

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 57022 - L2 Version 3  
Chandra X-Ray Center

L2 Processing Date : Jun 25 2012

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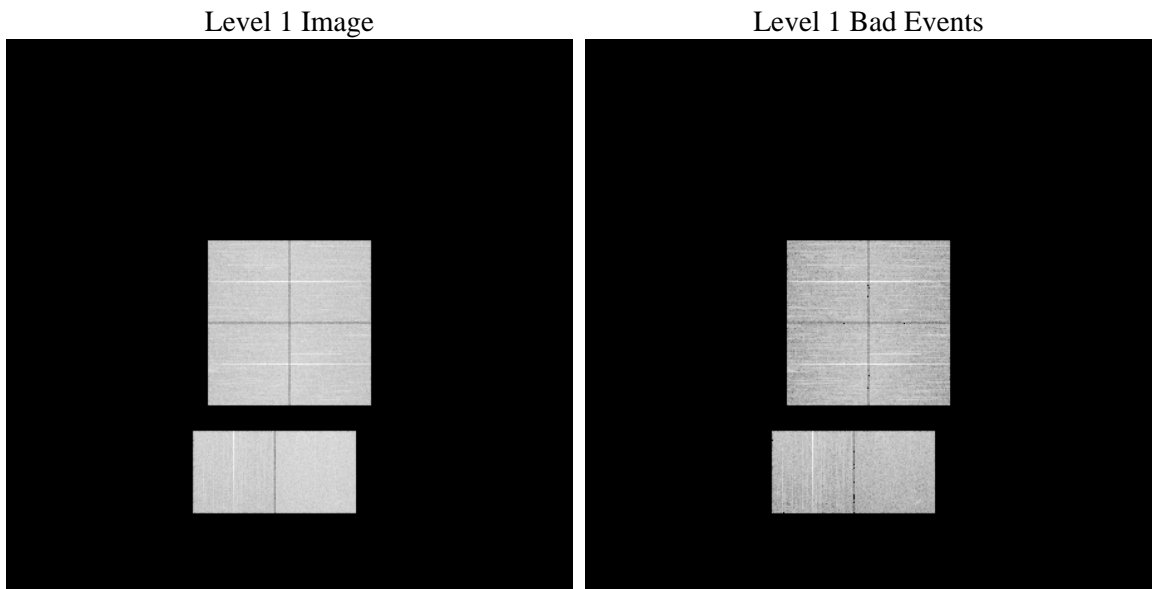
# 1 Front

seq_num	&#160	Sequence number
obs_id	57022	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 [deg]
dec_targ	0.0	Observer's specified target Dec [deg]
ra_nom	131.49353145432	Nominal RA [deg]
dec_nom	-21.028010678098	Nominal Dec [deg]
roll_nom	224.99471458406	Nominal Roll [deg]
revision	3	Processing version of data
ontime	8446.8449630737	Sum of GTIs [s]
livetime	8339.8859260719	Livetime [s]
ontime0	8446.8039230704	Sum of GTIs [s]
ontime1	8446.7628830671	Sum of GTIs [s]
ontime2	8446.7218430638	Sum of GTIs [s]
ontime3	8446.886003077	Sum of GTIs [s]
ontime6	8446.6808030605	Sum of GTIs [s]
ontime7	8446.8449630737	Sum of GTIs [s]
l2events	485607	Number of level 2 events

