

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 55249 - L2 Version 3  
Chandra X-Ray Center

L2 Processing Date : Feb 21 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

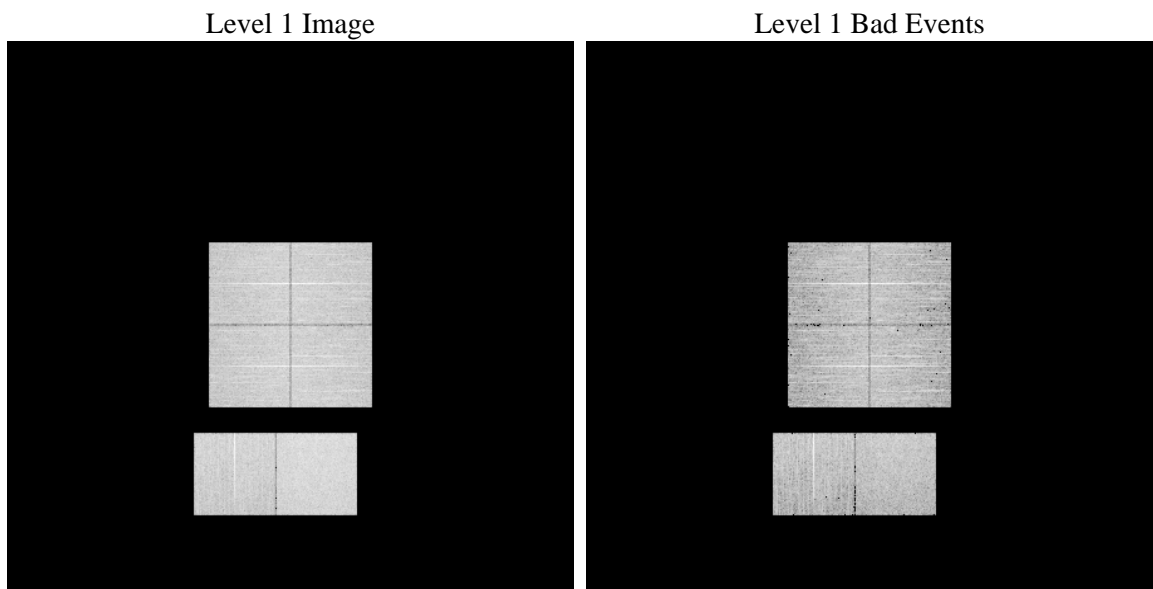
# 1 Front

seq_num	&#160	Sequence number
obs_id	55249	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	288.02950994238	Nominal RA [deg]
dec_nom	-39.01138352267	Nominal Dec [deg]
roll_nom	299.85671417084	Nominal Roll [deg]
revision	3	Processing version of data
ontime	8287.9999691844	Sum of GTIs [s]
livetime	8183.0523231401	Livetime [s]
ontime0	8287.9999691844	Sum of GTIs [s]
ontime1	8287.9999691844	Sum of GTIs [s]
ontime2	8287.9999691844	Sum of GTIs [s]
ontime3	8287.9999691844	Sum of GTIs [s]
ontime6	8287.9999691844	Sum of GTIs [s]
ontime7	8287.9999691844	Sum of GTIs [s]
l2events	307022	Number of level 2 events

