# V&V Reference Report
# L2 ASCDS Version : 7.6.10

Observation 61990 - L2 Version 001
Chandra X-Ray Center

L2 Processing Date : Jun 1 2007

## Contents

# 1 Front

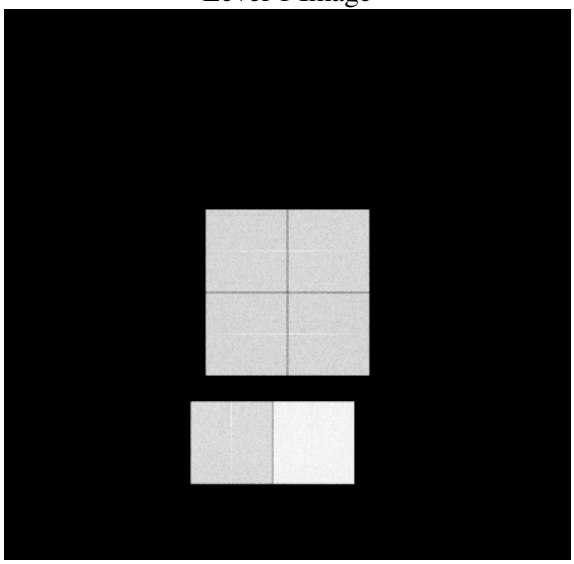
| | |
|---|---|
| seq_num |   |
| obs_id | 61990 |
| title | ACIS-012367 diagnostics |
| observer | CHANDRA engineering request/realtime commanding |
| object |   |
| dtycycle | 0 |
| cycle | P |
| ra_targ | 0.0 |
| dec_targ | 0.0 |
| ra_nom | 158.9924131355 |
| dec_nom | -54.37690641723 |
| roll_nom | 216.74017069982 |
| revision | 4 |
| ontime | 5432.1256338954 |
| livetime | 5363.3407882856 |
| ontime0 | 2447.2025022358 |
| ontime1 | 2502.3409927487 |
| ontime2 | 2388.9459122121 |
| ontime3 | 2359.6121231019 |
| ontime6 | 2609.3773824275 |
| ontime7 | 5432.1256338954 |
| l2events | 1377870 |

