

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 6054 - L2 Version 4  
Chandra X-Ray Center

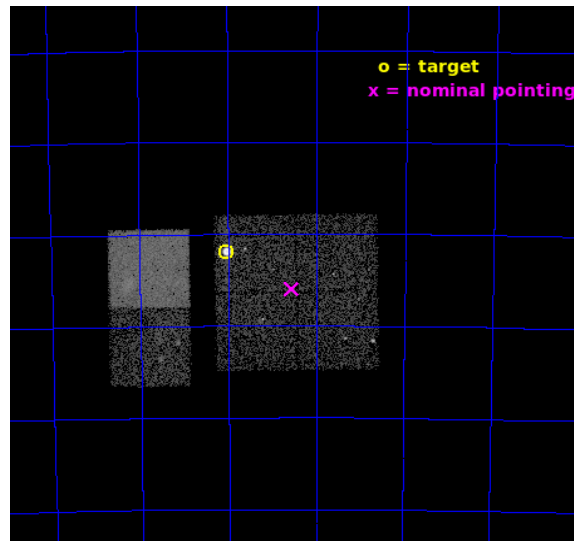
L2 Processing Date : Oct 6 2020

## 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

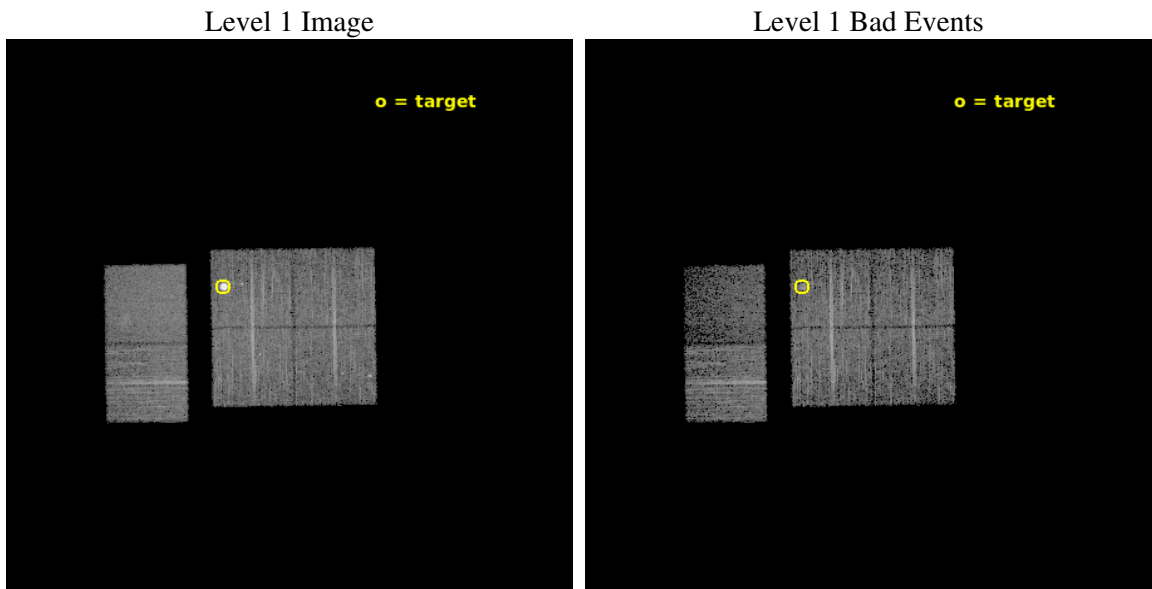
seq_num	590381	Sequence number
obs_id	6054	Observation id
title	AO6A ACIS-I Calibration Observations of E0102-72	Proposal title
observer	CXC Calibration	Principal investigator
object	E0102-72.3	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	16.01	Observer's specified target RA [deg]
dec_targ	-72.032028	Observer's specified target Dec [deg]
ra_nom	15.638563543025	Nominal RA [deg]
dec_nom	-72.099450139439	Nominal Dec [deg]
roll_nom	269.13593438241	Nominal Roll [deg]
revision	4	Processing version of data
ontime	7257.5999729633	Sum of GTIs [s]
livetime	7165.6998721036	Livetime [s]
ontime0	7257.5999729633	Sum of GTIs [s]
ontime1	7257.5999729633	Sum of GTIs [s]
ontime2	7257.5999729633	Sum of GTIs [s]
ontime3	7257.5999729633	Sum of GTIs [s]
ontime6	7257.5999729633	Sum of GTIs [s]
ontime7	7257.5999729633	Sum of GTIs [s]
l2events	60704	Number of level 2 events



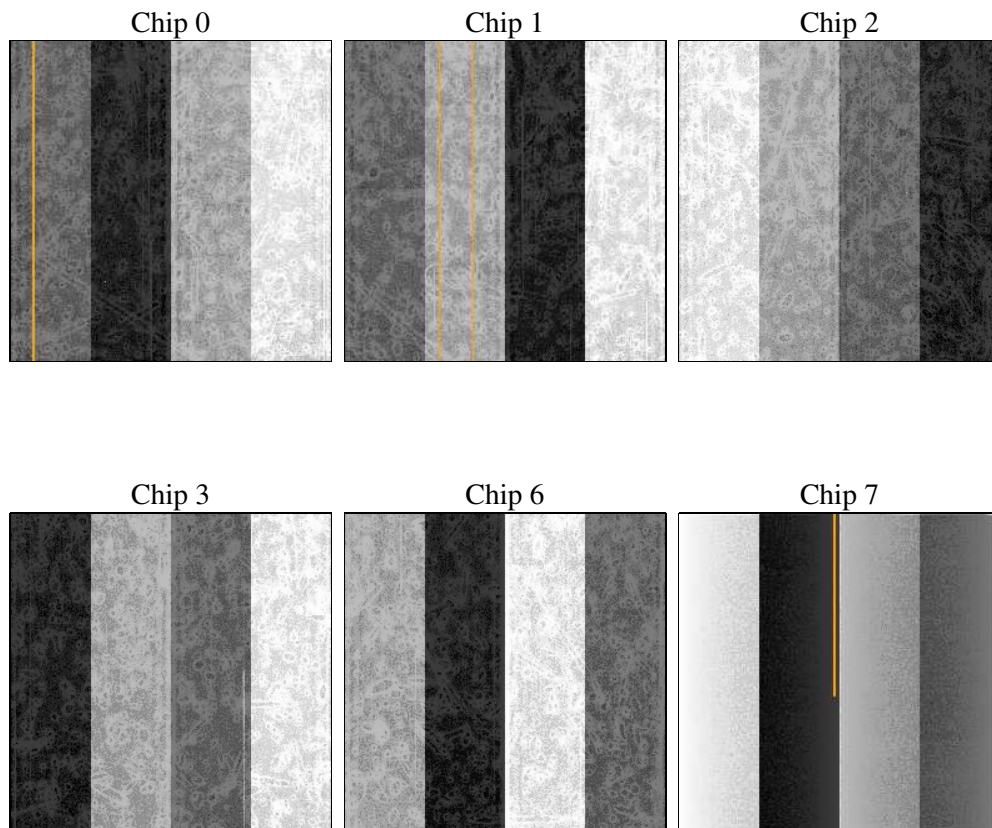
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	7500.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	7257.5999729633	Sum of GTIs [s]
caldsver	4.9.2	&#160	ontime0	7257.5999729633	Sum of GTIs [s]
date	2020-10-06T03:54:39	Date and time of file creation	ontime1	7257.5999729633	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	7257.5999729633	Sum of GTIs [s]
			ontime3	7257.5999729633	Sum of GTIs [s]
			ontime6	7257.5999729633	Sum of GTIs [s]
			ontime7	7257.5999729633	Sum of GTIs [s]
			l1events	272181	Number of level 1 events

