

# V&V Reference Report

## L2 ASCDS Version : 10.9.2

Observation 20491 - L2 Version 2  
Chandra X-Ray Center

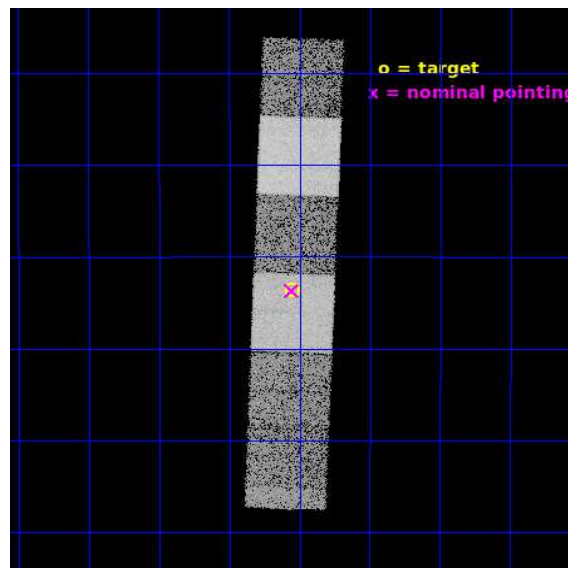
L2 Processing Date : Oct 27 2020

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# 1 Front

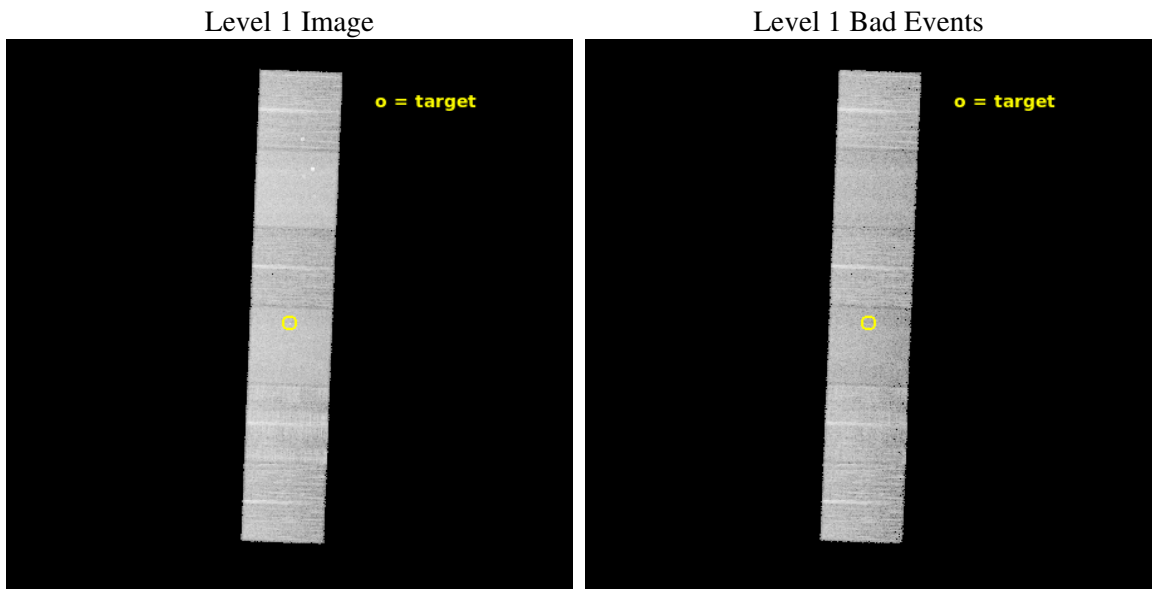
seq_num	703594	Sequence number
obs_id	20491	Observation id
title	Confirming X-ray bright gravitationally lensed quasars identified by Gaia and ROSAT	Proposal title
observer	Cameron Lemon	Principal investigator
object	J0146-1133	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	26.637083	Observer's specified target RA [deg]
dec_targ	-11.560694	Observer's specified target Dec [deg]
ra_nom	26.63853693143	Nominal RA [deg]
dec_nom	-11.56129834757	Nominal Dec [deg]
roll_nom	92.158095874705	Nominal Roll [deg]
revision	2	Processing version of data
ontime	9948.8001482487	Sum of GTIs [s]
livetime	9822.8224503233	Livetime [s]
ontime4	9945.5591278076	Sum of GTIs [s]
ontime5	9948.8001482487	Sum of GTIs [s]
ontime6	9948.8001482487	Sum of GTIs [s]
ontime7	9948.8001482487	Sum of GTIs [s]
ontime8	9948.8001482487	Sum of GTIs [s]
ontime9	9948.8001482487	Sum of GTIs [s]
l2events	123466	Number of level 2 events



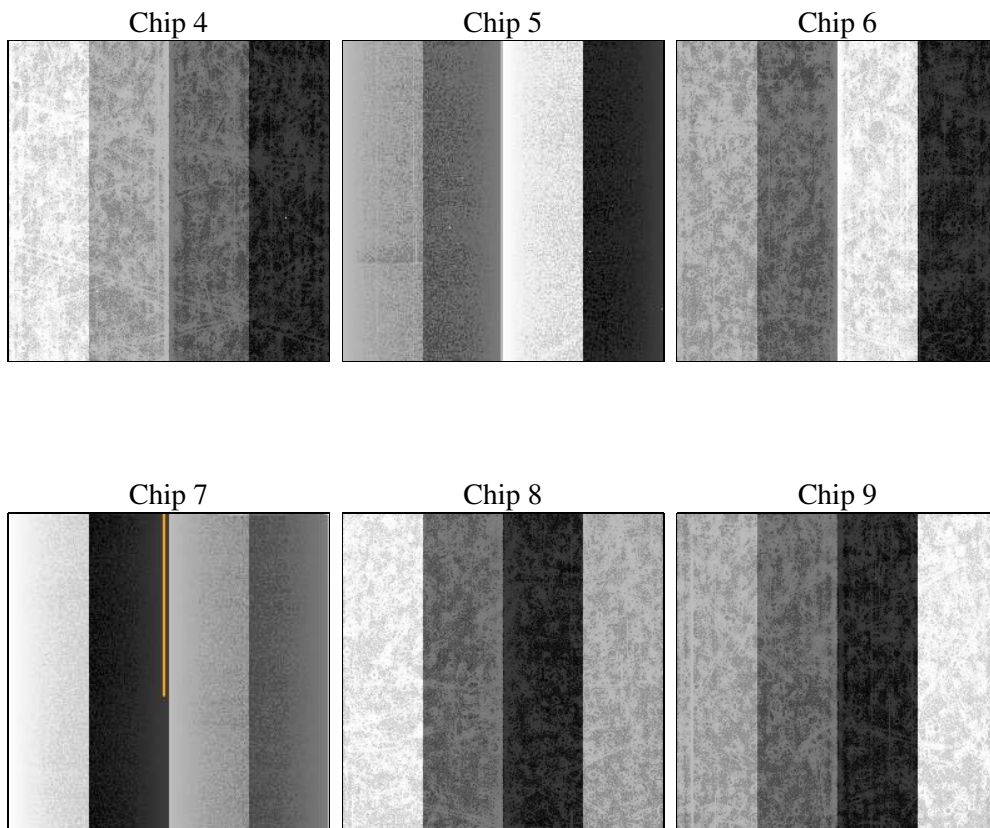
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	9948.8001482487	Sum of GTIs [s]
caldsver	4.9.3	&#160	ontime4	9945.5591278076	Sum of GTIs [s]
date	2020-10-27T06:27:09	Date and time of file creation	ontime5	9948.8001482487	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	9948.8001482487	Sum of GTIs [s]
			ontime7	9948.8001482487	Sum of GTIs [s]
			ontime8	9948.8001482487	Sum of GTIs [s]
			ontime9	9948.8001482487	Sum of GTIs [s]
			l1events	552102	Number of level 1 events

