

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 4748 - L2 Version 4  
Chandra X-Ray Center

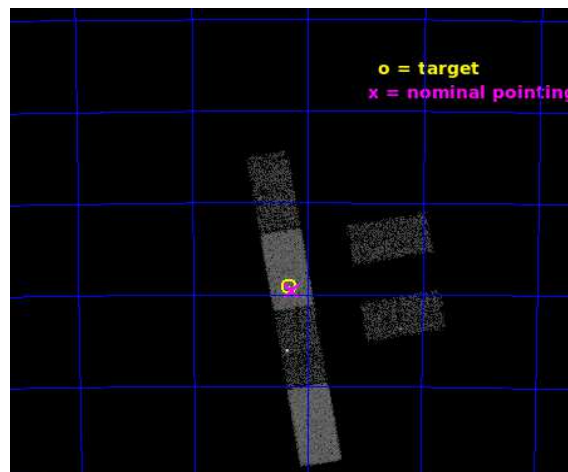
L2 Processing Date : Sep 23 2020

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# 1 Front

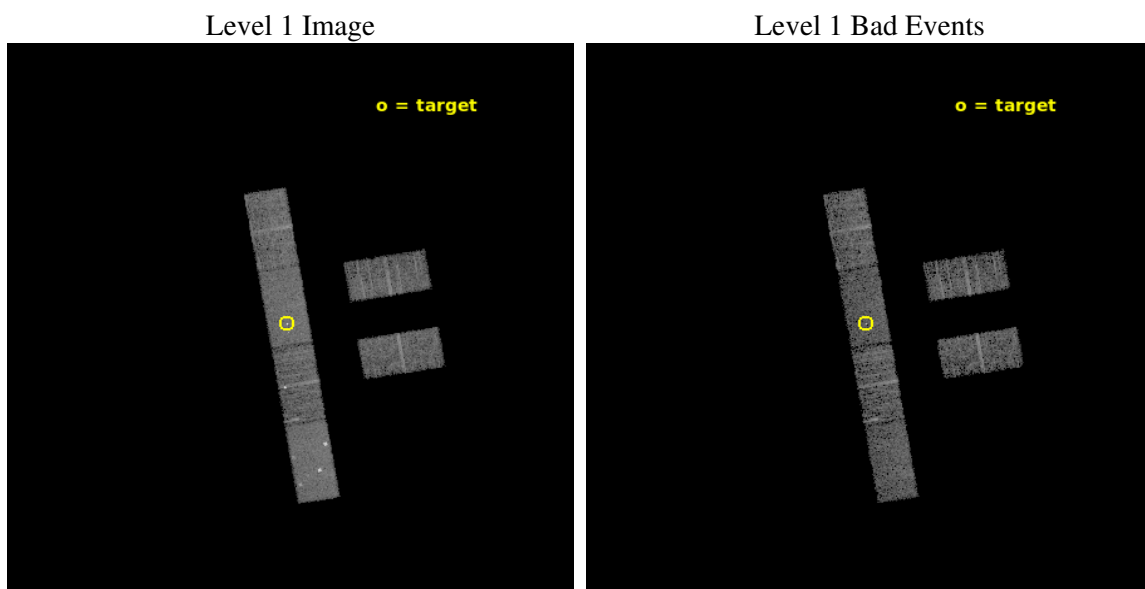
seq_num	600403	Sequence number
obs_id	4748	Observation id
title	Observations of Intermediate Mass Black Hole Candidate Ultra-Luminous X-ray Sources	Proposal title
observer	Jon Miller	Principal investigator
object	NGC 1313 X-1	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	49.583333	Observer's specified target RA [deg]
dec_targ	-66.486389	Observer's specified target Dec [deg]
ra_nom	49.569385828557	Nominal RA [deg]
dec_nom	-66.493282310873	Nominal Dec [deg]
roll_nom	260.43125886335	Nominal Roll [deg]
revision	4	Processing version of data
ontime	5166.0000342131	Sum of GTIs [s]
livetime	5050.840862547	Livetime [s]
ontime2	5166.0000342131	Sum of GTIs [s]
ontime3	5166.0000342131	Sum of GTIs [s]
ontime5	5166.0000342131	Sum of GTIs [s]
ontime6	5166.0000342131	Sum of GTIs [s]
ontime7	5166.0000342131	Sum of GTIs [s]
ontime8	5166.0000342131	Sum of GTIs [s]
l2events	32333	Number of level 2 events



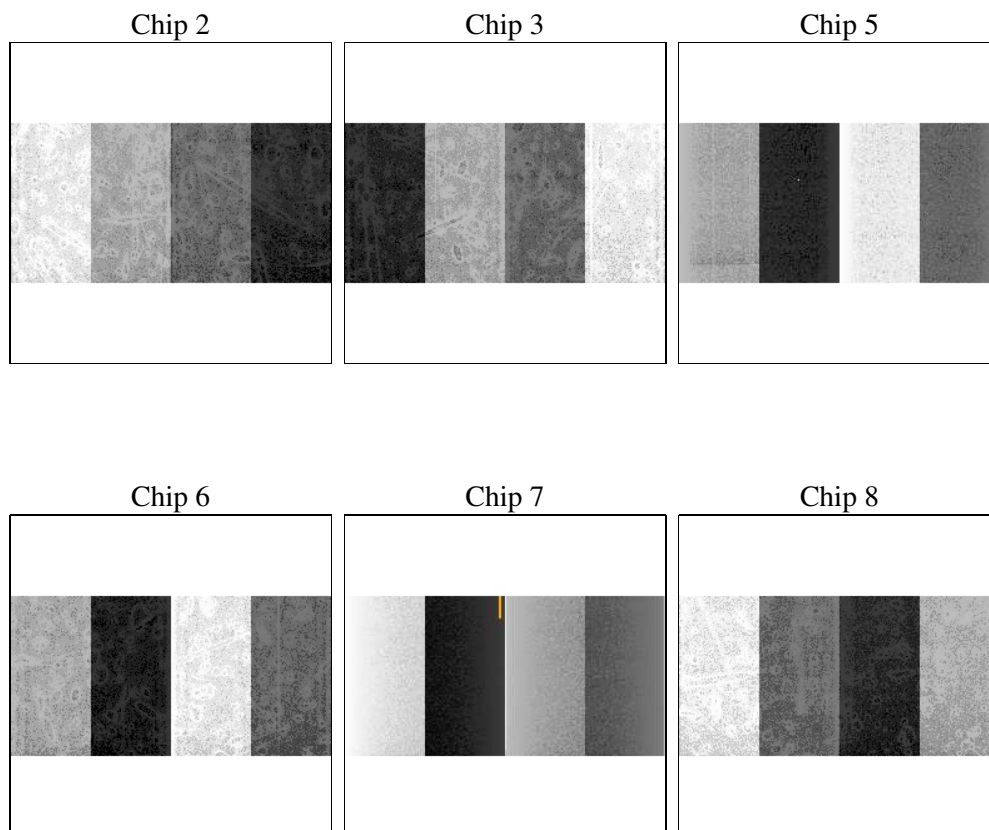
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	5166.0000342131	Sum of GTIs [s]
caldsver	4.9.2	&#160	ontime2	5166.0000342131	Sum of GTIs [s]
date	2020-09-24T01:32:55	Date and time of file creation	ontime3	5166.0000342131	Sum of GTIs [s]
revision	4	Processing version of data	ontime5	5166.0000342131	Sum of GTIs [s]
			ontime6	5166.0000342131	Sum of GTIs [s]
			ontime7	5166.0000342131	Sum of GTIs [s]
			ontime8	5166.0000342131	Sum of GTIs [s]
			l1events	151341	Number of level 1 events

