

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 62141 - L2 Version 4  
Chandra X-Ray Center

L2 Processing Date : Aug 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        |

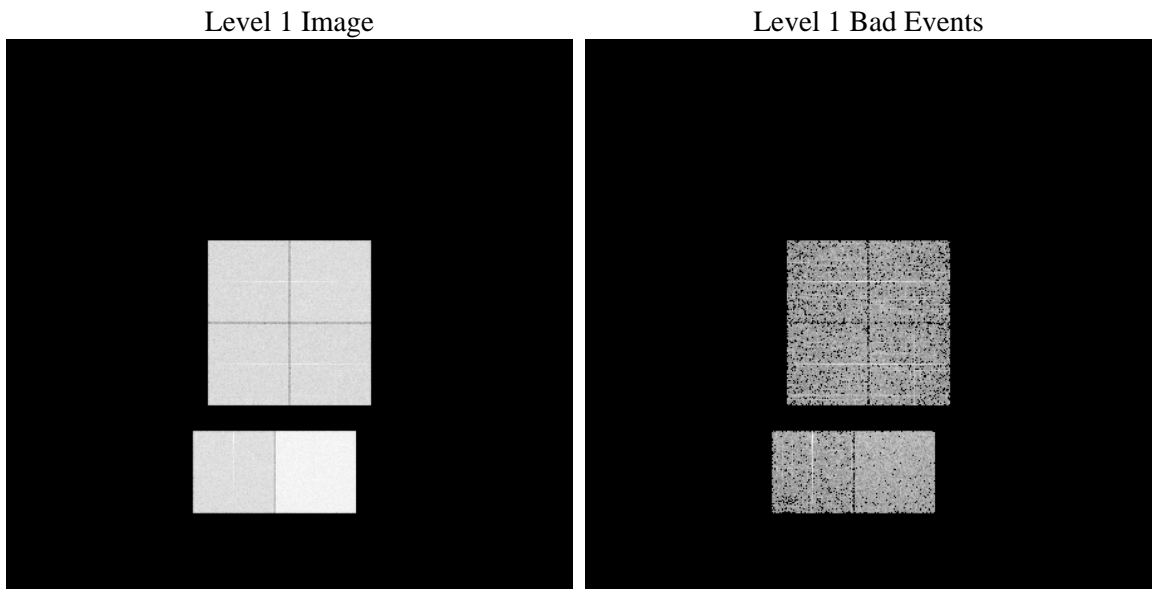
# 1 Front

|          |   |   |
|----------|---|---|
| seq_num  | &#160   | Sequence number                             |
| obs_id   | 62141   | 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   | 251.48718157322                                 | Nominal RA [deg]                            |
| dec_nom  | -11.773195656879                                | Nominal Dec [deg]                           |
| roll_nom | 82.689863015143                                 | Nominal Roll [deg]                          |
| revision | 4   | Processing version of data                  |
| ontime   | 3466.5076169968                                 | Sum of GTIs [s]                             |
| livetime | 3422.6126102701                                 | Livetime [s]                                |
| ontime0  | 1431.1949060112                                 | Sum of GTIs [s]                             |
| ontime1  | 1514.5162450224                                 | Sum of GTIs [s]                             |
| ontime2  | 1385.9024859667                                 | Sum of GTIs [s]                             |
| ontime3  | 1397.8388053328                                 | Sum of GTIs [s]                             |
| ontime6  | 1541.5133558065                                 | Sum of GTIs [s]                             |
| ontime7  | 3466.5076169968                                 | Sum of GTIs [s]                             |
| l2events | 921885  | Number of level 2 events                    |

