

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 12819 - L2 Version 2  
Chandra X-Ray Center

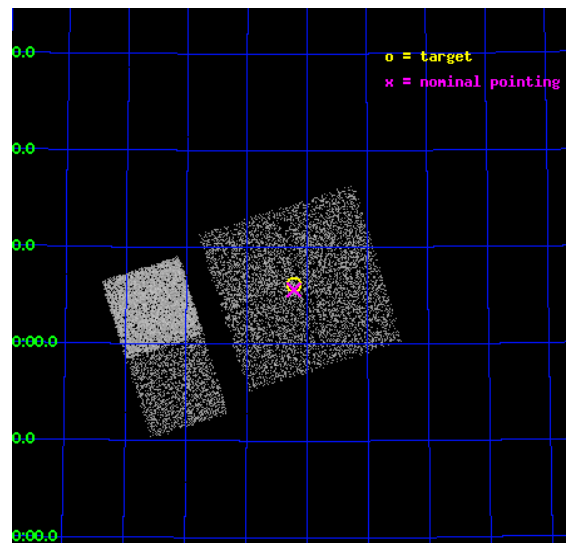
L2 Processing Date : Feb 10 2012

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# 1 Front

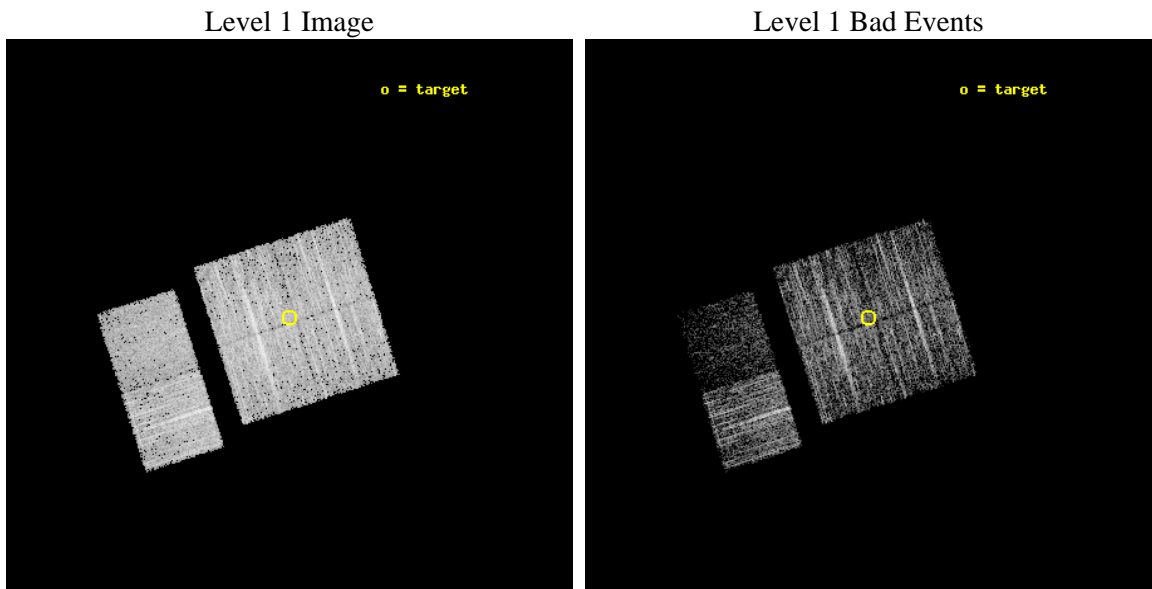
seq_num	702455	Sequence number
obs_id	12819	Observation id
title	A Systematic Chandra Survey of AGN in Major Mergers -- How many Binary AGN are out there?	Proposal title
observer	DR. Kevin Schawinski	Principal investigator
object	GZ_merger_AGN_9	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	166.805	Observer's specified target RA [deg]
dec_targ	65.101833	Observer's specified target Dec [deg]
ra_nom	166.80505193517	Nominal RA [deg]
dec_nom	65.093792623042	Nominal Dec [deg]
roll_nom	252.34840326669	Nominal Roll [deg]
revision	2	Processing version of data
ontime	4968.3120267391	Sum of GTIs [s]
livetime	4905.4002682982	Livetime [s]
ontime0	4968.1889067292	Sum of GTIs [s]
ontime1	4968.2299467325	Sum of GTIs [s]
ontime2	4968.2709867358	Sum of GTIs [s]
ontime3	4968.3120267391	Sum of GTIs [s]
ontime6	4968.3941067457	Sum of GTIs [s]
ontime7	4968.3530667424	Sum of GTIs [s]
l2events	20074	Number of level 2 events



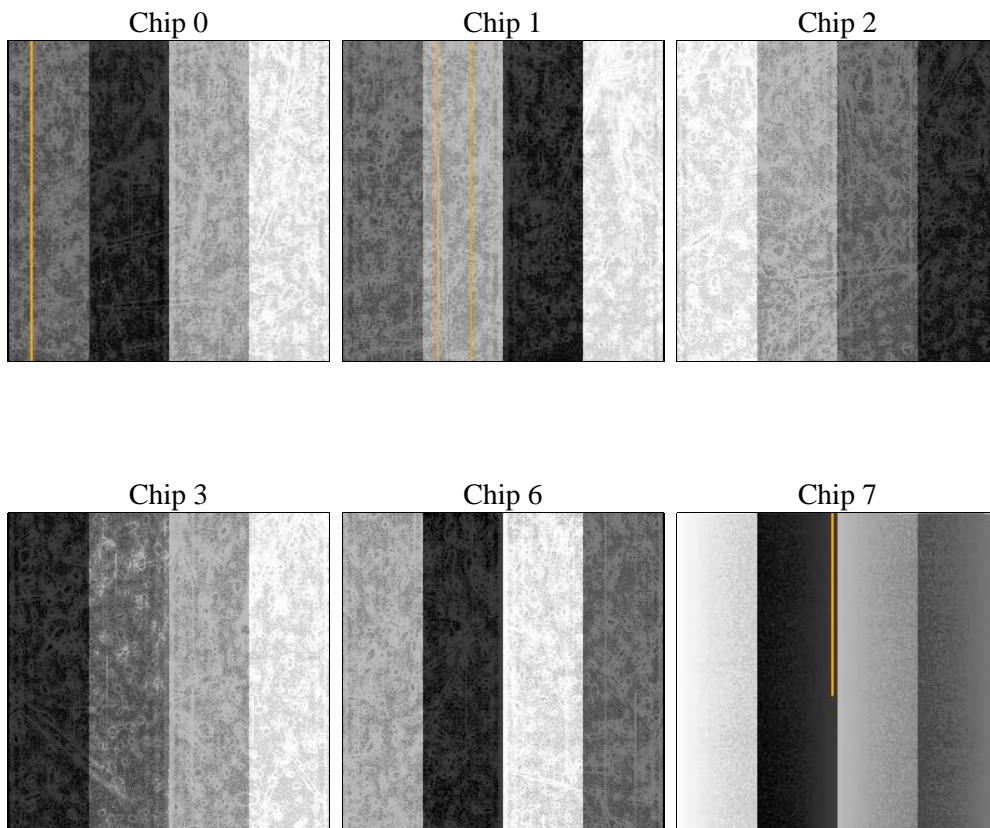
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	4968.3120267391	Sum of GTIs [s]
caldsver	4.4.7	&#160	ontime0	4968.1889067292	Sum of GTIs [s]
date	2012-02-11T03:00:15	Date and time of file creation	ontime1	4968.2299467325	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	4968.2709867358	Sum of GTIs [s]
			ontime3	4968.3120267391	Sum of GTIs [s]
			ontime6	4968.3941067457	Sum of GTIs [s]
			ontime7	4968.3530667424	Sum of GTIs [s]
			l1events	138378	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	22212	22316	24842	25419	25838	17751
rejected events	19739	19684	22276	22904	23264	7684
rejected %	88%	88%	89%	90%	90%	43%

