

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 58850 - L2 Version 3
Chandra X-Ray Center

L2 Processing Date : Apr 18 2012

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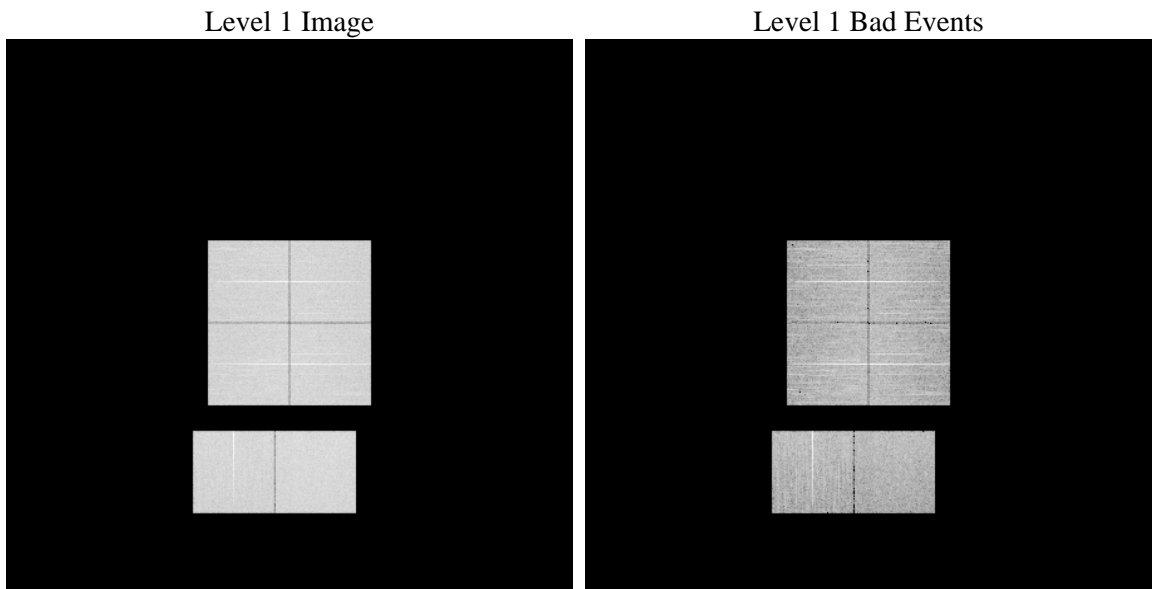
1 Front

| | | |
|----------|---|---|
| seq_num | | Sequence number |
| obs_id | 58850 | Observation id |
| title | ACIS-012367 diagnostics | Proposal title |
| observer | CHANDRA engineering request/realtime commanding | Principal investig |
| object | | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? 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 | 2.2860458880393 | Nominal RA [deg] |
| dec_nom | -21.536686917469 | Nominal Dec [deg] |
| roll_nom | 92.58133327163 | Nominal Roll [deg] |
| revision | 3 | Processing version of data |
| ontime | 7797.23823452 | Sum of GTIs [s] |
| livetime | 7698.5049090613 | Livetime [s] |
| ontime0 | 7797.1971945167 | Sum of GTIs [s] |
| ontime1 | 7797.1561545134 | Sum of GTIs [s] |
| ontime2 | 7797.1151145101 | Sum of GTIs [s] |
| ontime3 | 7797.2792745233 | Sum of GTIs [s] |
| ontime6 | 7797.0740745068 | Sum of GTIs [s] |
| ontime7 | 7797.23823452 | Sum of GTIs [s] |
| l2events | 835220 | Number of level 2 events |

