

# V&V Reference Report

## L2 ASCDS Version : 10.1.1

Observation 15249 - L2 Version 2  
Chandra X-Ray Center

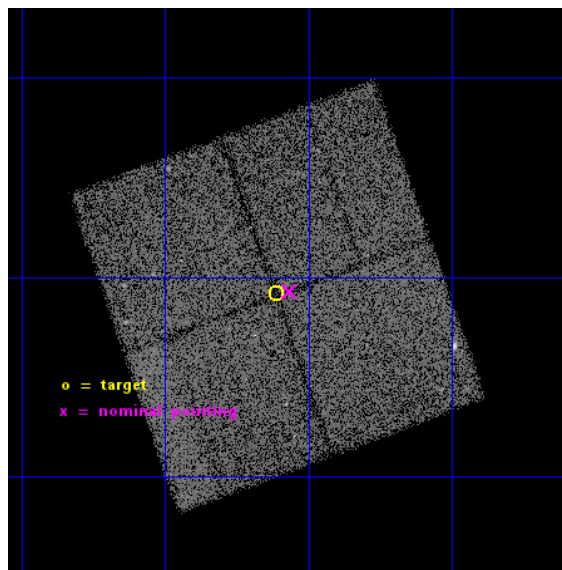
L2 Processing Date : Dec 8 2014

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# 1 Front

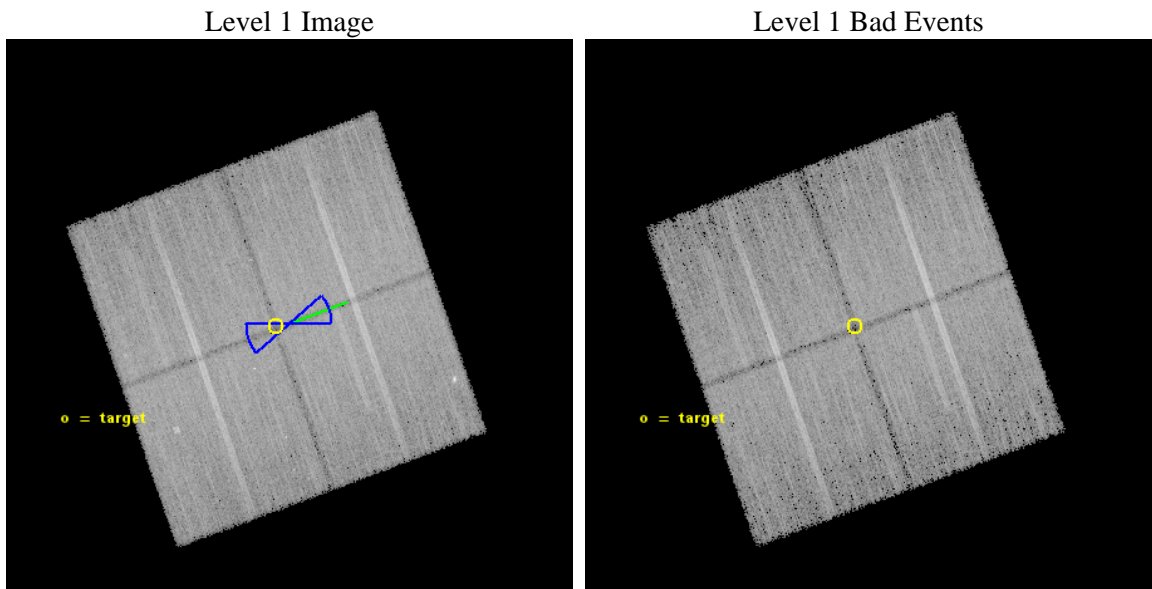
seq_num	901079	Sequence number
obs_id	15249	Observation id
title	The COSMOS Legacy Survey	Proposal title
observer	Dr Francesca Civano	Principal investigator
object	COSMOS Legacy	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	150.52789	Observer's specified target RA [deg]
dec_targ	1.653321	Observer's specified target Dec [deg]
ra_nom	150.51651307096	Nominal RA [deg]
dec_nom	1.6550258102112	Nominal Dec [deg]
roll_nom	70.209013806441	Nominal Roll [deg]
revision	2	Processing version of data
ontime	46239.559365451	Sum of GTIs [s]
livetime	45635.405481273	Livetime [s]
ontime0	46239.55930537	Sum of GTIs [s]
ontime1	46239.559365451	Sum of GTIs [s]
ontime2	46236.418394983	Sum of GTIs [s]
ontime3	46242.700355649	Sum of GTIs [s]
l2events	89355	Number of level 2 events



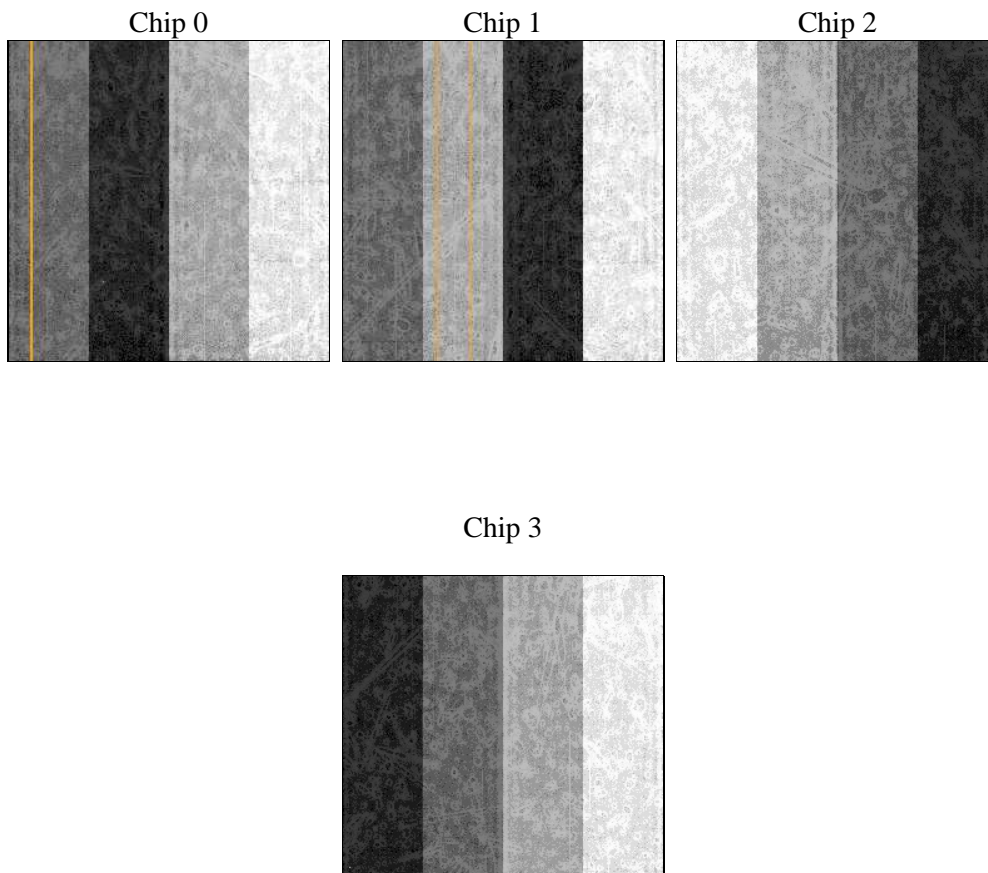
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	46150.550000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	46239.559365451	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime0	46239.55930537	Sum of GTIs [s]
date	2014-12-08T05:44:45	Date and time of file creation	ontime1	46239.559365451	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	46236.418394983	Sum of GTIs [s]
			ontime3	46242.700355649	Sum of GTIs [s]
			l1events	854292	Number of level 1 events

