

# V&V Reference Report

## L2 ASCDS Version : 10.9.2

Observation 19379 - L2 Version 2  
Chandra X-Ray Center

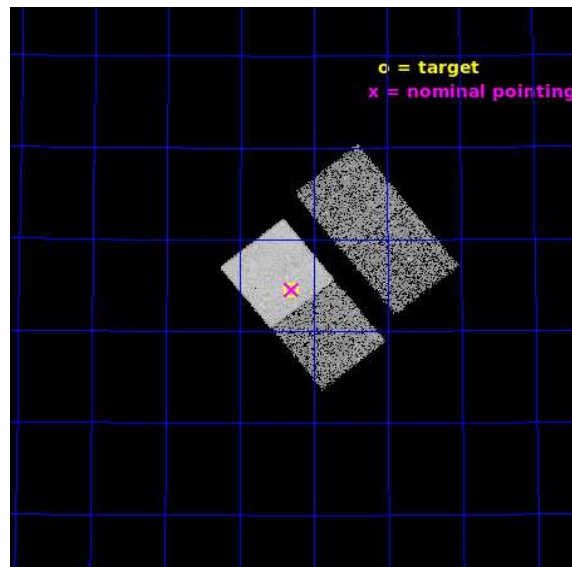
L2 Processing Date : Oct 25 2020

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# 1 Front

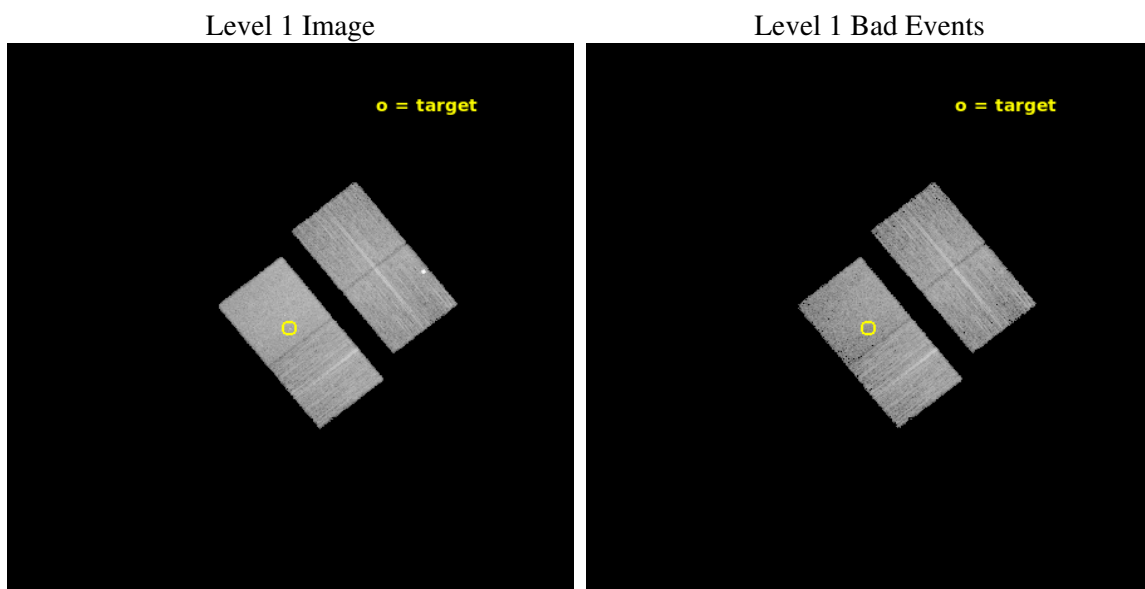
seq_num	601336	Sequence number
obs_id	19379	Observation id
title	A Statistically Complete High Resolution Chandra and Radio (eMERLIN) Survey of the Palomar Nearby Galaxies Sample	Proposal title
observer	Ian McHardy	Principal investigator
object	NGC 3642	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	170.575	Observer's specified target RA [deg]
dec_targ	59.07425	Observer's specified target Dec [deg]
ra_nom	170.5744042392	Nominal RA [deg]
dec_nom	59.075812266577	Nominal Dec [deg]
roll_nom	231.31701617778	Nominal Roll [deg]
revision	2	Processing version of data
ontime	9907.6000763178	Sum of GTIs [s]
livetime	9778.1499874516	Livetime [s]
ontime2	9907.6000763178	Sum of GTIs [s]
ontime3	9907.6000763178	Sum of GTIs [s]
ontime6	9907.6000763178	Sum of GTIs [s]
ontime7	9907.6000763178	Sum of GTIs [s]
l2events	58835	Number of level 2 events



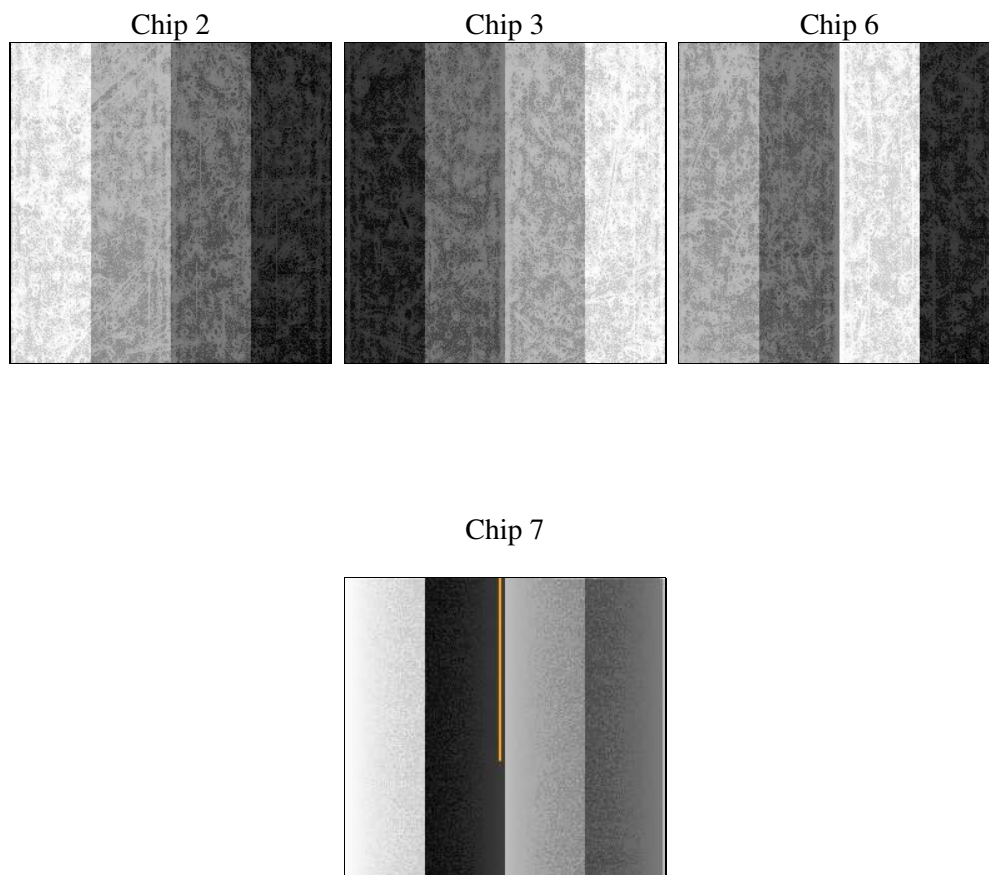
## 2 OBI

### 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	10.9.2	Processing system revision	ontime	9907.6000763178	Sum of GTIs [s]
caldsver	4.9.3	&#160	ontime2	9907.6000763178	Sum of GTIs [s]
date	2020-10-25T21:32:11	Date and time of file creation	ontime3	9907.6000763178	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	9907.6000763178	Sum of GTIs [s]
			ontime7	9907.6000763178	Sum of GTIs [s]
			l1events	314311	Number of level 1 events

### 2.1.4 Events

	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	75942	68075	77716	92578
rejected events	65417	60596	69327	52590
rejected %	86%	89%	89%	56%

	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	5611	2632	2539	3471
	7%	3%	3%	3%
grade 1 events	63	37	35	128
	0%	0%	0%	0%
grade 2 events	1843	1598	2091	8438
	2%	2%	2%	9%
grade 3 events	771	801	836	3216
	1%	1%	1%	3%
grade 4 events	804	820	803	3093
	1%	1%	1%	3%
grade 5 events	2665	3377	3158	9170
	3%	4%	4%	9%
grade 6 events	1502	1631	2122	21798
	1%	2%	2%	23%
grade 7 events	62683	57179	66132	43264
	82%	83%	85%	46%

