

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 59449 - L2 Version 4
Chandra X-Ray Center

L2 Processing Date : Mar 13 2013

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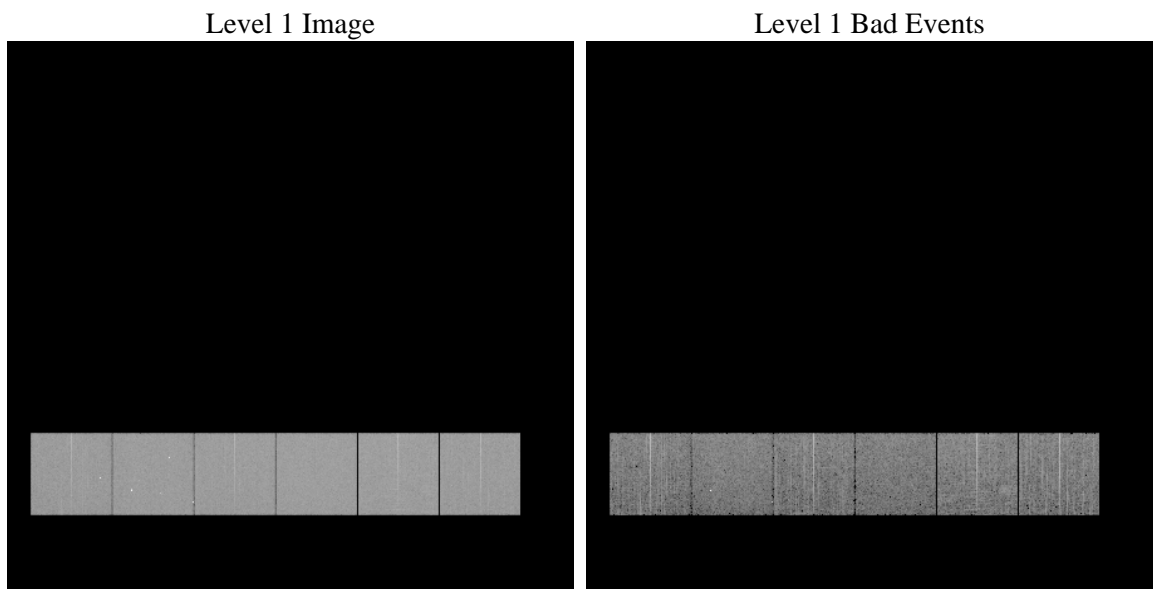
1 Front

seq_num	 	Sequence number
obs_id	59449	Observation id
title	ACIS-456789 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	339.98702657293	Nominal RA [deg]
dec_nom	21.974058160741	Nominal Dec [deg]
roll_nom	212.21322407309	Nominal Roll [deg]
revision	4	Processing version of data
ontime	7799.6655435264	Sum of GTIs [s]
livetime	7700.9014820195	Livetime [s]
ontime4	7257.1164314449	Sum of GTIs [s]
ontime5	7801.5999709368	Sum of GTIs [s]
ontime6	7438.6108680665	Sum of GTIs [s]
ontime7	7799.6655435264	Sum of GTIs [s]
ontime8	7513.1532248855	Sum of GTIs [s]
ontime9	7420.430768311	Sum of GTIs [s]
l2events	1055779	Number of level 2 events

