

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 58241 - L2 Version 2  
Chandra X-Ray Center

L2 Processing Date : Apr 30 2012

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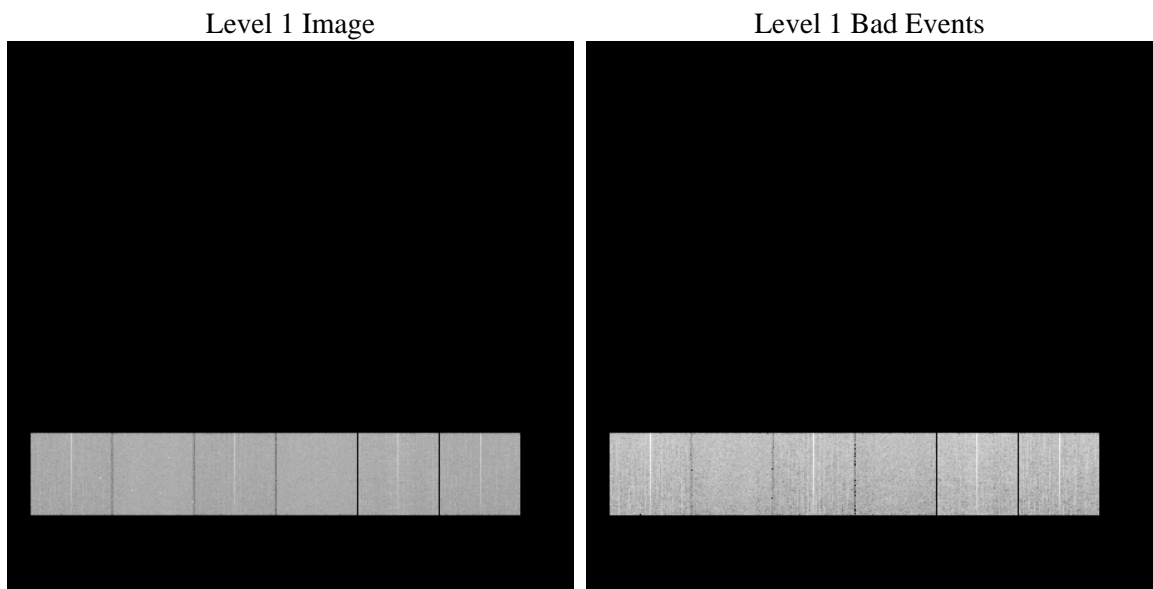
# 1 Front

|          |   |   |
|----------|---|---|
| seq_num  | &#160   | Sequence number                             |
| obs_id   | 58241   | 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   | 332.03591643702                                 | Nominal RA [deg]                            |
| dec_nom  | -37.991775278018                                | Nominal Dec [deg]                           |
| roll_nom | 343.81876203591                                 | Nominal Roll [deg]                          |
| revision | 2   | Processing version of data                  |
| ontime   | 8270.2411637902                                 | Sum of GTIs [s]                             |
| livetime | 8165.5183904329                                 | Livetime [s]                                |
| ontime4  | 8268.7589789629                                 | Sum of GTIs [s]                             |
| ontime5  | 8270.2822037935                                 | Sum of GTIs [s]                             |
| ontime6  | 8271.999969244                                  | Sum of GTIs [s]                             |
| ontime7  | 8270.2411637902                                 | Sum of GTIs [s]                             |
| ontime8  | 8271.999969244                                  | Sum of GTIs [s]                             |
| ontime9  | 8270.2001237869                                 | Sum of GTIs [s]                             |
| l2events | 731483  | Number of level 2 events                    |

