

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 57272 - L2 Version 3  
Chandra X-Ray Center

L2 Processing Date : May 31 2012

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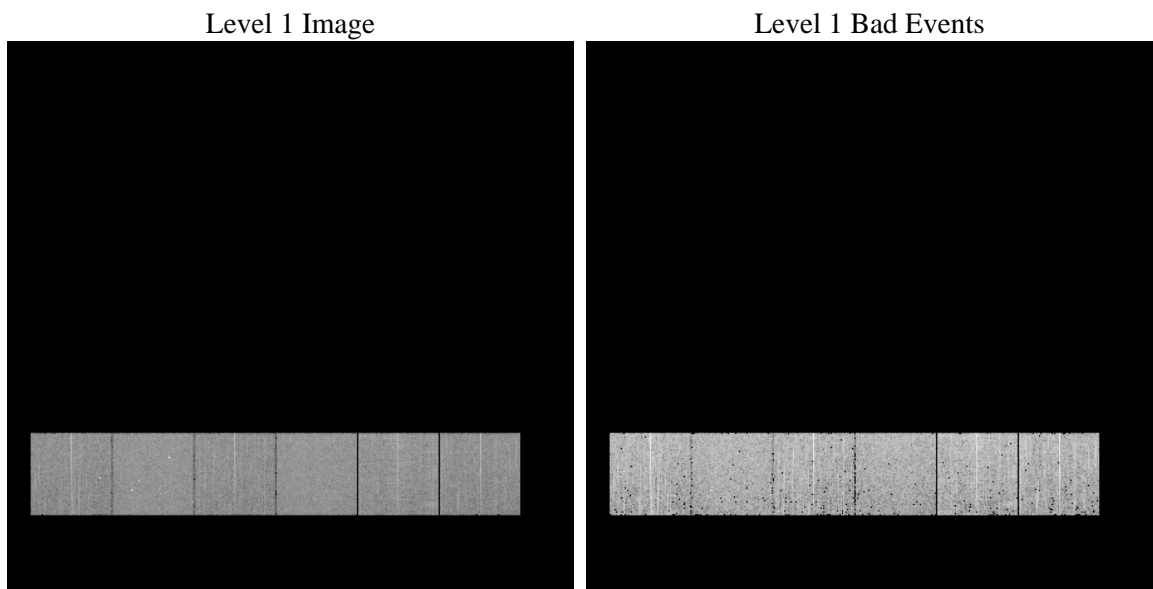
# 1 Front

seq_num	&#160	Sequence number
obs_id	57272	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	151.02808565133	Nominal RA [deg]
dec_nom	-13.991310453436	Nominal Dec [deg]
roll_nom	344.70596331283	Nominal Roll [deg]
revision	3	Processing version of data
ontime	3270.3999878764	Sum of GTIs [s]
livetime	3228.9882140315	Livetime [s]
ontime4	3270.3999878764	Sum of GTIs [s]
ontime5	3270.3999878764	Sum of GTIs [s]
ontime6	3270.3999878764	Sum of GTIs [s]
ontime7	3270.3999878764	Sum of GTIs [s]
ontime8	3270.3999878764	Sum of GTIs [s]
ontime9	3270.3999878764	Sum of GTIs [s]
l2events	232518	Number of level 2 events

