

# V&V Reference Report

## L2 ASCDS Version : 10.2.1

Observation 15024 - L2 Version 2  
Chandra X-Ray Center

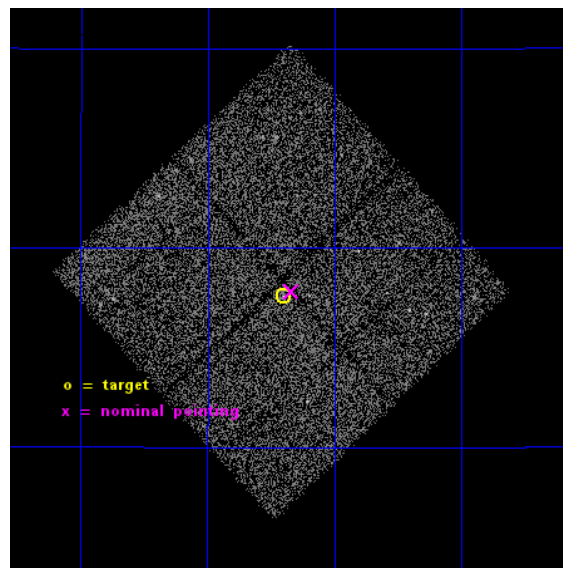
L2 Processing Date : Dec 10 2014

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# 1 Front

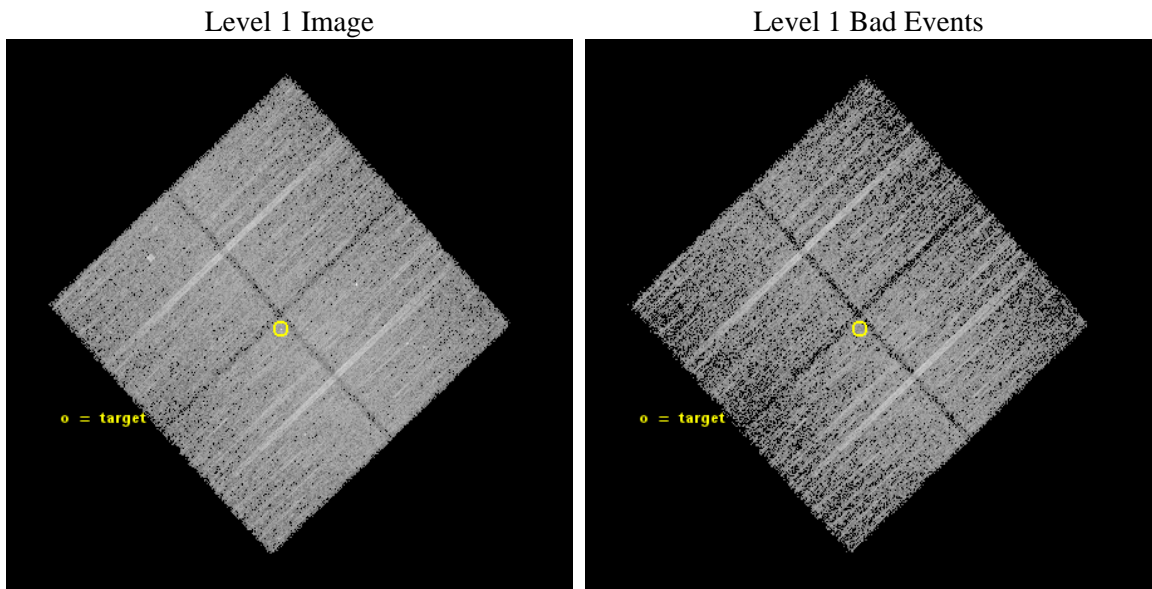
seq_num	702831	Sequence number
obs_id	15024	Observation id
title	Feedback in 3C 277.3	Proposal title
observer	Dr Andrew Young	Principal investigator
object	3C 277.3	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	193.55	Observer's specified target RA [deg]
dec_targ	27.626111	Observer's specified target Dec [deg]
ra_nom	193.54239209577	Nominal RA [deg]
dec_nom	27.630230551801	Nominal Dec [deg]
roll_nom	137.21224664971	Nominal Roll [deg]
revision	2	Processing version of data
ontime	20090.199088514	Sum of GTIs [s]
livetime	19827.705847233	Livetime [s]
ontime0	20090.075968504	Sum of GTIs [s]
ontime1	20090.117008507	Sum of GTIs [s]
ontime2	20090.158048511	Sum of GTIs [s]
ontime3	20090.199088514	Sum of GTIs [s]
l2events	38161	Number of level 2 events



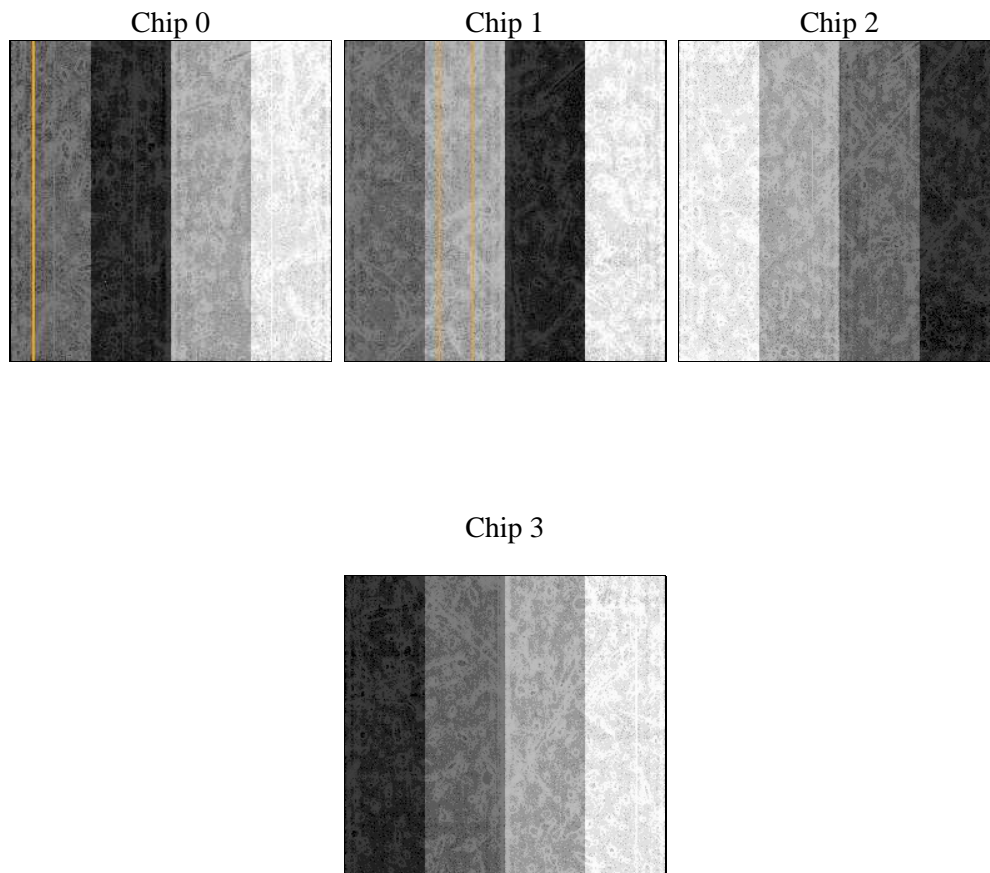
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	20000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	20090.199088514	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime0	20090.075968504	Sum of GTIs [s]
date	2014-12-10T22:52:40	Date and time of file creation	ontime1	20090.117008507	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	20090.158048511	Sum of GTIs [s]
			ontime3	20090.199088514	Sum of GTIs [s]
			l1events	356394	Number of level 1 events

