

# V&V Reference Report

## L2 ASCDS Version : 10.2.1

Observation 16599 - L2 Version 2  
Chandra X-Ray Center

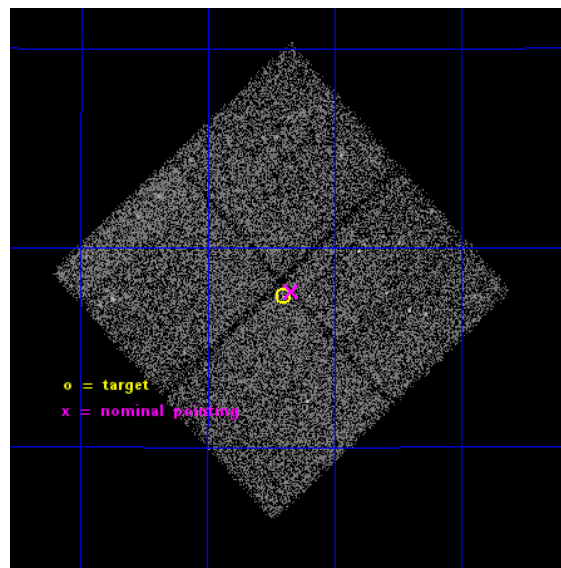
L2 Processing Date : Dec 10 2014

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# 1 Front

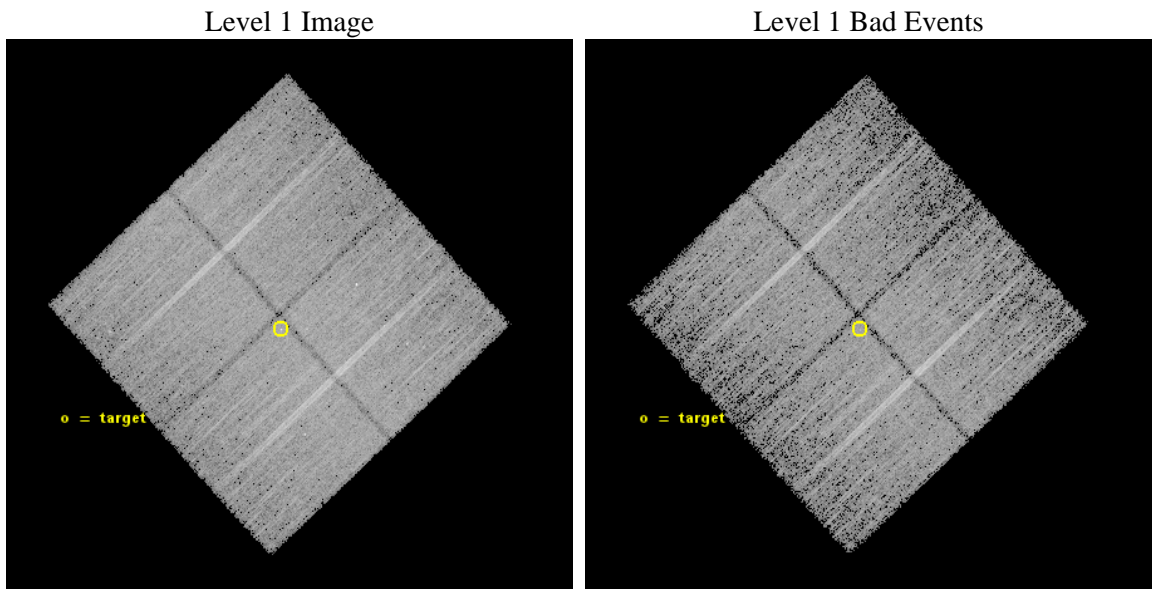
seq_num	702831	Sequence number
obs_id	16599	Observation id
title	Feedback in 3C 277.3	Proposal title
observer	Dr Andrew Young	Principal investigator
object	3C 277.3	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	193.55	Observer's specified target RA [deg]
dec_targ	27.626111	Observer's specified target Dec [deg]
ra_nom	193.54240152892	Nominal RA [deg]
dec_nom	27.630199075153	Nominal Dec [deg]
roll_nom	137.21221873695	Nominal Roll [deg]
revision	2	Processing version of data
ontime	29093.500223756	Sum of GTIs [s]
livetime	28713.372225009	Livetime [s]
ontime0	29093.500223756	Sum of GTIs [s]
ontime1	29093.500223756	Sum of GTIs [s]
ontime2	29080.936062157	Sum of GTIs [s]
ontime3	29093.500223756	Sum of GTIs [s]
l2events	55268	Number of level 2 events



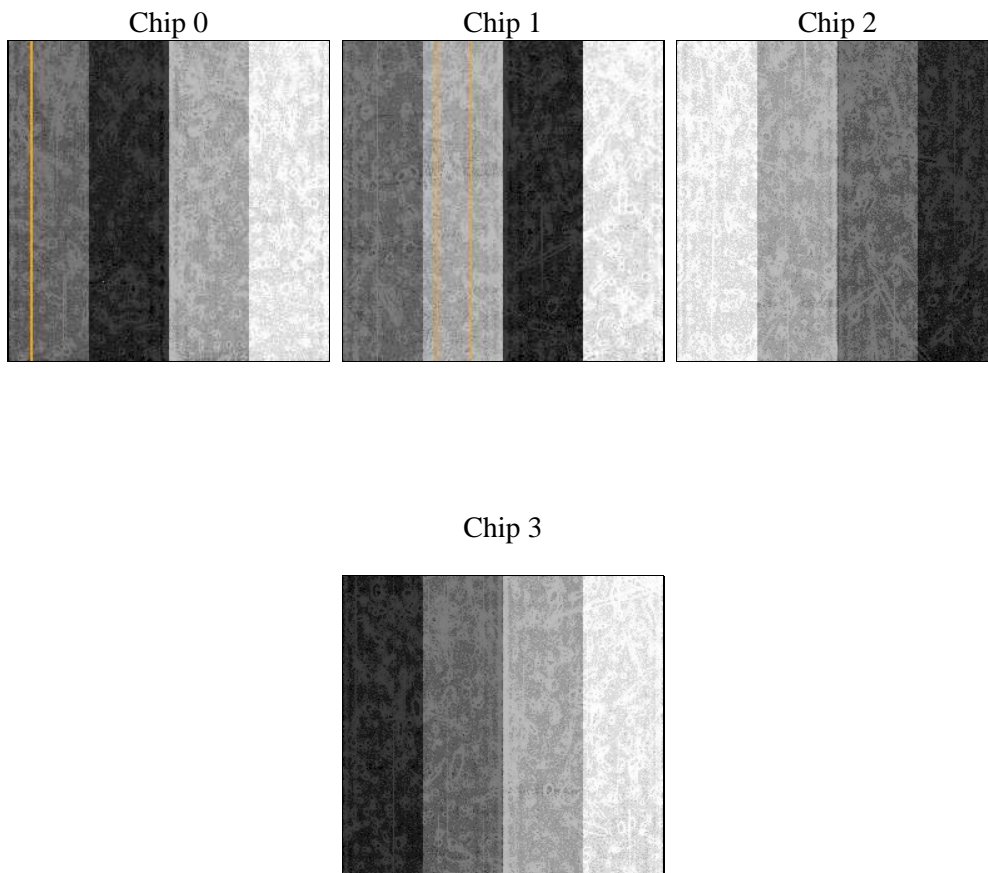
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	29000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	29093.500223756	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime0	29093.500223756	Sum of GTIs [s]
date	2014-12-10T17:00:16	Date and time of file creation	ontime1	29093.500223756	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	29080.936062157	Sum of GTIs [s]
			ontime3	29093.500223756	Sum of GTIs [s]
			l1events	504876	Number of level 1 events