### 2.1.4 Events

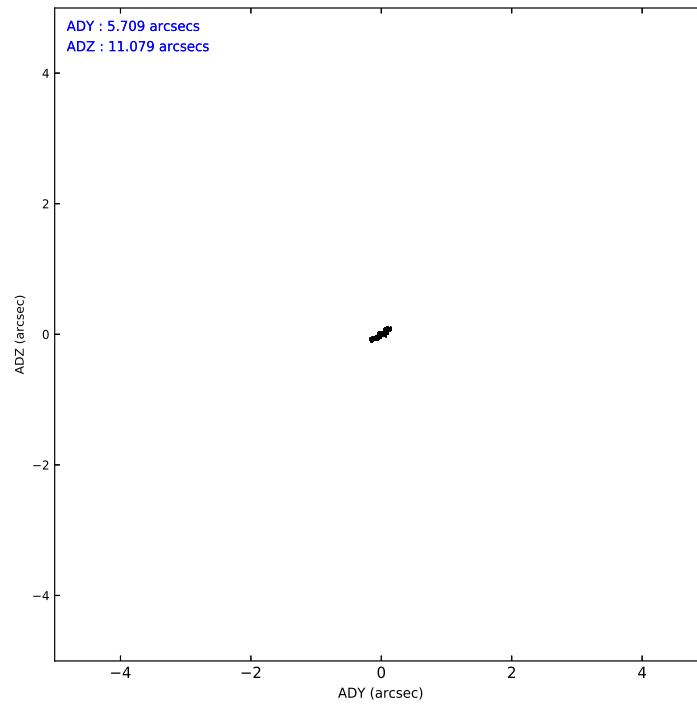
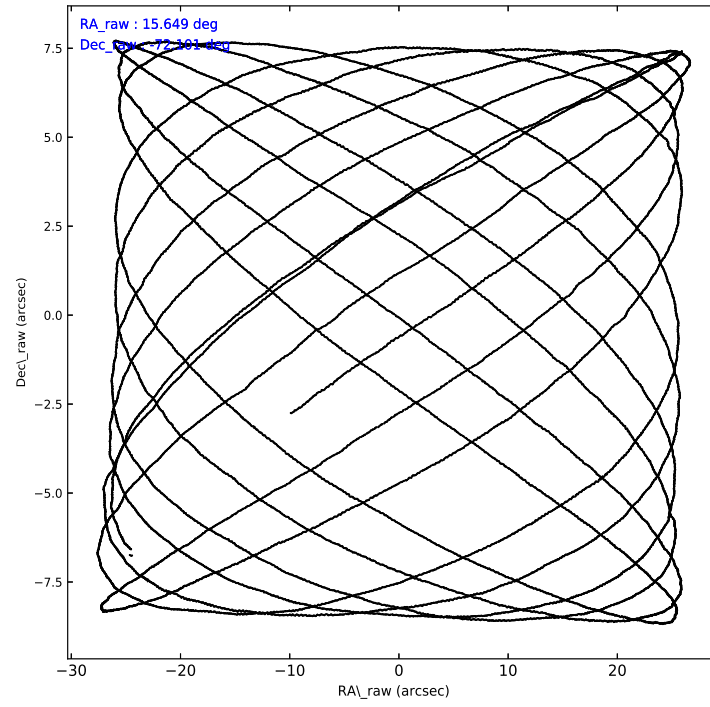
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	38003	39375	45201	61932	44701	42969	grade 0 events	2139	1934	2177	18709	2459	2506
rejected events	33122	34617	40448	38562	39578	19846		5%	4%	4%	30%	5%	5%
rejected %	87%	87%	89%	62%	88%	46%	grade 1 events	28	16	22	159	22	44
								0%	0%	0%	0%	0%	0%
							grade 2 events	1090	972	993	2249	920	4788
								2%	2%	2%	3%	2%	11%
							grade 3 events	501	544	431	783	489	2216
								1%	1%	0%	1%	1%	5%
							grade 4 events	459	496	478	781	454	2196
								1%	1%	1%	1%	1%	5%
							grade 5 events	1176	1376	1167	1509	1443	4299
								3%	3%	2%	2%	3%	10%
							grade 6 events	693	817	678	859	802	11426
								1%	2%	1%	1%	1%	26%
							grade 7 events	31917	33220	39255	36883	38112	15494
								83%	84%	86%	59%	85%	36%

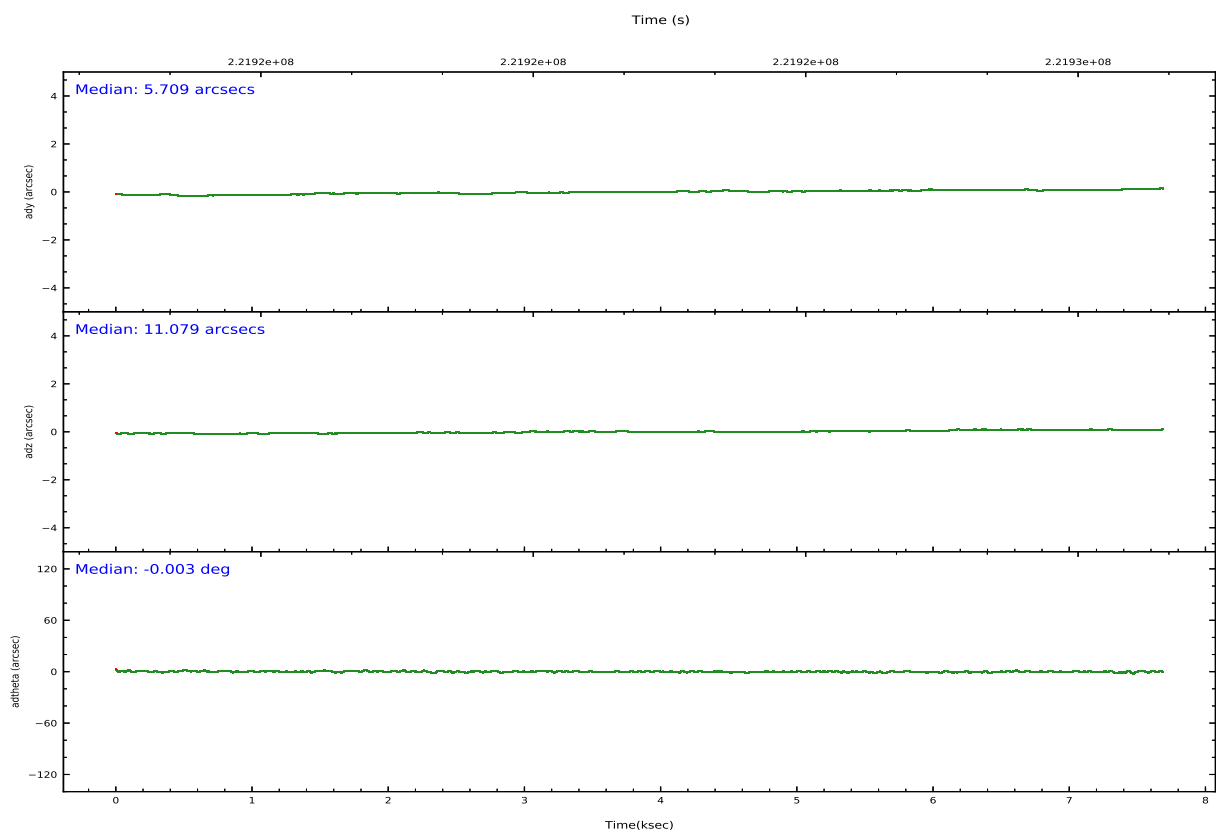
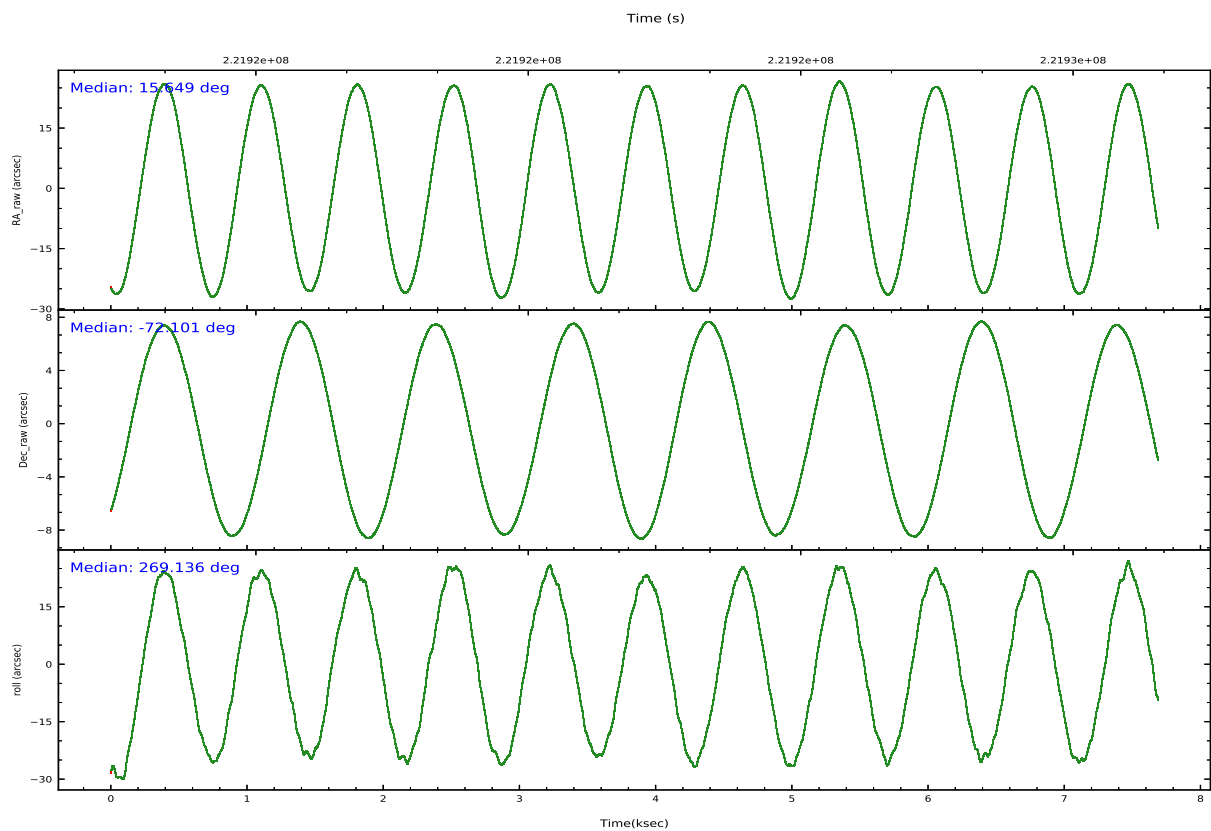


