

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 5492 - L2 Version 4  
Chandra X-Ray Center

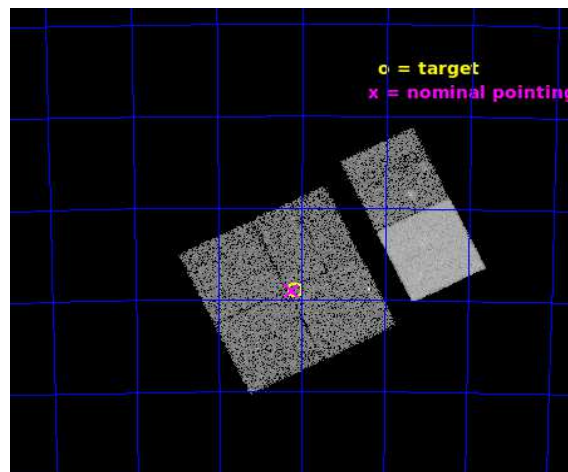
L2 Processing Date : Oct 9 2020

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# 1 Front

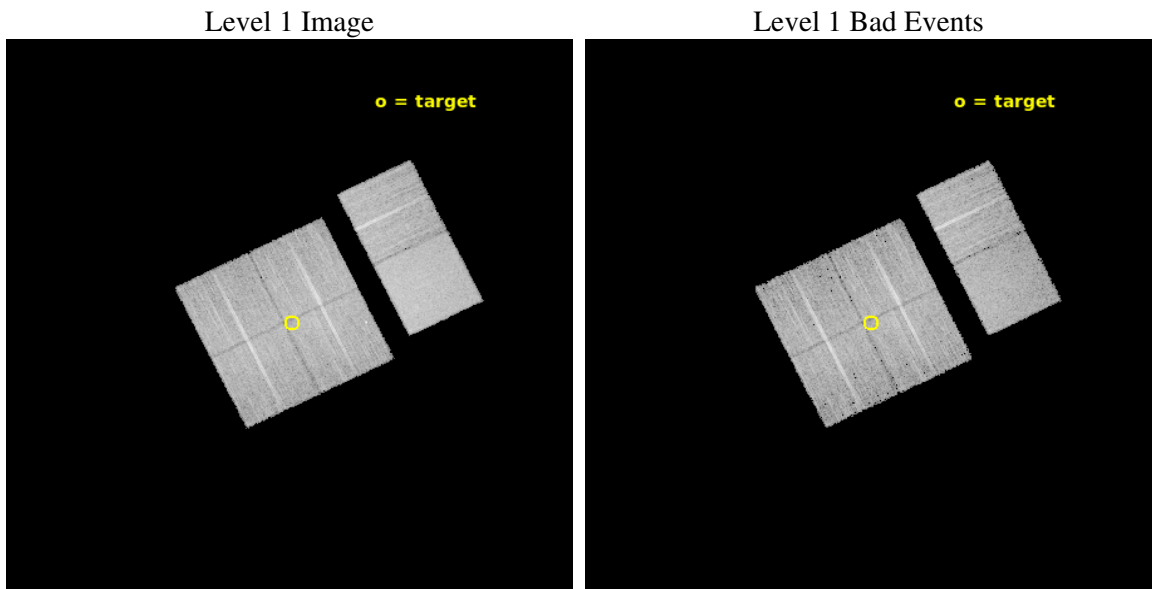
seq_num	400422	Sequence number
obs_id	5492	Observation id
title	Discovering X-ray pulsars in the Wing of the Small Magellanic Cloud	&#160
observer	Malcolm Coe	Principal investigator
object	[MCS2008] 506	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	21.041667	Observer's specified target RA [deg]
dec_targ	-73.150556	Observer's specified target Dec [deg]
ra_nom	21.059549428953	Nominal RA [deg]
dec_nom	-73.150723982268	Nominal Dec [deg]
roll_nom	63.750259119332	Nominal Roll [deg]
revision	4	Processing version of data
ontime	10185.599962056	Sum of GTIs [s]
livetime	10056.623762304	Livetime [s]
ontime0	10185.599962056	Sum of GTIs [s]
ontime1	10185.599962056	Sum of GTIs [s]
ontime2	10185.599962056	Sum of GTIs [s]
ontime3	10185.599962056	Sum of GTIs [s]
ontime6	10185.599962056	Sum of GTIs [s]
ontime7	10185.599962056	Sum of GTIs [s]
l2events	79198	Number of level 2 events



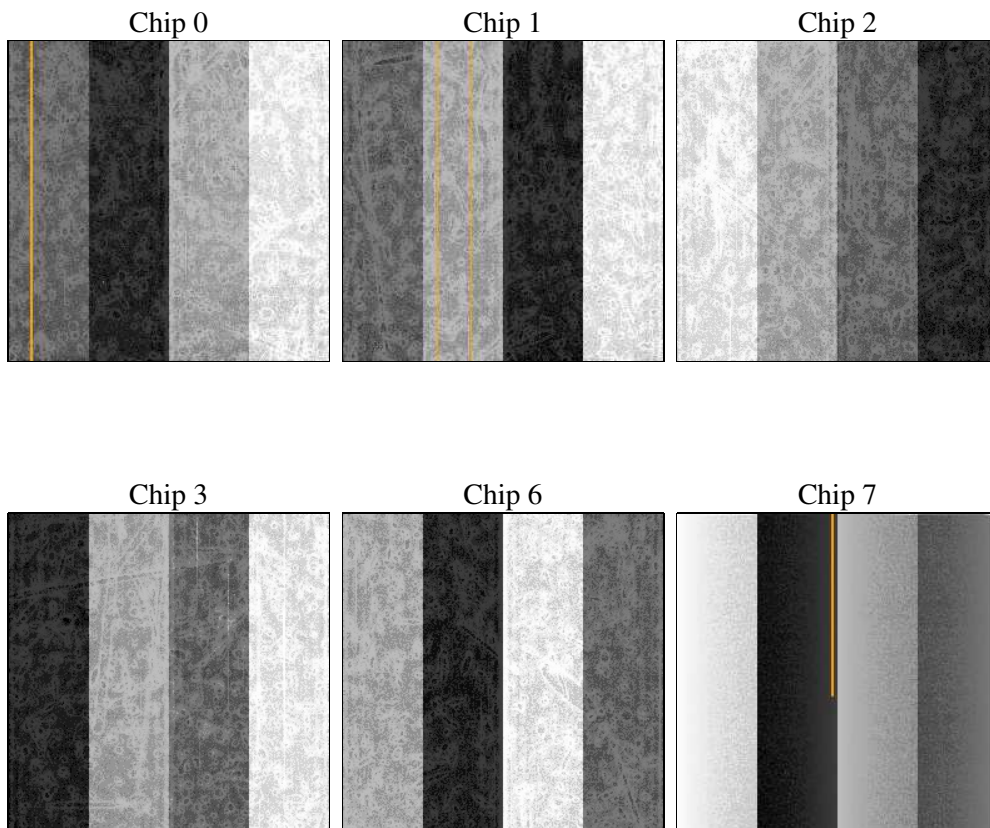
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	10185.599962056	Sum of GTIs [s]
caldsver	4.9.2	&#160	ontime0	10185.599962056	Sum of GTIs [s]
date	2020-10-09T19:01:56	Date and time of file creation	ontime1	10185.599962056	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	10185.599962056	Sum of GTIs [s]
			ontime3	10185.599962056	Sum of GTIs [s]
			ontime6	10185.599962056	Sum of GTIs [s]
			ontime7	10185.599962056	Sum of GTIs [s]
			l1events	531958	Number of level 1 events

