

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 4999 - L2 Version 4  
Chandra X-Ray Center

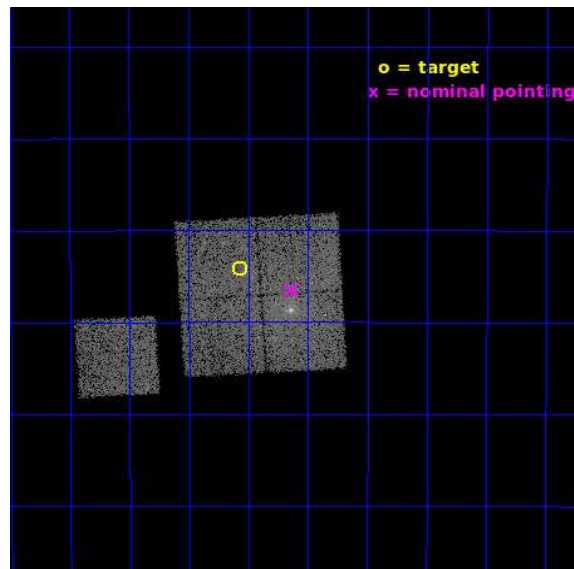
L2 Processing Date : Oct 5 2020

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# 1 Front

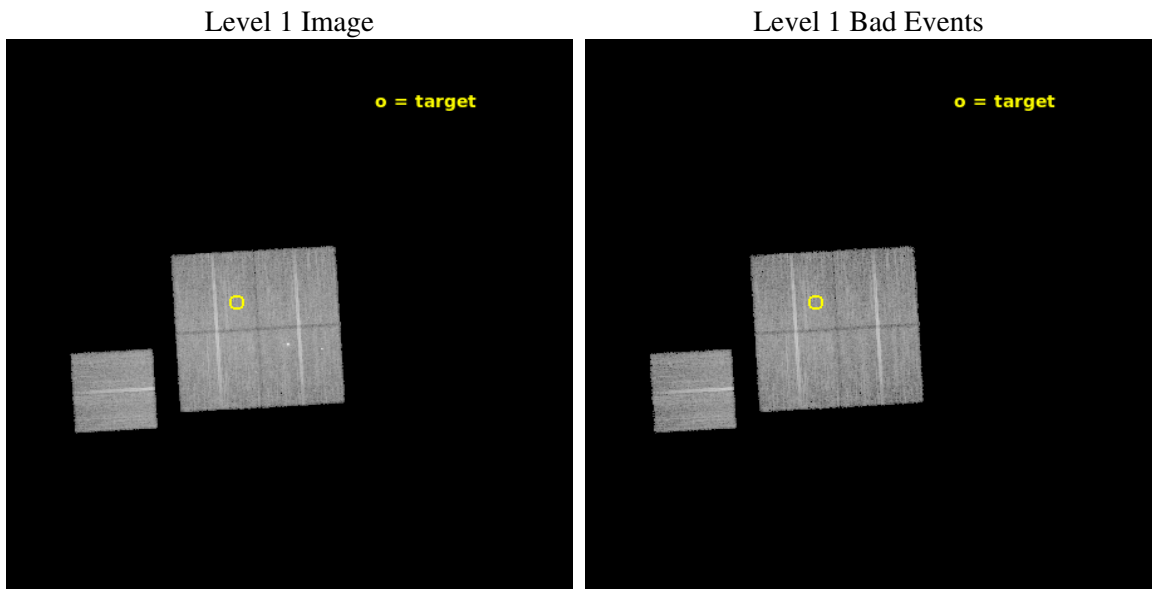
seq_num	800442	Sequence number
obs_id	4999	Observation id
title	Study of Candidate 'Fossil Groups	Proposal title
observer	Dr. Stephen Murray	Principal investigator
object	NGC 5419	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	211.017917	Observer's specified target RA [deg]
dec_targ	-33.902944	Observer's specified target Dec [deg]
ra_nom	210.90877859037	Nominal RA [deg]
dec_nom	-33.941143624367	Nominal Dec [deg]
roll_nom	266.57992778419	Nominal Roll [deg]
revision	4	Processing version of data
ontime	14765.259001344	Sum of GTIs [s]
livetime	14572.340022466	Livetime [s]
ontime0	14765.259001344	Sum of GTIs [s]
ontime1	14768.399971575	Sum of GTIs [s]
ontime2	14758.977030903	Sum of GTIs [s]
ontime3	14765.259001344	Sum of GTIs [s]
ontime6	14765.258971423	Sum of GTIs [s]
l2events	53105	Number of level 2 events



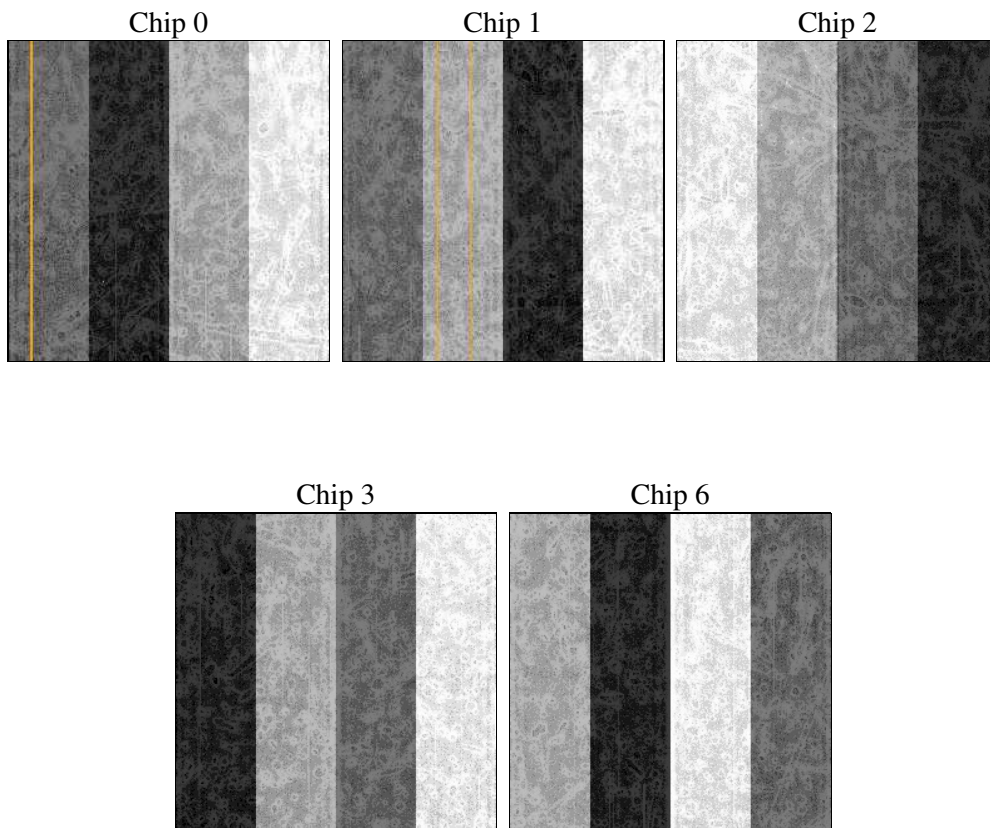
## 2 OBI

### 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	14765.259001344	Sum of GTIs [s]
caldsver	4.9.2	&#160	ontime0	14765.259001344	Sum of GTIs [s]
date	2020-10-05T23:59:53	Date and time of file creation	ontime1	14768.399971575	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	14758.977030903	Sum of GTIs [s]
			ontime3	14765.259001344	Sum of GTIs [s]
			ontime6	14765.258971423	Sum of GTIs [s]
			l1events	464897	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	92649	88673	100333	92101	91141
rejected events	75802	75510	89009	81351	81255
rejected %	81%	85%	88%	88%	89%

