

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 5608 - L2 Version 4  
Chandra X-Ray Center

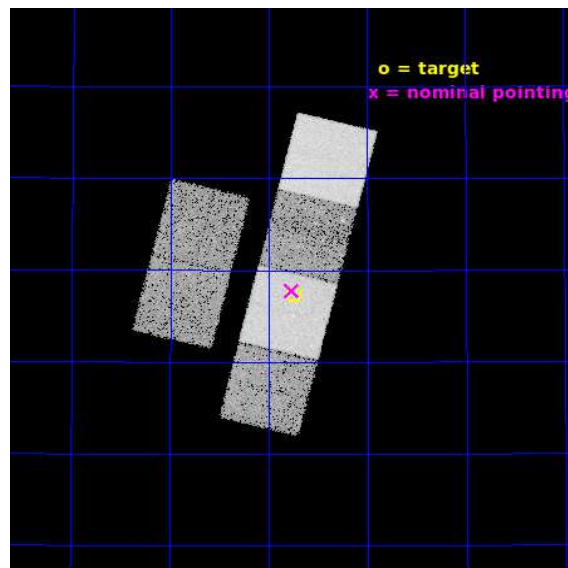
L2 Processing Date : Oct 6 2020

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# 1 Front

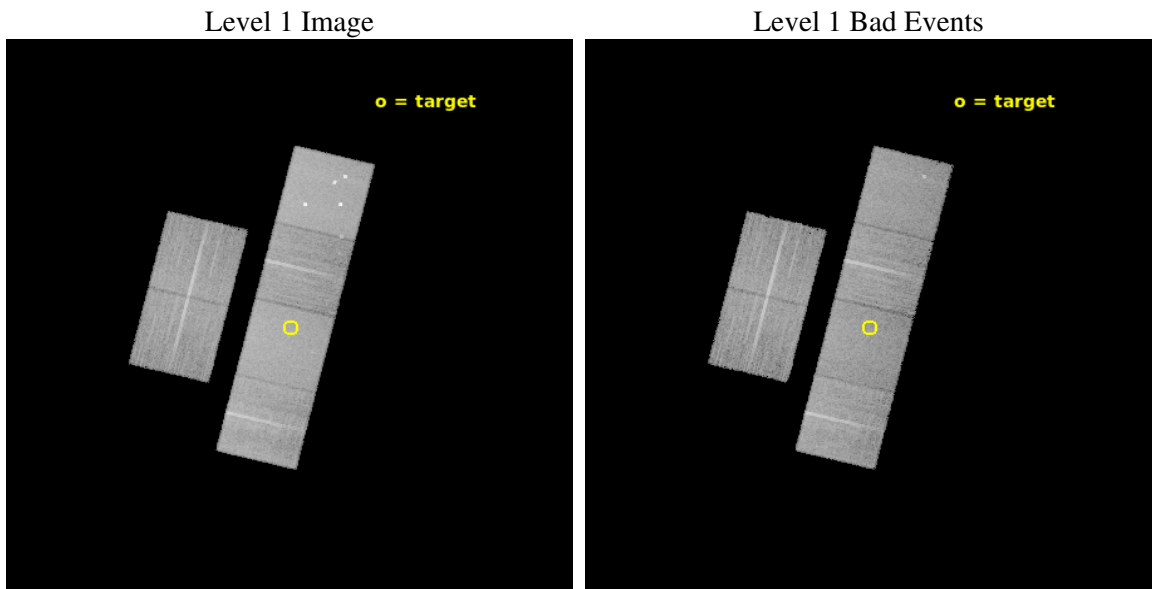
seq_num	701031	Sequence number
obs_id	5608	Observation id
title	A Chandra Survey of the Most Distant Quasars: X-raying the First Massive Black Holes	Proposal title
observer	William Brandt	Principal investigator
object	SDSS J1048+4637	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	162.1875	Observer's specified target RA [deg]
dec_targ	46.62175	Observer's specified target Dec [deg]
ra_nom	162.191557749	Nominal RA [deg]
dec_nom	46.629912530293	Nominal Dec [deg]
roll_nom	103.90460626557	Nominal Roll [deg]
revision	4	Processing version of data
ontime	15157.429184765	Sum of GTIs [s]
livetime	14965.496689719	Livetime [s]
ontime2	15157.470224768	Sum of GTIs [s]
ontime3	15157.306064755	Sum of GTIs [s]
ontime5	15157.388144761	Sum of GTIs [s]
ontime6	15154.106134474	Sum of GTIs [s]
ontime7	15157.429184765	Sum of GTIs [s]
ontime8	15154.024054497	Sum of GTIs [s]
l2events	170567	Number of level 2 events



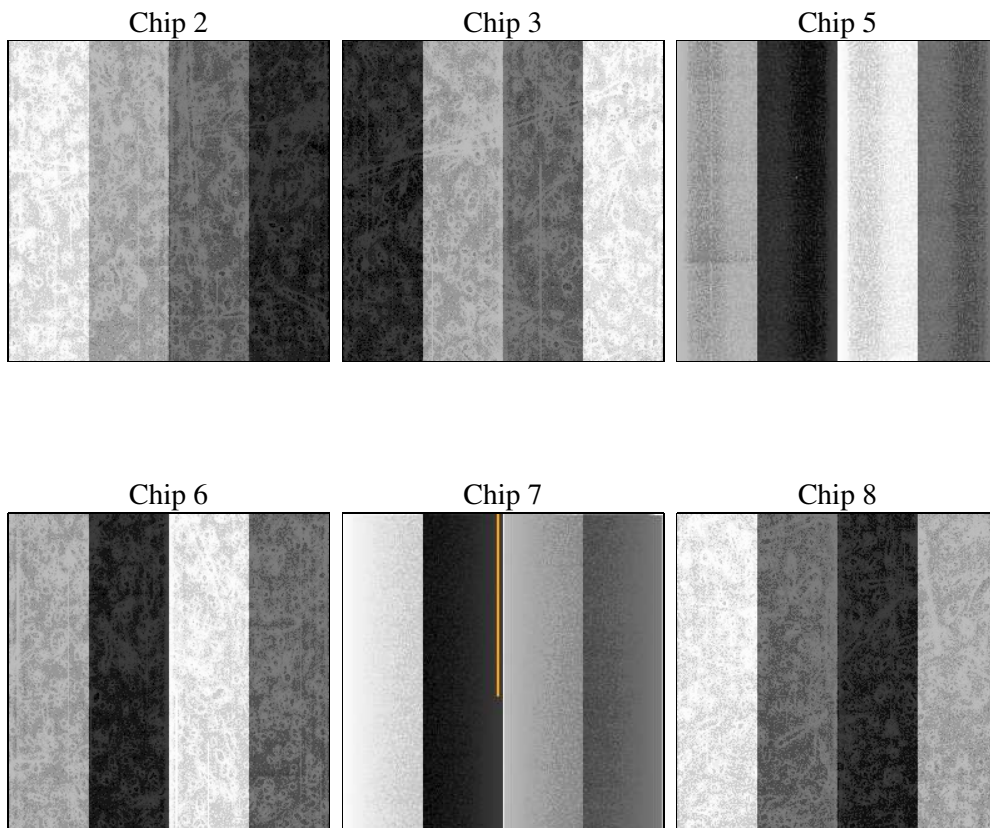
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	15200.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	15157.429184765	Sum of GTIs [s]
caldsver	4.9.2	&#160	ontime2	15157.470224768	Sum of GTIs [s]
date	2020-10-06T03:42:27	Date and time of file creation	ontime3	15157.306064755	Sum of GTIs [s]
revision	4	Processing version of data	ontime5	15157.388144761	Sum of GTIs [s]
			ontime6	15154.106134474	Sum of GTIs [s]
			ontime7	15157.429184765	Sum of GTIs [s]
			ontime8	15154.024054497	Sum of GTIs [s]
			l1events	769610	Number of level 1 events

