

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 5897 - L2 Version 4  
Chandra X-Ray Center

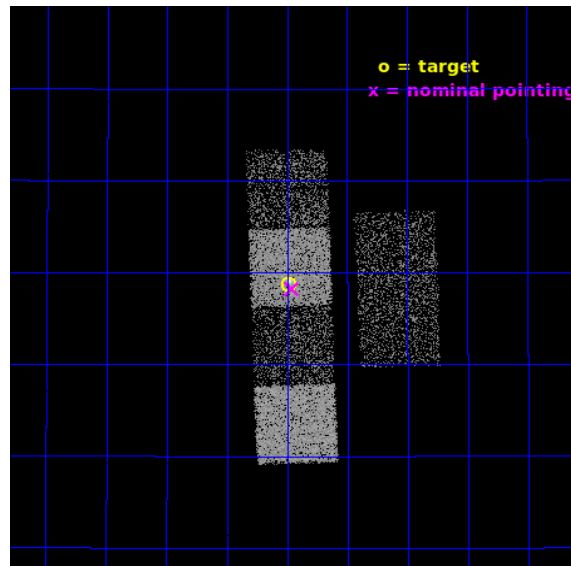
L2 Processing Date : Oct 5 2020

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# 1 Front

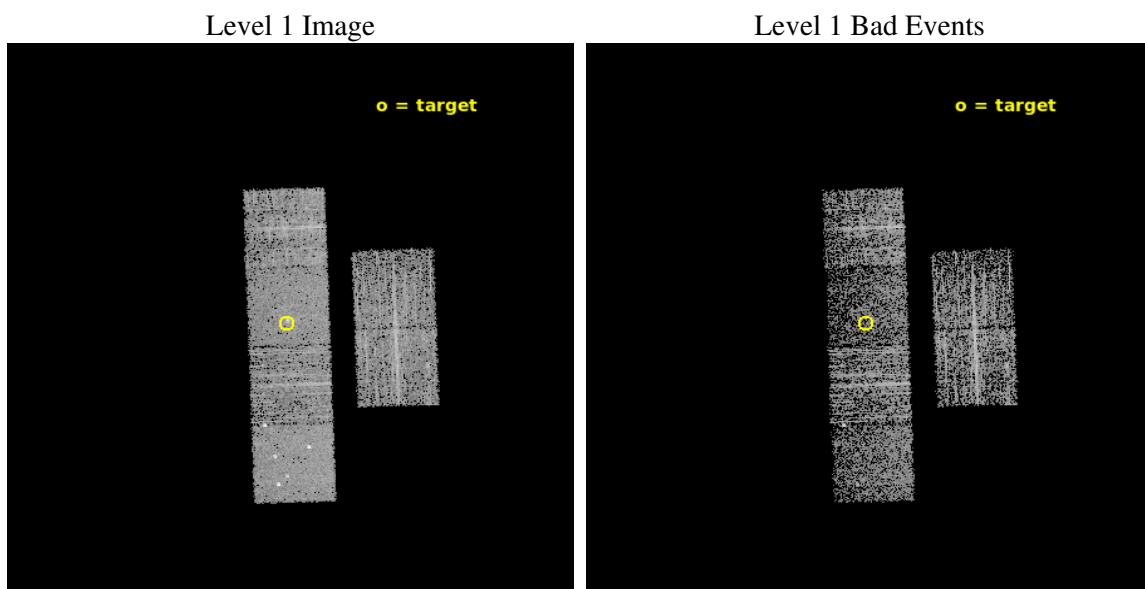
seq_num	600416	Sequence number
obs_id	5897	Observation id
title	Snapshot Observations of X-ray Bright Early-Type Galaxies	Proposal
observer	Dr. Stephen Murray	Principal investigator
object	NGC410	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	17.745833	Observer's specified target RA [deg]
dec_targ	33.145	Observer's specified target Dec [deg]
ra_nom	17.739925302578	Nominal RA [deg]
dec_nom	33.137676742547	Nominal Dec [deg]
roll_nom	267.98824564147	Nominal Roll [deg]
revision	4	Processing version of data
ontime	2588.799990356	Sum of GTIs [s]
livetime	2556.0190460899	Livetime [s]
ontime2	2588.799990356	Sum of GTIs [s]
ontime3	2588.799990356	Sum of GTIs [s]
ontime5	2588.799990356	Sum of GTIs [s]
ontime6	2588.799990356	Sum of GTIs [s]
ontime7	2588.799990356	Sum of GTIs [s]
ontime8	2588.799990356	Sum of GTIs [s]
l2events	24934	Number of level 2 events



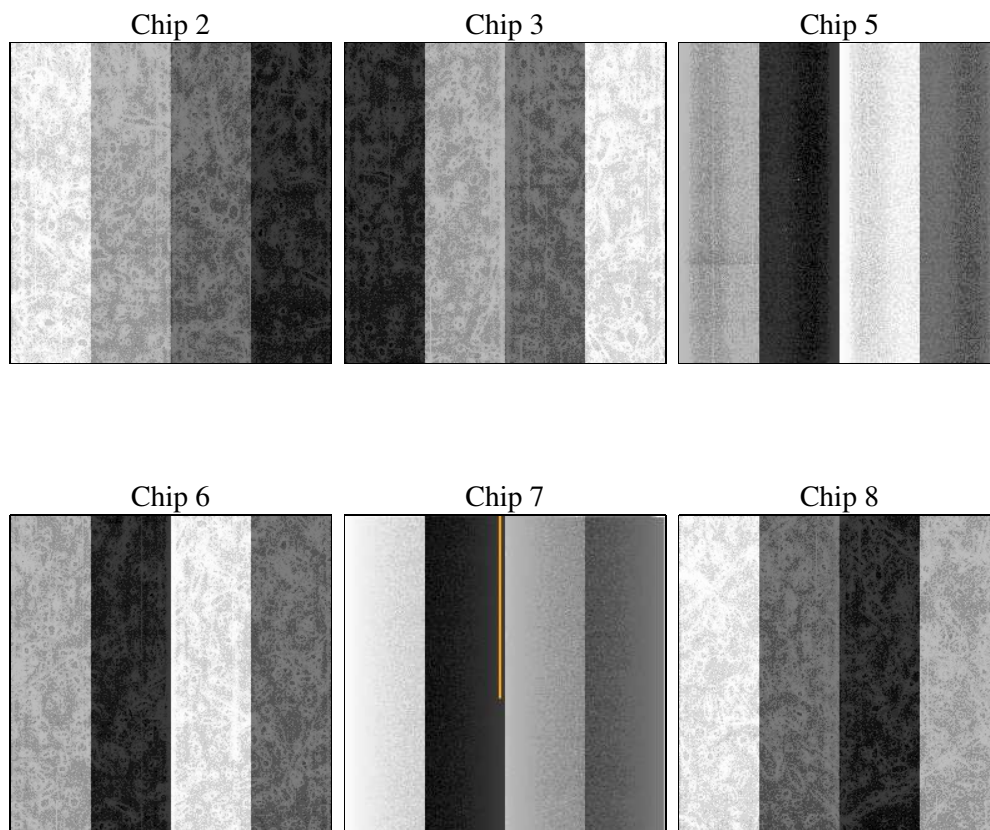
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	2415.649000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	2588.799990356	Sum of GTIs [s]
caldsver	4.9.2	&#160	ontime2	2588.799990356	Sum of GTIs [s]
date	2020-10-05T09:35:06	Date and time of file creation	ontime3	2588.799990356	Sum of GTIs [s]
revision	4	Processing version of data	ontime5	2588.799990356	Sum of GTIs [s]
			ontime6	2588.799990356	Sum of GTIs [s]
			ontime7	2588.799990356	Sum of GTIs [s]
			ontime8	2588.799990356	Sum of GTIs [s]
			l1events	137568	Number of level 1 events

