

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 5903 - L2 Version 4  
Chandra X-Ray Center

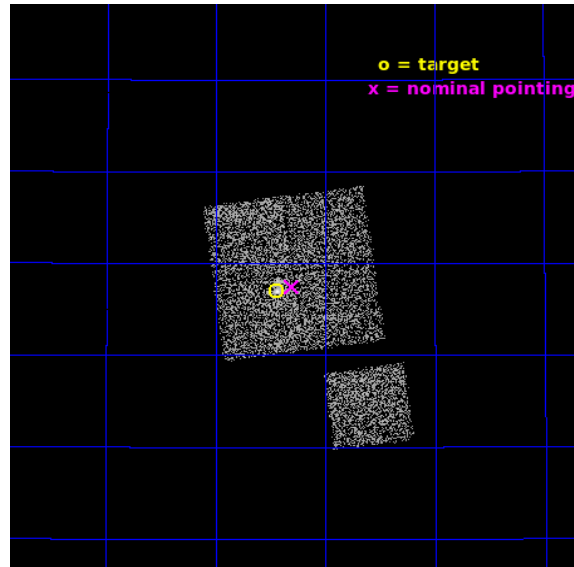
L2 Processing Date : Oct 7 2020

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# 1 Front

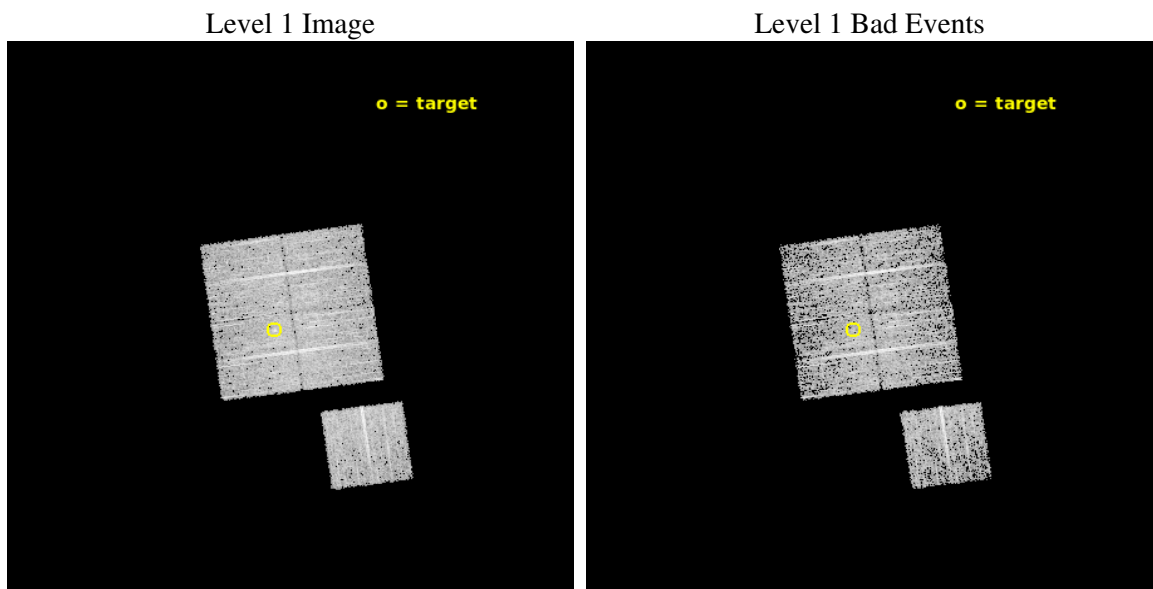
seq_num	600422	Sequence number
obs_id	5903	Observation id
title	Snapshot Observations of X-ray Bright Early-Type Galaxies	Proposal
observer	Dr. Stephen Murray	Principal investigator
object	NGC5353	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	208.36125	Observer's specified target RA [deg]
dec_targ	40.283056	Observer's specified target Dec [deg]
ra_nom	208.3265919026	Nominal RA [deg]
dec_nom	40.291244676938	Nominal Dec [deg]
roll_nom	172.22505322615	Nominal Roll [deg]
revision	4	Processing version of data
ontime	4549.4000599682	Sum of GTIs [s]
livetime	4489.9587989651	Livetime [s]
ontime0	4549.2769399583	Sum of GTIs [s]
ontime1	4546.176999718	Sum of GTIs [s]
ontime2	4549.3590199649	Sum of GTIs [s]
ontime3	4549.4000599682	Sum of GTIs [s]
ontime6	4549.235899955	Sum of GTIs [s]
l2events	12753	Number of level 2 events



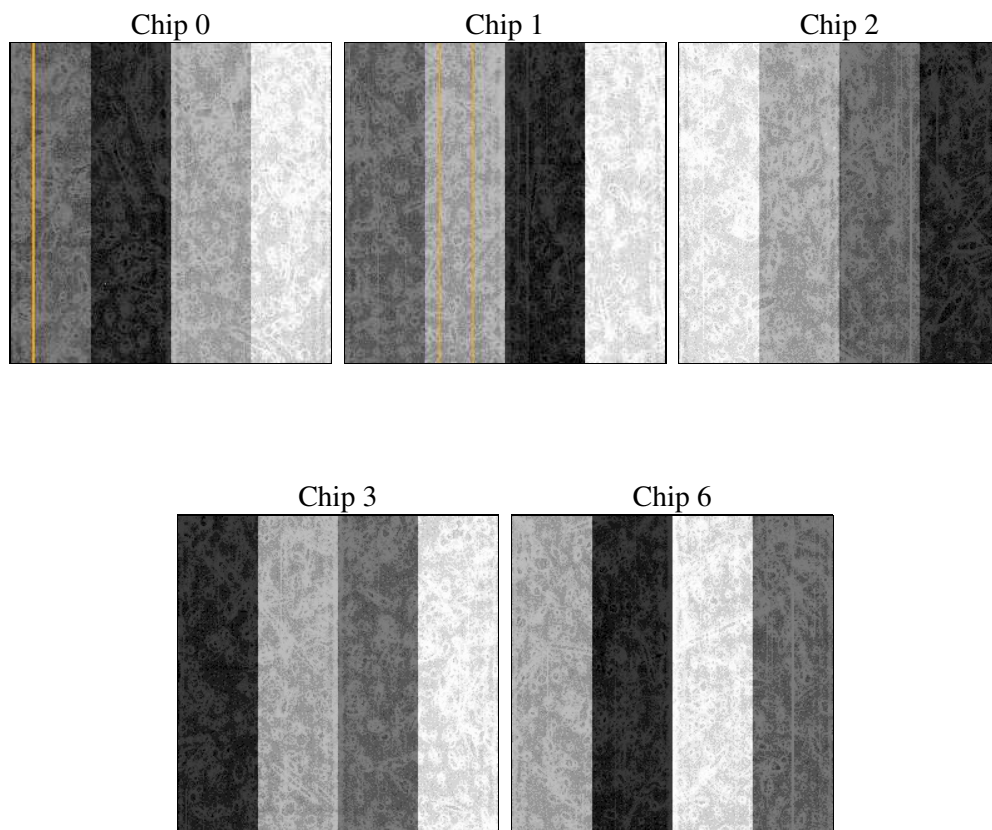
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	4500.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	4549.4000599682	Sum of GTIs [s]
caldsver	4.9.2	&#160	ontime0	4549.2769399583	Sum of GTIs [s]
date	2020-10-07T18:06:27	Date and time of file creation	ontime1	4546.176999718	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	4549.3590199649	Sum of GTIs [s]
			ontime3	4549.4000599682	Sum of GTIs [s]
			ontime6	4549.235899955	Sum of GTIs [s]
			l1events	142725	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	27483	27786	30234	28663	28559
rejected events	24599	24426	27283	25526	25540
rejected %	89%	87%	90%	89%	89%