### 2.1.4 Events

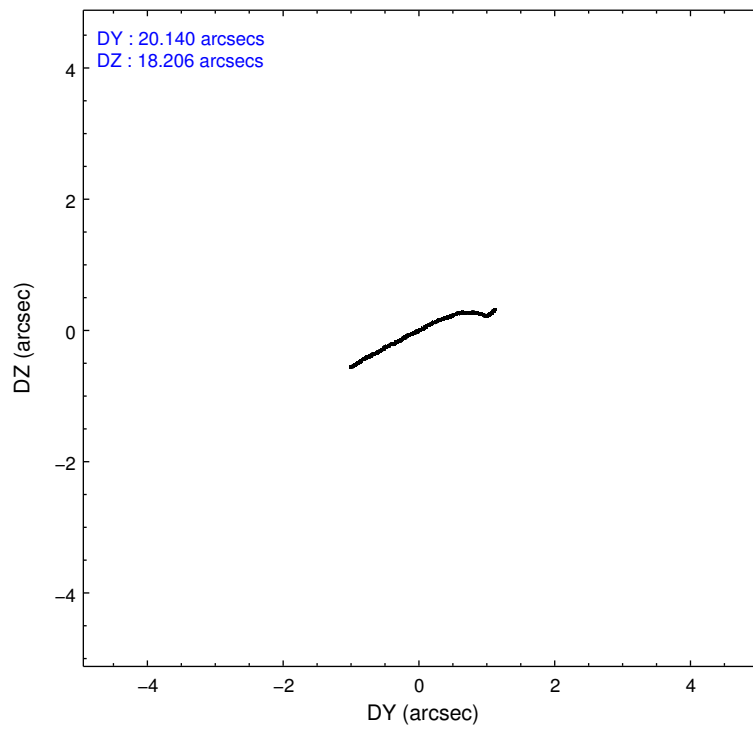
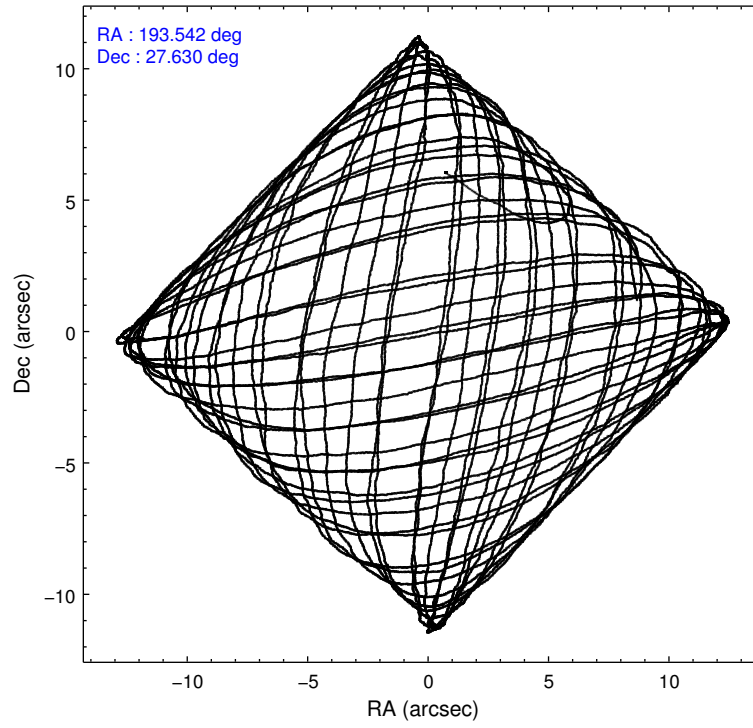
	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	85415	85301	94395	91283
rejected events	74454	72863	83185	80563
rejected %	87%	85%	88%	88%

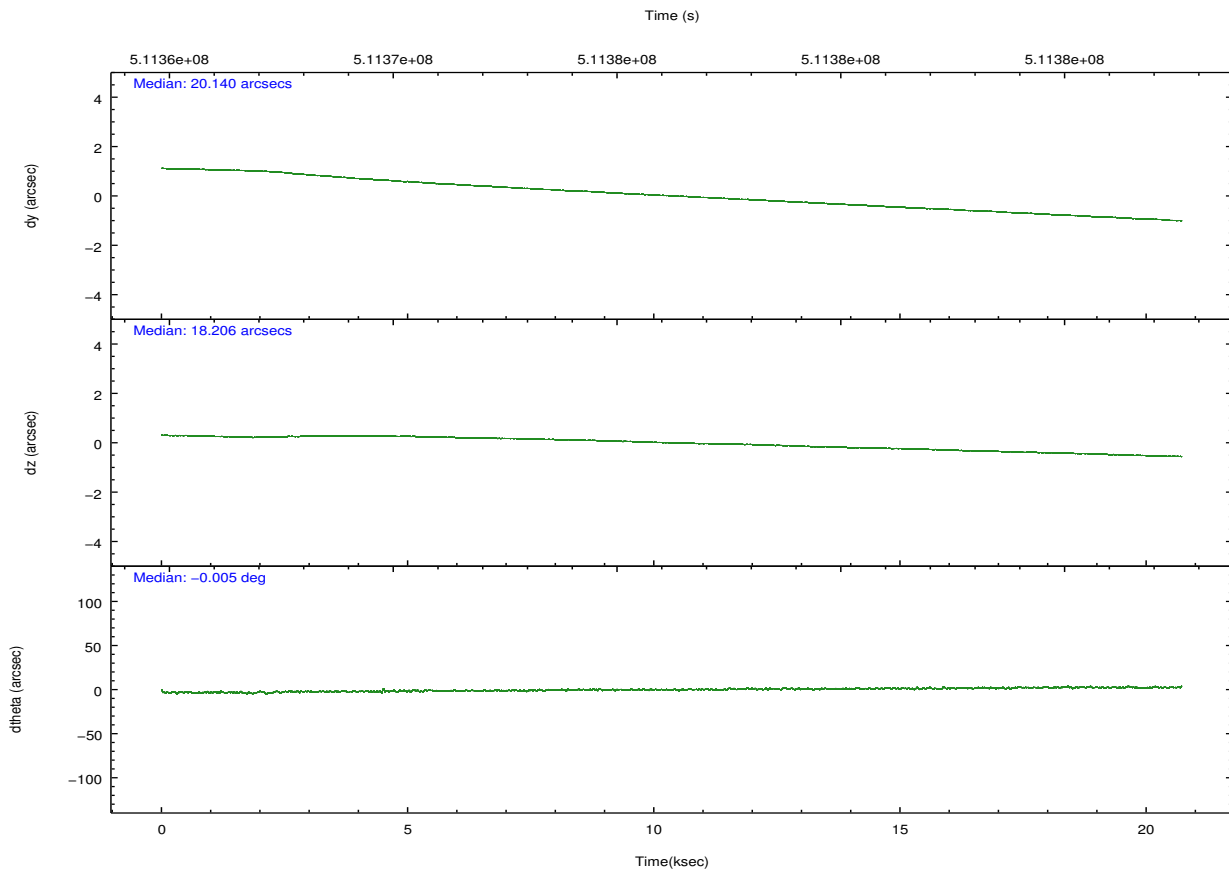
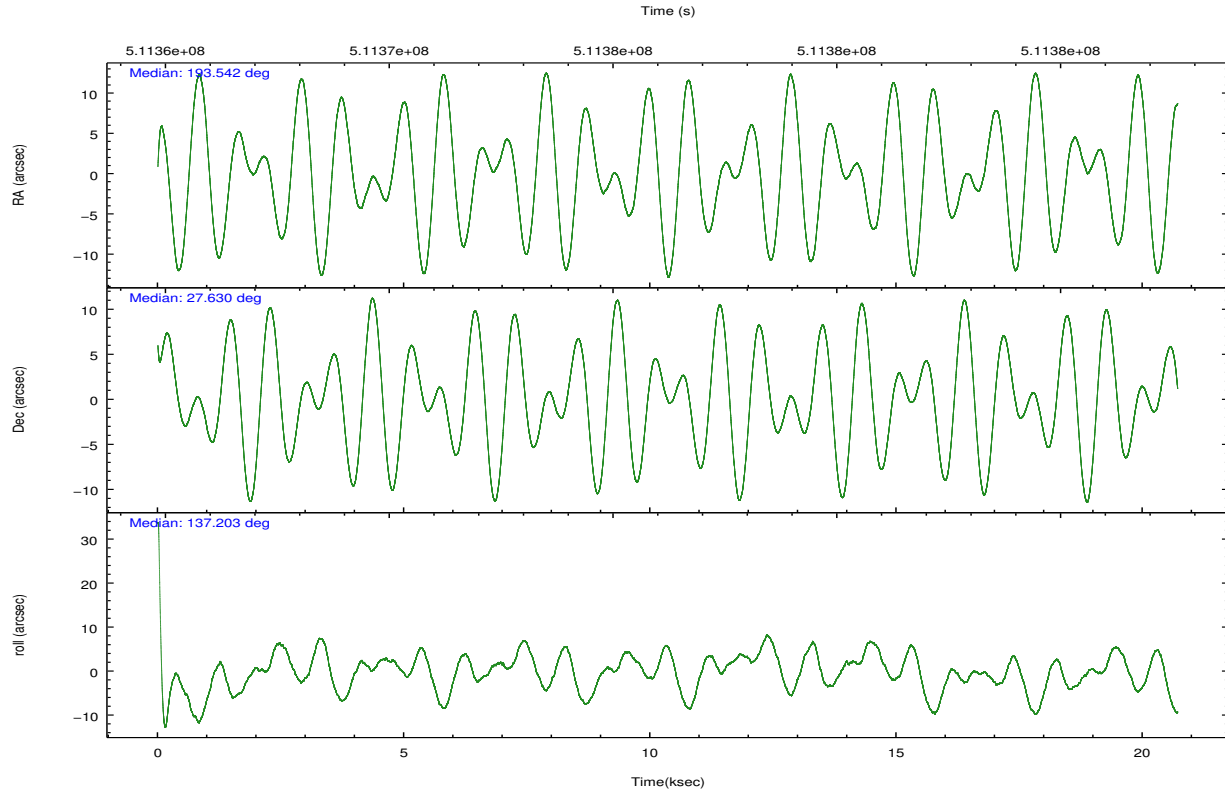
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	3866	4571	4319	3888
	4%	5%	4%	4%
grade 1 events	39	59	49	54
	0%	0%	0%	0%
grade 2 events	2542	2912	2462	2206
	2%	3%	2%	2%
grade 3 events	1126	1102	1058	1112
	1%	1%	1%	1%
grade 4 events	1059	1107	1170	1188
	1%	1%	1%	1%
grade 5 events	4303	4336	4117	4932
	5%	5%	4%	5%
grade 6 events	2370	2749	2209	2336
	2%	3%	2%	2%
grade 7 events	70110	68465	79011	75567
	82%	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	193.5423920957709	Subarray requested	NONE	NONE
[deg] Pointing Dec	27.624219	27.63023055180103	Alternating exposures requested	N	N
[deg] Pointing Roll	136.989471	137.212246649708	[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)	511366579.184000	511364920.89851			
Observation start date	2014-03-16T14:15:12	2014-03-16T13:48:40			
[s] Observation end time (MET)	511386579.184000	511387496.52476			
Observation end date	2014-03-16T19:48:32	2014-03-16T20:04:56			
Read mode	TIMED	TIMED			