### 2.1.4 Events

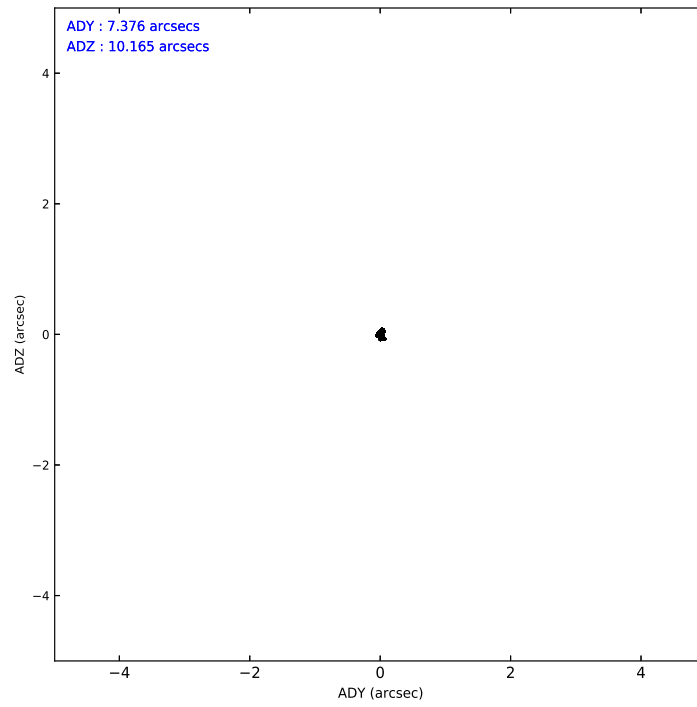
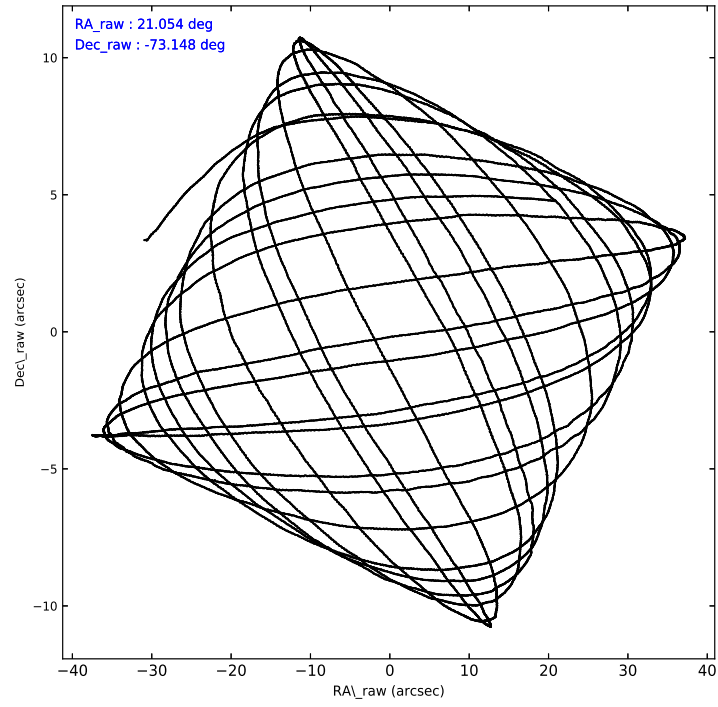
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	78837	78521	85098	84920	87986	116596	grade 0 events	4349	4273	4213	4566	4110	4314
rejected events	69839	69205	76530	75861	78925	74889		5%	5%	4%	5%	4%	3%
rejected %	88%	88%	89%	89%	89%	64%	grade 1 events	31	49	53	81	43	111
								0%	0%	0%	0%	0%	0%
							grade 2 events	2149	2379	2054	2044	2216	9469
								2%	3%	2%	2%	2%	8%
							grade 3 events	1037	1049	971	1011	997	4179
								1%	1%	1%	1%	1%	3%
							grade 4 events	934	1043	975	1076	974	4136
								1%	1%	1%	1%	1%	3%
							grade 5 events	3483	3613	3318	3920	4098	11161
								4%	4%	3%	4%	4%	9%
							grade 6 events	1866	2070	1669	1760	2141	26038
								2%	2%	1%	2%	2%	22%
							grade 7 events	64988	64045	71845	70462	73407	57188
								82%	81%	84%	82%	83%	49%

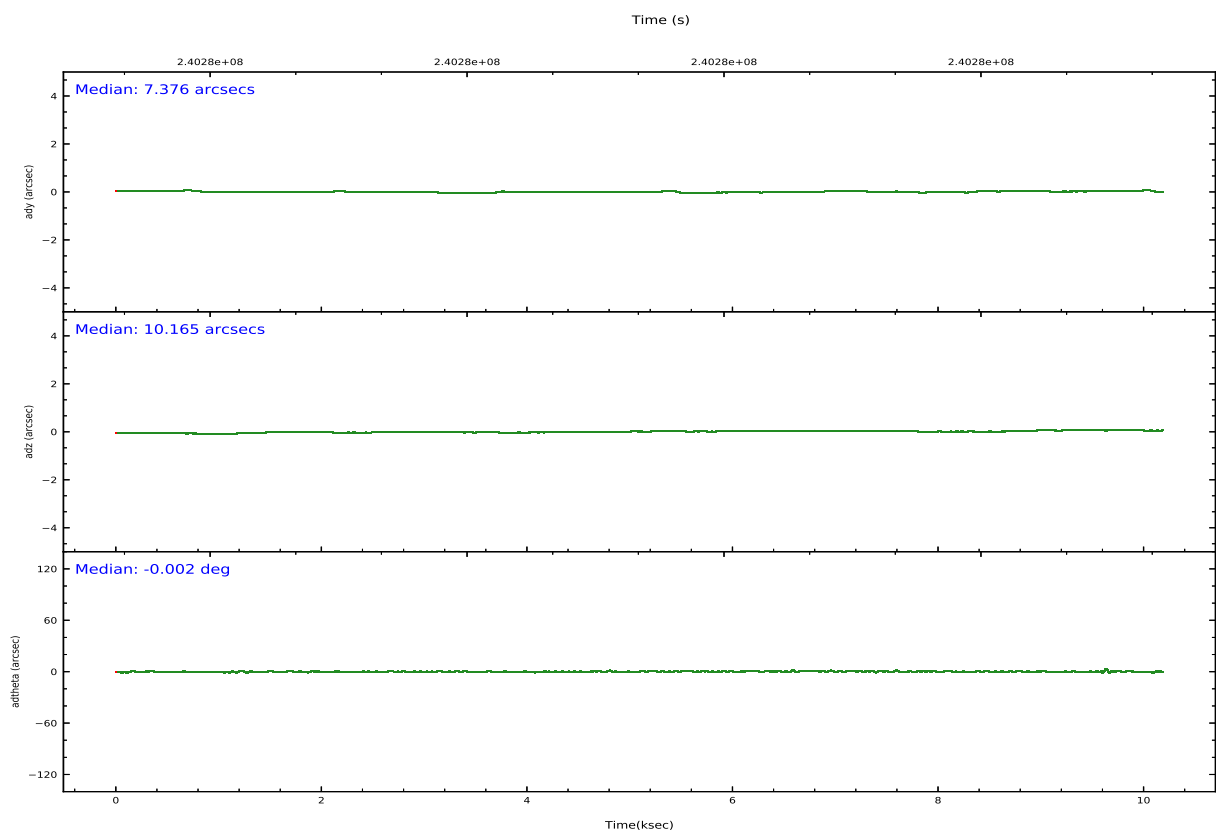
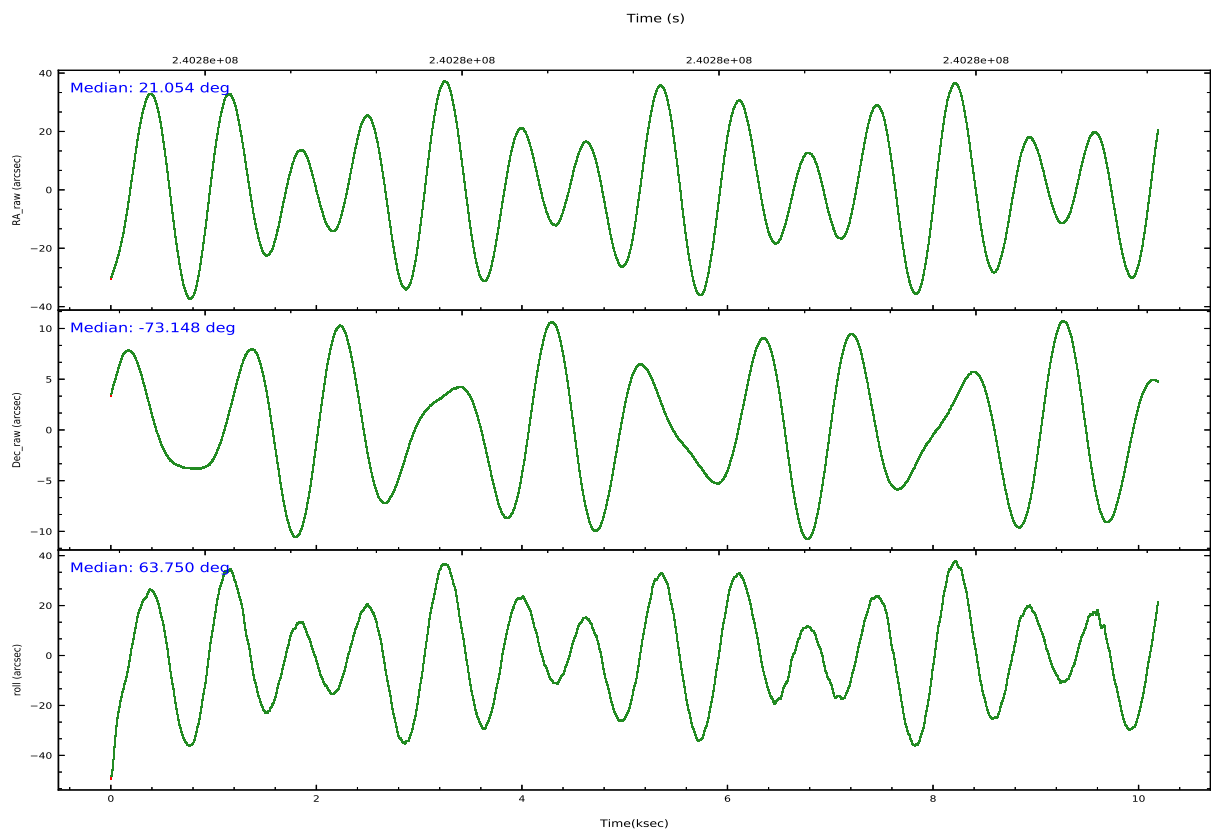


