

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 4756 - L2 Version 7  
Chandra X-Ray Center

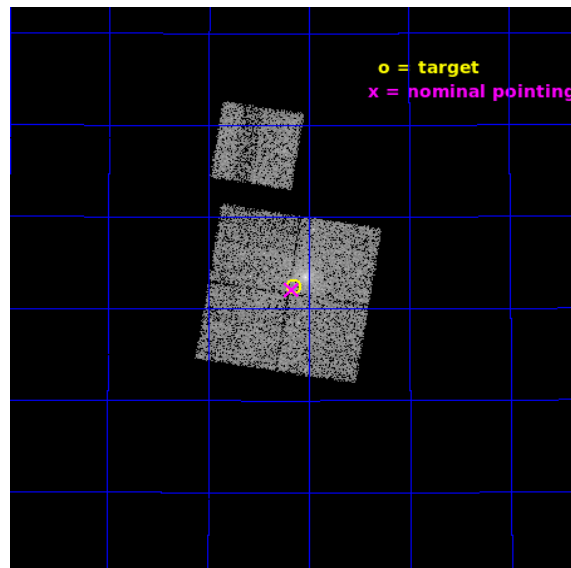
L2 Processing Date : Sep 22 2020

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# 1 Front

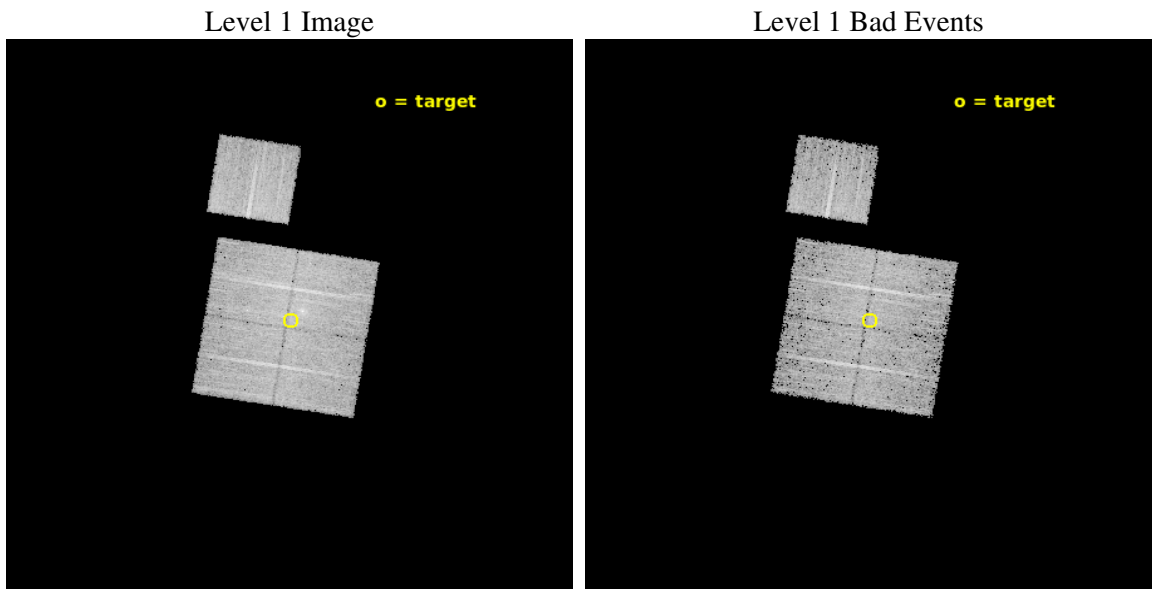
seq_num	700842	Sequence number
obs_id	4756	Observation id
title	Shocks and Bubbles in the ICM: A Chandra Observation of 3C 388	Pro
observer	Dr. Stephen Murray	Principal investigator
object	3C 388	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	281.037758	Observer's specified target RA [deg]
dec_targ	45.539203	Observer's specified target Dec [deg]
ra_nom	281.04231950513	Nominal RA [deg]
dec_nom	45.534608641452	Nominal Dec [deg]
roll_nom	9.1587362303679	Nominal Roll [deg]
revision	7	Processing version of data
ontime	7464.6360946298	Sum of GTIs [s]
livetime	7367.1051286683	Livetime [s]
ontime0	7470.9180450737	Sum of GTIs [s]
ontime1	7470.9180750251	Sum of GTIs [s]
ontime2	7474.0590153337	Sum of GTIs [s]
ontime3	7464.6360946298	Sum of GTIs [s]
ontime6	7464.6360647082	Sum of GTIs [s]
l2events	39310	Number of level 2 events



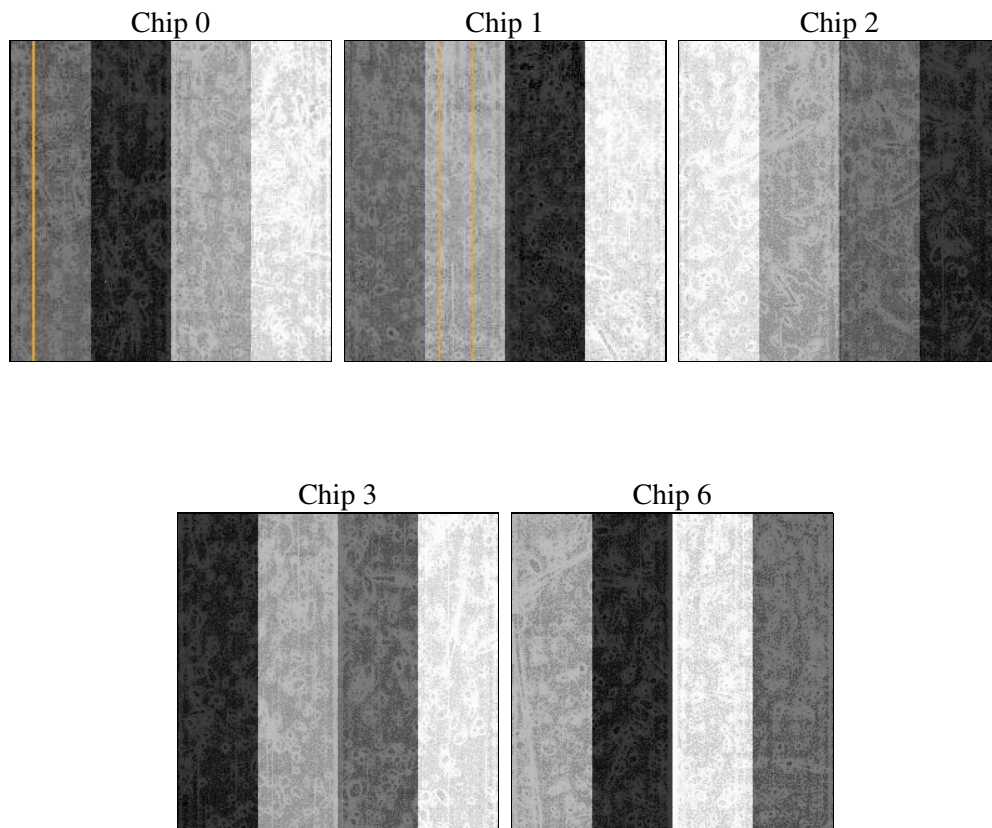
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	38516.981000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	7464.6360946298	Sum of GTIs [s]
caldsver	4.9.2	&#160	ontime0	7470.9180450737	Sum of GTIs [s]
date	2020-09-22T20:41:30	Date and time of file creation	ontime1	7470.9180750251	Sum of GTIs [s]
revision	7	Processing version of data	ontime2	7474.0590153337	Sum of GTIs [s]
			ontime3	7464.6360946298	Sum of GTIs [s]
			ontime6	7464.6360647082	Sum of GTIs [s]
			l1events	259469	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	47536	47992	54462	55697	53782
rejected events	38258	39203	44388	44774	44848
rejected %	80%	81%	81%	80%	83%

