

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 13223 - L2 Version 2  
Chandra X-Ray Center

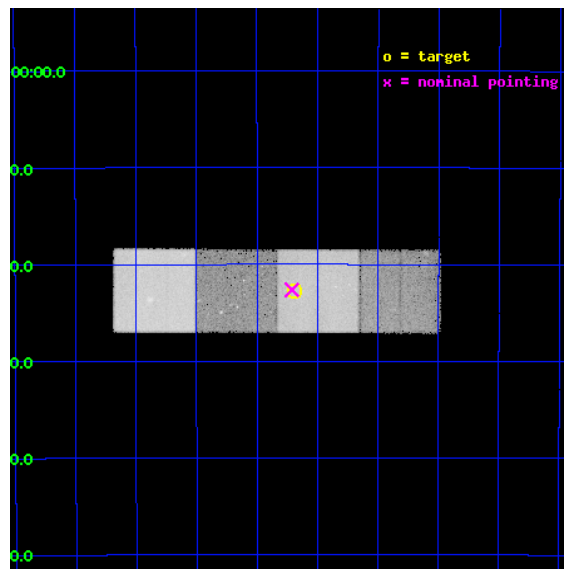
L2 Processing Date : Feb 3 2012

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# 1 Front

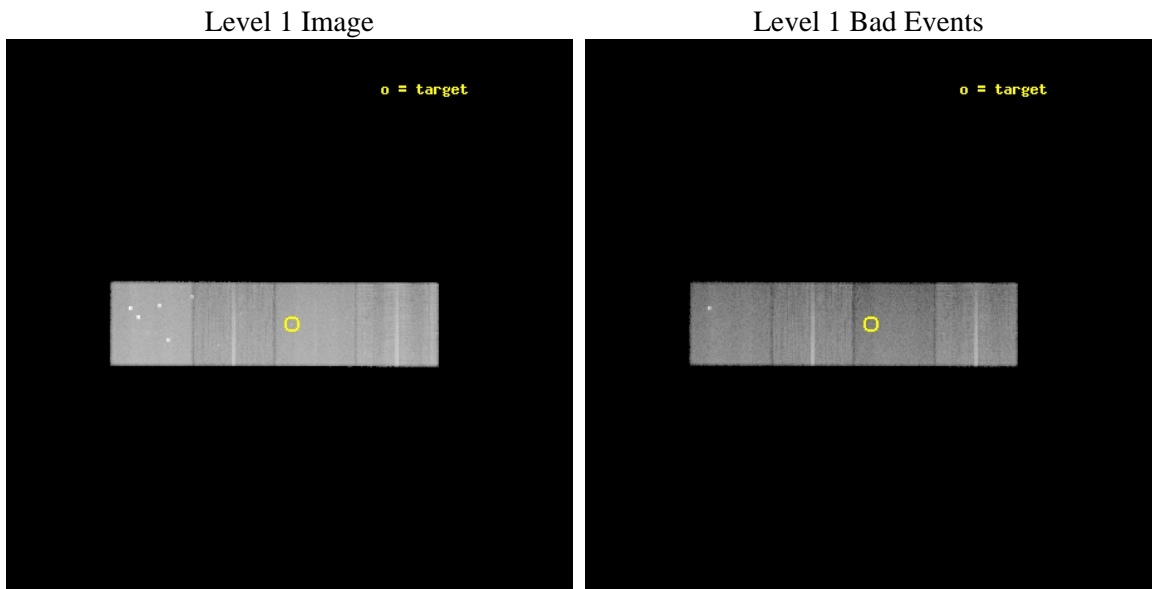
seq_num	300284	Sequence number
obs_id	13223	Observation id
title	The Extended X-ray Emission from the Shell of Recurrent Nova T Pyxidis	Proposal title
observer	Assoc. Prof. Dr. Solen Balman	Principal investigator
object	T Pyxidis	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	136.172917	Observer's specified target RA [deg]
dec_targ	-32.379722	Observer's specified target Dec [deg]
ra_nom	136.17779698732	Nominal RA [deg]
dec_nom	-32.377159458749	Nominal Dec [deg]
roll_nom	0.15922414512775	Nominal Roll [deg]
revision	2	Processing version of data
ontime	33829.535739481	Sum of GTIs [s]
livetime	33387.527950103	Livetime [s]
ontime5	33829.494699478	Sum of GTIs [s]
ontime6	33826.312659204	Sum of GTIs [s]
ontime7	33829.535739481	Sum of GTIs [s]
ontime8	33829.412619472	Sum of GTIs [s]
l2events	350810	Number of level 2 events



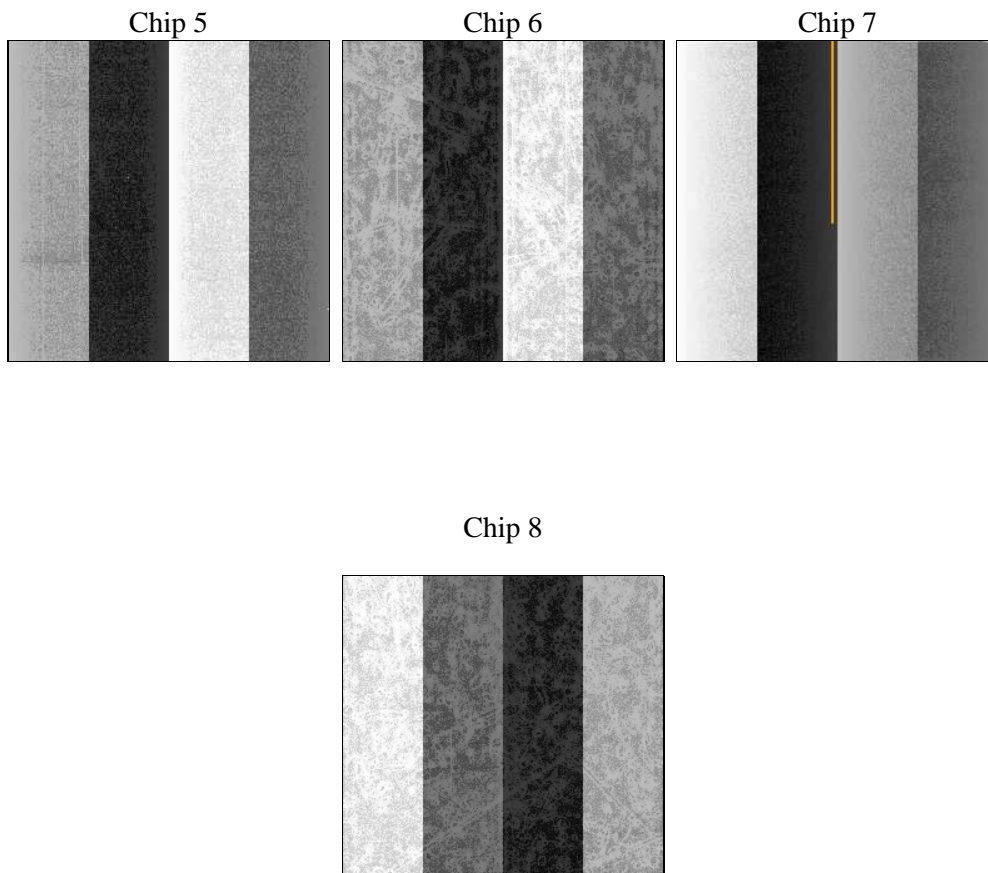
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	33783.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	33829.535739481	Sum of GTIs [s]
caldbver	4.4.7	&#160	ontime5	33829.494699478	Sum of GTIs [s]
date	2012-02-03T15:28:25	Date and time of file creation	ontime6	33826.312659204	Sum of GTIs [s]
revision	2	Processing version of data	ontime7	33829.535739481	Sum of GTIs [s]
			ontime8	33829.412619472	Sum of GTIs [s]
			l1events	1231672	Number of level 1 events