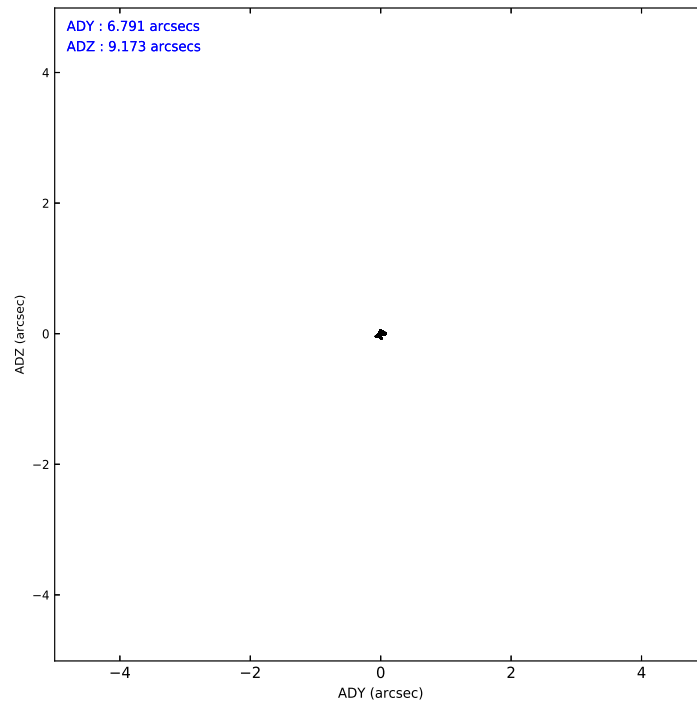
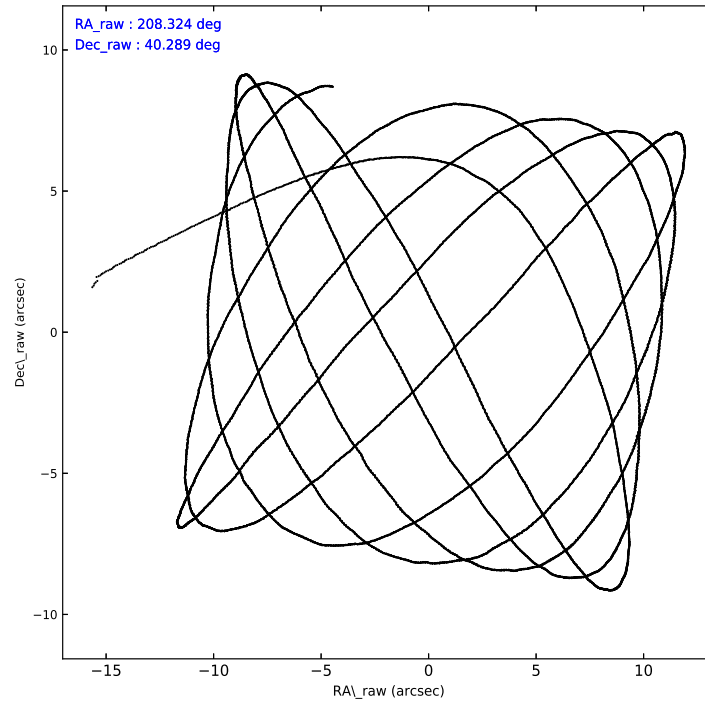
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	1018	1335	1099	1338	1045
	3%	4%	3%	4%	3%
grade 1 events	17	12	19	24	7
	0%	0%	0%	0%	0%
grade 2 events	653	674	656	584	643
	2%	2%	2%	2%	2%
grade 3 events	327	366	307	334	348
	1%	1%	1%	1%	1%
grade 4 events	307	367	335	323	332
	1%	1%	1%	1%	1%
grade 5 events	1024	1128	963	1154	1150
	3%	4%	3%	4%	4%
grade 6 events	585	630	558	563	653
	2%	2%	1%	1%	2%
grade 7 events	23552	23274	26297	24343	24381
	85%	83%	86%	84%	85%

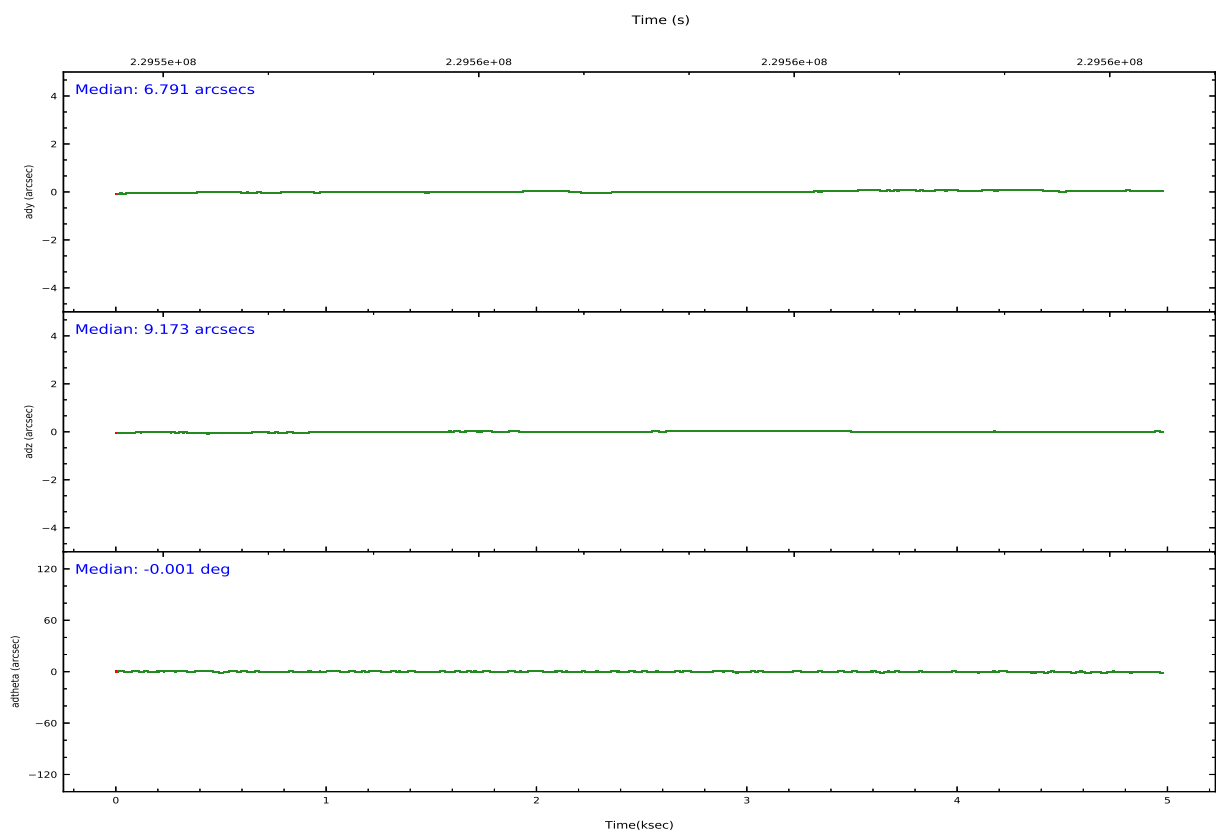
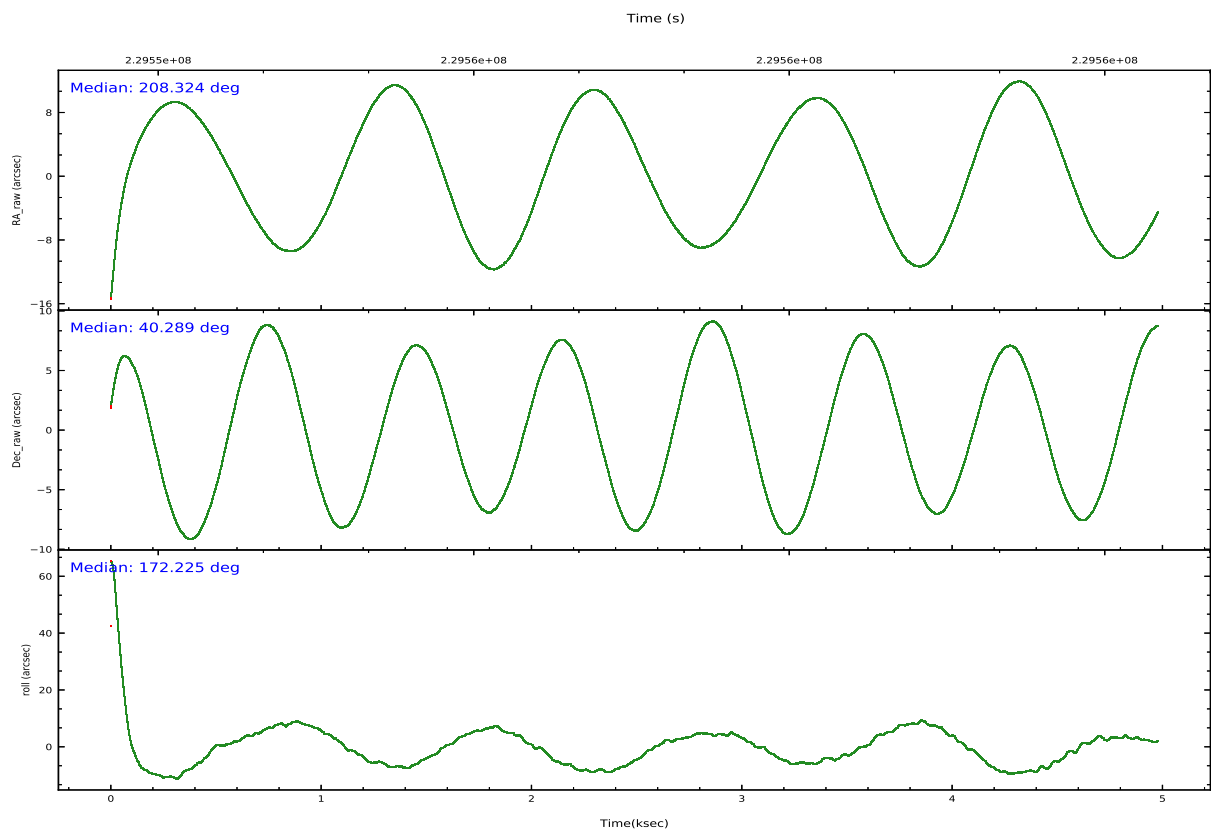


