

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 5391 - L2 Version 5  
Chandra X-Ray Center

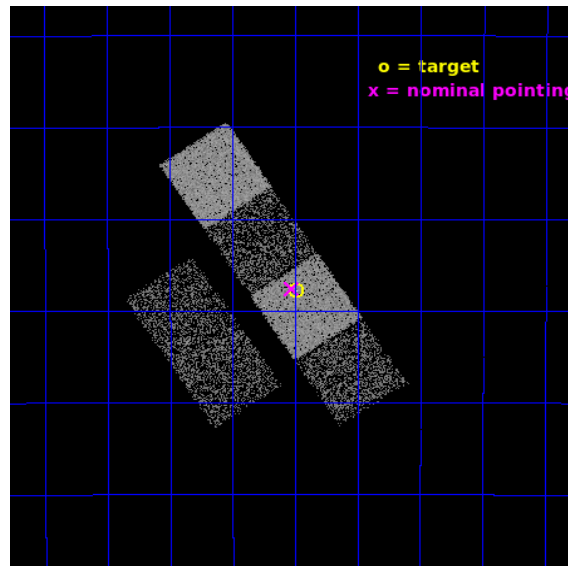
L2 Processing Date : Oct 10 2020

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# 1 Front

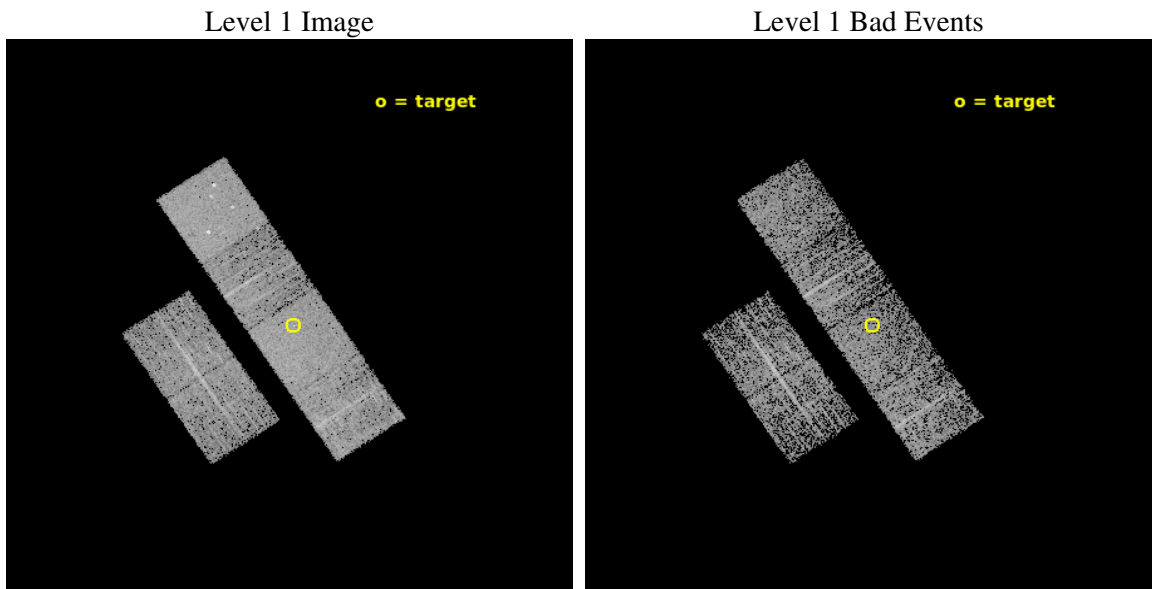
seq_num	200326	Sequence number
obs_id	5391	Observation id
title	The puzzle of X-ray emission from magnetic stars without convective envelopes	Proposal title
observer	J rgen Schmitt	Principal investigator
object	HD 12767	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	31.1225	Observer's specified target RA [deg]
dec_targ	-29.296806	Observer's specified target Dec [deg]
ra_nom	31.131621626379	Nominal RA [deg]
dec_nom	-29.293210446479	Nominal Dec [deg]
roll_nom	56.390726862734	Nominal Roll [deg]
revision	5	Processing version of data
ontime	2959.9999889731	Sum of GTIs [s]
livetime	2922.5186868147	Livetime [s]
ontime2	2959.9999889731	Sum of GTIs [s]
ontime3	2959.9929396808	Sum of GTIs [s]
ontime5	2959.9999889731	Sum of GTIs [s]
ontime6	2959.9999889731	Sum of GTIs [s]
ontime7	2959.9999889731	Sum of GTIs [s]
ontime8	2959.9518997073	Sum of GTIs [s]
l2events	32906	Number of level 2 events



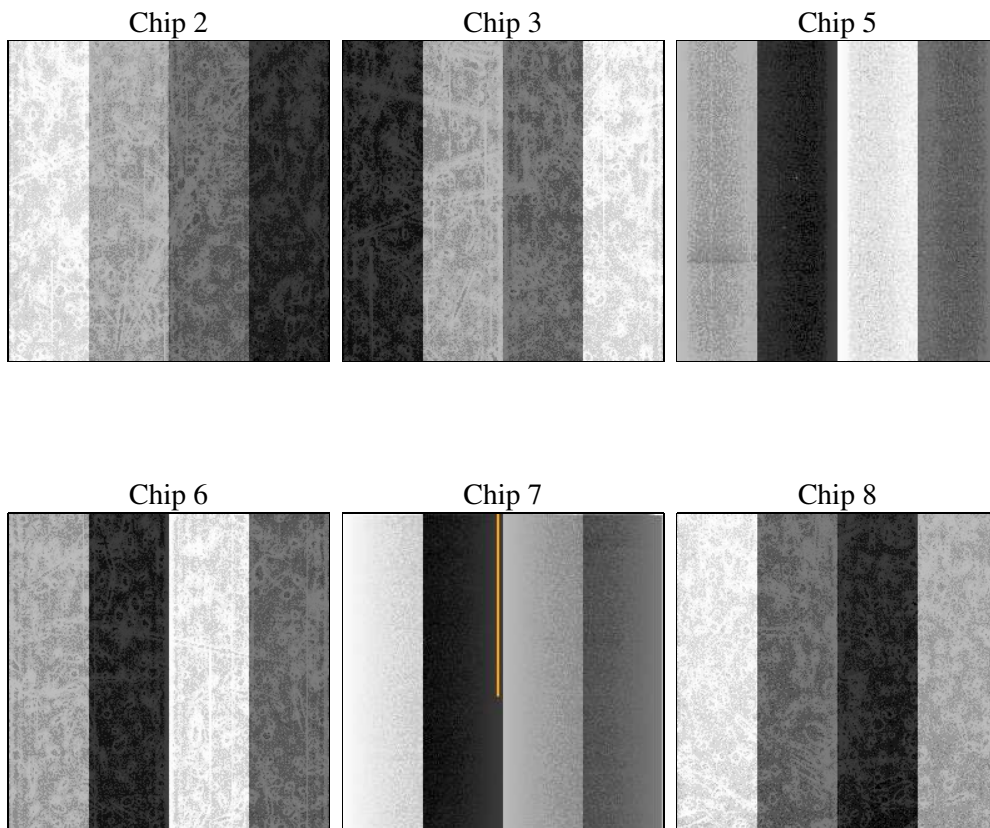
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	3000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	2959.9999889731	Sum of GTIs [s]
caldsver	4.9.2	&#160	ontime2	2959.9999889731	Sum of GTIs [s]
date	2020-10-10T13:00:49	Date and time of file creation	ontime3	2959.9929396808	Sum of GTIs [s]
revision	5	Processing version of data	ontime5	2959.9999889731	Sum of GTIs [s]
			ontime6	2959.9999889731	Sum of GTIs [s]
			ontime7	2959.9999889731	Sum of GTIs [s]
			ontime8	2959.9518997073	Sum of GTIs [s]
			l1events	140745	Number of level 1 events