### 2.1.4 Events

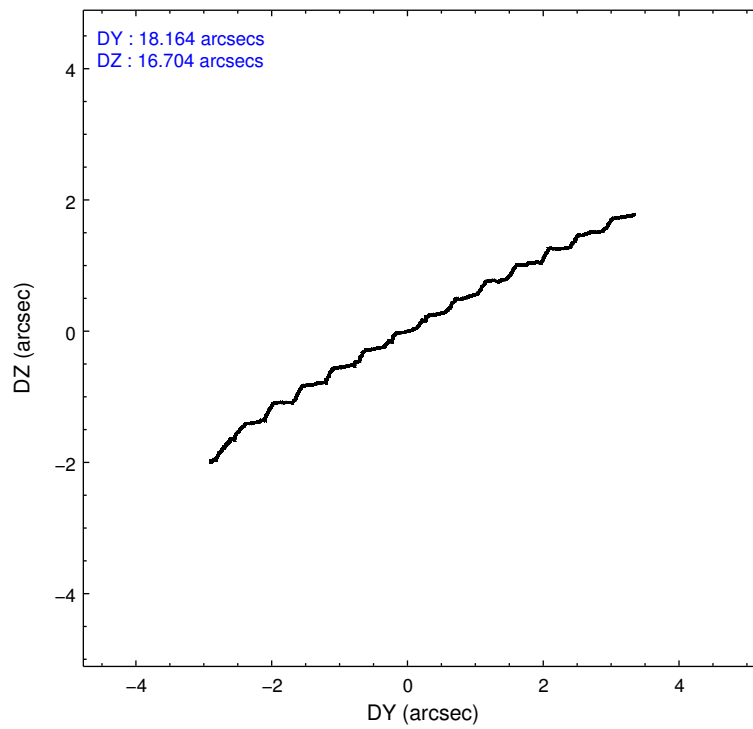
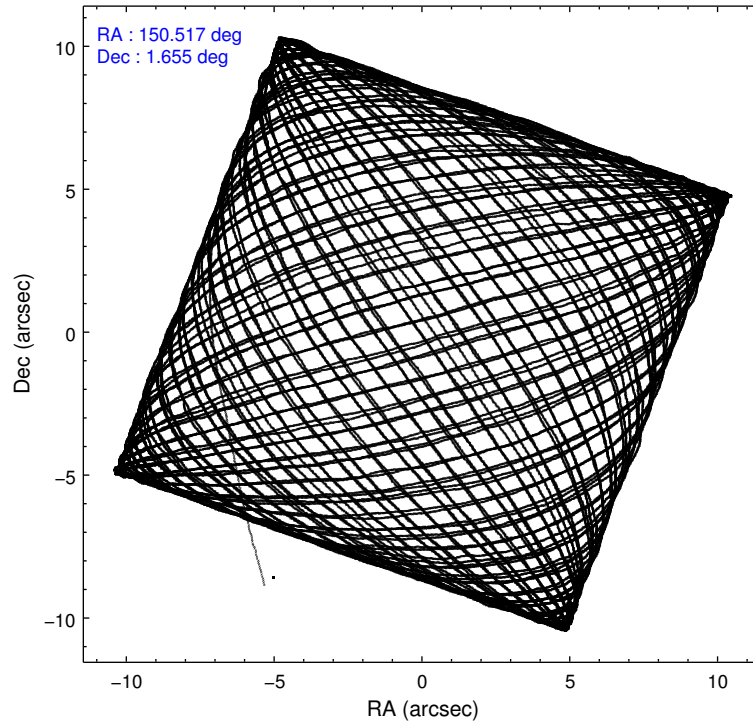
	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	202984	207472	225789	218047
rejected events	176782	177499	200475	192216
rejected %	87%	85%	88%	88%

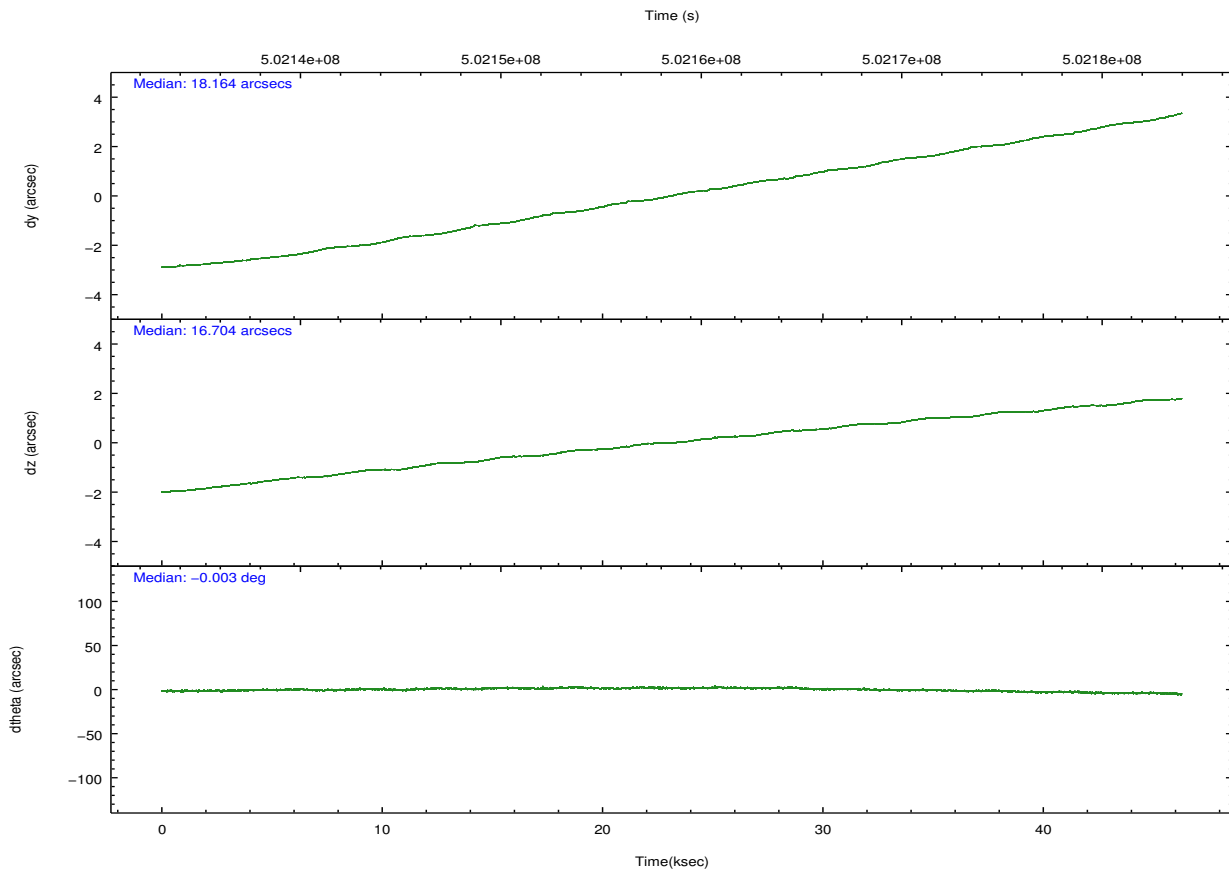
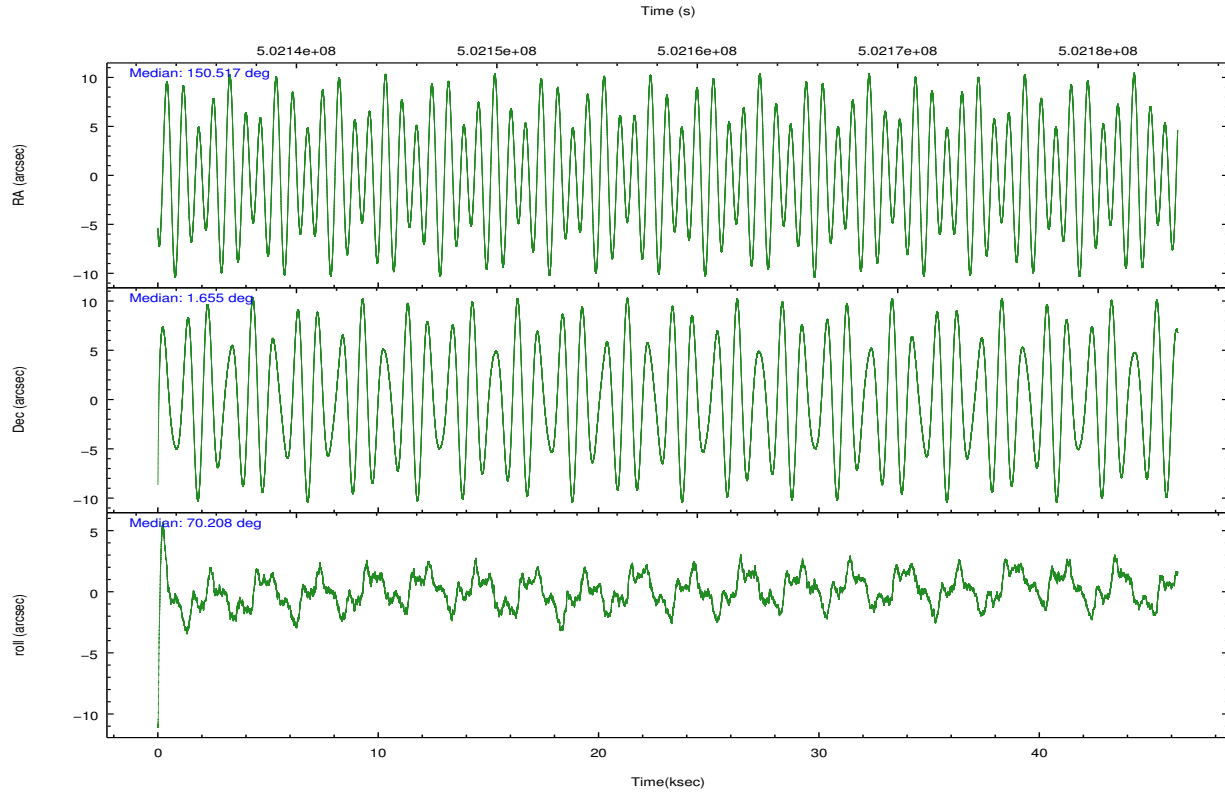
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	9025	10737	8732	9126
	4%	5%	3%	4%
grade 1 events	103	114	140	128
	0%	0%	0%	0%
grade 2 events	6367	7215	6310	5793
	3%	3%	2%	2%
grade 3 events	2686	2884	2601	2740
	1%	1%	1%	1%
grade 4 events	2593	2815	2615	2697
	1%	1%	1%	1%
grade 5 events	10496	11201	9586	11985
	5%	5%	4%	5%
grade 6 events	5532	6322	5057	5475
	2%	3%	2%	2%
grade 7 events	166182	166184	190748	180103
	81%	80%	84%	82%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-0123	ACIS-0123	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	150.521501	150.5165130709561	Subarray requested	NONE	NONE
[deg] Pointing Dec	1.627977	1.655025810211183	Alternating exposures requested	N	N
[deg] Pointing Roll	70.000195	70.20901380644139	[s] Primary exposure time	0.000000	3.1
[deg] Roll angle	250.000000	250.000000			
[deg] Roll tolerance	20.000000	20.000000			
Roll constraint allows 180D rotation	Y	Y			
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	502135522.184000	502134293.14103			
Observation start date	2013-11-29T18:04:15	2013-11-29T17:44:53			
[s] Observation end time (MET)	502181672.184000	502181909.51864			
Observation end date	2013-11-30T06:53:25	2013-11-30T06:58:29			
Read mode	TIMED	TIMED			

