

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 61648 - L2 Version 3  
Chandra X-Ray Center

L2 Processing Date : Sep 18 2012

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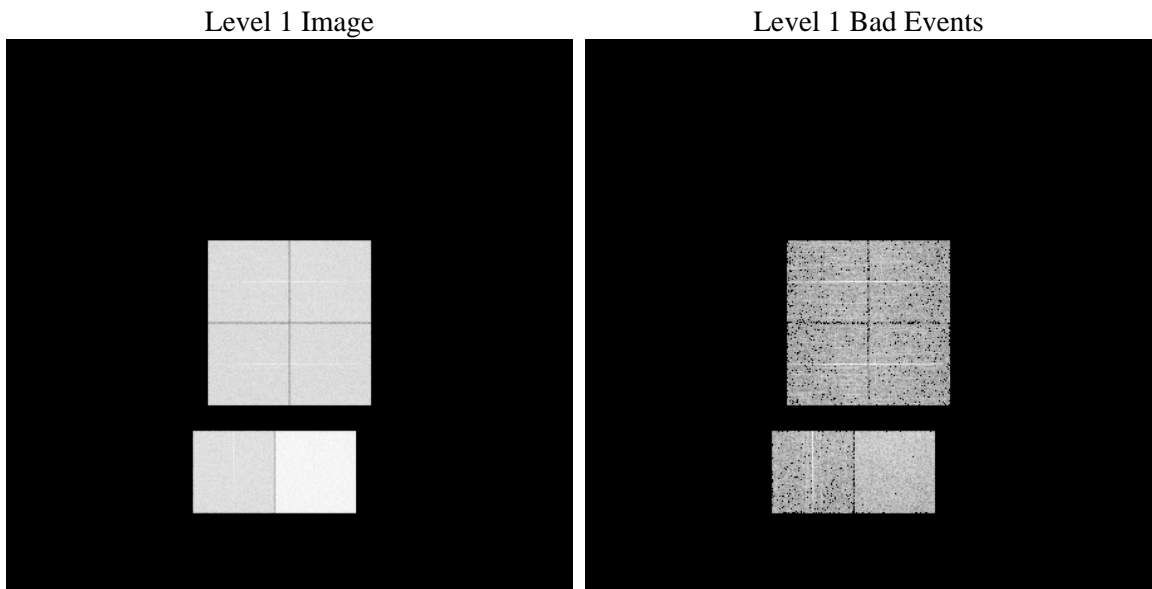
# 1 Front

|          |   |   |
|----------|---|---|
| seq_num  | &#160   | Sequence number                             |
| obs_id   | 61648   | 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   | 279.97155903566                                 | Nominal RA [deg]                            |
| dec_nom  | 25.012610684916                                 | Nominal Dec [deg]                           |
| roll_nom | 121.2680417413                                  | Nominal Roll [deg]                          |
| revision | 3   | Processing version of data                  |
| ontime   | 6154.214911893                                  | Sum of GTIs [s]                             |
| livetime | 6076.2865370553                                 | Livetime [s]                                |
| ontime0  | 2528.0086518675                                 | Sum of GTIs [s]                             |
| ontime1  | 2609.0346517265                                 | Sum of GTIs [s]                             |
| ontime2  | 2395.1262913942                                 | Sum of GTIs [s]                             |
| ontime3  | 2430.3608431518                                 | Sum of GTIs [s]                             |
| ontime6  | 2664.1315042824                                 | Sum of GTIs [s]                             |
| ontime7  | 6154.214911893                                  | Sum of GTIs [s]                             |
| l2events | 1198071   | Number of level 2 events                    |

