

# V&V Reference Report

## L2 ASCDS Version : 10.9.2

Observation 21091 - L2 Version 2  
Chandra X-Ray Center

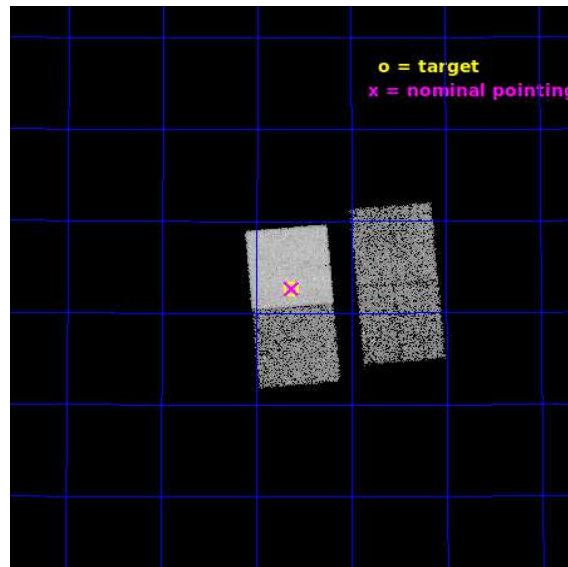
L2 Processing Date : Oct 26 2020

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# 1 Front

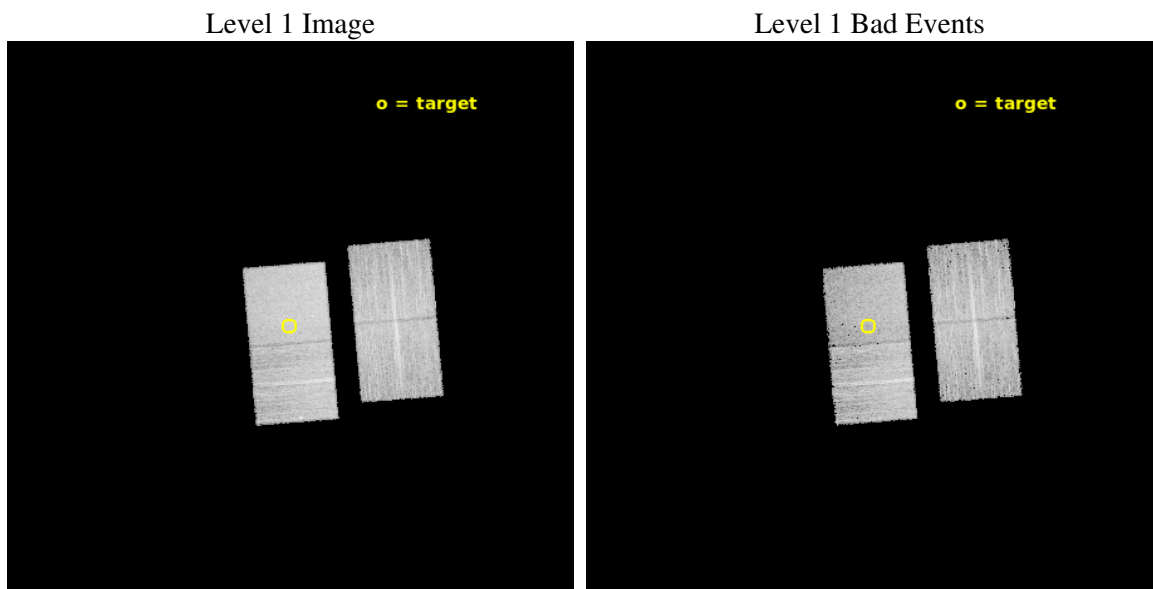
seq_num	703678	Sequence number
obs_id	21091	Observation id
title	Chandra observations of NGC3893: Completion of the Palomar Galaxies Legacy Sample	Proposal title
observer	Ian McHardy	Principal investigator
object	NGC3893	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	177.159167	Observer's specified target RA [deg]
dec_targ	48.710833	Observer's specified target Dec [deg]
ra_nom	177.15693290174	Nominal RA [deg]
dec_nom	48.711082758297	Nominal Dec [deg]
roll_nom	265.14854962616	Nominal Roll [deg]
revision	2	Processing version of data
ontime	10074.87578249	Sum of GTIs [s]
livetime	9943.2401133759	Livetime [s]
ontime2	10074.752662539	Sum of GTIs [s]
ontime3	10074.793702483	Sum of GTIs [s]
ontime6	10074.834742546	Sum of GTIs [s]
ontime7	10074.87578249	Sum of GTIs [s]
l2events	61215	Number of level 2 events



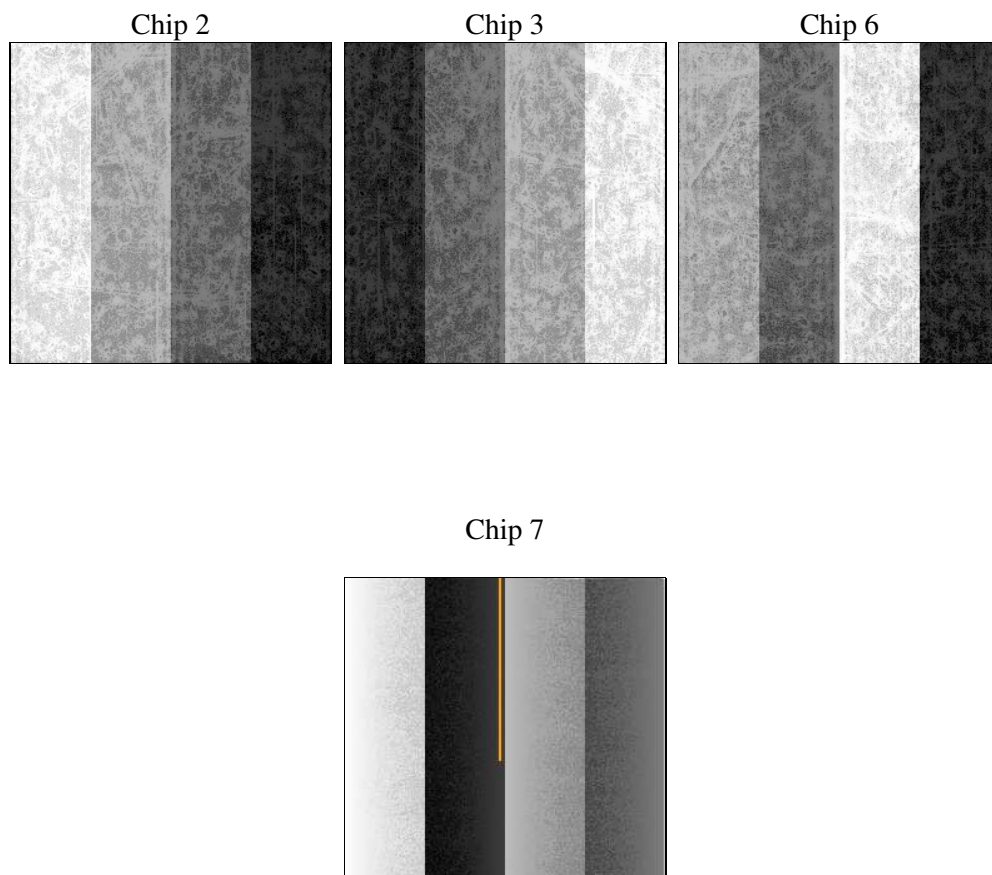
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10003.536000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	10074.87578249	Sum of GTIs [s]
caldsver	4.9.3	&#160	ontime2	10074.752662539	Sum of GTIs [s]
date	2020-10-26T10:47:44	Date and time of file creation	ontime3	10074.793702483	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	10074.834742546	Sum of GTIs [s]
			ontime7	10074.87578249	Sum of GTIs [s]
			l1events	309623	Number of level 1 events

### 2.1.4 Events

	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	69280	69357	76851	94135
rejected events	61264	61443	68292	52478
rejected %	88%	88%	88%	55%

