

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 5386 - L2 Version 4  
Chandra X-Ray Center

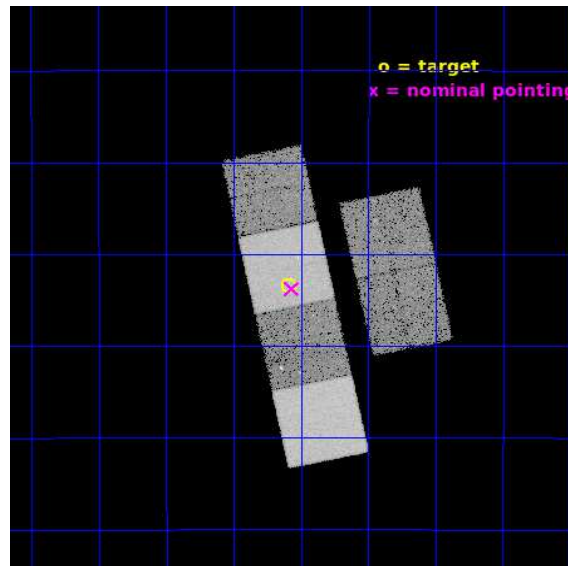
L2 Processing Date : Oct 8 2020

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# 1 Front

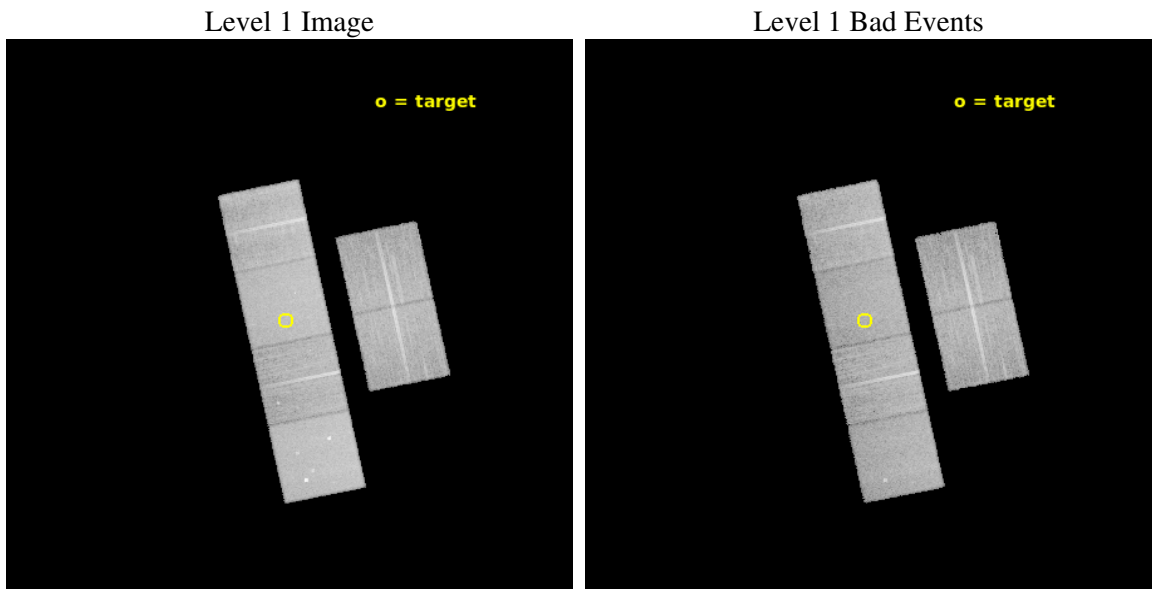
seq_num	200321	Sequence number
obs_id	5386	Observation id
title	The puzzle of X-ray emission from magnetic stars without convective envelopes	Proposal title
observer	J rgen Schmitt	Principal investigator
object	HD 147010	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	245.022917	Observer's specified target RA [deg]
dec_targ	-20.056389	Observer's specified target Dec [deg]
ra_nom	245.01668410758	Nominal RA [deg]
dec_nom	-20.062870024361	Nominal Dec [deg]
roll_nom	258.09479861145	Nominal Roll [deg]
revision	4	Processing version of data
ontime	15177.599943459	Sum of GTIs [s]
livetime	14985.412034121	Livetime [s]
ontime2	15177.599943459	Sum of GTIs [s]
ontime3	15174.358953178	Sum of GTIs [s]
ontime5	15177.599943459	Sum of GTIs [s]
ontime6	15177.599943459	Sum of GTIs [s]
ontime7	15177.599943459	Sum of GTIs [s]
ontime8	15177.599943459	Sum of GTIs [s]
l2events	189056	Number of level 2 events



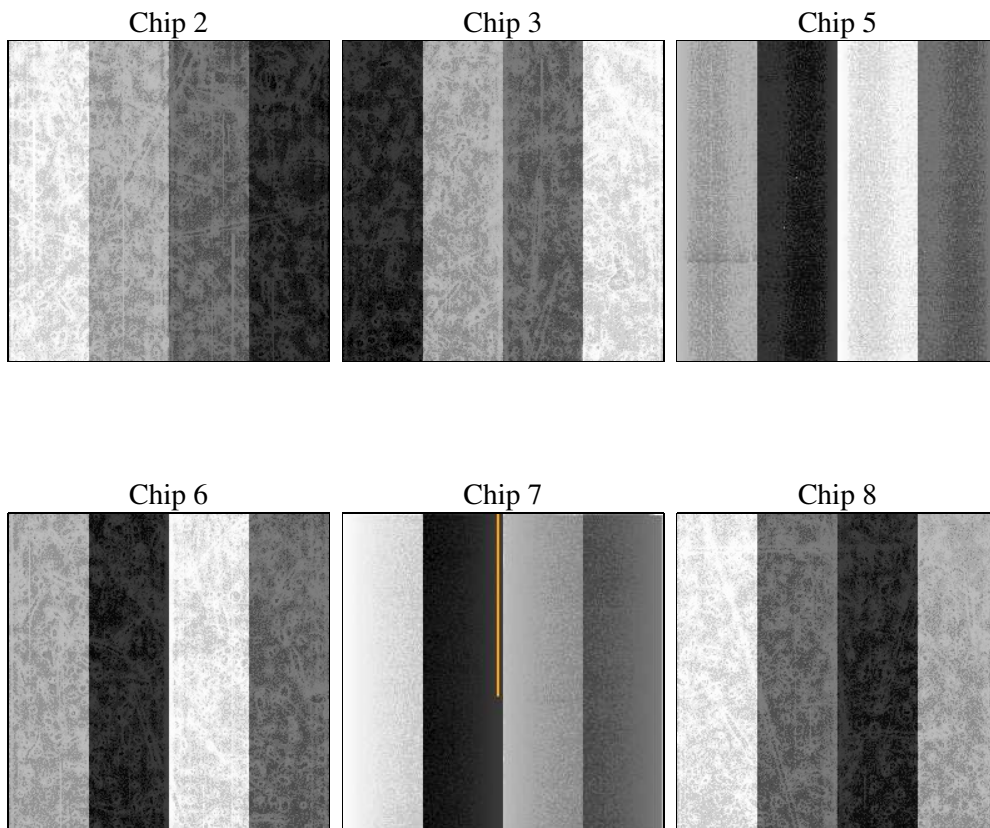
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	15000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	15177.599943459	Sum of GTIs [s]
caldsver	4.9.2	&#160	ontime2	15177.599943459	Sum of GTIs [s]
date	2020-10-09T02:07:11	Date and time of file creation	ontime3	15174.358953178	Sum of GTIs [s]
revision	4	Processing version of data	ontime5	15177.599943459	Sum of GTIs [s]
			ontime6	15177.599943459	Sum of GTIs [s]
			ontime7	15177.599943459	Sum of GTIs [s]
			ontime8	15177.599943459	Sum of GTIs [s]
			l1events	864481	Number of level 1 events

