

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 5847 - L2 Version 4  
Chandra X-Ray Center

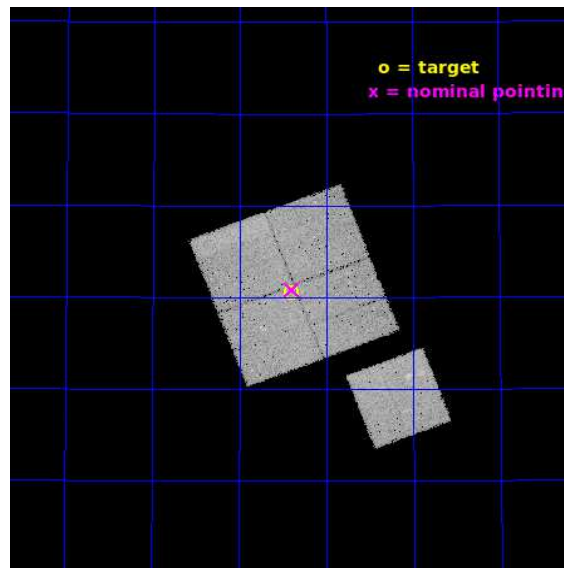
L2 Processing Date : Oct 7 2020

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# 1 Front

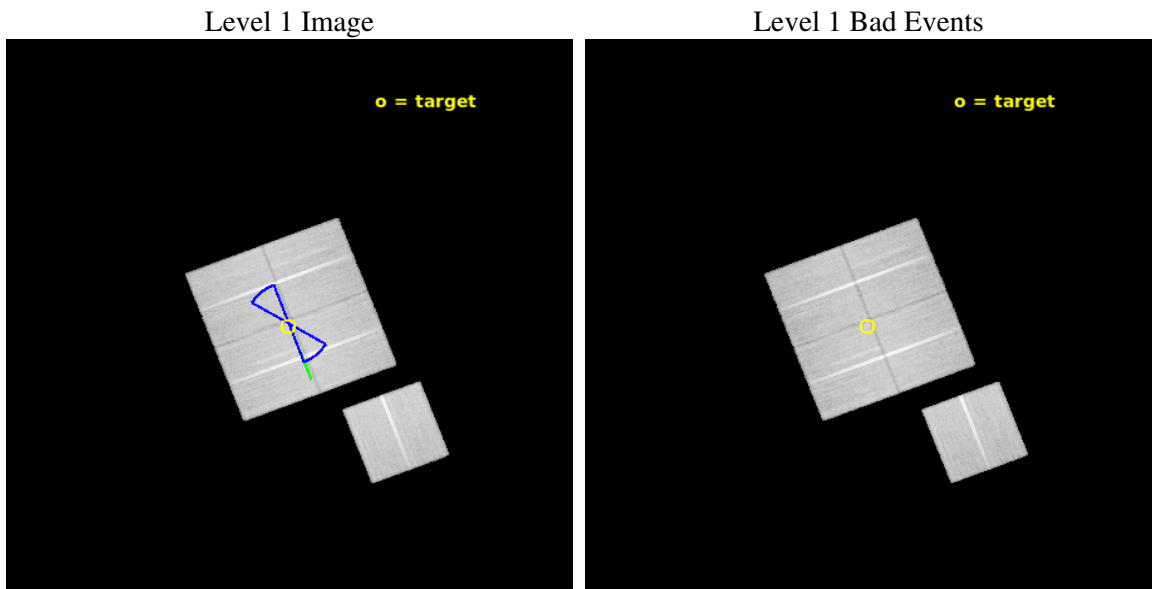
seq_num	900351	Sequence number
obs_id	5847	Observation id
title	Deep Chandra Imaging of the Extended Groth Strip: The Co-evolution of Black Holes and Galaxies	Proposal title
observer	Prof Kirpal Nandra	Principal investigator
object	Extended Groth Strip (EGS)	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	214.849579	Observer's specified target RA [deg]
dec_targ	52.842415	Observer's specified target Dec [deg]
ra_nom	214.84900116973	Nominal RA [deg]
dec_nom	52.847491943219	Nominal Dec [deg]
roll_nom	159.01039316445	Nominal Roll [deg]
revision	4	Processing version of data
ontime	45142.158932924	Sum of GTIs [s]
livetime	44552.343393292	Livetime [s]
ontime0	45142.158912987	Sum of GTIs [s]
ontime1	45139.01795274	Sum of GTIs [s]
ontime2	45139.017962784	Sum of GTIs [s]
ontime3	45142.158932924	Sum of GTIs [s]
ontime6	45135.87698248	Sum of GTIs [s]
l2events	116661	Number of level 2 events



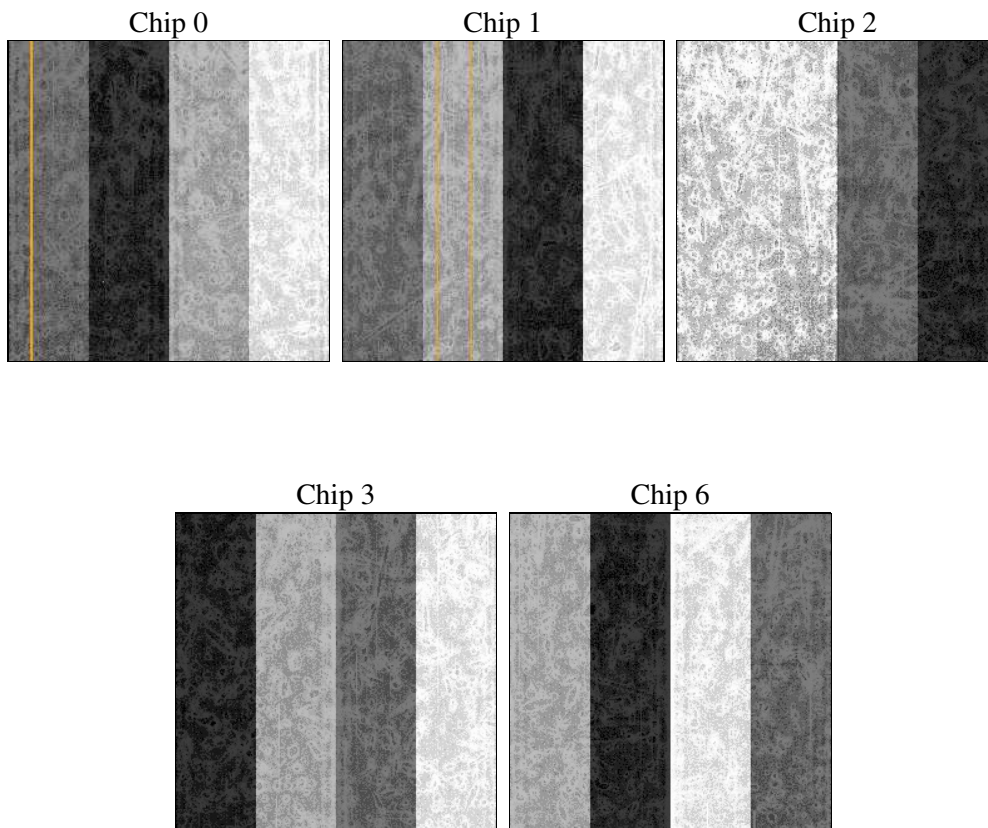
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	45000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	45142.158932924	Sum of GTIs [s]
caldbver	4.9.2	&#160	ontime0	45142.158912987	Sum of GTIs [s]
date	2020-10-07T16:40:58	Date and time of file creation	ontime1	45139.01795274	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	45139.017962784	Sum of GTIs [s]
			ontime3	45142.158932924	Sum of GTIs [s]
			ontime6	45135.87698248	Sum of GTIs [s]
			l1events	1400925	Number of level 1 events

