5.2 | | 14:12:35.48 | -12:07:38.2 | 1.59 | |
| 006 | " | " | " | 7.5 | 3:55 | 14:12:34.86 | -12:07:38.0 | 1.61 | |
| 007 | " | " | " | 11K | 4:01 | 14:12:34.22 | -12:07:37.9 | 1.64 | Moon up |
| 008 | " | " | " | 17K | 4:07 | 14:12:33.62 | -12:07:37.9 | 1.67 | LHA +02:02 |
| 009 | Jupiter | 0.1 | " | 31K | 4:13 | 14:12:27.40 | -12:07:37.8 | 1.71 | |
| 010 | Io Torus | 300 | " | 14K | 4:15 | 14:12:21.19 | -12:07:37.9 | 1.72 | |
| 011 | " | 300 | " | 9.2K | 4:21 | 14:12:20.59 | -12:07:37.7 | 1.75 | |
| 012 | " | 300 | " | 7.3K | 4:27 | 14:12:20.01 | -12:07:37.6 | 1.79 | +2:23 |
| 013 | " | 300 | " | 6.9K | 4:32 | 14:12:19.37 | -12:07:37.4 | 1.83 | +2:29 |
| 014 | " | 300 | " | 5.5 | 4:38 | 14:12:18.79 | -12:07:37.3 | 1.87 | |
| 015 | " | 300 | " | 5.0K | 4:44 | 14:12:18.17 | -12:07:36.9 | 1.92 | -98 |
| 016 | " | 300 | " | 65K | 4:54 | 14:12:25.37 | -12:09:46.4 | 2.01 | ← move off ⅓ |
| 017 | " | 300 | " | 40K | 5:00 | 14:12:24.05 | -12:09:45.9 | 2.07 | |
| 018 | " | 300 | " | 17K | 5:05 | 14:12:22.75 | -12:09:45.8 | 2.14 | |

Frame prefix: SP94E

Telescope: 61"

Date: JULY 14/15

Sheet #: 2

Focus:

Iris:

Tailpiece:

Balance:

Humidity:

Temp:

Guidepoint:

Observers: HICKS, GRUNDY

| 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. |
|---|---|---|---|---|---|---|---|---|---|
| 019 | ID TORUS | 300 | 0.25 | 32 K | 5:11 | 14:12:31.26 | -12:09:45.0 | 2.20 | 3:07 |
| 020 | " | " | " | 28K | 5:17 | 14:12:31.42 | -12:05:21.1 | 2.29 | 3:14 MOON NE of 4 |
| 021 | " | " | " | 24K | 5:23 | 14:12:23.16 | -12:05:20.7 | 2.38 | |
| 022 | BS 6441 (COMP) | 5.0 | 0.25 | 22K | 5:37 | 17:20:13.1 | -19:19:24 | 1.62 | GP 390.8 406 |
| 023 | " | " | " | 33K | 5:38 | | | 1.62 | |
| 024 | " | " | " | 29K | 5:39 | | | 1.62 | |
| 025 | " | " | " | 30K | 5:40 | | | 1.62 | +0:28 |
| 026 | " | " | " | 34K | 5:41 | | | 1.63 | |
| 027 | " | " | " | 36K | 5:42 | | | 1.63 | |
| 028 | " | " | " | | 5:43 | | | 1.63 | |
| 029 | BS 6629 STD | 0.5 | 1.0 | 32K | 5:49 | 17:47:37 | 2:42:51 | 1.15 | |
| 030 | " | 0.4 | 1.0 | 34K | 5:50 | | | 1.15 | |
| 031 | " | " | 1.0 | 30K | | | | | BAD GUIDING |
| 032 | " | " | " | 28K | 5:52 | | | 1.15 | |
| 033 | " | " | 1.0 | 28K | | | | 1.15 | |
| 034 | " | " | " | 27K | | | | 1.15 | |
| 035 | " | " | " | 34K | | | | 1.15 | |
| X | SMOKE FROM RINCON FIRE STRONG SMELL RED MOON | | | | | | | | |

Telescope: 61"

Sheet #: 3

Frame prefix: SP94E

Date: JULY 14/15

Focus:

