

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 5941 - L2 Version 4  
Chandra X-Ray Center

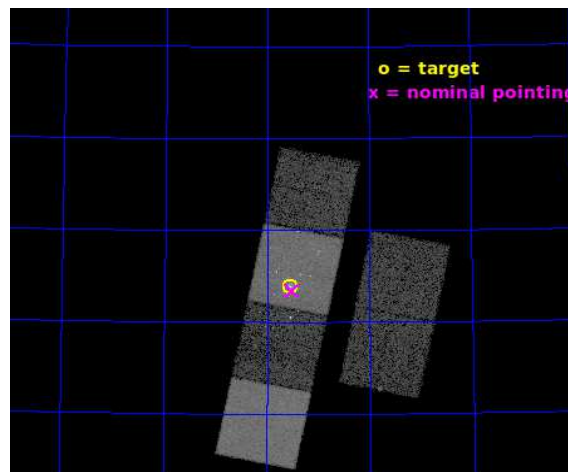
L2 Processing Date : Oct 8 2020

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# 1 Front

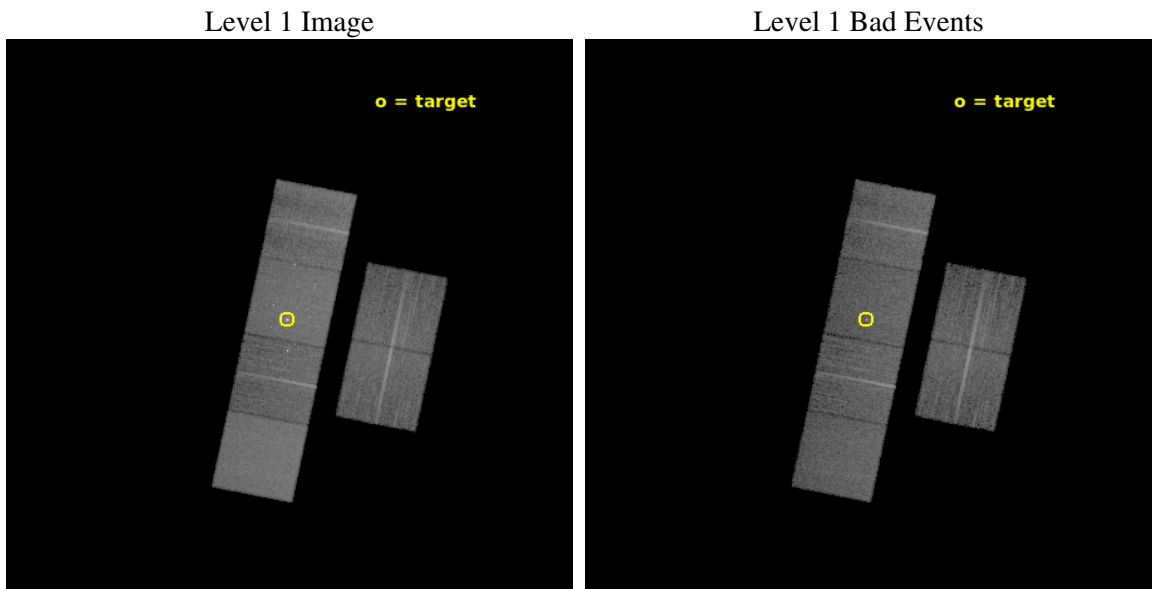
seq_num	600460	Sequence number
obs_id	5941	Observation id
title	An Unprecedented View of a Galaxy's Dynamic X-ray Source Population	&#160
observer	David Pooley	Principal investigator
object	M81	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	148.888333	Observer's specified target RA [deg]
dec_targ	69.065306	Observer's specified target Dec [deg]
ra_nom	148.87896131365	Nominal RA [deg]
dec_nom	69.05717613556	Nominal Dec [deg]
roll_nom	281.45441134089	Nominal Roll [deg]
revision	4	Processing version of data
ontime	11958.122458339	Sum of GTIs [s]
livetime	11806.701511454	Livetime [s]
ontime2	11958.163498342	Sum of GTIs [s]
ontime3	11957.999338329	Sum of GTIs [s]
ontime5	11958.081418335	Sum of GTIs [s]
ontime6	11958.040378332	Sum of GTIs [s]
ontime7	11958.122458339	Sum of GTIs [s]
ontime8	11957.958298355	Sum of GTIs [s]
l2events	158608	Number of level 2 events



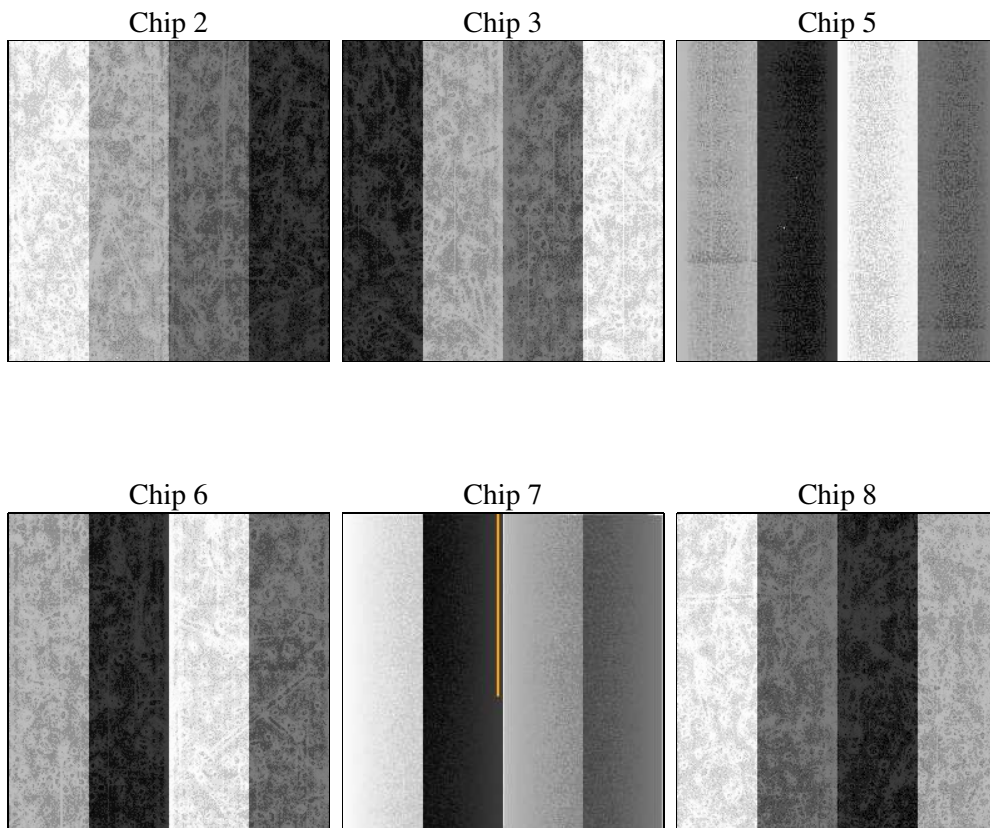
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	12000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	11958.122458339	Sum of GTIs [s]
caldsver	4.9.2	&#160	ontime2	11958.163498342	Sum of GTIs [s]
date	2020-10-08T19:27:48	Date and time of file creation	ontime3	11957.999338329	Sum of GTIs [s]
revision	4	Processing version of data	ontime5	11958.081418335	Sum of GTIs [s]
			ontime6	11958.040378332	Sum of GTIs [s]
			ontime7	11958.122458339	Sum of GTIs [s]
			ontime8	11957.958298355	Sum of GTIs [s]
			l1events	666990	Number of level 1 events

