

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 57134 - L2 Version 2  
Chandra X-Ray Center

L2 Processing Date : Jun 6 2012

## Contents

|          |                               |          |
|----------|-------------------------------|----------|
| <b>1</b> | <b>Front</b>                  | <b>2</b> |
| <b>2</b> | <b>OBI</b>                    | <b>3</b> |
| 2.1      | OBI . . . . .                 | 3        |
| 2.1.1    | Images . . . . .              | 3        |
| 2.1.2    | Bias . . . . .                | 3        |
| 2.1.3    | Parameters . . . . .          | 4        |
| 2.1.4    | Events . . . . .              | 4        |
| 2.2      | Compared Parameters . . . . . | 5        |
| 2.3      | Star Slots . . . . .          | 6        |
| 2.4      | FID Slots . . . . .           | 6        |
| <b>A</b> | <b>Summary</b>                | <b>7</b> |
| A.1      | Status . . . . .              | 7        |
| A.2      | Comments . . . . .            | 7        |

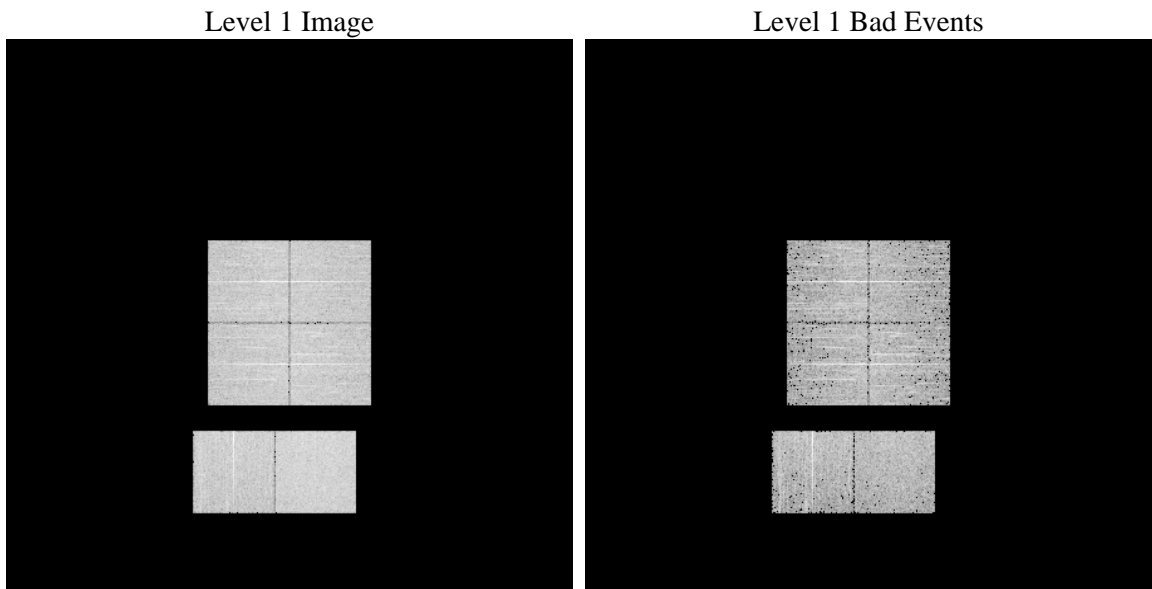
# 1 Front

|          |   |   |
|----------|---|---|
| seq_num  | &#160   | Sequence number                             |
| obs_id   | 57134   | 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   | 336.47804774453                                 | Nominal RA [deg]                            |
| dec_nom  | 0.018502881632138                               | Nominal Dec [deg]                           |
| roll_nom | 107.0398559106                                  | Nominal Roll [deg]                          |
| revision | 2   | Processing version of data                  |
| ontime   | 3272.7965093851                                 | Sum of GTIs [s]                             |
| livetime | 3231.3543893418                                 | Livetime [s]                                |
| ontime0  | 3272.7554693818                                 | Sum of GTIs [s]                             |
| ontime1  | 3272.7144293785                                 | Sum of GTIs [s]                             |
| ontime2  | 3272.6733893752                                 | Sum of GTIs [s]                             |
| ontime3  | 3272.8375493884                                 | Sum of GTIs [s]                             |
| ontime6  | 3272.6323493719                                 | Sum of GTIs [s]                             |
| ontime7  | 3272.7965093851                                 | Sum of GTIs [s]                             |
| l2events | 195668  | Number of level 2 events                    |

