

# V&V Reference Report

## L2 ASCDS Version : 8.4.3.1

Observation 58713 - L2 Version 2  
Chandra X-Ray Center

L2 Processing Date : Apr 12 2012

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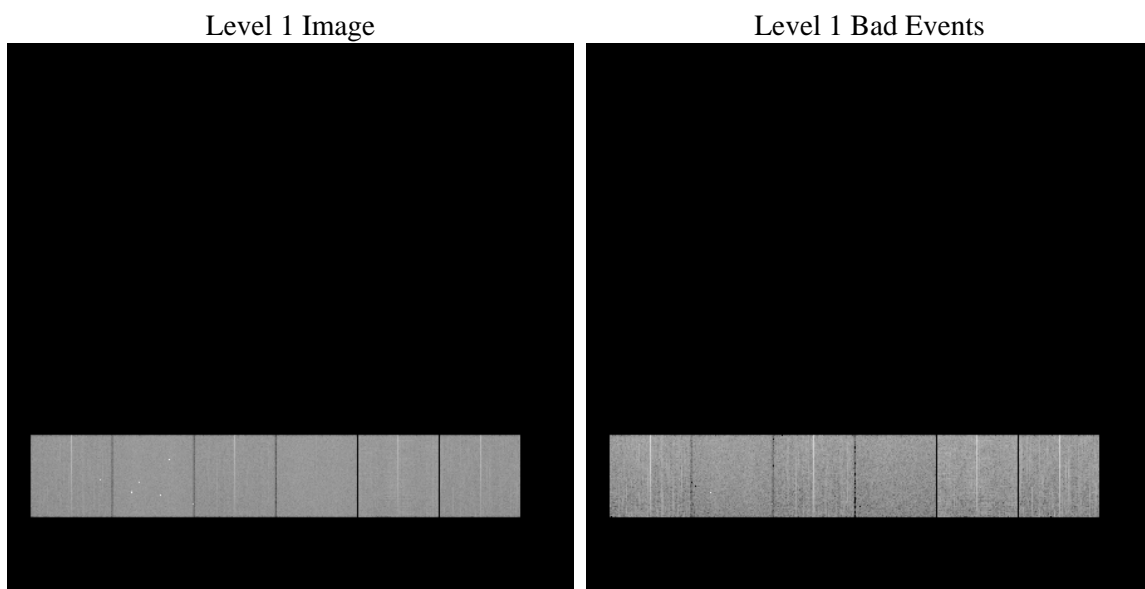
# 1 Front

|          |                                                 |                                             |
|----------|-------------------------------------------------|---------------------------------------------|
| seq_num  | &#160                                           | Sequence number                             |
| obs_id   | 58713                                           | Observation id                              |
| title    | ACIS-456789 diagnostics                         | Proposal title                              |
| observer | CHANDRA engineering request/realtime commanding | Principal investig                          |
| object   | &#160                                           | Source name                                 |
| dtycle   | 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   | 10.019114289997                                 | Nominal RA [deg]                            |
| dec_nom  | -0.015453888978694                              | Nominal Dec [deg]                           |
| roll_nom | 299.00059126233                                 | Nominal Roll [deg]                          |
| revision | 2                                               | Processing version of data                  |
| ontime   | 7791.9999710321                                 | Sum of GTIs [s]                             |
| livetime | 7693.3329756198                                 | Livetime [s]                                |
| ontime4  | 7791.9999710321                                 | Sum of GTIs [s]                             |
| ontime5  | 7791.9999710321                                 | Sum of GTIs [s]                             |
| ontime6  | 7791.9999710321                                 | Sum of GTIs [s]                             |
| ontime7  | 7791.9999710321                                 | Sum of GTIs [s]                             |
| ontime8  | 7791.9999710321                                 | Sum of GTIs [s]                             |
| ontime9  | 7791.9999710321                                 | Sum of GTIs [s]                             |
| l2events | 812742                                          | Number of level 2 events                    |

