

V&V Reference Report

L2 ASCDS Version : 10.2.1

Observation 52898 - L2 Version 2
Chandra X-Ray Center

L2 Processing Date : Apr 2 2014

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Bias	3
2.1.3	Parameters	4
2.1.4	Events	4
2.2	Compared Parameters	5
2.3	Star Slots	6
2.4	FID Slots	6
A	Summary	7
A.1	Status	7
A.2	Comments	7

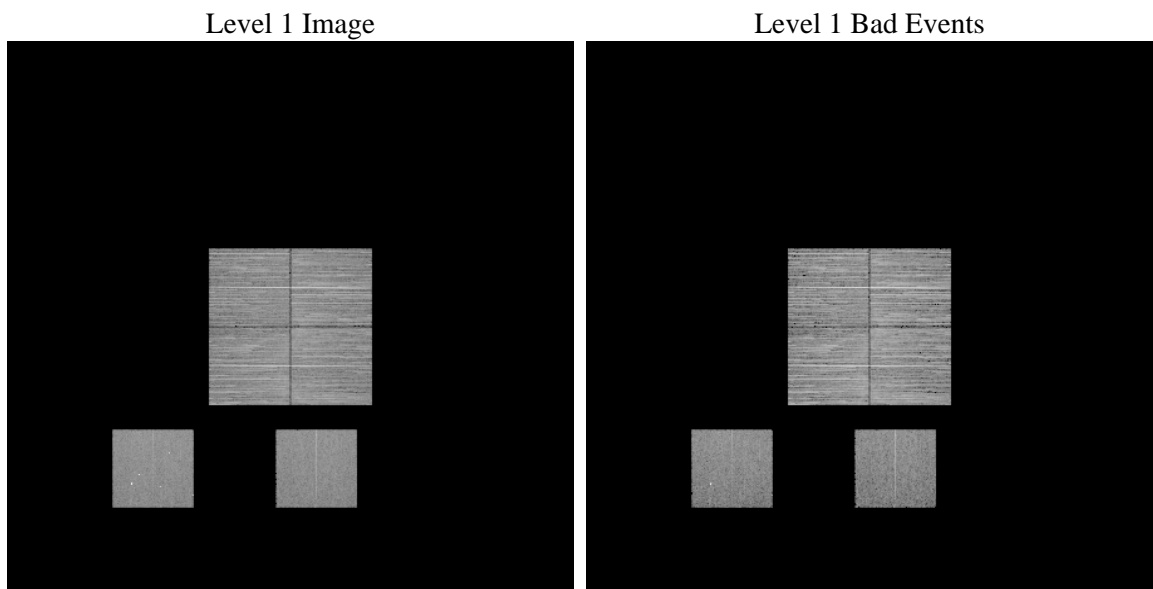
1 Front

seq_num	 	Sequence number
obs_id	52898	Observation id
title	ACIS-012357 diagnostics	Proposal title
observer	CHANDRA engineering request/realtime commanding	Principal investig
object	 	Source name
dtcycle	0	
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	177.53089218914	Nominal RA [deg]
dec_nom	-25.792943363385	Nominal Dec [deg]
roll_nom	341.33642456879	Nominal Roll [deg]
revision	2	Processing version of data
ontime	8287.5061942935	Sum of GTIs [s]
livetime	8182.5648007242	Livetime [s]
ontime0	8287.4651542902	Sum of GTIs [s]
ontime1	8287.4241142869	Sum of GTIs [s]
ontime2	8287.3830742836	Sum of GTIs [s]
ontime3	8287.5472342968	Sum of GTIs [s]
ontime5	8287.3420342803	Sum of GTIs [s]
ontime7	8287.5061942935	Sum of GTIs [s]
l2events	202521	Number of level 2 events