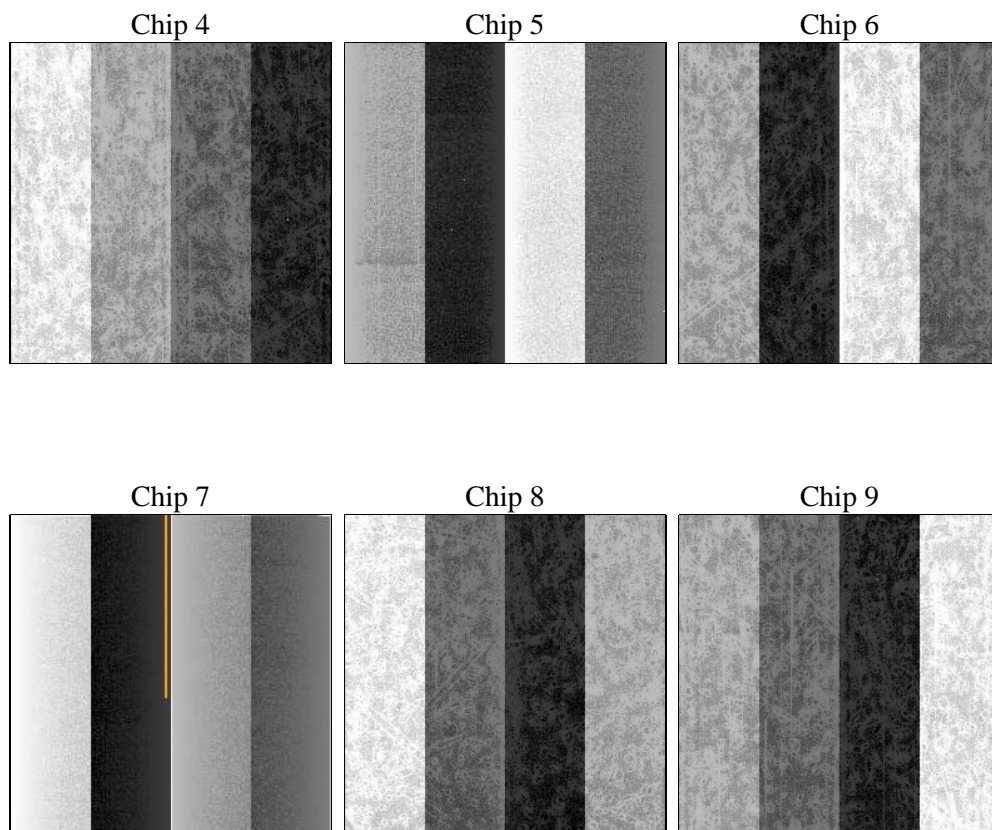
## 2 OBI

### 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         | 8270.2411637902 | Sum of GTIs [s]                         |
| caldsver | 4.4.9               | &#160                          | ontime4        | 8268.7589789629 | Sum of GTIs [s]                         |
| date     | 2012-04-30T13:50:50 | Date and time of file creation | ontime5        | 8270.2822037935 | Sum of GTIs [s]                         |
| revision | 2                   | Processing version of data     | ontime6        | 8271.999969244  | Sum of GTIs [s]                         |
|          |                     |                                | ontime7        | 8270.2411637902 | Sum of GTIs [s]                         |
|          |                     |                                | ontime8        | 8271.999969244  | Sum of GTIs [s]                         |
|          |                     |                                | ontime9        | 8270.2001237869 | Sum of GTIs [s]                         |
|          |                     |                                | l1events       | 1241245         | 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  | 196755 | 214327 | 197356 | 217485 | 219424 | 195898 | grade 0 events | 66498 | 23621 | 64704 | 31843 | 69316 | 63743 |
| rejected events | 81700  | 69870  | 75281  | 65345  | 84706  | 77894  |                | 33%   | 11%   | 32%   | 14%   | 31%   | 32%   |
| rejected %      | 41%    | 32%    | 38%    | 30%    | 38%    | 39%    | grade 1 events | 643   | 224   | 409   | 194   | 485   | 460   |
|                 |        |        |        |        |        |        |                | 0%    | 0%    | 0%    | 0%    | 0%    | 0%    |
|                 |        |        |        |        |        |        | grade 2 events | 17893 | 53068 | 21399 | 33200 | 24330 | 20084 |
|                 |        |        |        |        |        |        |                | 9%    | 24%   | 10%   | 15%   | 11%   | 10%   |
|                 |        |        |        |        |        |        | grade 3 events | 7869  | 7180  | 7785  | 14536 | 9658  | 7854  |
|                 |        |        |        |        |        |        |                | 3%    | 3%    | 3%    | 6%    | 4%    | 4%    |
|                 |        |        |        |        |        |        | grade 4 events | 7814  | 7033  | 7951  | 14422 | 9354  | 7780  |
|                 |        |        |        |        |        |        |                | 3%    | 3%    | 4%    | 6%    | 4%    | 3%    |
|                 |        |        |        |        |        |        | grade 5 events | 4154  | 9625  | 4311  | 10699 | 5431  | 4776  |
|                 |        |        |        |        |        |        |                | 2%    | 4%    | 2%    | 4%    | 2%    | 2%    |
|                 |        |        |        |        |        |        | grade 6 events | 14981 | 53555 | 20236 | 58139 | 22101 | 18543 |
|                 |        |        |        |        |        |        |                | 7%    | 24%   | 10%   | 26%   | 10%   | 9%    |
|                 |        |        |        |        |        |        | grade 7 events | 76903 | 60021 | 70561 | 54452 | 78749 | 72658 |
|                 |        |        |        |        |        |        |                | 39%   | 28%   | 35%   | 25%   | 35%   | 37%   |

## 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                   | 332.0359164370199    | Alternating exposures requested | N         | N       |
| [deg] Pointing Dec                | 0                   | -37.99177527801817   | [s] Primary exposure time       | 3.2       | 3.2     |
| [deg] Pointing Roll               | 0.0                 | 343.8187620359108    |                                 |           |         |
| [mm] SIM focus pos                | -0.684267           | -0.6828225247311905  |                                 |           |         |
| [mm] SIM defocus                  | 0                   | 0.8505141146731063   |                                 |           |         |
| [mm] SIM translation stage pos    | -190.132523         | 250.466033080201     |                                 |           |         |
| [mm] SIM translation stage offset | 0                   | -0.01005468664627074 |                                 |           |         |
| [s] Observation start time (MET)  | 305038939.809045    | 305038938.78404      |                                 |           |         |
| Observation start date            | 2007-09-01T13:02:20 | 2007-09-01T13:02:18  |                                 |           |         |
| [s] Observation end time (MET)    | 305050001.609577    | 305050000.58457      |                                 |           |         |
| Observation end date              | 2007-09-01T16:06:42 | 2007-09-01T16:06:40  |                                 |           |         |
| 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)      | 2012.05.02      |
| V&V Edition                | 1               |
| V&V Disposition and Status | OK              |
| V&V Charge Time            | 8.2702411637902 |

### **A.2 Comments**