

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 4493 - L2 Version 4  
Chandra X-Ray Center

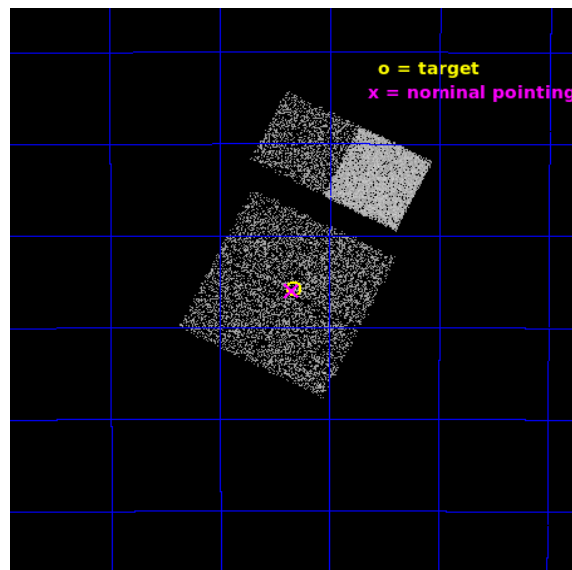
L2 Processing Date : Sep 21 2020

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# 1 Front

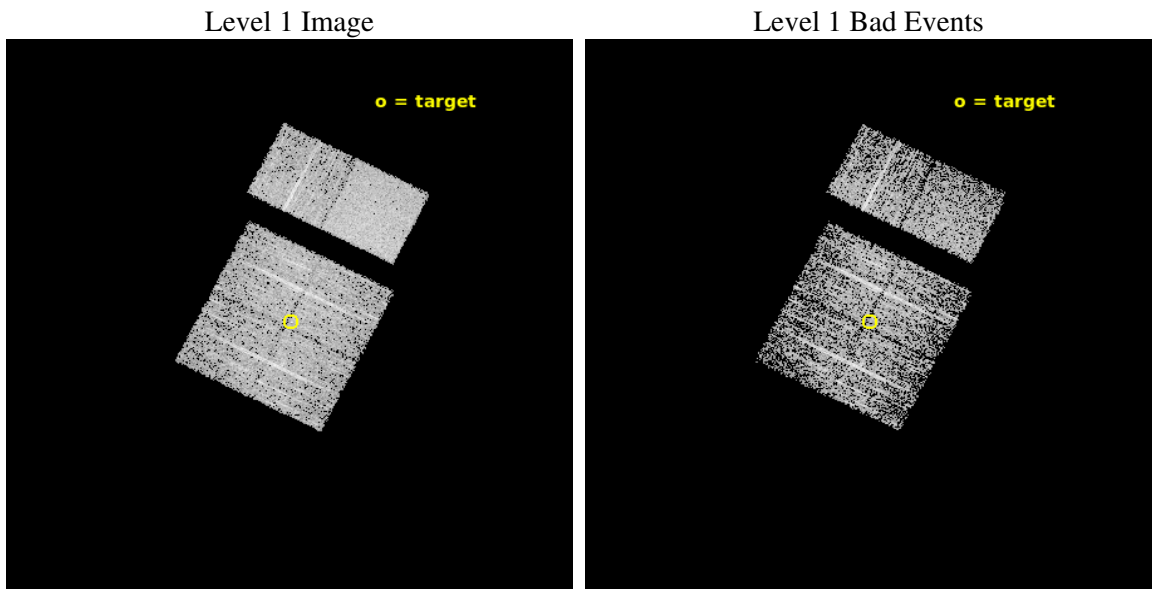
seq_num	200262	Sequence number
obs_id	4493	Observation id
title	Planet formation and the missing 10 Myr old stars	Proposal title
observer	Eric Feigelson	Principal investigator
object	HIP 42540	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	130.08	Observer's specified target RA [deg]
dec_targ	-40.263889	Observer's specified target Dec [deg]
ra_nom	130.08575566873	Nominal RA [deg]
dec_nom	-40.267019637023	Nominal Dec [deg]
roll_nom	26.881700869199	Nominal Roll [deg]
revision	4	Processing version of data
ontime	2963.1999889612	Sum of GTIs [s]
livetime	2925.6781664762	Livetime [s]
ontime0	2963.1999889612	Sum of GTIs [s]
ontime1	2963.1999889612	Sum of GTIs [s]
ontime2	2963.1999889612	Sum of GTIs [s]
ontime3	2963.1999889612	Sum of GTIs [s]
ontime6	2963.1999889612	Sum of GTIs [s]
ontime7	2963.1999889612	Sum of GTIs [s]
l2events	19638	Number of level 2 events



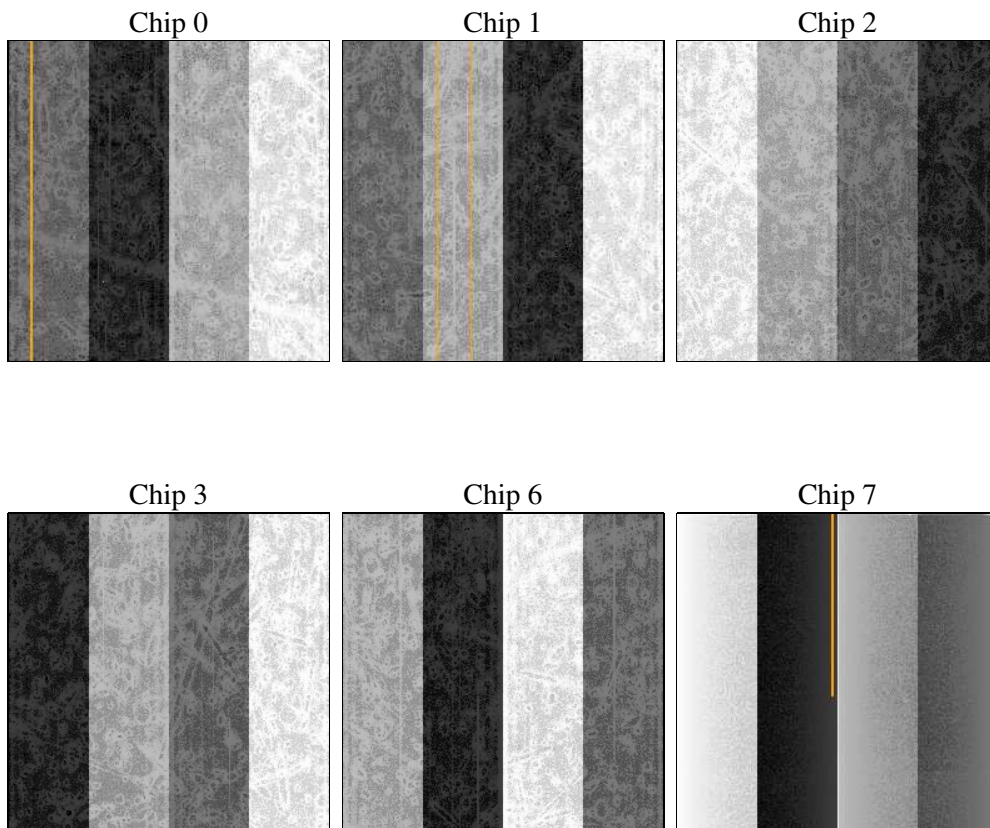
## 2 OBI

### 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	2963.1999889612	Sum of GTIs [s]
caldsver	4.9.2	&#160	ontime0	2963.1999889612	Sum of GTIs [s]
date	2020-09-21T23:56:16	Date and time of file creation	ontime1	2963.1999889612	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	2963.1999889612	Sum of GTIs [s]
			ontime3	2963.1999889612	Sum of GTIs [s]
			ontime6	2963.1999889612	Sum of GTIs [s]
			ontime7	2963.1999889612	Sum of GTIs [s]
			l1events	114008	Number of level 1 events