### 2.1.4 Events

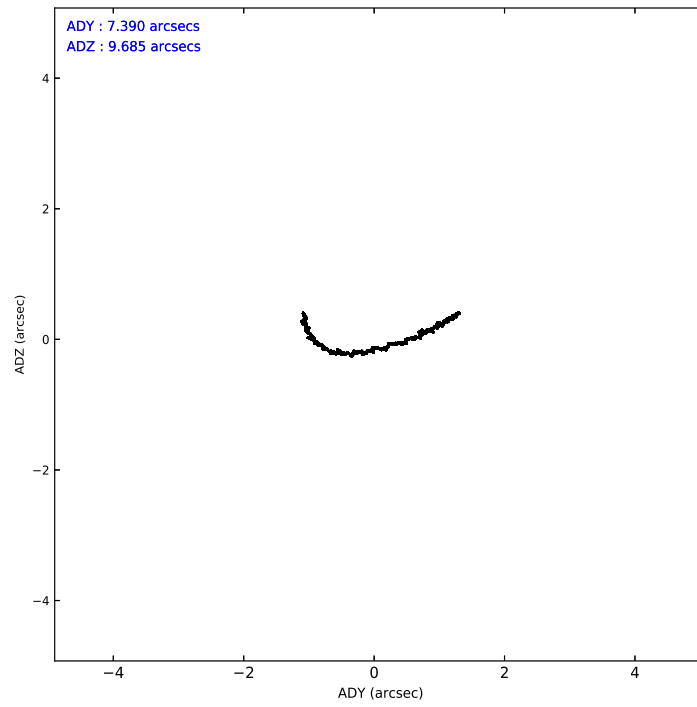
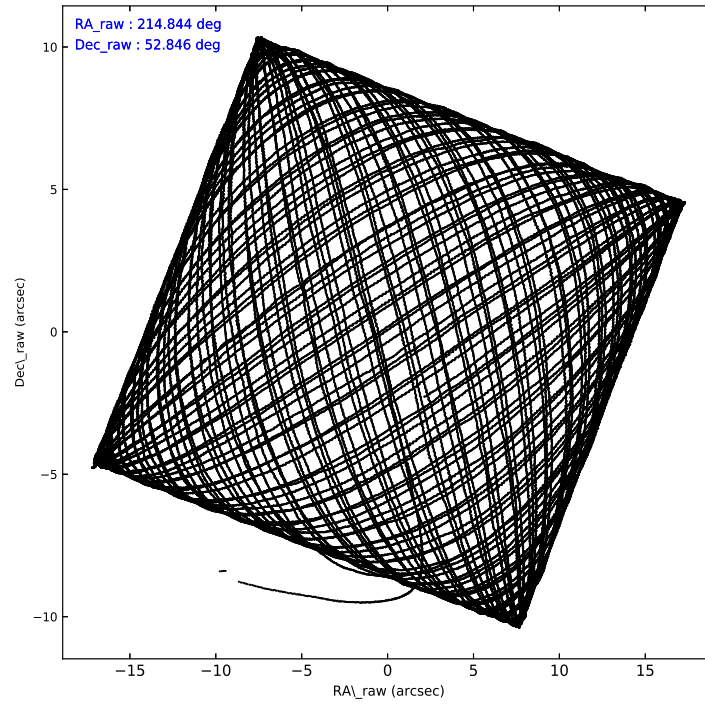
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	266035	266058	292432	289697	286703
rejected events	238428	235253	265413	263020	257368
rejected %	89%	88%	90%	90%	89%

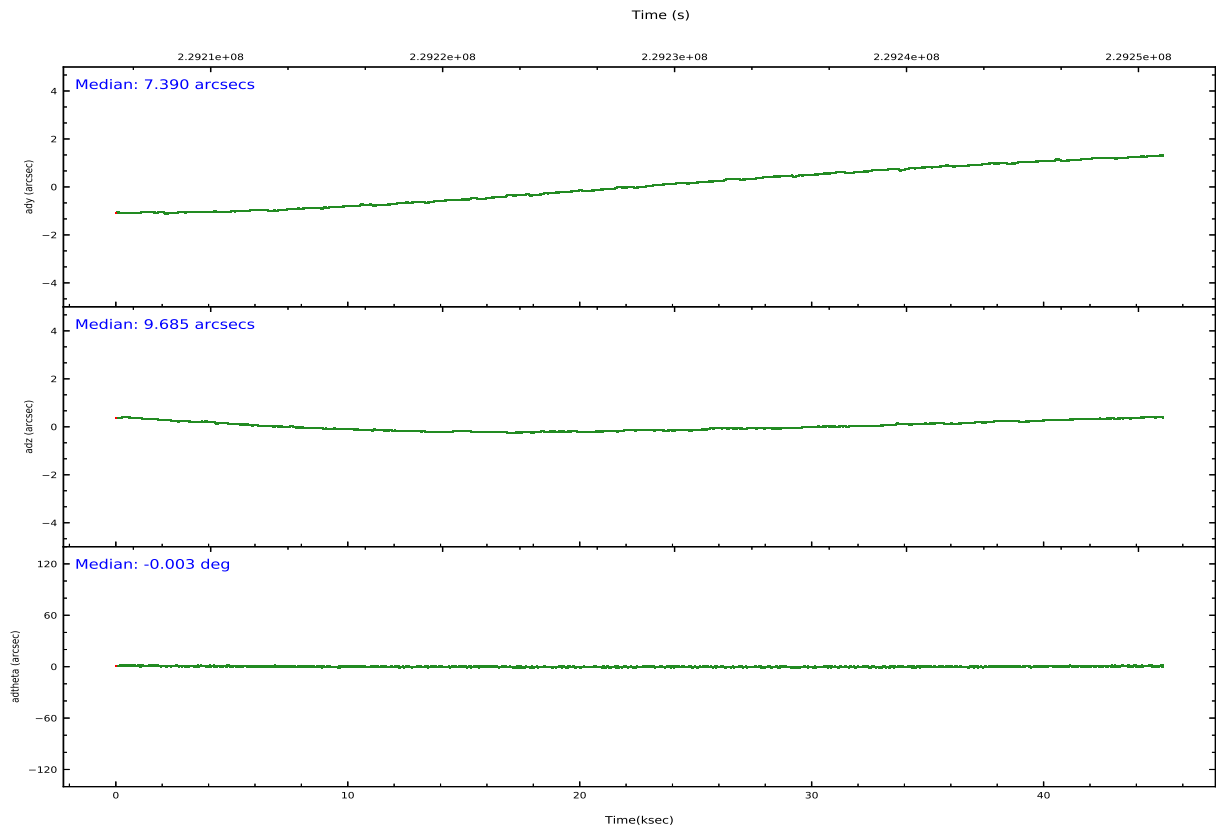
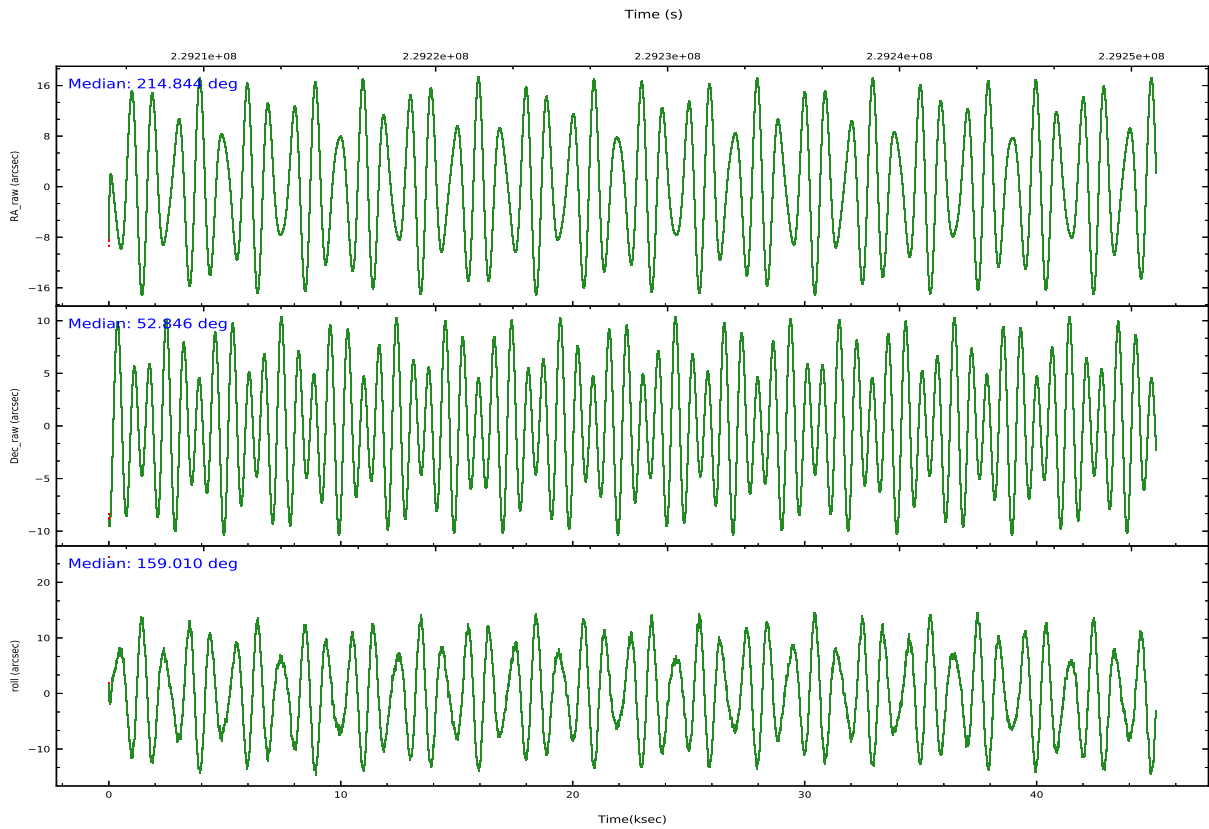
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	9272	10938	9606	9548	10492
	3%	4%	3%	3%	3%
grade 1 events	144	131	150	152	135
	0%	0%	0%	0%	0%
grade 2 events	6774	6717	6363	5815	6356
	2%	2%	2%	2%	2%
grade 3 events	3230	3553	3103	3072	3291
	1%	1%	1%	1%	1%
grade 4 events	3085	3507	3083	3117	3250
	1%	1%	1%	1%	1%
grade 5 events	10224	10906	9644	11435	11212
	3%	4%	3%	3%	3%
grade 6 events	5536	6407	5098	5411	6209
	2%	2%	1%	1%	2%
grade 7 events	227770	223899	255385	251147	245758
	85%	84%	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	214.888811	214.84900116973	Subarray requested	NONE	NONE
[deg] Pointing Dec	52.850024	52.847491943219	Alternating exposures requested	N	N
[deg] Pointing Roll	158.768723	159.01039316445	[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)	229206065.184000	229204869.37417			
Observation start date	2005-04-06T20:20:01	2005-04-06T20:01:09			
[s] Observation end time (MET)	229251065.184000	229251722.6388			
Observation end date	2005-04-07T08:50:01	2005-04-07T09:02:02			
Read mode	TIMED	TIMED			