### 2.1.4 Events

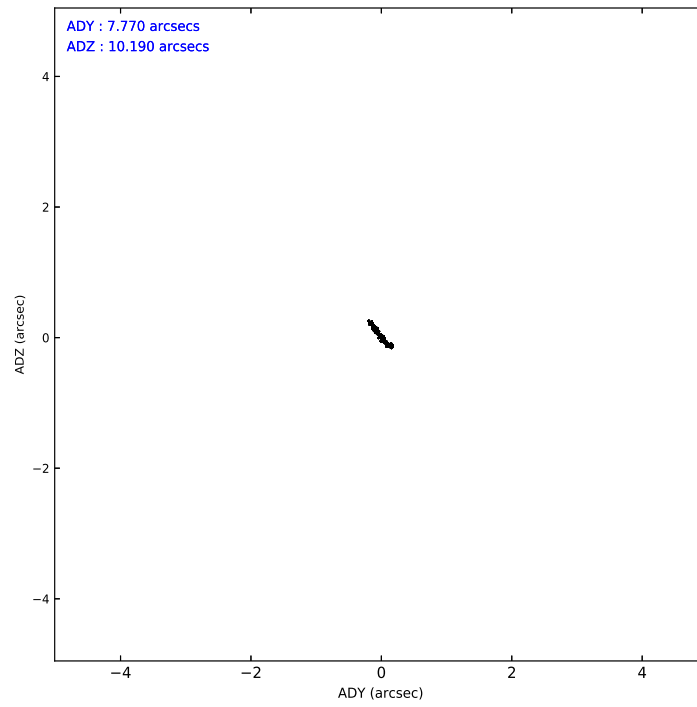
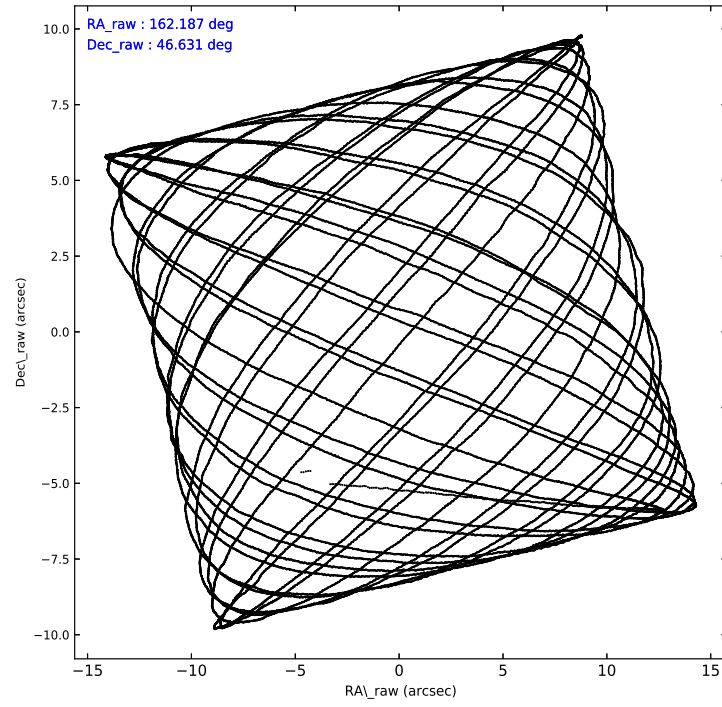
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	108624	104199	167232	108729	144549	136277	grade 0 events	5635	5337	13523	5217	5342	9343
rejected events	95880	91940	87357	95702	85006	106945		5%	5%	8%	4%	3%	6%
rejected %	88%	88%	52%	88%	58%	78%	grade 1 events	68	69	220	51	136	97
								0%	0%	0%	0%	0%	0%
							grade 2 events	2673	2330	22385	2675	11971	6415
								2%	2%	13%	2%	8%	4%
							grade 3 events	1181	1229	2800	1238	5259	3204
								1%	1%	1%	1%	3%	2%
							grade 4 events	1141	1143	2716	1288	5072	2873
								1%	1%	1%	1%	3%	2%
							grade 5 events	4321	4730	11694	5046	13703	6470
								3%	4%	6%	4%	9%	4%
							grade 6 events	2115	2224	38470	2614	31916	7500
								1%	2%	23%	2%	22%	5%
							grade 7 events	91490	87137	75424	90600	71150	100375
								84%	83%	45%	83%	49%	73%

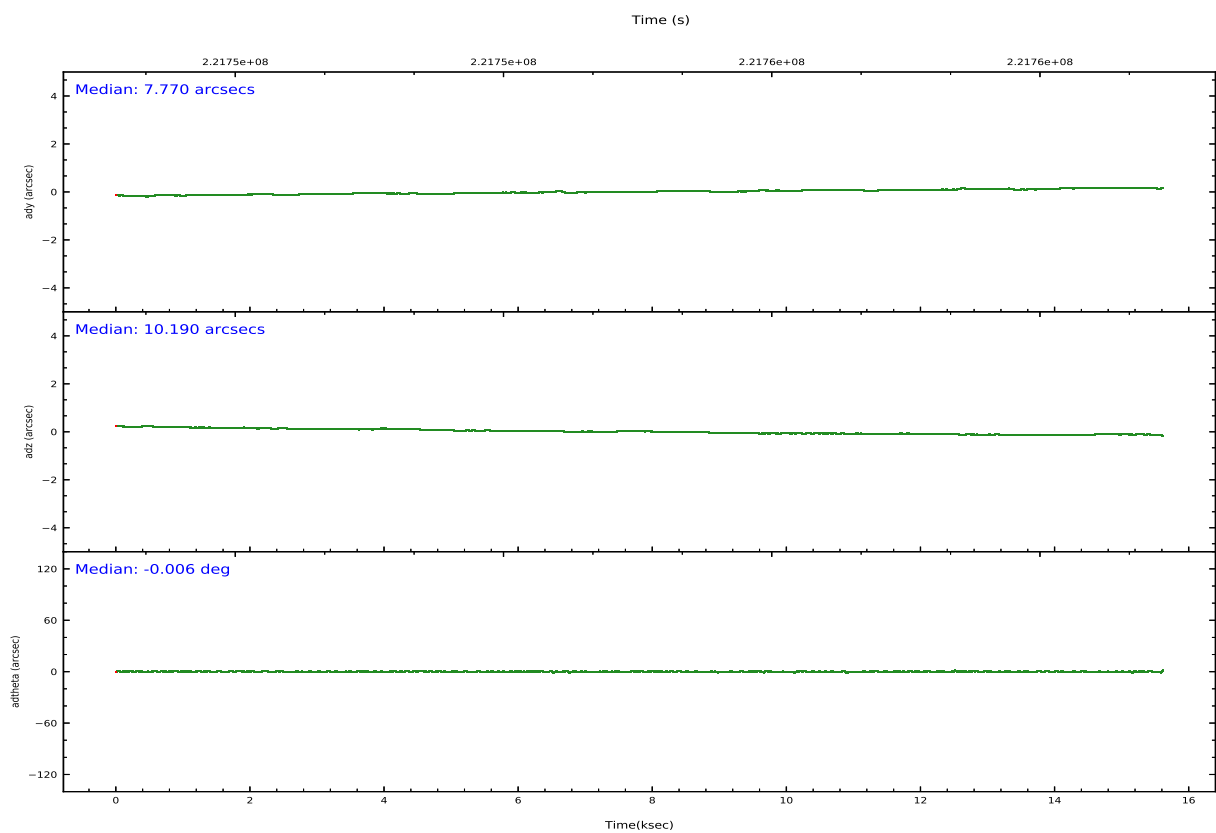
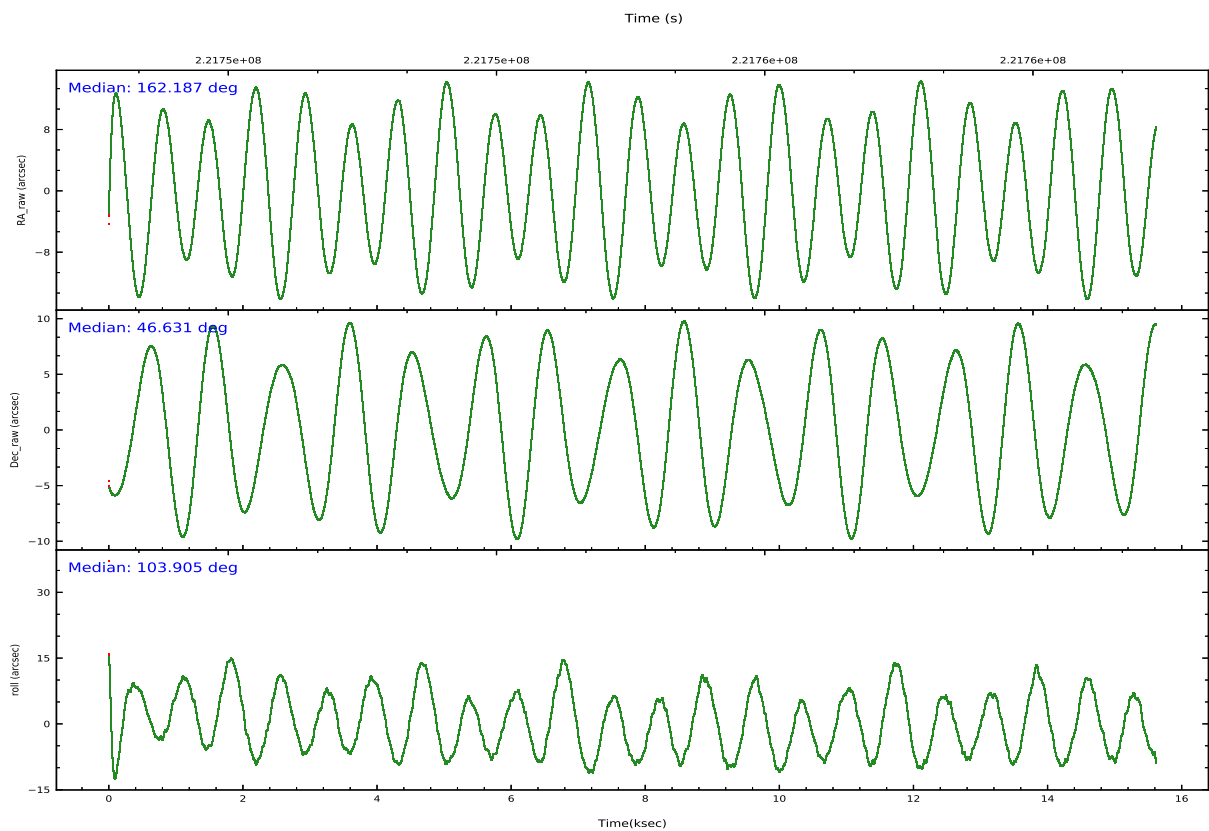