### 2.1.4 Events

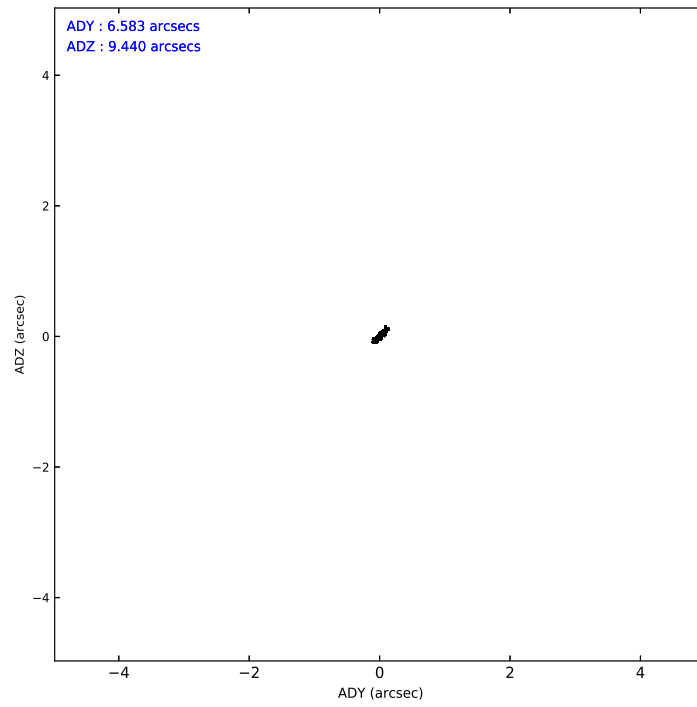
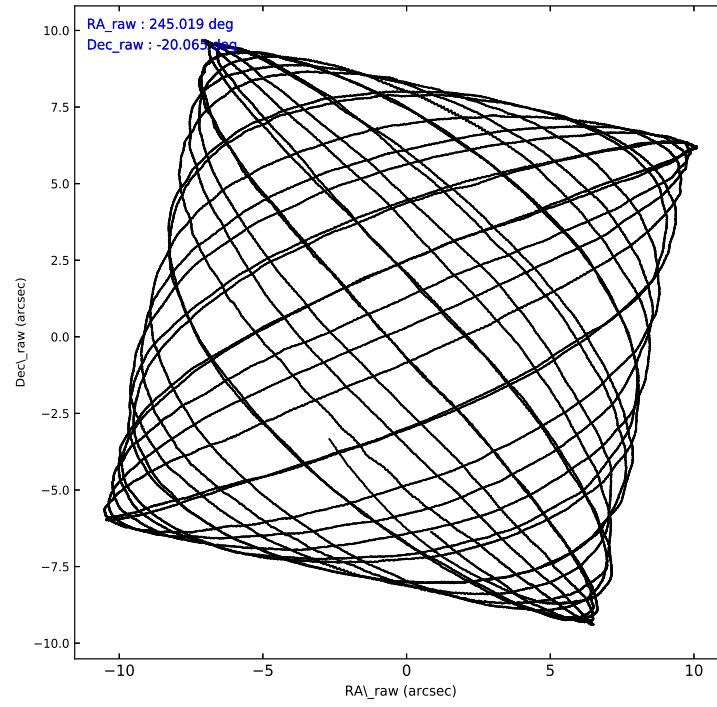
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	124485	118399	180981	123730	163800	153086	grade 0 events	6219	6086	8115	5843	5929	10270
rejected events	110599	104668	100737	109311	97787	121655		4%	5%	4%	4%	3%	6%
rejected %	88%	88%	55%	88%	59%	79%	grade 1 events	82	84	730	67	151	124
								0%	0%	0%	0%	0%	0%
							grade 2 events	2861	2705	24220	3106	13374	7049
								2%	2%	13%	2%	8%	4%
							grade 3 events	1279	1327	2886	1351	5907	3234
								1%	1%	1%	1%	3%	2%
							grade 4 events	1341	1362	2829	1373	5735	3102
								1%	1%	1%	1%	3%	2%
							grade 5 events	4847	5305	12634	5521	15624	7381
								3%	4%	6%	4%	9%	4%
							grade 6 events	2372	2447	43458	2976	35978	8216
								1%	2%	24%	2%	21%	5%
							grade 7 events	105484	99083	86109	103493	81102	113710
								84%	83%	47%	83%	49%	74%

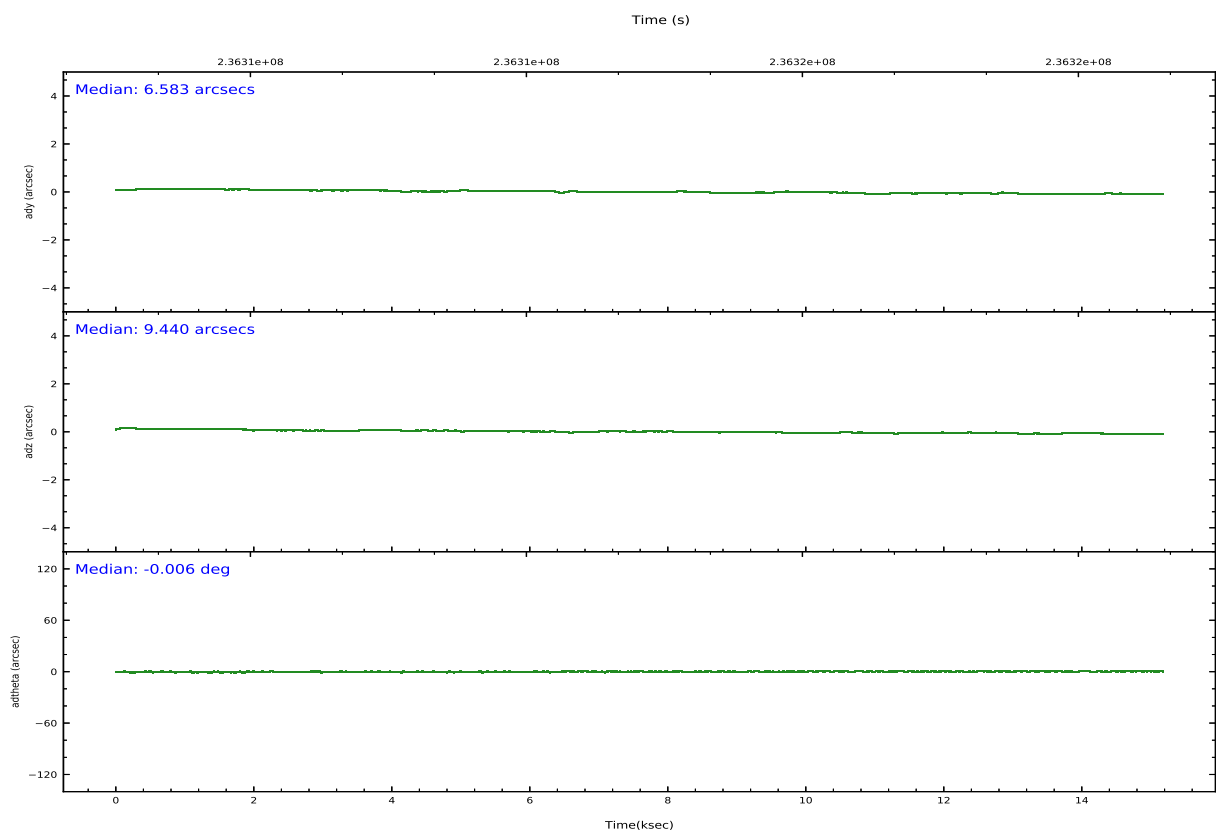
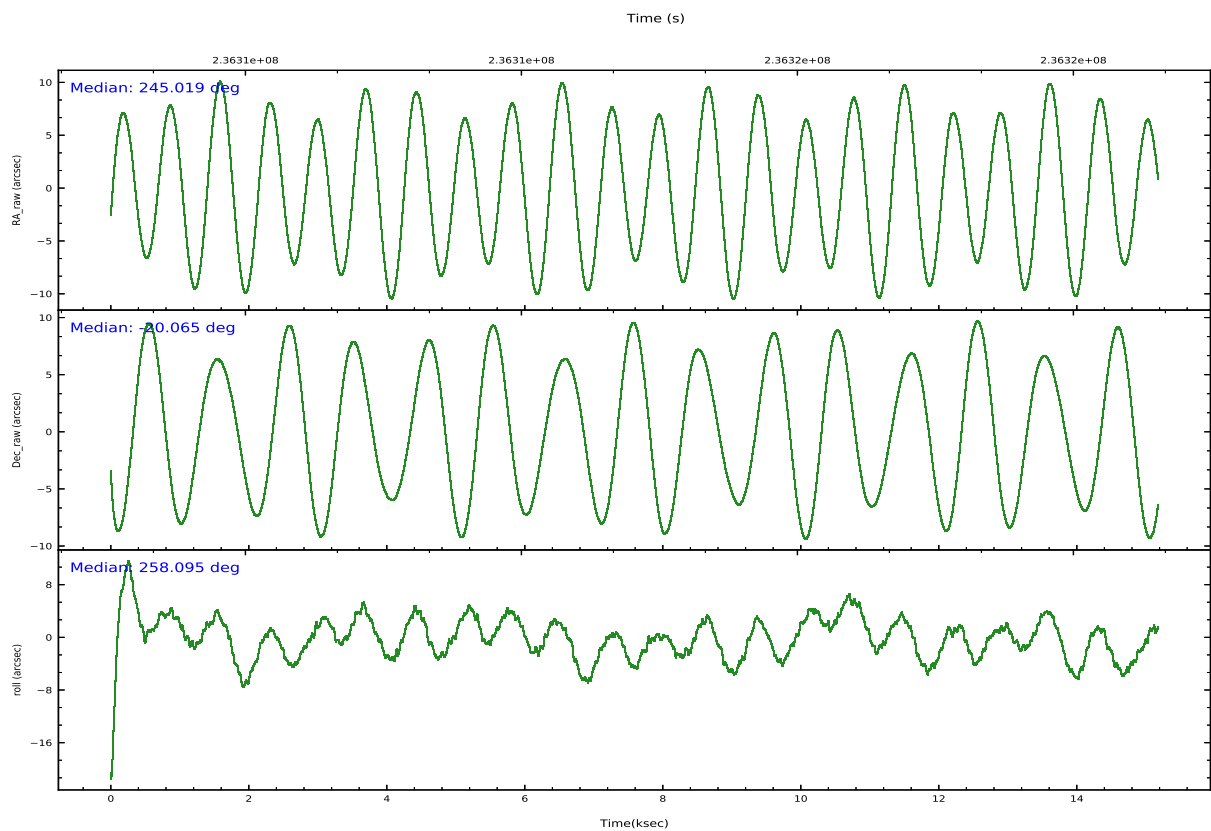


