

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 5563 - L2 Version 4  
Chandra X-Ray Center

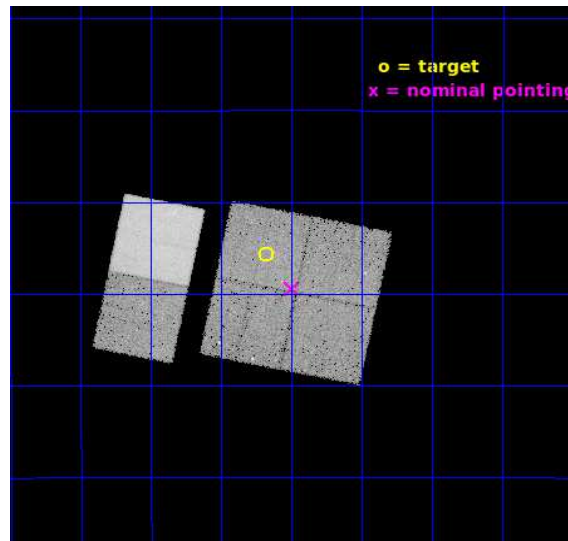
L2 Processing Date : Oct 11 2020

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# 1 Front

seq_num	500552	Sequence number
obs_id	5563	Observation id
title	G20.0-0.2: REVEALING A MODEST CRAB-LIKE SUPERNOVA REMNANT	Proposal
observer	Prof. David Helfand	Principal investigator
object	SNR G20.0-0.2	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	277.044167	Observer's specified target RA [deg]
dec_targ	-11.594667	Observer's specified target Dec [deg]
ra_nom	276.99952805494	Nominal RA [deg]
dec_nom	-11.657007560642	Nominal Dec [deg]
roll_nom	281.48964679274	Nominal Roll [deg]
revision	4	Processing version of data
ontime	35155.158898711	Sum of GTIs [s]
livetime	34710.00310884	Livetime [s]
ontime0	35158.399869025	Sum of GTIs [s]
ontime1	35158.399869025	Sum of GTIs [s]
ontime2	35155.158908725	Sum of GTIs [s]
ontime3	35155.158898711	Sum of GTIs [s]
ontime6	35151.918008149	Sum of GTIs [s]
ontime7	35158.399869025	Sum of GTIs [s]
l2events	194388	Number of level 2 events

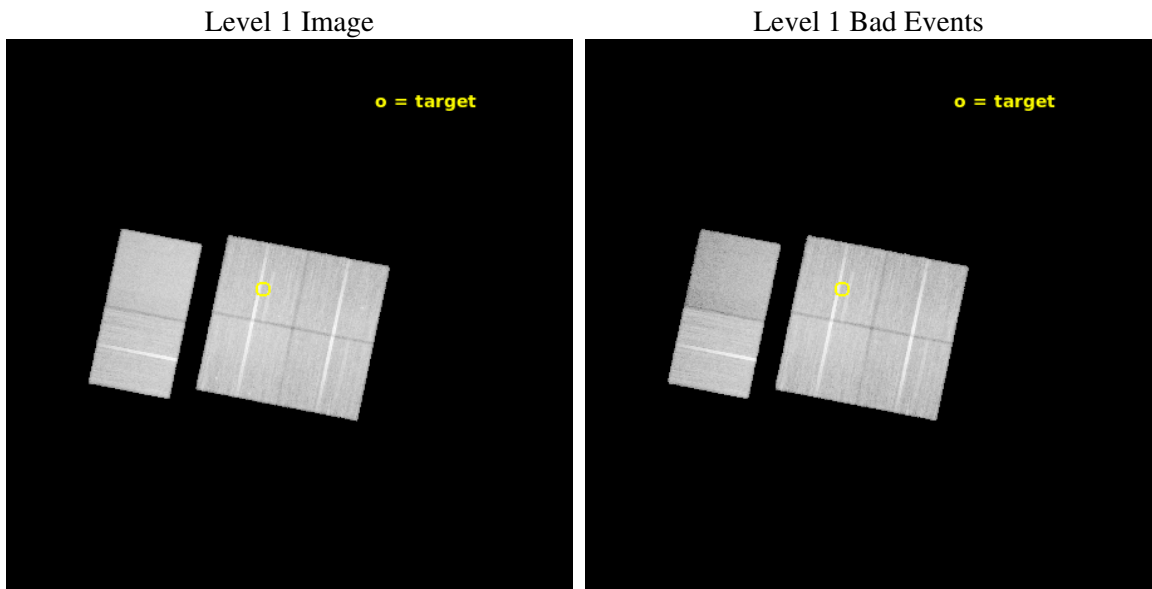




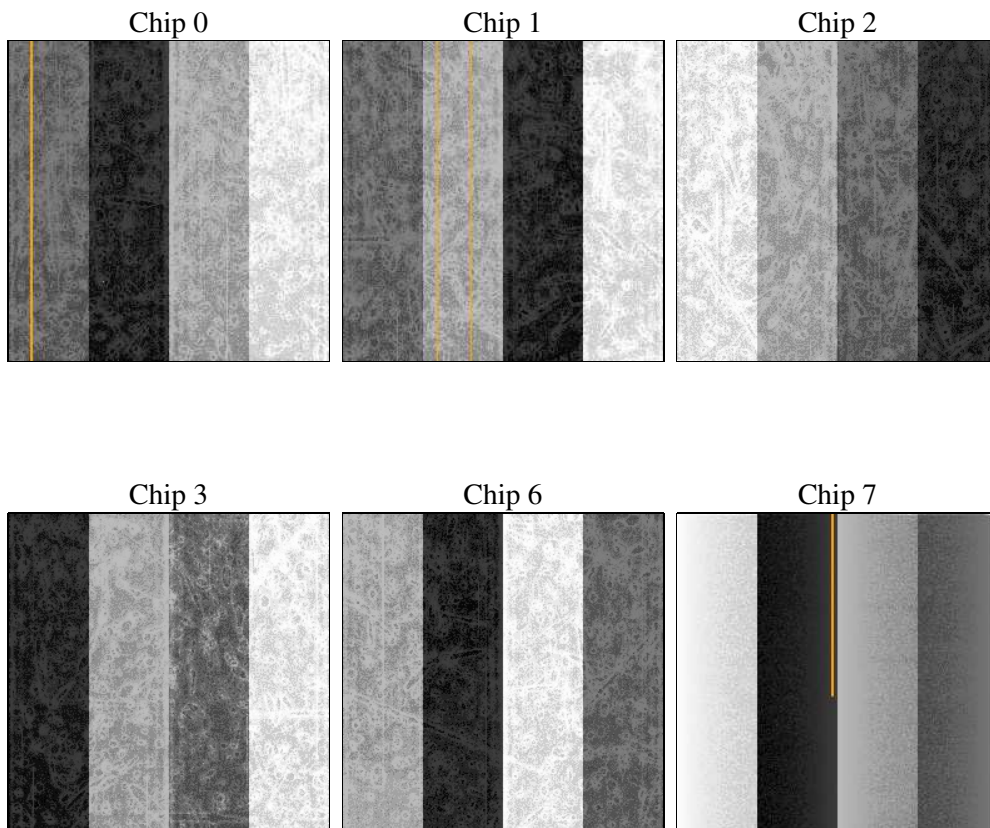
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	35000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	35155.158898711	Sum of GTIs [s]
caldsver	4.9.2	&#160	ontime0	35158.399869025	Sum of GTIs [s]
date	2020-10-11T13:48:38	Date and time of file creation	ontime1	35158.399869025	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	35155.158908725	Sum of GTIs [s]
			ontime3	35155.158898711	Sum of GTIs [s]
			ontime6	35151.918008149	Sum of GTIs [s]
			ontime7	35158.399869025	Sum of GTIs [s]
			l1events	1316203	Number of level 1 events