### 2.1.4 Events

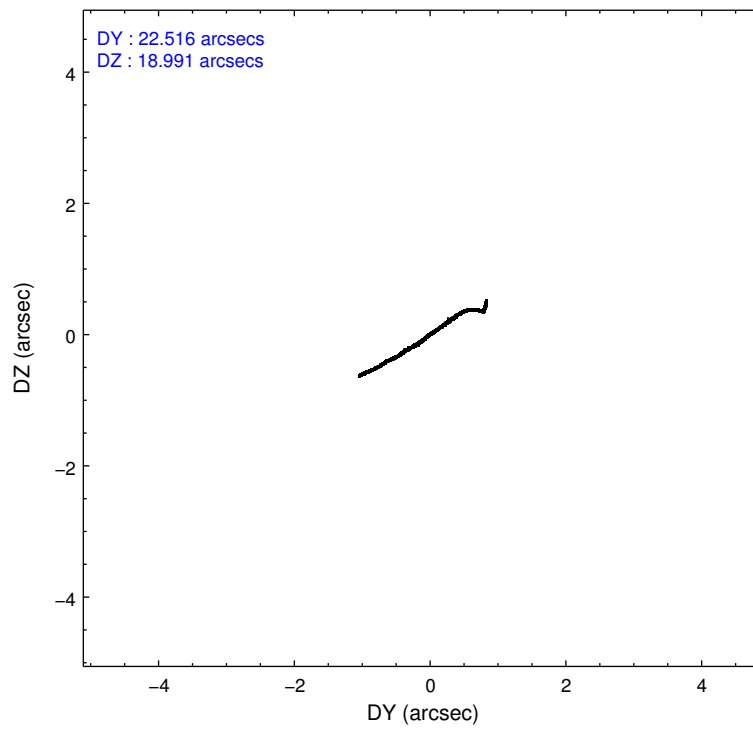
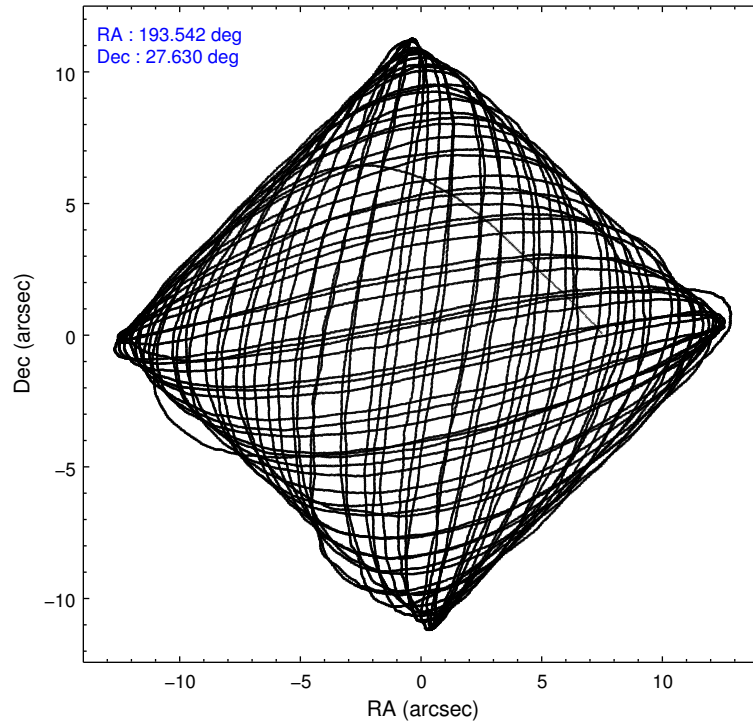
	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	117258	124494	132613	130511
rejected events	101418	106468	116589	115112
rejected %	86%	85%	87%	88%

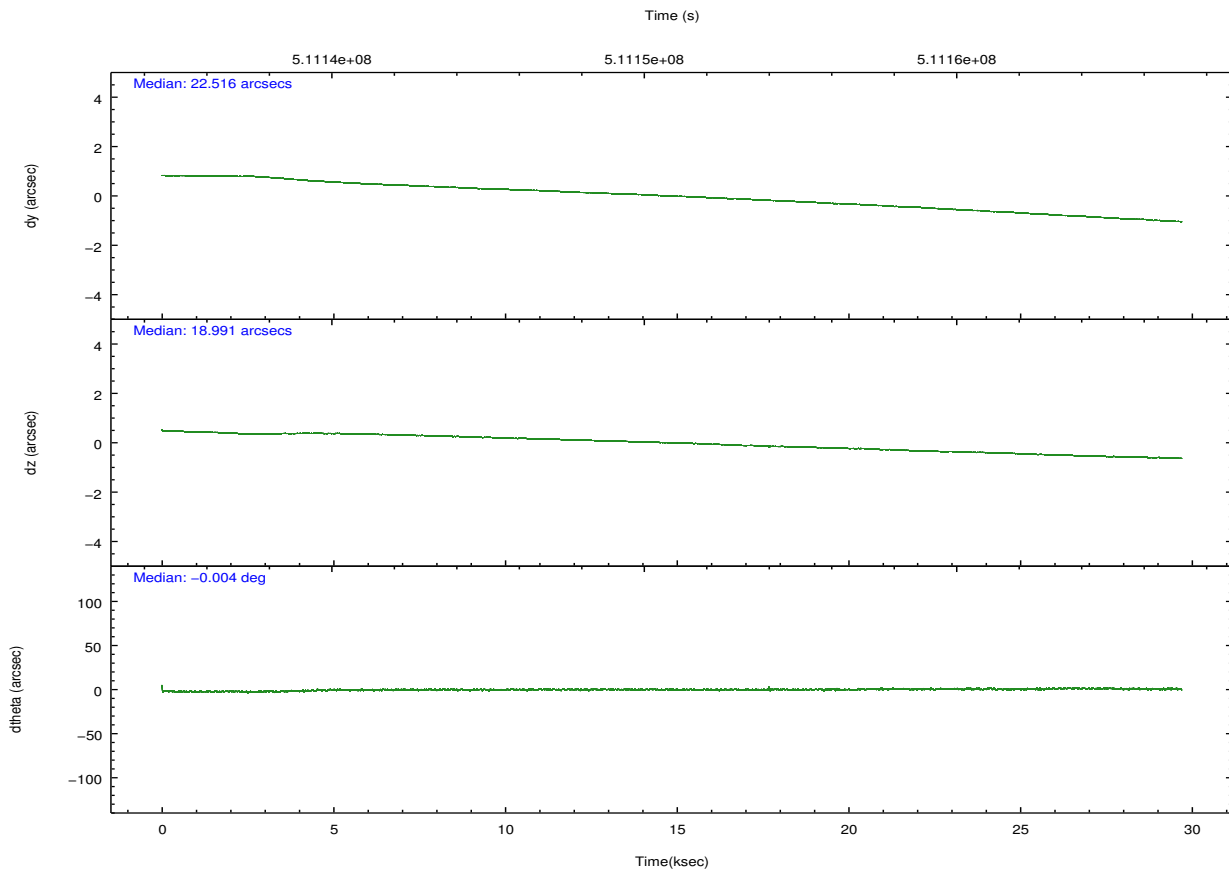
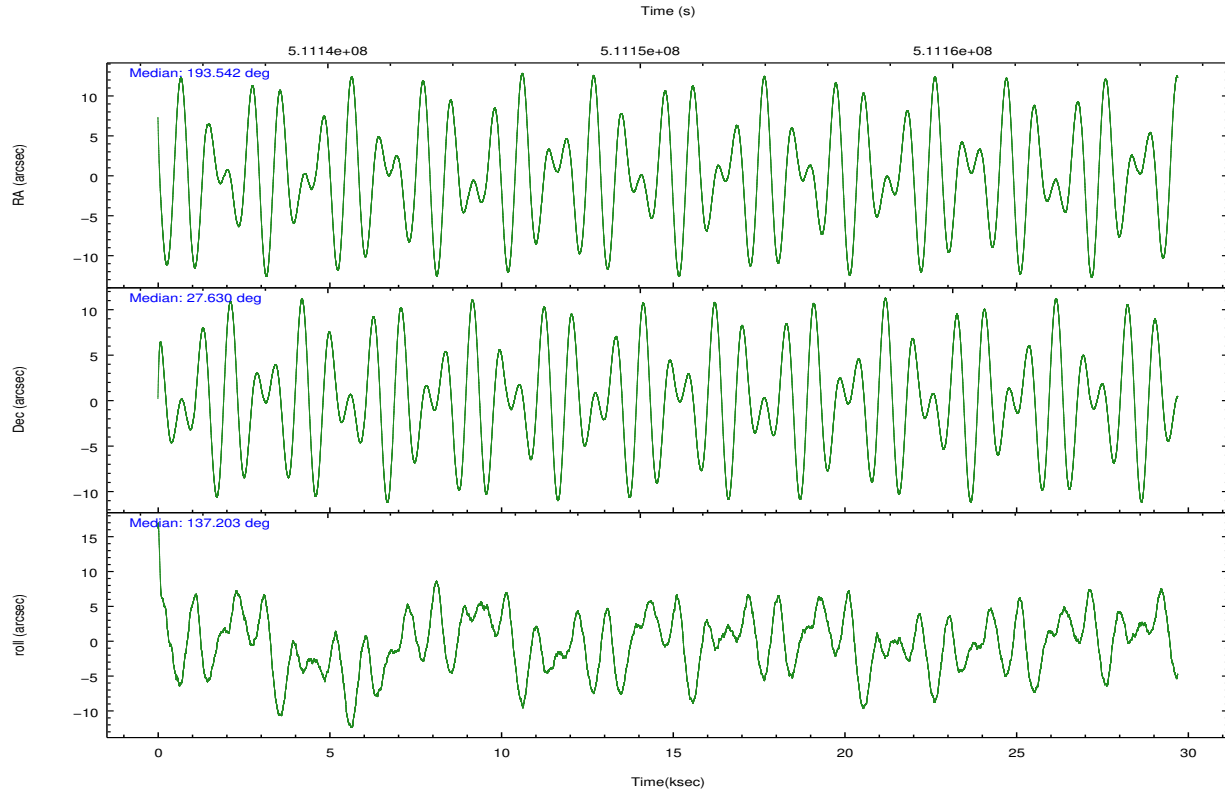
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	5539	6375	6068	5591
	4%	5%	4%	4%
grade 1 events	90	74	76	78
	0%	0%	0%	0%
grade 2 events	3875	4288	3699	3389
	3%	3%	2%	2%
grade 3 events	1625	1741	1582	1659
	1%	1%	1%	1%
grade 4 events	1489	1746	1607	1596
	1%	1%	1%	1%
grade 5 events	6223	6531	5987	7101
	5%	5%	4%	5%
grade 6 events	3317	3880	3070	3168
	2%	3%	2%	2%
grade 7 events	95100	99859	110524	107929
	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	193.572698	193.542401528916	Subarray requested	NONE	NONE
[deg] Pointing Dec	27.624219	27.63019907515284	Alternating exposures requested	N	N
[deg] Pointing Roll	136.989471	137.2122187369468	[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	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	511136722.184000	511134914.98584			
Observation start date	2014-03-13T22:24:15	2014-03-13T21:55:14			
[s] Observation end time (MET)	511165722.184000	511166355.32508			
Observation end date	2014-03-14T06:27:35	2014-03-14T06:39:15			
Read mode	TIMED	TIMED			

