

# V&V Reference Report

## L2 ASCDS Version : 10.1.1

Observation 15251 - L2 Version 2  
Chandra X-Ray Center

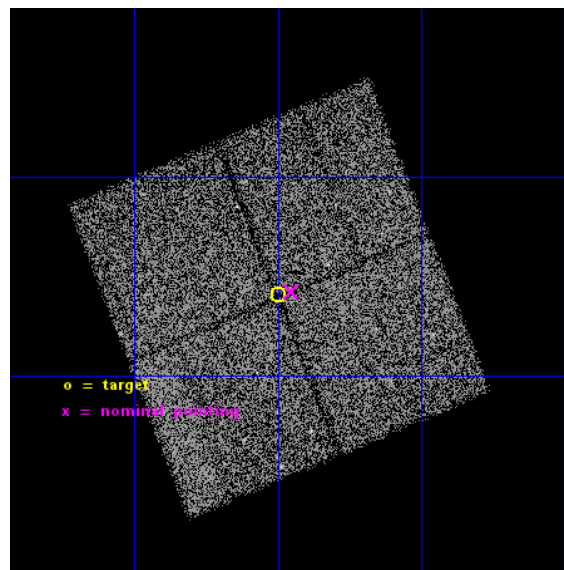
L2 Processing Date : Dec 8 2014

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# 1 Front

seq_num	901081	Sequence number
obs_id	15251	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	150.62428	Observer's specified target RA [deg]
dec_targ	1.901968	Observer's specified target Dec [deg]
ra_nom	150.6129914329	Nominal RA [deg]
dec_nom	1.9041342254129	Nominal Dec [deg]
roll_nom	67.909049855212	Nominal Roll [deg]
revision	2	Processing version of data
ontime	30094.800231457	Sum of GTIs [s]
livetime	29701.589510963	Livetime [s]
ontime0	30094.800231457	Sum of GTIs [s]
ontime1	30094.800231457	Sum of GTIs [s]
ontime2	30094.800231457	Sum of GTIs [s]
ontime3	30094.800231457	Sum of GTIs [s]
l2events	56075	Number of level 2 events

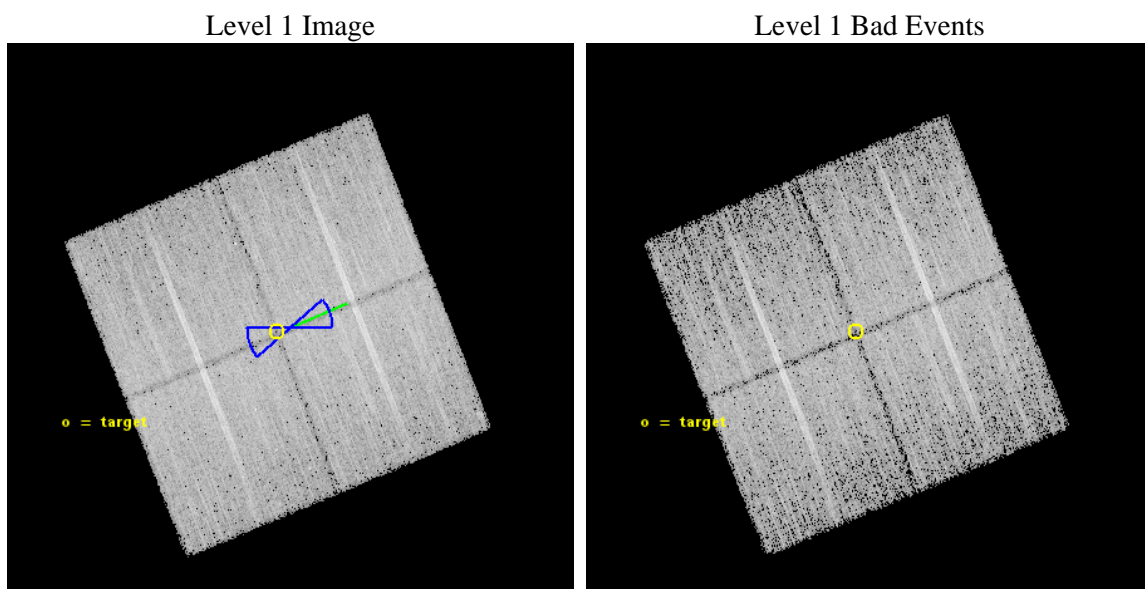




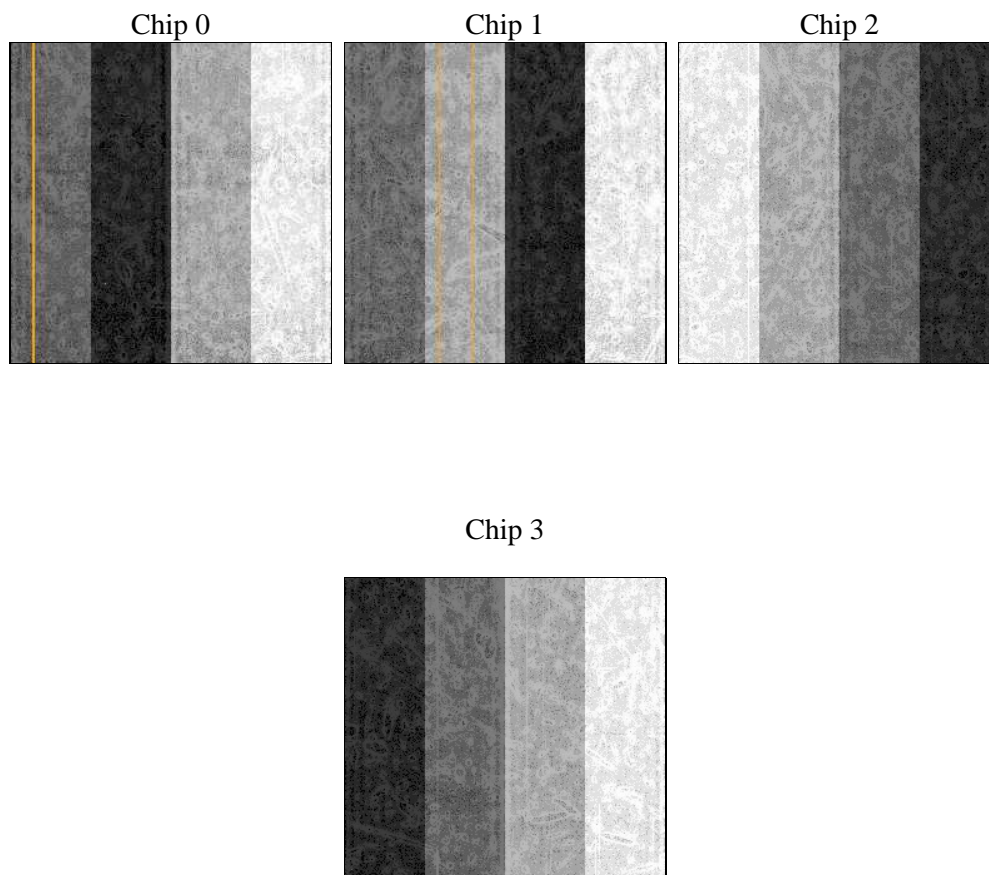
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	30000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	30094.800231457	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime0	30094.800231457	Sum of GTIs [s]
date	2014-12-08T05:30:57	Date and time of file creation	ontime1	30094.800231457	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	30094.800231457	Sum of GTIs [s]
			ontime3	30094.800231457	Sum of GTIs [s]
			l1events	523574	Number of level 1 events