## 2.3 Aspect





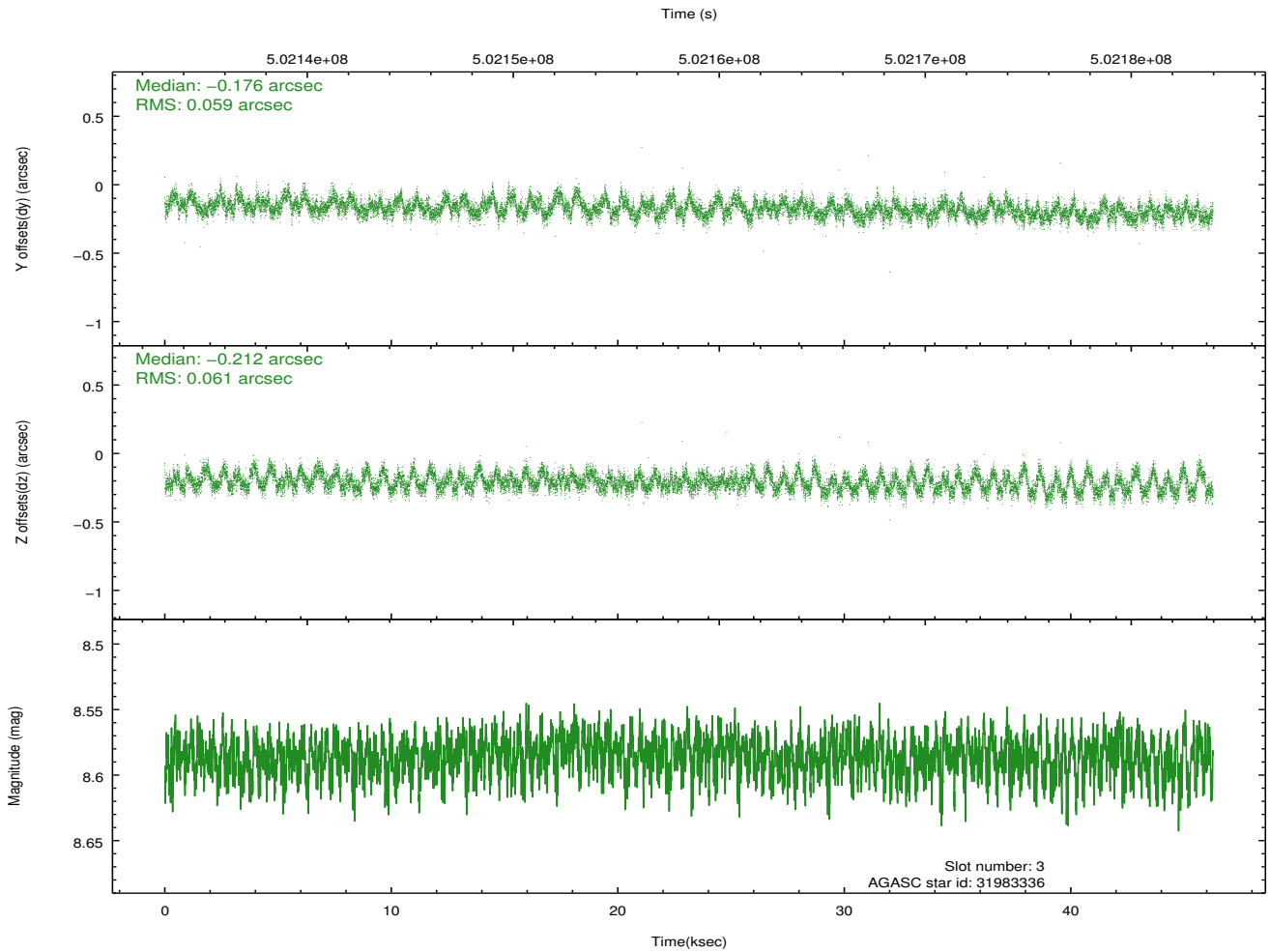
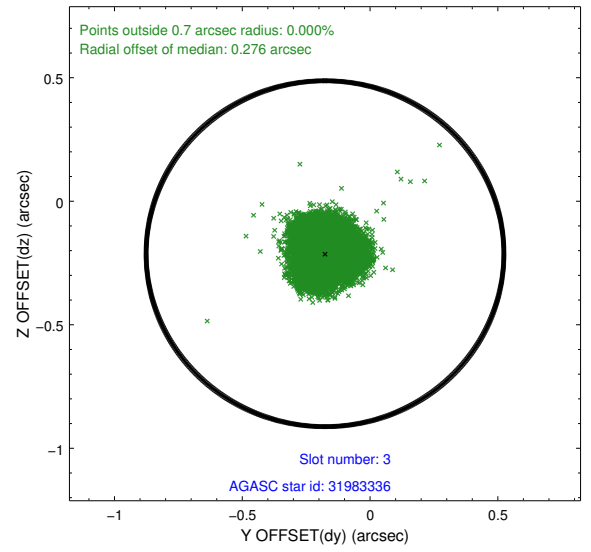
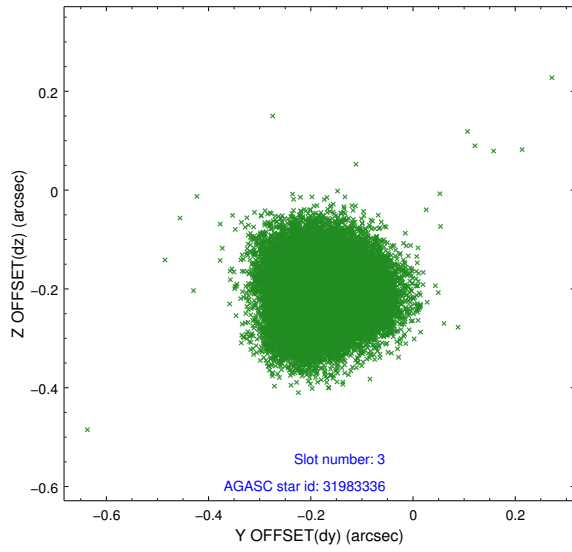
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.13	11287	0.069	-0.020	0.036	0.052	0.000000	0.000000	921.26	-840.33
1	FID		ACIS-I-5	7.13	11287	-0.269	0.058	0.025	0.049	0.000000	0.000000	-1827.21	1057.20
2	FID		ACIS-I-6	7.14	11287	0.105	0.040	0.028	0.048	0.000000	0.000000	386.82	1701.70
3	GUIDE	used	31983336	8.59	22571	-0.176	-0.212	0.092	0.141	150.429924	2.291234	2131.41	1126.23
4	GUIDE	used	31985760	8.45	22569	-0.261	0.052	0.074	0.118	150.924581	2.094394	2073.88	-787.91
5	GUIDE	used	31986152	9.01	22561	-0.251	-0.069	0.119	0.193	150.840314	2.057585	1845.73	-548.20
6	GUIDE	used	31989744	8.93	22556	0.234	0.007	0.081	0.132	150.416962	1.131114	-1808.81	-257.98
7	GUIDE	used	31991816	8.66	22568	0.447	0.225	0.077	0.125	150.917113	1.006843	-1613.25	-2102.31