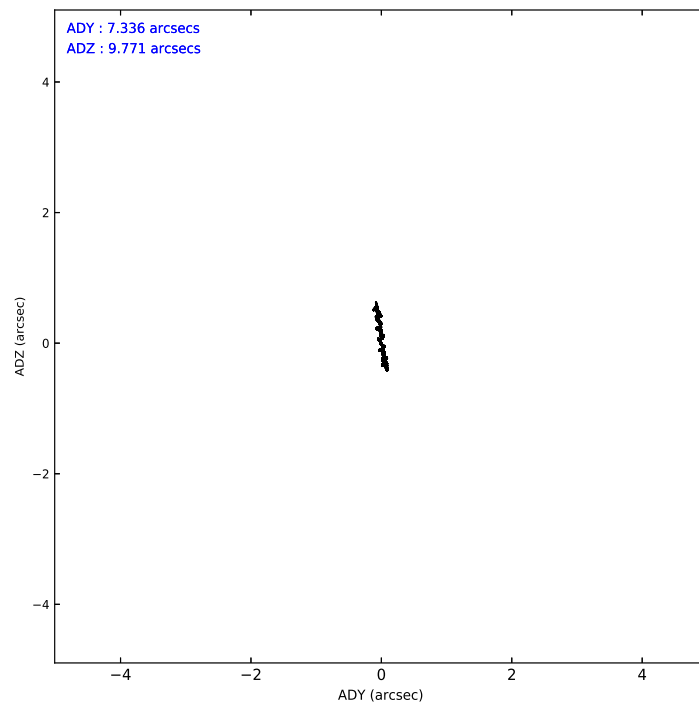
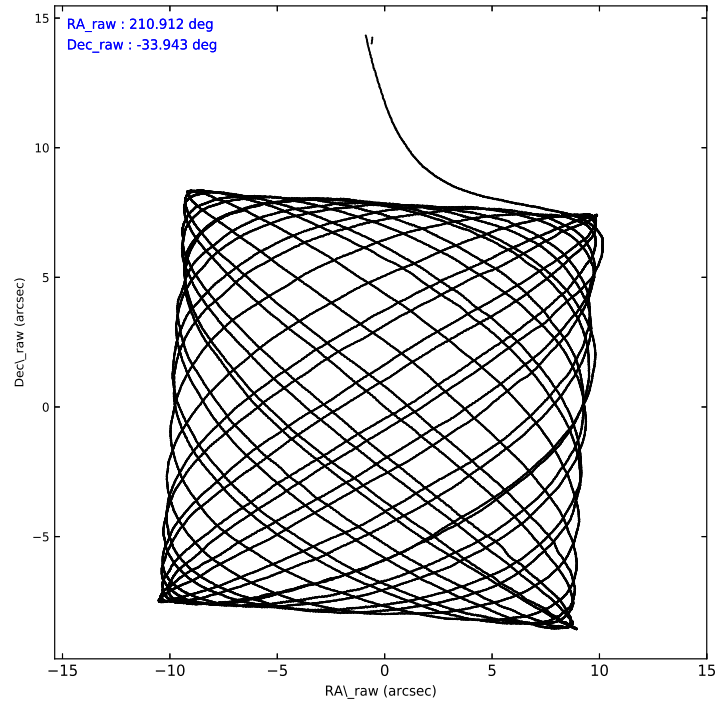
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	9716	6259	5245	4936	3831
	10%	7%	5%	5%	4%
grade 1 events	85	56	57	55	36
	0%	0%	0%	0%	0%
grade 2 events	2880	2429	2348	2034	1954
	3%	2%	2%	2%	2%
grade 3 events	1249	1207	1098	1020	1084
	1%	1%	1%	1%	1%
grade 4 events	1172	1181	1043	1042	1082
	1%	1%	1%	1%	1%
grade 5 events	3200	3405	3008	3470	3460
	3%	3%	2%	3%	3%
grade 6 events	1842	2093	1594	1723	1941
	1%	2%	1%	1%	2%
grade 7 events	72505	72043	85940	77821	77753
	78%	81%	85%	84%	85%

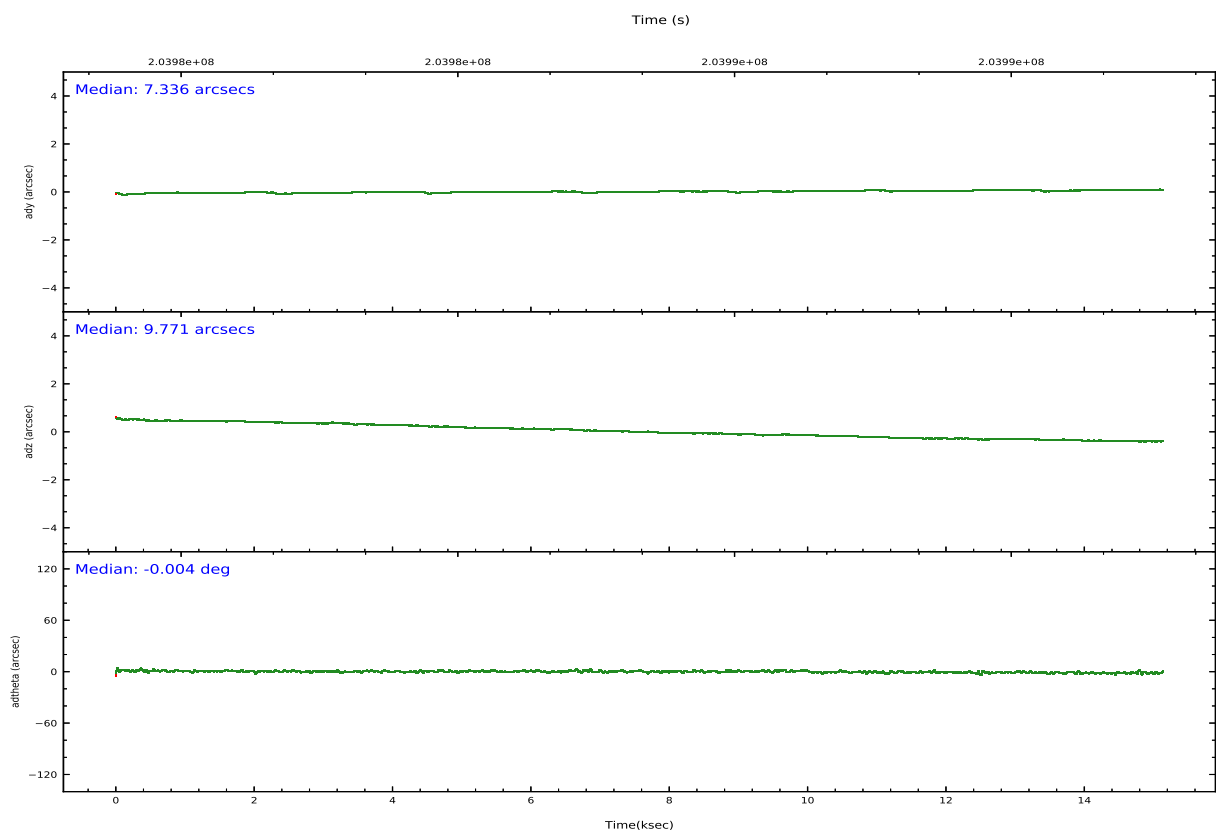
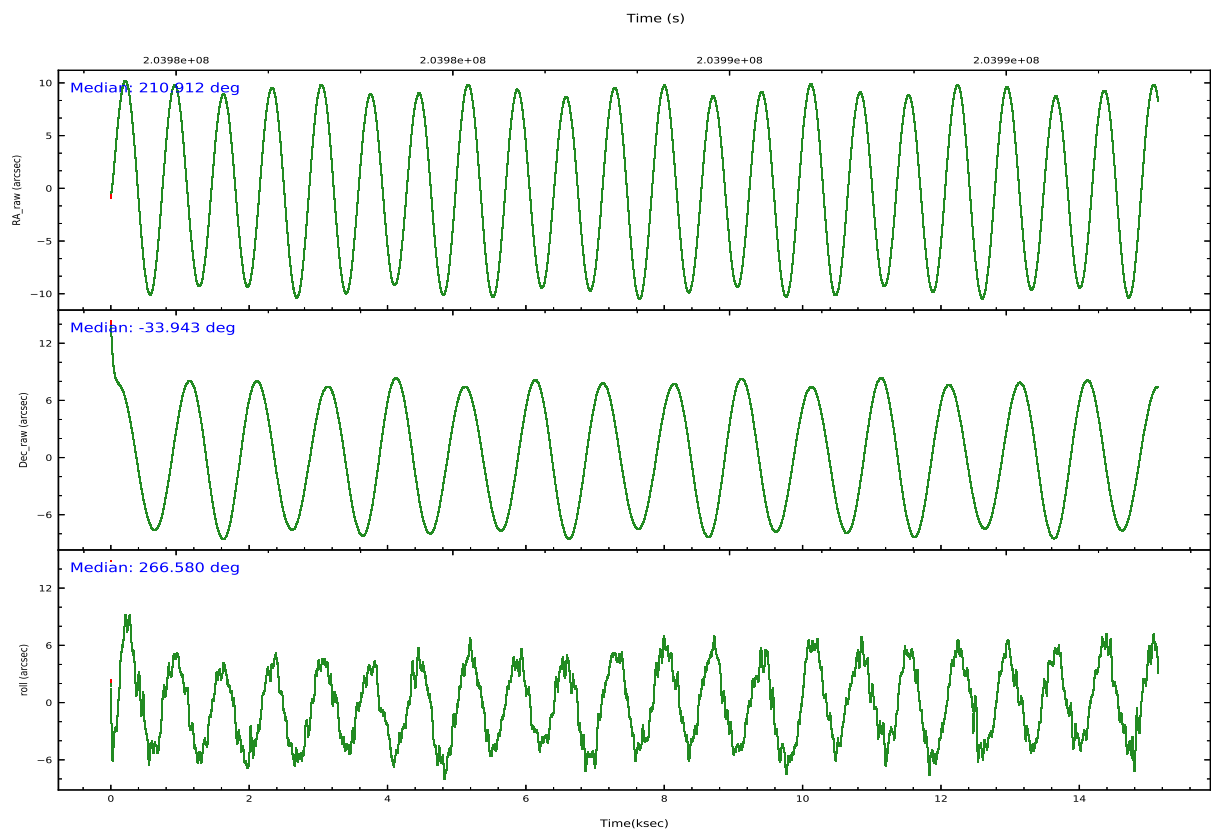


