

# V&V Reference Report

## L2 ASCDS Version : 8.2.1

Observation 62938 - L2 Version 5

Chandra X-Ray Center

L2 Processing Date : Mar 31 2010

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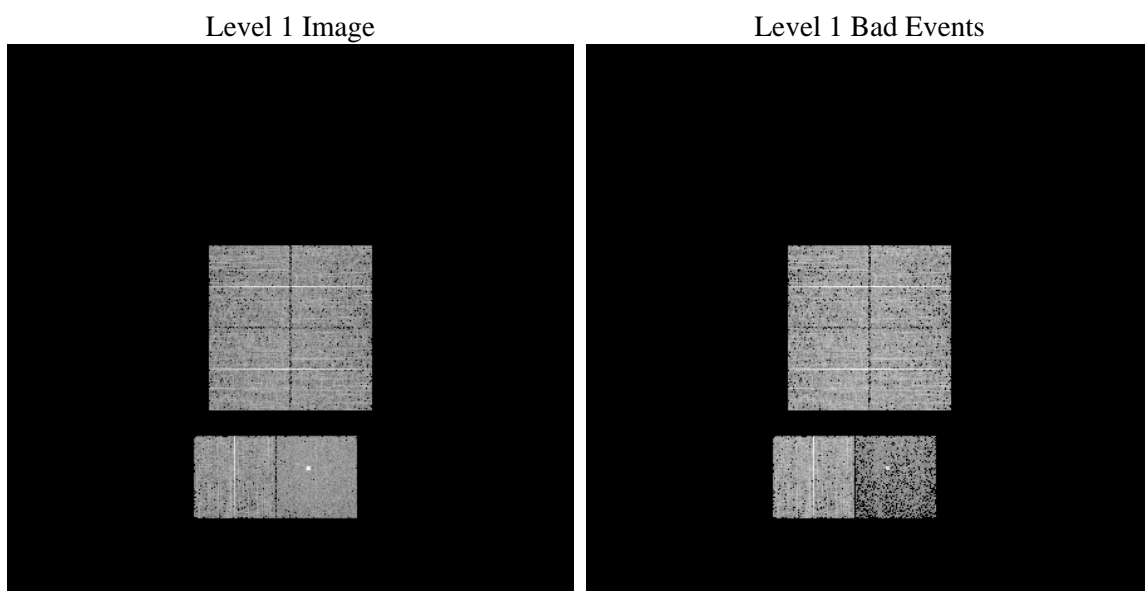
# 1 Front

|          |   |   |
|----------|---|---|
| seq_num  | &#160   | Sequence number                             |
| obs_id   | 62938   | Observation id                              |
| title    | ACIS-012367 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              |
| dec_targ | 0.0   | Observer's specified target Dec             |
| ra_nom   | 98.834348727703                                 | Nominal RA                                  |
| dec_nom  | -75.263225097895                                | Nominal Dec                                 |
| roll_nom | 137.04092275493                                 | Nominal Roll                                |
| revision | 5   | Processing version of data                  |
| ontime   | 3332.4468128756                                 | Sum of GTIs [s]                             |
| livetime | 3291.5123681516                                 | Livetime [s]                                |
| ontime0  | 3332.4057728723                                 | Sum of GTIs [s]                             |
| ontime1  | 3332.3647328764                                 | Sum of GTIs [s]                             |
| ontime2  | 3332.3236928731                                 | Sum of GTIs [s]                             |
| ontime3  | 3332.2826528773                                 | Sum of GTIs [s]                             |
| ontime6  | 3332.241612874                                  | Sum of GTIs [s]                             |
| ontime7  | 3332.4468128756                                 | Sum of GTIs [s]                             |
| l2events | 26074   | Number of level 2 events                    |

