

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 56714 - L2 Version 3  
Chandra X-Ray Center

L2 Processing Date : Jun 17 2012

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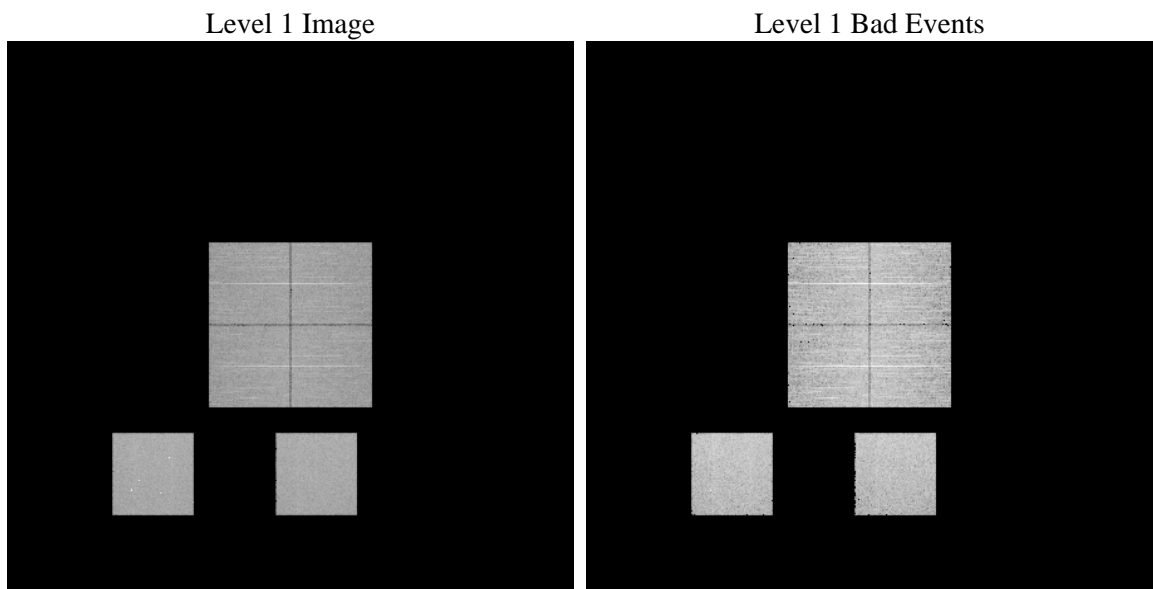
# 1 Front

seq_num	&#160	Sequence number
obs_id	56714	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	56.621980525487	Nominal RA [deg]
dec_nom	0.029767593262437	Nominal Dec [deg]
roll_nom	55.669639130488	Nominal Roll [deg]
revision	3	Processing version of data
ontime	5772.1411833763	Sum of GTIs [s]
livetime	5699.0508561462	Livetime [s]
ontime0	5772.100143373	Sum of GTIs [s]
ontime1	5772.0591033697	Sum of GTIs [s]
ontime2	5772.0180633664	Sum of GTIs [s]
ontime3	5772.1822233796	Sum of GTIs [s]
ontime5	5771.9770233631	Sum of GTIs [s]
ontime7	5772.1411833763	Sum of GTIs [s]
l2events	337635	Number of level 2 events