## 2.2 Compared Parameters

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	162.214439	162.191557749	Subarray requested	NONE	NONE
[deg] Pointing Dec	46.612028	46.629912530293	Alternating exposures requested	N	N
[deg] Pointing Roll	103.730944	103.90460626557	[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	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	221746638.184000	221745561.71149			
Observation start date	2005-01-10T12:16:14	2005-01-10T11:59:21			
[s] Observation end time (MET)	221761838.184000	221762798.11227			
Observation end date	2005-01-10T16:29:34	2005-01-10T16:46:38			
Read mode	TIMED	TIMED			

## 2.3 Aspect



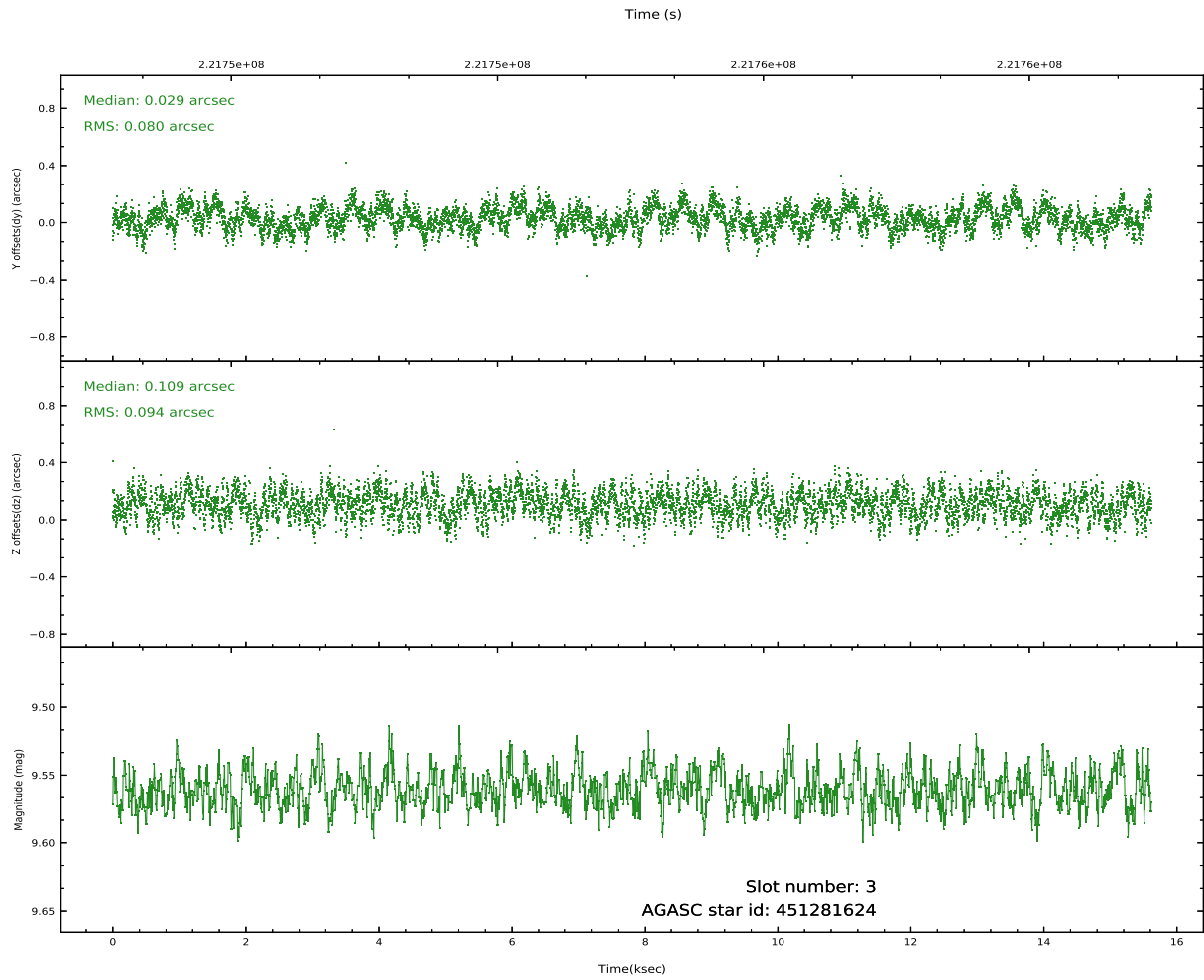
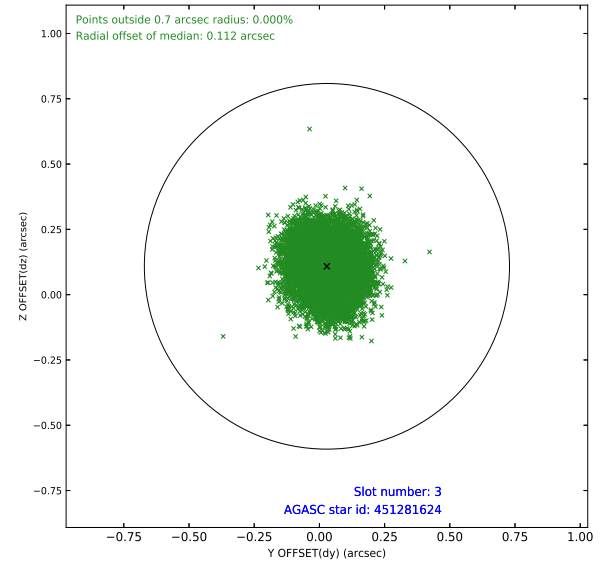
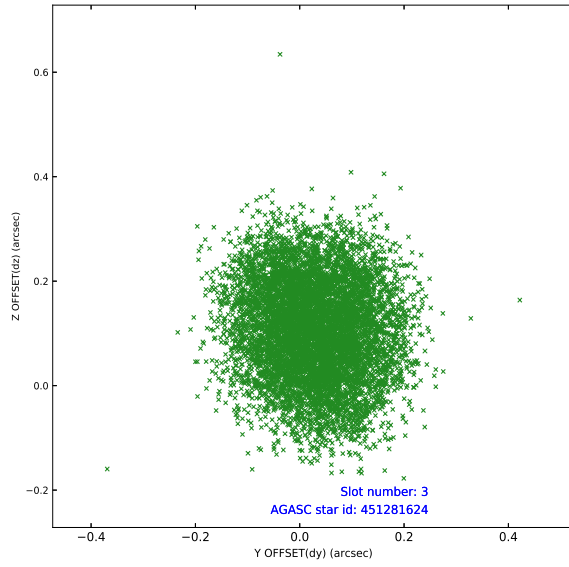