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-235678	ACIS-235678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	245.009686	245.01668410758	Subarray requested	NONE	NONE
[deg] Pointing Dec	-20.039579	-20.062870024361	Alternating exposures requested	N	N
[deg] Pointing Roll	257.934587	258.09479861145	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	236306229.184000	236304906.32265			
Observation start date	2005-06-28T00:36:05	2005-06-28T00:15:06			
[s] Observation end time (MET)	236321229.184000	236321935.67343			
Observation end date	2005-06-28T04:46:05	2005-06-28T04:58:55			
Read mode	TIMED	TIMED			

## 2.3 Aspect



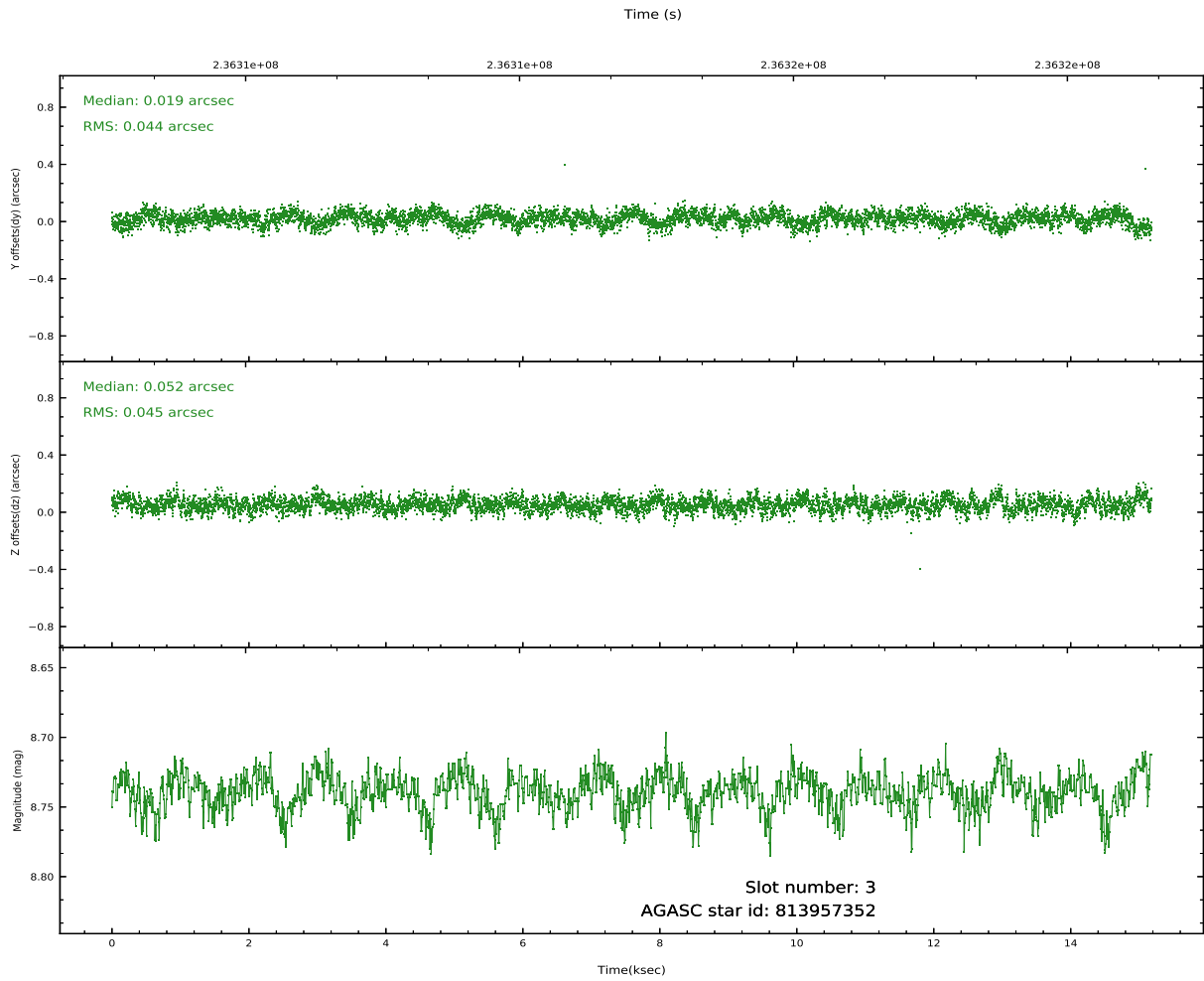
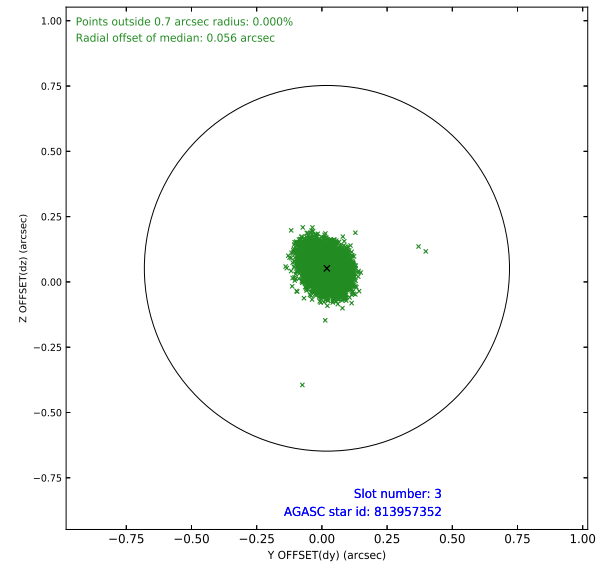
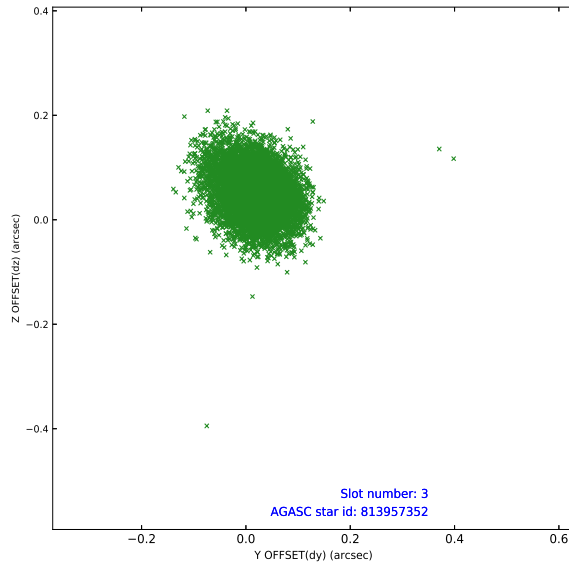