## 2.2 Compared Parameters

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	210.897173	210.90877859037	Subarray requested	NONE	NONE
[deg] Pointing Dec	-33.919007	-33.941143624367	Alternating exposures requested	N	N
[deg] Pointing Roll	266.362118	266.57992778419	[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	-244.592463	-244.5900782204552			
[mm] SIM translation stage offset	11	10.99762521752555			
[s] Observation start time (MET)	203979196.184000	203978171.96748			
Observation start date	2004-06-18T20:52:12	2004-06-18T20:36:11			
[s] Observation end time (MET)	203994196.184000	203994330.06819			
Observation end date	2004-06-19T01:02:12	2004-06-19T01:05:30			
Read mode	TIMED	TIMED			

## 2.3 Aspect



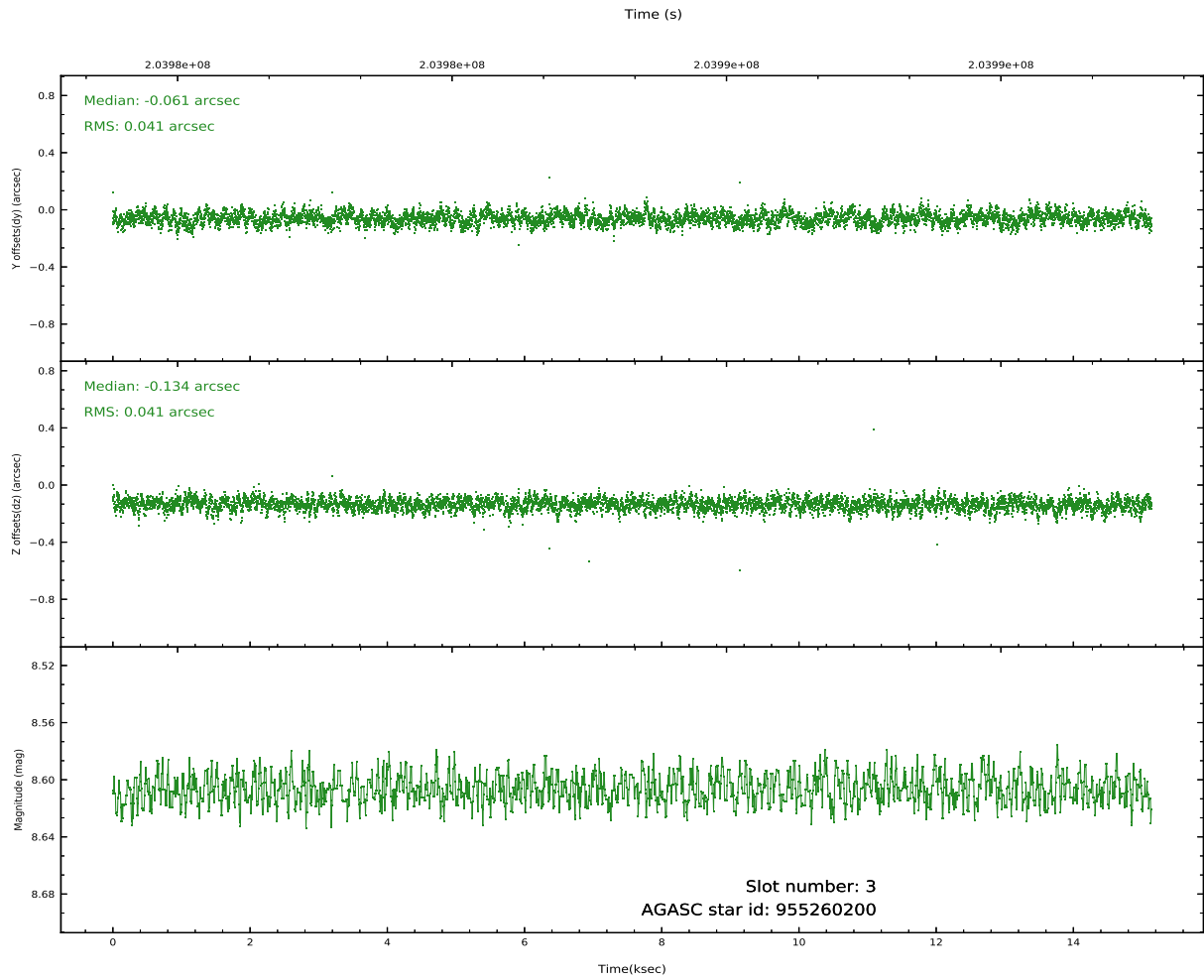
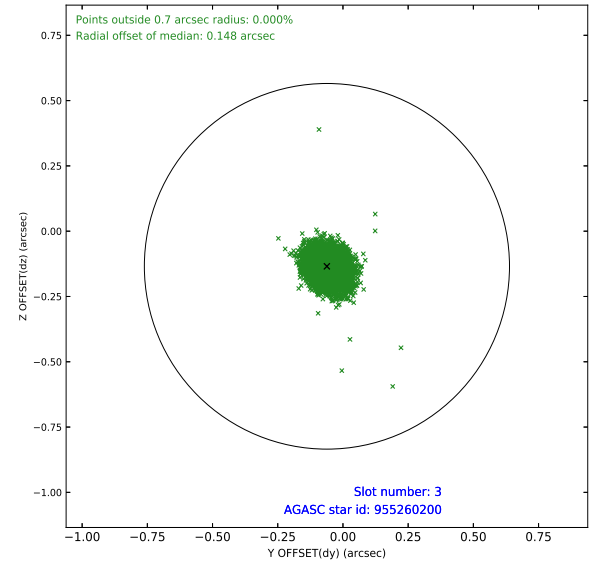
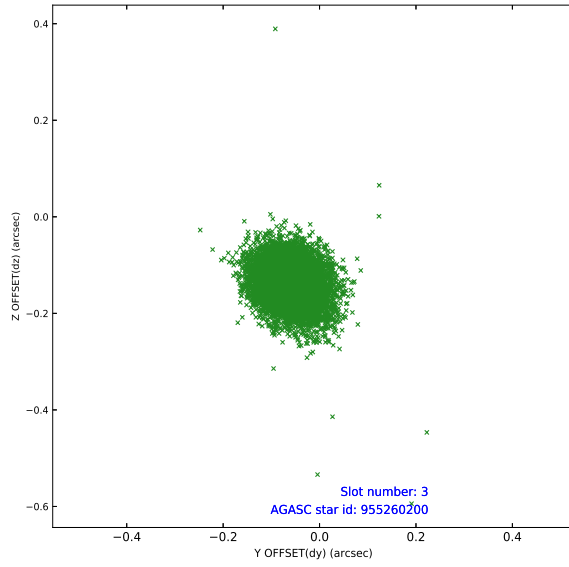


