

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 58574 - L2 Version 2  
Chandra X-Ray Center

L2 Processing Date : Apr 18 2012

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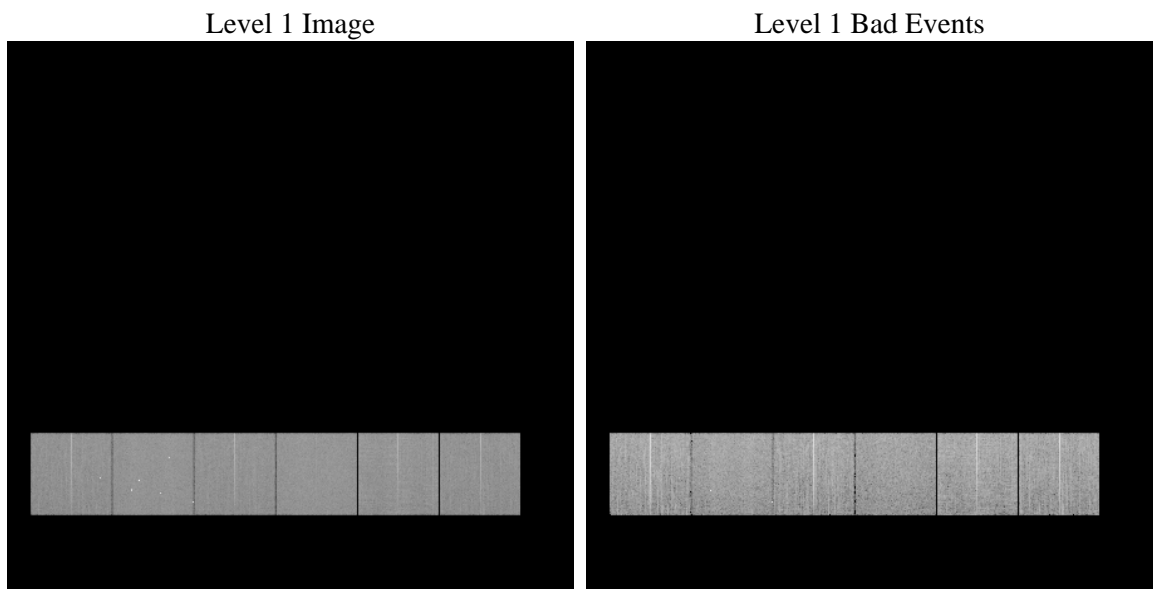
# 1 Front

|          |   |   |
|----------|---|---|
| seq_num  | &#160   | Sequence number                             |
| obs_id   | 58574   | 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   | 119.02289579316                                 | Nominal RA [deg]                            |
| dec_nom  | -6.9815589021716                                | Nominal Dec [deg]                           |
| roll_nom | 6.6699495137475                                 | Nominal Roll [deg]                          |
| revision | 2   | Processing version of data                  |
| ontime   | 8280.2573720813                                 | Sum of GTIs [s]                             |
| livetime | 8175.4077674636                                 | Livetime [s]                                |
| ontime4  | 8276.8932718039                                 | Sum of GTIs [s]                             |
| ontime5  | 8280.216332078                                  | Sum of GTIs [s]                             |
| ontime6  | 8280.1752920747                                 | Sum of GTIs [s]                             |
| ontime7  | 8280.2573720813                                 | Sum of GTIs [s]                             |
| ontime8  | 8280.0932120681                                 | Sum of GTIs [s]                             |
| ontime9  | 8280.2984120846                                 | Sum of GTIs [s]                             |
| l2events | 817563  | Number of level 2 events                    |