Slot Statistics

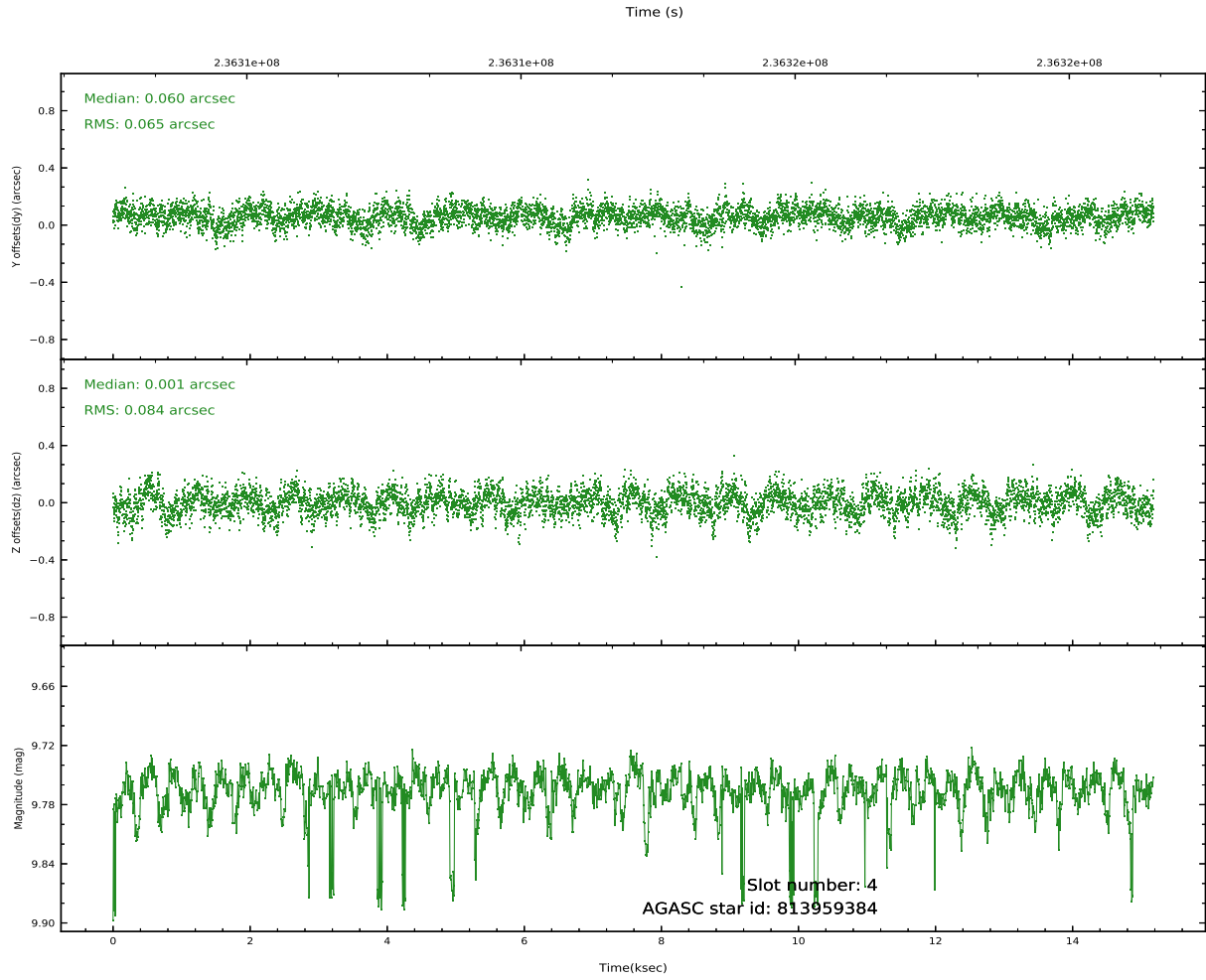
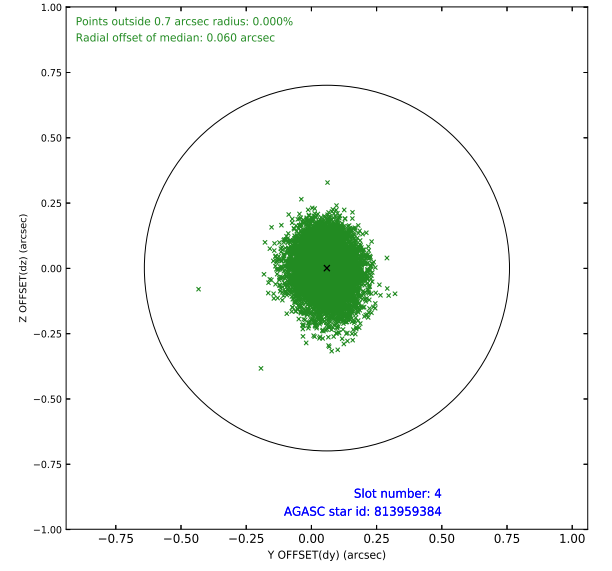
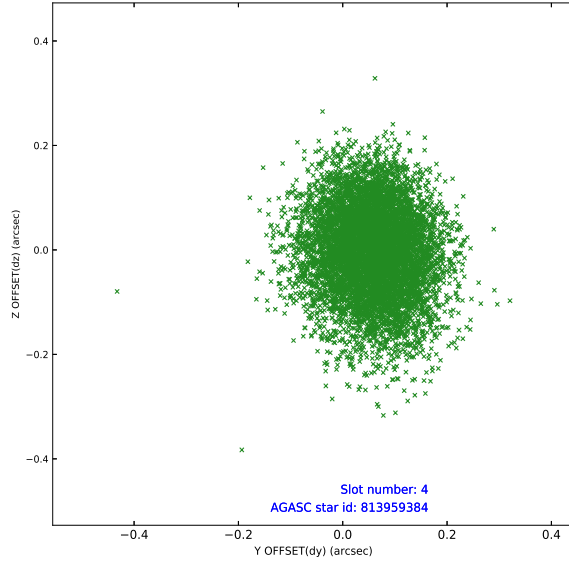
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.10	3703	1.000	-0.091	-0.082	0.007	0.012	0.000000	0.000000	-759.37	-1730
1	FID		ACIS-S-4	7.21	3703	1.000	0.166	0.065	0.006	0.011	0.000000	0.000000	2153.98	177
2	FID		ACIS-S-5	7.24	3703	1.000	-0.107	0.025	0.007	0.011	0.000000	0.000000	-1811.90	171
3	GUIDE	used	813957352	8.74	7402	1.000	0.019	0.052	0.066	0.108	245.284298	-19.945026	-524.70	837
4	GUIDE	used	813959384	9.76	7377	1.000	0.060	0.001	0.113	0.183	244.705730	-19.678851	-1053.39	-1278
5	GUIDE	used	813961328	8.40	7405	1.000	-0.060	-0.072	0.057	0.094	244.652122	-19.784389	-643.63	-1376
6	GUIDE	used	813962896	8.95	7399	1.000	-0.054	0.008	0.080	0.127	244.578489	-20.615072	2331.99	-987
7	GUIDE	used	813964048	6.10	7404	1.000	0.037	0.010	0.052	0.084	244.782175	-20.218073	790.39	-617