### 2.1.4 Events

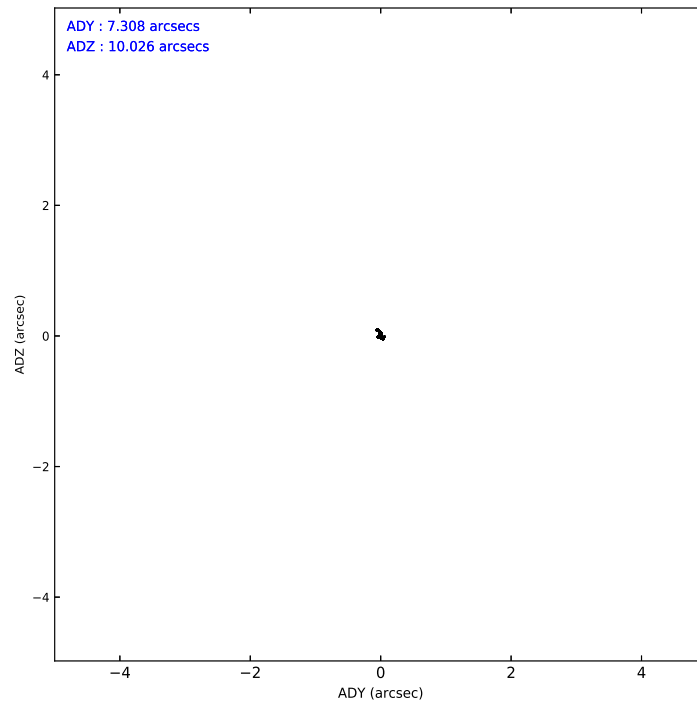
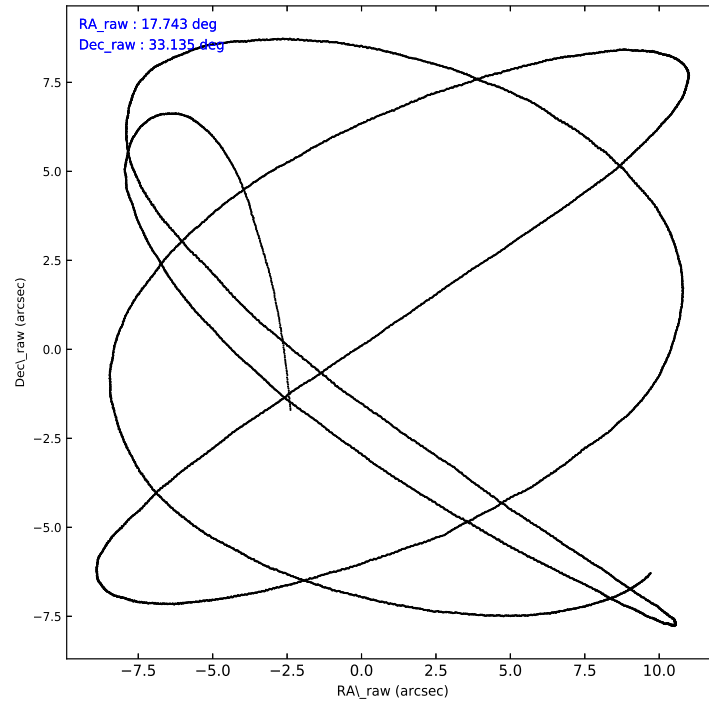
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	22017	18620	28734	20940	22286	24971
rejected events	20362	17092	15792	19172	13220	20215
rejected %	92%	91%	54%	91%	59%	80%

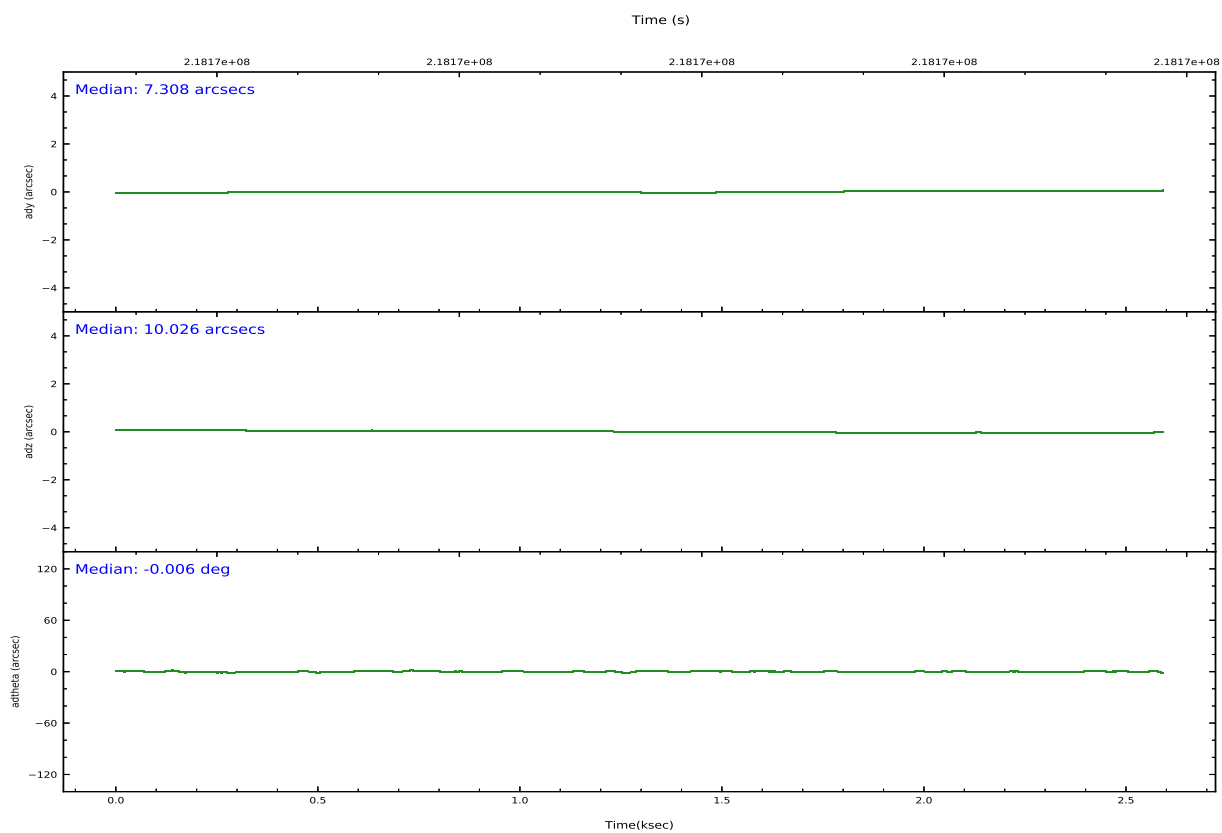
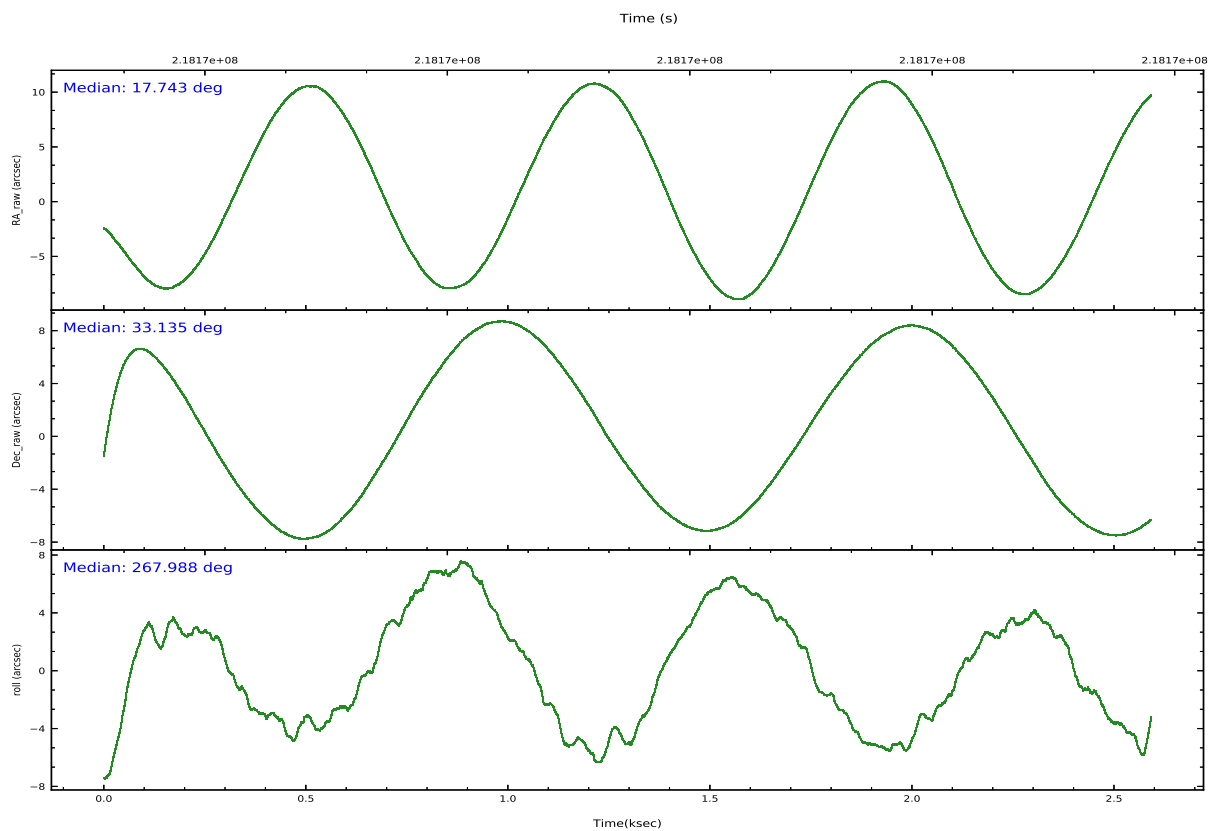
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	711	658	2779	750	1122	1636
	3%	3%	9%	3%	5%	6%
grade 1 events	13	10	305	9	25	14
	0%	0%	1%	0%	0%	0%
grade 2 events	442	357	4182	430	2169	1339
	2%	1%	14%	2%	9%	5%
grade 3 events	205	230	655	237	978	564
	0%	1%	2%	1%	4%	2%
grade 4 events	244	202	594	256	1035	537
	1%	1%	2%	1%	4%	2%
grade 5 events	654	731	2206	799	2363	1138
	2%	3%	7%	3%	10%	4%
grade 6 events	353	364	6911	405	5289	1568
	1%	1%	24%	1%	23%	6%
grade 7 events	19395	16068	11102	18054	9305	18175
	88%	86%	38%	86%	41%	72%