## 2.3 Aspect





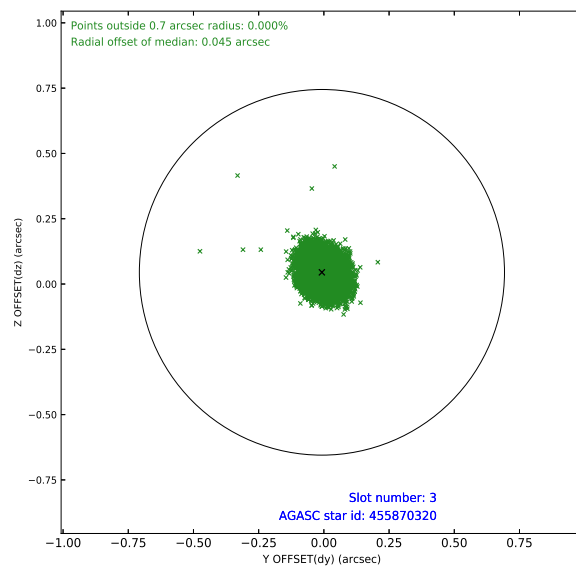
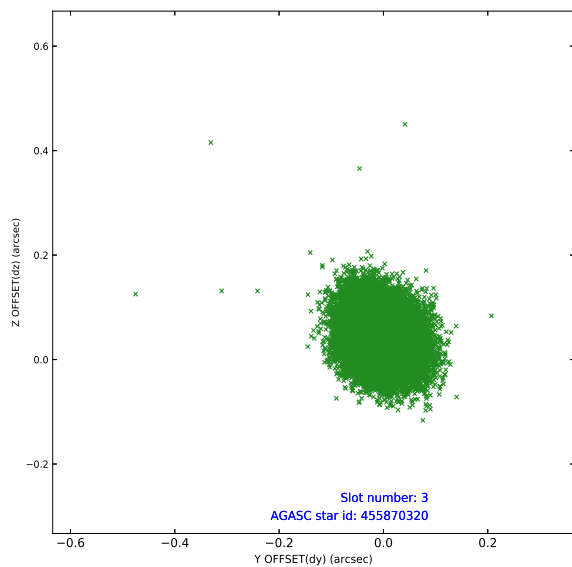
### Slot Statistics

slot	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	11012	1.000	0.009	0.006	0.019	0.031	0.000000	0.000000	932.28	-833
1	FID		ACIS-I-5	7.23	11014	1.000	-0.193	0.019	0.028	0.047	0.000000	0.000000	-1816.07	1064
2	FID		ACIS-I-6	7.25	11014	1.000	0.097	0.047	0.016	0.025	0.000000	0.000000	397.89	1708
3	GUIDE	used	455870320	8.39	22023	1.000	-0.007	0.045	0.063	0.100	214.874440	52.401638	-555.24	1516
4	GUIDE	used	455871352	8.12	21953	1.000	0.001	-0.010	0.072	0.120	215.099961	52.172669	-1317.51	2103
5	GUIDE	used	505806936	7.00	22023	1.000	0.016	0.025	0.068	0.114	213.820815	52.535927	1776.68	1885
6	GUIDE	used	505812088	8.18	22023	1.000	0.087	0.083	0.077	0.123	214.186617	53.263562	1951.61	-846
7	GUIDE	used	505812376	7.60	22023	1.000	-0.104	-0.142	0.051	0.079	214.039537	52.937930	1836.32	362

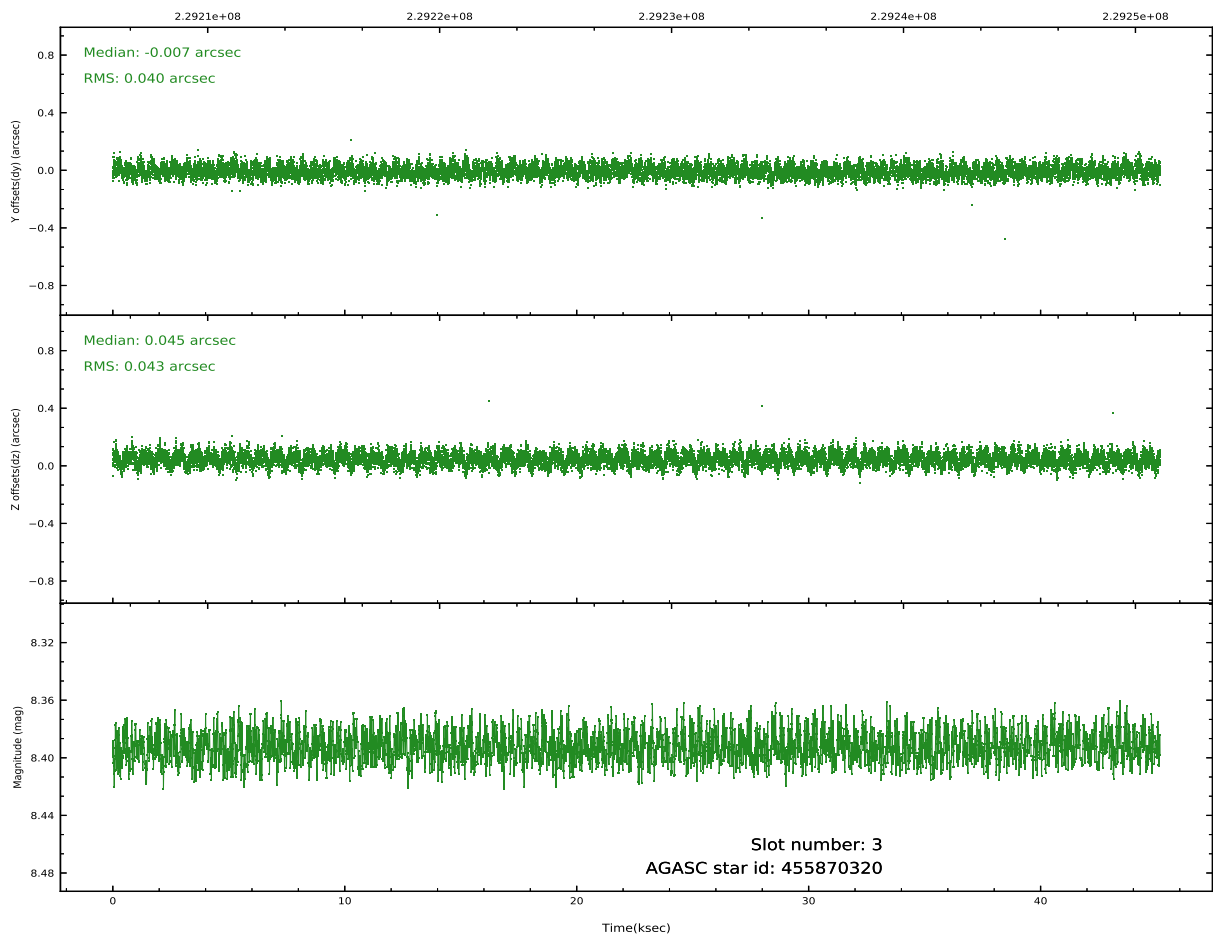
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## 2.4 Star Slots