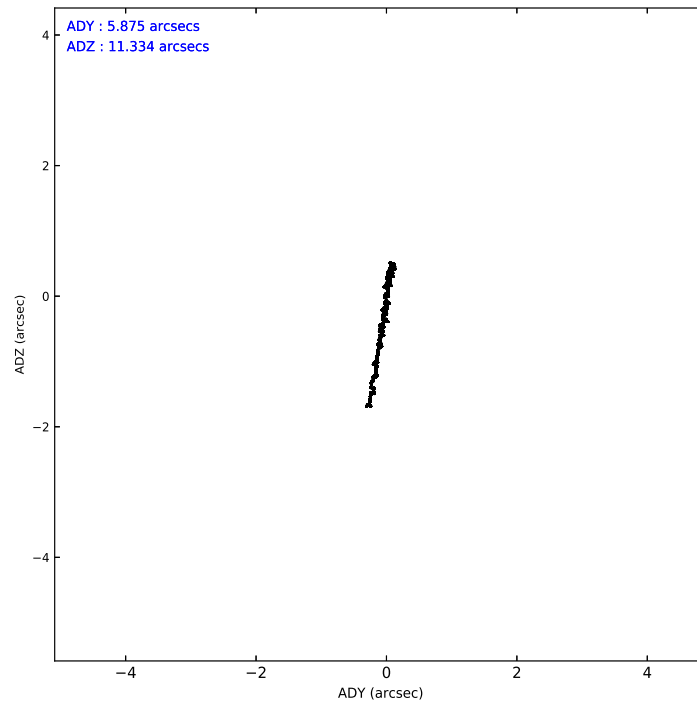
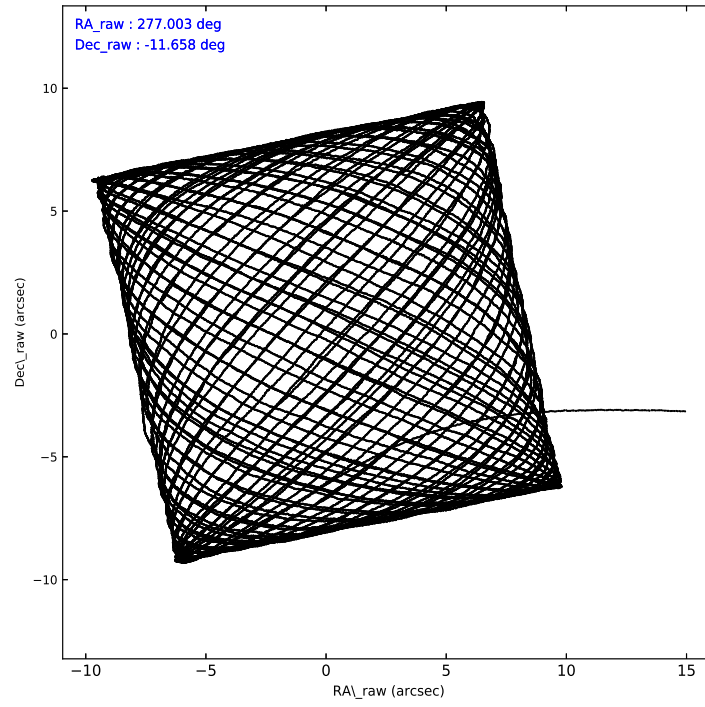
### 2.1.4 Events

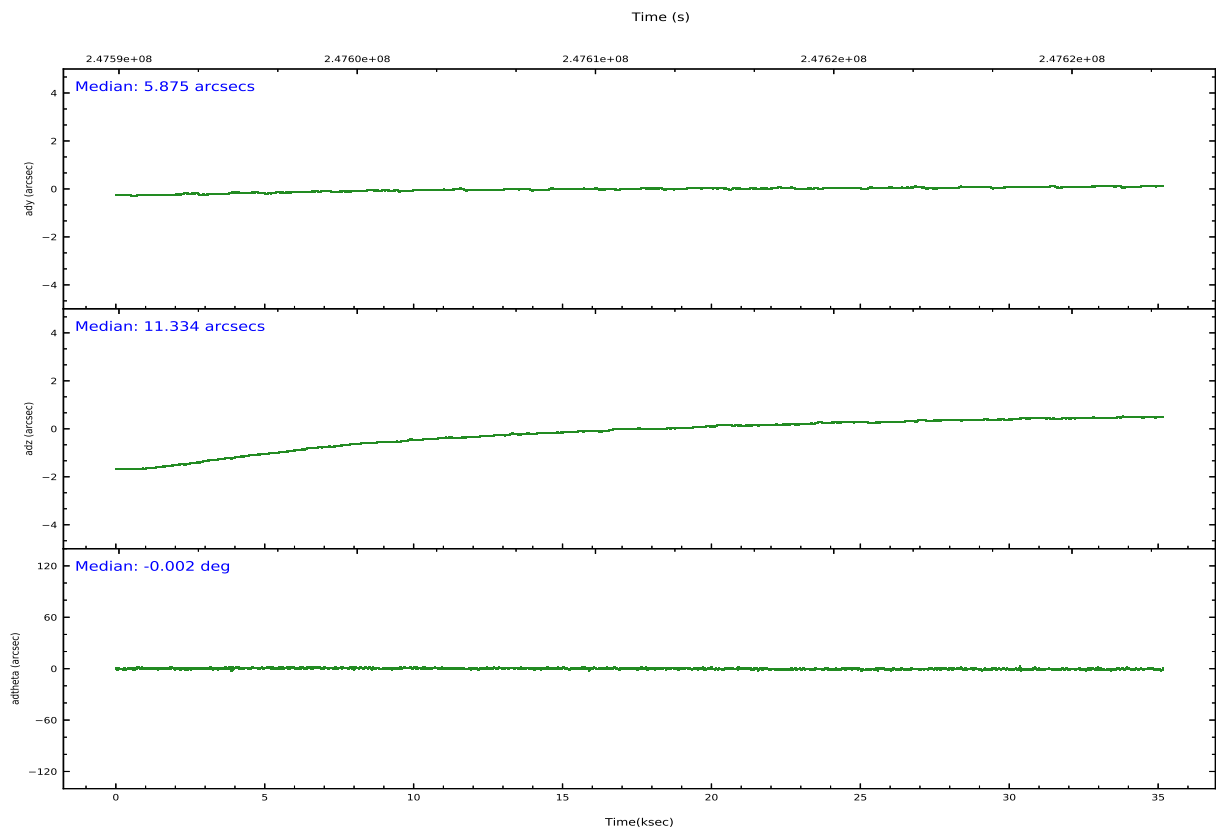
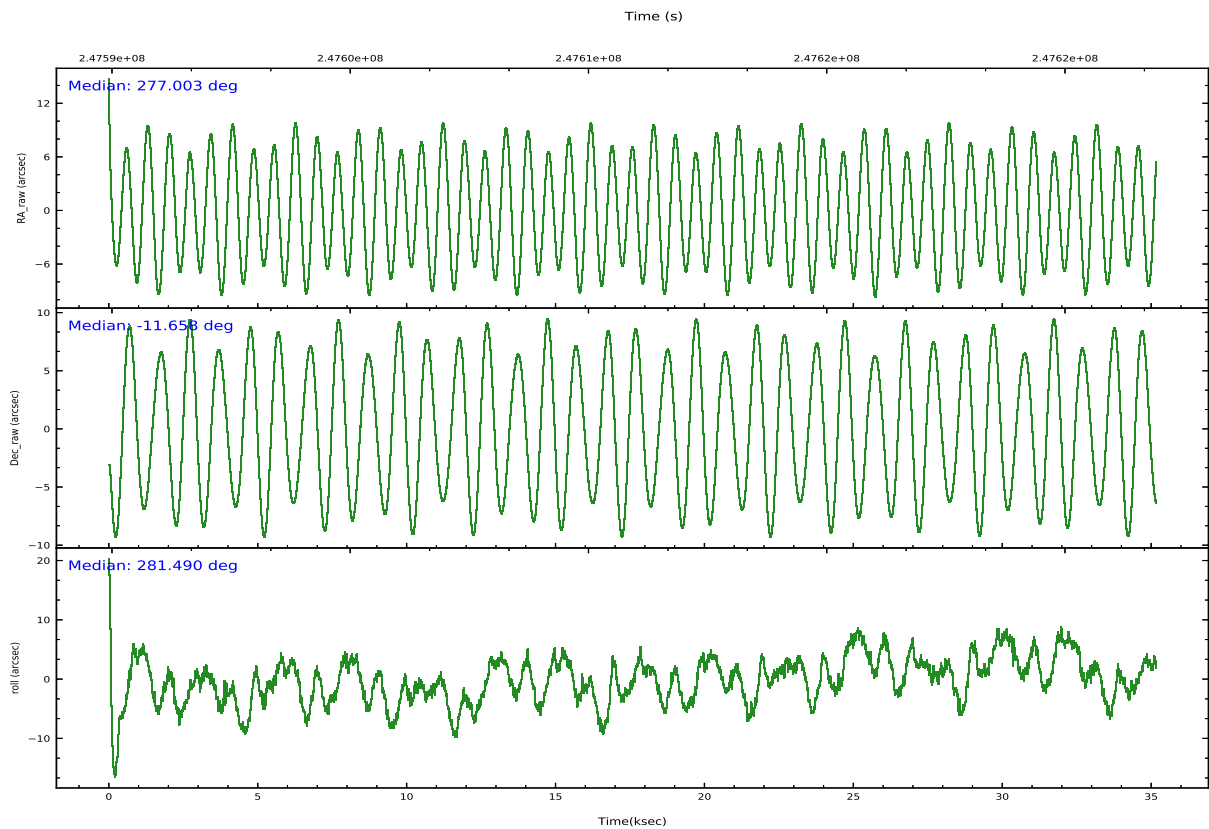
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	207650	203686	243751	221742	228694	210680	grade 0 events	9109	9386	9729	10212	8667	8960
rejected events	185288	179561	220965	198214	205581	112473		4%	4%	3%	4%	3%	4%
rejected %	89%	88%	90%	89%	89%	53%	grade 1 events	101	85	124	141	105	200
								0%	0%	0%	0%	0%	0%
							grade 2 events	4994	5099	4999	4679	4904	18992
								2%	2%	2%	2%	2%	9%
							grade 3 events	2453	2589	2284	2416	2619	8940
								1%	1%	0%	1%	1%	4%
							grade 4 events	2258	2642	2391	2397	2391	9042
								1%	1%	0%	1%	1%	4%
							grade 5 events	6482	7405	5930	7949	8066	22896
								3%	3%	2%	3%	3%	10%
							grade 6 events	3860	4717	3655	4102	4829	53491
								1%	2%	1%	1%	2%	25%
							grade 7 events	178393	171763	214639	189846	197113	88159
								85%	84%	88%	85%	86%	41%

