

# V&V Reference Report

## L2 ASCDS Version : 10.9.2

Observation 20384 - L2 Version 2  
Chandra X-Ray Center

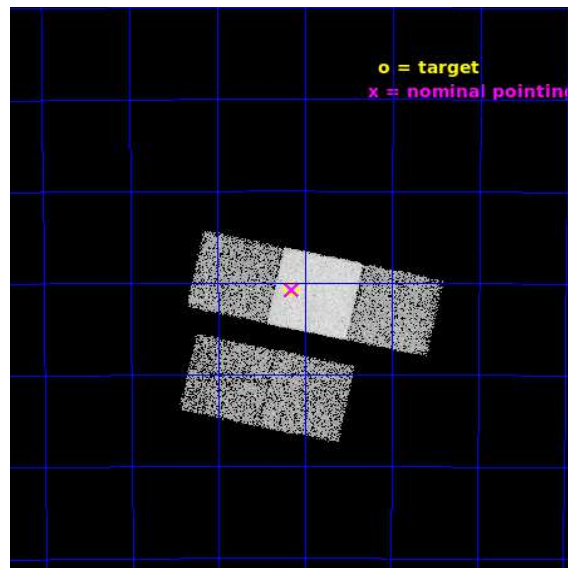
L2 Processing Date : Oct 27 2020

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# 1 Front

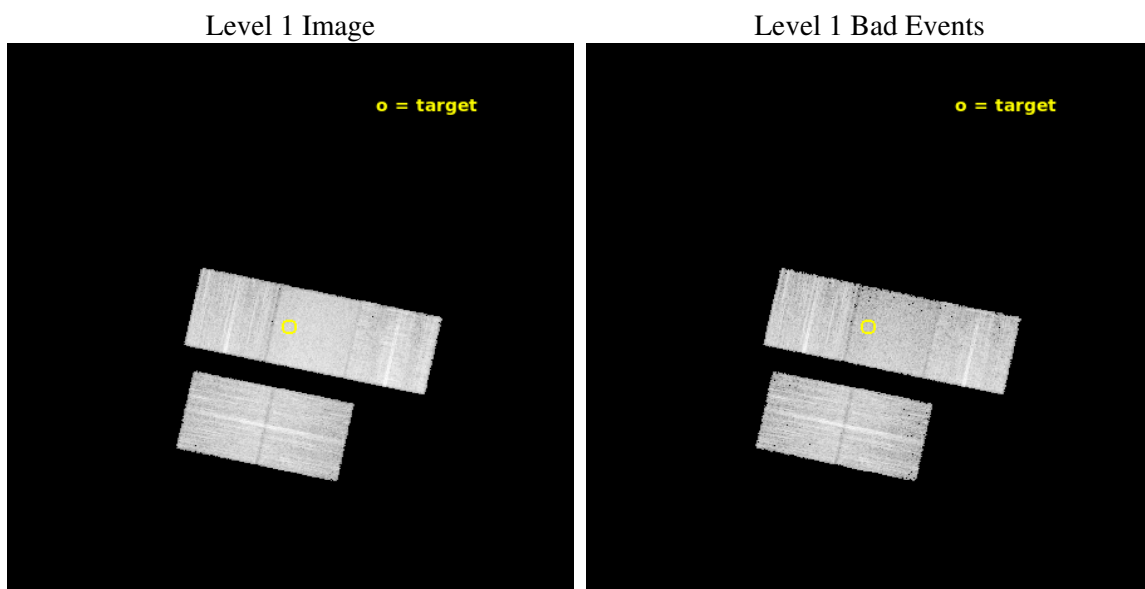
seq_num	703489	Sequence number
obs_id	20384	Observation id
title	HEAVILY REDDENED, LUMINOUS TYPE 1 QSOs: A TRANSITION POPULATION EMERGING FROM THE DUST	Proposal title
observer	Enrico Piconcelli	Principal investigator
object	VHSJ2332-5240	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	353.03875	Observer's specified target RA [deg]
dec_targ	-52.678	Observer's specified target Dec [deg]
ra_nom	353.03711644707	Nominal RA [deg]
dec_nom	-52.679396740107	Nominal Dec [deg]
roll_nom	12.153508220954	Nominal Roll [deg]
revision	2	Processing version of data
ontime	8889.5256079435	Sum of GTIs [s]
livetime	8773.3774115022	Livetime [s]
ontime2	8889.3614479303	Sum of GTIs [s]
ontime3	8889.4435279369	Sum of GTIs [s]
ontime6	8889.4845679998	Sum of GTIs [s]
ontime7	8889.5256079435	Sum of GTIs [s]
ontime8	8883.1203974485	Sum of GTIs [s]
l2events	62060	Number of level 2 events



