

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 54743 - L2 Version 2  
Chandra X-Ray Center

L2 Processing Date : Apr 12 2012

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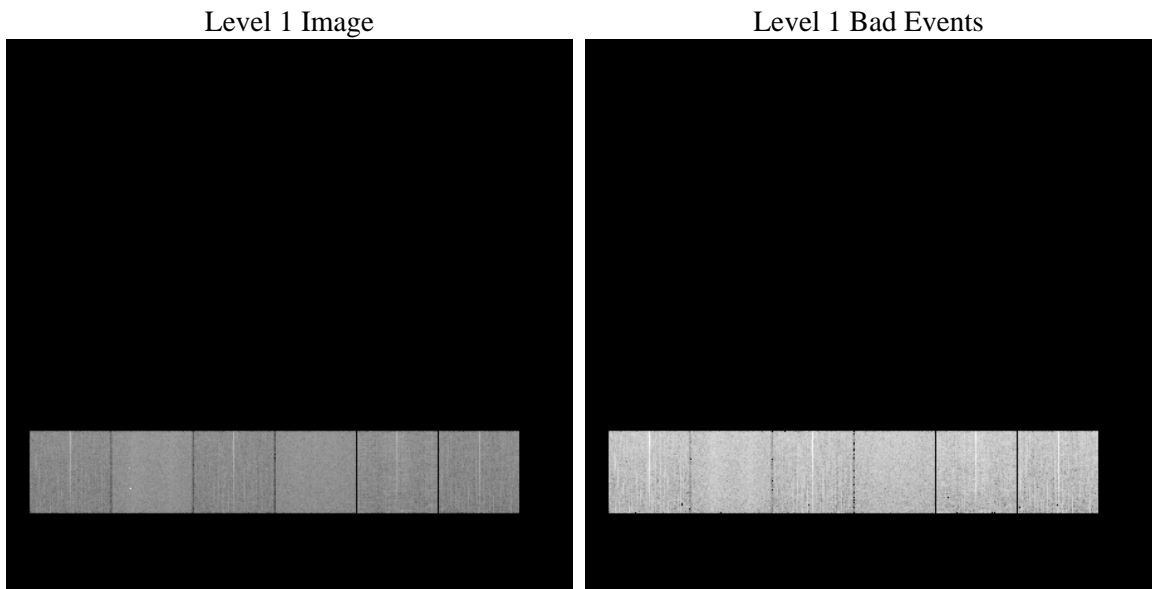
# 1 Front

seq_num	&#160	Sequence number
obs_id	54743	Observation id
title	ACIS-456789 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	169.81856236125	Nominal RA [deg]
dec_nom	-24.898779766448	Nominal Dec [deg]
roll_nom	317.01102626104	Nominal Roll [deg]
revision	2	Processing version of data
ontime	8163.1999696493	Sum of GTIs [s]
livetime	8059.8326163447	Livetime [s]
ontime4	8059.4881656766	Sum of GTIs [s]
ontime5	8163.1999696493	Sum of GTIs [s]
ontime6	8056.2471256852	Sum of GTIs [s]
ontime7	8163.1999696493	Sum of GTIs [s]
ontime8	8056.24713552	Sum of GTIs [s]
ontime9	8053.0060856938	Sum of GTIs [s]
l2events	275689	Number of level 2 events