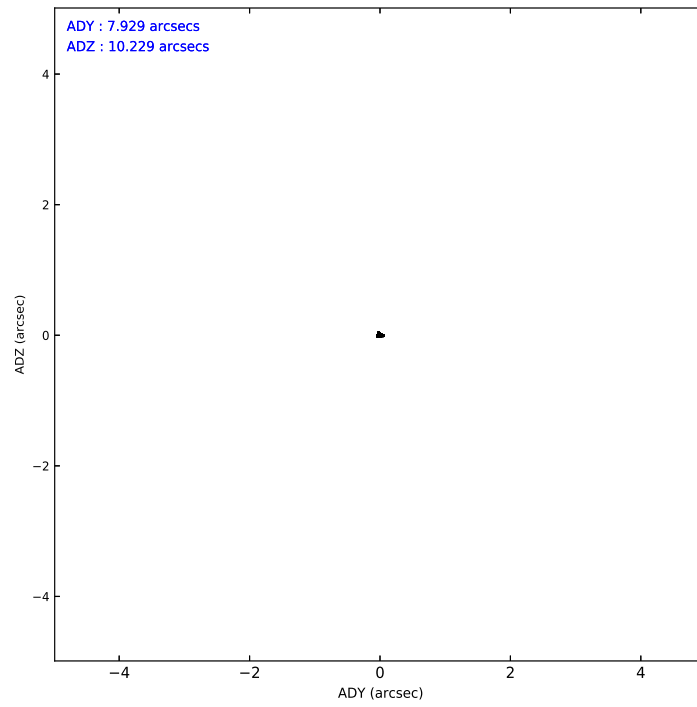
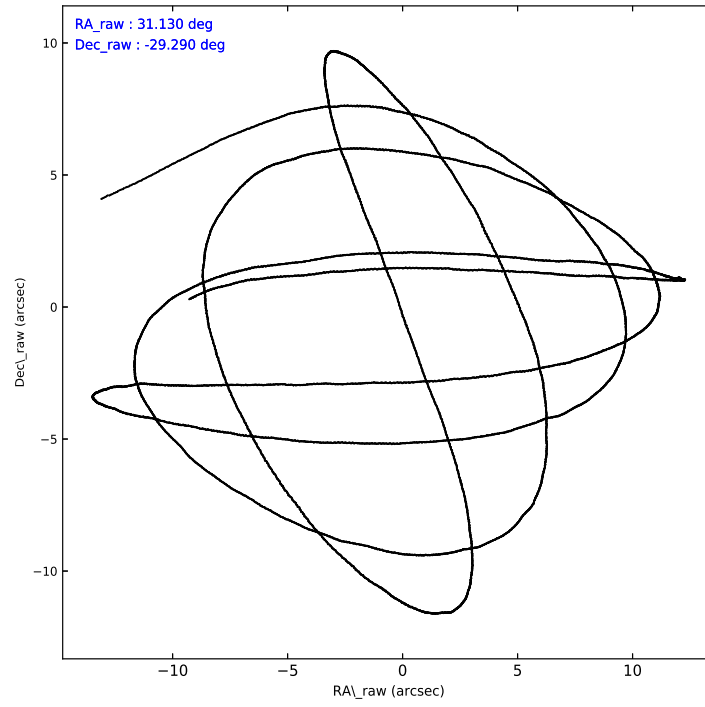
### 2.1.4 Events

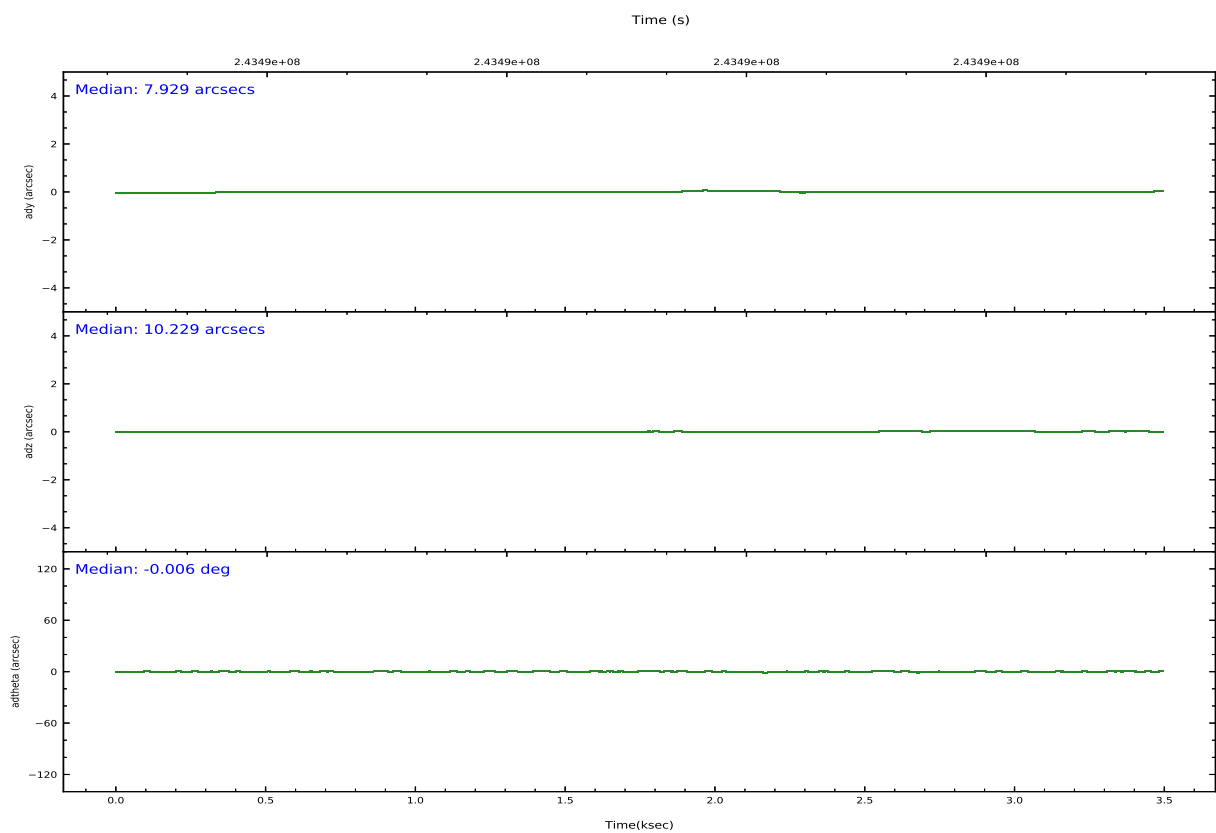
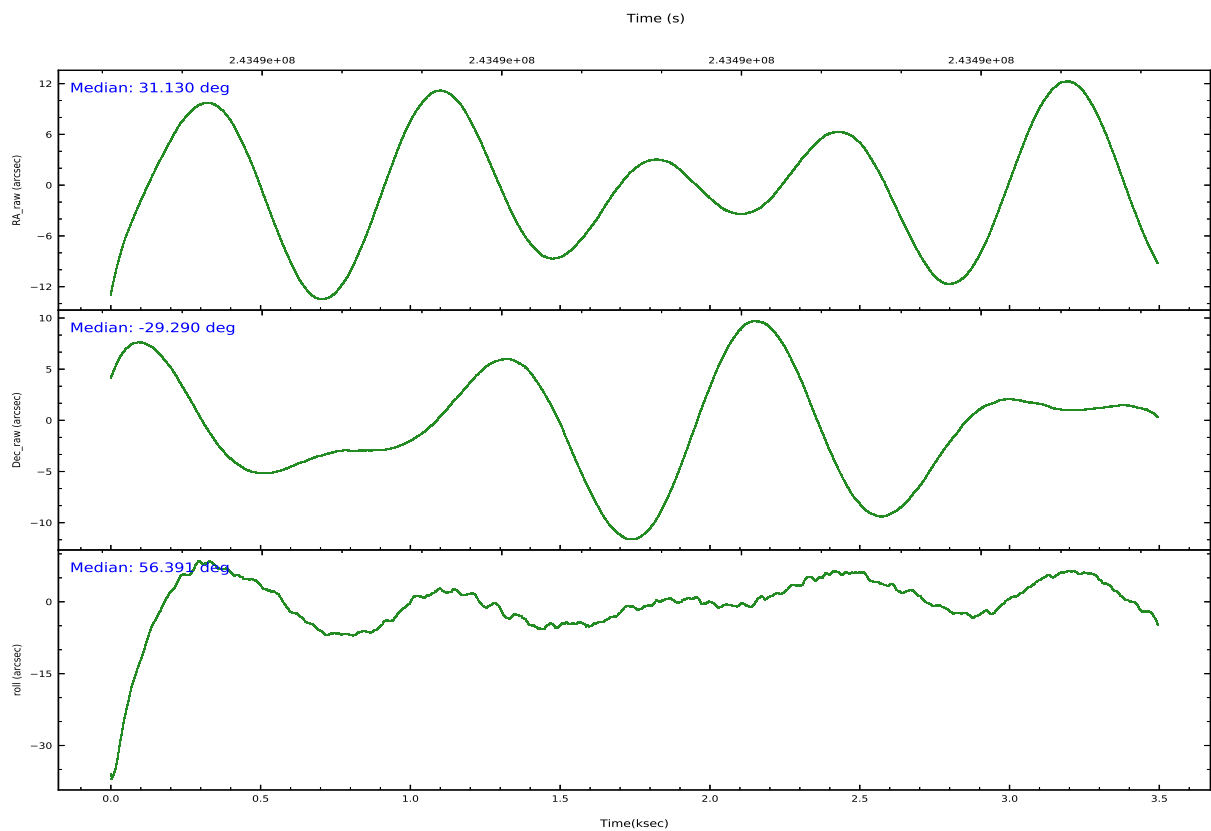
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	19689	18587	30707	19848	27638	24276	grade 0 events	1084	1061	2324	970	1110	1824
rejected events	17246	16191	15974	17349	16015	18749		5%	5%	7%	4%	4%	7%
rejected %	87%	87%	52%	87%	57%	77%	grade 1 events	18	12	79	16	24	21
								0%	0%	0%	0%	0%	0%
							grade 2 events	521	470	4292	578	2263	1194
								2%	2%	13%	2%	8%	4%
							grade 3 events	202	237	513	220	1022	583
								1%	1%	1%	1%	3%	2%
							grade 4 events	226	240	517	216	1050	568
								1%	1%	1%	1%	3%	2%
							grade 5 events	787	823	2132	899	2584	1185
								3%	4%	6%	4%	9%	4%
							grade 6 events	414	393	7124	519	6210	1405
								2%	2%	23%	2%	22%	5%
							grade 7 events	16437	15351	13726	16430	13375	17496
								83%	82%	44%	82%	48%	72%