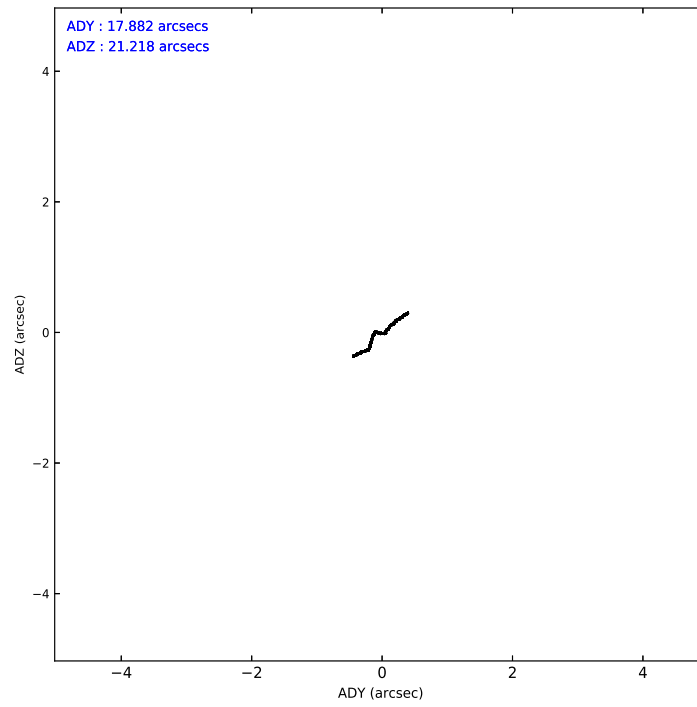
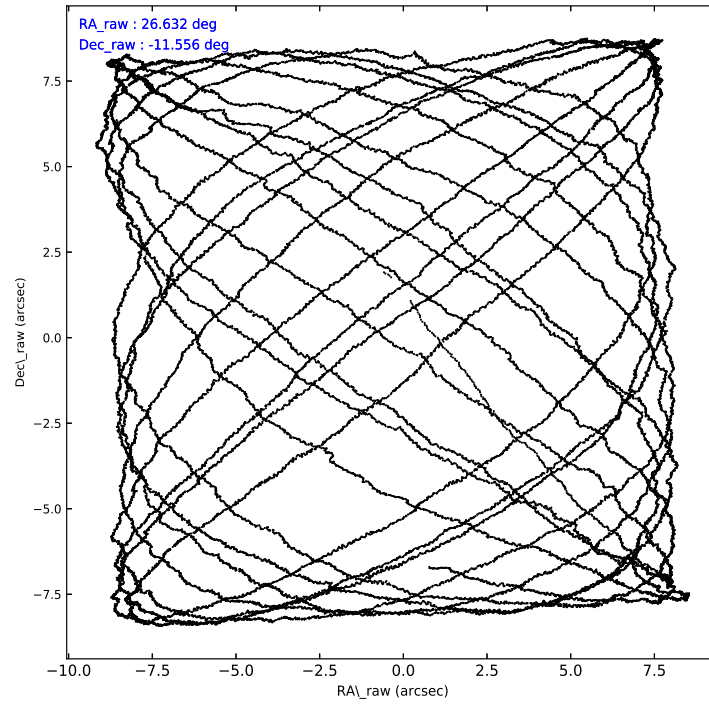
### 2.1.4 Events

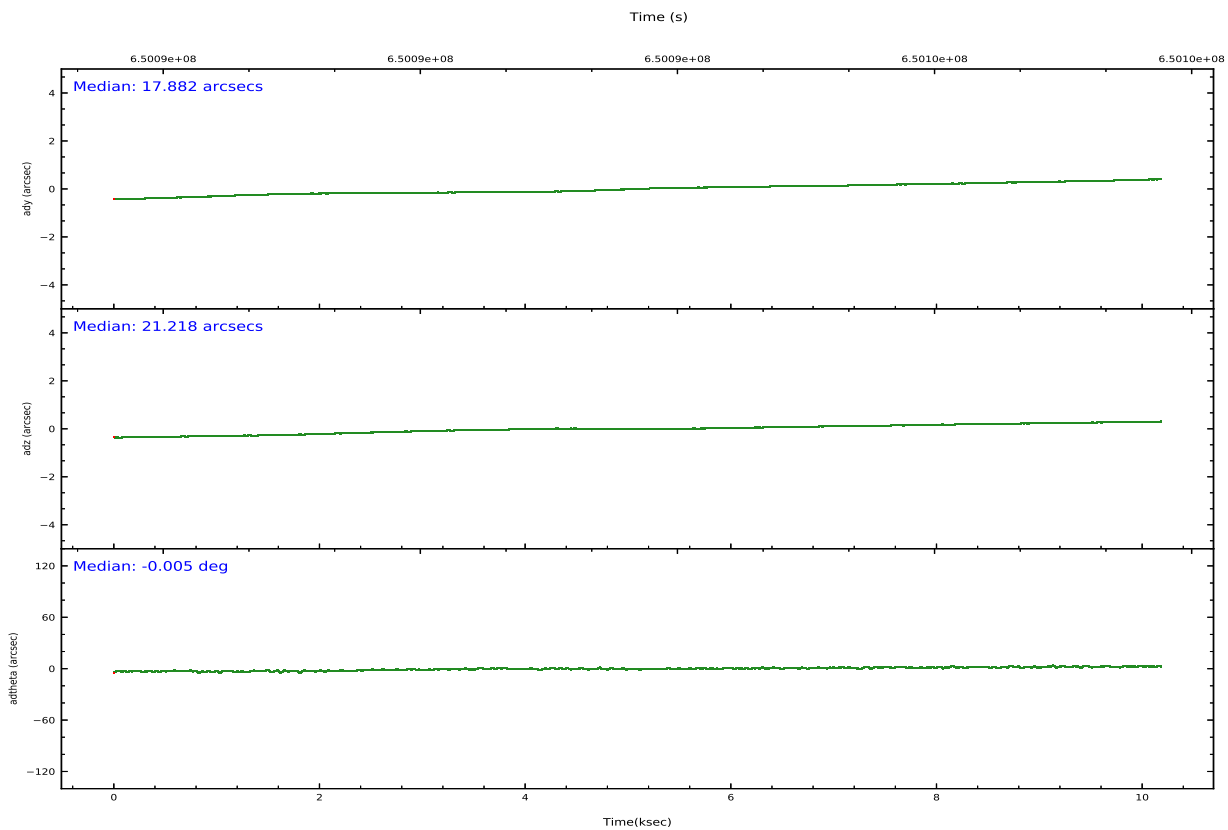
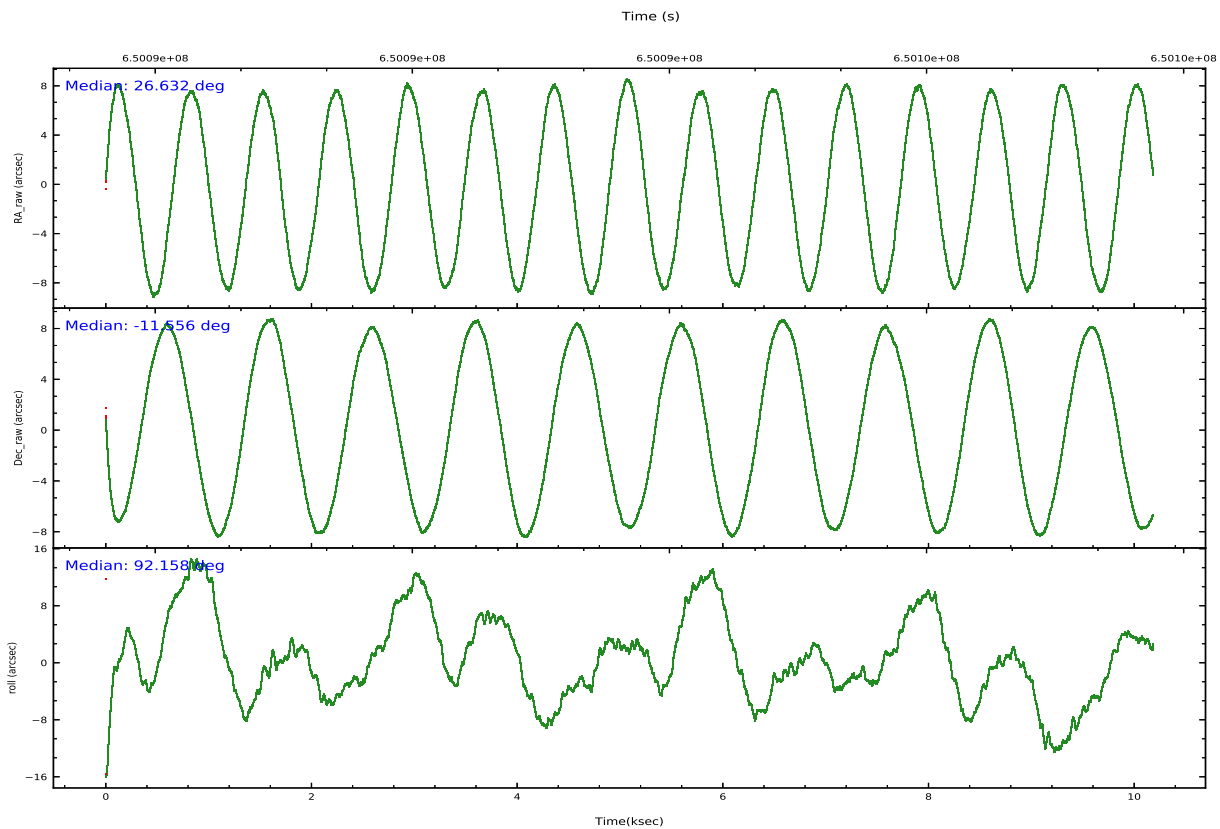
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	87010	117294	75546	96361	99337	76554	grade 0 events	3528	3550	2746	3393	7259	3151
rejected events	77882	61316	67258	54867	72849	67555		4%	3%	3%	3%	7%	4%
rejected %	89%	52%	89%	56%	73%	88%	grade 1 events	91	333	38	169	75	58
								0%	0%	0%	0%	0%	0%
							grade 2 events	2162	17694	1944	8852	6491	2083
								2%	15%	2%	9%	6%	2%
							grade 3 events	961	1685	803	3150	2799	852
								1%	1%	1%	3%	2%	1%
							grade 4 events	870	1601	809	3206	2609	939
								0%	1%	1%	3%	2%	1%
							grade 5 events	3630	7737	3413	9565	5231	4076
								4%	6%	4%	9%	5%	5%
							grade 6 events	1609	31459	1990	22912	7335	1976
								1%	26%	2%	23%	7%	2%
							grade 7 events	74159	53235	63803	45114	67538	63419
								85%	45%	84%	46%	67%	82%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-456789	ACIS-456789	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	26.647338	26.63853693143	CCD I2 on	N	N
[deg] Pointing Dec	-11.579424	-11.56129834757	CCD I3 on	N	N
[deg] Pointing Roll	92.002054	92.158095874705	CCD S0 on	O2	Y
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O3	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	Y	Y
[s] Observation start time (MET)	650087203.184000	650086185.83262	CCD S5 on	O1	Y
Observation start date	2018-08-08T03:45:34	2018-08-08T03:29:45	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	650097203.184000	650098124.52083	On-chip summing requested	N	N
Observation end date	2018-08-08T06:32:14	2018-08-08T06:48:44	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



