

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 6222 - L2 Version 4  
Chandra X-Ray Center

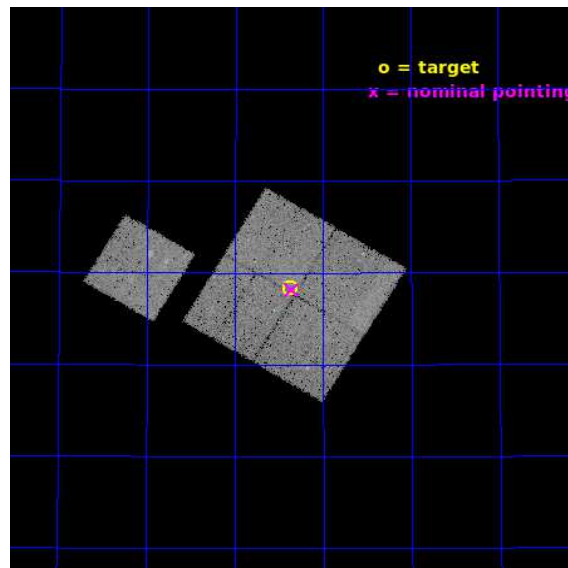
L2 Processing Date : Oct 9 2020

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# 1 Front

seq_num	900354	Sequence number
obs_id	6222	Observation id
title	Deep Chandra Imaging of the Extended Groth Strip: The Co-evolution of Black Holes and Galaxies	Proposal title
observer	Prof Kirpal Nandra	Principal investigator
object	Extended Groth Strip (EGS)	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	213.843735	Observer's specified target RA [deg]
dec_targ	52.140667	Observer's specified target Dec [deg]
ra_nom	213.83855454116	Nominal RA [deg]
dec_nom	52.136296706684	Nominal Dec [deg]
roll_nom	300.95840603494	Nominal Roll [deg]
revision	4	Processing version of data
ontime	35153.958952129	Sum of GTIs [s]
livetime	34694.646598451	Livetime [s]
ontime0	35150.817922056	Sum of GTIs [s]
ontime1	35157.099932373	Sum of GTIs [s]
ontime2	35147.677081287	Sum of GTIs [s]
ontime3	35153.958952129	Sum of GTIs [s]
ontime6	35150.817932069	Sum of GTIs [s]
l2events	92596	Number of level 2 events

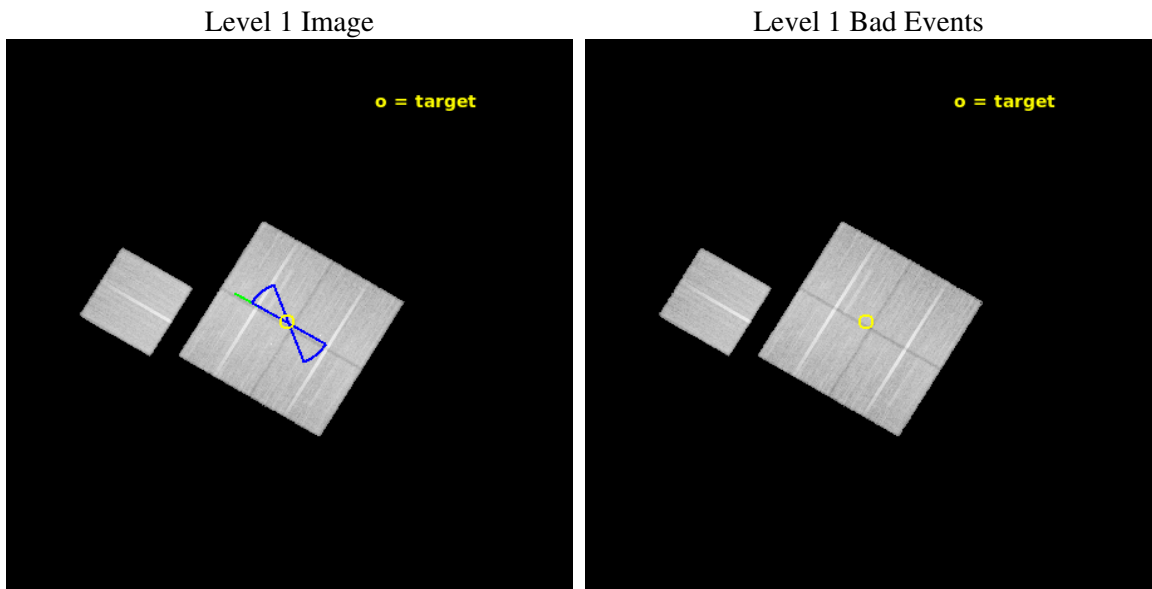




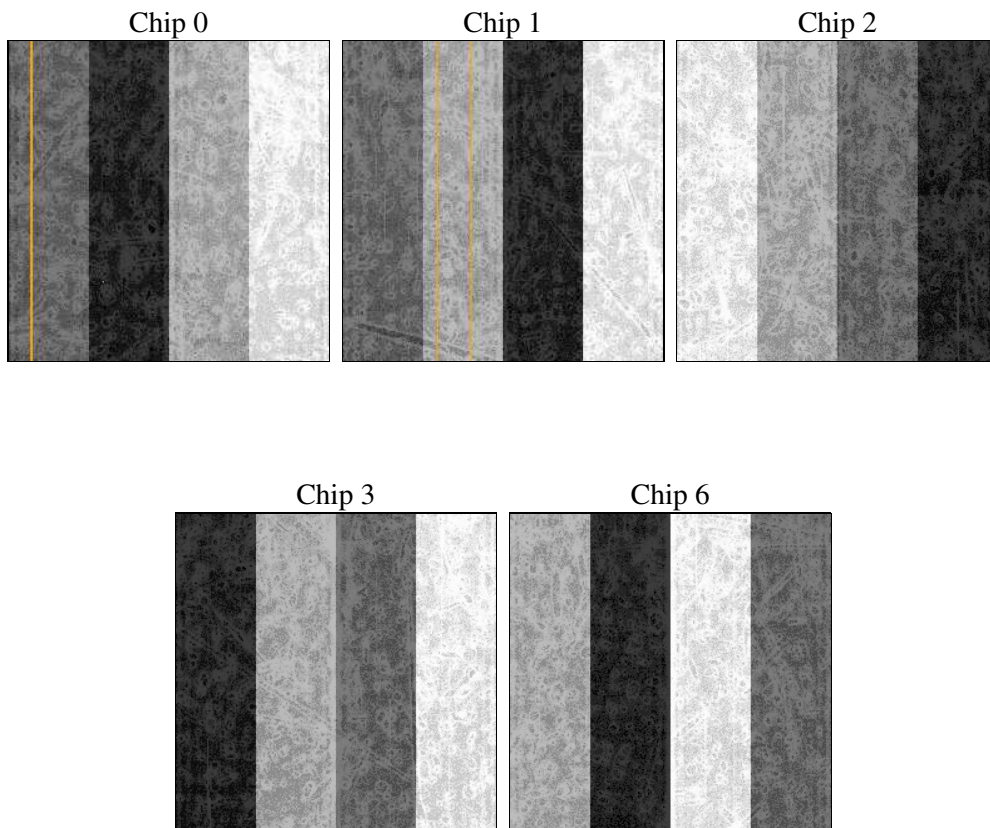
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	35000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	35153.958952129	Sum of GTIs [s]
caldsver	4.9.2	&#160	ontime0	35150.817922056	Sum of GTIs [s]
date	2020-10-10T00:13:19	Date and time of file creation	ontime1	35157.099932373	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	35147.677081287	Sum of GTIs [s]
			ontime3	35153.958952129	Sum of GTIs [s]
			ontime6	35150.817932069	Sum of GTIs [s]
			l1events	1098317	Number of level 1 events

