

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 54296 - L2 Version 1  
Chandra X-Ray Center

L2 Processing Date : Sep 26 2012

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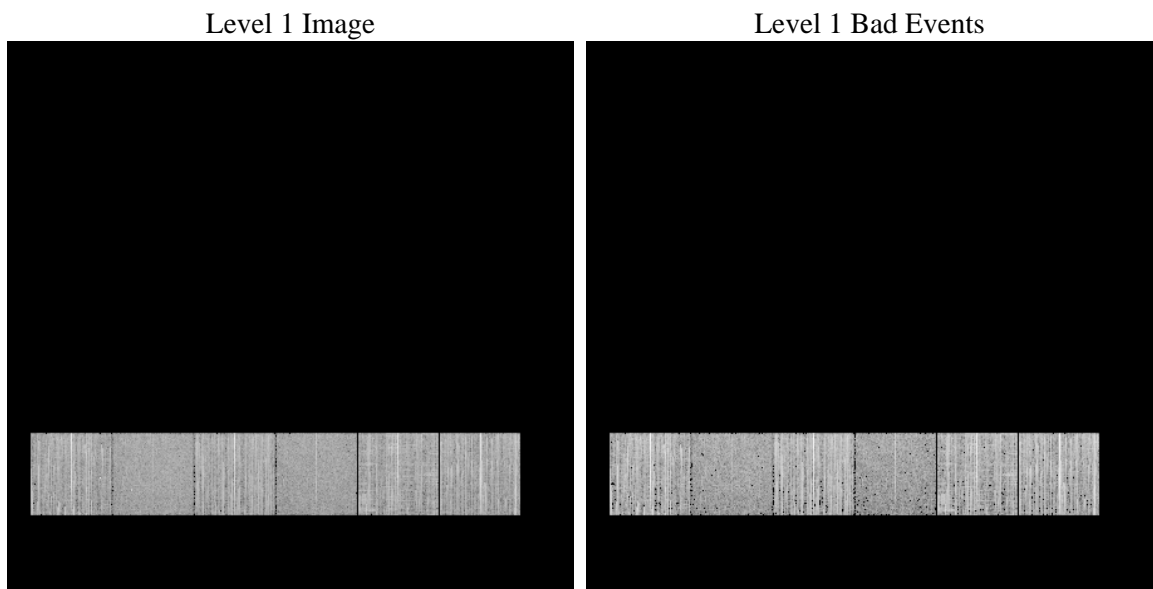
# 1 Front

|          |   |   |
|----------|---|---|
| seq_num  | &#160   | Sequence number                             |
| obs_id   | 54296   | Observation id                              |
| title    | ACIS-456789 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   | 27.995893393011                                 | Nominal RA [deg]                            |
| dec_nom  | -11.671578037307                                | Nominal Dec [deg]                           |
| roll_nom | 65.047763795857                                 | Nominal Roll [deg]                          |
| revision | 1   | Processing version of data                  |
| ontime   | 3347.1999875903                                 | Sum of GTIs [s]                             |
| livetime | 3304.8157259056                                 | Livetime [s]                                |
| ontime4  | 3347.1999875903                                 | Sum of GTIs [s]                             |
| ontime5  | 3347.1999875903                                 | Sum of GTIs [s]                             |
| ontime6  | 3347.1999875903                                 | Sum of GTIs [s]                             |
| ontime7  | 3347.1999875903                                 | Sum of GTIs [s]                             |
| ontime8  | 3347.1999875903                                 | Sum of GTIs [s]                             |
| ontime9  | 3347.1999875903                                 | Sum of GTIs [s]                             |
| l2events | 109243  | Number of level 2 events                    |