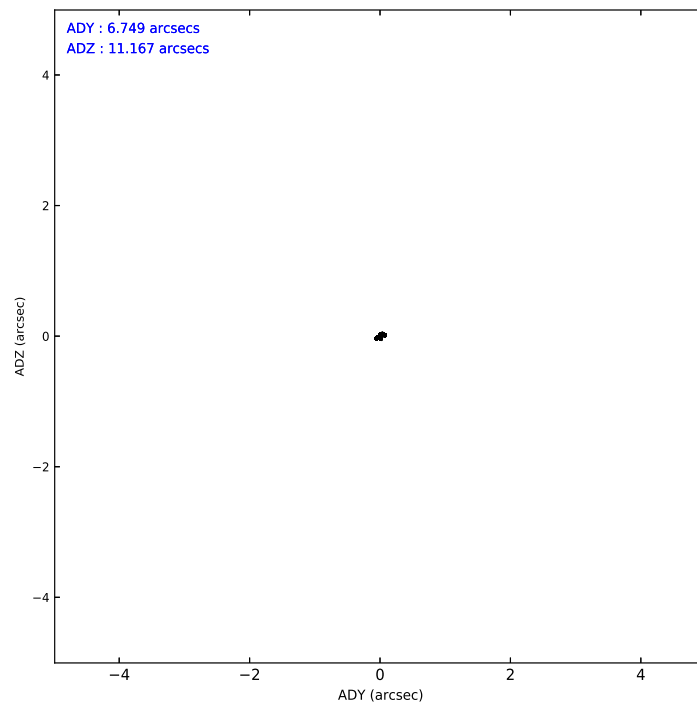
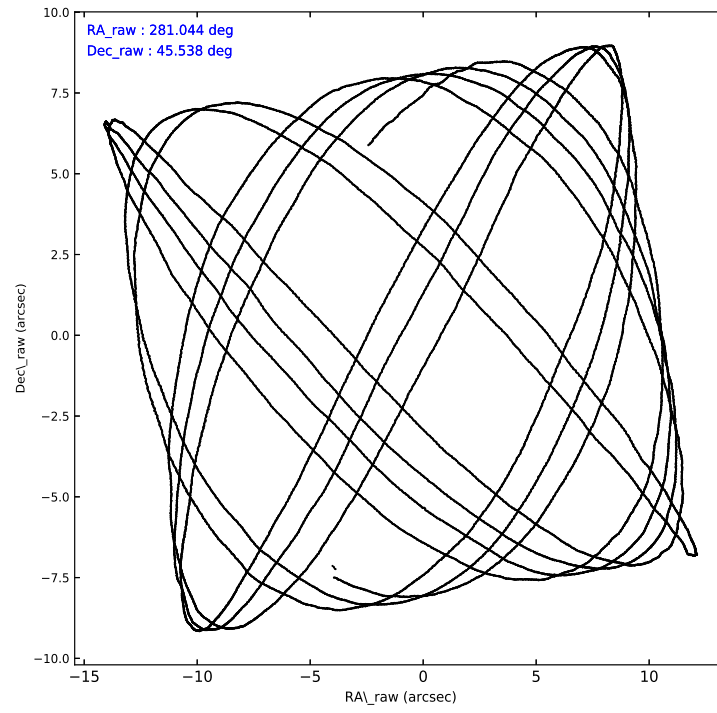
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	3926	3169	4835	5315	3605
	8%	6%	8%	9%	6%
grade 1 events	33	24	54	39	30
	0%	0%	0%	0%	0%
grade 2 events	2572	2659	2282	2522	2505
	5%	5%	4%	4%	4%
grade 3 events	544	585	515	561	516
	1%	1%	0%	1%	0%
grade 4 events	576	591	826	643	544
	1%	1%	1%	1%	1%
grade 5 events	1775	1815	1729	1990	1983
	3%	3%	3%	3%	3%
grade 6 events	1766	1897	1739	2026	1876
	3%	3%	3%	3%	3%
grade 7 events	36344	37252	42482	42601	42723
	76%	77%	78%	76%	79%

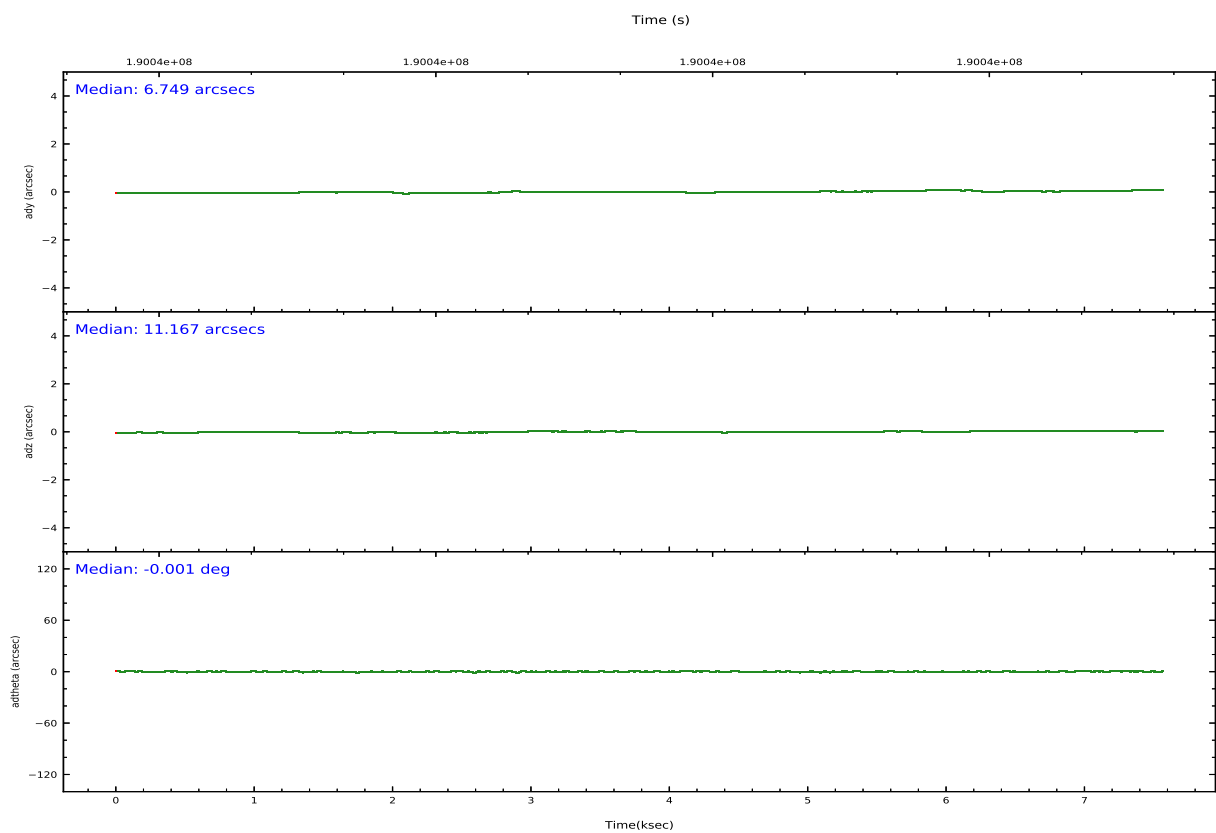
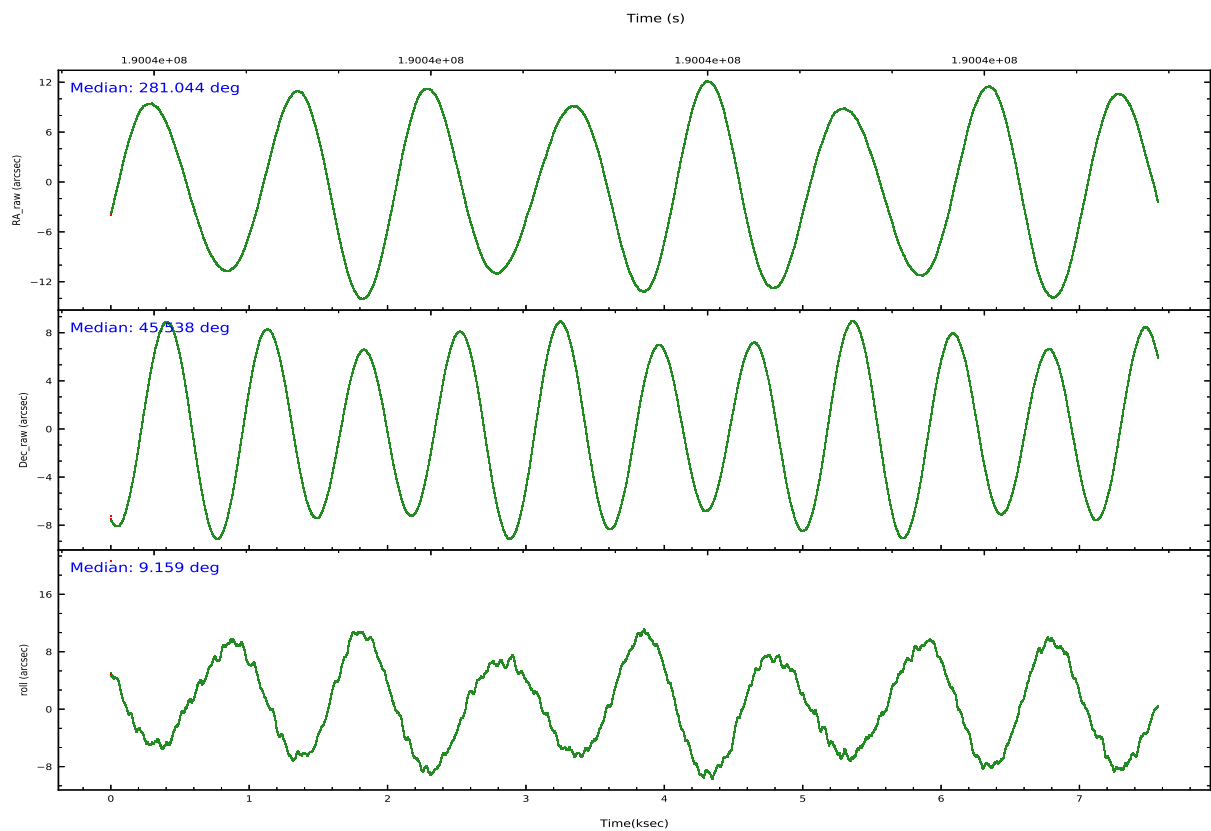


