

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 6070 - L2 Version 4  
Chandra X-Ray Center

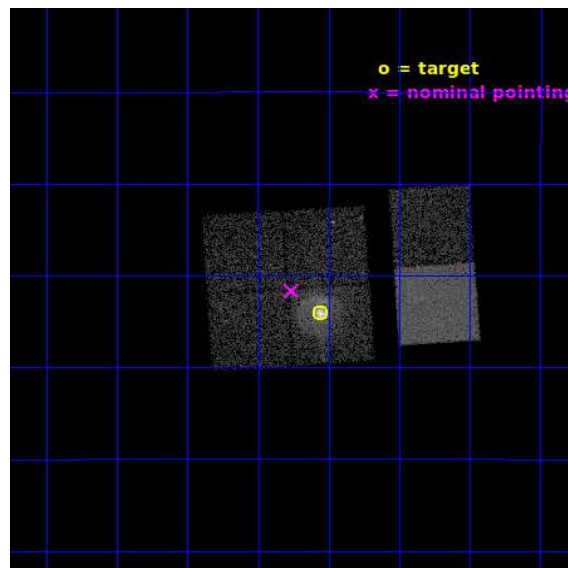
L2 Processing Date : Oct 6 2020

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# 1 Front

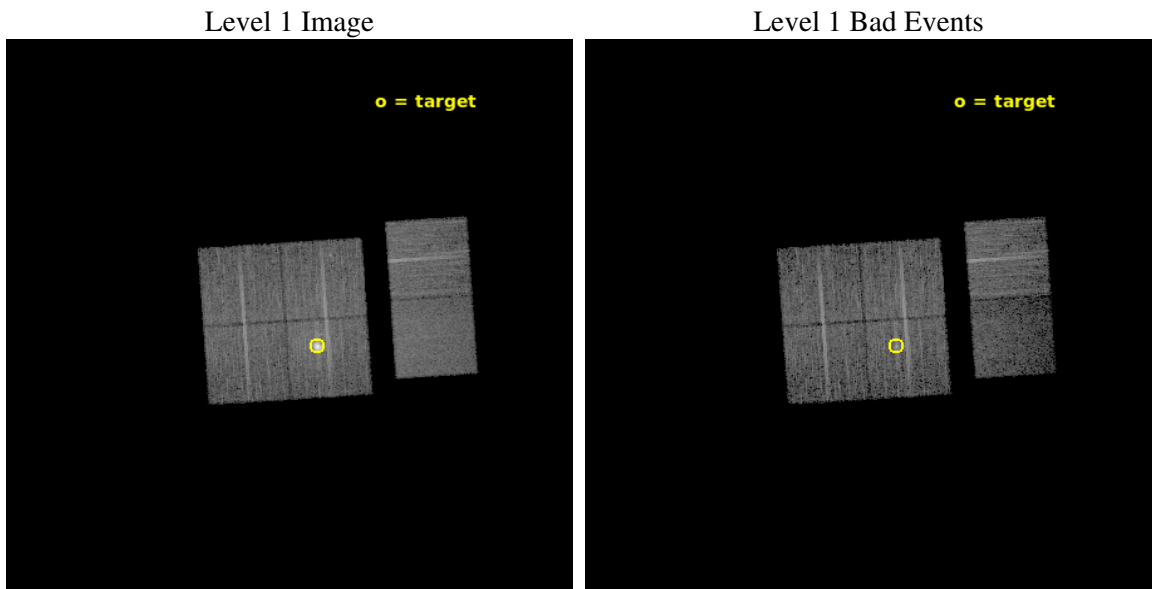
seq_num	590397	Sequence number
obs_id	6070	Observation id
title	AO6A Observations of the Standard Candles Cas A and G21.5-09	Propo
observer	CXC Calibration	Principal investigator
object	SNR G21.5-0.9	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	278.389583	Observer's specified target RA [deg]
dec_targ	-10.568528	Observer's specified target Dec [deg]
ra_nom	278.43997329656	Nominal RA [deg]
dec_nom	-10.527503131076	Nominal Dec [deg]
roll_nom	86.178264824879	Nominal Roll [deg]
revision	4	Processing version of data
ontime	9555.1999644041	Sum of GTIs [s]
livetime	9434.2062690041	Livetime [s]
ontime0	9555.0880309343	Sum of GTIs [s]
ontime1	9555.1290709078	Sum of GTIs [s]
ontime2	9555.1701109111	Sum of GTIs [s]
ontime3	9555.1999644041	Sum of GTIs [s]
ontime6	9555.1999644041	Sum of GTIs [s]
ontime7	9555.1999644041	Sum of GTIs [s]
l2events	77149	Number of level 2 events



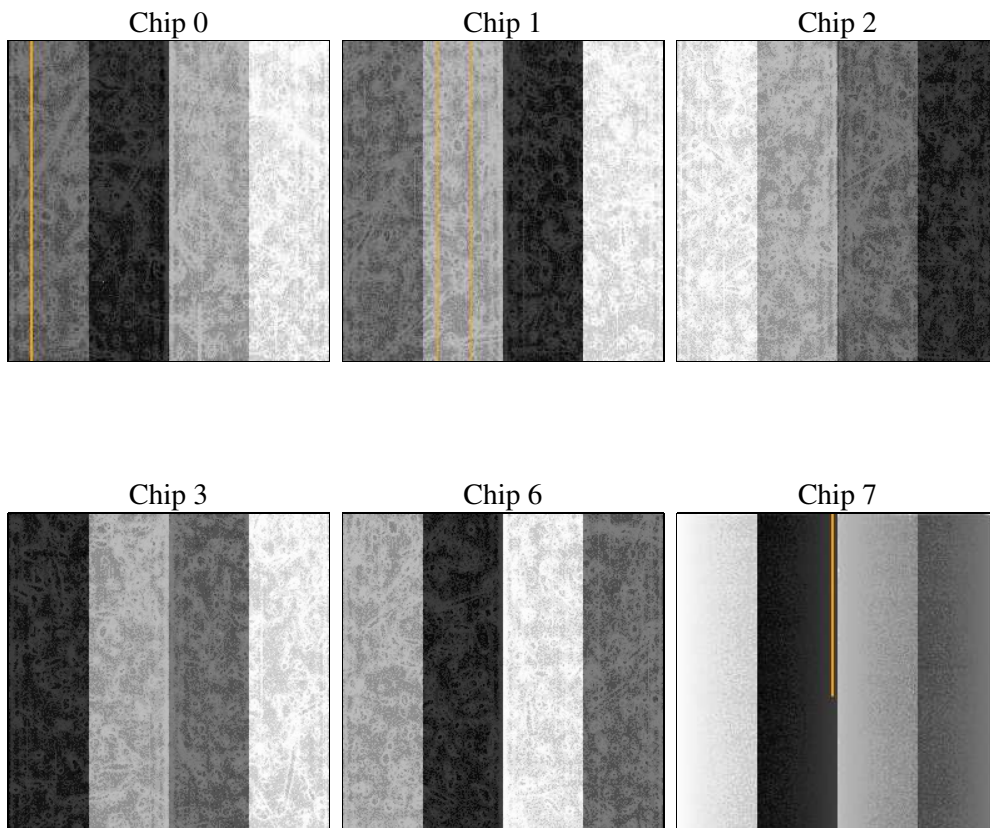
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	9800.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	9555.1999644041	Sum of GTIs [s]
caldsver	4.9.2	&#160	ontime0	9555.0880309343	Sum of GTIs [s]
date	2020-10-06T22:43:30	Date and time of file creation	ontime1	9555.1290709078	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	9555.1701109111	Sum of GTIs [s]
			ontime3	9555.1999644041	Sum of GTIs [s]
			ontime6	9555.1999644041	Sum of GTIs [s]
			ontime7	9555.1999644041	Sum of GTIs [s]
			l1events	360681	Number of level 1 events

