

# V&V Reference Report

## L2 ASCDS Version : 8.5.1.1

Observation 59587 - L2 Version 3  
Chandra X-Ray Center

L2 Processing Date : Dec 25 2012

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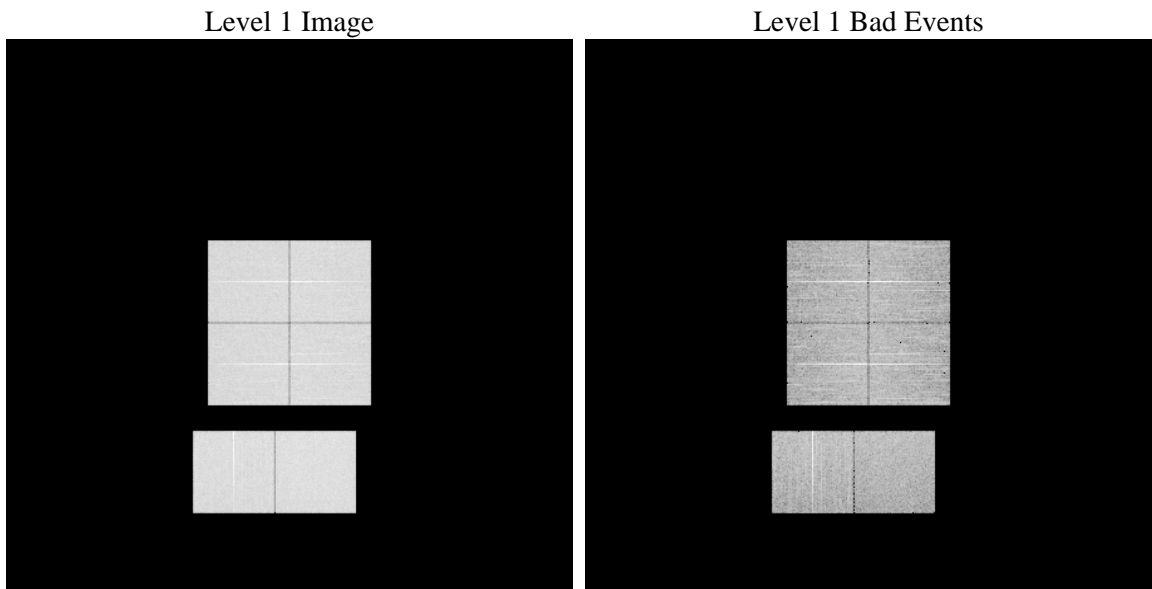
# 1 Front

|          |   |   |
|----------|---|---|
| seq_num  | &#160   | Sequence number                             |
| obs_id   | 59587   | 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   | 248.61224638395                                 | Nominal RA [deg]                            |
| dec_nom  | -21.426240086364                                | Nominal Dec [deg]                           |
| roll_nom | 260.6444982792                                  | Nominal Roll [deg]                          |
| revision | 3   | Processing version of data                  |
| ontime   | 8274.9927842319                                 | Sum of GTIs [s]                             |
| livetime | 8170.2098429955                                 | Livetime [s]                                |
| ontime0  | 7843.9018444717                                 | Sum of GTIs [s]                             |
| ontime1  | 7944.3307048082                                 | Sum of GTIs [s]                             |
| ontime2  | 7500.2761825919                                 | Sum of GTIs [s]                             |
| ontime3  | 7724.0676535368                                 | Sum of GTIs [s]                             |
| ontime6  | 8106.2977391481                                 | Sum of GTIs [s]                             |
| ontime7  | 8274.9927842319                                 | Sum of GTIs [s]                             |
| l2events | 1073136   | Number of level 2 events                    |