## 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	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	17.727759	17.739925302578	Subarray requested	NONE	NONE
[deg] Pointing Dec	33.159409	33.137676742547	Alternating exposures requested	N	N
[deg] Pointing Roll	267.832054	267.98824564147	[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)	218172327.184000	218171023.18804			
Observation start date	2004-11-30T03:24:23	2004-11-30T03:03:43			
[s] Observation end time (MET)	218174743.184000	218174960.72572			
Observation end date	2004-11-30T04:04:39	2004-11-30T04:09:20			
Read mode	TIMED	TIMED			

## 2.3 Aspect





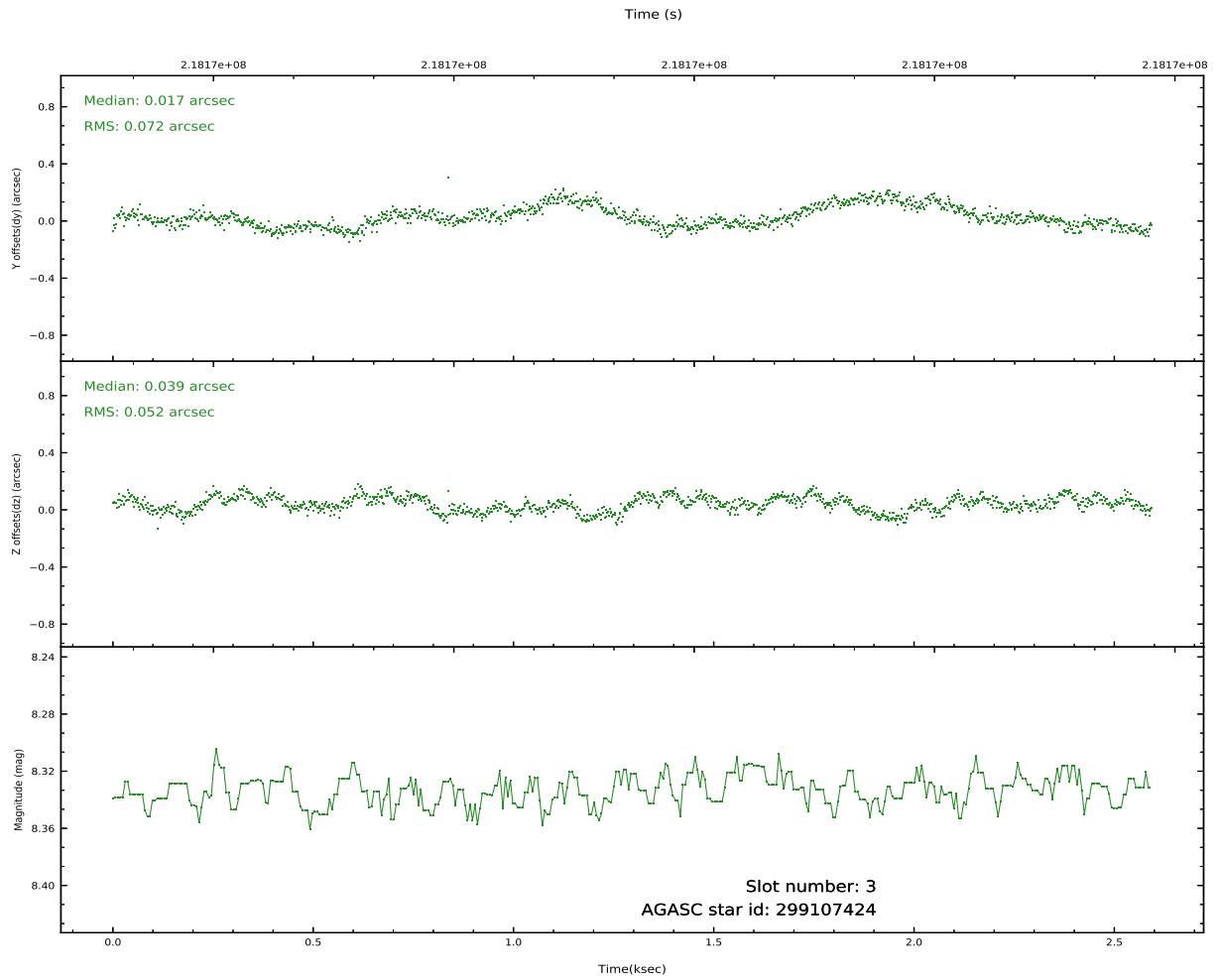
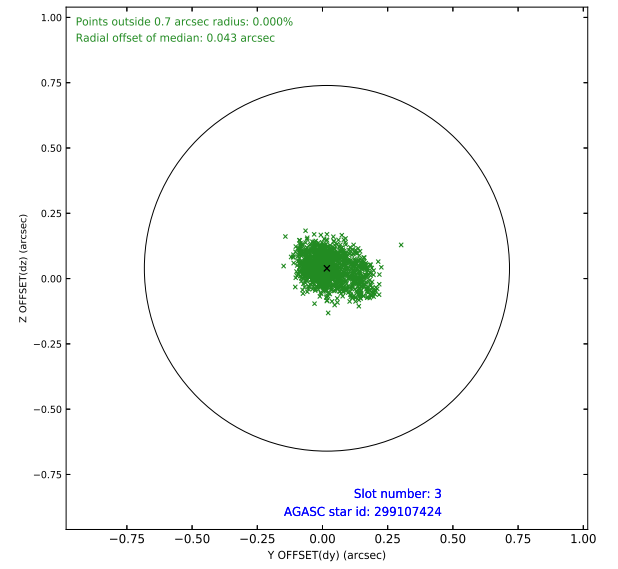
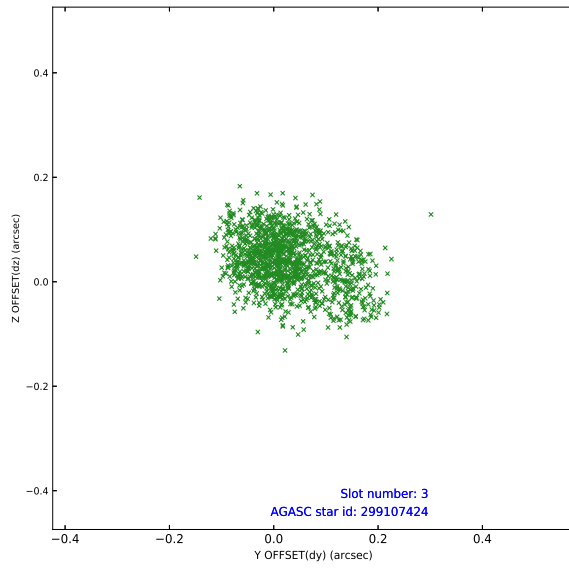
Slot Statistics

pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-1	7.19	633	1.000	0.052	-0.031	0.007	0.011	0.000000	0.000000	936.02	-1726
1	FID		ACIS-S-2	7.11	633	1.000	-0.083	-0.055	0.007	0.012	0.000000	0.000000	-758.62	-1734
2	FID		ACIS-S-6	7.35	633	1.000	0.011	0.092	0.006	0.010	0.000000	0.000000	400.50	811
3	GUIDE	used	299107424	8.33	1265	1.000	0.017	0.039	0.092	0.158	17.950584	32.741625	1476.63	731
4	GUIDE	used	299107744	9.88	1266	1.000	-0.036	-0.036	0.155	0.265	17.839618	32.963311	693.56	365
5	GUIDE	used	299108128	9.09	1263	1.000	0.003	0.095	0.083	0.132	17.723830	33.646507	-1751.45	-77
6	GUIDE	used	299108248	8.10	1266	1.000	-0.031	-0.090	0.071	0.106	17.424715	33.743221	-2068.82	-985
7	GUIDE	used	299115408	7.75	1265	1.000	0.054	-0.002	0.063	0.096	17.777229	32.517830	2300.58	237