## 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	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	276.984550	276.99952805494	Subarray requested	NONE	NONE
[deg] Pointing Dec	-11.637591	-11.657007560642	Alternating exposures requested	N	N
[deg] Pointing Roll	281.283533	281.48964679274	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.782348	-0.7823481983384333			
[mm] SIM defocus	0	1.724155329618782e-08			
[mm] SIM translation stage pos	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	247592060.184000	247590767.22832			
Observation start date	2005-11-05T15:33:16	2005-11-05T15:12:47			
[s] Observation end time (MET)	247627060.184000	247628111.05504			
Observation end date	2005-11-06T01:16:36	2005-11-06T01:35:11			
Read mode	TIMED	TIMED			

## 2.3 Aspect



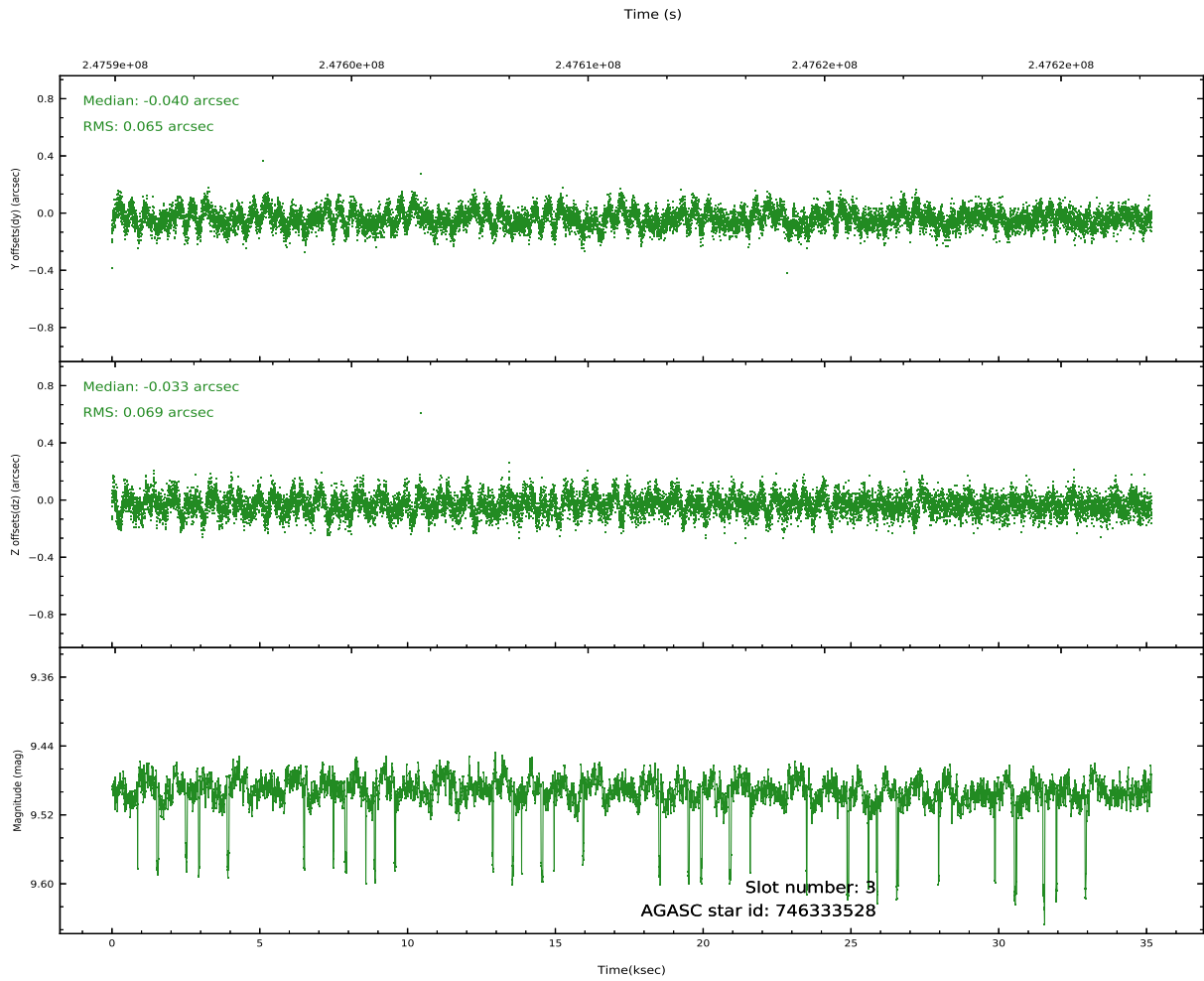
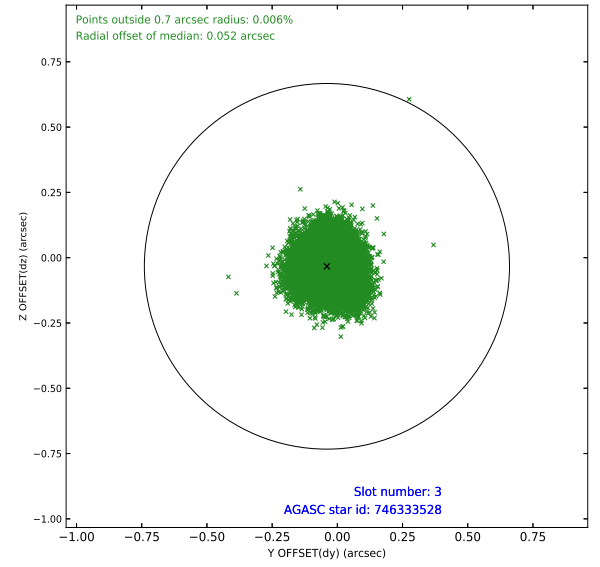
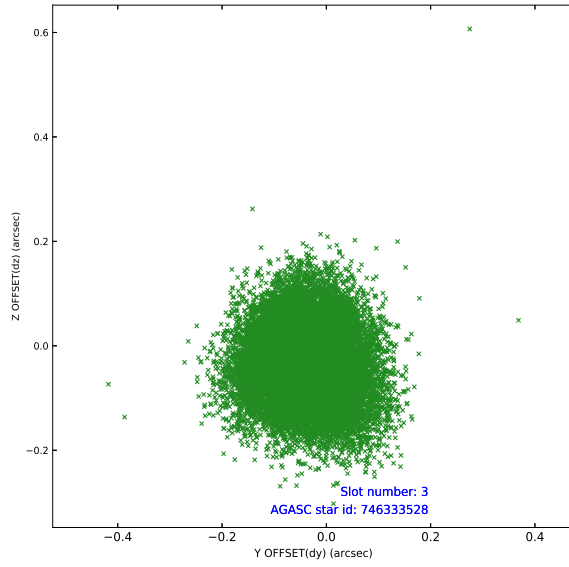