### 2.1.4 Events

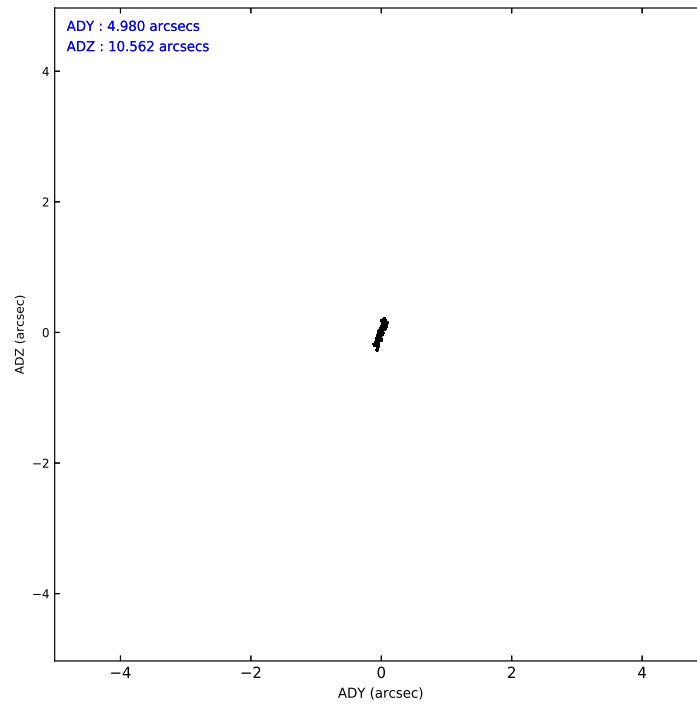
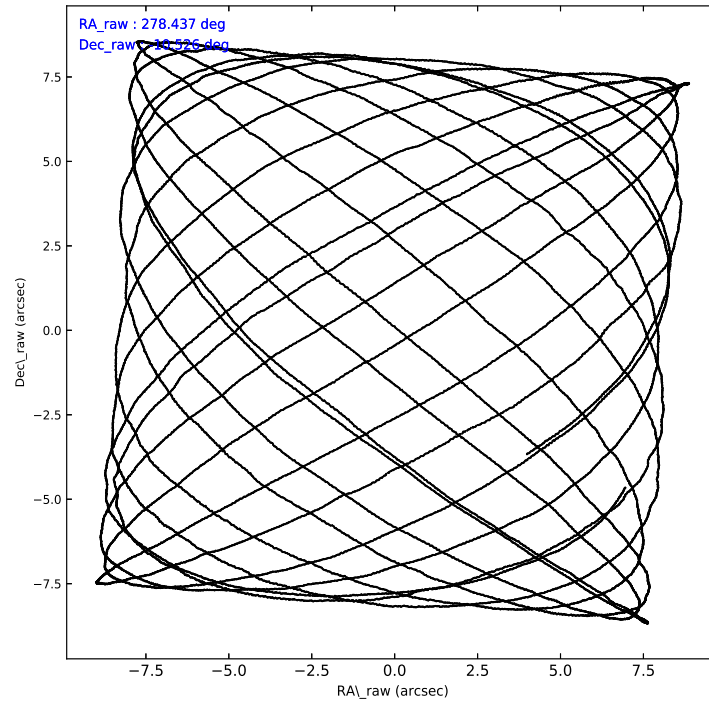
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	53397	51830	59576	84062	58479	53337	grade 0 events	2149	2258	2992	23343	2315	2568
rejected events	47611	45667	52935	49954	52475	27175		4%	4%	5%	27%	3%	4%
rejected %	89%	88%	88%	59%	89%	50%	grade 1 events	25	25	35	233	33	60
								0%	0%	0%	0%	0%	0%
							grade 2 events	1375	1339	1418	4815	1224	5678
								2%	2%	2%	5%	2%	10%
							grade 3 events	652	700	681	1851	657	2543
								1%	1%	1%	2%	1%	4%
							grade 4 events	532	682	586	1844	660	2524
								0%	1%	0%	2%	1%	4%
							grade 5 events	1757	1886	1608	2057	1897	5693
								3%	3%	2%	2%	3%	10%
							grade 6 events	1082	1185	970	2279	1149	12864
								2%	2%	1%	2%	1%	24%
							grade 7 events	45825	43755	51286	47640	50544	21407
								85%	84%	86%	56%	86%	40%

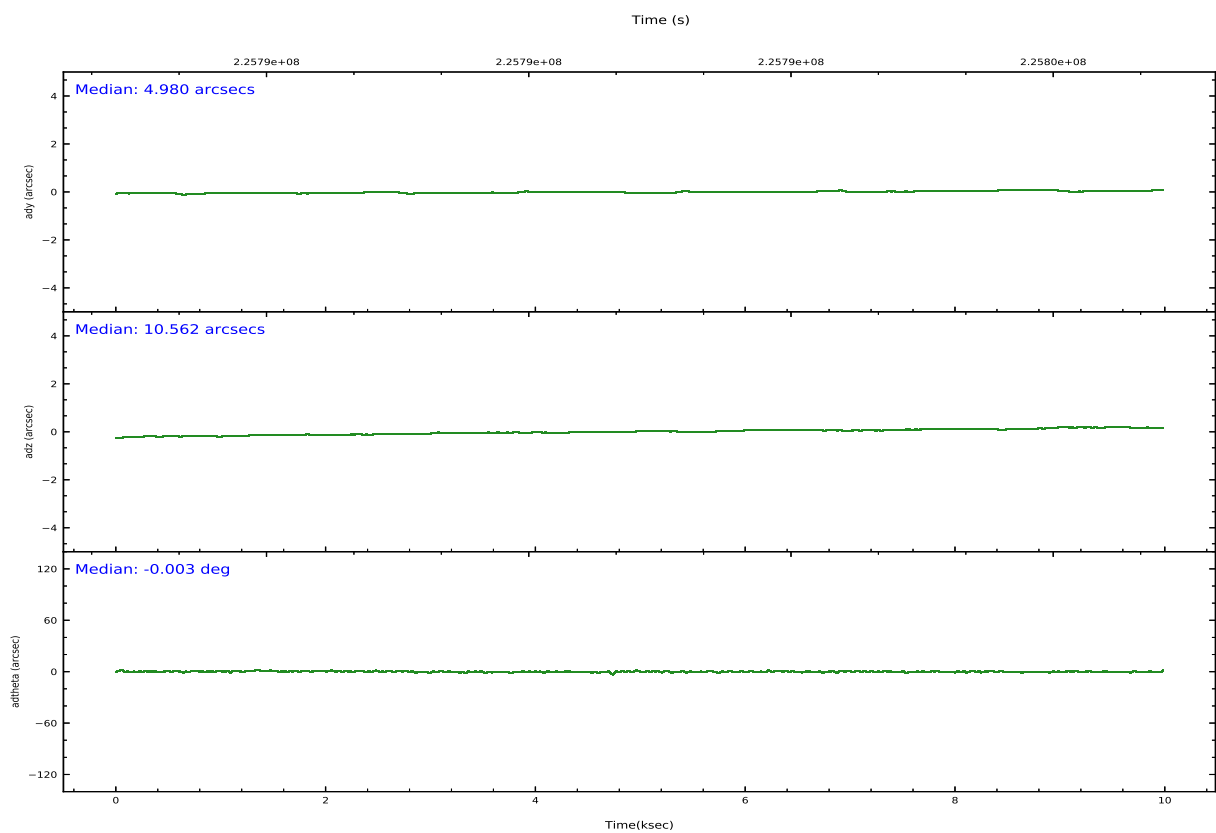
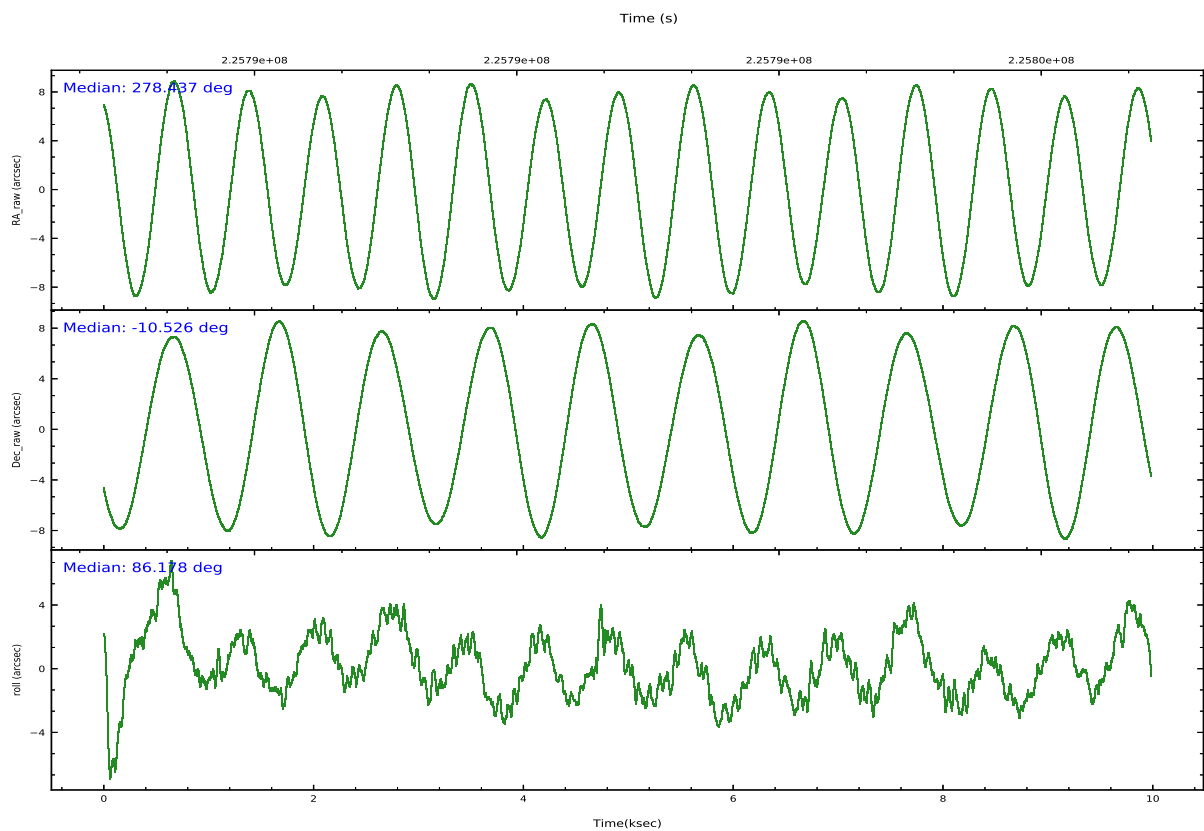


