

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 13108 - L2 Version 2  
Chandra X-Ray Center

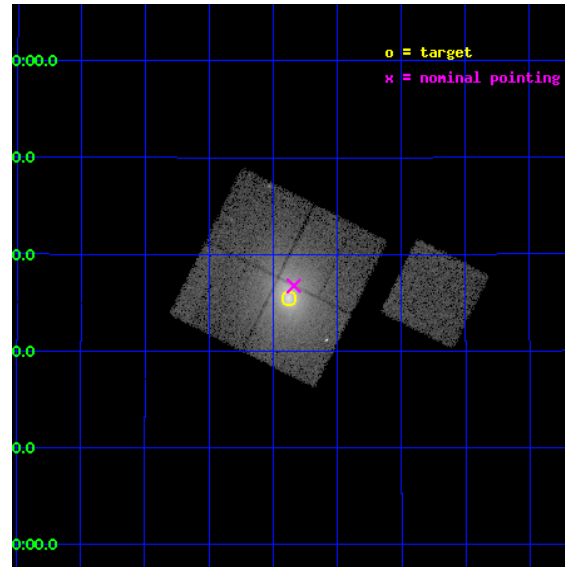
L2 Processing Date : Feb 6 2012

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# 1 Front

seq_num	890048	Sequence number
obs_id	13108	Observation id
title	AO-12 Calibration Observations of A1795	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	A1795	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	207.219583	Observer's specified target RA [deg]
dec_targ	26.590833	Observer's specified target Dec [deg]
ra_nom	207.20974992952	Nominal RA [deg]
dec_nom	26.612582355477	Nominal Dec [deg]
roll_nom	116.47845884045	Nominal Roll [deg]
revision	2	Processing version of data
ontime	15053.540468752	Sum of GTIs [s]
livetime	14856.854880273	Livetime [s]
ontime0	15053.417348742	Sum of GTIs [s]
ontime1	15047.176328063	Sum of GTIs [s]
ontime2	15050.358398438	Sum of GTIs [s]
ontime3	15053.540468752	Sum of GTIs [s]
ontime6	15053.376308739	Sum of GTIs [s]
l2events	172459	Number of level 2 events

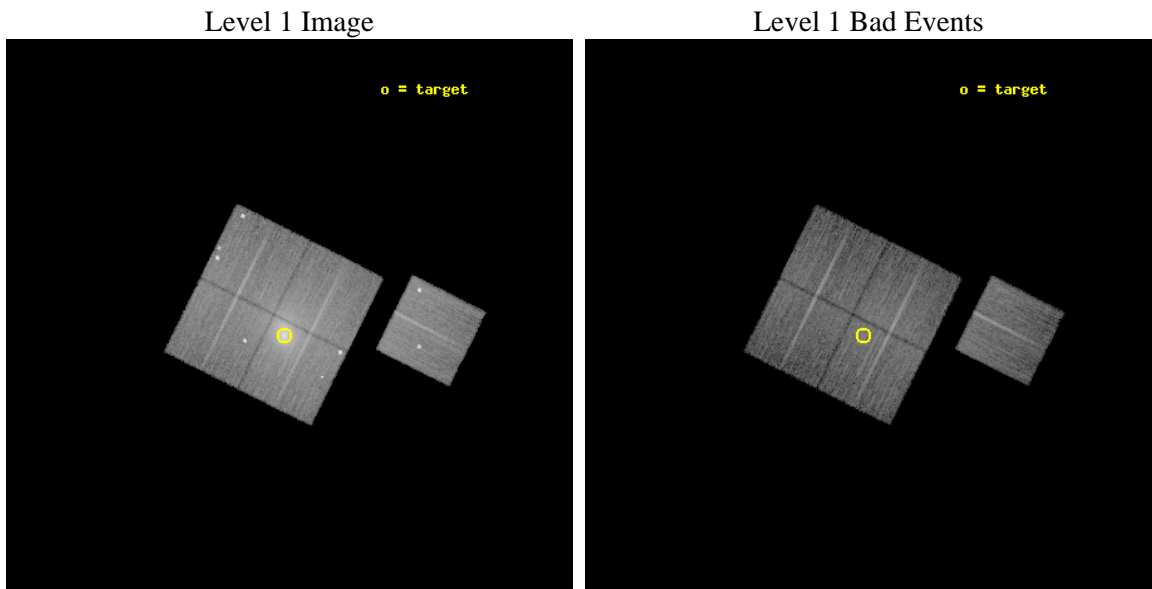




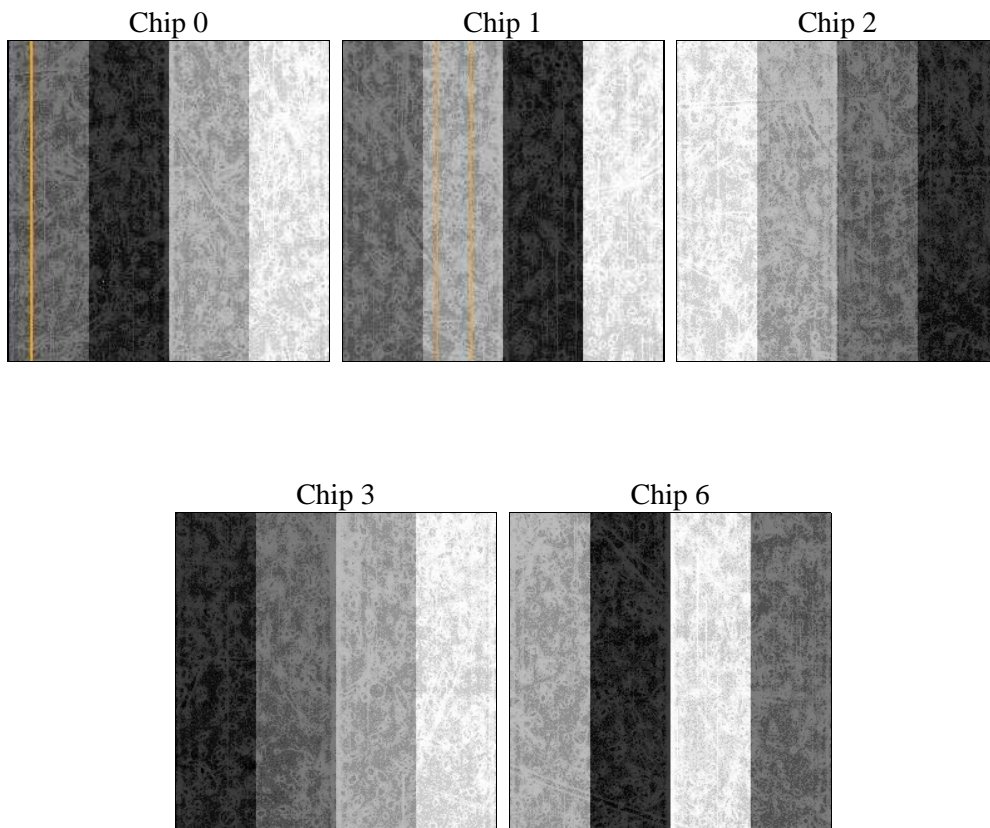
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	15000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	15053.540468752	Sum of GTIs [s]
caldsver	4.4.7	&#160	ontime0	15053.417348742	Sum of GTIs [s]
date	2012-02-06T06:52:27	Date and time of file creation	ontime1	15047.176328063	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	15050.358398438	Sum of GTIs [s]
			ontime3	15053.540468752	Sum of GTIs [s]
			ontime6	15053.376308739	Sum of GTIs [s]
			l1events	706879	Number of level 1 events