### 2.1.4 Events

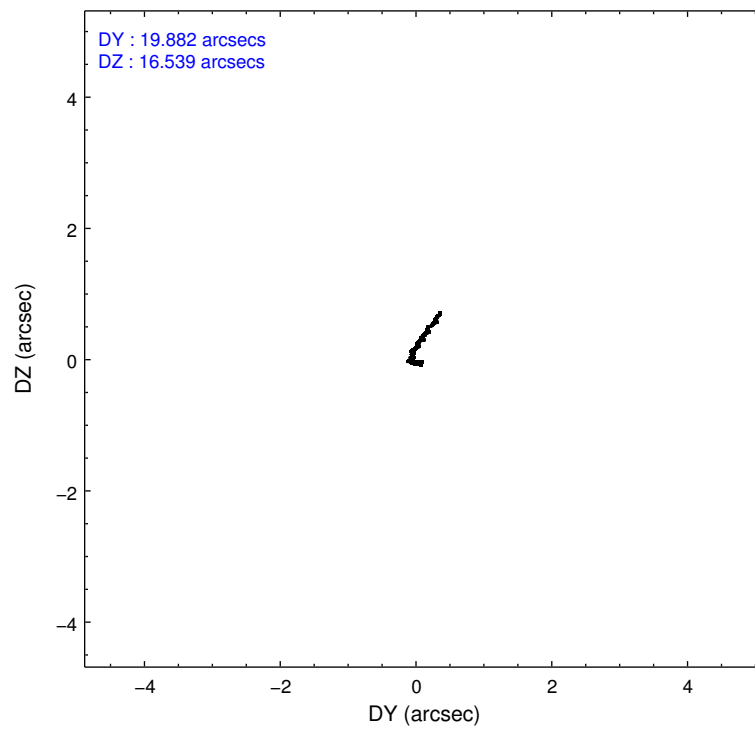
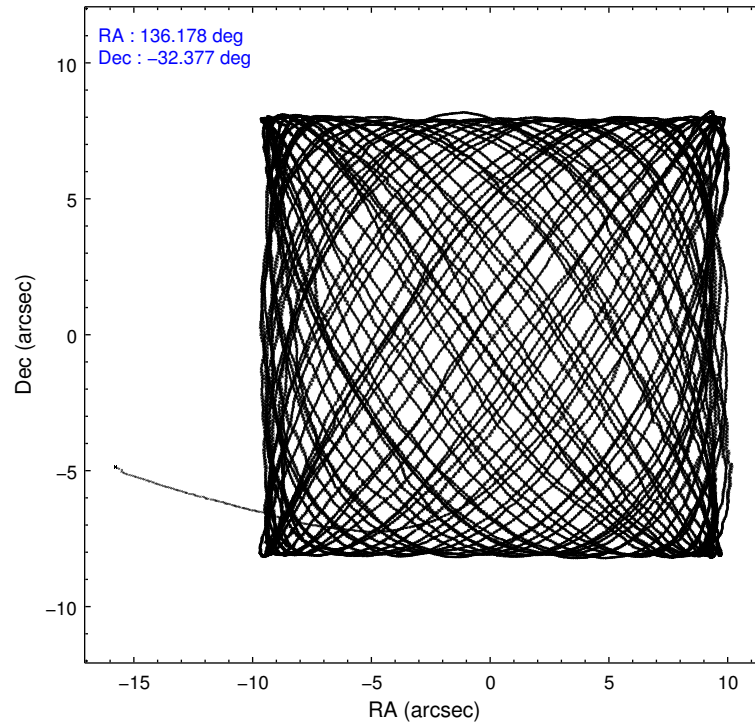
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	383580	243424	295859	308809
rejected events	188727	215778	163238	227692
rejected %	49%	88%	55%	73%

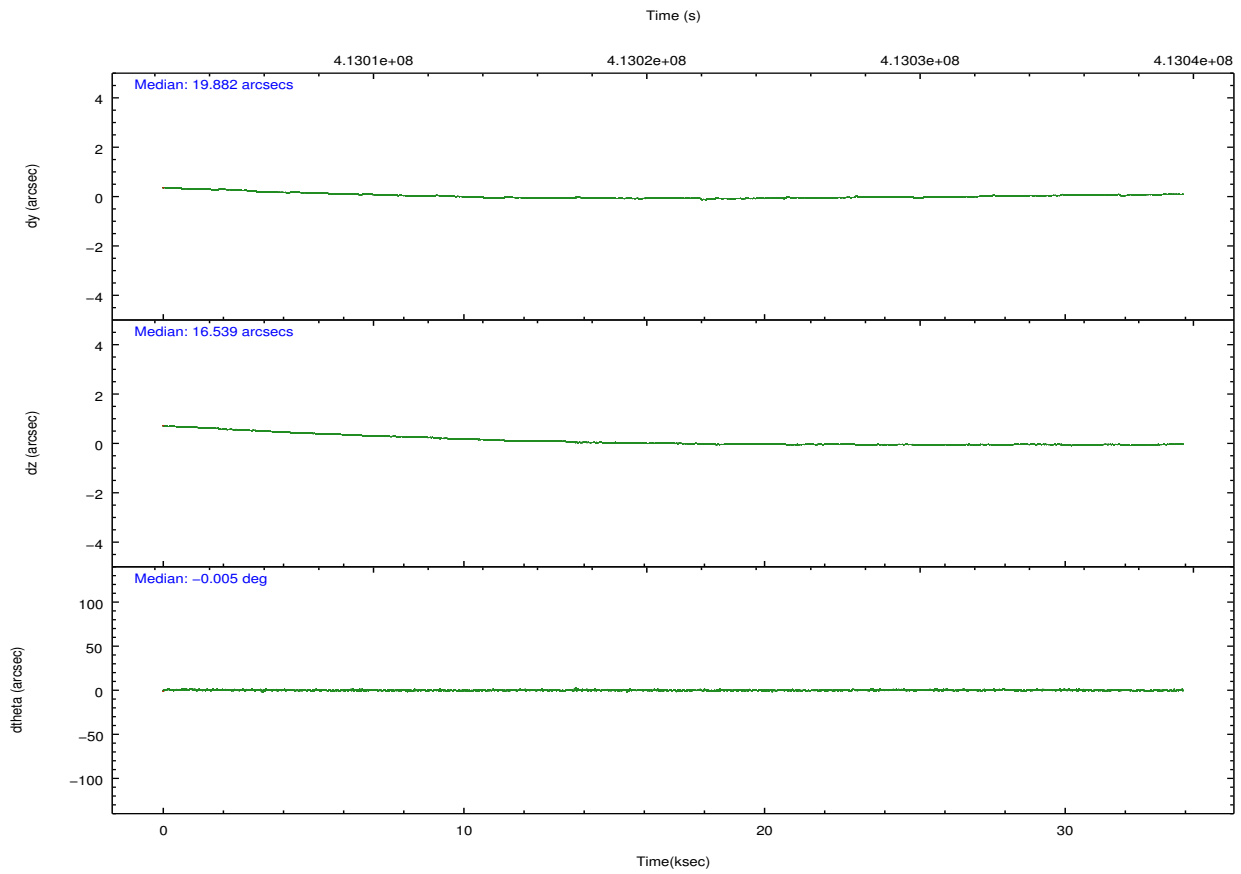
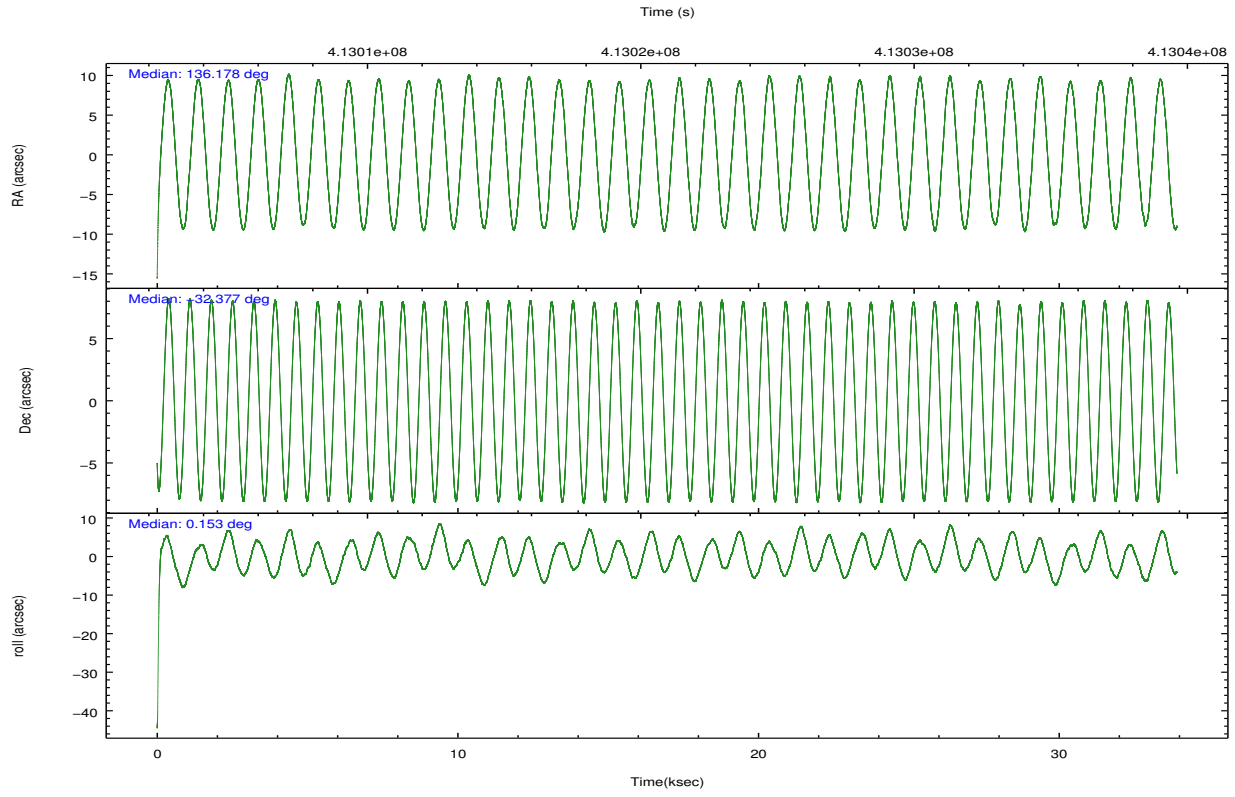
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	30353	9806	11964	23665
	7%	4%	4%	7%
grade 1 events	2349	131	396	251
	0%	0%	0%	0%
grade 2 events	55610	6196	27115	19100
	14%	2%	9%	6%
grade 3 events	6804	2890	11581	8695
	1%	1%	3%	2%
grade 4 events	6622	2854	11652	8081
	1%	1%	3%	2%
grade 5 events	28219	11072	30695	16149
	7%	4%	10%	5%
grade 6 events	95500	5905	70335	21626
	24%	2%	23%	7%
grade 7 events	158123	204570	132121	211242
	41%	84%	44%	68%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-5678	ACIS-5678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	136.150017	136.1777969873154	Subarray requested	NONE	NONE
[deg] Pointing Dec	-32.391223	-32.37715945874888	Alternating exposures requested	N	N
[deg] Pointing Roll	359.987728	0.1592241451277498	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	413004133.184000	413003141.04108			
Observation start date	2011-02-02T03:21:07	2011-02-02T03:05:41			
[s] Observation end time (MET)	413037916.184000	413038712.13042			
Observation end date	2011-02-02T12:44:10	2011-02-02T12:58:32			
Read mode	TIMED	TIMED			

