

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 56357 - L2 Version 2  
Chandra X-Ray Center

L2 Processing Date : Jun 23 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        |

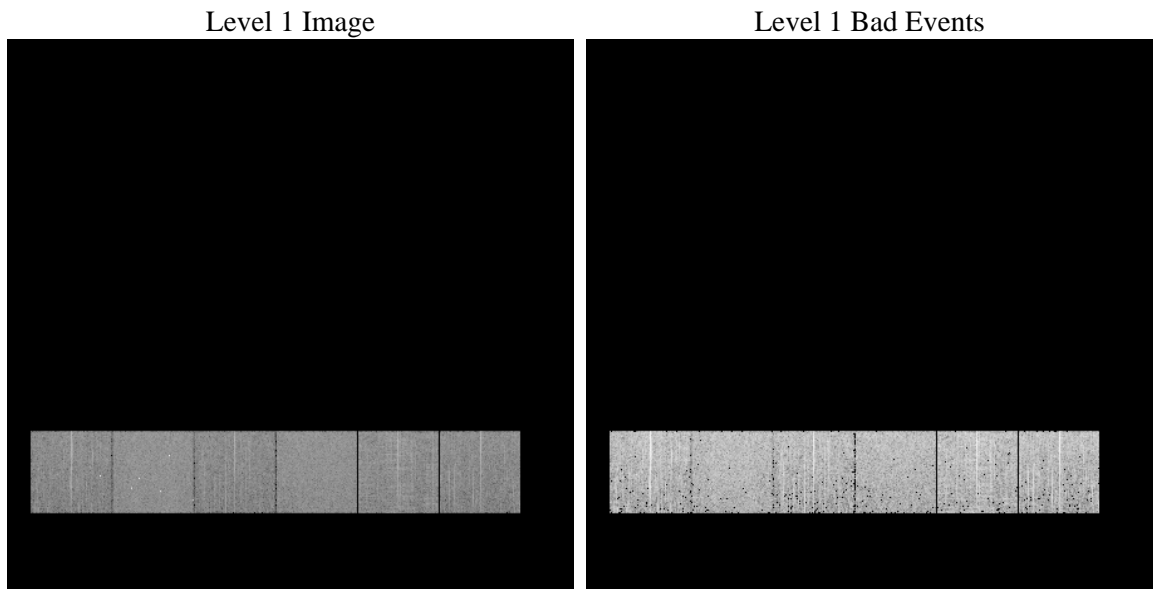
# 1 Front

|          |   |   |
|----------|---|---|
| seq_num  | &#160   | Sequence number                             |
| obs_id   | 56357   | Observation id                              |
| title    | ACIS-456789 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   | 189.0292973093                                  | Nominal RA [deg]                            |
| dec_nom  | -29.486552232293                                | Nominal Dec [deg]                           |
| roll_nom | 354.87724997919                                 | Nominal Roll [deg]                          |
| revision | 2   | Processing version of data                  |
| ontime   | 3247.9999879599                                 | Sum of GTIs [s]                             |
| livetime | 3206.8718564015                                 | Livetime [s]                                |
| ontime4  | 3247.9999879599                                 | Sum of GTIs [s]                             |
| ontime5  | 3247.9999879599                                 | Sum of GTIs [s]                             |
| ontime6  | 3247.9999879599                                 | Sum of GTIs [s]                             |
| ontime7  | 3247.9999879599                                 | Sum of GTIs [s]                             |
| ontime8  | 3247.9999879599                                 | Sum of GTIs [s]                             |
| ontime9  | 3247.9999879599                                 | Sum of GTIs [s]                             |
| l2events | 173273  | Number of level 2 events                    |