Slot Statistics

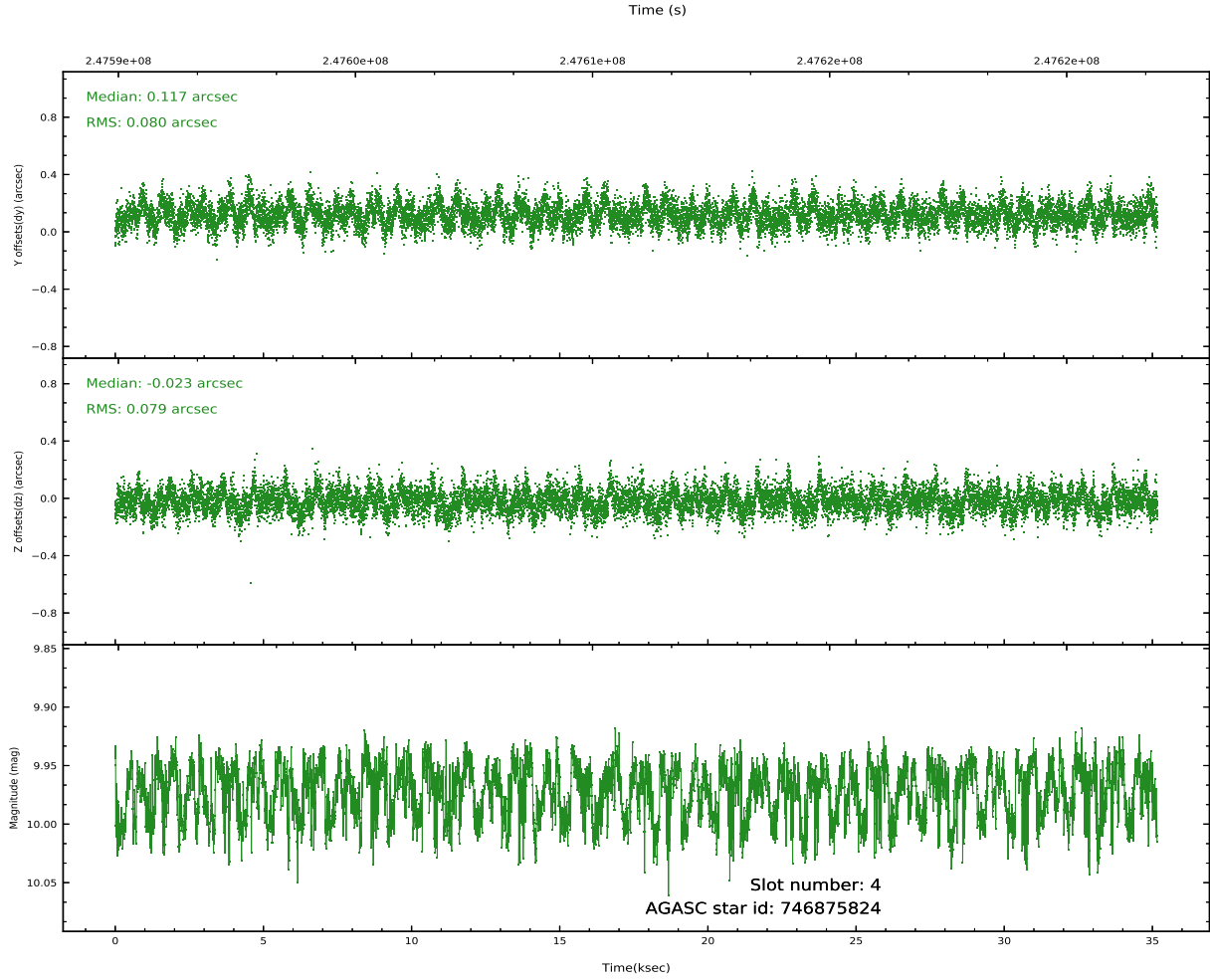
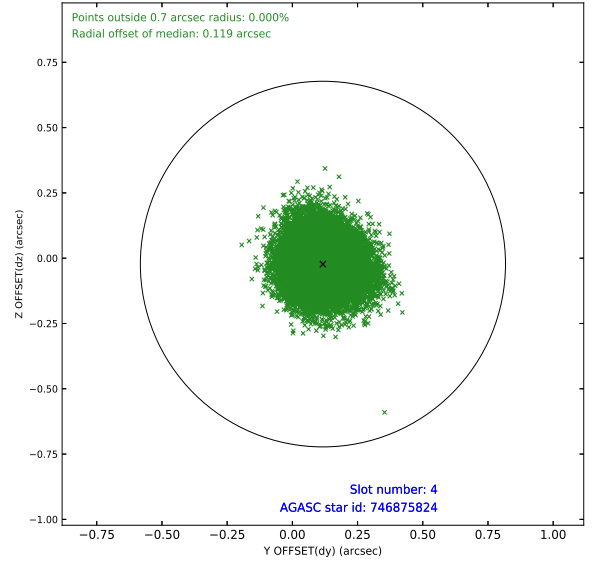
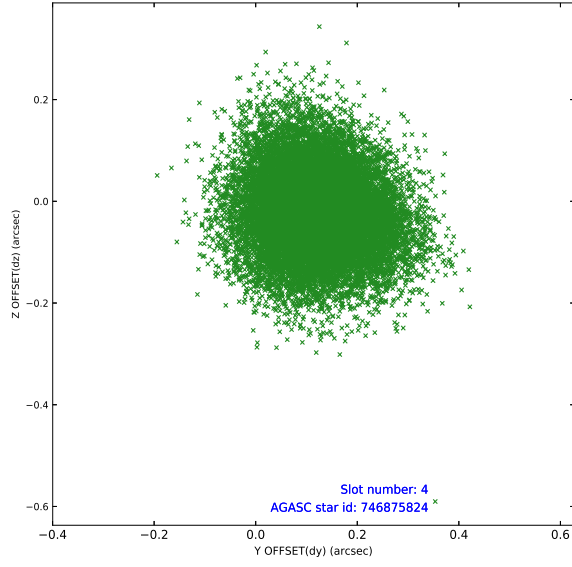
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-4	7.17	8576	1.000	0.085	0.057	0.018	0.035	0.000000	0.000000	2153.90	1065
1	FID		ACIS-I-5	7.23	8578	1.000	-0.232	0.032	0.014	0.027	0.000000	0.000000	-1814.32	1063
2	FID		ACIS-I-6	7.25	8578	1.000	0.047	-0.022	0.029	0.056	0.000000	0.000000	399.40	1707
3	GUIDE	used	746333528	9.49	17058	1.000	-0.040	-0.033	0.101	0.162	276.260240	-11.194646	-2060.68	-2197
4	GUIDE	used	746875824	9.97	17127	1.000	0.117	-0.023	0.120	0.194	276.821705	-11.868839	704.65	-725
5	GUIDE	used	746879016	8.66	17147	1.000	-0.031	0.068	0.069	0.111	276.761226	-11.412176	-949.38	-613
6	GUIDE	used	746885112	8.08	17156	1.000	0.005	-0.004	0.062	0.097	276.677725	-11.356892	-1202.01	-864
7	GUIDE	used	746888840	9.63	17088	1.000	-0.056	-0.014	0.107	0.176	277.153434	-11.799400	687.95	470