## 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	31.128618	31.131621626379	Subarray requested	NONE	NONE
[deg] Pointing Dec	-29.317017	-29.293210446479	Alternating exposures requested	N	N
[deg] Pointing Roll	56.230861	56.390726862734	[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)	243487192.184000	243486075.1018			
Observation start date	2005-09-19T03:18:48	2005-09-19T03:01:15			
[s] Observation end time (MET)	243490192.184000	243491105.80203			
Observation end date	2005-09-19T04:08:48	2005-09-19T04:25:05			
Read mode	TIMED	TIMED			

## 2.3 Aspect





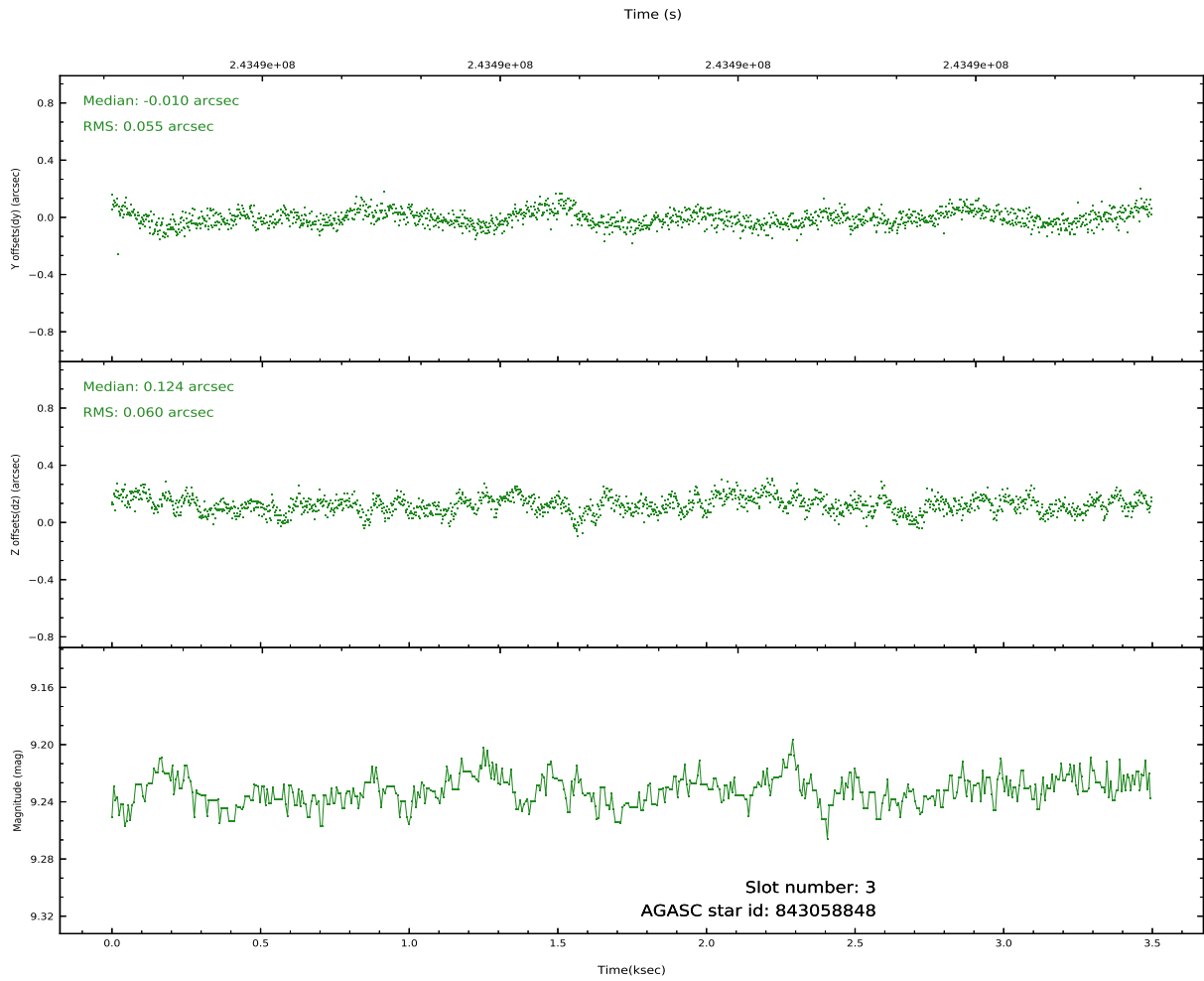
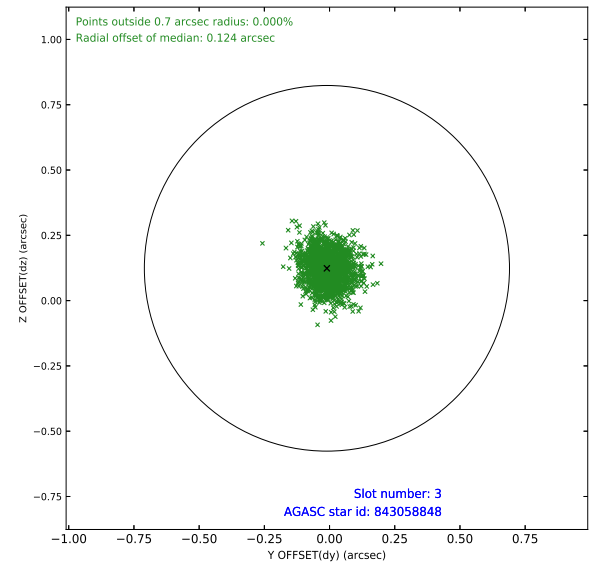
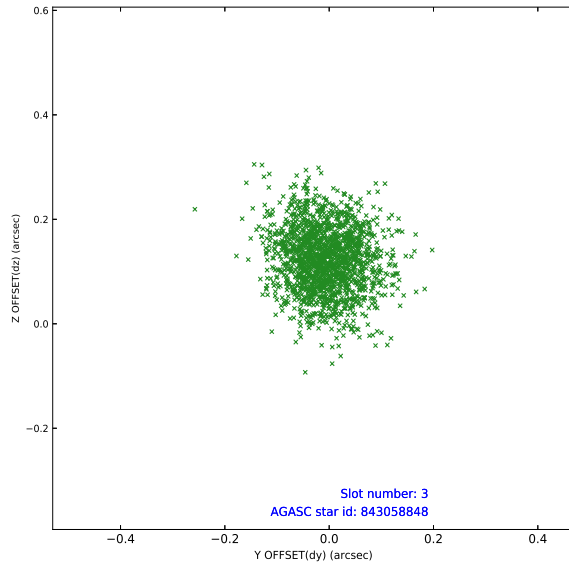
Slot Statistics

pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-1	7.19	853	1.000	0.062	-0.086	0.006	0.009	0.000000	0.000000	935.42	-1727
1	FID		ACIS-S-5	7.24	853	1.000	-0.145	0.021	0.006	0.010	0.000000	0.000000	-1812.80	168
2	FID		ACIS-S-6	7.36	853	1.000	0.062	0.077	0.006	0.011	0.000000	0.000000	398.98	814
3	GUIDE	used	843058848	9.23	1706	1.000	-0.010	0.124	0.087	0.140	30.955187	-29.624817	-1223.74	-164
4	GUIDE	used	843059888	6.81	1707	1.000	-0.026	-0.113	0.075	0.125	30.617770	-29.665638	-1935.68	628
5	GUIDE	used	843061744	9.44	1705	1.000	-0.004	0.031	0.085	0.134	31.544540	-29.226062	994.93	-905
6	GUIDE	used	843061968	9.26	1707	1.000	0.147	-0.059	0.086	0.143	30.680996	-29.814180	-2266.54	165
7	GUIDE	used	843062384	9.47	1703	1.000	-0.107	0.005	0.125	0.326	31.894459	-29.334171	1276.50	-2036