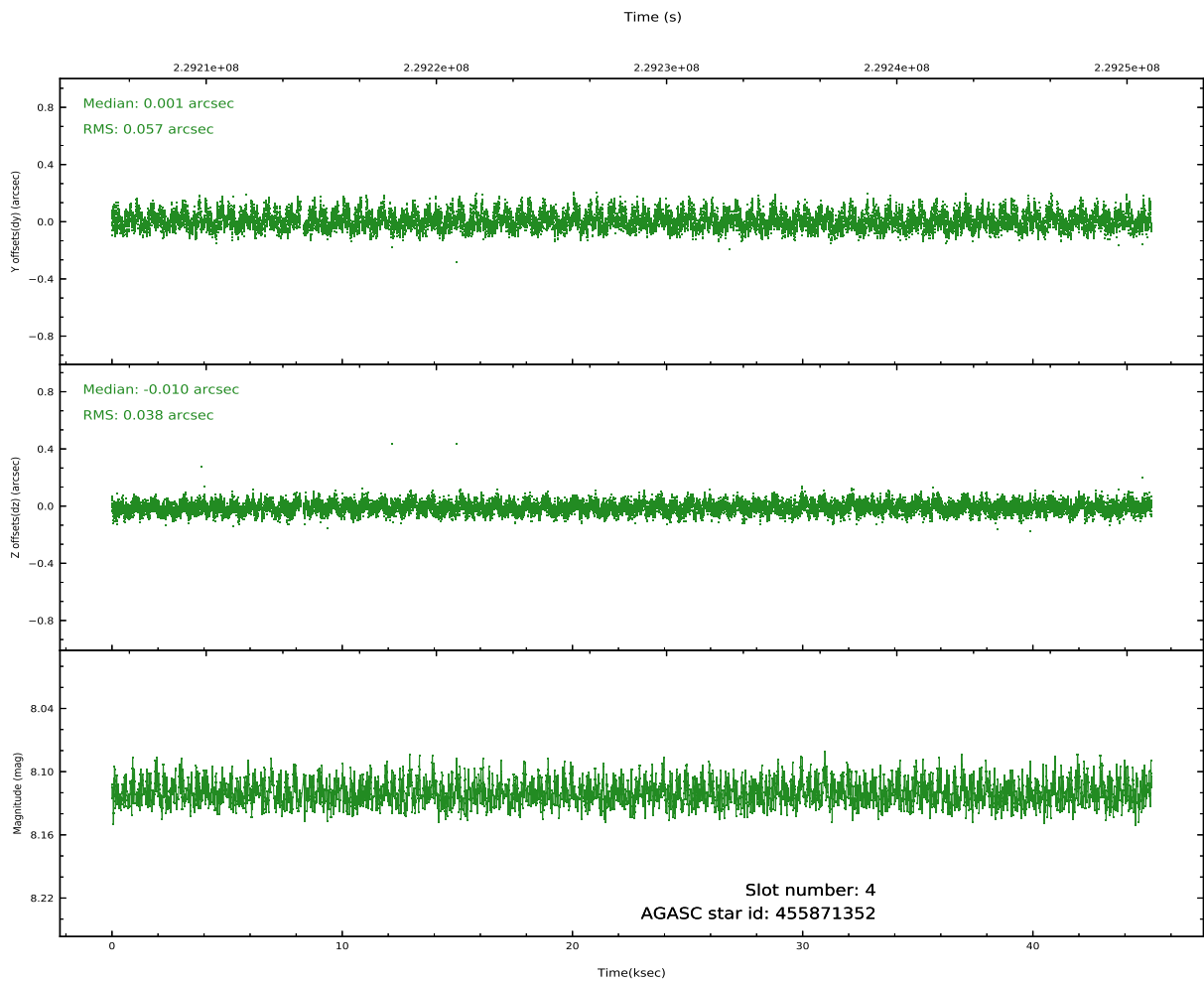
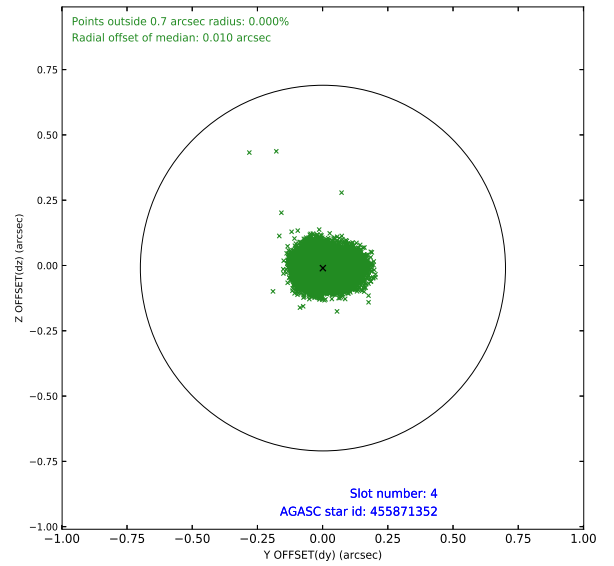
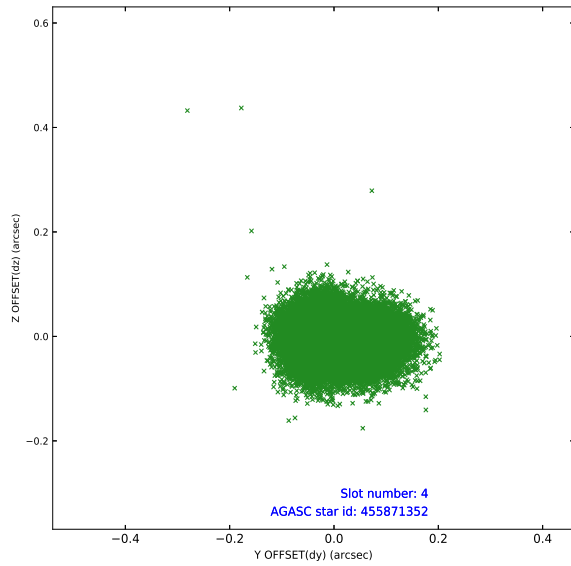
### 2.4.1 Slot 3



