

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 60731 - L2 Version 3  
Chandra X-Ray Center

L2 Processing Date : Oct 28 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        |

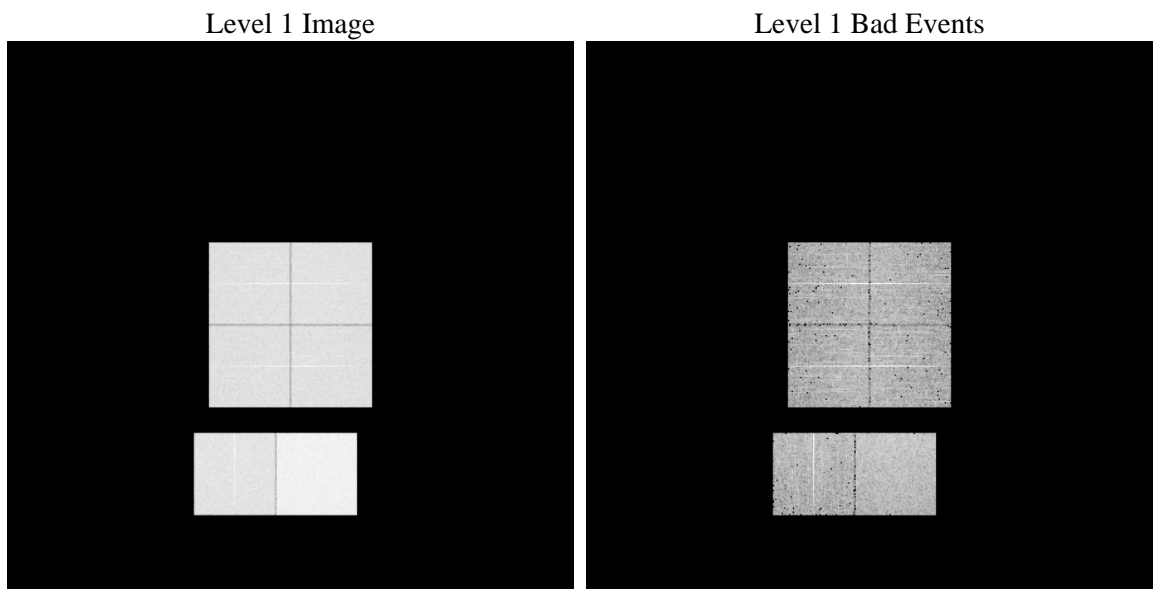
# 1 Front

|          |   |   |
|----------|---|---|
| seq_num  | &#160   | Sequence number                             |
| obs_id   | 60731   | 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   | 155.5106911384                                  | Nominal RA [deg]                            |
| dec_nom  | -31.72711460071                                 | Nominal Dec [deg]                           |
| roll_nom | 255.60938564046                                 | Nominal Roll [deg]                          |
| revision | 3   | Processing version of data                  |
| ontime   | 8463.9999684691                                 | Sum of GTIs [s]                             |
| livetime | 8356.8237044595                                 | Livetime [s]                                |
| ontime0  | 4931.3428303301                                 | Sum of GTIs [s]                             |
| ontime1  | 5073.946070224                                  | Sum of GTIs [s]                             |
| ontime2  | 4694.7512141764                                 | Sum of GTIs [s]                             |
| ontime3  | 4817.9088920355                                 | Sum of GTIs [s]                             |
| ontime6  | 5255.4413298965                                 | Sum of GTIs [s]                             |
| ontime7  | 8463.9999684691                                 | Sum of GTIs [s]                             |
| l2events | 1272315   | Number of level 2 events                    |