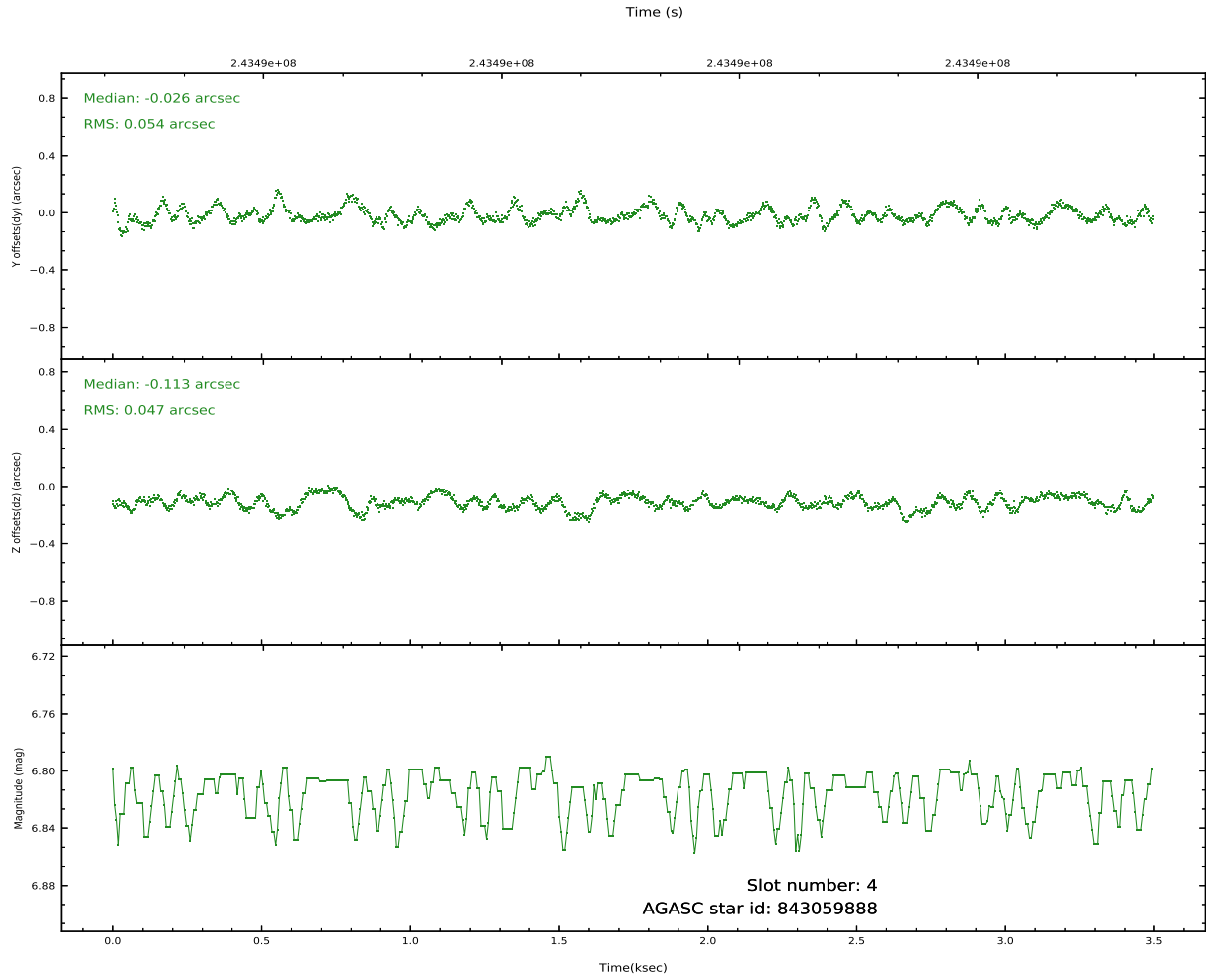
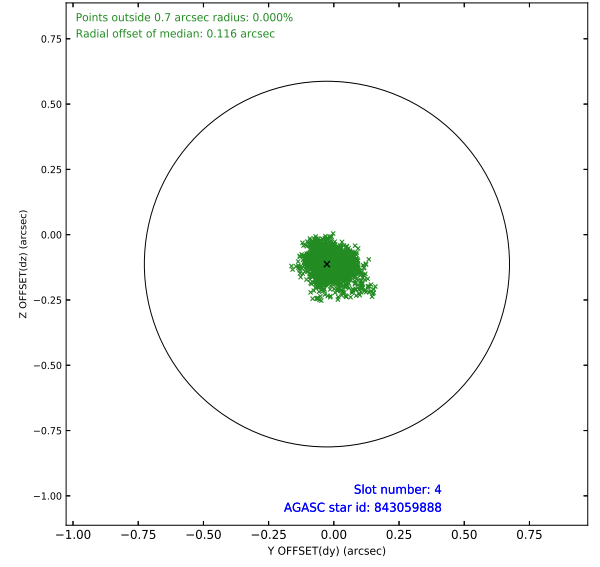
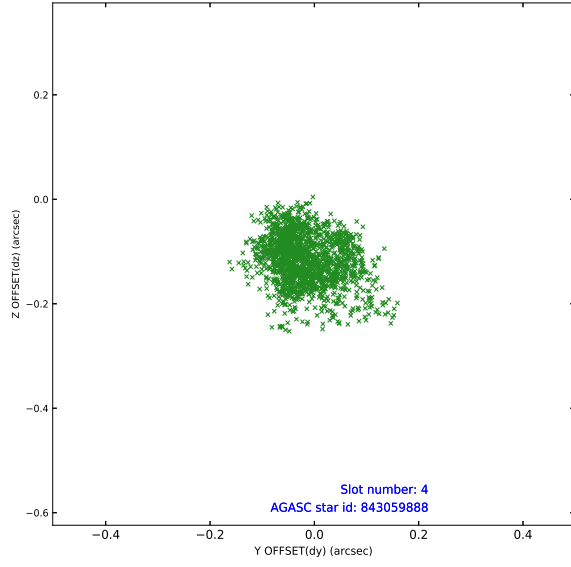


