# V&V Reference Report
# L2 ASCDS Version : 10

Observation 53487 - L2 Version 1
Chandra X-Ray Center

L2 Processing Date : Aug 11 2013

## Contents

# 1 Front

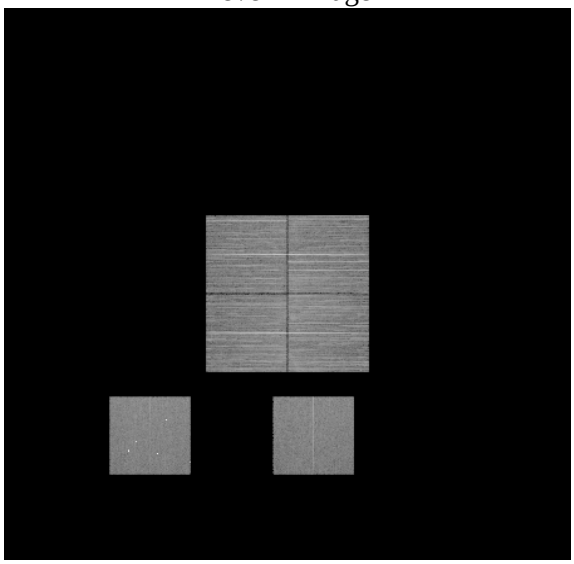
| | | |
|---|---|---|
| seq_num |   | Sequence number |
| obs_id | 53487 | Observation id |
| title | ACIS-012357 diagnostics | Proposal title |
| observer | CHANDRA engineering request/realtime commanding | Principal investig |
| object |   | Source name |
| dtycycle | 0 |   |
| cycle | P | events from 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 | 282.10345999792 | Nominal RA [deg] |
| dec_nom | -29.83486780387 | Nominal Dec [deg] |
| roll_nom | 293.86472211193 | Nominal Roll [deg] |
| revision | 1 | Processing version of data |
| ontime | 8182.3999695778 | Sum of GTIs [s] |
| livetime | 8078.7894943132 | Livetime [s] |
| ontime0 | 8182.3999695778 | Sum of GTIs [s] |
| ontime1 | 8182.3999695778 | Sum of GTIs [s] |
| ontime2 | 8182.3999695778 | Sum of GTIs [s] |
| ontime3 | 8182.3999695778 | Sum of GTIs [s] |
| ontime5 | 8182.3999695778 | Sum of GTIs [s] |
| ontime7 | 8182.3999695778 | Sum of GTIs [s] |
| l2events | 228104 | Number of level 2 events |

