

# V&V Reference Report

## L2 ASCDS Version : 8.5.1.1

Observation 59552 - L2 Version 3  
Chandra X-Ray Center

L2 Processing Date : Dec 26 2012

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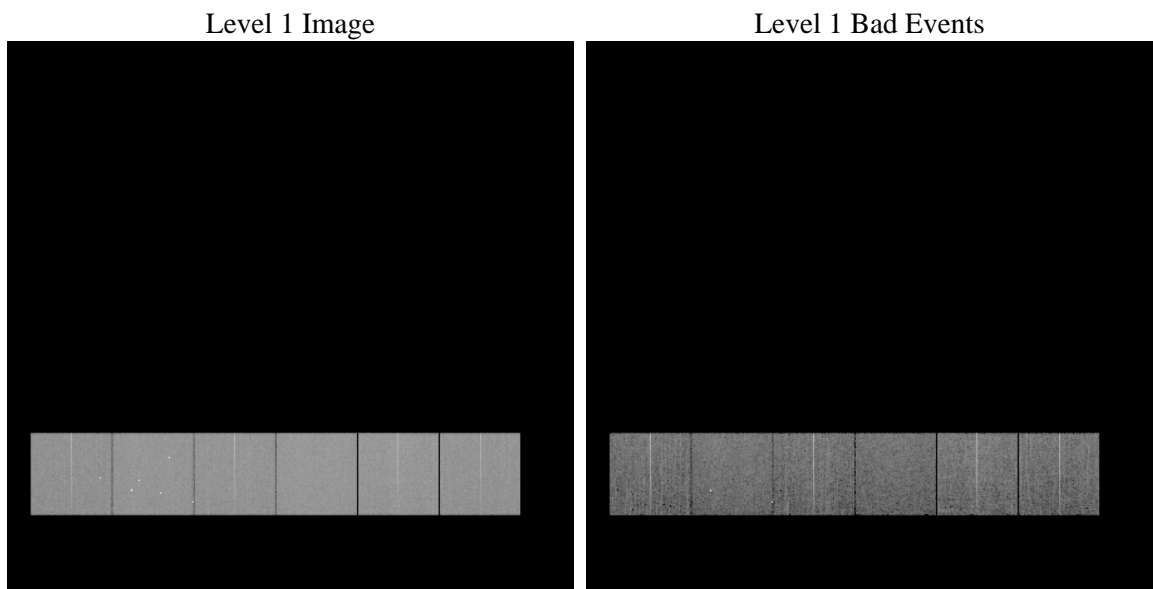
# 1 Front

|          |   |   |
|----------|---|---|
| seq_num  | &#160   | Sequence number                             |
| obs_id   | 59552   | 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   | 262.21726786719                                 | Nominal RA [deg]                            |
| dec_nom  | -23.023650827959                                | Nominal Dec [deg]                           |
| roll_nom | 266.5001717641                                  | Nominal Roll [deg]                          |
| revision | 3   | Processing version of data                  |
| ontime   | 8278.3999691606                                 | Sum of GTIs [s]                             |
| livetime | 8173.573884097                                  | Livetime [s]                                |
| ontime4  | 7137.5757261813                                 | Sum of GTIs [s]                             |
| ontime5  | 8278.3999691606                                 | Sum of GTIs [s]                             |
| ontime6  | 7801.976246357                                  | Sum of GTIs [s]                             |
| ontime7  | 8278.3999691606                                 | Sum of GTIs [s]                             |
| ontime8  | 8070.977420181                                  | Sum of GTIs [s]                             |
| ontime9  | 7656.1323717833                                 | Sum of GTIs [s]                             |
| l2events | 1061826   | Number of level 2 events                    |

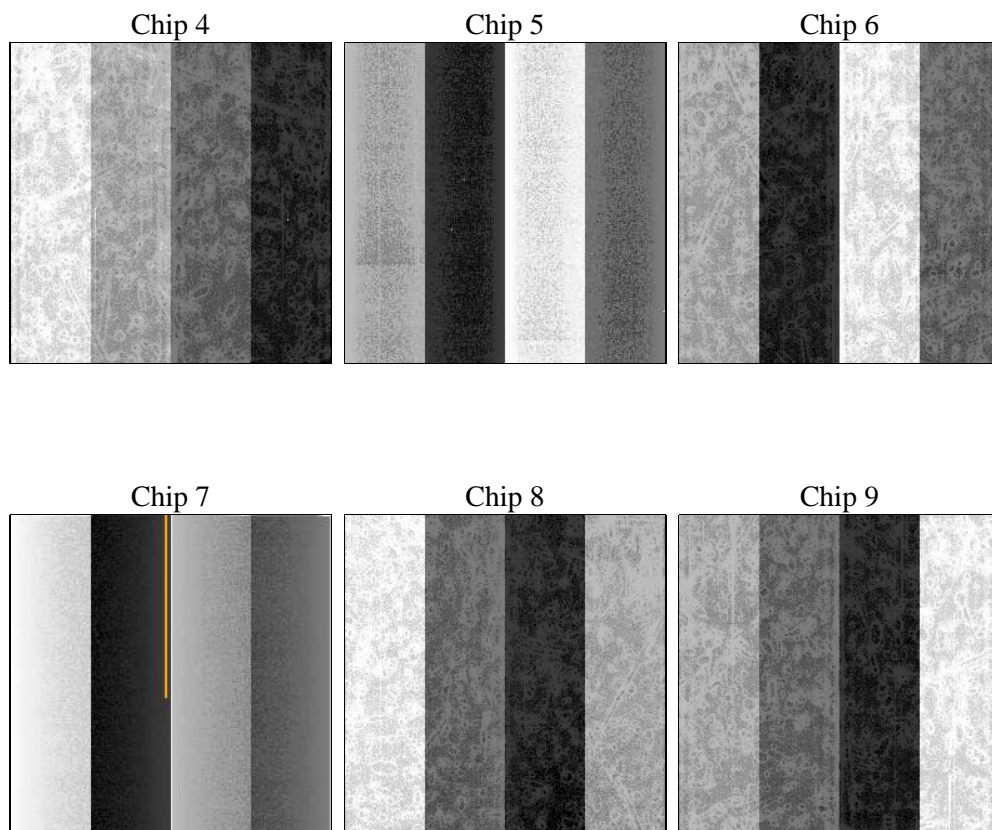
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