## 2.2 Compared Parameters

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	21.060358	21.059549428953	Subarray requested	NONE	NONE
[deg] Pointing Dec	-73.174844	-73.150723982268	Alternating exposures requested	N	N
[deg] Pointing Roll	63.550724	63.750259119332	[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)	240274273.184000	240272287.90426			
Observation start date	2005-08-12T22:50:09	2005-08-12T22:18:07			
[s] Observation end time (MET)	240284273.184000	240285080.92985			
Observation end date	2005-08-13T01:36:49	2005-08-13T01:51:20			
Read mode	TIMED	TIMED			

## 2.3 Aspect



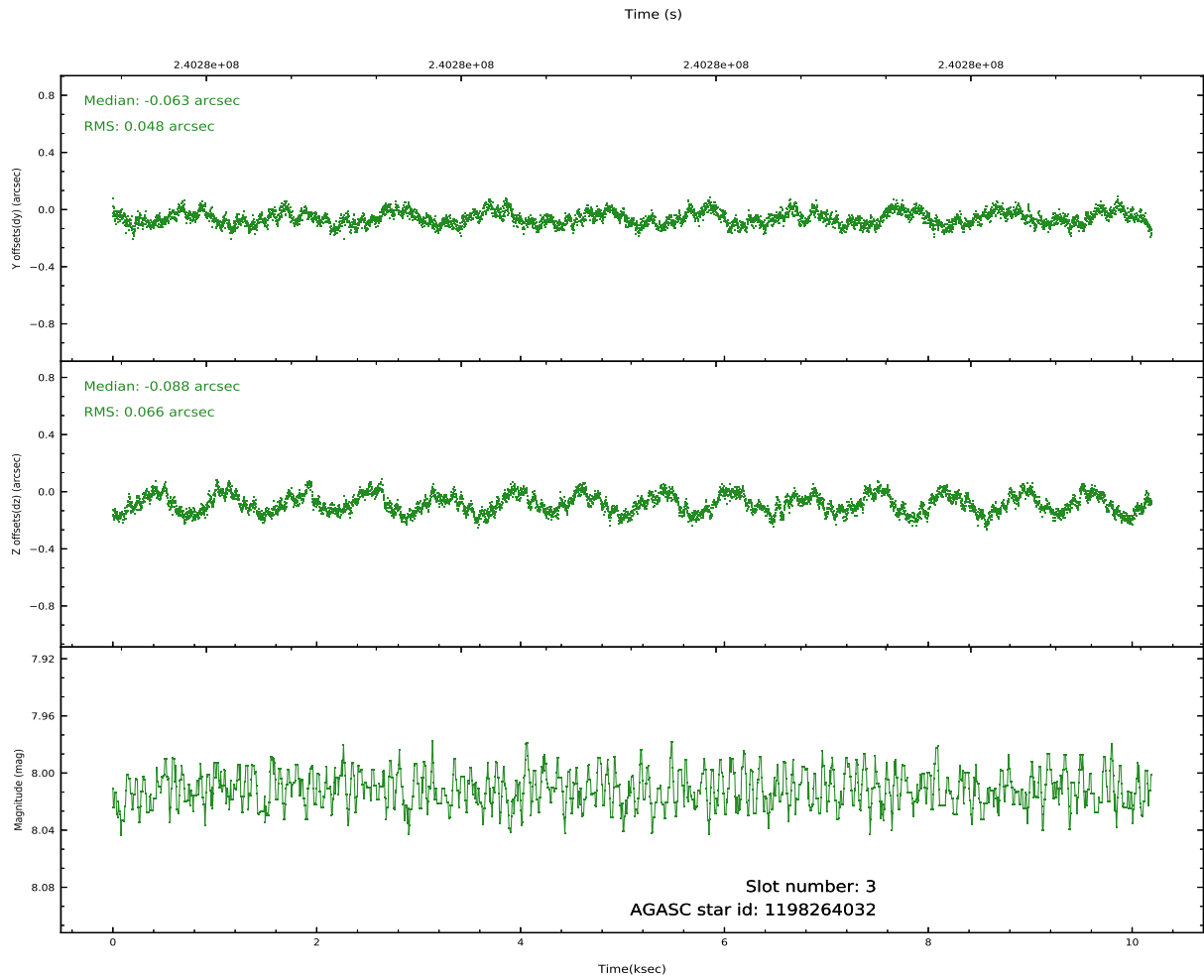
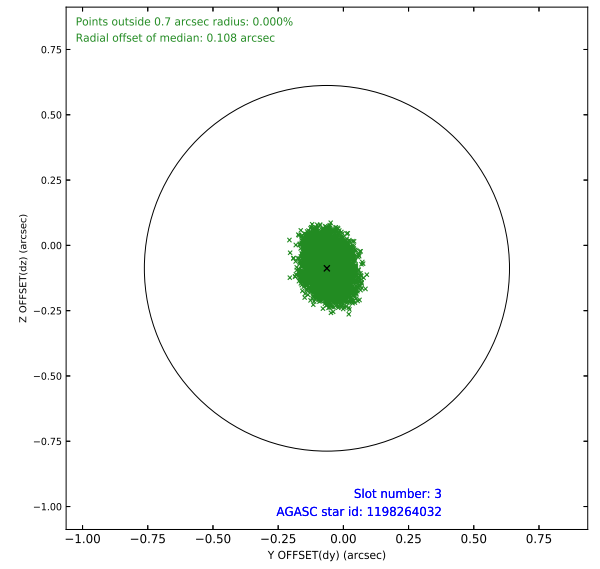
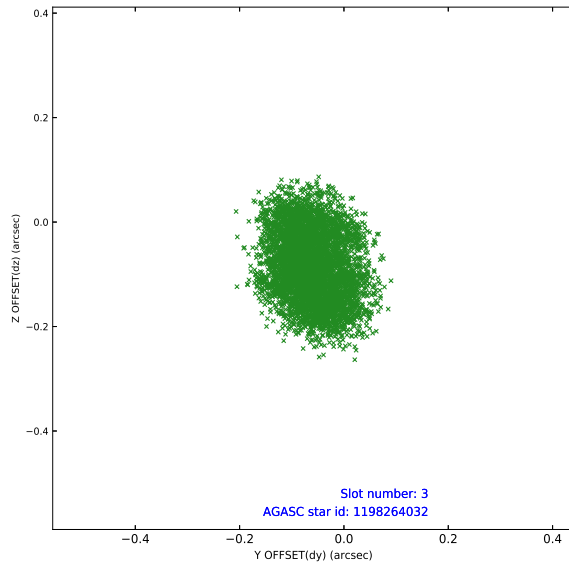


