

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 62683 - L2 Version 2  
Chandra X-Ray Center

L2 Processing Date : Feb 15 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

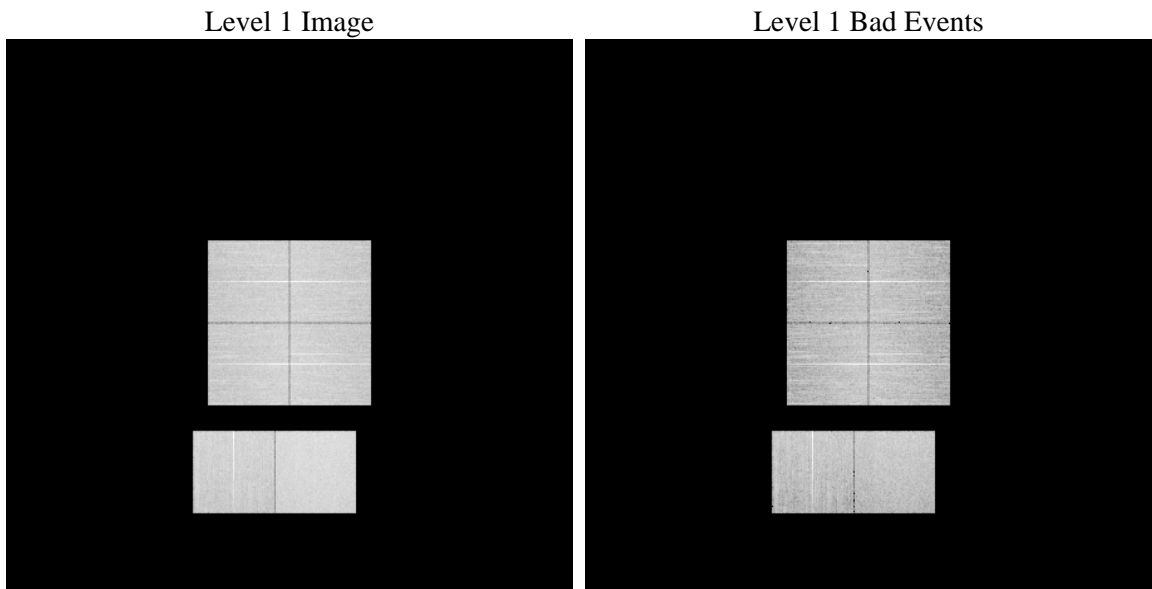
# 1 Front

seq_num	&#160	Sequence number
obs_id	62683	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	293.73021779766	Nominal RA [deg]
dec_nom	18.266759101221	Nominal Dec [deg]
roll_nom	249.25227005982	Nominal Roll [deg]
revision	2	Processing version of data
ontime	14825.59994483	Sum of GTIs [s]
livetime	14637.869271424	Livetime [s]
ontime0	14825.59994483	Sum of GTIs [s]
ontime1	14825.59994483	Sum of GTIs [s]
ontime2	14825.59994483	Sum of GTIs [s]
ontime3	14825.59994483	Sum of GTIs [s]
ontime6	14825.59994483	Sum of GTIs [s]
ontime7	14825.59994483	Sum of GTIs [s]
l2events	497672	Number of level 2 events

