

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 62127 - L2 Version 5
Chandra X-Ray Center

L2 Processing Date : Oct 10 2012

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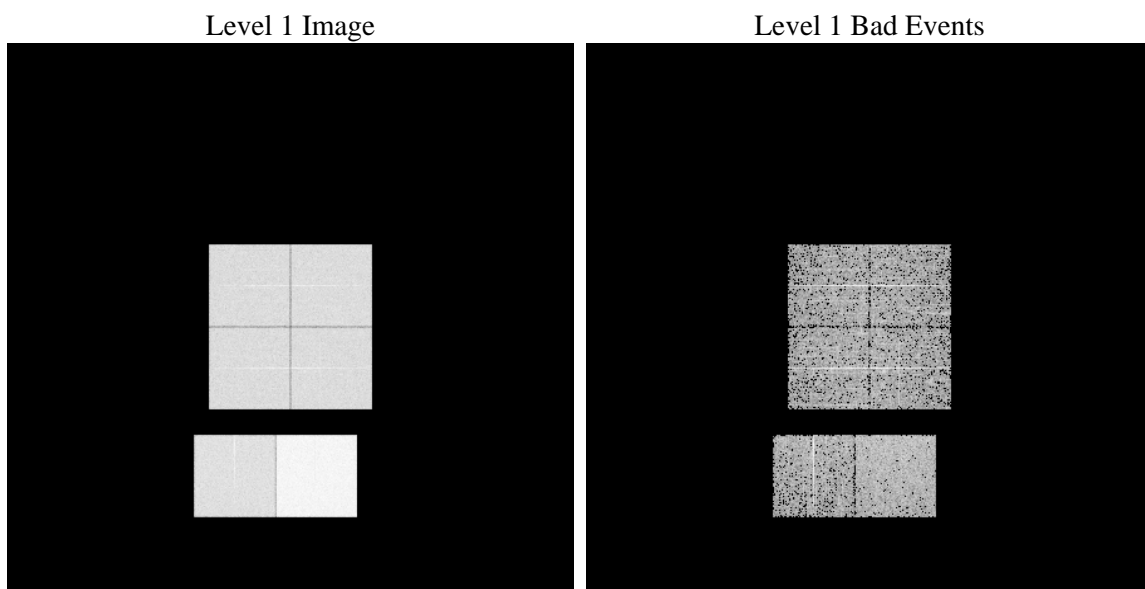
1 Front

| | | |
|----------|---|---|
| seq_num | | Sequence number |
| obs_id | 62127 | 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 | 82.375763134707 | Nominal RA [deg] |
| dec_nom | 0.99873404966842 | Nominal Dec [deg] |
| roll_nom | 273.58735574223 | Nominal Roll [deg] |
| revision | 5 | Processing version of data |
| ontime | 3516.6791451722 | Sum of GTIs [s] |
| livetime | 3472.1488363461 | Livetime [s] |
| ontime0 | 1440.8650401086 | Sum of GTIs [s] |
| ontime1 | 1486.2806299776 | Sum of GTIs [s] |
| ontime2 | 1421.5009299964 | Sum of GTIs [s] |
| ontime3 | 1427.8187403083 | Sum of GTIs [s] |
| ontime6 | 1599.7990299165 | Sum of GTIs [s] |
| ontime7 | 3516.6791451722 | Sum of GTIs [s] |
| l2events | 929769 | Number of level 2 events |