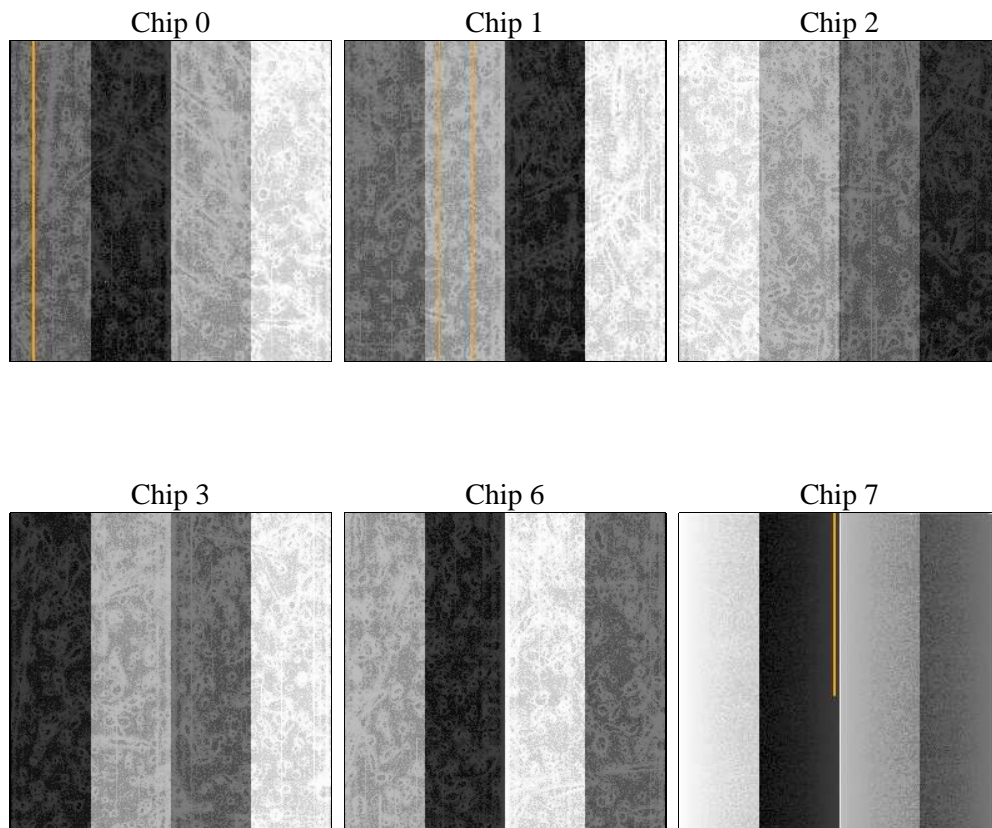
## 2 OBI

### 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 | 8.4.5               | Processing system revision     | ontime         | 6154.214911893  | Sum of GTIs [s]                         |
| caldsver | 4.5.1.1             | &#160                          | ontime0        | 2528.0086518675 | Sum of GTIs [s]                         |
| date     | 2012-09-18T21:51:23 | Date and time of file creation | ontime1        | 2609.0346517265 | Sum of GTIs [s]                         |
| revision | 3                   | Processing version of data     | ontime2        | 2395.1262913942 | Sum of GTIs [s]                         |
|          |                     |                                | ontime3        | 2430.3608431518 | Sum of GTIs [s]                         |
|          |                     |                                | ontime6        | 2664.1315042824 | Sum of GTIs [s]                         |
|          |                     |                                | ontime7        | 6154.214911893  | Sum of GTIs [s]                         |
|          |                     |                                | l1events       | 1377379         | 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  | 184419 | 188673 | 176790 | 179659 | 202413 | 445425 | grade 0 events | 90696 | 93737 | 87468 | 89988 | 99164 | 105399 |
| rejected events | 19661  | 18688  | 19091  | 19067  | 20137  | 32262  |                | 49%   | 49%   | 49%   | 50%   | 48%   | 23%    |
| rejected %      | 10%    | 9%     | 10%    | 10%    | 9%     | 7%     | grade 1 events | 521   | 445   | 462   | 496   | 472   | 277    |
|                 |        |        |        |        |        |        |                | 0%    | 0%    | 0%    | 0%    | 0%    | 0%     |
|                 |        |        |        |        |        |        | grade 2 events | 29131 | 29970 | 27659 | 27834 | 31638 | 90803  |
|                 |        |        |        |        |        |        |                | 15%   | 15%   | 15%   | 15%   | 15%   | 20%    |
|                 |        |        |        |        |        |        | grade 3 events | 10377 | 10777 | 9890  | 10288 | 11407 | 42282  |
|                 |        |        |        |        |        |        |                | 5%    | 5%    | 5%    | 5%    | 5%    | 9%     |
|                 |        |        |        |        |        |        | grade 4 events | 10437 | 10814 | 10165 | 10174 | 11209 | 41823  |
|                 |        |        |        |        |        |        |                | 5%    | 5%    | 5%    | 5%    | 5%    | 9%     |
|                 |        |        |        |        |        |        | grade 5 events | 1485  | 1446  | 1315  | 1406  | 1647  | 6872   |
|                 |        |        |        |        |        |        |                | 0%    | 0%    | 0%    | 0%    | 0%    | 1%     |
|                 |        |        |        |        |        |        | grade 6 events | 24117 | 24687 | 22517 | 22308 | 28858 | 132856 |
|                 |        |        |        |        |        |        |                | 13%   | 13%   | 12%   | 12%   | 14%   | 29%    |
|                 |        |        |        |        |        |        | grade 7 events | 17655 | 16797 | 17314 | 17165 | 18018 | 25113  |
|                 |        |        |        |        |        |        |                | 9%    | 8%    | 9%    | 9%    | 8%    | 5%     |

## 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                | On-chip summing requested       | N         | N       |
| Observation mode                  | SECONDARY           | SECONDARY            | Subarray requested              | NONE      | NONE    |
| [deg] Pointing RA                 | 0                   | 279.9715590356595    | Alternating exposures requested | N         | N       |
| [deg] Pointing Dec                | 0                   | 25.01261068491565    | [s] Primary exposure time       | 0.000000  | 3.2     |
| [deg] Pointing Roll               | 0.0                 | 121.2680417412962    |                                 |           |         |
| [mm] SIM focus pos                | -0.782348           | -0.7809083437167272  |                                 |           |         |
| [mm] SIM defocus                  | 0                   | 0.7524282956875696   |                                 |           |         |
| [mm] SIM translation stage pos    | -233.592463         | 250.466033080201     |                                 |           |         |
| [mm] SIM translation stage offset | 0                   | -0.01005468664627074 |                                 |           |         |
| [s] Observation start time (MET)  | 105537752.376       | 105537751.60745      |                                 |           |         |
| Observation start date            | 2001-05-06T12:02:32 | 2001-05-06T12:02:31  |                                 |           |         |
| [s] Observation end time (MET)    | 105563346.627       | 105563345.85844      |                                 |           |         |
| Observation end date              | 2001-05-06T19:09:07 | 2001-05-06T19:09:05  |                                 |           |         |
| 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)      | 2012.09.20     |
| V&V Edition                | 1              |
| V&V Disposition and Status | OK             |
| V&V Charge Time            | 6.154214911893 |

### A.2 Comments