

# V&V Reference Report

## L2 ASCDS Version : 8.5.1.1

Observation 5854 - L2 Version 4  
Chandra X-Ray Center

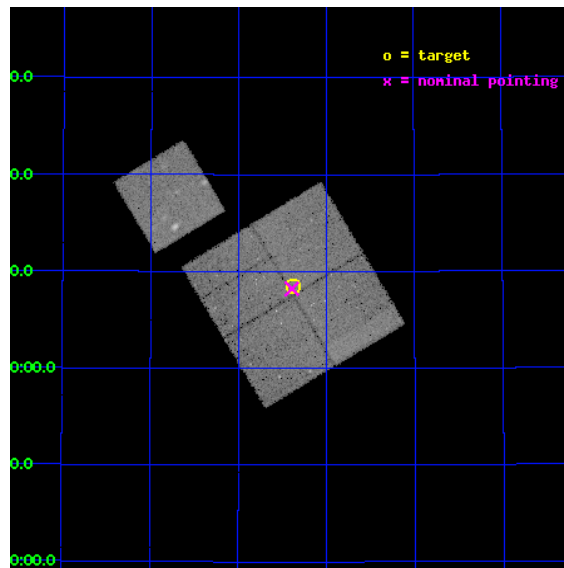
L2 Processing Date : Mar 7 2013

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# 1 Front

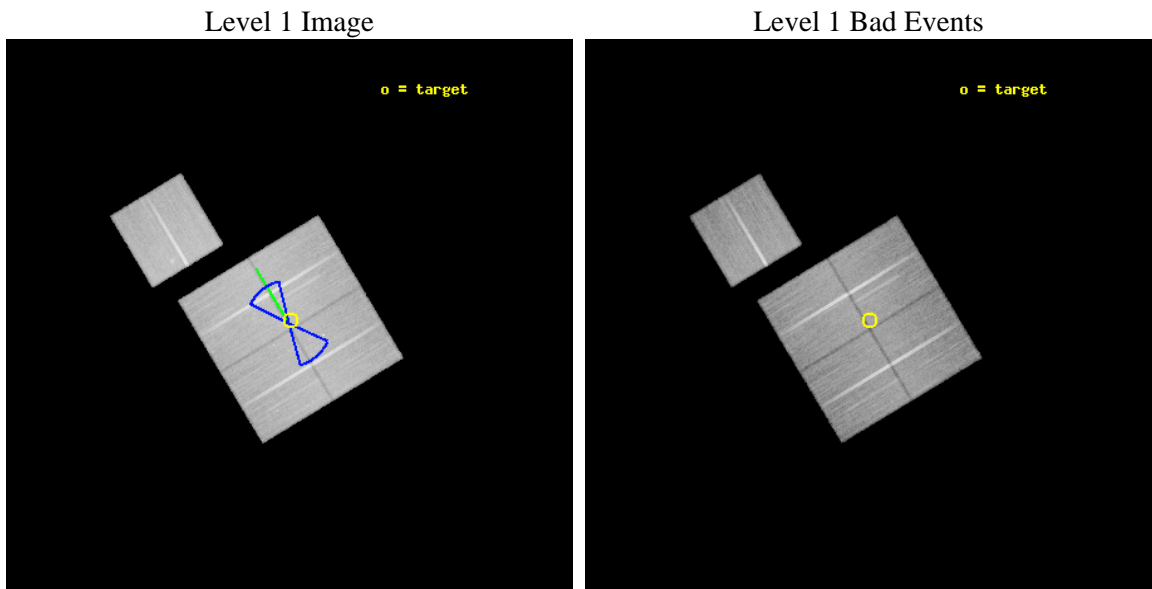
seq_num	900354	Sequence number
obs_id	5854	Observation id
title	Deep Chandra Imaging of the Extended Groth Strip: The Co-evolution of Black Holes and Galaxies	Proposal title
observer	Prof Kirpal Nandra	Principal investigator
object	EGS-7	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	213.843735	Observer's specified target RA [deg]
dec_targ	52.140667	Observer's specified target Dec [deg]
ra_nom	213.84819370451	Nominal RA [deg]
dec_nom	52.136907500498	Nominal Dec [deg]
roll_nom	328.97371148049	Nominal Roll [deg]
revision	4	Processing version of data
ontime	50728.399902433	Sum of GTIs [s]
livetime	50065.596012003	Livetime [s]
ontime0	50725.258932143	Sum of GTIs [s]
ontime1	50725.258942187	Sum of GTIs [s]
ontime2	50725.258912265	Sum of GTIs [s]
ontime3	50728.399902433	Sum of GTIs [s]
ontime6	50725.258932173	Sum of GTIs [s]
l2events	133240	Number of level 2 events



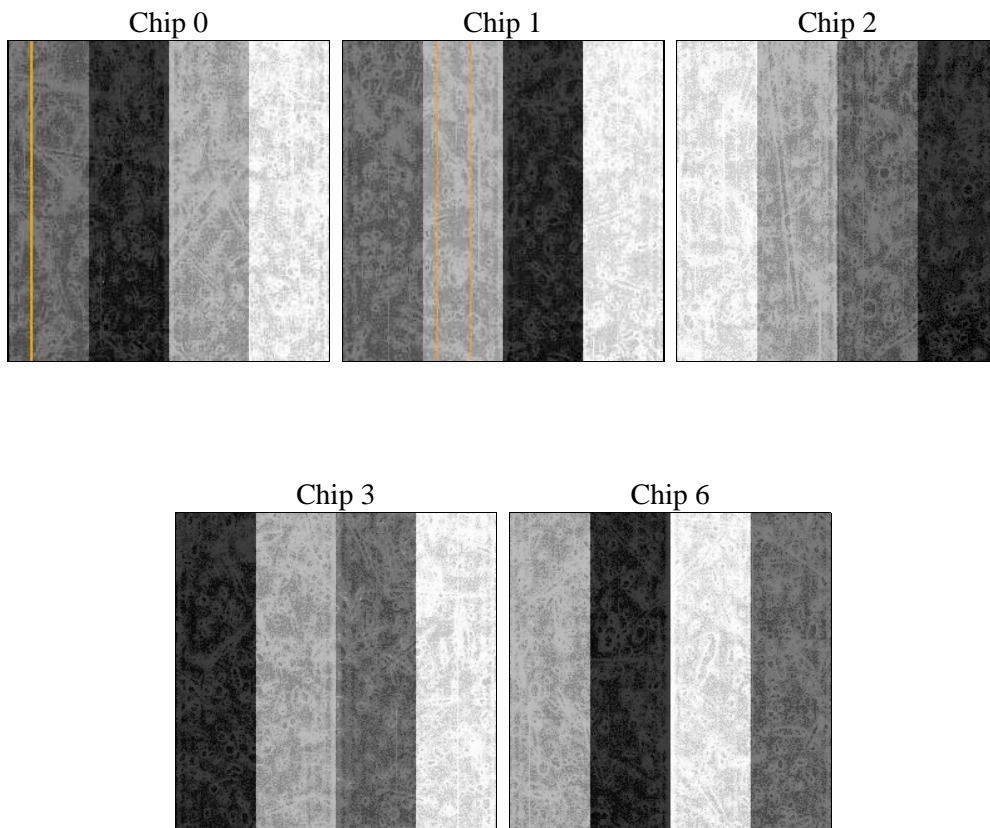
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	50600.000000	[s] Scheduled observation exposure time
ascdsver	8.5.1.1	Processing system revision	ontime	50728.399902433	Sum of GTIs [s]
caldbver	4.5.6	&#160	ontime0	50725.258932143	Sum of GTIs [s]
date	2013-03-07T19:03:49	Date and time of file creation	ontime1	50725.258942187	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	50725.258912265	Sum of GTIs [s]
			ontime3	50728.399902433	Sum of GTIs [s]
			ontime6	50725.258932173	Sum of GTIs [s]
			l1events	1519554	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	290641	284320	327097	303636	313860
rejected events	259567	248730	296310	274512	279614
rejected %	89%	87%	90%	90%	89%