### 2.1.4 Events

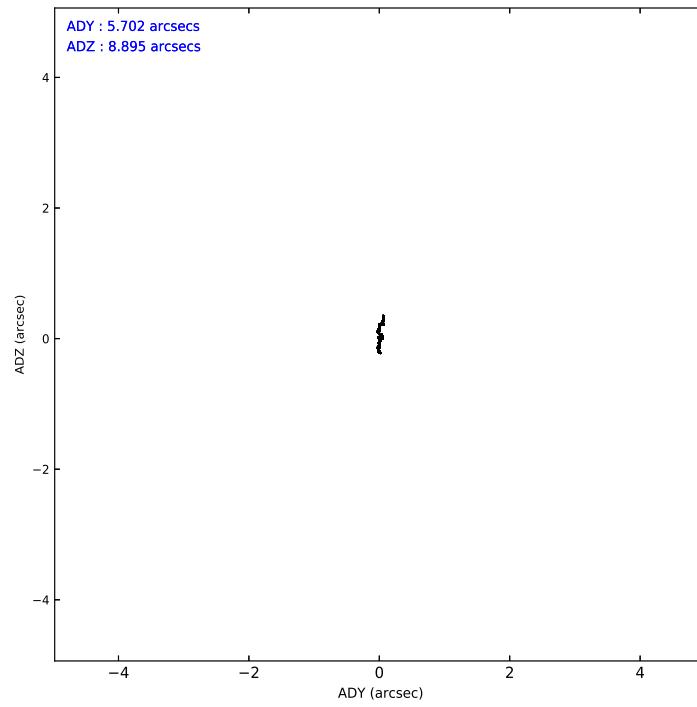
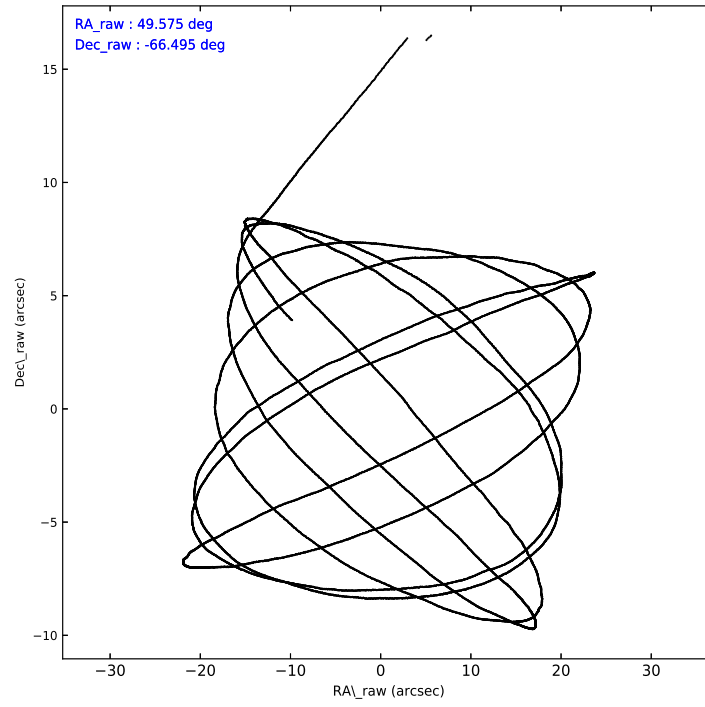
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	20442	20385	33392	22582	28928	25612	grade 0 events	1012	1017	5877	2005	1629	1596
rejected events	18239	18274	16980	19001	16549	20751		4%	4%	17%	8%	5%	6%
rejected %	89%	89%	50%	84%	57%	81%	grade 1 events	13	5	45	15	69	12
								0%	0%	0%	0%	0%	0%
							grade 2 events	456	402	3902	665	2825	1074
								2%	1%	11%	2%	9%	4%
							grade 3 events	274	251	728	299	1341	616
								1%	1%	2%	1%	4%	2%
							grade 4 events	269	251	582	312	1256	556
								1%	1%	1%	1%	4%	2%
							grade 5 events	796	810	2276	854	2650	1113
								3%	3%	6%	3%	9%	4%
							grade 6 events	381	390	6630	504	6228	1371
								1%	1%	19%	2%	21%	5%
							grade 7 events	17241	17259	13352	17928	12930	19274
								84%	84%	39%	79%	44%	75%

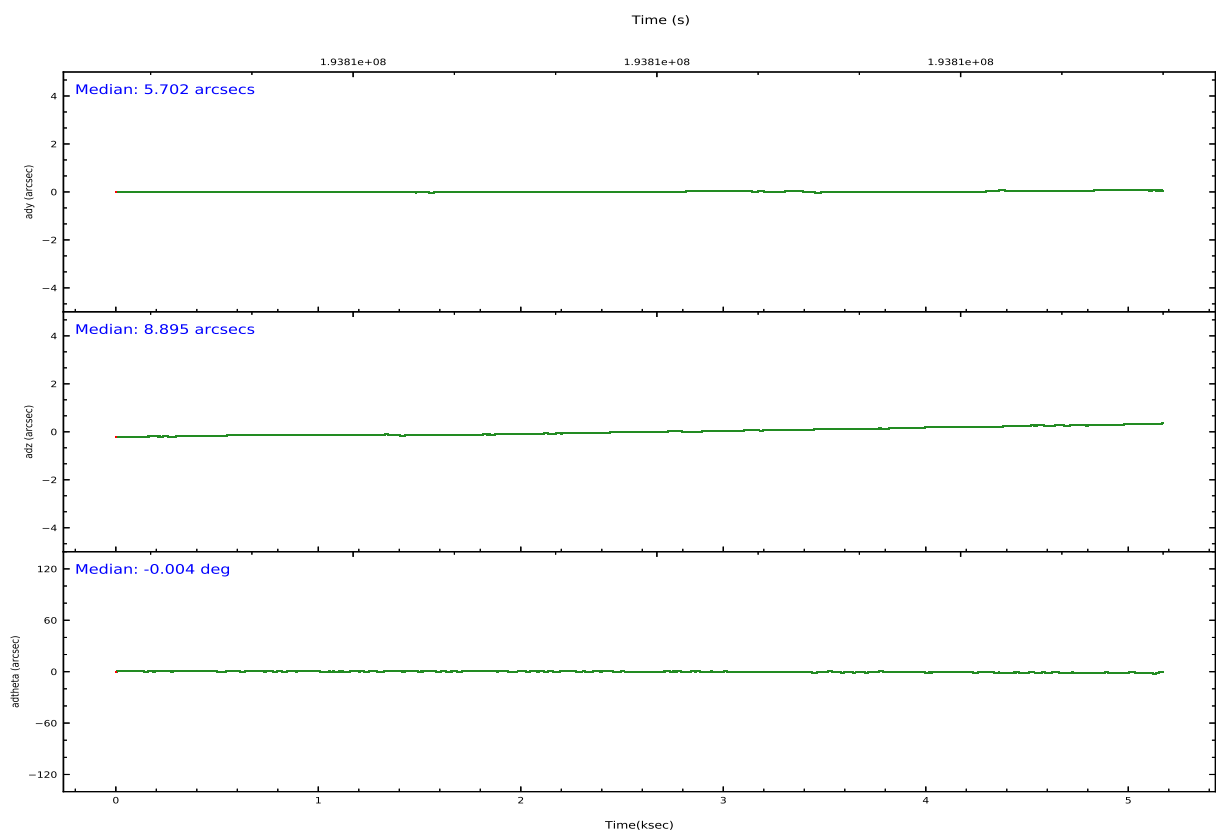
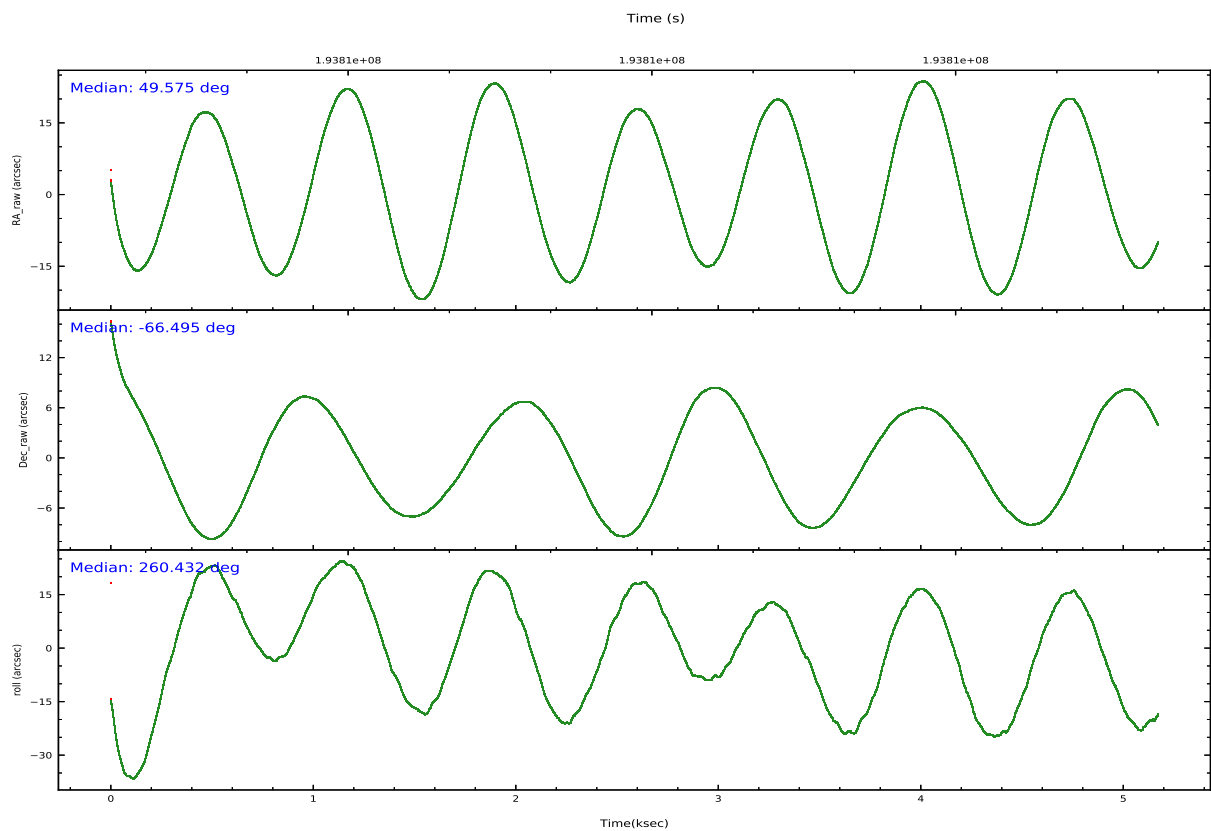