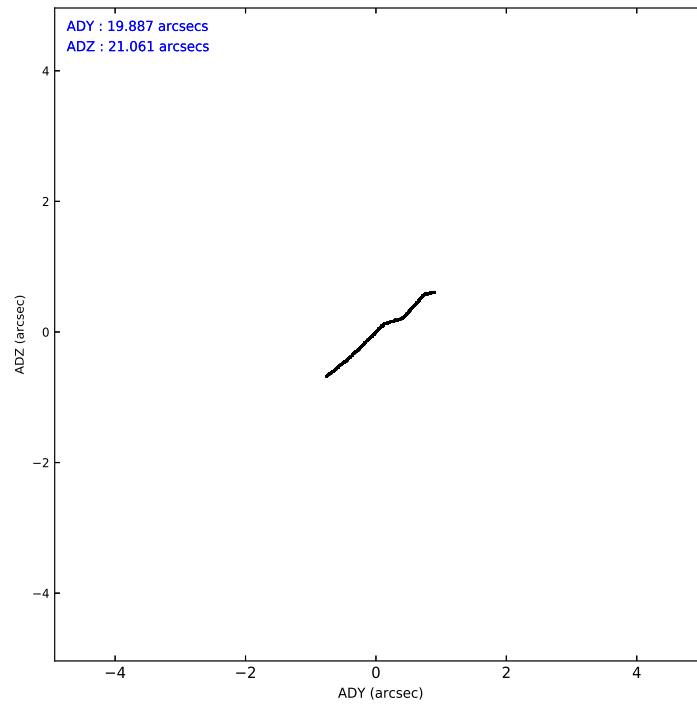
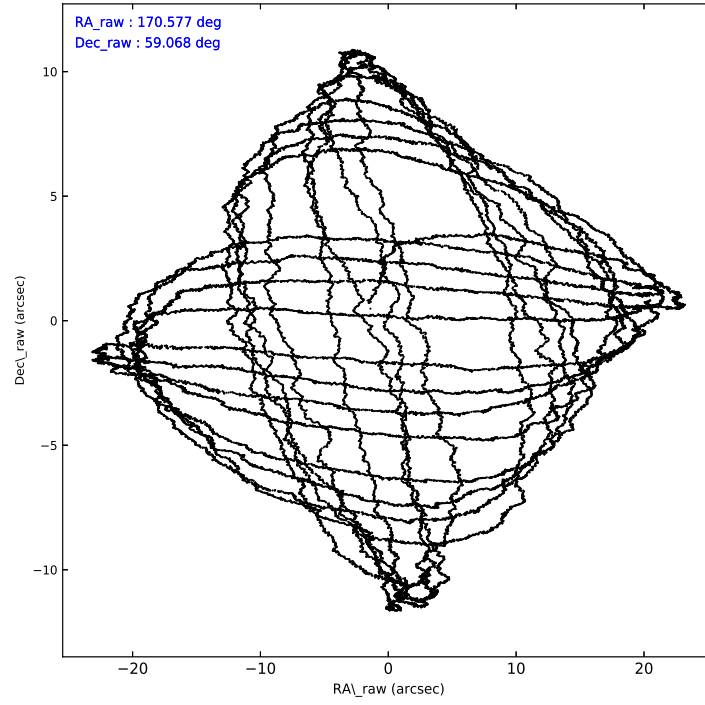


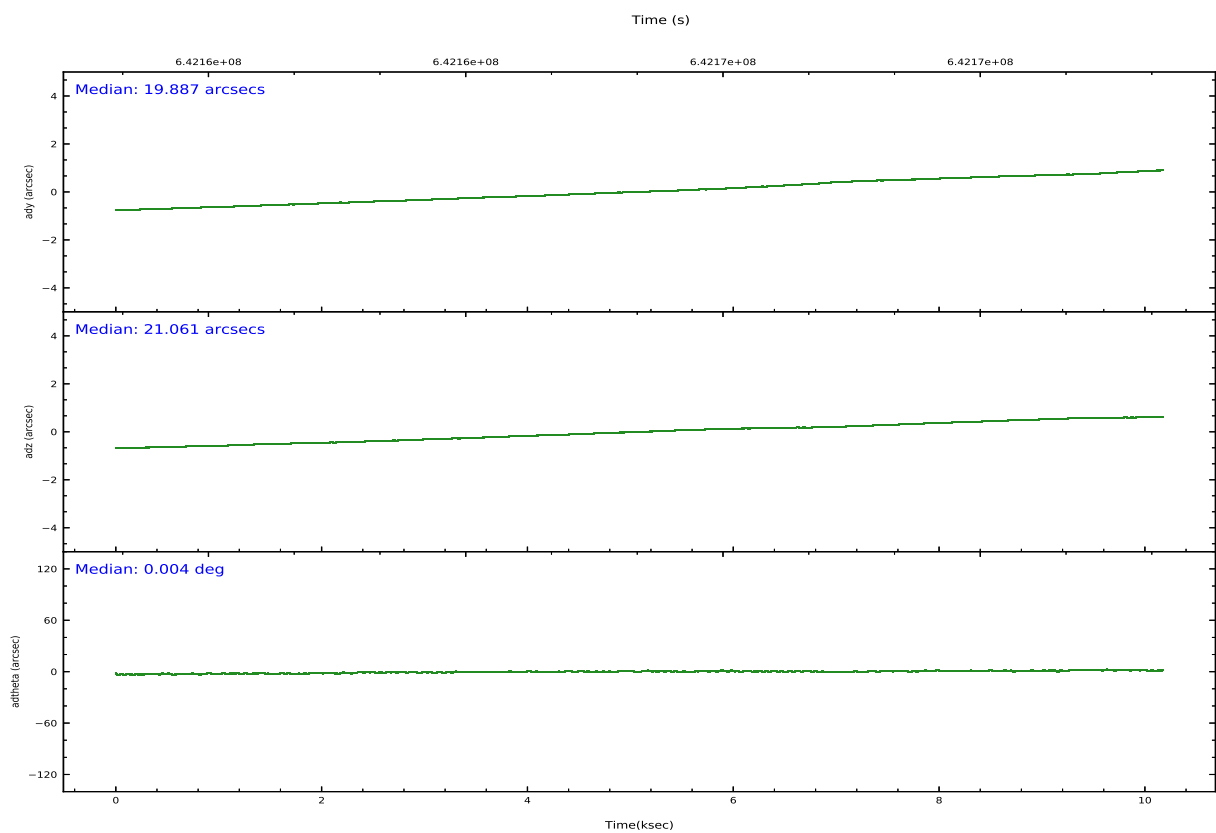
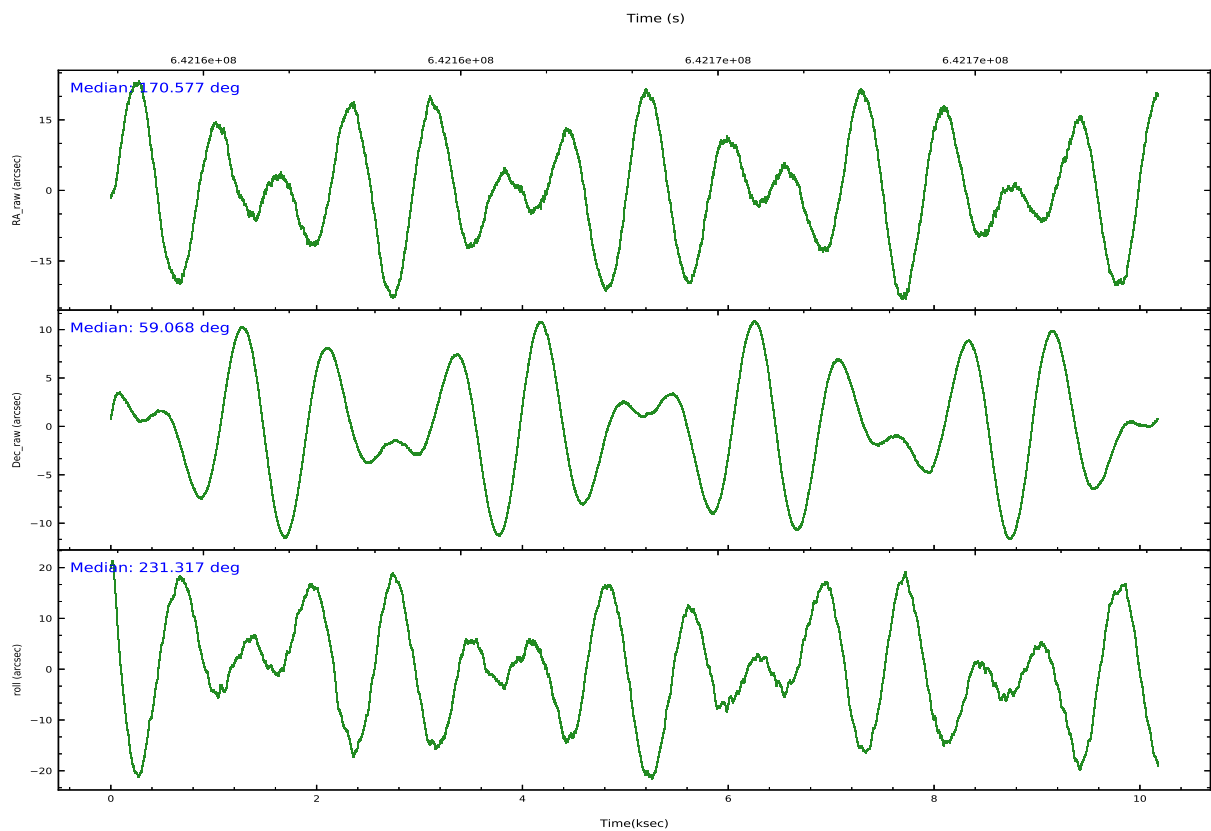
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-2367	ACIS-2367
Grating	NONE	NONE
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	170.583876	170.5744042392
[deg] Pointing Dec	59.094678	59.075812266577
[deg] Pointing Roll	231.164432	231.31701617778
[mm] SIM focus pos	-0.684267	-0.6828225247311905
[mm] SIM defocus	0	0.001444936568705701
[mm] SIM translation stage pos	-190.132523	-190.1425803651734
[mm] SIM translation stage offset	0	0.01005778216563158
[s] Observation start time (MET)	642161776.184000	642161063.71351
Observation start date	2018-05-08T10:15:07	2018-05-08T10:04:23
[s] Observation end time (MET)	642171776.184000	642172188.5516599
Observation end date	2018-05-08T13:01:47	2018-05-08T13:09:48
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar version number	8	8
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



