

# V&V Reference Report

## L2 ASCDS Version : 10.2.1

Observation 52914 - L2 Version 1  
Chandra X-Ray Center

L2 Processing Date : Mar 19 2014

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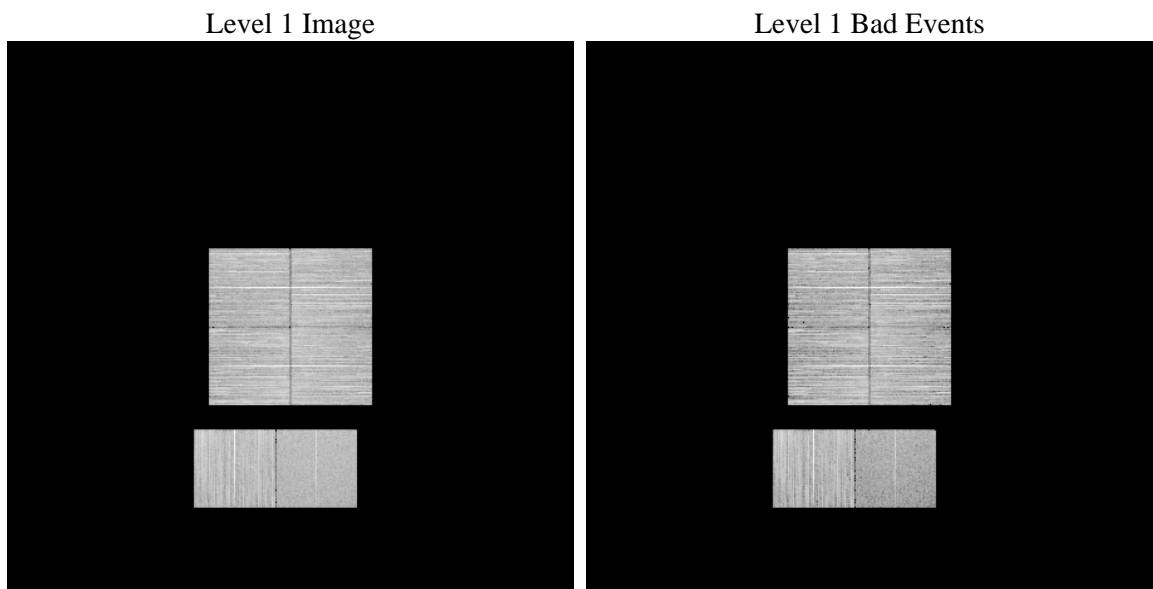
# 1 Front

|          |                                                 |                                             |
|----------|-------------------------------------------------|---------------------------------------------|
| seq_num  | &#160                                           | Sequence number                             |
| obs_id   | 52914                                           | 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   | 177.04848946705                                 | Nominal RA [deg]                            |
| dec_nom  | -28.88023668302                                 | Nominal Dec [deg]                           |
| roll_nom | 357.25365719046                                 | Nominal Roll [deg]                          |
| revision | 1                                               | Processing version of data                  |
| ontime   | 8083.1999699473                                 | Sum of GTIs [s]                             |
| livetime | 7980.8456248092                                 | Livetime [s]                                |
| ontime0  | 7992.4228414297                                 | Sum of GTIs [s]                             |
| ontime1  | 7995.6228414178                                 | Sum of GTIs [s]                             |
| ontime2  | 7992.3407614231                                 | Sum of GTIs [s]                             |
| ontime3  | 7992.449745357                                  | Sum of GTIs [s]                             |
| ontime6  | 7995.5407614112                                 | Sum of GTIs [s]                             |
| ontime7  | 8083.1999699473                                 | Sum of GTIs [s]                             |
| l2events | 175895                                          | Number of level 2 events                    |

