

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 58048 - L2 Version 4  
Chandra X-Ray Center

L2 Processing Date : May 11 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

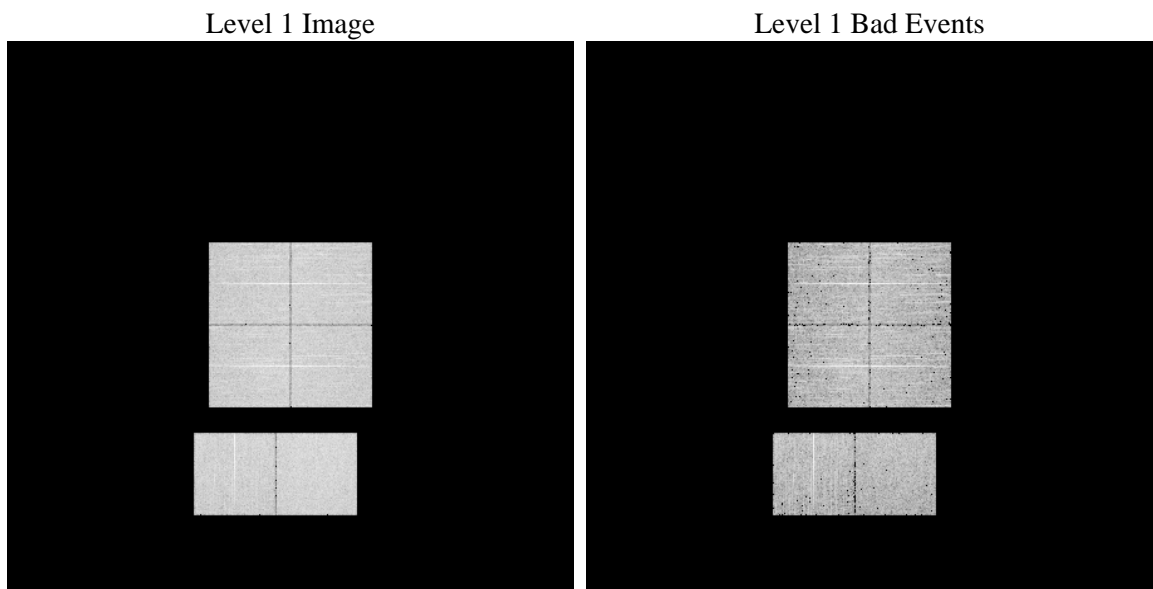
# 1 Front

seq_num	&#160	Sequence number
obs_id	58048	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	101.00703871438	Nominal RA [deg]
dec_nom	-2.2010749851677	Nominal Dec [deg]
roll_nom	7.748373266931	Nominal Roll [deg]
revision	4	Processing version of data
ontime	3381.4656265974	Sum of GTIs [s]
livetime	3338.6474727593	Livetime [s]
ontime0	3381.4245865941	Sum of GTIs [s]
ontime1	3381.3835465908	Sum of GTIs [s]
ontime2	3381.3425065875	Sum of GTIs [s]
ontime3	3381.5066666007	Sum of GTIs [s]
ontime6	3381.3014665842	Sum of GTIs [s]
ontime7	3381.4656265974	Sum of GTIs [s]
l2events	274027	Number of level 2 events