Slot Statistics

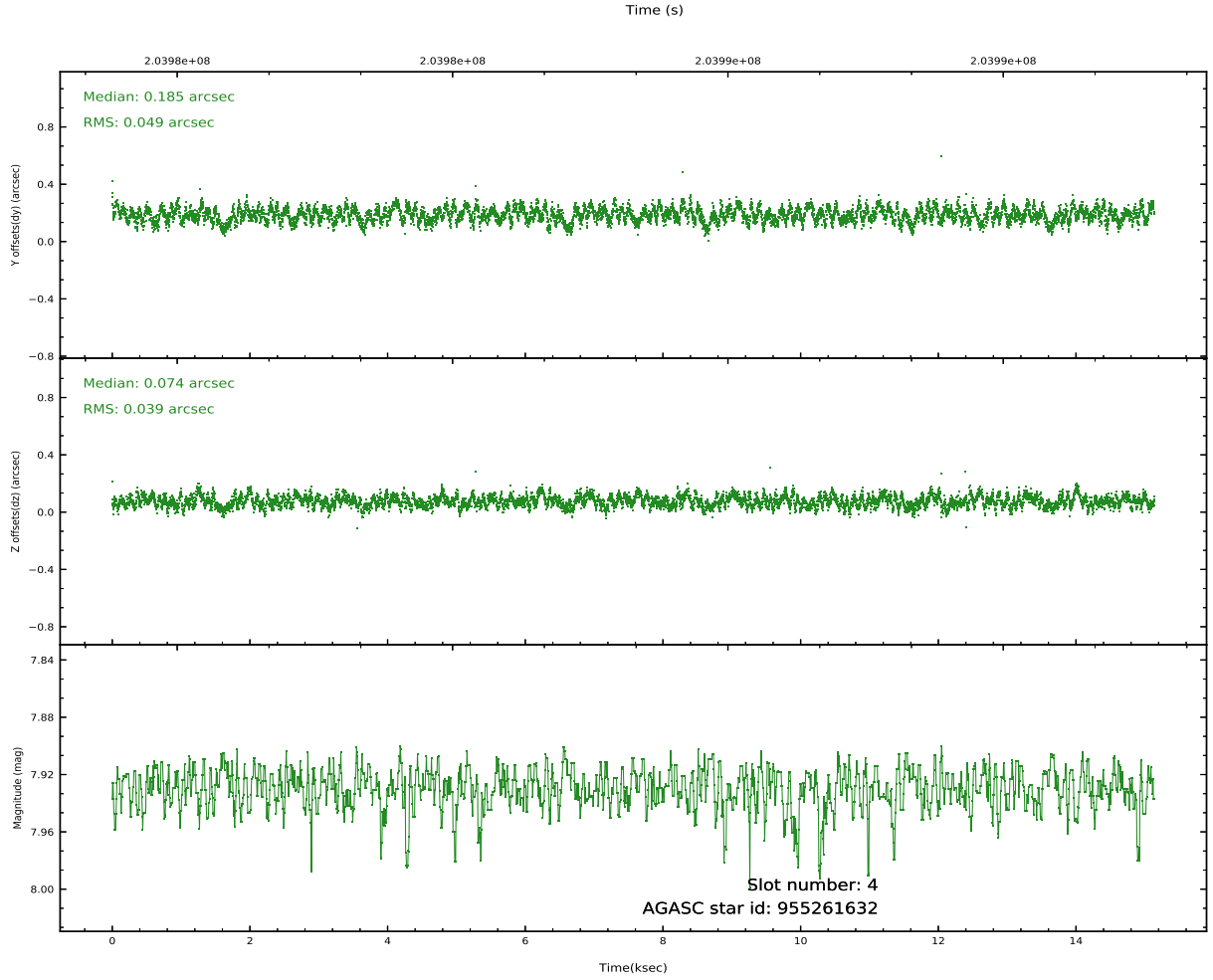
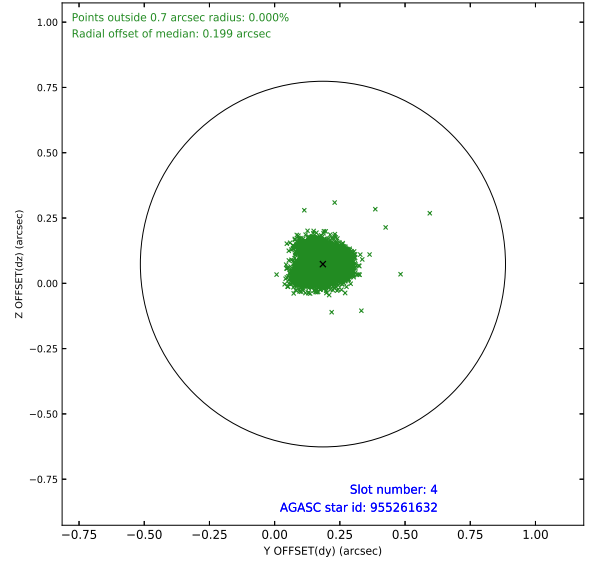
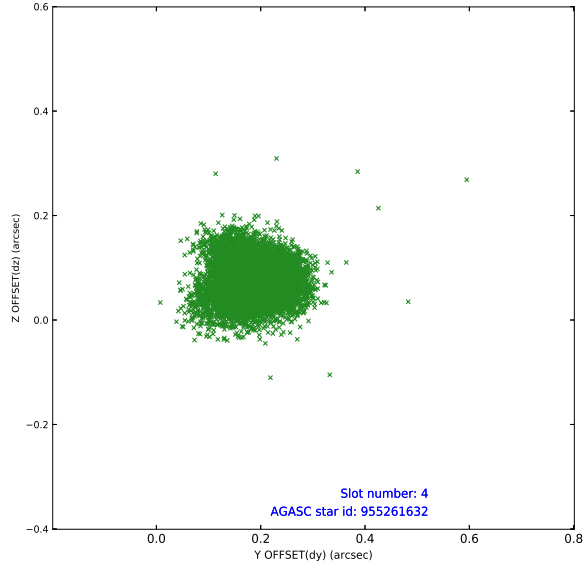
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.30	3693	1.000	-0.234	0.085	0.015	0.024	0.000000	0.000000	932.32	-607
1	FID		ACIS-I-2	7.21	3692	1.000	-0.005	-0.118	0.010	0.016	0.000000	0.000000	-760.79	-615
2	FID		ACIS-I-4	7.23	3693	1.000	0.139	0.099	0.015	0.023	0.000000	0.000000	2153.01	1291
3	GUIDE	used	955260200	8.61	7383	1.000	-0.061	-0.134	0.061	0.099	210.218841	-34.127979	886.10	-1969
4	GUIDE	used	955261632	7.93	7385	1.000	0.185	0.074	0.067	0.105	210.777259	-34.540798	2257.37	-212
5	GUIDE	used	955263032	8.67	7382	1.000	0.097	-0.060	0.058	0.093	211.177099	-34.436586	1808.52	947
6	GUIDE	used	954862944	9.19	7383	1.000	-0.111	0.110	0.093	0.148	211.627478	-33.349687	-2176.07	2061
7	GUIDE	used	954861224	8.93	7383	1.000	-0.111	0.009	0.084	0.132	211.716360	-33.398119	-2018.27	2339

