

| 60 inch Telescope Log | | Spectrograph: <u>FAST</u> | | Page: <u>4/19</u> | | |
|-----------------------|------------|-------------------------------|-------------|-------------------|--------|---------------------------|
| Observer: <u>PB</u> | | Grating: <u>300L, 3" slit</u> | | | | |
| PI: <u>Geller</u> | | Date: <u>12/15/95</u> | | | | |
| Number | Object | R.A. | Dec. | L/R | Exp | Comments |
| 1-10 | BTAS | | | 0 | 0s | clouds |
| 11-20 | FLAT | | | 0 | 6s | awesome sunset |
| 21 | COMP | | | 0 | 5s | fast foc = 1060 |
| 22-26 | sky | zenith | | 0 | 2s | |
| 27 | COMP | | | ↑ | 5s | |
| 28, 29 | N7331 | 22:34 | +34:09 | 0 | 2m | thick cloud overhead |
| 30 | COMP | | | ↑ | | entizing clear sky to W |
| 31-33 | HD217086 | 22:54 | +62:27 | 0 | 5s | impending rainstorm in CA |
| 34 | COMP | | | ↑ | | |
| 35 | MRK335 | 00:03:45 | +19:55:27 | 6 | 2m | |
| 36 | COMP | | | ↑ | | clouds |
| 37-40 | M32 | 00:39:58.2 | +40:35:30 | 0 | 1m, 2m | |
| 41 | COMP | | | ↑ | | |
| 42-43 | 225m280 | 00:41 | +39 | 3 | 10m | clearing |
| 44 | COMP | | | ↑ | | |
| 45 | S23.031375 | 23:46:33 | +11:24:55 | 3 | 10m | |
| 46 | COMP | | | ↑ | | |
| 47 | S23.030670 | 23:44:20 | +11:22:56 | 3 | 20m | |
| 48 | COMP | | | ↑ | | |
| 49 | S23.031664 | 23:52:41 | +11:25:28 | 3 | 15m | |
| 50 | COMP | | | ↑ | | pretty clear! |
| 51 | S23.032054 | 23:55:41 | +11:28:17 | 3 | 15m | |
| 52 | COMP | | | ↑ | | |
| 53 | S23.033113 | 23:54:57.9 | +11:29:58.8 | 3 | 15m | H+ |
| 54 | COMP | | | ↑ | | |
| 55 | 467.052165 | 01:09:23.56 | +13:05:40.7 | 3 | 8m | |
| 56 | COMP | | | ↑ | | |
| 57 | 467.052610 | 01:22:54 | +13:07:36 | 3 | 15m | H+ |
| 58 | COMP | | | ↑ | | |
| 59 | 467.053469 | 01:15:35.06 | +13:11:06.9 | 3 | 15m | |