## 2.3 Aspect





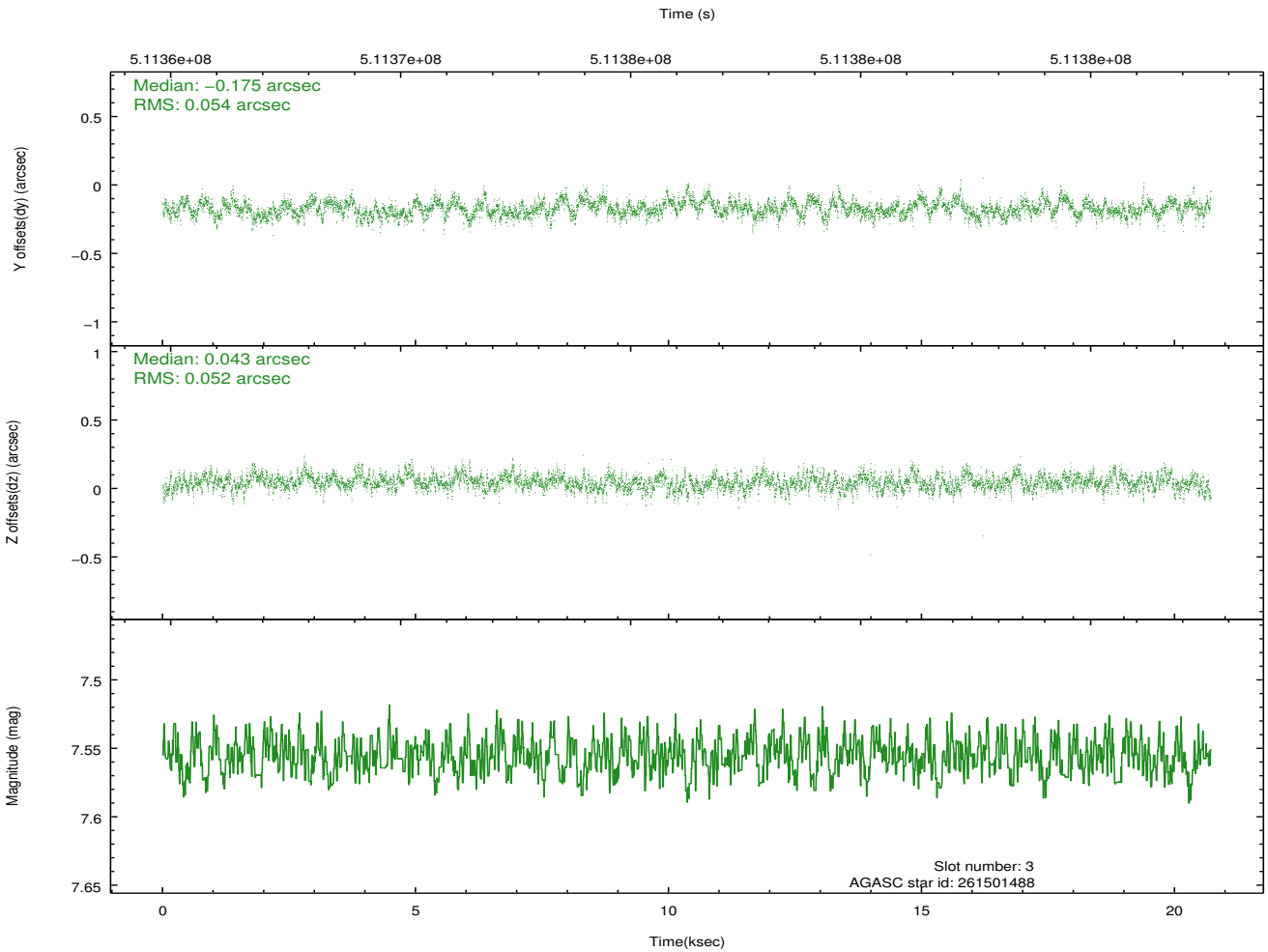
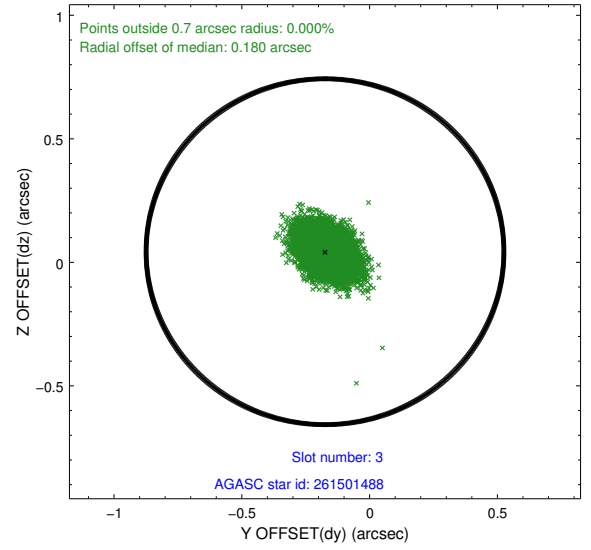
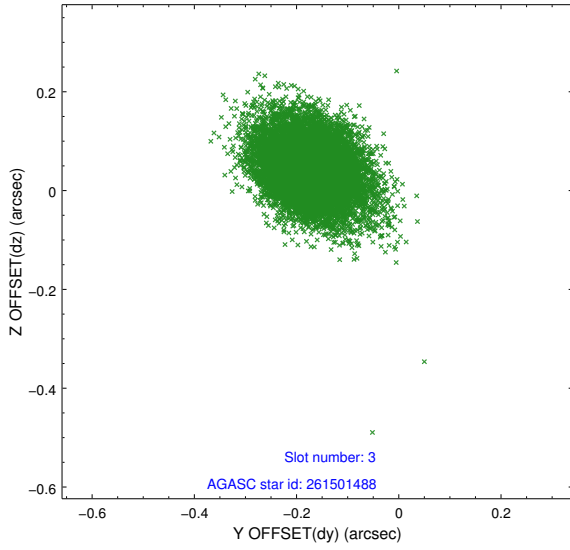
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.19	5052	-0.031	-0.047	0.017	0.029	0.000000	0.000000	919.15	-841.85
1	FID		ACIS-I-4	7.12	5052	0.240	0.070	0.014	0.023	0.000000	0.000000	2139.48	1058.03
2	FID		ACIS-I-5	7.18	5052	-0.307	0.048	0.016	0.024	0.000000	0.000000	-1828.98	1055.89
3	GUIDE	used	261501488	7.56	10102	-0.175	0.043	0.077	0.129	193.575606	28.449700	2020.90	-2178.75
4	GUIDE	used	261503168	8.58	10101	-0.001	0.094	0.102	0.166	193.765545	28.234101	1051.40	-2022.76
5	GUIDE	used	261503592	7.87	10102	0.236	0.060	0.092	0.145	193.784432	27.766358	-143.62	-833.72
6	GUIDE	used	261505808	9.36	10098	0.073	0.216	0.145	0.227	193.710324	27.913269	390.32	-1059.30
7	GUIDE	used	261507448	9.51	10088	-0.127	-0.415	0.157	0.260	192.816574	27.341077	1077.87	2389.25