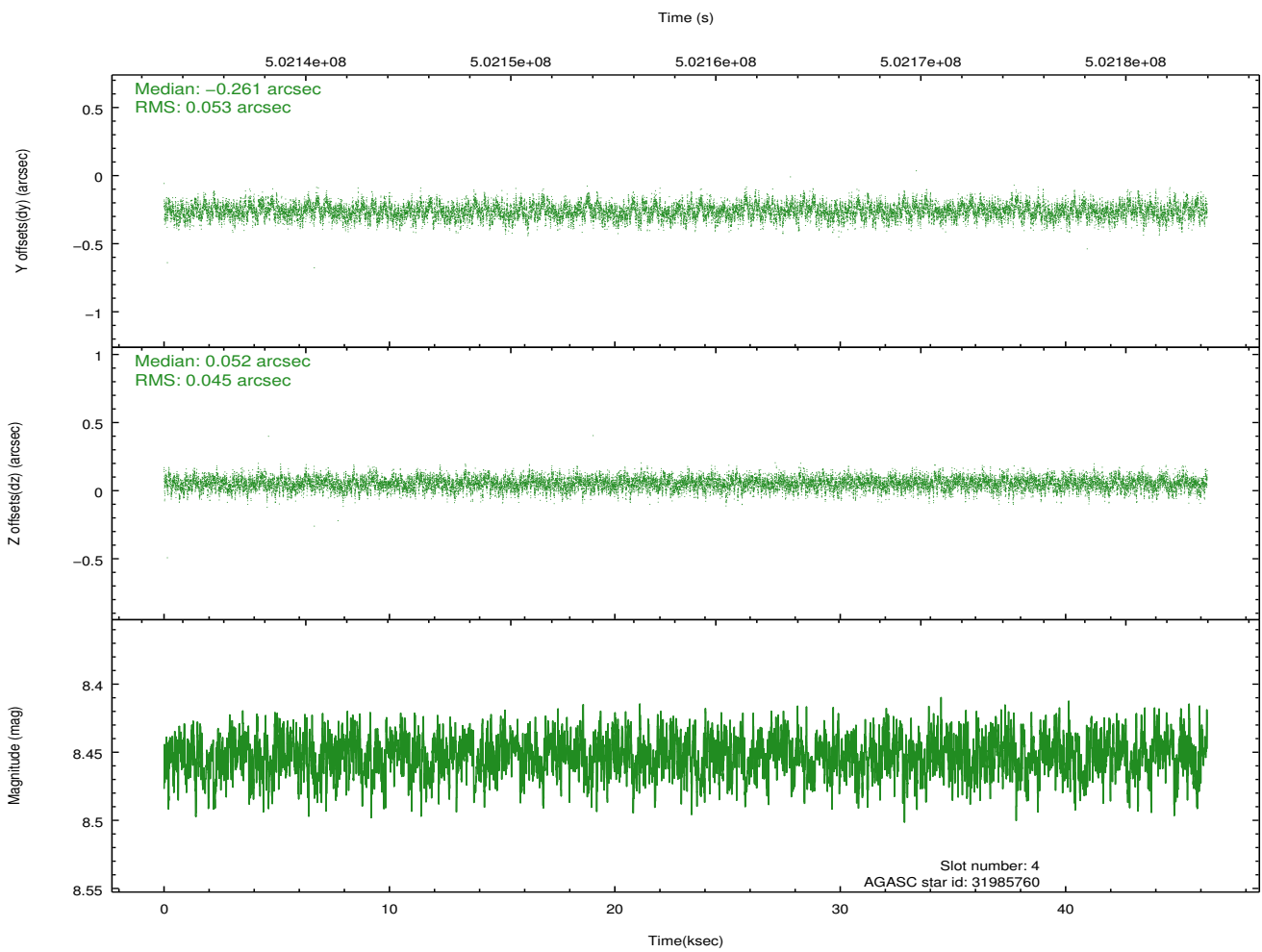
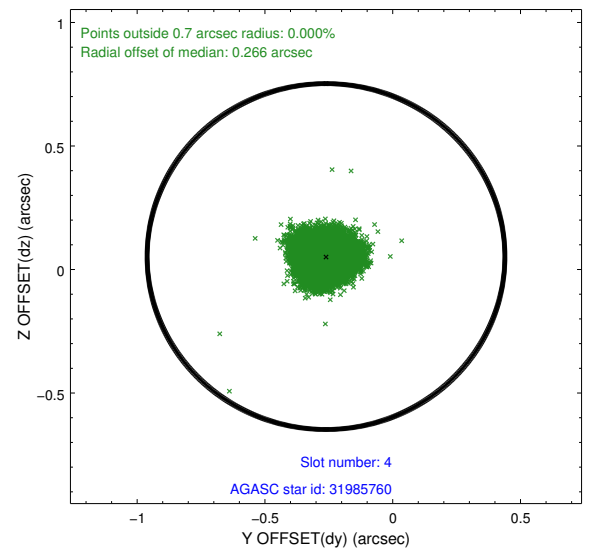
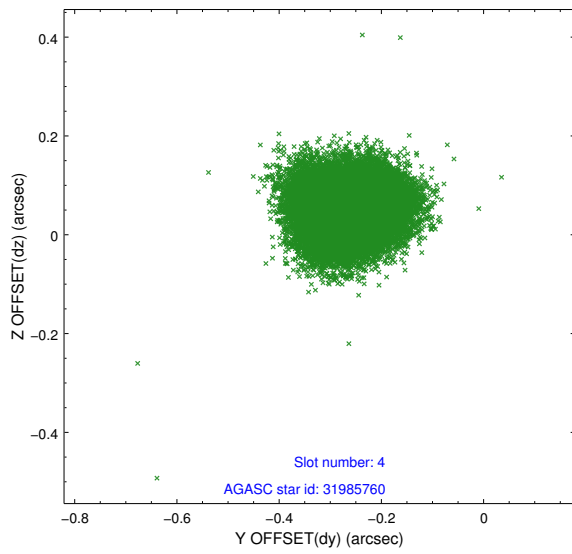
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## 2.4 Star Slots