## 2.3 Aspect





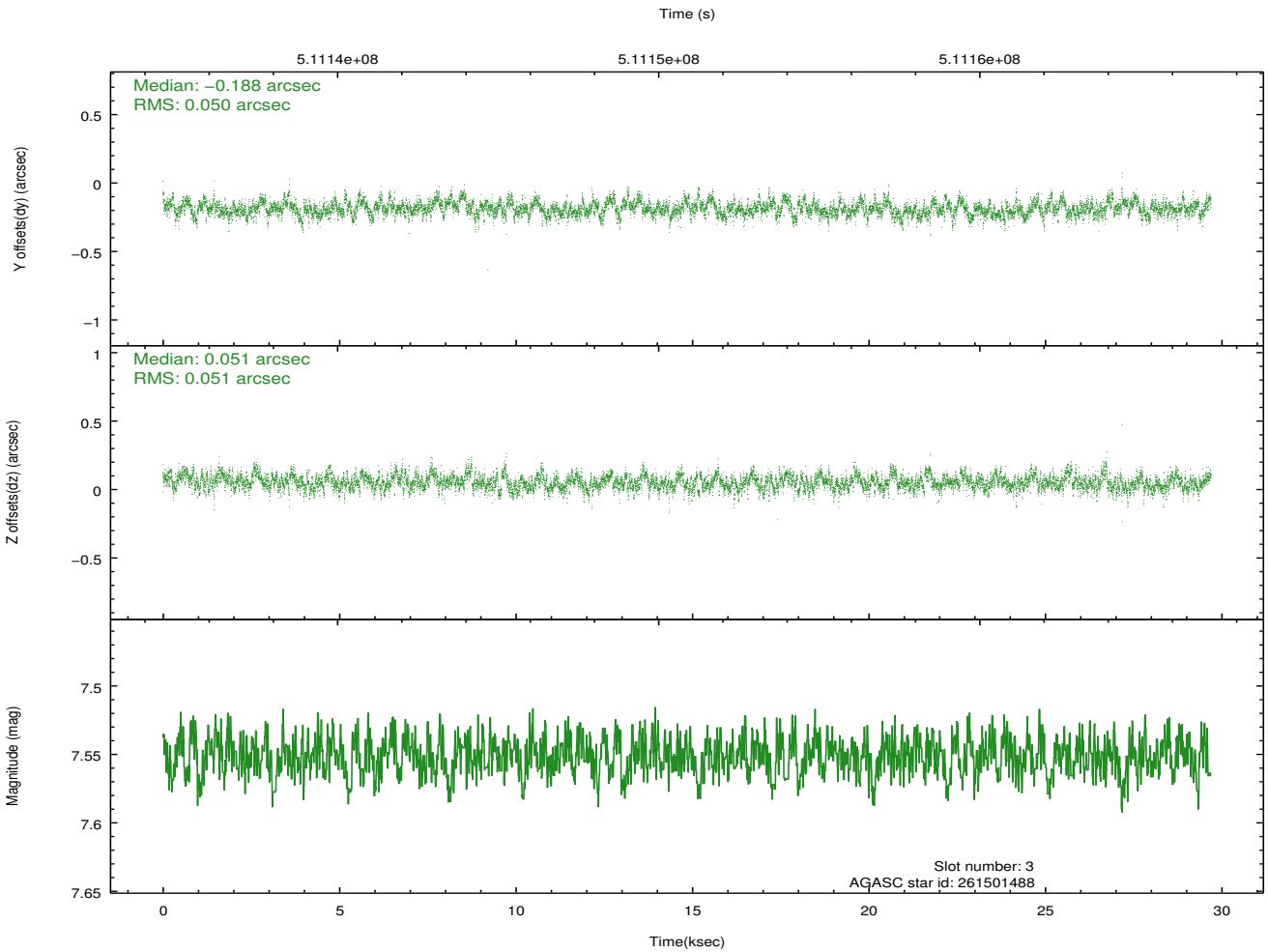
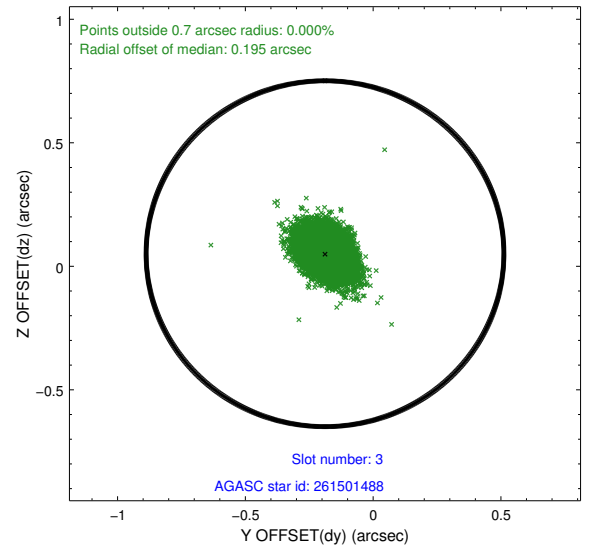
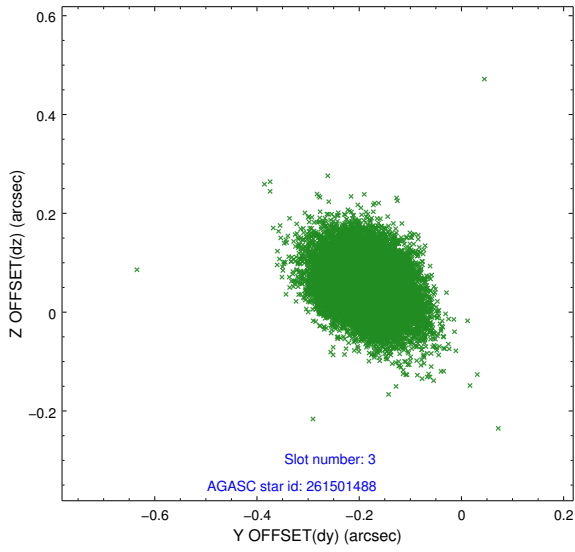
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.10	7244	-0.054	0.004	0.010	0.023	0.000000	0.000000	916.76	-842.62
1	FID		ACIS-I-4	7.04	7244	0.304	0.048	0.011	0.027	0.000000	0.000000	2137.12	1057.25
2	FID		ACIS-I-5	7.08	7243	-0.347	0.020	0.013	0.022	0.000000	0.000000	-1831.52	1055.00
3	GUIDE	used	261501488	7.55	14484	-0.188	0.051	0.075	0.123	193.575606	28.449700	2020.99	-2178.82
4	GUIDE	used	261503168	8.58	14484	0.010	0.116	0.102	0.166	193.765545	28.234101	1051.46	-2022.73
5	GUIDE	used	261503592	7.87	14487	0.229	0.059	0.089	0.137	193.784432	27.766358	-143.53	-833.71
6	GUIDE	used	261505808	9.36	14474	0.084	0.226	0.148	0.223	193.710324	27.913269	390.46	-1059.31
7	GUIDE	used	261507448	9.50	14458	-0.123	-0.455	0.152	0.246	192.816574	27.341077	1078.04	2389.19

