

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 61792 - L2 Version 5  
Chandra X-Ray Center

L2 Processing Date : Oct 11 2012

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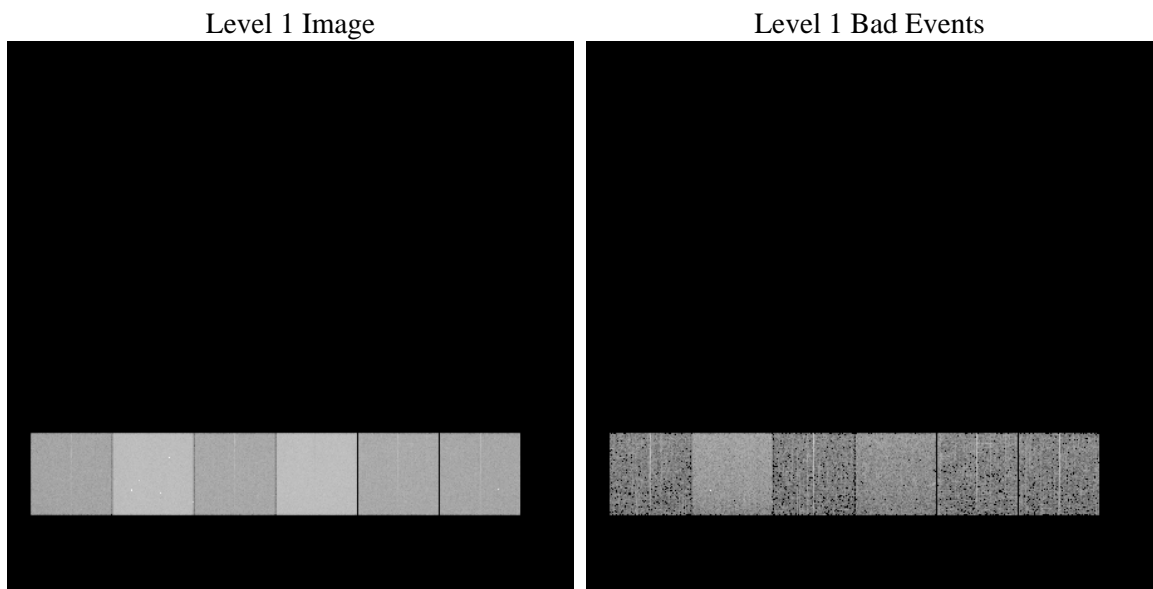
# 1 Front

seq_num	&#160	Sequence number
obs_id	61792	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	92.631848721582	Nominal RA [deg]
dec_nom	-30.591499007473	Nominal Dec [deg]
roll_nom	344.62793553289	Nominal Roll [deg]
revision	5	Processing version of data
ontime	5286.993206203	Sum of GTIs [s]
livetime	5220.0461147809	Livetime [s]
ontime4	2186.1610612571	Sum of GTIs [s]
ontime5	5659.7046219856	Sum of GTIs [s]
ontime6	2354.6541407257	Sum of GTIs [s]
ontime7	5286.993206203	Sum of GTIs [s]
ontime8	2413.0749504864	Sum of GTIs [s]
ontime9	2279.9870909303	Sum of GTIs [s]
l2events	1349579	Number of level 2 events