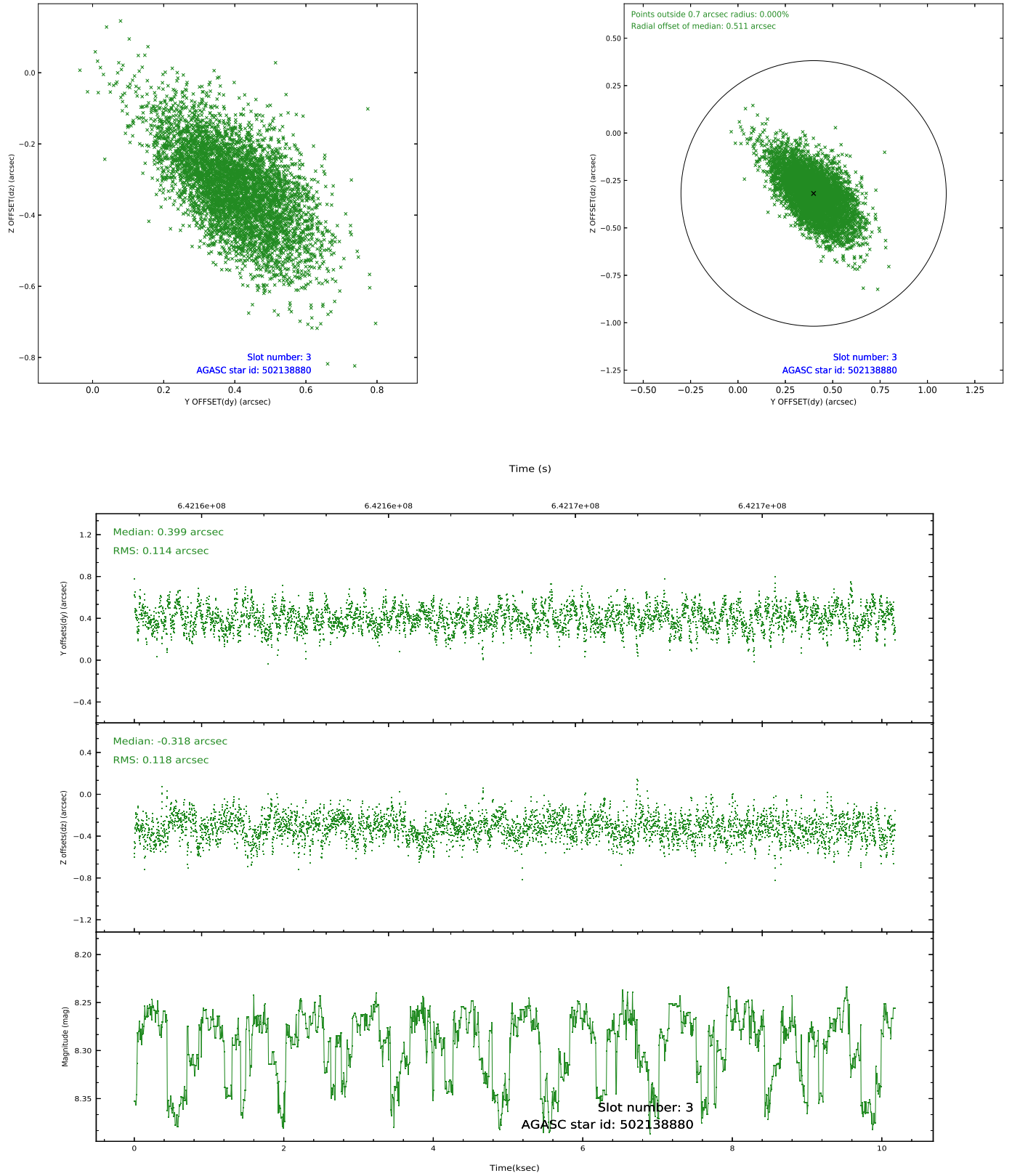


Slot Statistics

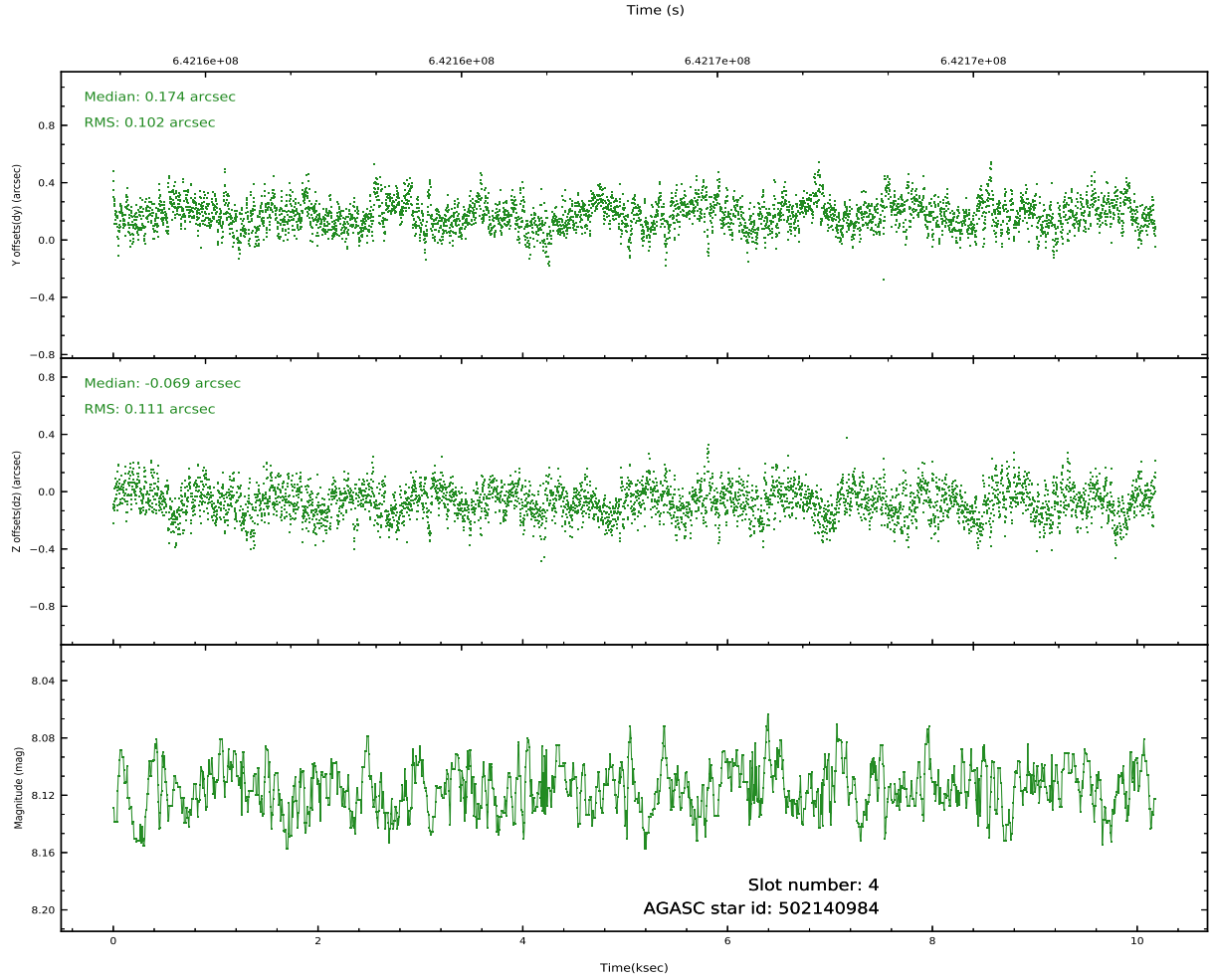
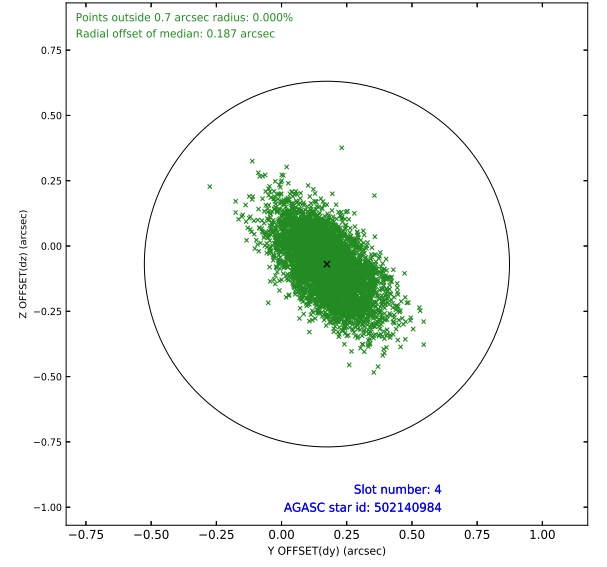
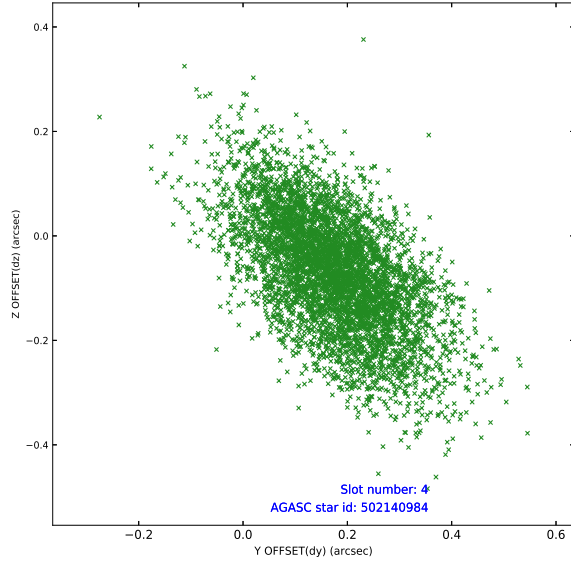
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.12	2482	1.000	0.104	-0.104	0.017	0.032	0.000000	0.000000	-773.17	-1742
1	FID		ACIS-S-4	7.24	2483	1.000	0.109	-0.022	0.025	0.040	0.000000	0.000000	2140.14	165
2	FID		ACIS-S-5	7.22	2483	1.000	-0.246	0.135	0.021	0.030	0.000000	0.000000	-1825.44	160
3	GUIDE	used	502138880	8.29	4960	1.000	0.399	-0.318	0.168	0.295	168.983612	59.120997	1753.78	-2384
