

V&V Reference Report

L2 ASCDS Version : 8.1.1

Observation 62332 - L2 Version 4
Chandra X-Ray Center

L2 Processing Date : Nov 20 2009

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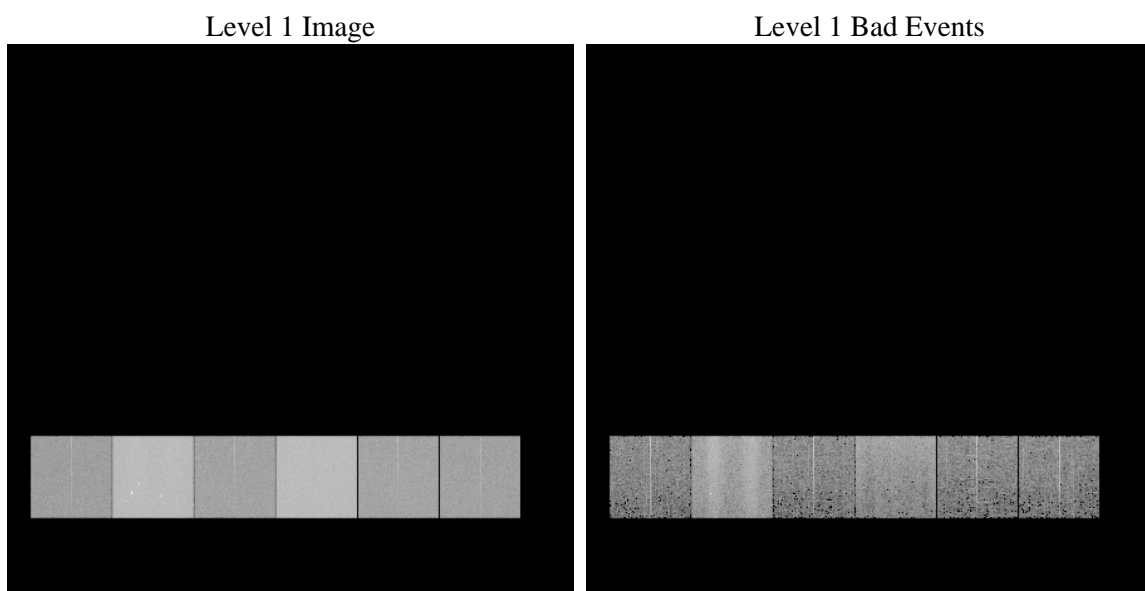
1 Front

| | | |
|----------|---|---|
| seq_num | | Sequence number |
| obs_id | 62332 | Observation id |
| title | ACIS-456789 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 |
| dec_targ | 0.0 | Observer's specified target Dec |
| ra_nom | 101.30401172964 | Nominal RA |
| dec_nom | -16.692589090651 | Nominal Dec |
| roll_nom | 70.594311513405 | Nominal Roll |
| revision | 4 | Processing version of data |
| ontime | 3986.470168896 | Sum of GTIs [s] |
| livetime | 3935.9910832533 | Livetime [s] |
| ontime4 | 1497.3589461893 | Sum of GTIs [s] |
| ontime5 | 4258.7128510401 | Sum of GTIs [s] |
| ontime6 | 1637.1179689988 | Sum of GTIs [s] |
| ontime7 | 3986.470168896 | Sum of GTIs [s] |
| ontime8 | 1714.5084968954 | Sum of GTIs [s] |
| ontime9 | 1620.51859615 | Sum of GTIs [s] |
| l2events | 1291952 | Number of level 2 events |

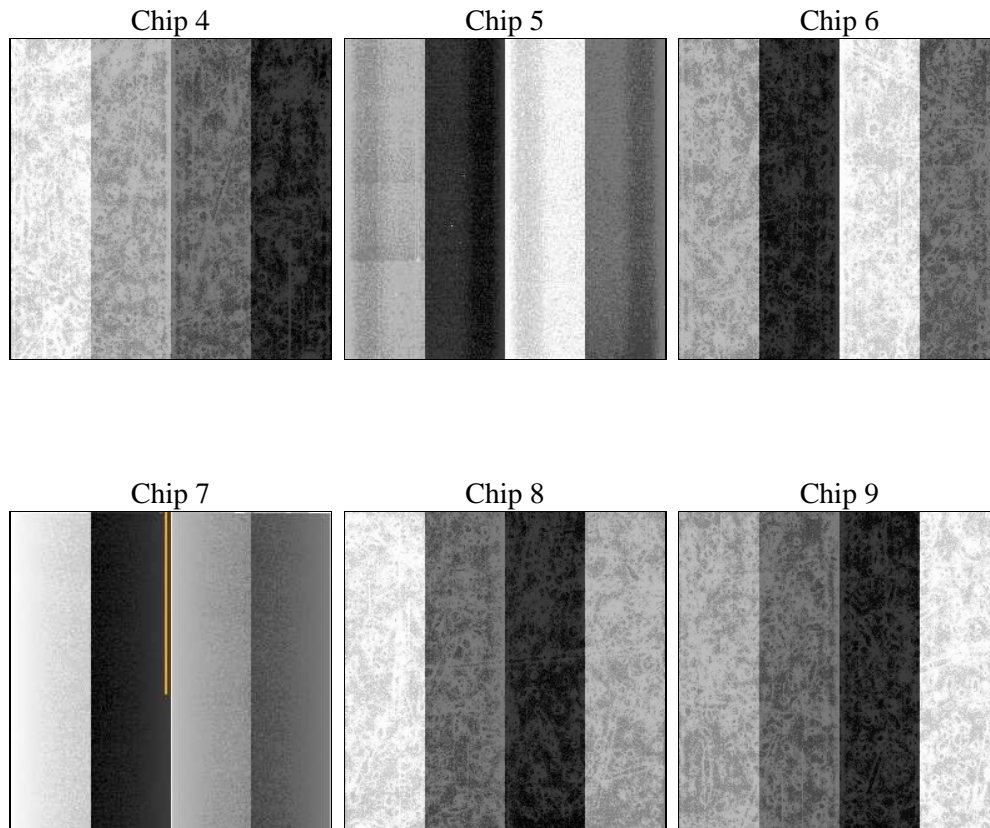
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|
| obi_num | 0 | Obi number | | |
| ascdsver | 8.1.1 | ASCDS version number | sched_exp_time | 0.0 |
| caldsver | 4.1.4 | | | |
| date | 2009-11-20T20:27:51 | Date and time of file creation | ontime | 3986.470168896 |
| revision | 3 | Processing version of data | ontime4 | 1497.3589461893 |
| | | | ontime5 | 4258.7128510401 |
| | | | ontime6 | 1637.1179689988 |
| | | | ontime7 | 3986.470168896 |
| | | | ontime8 | 1714.5084968954 |
| | | | ontime9 | 1620.51859615 |
| | | | l1events | 1519322 |
| | | | | |