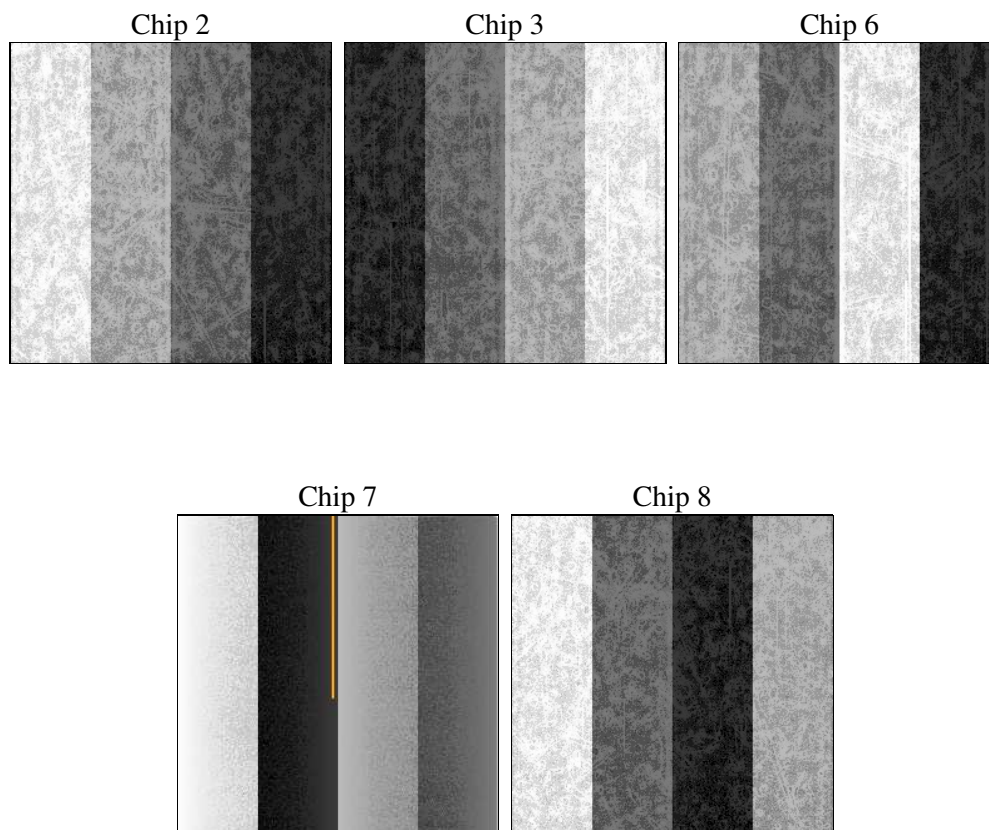
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	9000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	8889.5256079435	Sum of GTIs [s]
caldsver	4.9.3	&#160	ontime2	8889.3614479303	Sum of GTIs [s]
date	2020-10-27T16:15:13	Date and time of file creation	ontime3	8889.4435279369	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	8889.4845679998	Sum of GTIs [s]
			ontime7	8889.5256079435	Sum of GTIs [s]
			ontime8	8883.1203974485	Sum of GTIs [s]
			l1events	386756	Number of level 1 events

### 2.1.4 Events

	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	68563	67086	71674	87666	91767