## 2.2 Compared Parameters

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	49.550495	49.569385828557	Subarray requested	CUSTOM	1/2
[deg] Pointing Dec	-66.470097	-66.493282310873	Subarray start row	257	257
[deg] Pointing Roll	260.251853	260.43125886335	Subarray row count	512	512
[mm] SIM focus pos	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
[mm] SIM defocus	0	0.001444936568705701	[s] Primary exposure time	0.000000	1.8
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	193806000.184000	193804955.80699			
Observation start date	2004-02-22T02:58:56	2004-02-22T02:42:35			
[s] Observation end time (MET)	193811000.184000	193811133.99476			
Observation end date	2004-02-22T04:22:16	2004-02-22T04:25:33			
Read mode	TIMED	TIMED			

## 2.3 Aspect



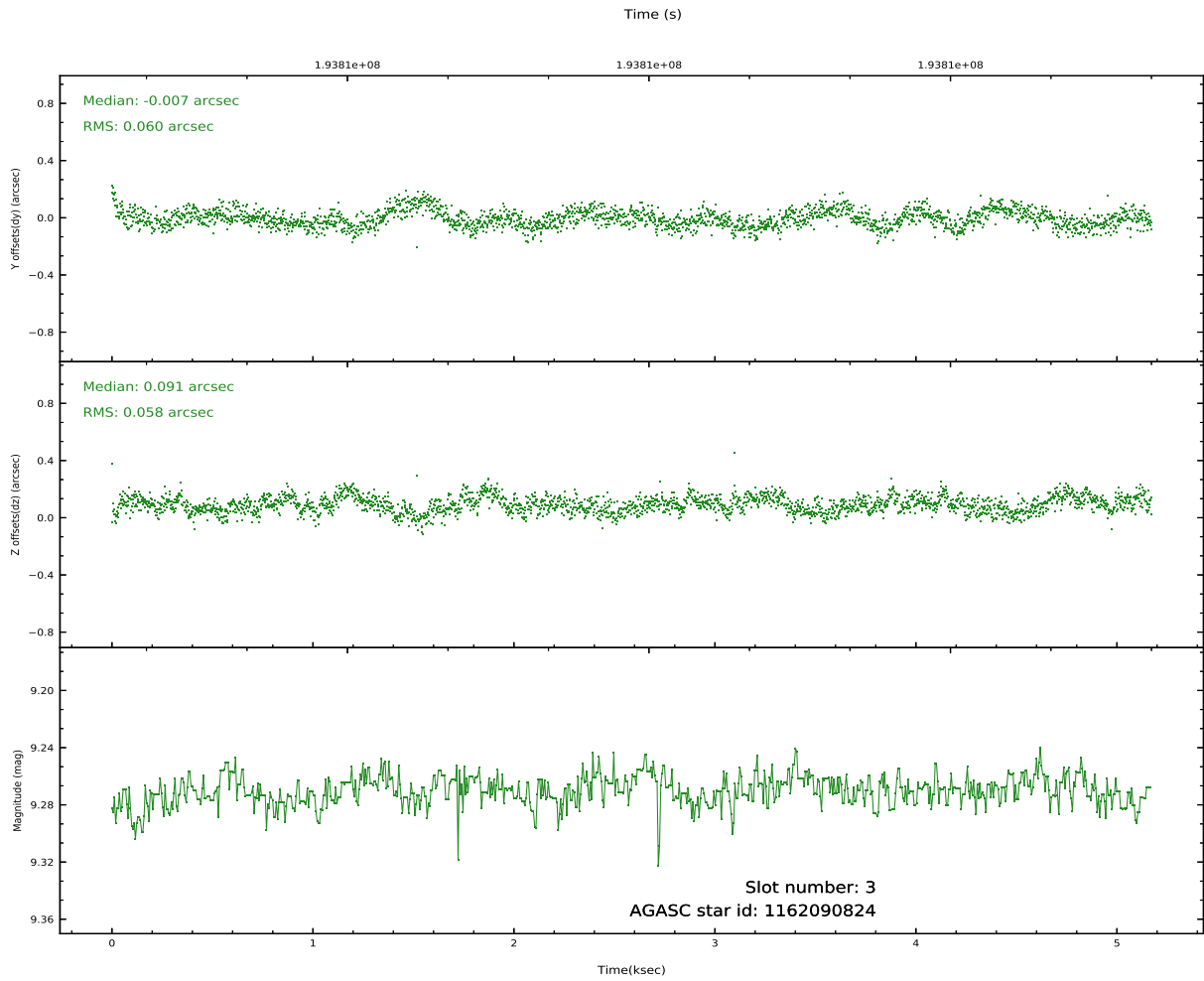
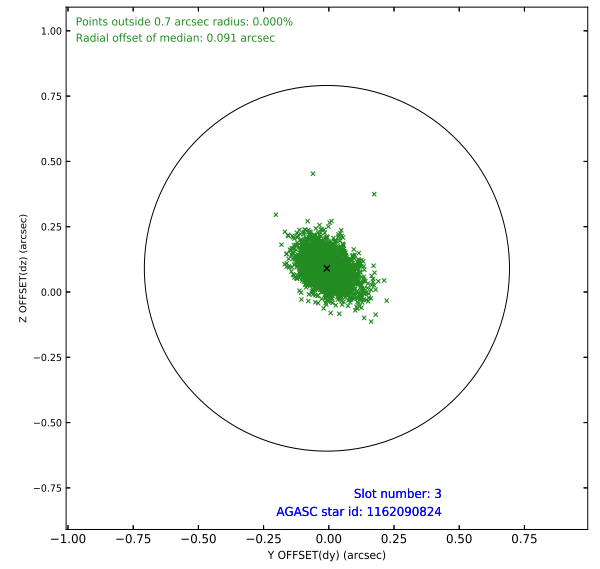
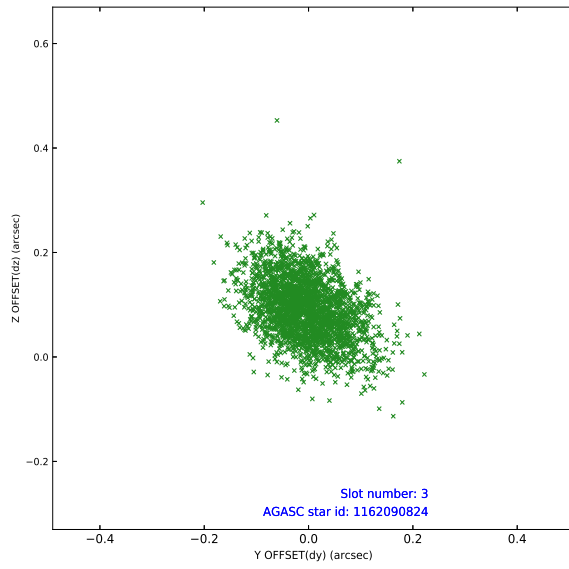