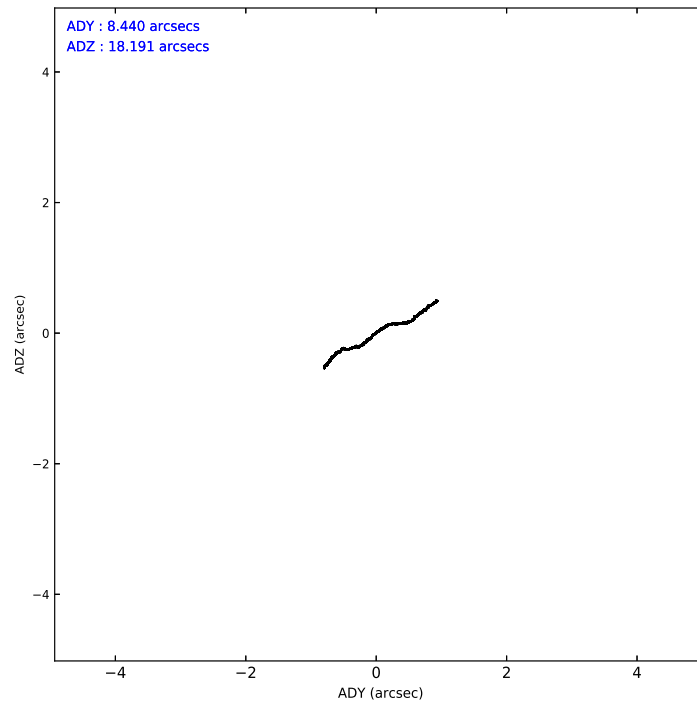
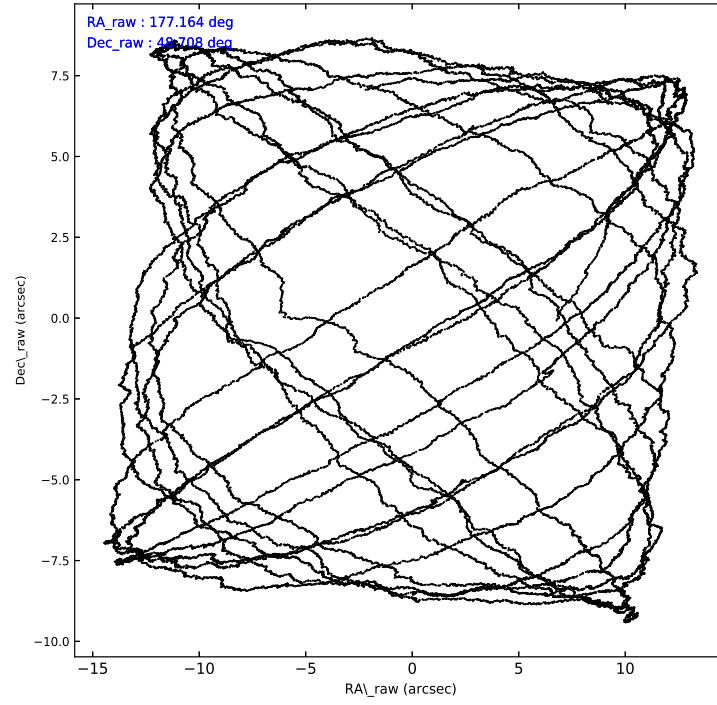
	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	2773	2927	2947	3604
	4%	4%	3%	3%
grade 1 events	49	29	53	140
	0%	0%	0%	0%
grade 2 events	2034	1708	2006	9094
	2%	2%	2%	9%
grade 3 events	834	819	846	3321
	1%	1%	1%	3%
grade 4 events	786	825	842	3338
	1%	1%	1%	3%
grade 5 events	3147	3427	3645	9318
	4%	4%	4%	9%
grade 6 events	1602	1641	1920	22315
	2%	2%	2%	23%
grade 7 events	58055	57981	64592	43005
	83%	83%	84%	45%

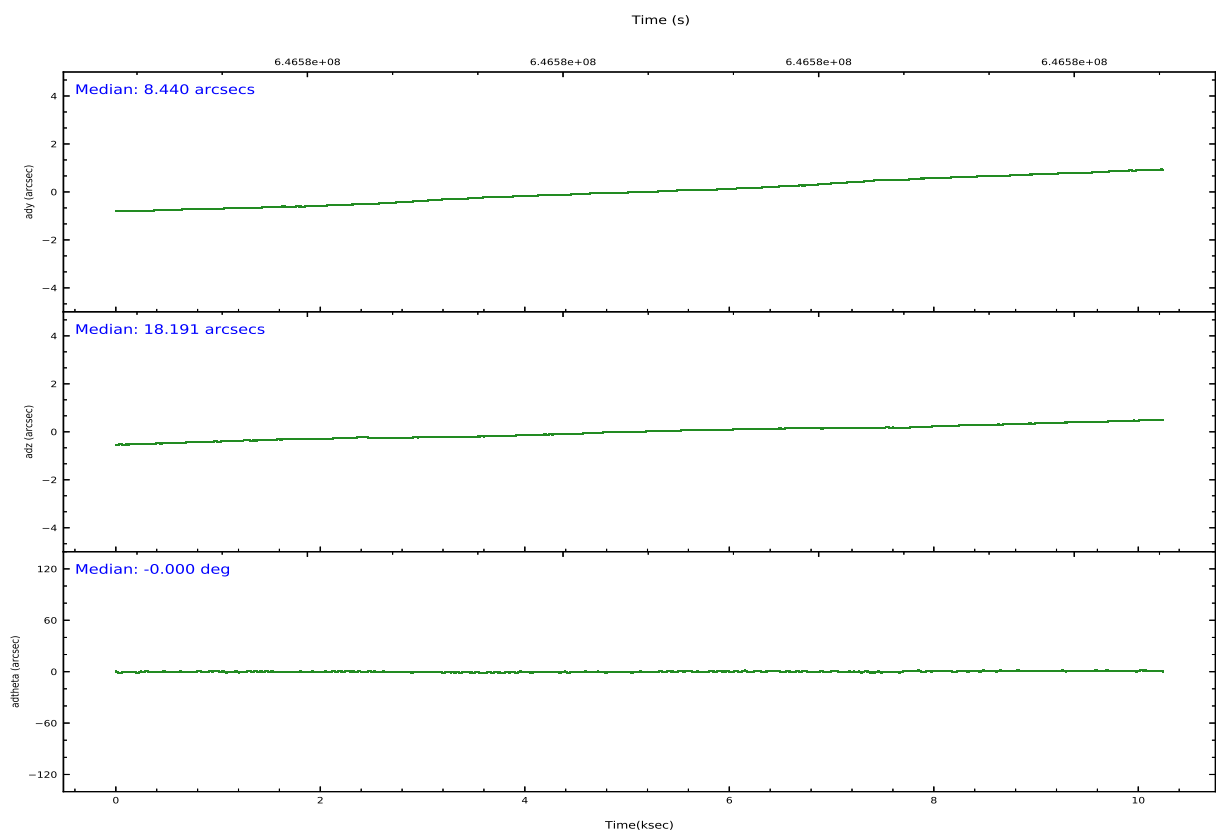
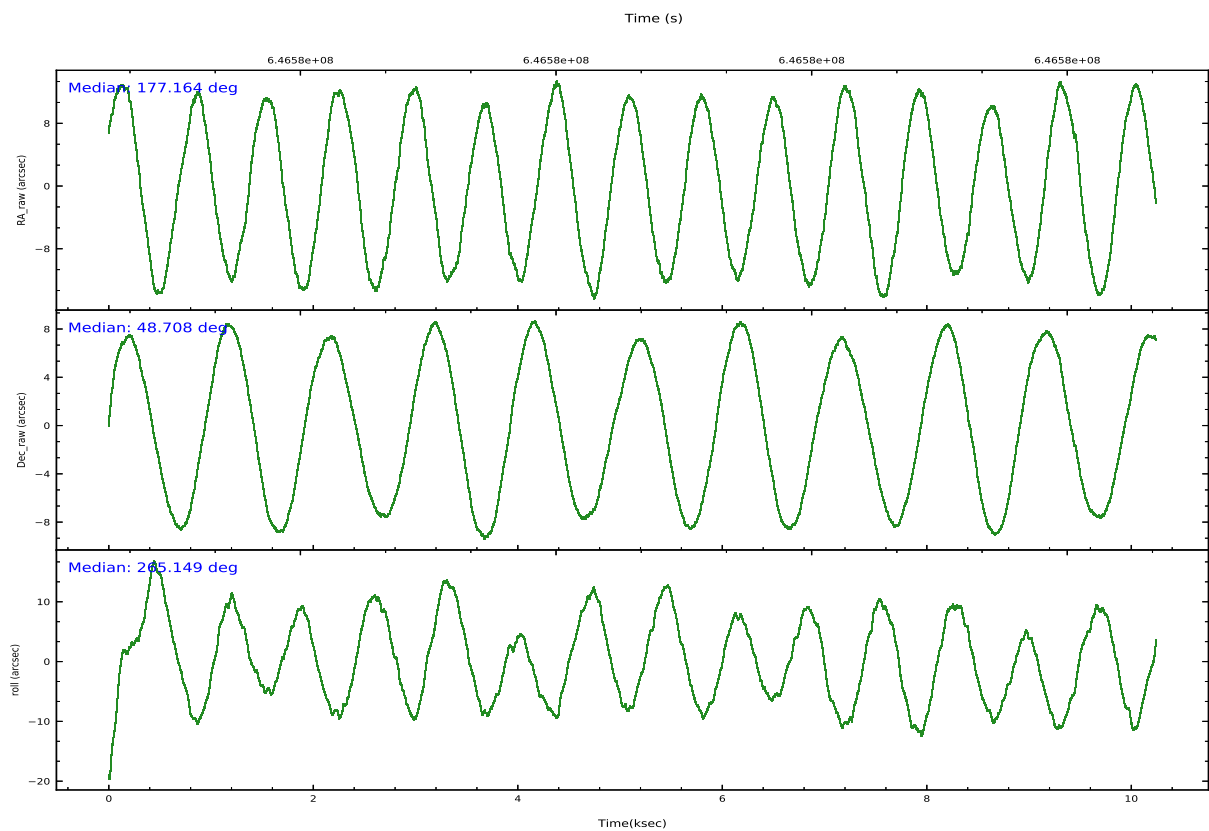