4	GUIDE	used	502140984	8.12	4964	1.000	0.174	-0.069	0.154	0.274	169.162311	58.945065	2054.72	-1736
5	GUIDE	used	502143224	7.72	4966	1.000	-0.217	-0.007	0.149	0.258	170.371109	58.484355	1961.87	1065
6	GUIDE	used	502143384	7.72	4966	1.000	-0.253	0.385	0.138	0.240	171.186607	59.663751	-2285.93	-433
7	GUIDE	used	502139008	8.90	4961	1.000	-0.109	0.013	0.157	0.267	171.461493	58.762354	-104.28	2019

## 2.4 Star Slots

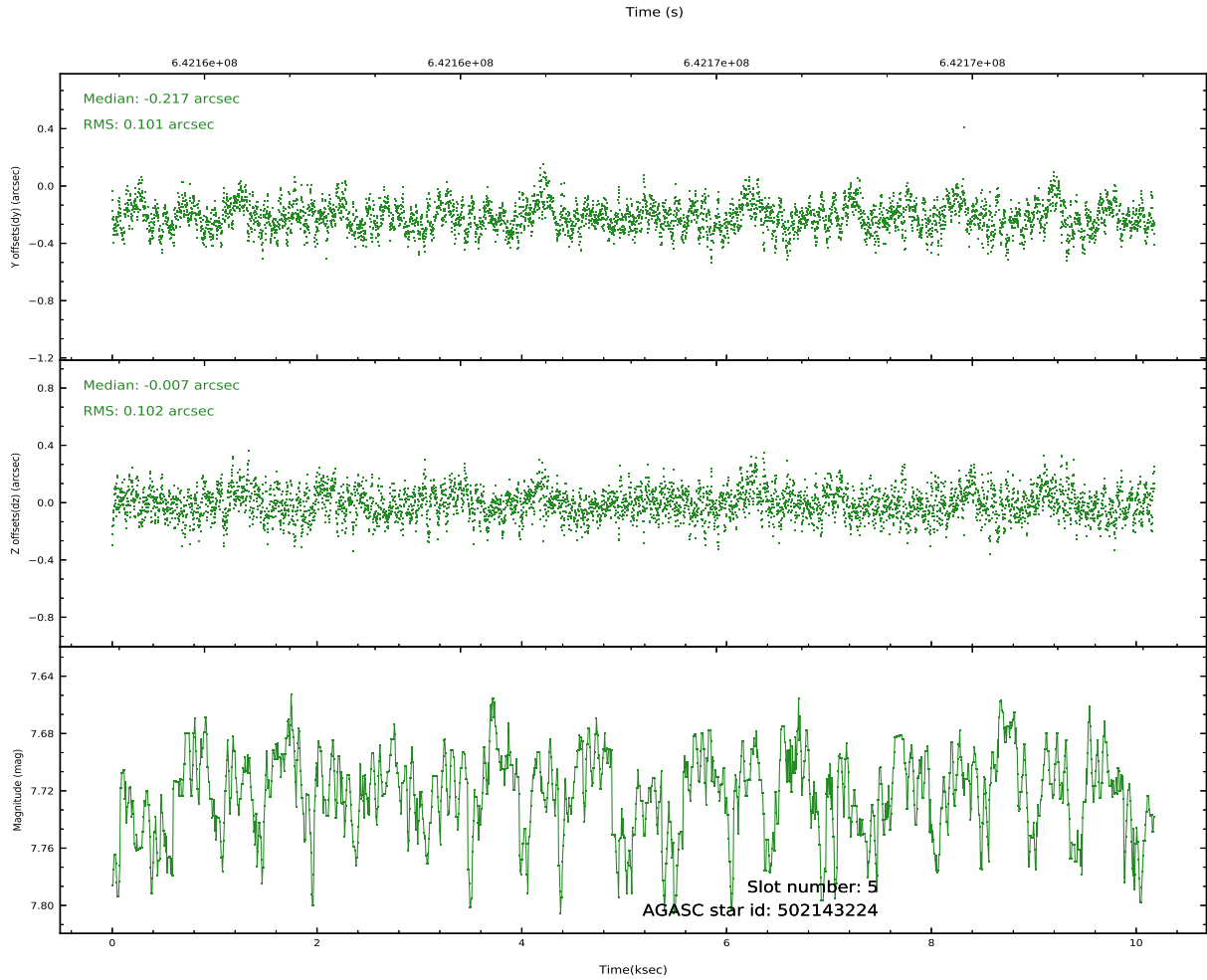
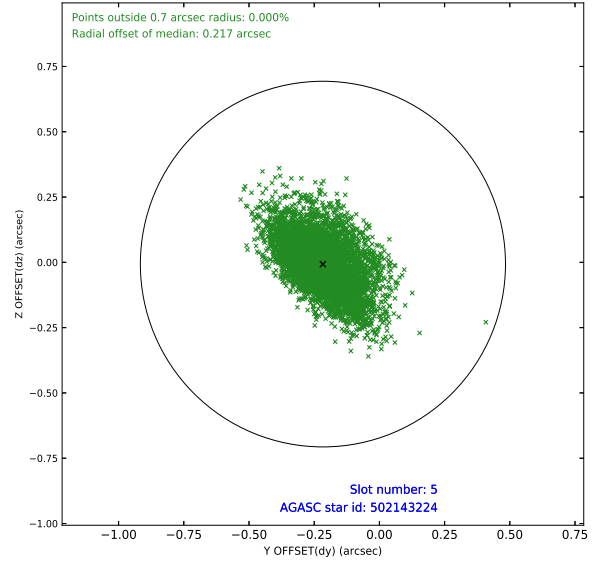
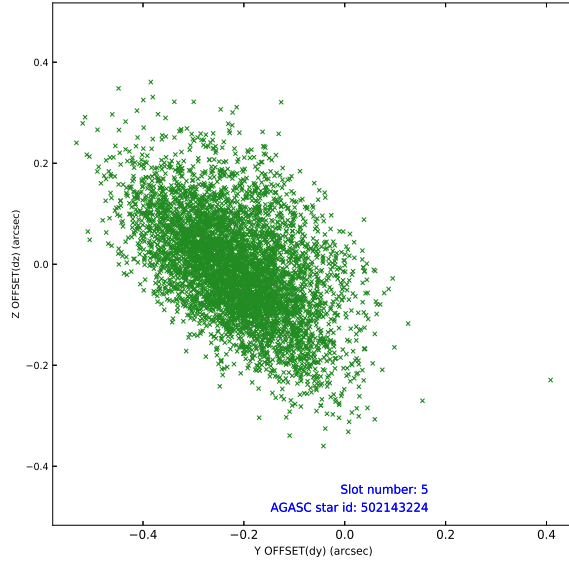
### 2.4.1 Slot 3



