

V&V Reference Report

L2 ASCDS Version : 8.2.1

Observation 1192 - L2 Version 3

Chandra X-Ray Center

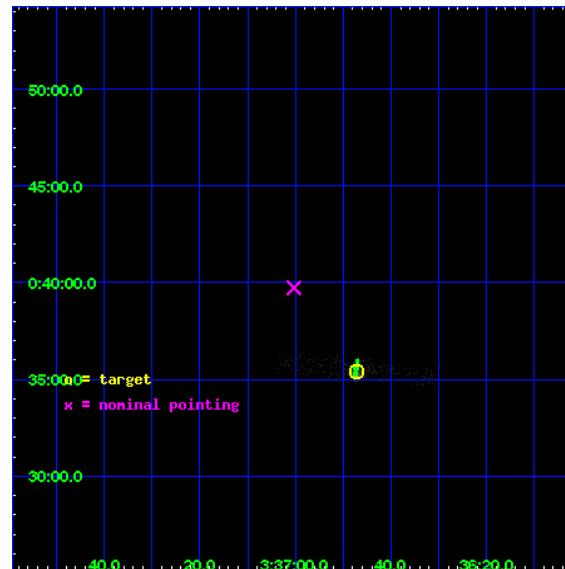
L2 Processing Date : Jan 13 2010

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1 Front

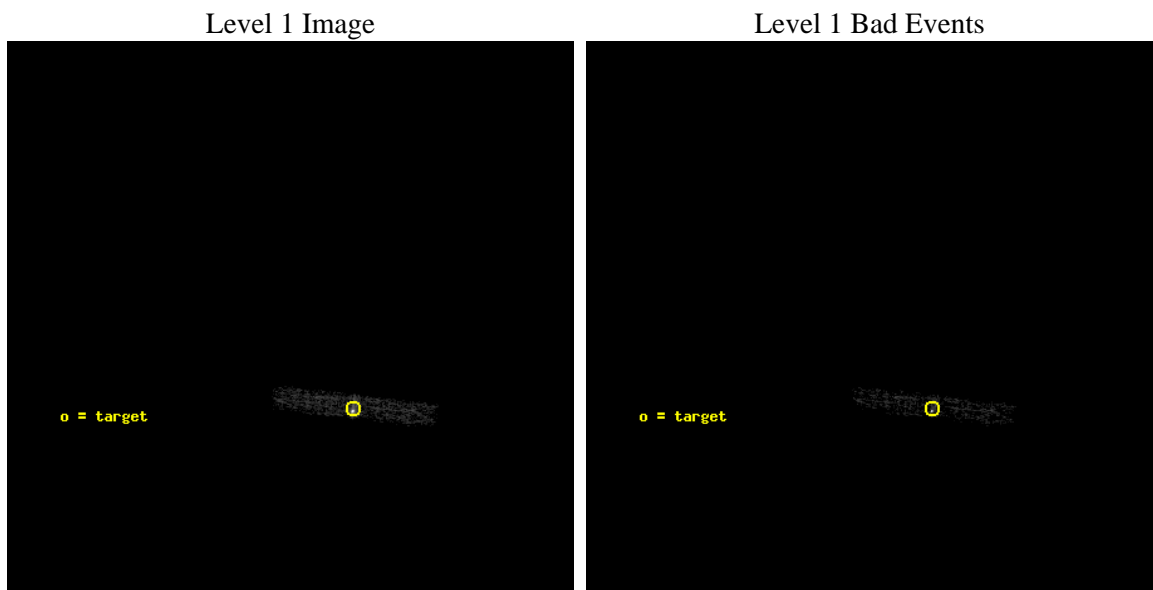
seq_num	280142	Sequence number
obs_id	1192	Observation id
title	 	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	HR1099	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	54.197083	Observer's specified target RA
dec_targ	0.589972	Observer's specified target Dec
ra_nom	54.251379838055	Nominal RA
dec_nom	0.66218839610757	Nominal Dec
roll_nom	96.964078524086	Nominal Roll
revision	3	Processing version of data
ontime	1871.0	Sum of GTIs [s]
livetime	1729.0773325447	Livetime [s]
ontime3	1871.0	Sum of GTIs [s]
l2events	12392	Number of level 2 events



2 OBI

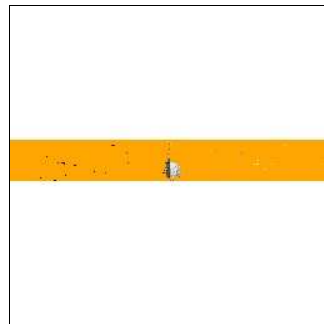
2.1 OBI

2.1.1 Images



2.1.2 Bias

Chip 3



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	2000.000000	Scheduled observation exposure time
ascdsver	8.2.1	ASCDS version number	ontime	1871.0	Sum of GTIs [s]
caldbver	4.1.5	 	ontime3	1871.0	Sum of GTIs [s]
date	2010-01-13T07:07:26	Date and time of file creation	l1events	20486	Number of level 1 events
revision	3	Processing version of data			

