

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 4909 - L2 Version 4  
Chandra X-Ray Center

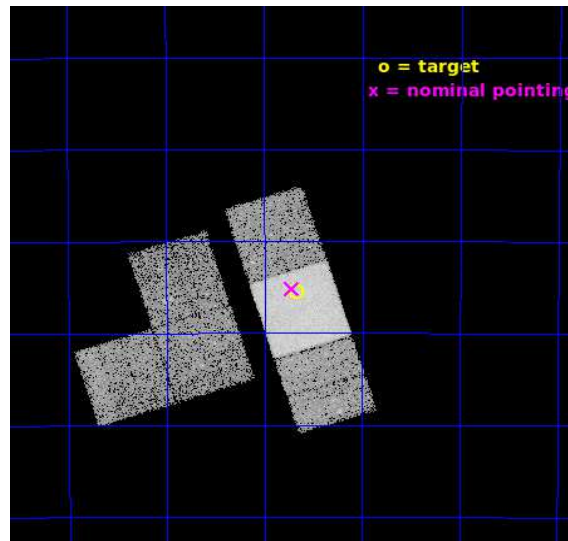
L2 Processing Date : Sep 21 2020

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# 1 Front

seq_num	700990	Sequence number
obs_id	4909	Observation id
title	Chandra Study of Water Megamaser AGN: Do Type-2 Objects Form a Heterogeneous Class?	Proposal title
observer	Dr Lincoln Greenhill	Principal investigator
object	ESO269-G012	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	194.169583	Observer's specified target RA [deg]
dec_targ	-46.925278	Observer's specified target Dec [deg]
ra_nom	194.179621744	Nominal RA [deg]
dec_nom	-46.919586514893	Nominal Dec [deg]
roll_nom	72.363353304507	Nominal Roll [deg]
revision	4	Processing version of data
ontime	17899.891244531	Sum of GTIs [s]
livetime	17673.232043572	Livetime [s]
ontime1	17909.655255169	Sum of GTIs [s]
ontime2	17912.690995604	Sum of GTIs [s]
ontime3	17912.77299577	Sum of GTIs [s]
ontime6	17916.055095583	Sum of GTIs [s]
ontime7	17899.891244531	Sum of GTIs [s]
ontime8	17909.491115063	Sum of GTIs [s]
l2events	104832	Number of level 2 events

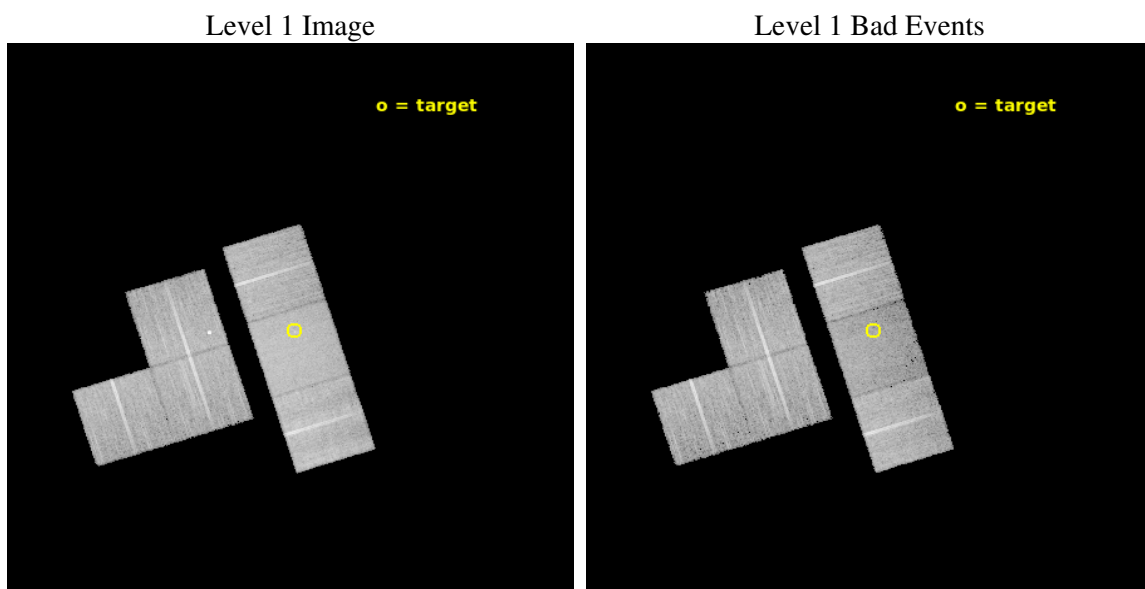




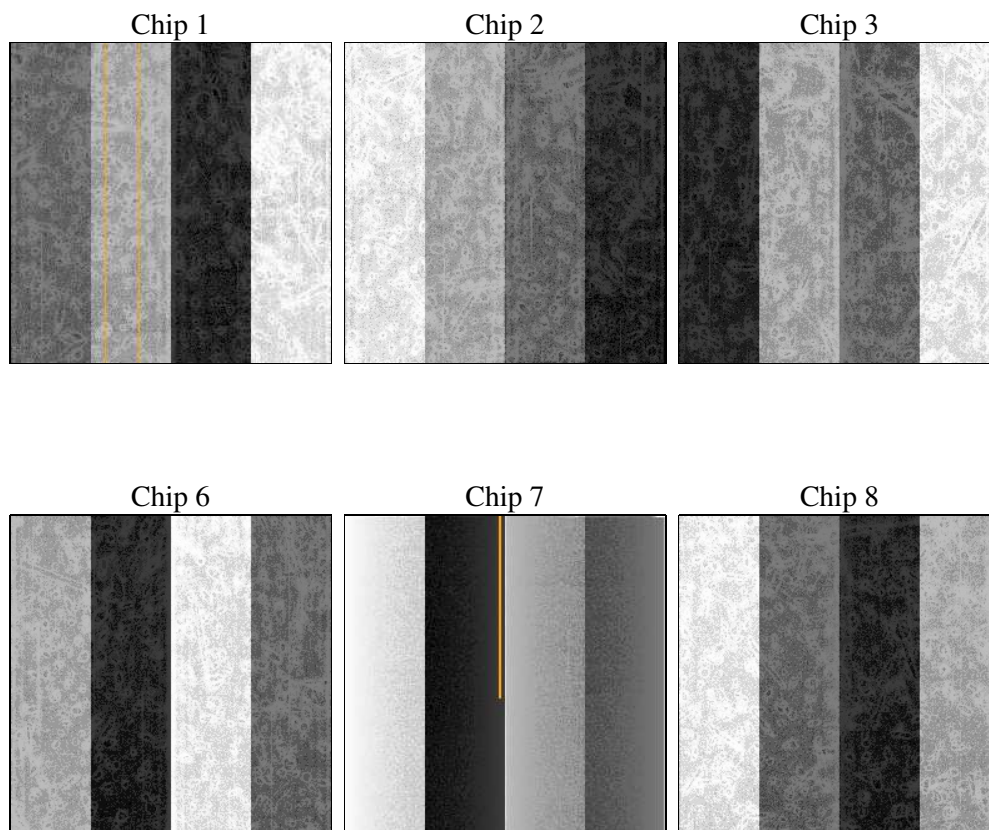
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	18000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	17899.891244531	Sum of GTIs [s]
caldsver	4.9.2	&#160	ontime1	17909.655255169	Sum of GTIs [s]
date	2020-09-22T00:45:10	Date and time of file creation	ontime2	17912.690995604	Sum of GTIs [s]
revision	4	Processing version of data	ontime3	17912.77299577	Sum of GTIs [s]
			ontime6	17916.055095583	Sum of GTIs [s]
			ontime7	17899.891244531	Sum of GTIs [s]
			ontime8	17909.491115063	Sum of GTIs [s]
			l1events	602953	Number of level 1 events