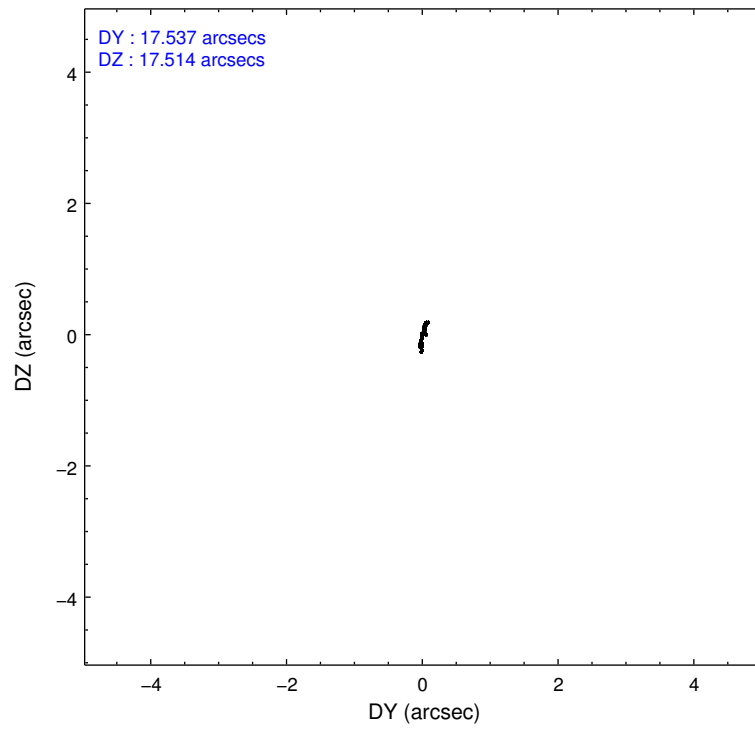
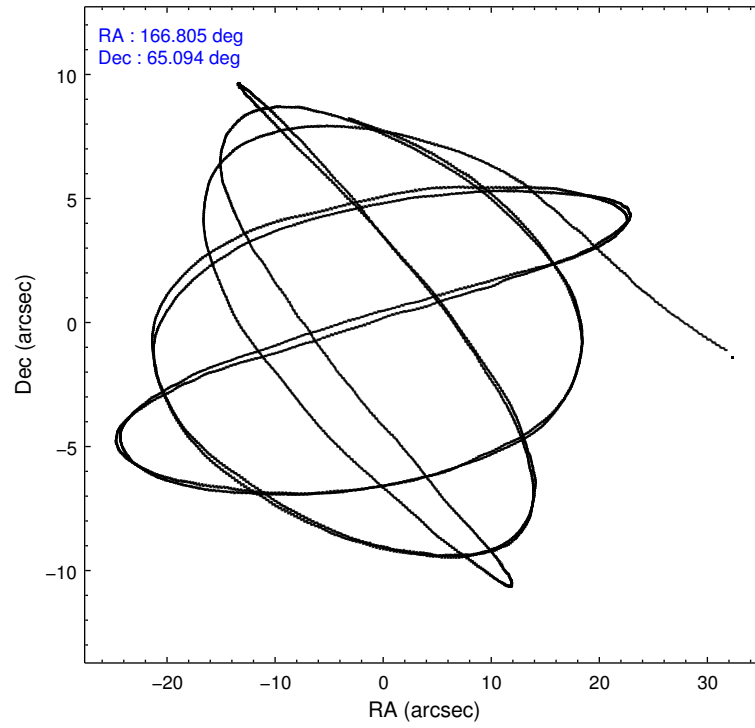
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	948	997	1075	1043	1073	1361
	4%	4%	4%	4%	4%	7%
grade 1 events	13	12	11	19	9	40
	0%	0%	0%	0%	0%	0%
grade 2 events	629	628	615	574	546	2431
	2%	2%	2%	2%	2%	13%
grade 3 events	269	284	247	258	247	980
	1%	1%	0%	1%	0%	5%
grade 4 events	232	263	241	234	279	940
	1%	1%	0%	0%	1%	5%
grade 5 events	561	642	493	693	659	1971
	2%	2%	1%	2%	2%	11%
grade 6 events	395	461	389	406	431	4357
	1%	2%	1%	1%	1%	24%
grade 7 events	19165	19029	21771	22192	22594	5671
	86%	85%	87%	87%	87%	31%

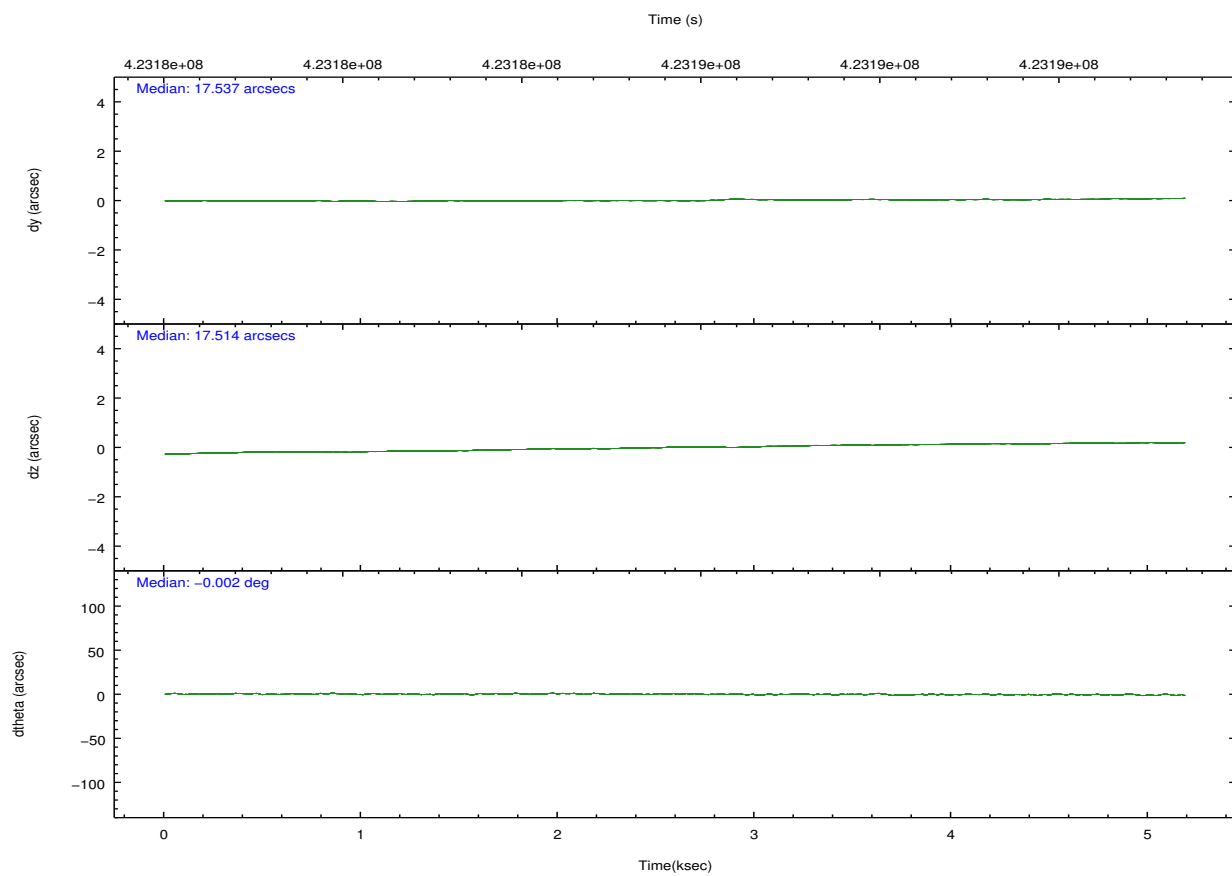
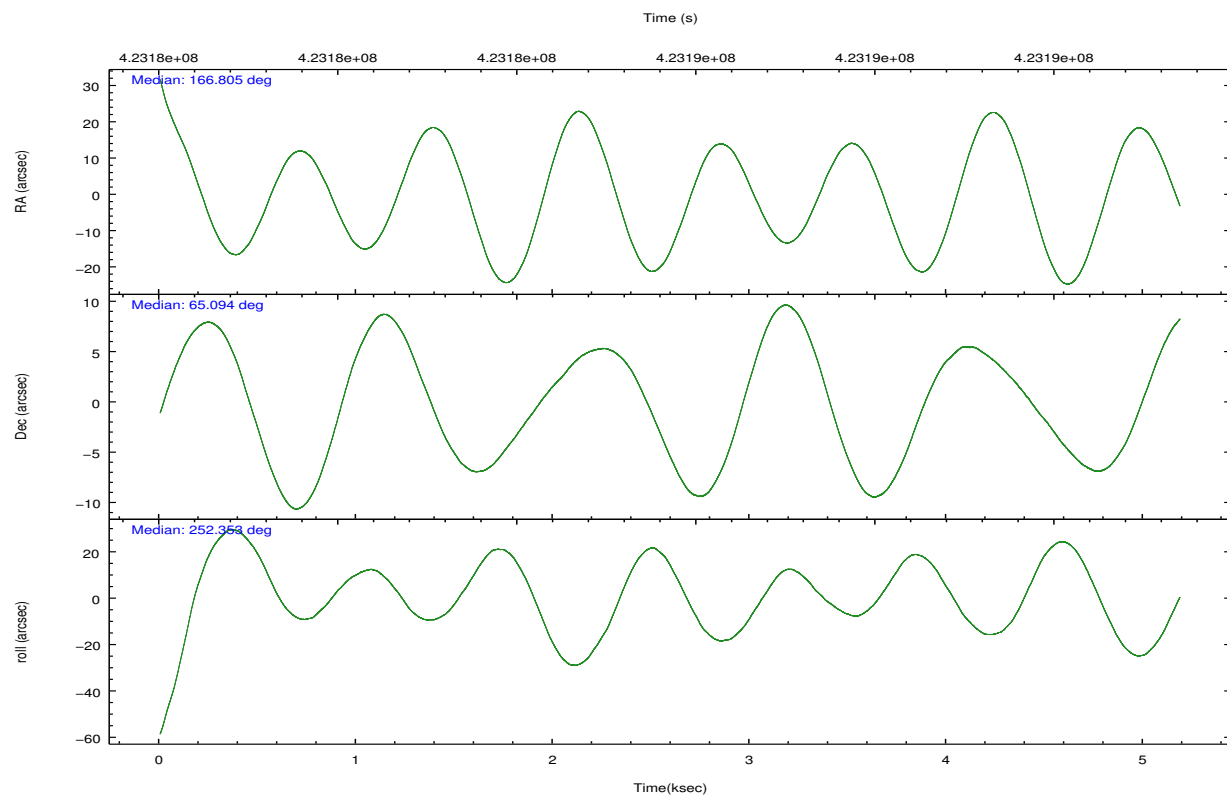