### 2.1.4 Events

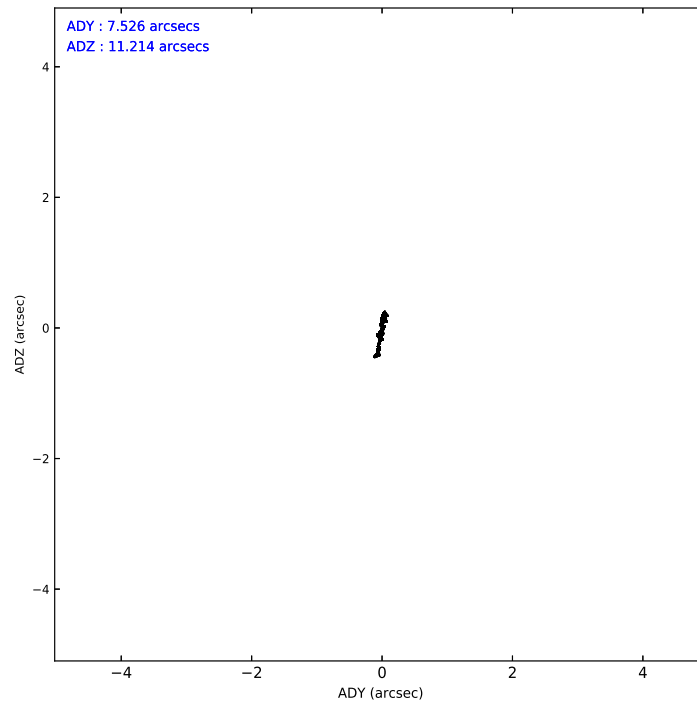
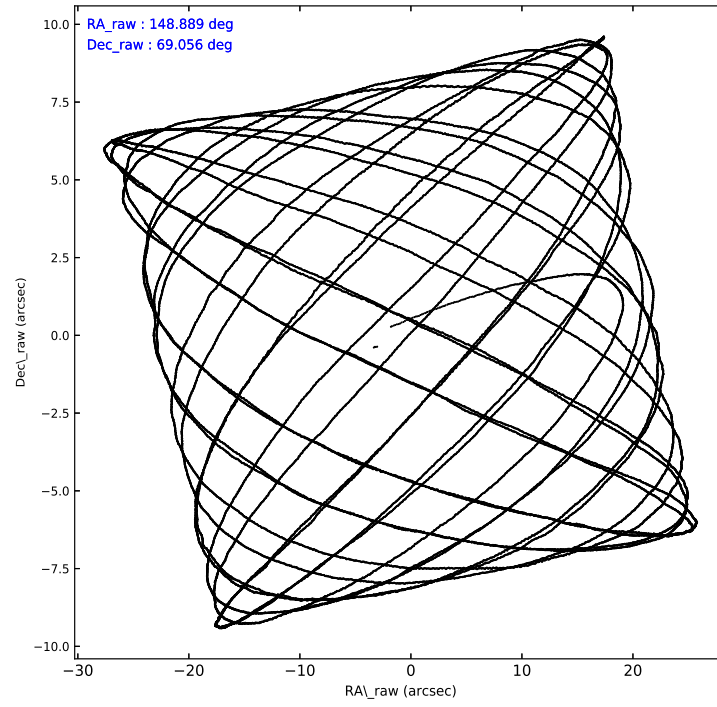
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	93988	88590	135900	94623	137063	116826	grade 0 events	5064	4699	3369	5874	7003	7714
rejected events	82559	77915	75934	81536	76485	91455		5%	5%	2%	6%	5%	6%
rejected %	87%	87%	55%	86%	55%	78%	grade 1 events	45	67	178	86	199	86
								0%	0%	0%	0%	0%	0%
							grade 2 events	2328	2057	18349	2609	12545	5764
								2%	2%	13%	2%	9%	4%
							grade 3 events	1115	1014	2333	1156	5407	2644
								1%	1%	1%	1%	3%	2%
							grade 4 events	1028	1007	2144	1121	5399	2434
								1%	1%	1%	1%	3%	2%
							grade 5 events	3780	4107	9601	4333	12638	5625
								4%	4%	7%	4%	9%	4%
							grade 6 events	1896	1901	33791	2329	30235	6843
								2%	2%	24%	2%	22%	5%
							grade 7 events	78732	73738	66135	77115	63637	85716
								83%	83%	48%	81%	46%	73%

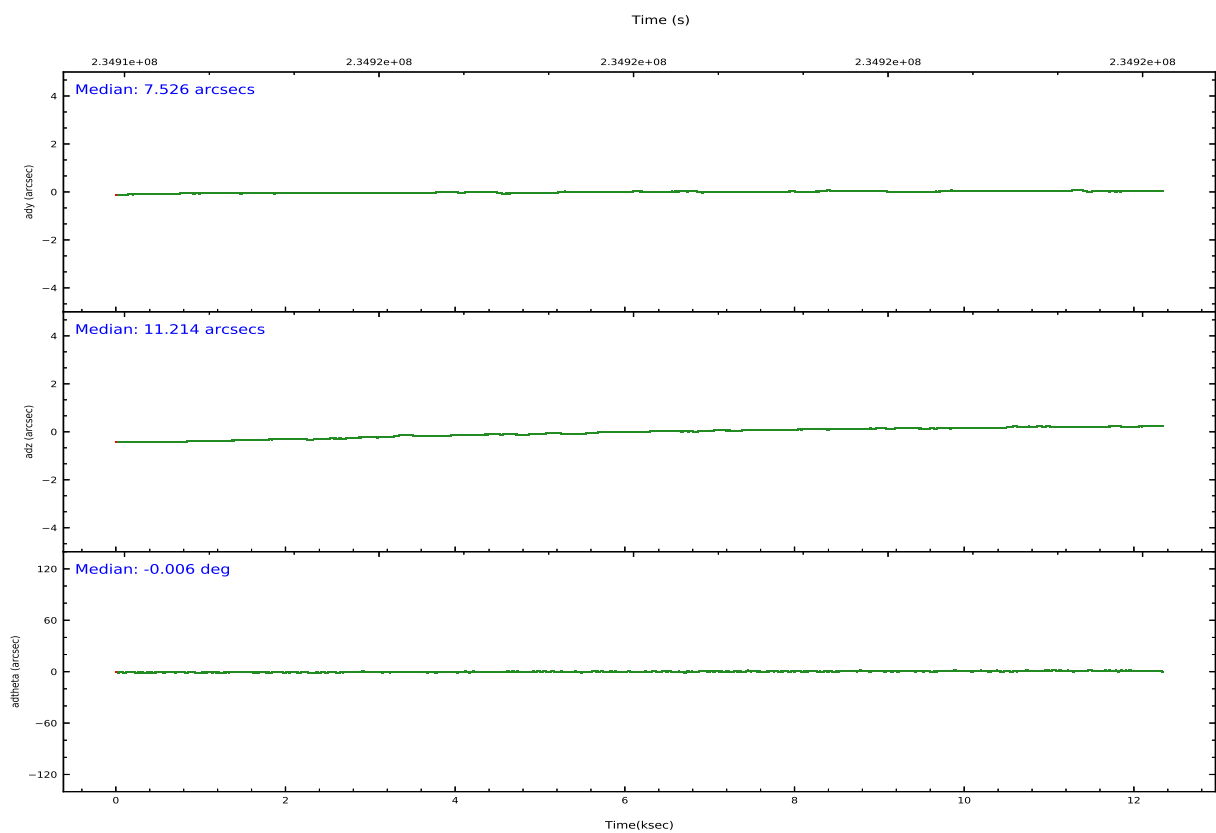
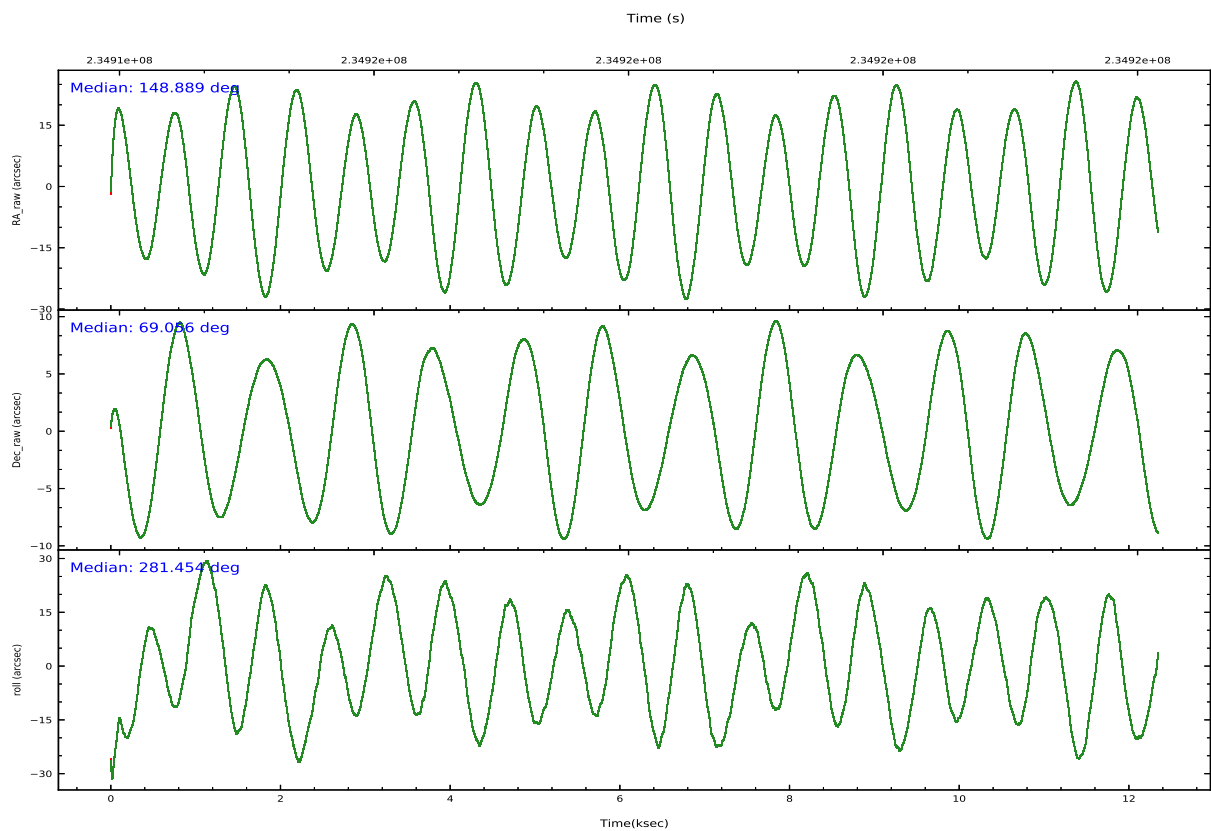