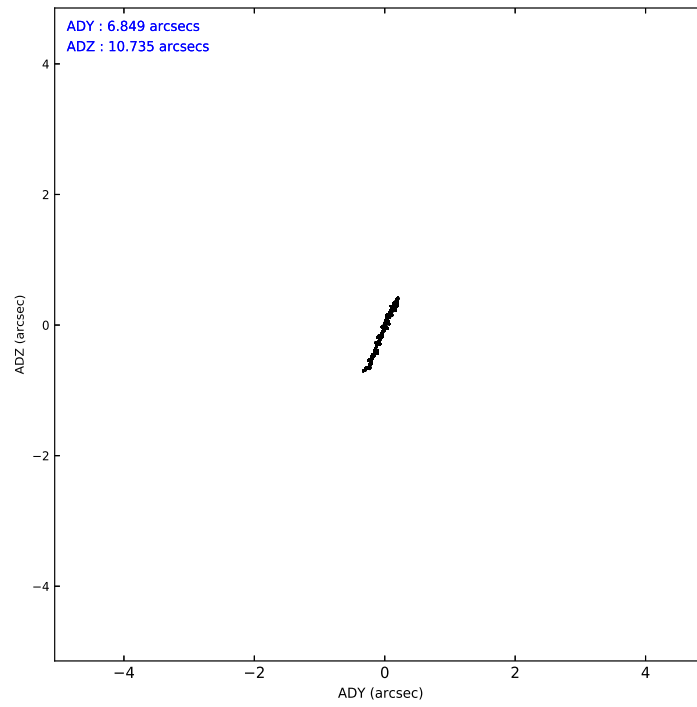
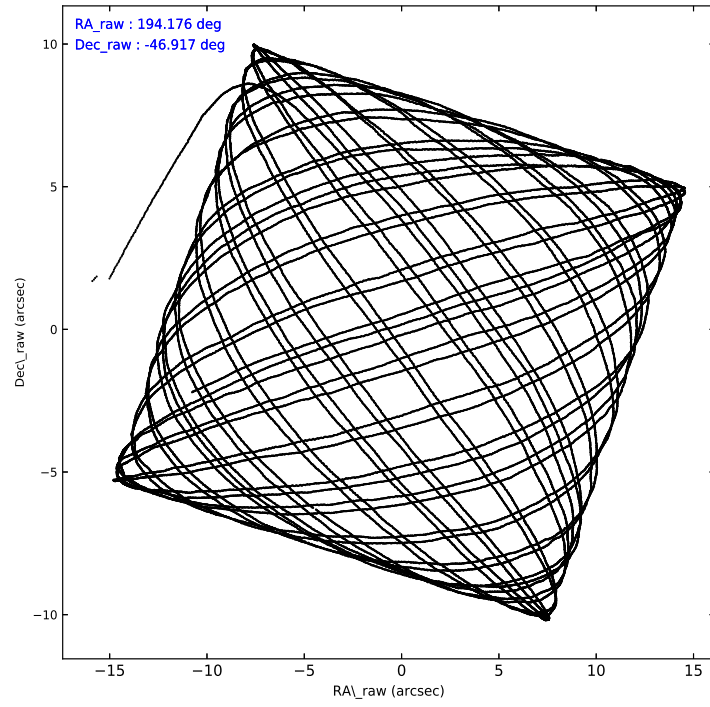
### 2.1.4 Events

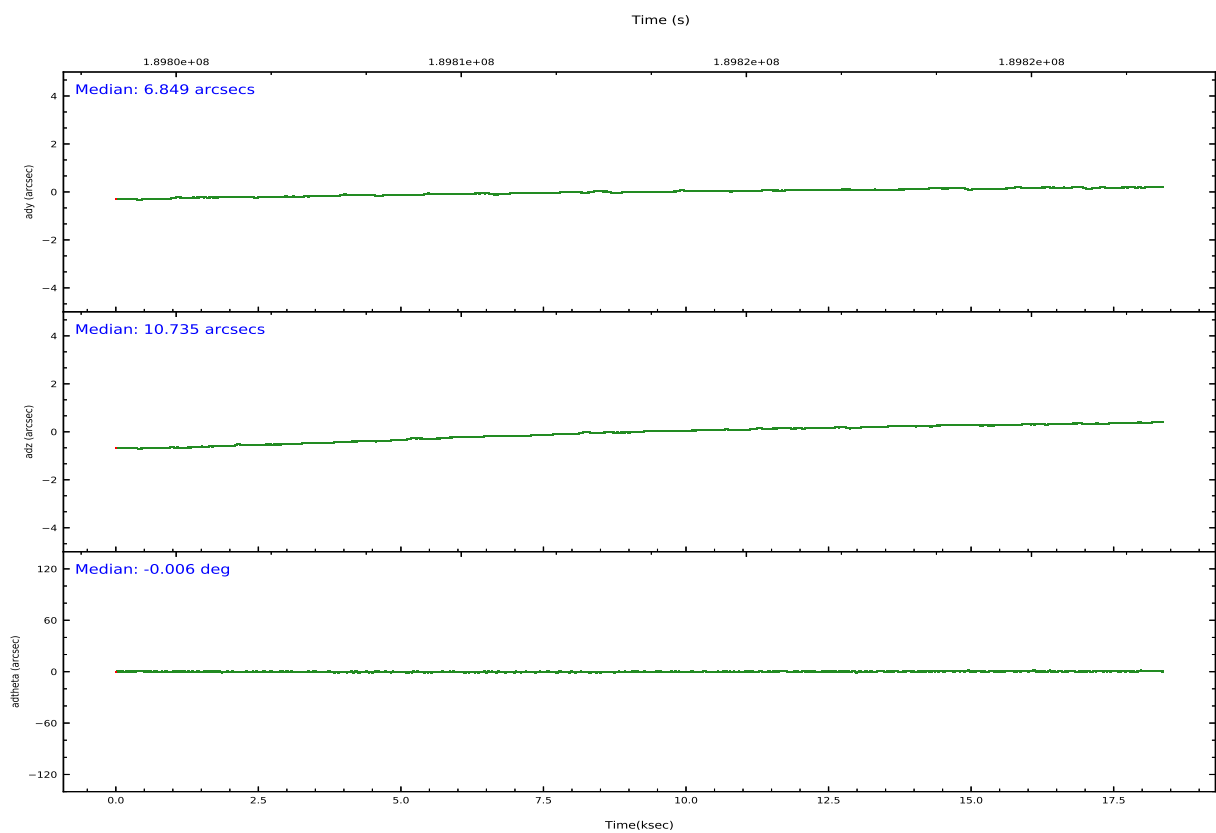
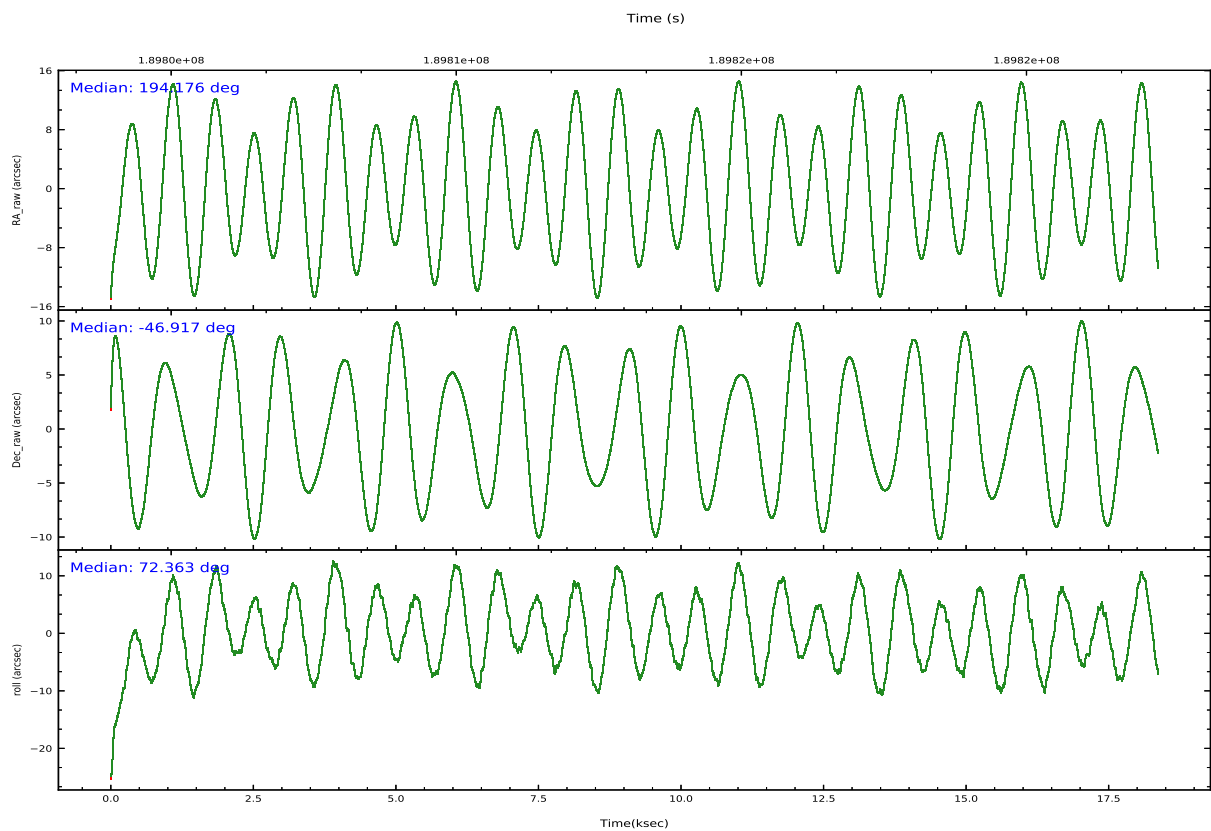
	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8		ccd 1	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	88852	94596	90234	95528	114297	119446	grade 0 events	4432	5257	3751	4886	5715	10171
rejected events	77689	83513	80996	84006	54982	90254		4%	5%	4%	5%	5%	8%
rejected %	87%	88%	89%	87%	48%	75%	grade 1 events	43	71	55	49	99	89
								0%	0%	0%	0%	0%	0%
							grade 2 events	2352	2111	1879	2221	11715	6015
								2%	2%	2%	2%	10%	5%
							grade 3 events	1154	977	955	1107	5304	3120
								1%	1%	1%	1%	4%	2%
							grade 4 events	1141	1050	957	1195	5339	2942
								1%	1%	1%	1%	4%	2%
							grade 5 events	3474	3124	3526	3790	10762	5240
								3%	3%	3%	3%	9%	4%
							grade 6 events	2086	1691	1697	2117	31250	6950
								2%	1%	1%	2%	27%	5%
							grade 7 events	74170	80315	77414	80163	44113	84919
								83%	84%	85%	83%	38%	71%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-123678	ACIS-123678	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	194.185234	194.179621744	Subarray requested	NONE	NONE
[deg] Pointing Dec	-46.943231	-46.919586514893	Alternating exposures requested	N	N
[deg] Pointing Roll	72.212300	72.363353304507	[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)	189804310.184000	189803250.05724			
Observation start date	2004-01-06T19:24:06	2004-01-06T19:07:30			
[s] Observation end time (MET)	189822310.184000	189823025.8956			
Observation end date	2004-01-07T00:24:06	2004-01-07T00:37:05			
Read mode	TIMED	TIMED			