## 2.4 Star Slots

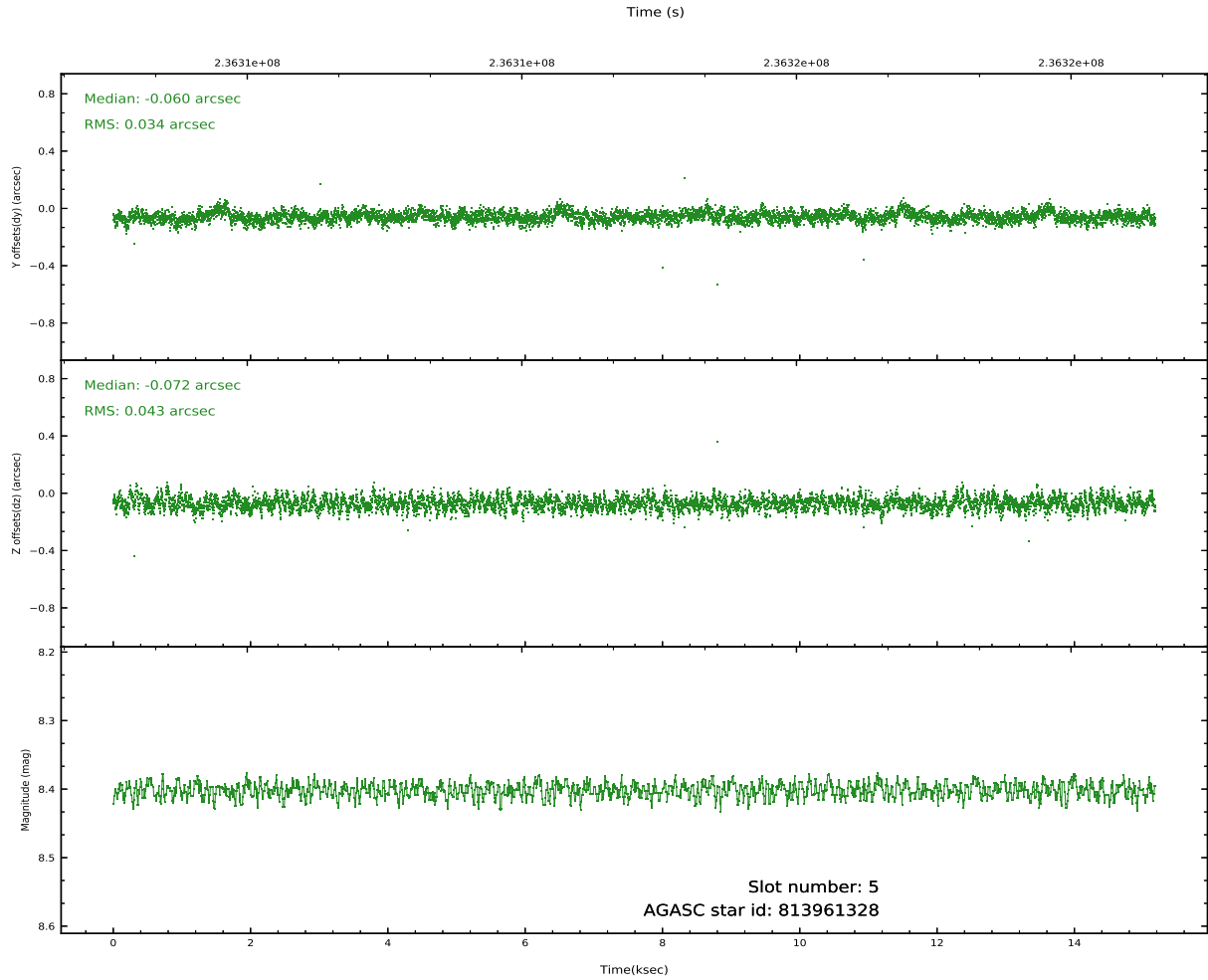
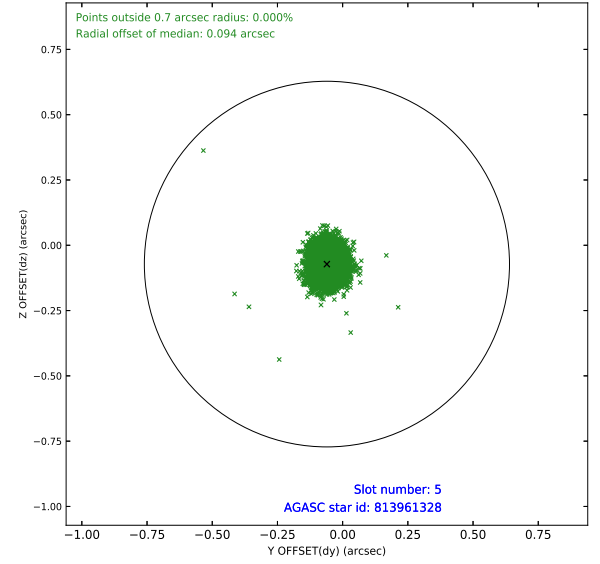
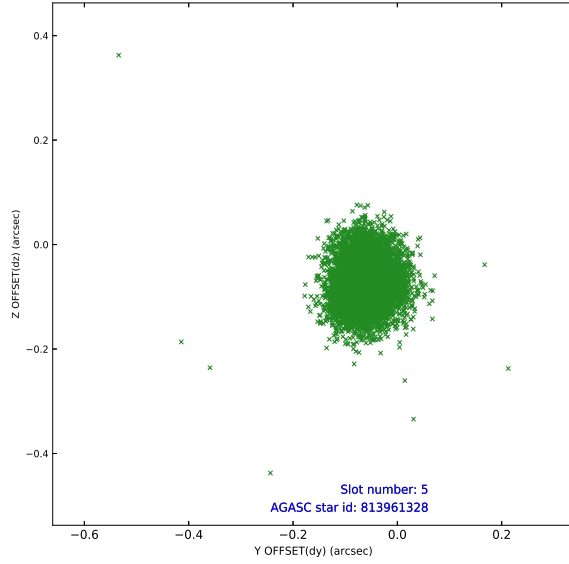
### 2.4.1 Slot 3



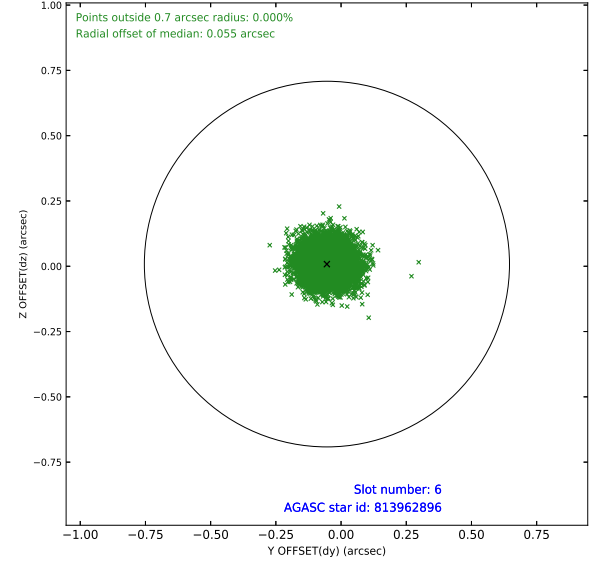
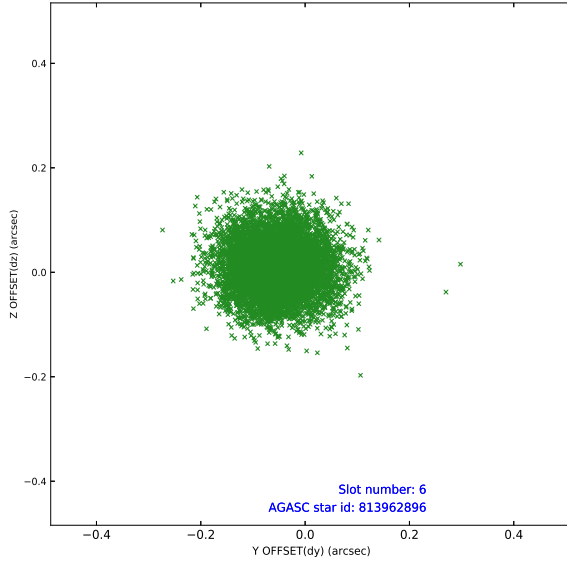
## 2.4.2 Slot 4



