

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 57320 - L2 Version 2  
Chandra X-Ray Center

L2 Processing Date : Jun 2 2012

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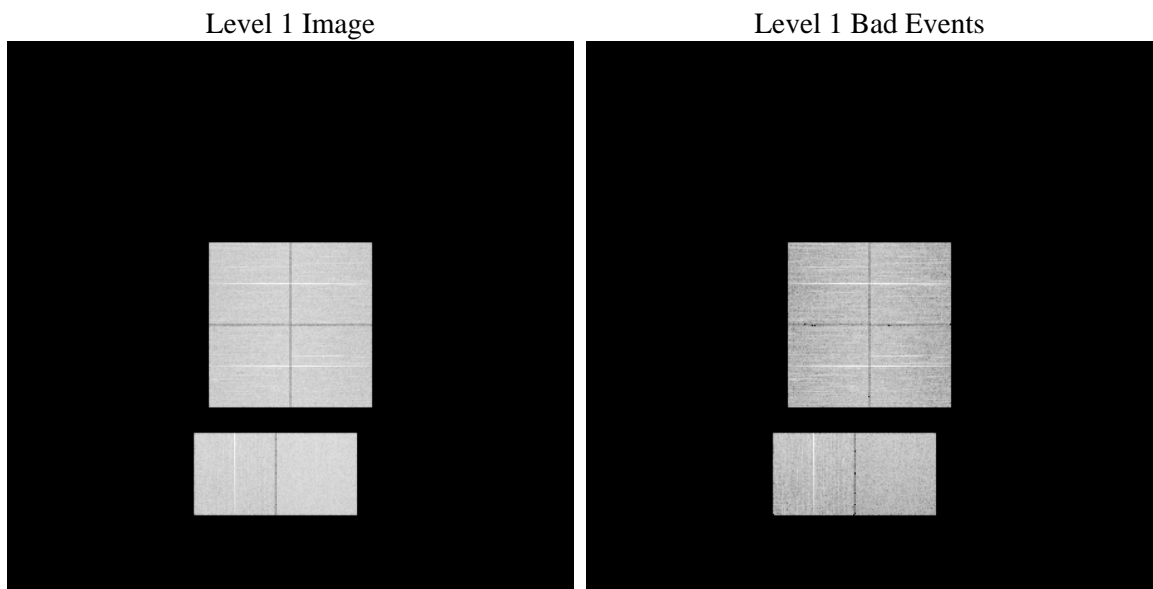
# 1 Front

|          |   |   |
|----------|---|---|
| seq_num  | &#160   | Sequence number                             |
| obs_id   | 57320   | Observation id                              |
| title    | ACIS-012367 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   | 154.80956962532                                 | Nominal RA [deg]                            |
| dec_nom  | -3.272876788265                                 | Nominal Dec [deg]                           |
| roll_nom | 37.844006036439                                 | Nominal Roll [deg]                          |
| revision | 2   | Processing version of data                  |
| ontime   | 8342.3999689817                                 | Sum of GTIs [s]                             |
| livetime | 8236.7634773843                                 | Livetime [s]                                |
| ontime0  | 8342.3999689817                                 | Sum of GTIs [s]                             |
| ontime1  | 8342.3999689817                                 | Sum of GTIs [s]                             |
| ontime2  | 8342.3999689817                                 | Sum of GTIs [s]                             |
| ontime3  | 8342.3999689817                                 | Sum of GTIs [s]                             |
| ontime6  | 8342.3999689817                                 | Sum of GTIs [s]                             |
| ontime7  | 8342.3999689817                                 | Sum of GTIs [s]                             |
| l2events | 518560  | Number of level 2 events                    |

