

# V&V Reference Report

## L2 ASCDS Version : 10.2.1

Observation 52852 - L2 Version 1  
Chandra X-Ray Center

L2 Processing Date : Apr 12 2014

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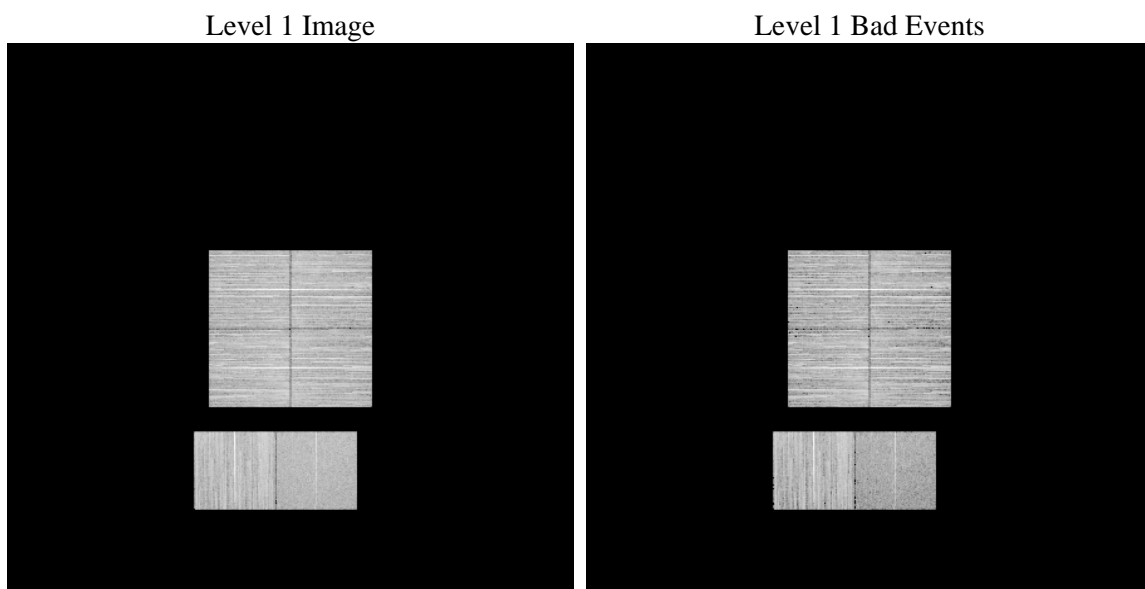
# 1 Front

|          |   |   |
|----------|---|---|
| seq_num  | &#160   | Sequence number                             |
| obs_id   | 52852   | 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   | 175.67923726011                                 | Nominal RA [deg]                            |
| dec_nom  | -26.888543884408                                | Nominal Dec [deg]                           |
| roll_nom | 302.70023612296                                 | Nominal Roll [deg]                          |
| revision | 1   | Processing version of data                  |
| ontime   | 7267.1999729872                                 | Sum of GTIs [s]                             |
| livetime | 7175.1783111467                                 | Livetime [s]                                |
| ontime0  | 7267.1999729872                                 | Sum of GTIs [s]                             |
| ontime1  | 7267.1999729872                                 | Sum of GTIs [s]                             |
| ontime2  | 7267.1999729872                                 | Sum of GTIs [s]                             |
| ontime3  | 7267.1999729872                                 | Sum of GTIs [s]                             |
| ontime6  | 7267.1999729872                                 | Sum of GTIs [s]                             |
| ontime7  | 7267.1999729872                                 | Sum of GTIs [s]                             |
| l2events | 153361  | Number of level 2 events                    |

