

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 60537 - L2 Version 3  
Chandra X-Ray Center

L2 Processing Date : Nov 5 2012

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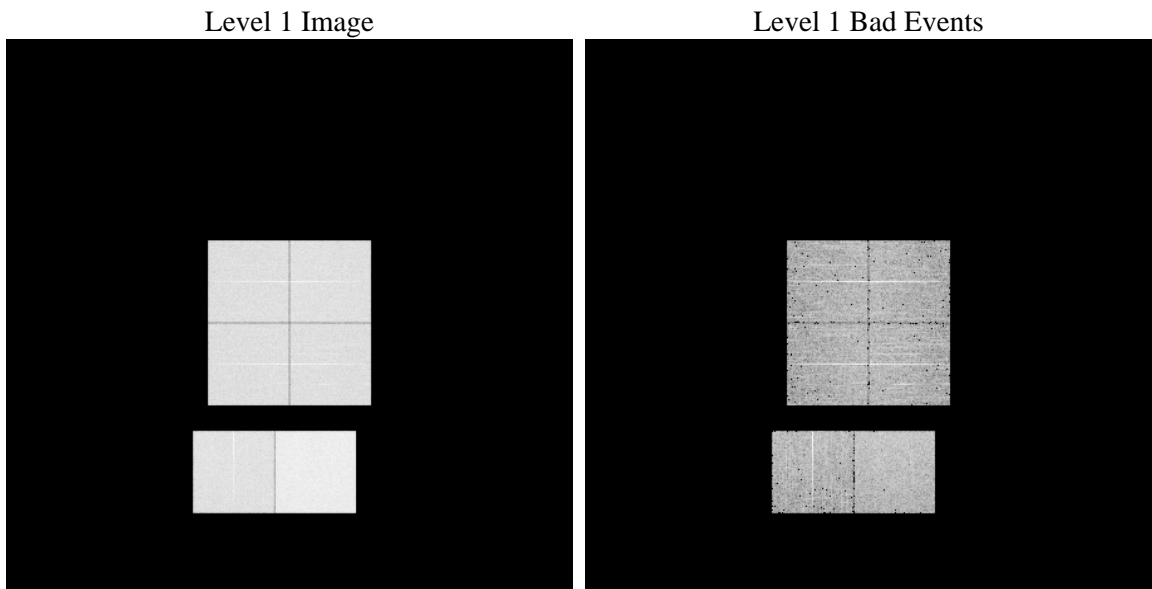
# 1 Front

|          |   |   |
|----------|---|---|
| seq_num  | &#160   | Sequence number                             |
| obs_id   | 60537   | 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 [deg]        |
| dec_targ | 0.0   | Observer's specified target Dec [deg]       |
| ra_nom   | 62.991989359848                                 | Nominal RA [deg]                            |
| dec_nom  | -22.972371160583                                | Nominal Dec [deg]                           |
| roll_nom | 72.049093545545                                 | Nominal Roll [deg]                          |
| revision | 3   | Processing version of data                  |
| ontime   | 7804.7999709249                                 | Sum of GTIs [s]                             |
| livetime | 7705.9708942067                                 | Livetime [s]                                |
| ontime0  | 4968.0471632779                                 | Sum of GTIs [s]                             |
| ontime1  | 5204.6810467839                                 | Sum of GTIs [s]                             |
| ontime2  | 4904.1217648089                                 | Sum of GTIs [s]                             |
| ontime3  | 4823.0965304673                                 | Sum of GTIs [s]                             |
| ontime6  | 5247.6664088666                                 | Sum of GTIs [s]                             |
| ontime7  | 7804.7999709249                                 | Sum of GTIs [s]                             |
| l2events | 1156504   | Number of level 2 events                    |

