

# V&V Reference Report

## L2 ASCDS Version : 8.5.1.1

Observation 14890 - L2 Version 2  
Chandra X-Ray Center

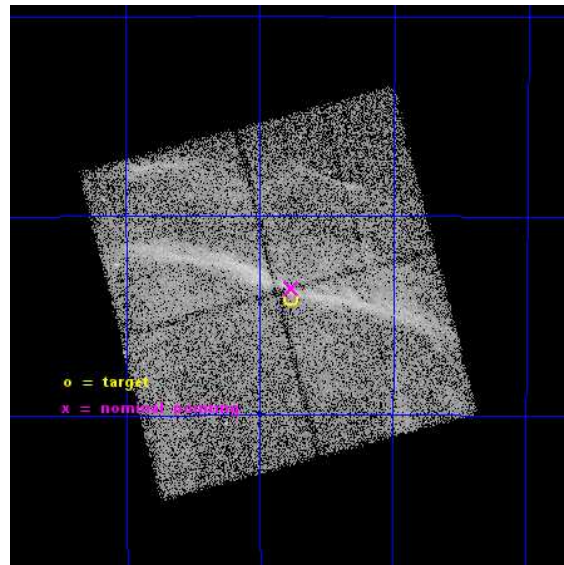
L2 Processing Date : Dec 1 2014

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# 1 Front

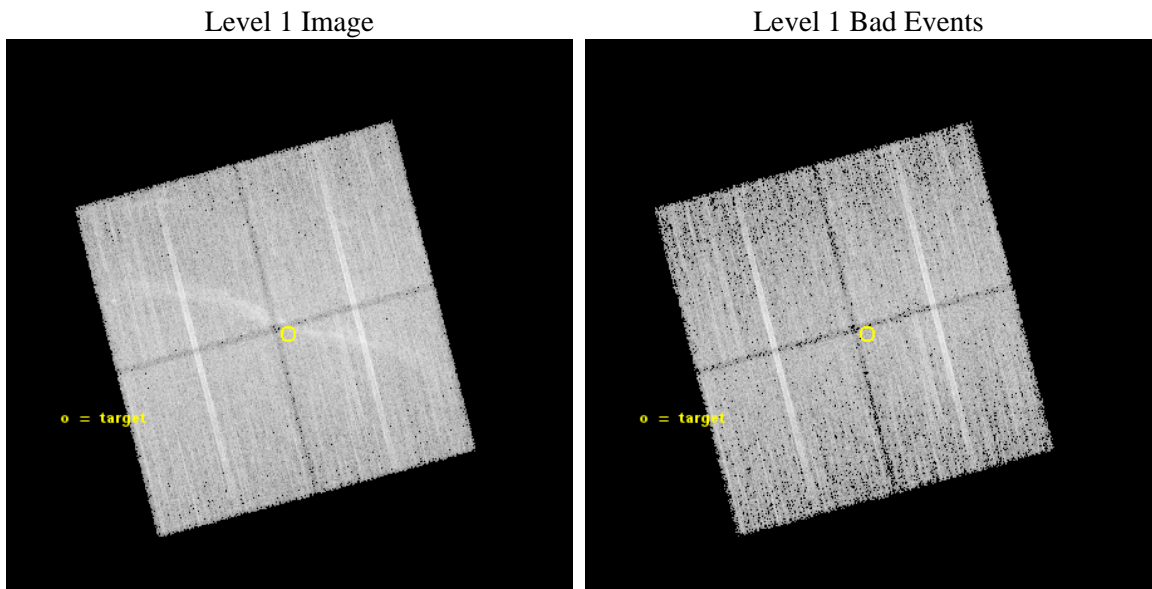
seq_num	502014	Sequence number
obs_id	14890	Observation id
title	Studying Particle Acceleration and Ejecta in Northwest Rim of the Supernova Remnant RCW 86 with Chandra	Proposal title
observer	Dr. Daniel Castro	Principal investigator
object	RCW 86	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	220.441667	Observer's specified target RA [deg]
dec_targ	-62.235556	Observer's specified target Dec [deg]
ra_nom	220.44094883625	Nominal RA [deg]
dec_nom	-62.227469974393	Nominal Dec [deg]
roll_nom	75.208046893708	Nominal Roll [deg]
revision	2	Processing version of data
ontime	27086.929574192	Sum of GTIs [s]
livetime	26733.018898197	Livetime [s]
ontime0	27086.80642426	Sum of GTIs [s]
ontime1	27089.988454521	Sum of GTIs [s]
ontime2	27090.029494524	Sum of GTIs [s]
ontime3	27086.929574192	Sum of GTIs [s]
l2events	112611	Number of level 2 events



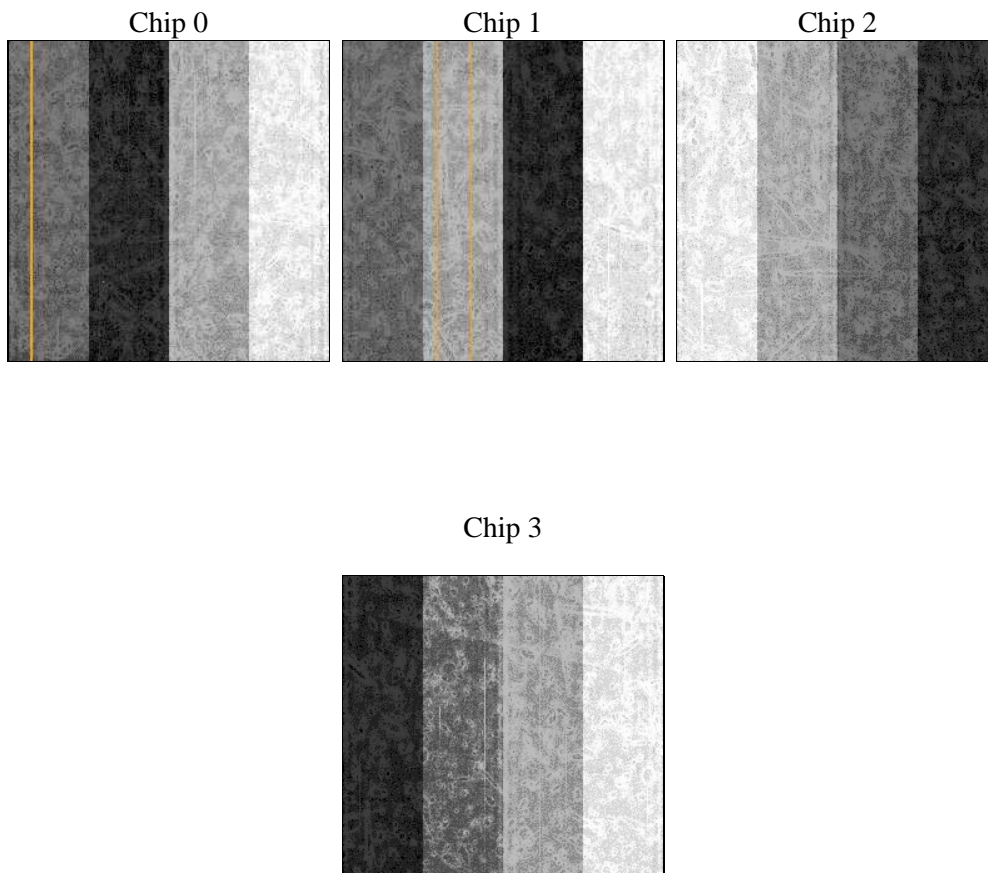
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	27000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	27086.929574192	Sum of GTIs [s]
caldbver	4.6.4	&#160	ontime0	27086.80642426	Sum of GTIs [s]
date	2014-12-01T08:49:49	Date and time of file creation	ontime1	27089.988454521	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	27090.029494524	Sum of GTIs [s]
			ontime3	27086.929574192	Sum of GTIs [s]
			l1events	625459	Number of level 1 events

