

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 7187 - L2 Version 4  
Chandra X-Ray Center

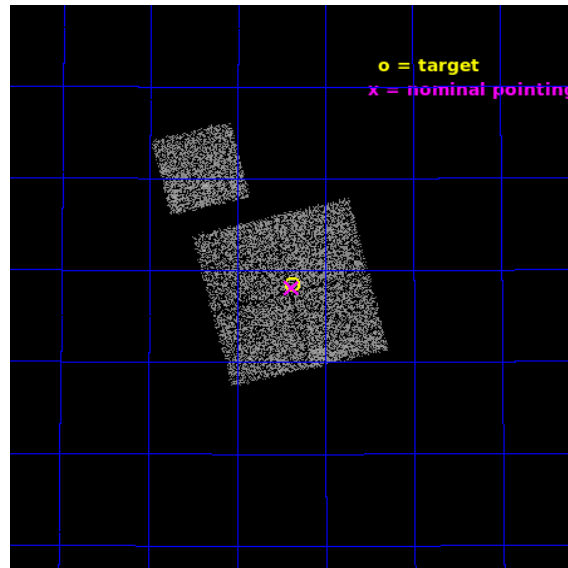
L2 Processing Date : Oct 10 2020

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# 1 Front

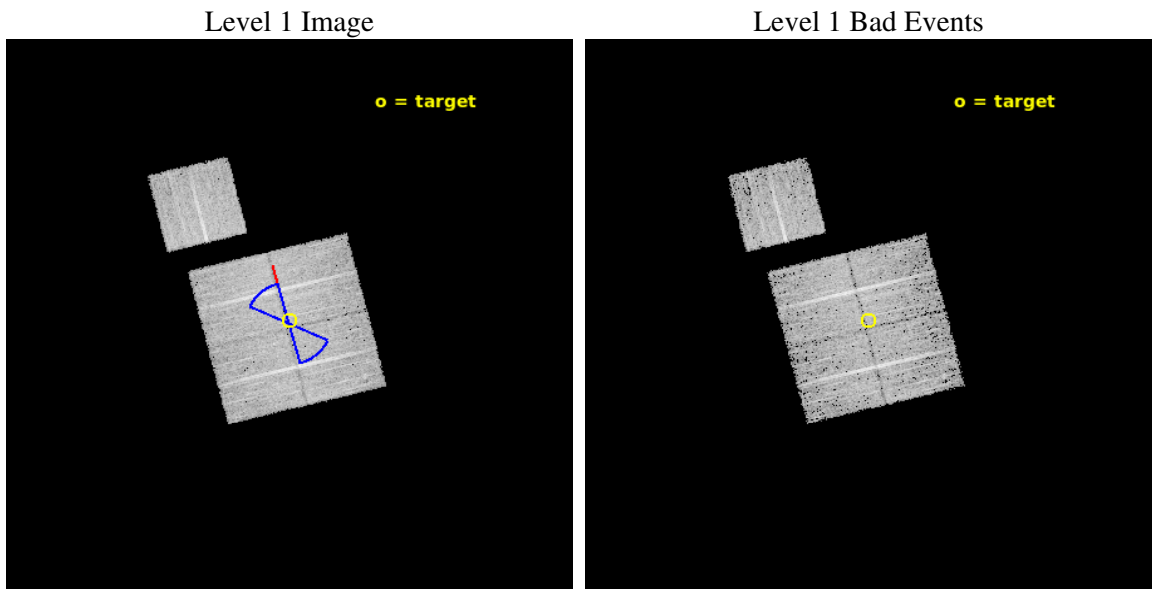
seq_num	900354	Sequence number
obs_id	7187	Observation id
title	Deep Chandra Imaging of the Extended Groth Strip: The Co-evolution of Black Holes and Galaxies	Proposal title
observer	Prof Kirpal Nandra	Principal investigator
object	Extended Groth Strip (EGS)	Source name
dtcycle	0	&#160
cycle	P	events 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	213.84543773062	Nominal RA [deg]
dec_nom	52.135393856643	Nominal Dec [deg]
roll_nom	345.95920818345	Nominal Roll [deg]
revision	4	Processing version of data
ontime	6677.3999871314	Sum of GTIs [s]
livetime	6590.1548404691	Livetime [s]
ontime0	6674.2589968443	Sum of GTIs [s]
ontime1	6677.3999871314	Sum of GTIs [s]
ontime2	6677.3999871314	Sum of GTIs [s]
ontime3	6677.3999871314	Sum of GTIs [s]
ontime6	6677.3999871314	Sum of GTIs [s]
l2events	18113	Number of level 2 events



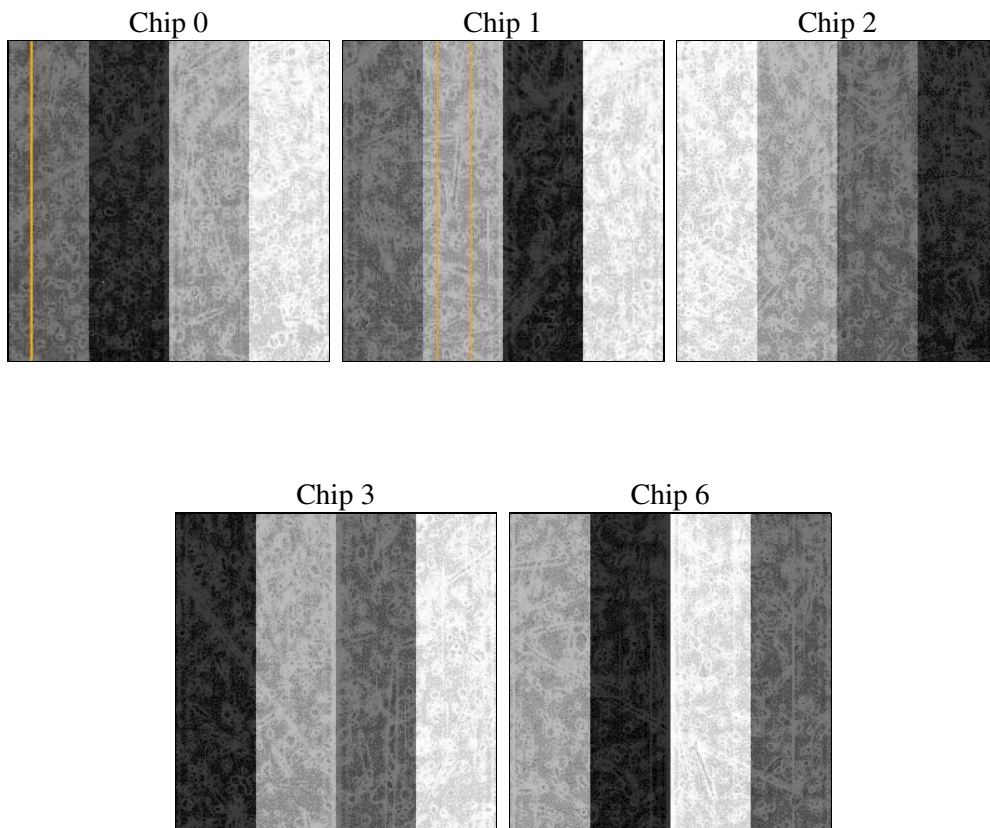
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	6500.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	6677.3999871314	Sum of GTIs [s]
caldsver	4.9.2	&#160	ontime0	6674.2589968443	Sum of GTIs [s]
date	2020-10-11T02:49:12	Date and time of file creation	ontime1	6677.3999871314	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	6677.3999871314	Sum of GTIs [s]
			ontime3	6677.3999871314	Sum of GTIs [s]
			ontime6	6677.3999871314	Sum of GTIs [s]
			l1events	215339	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	41245	42151	46050	42366	43527
rejected events	36870	37292	41748	38386	39092
rejected %	89%	88%	90%	90%	89%

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	1562	1812	1541	1417	1580
	3%	4%	3%	3%	3%
grade 1 events	23	28	27	17	19
	0%	0%	0%	0%	0%
grade 2 events	1027	1112	1041	931	957
	2%	2%	2%	2%	2%
grade 3 events	530	554	483	446	542
	1%	1%	1%	1%	1%
grade 4 events	479	522	461	469	487
	1%	1%	1%	1%	1%
grade 5 events	1528	1653	1443	1721	1742
	3%	3%	3%	4%	4%
grade 6 events	842	933	851	776	965
	2%	2%	1%	1%	2%
grade 7 events	35254	35537	40203	36589	37235
	85%	84%	87%	86%	85%