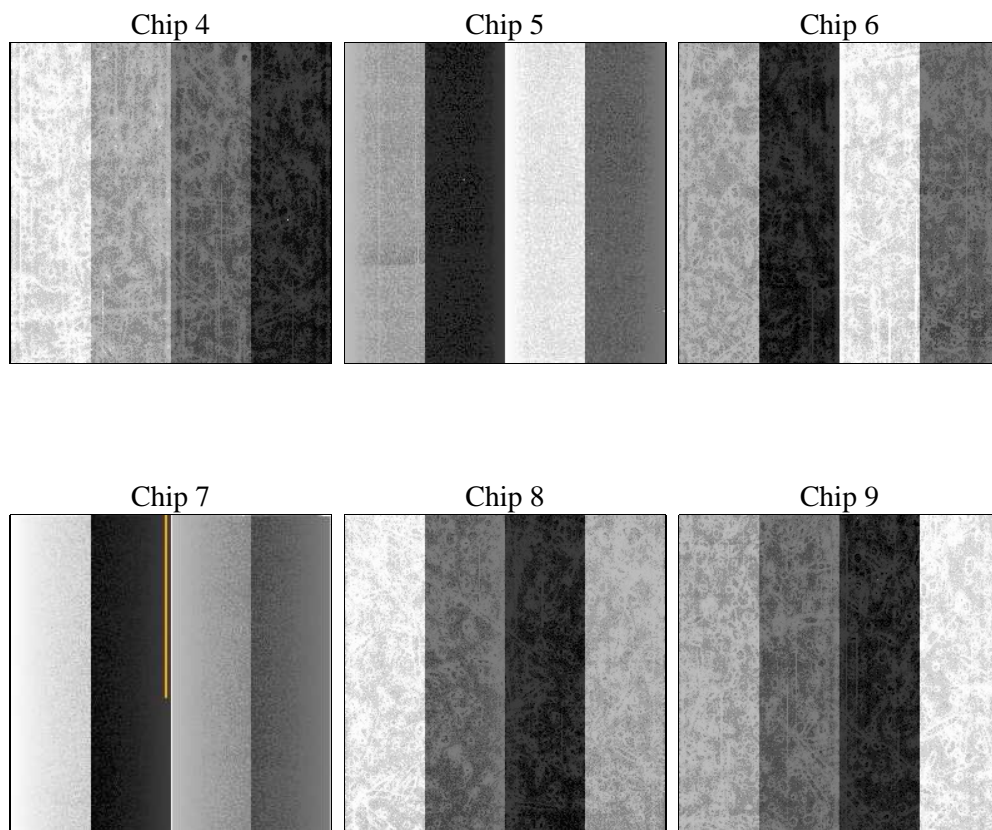
## 2 OBI

### 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         | 8280.2573720813 | Sum of GTIs [s]                         |
| caldsver | 4.4.9               | &#160                          | ontime4        | 8276.8932718039 | Sum of GTIs [s]                         |
| date     | 2012-04-18T14:48:06 | Date and time of file creation | ontime5        | 8280.216332078  | Sum of GTIs [s]                         |
| revision | 2                   | Processing version of data     | ontime6        | 8280.1752920747 | Sum of GTIs [s]                         |
|          |                     |                                | ontime7        | 8280.2573720813 | Sum of GTIs [s]                         |
|          |                     |                                | ontime8        | 8280.0932120681 | Sum of GTIs [s]                         |
|          |                     |                                | ontime9        | 8280.2984120846 | Sum of GTIs [s]                         |
|          |                     |                                | l1events       | 1317659         | 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  | 207607 | 229572 | 213794 | 229272 | 228042 | 209372 | grade 0 events | 74886 | 32319 | 74682 | 36543 | 78761 | 72700 |
| rejected events | 77467  | 68344  | 74714  | 62101  | 78032  | 75355  |                | 36%   | 14%   | 34%   | 15%   | 34%   | 34%   |
| rejected %      | 37%    | 29%    | 34%    | 27%    | 34%    | 35%    | grade 1 events | 703   | 455   | 408   | 173   | 485   | 515   |
|                 |        |        |        |        |        |        |                | 0%    | 0%    | 0%    | 0%    | 0%    | 0%    |
|                 |        |        |        |        |        |        | grade 2 events | 20644 | 56607 | 24143 | 36165 | 27078 | 23277 |
|                 |        |        |        |        |        |        |                | 9%    | 24%   | 11%   | 15%   | 11%   | 11%   |
|                 |        |        |        |        |        |        | grade 3 events | 8896  | 8363  | 8899  | 16046 | 10292 | 8838  |
|                 |        |        |        |        |        |        |                | 4%    | 3%    | 4%    | 6%    | 4%    | 4%    |
|                 |        |        |        |        |        |        | grade 4 events | 8853  | 8236  | 8846  | 15966 | 9980  | 8671  |
|                 |        |        |        |        |        |        |                | 4%    | 3%    | 4%    | 6%    | 4%    | 4%    |
|                 |        |        |        |        |        |        | grade 5 events | 4049  | 9802  | 4274  | 10553 | 5345  | 4566  |
|                 |        |        |        |        |        |        |                | 1%    | 4%    | 1%    | 4%    | 2%    | 2%    |
|                 |        |        |        |        |        |        | grade 6 events | 16861 | 55703 | 22510 | 62451 | 23899 | 20531 |
|                 |        |        |        |        |        |        |                | 8%    | 24%   | 10%   | 27%   | 10%   | 9%    |
|                 |        |        |        |        |        |        | grade 7 events | 72715 | 58087 | 70032 | 51375 | 72202 | 70274 |
|                 |        |        |        |        |        |        |                | 35%   | 25%   | 32%   | 22%   | 31%   | 33%   |

## 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                   | 119.0228957931554     |
| [deg] Pointing Dec                | 0                   | -6.981558902171611    |
| [deg] Pointing Roll               | 0.0                 | 6.669949513747472     |
| [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)  | 285155291.859966    | 285155290.83497       |
| Observation start date            | 2007-01-14T09:48:12 | 2007-01-14T09:48:10   |
| [s] Observation end time (MET)    | 285177335.51101     | 285177334.48602       |
| Observation end date              | 2007-01-14T15:55:36 | 2007-01-14T15:55:34   |
| 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       | 3.2       | 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)      | 2012.04.19      |
| V&V Edition                | 1               |
| V&V Disposition and Status | OK              |
| V&V Charge Time            | 8.2802573720813 |

### A.2 Comments