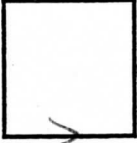


|  |             |                     |    |   |  |
|--|-------------|---------------------|----|---|--|
| UT Date  |             | 2005 July 6         |    | Weather, Moon, Notes  |  |
| Page #   | 1           | 15                  |    |   |  |
| Night #  | 5           |                     |    | Clear @ 3:30<br>Sunset @ 2:40<br>Windy - 20 MPH   |  |
| Telescope  | KPNO 4-M    |                     |    |   |  |
| Observer   | FARNHAM, LI |                     |    |   |  |
| Assistant  | ED EASTBURN |                     |    |   |  |
| Inst. / CCD  | MOSAIC      |                     |    |   |  |
| University of Maryland / Kitt Peak National Observatory<br>Observing Log |             |                     |    |   |  |
|  |             | Filters             |    | Pixel Scale   |  |
| 1  | V           | 5                   | CN | <div style="border: 1px solid black; width: 50px; height: 50px; margin: 0 auto;"></div> 0.76" |  |
| 2  | R           | 6                   | C3 |   |  |
| 3  | OH          | 7                   | BC |   |  |
| 4  | VC          | 8                   | C2 |   |  |
|  |             | CCD Characteristics |    |   |  |
|  |             | GAIN: 3e/ADU        |    |   |  |
|  |             | READ NOISE: 6e      |    |   |  |
|  |             | LINEAR TO: 20K      |    |   |  |
|  |             | READ TIME: 156 sec  |    |   |  |

| Frame # | Object         | R.A.     | Dec.      | Epoch | Start UT | Airmass | Exp. | Filter | Counts in CCD | Comments                      |
|---------|----------------|----------|-----------|-------|----------|---------|------|--------|---------------|-------------------------------|
| 1-2     | Dome Flat R    | :        | :         |       | :        |         | 12   | R      | 12K           | Low @ 52V<br>focus @ -10500   |
| 3-4     | Dome Flat V    | :        | :         |       | :        |         | 12   | V      | 11K           | focus @ -10400                |
| 5-6     | Dome Flat GC   | :        | :         |       | :        |         | 10   | GC     | 10K           | High @ 32V<br>focus @ -11400  |
| 7-8     | Dome Flat C2   | :        | :         |       | :        |         | 6    | C2     | 10K           | "                             |
| 9-10    | Dome Flat BC   | :        | :         |       | :        |         | 5    | BC     | 13K           | High @ 33V<br>"               |
| 11-12   | Dome Flat CN   | :        | :         |       | :        |         | 20   | CN     | 10K           | "                             |
| 13-17   | BIAS           | :        | :         |       | :        |         |      |        | 2490          | "                             |
| 18      | FOCUS          | :        | :         |       | :        |         | 9x20 | BC     |               | Best @ -11900<br>4.5 pix 1.2" |
| 19      | FOCUS          | :        | :         |       | :        |         | 9x10 | R      |               | Best -10600<br>3.61 pix 0.94" |
| 20      | Comet Tempel 1 | 13:40:58 | -10:23:14 | 2000  | 4:00:05  | 1.547   | 120  | R      |               | 28k peak<br>Center nonlinear  |
| 21      | Comet Tempel 1 | 13:      | :         | "     | 4:05:51  | 1.571   | 120  | R      |               |                               |
| 22      | "              | :        | :         | "     | 4:11:38  | 1.597   | 600  | CN     |               | 3.5k peak                     |
| 23      | "              | :        | :         | "     | 4:25:03  | 1.666   | 600  | BD     |               | 4.7k peak                     |
| 24      | "              | :        | :         | "     | 4:38:14  | 1.747   | 120  | R      |               |                               |
| 25      | "              | :        | :         | "     | 4:47:    | 1.784   | 11   | "      |               |                               |

|                          |   |                    |   |
|--------------------------|---|--------------------|---|
| UT Date<br>2005 July 6   | University of Maryland / Kitt Peak National Observatory |                    | Weather, Moon, Notes  |
| Page #<br>2 / 5          | Observing Log   |                    |   |
| Night #<br>5             | CCD Characteristics                                     |                    | Pixel Scale<br>0.26"  |
| Telescope<br>KPN0 4-m    | Filters   |                    |  |
| Observer<br>PARNHAM, LI  | 1 : V   | 5 CN               |   |
| Assistant<br>ED EASTBURN | 2 : R   | 6 C3               |   |
| Inst. / CCD<br>MOSAIC    | 3 : OH  | 7 BL               |   |
|                          | 4 : UL  | 8 C2               |   |
|                          |   | GAIN: 3e/ADU       |   |
|                          |   | READ NOISE: 6e- N  |   |
|                          |   | LINEAR TO: 20K     |   |
|                          |   | READ TIME: 1.56sec | E   |