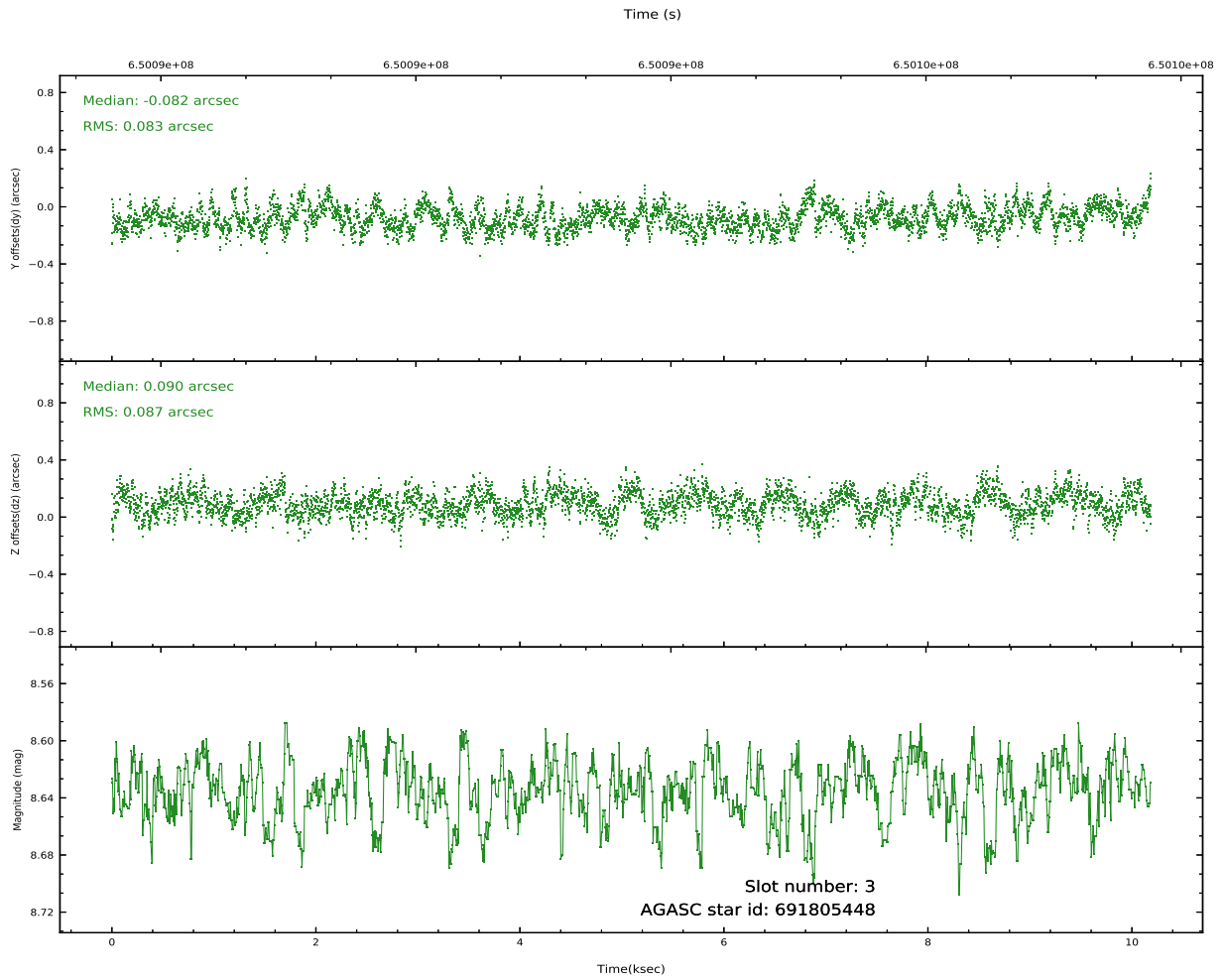
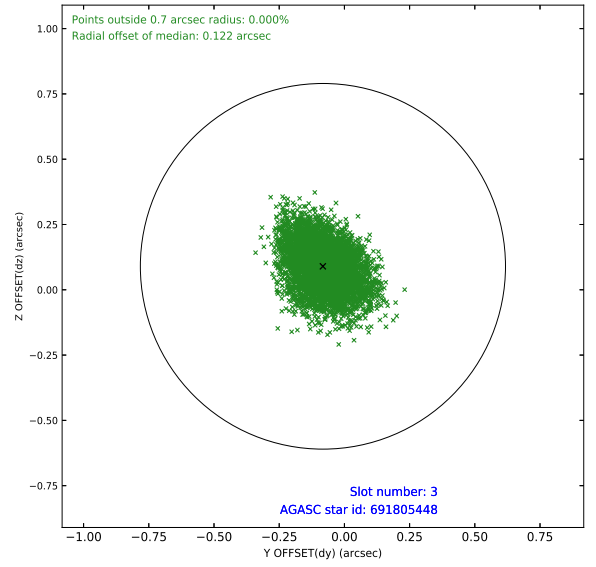
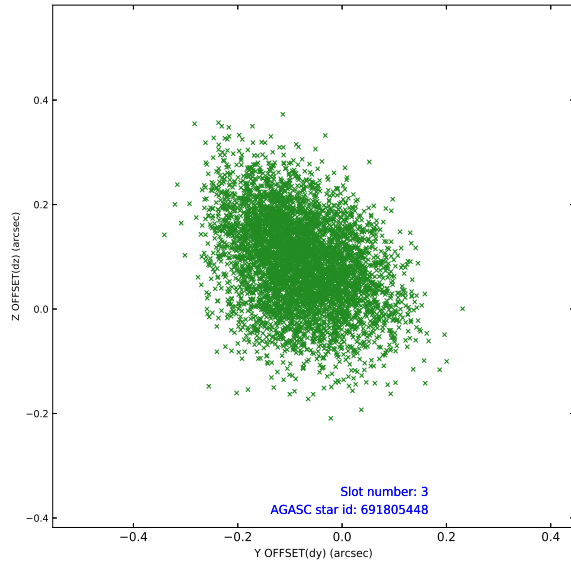