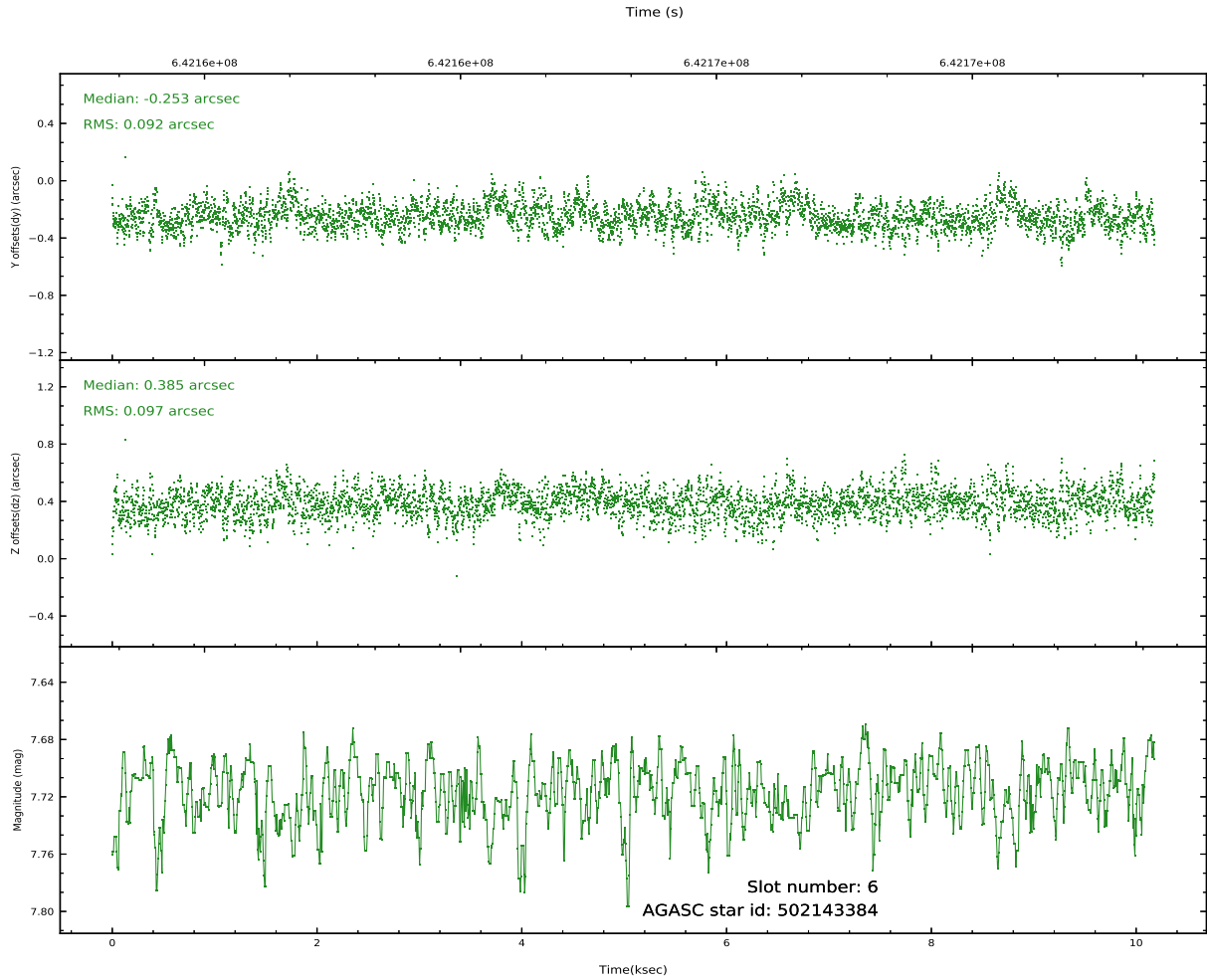
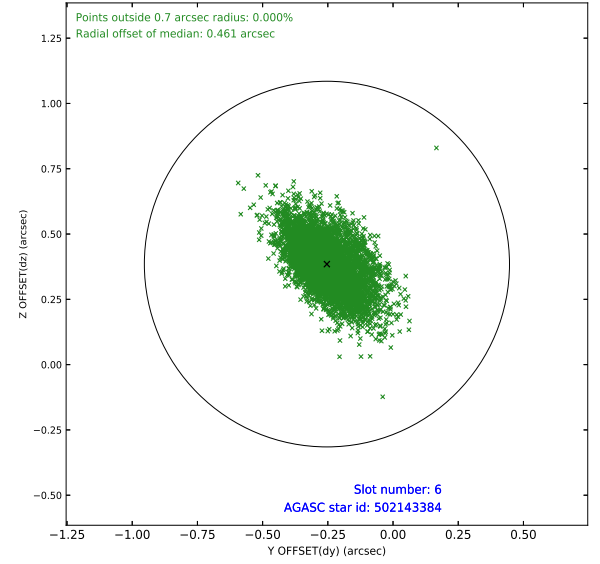
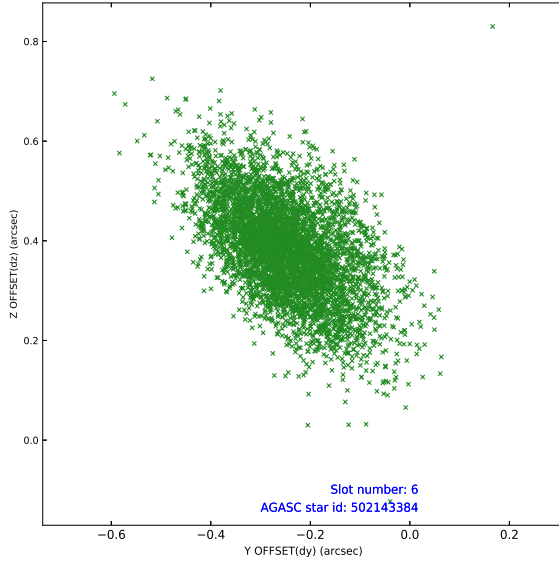
## 2.4.2 Slot 4