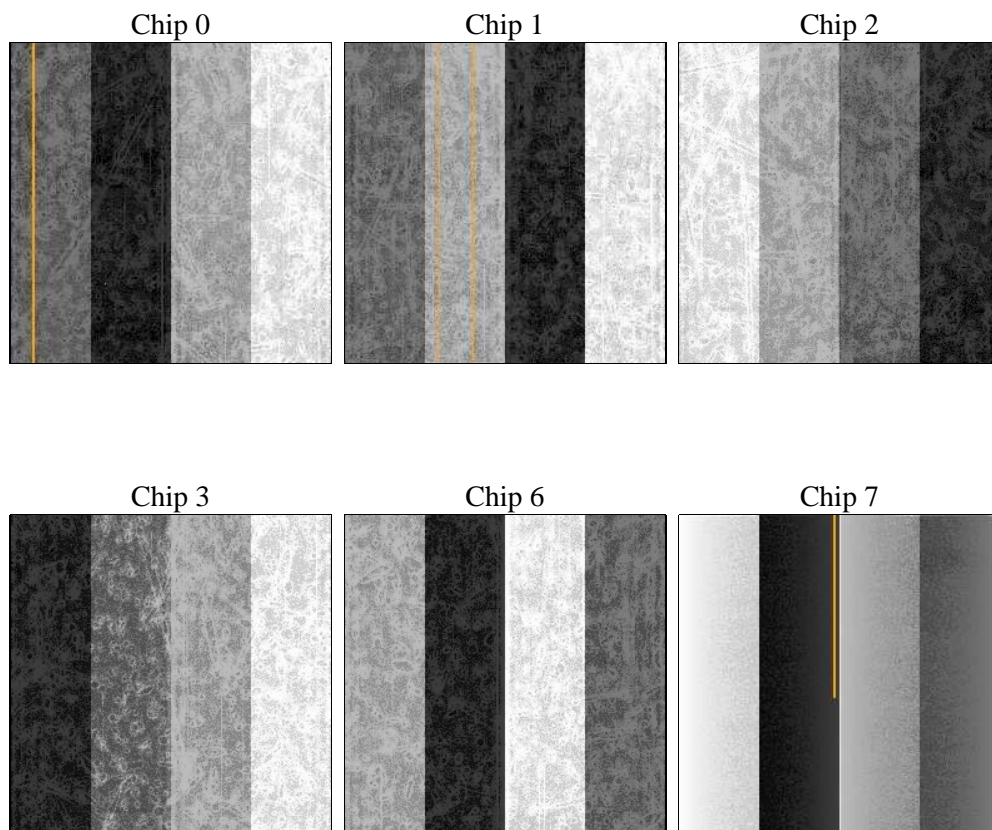
## 2 OBI

### 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	8287.9999691844	Sum of GTIs [s]
caldsver	4.4.8	&#160	ontime0	8287.9999691844	Sum of GTIs [s]
date	2012-02-21T15:05:37	Date and time of file creation	ontime1	8287.9999691844	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	8287.9999691844	Sum of GTIs [s]
			ontime3	8287.9999691844	Sum of GTIs [s]
			ontime6	8287.9999691844	Sum of GTIs [s]
			ontime7	8287.9999691844	Sum of GTIs [s]
			l1events	649321	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	100651	100774	101009	104062	107037	135788	grade 0 events	25782	25115	26261	26658	25887	13569
rejected events	51789	51699	52174	54431	56622	57777		25%	24%	25%	25%	24%	9%
rejected %	51%	51%	51%	52%	52%	42%	grade 1 events	132	126	171	175	154	123
								0%	0%	0%	0%	0%	0%
							grade 2 events	9125	9538	8678	8807	9157	16843
								9%	9%	8%	8%	8%	12%
							grade 3 events	3259	3338	3393	3413	3313	7132
								3%	3%	3%	3%	3%	5%
							grade 4 events	3258	3258	3250	3379	3279	6965
								3%	3%	3%	3%	3%	5%
							grade 5 events	3325	3348	3150	3614	3735	9105
								3%	3%	3%	3%	3%	6%
							grade 6 events	7449	7842	7269	7396	8803	33532
								7%	7%	7%	7%	8%	24%
							grade 7 events	48321	48209	48837	50620	52709	48519
								48%	47%	48%	48%	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	288.0295099423831	Subarray requested	NONE	NONE
[deg] Pointing Dec	0	-39.01138352266966	Alternating exposures requested	N	N
[deg] Pointing Roll	0.0	299.8567141708444	[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)	429516302.039556	429516301.01456			
Observation start date	2011-08-12T06:05:02	2011-08-12T06:05:01			
[s] Observation end time (MET)	429547302.14118	429547301.11619			
Observation end date	2011-08-12T14:41:42	2011-08-12T14:41:41			
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)	2012.02.22
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	8.2879999691844

## A.2 Comments

Spatial regions of the original bias maps for CCD = 3 and 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 maps for CCD = 3 and 6 have 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:

ccd\_3: (112,875),(147,875),(147,1024),(112,1024)

ccd\_6: (892,549),(925,549),(925,962),(892,916)