rejected events	61654	60302	64156	50210	68903
rejected %	89%	89%	89%	57%	75%

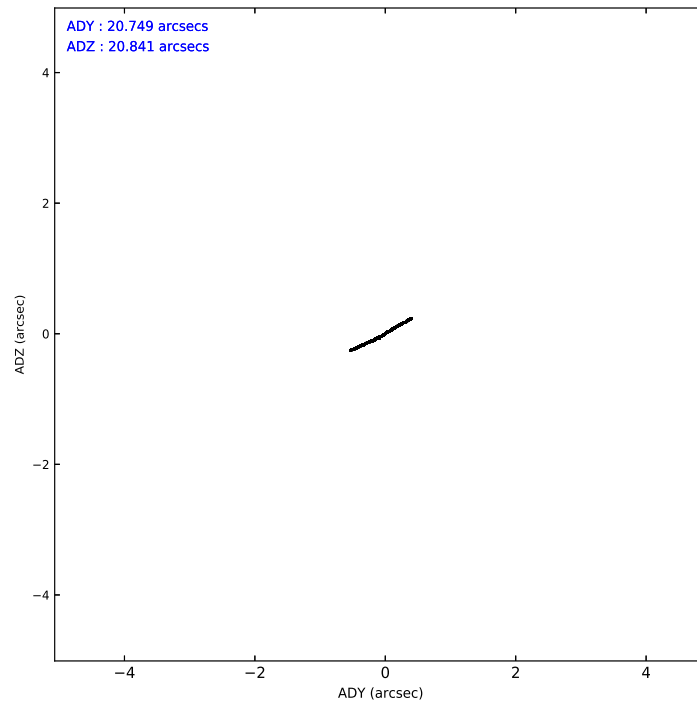
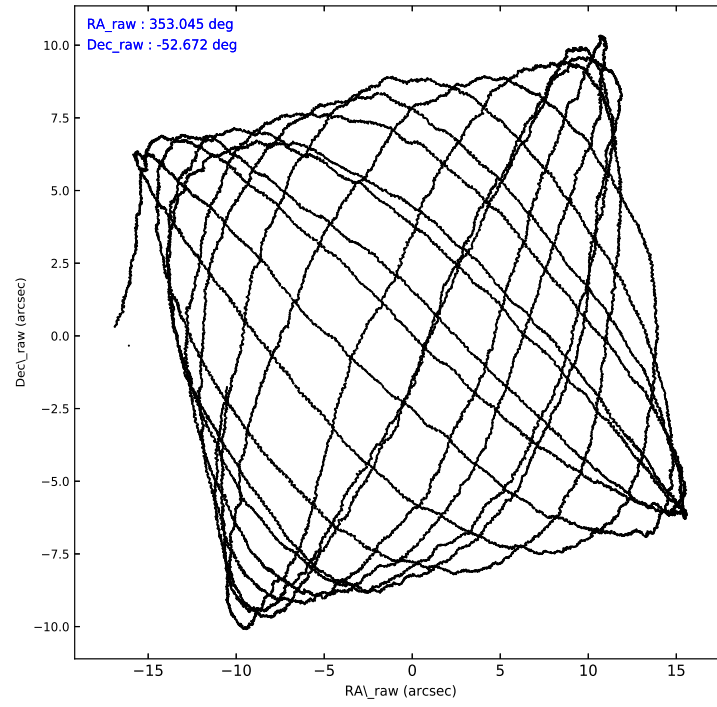
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	2426	2437	2371	3040	6301
	3%	3%	3%	3%	6%
grade 1 events	40	39	41	131	74
	0%	0%	0%	0%	0%
grade 2 events	1629	1524	1877	7985	5531
	2%	2%	2%	9%	6%
grade 3 events	697	661	692	2965	2412
	1%	0%	0%	3%	2%
grade 4 events	716	747	671	2985	2248
	1%	1%	0%	3%	2%
grade 5 events	2572	3139	3099	8623	4791
	3%	4%	4%	9%	5%
grade 6 events	1448	1418	1911	20509	6392
	2%	2%	2%	23%	6%
grade 7 events	59035	57121	61012	41428	64018
	86%	85%	85%	47%	69%