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	166.790651	166.8050519351685	CCD I2 on	Y	Y
[deg] Pointing Dec	65.120592	65.09379262304155	CCD I3 on	Y	Y
[deg] Pointing Roll	252.152809	252.3484032666863	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O1	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	O2	Y
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	423183456.184000	423182493.95637	CCD S5 on	N	N
Observation start date	2011-05-30T22:56:30	2011-05-30T22:41:33	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	423188456.184000	423189312.76922	On-chip summing requested	N	N
Observation end date	2011-05-31T00:19:50	2011-05-31T00:35:12	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



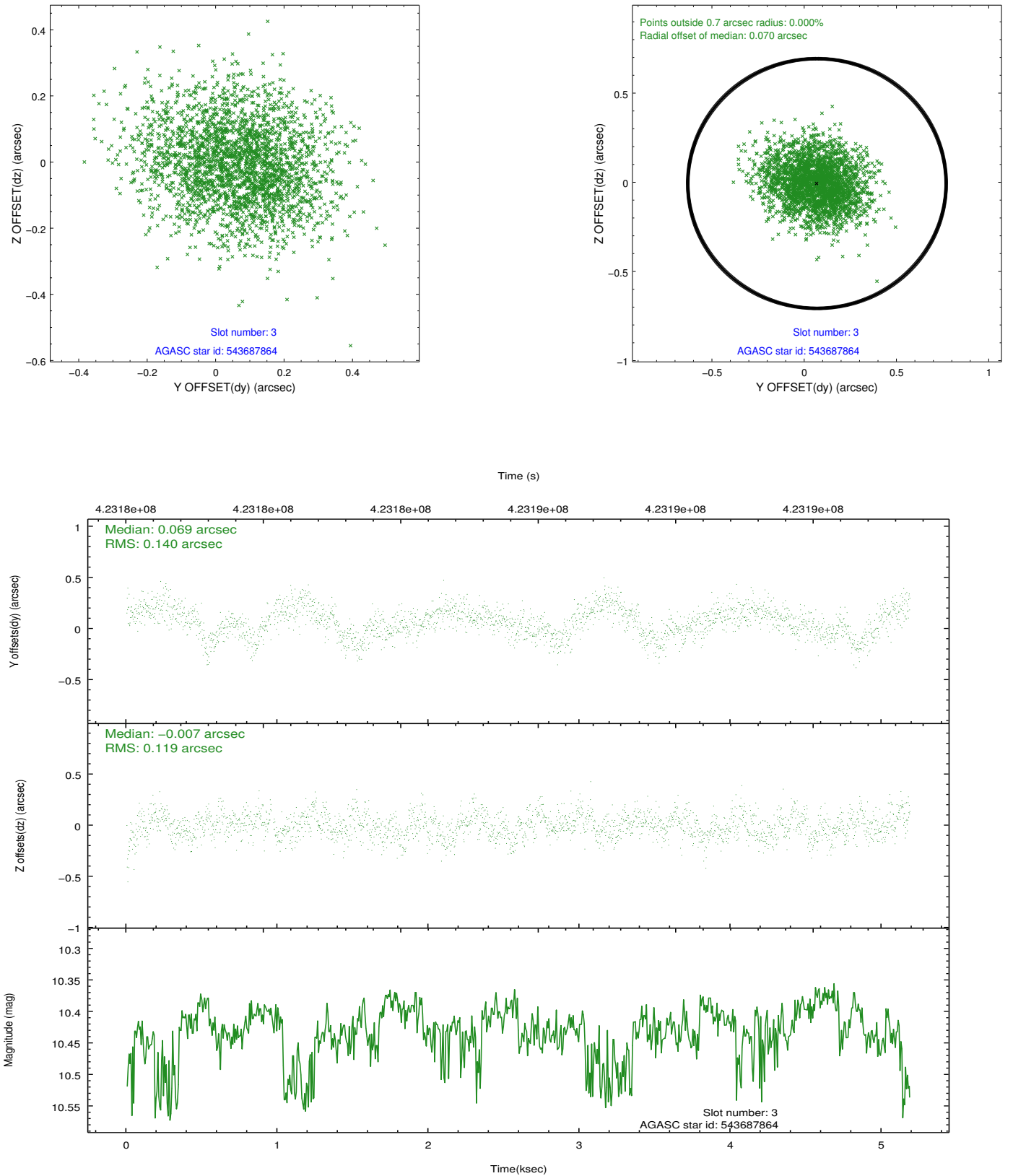


### Slot Statistics

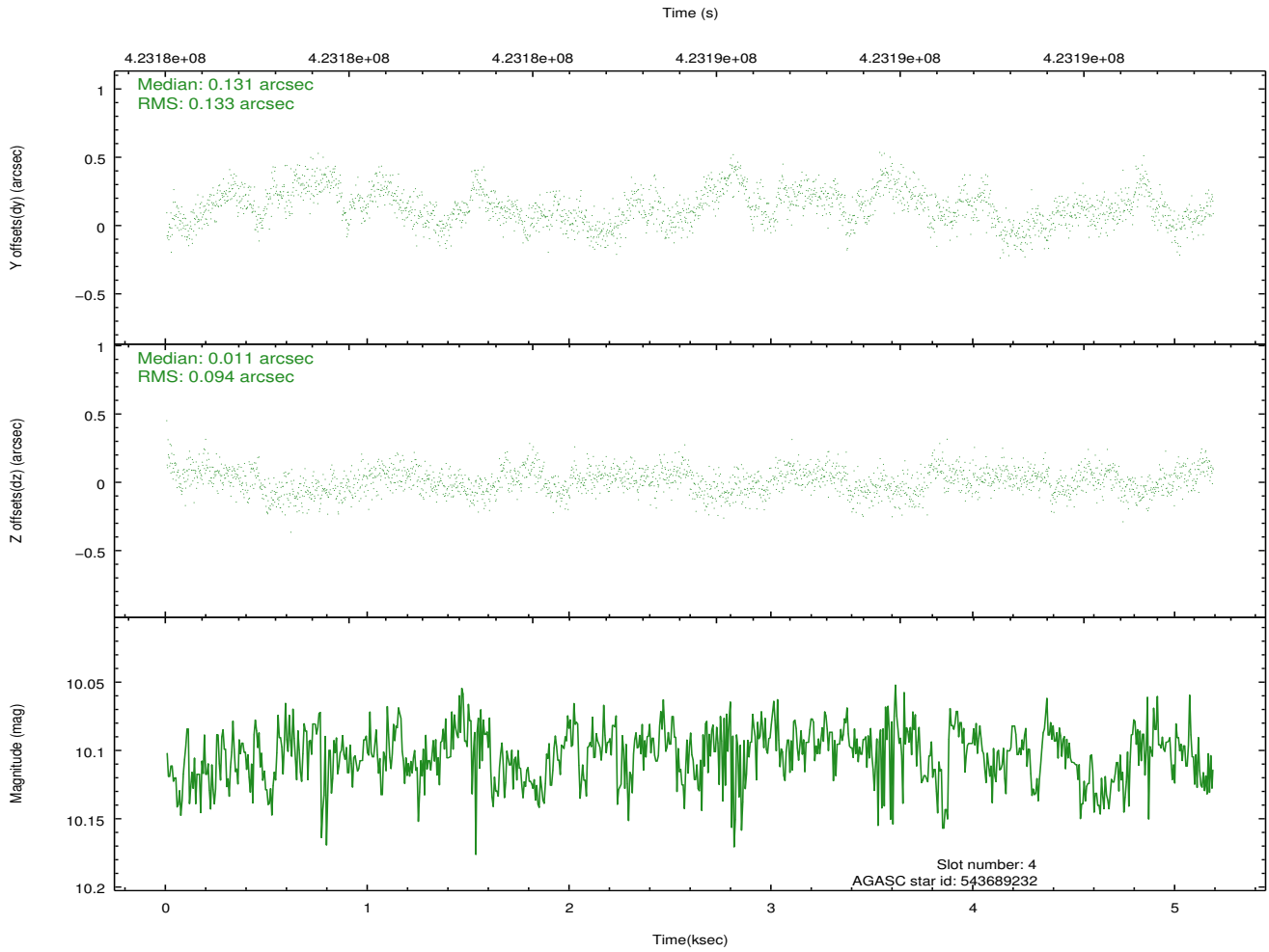
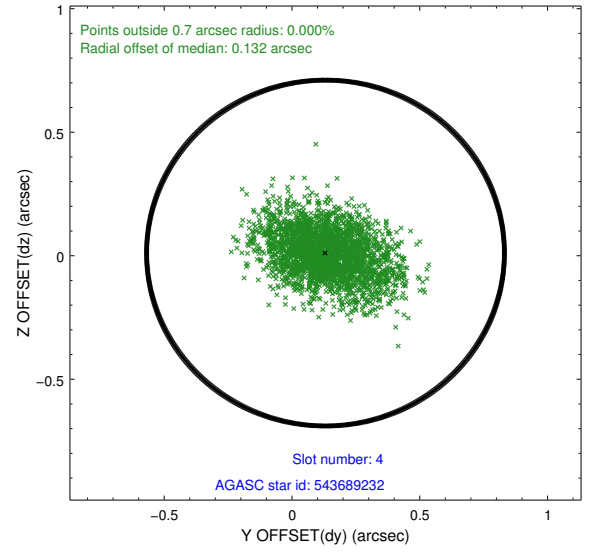
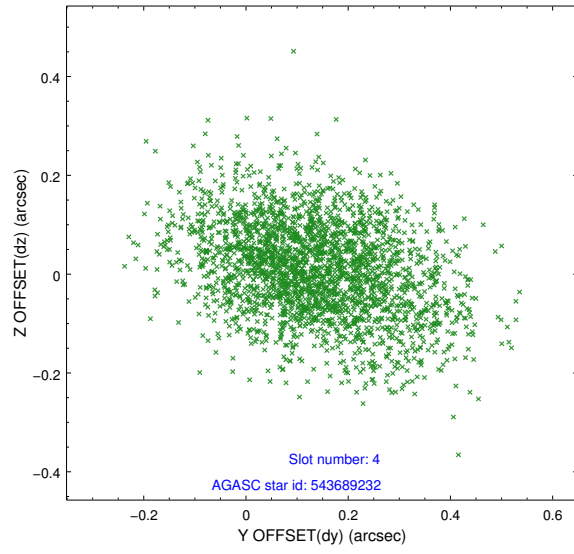
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.00	1265	0.059	-0.006	0.008	0.016	0.000000	0.000000	921.89	-841.17
1	FID	ACIS-I-5	6.99	1265	-0.230	0.061	0.005	0.010	0.000000	0.000000	-1825.86	1055.80
2	FID	ACIS-I-6	7.01	1265	0.080	0.016	0.009	0.014	0.000000	0.000000	386.19	1701.58
3	GUIDE	543687864	10.43	2521	0.069	-0.007	0.198	0.314	165.091706	64.947621	1353.94	-2284.72
4	GUIDE	543689232	10.10	2519	0.131	0.011	0.170	0.290	165.541189	64.781447	1733.53	-1456.66
5	GUIDE	544215336	8.44	2530	-0.125	-0.046	0.080	0.130	166.319077	65.813743	-2160.99	-1429.78
6	GUIDE	544215472	8.38	2527	-0.071	0.082	0.097	0.152	166.827280	65.749686	-2172.55	-642.53
7	GUIDE	543822696	9.77	2520	0.012	-0.033	0.121	0.196	167.643952	64.734059	914.22	1671.69