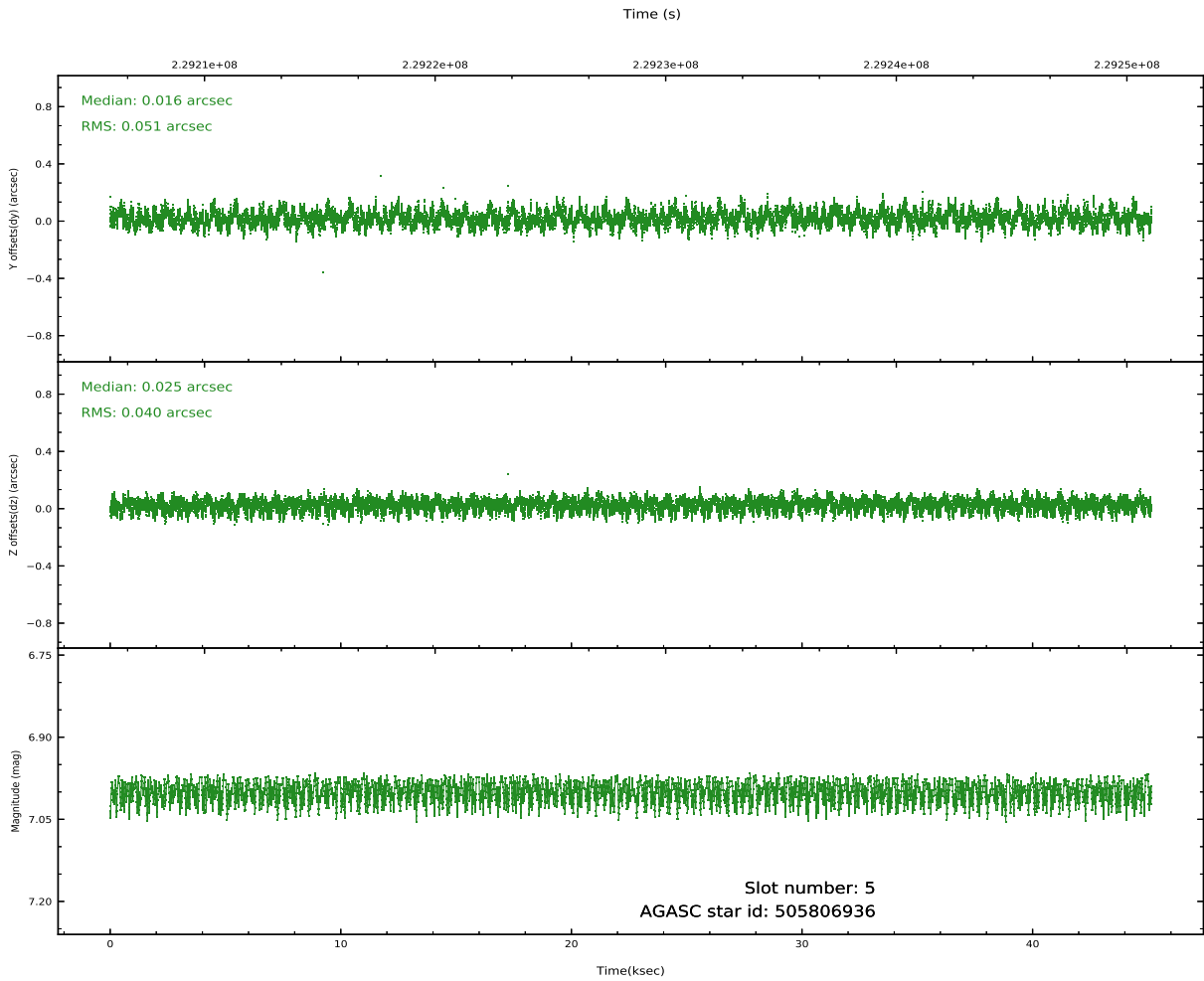
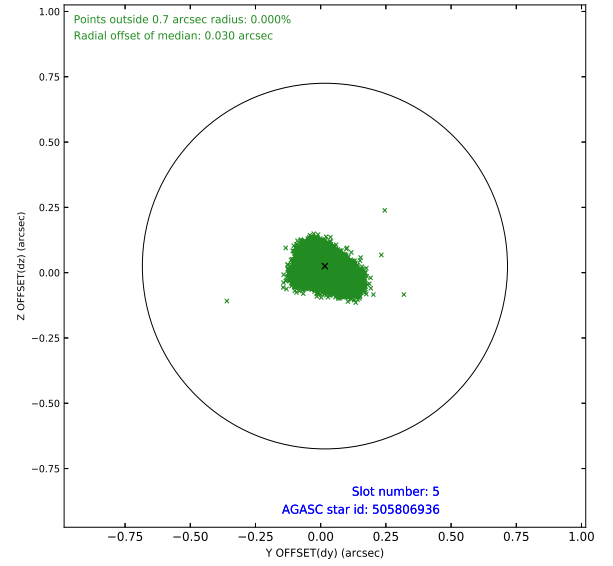
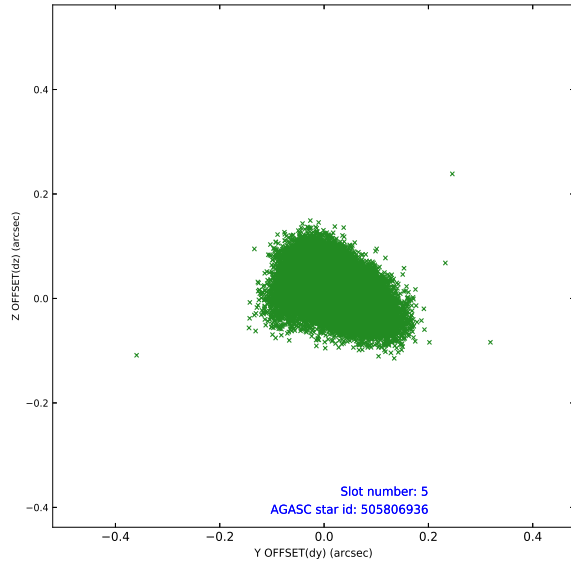
Time (s)



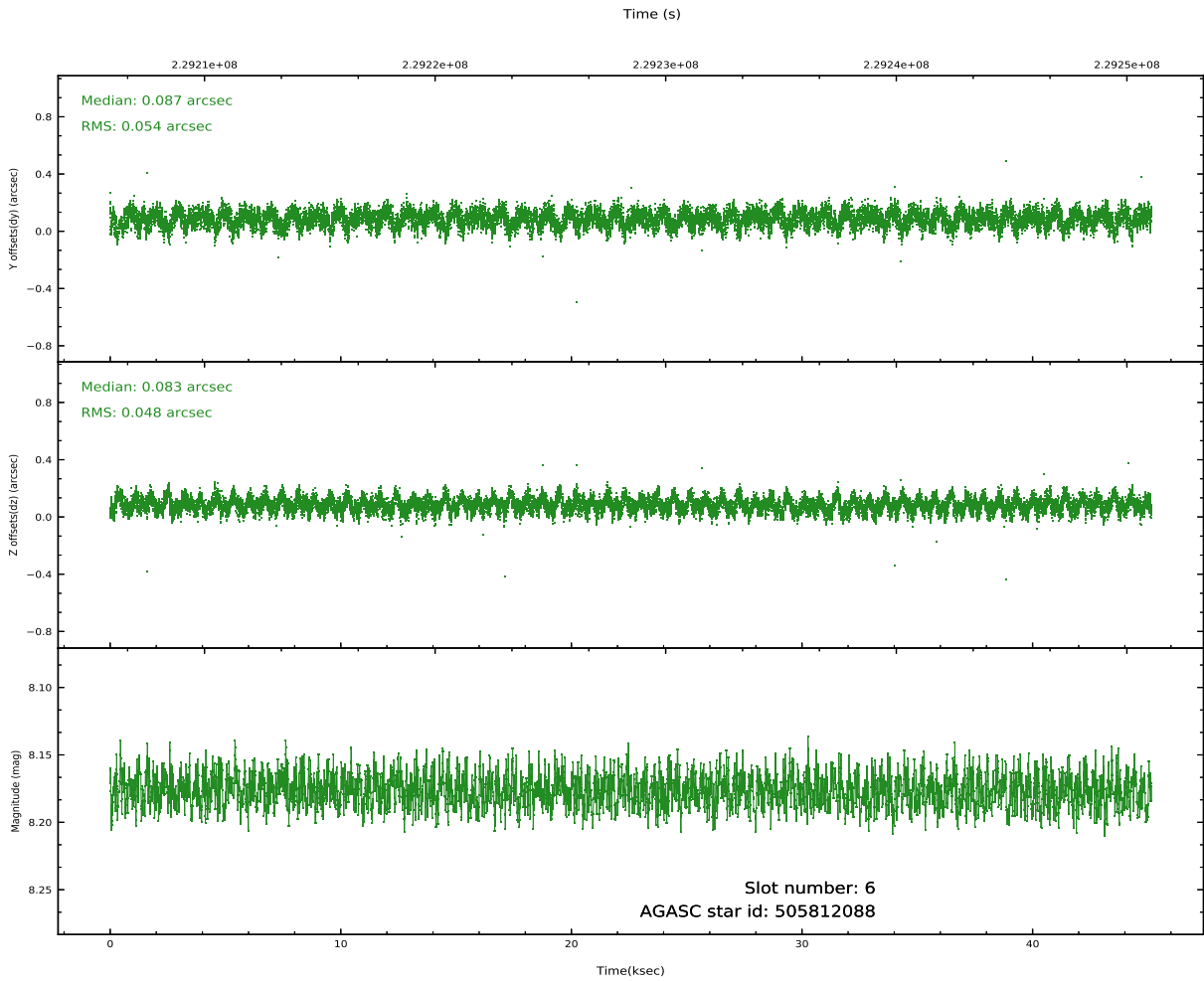
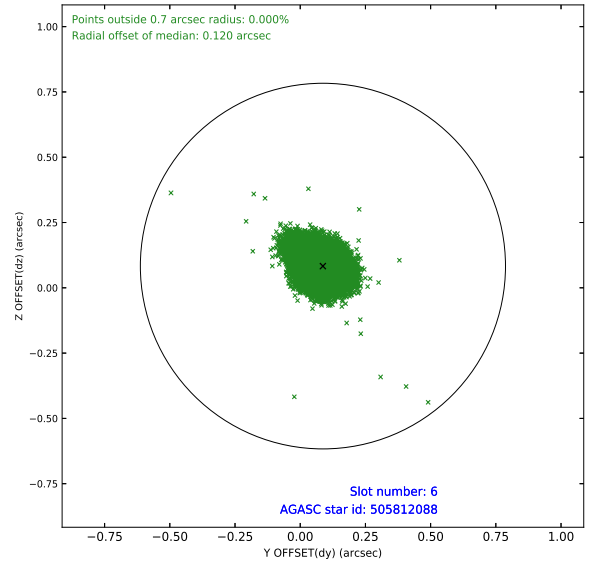
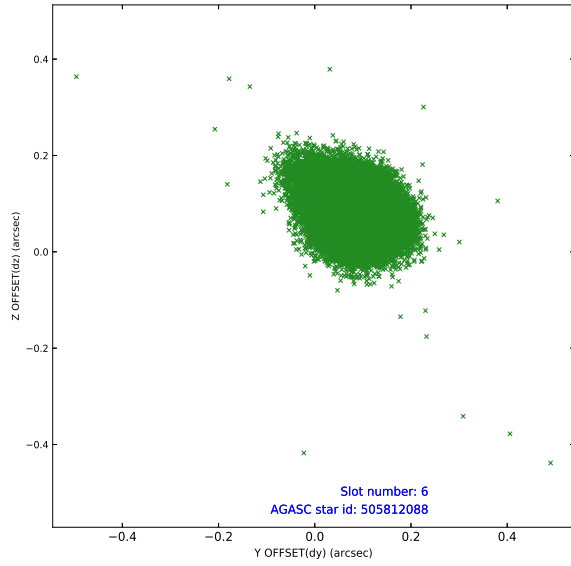
## 2.4.2 Slot 4