### 2.1.4 Events

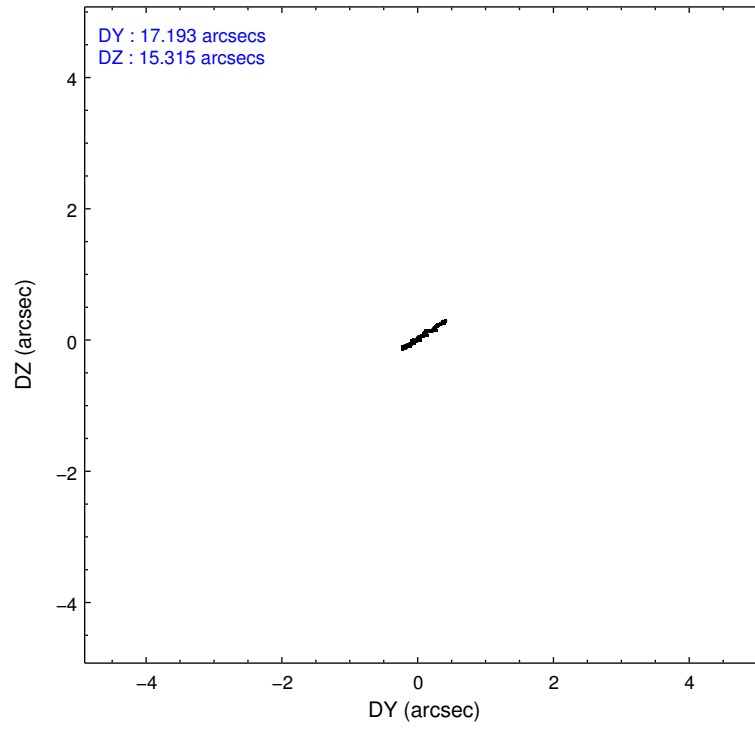
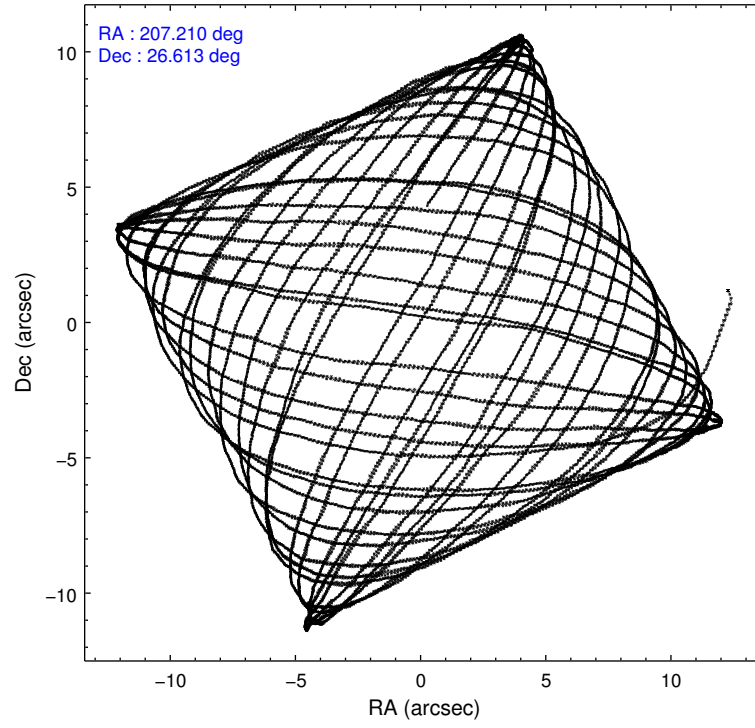
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	121327	116645	136570	207489	124848
rejected events	90886	89030	104110	104021	103649
rejected %	74%	76%	76%	50%	83%

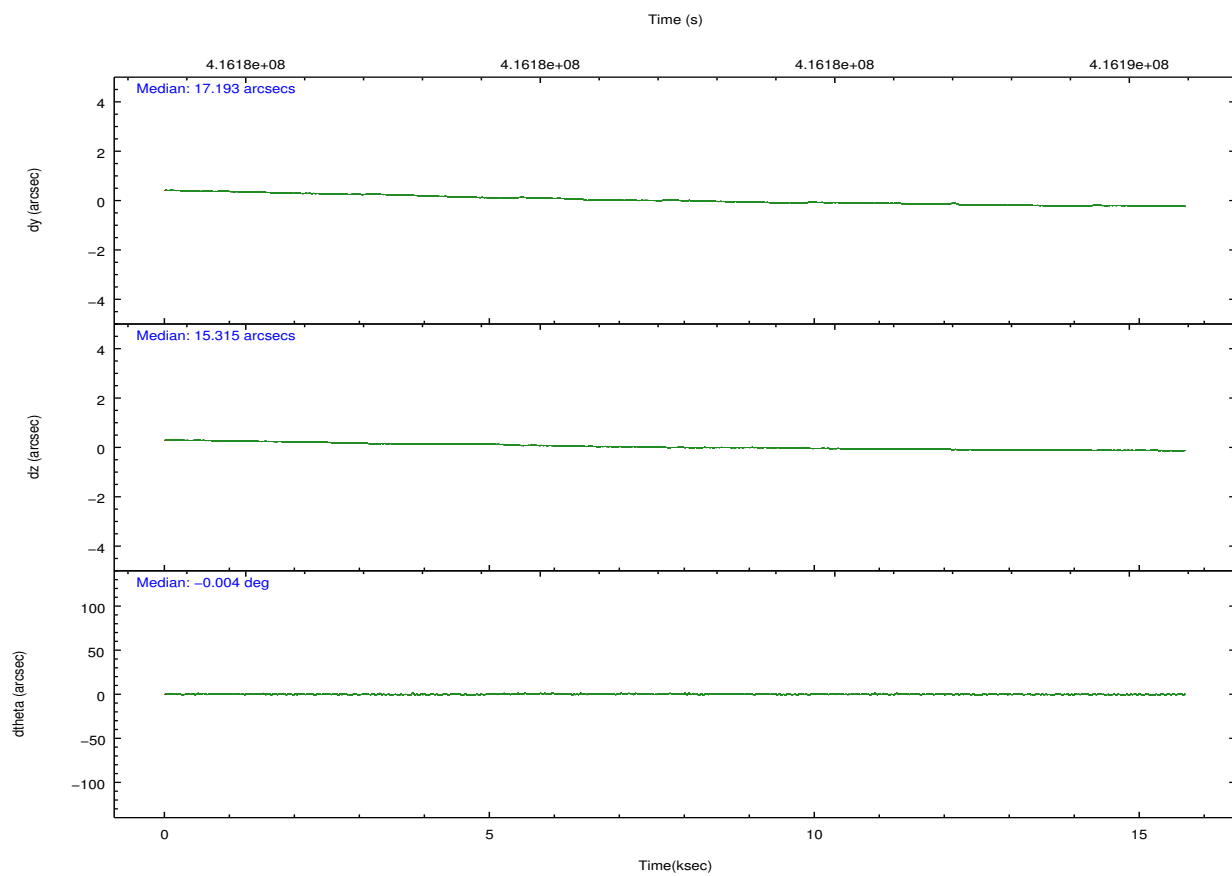
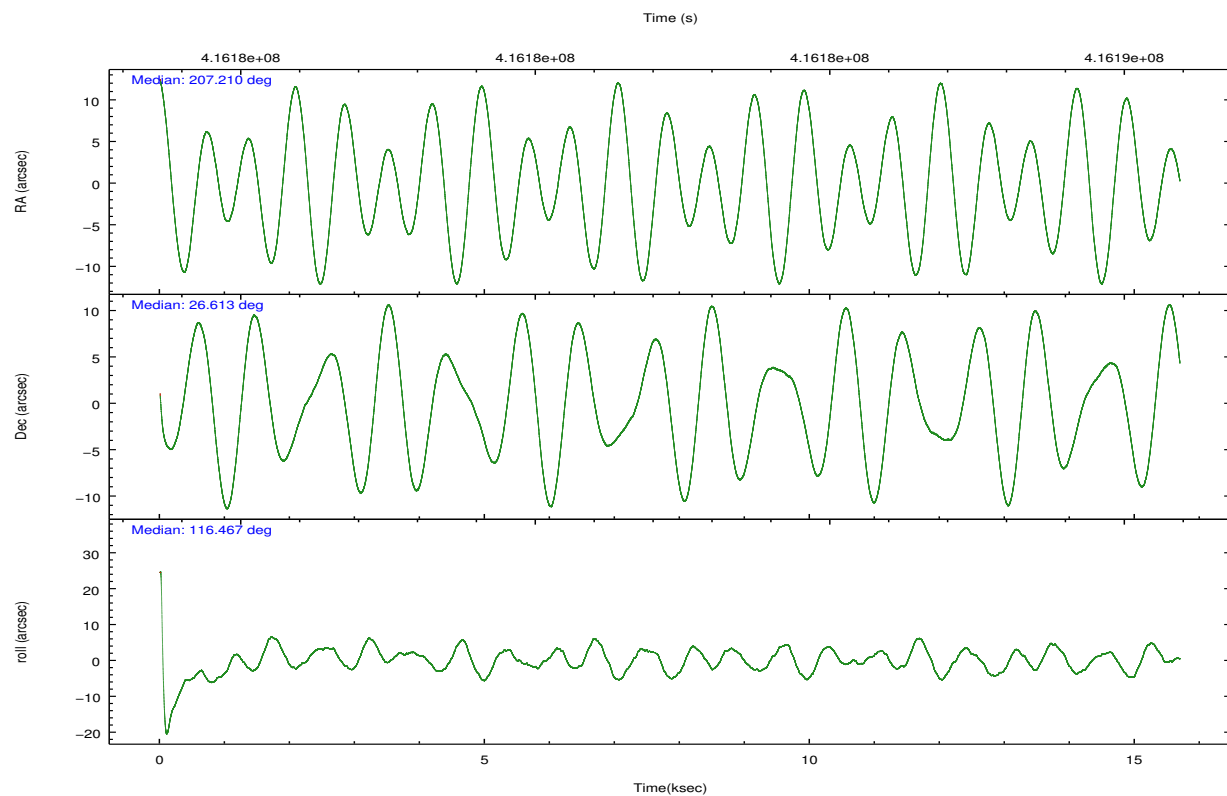
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	20764	17146	20804	80538	12776
	17%	14%	15%	38%	10%
grade 1 events	187	115	165	584	104
	0%	0%	0%	0%	0%
grade 2 events	4195	4387	5172	11040	3203
	3%	3%	3%	5%	2%
grade 3 events	1545	1532	1786	3757	1280
	1%	1%	1%	1%	1%
grade 4 events	1426	1607	1944	3789	1285
	1%	1%	1%	1%	1%
grade 5 events	4520	4732	4358	5306	4791
	3%	4%	3%	2%	3%
grade 6 events	2519	2949	2761	4366	2661
	2%	2%	2%	2%	2%
grade 7 events	86171	84177	99580	98109	98748
	71%	72%	72%	47%	79%