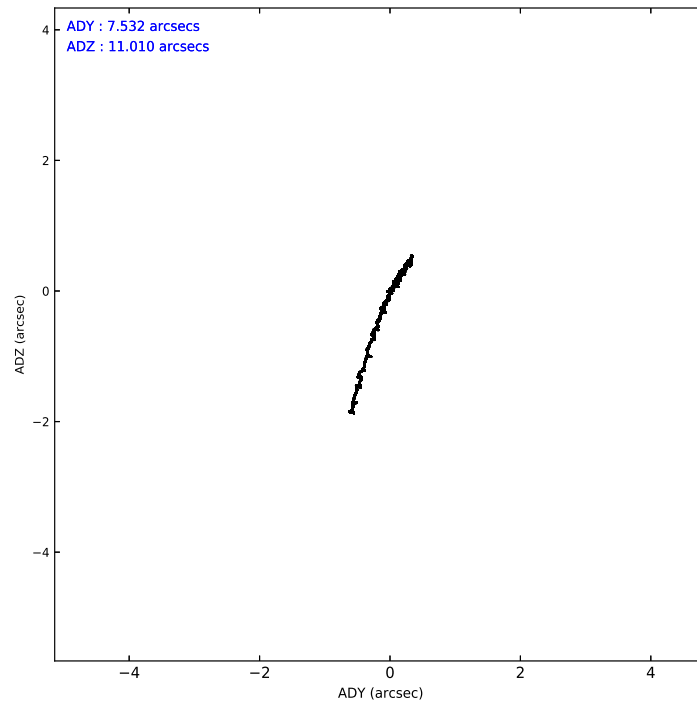
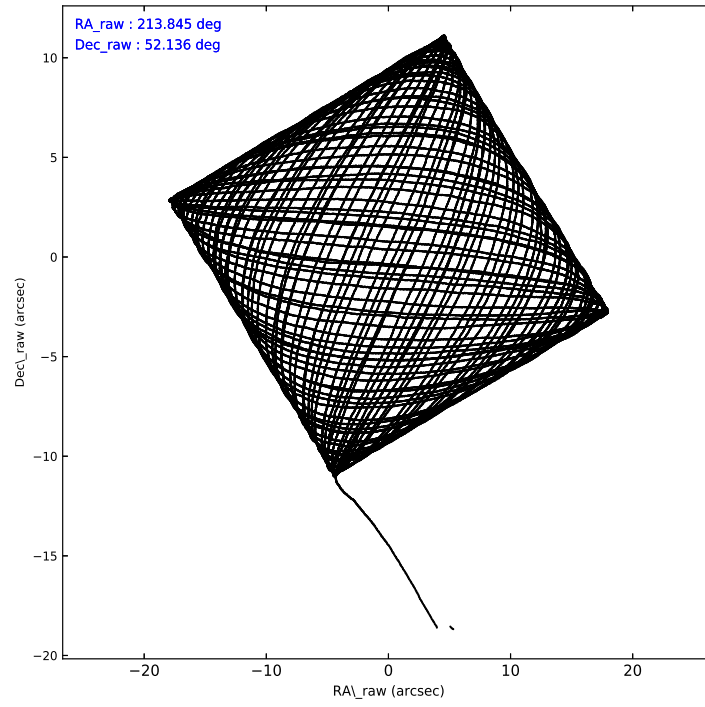
### 2.1.4 Events

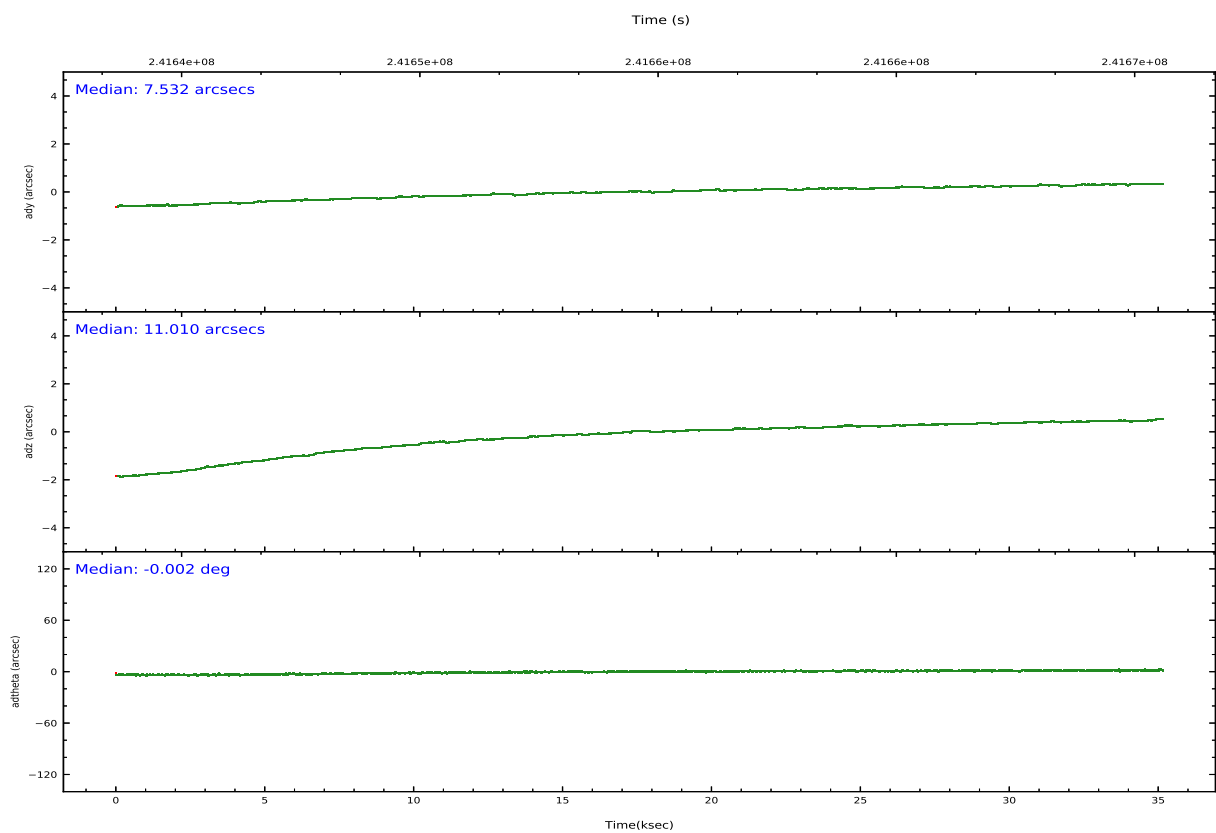
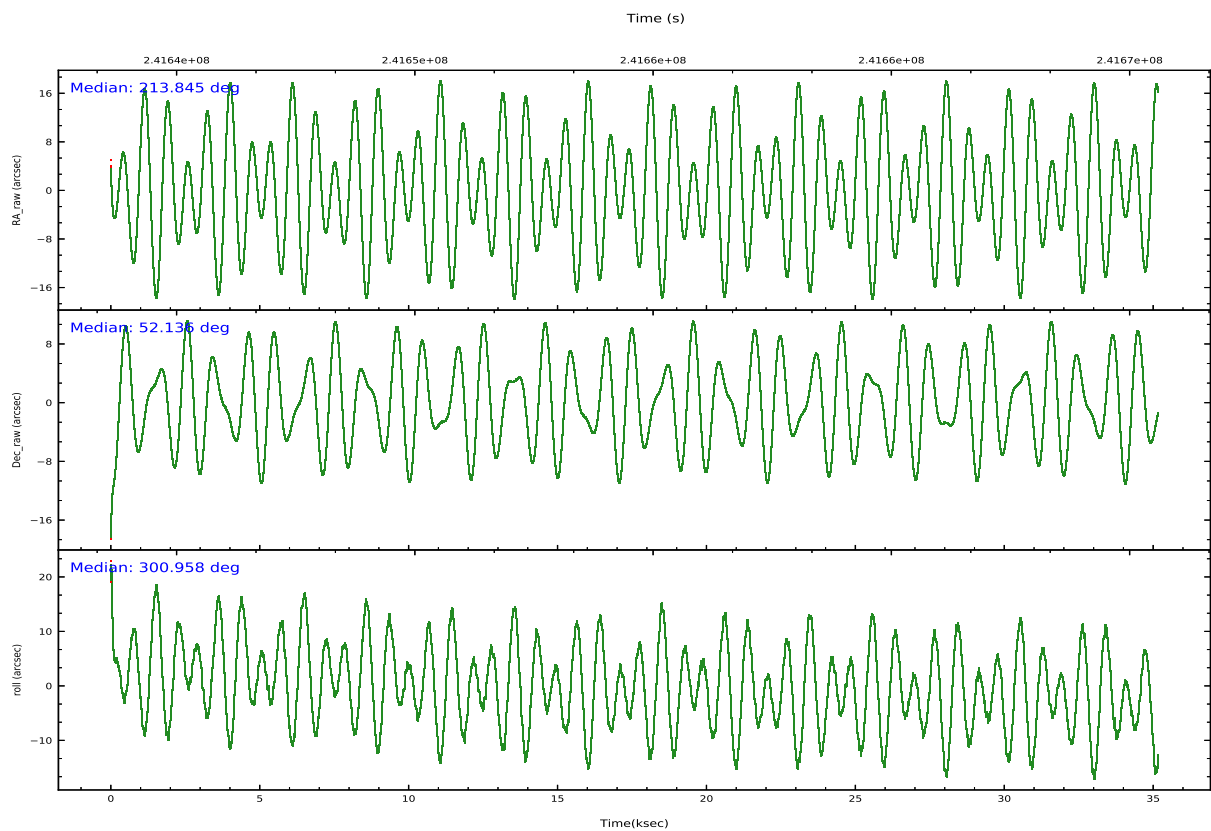
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	209661	207510	235541	220558	225047	grade 0 events	7612	9158	8174	7650	8235
rejected events	188000	182707	213588	199416	202090		3%	4%	3%	3%	3%
rejected %	89%	88%	90%	90%	89%	grade 1 events	115	108	127	121	105
							0%	0%	0%	0%	0%
						grade 2 events	5144	5482	5255	4684	4992
							2%	2%	2%	2%	2%
						grade 3 events	2511	2631	2281	2398	2597
							1%	1%	0%	1%	1%
						grade 4 events	2377	2652	2412	2368	2596
							1%	1%	1%	1%	1%
						grade 5 events	7630	8571	7208	8749	8765
							3%	4%	3%	3%	3%
						grade 6 events	4212	5060	4020	4251	4734
							2%	2%	1%	1%	2%
						grade 7 events	180060	173848	206064	190337	193023
							85%	83%	87%	86%	85%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-01236	ACIS-01236	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	213.805675	213.83855454116	Subarray requested	NONE	NONE
[deg] Pointing Dec	52.149270	52.136296706684	Alternating exposures requested	N	N
[deg] Pointing Roll	300.786054	300.95840603494	[s] Primary exposure time	0.000000	3.1
[deg] Roll angle	50.756000	50.756000			
[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)	241637956.184000	241636824.85436			
Observation start date	2005-08-28T17:38:12	2005-08-28T17:20:24			
[s] Observation end time (MET)	241672956.184000	241673920.63106			
Observation end date	2005-08-29T03:21:32	2005-08-29T03:38:40			
Read mode	TIMED	TIMED			

