

# V&V Reference Report

## L2 ASCDS Version : 8.4.3.1

Observation 58701 - L2 Version 2  
Chandra X-Ray Center

L2 Processing Date : Apr 13 2012

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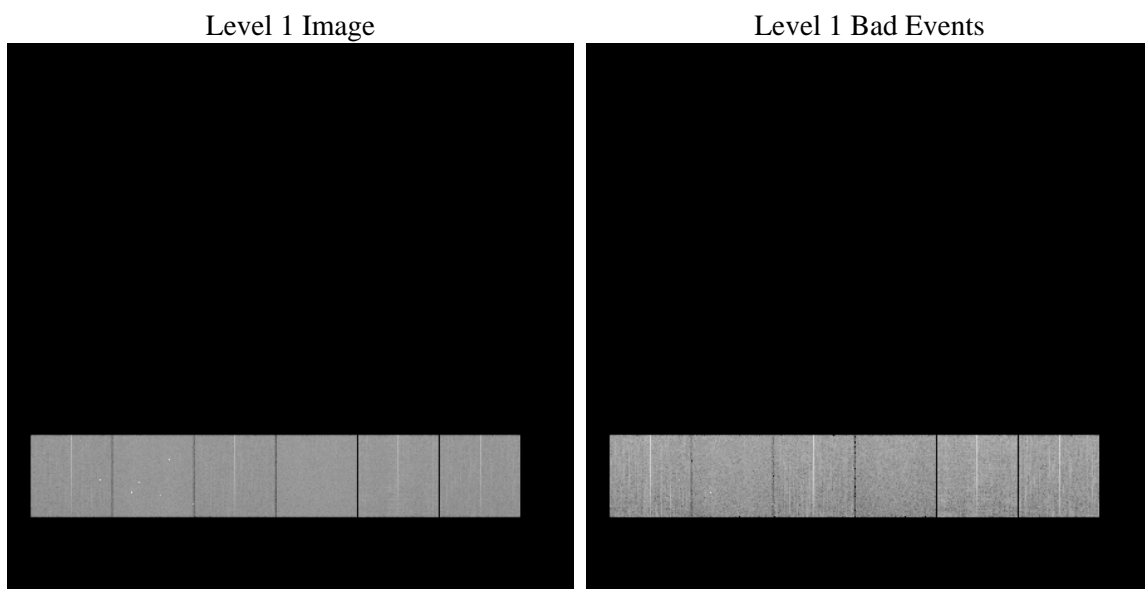
# 1 Front

|          |   |   |
|----------|---|---|
| seq_num  | &#160   | Sequence number                             |
| obs_id   | 58701   | 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   | 233.03230311281                                 | Nominal RA [deg]                            |
| dec_nom  | 39.508670897734                                 | Nominal Dec [deg]                           |
| roll_nom | 356.20332699957                                 | Nominal Roll [deg]                          |
| revision | 2   | Processing version of data                  |
| ontime   | 8271.4433088899                                 | Sum of GTIs [s]                             |
| livetime | 8166.7053132475                                 | Livetime [s]                                |
| ontime4  | 8271.32018888                                   | Sum of GTIs [s]                             |
| ontime5  | 8271.4022688866                                 | Sum of GTIs [s]                             |
| ontime6  | 8271.3612288833                                 | Sum of GTIs [s]                             |
| ontime7  | 8271.4433088899                                 | Sum of GTIs [s]                             |
| ontime8  | 8271.2791488767                                 | Sum of GTIs [s]                             |
| ontime9  | 8271.4843488932                                 | Sum of GTIs [s]                             |
| l2events | 843220  | Number of level 2 events                    |