2.1.4 Events

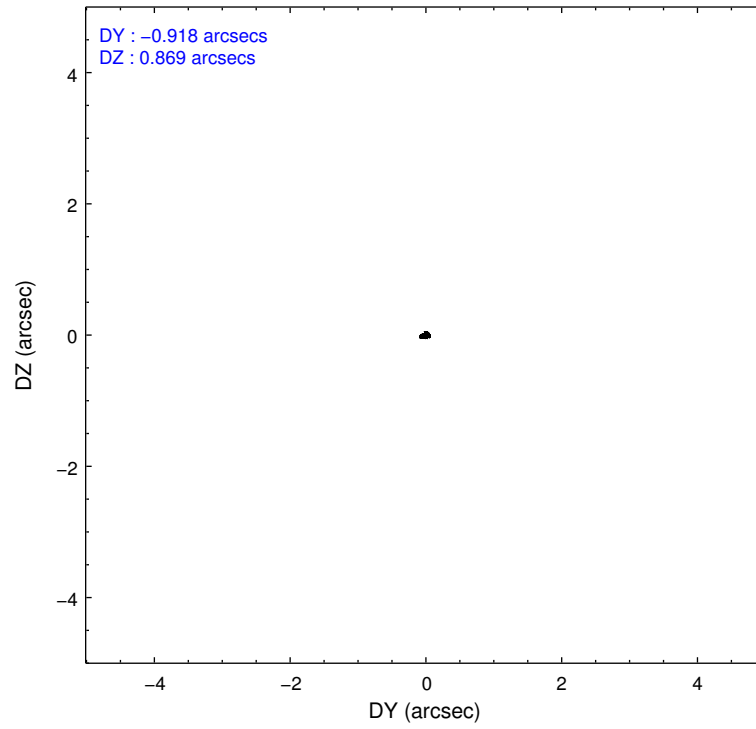
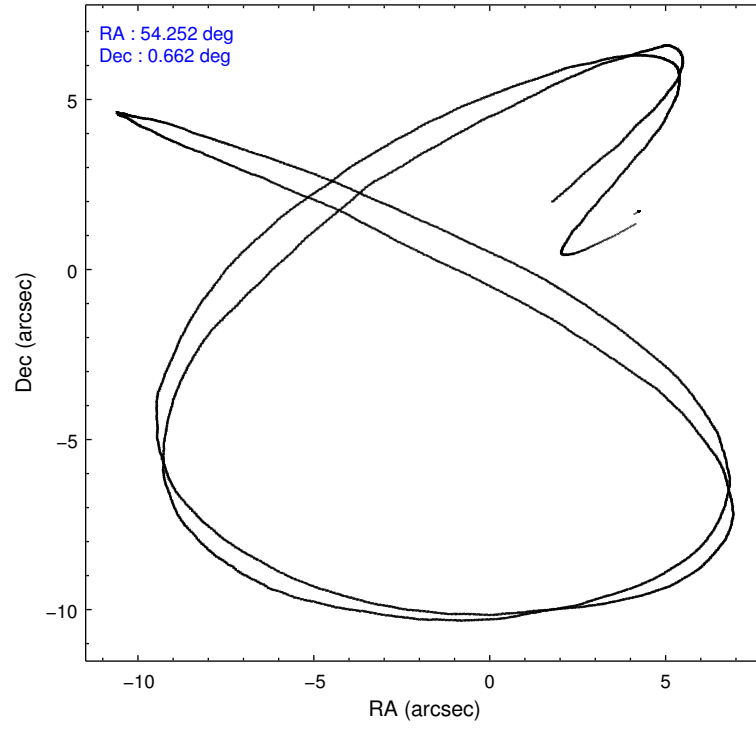
	ccd 3
level 1 events	20486
rejected events	7379
rejected %	36%