### 2.1.4 Events

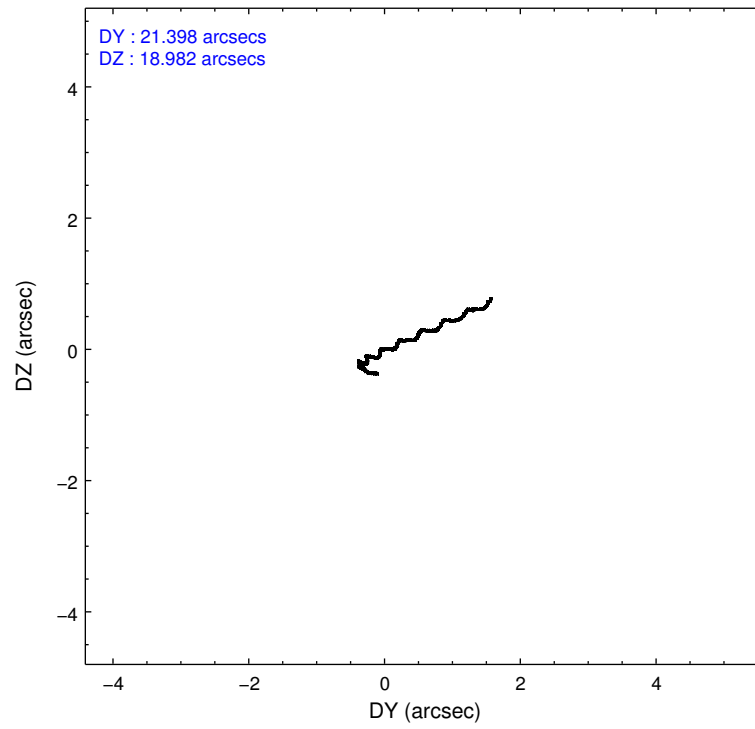
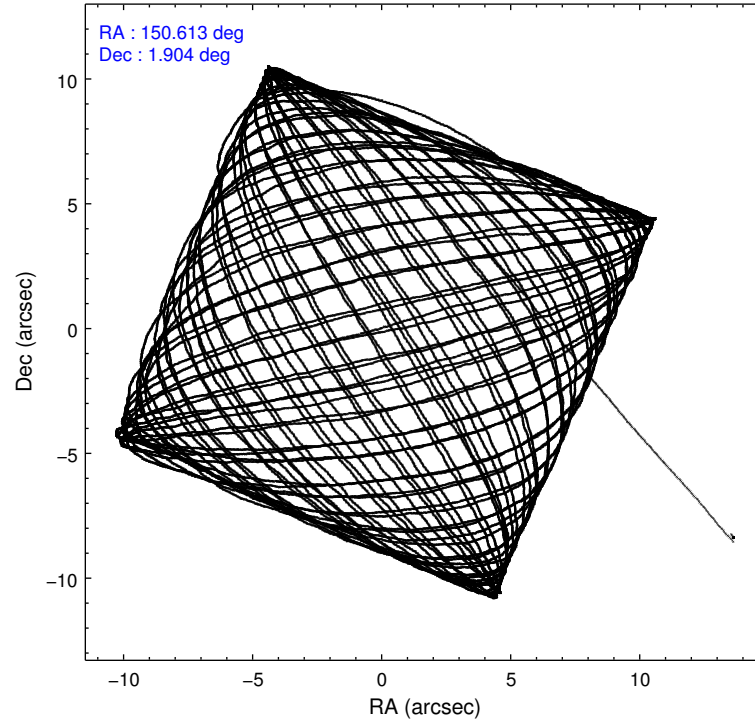
	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	123908	128451	137127	134088
rejected events	107258	109944	120732	118295
rejected %	86%	85%	88%	88%

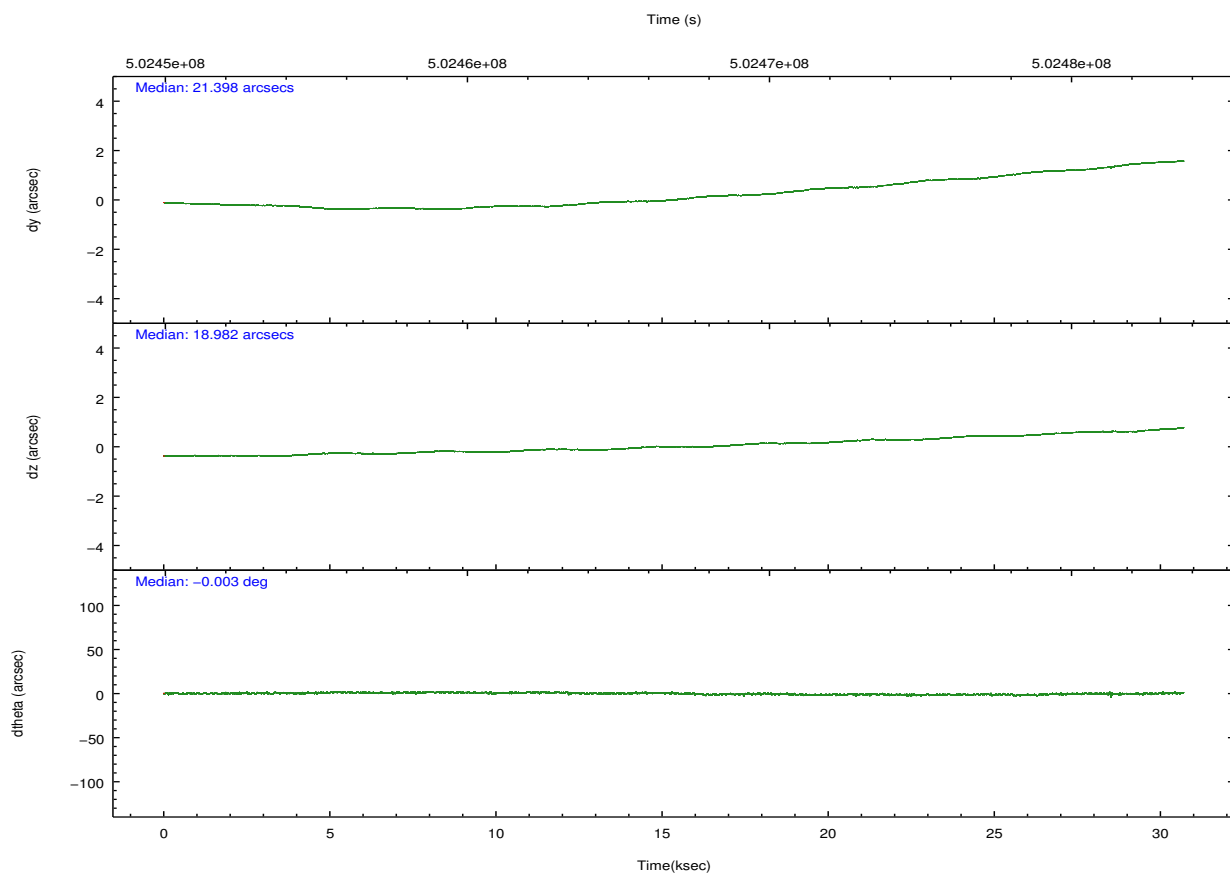
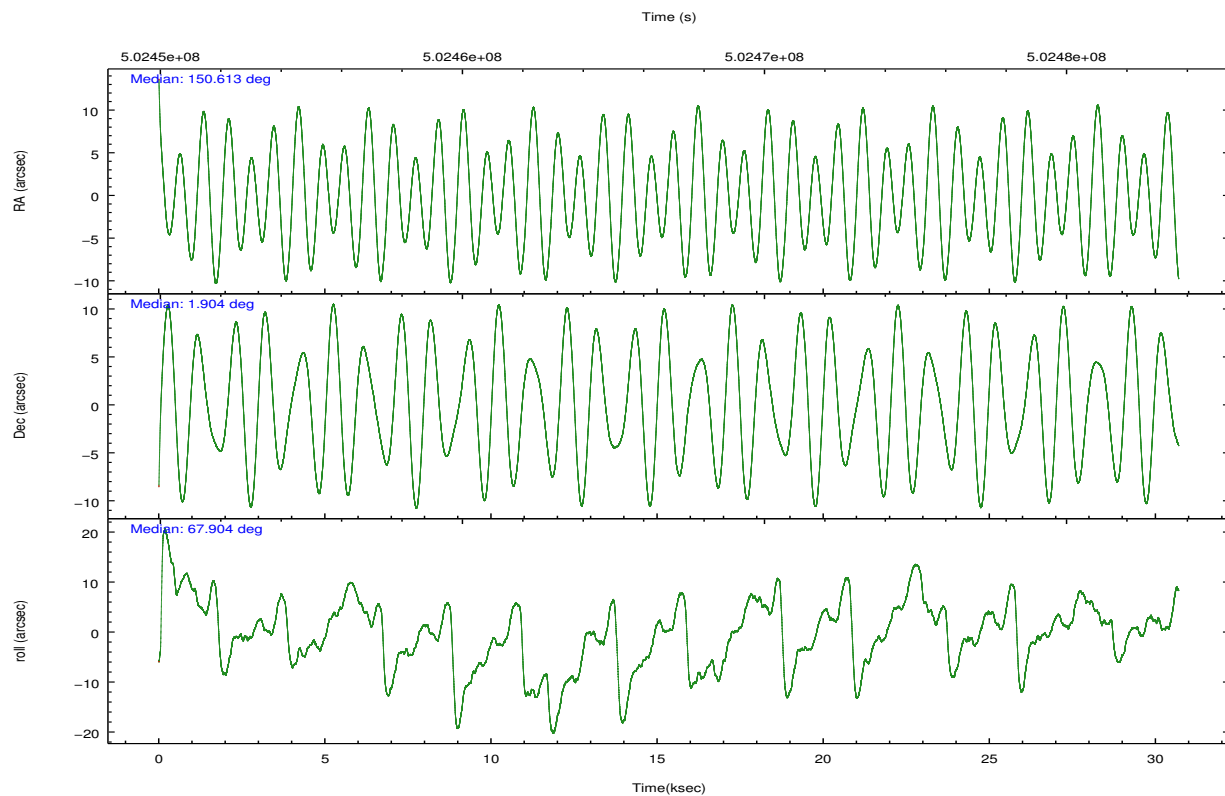
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	5643	6363	5907	5431
	4%	4%	4%	4%
grade 1 events	63	59	80	81
	0%	0%	0%	0%
grade 2 events	4185	4575	4003	3583
	3%	3%	2%	2%
grade 3 events	1695	1803	1610	1653
	1%	1%	1%	1%
grade 4 events	1612	1739	1658	1723
	1%	1%	1%	1%
grade 5 events	6632	6907	6175	7594
	5%	5%	4%	5%
grade 6 events	3516	4031	3222	3408
	2%	3%	2%	2%
grade 7 events	100562	102974	114472	110615
	81%	80%	83%	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	150.616873	150.6129914329025	Subarray requested	NONE	NONE
[deg] Pointing Dec	1.876901	1.904134225412946	Alternating exposures requested	N	N
[deg] Pointing Roll	67.700246	67.90904985521156	[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)	502452188.184000	502450726.54587			
Observation start date	2013-12-03T10:02:01	2013-12-03T09:38:46			
[s] Observation end time (MET)	502482188.184000	502482876.69765			
Observation end date	2013-12-03T18:22:01	2013-12-03T18:34:36			
Read mode	TIMED	TIMED			