## 2.2 Compared Parameters

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	15.605112	15.638563543025	Subarray requested	NONE	NONE
[deg] Pointing Dec	-72.077365	-72.099450139439	Alternating exposures requested	N	N
[deg] Pointing Roll	268.885945	269.13593438241	[s] Primary exposure time	0.000000	3.2
[s] Window start time (MET)	215654464.184000	215654464.184000			
[s] Window stop time (MET)	223516864.184000	223516864.184000			
[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)	221919124.184000	221918747.76931			
Observation start date	2005-01-12T12:11:00	2005-01-12T12:05:47			
[s] Observation end time (MET)	221926624.184000	221927331.11969			
Observation end date	2005-01-12T14:16:00	2005-01-12T14:28:51			
Read mode	TIMED	TIMED			

## 2.3 Aspect



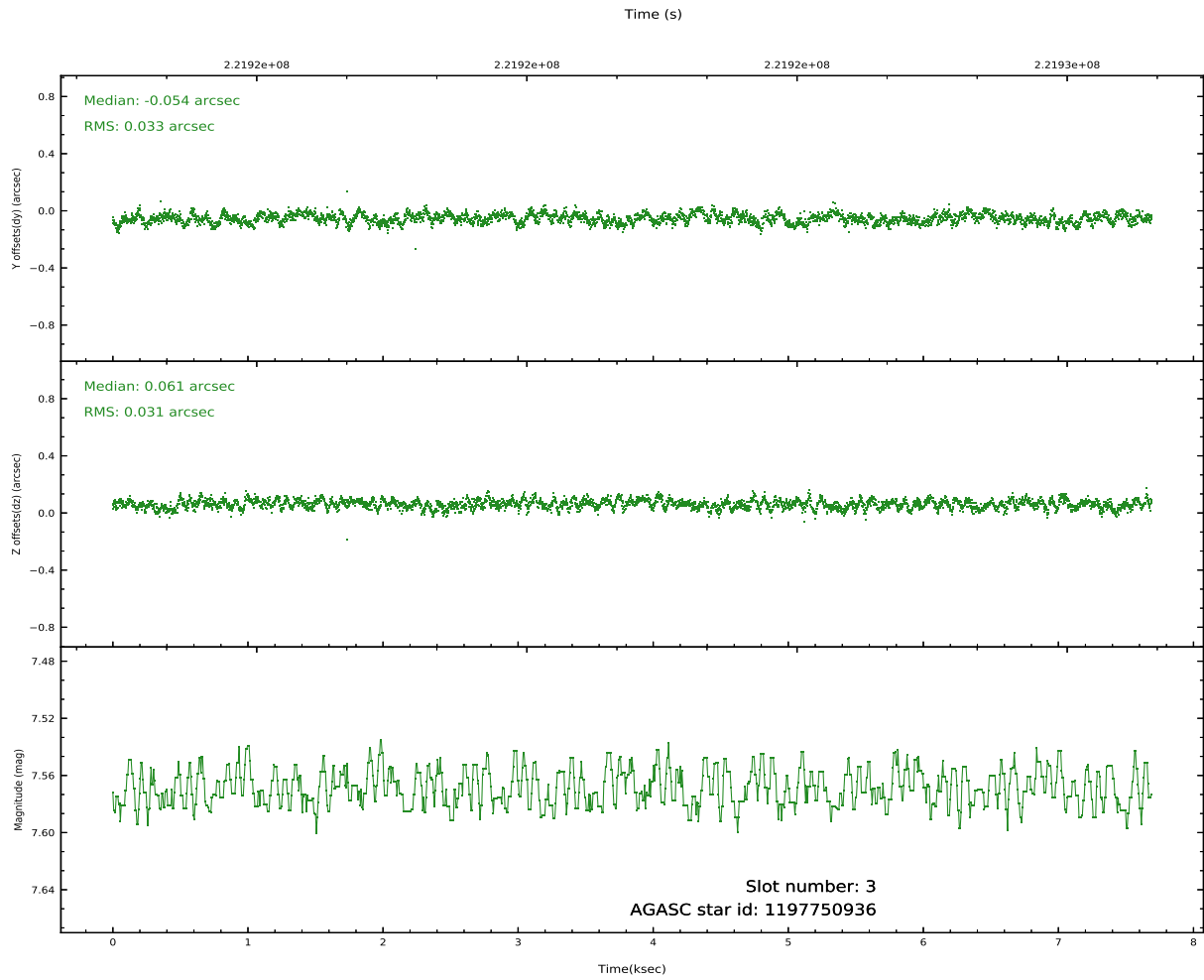
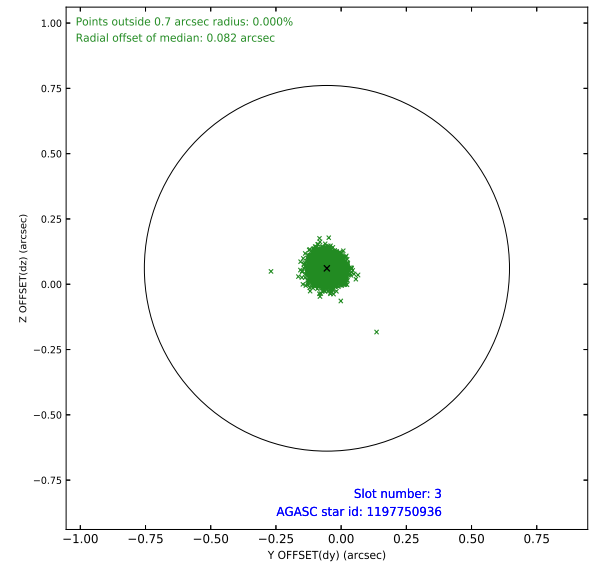
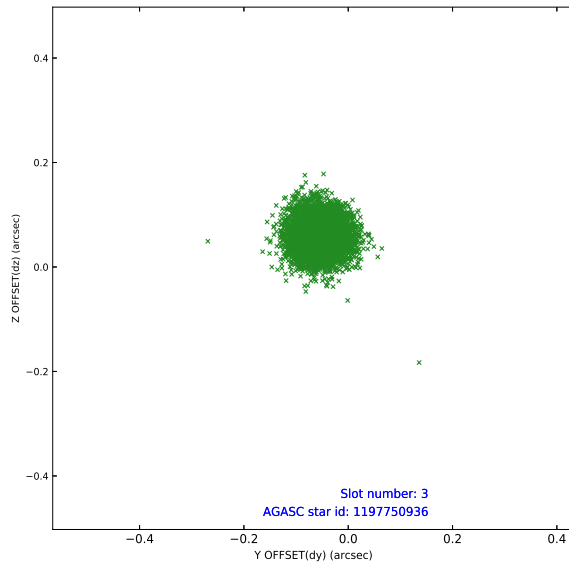


