

# V&V Reference Report

## L2 ASCDS Version : 8.4.3.1

Observation 55747 - L2 Version 3  
Chandra X-Ray Center

L2 Processing Date : Mar 8 2012

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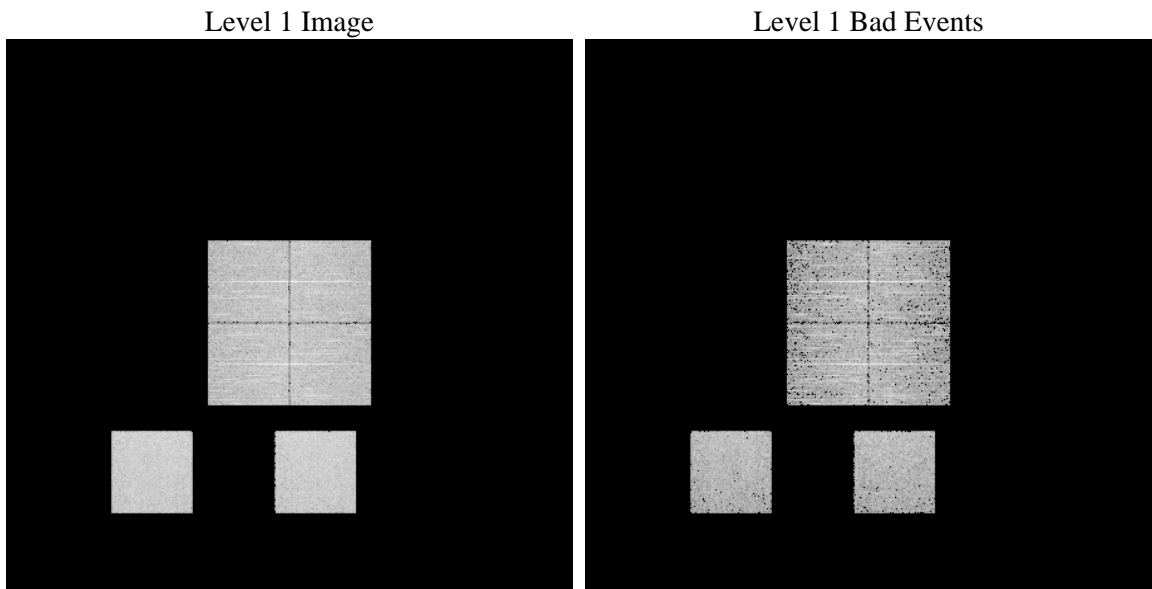
# 1 Front

seq_num	&#160	Sequence number
obs_id	55747	Observation id
title	ACIS-012357 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	234.01368418241	Nominal RA [deg]
dec_nom	-22.94659134669	Nominal Dec [deg]
roll_nom	79.478289633667	Nominal Roll [deg]
revision	3	Processing version of data
ontime	3282.6817287803	Sum of GTIs [s]
livetime	3241.1144361368	Livetime [s]
ontime0	3282.640688777	Sum of GTIs [s]
ontime1	3282.5996487737	Sum of GTIs [s]
ontime2	3282.5586087704	Sum of GTIs [s]
ontime3	3282.7227687836	Sum of GTIs [s]
ontime5	3282.5175687671	Sum of GTIs [s]
ontime7	3282.6817287803	Sum of GTIs [s]
l2events	147662	Number of level 2 events