Slot Statistics

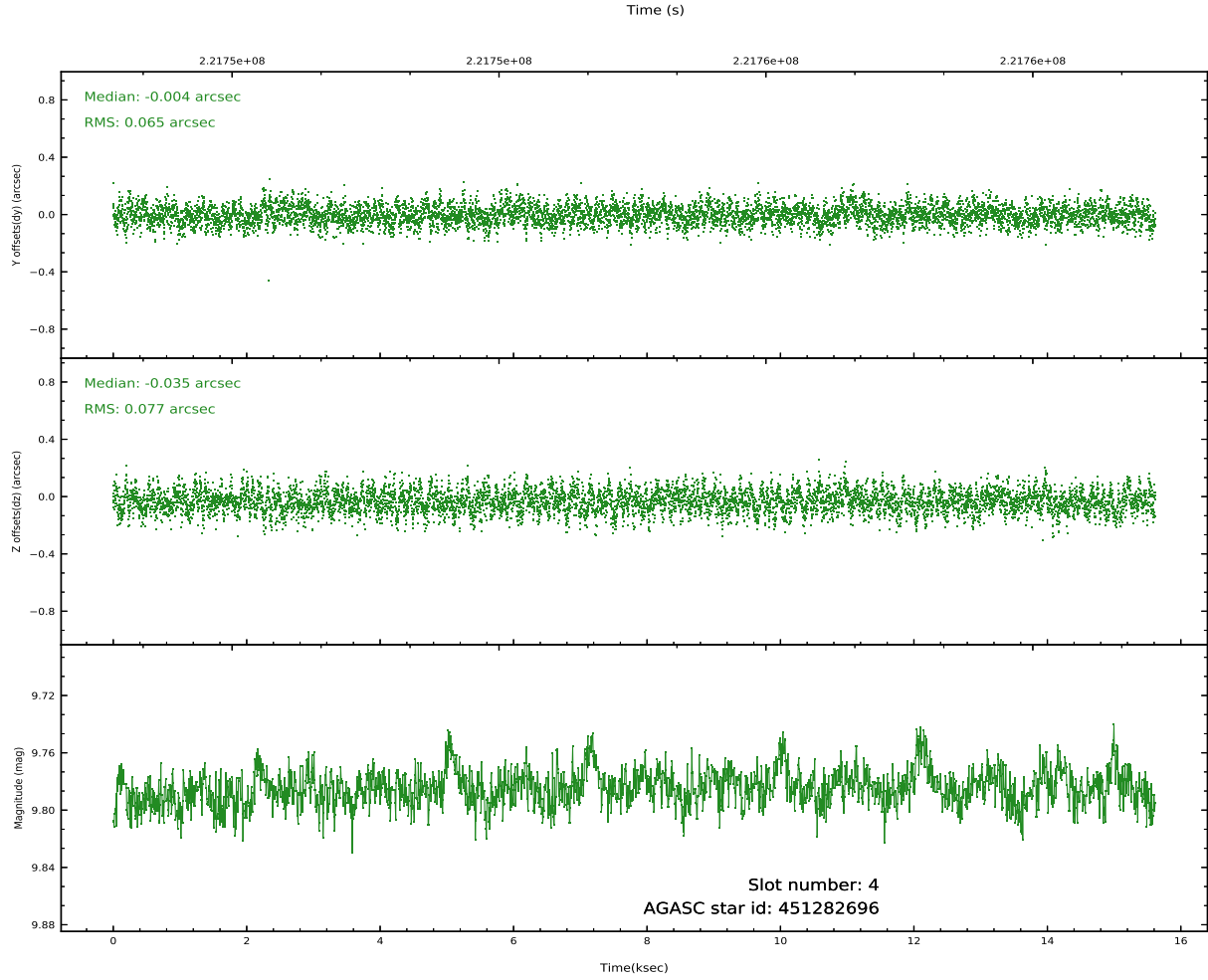
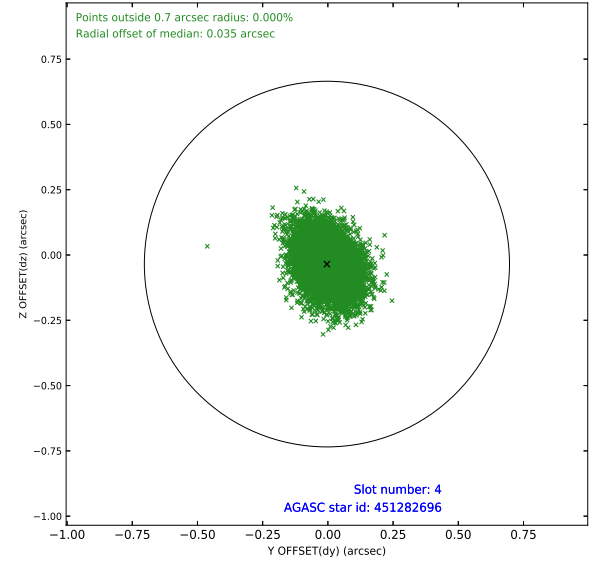
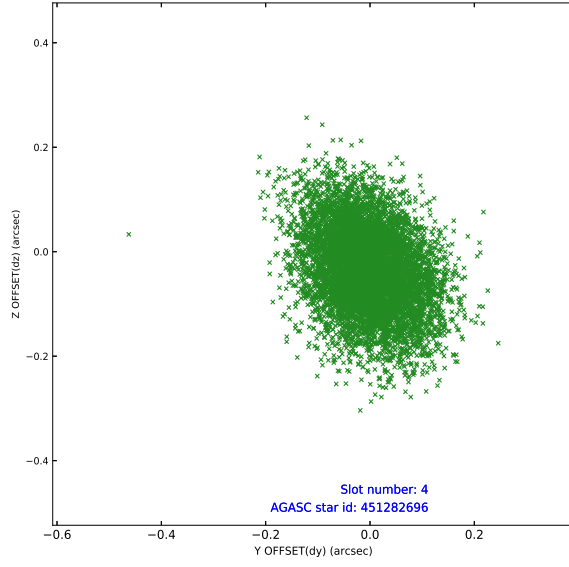
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.10	3810	1.000	-0.074	-0.057	0.007	0.012	0.000000	0.000000	-760.55	-1731
1	FID		ACIS-S-4	7.21	3810	1.000	0.158	0.051	0.007	0.012	0.000000	0.000000	2152.75	176
2	FID		ACIS-S-5	7.23	3810	1.000	-0.115	0.015	0.009	0.015	0.000000	0.000000	-1813.14	170
3	GUIDE	used	451281624	9.56	7616	1.000	0.029	0.109	0.135	0.203	163.194077	46.599941	-602.18	-2346
4	GUIDE	used	451282696	9.78	7615	1.000	-0.004	-0.035	0.107	0.178	161.725710	46.479512	-172.26	1289
5	GUIDE	used	451282936	8.57	7620	1.000	0.022	0.010	0.072	0.115	162.459366	46.640990	-41.06	-612
6	GUIDE	used	451283456	8.09	7552	1.000	-0.106	-0.036	0.066	0.107	162.810909	46.796278	301.11	-1586
7	GUIDE	used	451287144	9.45	7612	1.000	0.058	-0.046	0.095	0.155	162.898016	46.292040	-1515.07	-1380