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-012367	ACIS-012367	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	278.449364	278.43997329656	Subarray requested	NONE	NONE
[deg] Pointing Dec	-10.550282	-10.527503131076	Alternating exposures requested	N	N
[deg] Pointing Roll	85.968234	86.17826482487899	[s] Primary exposure time	0.000000	3.2
[s] Window start time (MET)	225331264.184000	225331264.184000			
[s] Window stop time (MET)	228614464.184000	228614464.184000			
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	225786247.184000	225785871.0191			
Observation start date	2005-02-26T06:23:03	2005-02-26T06:17:51			
[s] Observation end time (MET)	225796047.184000	225796196.86957			
Observation end date	2005-02-26T09:06:23	2005-02-26T09:09:56			
Read mode	TIMED	TIMED			

## 2.3 Aspect



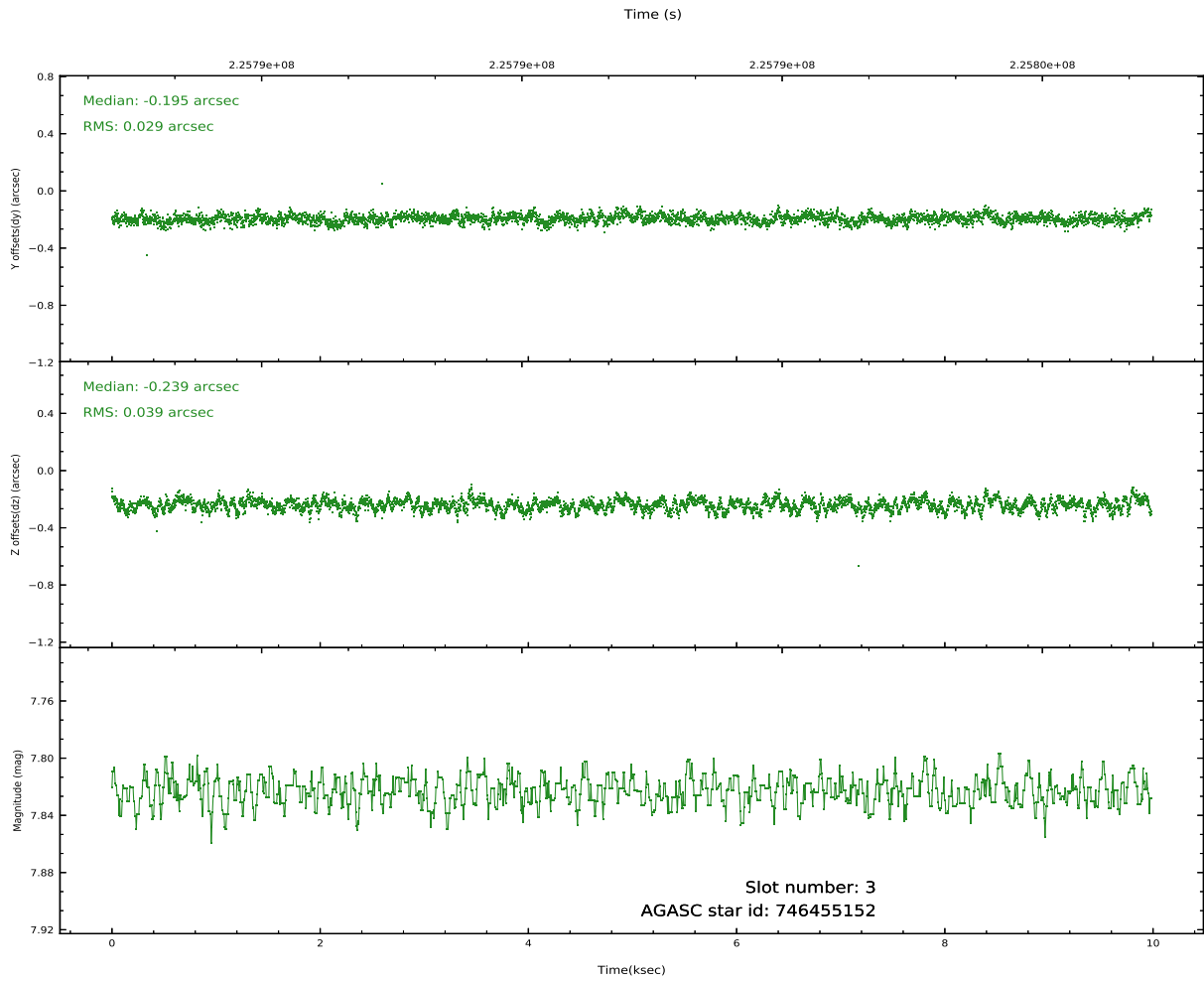
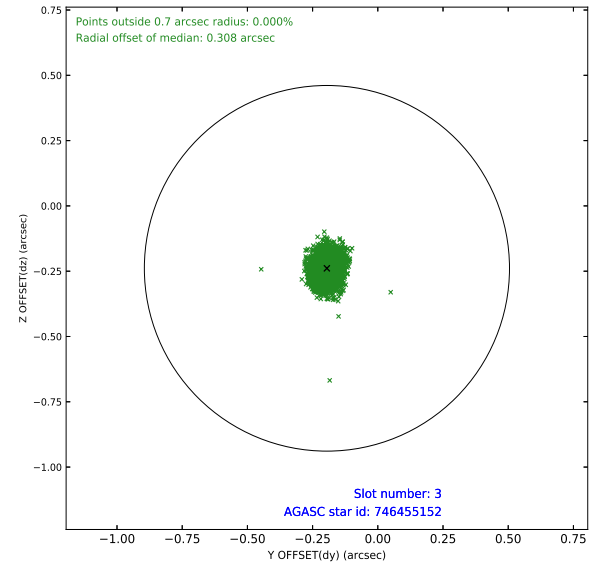
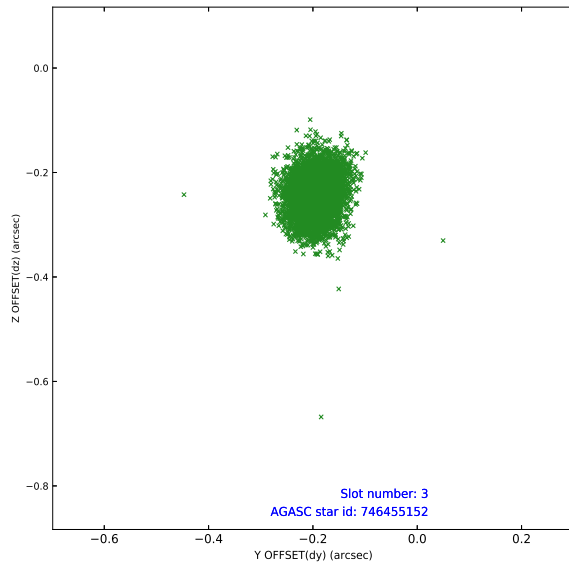