Slot Statistics

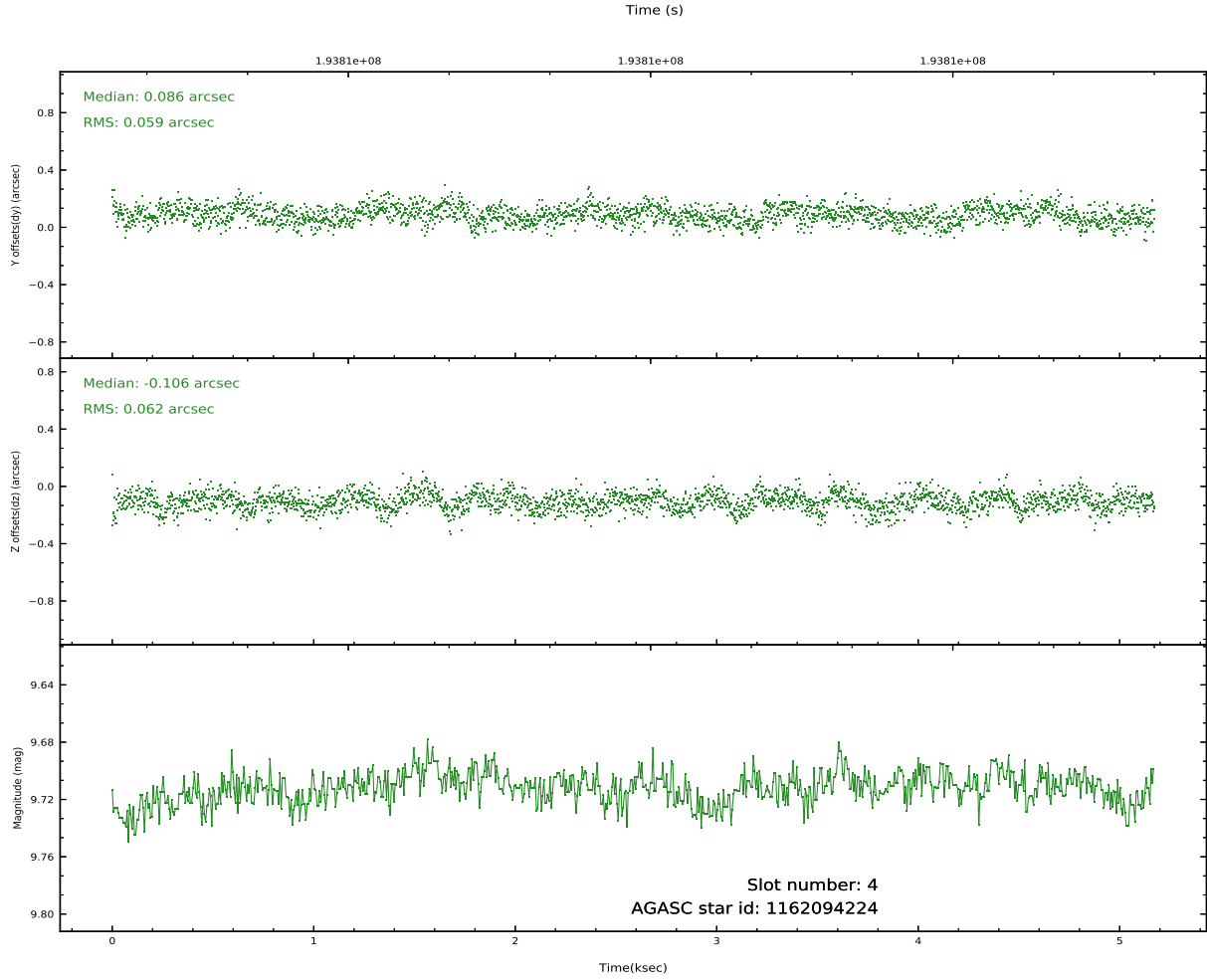
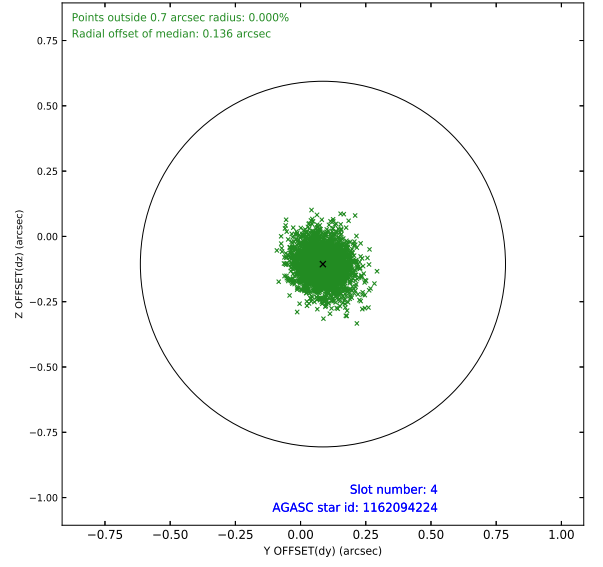
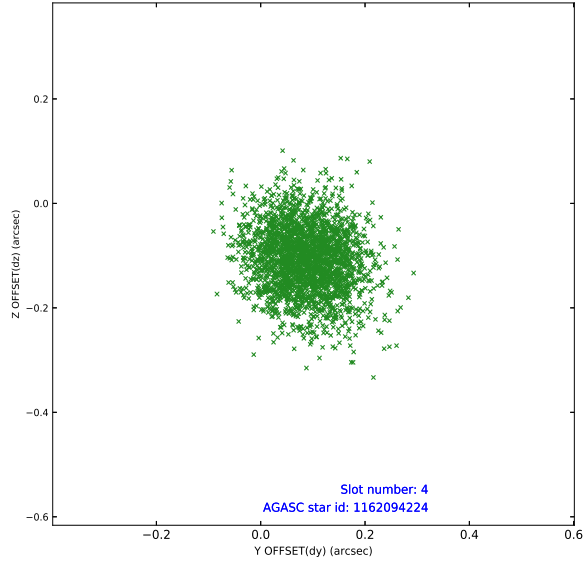
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.10	1262	1.000	-0.074	-0.076	0.008	0.014	0.000000	0.000000	-758.49	-1730
1	FID		ACIS-S-4	7.21	1261	1.000	0.142	0.056	0.006	0.011	0.000000	0.000000	2154.46	177
2	FID		ACIS-S-5	7.23	1262	1.000	-0.099	0.029	0.007	0.012	0.000000	0.000000	-1809.86	172
3	GUIDE	used	1162090824	9.27	2524	1.000	-0.007	0.091	0.087	0.145	48.677982	-66.885202	1690.78	-960
4	GUIDE	used	1162094224	9.71	2523	1.000	0.086	-0.106	0.091	0.148	49.638584	-66.701903	802.68	264
5	GUIDE	used	1162095544	10.21	2523	1.000	0.035	-0.165	0.149	0.280	48.846024	-66.171463	-879.41	-1190
6	GUIDE	used	1162085688	10.19	2517	1.000	-0.084	0.136	0.144	0.239	49.879892	-65.844121	-2301.70	96
7	GUIDE	used	1162094168	10.54	2512	1.000	-0.021	0.038	0.208	0.333	51.114459	-66.792352	794.57	2388