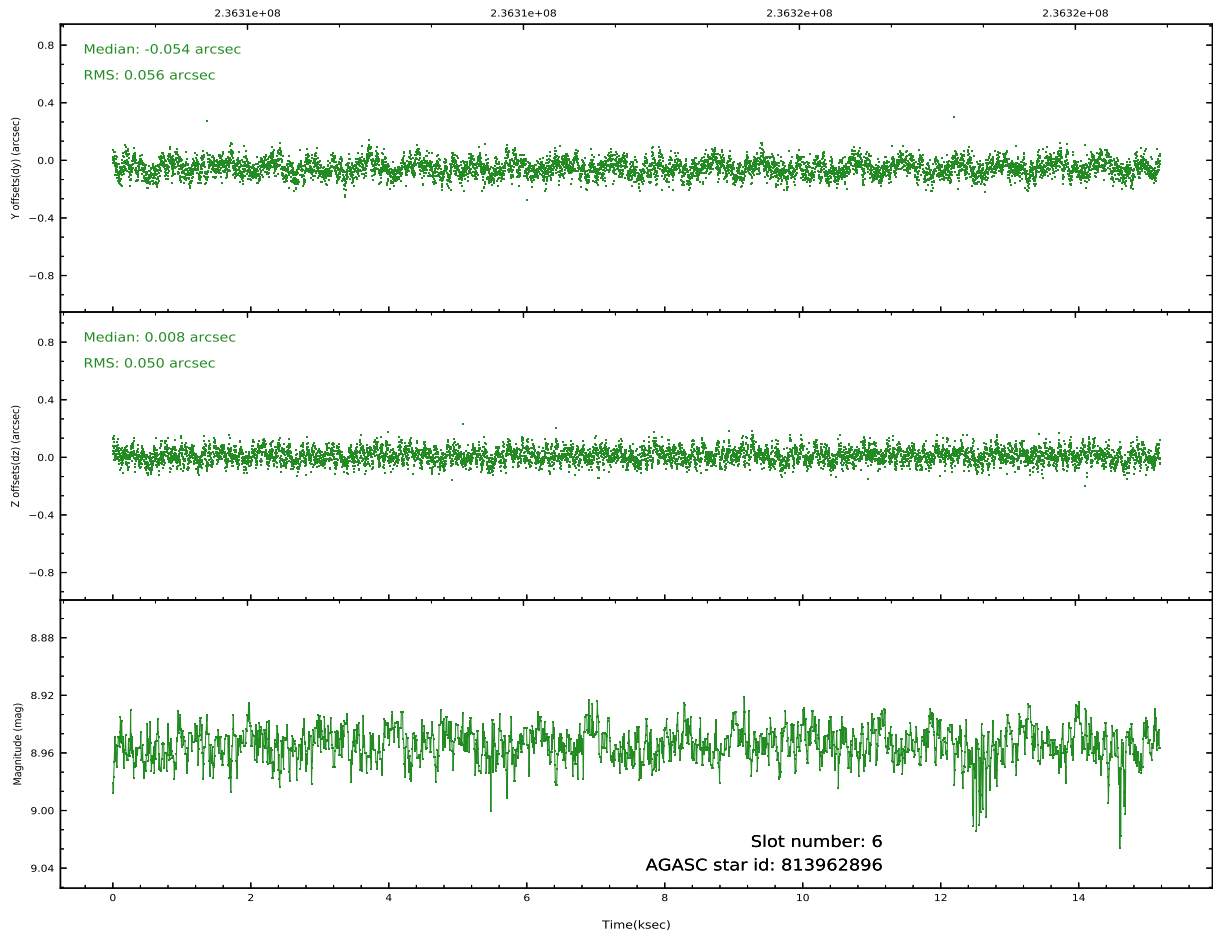
### 2.4.3 Slot 5



## 2.4.4 Slot 6

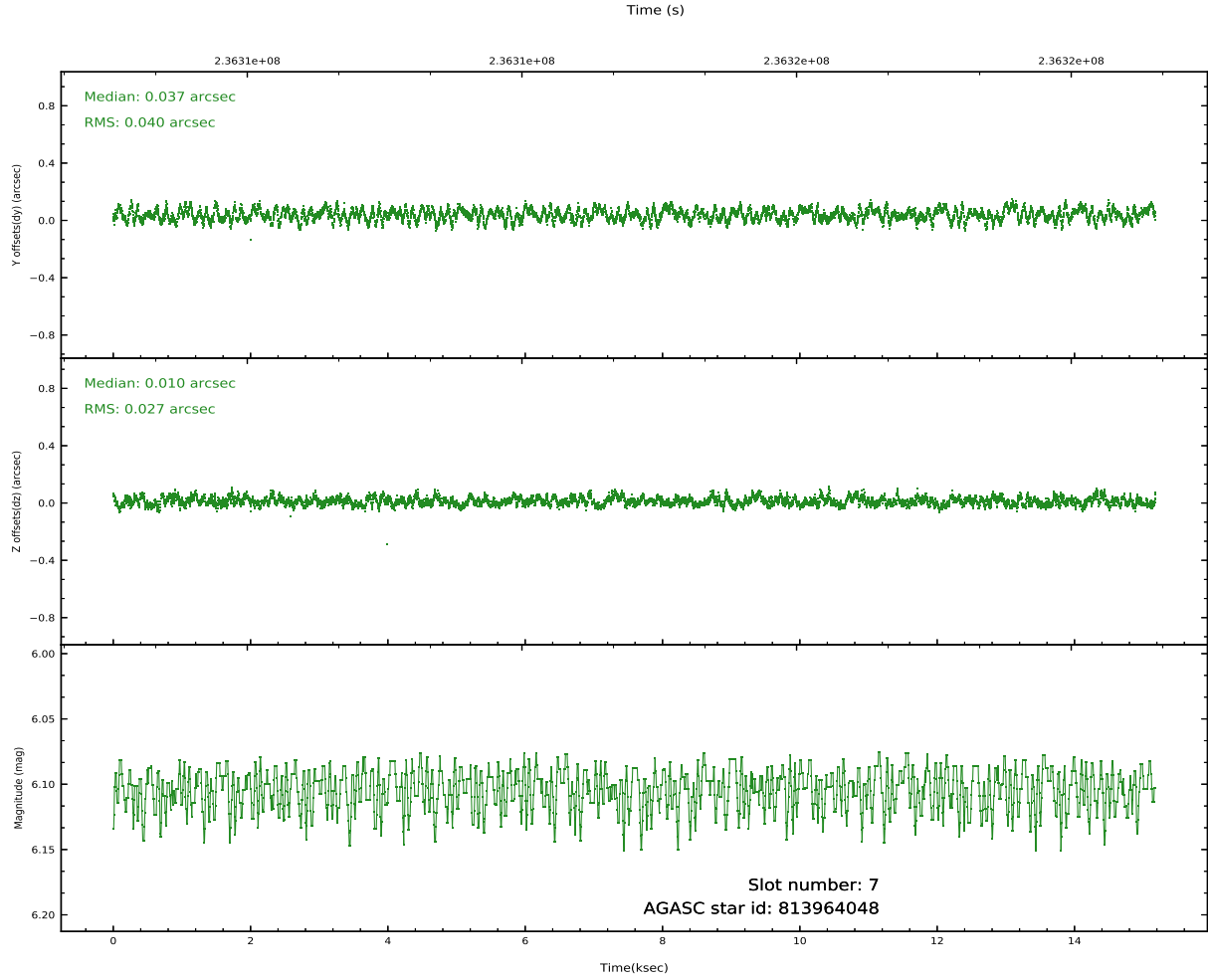
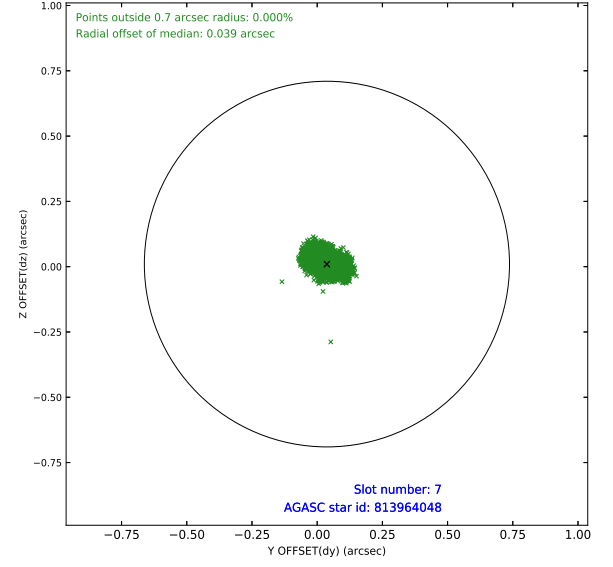
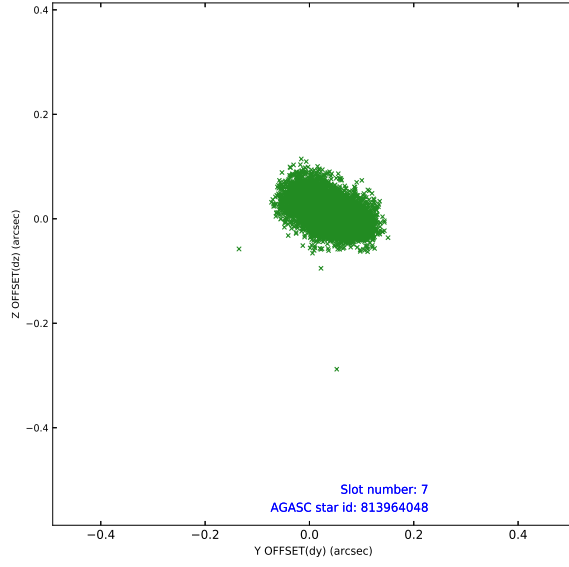


Time (s)