# 2 OBI

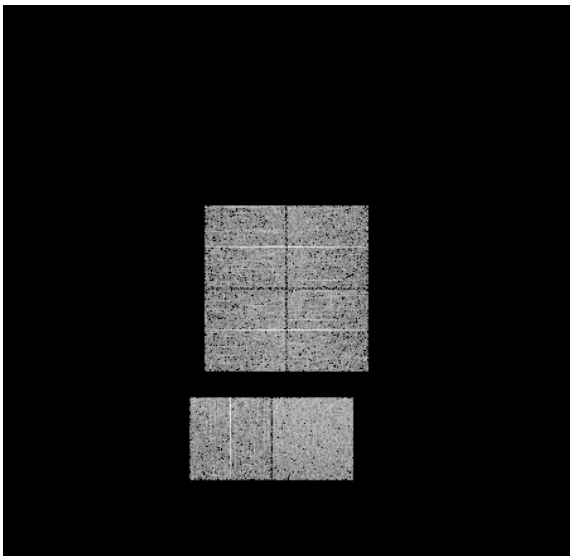
## 2.1 OBI

### 2.1.1 Images

Level 1 Image

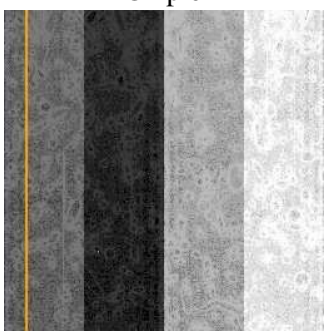


Level 1 Bad Events

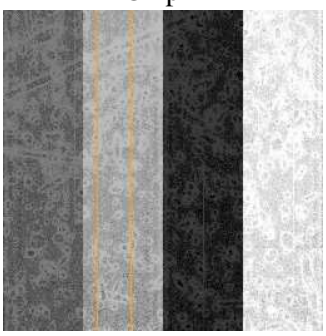


### 2.1.2 Bias

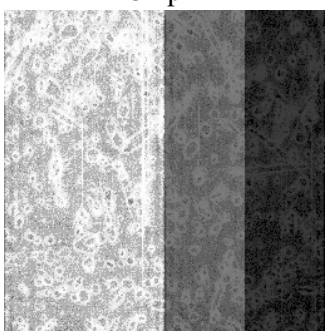
Chip 0



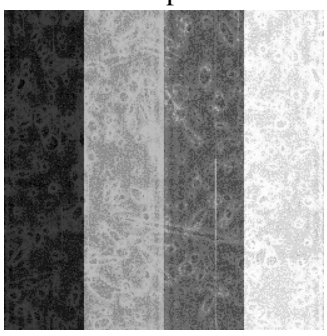
Chip 1



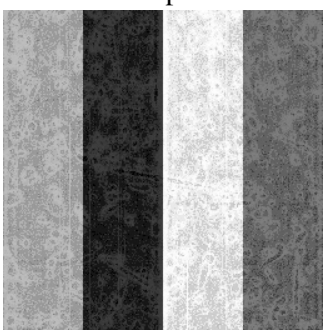
Chip 2



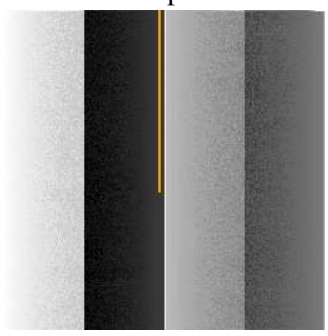
Chip 3



Chip 6



Chip 7



### 2.1.3 Parameters

| | |
|---|---|
| obi_num | 1 |
| ascdsver | 7.6.10 |
| caldbver | 3.4.0 |
| date | 2007-06-01T07:17:53 |
| revision | 4 |

| | |
|---|---|
| sched_exp_time | 0.0 |
| ontime | 5432.1256338954 |
| ontime0 | 2447.2025022358 |
| ontime1 | 2502.3409927487 |
| ontime2 | 2388.9459122121 |
| ontime3 | 2359.6121231019 |
| ontime6 | 2609.3773824275 |
| ontime7 | 5432.1256338954 |
| l1events | 1554309 |

### 2.1.4 Events

| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 |
|---|---|---|---|---|---|---|
| level 1 events | 212689 | 216981 | 210614 | 209760 | 237382 | 466883 |
| rejected events | 18406 | 18073 | 18609 | 19039 | 19662 | 24146 |
| rejected % | 8% | 8% | 8% | 9% | 8% | 5% |

| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 |
|---|---|---|---|---|---|---|
| grade 0 events | 107178 | 110463 | 107549 | 107522 | 119015 | 114720 |
| | 50% | 50% | 51% | 51% | 50% | 24% |
| grade 1 events | 578 | 513 | 540 | 511 | 558 | 297 |
| | 0% | 0% | 0% | 0% | 0% | 0% |
| grade 2 events | 34389 | 34954 | 33388 | 33388 | 38070 | 97865 |
| | 16% | 16% | 15% | 15% | 16% | 20% |
| grade 3 events | 12419 | 12406 | 12023 | 11831 | 13527 | 45590 |
| | 5% | 5% | 5% | 5% | 5% | 9% |
| grade 4 events | 12127 | 12559 | 12035 | 11799 | 13300 | 45364 |
| | 5% | 5% | 5% | 5% | 5% | 9% |
| grade 5 events | 1341 | 1459 | 1358 | 1435 | 1608 | 5730 |
| | 0% | 0% | 0% | 0% | 0% | 1% |
| grade 6 events | 28449 | 28785 | 27281 | 26459 | 34083 | 139476 |
| | 13% | 13% | 12% | 12% | 14% | 29% |
| grade 7 events | 16208 | 15842 | 16440 | 16815 | 17221 | 17841 |
| | 7% | 7% | 7% | 8% | 7% | 3% |

## 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 |
| Pointing RA | 0 | 158.9924131354952 |
| Pointing Dec | 0 | -54.3769064172299 |
| Pointing Roll | 0.0 | 216.7401706998198 |
| SIM focus pos (mm) | -0.782348 | -0.6828225247311905 |
| SIM defocus (mm) | 0 | 0.8505141146731063 |
| SIM translation stage pos (mm) | -233.592463 | 250.466033080201 |
| SIM translation stage offset (mm) | 0 | -0.01005468664627074 |
| Observation start time | 80450825.169 | 80450824.400822 |
| Observation start date | 2000-07-20T03:27:05 | 2000-07-20T03:27:04 |
| Observation end time | 80461335.52 | 80461334.751212 |
| Observation end date | 2000-07-20T06:22:16 | 2000-07-20T06:22:14 |
| Read mode | TIMED | TIMED |

| Parameter | Planned | Actual |
|---|---|---|
| Obspar format version number | 6 | 6 |
| 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 |
| Primary exposure time | 0.000000 | 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) | 2007.06.01 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 5.43212563 |

## A.2 Comments

```
Focal plane temperature is warmer than -118.7 C degrees during the first
~3 ksec of this observation. The ACIS spectral response calibration for
the front-illuminated chips is less accurate at these warmer
temperatures than it is at -119.7 C. The back-illuminated chips are not
affected at the focal plane temperatures recorded for this observation.
Users whose science objectives depend on the most accurate spectral
response (i.e. 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.
```