## 2.2 Compared Parameters

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	148.837728	148.87896131365	Subarray requested	NONE	NONE
[deg] Pointing Dec	69.075789	69.05717613556	Alternating exposures requested	N	N
[deg] Pointing Roll	281.342023	281.45441134089	[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)	234913243.184000	234912194.68406			
Observation start date	2005-06-11T21:39:39	2005-06-11T21:23:14			
[s] Observation end time (MET)	234925243.184000	234926691.77223			
Observation end date	2005-06-12T00:59:39	2005-06-12T01:24:51			
Read mode	TIMED	TIMED			

## 2.3 Aspect



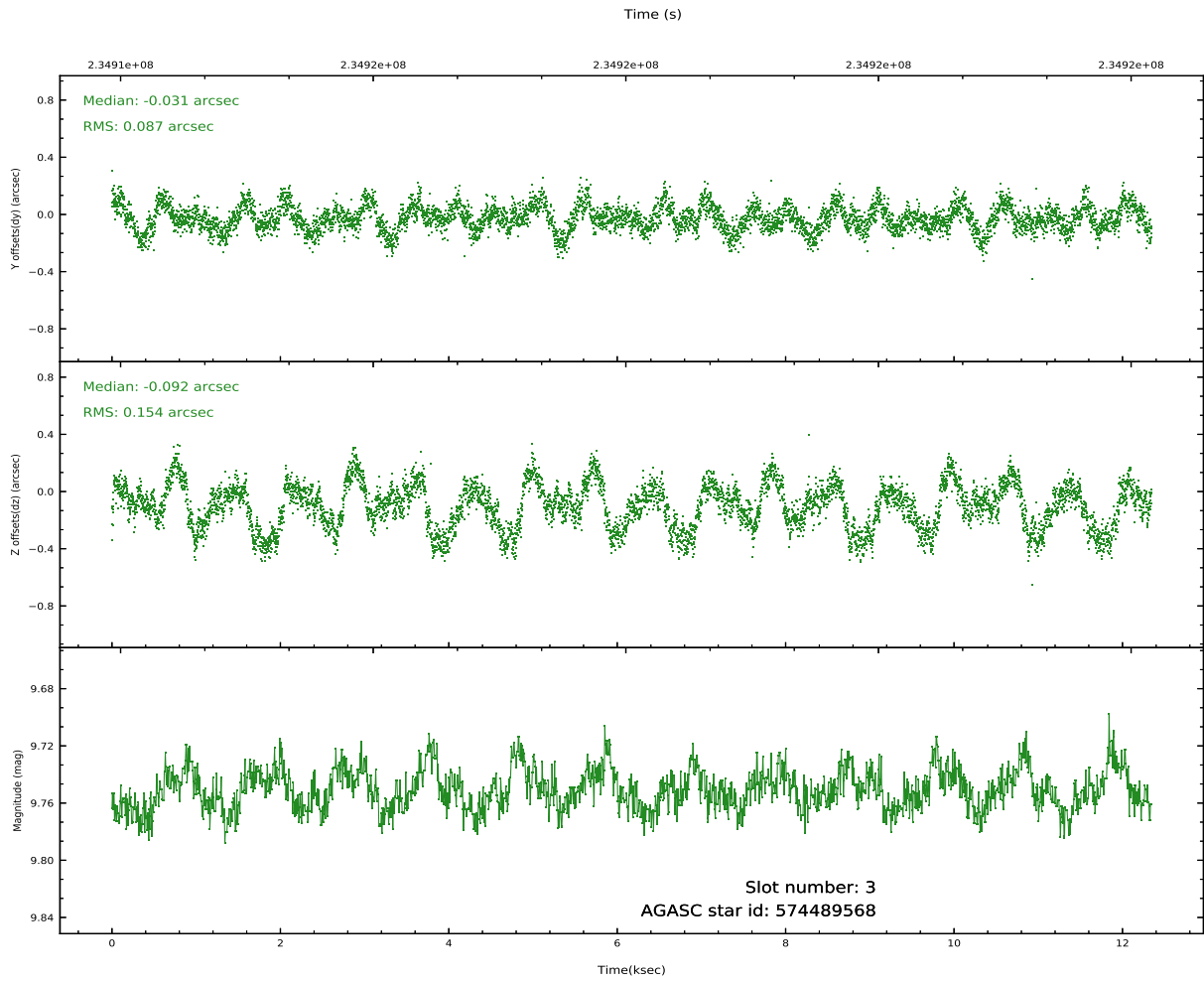
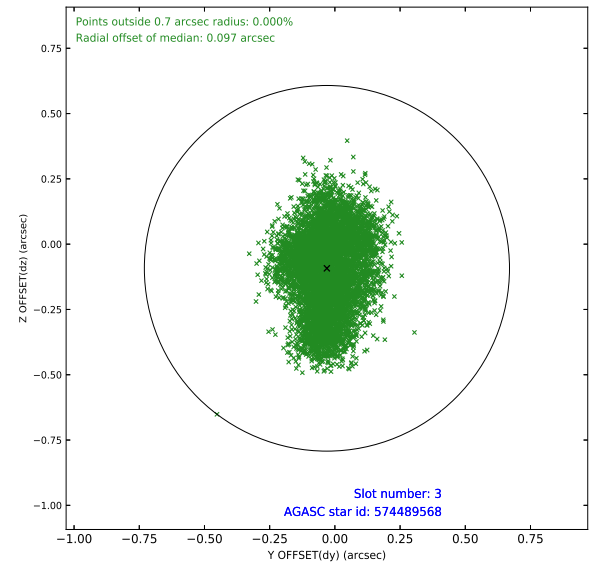
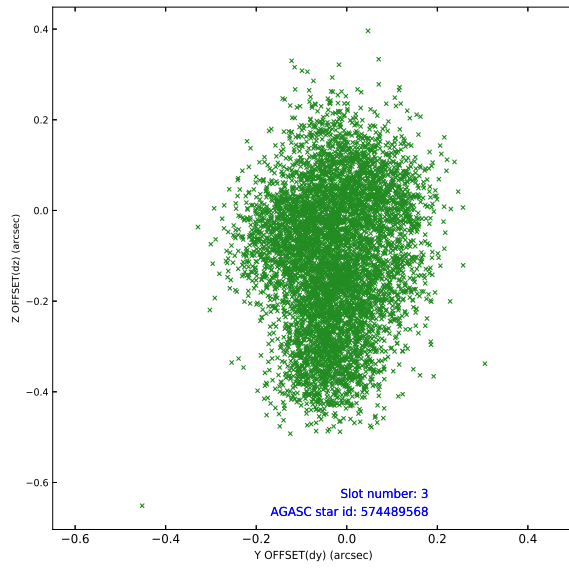


