

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 5188 - L2 Version 4  
Chandra X-Ray Center

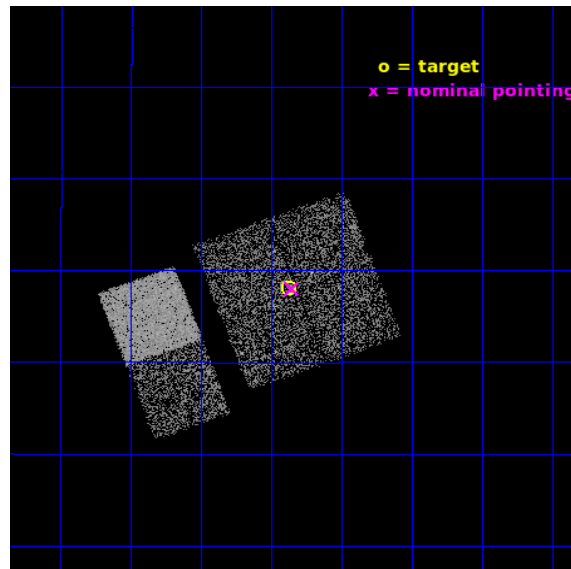
L2 Processing Date : Sep 25 2020

## Contents

<b>1</b>	<b>Front</b>	<b>2</b>
<b>2</b>	<b>OBI</b>	<b>3</b>
2.1	OBI . . . . .	3
2.1.1	Images . . . . .	3
2.1.2	Bias . . . . .	3
2.1.3	Parameters . . . . .	4
2.1.4	Events . . . . .	4
2.2	Compared Parameters . . . . .	5
2.3	Aspect . . . . .	6
2.4	Star Slots . . . . .	9
2.4.1	Slot 3 . . . . .	9
2.4.2	Slot 4 . . . . .	10
2.4.3	Slot 5 . . . . .	11
2.4.4	Slot 6 . . . . .	12
2.4.5	Slot 7 . . . . .	13
2.5	FID Slots . . . . .	14
2.5.1	Slot 0 . . . . .	14
2.5.2	Slot 1 . . . . .	15
2.5.3	Slot 2 . . . . .	16
<b>A</b>	<b>Summary</b>	<b>17</b>
A.1	Status . . . . .	17
A.2	Comments . . . . .	17

# 1 Front

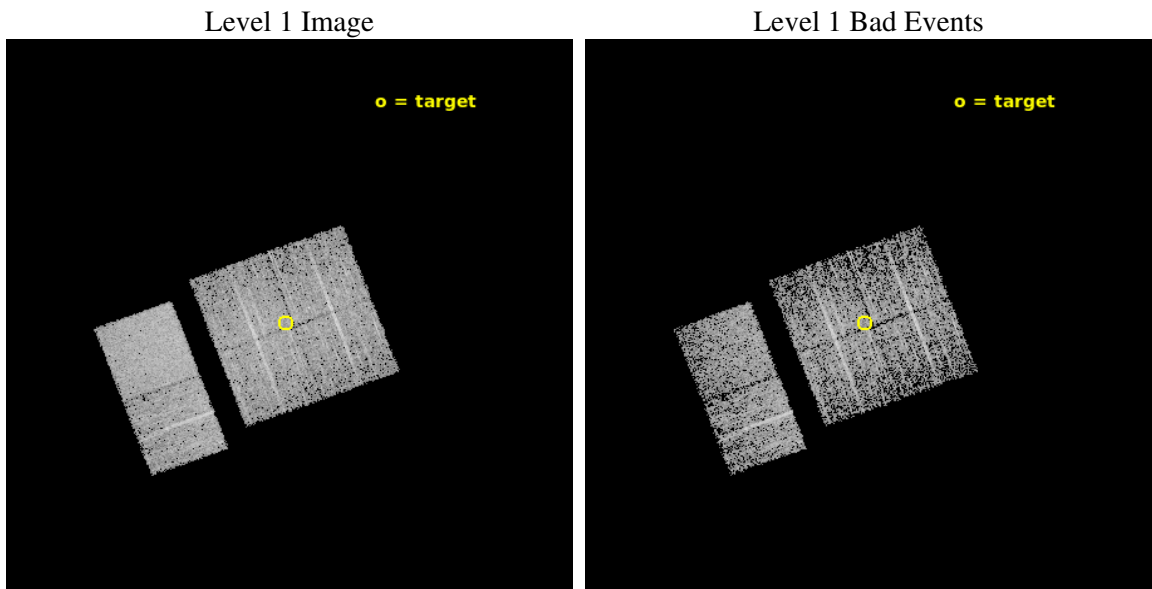
seq_num	200296	Sequence number
obs_id	5188	Observation id
title	Search for beta Pic analogs	Proposal title
observer	Gordon Garmire	Principal investigator
object	Regulus	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	152.09375	Observer's specified target RA [deg]
dec_targ	11.967222	Observer's specified target Dec [deg]
ra_nom	152.08852040255	Nominal RA [deg]
dec_nom	11.96675038313	Nominal Dec [deg]
roll_nom	249.52915571944	Nominal Roll [deg]
revision	4	Processing version of data
ontime	3138.4312397242	Sum of GTIs [s]
livetime	3098.6905336304	Livetime [s]
ontime0	3138.3081197441	Sum of GTIs [s]
ontime1	3138.3491597176	Sum of GTIs [s]
ontime2	3138.3901997209	Sum of GTIs [s]
ontime3	3138.4312397242	Sum of GTIs [s]
ontime6	3138.5133197308	Sum of GTIs [s]
ontime7	3138.4722797275	Sum of GTIs [s]
l2events	23952	Number of level 2 events



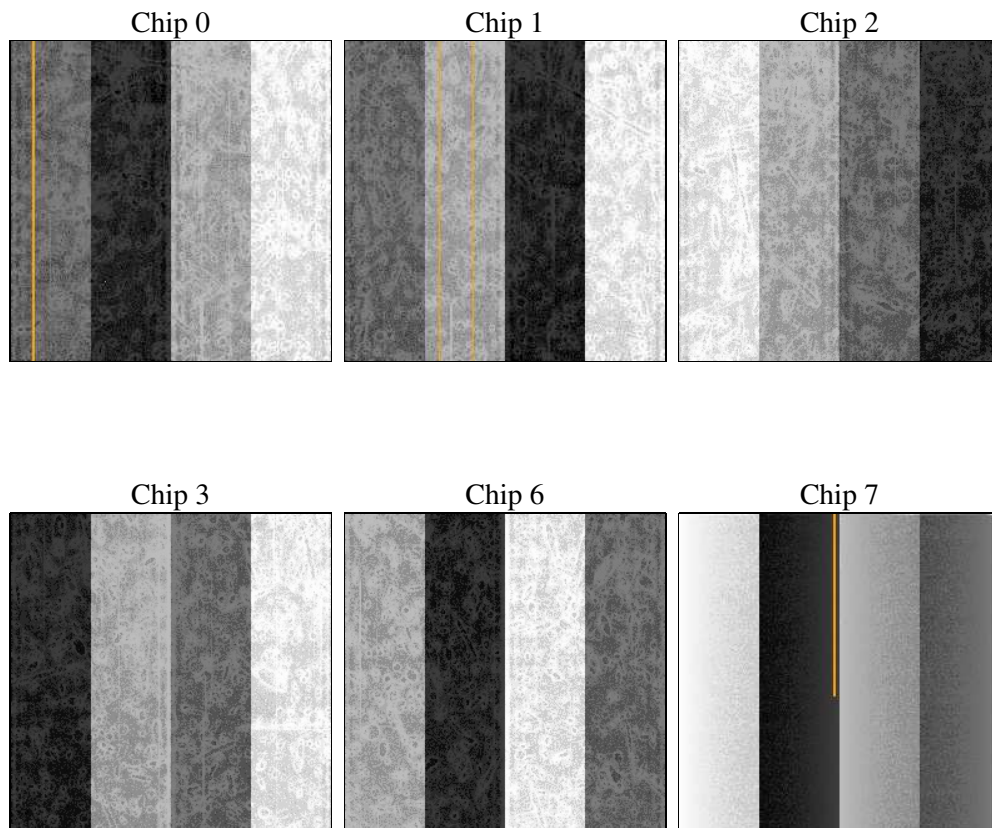
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	3050.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	3138.4312397242	Sum of GTIs [s]
caldsver	4.9.2	&#160	ontime0	3138.3081197441	Sum of GTIs [s]
date	2020-09-25T18:15:52	Date and time of file creation	ontime1	3138.3491597176	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	3138.3901997209	Sum of GTIs [s]
			ontime3	3138.4312397242	Sum of GTIs [s]
			ontime6	3138.5133197308	Sum of GTIs [s]
			ontime7	3138.4722797275	Sum of GTIs [s]
			l1events	138671	Number of level 1 events