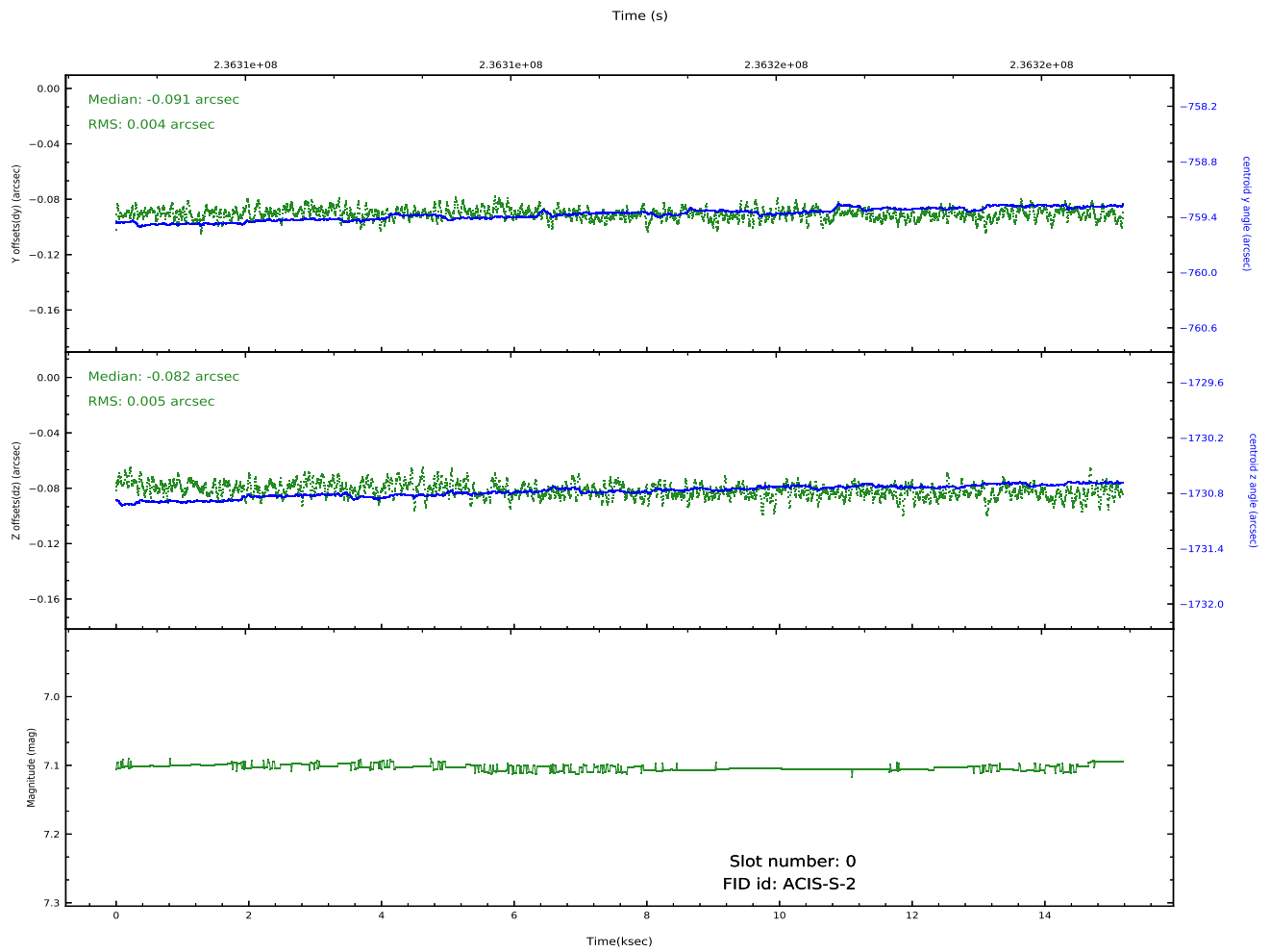
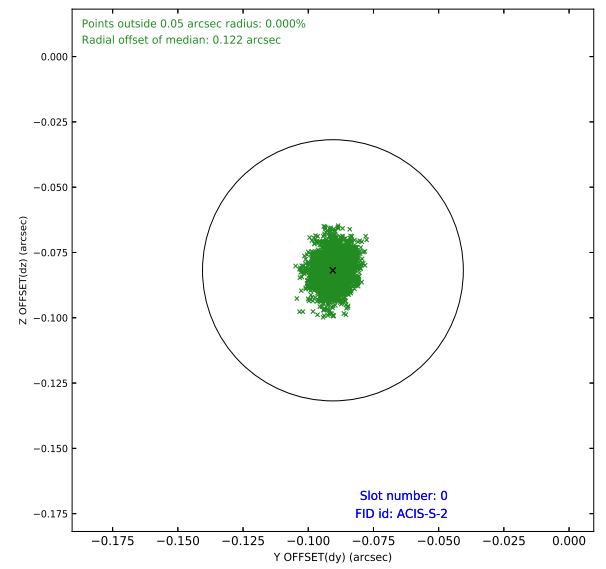
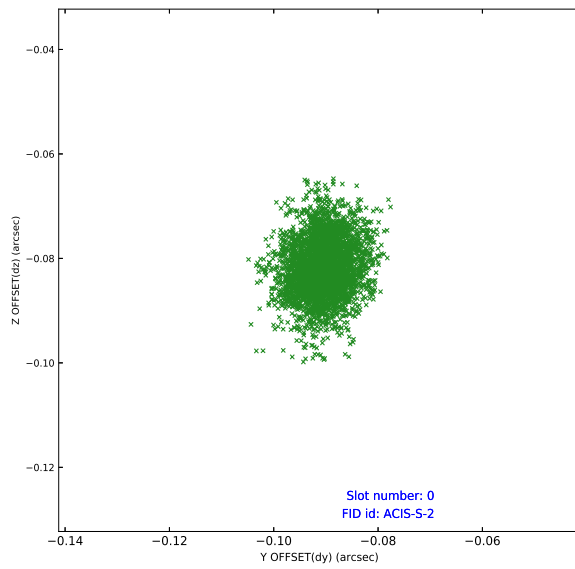


## 2.4.5 Slot 7

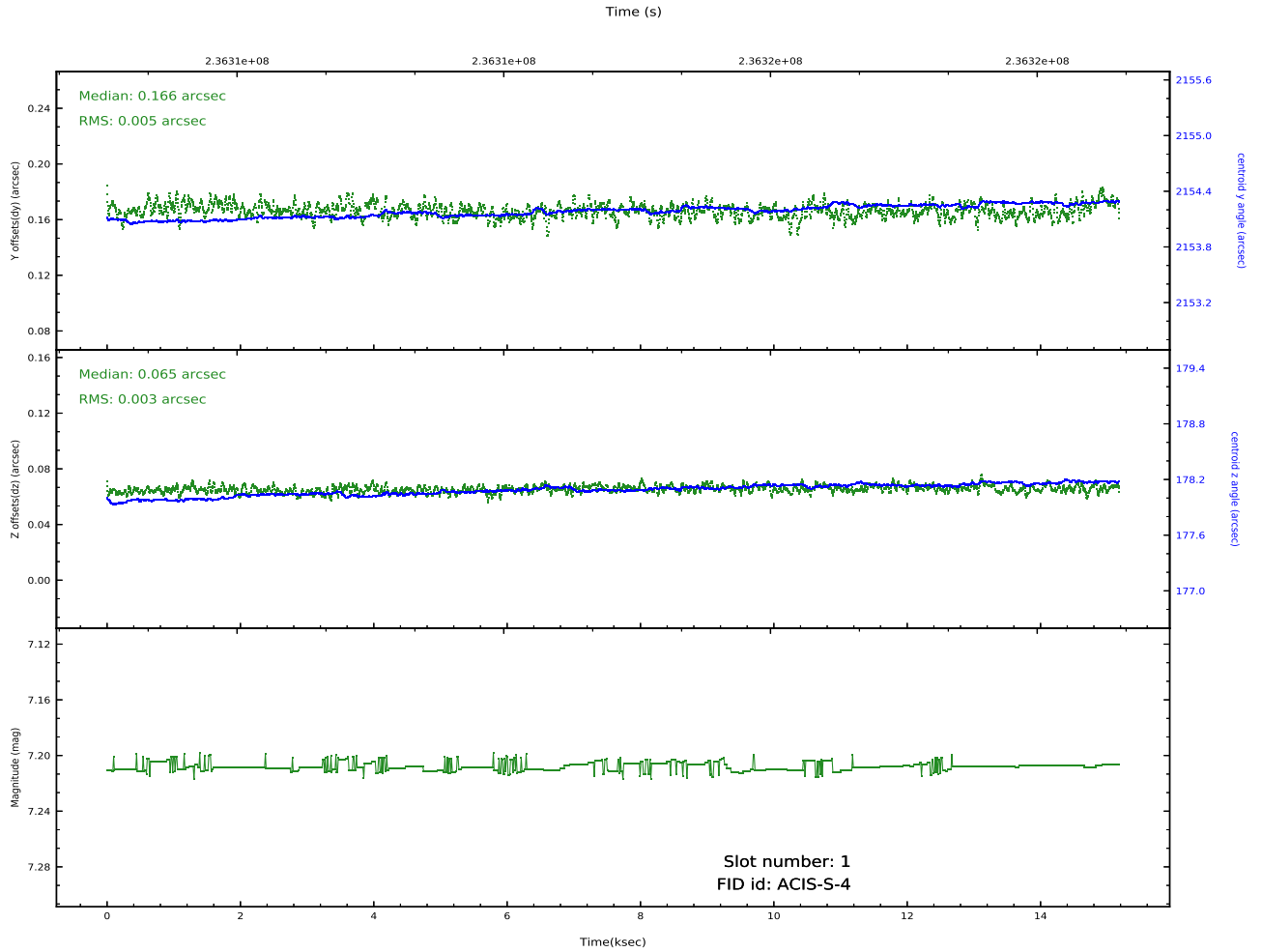
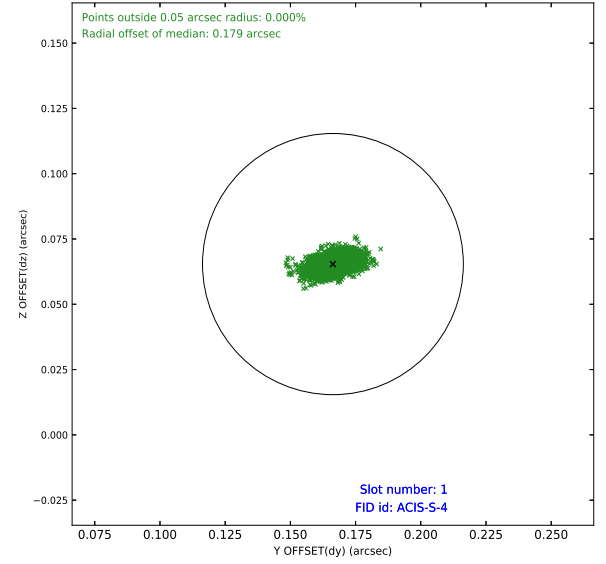
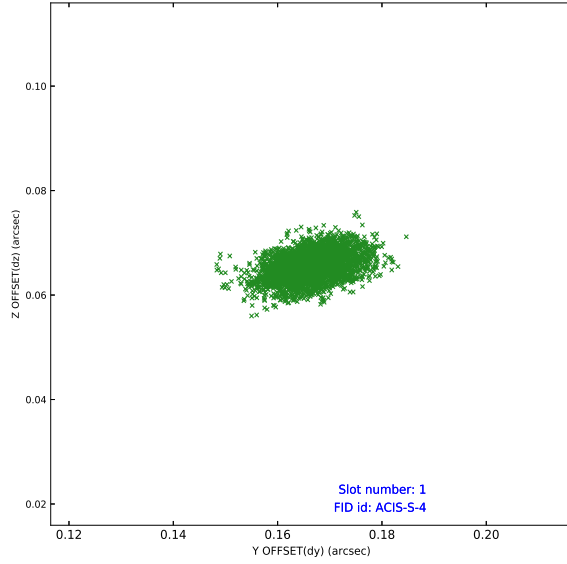