## 2.4 Star Slots

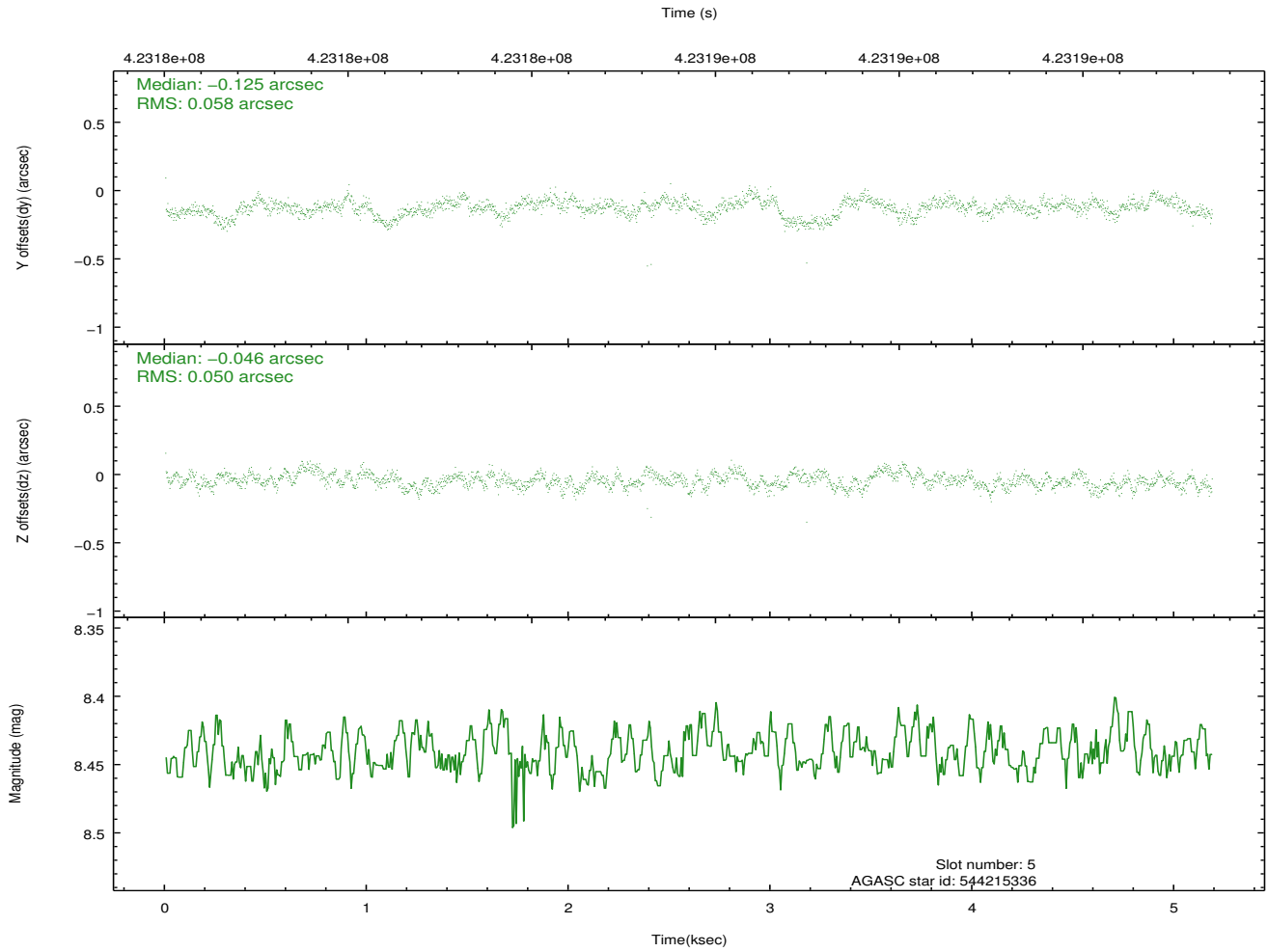
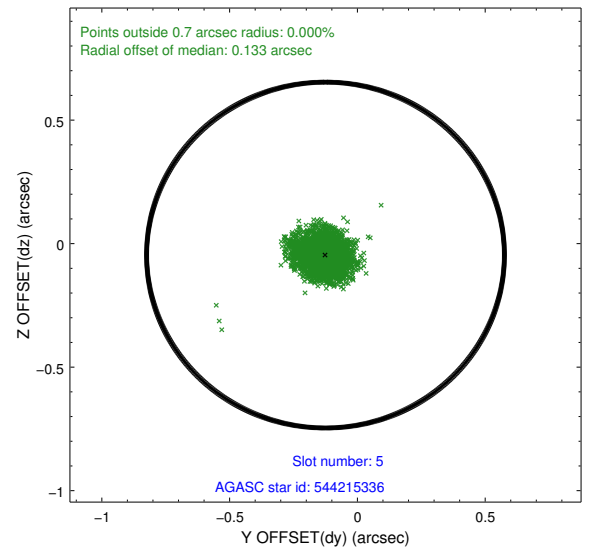
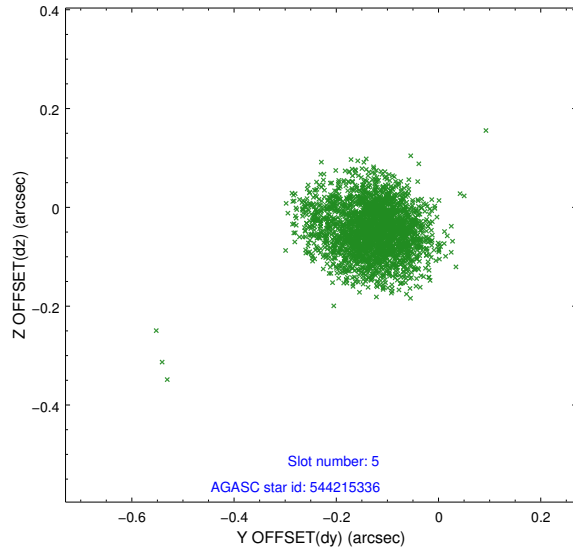