## 2.3 Aspect



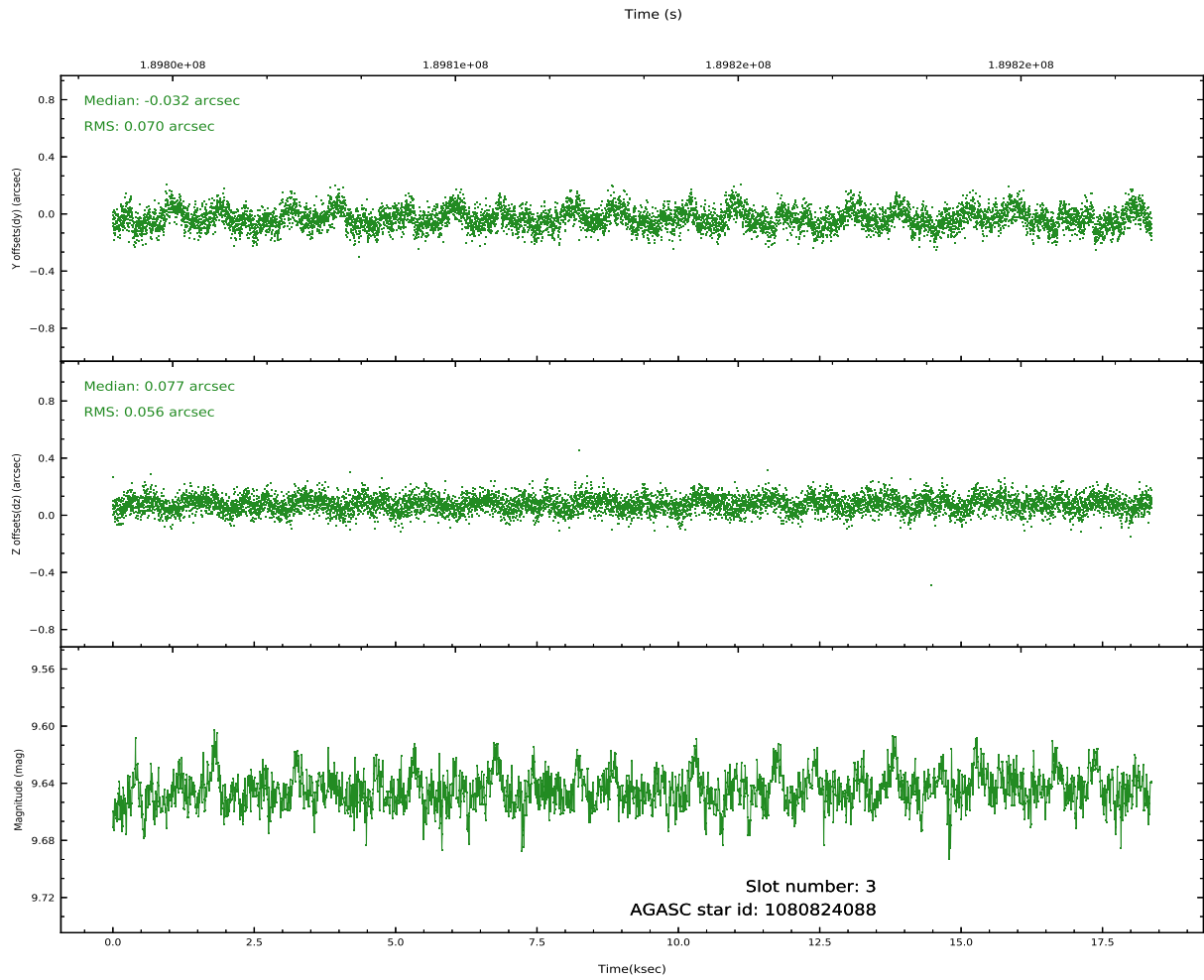
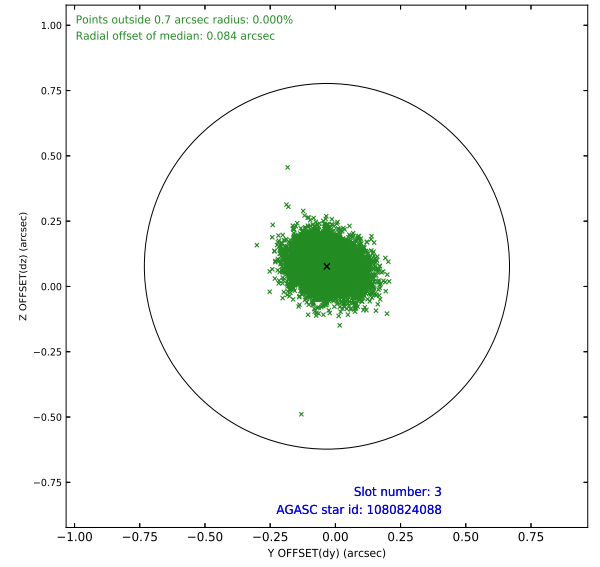
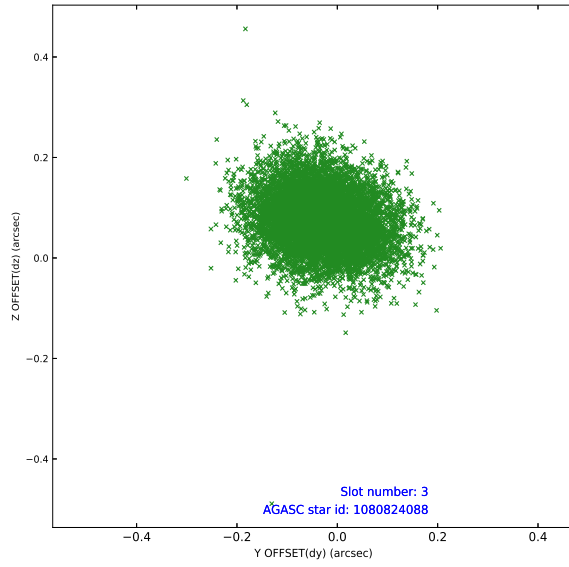