### 2.1.4 Events

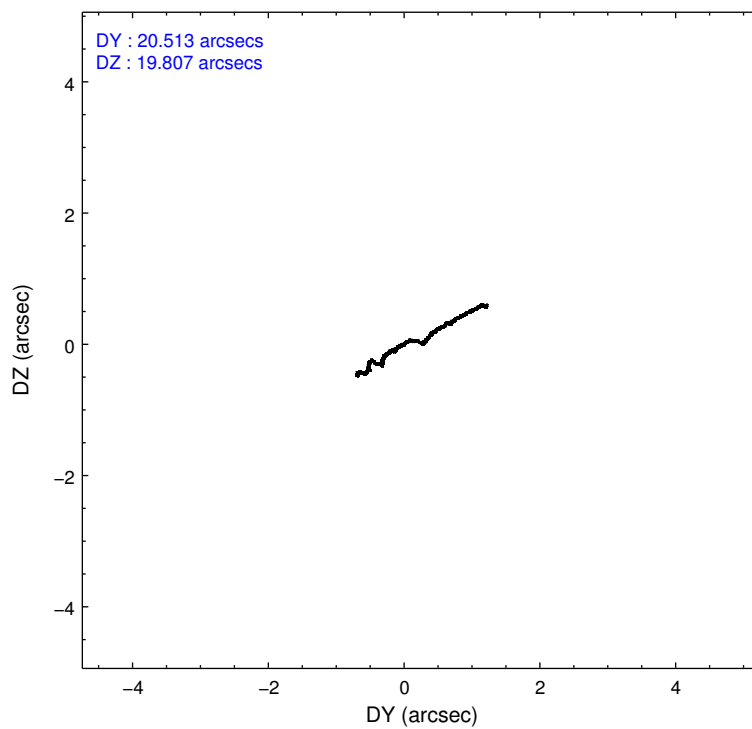
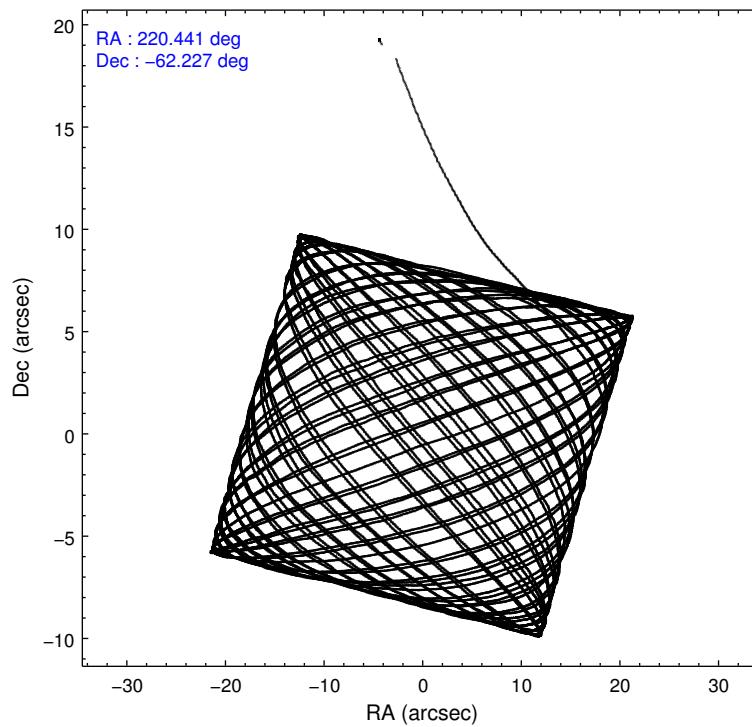
	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	158746	147956	155632	163125
rejected events	118007	121090	130454	128469
rejected %	74%	81%	83%	78%

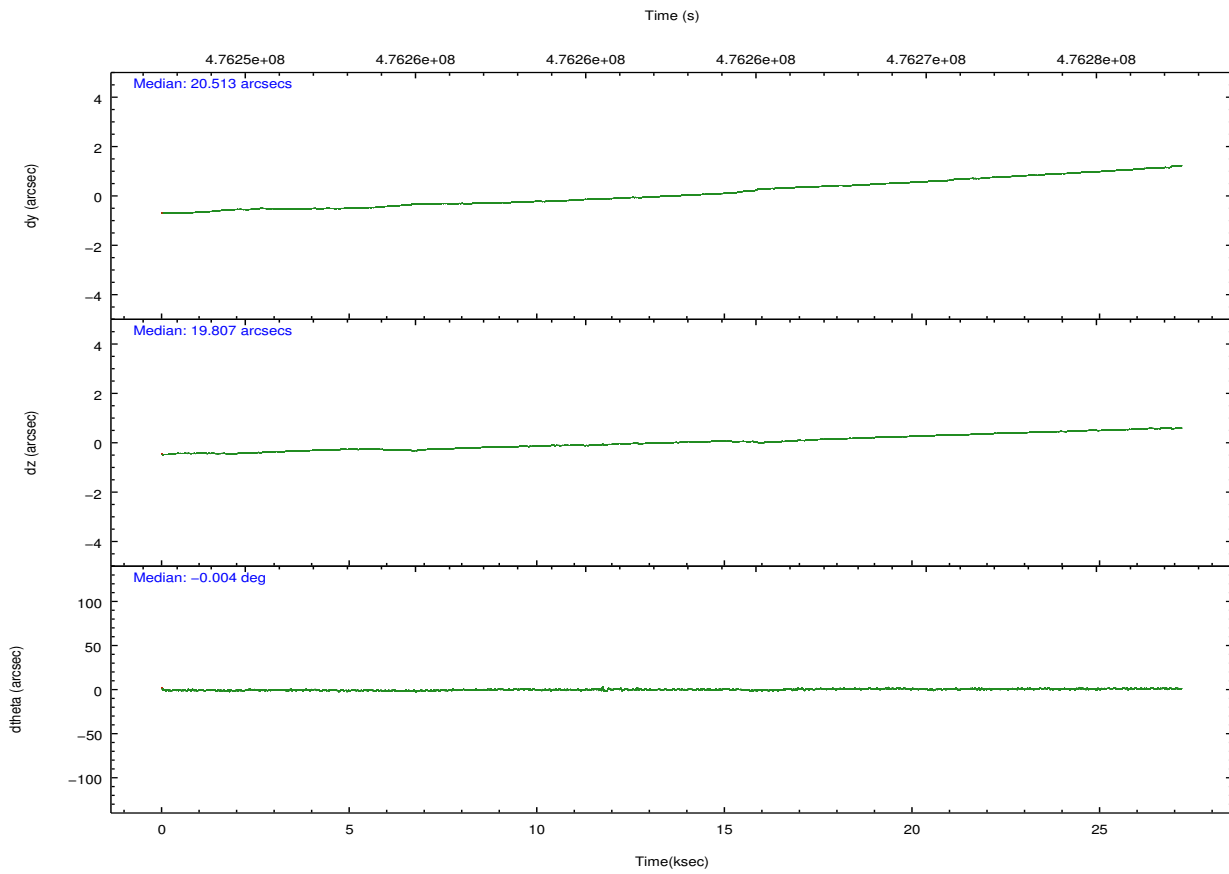
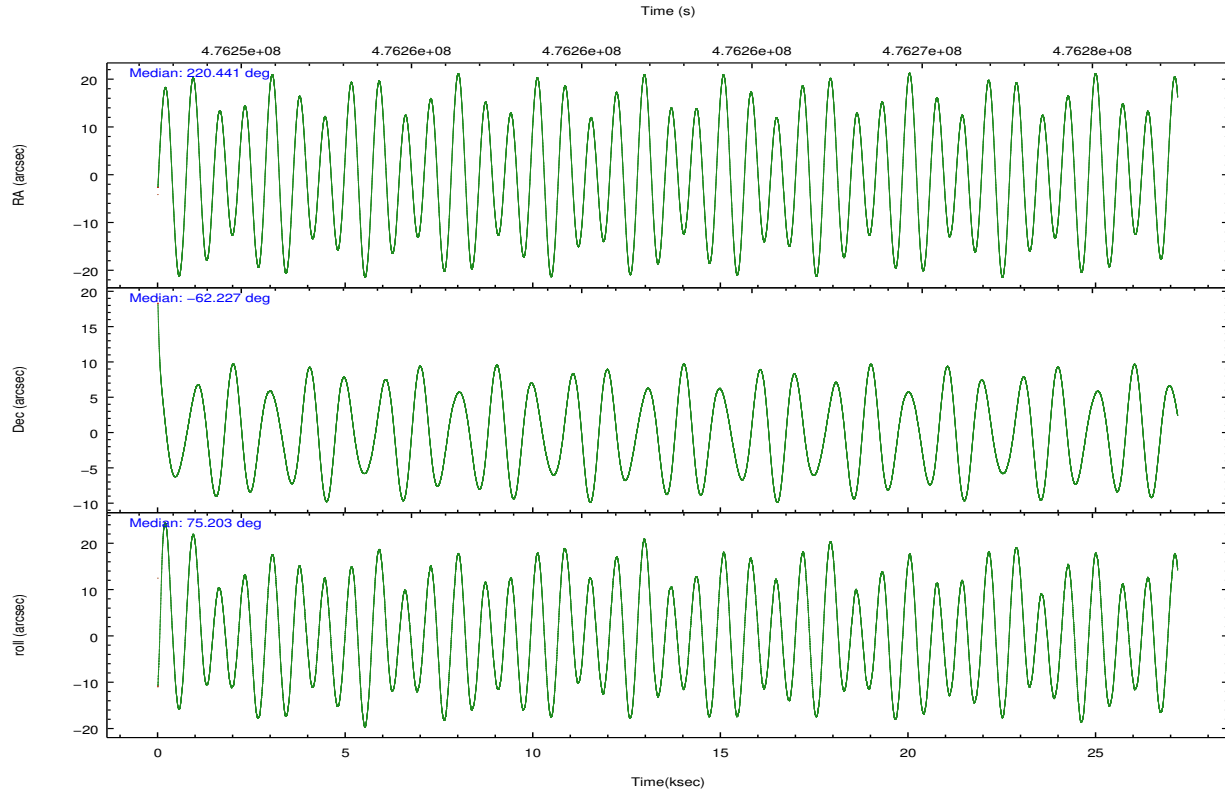
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	25982	12831	13089	21594
	16%	8%	8%	13%
grade 1 events	167	114	128	158
	0%	0%	0%	0%
grade 2 events	6382	5471	4944	5158
	4%	3%	3%	3%
grade 3 events	2364	2065	1861	2134
	1%	1%	1%	1%
grade 4 events	2183	2153	1911	2076
	1%	1%	1%	1%
grade 5 events	6703	7368	6298	7754
	4%	4%	4%	4%
grade 6 events	3833	4351	3375	3697
	2%	2%	2%	2%
grade 7 events	111132	113603	124026	120554
	70%	76%	79%	73%