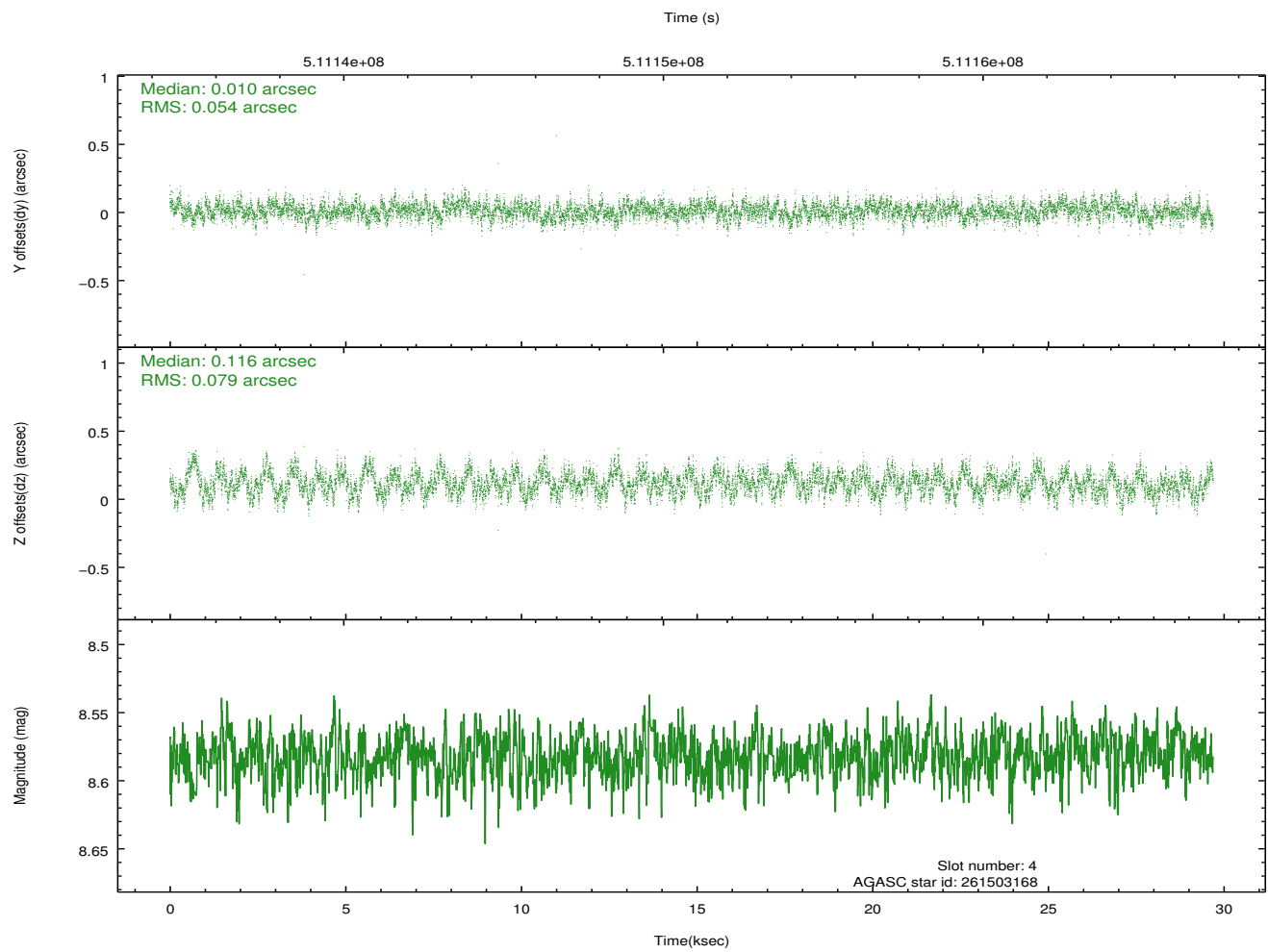
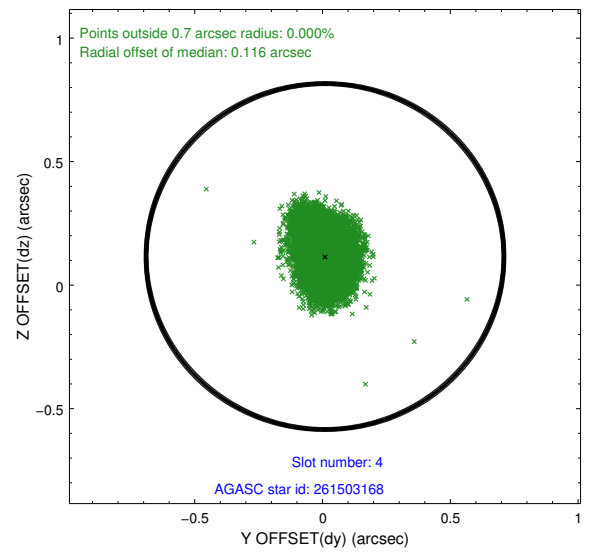
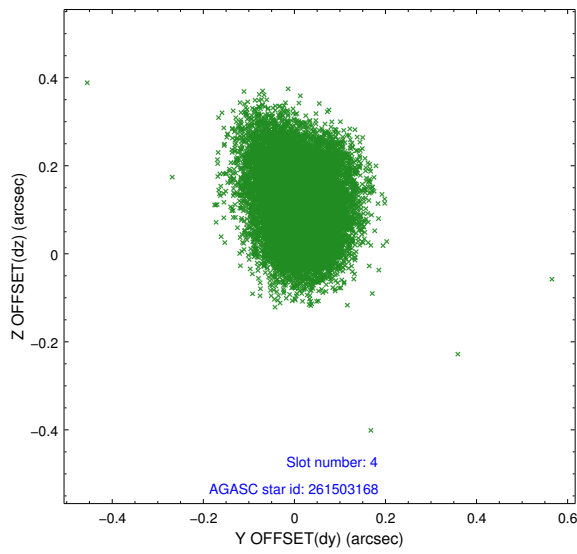
∞