Slot Statistics

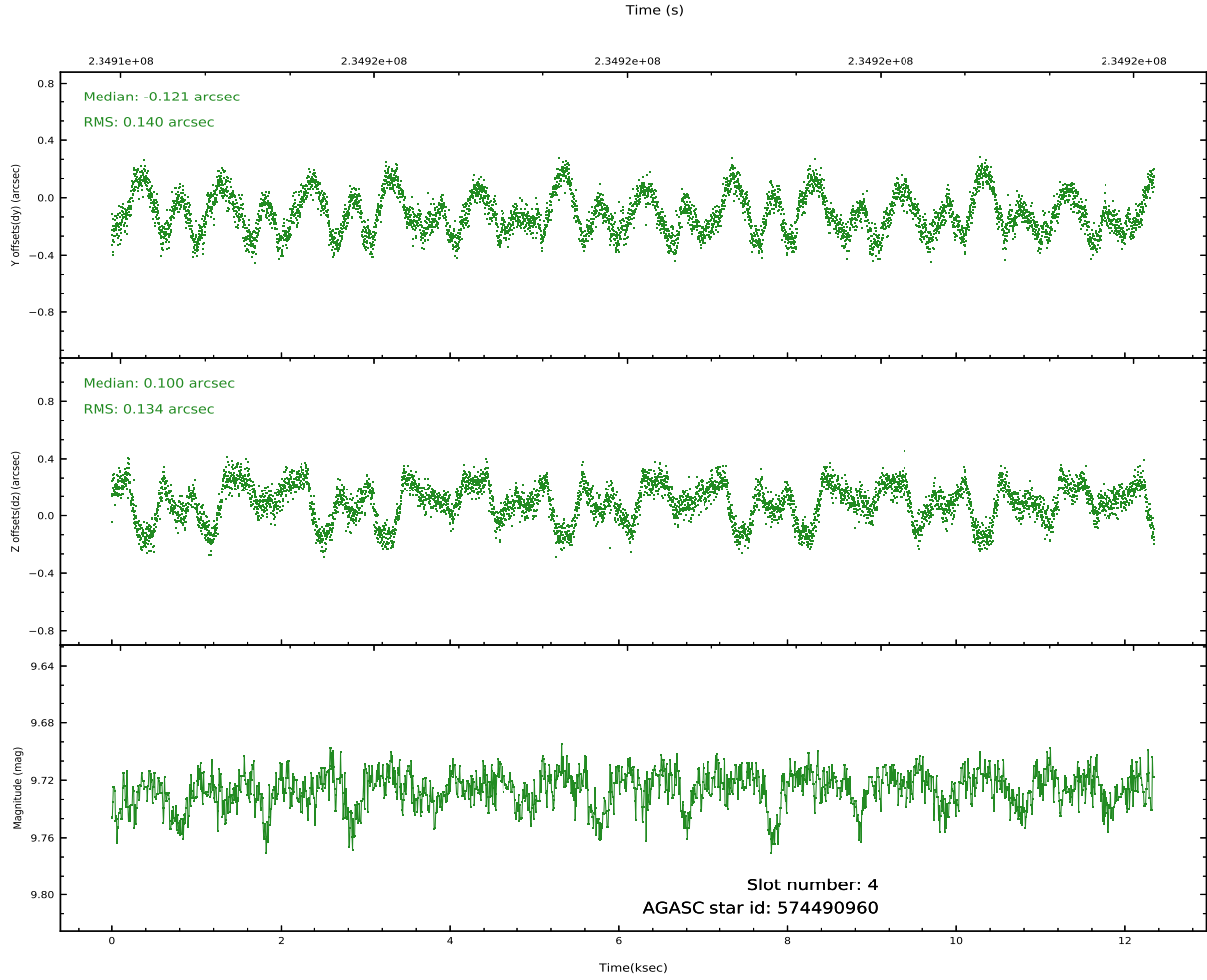
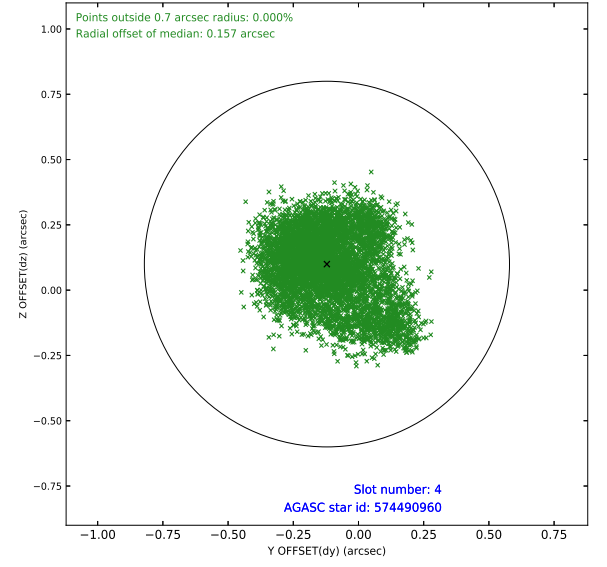
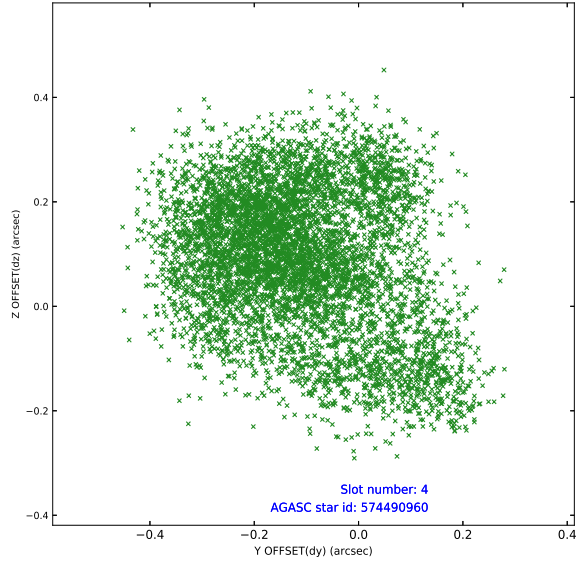
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.09	3012	1.000	-0.064	-0.048	0.008	0.013	0.000000	0.000000	-760.29	-1732
1	FID		ACIS-S-4	7.20	3012	1.000	0.140	0.044	0.006	0.010	0.000000	0.000000	2152.95	175
2	FID		ACIS-S-5	7.23	3011	1.000	-0.107	0.013	0.007	0.012	0.000000	0.000000	-1812.72	169
3	GUIDE	used	574489568	9.75	6019	1.000	-0.031	-0.092	0.191	0.299	147.223974	69.438157	-1706.27	-1738
4	GUIDE	used	574490960	9.73	6017	1.000	-0.121	0.100	0.209	0.336	148.185918	69.658768	-2222.30	-386
5	GUIDE	used	574491712	9.93	6015	1.000	-0.134	-0.081	0.117	0.190	147.262590	69.570889	-2161.72	-1584
6	GUIDE	used	574497600	10.47	5907	1.000	0.117	-0.108	0.184	0.294	147.824120	68.451903	1927.86	-1754
7	GUIDE	used	574496360	9.47	6017	1.000	0.157	0.198	0.119	0.182	150.806604	68.529829	2397.25	2165