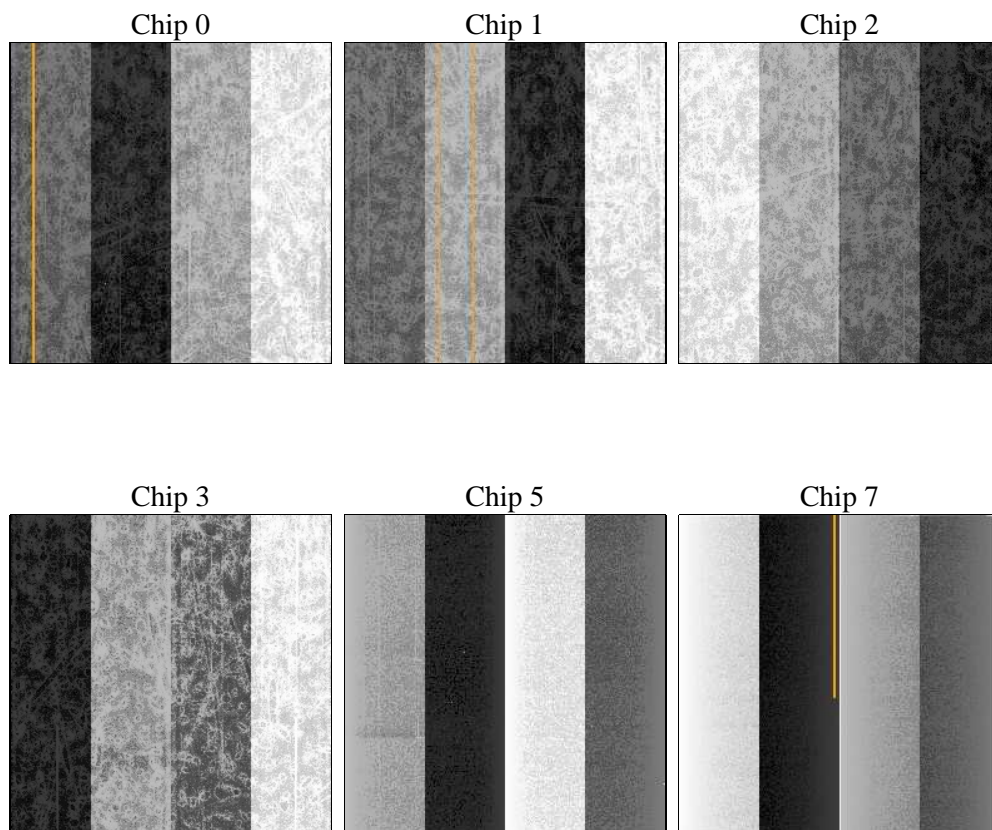
## 2 OBI

### 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	5772.1411833763	Sum of GTIs [s]
caldsver	4.4.10	&#160	ontime0	5772.100143373	Sum of GTIs [s]
date	2012-06-17T12:31:37	Date and time of file creation	ontime1	5772.0591033697	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	5772.0180633664	Sum of GTIs [s]
			ontime3	5772.1822233796	Sum of GTIs [s]
			ontime5	5771.9770233631	Sum of GTIs [s]
			ontime7	5772.1411833763	Sum of GTIs [s]
			l1events	674359	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	101287	102200	102695	105883	132749	129545	grade 0 events	26828	26733	27578	27883	11366	14108
rejected events	51588	52071	52659	55291	54361	52588		26%	26%	26%	26%	8%	10%
rejected %	50%	50%	51%	52%	40%	40%	grade 1 events	218	171	222	258	151	112
								0%	0%	0%	0%	0%	0%
							grade 2 events	9240	9496	8828	9207	28857	16947
								9%	9%	8%	8%	21%	13%
							grade 3 events	3411	3341	3601	3586	3383	7247
								3%	3%	3%	3%	2%	5%
							grade 4 events	3428	3478	3578	3539	3334	7176
								3%	3%	3%	3%	2%	5%
							grade 5 events	2975	3088	2718	3226	7062	8125
								2%	3%	2%	3%	5%	6%
							grade 6 events	7773	8093	7385	7374	32957	33006
								7%	7%	7%	6%	24%	25%
							grade 7 events	47414	47800	48785	50810	45639	42824
								46%	46%	47%	47%	34%	33%

## 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	56.62198052548684	Subarray requested	NONE	NONE
[deg] Pointing Dec	0	0.02976759326243691	Alternating exposures requested	N	N
[deg] Pointing Roll	0.0	55.66963913048824	[s] Primary exposure time	3.2	3.2
[mm] SIM focus pos	-1.429586	-0.7809083437167272			
[mm] SIM defocus	0.1037507710433287	0.7524282956875696			
[mm] SIM translation stage pos	250.455976	250.466033080201			
[mm] SIM translation stage offset	0	-0.01005468664627074			
[s] Observation start time (MET)	373349286.379657	373349285.35465			
Observation start date	2009-10-31T04:08:06	2009-10-31T04:08:05			
[s] Observation end time (MET)	373356898.030041	373356897.00504			
Observation end date	2009-10-31T06:14:58	2009-10-31T06:14:57			
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)	2012.06.21
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.7721411833763

## A.2 Comments

A spatial region of the original bias map for CCD = 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 ( $\sim 20$  eV), it depends on many parameters that have not yet been fully explored for this bias anomaly. The bias map for CCD = 3 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:  
(816,1),(836,1),(836,288),(816,308)