## 2.4 Star Slots

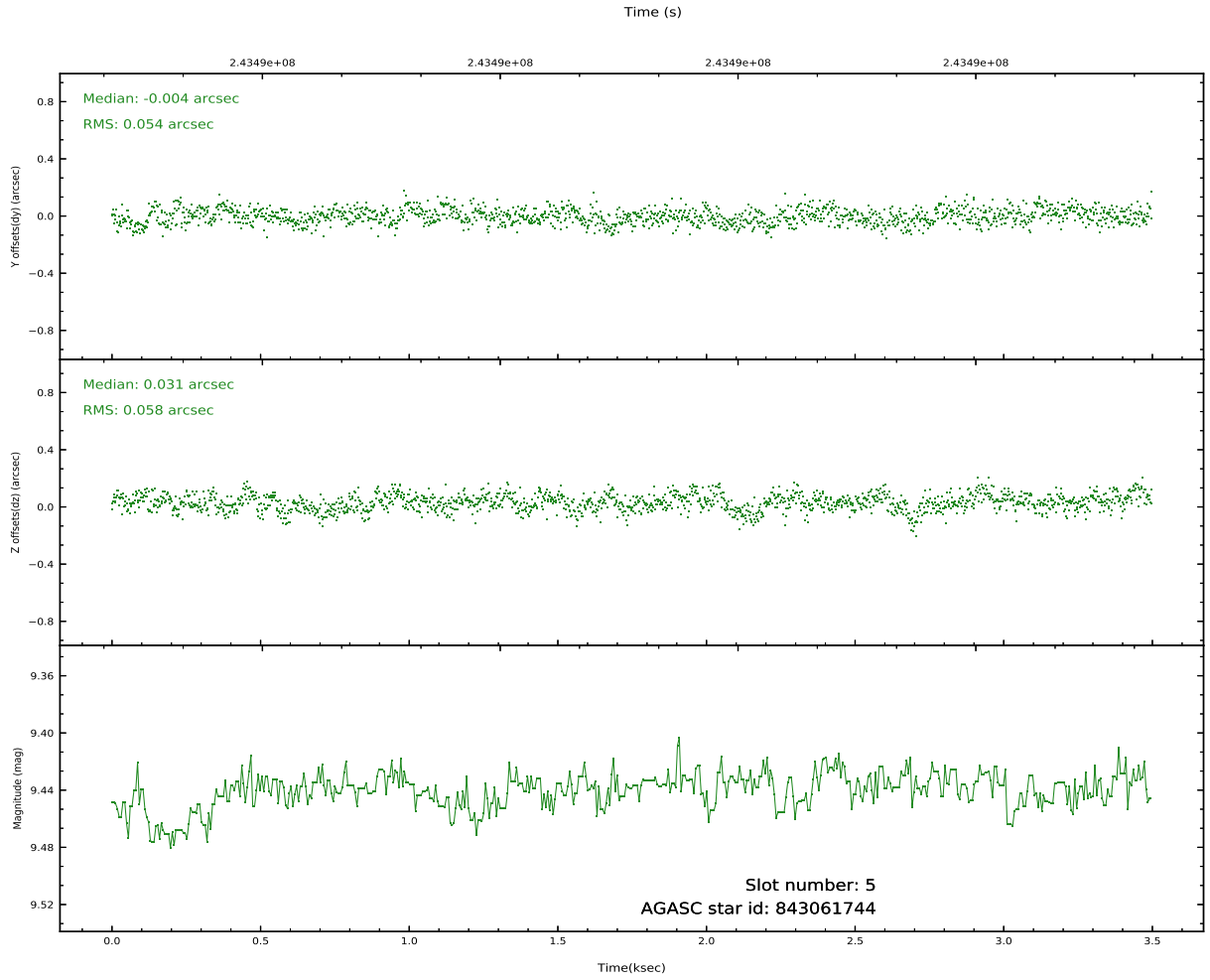
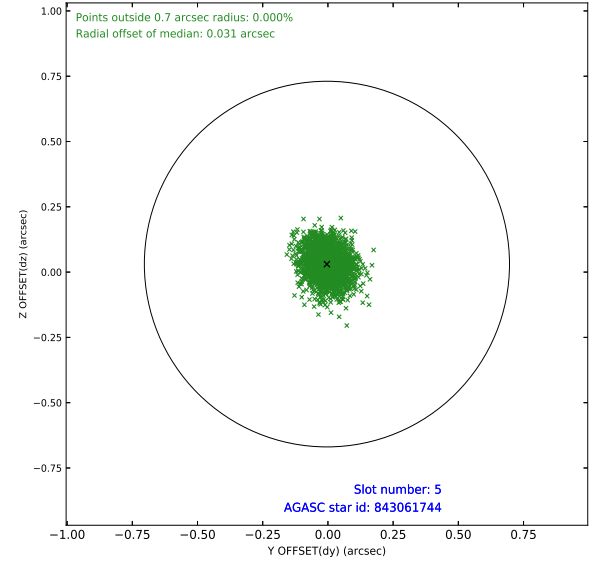
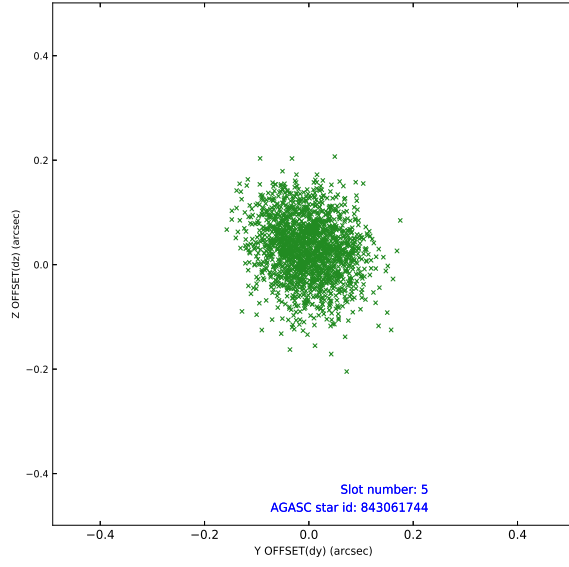
### 2.4.1 Slot 3



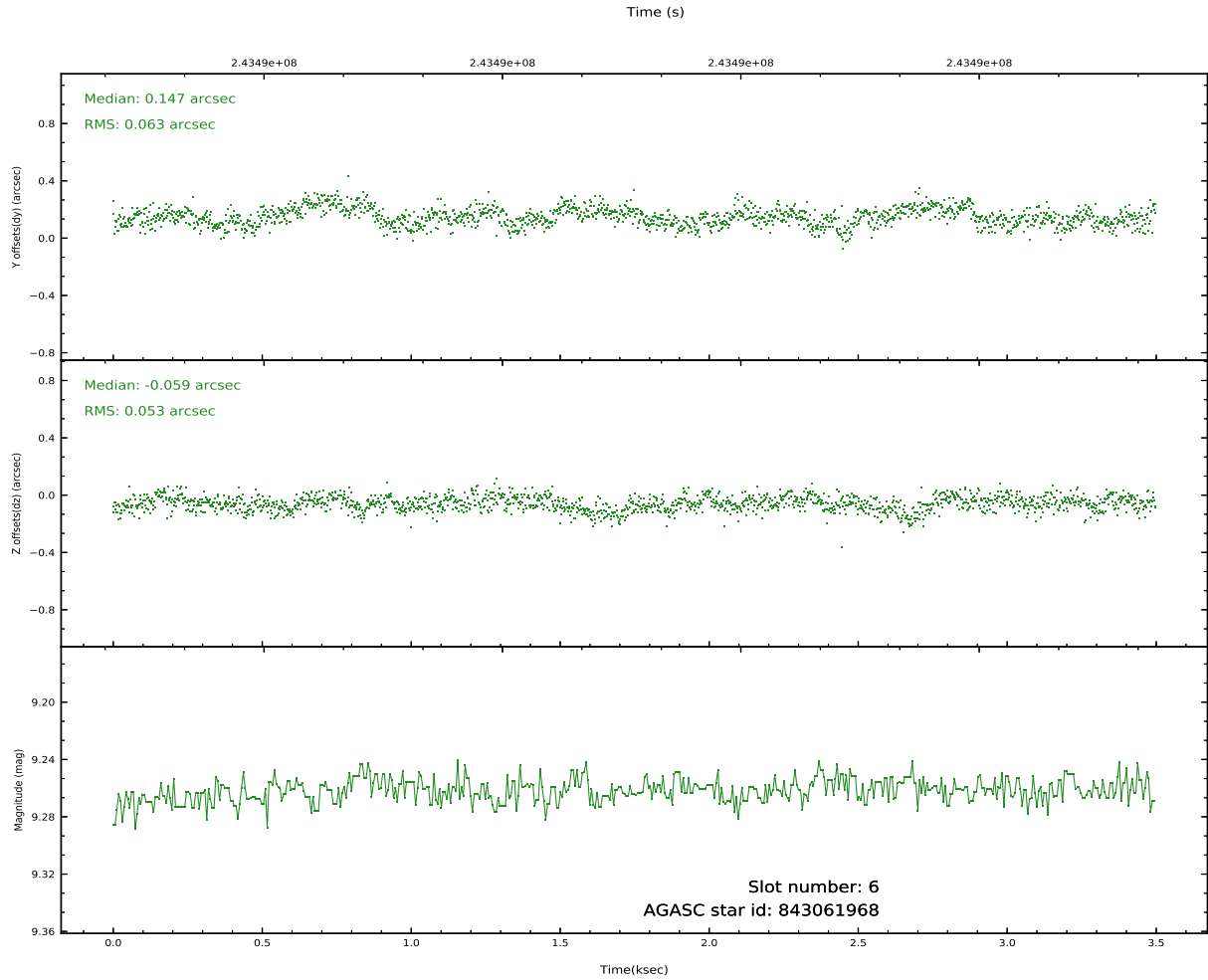
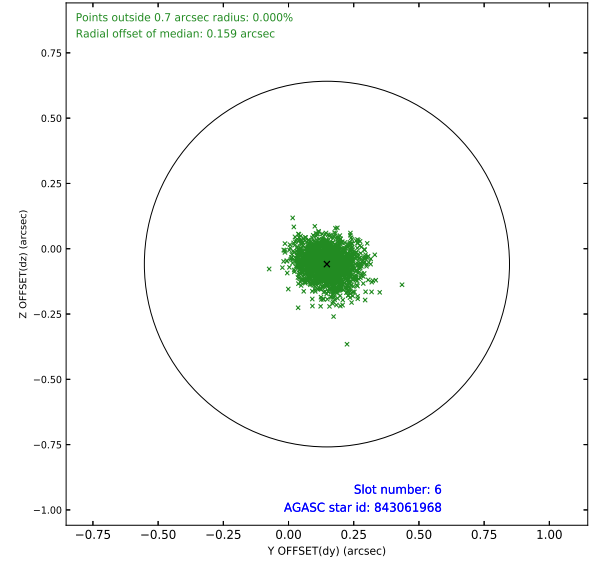
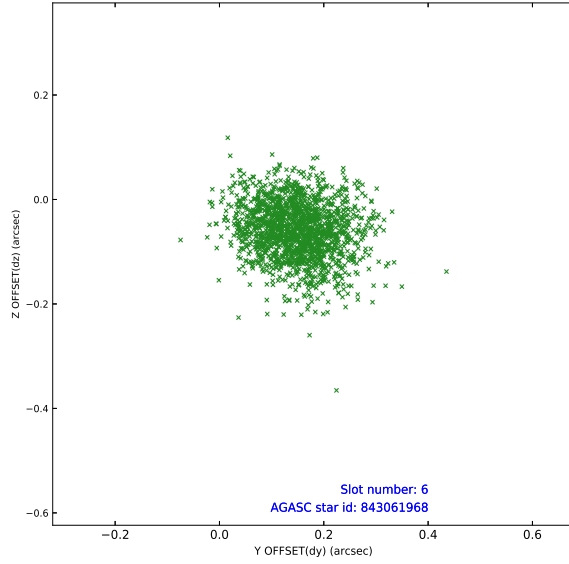
## 2.4.2 Slot 4