## 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	207.235463	207.2097499295215	Subarray requested	NONE	NONE
[deg] Pointing Dec	26.597467	26.61258235547746	Alternating exposures requested	N	N
[deg] Pointing Roll	116.258211	116.4784588404482	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-230.252463	-230.2509380556586			
[mm] SIM translation stage offset	-3.34	-3.341514947271122			
[s] Observation start time (MET)	416175134.184000	416173950.00523			
Observation start date	2011-03-10T20:11:08	2011-03-10T19:52:30			
[s] Observation end time (MET)	416190134.184000	416190269.03107			
Observation end date	2011-03-11T00:21:08	2011-03-11T00:24:29			
Read mode	TIMED	TIMED			

## 2.3 Aspect



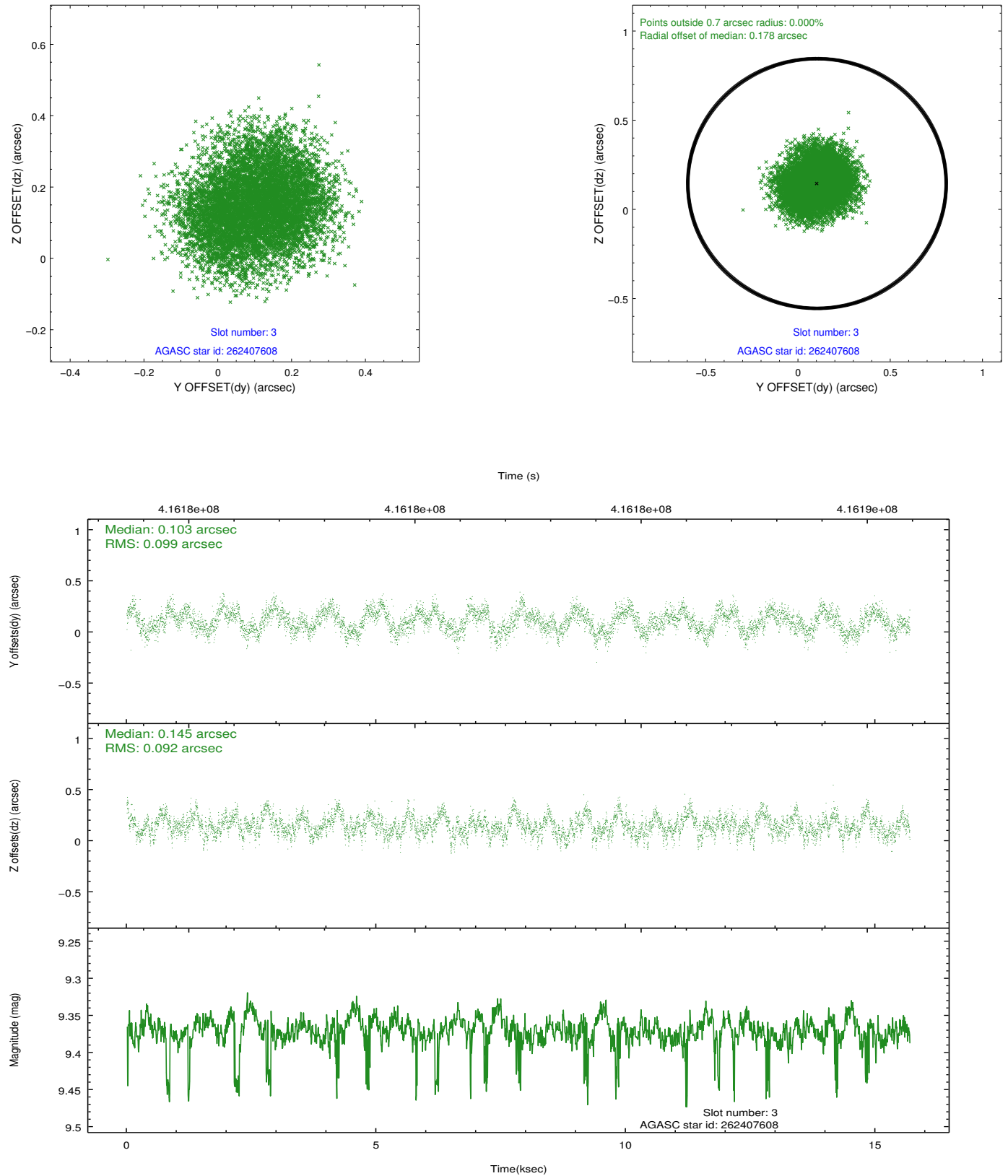


### Slot Statistics

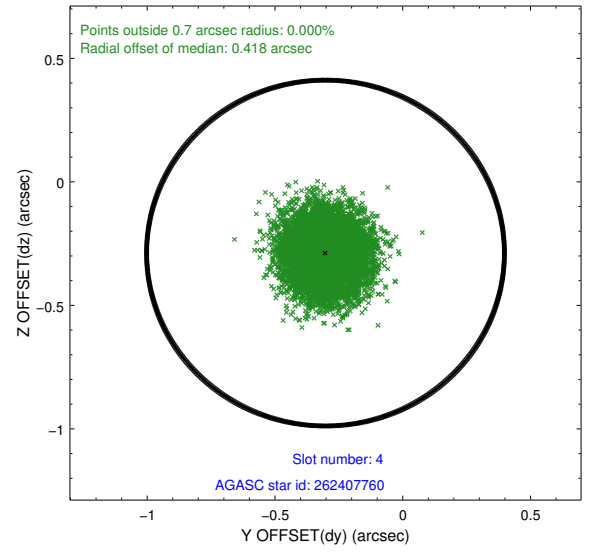
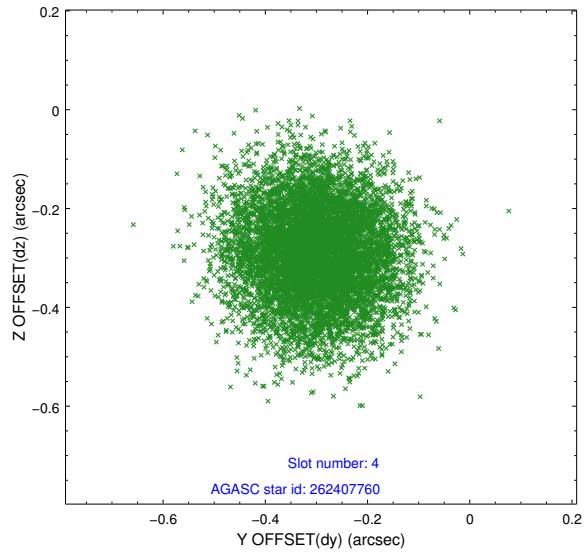
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.07	3827	0.041	0.002	0.008	0.015	0.000000	0.000000	922.19	-907.47
1	FID	ACIS-I-5	7.07	3827	-0.208	0.049	0.008	0.014	0.000000	0.000000	-1826.08	989.82
2	FID	ACIS-I-6	7.08	3828	0.076	0.020	0.009	0.015	0.000000	0.000000	387.37	1634.69
3	GUIDE	262407608	9.37	7631	0.103	0.145	0.148	0.223	207.378401	26.435507	-726.31	-155.22
4	GUIDE	262407760	9.90	7642	-0.302	-0.288	0.134	0.212	206.566773	26.577263	891.91	1960.87
5	GUIDE	262408936	9.66	7645	-0.022	-0.248	0.153	0.246	207.154731	26.726554	531.73	27.44
6	GUIDE	262408512	8.01	7655	-0.062	0.112	0.138	0.198	207.800210	27.128796	919.23	-2470.18
7	GUIDE	262275128	10.47	7539	0.291	0.290	0.234	0.390	206.271046	26.873005	2270.49	2334.15