## 2.4 Star Slots

### 2.4.1 Slot 3

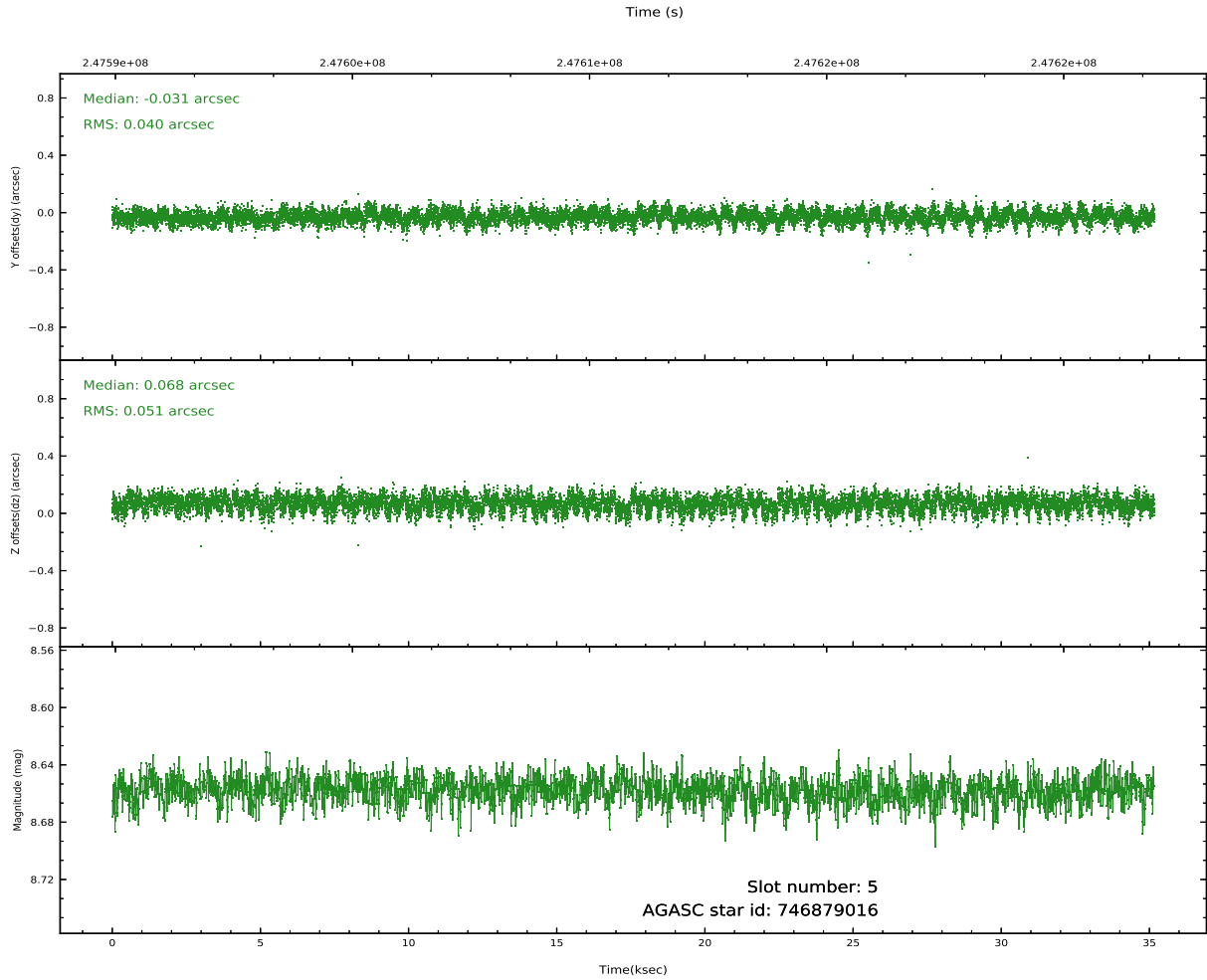
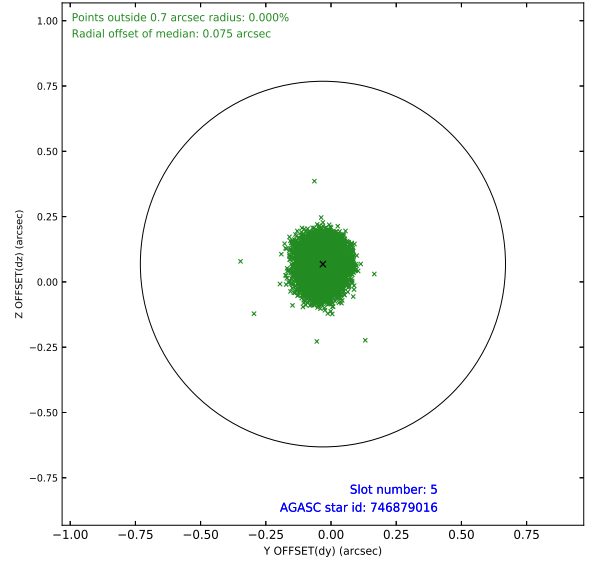
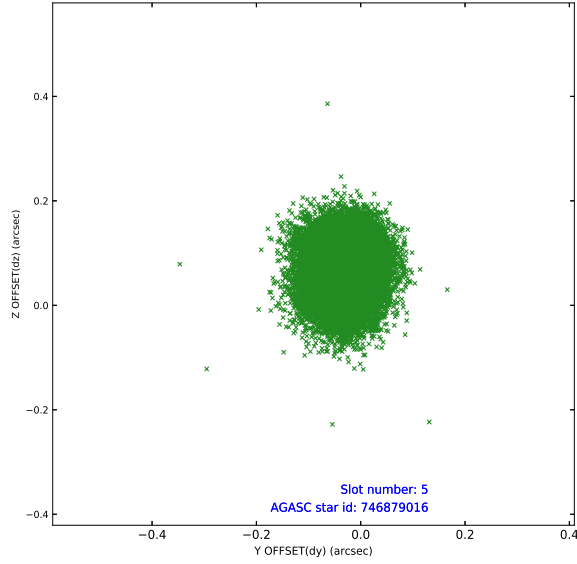


## 2.4.2 Slot 4

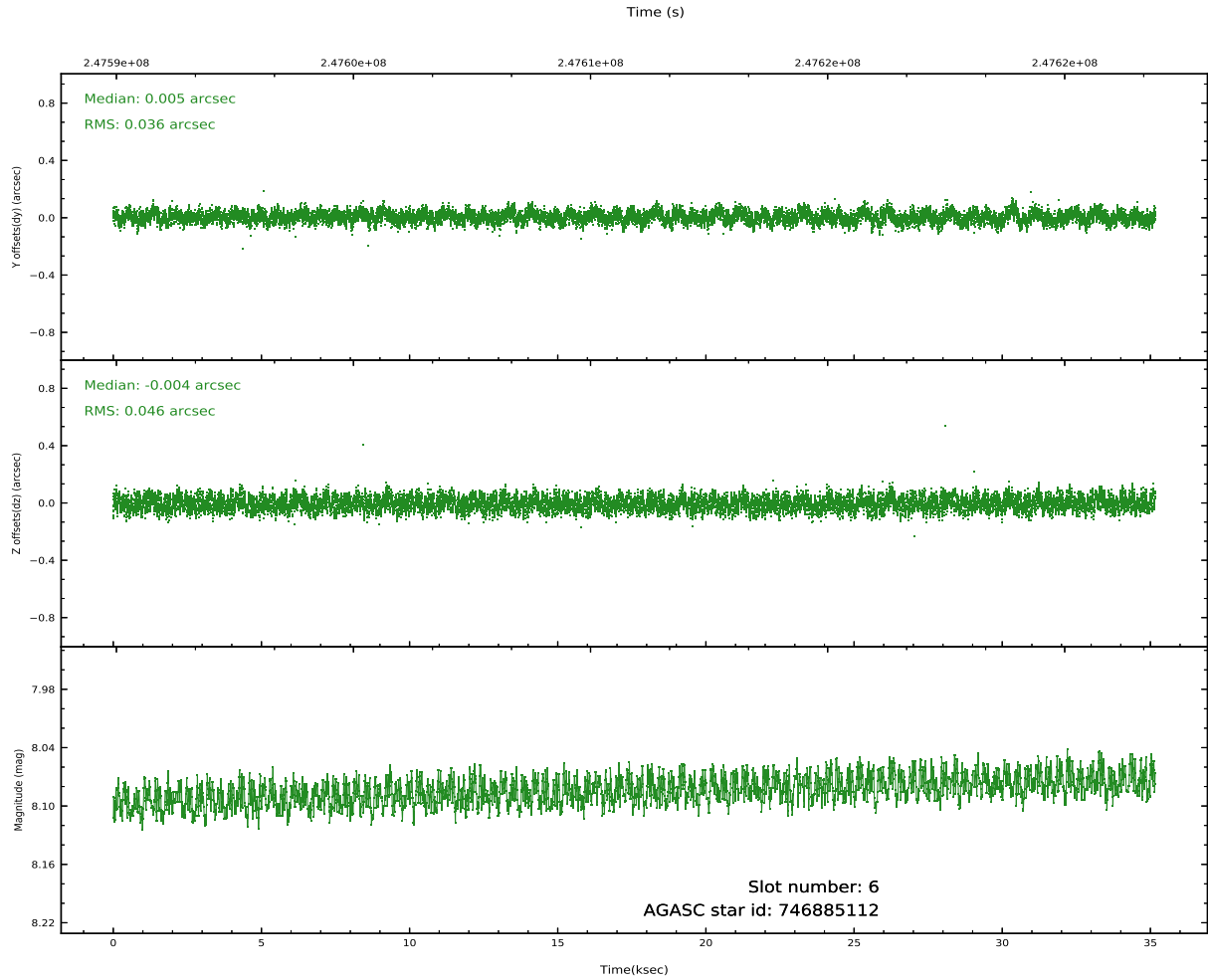
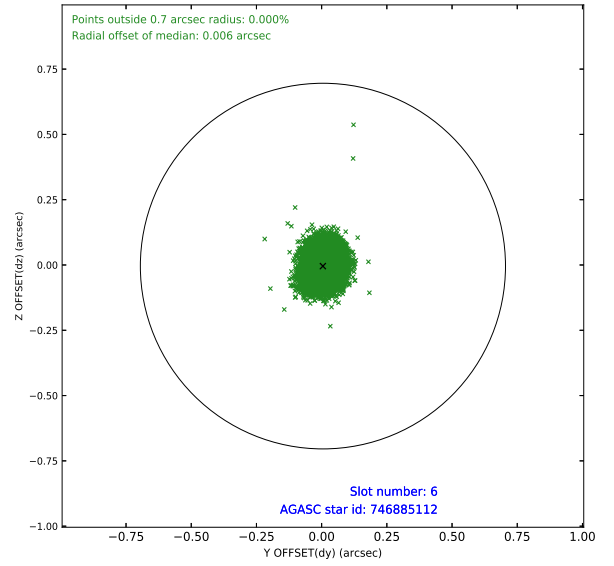
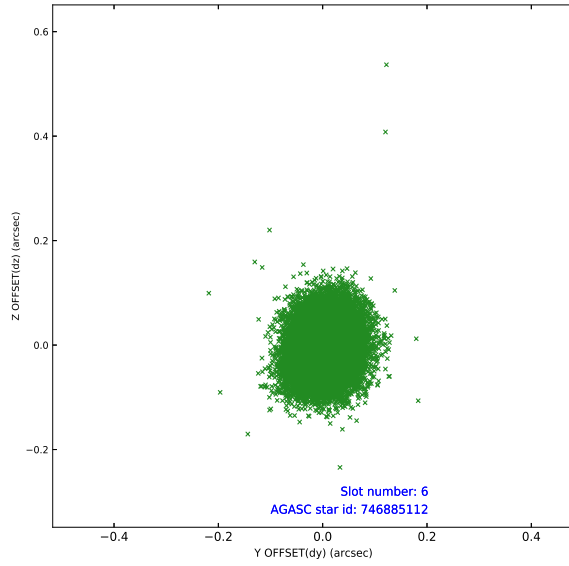




