

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 12843 - L2 Version 2  
Chandra X-Ray Center

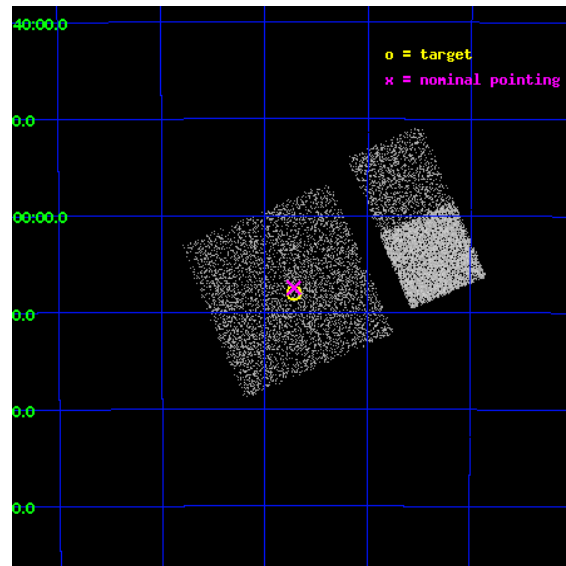
L2 Processing Date : Feb 4 2012

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# 1 Front

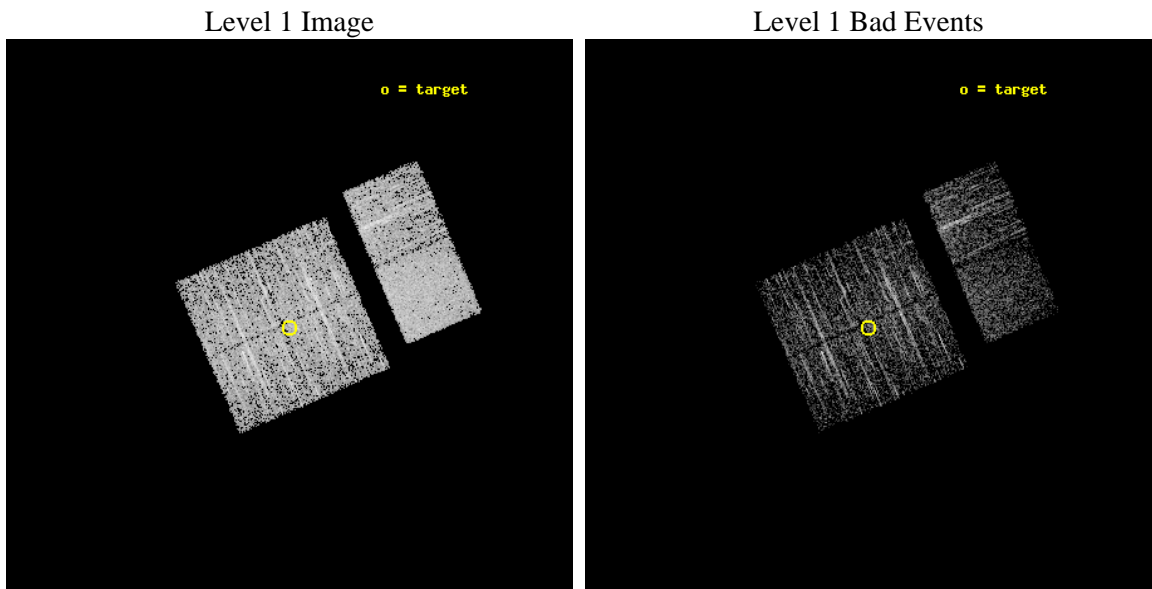
seq_num	702476	Sequence number
obs_id	12843	Observation id
title	Chandra observations of unidentified Fermi sources detected by INTEGRAL	Proposal title
observer	Mr. Claudio Ricci	Principal investigator
object	1FGL J1417.7-4407	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	214.427917	Observer's specified target RA [deg]
dec_targ	-44.132111	Observer's specified target Dec [deg]
ra_nom	214.42907219827	Nominal RA [deg]
dec_nom	-44.124381241868	Nominal Dec [deg]
roll_nom	66.585054014821	Nominal Roll [deg]
revision	2	Processing version of data
ontime	2051.1999924183	Sum of GTIs [s]
livetime	2025.2264630299	Livetime [s]
ontime0	2051.1999924183	Sum of GTIs [s]
ontime1	2051.1999924183	Sum of GTIs [s]
ontime2	2051.1999924183	Sum of GTIs [s]
ontime3	2051.1999924183	Sum of GTIs [s]
ontime6	2051.1999924183	Sum of GTIs [s]
ontime7	2051.1999924183	Sum of GTIs [s]
l2events	15495	Number of level 2 events



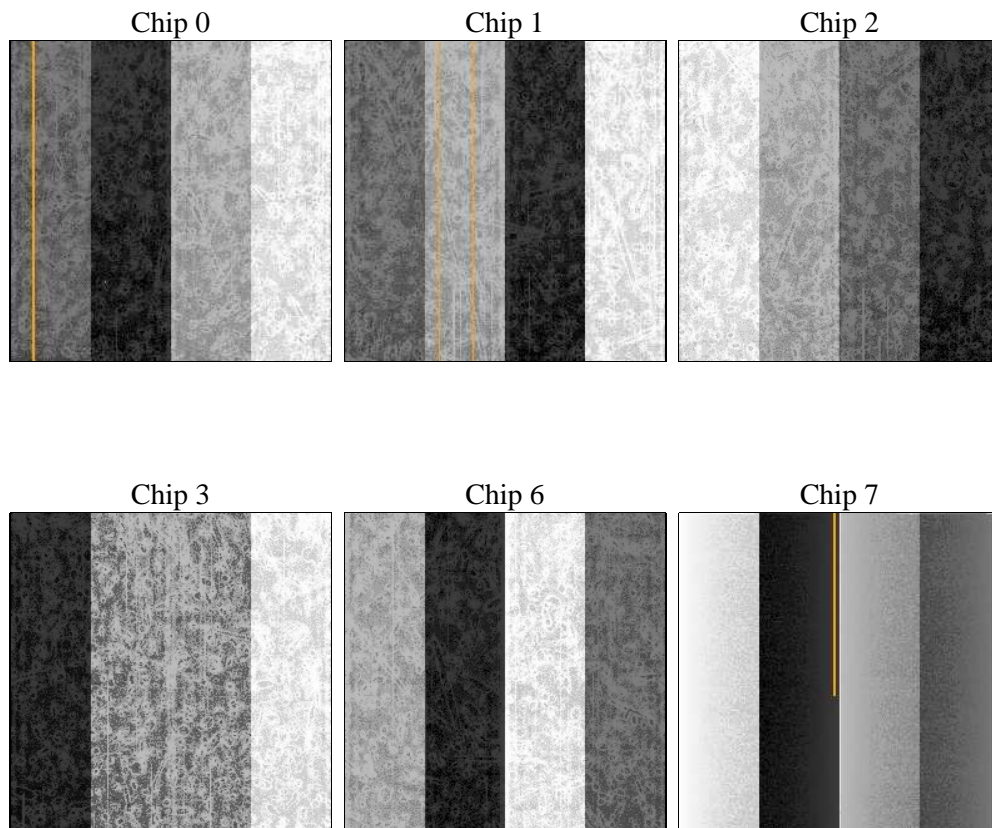
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	2000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	2051.1999924183	Sum of GTIs [s]
caldsver	4.4.7	&#160	ontime0	2051.1999924183	Sum of GTIs [s]
date	2012-02-04T05:39:24	Date and time of file creation	ontime1	2051.1999924183	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	2051.1999924183	Sum of GTIs [s]
			ontime3	2051.1999924183	Sum of GTIs [s]
			ontime6	2051.1999924183	Sum of GTIs [s]
			ontime7	2051.1999924183	Sum of GTIs [s]
			l1events	88270	Number of level 1 events

