

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 12814 - L2 Version 2  
Chandra X-Ray Center

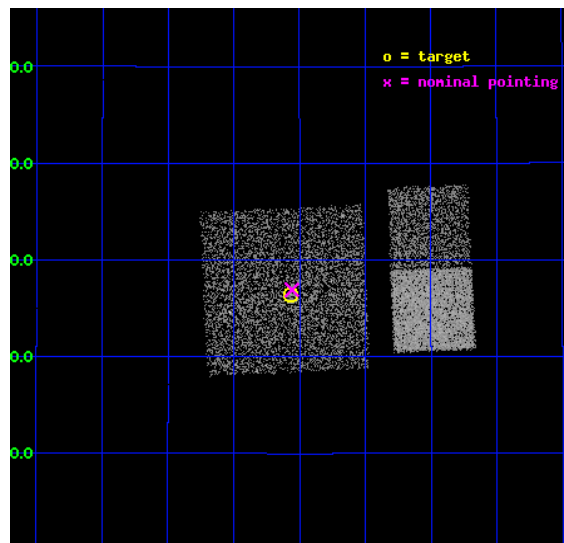
L2 Processing Date : Feb 1 2012

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# 1 Front

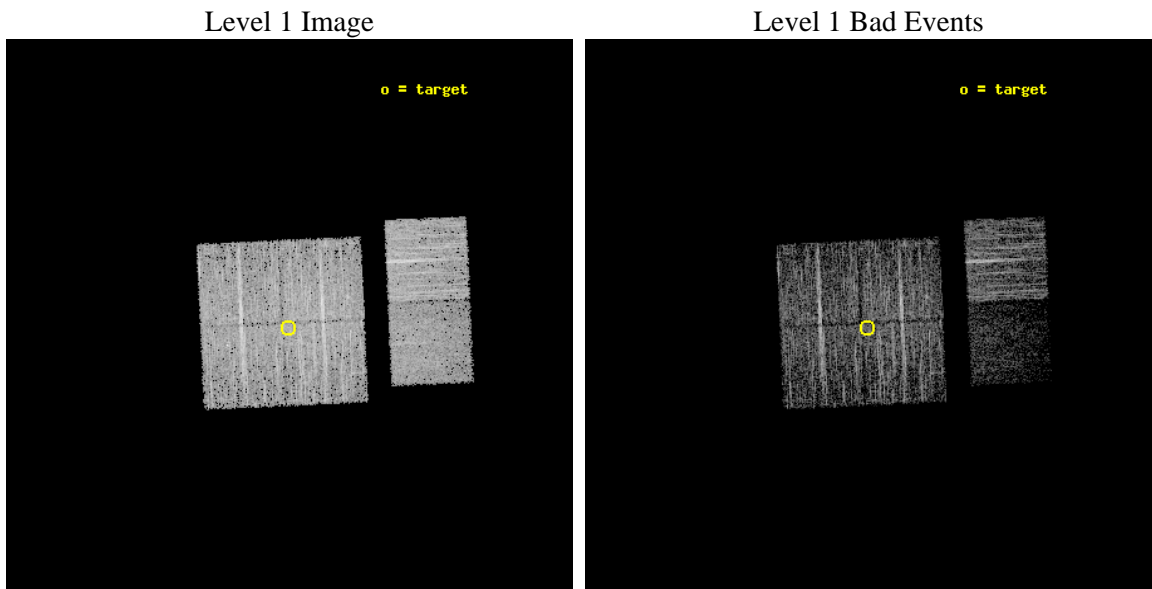
seq_num	702450	Sequence number
obs_id	12814	Observation id
title	A Systematic Chandra Survey of AGN in Major Mergers -- How many Binary AGN are out there?	Proposal title
observer	DR. Kevin Schawinski	Principal investigator
object	GZ_merger_AGN_4	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	144.141667	Observer's specified target RA [deg]
dec_targ	23.440833	Observer's specified target Dec [deg]
ra_nom	144.13940469669	Nominal RA [deg]
dec_nom	23.44869903672	Nominal Dec [deg]
roll_nom	87.404967085801	Nominal Roll [deg]
revision	2	Processing version of data
ontime	4963.1999815702	Sum of GTIs [s]
livetime	4900.3529549234	Livetime [s]
ontime0	4963.1999815702	Sum of GTIs [s]
ontime1	4963.1999815702	Sum of GTIs [s]
ontime2	4963.1999815702	Sum of GTIs [s]
ontime3	4963.1999815702	Sum of GTIs [s]
ontime6	4963.1999815702	Sum of GTIs [s]
ontime7	4963.1999815702	Sum of GTIs [s]
l2events	22369	Number of level 2 events



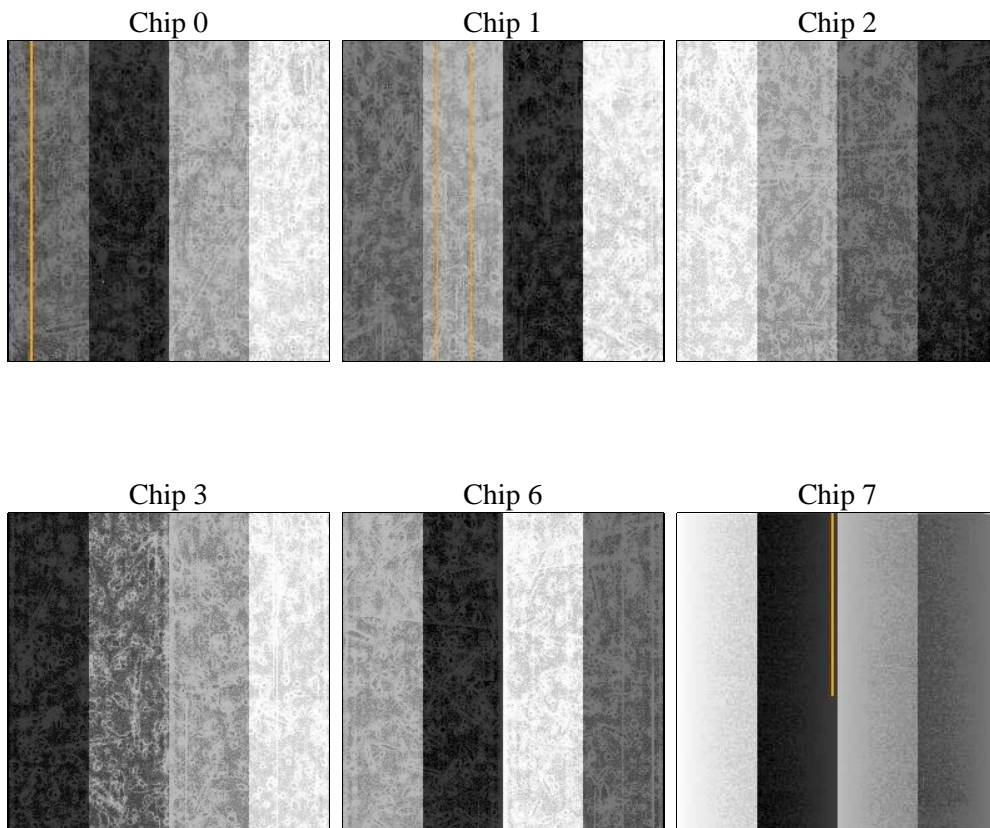
## 2 OBI

### 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	4963.1999815702	Sum of GTIs [s]
caldbver	4.4.7	&#160	ontime0	4963.1999815702	Sum of GTIs [s]
date	2012-02-02T03:20:40	Date and time of file creation	ontime1	4963.1999815702	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	4963.1999815702	Sum of GTIs [s]
			ontime3	4963.1999815702	Sum of GTIs [s]
			ontime6	4963.1999815702	Sum of GTIs [s]
			ontime7	4963.1999815702	Sum of GTIs [s]
			l1events	160135	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	27336	25770	29278	28103	30069	19579
rejected events	24434	22641	26421	25334	27091	8578
rejected %	89%	87%	90%	90%	90%	43%

