

# V&V Reference Report

## L2 ASCDS Version : 7.6.7.1

Observation 59442 - L2 Version 002  
Chandra X-Ray Center

L2 Processing Date : Mar 26 2006

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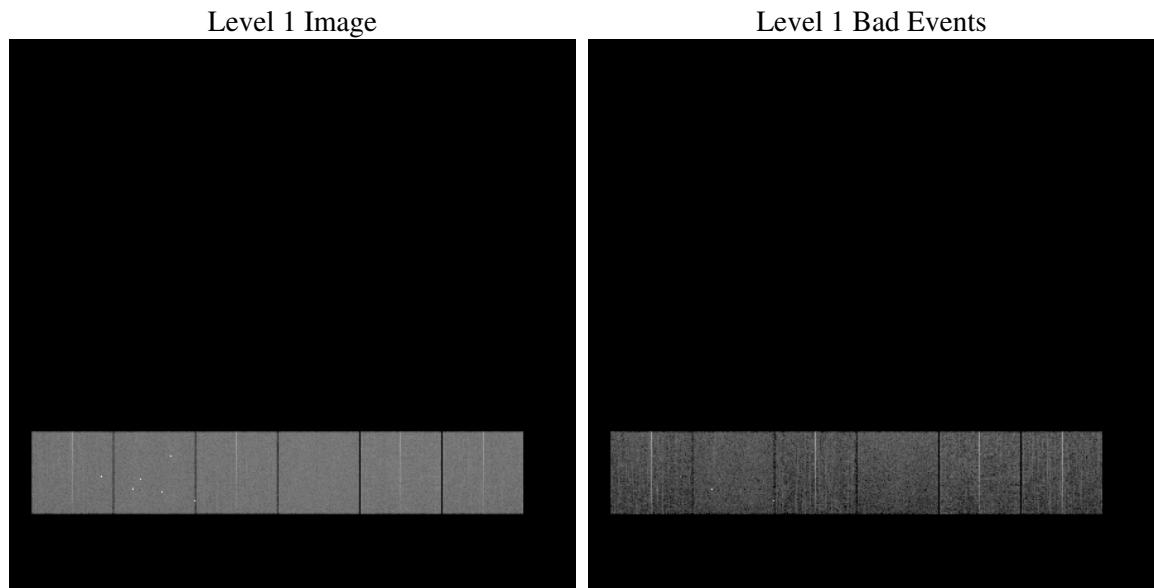
# 1 Front

seq_num	&#160
obs_id	59442
title	ACIS-456789 diagnostics
observer	CHANDRA engineering request/realtime commanding
object	&#160
dtycycle	0
cycle	P
ra_targ	0.0
dec_targ	0.0
ra_nom	346.68234661346
dec_nom	25.176261460729
roll_nom	203.25639290514
revision	2
ontime	7503.9999720454
livetime	7408.9798060331
ontime4	7503.9999720454
ontime5	7503.9999720454
ontime6	7503.9999720454
ontime7	7503.9999720454
ontime8	7503.9999720454
ontime9	7503.9999720454
l2events	955459