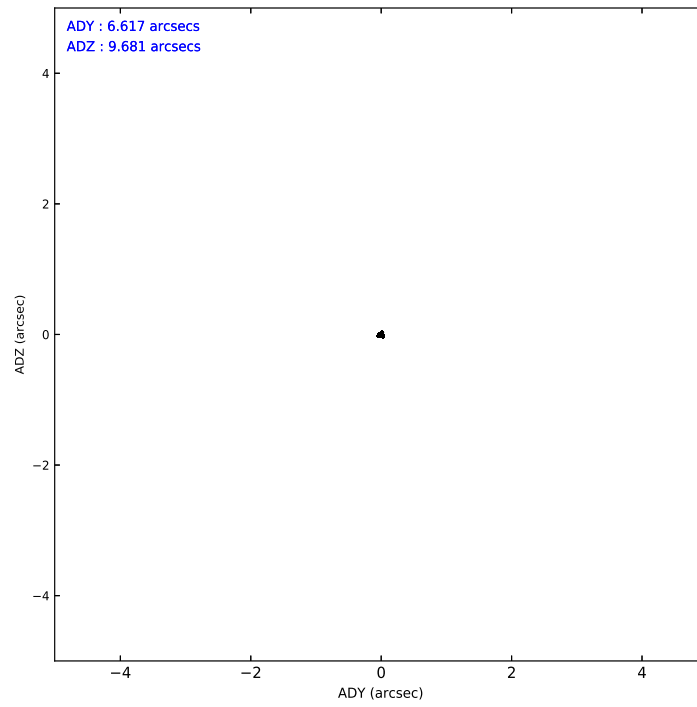
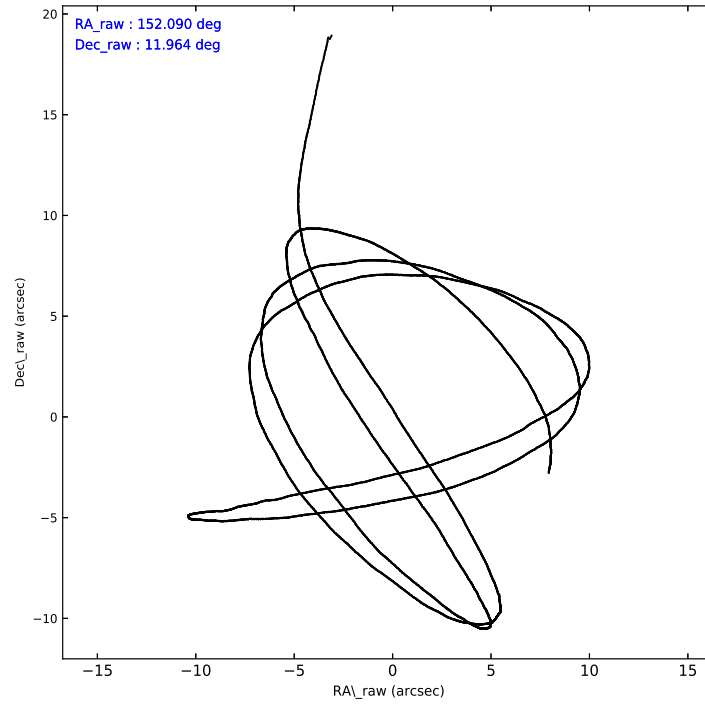
### 2.1.4 Events

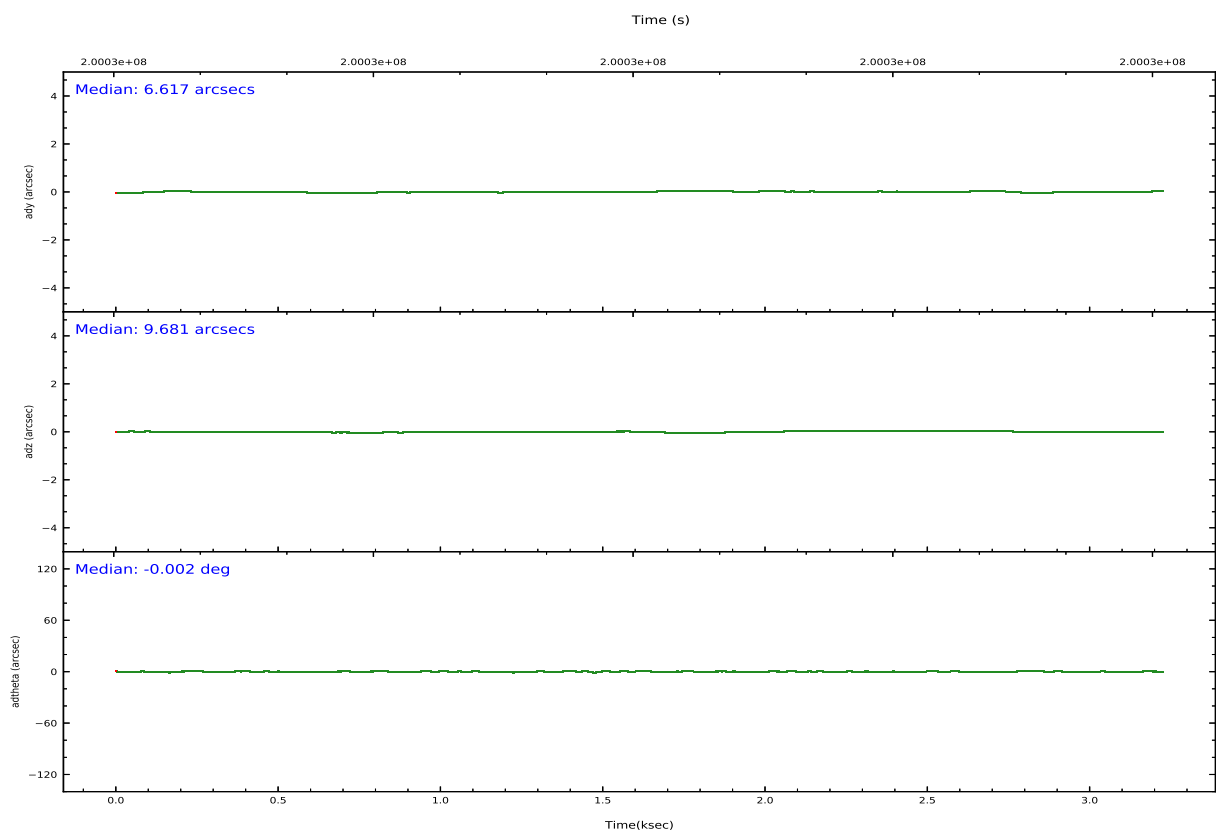
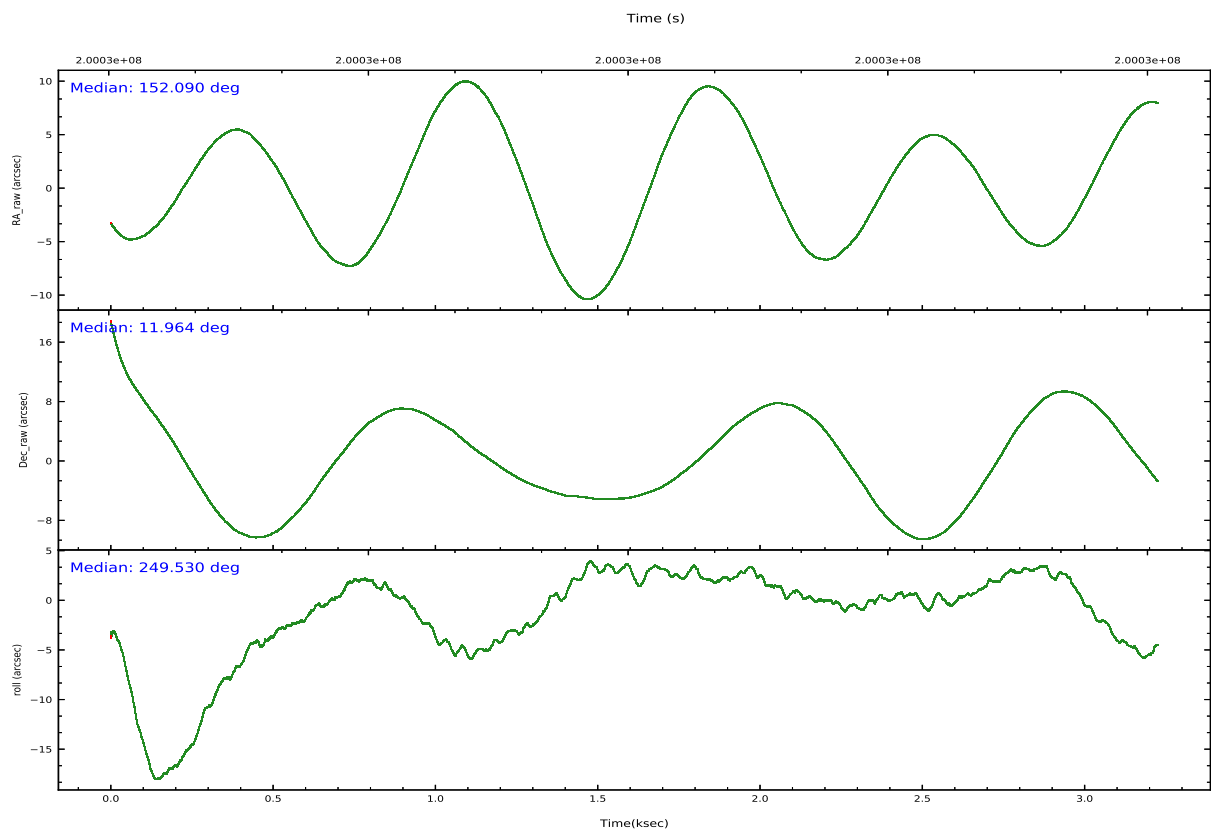
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	19940	20923	22023	21193	23901	30691	grade 0 events	1187	1291	1286	1188	1142	1094
rejected events	17263	17952	19252	18547	21108	18317		5%	6%	5%	5%	4%	3%
rejected %	86%	85%	87%	87%	88%	59%	grade 1 events	9	12	12	13	8	32
								0%	0%	0%	0%	0%	0%
							grade 2 events	536	598	542	517	590	2482
								2%	2%	2%	2%	2%	8%
							grade 3 events	250	285	255	219	270	1103
								1%	1%	1%	1%	1%	3%
							grade 4 events	266	267	264	253	247	1110
								1%	1%	1%	1%	1%	3%
							grade 5 events	882	948	867	956	1040	2865
								4%	4%	3%	4%	4%	9%
							grade 6 events	448	539	426	472	553	6608
								2%	2%	1%	2%	2%	21%
							grade 7 events	16362	16983	18371	17575	20051	15397
								82%	81%	83%	82%	83%	50%

