# V&V Reference Report
# L2 ASCDS Version : 8.4.5

Observation 56277 - L2 Version 2
Chandra X-Ray Center

L2 Processing Date : Jun 25 2012

## Contents

# 1 Front

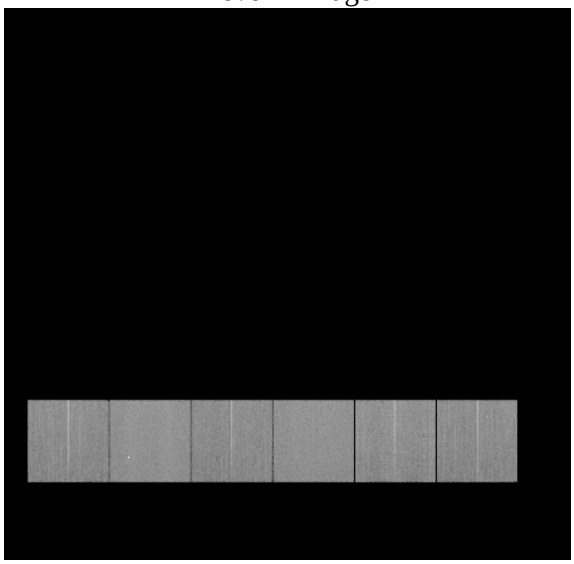
| | | |
|---|---|---|
| seq_num |   | Sequence number |
| obs_id | 56277 | Observation id |
| title | ACIS-456789 diagnostics | Proposal title |
| observer | CHANDRA engineering request/realtime commanding | Principal investig |
| object |   | Source name |
| dtycycle | 0 |   |
| cycle | P | events from 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 | 55.072448843727 | Nominal RA [deg] |
| dec_nom | 68.009254245368 | Nominal Dec [deg] |
| roll_nom | 345.96555525865 | Nominal Roll [deg] |
| revision | 2 | Processing version of data |
| ontime | 8447.9999685884 | Sum of GTIs [s] |
| livetime | 8341.0263062112 | Livetime [s] |
| ontime4 | 8444.7590082884 | Sum of GTIs [s] |
| ontime5 | 8447.9999685884 | Sum of GTIs [s] |
| ontime6 | 8447.9999685884 | Sum of GTIs [s] |
| ontime7 | 8447.9999685884 | Sum of GTIs [s] |
| ontime8 | 8447.9999685884 | Sum of GTIs [s] |
| ontime9 | 8444.7590082884 | Sum of GTIs [s] |
| l2events | 444449 | Number of level 2 events |