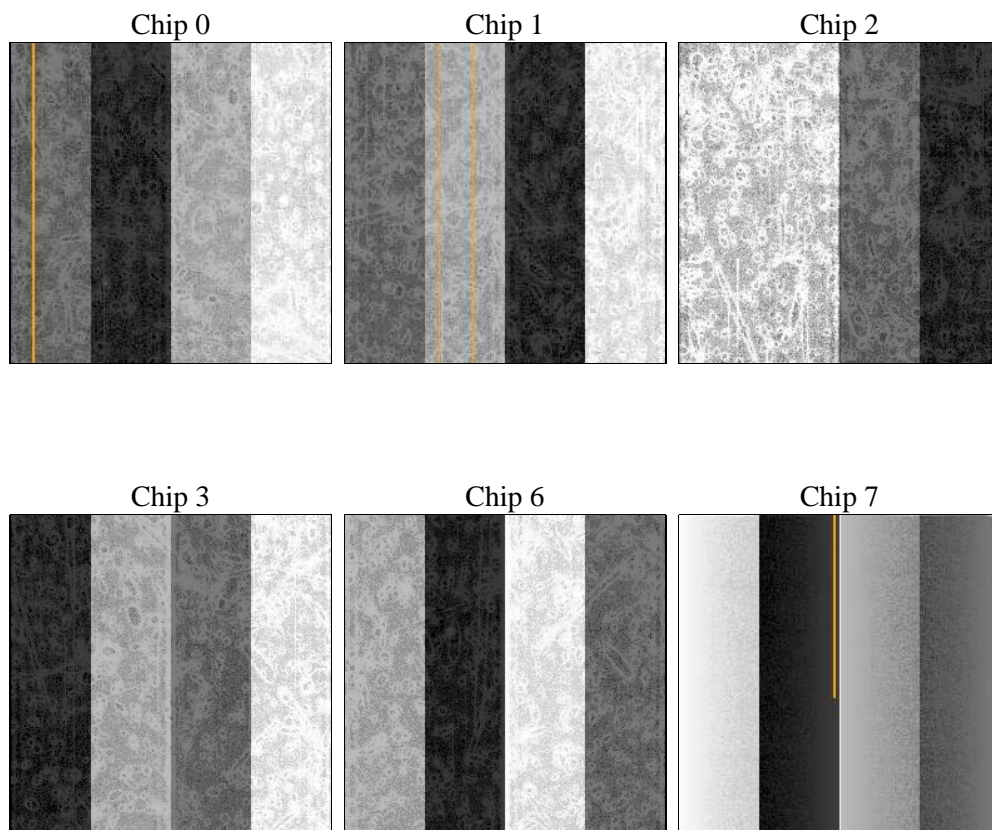
## 2 OBI

### 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         | 8463.9999684691 | Sum of GTIs [s]                         |
| caldsver | 4.5.2               | &#160                          | ontime0        | 4931.3428303301 | Sum of GTIs [s]                         |
| date     | 2012-10-28T13:12:06 | Date and time of file creation | ontime1        | 5073.946070224  | Sum of GTIs [s]                         |
| revision | 3                   | Processing version of data     | ontime2        | 4694.7512141764 | Sum of GTIs [s]                         |
|          |                     |                                | ontime3        | 4817.9088920355 | Sum of GTIs [s]                         |
|          |                     |                                | ontime6        | 5255.4413298965 | Sum of GTIs [s]                         |
|          |                     |                                | ontime7        | 8463.9999684691 | Sum of GTIs [s]                         |
|          |                     |                                | l1events       | 1541444         | 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  | 223729 | 230804 | 218637 | 222669 | 250744 | 394861 | grade 0 events | 106155 | 109336 | 104386 | 106784 | 117394 | 87237  |
| rejected events | 31487  | 32227  | 32915  | 32939  | 35408  | 45104  |                | 47%    | 47%    | 47%    | 47%    | 46%    | 22%    |
| rejected %      | 14%    | 13%    | 15%    | 14%    | 14%    | 11%    | grade 1 events | 604    | 539    | 622    | 621    | 583    | 215    |
|                 |        |        |        |        |        |        |                | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     |
|                 |        |        |        |        |        |        | grade 2 events | 33698  | 34969  | 31209  | 32255  | 37191  | 76684  |
|                 |        |        |        |        |        |        |                | 15%    | 15%    | 14%    | 14%    | 14%    | 19%    |
|                 |        |        |        |        |        |        | grade 3 events | 12432  | 12390  | 12245  | 12244  | 13368  | 35333  |
|                 |        |        |        |        |        |        |                | 5%     | 5%     | 5%     | 5%     | 5%     | 8%     |
|                 |        |        |        |        |        |        | grade 4 events | 12408  | 12608  | 12029  | 12387  | 13412  | 34947  |
|                 |        |        |        |        |        |        |                | 5%     | 5%     | 5%     | 5%     | 5%     | 8%     |
|                 |        |        |        |        |        |        | grade 5 events | 2223   | 2153   | 2112   | 2233   | 2456   | 8510   |
|                 |        |        |        |        |        |        |                | 0%     | 0%     | 0%     | 1%     | 0%     | 2%     |
|                 |        |        |        |        |        |        | grade 6 events | 27549  | 29274  | 25853  | 26060  | 33971  | 115556 |
|                 |        |        |        |        |        |        |                | 12%    | 12%    | 11%    | 11%    | 13%    | 29%    |
|                 |        |        |        |        |        |        | grade 7 events | 28660  | 29535  | 30181  | 30085  | 32369  | 36379  |
|                 |        |        |        |        |        |        |                | 12%    | 12%    | 13%    | 13%    | 12%    | 9%     |

## 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                   | 155.5106911384007    | Alternating exposures requested | N         | N       |
| [deg] Pointing Dec                | 0                   | -31.72711460070968   | [s] Primary exposure time       | 0.000000  | 3.2     |
| [deg] Pointing Roll               | 0.0                 | 255.6093856404564    |                                 |           |         |
| [mm] SIM focus pos                | -0.782348           | -0.7809083437167272  |                                 |           |         |
| [mm] SIM defocus                  | 0                   | 0.7524282956875696   |                                 |           |         |
| [mm] SIM translation stage pos    | -233.592463         | 250.466033080201     |                                 |           |         |
| [mm] SIM translation stage offset | 0                   | -0.01005468664627074 |                                 |           |         |
| [s] Observation start time (MET)  | 170003457.457163    | 170003456.43244      |                                 |           |         |
| Observation start date            | 2003-05-22T15:10:57 | 2003-05-22T15:10:56  |                                 |           |         |
| [s] Observation end time (MET)    | 170026025.90812     | 170026024.8834       |                                 |           |         |
| Observation end date              | 2003-05-22T21:27:06 | 2003-05-22T21:27:04  |                                 |           |         |
| 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)      | 2012.12.06      |
| V&V Edition                | 1               |
| V&V Disposition and Status | OK              |
| V&V Charge Time            | 8.4639999684691 |

### **A.2 Comments**