## 2.3 Aspect



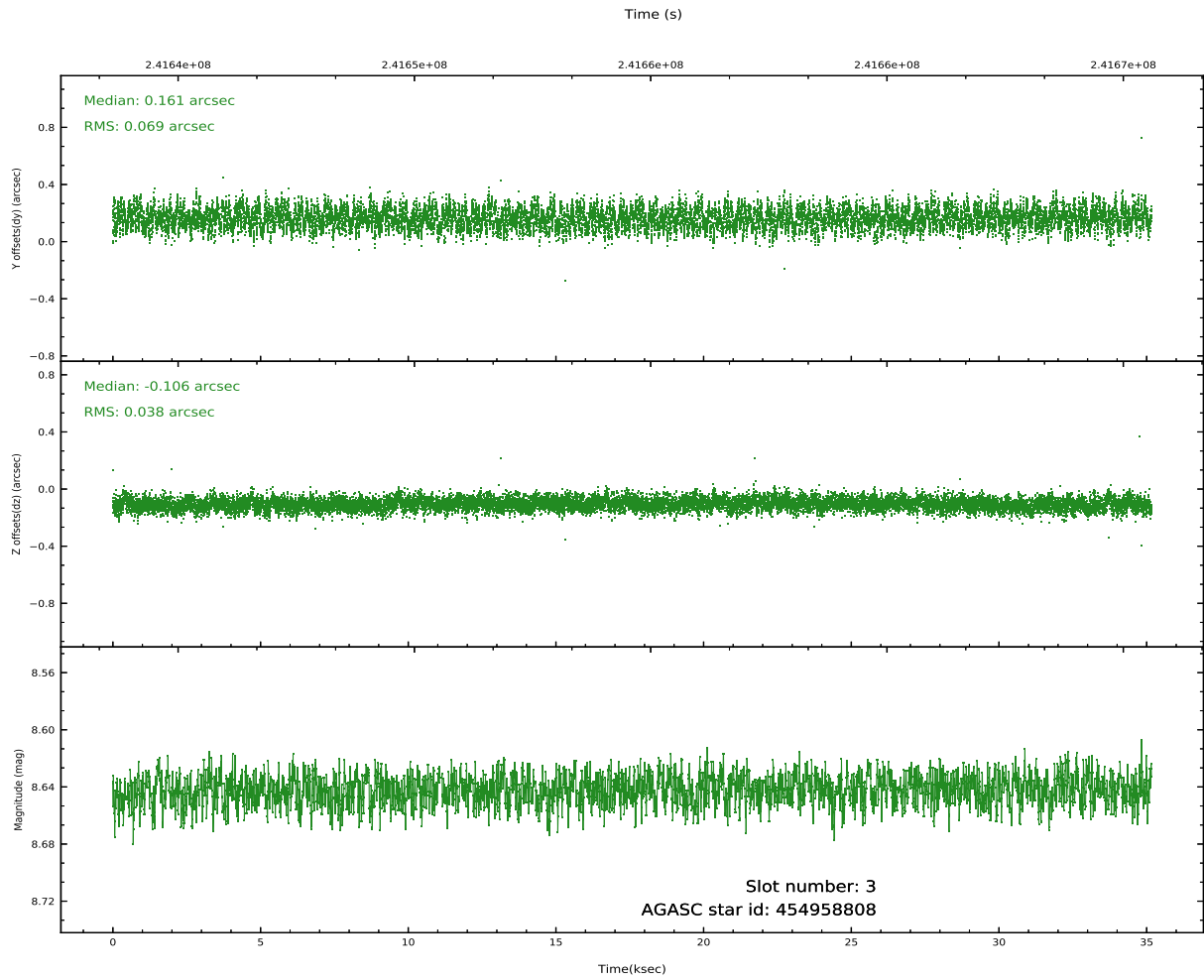
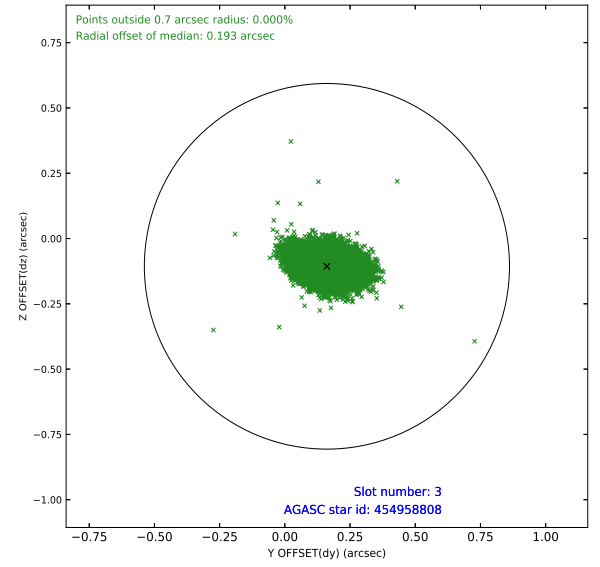
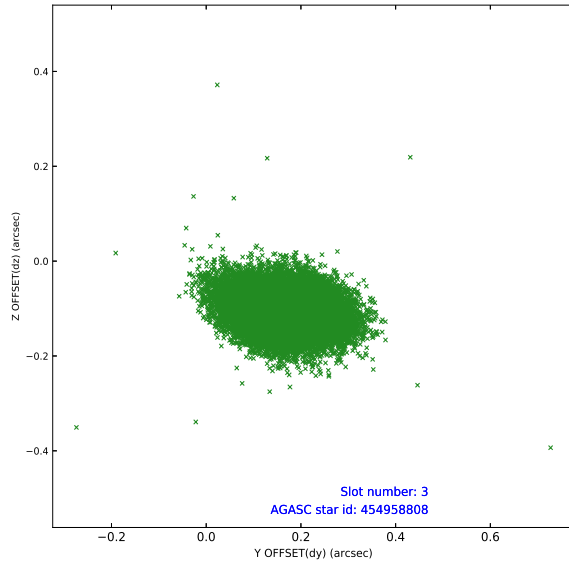