## 2.2 Compared Parameters

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	208.356757	208.3265919026	Subarray requested	NONE	NONE
[deg] Pointing Dec	40.299350	40.291244676938	Alternating exposures requested	N	N
[deg] Pointing Roll	172.002898	172.22505322615	[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	-230.592463	-230.5903706213692			
[mm] SIM translation stage offset	-3	-3.002082381560513			
[s] Observation start time (MET)	229553755.184000	229552677.00248			
Observation start date	2005-04-10T20:54:51	2005-04-10T20:37:57			
[s] Observation end time (MET)	229558255.184000	229559545.0153			
Observation end date	2005-04-10T22:09:51	2005-04-10T22:32:25			
Read mode	TIMED	TIMED			

## 2.3 Aspect



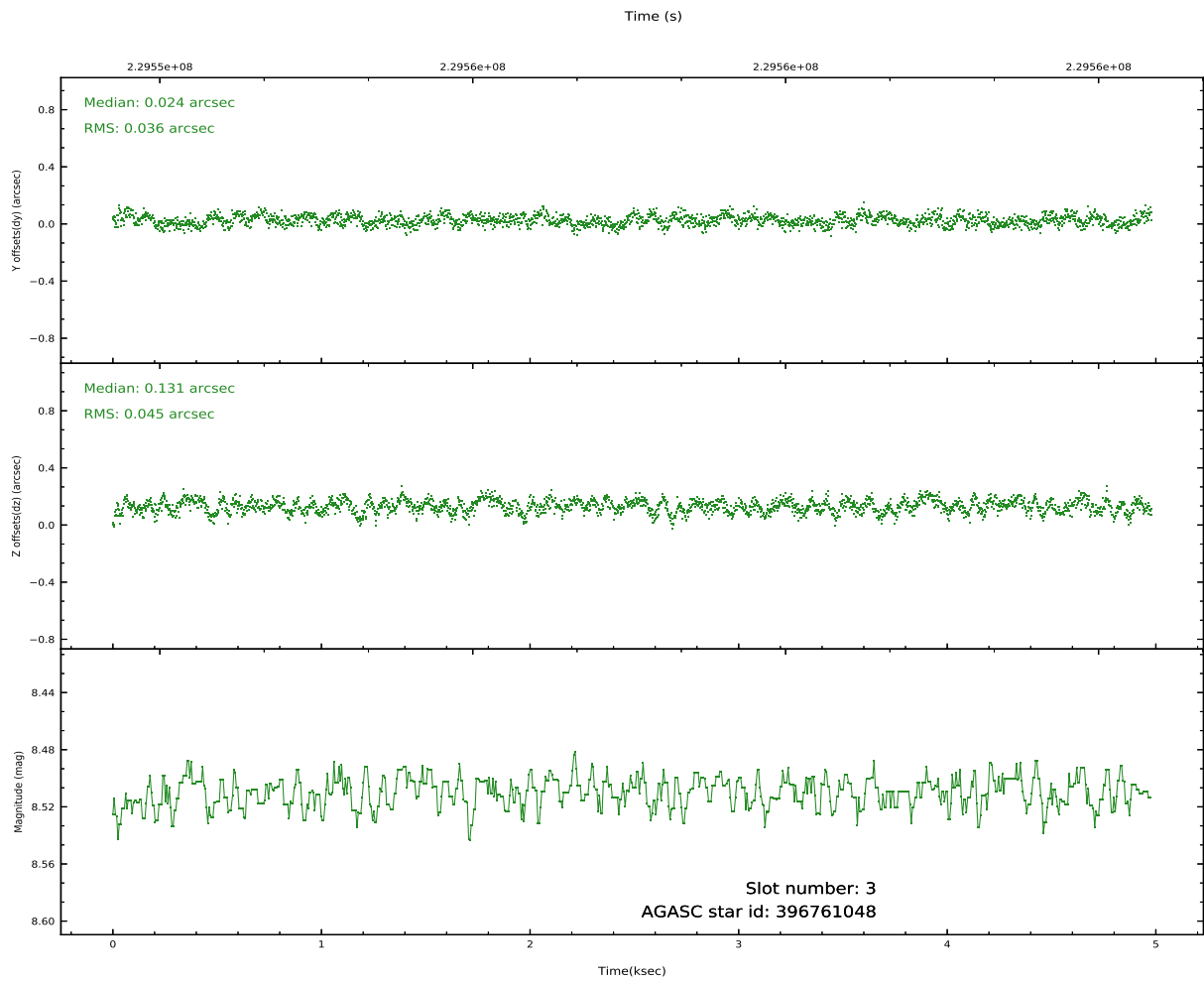
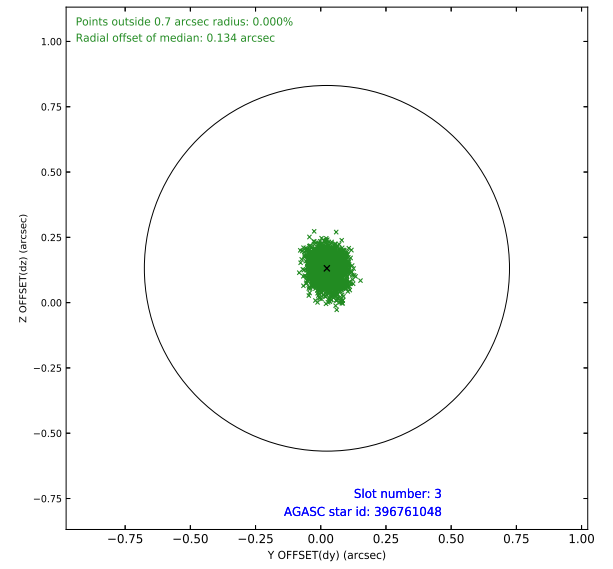
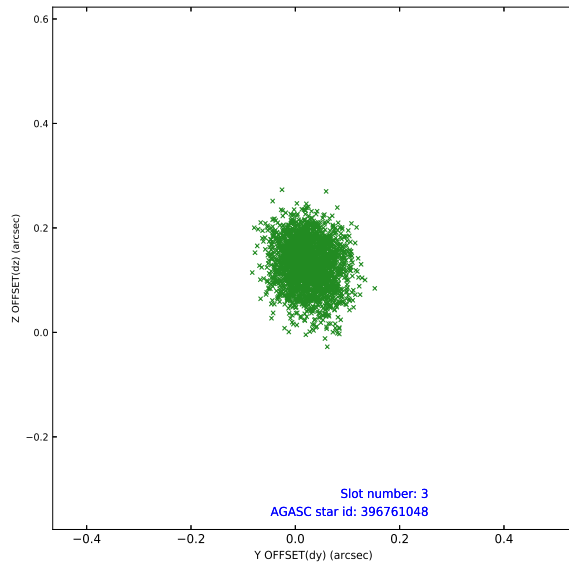


