

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 57212 - L2 Version 2  
Chandra X-Ray Center

L2 Processing Date : Jun 3 2012

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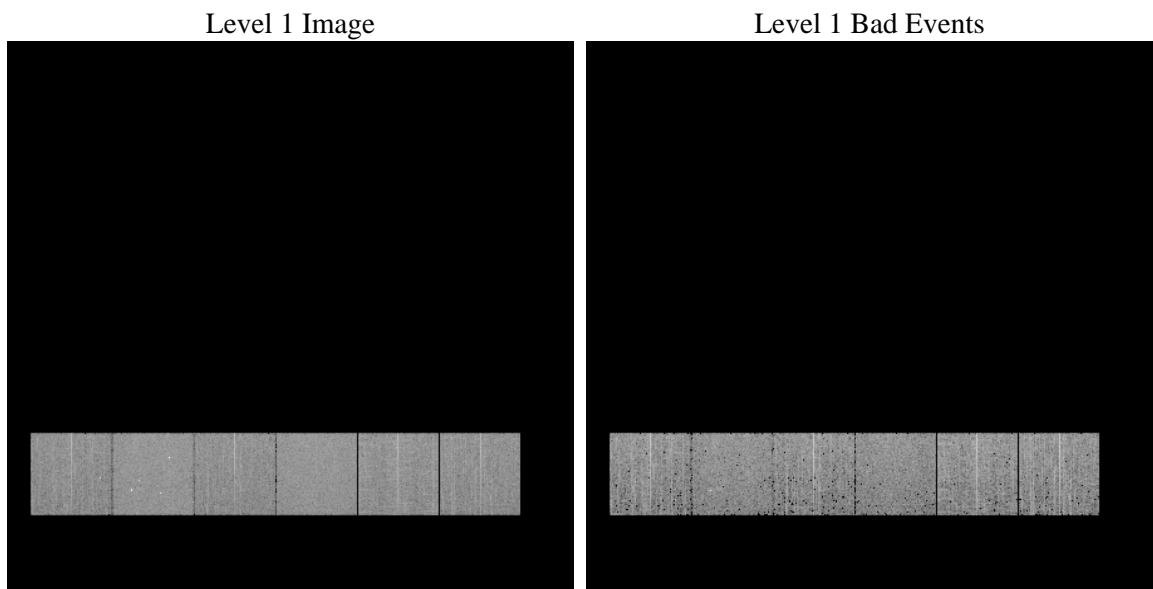
# 1 Front

|          |   |   |
|----------|---|---|
| seq_num  | &#160   | Sequence number                             |
| obs_id   | 57212   | 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   | 171.90854085561                                 | Nominal RA [deg]                            |
| dec_nom  | 1.2725664607119                                 | Nominal Dec [deg]                           |
| roll_nom | 254.34897255059                                 | Nominal Roll [deg]                          |
| revision | 2   | Processing version of data                  |
| ontime   | 3270.1845628619                                 | Sum of GTIs [s]                             |
| livetime | 3228.7755168582                                 | Livetime [s]                                |
| ontime4  | 3270.1845529079                                 | Sum of GTIs [s]                             |
| ontime5  | 3270.1845529079                                 | Sum of GTIs [s]                             |
| ontime6  | 3270.1845529079                                 | Sum of GTIs [s]                             |
| ontime7  | 3270.1845628619                                 | Sum of GTIs [s]                             |
| ontime8  | 3272.6397095323                                 | Sum of GTIs [s]                             |
| ontime9  | 3270.1845529079                                 | Sum of GTIs [s]                             |
| l2events | 214181  | Number of level 2 events                    |