Slot Statistics

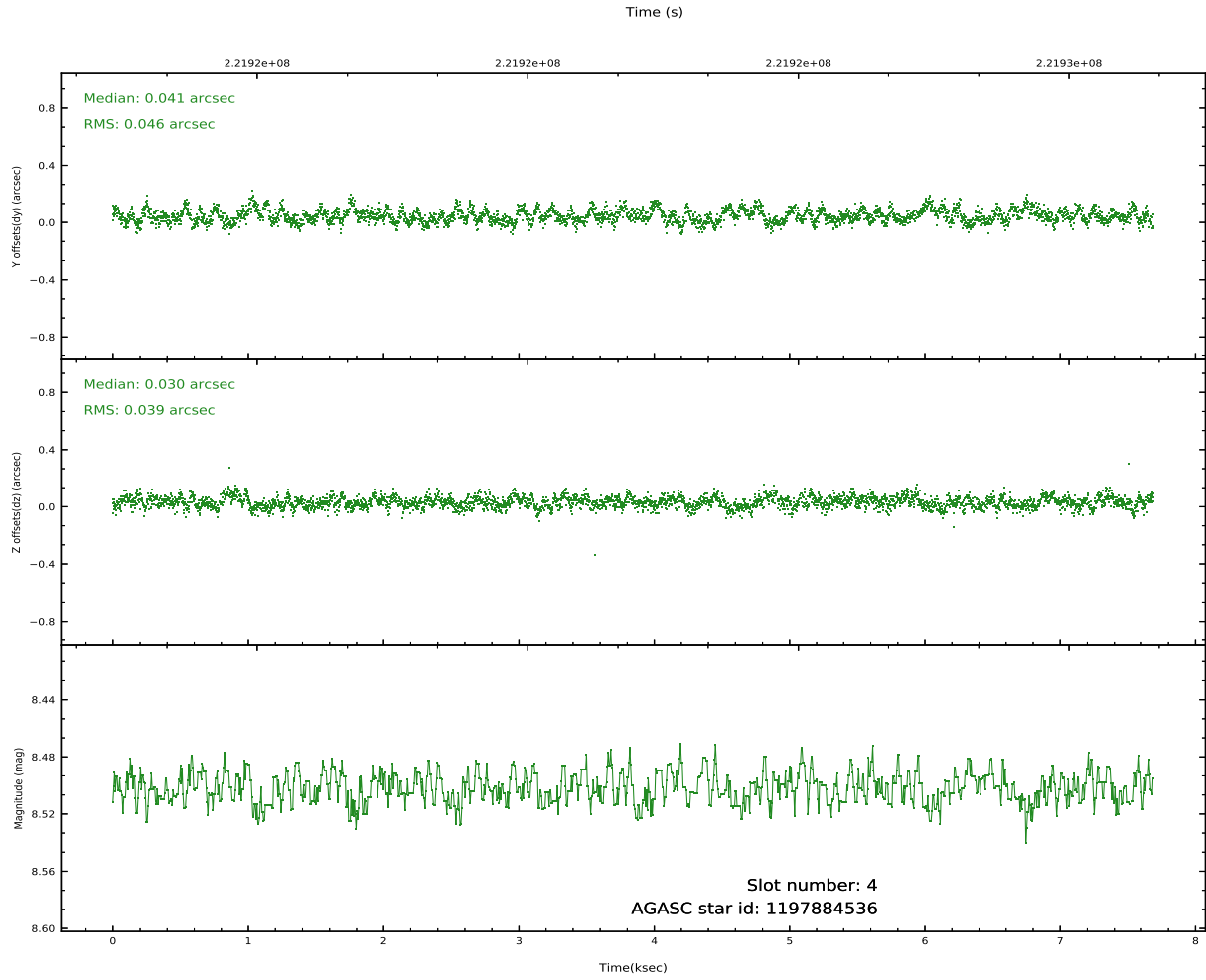
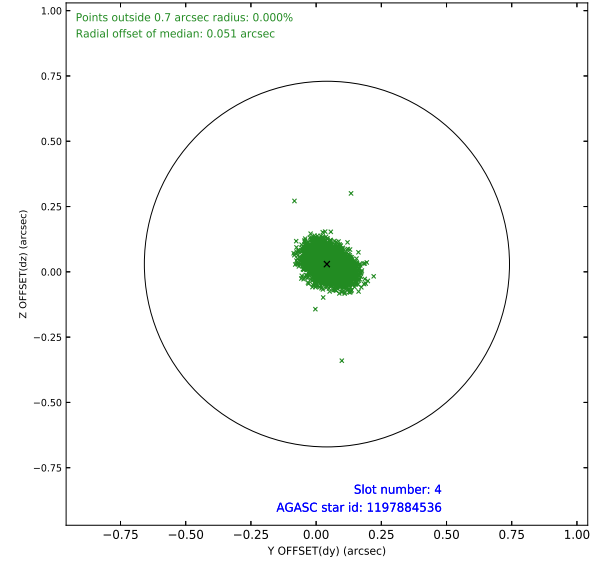
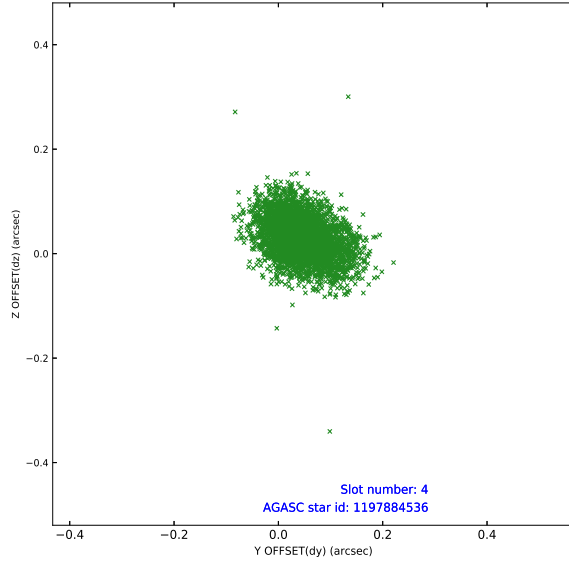
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-2	7.13	1876	1.000	-0.100	-0.129	0.009	0.016	0.000000	0.000000	-760.24	-841
1	FID		ACIS-I-4	7.18	1876	1.000	0.151	0.094	0.006	0.011	0.000000	0.000000	2153.70	1064
2	FID		ACIS-I-5	7.22	1876	1.000	-0.152	0.104	0.009	0.016	0.000000	0.000000	-1813.21	1063
3	GUIDE	used	1197750936	7.57	3752	1.000	-0.054	0.061	0.049	0.075	15.387940	-71.549550	-1893.88	-284
4	GUIDE	used	1197884536	8.50	3752	1.000	0.041	0.030	0.064	0.106	17.160729	-71.835289	-882.89	1728
5	GUIDE	used	1197884712	8.30	3752	1.000	0.086	-0.105	0.064	0.100	16.087398	-72.252690	623.20	541
6	GUIDE	used	1197885328	7.23	3749	1.000	-0.009	-0.098	0.051	0.081	16.283090	-71.733943	-1246.33	741
7	GUIDE	used	1198189696	7.38	3750	1.000	-0.068	0.111	0.045	0.075	15.223750	-72.697522	2241.53	-364