## 2.4 Star Slots

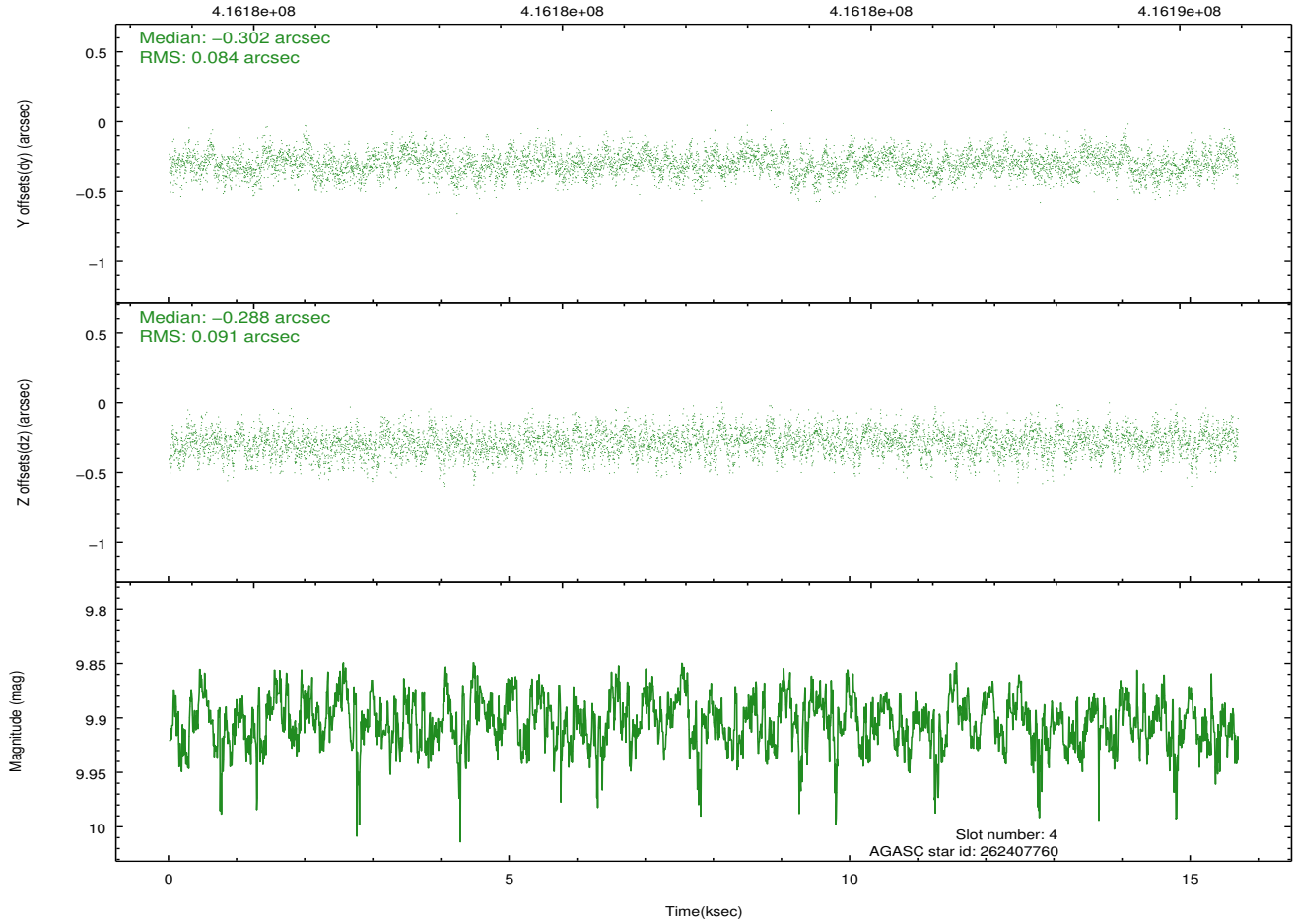
### 2.4.1 Slot 3



## 2.4.2 Slot 4

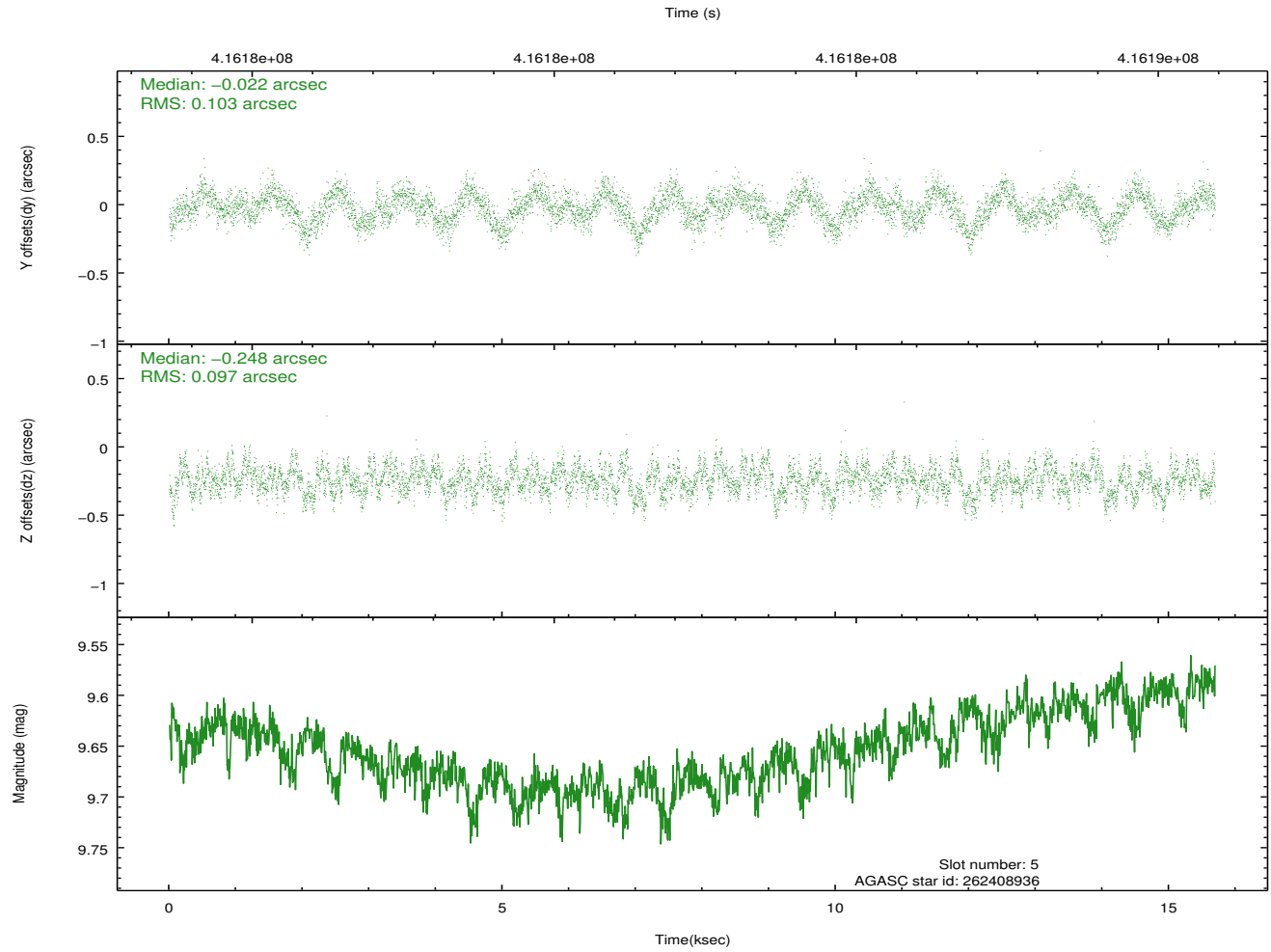
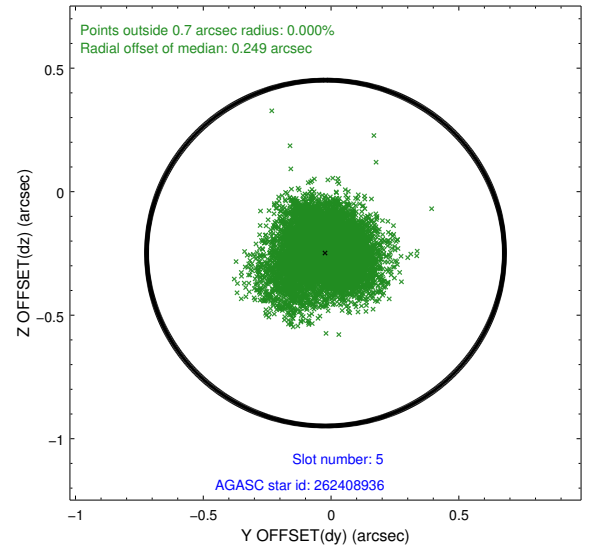
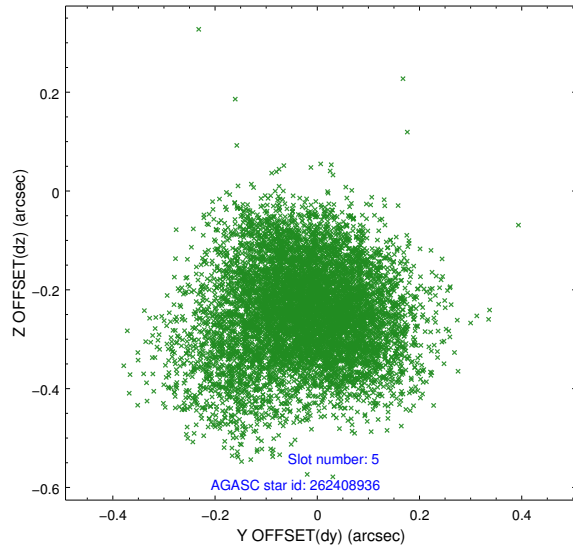


Time (s)