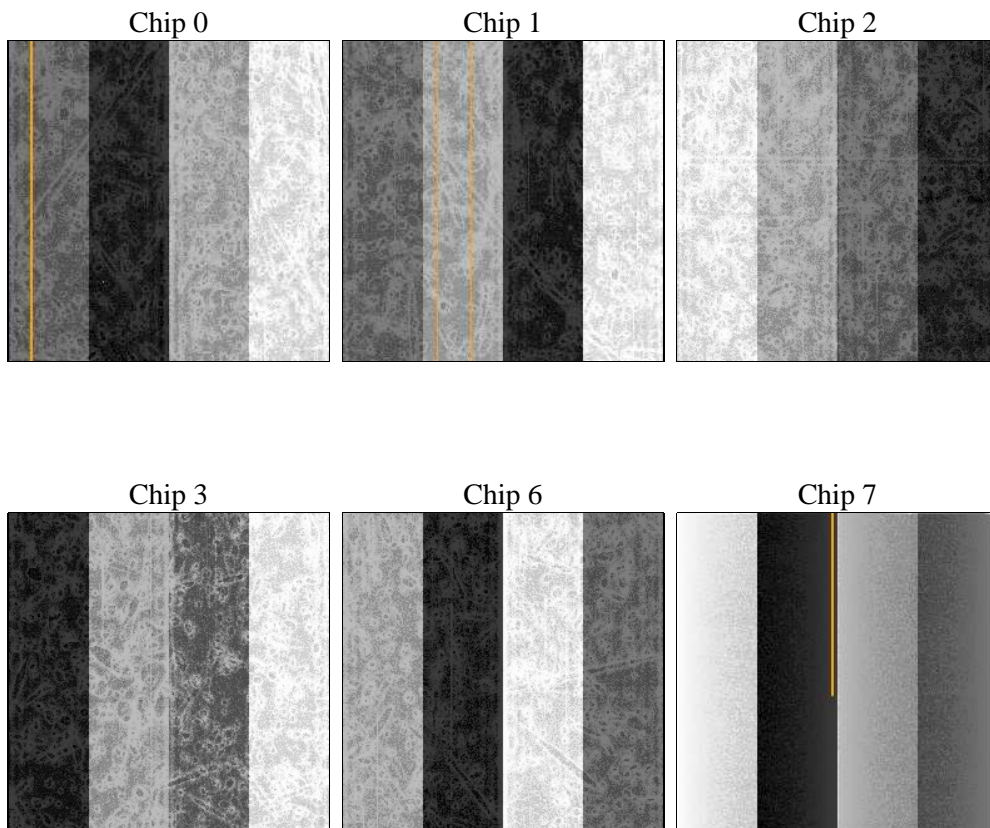
## 2 OBI

### 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         | 3466.5076169968 | Sum of GTIs [s]                         |
| caldsver | 4.5.1.1             | &#160                          | ontime0        | 1431.1949060112 | Sum of GTIs [s]                         |
| date     | 2012-08-23T19:14:10 | Date and time of file creation | ontime1        | 1514.5162450224 | Sum of GTIs [s]                         |
| revision | 4                   | Processing version of data     | ontime2        | 1385.9024859667 | Sum of GTIs [s]                         |
|          |                     |                                | ontime3        | 1397.8388053328 | Sum of GTIs [s]                         |
|          |                     |                                | ontime6        | 1541.5133558065 | Sum of GTIs [s]                         |
|          |                     |                                | ontime7        | 3466.5076169968 | Sum of GTIs [s]                         |
|          |                     |                                | l1events       | 1051113         | 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  | 138330 | 146909 | 136595 | 138376 | 156755 | 334148 | grade 0 events | 68780 | 73384 | 68447 | 69159 | 77614 | 81251 |
| rejected events | 13540  | 14076  | 14163  | 14868  | 14922  | 19226  |                | 49%   | 49%   | 50%   | 49%   | 49%   | 24%   |
| rejected %      | 9%     | 9%     | 10%    | 10%    | 9%     | 5%     | grade 1 events | 418   | 473   | 427   | 452   | 439   | 233   |
|                 |        |        |        |        |        |        |                | 0%    | 0%    | 0%    | 0%    | 0%    | 0%    |
|                 |        |        |        |        |        |        | grade 2 events | 21939 | 23279 | 21103 | 21557 | 24513 | 70380 |
|                 |        |        |        |        |        |        |                | 15%   | 15%   | 15%   | 15%   | 15%   | 21%   |
|                 |        |        |        |        |        |        | grade 3 events | 7963  | 8557  | 7854  | 7723  | 8635  | 32371 |
|                 |        |        |        |        |        |        |                | 5%    | 5%    | 5%    | 5%    | 5%    | 9%    |
|                 |        |        |        |        |        |        | grade 4 events | 8047  | 8449  | 7746  | 7902  | 8767  | 32218 |
|                 |        |        |        |        |        |        |                | 5%    | 5%    | 5%    | 5%    | 5%    | 9%    |
|                 |        |        |        |        |        |        | grade 5 events | 956   | 1032  | 967   | 1078  | 1191  | 4373  |
|                 |        |        |        |        |        |        |                | 0%    | 0%    | 0%    | 0%    | 0%    | 1%    |
|                 |        |        |        |        |        |        | grade 6 events | 18061 | 19164 | 17282 | 17167 | 22304 | 98702 |
|                 |        |        |        |        |        |        |                | 13%   | 13%   | 12%   | 12%   | 14%   | 29%   |
|                 |        |        |        |        |        |        | grade 7 events | 12166 | 12571 | 12769 | 13338 | 13292 | 14620 |
|                 |        |        |        |        |        |        |                | 8%    | 8%    | 9%    | 9%    | 8%    | 4%    |

## 2.2 Compared Parameters

| Parameter                         | Planned             | Actual               |
|-----------------------------------|---------------------|----------------------|
| Instrument                        | ACIS                | ACIS                 |
| Detector                          | ACIS-012367         | ACIS-012367          |
| Grating                           | NONE                | NONE                 |
| Data mode                         | FAINT               | FAINT                |
| Observation mode                  | SECONDARY           | SECONDARY            |
| [deg] Pointing RA                 | 0                   | 251.48718157322      |
| [deg] Pointing Dec                | 0                   | -11.77319565687911   |
| [deg] Pointing Roll               | 0.0                 | 82.68986301514281    |
| [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)  | 68352663.62492999   | 68352662.856455      |
| Observation start date            | 2000-03-02T02:51:04 | 2000-03-02T02:51:02  |
| [s] Observation end time (MET)    | 68359963.67519701   | 68359962.906721      |
| Observation end date              | 2000-03-02T04:52:44 | 2000-03-02T04:52:42  |
| Read mode                         | TIMED               | TIMED                |

| Parameter                       | Planned   | Actual  |
|---------------------------------|-----------|---------|
| Obspar format version number    | 7         | 7       |
| Obspar file type                | PREDICTED | ACTUAL  |
| Obspar update status            | NONE      | UPDATED |
| On-chip summing requested       | N         | N       |
| Subarray requested              | NONE      | NONE    |
| Alternating exposures requested | N         | N       |
| [s] Primary exposure time       | 3.2       | 3.2     |

## **2.3 Star Slots**

## **2.4 FID Slots**

## A Summary

### A.1 Status

|                            |                 |
|----------------------------|-----------------|
| V&V Scientist              | Jen Lauer       |
| V&V Date (YYYY-MM-DD)      | 2012.08.24      |
| V&V Edition                | 1               |
| V&V Disposition and Status | OK              |
| V&V Charge Time            | 3.4665076169968 |

### A.2 Comments