Slot Statistics

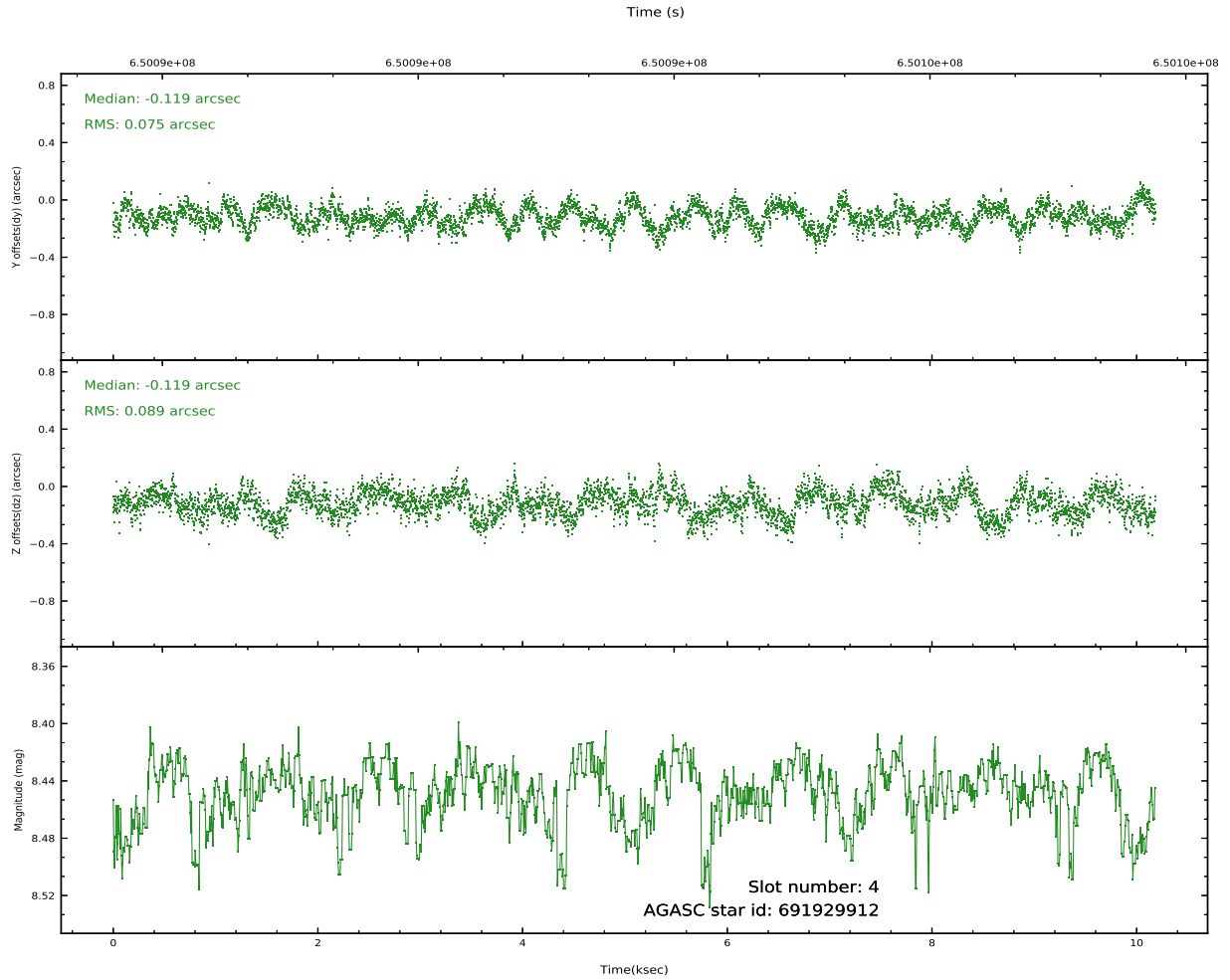
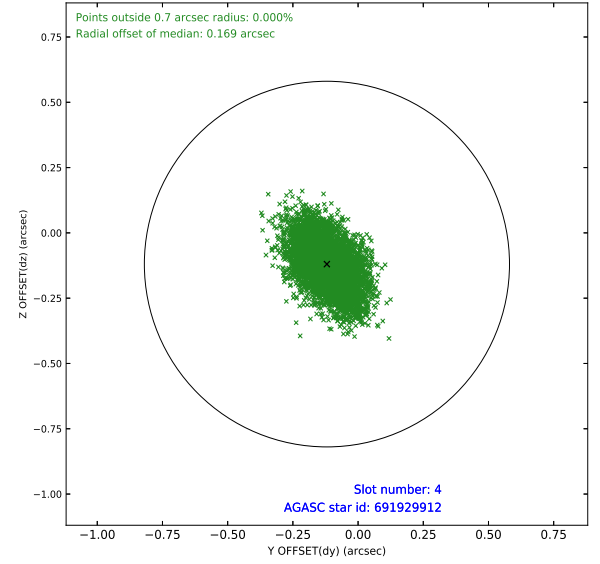
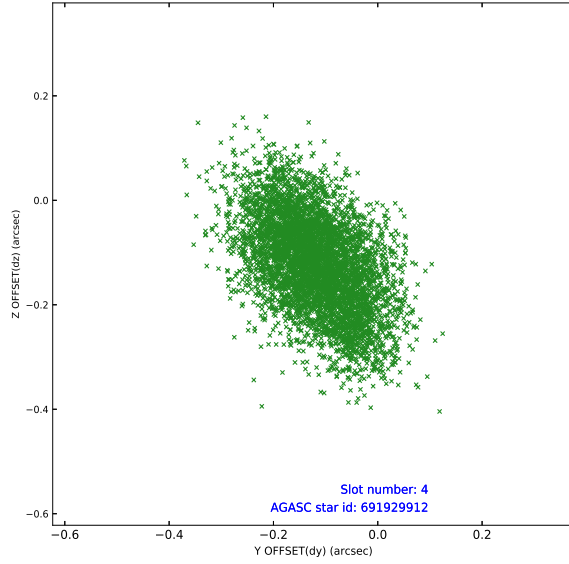
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-1	7.12	2485	1.000	0.075	-0.086	0.010	0.017	0.000000	0.000000	925.16	-1738
1	FID		ACIS-S-4	7.15	2485	1.000	0.031	-0.100	0.010	0.016	0.000000	0.000000	2142.82	165
2	FID		ACIS-S-6	7.29	2485	1.000	-0.130	0.197	0.006	0.011	0.000000	0.000000	391.58	803
3	GUIDE	used	691805448	8.63	4965	1.000	-0.082	0.090	0.127	0.206	26.934850	-10.984801	2103.34	-1089
4	GUIDE	used	691929912	8.45	4966	1.000	-0.119	-0.119	0.125	0.204	26.164658	-11.656660	-217.84	1709
5	GUIDE	used	691932280	8.13	4968	1.000	-0.255	-0.166	0.098	0.167	26.167104	-11.508023	313.97	1684
6	GUIDE	used	691932968	9.28	4962	1.000	-0.124	-0.184	0.152	0.253	26.164761	-11.277151	1143.33	1664
7	GUIDE	used	691933824	9.35	4963	1.000	0.561	0.392	0.181	0.328	26.709881	-12.150927	-2062.84	-147