### 2.1.4 Events

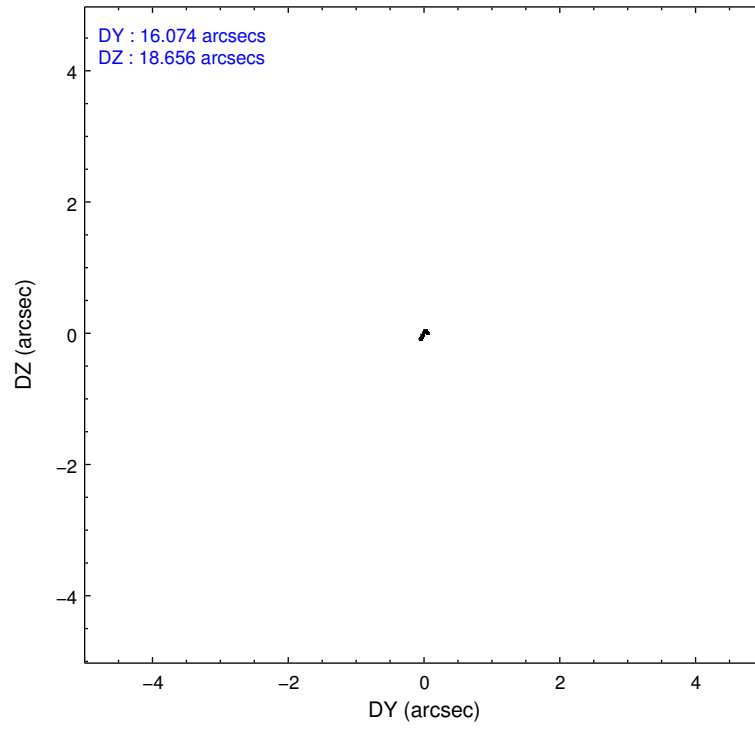
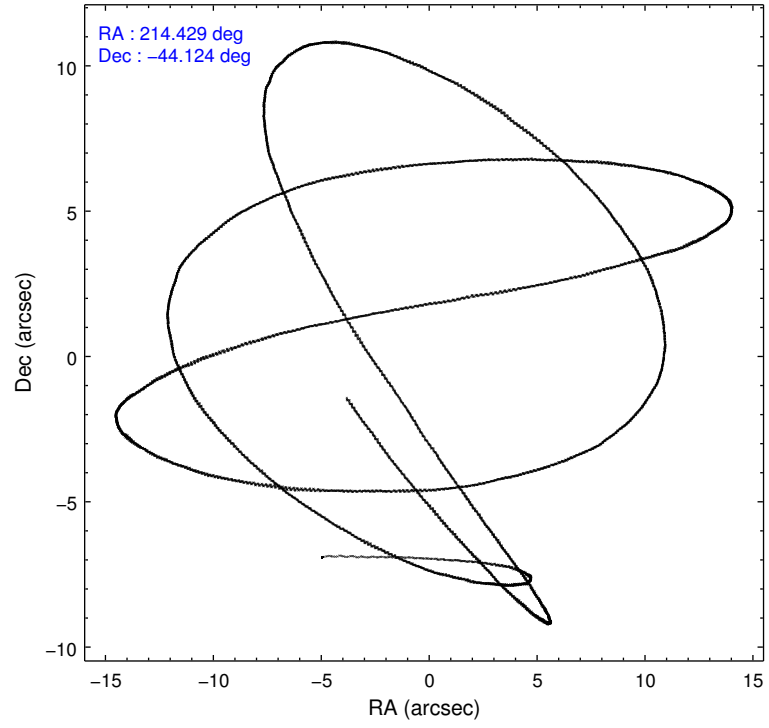
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	13455	13468	14452	13685	14431	18779
rejected events	11824	11647	12735	12098	12728	10160
rejected %	87%	86%	88%	88%	88%	54%