## 2.4 Star Slots

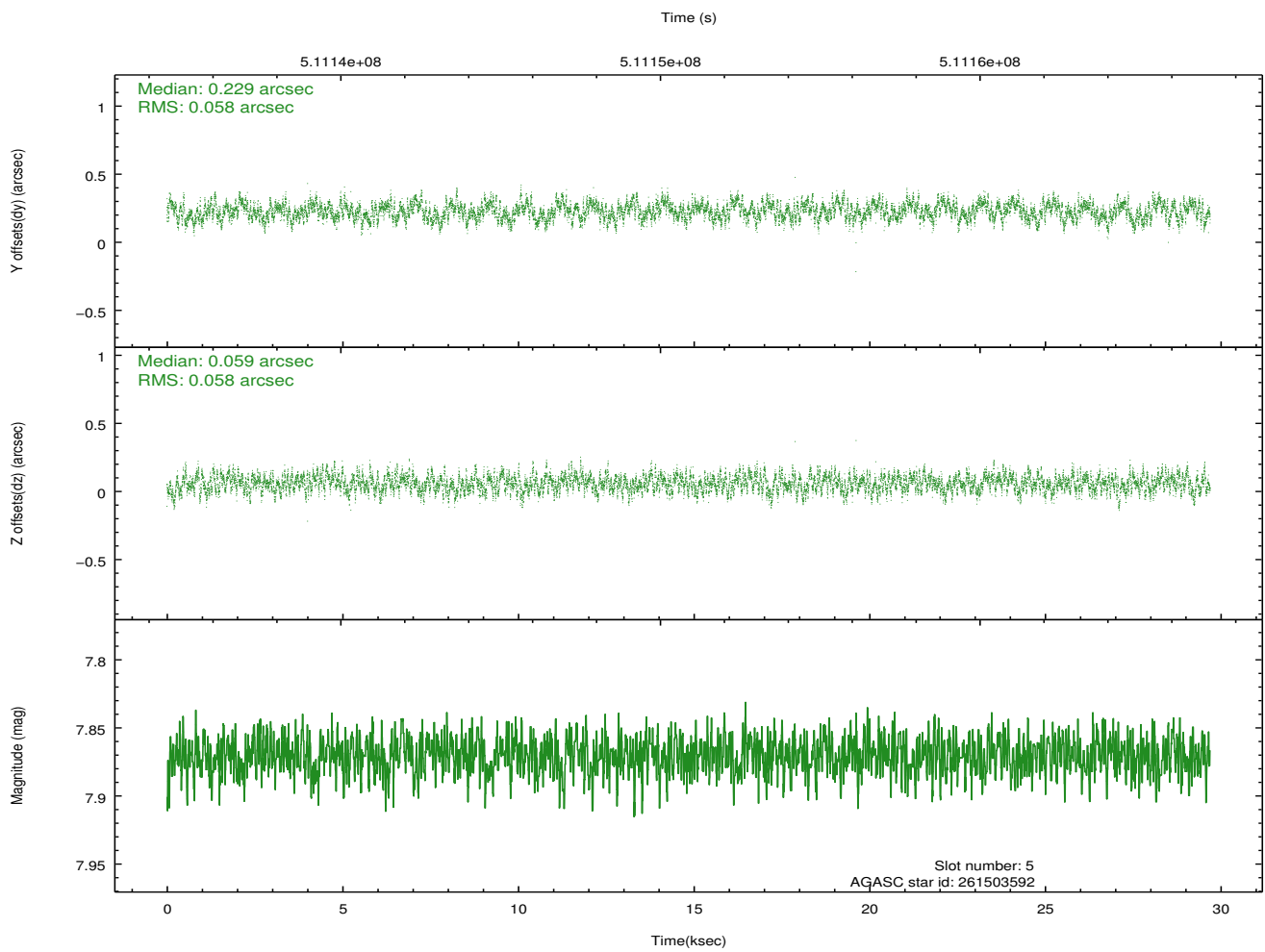
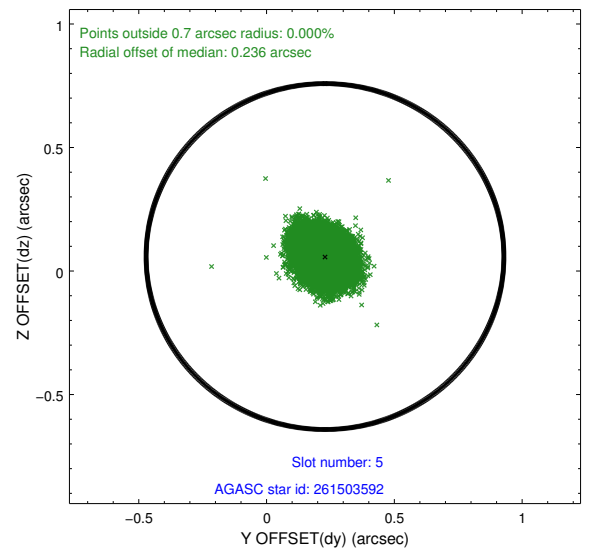
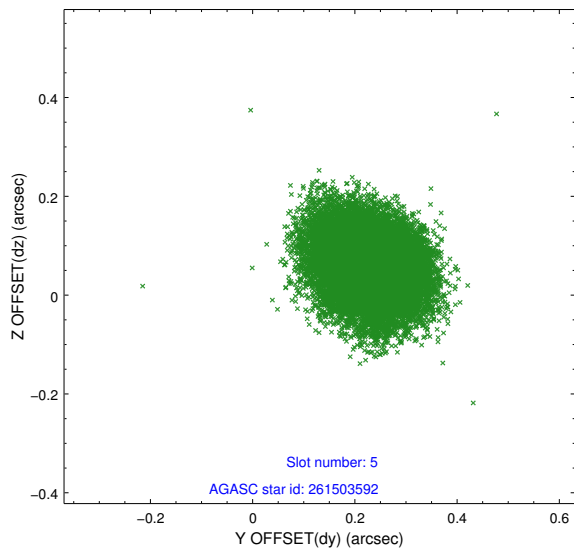
### 2.4.1 Slot 3



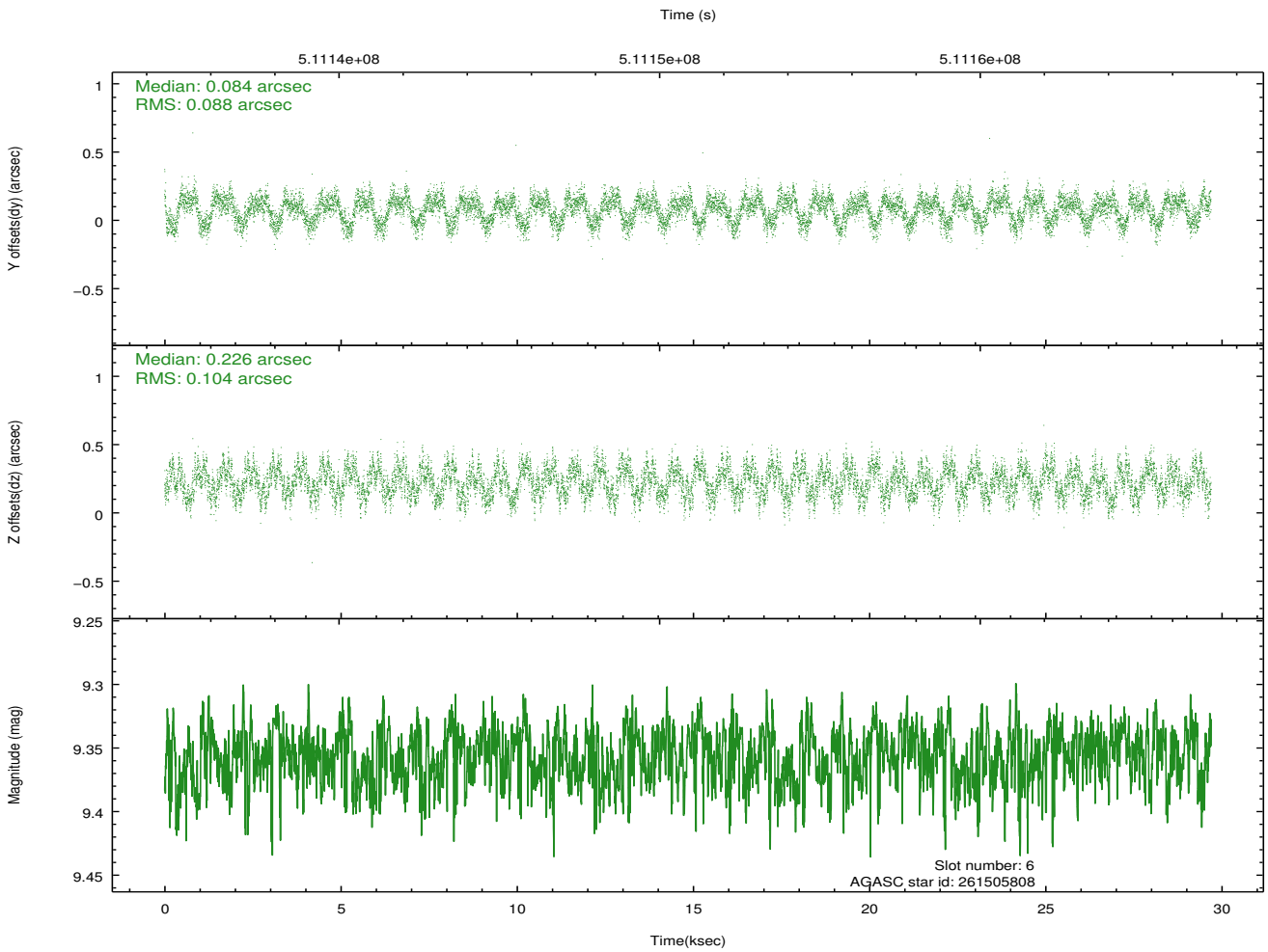
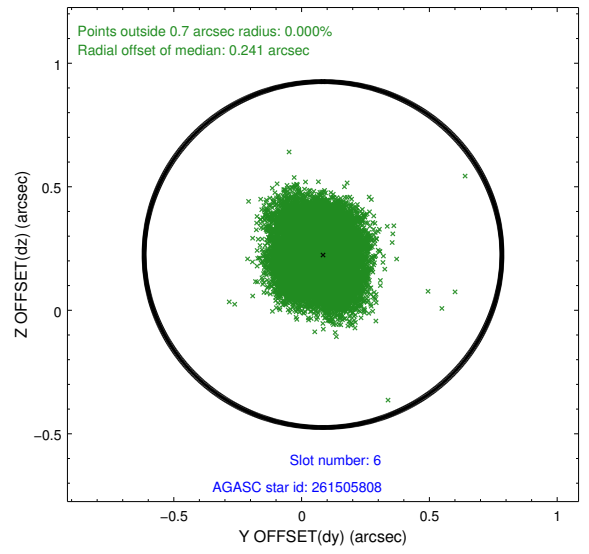
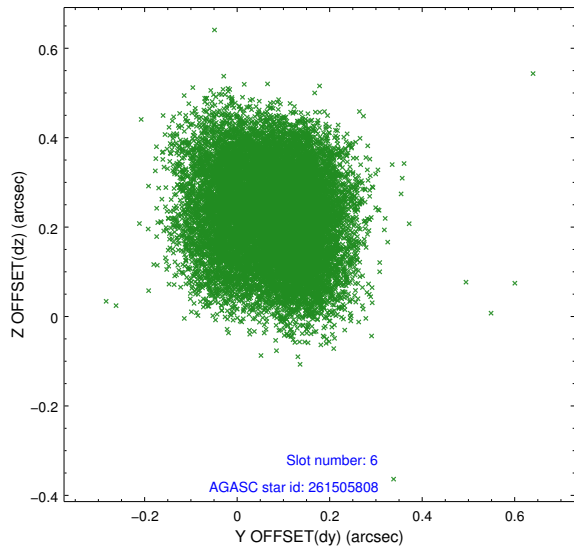
## 2.4.2 Slot 4



