

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 53870 - L2 Version 1
Chandra X-Ray Center

L2 Processing Date : Mar 13 2013

Contents

| | | |
|----------|-------------------------------|----------|
| 1 | Front | 2 |
| 2 | OBI | 3 |
| 2.1 | OBI | 3 |
| 2.1.1 | Images | 3 |
| 2.1.2 | Bias | 3 |
| 2.1.3 | Parameters | 4 |
| 2.1.4 | Events | 4 |
| 2.2 | Compared Parameters | 5 |
| 2.3 | Star Slots | 6 |
| 2.4 | FID Slots | 6 |
| A | Summary | 7 |
| A.1 | Status | 7 |
| A.2 | Comments | 7 |

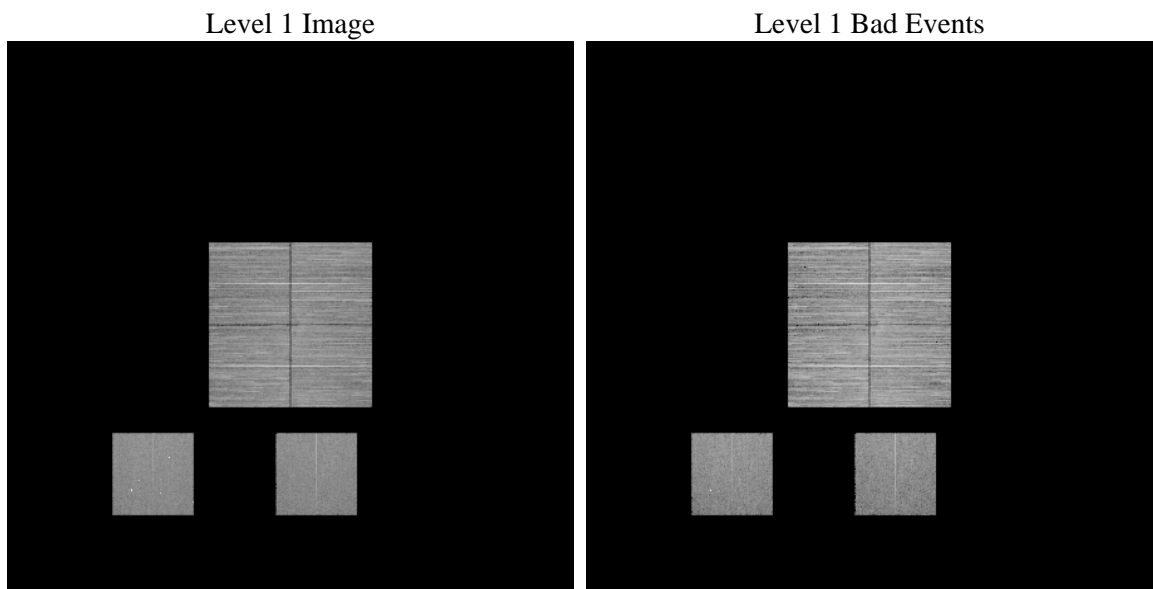
1 Front

| | | |
|----------|---|---|
| seq_num | | Sequence number |
| obs_id | 53870 | Observation id |
| title | ACIS-012357 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 [deg] |
| dec_targ | 0.0 | Observer's specified target Dec [deg] |
| ra_nom | 164.86621747261 | Nominal RA [deg] |
| dec_nom | 36.210161642371 | Nominal Dec [deg] |
| roll_nom | 197.7359644971 | Nominal Roll [deg] |
| revision | 1 | Processing version of data |
| ontime | 8251.8574272394 | Sum of GTIs [s] |
| livetime | 8147.3674398237 | Livetime [s] |
| ontime0 | 8251.8163872361 | Sum of GTIs [s] |
| ontime1 | 8251.7753472328 | Sum of GTIs [s] |
| ontime2 | 8251.7343072295 | Sum of GTIs [s] |
| ontime3 | 8251.8984672427 | Sum of GTIs [s] |
| ontime5 | 8251.6932672262 | Sum of GTIs [s] |
| ontime7 | 8251.8574272394 | Sum of GTIs [s] |
| l2events | 253915 | Number of level 2 events |