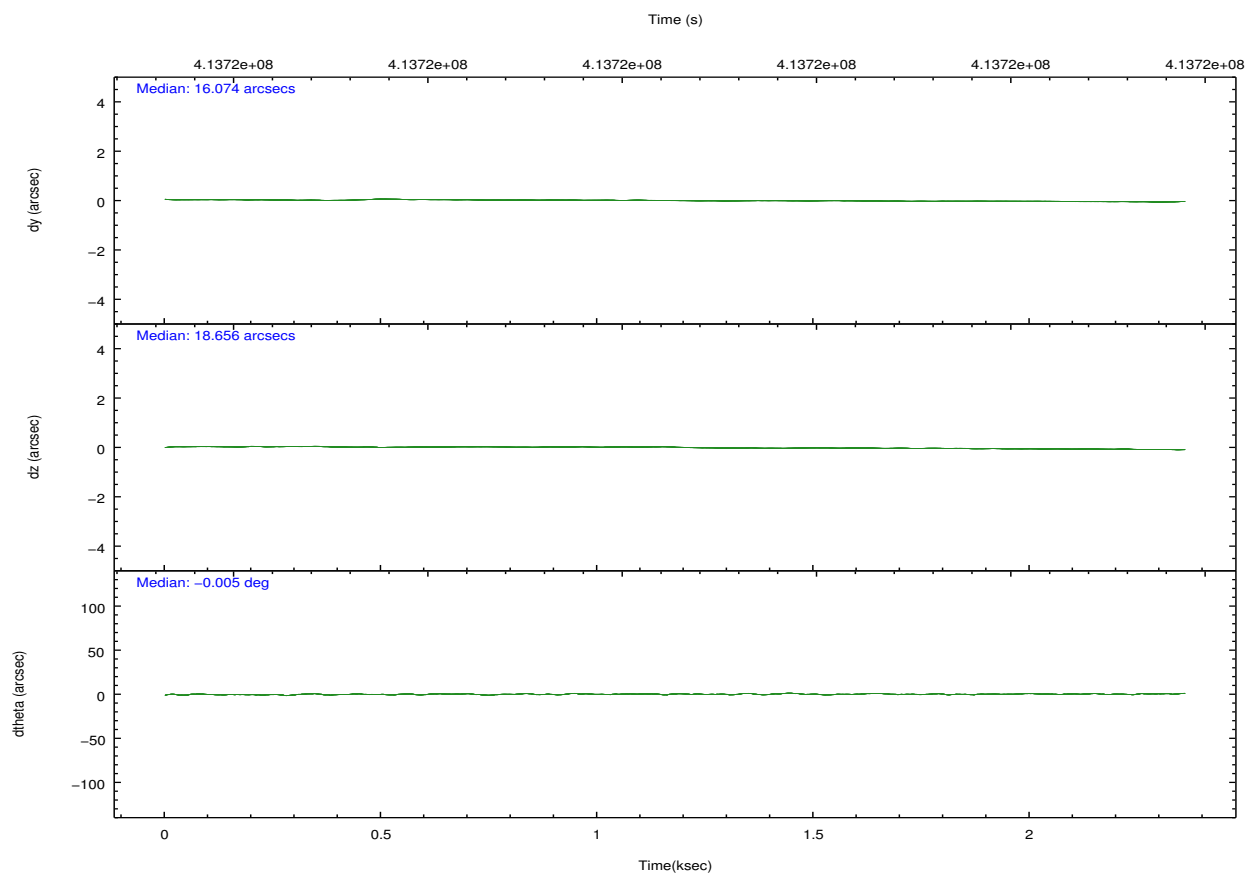
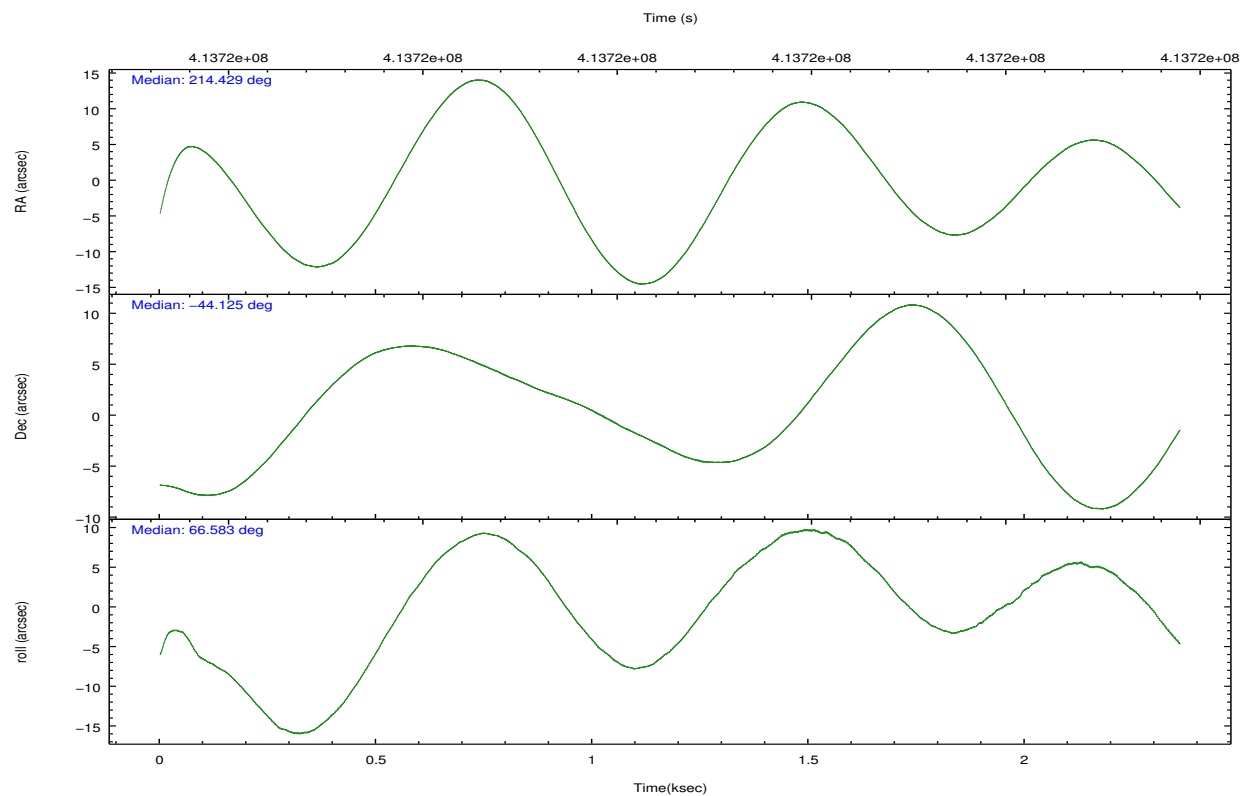
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	589	688	694	568	623	819
	4%	5%	4%	4%	4%	4%
grade 1 events	12	6	4	4	10	24
	0%	0%	0%	0%	0%	0%
grade 2 events	401	435	409	323	400	1757
	2%	3%	2%	2%	2%	9%
grade 3 events	155	201	153	193	169	782
	1%	1%	1%	1%	1%	4%
grade 4 events	148	174	166	157	172	798
	1%	1%	1%	1%	1%	4%
grade 5 events	618	624	584	679	677	1969
	4%	4%	4%	4%	4%	10%
grade 6 events	344	332	304	348	342	4496
	2%	2%	2%	2%	2%	23%
grade 7 events	11188	11008	12138	11413	12038	8134
	83%	81%	83%	83%	83%	43%

## 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	214.433674	214.4290721982658	CCD I2 on	Y	Y
[deg] Pointing Dec	-44.151380	-44.12438124186802	CCD I3 on	Y	Y
[deg] Pointing Roll	66.379527	66.58505401482094	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)	413718312.184000	413717198.61554	CCD S5 on	N	N
Observation start date	2011-02-10T09:44:06	2011-02-10T09:26:38	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	413720312.184000	413721119.24074	On-chip summing requested	N	N
Observation end date	2011-02-10T10:17:26	2011-02-10T10:31:59	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect





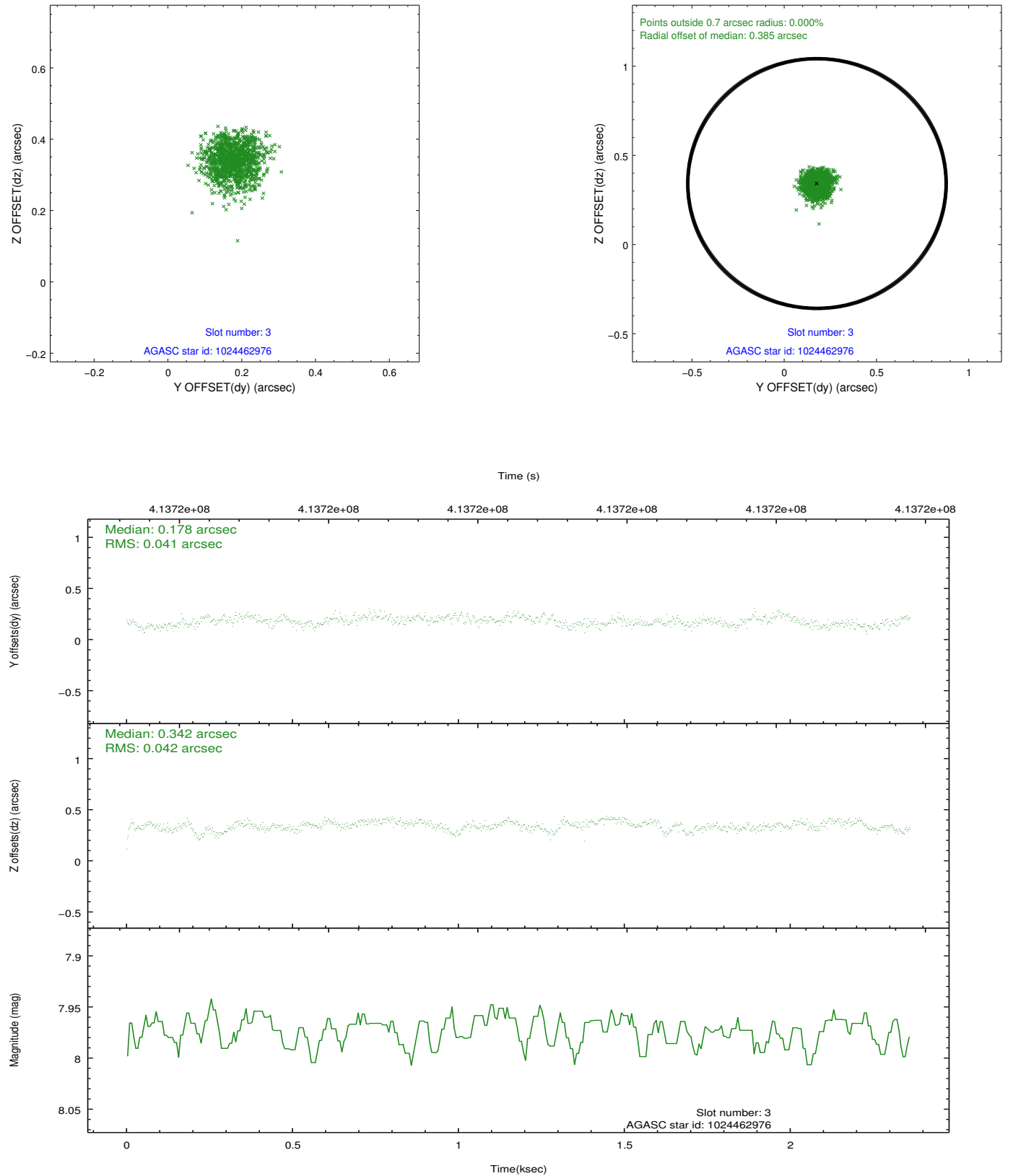
### Slot Statistics

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	576	0.027	0.000	0.007	0.012	0.000000	0.000000	923.42	-842.29
1	FID	ACIS-I-2	6.92	576	-0.018	-0.041	0.011	0.016	0.000000	0.000000	-769.19	-850.24
2	FID	ACIS-I-5	6.99	576	-0.102	0.113	0.007	0.013	0.000000	0.000000	-1826.33	1053.77
3	GUIDE	1024462976	7.97	1152	0.178	0.342	0.063	0.098	214.850563	-44.530804	-823.93	-1527.79
4	GUIDE	1024467880	9.43	1150	-0.360	0.084	0.102	0.160	214.401869	-43.445335	2295.60	1093.99
5	GUIDE	1024470344	9.22	1152	-0.197	-0.310	0.090	0.141	214.778559	-43.574209	2265.45	8.87
6	GUIDE	1024472480	7.64	1152	0.143	-0.052	0.056	0.093	213.972174	-44.593242	-1931.24	445.57
7	GUIDE	1024477592	8.51	1151	0.238	-0.061	0.066	0.106	214.121852	-44.592300	-1776.43	96.67

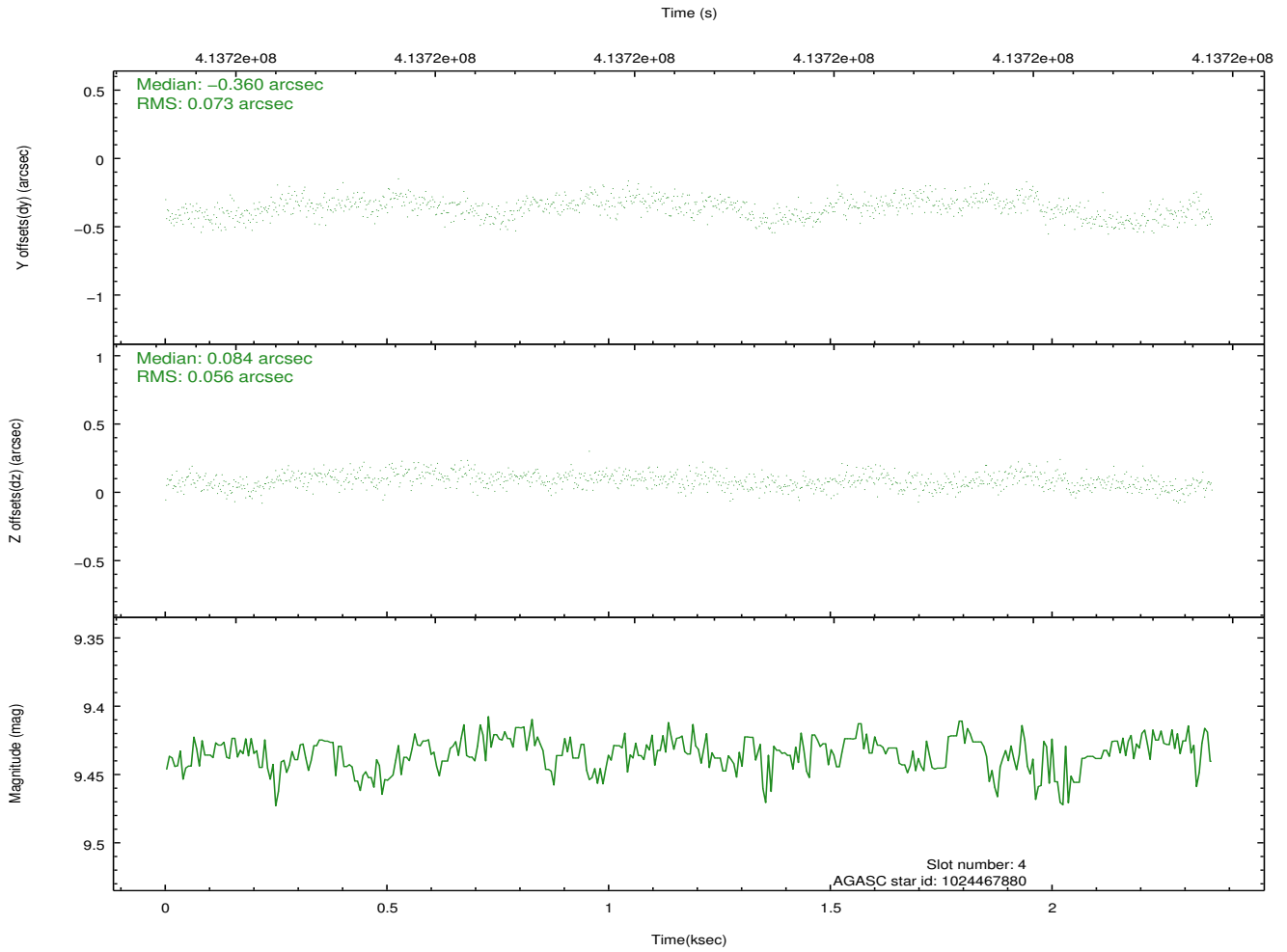
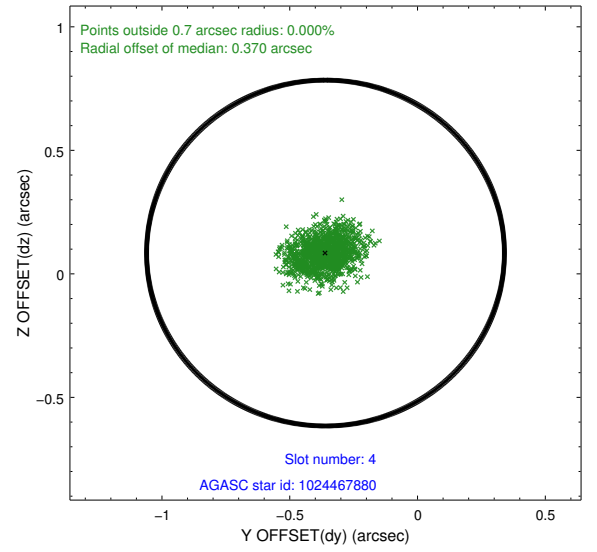
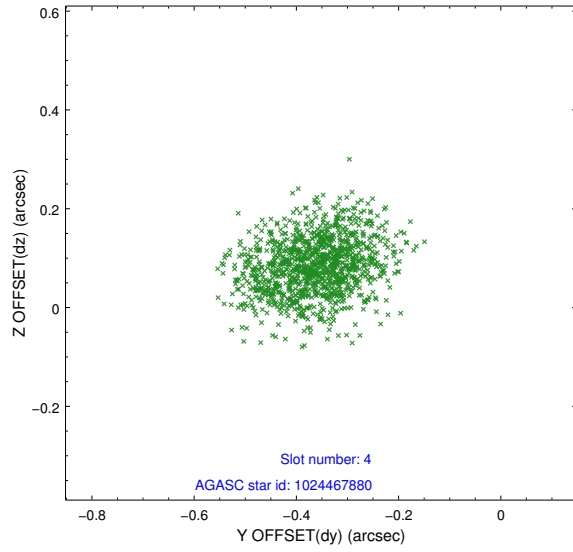