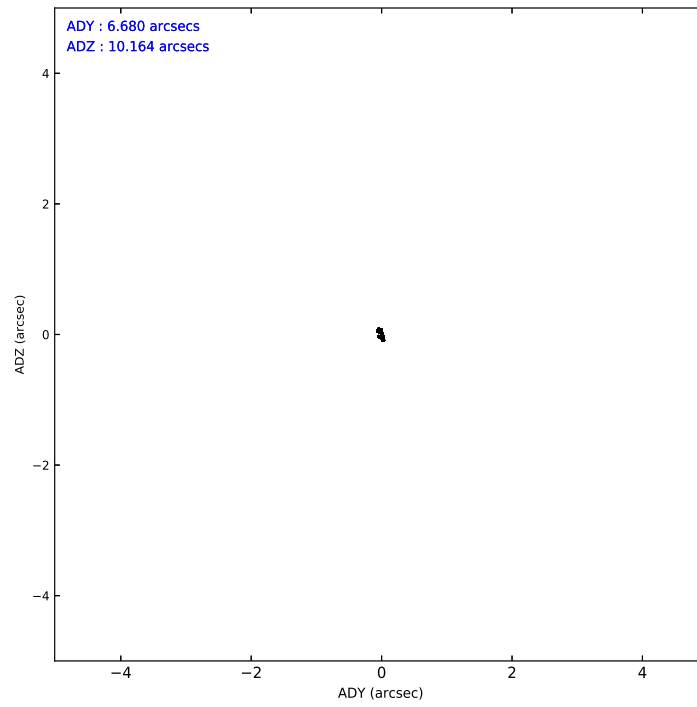
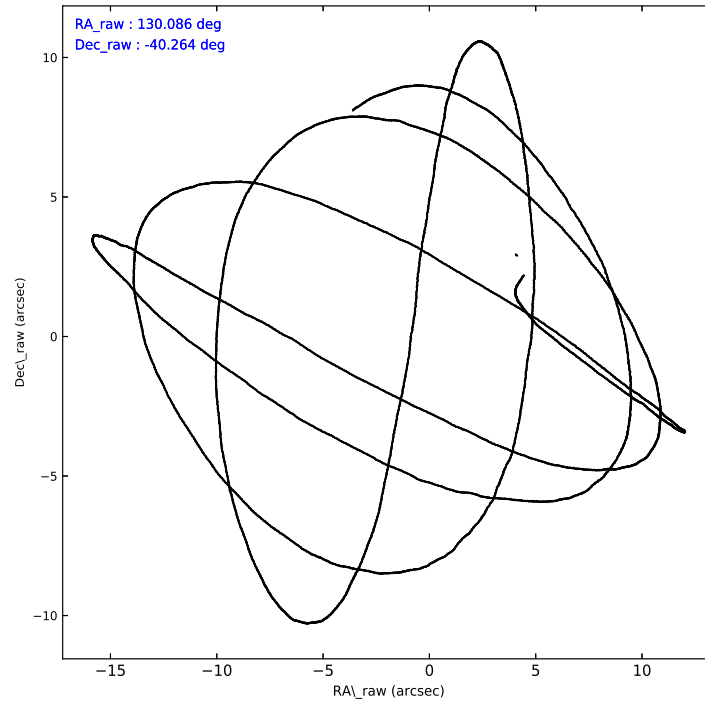
### 2.1.4 Events

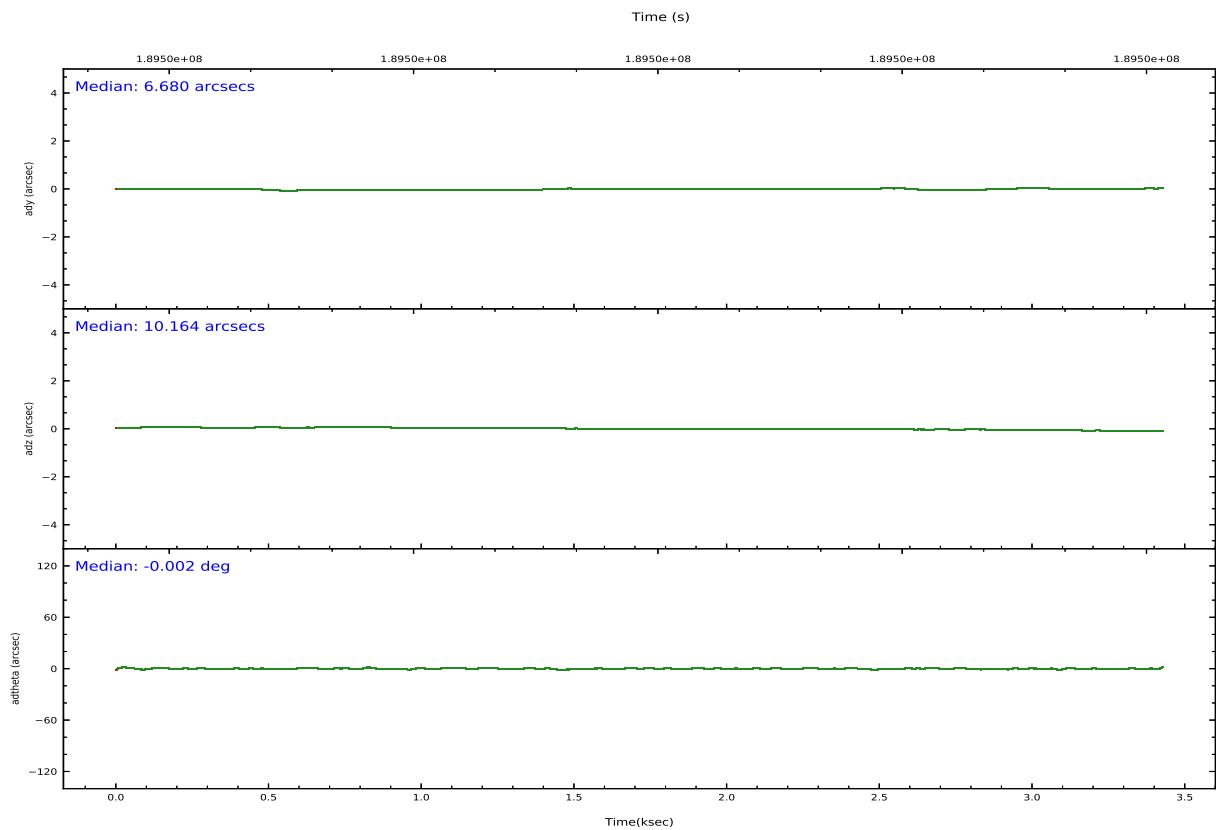
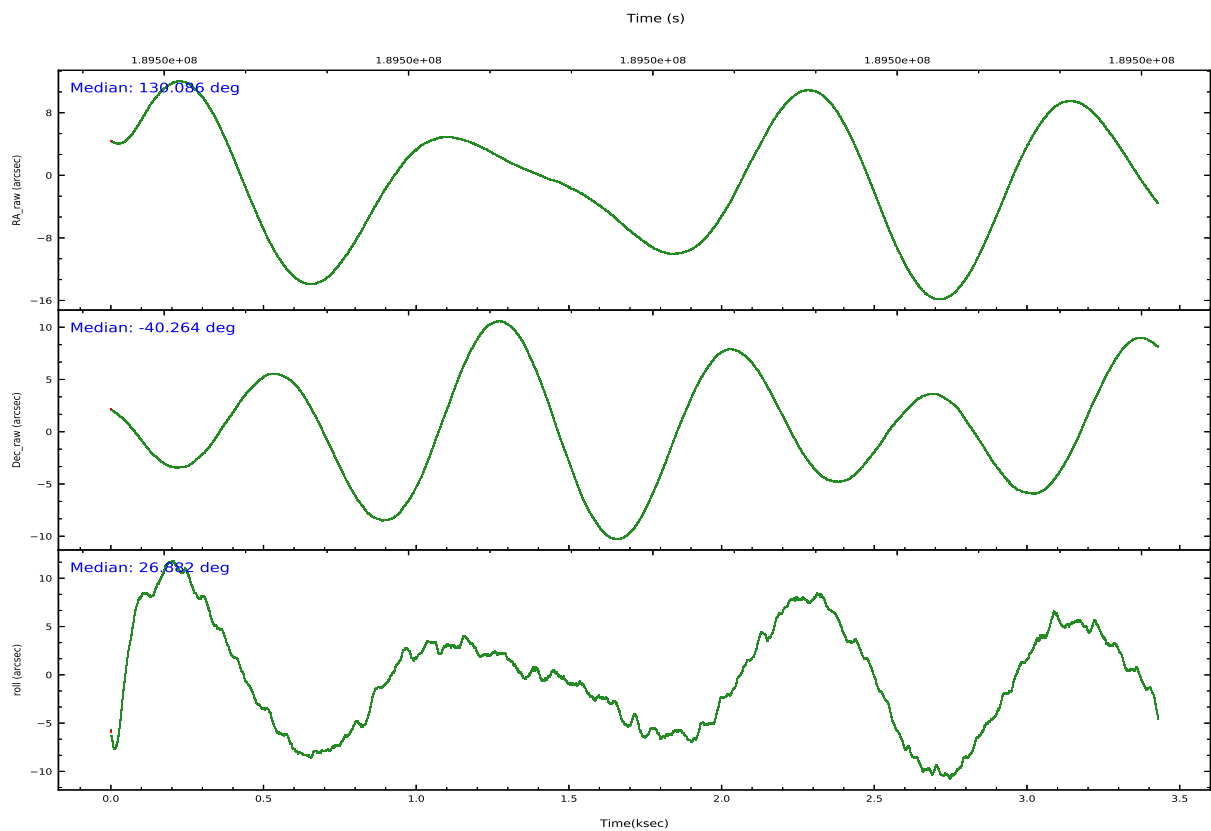
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	15480	17392	18907	18007	18754	25468	grade 0 events	932	924	1065	1044	821	945
rejected events	13328	15060	16618	15734	16586	15193		6%	5%	5%	5%	4%	3%
rejected %	86%	86%	87%	87%	88%	59%	grade 1 events	3	2	5	12	5	22
								0%	0%	0%	0%	0%	0%
							grade 2 events	455	497	440	392	454	2075
								2%	2%	2%	2%	2%	8%
							grade 3 events	200	226	199	226	226	918
								1%	1%	1%	1%	1%	3%
							grade 4 events	200	232	207	212	243	897
								1%	1%	1%	1%	1%	3%
							grade 5 events	745	812	738	815	946	2426
								4%	4%	3%	4%	5%	9%
							grade 6 events	368	454	378	402	428	5461
								2%	2%	1%	2%	2%	21%
							grade 7 events	12577	14245	15875	14904	15631	12724
								81%	81%	83%	82%	83%	49%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-012367	ACIS-012367	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	130.066571	130.08575566873	Subarray requested	NONE	NONE
[deg] Pointing Dec	-40.286567	-40.267019637023	Alternating exposures requested	N	N
[deg] Pointing Roll	26.668520	26.881700869199	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	189497855.184000	189496770.94391			
Observation start date	2004-01-03T06:16:31	2004-01-03T05:59:30			
[s] Observation end time (MET)	189500855.184000	189501998.95663			
Observation end date	2004-01-03T07:06:31	2004-01-03T07:26:38			
Read mode	TIMED	TIMED			