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	11071	13538	11219	9954	12799
	3%	4%	3%	3%	4%
grade 1 events	126	148	166	132	148
	0%	0%	0%	0%	0%
grade 2 events	7519	7740	7536	6782	7287
	2%	2%	2%	2%	2%
grade 3 events	3564	3795	3247	3396	3762
	1%	1%	0%	1%	1%
grade 4 events	3299	3783	3414	3304	3590
	1%	1%	1%	1%	1%
grade 5 events	10690	12177	10517	12764	12704
	3%	4%	3%	4%	4%
grade 6 events	5923	7044	5637	5930	7079
	2%	2%	1%	1%	2%
grade 7 events	248449	236095	285361	261374	266491
	85%	83%	87%	86%	84%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01236	ACIS-01236	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	213.803566	213.8481937045116	Subarray requested	NONE	NONE
[deg] Pointing Dec	52.137282	52.13690750049849	Alternating exposures requested	N	N
[deg] Pointing Roll	328.800264	328.9737114804873	[s] Primary exposure time	0.000000	3.1
[deg] Roll angle	50.756000	50.756000			
[deg] Roll tolerance	25.000000	25.000000			
Roll constraint allows 180D rotation	Y	Y			
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	244512735.184000	244511543.06147			
Observation start date	2005-10-01T00:11:11	2005-09-30T23:52:23			
[s] Observation end time (MET)	244563335.184000	244564361.3139			
Observation end date	2005-10-01T14:14:31	2005-10-01T14:32:41			
Read mode	TIMED	TIMED			

## 2.3 Aspect

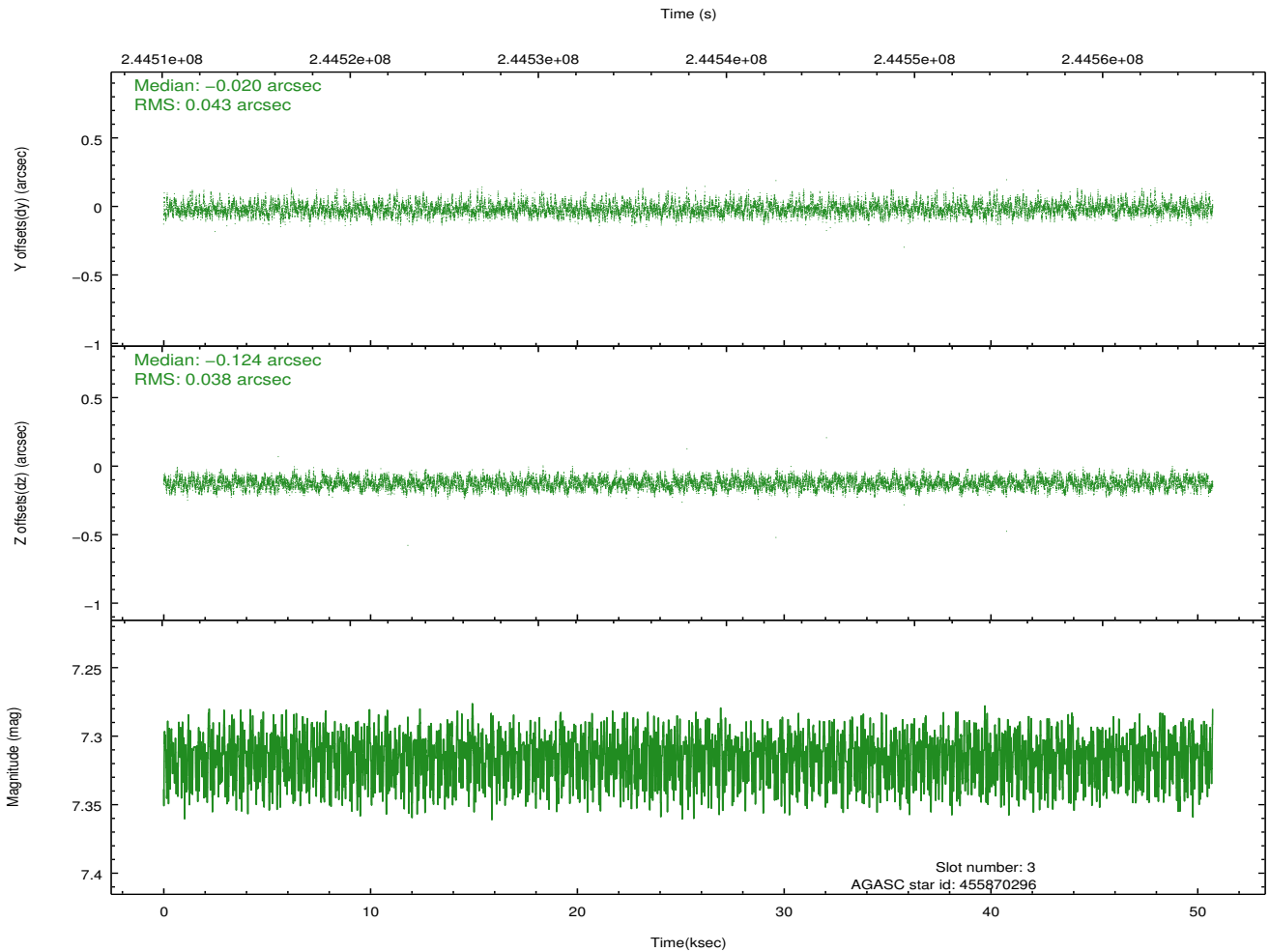
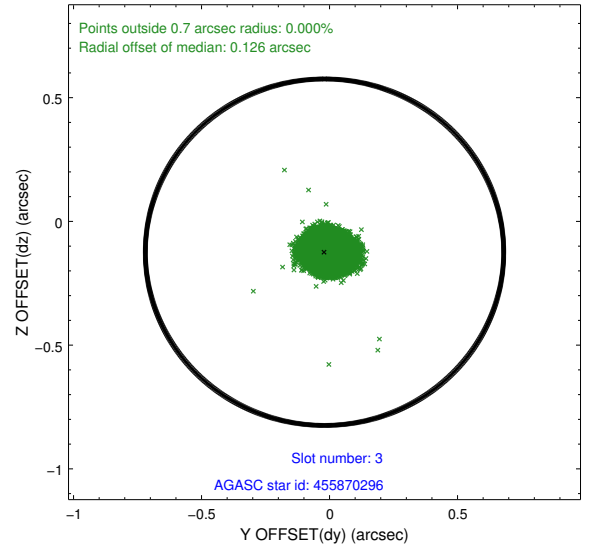
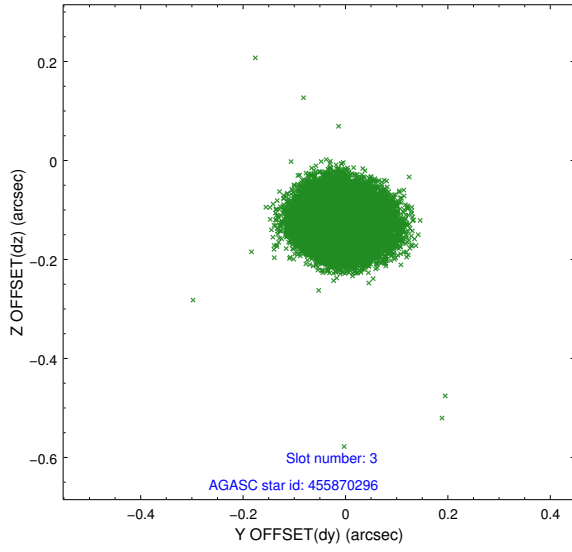


