

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 61877 - L2 Version 3  
Chandra X-Ray Center

L2 Processing Date : Sep 2 2012

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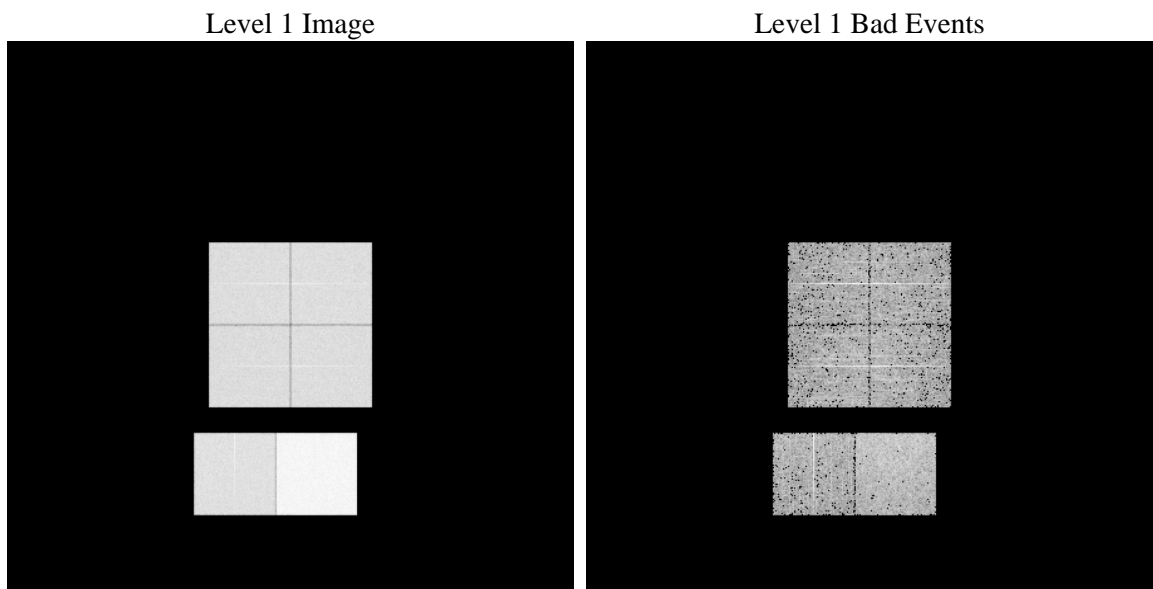
# 1 Front

|          |   |   |
|----------|---|---|
| seq_num  | &#160   | Sequence number                             |
| obs_id   | 61877   | 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   | 162.71082395389                                 | Nominal RA [deg]                            |
| dec_nom  | 52.2079447531                                   | Nominal Dec [deg]                           |
| roll_nom | 44.134759327703                                 | Nominal Roll [deg]                          |
| revision | 3   | Processing version of data                  |
| ontime   | 5508.807691589                                  | Sum of GTIs [s]                             |
| livetime | 5439.0518515923                                 | Livetime [s]                                |
| ontime0  | 2330.3058796227                                 | Sum of GTIs [s]                             |
| ontime1  | 2368.2018161416                                 | Sum of GTIs [s]                             |
| ontime2  | 2200.6643497199                                 | Sum of GTIs [s]                             |
| ontime3  | 2252.5209098309                                 | Sum of GTIs [s]                             |
| ontime6  | 2476.1524599642                                 | Sum of GTIs [s]                             |
| ontime7  | 5508.807691589                                  | Sum of GTIs [s]                             |
| l2events | 1253007   | Number of level 2 events                    |