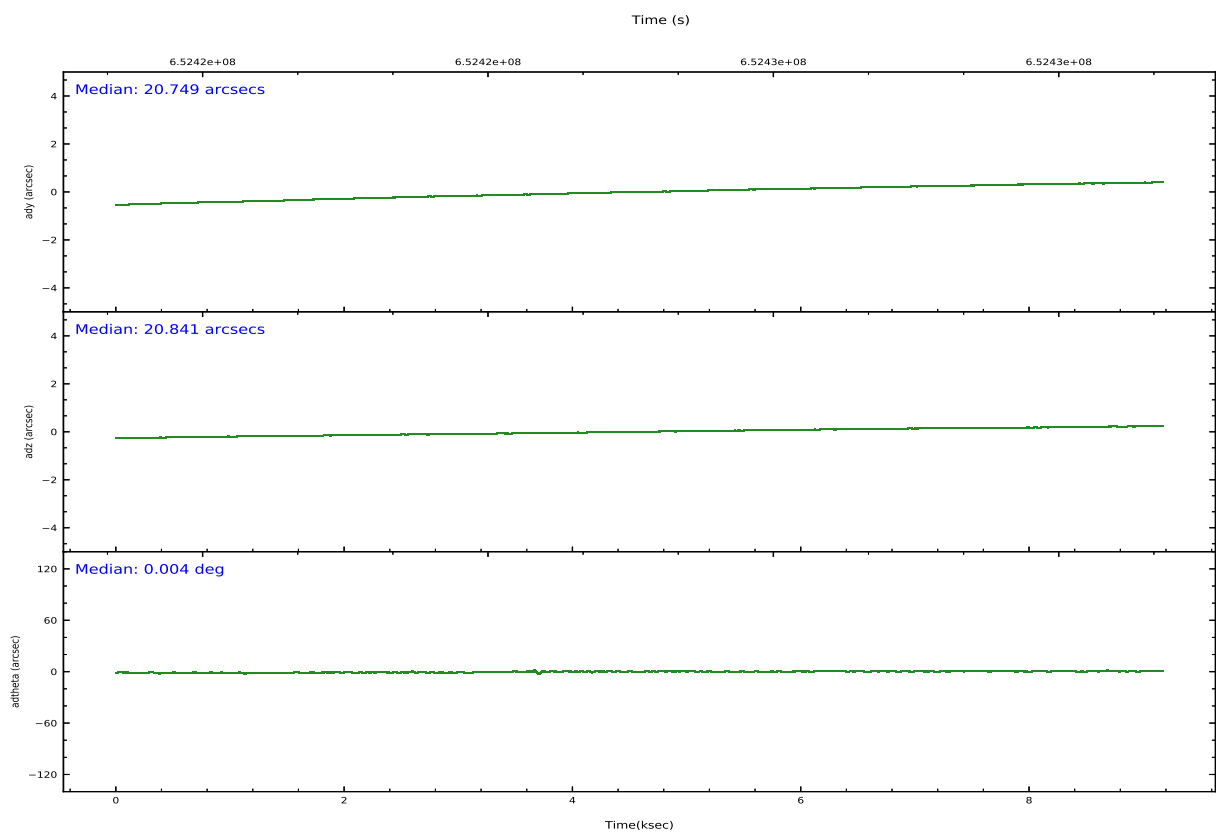
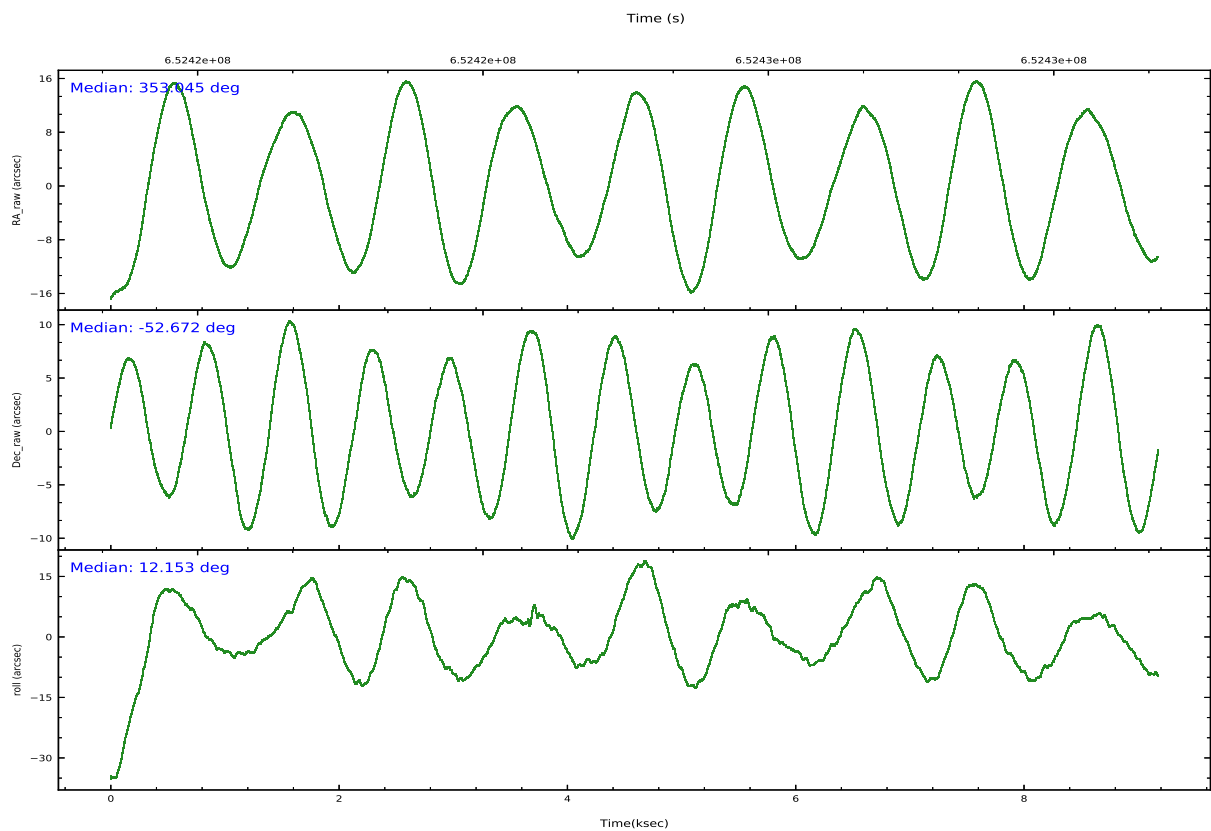