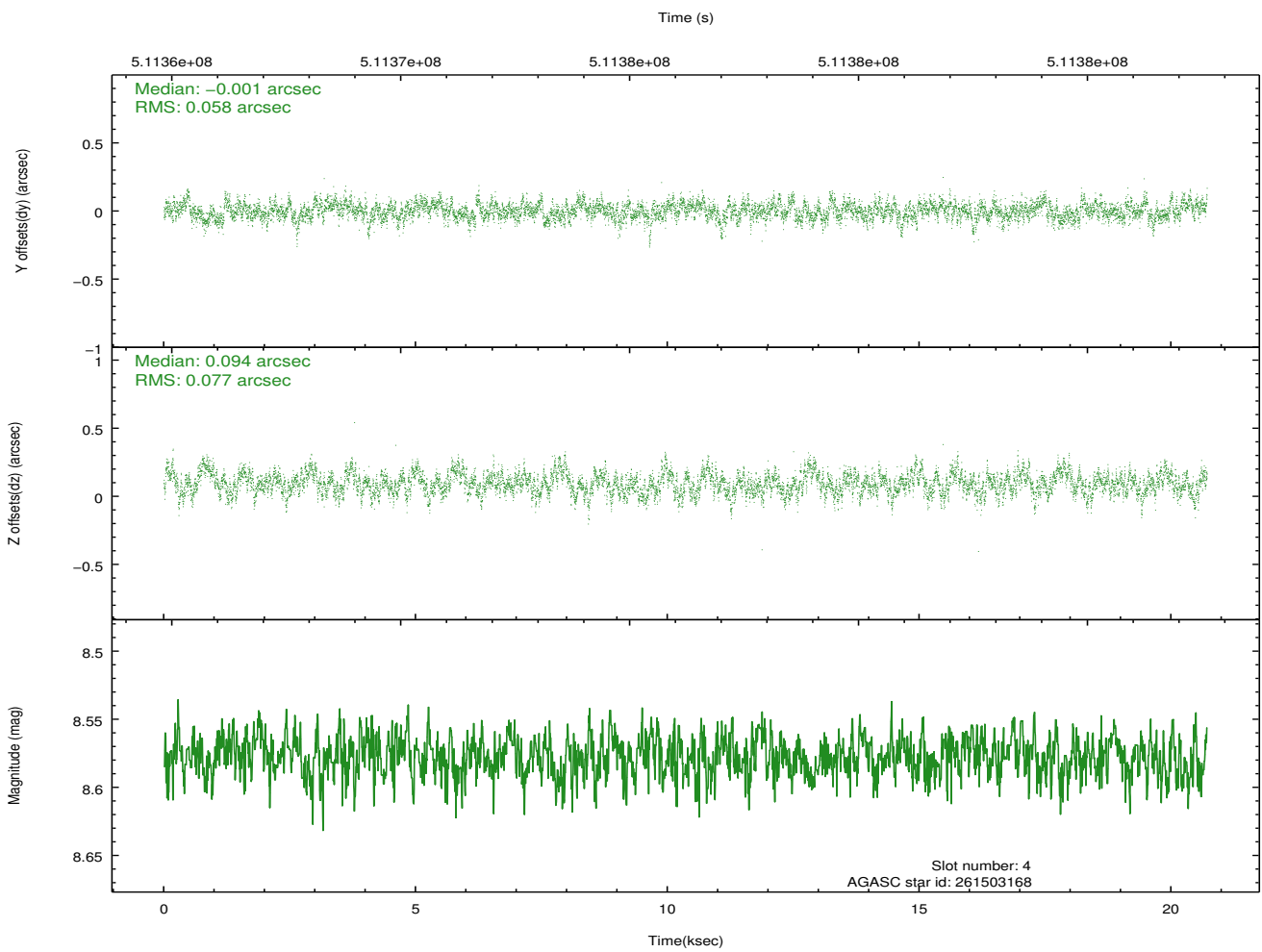
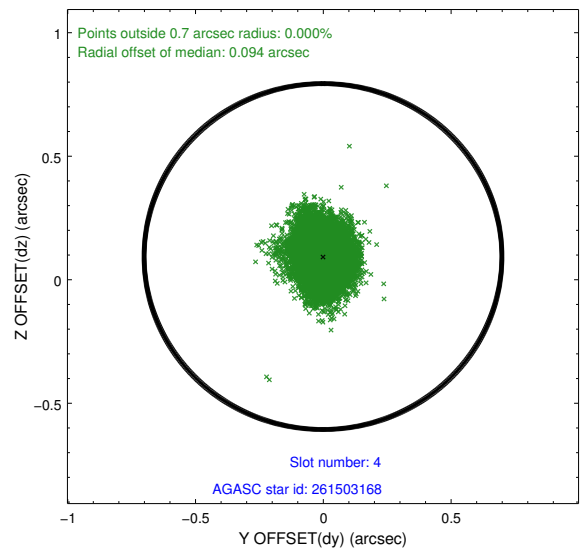
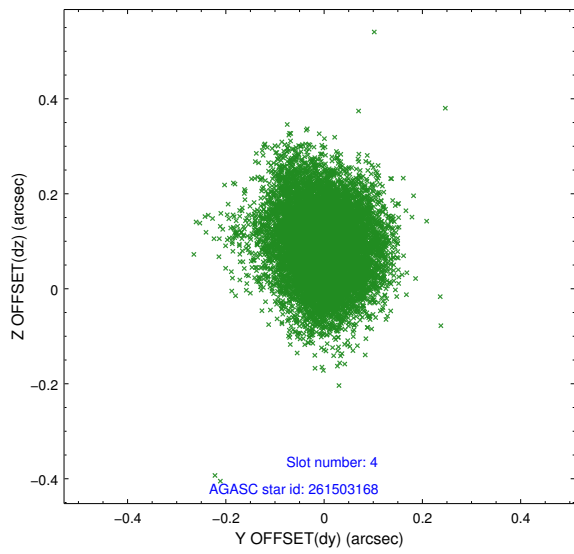
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## 2.4 Star Slots