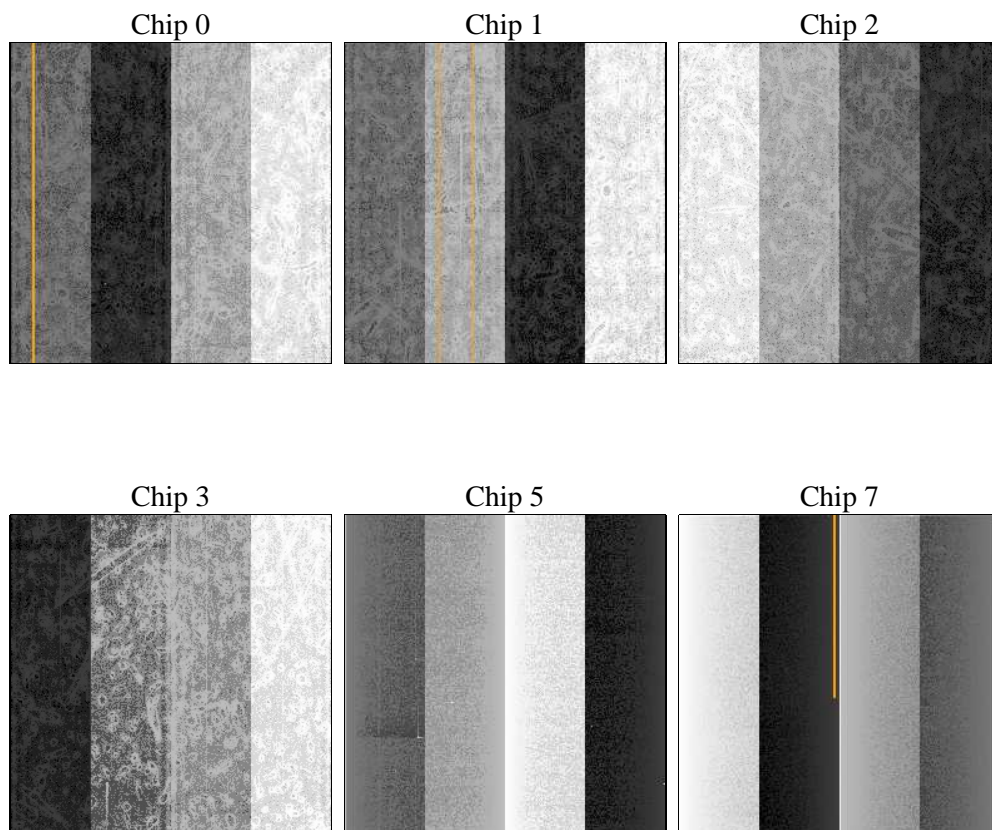
2 OBI

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	10.2.1	Processing system revision	ontime	8287.5061942935	Sum of GTIs [s]
caldsver	4.6.1	 	ontime0	8287.4651542902	Sum of GTIs [s]
date	2014-04-02T17:11:10	Date and time of file creation	ontime1	8287.4241142869	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	8287.3830742836	Sum of GTIs [s]
			ontime3	8287.5472342968	Sum of GTIs [s]
			ontime5	8287.3420342803	Sum of GTIs [s]
			ontime7	8287.5061942935	Sum of GTIs [s]
			l1events	781887	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	126735	139958	141866	136696	123183	113449	grade 0 events	13528	13039	14107	13959	7164	7123
rejected events	99694	112909	114754	109503	66803	62558		10%	9%	9%	10%	5%	6%
rejected %	78%	80%	80%	80%	54%	55%	grade 1 events	70	54	87	84	163	87
								0%	0%	0%	0%	0%	0%
							grade 2 events	5612	5727	5159	5278	20567	12541
								4%	4%	3%	3%	16%	11%
							grade 3 events	1798	1843	1888	1893	1978	4102
								1%	1%	1%	1%	1%	3%
							grade 4 events	1827	1872	1852	1924	1882	4213
								1%	1%	1%	1%	1%	3%
							grade 5 events	2569	2709	2446	2976	5581	7007
								2%	1%	1%	2%	4%	6%
							grade 6 events	4293	4574	4117	4149	24806	22935
								3%	3%	2%	3%	20%	20%
							grade 7 events	97038	110140	112210	106433	61042	55441
								76%	78%	79%	77%	49%	48%

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	177.5308921891418	Subarray requested	NONE	NONE
[deg] Pointing Dec	0	-25.79294336338491	Alternating exposures requested	N	N
[deg] Pointing Roll	0.0	341.3364245687887	[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)	512233920.046393	512233919.02139			
Observation start date	2014-03-26T15:12:00	2014-03-26T15:11:59			
[s] Observation end time (MET)	512247950.247166	512247949.22217			
Observation end date	2014-03-26T19:05:50	2014-03-26T19:05:49			
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)	2014.04.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	8.2875061942935

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 (~ 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:
(594,86),(618,86),(618,347),(594,354)