Slot Statistics

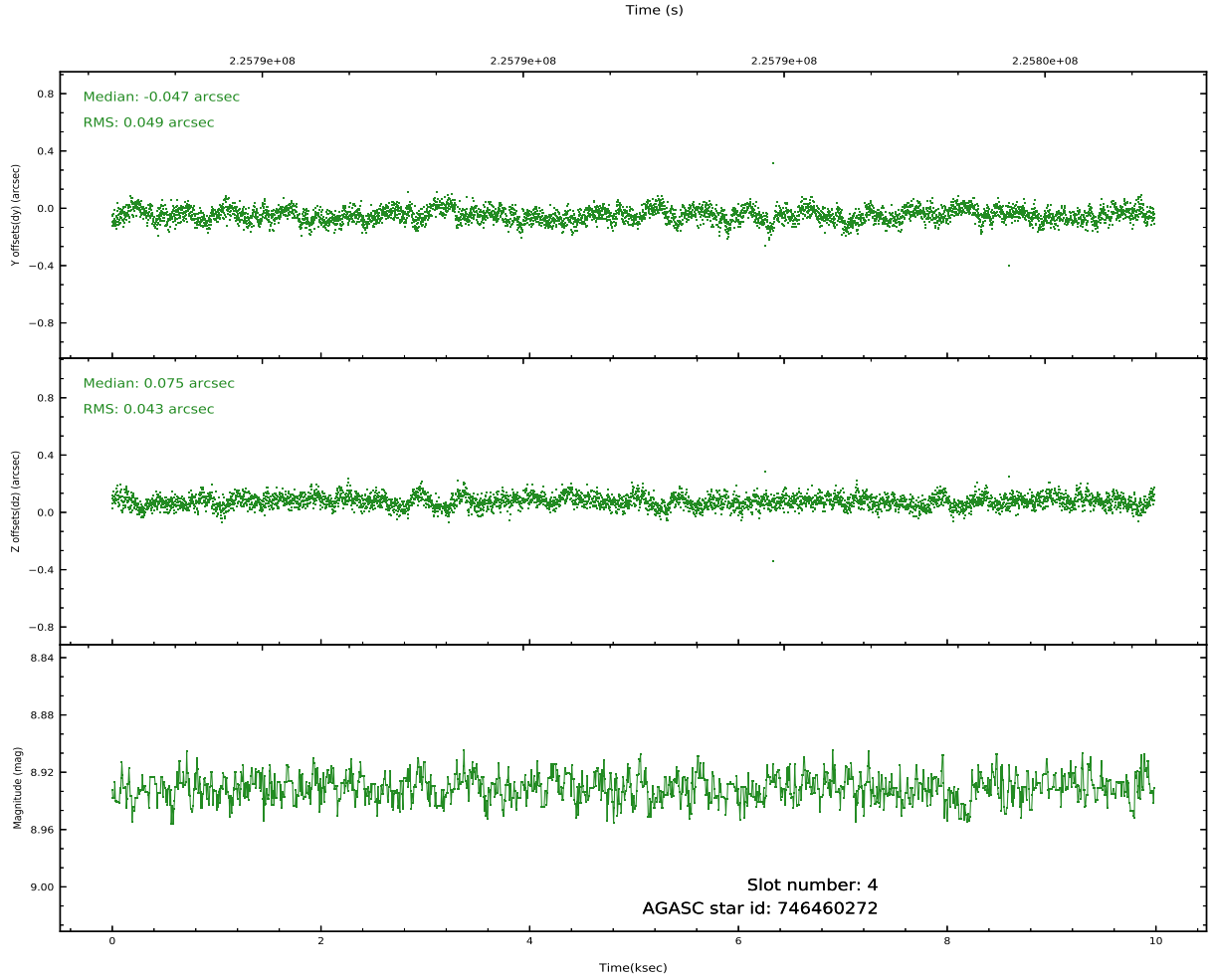
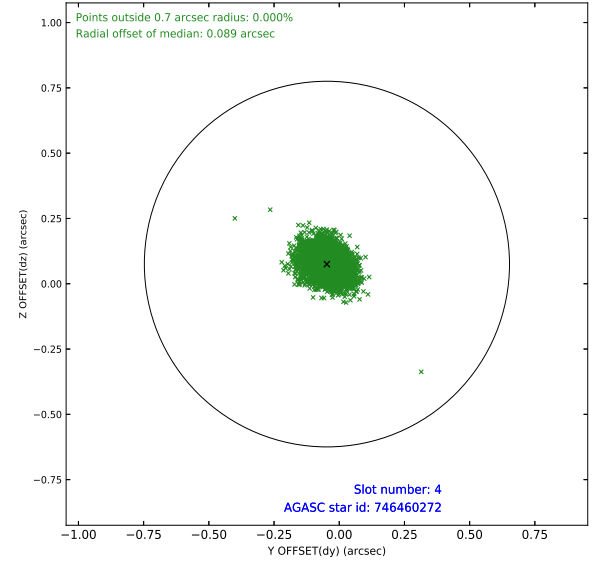
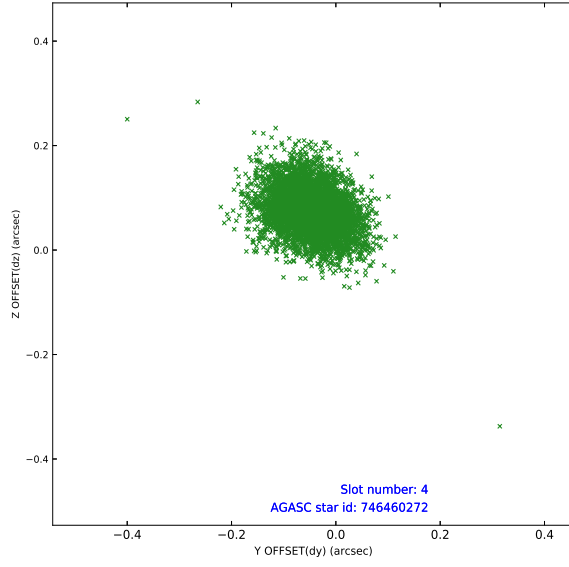
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.24	2436	1.000	0.005	-0.059	0.016	0.030	0.000000	0.000000	934.78	-834
1	FID		ACIS-I-4	7.16	2436	1.000	0.117	0.062	0.012	0.020	0.000000	0.000000	2155.21	1065
2	FID		ACIS-I-5	7.22	2436	1.000	-0.220	0.067	0.009	0.015	0.000000	0.000000	-1812.78	1064
3	GUIDE	used	746455152	7.82	4871	1.000	-0.195	-0.239	0.051	0.084	278.447893	-9.976732	2059.59	150
4	GUIDE	used	746460272	8.93	4871	1.000	-0.047	0.075	0.069	0.113	278.847488	-10.152127	1529.02	-1306
5	GUIDE	used	746460328	9.83	4869	1.000	-0.040	0.055	0.125	0.204	278.603974	-9.898096	2380.87	-381
6	GUIDE	used	746462392	8.53	4871	1.000	0.163	0.143	0.086	0.144	279.038421	-10.890715	-1077.93	-2164
7	GUIDE	used	746462456	8.39	4870	1.000	0.116	-0.023	0.056	0.090	278.652171	-10.530173	122.18	-711