## 2.4 Star Slots

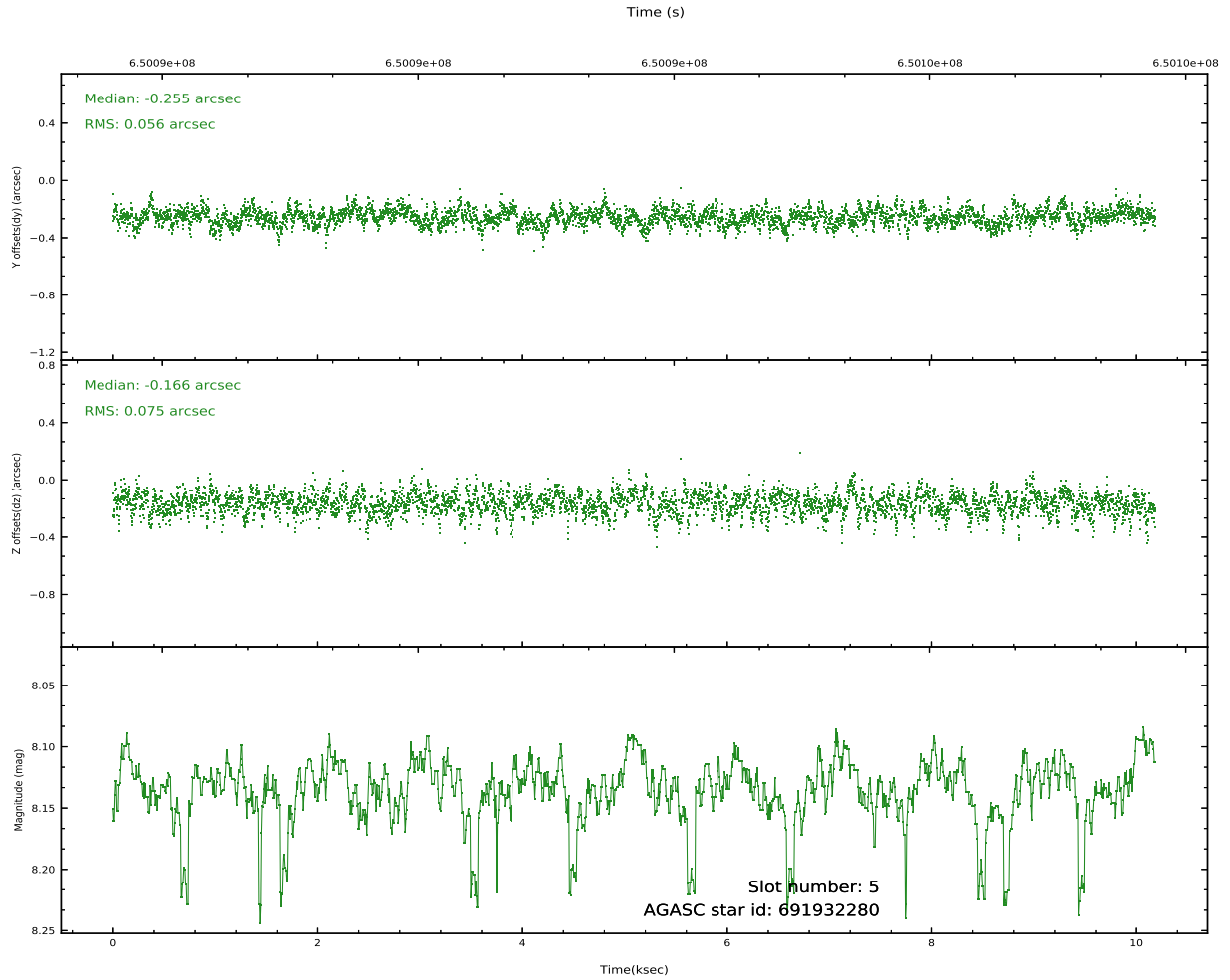
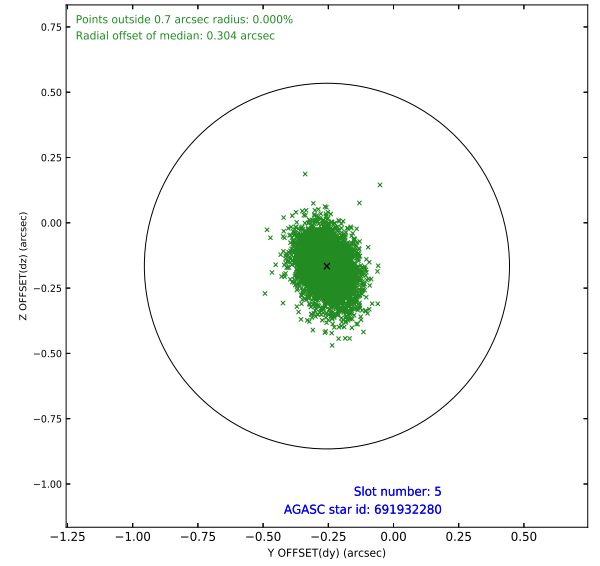
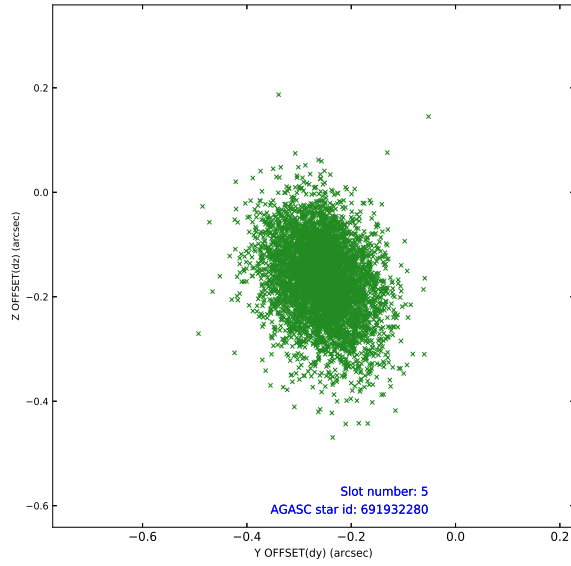
### 2.4.1 Slot 3



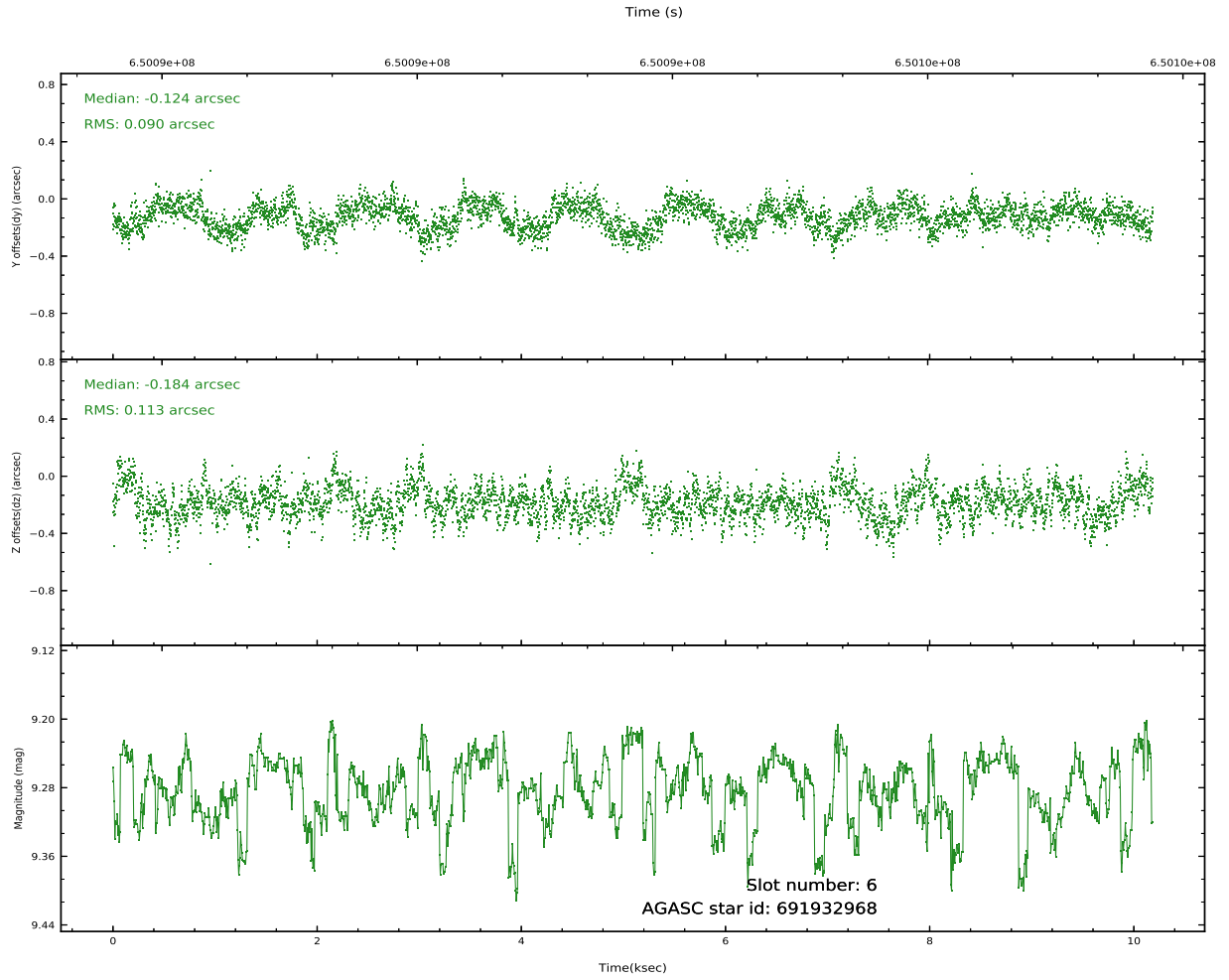
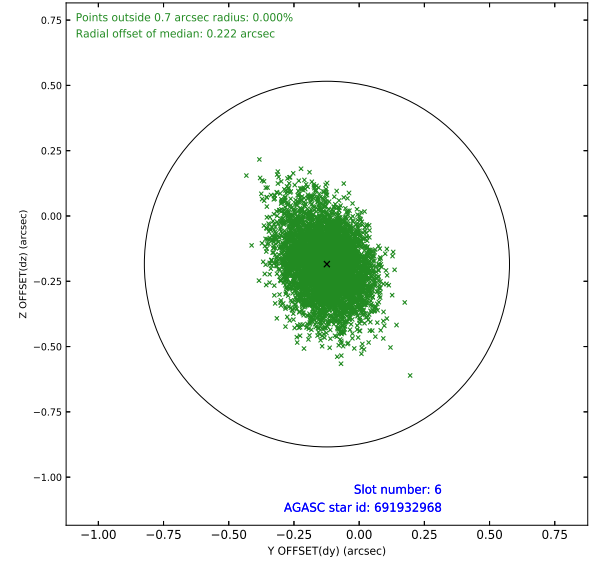
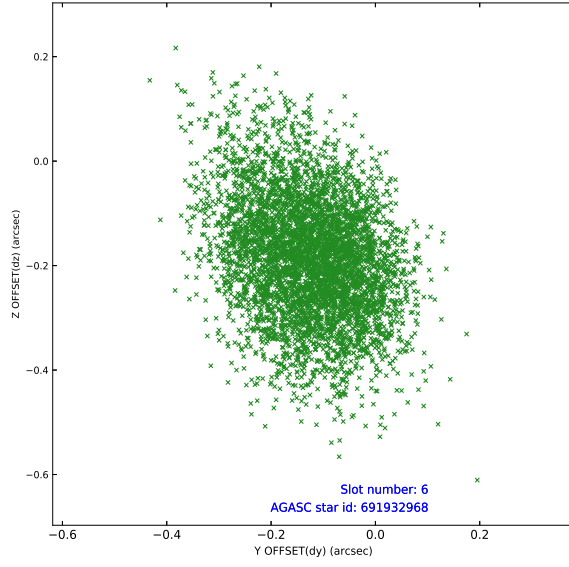
## 2.4.2 Slot 4