## 2.4 Star Slots

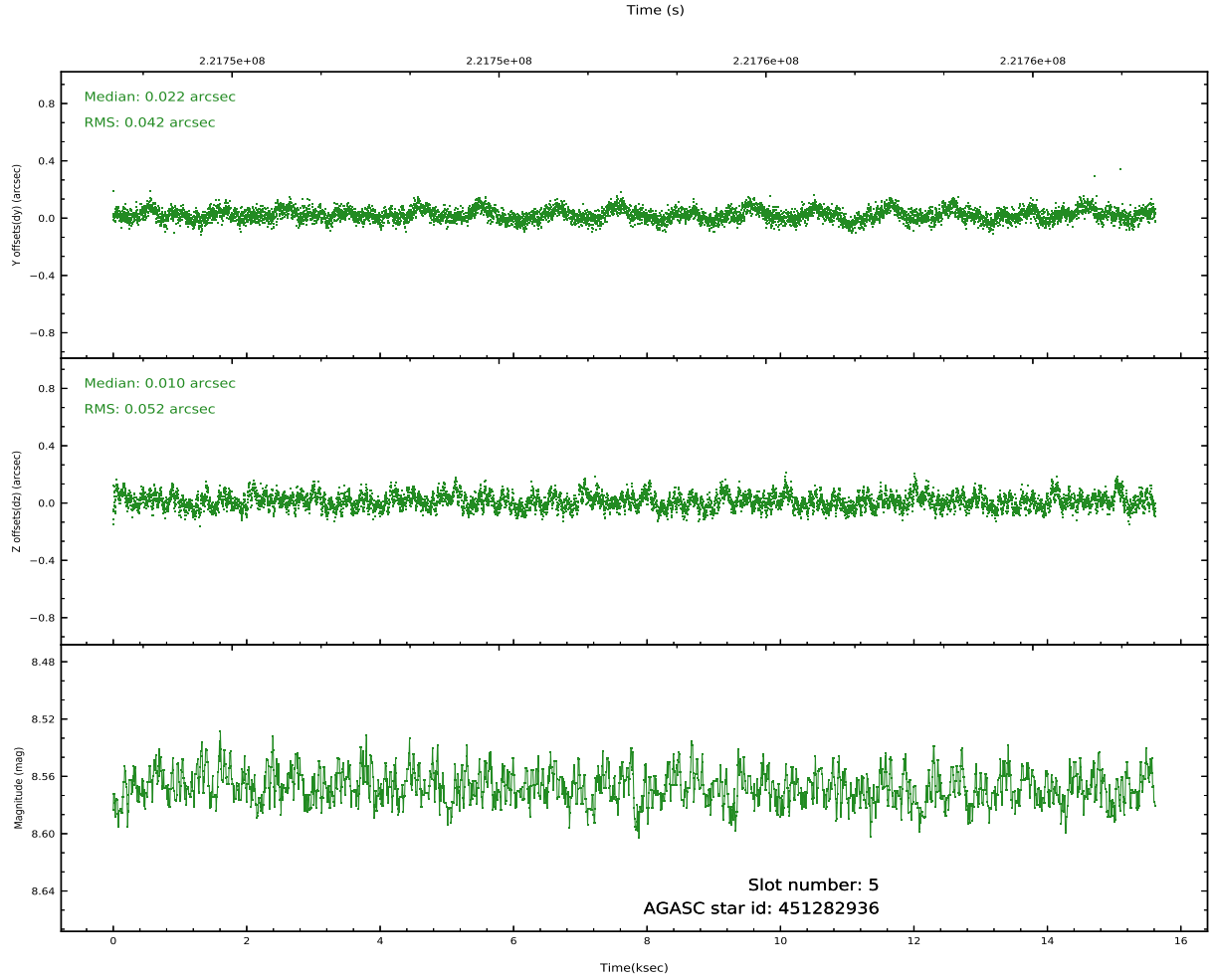
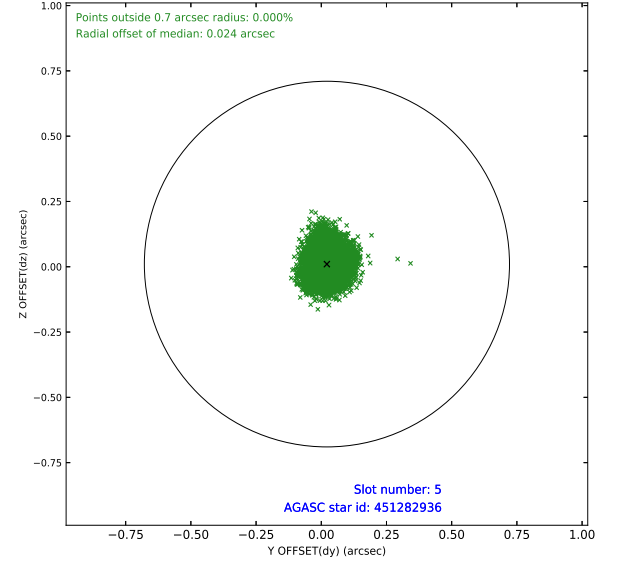
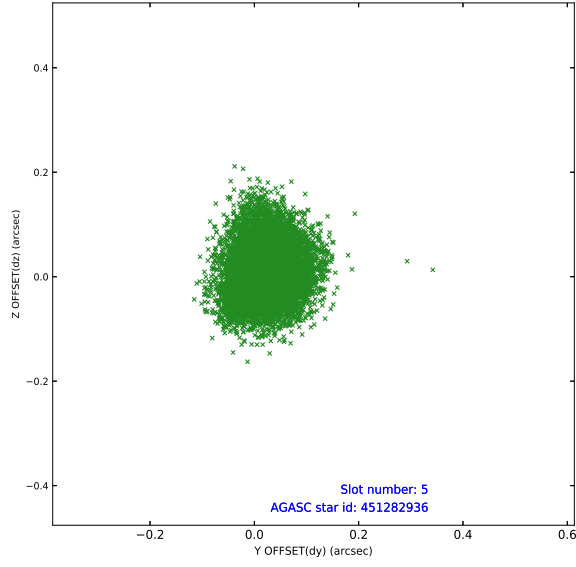
### 2.4.1 Slot 3



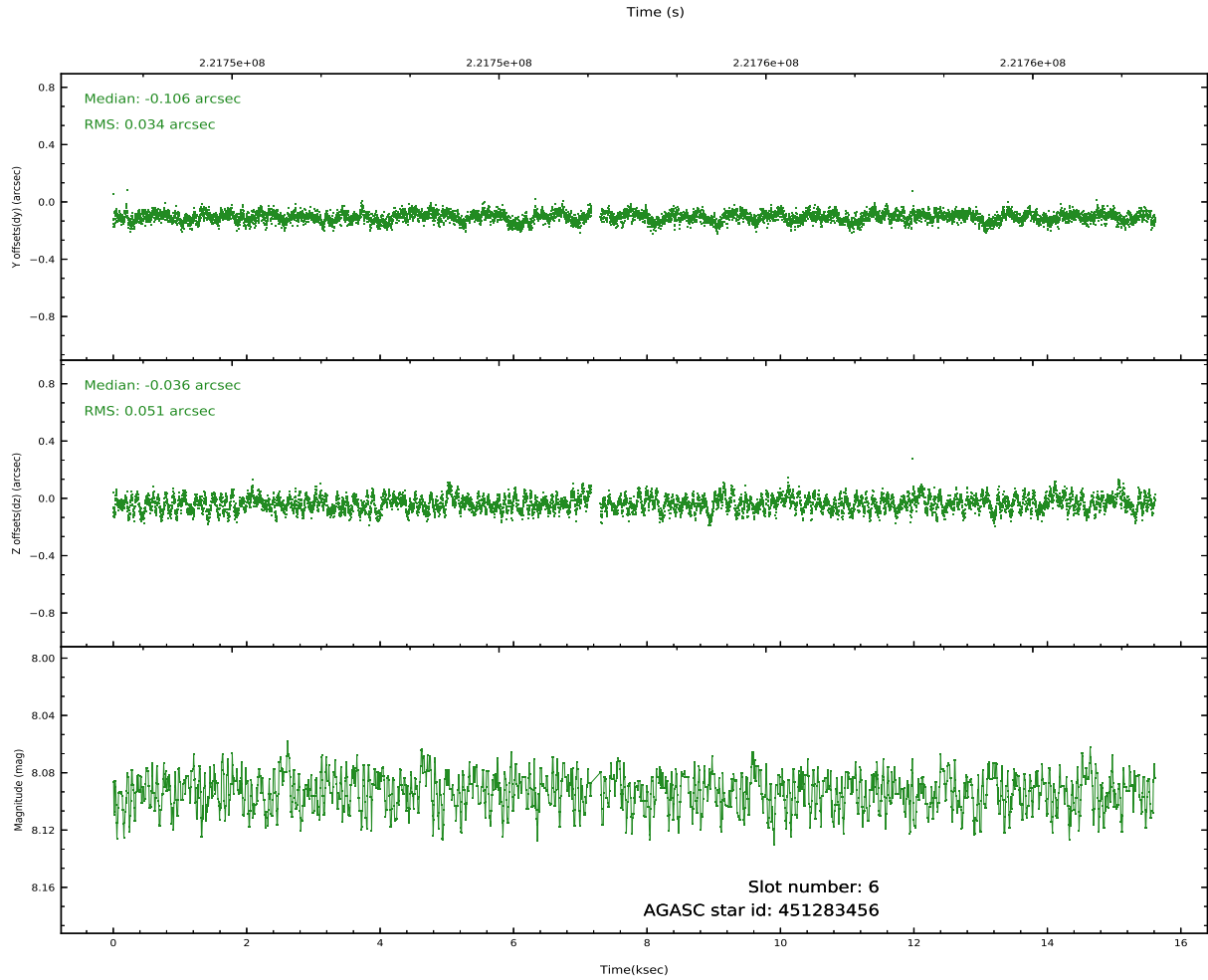
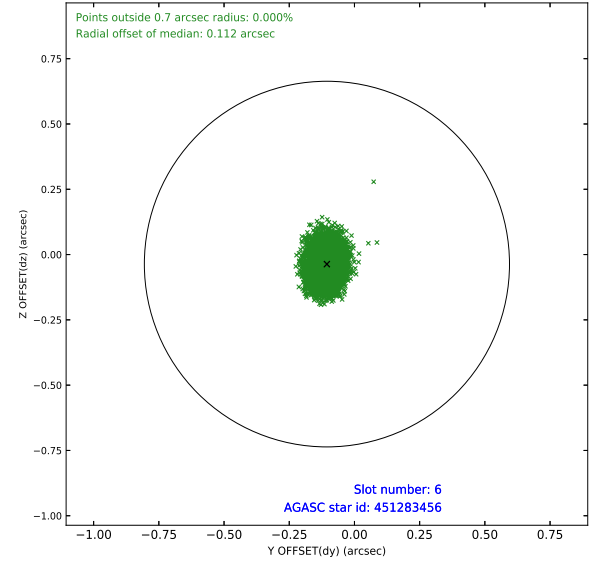
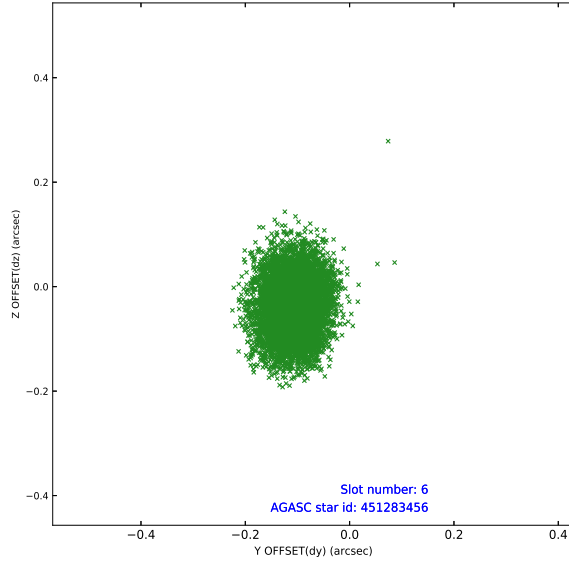
## 2.4.2 Slot 4