## 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	220.456633	220.4409488362511	Subarray requested	NONE	NONE
[deg] Pointing Dec	-62.253971	-62.22746997439295	Alternating exposures requested	N	N
[deg] Pointing Roll	75.013244	75.20804689370772	[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)	476249118.184000	476248215.00814			
Observation start date	2013-02-03T03:24:11	2013-02-03T03:10:15			
[s] Observation end time (MET)	476276118.184000	476276778.17218			
Observation end date	2013-02-03T10:54:11	2013-02-03T11:06:18			
Read mode	TIMED	TIMED			

## 2.3 Aspect





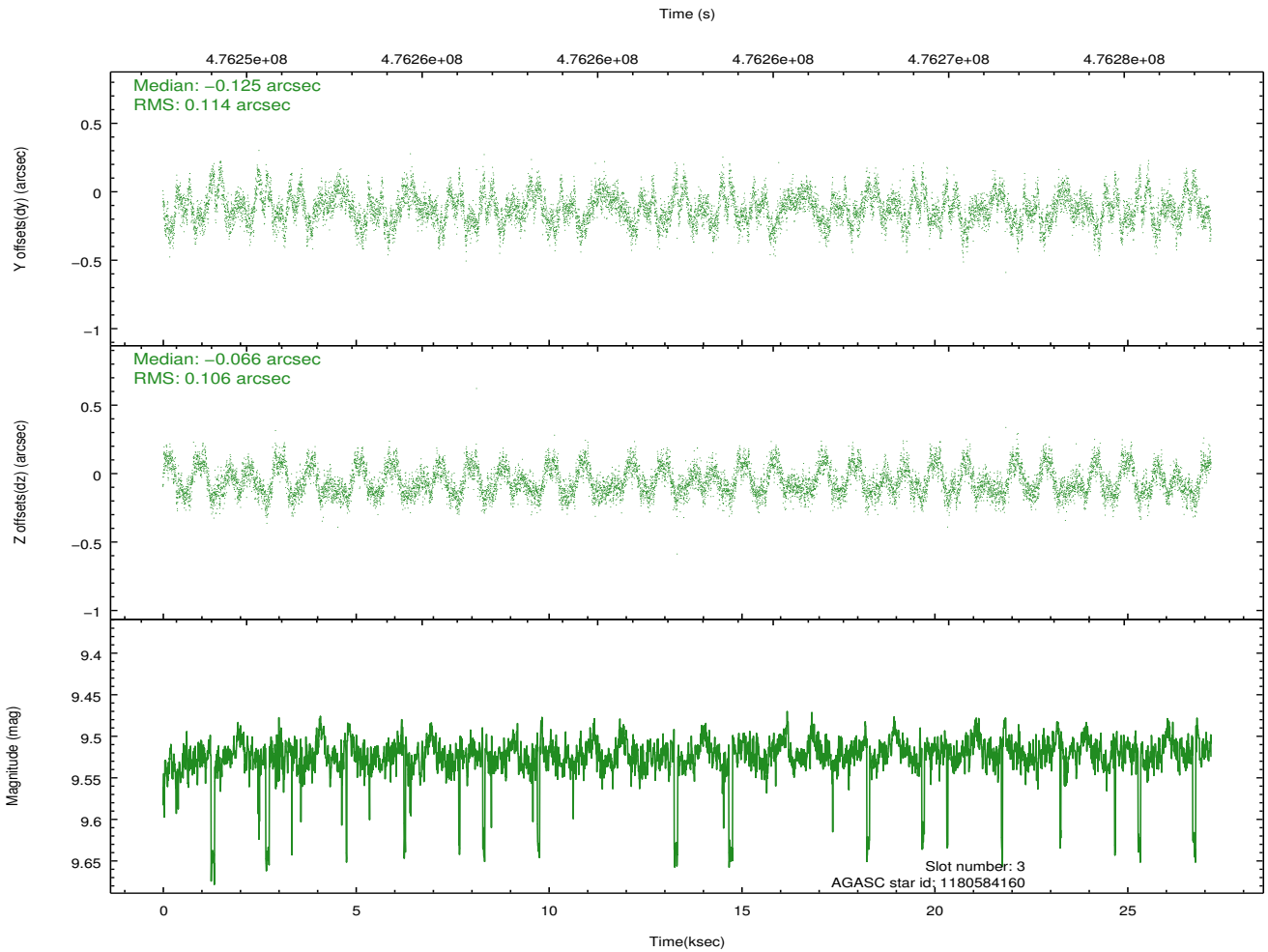
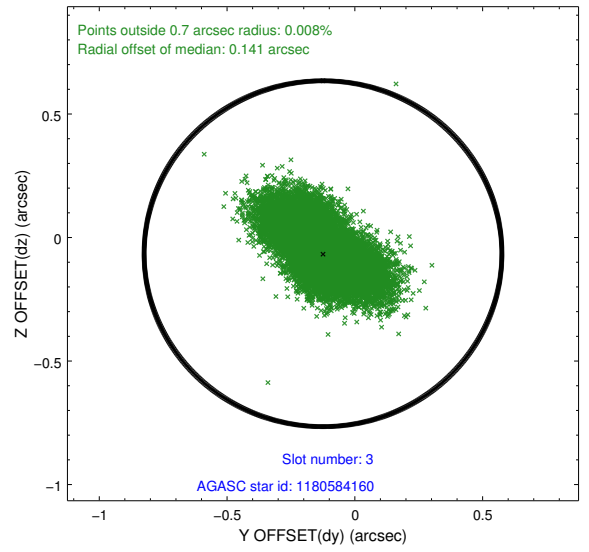
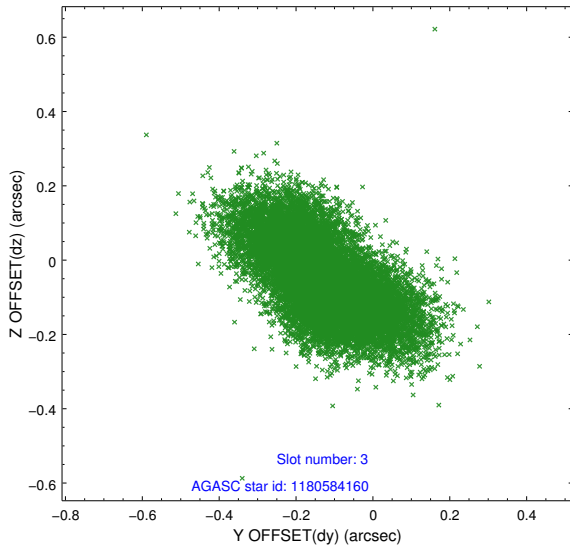
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.06	6629	-0.023	-0.019	0.018	0.034	0.000000	0.000000	918.68	-843.54
1	FID		ACIS-I-4	6.99	6625	0.200	0.047	0.017	0.040	0.000000	0.000000	2138.94	1056.33
2	FID		ACIS-I-5	7.04	6628	-0.277	0.042	0.014	0.028	0.000000	0.000000	-1829.51	1054.15
3	GUIDE	used	1180584160	9.52	13181	-0.125	-0.066	0.164	0.273	221.205741	-61.754749	2058.93	-769.22
4	GUIDE	used	1181104896	6.47	13258	-0.373	-0.660	0.075	0.117	219.299869	-62.010896	323.00	2109.26
5	GUIDE	used	1181107448	9.21	13254	0.187	-0.255	0.098	0.161	219.084809	-62.741785	-2304.15	1724.64
6	GUIDE	used	1181109144	8.38	13252	0.098	0.507	0.079	0.129	221.655127	-62.786083	-1357.53	-2405.13
7	GUIDE	used	1181113992	9.46	13243	0.211	0.477	0.154	0.241	221.650516	-62.822918	-1487.90	-2430.05