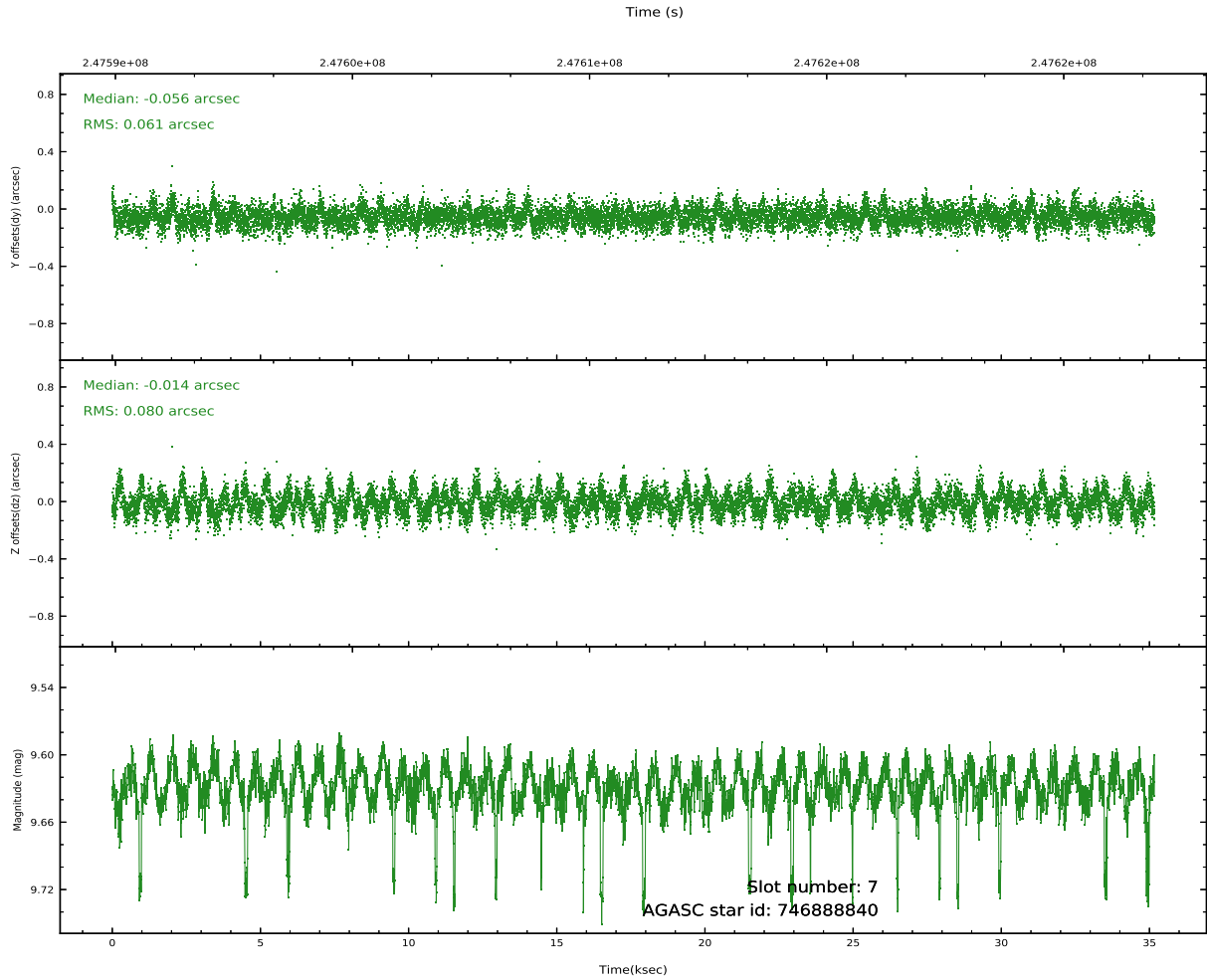
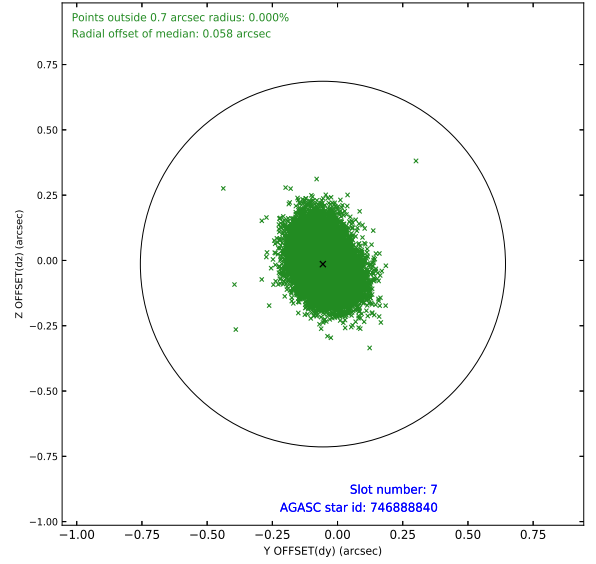
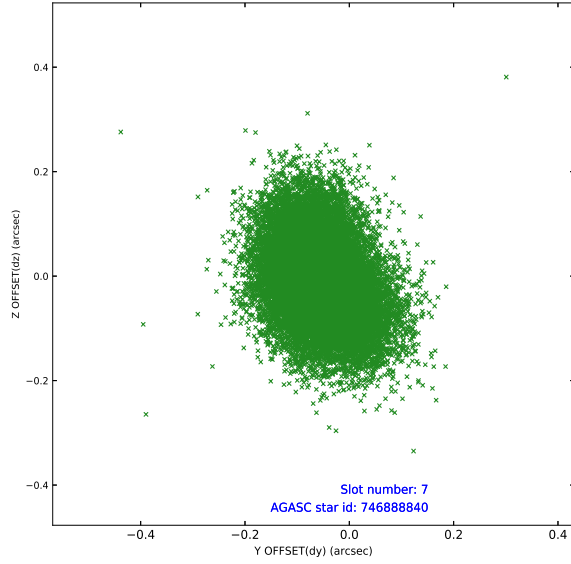
### 2.4.3 Slot 5