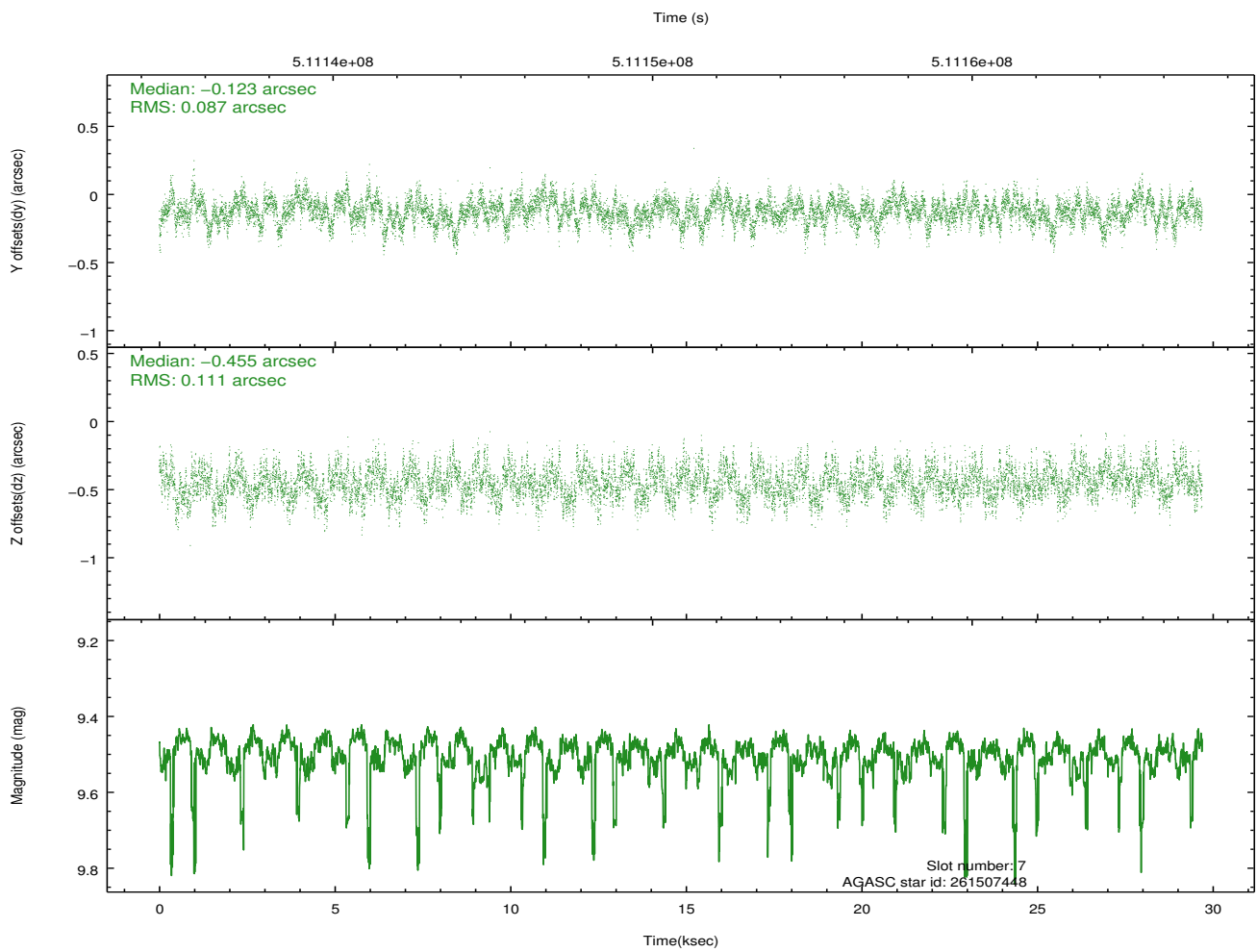
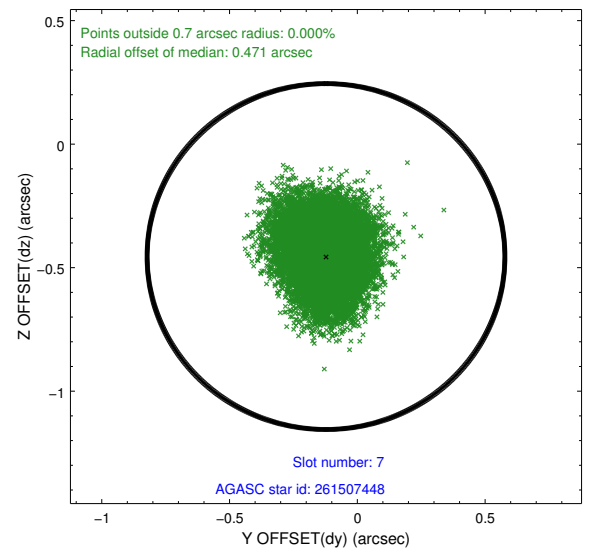
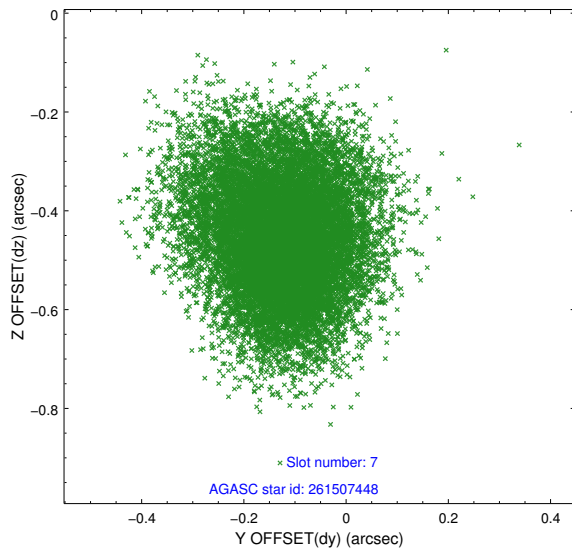
### 2.4.3 Slot 5