## 2.3 Aspect





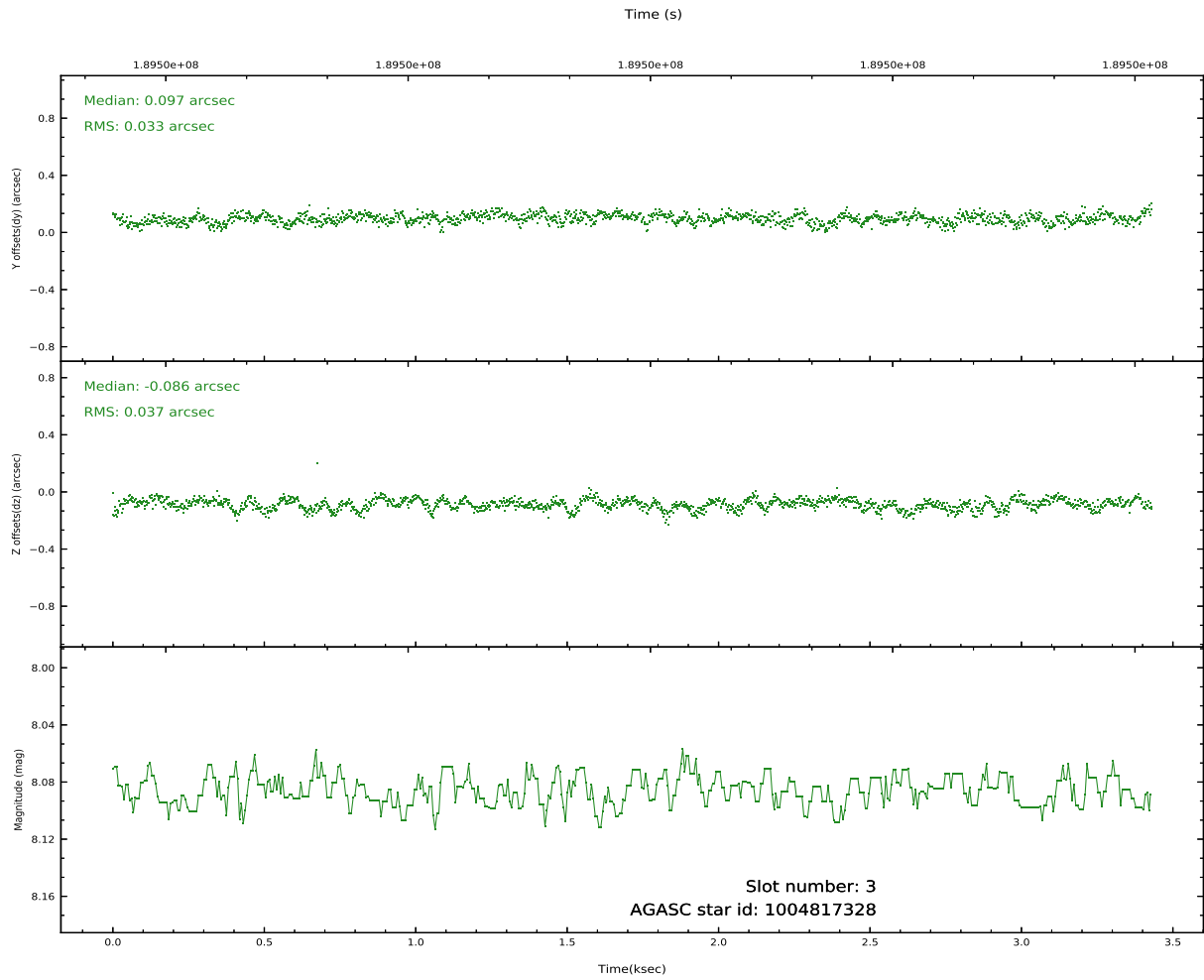
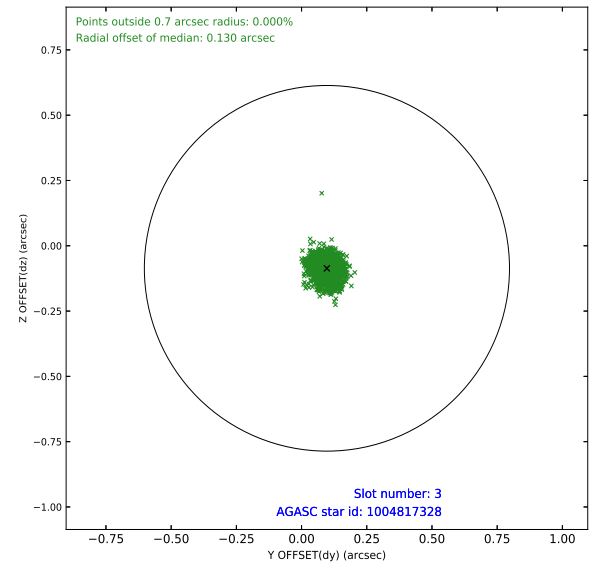
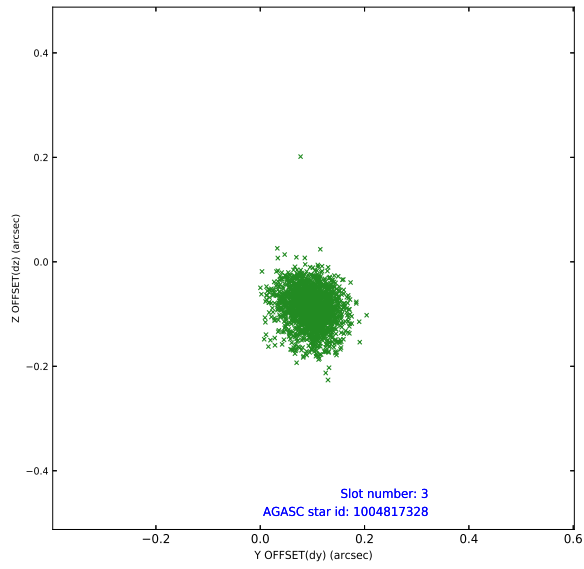
Slot Statistics

pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-2	7.14	837	1.000	-0.023	-0.103	0.009	0.018	0.000000	0.000000	-761.18	-840
1	FID		ACIS-I-5	7.23	836	1.000	-0.150	0.067	0.008	0.015	0.000000	0.000000	-1816.23	1062
2	FID		ACIS-I-6	7.25	837	1.000	0.080	0.104	0.006	0.011	0.000000	0.000000	396.65	1709
3	GUIDE	used	1004817328	8.09	1673	1.000	0.097	-0.086	0.052	0.085	129.479978	-40.373625	-1581.11	437
4	GUIDE	used	1006517216	8.97	1674	1.000	-0.124	-0.108	0.079	0.127	130.460236	-40.699999	289.84	-1813
5	GUIDE	used	1006517568	8.83	1674	1.000	-0.071	-0.121	0.095	0.151	130.533076	-40.705706	458.96	-1923
6	GUIDE	used	1004817792	7.69	1674	1.000	0.210	-0.217	0.054	0.086	129.828757	-39.799339	198.75	1860
7	GUIDE	used	1006516432	9.29	1672	1.000	-0.108	0.533	0.124	0.204	131.038579	-40.578541	1896.66	-2143