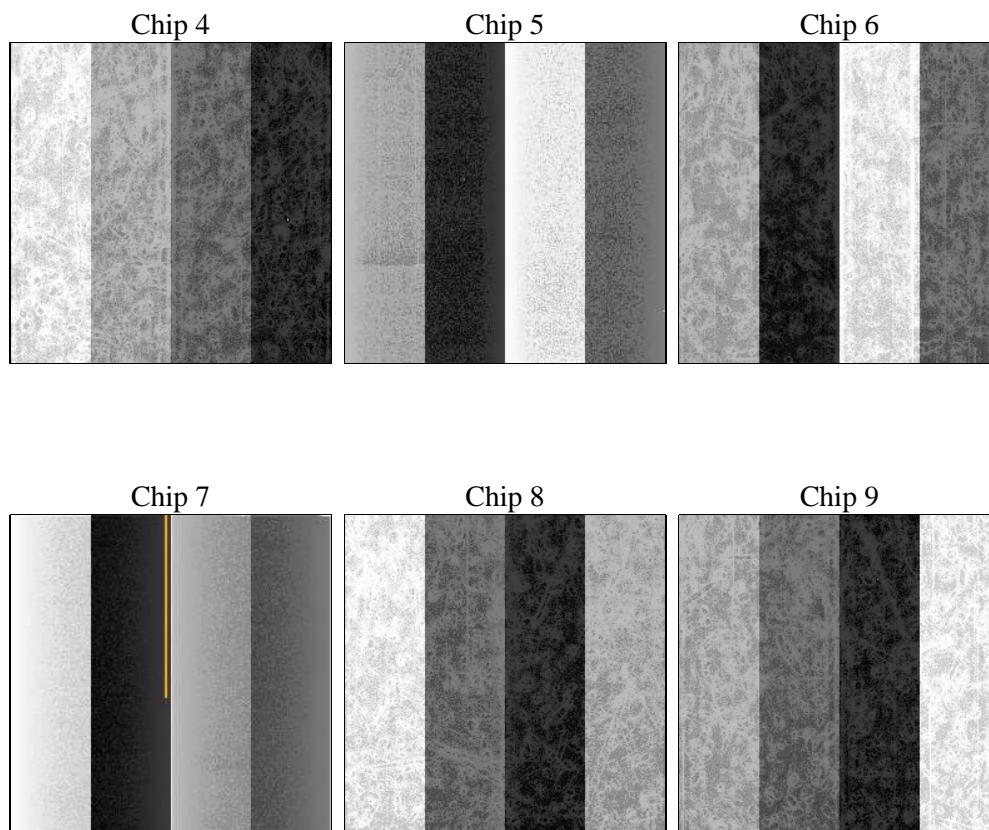
## 2 OBI

### 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 | 8.4.3.1             | Processing system revision     | ontime         | 7791.9999710321 | Sum of GTIs [s]                         |
| caldbver | 4.4.9               | &#160                          | ontime4        | 7791.9999710321 | Sum of GTIs [s]                         |
| date     | 2012-04-13T01:45:30 | Date and time of file creation | ontime5        | 7791.9999710321 | Sum of GTIs [s]                         |
| revision | 2                   | Processing version of data     | ontime6        | 7791.9999710321 | Sum of GTIs [s]                         |
|          |                     |                                | ontime7        | 7791.9999710321 | Sum of GTIs [s]                         |
|          |                     |                                | ontime8        | 7791.9999710321 | Sum of GTIs [s]                         |
|          |                     |                                | ontime9        | 7791.9999710321 | Sum of GTIs [s]                         |
|          |                     |                                | l1events       | 1297597         | 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  | 203990 | 225625 | 208736 | 222193 | 229433 | 207620 | grade 0 events | 74356 | 34387 | 74315 | 36571 | 78071 | 72910 |
| rejected events | 74653  | 64445  | 70092  | 57973  | 79352  | 73854  |                | 36%   | 15%   | 35%   | 16%   | 34%   | 35%   |
| rejected %      | 36%    | 28%    | 33%    | 26%    | 34%    | 35%    | grade 1 events | 657   | 249   | 445   | 165   | 499   | 525   |
|                 |        |        |        |        |        |        |                | 0%    | 0%    | 0%    | 0%    | 0%    | 0%    |
|                 |        |        |        |        |        |        | grade 2 events | 20686 | 56265 | 24399 | 35747 | 27287 | 23020 |
|                 |        |        |        |        |        |        |                | 10%   | 24%   | 11%   | 16%   | 11%   | 11%   |
|                 |        |        |        |        |        |        | grade 3 events | 8870  | 8542  | 8847  | 16072 | 10378 | 8750  |
|                 |        |        |        |        |        |        |                | 4%    | 3%    | 4%    | 7%    | 4%    | 4%    |
|                 |        |        |        |        |        |        | grade 4 events | 8758  | 8366  | 8682  | 15990 | 10016 | 8641  |
|                 |        |        |        |        |        |        |                | 4%    | 3%    | 4%    | 7%    | 4%    | 4%    |
|                 |        |        |        |        |        |        | grade 5 events | 3931  | 9388  | 4075  | 9834  | 5253  | 4540  |
|                 |        |        |        |        |        |        |                | 1%    | 4%    | 1%    | 4%    | 2%    | 2%    |
|                 |        |        |        |        |        |        | grade 6 events | 16714 | 53705 | 22445 | 59914 | 24382 | 20490 |
|                 |        |        |        |        |        |        |                | 8%    | 23%   | 10%   | 26%   | 10%   | 9%    |
|                 |        |        |        |        |        |        | grade 7 events | 70018 | 54723 | 65528 | 47900 | 73547 | 68744 |
|                 |        |        |        |        |        |        |                | 34%   | 24%   | 31%   | 21%   | 32%   | 33%   |

## 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                   | 10.01911428999733    | Alternating exposures requested | N         | N       |
| [deg] Pointing Dec                | 0                   | -0.01545388897869357 | [s] Primary exposure time       | 3.2       | 3.2     |
| [deg] Pointing Roll               | 0.0                 | 299.0005912623343    |                                 |           |         |
| [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)  | 279172192.32699     | 279172191.302        |                                 |           |         |
| Observation start date            | 2006-11-06T03:49:52 | 2006-11-06T03:49:51  |                                 |           |         |
| [s] Observation end time (MET)    | 279189900.227826    | 279189899.20283      |                                 |           |         |
| Observation end date              | 2006-11-06T08:45:00 | 2006-11-06T08:44:59  |                                 |           |         |
| Read mode                         | TIMED               | TIMED                |                                 |           |         |

**2.3 Star Slots**

**2.4 FID Slots**

# A Summary

## A.1 Status

|                            |                 |
|----------------------------|-----------------|
| V&V Scientist              | Beth Sundheim   |
| V&V Date (YYYY-MM-DD)      | 2012.04.13      |
| V&V Edition                | 1               |
| V&V Disposition and Status | OK              |
| V&V Charge Time            | 7.7919999710321 |

## A.2 Comments