### 2.4.3 Slot 5

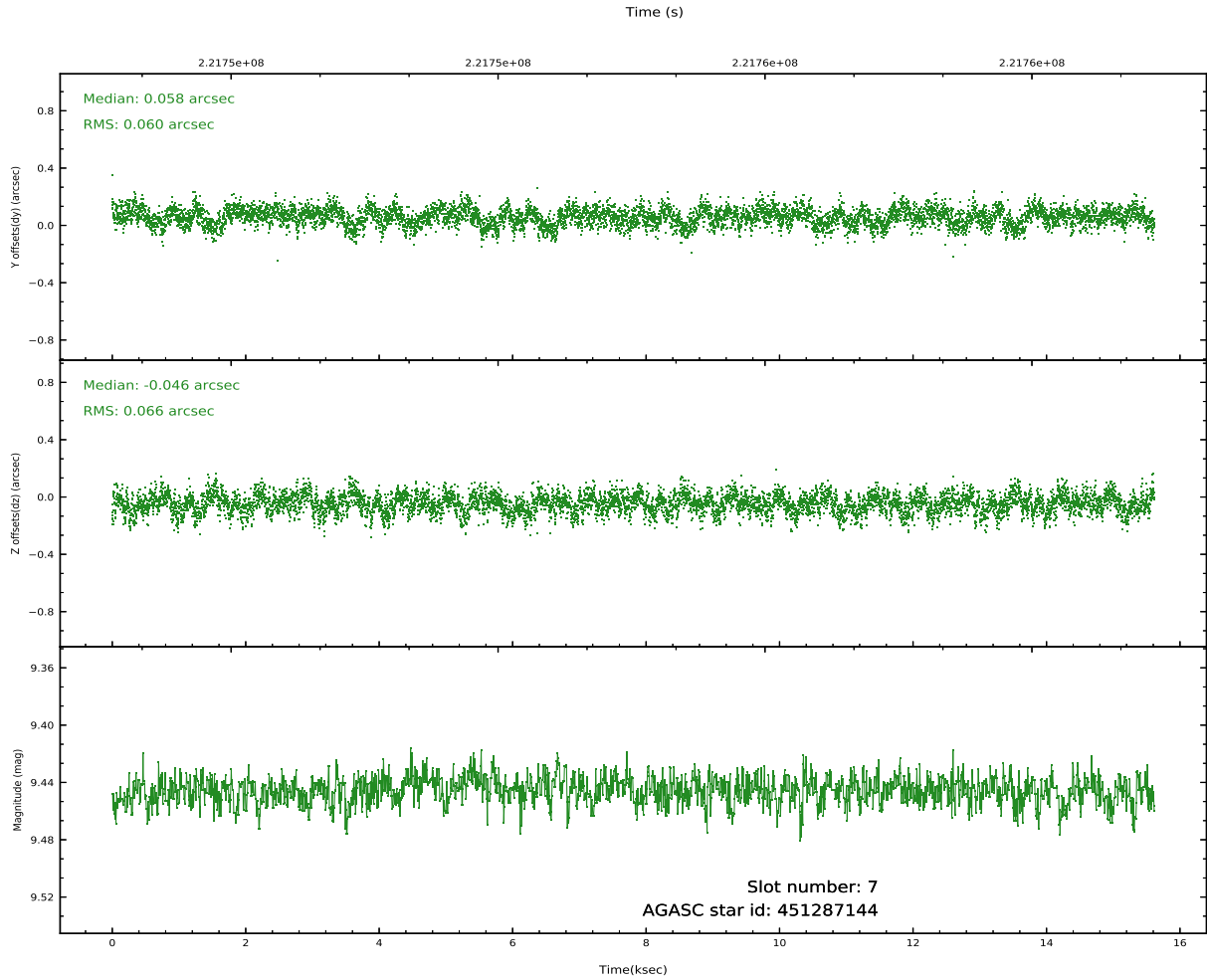
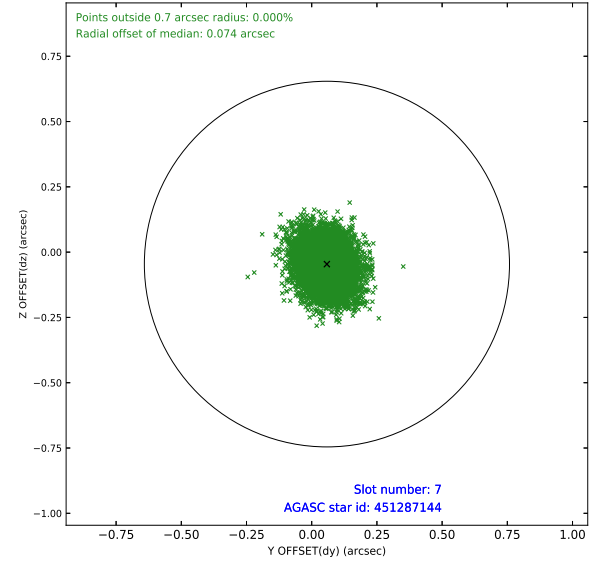
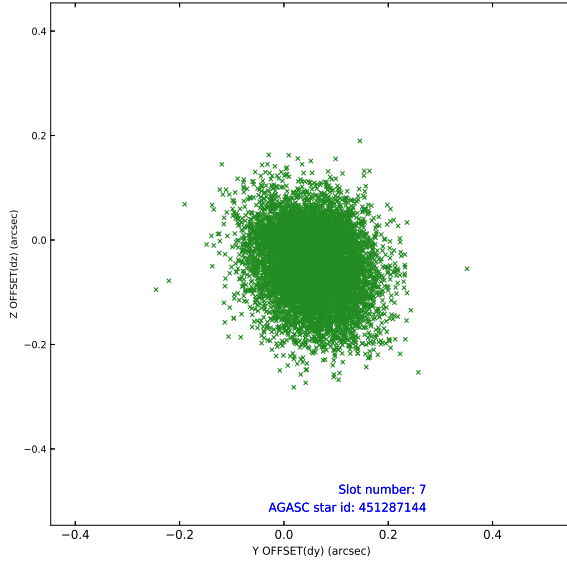