## 2.5 FID Slots

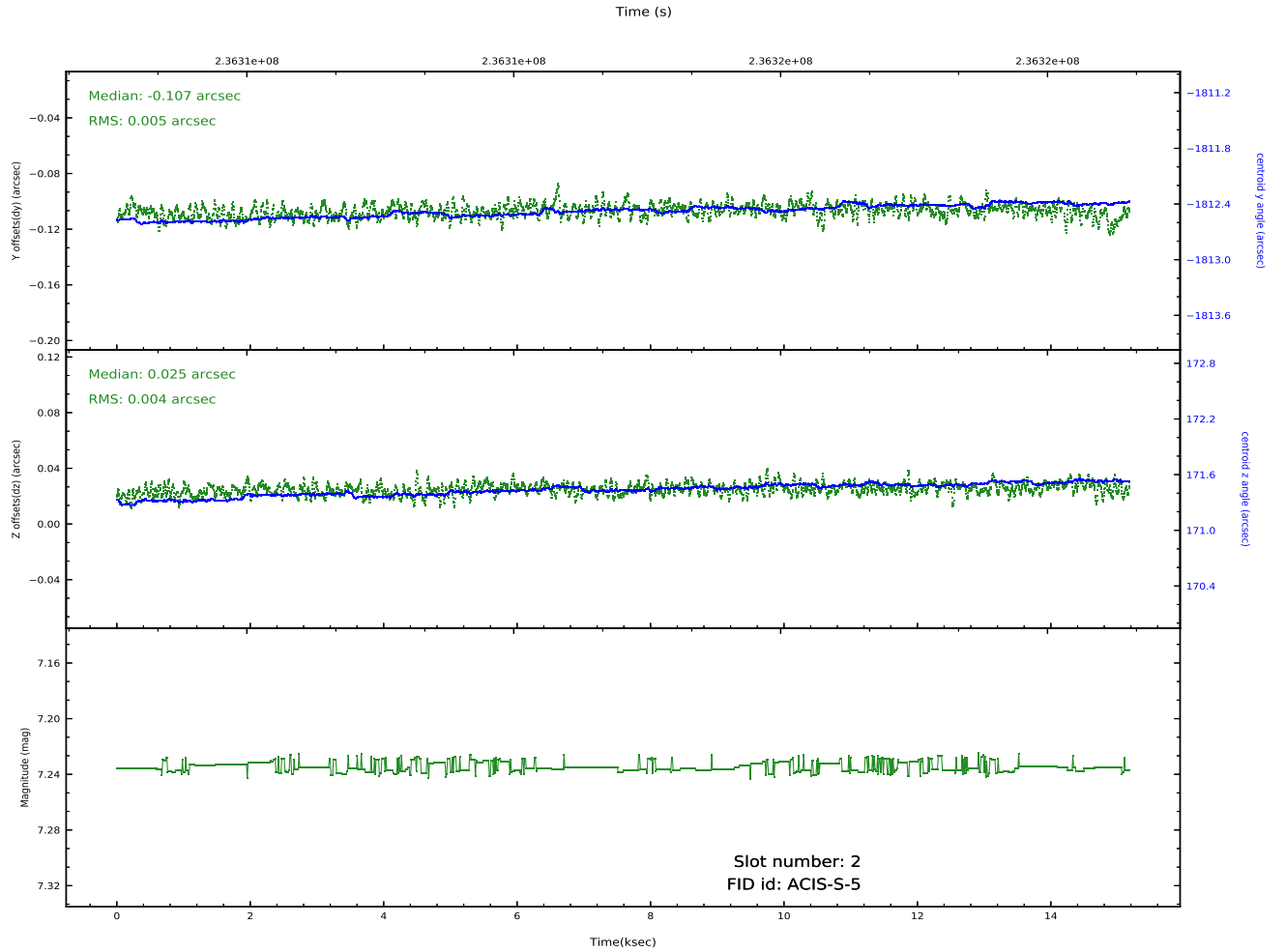
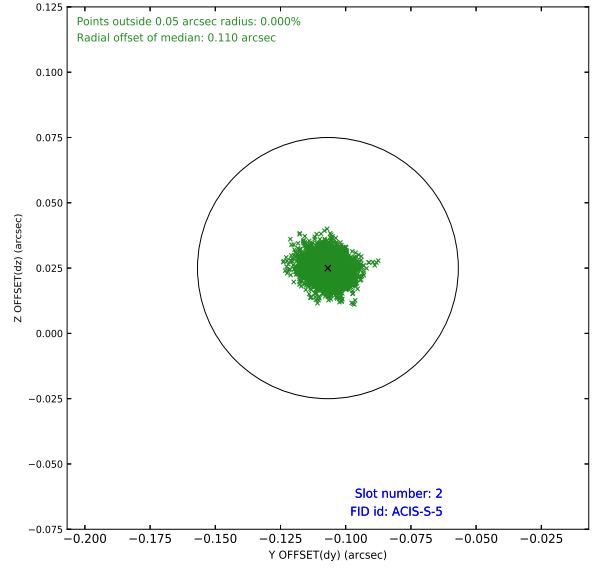
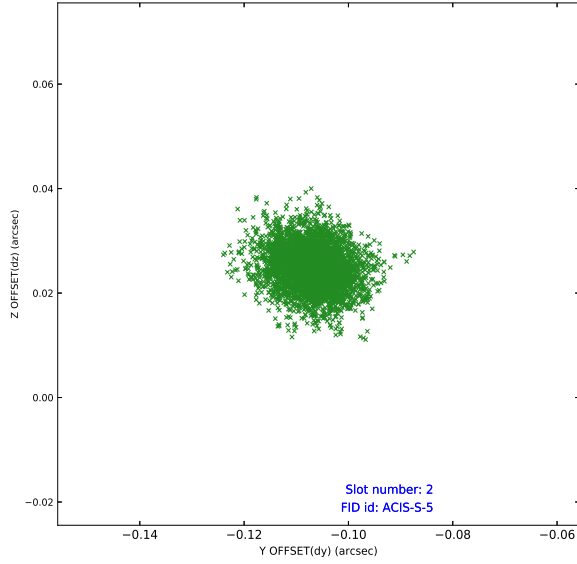
### 2.5.1 Slot 0



## 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)	2020.10.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	15.17759

### A.2 Comments