Slot Statistics

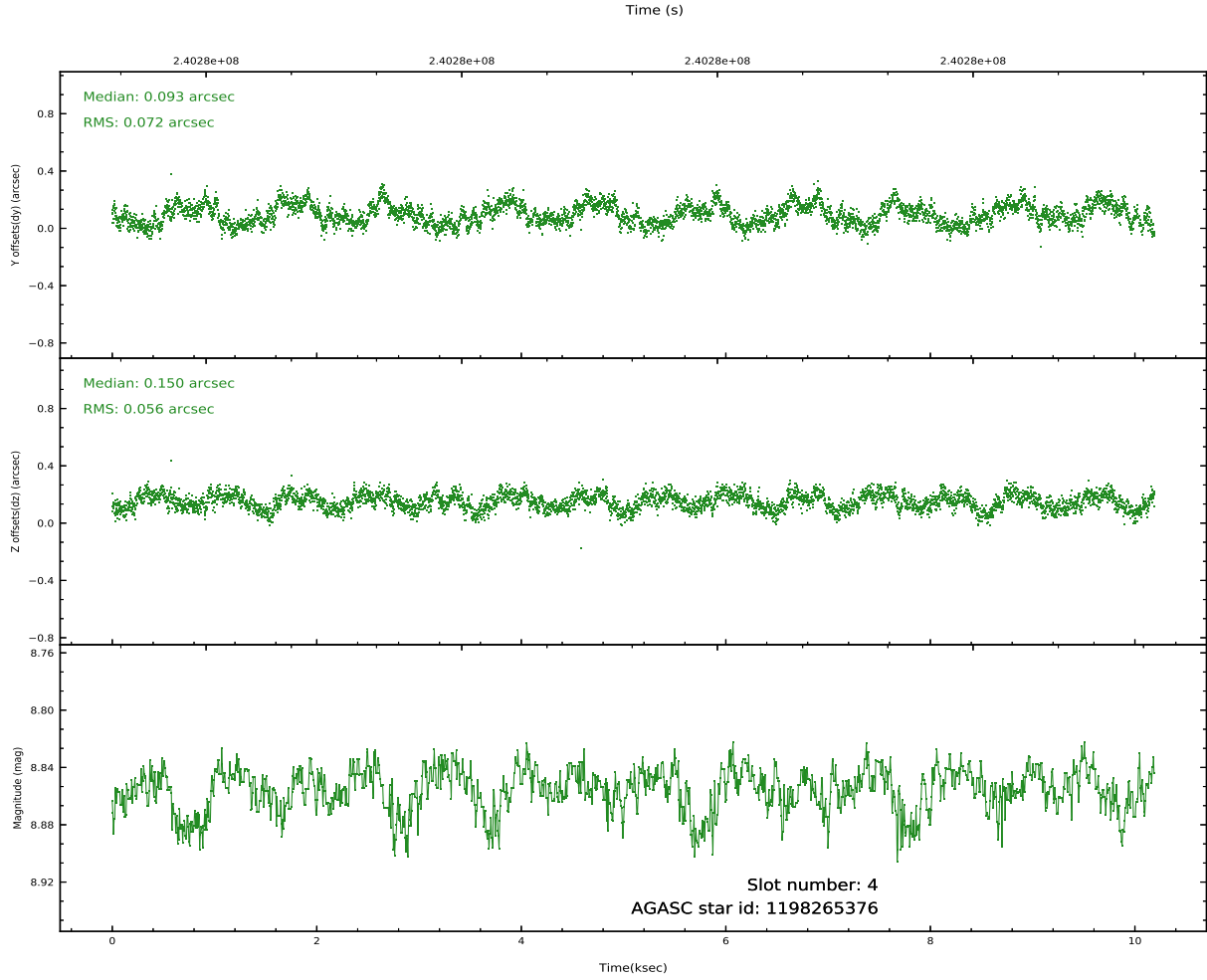
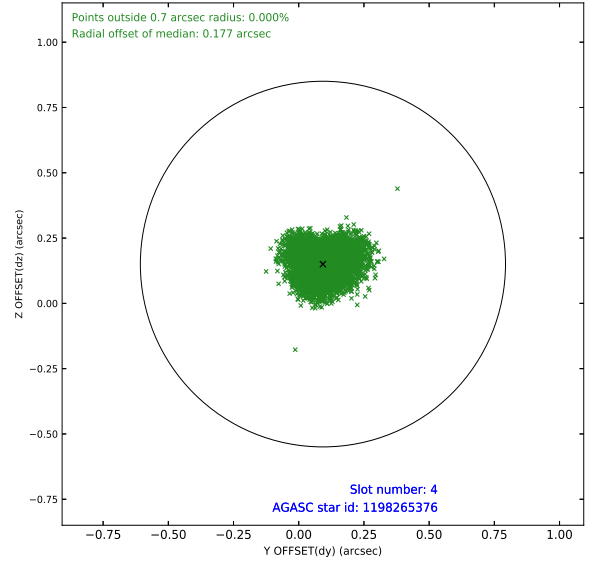
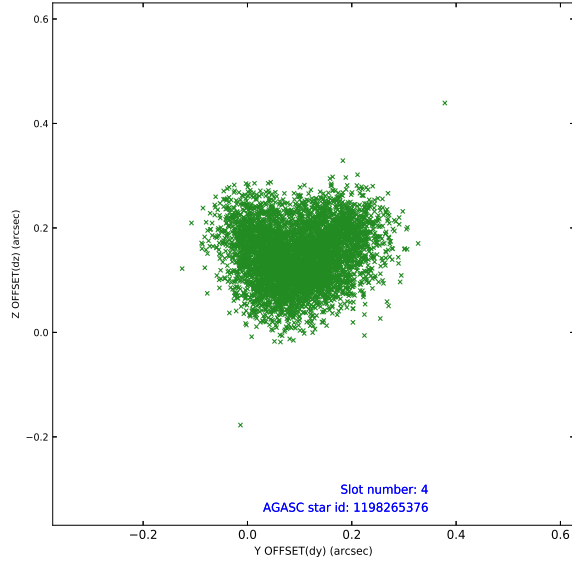
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.24	2486	1.000	0.023	-0.020	0.007	0.013	0.000000	0.000000	932.32	-833
1	FID		ACIS-I-5	7.23	2486	1.000	-0.211	0.022	0.006	0.011	0.000000	0.000000	-1815.75	1063
2	FID		ACIS-I-6	7.25	2486	1.000	0.097	0.068	0.007	0.011	0.000000	0.000000	397.36	1708
3	GUIDE	used	1198264032	8.01	4972	1.000	-0.063	-0.088	0.091	0.133	22.563131	-73.173817	683.12	-1408
4	GUIDE	used	1198265376	8.85	4967	1.000	0.093	0.150	0.099	0.150	21.649225	-72.748973	1650.59	118
5	GUIDE	used	1198269920	8.26	4962	1.000	-0.145	-0.060	0.088	0.127	20.316466	-73.033728	102.82	923
6	GUIDE	used	1198272400	9.18	4970	1.000	-0.057	0.142	0.111	0.160	20.411923	-73.620598	-1732.97	-126
7	GUIDE	used	1198263448	8.72	4970	1.000	0.171	-0.144	0.092	0.149	23.988893	-72.831877	2423.34	-2269

