

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 55640 - L2 Version 2  
Chandra X-Ray Center

L2 Processing Date : Feb 4 2012

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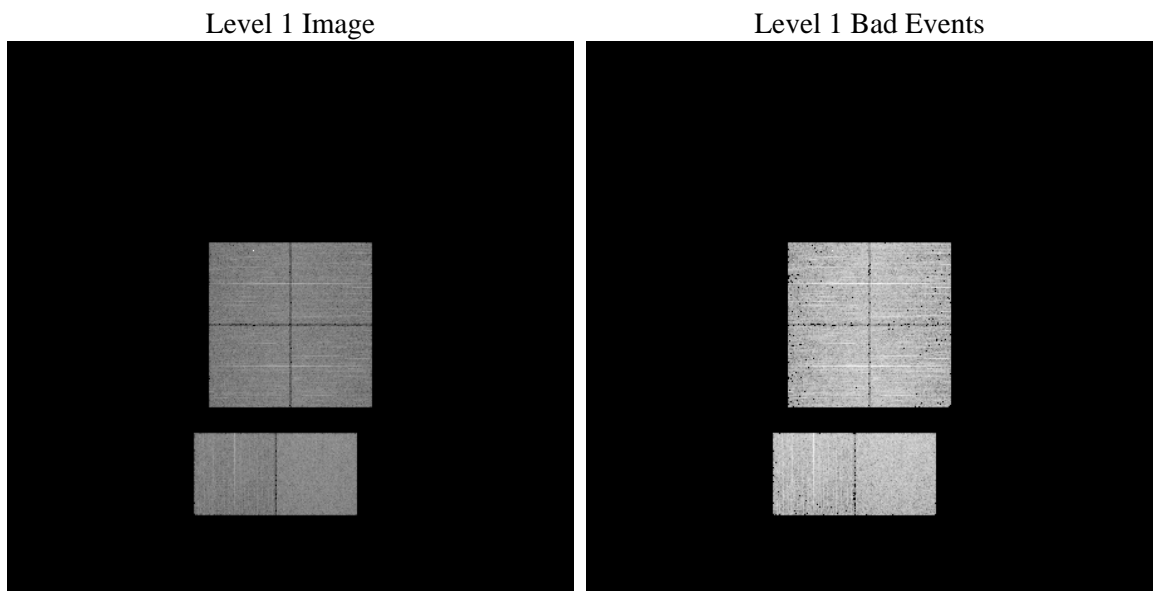
# 1 Front

|          |   |   |
|----------|---|---|
| seq_num  | &#160   | Sequence number                             |
| obs_id   | 55640   | 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   | 176.98642611675                                 | Nominal RA [deg]                            |
| dec_nom  | 10.525384357456                                 | Nominal Dec [deg]                           |
| roll_nom | 85.032064621373                                 | Nominal Roll [deg]                          |
| revision | 2   | Processing version of data                  |
| ontime   | 4671.9734457731                                 | Sum of GTIs [s]                             |
| livetime | 4612.8141048781                                 | Livetime [s]                                |
| ontime0  | 4671.9324057698                                 | Sum of GTIs [s]                             |
| ontime1  | 4668.6503055096                                 | Sum of GTIs [s]                             |
| ontime2  | 4671.8503257632                                 | Sum of GTIs [s]                             |
| ontime3  | 4671.999982655                                  | Sum of GTIs [s]                             |
| ontime6  | 4671.8092857599                                 | Sum of GTIs [s]                             |
| ontime7  | 4671.9734457731                                 | Sum of GTIs [s]                             |
| l2events | 187884  | Number of level 2 events                    |