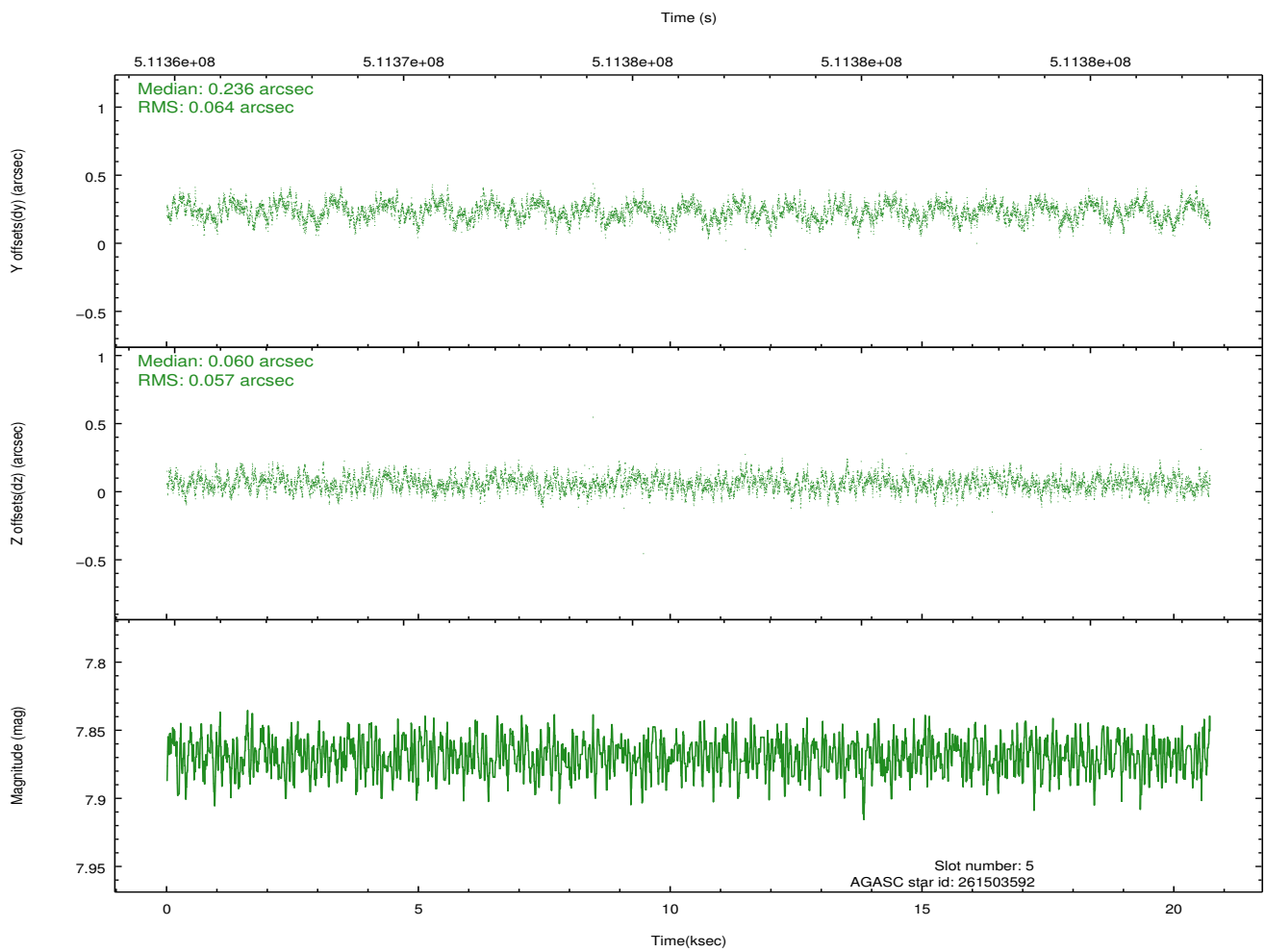
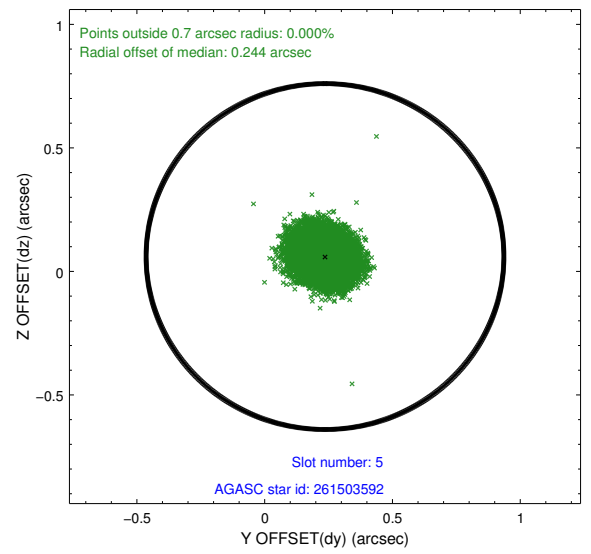
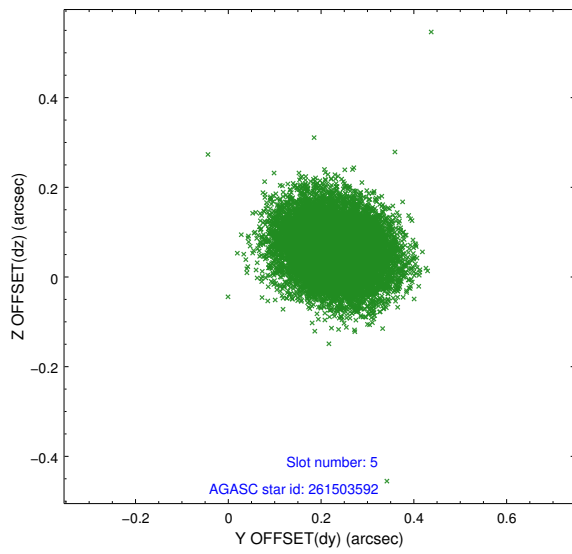
### 2.4.1 Slot 3



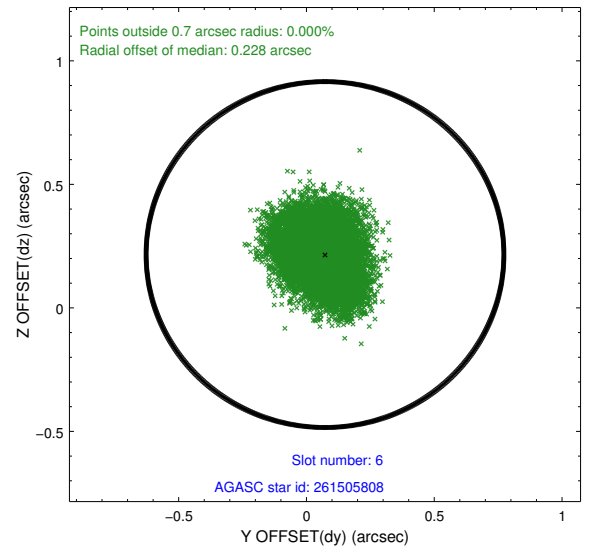
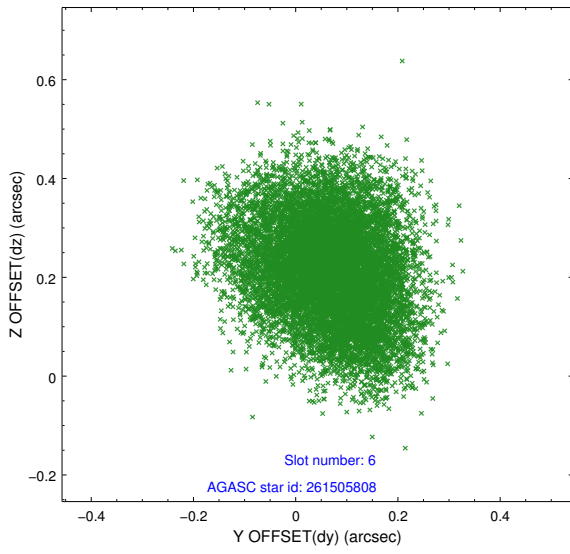
## 2.4.2 Slot 4