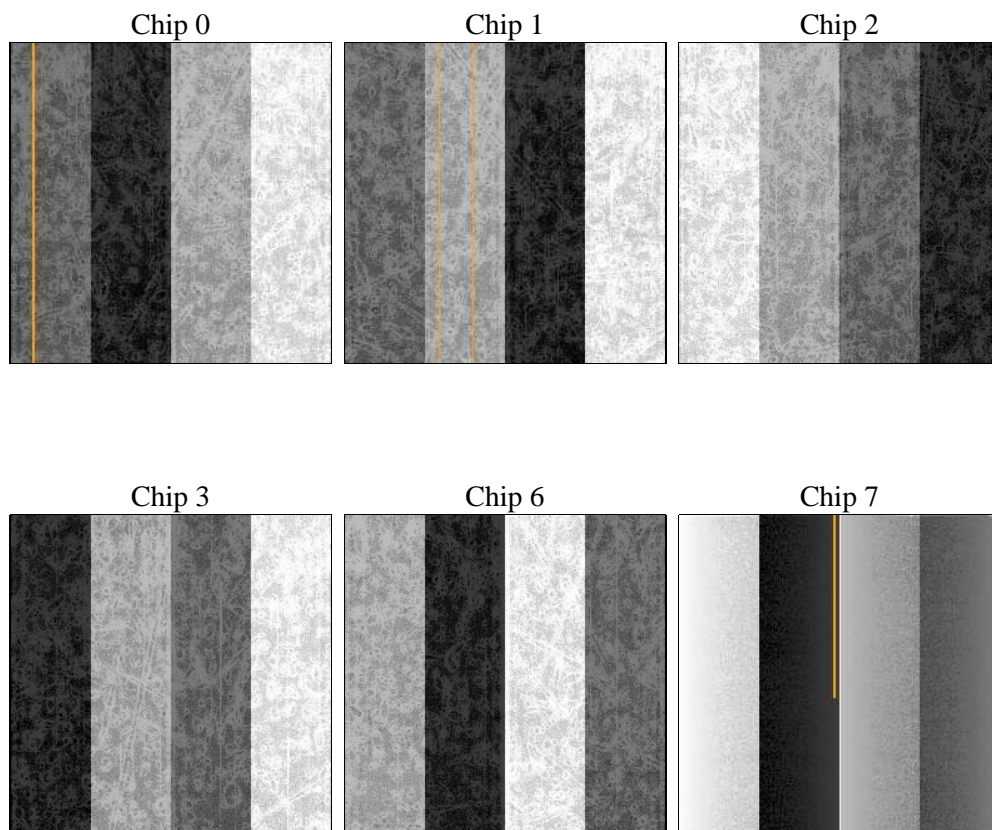
## 2 OBI

### 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         | 8342.3999689817 | Sum of GTIs [s]                         |
| caldsver | 4.4.9               | &#160                          | ontime0        | 8342.3999689817 | Sum of GTIs [s]                         |
| date     | 2012-06-01T10:01:32 | Date and time of file creation | ontime1        | 8342.3999689817 | Sum of GTIs [s]                         |
| revision | 2                   | Processing version of data     | ontime2        | 8342.3999689817 | Sum of GTIs [s]                         |
|          |                     |                                | ontime3        | 8342.3999689817 | Sum of GTIs [s]                         |
|          |                     |                                | ontime6        | 8342.3999689817 | Sum of GTIs [s]                         |
|          |                     |                                | ontime7        | 8342.3999689817 | Sum of GTIs [s]                         |
|          |                     |                                | l1events       | 1005805         | Number of level 1 events                |

### 2.1.4 Events

|                 | ccd 0  | ccd 1  | ccd 2  | ccd 3  | ccd 6  | ccd 7  |                | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 |
|-----------------|--------|--------|--------|--------|--------|--------|----------------|-------|-------|-------|-------|-------|-------|
| level 1 events  | 158317 | 159263 | 162762 | 161506 | 168531 | 195426 | grade 0 events | 45683 | 44965 | 46083 | 47352 | 46642 | 23564 |
| rejected events | 73546  | 74973  | 79069  | 76465  | 80837  | 72986  |                | 28%   | 28%   | 28%   | 29%   | 27%   | 12%   |
| rejected %      | 46%    | 47%    | 48%    | 47%    | 47%    | 37%    | grade 1 events | 339   | 267   | 386   | 378   | 283   | 181   |
|                 |        |        |        |        |        |        |                | 0%    | 0%    | 0%    | 0%    | 0%    | 0%    |
|                 |        |        |        |        |        |        | grade 2 events | 15459 | 16068 | 14639 | 14816 | 15707 | 26841 |
|                 |        |        |        |        |        |        |                | 9%    | 10%   | 8%    | 9%    | 9%    | 13%   |
|                 |        |        |        |        |        |        | grade 3 events | 5855  | 5679  | 5788  | 5791  | 5798  | 11589 |
|                 |        |        |        |        |        |        |                | 3%    | 3%    | 3%    | 3%    | 3%    | 5%    |
|                 |        |        |        |        |        |        | grade 4 events | 5734  | 5663  | 5894  | 5856  | 5817  | 11584 |
|                 |        |        |        |        |        |        |                | 3%    | 3%    | 3%    | 3%    | 3%    | 5%    |
|                 |        |        |        |        |        |        | grade 5 events | 4202  | 4179  | 3976  | 4555  | 4621  | 11627 |
|                 |        |        |        |        |        |        |                | 2%    | 2%    | 2%    | 2%    | 2%    | 5%    |
|                 |        |        |        |        |        |        | grade 6 events | 13156 | 13112 | 12380 | 12485 | 14880 | 50548 |
|                 |        |        |        |        |        |        |                | 8%    | 8%    | 7%    | 7%    | 8%    | 25%   |
|                 |        |        |        |        |        |        | grade 7 events | 67889 | 69330 | 73616 | 70273 | 74783 | 59492 |
|                 |        |        |        |        |        |        |                | 42%   | 43%   | 45%   | 43%   | 44%   | 30%   |

## 2.2 Compared Parameters

| Parameter                         | Planned             | Actual               | Parameter                             | Planned   | Actual  |
|-----------------------------------|---------------------|----------------------|---------------------------------------|-----------|---------|
| Instrument                        | ACIS                | ACIS                 | Obspar format version number          | 7         | 7       |
| Detector                          | ACIS-012367         | ACIS-012367          | 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                   | 154.8095696253184    | Subarray requested                    | NONE      | NONE    |
| [deg] Pointing Dec                | 0                   | -3.272876788265006   | Alternating exposures requested       | N         | N       |
| [deg] Pointing Roll               | 0.0                 | 37.84400603643899    | [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)  | 350274321.227094    | 350274320.20209      |                                       |           |         |
| Observation start date            | 2009-02-06T02:25:21 | 2009-02-06T02:25:20  |                                       |           |         |
| [s] Observation end time (MET)    | 350284501.5276      | 350284500.50259      |                                       |           |         |
| Observation end date              | 2009-02-06T05:15:02 | 2009-02-06T05:15:00  |                                       |           |         |
| 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            | 8.3423999689817 |

### A.2 Comments