

V&V Reference Report

L2 ASCDS Version : 7.6.7.1

Observation 59447 - L2 Version 002
Chandra X-Ray Center

L2 Processing Date : Mar 26 2006

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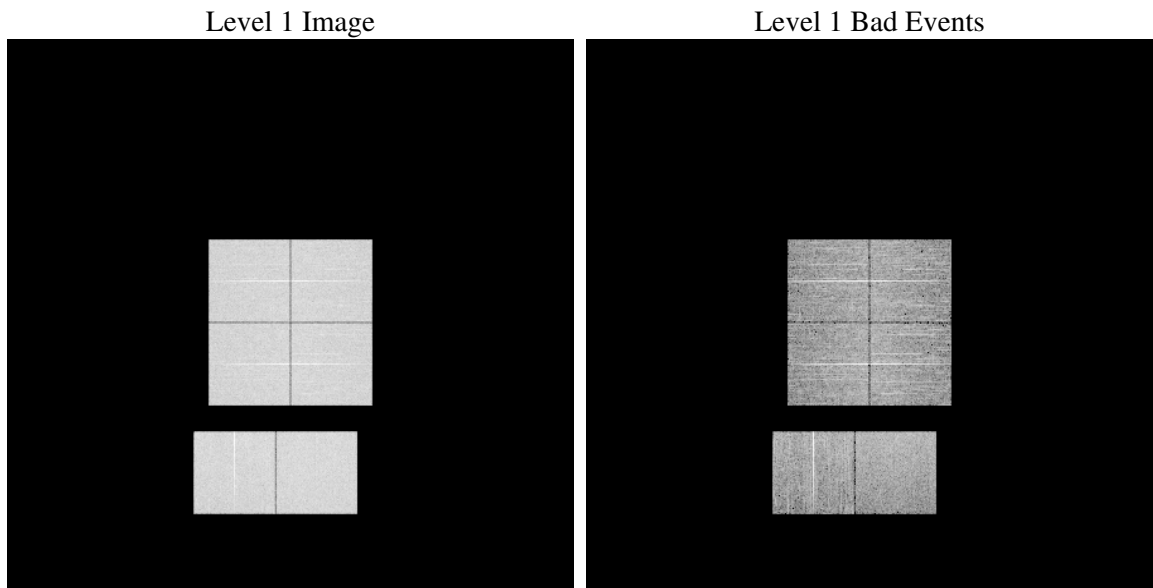
1 Front

| | |
|----------|---|
| seq_num | |
| obs_id | 59447 |
| title | ACIS-012367 diagnostics |
| observer | CHANDRA engineering request/realtime commanding |
| object | |
| dtcycle | 0 |
| cycle | P |
| ra_targ | 0.0 |
| dec_targ | 0.0 |
| ra_nom | 339.98728373027 |
| dec_nom | 21.971668466504 |
| roll_nom | 213.30612218097 |
| revision | 2 |
| ontime | 8239.9999693036 |
| livetime | 8135.66012816 |
| ontime0 | 8236.759088546 |
| ontime1 | 8236.7589691281 |
| ontime2 | 8239.9713209569 |
| ontime3 | 8239.9999693036 |
| ontime6 | 8239.9302809834 |
| ontime7 | 8239.9999693036 |
| l2events | 1065220 |

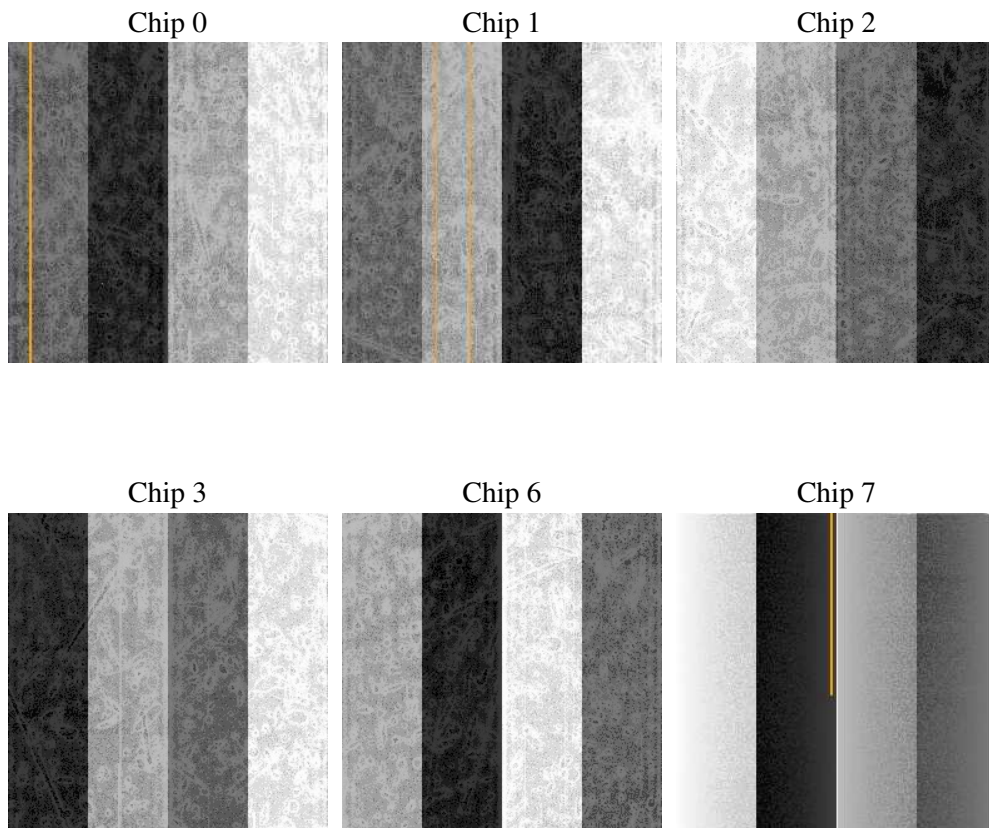
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | |
|----------|---------------------|
| obi_num | 1 |
| ascdsver | 7.6.7.1 |
| caldbver | 3.2.1 |
| date | 2006-03-26T06:28:59 |
| revision | 2 |

