

# V&V Reference Report

## L2 ASCDS Version : 8.1.1

Observation 62333 - L2 Version 4

Chandra X-Ray Center

L2 Processing Date : Nov 20 2009

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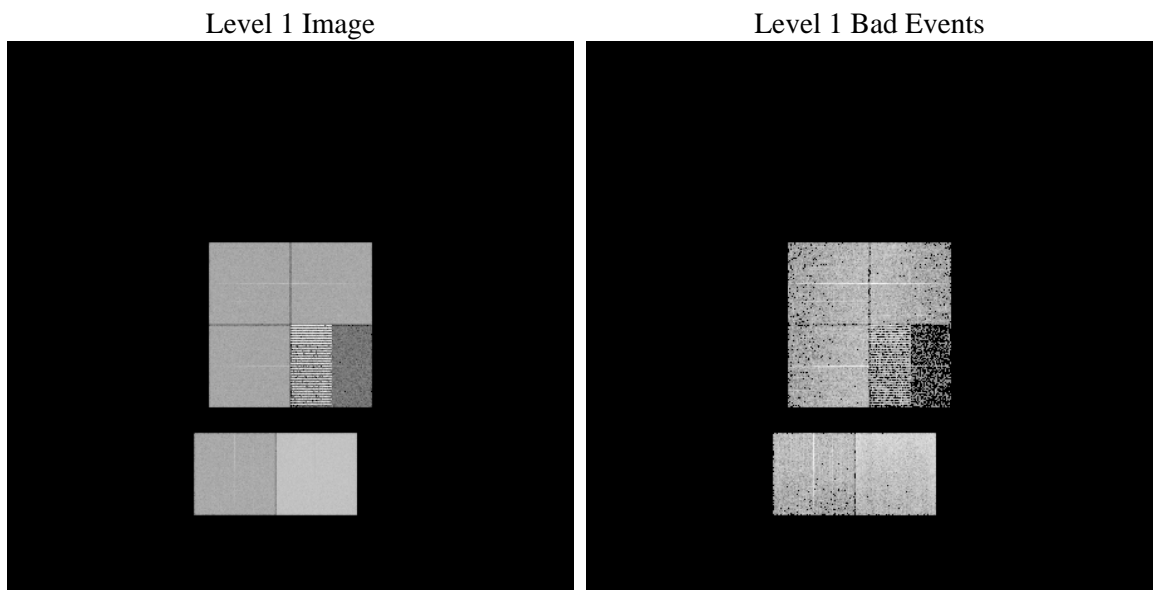
# 1 Front

seq_num	&#160	Sequence number
obs_id	62333	Observation id
title	ACIS-012367 diagnostics	Proposal title
observer	CHANDRA engineering request/realtime commanding	Principal investig
object	&#160	Source name
dtcycle	0	&#160
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	101.30098361939	Nominal RA
dec_nom	-16.694618181823	Nominal Dec
roll_nom	70.584051902017	Nominal Roll
revision	4	Processing version of data
ontime	4277.9017767236	Sum of GTIs [s]
livetime	4223.7324085835	Livetime [s]
ontime0	1646.4473656341	Sum of GTIs [s]
ontime1	1688.5809355825	Sum of GTIs [s]
ontime2	1594.5907754004	Sum of GTIs [s]
ontime3	278.72944054008	Sum of GTIs [s]
ontime6	1766.3658458665	Sum of GTIs [s]
ontime7	4277.9017767236	Sum of GTIs [s]
l2events	1014026	Number of level 2 events