## 2.4 Star Slots

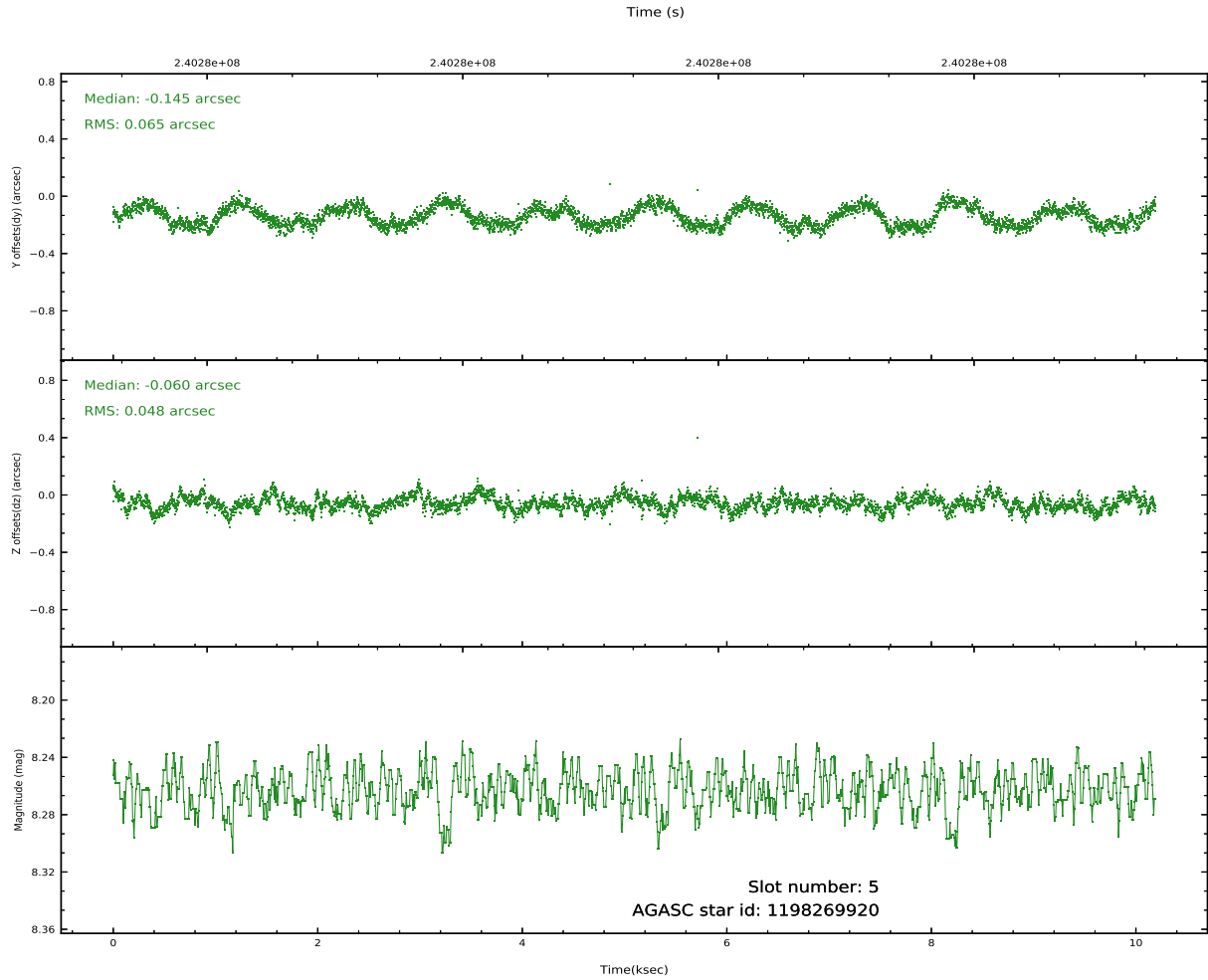
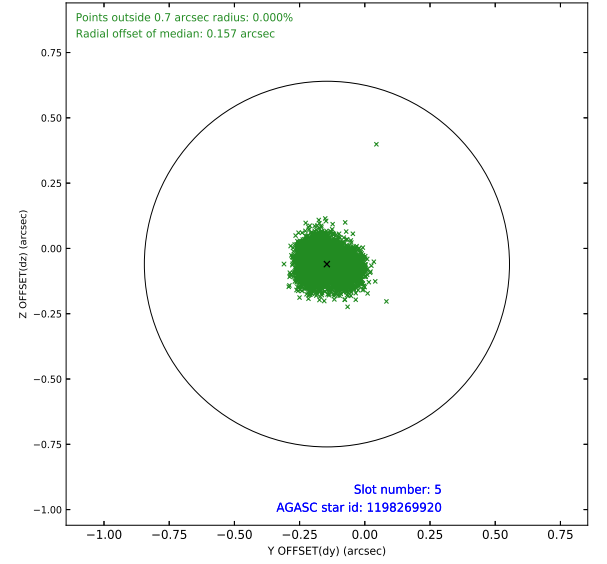
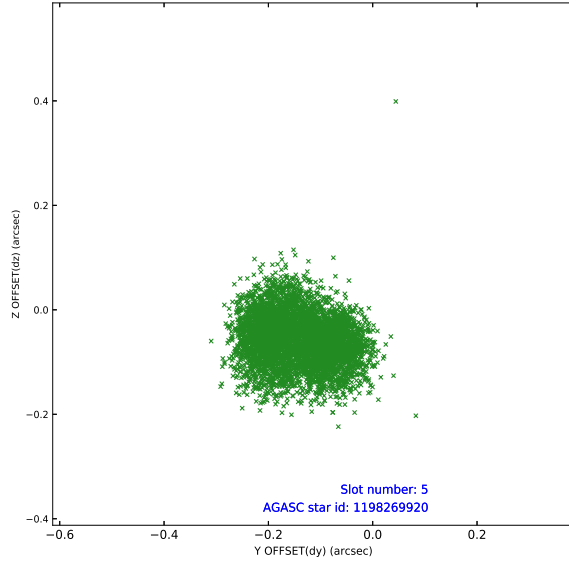
### 2.4.1 Slot 3



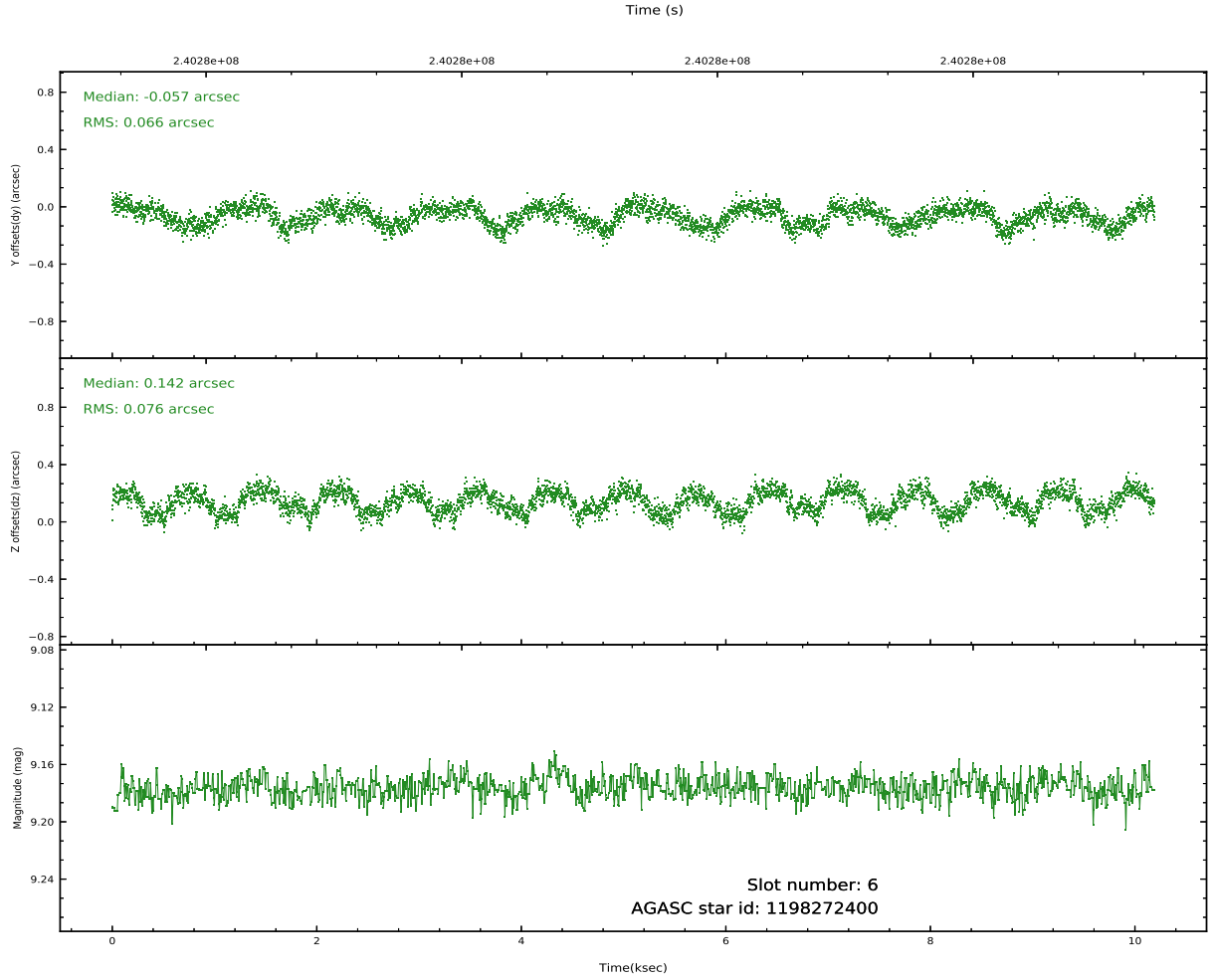
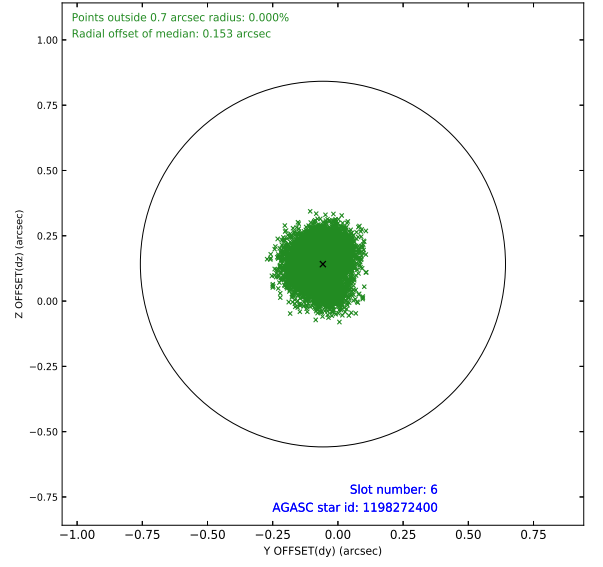
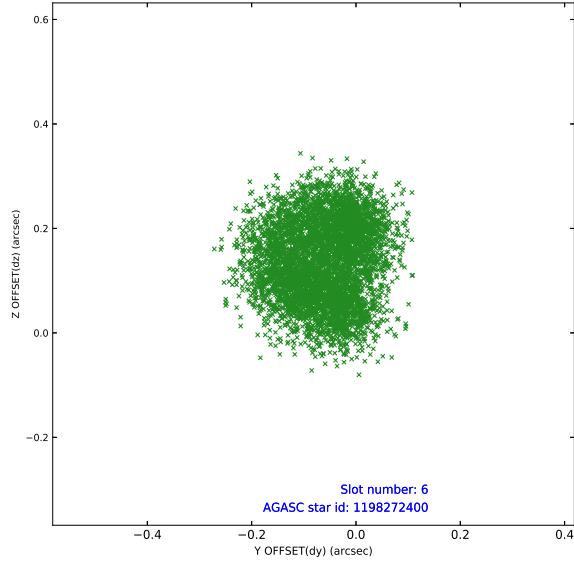
## 2.4.2 Slot 4