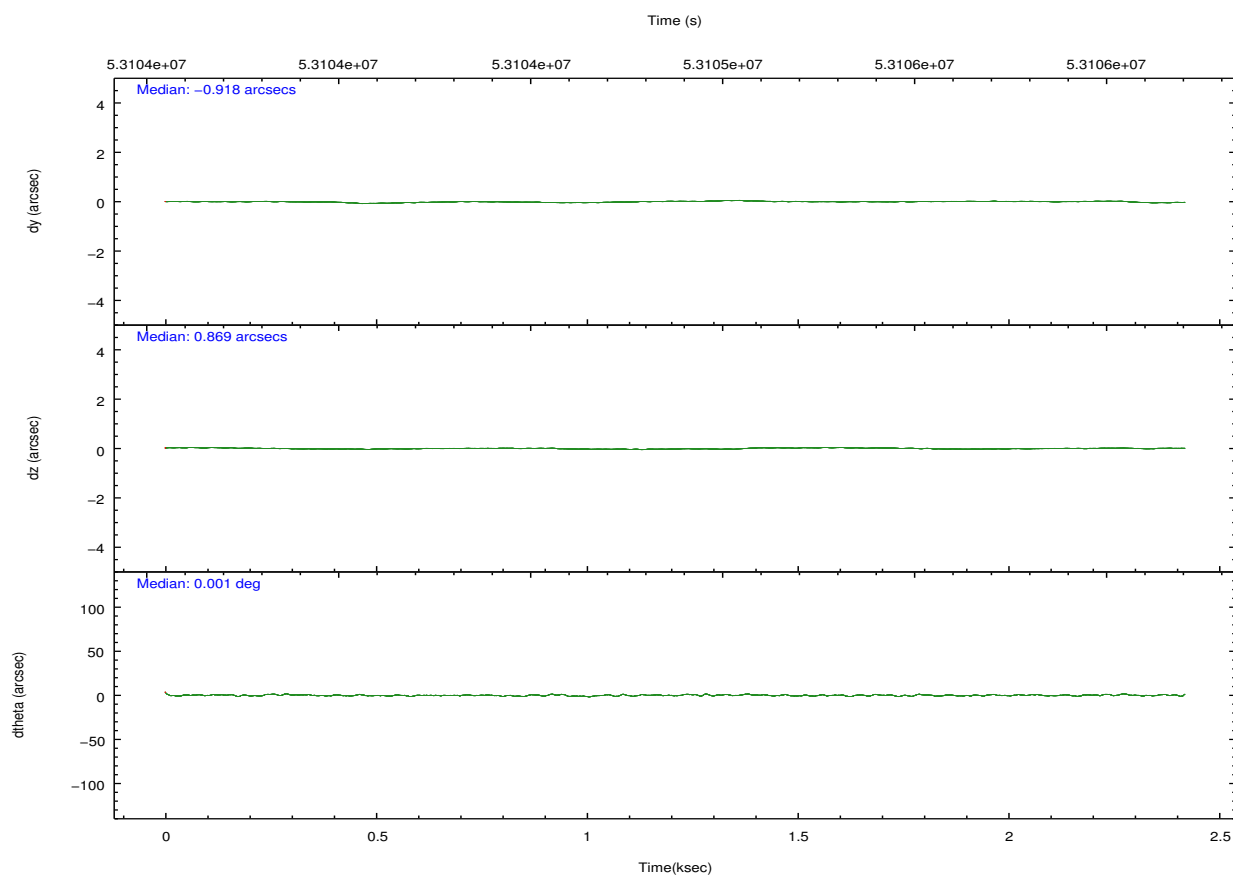
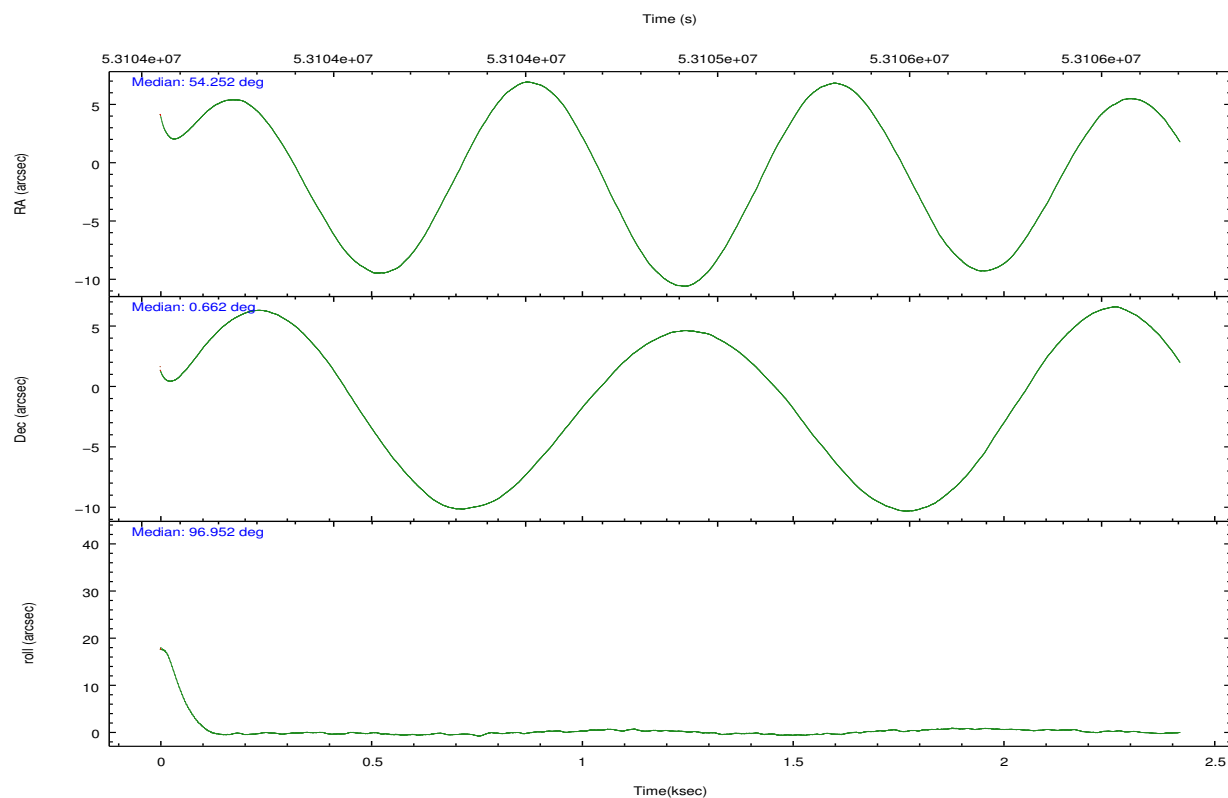
	ccd 3
grade 0 events	8444
	41%
grade 1 events	1471
	7%
grade 2 events	2562
	12%
grade 3 events	633
	3%
grade 4 events	689
	3%
grade 5 events	1148
	5%
grade 6 events	792
	3%
grade 7 events	4747
	23%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-3	ACIS-3	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT_BIAS	FAINT_BIAS	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
Pointing RA	54.267451	54.251379838055	Subarray requested	CUSTOM	1/8
Pointing Dec	0.639257	0.6621883961075681	Subarray start row	468	468
Pointing Roll	96.755121	96.96407852408635	Subarray row count	128	128
SIM focus pos (mm)	-0.782348	-0.7809083437167272	Alternating exposures requested	N	N
SIM defocus (mm)	0	0.001439871863259334	Primary exposure time	0.000000	0.5
SIM translation stage pos (mm)	-233.592463	-233.5874344608287			
SIM translation stage offset (mm)	0	-0.005018542100998502			
Observation start time	53104087.184000	53102666.632846			
Observation start date	1999-09-07T15:07:03	1999-09-07T14:44:26			
Observation end time	53106087.184000	53106220.820474			
Observation end date	1999-09-07T15:40:23	1999-09-07T15:43:40			
Read mode	TIMED	TIMED			