## 2.4 Star Slots

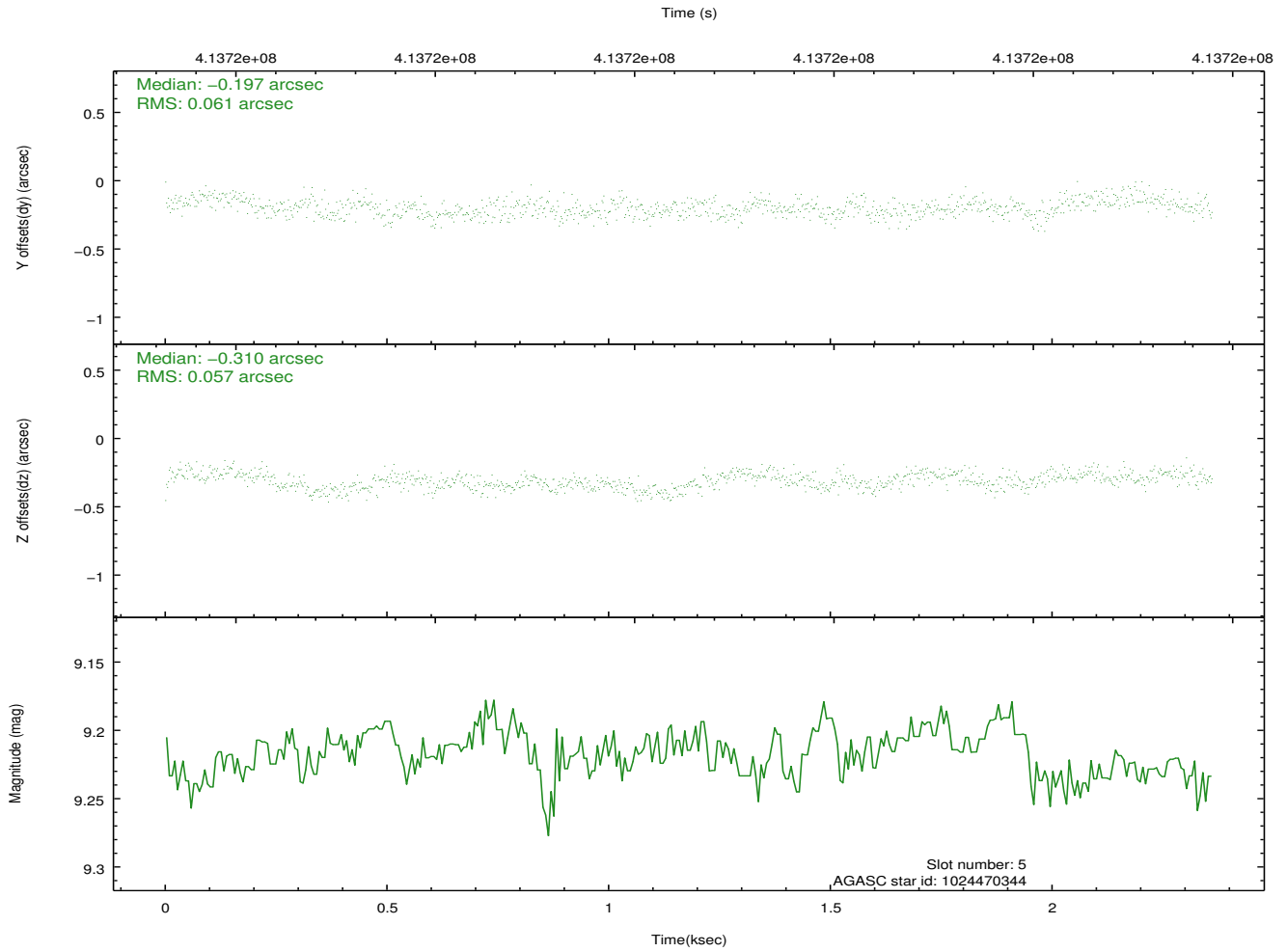
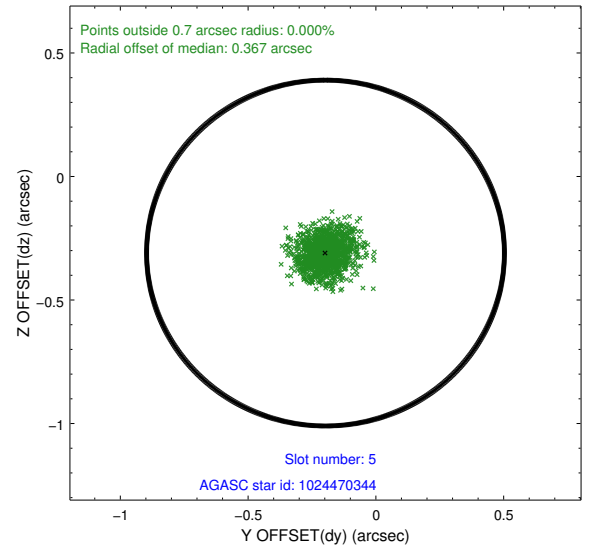
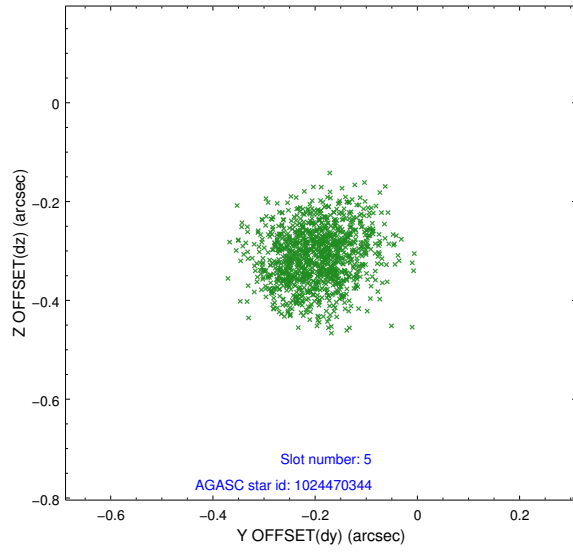
### 2.4.1 Slot 3