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-2367	ACIS-2367	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	177.146235	177.15693290174	Subarray requested	NONE	NONE
[deg] Pointing Dec	48.732828	48.711082758297	Alternating exposures requested	N	N
[deg] Pointing Roll	265.009719	265.14854962616	[s] Primary exposure time	0.000000	3.1
[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)	646573365.184000	646572454.3619			
Observation start date	2018-06-28T11:41:36	2018-06-28T11:27:34			
[s] Observation end time (MET)	646583369.184000	646583888.75008			
Observation end date	2018-06-28T14:28:20	2018-06-28T14:38:08			
Read mode	TIMED	TIMED			

## 2.3 Aspect



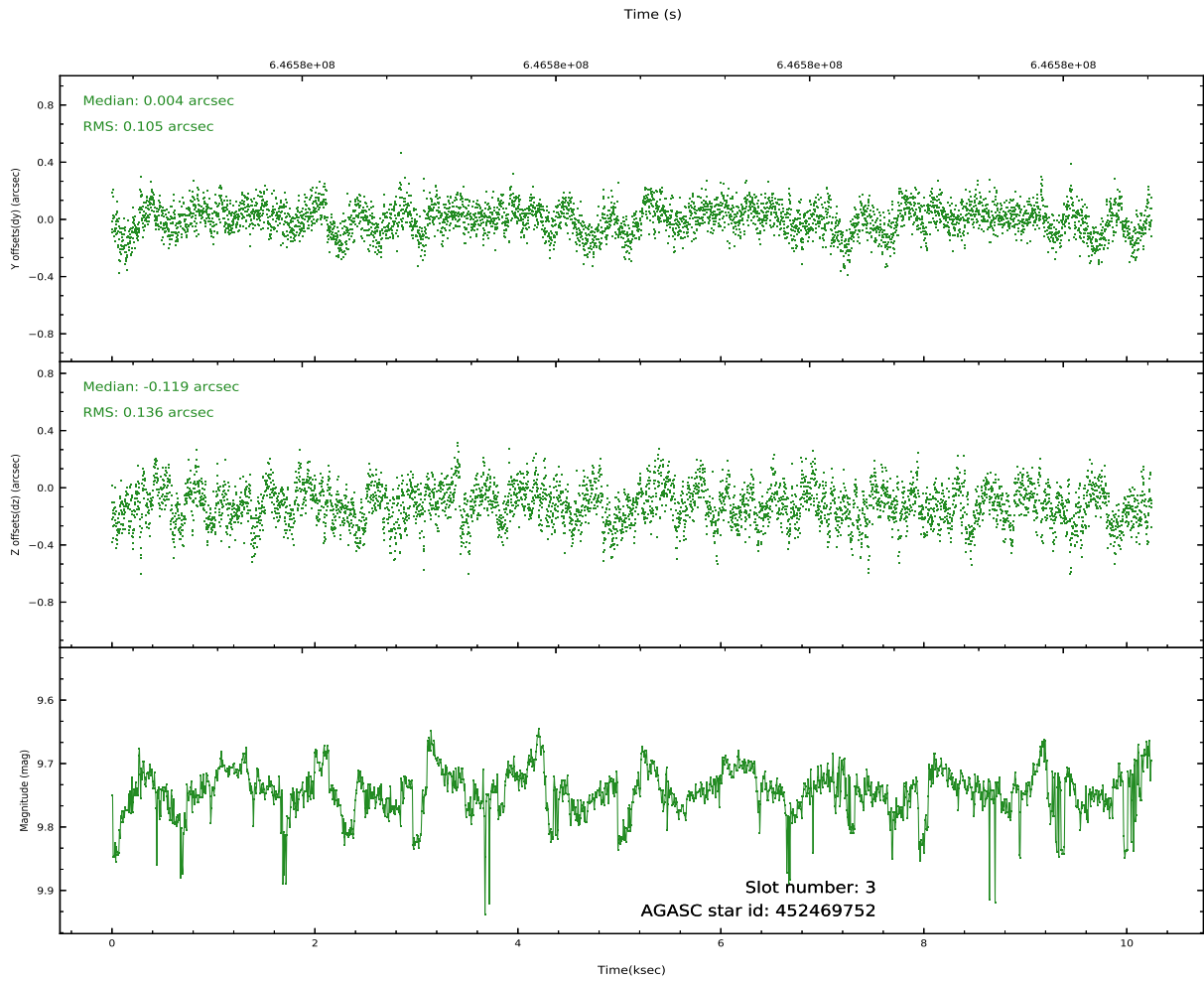
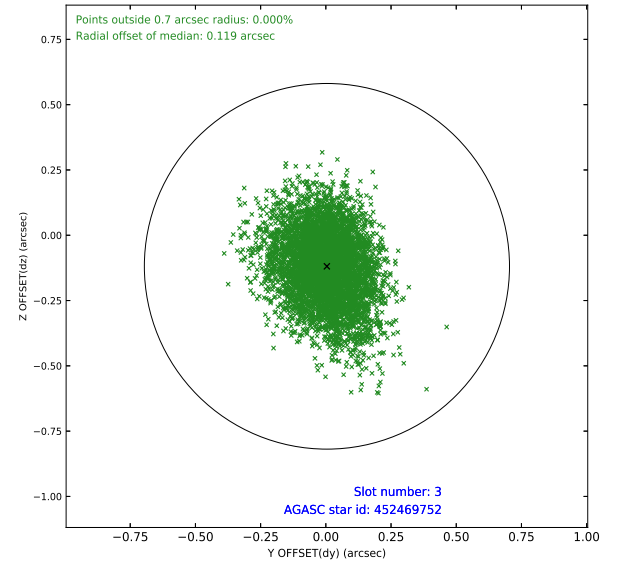
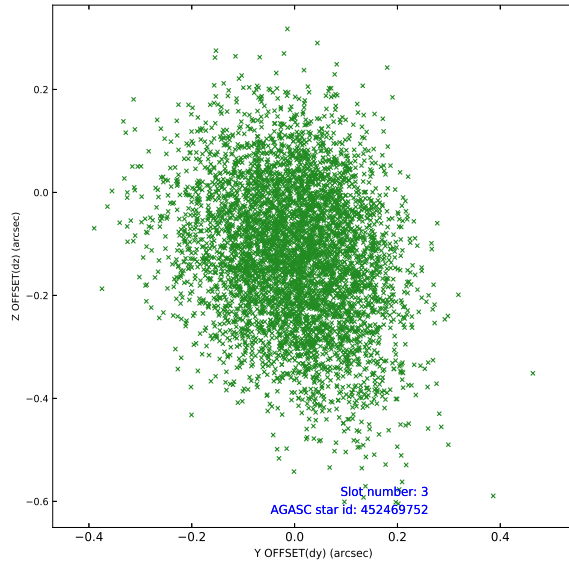