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-23678	ACIS-23678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	353.011598	353.03711644707	CCD I2 on	O1	Y
[deg] Pointing Dec	-52.690931	-52.679396740107	CCD I3 on	O2	Y
[deg] Pointing Roll	11.978407	12.153508220954	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	N	N
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	O3	Y
[s] Observation start time (MET)	652421915.184000	652421193.88372	CCD S5 on	N	N
Observation start date	2018-09-04T04:17:26	2018-09-04T04:06:33	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	652430915.184000	652431434.14683	On-chip summing requested	N	N
Observation end date	2018-09-04T06:47:26	2018-09-04T06:57:14	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



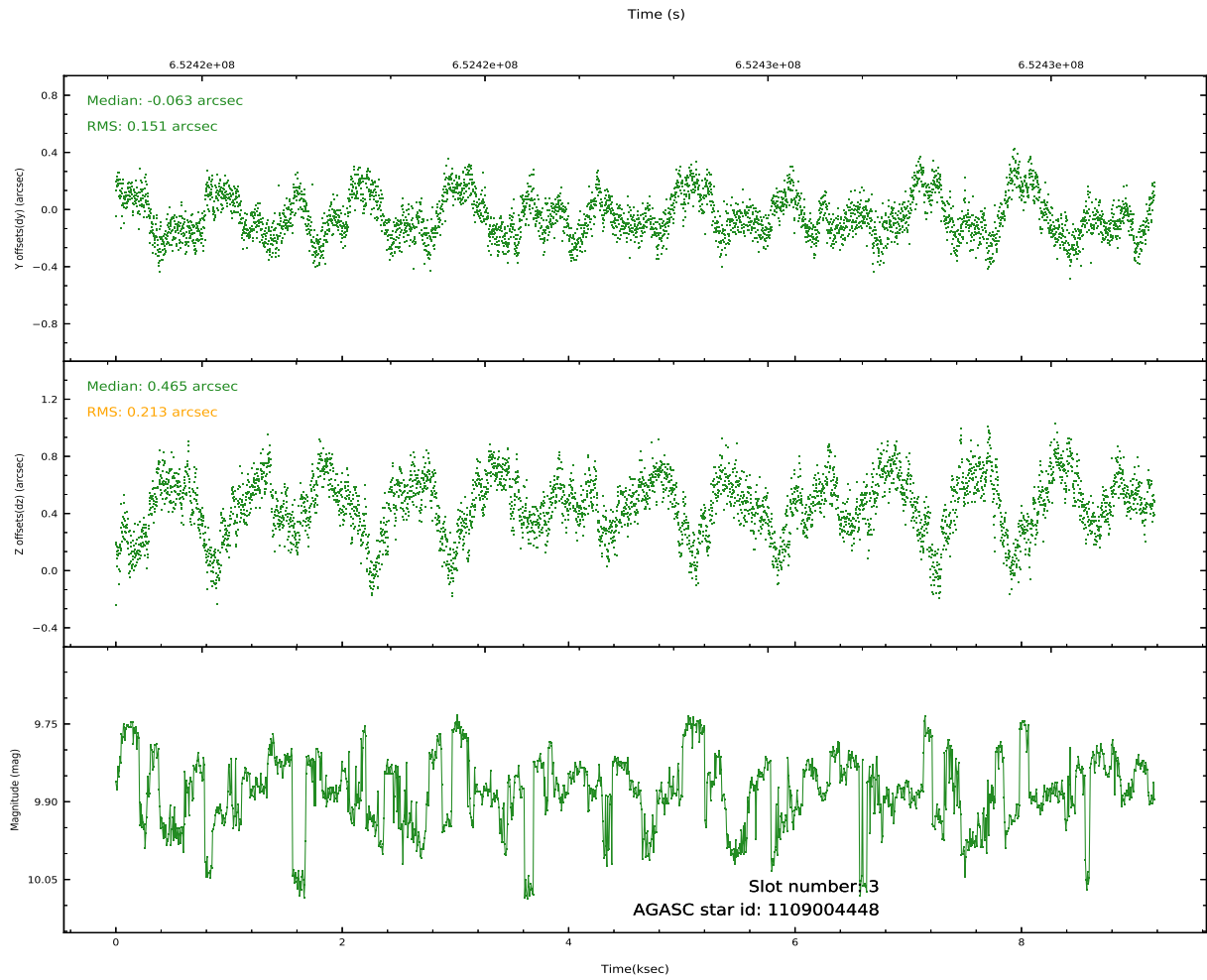
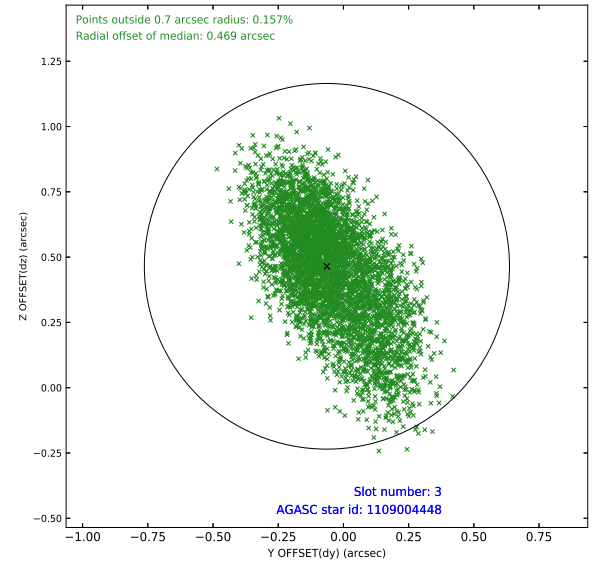
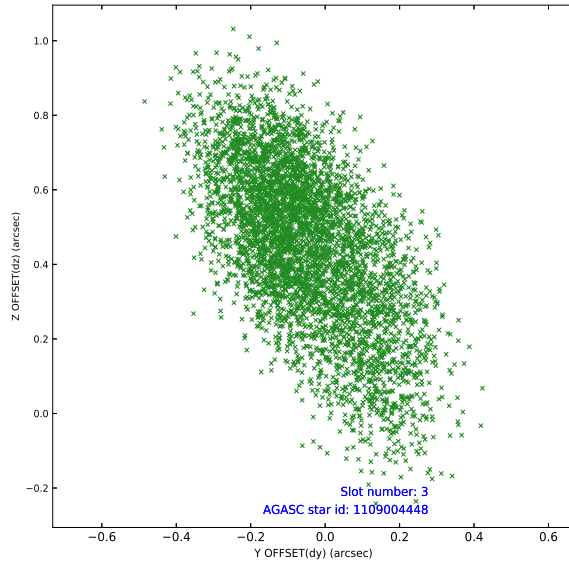