2.1.4 Events

| | ccd 4 | ccd 5 | ccd 6 | ccd 7 | ccd 8 | ccd 9 | | ccd 4 | ccd 5 | ccd 6 | ccd 7 | ccd 8 | ccd 9 |
|-----------------|--------|--------|--------|--------|--------|--------|----------------|-------|--------|-------|--------|-------|-------|
| level 1 events | 151748 | 416001 | 175407 | 422901 | 184724 | 168541 | grade 0 events | 30361 | 38019 | 41539 | 67573 | 55828 | 44560 |
| rejected events | 25244 | 67817 | 25508 | 41869 | 25567 | 24765 | | 20% | 9% | 23% | 15% | 30% | 26% |
| rejected % | 16% | 16% | 14% | 9% | 13% | 14% | grade 1 events | 126 | 183 | 178 | 159 | 258 | 189 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 66967 | 134215 | 70534 | 106882 | 63130 | 63064 |
| | | | | | | | | 44% | 32% | 40% | 25% | 34% | 37% |
| | | | | | | | grade 3 events | 3125 | 18255 | 4254 | 32941 | 5905 | 4545 |
| | | | | | | | | 2% | 4% | 2% | 7% | 3% | 2% |
| | | | | | | | grade 4 events | 3058 | 15872 | 4234 | 29567 | 5922 | 4635 |
| | | | | | | | | 2% | 3% | 2% | 6% | 3% | 2% |
| | | | | | | | grade 5 events | 1266 | 7216 | 1432 | 5964 | 1636 | 1487 |
| | | | | | | | | 0% | 1% | 0% | 1% | 0% | 0% |
| | | | | | | | grade 6 events | 22993 | 141823 | 29604 | 144069 | 28372 | 26972 |
| | | | | | | | | 15% | 34% | 16% | 34% | 15% | 16% |
| | | | | | | | grade 7 events | 23852 | 60418 | 23632 | 35746 | 23673 | 23089 |
| | | | | | | | | 15% | 14% | 13% | 8% | 12% | 13% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|----------------------|---------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 6 | 6 |
| Detector | ACIS-456789 | ACIS-456789 | 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 | 101.3040117296419 | Alternating exposures requested | N | N |
| Pointing Dec | 0 | -16.69258909065076 | Primary exposure time | 0.000000 | 3.2 |
| Pointing Roll | 0.0 | 70.59431151340549 | | | |
| SIM focus pos (mm) | -0.684267 | -1.508139491973113 | | | |
| SIM defocus (mm) | 0 | 0.02519714743118384 | | | |
| SIM translation stage pos (mm) | -190.132523 | 250.466033080201 | | | |
| SIM translation stage offset (mm) | 0 | -0.01005468664627074 | | | |
| Observation start time | 57603225.781 | 57603225.012613 | | | |
| Observation start date | 1999-10-29T16:53:46 | 1999-10-29T16:53:45 | | | |
| Observation end time | 57613024.781 | 57613024.012966 | | | |
| Observation end date | 1999-10-29T19:37:05 | 1999-10-29T19:37:04 | | | |
| 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) | 2010.08.13 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 3.986470168896 |

A.2 Comments

The focal plane temperature is approximately -110C during this observation.

The ACIS CTI correction has not been calibrated at this temperature because it was early in the mission, and ACIS had not yet been lowered to the standard -119.7 C. Both front- and back-illuminated chips are affected. However, a T_GAIN correction has been applied to the BI chips

(ACIS-5 and ACIS-7) data included here.

The ACIS spectral response calibration is less accurate at these warmer temperatures than it is at -119.7 C. Users whose science objectives depend on the most accurate spectral response (ie: fitting line-rich spectra) may notice an effect. Users whose science objectives do not depend on the most accurate spectral response should not notice an effect.