

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 57733 - L2 Version 2  
Chandra X-Ray Center

L2 Processing Date : May 17 2012

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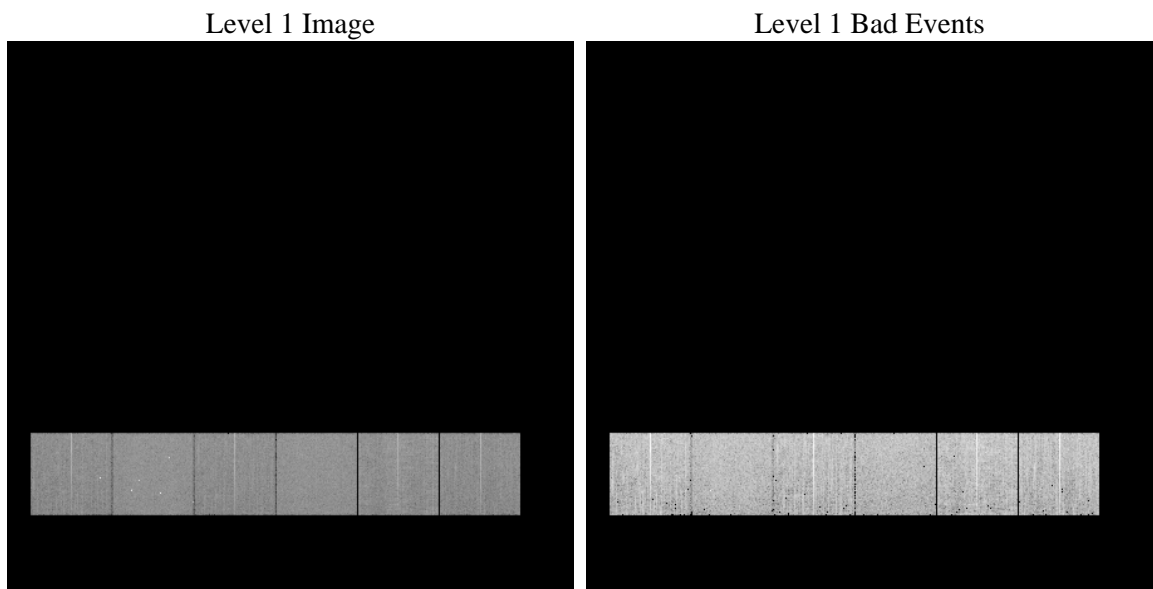
# 1 Front

|          |   |   |
|----------|---|---|
| seq_num  | &#160   | Sequence number                             |
| obs_id   | 57733   | 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   | 267.97916496199                                 | Nominal RA [deg]                            |
| dec_nom  | 1.9804172889532                                 | Nominal Dec [deg]                           |
| roll_nom | 199.87620141785                                 | Nominal Roll [deg]                          |
| revision | 2   | Processing version of data                  |
| ontime   | 5285.9977859855                                 | Sum of GTIs [s]                             |
| livetime | 5219.0632991736                                 | Livetime [s]                                |
| ontime4  | 5285.8746659756                                 | Sum of GTIs [s]                             |
| ontime5  | 5285.9567459822                                 | Sum of GTIs [s]                             |
| ontime6  | 5285.9157059789                                 | Sum of GTIs [s]                             |
| ontime7  | 5285.9977859855                                 | Sum of GTIs [s]                             |
| ontime8  | 5285.8336259723                                 | Sum of GTIs [s]                             |
| ontime9  | 5286.0388259888                                 | Sum of GTIs [s]                             |
| l2events | 391704  | Number of level 2 events                    |