### 2.4.3 Slot 5

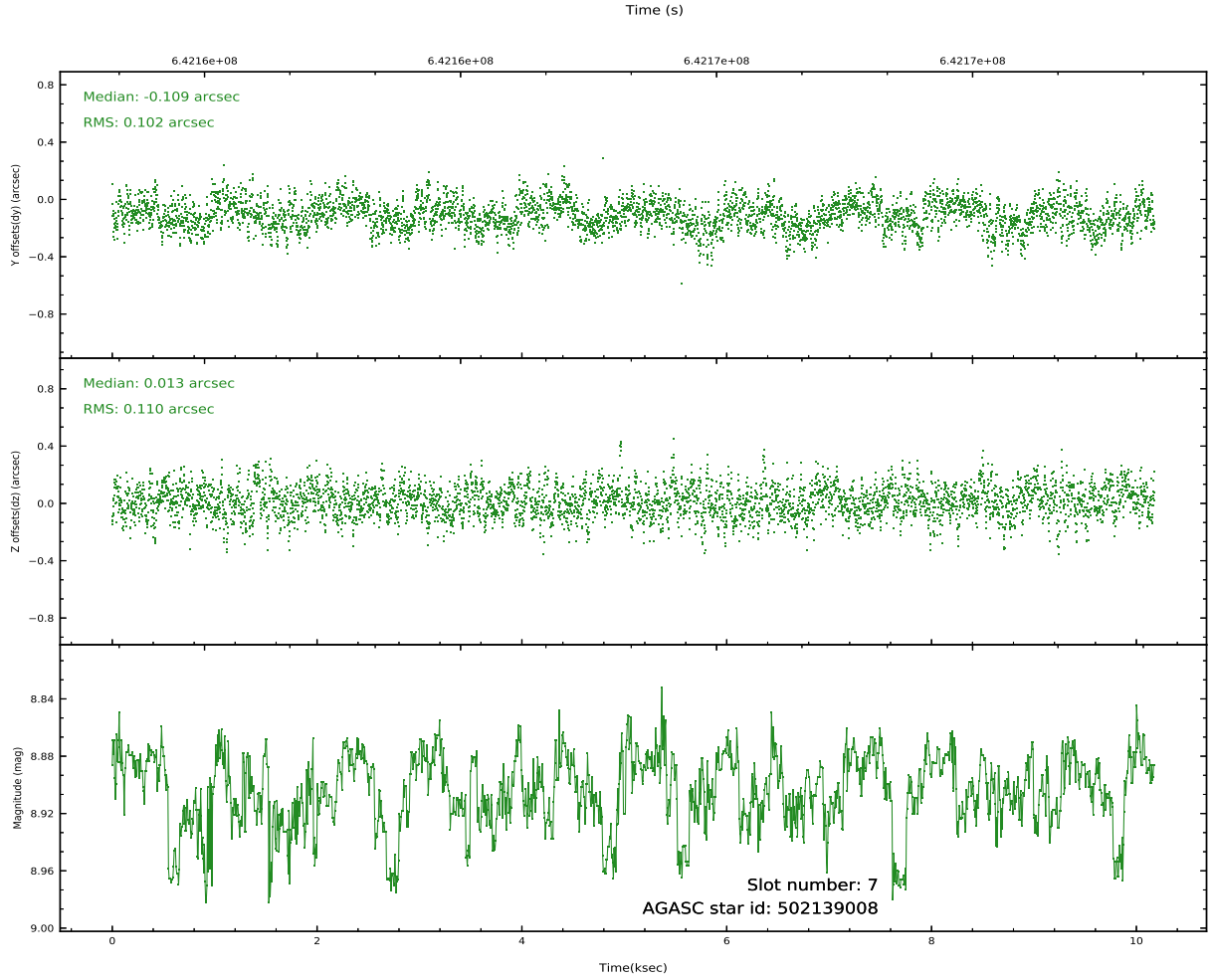
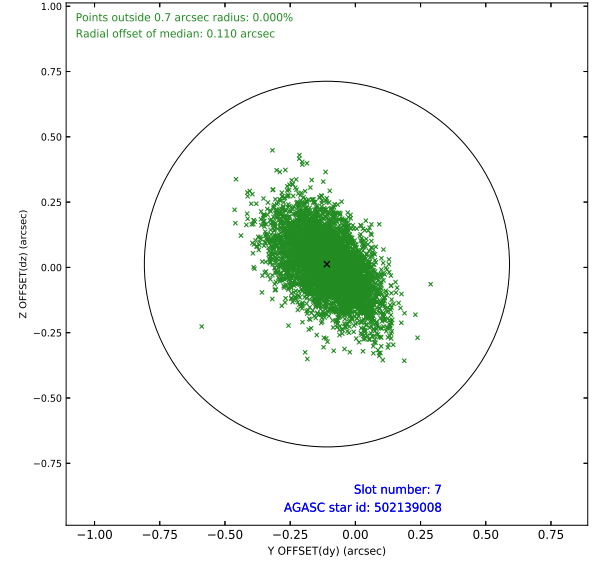
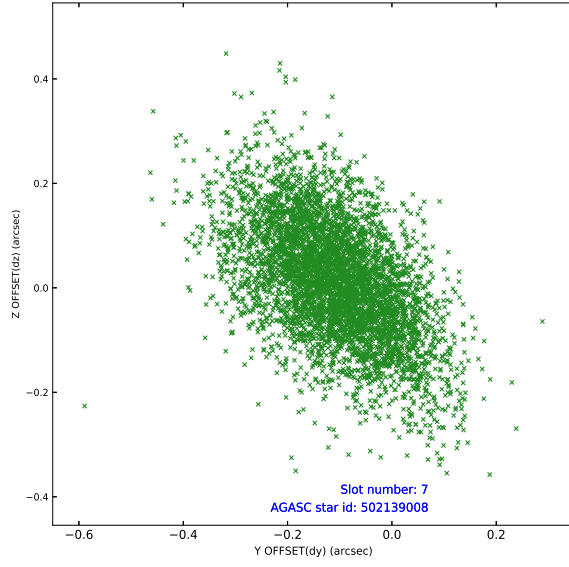