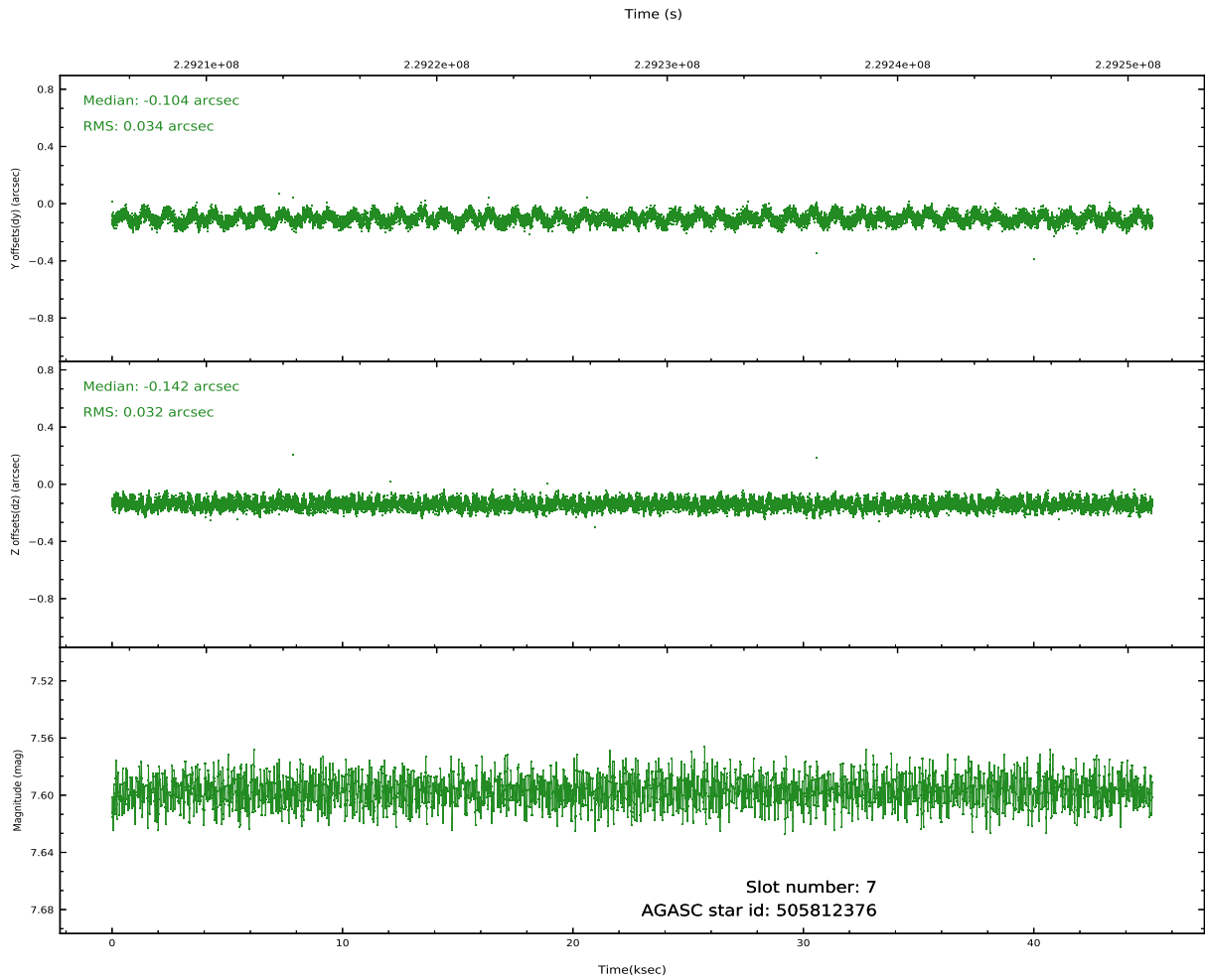
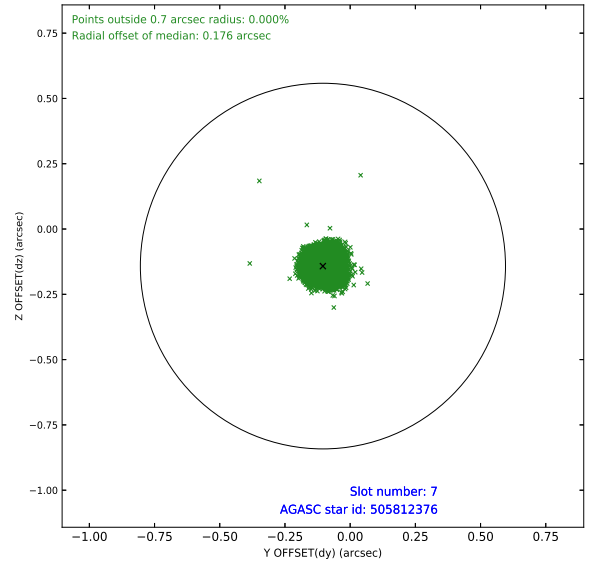
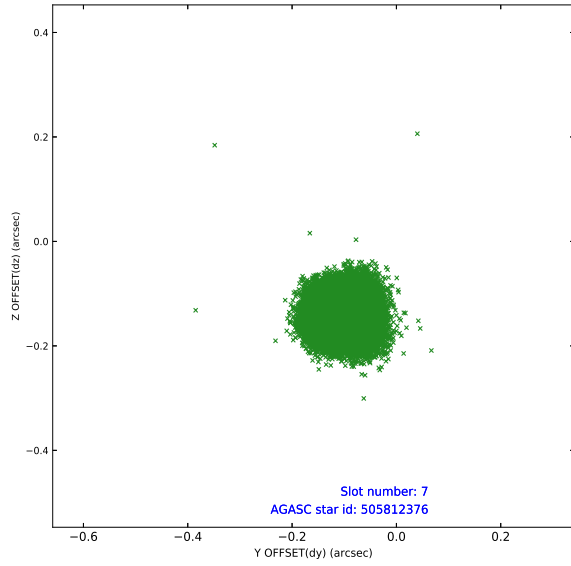
### 2.4.3 Slot 5