## 2.4 Star Slots

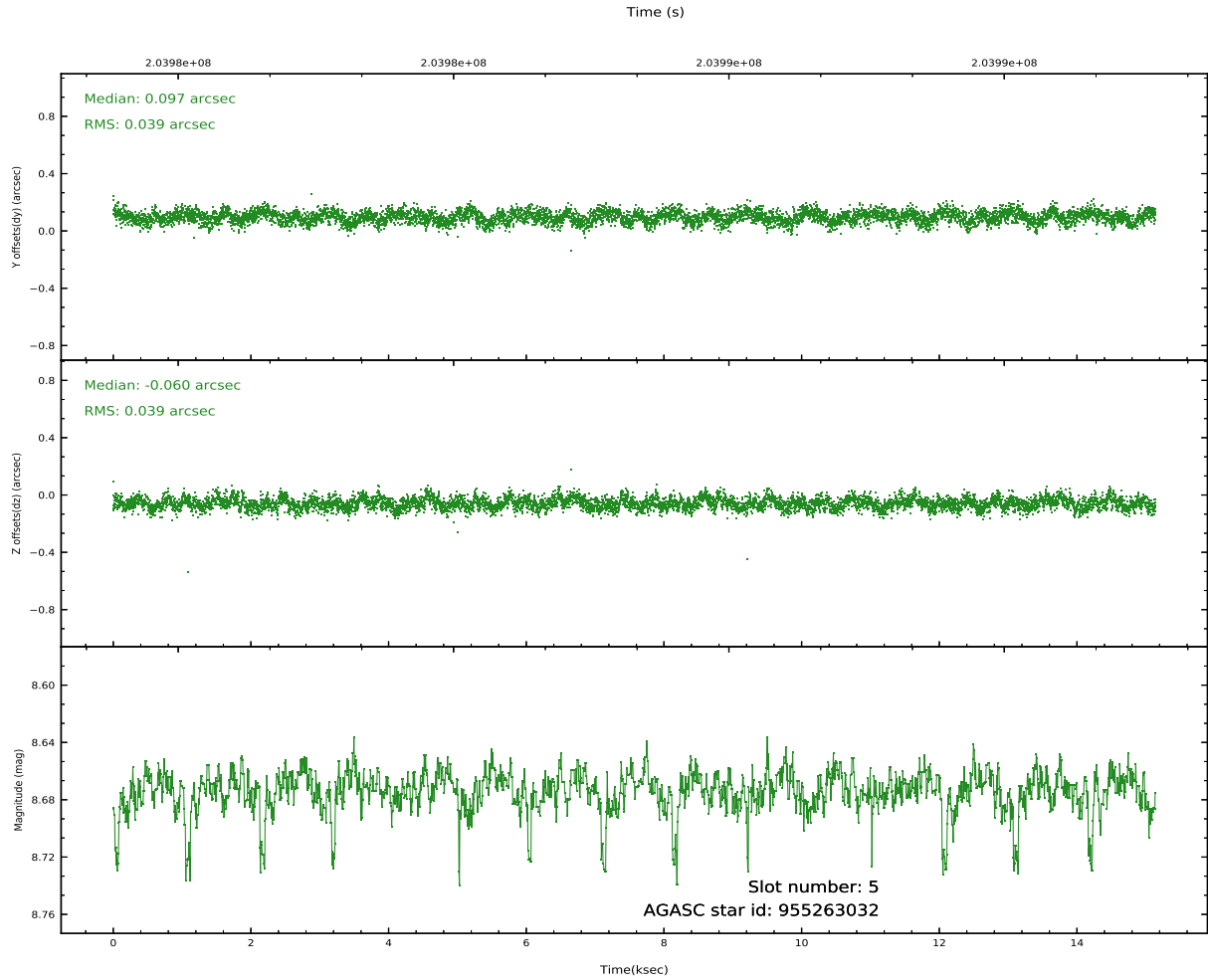
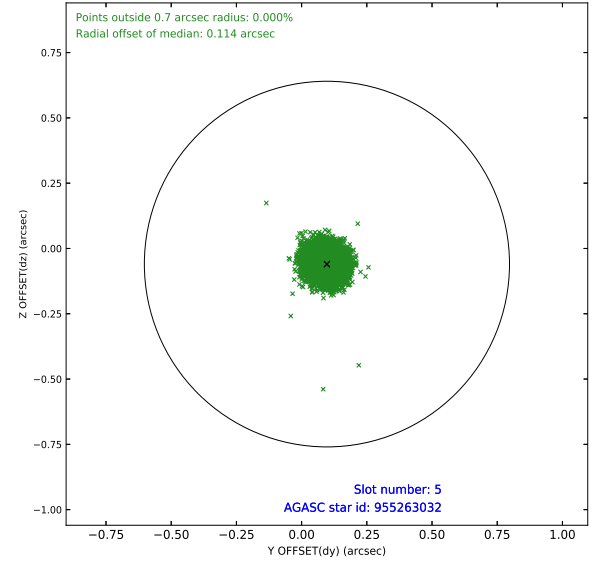
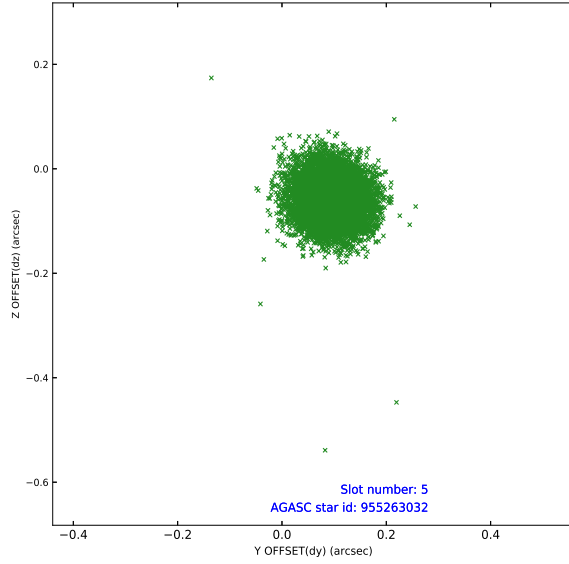
### 2.4.1 Slot 3



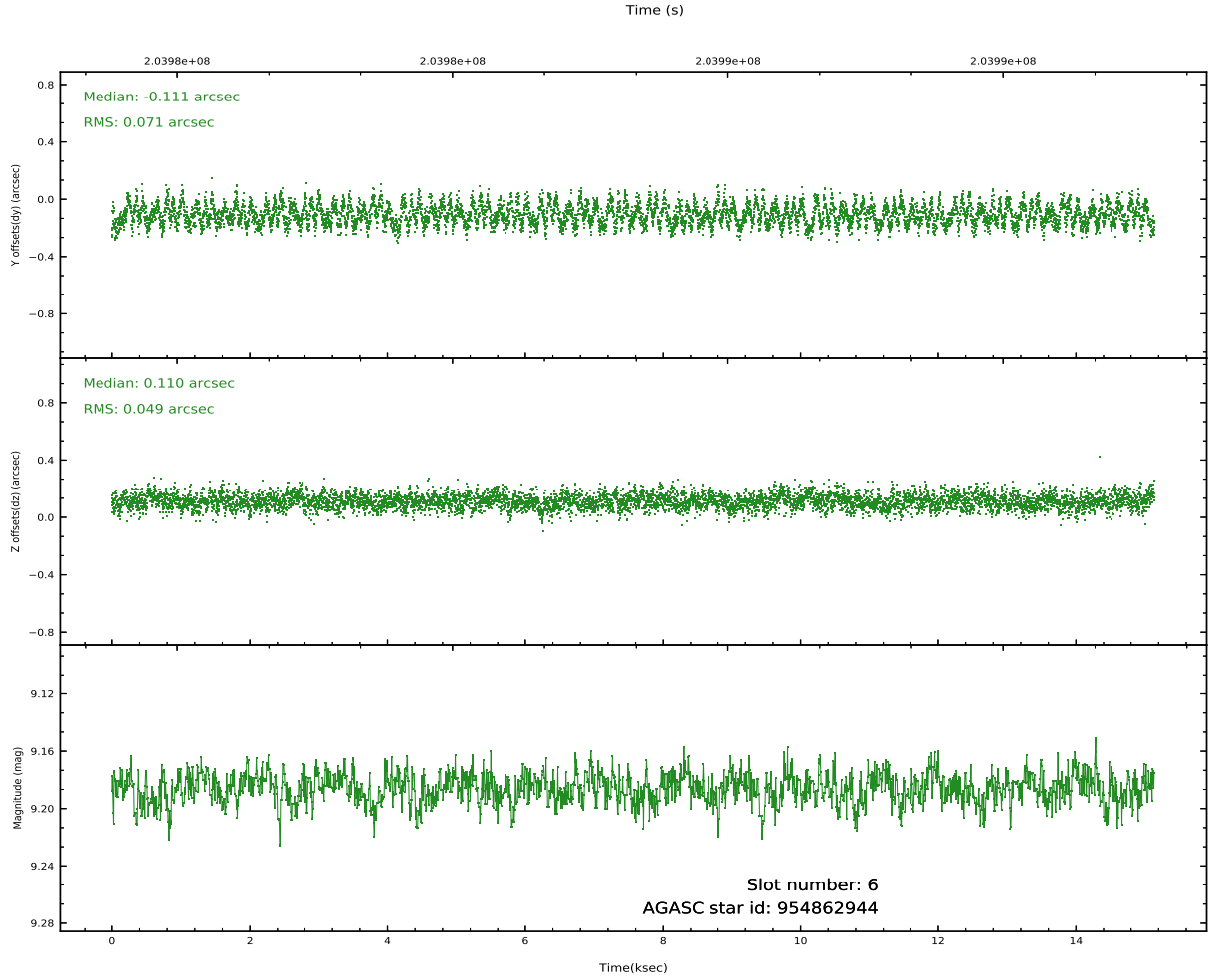
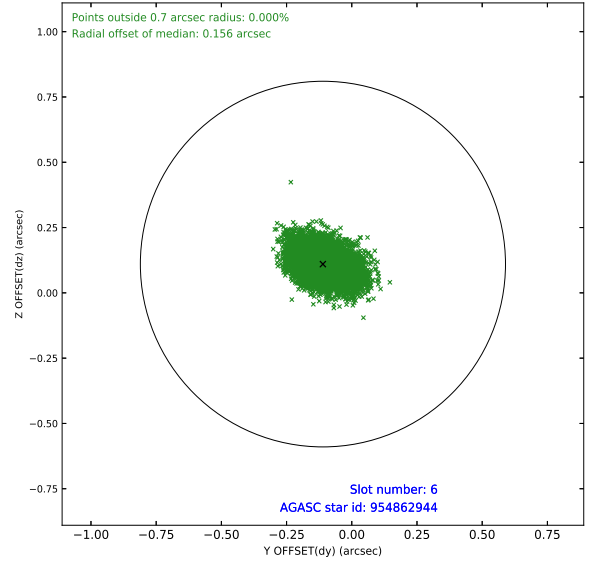
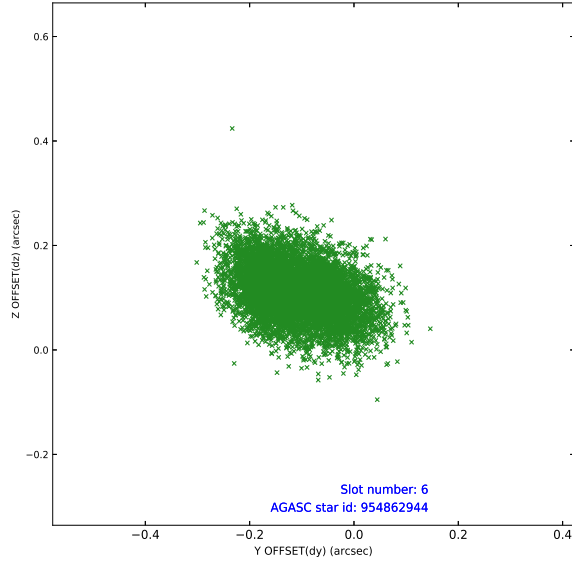
## 2.4.2 Slot 4



