

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 61414 - L2 Version 3  
Chandra X-Ray Center

L2 Processing Date : Sep 27 2012

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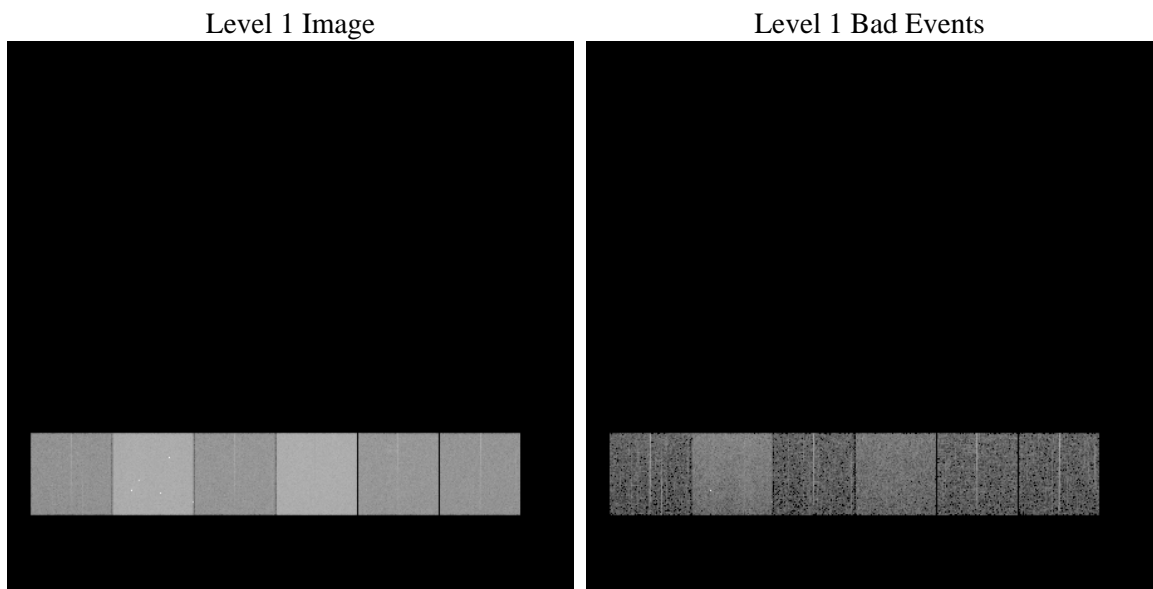
# 1 Front

|          |   |   |
|----------|---|---|
| seq_num  | &#160   | Sequence number                             |
| obs_id   | 61414   | Observation id                              |
| title    | ACIS-456789 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   | 2.2229888336735                                 | Nominal RA [deg]                            |
| dec_nom  | 4.082942294021                                  | Nominal Dec [deg]                           |
| roll_nom | 290.57115411976                                 | Nominal Roll [deg]                          |
| revision | 3   | Processing version of data                  |
| ontime   | 5936.3307738602                                 | Sum of GTIs [s]                             |
| livetime | 5861.1613791723                                 | Livetime [s]                                |
| ontime4  | 2300.0578080863                                 | Sum of GTIs [s]                             |
| ontime5  | 6381.3168660998                                 | Sum of GTIs [s]                             |
| ontime6  | 2491.2379482687                                 | Sum of GTIs [s]                             |
| ontime7  | 5936.3307738602                                 | Sum of GTIs [s]                             |
| ontime8  | 2569.1048086137                                 | Sum of GTIs [s]                             |
| ontime9  | 2429.5348491371                                 | Sum of GTIs [s]                             |
| l2events | 1212823   | Number of level 2 events                    |