Slot Statistics

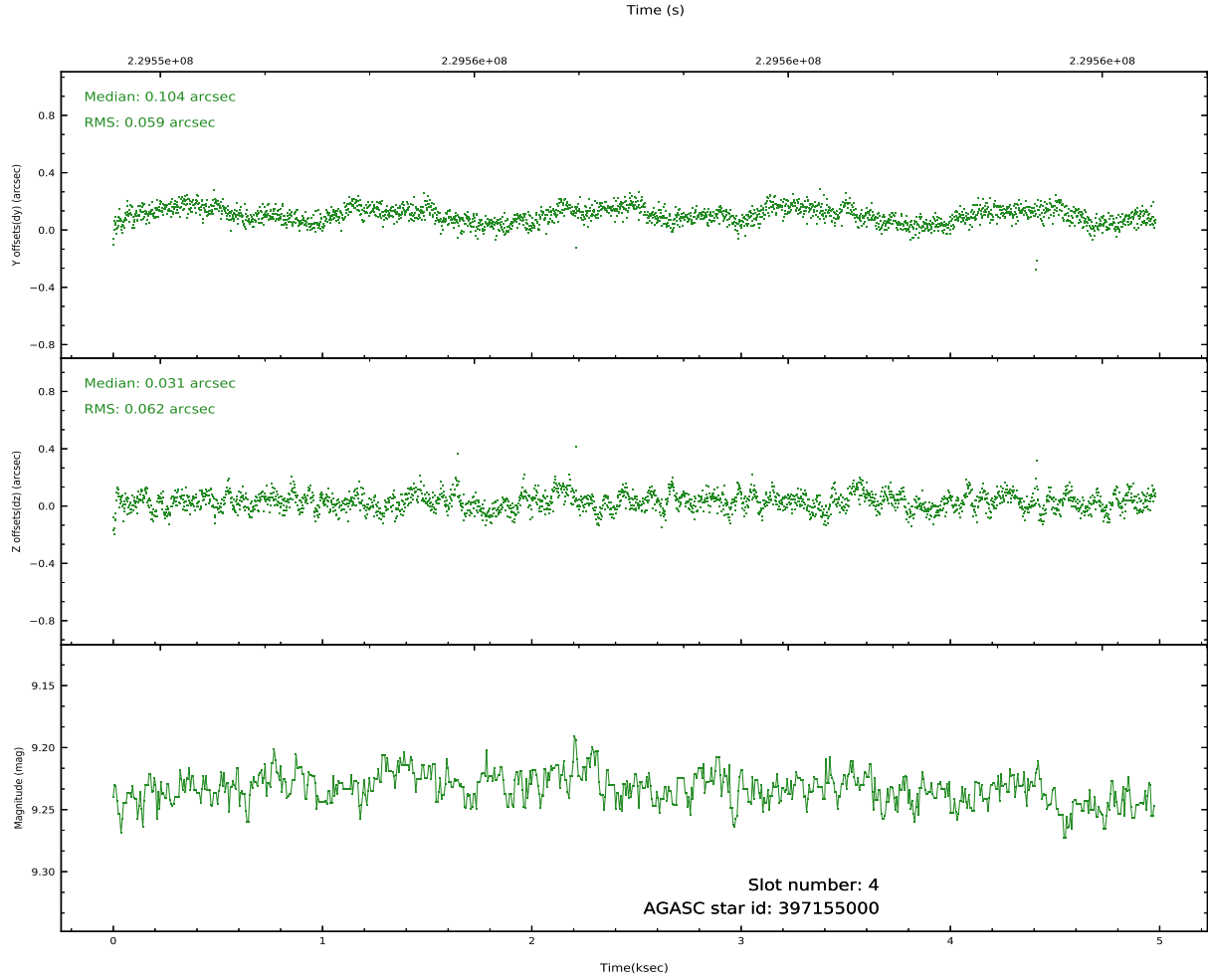
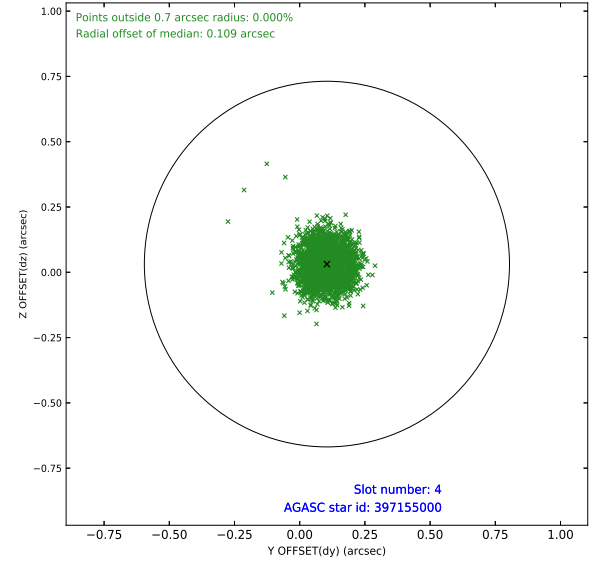
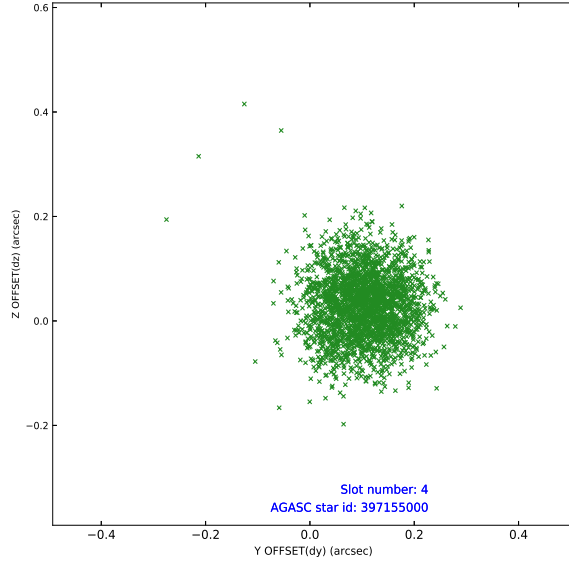
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.24	1215	1.000	0.089	-0.068	0.006	0.011	0.000000	0.000000	932.91	-894
1	FID		ACIS-I-5	7.24	1215	1.000	-0.244	0.078	0.006	0.010	0.000000	0.000000	-1814.83	1002
2	FID		ACIS-I-6	7.26	1214	1.000	0.063	0.060	0.007	0.011	0.000000	0.000000	397.13	1648
3	GUIDE	used	396761048	8.51	2429	1.000	0.024	0.131	0.063	0.099	208.356917	39.848251	-226.43	1608
4	GUIDE	used	397155000	9.23	2428	1.000	0.104	0.031	0.091	0.143	208.578535	40.761769	-366.06	-1732
5	GUIDE	used	397156112	8.15	2428	1.000	-0.010	0.004	0.055	0.089	208.309778	40.715583	335.78	-1466
6	GUIDE	used	397157096	8.66	2429	1.000	0.007	0.107	0.065	0.102	208.961272	40.488605	-1543.04	-911
7	GUIDE	used	396762336	5.81	2422	1.000	-0.124	-0.278	0.048	0.079	207.946236	39.669422	810.44	2401