| | |
|----------------|-----------------|
| sched_exp_time | 0.0 |
| ontime | 8290.5006013215 |
| ontime0 | 8287.2597006261 |
| ontime1 | 8287.2595812082 |
| ontime2 | 8290.5005813837 |
| ontime3 | 8290.5005813837 |
| ontime6 | 8290.5006013215 |
| ontime7 | 8290.5006013215 |
| l1events | 1420623 |

2.1.4 Events

| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 |
|-----------------|--------|--------|--------|--------|--------|--------|
| level 1 events | 230696 | 231898 | 233978 | 235853 | 243355 | 244843 |
| rejected events | 47698 | 48699 | 48348 | 51467 | 51476 | 51835 |
| rejected % | 20% | 21% | 20% | 21% | 21% | 21% |

| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 |
|----------------|--------|--------|--------|--------|--------|-------|
| grade 0 events | 101220 | 100748 | 104318 | 104098 | 104662 | 32155 |
| | 43% | 43% | 44% | 44% | 43% | 13% |
| grade 1 events | 541 | 426 | 543 | 562 | 453 | 80 |
| | 0% | 0% | 0% | 0% | 0% | 0% |
| grade 2 events | 32310 | 32767 | 31719 | 31494 | 33100 | 59260 |
| | 14% | 14% | 13% | 13% | 13% | 24% |
| grade 3 events | 11772 | 11782 | 12144 | 12054 | 11967 | 13614 |
| | 5% | 5% | 5% | 5% | 4% | 5% |
| grade 4 events | 11924 | 11648 | 12198 | 12122 | 12195 | 13419 |
| | 5% | 5% | 5% | 5% | 5% | 5% |
| grade 5 events | 3013 | 3003 | 2794 | 3128 | 3361 | 5876 |
| | 1% | 1% | 1% | 1% | 1% | 2% |
| grade 6 events | 27002 | 27415 | 26418 | 25792 | 31163 | 75774 |
| | 11% | 11% | 11% | 10% | 12% | 30% |
| grade 7 events | 42914 | 44109 | 43844 | 46603 | 46454 | 44665 |
| | 18% | 19% | 18% | 19% | 19% | 18% |

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 | NONE | UPDATED |
| Data mode | FAINT | FAINT | On-chip summing requested | N | N |
| Observation mode | SECONDARY | SECONDARY | Subarray requested | NONE | NONE |
| Pointing RA | 0 | 339.9872837302749 | Alternating exposures requested | N | N |
| Pointing Dec | 0 | 21.9716684665039 | Primary exposure time | 3.2 | 3.2 |
| Pointing Roll | 0.0 | 213.3061221809704 | | | |
| SIM focus pos (mm) | -0.782348 | -0.7809083437167272 | | | |
| SIM defocus (mm) | 0 | 0.7524282956875696 | | | |
| SIM translation stage pos (mm) | -233.592463 | 250.466033080201 | | | |
| SIM translation stage offset (mm) | 0 | -0.01005468664627074 | | | |
| Observation start time | 243341579.307631 | 243341578.28266 | | | |
| Observation start date | 2005-09-17T10:52:59 | 2005-09-17T10:52:58 | | | |
| Observation end time | 243364734.058693 | 243364733.03372 | | | |
| Observation end date | 2005-09-17T17:18:54 | 2005-09-17T17:18:53 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect

2.4 Star Slots

2.5 FID Slots

A Summary

A.1 Status

| | |
|----------------------------|------------|
| V&V Scientist | Jen Lauer |
| V&V Date (YYYY-MM-DD) | 2006.03.26 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 8.23999996 |

A.2 Comments

As a consequence of the DEA-A shutdown anomaly on Sep 15th (DOY258), the the reported value of the ACIS FP temperature was ~1.3 degrees warmer than the actual temperature. GOs should subtract 1.3 degrees from the reported temperature to determine the true temperature. In addition the FP temperature was not regulating during this period. The FP temperature fluctuated between -121.3 C and -118.8 C during this time. For analysis of line-dominated spectra from the FI CCDs, GOs might notice a systematic gain shift by up to 0.5%, either towards higher/lower energies depending on if the FP temperature was colder/warmer than -119.7 C. Analysis of line-dominated spectra on S3 are mostly unaffected (where mostly unaffected means that the changes are smaller than the current uncertainties in the calibration). Analysis of continuum-dominated spectra on both the FI and BI CCDs are mostly unaffected. Imaging analysis on both the FI and BI CCDs are mostly unaffected.