

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 57921 - L2 Version 2  
Chandra X-Ray Center

L2 Processing Date : May 11 2012

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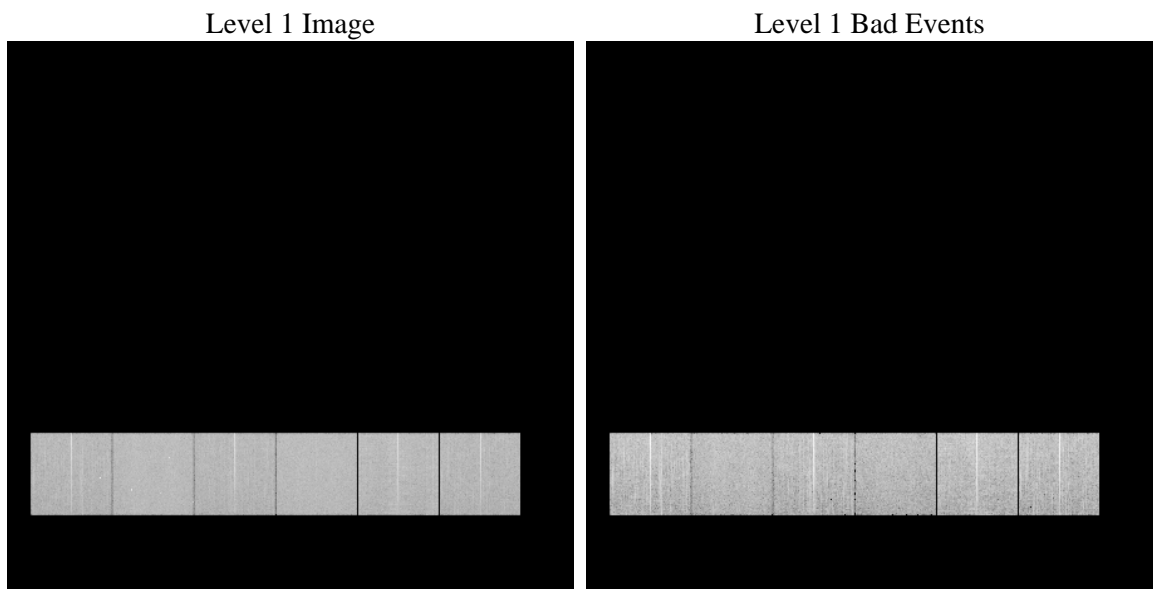
# 1 Front

|          |   |   |
|----------|---|---|
| seq_num  | &#160   | Sequence number                             |
| obs_id   | 57921   | 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   | 149.00434271795                                 | Nominal RA [deg]                            |
| dec_nom  | 14.971585212166                                 | Nominal Dec [deg]                           |
| roll_nom | 245.50305657297                                 | Nominal Roll [deg]                          |
| revision | 2   | Processing version of data                  |
| ontime   | 8184.3692514896                                 | Sum of GTIs [s]                             |
| livetime | 8080.7338399918                                 | Livetime [s]                                |
| ontime4  | 8184.2461314797                                 | Sum of GTIs [s]                             |
| ontime5  | 8184.3282114863                                 | Sum of GTIs [s]                             |
| ontime6  | 8184.287171483                                  | Sum of GTIs [s]                             |
| ontime7  | 8184.3692514896                                 | Sum of GTIs [s]                             |
| ontime8  | 8184.2050914764                                 | Sum of GTIs [s]                             |
| ontime9  | 8184.4102914929                                 | Sum of GTIs [s]                             |
| l2events | 633973  | Number of level 2 events                    |

