

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 55952 - L2 Version 3  
Chandra X-Ray Center

L2 Processing Date : Jul 5 2012

## Contents

<b>1</b>	<b>Front</b>	<b>2</b>
<b>2</b>	<b>OBI</b>	<b>3</b>
2.1	OBI . . . . .	3
2.1.1	Images . . . . .	3
2.1.2	Bias . . . . .	3
2.1.3	Parameters . . . . .	4
2.1.4	Events . . . . .	4
2.2	Compared Parameters . . . . .	5
2.3	Star Slots . . . . .	6
2.4	FID Slots . . . . .	6
<b>A</b>	<b>Summary</b>	<b>7</b>
A.1	Status . . . . .	7
A.2	Comments . . . . .	7

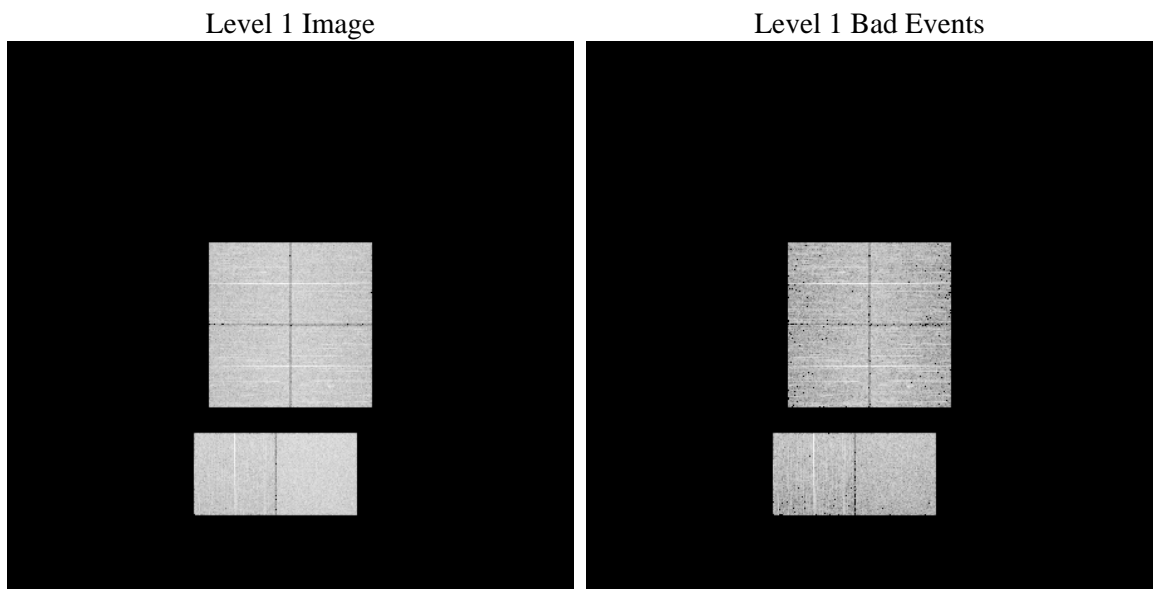
# 1 Front

seq_num	&#160	Sequence number
obs_id	55952	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	47.637766622166	Nominal RA [deg]
dec_nom	11.027674723266	Nominal Dec [deg]
roll_nom	91.54854597001	Nominal Roll [deg]
revision	3	Processing version of data
ontime	4950.1960289478	Sum of GTIs [s]
livetime	4887.5136661791	Livetime [s]
ontime0	4950.1549889445	Sum of GTIs [s]
ontime1	4950.1139489412	Sum of GTIs [s]
ontime2	4950.0729089379	Sum of GTIs [s]
ontime3	4950.2370689511	Sum of GTIs [s]
ontime6	4950.0318689346	Sum of GTIs [s]
ontime7	4950.1960289478	Sum of GTIs [s]
l2events	214222	Number of level 2 events