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	8	8
Detector	ACIS-01236	ACIS-01236	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	OVERRIDE	OVERRIDE
Data mode	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	281.013975	281.04231950513	Subarray requested	NONE	NONE
[deg] Pointing Dec	45.520713	45.534608641452	Alternating exposures requested	N	N
[deg] Pointing Roll	8.975899	9.1587362303679	[s] Primary exposure time	3.1	3.1
[mm] SIM focus pos	-0.7809083437167272	-0.7809083437167272			
[mm] SIM defocus	0.001439854621705816	0.001439854621705816			
[mm] SIM translation stage pos	-233.5874344608287	-233.5874344608287			
[mm] SIM translation stage offset	-0.005028630603106876	-0.005028630603106876			
[s] Observation start time (MET)	190035686.184000	190035686.184			
Observation start date	2004-01-09T11:40:22	2004-01-09T11:41:26			
[s] Observation end time (MET)	190043258.000000	190043258			
Observation end date	2004-01-09T13:47:38	2004-01-09T13:47:37			
Read mode	TIMED	TIMED			

## 2.3 Aspect



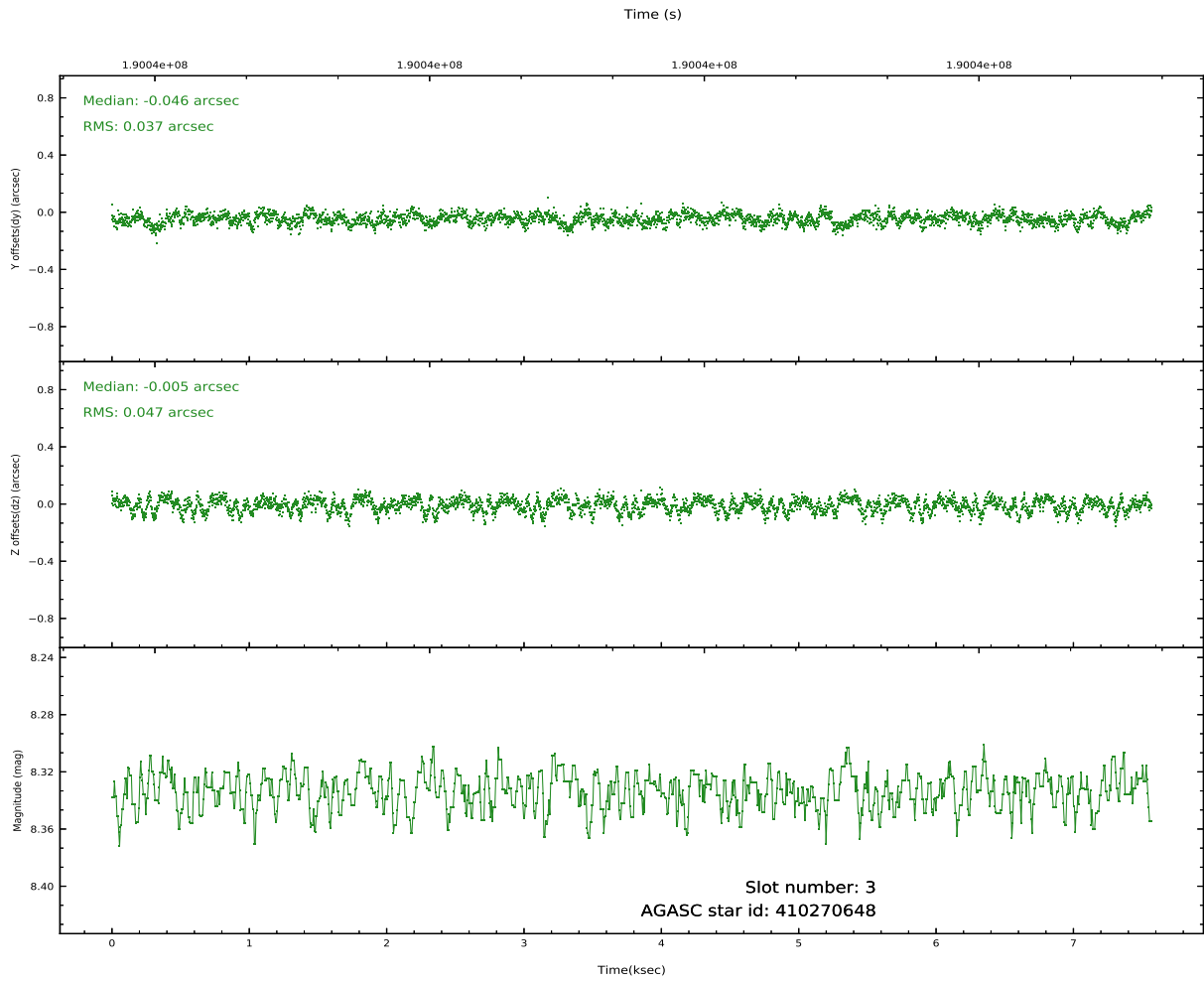
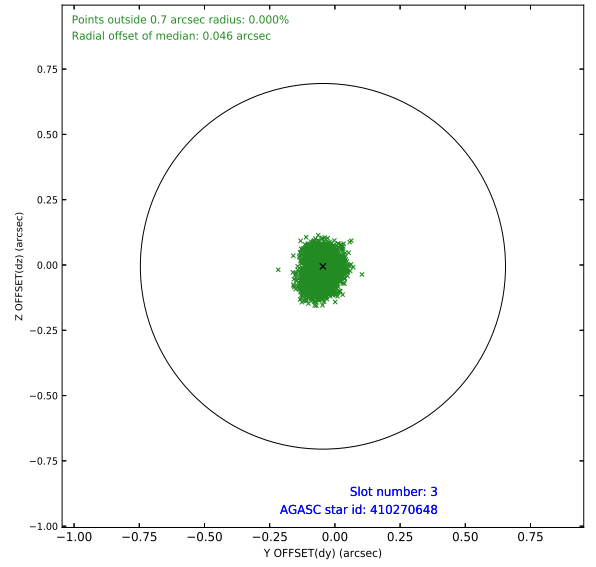
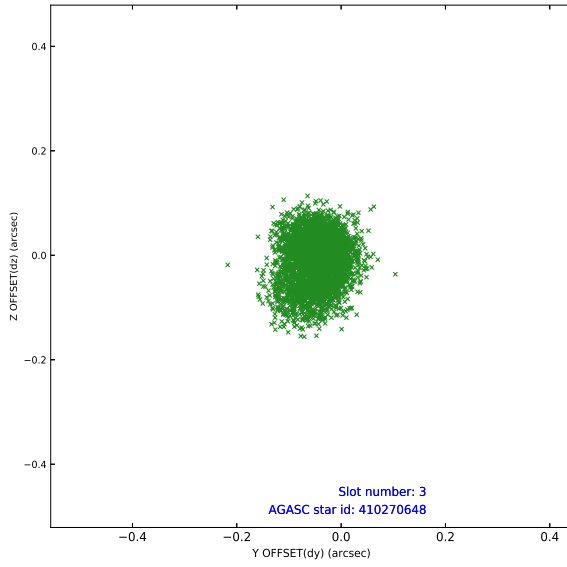