## 2.4 Star Slots

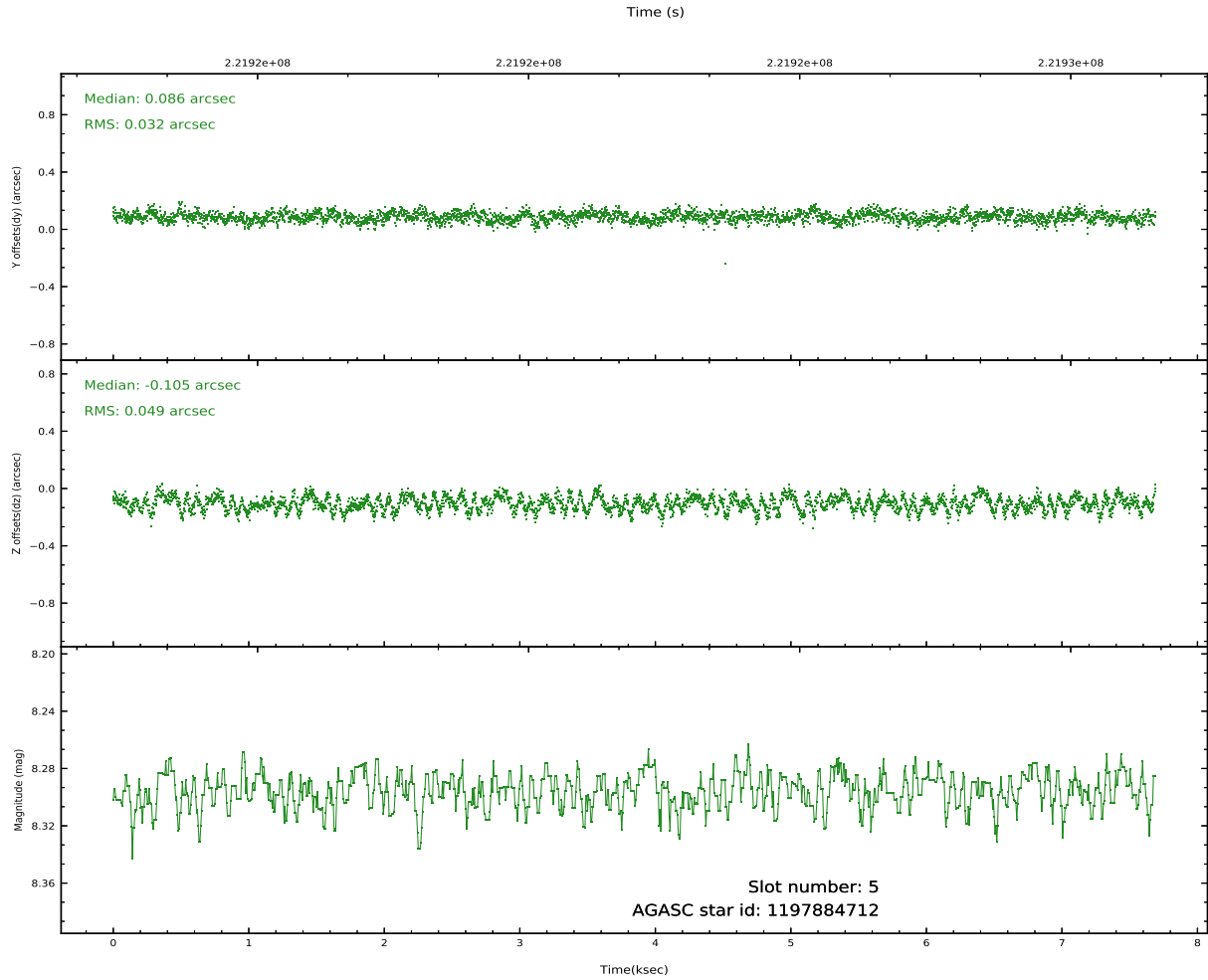
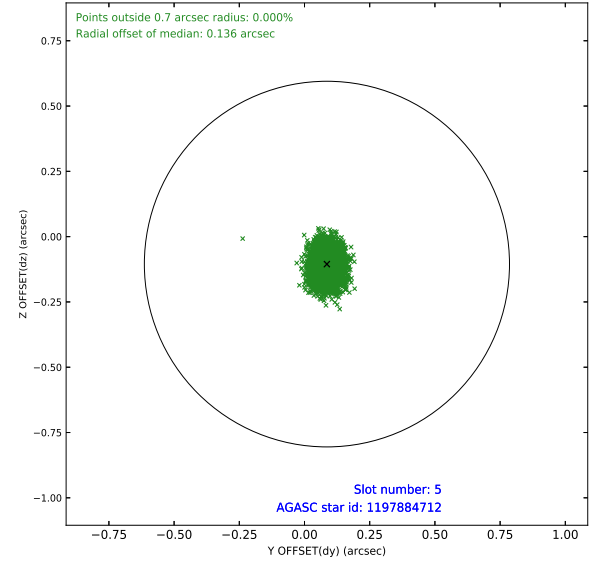
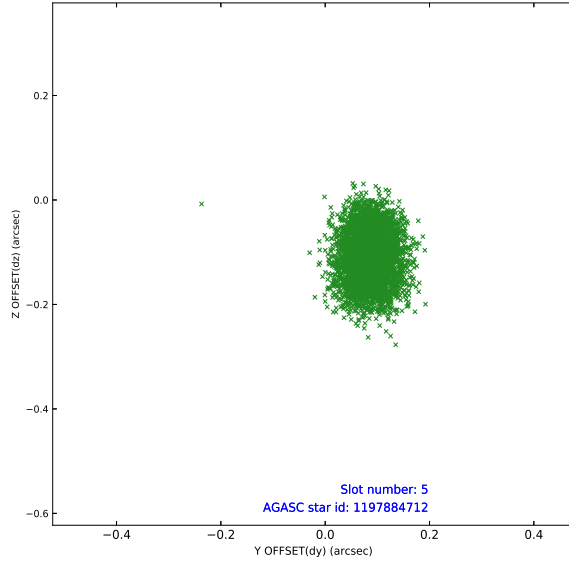
### 2.4.1 Slot 3



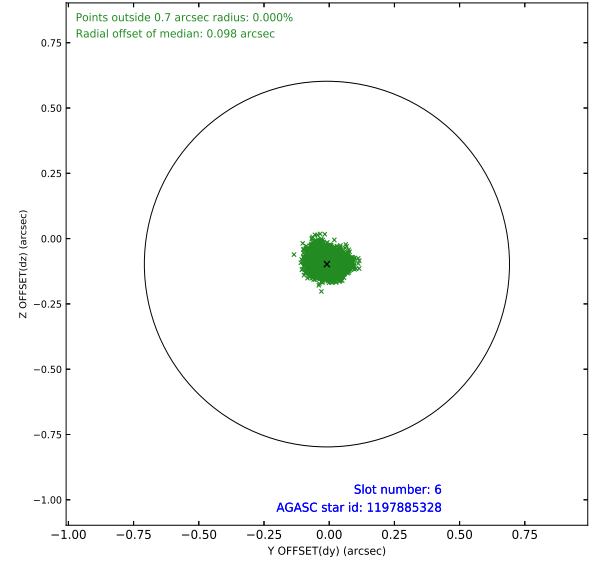
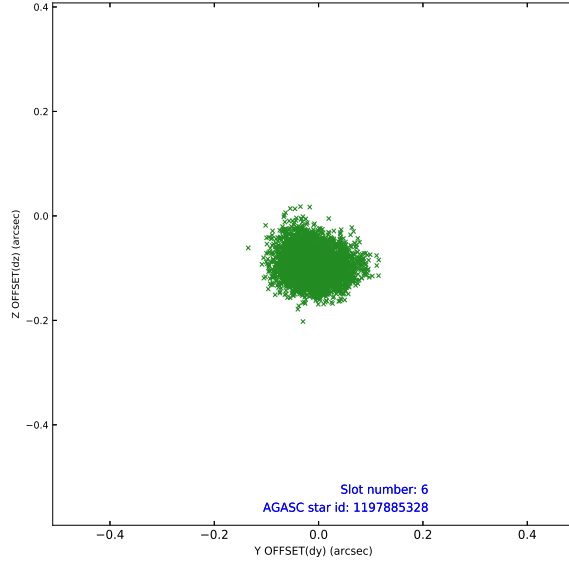
## 2.4.2 Slot 4