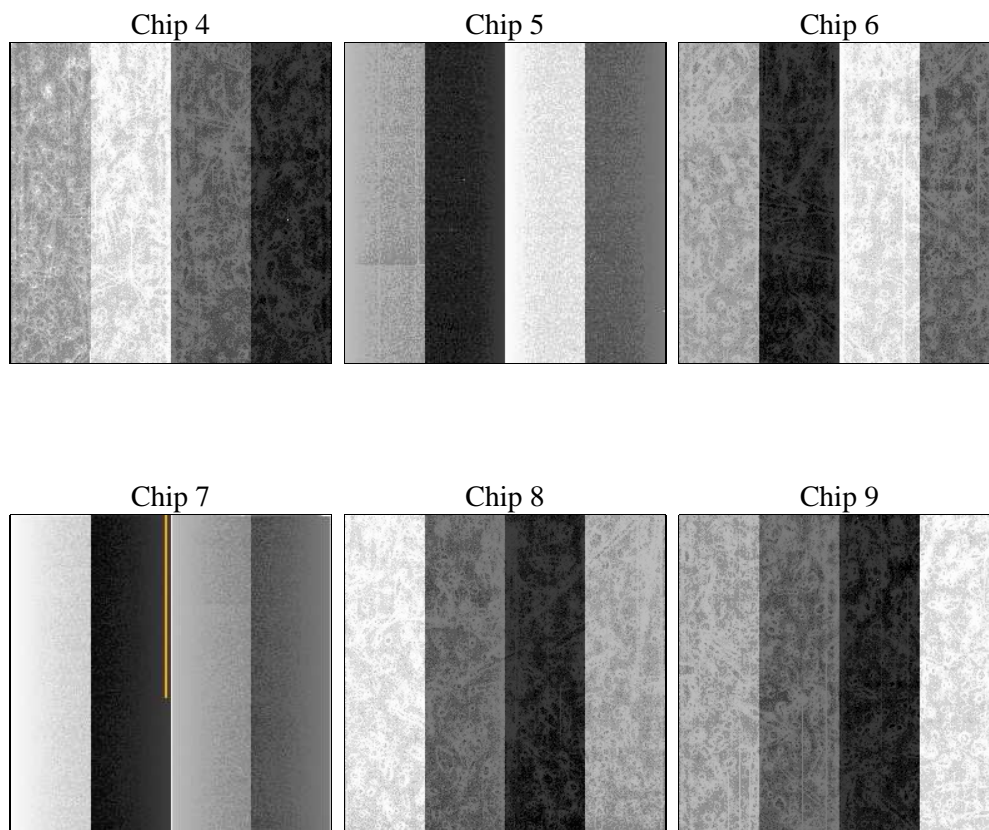
## 2 OBI

### 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 | 8.4.3.1             | Processing system revision     | ontime         | 8271.4433088899 | Sum of GTIs [s]                         |
| caldsver | 4.4.9               | &#160                          | ontime4        | 8271.32018888   | Sum of GTIs [s]                         |
| date     | 2012-04-13T16:03:59 | Date and time of file creation | ontime5        | 8271.4022688866 | Sum of GTIs [s]                         |
| revision | 2                   | Processing version of data     | ontime6        | 8271.3612288833 | Sum of GTIs [s]                         |
|          |                     |                                | ontime7        | 8271.4433088899 | Sum of GTIs [s]                         |
|          |                     |                                | ontime8        | 8271.2791488767 | Sum of GTIs [s]                         |
|          |                     |                                | ontime9        | 8271.4843488932 | Sum of GTIs [s]                         |
|          |                     |                                | l1events       | 1339562         | 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  | 211852 | 229984 | 217337 | 232289 | 233607 | 214493 | grade 0 events | 78931 | 30902 | 77545 | 37093 | 81305 | 75382 |
| rejected events | 75461  | 67566  | 73091  | 61514  | 78485  | 75254  |                | 37%   | 13%   | 35%   | 15%   | 34%   | 35%   |
| rejected %      | 35%    | 29%    | 33%    | 26%    | 33%    | 35%    | grade 1 events | 739   | 258   | 508   | 159   | 484   | 500   |
|                 |        |        |        |        |        |        |                | 0%    | 0%    | 0%    | 0%    | 0%    | 0%    |
|                 |        |        |        |        |        |        | grade 2 events | 21614 | 58846 | 24965 | 36878 | 27832 | 23914 |
|                 |        |        |        |        |        |        |                | 10%   | 25%   | 11%   | 15%   | 11%   | 11%   |
|                 |        |        |        |        |        |        | grade 3 events | 9092  | 8552  | 9180  | 16521 | 10835 | 9246  |
|                 |        |        |        |        |        |        |                | 4%    | 3%    | 4%    | 7%    | 4%    | 4%    |
|                 |        |        |        |        |        |        | grade 4 events | 9099  | 8473  | 9218  | 16414 | 10737 | 9281  |
|                 |        |        |        |        |        |        |                | 4%    | 3%    | 4%    | 7%    | 4%    | 4%    |
|                 |        |        |        |        |        |        | grade 5 events | 4011  | 9825  | 4106  | 10334 | 5278  | 4751  |
|                 |        |        |        |        |        |        |                | 1%    | 4%    | 1%    | 4%    | 2%    | 2%    |
|                 |        |        |        |        |        |        | grade 6 events | 17705 | 55709 | 23396 | 63944 | 24470 | 21479 |
|                 |        |        |        |        |        |        |                | 8%    | 24%   | 10%   | 27%   | 10%   | 10%   |
|                 |        |        |        |        |        |        | grade 7 events | 70661 | 57419 | 68419 | 50946 | 72666 | 69940 |
|                 |        |        |        |        |        |        |                | 33%   | 24%   | 31%   | 21%   | 31%   | 32%   |

## 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                   | 233.0323031128084    | Alternating exposures requested | N         | N       |
| [deg] Pointing Dec                | 0                   | 39.50867089773437    | [s] Primary exposure time       | 3.2       | 3.2     |
| [deg] Pointing Roll               | 0.0                 | 356.2033269995725    |                                 |           |         |
| [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)  | 279898810.761308    | 279898809.73631      |                                 |           |         |
| Observation start date            | 2006-11-14T13:40:11 | 2006-11-14T13:40:09  |                                 |           |         |
| [s] Observation end time (MET)    | 279922888.012445    | 279922886.98745      |                                 |           |         |
| Observation end date              | 2006-11-14T20:21:28 | 2006-11-14T20:21:26  |                                 |           |         |
| 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)      | 2012.04.16      |
| V&V Edition                | 1               |
| V&V Disposition and Status | OK              |
| V&V Charge Time            | 8.2714433088899 |

### A.2 Comments