### Slot Statistics

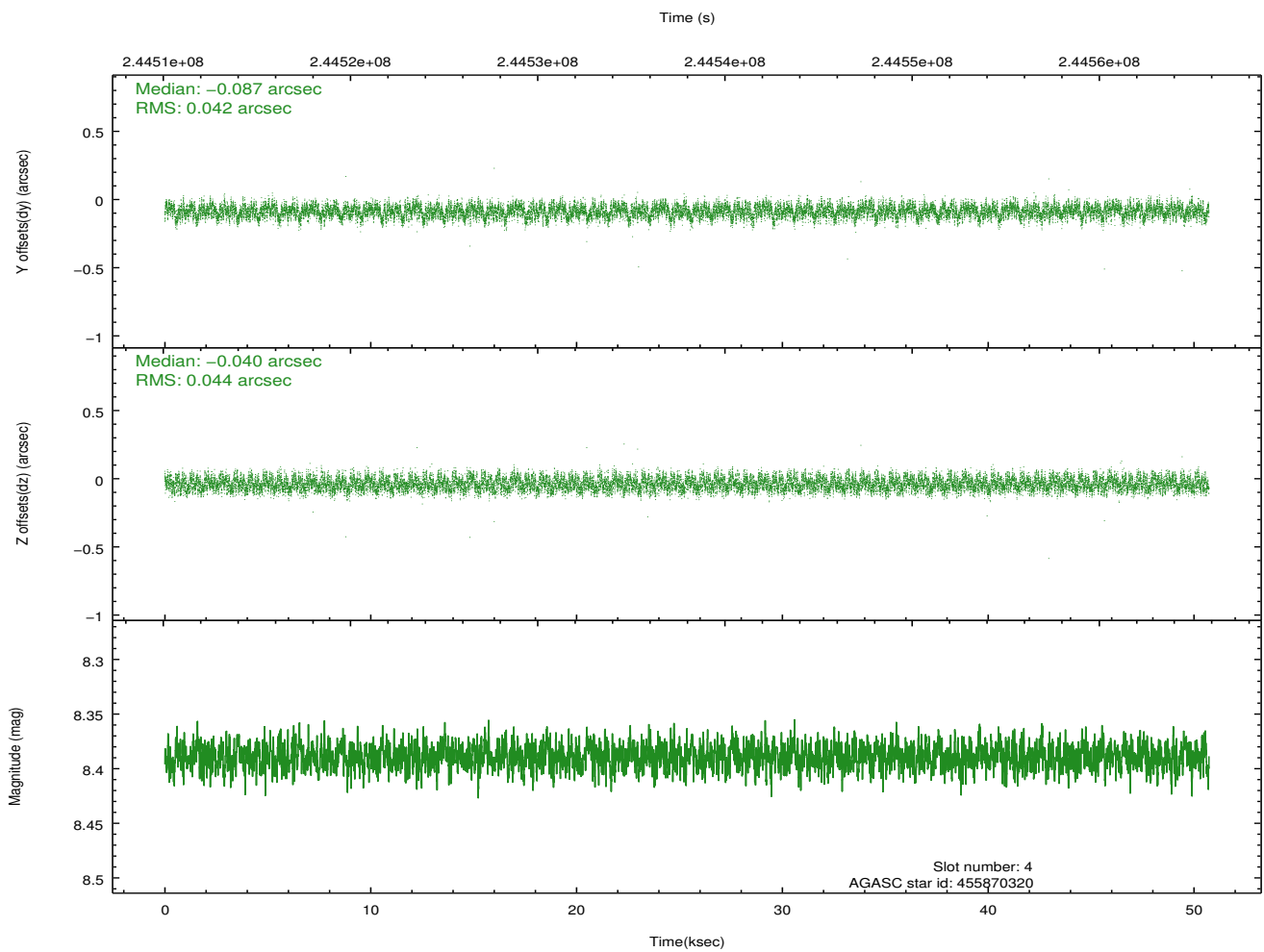
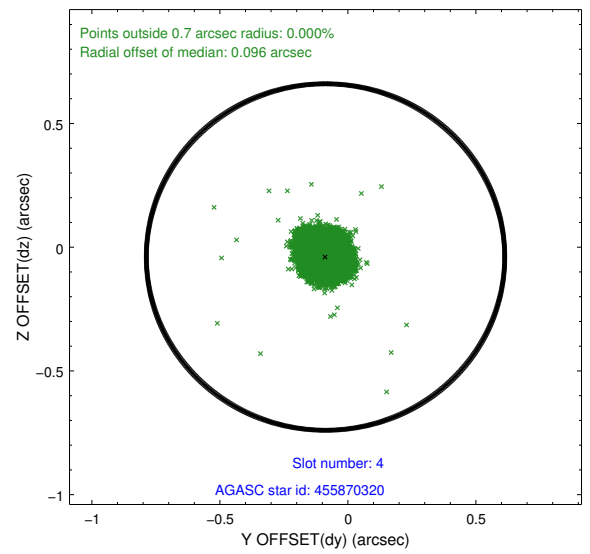
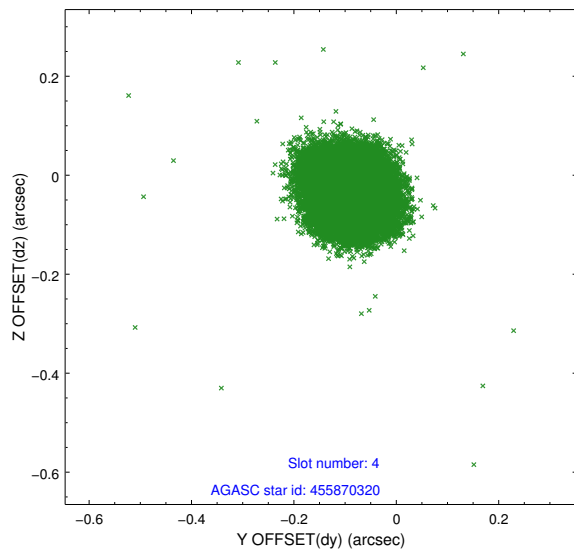
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.24	12375	0.048	-0.023	0.010	0.048	0.000000	0.000000	933.36	-834.95
1	FID	ACIS-I-5	7.23	12374	-0.160	0.065	0.010	0.035	0.000000	0.000000	-1814.92	1062.69
2	FID	ACIS-I-6	7.25	12374	0.021	0.030	0.014	0.033	0.000000	0.000000	398.96	1707.09
3	GUIDE	455870296	7.32	24746	-0.020	-0.124	0.061	0.096	214.629779	52.033323	1753.66	636.57
4	GUIDE	455870320	8.39	24743	-0.087	-0.040	0.066	0.101	214.874440	52.401638	1510.02	2047.31
5	GUIDE	505806936	7.01	24750	-0.043	-0.050	0.068	0.111	213.820815	52.535927	-711.07	1247.19
6	GUIDE	454958240	9.05	24734	0.141	0.154	0.080	0.128	212.550018	52.097330	-2308.91	-1538.48
7	GUIDE	455871352	8.10	24748	0.002	0.061	0.065	0.108	215.099961	52.172669	2368.87	1613.54