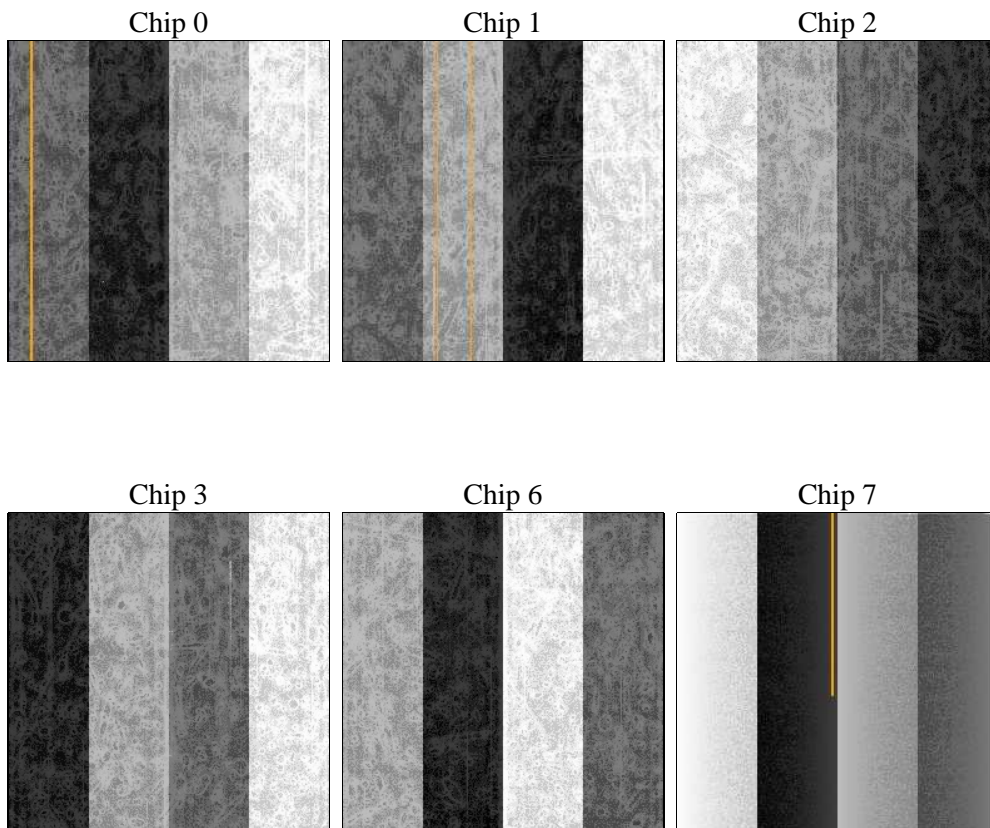
2 OBI

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 | 7797.23823452 | Sum of GTIs [s] |
| caldsver | 4.4.9 | | ontime0 | 7797.1971945167 | Sum of GTIs [s] |
| date | 2012-04-18T16:27:10 | Date and time of file creation | ontime1 | 7797.1561545134 | Sum of GTIs [s] |
| revision | 3 | Processing version of data | ontime2 | 7797.1151145101 | Sum of GTIs [s] |
| | | | ontime3 | 7797.2792745233 | Sum of GTIs [s] |
| | | | ontime6 | 7797.0740745068 | Sum of GTIs [s] |
| | | | ontime7 | 7797.23823452 | Sum of GTIs [s] |
| | | | l1events | 1269334 | 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 | 204354 | 203697 | 210236 | 209873 | 212504 | 228670 | grade 0 events | 76011 | 75704 | 78180 | 78277 | 78451 | 38328 |
| rejected events | 64844 | 63948 | 69589 | 68399 | 65992 | 56872 | | 37% | 37% | 37% | 37% | 36% | 16% |
| rejected % | 31% | 31% | 33% | 32% | 31% | 24% | grade 1 events | 514 | 459 | 571 | 560 | 446 | 183 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 24441 | 25099 | 23949 | 24316 | 25522 | 37613 |
| | | | | | | | | 11% | 12% | 11% | 11% | 12% | 16% |
| | | | | | | | grade 3 events | 9248 | 9057 | 9272 | 9538 | 9448 | 16775 |
| | | | | | | | | 4% | 4% | 4% | 4% | 4% | 7% |
| | | | | | | | grade 4 events | 9062 | 9021 | 9289 | 9514 | 9333 | 16828 |
| | | | | | | | | 4% | 4% | 4% | 4% | 4% | 7% |
| | | | | | | | grade 5 events | 3575 | 3766 | 3343 | 4004 | 4062 | 9791 |
| | | | | | | | | 1% | 1% | 1% | 1% | 1% | 4% |
| | | | | | | | grade 6 events | 20748 | 20868 | 19957 | 19829 | 23758 | 62254 |
| | | | | | | | | 10% | 10% | 9% | 9% | 11% | 27% |
| | | | | | | | grade 7 events | 60755 | 59723 | 65675 | 63835 | 61484 | 46898 |
| | | | | | | | | 29% | 29% | 31% | 30% | 28% | 20% |

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 | 2.286045888039325 |
| [deg] Pointing Dec | 0 | -21.5366869174695 |
| [deg] Pointing Roll | 0.0 | 92.58133327162999 |
| [mm] SIM focus pos | -0.782348 | -0.6828225247311905 |
| [mm] SIM defocus | 0 | 0.8505141146731063 |
| [mm] SIM translation stage pos | -233.592463 | 250.4635187648994 |
| [mm] SIM translation stage offset | 0 | -0.007540371344731511 |
| [s] Observation start time (MET) | 271174768.850693 | 271174767.82566 |
| Observation start date | 2006-08-05T14:19:29 | 2006-08-05T14:19:27 |
| [s] Observation end time (MET) | 271194391.451615 | 271194390.42658 |
| Observation end date | 2006-08-05T19:46:31 | 2006-08-05T19:46:30 |
| 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 | Jen Lauer |
| V&V Date (YYYY-MM-DD) | 2012.04.19 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 7.79723823452 |

A.2 Comments

A spatial region of the original bias map for CCD = 3 suffered from anomalously high data values. Pixels in the event data that were bias-corrected by one of the original affected bias pixels may have an apparent energy shift. While the change in energy is expected to be small (~ 20 eV), it depends on many parameters that have not yet been fully explored for this bias anomaly. The bias map for CCD = 3 has been reconstructed for this processing to remove this anomaly using scaled data from a comparable bias map from another observation. The pixels affected by the anomaly are bounded by chip coords:
(672,551),(700,551),(700,1024),(672,1024)