## 2.4.4 Slot 6

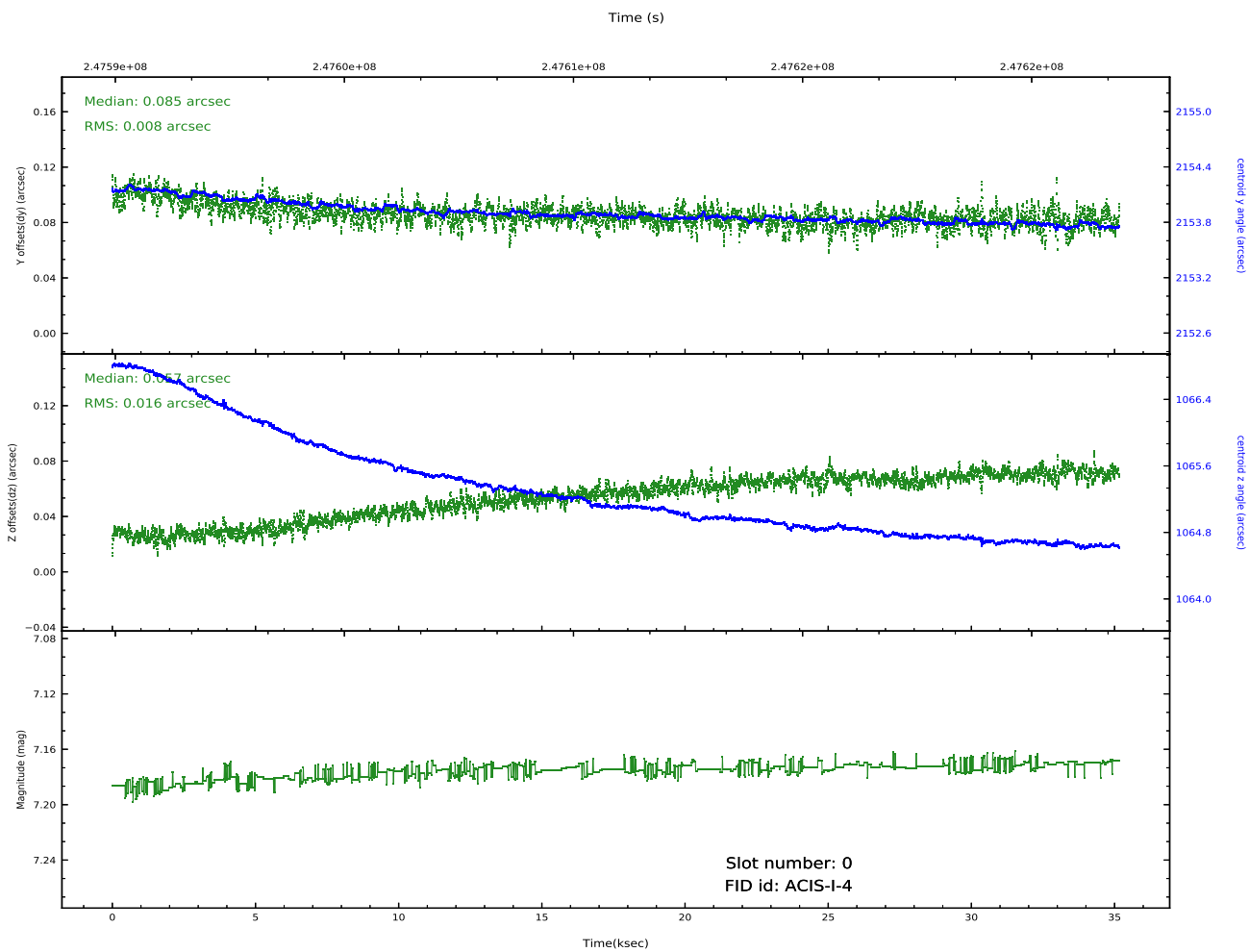
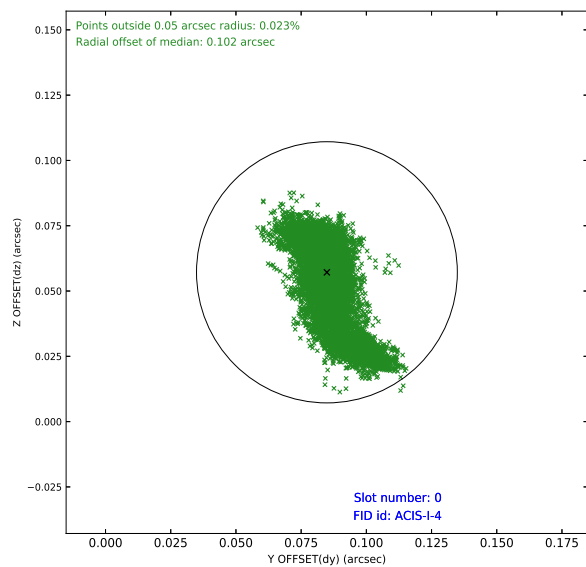
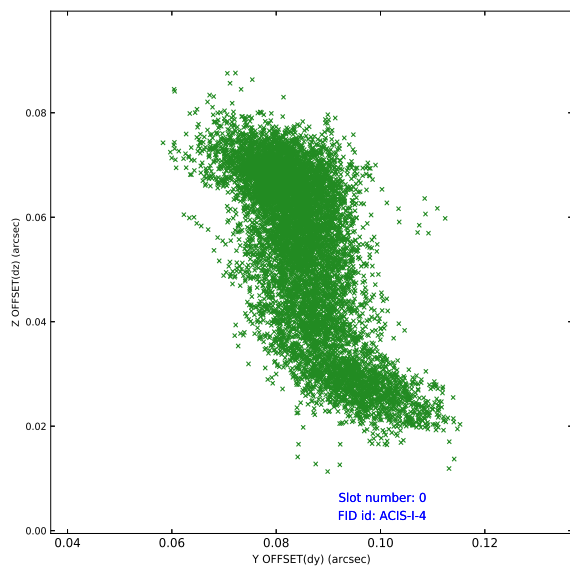


## 2.4.5 Slot 7

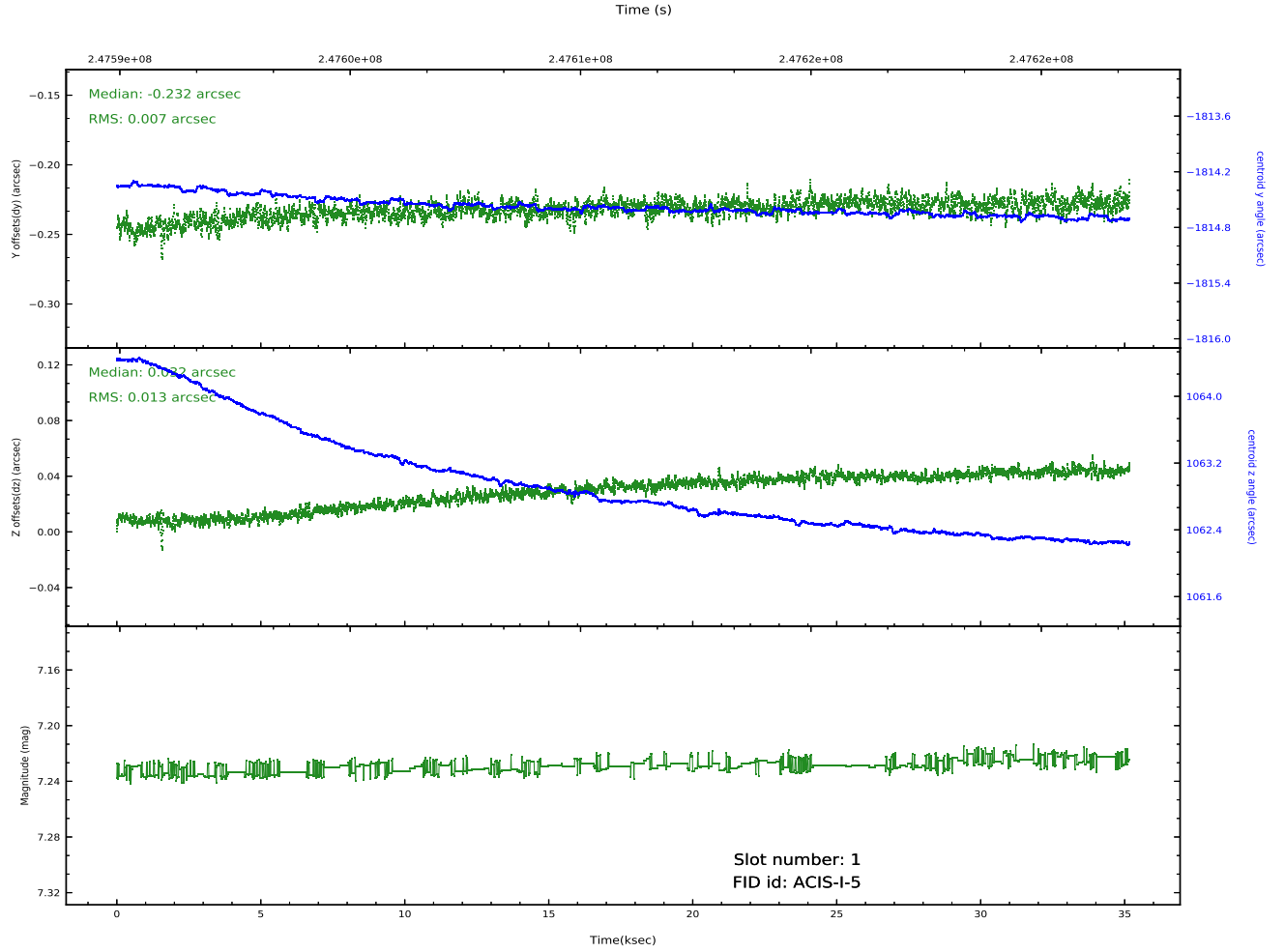
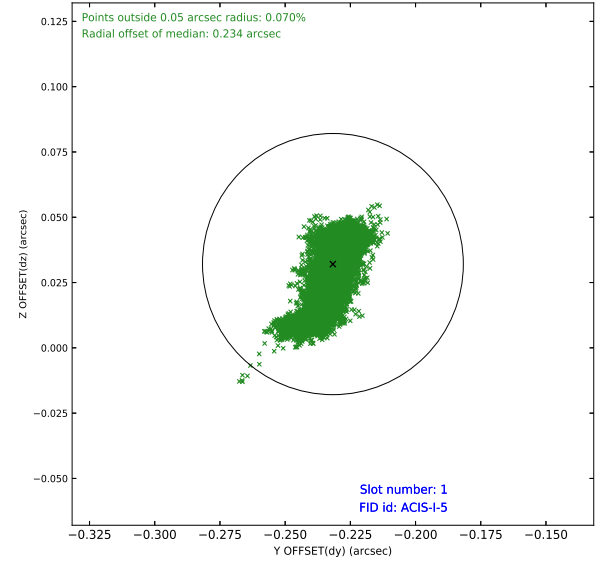
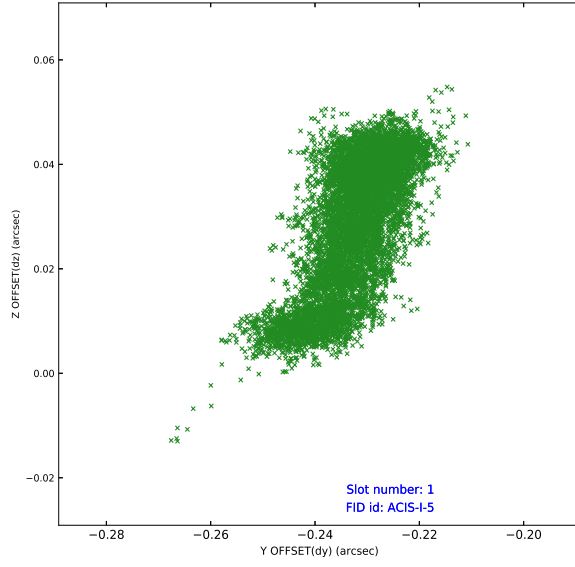