## 2.4 Star Slots

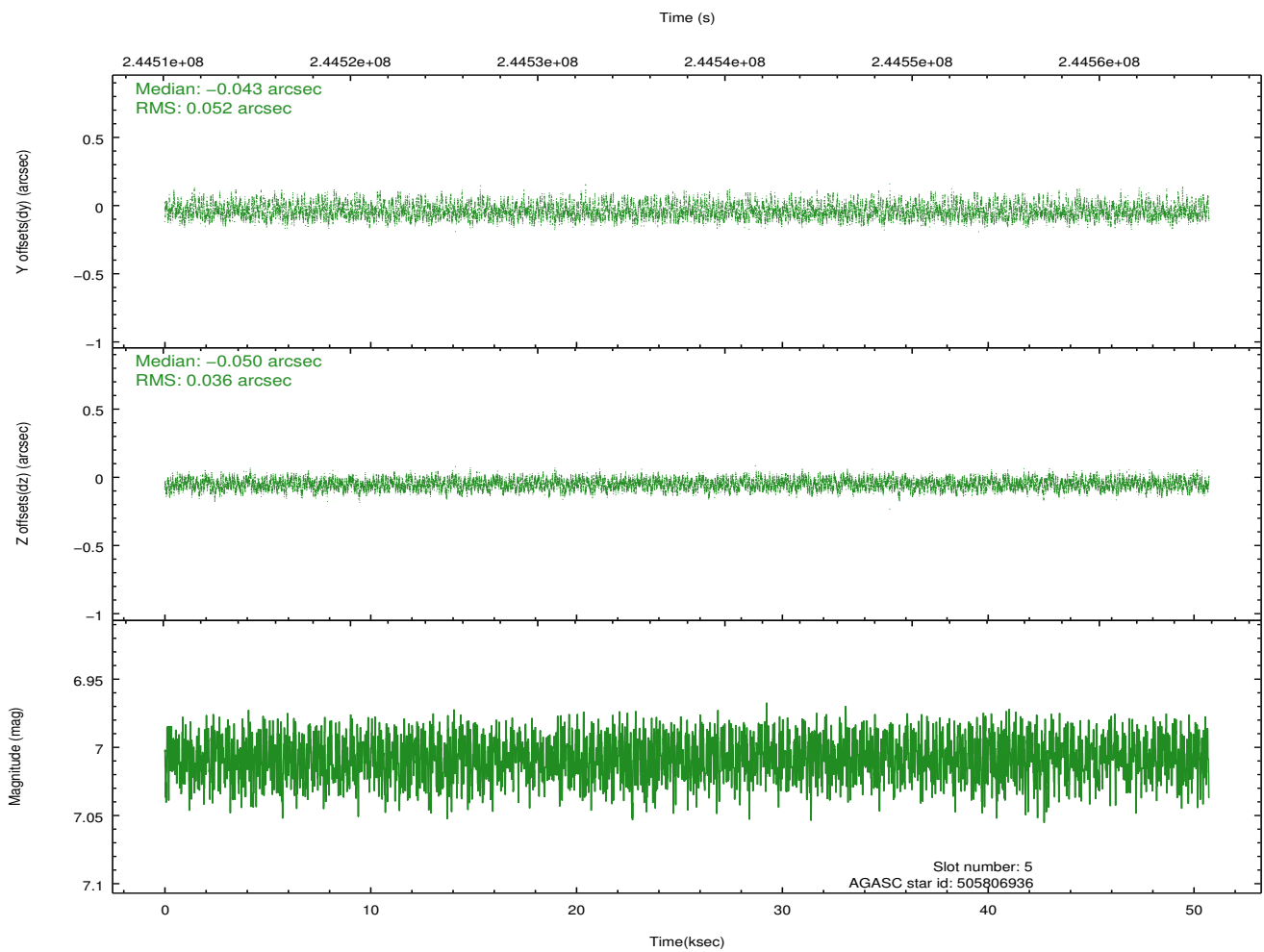
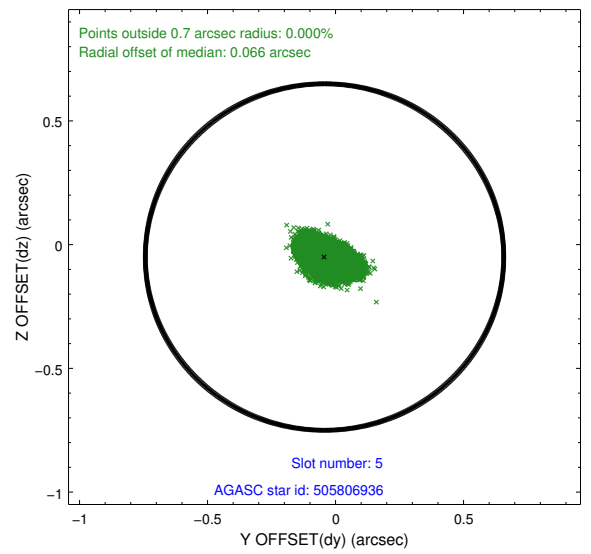
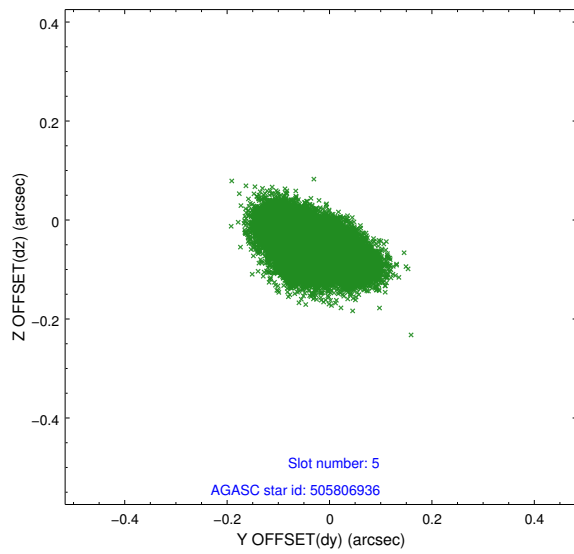
### 2.4.1 Slot 3