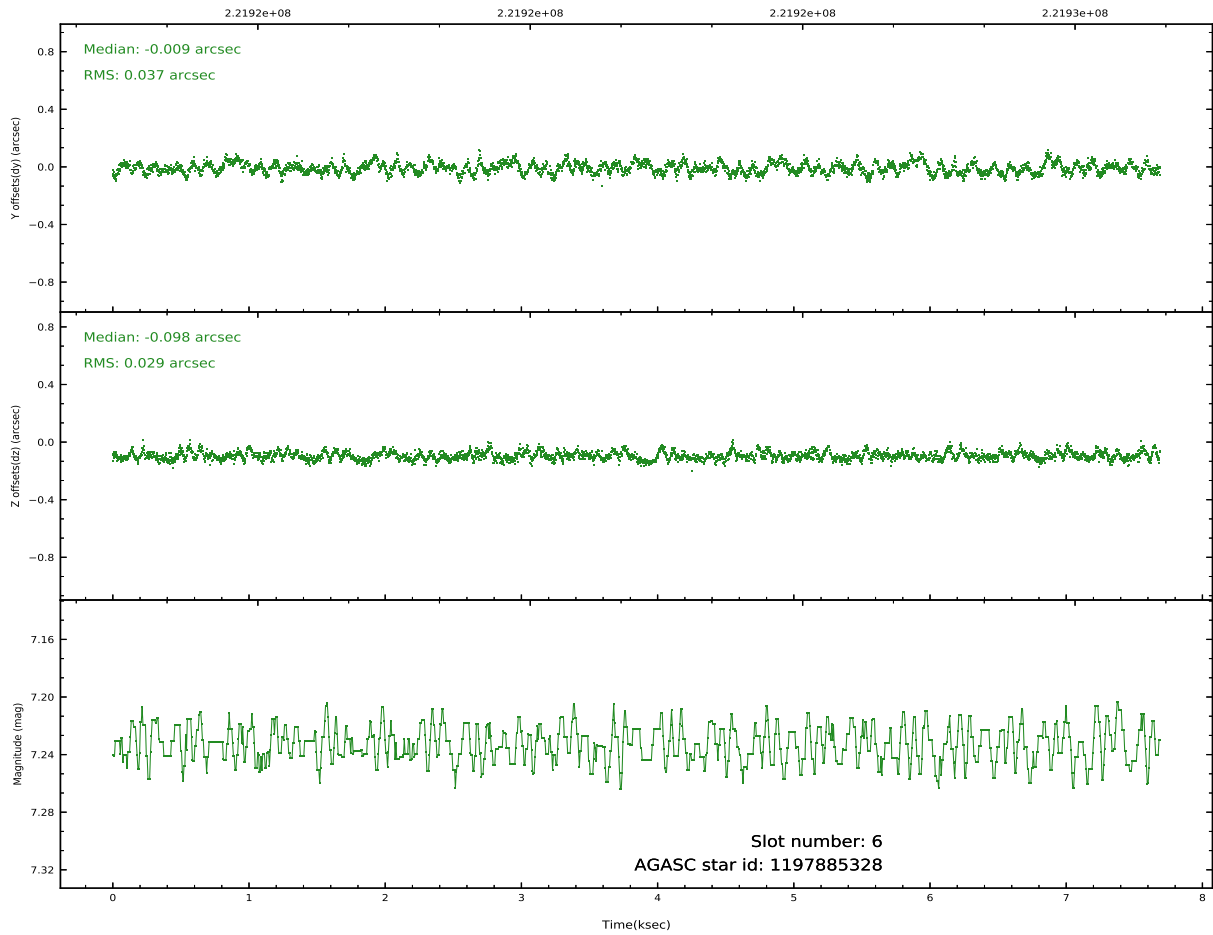
### 2.4.3 Slot 5



## 2.4.4 Slot 6

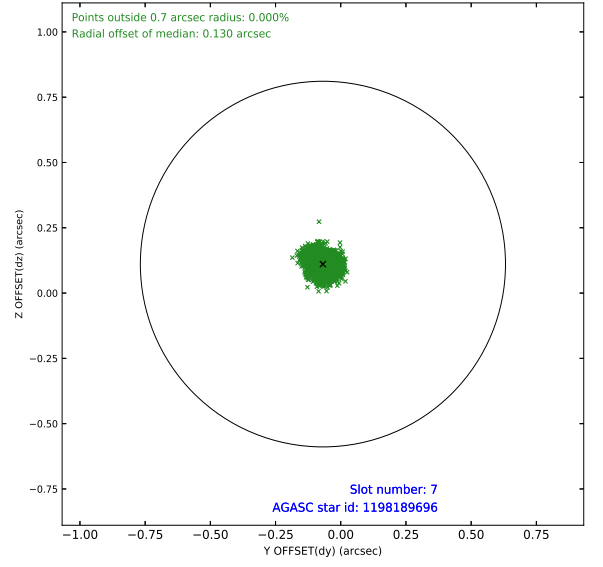
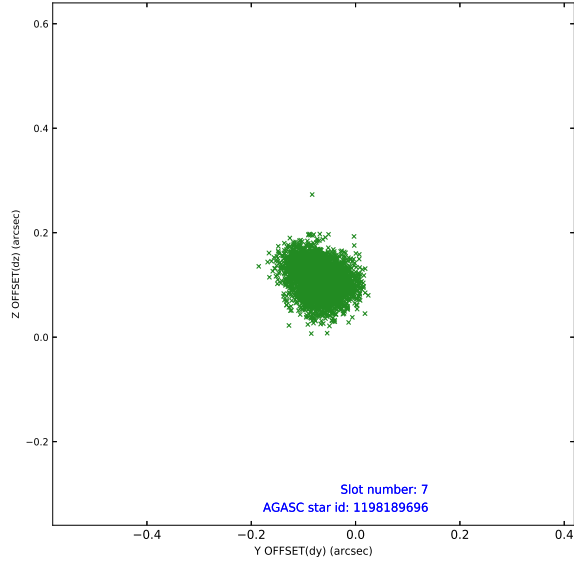


Time (s)