## 2.3 Aspect



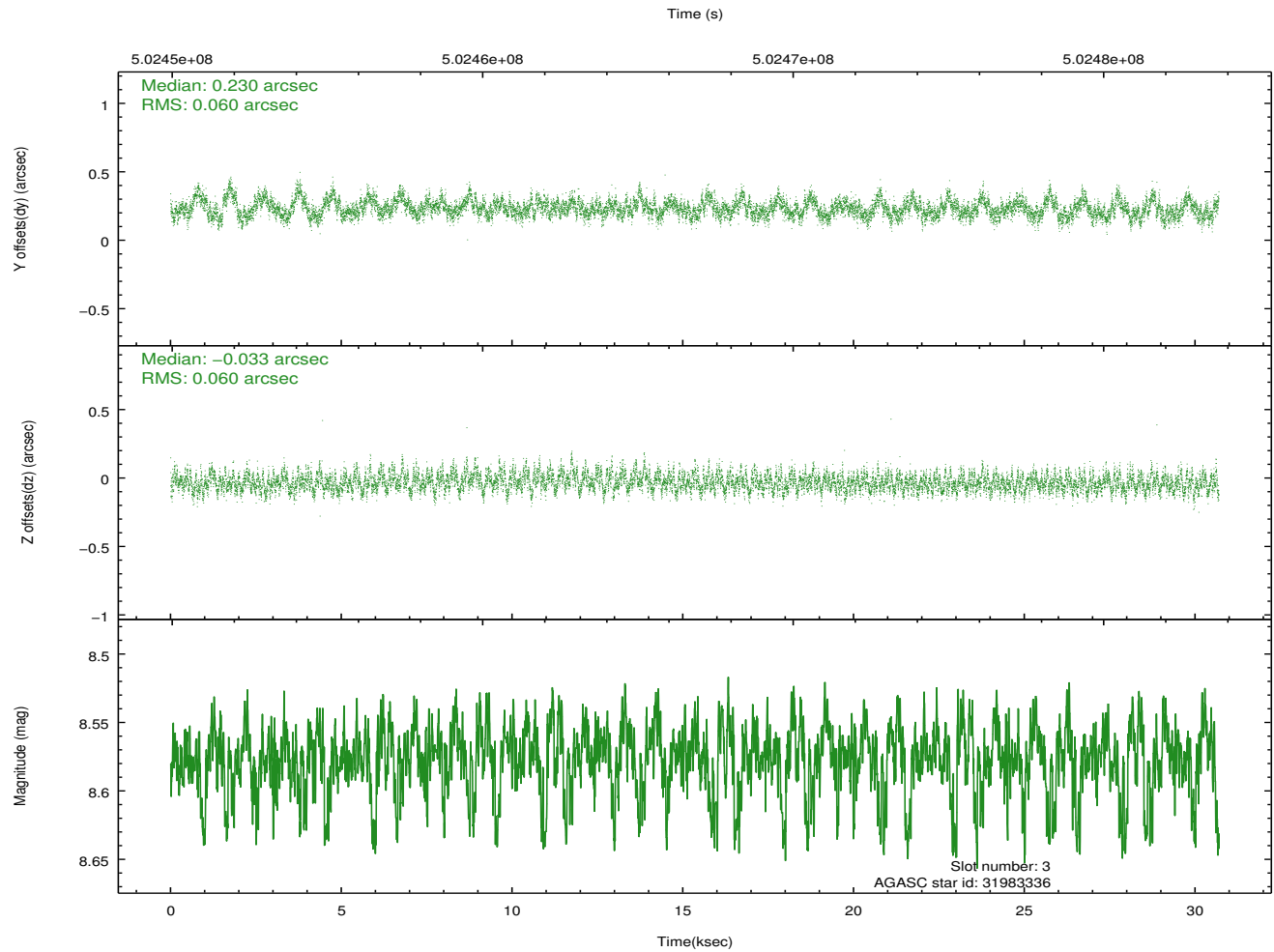
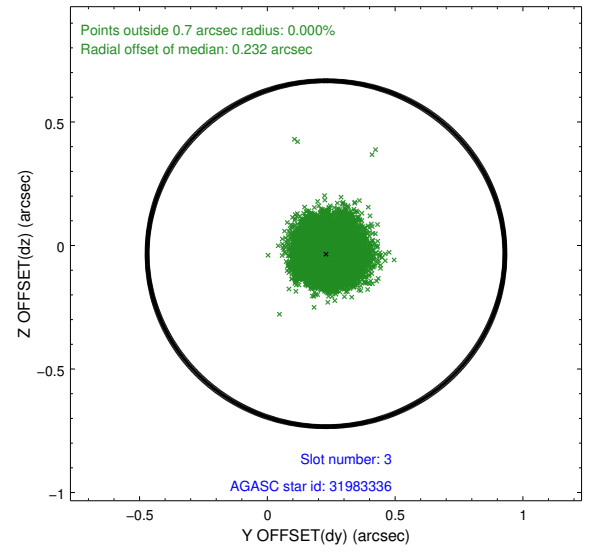
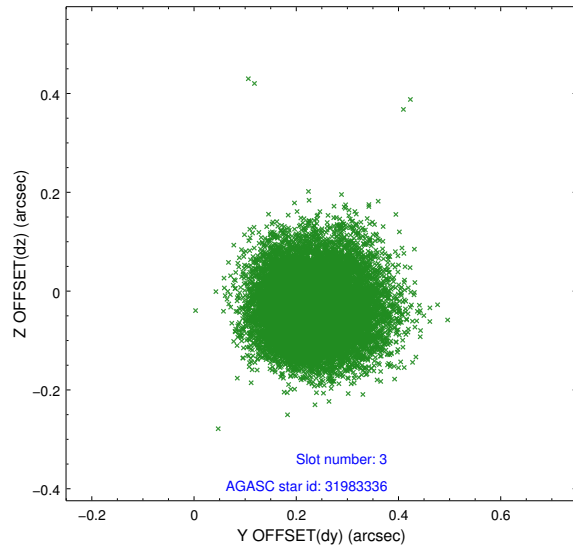