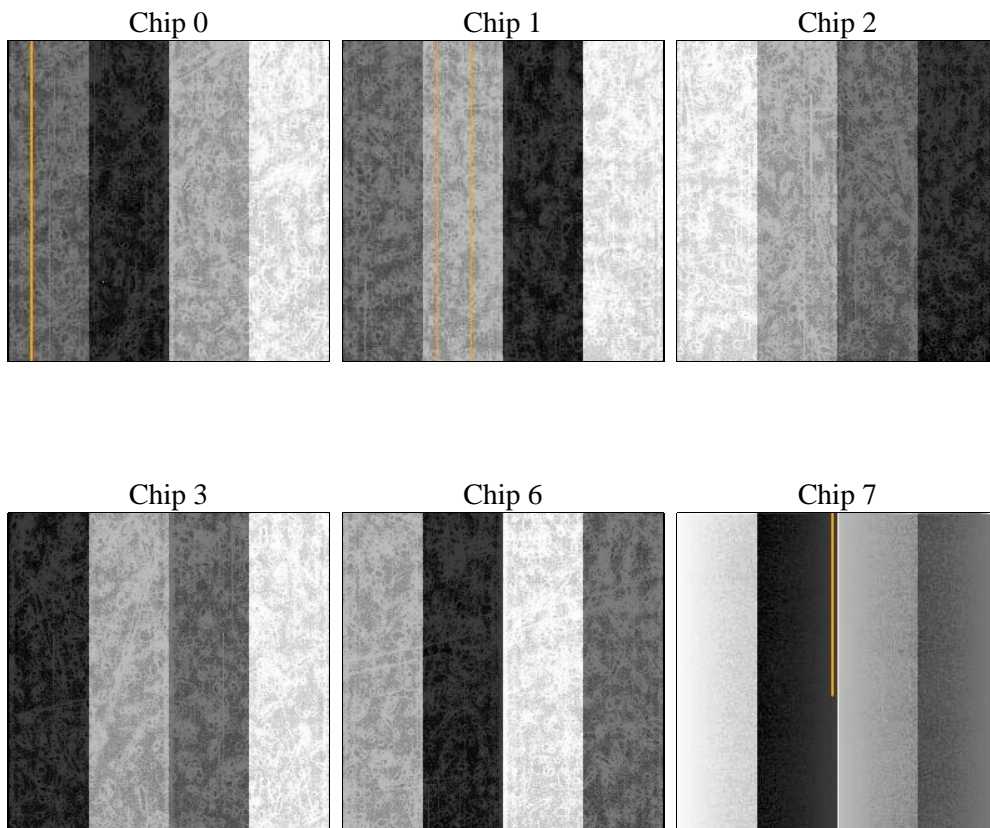
## 2 OBI

### 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	8.4.5	Processing system revision	ontime	8446.8449630737	Sum of GTIs [s]
caldsver	4.4.10	&#160	ontime0	8446.8039230704	Sum of GTIs [s]
date	2012-06-25T18:14:33	Date and time of file creation	ontime1	8446.7628830671	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	8446.7218430638	Sum of GTIs [s]
			ontime3	8446.886003077	Sum of GTIs [s]
			ontime6	8446.6808030605	Sum of GTIs [s]
			ontime7	8446.8449630737	Sum of GTIs [s]
			l1events	979208	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	155053	154254	158420	161002	159508	190971	grade 0 events	41578	41176	43099	43354	42024	21178
rejected events	76987	75138	79987	81700	78548	73511		26%	26%	27%	26%	26%	11%
rejected %	49%	48%	50%	50%	49%	38%	grade 1 events	325	270	397	369	283	167
								0%	0%	0%	0%	0%	0%
							grade 2 events	14128	15153	13277	13467	14894	25626
								9%	9%	8%	8%	9%	13%
							grade 3 events	5293	5159	5337	5550	5117	10539
								3%	3%	3%	3%	3%	5%
							grade 4 events	5248	5218	5282	5423	5211	10391
								3%	3%	3%	3%	3%	5%
							grade 5 events	3974	4226	3887	4539	4495	11440
								2%	2%	2%	2%	2%	5%
							grade 6 events	11850	12437	11473	11532	13739	49767
								7%	8%	7%	7%	8%	26%
							grade 7 events	72657	70615	75668	76768	73745	61863
								46%	45%	47%	47%	46%	32%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	SECONDARY	SECONDARY	On-chip summing requested	N	N
[deg] Pointing RA	0	131.4935314543151	Subarray requested	NONE	NONE
[deg] Pointing Dec	0	-21.02801067809812	Alternating exposures requested	N	N
[deg] Pointing Roll	0.0	224.9947145840583	[s] Primary exposure time	3.2	3.2
[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)	361927675.956886	361927674.93188			
Observation start date	2009-06-20T23:27:56	2009-06-20T23:27:54			
[s] Observation end time (MET)	361937856.257395	361937855.23239			
Observation end date	2009-06-21T02:17:36	2009-06-21T02:17:35			
Read mode	TIMED	TIMED			

## **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	8.4468449630737

## A.2 Comments

A spatial region of the original bias map for CCD = 1 suffered from anomalously high data values. Pixels in the event data that were bias-corrected by one of the original affected bias pixels may have an apparent energy shift. While the change in energy is expected to be small ( $\sim 20$  eV), it depends on many parameters that have not yet been fully explored for this bias anomaly. The bias map for CCD = 1 has been reconstructed for this processing to remove this anomaly using scaled data from a comparable bias map from another observation. The pixels affected by the anomaly are bounded by chip coords:  
(274,1),(302,1),(302,278),(274,306)