## 2.4 Star Slots

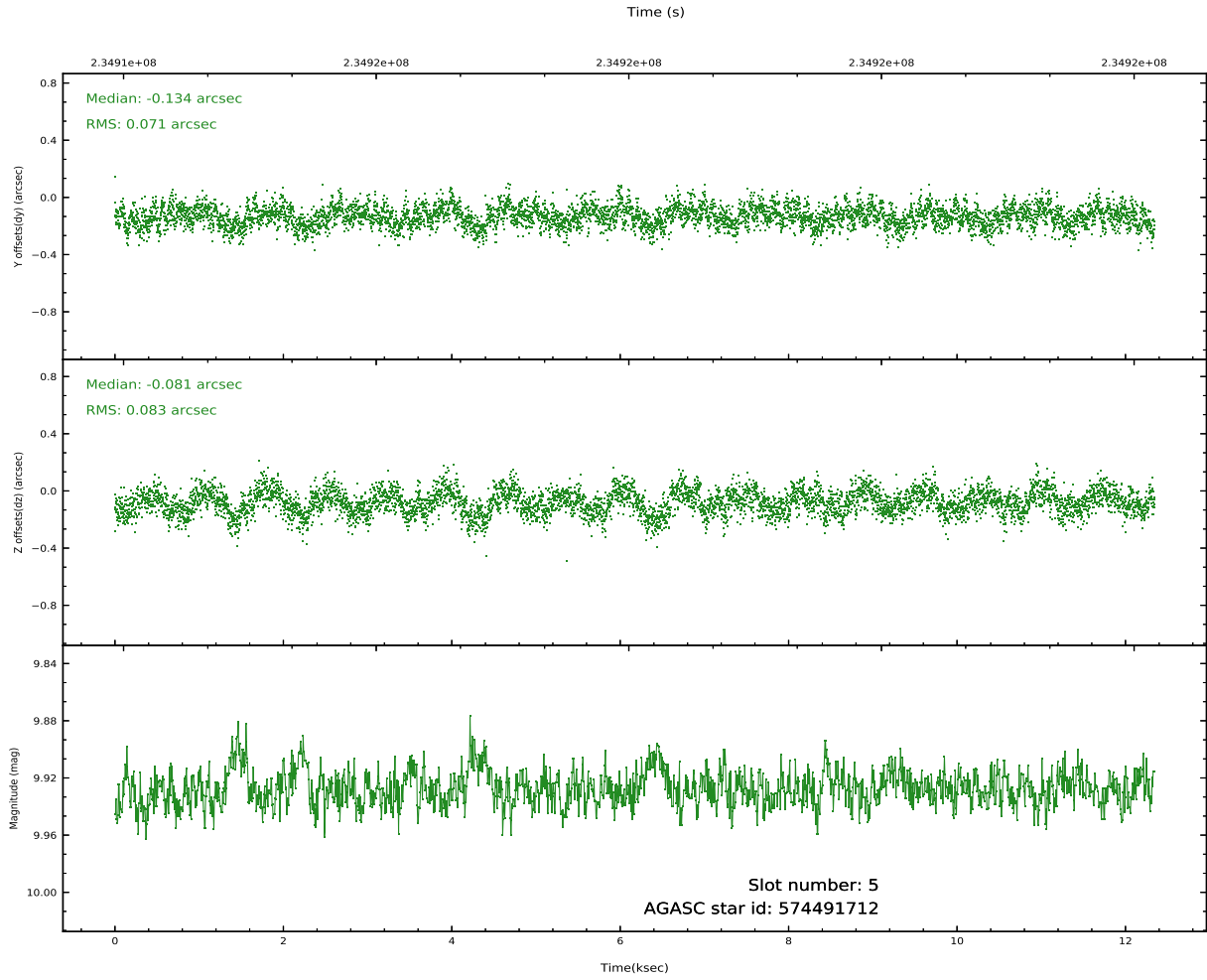
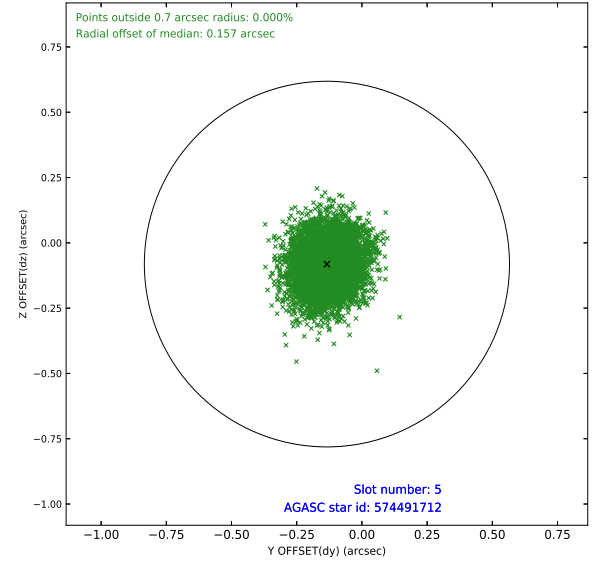
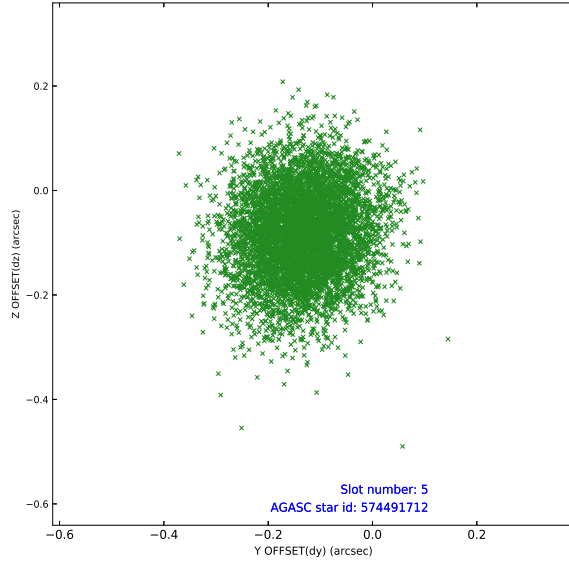
### 2.4.1 Slot 3



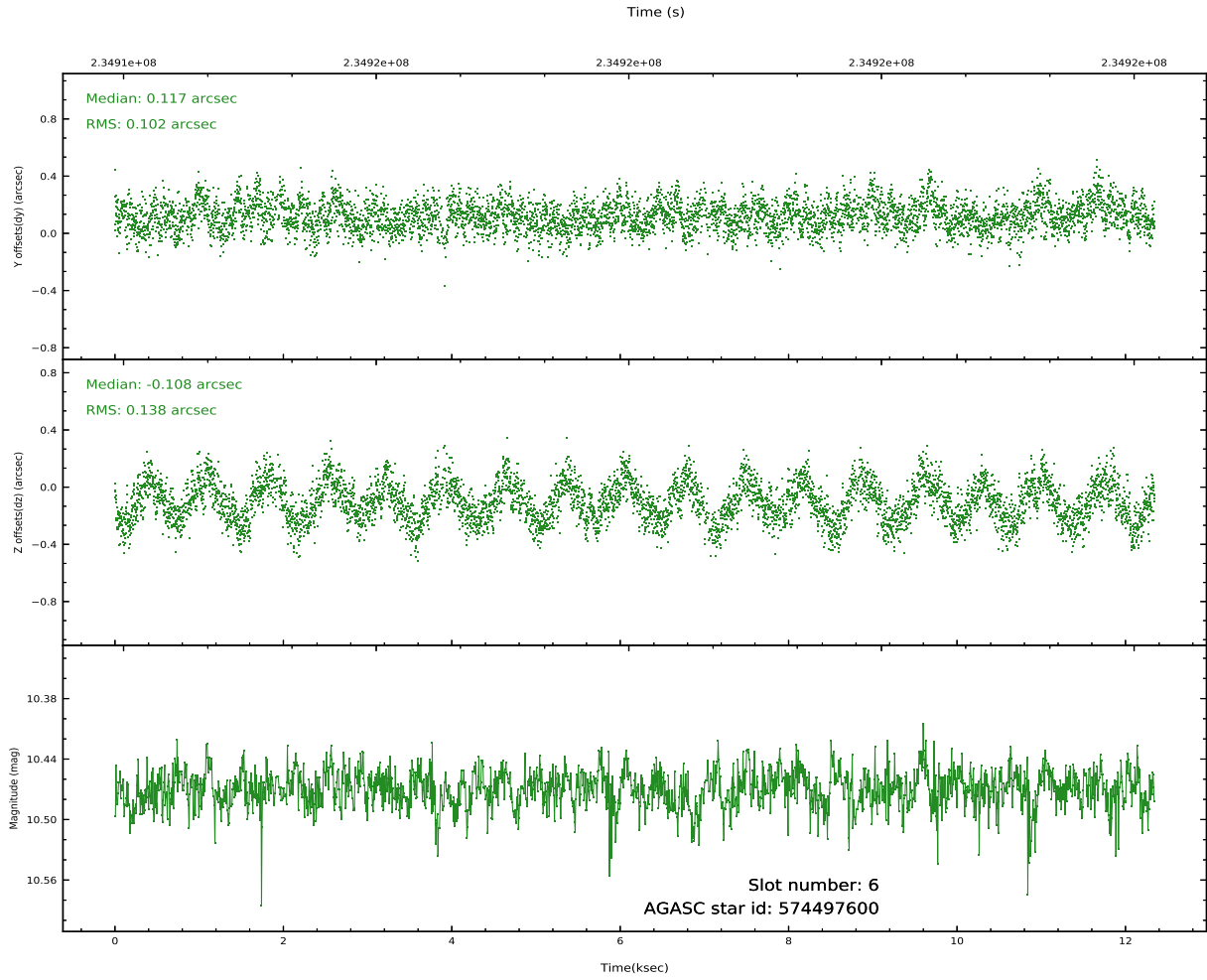
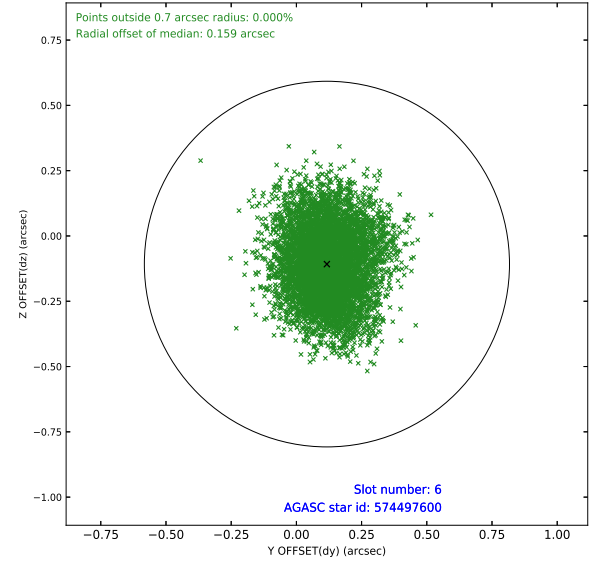
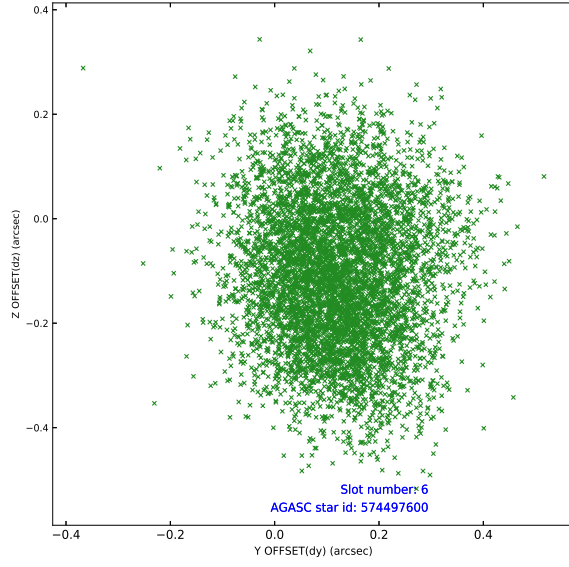
## 2.4.2 Slot 4