Slot Statistics

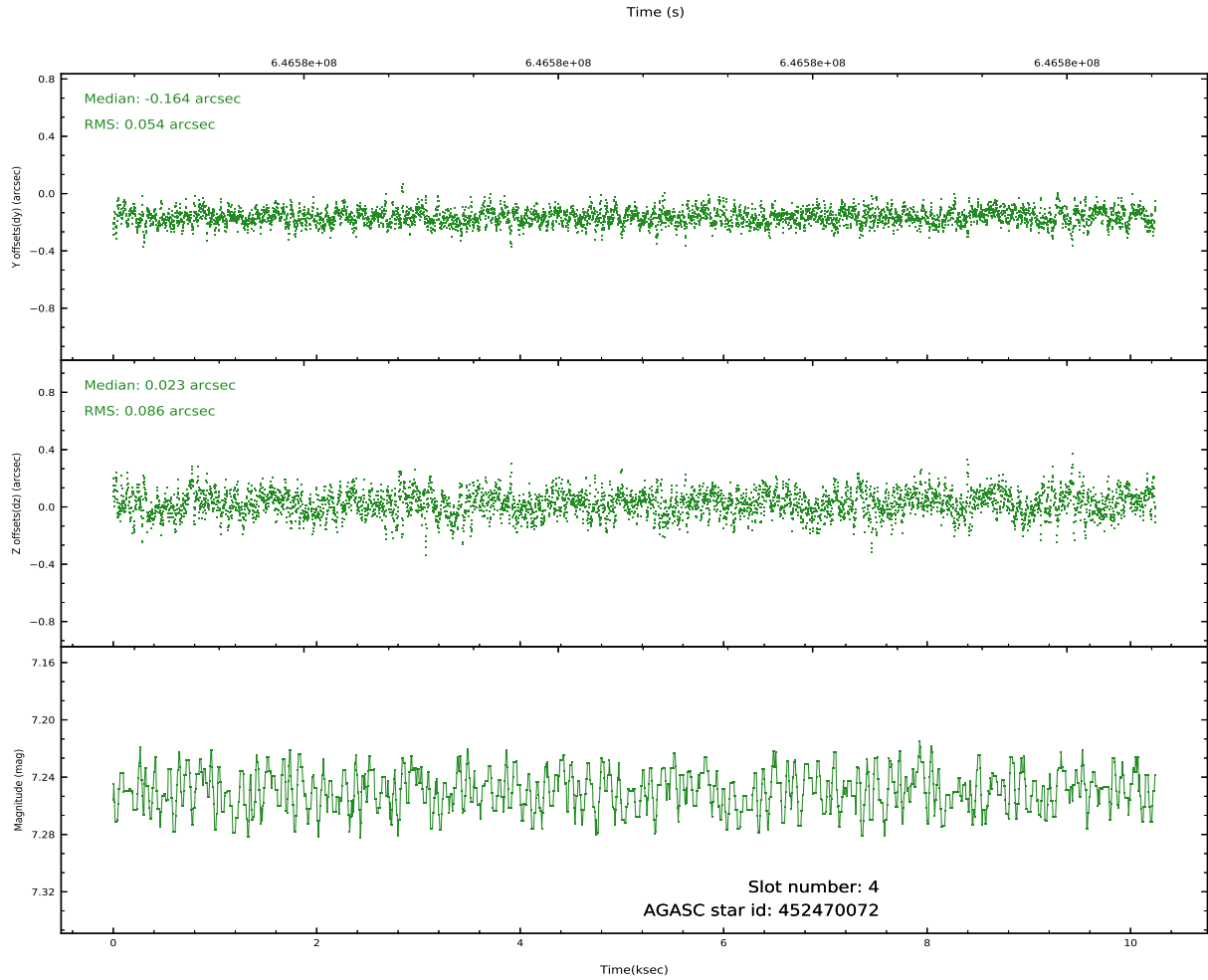
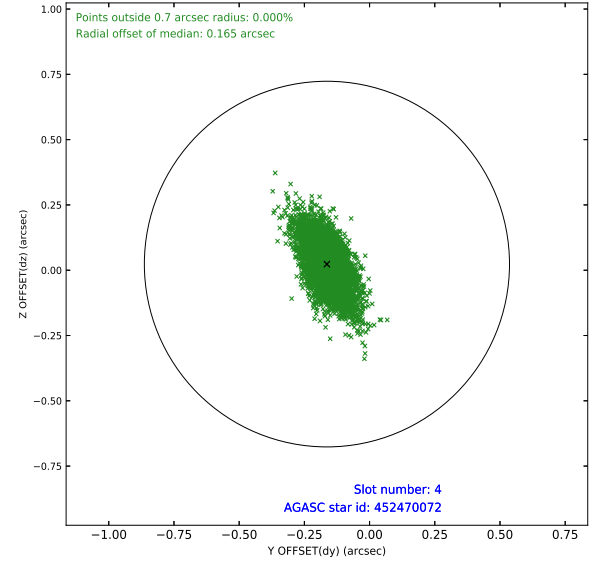
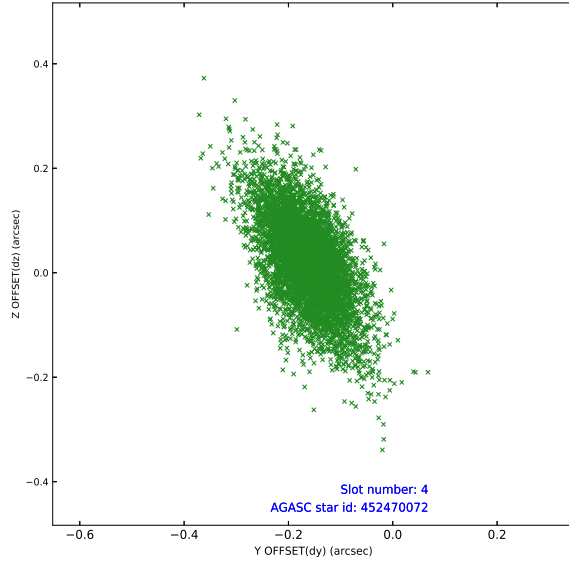
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.01	2499	1.000	0.064	-0.102	0.010	0.016	0.000000	0.000000	-761.31	-1739
1	FID		ACIS-S-4	7.12	2499	1.000	0.130	-0.003	0.021	0.032	0.000000	0.000000	2151.93	168
2	FID		ACIS-S-5	7.13	2498	1.000	-0.225	0.114	0.015	0.025	0.000000	0.000000	-1813.65	162
3	GUIDE	used	452469752	9.74	4986	1.000	0.004	-0.119	0.182	0.300	176.817055	48.563795	673.48	-728
4	GUIDE	used	452470072	7.25	4998	1.000	-0.164	0.023	0.101	0.189	177.061194	48.523768	767.66	-136
5	GUIDE	used	452471120	9.46	4989	1.000	0.231	0.171	0.161	0.267	177.758695	48.063121	2268.36	1677
6	GUIDE	used	452472552	8.96	4994	1.000	0.125	0.040	0.137	0.236	178.062313	48.221427	1630.58	2348
7	GUIDE	used	452730840	8.61	4992	1.000	-0.196	-0.114	0.120	0.210	177.454175	49.232184	-1854.72	560