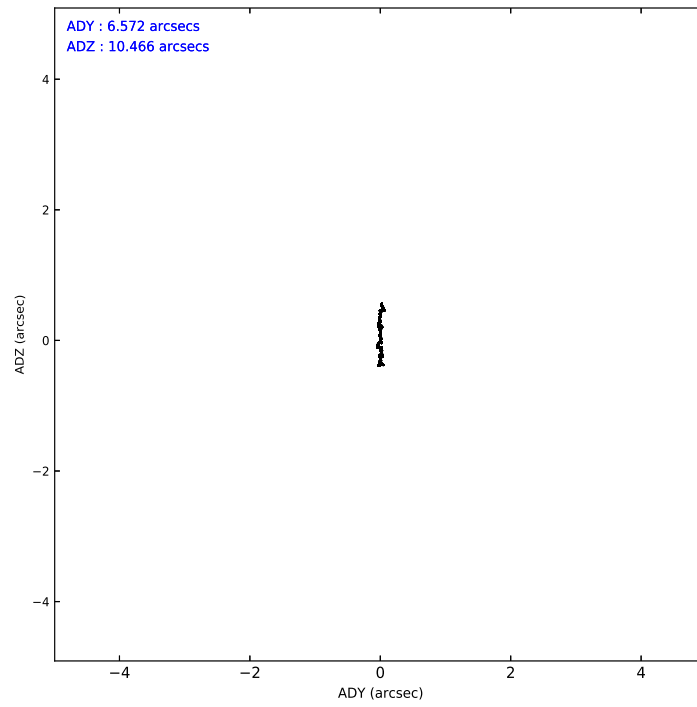
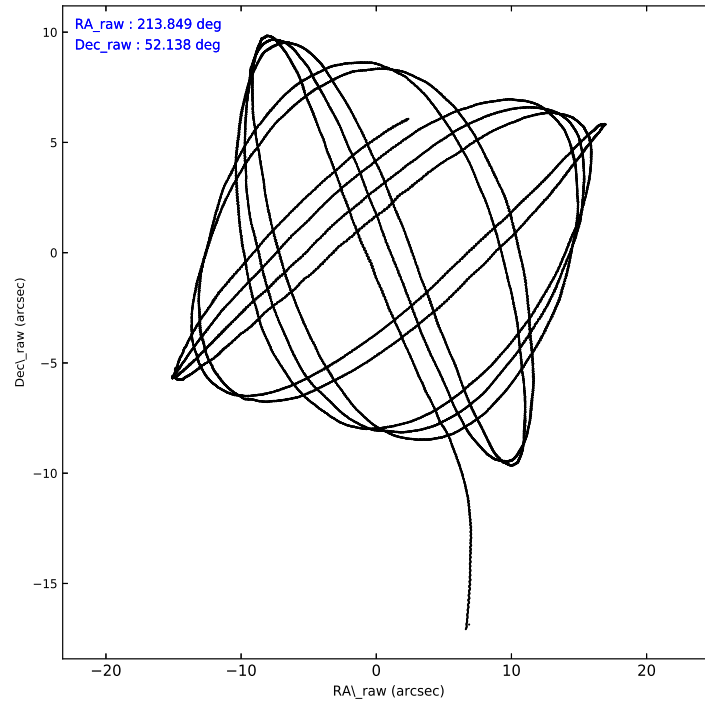


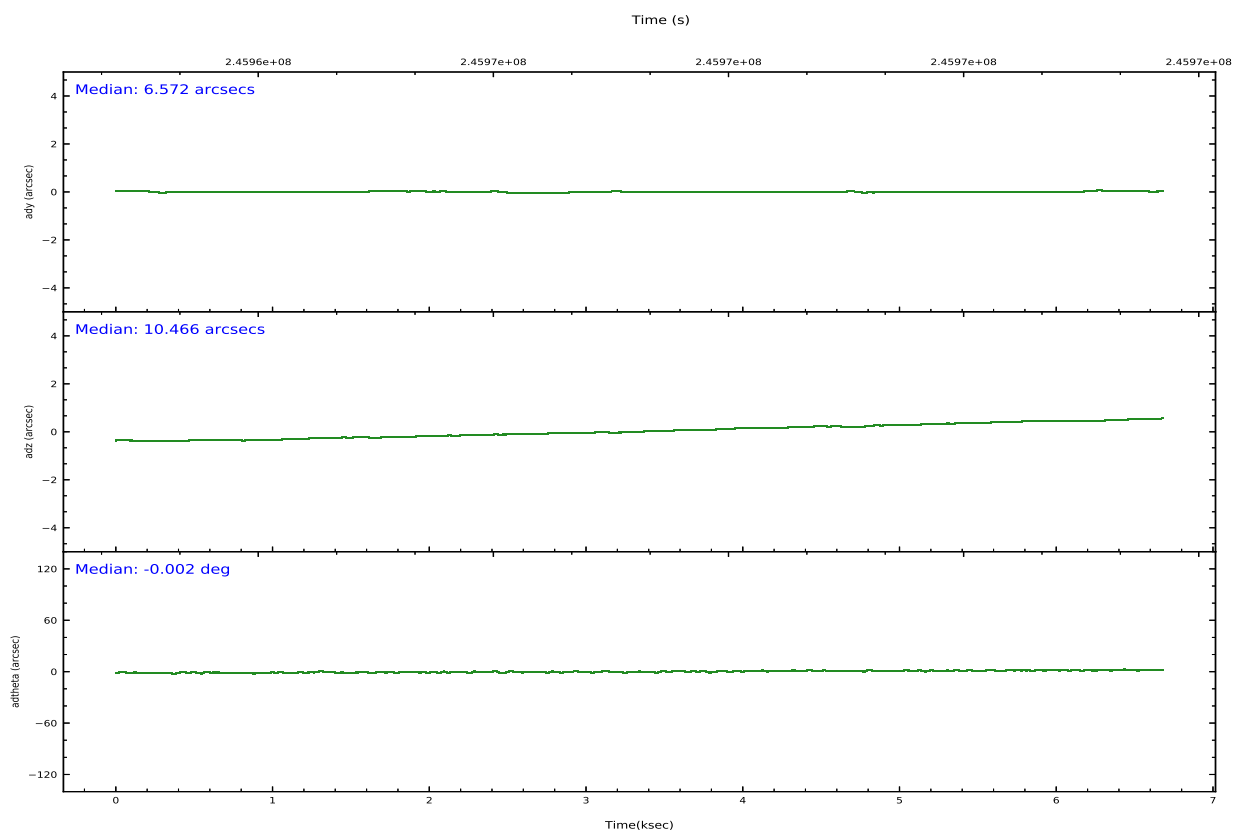
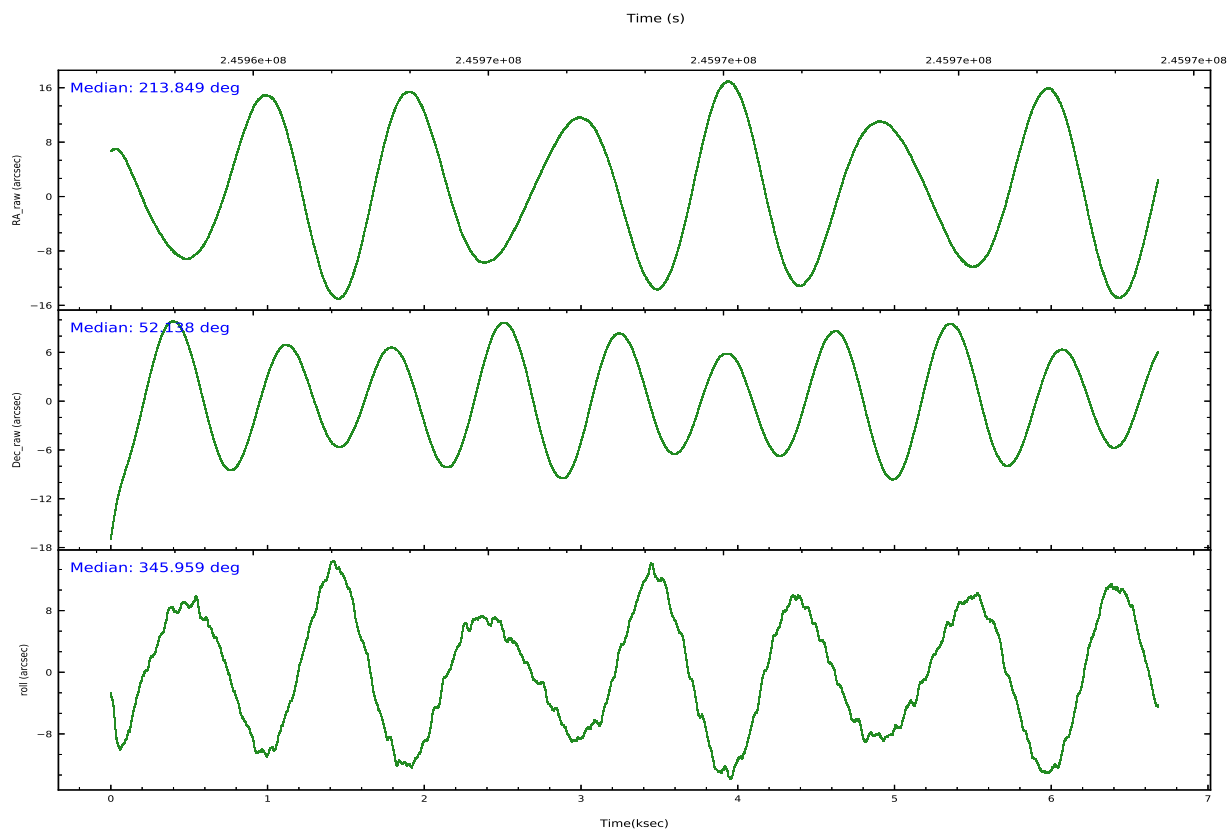
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-01236	ACIS-01236
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	213.806935	213.84543773062
[deg] Pointing Dec	52.130227	52.135393856643
[deg] Pointing Roll	345.785047	345.95920818345
[deg] Roll angle	50.756000	50.756000
[deg] Roll tolerance	25.000000	25.000000
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)	245964273.184000	245963228.5908
Observation start date	2005-10-17T19:23:29	2005-10-17T19:07:08
[s] Observation end time (MET)	245970773.184000	245971576.19118
Observation end date	2005-10-17T21:11:49	2005-10-17T21:26:16
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar version number	8	8
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