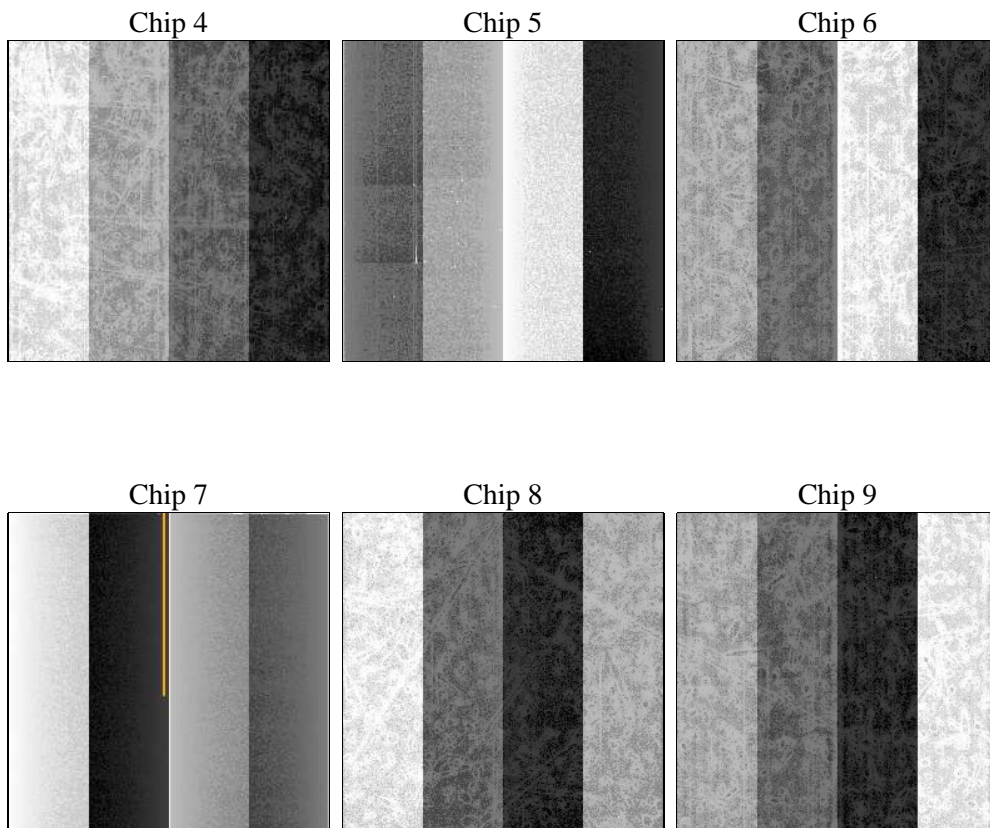
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	0.0	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	8163.1999696493	Sum of GTIs [s]
caldsver	4.4.9	&#160	ontime4	8059.4881656766	Sum of GTIs [s]
date	2012-04-12T20:07:15	Date and time of file creation	ontime5	8163.1999696493	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	8056.2471256852	Sum of GTIs [s]
			ontime7	8163.1999696493	Sum of GTIs [s]
			ontime8	8056.24713552	Sum of GTIs [s]
			ontime9	8053.0060856938	Sum of GTIs [s]
			l1events	654829	Number of level 1 events

### 2.1.4 Events

	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	95622	131073	97532	122086	111726	96790	grade 0 events	21659	6131	16726	9952	22325	18939
rejected events	57954	60830	57342	56755	62255	57999		22%	4%	17%	8%	19%	19%
rejected %	60%	46%	58%	46%	55%	59%	grade 1 events	184	150	78	88	93	90
								0%	0%	0%	0%	0%	0%
							grade 2 events	5950	25286	12271	14605	11291	8628
								6%	19%	12%	11%	10%	8%
							grade 3 events	2836	2841	2042	5493	3485	2435
								2%	2%	2%	4%	3%	2%
							grade 4 events	2713	2842	2041	5162	3395	2403
								2%	2%	2%	4%	3%	2%
							grade 5 events	3050	6044	2893	7789	3873	3297
								3%	4%	2%	6%	3%	3%
							grade 6 events	5084	34190	7721	31077	9645	6933
								5%	26%	7%	25%	8%	7%
							grade 7 events	54146	53589	53760	47920	57619	54065
								56%	40%	55%	39%	51%	55%

## 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	169.8185623612538
[deg] Pointing Dec	0	-24.89877976644757
[deg] Pointing Roll	0.0	317.0110262610397
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)	449426300.576462	449426300.576462
Observation start date	2012-03-29T16:38:21	2012-03-29T16:38:20
[s] Observation end time (MET)	449436117.689862	449436117.689862
Observation end date	2012-03-29T19:21:58	2012-03-29T19:21:57
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)	2012.04.17
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	8.1631999696493

## A.2 Comments

A spatial region of the original bias map for CCD = 6 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 = 6 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 the chip coords:  
(303,1),(327,1),(327,225),(303,225)