## 2.4 Star Slots

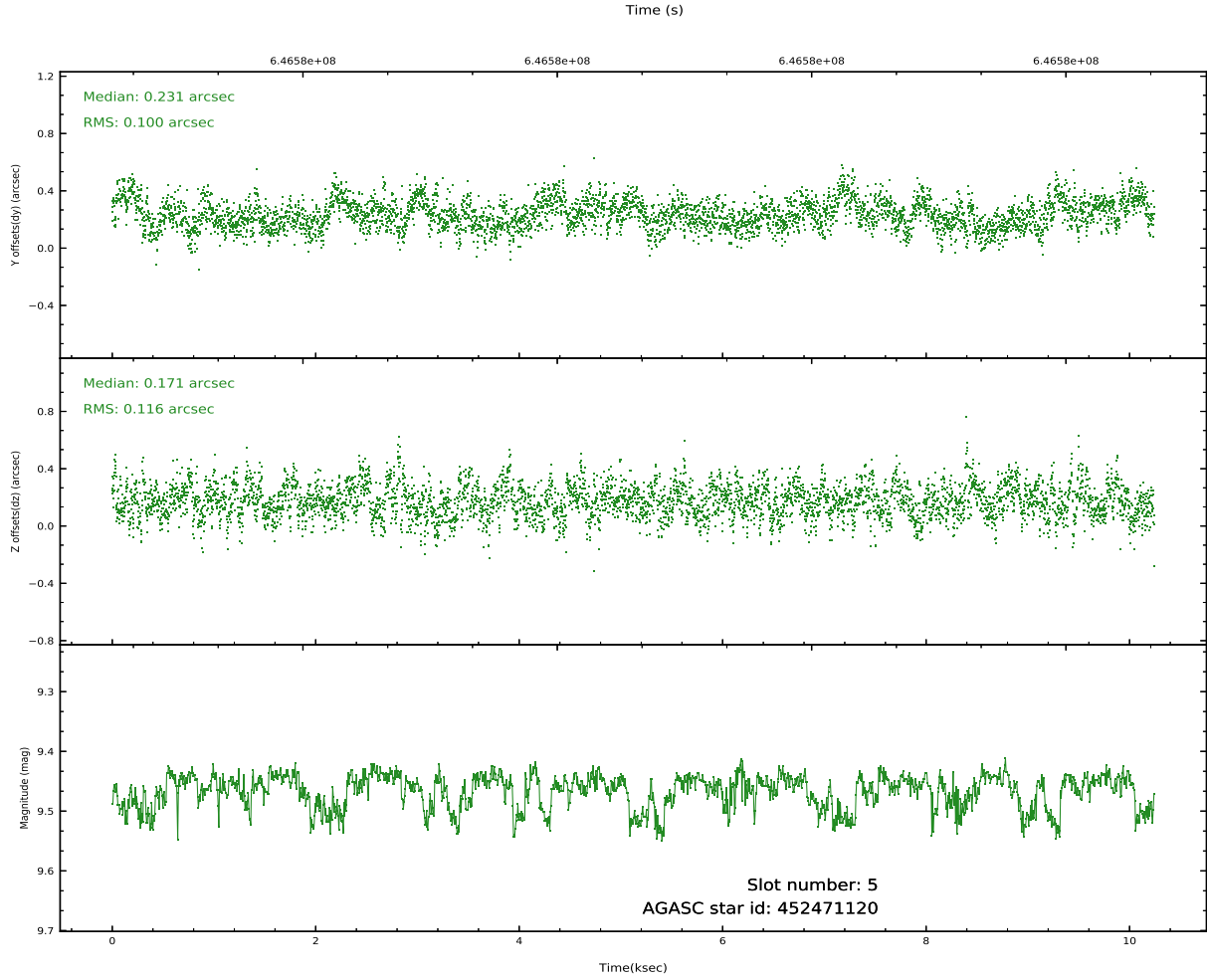
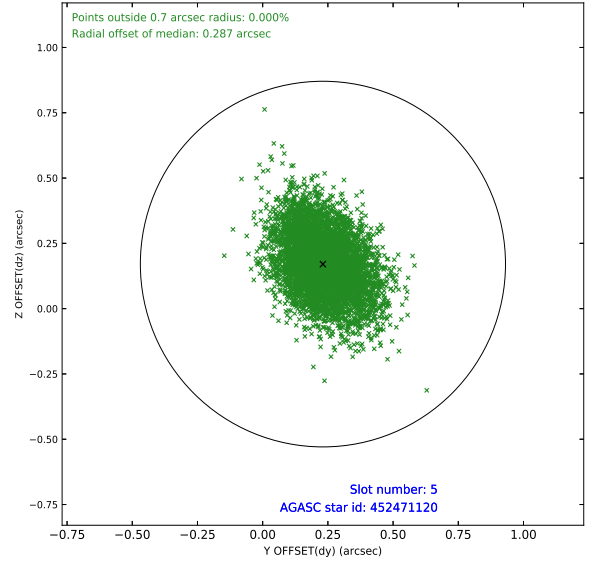
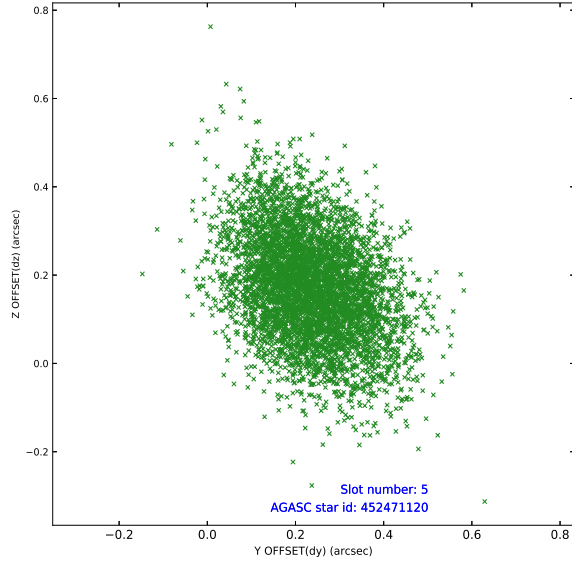
### 2.4.1 Slot 3



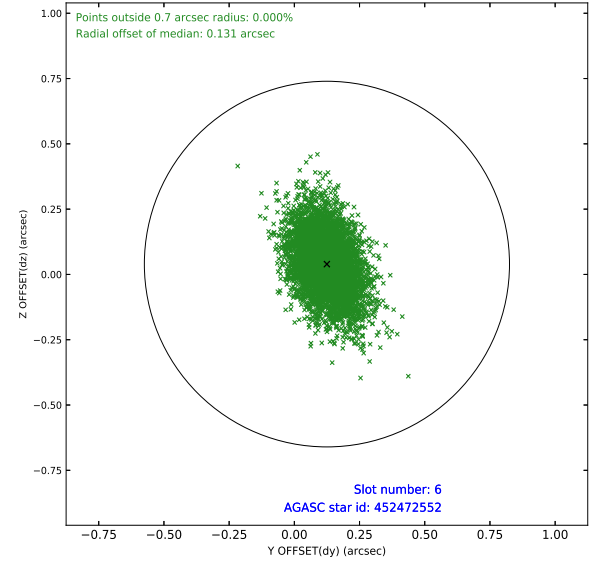
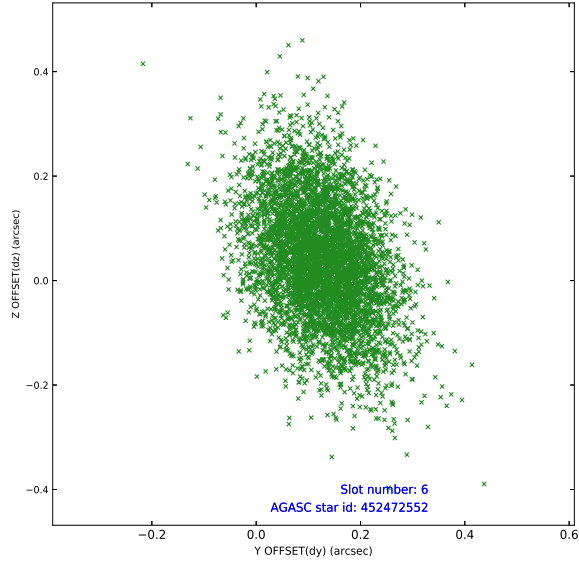
## 2.4.2 Slot 4