## 2.4 Star Slots

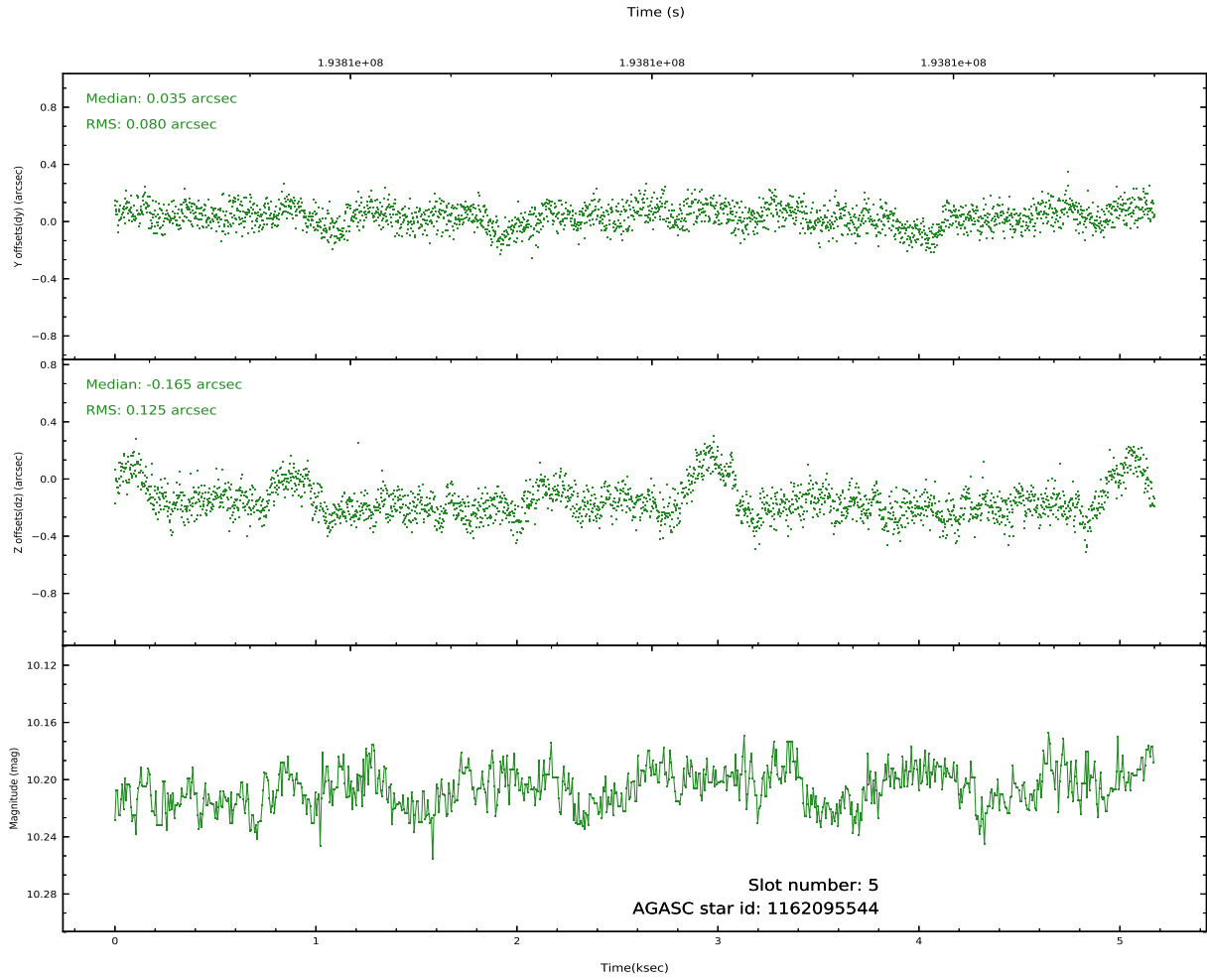
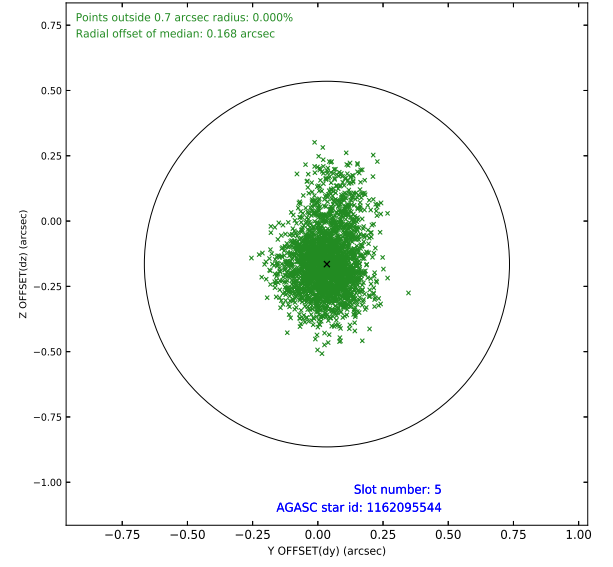
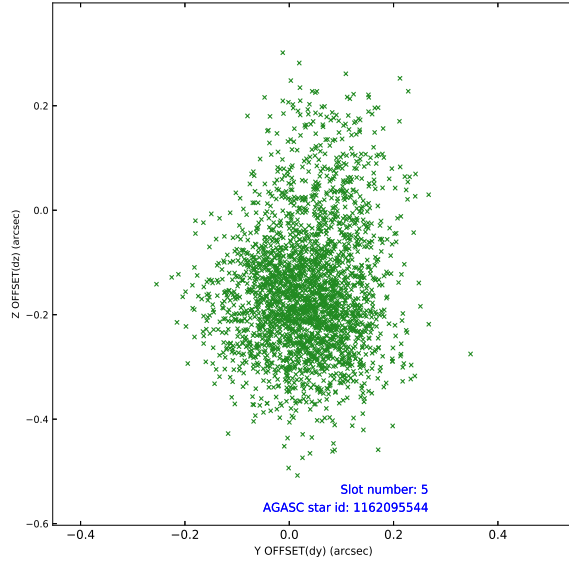
### 2.4.1 Slot 3



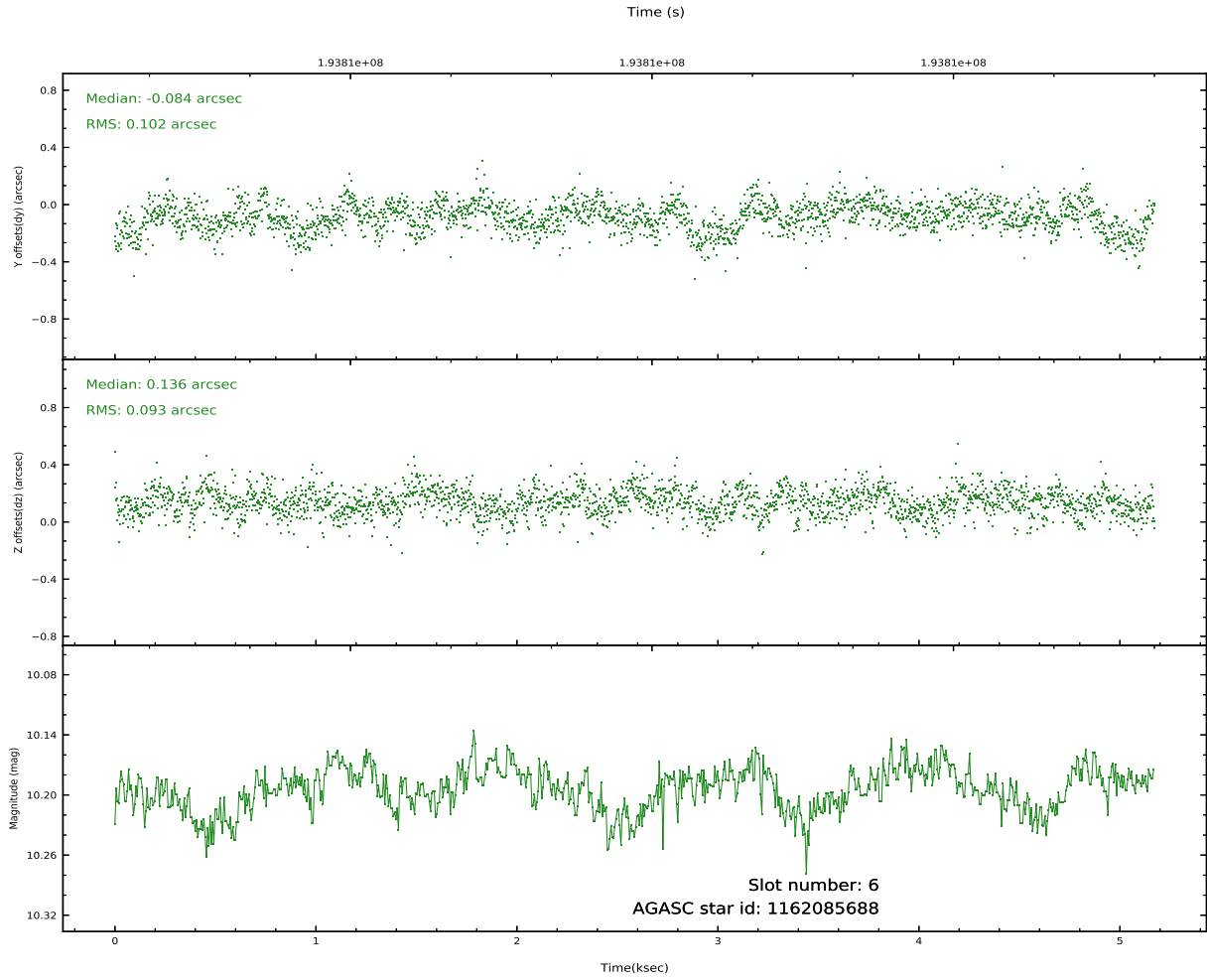
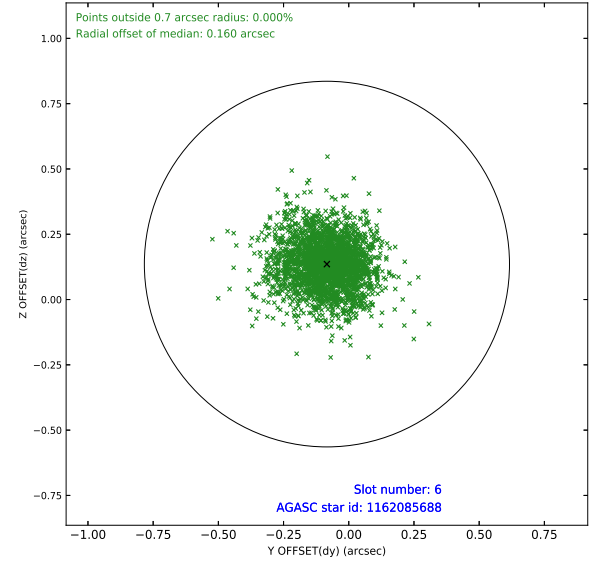
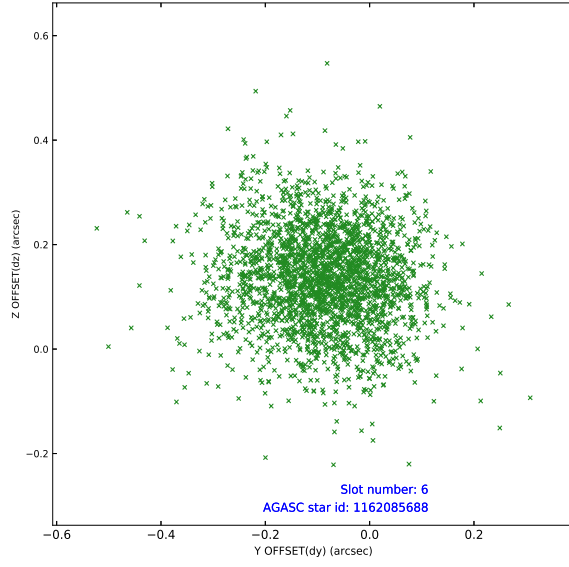
## 2.4.2 Slot 4



