

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 58526 - L2 Version 2  
Chandra X-Ray Center

L2 Processing Date : Apr 20 2012

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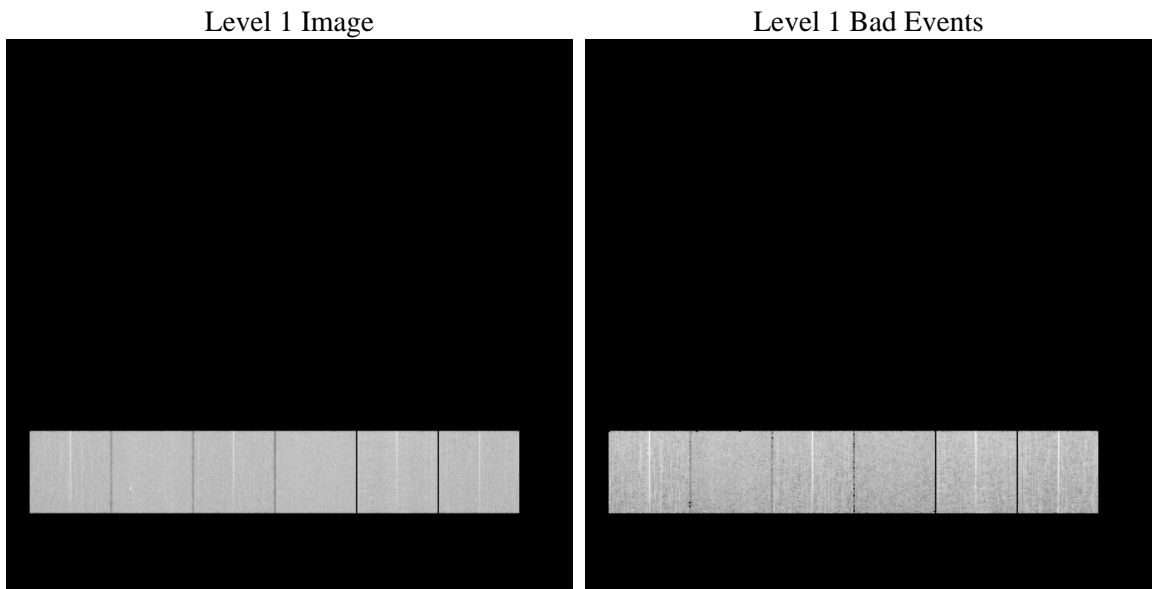
# 1 Front

|          |   |   |
|----------|---|---|
| seq_num  | &#160   | Sequence number                             |
| obs_id   | 58526   | 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   | 122.02562003326                                 | Nominal RA [deg]                            |
| dec_nom  | -5.0121002944012                                | Nominal Dec [deg]                           |
| roll_nom | 300.90650440245                                 | Nominal Roll [deg]                          |
| revision | 2   | Processing version of data                  |
| ontime   | 8271.2831988335                                 | Sum of GTIs [s]                             |
| livetime | 8166.547230601                                  | Livetime [s]                                |
| ontime4  | 8271.1600788236                                 | Sum of GTIs [s]                             |
| ontime5  | 8271.2421588302                                 | Sum of GTIs [s]                             |
| ontime6  | 8271.2011188269                                 | Sum of GTIs [s]                             |
| ontime7  | 8271.2831988335                                 | Sum of GTIs [s]                             |
| ontime8  | 8271.1190388203                                 | Sum of GTIs [s]                             |
| ontime9  | 8271.3242388368                                 | Sum of GTIs [s]                             |
| l2events | 795346  | Number of level 2 events                    |