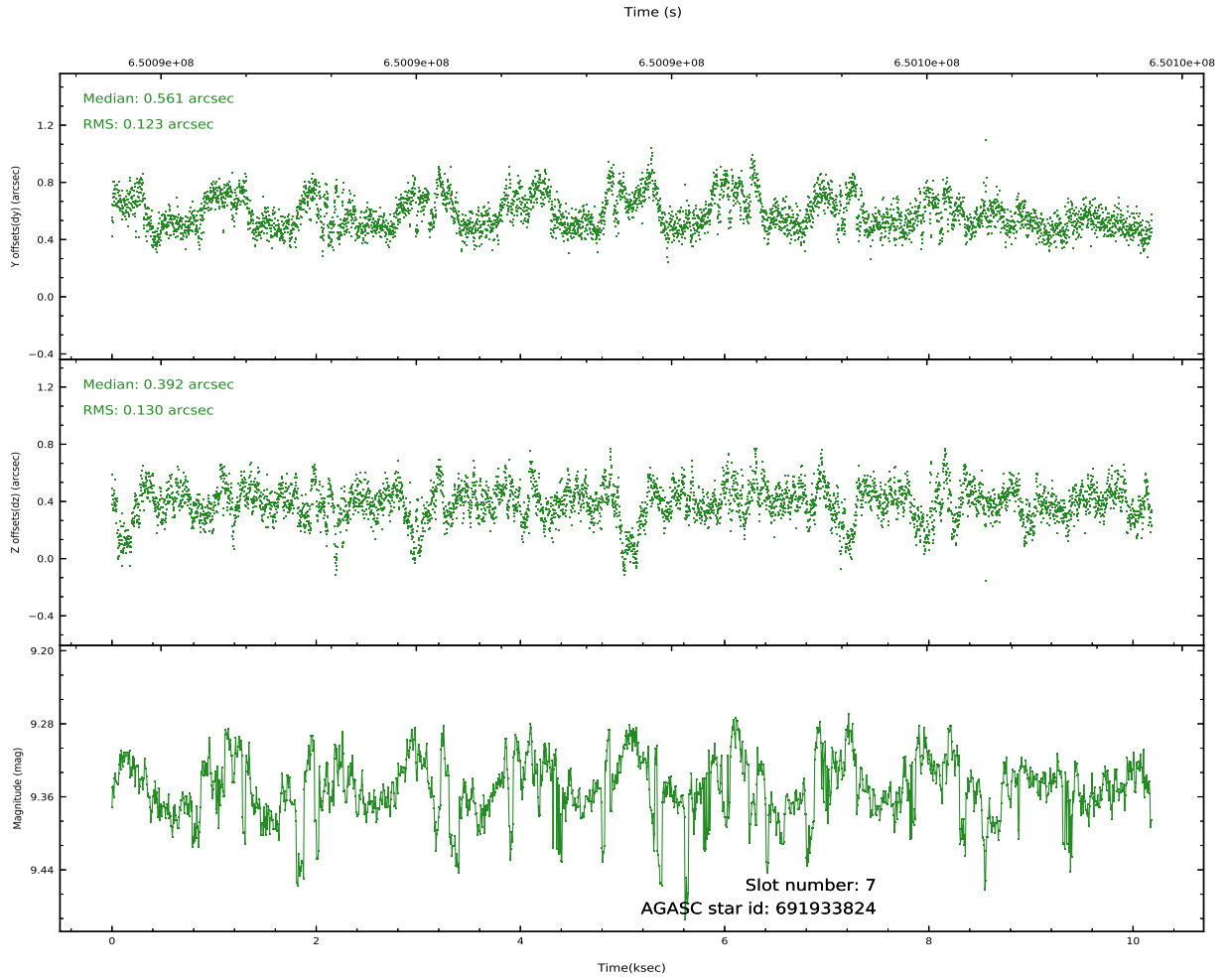
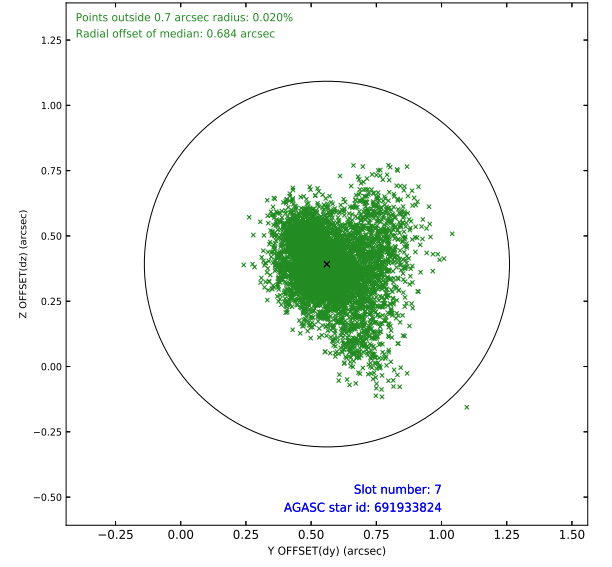
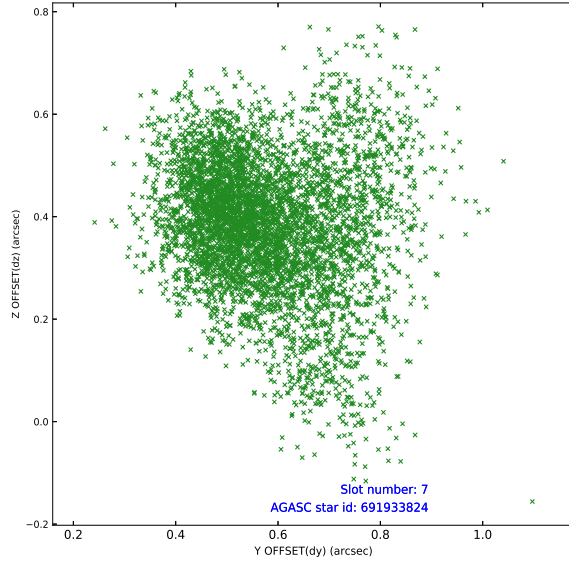
### 2.4.3 Slot 5