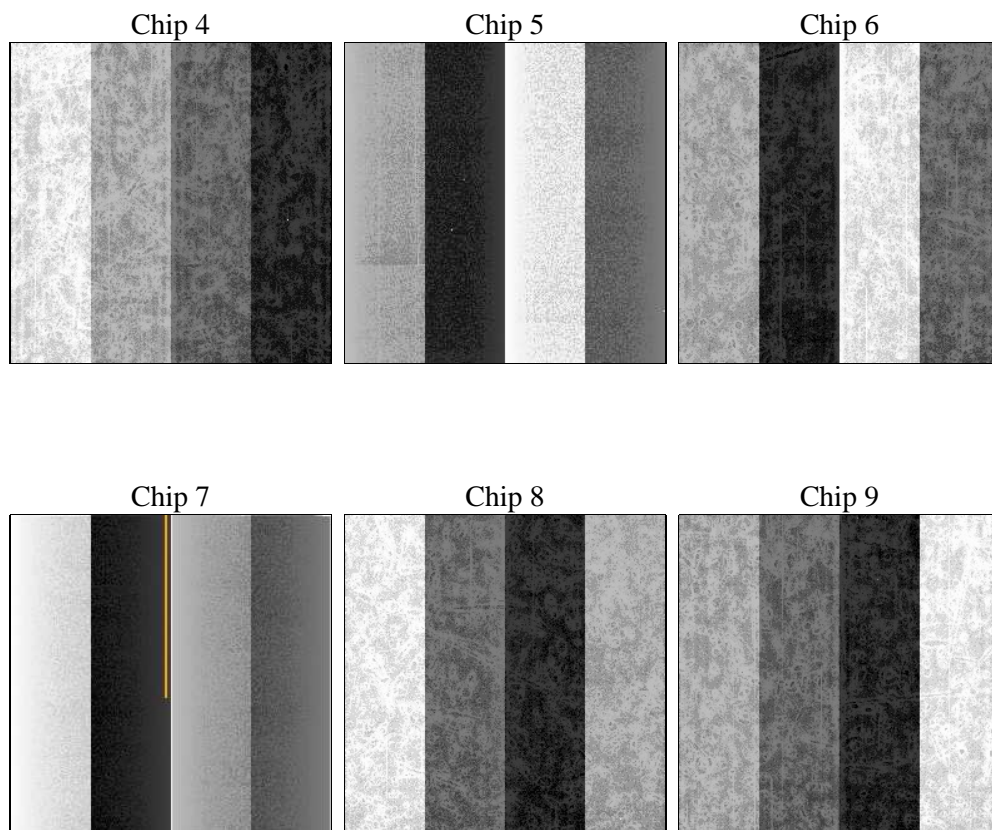
## 2 OBI

### 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         | 8184.3692514896 | Sum of GTIs [s]                         |
| caldsver | 4.4.9               | &#160                          | ontime4        | 8184.2461314797 | Sum of GTIs [s]                         |
| date     | 2012-05-11T13:24:12 | Date and time of file creation | ontime5        | 8184.3282114863 | Sum of GTIs [s]                         |
| revision | 2                   | Processing version of data     | ontime6        | 8184.287171483  | Sum of GTIs [s]                         |
|          |                     |                                | ontime7        | 8184.3692514896 | Sum of GTIs [s]                         |
|          |                     |                                | ontime8        | 8184.2050914764 | Sum of GTIs [s]                         |
|          |                     |                                | ontime9        | 8184.4102914929 | Sum of GTIs [s]                         |
|          |                     |                                | l1events       | 1130691         | 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  | 178422 | 198740 | 180043 | 198589 | 197795 | 177102 | grade 0 events | 56468 | 20430 | 56306 | 27189 | 60735 | 55273 |
| rejected events | 81291  | 69485  | 75281  | 65285  | 80848  | 76307  |                | 31%   | 10%   | 31%   | 13%   | 30%   | 31%   |
| rejected %      | 45%    | 34%    | 41%    | 32%    | 40%    | 43%    | grade 1 events | 577   | 186   | 355   | 174   | 380   | 391   |
|                 |        |        |        |        |        |        |                | 0%    | 0%    | 0%    | 0%    | 0%    | 0%    |
|                 |        |        |        |        |        |        | grade 2 events | 15259 | 48033 | 18777 | 29350 | 21465 | 17353 |
|                 |        |        |        |        |        |        |                | 8%    | 24%   | 10%   | 14%   | 10%   | 9%    |
|                 |        |        |        |        |        |        | grade 3 events | 6853  | 6172  | 6619  | 12779 | 8468  | 6718  |
|                 |        |        |        |        |        |        |                | 3%    | 3%    | 3%    | 6%    | 4%    | 3%    |
|                 |        |        |        |        |        |        | grade 4 events | 6723  | 6098  | 6772  | 12586 | 8081  | 6618  |
|                 |        |        |        |        |        |        |                | 3%    | 3%    | 3%    | 6%    | 4%    | 3%    |
|                 |        |        |        |        |        |        | grade 5 events | 4082  | 9131  | 4266  | 10433 | 5354  | 4537  |
|                 |        |        |        |        |        |        |                | 2%    | 4%    | 2%    | 5%    | 2%    | 2%    |
|                 |        |        |        |        |        |        | grade 6 events | 12946 | 50032 | 17464 | 52947 | 19503 | 16046 |
|                 |        |        |        |        |        |        |                | 7%    | 25%   | 9%    | 26%   | 9%    | 9%    |
|                 |        |        |        |        |        |        | grade 7 events | 75514 | 58658 | 69484 | 53131 | 73809 | 70166 |
|                 |        |        |        |        |        |        |                | 42%   | 29%   | 38%   | 26%   | 37%   | 39%   |

## 2.2 Compared Parameters

| Parameter                         | Planned             | Actual                | Parameter                       | Planned   | Actual  |
|-----------------------------------|---------------------|-----------------------|---------------------------------|-----------|---------|
| Instrument                        | ACIS                | ACIS                  | Obspar format version number    | 7         | 7       |
| Detector                          | ACIS-456789         | ACIS-456789           | 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                   | 149.0043427179455     | Alternating exposures requested | N         | N       |
| [deg] Pointing Dec                | 0                   | 14.97158521216593     | [s] Primary exposure time       | 3.2       | 3.2     |
| [deg] Pointing Roll               | 0.0                 | 245.5030565729706     |                                 |           |         |
| [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)  | 321709766.115064    | 321709765.09006       |                                 |           |         |
| Observation start date            | 2008-03-12T11:49:26 | 2008-03-12T11:49:25   |                                 |           |         |
| [s] Observation end time (MET)    | 321731075.866099    | 321731074.84109       |                                 |           |         |
| Observation end date              | 2008-03-12T17:44:36 | 2008-03-12T17:44:34   |                                 |           |         |
| 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)      | 2012.05.14      |
| V&V Edition                | 1               |
| V&V Disposition and Status | OK              |
| V&V Charge Time            | 8.1843692514896 |

### **A.2 Comments**