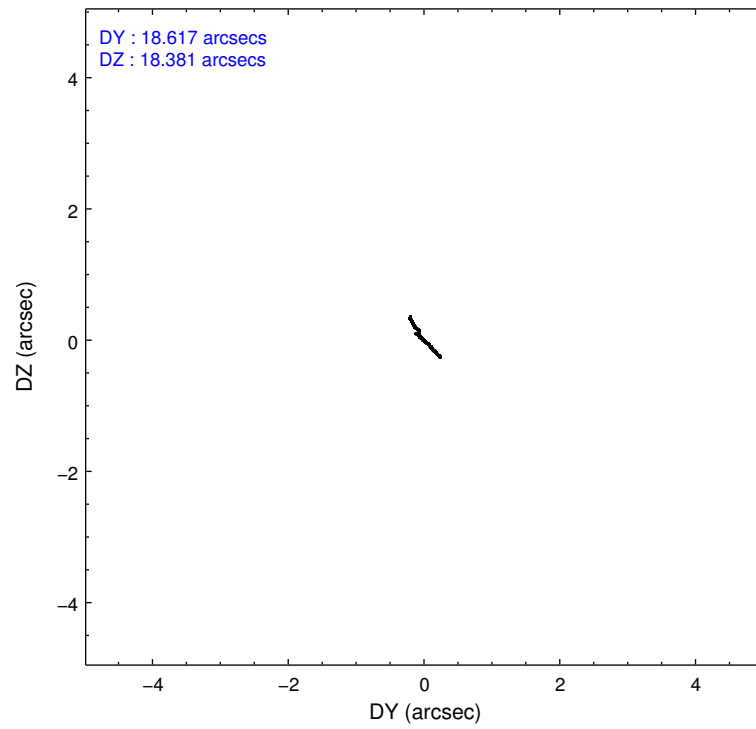
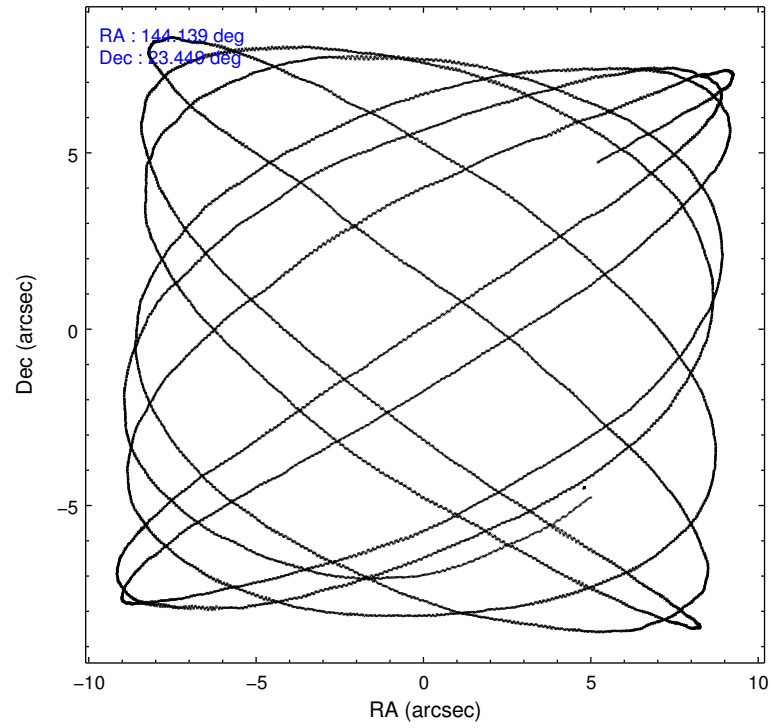
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	1095	1272	1197	1146	1194	1410
	4%	4%	4%	4%	3%	7%
grade 1 events	15	13	22	15	10	47
	0%	0%	0%	0%	0%	0%
grade 2 events	756	690	636	629	707	2656
	2%	2%	2%	2%	2%	13%
grade 3 events	327	332	260	288	301	1077
	1%	1%	0%	1%	1%	5%
grade 4 events	305	322	327	260	268	1066
	1%	1%	1%	0%	0%	5%
grade 5 events	638	705	579	672	716	2092
	2%	2%	1%	2%	2%	10%
grade 6 events	419	515	442	448	508	4792
	1%	1%	1%	1%	1%	24%
grade 7 events	23781	21921	25815	24645	26365	6439
	86%	85%	88%	87%	87%	32%