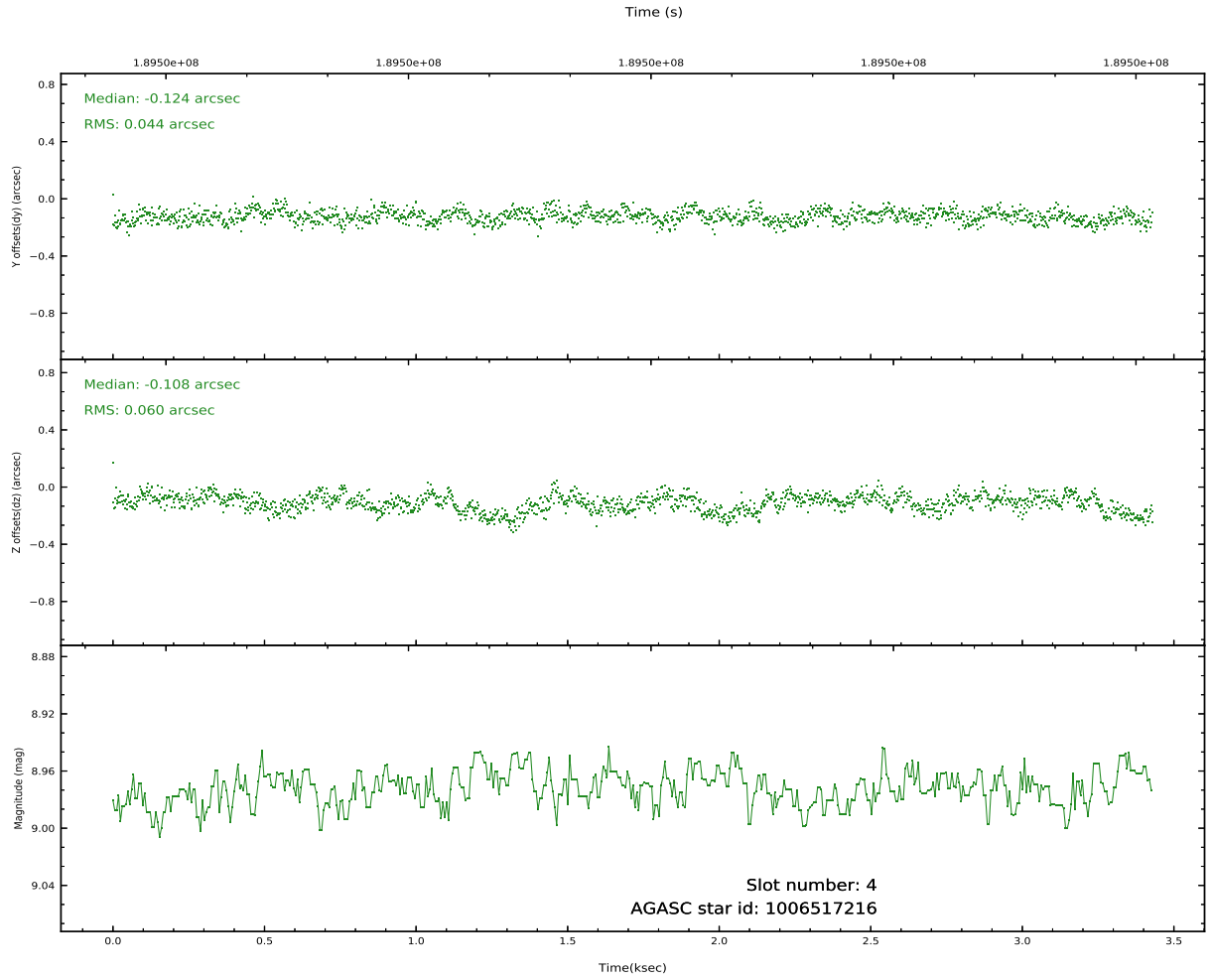
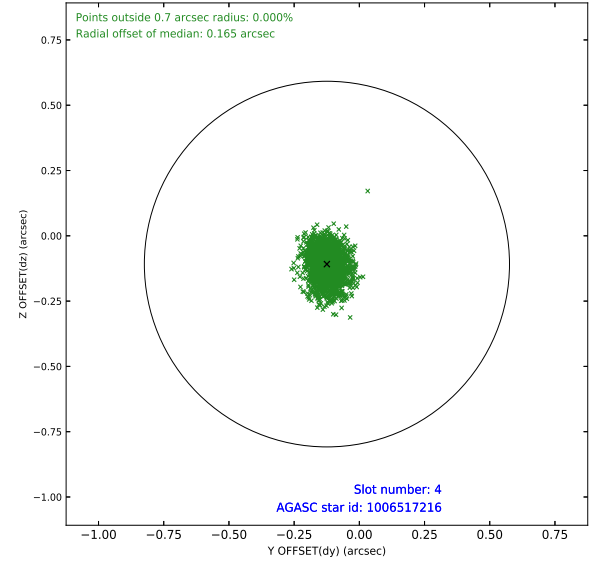
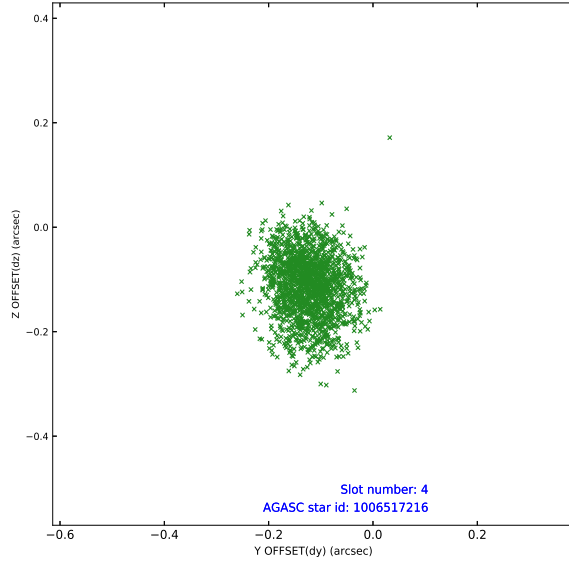