## 2.5 FID Slots

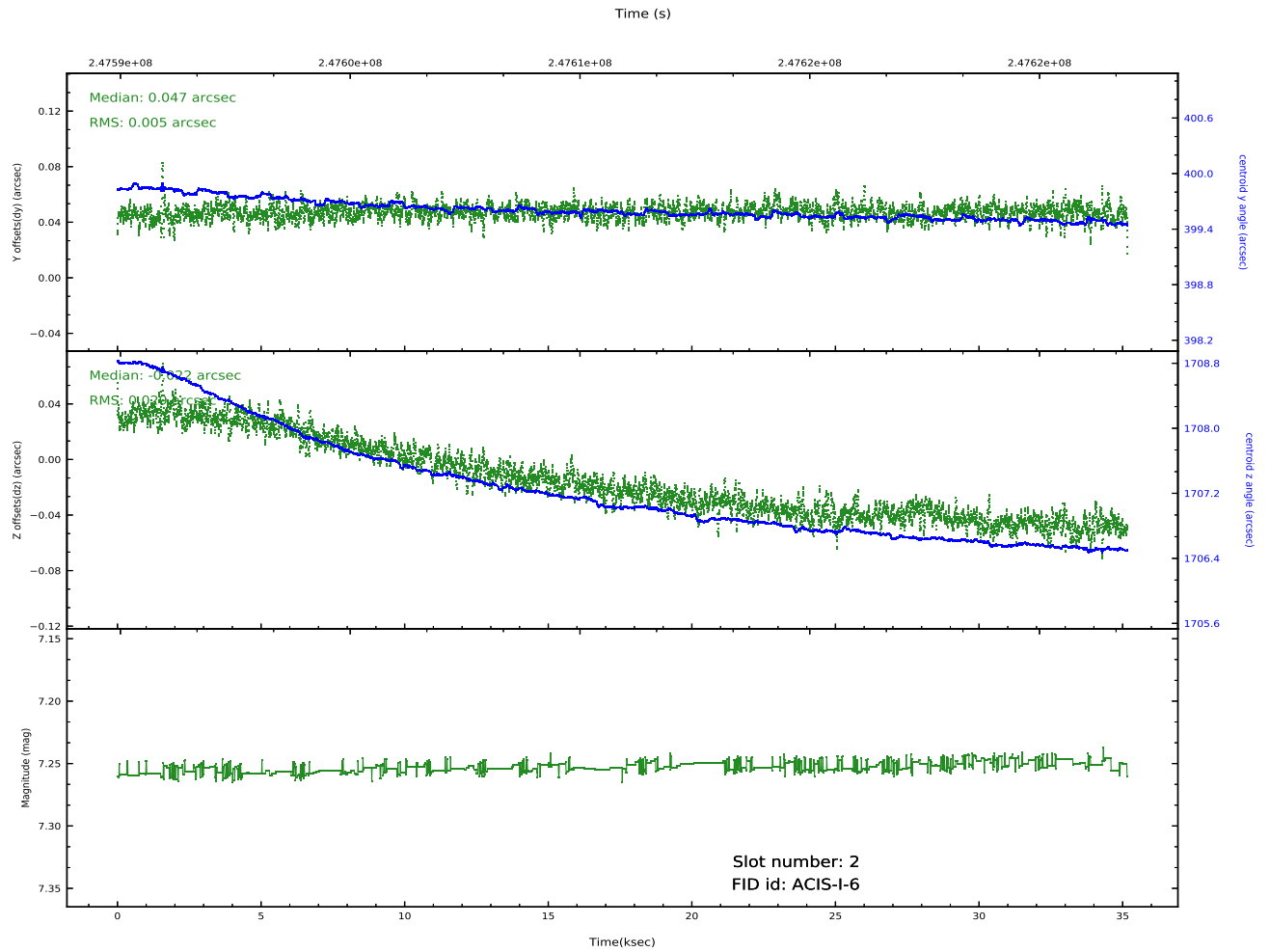
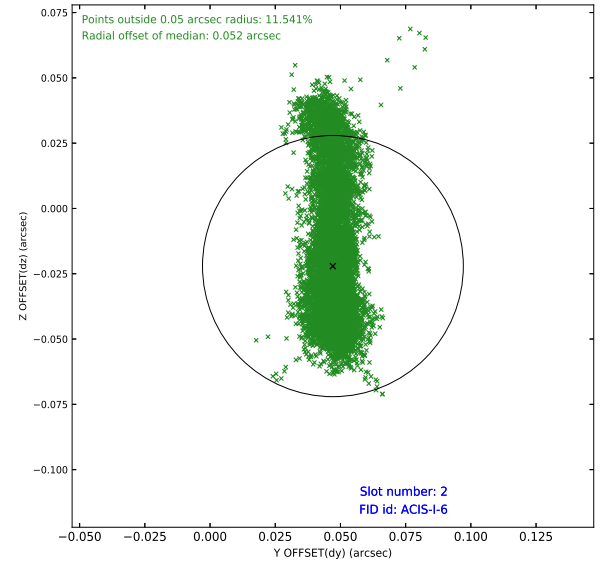
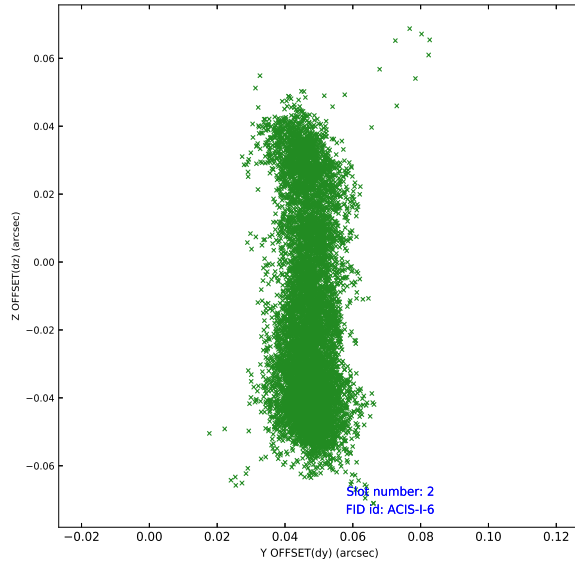
### 2.5.1 Slot 0



## 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	35.15515

### **A.2 Comments**