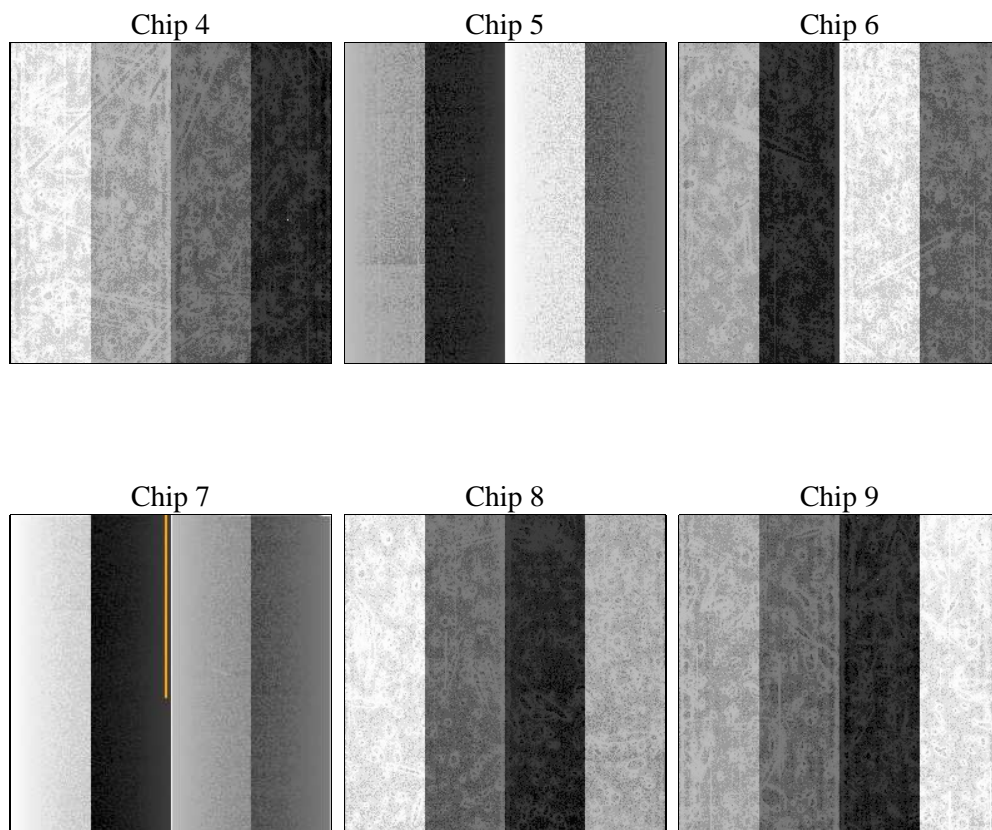
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	0.0	[s] Scheduled observation exposure time
ascdsver	8.5.1.1	Processing system revision	ontime	7799.6655435264	Sum of GTIs [s]
caldsver	4.5.6	 	ontime4	7257.1164314449	Sum of GTIs [s]
date	2013-03-13T16:46:34	Date and time of file creation	ontime5	7801.5999709368	Sum of GTIs [s]
revision	4	Processing version of data	ontime6	7438.6108680665	Sum of GTIs [s]
			ontime7	7799.6655435264	Sum of GTIs [s]
			ontime8	7513.1532248855	Sum of GTIs [s]
			ontime9	7420.430768311	Sum of GTIs [s]
			l1events	1403696	Number of level 1 events

2.1.4 Events

	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	219280	231800	232963	243740	246639	229274	grade 0 events	99532	42190	100523	49252	105206	98493
rejected events	46711	46245	45104	40079	51360	48618		45%	18%	43%	20%	42%	42%
rejected %	21%	19%	19%	16%	20%	21%	grade 1 events	734	382	481	147	545	570
								0%	0%	0%	0%	0%	0%
							grade 2 events	27246	65447	33068	44453	33769	31010
								12%	28%	14%	18%	13%	13%
							grade 3 events	11495	11183	11466	19861	12829	11478
								5%	4%	4%	8%	5%	5%
							grade 4 events	11291	11201	11571	19763	12669	11486
								5%	4%	4%	8%	5%	5%
							grade 5 events	2837	7471	3047	7104	3511	3131
								1%	3%	1%	2%	1%	1%
							grade 6 events	23005	55534	31231	70332	30806	28189
								10%	23%	13%	28%	12%	12%
							grade 7 events	43140	38392	41576	32828	47304	44917
								19%	16%	17%	13%	19%	19%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-456789	ACIS-456789	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	On-chip summing requested	N	N
Observation mode	SECONDARY	SECONDARY	Subarray requested	NONE	NONE
[deg] Pointing RA	0	339.9870265729278	Alternating exposures requested	N	N
[deg] Pointing Dec	0	21.97405816074144	[s] Primary exposure time	3.2	3.2
[deg] Pointing Roll	0.0	212.2132240730891			
[mm] SIM focus pos	-0.684267	-0.7809083437167272			
[mm] SIM defocus	0	0.7524282956875696			
[mm] SIM translation stage pos	-190.132523	250.466033080201			
[mm] SIM translation stage offset	0	-0.01005468664627074			
[s] Observation start time (MET)	243300995.455769	243300994.43079			
Observation start date	2005-09-16T23:36:35	2005-09-16T23:36:34			
[s] Observation end time (MET)	243320683.656672	243320682.63169			
Observation end date	2005-09-17T05:04:44	2005-09-17T05:04:42			
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)	2013.03.14
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.7996655435264

A.2 Comments

As a consequence of the DEA-A shutdown anomaly on Sep 15th (DOY258), the reported value of the ACIS FP temperature was ~1.3 degrees warmer than the actual temperature. The value for FP temperature reported in the headers of the Level 2 event file and the Mission Timeline files are incorrect by this amount for this processing. However, the temperature is corrected in the processing in order to obtain the correct temperature for the CTI correction. So the calibrated data are correct. If using the FP temp values in the headers of data files (some CIAO tools require this information), investigators should subtract 1.3 degrees from the reported temperature to determine the true temperature.

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A spatial region of the original bias map for CCD = 9 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 = 9 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:
(666,1),(732,1),(732,459),(666,459)