### Slot Statistics

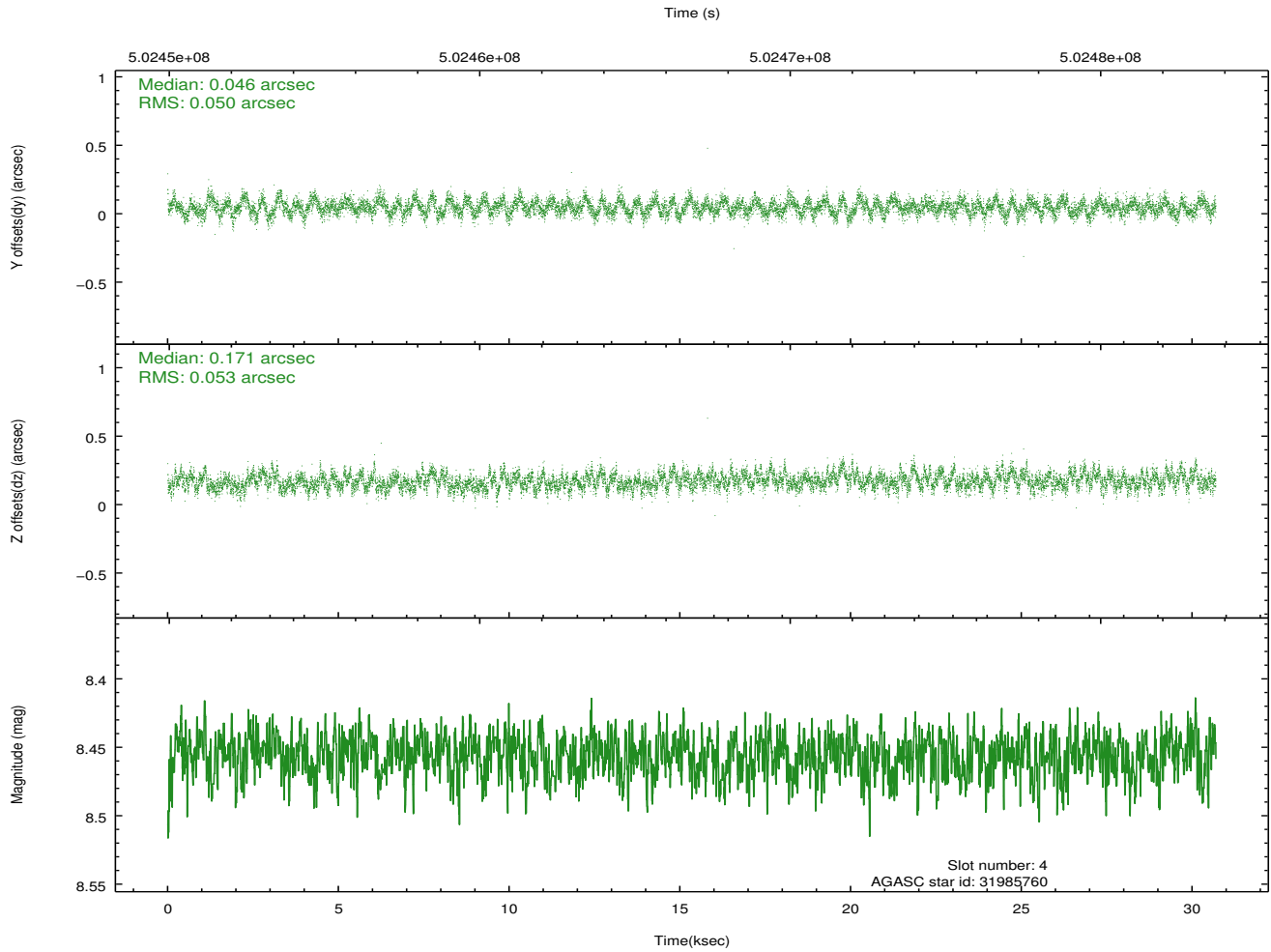
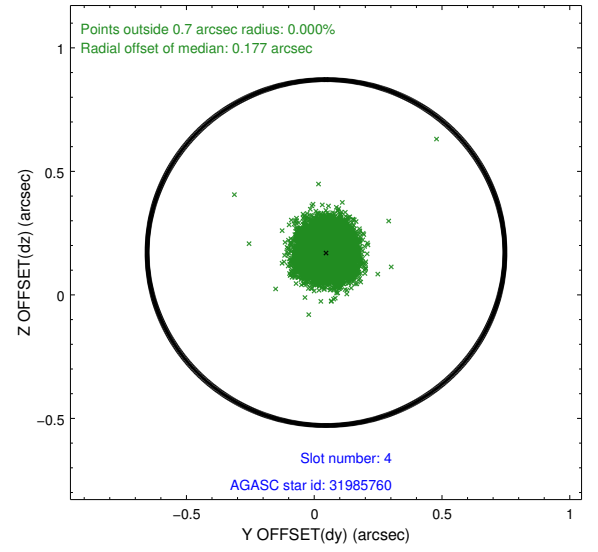
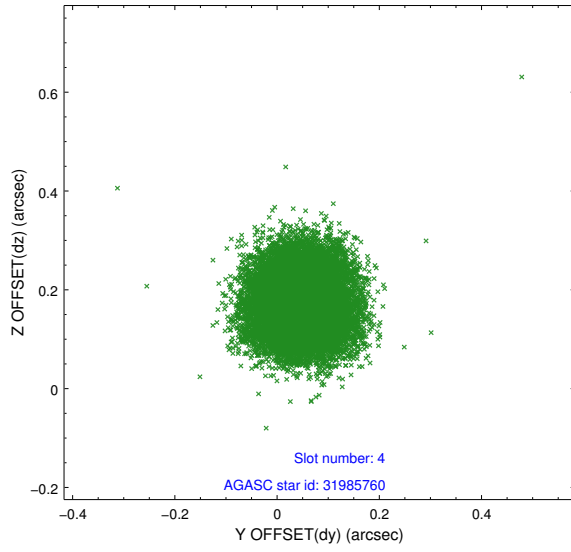
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-2	6.99	7487	0.008	-0.061	0.014	0.022	0.000000	0.000000	-776.54	-849.17
1	FID		ACIS-I-5	7.08	7487	-0.241	0.053	0.012	0.021	0.000000	0.000000	-1830.94	1054.74
2	FID		ACIS-I-6	7.08	7487	0.138	0.074	0.010	0.031	0.000000	0.000000	383.19	1699.38
3	GUIDE	used	31983336	8.57	14971	0.230	-0.033	0.090	0.146	150.429924	2.291234	1125.47	1188.34
4	GUIDE	used	31985760	8.46	14965	0.046	0.171	0.078	0.125	150.924581	2.094394	1144.74	-726.53
5	GUIDE	used	31986152	9.00	14967	0.058	0.071	0.142	0.226	150.840314	2.057585	907.14	-496.20
6	GUIDE	used	32374896	9.20	14962	-0.230	0.016	0.162	0.235	150.682269	2.512794	2207.21	651.12
7	GUIDE	used	32375384	9.93	14596	-0.116	-0.234	0.148	0.236	150.238117	2.622063	1965.43	2279.10