## 2.4 Star Slots

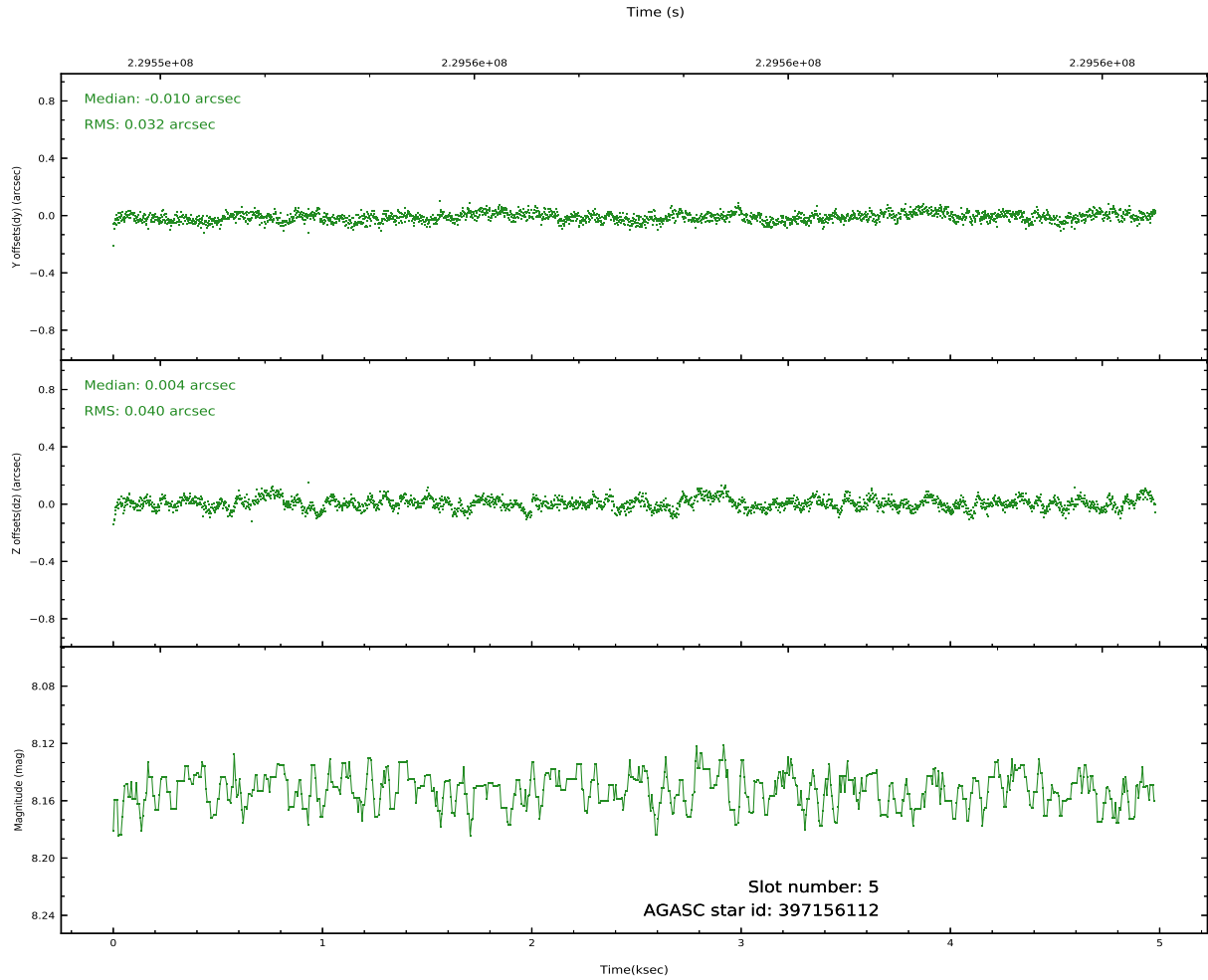
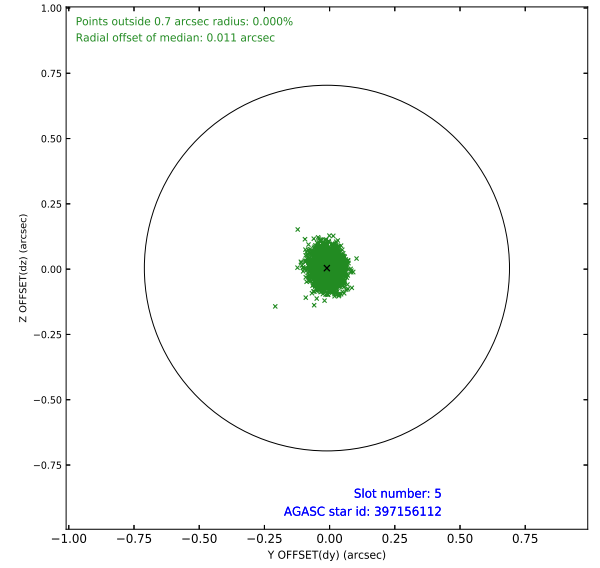
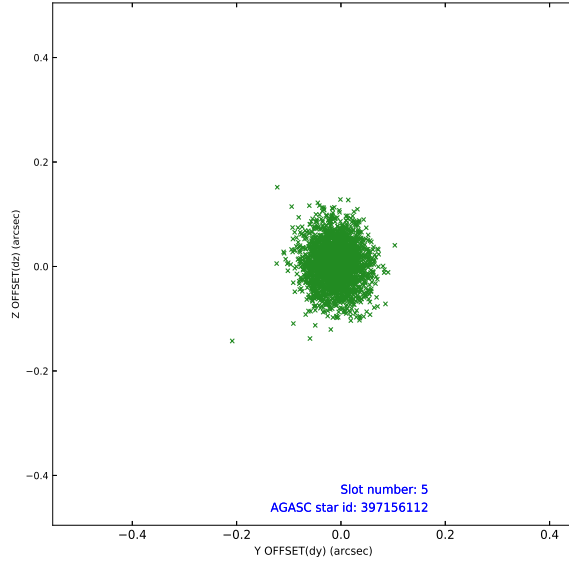
### 2.4.1 Slot 3



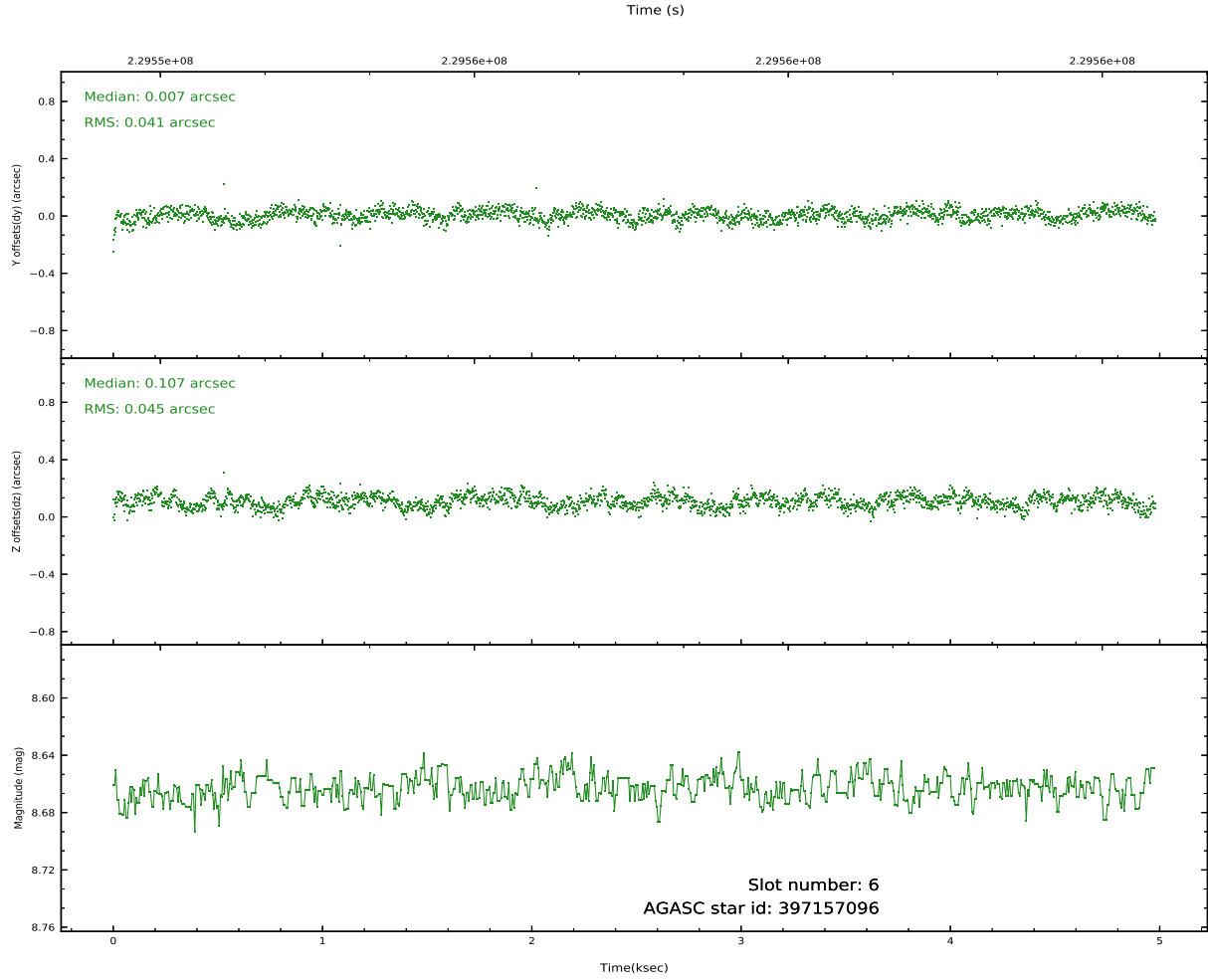
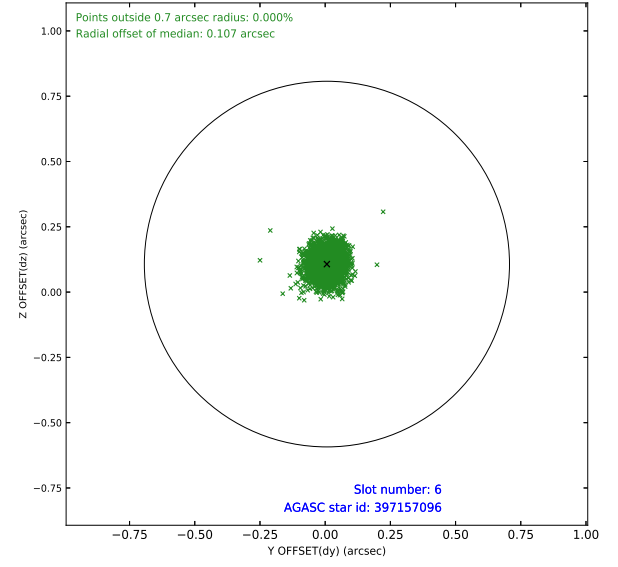
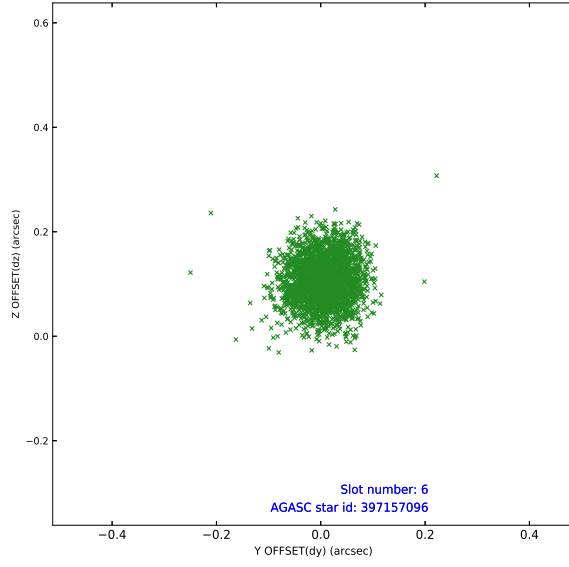
## 2.4.2 Slot 4