Slot Statistics

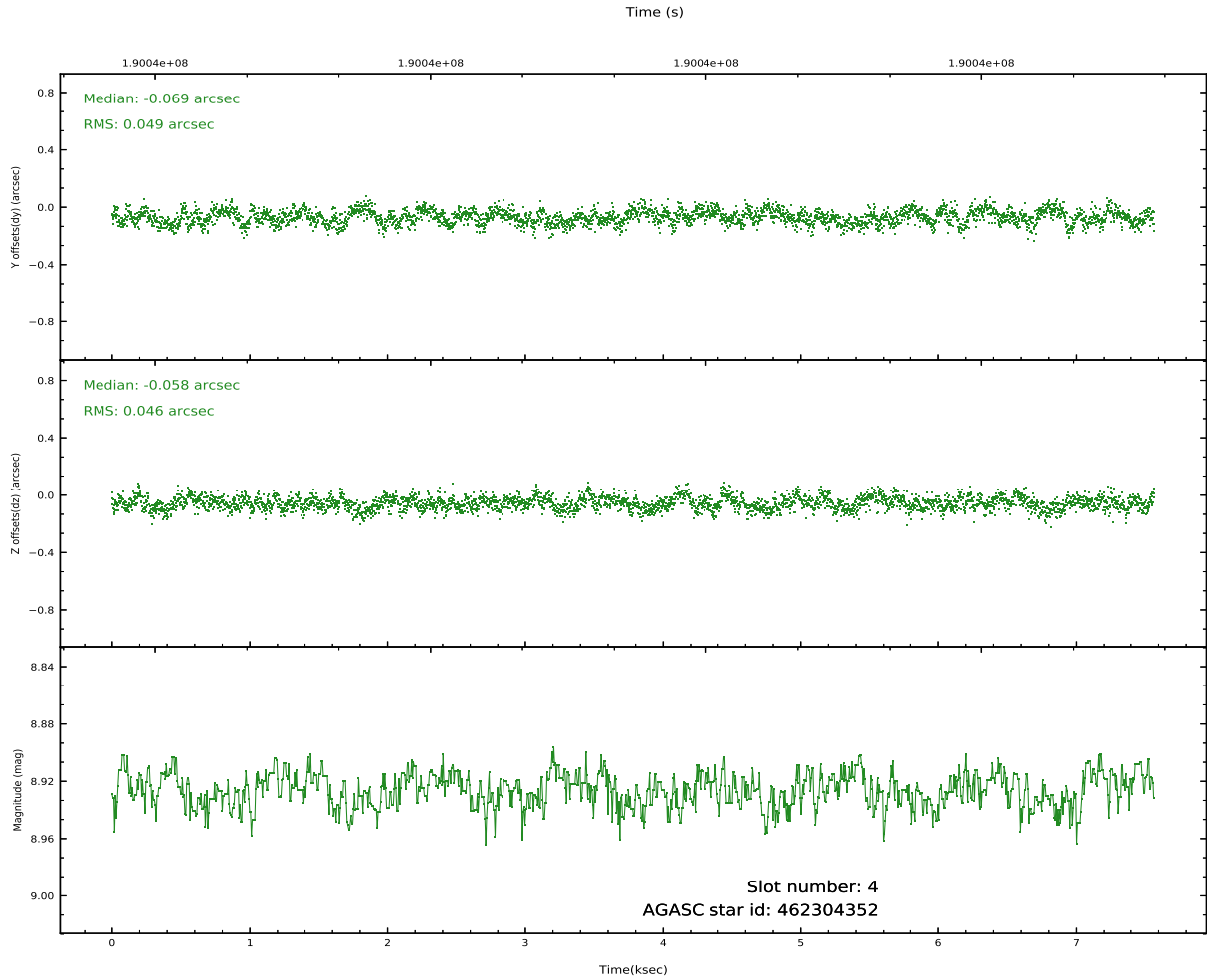
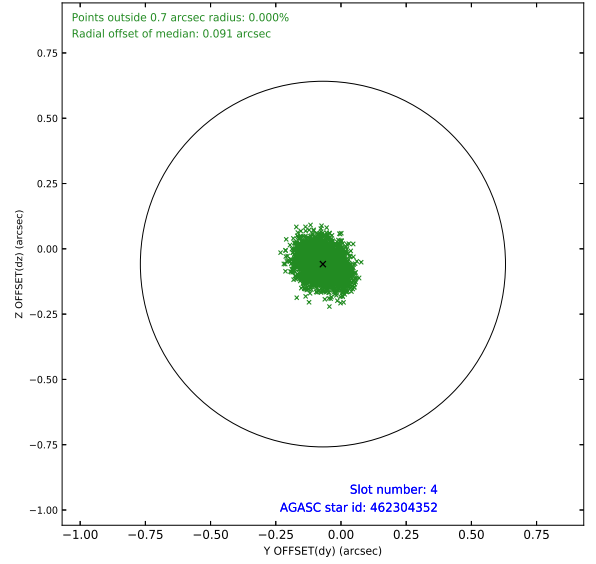
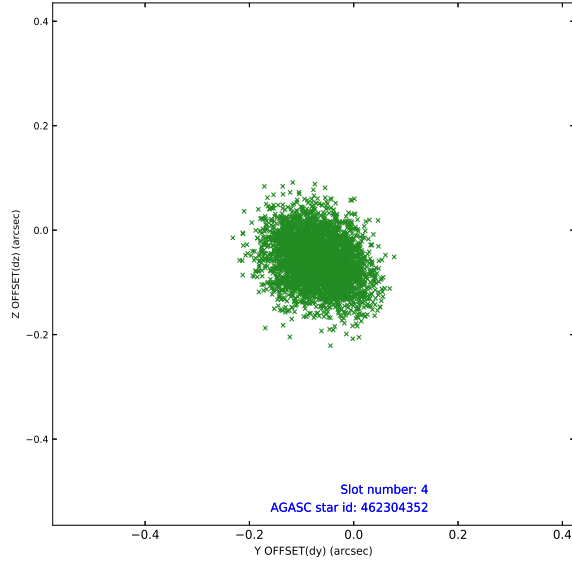
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.24	1838	1.000	0.034	-0.028	0.006	0.011	0.000000	0.000000	932.96	-834
1	FID		ACIS-I-5	7.23	1838	1.000	-0.171	0.045	0.006	0.010	0.000000	0.000000	-1814.90	1062
2	FID		ACIS-I-6	7.25	1839	1.000	0.046	0.054	0.006	0.011	0.000000	0.000000	397.74	1707
3	GUIDE	used	410270648	8.33	3683	1.000	-0.046	-0.005	0.064	0.104	281.097411	44.889988	-144.03	-2275
4	GUIDE	used	462304352	8.93	3683	1.000	-0.069	-0.058	0.072	0.115	281.113153	45.826830	417.27	1049
5	GUIDE	used	462307888	8.50	3680	1.000	0.020	-0.044	0.062	0.103	280.411703	45.917665	-1266.34	1652
6	GUIDE	used	464004928	9.36	3680	1.000	0.095	0.112	0.083	0.133	281.760512	46.203785	2221.68	2148
7	GUIDE	used	462305872	9.12	3679	1.000	-0.000	-0.001	0.081	0.132	280.002199	45.867625	-2307.64	1645