## 2.4.4 Slot 6

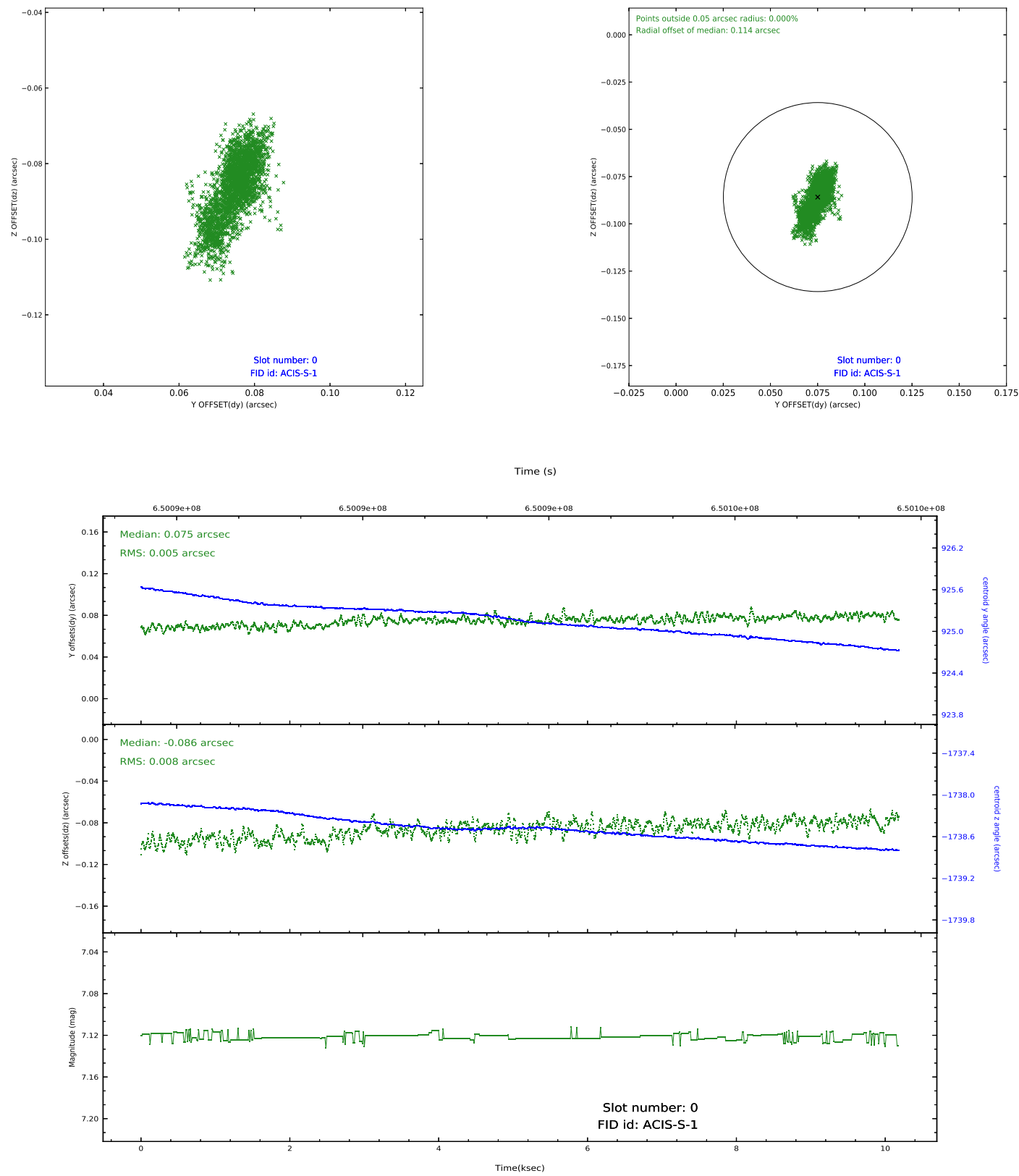


## 2.4.5 Slot 7

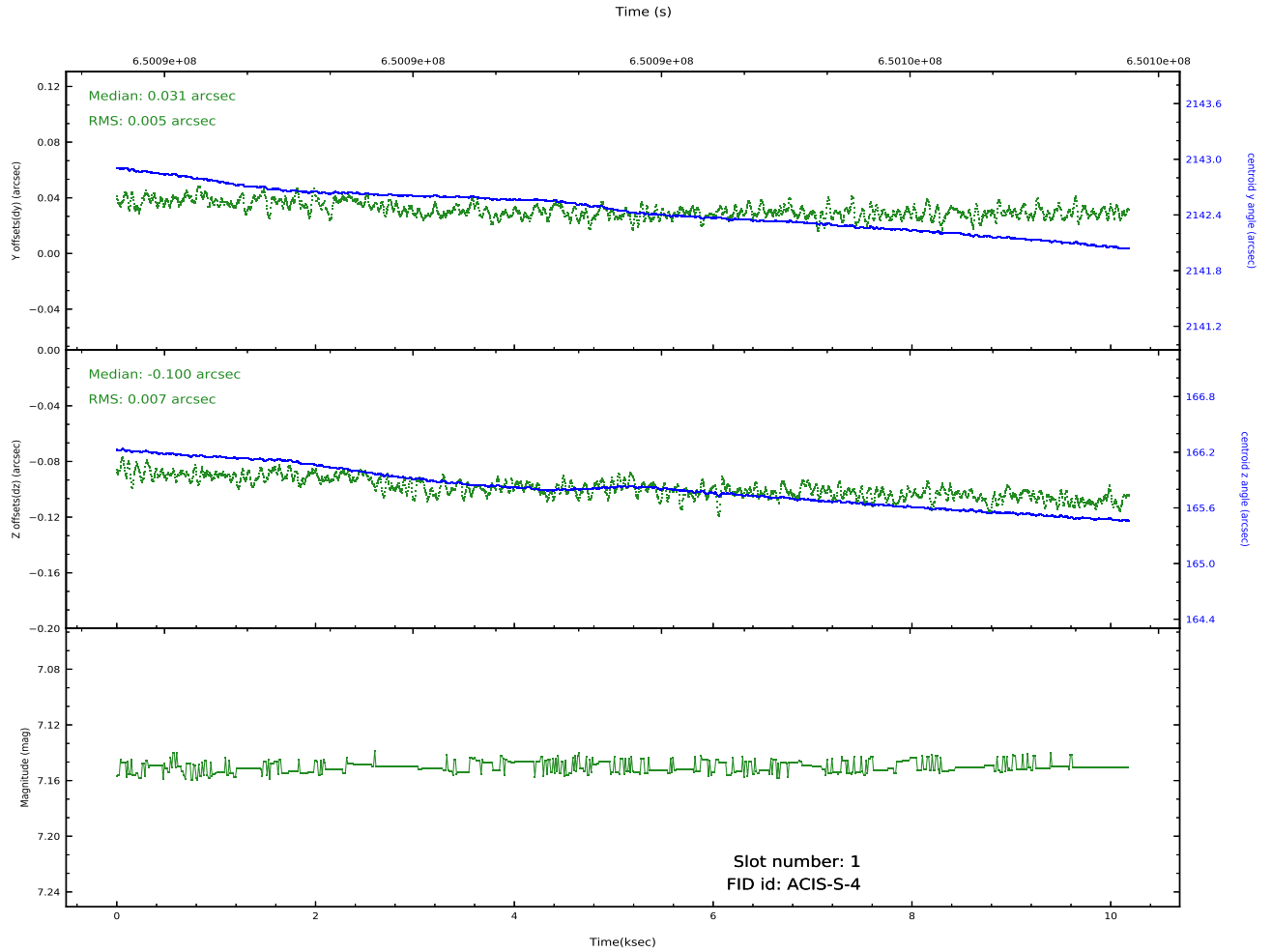
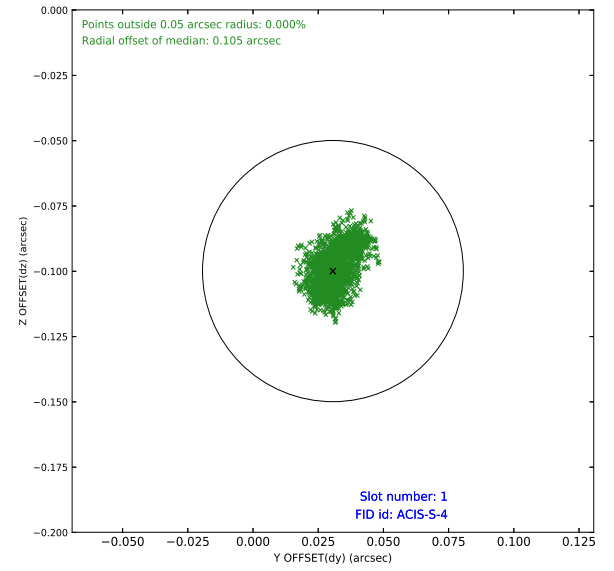
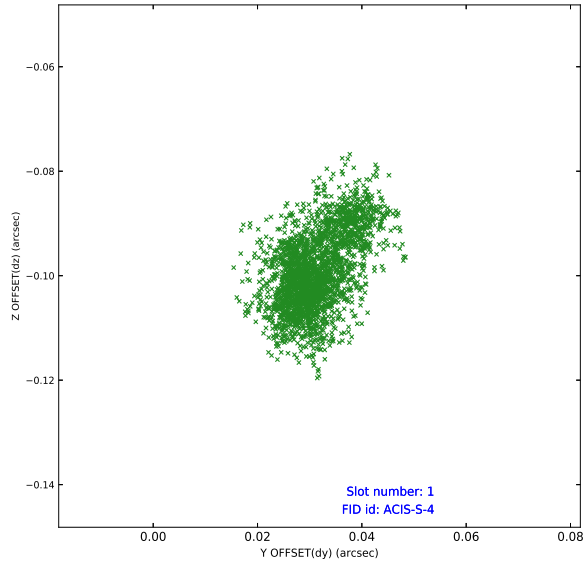