### 2.4.3 Slot 5

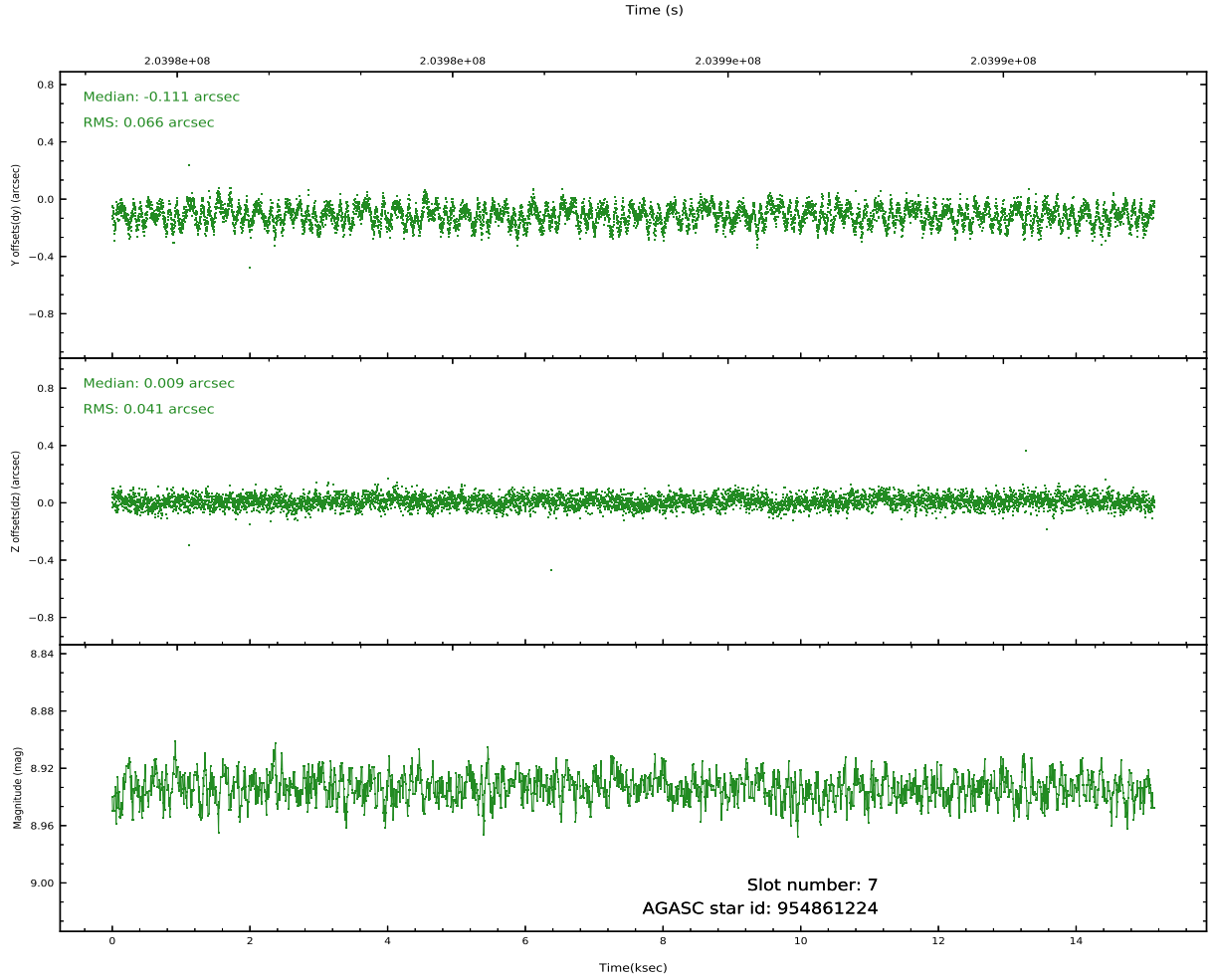
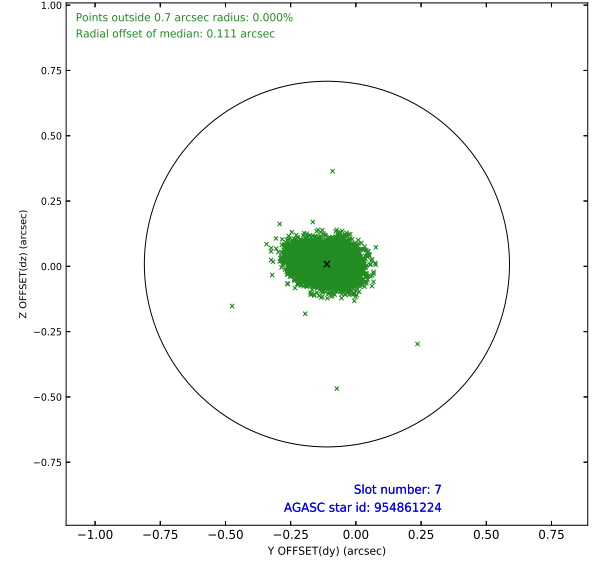
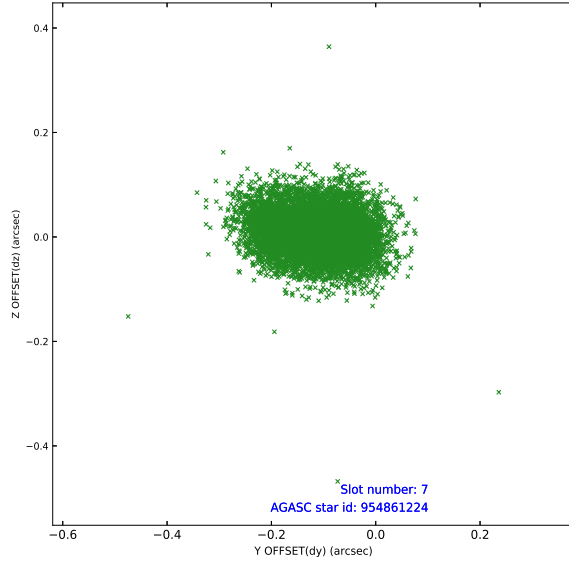


