

# V&V Reference Report

## L2 ASCDS Version : 10.3.3

Observation 52150 - L2 Version 2  
Chandra X-Ray Center

L2 Processing Date : Jan 27 2015

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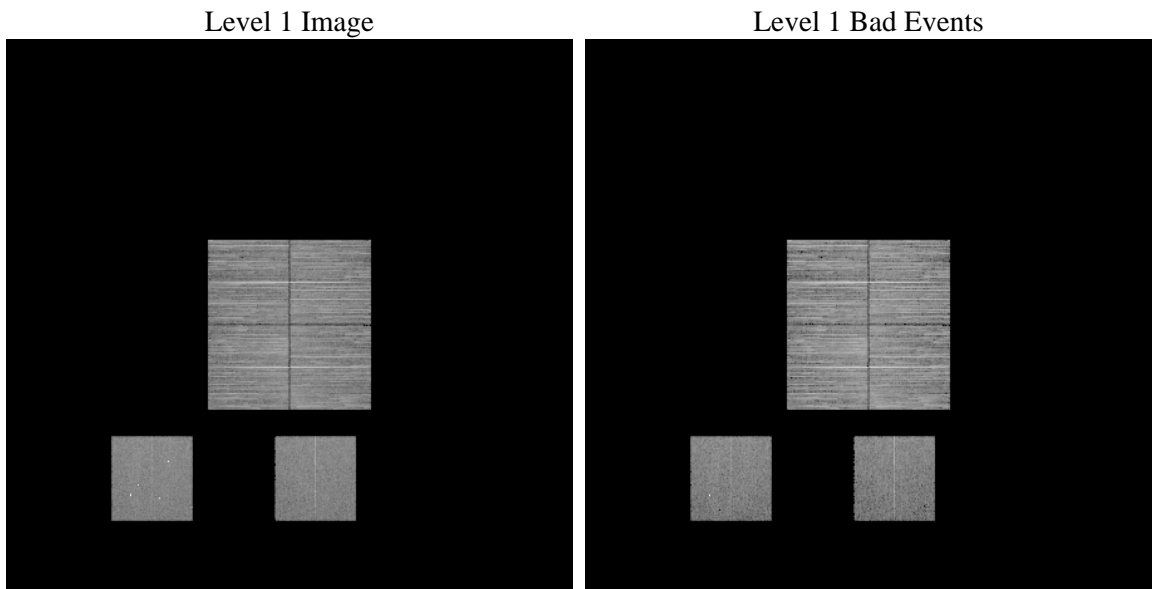
# 1 Front

seq_num	&#160	Sequence number
obs_id	52150	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	96.311920543294	Nominal RA [deg]
dec_nom	-23.44253456759	Nominal Dec [deg]
roll_nom	326.29007842357	Nominal Roll [deg]
revision	2	Processing version of data
ontime	7241.6001079082	Sum of GTIs [s]
livetime	7149.9026069738	Livetime [s]
ontime0	7241.6001079082	Sum of GTIs [s]
ontime1	7241.6001079082	Sum of GTIs [s]
ontime2	7241.6001079082	Sum of GTIs [s]
ontime3	7241.6001079082	Sum of GTIs [s]
ontime5	7241.6001079082	Sum of GTIs [s]
ontime7	7241.6001079082	Sum of GTIs [s]
l2events	161829	Number of level 2 events