Slot Statistics

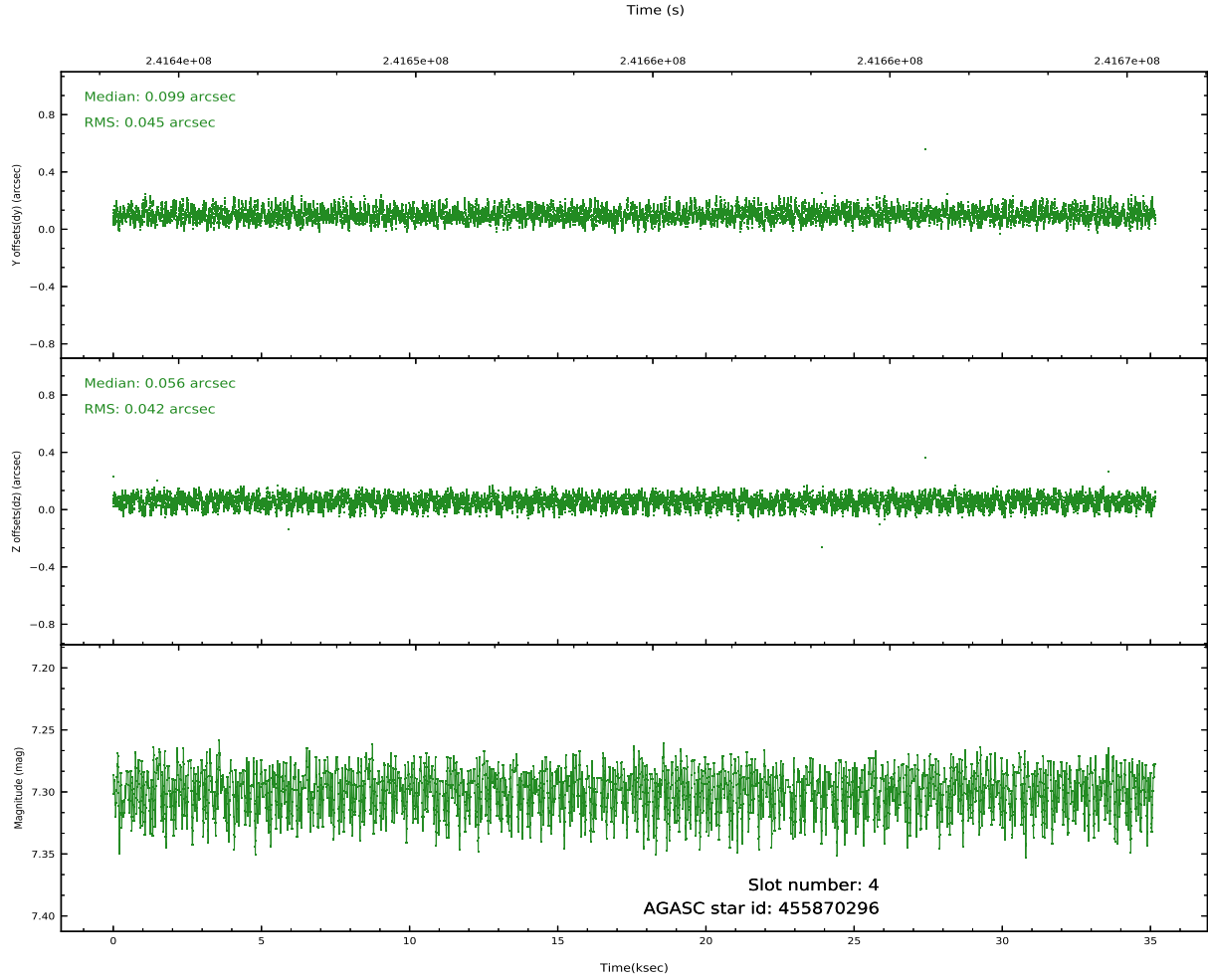
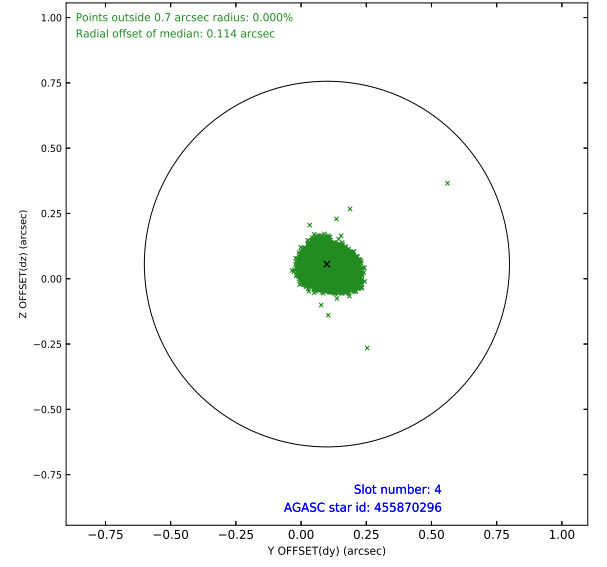
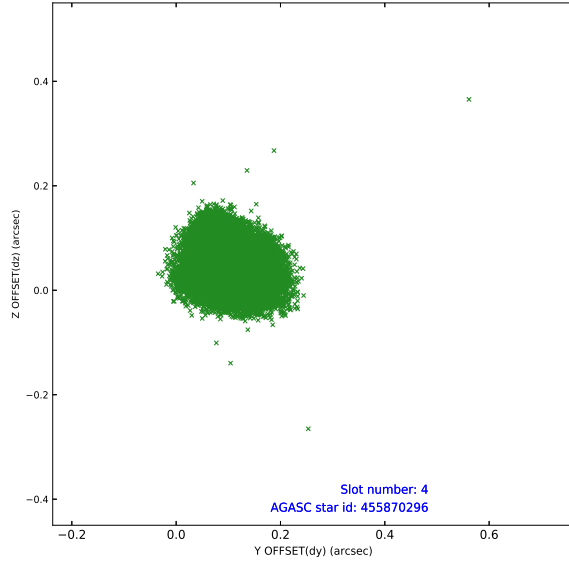
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.24	8578	1.000	0.043	-0.042	0.022	0.067	0.000000	0.000000	932.22	-834
1	FID		ACIS-I-5	7.23	8578	1.000	-0.206	0.042	0.018	0.029	0.000000	0.000000	-1816.11	1063
2	FID		ACIS-I-6	7.25	8576	1.000	0.074	0.067	0.012	0.037	0.000000	0.000000	397.77	1707
3	GUIDE	used	454958808	8.64	17147	1.000	0.161	-0.106	0.083	0.136	213.416486	51.296487	2187.63	-2322
4	GUIDE	used	455870296	7.30	17152	1.000	0.099	0.056	0.067	0.101	214.629779	52.033323	1284.01	1359
5	GUIDE	used	505806936	7.02	17153	1.000	-0.099	-0.009	0.055	0.113	213.820815	52.535927	-1178.89	741
6	GUIDE	used	505812376	7.56	17155	1.000	-0.087	0.031	0.046	0.075	214.039537	52.937930	-2180.53	1889
7	GUIDE	used	454958240	9.05	17132	1.000	-0.085	0.021	0.108	0.169	212.550018	52.097330	-1281.00	-2468