Slot Statistics

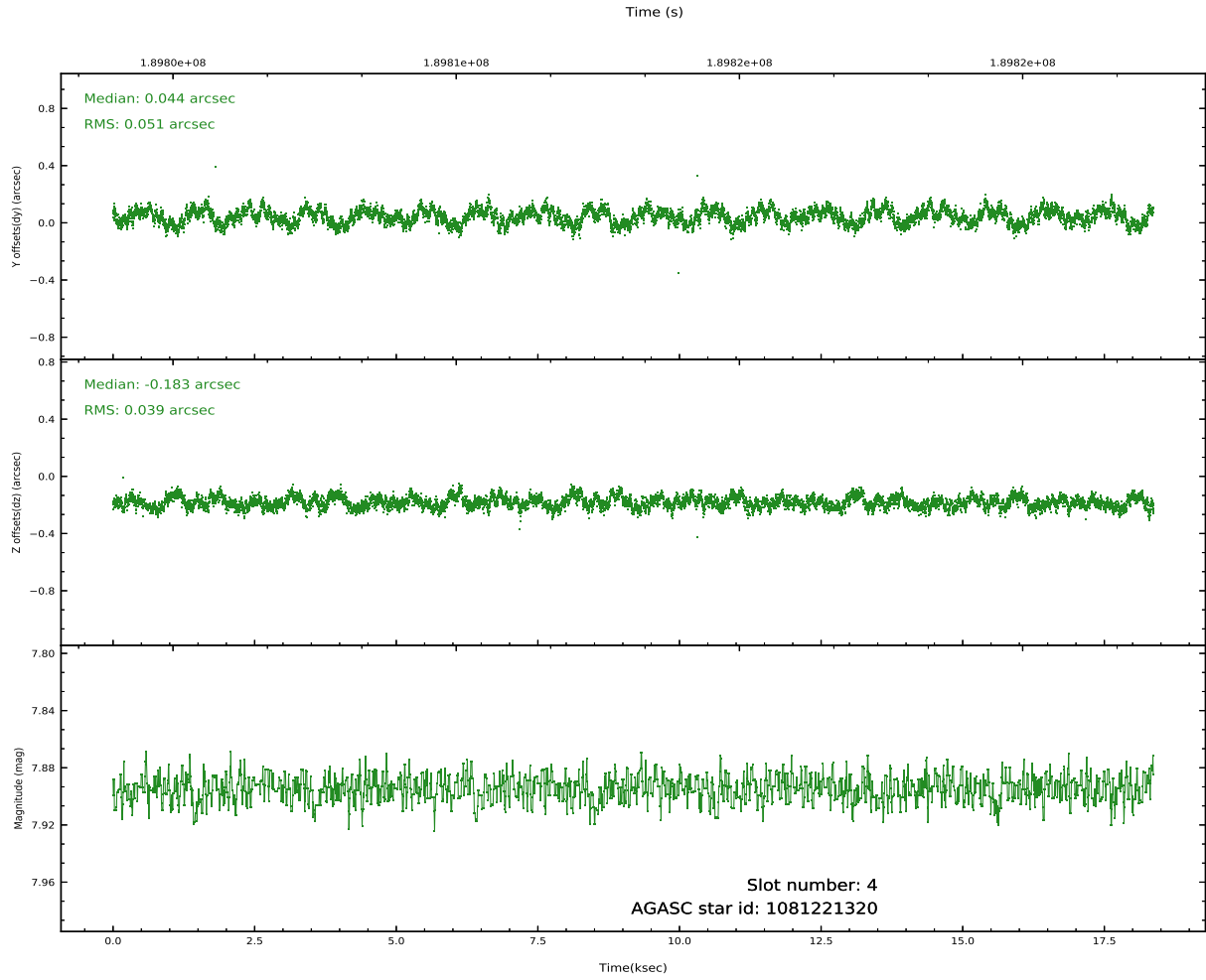
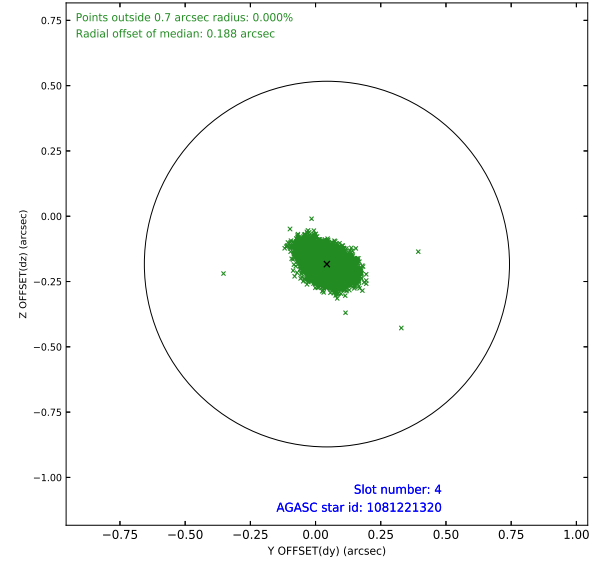
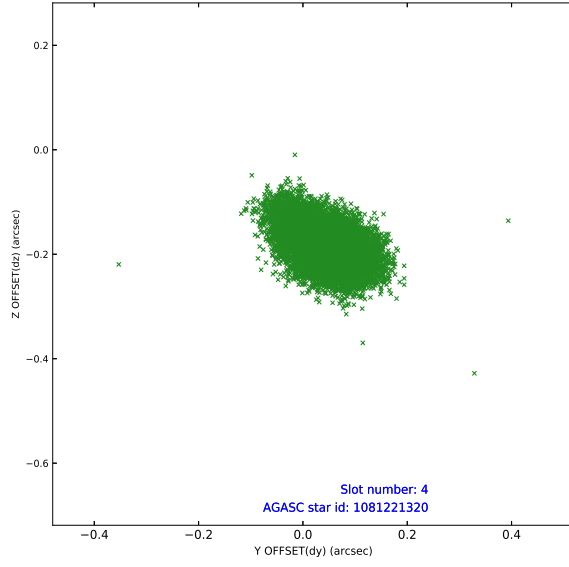
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.10	4435	1.000	-0.076	-0.043	0.010	0.016	0.000000	0.000000	-759.60	-1731
1	FID		ACIS-S-4	7.20	4425	1.000	0.124	0.048	0.009	0.018	0.000000	0.000000	2153.72	176
2	FID		ACIS-S-5	7.23	4430	1.000	-0.079	0.004	0.007	0.011	0.000000	0.000000	-1812.22	170
3	GUIDE	used	1080824088	9.64	8877	1.000	-0.032	0.077	0.094	0.157	194.468696	-46.647571	1226.56	-341
4	GUIDE	used	1081221320	7.89	8895	1.000	0.044	-0.183	0.069	0.110	193.689534	-47.319554	-1662.81	736
5	GUIDE	used	1081345808	9.43	8889	1.000	-0.049	0.154	0.087	0.138	194.859994	-47.617115	-1816.46	-2302
6	GUIDE	used	1081346280	7.28	8887	1.000	0.040	-0.064	0.060	0.096	194.545007	-47.064949	-149.47	-974
7	GUIDE	used	1081346296	9.39	8885	1.000	-0.001	0.007	0.084	0.136	194.759799	-47.165765	-337.72	-1585