## 2.4 Star Slots

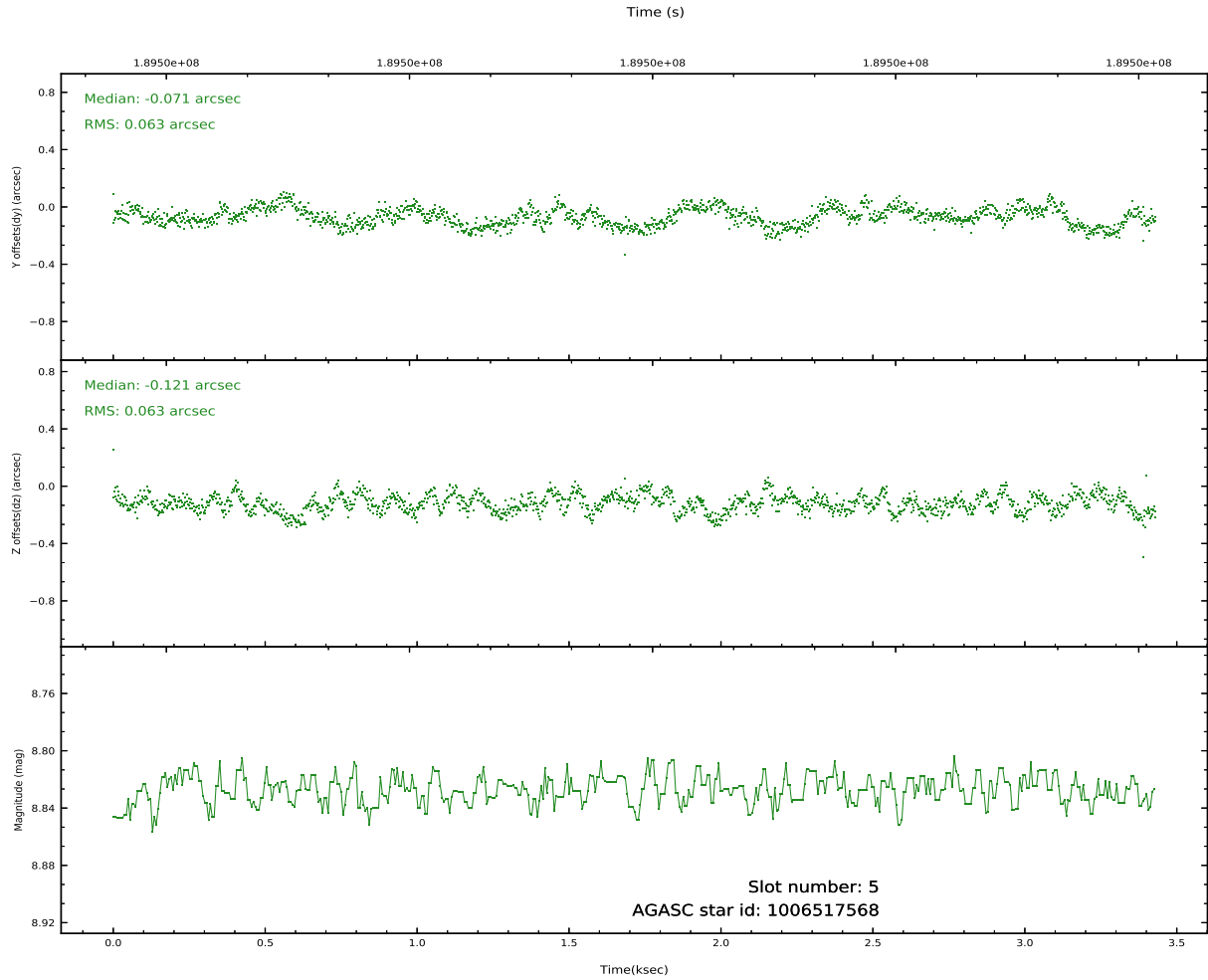
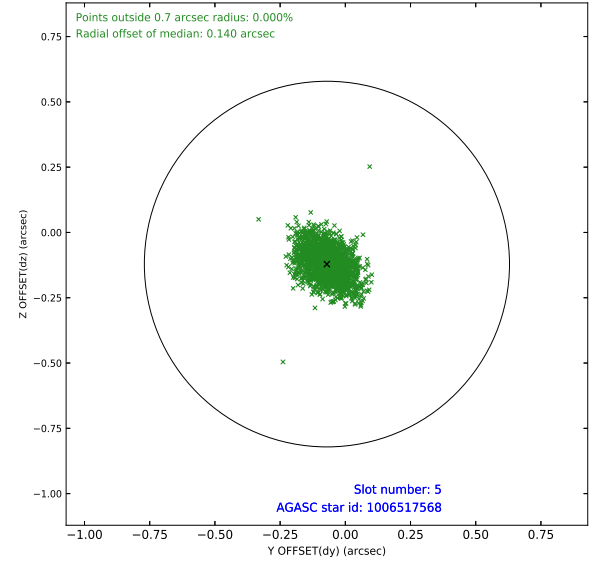
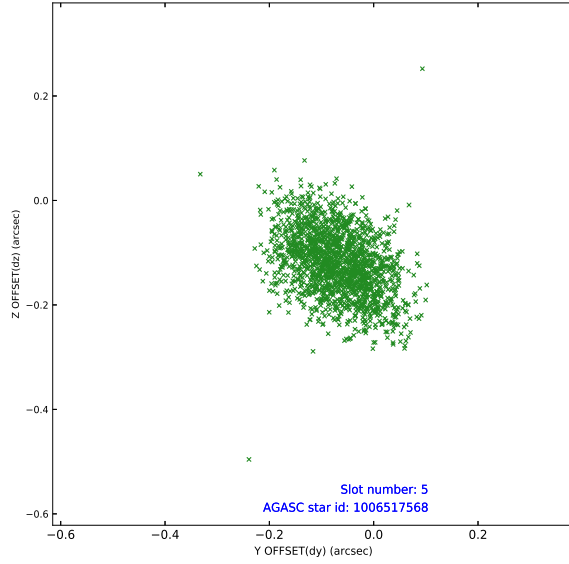
### 2.4.1 Slot 3



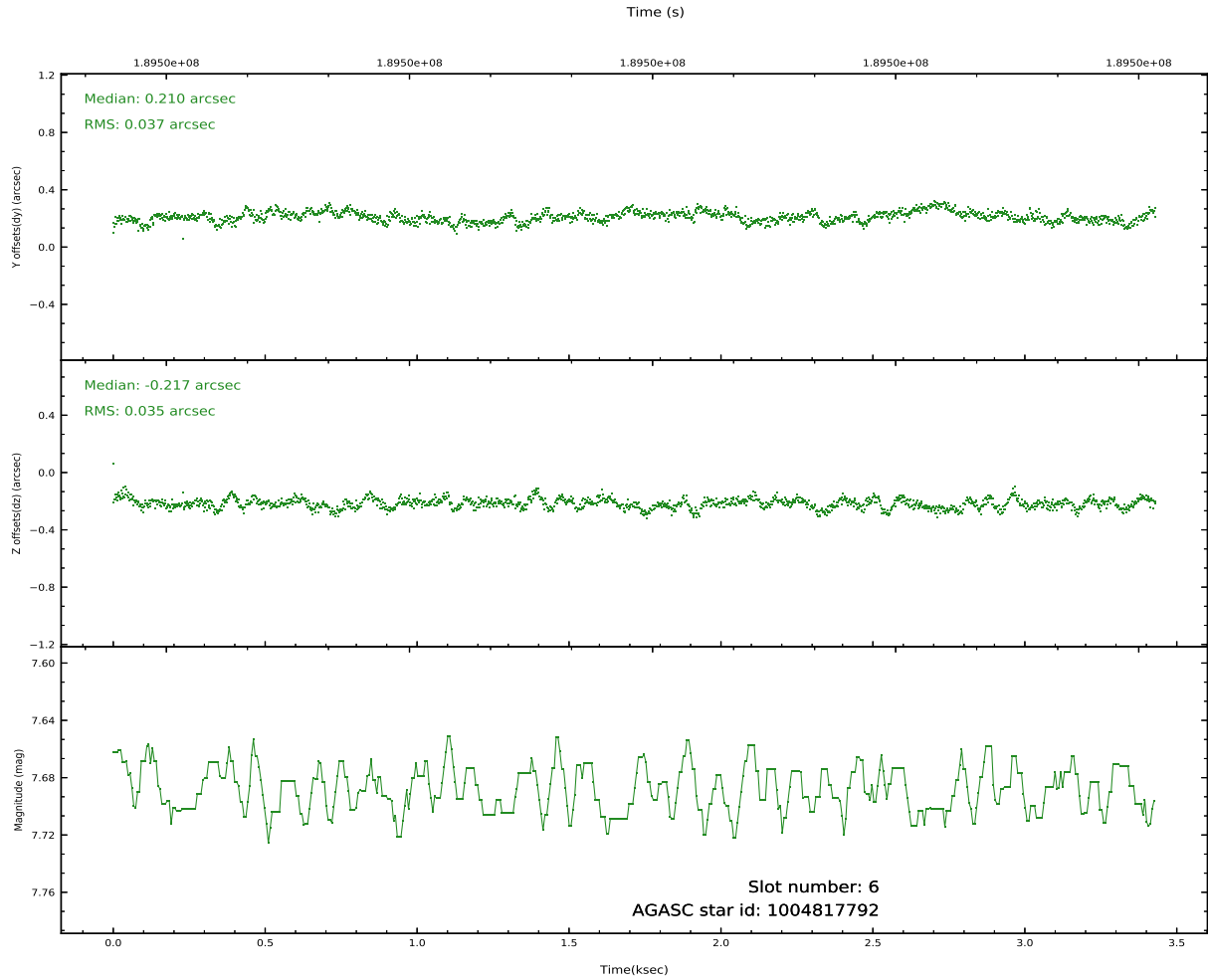
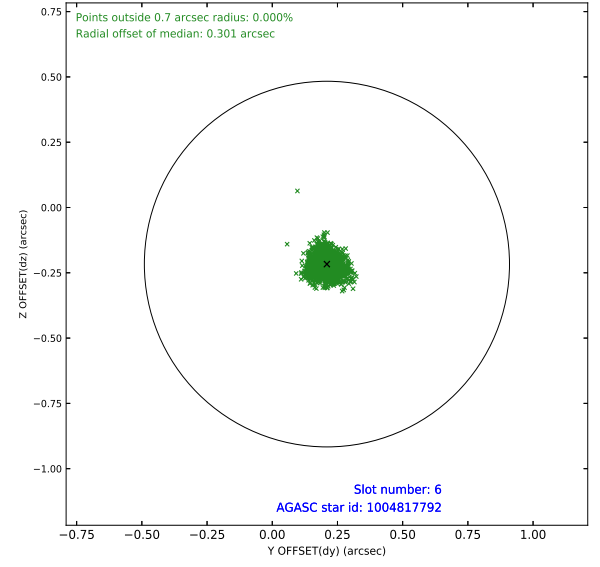
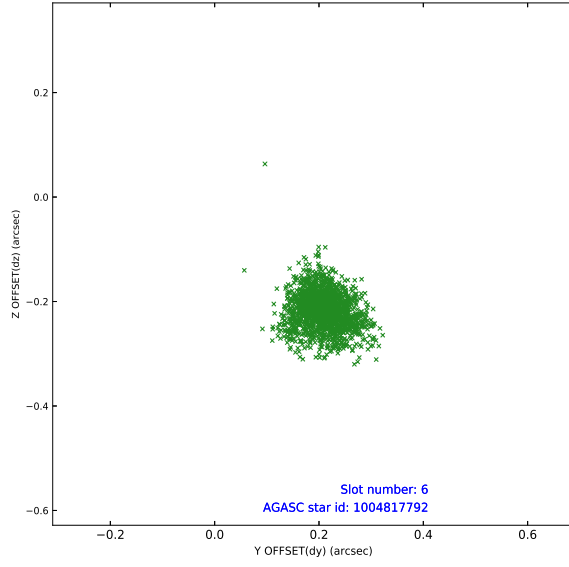
## 2.4.2 Slot 4