## 2.4 Star Slots

### 2.4.1 Slot 3

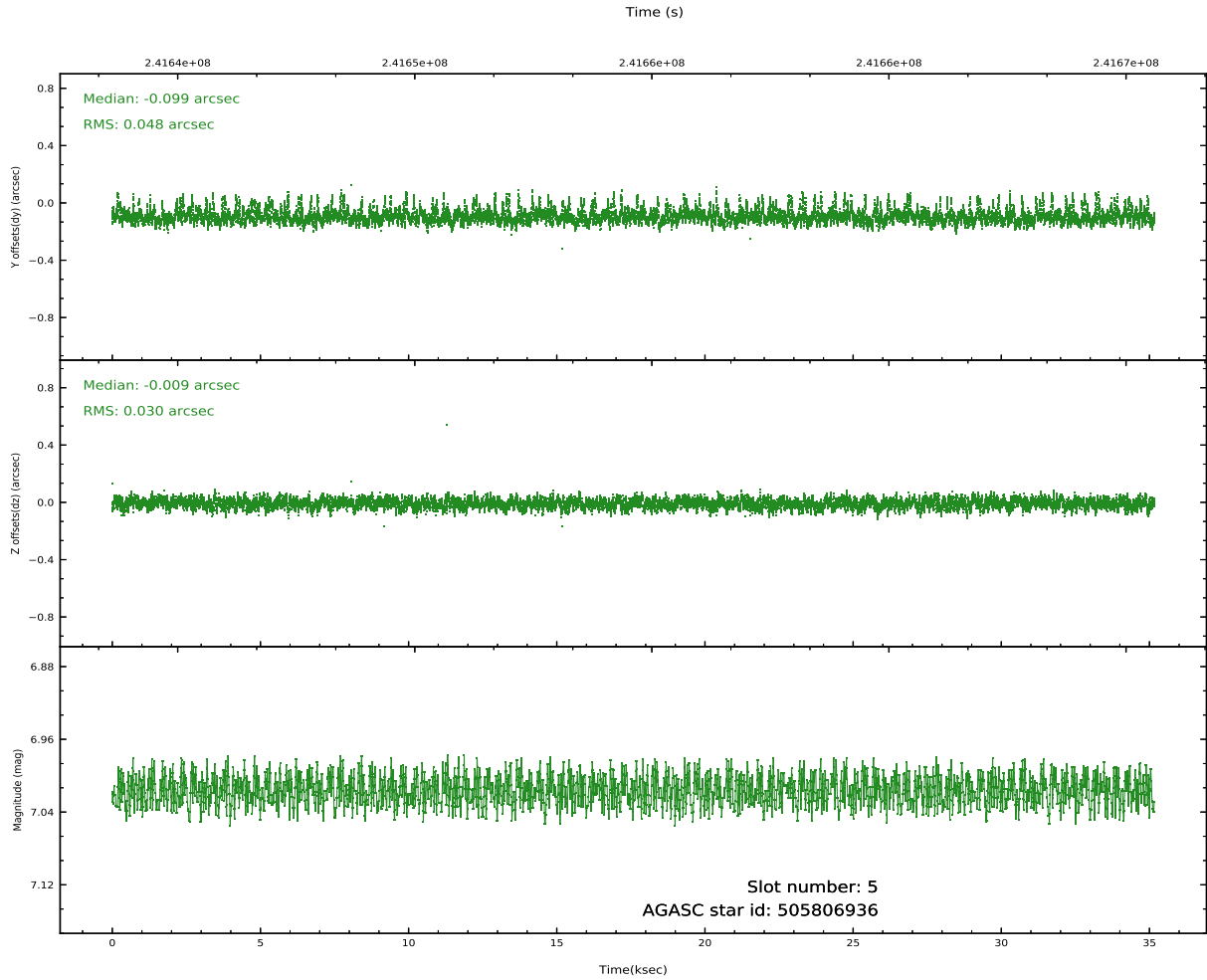
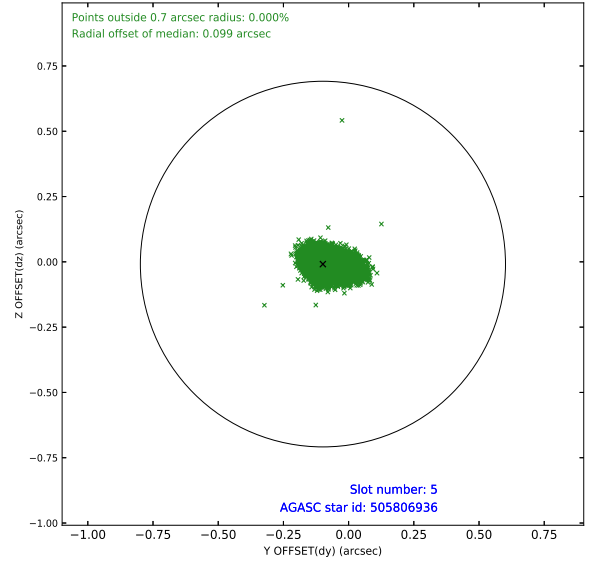
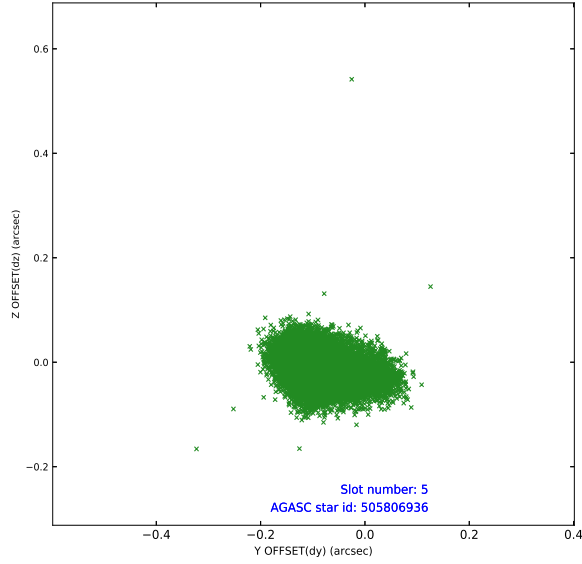


## 2.4.2 Slot 4

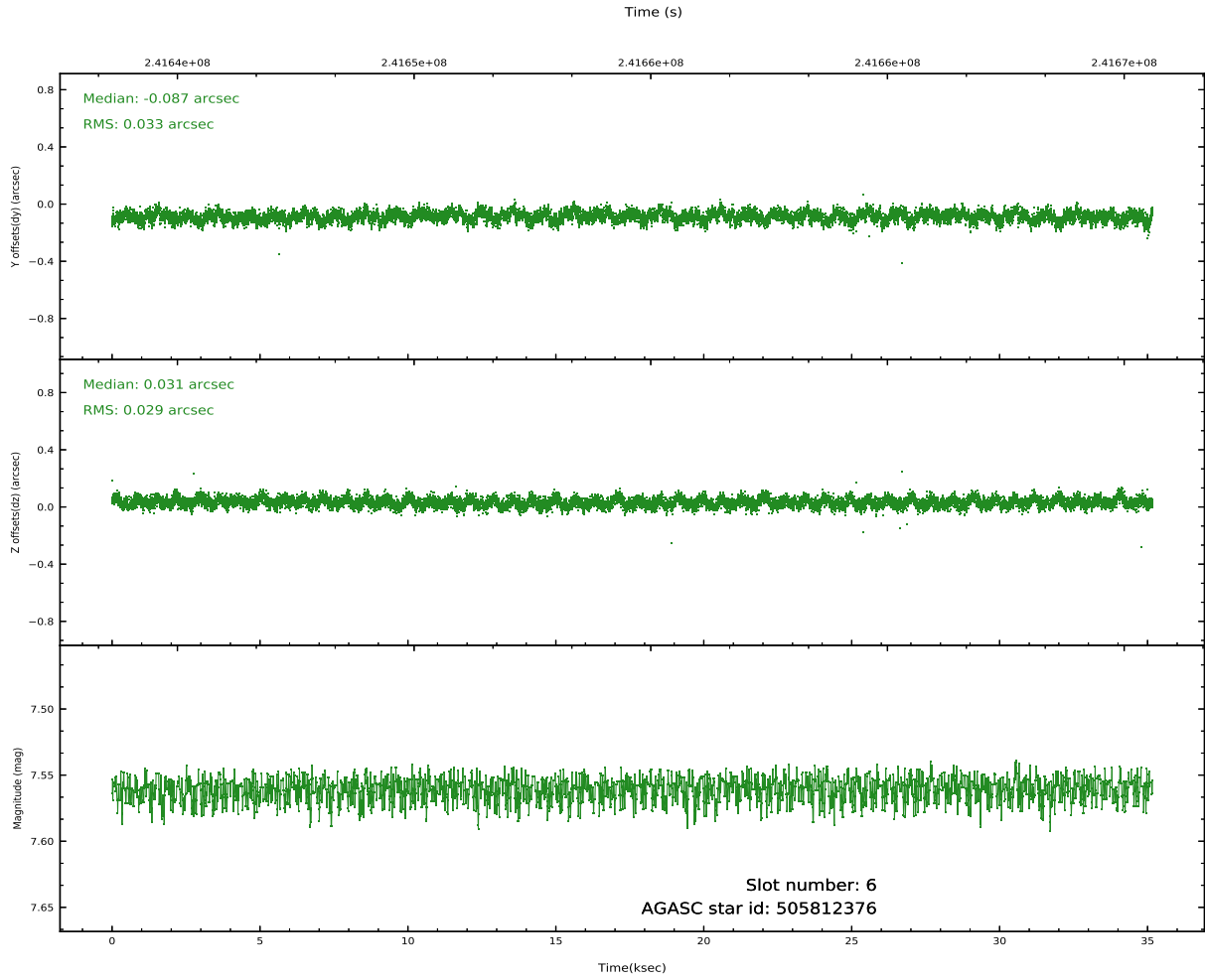
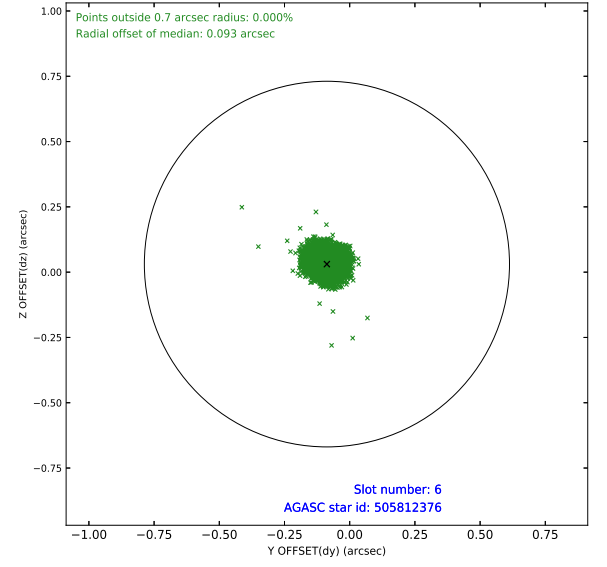
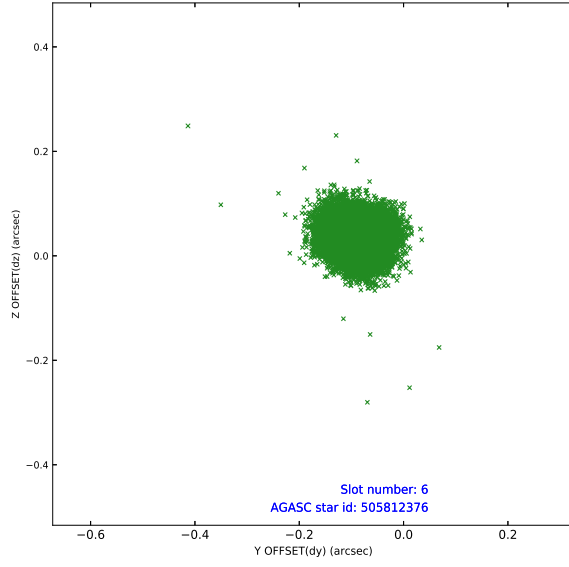