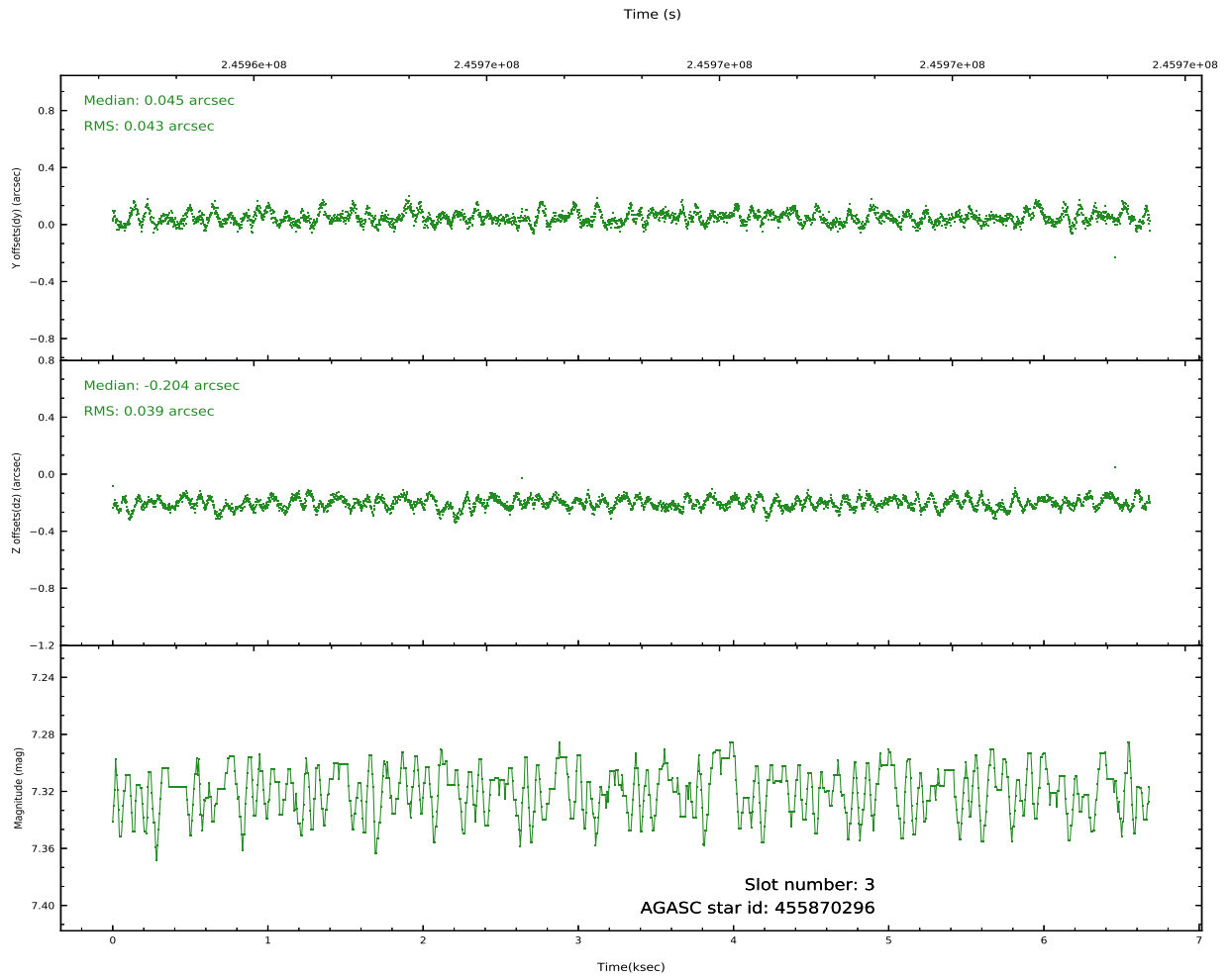
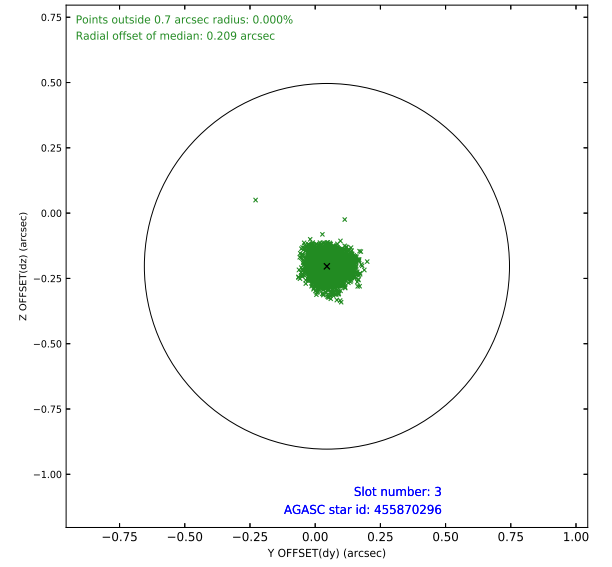
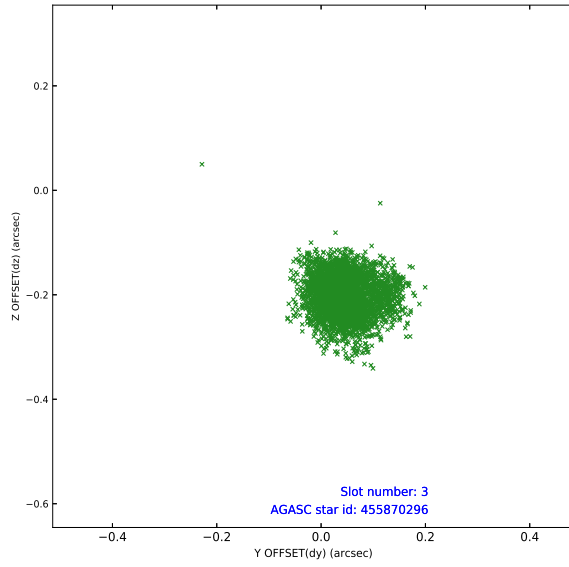


