

# V&V Reference Report

## L2 ASCDS Version : 8.5.1.1

Observation 59547 - L2 Version 3  
Chandra X-Ray Center

L2 Processing Date : Dec 26 2012

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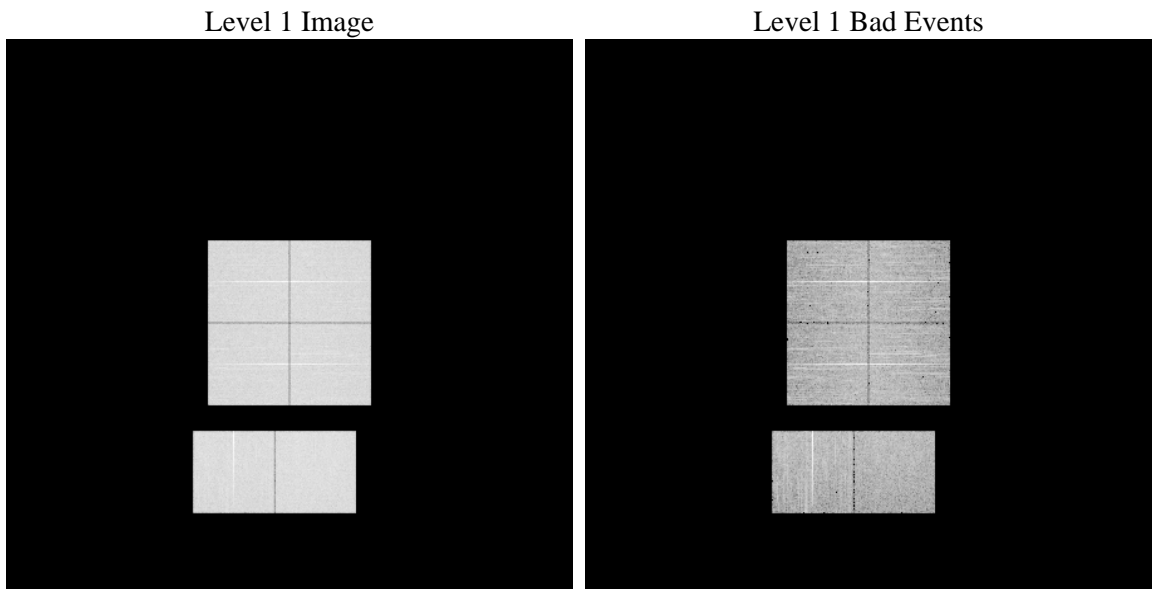
# 1 Front

|          |   |   |
|----------|---|---|
| seq_num  | &#160   | Sequence number                             |
| obs_id   | 59547   | Observation id                              |
| title    | ACIS-012367 diagnostics                         | Proposal title                              |
| observer | CHANDRA engineering request/realtime commanding | Principal investig                          |
| object   | &#160   | Source name                                 |
| dtycle   | 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   | 297.03588688407                                 | Nominal RA [deg]                            |
| dec_nom  | -49.580427079272                                | Nominal Dec [deg]                           |
| roll_nom | 3.1937716738249                                 | Nominal Roll [deg]                          |
| revision | 3   | Processing version of data                  |
| ontime   | 8284.7999691367                                 | Sum of GTIs [s]                             |
| livetime | 8179.8928434199                                 | Livetime [s]                                |
| ontime0  | 7957.4611890018                                 | Sum of GTIs [s]                             |
| ontime1  | 8061.1725381315                                 | Sum of GTIs [s]                             |
| ontime2  | 7795.3821413219                                 | Sum of GTIs [s]                             |
| ontime3  | 7840.7855506241                                 | Sum of GTIs [s]                             |
| ontime6  | 8236.1142516434                                 | Sum of GTIs [s]                             |
| ontime7  | 8284.7999691367                                 | Sum of GTIs [s]                             |
| l2events | 1086923   | Number of level 2 events                    |

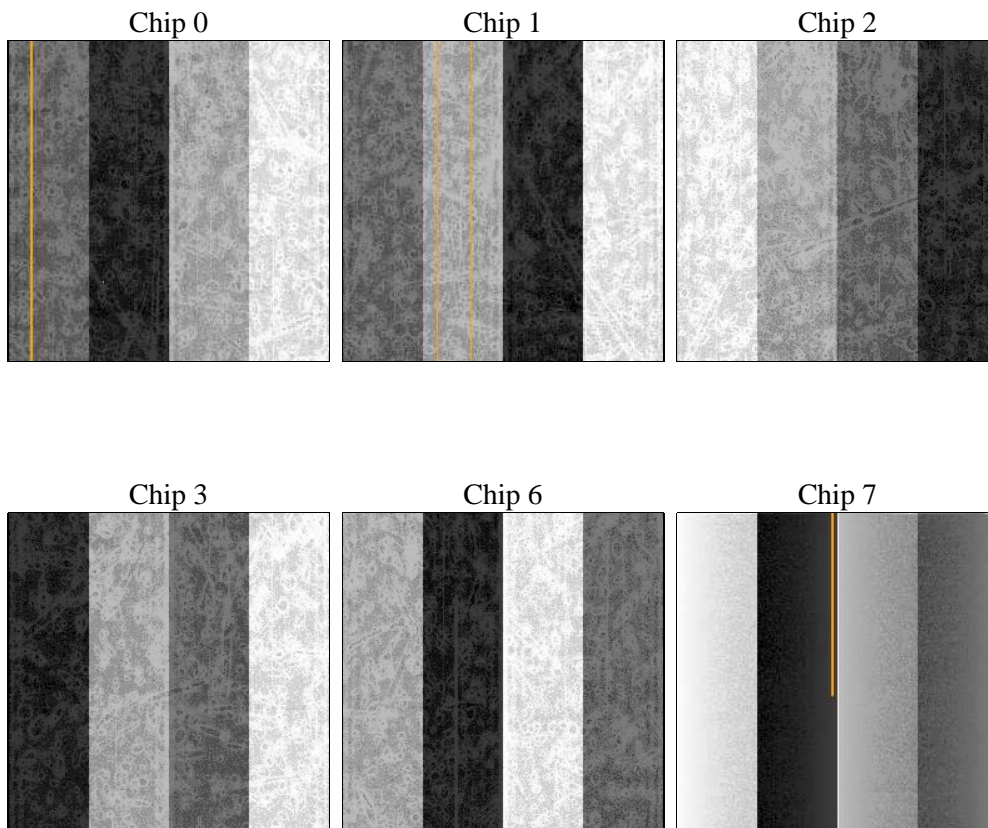
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