## 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	152.085746	152.08852040255	Subarray requested	NONE	NONE
[deg] Pointing Dec	11.990846	11.96675038313	Alternating exposures requested	N	N
[deg] Pointing Roll	249.327203	249.52915571944	[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)	200025782.184000	200024757.55531			
Observation start date	2004-05-04T02:41:58	2004-05-04T02:25:57			
[s] Observation end time (MET)	200028832.184000	200029610.93053			
Observation end date	2004-05-04T03:32:48	2004-05-04T03:46:50			
Read mode	TIMED	TIMED			

## 2.3 Aspect





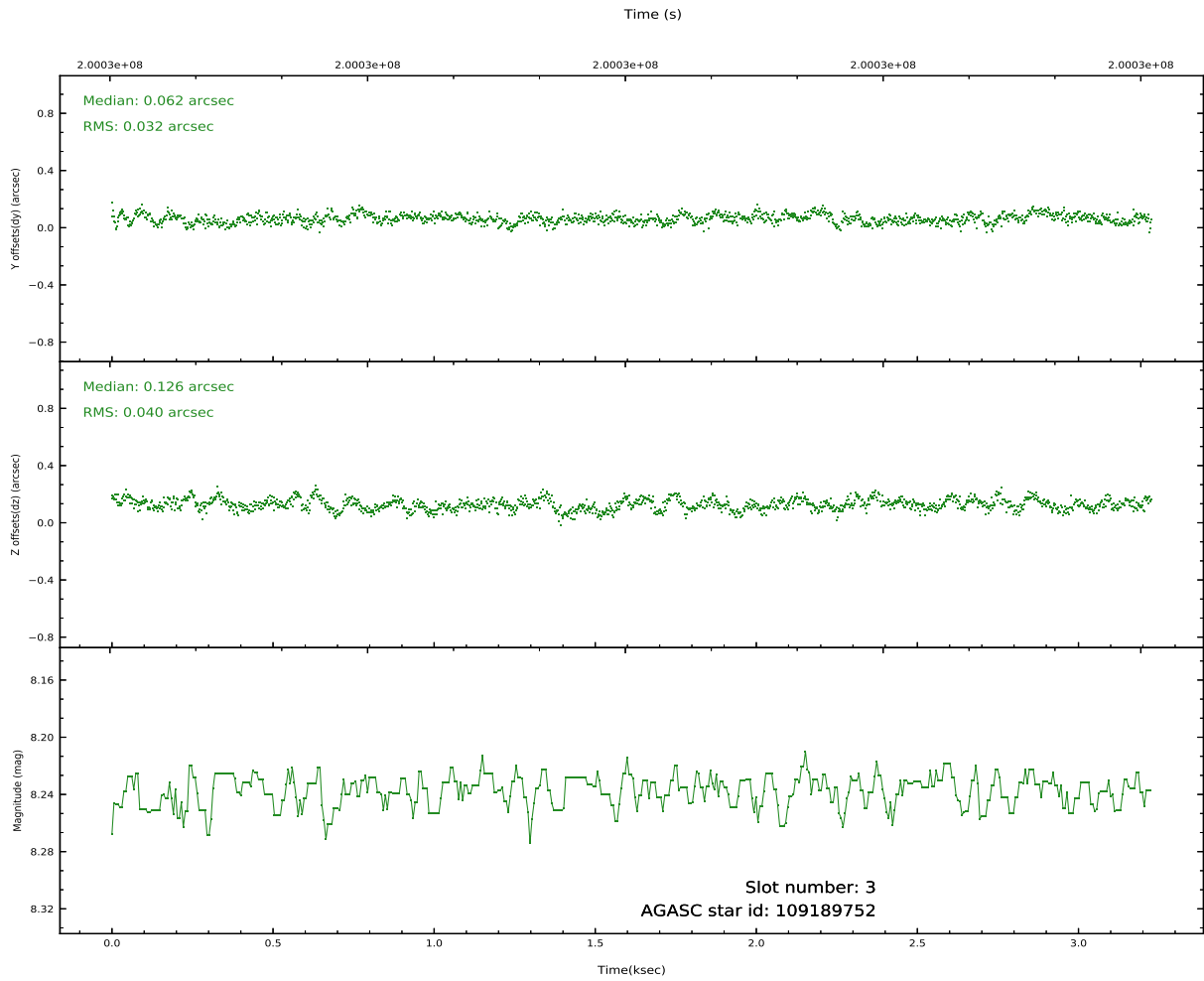
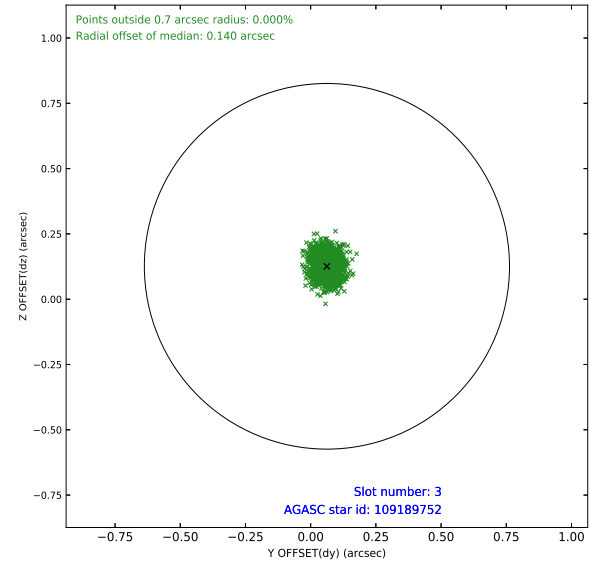
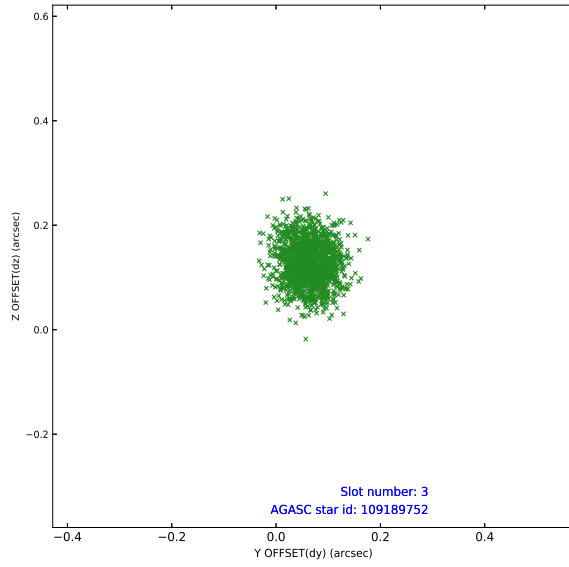
Slot Statistics