## 2.4.4 Slot 6

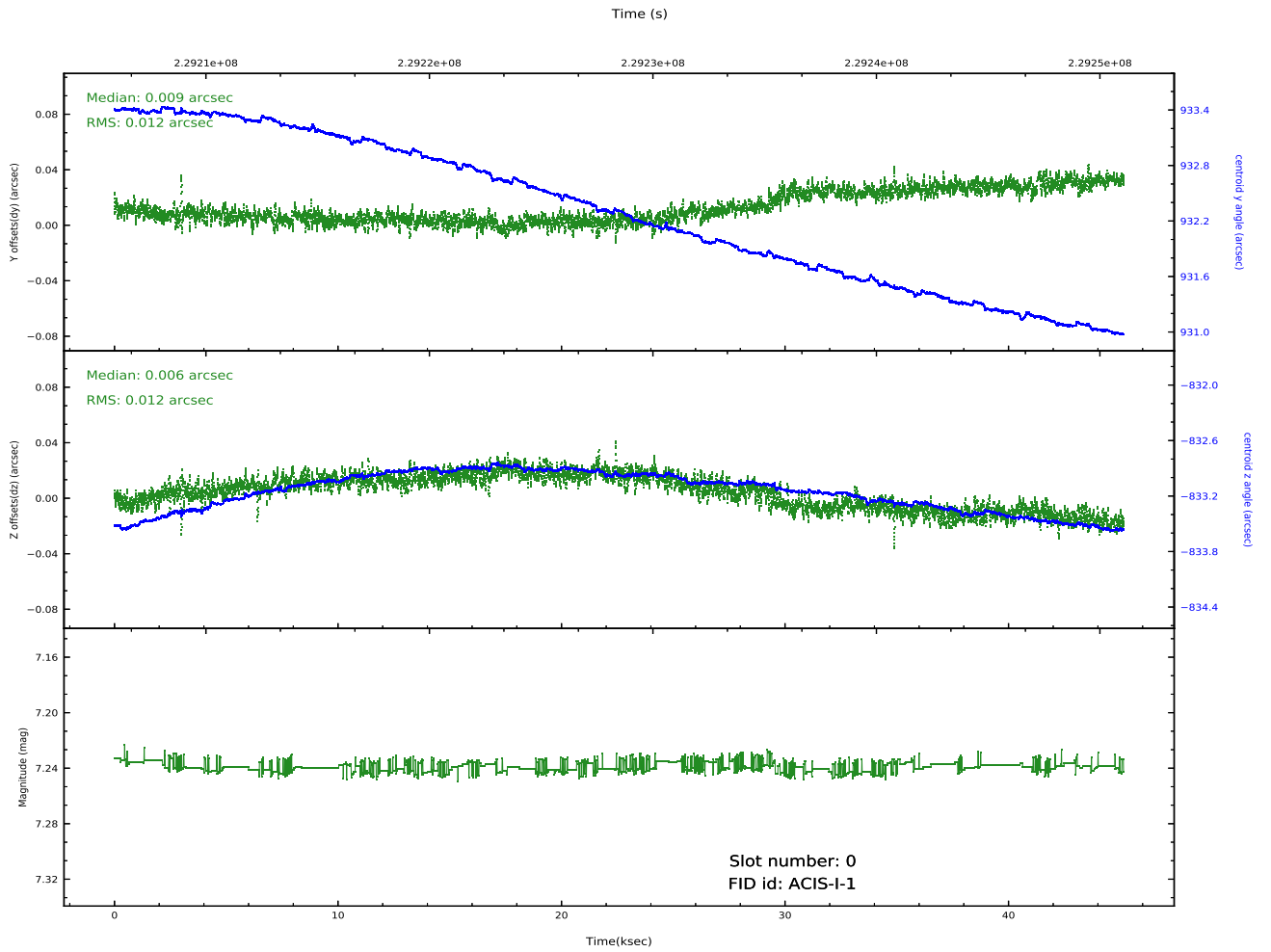
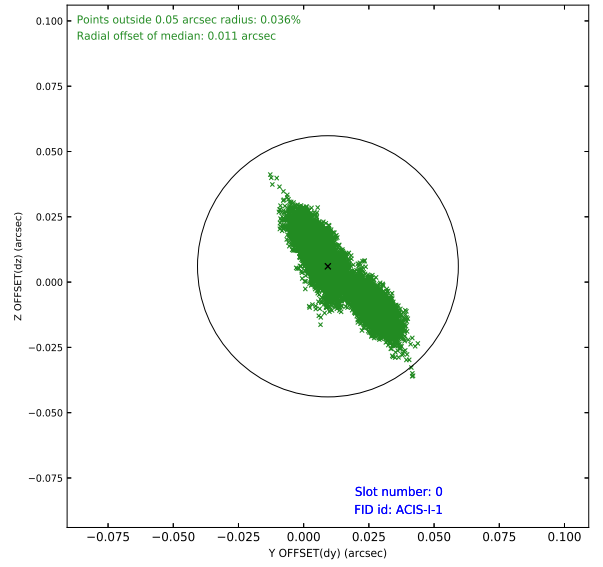
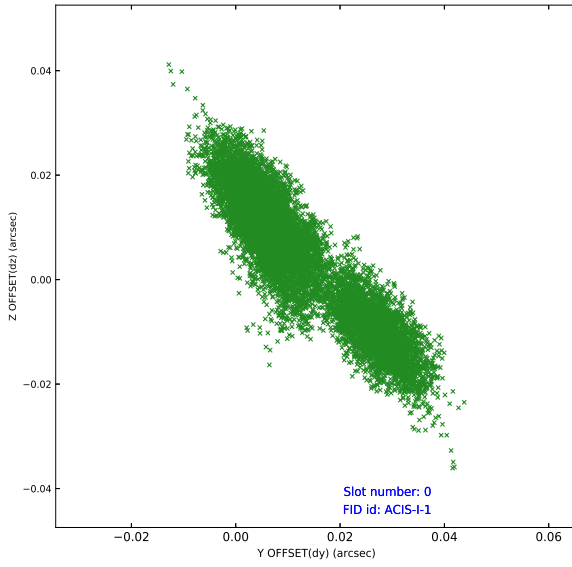


## 2.4.5 Slot 7

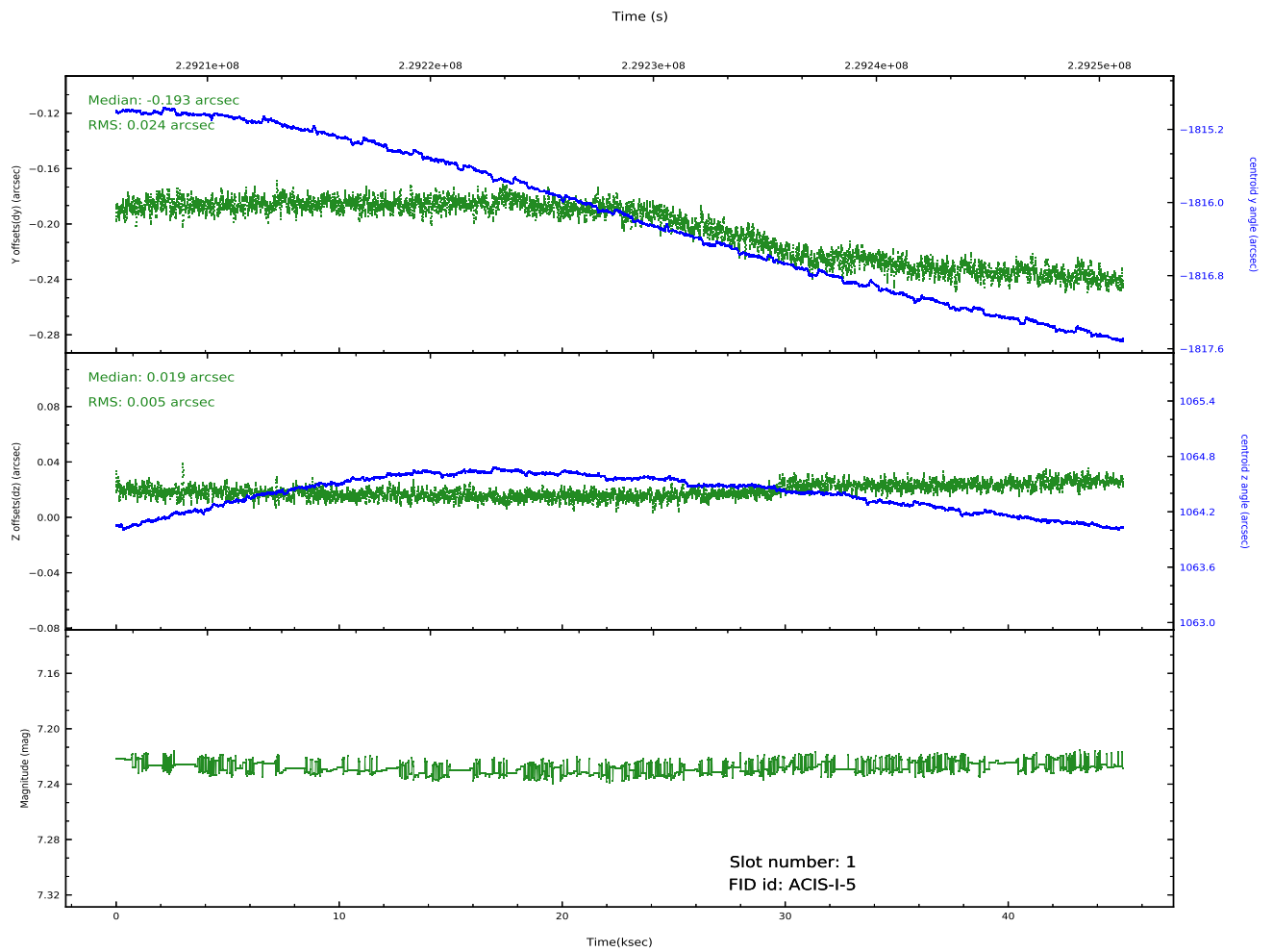
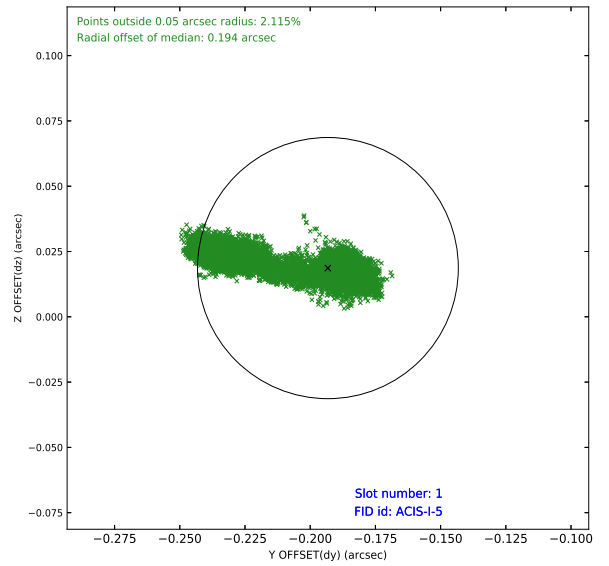
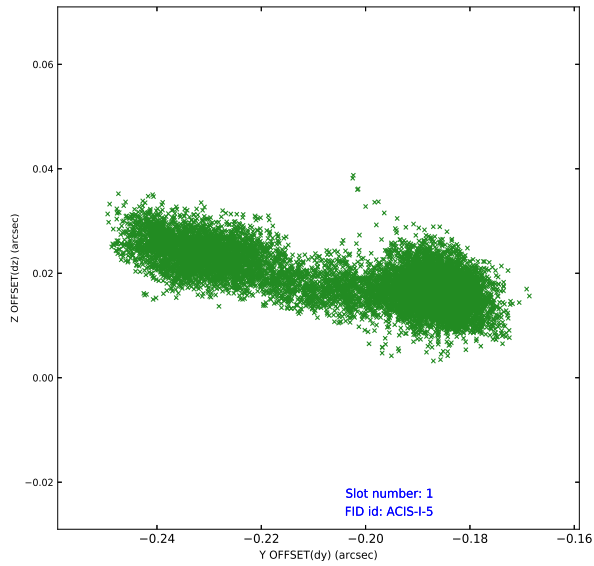