## 2.4.4 Slot 6



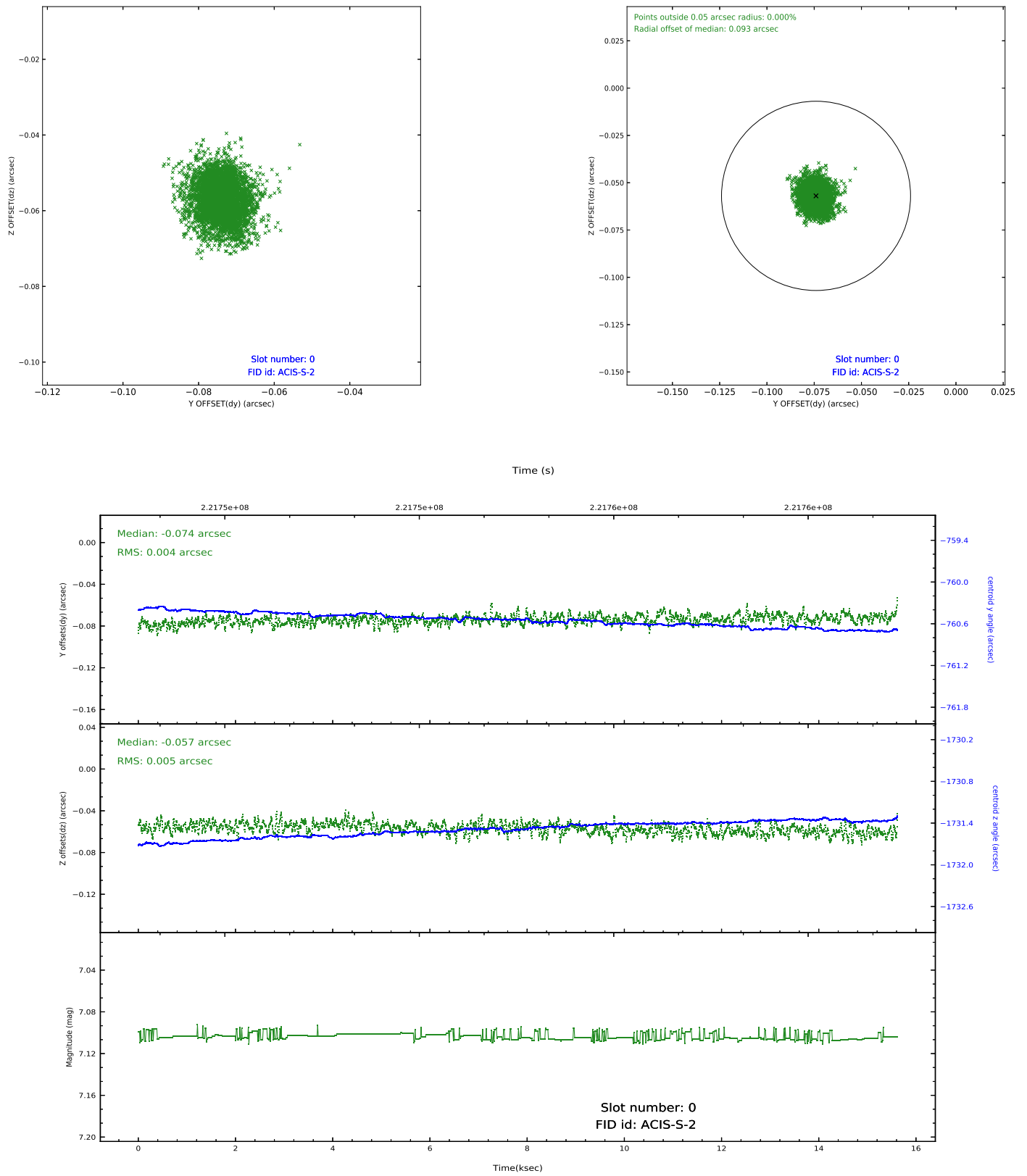


## 2.4.5 Slot 7

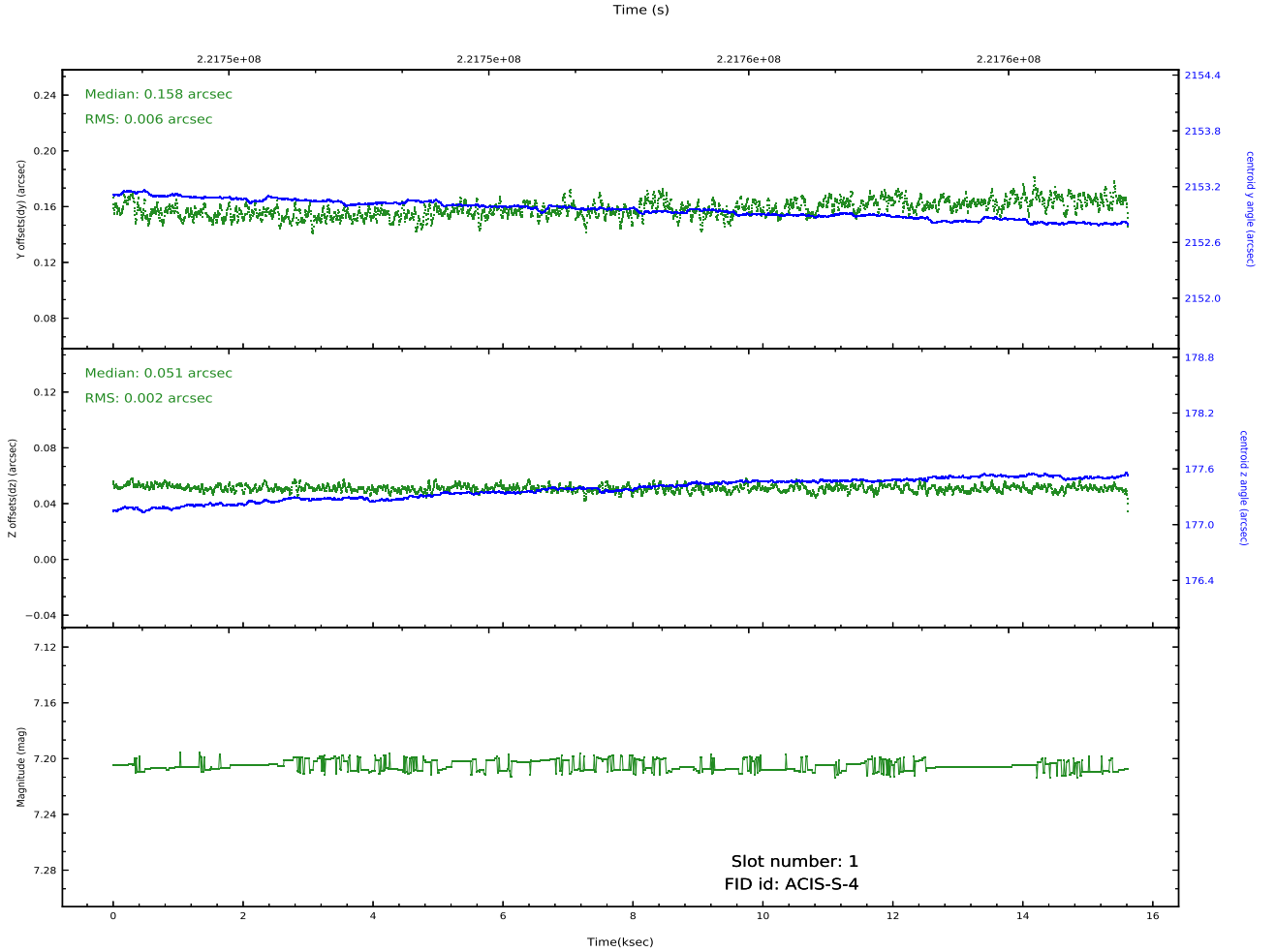
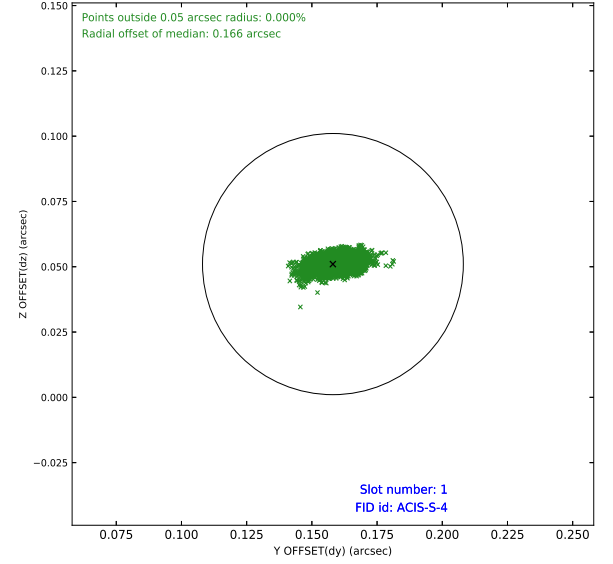
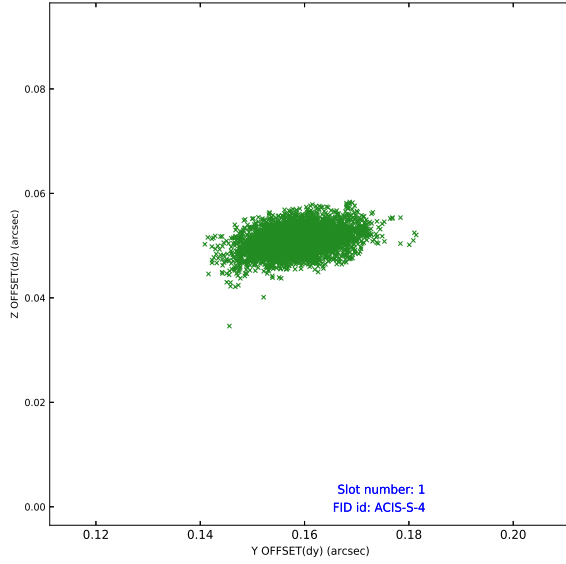