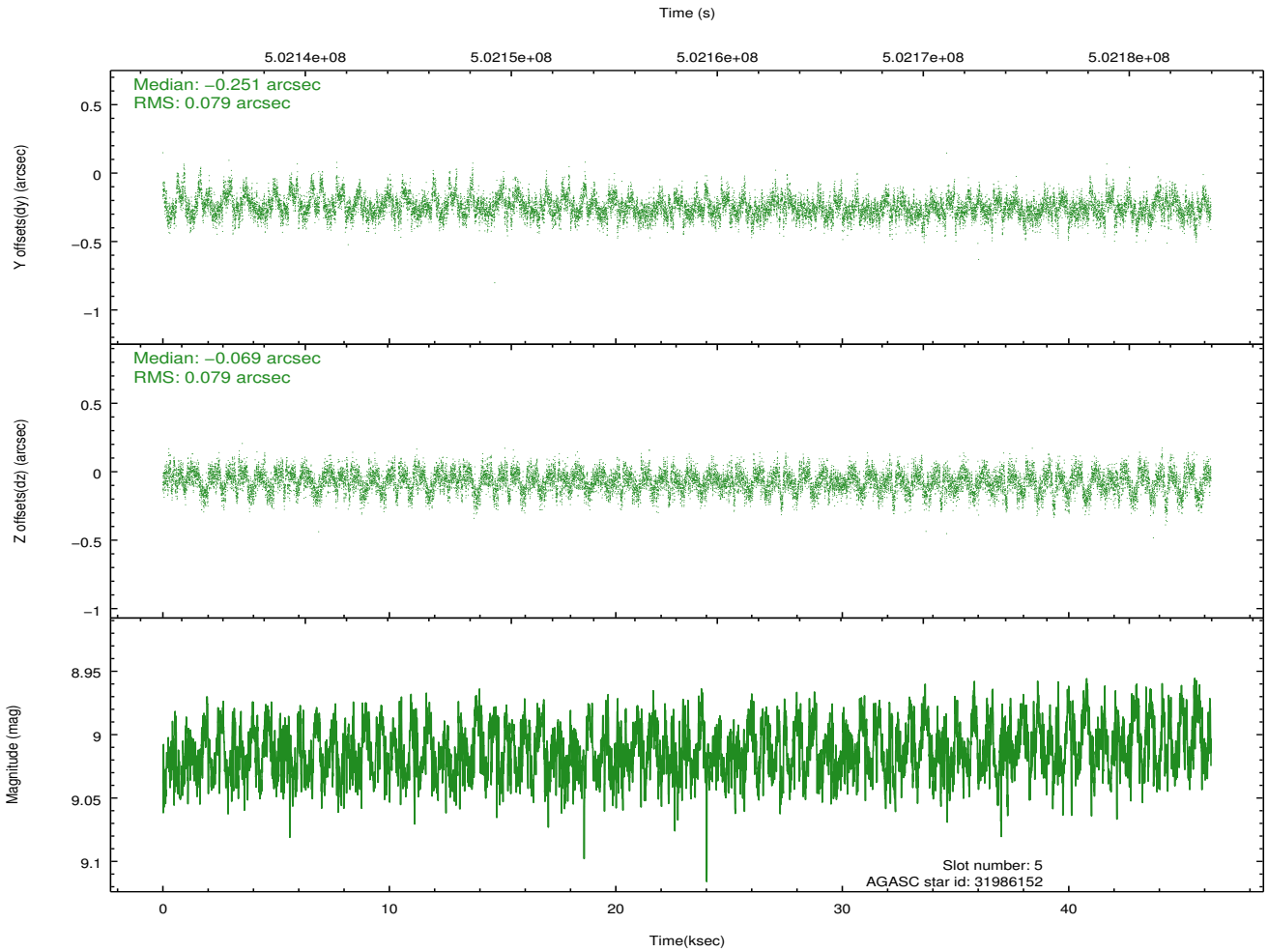
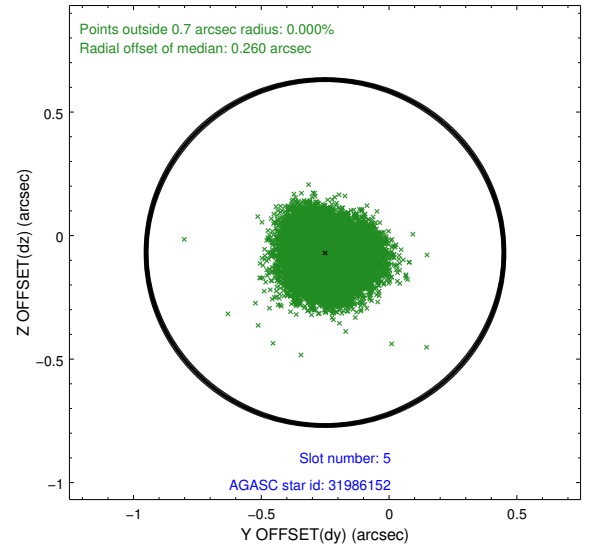
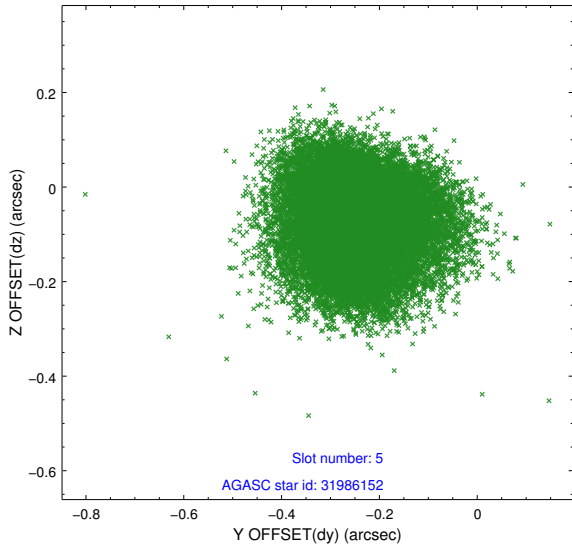
### 2.4.1 Slot 3



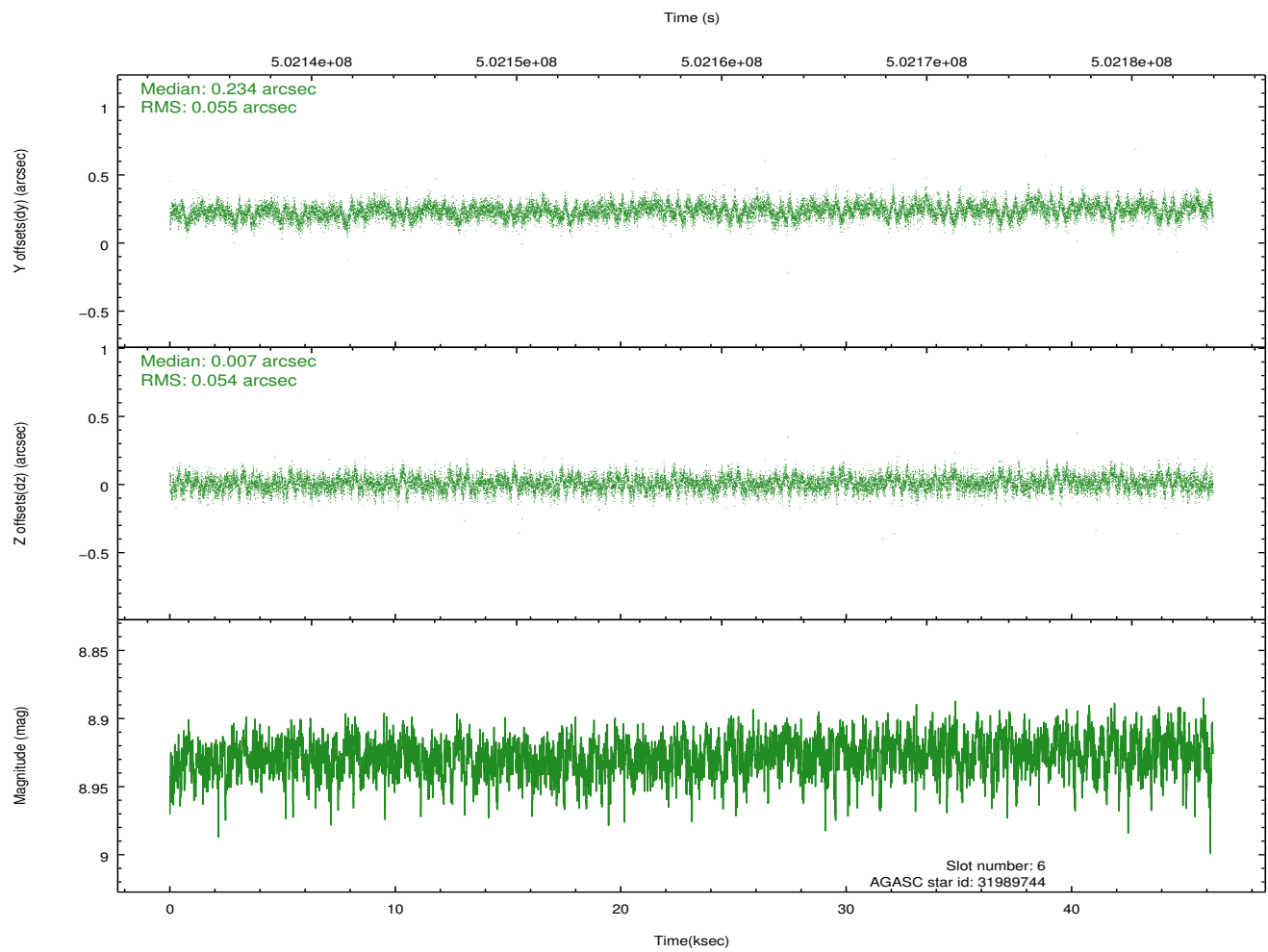
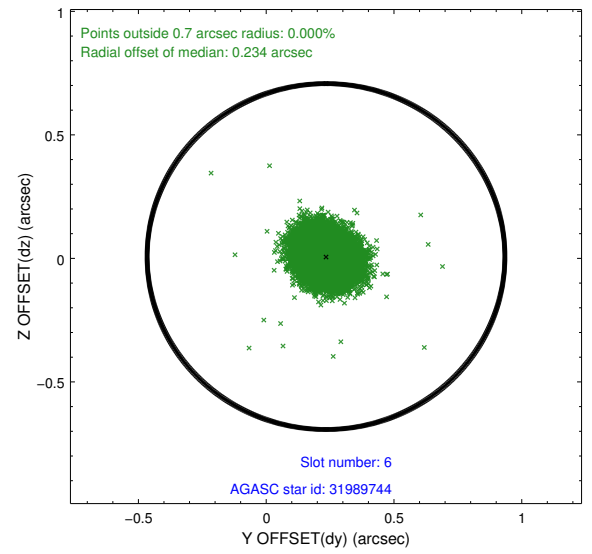
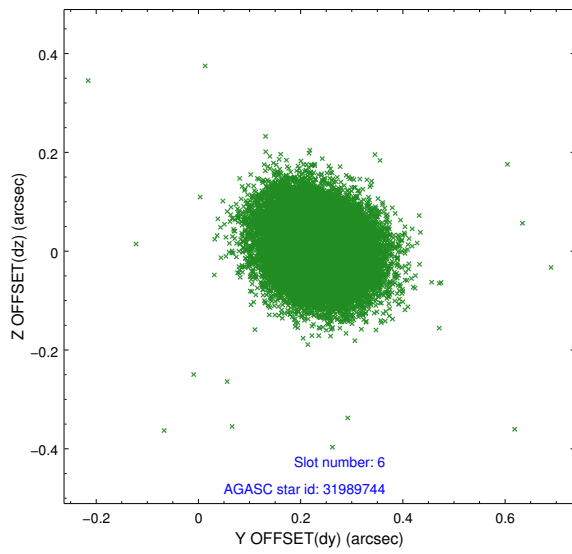
## 2.4.2 Slot 4