Slot Statistics

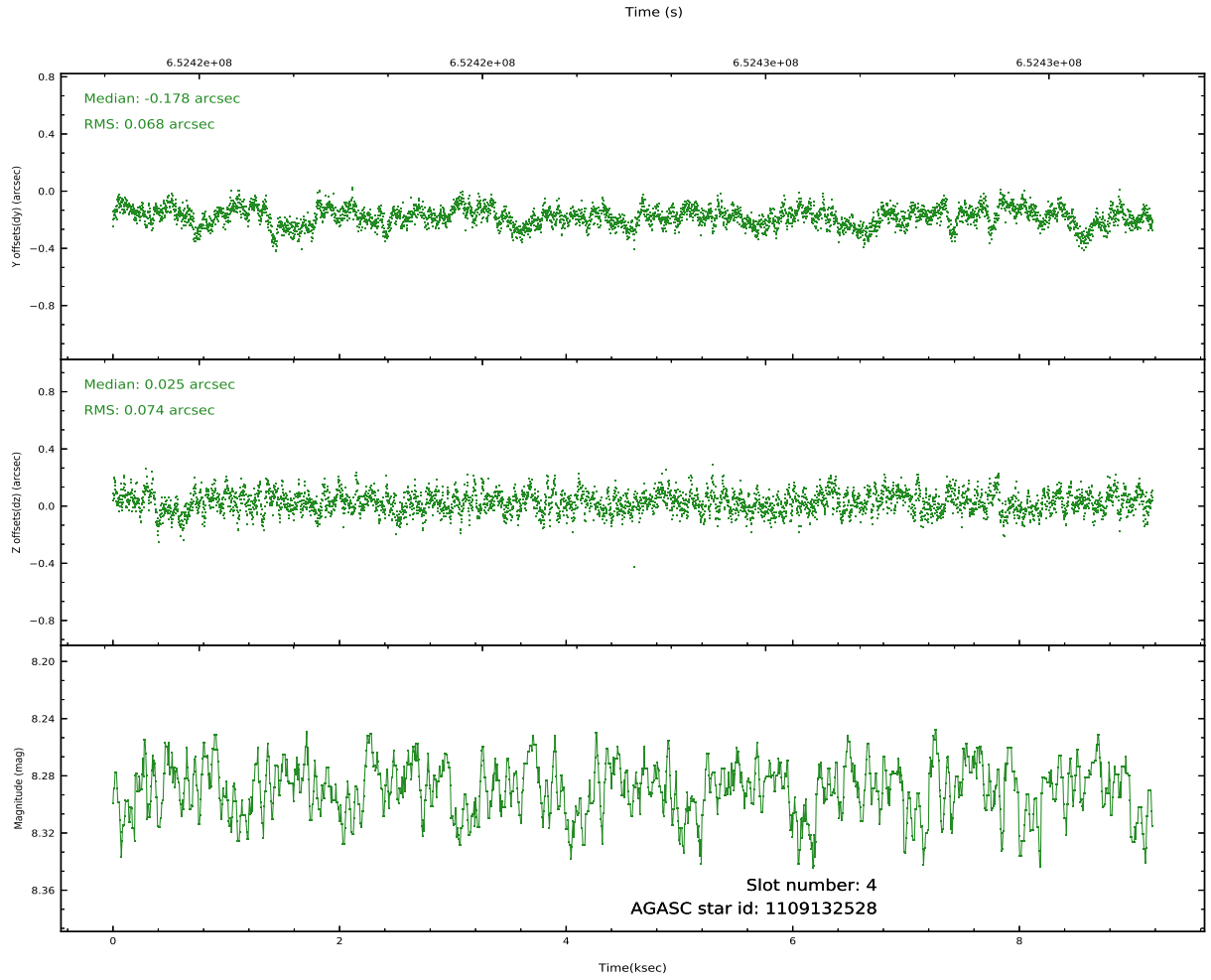
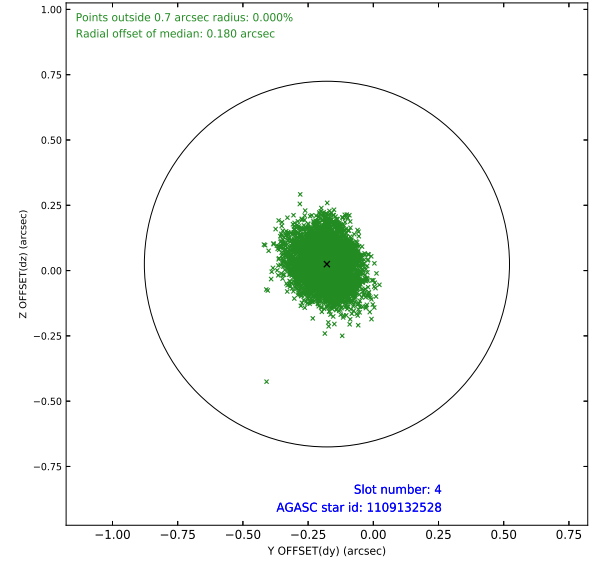
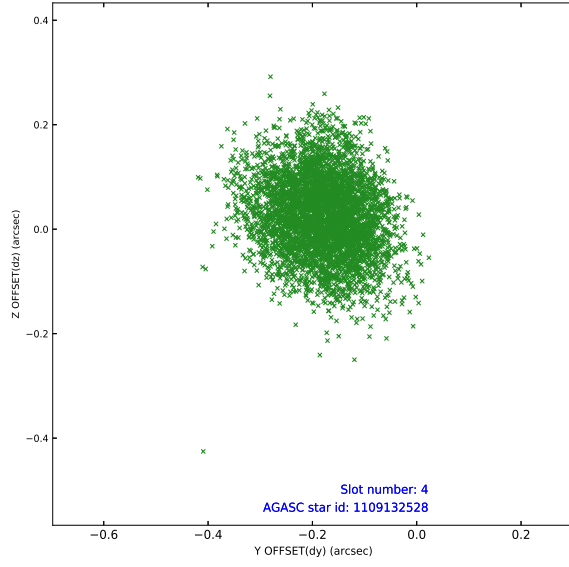
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.09	2238	1.000	0.123	-0.109	0.016	0.030	0.000000	0.000000	-773.98	-1742
1	FID		ACIS-S-4	7.22	2238	1.000	0.103	-0.030	0.022	0.048	0.000000	0.000000	2139.28	165
2	FID		ACIS-S-5	7.20	2236	1.000	-0.261	0.144	0.012	0.018	0.000000	0.000000	-1826.18	160
3	GUIDE	used	1109004448	9.88	4466	1.000	-0.063	0.465	0.269	0.477	352.187266	-52.229927	-1434.79	1991
4	GUIDE	used	1109132528	8.29	4475	1.000	-0.178	0.025	0.107	0.171	353.889153	-52.133267	2312.04	1550
5	GUIDE	used	1157628304	9.48	4461	1.000	-0.223	0.306	0.205	0.325	353.160777	-52.580391	402.80	321
6	GUIDE	used	1157635344	9.53	4458	1.000	-0.386	0.050	0.240	0.401	353.942819	-53.225125	1562.21	-2310
7	GUIDE	used	1157628096	9.77	4460	1.000	0.839	-0.850	0.261	0.434	352.385647	-52.666498	-1318.15	362