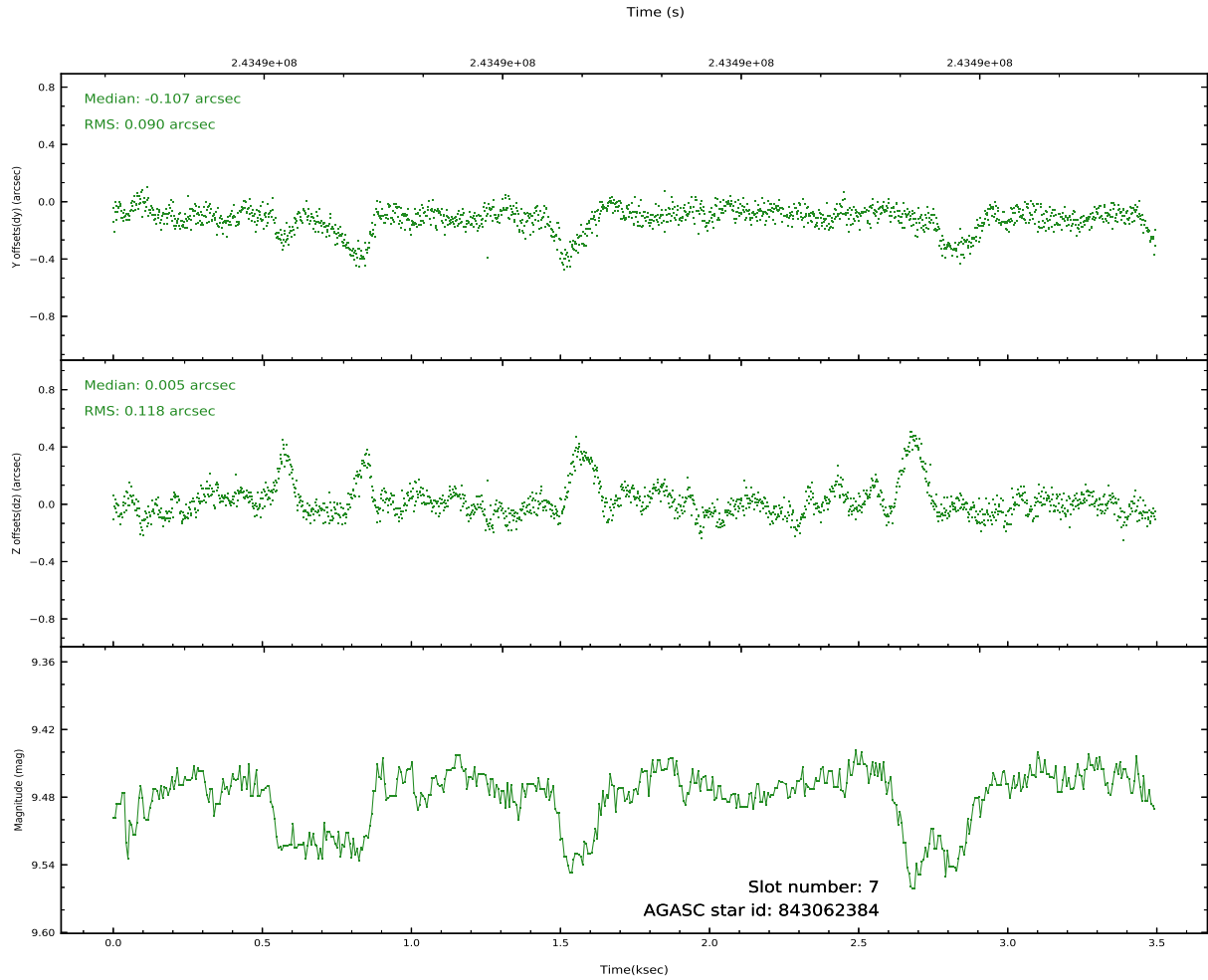
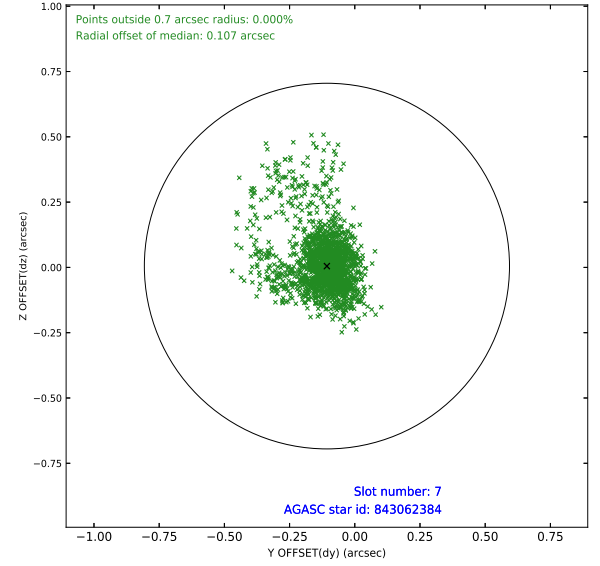
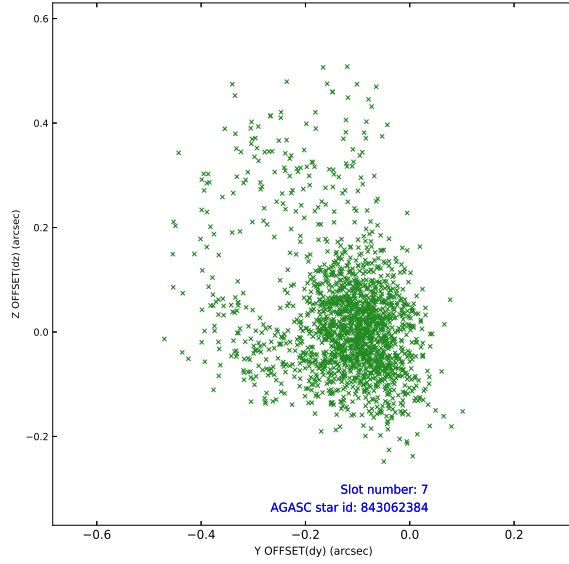
### 2.4.3 Slot 5