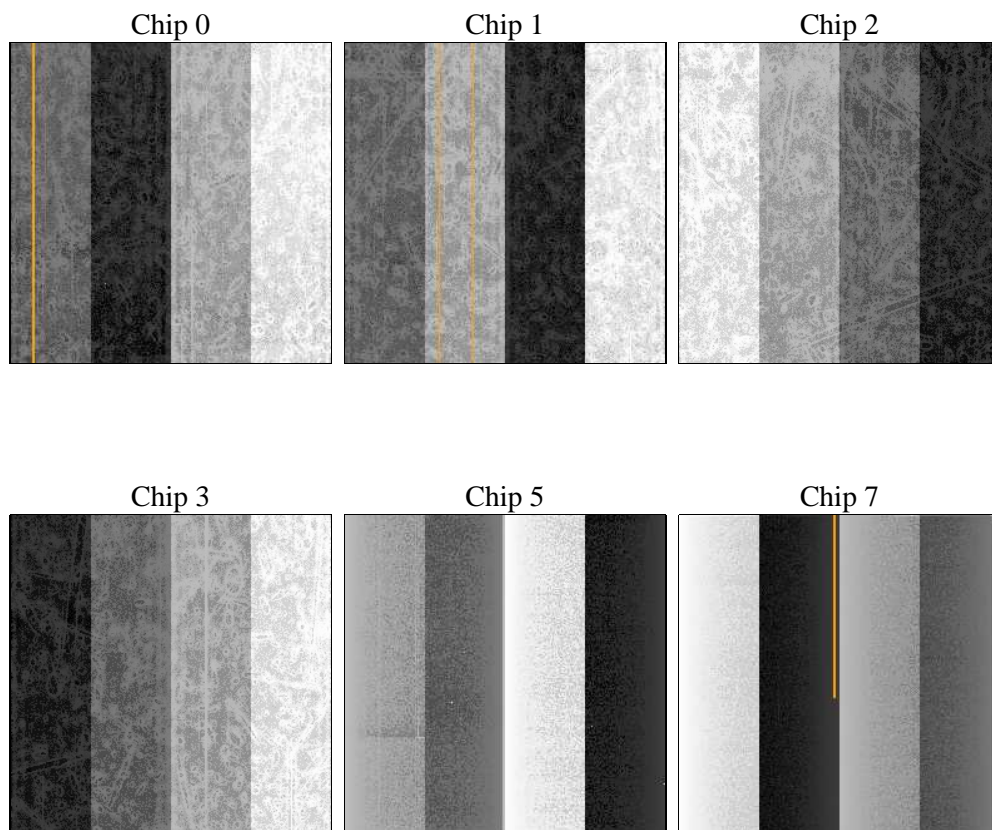
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 0.0 | [s] Scheduled observation exposure time |
| ascdsver | 8.5.1.1 | Processing system revision | ontime | 8251.8574272394 | Sum of GTIs [s] |
| caldsver | 4.5.6 | | ontime0 | 8251.8163872361 | Sum of GTIs [s] |
| date | 2013-03-13T21:27:53 | Date and time of file creation | ontime1 | 8251.7753472328 | Sum of GTIs [s] |
| revision | 1 | Processing version of data | ontime2 | 8251.7343072295 | Sum of GTIs [s] |
| | | | ontime3 | 8251.8984672427 | Sum of GTIs [s] |
| | | | ontime5 | 8251.6932672262 | Sum of GTIs [s] |
| | | | ontime7 | 8251.8574272394 | Sum of GTIs [s] |
| | | | l1events | 958395 | Number of level 1 events |

2.1.4 Events

| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 5 | ccd 7 | | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 5 | ccd 7 |
|-----------------|--------|--------|--------|--------|--------|--------|----------------|--------|--------|--------|--------|-------|-------|
| level 1 events | 154903 | 174856 | 171511 | 171880 | 148099 | 137146 | grade 0 events | 17593 | 17016 | 18084 | 18205 | 8915 | 9434 |
| rejected events | 120478 | 140335 | 137159 | 137364 | 79071 | 73765 | | 11% | 9% | 10% | 10% | 6% | 6% |
| rejected % | 77% | 80% | 79% | 79% | 53% | 53% | grade 1 events | 101 | 86 | 111 | 98 | 205 | 97 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 6763 | 7226 | 6563 | 6507 | 25355 | 15720 |
| | | | | | | | | 4% | 4% | 3% | 3% | 17% | 11% |
| | | | | | | | grade 3 events | 2414 | 2250 | 2267 | 2339 | 2522 | 5344 |
| | | | | | | | | 1% | 1% | 1% | 1% | 1% | 3% |
| | | | | | | | grade 4 events | 2319 | 2364 | 2351 | 2414 | 2442 | 5325 |
| | | | | | | | | 1% | 1% | 1% | 1% | 1% | 3% |
| | | | | | | | grade 5 events | 3324 | 3387 | 2953 | 3481 | 7117 | 8527 |
| | | | | | | | | 2% | 1% | 1% | 2% | 4% | 6% |
| | | | | | | | grade 6 events | 5487 | 5806 | 5226 | 5198 | 30072 | 27829 |
| | | | | | | | | 3% | 3% | 3% | 3% | 20% | 20% |
| | | | | | | | grade 7 events | 116902 | 136721 | 133956 | 133638 | 71471 | 64870 |
| | | | | | | | | 75% | 78% | 78% | 77% | 48% | 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 | 164.8662174726059 |
| [deg] Pointing Dec | 0 | 36.21016164237111 |
| [deg] Pointing Roll | 0.0 | 197.7359644970997 |
| SIM focus pos (mm) | -1.4281808131 | -1.4281808131 |
| [mm] SIM defocus | 0.1051557500557434 | 0.1051557500557434 |
| SIM translation stage pos (mm) | 250.4660330802 | 250.4660330802 |
| [mm] SIM translation stage offset | -0.01005726120527584 | -0.01005726120527584 |
| [s] Observation start time (MET) | 479557350.812032 | 479557350.812032 |
| Observation start date | 2013-03-13T10:22:31 | 2013-03-13T10:22:30 |
| [s] Observation end time (MET) | 479567413.453346 | 479567413.453346 |
| Observation end date | 2013-03-13T13:10:13 | 2013-03-13T13:10:13 |
| 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 | Joy Nichols |
| V&V Date (YYYY-MM-DD) | 2013.03.14 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 8.2518574272394 |

A.2 Comments