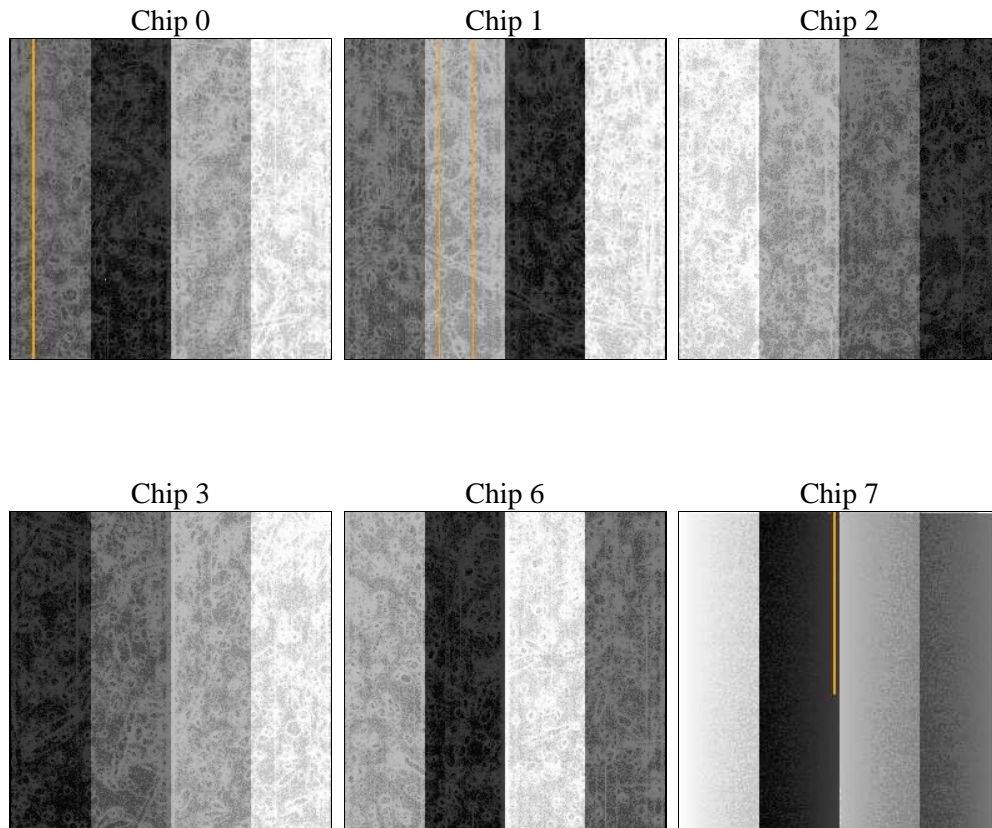
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	<table><tr><td>sched_exp_time</td><td>0.0</td><td>Scheduled observation exposure time</td></tr><tr><td>ontime</td><td>4277.9017767236</td><td>Sum of GTIs [s]</td></tr><tr><td>ontime0</td><td>1646.4473656341</td><td>Sum of GTIs [s]</td></tr><tr><td>ontime1</td><td>1688.5809355825</td><td>Sum of GTIs [s]</td></tr><tr><td>ontime2</td><td>1594.5907754004</td><td>Sum of GTIs [s]</td></tr><tr><td>ontime3</td><td>278.72944054008</td><td>Sum of GTIs [s]</td></tr><tr><td>ontime6</td><td>1766.3658458665</td><td>Sum of GTIs [s]</td></tr><tr><td>ontime7</td><td>4277.9017767236</td><td>Sum of GTIs [s]</td></tr><tr><td>l1events</td><td>1482628</td><td>Number of level 1 events</td></tr></table>	sched_exp_time	0.0	Scheduled observation exposure time	ontime	4277.9017767236	Sum of GTIs [s]	ontime0	1646.4473656341	Sum of GTIs [s]	ontime1	1688.5809355825	Sum of GTIs [s]	ontime2	1594.5907754004	Sum of GTIs [s]	ontime3	278.72944054008	Sum of GTIs [s]	ontime6	1766.3658458665	Sum of GTIs [s]	ontime7	4277.9017767236	Sum of GTIs [s]	l1events	1482628	Number of level 1 events
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ontime6	1766.3658458665	Sum of GTIs [s]																												
ontime7	4277.9017767236	Sum of GTIs [s]																												
l1events	1482628	Number of level 1 events																												
ascdsver	8.1.1	ASCDS version number																												
caldsver	4.1.4	&#160																												
date	2009-11-20T20:34:53	Date and time of file creation																												
revision	3	Processing version of data																												

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	170382	174486	165765	329898	188480	453617
rejected events	23101	23068	23855	16038	27709	42953
rejected %	13%	13%	14%	4%	14%	9%

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	56438	56916	46161	299322	45608	74910
	33%	32%	27%	90%	24%	16%
grade 1 events	228	216	176	1468	185	202
	0%	0%	0%	0%	0%	0%
grade 2 events	53313	55962	60741	7933	74367	115056
	31%	32%	36%	2%	39%	25%
grade 3 events	6077	6193	4919	1349	4574	35511
	3%	3%	2%	0%	2%	7%
grade 4 events	6021	6136	4841	1241	4633	32034
	3%	3%	2%	0%	2%	7%
grade 5 events	1414	1525	1353	1905	1591	6360
	0%	0%	0%	0%	0%	1%
grade 6 events	25432	26211	25248	4015	31589	153153
	14%	15%	15%	1%	16%	33%
grade 7 events	21459	21327	22326	12665	25933	36391
	12%	12%	13%	3%	13%	8%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-012367	ACIS-012367	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	101.300983619392	Alternating exposures requested	N	N
Pointing Dec	0	-16.69461818182283	Primary exposure time	0.000000	3.2
Pointing Roll	0.0	70.5840519020166			
SIM focus pos (mm)	-0.782348	-1.508139491973113			
SIM defocus (mm)	0	0.02519714743118384			
SIM translation stage pos (mm)	-233.592463	250.466033080201			
SIM translation stage offset (mm)	0	-0.01005468664627074			
Observation start time	57559064.679	57559063.911019			
Observation start date	1999-10-29T04:37:45	1999-10-29T04:37:43			
Observation end time	57603225.781	57603225.012613			
Observation end date	1999-10-29T16:53:46	1999-10-29T16:53:45			
Read mode	TIMED	TIMED			

## 2.3 Star Slots

## 2.4 FID Slots

# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2010.08.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.2779017767236

## A.2 Comments

The front-end processor designated FEP0 suffered from a rare problem.

As a result, the top half of the bias-map for CCD\_ID I3 (the CCD associated with FEP0) was corrupted for part of the observation and

many invalid events were telemetered for this region. The standard pipeline processing tools identify the problem and remove the spurious

events from the Level 2 event file during the interval in question.

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The focal plane temperature is approximately -110 C during this observation. This reprocessing of the data applies no CTI correction because none is available for this temperature at present.

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.