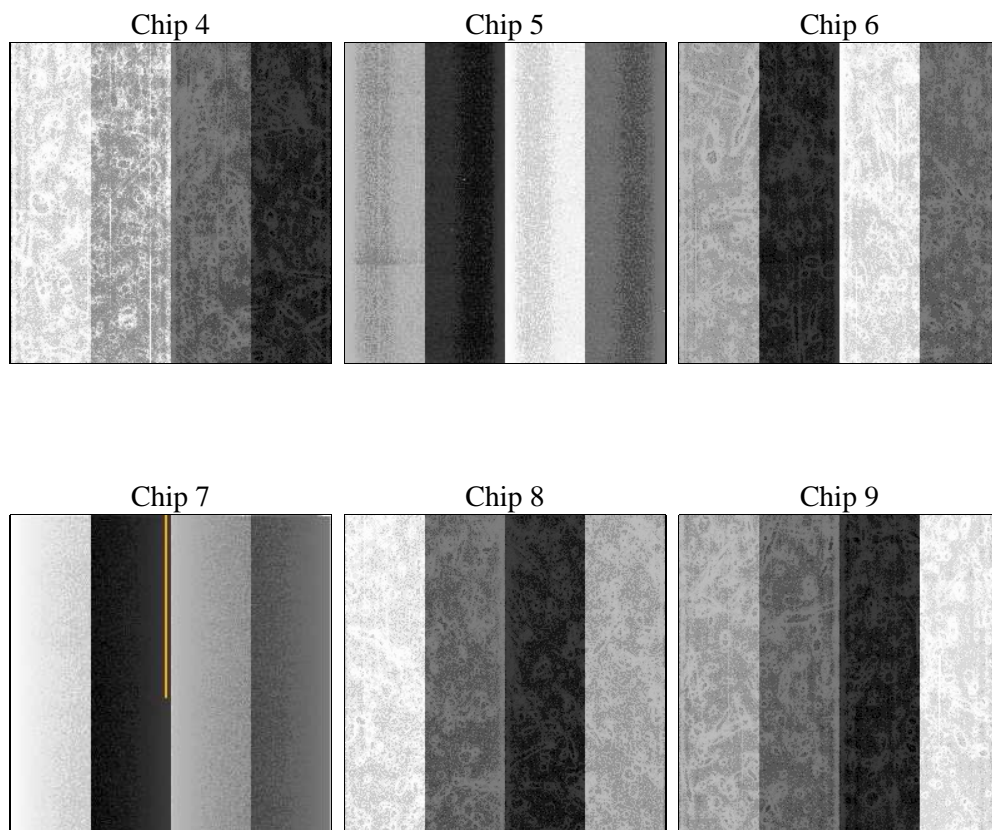
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

|          |                     |                                |                |                 |   |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num  | 3                   | Obi number                     | sched_exp_time | 0.0             | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5               | Processing system revision     | ontime         | 5936.3307738602 | Sum of GTIs [s]                         |
| caldsver | 4.5.1.1             | &#160                          | ontime4        | 2300.0578080863 | Sum of GTIs [s]                         |
| date     | 2012-09-27T04:11:26 | Date and time of file creation | ontime5        | 6381.3168660998 | Sum of GTIs [s]                         |
| revision | 3                   | Processing version of data     | ontime6        | 2491.2379482687 | Sum of GTIs [s]                         |
|          |                     |                                | ontime7        | 5936.3307738602 | Sum of GTIs [s]                         |
|          |                     |                                | ontime8        | 2569.1048086137 | Sum of GTIs [s]                         |
|          |                     |                                | ontime9        | 2429.5348491371 | Sum of GTIs [s]                         |
|          |                     |                                | l1events       | 1423194         | Number of level 1 events                |

