

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 57997 - L2 Version 2  
Chandra X-Ray Center

L2 Processing Date : May 8 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        |

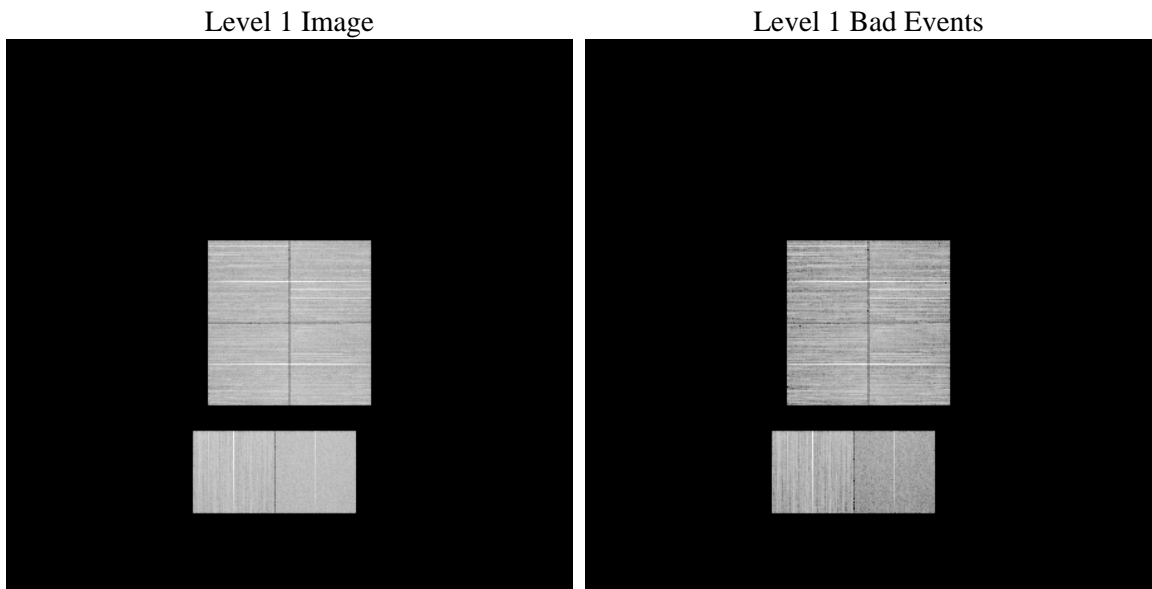
# 1 Front

|          |   |   |
|----------|---|---|
| seq_num  | &#160   | Sequence number                             |
| obs_id   | 57997   | 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   | 155.97471942037                                 | Nominal RA [deg]                            |
| dec_nom  | 30.017166620974                                 | Nominal Dec [deg]                           |
| roll_nom | 108.38484529162                                 | Nominal Roll [deg]                          |
| revision | 2   | Processing version of data                  |
| ontime   | 7113.5999735594                                 | Sum of GTIs [s]                             |
| livetime | 7023.5232873985                                 | Livetime [s]                                |
| ontime0  | 5541.7134004235                                 | Sum of GTIs [s]                             |
| ontime1  | 5794.2515332103                                 | Sum of GTIs [s]                             |
| ontime2  | 5412.0731794834                                 | Sum of GTIs [s]                             |
| ontime3  | 5619.4976177216                                 | Sum of GTIs [s]                             |
| ontime6  | 5878.7778939605                                 | Sum of GTIs [s]                             |
| ontime7  | 7113.5999735594                                 | Sum of GTIs [s]                             |
| l2events | 502060  | Number of level 2 events                    |