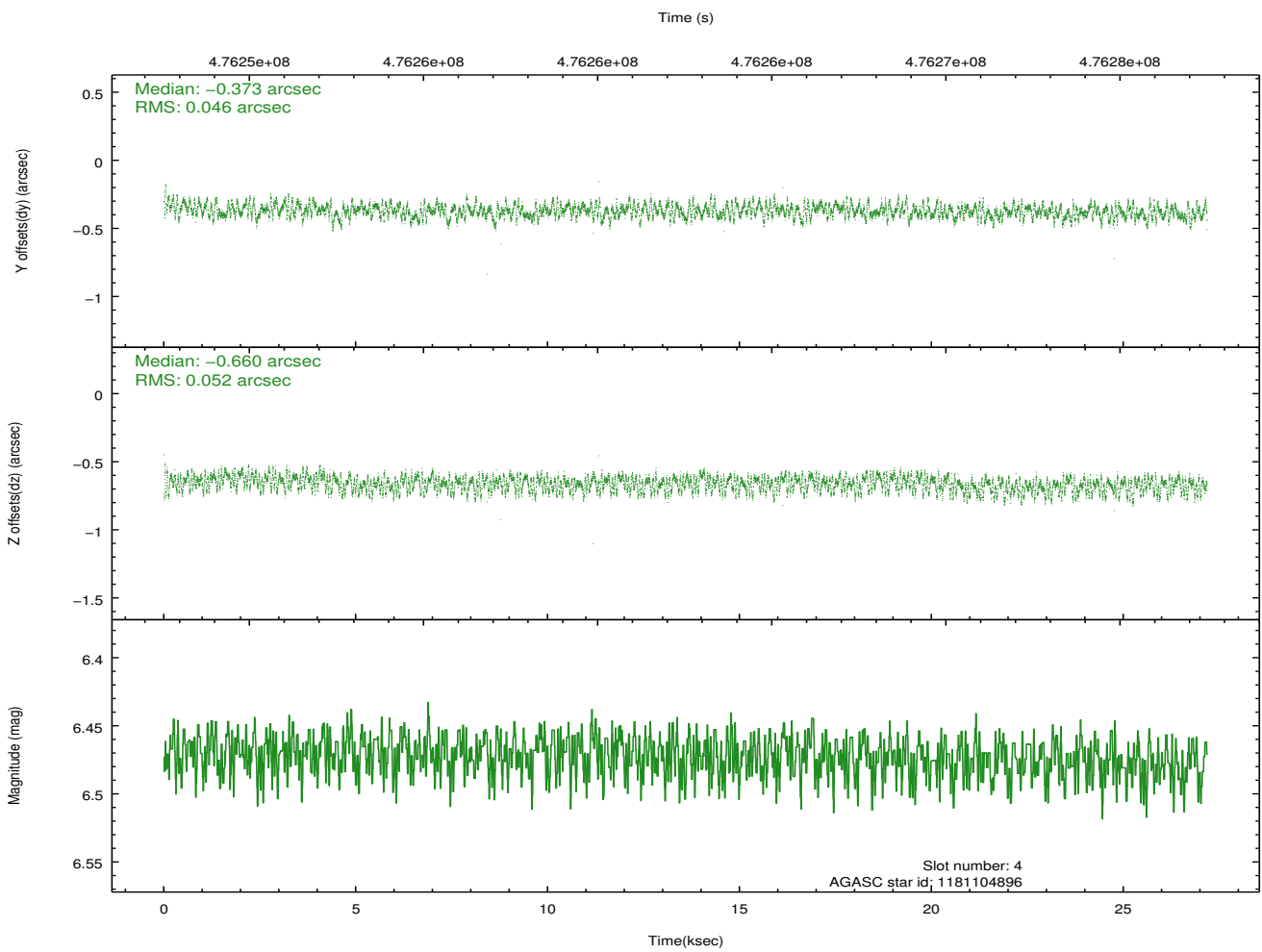
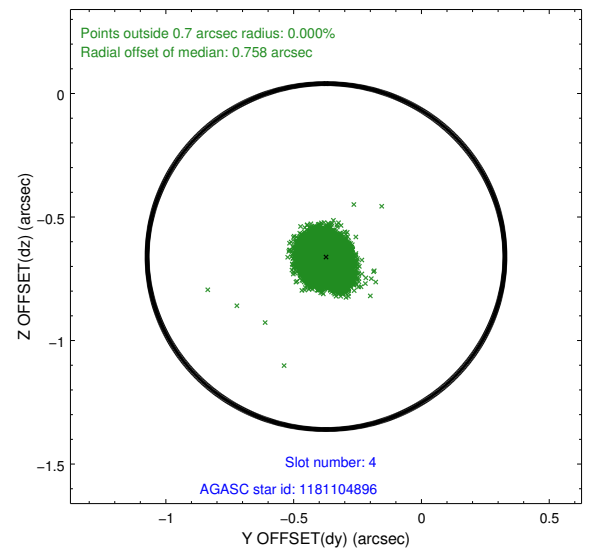
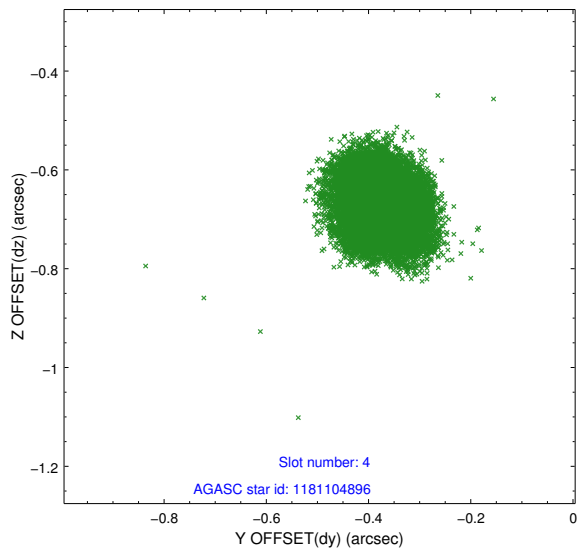
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## 2.4 Star Slots