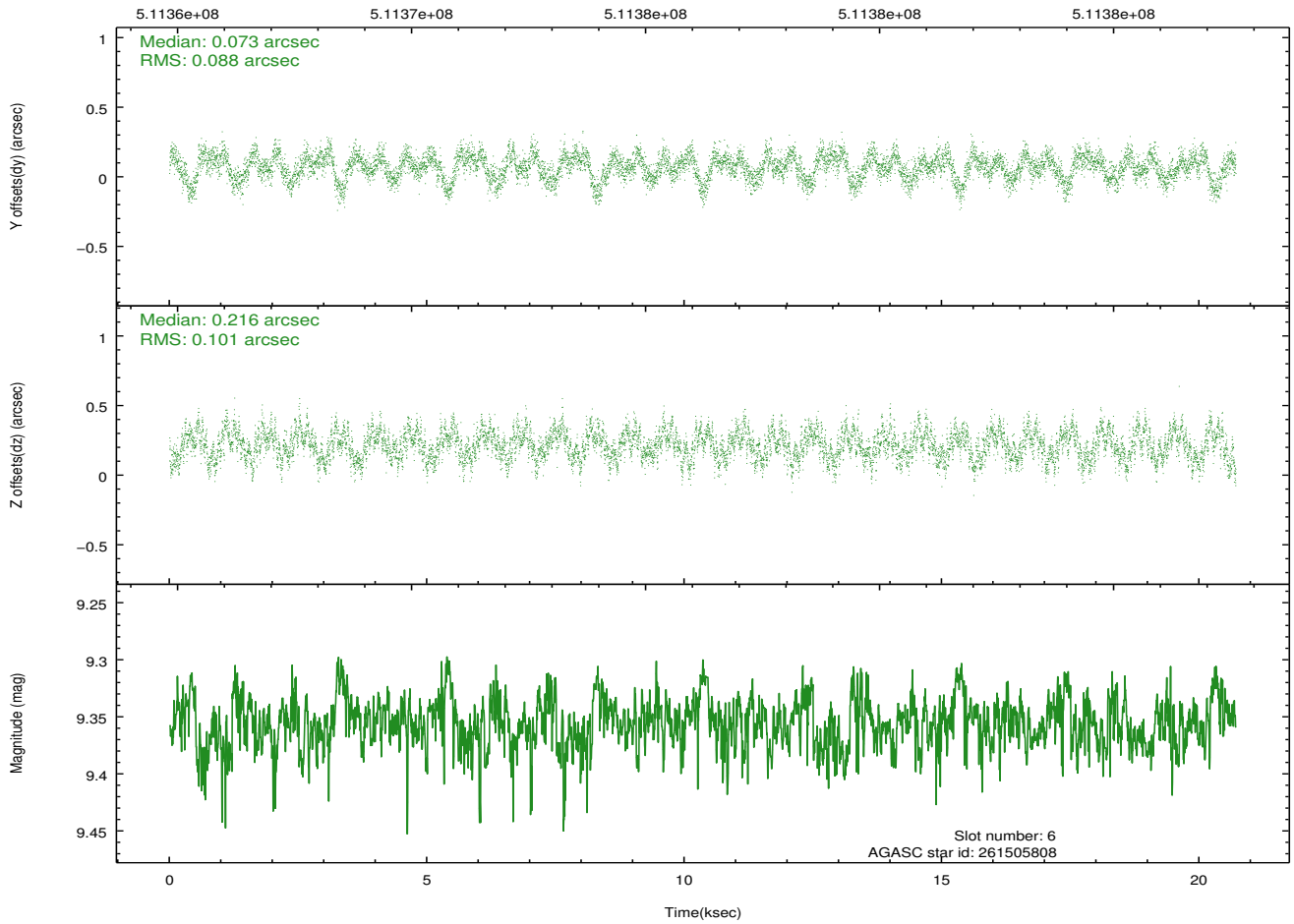
### 2.4.3 Slot 5



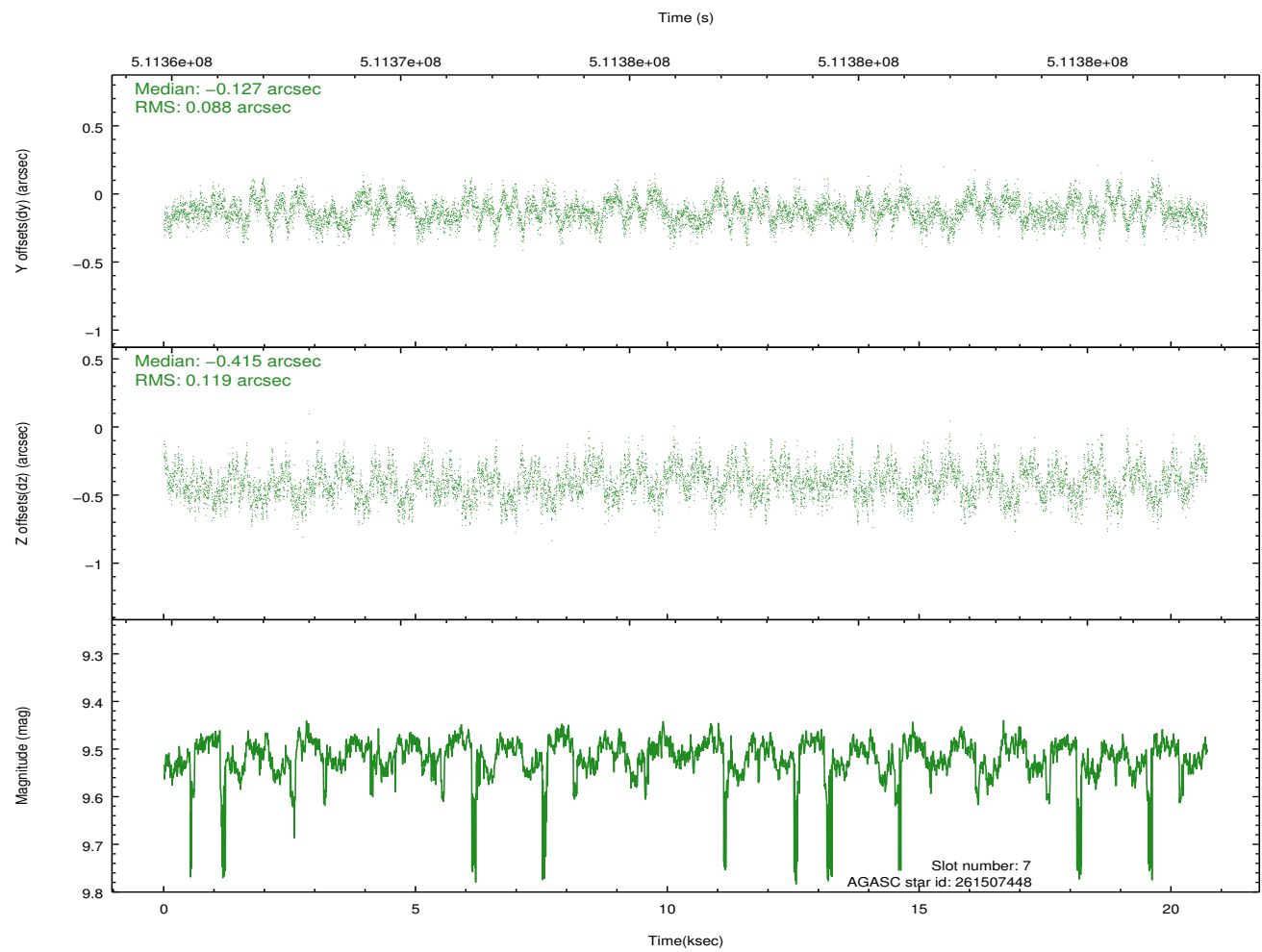
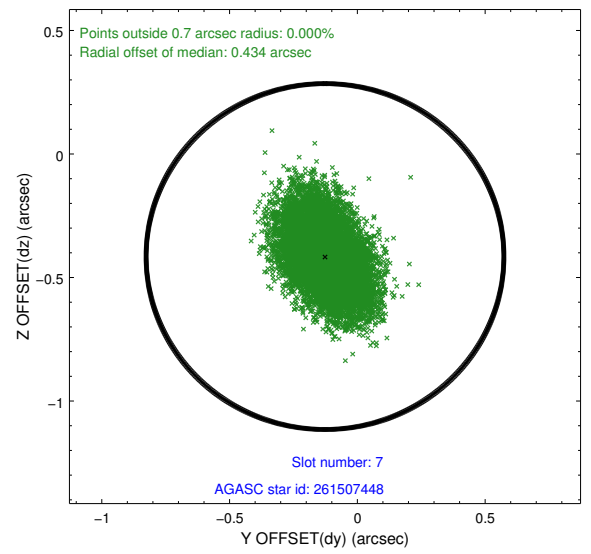
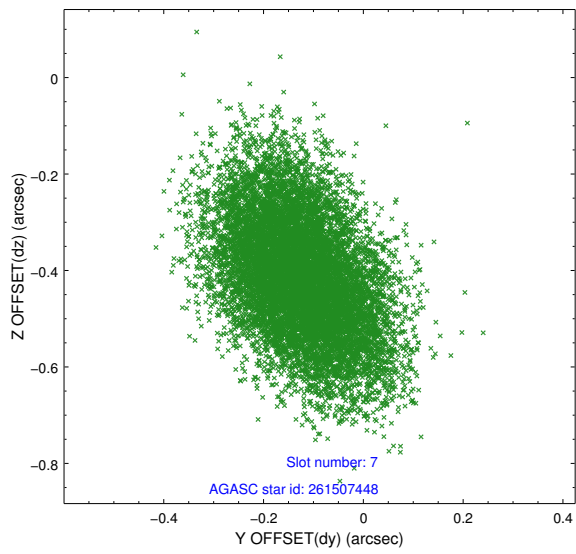
### 2.4.4 Slot 6



Time (s)

