

# V&V Reference Report

## L2 ASCDS Version : 8.4.3.1

Observation 58827 - L2 Version 2  
Chandra X-Ray Center

L2 Processing Date : Apr 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        |

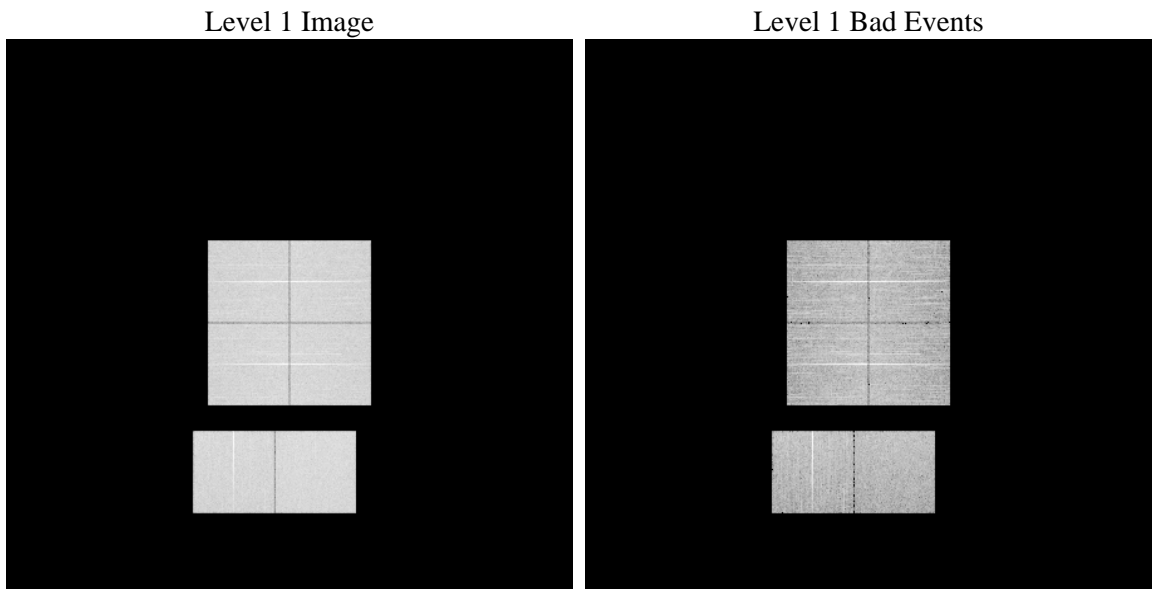
# 1 Front

|          |   |   |
|----------|---|---|
| seq_num  | &#160   | Sequence number                             |
| obs_id   | 58827   | 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   | 295.00638793268                                 | Nominal RA [deg]                            |
| dec_nom  | -4.0278782976722                                | Nominal Dec [deg]                           |
| roll_nom | 249.97345044039                                 | Nominal Roll [deg]                          |
| revision | 2   | Processing version of data                  |
| ontime   | 7795.1999710202                                 | Sum of GTIs [s]                             |
| livetime | 7696.4924552813                                 | Livetime [s]                                |
| ontime0  | 7795.1999710202                                 | Sum of GTIs [s]                             |
| ontime1  | 7795.1999710202                                 | Sum of GTIs [s]                             |
| ontime2  | 7795.1999710202                                 | Sum of GTIs [s]                             |
| ontime3  | 7795.1999710202                                 | Sum of GTIs [s]                             |
| ontime6  | 7795.177862525                                  | Sum of GTIs [s]                             |
| ontime7  | 7795.1999710202                                 | Sum of GTIs [s]                             |
| l2events | 821742  | Number of level 2 events                    |