## 2.4 Star Slots

### 2.4.1 Slot 3

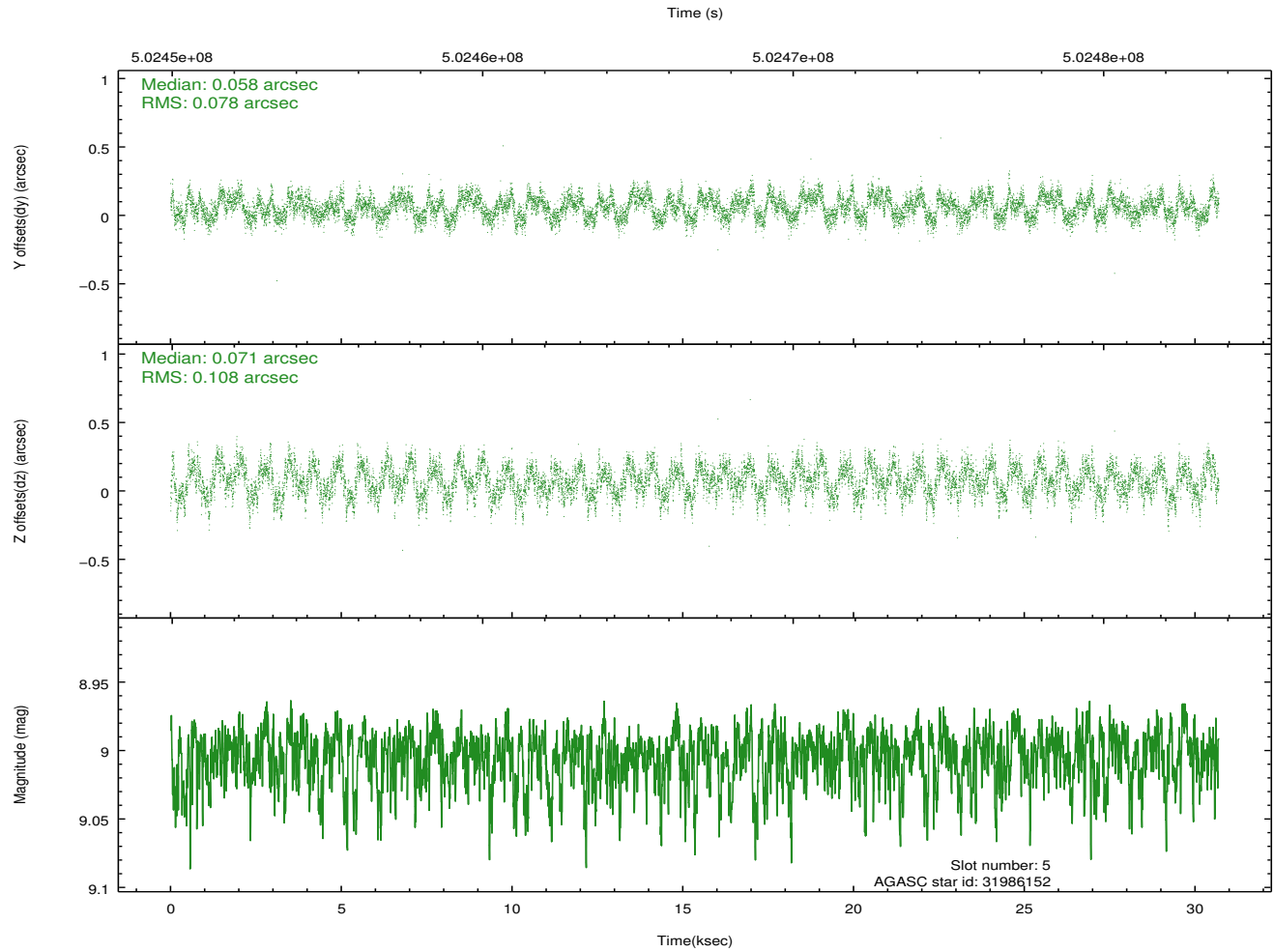
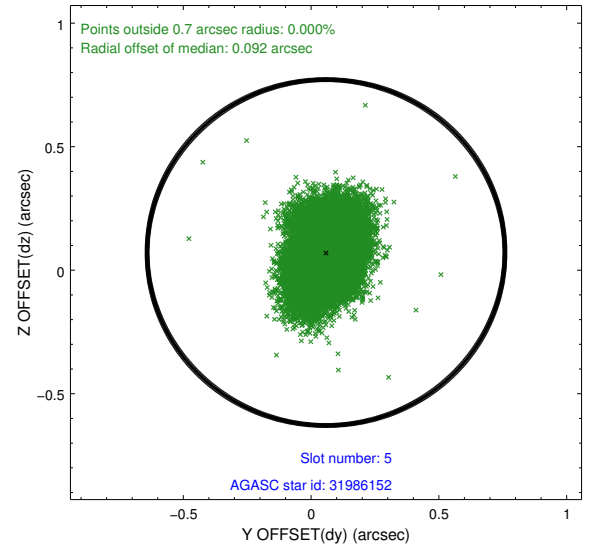
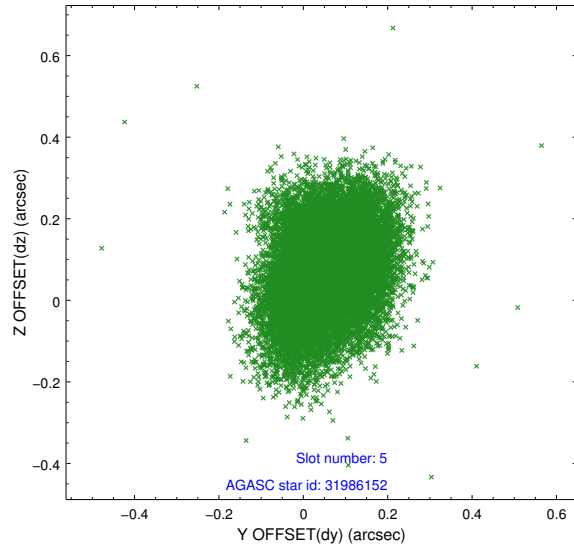


## 2.4.2 Slot 4

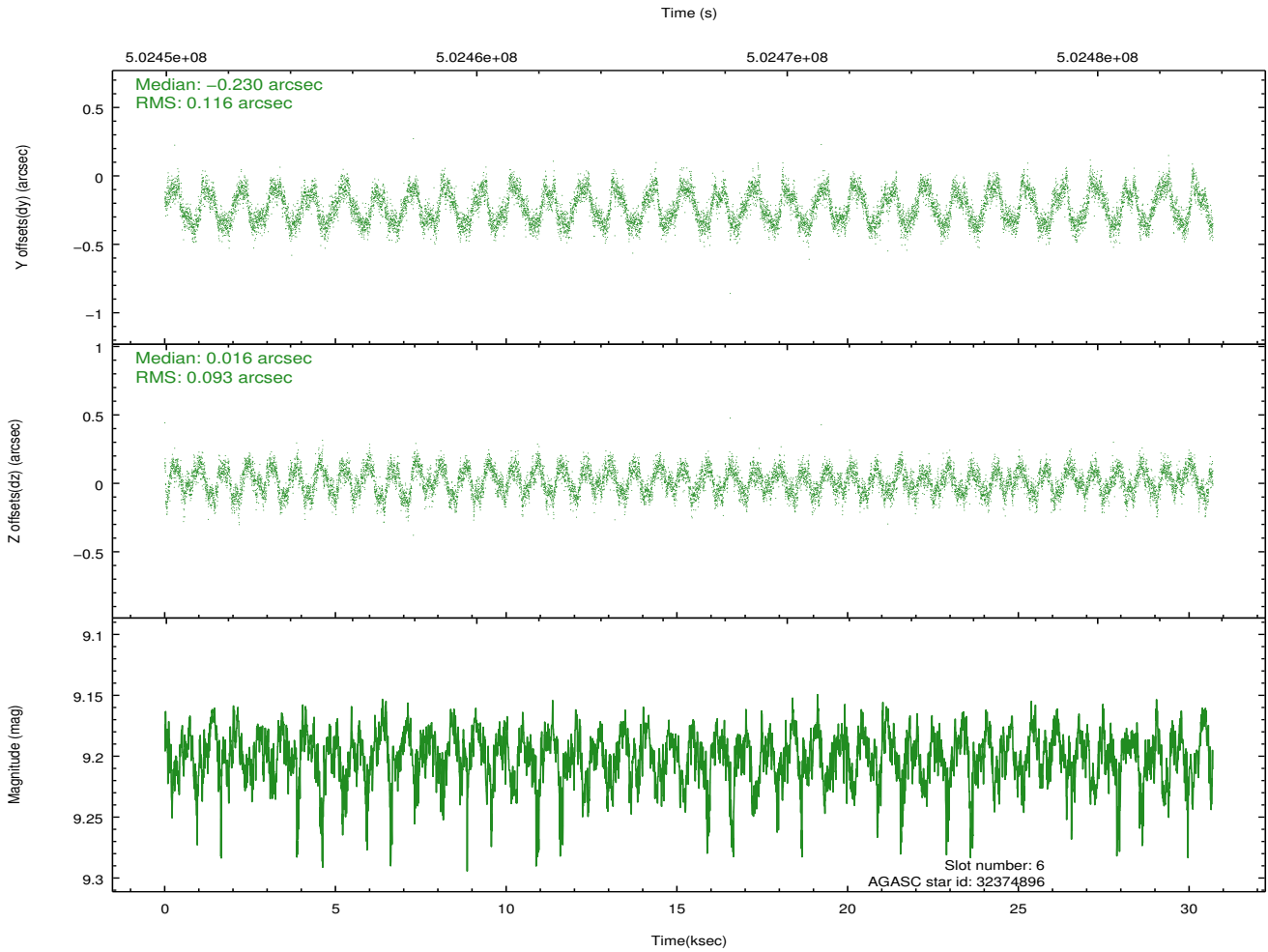
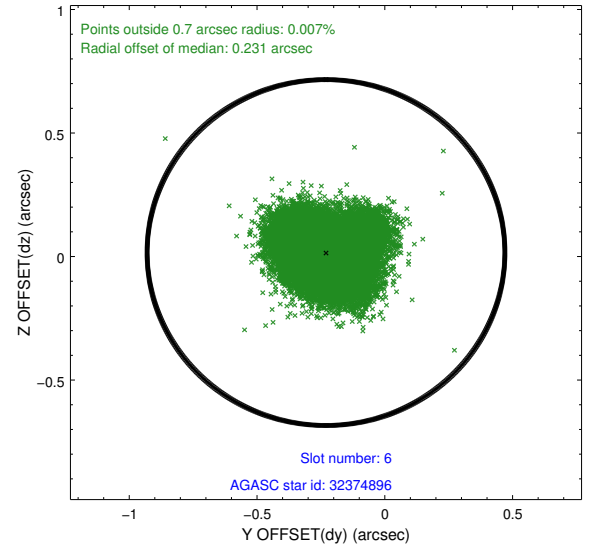
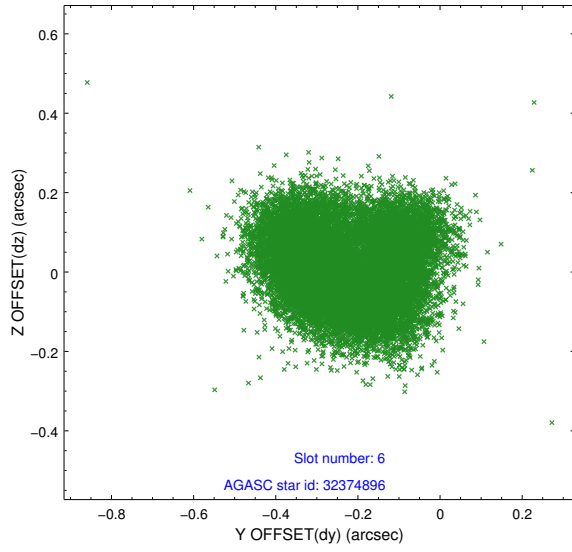