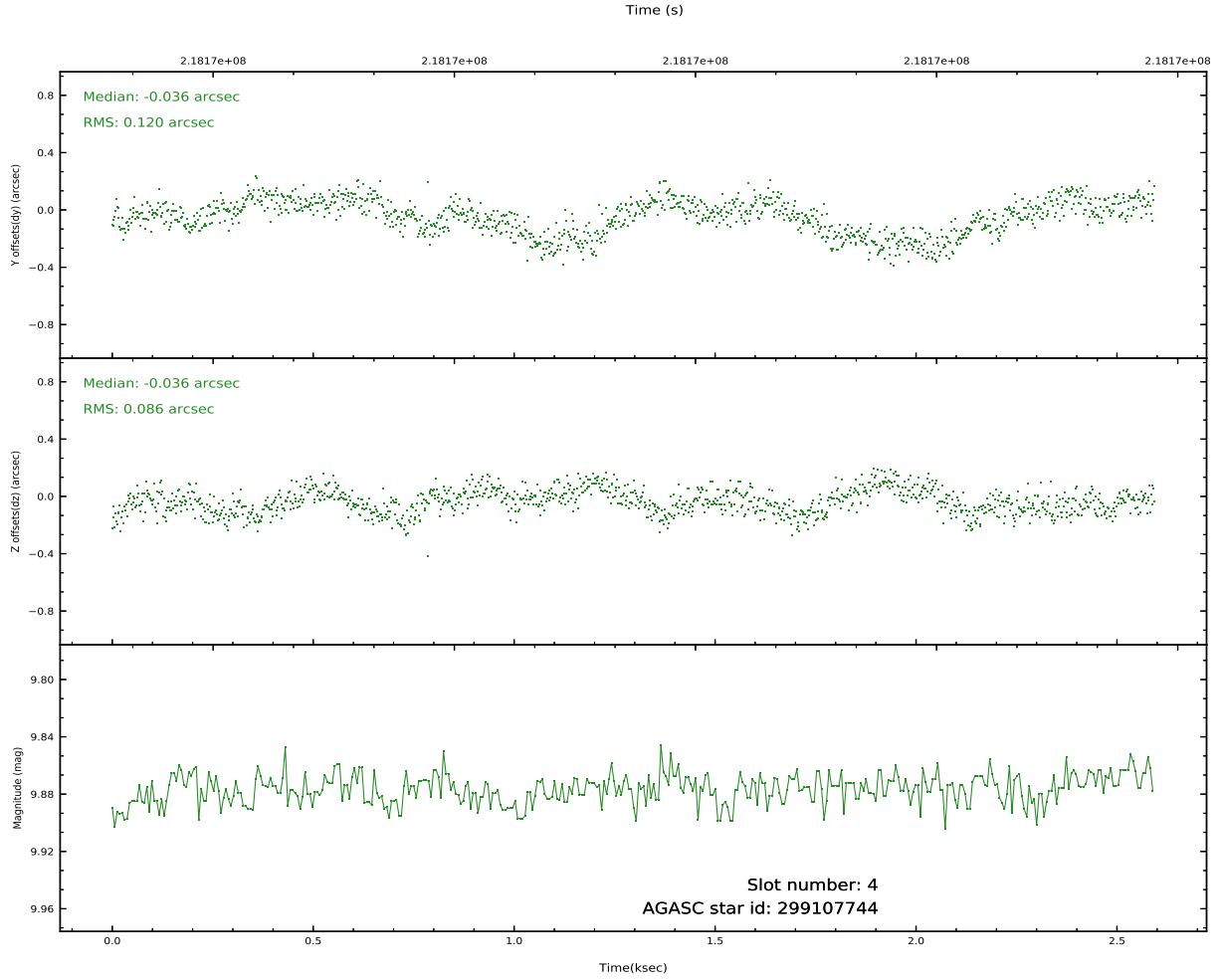
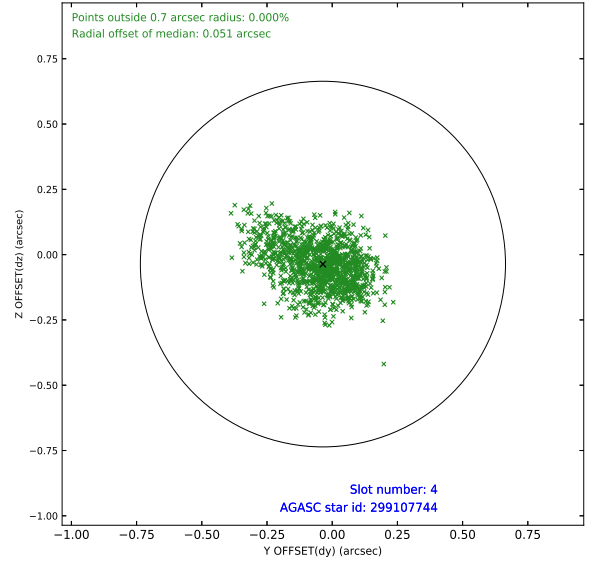
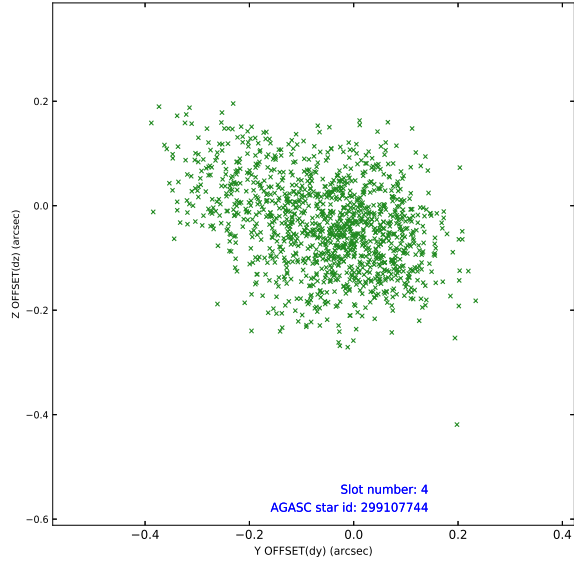