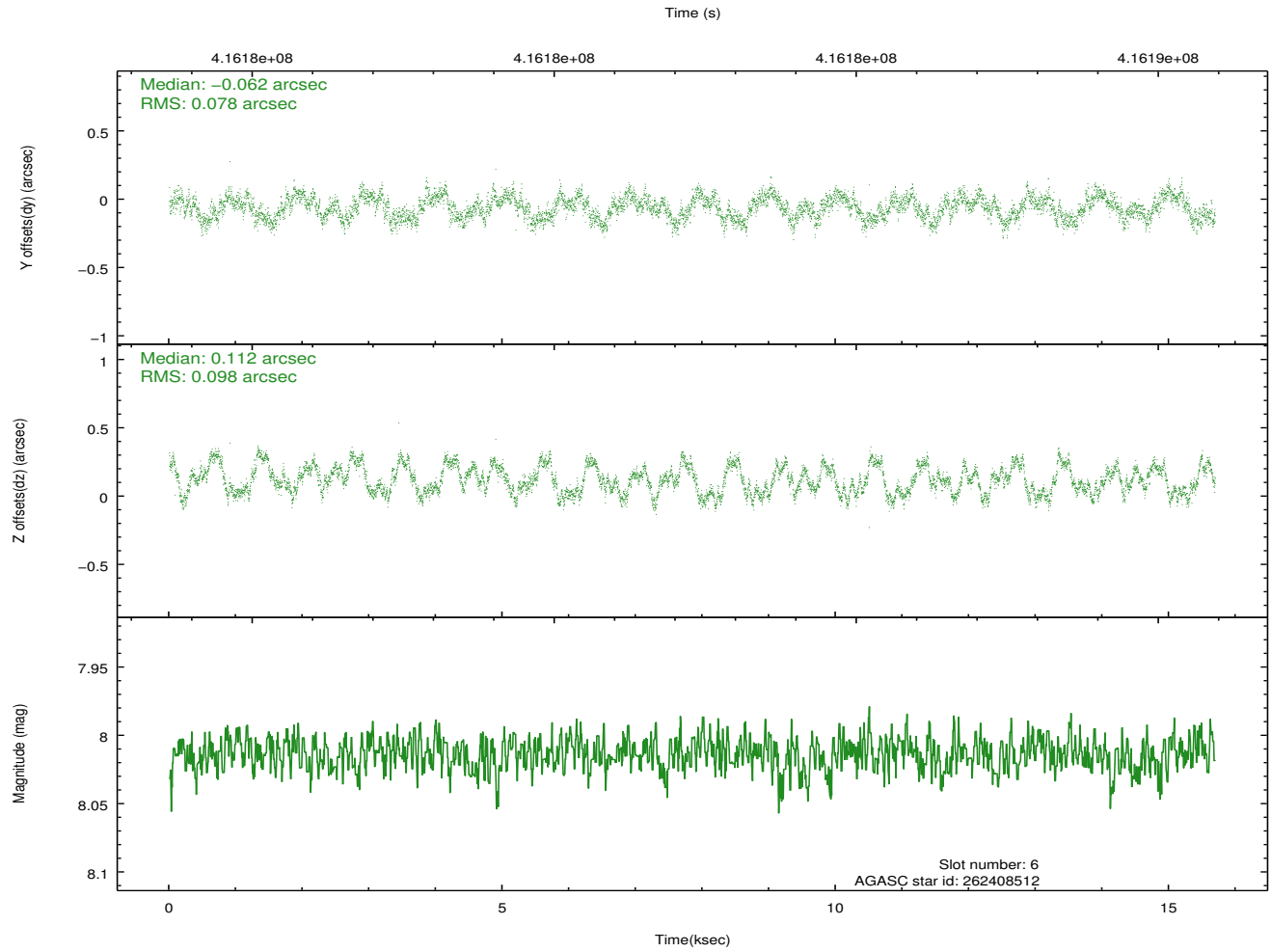
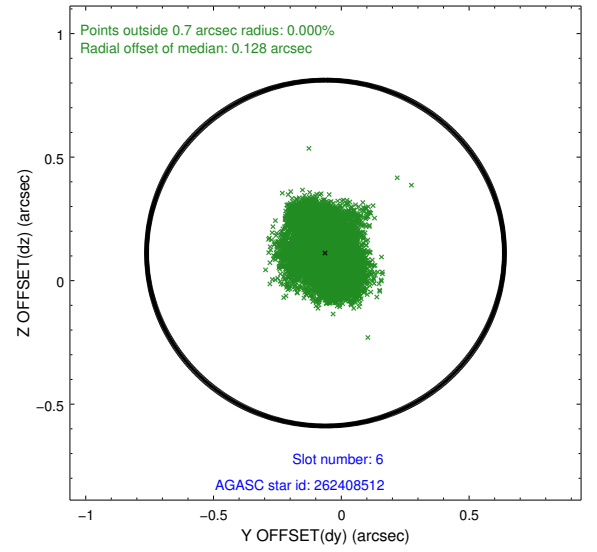
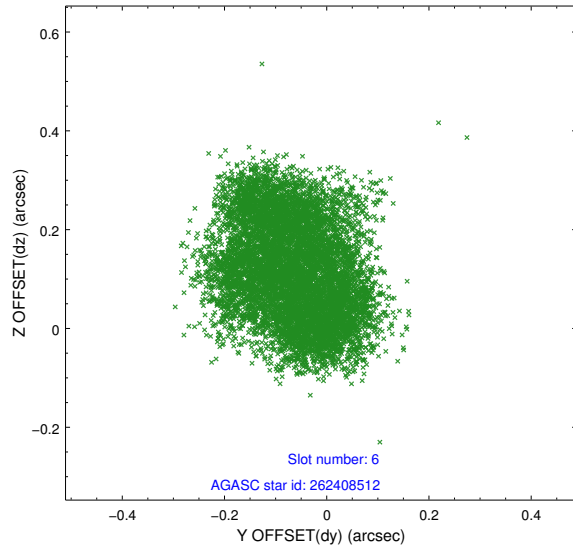