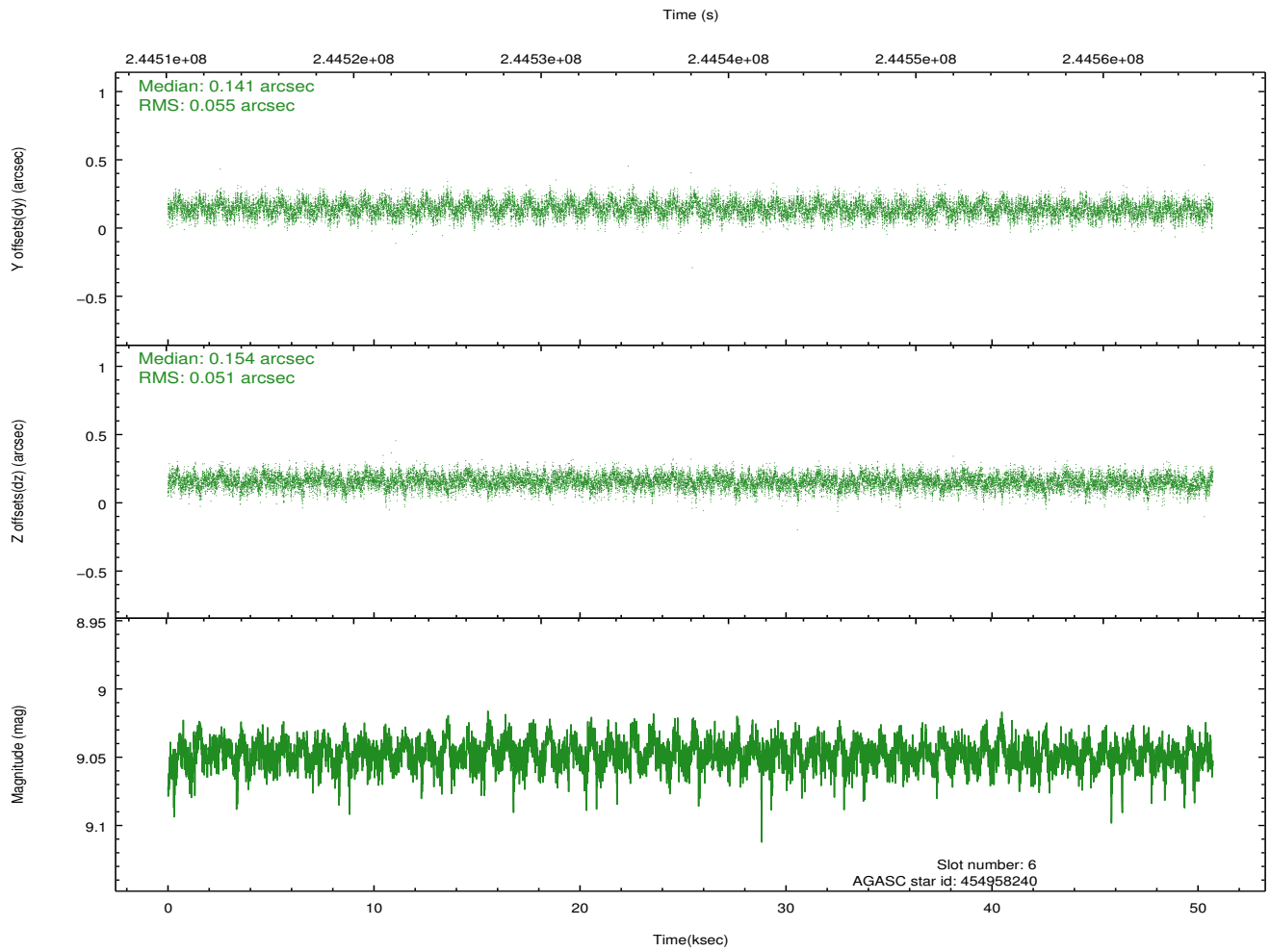
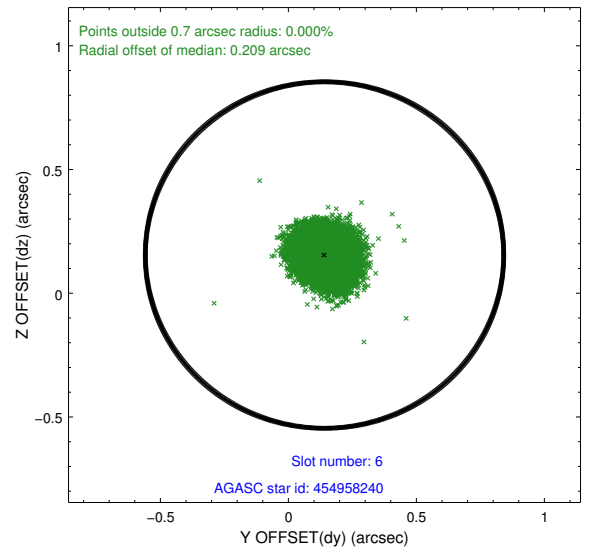
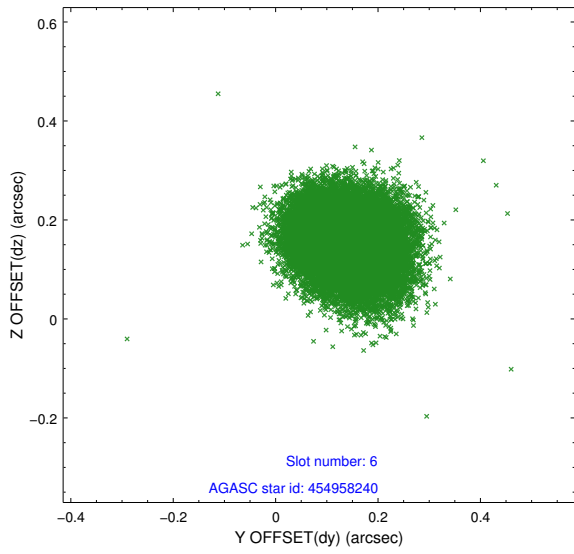
## 2.4.2 Slot 4