## 2.3 Aspect





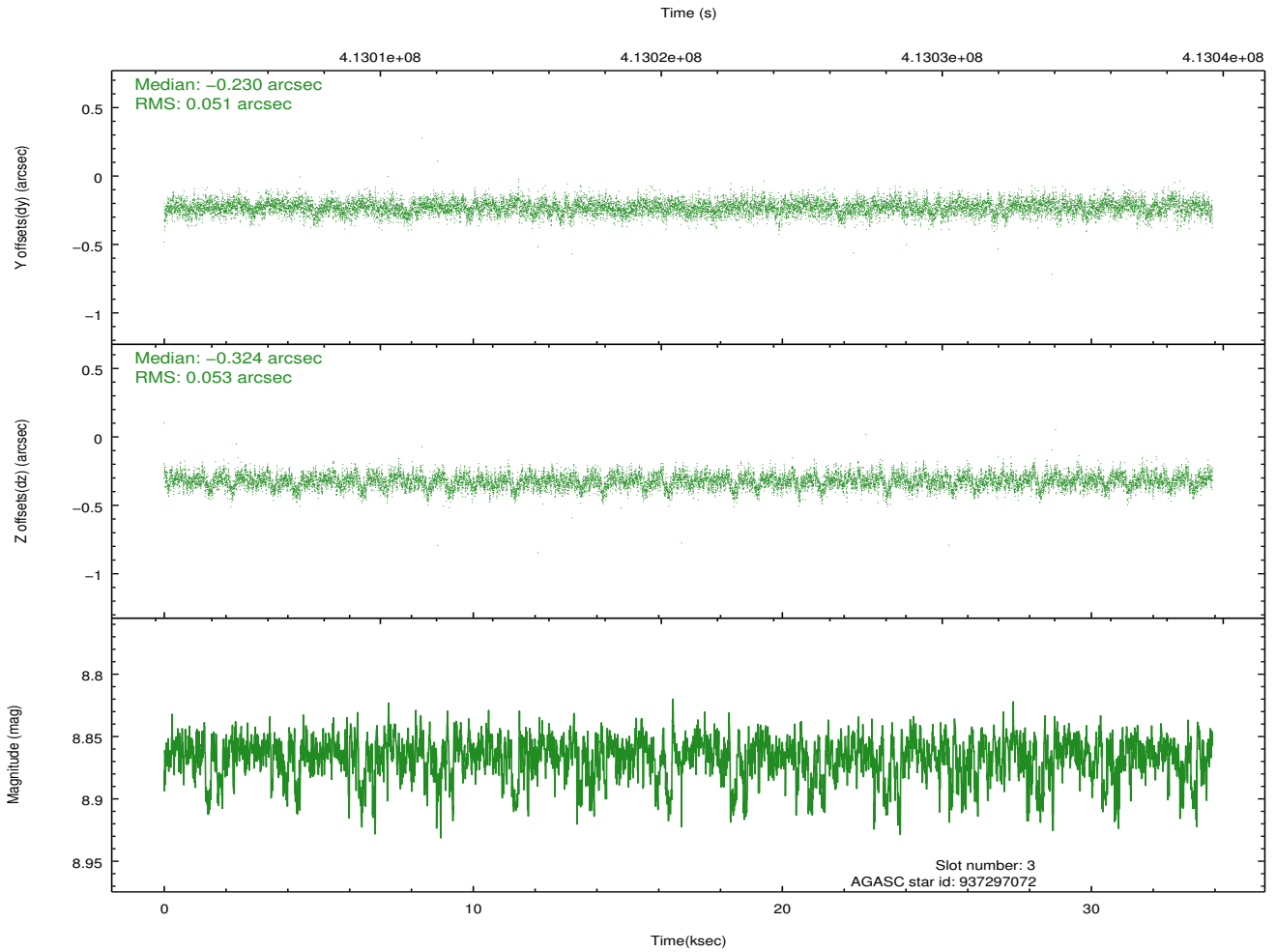
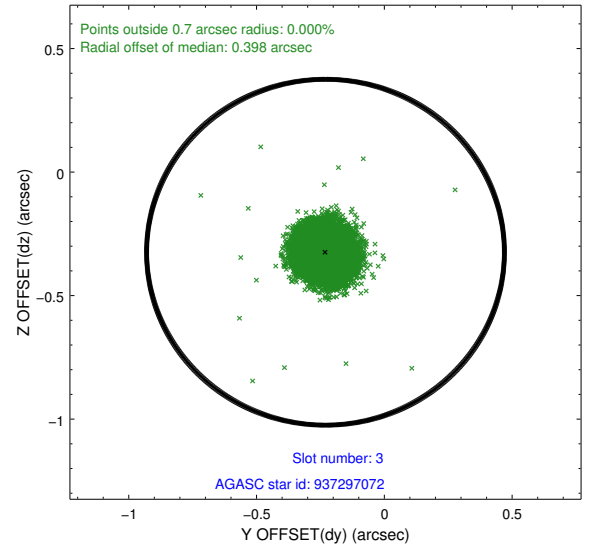
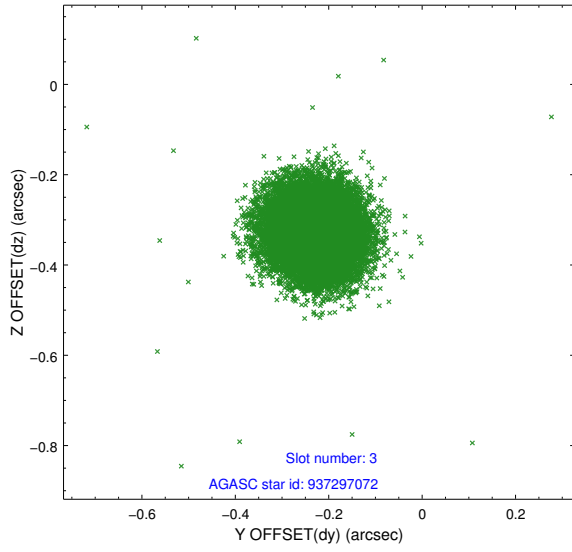
### Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.02	8274	-0.027	-0.083	0.008	0.019	0.000000	0.000000	922.96	-1733.75
1	FID	ACIS-S-4	7.04	8274	0.105	0.020	0.008	0.014	0.000000	0.000000	2140.55	170.45
2	FID	ACIS-S-6	7.17	8274	-0.102	0.074	0.007	0.012	0.000000	0.000000	388.92	807.93
3	GUIDE	937297072	8.86	16534	-0.230	-0.324	0.077	0.126	136.754791	-31.833481	1849.23	2003.09
4	GUIDE	937824168	9.27	16508	0.048	0.227	0.150	0.232	135.922945	-32.911857	-685.22	-1874.79
5	GUIDE	937826768	8.72	16532	-0.008	0.192	0.095	0.152	135.967374	-32.659484	-552.99	-966.20
6	GUIDE	937829280	8.88	16532	0.129	-0.229	0.087	0.143	135.716733	-31.898439	-1325.02	1770.99
7	GUIDE	937839048	9.37	16524	0.072	0.137	0.164	0.249	136.496287	-32.832453	1048.27	-1589.46