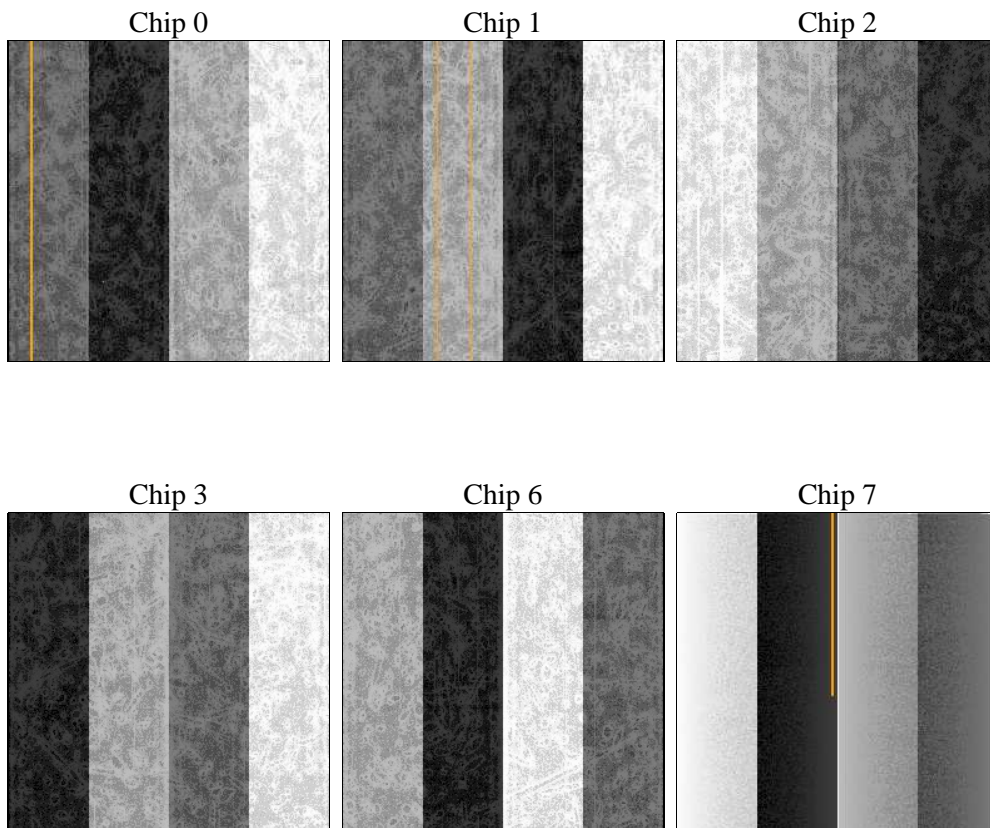
## 2 OBI

### 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 | 8.5.1.1             | Processing system revision     | ontime         | 8274.9927842319 | Sum of GTIs [s]                         |
| caldsver | 4.5.5               | &#160                          | ontime0        | 7843.9018444717 | Sum of GTIs [s]                         |
| date     | 2012-12-25T11:12:54 | Date and time of file creation | ontime1        | 7944.3307048082 | Sum of GTIs [s]                         |
| revision | 3                   | Processing version of data     | ontime2        | 7500.2761825919 | Sum of GTIs [s]                         |
|          |                     |                                | ontime3        | 7724.0676535368 | Sum of GTIs [s]                         |
|          |                     |                                | ontime6        | 8106.2977391481 | Sum of GTIs [s]                         |
|          |                     |                                | ontime7        | 8274.9927842319 | Sum of GTIs [s]                         |
|          |                     |                                | l1events       | 1486708         | 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  | 236950 | 242426 | 235187 | 242072 | 258779 | 271294 | grade 0 events | 99409 | 99983 | 98024 | 101602 | 104816 | 50103 |
| rejected events | 56768  | 59084  | 61061  | 62155  | 64819  | 54222  |                | 41%   | 41%   | 41%   | 41%    | 40%    | 18%   |
| rejected %      | 23%    | 24%    | 25%    | 25%    | 25%    | 19%    | grade 1 events | 574   | 523   | 663   | 655    | 521    | 194   |
|                 |        |        |        |        |        |        |                | 0%    | 0%    | 0%    | 0%     | 0%     | 0%    |
|                 |        |        |        |        |        |        | grade 2 events | 31147 | 32975 | 28784 | 29983  | 33757  | 47956 |
|                 |        |        |        |        |        |        |                | 13%   | 13%   | 12%   | 12%    | 13%    | 17%   |
|                 |        |        |        |        |        |        | grade 3 events | 11682 | 11472 | 11392 | 11720  | 12041  | 21193 |
|                 |        |        |        |        |        |        |                | 4%    | 4%    | 4%    | 4%     | 4%     | 7%    |
|                 |        |        |        |        |        |        | grade 4 events | 11650 | 11539 | 11454 | 11769  | 11811  | 21423 |
|                 |        |        |        |        |        |        |                | 4%    | 4%    | 4%    | 4%     | 4%     | 7%    |
|                 |        |        |        |        |        |        | grade 5 events | 3419  | 3468  | 3144  | 3569   | 3976   | 9348  |
|                 |        |        |        |        |        |        |                | 1%    | 1%    | 1%    | 1%     | 1%     | 3%    |
|                 |        |        |        |        |        |        | grade 6 events | 26364 | 27455 | 24545 | 24917  | 31604  | 76479 |