## 2.4.4 Slot 6



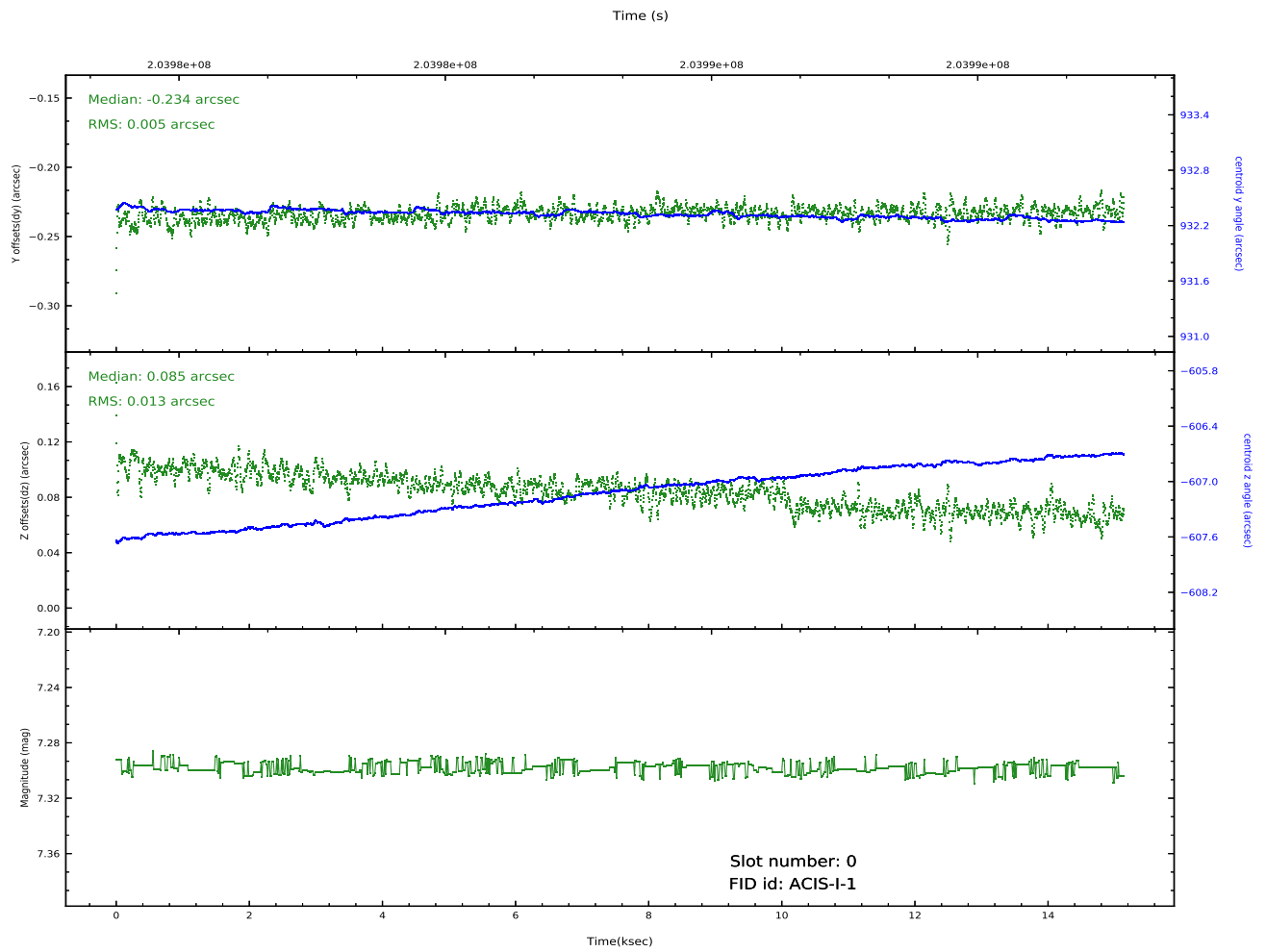
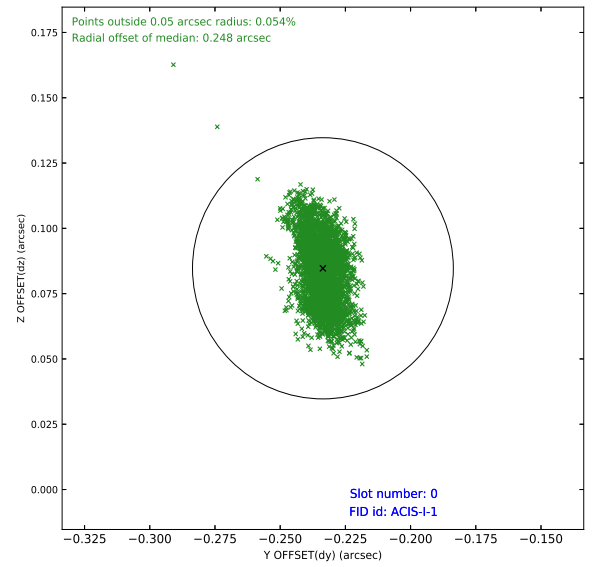
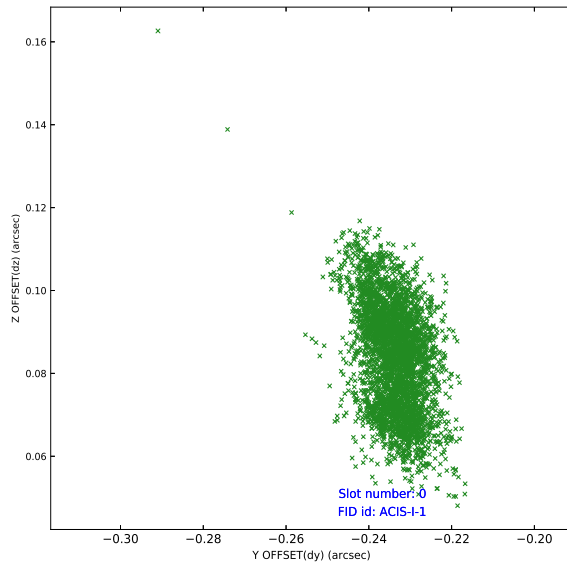


## 2.4.5 Slot 7

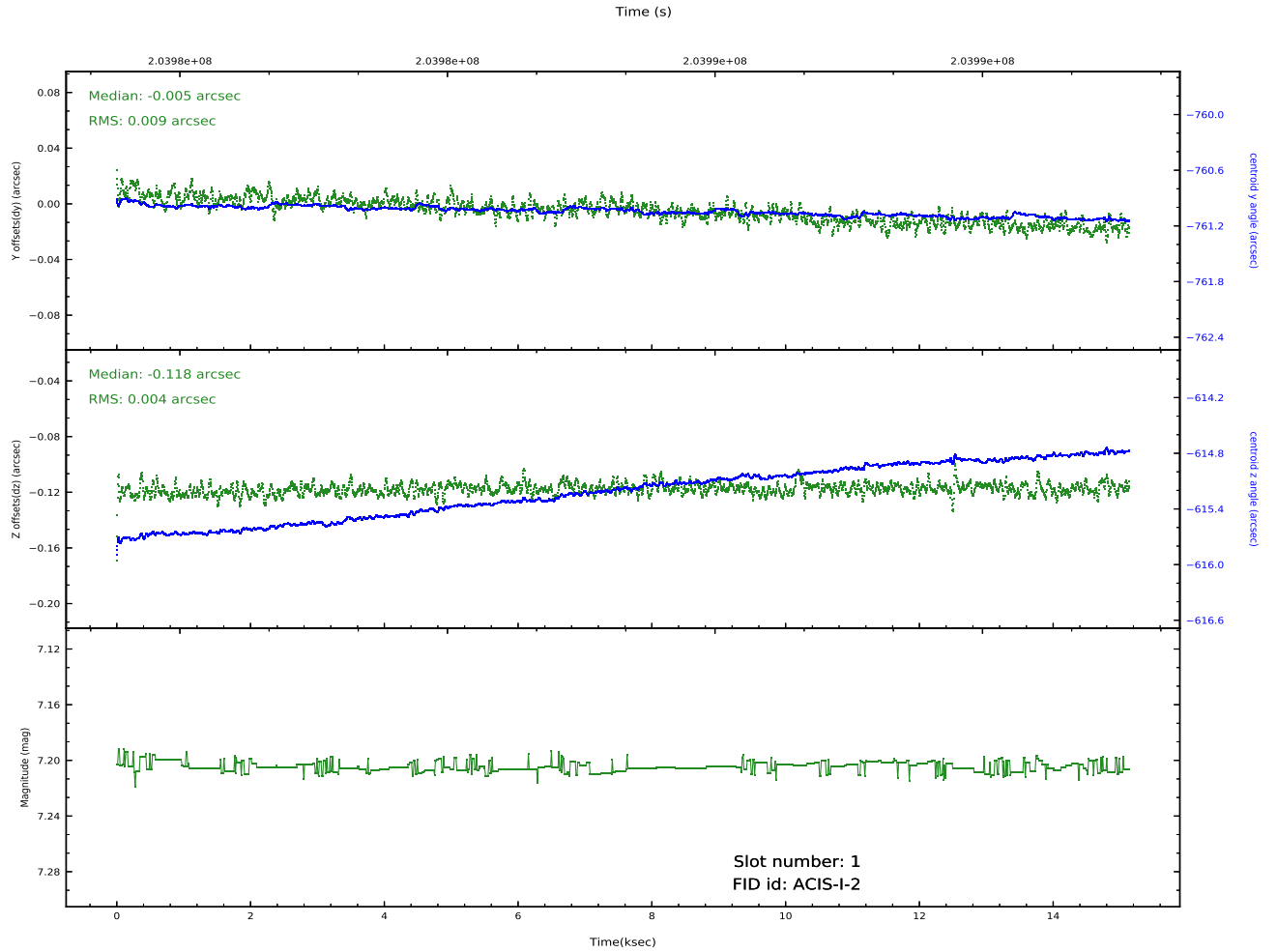
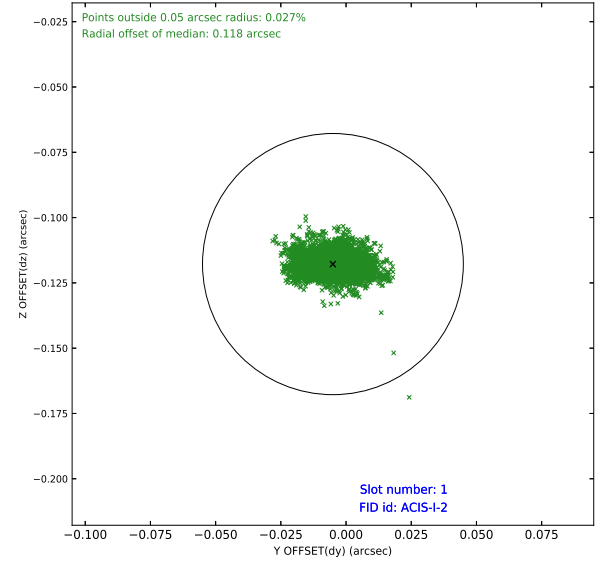
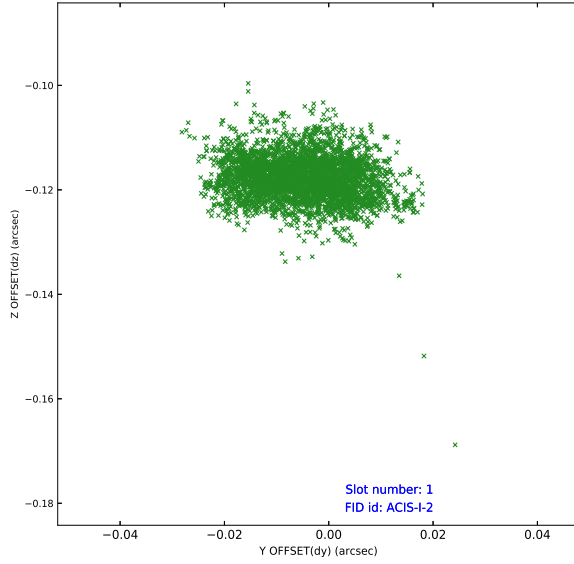


