

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 62100 - L2 Version 4  
Chandra X-Ray Center

L2 Processing Date : Aug 25 2012

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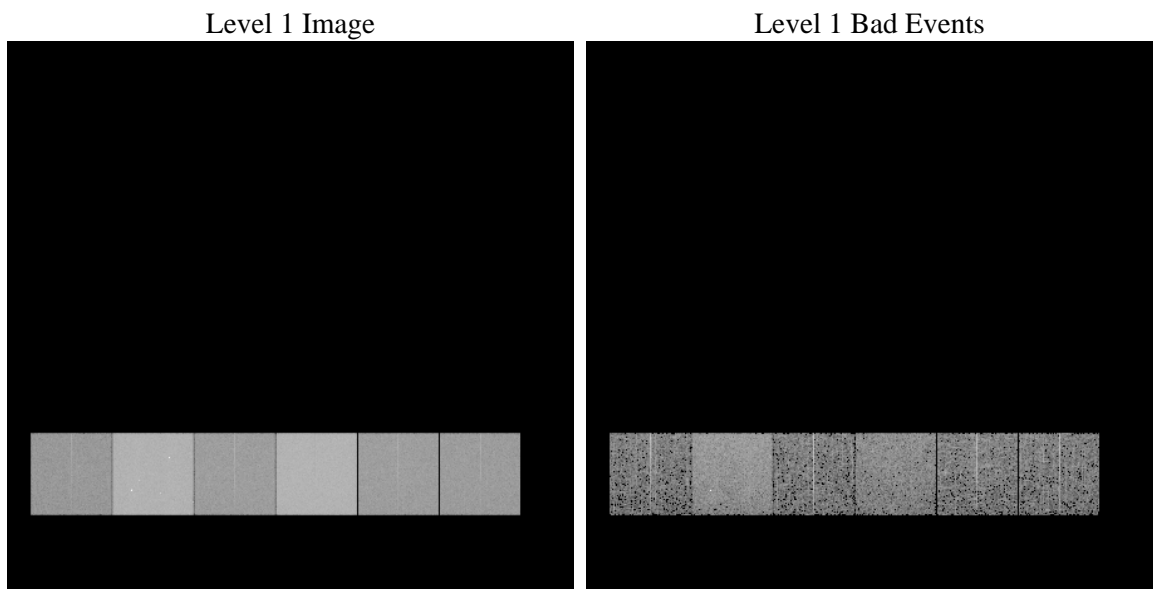
# 1 Front

|          |   |   |
|----------|---|---|
| seq_num  | &#160   | Sequence number                             |
| obs_id   | 62100   | Observation id                              |
| title    | ACIS-456789 diagnostics                         | Proposal title                              |
| observer | CHANDRA engineering request/realtime commanding | Principal investig                          |
| object   | &#160   | Source name                                 |
| dtcycle  | 0   | &#160                                       |
| cycle    | P   | events from which exps?<br>Prim/Second/Both |
| ra_targ  | 0.0   | Observer's specified target RA [deg]        |
| dec_targ | 0.0   | Observer's specified target Dec [deg]       |
| ra_nom   | 345.02319798413                                 | Nominal RA [deg]                            |
| dec_nom  | 55.025574299741                                 | Nominal Dec [deg]                           |
| roll_nom | 30.363922647567                                 | Nominal Roll [deg]                          |
| revision | 4   | Processing version of data                  |
| ontime   | 4155.0006063282                                 | Sum of GTIs [s]                             |
| livetime | 4102.3874868099                                 | Livetime [s]                                |
| ontime4  | 1623.7596697807                                 | Sum of GTIs [s]                             |
| ontime5  | 4463.2216500789                                 | Sum of GTIs [s]                             |
| ontime6  | 1844.1501798481                                 | Sum of GTIs [s]                             |
| ontime7  | 4155.0006063282                                 | Sum of GTIs [s]                             |
| ontime8  | 1863.5966092348                                 | Sum of GTIs [s]                             |
| ontime9  | 1789.052549839                                  | Sum of GTIs [s]                             |
| l2events | 1283703   | Number of level 2 events                    |