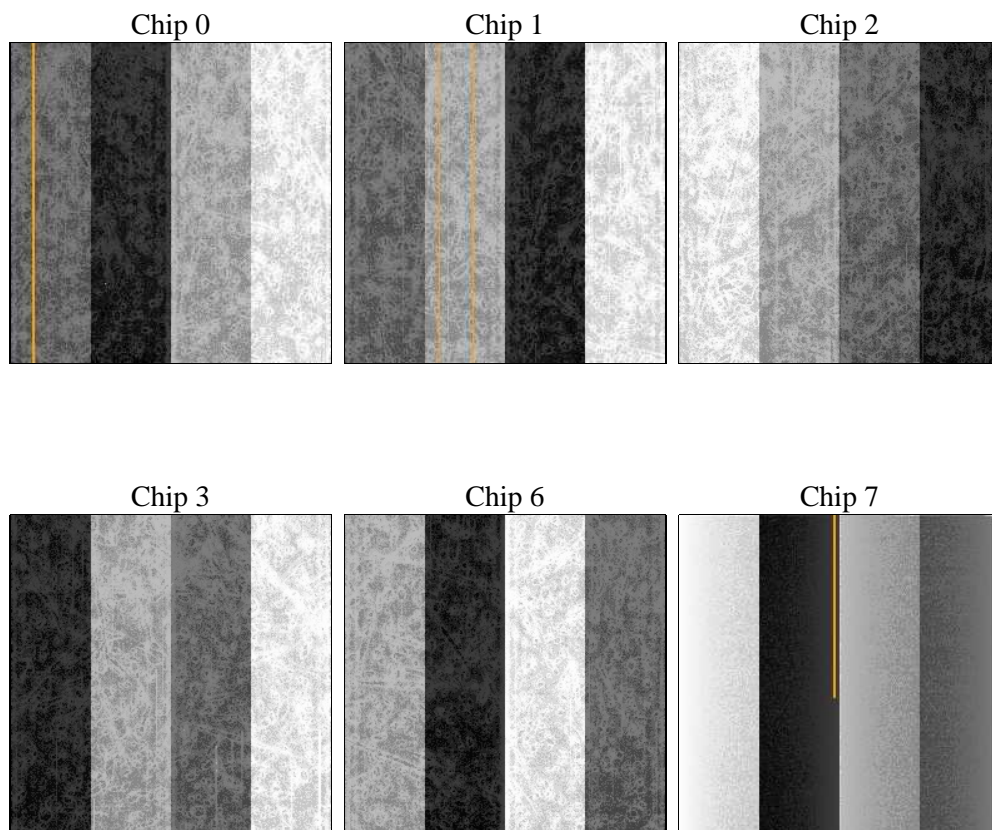
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	2160	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	3381.4656265974	Sum of GTIs [s]
caldsver	4.4.9	&#160	ontime0	3381.4245865941	Sum of GTIs [s]
date	2012-05-11T19:52:32	Date and time of file creation	ontime1	3381.3835465908	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	3381.3425065875	Sum of GTIs [s]
			ontime3	3381.5066666007	Sum of GTIs [s]
			ontime6	3381.3014665842	Sum of GTIs [s]
			ontime7	3381.4656265974	Sum of GTIs [s]
			l1events	496640	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	77598	81017	82327	81090	82415	92193	grade 0 events	25731	25641	26481	26980	26327	13026
rejected events	32714	35464	37046	34988	35324	32164		33%	31%	32%	33%	31%	14%
rejected %	42%	43%	44%	43%	42%	34%	grade 1 events	170	176	208	205	151	76
								0%	0%	0%	0%	0%	0%
							grade 2 events	8486	8988	8181	8494	8826	13831
								10%	11%	9%	10%	10%	15%
							grade 3 events	3067	3120	3155	3312	3137	6043
								3%	3%	3%	4%	3%	6%
							grade 4 events	3169	3127	3201	3202	3238	6008
								4%	3%	3%	3%	3%	6%
							grade 5 events	1769	1849	1691	1974	1887	4730
								2%	2%	2%	2%	2%	5%
							grade 6 events	7115	7337	6952	6880	8342	24547
								9%	9%	8%	8%	10%	26%
							grade 7 events	28091	30779	32458	30043	30507	23932
								36%	37%	39%	37%	37%	25%

## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-012367	ACIS-012367
Grating	NONE	NONE
Data mode	FAINT	FAINT
Observation mode	SECONDARY	SECONDARY
[deg] Pointing RA	101.0070387143658	101.0070387143784
[deg] Pointing Dec	-2.201075050814842	-2.201074985167736
[deg] Pointing Roll	7.748373156707279	7.748373266930956
[mm] SIM focus pos	-0.68282252473119	-0.68282252473119
[mm] SIM defocus	0.8505140384245534	0.8505140384245534
[mm] SIM translation stage pos	250.4660330802	250.4660330802
[mm] SIM translation stage offset	-0.01005726120527584	-0.01005726120527584
[s] Observation start time (MET)	315274194.652863	315274194.652863
Observation start date	2007-12-29T00:37:00	2007-12-29T00:09:54
[s] Observation end time (MET)	315279493.595999	315279493.595999
Observation end date	2007-12-29T01:13:00	2007-12-29T01:38:13
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	OVERRIDE	OVERRIDE
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	3.2	3.2

## 2.3 Star Slots

## 2.4 FID Slots

# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.05.14
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	3.3814656265974

## A.2 Comments

A spatial region of the original bias map for CCD = 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 map for CCD = 6 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:  
(783,1),(814,1),(814,1024),(783,1024)