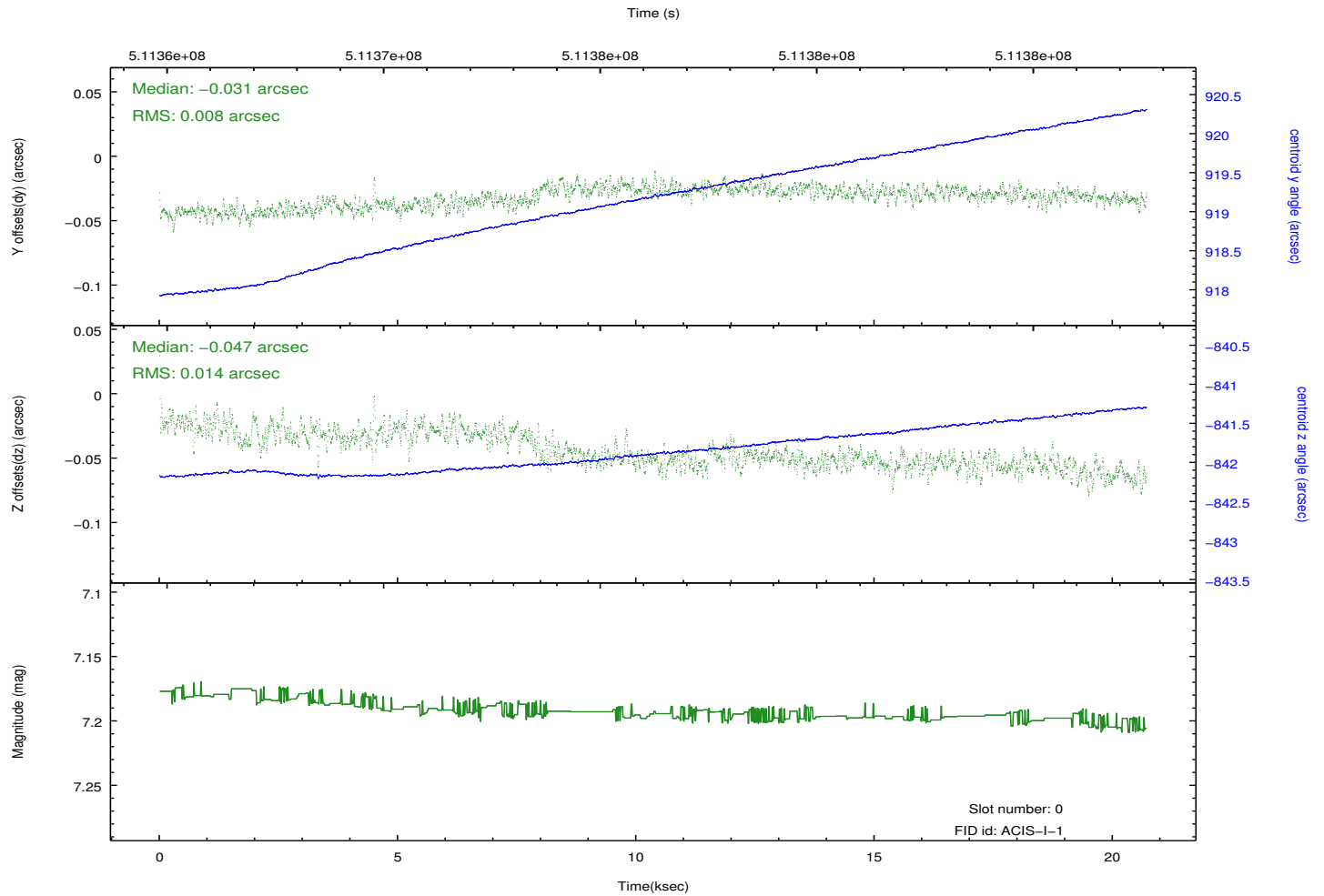
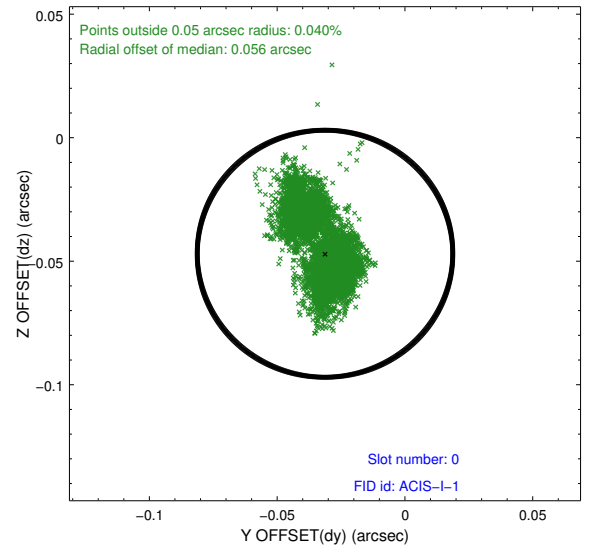
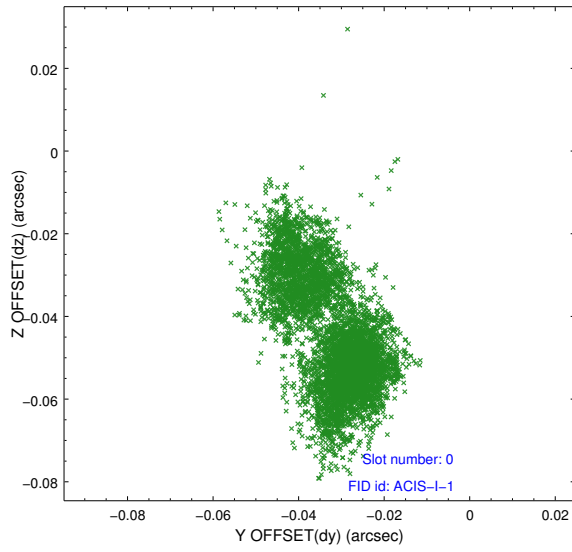


## 2.4.5 Slot 7

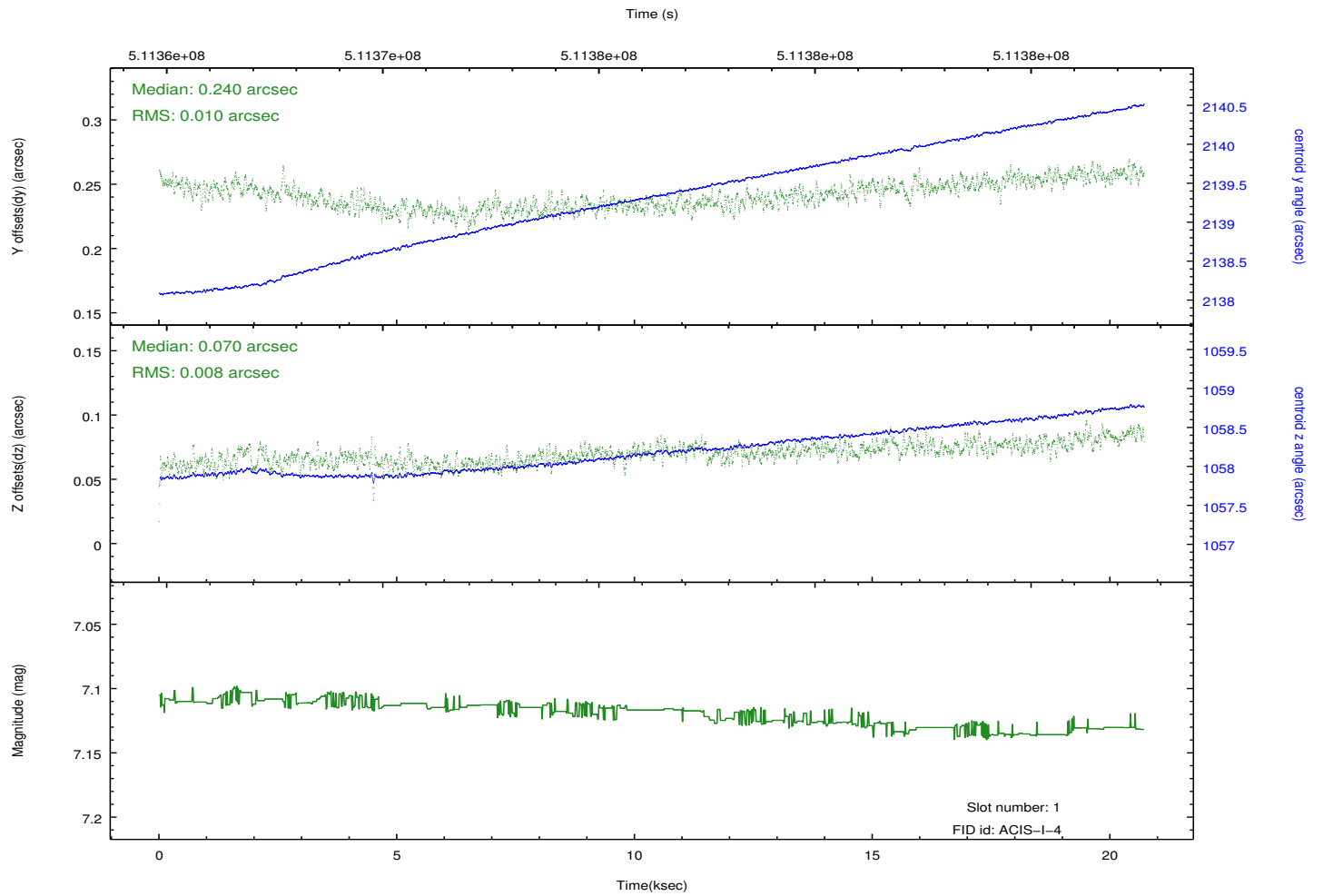
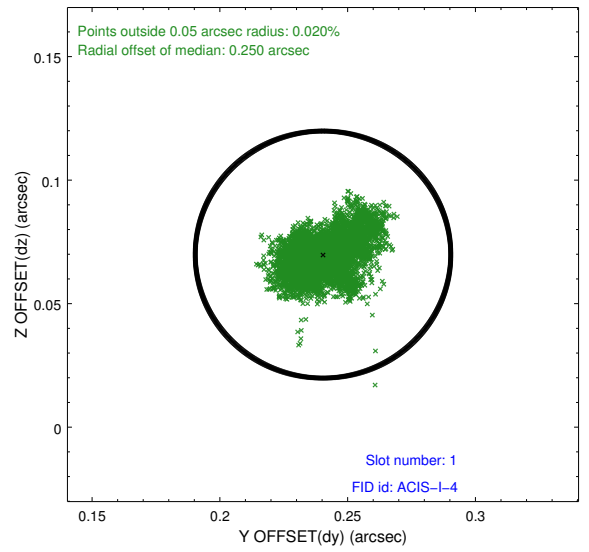
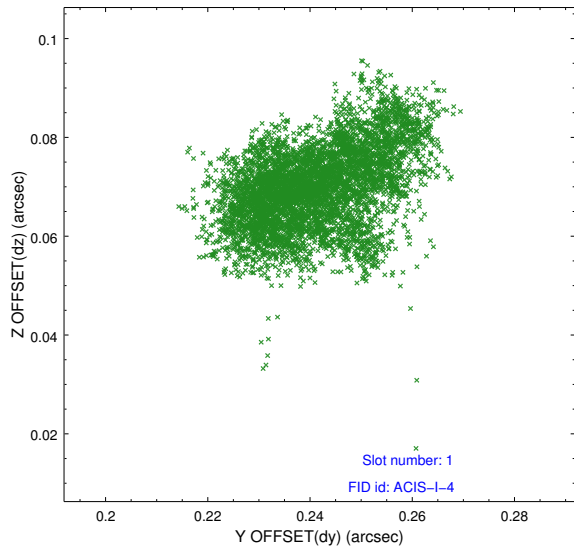