### 2.4.3 Slot 5

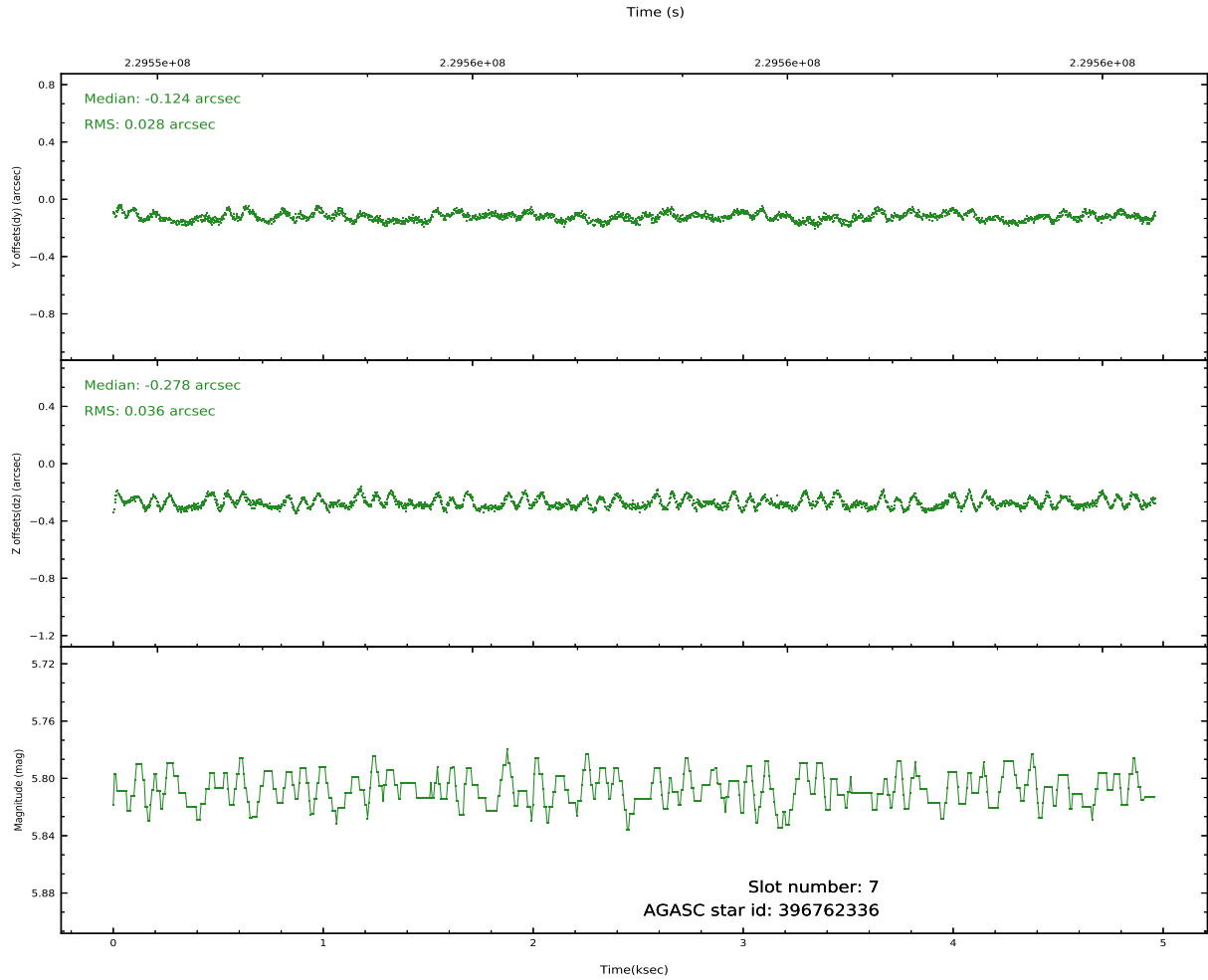
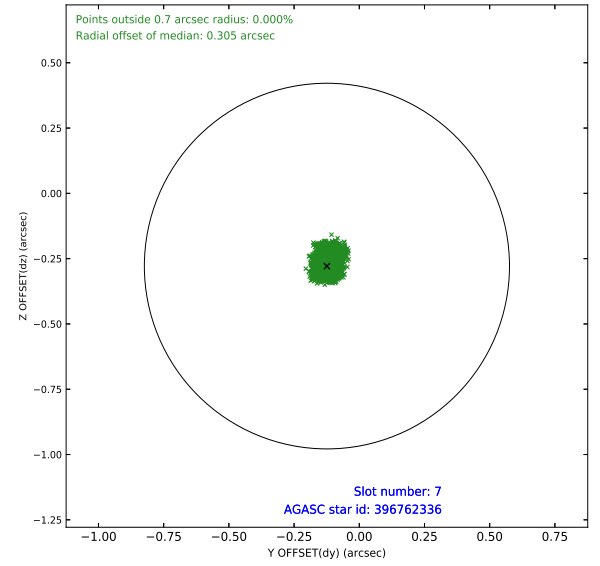
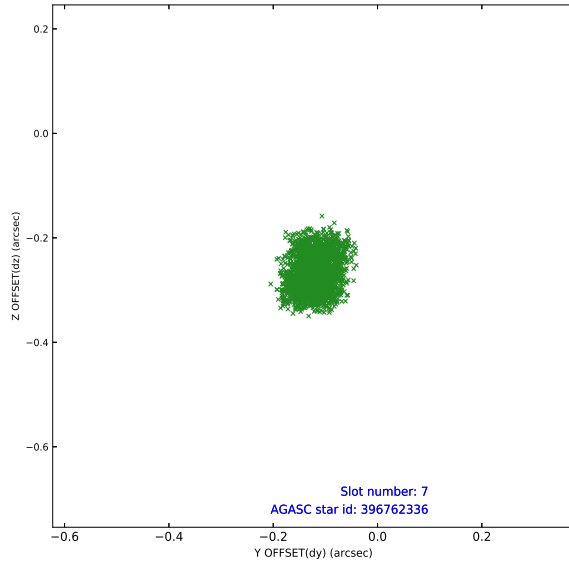