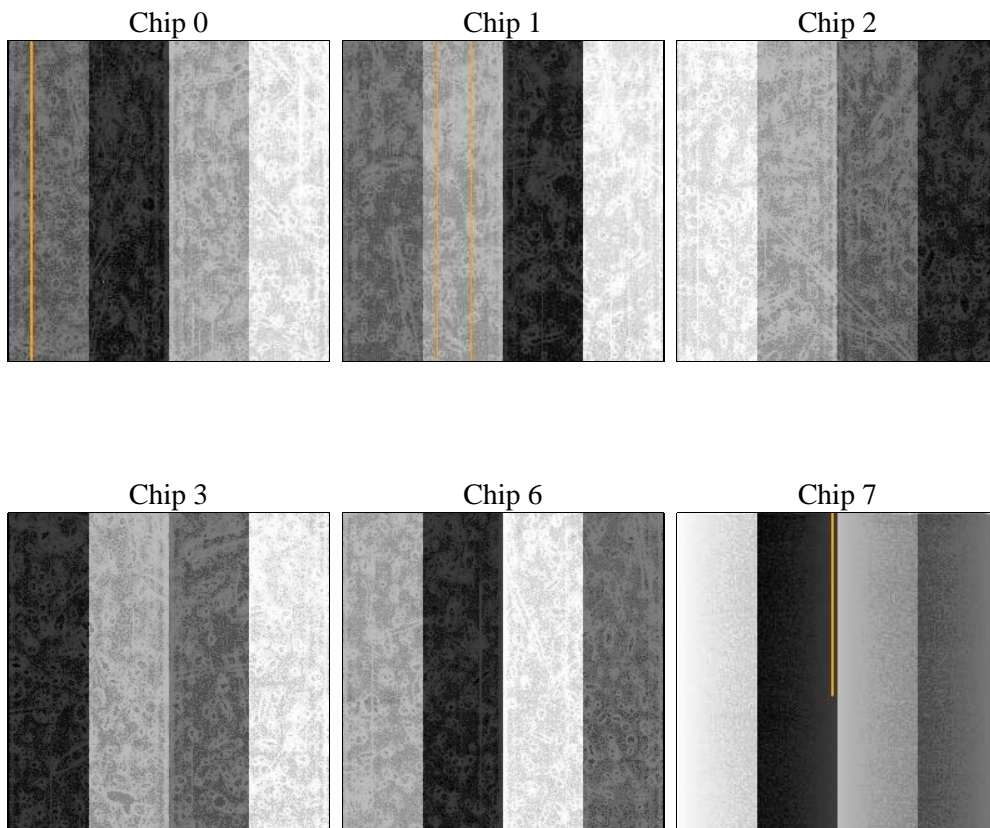
## 2 OBI

### 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 | 8.4.5               | Processing system revision     | ontime         | 7804.7999709249 | Sum of GTIs [s]                         |
| caldsver | 4.5.2               | &#160                          | ontime0        | 4968.0471632779 | Sum of GTIs [s]                         |
| date     | 2012-11-05T03:23:41 | Date and time of file creation | ontime1        | 5204.6810467839 | Sum of GTIs [s]                         |
| revision | 3                   | Processing version of data     | ontime2        | 4904.1217648089 | Sum of GTIs [s]                         |
|          |                     |                                | ontime3        | 4823.0965304673 | Sum of GTIs [s]                         |
|          |                     |                                | ontime6        | 5247.6664088666 | Sum of GTIs [s]                         |
|          |                     |                                | ontime7        | 7804.7999709249 | Sum of GTIs [s]                         |
|          |                     |                                | l1events       | 1420286         | Number of level 1 events                |