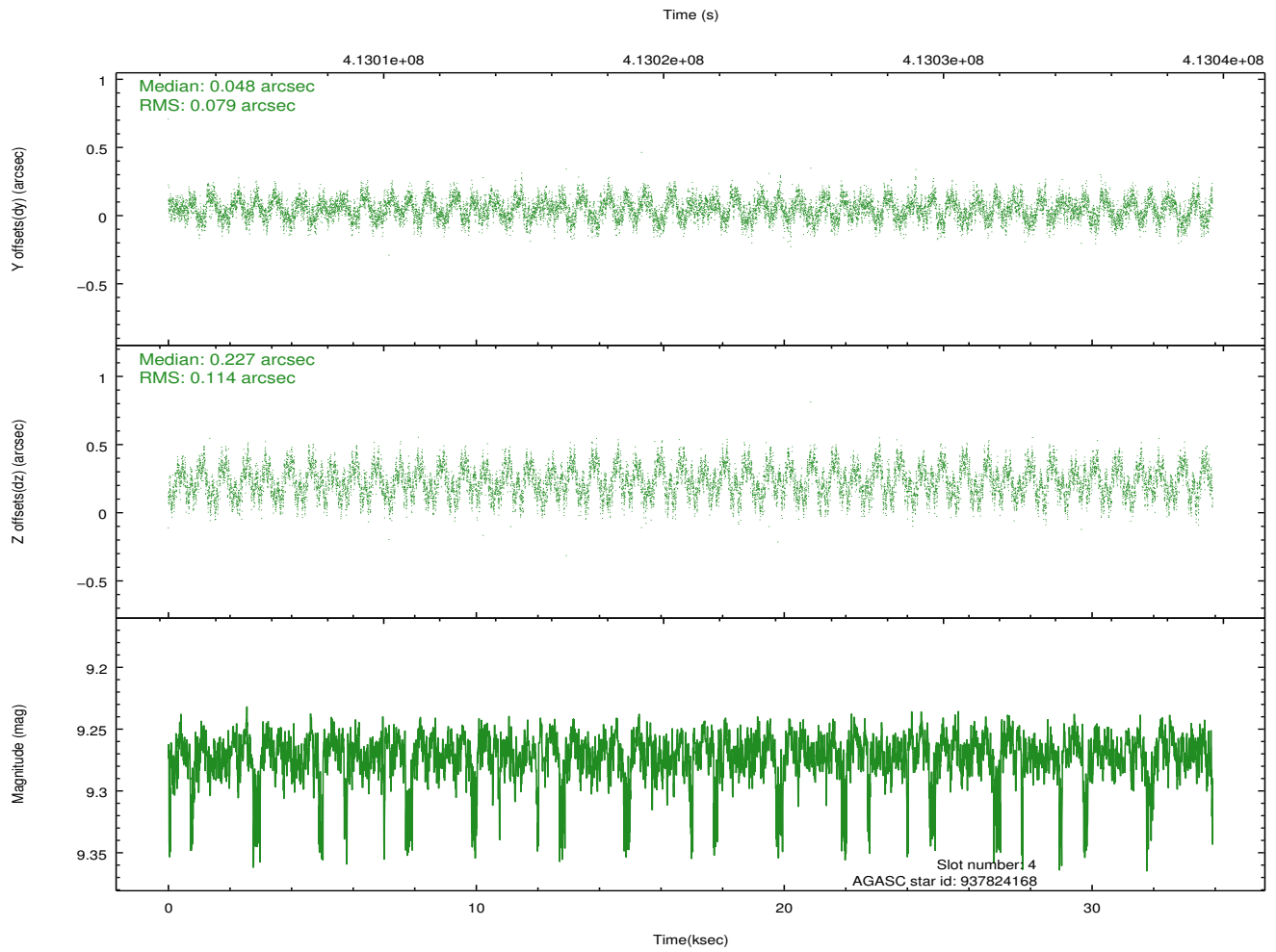
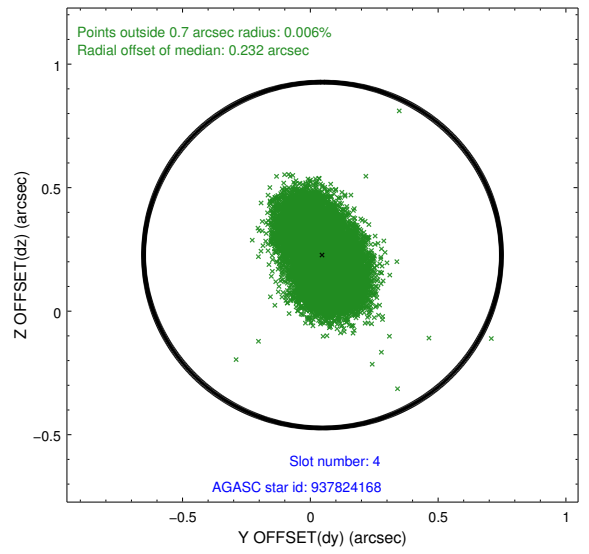
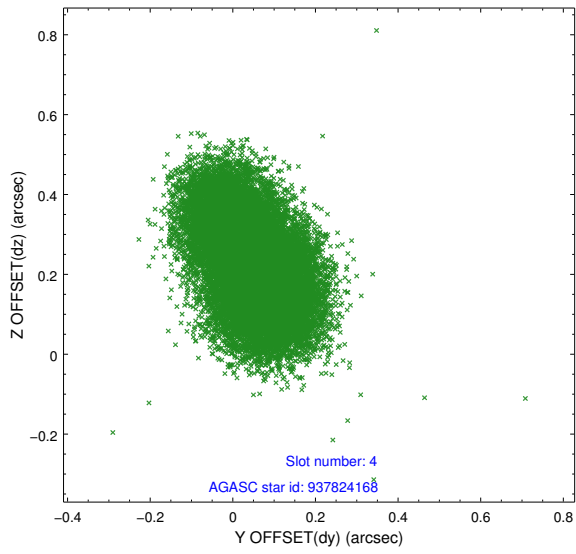
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## 2.4 Star Slots