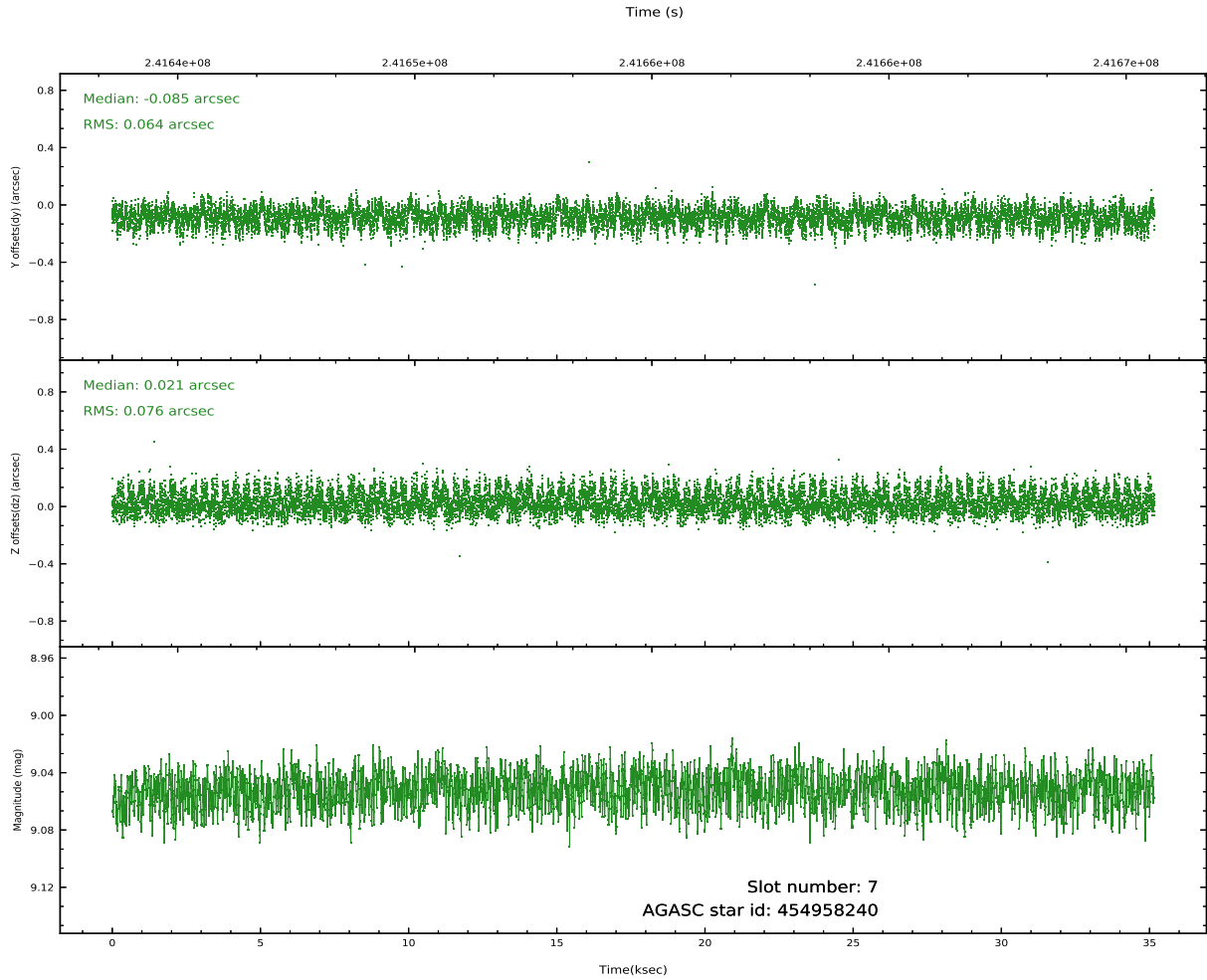
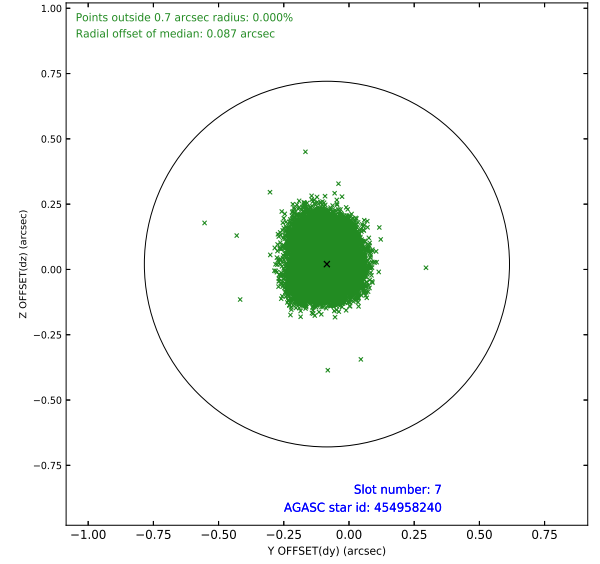
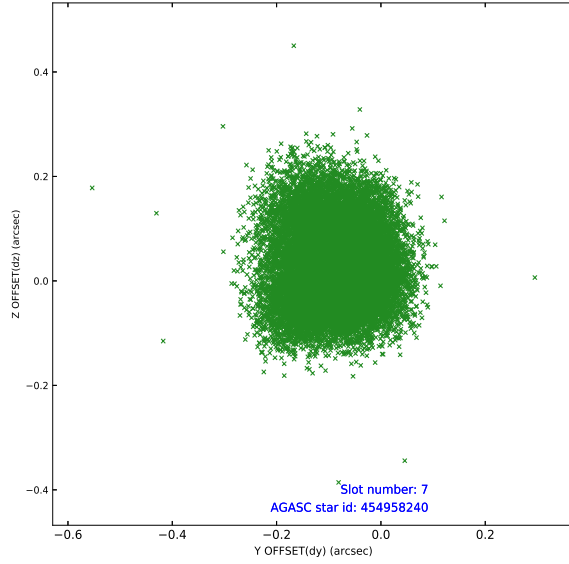
### 2.4.3 Slot 5