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	788	1.000	0.004	0.017	0.006	0.010	0.000000	0.000000	933.09	-833
1	FID		ACIS-I-5	7.23	787	1.000	-0.183	0.018	0.006	0.011	0.000000	0.000000	-1814.12	1063
2	FID		ACIS-I-6	7.25	787	1.000	0.087	0.035	0.006	0.010	0.000000	0.000000	396.56	1710
3	GUIDE	used	109189752	8.24	1575	1.000	0.062	0.126	0.055	0.088	152.672766	11.824886	-172.86	2145
4	GUIDE	used	109191728	8.89	1575	1.000	-0.016	0.121	0.099	0.157	152.614876	11.697237	328.97	2119
5	GUIDE	used	109192064	8.47	1574	1.000	0.139	0.134	0.075	0.115	152.614248	11.575676	740.15	2272
6	GUIDE	used	109584104	7.70	1575	1.000	-0.327	-0.326	0.069	0.100	151.655187	12.782068	-2131.41	-2419
7	GUIDE	used	109193504	10.02	1574	1.000	0.150	-0.052	0.131	0.219	151.476653	12.322801	-364.39	-2428

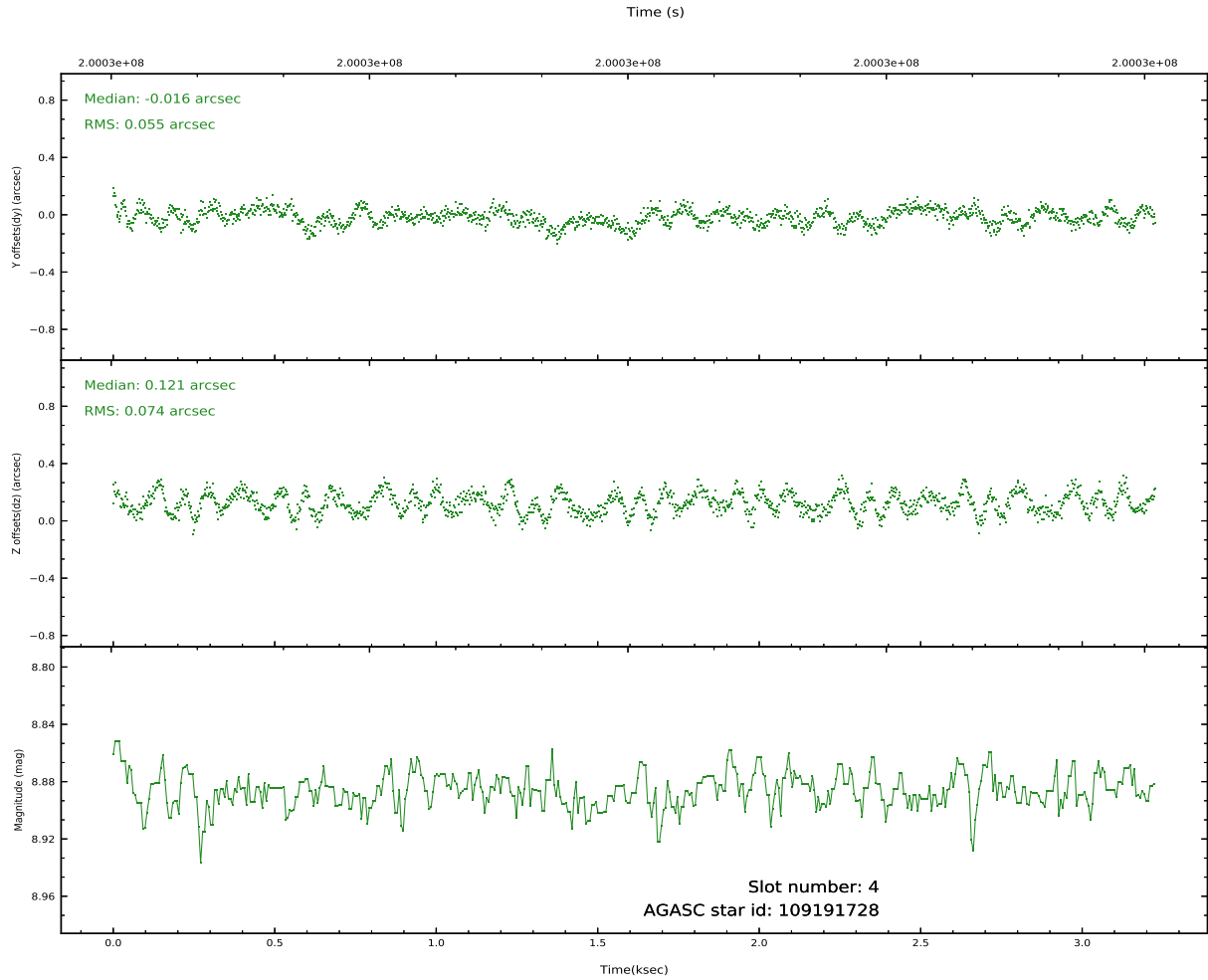
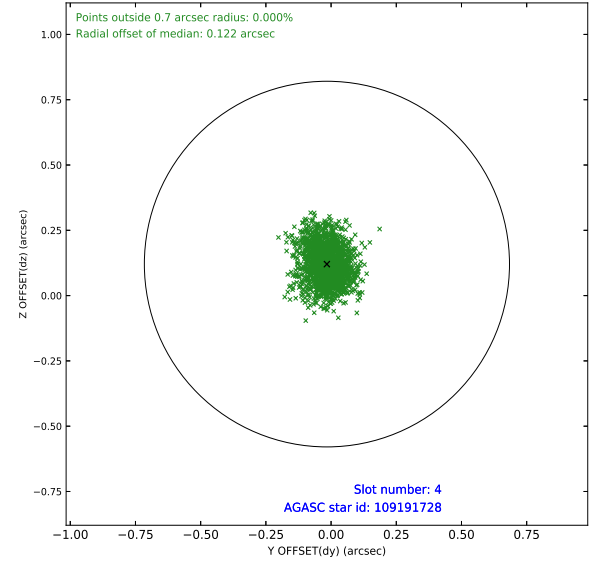
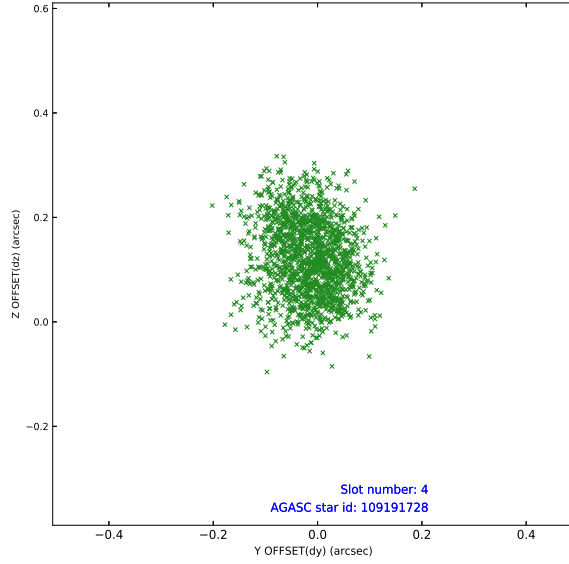