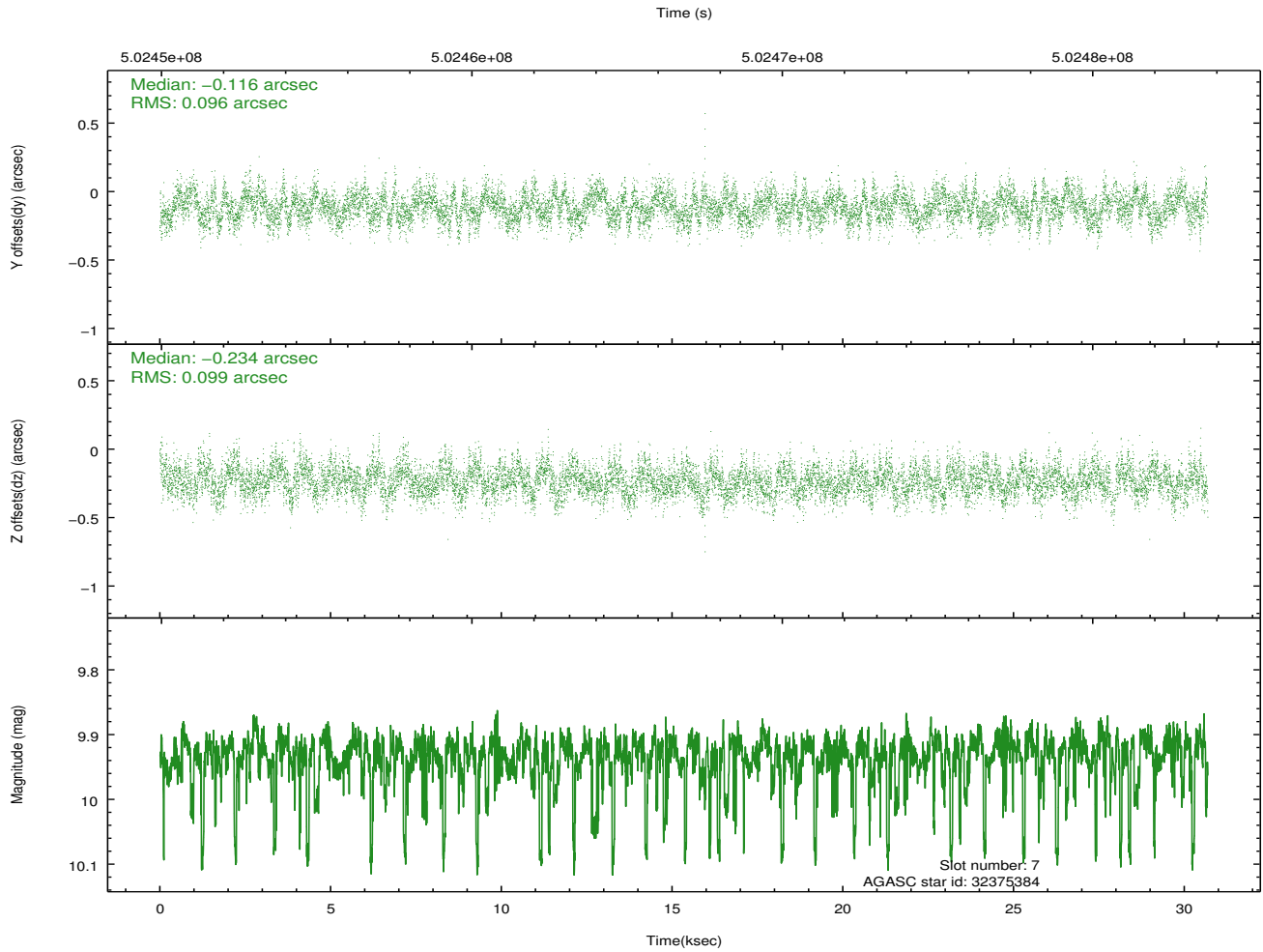
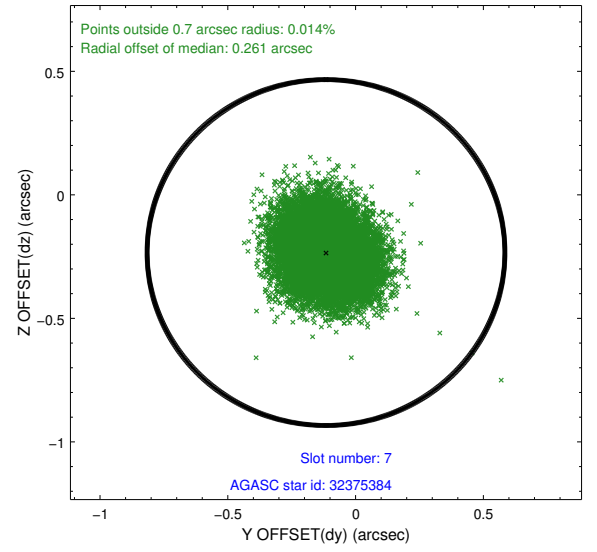
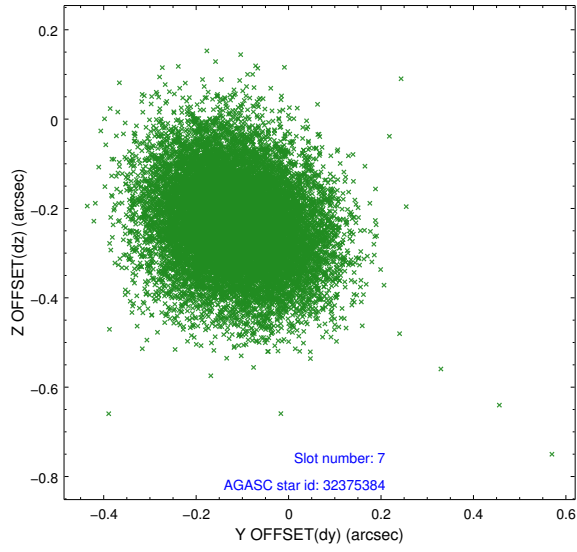
### 2.4.3 Slot 5