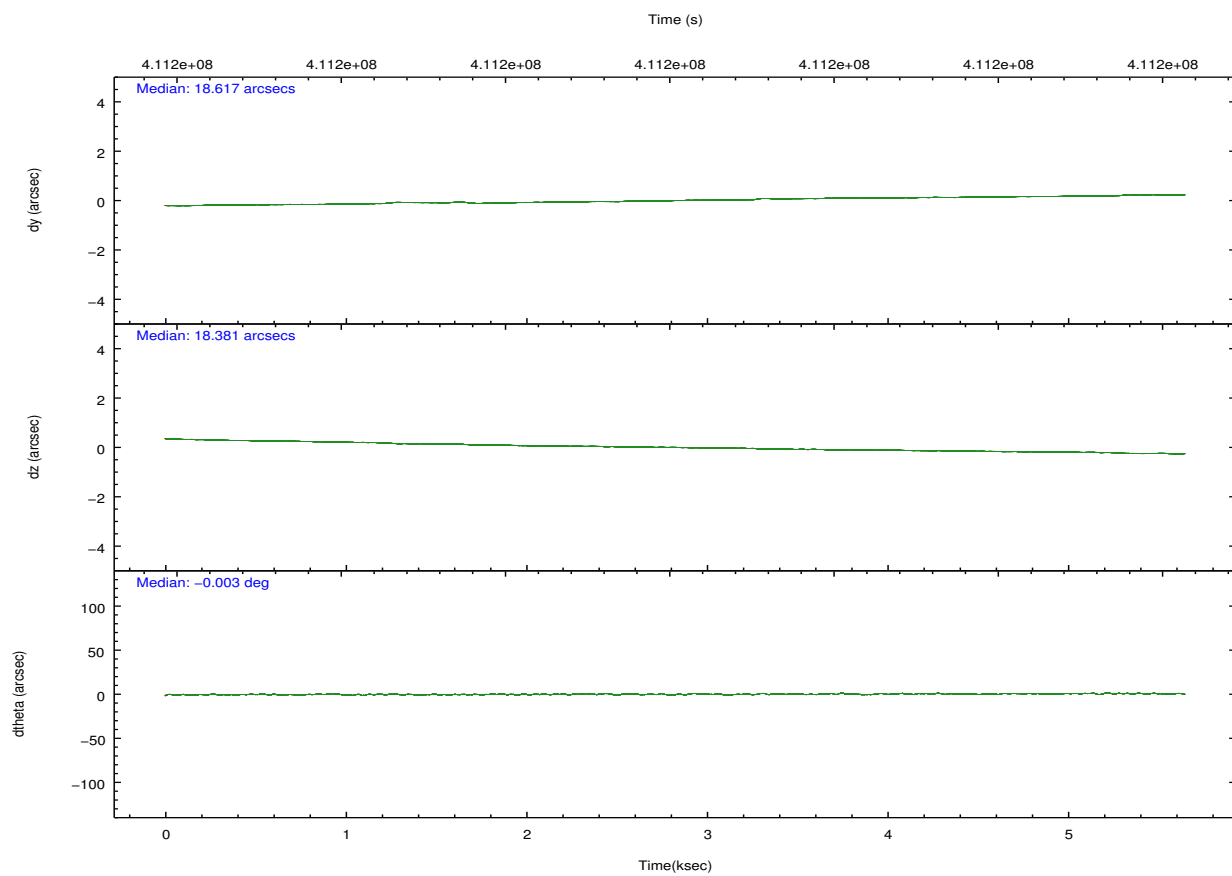
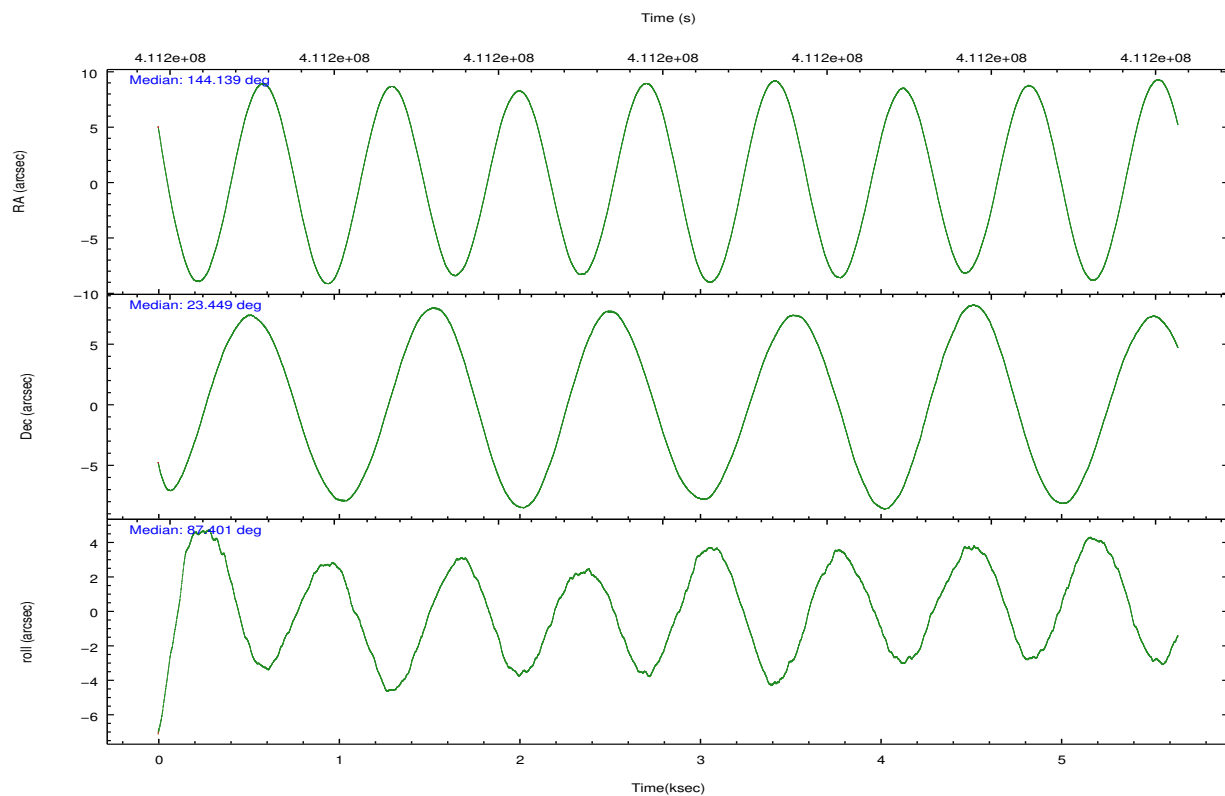


## 2.2 Compared Parameters

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	144.153331	144.1394046966871	CCD I2 on	Y	Y
[deg] Pointing Dec	23.424294	23.44869903672004	CCD I3 on	Y	Y
[deg] Pointing Roll	87.190740	87.40496708580075	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)	411197860.184000	411196669.67267	CCD S5 on	N	N
Observation start date	2011-01-12T05:36:34	2011-01-12T05:17:49	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	411202860.184000	411203869.27304	On-chip summing requested	N	N
Observation end date	2011-01-12T06:59:54	2011-01-12T07:17:49	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