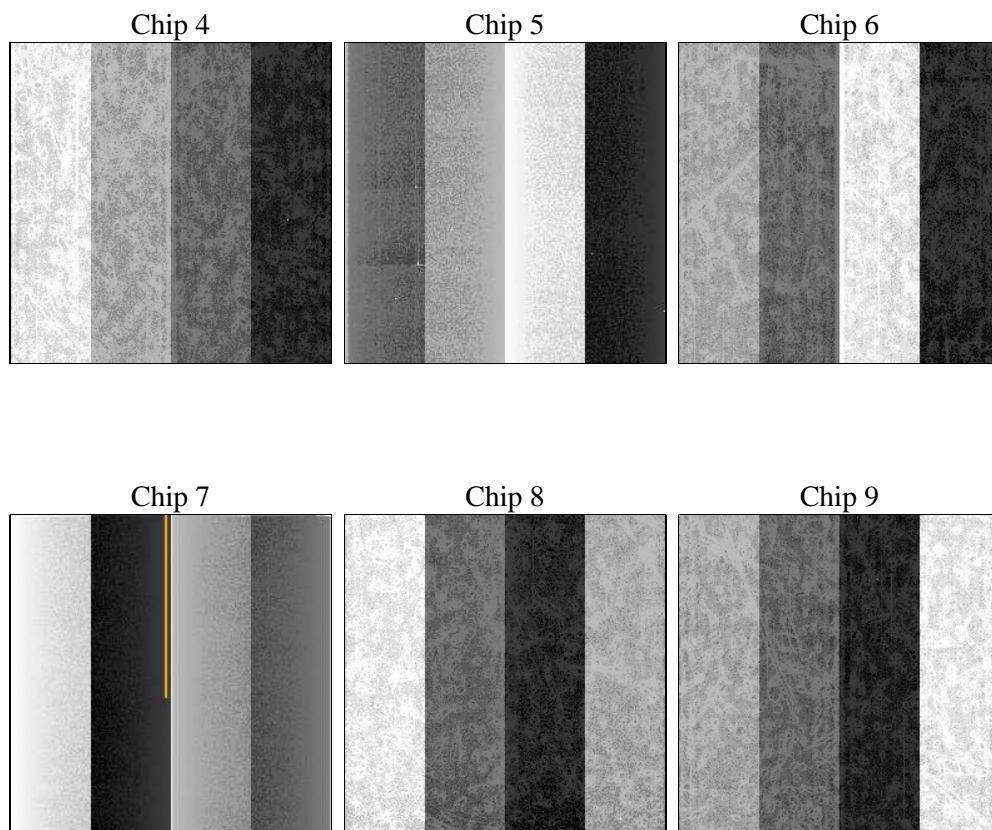
## 2 OBI

### 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         | 3347.1999875903 | Sum of GTIs [s]                         |
| caldbver | 4.5.1.1             | &#160                          | ontime4        | 3347.1999875903 | Sum of GTIs [s]                         |
| date     | 2012-09-26T03:40:16 | Date and time of file creation | ontime5        | 3347.1999875903 | Sum of GTIs [s]                         |
| revision | 1                   | Processing version of data     | ontime6        | 3347.1999875903 | Sum of GTIs [s]                         |
|          |                     |                                | ontime7        | 3347.1999875903 | Sum of GTIs [s]                         |
|          |                     |                                | ontime8        | 3347.1999875903 | Sum of GTIs [s]                         |
|          |                     |                                | ontime9        | 3347.1999875903 | Sum of GTIs [s]                         |
|          |                     |                                | l1events       | 417073          | Number of level 1 events                |