## 2.4 Star Slots

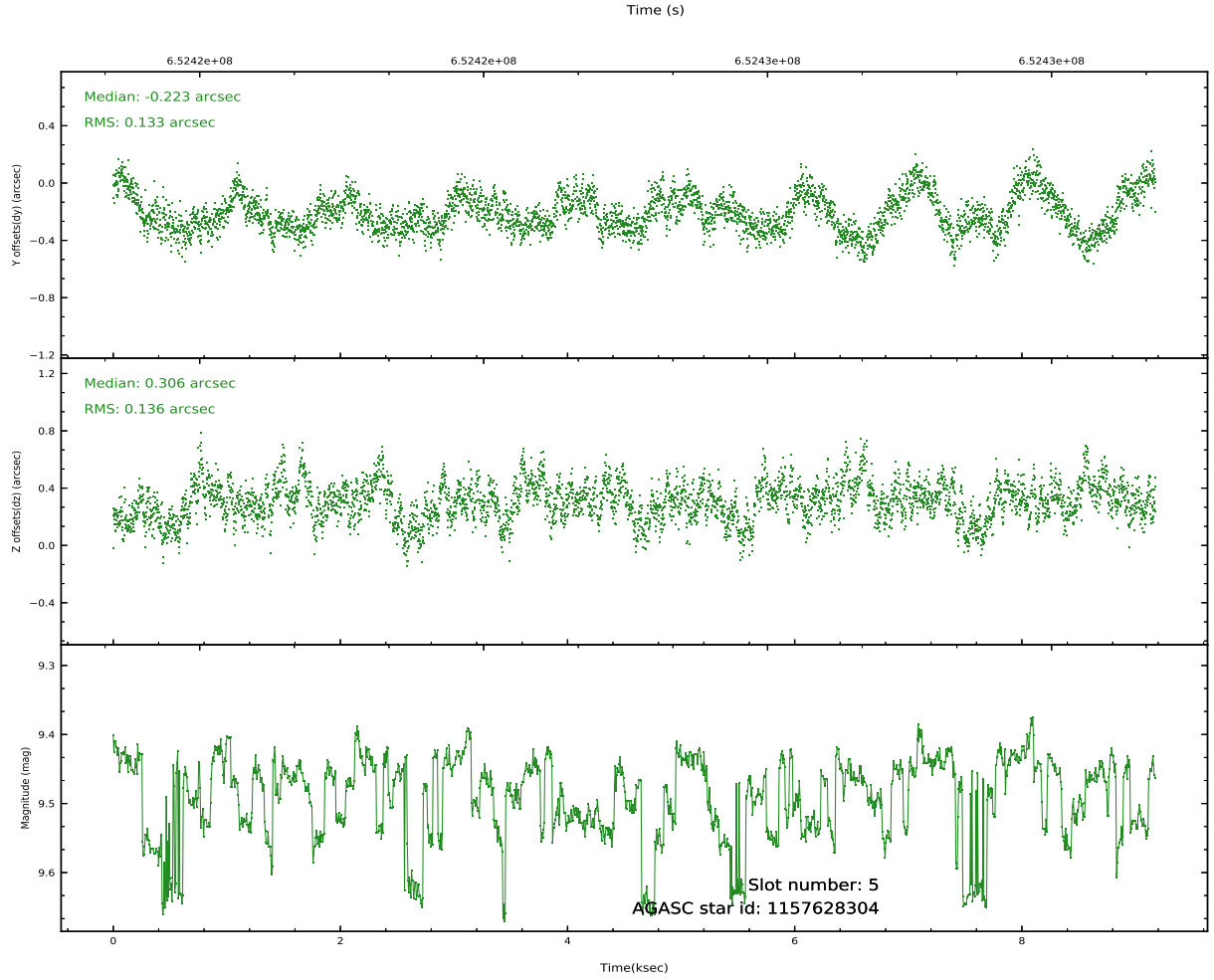
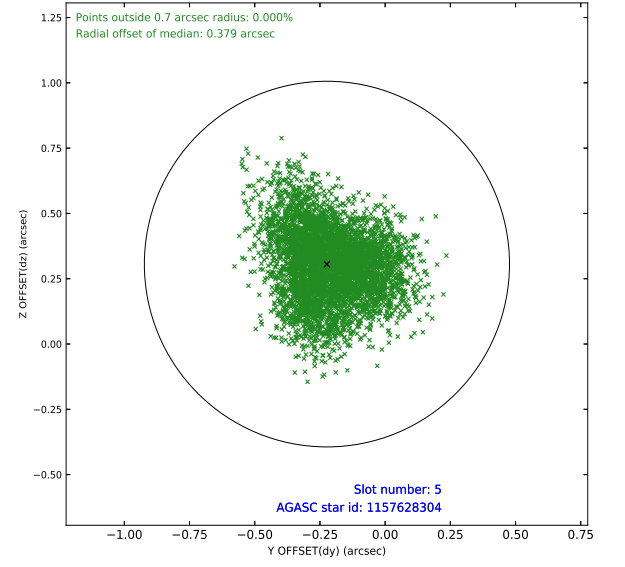
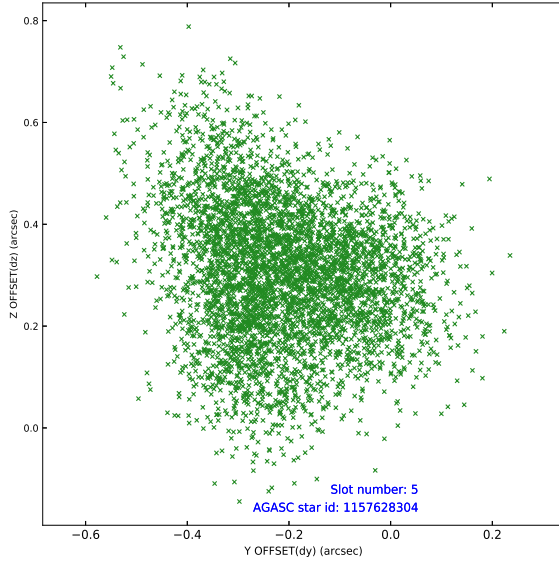
### 2.4.1 Slot 3