| Frame # | Object         | R.A.     | Dec.     | Epoch | Start UT | Airmass | Exp. | Filter | Comments  |
|---------|----------------|----------|----------|-------|----------|---------|------|--------|---|
| 26      | Comet Tempel 1 | 13:40:58 | 40:23:14 | 2000  | 4:49:09  | 1.825   | 600  | C2     | 7K peak   |
| 27      | "              | :        | :        | "     | 5:02:48  | 1.941   | 600  | GC     | 47K peak  |
| 28      | "              | :        | :        | "     | 5:16:36  | 2.084   | 120  | R      | Telescope<br>Computer reset<br>Right after exposure |
| 29      | "              | :        | :        | "     | 5:24:00  | 2.174   | 120  | R      | lost guiding after 46sec stepped.                   |
| 30      | "              | :        | :        | "     | 5:28:53  | 2.225   | 120  | R      |   |
| 31      | "              | :        | :        | "     | 5:33:08  | 2.300   | 600  | CN     |   |
| 32      | "              | :        | :        | "     | 5:46:15  | 2.518   | 600  | BC     |   |
| 33      | "              | :        | :        | "     | 5:59:13  | 2.790   | 120  | R      |   |
| 34      | "              | :        | :        | "     | 6:04:57  | 2.909   | 120  | R      |   |
| 35      | "              | :        | :        | "     | 6:08:57  | 3.046   | 600  | CN     |   |
| 36      | "              | :        | :        | "     | 6:21:58  | 3.484   | 120  | R      |   |
| 37      | Comet Beethin  | :        | :        | 2000  | 6:31:02  | 2.913   | 900  | R      |   |
| 38      | "              | :        | :        | "     | 6:49:52  | 3.376   | "    | "      | lost tracking @<br>760.735                          |
| 39      | Comet Machholz | 13:20:37 | 30:37:35 | 2000  | 7:10:45  | 2.530   | 180  | R      |   |
| 40      | "              | :        | :        | "     | 7:17:52  | 2.659   | "    | "      |   |

University of Maryland / Kitt Peak National Observatory  
Observing Log

UT Date 2005 July 6  
 Page # 3 / 5  
 Night # 5  
 Telescope KPND 4-m  
 Observer FARNHAM, L  
 Assistant ED EASTBURN  
 Inst. / CCD MOSAIC

| Filters |       | CCD Characteristics |  | Pixel Scale |
|---------|-------|---------------------|--|-------------|
| 1: V    | 5: CN | GAIN: 3e/APDU       |  | 0.26"       |
| 2: R    | 6: C3 | READ NOISE: 6e- N   |  |             |
| 3: OH   | 7: BC | LINEAR TD: 20K      |  |             |
| 4: UC   | 8: C2 | READ TIME: 156 sec  |  | E           |