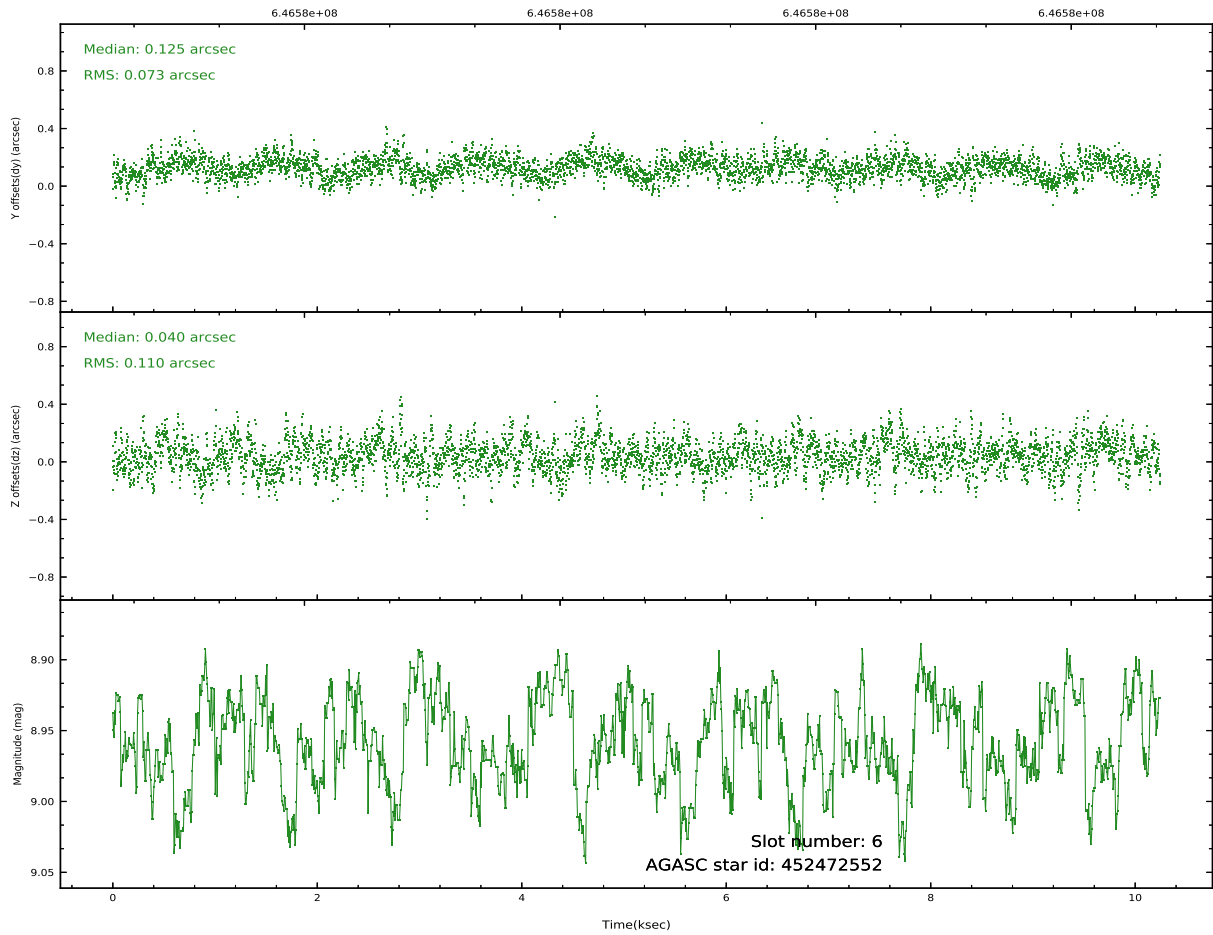
### 2.4.3 Slot 5



## 2.4.4 Slot 6

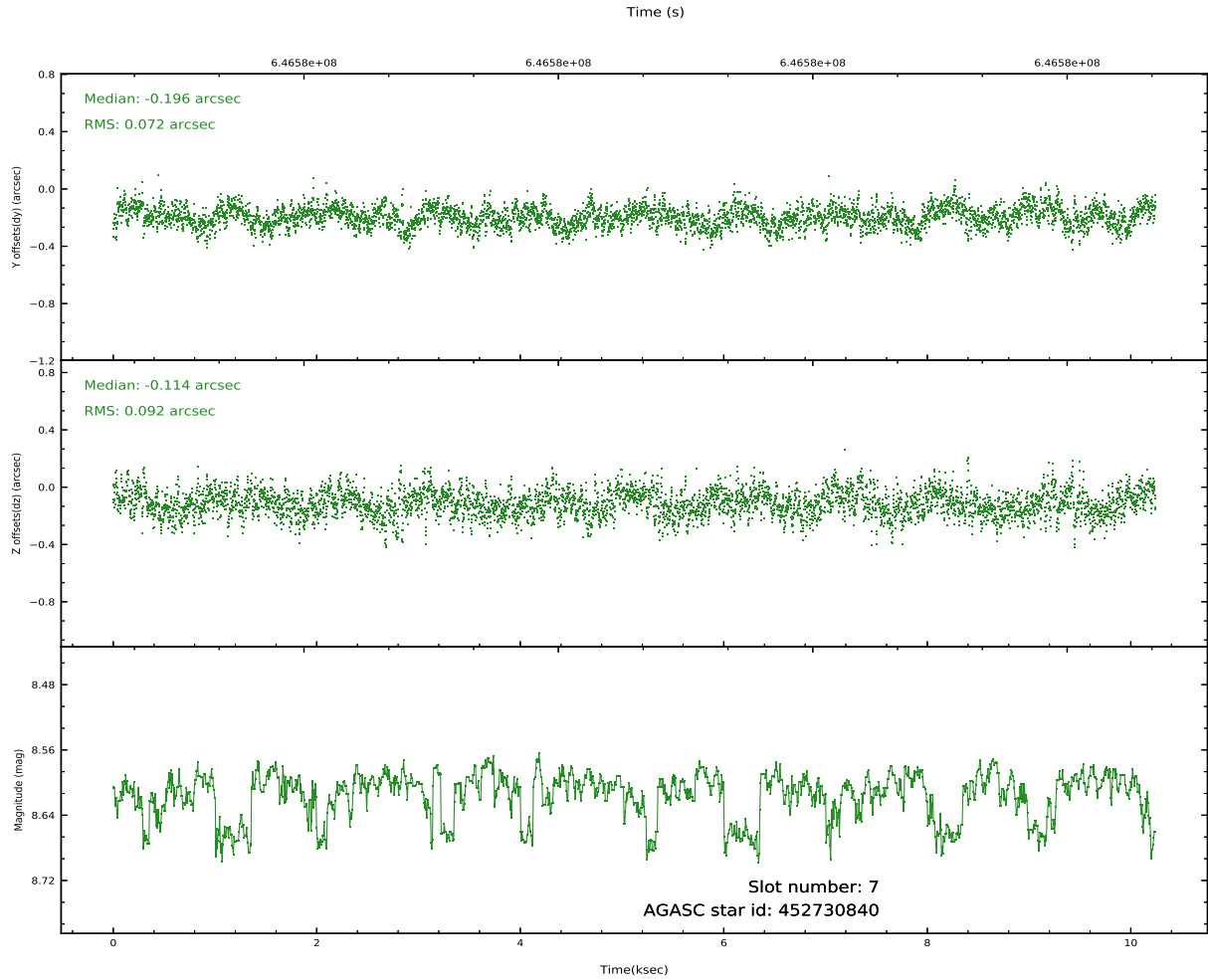
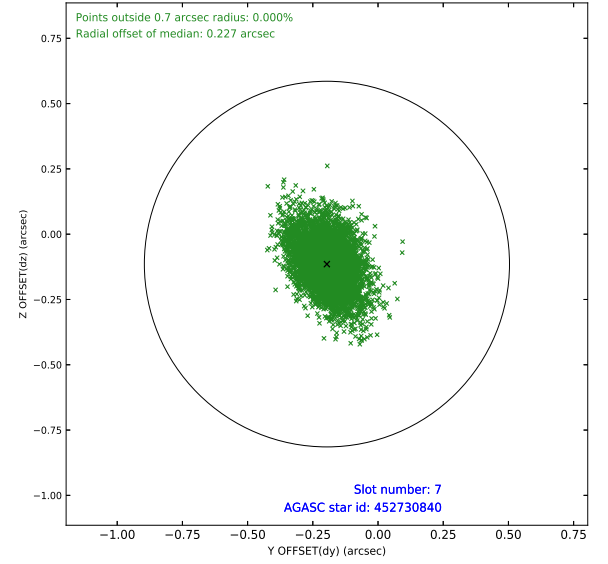
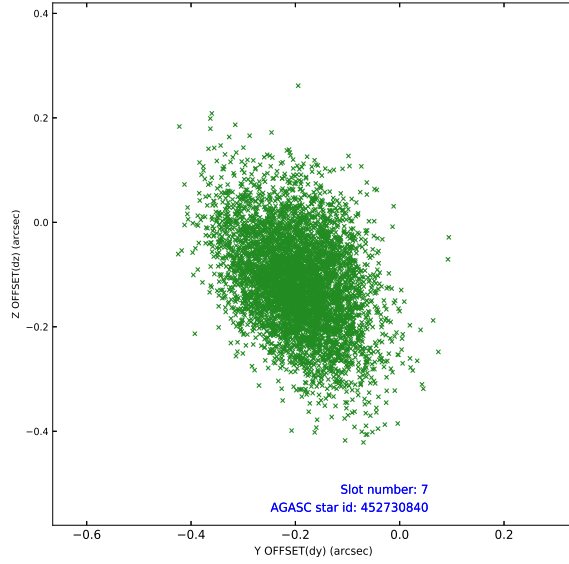