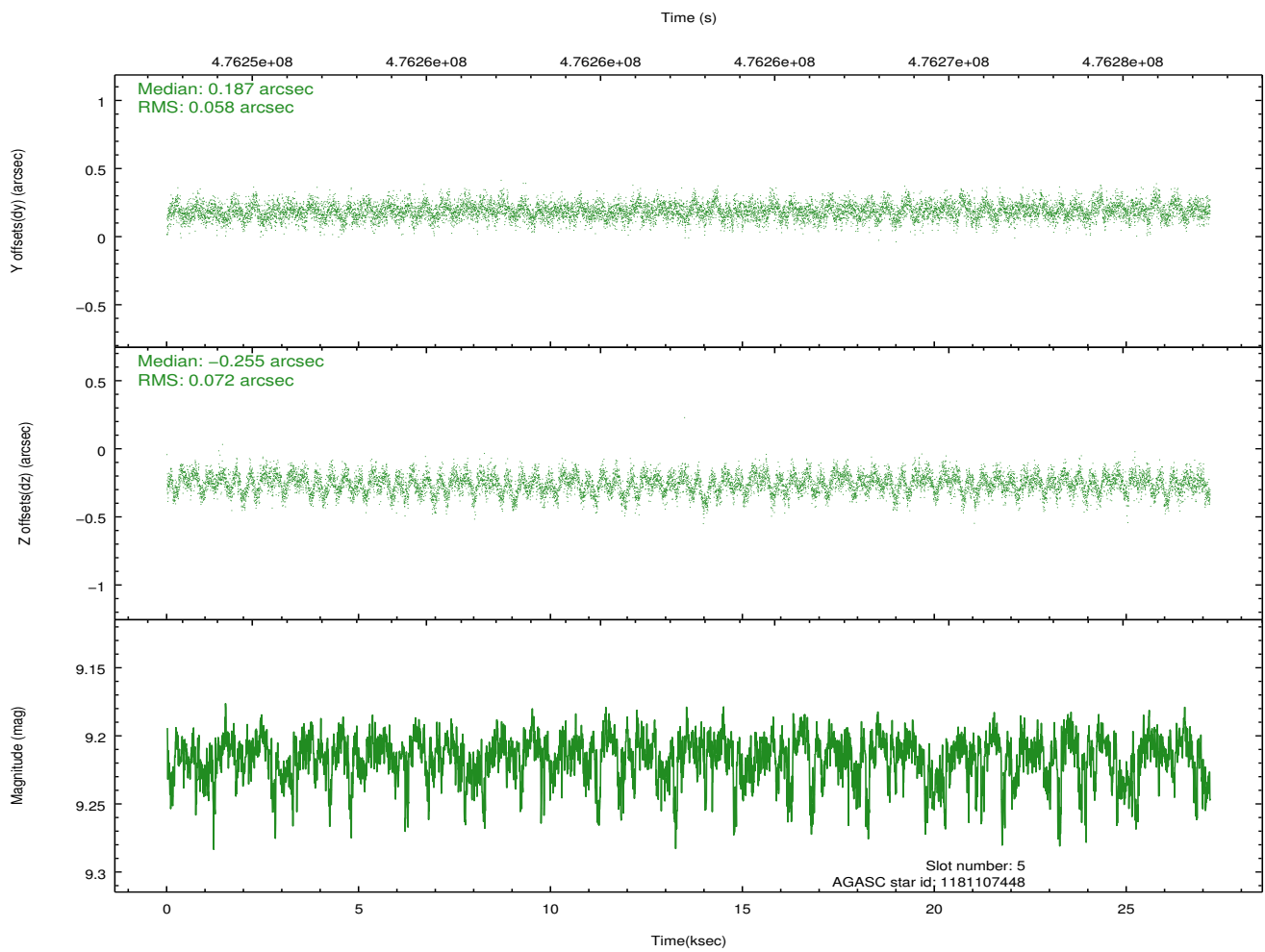
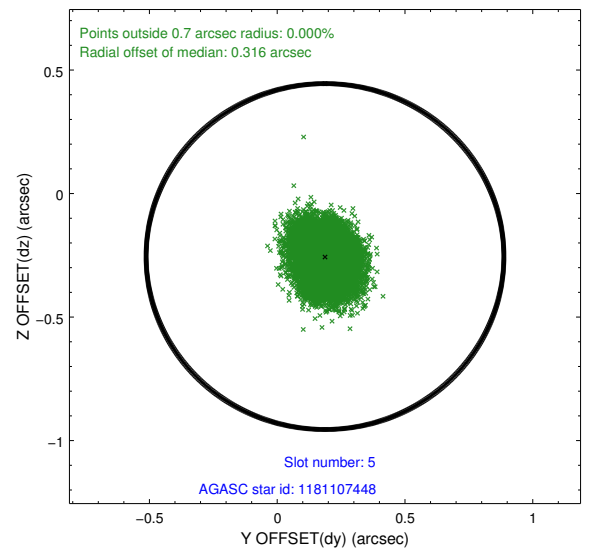
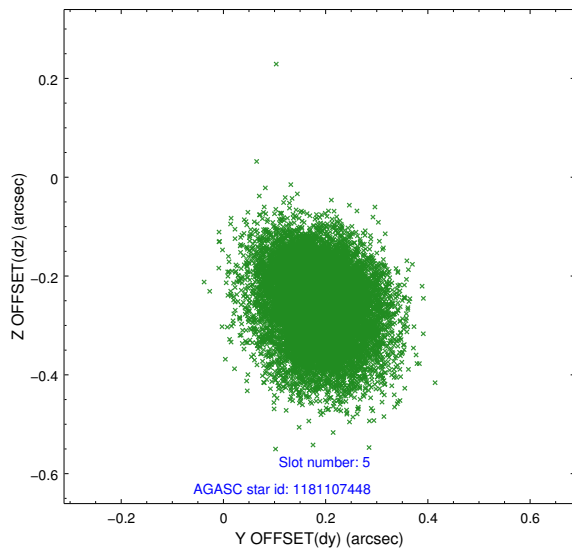
### 2.4.1 Slot 3



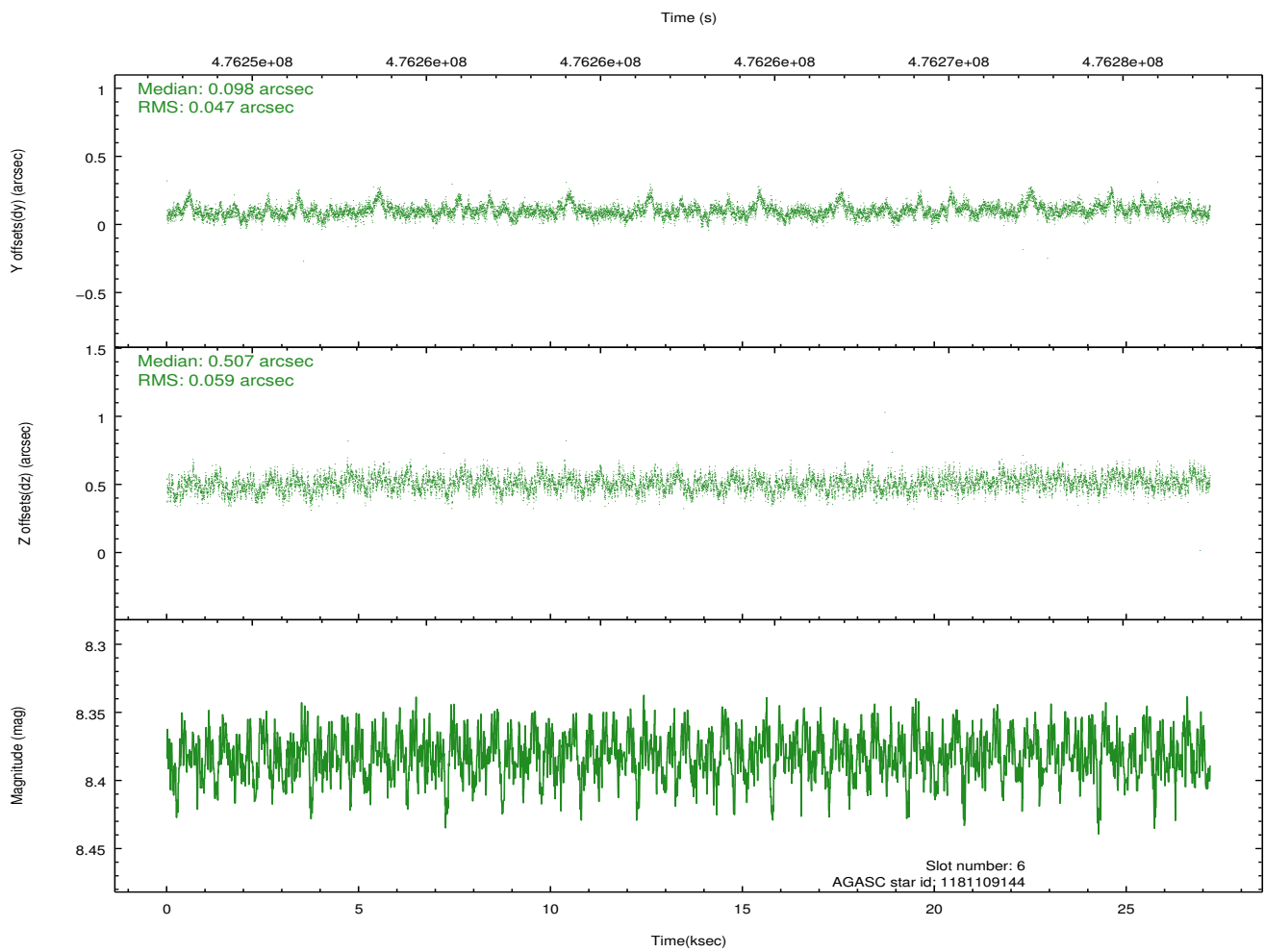
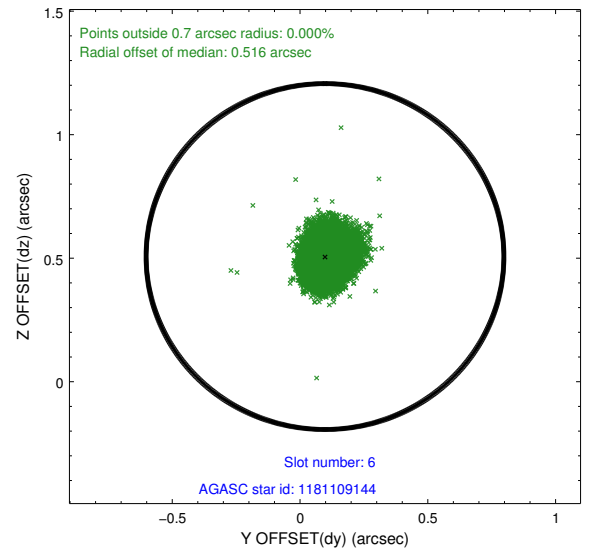
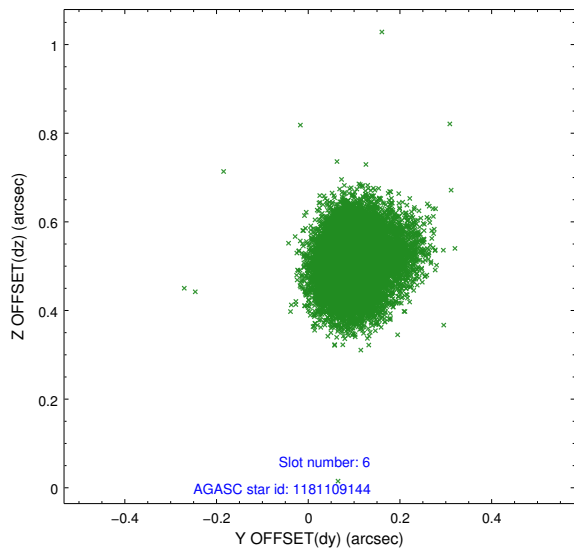
## 2.4.2 Slot 4