2.3 Aspect



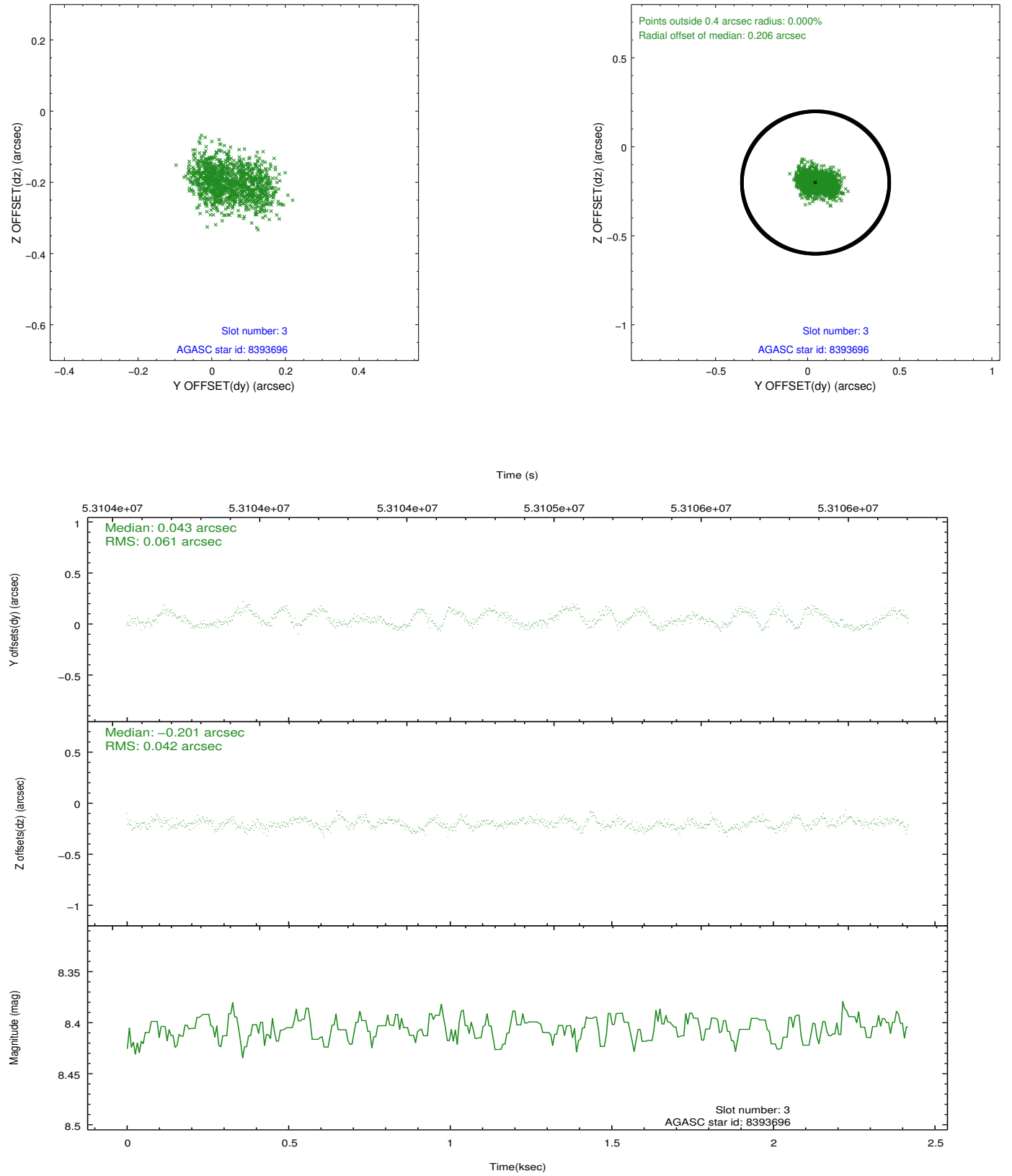


Slot Statistics

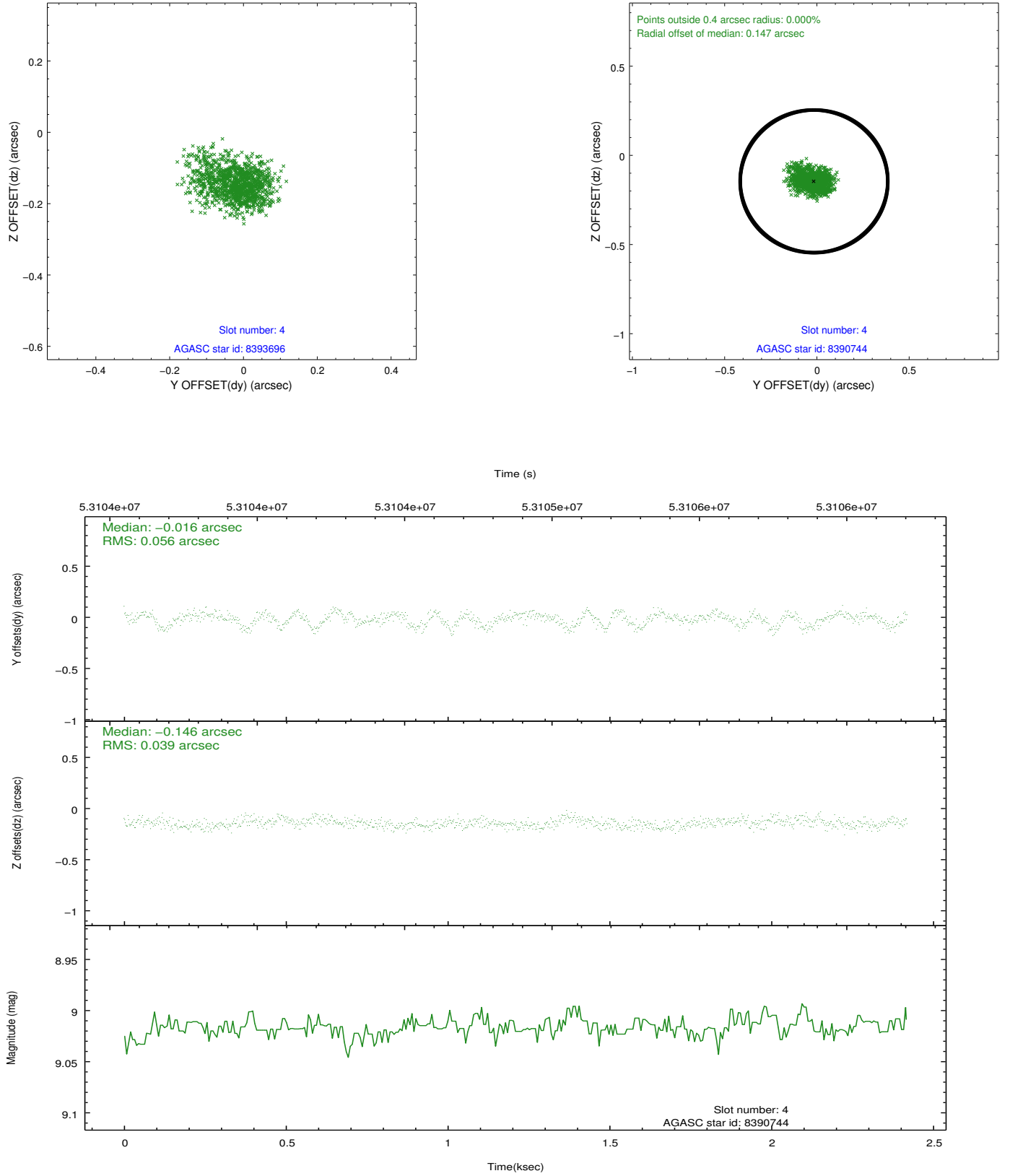
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	7.21	1181	-0.047	0.036	0.008	0.014	0.000000	0.000000	-753.44	-830.38
1	FID	ACIS-I-4	7.23	1181	0.125	0.024	0.006	0.011	0.000000	0.000000	2160.33	1074.99
2	FID	ACIS-I-5	7.23	1181	-0.180	0.009	0.008	0.014	0.000000	0.000000	-1805.66	1074.49
3	GUIDE	8393696	8.41	1181	0.043	-0.201	0.081	0.123	53.645666	0.680479	409.90	2206.15
4	GUIDE	8390744	9.02	1180	-0.016	-0.146	0.072	0.122	53.677290	0.926294	1275.62	1991.01
5	GUIDE	8395104	8.66	1181	0.047	0.179	0.073	0.118	54.744893	0.796520	361.13	-1770.34
6	GUIDE	8397624	9.54	1179	-0.078	0.167	0.099	0.164	54.812881	1.297049	2121.08	-2228.00
7	UNUSED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00