### 2.4.4 Slot 6

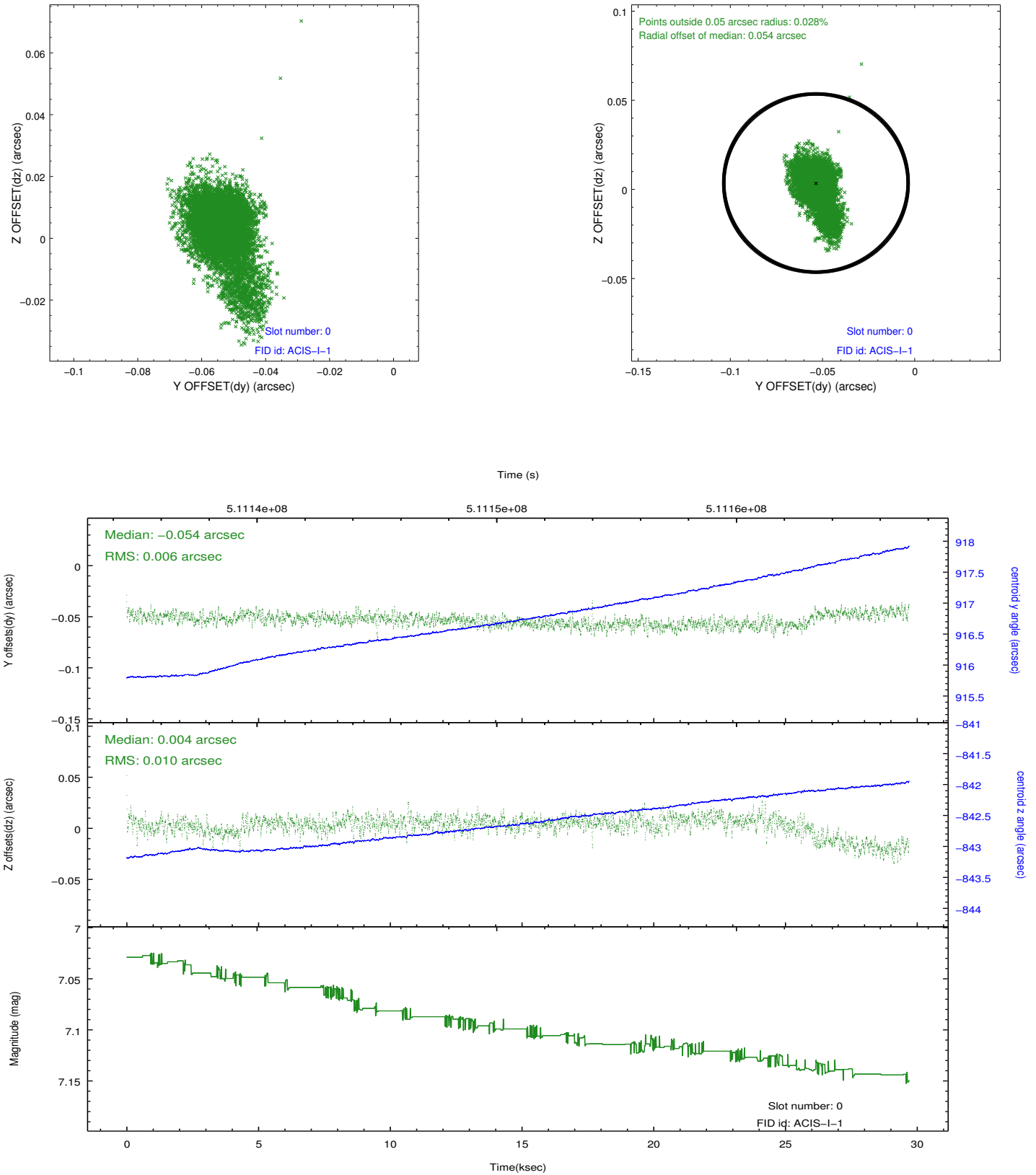


## 2.4.5 Slot 7

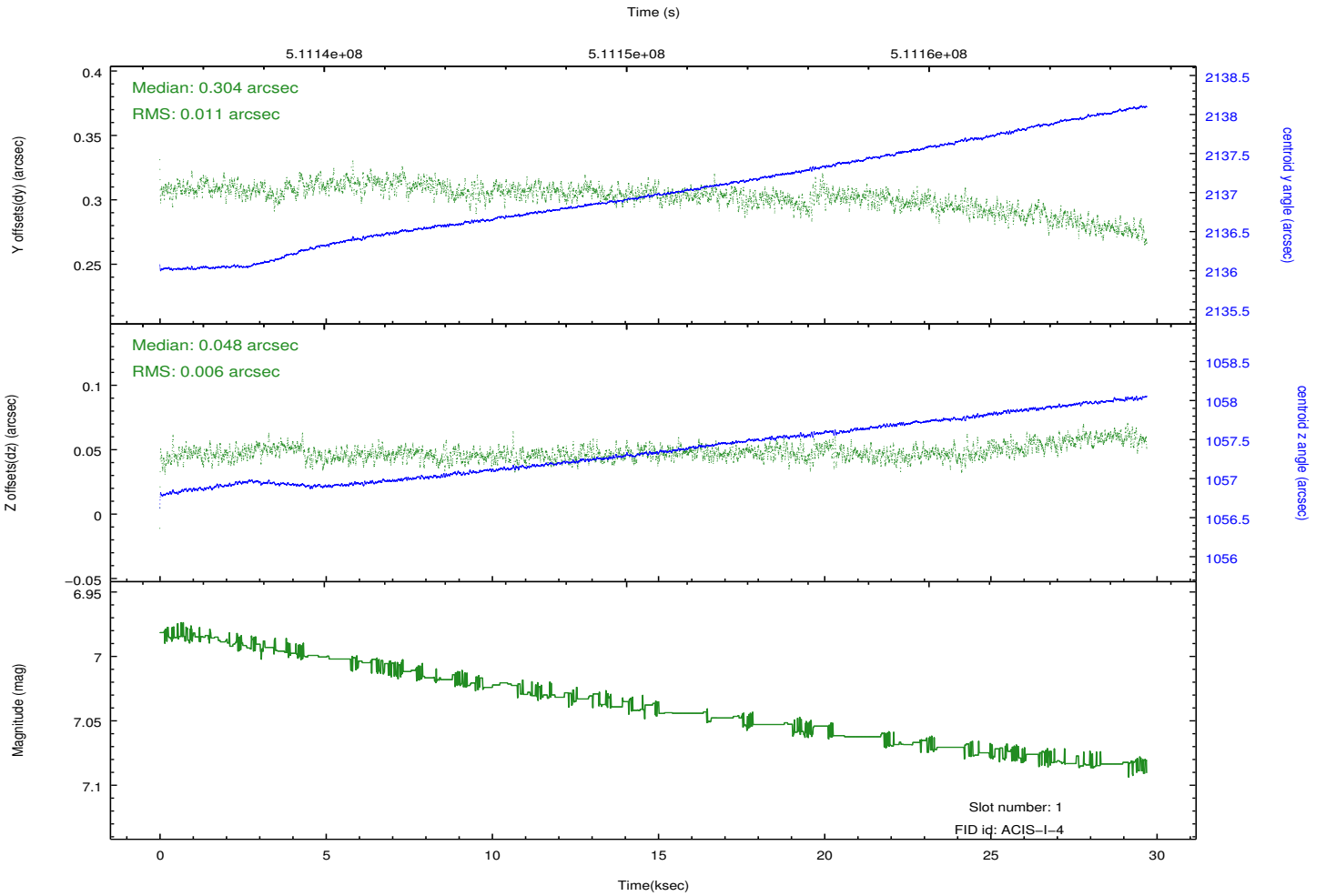
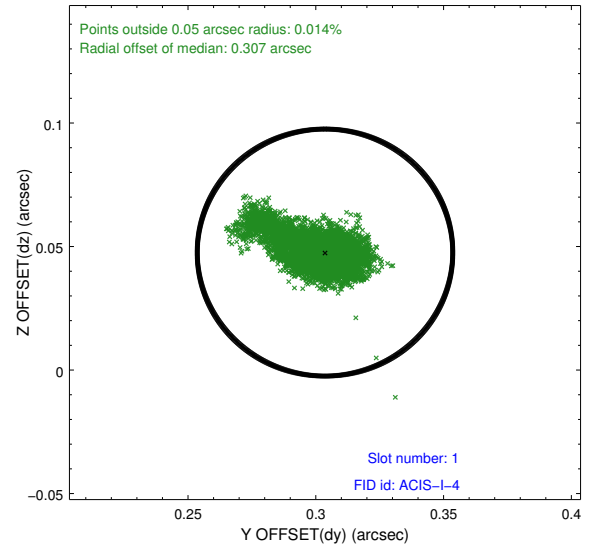
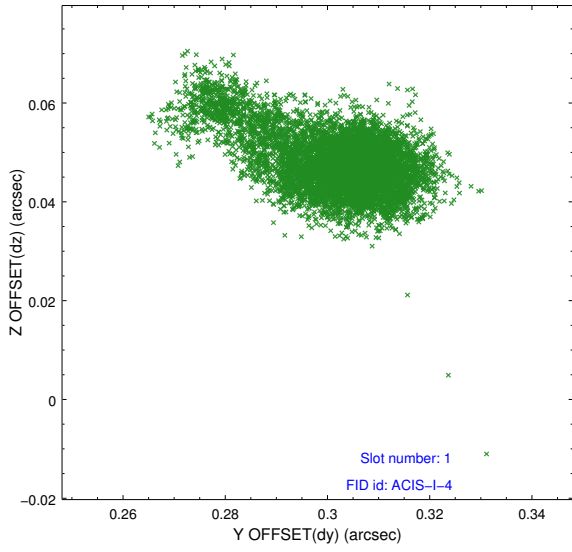


