

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 56597 - L2 Version 3  
Chandra X-Ray Center

L2 Processing Date : Jul 19 2012

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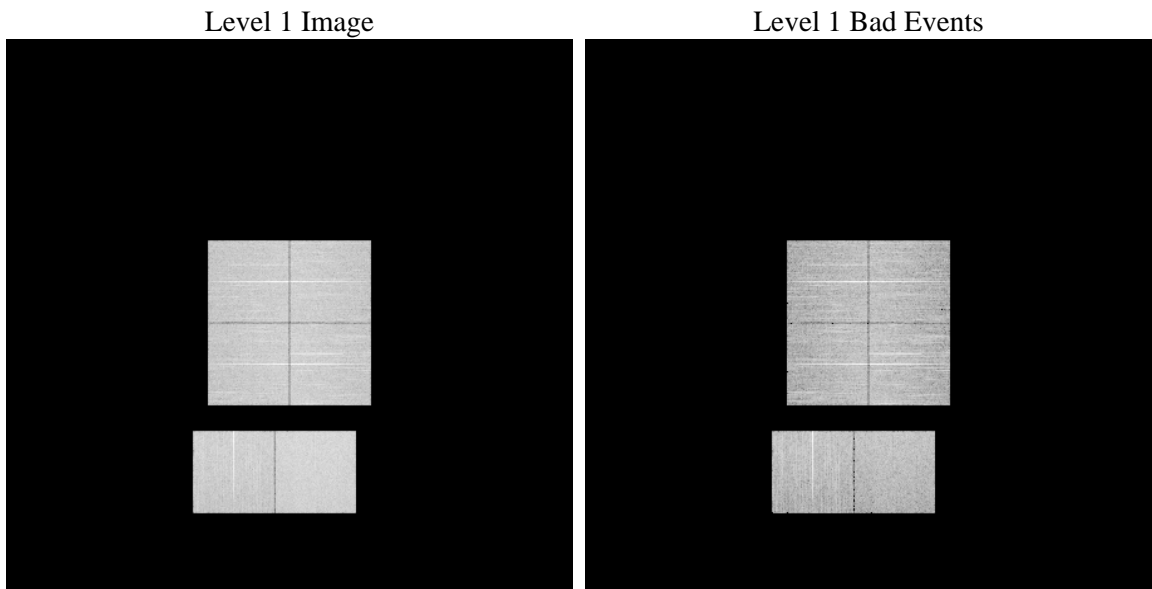
# 1 Front

seq_num	&#160	Sequence number
obs_id	56597	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	80.023844326564	Nominal RA [deg]
dec_nom	-0.98399786376508	Nominal Dec [deg]
roll_nom	0.95634487917474	Nominal Roll [deg]
revision	3	Processing version of data
ontime	8268.7999692559	Sum of GTIs [s]
livetime	8164.0954451716	Livetime [s]
ontime0	8268.7999692559	Sum of GTIs [s]
ontime1	8268.7999692559	Sum of GTIs [s]
ontime2	8265.5589690208	Sum of GTIs [s]
ontime3	8268.7999692559	Sum of GTIs [s]
ontime6	8268.7999692559	Sum of GTIs [s]
ontime7	8268.7999692559	Sum of GTIs [s]
l2events	435552	Number of level 2 events