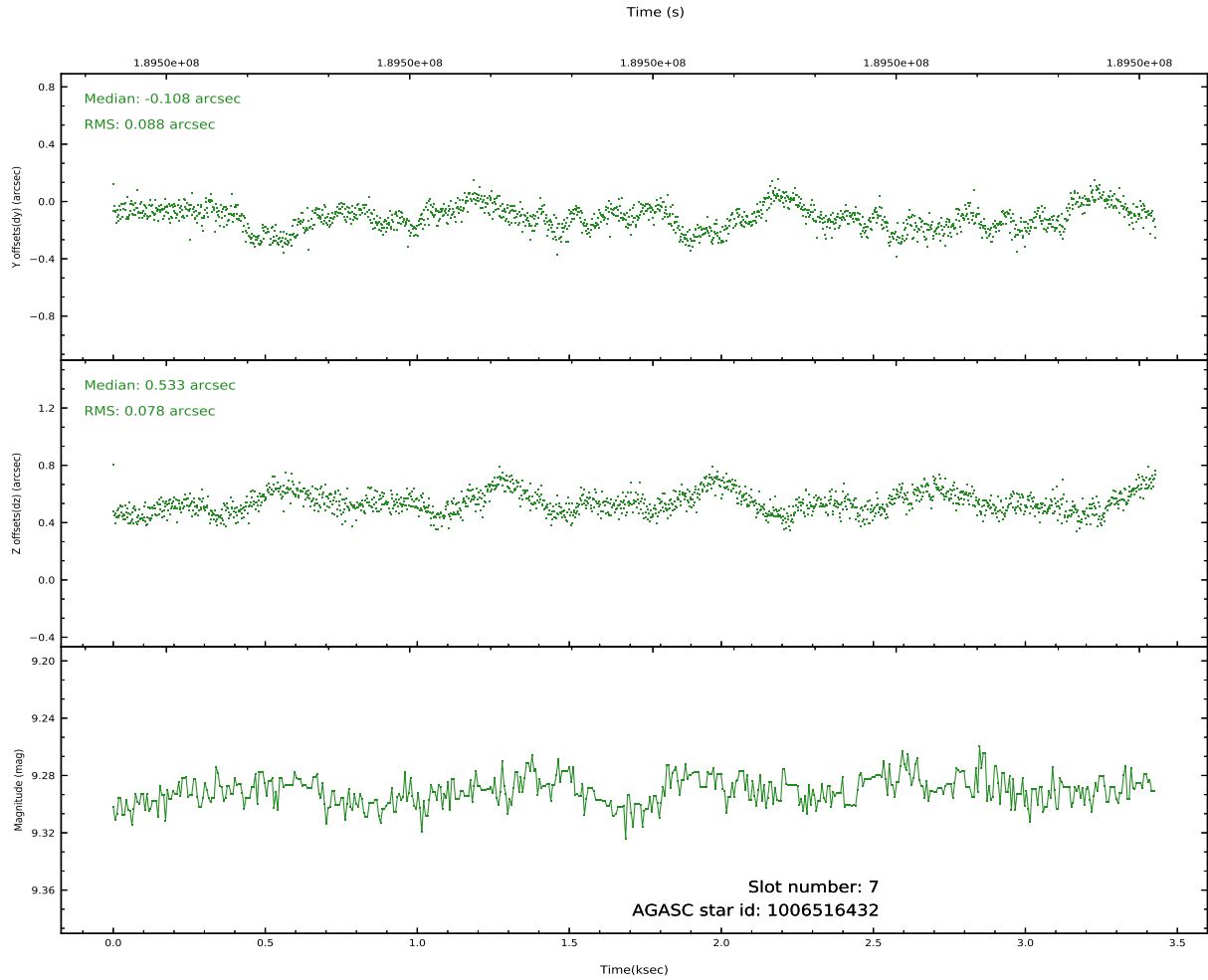
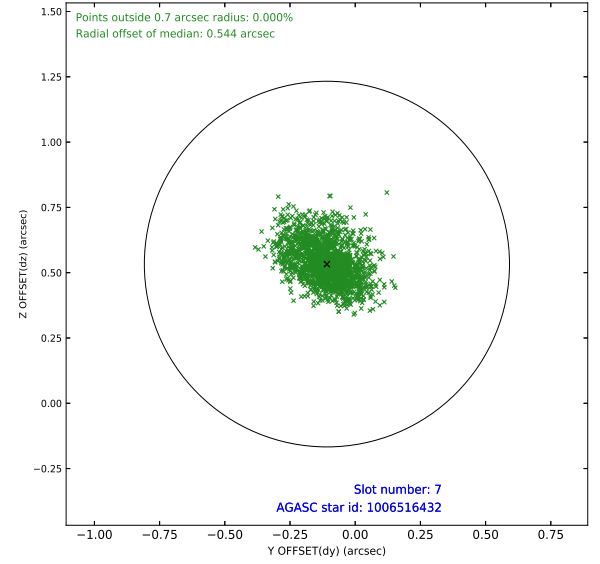
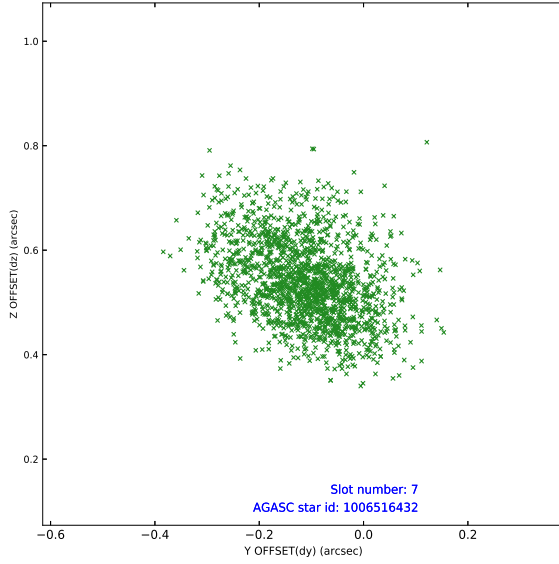
### 2.4.3 Slot 5