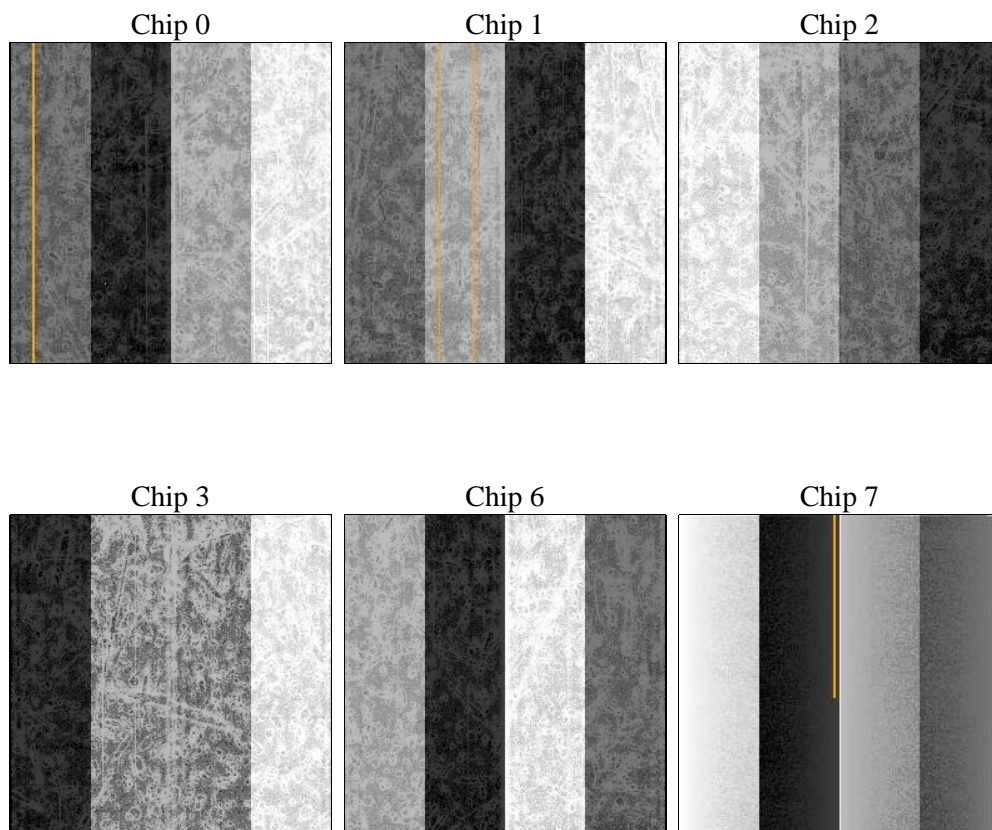
## 2 OBI

### 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	4950.1960289478	Sum of GTIs [s]
caldsver	4.5.0	&#160	ontime0	4950.1549889445	Sum of GTIs [s]
date	2012-07-05T17:49:17	Date and time of file creation	ontime1	4950.1139489412	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	4950.0729089379	Sum of GTIs [s]
			ontime3	4950.2370689511	Sum of GTIs [s]
			ontime6	4950.0318689346	Sum of GTIs [s]
			ontime7	4950.1960289478	Sum of GTIs [s]
			l1events	452089	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	70692	69174	70886	73367	75380	92590	grade 0 events	18294	17653	18263	18694	18273	9226
rejected events	36411	34853	37044	38995	39787	38471		25%	25%	25%	25%	24%	9%
rejected %	51%	50%	52%	53%	52%	41%	grade 1 events	124	126	128	149	110	90
								0%	0%	0%	0%	0%	0%
							grade 2 events	6161	6690	5920	5995	6496	11673
								8%	9%	8%	8%	8%	12%
							grade 3 events	2393	2287	2277	2349	2423	4928
								3%	3%	3%	3%	3%	5%
							grade 4 events	2219	2294	2379	2419	2310	4756
								3%	3%	3%	3%	3%	5%
							grade 5 events	2255	2307	2119	2474	2392	5897
								3%	3%	2%	3%	3%	6%
							grade 6 events	5236	5421	5023	4941	6115	23564
								7%	7%	7%	6%	8%	25%
							grade 7 events	34010	32396	34777	36346	37261	32456
								48%	46%	49%	49%	49%	35%

## 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	47.63776662216584	Subarray requested	NONE	NONE
[deg] Pointing Dec	0	11.02767472326586	Alternating exposures requested	N	N
[deg] Pointing Roll	0.0	91.5485459700099	[s] Primary exposure time	3.2	3.2
[mm] SIM focus pos	-1.429586	-1.428180813131781			
[mm] SIM defocus	0.1037507710433287	0.1051558262725154			
[mm] SIM translation stage pos	250.455976	250.466033080201			
[mm] SIM translation stage offset	0	-0.01005468664627074			
[s] Observation start time (MET)	403735699.925521	403735698.90052			
Observation start date	2010-10-17T20:48:20	2010-10-17T20:48:18			
[s] Observation end time (MET)	403742546.925873	403742545.90087			
Observation end date	2010-10-17T22:42:27	2010-10-17T22:42:25			
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)	2012.07.16
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.9501960289478

## A.2 Comments

A spatial region of the original bias map for CCD = 2 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 = 2 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:  
(373,496),(394,496),(394,966),(373,976)