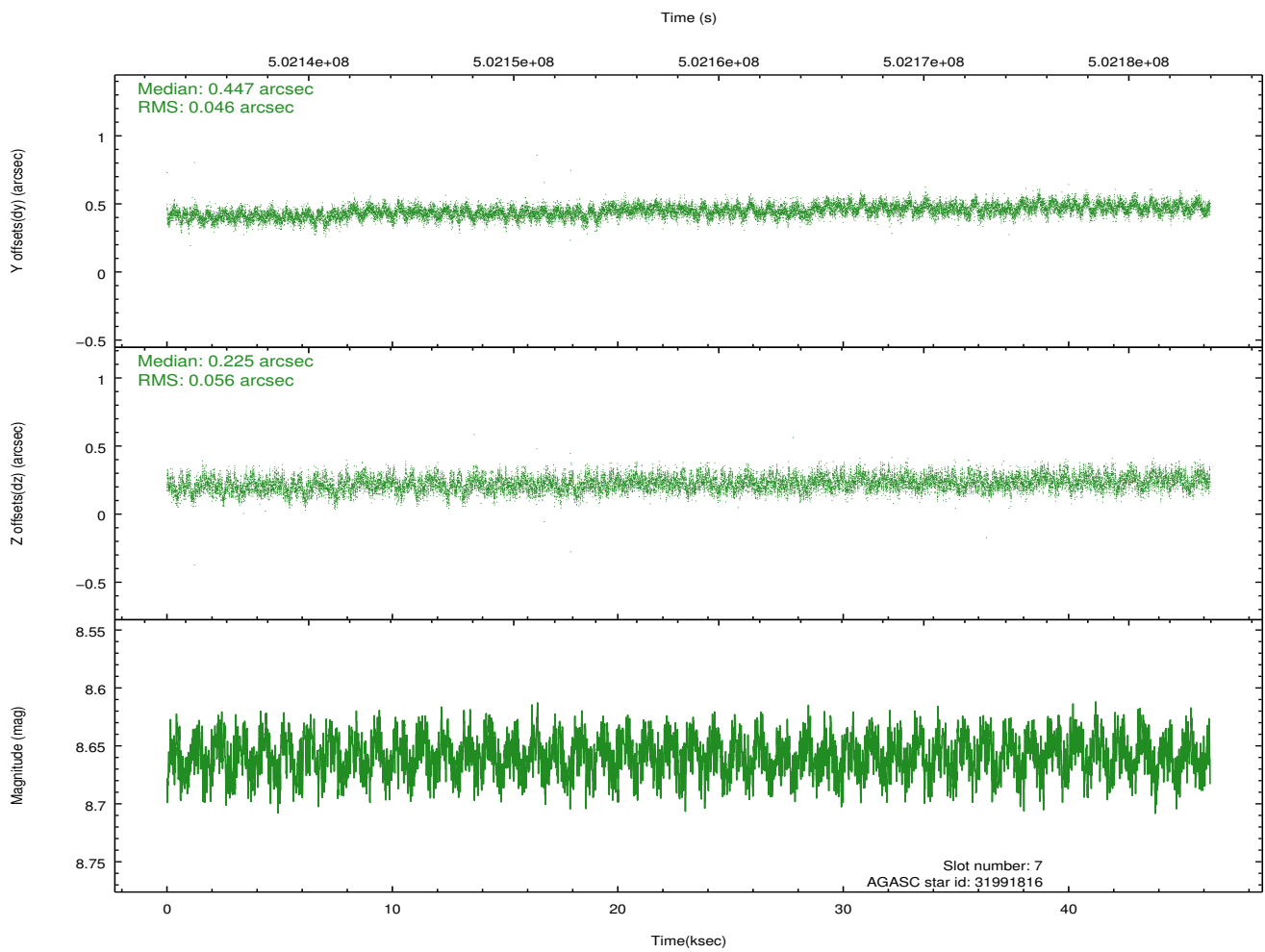
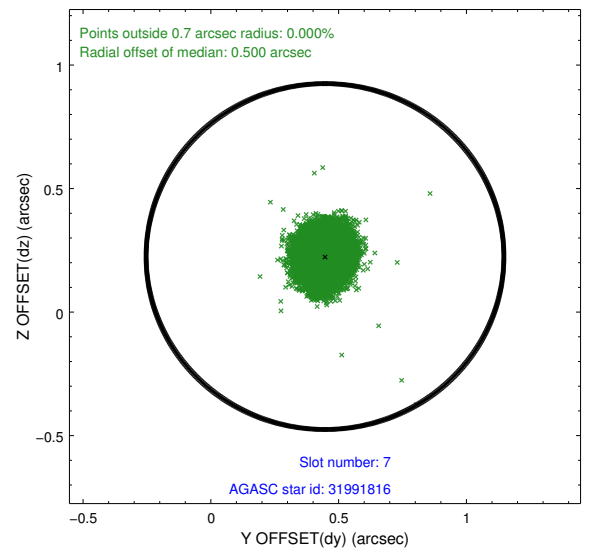
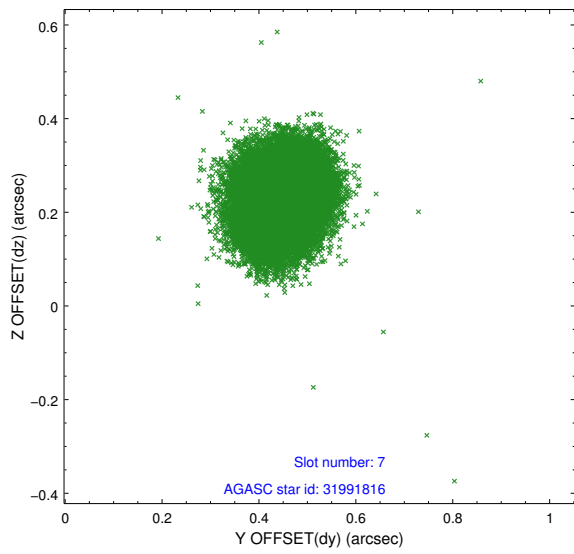
### 2.4.3 Slot 5