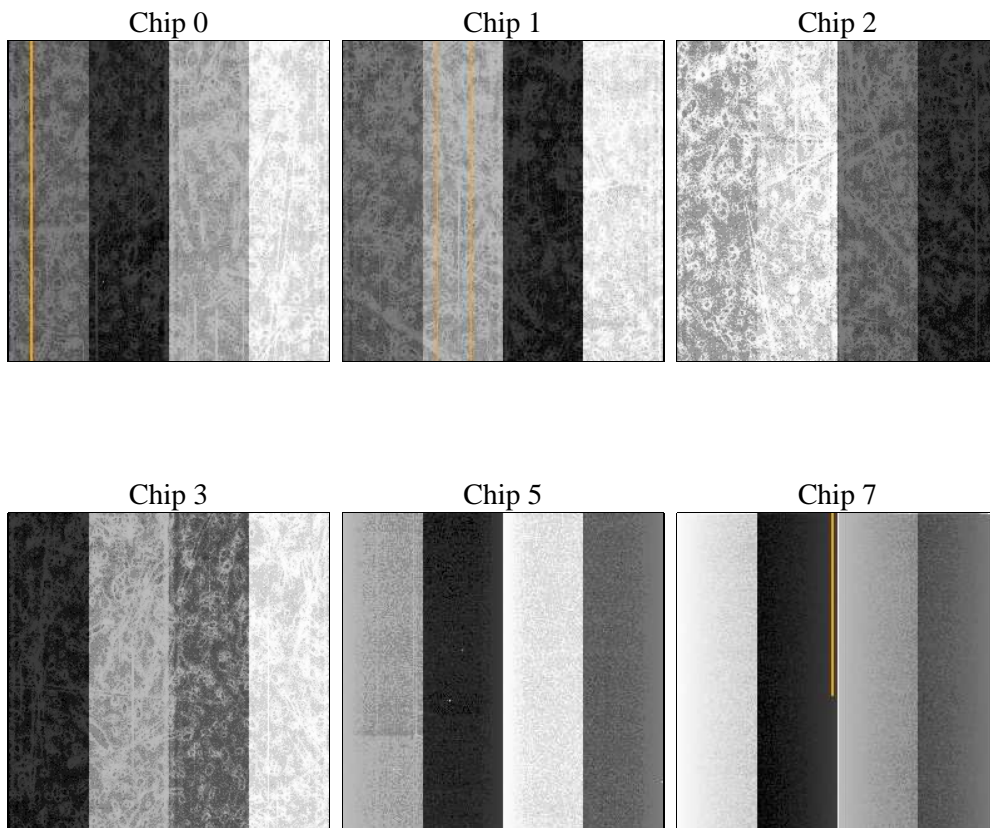
## 2 OBI

### 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	8.4.3.1	Processing system revision	ontime	3282.6817287803	Sum of GTIs [s]
caldsver	4.4.8	&#160	ontime0	3282.640688777	Sum of GTIs [s]
date	2012-03-09T00:54:29	Date and time of file creation	ontime1	3282.5996487737	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	3282.5586087704	Sum of GTIs [s]
			ontime3	3282.7227687836	Sum of GTIs [s]
			ontime5	3282.5175687671	Sum of GTIs [s]
			ontime7	3282.6817287803	Sum of GTIs [s]
			l1events	303149	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 5	ccd 7
level 1 events	44483	45400	47244	46222	60226	59574
rejected events	22913	23961	25852	24712	25723	25087
rejected %	51%	52%	54%	53%	42%	42%

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 5	ccd 7
grade 0 events	11281	10764	11576	11636	3563	5677
	25%	23%	24%	25%	5%	9%
grade 1 events	65	68	90	92	75	44
	0%	0%	0%	0%	0%	0%
grade 2 events	4105	4329	3678	3716	12902	7645
	9%	9%	7%	8%	21%	12%
grade 3 events	1445	1377	1472	1497	1284	3059
	3%	3%	3%	3%	2%	5%
grade 4 events	1445	1463	1493	1470	1198	2983
	3%	3%	3%	3%	1%	5%
grade 5 events	1529	1437	1409	1582	3022	3859
	3%	3%	2%	3%	5%	6%
grade 6 events	3294	3506	3173	3191	15556	15123
	7%	7%	6%	6%	25%	25%
grade 7 events	21319	22456	24353	23038	22626	21184
	47%	49%	51%	49%	37%	35%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012357	ACIS-012357	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	234.0136841824058	Subarray requested	NONE	NONE
[deg] Pointing Dec	0	-22.94659134668969	Alternating exposures requested	N	N
[deg] Pointing Roll	0.0	79.47828963366655	[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)	410815453.190461	410815452.16547			
Observation start date	2011-01-07T19:24:13	2011-01-07T19:24:12			
[s] Observation end time (MET)	410821279.290762	410821278.26577			
Observation end date	2011-01-07T21:01:19	2011-01-07T21:01:18			
Read mode	TIMED	TIMED			

## 2.3 Star Slots

## 2.4 FID Slots

# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2012.03.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	3.2826817287803

## A.2 Comments

The bias map for CCD\_ID = 0 suffered from anomalously high bias values in an 'exacto-knife'-shaped area of the bias file. Pixels in the event data that have been bias-corrected by one of the affected bias pixels may have an apparent energy shift. While the change in energy is expected to be small (~20 eV), it depends on many parameters that have not yet been fully explored for this bias anomaly. The bias map for CCD\_ID = 0 has been reconstructed using scaled data from a comparable bias map for another observation to replace pixels affected by the anomaly.