## 2.4 Star Slots

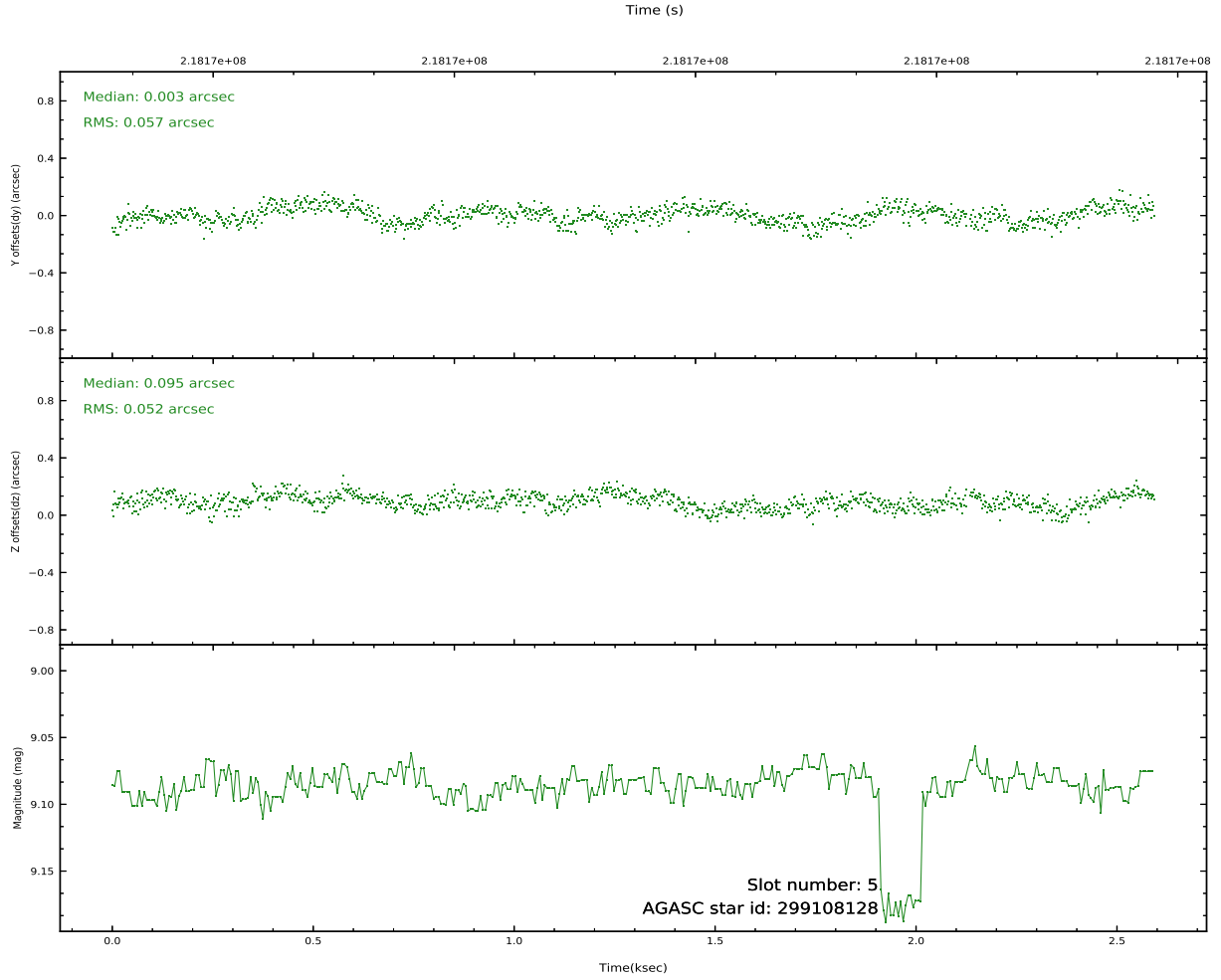
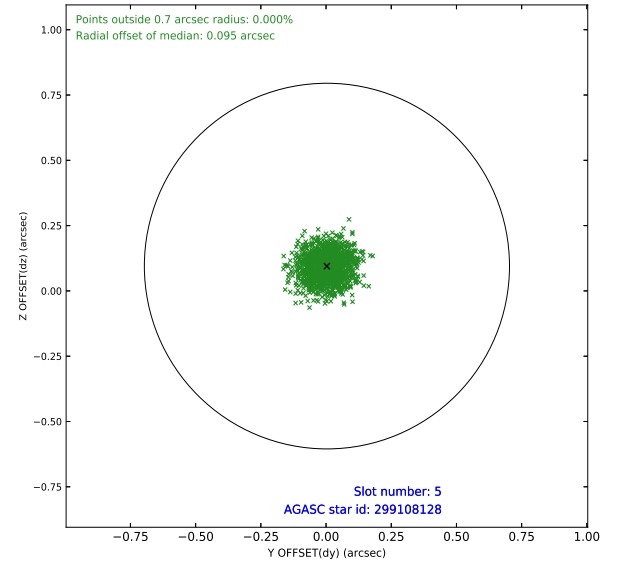
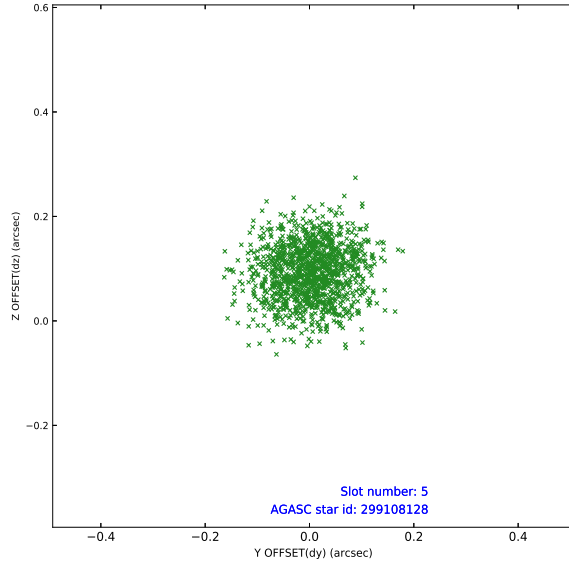
### 2.4.1 Slot 3



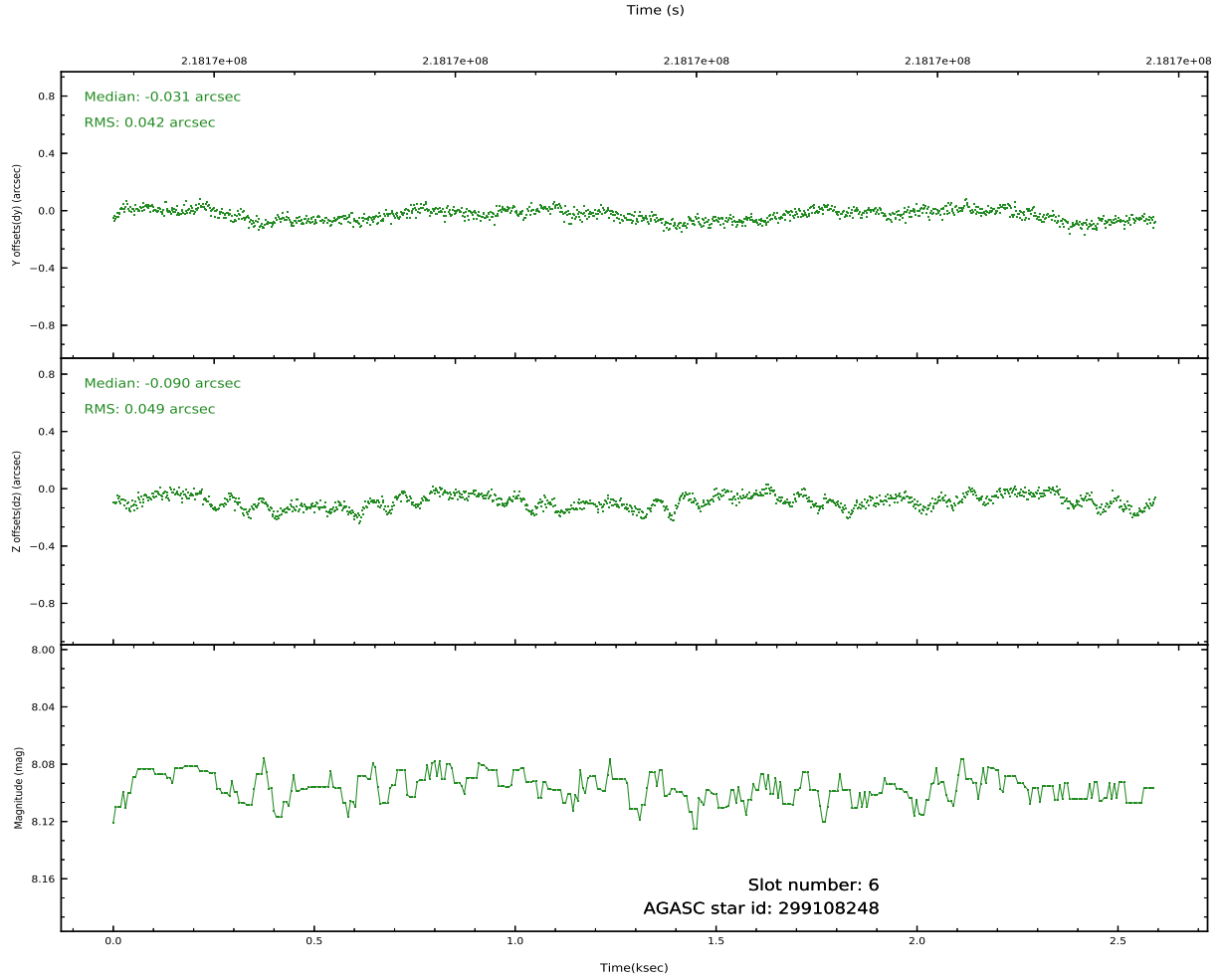
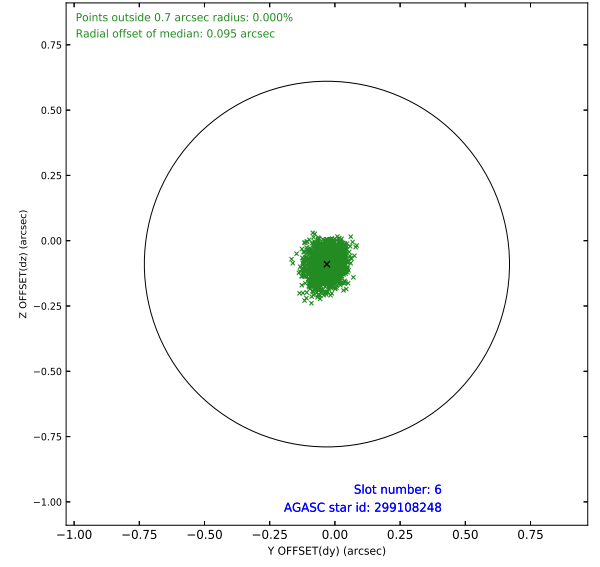
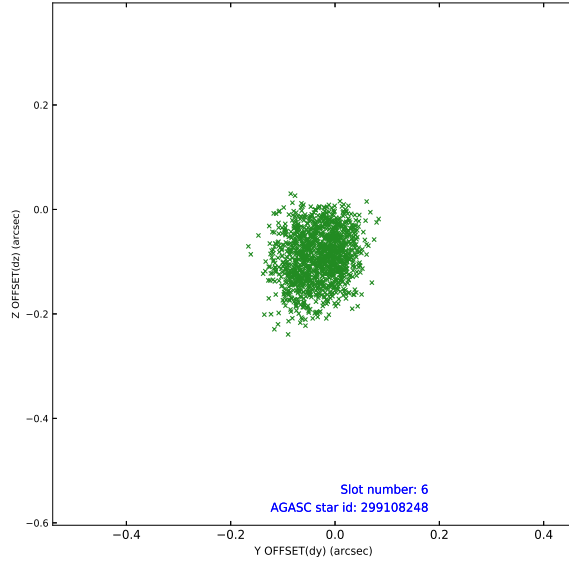
## 2.4.2 Slot 4