## 2.4 Star Slots

### 2.4.1 Slot 3

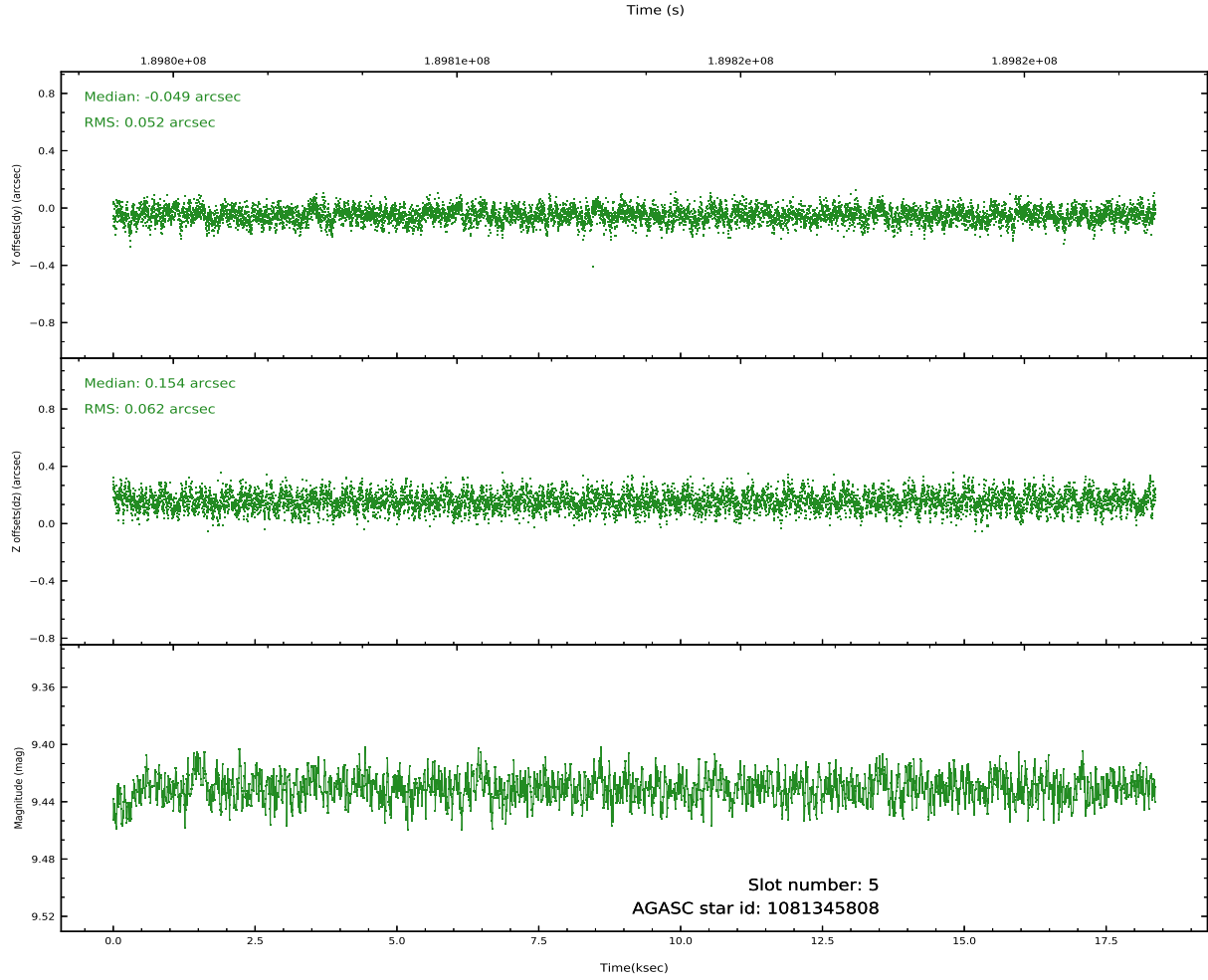
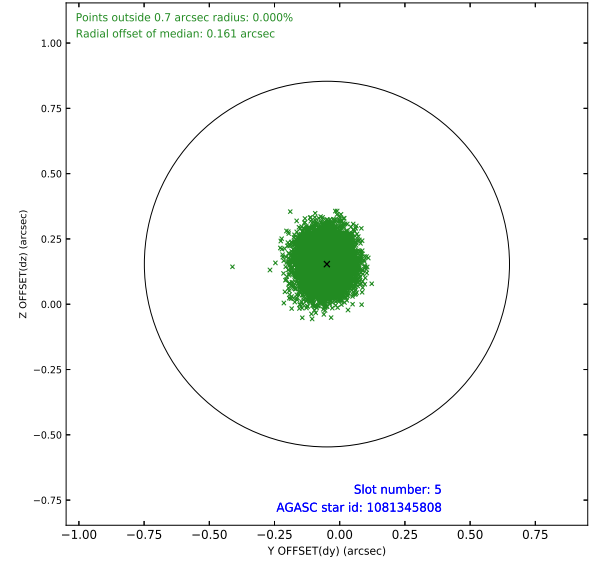
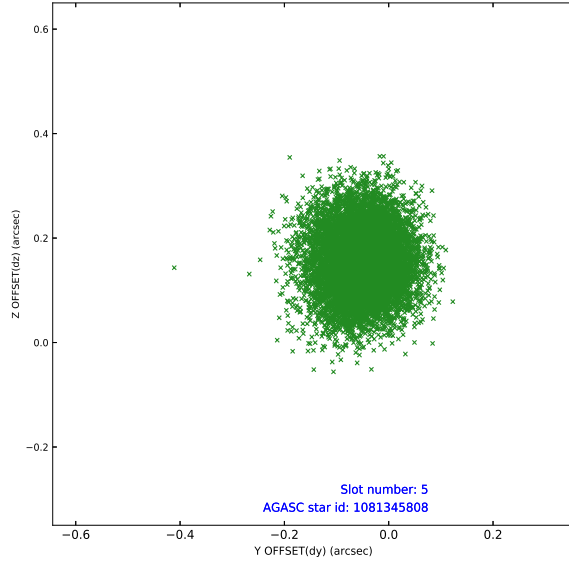


## 2.4.2 Slot 4

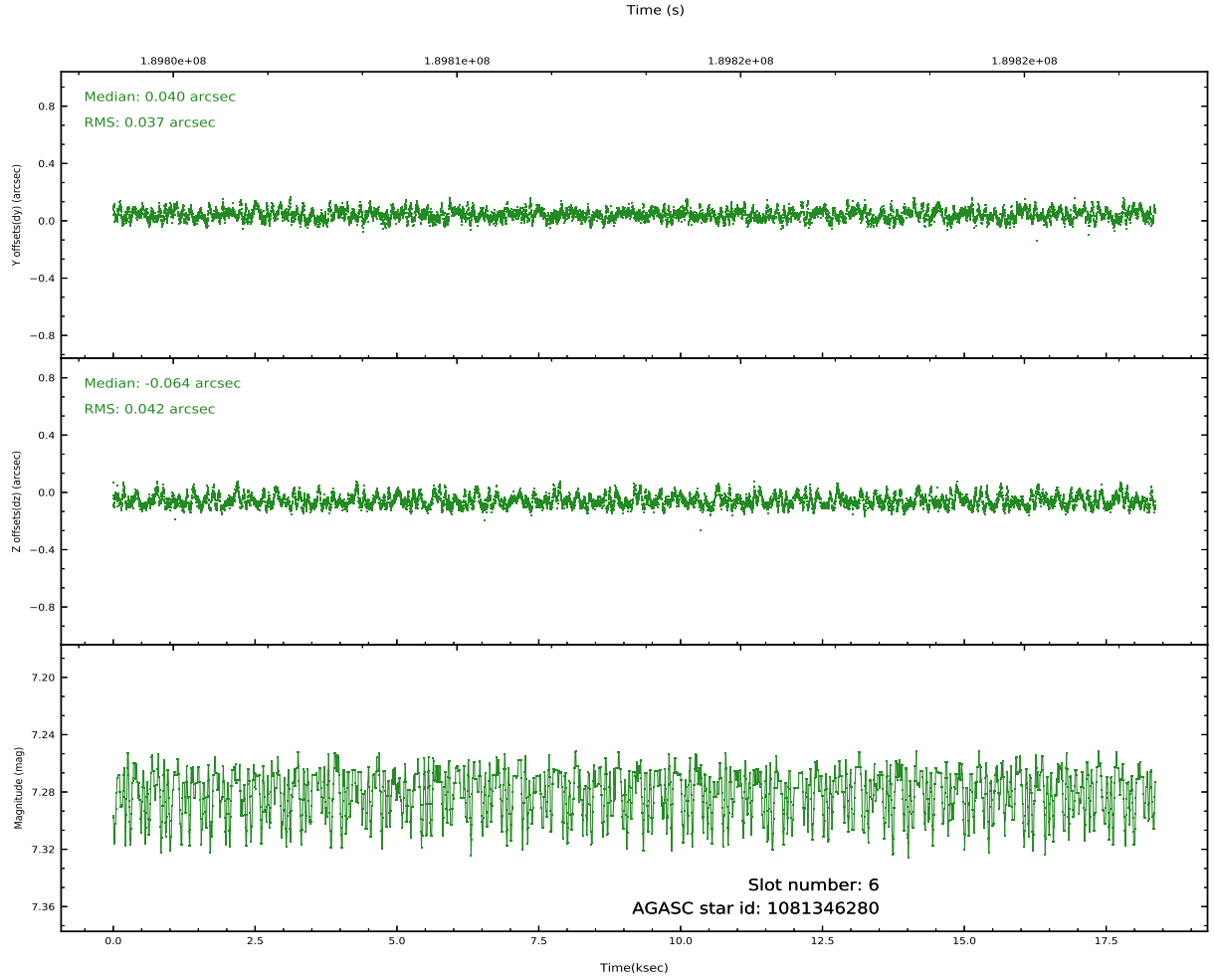
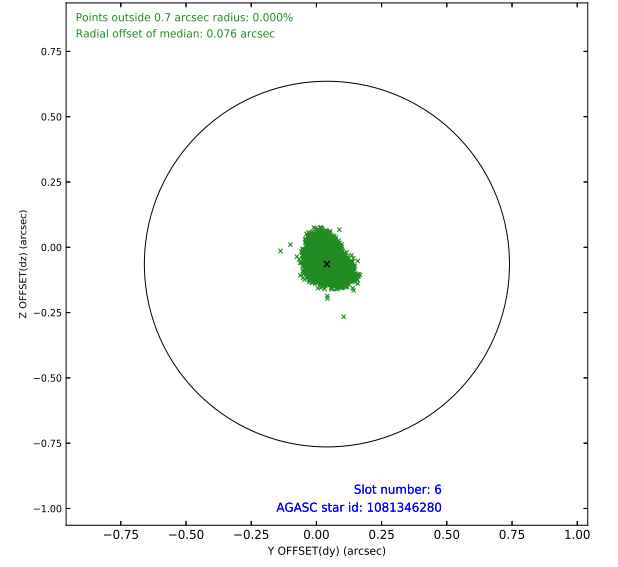
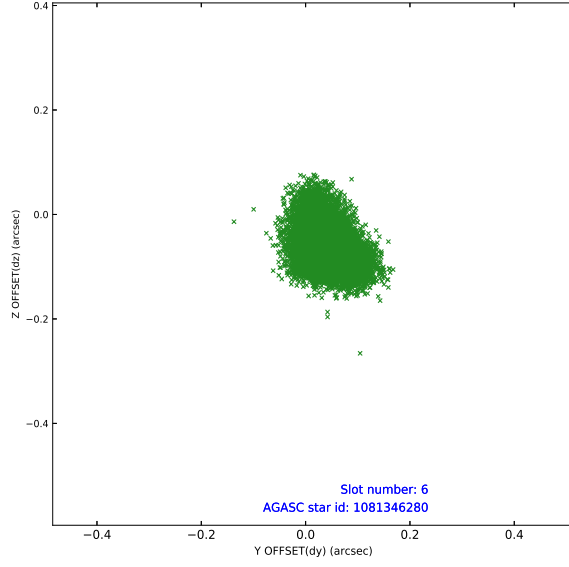