## 2.4.4 Slot 6



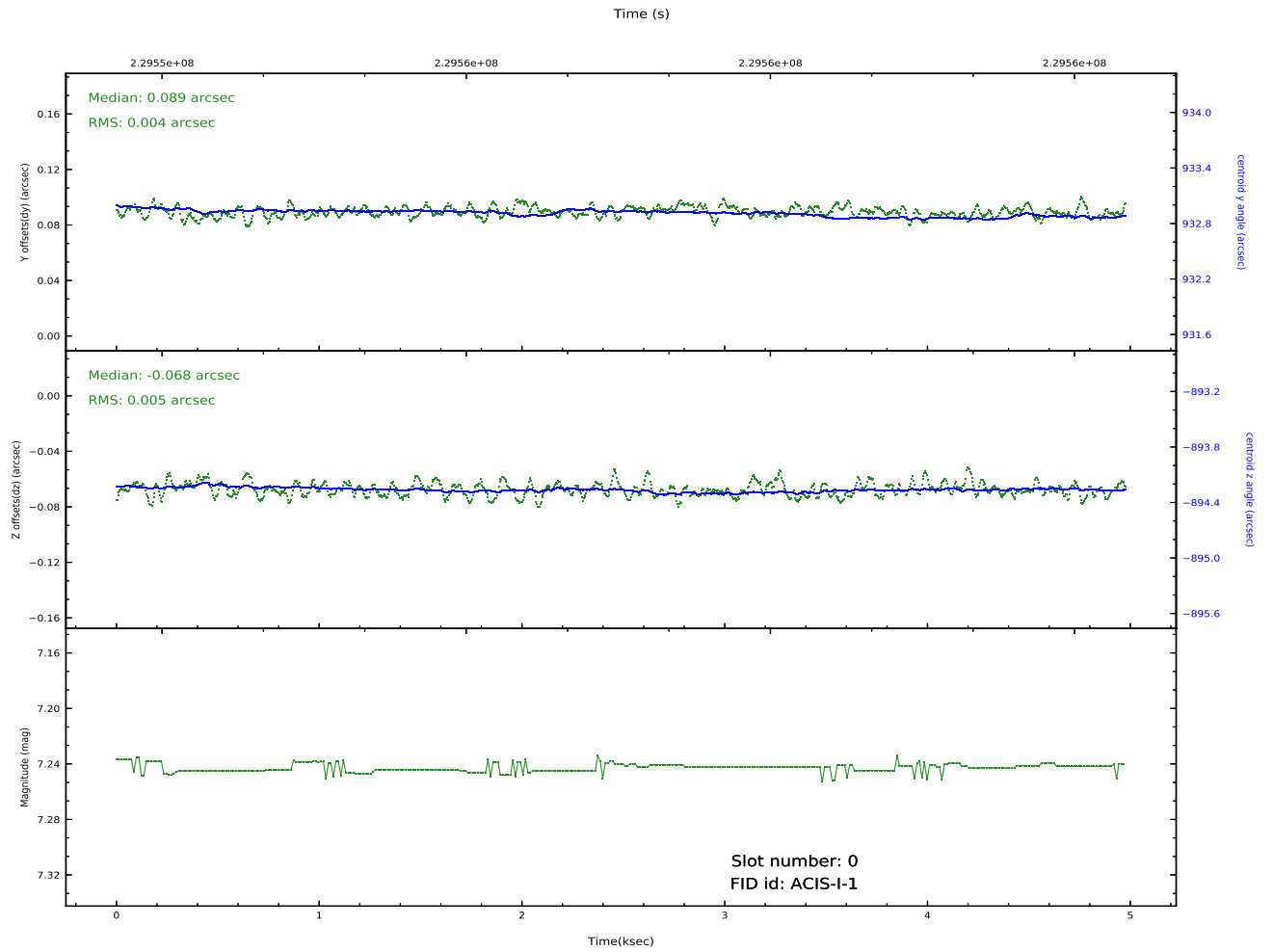
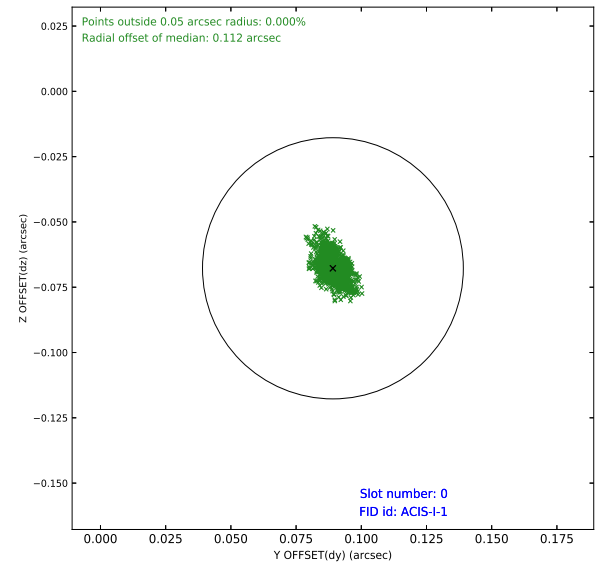
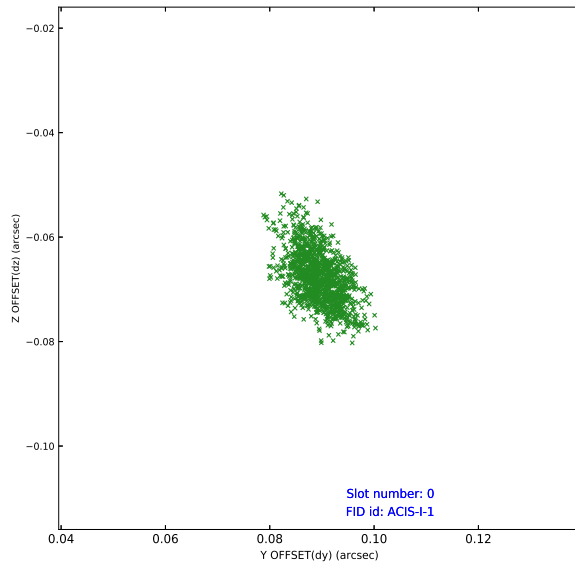


## 2.4.5 Slot 7

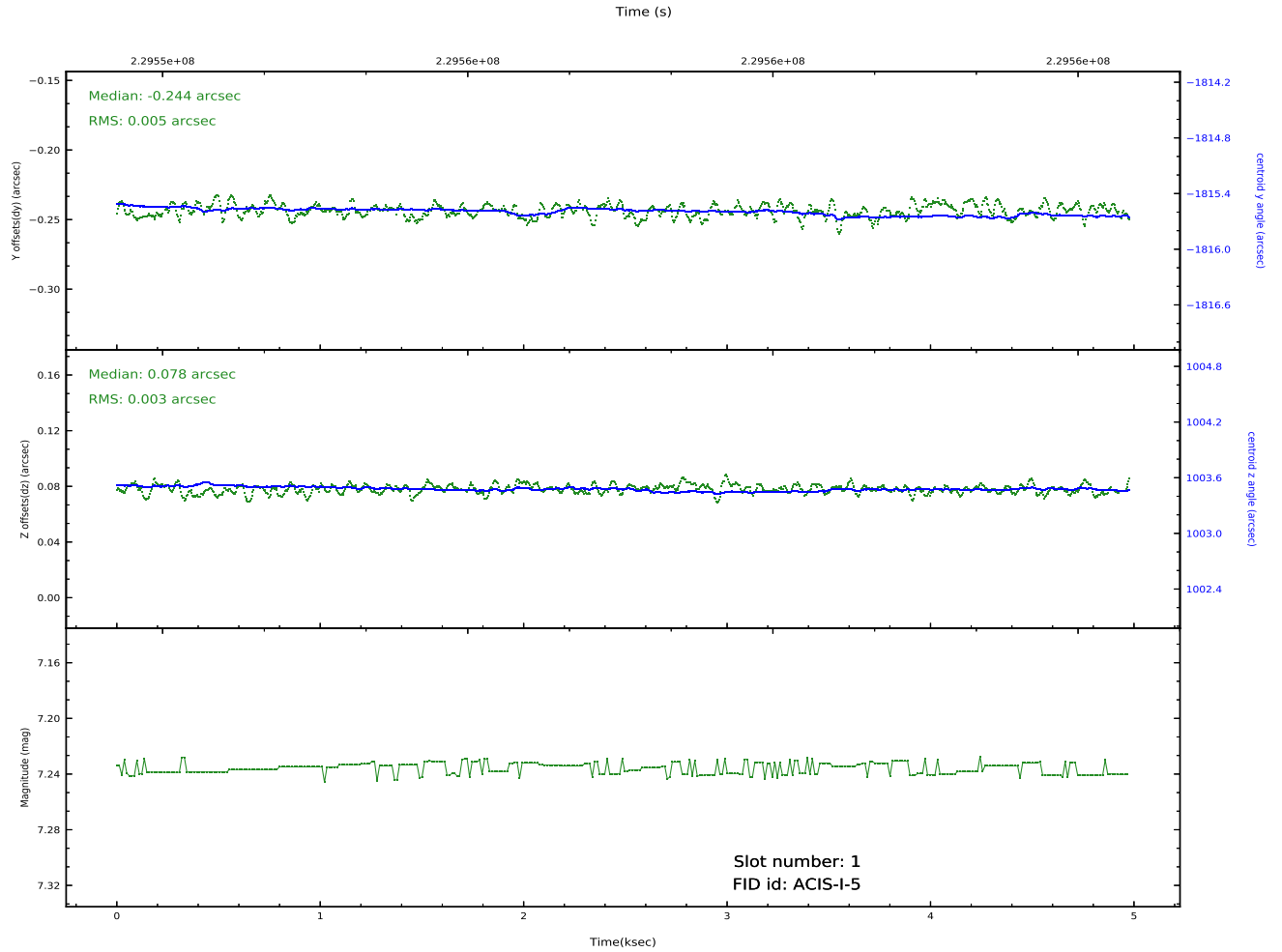
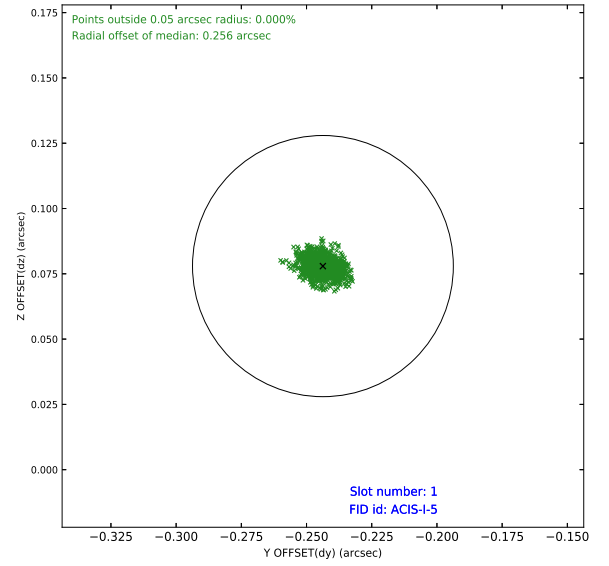
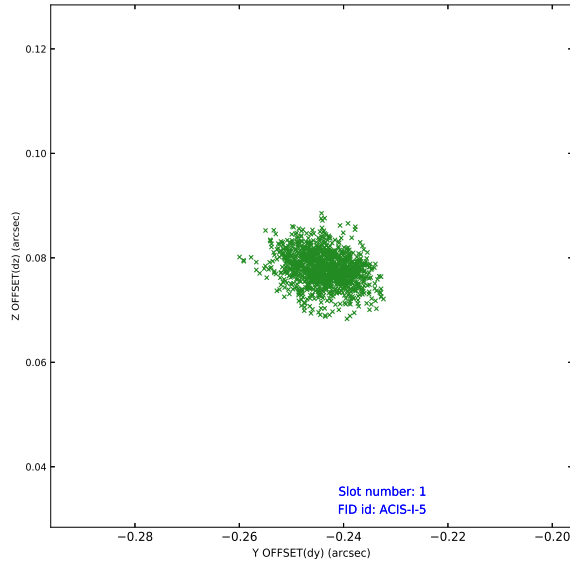