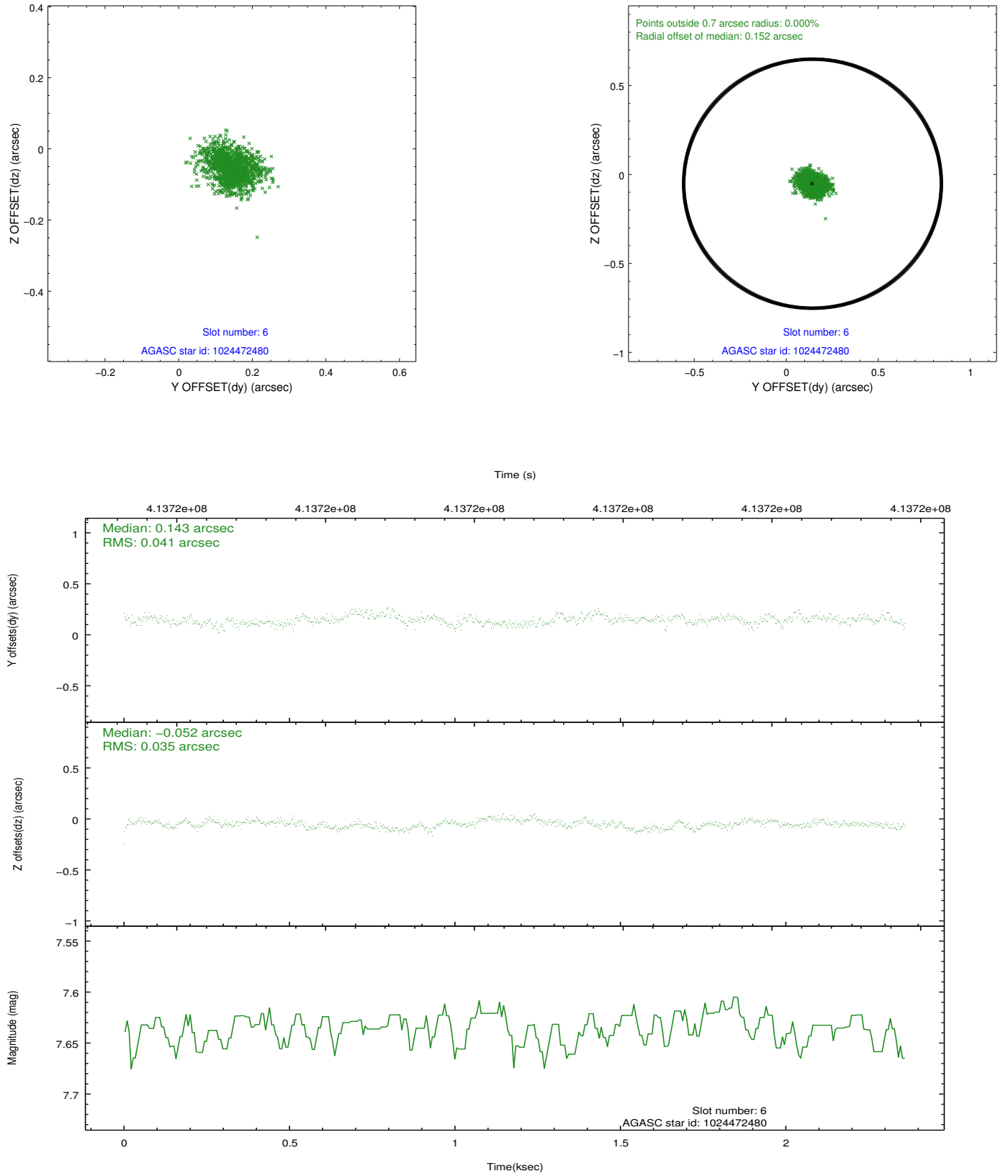
## 2.4.2 Slot 4



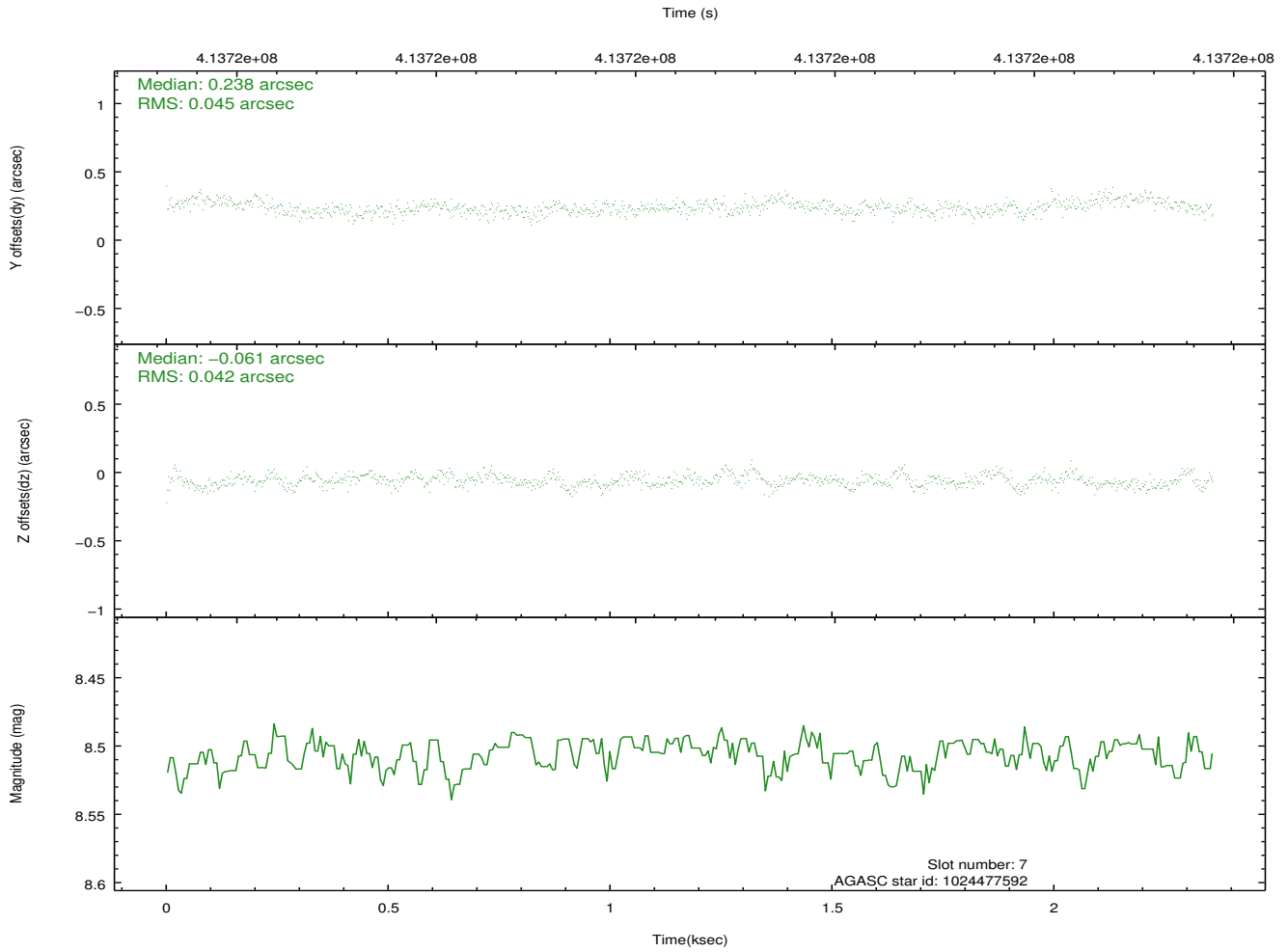
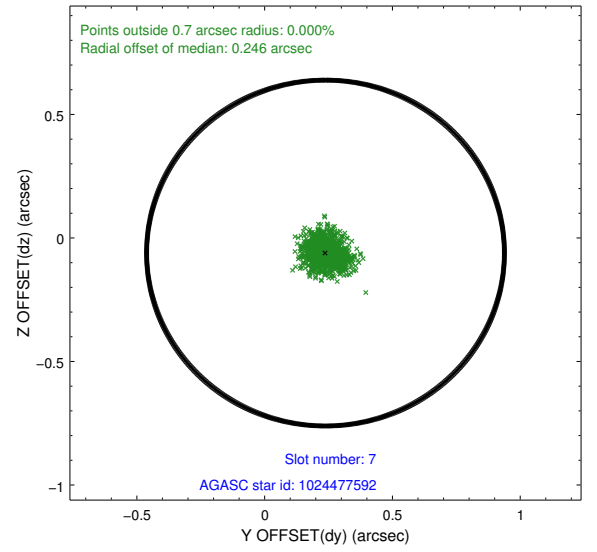
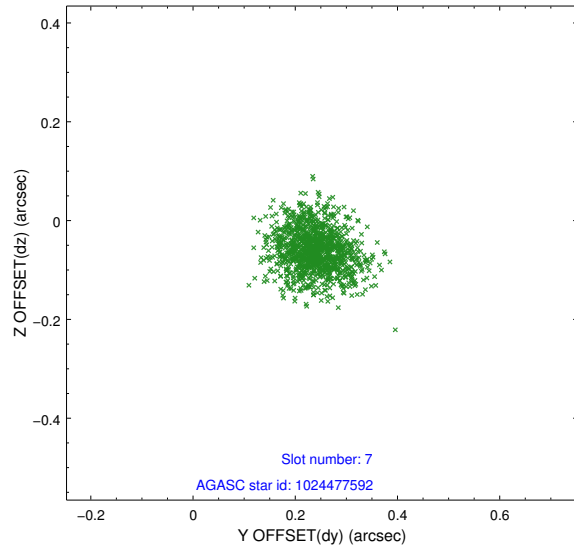
### 2.4.3 Slot 5