## 2.4.4 Slot 6

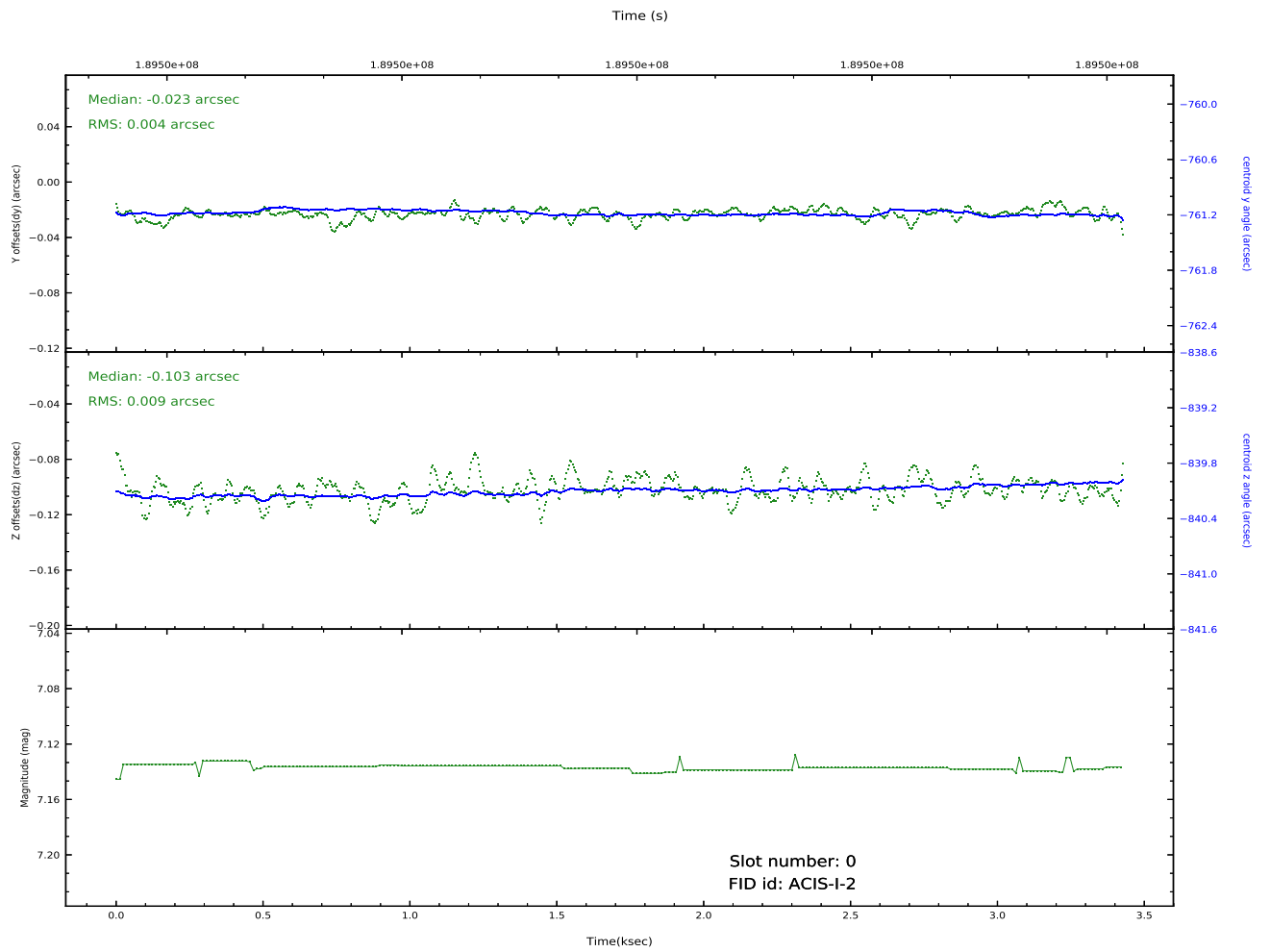
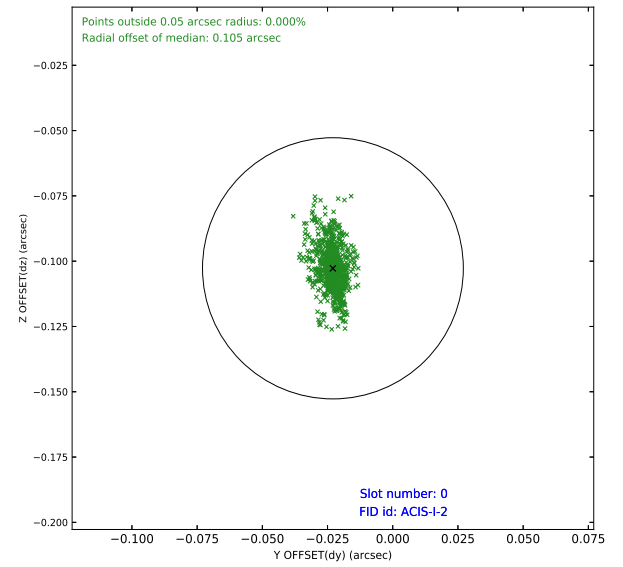
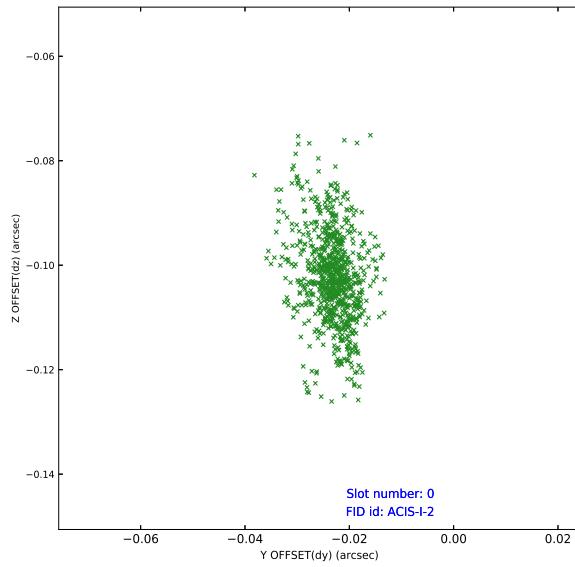


## 2.4.5 Slot 7

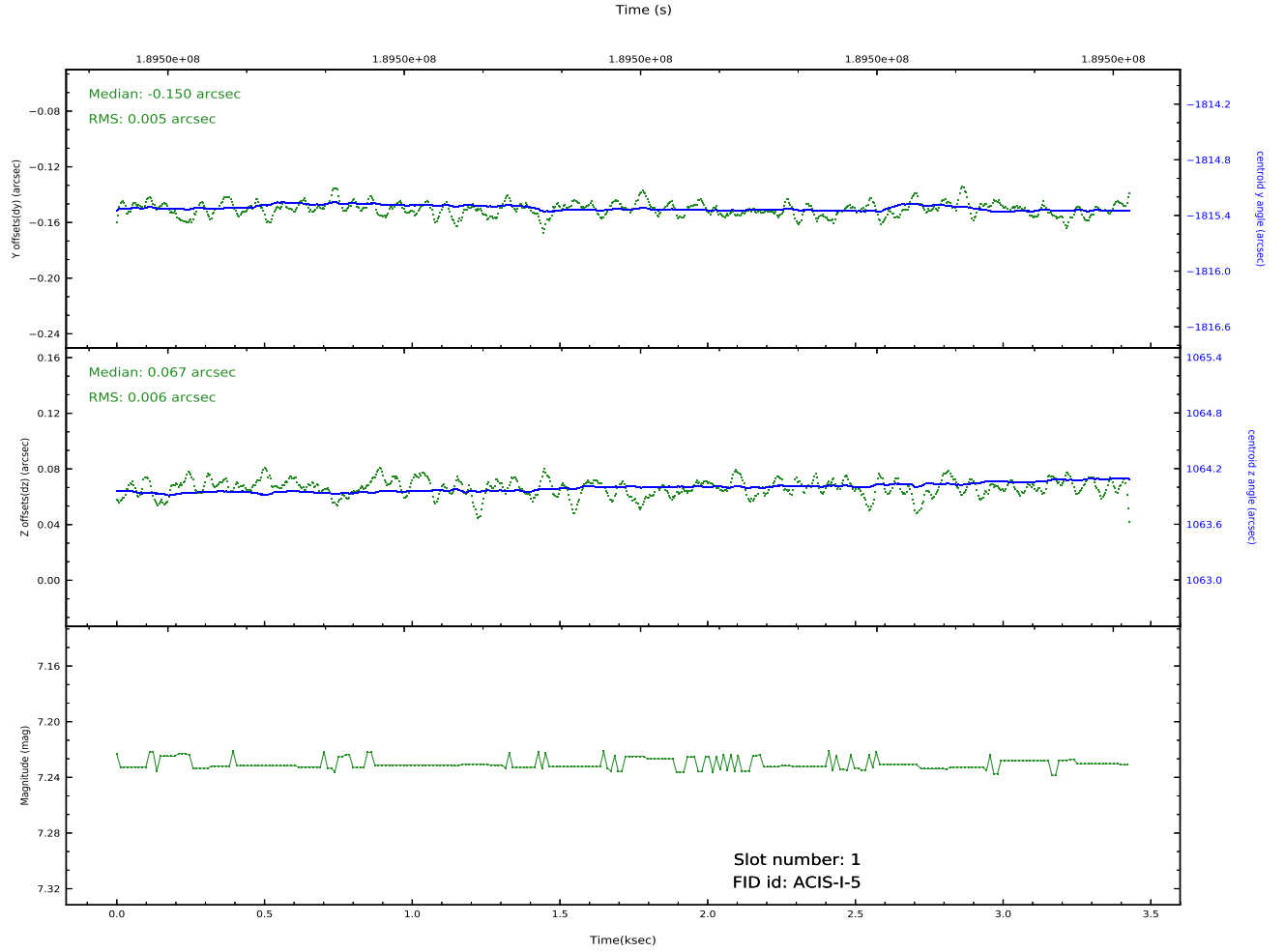
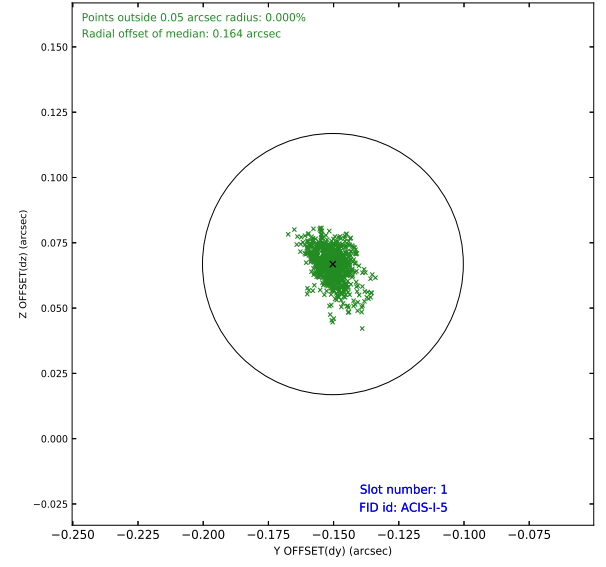
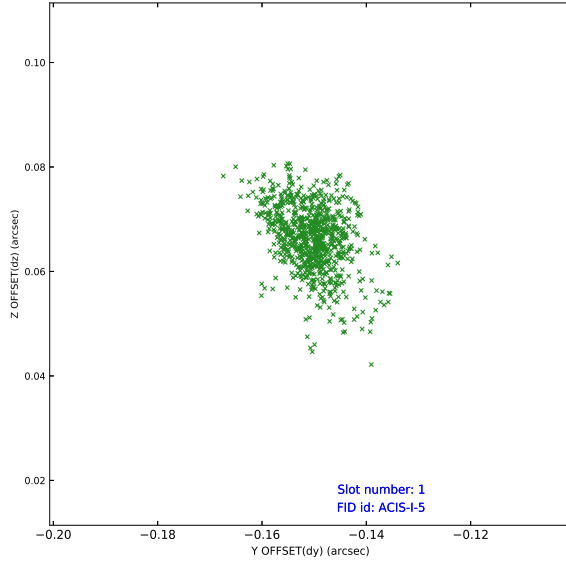