## 2.4.4 Slot 6

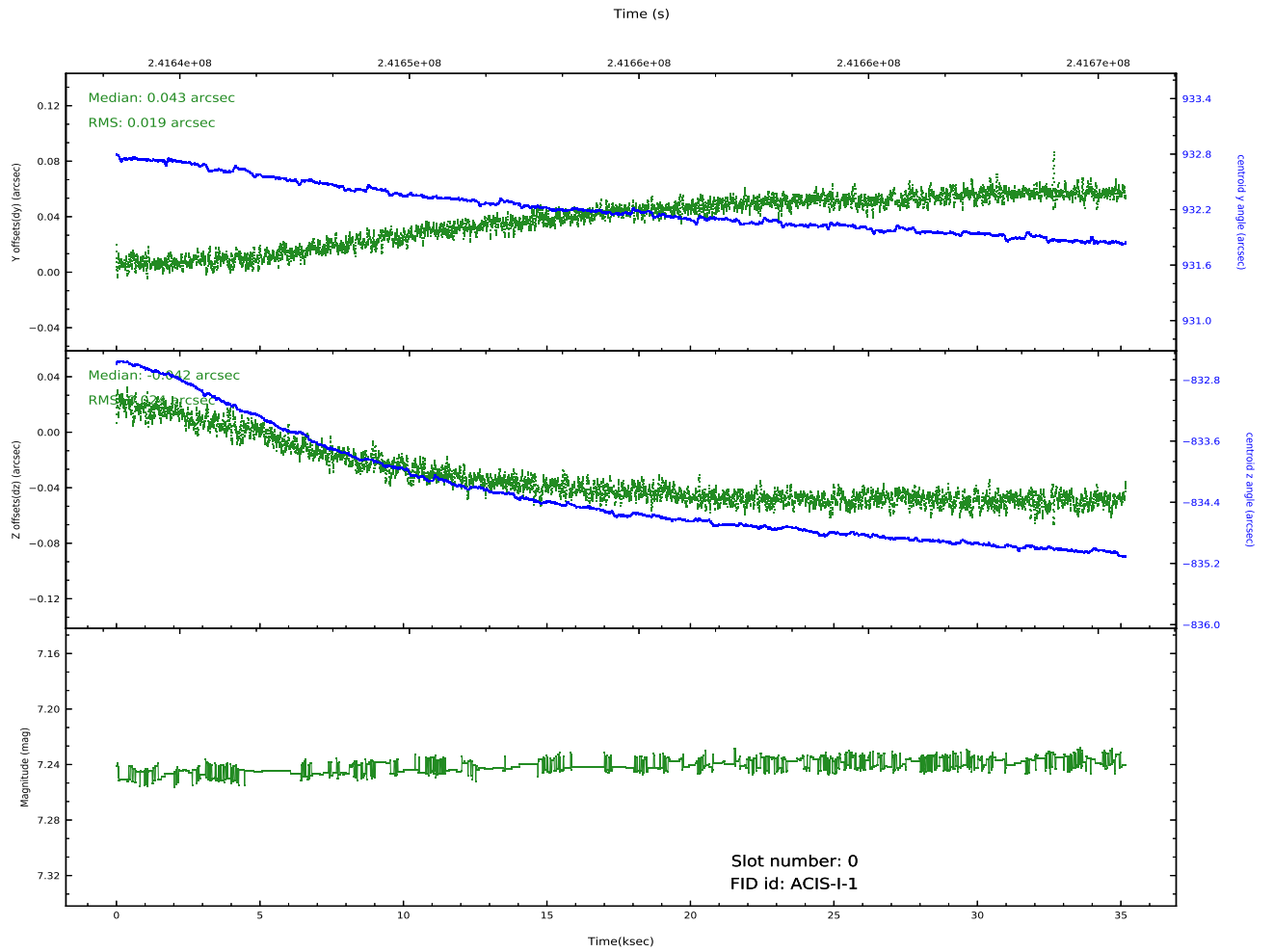
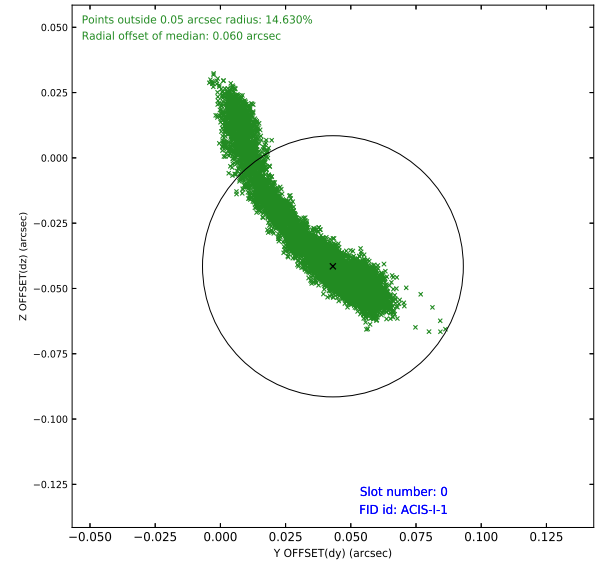
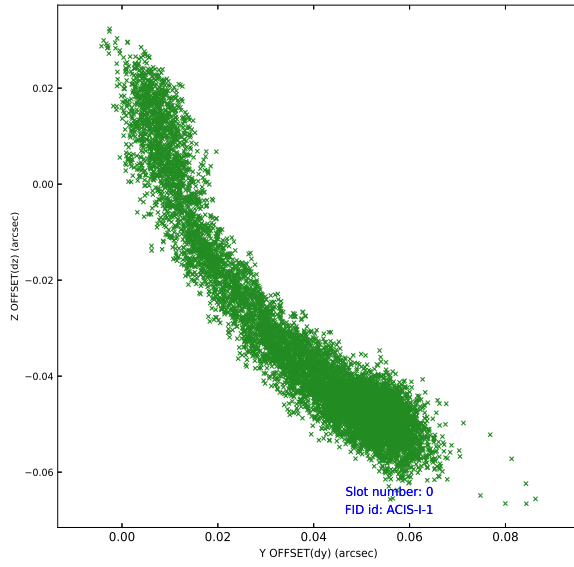


## 2.4.5 Slot 7

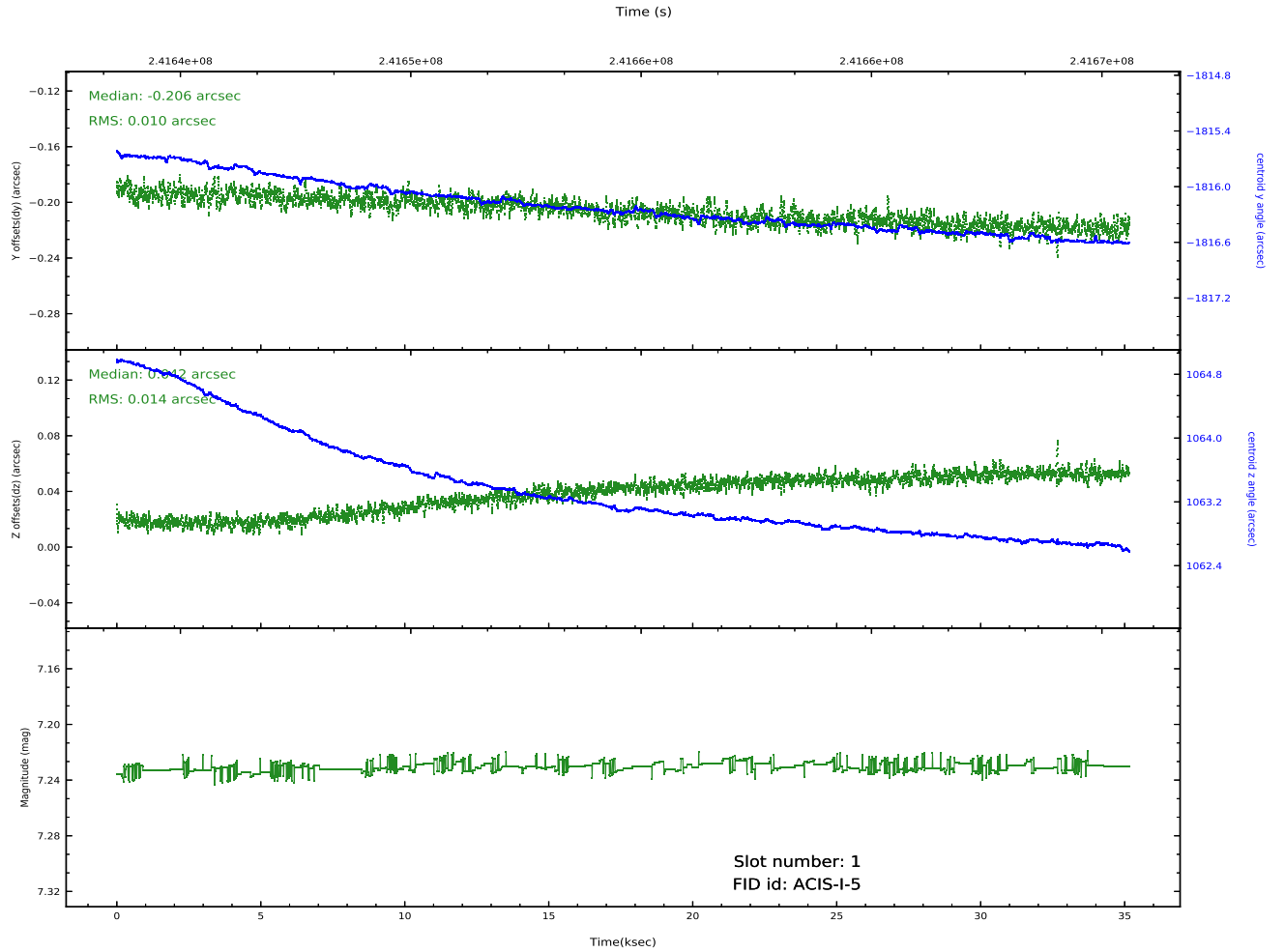
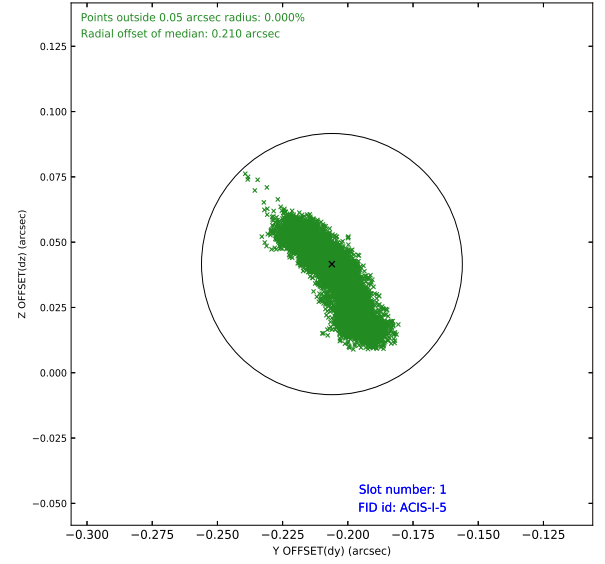
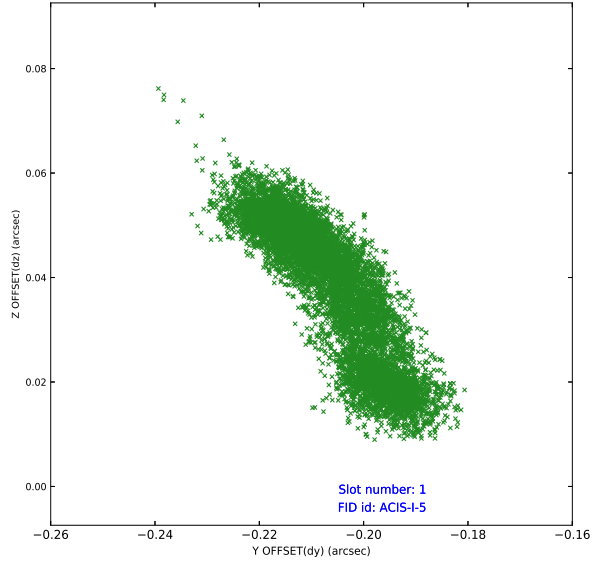