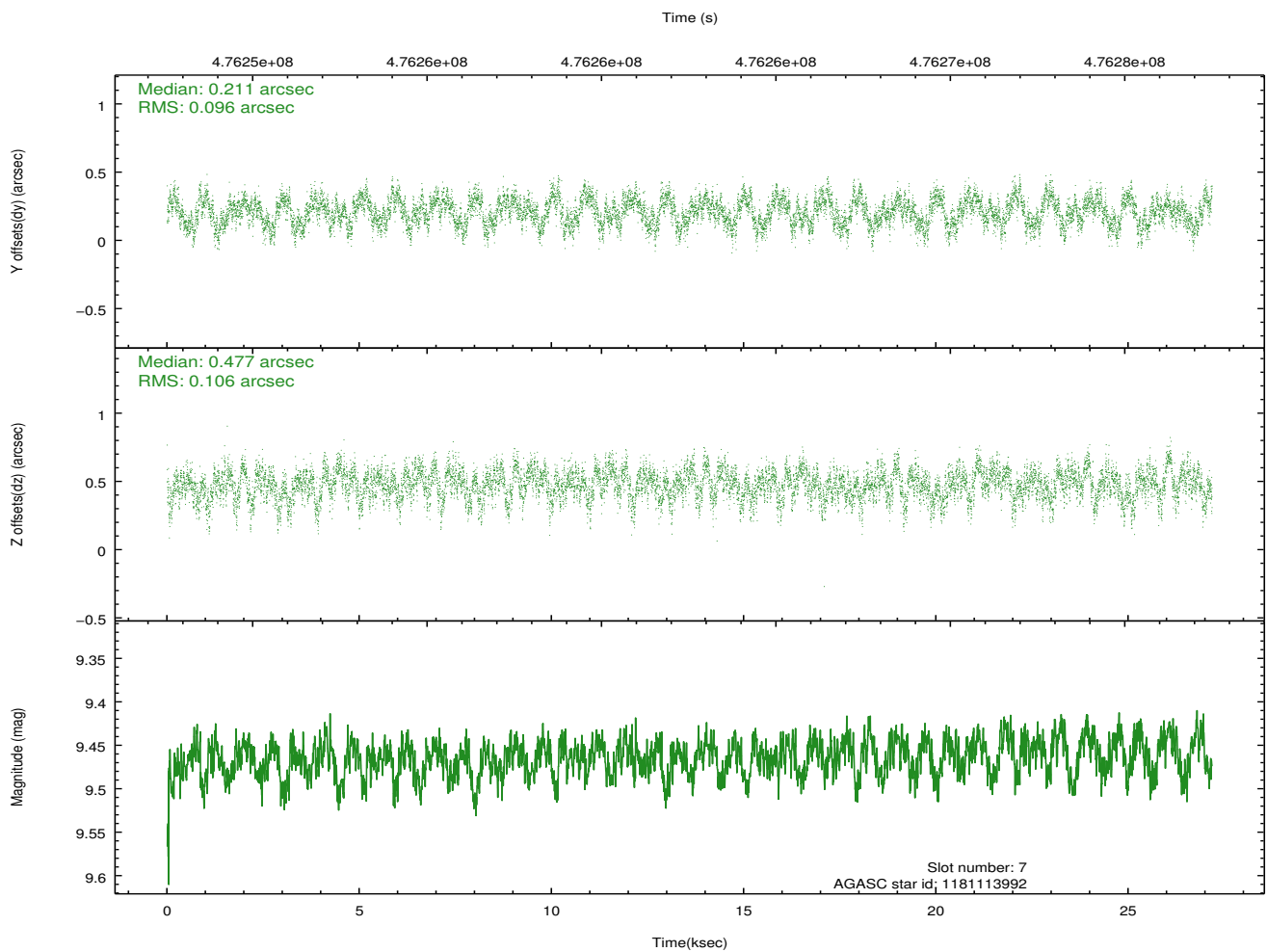
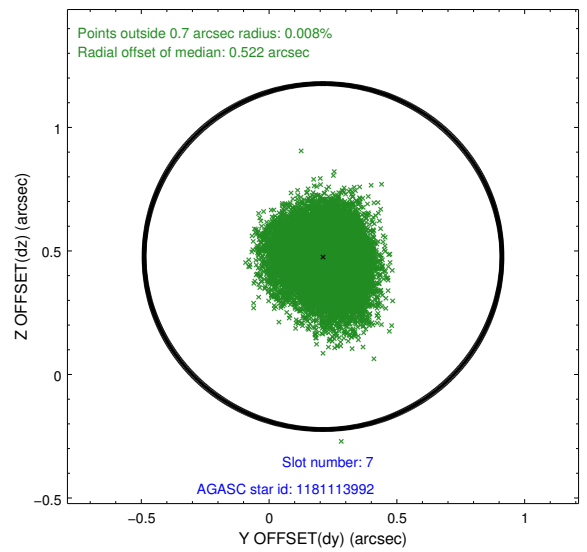
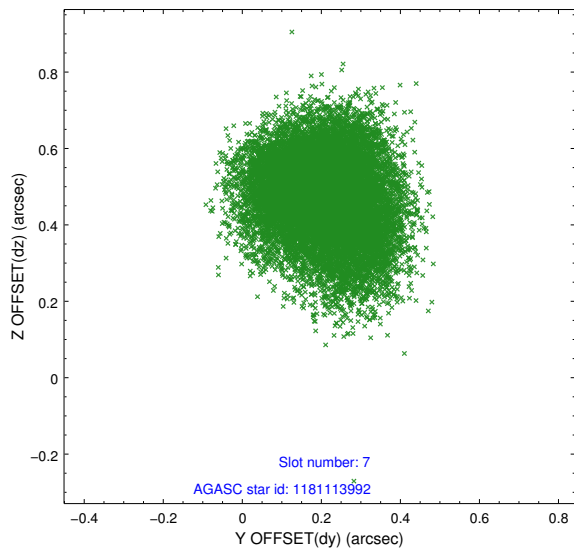
### 2.4.3 Slot 5