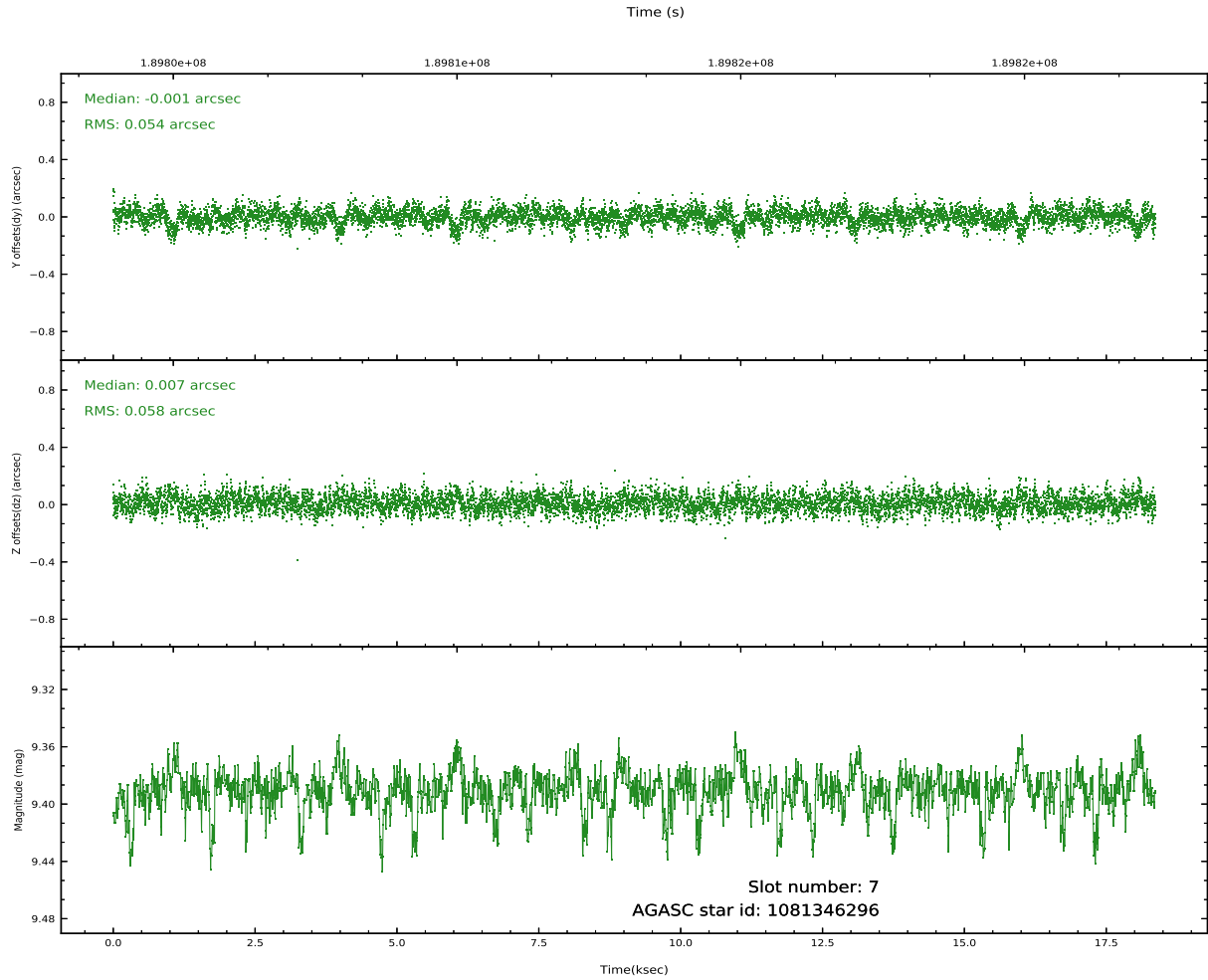
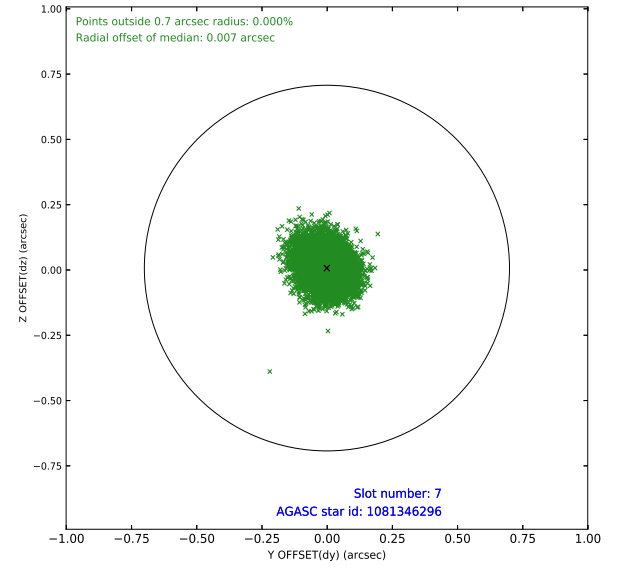
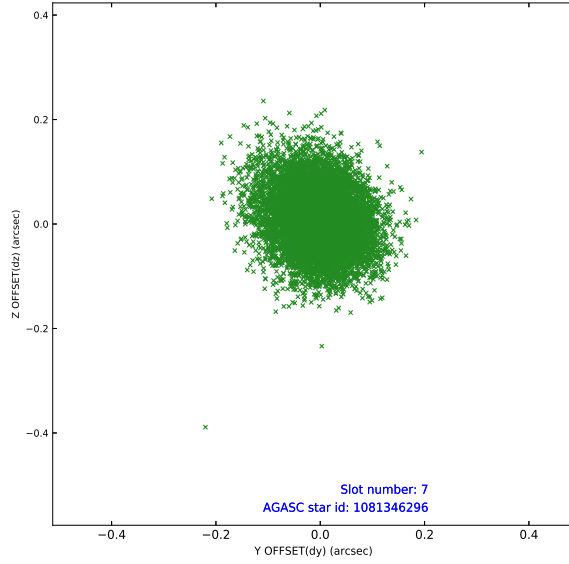
### 2.4.3 Slot 5