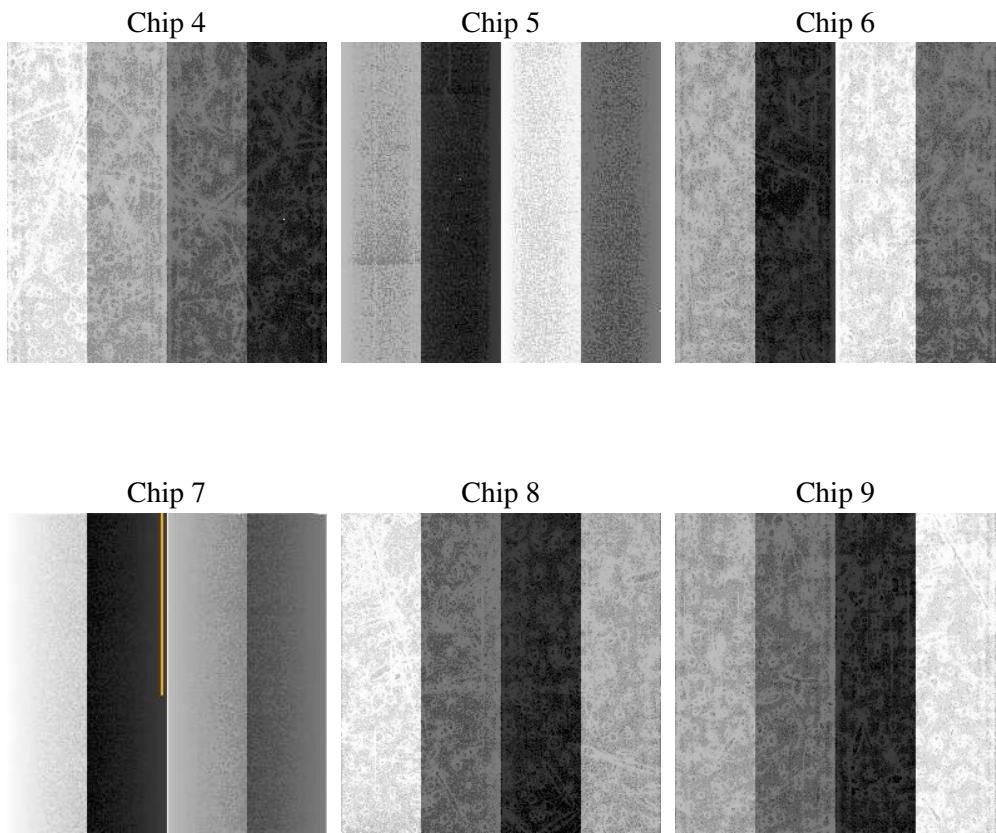
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0
ascdsver	7.6.7.1
caldbver	3.2.1
date	2006-03-26T07:05:02
revision	2

sched_exp_time	0.0
ontime	7583.959828496
ontime4	7583.959828496
ontime5	7583.959828496
ontime6	7583.959828496
ontime7	7583.959828496
ontime8	7583.959828496
ontime9	7583.959828496
l1events	1348998

### 2.1.4 Events

	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	215508	224014	225520	228031	235739	220186
rejected events	53146	55898	52001	51714	56149	53270
rejected %	24%	24%	23%	22%	23%	24%

	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	96347	21733	94877	28512	97956	92930
	44%	9%	42%	12%	41%	42%
grade 1 events	613	248	433	83	470	487
	0%	0%	0%	0%	0%	0%
grade 2 events	25235	77285	30556	55152	31962	28652
	11%	34%	13%	24%	13%	13%
grade 3 events	10976	4936	10840	12106	11916	10955
	5%	2%	4%	5%	5%	4%
grade 4 events	10737	4737	10875	11876	11842	10728
	4%	2%	4%	5%	5%	4%
grade 5 events	3036	5293	3295	5541	3829	3445
	1%	2%	1%	2%	1%	1%
grade 6 events	20782	61183	28096	70492	27712	25346
	9%	27%	12%	30%	11%	11%
grade 7 events	47782	48599	46548	44269	50052	47643
	22%	21%	20%	19%	21%	21%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
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
Pointing RA	0	346.6823466134559	Alternating exposures requested	N	N
Pointing Dec	0	25.17626146072865	Primary exposure time	3.2	3.2
Pointing Roll	0.0	203.2563929051444			
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.8505141146731063			
SIM translation stage pos (mm)	-190.132523	250.4635187648994			
SIM translation stage offset (mm)	0	-0.007540371344731511			
Observation start time	243572079.268202	243572078.24326			
Observation start date	2005-09-20T02:54:39	2005-09-20T02:54:38			
Observation end time	243595162.269318	243595161.24432			
Observation end date	2005-09-20T09:19:22	2005-09-20T09:19:21			
Read mode	TIMED	TIMED			

## 2.3 Aspect



## **2.4 Star Slots**

## **2.5 FID Slots**

# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2006.03.26
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.50399997

## 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. GOs should subtract 1.3 degrees from the reported temperature to determine the true temperature. In addition the FP temperature was not regulating during this period. The FP temperature fluctuated between -121.3 C and -118.8 C during this time. For analysis of line-dominated spectra from the FI CCDs, GOs might notice a systematic gain shift by up to 0.5%, either towards higher/lower energies depending on if the FP temperature was colder/warmer than -119.7 C. Analysis of line-dominated spectra on S3 are mostly unaffected (where mostly unaffected means that the changes are smaller than the current uncertainties in the calibration). Analysis of continuum-dominated spectra on both the FI and BI CCDs are mostly unaffected. Imaging analysis on both the FI and BI CCDs are mostly unaffected.