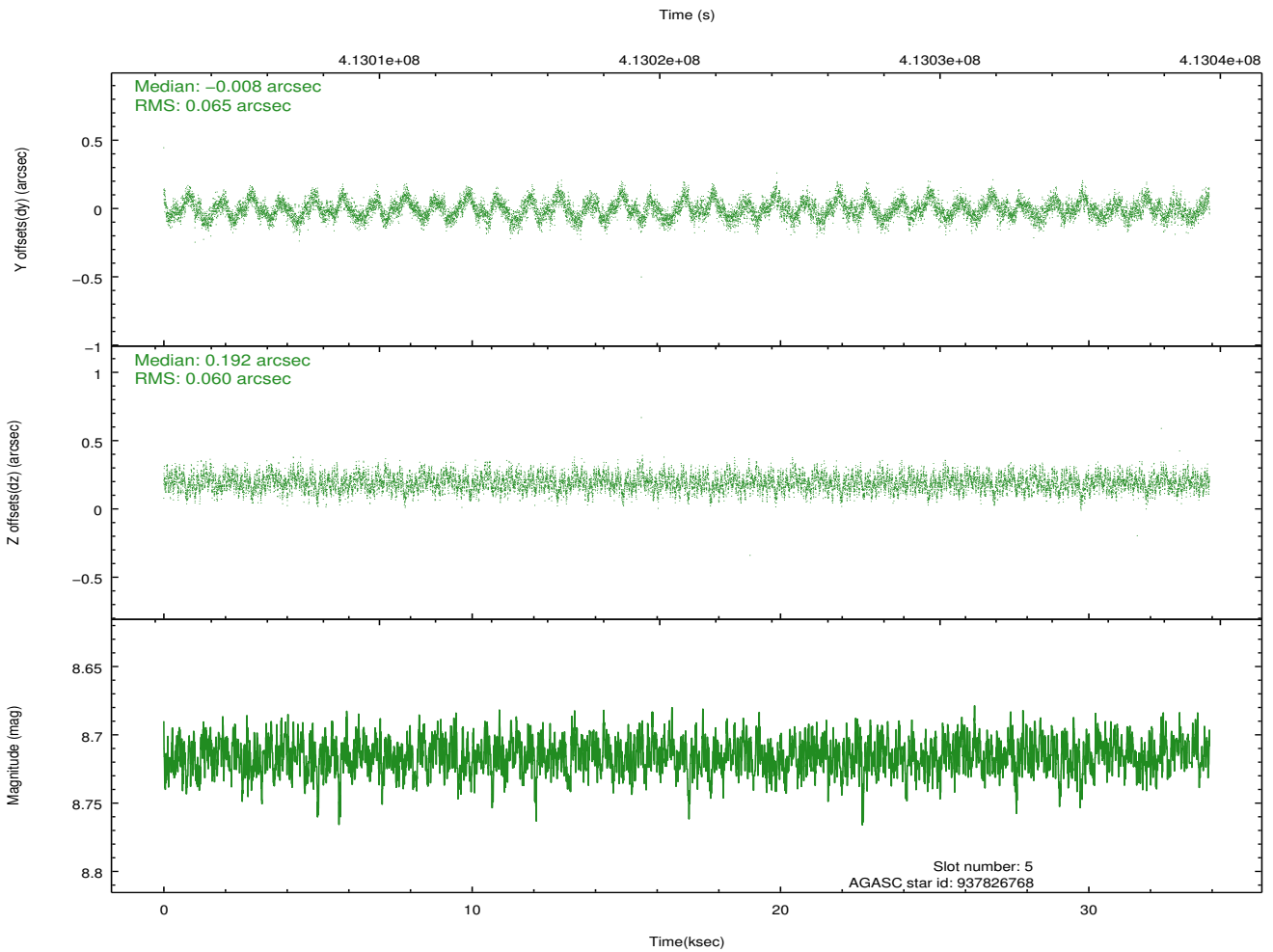
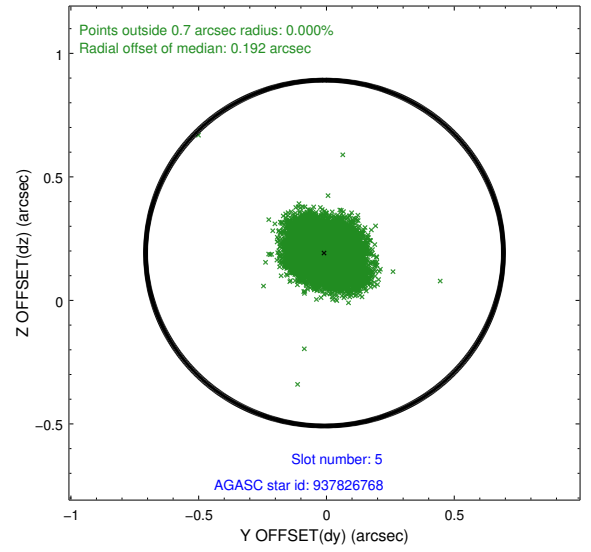
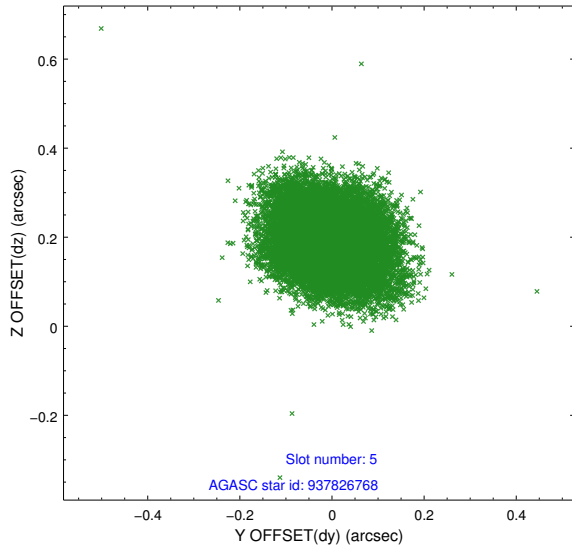
### 2.4.1 Slot 3



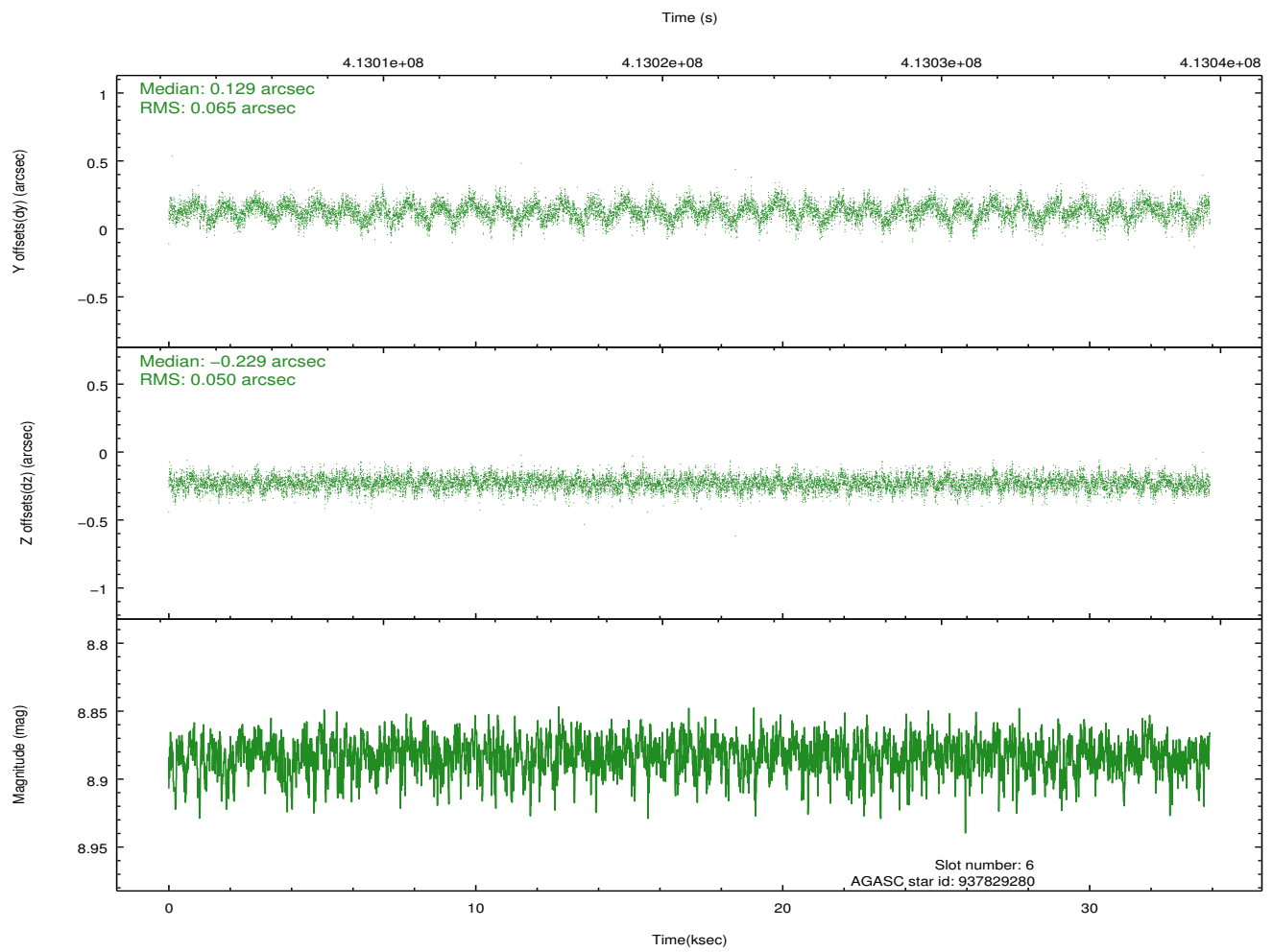
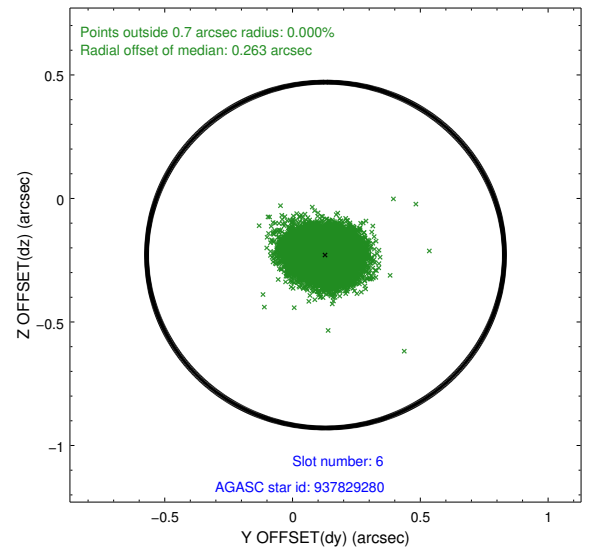
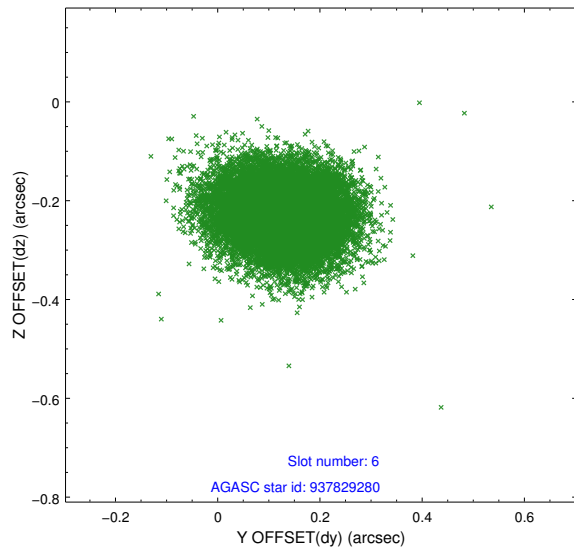
### 2.4.2 Slot 4



