

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 56201 - L2 Version 3  
Chandra X-Ray Center

L2 Processing Date : Jun 28 2012

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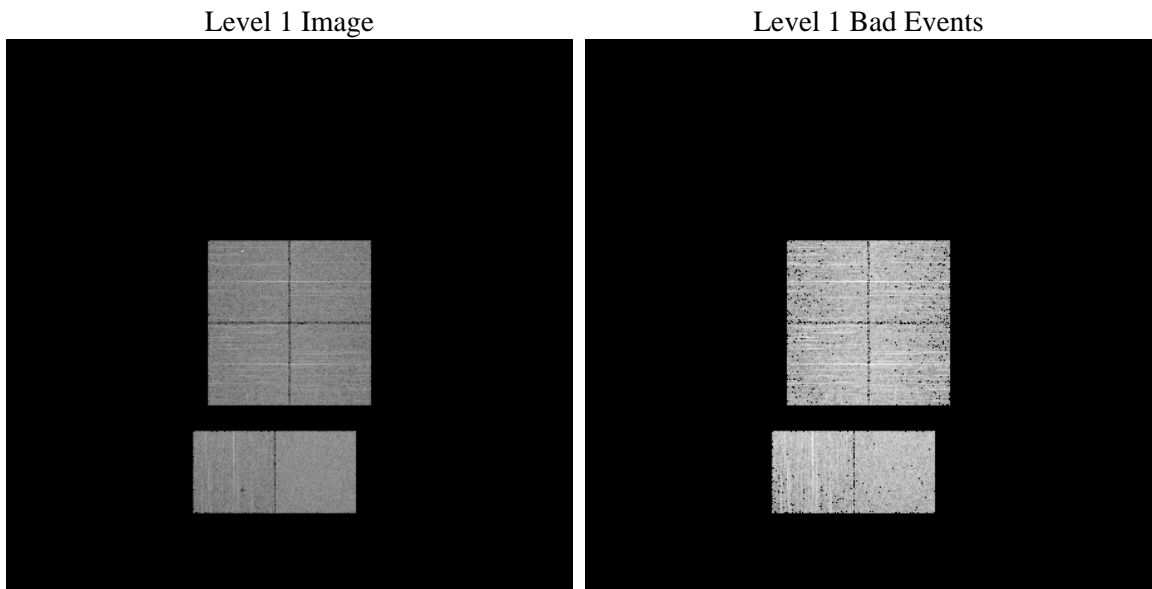
# 1 Front

seq_num	&#160	Sequence number
obs_id	56201	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	241.98998432114	Nominal RA [deg]
dec_nom	-3.2270084454075	Nominal Dec [deg]
roll_nom	216.5127372908	Nominal Roll [deg]
revision	3	Processing version of data
ontime	3157.5023686886	Sum of GTIs [s]
livetime	3117.5201724766	Livetime [s]
ontime0	3157.4613286853	Sum of GTIs [s]
ontime1	3157.420288682	Sum of GTIs [s]
ontime2	3157.3792486787	Sum of GTIs [s]
ontime3	3157.5434086919	Sum of GTIs [s]
ontime6	3157.3382086754	Sum of GTIs [s]
ontime7	3157.5023686886	Sum of GTIs [s]
l2events	148271	Number of level 2 events