## 2.4 Star Slots

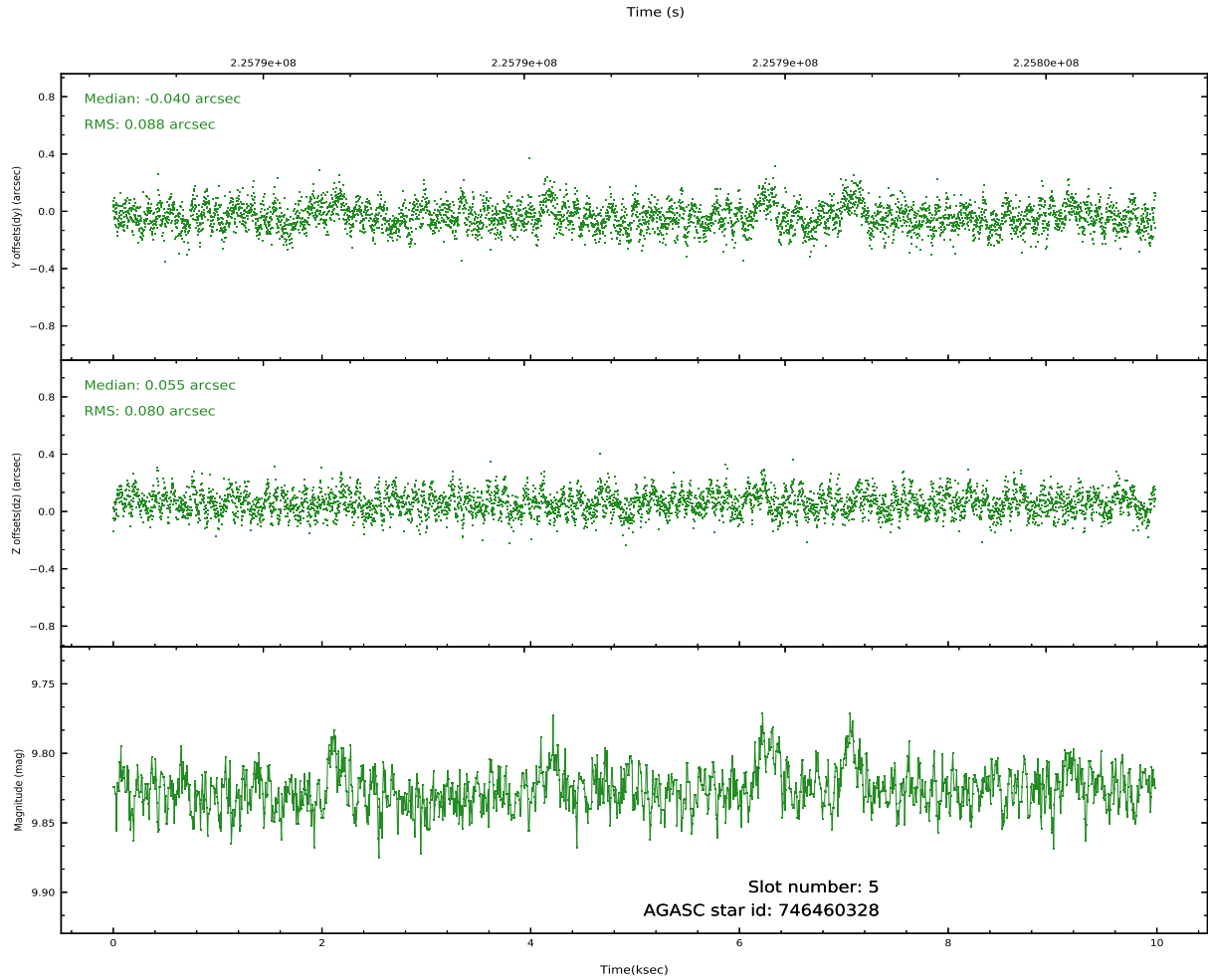
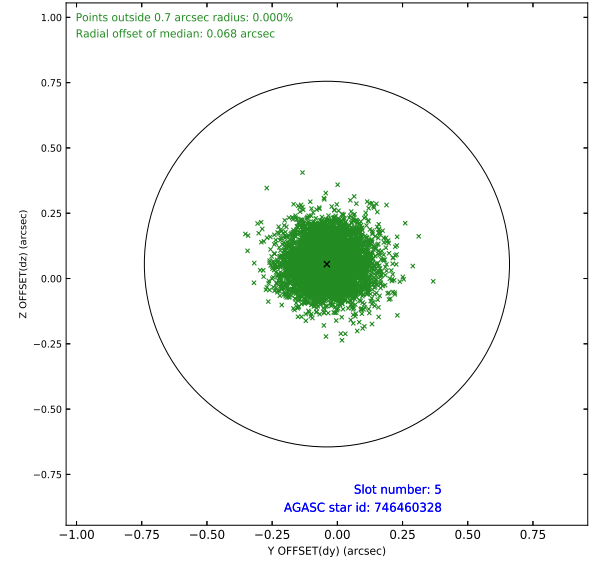
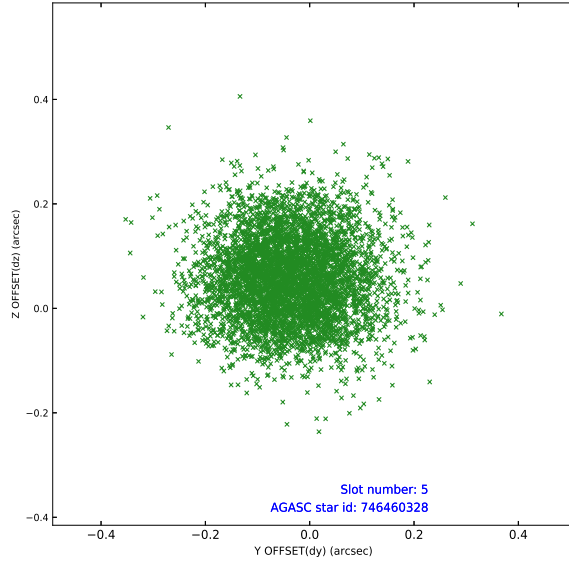
### 2.4.1 Slot 3



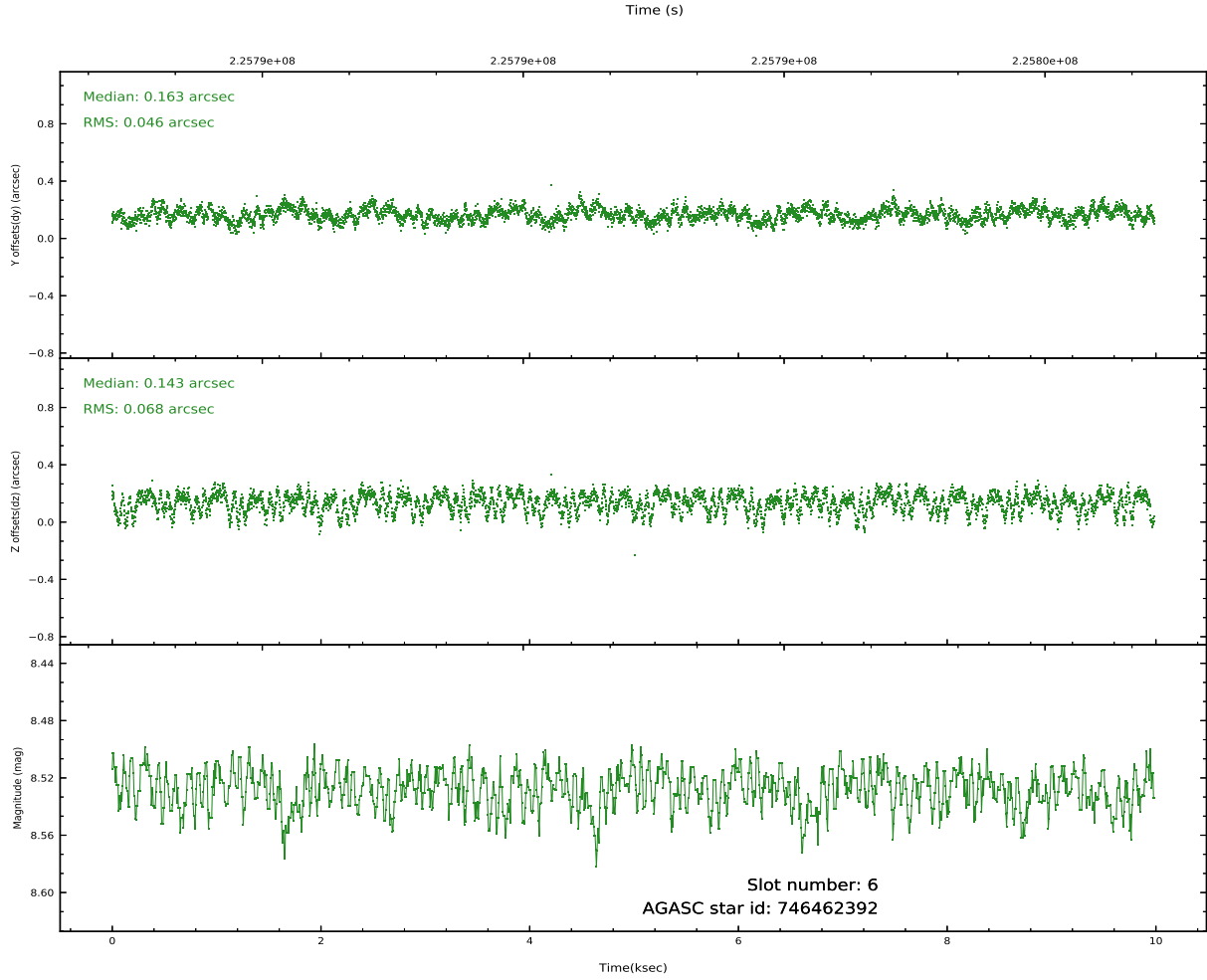
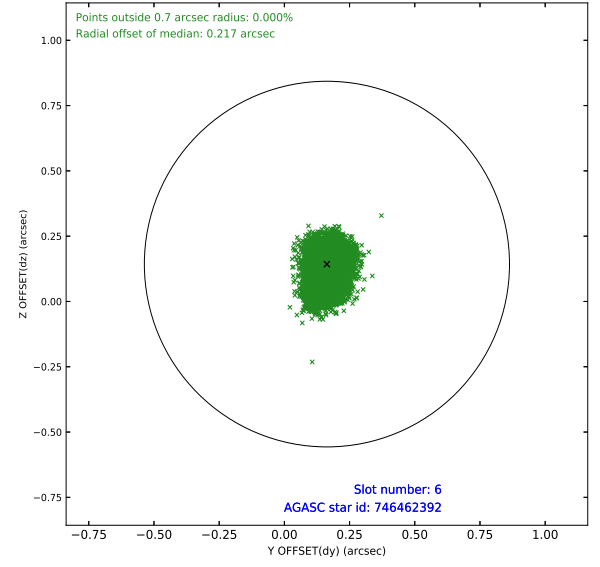
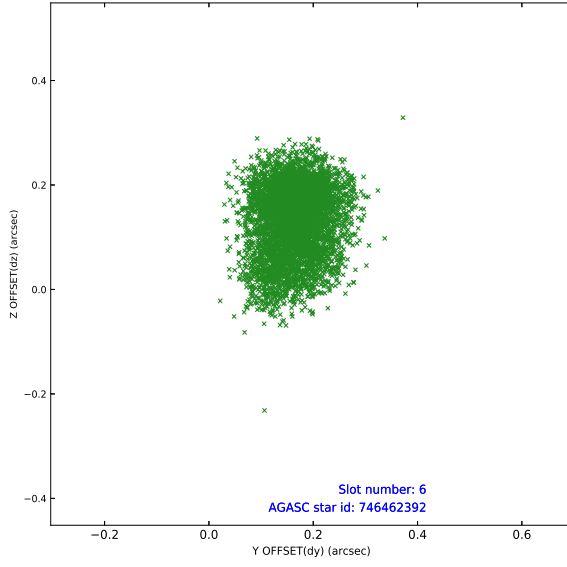
## 2.4.2 Slot 4



