

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 57113 - L2 Version 2  
Chandra X-Ray Center

L2 Processing Date : Jun 7 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        |

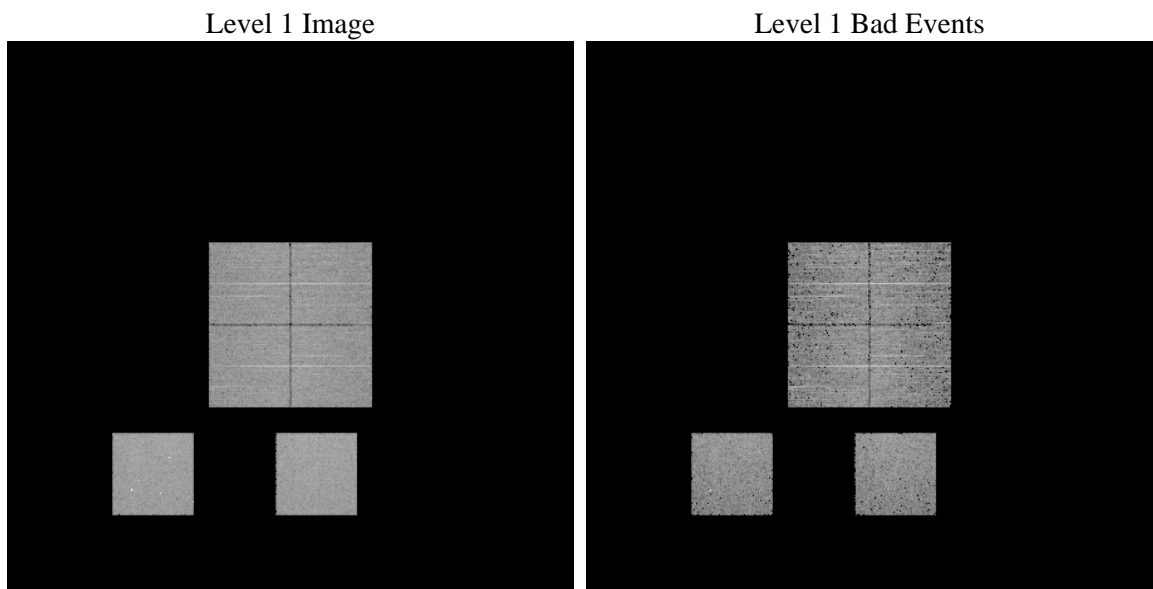
# 1 Front

|          |   |   |
|----------|---|---|
| seq_num  | &#160   | Sequence number                             |
| obs_id   | 57113   | Observation id                              |
| title    | ACIS-012357 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   | 220.4386592567                                  | Nominal RA [deg]                            |
| dec_nom  | 4.5676881945766                                 | Nominal Dec [deg]                           |
| roll_nom | 199.6535161373                                  | Nominal Roll [deg]                          |
| revision | 2   | Processing version of data                  |
| ontime   | 3273.5999878645                                 | Sum of GTIs [s]                             |
| livetime | 3232.1476936929                                 | Livetime [s]                                |
| ontime0  | 3273.5999878645                                 | Sum of GTIs [s]                             |
| ontime1  | 3273.5999878645                                 | Sum of GTIs [s]                             |
| ontime2  | 3273.5999878645                                 | Sum of GTIs [s]                             |
| ontime3  | 3273.5999878645                                 | Sum of GTIs [s]                             |
| ontime5  | 3273.5999878645                                 | Sum of GTIs [s]                             |
| ontime7  | 3273.5999878645                                 | Sum of GTIs [s]                             |
| l2events | 207693  | Number of level 2 events                    |