### 2.1.4 Events

|                 | ccd 4  | ccd 5  | ccd 6  | ccd 7  | ccd 8  | ccd 9  |                | ccd 4 | ccd 5  | ccd 6 | ccd 7  | ccd 8 | ccd 9 |
|-----------------|--------|--------|--------|--------|--------|--------|----------------|-------|--------|-------|--------|-------|-------|
| level 1 events  | 148284 | 379200 | 169877 | 387557 | 177660 | 160616 | grade 0 events | 72897 | 82771  | 82715 | 91267  | 86427 | 77797 |
| rejected events | 19180  | 45350  | 18582  | 30669  | 20680  | 19001  |                | 49%   | 21%    | 48%   | 23%    | 48%   | 48%   |
| rejected %      | 12%    | 11%    | 10%    | 7%     | 11%    | 11%    | grade 1 events | 393   | 244    | 405   | 256    | 416   | 385   |
|                 |        |        |        |        |        |        |                | 0%    | 0%     | 0%    | 0%     | 0%    | 0%    |
|                 |        |        |        |        |        |        | grade 2 events | 22889 | 118927 | 26307 | 79776  | 27799 | 25118 |
|                 |        |        |        |        |        |        |                | 15%   | 31%    | 15%   | 20%    | 15%   | 15%   |
|                 |        |        |        |        |        |        | grade 3 events | 7922  | 21340  | 9368  | 36188  | 9811  | 8696  |
|                 |        |        |        |        |        |        |                | 5%    | 5%     | 5%    | 9%     | 5%    | 5%    |
|                 |        |        |        |        |        |        | grade 4 events | 7953  | 20882  | 9325  | 35773  | 9815  | 8603  |
|                 |        |        |        |        |        |        |                | 5%    | 5%     | 5%    | 9%     | 5%    | 5%    |
|                 |        |        |        |        |        |        | grade 5 events | 1268  | 9402   | 1362  | 6270   | 1523  | 1464  |
|                 |        |        |        |        |        |        |                | 0%    | 2%     | 0%    | 1%     | 0%    | 0%    |
|                 |        |        |        |        |        |        | grade 6 events | 17443 | 90093  | 23580 | 113884 | 23128 | 21401 |
|                 |        |        |        |        |        |        |                | 11%   | 23%    | 13%   | 29%    | 13%   | 13%   |
|                 |        |        |        |        |        |        | grade 7 events | 17519 | 35541  | 16815 | 24143  | 18741 | 17152 |
|                 |        |        |        |        |        |        |                | 11%   | 9%     | 9%    | 6%     | 10%   | 10%   |

## 2.2 Compared Parameters

| Parameter                         | Planned             | Actual                |
|-----------------------------------|---------------------|-----------------------|
| Instrument                        | ACIS                | ACIS                  |
| Detector                          | ACIS-456789         | ACIS-456789           |
| Grating                           | NONE                | NONE                  |
| Data mode                         | FAINT               | FAINT                 |
| Observation mode                  | SECONDARY           | SECONDARY             |
| [deg] Pointing RA                 | 0                   | 2.222988833673526     |
| [deg] Pointing Dec                | 0                   | 4.082942294020972     |
| [deg] Pointing Roll               | 0.0                 | 290.5711541197638     |
| [mm] SIM focus pos                | -0.684267           | -0.6828225247311905   |
| [mm] SIM defocus                  | 0                   | 0.8505141146731063    |
| [mm] SIM translation stage pos    | -190.132523         | 250.4635187648994     |
| [mm] SIM translation stage offset | 0                   | -0.007540371344731511 |
| [s] Observation start time (MET)  | 121763318.514       | 121763317.74551       |
| Observation start date            | 2001-11-10T07:08:39 | 2001-11-10T07:08:37   |
| [s] Observation end time (MET)    | 121775089.614       | 121775088.84598       |
| Observation end date              | 2001-11-10T10:24:50 | 2001-11-10T10:24:48   |
| 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       | 0.000000  | 3.2     |

## **2.3 Star Slots**

## **2.4 FID Slots**

## A Summary

### A.1 Status

|                            |                 |
|----------------------------|-----------------|
| V&V Scientist              | Beth Sundheim   |
| V&V Date (YYYY-MM-DD)      | 2012.09.27      |
| V&V Edition                | 1               |
| V&V Disposition and Status | OK              |
| V&V Charge Time            | 5.9363307738602 |

### A.2 Comments