Slot Statistics

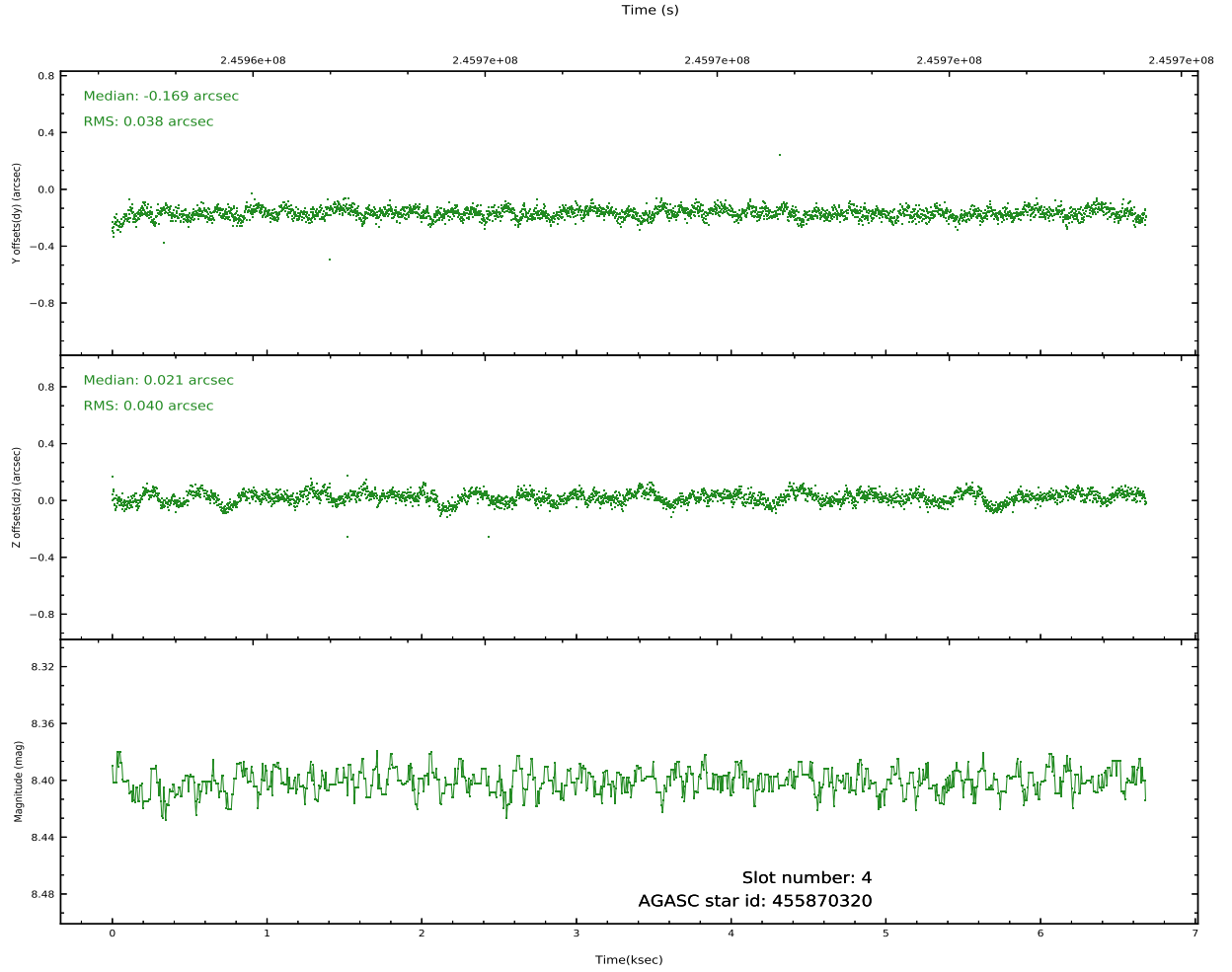
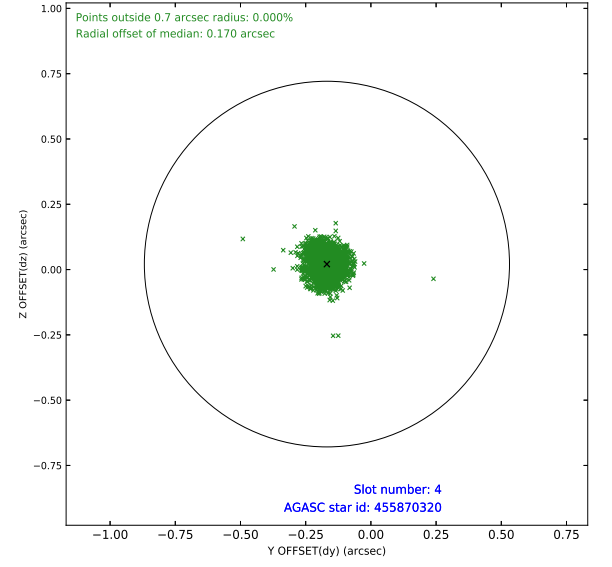
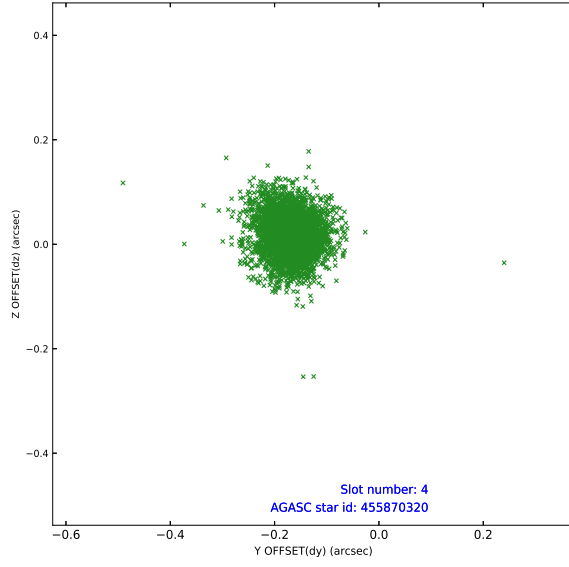
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.25	1630	1.000	0.035	-0.040	0.017	0.025	0.000000	0.000000	933.15	-834
1	FID		ACIS-I-5	7.23	1629	1.000	-0.202	0.035	0.010	0.016	0.000000	0.000000	-1814.70	1063
2	FID		ACIS-I-6	7.26	1630	1.000	0.075	0.074	0.011	0.017	0.000000	0.000000	397.80	1708
3	GUIDE	used	455870296	7.32	3261	1.000	0.045	-0.204	0.063	0.101	214.629779	52.033323	1850.07	119
4	GUIDE	used	455870320	8.40	3260	1.000	-0.169	0.021	0.057	0.096	214.874440	52.401638	2029.56	1539
5	GUIDE	used	455871720	9.90	3258	1.000	0.080	0.218	0.133	0.226	214.017360	52.072997	502.89	-83
6	GUIDE	used	504894728	8.82	3261	1.000	0.061	-0.020	0.077	0.125	213.220892	52.722550	-1763.08	1758
7	GUIDE	used	505806936	7.00	3259	1.000	-0.021	-0.028	0.066	0.105	213.820815	52.535927	-329.46	1423