|          |                     |                                |                |                 |   |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num  | 1                   | Obi number                     | sched_exp_time | 0.0             | [s] Scheduled observation exposure time |
| ascdsver | 8.5.1.1             | Processing system revision     | ontime         | 8278.3999691606 | Sum of GTIs [s]                         |
| caldsver | 4.5.5               | &#160                          | ontime4        | 7137.5757261813 | Sum of GTIs [s]                         |
| date     | 2012-12-26T04:52:56 | Date and time of file creation | ontime5        | 8278.3999691606 | Sum of GTIs [s]                         |
| revision | 3                   | Processing version of data     | ontime6        | 7801.976246357  | Sum of GTIs [s]                         |
|          |                     |                                | ontime7        | 8278.3999691606 | Sum of GTIs [s]                         |
|          |                     |                                | ontime8        | 8070.977420181  | Sum of GTIs [s]                         |
|          |                     |                                | ontime9        | 7656.1323717833 | Sum of GTIs [s]                         |
|          |                     |                                | l1events       | 1487273         | 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  | 217126 | 260352 | 244353 | 264509 | 266814 | 234119 | grade 0 events | 94332 | 42373 | 101772 | 50135 | 109095 | 98001 |
| rejected events | 56882  | 61106  | 57592  | 50390  | 65599  | 56474  |                | 43%   | 16%   | 41%    | 18%   | 40%    | 41%   |
| rejected %      | 26%    | 23%    | 23%    | 19%    | 24%    | 24%    | grade 1 events | 739   | 630   | 482    | 158   | 563    | 555   |
|                 |        |        |        |        |        |        |                | 0%    | 0%    | 0%     | 0%    | 0%     | 0%    |
|                 |        |        |        |        |        |        | grade 2 events | 24373 | 73869 | 32300  | 47293 | 35386  | 30114 |
|                 |        |        |        |        |        |        |                | 11%   | 28%   | 13%    | 17%   | 13%    | 12%   |
|                 |        |        |        |        |        |        | grade 3 events | 10679 | 10083 | 11423  | 20962 | 13160  | 11468 |
|                 |        |        |        |        |        |        |                | 4%    | 3%    | 4%     | 7%    | 4%     | 4%    |
|                 |        |        |        |        |        |        | grade 4 events | 10458 | 9627  | 11554  | 20978 | 13028  | 11317 |
|                 |        |        |        |        |        |        |                | 4%    | 3%    | 4%     | 7%    | 4%     | 4%    |
|                 |        |        |        |        |        |        | grade 5 events | 3015  | 9481  | 3529   | 8556  | 4461   | 3814  |
|                 |        |        |        |        |        |        |                | 1%    | 3%    | 1%     | 3%    | 1%     | 1%    |
|                 |        |        |        |        |        |        | grade 6 events | 20402 | 63294 | 29712  | 74751 | 30546  | 26745 |
|                 |        |        |        |        |        |        |                | 9%    | 24%   | 12%    | 28%   | 11%    | 11%   |
|                 |        |        |        |        |        |        | grade 7 events | 53128 | 50995 | 53581  | 41676 | 60575  | 52105 |
|                 |        |        |        |        |        |        |                | 24%   | 19%   | 21%    | 15%   | 22%    | 22%   |

## 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                   | 262.217267867192     | Alternating exposures requested | N         | N       |
| [deg] Pointing Dec                | 0                   | -23.02365082795937   | [s] Primary exposure time       | 3.2       | 3.2     |
| [deg] Pointing Roll               | 0.0                 | 266.500171764101     |                                 |           |         |
| [mm] SIM focus pos                | -0.684267           | -0.7809083437167272  |                                 |           |         |
| [mm] SIM defocus                  | 0                   | 0.7524282956875696   |                                 |           |         |
| [mm] SIM translation stage pos    | -190.132523         | 250.466033080201     |                                 |           |         |
| [mm] SIM translation stage offset | 0                   | -0.01005468664627074 |                                 |           |         |
| [s] Observation start time (MET)  | 237631832.94585     | 237631831.92084      |                                 |           |         |
| Observation start date            | 2005-07-13T08:50:33 | 2005-07-13T08:50:31  |                                 |           |         |
| [s] Observation end time (MET)    | 237655207.046921    | 237655206.02191      |                                 |           |         |
| Observation end date              | 2005-07-13T15:20:07 | 2005-07-13T15:20:06  |                                 |           |         |
| 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)      | 2013.01.22      |
| V&V Edition                | 1               |
| V&V Disposition and Status | OK              |
| V&V Charge Time            | 8.2783999691606 |

### A.2 Comments