Iris:

Tailpiece:

Humidity:

Observers: GRUNDY, HICKS

Balance:

Temp:

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. |
|---|---|---|---|---|---|---|---|---|---|
| 36 | BS 5968 COMP | 1.5 | 0.25 | 28k | | | | 1.14 | GP 390.8, 417 |
| 37 | " | " | " | 33k | 6:09 | 16:00:45 | 33:19:15 | 1.14 | |
| 038 | " | " | " | 19k | 6:12 | | | 1.15 | GP 390.8, 420 |
| 039 | " | " | " | 29k | 6:13 | | | 1.15 | |
| 040 | " | " | " | | 6:13 | | | 1.15 | |
| 41 | BS 6060 | 1.5 | " | 30k | | | | 1.61 | Smoke from |
| 42 | " | " | " | 23k | 6:20 | 16:15:17 | -8:21:08 | 1.61 | Rincon fire |
| 43 | " | " | " | 33k | 6:21 | | | 1.62 | |
| 44 | " | " | " | 32k | 6:22 | | | 1.62 | |
| 45 | " | " | " | [illegible] | 6:23 | | | 1.62 | |
| 46 | " | " | " | 34k | 6:24 | | | 1.63 | |
| 47 | " | " | " | 29k | 6:25 | | | 1.64 | |
| 48 | " | " | " | 22k | 6:26 | | | 1.64 | |
| 49 | Triton | 1000 | " | 9300 | 6:34 | 19:34:26 | -21:02:31.5 | 1.73 | -:51 ← Jumped in East |
| 50 | " | " | " | 12500 | 6:53 | 19:34:22 | -21:02:39 | 1.69 | -:32 (lost ~1.5 min) |
| 51 | " | " | " | 12300 | 7:13 | 19:34:22 | -21:02:40 | 1.68 | -:12 ← dec jam |
| 52 | " | " | " | 9100 | 7:31 | 19:34:22 | -21:02:32 | 1.67 | +:06 drifted out |
| 53 | " | " | " | 7000 | 7:50 | 19:34:22 | -21:02:31 | 1.69 | +:24 clouds ? |

no, smoke

Frame prefix: SP94E

Telescope: 61"

Date: July 15 UT

Focus:
Iris:
Tailpiece:
Balance:

Humidity:

Sheet #: 4

Observers: GRUNDY

Temp:

Guidepoint: 390.8, 420

| 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. |
|---|---|---|---|---|---|---|---|---|---|
| 54 | Triton | 1000 | B/Dich | 8200 | 8:08 | 19:34:21 | -21:02:41 | 1.71 | +:43 short camera |
| 55 | BS5968 | 1.5 | " | 18 k | 8:30.5 | 16:00:45 | +33:19:10 | 1.86 | +4:38.5 warming up |
| 56 | " | " | " | 14 k | 8:31 | | | 1.86 | |
| 57 | " | " | " | 14 k | | | | 1.87 | |
| 58 | " | " | " | 11 k | 8:33 | | | 1.88 | |
| 59 | " | " | " | 19 k | 8:35 | | | 1.90 | |
| 60 | " | " | " | 19 k | 8:36 | | | 1.91 | |
| 61 | " | " | " | | 8:37 | | | 1.93 | |
| 62 | " | " | " | 19 k | 8:38 | | | 1.93 | |
| | | | | | | | | | |

Frame prefix: SP94E

Telescope: 61"

Date: UT JULY 16 1994

Focus:
Iris:
Tailpiece:
Balance:

Humidity: 45%

Temp:

Sheet #: 4

Observers: HICKS, GRUNDY

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. |
|---|---|---|---|---|---|---|---|---|---|
| | Jupiter in | slit | | | 4:51 | 14:12:36 | -12:08:48 | 2.02 | (red spot still there) |
| 63 | " | .1 | .25 | | 4:52 | " | " | 2.03 | |
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CLOUDS ALL DAY, STILL HAZE AND DAMP

Frame prefix: SP94E

Telescope: 61"

Date: July 17/13

Focus: 3765

Iris: 300

Tailpiece:

Balance:

Humidity: 90%

Sheet #: 5

Observers: HICKS

Temp: 47/52

Guidepoint: 390.8, 420.8

| 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. |
|---|---|---|---|---|---|---|---|---|---|
| 063 | 10 TORUS | 300 | 0.25 | 4.4K | 3:31 | 14:13:06.31 | -12:10:58.8 | 1.56 | F1 HOP SIZE |
| 064 | " | 300 | " | 4 K | 3:36 | 14:13:05.74 | -12:10:58.9 | 1.59 | F2 - 0.7 sec |
| 065 | " | " | " | 4.3K | 3:42 | 14:13:05.07 | -12:10:58.9 | 1.61 | F3 |
| 066 | " | " | " | 5.5K | 3:48 | 14:13:04.52 | -12:10:58.9 | 1.64 | F4 |
| 067 | " | " | " | 8.9K | 3:54 | 14:13:03.89 | -12:10:58.9 | 1.66 | F5 |
| 068 | " | " | " | 6.4K | 4:00 | 14:13:03.31 | -12:10:59.0 | 1.70 | F6 |
| X | THICK CLOUDS ROLL IN, WE STOP, LAST EXP MUST BE AFF, | | | | | | | | |
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Frame prefix: SP94C

Telescope: 61"

Date: JULY 18/19

Focus: 3770

Iris:

Tailpiece:

Balance:

Humidity: 86

Temp: 51/55

Sheet #: 6

Observers: HICKS, NICOLE

Guidepoint: 380.8, 413

| 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. |
|---|---|---|---|---|---|---|---|---|---|
| 069 | Jupiter | 0.1 | 0.25 | 7.2K | 3:26 | 14:13:07.1 | -12:11:54.5 | 1.56 | |
| 070 | F1 | 300 | 0.25 | 2K | 3:32 | 14:13:17 | -12:11:55 | 1.58 | |
| 071 | F2 | " | " | 2K | 3:38 | 14:13:16.61 | -12:11:54.7 | 1.61 | |
| 072 | F3 | " | " | 2.4K | 3:44 | 14:13:16.06 | -12:11:54.7 | 1.63 | SAYS F2 in header CLOUD IN WAY |
| 073 | F4 | " | " | 2.5K | 3:57 | 14:13:15.56 | -12:11:54.7 | 1.70 | 4 at cloud edge |
| 074 | F5 | " | " | 9.5K | 4:06 | 14:13:13.69 | -12:11:54.6 | 1.76 | HOP SIZE -1.0 sec |
| 075 | F6 | " | " | 18K | 4:13 | 14:13:12.84 | -12:11:54.6 | 1.80 | SAYS F5 IN HEADER |
| 076 | F7 | " | " | 13K | 4:25 | 14:13:01.95 | -12:12:01.3 | 1.89 | |
| 077 | F8 | " | " | 6.1 | 4:31 | 14:13:01.10 | -12:12:01.1 | 1.94 | ↑ |
| 078 | F9 | " | " | | 4:37 | 14:13:00.19 | -12:12:00.8 | 2.00 | DEFECTS COMING ↓ |
| | | | | | | | | | |
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Frame prefix: SP94E

Telescope: 61"

Date: July 19/20

Focus: 3789

Iris:

Tailpiece:

Balance:

Humidity: 82%

Sheet #: 7

Observers: HICKS, CRUNDY

Temp: 53/57

Guidepoint: 390.8 413

| 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. |
|---|---|---|---|---|---|---|---|---|---|
| 79 | Jupiter | 0.1 | " | 13K | | | | | |
| 80 | Jupiter | 0.1 | 0.25 | 13K | 3:26 | 14:13:18.5 | -12:13:04.1 | 1.50 | |
| 81 | IO TORUS | 300 | " | 3.2K | 3:20 | 14:13:08.62 | -12:13:04.1 | 1.58 | LHA + 1:42 |
| 82 | " | " | " | 20K | 3:33 | 14:13:09.36 | -12:13:04.1 | 1.60 | SOME STAR AT 401 |
| 83 | " | " | " | 3.4K | 3:40 | 14:13:10:21 | -12:13:04.2 | 1.64 | |
| 84 | " | " | " | 3.8K | 3:45 | 14:13:10.98 | -12:13:04.3 | 1.66 | |
| 85 | " | " | " | 4.8K | 3:51 | 14:13:11.80 | -12.13:04.3 | 1.69 | |
| 86 | " | " | " | | 3:57 | 14:13:12.56 | -12:13:04.3 | 1.72 | IO IN SLIT |
| 87 | " | " | " | 16K | 4:03 | 14:13:13.34 | -12:13:04.4 | 1.76 | |
| 88 | " | " | " | 28K | 4:09 | 14:13:14.18 | -12:13:04.1 | 1.80 | |
| 89 | " | " | " | 43K | 4:16 | 14:13:22.78 | -12:13:05.1 | 1.85 | WE SWITCH SIDES |
| 90 | " | " | " | 30K | 4:22 | 14:13:23.54 | -12:13:04.8 | 1.89 | |
| 91 | " | " | " | 17K | 4:28 | 14:13:24.58 | -12:13:04.7 | 1.94 | |
| 92 | " | " | " | 8.2K | 4:33 | 14:13:25.57 | -12:13:04.3 | 2.00 | |
| 93 | " | " | " | 3.8K | 4:39 | 14:13:26.62 | -12:13:04.1 | 2.06 | |
| 94 | " | " | " | 2.4K | 4:45 | 14:13:27.63 | -12:13:03.6 | 2.12-2.19 | |
| 95 | " | " | " | 5.9K | 4:55 | 14:13:17.3 | -12:16:14 | 2.25 | 3:10 LHA ← more $N_2$ |
| 96 | " | " | " | 5.5K | 5:02 | 14:13:21.51 | -12:16:13.8 | 2.35 | |

Frame prefix: SP94E

Telescope: 61"

Date: July 19/20

Focus:

Iris:

Tailpiece:

Balance:

Humidity:

Temp:

Sheet #: 8

Observers: HICKS, GRUNDY

Guidepoint: 390.8 413

| 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. |
|---|---|---|---|---|---|---|---|---|---|
| 97 | IO TORUS | 300 | 0.25 | 3.2 K | 5:07 | 14:13:21.64 | -12:10:13.3 | 2.43 | |
| 98 | " | " | " | 3.4K | 5:13 | 14:13:17.87 | -12:10:12.1 | 2.53 | |
| 99 | BS 6441 | 5.0 | " | 6.5K | 5:47 | 17:20:13.0 | -19:19:34 | 1.67 | IT APPEARS |
| 100 | " | 5.0 | " | " | | | | 1.67 | CONDENSATION |
| 101 | " | " | | | | | | 1.68 | ON DEWAR |
| 102 | " | " | " | | | | | 1.68 | |
| 103 | " | " | " | 7000 | 5:52 | | | 1.68 | |
| 104 | " | " | " | 6400 | 5:54 | | | 1.69 | |
| 105 | BS 6629 | 0.4 | 1.0 | 5000 | 6:04.5 | 17:47:36 | 2:42:51 | 1.17 | |
| 106 | (std) | 1.0 | " | 12 K | 6:06 | | | " | |
| 107 | " | " | " | 12 K | 6:07 | | | " | +:47 HA |
| 108 | " | " | " | 12 K | 6:08 | 17:47:36 | 2:42:51.5 | 1.18 | |
| 109 | " | " | " | 12 K | 6:09 | | | " | |
| | VERY | DEFINITELY | | | | CONDENSATION | | | |
| | | | | | | | | | |
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Frame prefix: SP94E

Telescope: 61"

Date: July 21/22 1994

Focus: 3840

Iris:

Tailpiece:

Balance:

Humidity: 61%

Temp: 60/63

Sheet #: 9

Observers: HICKS, GRUNDY

Guidepoint: (384.81, 413)

| 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. |
|---|---|---|---|---|---|---|---|---|---|
| 111 | 4 | .1 | 0.125 | | 3:41:41 | 14:13:44 | -12:16:16 | 1.68 | G SPOT IN SLIT |
| 112 | | " | | | 3:45:33 | | | 1.69 | |
| 113 | | " | | | | | | 1.70 | |
| 114 | | " | | 12000 | | | | 1.72 | |
| 115 | | " | | | 3:52 | | | 1.74 | |
| 116 | | " | | | | | | 1.75 | TRIPLE WHAMM |
| 117 | | " | | | | | | 1.75 | GD SITE |
| 118 | IOTORUS | 150 | 0.25 | 21K | 4:00 | 14:13:39.66 | -12:15:45.9 | 1.79 | SLIT JUST INSIDE IO |
| 119 | " | 300 | " | 12K | 4:03 | 14:13:37.66 | -12:15:45.9 | 1.81 | |
| X 120 | " | 300 | " | 3.8K | 4:09 | 14:13:36.82 | -12:15:45.7 | 1.86 | CLOUDS MOVED IN |
| X | HOLE IN CLOUDS | | | | | | | | |
| X 121 | " | 150 | " | | 4:55 | 14:13:37.86 | -12:15:43.1 | 2.37 | |
| X | NO, CLOUDS MOVE IN RIGHT AFTER START | | | | | | | | |
| 122 | " | 300 | 0.25 | 16K | 5:25 | 14:13:38.94 | -12:15:43.3 | 2.97 | |
| 123 | " | 300 | " | 8.6K | 5:31 | 14:13:38.24 | -12:15:41.5 | 3.12 | +3:53 |
| 124 | " | 300 | " | | 5:37 | 14:13:37.38 | -12:15:35.8 | 3.31 | -.50 Phot dropping |
| 125 | BS 5968 | 0.5 | " | | 5:57 | 16:00:45 | 33:19:23 | 1.17 | |
| 126 | " | " | " | | | | | 1.17 | |

Frame prefix: SP94E

Telescope: 61"

Date: July 21/22

Focus:

Iris:

Tailpiece:

Balance:

Humidity:

Temp:

Sheet #: 10

Observers: HICKS, GRUNDY

Guidepoint:

| 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. |
|---|---|---|---|---|---|---|---|---|---|
| 127 | 5968 | 1.0 | 0.25 | 17K | 5:55 | | | 1.17 | +2:31 |
| 128 | " | " | " | 17K | | | | 1.17 | |
| 129 | " | " | " | 4K | 5:57 | | | 1.18 | OUT OF SLIT |
| 130 | " | " | " | 19K | 5:58 | | | 1.18 | |
| 131 | " | " | " | 18K | | | | 1.18 | |
| 132 | " | " | " | 15K | 5:59 | | | 1.18 | |
| 133 | " | " | " | 17K | | | | 1.19 | |
| 134 | " | " | " | 16K | | | | 1.19 | |
| 135 | 5534 | 30 | " | 1.7K | 6:07 | 14:49:58 | 23:56:10 | 1.61 | ★ TOO BLUE? OUT OF SLIT |
| 136 | " | " | " | 13K | | | | 1.62 | |
| 137 | " | " | " | 13K | | | | 1.62 | |
| 138 | " | " | " | 8K | | | | 1.63 | |
| 139 | " | " | " | 6K | | | | 1.64 | |
| 140 | " | " | " | 6K | | | | 1.64 | |
| 141 | " | " | " | | | | | 1.65 | |
| 142 | BS 6441 | 50 | 0.25 | 10K | | | | 1.82 | |
| 143 | " | " | " | | | 17:20:13.29 | -19:17:21 | 1.82 | |
| 144 | " | " | " | 11K | | | | 1.82 | |

Frame prefix: SP94

Telescope: 61"

Date: JULY 21/22

Sheet #: 11

Focus:

Iris:

Tailpiece:

Balance:

Humidity:

Temp:

Guidepoint:

Observers: GRUNDY, HICKS

| 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. |
|---|---|---|---|---|---|---|---|---|---|
| 145 | 6441 | 5.0 | 0.25 | | 21h | | | 1.83 | |
| 146 | " | " | " | | | | | 1.83 | |
| 147 | " | " | " | | 24h | | | 1.84 | |
| 148 | " | " | " | | 5.6 | | | 1.84 | |
| 149 | " | " | " | | 19 | | | 1.85 | |
| 150 | " | " | " | | 24h | | | 1.85 | |
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