### 2.4.1 Slot 3



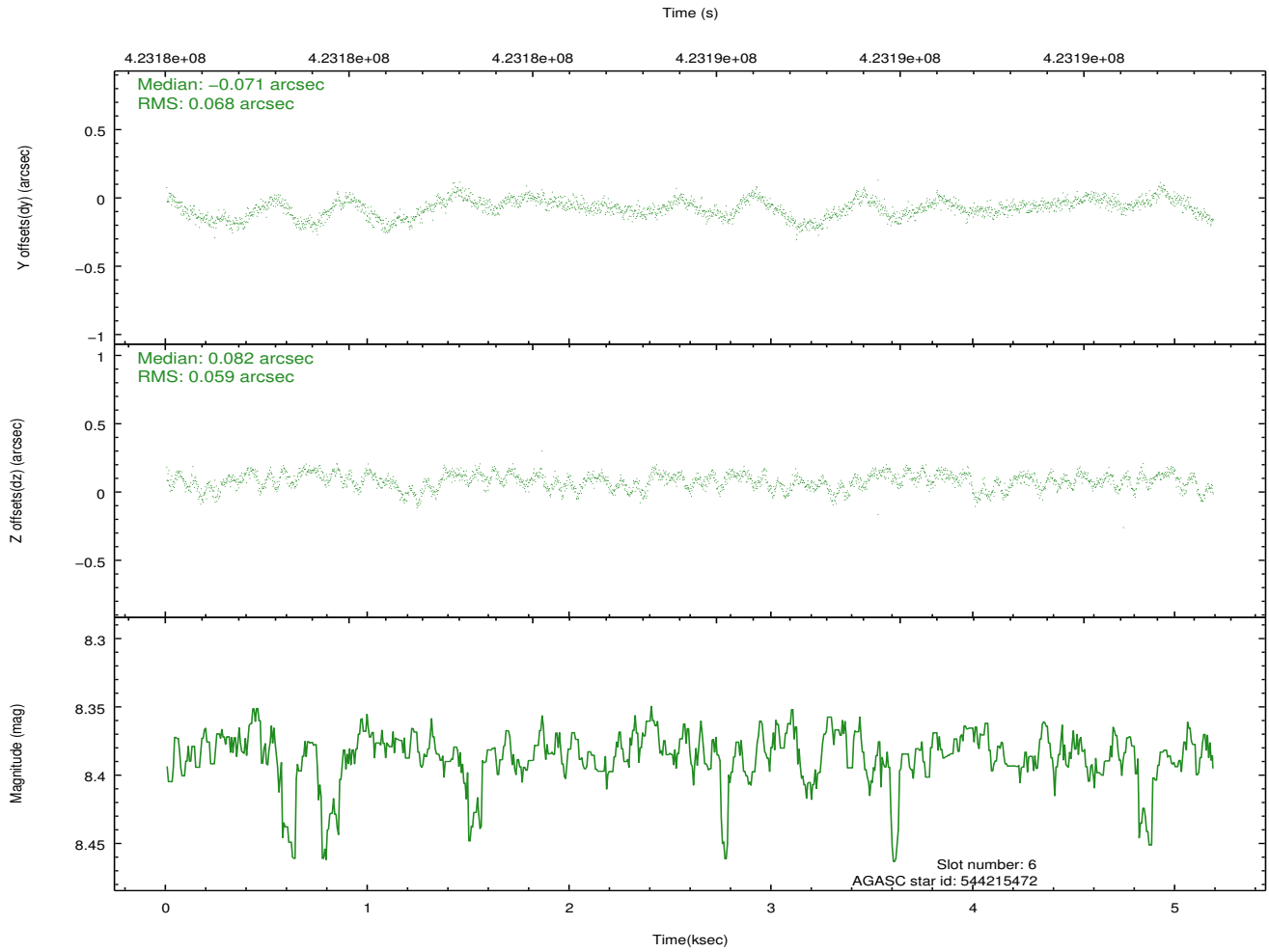
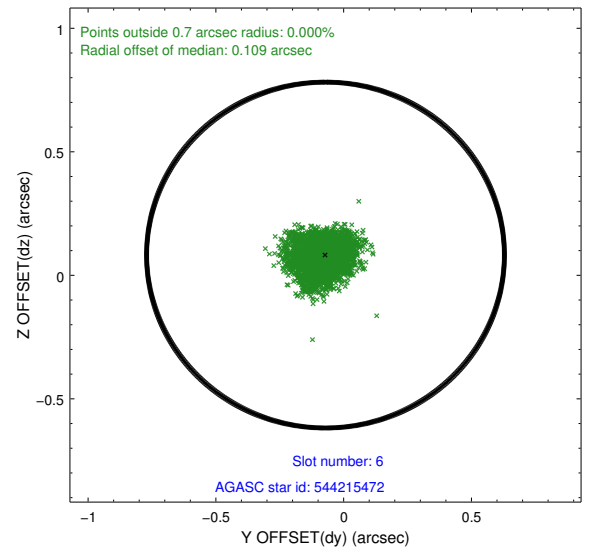
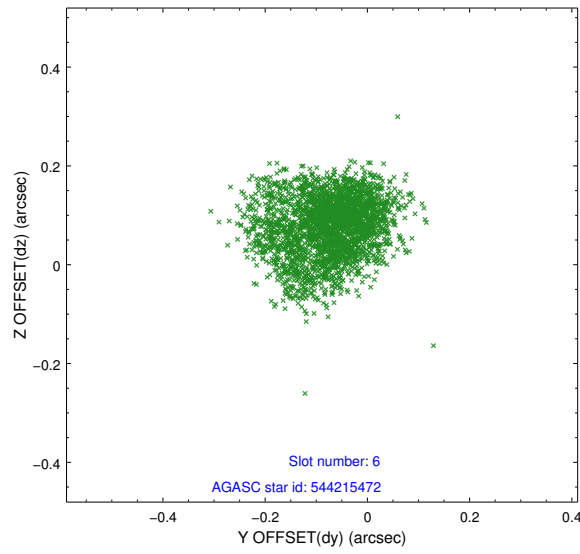
## 2.4.2 Slot 4



