

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 54716 - L2 Version 1  
Chandra X-Ray Center

L2 Processing Date : Apr 9 2012

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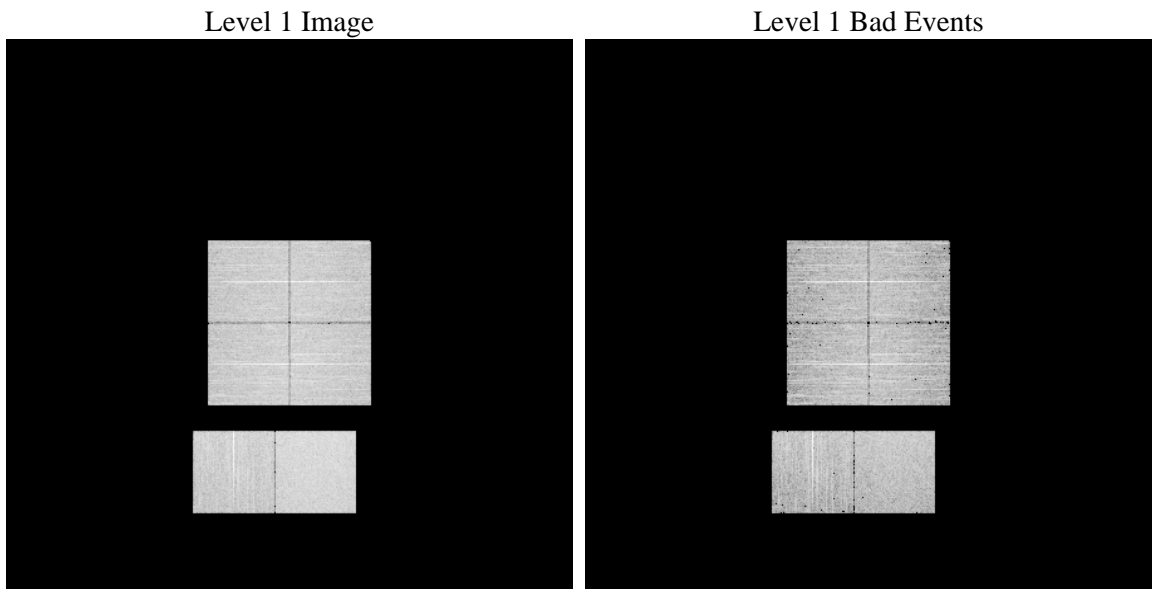
# 1 Front

|          |   |   |
|----------|---|---|
| seq_num  | &#160   | Sequence number                             |
| obs_id   | 54716   | Observation id                              |
| title    | ACIS-012367 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   | 169.03079295386                                 | Nominal RA [deg]                            |
| dec_nom  | -30.011373141304                                | Nominal Dec [deg]                           |
| roll_nom | 303.42777603931                                 | Nominal Roll [deg]                          |
| revision | 1   | Processing version of data                  |
| ontime   | 8281.5999692082                                 | Sum of GTIs [s]                             |
| livetime | 8176.7333638173                                 | Livetime [s]                                |
| ontime0  | 8281.5999692082                                 | Sum of GTIs [s]                             |
| ontime1  | 8281.5999692082                                 | Sum of GTIs [s]                             |
| ontime2  | 8281.5999692082                                 | Sum of GTIs [s]                             |
| ontime3  | 8281.5999692082                                 | Sum of GTIs [s]                             |
| ontime6  | 8281.5999692082                                 | Sum of GTIs [s]                             |
| ontime7  | 8281.5999692082                                 | Sum of GTIs [s]                             |
| l2events | 254610  | Number of level 2 events                    |