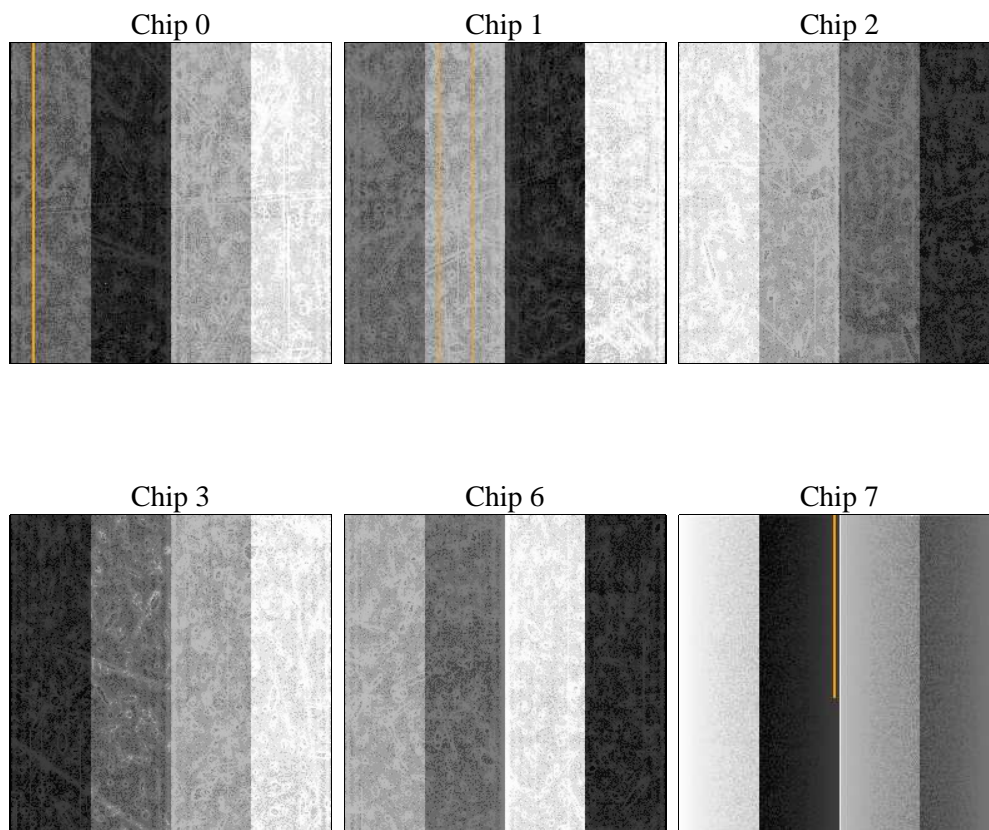
## 2 OBI

### 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 | 10.2.1              | Processing system revision     | ontime         | 7267.1999729872 | Sum of GTIs [s]                         |
| caldsver | 4.6.1               | &#160                          | ontime0        | 7267.1999729872 | Sum of GTIs [s]                         |
| date     | 2014-04-12T12:08:40 | Date and time of file creation | ontime1        | 7267.1999729872 | Sum of GTIs [s]                         |
| revision | 1                   | Processing version of data     | ontime2        | 7267.1999729872 | Sum of GTIs [s]                         |
|          |                     |                                | ontime3        | 7267.1999729872 | Sum of GTIs [s]                         |
|          |                     |                                | ontime6        | 7267.1999729872 | Sum of GTIs [s]                         |
|          |                     |                                | ontime7        | 7267.1999729872 | Sum of GTIs [s]                         |
|          |                     |                                | l1events       | 736591          | 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  | 124663 | 123076 | 133044 | 121059 | 130593 | 104156 | grade 0 events | 12188 | 11692 | 12480  | 12230 | 12404  | 6423  |
| rejected events | 101322 | 99656  | 109690 | 97870  | 106185 | 59325  |                | 9%    | 9%    | 9%     | 10%   | 9%     | 6%    |
| rejected %      | 81%    | 80%    | 82%    | 80%    | 81%    | 56%    | grade 1 events | 57    | 53    | 61     | 70    | 48     | 72    |
|                 |        |        |        |        |        |        |                | 0%    | 0%    | 0%     | 0%    | 0%     | 0%    |
|                 |        |        |        |        |        |        | grade 2 events | 4844  | 5120  | 4791   | 4590  | 5105   | 11412 |
|                 |        |        |        |        |        |        |                | 3%    | 4%    | 3%     | 3%    | 3%     | 10%   |
|                 |        |        |        |        |        |        | grade 3 events | 1691  | 1699  | 1679   | 1766  | 1661   | 3837  |
|                 |        |        |        |        |        |        |                | 1%    | 1%    | 1%     | 1%    | 1%     | 3%    |
|                 |        |        |        |        |        |        | grade 4 events | 1618  | 1664  | 1701   | 1680  | 1719   | 3647  |
|                 |        |        |        |        |        |        |                | 1%    | 1%    | 1%     | 1%    | 1%     | 3%    |
|                 |        |        |        |        |        |        | grade 5 events | 2379  | 2427  | 2320   | 2757  | 2587   | 6289  |
|                 |        |        |        |        |        |        |                | 1%    | 1%    | 1%     | 2%    | 1%     | 6%    |
|                 |        |        |        |        |        |        | grade 6 events | 3855  | 4131  | 3568   | 3793  | 4410   | 21174 |
|                 |        |        |        |        |        |        |                | 3%    | 3%    | 2%     | 3%    | 3%     | 20%   |
|                 |        |        |        |        |        |        | grade 7 events | 98031 | 96290 | 106444 | 94173 | 102659 | 51302 |
|                 |        |        |        |        |        |        |                | 78%   | 78%   | 80%    | 77%   | 78%    | 49%   |

## 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                    | 175.6792372601142    |
| [deg] Pointing Dec                | 0                    | -26.88854388440766   |
| [deg] Pointing Roll               | 0.0                  | 302.7002361229589    |
| SIM focus pos (mm)                | -1.4281808131        | -1.4281808131        |
| [mm] SIM defocus                  | 0.1051557500557434   | 0.1051557500557434   |
| SIM translation stage pos (mm)    | 250.4660330802       | 250.4660330802       |
| [mm] SIM translation stage offset | -0.01005726120527584 | -0.01005726120527584 |
| [s] Observation start time (MET)  | 513638412.023869     | 513638412.023869     |
| Observation start date            | 2014-04-11T21:20:12  | 2014-04-11T21:20:12  |
| [s] Observation end time (MET)    | 513650373.235139     | 513650373.235139     |
| Observation end date              | 2014-04-12T00:39:33  | 2014-04-12T00:39:33  |
| Read mode                         | TIMED                | TIMED                |

| Parameter                             | Planned   | Actual   |
|---------------------------------------|-----------|----------|
| Obspar format version number          | 7         | 7        |
| Obspar file type                      | PREDICTED | ACTUAL   |
| Obspar update status                  | OVERRIDE  | OVERRIDE |
| Number of optional ACIS chips dropped | 0         | 0        |
| 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)      | 2014.04.13      |
| V&V Edition                | 1               |
| V&V Disposition and Status | OK              |
| V&V Charge Time            | 7.2671999729872 |

### **A.2 Comments**