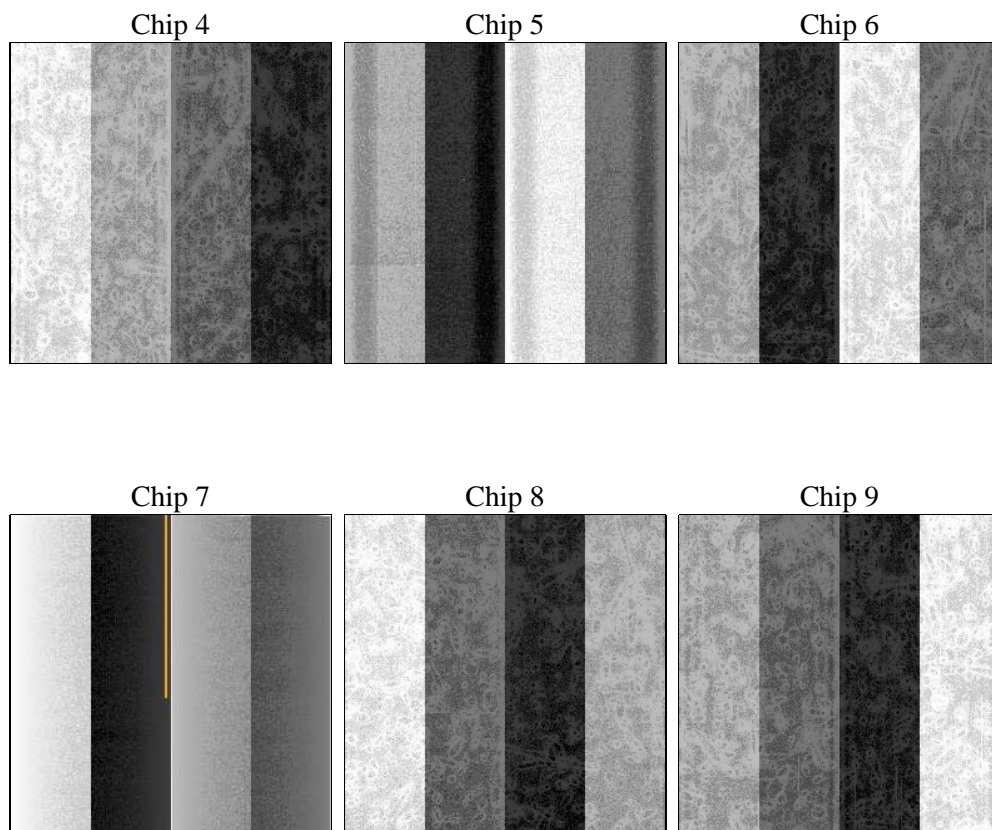
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

|          |                     |                                |                |                 |   |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num  | 0                   | Obi number                     | sched_exp_time | 0.0             | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5               | Processing system revision     | ontime         | 4155.0006063282 | Sum of GTIs [s]                         |
| caldsver | 4.5.1.1             | &#160                          | ontime4        | 1623.7596697807 | Sum of GTIs [s]                         |
| date     | 2012-08-25T10:57:49 | Date and time of file creation | ontime5        | 4463.2216500789 | Sum of GTIs [s]                         |
| revision | 4                   | Processing version of data     | ontime6        | 1844.1501798481 | Sum of GTIs [s]                         |
|          |                     |                                | ontime7        | 4155.0006063282 | Sum of GTIs [s]                         |
|          |                     |                                | ontime8        | 1863.5966092348 | Sum of GTIs [s]                         |
|          |                     |                                | ontime9        | 1789.052549839  | Sum of GTIs [s]                         |
|          |                     |                                | l1events       | 1468914         | Number of level 1 events                |