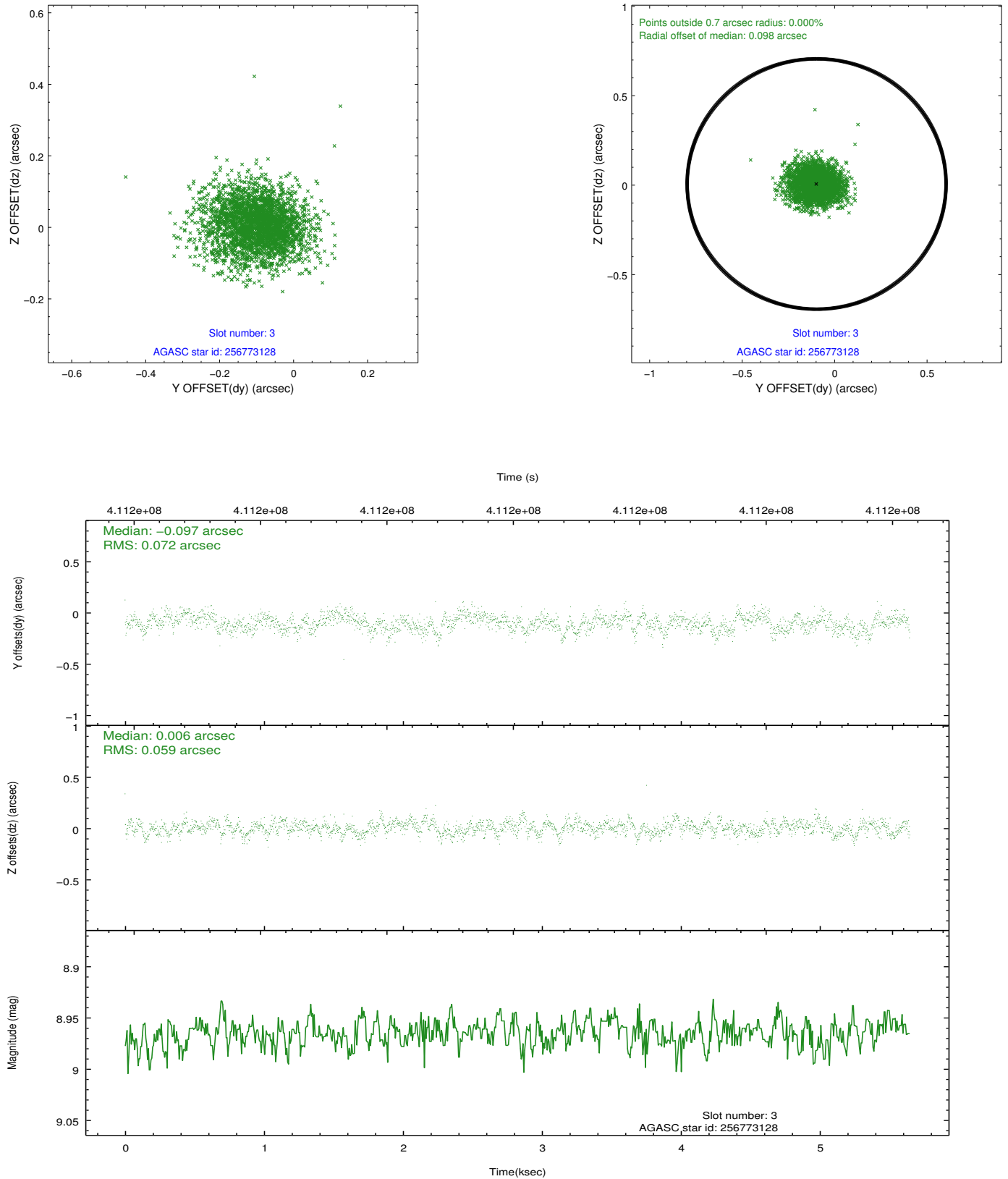


### Slot Statistics

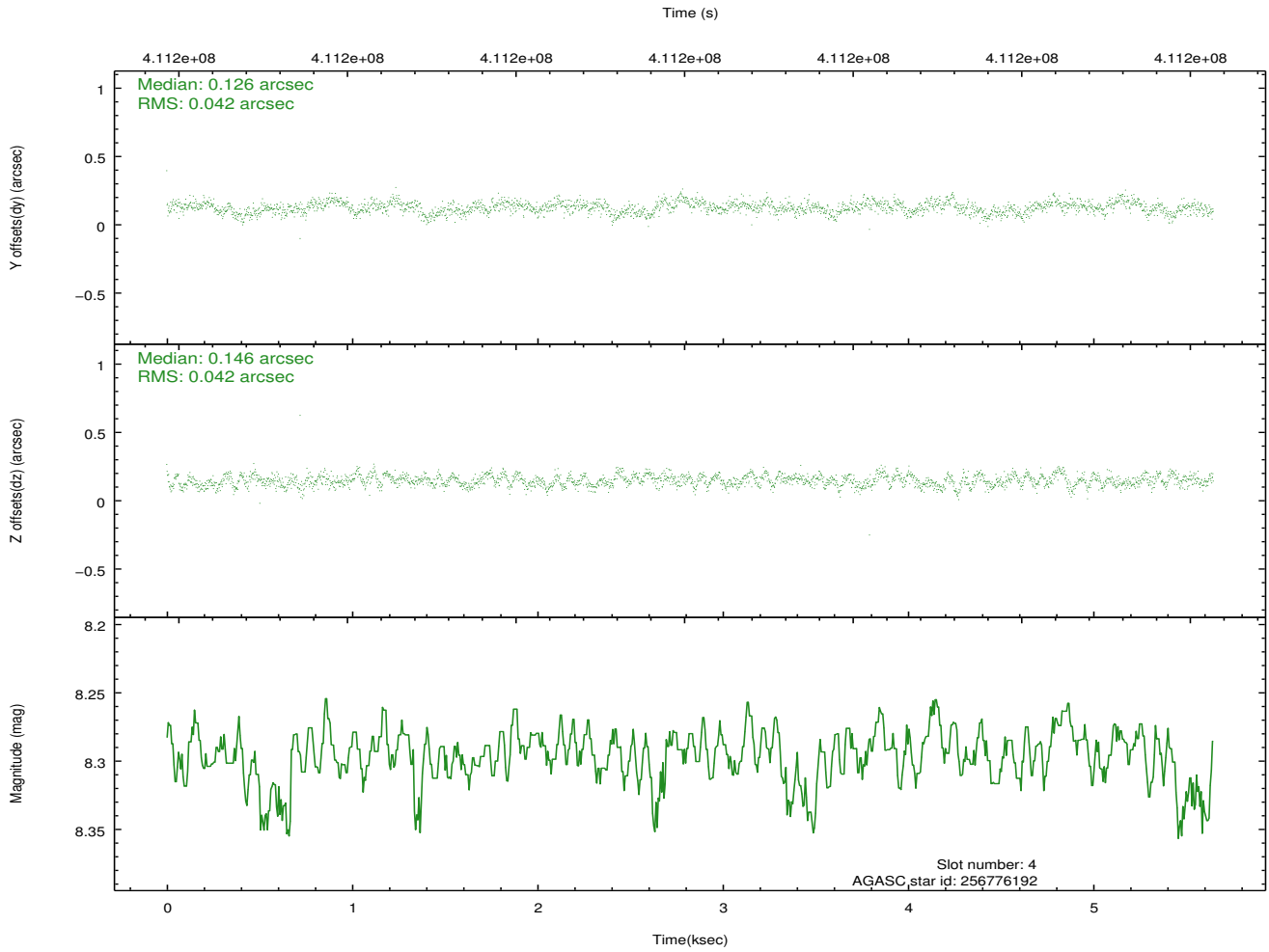
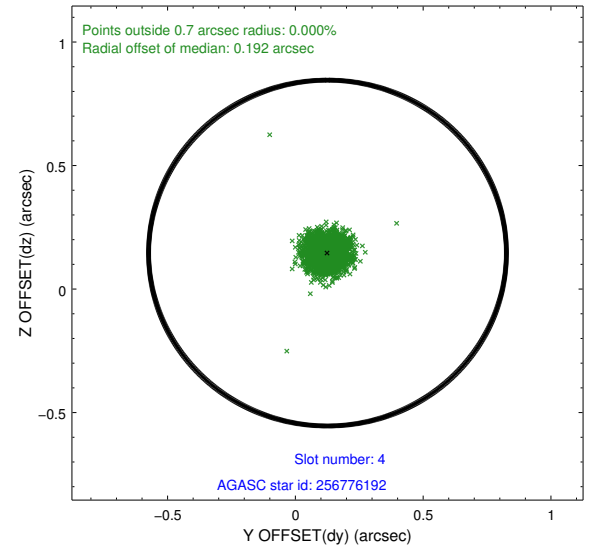
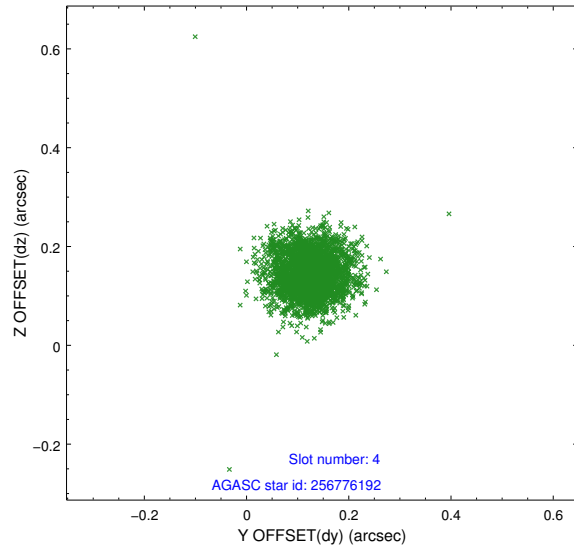
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.02	1378	0.043	0.029	0.008	0.014	0.000000	0.000000	920.79	-842.04
1	FID	ACIS-I-5	7.00	1377	-0.239	0.050	0.008	0.013	0.000000	0.000000	-1827.04	1054.90
2	FID	ACIS-I-6	7.03	1378	0.104	-0.009	0.007	0.016	0.000000	0.000000	385.21	1700.58
3	GUIDE	256773128	8.96	2753	-0.097	0.006	0.098	0.163	144.484505	24.067436	2367.34	-973.38
4	GUIDE	256776192	8.29	2755	0.126	0.146	0.062	0.099	144.647615	23.048428	-1268.46	-1701.10
5	GUIDE	256776720	7.58	2753	0.014	0.120	0.072	0.127	144.237833	23.031063	-1400.40	-349.55
6	GUIDE	256777896	7.43	2754	-0.014	-0.289	0.066	0.104	144.018933	23.191336	-860.59	402.14
7	GUIDE	256780200	8.04	2755	-0.033	0.015	0.057	0.093	144.555605	23.546919	507.25	-1303.35