## 2.5 FID Slots

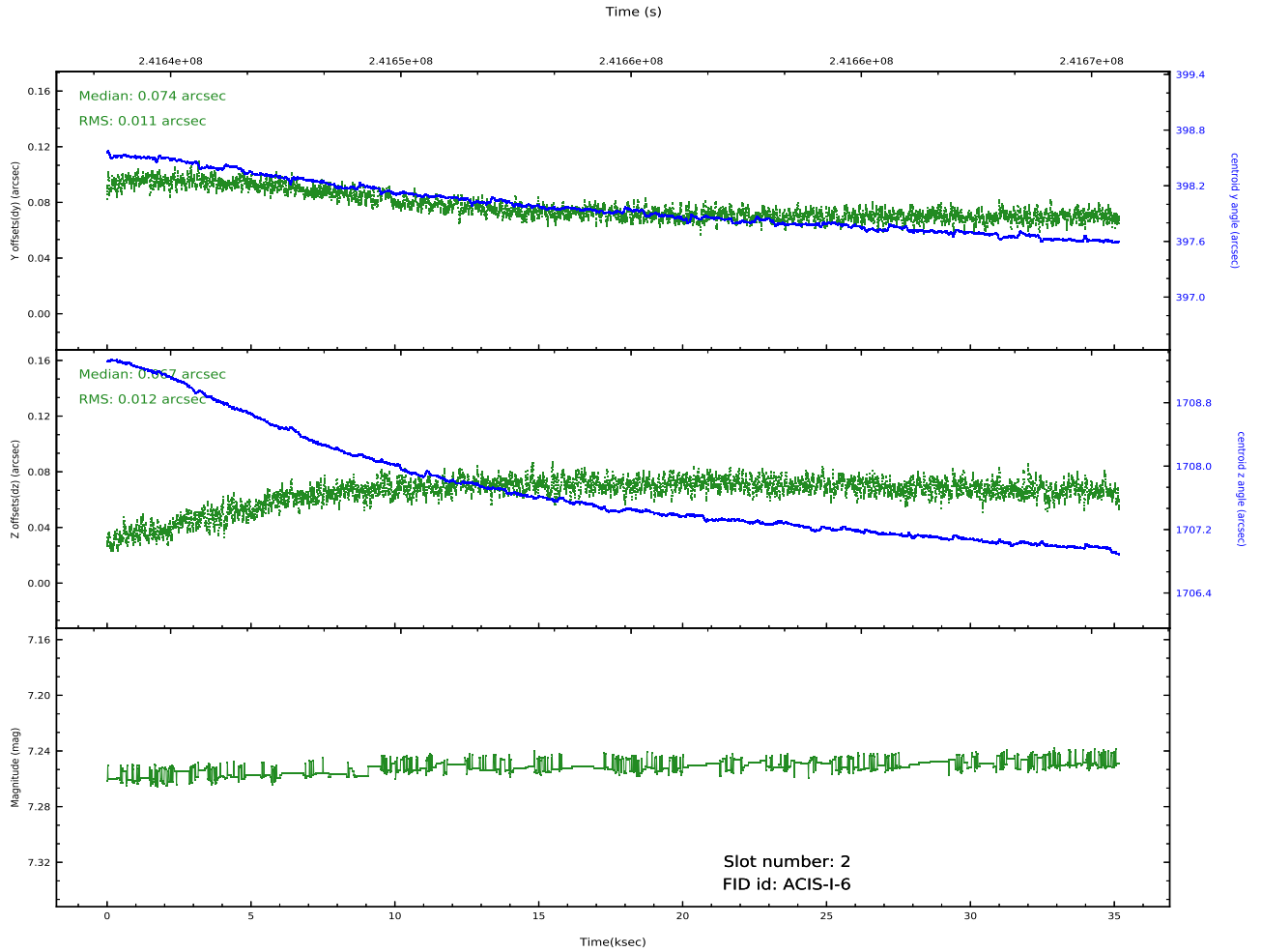
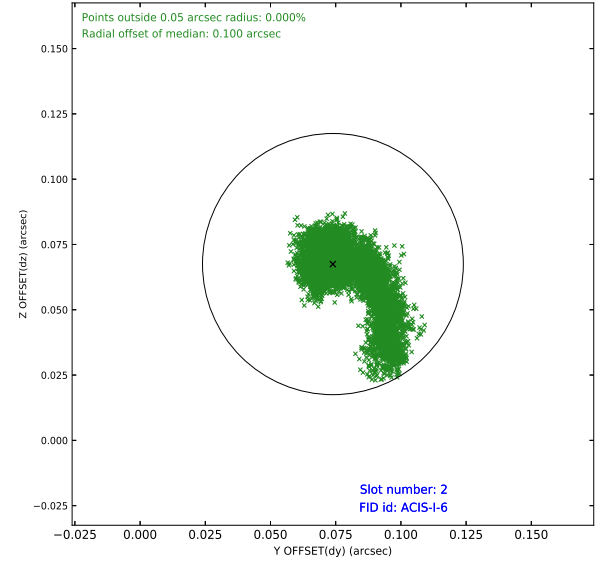
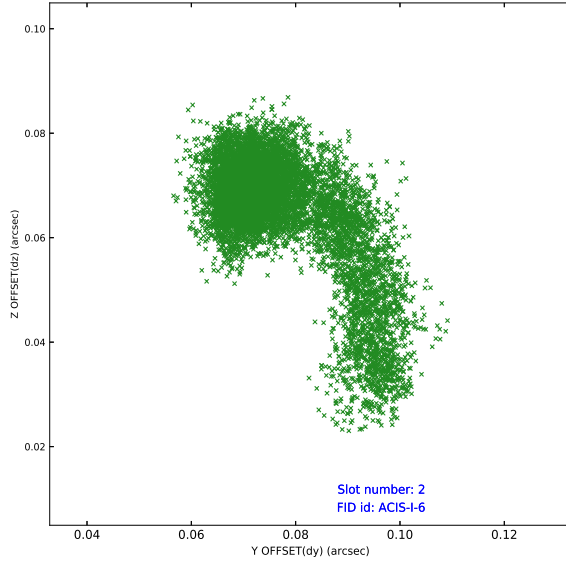
### 2.5.1 Slot 0



## 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)	2020.10.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	35.15395

### A.2 Comments

Roll constraint was met.