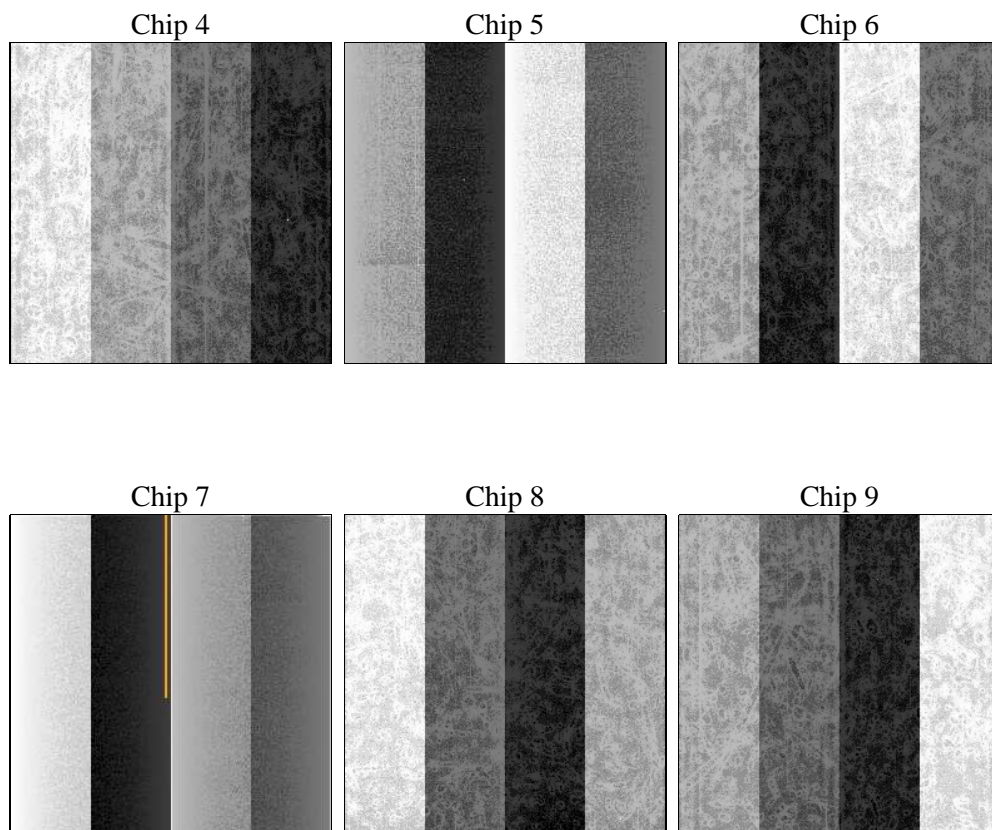
## 2 OBI

### 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         | 5285.9977859855 | Sum of GTIs [s]                         |
| caldsver | 4.4.9               | &#160                          | ontime4        | 5285.8746659756 | Sum of GTIs [s]                         |
| date     | 2012-05-17T06:21:39 | Date and time of file creation | ontime5        | 5285.9567459822 | Sum of GTIs [s]                         |
| revision | 2                   | Processing version of data     | ontime6        | 5285.9157059789 | Sum of GTIs [s]                         |
|          |                     |                                | ontime7        | 5285.9977859855 | Sum of GTIs [s]                         |
|          |                     |                                | ontime8        | 5285.8336259723 | Sum of GTIs [s]                         |
|          |                     |                                | ontime9        | 5286.0388259888 | Sum of GTIs [s]                         |
|          |                     |                                | l1events       | 710207          | 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  | 110017 | 127991 | 111626 | 126032 | 123692 | 110849 | grade 0 events | 35097 | 15014 | 34156 | 16954 | 36303 | 33239 |
| rejected events | 49234  | 44343  | 47481  | 41773  | 52199  | 49177  |                | 31%   | 11%   | 30%   | 13%   | 29%   | 29%   |
| rejected %      | 44%    | 34%    | 42%    | 33%    | 42%    | 44%    | grade 1 events | 330   | 116   | 217   | 100   | 239   | 239   |
|                 |        |        |        |        |        |        |                | 0%    | 0%    | 0%    | 0%    | 0%    | 0%    |
|                 |        |        |        |        |        |        | grade 2 events | 9645  | 29547 | 11220 | 18313 | 12950 | 10830 |
|                 |        |        |        |        |        |        |                | 8%    | 23%   | 10%   | 14%   | 10%   | 9%    |
|                 |        |        |        |        |        |        | grade 3 events | 4130  | 4095  | 4095  | 8039  | 5139  | 4090  |
|                 |        |        |        |        |        |        |                | 3%    | 3%    | 3%    | 6%    | 4%    | 3%    |
|                 |        |        |        |        |        |        | grade 4 events | 4109  | 3860  | 4103  | 8071  | 4960  | 3978  |
|                 |        |        |        |        |        |        |                | 3%    | 3%    | 3%    | 6%    | 4%    | 3%    |
|                 |        |        |        |        |        |        | grade 5 events | 2707  | 6240  | 2688  | 6804  | 3574  | 3069  |
|                 |        |        |        |        |        |        |                | 2%    | 4%    | 2%    | 5%    | 2%    | 2%    |
|                 |        |        |        |        |        |        | grade 6 events | 7802  | 31132 | 10571 | 32882 | 12141 | 9535  |
|                 |        |        |        |        |        |        |                | 7%    | 24%   | 9%    | 26%   | 9%    | 8%    |
|                 |        |        |        |        |        |        | grade 7 events | 46197 | 37987 | 44576 | 34869 | 48386 | 45869 |
|                 |        |        |        |        |        |        |                | 41%   | 29%   | 39%   | 27%   | 39%   | 41%   |

## 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                   | 267.9791649619921    | Alternating exposures requested | N         | N       |
| [deg] Pointing Dec                | 0                   | 1.980417288953206    | [s] Primary exposure time       | 3.2       | 3.2     |
| [deg] Pointing Roll               | 0.0                 | 199.8762014178544    |                                 |           |         |
| [mm] SIM focus pos                | -1.429586           | -0.7809083437167272  |                                 |           |         |
| [mm] SIM defocus                  | 0.1037507710433287  | 0.7524282956875696   |                                 |           |         |
| [mm] SIM translation stage pos    | 250.455976          | 250.466033080201     |                                 |           |         |
| [mm] SIM translation stage offset | 0                   | -0.01005468664627074 |                                 |           |         |
| [s] Observation start time (MET)  | 331038283.369856    | 331038282.34485      |                                 |           |         |
| Observation start date            | 2008-06-28T11:04:43 | 2008-06-28T11:04:42  |                                 |           |         |
| [s] Observation end time (MET)    | 331055829.320714    | 331055828.29571      |                                 |           |         |
| Observation end date              | 2008-06-28T15:57:09 | 2008-06-28T15:57:08  |                                 |           |         |
| 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)      | 2012.05.23      |
| V&V Edition                | 1               |
| V&V Disposition and Status | OK              |
| V&V Charge Time            | 5.2859977859855 |

### A.2 Comments