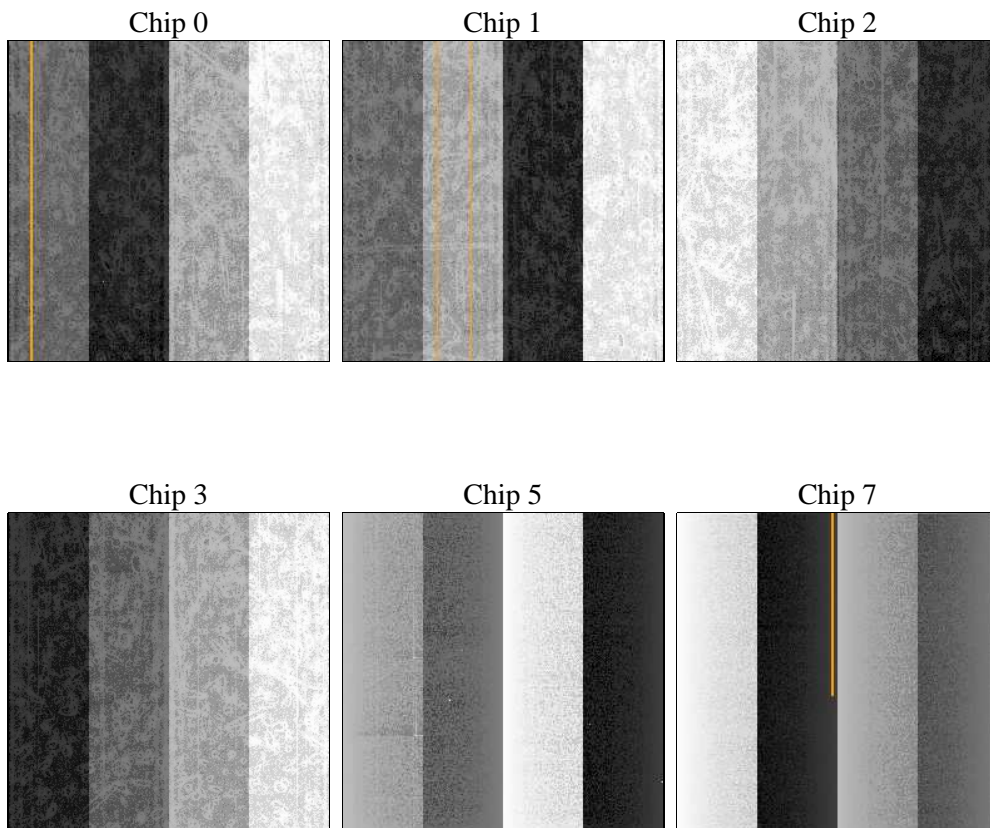
## 2 OBI

### 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	10.3.3	Processing system revision	ontime	7241.6001079082	Sum of GTIs [s]
caldbver	4.6.6	&#160	ontime0	7241.6001079082	Sum of GTIs [s]
date	2015-01-27T18:32:46	Date and time of file creation	ontime1	7241.6001079082	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	7241.6001079082	Sum of GTIs [s]
			ontime3	7241.6001079082	Sum of GTIs [s]
			ontime5	7241.6001079082	Sum of GTIs [s]
			ontime7	7241.6001079082	Sum of GTIs [s]
			l1events	730457	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 5	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 5	ccd 7
level 1 events	124820	131417	131143	129019	112441	101617	grade 0 events	10092	9974	10475	10581	7756	5493
rejected events	104419	110739	110727	108453	62621	58929		8%	7%	7%	8%	6%	5%
rejected %	83%	84%	84%	84%	55%	57%	grade 1 events	55	38	74	48	113	84
								0%	0%	0%	0%	0%	0%
							grade 2 events	4247	4506	4001	3954	17092	10522
								3%	3%	3%	3%	15%	10%
							grade 3 events	1476	1373	1467	1482	1615	3358
								1%	1%	1%	1%	1%	3%
							grade 4 events	1346	1463	1405	1466	1530	3363
								1%	1%	1%	1%	1%	3%
							grade 5 events	2506	2477	2283	2874	5615	6327
								2%	1%	1%	2%	4%	6%
							grade 6 events	3396	3544	3217	3245	22204	20293
								2%	2%	2%	2%	19%	19%
							grade 7 events	101702	108042	108221	105369	56516	52177
								81%	82%	82%	81%	50%	51%

## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-012357	ACIS-012357
Grating	NONE	NONE
Data mode	FAINT	FAINT
Observation mode	SECONDARY	SECONDARY
[deg] Pointing RA	0	96.31192054329401
[deg] Pointing Dec	0	-23.44253456759022
[deg] Pointing Roll	0.0	326.2900784235743
SIM focus pos (mm)	-1.4281808131	-1.4281808131
[mm] SIM defocus	0.1051557500557434	0.1051557500557434
SIM translation stage pos (mm)	250.4660330802	250.4660330802
[mm] SIM translation stage offset	-0.01005726120527584	-0.01005726120527584
[s] Observation start time (MET)	538283595.391379	538283595.391379
Observation start date	2015-01-22T03:13:15	2015-01-22T03:13:15
[s] Observation end time (MET)	538292158.419798	538292158.419798
Observation end date	2015-01-22T05:35:58	2015-01-22T05:35:58
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	Beth Sundheim
V&V Date (YYYY-MM-DD)	2015.01.29
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.2416001079082

## A.2 Comments

A spatial region of the original bias maps for CCD = 2 and 3 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 (~20 eV), it depends on many parameters that have not yet been fully explored for this bias anomaly. The bias maps for CCD = 2 and 3 have been reconstructed for this processing to remove this anomaly using scaled data from a comparable bias map from another observation.