|                 |        |        |        |        |        |        |                | 11%   | 11%   | 10%   | 10%    | 12%    | 28%   |
|                 |        |        |        |        |        |        | grade 7 events | 52705 | 55011 | 57181 | 57857  | 60253  | 44598 |
|                 |        |        |        |        |        |        |                | 22%   | 22%   | 24%   | 23%    | 23%    | 16%   |

## 2.2 Compared Parameters

| Parameter                         | Planned             | Actual               |
|-----------------------------------|---------------------|----------------------|
| Instrument                        | ACIS                | ACIS                 |
| Detector                          | ACIS-012367         | ACIS-012367          |
| Grating                           | NONE                | NONE                 |
| Data mode                         | FAINT               | FAINT                |
| Observation mode                  | SECONDARY           | SECONDARY            |
| [deg] Pointing RA                 | 0                   | 248.6122463839504    |
| [deg] Pointing Dec                | 0                   | -21.42624008636437   |
| [deg] Pointing Roll               | 0.0                 | 260.6444982791971    |
| [mm] SIM focus pos                | -0.782348           | -0.6828225247311905  |
| [mm] SIM defocus                  | 0                   | 0.8505141146731063   |
| [mm] SIM translation stage pos    | -233.592463         | 250.466033080201     |
| [mm] SIM translation stage offset | 0                   | -0.01005468664627074 |
| [s] Observation start time (MET)  | 236493642.14379     | 236493641.11878      |
| Observation start date            | 2005-06-30T04:40:42 | 2005-06-30T04:40:41  |
| [s] Observation end time (MET)    | 236514951.894765    | 236514950.86975      |
| Observation end date              | 2005-06-30T10:35:52 | 2005-06-30T10:35:50  |
| Read mode                         | TIMED               | TIMED                |

| Parameter                       | Planned   | Actual  |
|---------------------------------|-----------|---------|
| Obspar format version number    | 7         | 7       |
| Obspar file type                | PREDICTED | ACTUAL  |
| Obspar update status            | NONE      | UPDATED |
| On-chip summing requested       | N         | N       |
| Subarray requested              | NONE      | NONE    |
| Alternating exposures requested | N         | N       |
| [s] Primary exposure time       | 3.2       | 3.2     |

## 2.3 Star Slots

## 2.4 FID Slots

## A Summary

### A.1 Status

|                            |                 |
|----------------------------|-----------------|
| V&V Scientist              | Jen Lauer       |
| V&V Date (YYYY-MM-DD)      | 2013.01.17      |
| V&V Edition                | 1               |
| V&V Disposition and Status | OK              |
| V&V Charge Time            | 8.2749927842319 |

### A.2 Comments