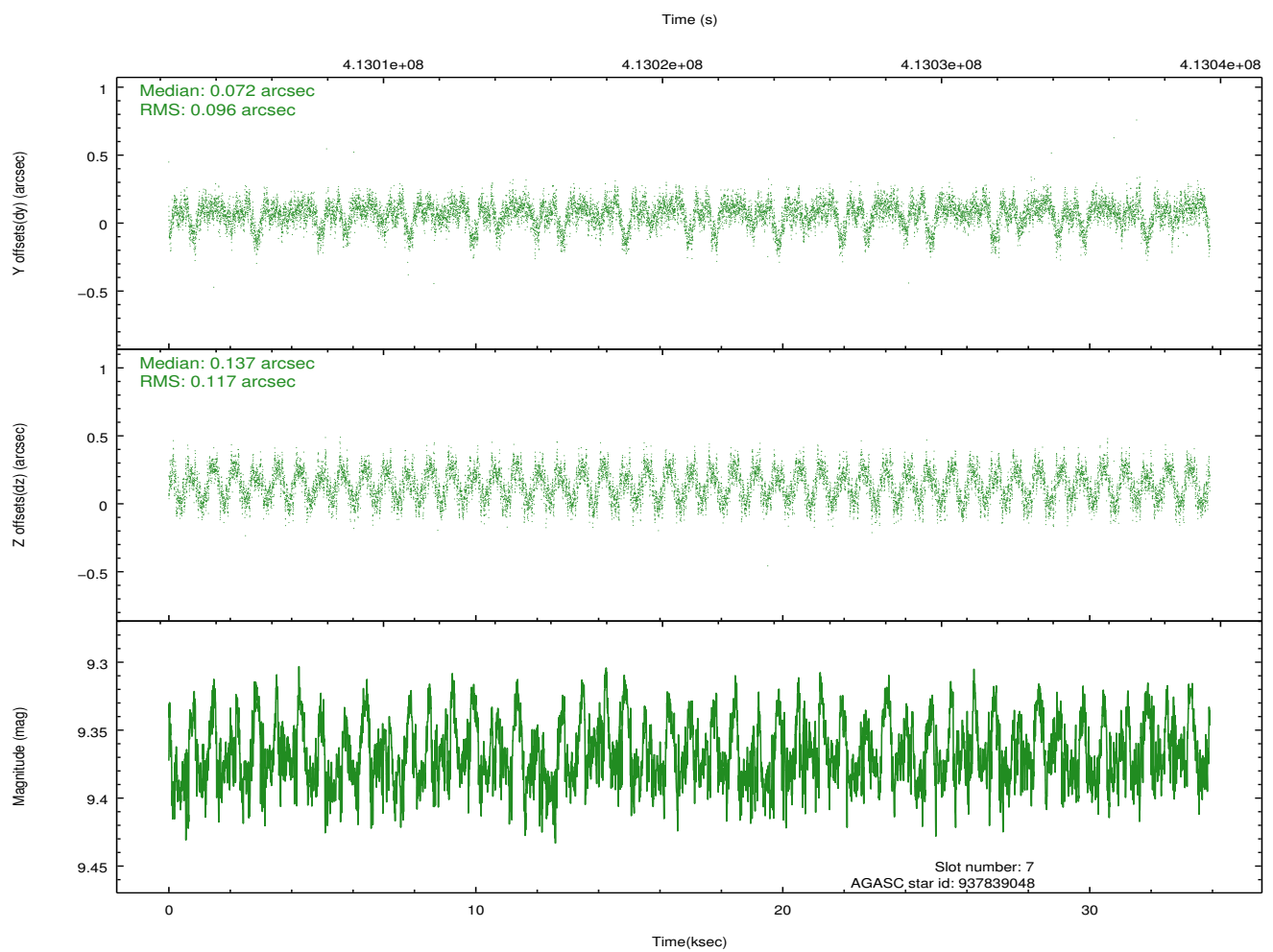
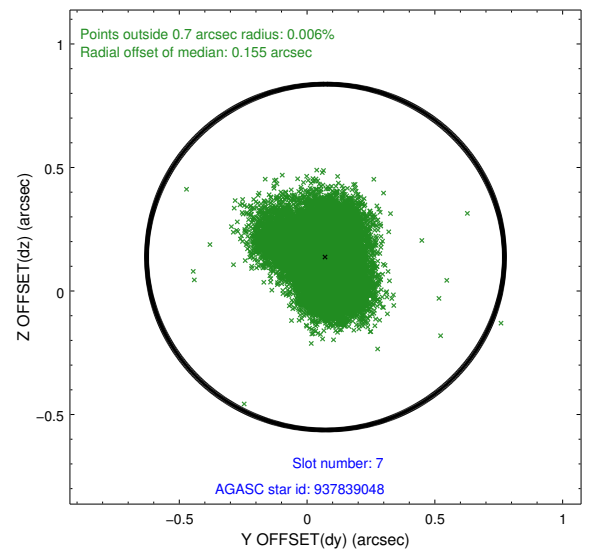
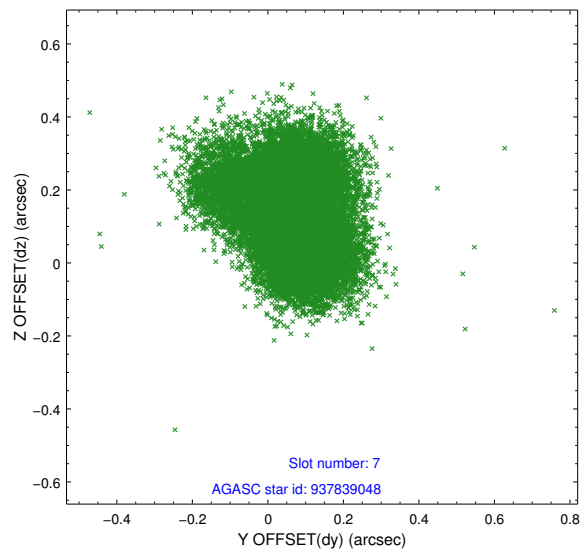
### 2.4.3 Slot 5