### 2.4.3 Slot 5

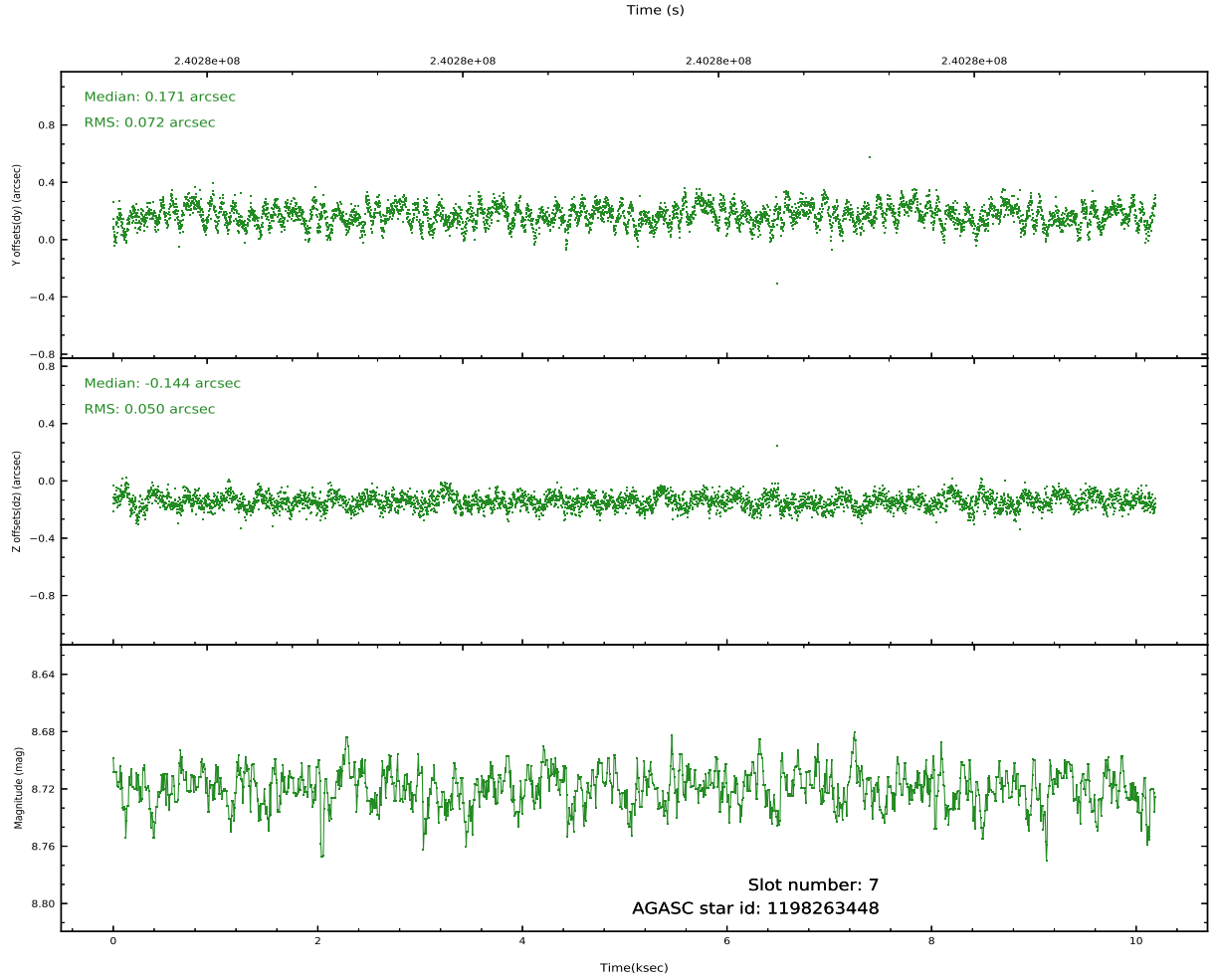
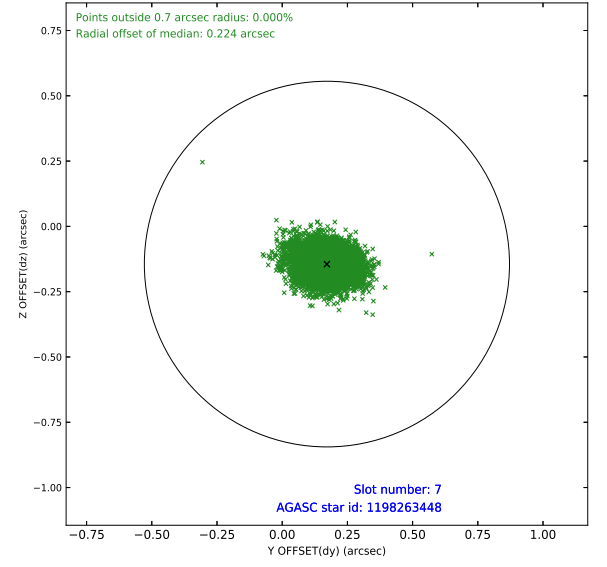
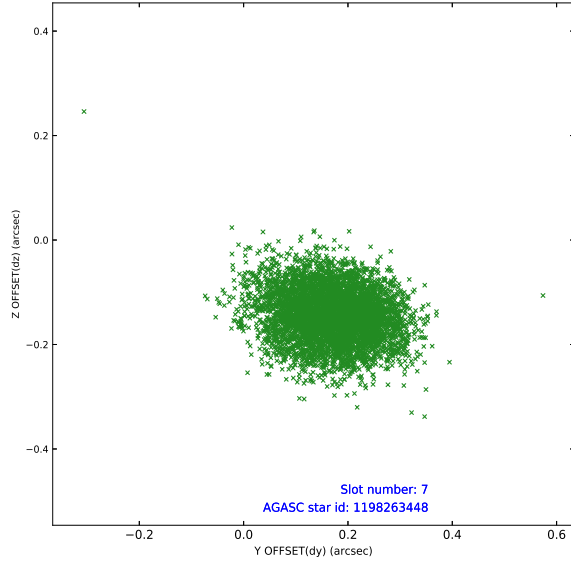