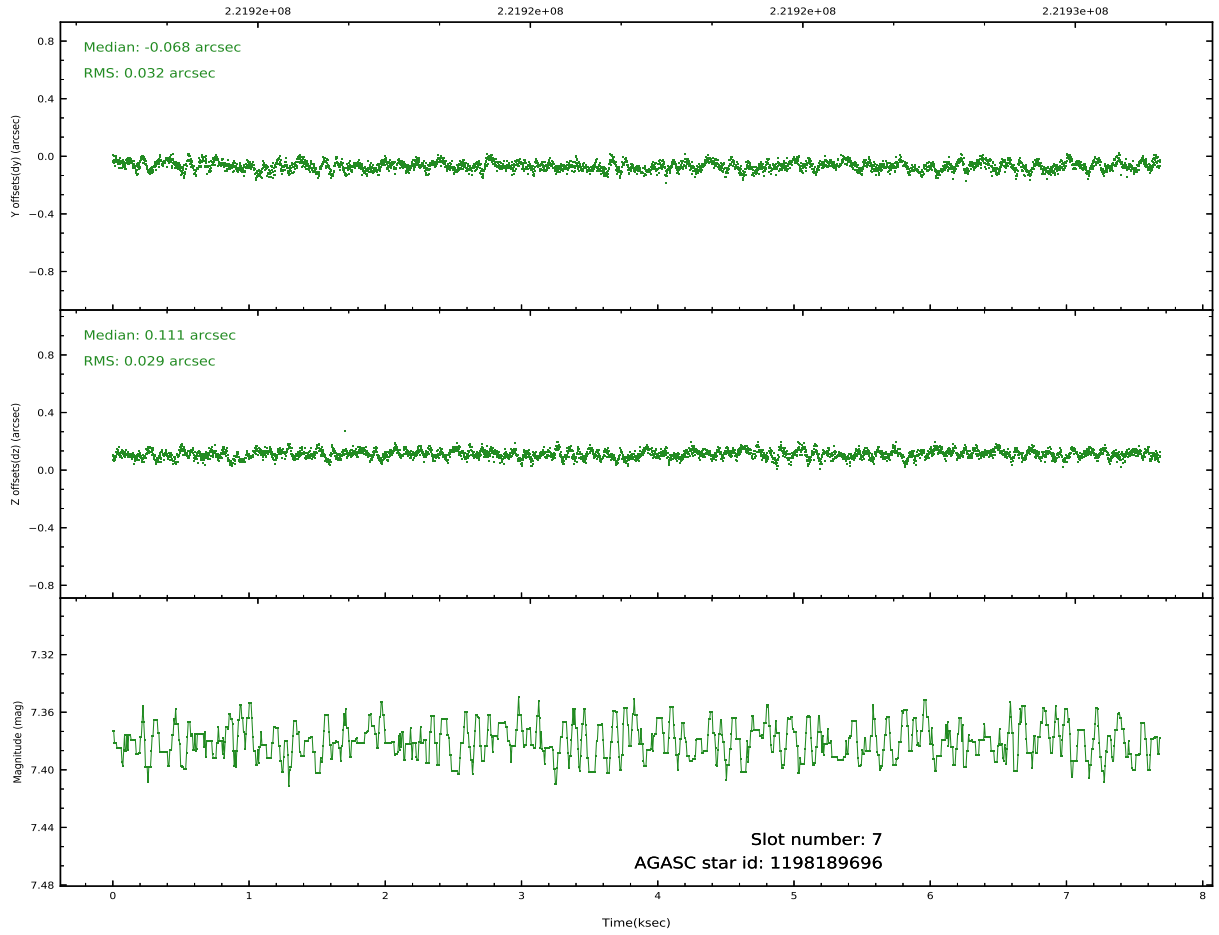




## 2.4.5 Slot 7

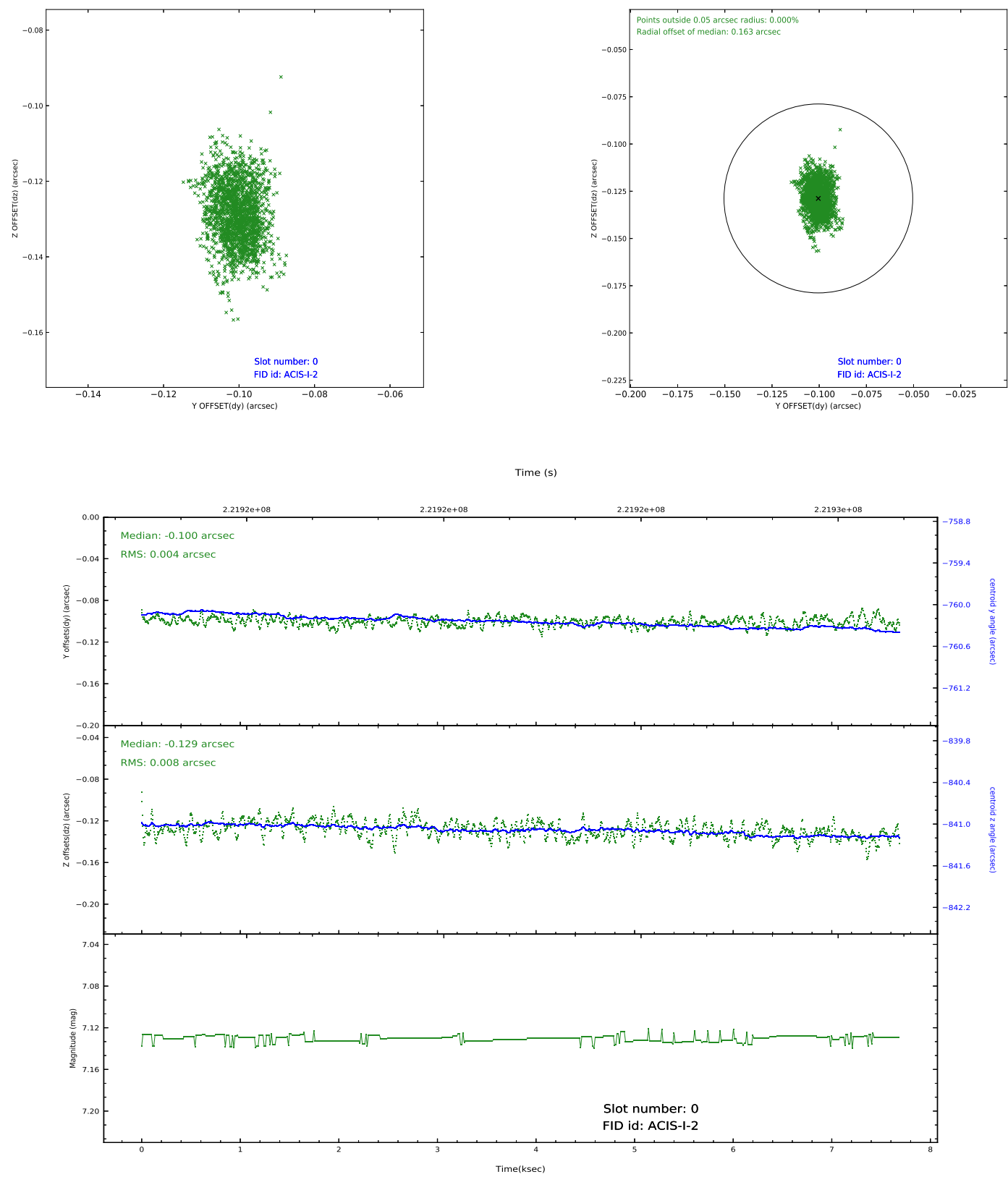


Time (s)

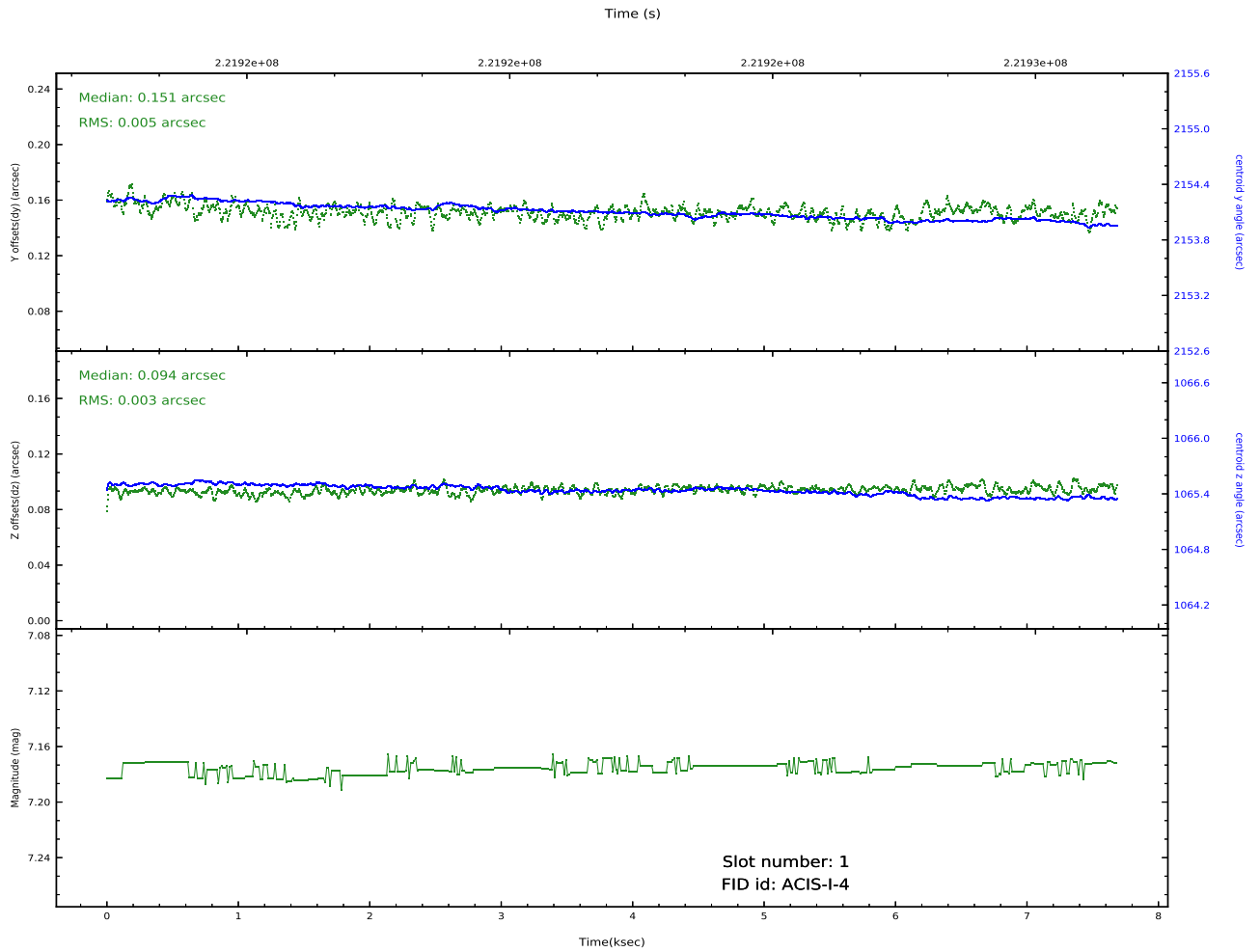
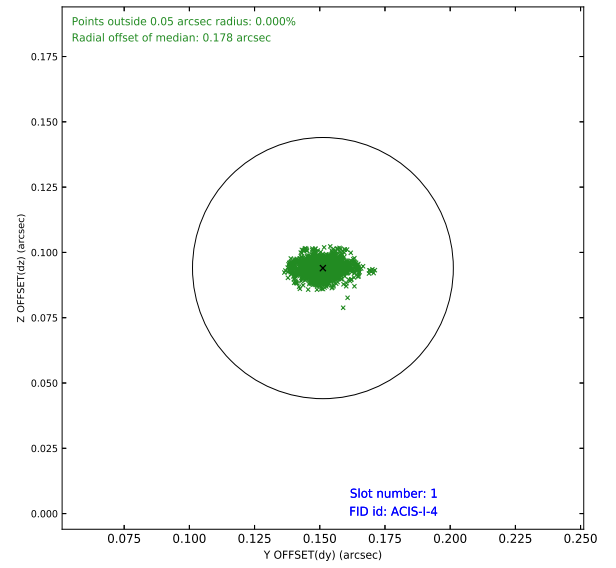
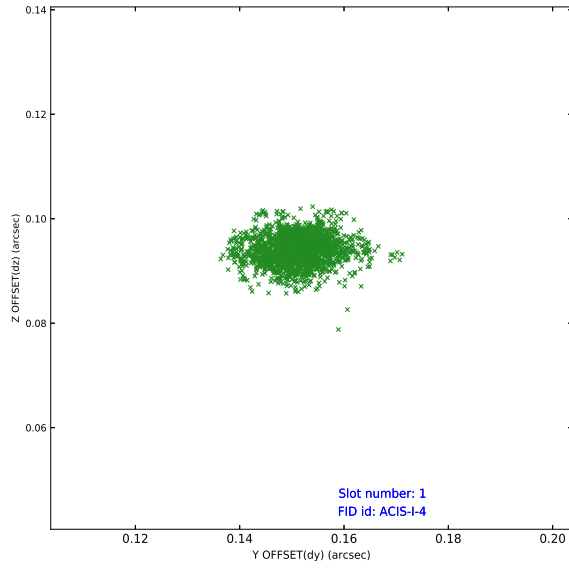