Time (s)



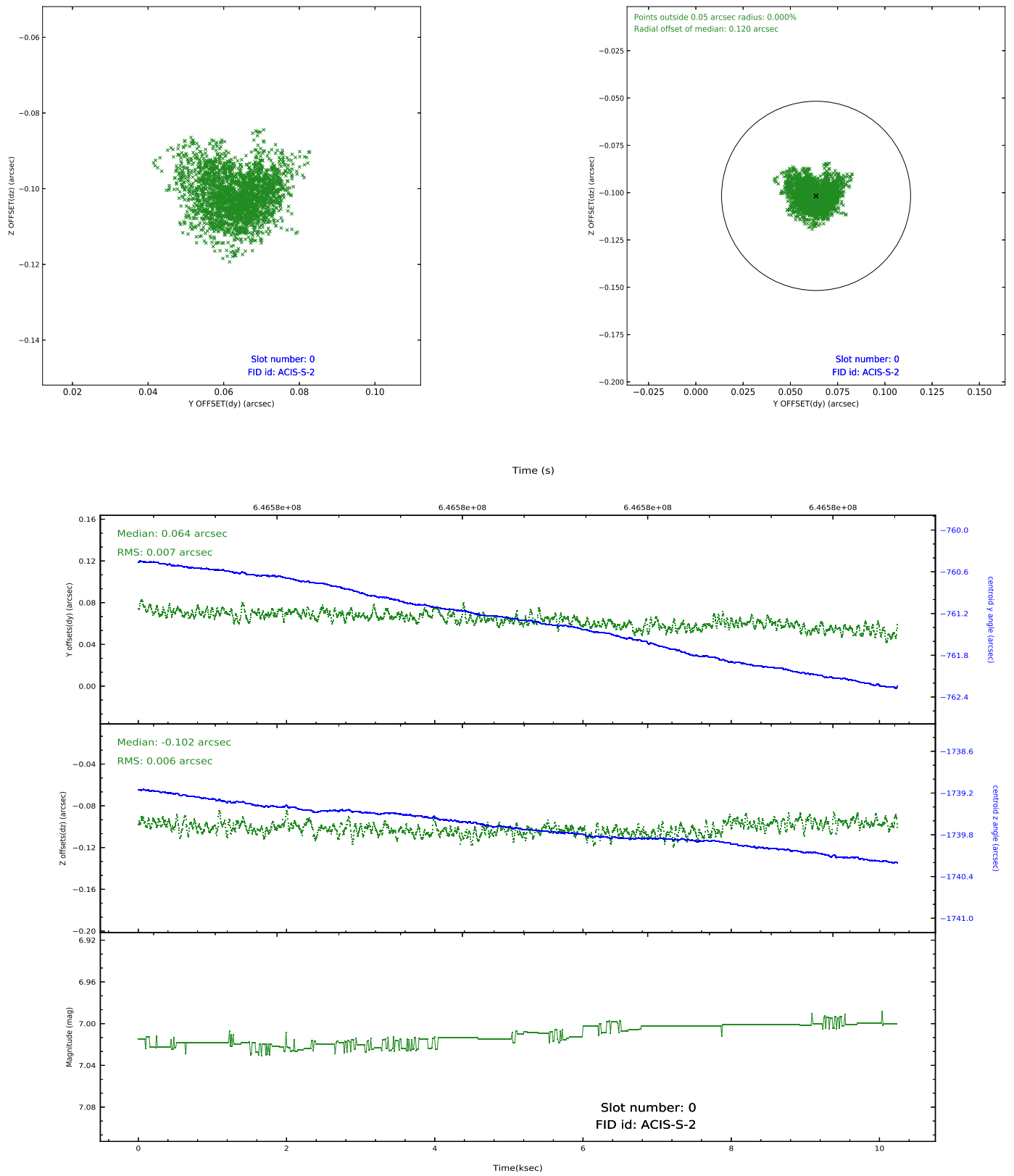


## 2.4.5 Slot 7

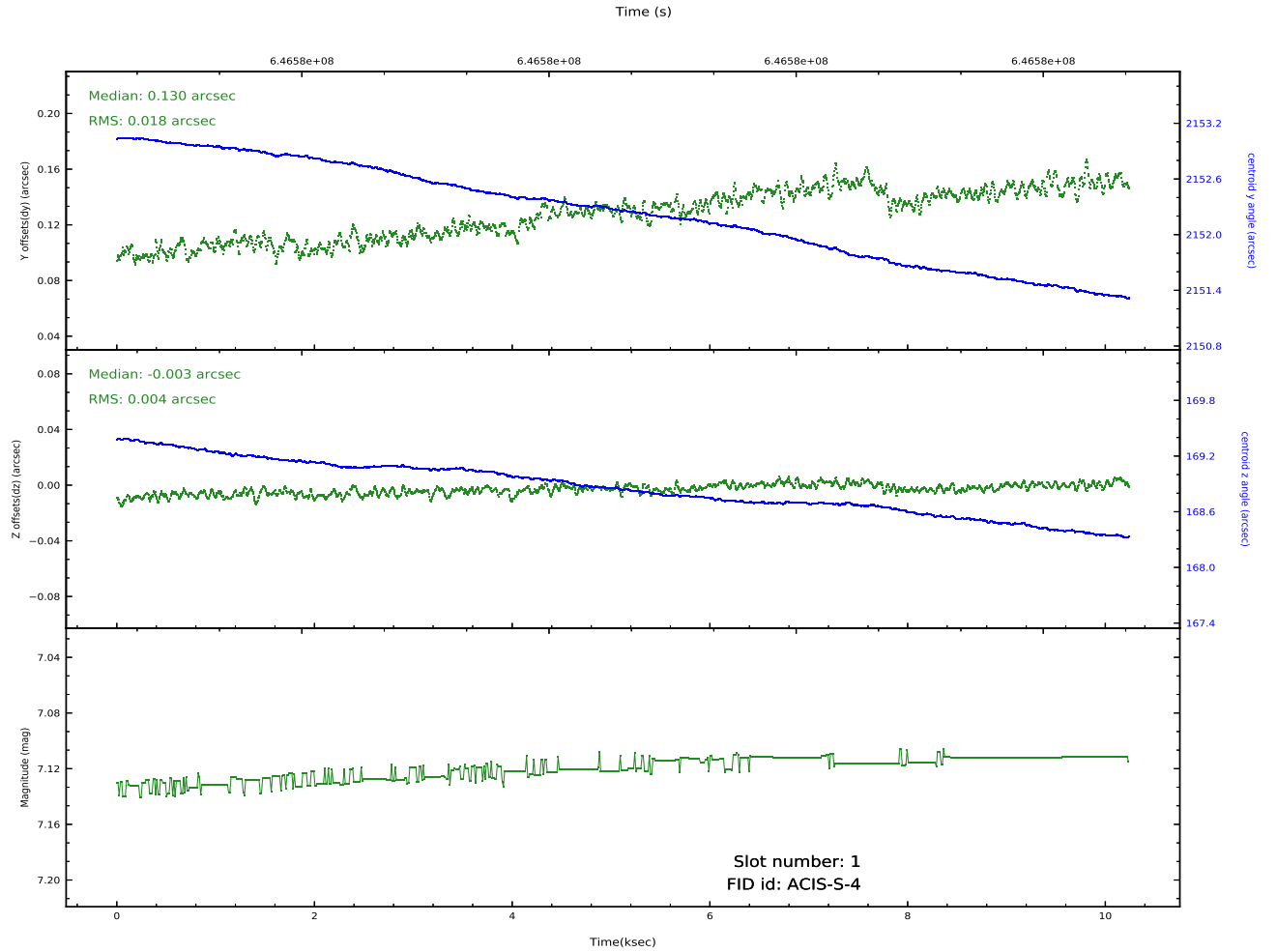
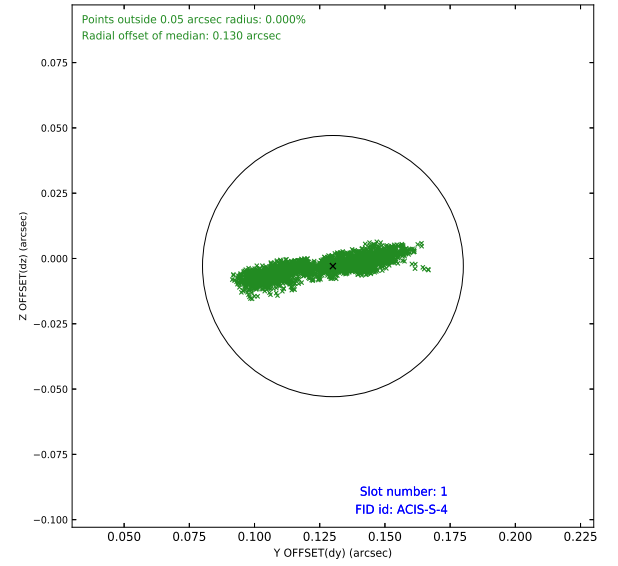
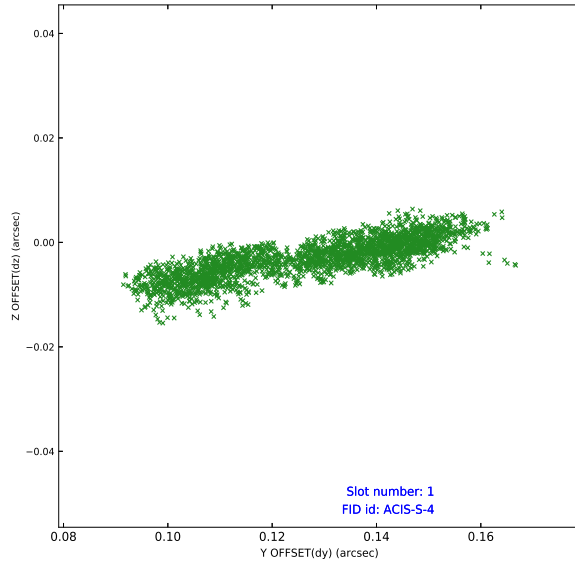


