

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 55796 - L2 Version 2  
Chandra X-Ray Center

L2 Processing Date : Jul 8 2012

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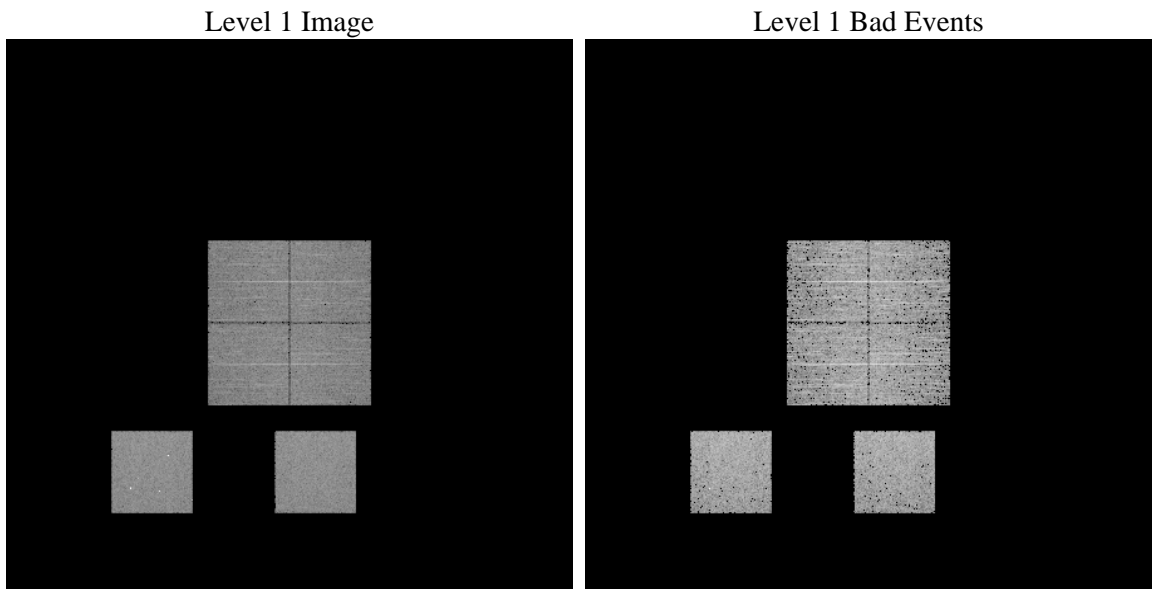
# 1 Front

|          |   |   |
|----------|---|---|
| seq_num  | &#160   | Sequence number                             |
| obs_id   | 55796   | Observation id                              |
| title    | ACIS-012357 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   | 101.31901312314                                 | Nominal RA [deg]                            |
| dec_nom  | -12.473772751339                                | Nominal Dec [deg]                           |
| roll_nom | 20.580269025401                                 | Nominal Roll [deg]                          |
| revision | 2   | Processing version of data                  |
| ontime   | 3286.3314548135                                 | Sum of GTIs [s]                             |
| livetime | 3244.7179471414                                 | Livetime [s]                                |
| ontime0  | 3286.3724948168                                 | Sum of GTIs [s]                             |
| ontime1  | 3286.3999878168                                 | Sum of GTIs [s]                             |
| ontime2  | 3286.3677728176                                 | Sum of GTIs [s]                             |
| ontime3  | 3286.2904148102                                 | Sum of GTIs [s]                             |
| ontime5  | 3286.3267328143                                 | Sum of GTIs [s]                             |
| ontime7  | 3286.3314548135                                 | Sum of GTIs [s]                             |
| l2events | 167484  | Number of level 2 events                    |