## 2.4.4 Slot 6

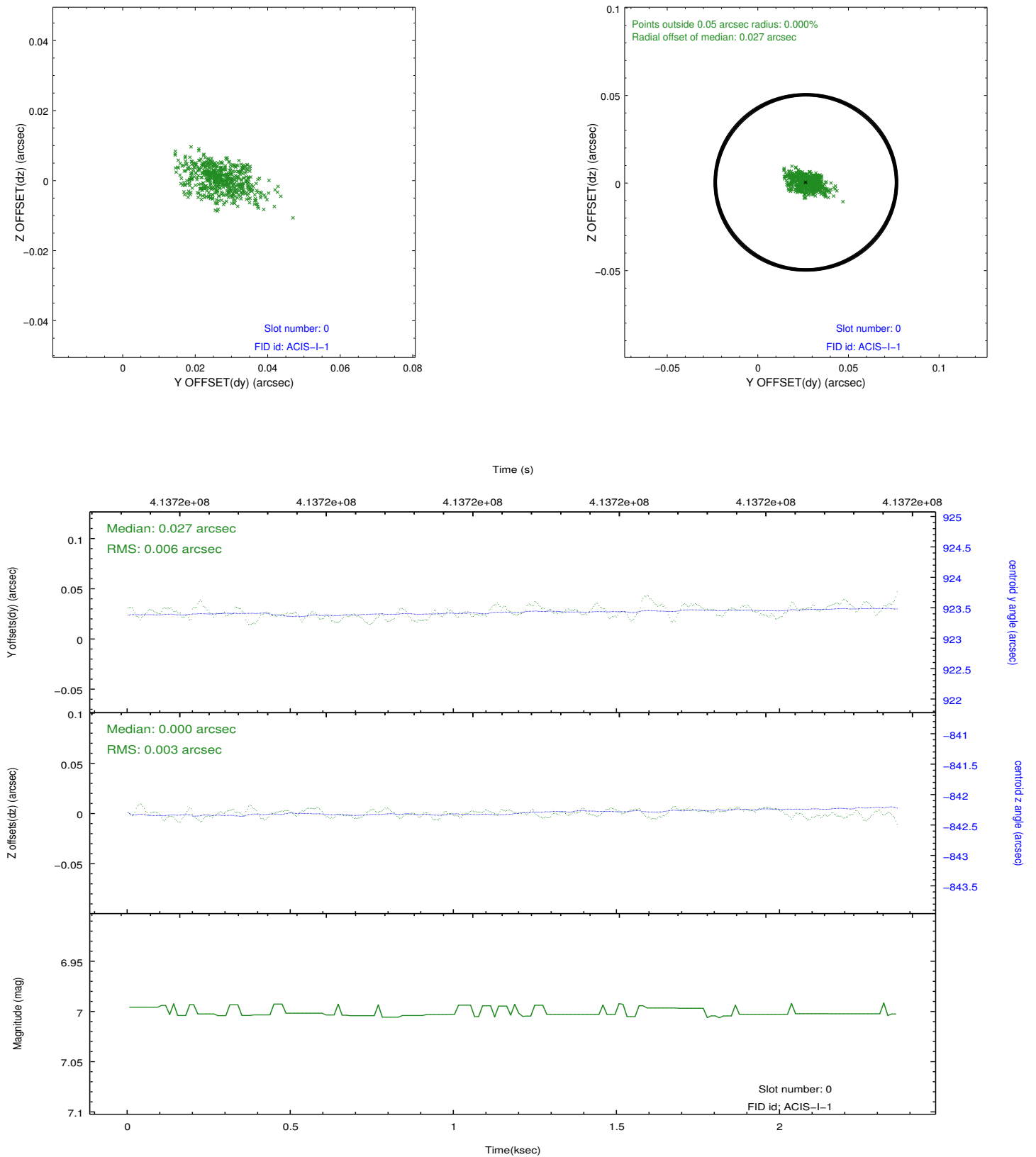


## 2.4.5 Slot 7

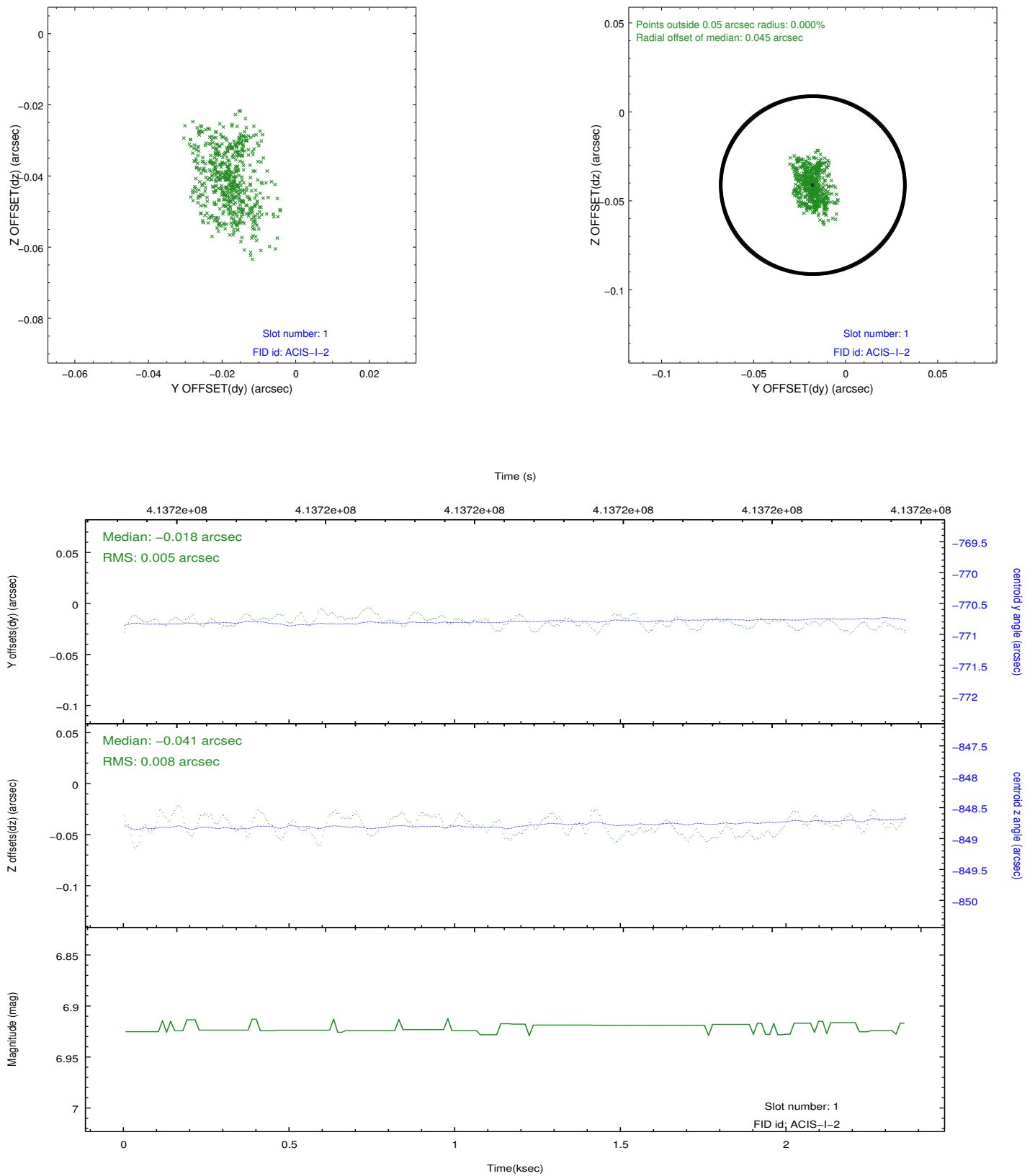


## 2.5 FID Slots

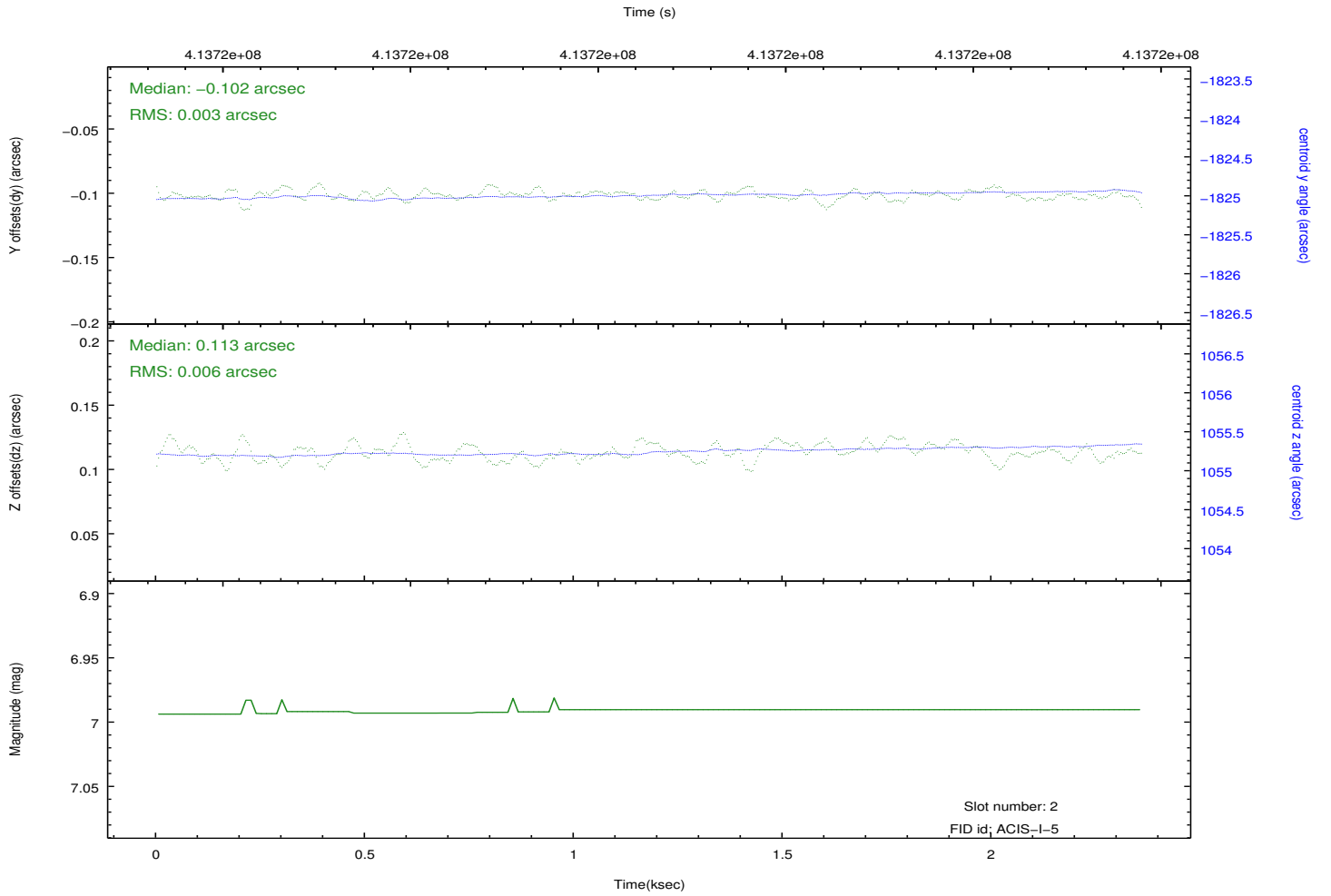
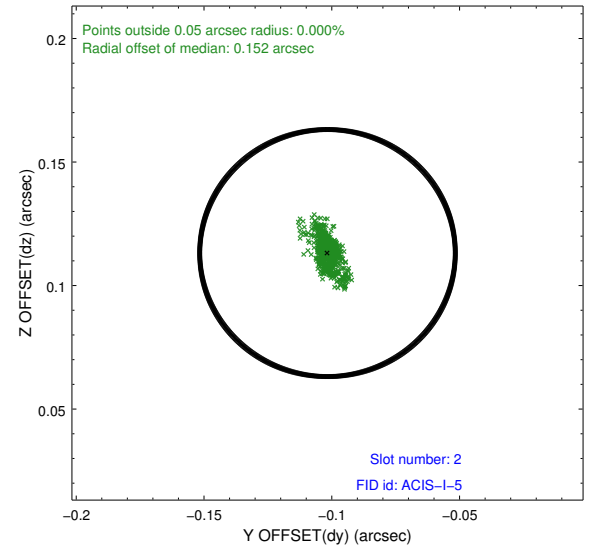
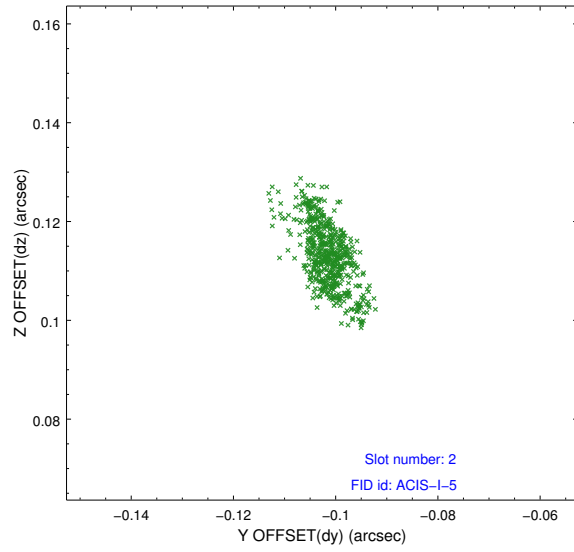
### 2.5.1 Slot 0



## 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)	2012.02.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	2.0511999924183

## 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.