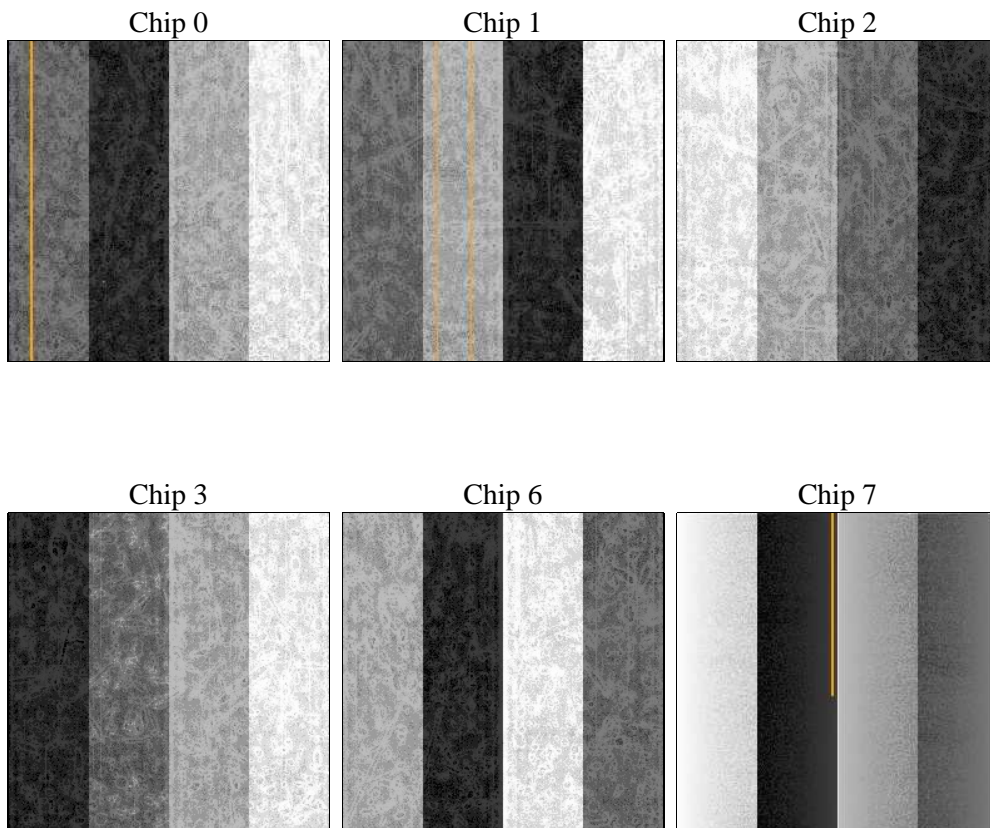
## 2 OBI

### 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	8.4.3	Processing system revision	ontime	14825.59994483	Sum of GTIs [s]
caldsver	4.4.7	&#160	ontime0	14825.59994483	Sum of GTIs [s]
date	2012-02-15T18:55:17	Date and time of file creation	ontime1	14825.59994483	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	14825.59994483	Sum of GTIs [s]
			ontime3	14825.59994483	Sum of GTIs [s]
			ontime6	14825.59994483	Sum of GTIs [s]
			ontime7	14825.59994483	Sum of GTIs [s]
			l1events	1100770	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	169944	170258	172070	175587	179952	232959	grade 0 events	41267	40539	41844	42127	41429	21350
rejected events	91054	90762	94029	96466	98842	102298		24%	23%	24%	23%	23%	9%
rejected %	53%	53%	54%	54%	54%	43%	grade 1 events	251	229	284	283	218	228
								0%	0%	0%	0%	0%	0%
							grade 2 events	14888	15621	13728	14307	15068	28481
								8%	9%	7%	8%	8%	12%
							grade 3 events	5450	5236	5416	5549	5290	11614
								3%	3%	3%	3%	2%	4%
							grade 4 events	5266	5451	5578	5512	5391	11375
								3%	3%	3%	3%	2%	4%
							grade 5 events	5884	5914	5694	6377	6244	16011
								3%	3%	3%	3%	3%	6%
							grade 6 events	12260	12931	11753	11908	14215	58286
								7%	7%	6%	6%	7%	25%
							grade 7 events	84678	84337	87773	89524	92097	85614
								49%	49%	51%	50%	51%	36%

## 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	293.730217797657	Subarray requested	NONE	NONE
[deg] Pointing Dec	0	18.26675910122147	Alternating exposures requested	N	N
[deg] Pointing Roll	0.0	249.2522700598212	[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)	444259496.702784	444259495.67778			
Observation start date	2012-01-29T21:24:57	2012-01-29T21:24:55			
[s] Observation end time (MET)	444276066.85366	444276065.82866			
Observation end date	2012-01-30T02:01:07	2012-01-30T02:01:05			
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)	2012.02.16
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	14.82559994483

## A.2 Comments

A spatial region of the original bias map for CCD = 0 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 = 0 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:  
(893,1),(933,1),(933,1024),(893,1024)