### 2.1.4 Events

|                 | ccd 4 | ccd 5 | ccd 6 | ccd 7 | ccd 8 | ccd 9 |                | ccd 4 | ccd 5 | ccd 6 | ccd 7 | ccd 8 | ccd 9 |
|-----------------|-------|-------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|-------|-------|
| level 1 events  | 73667 | 59659 | 76283 | 55814 | 73832 | 77818 | grade 0 events | 8459  | 2423  | 7655  | 3791  | 8888  | 7851  |
| rejected events | 58194 | 32568 | 60689 | 29488 | 54126 | 62344 |                | 11%   | 4%    | 10%   | 6%    | 12%   | 10%   |
| rejected %      | 78%   | 54%   | 79%   | 52%   | 73%   | 80%   | grade 1 events | 82    | 73    | 37    | 32    | 66    | 39    |
|                 |       |       |       |       |       |       |                | 0%    | 0%    | 0%    | 0%    | 0%    | 0%    |
|                 |       |       |       |       |       |       | grade 2 events | 2925  | 10393 | 3366  | 6522  | 4103  | 3089  |
|                 |       |       |       |       |       |       |                | 3%    | 17%   | 4%    | 11%   | 5%    | 3%    |
|                 |       |       |       |       |       |       | grade 3 events | 1049  | 893   | 955   | 2151  | 1427  | 1038  |
|                 |       |       |       |       |       |       |                | 1%    | 1%    | 1%    | 3%    | 1%    | 1%    |
|                 |       |       |       |       |       |       | grade 4 events | 1023  | 846   | 969   | 2094  | 1341  | 1005  |
|                 |       |       |       |       |       |       |                | 1%    | 1%    | 1%    | 3%    | 1%    | 1%    |
|                 |       |       |       |       |       |       | grade 5 events | 1314  | 2486  | 1271  | 3178  | 1715  | 1493  |
|                 |       |       |       |       |       |       |                | 1%    | 4%    | 1%    | 5%    | 2%    | 1%    |
|                 |       |       |       |       |       |       | grade 6 events | 2028  | 12560 | 2666  | 11791 | 3968  | 2507  |
|                 |       |       |       |       |       |       |                | 2%    | 21%   | 3%    | 21%   | 5%    | 3%    |
|                 |       |       |       |       |       |       | grade 7 events | 56787 | 29985 | 59364 | 26255 | 52324 | 60796 |
|                 |       |       |       |       |       |       |                | 77%   | 50%   | 77%   | 47%   | 70%   | 78%   |

## 2.2 Compared Parameters

| Parameter                         | Planned             | Actual               | Parameter                             | Planned   | Actual  |
|-----------------------------------|---------------------|----------------------|---------------------------------------|-----------|---------|
| Instrument                        | ACIS                | ACIS                 | Obspar format version number          | 7         | 7       |
| Detector                          | ACIS-456789         | ACIS-456789          | Obspar file type                      | PREDICTED | ACTUAL  |
| Grating                           | NONE                | NONE                 | Obspar update status                  | NONE      | UPDATED |
| Data mode                         | FAINT               | FAINT                | Number of optional ACIS chips dropped | 0         | 0       |
| Observation mode                  | SECONDARY           | SECONDARY            | On-chip summing requested             | N         | N       |
| [deg] Pointing RA                 | 0                   | 27.9958933930106     | Subarray requested                    | NONE      | NONE    |
| [deg] Pointing Dec                | 0                   | -11.67157803730653   | Alternating exposures requested       | N         | N       |
| [deg] Pointing Roll               | 0.0                 | 65.04776379585716    | [s] Primary exposure time             | 3.2       | 3.2     |
| [mm] SIM focus pos                | -1.429586           | -1.428180813131781   |                                       |           |         |
| [mm] SIM defocus                  | 0.1037507710433287  | 0.1051558262725154   |                                       |           |         |
| [mm] SIM translation stage pos    | 250.455976          | 250.466033080201     |                                       |           |         |
| [mm] SIM translation stage offset | 0                   | -0.01005468664627074 |                                       |           |         |
| [s] Observation start time (MET)  | 464966065.026214    | 464966064.00121      |                                       |           |         |
| Observation start date            | 2012-09-25T13:14:25 | 2012-09-25T13:14:24  |                                       |           |         |
| [s] Observation end time (MET)    | 464971315.076496    | 464971314.0515       |                                       |           |         |
| Observation end date              | 2012-09-25T14:41:55 | 2012-09-25T14:41:54  |                                       |           |         |
| Read mode                         | TIMED               | TIMED                |                                       |           |         |

## 2.3 Star Slots

## 2.4 FID Slots

## A Summary

### A.1 Status

|                            |                 |
|----------------------------|-----------------|
| V&V Scientist              | Joy Nichols     |
| V&V Date (YYYY-MM-DD)      | 2012.09.26      |
| V&V Edition                | 1               |
| V&V Disposition and Status | OK              |
| V&V Charge Time            | 3.3471999875903 |

### A.2 Comments