

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 58464 - L2 Version 3  
Chandra X-Ray Center

L2 Processing Date : Apr 22 2012

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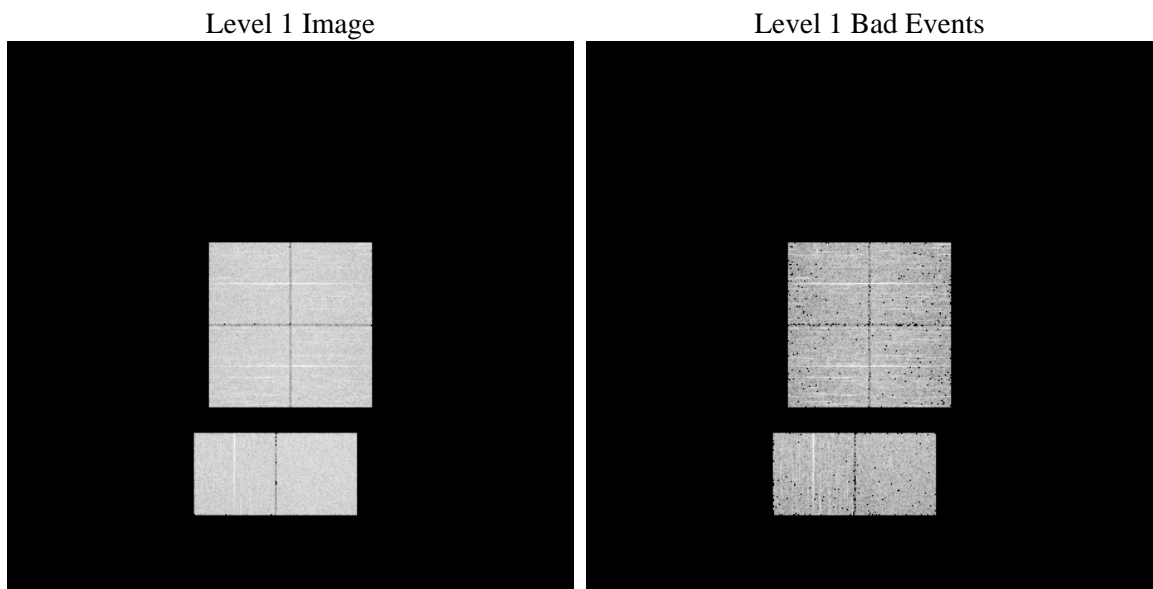
# 1 Front

|          |   |   |
|----------|---|---|
| seq_num  | &#160   | Sequence number                             |
| obs_id   | 58464   | 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   | 179.41060254721                                 | Nominal RA [deg]                            |
| dec_nom  | 25.704525594553                                 | Nominal Dec [deg]                           |
| roll_nom | 191.26039150891                                 | Nominal Roll [deg]                          |
| revision | 3   | Processing version of data                  |
| ontime   | 2779.7889461517                                 | Sum of GTIs [s]                             |
| livetime | 2744.5895847276                                 | Livetime [s]                                |
| ontime0  | 2779.7479061484                                 | Sum of GTIs [s]                             |
| ontime1  | 2779.7068661451                                 | Sum of GTIs [s]                             |
| ontime2  | 2779.6658261418                                 | Sum of GTIs [s]                             |
| ontime3  | 2779.829986155                                  | Sum of GTIs [s]                             |
| ontime6  | 2779.6247861385                                 | Sum of GTIs [s]                             |
| ontime7  | 2779.7889461517                                 | Sum of GTIs [s]                             |
| l2events | 260315  | Number of level 2 events                    |

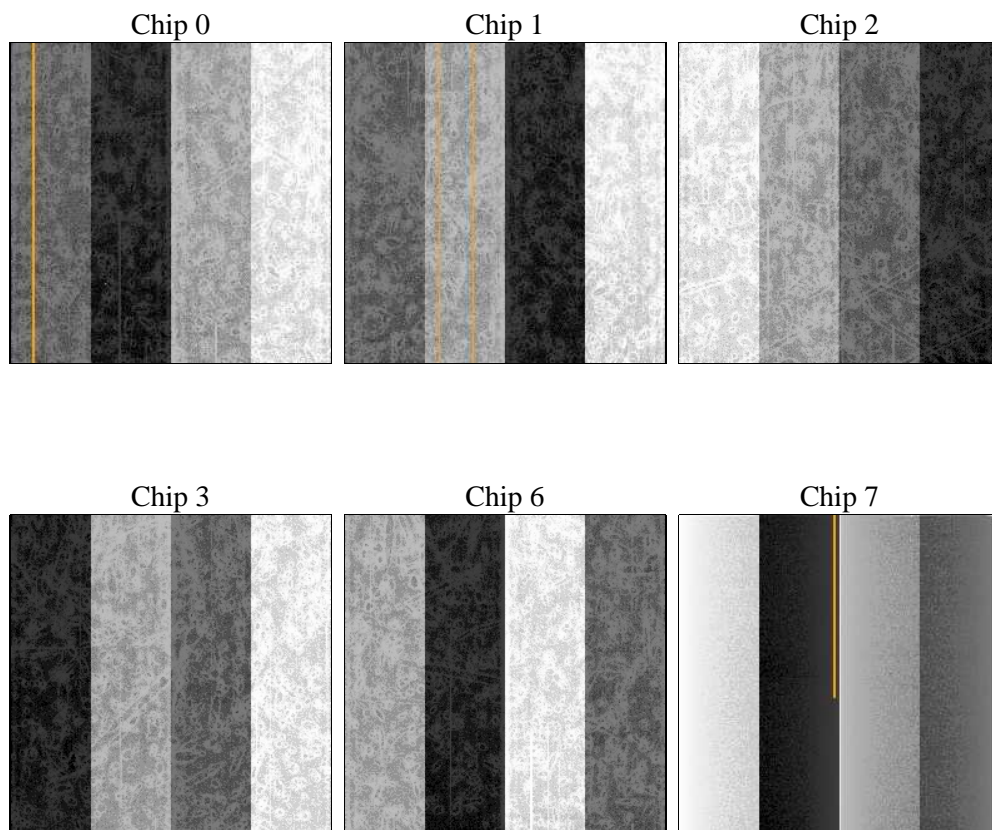
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