### 2.1.4 Events

|                 | ccd 4  | ccd 5  | ccd 6  | ccd 7  | ccd 8  | ccd 9  |                | ccd 4 | ccd 5  | ccd 6 | ccd 7  | ccd 8 | ccd 9 |
|-----------------|--------|--------|--------|--------|--------|--------|----------------|-------|--------|-------|--------|-------|-------|
| level 1 events  | 152117 | 381330 | 183990 | 393725 | 185504 | 172248 | grade 0 events | 76205 | 89716  | 90821 | 95299  | 92031 | 85422 |
| rejected events | 17319  | 35617  | 17919  | 23140  | 18917  | 17436  |                | 50%   | 23%    | 49%   | 24%    | 49%   | 49%   |
| rejected %      | 11%    | 9%     | 9%     | 5%     | 10%    | 10%    | grade 1 events | 484   | 361    | 486   | 271    | 499   | 533   |
|                 |        |        |        |        |        |        |                | 0%    | 0%     | 0%    | 0%     | 0%    | 0%    |
|                 |        |        |        |        |        |        | grade 2 events | 23771 | 119068 | 28944 | 82826  | 29298 | 27088 |
|                 |        |        |        |        |        |        |                | 15%   | 31%    | 15%   | 21%    | 15%   | 15%   |
|                 |        |        |        |        |        |        | grade 3 events | 8461  | 23659  | 10245 | 37688  | 10696 | 9809  |
|                 |        |        |        |        |        |        |                | 5%    | 6%     | 5%    | 9%     | 5%    | 5%    |
|                 |        |        |        |        |        |        | grade 4 events | 8198  | 23421  | 9993  | 37944  | 10558 | 9539  |
|                 |        |        |        |        |        |        |                | 5%    | 6%     | 5%    | 9%     | 5%    | 5%    |
|                 |        |        |        |        |        |        | grade 5 events | 1175  | 7446   | 1357  | 5226   | 1396  | 1359  |
|                 |        |        |        |        |        |        |                | 0%    | 1%     | 0%    | 1%     | 0%    | 0%    |
|                 |        |        |        |        |        |        | grade 6 events | 18163 | 90095  | 26068 | 116828 | 24004 | 22954 |
|                 |        |        |        |        |        |        |                | 11%   | 23%    | 14%   | 29%    | 12%   | 13%   |
|                 |        |        |        |        |        |        | grade 7 events | 15660 | 27564  | 16076 | 17643  | 17022 | 15544 |
|                 |        |        |        |        |        |        |                | 10%   | 7%     | 8%    | 4%     | 9%    | 9%    |

## 2.2 Compared Parameters

| Parameter                         | Planned             | Actual               | Parameter                       | Planned   | Actual  |
|-----------------------------------|---------------------|----------------------|---------------------------------|-----------|---------|
| Instrument                        | ACIS                | ACIS                 | Obspar format version number    | 7         | 7       |
| Detector                          | ACIS-456789         | ACIS-456789          | Obspar file type                | PREDICTED | ACTUAL  |
| Grating                           | NONE                | NONE                 | Obspar update status            | NONE      | UPDATED |
| Data mode                         | FAINT               | FAINT                | On-chip summing requested       | N         | N       |
| Observation mode                  | SECONDARY           | SECONDARY            | Subarray requested              | NONE      | NONE    |
| [deg] Pointing RA                 | 0                   | 345.0231979841293    | Alternating exposures requested | N         | N       |
| [deg] Pointing Dec                | 0                   | 55.02557429974095    | [s] Primary exposure time       | 0.000000  | 3.2     |
| [deg] Pointing Roll               | 0.0                 | 30.36392264756704    |                                 |           |         |
| [mm] SIM focus pos                | -0.684267           | -0.7809083437167272  |                                 |           |         |
| [mm] SIM defocus                  | 0                   | 0.7524282956875696   |                                 |           |         |
| [mm] SIM translation stage pos    | -190.132523         | 250.466033080201     |                                 |           |         |
| [mm] SIM translation stage offset | 0                   | -0.01005468664627074 |                                 |           |         |
| [s] Observation start time (MET)  | 70812405.41500001   | 70812404.646349      |                                 |           |         |
| Observation start date            | 2000-03-30T14:06:45 | 2000-03-30T14:06:44  |                                 |           |         |
| [s] Observation end time (MET)    | 70855119.21600001   | 70855118.44791199    |                                 |           |         |
| Observation end date              | 2000-03-31T01:58:39 | 2000-03-31T01:58:38  |                                 |           |         |
| Read mode                         | TIMED               | TIMED                |                                 |           |         |

## 2.3 Star Slots

## 2.4 FID Slots

## **A Summary**

### **A.1 Status**

|                            |                 |
|----------------------------|-----------------|
| V&V Scientist              | Jen Lauer       |
| V&V Date (YYYY-MM-DD)      | 2012.08.28      |
| V&V Edition                | 1               |
| V&V Disposition and Status | OK              |
| V&V Charge Time            | 4.1550006063282 |

### **A.2 Comments**