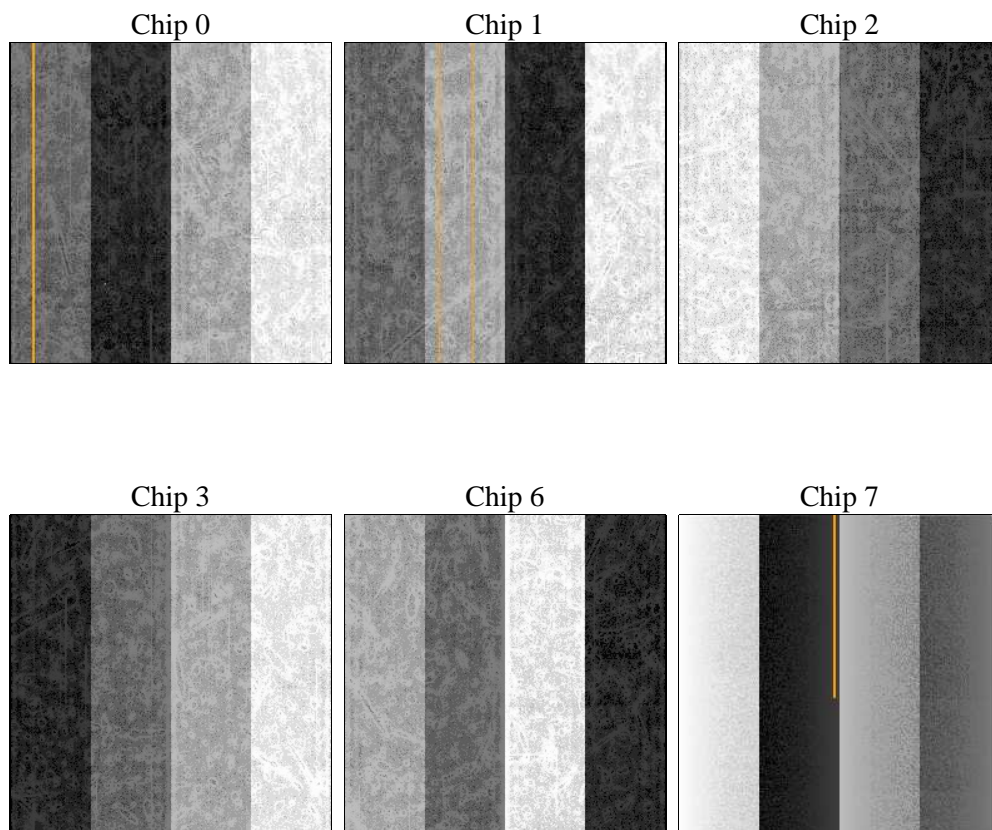
## 2 OBI

### 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 | 10.2.1              | Processing system revision     | ontime         | 8083.1999699473 | Sum of GTIs [s]                         |
| caldsver | 4.6.0               | &#160                          | ontime0        | 7992.4228414297 | Sum of GTIs [s]                         |
| date     | 2014-03-19T15:36:22 | Date and time of file creation | ontime1        | 7995.6228414178 | Sum of GTIs [s]                         |
| revision | 1                   | Processing version of data     | ontime2        | 7992.3407614231 | Sum of GTIs [s]                         |
|          |                     |                                | ontime3        | 7992.449745357  | Sum of GTIs [s]                         |
|          |                     |                                | ontime6        | 7995.5407614112 | Sum of GTIs [s]                         |
|          |                     |                                | ontime7        | 8083.1999699473 | Sum of GTIs [s]                         |
|          |                     |                                | l1events       | 833783          | 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  | 136015 | 145990 | 145825 | 143009 | 146334 | 116610 | grade 0 events | 13906  | 13169  | 14167  | 14363  | 13326  | 7008  |
| rejected events | 108662 | 118685 | 118774 | 115529 | 118035 | 66572  |                | 10%    | 9%     | 9%     | 10%    | 9%     | 6%    |
| rejected %      | 79%    | 81%    | 81%    | 80%    | 80%    | 57%    | grade 1 events | 74     | 66     | 71     | 95     | 59     | 81    |
|                 |        |        |        |        |        |        |                | 0%     | 0%     | 0%     | 0%     | 0%     | 0%    |
|                 |        |        |        |        |        |        | grade 2 events | 5909   | 6543   | 5626   | 5673   | 6776   | 12827 |
|                 |        |        |        |        |        |        |                | 4%     | 4%     | 3%     | 3%     | 4%     | 10%   |
|                 |        |        |        |        |        |        | grade 3 events | 1867   | 1755   | 1849   | 1850   | 1773   | 3926  |
|                 |        |        |        |        |        |        |                | 1%     | 1%     | 1%     | 1%     | 1%     | 3%    |
|                 |        |        |        |        |        |        | grade 4 events | 1863   | 1721   | 1857   | 1900   | 1706   | 3777  |
|                 |        |        |        |        |        |        |                | 1%     | 1%     | 1%     | 1%     | 1%     | 3%    |
|                 |        |        |        |        |        |        | grade 5 events | 2512   | 2565   | 2521   | 2936   | 2746   | 6708  |
|                 |        |        |        |        |        |        |                | 1%     | 1%     | 1%     | 2%     | 1%     | 5%    |
|                 |        |        |        |        |        |        | grade 6 events | 4512   | 4813   | 4237   | 4366   | 5427   | 23731 |
|                 |        |        |        |        |        |        |                | 3%     | 3%     | 2%     | 3%     | 3%     | 20%   |
|                 |        |        |        |        |        |        | grade 7 events | 105372 | 115358 | 115497 | 111826 | 114521 | 58552 |
|                 |        |        |        |        |        |        |                | 77%    | 79%    | 79%    | 78%    | 78%    | 50%   |

## 2.2 Compared Parameters

| Parameter                         | Planned              | Actual               |
|-----------------------------------|----------------------|----------------------|
| Instrument                        | ACIS                 | ACIS                 |
| Detector                          | ACIS-012367          | ACIS-012367          |
| Grating                           | NONE                 | NONE                 |
| Data mode                         | FAINT                | FAINT                |
| Observation mode                  | SECONDARY            | SECONDARY            |
| [deg] Pointing RA                 | 0                    | 177.0484894670471    |
| [deg] Pointing Dec                | 0                    | -28.88023668302043   |
| [deg] Pointing Roll               | 0.0                  | 357.2536571904632    |
| SIM focus pos (mm)                | -1.4281808131        | -1.4281808131        |
| [mm] SIM defocus                  | 0.1051557500557434   | 0.1051557500557434   |
| SIM translation stage pos (mm)    | 250.4660330802       | 250.4660330802       |
| [mm] SIM translation stage offset | -0.01005726120527584 | -0.01005726120527584 |
| [s] Observation start time (MET)  | 511585088.860638     | 511585088.860638     |
| Observation start date            | 2014-03-19T02:58:09  | 2014-03-19T02:58:08  |
| [s] Observation end time (MET)    | 511595310.635242     | 511595310.635242     |
| Observation end date              | 2014-03-19T05:48:31  | 2014-03-19T05:48:30  |
| Read mode                         | TIMED                | TIMED                |

| Parameter                             | Planned   | Actual   |
|---------------------------------------|-----------|----------|
| Obspar format version number          | 7         | 7        |
| Obspar file type                      | PREDICTED | ACTUAL   |
| Obspar update status                  | OVERRIDE  | OVERRIDE |
| Number of optional ACIS chips dropped | 0         | 0        |
| 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)      | 2014.03.19      |
| V&V Edition                | 1               |
| V&V Disposition and Status | OK              |
| V&V Charge Time            | 8.0831999699473 |

### A.2 Comments