## 2.5 FID Slots

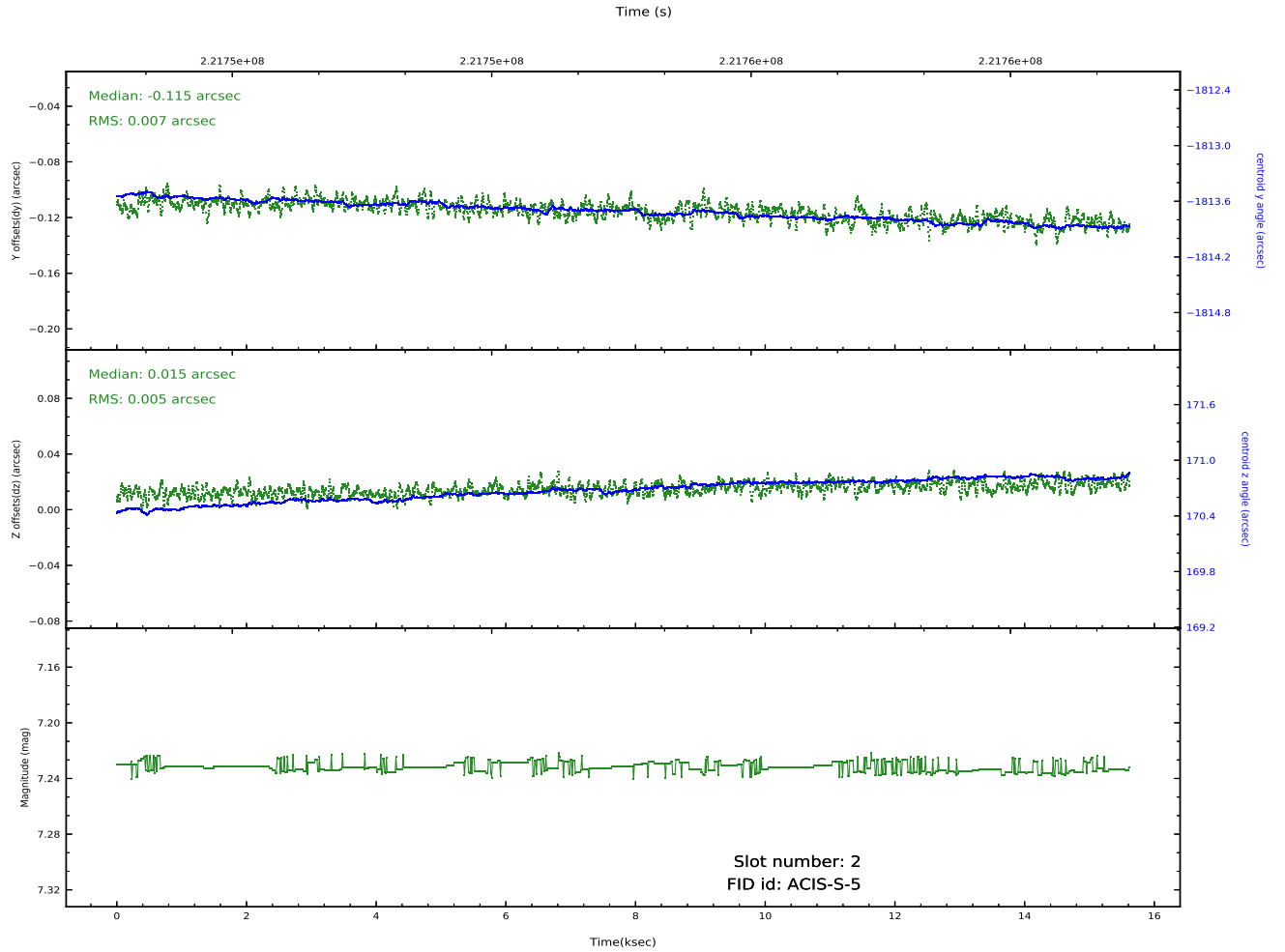
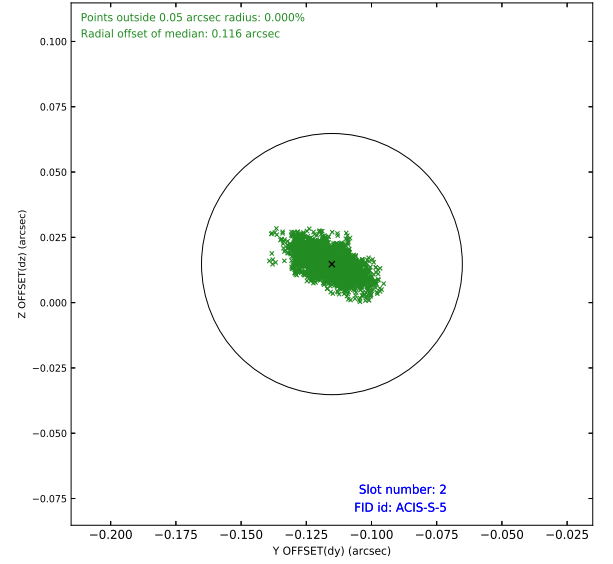
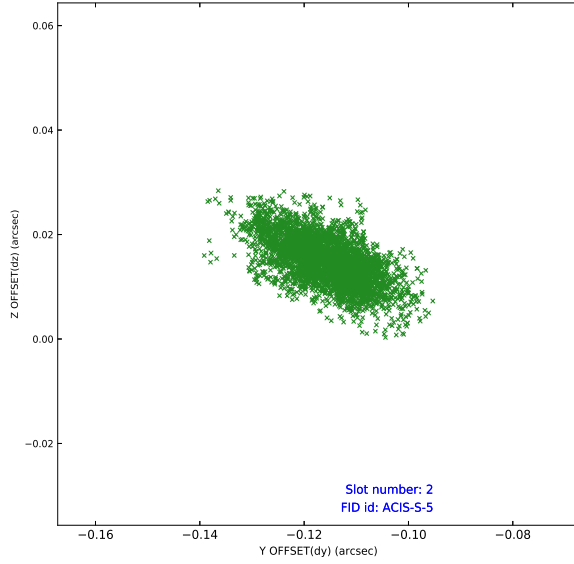
### 2.5.1 Slot 0



## 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)	2020.10.06
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	15.15839

### A.2 Comments