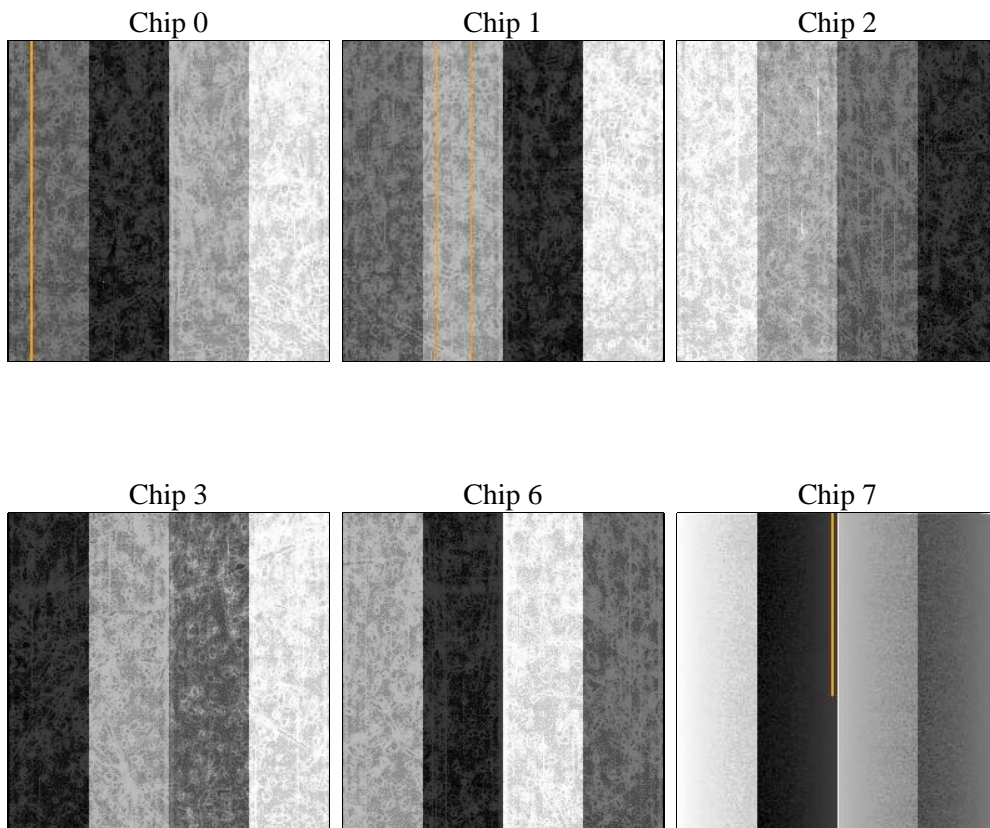
## 2 OBI

### 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	8268.7999692559	Sum of GTIs [s]
caldsver	4.5.0	&#160	ontime0	8268.7999692559	Sum of GTIs [s]
date	2012-07-19T19:18:16	Date and time of file creation	ontime1	8268.7999692559	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	8265.5589690208	Sum of GTIs [s]
			ontime3	8268.7999692559	Sum of GTIs [s]
			ontime6	8268.7999692559	Sum of GTIs [s]
			ontime7	8268.7999692559	Sum of GTIs [s]
			l1events	917632	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	141738	143454	143828	153043	152703	182866	grade 0 events	36716	35912	37269	37782	37519	19297
rejected events	72474	73730	74650	83096	80282	72964		25%	25%	25%	24%	24%	10%
rejected %	51%	51%	51%	54%	52%	39%	grade 1 events	297	256	285	316	244	173
								0%	0%	0%	0%	0%	0%
							grade 2 events	12824	13407	11979	12211	13017	23841
								9%	9%	8%	7%	8%	13%
							grade 3 events	4665	4629	4907	4799	4807	10041
								3%	3%	3%	3%	3%	5%
							grade 4 events	4674	4713	4771	4981	4827	10051
								3%	3%	3%	3%	3%	5%
							grade 5 events	4221	4292	3971	4785	4382	11719
								2%	2%	2%	3%	2%	6%
							grade 6 events	10385	11063	10252	10174	12251	46672
								7%	7%	7%	6%	8%	25%
							grade 7 events	67956	69182	70394	77995	75656	61072
								47%	48%	48%	50%	49%	33%

## 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	80.02384432656373	Subarray requested	NONE	NONE
[deg] Pointing Dec	0	-0.9839978637650793	Alternating exposures requested	N	N
[deg] Pointing Roll	0.0	0.9563448791747369	[s] Primary exposure time	3.2	3.2
[mm] SIM focus pos	-1.429586	-0.6828225247311905			
[mm] SIM defocus	0.1037507710433287	0.8505141146731063			
[mm] SIM translation stage pos	250.455976	250.4635187648994			
[mm] SIM translation stage offset	0	-0.007540371344731511			
[s] Observation start time (MET)	377005687.064006	377005686.03903			
Observation start date	2009-12-12T11:48:07	2009-12-12T11:48:06			
[s] Observation end time (MET)	377015420.464497	377015419.43952			
Observation end date	2009-12-12T14:30:20	2009-12-12T14:30:19			
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)	2012.07.20
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	8.2687999692559

## A.2 Comments

A spatial region of the original bias map for CCD = 2 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 = 2 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:  
(323,431),(345,431),(345,886),(323,886)