## 2.4 Star Slots

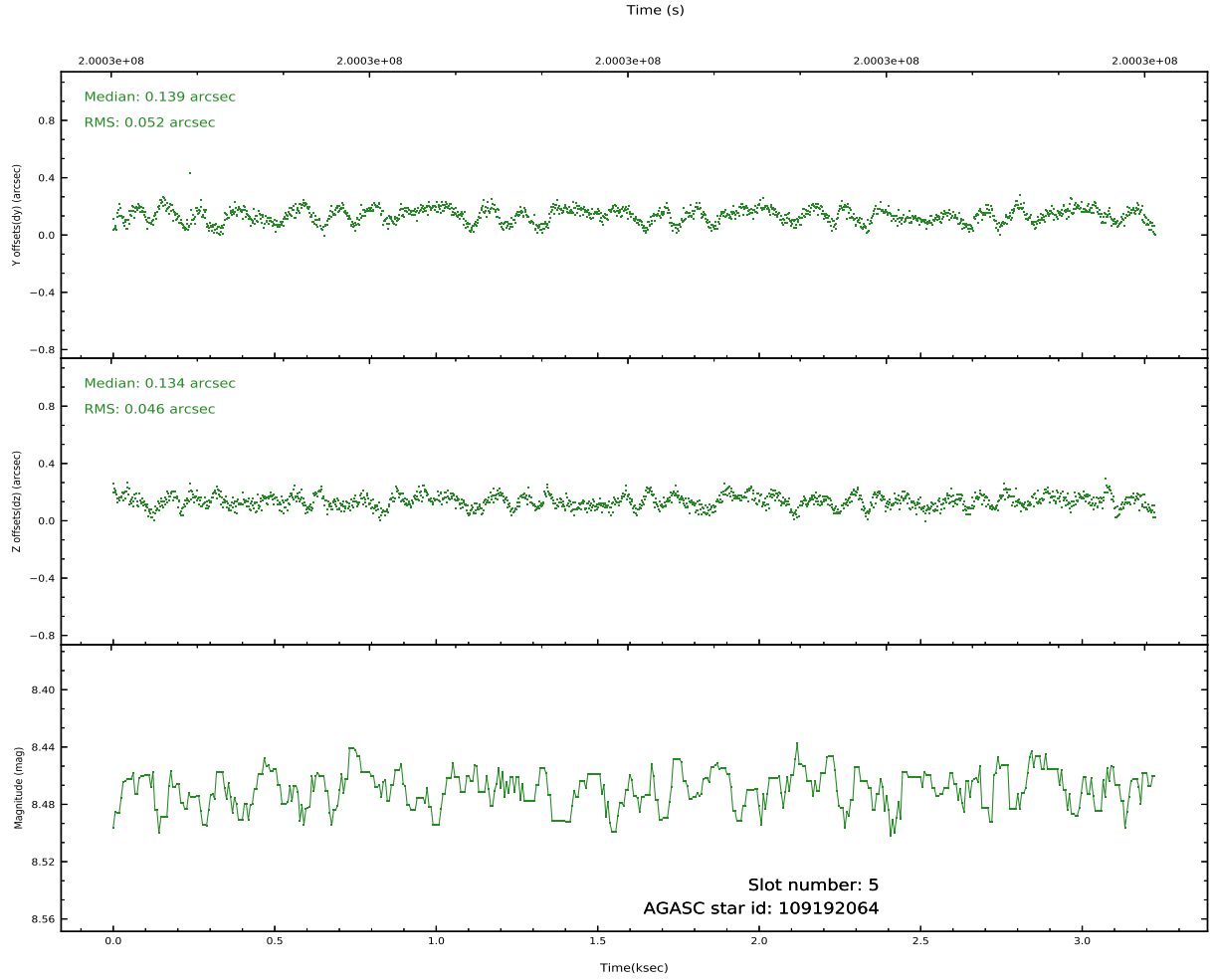
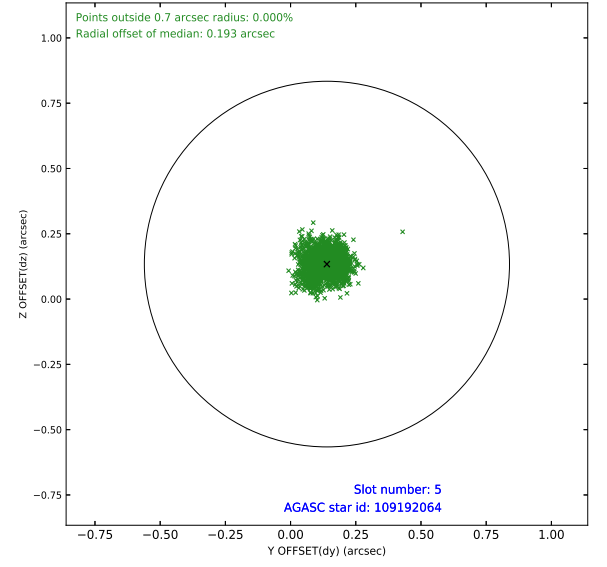
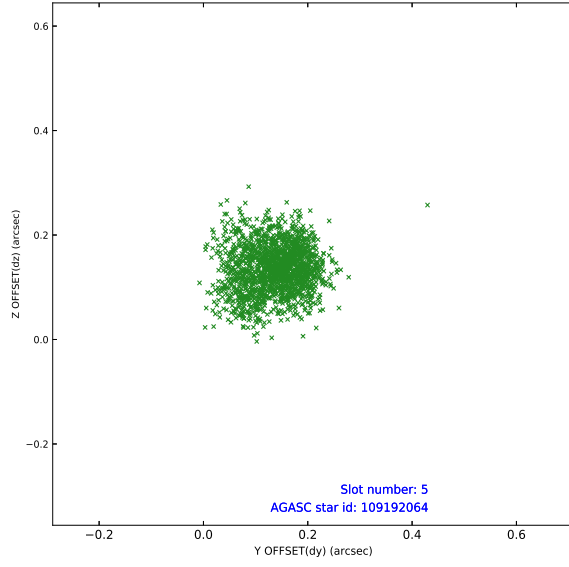
### 2.4.1 Slot 3



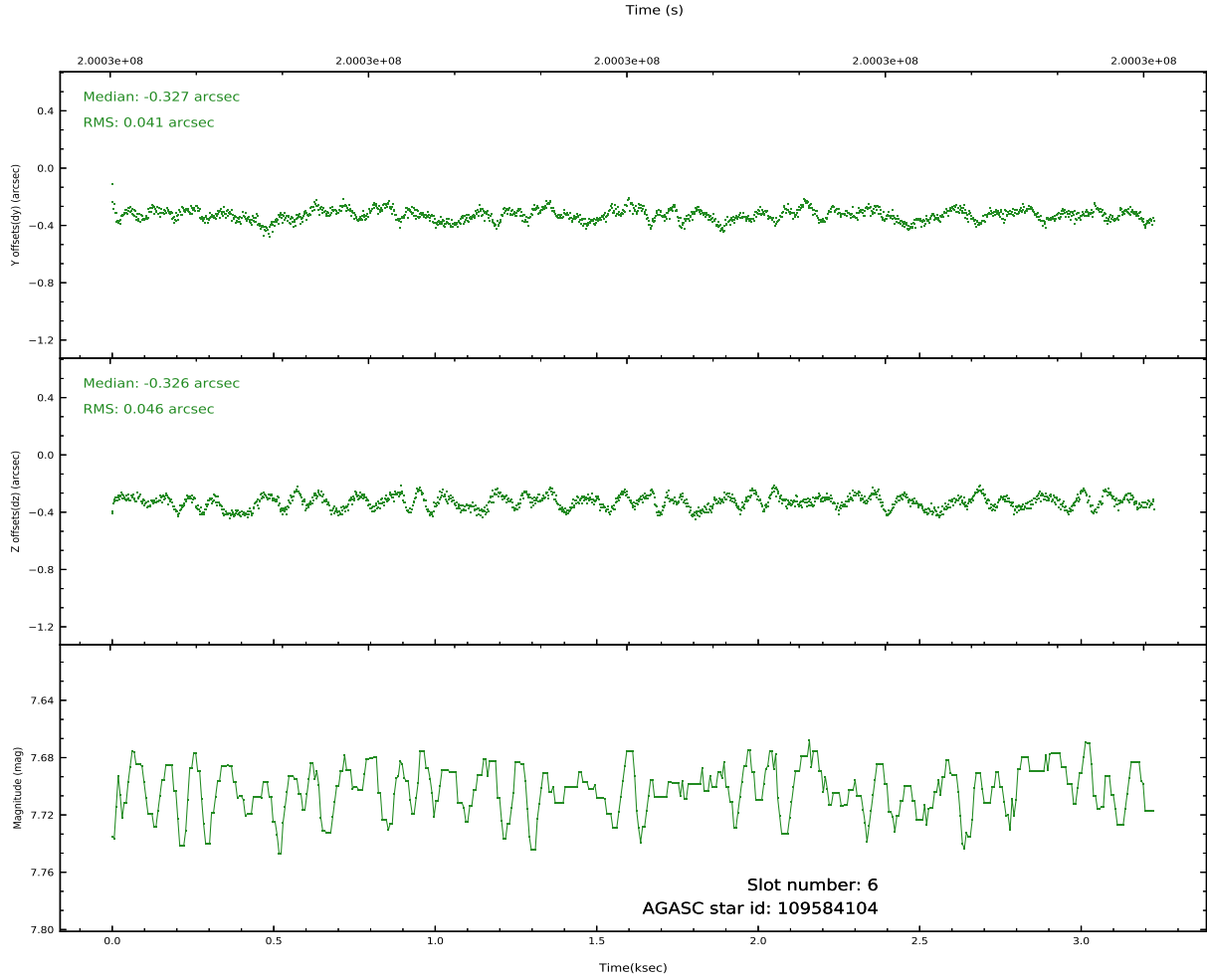
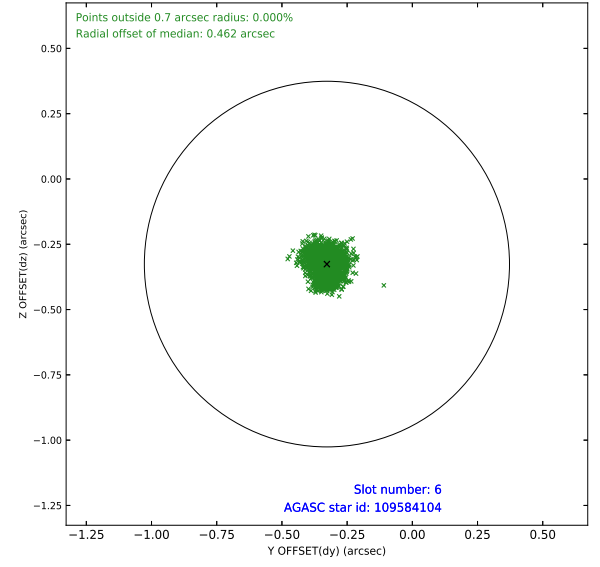
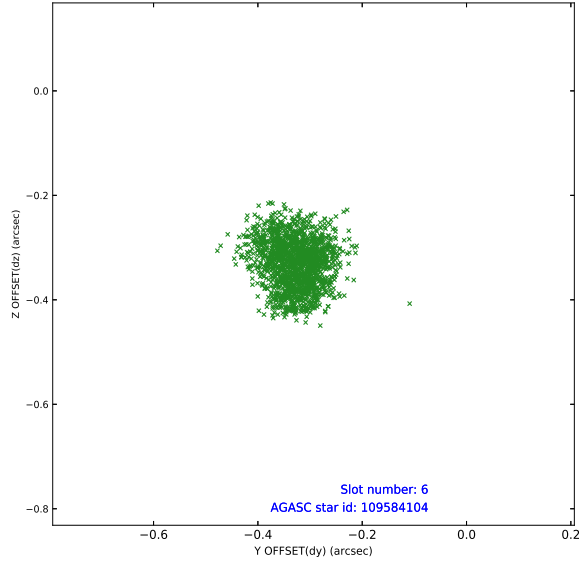
## 2.4.2 Slot 4