## 2.5 FID Slots

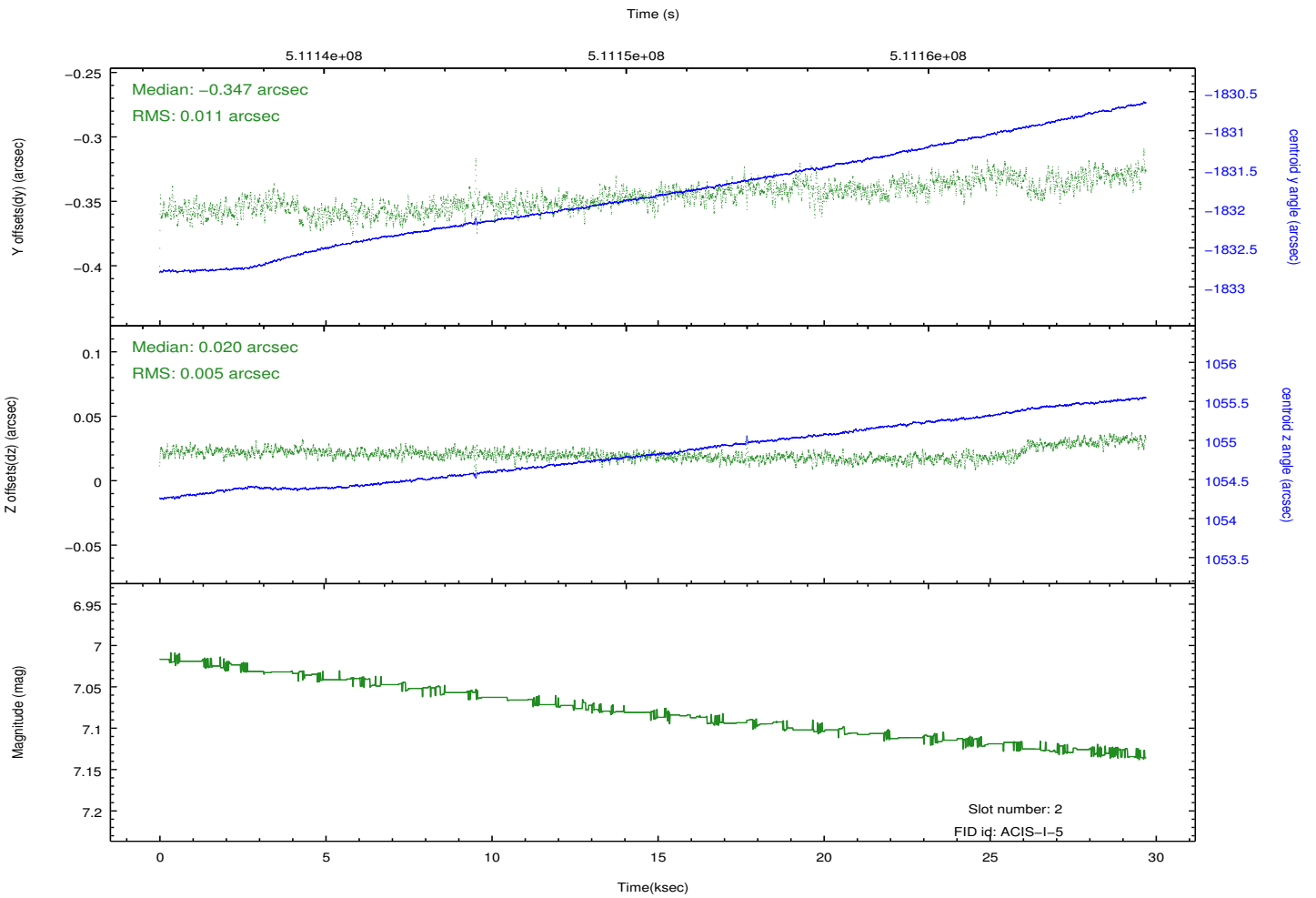
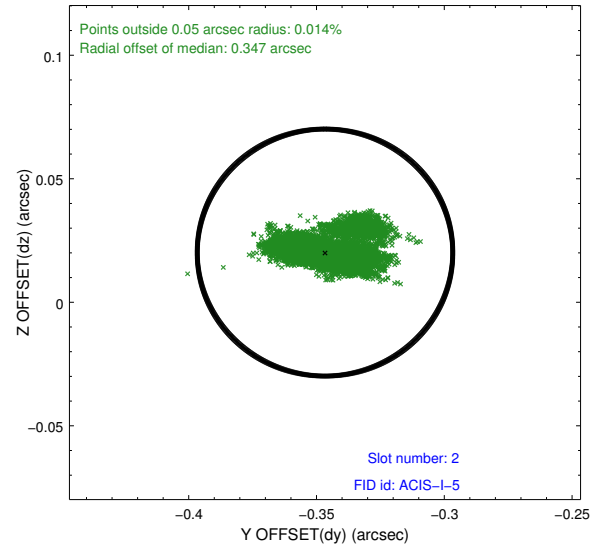
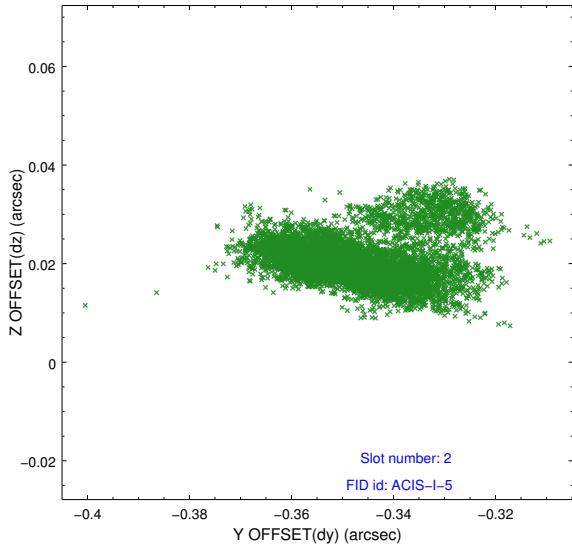
### 2.5.1 Slot 0



## 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	29.093500223756

## A.2 Comments

Joint proposal with NRAO and NOAO.

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.