## 2.5 FID Slots

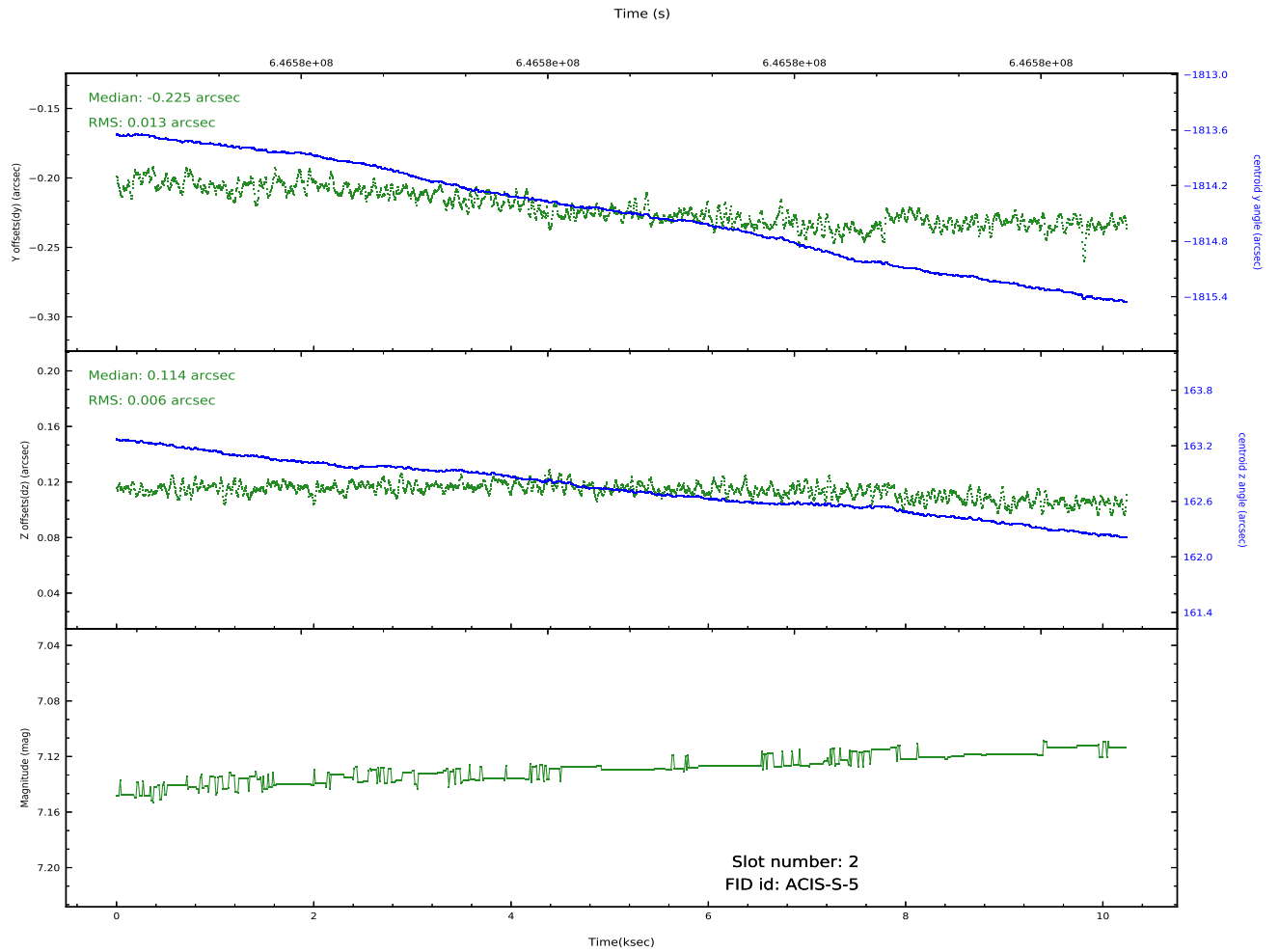
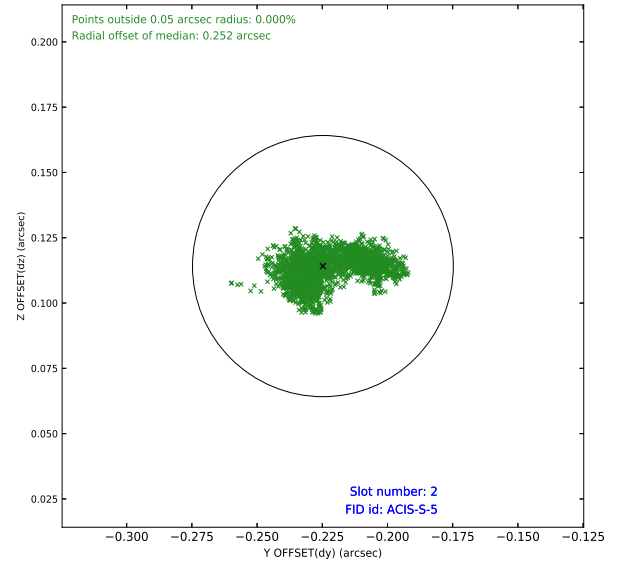
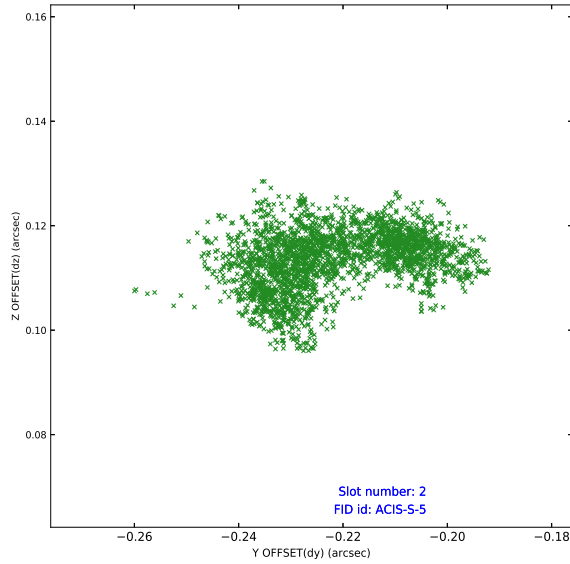
### 2.5.1 Slot 0



## 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)	2020.10.30
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.074875787854

### A.2 Comments