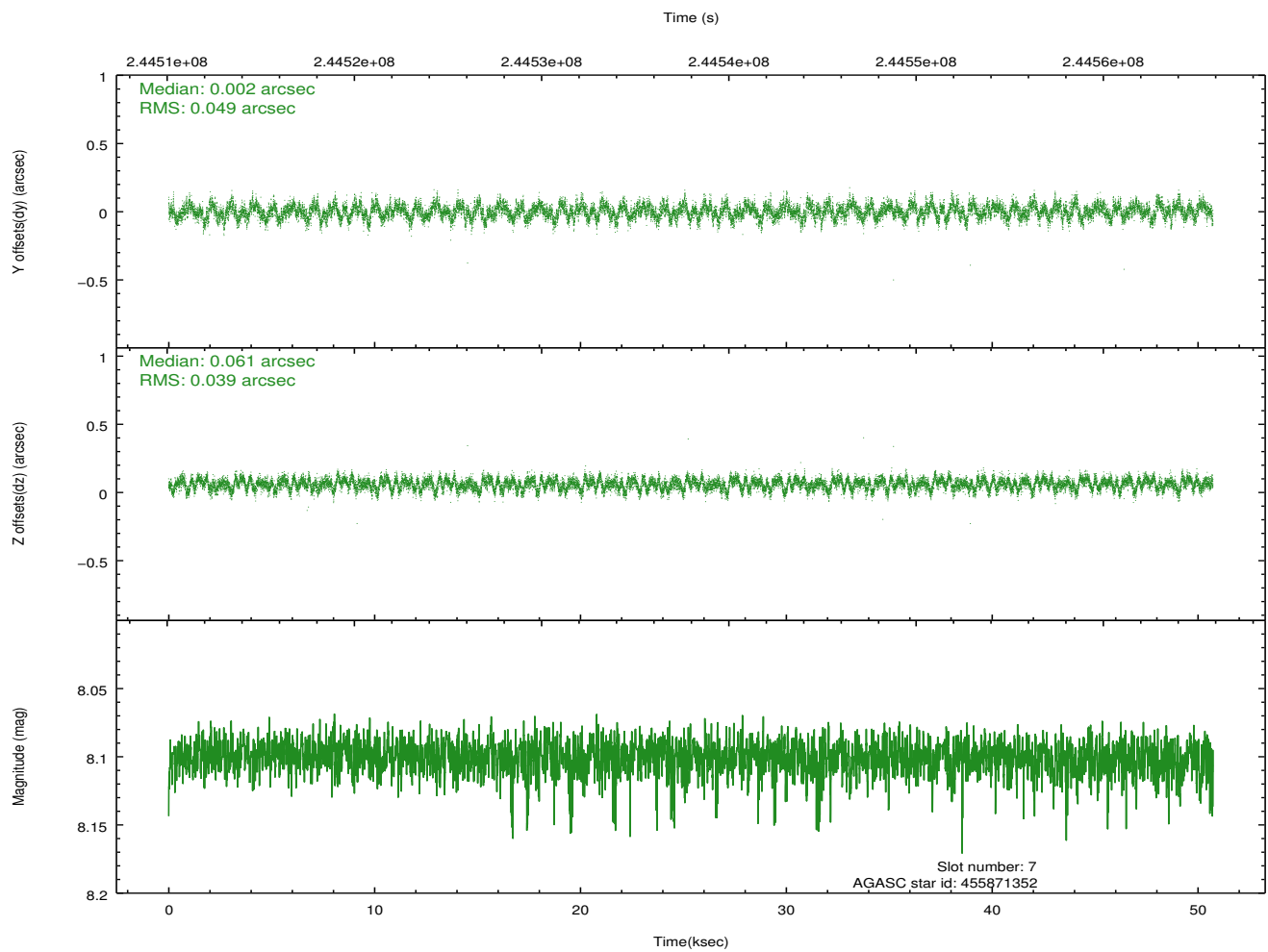
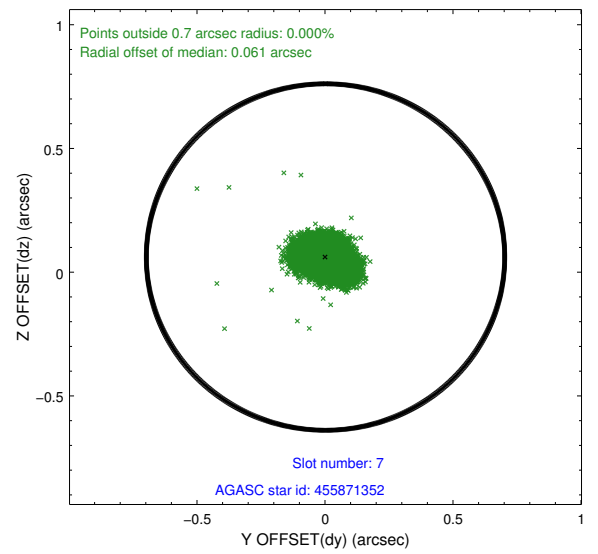
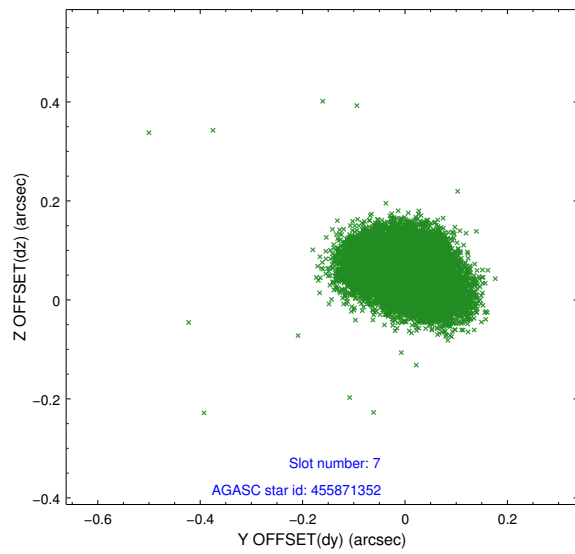
### 2.4.3 Slot 5



### 2.4.4 Slot 6

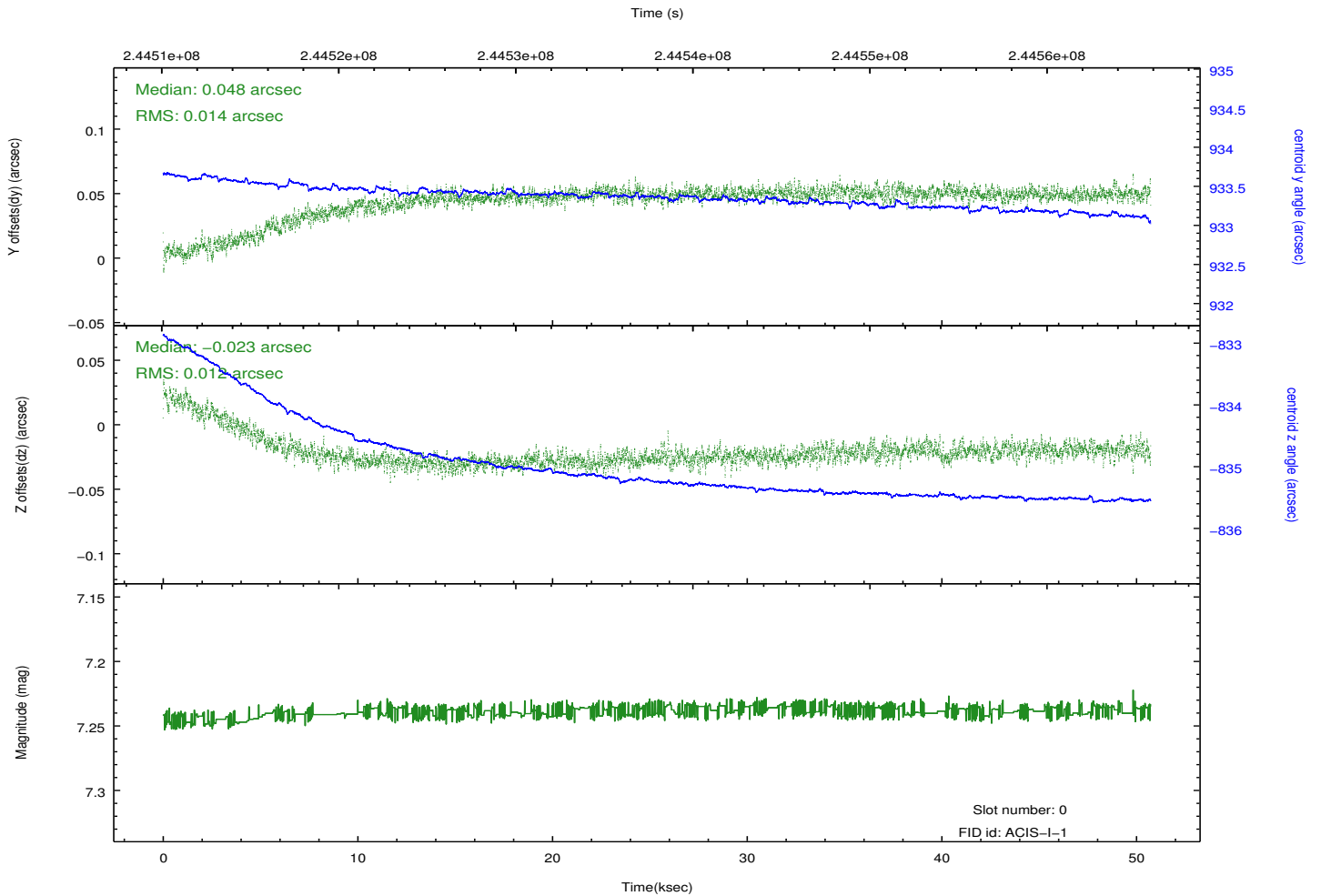
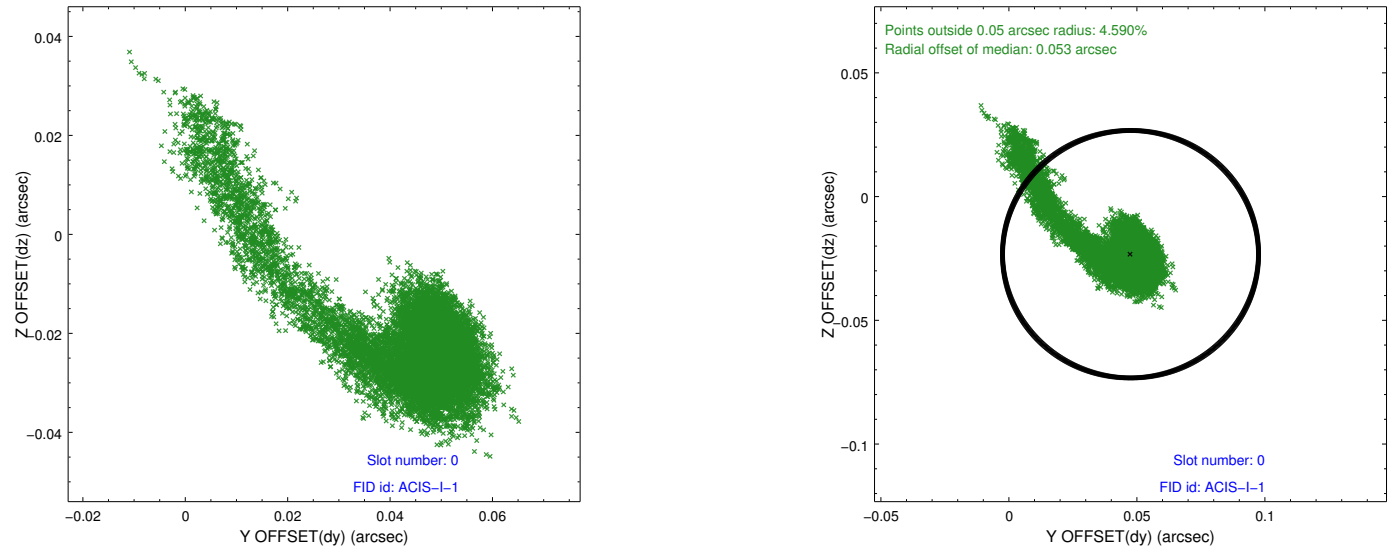