## 2.4.4 Slot 6

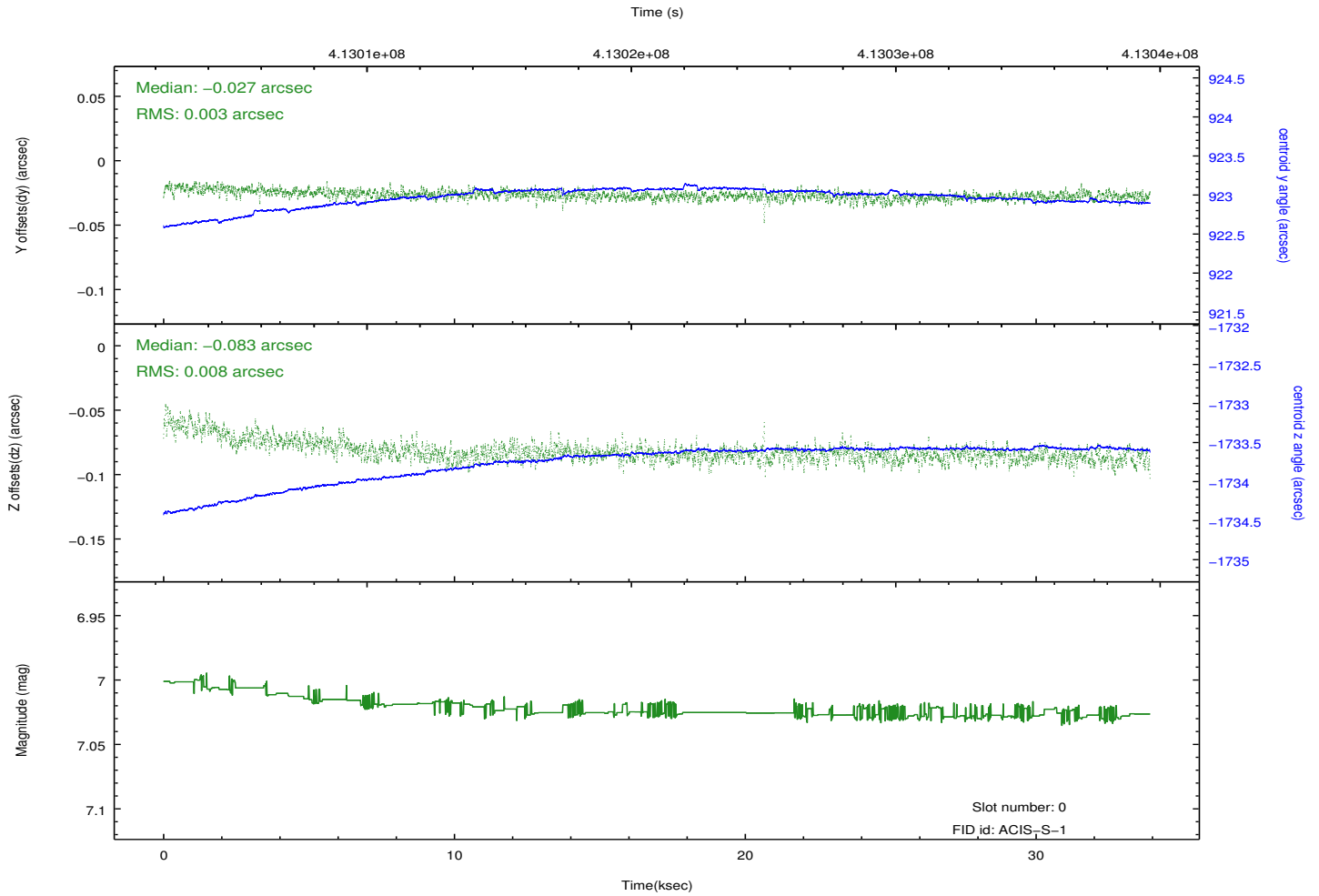
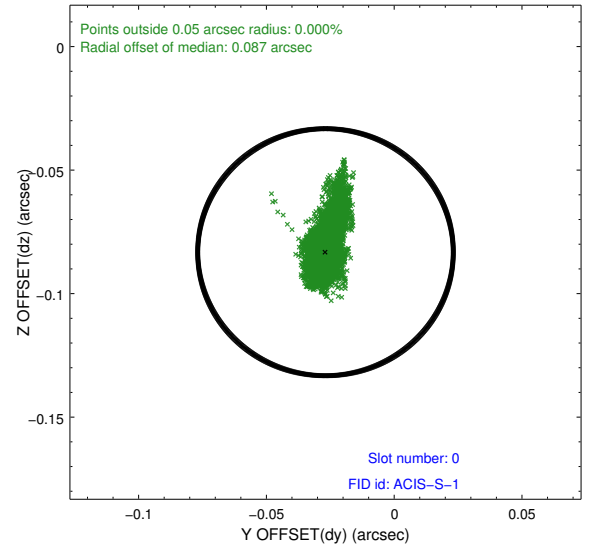
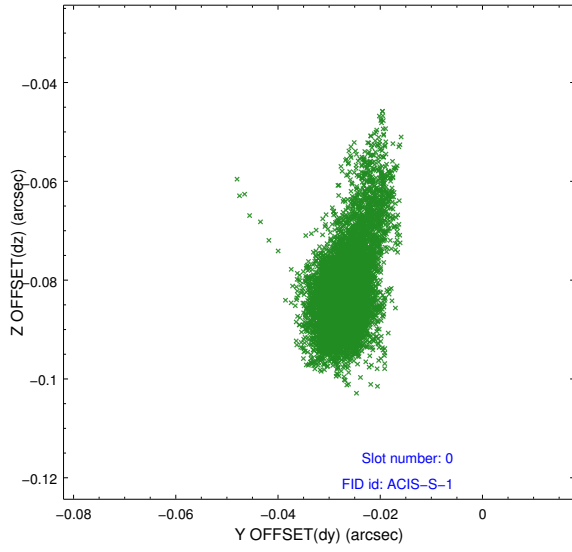


## 2.4.5 Slot 7

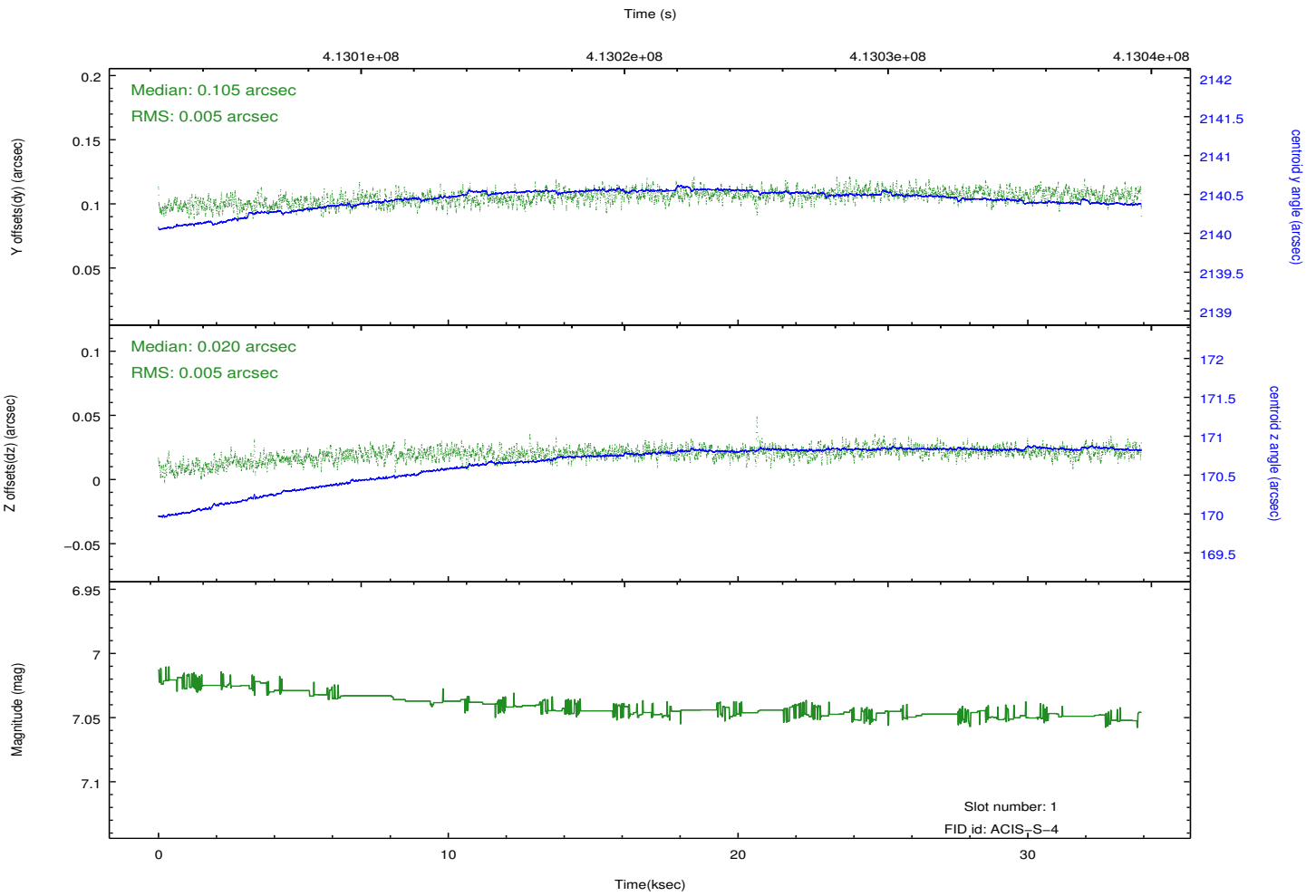
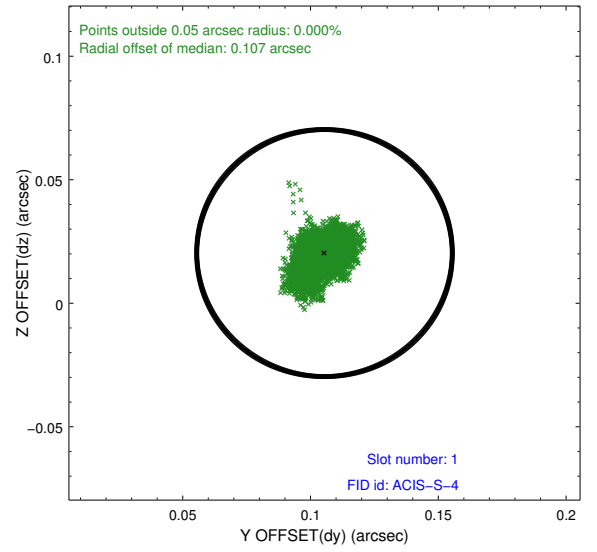
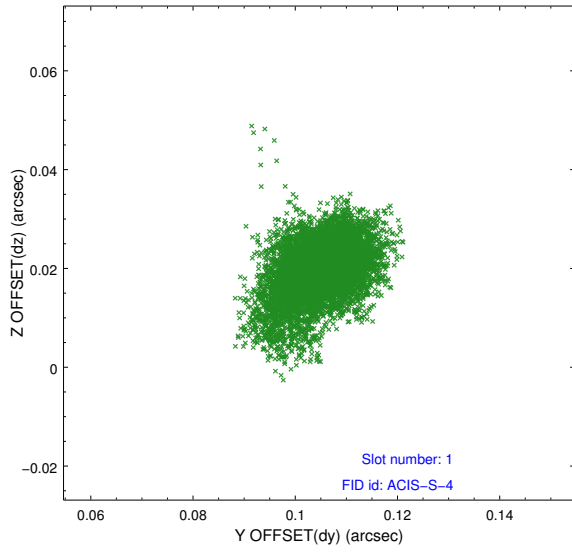