## 2.4 Star Slots

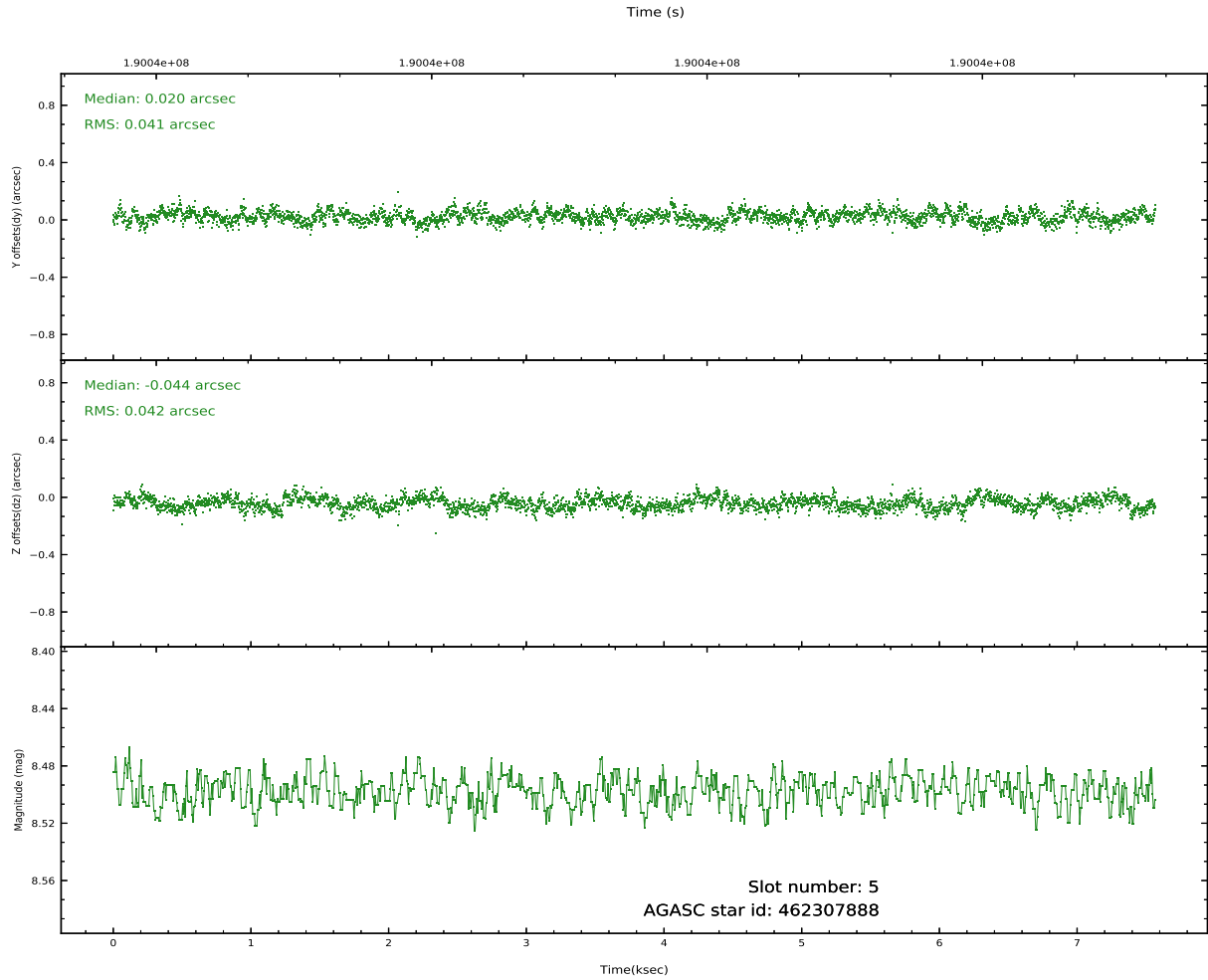
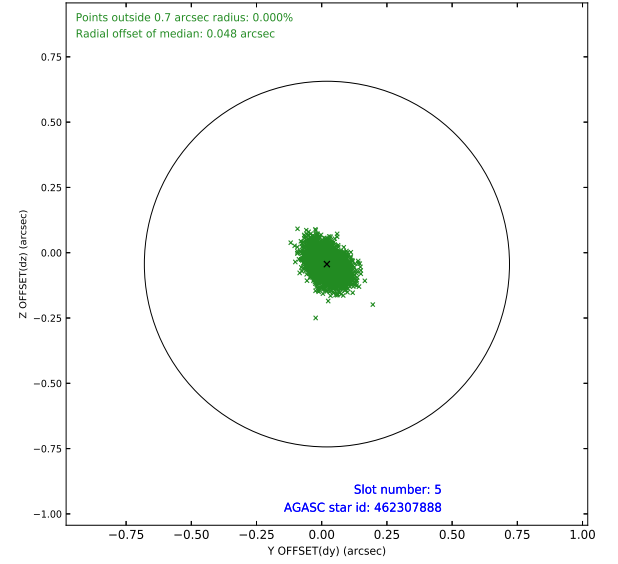
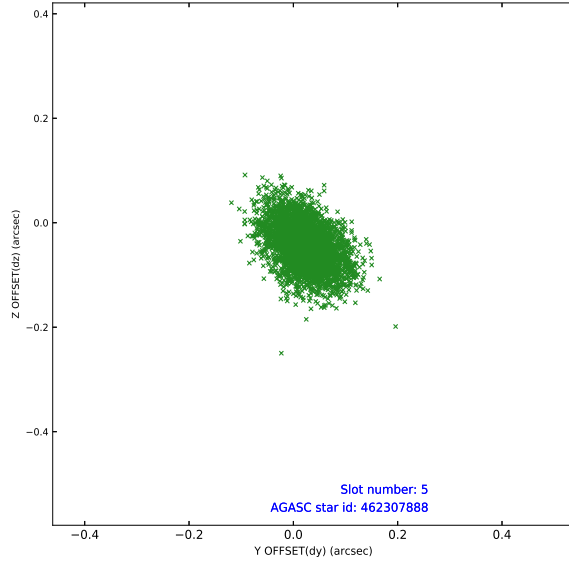
### 2.4.1 Slot 3



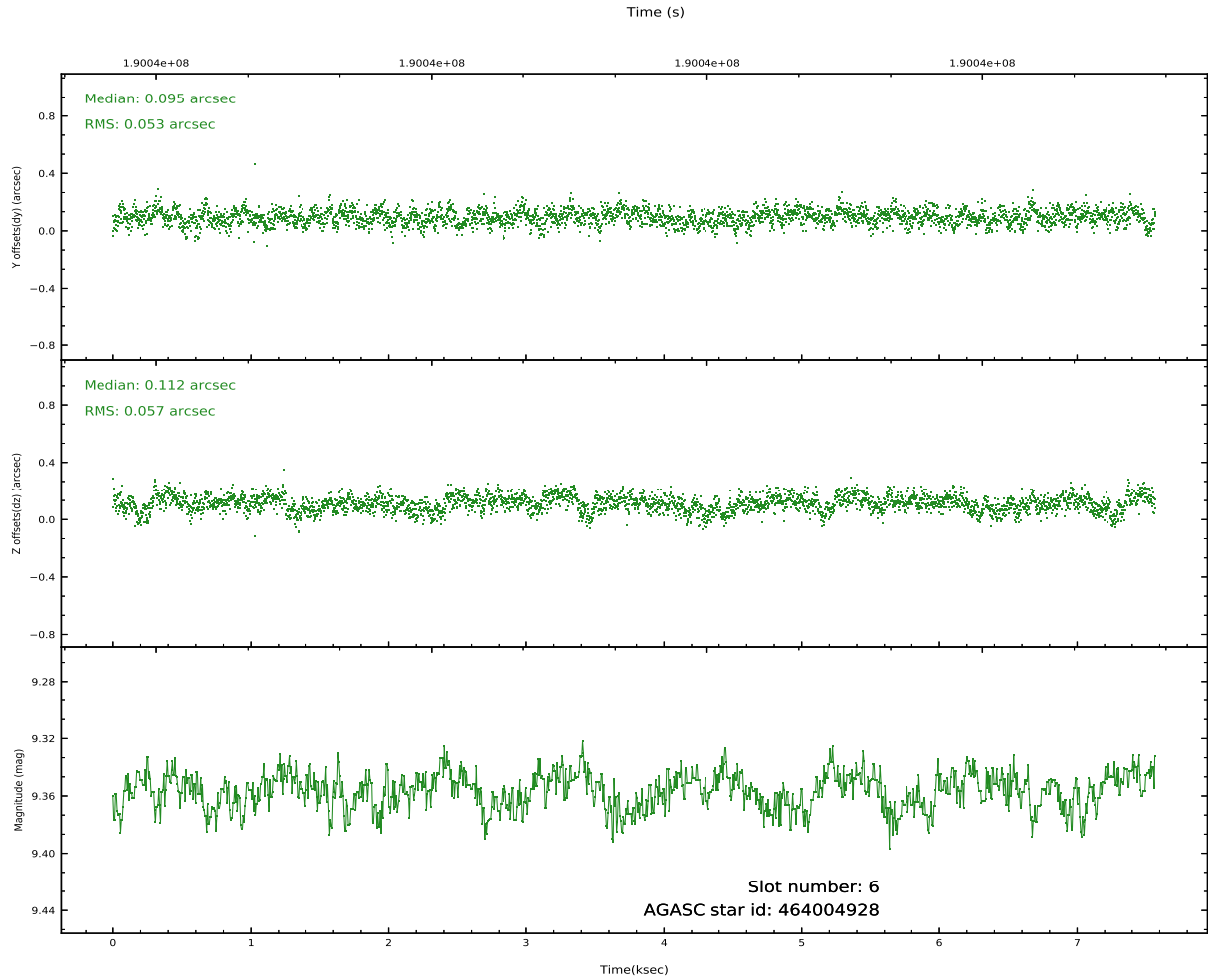
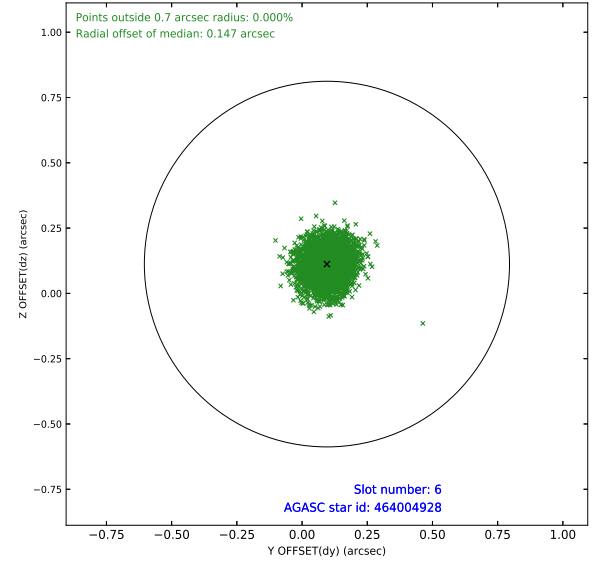
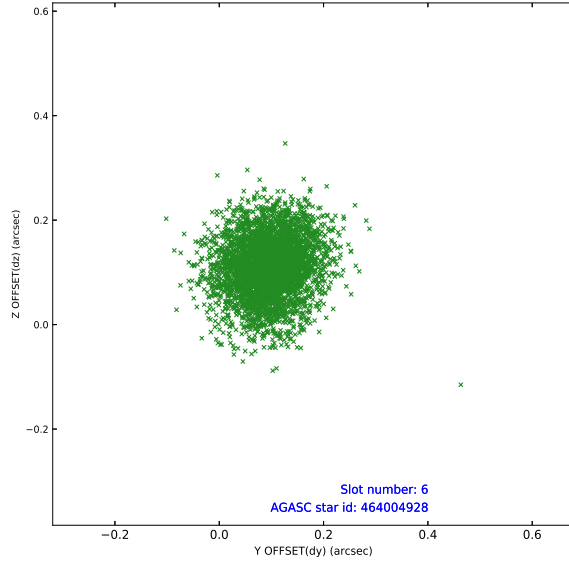
## 2.4.2 Slot 4