## 2.5 FID Slots

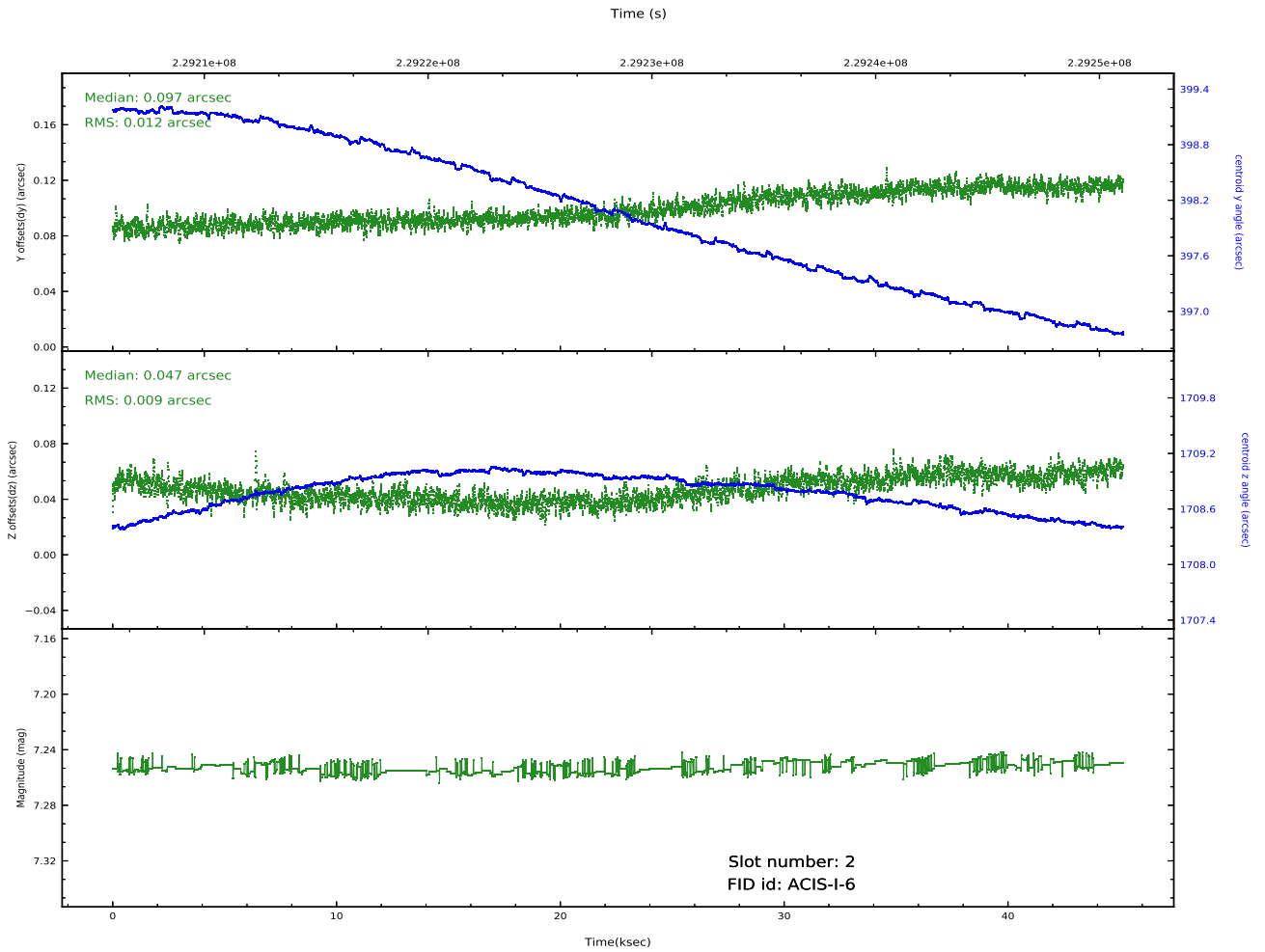
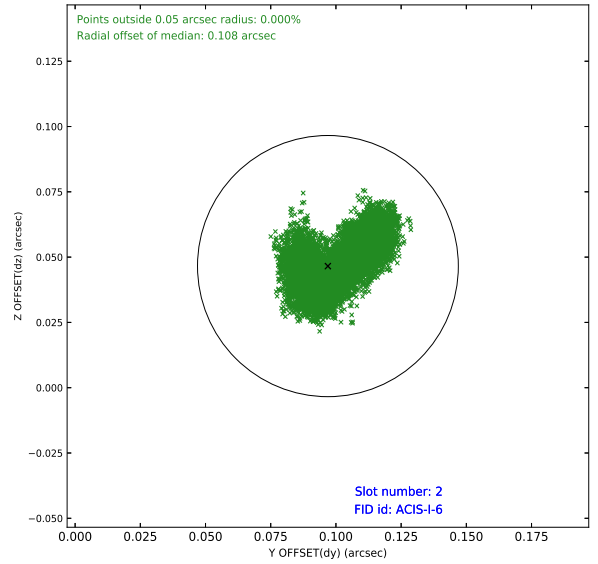
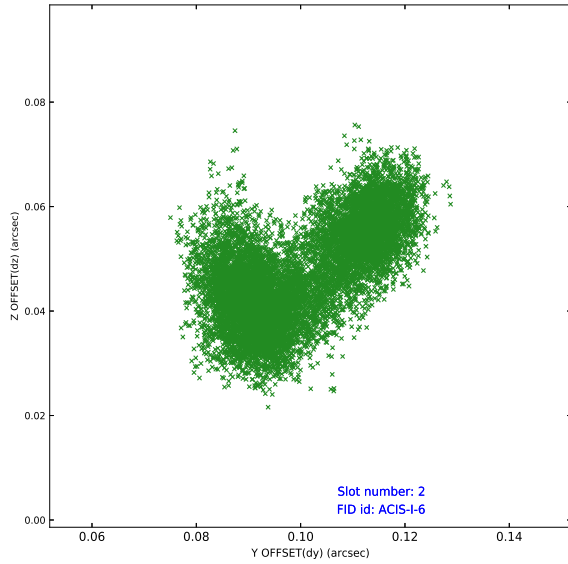
### 2.5.1 Slot 0



## 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)	2020.10.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	45.14215

## A.2 Comments

Roll constraint was met.