## 2.4 Star Slots

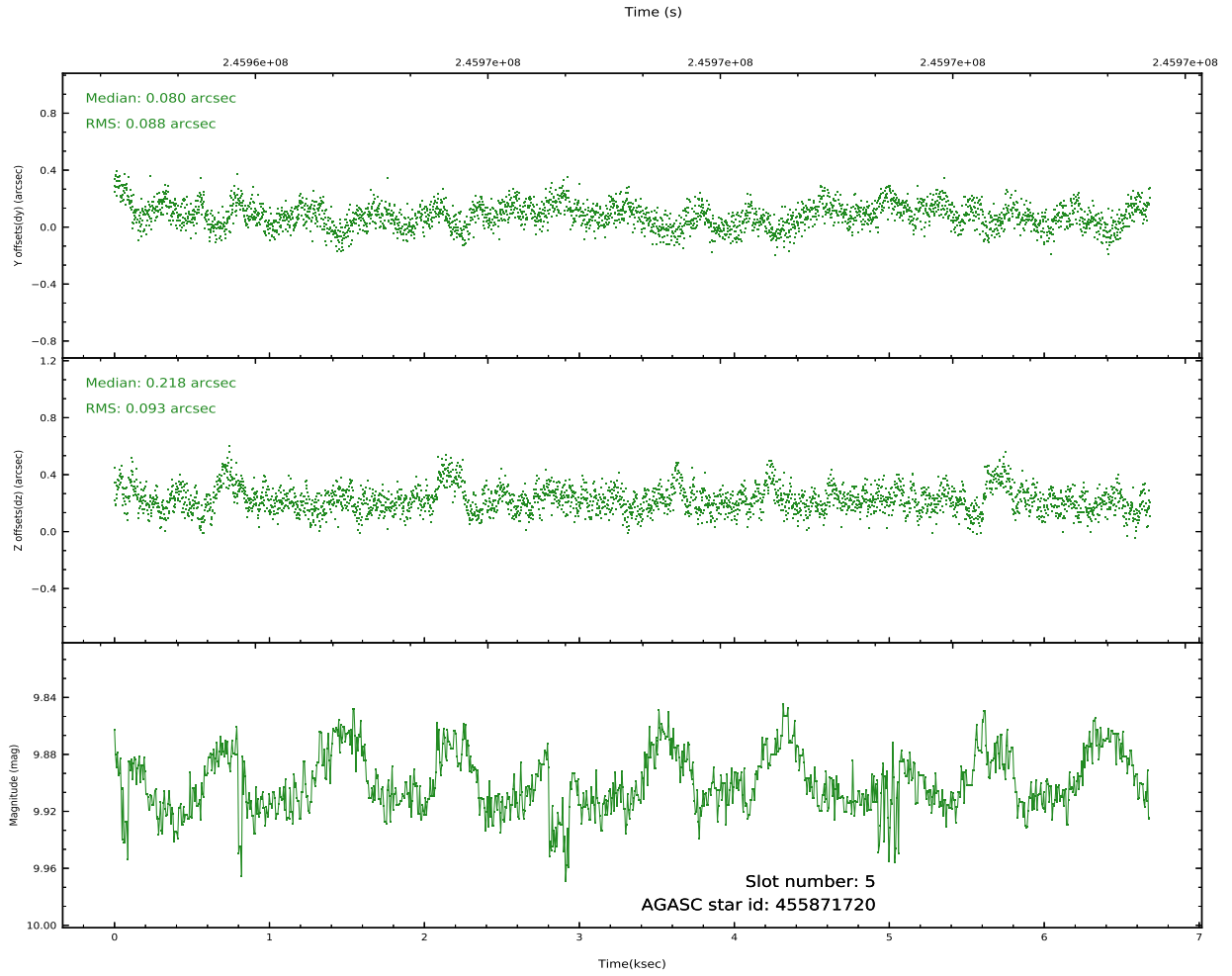
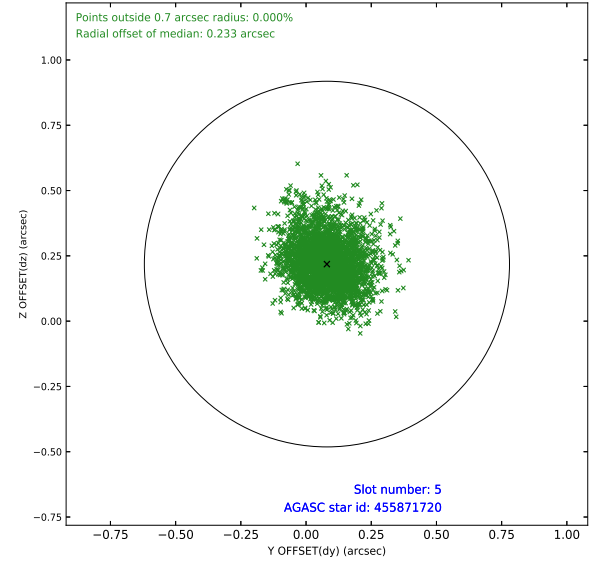
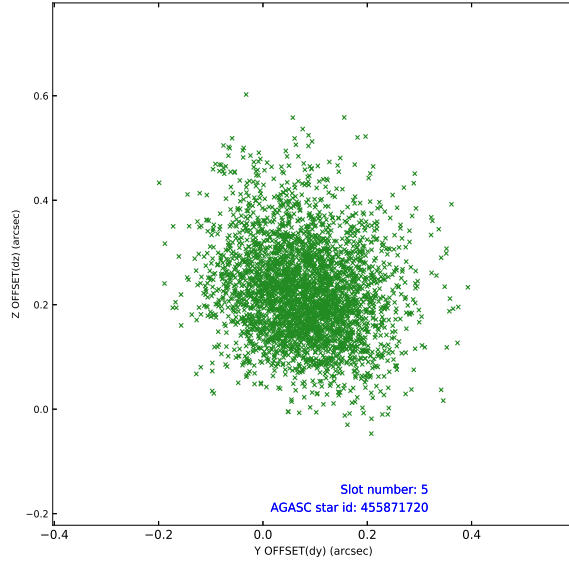
### 2.4.1 Slot 3



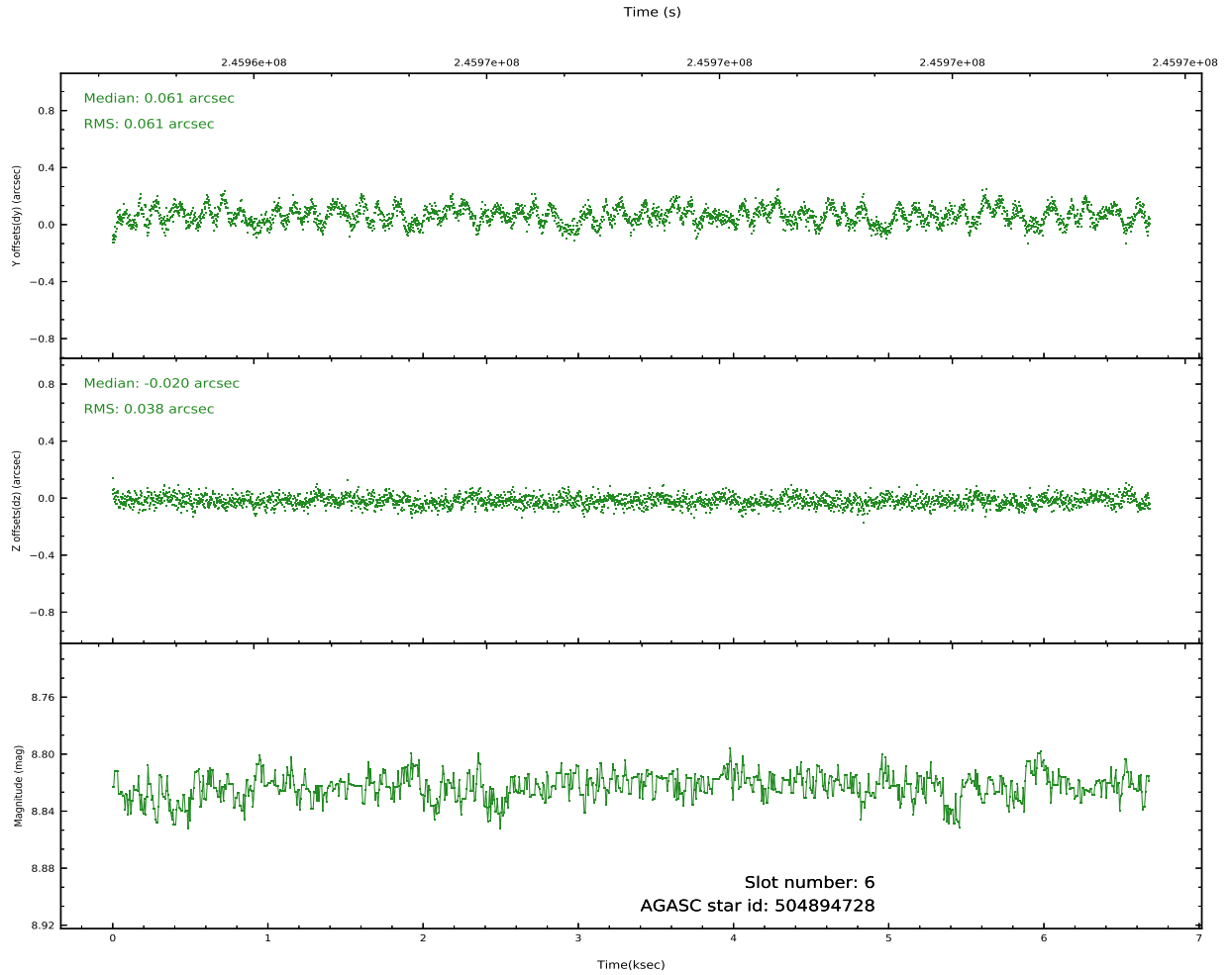
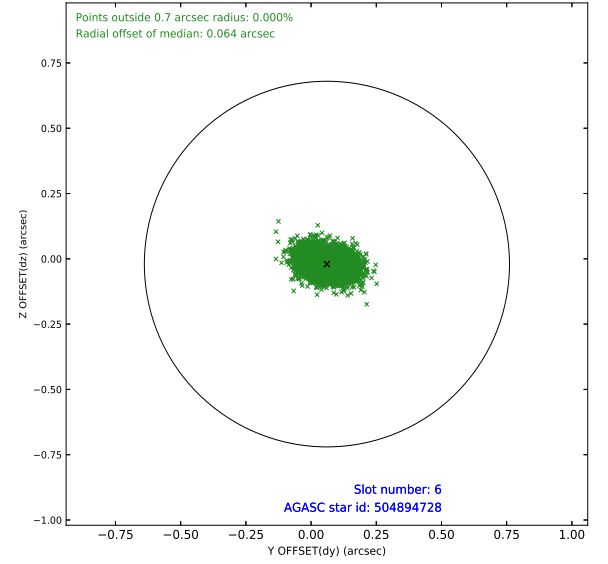
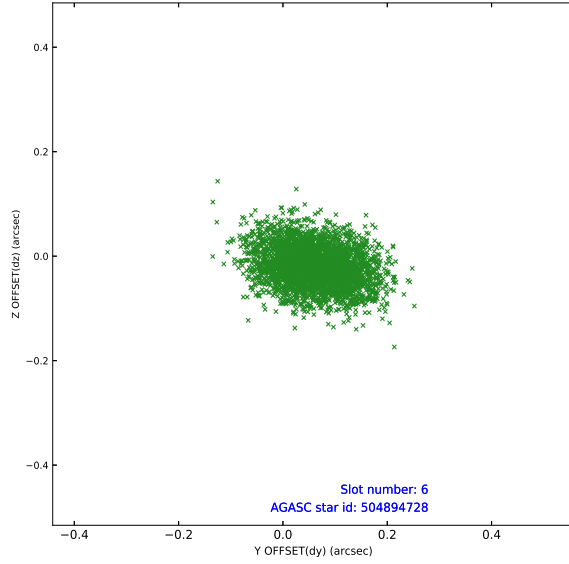
## 2.4.2 Slot 4