### 2.4.3 Slot 5

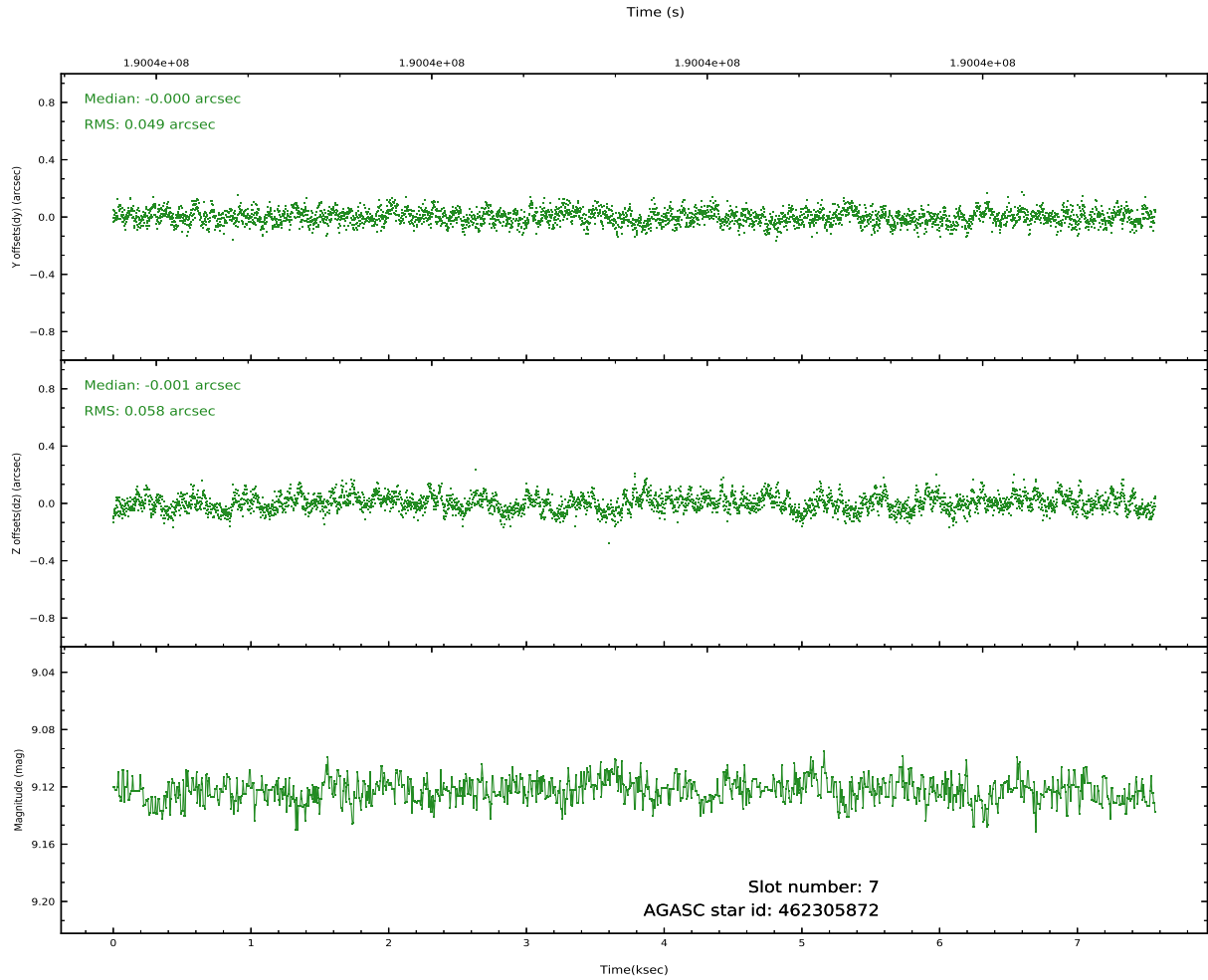
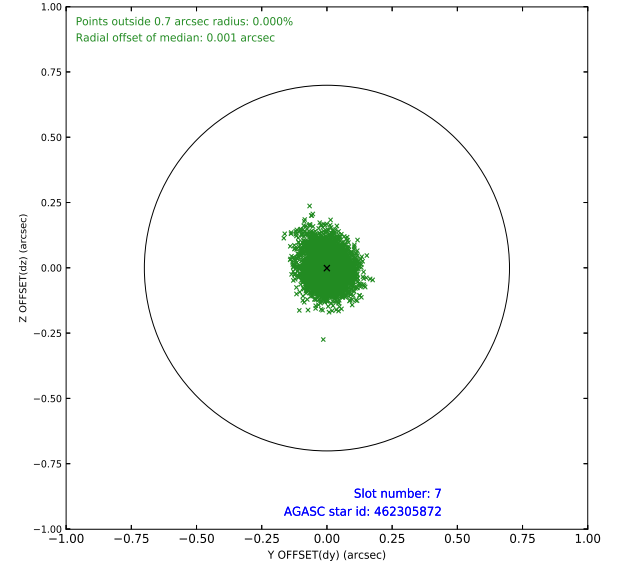
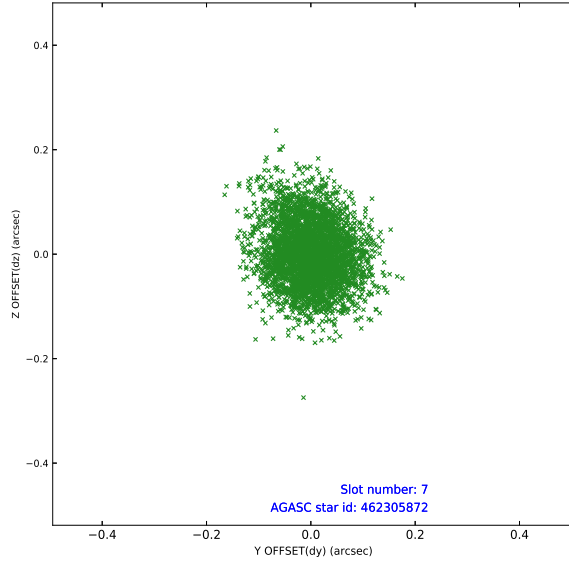