### 2.4.3 Slot 5

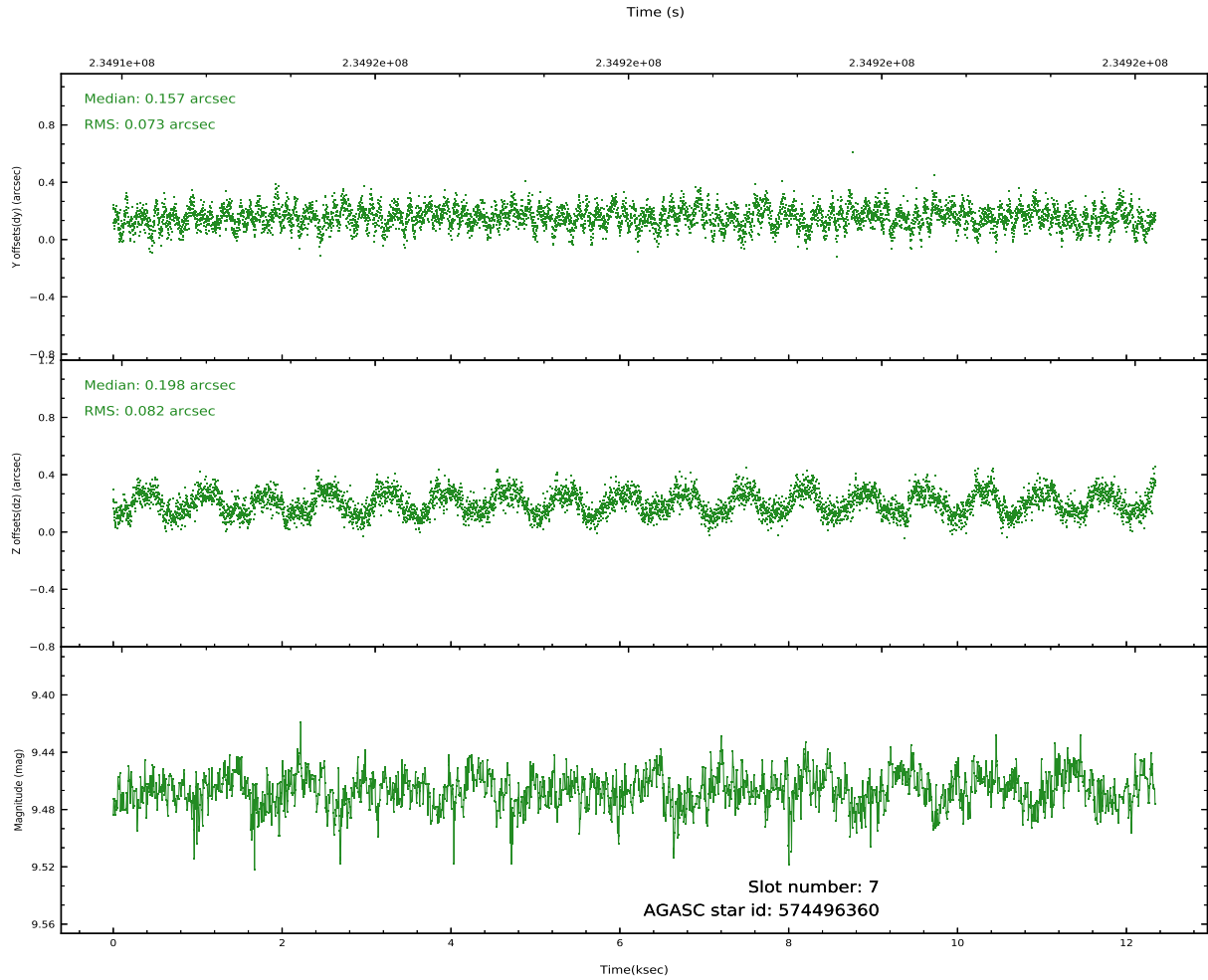
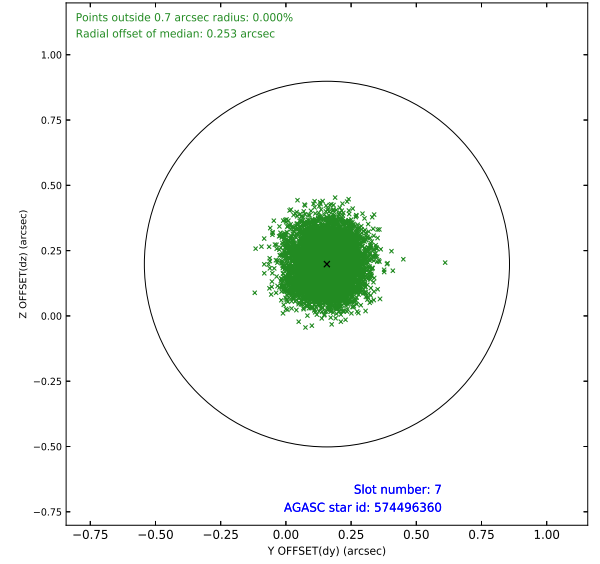
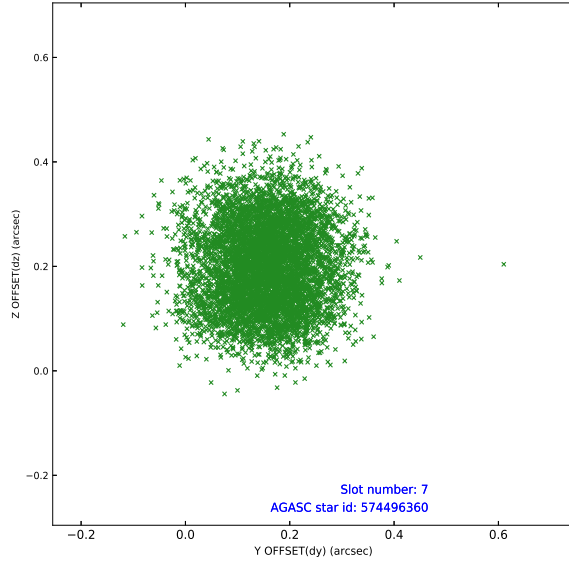