## 2.4 Star Slots

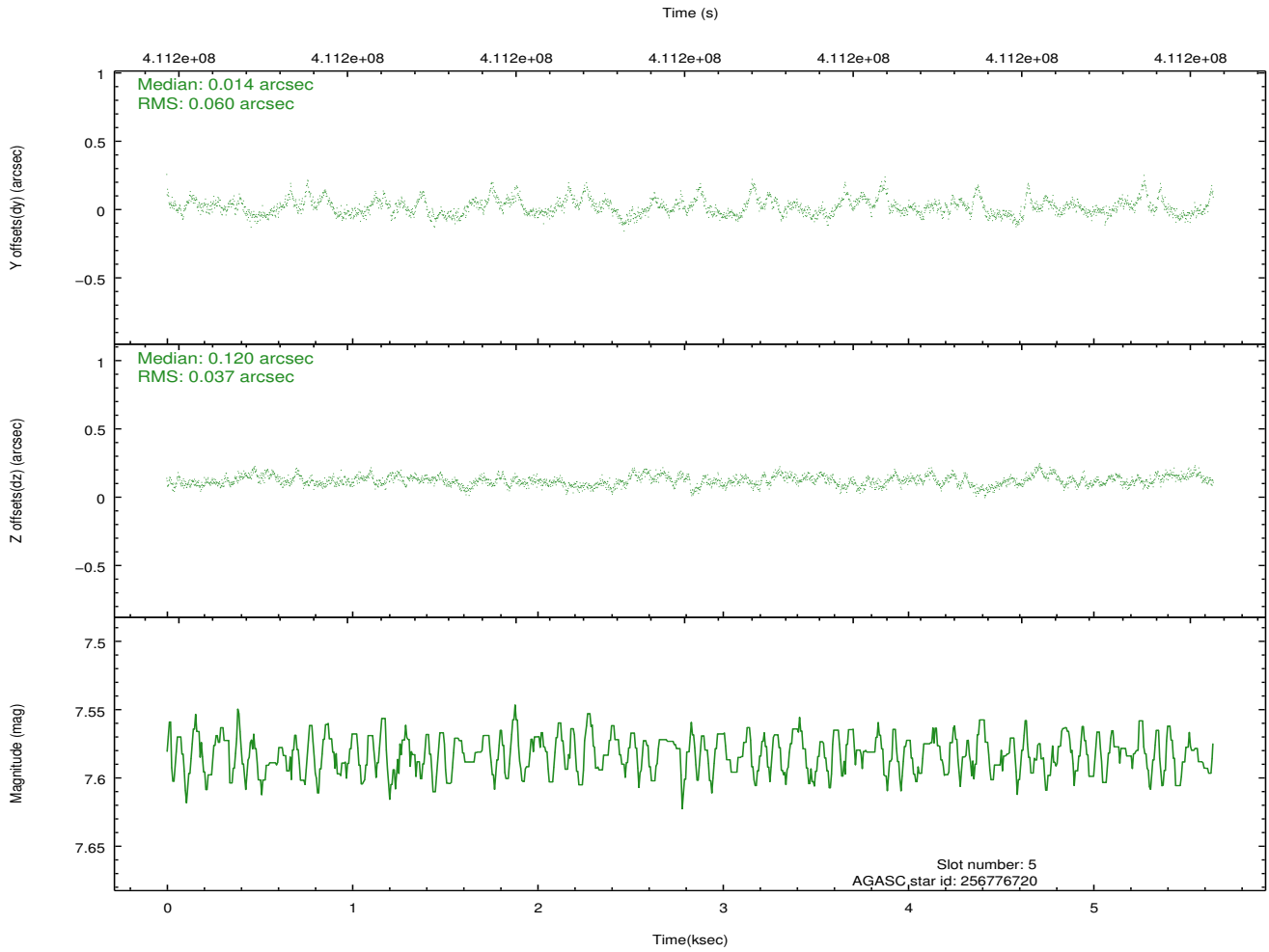
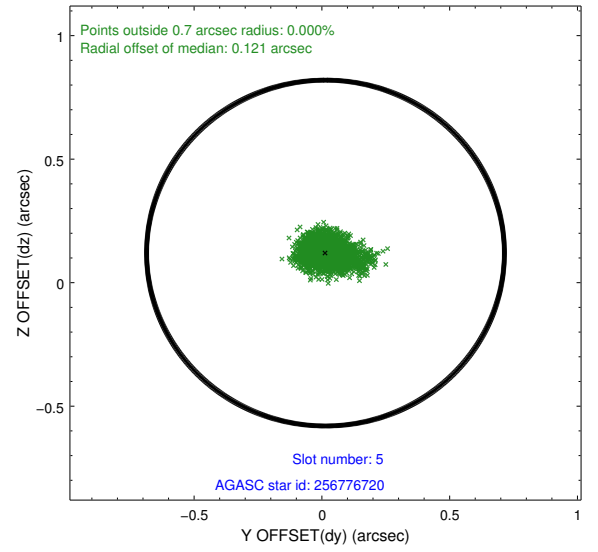
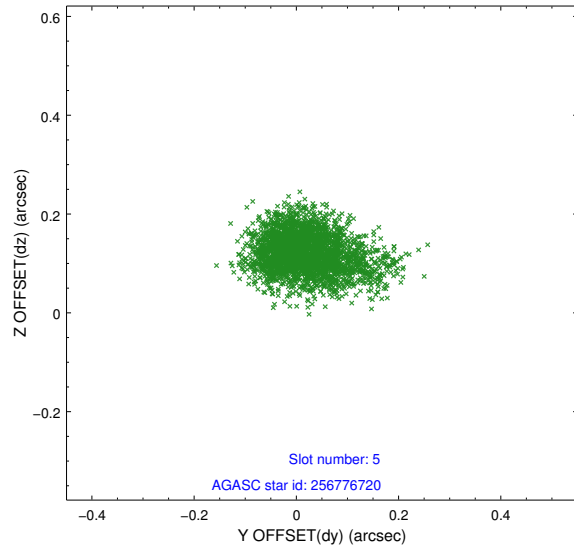
### 2.4.1 Slot 3