### 2.4.3 Slot 5

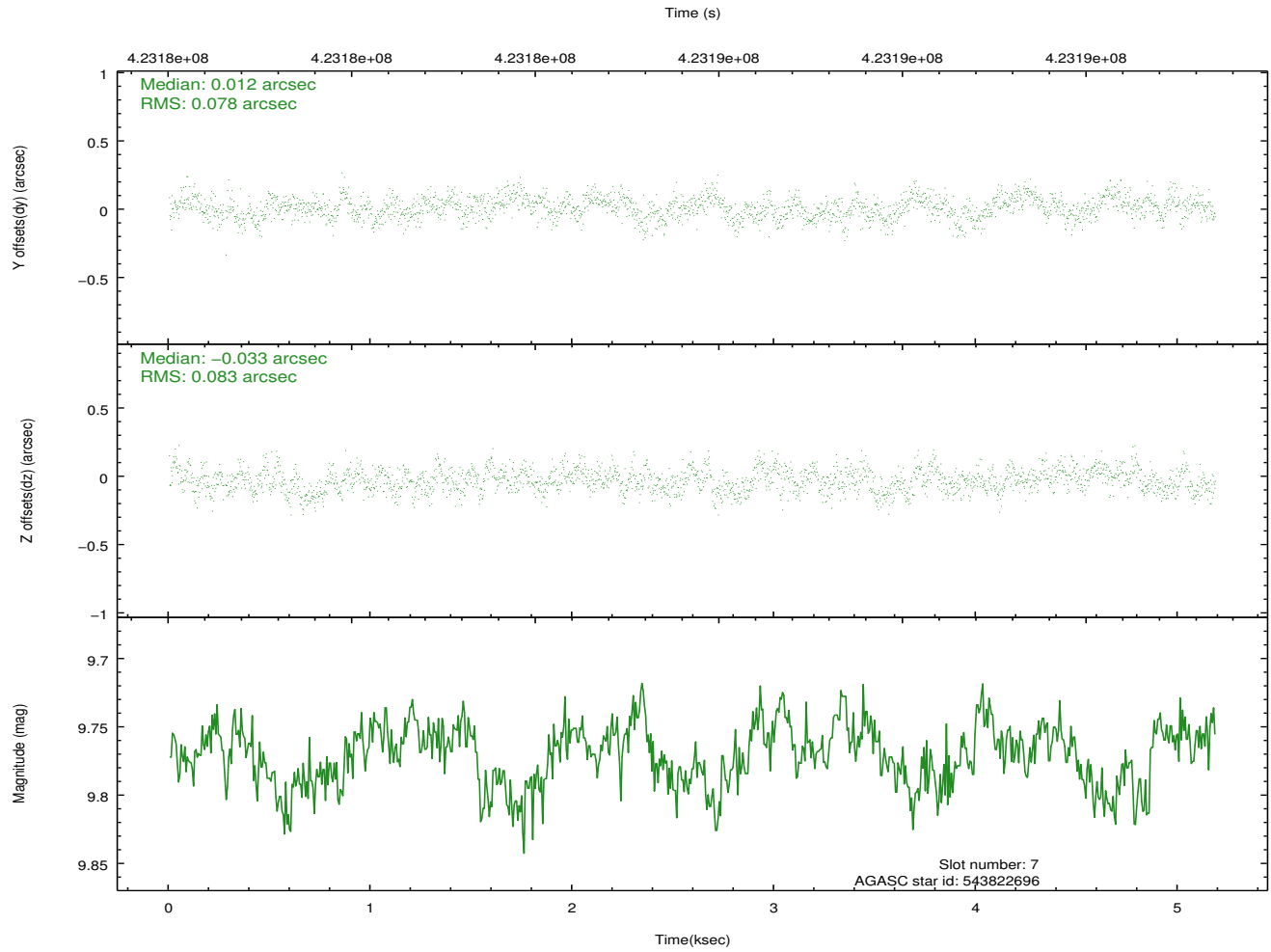
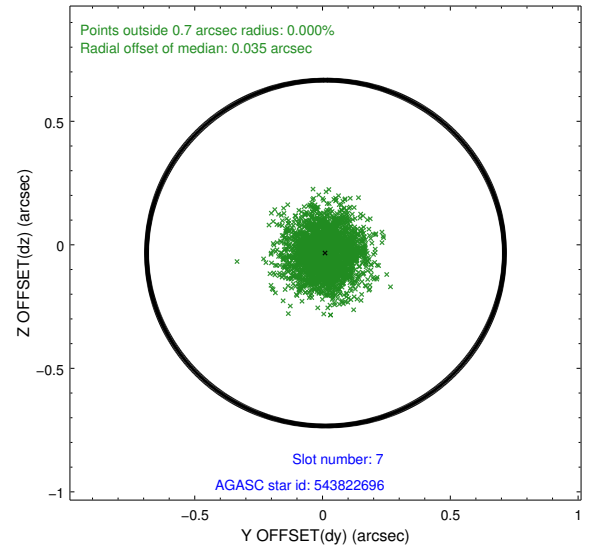
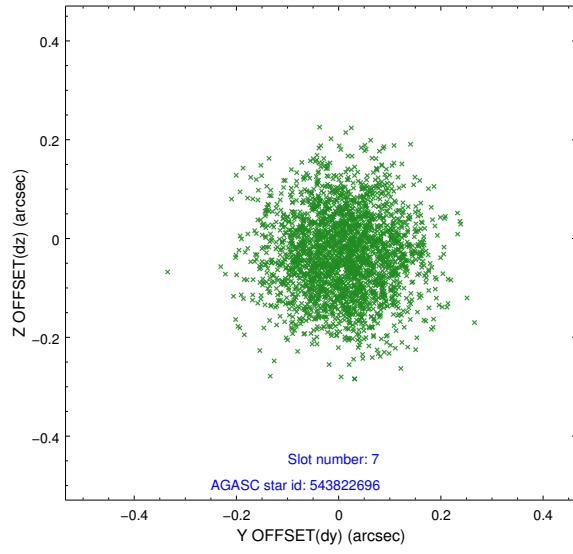