## 2.4.4 Slot 6

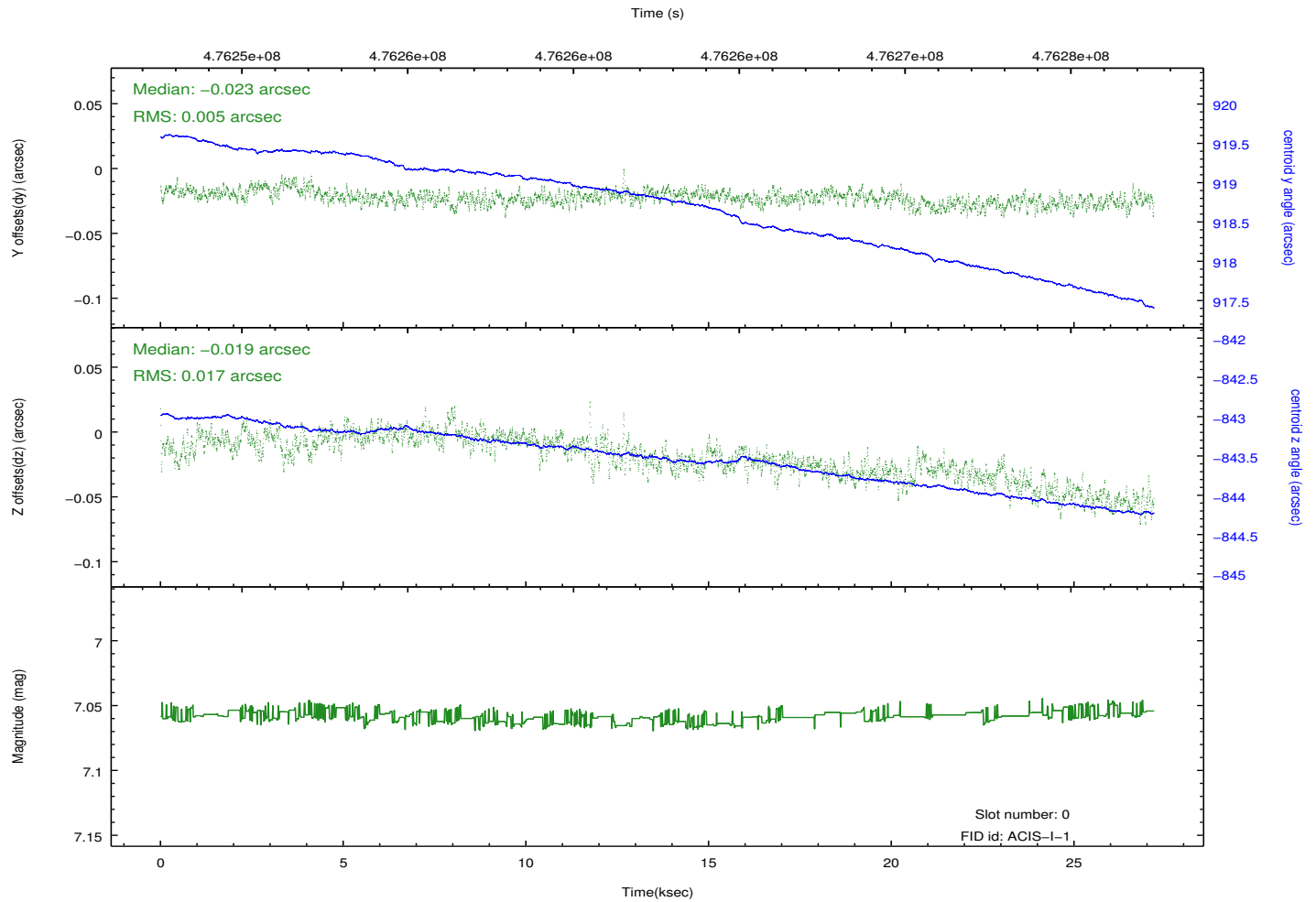
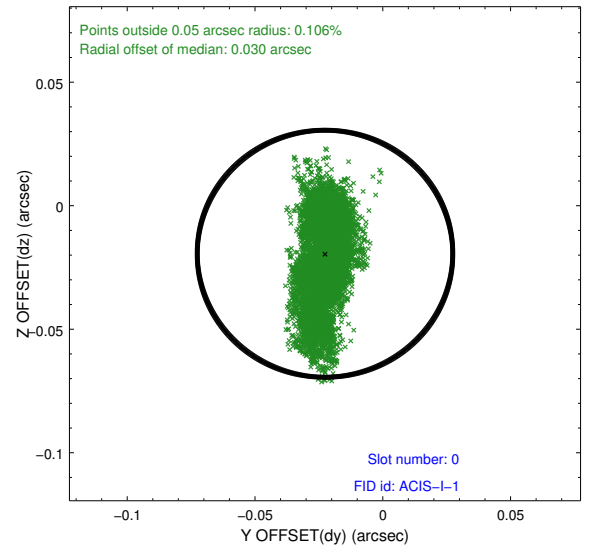
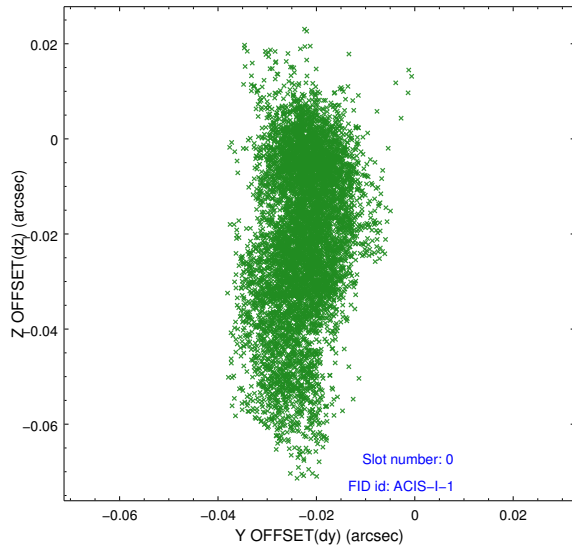


## 2.4.5 Slot 7

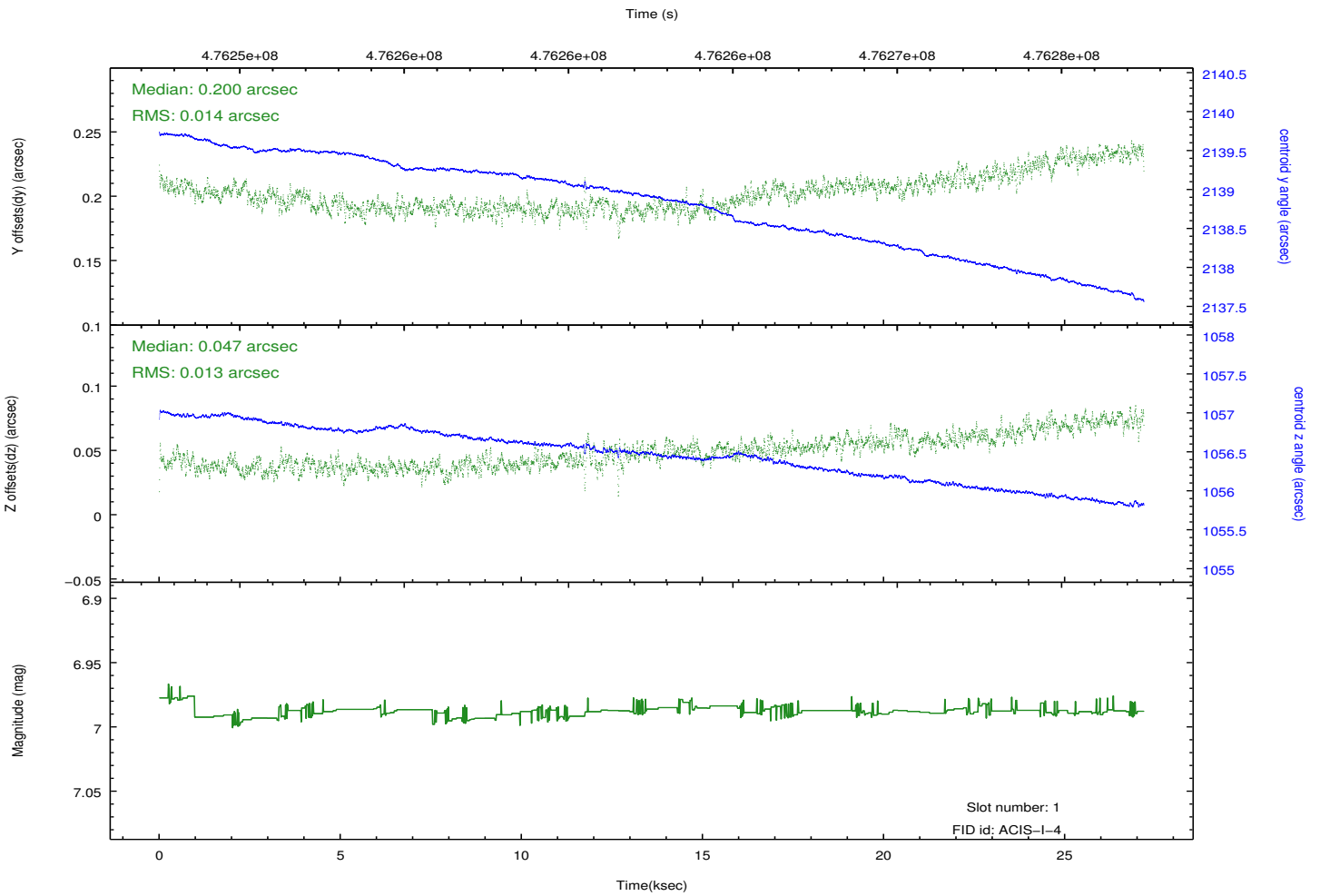
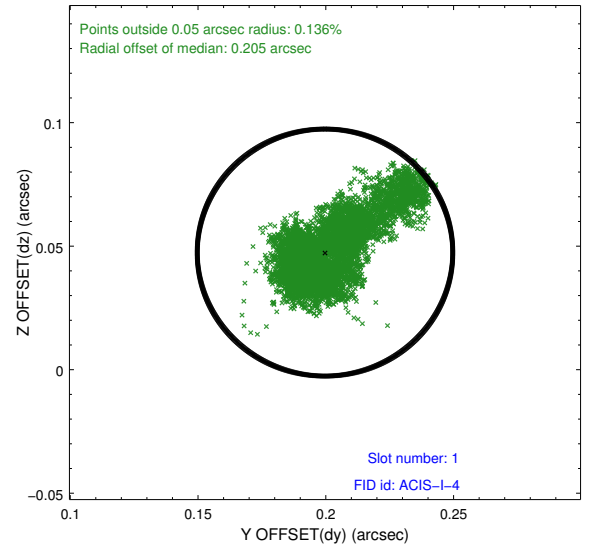
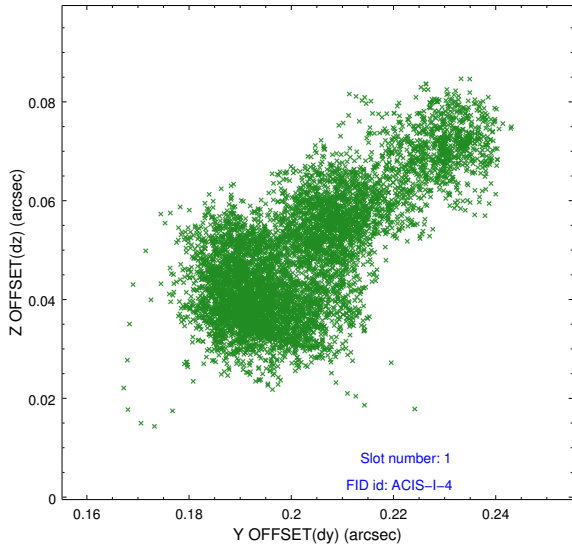