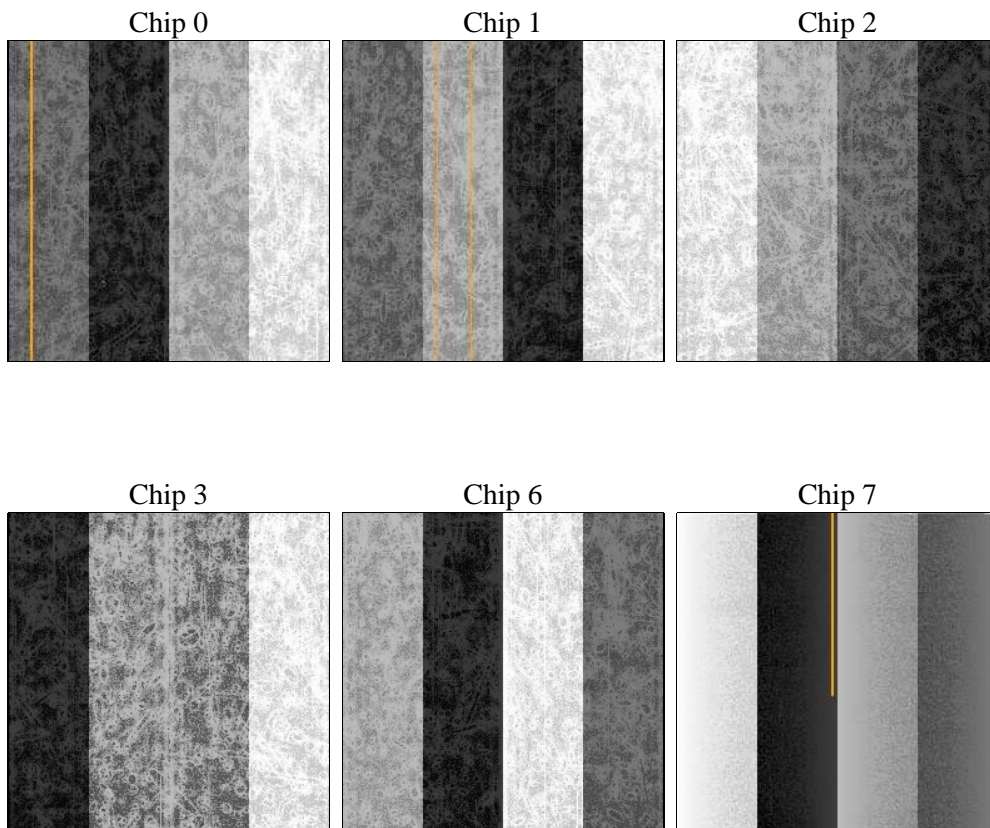
## 2 OBI

### 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 | 8.4.4               | Processing system revision     | ontime         | 7113.5999735594 | Sum of GTIs [s]                         |
| caldsver | 4.4.9               | &#160                          | ontime0        | 5541.7134004235 | Sum of GTIs [s]                         |
| date     | 2012-05-08T16:55:46 | Date and time of file creation | ontime1        | 5794.2515332103 | Sum of GTIs [s]                         |
| revision | 2                   | Processing version of data     | ontime2        | 5412.0731794834 | Sum of GTIs [s]                         |
|          |                     |                                | ontime3        | 5619.4976177216 | Sum of GTIs [s]                         |
|          |                     |                                | ontime6        | 5878.7778939605 | Sum of GTIs [s]                         |
|          |                     |                                | ontime7        | 7113.5999735594 | Sum of GTIs [s]                         |
|          |                     |                                | l1events       | 1289589         | 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  | 202745 | 215285 | 209649 | 215830 | 231858 | 214222 | grade 0 events | 40905  | 41804  | 40594  | 42191  | 44154  | 26279 |
| rejected events | 126279 | 134946 | 134924 | 137614 | 146058 | 81306  |                | 20%    | 19%    | 19%    | 19%    | 19%    | 12%   |
| rejected %      | 62%    | 62%    | 64%    | 63%    | 62%    | 37%    | grade 1 events | 320    | 251    | 326    | 357    | 275    | 157   |
|                 |        |        |        |        |        |        |                | 0%     | 0%     | 0%     | 0%     | 0%     | 0%    |
|                 |        |        |        |        |        |        | grade 2 events | 13982  | 15396  | 13244  | 14111  | 16025  | 32330 |
|                 |        |        |        |        |        |        |                | 6%     | 7%     | 6%     | 6%     | 6%     | 15%   |
|                 |        |        |        |        |        |        | grade 3 events | 4949   | 5179   | 4827   | 5236   | 5342   | 11896 |
|                 |        |        |        |        |        |        |                | 2%     | 2%     | 2%     | 2%     | 2%     | 5%    |
|                 |        |        |        |        |        |        | grade 4 events | 4947   | 5167   | 4893   | 5150   | 5499   | 11654 |
|                 |        |        |        |        |        |        |                | 2%     | 2%     | 2%     | 2%     | 2%     | 5%    |
|                 |        |        |        |        |        |        | grade 5 events | 2755   | 2885   | 2369   | 2966   | 3144   | 9594  |
|                 |        |        |        |        |        |        |                | 1%     | 1%     | 1%     | 1%     | 1%     | 4%    |
|                 |        |        |        |        |        |        | grade 6 events | 11725  | 12793  | 11224  | 11587  | 14834  | 50829 |
|                 |        |        |        |        |        |        |                | 5%     | 5%     | 5%     | 5%     | 6%     | 23%   |
|                 |        |        |        |        |        |        | grade 7 events | 123162 | 131810 | 132172 | 134232 | 142585 | 71483 |
|                 |        |        |        |        |        |        |                | 60%    | 61%    | 63%    | 62%    | 61%    | 33%   |

## 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                   | 155.9747194203658    | Alternating exposures requested | N         | N       |
| [deg] Pointing Dec                | 0                   | 30.01716662097424    | [s] Primary exposure time       | 3.2       | 3.2     |
| [deg] Pointing Roll               | 0.0                 | 108.3848452916179    |                                 |           |         |
| [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)  | 317784017.974457    | 317784016.94945      |                                 |           |         |
| Observation start date            | 2008-01-27T01:20:18 | 2008-01-27T01:20:16  |                                 |           |         |
| [s] Observation end time (MET)    | 317801959.575327    | 317801958.55033      |                                 |           |         |
| Observation end date              | 2008-01-27T06:19:20 | 2008-01-27T06:19:18  |                                 |           |         |
| 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)      | 2012.05.10      |
| V&V Edition                | 1               |
| V&V Disposition and Status | OK              |
| V&V Charge Time            | 7.1135999735594 |

### A.2 Comments