|          |                     |                                |                |                 |   |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num  | 0                   | Obi number                     | sched_exp_time | 1560            | [s] Scheduled observation exposure time |
| ascdsver | 8.4.4               | Processing system revision     | ontime         | 2779.7889461517 | Sum of GTIs [s]                         |
| caldsver | 4.4.9               | &#160                          | ontime0        | 2779.7479061484 | Sum of GTIs [s]                         |
| date     | 2012-04-22T06:16:43 | Date and time of file creation | ontime1        | 2779.7068661451 | Sum of GTIs [s]                         |
| revision | 3                   | Processing version of data     | ontime2        | 2779.6658261418 | Sum of GTIs [s]                         |
|          |                     |                                | ontime3        | 2779.829986155  | Sum of GTIs [s]                         |
|          |                     |                                | ontime6        | 2779.6247861385 | Sum of GTIs [s]                         |
|          |                     |                                | ontime7        | 2779.7889461517 | Sum of GTIs [s]                         |
|          |                     |                                | l1events       | 445461          | 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  | 70914 | 71681 | 73558 | 73427 | 74895 | 80986 | grade 0 events | 25198 | 25023 | 26015 | 25962 | 25933 | 12529 |
| rejected events | 27540 | 27921 | 29925 | 29695 | 29406 | 26617 |                | 35%   | 34%   | 35%   | 35%   | 34%   | 15%   |
| rejected %      | 38%   | 38%   | 40%   | 40%   | 39%   | 32%   | grade 1 events | 157   | 161   | 233   | 200   | 163   | 59    |
|                 |       |       |       |       |       |       |                | 0%    | 0%    | 0%    | 0%    | 0%    | 0%    |
|                 |       |       |       |       |       |       | grade 2 events | 8336  | 8652  | 7991  | 8251  | 8473  | 12671 |
|                 |       |       |       |       |       |       |                | 11%   | 12%   | 10%   | 11%   | 11%   | 15%   |
|                 |       |       |       |       |       |       | grade 3 events | 3104  | 3121  | 3165  | 3146  | 3190  | 5701  |
|                 |       |       |       |       |       |       |                | 4%    | 4%    | 4%    | 4%    | 4%    | 7%    |
|                 |       |       |       |       |       |       | grade 4 events | 3052  | 3108  | 3172  | 3067  | 3243  | 5602  |
|                 |       |       |       |       |       |       |                | 4%    | 4%    | 4%    | 4%    | 4%    | 6%    |
|                 |       |       |       |       |       |       | grade 5 events | 1401  | 1406  | 1356  | 1510  | 1562  | 3680  |
|                 |       |       |       |       |       |       |                | 1%    | 1%    | 1%    | 2%    | 2%    | 4%    |
|                 |       |       |       |       |       |       | grade 6 events | 7041  | 7224  | 6742  | 6715  | 8060  | 22061 |
|                 |       |       |       |       |       |       |                | 9%    | 10%   | 9%    | 9%    | 10%   | 27%   |
|                 |       |       |       |       |       |       | grade 7 events | 22625 | 22986 | 24884 | 24576 | 24271 | 18683 |
|                 |       |       |       |       |       |       |                | 31%   | 32%   | 33%   | 33%   | 32%   | 23%   |

## 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                 | 179.409930800195     | 179.4106025472121    |
| [deg] Pointing Dec                | 25.70475010711057    | 25.7045255945529     |
| [deg] Pointing Roll               | 191.2620104998754    | 191.260391508911     |
| [mm] SIM focus pos                | -0.68282252473119    | -0.68282252473119    |
| [mm] SIM defocus                  | 0.8505140384245534   | 0.8505140384245534   |
| [mm] SIM translation stage pos    | 250.4660330802       | 250.4660330802       |
| [mm] SIM translation stage offset | -0.01005726120527584 | -0.01005726120527584 |
| [s] Observation start time (MET)  | 291286204.601197     | 291286204.601197     |
| Observation start date            | 2007-03-26T09:15:00  | 2007-03-26T08:50:04  |
| [s] Observation end time (MET)    | 291290913.836301     | 291290913.836301     |
| Observation end date              | 2007-03-26T09:41:00  | 2007-03-26T10:08:33  |
| 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              | Beth Sundheim   |
| V&V Date (YYYY-MM-DD)      | 2012.04.23      |
| V&V Edition                | 1               |
| V&V Disposition and Status | OK              |
| V&V Charge Time            | 2.7797889461517 |

### A.2 Comments