## 2.4.4 Slot 6

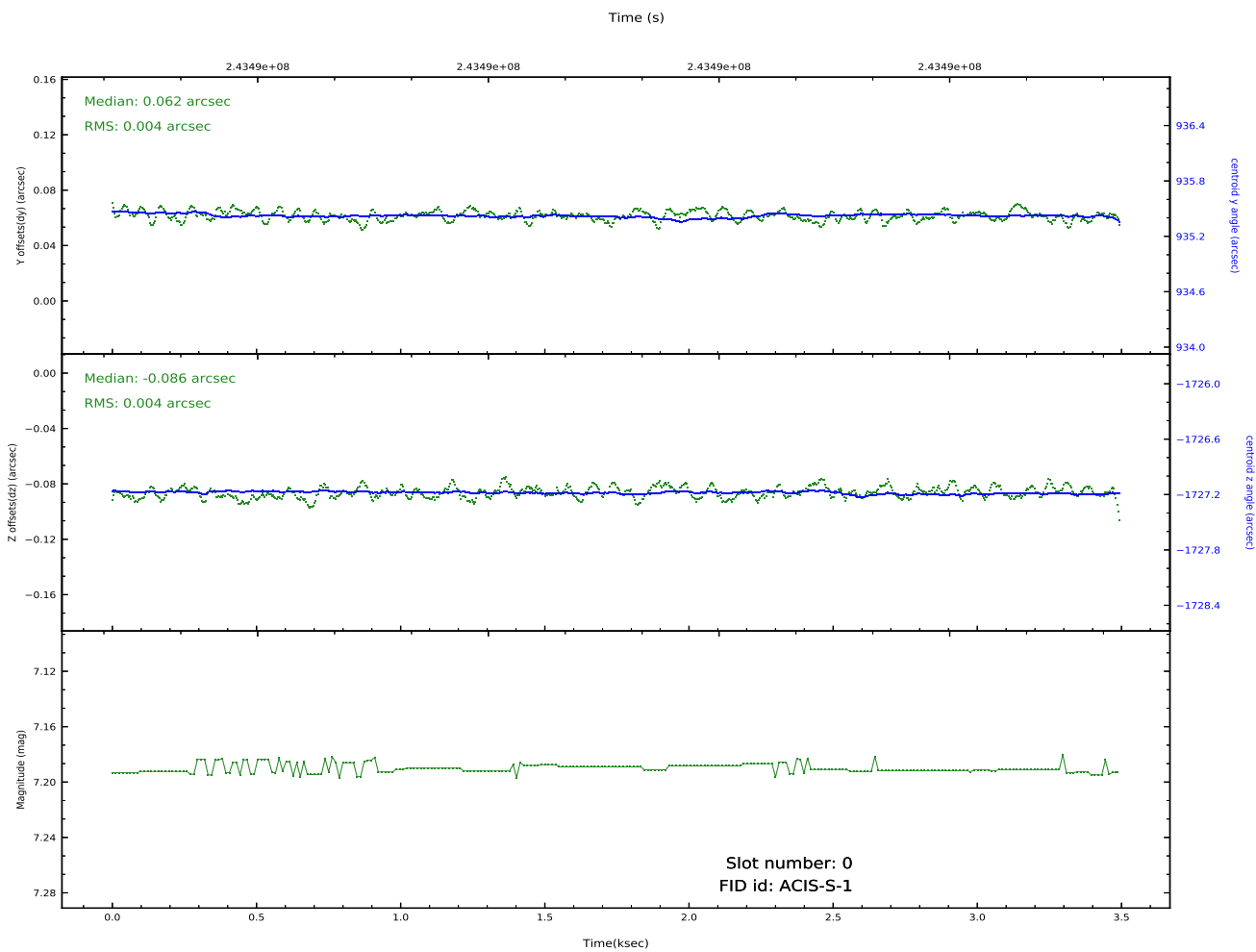
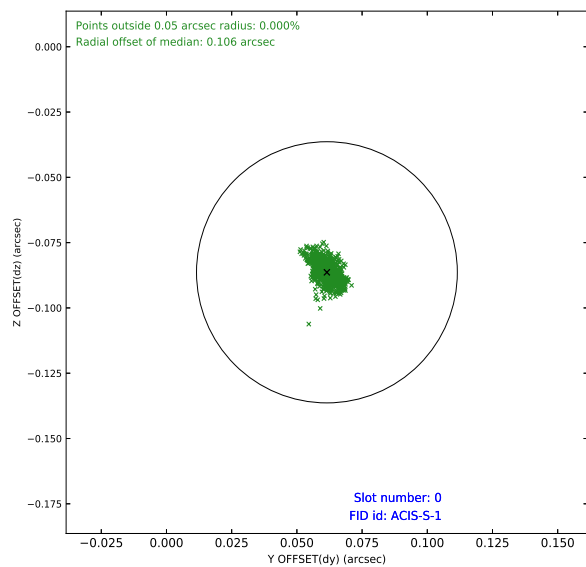
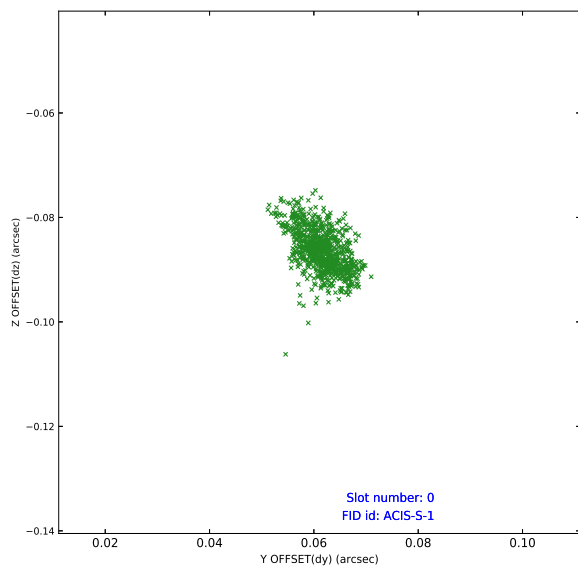


## 2.4.5 Slot 7

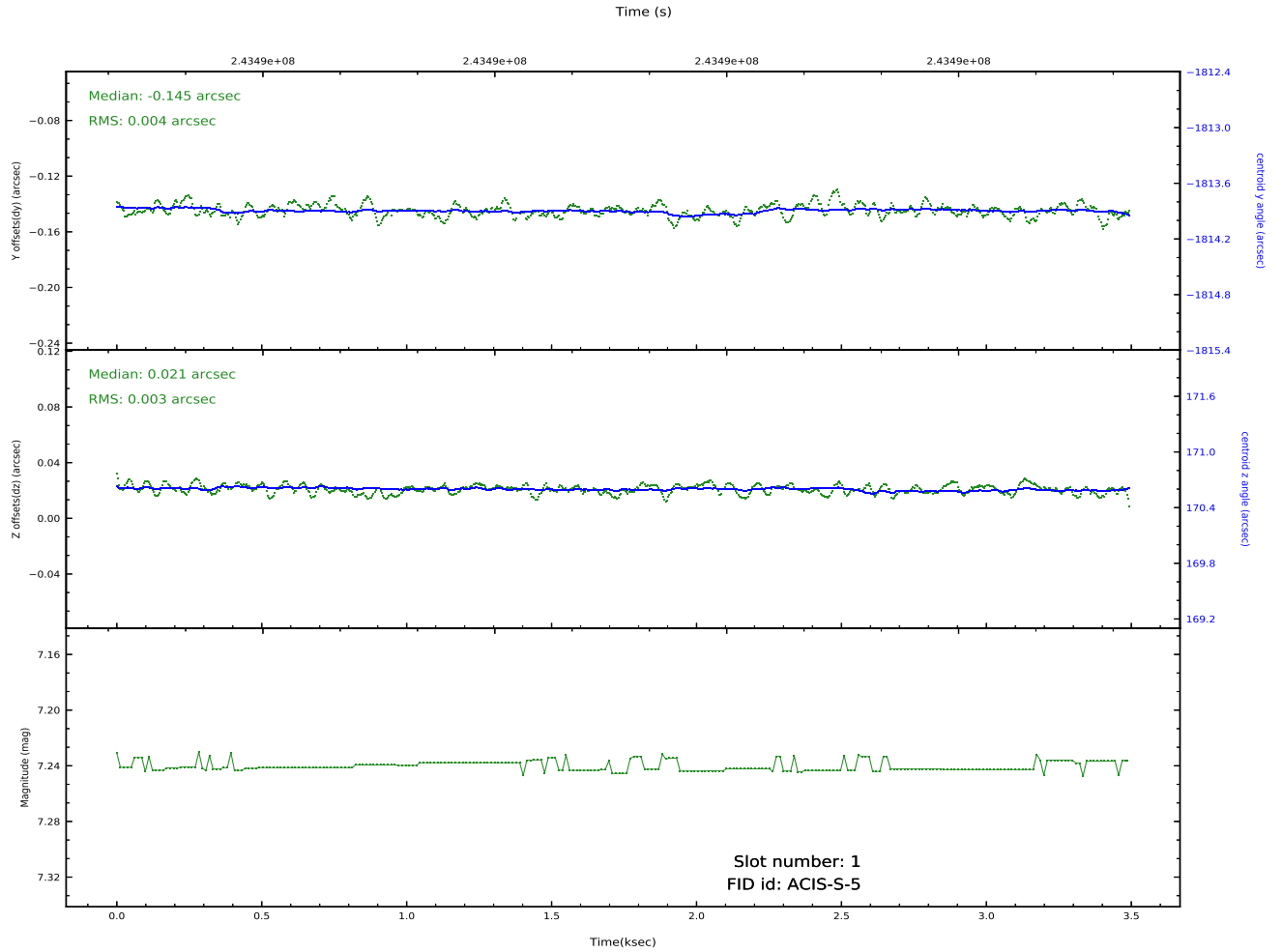
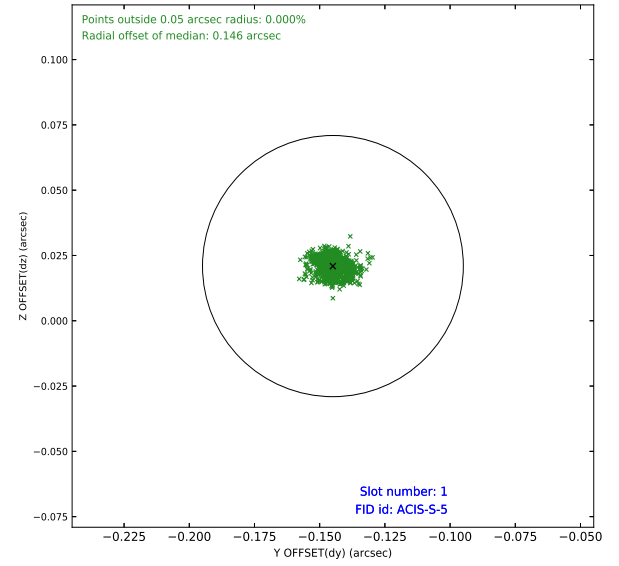
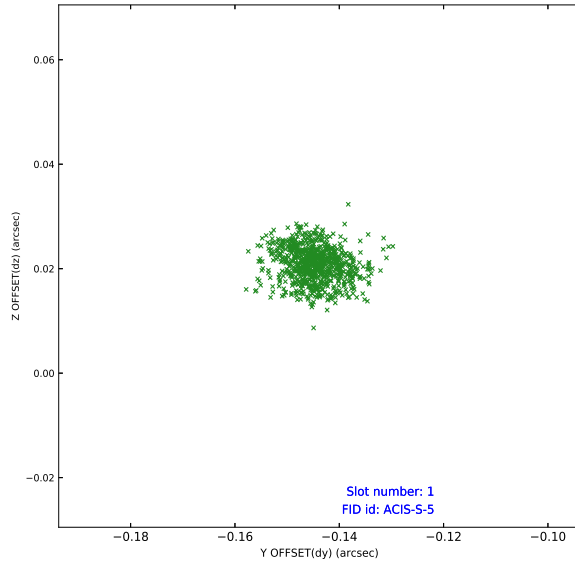