### 2.4.3 Slot 5

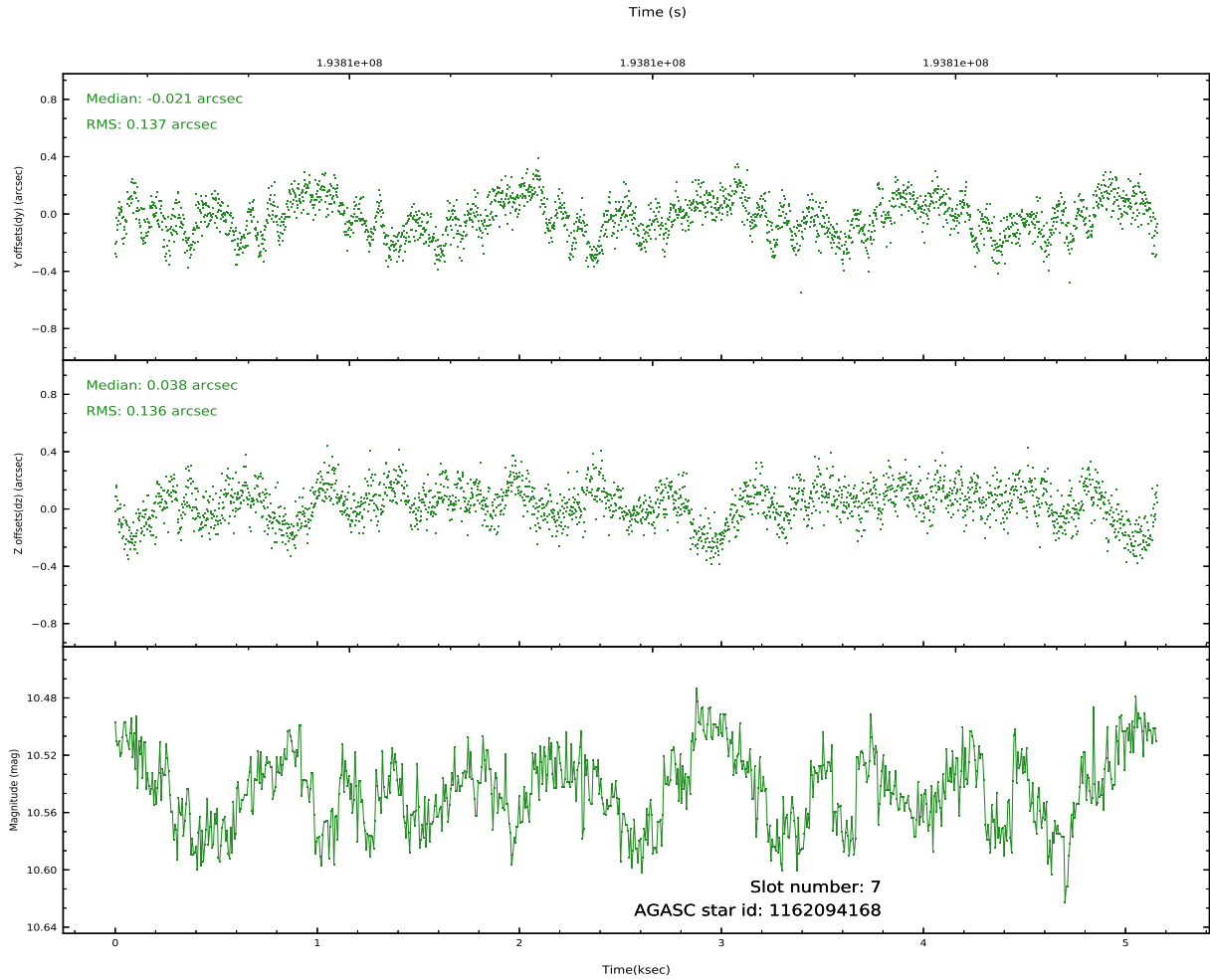
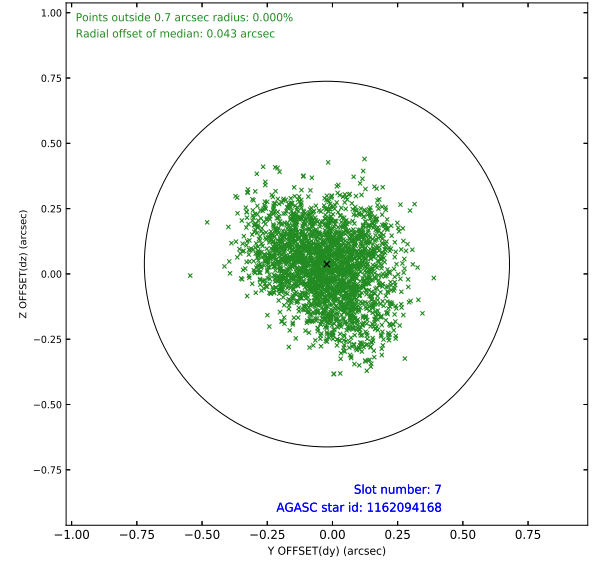
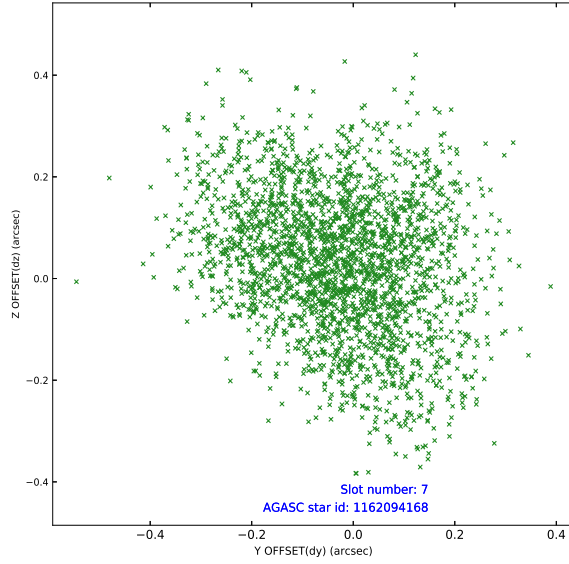