## 2.5 FID Slots

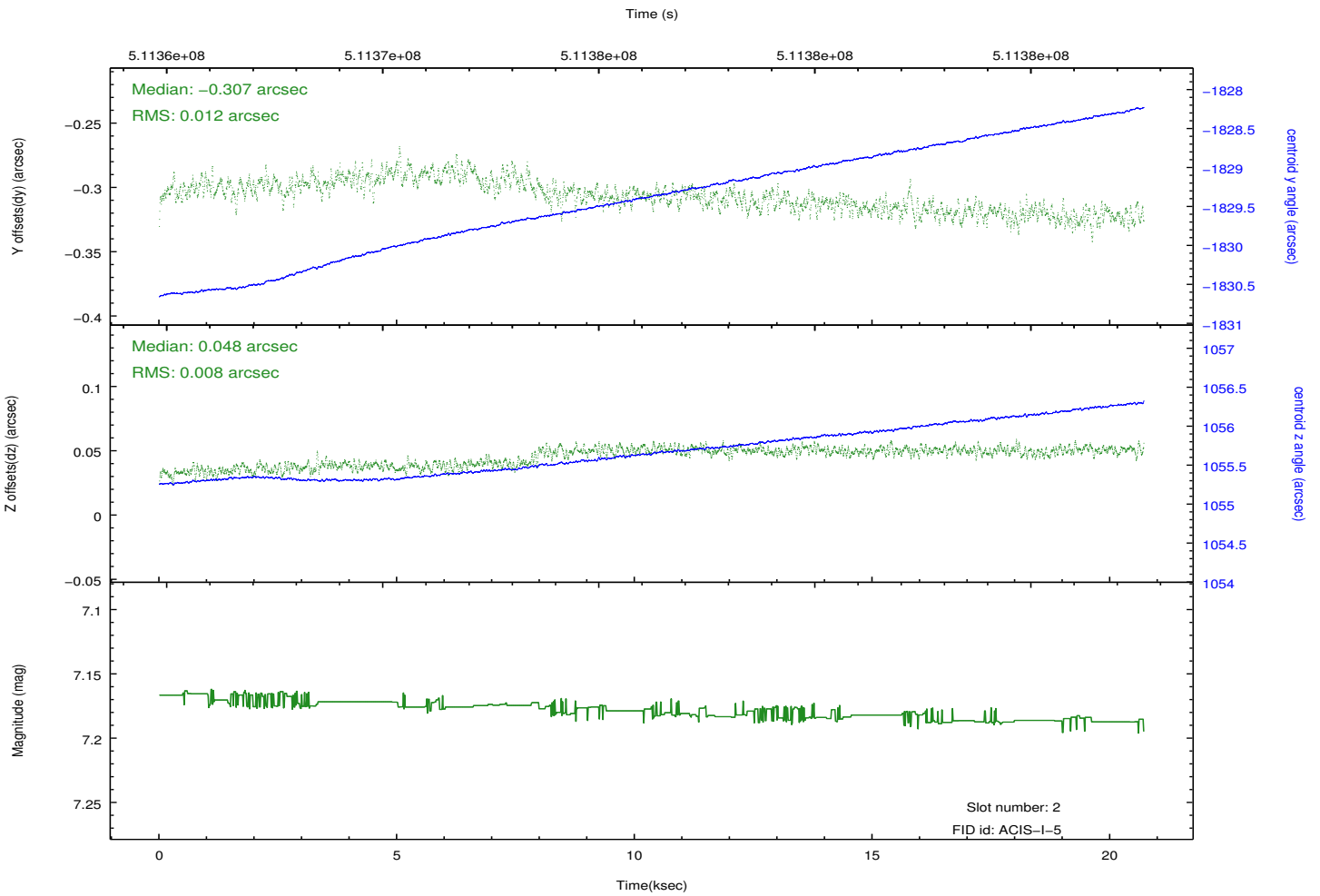
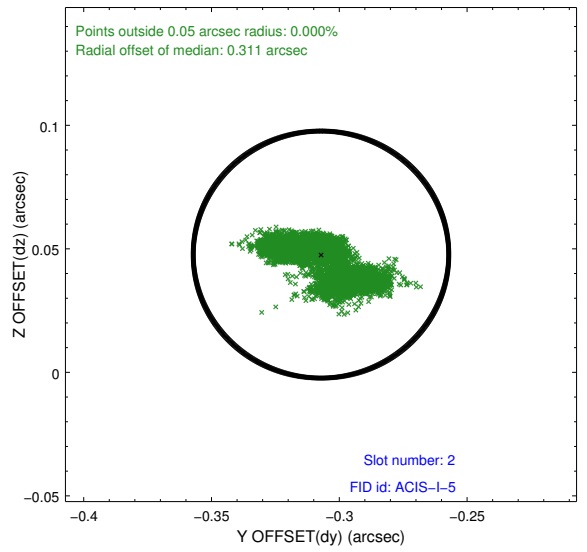
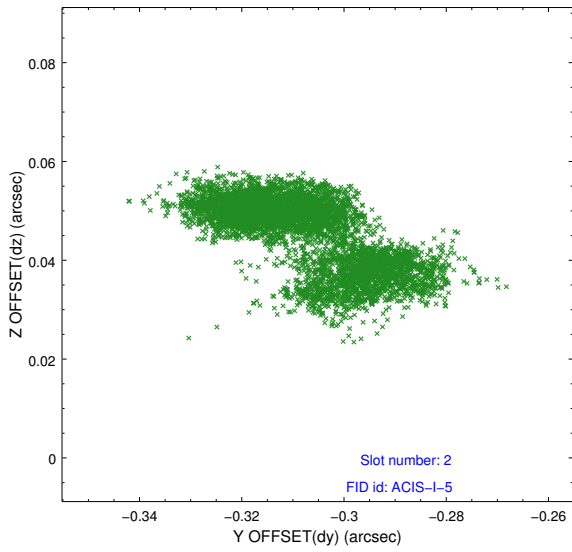
### 2.5.1 Slot 0



## 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)	2014.12.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.090199088514

## A.2 Comments

Joint Proposal: NRAO+NOAO

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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.