## 2.4.4 Slot 6

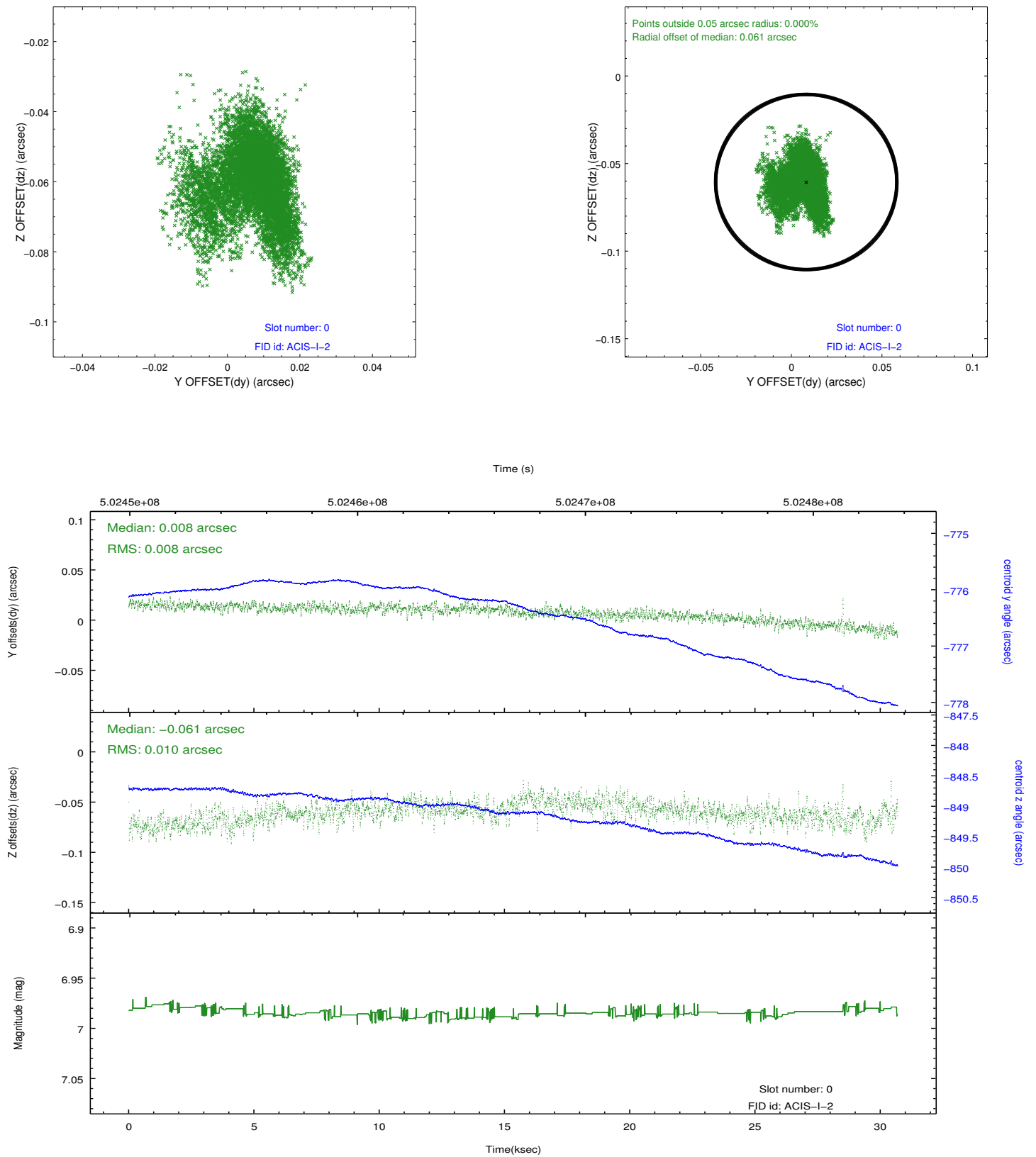


## 2.4.5 Slot 7

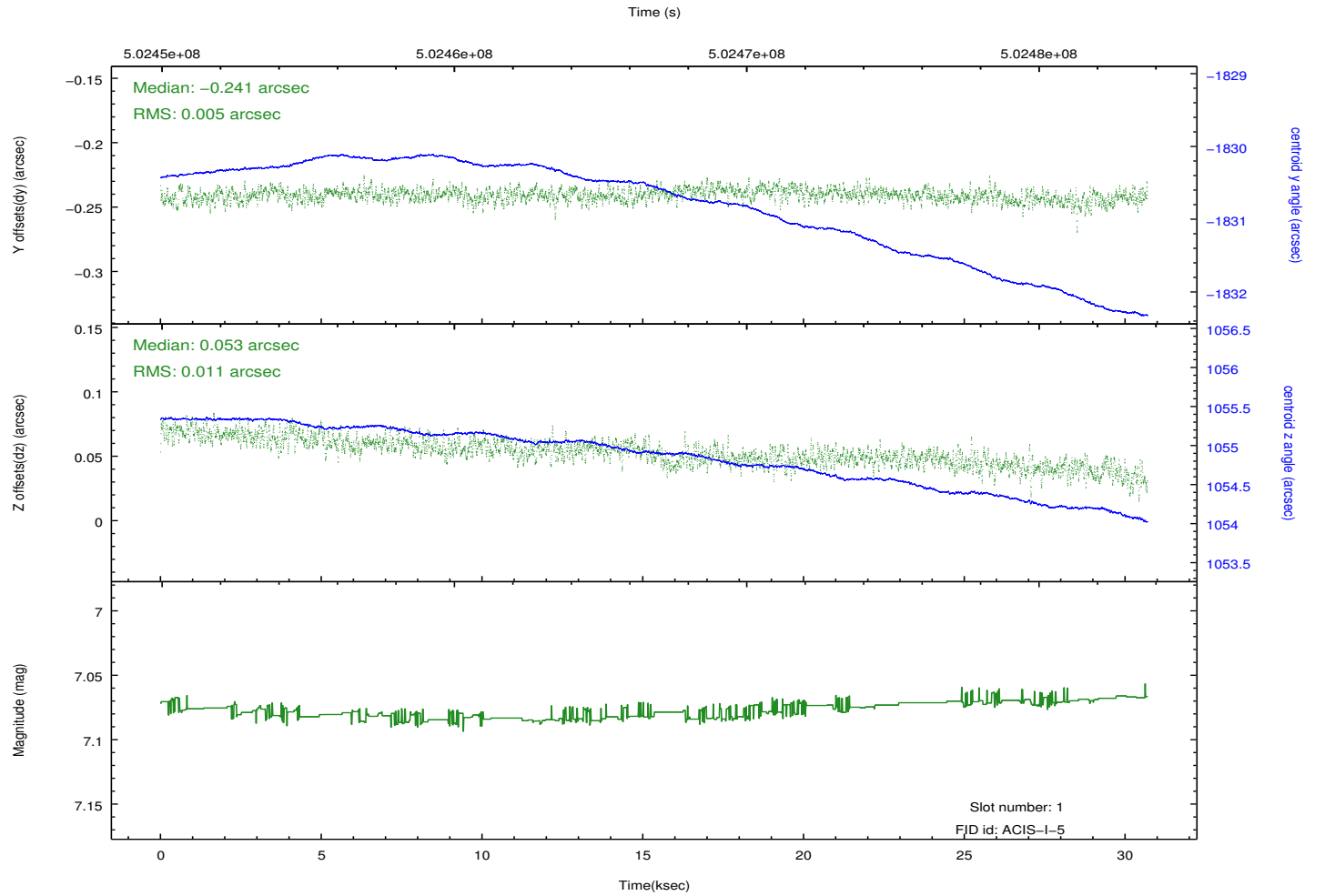
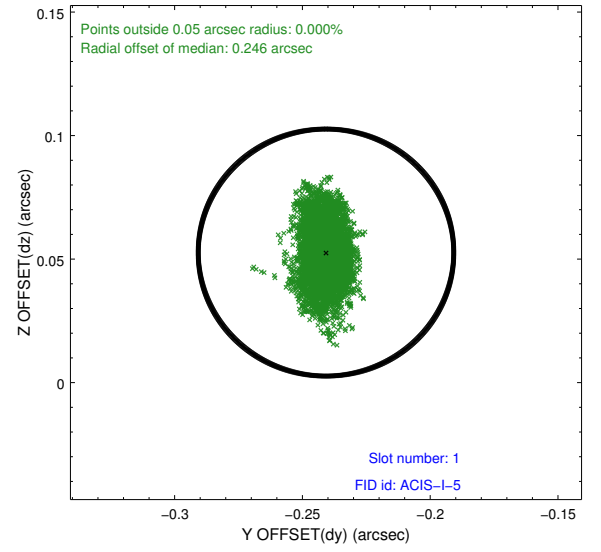
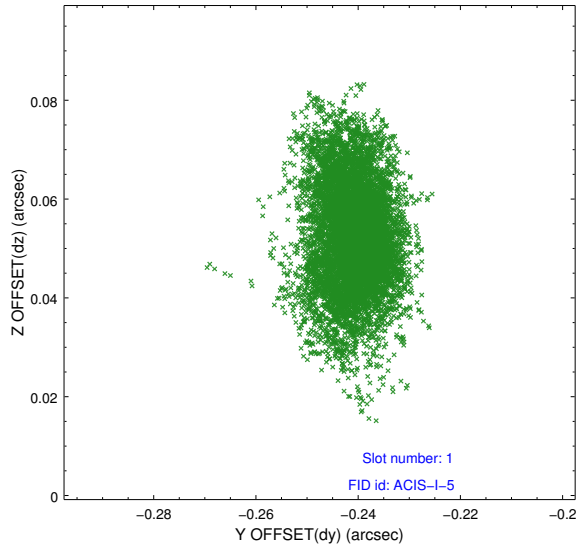