### 2.4.3 Slot 5

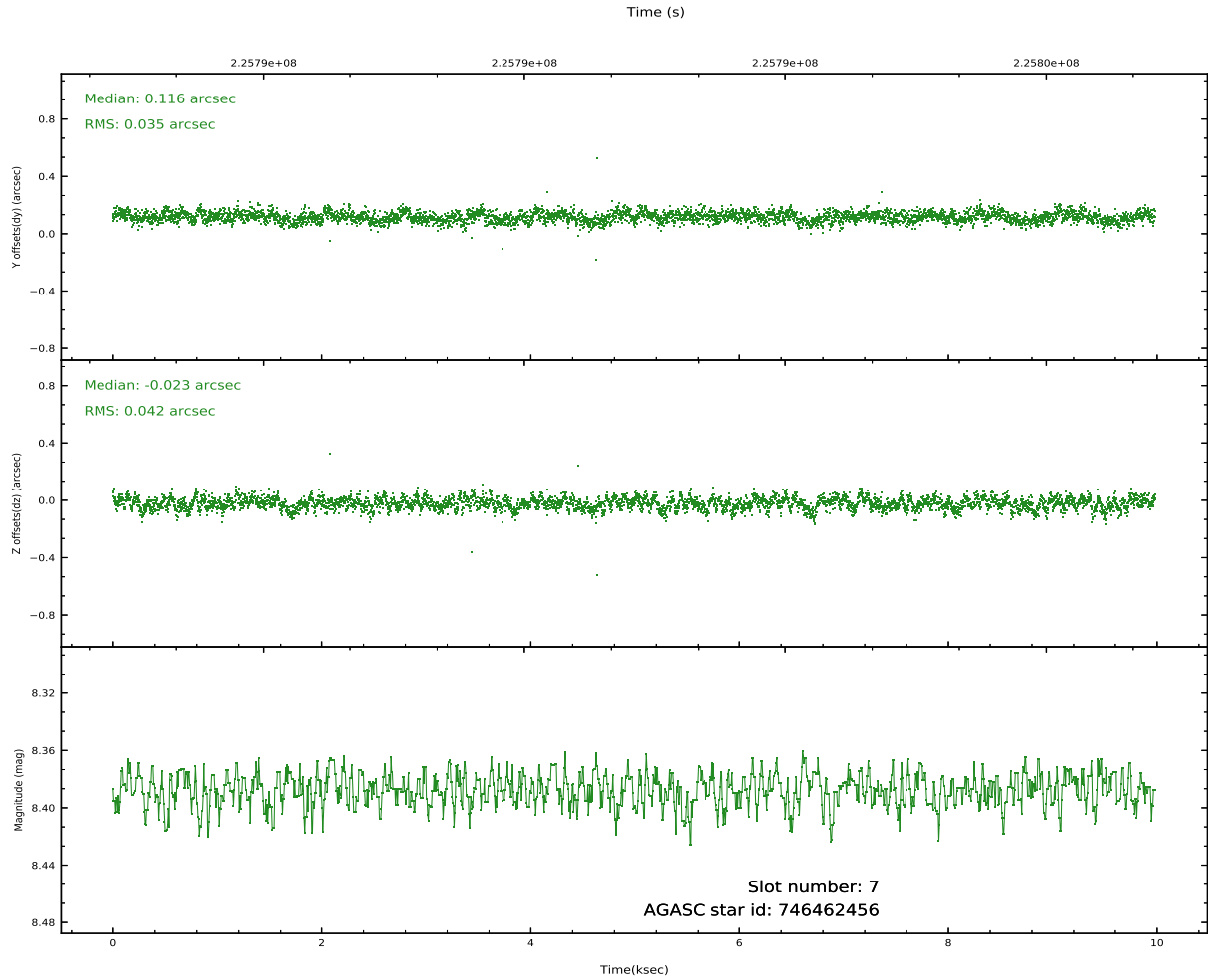
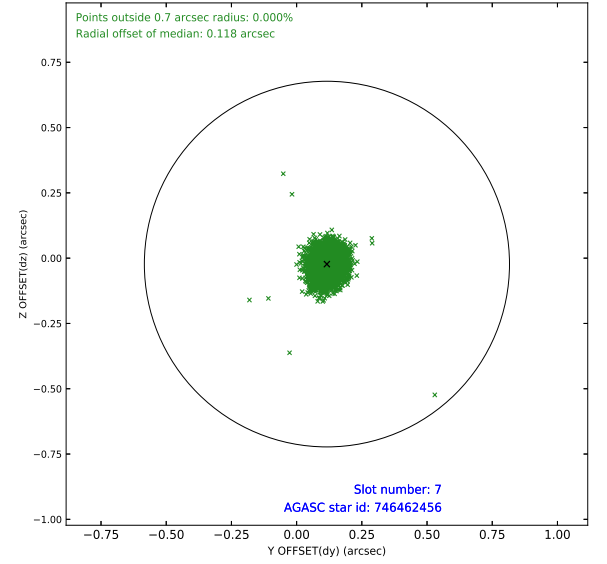
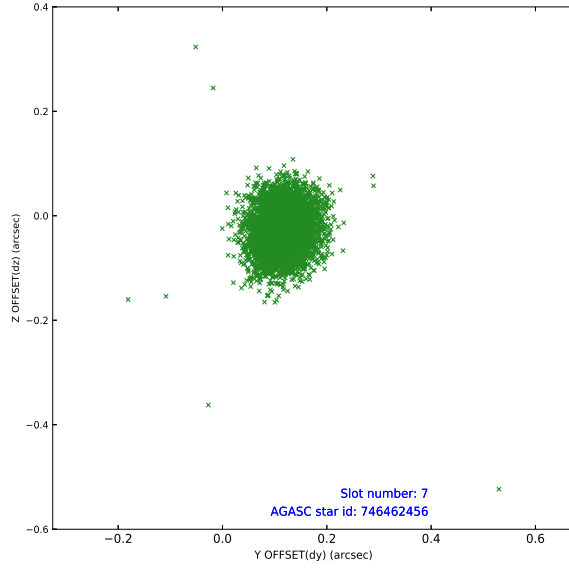