# 2.5 FID Slots

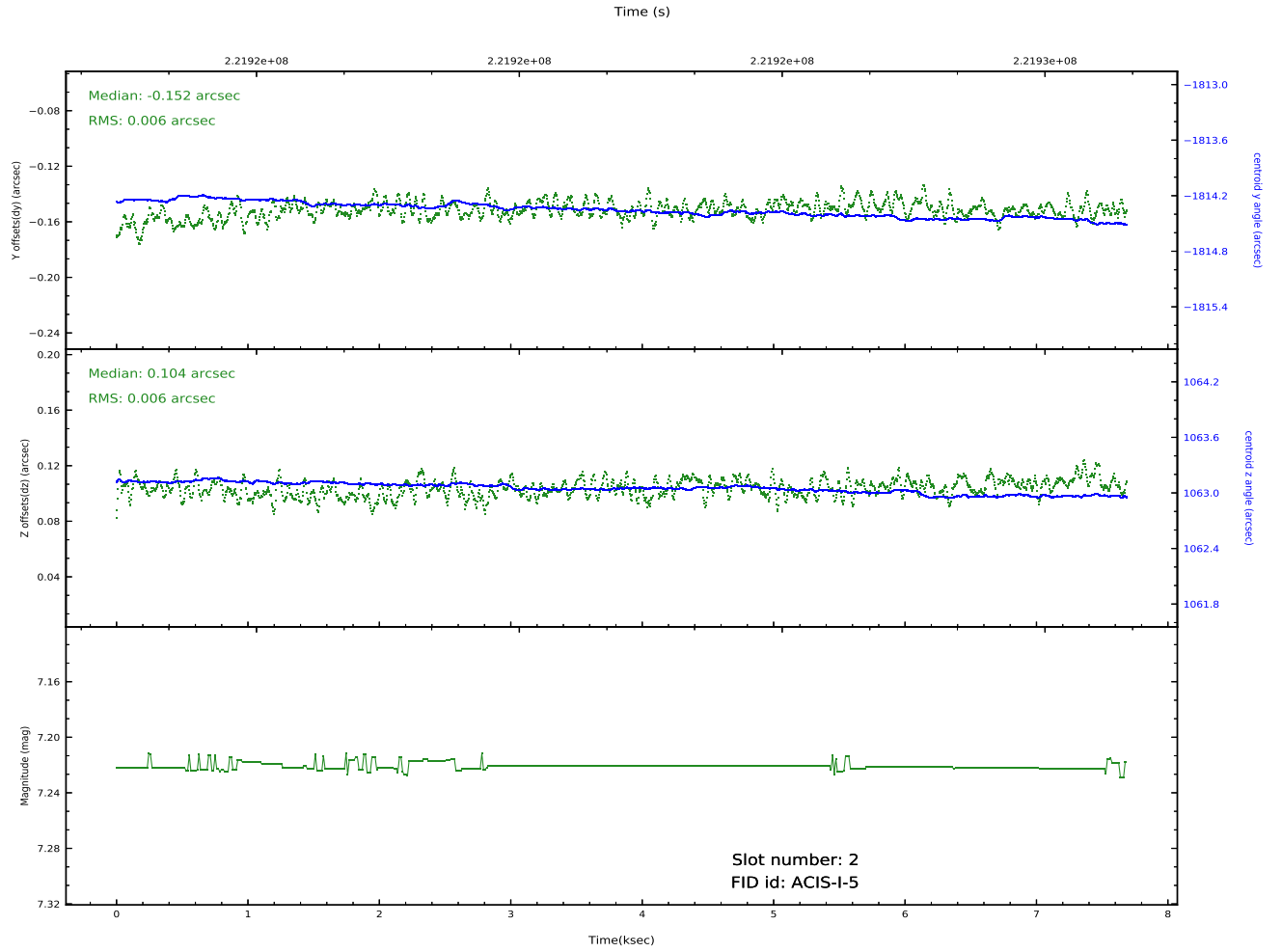
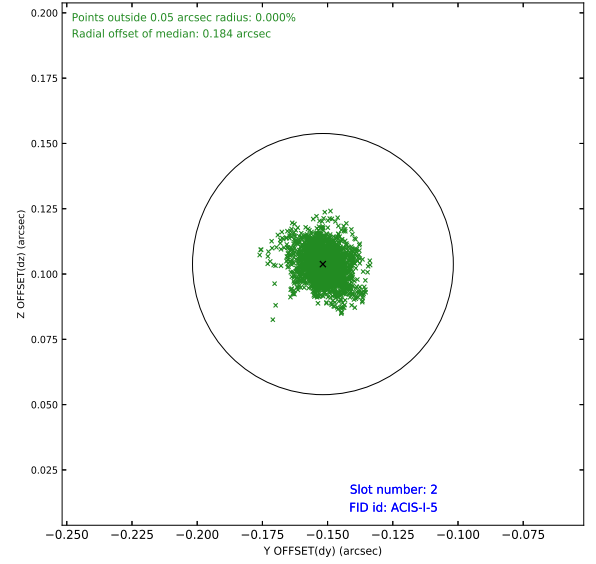
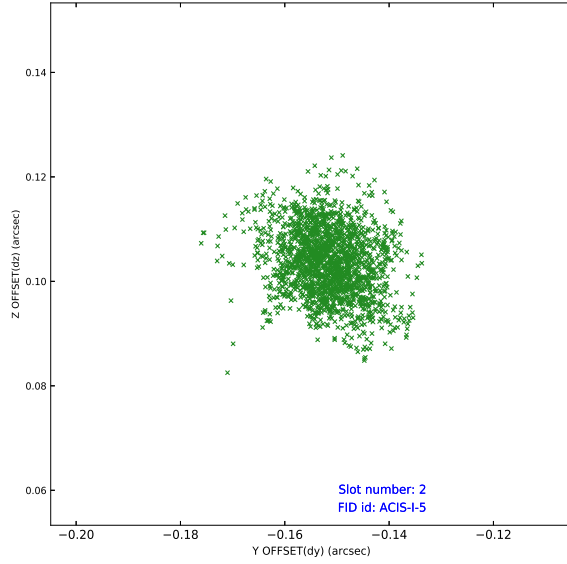
## 2.5.1 Slot 0



## 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)	2020.10.06
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.257599

### A.2 Comments

Window constraint met.