## 2.4.4 Slot 6



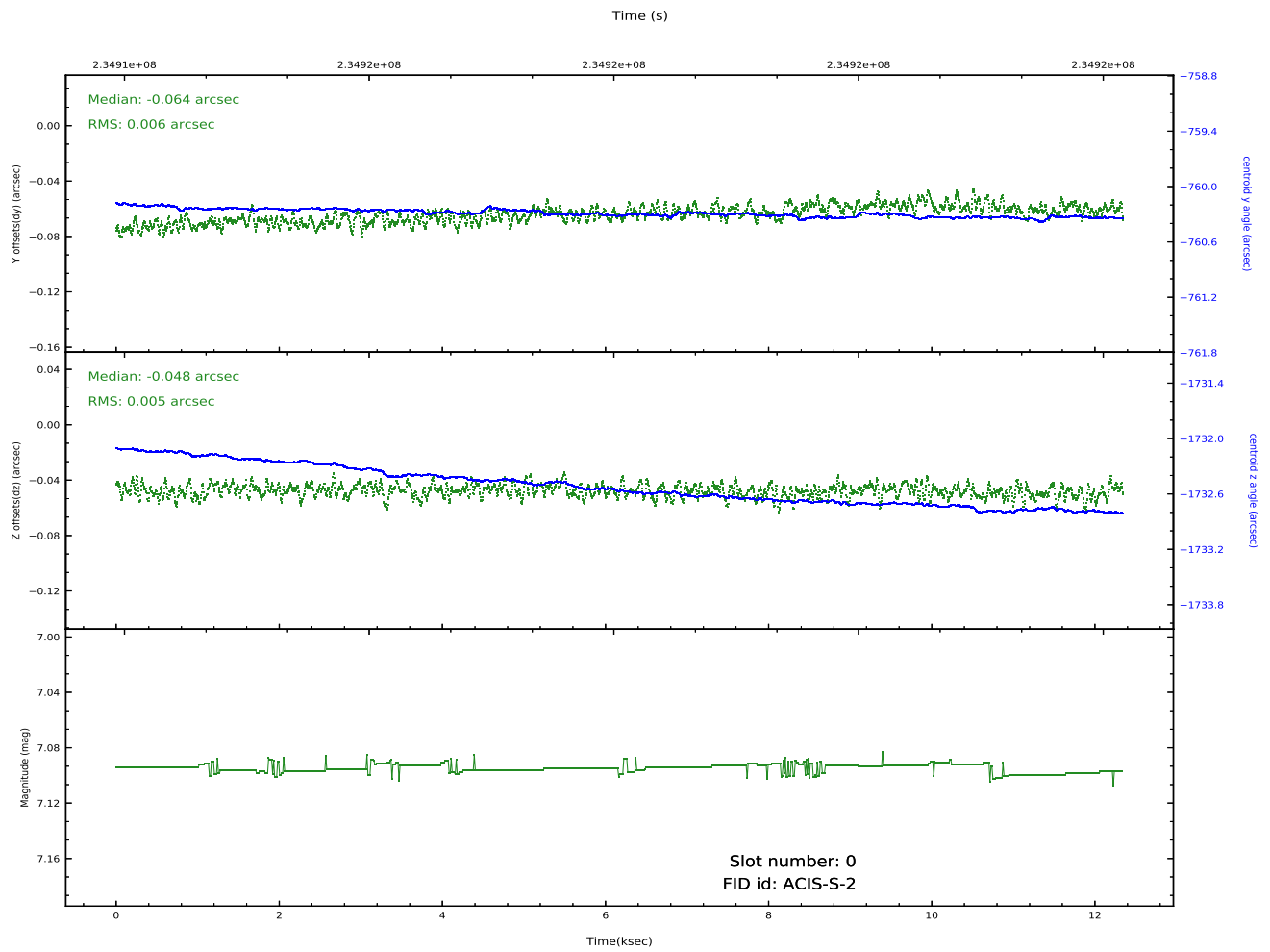
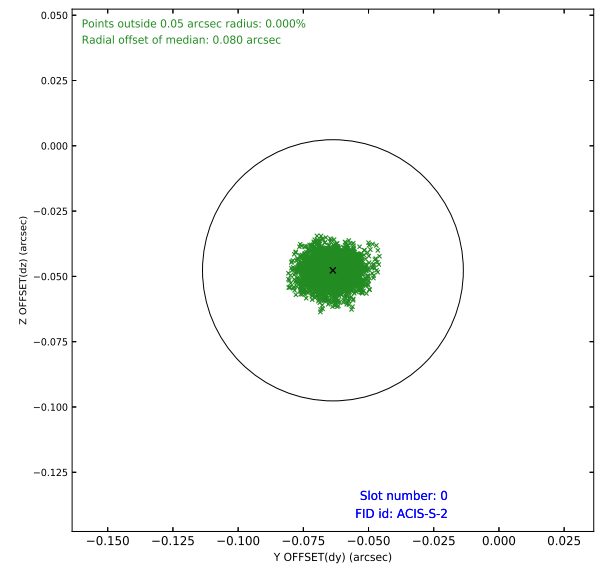
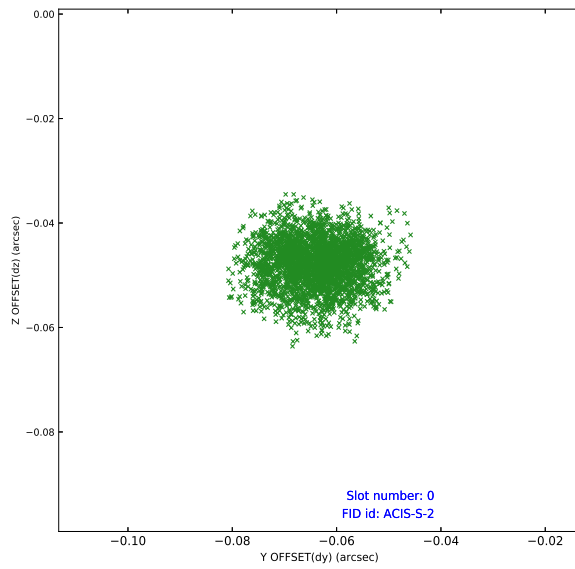


## 2.4.5 Slot 7

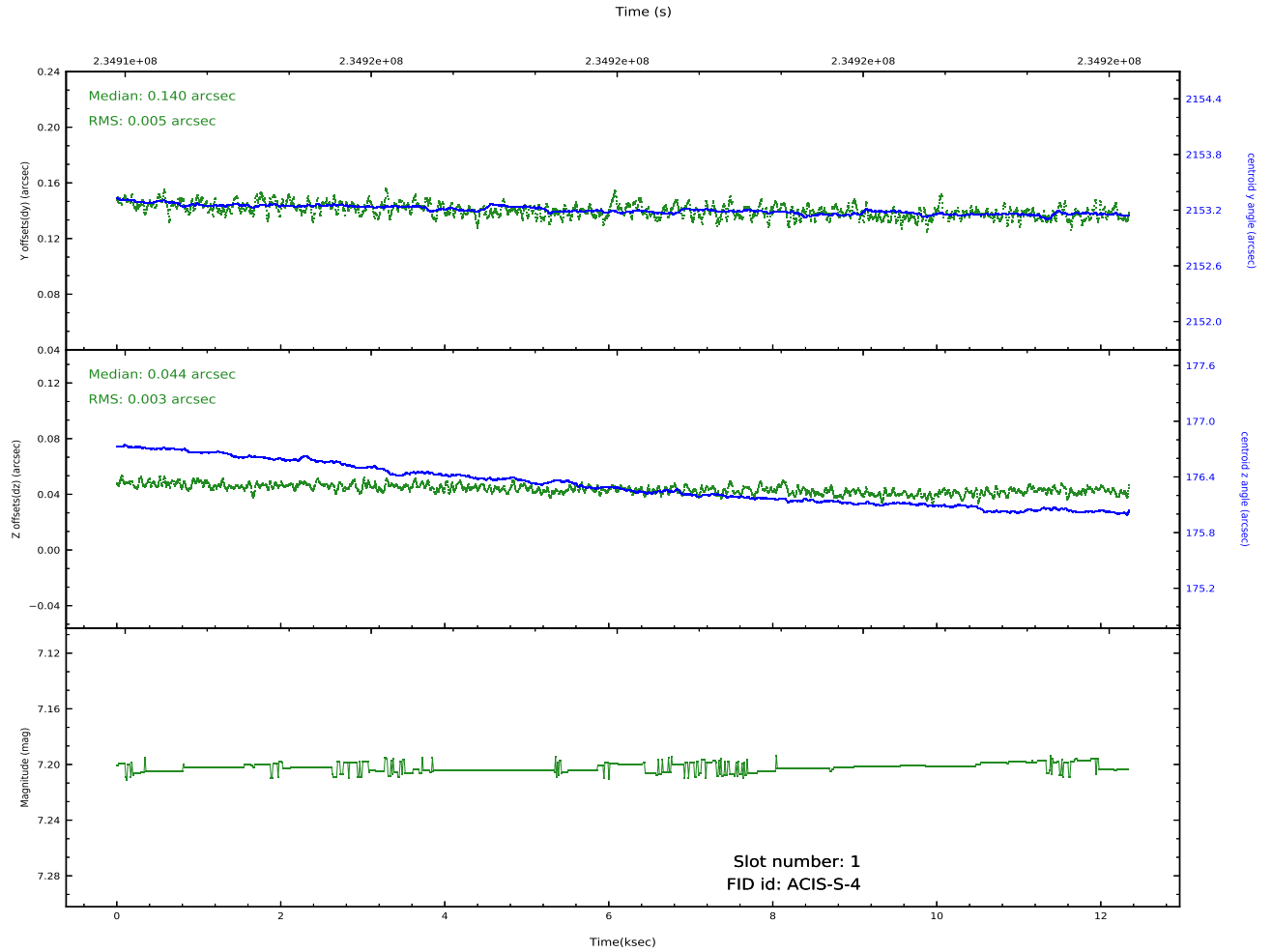
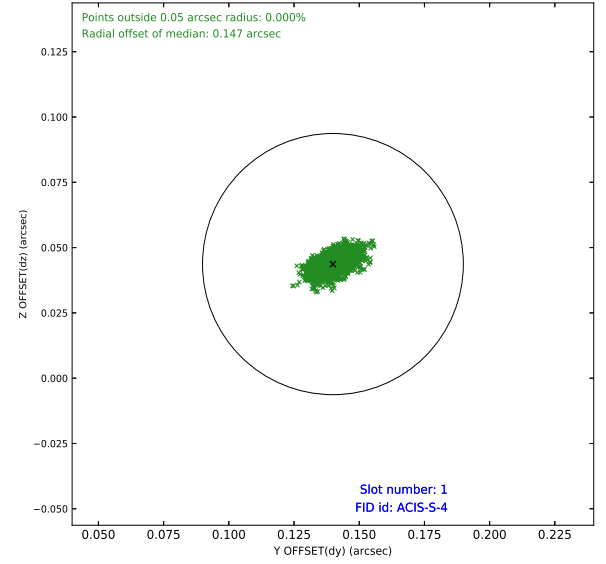
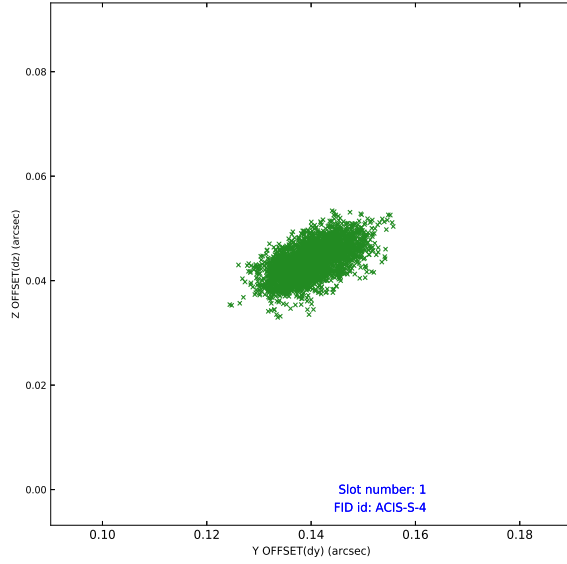