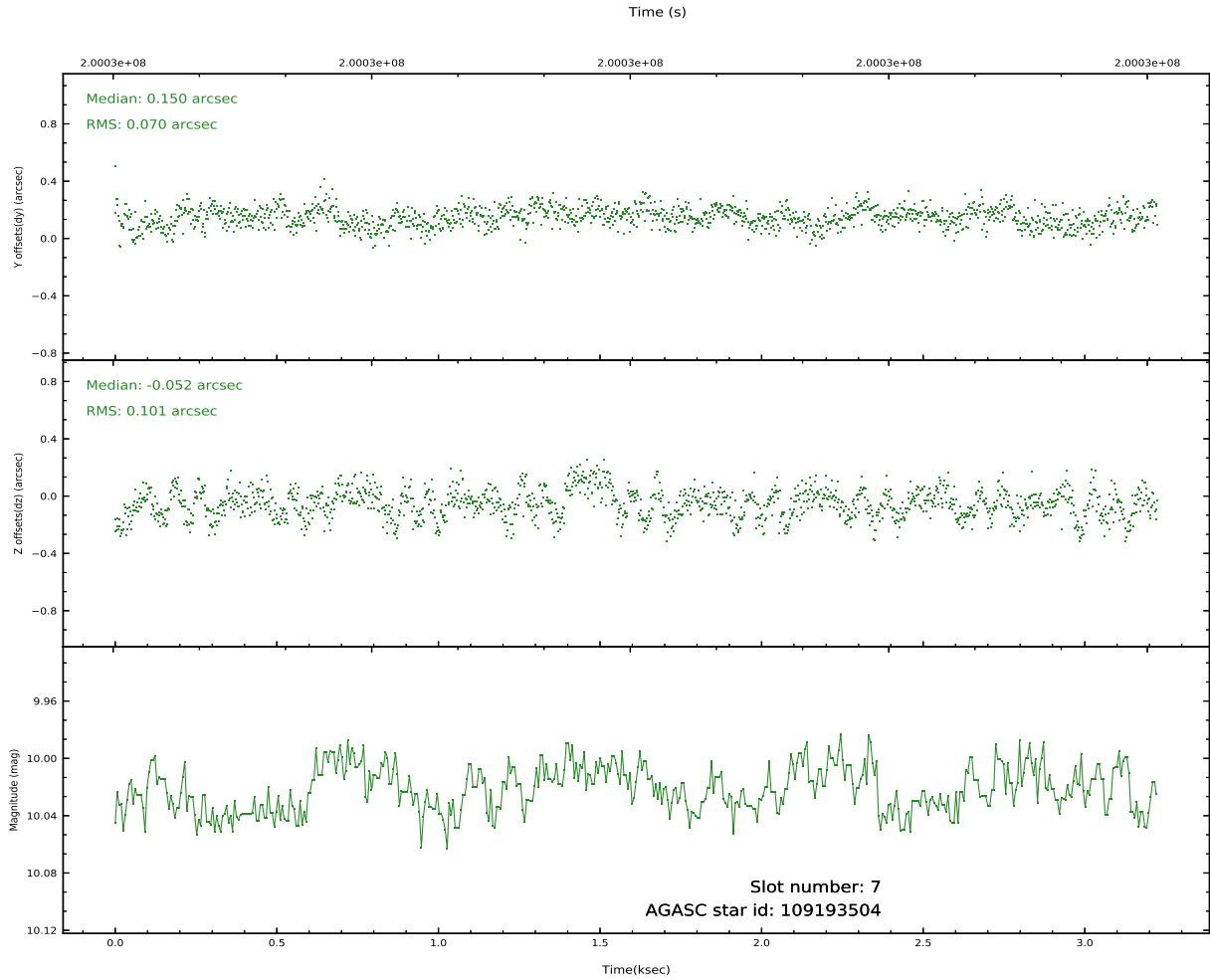
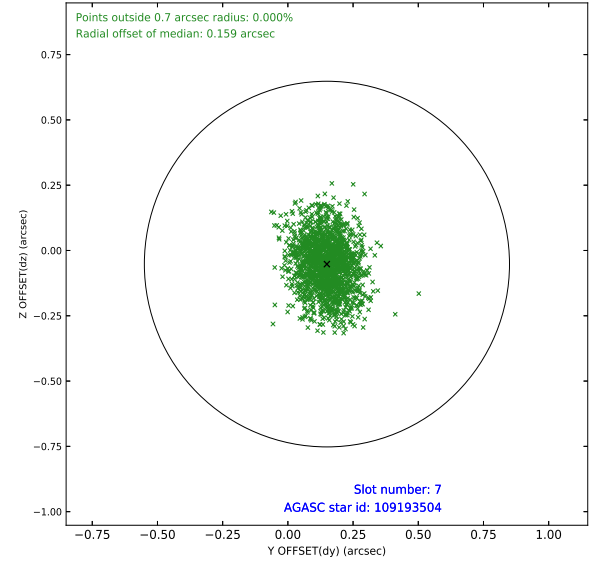
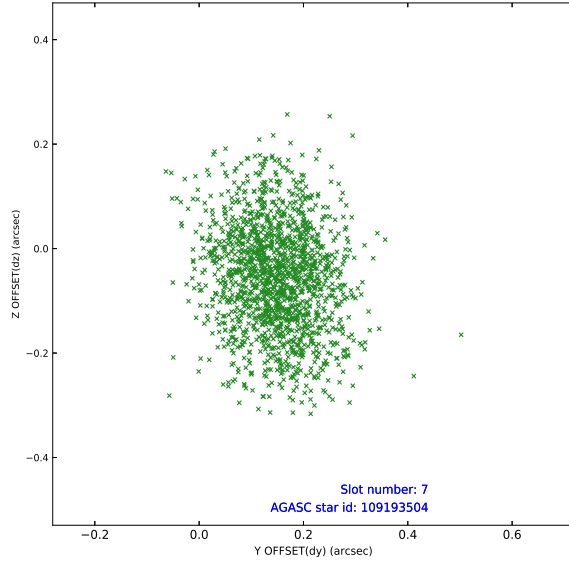
### 2.4.3 Slot 5