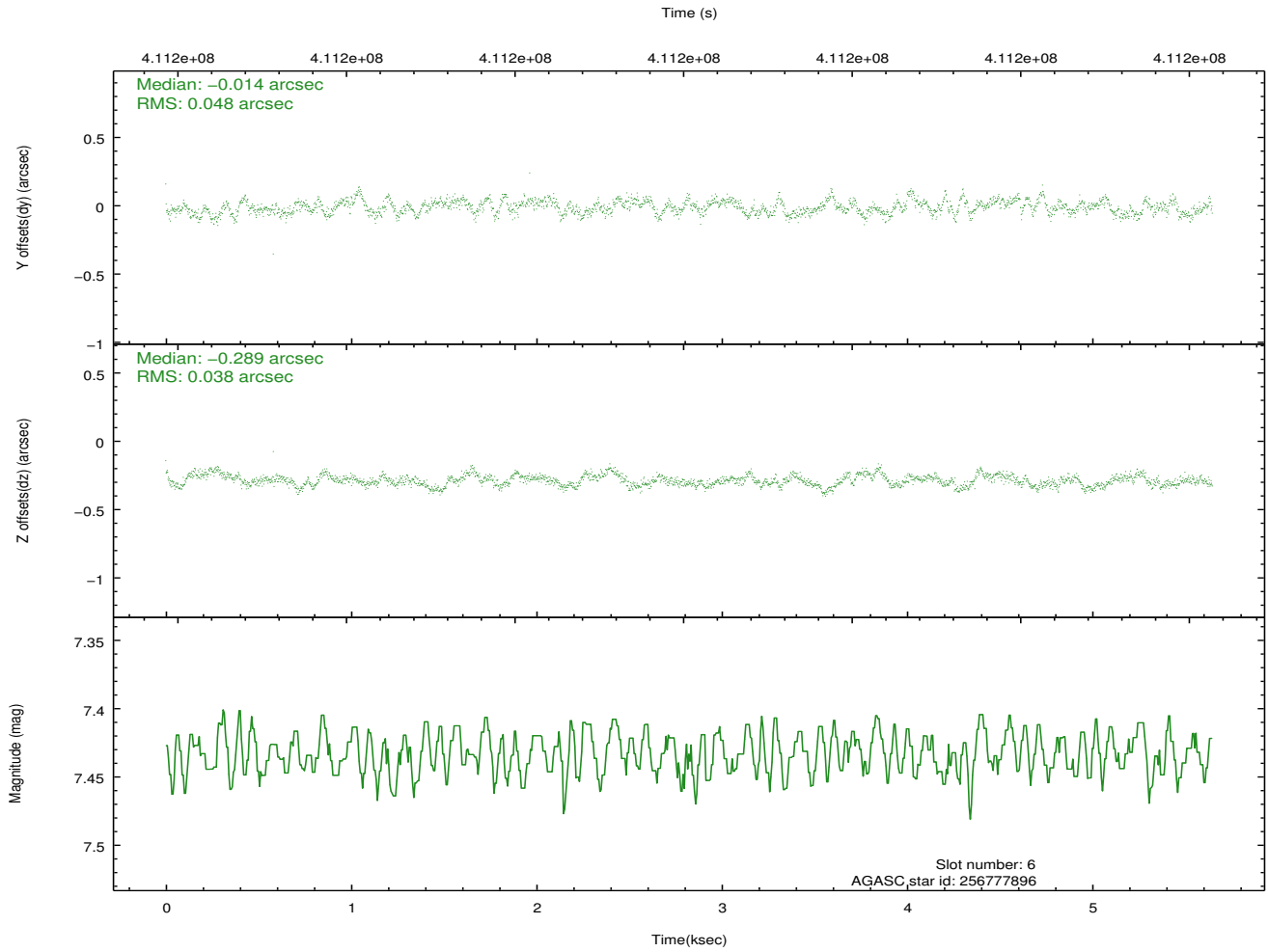
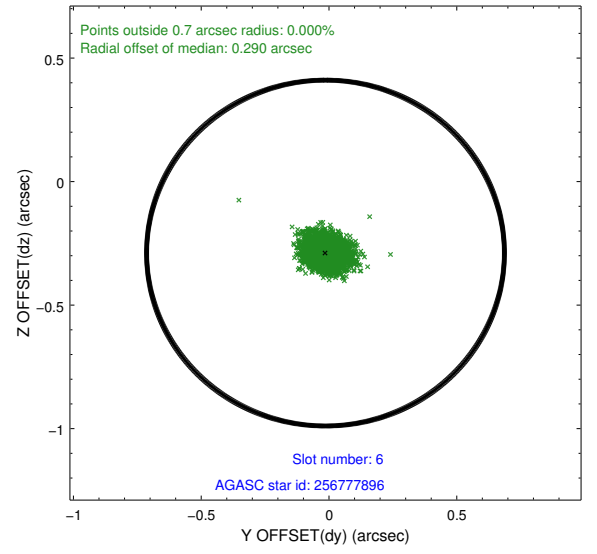
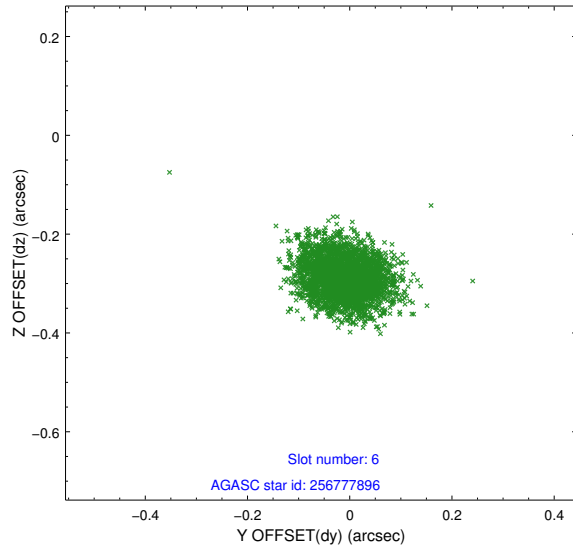
## 2.4.2 Slot 4