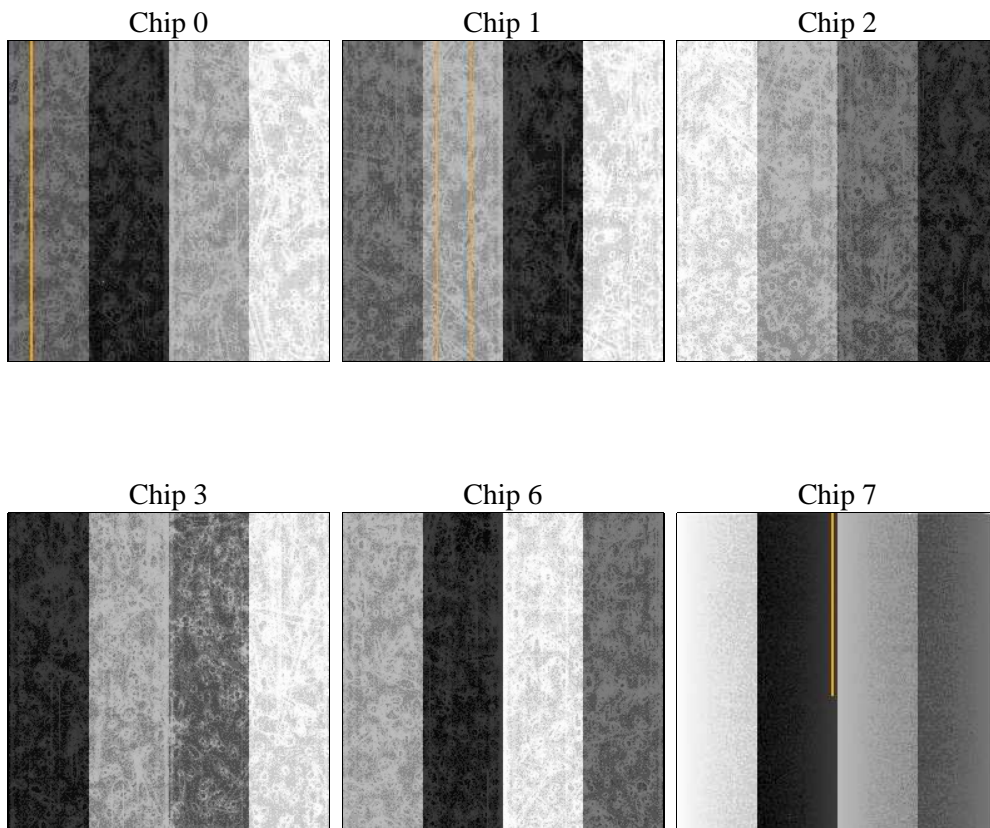
## 2 OBI

### 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 | 8.4.3.1             | Processing system revision     | ontime         | 7795.1999710202 | Sum of GTIs [s]                         |
| caldsver | 4.4.9               | &#160                          | ontime0        | 7795.1999710202 | Sum of GTIs [s]                         |
| date     | 2012-04-07T13:02:59 | Date and time of file creation | ontime1        | 7795.1999710202 | Sum of GTIs [s]                         |
| revision | 2                   | Processing version of data     | ontime2        | 7795.1999710202 | Sum of GTIs [s]                         |
|          |                     |                                | ontime3        | 7795.1999710202 | Sum of GTIs [s]                         |
|          |                     |                                | ontime6        | 7795.177862525  | Sum of GTIs [s]                         |
|          |                     |                                | ontime7        | 7795.1999710202 | Sum of GTIs [s]                         |
|          |                     |                                | l1events       | 1260840         | 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  | 202044 | 201949 | 209986 | 207715 | 212078 | 227068 | grade 0 events | 74817 | 74584 | 77124 | 77548 | 77745 | 37310 |
| rejected events | 64932  | 63847  | 71196  | 68613  | 67786  | 58680  |                | 37%   | 36%   | 36%   | 37%   | 36%   | 16%   |
| rejected %      | 32%    | 31%    | 33%    | 33%    | 31%    | 25%    | grade 1 events | 552   | 422   | 615   | 567   | 445   | 180   |
|                 |        |        |        |        |        |        |                | 0%    | 0%    | 0%    | 0%    | 0%    | 0%    |
|                 |        |        |        |        |        |        | grade 2 events | 24072 | 24973 | 23390 | 23667 | 25308 | 37104 |
|                 |        |        |        |        |        |        |                | 11%   | 12%   | 11%   | 11%   | 11%   | 16%   |
|                 |        |        |        |        |        |        | grade 3 events | 8980  | 9009  | 9383  | 9277  | 9026  | 16102 |
|                 |        |        |        |        |        |        |                | 4%    | 4%    | 4%    | 4%    | 4%    | 7%    |
|                 |        |        |        |        |        |        | grade 4 events | 9033  | 8903  | 9110  | 9254  | 9059  | 15891 |
|                 |        |        |        |        |        |        |                | 4%    | 4%    | 4%    | 4%    | 4%    | 6%    |
|                 |        |        |        |        |        |        | grade 5 events | 3688  | 3766  | 3398  | 4154  | 3968  | 9856  |
|                 |        |        |        |        |        |        |                | 1%    | 1%    | 1%    | 1%    | 1%    | 4%    |
|                 |        |        |        |        |        |        | grade 6 events | 20262 | 20689 | 19839 | 19414 | 23217 | 62039 |
|                 |        |        |        |        |        |        |                | 10%   | 10%   | 9%    | 9%    | 10%   | 27%   |
|                 |        |        |        |        |        |        | grade 7 events | 60640 | 59603 | 67127 | 63834 | 63310 | 48586 |
|                 |        |        |        |        |        |        |                | 30%   | 29%   | 31%   | 30%   | 29%   | 21%   |

## 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                   | 295.0063879326751    | Alternating exposures requested | N         | N       |
| [deg] Pointing Dec                | 0                   | -4.027878297672236   | [s] Primary exposure time       | 3.2       | 3.2     |
| [deg] Pointing Roll               | 0.0                 | 249.9734504403881    |                                 |           |         |
| [mm] SIM focus pos                | -0.782348           | -0.6828225247311905  |                                 |           |         |
| [mm] SIM defocus                  | 0                   | 0.8505141146731063   |                                 |           |         |
| [mm] SIM translation stage pos    | -233.592463         | 250.466033080201     |                                 |           |         |
| [mm] SIM translation stage offset | 0                   | -0.01005468664627074 |                                 |           |         |
| [s] Observation start time (MET)  | 272088205.843513    | 272088204.81851      |                                 |           |         |
| Observation start date            | 2006-08-16T04:03:26 | 2006-08-16T04:03:24  |                                 |           |         |
| [s] Observation end time (MET)    | 272106588.194376    | 272106587.16937      |                                 |           |         |
| Observation end date              | 2006-08-16T09:09:48 | 2006-08-16T09:09:47  |                                 |           |         |
| 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)      | 2012.04.08      |
| V&V Edition                | 1               |
| V&V Disposition and Status | OK              |
| V&V Charge Time            | 7.7951999710202 |

### **A.2 Comments**