2.4 Star Slots

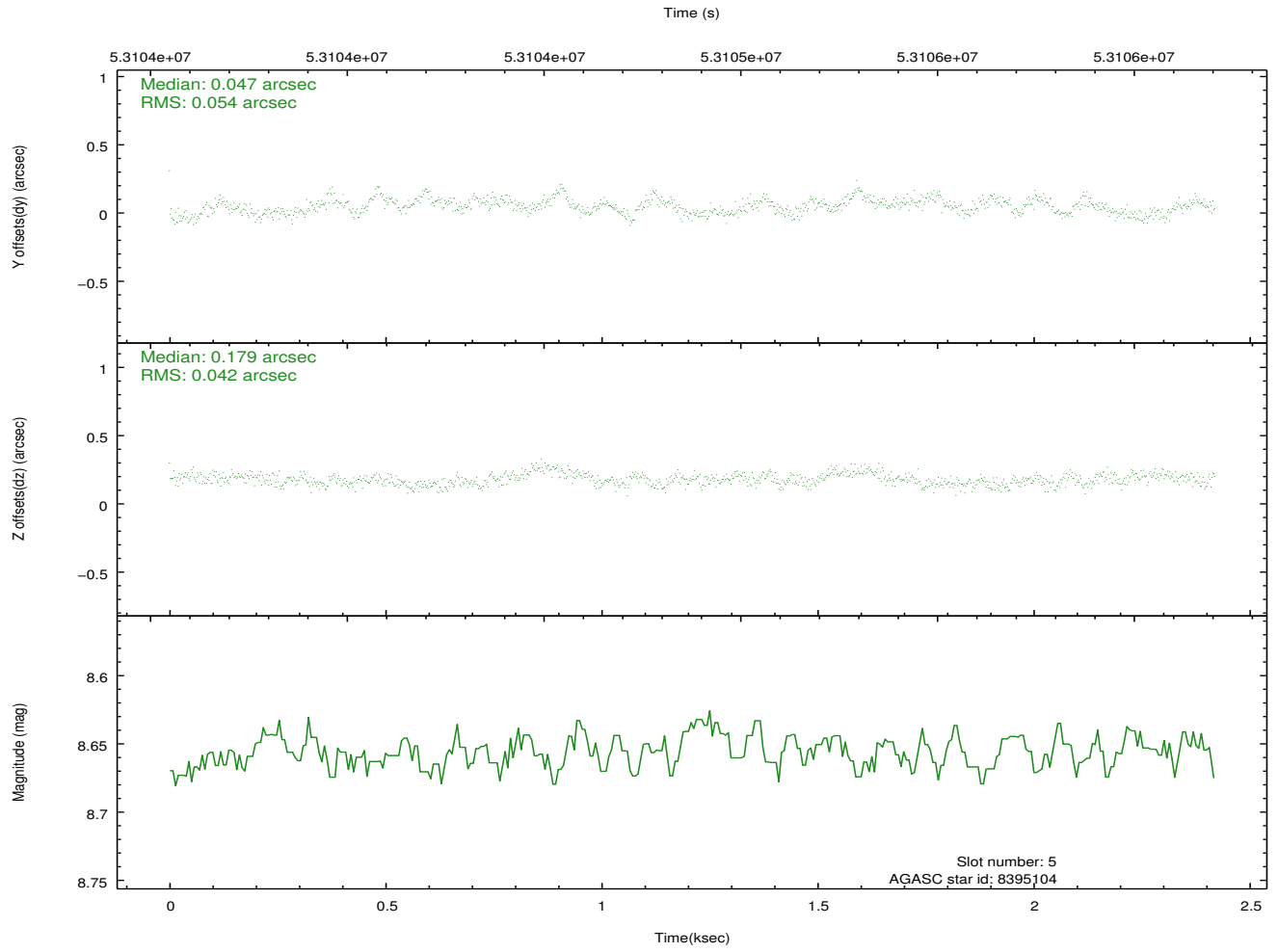
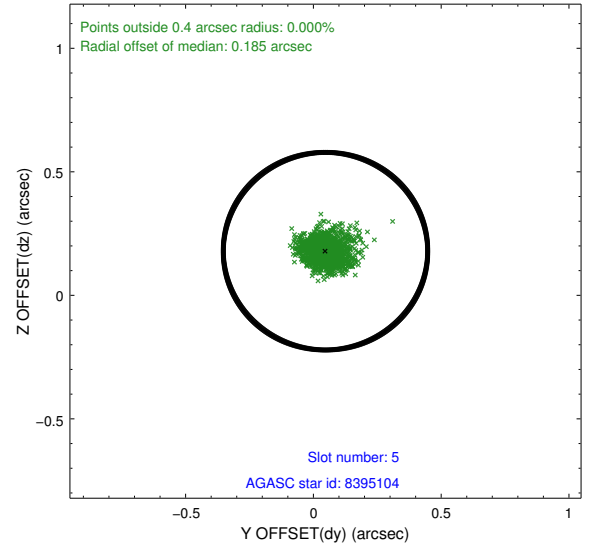
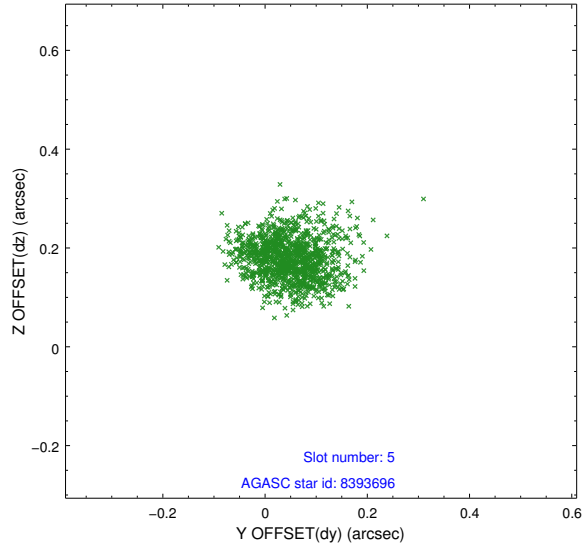
2.4.1 Slot 3