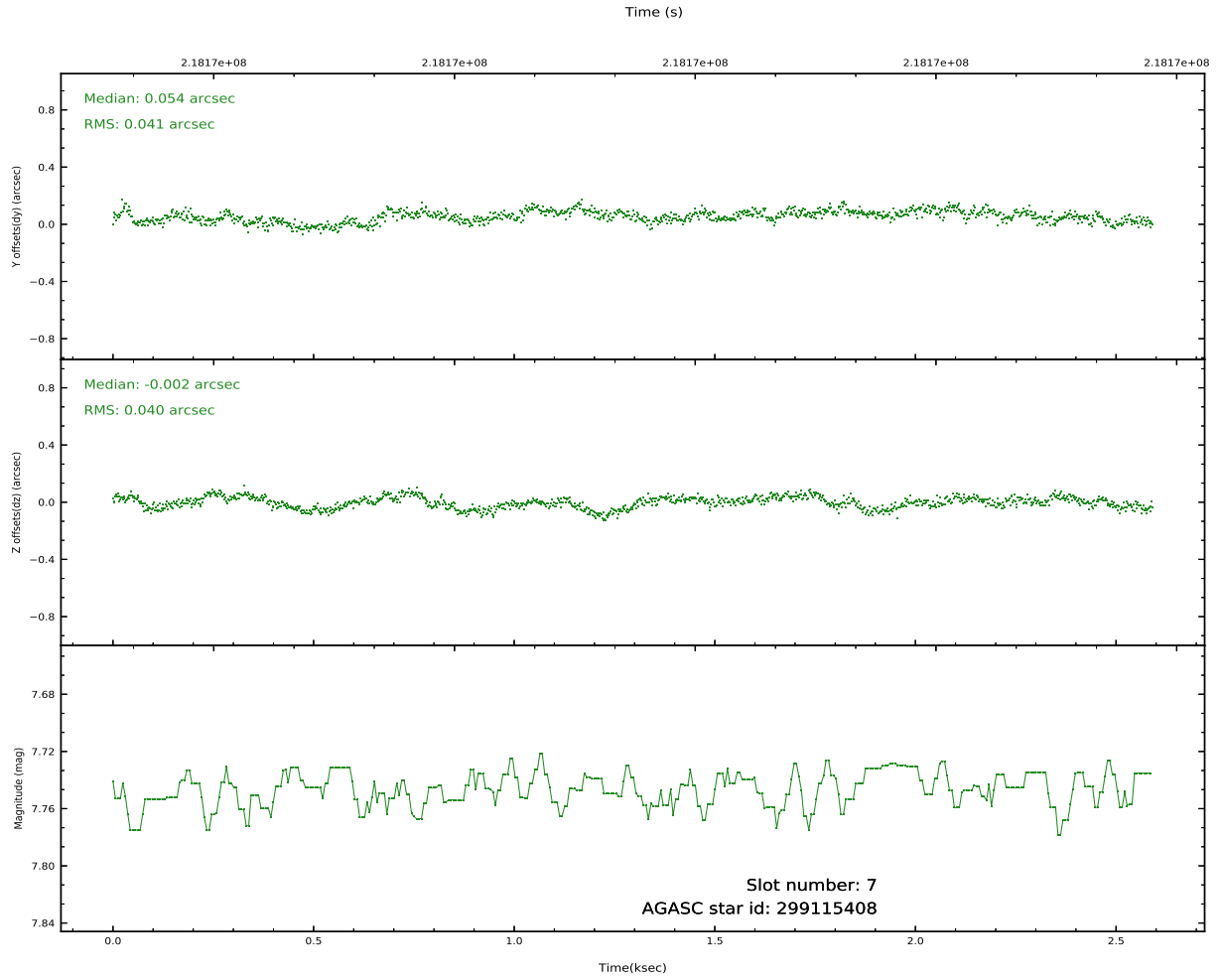
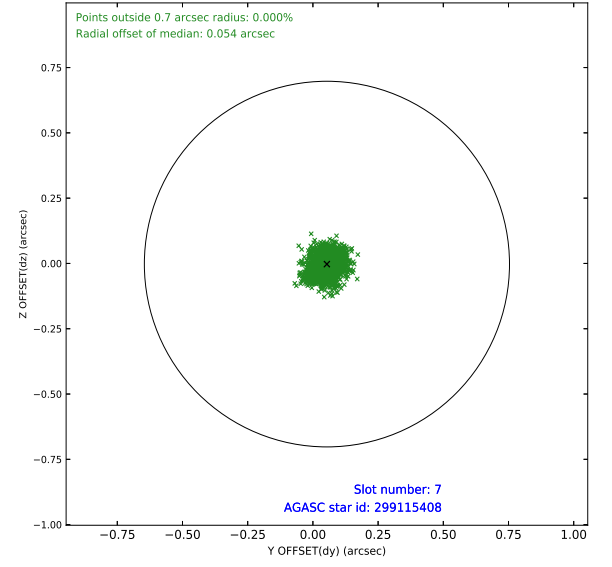
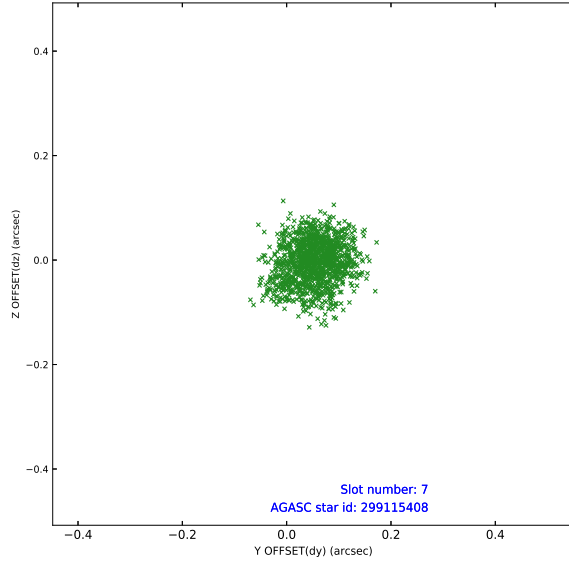
### 2.4.3 Slot 5