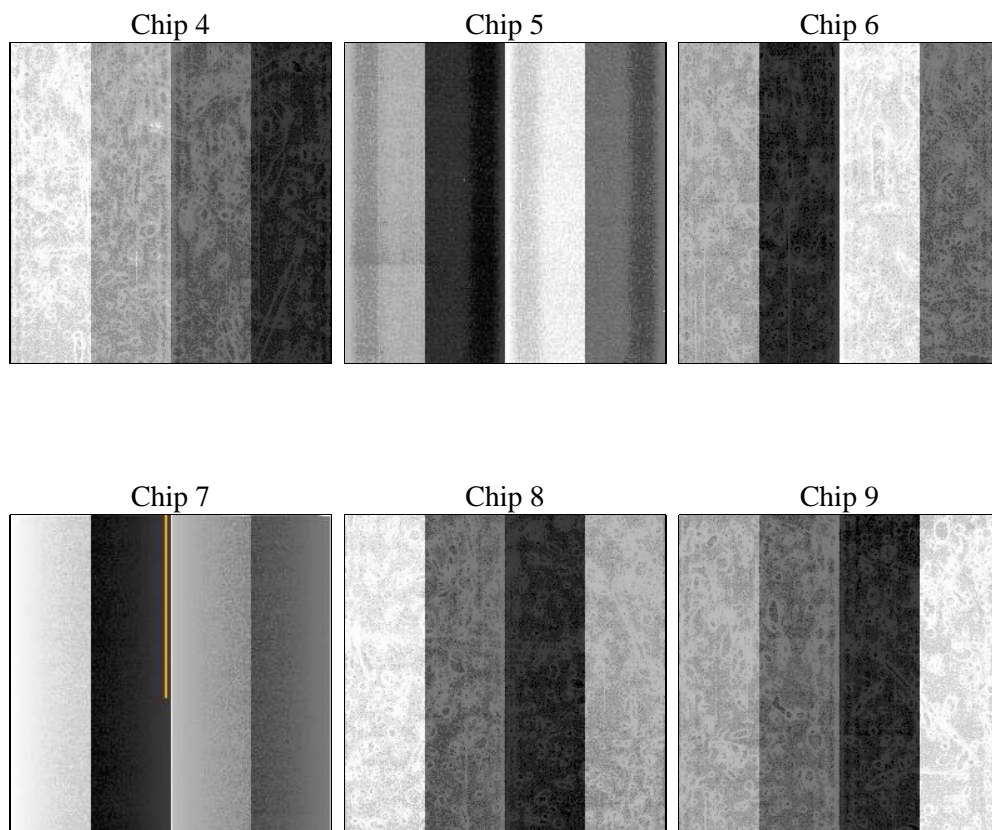
## 2 OBI

### 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	5286.993206203	Sum of GTIs [s]
caldbver	4.5.2	&#160	ontime4	2186.1610612571	Sum of GTIs [s]
date	2012-10-11T21:58:19	Date and time of file creation	ontime5	5659.7046219856	Sum of GTIs [s]
revision	5	Processing version of data	ontime6	2354.6541407257	Sum of GTIs [s]
			ontime7	5286.993206203	Sum of GTIs [s]
			ontime8	2413.0749504864	Sum of GTIs [s]
			ontime9	2279.9870909303	Sum of GTIs [s]
			l1events	1553471	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	168808	399216	192868	411175	199951	181453	grade 0 events	85275	90226	95527	99253	98823	89432
rejected events	18383	40474	17984	26426	20401	18586		50%	22%	49%	24%	49%	49%
rejected %	10%	10%	9%	6%	10%	10%	grade 1 events	454	281	505	254	489	475
								0%	0%	0%	0%	0%	0%
							grade 2 events	26529	127076	30484	84530	31518	29108
								15%	31%	15%	20%	15%	16%
							grade 3 events	9340	23458	10705	39387	11406	10125
								5%	5%	5%	9%	5%	5%
							grade 4 events	9004	23153	10652	39173	11342	10172
								5%	5%	5%	9%	5%	5%
							grade 5 events	1215	8132	1505	5789	1618	1488
								0%	2%	0%	1%	0%	0%
							grade 6 events	20277	95043	27516	122657	26461	24259
								12%	23%	14%	29%	13%	13%
							grade 7 events	16714	31847	15974	20132	18294	16394
								9%	7%	8%	4%	9%	9%

## 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	On-chip summing requested	N	N
Observation mode	SECONDARY	SECONDARY	Subarray requested	NONE	NONE
[deg] Pointing RA	0	92.6318487215821	Alternating exposures requested	N	N
[deg] Pointing Dec	0	-30.59149900747259	[s] Primary exposure time	3.2	3.2
[deg] Pointing Roll	0.0	344.6279355328888			
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.8505141146731063			
[mm] SIM translation stage pos	-190.132523	250.466033080201			
[mm] SIM translation stage offset	0	-0.01005468664627074			
[s] Observation start time (MET)	95061132.67129301	95061131.90282799			
Observation start date	2001-01-05T05:52:13	2001-01-05T05:52:11			
[s] Observation end time (MET)	95082442.42211001	95082441.65364499			
Observation end date	2001-01-05T11:47:22	2001-01-05T11:47:21			
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)	2012.10.17
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.286993206203

## 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:  
(341,1),(375,1),(375,1024),(341,1024)