### 2.4.3 Slot 5

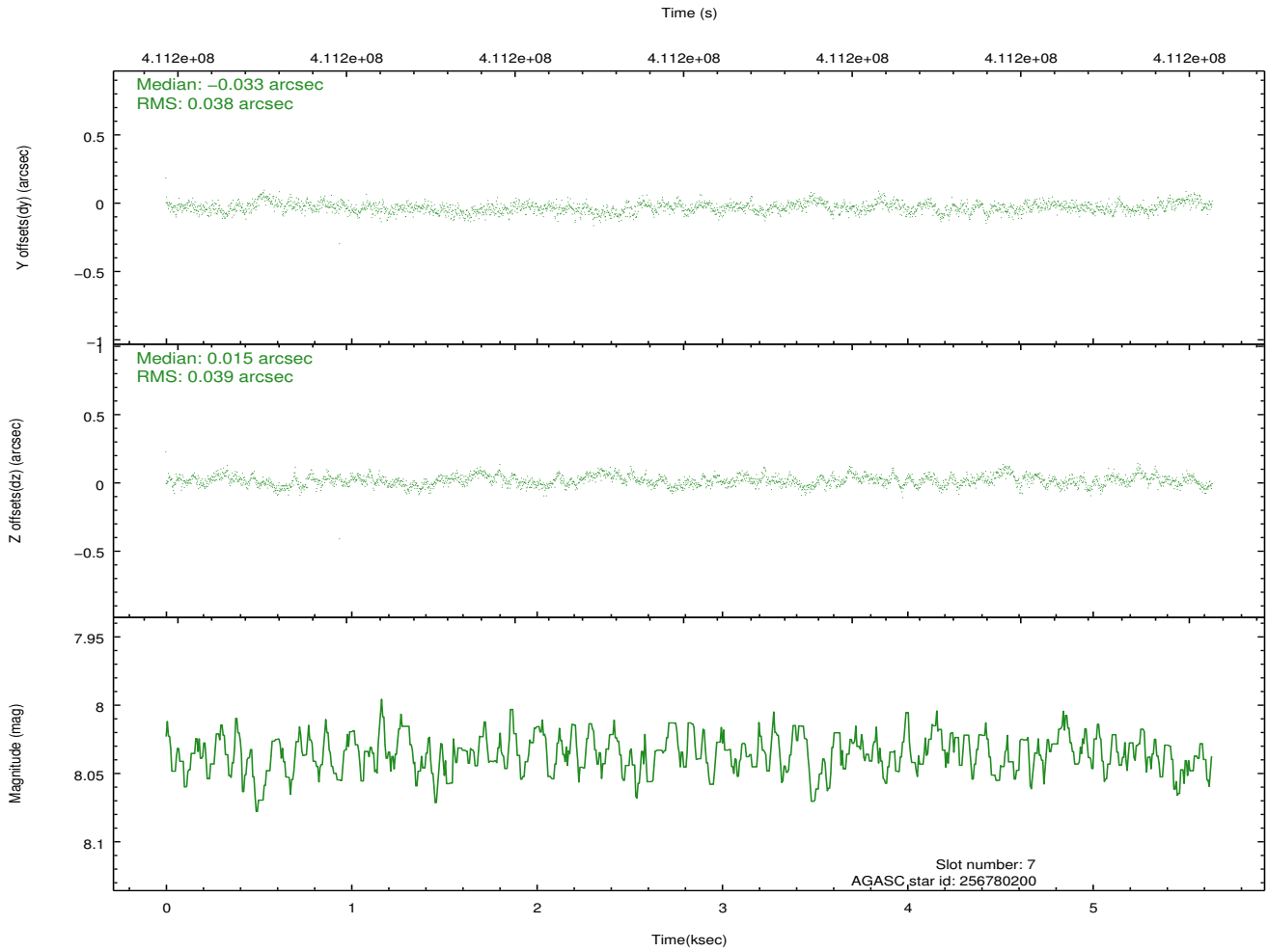
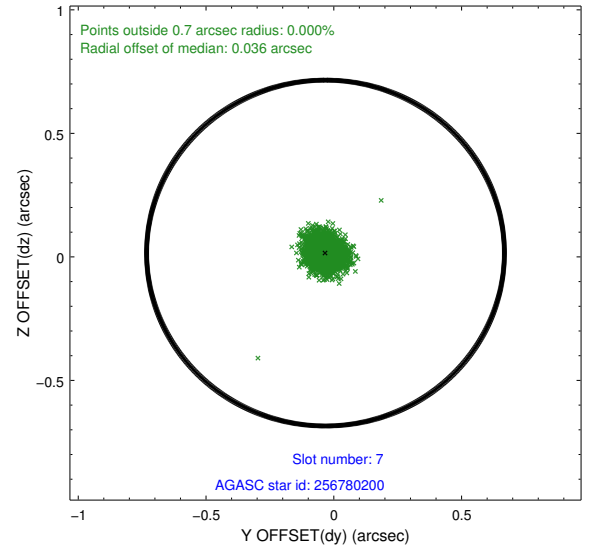
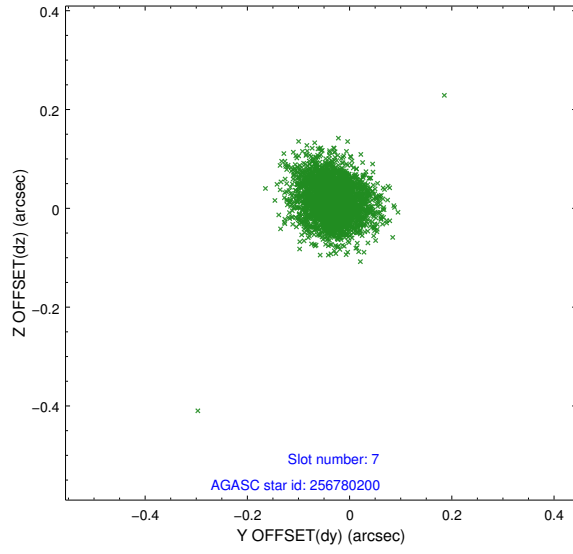