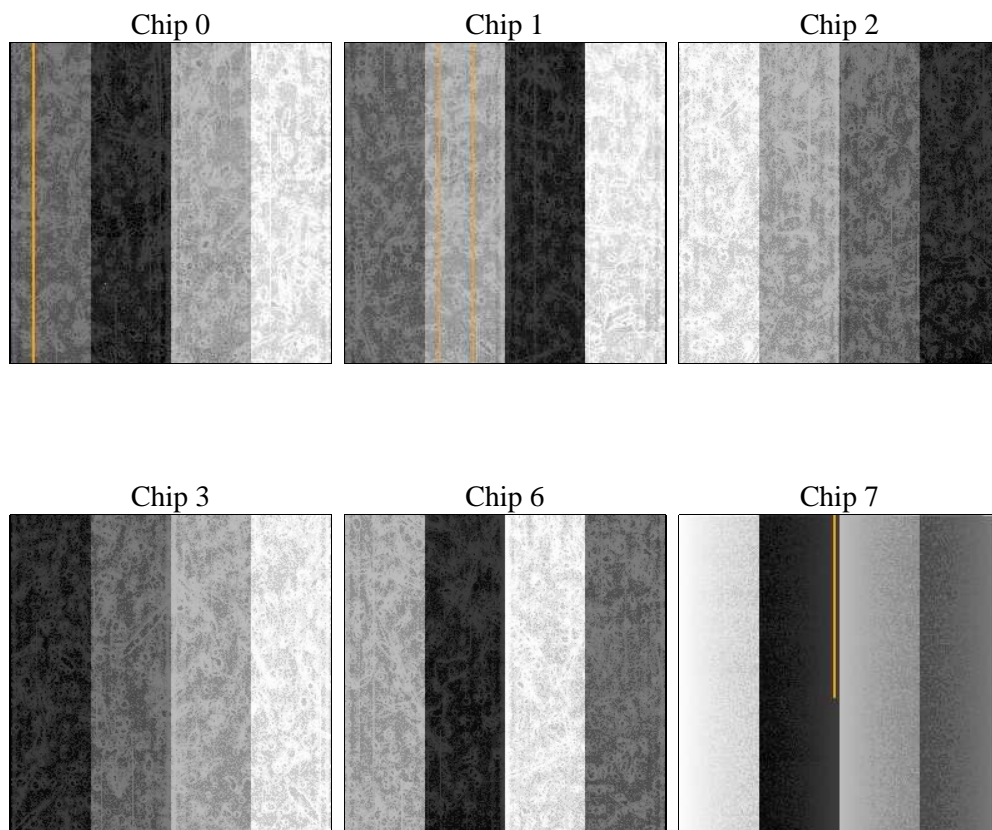
## 2 OBI

### 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 | 8.4.3               | Processing system revision     | ontime         | 4671.9734457731 | Sum of GTIs [s]                         |
| caldsver | 4.4.7               | &#160                          | ontime0        | 4671.9324057698 | Sum of GTIs [s]                         |
| date     | 2012-02-04T08:34:05 | Date and time of file creation | ontime1        | 4668.6503055096 | Sum of GTIs [s]                         |
| revision | 2                   | Processing version of data     | ontime2        | 4671.8503257632 | Sum of GTIs [s]                         |
|          |                     |                                | ontime3        | 4671.999982655  | Sum of GTIs [s]                         |
|          |                     |                                | ontime6        | 4671.8092857599 | Sum of GTIs [s]                         |
|          |                     |                                | ontime7        | 4671.9734457731 | Sum of GTIs [s]                         |
|          |                     |                                | l1events       | 414033          | 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  | 64785 | 65551 | 65164 | 66367 | 67366 | 84800 | grade 0 events | 18069 | 16163 | 16917 | 17060 | 16819 | 8505  |
| rejected events | 33464 | 35212 | 35038 | 36157 | 36059 | 37951 |                | 27%   | 24%   | 25%   | 25%   | 24%   | 10%   |
| rejected %      | 51%   | 53%   | 53%   | 54%   | 53%   | 44%   | grade 1 events | 93    | 86    | 106   | 104   | 93    | 54    |
|                 |       |       |       |       |       |       |                | 0%    | 0%    | 0%    | 0%    | 0%    | 0%    |
|                 |       |       |       |       |       |       | grade 2 events | 5676  | 6216  | 5465  | 5396  | 5977  | 10527 |
|                 |       |       |       |       |       |       |                | 8%    | 9%    | 8%    | 8%    | 8%    | 12%   |
|                 |       |       |       |       |       |       | grade 3 events | 2103  | 2109  | 2168  | 2255  | 2119  | 4391  |
|                 |       |       |       |       |       |       |                | 3%    | 3%    | 3%    | 3%    | 3%    | 5%    |
|                 |       |       |       |       |       |       | grade 4 events | 2092  | 2094  | 2178  | 2205  | 2199  | 4402  |
|                 |       |       |       |       |       |       |                | 3%    | 3%    | 3%    | 3%    | 3%    | 5%    |
|                 |       |       |       |       |       |       | grade 5 events | 2067  | 2062  | 1951  | 2258  | 2177  | 5512  |
|                 |       |       |       |       |       |       |                | 3%    | 3%    | 2%    | 3%    | 3%    | 6%    |
|                 |       |       |       |       |       |       | grade 6 events | 4718  | 5053  | 4742  | 4620  | 5487  | 21102 |
|                 |       |       |       |       |       |       |                | 7%    | 7%    | 7%    | 6%    | 8%    | 24%   |
|                 |       |       |       |       |       |       | grade 7 events | 29967 | 31768 | 31637 | 32469 | 32495 | 30307 |
|                 |       |       |       |       |       |       |                | 46%   | 48%   | 48%   | 48%   | 48%   | 35%   |

## 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                    | 176.9864261167493    |
| [deg] Pointing Dec                | 0                    | 10.52538435745606    |
| [deg] Pointing Roll               | 0.0                  | 85.03206462137278    |
| [mm] SIM focus pos                | -1.4281808131        | -1.4281808131        |
| [mm] SIM defocus                  | 0.1051557500557434   | 0.1051557500557434   |
| [mm] SIM translation stage pos    | 250.4660330802       | 250.4660330802       |
| [mm] SIM translation stage offset | -0.01005726120527584 | -0.01005726120527584 |
| [s] Observation start time (MET)  | 414439871.827942     | 414439871.827942     |
| Observation start date            | 2011-02-18T18:11:12  | 2011-02-18T18:11:11  |
| [s] Observation end time (MET)    | 414446002.333209     | 414446002.333209     |
| Observation end date              | 2011-02-18T19:53:22  | 2011-02-18T19:53:22  |
| 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)      | 2012.02.07      |
| V&V Edition                | 1               |
| V&V Disposition and Status | OK              |
| V&V Charge Time            | 4.6719734457731 |

### A.2 Comments