## 2.4.4 Slot 6



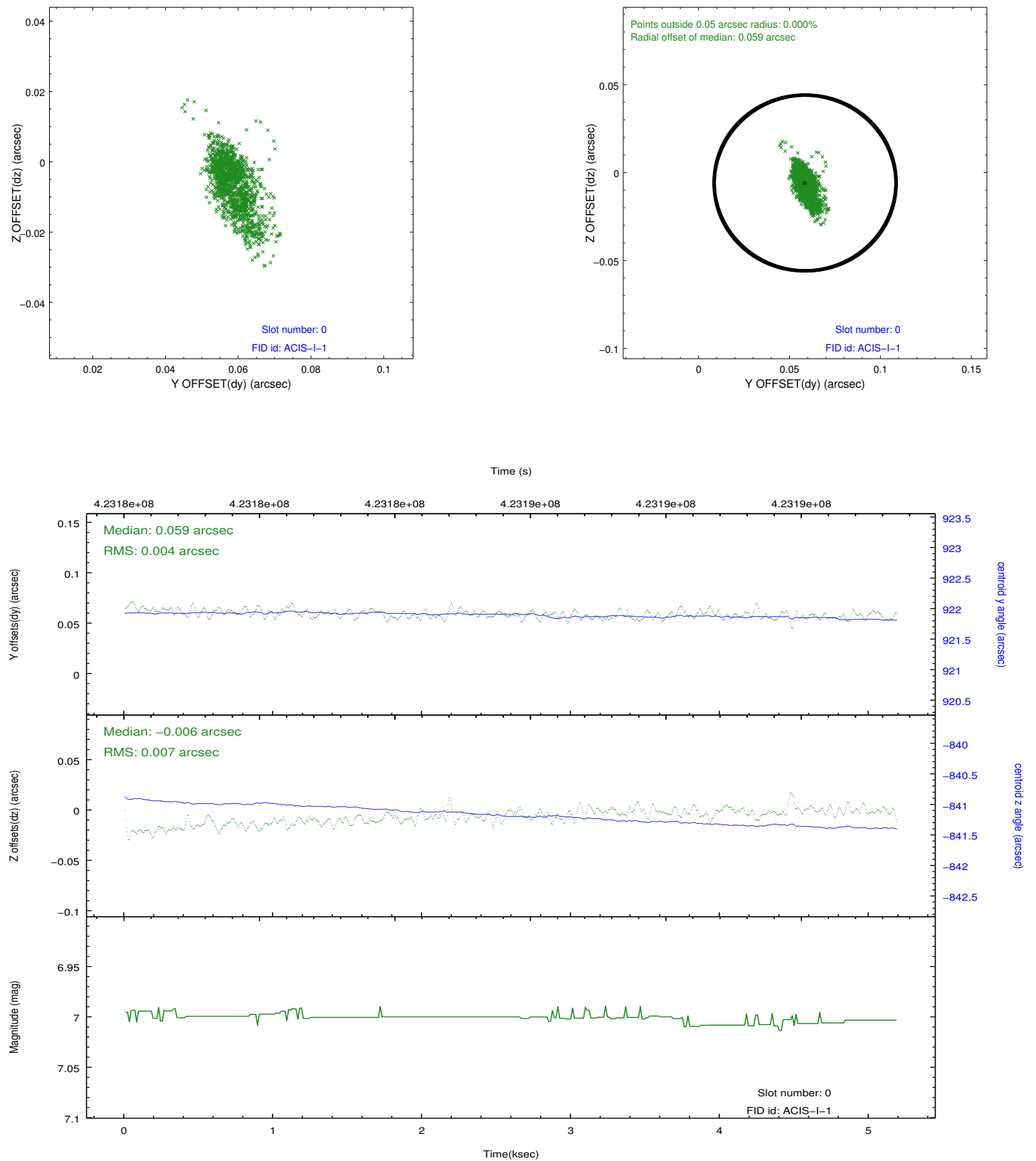


## 2.4.5 Slot 7

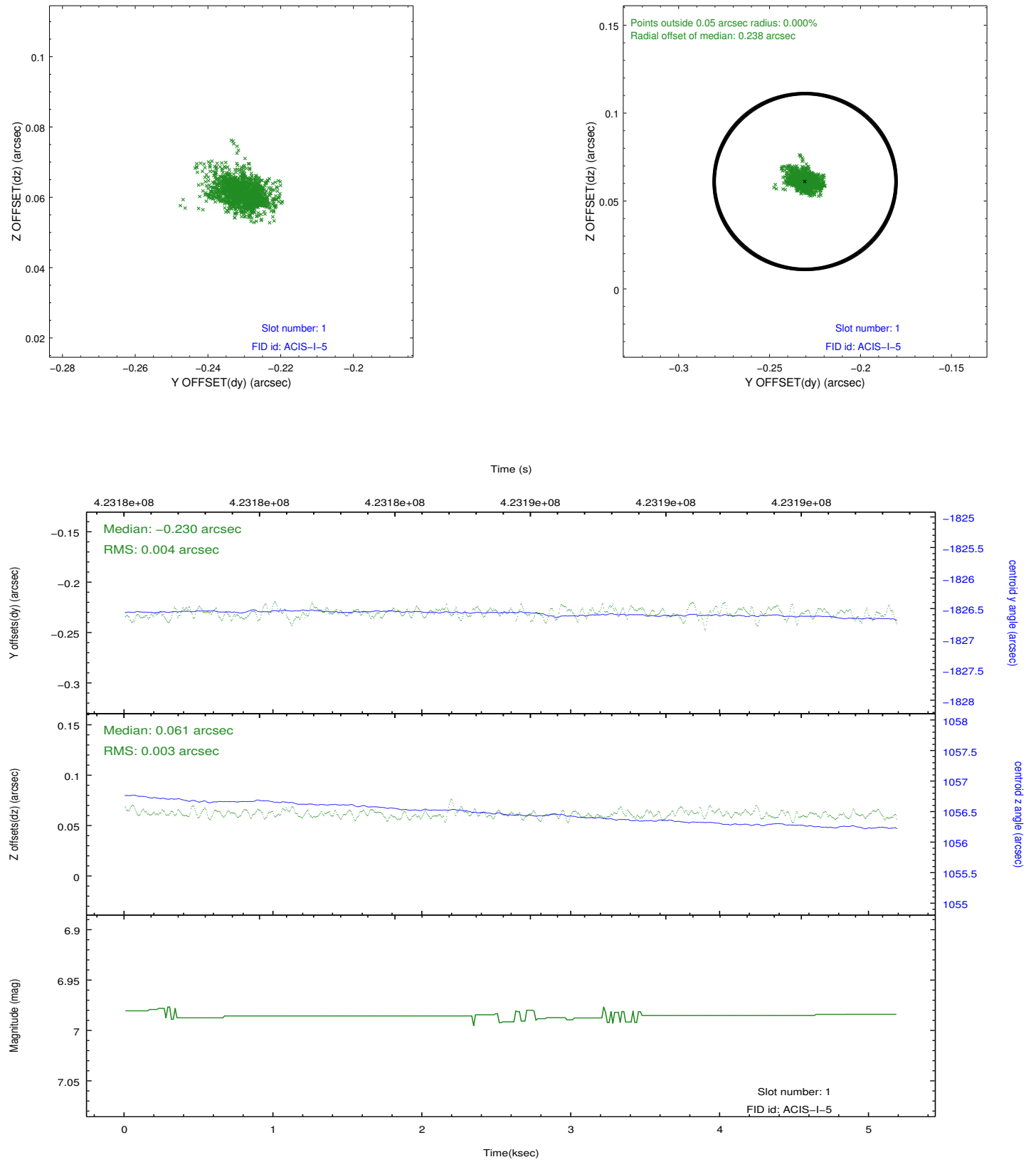


## 2.5 FID Slots

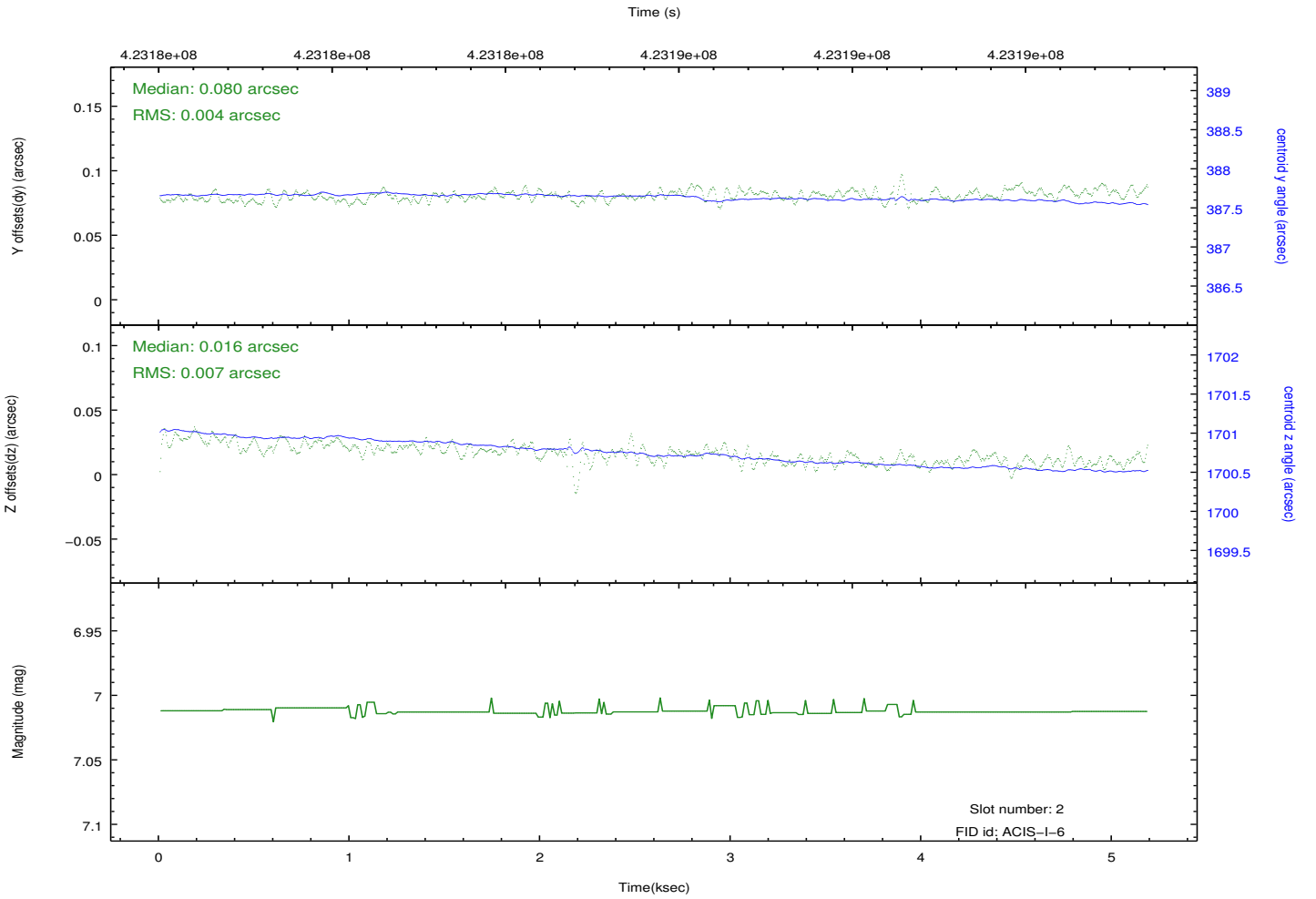
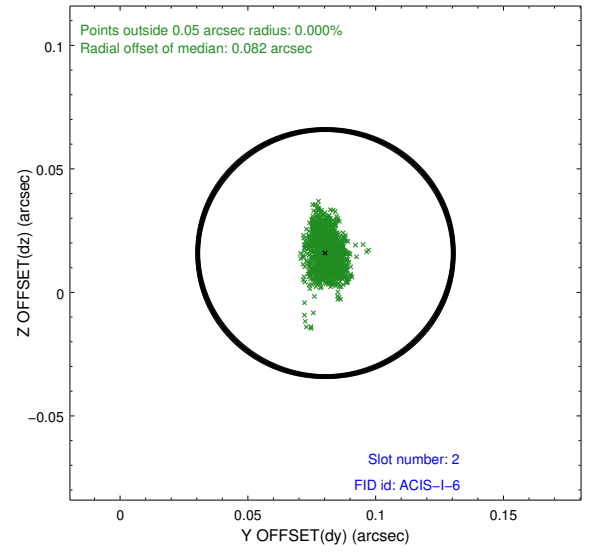
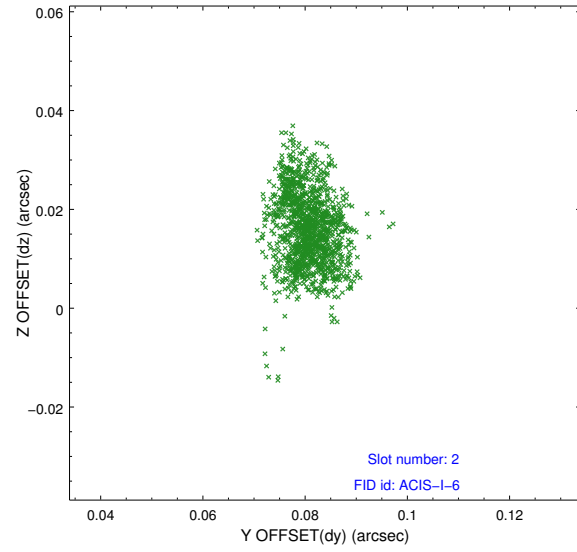
### 2.5.1 Slot 0



## 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)	2012.02.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.9683120223284

## A.2 Comments

The data for this observation have been processed using the 'EDSER' sub-pixel event-repositioning algorithm of Li et al. (2004, ApJ, 610, 1204). Small-scale features should become sharper for sources near the aim point. The improvement will be less noticeable for off-axis sources where the size of the point-spread function is comparable to or larger than the size of an ACIS pixel. To take full advantage of the improvement, images should be binned on spatial scales smaller than the size of an ACIS pixel. Note that, at present, the point-spread function has not been calibrated for data to which the EDSER algorithm has been applied. If dither was disabled for the observation, then the algorithm can introduce artificial aliasing effects on spatial scales smaller than a pixel. If you would prefer to use no sub-pixel adjustment or to apply a coordinate randomization, then use `acis_process_events` to reprocess the data with the parameter `pix_adj=NONE` or `RANDOMIZE`, respectively.