# 2 OBI

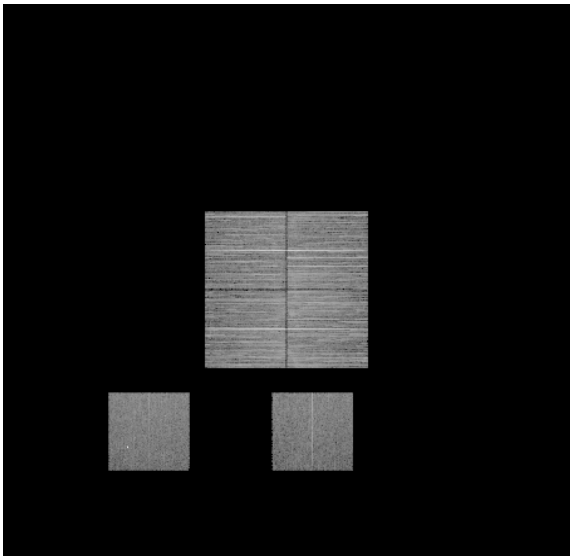
## 2.1 OBI

### 2.1.1 Images

Level 1 Image

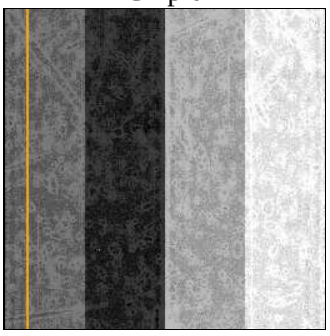


Level 1 Bad Events

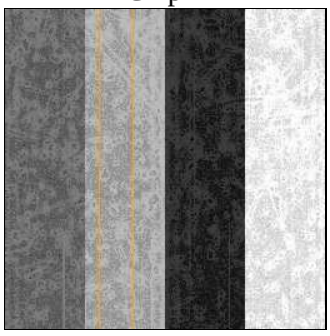


### 2.1.2 Bias

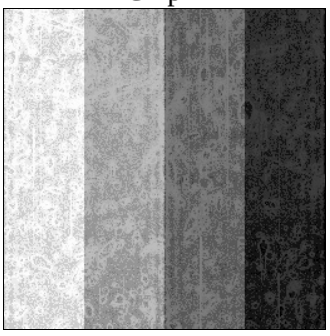
Chip 0



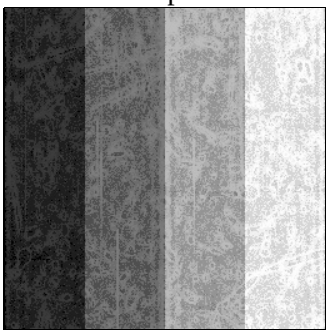
Chip 1



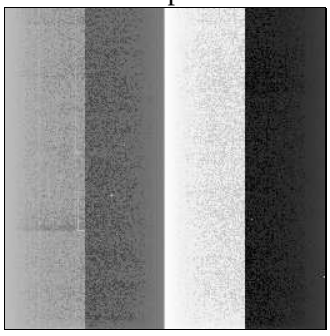
Chip 2



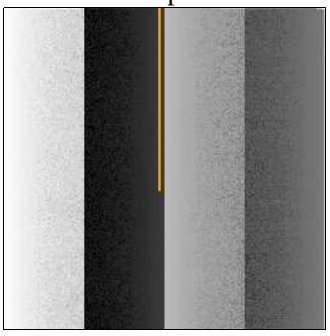
Chip 3



Chip 5



Chip 7



### 2.1.3 Parameters

| | | |
|---|---|---|
| obi_num | 0 | Obi number |
| ascdsver | 10 | Processing system revision |
| caldbver | 4.5.7 |   |
| date | 2013-08-11T12:45:49 | Date and time of file creation |
| revision | 1 | Processing version of data |

| | | |
|---|---|---|
| sched_exp_time | 0.0 | [s] Scheduled observation exposure time |
| ontime | 8182.3999695778 | Sum of GTIs [s] |
| ontime0 | 8182.3999695778 | Sum of GTIs [s] |
| ontime1 | 8182.3999695778 | Sum of GTIs [s] |
| ontime2 | 8182.3999695778 | Sum of GTIs [s] |
| ontime3 | 8182.3999695778 | Sum of GTIs [s] |
| ontime5 | 8182.3999695778 | Sum of GTIs [s] |
| ontime7 | 8182.3999695778 | Sum of GTIs [s] |
| l1events | 832005 | Number of level 1 events |

### 2.1.4 Events

| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 5 | ccd 7 |
|---|---|---|---|---|---|---|
| level 1 events | 137111 | 145802 | 141891 | 151444 | 134461 | 121296 |
| rejected events | 105593 | 114193 | 110245 | 119729 | 70643 | 65534 |
| rejected % | 77% | 78% | 77% | 79% | 52% | 54% |

| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 5 | ccd 7 |
|---|---|---|---|---|---|---|
| grade 0 events | 16115 | 15615 | 16726 | 16819 | 11238 | 8406 |
| | 11% | 10% | 11% | 11% | 8% | 6% |
| grade 1 events | 70 | 68 | 79 | 82 | 131 | 90 |
| | 0% | 0% | 0% | 0% | 0% | 0% |
| grade 2 events | 6321 | 6827 | 6188 | 6053 | 22598 | 13795 |
| | 4% | 4% | 4% | 3% | 16% | 11% |
| grade 3 events | 2239 | 2062 | 2183 | 2188 | 2158 | 4552 |
| | 1% | 1% | 1% | 1% | 1% | 3% |
| grade 4 events | 2104 | 2154 | 2188 | 2163 | 2094 | 4601 |
| | 1% | 1% | 1% | 1% | 1% | 3% |
| grade 5 events | 2726 | 2858 | 2614 | 3154 | 5723 | 7217 |
| | 1% | 1% | 1% | 2% | 4% | 5% |
| grade 6 events | 5182 | 5393 | 4786 | 4950 | 26615 | 25142 |
| | 3% | 3% | 3% | 3% | 19% | 20% |
| grade 7 events | 102354 | 110825 | 107127 | 116035 | 63904 | 57493 |
| | 74% | 76% | 75% | 76% | 47% | 47% |

## 2.2 Compared Parameters

| Parameter | Planned | Actual |
|---|---|---|
| Instrument | ACIS | ACIS |
| Detector | ACIS-012357 | ACIS-012357 |
| Grating | NONE | NONE |
| Data mode | FAINT | FAINT |
| Observation mode | SECONDARY | SECONDARY |
| [deg] Pointing RA | 0 | 282.1034599979247 |
| [deg] Pointing Dec | 0 | -29.83486780387028 |
| [deg] Pointing Roll | 0.0 | 293.8647221119259 |
| SIM focus pos (mm) | -1.4281808131 | -1.4281808131 |
| [mm] SIM defocus | 0.1051557500557434 | 0.1051557500557434 |
| SIM translation stage pos (mm) | 250.4635187649 | 250.4635187649 |
| [mm] SIM translation stage offset | -0.007542945905271381 | -0.007542945905271381 |
| [s] Observation start time (MET) | 492582463.168832 | 492582463.168832 |
| Observation start date | 2013-08-11T04:27:43 | 2013-08-11T04:27:43 |
| [s] Observation end time (MET) | 492592008.414993 | 492592008.414993 |
| Observation end date | 2013-08-11T07:06:48 | 2013-08-11T07:06:48 |
| Read mode | TIMED | TIMED |

| Parameter | Planned | Actual |
|---|---|---|
| Obspar format version number | 7 | 7 |
| Obspar file type | PREDICTED | ACTUAL |
| Obspar update status | OVERRIDE | OVERRIDE |
| Number of optional ACIS chips dropped | 0 | 0 |
| 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) | 2013.08.11 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 8.1823999695778 |

## A.2 Comments