## 2.4.4 Slot 6



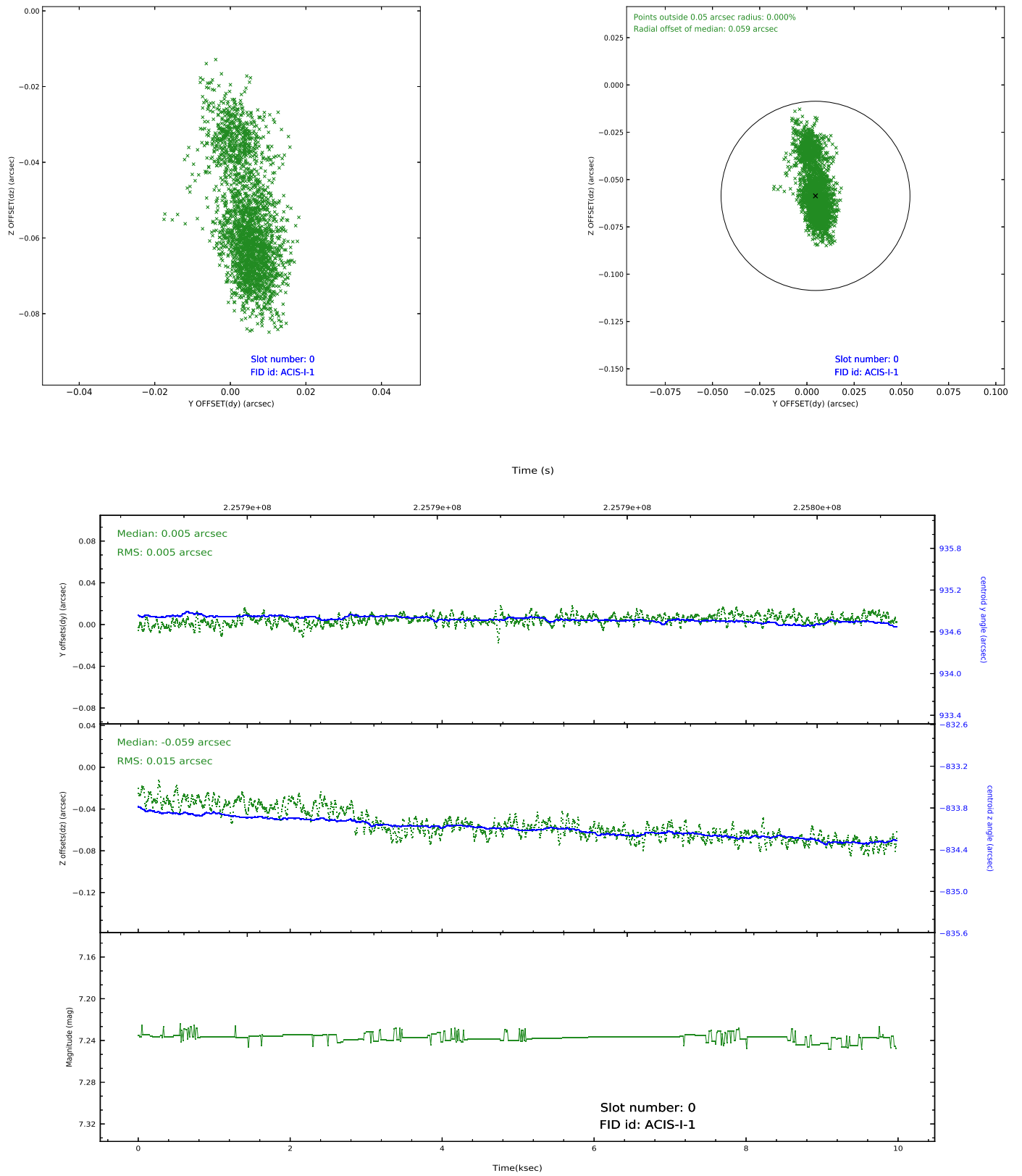


## 2.4.5 Slot 7

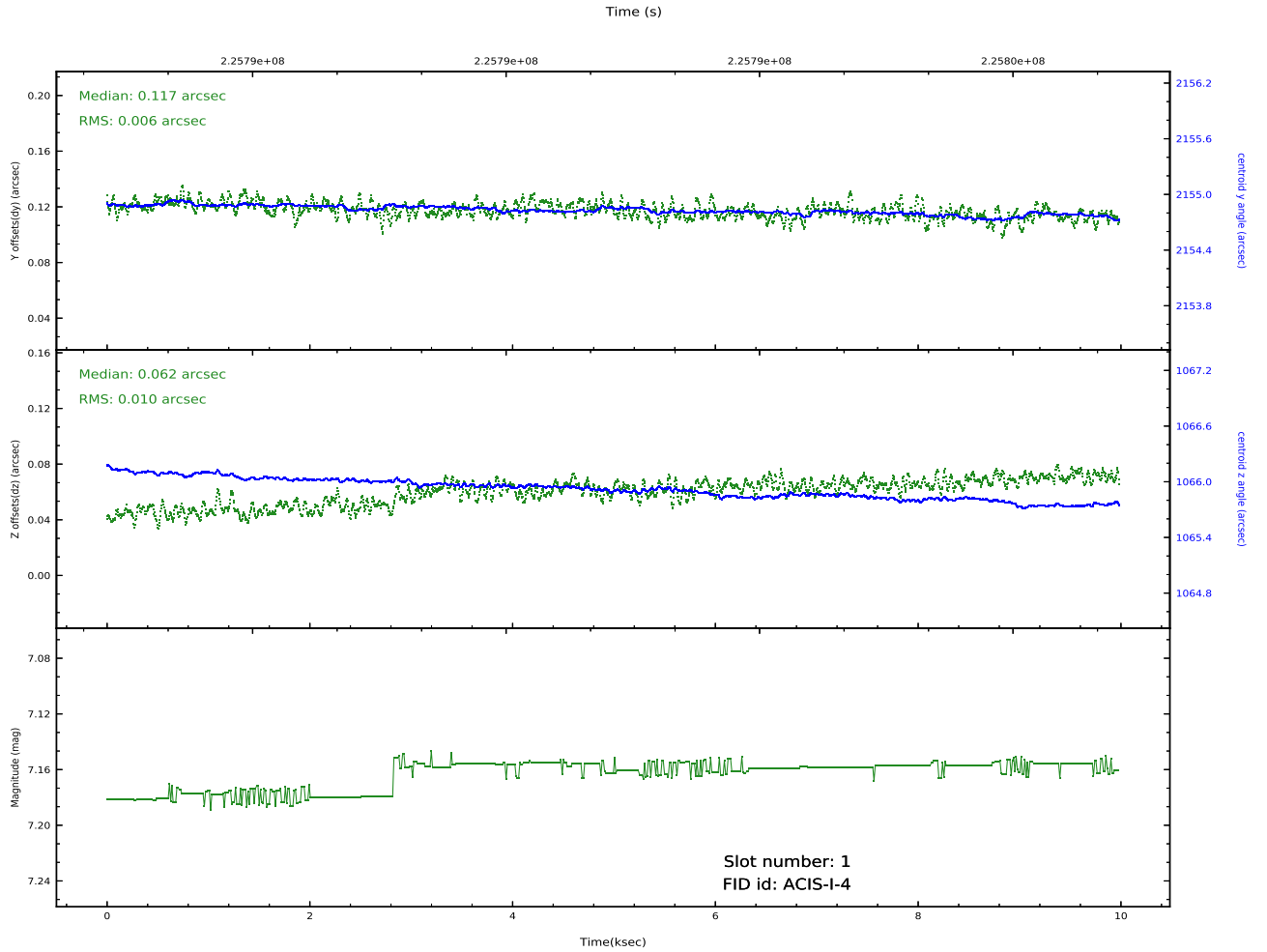
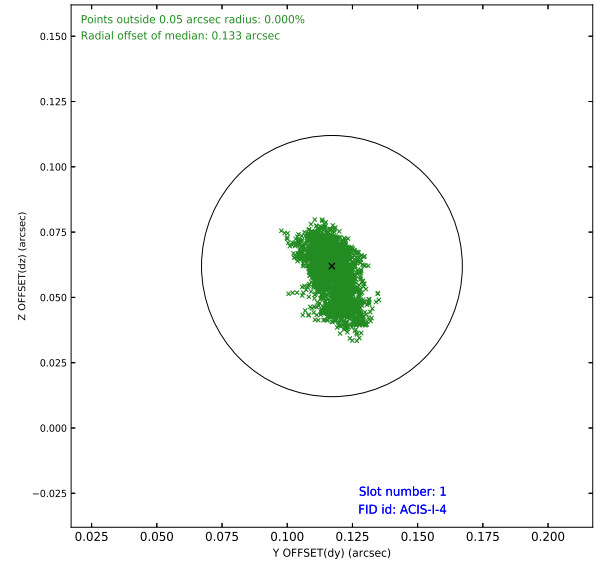
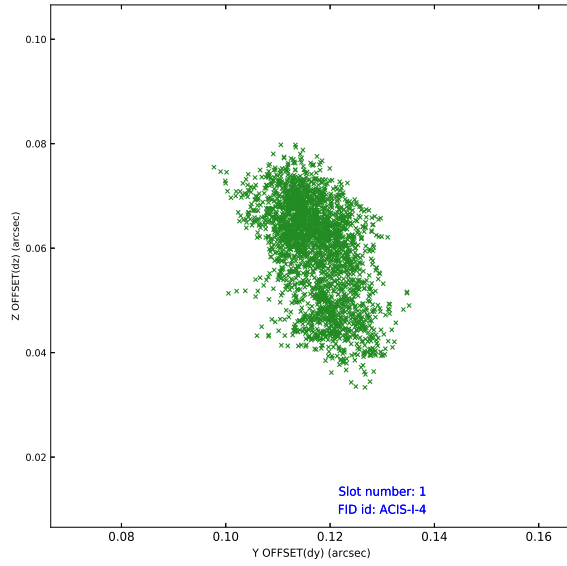