## 2.4.4 Slot 6

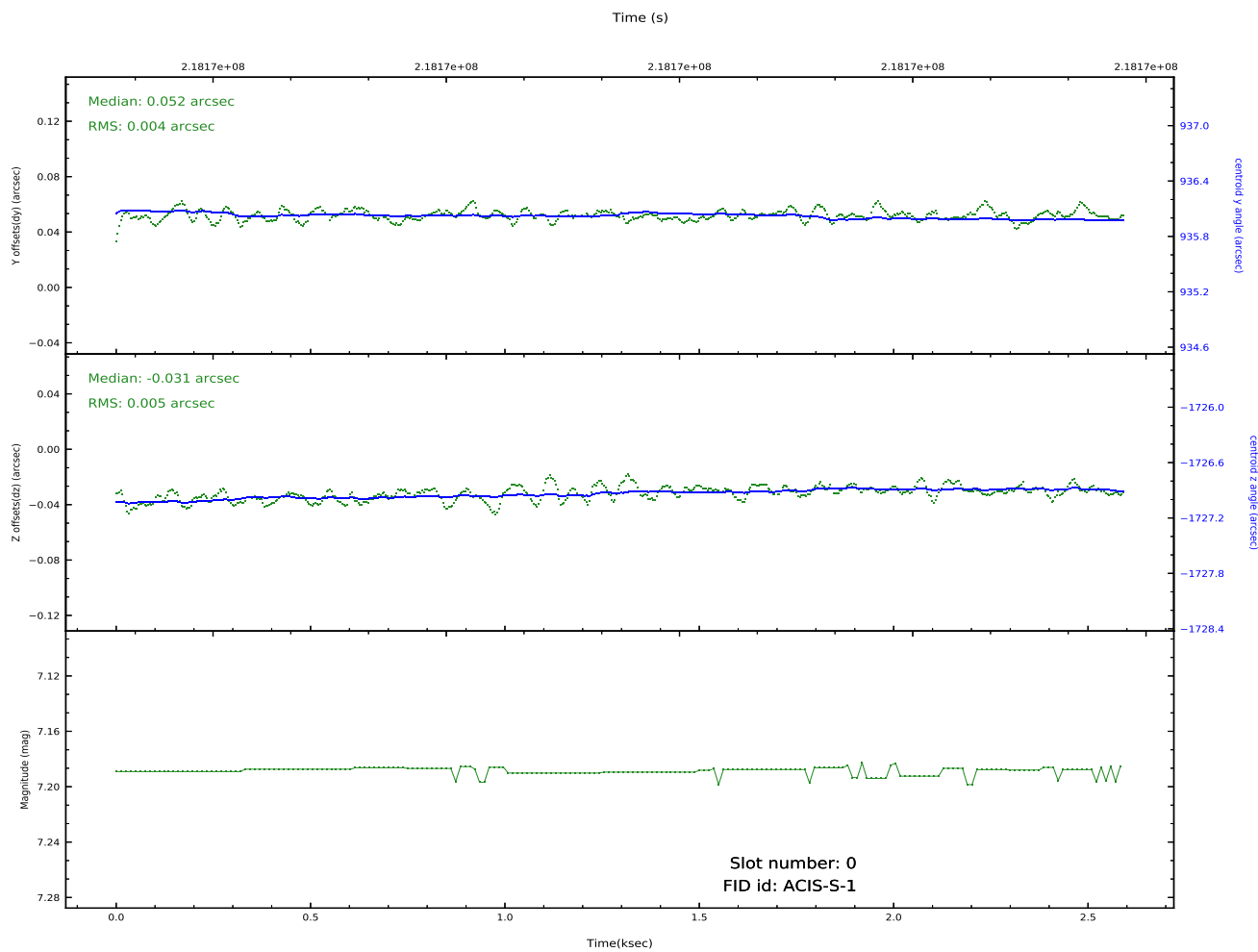
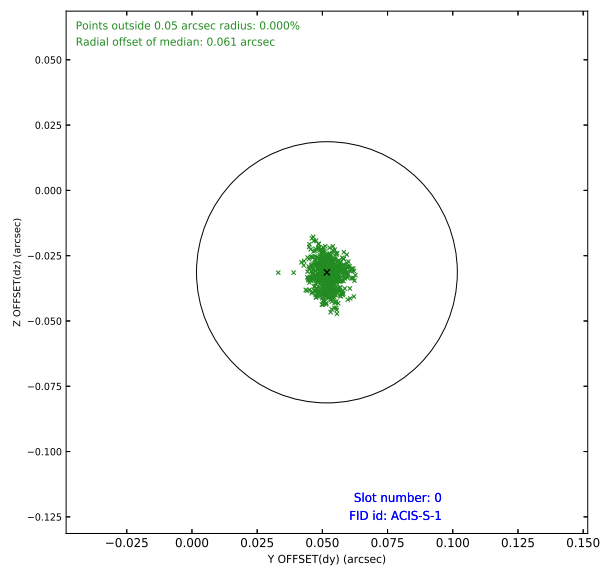
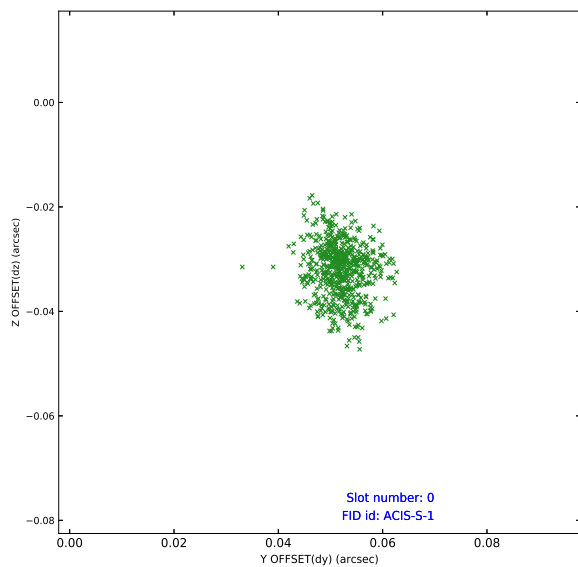


## 2.4.5 Slot 7

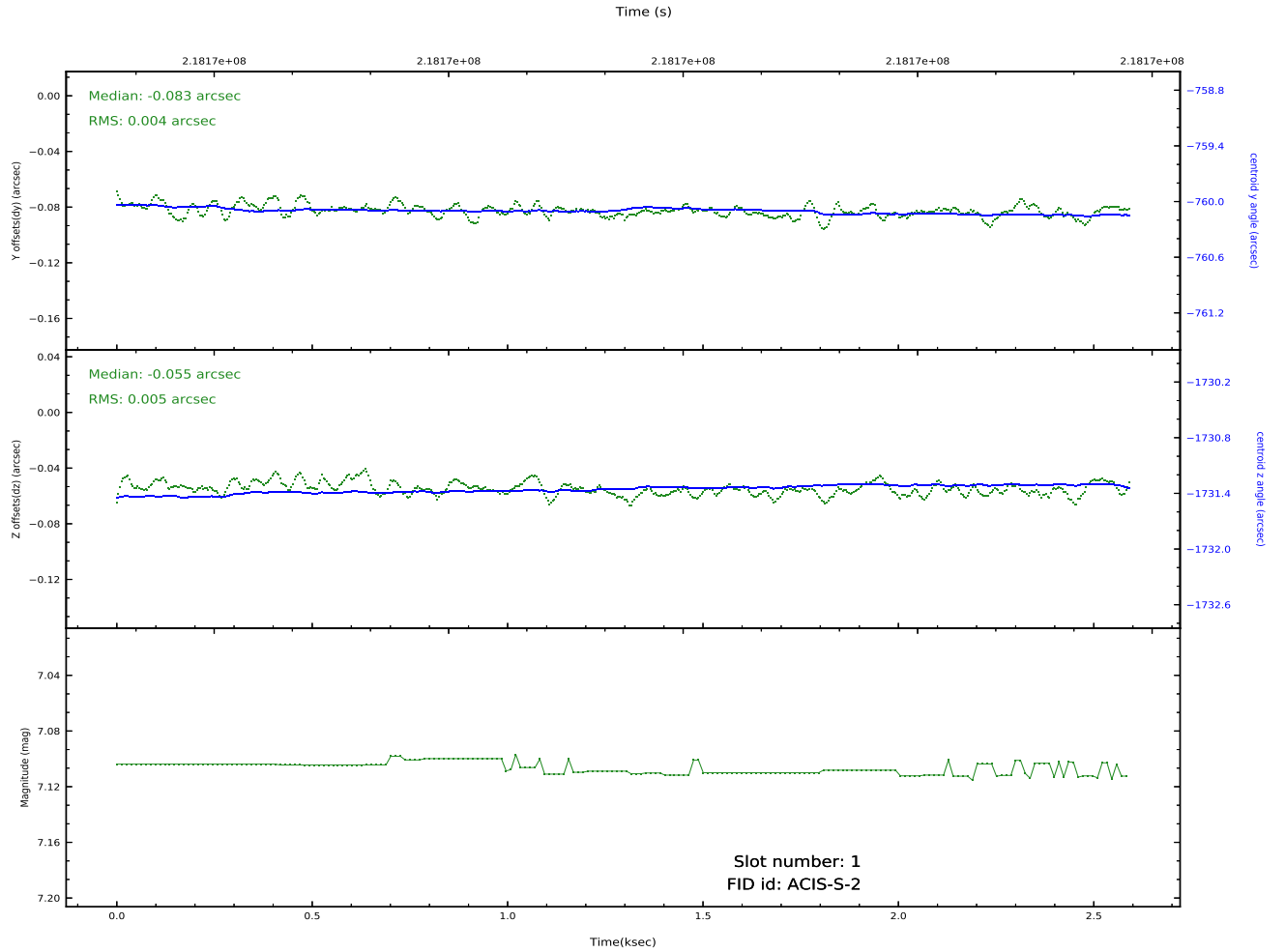
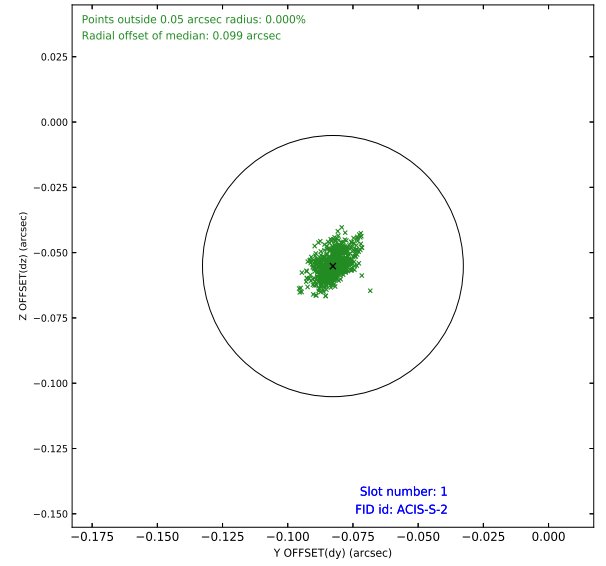
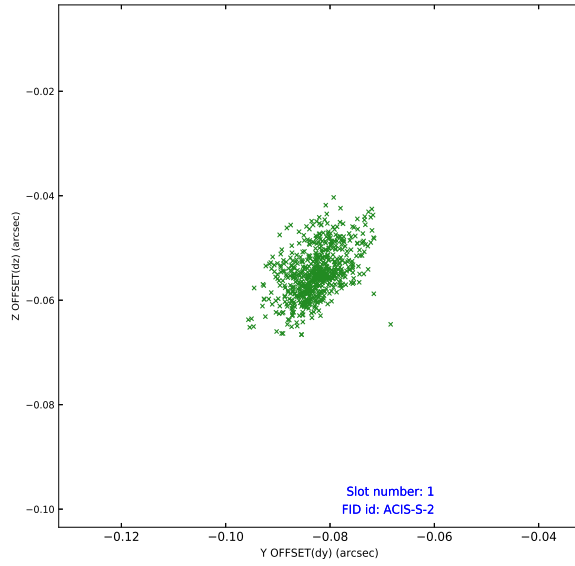