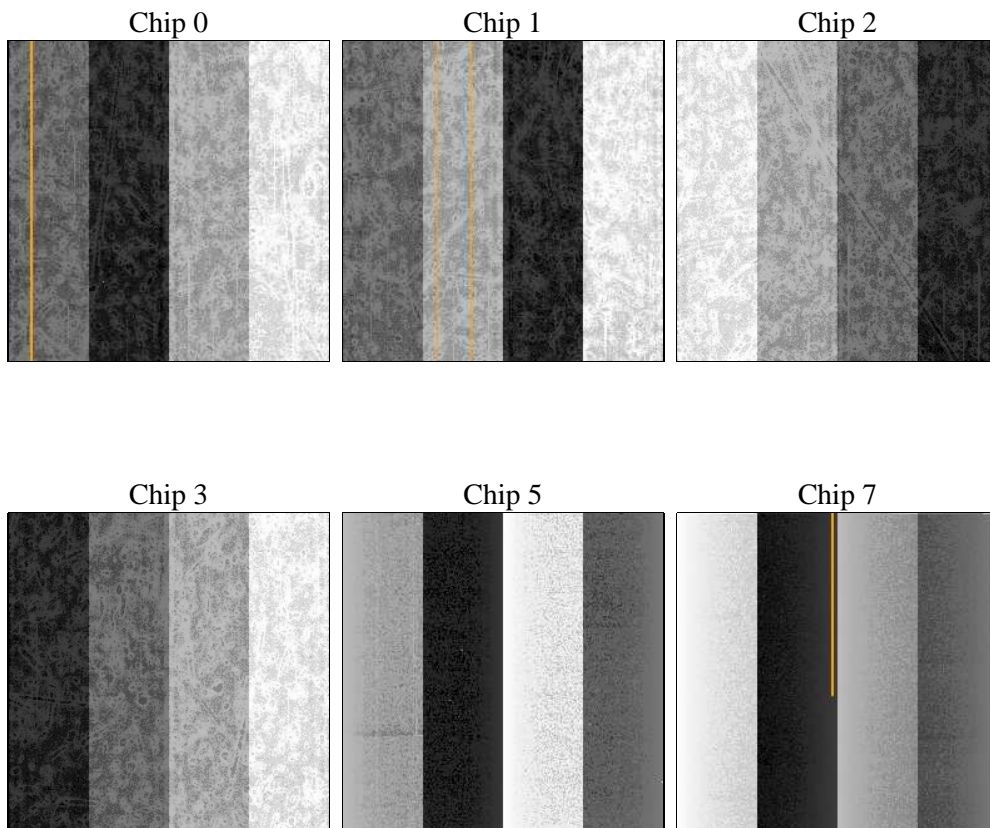
## 2 OBI

### 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         | 3286.3314548135 | Sum of GTIs [s]                         |
| caldsver | 4.5.0               | &#160                          | ontime0        | 3286.3724948168 | Sum of GTIs [s]                         |
| date     | 2012-07-08T19:31:41 | Date and time of file creation | ontime1        | 3286.3999878168 | Sum of GTIs [s]                         |
| revision | 2                   | Processing version of data     | ontime2        | 3286.3677728176 | Sum of GTIs [s]                         |
|          |                     |                                | ontime3        | 3286.2904148102 | Sum of GTIs [s]                         |
|          |                     |                                | ontime5        | 3286.3267328143 | Sum of GTIs [s]                         |
|          |                     |                                | ontime7        | 3286.3314548135 | Sum of GTIs [s]                         |
|          |                     |                                | l1events       | 324089          | Number of level 1 events                |

### 2.1.4 Events

|                 | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 5 | ccd 7 |                | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 5 | ccd 7 |
|-----------------|-------|-------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|-------|-------|
| level 1 events  | 47984 | 48432 | 49043 | 49922 | 65480 | 63228 | grade 0 events | 12912 | 12675 | 13234 | 13493 | 6545  | 6968  |
| rejected events | 22963 | 23225 | 24175 | 24376 | 25972 | 25439 |                | 26%   | 26%   | 26%   | 27%   | 9%    | 11%   |
| rejected %      | 47%   | 47%   | 49%   | 48%   | 39%   | 40%   | grade 1 events | 87    | 86    | 93    | 94    | 223   | 45    |
|                 |       |       |       |       |       |       |                | 0%    | 0%    | 0%    | 0%    | 0%    | 0%    |
|                 |       |       |       |       |       |       | grade 2 events | 4599  | 4883  | 4270  | 4570  | 13723 | 8243  |
|                 |       |       |       |       |       |       |                | 9%    | 10%   | 8%    | 9%    | 20%   | 13%   |
|                 |       |       |       |       |       |       | grade 3 events | 1689  | 1626  | 1712  | 1721  | 1718  | 3232  |
|                 |       |       |       |       |       |       |                | 3%    | 3%    | 3%    | 3%    | 2%    | 5%    |
|                 |       |       |       |       |       |       | grade 4 events | 1692  | 1613  | 1657  | 1648  | 1636  | 3275  |
|                 |       |       |       |       |       |       |                | 3%    | 3%    | 3%    | 3%    | 2%    | 5%    |
|                 |       |       |       |       |       |       | grade 5 events | 1511  | 1568  | 1373  | 1599  | 3351  | 4059  |
|                 |       |       |       |       |       |       |                | 3%    | 3%    | 2%    | 3%    | 5%    | 6%    |
|                 |       |       |       |       |       |       | grade 6 events | 4129  | 4410  | 3995  | 4114  | 15886 | 16071 |
|                 |       |       |       |       |       |       |                | 8%    | 9%    | 8%    | 8%    | 24%   | 25%   |
|                 |       |       |       |       |       |       | grade 7 events | 21365 | 21571 | 22709 | 22683 | 22398 | 21335 |
|                 |       |       |       |       |       |       |                | 44%   | 44%   | 46%   | 45%   | 34%   | 33%   |

## 2.2 Compared Parameters

| Parameter                         | Planned             | Actual               | Parameter                             | Planned   | Actual  |
|-----------------------------------|---------------------|----------------------|---------------------------------------|-----------|---------|
| Instrument                        | ACIS                | ACIS                 | Obspar format version number          | 7         | 7       |
| Detector                          | ACIS-012357         | ACIS-012357          | 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                   | 101.3190131231371    | Subarray requested                    | NONE      | NONE    |
| [deg] Pointing Dec                | 0                   | -12.47377275133885   | Alternating exposures requested       | N         | N       |
| [deg] Pointing Roll               | 0.0                 | 20.58026902540058    | [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)  | 409186090.556333    | 409186089.53134      |                                       |           |         |
| Observation start date            | 2010-12-19T22:48:11 | 2010-12-19T22:48:09  |                                       |           |         |
| [s] Observation end time (MET)    | 409190947.006583    | 409190945.98159      |                                       |           |         |
| Observation end date              | 2010-12-20T00:09:07 | 2010-12-20T00:09:05  |                                       |           |         |
| 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)      | 2012.07.18      |
| V&V Edition                | 1               |
| V&V Disposition and Status | OK              |
| V&V Charge Time            | 3.2863314548135 |

### A.2 Comments