## 2.4.4 Slot 6

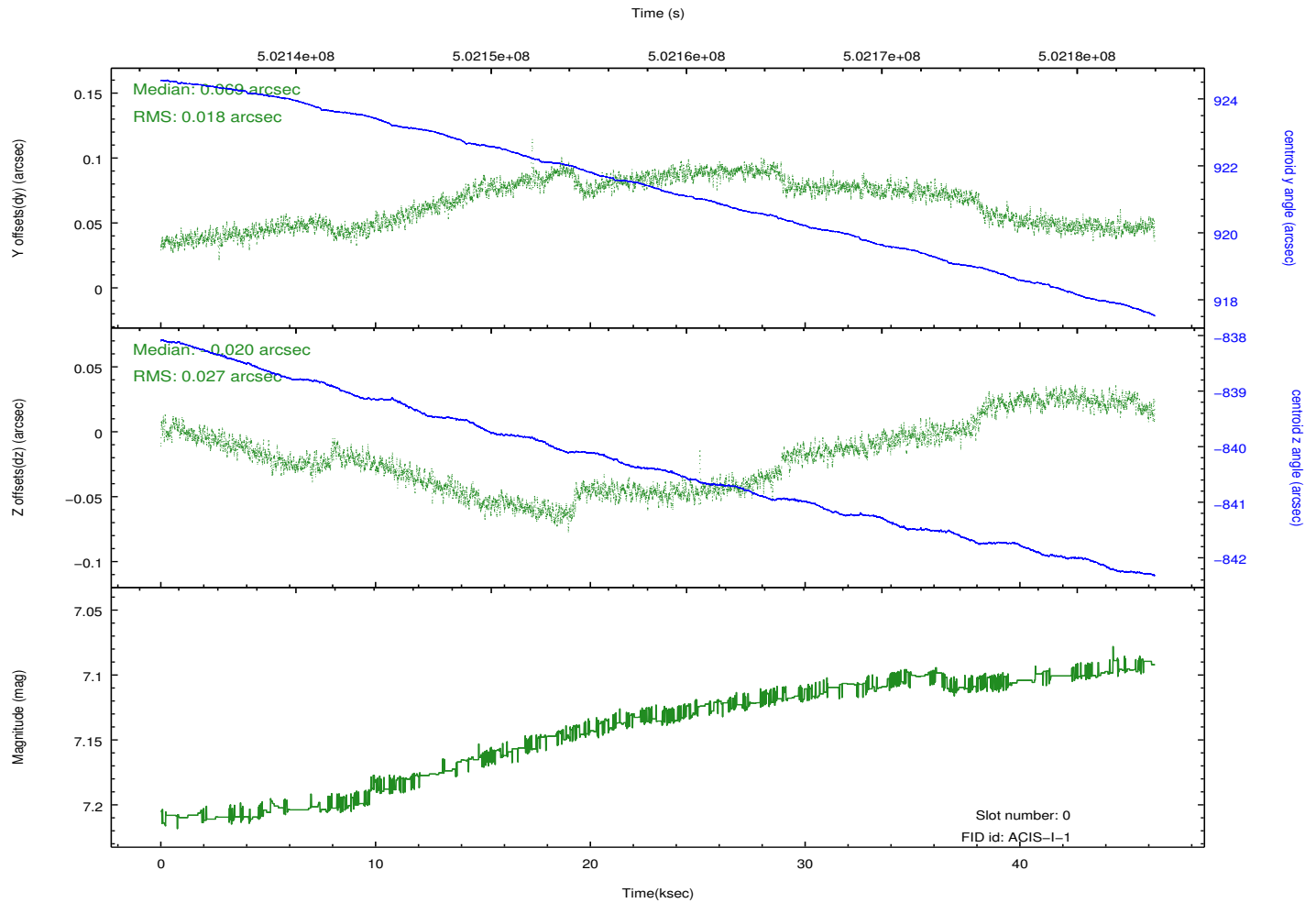
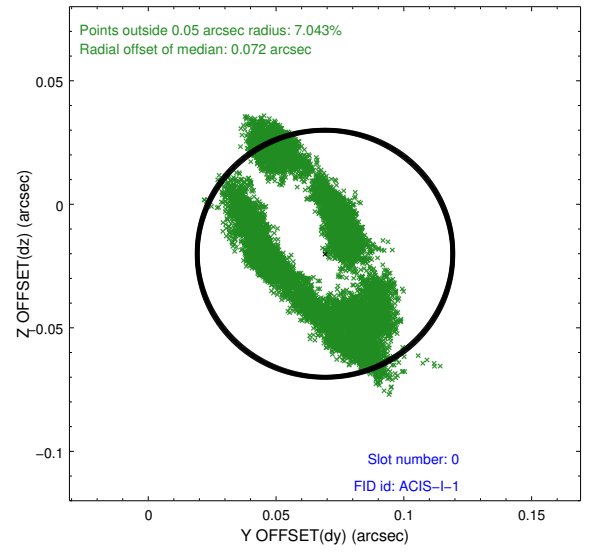
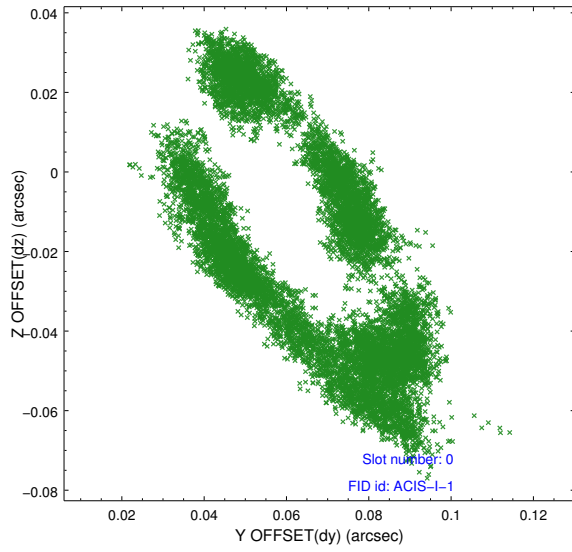


## 2.4.5 Slot 7

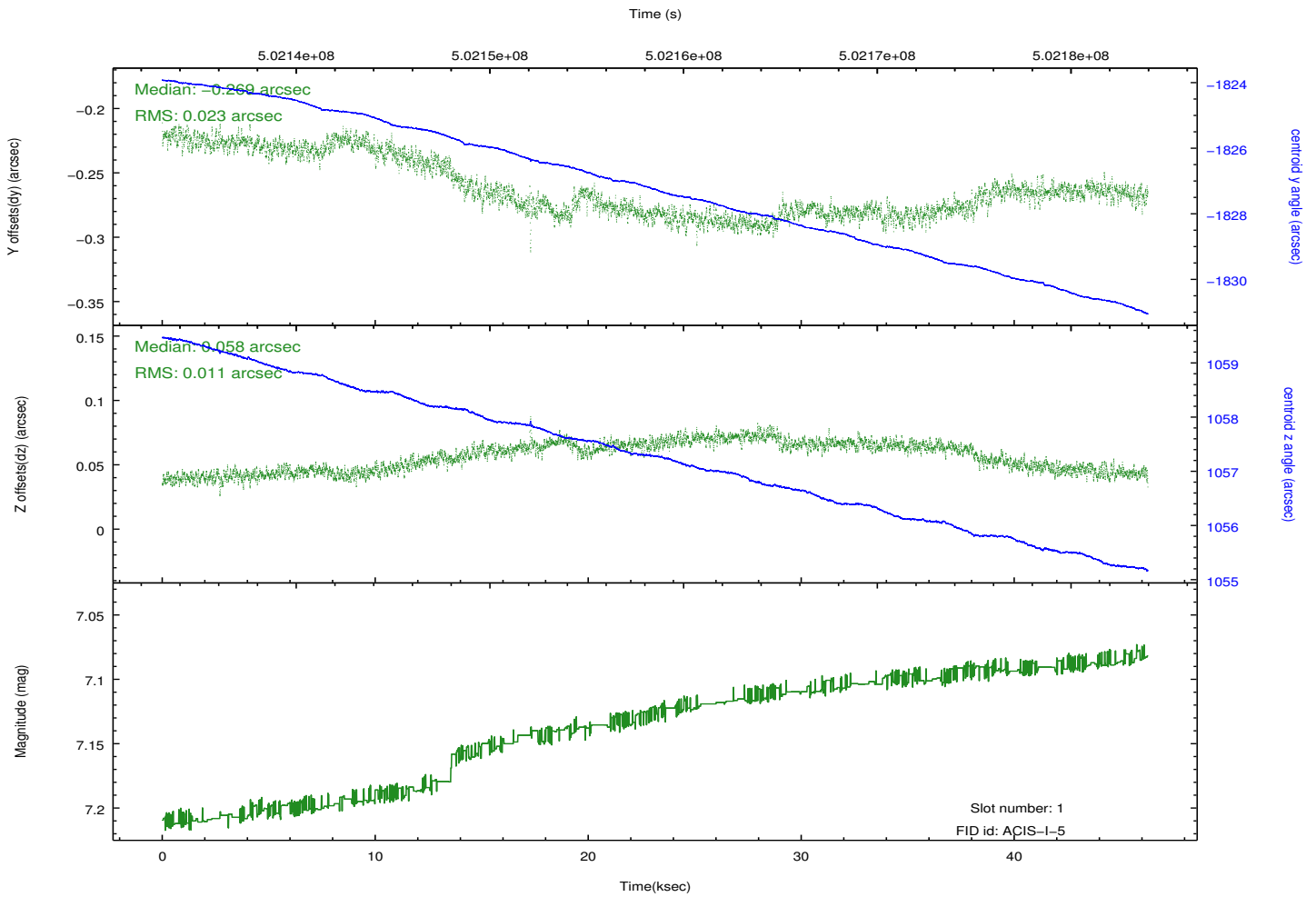
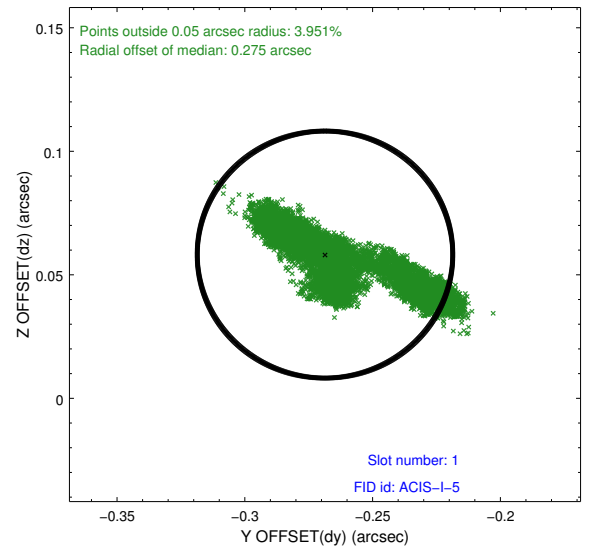
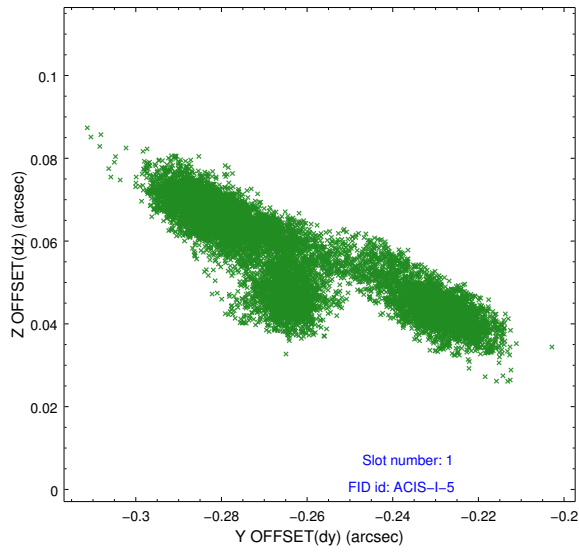