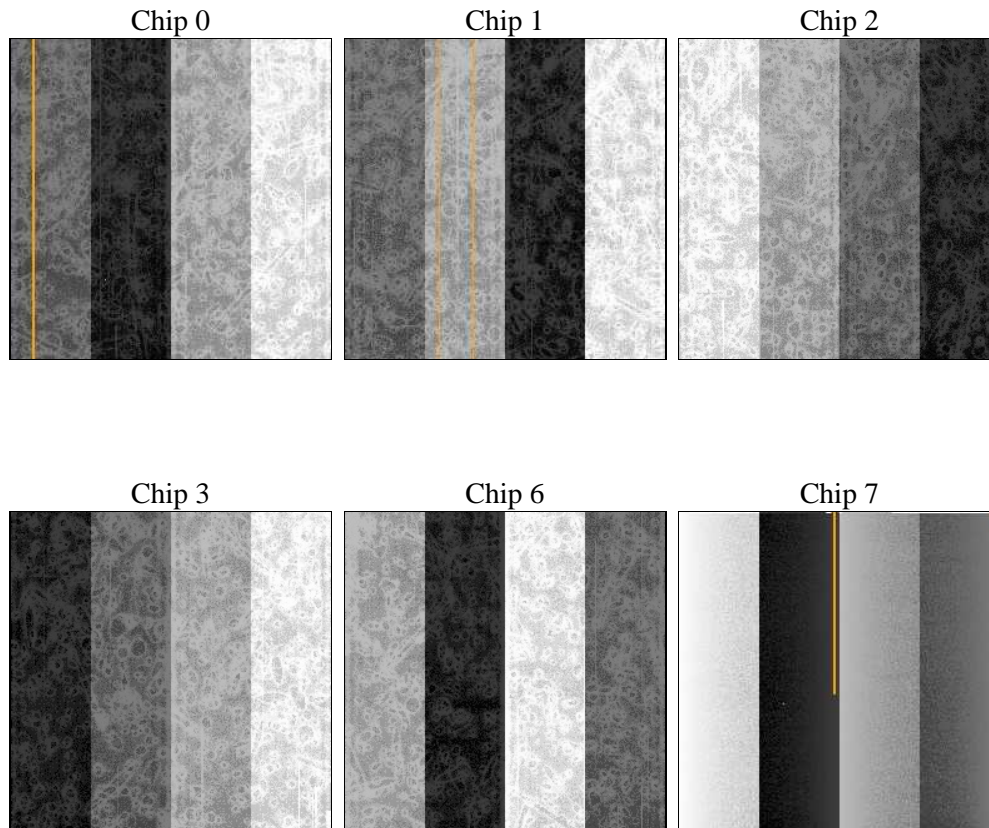
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

|          |                     |                                |                |                                     |
|----------|---------------------|--------------------------------|----------------|-------------------------------------|
| obi_num  | 0                   | Obi number                     |                |                                     |
| ascdsver | 8.2.1               | ASCDS version number           |                |                                     |
| caldbver | 4.1.5               | &#160                          |                |                                     |
| date     | 2010-03-31T21:26:40 | Date and time of file creation |                |                                     |
| revision | 3                   | Processing version of data     |                |                                     |
|          |                     |                                | sched_exp_time | 0.0                                 |
|          |                     |                                |                | Scheduled observation exposure time |
|          |                     |                                | ontime         | 3332.4468128756                     |
|          |                     |                                |                | Sum of GTIs [s]                     |
|          |                     |                                | ontime0        | 3332.4057728723                     |
|          |                     |                                |                | Sum of GTIs [s]                     |
|          |                     |                                | ontime1        | 3332.3647328764                     |
|          |                     |                                |                | Sum of GTIs [s]                     |
|          |                     |                                | ontime2        | 3332.3236928731                     |
|          |                     |                                |                | Sum of GTIs [s]                     |
|          |                     |                                | ontime3        | 3332.2826528773                     |
|          |                     |                                |                | Sum of GTIs [s]                     |
|          |                     |                                | ontime6        | 3332.241612874                      |
|          |                     |                                |                | Sum of GTIs [s]                     |
|          |                     |                                | ontime7        | 3332.4468128756                     |
|          |                     |                                |                | Sum of GTIs [s]                     |
|          |                     |                                | l1events       | 175186                              |
|          |                     |                                |                | Number of level 1 events            |