## 2.5 FID Slots

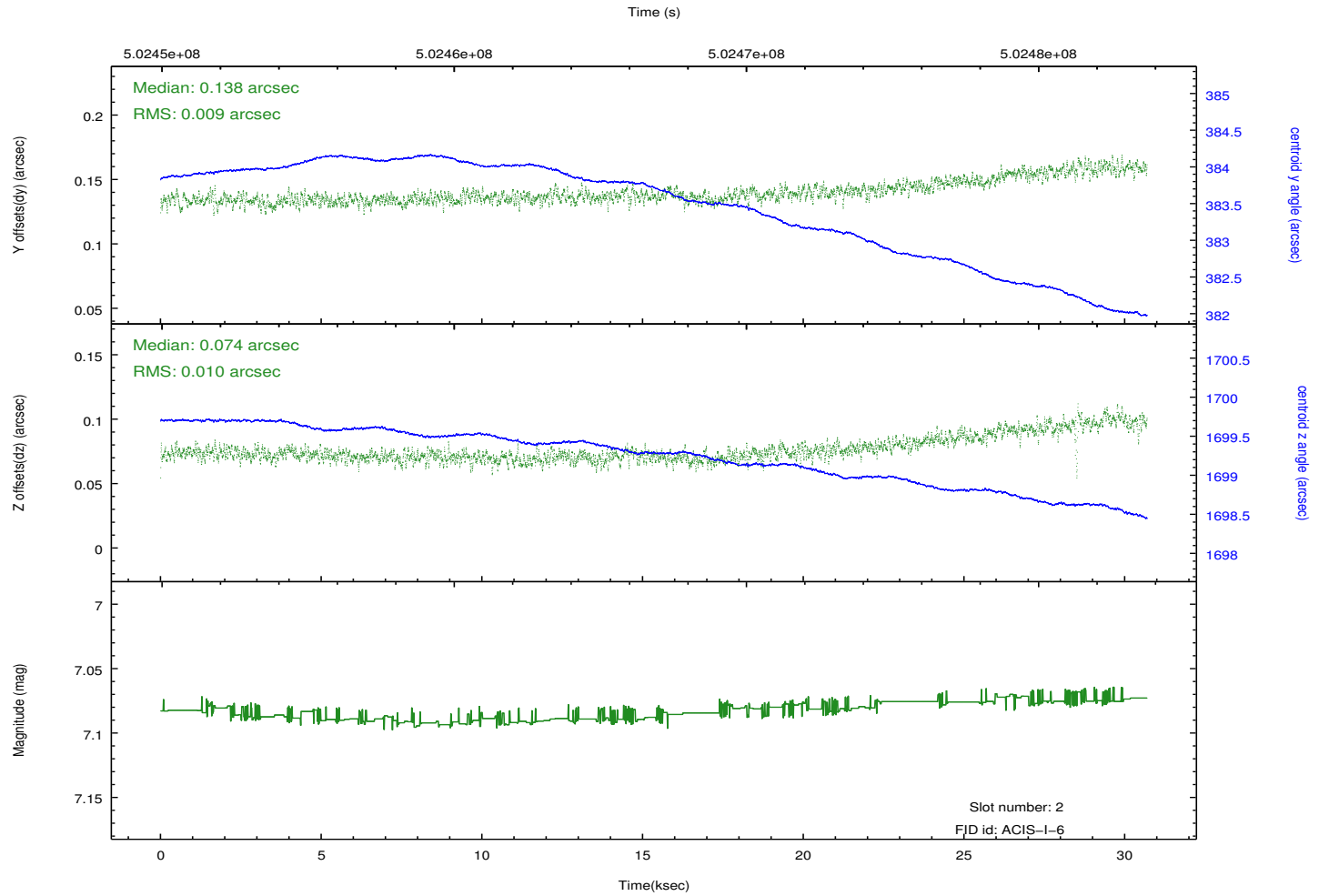
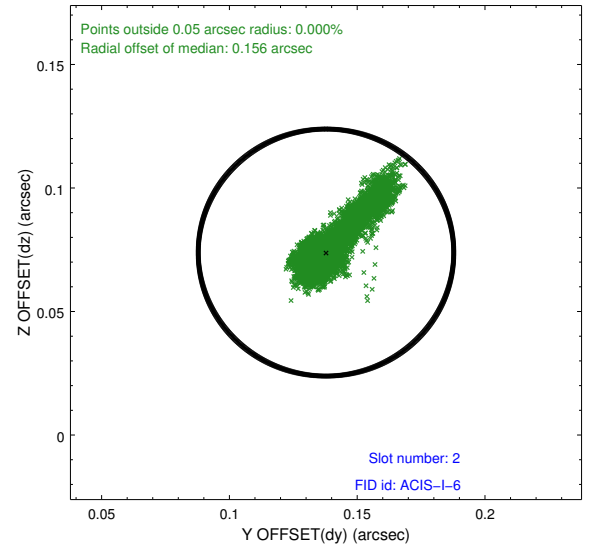
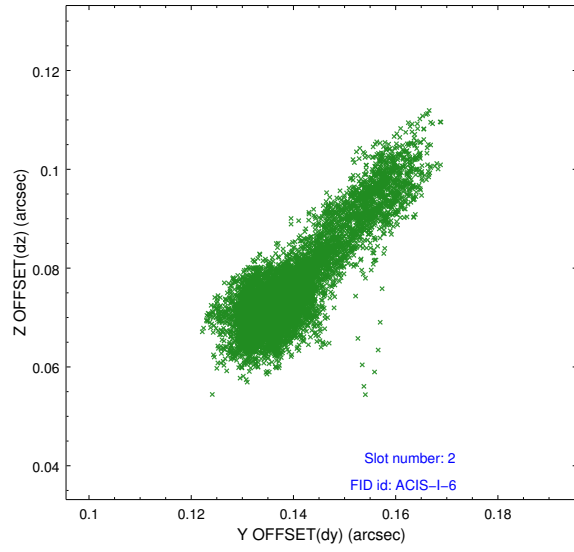
### 2.5.1 Slot 0



## 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	30.094800231457

## 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.