

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 58018 - L2 Version 2  
Chandra X-Ray Center

L2 Processing Date : May 7 2012

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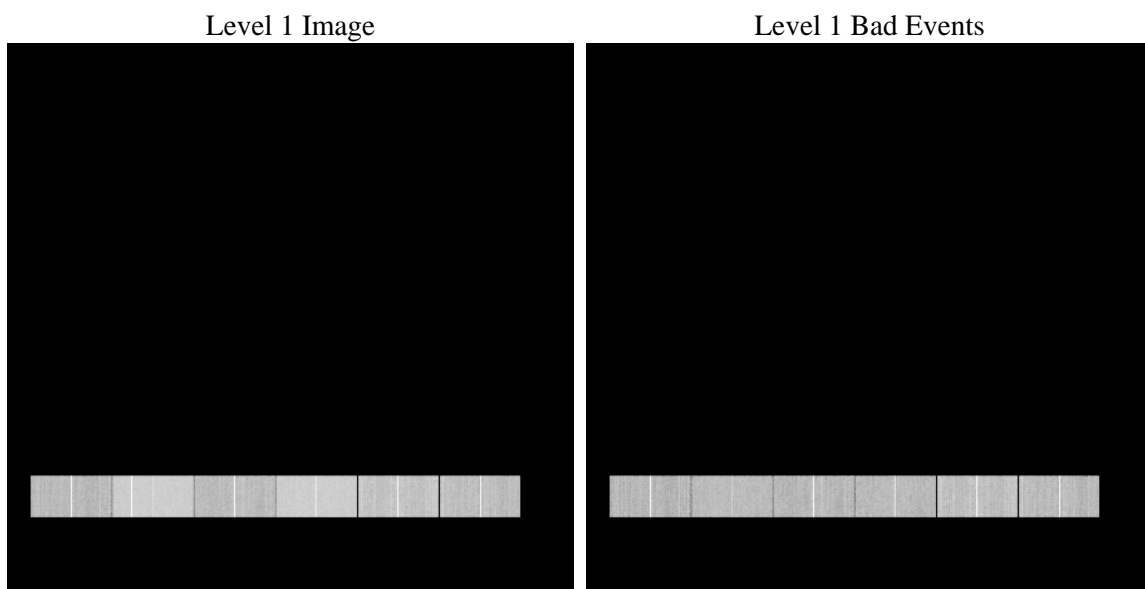
# 1 Front

|          |   |                                       |
|----------|---|---------------------------------------|
| seq_num  | &#160   | Sequence number                       |
| obs_id   | 58018   | Observation id                        |
| title    | ACIS-456789 diagnostics                         | Proposal title                        |
| observer | CHANDRA engineering request/realtime commanding | Principal investig                    |
| object   | &#160   | Source name                           |
| ra_targ  | 0.0   | Observer's specified target RA [deg]  |
| dec_targ | 0.0   | Observer's specified target Dec [deg] |
| ra_nom   | 103.02632972938                                 | Nominal RA [deg]                      |
| dec_nom  | -2.9984780827324                                | Nominal Dec [deg]                     |
| roll_nom | 341.2352572228                                  | Nominal Roll [deg]                    |
| revision | 2   | Processing version of data            |
| ontime   | 5205.795709908                                  | Sum of GTIs [s]                       |
| livetime | 5185.4605704162                                 | Livetime [s]                          |
| ontime4  | 2471.3074067235                                 | Sum of GTIs [s]                       |
| ontime5  | 5206.5  | Sum of GTIs [s]                       |
| ontime6  | 2671.2152970433                                 | Sum of GTIs [s]                       |
| ontime7  | 5205.795709908                                  | Sum of GTIs [s]                       |
| ontime8  | 2774.8172012568                                 | Sum of GTIs [s]                       |
| ontime9  | 2685.8070060015                                 | Sum of GTIs [s]                       |
| l2events | 273380  | Number of level 2 events              |