## 2.4.4 Slot 6

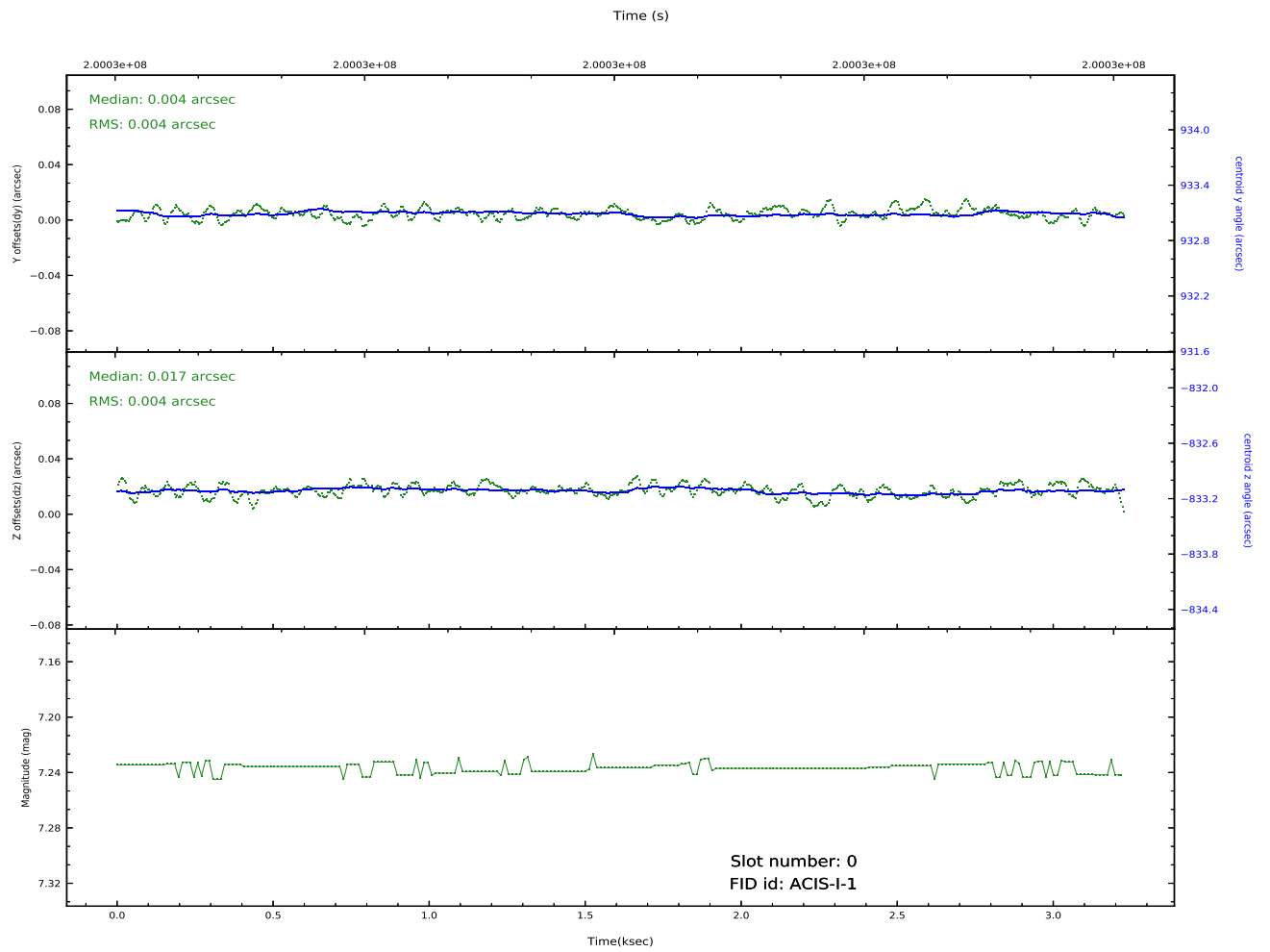
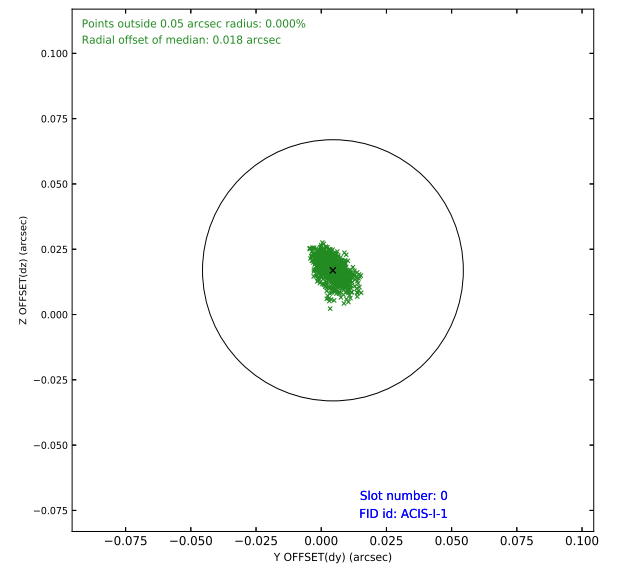
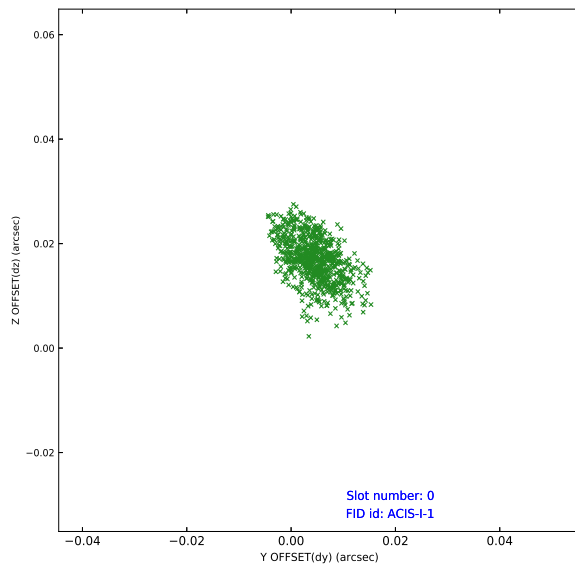


## 2.4.5 Slot 7

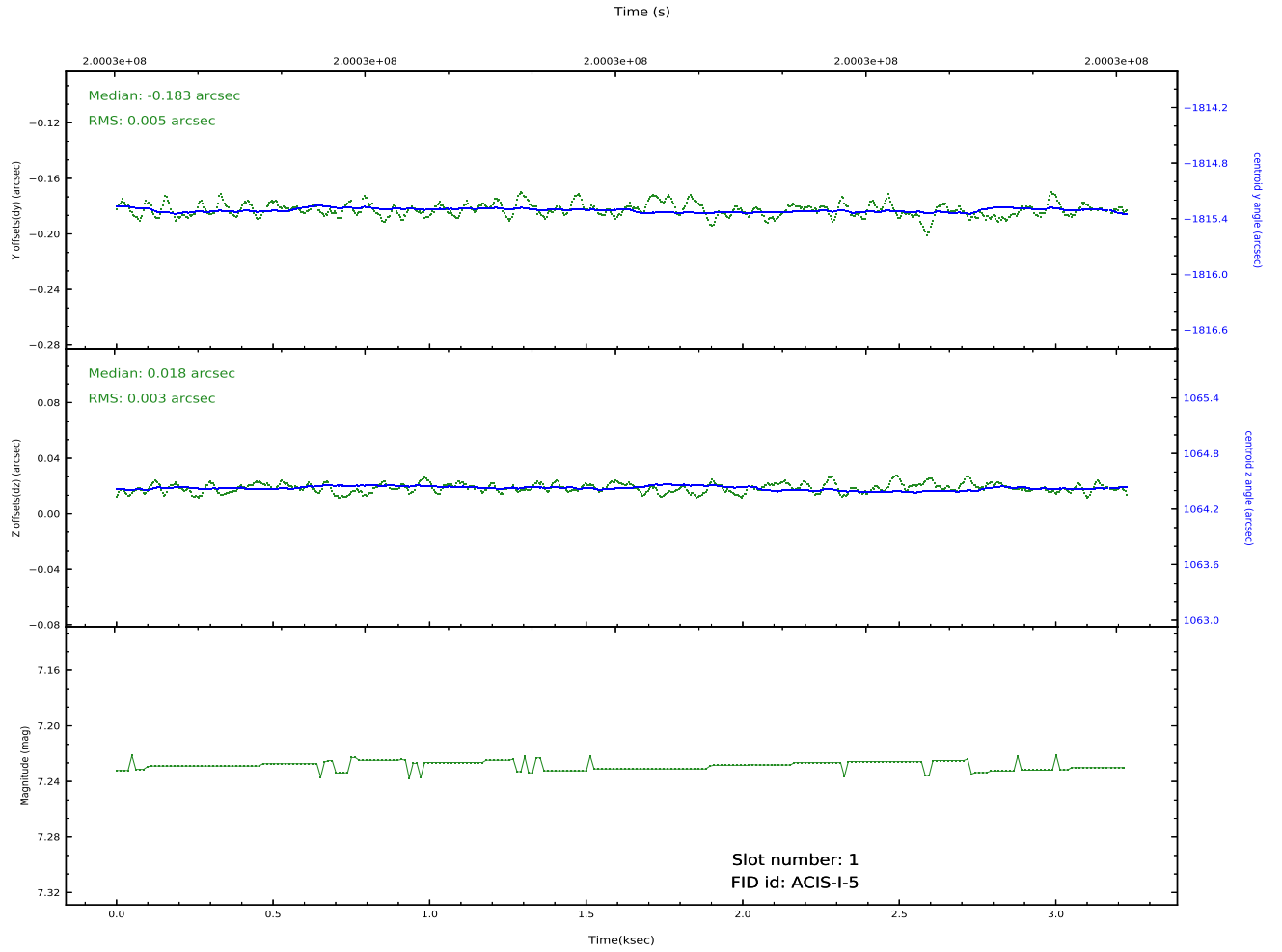
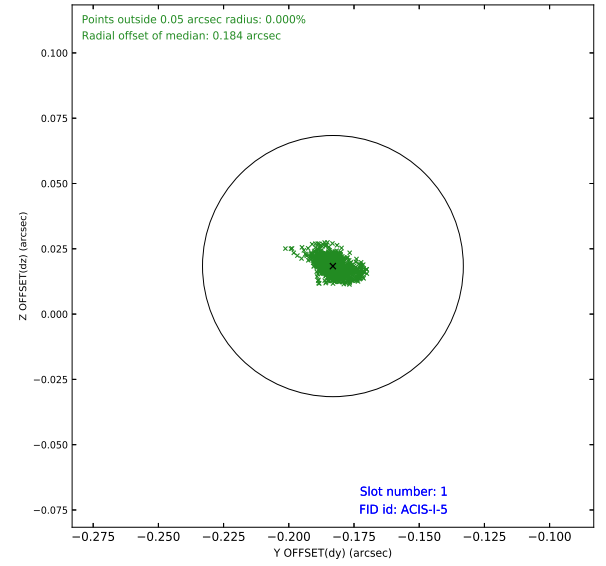
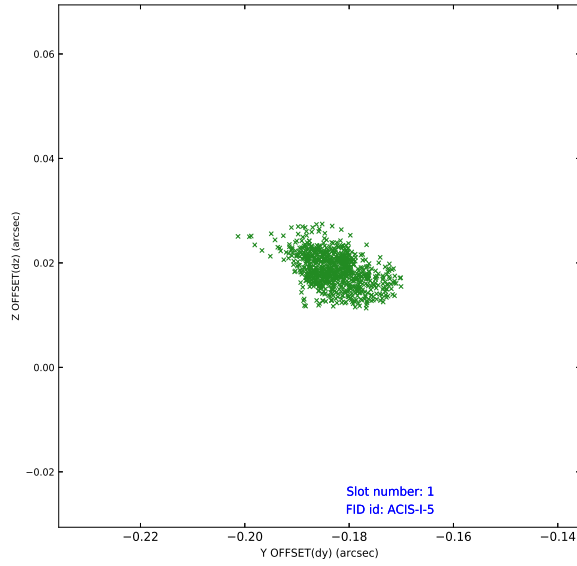