## 2.5 FID Slots

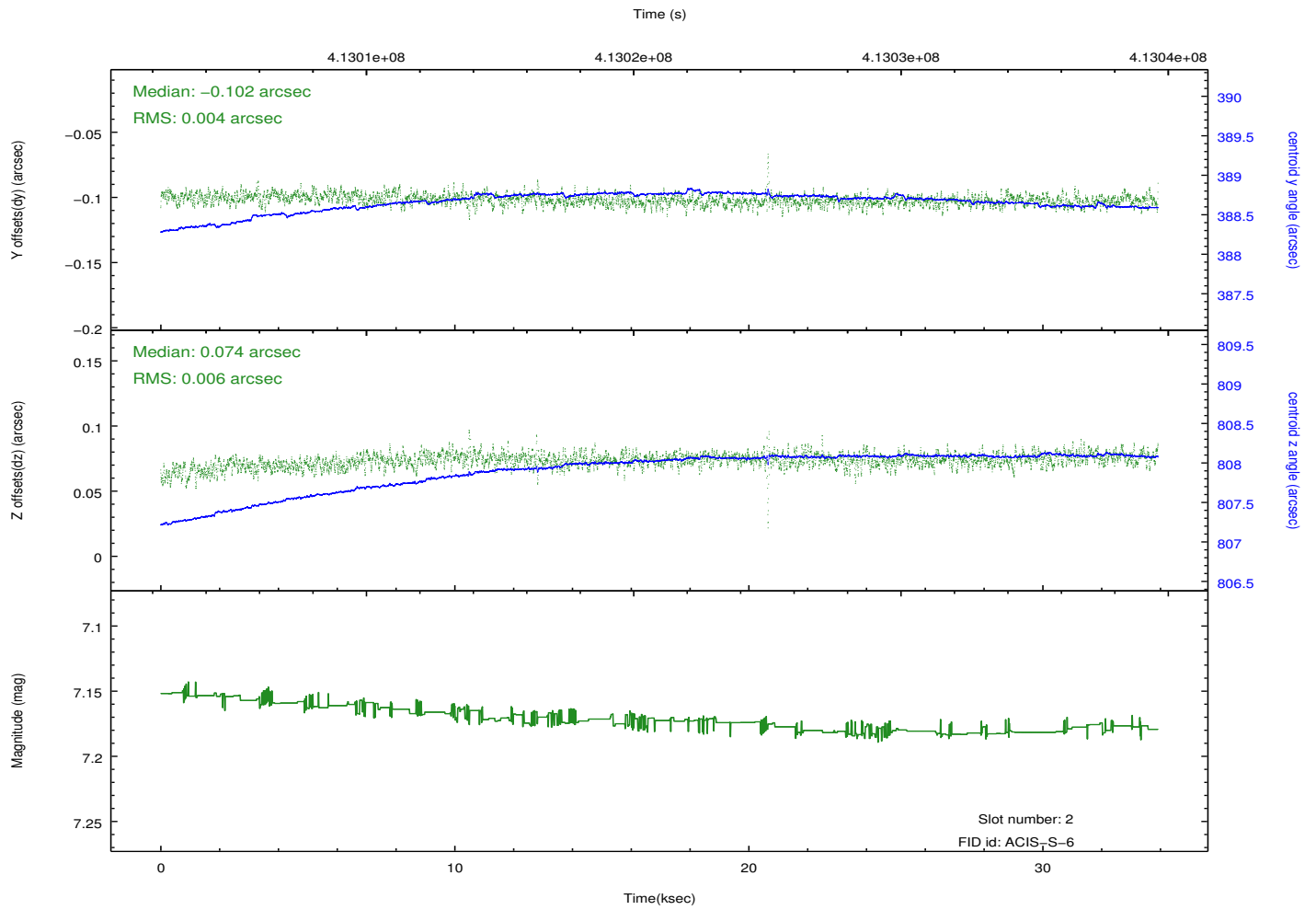
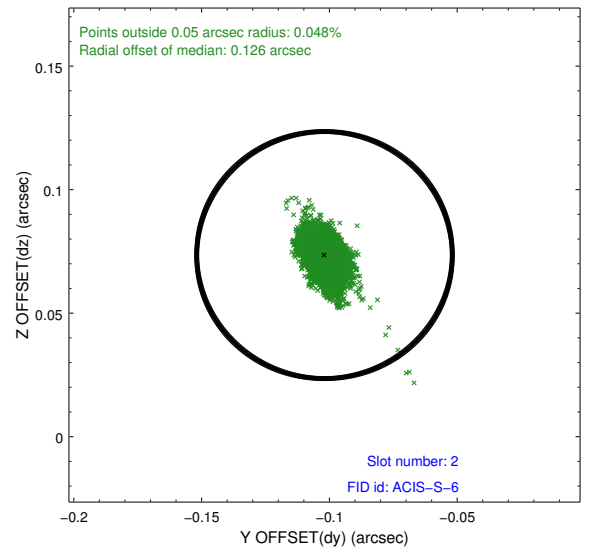
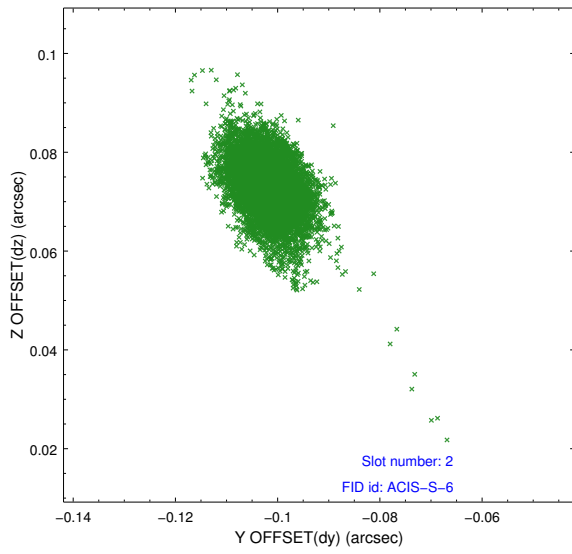
### 2.5.1 Slot 0



## 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)	2012.02.06
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	33.829535740435

## 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.