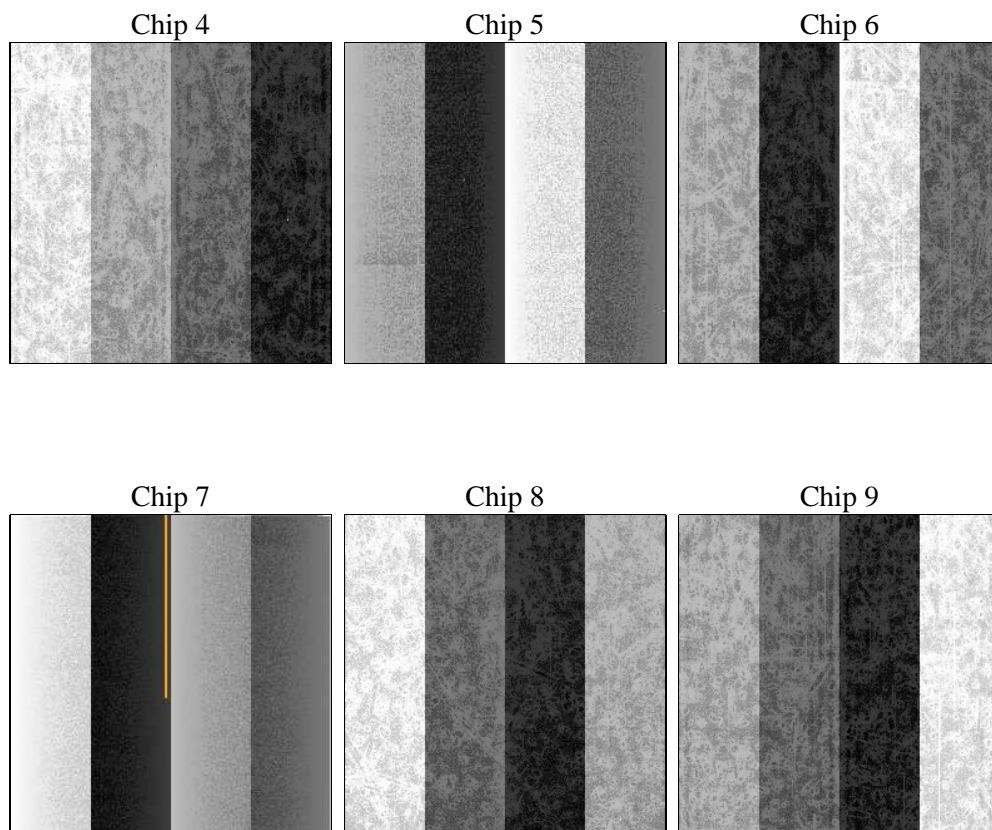
## 2 OBI

### 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 | 8.4.4               | Processing system revision     | ontime         | 3270.1845628619 | Sum of GTIs [s]                         |
| caldsver | 4.4.9               | &#160                          | ontime4        | 3270.1845529079 | Sum of GTIs [s]                         |
| date     | 2012-06-03T09:16:47 | Date and time of file creation | ontime5        | 3270.1845529079 | Sum of GTIs [s]                         |
| revision | 2                   | Processing version of data     | ontime6        | 3270.1845529079 | Sum of GTIs [s]                         |
|          |                     |                                | ontime7        | 3270.1845628619 | Sum of GTIs [s]                         |
|          |                     |                                | ontime8        | 3272.6397095323 | Sum of GTIs [s]                         |
|          |                     |                                | ontime9        | 3270.1845529079 | Sum of GTIs [s]                         |
|          |                     |                                | l1events       | 426703          | 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  | 65185 | 79439 | 65838 | 75607 | 73327 | 67307 | grade 0 events | 18373 | 8470  | 17864 | 8849  | 19116 | 17515 |
| rejected events | 33188 | 29967 | 31897 | 28108 | 35088 | 34553 |                | 28%   | 10%   | 27%   | 11%   | 26%   | 26%   |
| rejected %      | 50%   | 37%   | 48%   | 37%   | 47%   | 51%   | grade 1 events | 197   | 99    | 122   | 58    | 123   | 132   |
|                 |       |       |       |       |       |       |                | 0%    | 0%    | 0%    | 0%    | 0%    | 0%    |
|                 |       |       |       |       |       |       | grade 2 events | 5028  | 16979 | 6004  | 10495 | 7145  | 5785  |
|                 |       |       |       |       |       |       |                | 7%    | 21%   | 9%    | 13%   | 9%    | 8%    |
|                 |       |       |       |       |       |       | grade 3 events | 2226  | 2434  | 2303  | 4506  | 2734  | 2213  |
|                 |       |       |       |       |       |       |                | 3%    | 3%    | 3%    | 5%    | 3%    | 3%    |
|                 |       |       |       |       |       |       | grade 4 events | 2144  | 2333  | 2181  | 4357  | 2651  | 2199  |
|                 |       |       |       |       |       |       |                | 3%    | 2%    | 3%    | 5%    | 3%    | 3%    |
|                 |       |       |       |       |       |       | grade 5 events | 1689  | 4418  | 1797  | 4694  | 2376  | 2122  |
|                 |       |       |       |       |       |       |                | 2%    | 5%    | 2%    | 6%    | 3%    | 3%    |
|                 |       |       |       |       |       |       | grade 6 events | 4226  | 19256 | 5589  | 19292 | 6593  | 5042  |
|                 |       |       |       |       |       |       |                | 6%    | 24%   | 8%    | 25%   | 8%    | 7%    |
|                 |       |       |       |       |       |       | grade 7 events | 31302 | 25450 | 29978 | 23356 | 32589 | 32299 |
|                 |       |       |       |       |       |       |                | 48%   | 32%   | 45%   | 30%   | 44%   | 47%   |

## 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                | Number of optional ACIS chips dropped | 0         | 0       |
| Observation mode                  | SECONDARY           | SECONDARY            | On-chip summing requested             | N         | N       |
| [deg] Pointing RA                 | 0                   | 171.9085408556089    | Subarray requested                    | NONE      | NONE    |
| [deg] Pointing Dec                | 0                   | 1.272566460711871    | Alternating exposures requested       | N         | N       |
| [deg] Pointing Roll               | 0.0                 | 254.3489725505924    | [s] Primary exposure time             | 3.2       | 3.2     |
| [mm] SIM focus pos                | -1.429586           | -0.6828225247311905  |                                       |           |         |
| [mm] SIM defocus                  | 0.1037507710433287  | 0.8505141146731063   |                                       |           |         |
| [mm] SIM translation stage pos    | 250.455976          | 250.466033080201     |                                       |           |         |
| [mm] SIM translation stage offset | 0                   | -0.01005468664627074 |                                       |           |         |
| [s] Observation start time (MET)  | 354574686.390552    | 354574685.36556      |                                       |           |         |
| Observation start date            | 2009-03-27T20:58:06 | 2009-03-27T20:58:05  |                                       |           |         |
| [s] Observation end time (MET)    | 354585180.341073    | 354585179.31608      |                                       |           |         |
| Observation end date              | 2009-03-27T23:53:00 | 2009-03-27T23:52:59  |                                       |           |         |
| 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)      | 2012.06.07      |
| V&V Edition                | 1               |
| V&V Disposition and Status | OK              |
| V&V Charge Time            | 3.2701845628619 |

### **A.2 Comments**