## 2.4.4 Slot 6



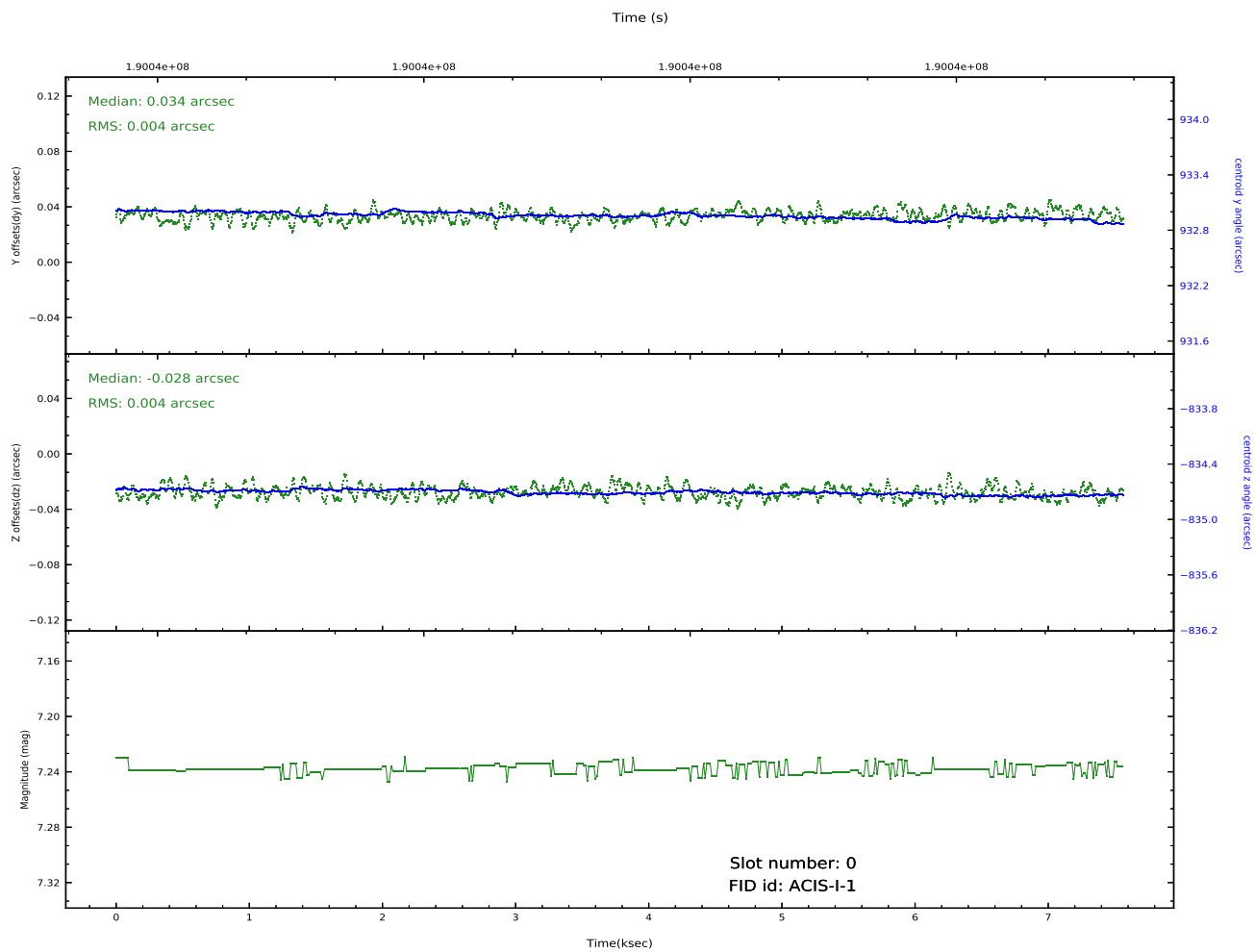
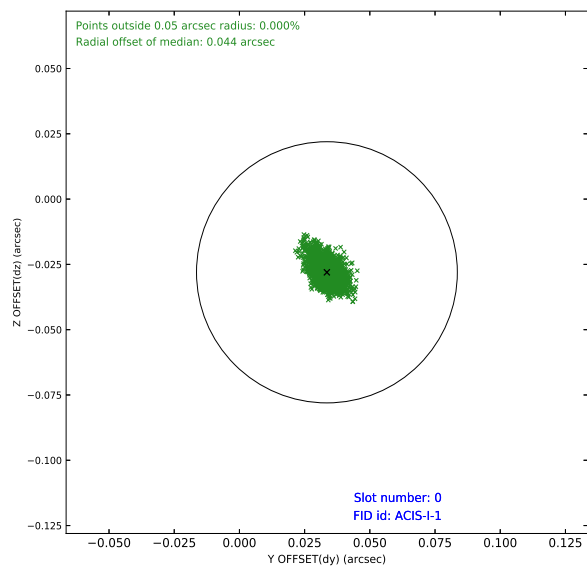
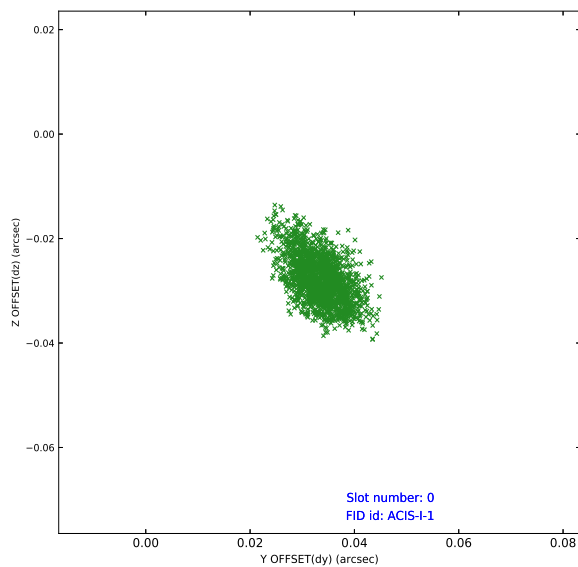


## 2.4.5 Slot 7

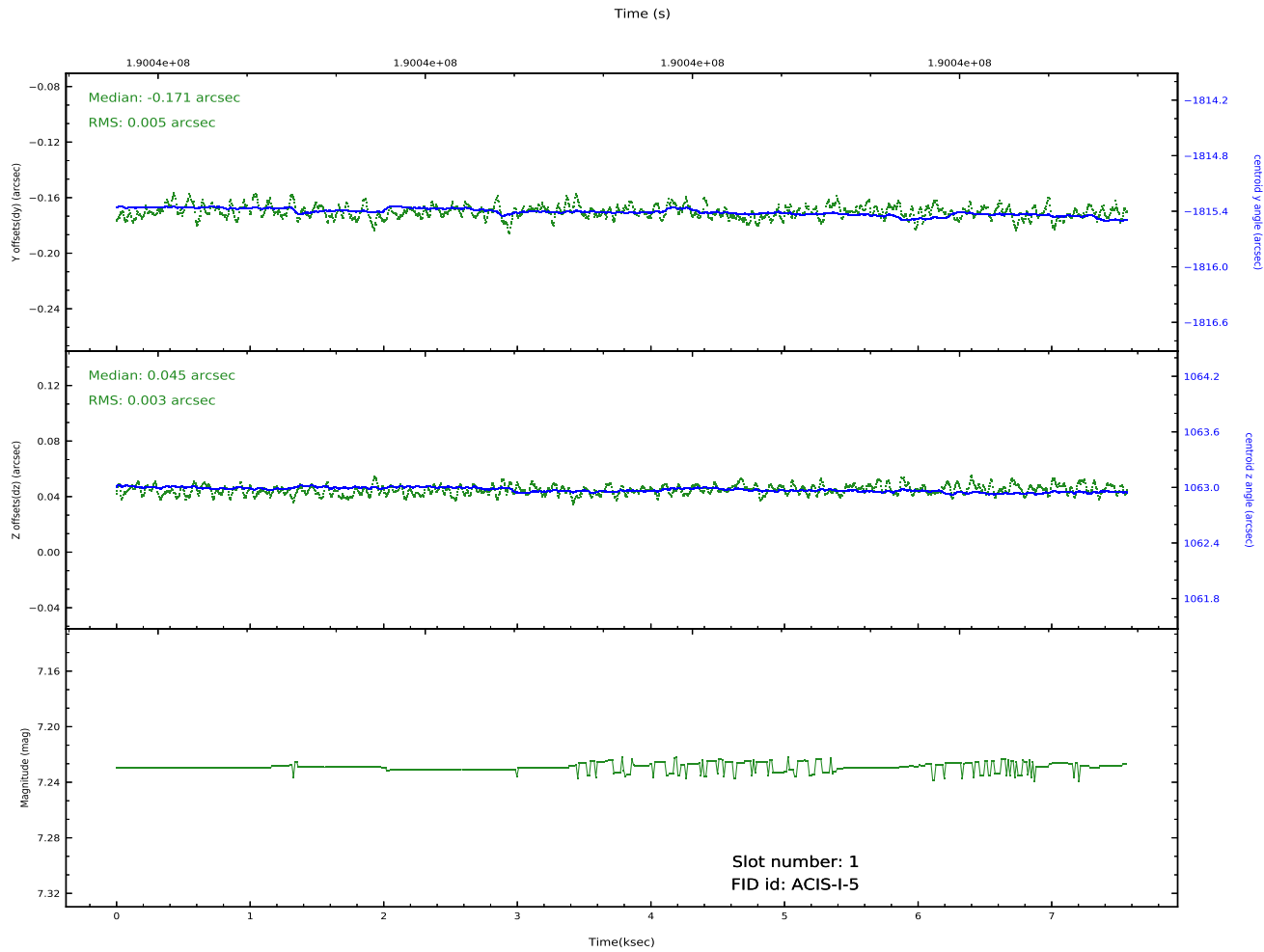
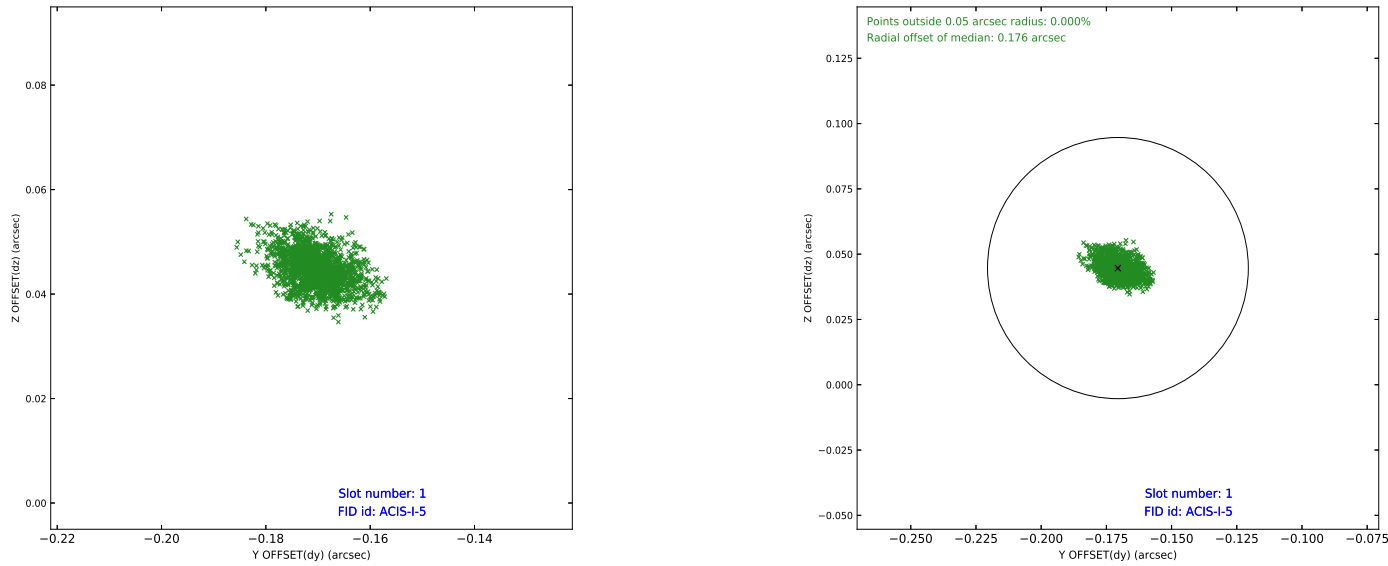