### 2.4.3 Slot 5

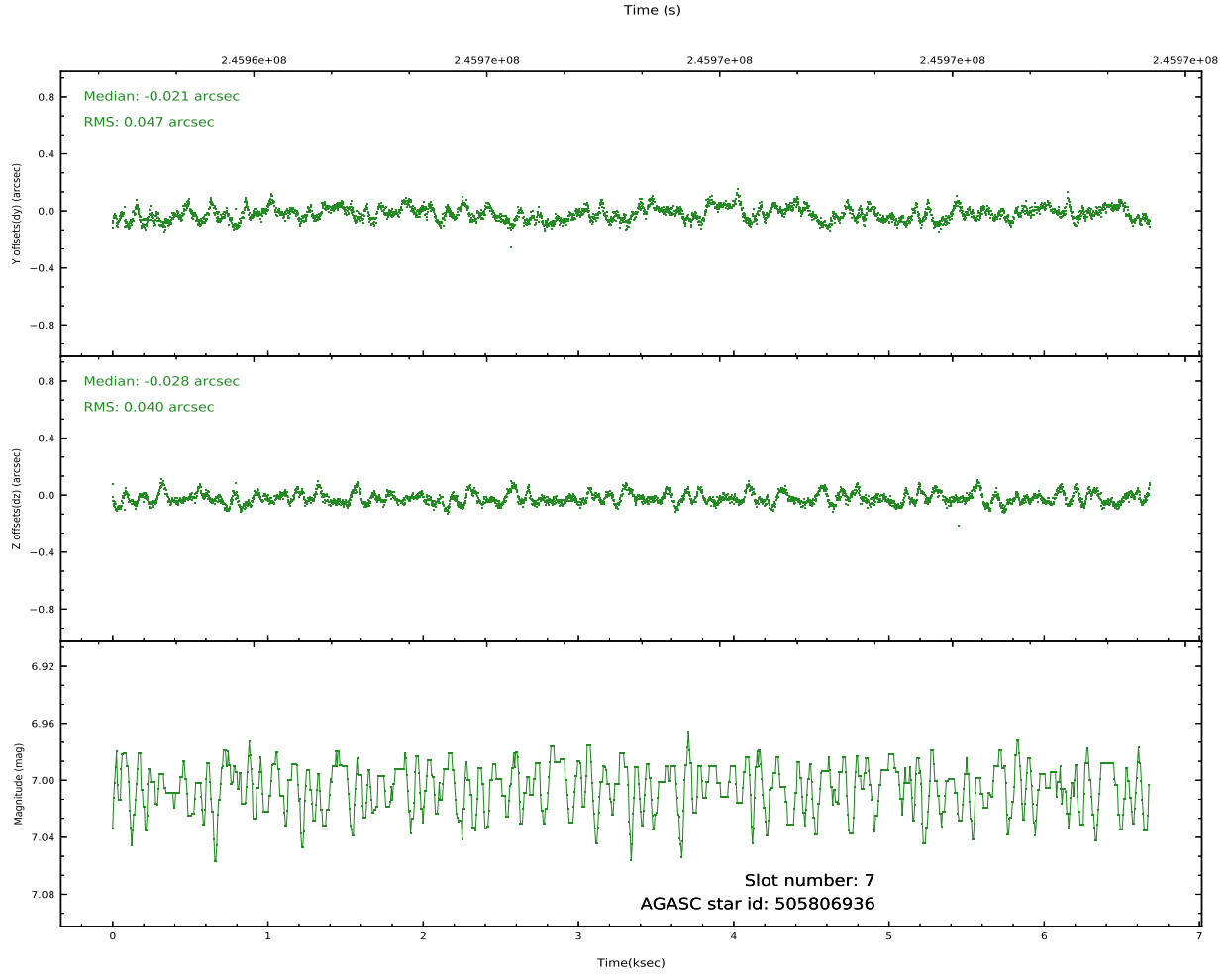
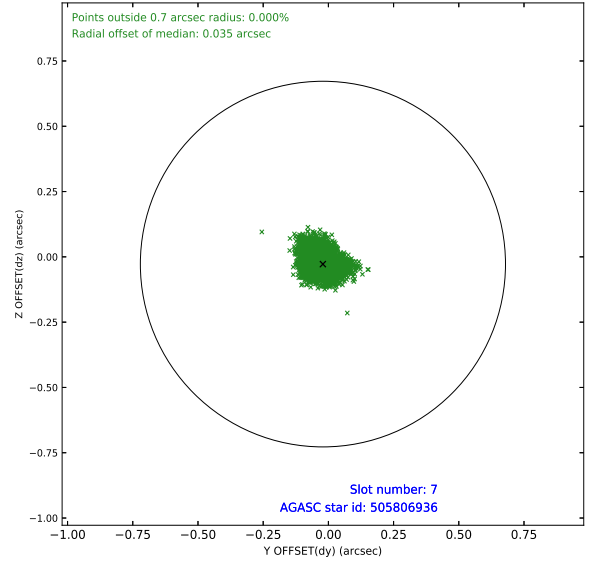
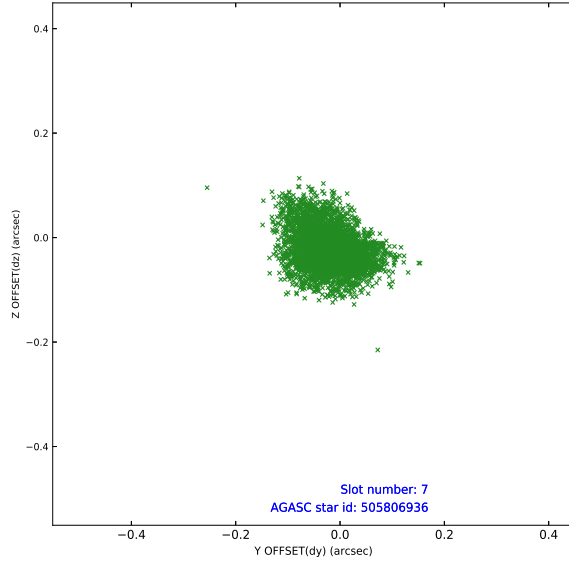