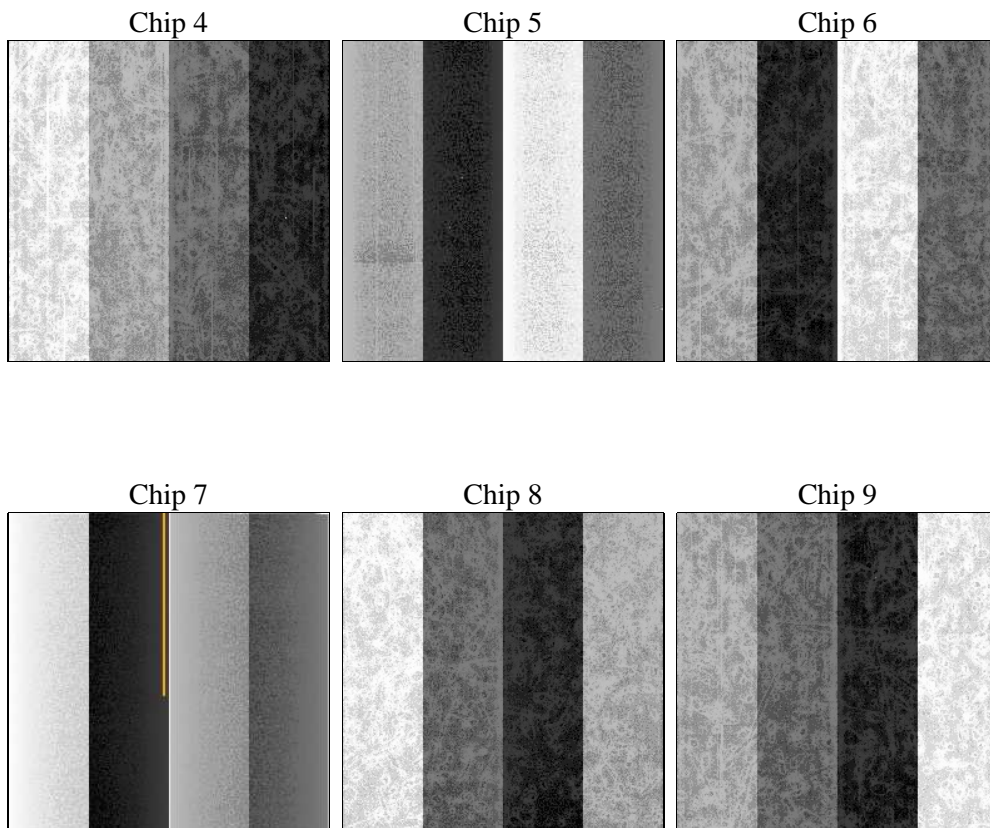
## 2 OBI

### 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 | 8.4.4               | Processing system revision     | ontime         | 8271.2831988335 | Sum of GTIs [s]                         |
| caldsver | 4.4.9               | &#160                          | ontime4        | 8271.1600788236 | Sum of GTIs [s]                         |
| date     | 2012-04-20T06:04:20 | Date and time of file creation | ontime5        | 8271.2421588302 | Sum of GTIs [s]                         |
| revision | 2                   | Processing version of data     | ontime6        | 8271.2011188269 | Sum of GTIs [s]                         |
|          |                     |                                | ontime7        | 8271.2831988335 | Sum of GTIs [s]                         |
|          |                     |                                | ontime8        | 8271.1190388203 | Sum of GTIs [s]                         |
|          |                     |                                | ontime9        | 8271.3242388368 | Sum of GTIs [s]                         |
|          |                     |                                | l1events       | 1291894         | 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  | 205477 | 219613 | 210504 | 223606 | 226966 | 205728 | grade 0 events | 72885 | 25378 | 72563 | 34851 | 76699 | 71423 |
| rejected events | 79250  | 67741  | 75338  | 61301  | 80065  | 75128  |                | 35%   | 11%   | 34%   | 15%   | 33%   | 34%   |
| rejected %      | 38%    | 30%    | 35%    | 27%    | 35%    | 36%    | grade 1 events | 678   | 221   | 418   | 167   | 457   | 548   |
|                 |        |        |        |        |        |        |                | 0%    | 0%    | 0%    | 0%    | 0%    | 0%    |
|                 |        |        |        |        |        |        | grade 2 events | 19902 | 56413 | 23643 | 35284 | 26577 | 22244 |
|                 |        |        |        |        |        |        |                | 9%    | 25%   | 11%   | 15%   | 11%   | 10%   |
|                 |        |        |        |        |        |        | grade 3 events | 8752  | 7528  | 8438  | 15618 | 10297 | 8400  |
|                 |        |        |        |        |        |        |                | 4%    | 3%    | 4%    | 6%    | 4%    | 4%    |
|                 |        |        |        |        |        |        | grade 4 events | 8583  | 7435  | 8598  | 15267 | 9978  | 8634  |
|                 |        |        |        |        |        |        |                | 4%    | 3%    | 4%    | 6%    | 4%    | 4%    |
|                 |        |        |        |        |        |        | grade 5 events | 4001  | 9342  | 4277  | 10254 | 5399  | 4525  |
|                 |        |        |        |        |        |        |                | 1%    | 4%    | 2%    | 4%    | 2%    | 2%    |
|                 |        |        |        |        |        |        | grade 6 events | 16148 | 55187 | 21986 | 61367 | 23404 | 19941 |
|                 |        |        |        |        |        |        |                | 7%    | 25%   | 10%   | 27%   | 10%   | 9%    |
|                 |        |        |        |        |        |        | grade 7 events | 74528 | 58109 | 70581 | 50798 | 74155 | 70013 |
|                 |        |        |        |        |        |        |                | 36%   | 26%   | 33%   | 22%   | 32%   | 34%   |

## 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                | On-chip summing requested       | N         | N       |
| Observation mode                  | SECONDARY           | SECONDARY            | Subarray requested              | NONE      | NONE    |
| [deg] Pointing RA                 | 0                   | 122.0256200332647    | Alternating exposures requested | N         | N       |
| [deg] Pointing Dec                | 0                   | -5.012100294401181   | [s] Primary exposure time       | 3.2       | 3.2     |
| [deg] Pointing Roll               | 0.0                 | 300.9065044024483    |                                 |           |         |
| [mm] SIM focus pos                | -0.684267           | -0.6828225247311905  |                                 |           |         |
| [mm] SIM defocus                  | 0                   | 0.8505141146731063   |                                 |           |         |
| [mm] SIM translation stage pos    | -190.132523         | 250.466033080201     |                                 |           |         |
| [mm] SIM translation stage offset | 0                   | -0.01005468664627074 |                                 |           |         |
| [s] Observation start time (MET)  | 288123626.400815    | 288123625.37581      |                                 |           |         |
| Observation start date            | 2007-02-17T18:20:26 | 2007-02-17T18:20:25  |                                 |           |         |
| [s] Observation end time (MET)    | 288145624.951861    | 288145623.92685      |                                 |           |         |
| Observation end date              | 2007-02-18T00:27:05 | 2007-02-18T00:27:03  |                                 |           |         |
| Read mode                         | TIMED               | TIMED                |                                 |           |         |

## 2.3 Star Slots

## 2.4 FID Slots

## A Summary

### A.1 Status

|                            |                 |
|----------------------------|-----------------|
| V&V Scientist              | Beth Sundheim   |
| V&V Date (YYYY-MM-DD)      | 2012.04.22      |
| V&V Edition                | 1               |
| V&V Disposition and Status | OK              |
| V&V Charge Time            | 8.2712831988335 |

### A.2 Comments