## 2.5 FID Slots

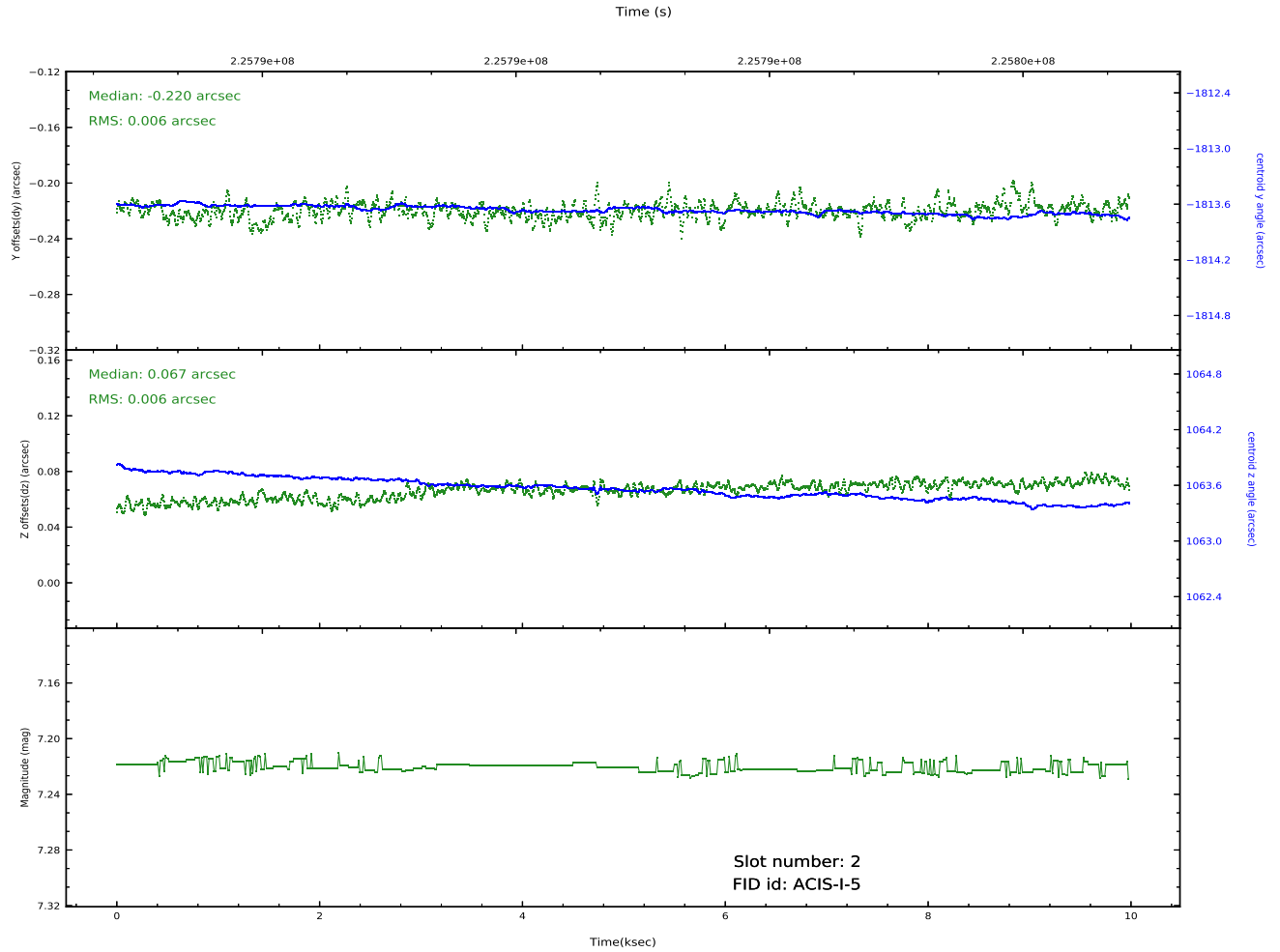
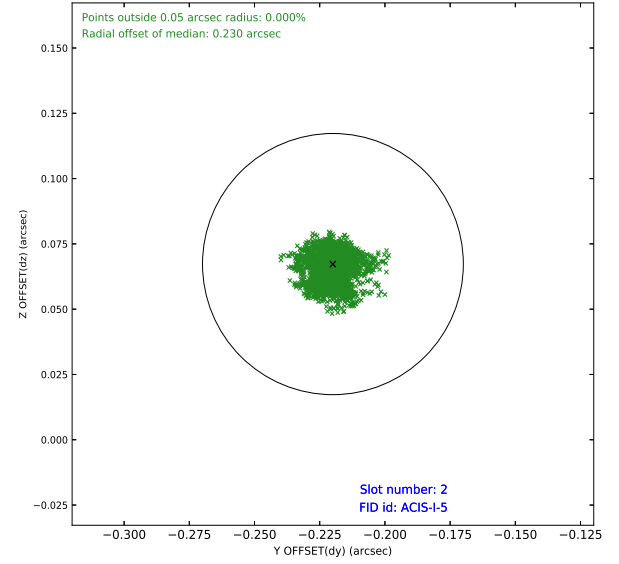
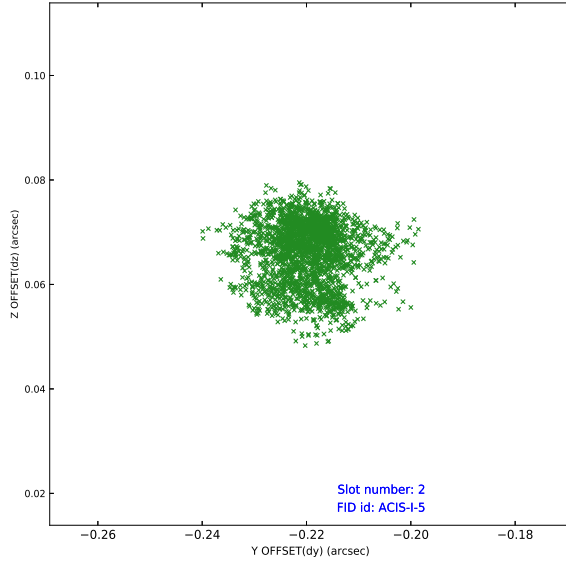
### 2.5.1 Slot 0



## 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)	2020.10.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.555199

### A.2 Comments

Window constraint was met.