9. RL - 10.00

| Frame # | Object           | R.A.         | Dec.         | Epoch        | Start UT           | Airmass          | Exp.         | Filter       | Comments   |
|---------|------------------|--------------|--------------|--------------|--------------------|------------------|--------------|--------------|--|
| 41      | Comet Machholz   | 13:20:37     | 30:31:35     | 2000         | 7:22:59            | 2.802            | 600          | R            |  |
| 42      | "                | :            | :            | 61           | 7:37:31            | 3.245            | 300          | "            |  |
| 43      | "                | :            | :            | "            | 7:45:20            | 3.493            | "            | "            | deleted<br>lost tracking                               |
| 44      | <del>"</del>     | <del>:</del> | <del>:</del> | <del>"</del> | <del>7:53:08</del> | <del>3.821</del> | <del>"</del> | <del>"</del> | <del>Star trailing. lost tracking.<br/>35.73 sec</del> |
| 44      | Londolt 111-2083 | 19:41:05     | 0:27:16      | 2000         | 8:05:08            | 1.173            | 1            | R            | condense find star?                                    |
| 45      | "                | :            | :            | "            | 8:12:32            | 1.173            | "            | "            | Xytrons full   |
| 46      | HD 170783        | 18:30:41     | 4:33:27      | 2000         | 8:19:54            | 1.195            | 1            | GC           | defocused<br>@ -10900                                  |
| 47      | "                | :            | :            | "            | 8:23:54            | 1.202            | 1            | C2           | 8K peak  |
| 48      | "                | :            | :            | "            | 8:27:12            | 1.209            | 1            | BC           | 6K peak  |
| 49      | "                | :            | :            | "            | 8:30:28            | 1.215            | 1            | CN           | 4K peak  |
| 50      | Londolt 107-215  | 15:38:34     | 0:47:34      | 2000         | 8:37:34            | 3.129            | 8            | R            | 20K peak - non-linear                                  |
| 51      | "                | :            | :            | "            | 8:41:11            | 3.254            | 5            | R            |  |
| 52      | "                | :            | :            | "            | 8:44:06            | 3.364            | 5            | R            |  |
| 53      | HD 149363        | 16:34:05     | -6:12:19     | 2000         | 8:48:32            | 2.432            | 2            | GC           | defocused<br>@ -11200                                  |
| 54      | "                | :            | :            | "            | 8:51:49            | 2.491            | 2            | C2           | 13K peak   |

University of Maryland / Kitt Peak National Observatory  
Observing Log

UT Date: 2005 July 6  
 Page #: 4 15  
 Night #: 5  
 Telescope: KPNO 4M  
 Observer: PARNHAM, L  
 Assistant: ED EASTBURN  
 Inst. / CCD: MOSAIC

| Filters |    | CCD Characteristics |        | Pixel Scale |
|---------|----|---------------------|--------|-------------|
| 1       | V  | GAIN:               | 3e/ADU | 0.26"       |
| 2       | R  | READ NOISE:         | 6e     |             |
| 3       | OH | LINEAR TO:          | 20k    |             |
| 4       | WC | READ TIME:          | 156sec |             |

9. RC 10.0x

| Frame # | Object          | R.A.     | Dec.      | Epoch | Start UT | Airmass | Exp. | Filter | Comments                                      |
|---------|-----------------|----------|-----------|-------|----------|---------|------|--------|---|
| 55      | HD 149363       | 16:34:05 | -6:12:19  | 2000  | 8:54:47  | 2.549   | 2    | BC     | defocused<br>① - 11200                        |
| 56      | "               | :::      | :::       | "     | 8:58:36  | 2.627   | 2    | CN     | "   |
| 57      | Mark A (Kandak) | 20:42:35 | -10:51:52 | 2000  | 9:4:25   | 1.363   | 5    | R      | "   |
| 58      | "               | :::      | :::       | "     | 9:8:13   | 1.362   | "    | R      | "   |
| 59      | HD 149363       | 16:34:05 | -6:12:19  | 2000  | 9:12:56  | 2.988   | 2    | GC     | 8k peak<br>defocused<br>② - 11400             |
| 60      | "               | :::      | :::       | "     | 9:16:00  | 3.081   | 1.5  | C2     | 8k peak<br>8k peak                            |
| 61      | "               | :::      | :::       | "     | 9:19:44  | 3.202   | 2    | BC     | "   |
| 62      | shipped 63.1    | :::      | :::       | "     | 9:23:52  | 3.347   | 2    | CN     | 8k peak X<br>Software error<br>restarted Aron |
| 64      | "               | :::      | :::       | "     | 9:33:27  | 3.748   | 2    | CN     | Reached, but no file saved.                   |
| 65      | PG 1657+078     | 16:59:09 | 7:39:15   | 2000  | 9:48:04  | 2.342   | 8    | R      | Recovered as<br>ch3064 then renamed           |
| 66      | "               | :::      | :::       | "     | 9:54:20  | 2.462   | 8    | R      | "   |
| 67      | Asteroid 55434  | 21:52:04 | -11:17:38 | 2000  | 10:14:01 | 1.372   | 600  | R      | "   |
| 68      | "               | :::      | :::       | "     | 10:26:53 | 1.372   | 600  | "      | "   |
| 69      | "               | :::      | :::       | "     | 10:39:43 | 1.377   | 600  | "      | "   |
| 70      | "               | :::      | :::       | "     | 10:52:41 | 1.387   | 600  | V      | "   |