## 2.4.4 Slot 6



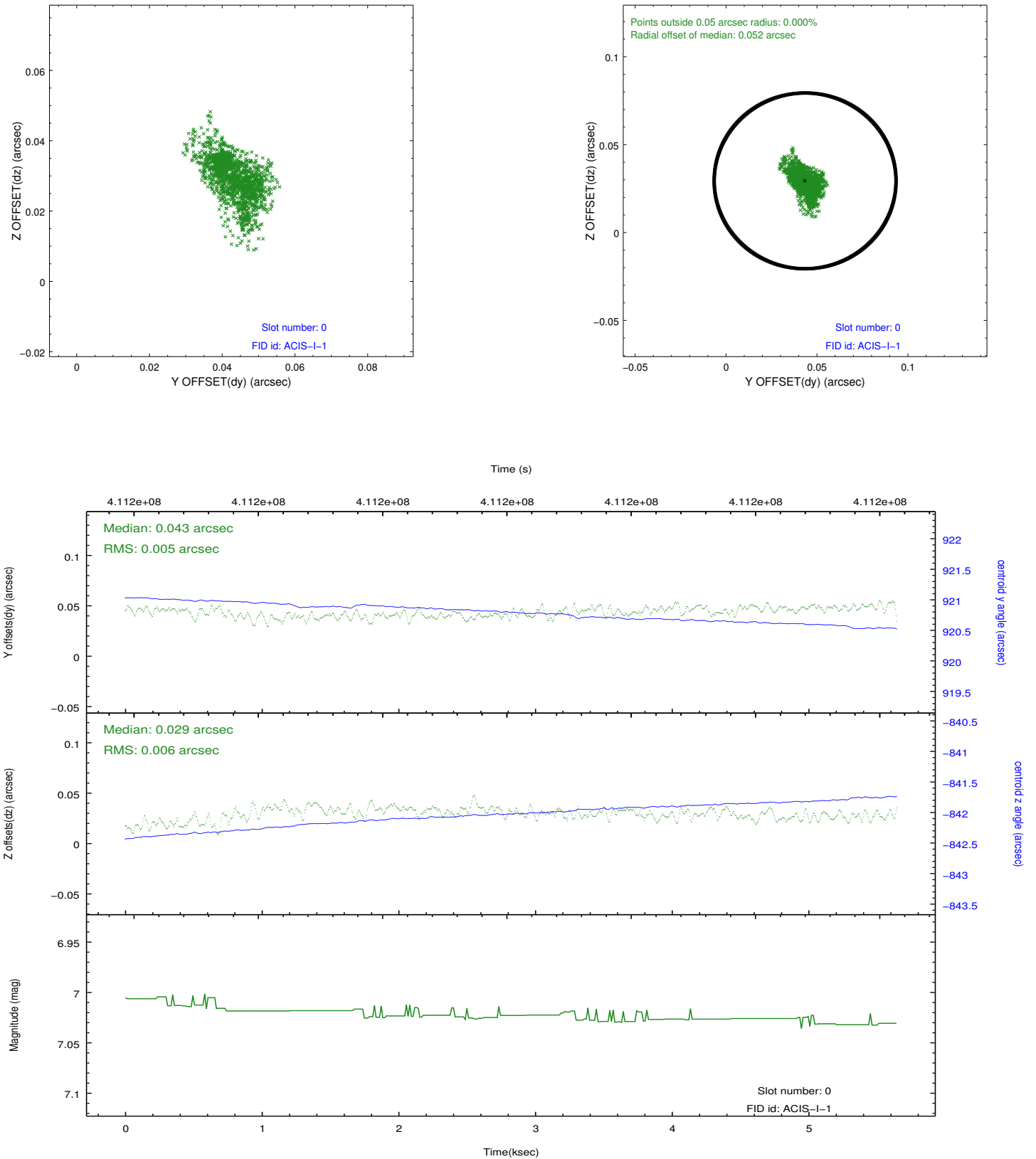


## 2.4.5 Slot 7

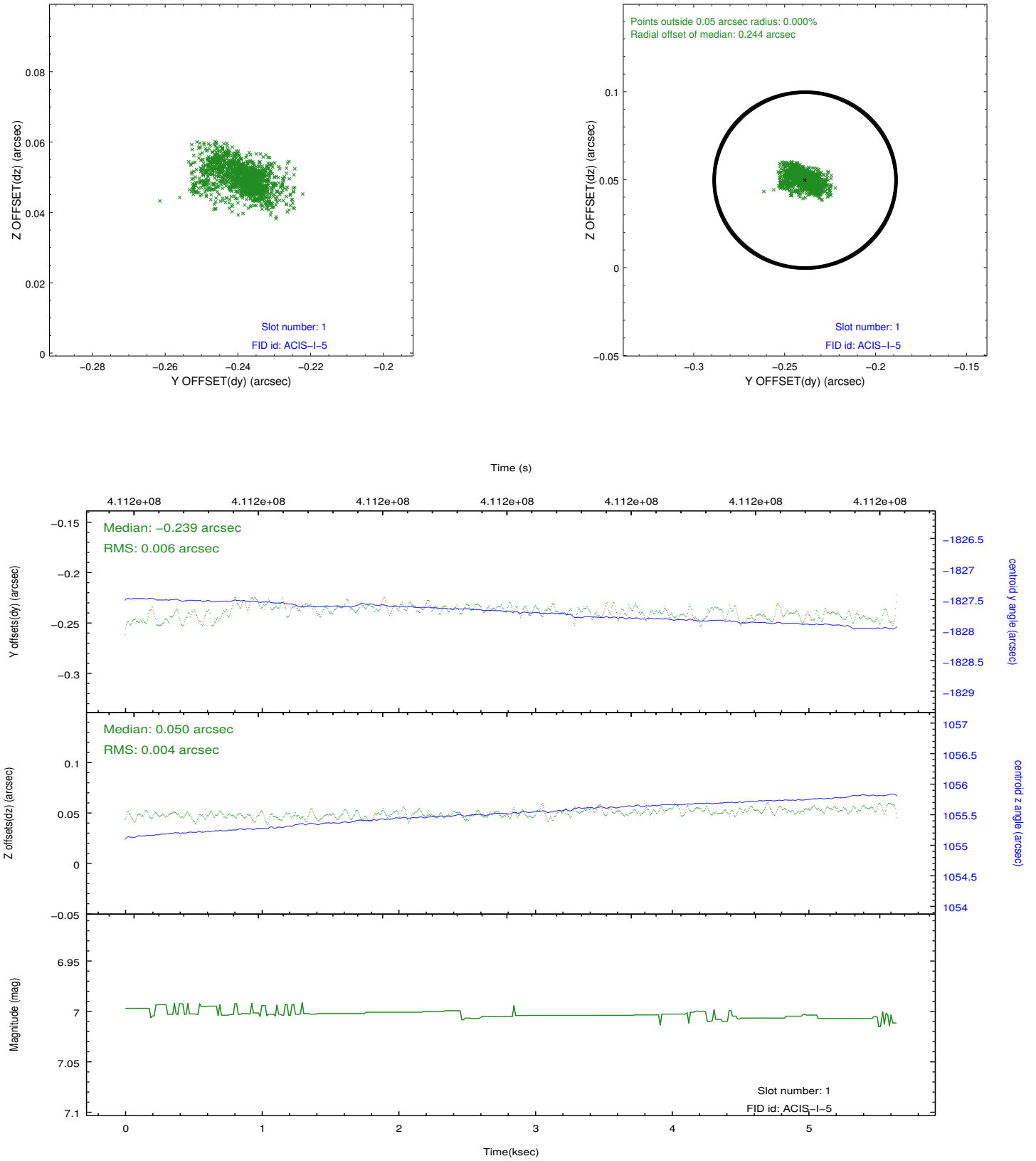


## 2.5 FID Slots

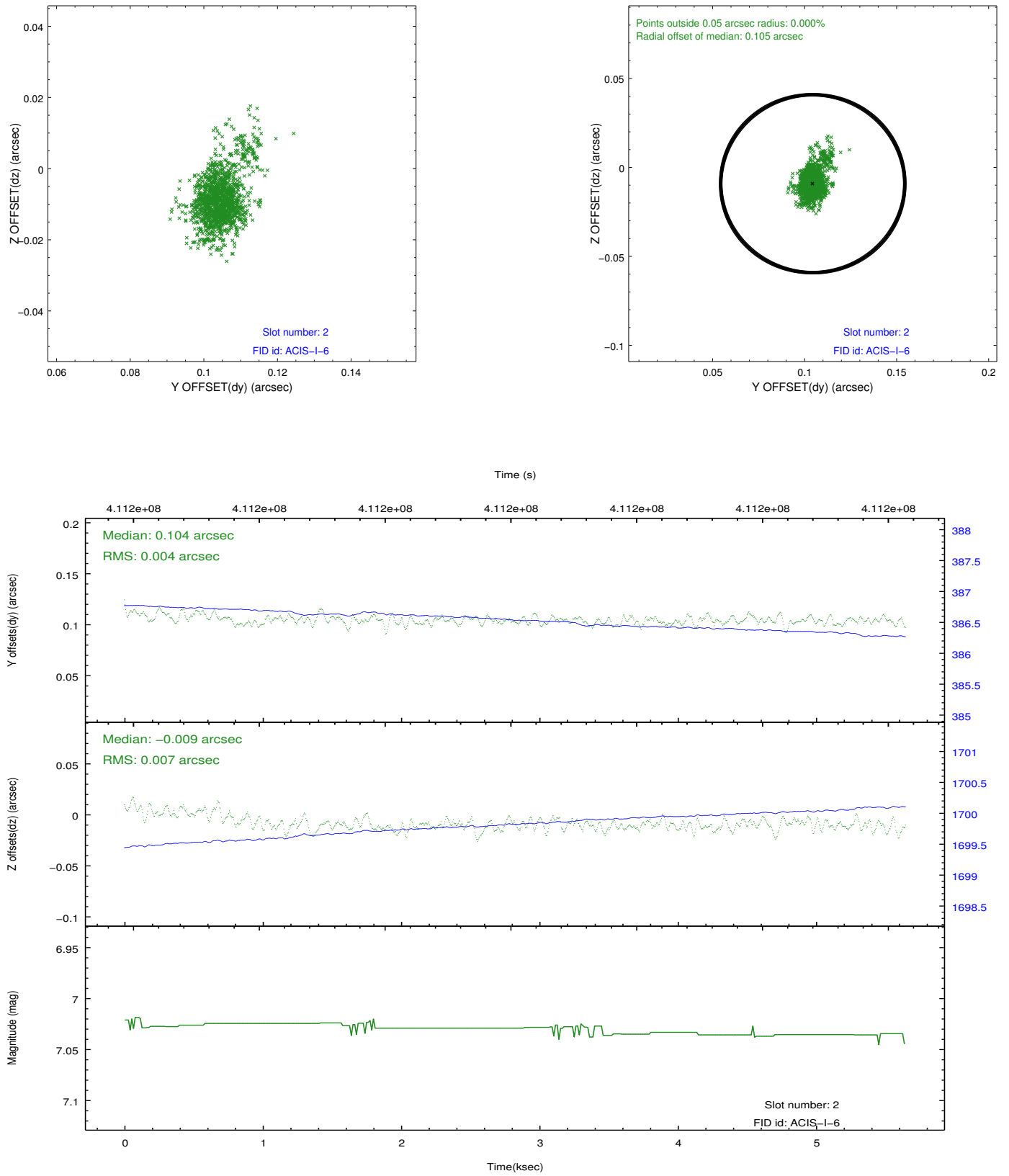
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.02.02
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.9631999815702

## 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.