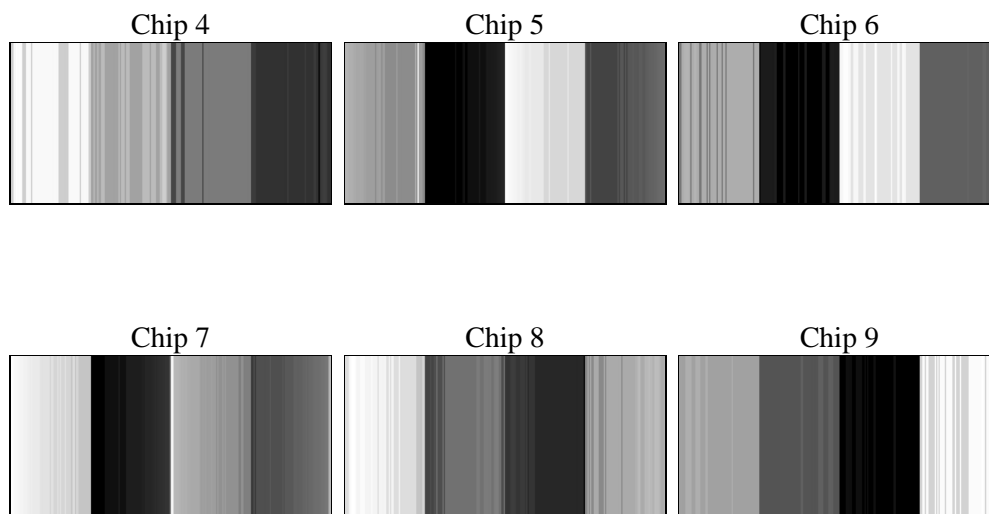
## 2 OBI

### 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         | 5205.795709908  | Sum of GTIs [s]                         |
| caldsver | 4.4.9               | &#160                          | ontime4        | 2471.3074067235 | Sum of GTIs [s]                         |
| date     | 2012-05-08T02:05:03 | Date and time of file creation | ontime5        | 5206.5          | Sum of GTIs [s]                         |
| revision | 2                   | Processing version of data     | ontime6        | 2671.2152970433 | Sum of GTIs [s]                         |
|          |                     |                                | ontime7        | 5205.795709908  | Sum of GTIs [s]                         |
|          |                     |                                | ontime8        | 2774.8172012568 | Sum of GTIs [s]                         |
|          |                     |                                | ontime9        | 2685.8070060015 | Sum of GTIs [s]                         |
|          |                     |                                | l1events       | 912586          | 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  | 110737 | 207555 | 118683 | 196553 | 152924 | 126134 | grade 0 events | 4738  | 18291 | 4564  | 17055 | 7988   | 5019  |
| rejected events | 92298  | 95262  | 96256  | 93242  | 124838 | 104197 |                | 4%    | 8%    | 3%    | 8%    | 5%     | 3%    |
| rejected %      | 83%    | 45%    | 81%    | 47%    | 81%    | 82%    | grade 1 events | 63    | 104   | 50    | 122   | 98     | 62    |
|                 |        |        |        |        |        |        |                | 0%    | 0%    | 0%    | 0%    | 0%     | 0%    |
|                 |        |        |        |        |        |        | grade 2 events | 22611 | 46943 | 25026 | 30867 | 27259  | 24552 |
|                 |        |        |        |        |        |        |                | 20%   | 22%   | 21%   | 15%   | 17%    | 19%   |
|                 |        |        |        |        |        |        | grade 3 events | 1013  | 2322  | 1046  | 7192  | 1976   | 1023  |
|                 |        |        |        |        |        |        |                | 0%    | 1%    | 0%    | 3%    | 1%     | 0%    |
|                 |        |        |        |        |        |        | grade 4 events | 1080  | 2351  | 1016  | 7064  | 1782   | 1061  |
|                 |        |        |        |        |        |        |                | 0%    | 1%    | 0%    | 3%    | 1%     | 0%    |
|                 |        |        |        |        |        |        | grade 5 events | 1413  | 5902  | 1413  | 7144  | 2008   | 1555  |
|                 |        |        |        |        |        |        |                | 1%    | 2%    | 1%    | 3%    | 1%     | 1%    |
|                 |        |        |        |        |        |        | grade 6 events | 7516  | 42512 | 9585  | 41238 | 11106  | 9058  |
|                 |        |        |        |        |        |        |                | 6%    | 20%   | 8%    | 20%   | 7%     | 7%    |
|                 |        |        |        |        |        |        | grade 7 events | 72303 | 89130 | 75983 | 85871 | 100707 | 83804 |
|                 |        |        |        |        |        |        |                | 65%   | 42%   | 64%   | 43%   | 65%    | 66%   |

## 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                         | CC33_FAINT          | CC33_FAINT           | On-chip summing requested       | N         | N       |
| Observation mode                  | SECONDARY           | SECONDARY            | Subarray requested              | NONE      | NONE    |
| [deg] Pointing RA                 | 0                   | 103.0263297293832    | Alternating exposures requested | N         | N       |
| [deg] Pointing Dec                | 0                   | -2.998478082732435   | [s] Primary exposure time       | 0         | 0       |
| [deg] Pointing Roll               | 0.0                 | 341.2352572228031    |                                 |           |         |
| [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)  | 316415327.208135    | 316415326.18313      |                                 |           |         |
| Observation start date            | 2008-01-11T05:08:47 | 2008-01-11T05:08:46  |                                 |           |         |
| [s] Observation end time (MET)    | 316429402.508817    | 316429401.48381      |                                 |           |         |
| Observation end date              | 2008-01-11T09:03:23 | 2008-01-11T09:03:21  |                                 |           |         |
| Read mode                         | CONTINUOUS          | CONTINUOUS           |                                 |           |         |

## 2.3 Star Slots

## 2.4 FID Slots

## A Summary

### A.1 Status

|                            |                |
|----------------------------|----------------|
| V&V Scientist              | Joy Nichols    |
| V&V Date (YYYY-MM-DD)      | 2012.05.08     |
| V&V Edition                | 1              |
| V&V Disposition and Status | OK             |
| V&V Charge Time            | 5.205795709908 |

### A.2 Comments