## 2.5 FID Slots

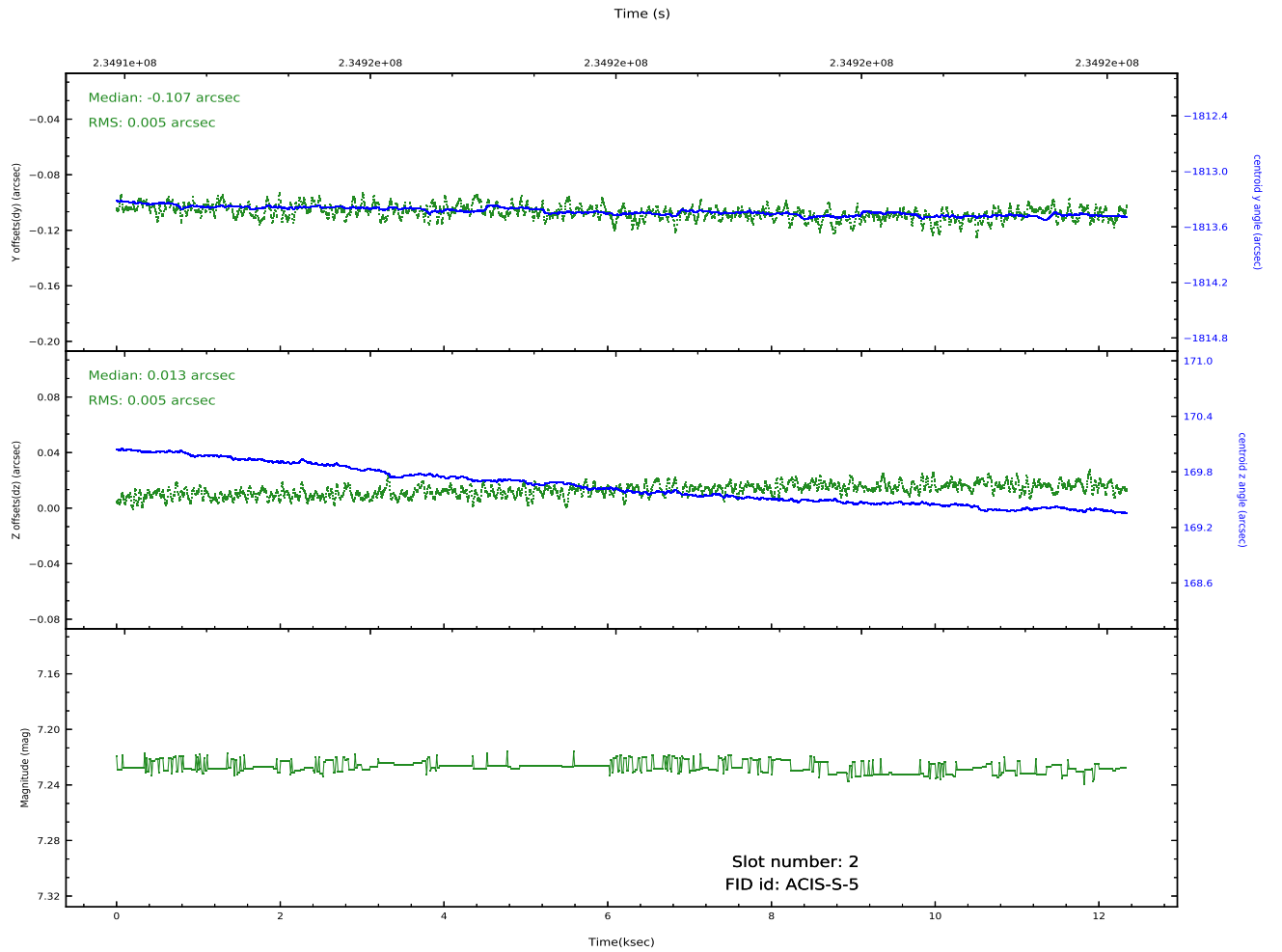
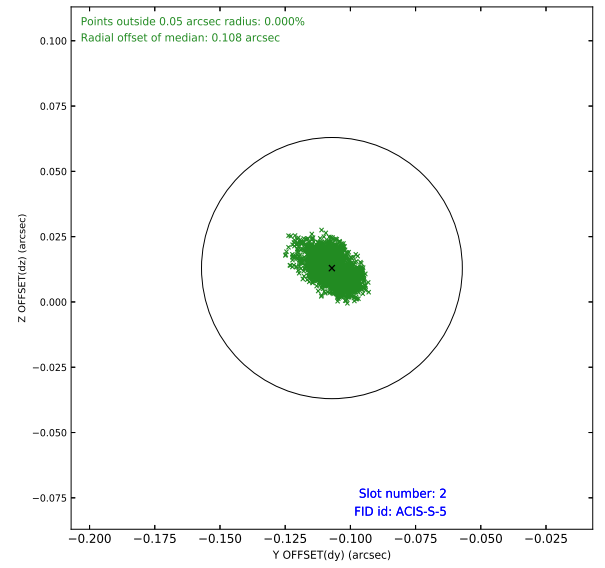
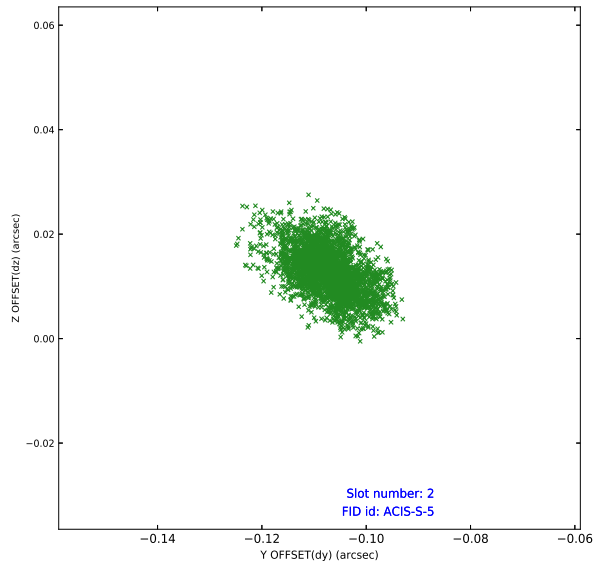
### 2.5.1 Slot 0



## 2.5.2 Slot 1



## 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2020.10.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	11.95839

### A.2 Comments