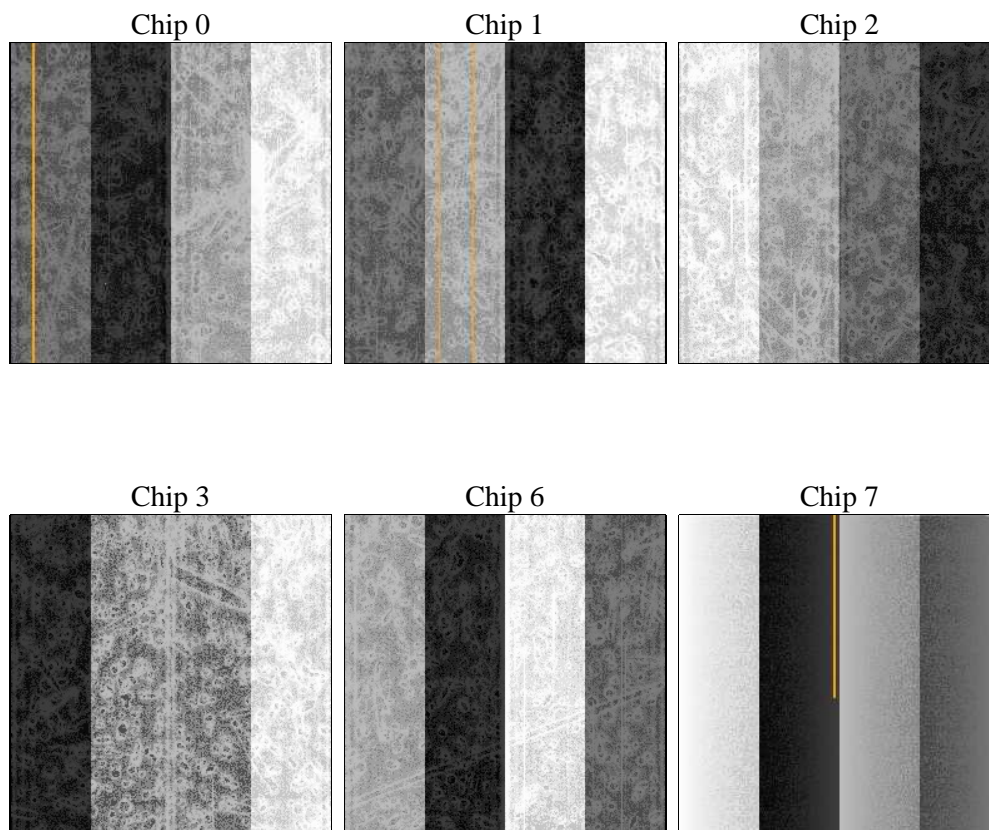
2 OBI

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 | 3516.6791451722 | Sum of GTIs [s] |
| caldbver | 4.5.2 | | ontime0 | 1440.8650401086 | Sum of GTIs [s] |
| date | 2012-10-10T20:28:12 | Date and time of file creation | ontime1 | 1486.2806299776 | Sum of GTIs [s] |
| revision | 5 | Processing version of data | ontime2 | 1421.5009299964 | Sum of GTIs [s] |
| | | | ontime3 | 1427.8187403083 | Sum of GTIs [s] |
| | | | ontime6 | 1599.7990299165 | Sum of GTIs [s] |
| | | | ontime7 | 3516.6791451722 | Sum of GTIs [s] |
| | | | l1events | 1060921 | 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 | 138505 | 142544 | 139781 | 140268 | 161028 | 338795 | grade 0 events | 68792 | 70985 | 69605 | 70313 | 79325 | 83256 |
| rejected events | 13722 | 14033 | 15216 | 14808 | 15267 | 19774 | | 49% | 49% | 49% | 50% | 49% | 24% |
| rejected % | 9% | 9% | 10% | 10% | 9% | 5% | grade 1 events | 415 | 422 | 425 | 466 | 449 | 207 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 21966 | 22584 | 21764 | 21819 | 25475 | 71338 |
| | | | | | | | | 15% | 15% | 15% | 15% | 15% | 21% |
| | | | | | | | grade 3 events | 7984 | 8150 | 7890 | 8063 | 9126 | 32923 |
| | | | | | | | | 5% | 5% | 5% | 5% | 5% | 9% |
| | | | | | | | grade 4 events | 7985 | 8203 | 7859 | 8030 | 9096 | 32573 |
| | | | | | | | | 5% | 5% | 5% | 5% | 5% | 9% |
| | | | | | | | grade 5 events | 1043 | 1088 | 1010 | 1039 | 1193 | 4583 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 1% |
| | | | | | | | grade 6 events | 18056 | 18589 | 17447 | 17235 | 22739 | 99235 |
| | | | | | | | | 13% | 13% | 12% | 12% | 14% | 29% |
| | | | | | | | grade 7 events | 12264 | 12523 | 13781 | 13303 | 13625 | 14680 |
| | | | | | | | | 8% | 8% | 9% | 9% | 8% | 4% |

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 | 82.37576313470662 |
| [deg] Pointing Dec | 0 | 0.9987340496684218 |
| [deg] Pointing Roll | 0.0 | 273.5873557422298 |
| [mm] SIM focus pos | -0.782348 | -0.7809083437167272 |
| [mm] SIM defocus | 0 | 0.7524282956875696 |
| [mm] SIM translation stage pos | -233.592463 | 250.4635187648994 |
| [mm] SIM translation stage offset | 0 | -0.007540371344731511 |
| [s] Observation start time (MET) | 69204002.006 | 69204001.23754001 |
| Observation start date | 2000-03-11T23:20:02 | 2000-03-11T23:20:01 |
| [s] Observation end time (MET) | 69212825.206 | 69212824.43786199 |
| Observation end date | 2000-03-12T01:47:05 | 2000-03-12T01:47:04 |
| 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 | 0.000000 | 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) | 2012.10.17 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 3.5166791451722 |

A.2 Comments

A spatial region of the original bias map for CCD = 2 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 = 2 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:
(115,1),(181,1),(181,276),(115,342)