## 2.4.4 Slot 6



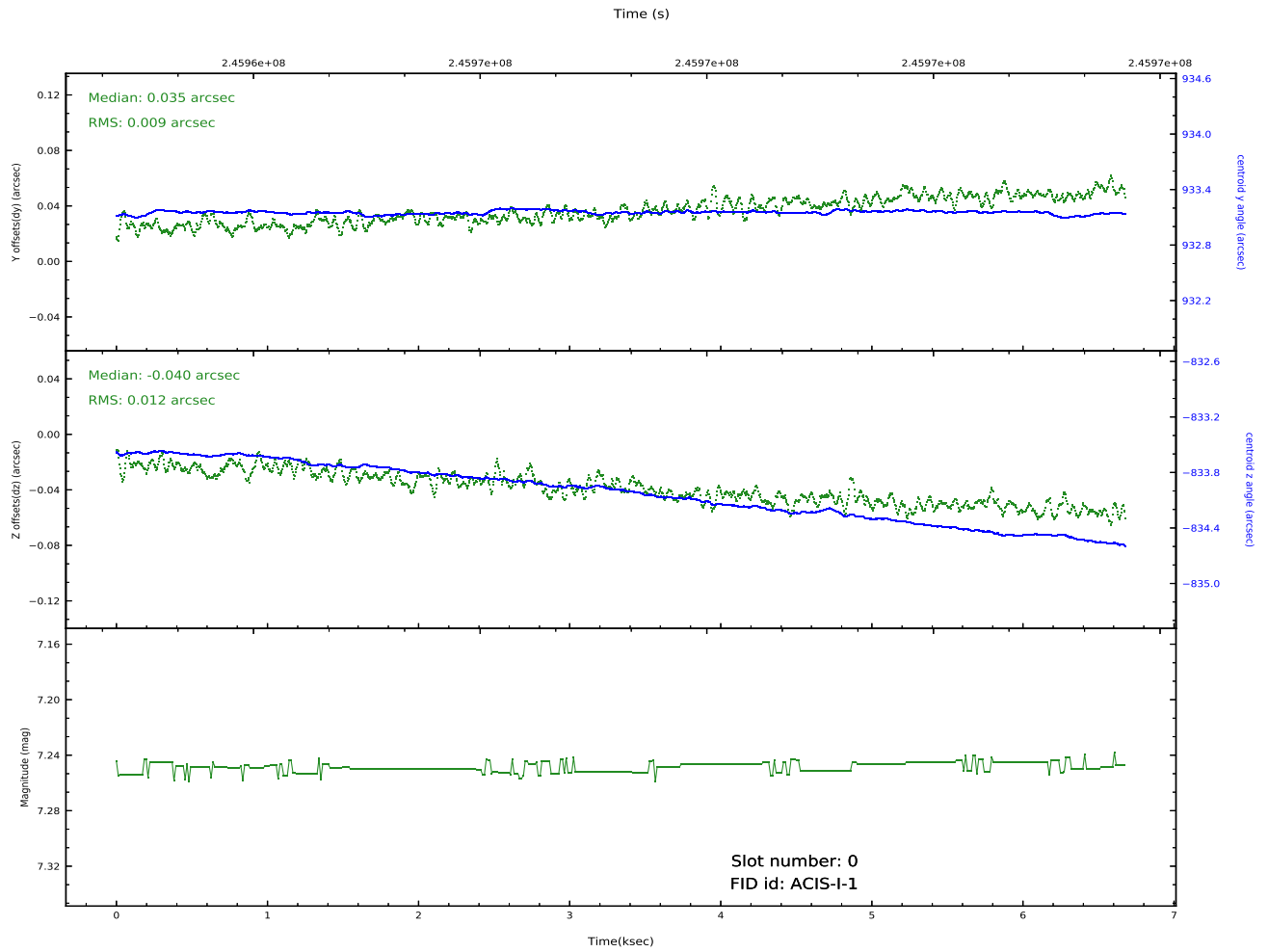
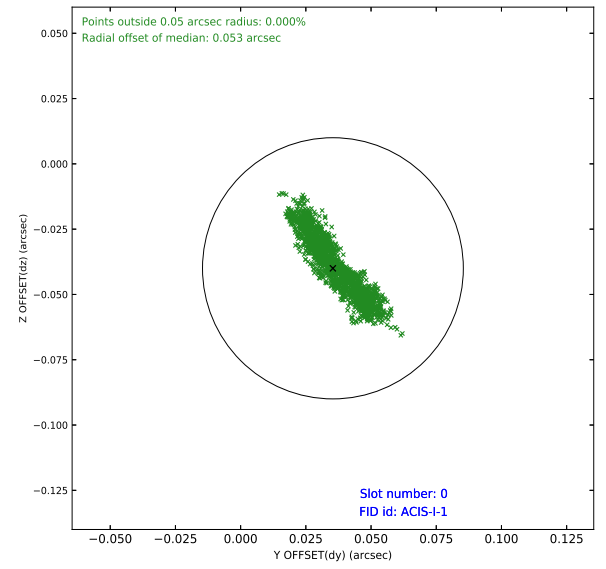
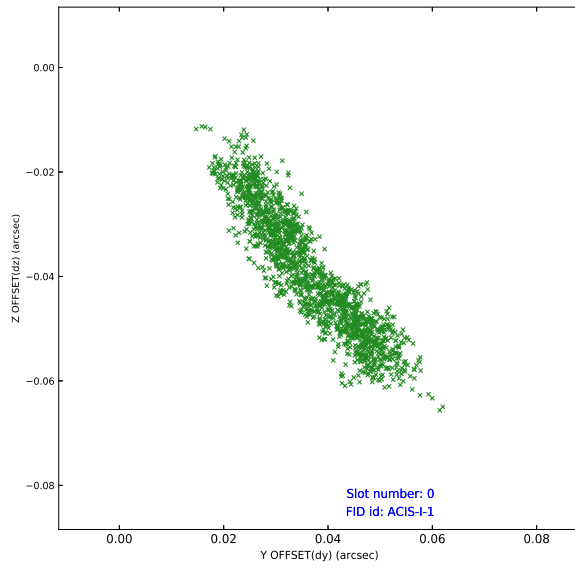


## 2.4.5 Slot 7

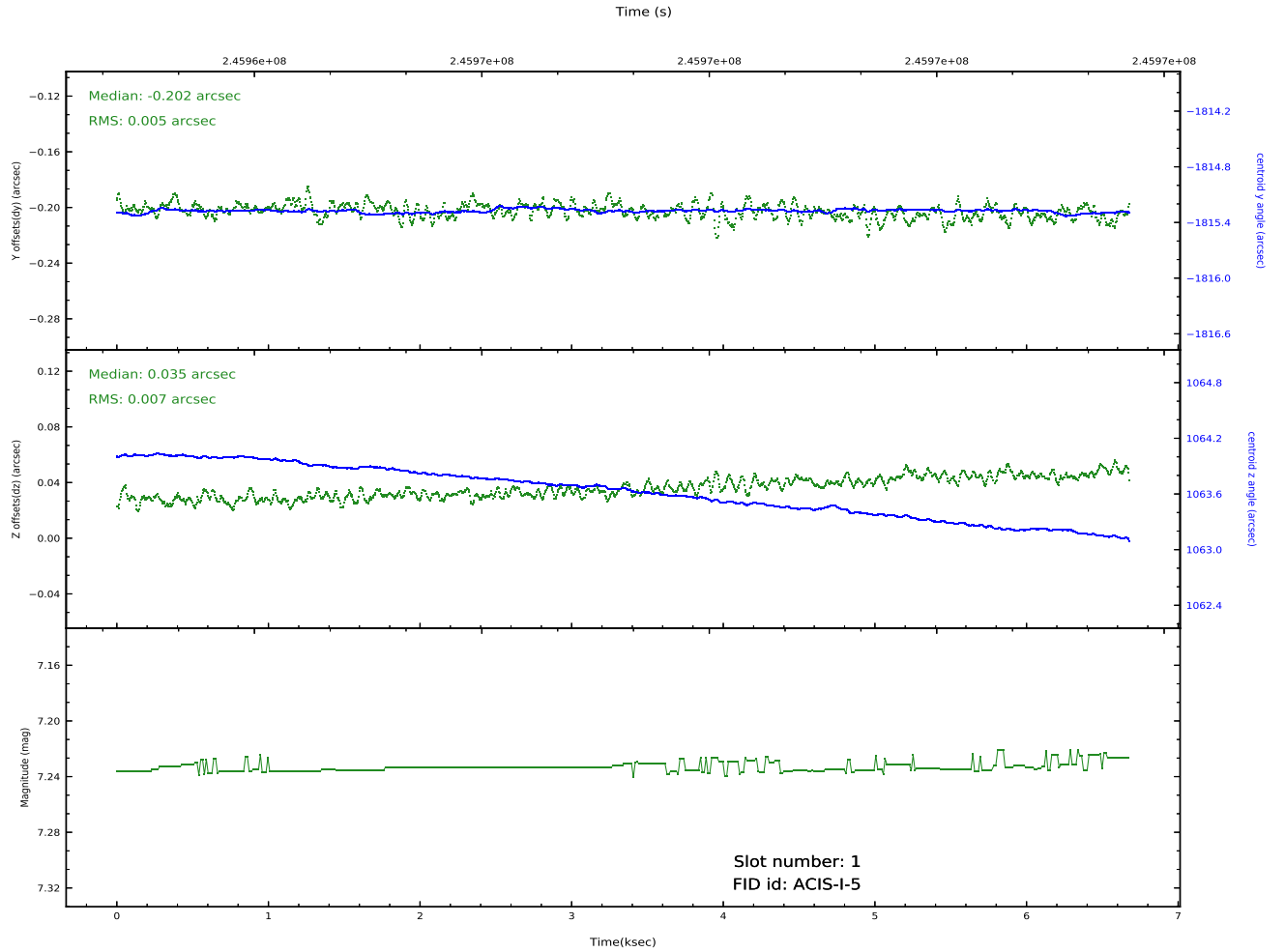
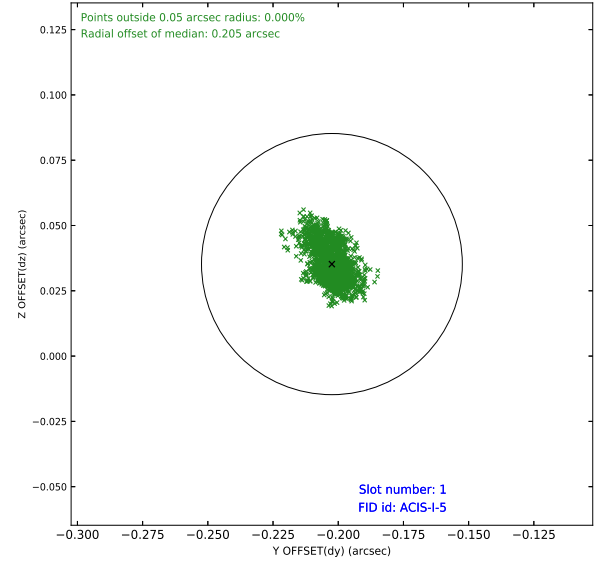
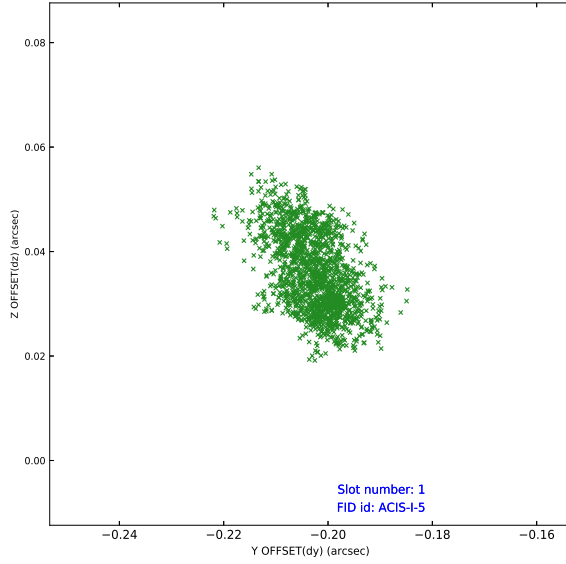