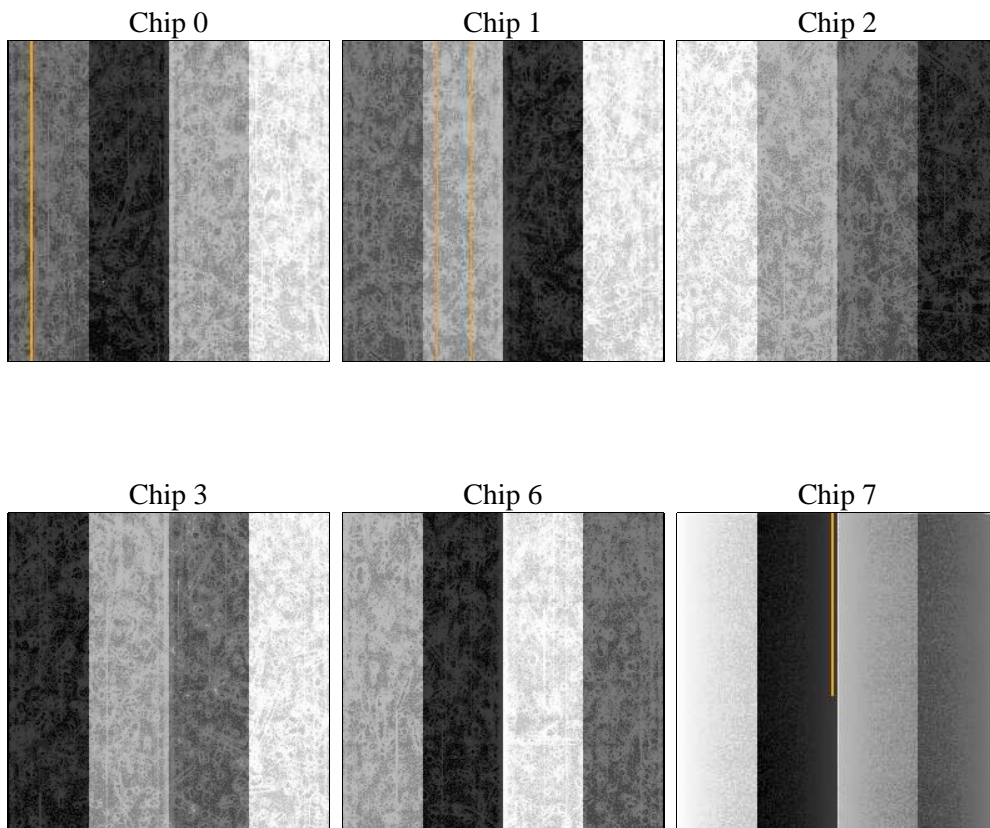
## 2 OBI

### 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         | 3272.7965093851 | Sum of GTIs [s]                         |
| caldsver | 4.4.10              | &#160                          | ontime0        | 3272.7554693818 | Sum of GTIs [s]                         |
| date     | 2012-06-06T11:36:43 | Date and time of file creation | ontime1        | 3272.7144293785 | Sum of GTIs [s]                         |
| revision | 2                   | Processing version of data     | ontime2        | 3272.6733893752 | Sum of GTIs [s]                         |
|          |                     |                                | ontime3        | 3272.8375493884 | Sum of GTIs [s]                         |
|          |                     |                                | ontime6        | 3272.6323493719 | Sum of GTIs [s]                         |
|          |                     |                                | ontime7        | 3272.7965093851 | Sum of GTIs [s]                         |
|          |                     |                                | l1events       | 382293          | 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  | 61937 | 57722 | 60722 | 62708 | 63327 | 75877 | grade 0 events | 17048 | 16649 | 16918 | 17411 | 16982 | 9020  |
| rejected events | 30365 | 26079 | 29417 | 30670 | 30699 | 28395 |                | 27%   | 28%   | 27%   | 27%   | 26%   | 11%   |
| rejected %      | 49%   | 45%   | 48%   | 48%   | 48%   | 37%   | grade 1 events | 142   | 105   | 140   | 131   | 123   | 70    |
|                 |       |       |       |       |       |       |                | 0%    | 0%    | 0%    | 0%    | 0%    | 0%    |
|                 |       |       |       |       |       |       | grade 2 events | 5712  | 5925  | 5567  | 5630  | 5894  | 10323 |
|                 |       |       |       |       |       |       |                | 9%    | 10%   | 9%    | 8%    | 9%    | 13%   |
|                 |       |       |       |       |       |       | grade 3 events | 2185  | 2108  | 2136  | 2160  | 2203  | 4429  |
|                 |       |       |       |       |       |       |                | 3%    | 3%    | 3%    | 3%    | 3%    | 5%    |
|                 |       |       |       |       |       |       | grade 4 events | 2001  | 2140  | 2106  | 2208  | 2170  | 4301  |
|                 |       |       |       |       |       |       |                | 3%    | 3%    | 3%    | 3%    | 3%    | 5%    |
|                 |       |       |       |       |       |       | grade 5 events | 1629  | 1761  | 1512  | 1776  | 1842  | 4740  |