## 2.5 FID Slots

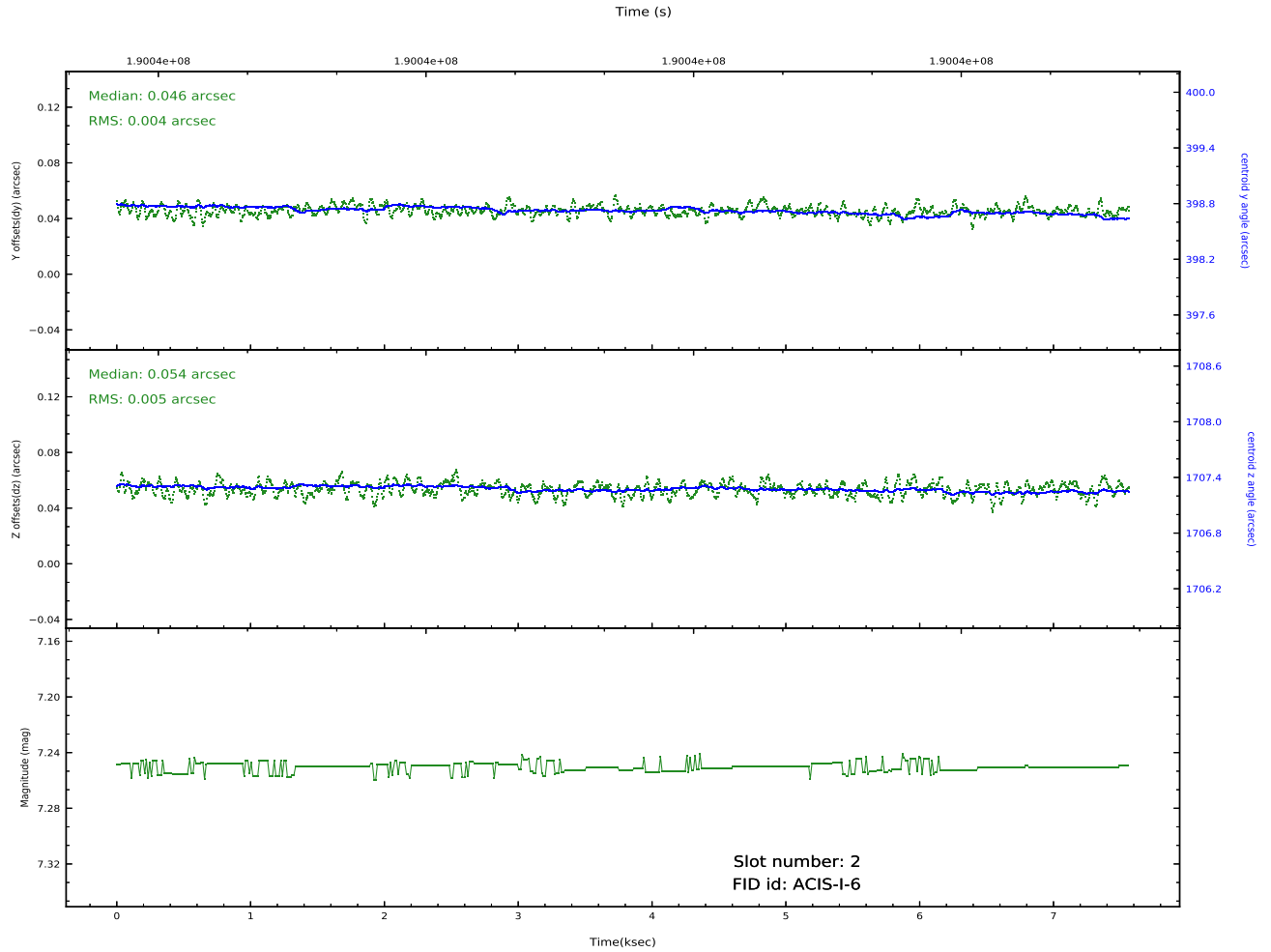
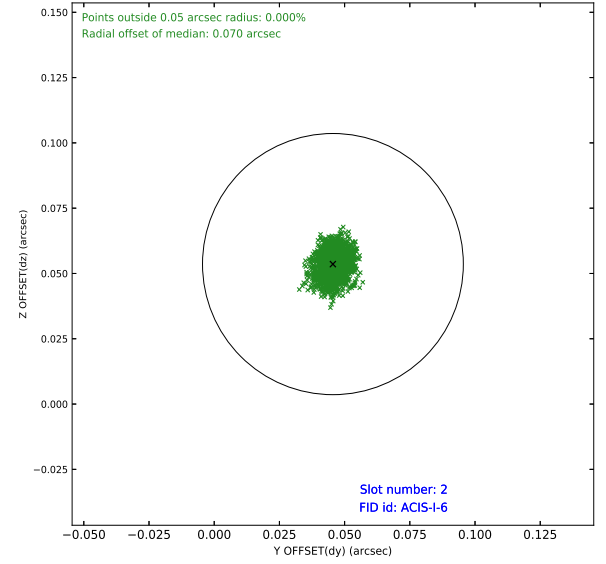
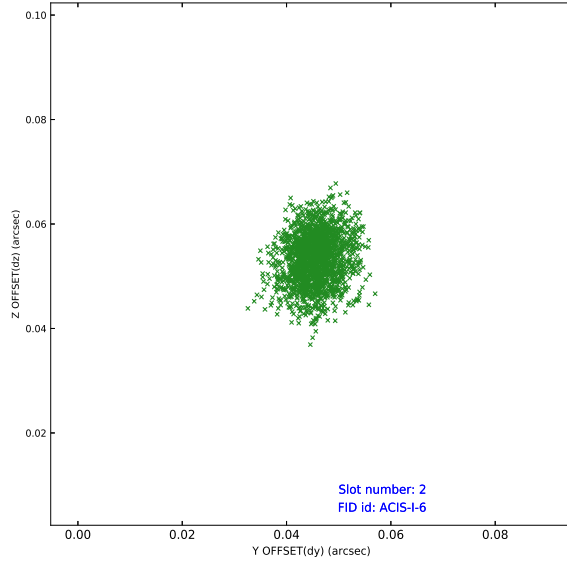
### 2.5.1 Slot 0



2.5.2 Slot 1



## 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2020.09.23
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.783

## A.2 Comments

Charge time for this observation remains at previous value of 7.783 ksec, although with the current processing the charge time would have been 7.46 ksec.

===

This observation was interrupted by safing of the science instruments due to high solar radiation environment. The observation was interrupted at 2004:9:13:47.

===

The bias map for CCD\_ID = 2 was incomplete because of data gaps in telemetry. The bias map for CCD\_ID = 2 was reconstructed using scaled data from a comparable bias map for another observation. The pixels affected by the anomaly are bounded by the coordinates: (281.16122,45.54251), (281.12923,45.68017), (281.12557,45.67975), (281.15757,45.54210).