## 2.5 FID Slots

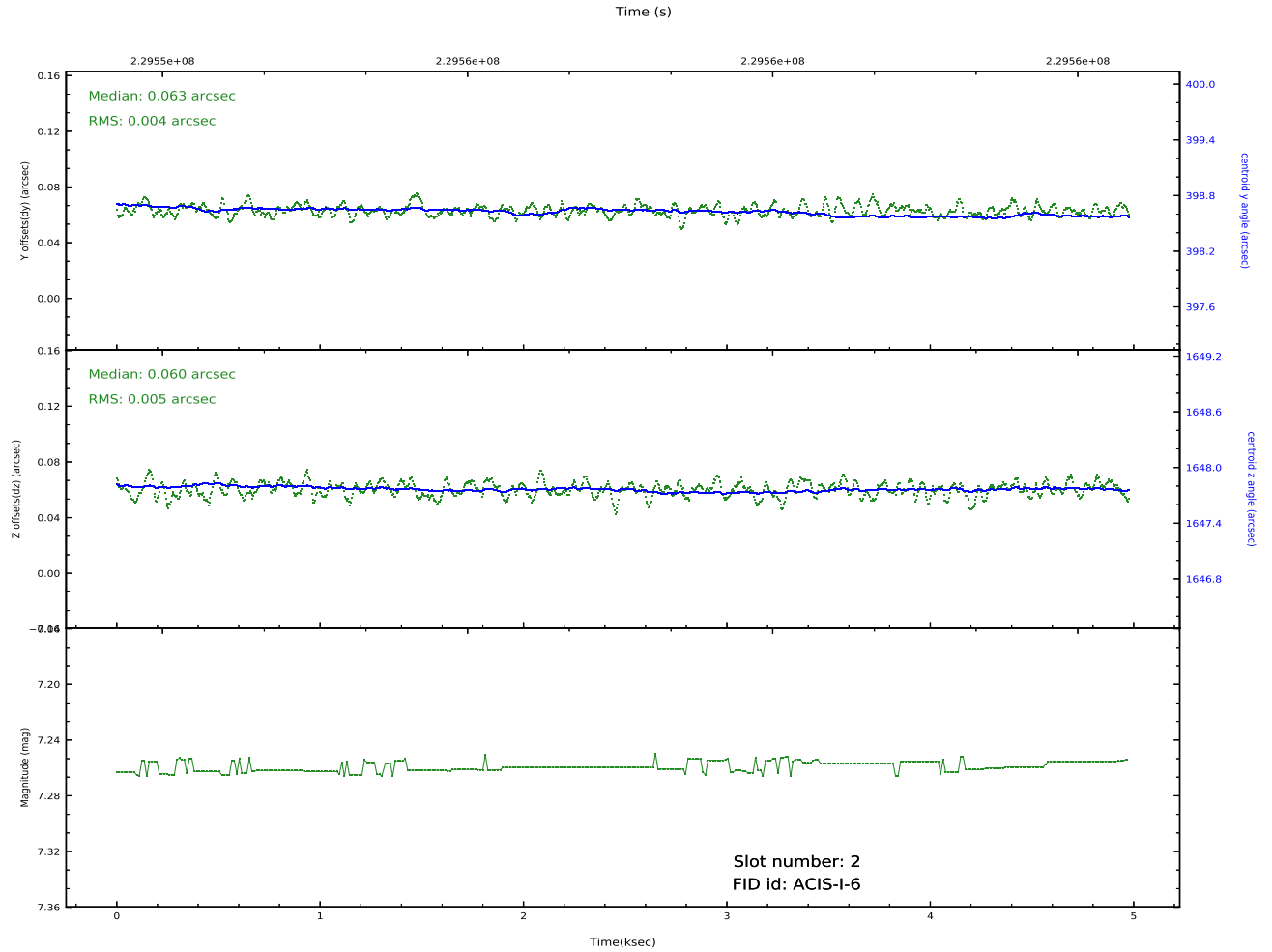
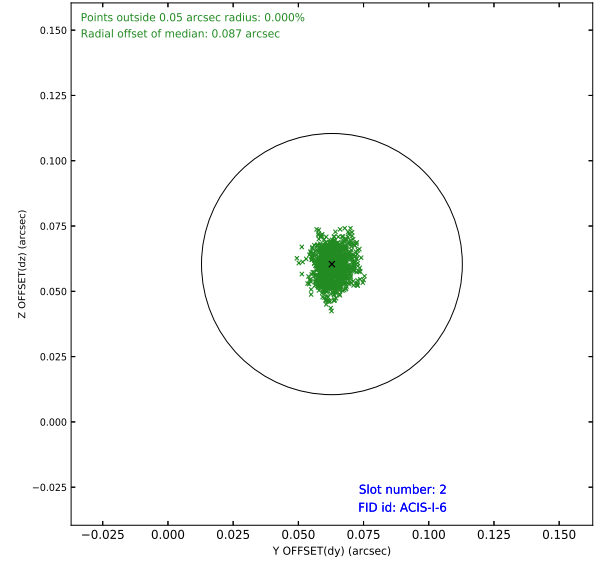
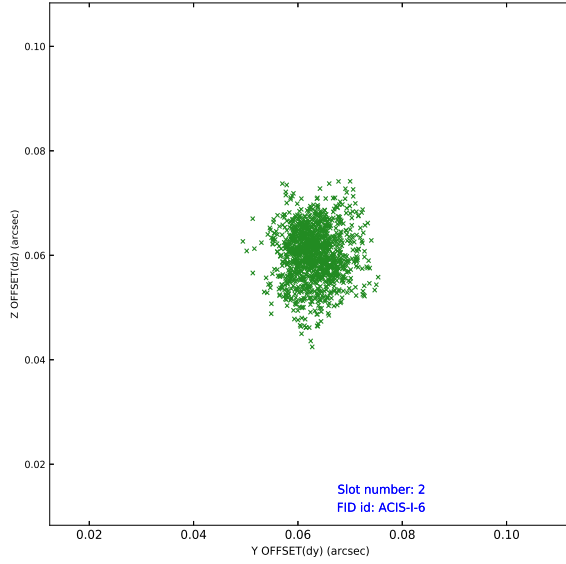
### 2.5.1 Slot 0



## 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)	2020.10.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.550799

### **A.2 Comments**