## 2.5 FID Slots

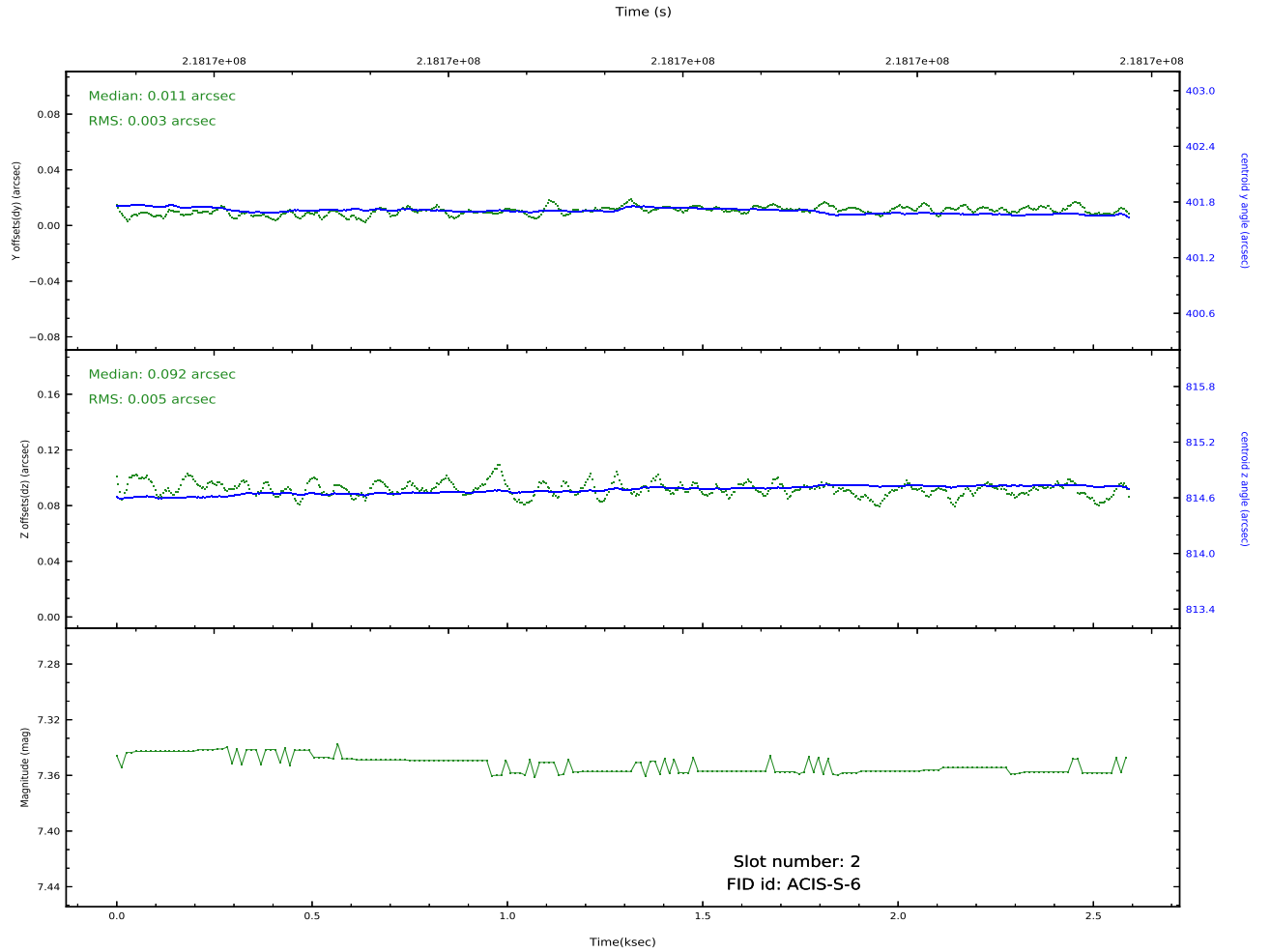
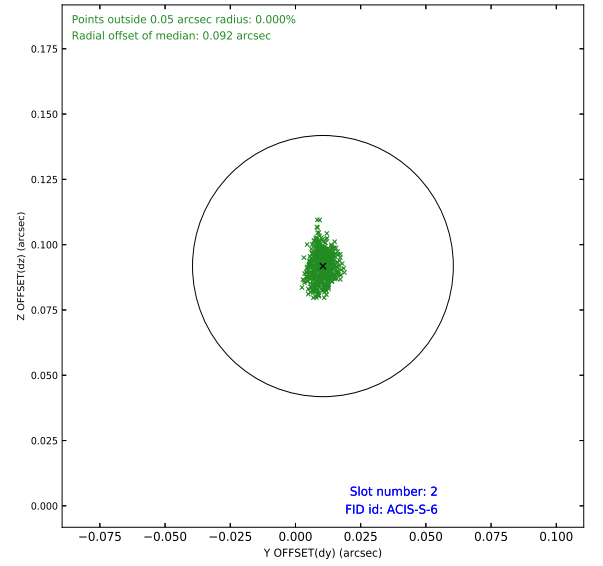
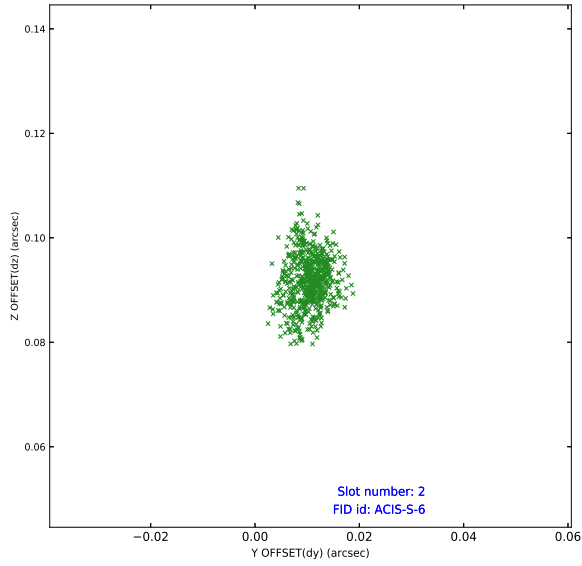
### 2.5.1 Slot 0



## 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)	2020.10.05
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	2.588799

### A.2 Comments