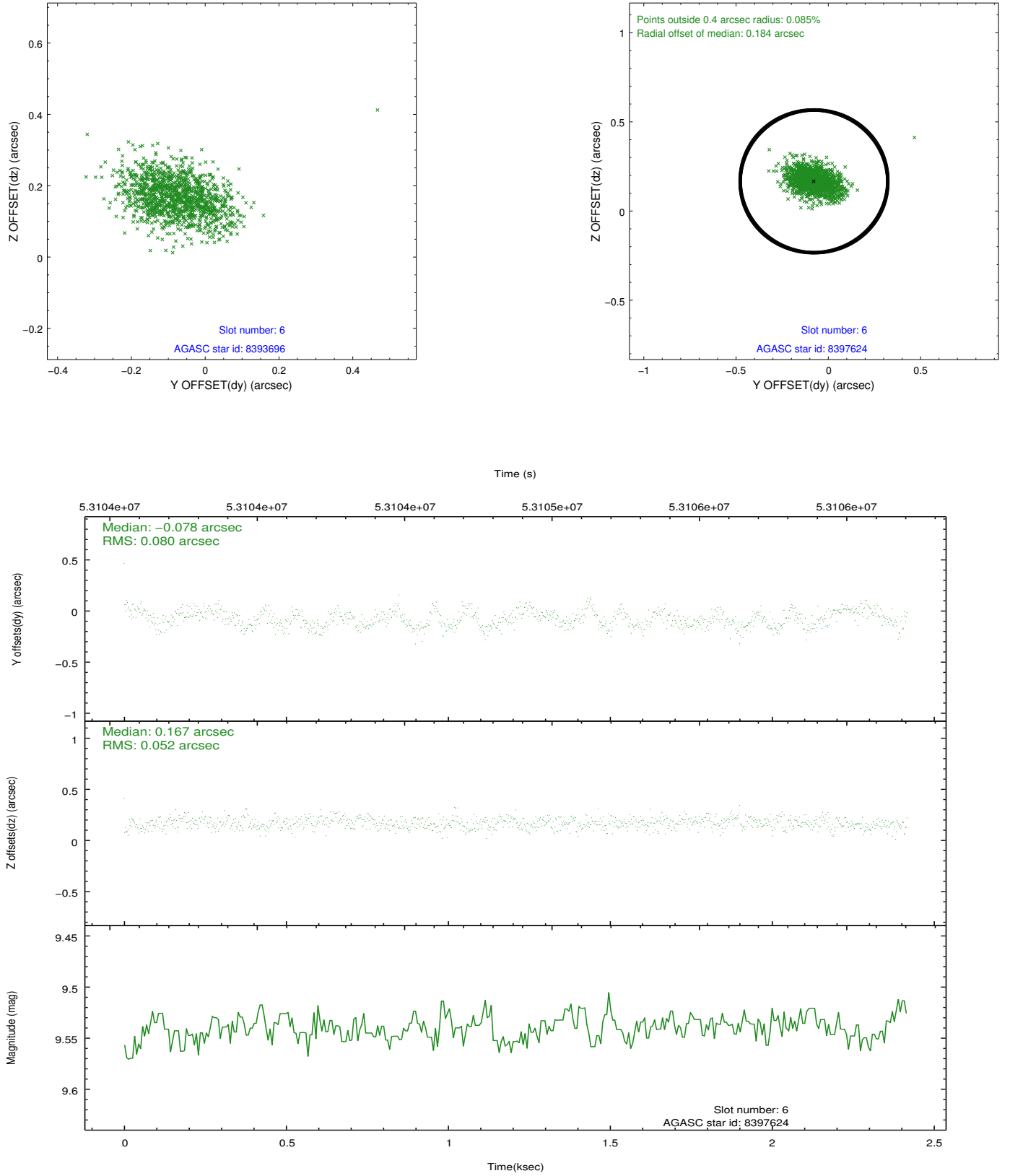
2.4.2 Slot 4



2.4.3 Slot 5

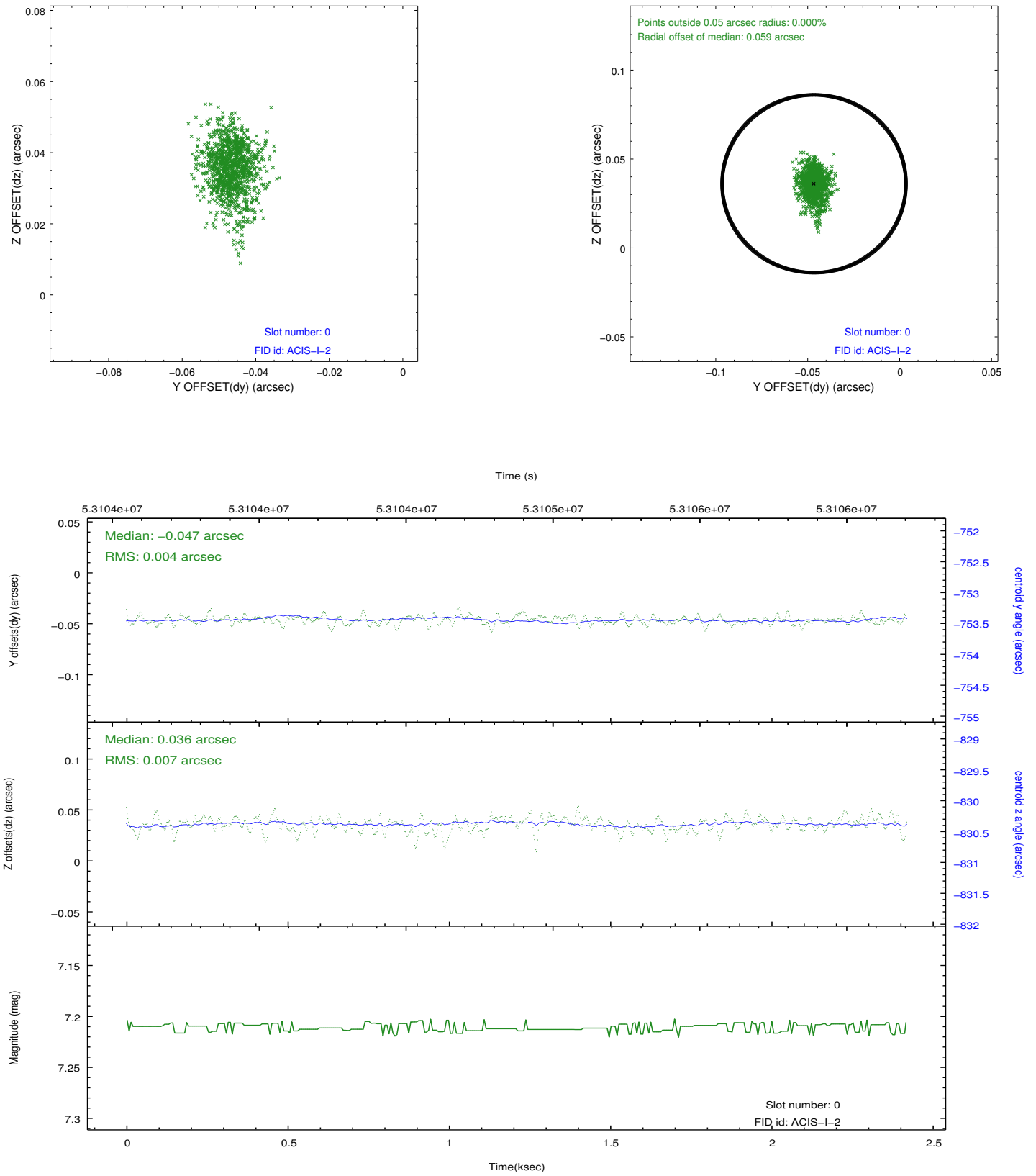


2.4.4 Slot 6

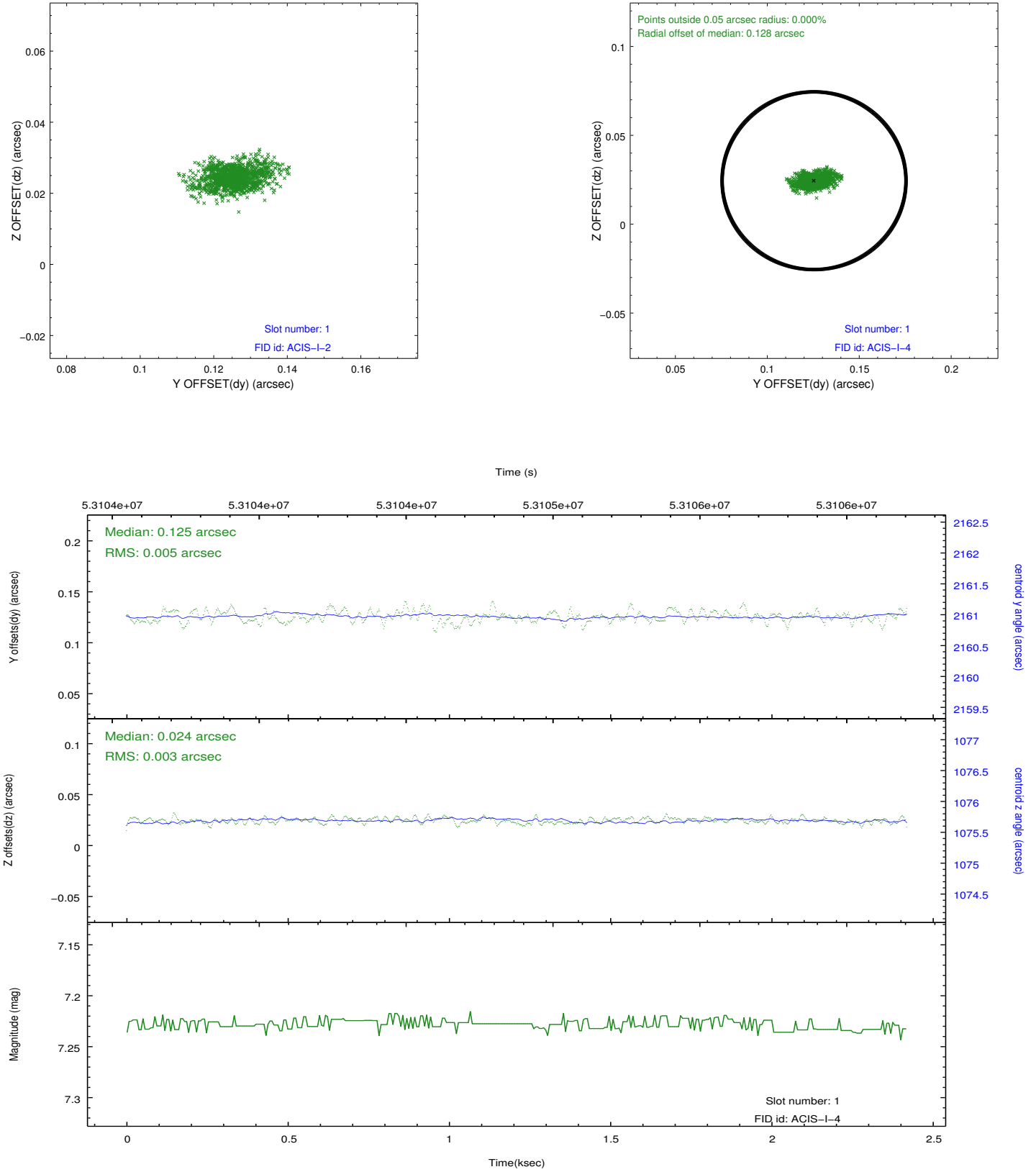


2.5 FID Slots

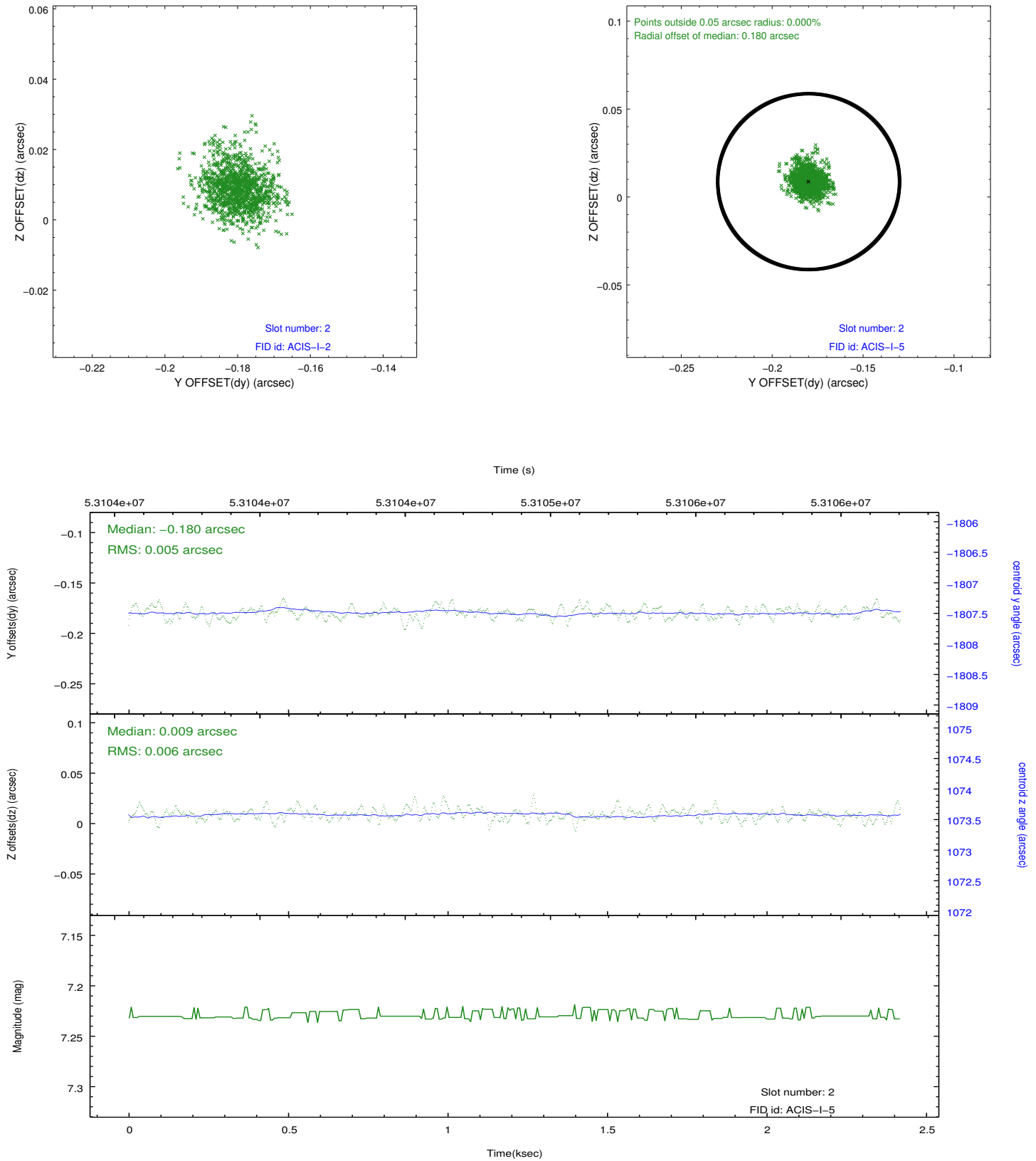
2.5.1 Slot 0



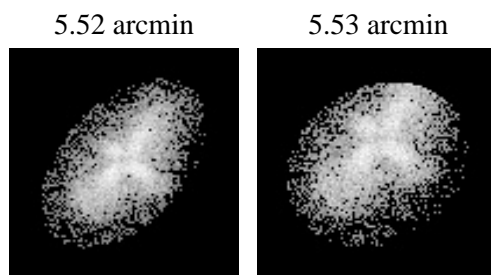
2.5.2 Slot 1



2.5.3 Slot 2



3 Point Sources



A Summary

A.1 Status

V&V Scientist	Glenn Allen
V&V Date (YYYY-MM-DD)	2010.08.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.871

A.2 Comments

Folks,

Yes. The bias looks odd. Most of the bias values are 4095, which normally means that the pixel is identified as bad in the onboard bad-pixel list. However, this observation was performed using the FAINT_BIAS mode. In this case, bias information is not telemetered as an image before the observation is performed. Instead the bias information for a 3 pixel x 3 pixel event island is telemetered with each event. Therefore, when the bias image is constructed, it will only have information for the 3x3 