## 2.5 FID Slots

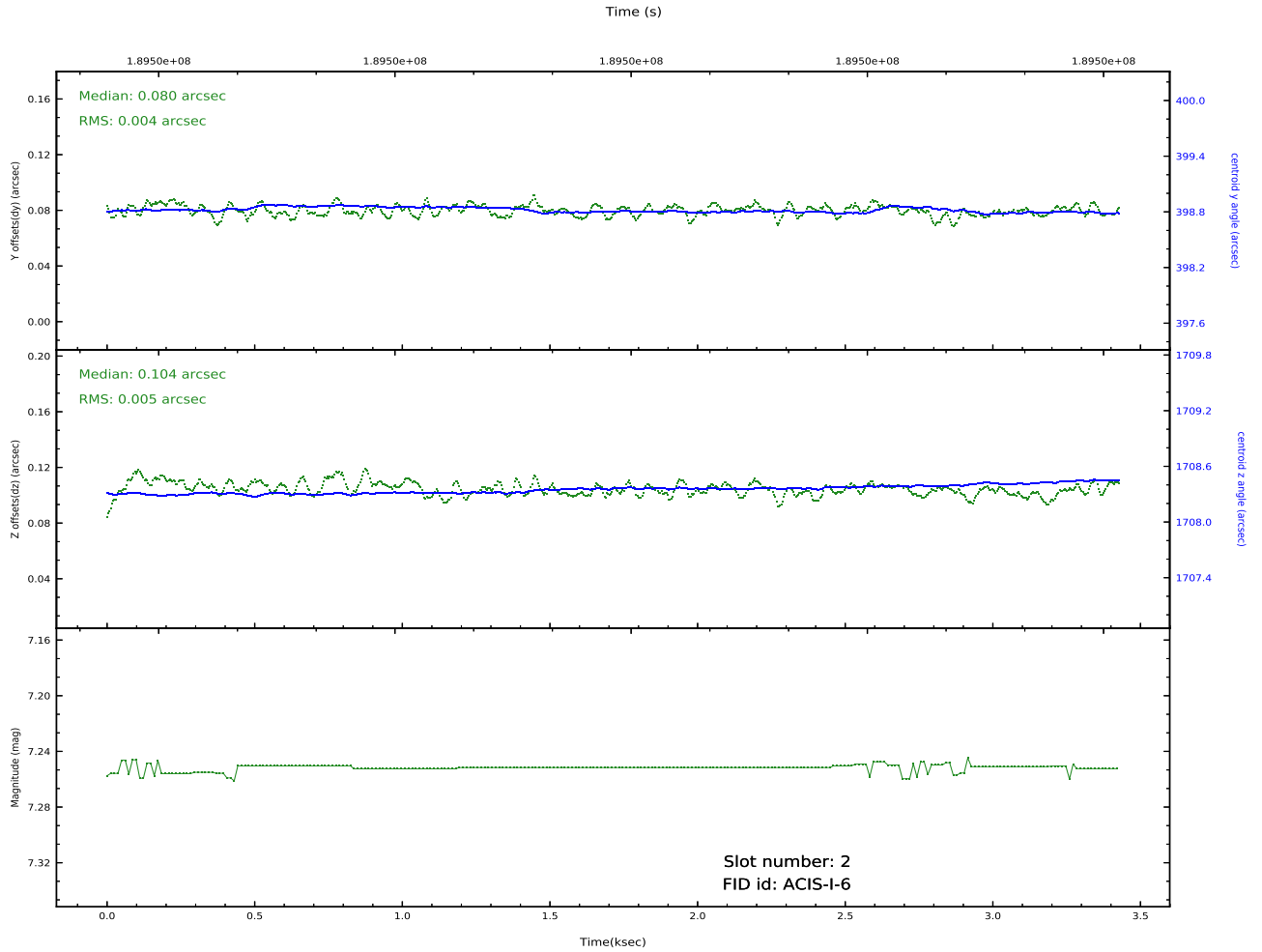
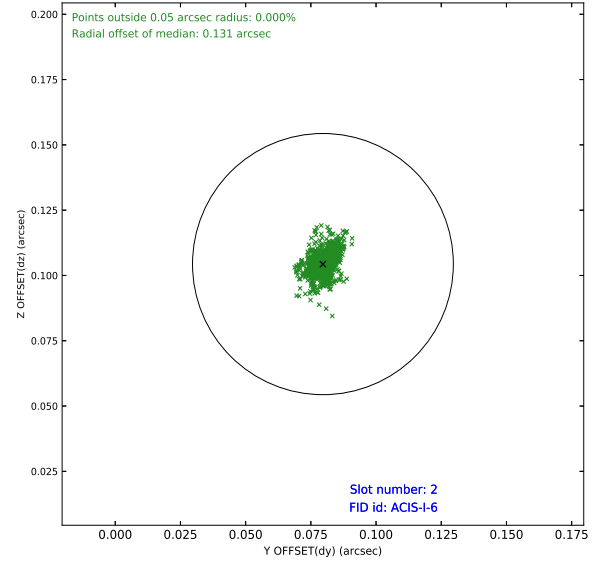
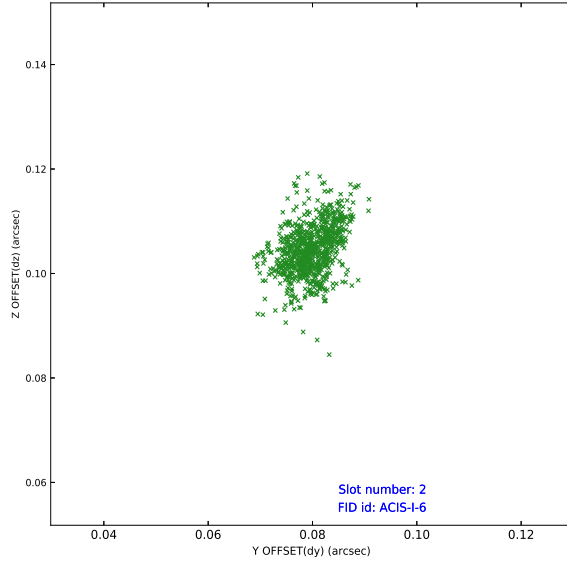
### 2.5.1 Slot 0



## 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	2.966

## A.2 Comments

On day 356 at about 00:30, the OBA heater stuck in the 'on' position. This situation affected obsid 4901 and all subsequent observations to this point. The result of this anomaly could be a displacement of the target on the chip in the z direction. The displacement will be small because everything is still within spec, but the target may be spatially displaced, have a different point spread function, or trail across the chip.