# 2.5 FID Slots

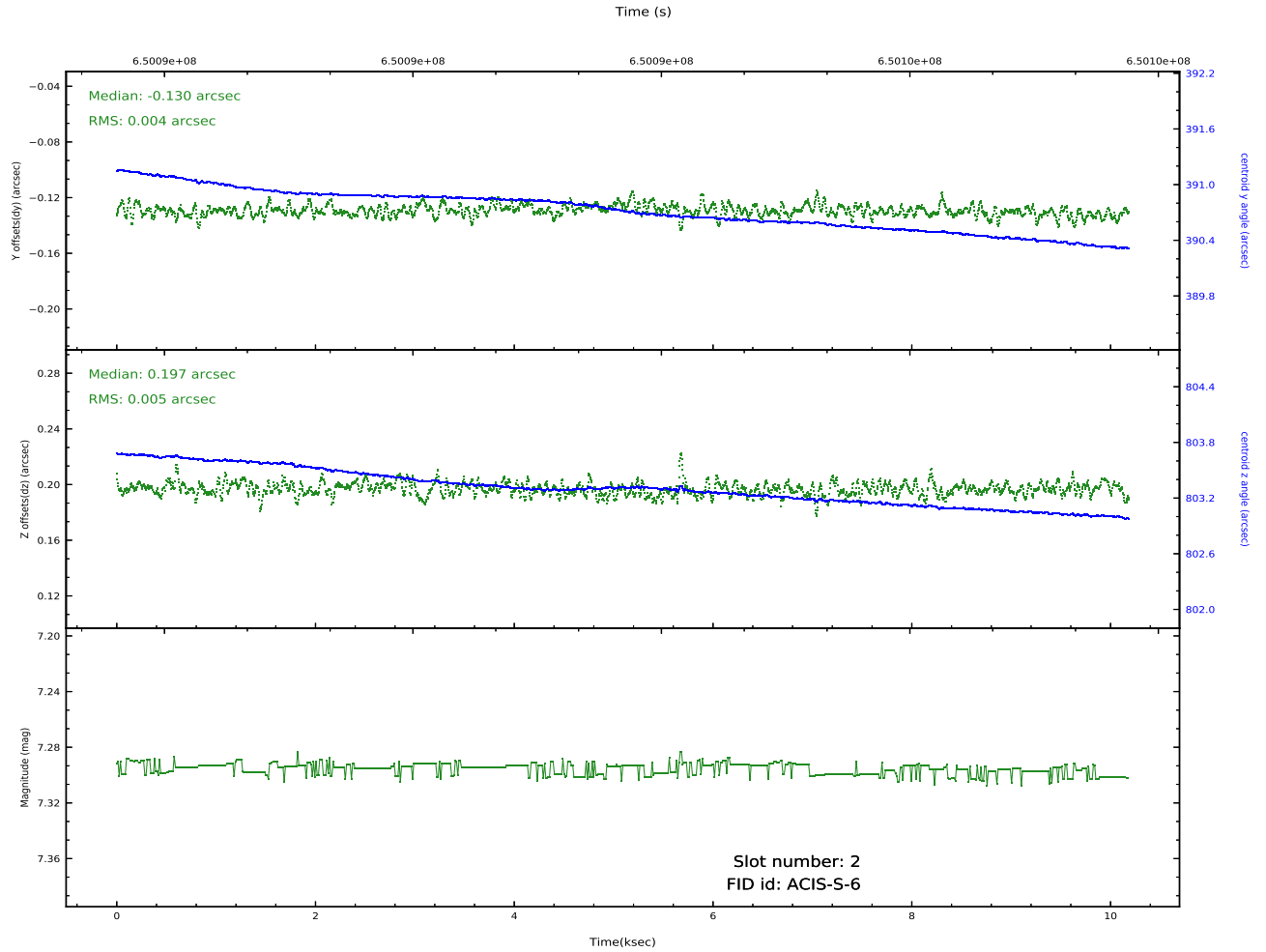
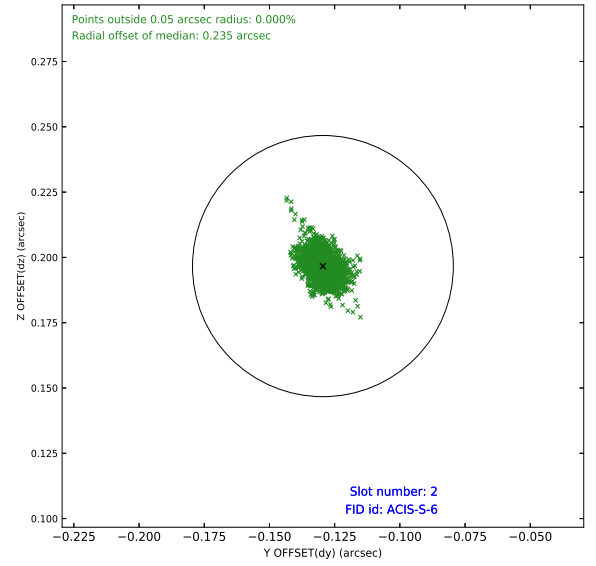
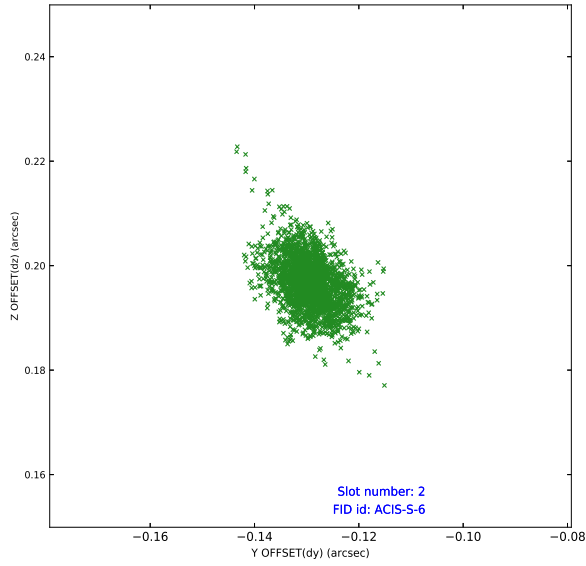
## 2.5.1 Slot 0



## 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)	2020.10.29
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.9136001477242

### A.2 Comments

Charge time for this observation remains at previous value of 9.9136001477242 ksec.