## 2.4.4 Slot 6

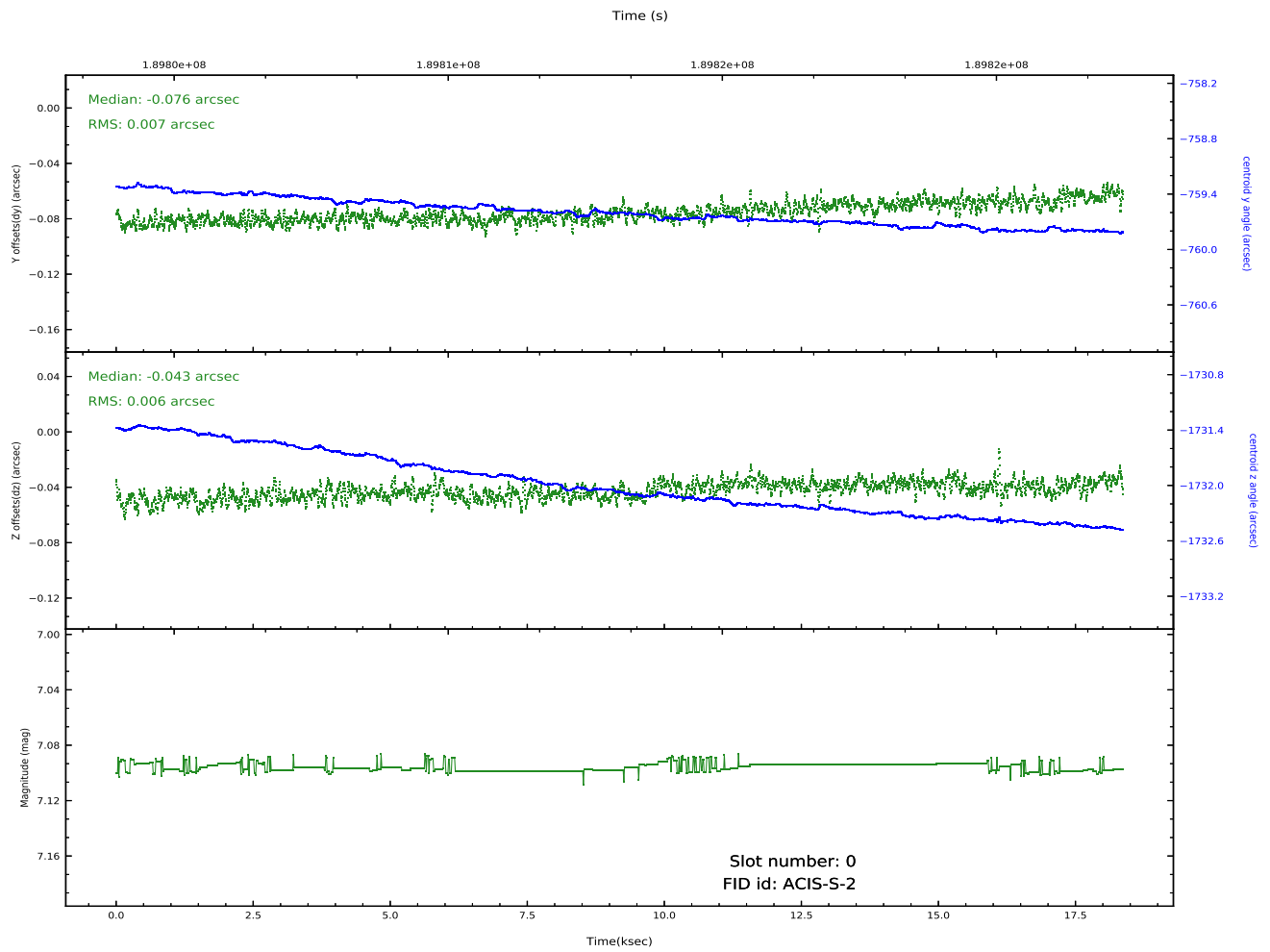
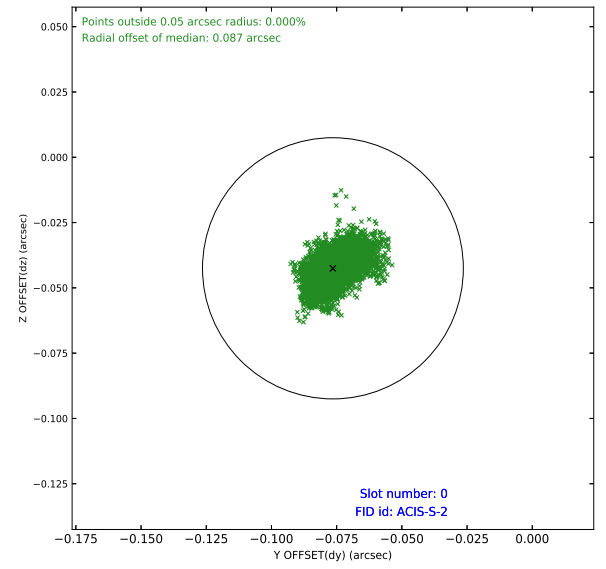
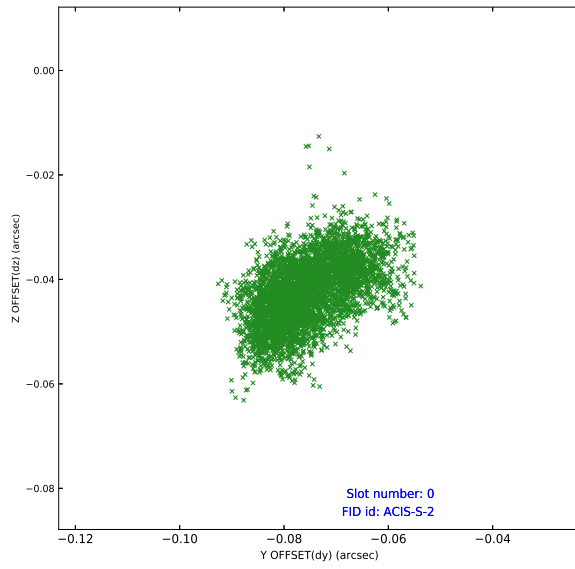


## 2.4.5 Slot 7

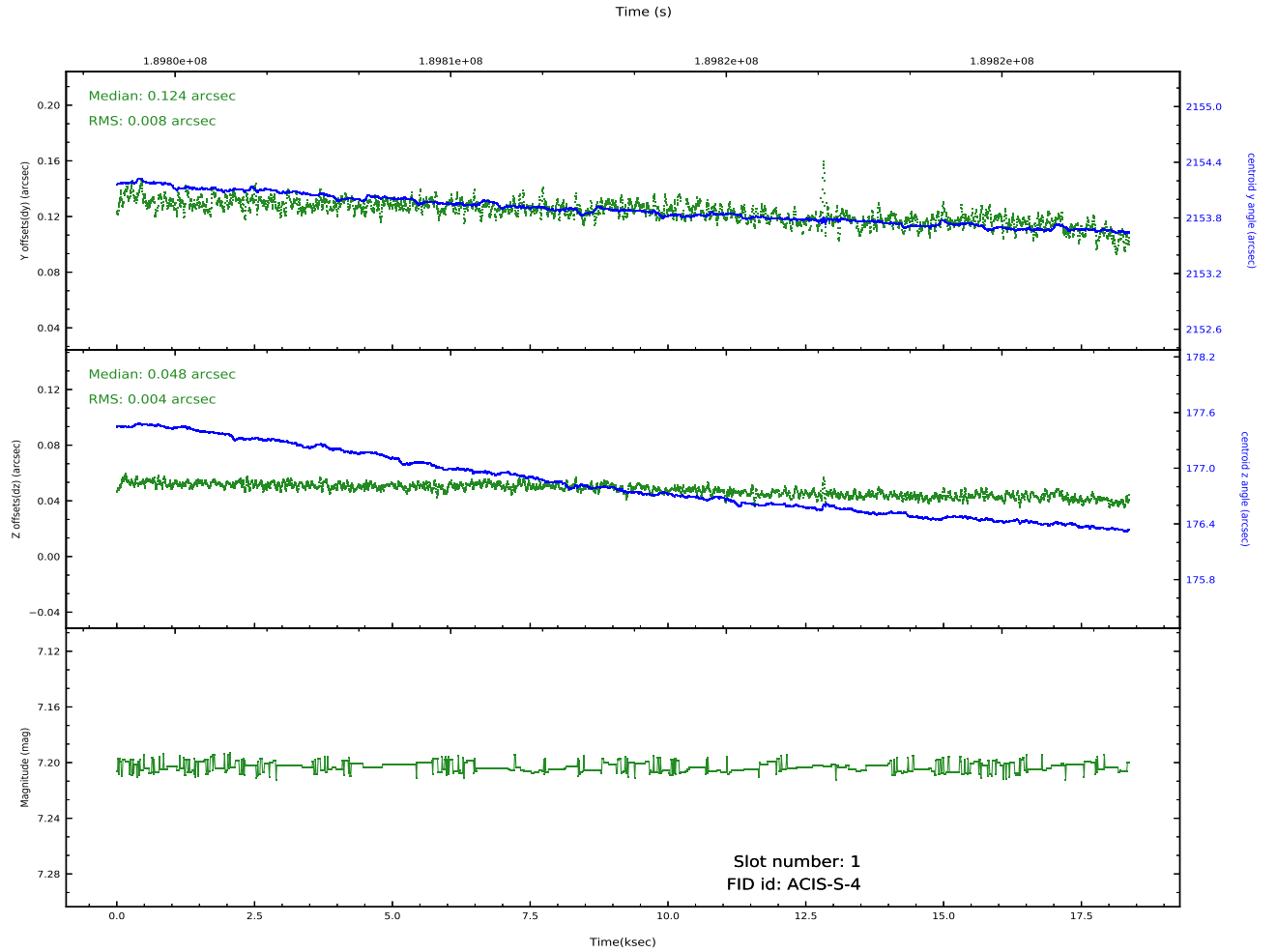
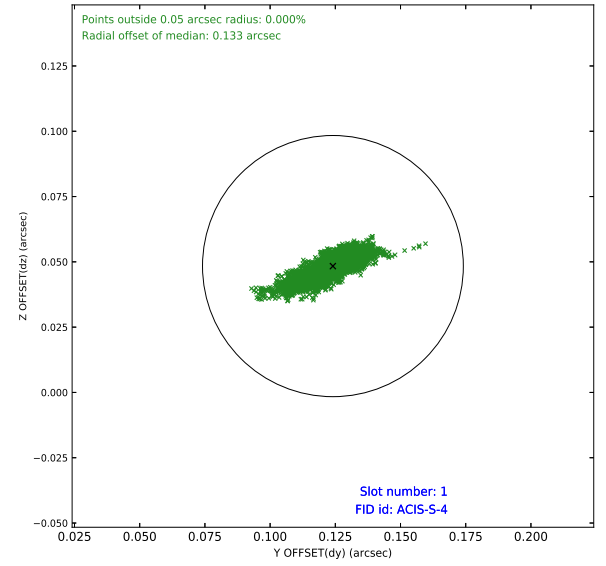
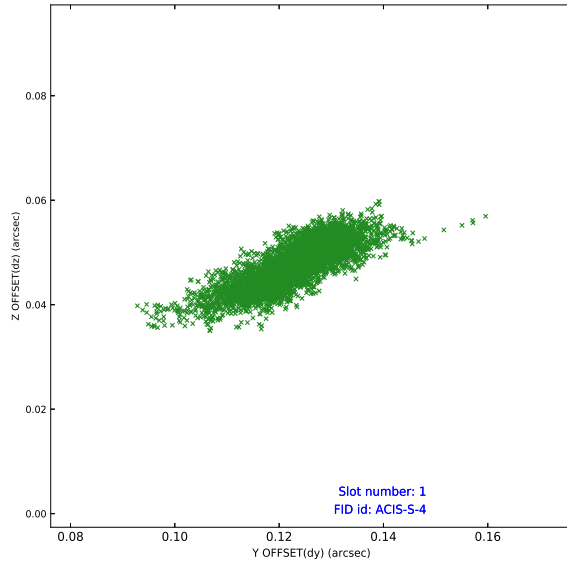