# 2 OBI

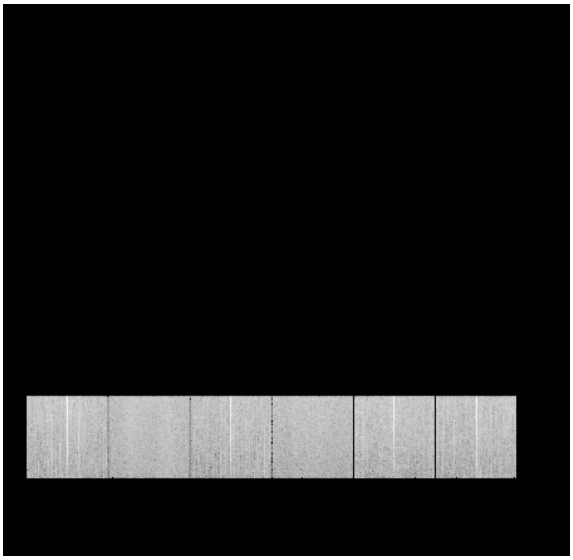
## 2.1 OBI

### 2.1.1 Images

Level 1 Image

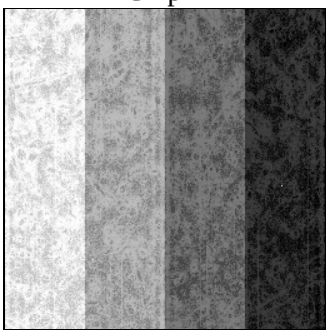


Level 1 Bad Events

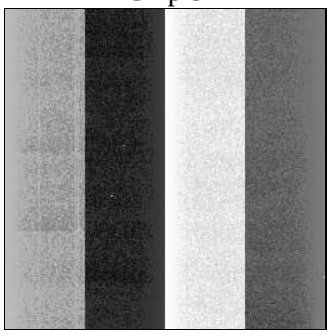


### 2.1.2 Bias

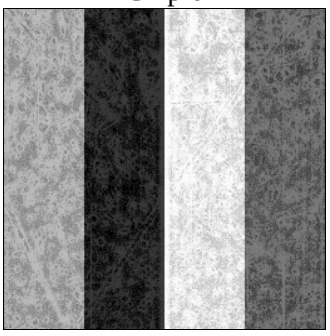
Chip 4



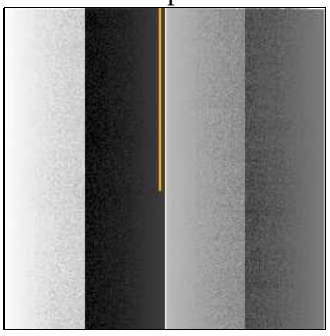
Chip 5



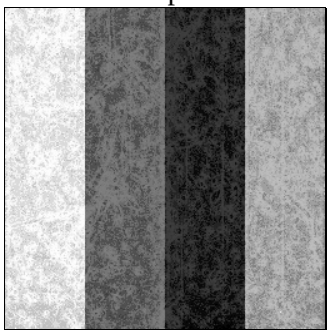
Chip 6



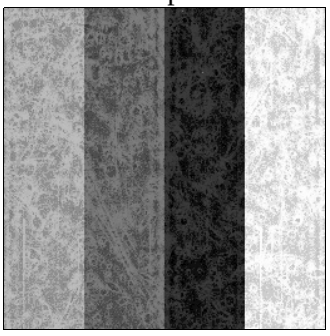
Chip 7



Chip 8



Chip 9



### 2.1.3 Parameters

| | | |
|---|---|---|
| obi_num | 0 | Obi number |
| ascdsver | 8.4.5 | Processing system revision |
| caldbver | 4.4.10 |   |
| date | 2012-06-25T11:31:07 | Date and time of file creation |
| revision | 2 | Processing version of data |

| | | |
|---|---|---|
| sched_exp_time | 0.0 | [s] Scheduled observation exposure time |
| ontime | 8447.9999685884 | Sum of GTIs [s] |
| ontime4 | 8444.7590082884 | Sum of GTIs [s] |
| ontime5 | 8447.9999685884 | Sum of GTIs [s] |
| ontime6 | 8447.9999685884 | Sum of GTIs [s] |
| ontime7 | 8447.9999685884 | Sum of GTIs [s] |
| ontime8 | 8447.9999685884 | Sum of GTIs [s] |
| ontime9 | 8444.7590082884 | Sum of GTIs [s] |
| l1events | 934599 | Number of level 1 events |

### 2.1.4 Events

| | ccd 4 | ccd 5 | ccd 6 | ccd 7 | ccd 8 | ccd 9 |
|---|---|---|---|---|---|---|
| level 1 events | 146123 | 174129 | 141135 | 167981 | 161080 | 144151 |
| rejected events | 81577 | 71807 | 72848 | 67795 | 79481 | 77275 |
| rejected % | 55% | 41% | 51% | 40% | 49% | 53% |

| | ccd 4 | ccd 5 | ccd 6 | ccd 7 | ccd 8 | ccd 9 |
|---|---|---|---|---|---|---|
| grade 0 events | 36979 | 11070 | 32706 | 16999 | 39366 | 34859 |
| | 25% | 6% | 23% | 10% | 24% | 24% |
| grade 1 events | 358 | 206 | 195 | 170 | 283 | 227 |
| | 0% | 0% | 0% | 0% | 0% | 0% |
| grade 2 events | 9829 | 37547 | 15401 | 22410 | 16055 | 12357 |
| | 6% | 21% | 10% | 13% | 9% | 8% |
| grade 3 events | 4694 | 3926 | 4042 | 8488 | 5730 | 4311 |
| | 3% | 2% | 2% | 5% | 3% | 2% |
| grade 4 events | 4483 | 4105 | 4038 | 8429 | 5691 | 4333 |
| | 3% | 2% | 2% | 5% | 3% | 3% |
| grade 5 events | 3992 | 8028 | 3898 | 9932 | 5245 | 4470 |
| | 2% | 4% | 2% | 5% | 3% | 3% |
| grade 6 events | 8581 | 45696 | 12127 | 43944 | 14846 | 11078 |
| | 5% | 26% | 8% | 26% | 9% | 7% |
| grade 7 events | 77207 | 63551 | 68728 | 57609 | 73864 | 72516 |
| | 52% | 36% | 48% | 34% | 45% | 50% |

## 2.2 Compared Parameters

| Parameter | Planned | Actual |
|---|---|---|
| Instrument | ACIS | ACIS |
| Detector | ACIS-456789 | ACIS-456789 |
| Grating | NONE | NONE |
| Data mode | FAINT | FAINT |
| Observation mode | SECONDARY | SECONDARY |
| [deg] Pointing RA | 0 | 55.07244884372673 |
| [deg] Pointing Dec | 0 | 68.00925424536842 |
| [deg] Pointing Roll | 0.0 | 345.9655552586528 |
| [mm] SIM focus pos | -1.429586 | -0.6828225247311905 |
| [mm] SIM defocus | 0.1037507710433287 | 0.8505141146731063 |
| [mm] SIM translation stage pos | 250.455976 | 250.466033080201 |
| [mm] SIM translation stage offset | 0 | -0.01005468664627074 |
| [s] Observation start time (MET) | 389568341.900927 | 389568340.87594 |
| Observation start date | 2010-05-06T21:25:42 | 2010-05-06T21:25:40 |
| [s] Observation end time (MET) | 389578520.151445 | 389578519.12645 |
| Observation end date | 2010-05-07T00:15:20 | 2010-05-07T00:15:19 |
| Read mode | TIMED | TIMED |

| Parameter | Planned | Actual |
|---|---|---|
| Obspar format version number | 7 | 7 |
| Obspar file type | PREDICTED | ACTUAL |
| Obspar update status | NONE | UPDATED |
| 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) | 2012.07.02 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 8.4479999685884 |

## A.2 Comments