## 2.5 FID Slots

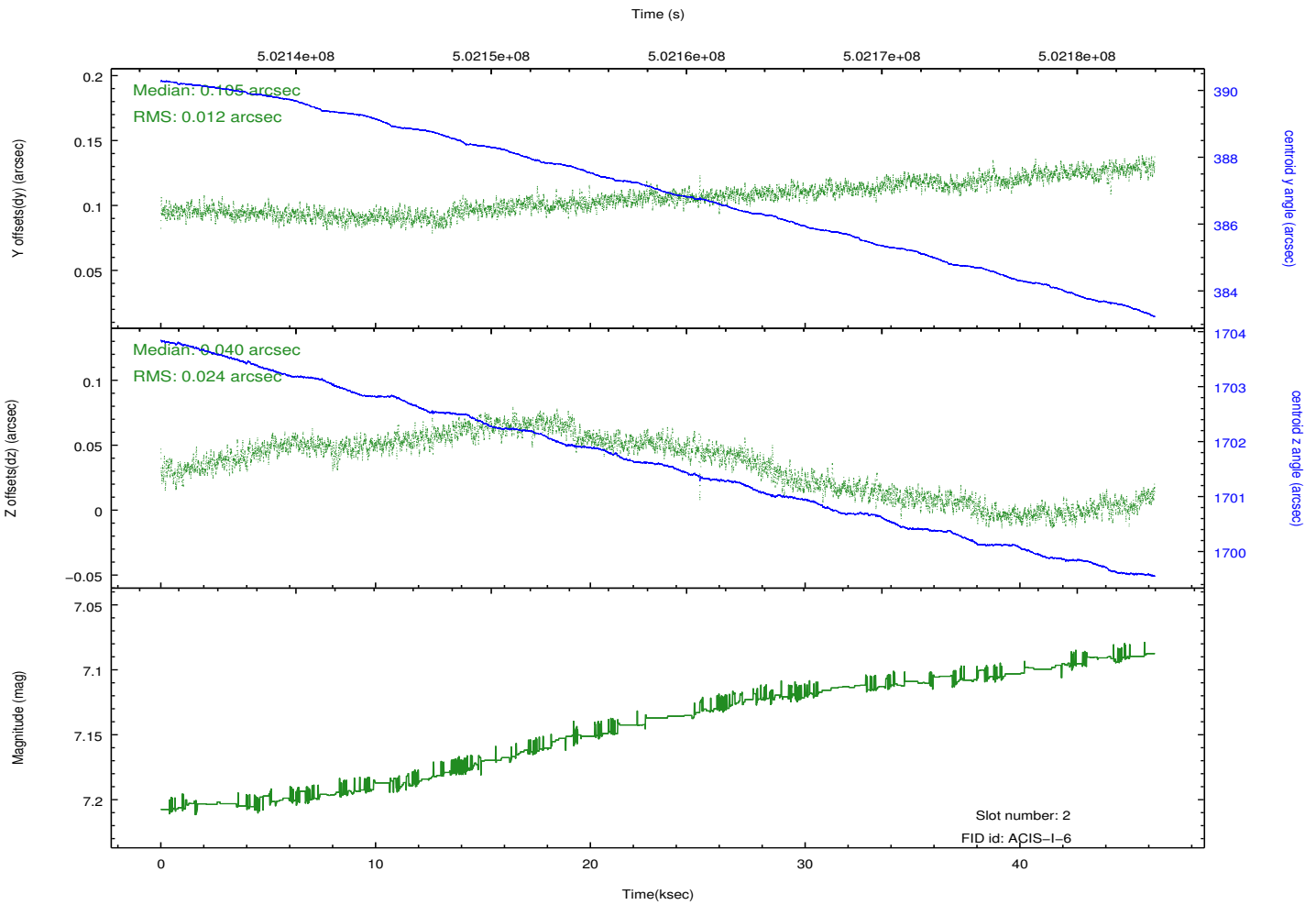
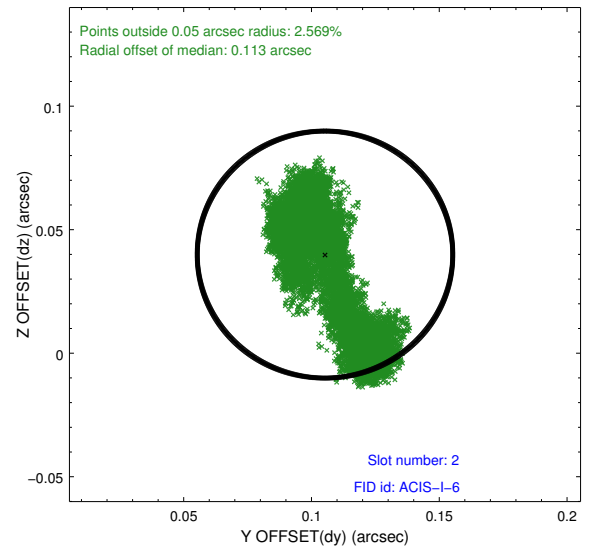
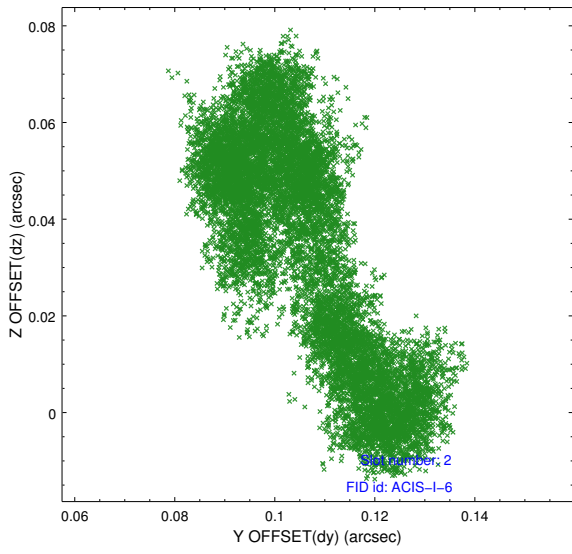
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2014.12.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	46.239559365451

## A.2 Comments

Roll preference met.

These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.