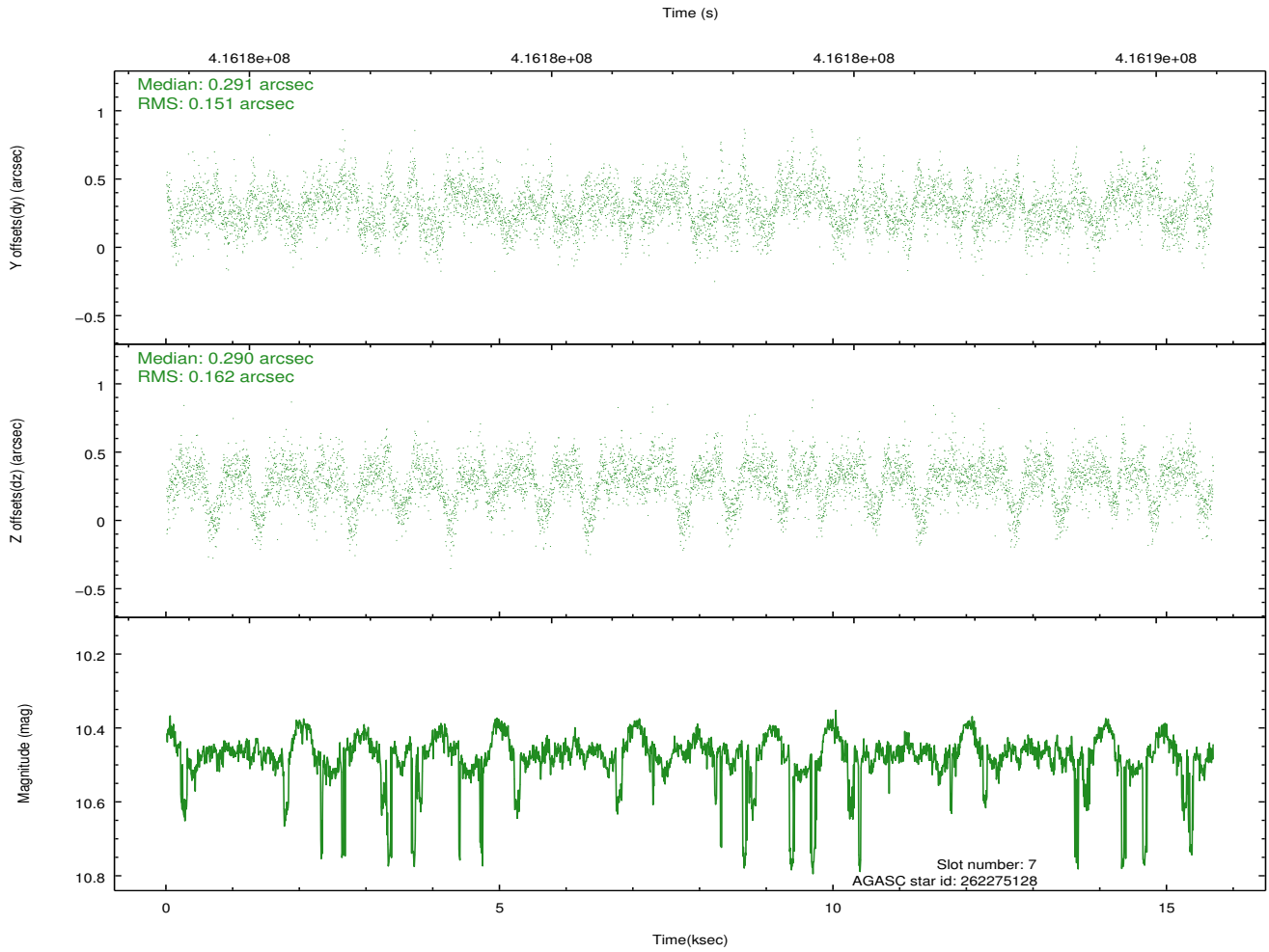
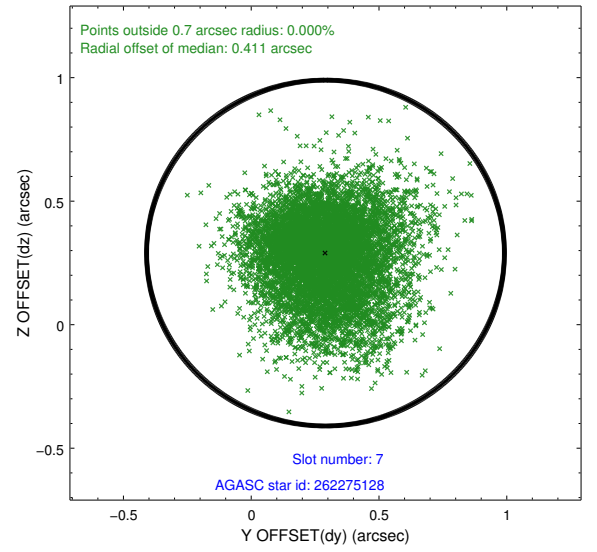
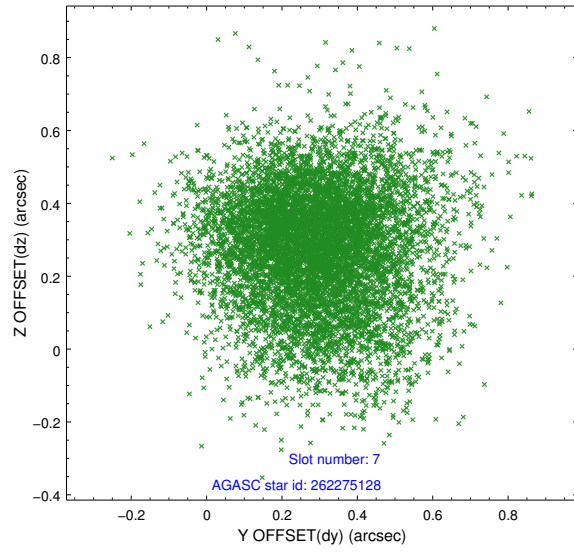
### 2.4.3 Slot 5