## 2.4.4 Slot 6



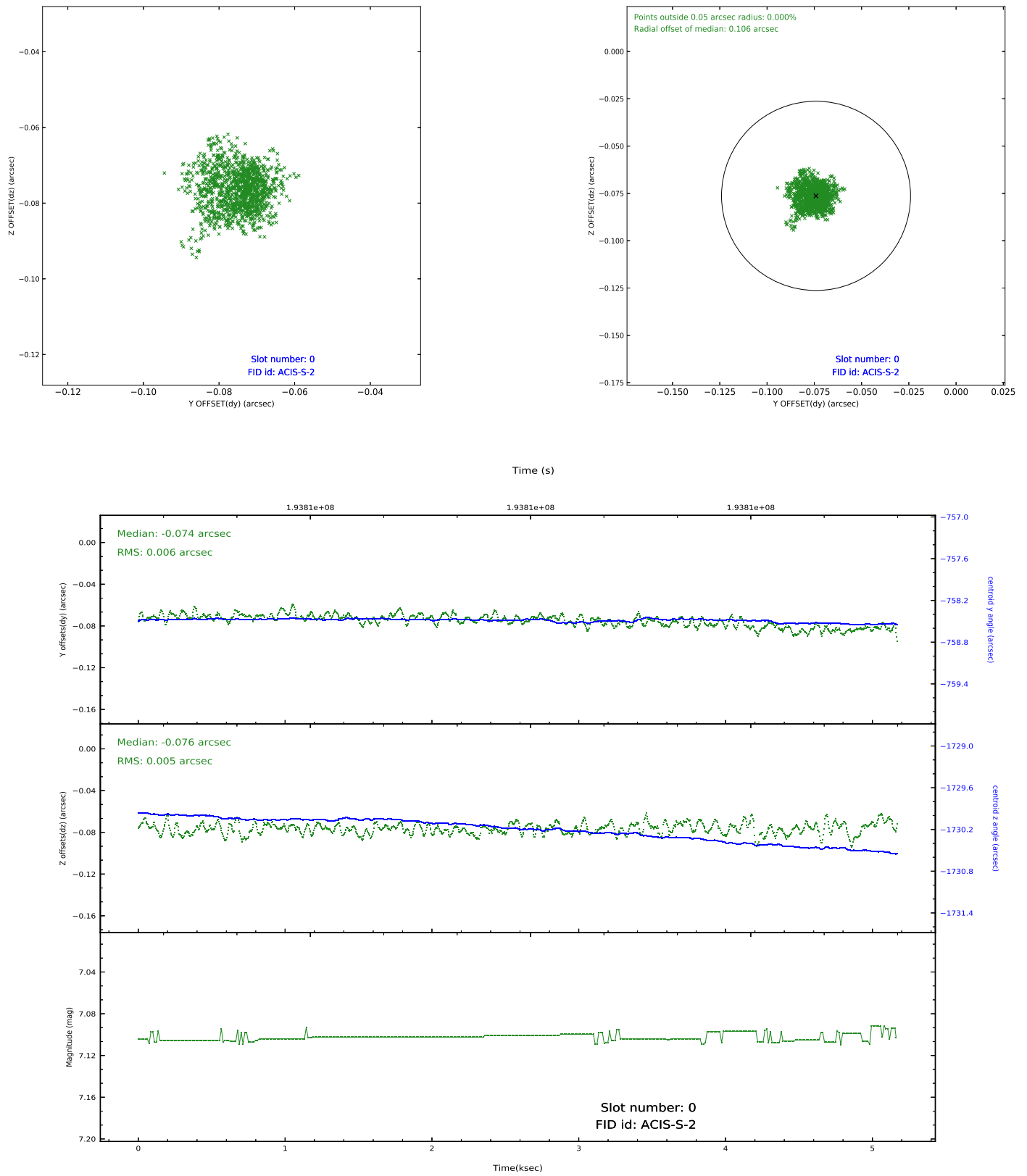


## 2.4.5 Slot 7

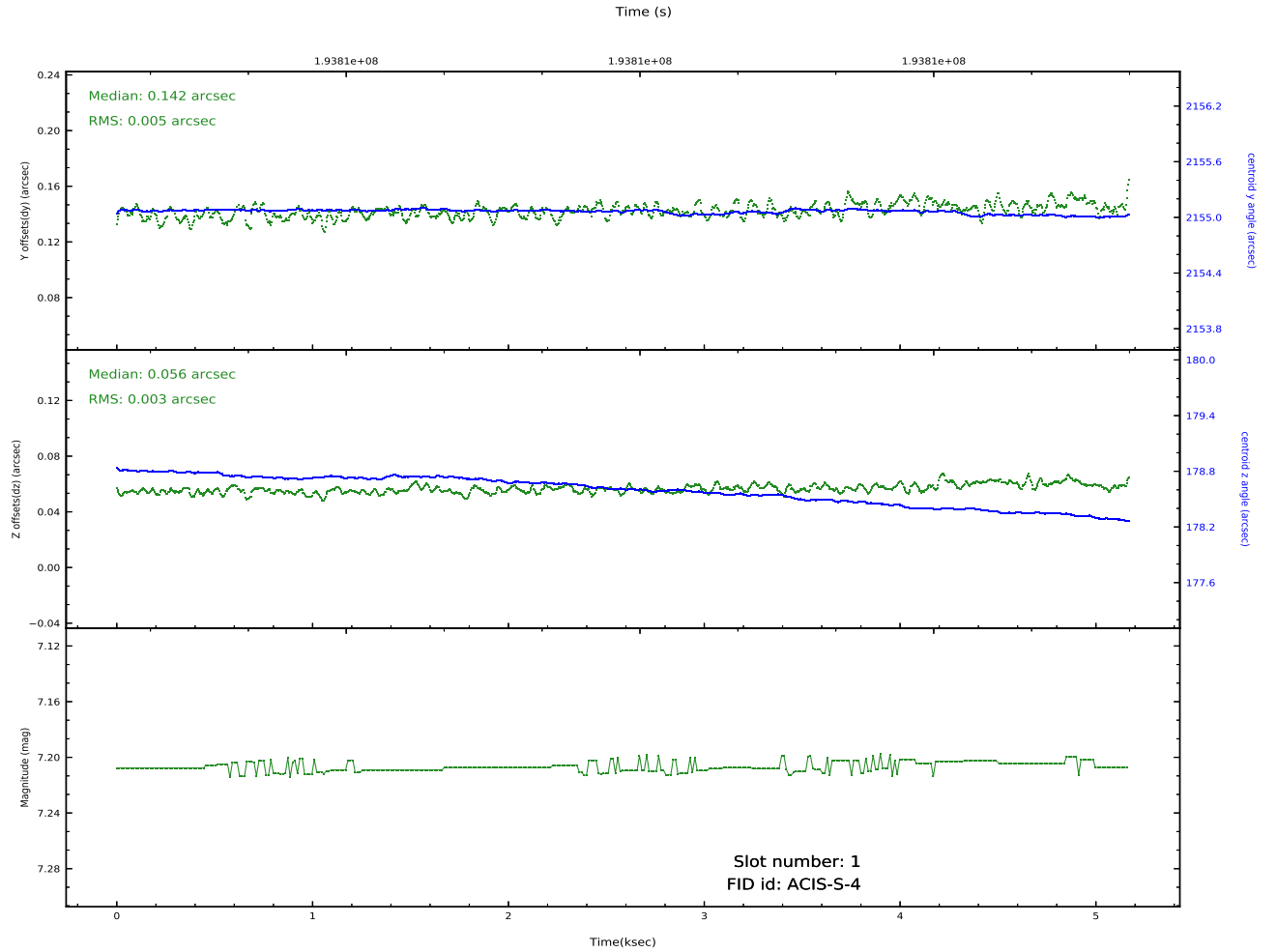
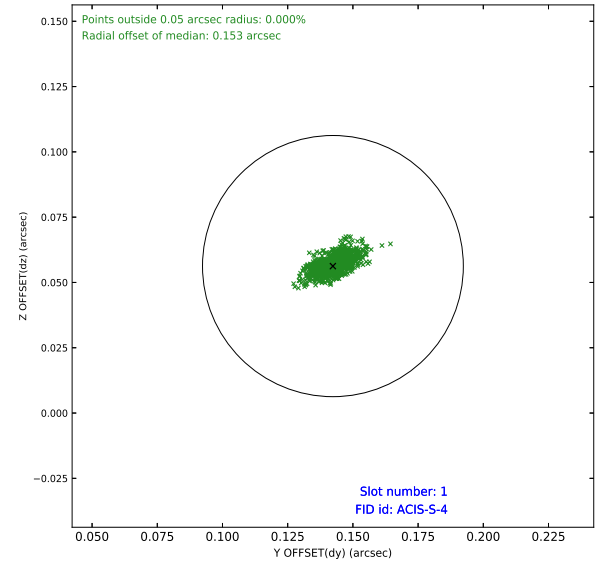
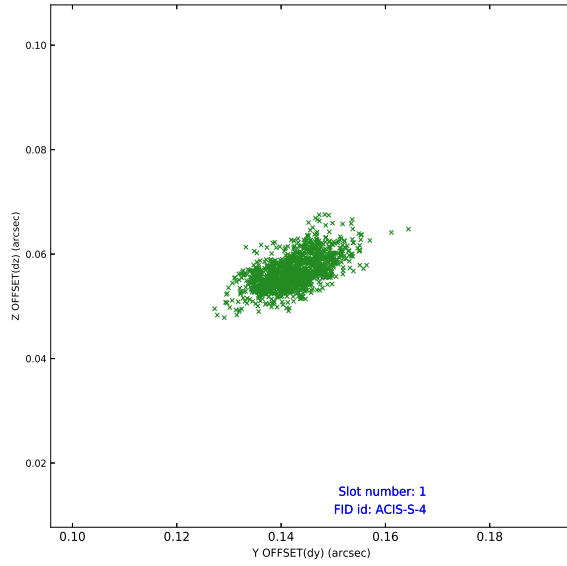