## 2.5 FID Slots

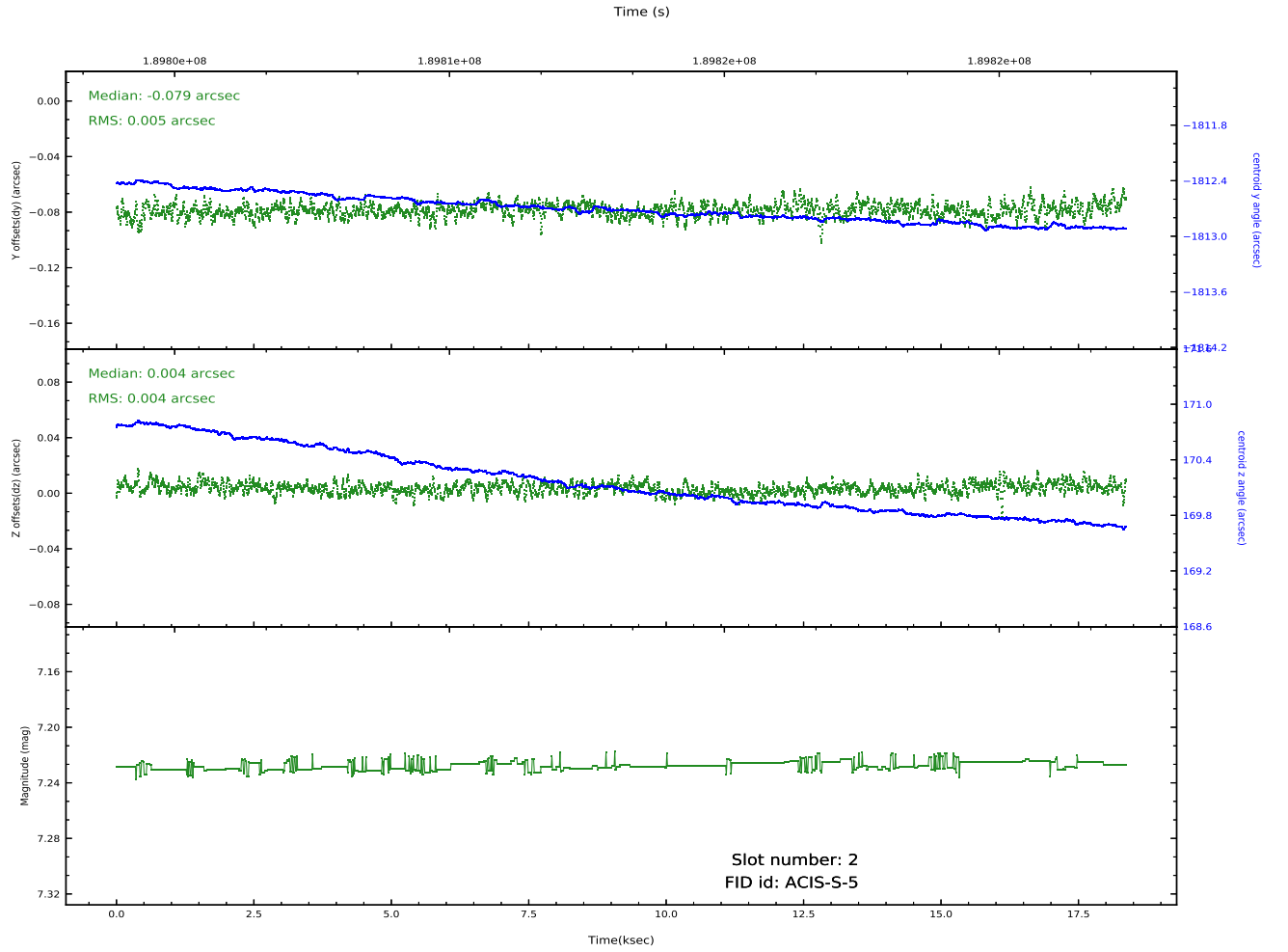
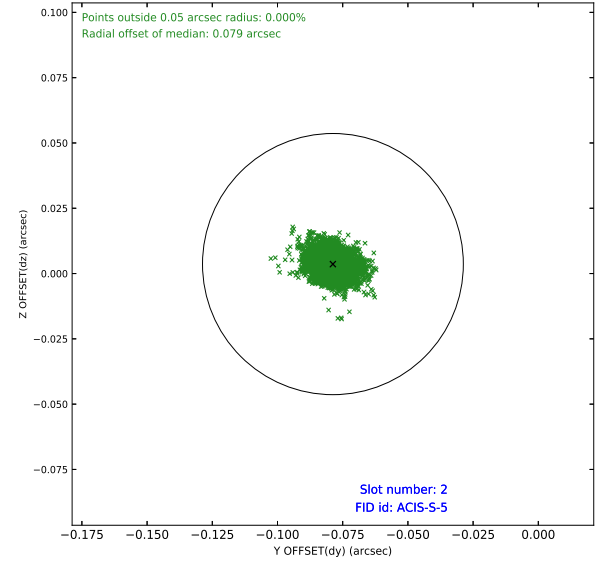
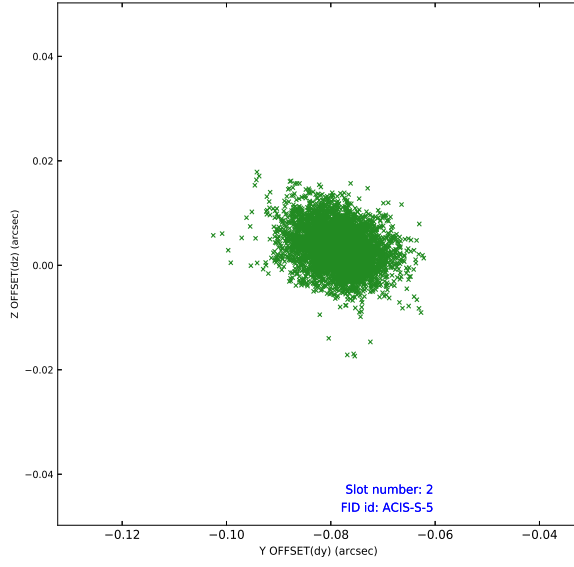
### 2.5.1 Slot 0



## 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)	2020.09.22
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	17.87

## A.2 Comments

Joint Proposal with HST. Charge time for this ObsId remains at previous value of 17.87 ks although with the current processing the charge time would have been 17.90 ksec. Spike in count rate from about 10 counts per second to about 50-60 counts per second between 12.5 and 13.5 ksec into the observation. Most of this time period is not included in the good time interval, and therefore is not in the Level 2 data products.