## 2.4.5 Slot 7

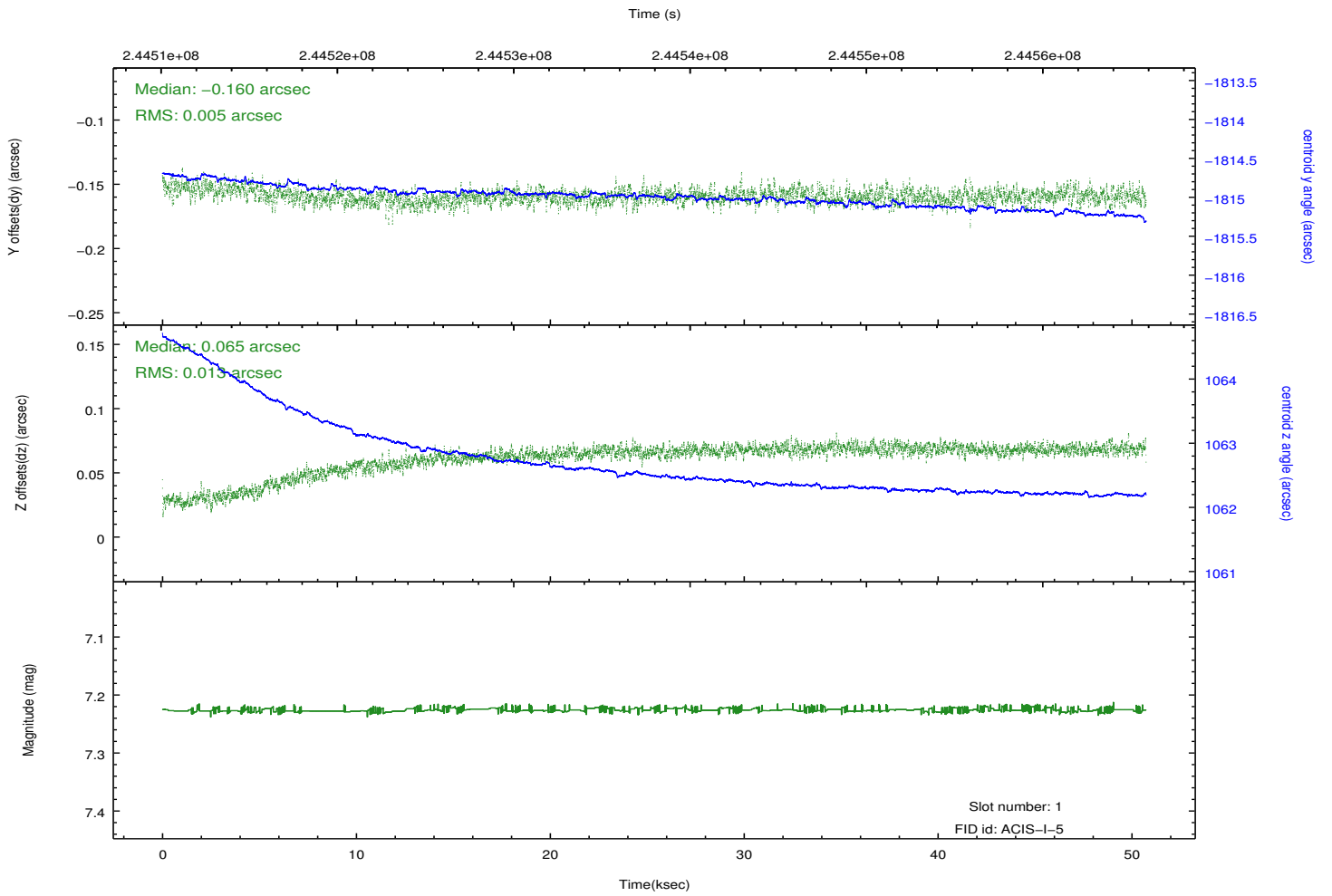
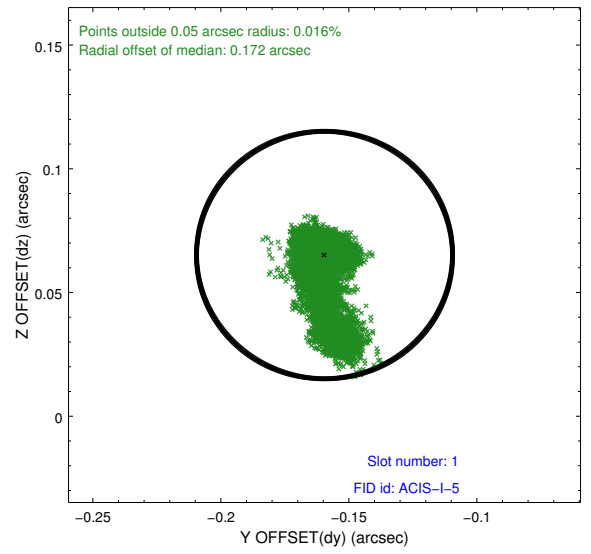
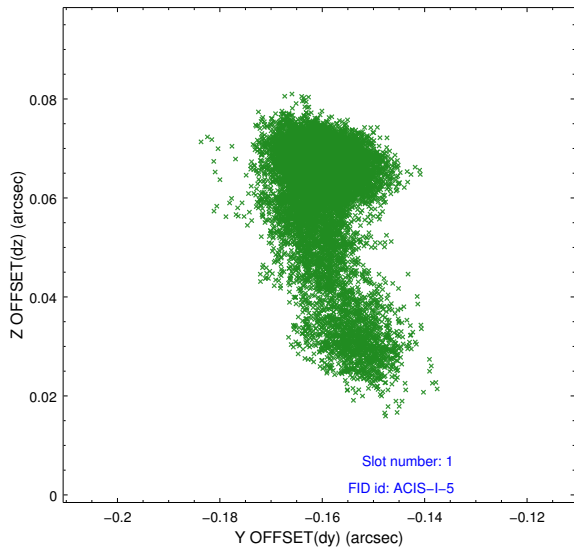