## 2.5 FID Slots

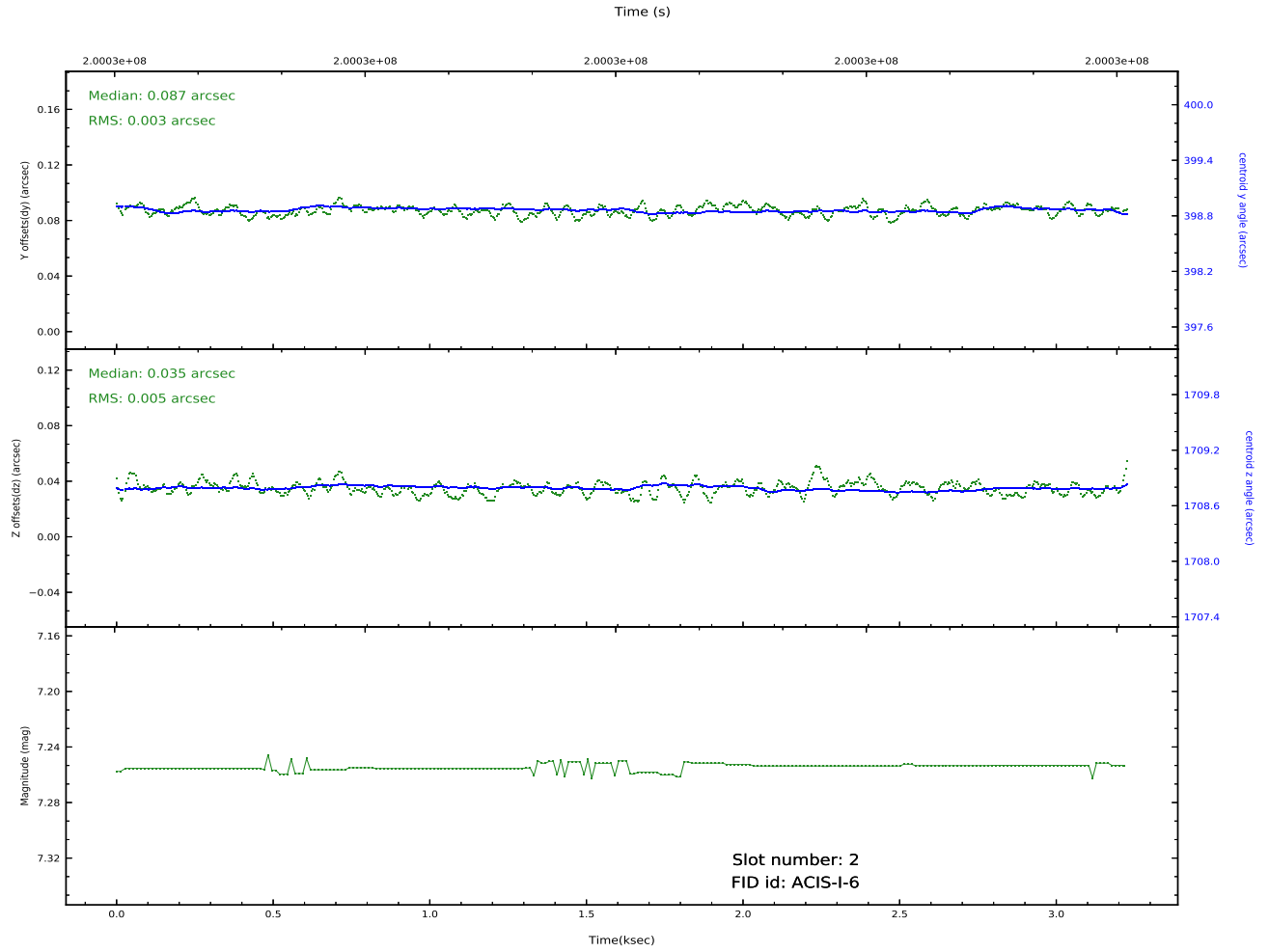
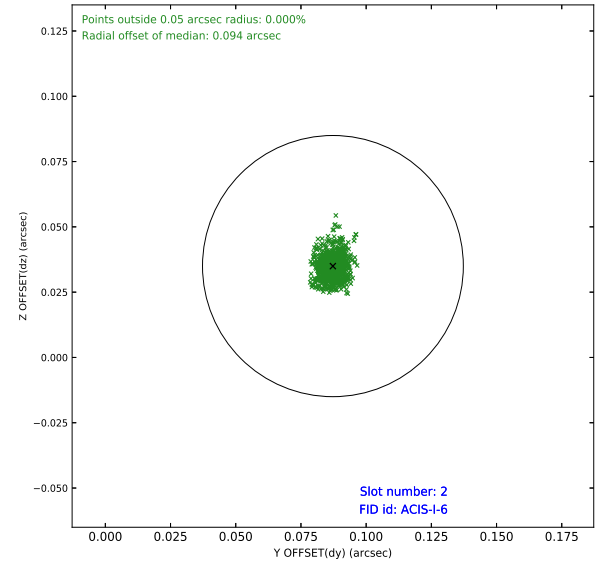
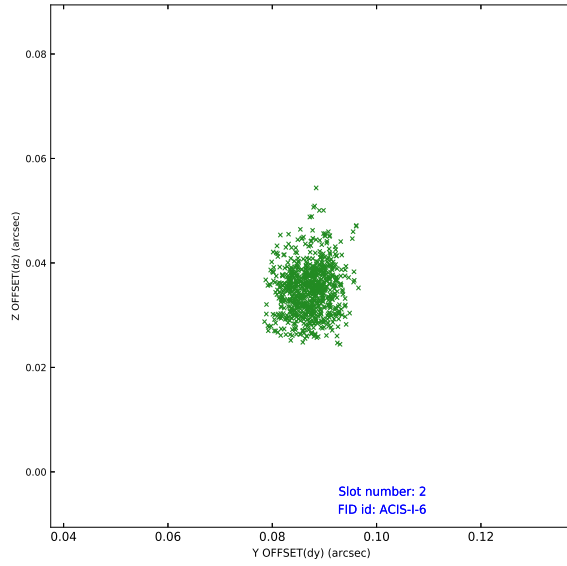
### 2.5.1 Slot 0



## 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)	2020.09.25
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	3.139

### A.2 Comments