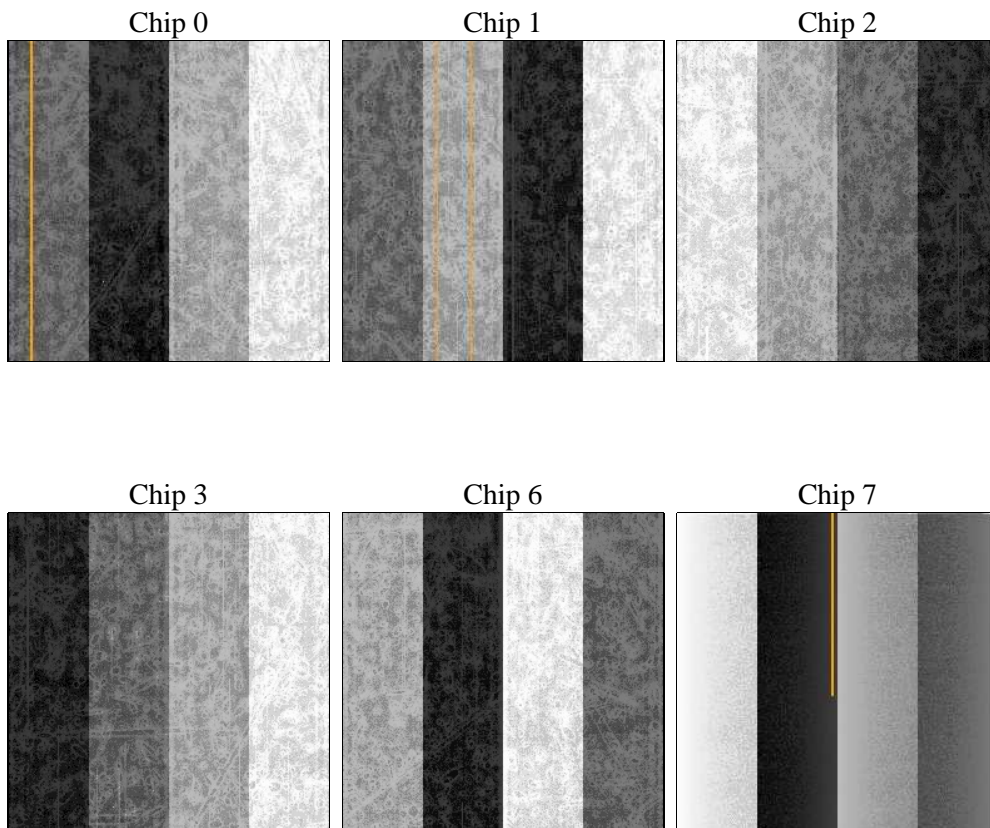
## 2 OBI

### 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	3157.5023686886	Sum of GTIs [s]
caldsver	4.5.0	&#160	ontime0	3157.4613286853	Sum of GTIs [s]
date	2012-06-28T12:02:00	Date and time of file creation	ontime1	3157.420288682	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	3157.3792486787	Sum of GTIs [s]
			ontime3	3157.5434086919	Sum of GTIs [s]
			ontime6	3157.3382086754	Sum of GTIs [s]
			ontime7	3157.5023686886	Sum of GTIs [s]
			l1events	322182	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	49087	50056	52651	52004	53215	65169	grade 0 events	13877	12938	13215	13500	13063	6912
rejected events	24648	26232	28927	28183	28896	27614		28%	25%	25%	25%	24%	10%
rejected %	50%	52%	54%	54%	54%	42%	grade 1 events	104	74	90	103	85	44
								0%	0%	0%	0%	0%	0%
							grade 2 events	4474	4633	4329	4331	4720	8498
								9%	9%	8%	8%	8%	13%
							grade 3 events	1661	1677	1751	1677	1679	3570
								3%	3%	3%	3%	3%	5%
							grade 4 events	1644	1730	1660	1733	1617	3576
								3%	3%	3%	3%	3%	5%
							grade 5 events	1570	1571	1399	1620	1688	4078
								3%	3%	2%	3%	3%	6%
							grade 6 events	3789	3788	3705	3501	4179	16467
								7%	7%	7%	6%	7%	25%
							grade 7 events	21968	23645	26502	25539	26184	22024
								44%	47%	50%	49%	49%	33%

## 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	0	241.9899843211364
[deg] Pointing Dec	0	-3.227008445407531
[deg] Pointing Roll	0.0	216.5127372908049
[mm] SIM focus pos	-1.4281808131	-1.4281808131
[mm] SIM defocus	0.1051557500557434	0.1051557500557434
[mm] SIM translation stage pos	250.4660330802	250.4660330802
[mm] SIM translation stage offset	-0.01005726120527584	-0.01005726120527584
[s] Observation start time (MET)	392507781.700632	392507781.700632
Observation start date	2010-06-09T21:56:22	2010-06-09T21:56:21
[s] Observation end time (MET)	392512328.136504	392512328.136504
Observation end date	2010-06-09T23:12:08	2010-06-09T23:12:08
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)	2012.07.05
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	3.1575023686886

## A.2 Comments

A spatial region of the original bias map for CCD = 1 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 = 1 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:  
(657,1),(675,1),(675,621),(657,621)