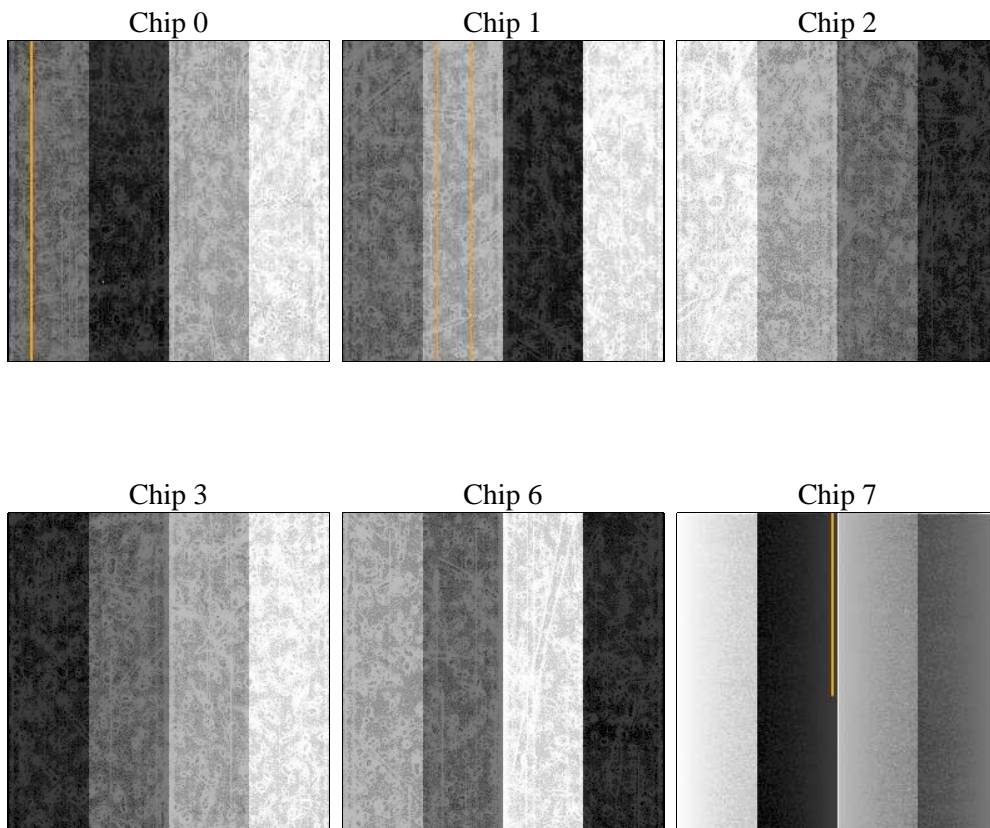
## 2 OBI

### 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               | Processing system revision     | ontime         | 8281.5999692082 | Sum of GTIs [s]                         |
| caldsver | 4.4.9               | &#160                          | ontime0        | 8281.5999692082 | Sum of GTIs [s]                         |
| date     | 2012-04-10T01:01:43 | Date and time of file creation | ontime1        | 8281.5999692082 | Sum of GTIs [s]                         |
| revision | 1                   | Processing version of data     | ontime2        | 8281.5999692082 | Sum of GTIs [s]                         |
|          |                     |                                | ontime3        | 8281.5999692082 | Sum of GTIs [s]                         |
|          |                     |                                | ontime6        | 8281.5999692082 | Sum of GTIs [s]                         |
|          |                     |                                | ontime7        | 8281.5999692082 | Sum of GTIs [s]                         |
|          |                     |                                | l1events       | 580276          | Number of level 1 events                |

### 2.1.4 Events

|                 | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7  |                | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 |
|-----------------|-------|-------|-------|-------|-------|--------|----------------|-------|-------|-------|-------|-------|-------|
| level 1 events  | 88729 | 89505 | 92096 | 93831 | 94636 | 121479 | grade 0 events | 19827 | 18054 | 20930 | 21277 | 17681 | 10127 |
| rejected events | 48876 | 48884 | 52074 | 53115 | 53372 | 54726  |                | 22%   | 20%   | 22%   | 22%   | 18%   | 8%    |
| rejected %      | 55%   | 54%   | 56%   | 56%   | 56%   | 45%    | grade 1 events | 100   | 83    | 112   | 120   | 82    | 116   |
|                 |       |       |       |       |       |        |                | 0%    | 0%    | 0%    | 0%    | 0%    | 0%    |
|                 |       |       |       |       |       |        | grade 2 events | 8421  | 10659 | 7701  | 7819  | 11302 | 14856 |
|                 |       |       |       |       |       |        |                | 9%    | 11%   | 8%    | 8%    | 11%   | 12%   |
|                 |       |       |       |       |       |        | grade 3 events | 2512  | 2298  | 2708  | 2630  | 2224  | 5440  |
|                 |       |       |       |       |       |        |                | 2%    | 2%    | 2%    | 2%    | 2%    | 4%    |
|                 |       |       |       |       |       |        | grade 4 events | 2542  | 2316  | 2581  | 2681  | 2179  | 5349  |
|                 |       |       |       |       |       |        |                | 2%    | 2%    | 2%    | 2%    | 2%    | 4%    |
|                 |       |       |       |       |       |        | grade 5 events | 2813  | 2781  | 2631  | 3190  | 2840  | 7506  |
|                 |       |       |       |       |       |        |                | 3%    | 3%    | 2%    | 3%    | 3%    | 6%    |
|                 |       |       |       |       |       |        | grade 6 events | 6551  | 7294  | 6102  | 6309  | 7878  | 30981 |
|                 |       |       |       |       |       |        |                | 7%    | 8%    | 6%    | 6%    | 8%    | 25%   |
|                 |       |       |       |       |       |        | grade 7 events | 45963 | 46020 | 49331 | 49805 | 50450 | 47104 |
|                 |       |       |       |       |       |        |                | 51%   | 51%   | 53%   | 53%   | 53%   | 38%   |

## 2.2 Compared Parameters

| Parameter                         | Planned             | Actual               | Parameter                             | Planned   | Actual  |
|-----------------------------------|---------------------|----------------------|---------------------------------------|-----------|---------|
| Instrument                        | ACIS                | ACIS                 | Obspar format version number          | 7         | 7       |
| Detector                          | ACIS-012367         | ACIS-012367          | 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                   | 169.0307929538627    | Subarray requested                    | NONE      | NONE    |
| [deg] Pointing Dec                | 0                   | -30.0113731413043    | Alternating exposures requested       | N         | N       |
| [deg] Pointing Roll               | 0.0                 | 303.4277760393061    | [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)  | 450342408.725069    | 450342407.70007      |                                       |           |         |
| Observation start date            | 2012-04-09T07:06:49 | 2012-04-09T07:06:47  |                                       |           |         |
| [s] Observation end time (MET)    | 450352589.025609    | 450352588.00061      |                                       |           |         |
| Observation end date              | 2012-04-09T09:56:29 | 2012-04-09T09:56:28  |                                       |           |         |
| Read mode                         | TIMED               | TIMED                |                                       |           |         |

## 2.3 Star Slots

## 2.4 FID Slots

## A Summary

### A.1 Status

|                            |                 |
|----------------------------|-----------------|
| V&V Scientist              | Jen Lauer       |
| V&V Date (YYYY-MM-DD)      | 2012.04.10      |
| V&V Edition                | 1               |
| V&V Disposition and Status | OK              |
| V&V Charge Time            | 8.2815999692082 |

### A.2 Comments