## 2.4.4 Slot 6



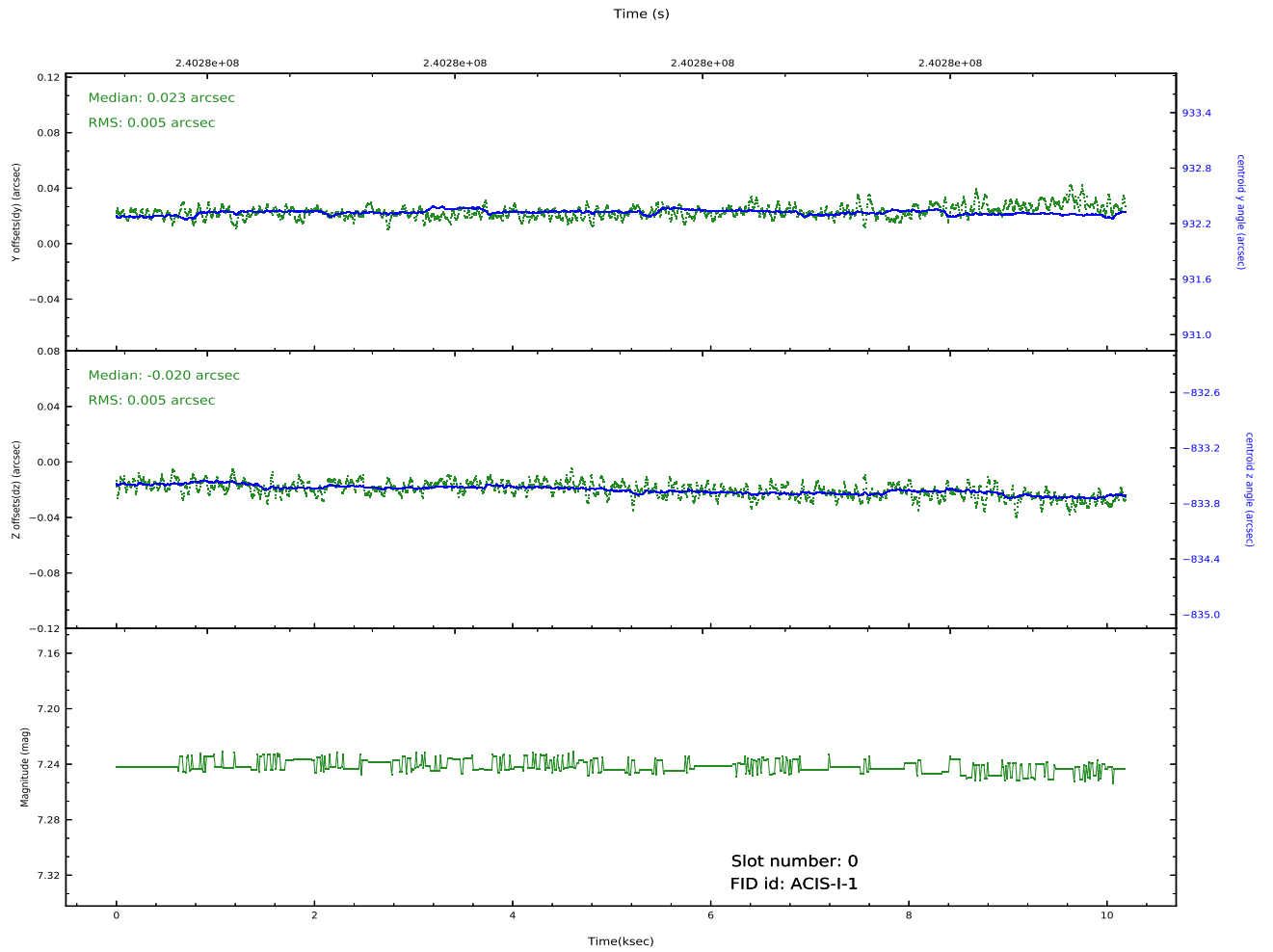
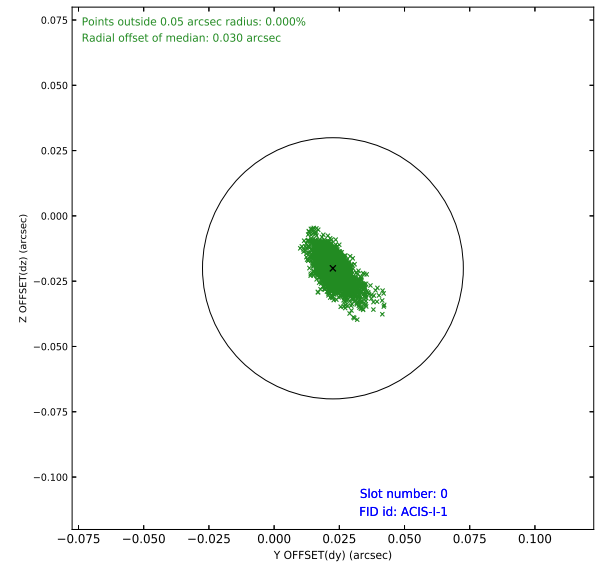
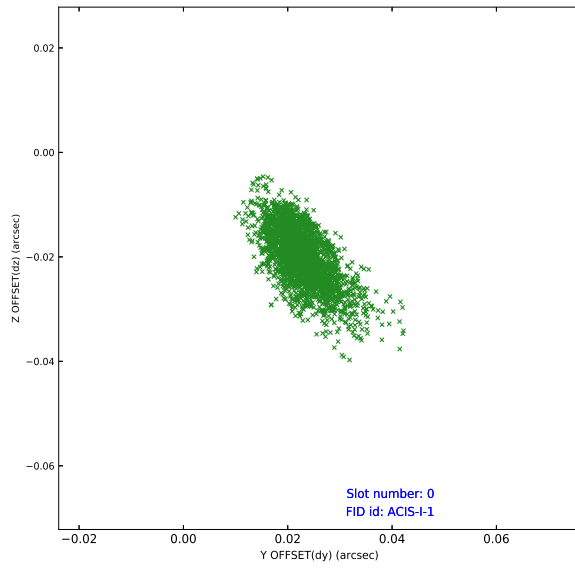


## 2.4.5 Slot 7

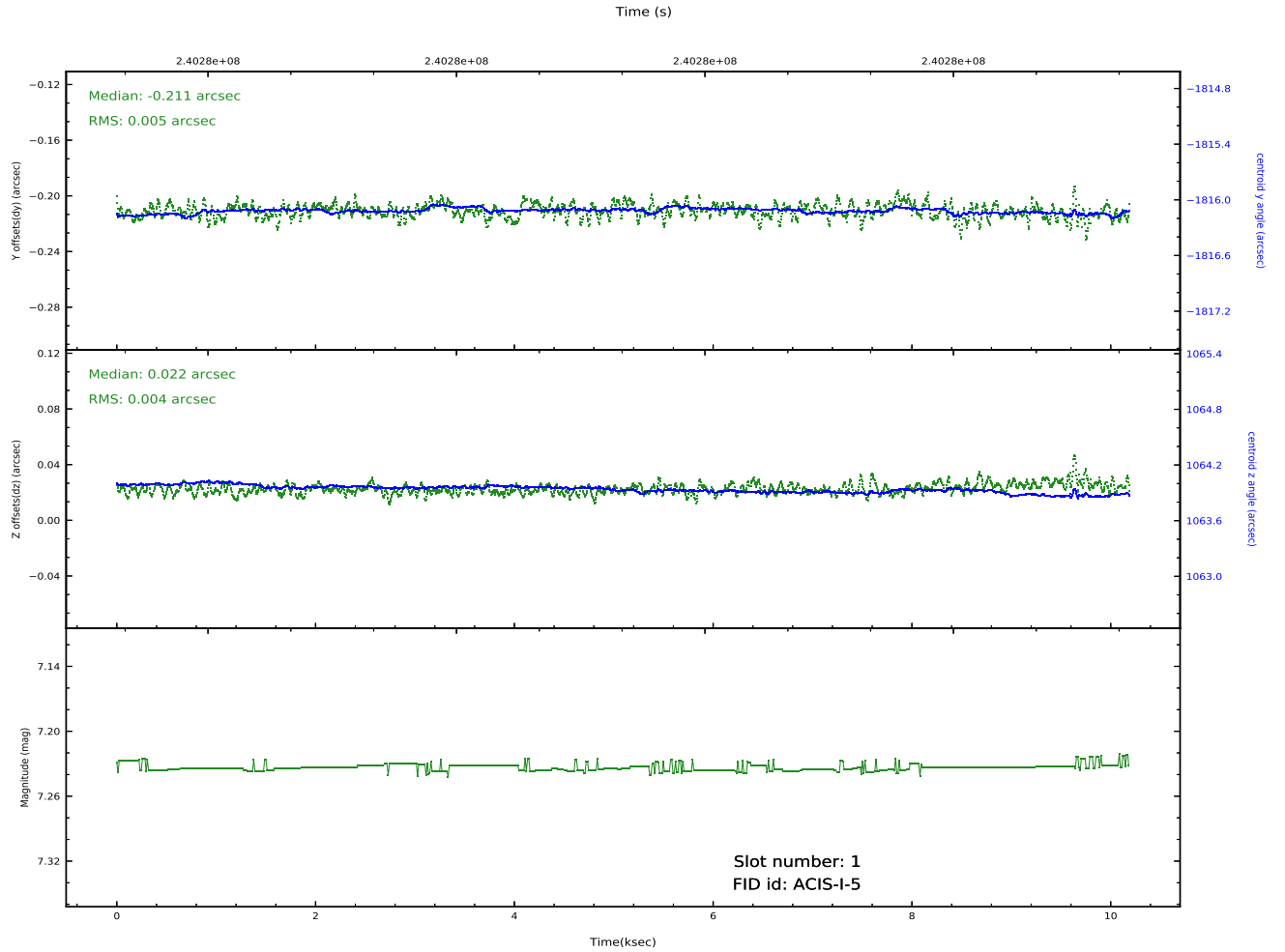
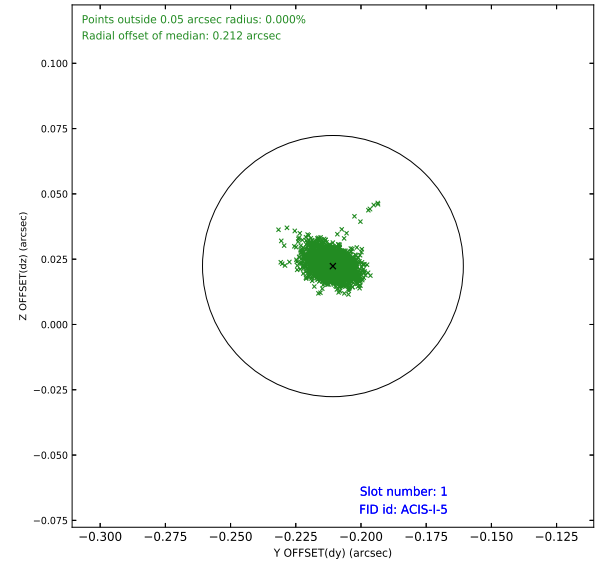
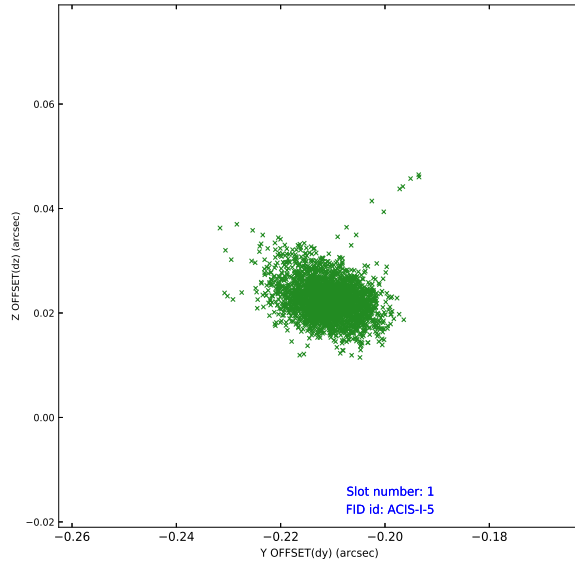