### 2.1.4 Events

|                 | ccd 0  | ccd 1  | ccd 2  | ccd 3  | ccd 6  | ccd 7  |                | ccd 0 | ccd 1  | ccd 2 | ccd 3 | ccd 6  | ccd 7 |
|-----------------|--------|--------|--------|--------|--------|--------|----------------|-------|--------|-------|-------|--------|-------|
| level 1 events  | 210232 | 219109 | 208895 | 209427 | 231693 | 340930 | grade 0 events | 98371 | 102717 | 99373 | 98331 | 107328 | 74245 |
| rejected events | 32501  | 32595  | 32049  | 34558  | 34781  | 42552  |                | 46%   | 46%    | 47%   | 46%   | 46%    | 21%   |
| rejected %      | 15%    | 14%    | 15%    | 16%    | 15%    | 12%    | grade 1 events | 532   | 500    | 552   | 586   | 512    | 202   |
|                 |        |        |        |        |        |        |                | 0%    | 0%     | 0%    | 0%    | 0%     | 0%    |
|                 |        |        |        |        |        |        | grade 2 events | 31168 | 32970  | 30062 | 29932 | 33761  | 66390 |
|                 |        |        |        |        |        |        |                | 14%   | 15%    | 14%   | 14%   | 14%    | 19%   |
|                 |        |        |        |        |        |        | grade 3 events | 11370 | 11754  | 11551 | 11361 | 12324  | 30170 |
|                 |        |        |        |        |        |        |                | 5%    | 5%     | 5%    | 5%    | 5%     | 8%    |
|                 |        |        |        |        |        |        | grade 4 events | 11287 | 12020  | 11396 | 11579 | 12272  | 29870 |
|                 |        |        |        |        |        |        |                | 5%    | 5%     | 5%    | 5%    | 5%     | 8%    |
|                 |        |        |        |        |        |        | grade 5 events | 2227  | 2312   | 2049  | 2215  | 2488   | 8004  |
|                 |        |        |        |        |        |        |                | 1%    | 1%     | 0%    | 1%    | 1%     | 2%    |
|                 |        |        |        |        |        |        | grade 6 events | 25535 | 27053  | 24573 | 23800 | 31338  | 97825 |
|                 |        |        |        |        |        |        |                | 12%   | 12%    | 11%   | 11%   | 13%    | 28%   |
|                 |        |        |        |        |        |        | grade 7 events | 29742 | 29783  | 29339 | 31623 | 31670  | 34224 |
|                 |        |        |        |        |        |        |                | 14%   | 13%    | 14%   | 15%   | 13%    | 10%   |

## 2.2 Compared Parameters

| Parameter                         | Planned             | Actual               | Parameter                       | Planned   | Actual  |
|-----------------------------------|---------------------|----------------------|---------------------------------|-----------|---------|
| Instrument                        | ACIS                | ACIS                 | Obspar format version number    | 7         | 7       |
| Detector                          | ACIS-012367         | ACIS-012367          | 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                   | 62.99198935984782    | Alternating exposures requested | N         | N       |
| [deg] Pointing Dec                | 0                   | -22.97237116058282   | [s] Primary exposure time       | 0.000000  | 3.2     |
| [deg] Pointing Roll               | 0.0                 | 72.04909354554526    |                                 |           |         |
| [mm] SIM focus pos                | -0.782348           | -0.7809083437167272  |                                 |           |         |
| [mm] SIM defocus                  | 0                   | 0.7524282956875696   |                                 |           |         |
| [mm] SIM translation stage pos    | -233.592463         | 250.466033080201     |                                 |           |         |
| [mm] SIM translation stage offset | 0                   | -0.01005468664627074 |                                 |           |         |
| [s] Observation start time (MET)  | 181393323.543047    | 181393322.51834      |                                 |           |         |
| Observation start date            | 2003-10-01T11:02:04 | 2003-10-01T11:02:02  |                                 |           |         |
| [s] Observation end time (MET)    | 181408503.793699    | 181408502.76899      |                                 |           |         |
| Observation end date              | 2003-10-01T15:15:04 | 2003-10-01T15:15:02  |                                 |           |         |
| 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)      | 2012.12.07      |
| V&V Edition                | 1               |
| V&V Disposition and Status | OK              |
| V&V Charge Time            | 7.8047999709249 |

### A.2 Comments