regions around the events. There will be no information for the regions where no events occurred. A comparison of the bias file and the event file shows that the regions around each event have bias information and that the other regions of the CCD do not. Therefore, the locations at which bias information is available are the regions for which bias information are expected. A casual inspection of the spectrum of the source suggest the the spectrum is OK. Therefore, the values of the bias near the source should be fairly accurate.

Glenn

Glenn, the bias map for this observation seems corrupted in some way. There are many 4095 values in the bias, and the target is clearly visible on the bias. Can you have a look at this observation and see if we can improve the results somehow?

Thanks,

Joy

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ACIS very off-axis PSF and effective area measurement on I3.

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Bad bias.

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Slot 7 was not utilized in this observation.

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The focal plane temperature is approximately -100 C during this

observation. This reprocessing of the data applies no CTI correction because none is available for this temperature at present.

The ACIS CTI correction has not been calibrated at this temperature, because it was early in the mission, and ACIS had not yet been lowered to the standard -119.7 C. Both front and back illuminated chips are affected. However a T_GAIN correction has been applied to the BI chips (ACIS-5 and ACIS-7) data included here.

The ACIS spectral response calibration is less accurate at these warmer temperatures than it is at -119.7 C. Users whose science objectives depend on the most accurate spectral response (ie: fitting line-rich spectra) may notice an effect. Users whose science objectives do not depend on the most accurate spectral response should not notice an effect.