## 2.4.4 Slot 6



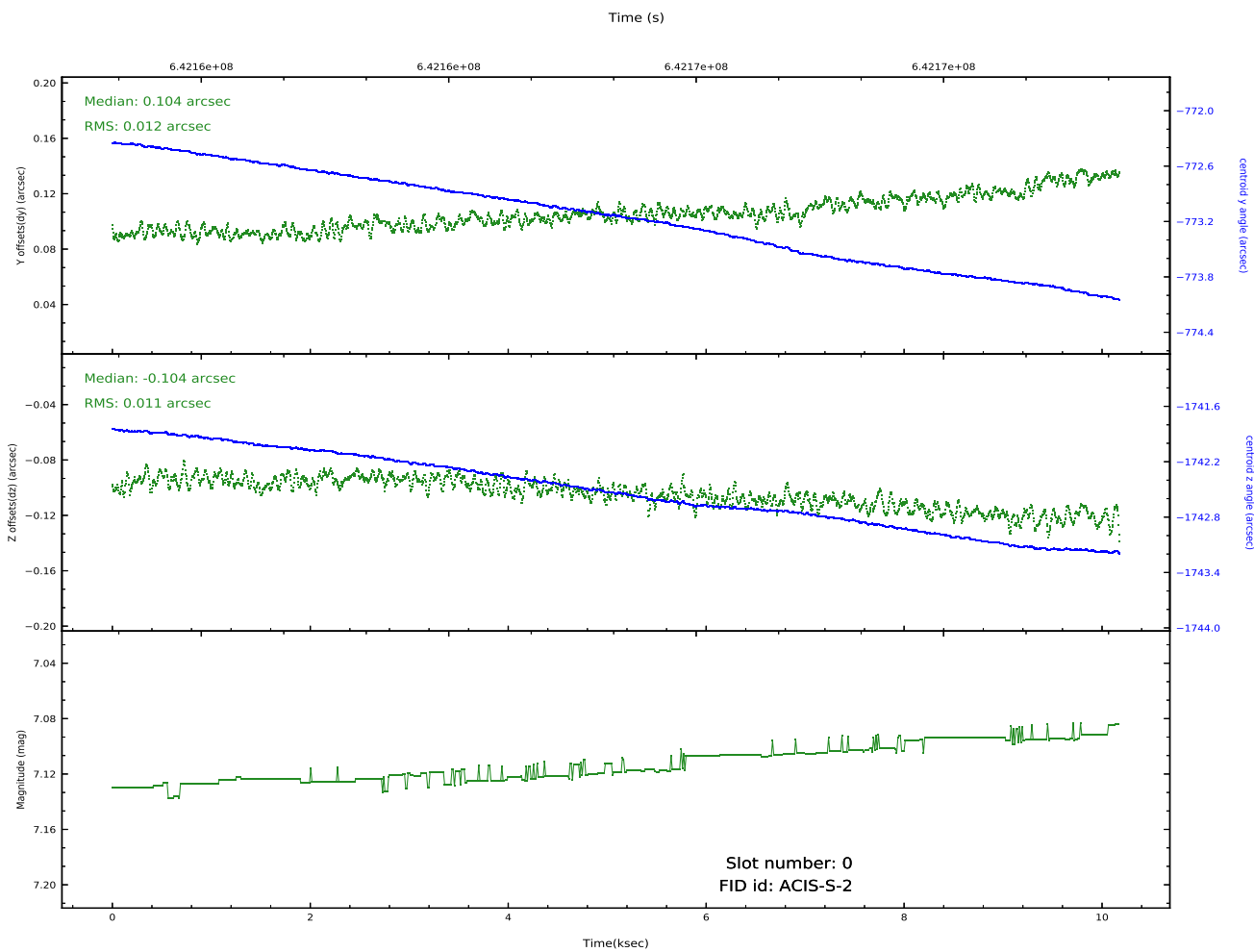
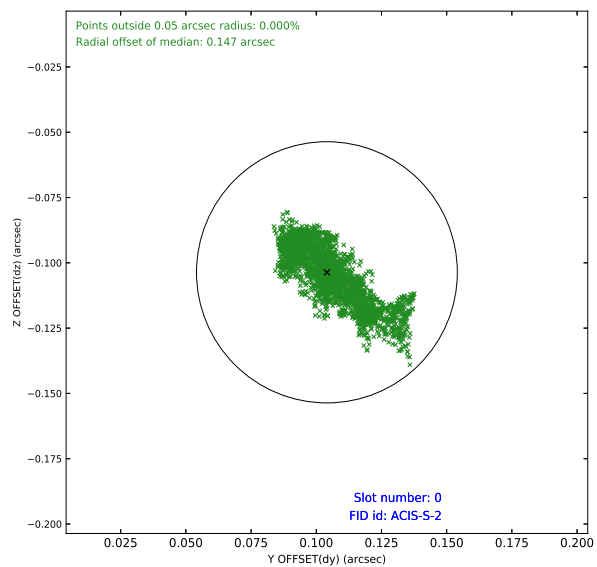
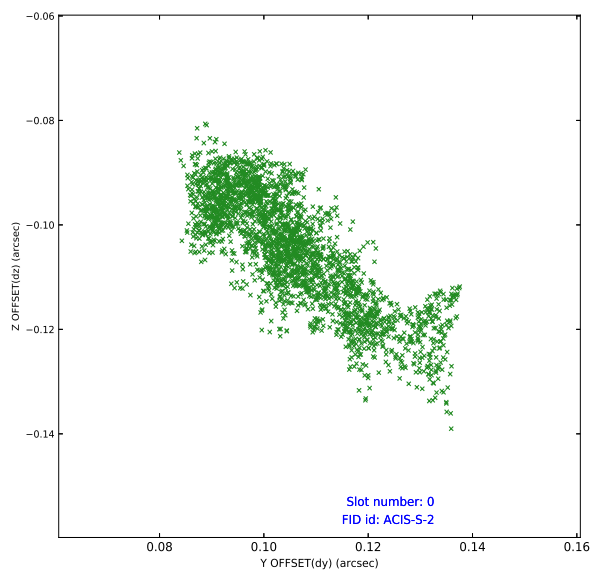


## 2.4.5 Slot 7

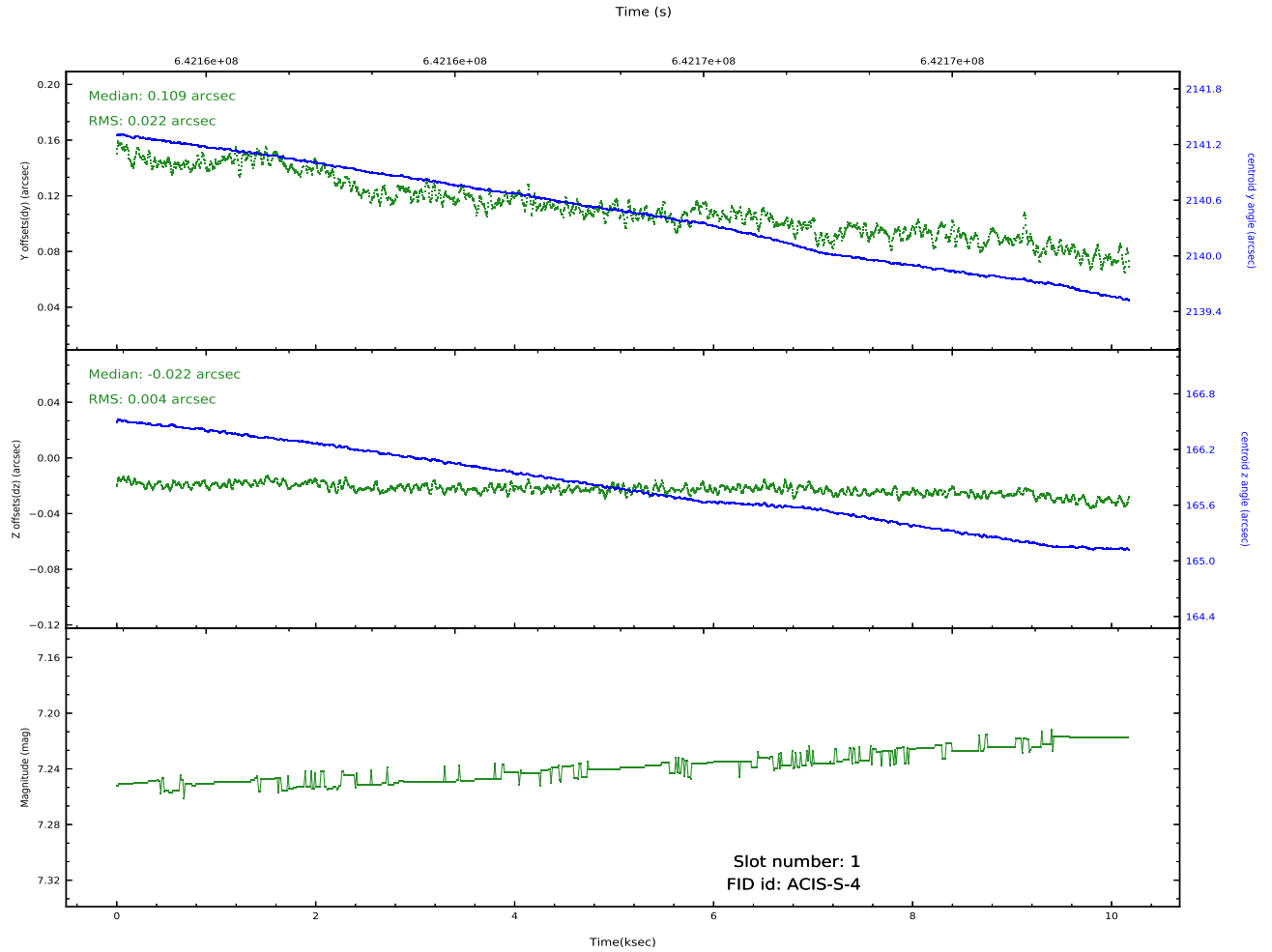
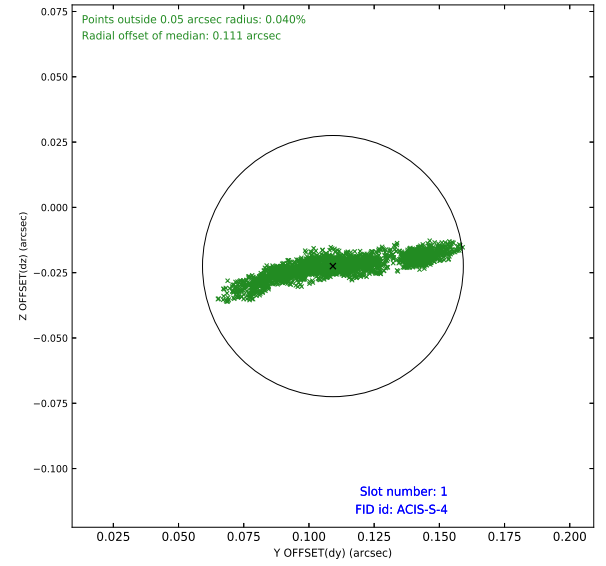
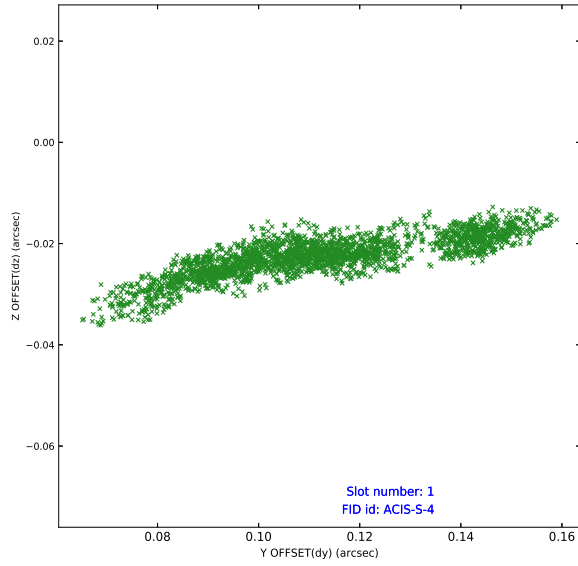