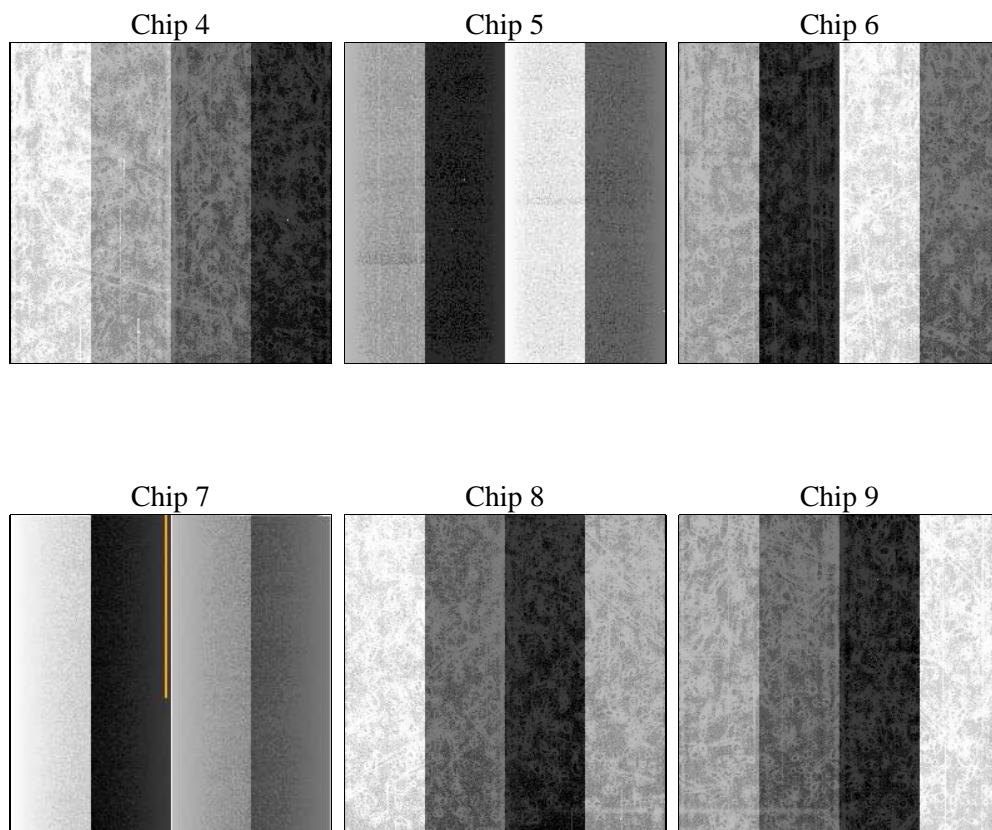
## 2 OBI

### 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	8.4.4	Processing system revision	ontime	3270.3999878764	Sum of GTIs [s]
caldbver	4.4.9	&#160	ontime4	3270.3999878764	Sum of GTIs [s]
date	2012-05-31T17:00:36	Date and time of file creation	ontime5	3270.3999878764	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	3270.3999878764	Sum of GTIs [s]
			ontime7	3270.3999878764	Sum of GTIs [s]
			ontime8	3270.3999878764	Sum of GTIs [s]
			ontime9	3270.3999878764	Sum of GTIs [s]
			l1events	447091	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	69880	80395	69261	79210	78898	69447	grade 0 events	20259	8081	19319	10147	21353	19205
rejected events	34323	29804	31842	28237	35762	33193		28%	10%	27%	12%	27%	27%
rejected %	49%	37%	45%	35%	45%	47%	grade 1 events	186	95	113	84	163	136
								0%	0%	0%	0%	0%	0%
							grade 2 events	5411	18174	6748	10963	7961	6276
								7%	22%	9%	13%	10%	9%
							grade 3 events	2426	2270	2431	4746	3093	2398
								3%	2%	3%	5%	3%	3%
							grade 4 events	2519	2233	2396	4696	3077	2341
								3%	2%	3%	5%	3%	3%
							grade 5 events	1726	4004	1807	4731	2306	2000
								2%	4%	2%	5%	2%	2%
							grade 6 events	4977	19878	6560	20470	7696	6062
								7%	24%	9%	25%	9%	8%
							grade 7 events	32376	25660	29887	23373	33249	31029
								46%	31%	43%	29%	42%	44%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-456789	ACIS-456789	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	151.0280856513321	Subarray requested	NONE	NONE
[deg] Pointing Dec	0	-13.991310453436	Alternating exposures requested	N	N
[deg] Pointing Roll	0.0	344.7059633128326	[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)	351832901.454395	351832900.42939			
Observation start date	2009-02-24T03:21:41	2009-02-24T03:21:40			
[s] Observation end time (MET)	351838118.704653	351838117.67965			
Observation end date	2009-02-24T04:48:39	2009-02-24T04:48:37			
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)	2012.06.06
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	3.2703999878764

## A.2 Comments

A spatial region of the original bias map for CCD = 4 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 = 4 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:  
(675,1),(708,1),(708,279),(675,279)