### 2.1.4 Events

|                 | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 |
|-----------------|-------|-------|-------|-------|-------|-------|
| level 1 events  | 28150 | 28331 | 31145 | 29846 | 30299 | 27415 |
| rejected events | 26159 | 26104 | 29339 | 27865 | 28285 | 9208  |
| rejected %      | 92%   | 92%   | 94%   | 93%   | 93%   | 33%   |

|                | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 |
|----------------|-------|-------|-------|-------|-------|-------|
| grade 0 events | 719   | 847   | 708   | 756   | 810   | 2572  |
|                | 2%    | 2%    | 2%    | 2%    | 2%    | 9%    |
| grade 1 events | 10    | 14    | 13    | 15    | 15    | 60    |
|                | 0%    | 0%    | 0%    | 0%    | 0%    | 0%    |
| grade 2 events | 420   | 365   | 371   | 388   | 392   | 3449  |
|                | 1%    | 1%    | 1%    | 1%    | 1%    | 12%   |
| grade 3 events | 238   | 310   | 211   | 259   | 234   | 2032  |
|                | 0%    | 1%    | 0%    | 0%    | 0%    | 7%    |
| grade 4 events | 240   | 310   | 216   | 250   | 263   | 1740  |
|                | 0%    | 1%    | 0%    | 0%    | 0%    | 6%    |
| grade 5 events | 467   | 458   | 376   | 483   | 475   | 1579  |
|                | 1%    | 1%    | 1%    | 1%    | 1%    | 5%    |
| grade 6 events | 374   | 397   | 300   | 329   | 318   | 8430  |
|                | 1%    | 1%    | 0%    | 1%    | 1%    | 30%   |
| grade 7 events | 25682 | 25630 | 28950 | 27366 | 27792 | 7553  |
|                | 91%   | 90%   | 92%   | 91%   | 91%   | 27%   |

## 2.2 Compared Parameters

| Parameter                         | Planned             | Actual              | Parameter                       | Planned   | Actual   |
|-----------------------------------|---------------------|---------------------|---------------------------------|-----------|----------|
| Instrument                        | ACIS                | ACIS                | Obspar format version number    | 6         | 6        |
| Detector                          | ACIS-012367         | ACIS-012367         | Obspar file type                | PREDICTED | ACTUAL   |
| Grating                           | NONE                | NONE                | Obspar update status            | OVERRIDE  | OVERRIDE |
| Data mode                         | FAINT               | FAINT               | On-chip summing requested       | N         | N        |
| Observation mode                  | SECONDARY           | SECONDARY           | Subarray requested              | NONE      | NONE     |
| Pointing RA                       | 0                   | 98.83434872770346   | Alternating exposures requested | N         | N        |
| Pointing Dec                      | 0                   | -75.26322509789452  | Primary exposure time           | 3.3       | 3.3      |
| Pointing Roll                     | 0.0                 | 137.0409227549277   |                                 |           |          |
| SIM focus pos (mm)                | 0.255451383487682   | 0.255451383487682   |                                 |           |          |
| SIM defocus (mm)                  | 1.037799581826115   | 1.037799581826115   |                                 |           |          |
| SIM translation stage pos (mm)    | -190.1325231039672  | -190.1325231039672  |                                 |           |          |
| SIM translation stage offset (mm) | -43.45993998746459  | -43.45993998746459  |                                 |           |          |
| Observation start time            | 51006180.5          | 51006180.5          |                                 |           |          |
| Observation start date            | 1999-08-14T08:23:00 | 1999-08-14T08:23:00 |                                 |           |          |
| Observation end time              | 51015057.849        | 51015057.849        |                                 |           |          |
| Observation end date              | 1999-08-14T10:50:58 | 1999-08-14T10:50:57 |                                 |           |          |
| 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)      | 2010.04.01      |
| V&V Edition                | 1               |
| V&V Disposition and Status | OK              |
| V&V Charge Time            | 3.3324468128756 |

## A.2 Comments

The focal plane temperature is warmer than -110C during this observation. This reprocessing of the data applies no CTI correction because none is available for this temperature at present. The ACIS CTI correction has not been calibrated at this temperature because it was early in the mission and ACIS had not yet been lowered to the standard -119.7 C. Both front and back illuminated chips are affected. However a T\_GAIN correction has been applied to the BI chips (ACIS-7) data included here.