## 2.4.4 Slot 6

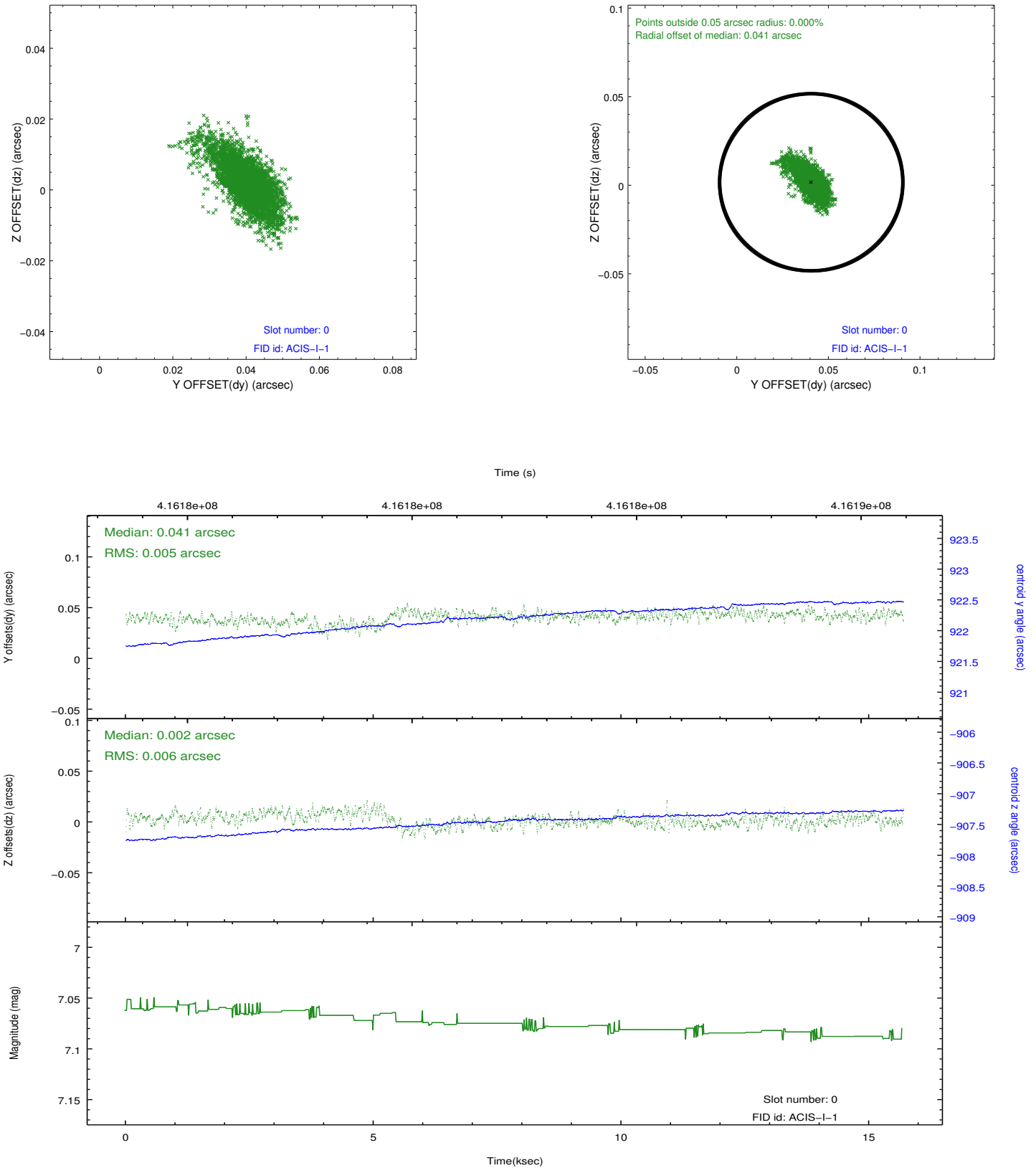


## 2.4.5 Slot 7

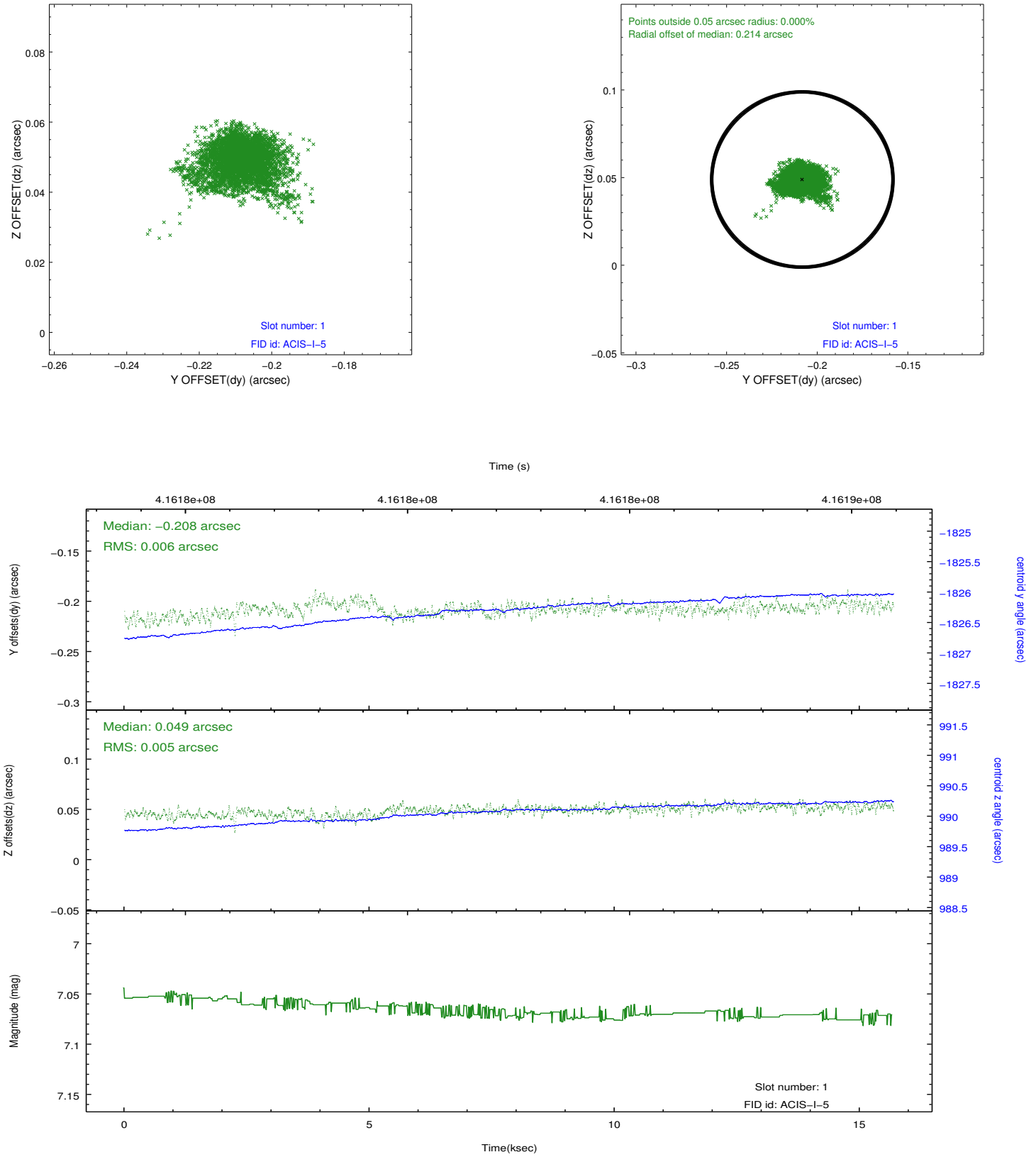


## 2.5 FID Slots

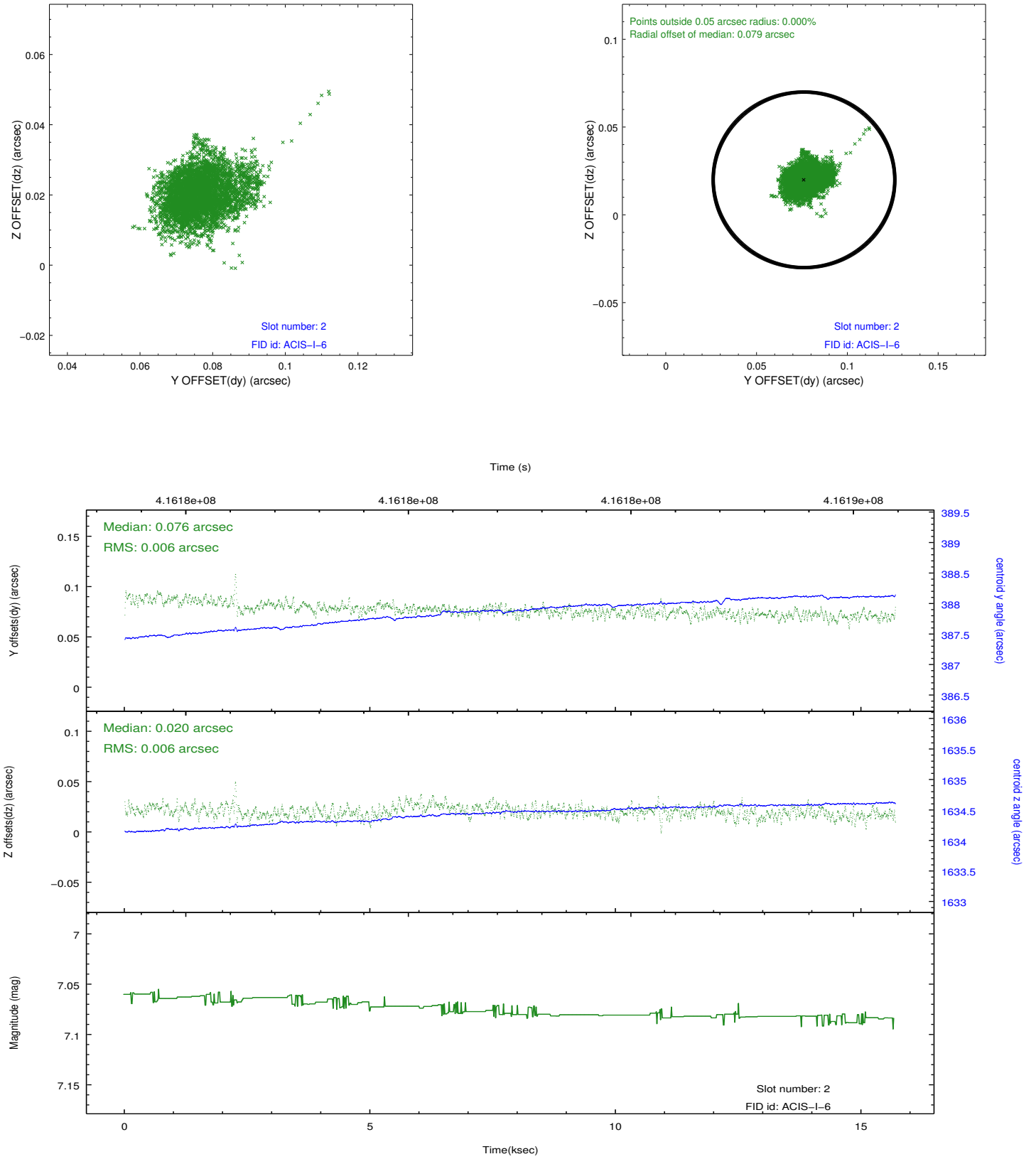
### 2.5.1 Slot 0



## 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)	2012.02.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	15.053540468693

## 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.