## 2.5 FID Slots

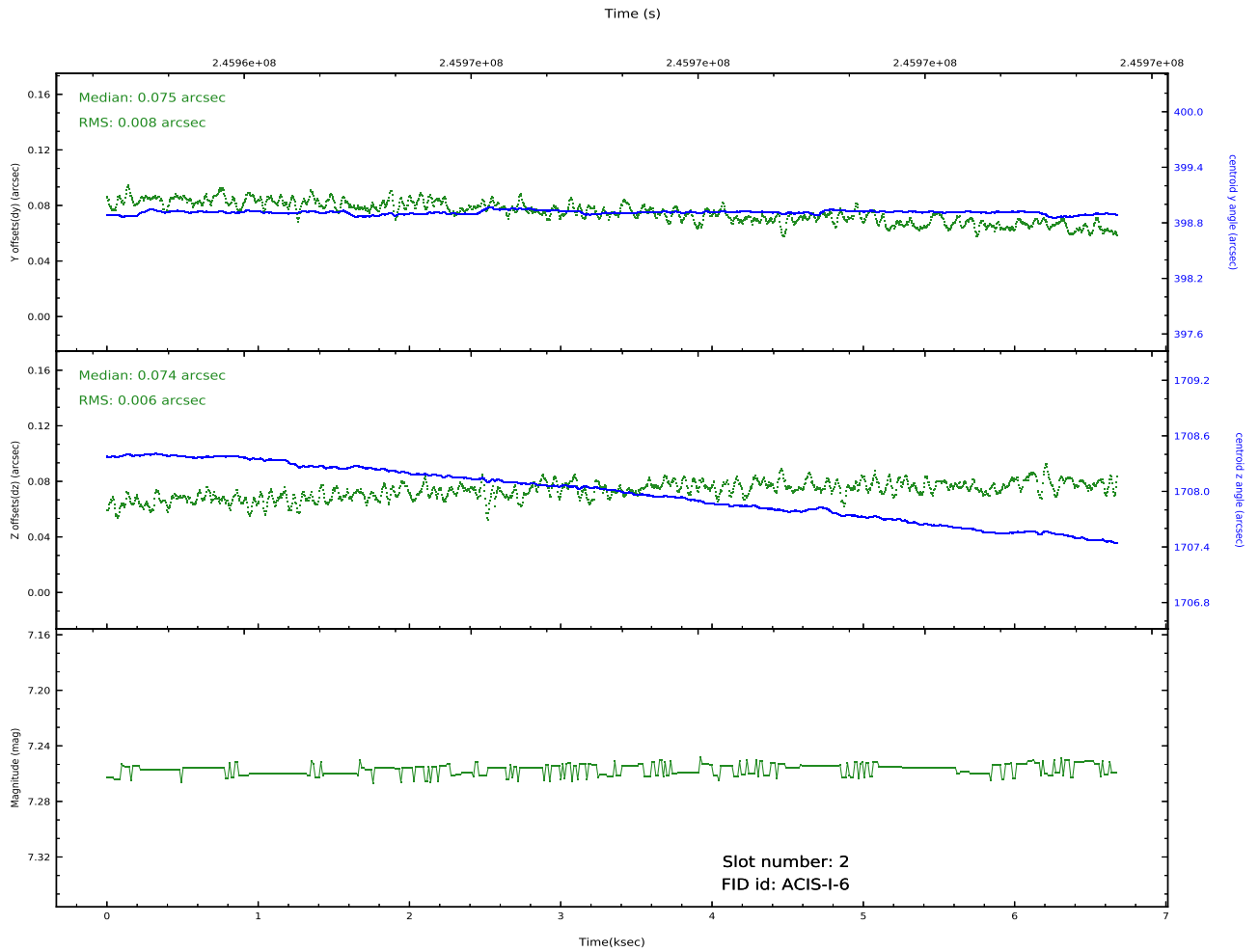
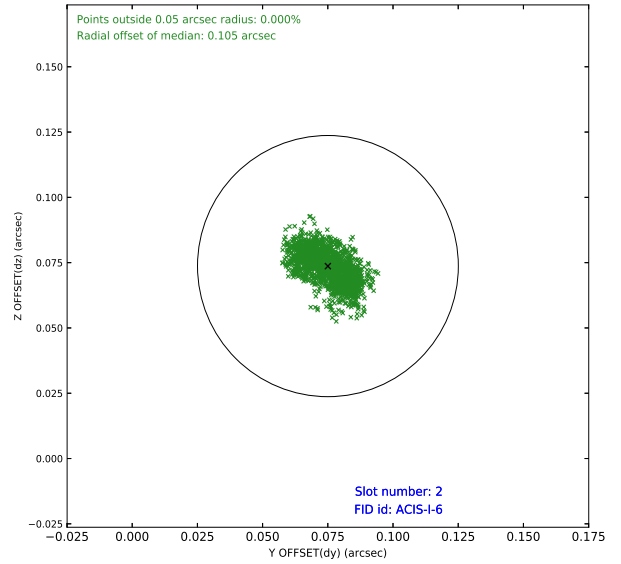
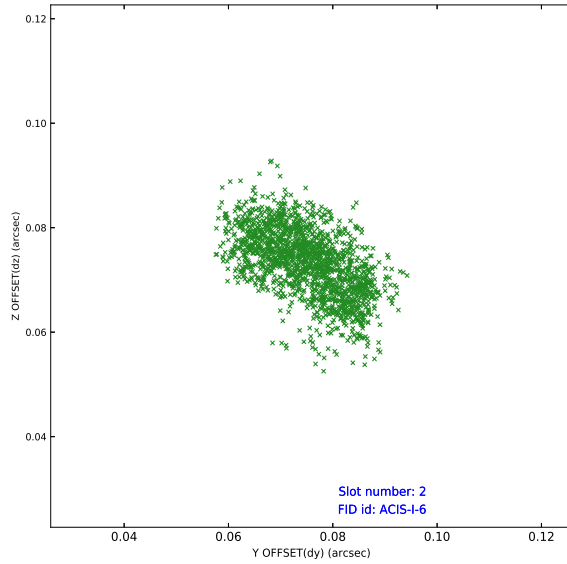
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2020.10.16
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	6.677399

### A.2 Comments

Roll constraint not met, by 0.2 degrees.