## 2.5 FID Slots

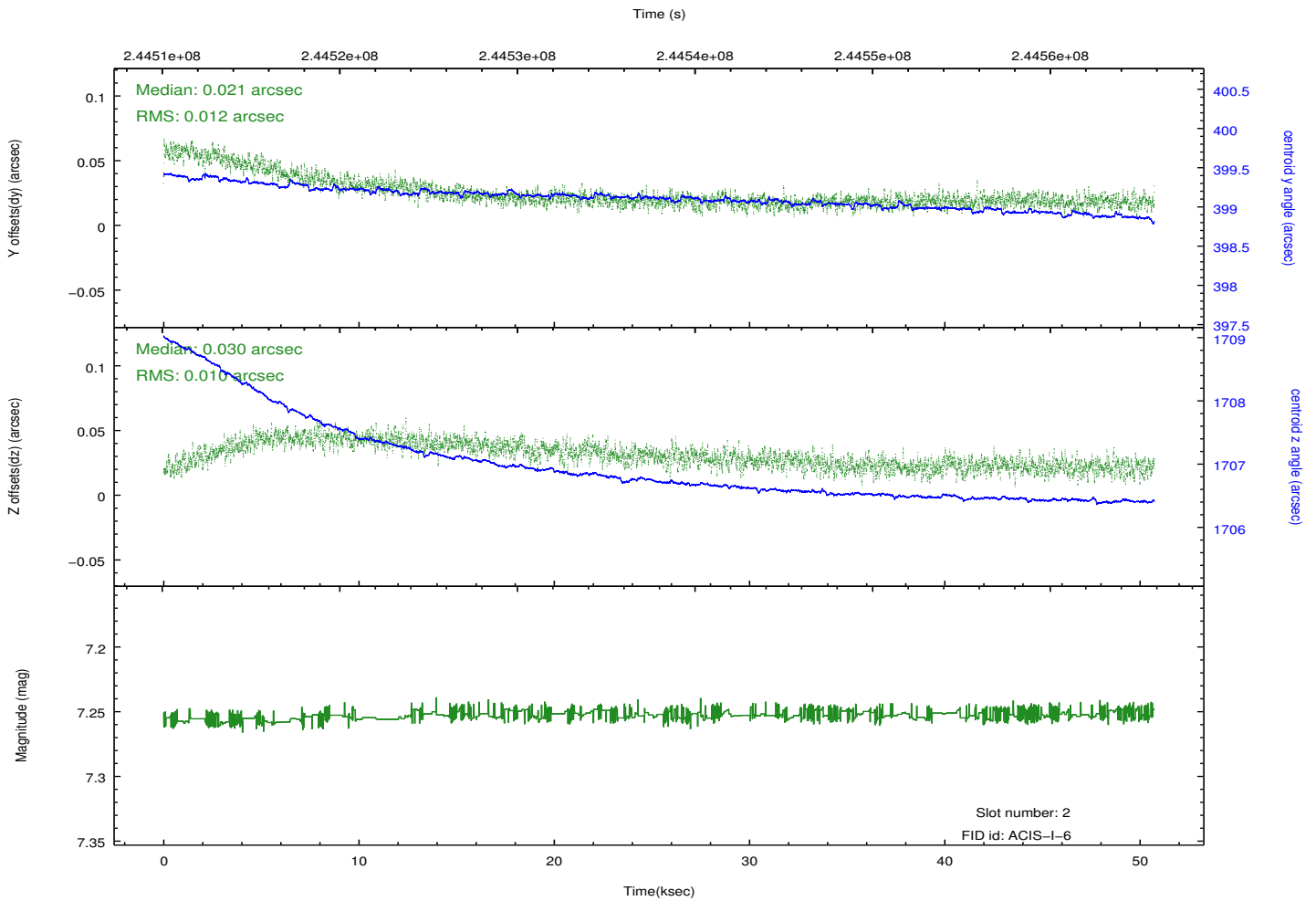
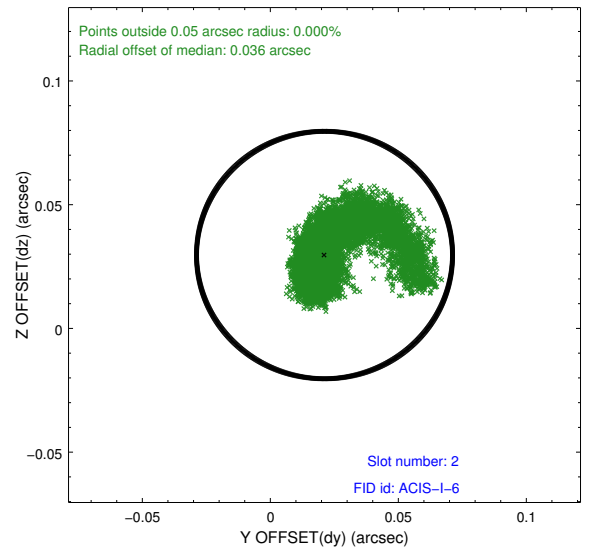
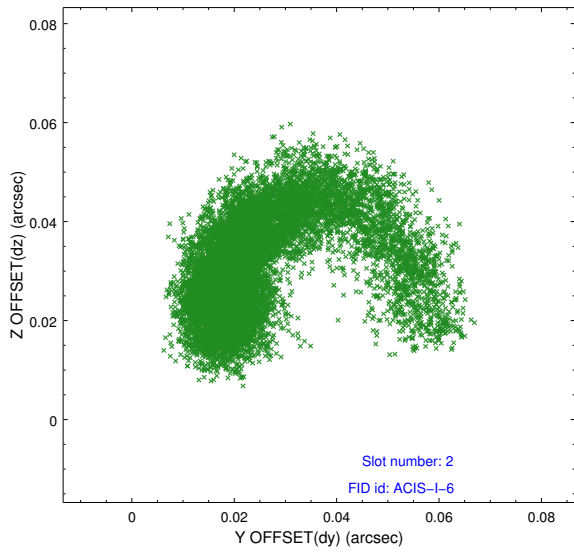
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2013.03.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	50.72839

## 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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Roll constraint satisfied.