## 2.5 FID Slots

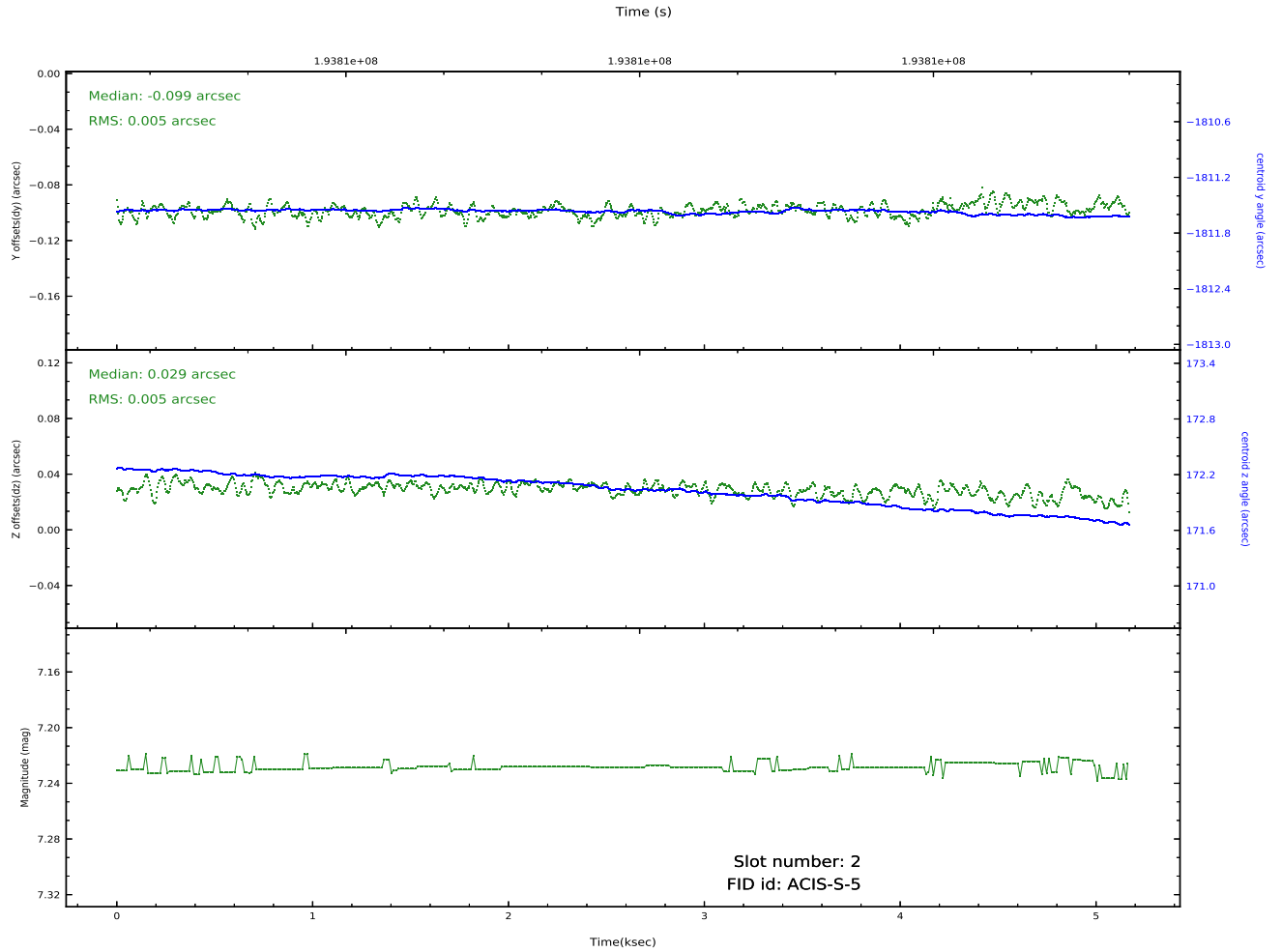
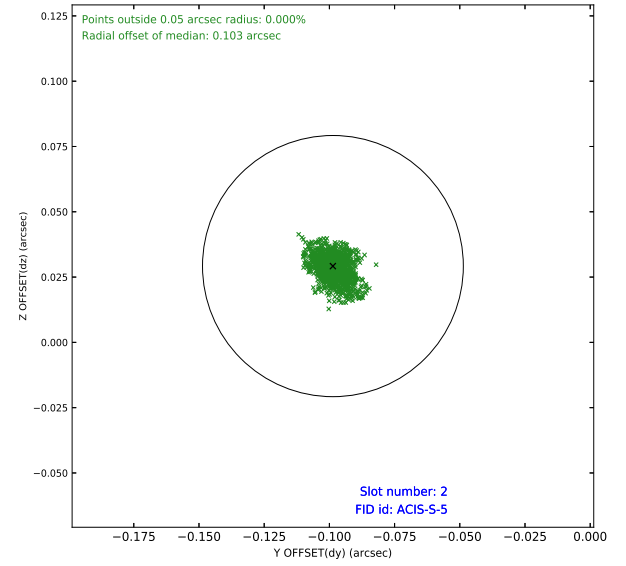
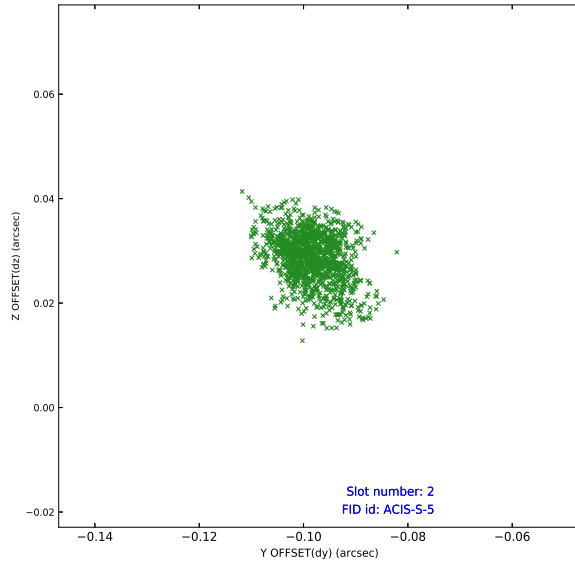
### 2.5.1 Slot 0



## 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)	2020.09.24
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.166

### A.2 Comments

Window preference met. Joint Proposal: CX0-HST