## 2.5 FID Slots

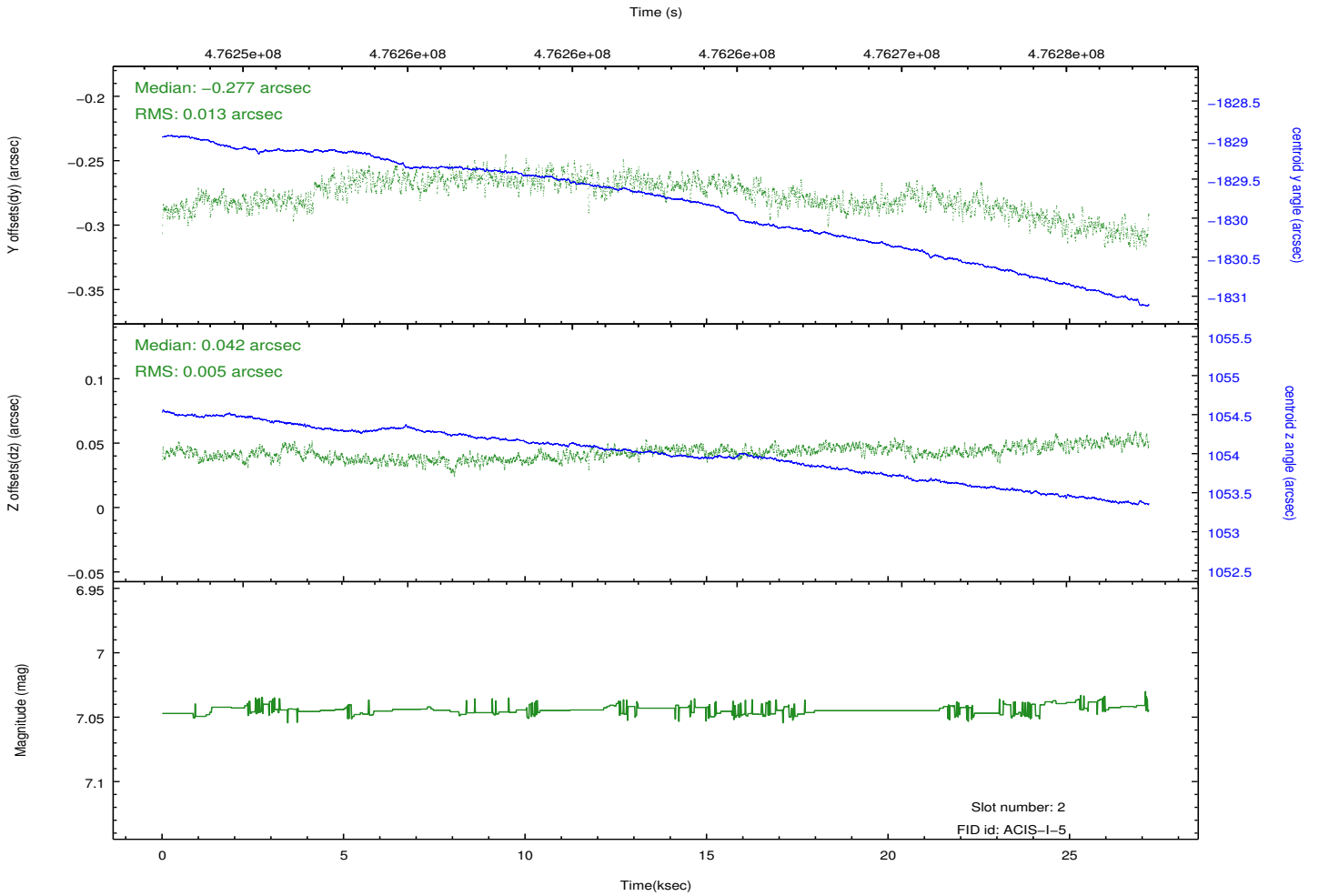
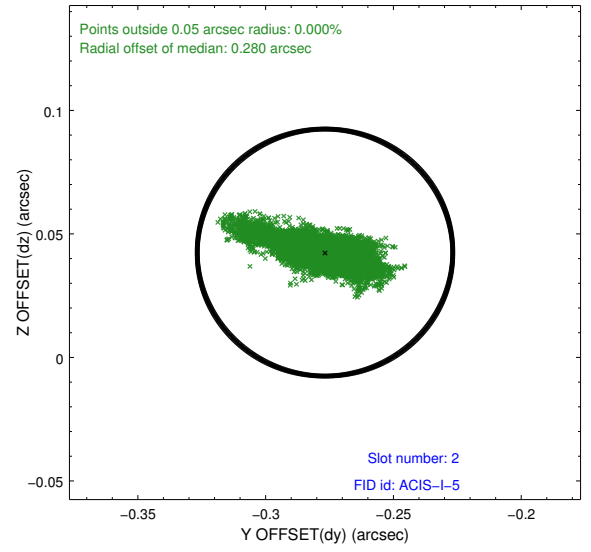
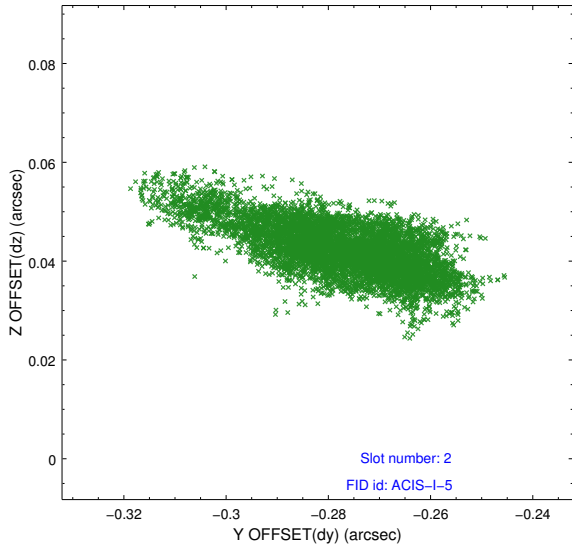
### 2.5.1 Slot 0



## 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)	2014.12.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	27.086929574192

## A.2 Comments

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.