|                 |       |       |       |       |       |       |                | 2%    | 3%    | 2%    | 2%    | 2%    | 6%    |
|                 |       |       |       |       |       |       | grade 6 events | 4626  | 4821  | 4578  | 4629  | 5379  | 19409 |
|                 |       |       |       |       |       |       |                | 7%    | 8%    | 7%    | 7%    | 8%    | 25%   |
|                 |       |       |       |       |       |       | grade 7 events | 28594 | 24213 | 27765 | 28763 | 28734 | 23585 |
|                 |       |       |       |       |       |       |                | 46%   | 41%   | 45%   | 45%   | 45%   | 31%   |

## 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                   | 336.4780477445281    | Subarray requested                    | NONE      | NONE    |
| [deg] Pointing Dec                | 0                   | 0.01850288163213779  | Alternating exposures requested       | N         | N       |
| [deg] Pointing Roll               | 0.0                 | 107.0398559106009    | [s] Primary exposure time             | 3.2       | 3.2     |
| [mm] SIM focus pos                | -1.429586           | -0.7809083437167272  |                                       |           |         |
| [mm] SIM defocus                  | 0.1037507710433287  | 0.7524282956875696   |                                       |           |         |
| [mm] SIM translation stage pos    | 250.455976          | 250.466033080201     |                                       |           |         |
| [mm] SIM translation stage offset | 0                   | -0.01005468664627074 |                                       |           |         |
| [s] Observation start time (MET)  | 357545359.988451    | 357545358.96344      |                                       |           |         |
| Observation start date            | 2009-05-01T06:09:20 | 2009-05-01T06:09:18  |                                       |           |         |
| [s] Observation end time (MET)    | 357572834.089822    | 357572833.0648       |                                       |           |         |
| Observation end date              | 2009-05-01T13:47:14 | 2009-05-01T13:47:13  |                                       |           |         |
| 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)      | 2012.06.08      |
| V&V Edition                | 1               |
| V&V Disposition and Status | OK              |
| V&V Charge Time            | 3.2727965093851 |

### A.2 Comments