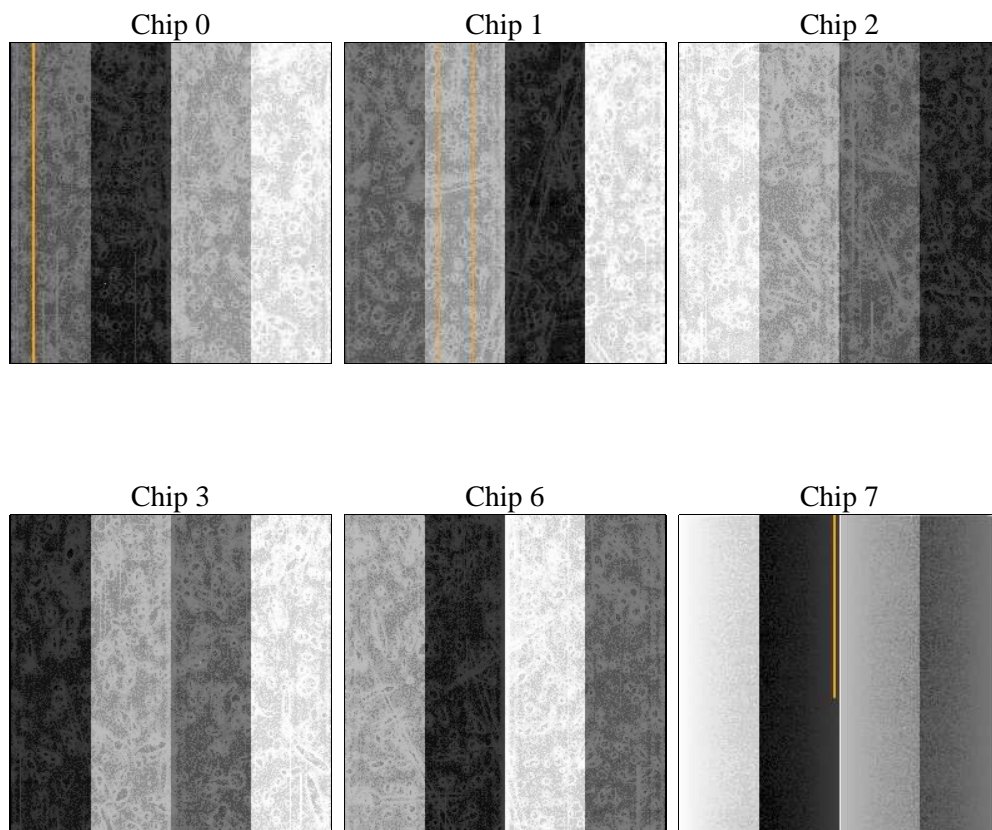
## 2 OBI

### 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         | 5508.807691589  | Sum of GTIs [s]                         |
| caldsver | 4.5.1.1             | &#160                          | ontime0        | 2330.3058796227 | Sum of GTIs [s]                         |
| date     | 2012-09-02T14:18:25 | Date and time of file creation | ontime1        | 2368.2018161416 | Sum of GTIs [s]                         |
| revision | 3                   | Processing version of data     | ontime2        | 2200.6643497199 | Sum of GTIs [s]                         |
|          |                     |                                | ontime3        | 2252.5209098309 | Sum of GTIs [s]                         |
|          |                     |                                | ontime6        | 2476.1524599642 | Sum of GTIs [s]                         |
|          |                     |                                | ontime7        | 5508.807691589  | Sum of GTIs [s]                         |
|          |                     |                                | l1events       | 1428305         | 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  | 191865 | 195227 | 185785 | 190078 | 213656 | 451694 | grade 0 events | 95920 | 97605 | 92920 | 95589 | 106090 | 108678 |
| rejected events | 17929  | 18458  | 19079  | 19108  | 19717  | 28359  |                | 49%   | 49%   | 50%   | 50%   | 49%    | 24%    |
| rejected %      | 9%     | 9%     | 10%    | 10%    | 9%     | 6%     | grade 1 events | 499   | 485   | 500   | 517   | 550    | 314    |
|                 |        |        |        |        |        |        |                | 0%    | 0%    | 0%    | 0%    | 0%     | 0%     |
|                 |        |        |        |        |        |        | grade 2 events | 30601 | 30946 | 29137 | 29926 | 33513  | 93675  |
|                 |        |        |        |        |        |        |                | 15%   | 15%   | 15%   | 15%   | 15%    | 20%    |
|                 |        |        |        |        |        |        | grade 3 events | 11053 | 11304 | 10522 | 10876 | 11894  | 43584  |
|                 |        |        |        |        |        |        |                | 5%    | 5%    | 5%    | 5%    | 5%     | 9%     |
|                 |        |        |        |        |        |        | grade 4 events | 10994 | 11202 | 10583 | 10869 | 11980  | 42747  |
|                 |        |        |        |        |        |        |                | 5%    | 5%    | 5%    | 5%    | 5%     | 9%     |
|                 |        |        |        |        |        |        | grade 5 events | 1413  | 1422  | 1314  | 1453  | 1675   | 6360   |
|                 |        |        |        |        |        |        |                | 0%    | 0%    | 0%    | 0%    | 0%     | 1%     |
|                 |        |        |        |        |        |        | grade 6 events | 25368 | 25712 | 23544 | 23710 | 30462  | 134651 |
|                 |        |        |        |        |        |        |                | 13%   | 13%   | 12%   | 12%   | 14%    | 29%    |
|                 |        |        |        |        |        |        | grade 7 events | 16017 | 16551 | 17265 | 17138 | 17492  | 21685  |
|                 |        |        |        |        |        |        |                | 8%    | 8%    | 9%    | 9%    | 8%     | 4%     |

## 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                   | 162.7108239538887    | Alternating exposures requested | N         | N       |
| [deg] Pointing Dec                | 0                   | 52.20794475310046    | [s] Primary exposure time       | 0.000000  | 3.2     |
| [deg] Pointing Roll               | 0.0                 | 44.13475932770302    |                                 |           |         |
| [mm] SIM focus pos                | -0.782348           | -0.7809083437167272  |                                 |           |         |
| [mm] SIM defocus                  | 0                   | 0.7524282956875696   |                                 |           |         |
| [mm] SIM translation stage pos    | -233.592463         | 250.466033080201     |                                 |           |         |
| [mm] SIM translation stage offset | 0                   | -0.01005468664627074 |                                 |           |         |
| [s] Observation start time (MET)  | 88402424.918        | 88402424.149133      |                                 |           |         |
| Observation start date            | 2000-10-20T04:13:45 | 2000-10-20T04:13:44  |                                 |           |         |
| [s] Observation end time (MET)    | 88445934.119        | 88445933.350784      |                                 |           |         |
| Observation end date              | 2000-10-20T16:18:54 | 2000-10-20T16:18:53  |                                 |           |         |
| 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)      | 2012.09.10     |
| V&V Edition                | 1              |
| V&V Disposition and Status | OK             |
| V&V Charge Time            | 5.508807691589 |

### A.2 Comments