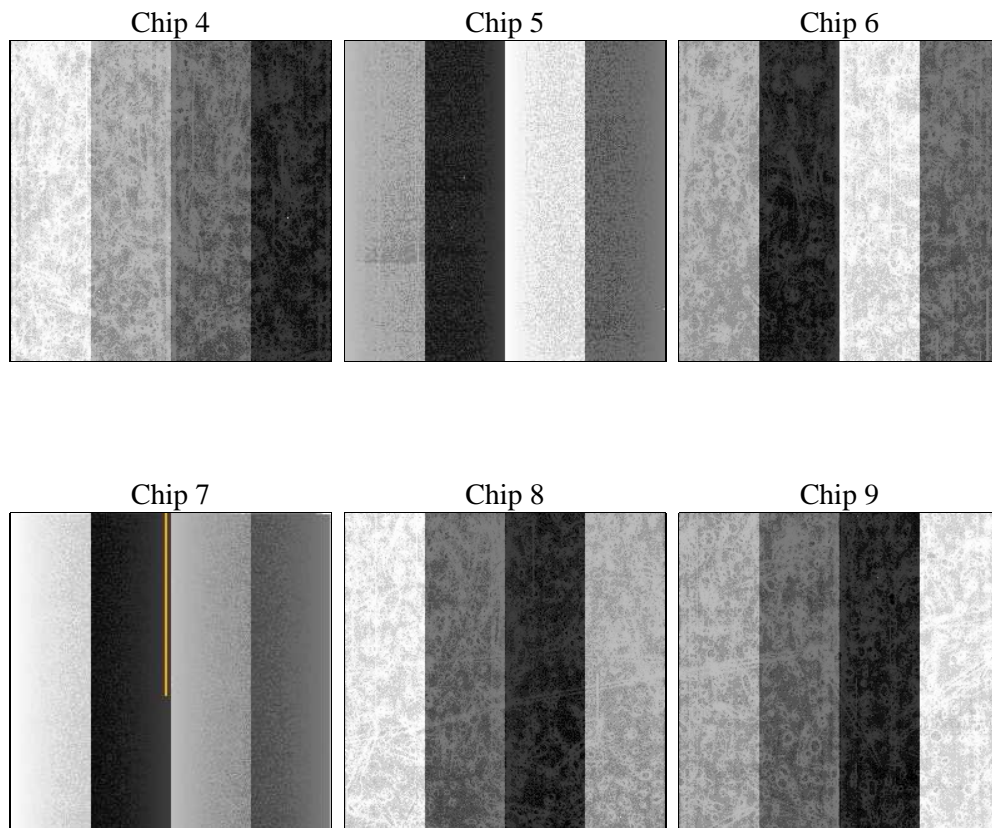
## 2 OBI

### 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         | 3247.9999879599 | Sum of GTIs [s]                         |
| caldbver | 4.4.10              | &#160                          | ontime4        | 3247.9999879599 | Sum of GTIs [s]                         |
| date     | 2012-06-23T19:32:22 | Date and time of file creation | ontime5        | 3247.9999879599 | Sum of GTIs [s]                         |
| revision | 2                   | Processing version of data     | ontime6        | 3247.9999879599 | Sum of GTIs [s]                         |
|          |                     |                                | ontime7        | 3247.9999879599 | Sum of GTIs [s]                         |
|          |                     |                                | ontime8        | 3247.9999879599 | Sum of GTIs [s]                         |
|          |                     |                                | ontime9        | 3247.9999879599 | Sum of GTIs [s]                         |
|          |                     |                                | l1events       | 368432          | 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  | 56369 | 70242 | 54535 | 66692 | 64505 | 56089 | grade 0 events | 14735 | 7127  | 13908 | 7215  | 15479 | 13572 |
| rejected events | 30820 | 28107 | 28152 | 27042 | 32925 | 30660 |                | 26%   | 10%   | 25%   | 10%   | 23%   | 24%   |
| rejected %      | 54%   | 40%   | 51%   | 40%   | 51%   | 54%   | grade 1 events | 128   | 98    | 78    | 50    | 115   | 92    |
|                 |       |       |       |       |       |       |                | 0%    | 0%    | 0%    | 0%    | 0%    | 0%    |
|                 |       |       |       |       |       |       | grade 2 events | 4189  | 14574 | 4880  | 8629  | 6048  | 4530  |
|                 |       |       |       |       |       |       |                | 7%    | 20%   | 8%    | 12%   | 9%    | 8%    |
|                 |       |       |       |       |       |       | grade 3 events | 1884  | 1919  | 1667  | 3551  | 2430  | 1747  |
|                 |       |       |       |       |       |       |                | 3%    | 2%    | 3%    | 5%    | 3%    | 3%    |
|                 |       |       |       |       |       |       | grade 4 events | 1755  | 1835  | 1783  | 3724  | 2273  | 1745  |
|                 |       |       |       |       |       |       |                | 3%    | 2%    | 3%    | 5%    | 3%    | 3%    |
|                 |       |       |       |       |       |       | grade 5 events | 1625  | 3787  | 1746  | 4292  | 2126  | 1978  |
|                 |       |       |       |       |       |       |                | 2%    | 5%    | 3%    | 6%    | 3%    | 3%    |
|                 |       |       |       |       |       |       | grade 6 events | 3243  | 17088 | 4419  | 16974 | 5664  | 4076  |
|                 |       |       |       |       |       |       |                | 5%    | 24%   | 8%    | 25%   | 8%    | 7%    |
|                 |       |       |       |       |       |       | grade 7 events | 28810 | 23814 | 26054 | 22257 | 30370 | 28349 |
|                 |       |       |       |       |       |       |                | 51%   | 33%   | 47%   | 33%   | 47%   | 50%   |

## 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                         | FAINT               | FAINT                | Number of optional ACIS chips dropped | 0         | 0       |
| Observation mode                  | SECONDARY           | SECONDARY            | On-chip summing requested             | N         | N       |
| [deg] Pointing RA                 | 0                   | 189.0292973093016    | Subarray requested                    | NONE      | NONE    |
| [deg] Pointing Dec                | 0                   | -29.48655223229335   | Alternating exposures requested       | N         | N       |
| [deg] Pointing Roll               | 0.0                 | 354.8772499791867    | [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)  | 386564985.148274    | 386564984.12327      |                                       |           |         |
| Observation start date            | 2010-04-02T03:09:45 | 2010-04-02T03:09:44  |                                       |           |         |
| [s] Observation end time (MET)    | 386568894.498472    | 386568893.47347      |                                       |           |         |
| Observation end date              | 2010-04-02T04:14:54 | 2010-04-02T04:14:53  |                                       |           |         |
| 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)      | 2012.06.29      |
| V&V Edition                | 1               |
| V&V Disposition and Status | OK              |
| V&V Charge Time            | 3.2479999879599 |

### A.2 Comments