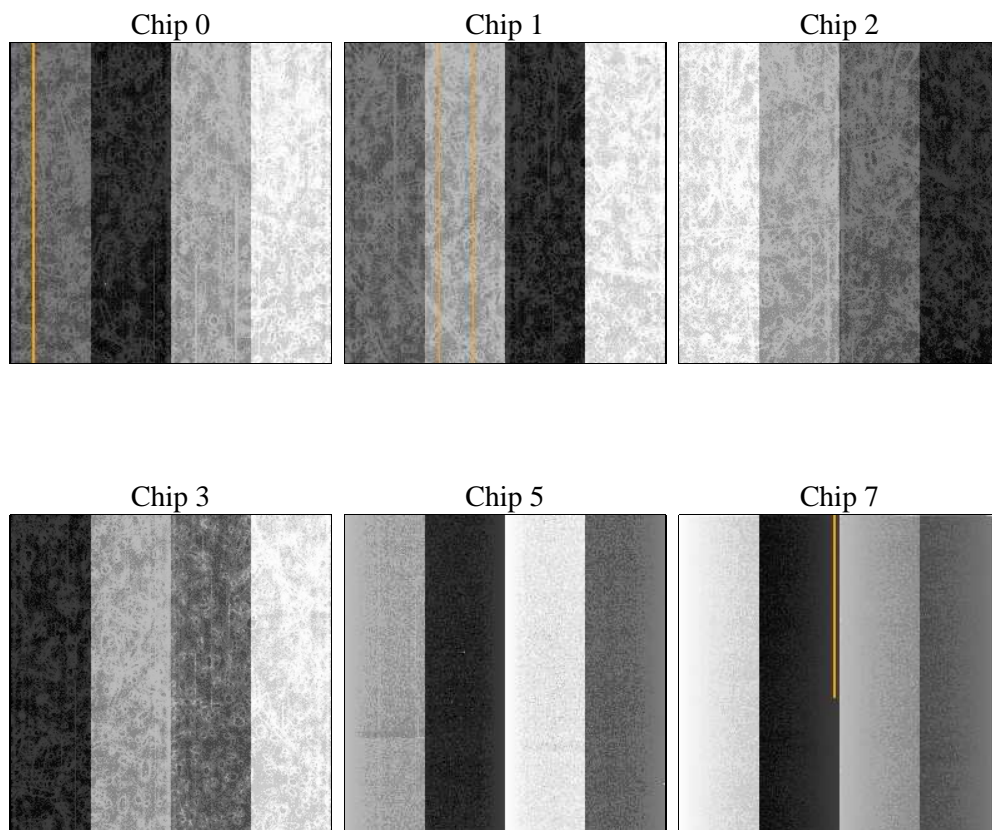
## 2 OBI

### 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         | 3273.5999878645 | Sum of GTIs [s]                         |
| caldsver | 4.4.10              | &#160                          | ontime0        | 3273.5999878645 | Sum of GTIs [s]                         |
| date     | 2012-06-07T04:20:55 | Date and time of file creation | ontime1        | 3273.5999878645 | Sum of GTIs [s]                         |
| revision | 2                   | Processing version of data     | ontime2        | 3273.5999878645 | Sum of GTIs [s]                         |
|          |                     |                                | ontime3        | 3273.5999878645 | Sum of GTIs [s]                         |
|          |                     |                                | ontime5        | 3273.5999878645 | Sum of GTIs [s]                         |
|          |                     |                                | ontime7        | 3273.5999878645 | Sum of GTIs [s]                         |
|          |                     |                                | l1events       | 394902          | Number of level 1 events                |

### 2.1.4 Events

|                 | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 5 | ccd 7 |                | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 5 | ccd 7 |
|-----------------|-------|-------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|-------|-------|
| level 1 events  | 59203 | 59171 | 60962 | 61686 | 77516 | 76364 | grade 0 events | 16504 | 16231 | 16805 | 17090 | 7387  | 8884  |
| rejected events | 28182 | 28157 | 29874 | 30224 | 29838 | 29225 |                | 27%   | 27%   | 27%   | 27%   | 9%    | 11%   |
| rejected %      | 47%   | 47%   | 49%   | 48%   | 38%   | 38%   | grade 1 events | 140   | 109   | 149   | 150   | 105   | 73    |
|                 |       |       |       |       |       |       |                | 0%    | 0%    | 0%    | 0%    | 0%    | 0%    |
|                 |       |       |       |       |       |       | grade 2 events | 5693  | 5858  | 5510  | 5525  | 17133 | 10278 |
|                 |       |       |       |       |       |       |                | 9%    | 9%    | 9%    | 8%    | 22%   | 13%   |
|                 |       |       |       |       |       |       | grade 3 events | 2154  | 2088  | 2114  | 2198  | 2047  | 4498  |
|                 |       |       |       |       |       |       |                | 3%    | 3%    | 3%    | 3%    | 2%    | 5%    |
|                 |       |       |       |       |       |       | grade 4 events | 2001  | 2098  | 2165  | 2142  | 2130  | 4289  |
|                 |       |       |       |       |       |       |                | 3%    | 3%    | 3%    | 3%    | 2%    | 5%    |
|                 |       |       |       |       |       |       | grade 5 events | 1666  | 1645  | 1532  | 1831  | 3997  | 4651  |
|                 |       |       |       |       |       |       |                | 2%    | 2%    | 2%    | 2%    | 5%    | 6%    |
|                 |       |       |       |       |       |       | grade 6 events | 4694  | 4772  | 4530  | 4534  | 19033 | 19244 |
|                 |       |       |       |       |       |       |                | 7%    | 8%    | 7%    | 7%    | 24%   | 25%   |
|                 |       |       |       |       |       |       | grade 7 events | 26351 | 26370 | 28157 | 28216 | 25684 | 24447 |
|                 |       |       |       |       |       |       |                | 44%   | 44%   | 46%   | 45%   | 33%   | 32%   |

## 2.2 Compared Parameters

| Parameter                         | Planned             | Actual                | Parameter                             | Planned   | Actual  |
|-----------------------------------|---------------------|-----------------------|---------------------------------------|-----------|---------|
| Instrument                        | ACIS                | ACIS                  | Obspar format version number          | 7         | 7       |
| Detector                          | ACIS-012357         | ACIS-012357           | 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                   | 220.4386592566994     | Subarray requested                    | NONE      | NONE    |
| [deg] Pointing Dec                | 0                   | 4.567688194576581     | Alternating exposures requested       | N         | N       |
| [deg] Pointing Roll               | 0.0                 | 199.6535161372969     | [s] Primary exposure time             | 3.2       | 3.2     |
| [mm] SIM focus pos                | -1.429586           | -0.6828225247311905   |                                       |           |         |
| [mm] SIM defocus                  | 0.1037507710433287  | 0.8505141146731063    |                                       |           |         |
| [mm] SIM translation stage pos    | 250.455976          | 250.4635187648994     |                                       |           |         |
| [mm] SIM translation stage offset | 0                   | -0.007540371344731511 |                                       |           |         |
| [s] Observation start time (MET)  | 358460445.184016    | 358460444.15905       |                                       |           |         |
| Observation start date            | 2009-05-11T20:20:45 | 2009-05-11T20:20:44   |                                       |           |         |
| [s] Observation end time (MET)    | 358465266.784256    | 358465265.75929       |                                       |           |         |
| Observation end date              | 2009-05-11T21:41:07 | 2009-05-11T21:41:05   |                                       |           |         |
| 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)      | 2012.06.11      |
| V&V Edition                | 1               |
| V&V Disposition and Status | OK              |
| V&V Charge Time            | 3.2735999878645 |

### A.2 Comments