## 2.5 FID Slots

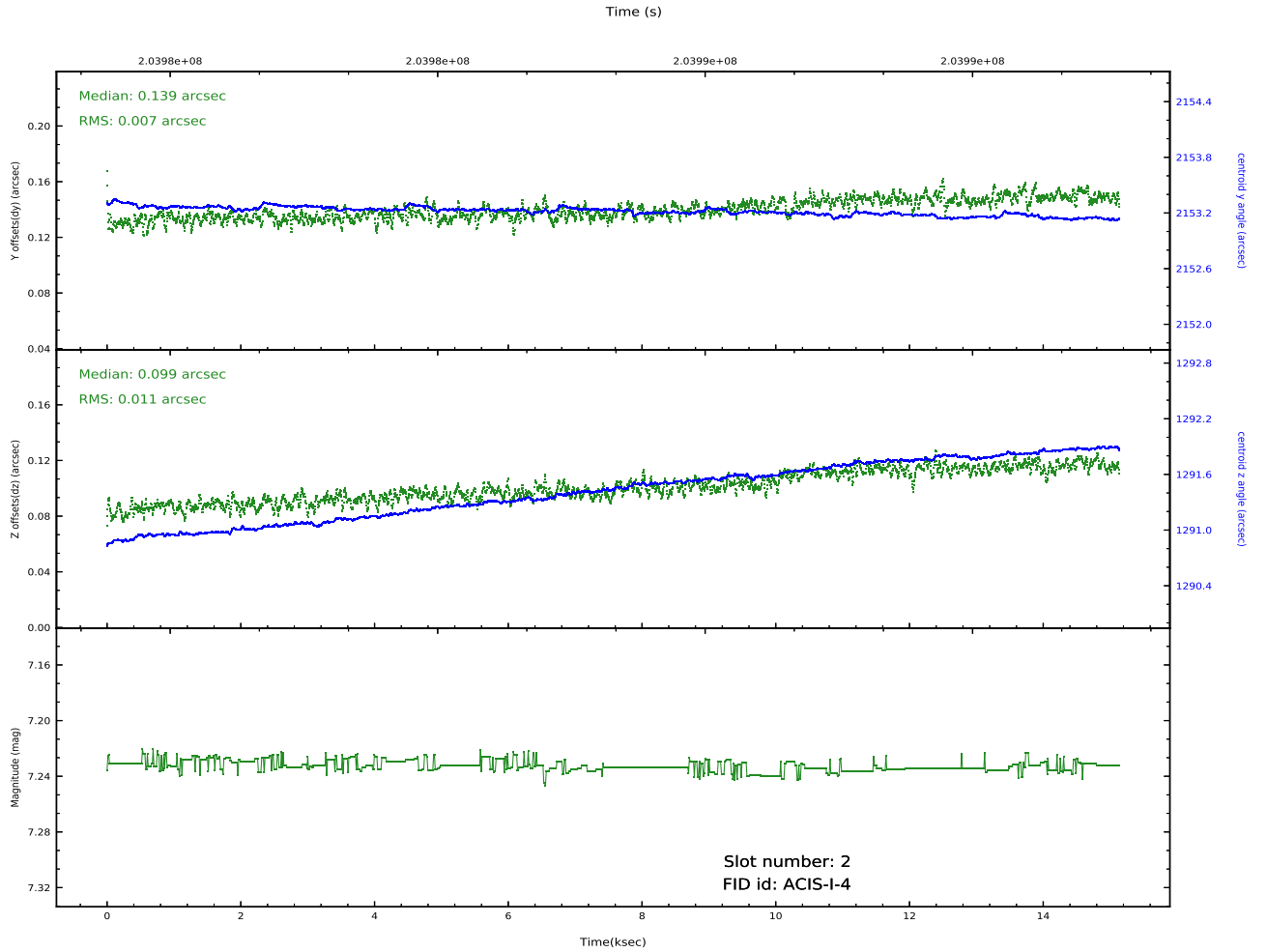
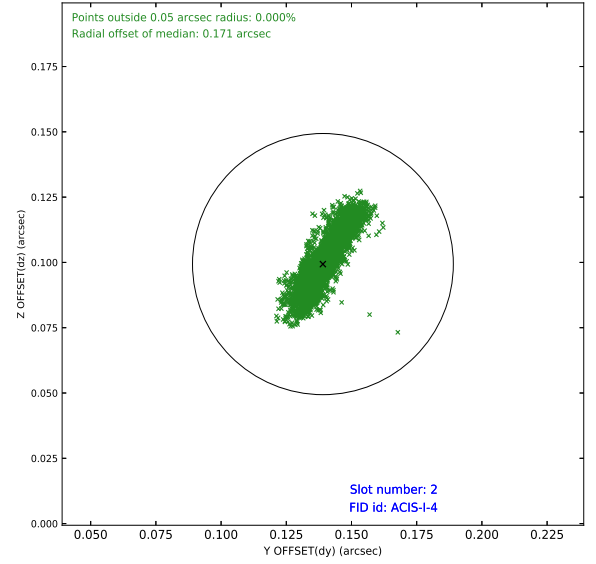
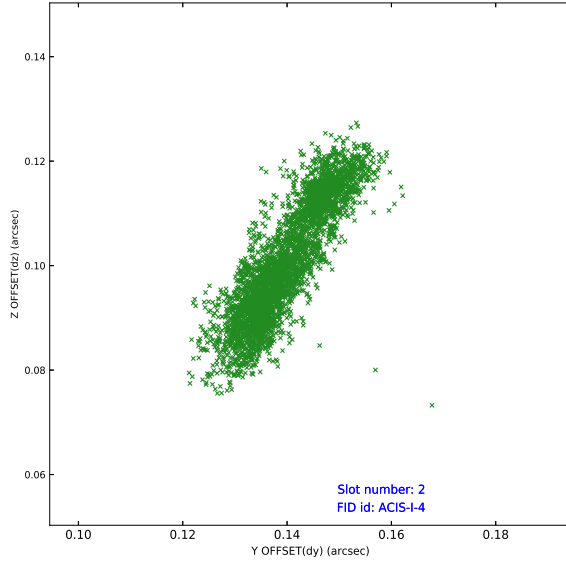
### 2.5.1 Slot 0



## 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)	2020.10.06
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	14.768

### A.2 Comments