Advice 8.67

gain 1.14

| 60 inch Telescope Log | | | | Spectrograph: <u>FAST</u> | | Page: <u>4190</u> | |
|--------------------------------|-------------|-------------|-------------|---------------------------|-----|-----------------------|--|
| Observer: <u>PB</u> | | | | Grating: <u>3002</u> | | | |
| PI: <u>Geller/Goodman/Fuko</u> | | | | Date: <u>12/15/95</u> | | | |
| Number | Object | R.A. | Dec. | L/R | Exp | Comments | |
| 60 | COMP | | | ↑ | | | |
| 61 | 467.054591 | 01:09:22.7 | +13:15:05 | 3 | 9m | | |
| 62 | COMP | | | ↑ | | | |
| 63 | 467.054227 | 01:30:38.64 | +13:12:42.6 | 3 | 7m | Ha | |
| 64 | COMP | | | ↑ | | finishes the plate. | |
| 65 | 467.055761 | 01:17:11.8 | +13:20:26 | 3 | 7m | seeing just get worse | |
| 66 | COMP | | | ↑ | | | |
| 67 | Quam 7.2038 | 02:52:08 | +41:14:47 | 35 | 15m | | |
| 68 | COMP | | | ↑ | | | |
| 69 | Quam 7.2046 | 02:52:45 | +41:09:44 | 35 | 10m | | |
| 70 | COMP | | | ↑ | | | |
| 71 | Quam 7.2054 | 02:53:03.5 | +41:17:25.8 | 35 | 15m | Ha | |
| 72 | COMP | | | ↑ | | | |
| 73 | Quam 7.2068 | 02:53:30 | +41:39:03 | 35 | 15m | | |
| 74 | COMP | | | ↑ | | bin by 2 ↓ 3" slit | |
| 75 | 03130344 | 03:49:46.2 | +34:26:45 | 31 | 15m | | |
| 76 | COMP | | | ↑ | | | |
| 77 | 0456025 | 04:56:22.3 | +02:34:15 | 31 | 15m | Rot = 57° (27) | |
| 80 | COMP | | | ↑ | | → 2x5 on slit | |
| 83 | 161151 | 04:22:50 | +27:50:03 | 37 | 5m | bin by 4 ↓ | |
| 84 | 161152 | 04:22:43 | +27:42:02 | 37 | 5m | clouds! | |
| 85 | 161154 | 04:22:44 | +27:35:04 | 37 | 4m | | |
| 86 | 161155 | 04:22:40 | +27:29:45 | 37 | 7m | | |
| 87 | COMP | | | ↑ | | | |
| 88 | 171161 | 04:22:33.5 | +28:04:14 | 37 | 4m | | |
| 89 | 171163 | 04:22:37 | +27:57:06 | 37 | 4m | | |
| 90 | 171164 | 04:22:31 | +27:51:36 | 37 | 10m | | |
| 91 | COMP | | | ↑ | | | |
| 92 | 171165 | 04:22:33 | +27:46:09 | 37 | 7m | alt * | |
| 93 | 171162 | 04:22:31 | +28:00:40 | 37 | 10m | | |

4/16/11

Moon Rise 1:15

JK

| 60 inch Telescope Log | | | Spectrograph: <u>FAST</u> | | Page: <u>4191</u> | |
|----------------------------|---------|-----------|---------------------------|-----|-----------------------|-------------------------|
| Observer: <u>PB</u> | | | Grating: <u>300</u> | | Date: <u>12/15/95</u> | |
| PI: <u>Goodman/Brizeno</u> | | | | | | |
| Number | Object | R.A. | Dec. | L/R | Exp | Comments |
| 94 | COMP | | | ↑ | | increasing clouds |
| 95 | 181172 | 04:22:552 | +18:18:55 | 37 | 10m | |
| 96 | 181171 | 04:22:33 | +18:22:59 | 37 | 7m | |
| 97 | COMP | | | ↑ | | |
| 98 | 181174 | 04:22:309 | +18:13:45 | 37 | 10m | clouded out |
| 99 | COMP | | | ↑ | | |
| 100 | HBC43 | 04:27:09 | +18:07:21 | 38 | 1m | fainter comp to W |
| 101 | HBC4950 | 04:28:46 | +18:07:52 | 38 | 10m | lots of clouds |
| 102 | COMP | | | ↑ | | decid seeing |
| 103 | HBC398 | 04:29:17 | +24:16:07 | 38 | 4m | stopped short by clouds |
| 104 | COMP | | | ↑ | | |
| 105 | HBC408 | 04:31 | +24:54 | 38 | 7m | |
| 106 | COMP | | | ↑ | | |
| 107 | HBC409 | 04:32 | +22:48 | 38 | 5m | read |
| 108 | COMP | | | ↑ | | |
| 109-110 | HDM984 | 06:25:28 | +14:43:16 | 0 | 30s | close due to clouds |
| 111 | COMP | | | ↑ | | |
| 112-121 | BIAS | | | | 0s | |
| 122-151 | FLAT | | | | 66 | |
| 132-141 | BIAS | | | | 0s | bin by 2 |
| 142-151 | FLAT | | | | 12s | bin by 2 |

2/23/99

bin by 2
 noise 8.8
 gain 1.15