## 2.5 FID Slots

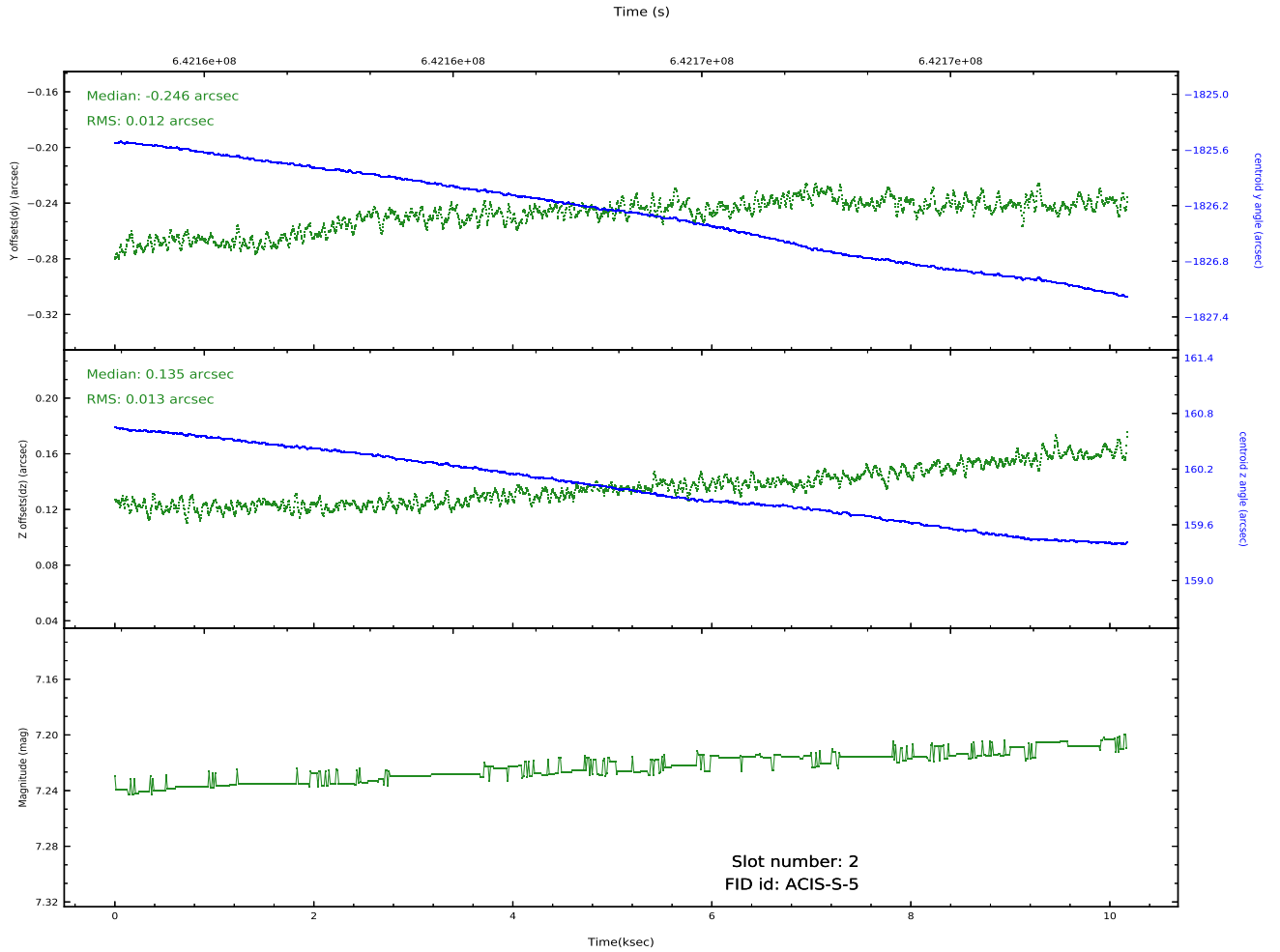
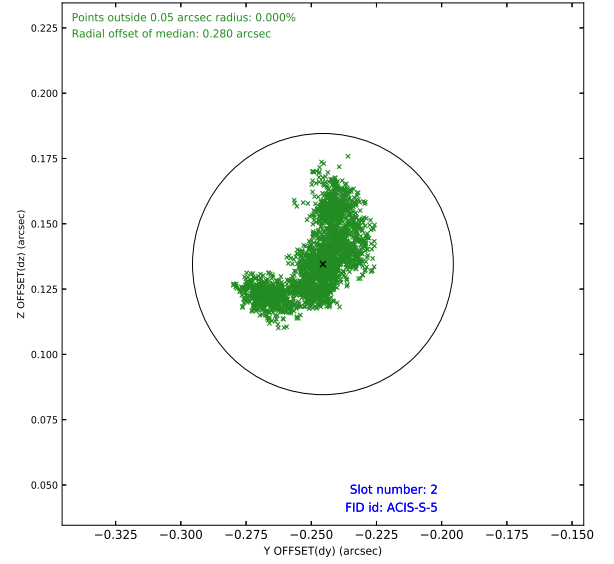
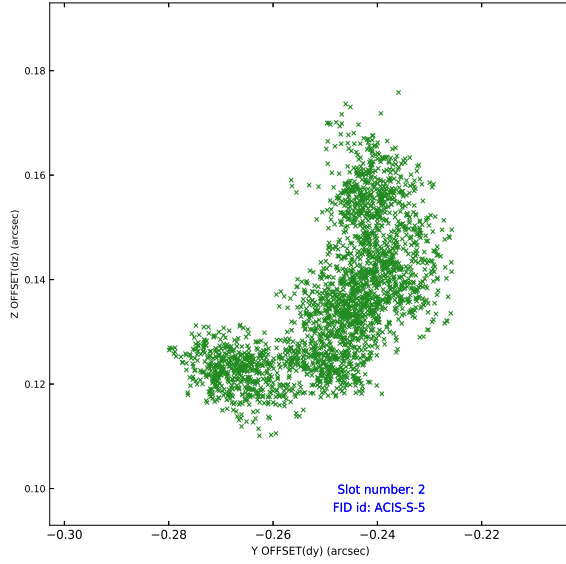
### 2.5.1 Slot 0



## 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)	2020.10.26
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.9076000763178

### A.2 Comments