## 2.5 FID Slots

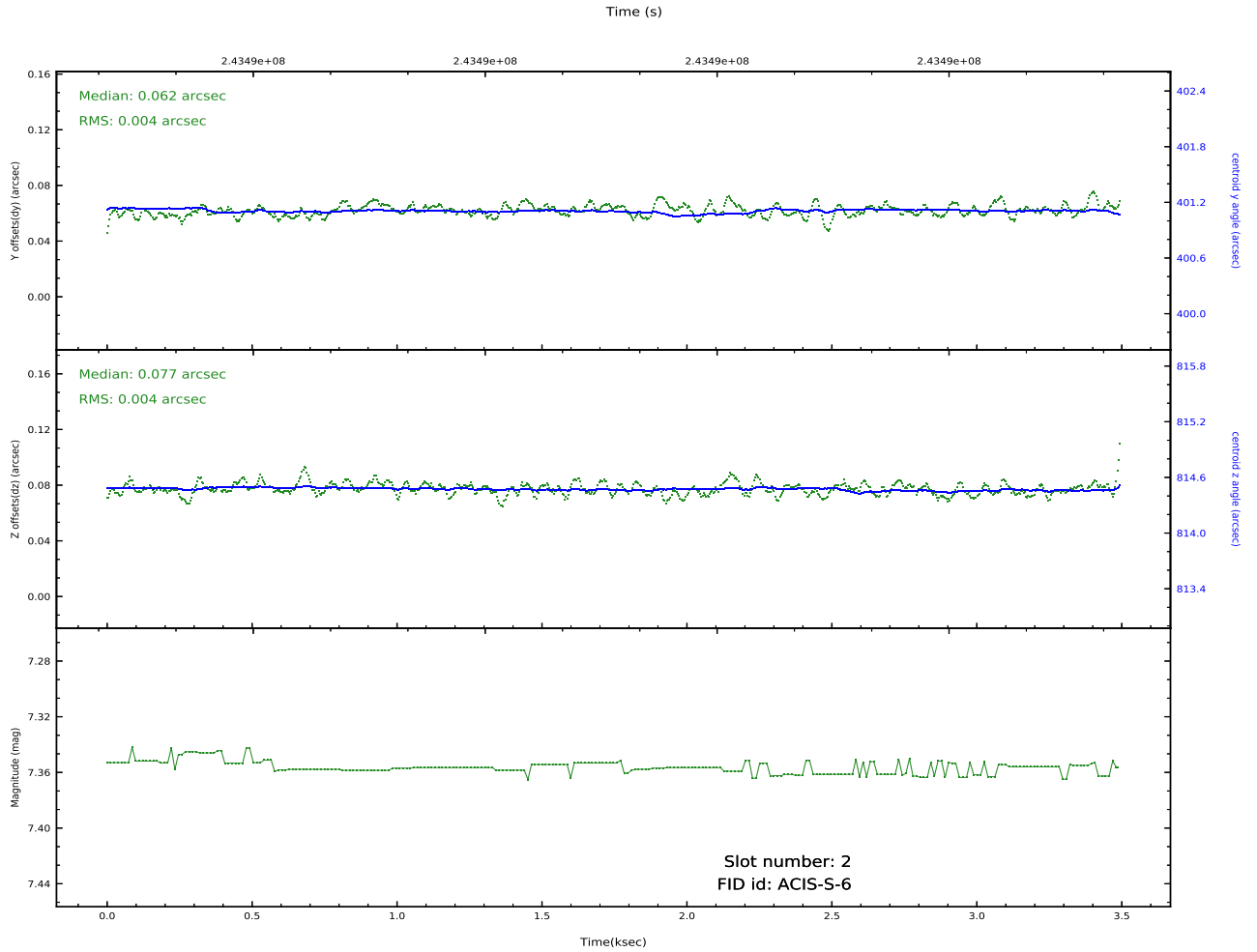
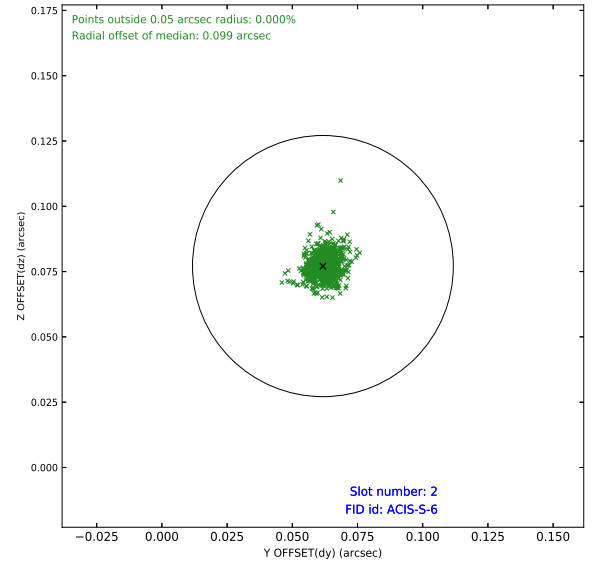
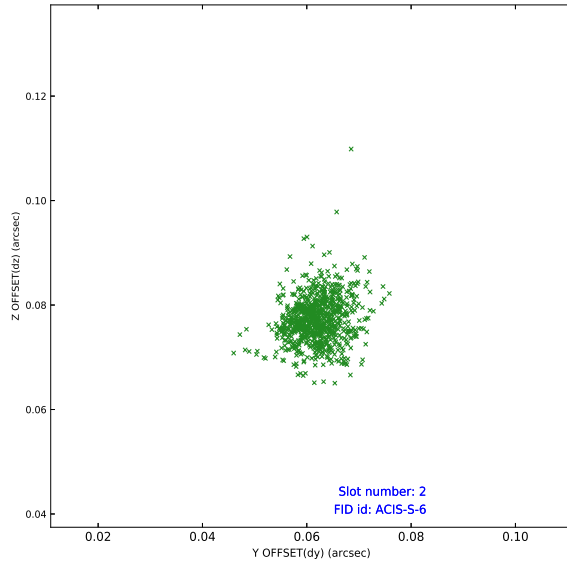
### 2.5.1 Slot 0



## 2.5.2 Slot 1



## 2.5.3 Slot 2





# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2020.10.22
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	2.959999

## A.2 Comments

As a consequence of the DEA-A shutdown anomaly on Sep 15th (DOY258), the reported value of the ACIS FP temperature was ~1.3 degrees warmer than the actual temperature. The value for FP temperature reported in the headers of the Level 2 event file and the Mission Timeline files ARE INCORRECT by this amount for this processing. However, the temperature is corrected in the processing in order to obtain the correct temperature for the CTI correction. So the calibrated data are correct.