|          |                     |                                |                |                 |   |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num  | 1                   | Obi number                     | sched_exp_time | 0.0             | [s] Scheduled observation exposure time |
| ascdsver | 8.5.1.1             | Processing system revision     | ontime         | 8284.7999691367 | Sum of GTIs [s]                         |
| caldbver | 4.5.5               | &#160                          | ontime0        | 7957.4611890018 | Sum of GTIs [s]                         |
| date     | 2012-12-26T13:20:38 | Date and time of file creation | ontime1        | 8061.1725381315 | Sum of GTIs [s]                         |
| revision | 3                   | Processing version of data     | ontime2        | 7795.3821413219 | Sum of GTIs [s]                         |
|          |                     |                                | ontime3        | 7840.7855506241 | Sum of GTIs [s]                         |
|          |                     |                                | ontime6        | 8236.1142516434 | Sum of GTIs [s]                         |
|          |                     |                                | ontime7        | 8284.7999691367 | Sum of GTIs [s]                         |
|          |                     |                                | l1events       | 1486956         | 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  | 238546 | 241461 | 238136 | 242067 | 259323 | 267423 | grade 0 events | 100624 | 100947 | 100880 | 102019 | 106909 | 50508 |
| rejected events | 55815  | 56462  | 57966  | 60423  | 61378  | 51651  |                | 42%    | 41%    | 42%    | 42%    | 41%    | 18%   |
| rejected %      | 23%    | 23%    | 24%    | 24%    | 23%    | 19%    | grade 1 events | 626    | 520    | 675    | 630    | 548    | 156   |
|                 |        |        |        |        |        |        |                | 0%     | 0%     | 0%     | 0%     | 0%     | 0%    |
|                 |        |        |        |        |        |        | grade 2 events | 31786  | 33303  | 30263  | 30597  | 34476  | 47547 |
|                 |        |        |        |        |        |        |                | 13%    | 13%    | 12%    | 12%    | 13%    | 17%   |
|                 |        |        |        |        |        |        | grade 3 events | 12014  | 11684  | 12070  | 11830  | 12303  | 21339 |
|                 |        |        |        |        |        |        |                | 5%     | 4%     | 5%     | 4%     | 4%     | 7%    |
|                 |        |        |        |        |        |        | grade 4 events | 11698  | 11698  | 11668  | 11864  | 12219  | 21098 |
|                 |        |        |        |        |        |        |                | 4%     | 4%     | 4%     | 4%     | 4%     | 7%    |
|                 |        |        |        |        |        |        | grade 5 events | 3468   | 3497   | 3178   | 3676   | 3837   | 9033  |
|                 |        |        |        |        |        |        |                | 1%     | 1%     | 1%     | 1%     | 1%     | 3%    |
|                 |        |        |        |        |        |        | grade 6 events | 26697  | 27453  | 25367  | 25402  | 32113  | 75357 |
|                 |        |        |        |        |        |        |                | 11%    | 11%    | 10%    | 10%    | 12%    | 28%   |
|                 |        |        |        |        |        |        | grade 7 events | 51633  | 52359  | 54035  | 56049  | 56918  | 42385 |
|                 |        |        |        |        |        |        |                | 21%    | 21%    | 22%    | 23%    | 21%    | 15%   |

## 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                | On-chip summing requested       | N         | N       |
| Observation mode                  | SECONDARY           | SECONDARY            | Subarray requested              | NONE      | NONE    |
| [deg] Pointing RA                 | 0                   | 297.0358868840688    | Alternating exposures requested | N         | N       |
| [deg] Pointing Dec                | 0                   | -49.58042707927177   | [s] Primary exposure time       | 3.2       | 3.2     |
| [deg] Pointing Roll               | 0.0                 | 3.19377167382487     |                                 |           |         |
| [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)  | 237861810.156355    | 237861809.13137      |                                 |           |         |
| Observation start date            | 2005-07-16T00:43:30 | 2005-07-16T00:43:29  |                                 |           |         |
| [s] Observation end time (MET)    | 237885752.10745     | 237885751.08246      |                                 |           |         |
| Observation end date              | 2005-07-16T07:22:32 | 2005-07-16T07:22:31  |                                 |           |         |
| 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)      | 2013.01.23      |
| V&V Edition                | 1               |
| V&V Disposition and Status | OK              |
| V&V Charge Time            | 8.2847999691367 |

## A.2 Comments