## 2.5 FID Slots

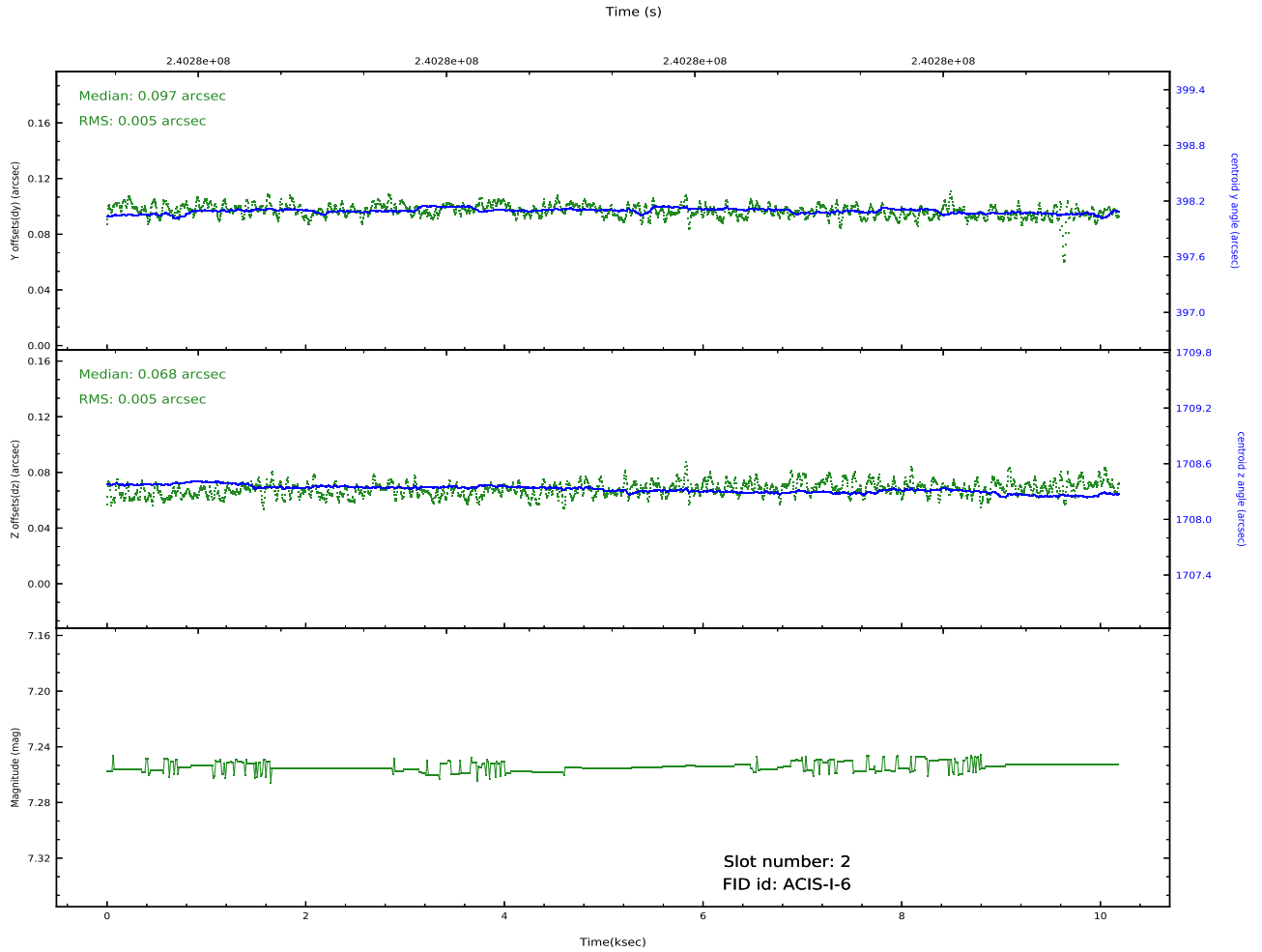
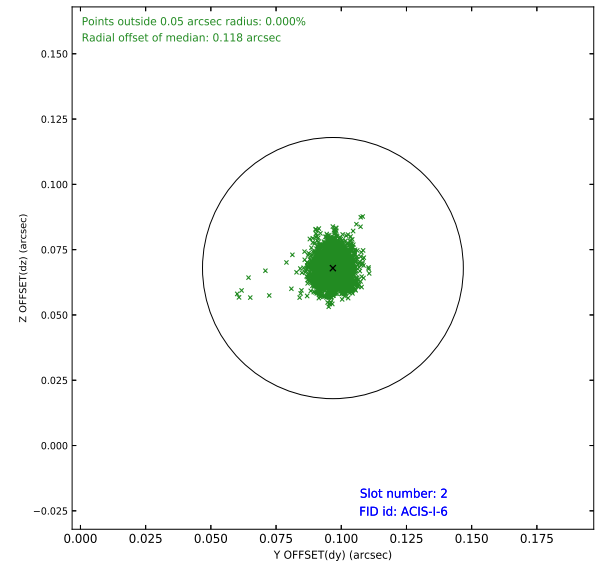
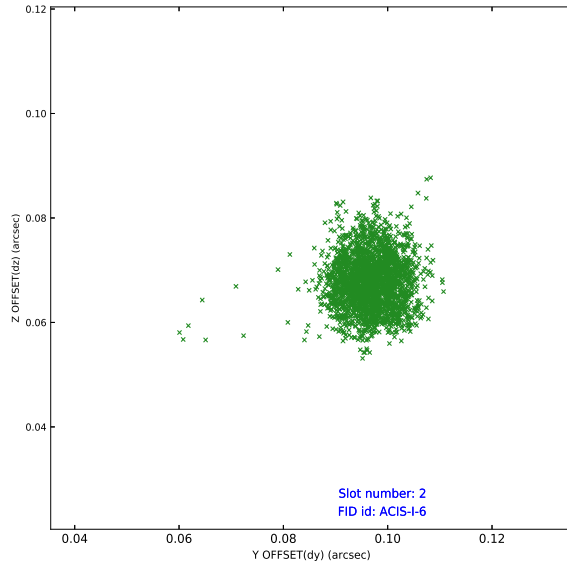
### 2.5.1 Slot 0



## 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)	2020.10.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.1855999

### A.2 Comments