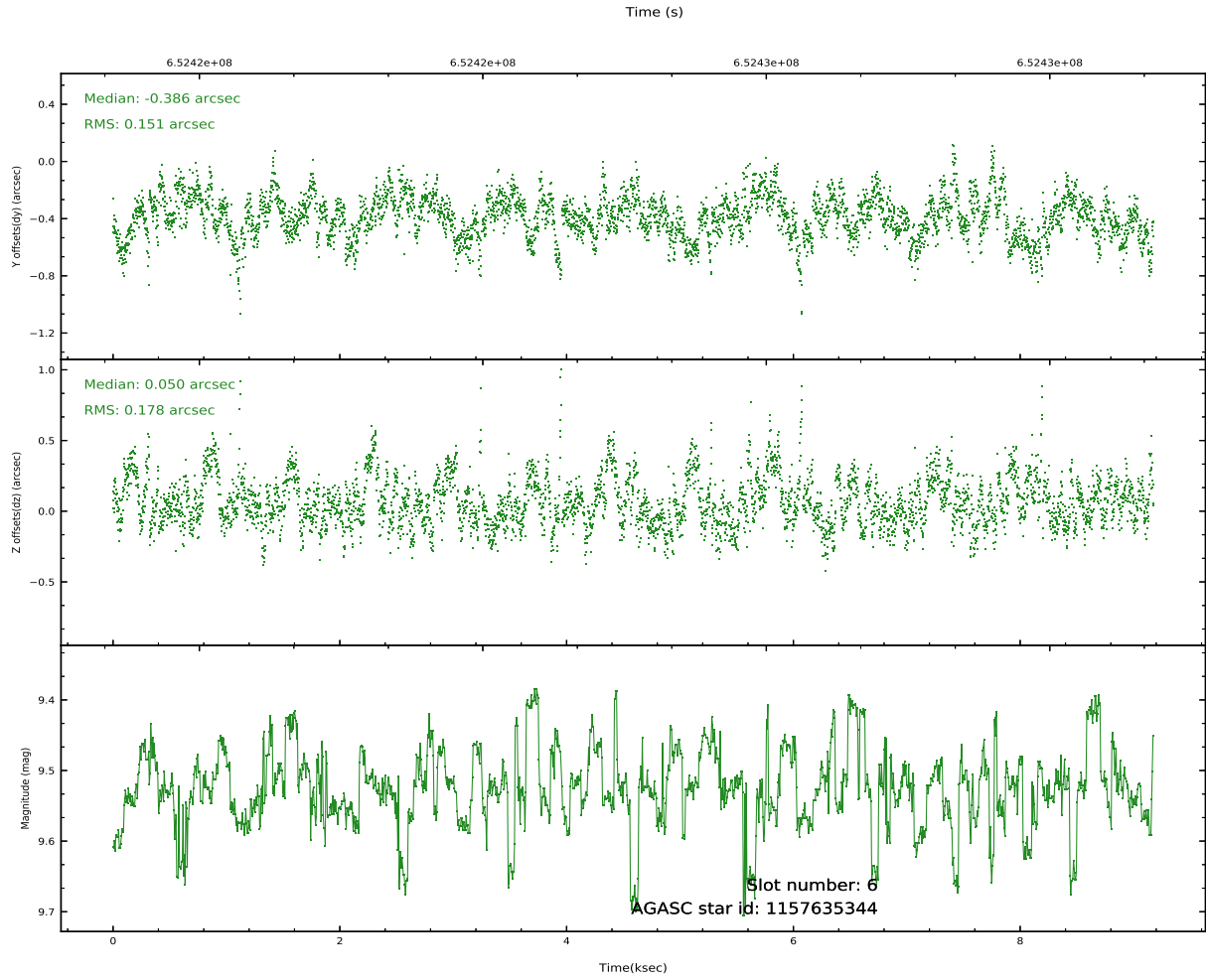
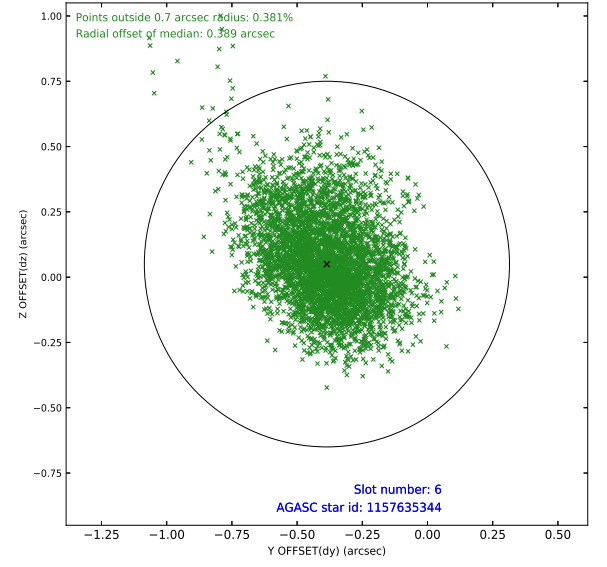
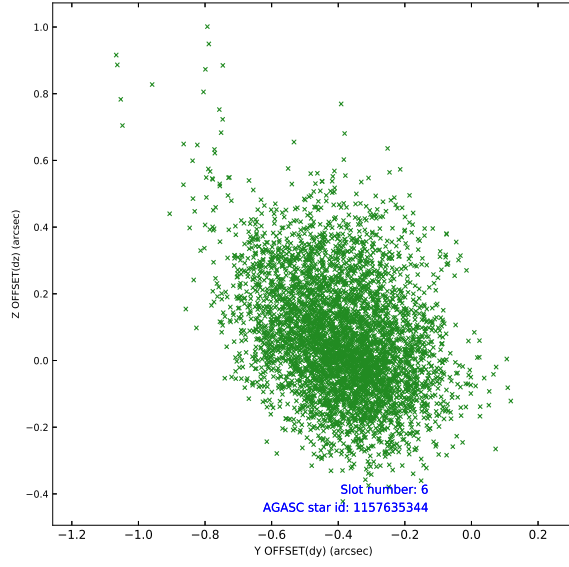
## 2.4.2 Slot 4



### 2.4.3 Slot 5

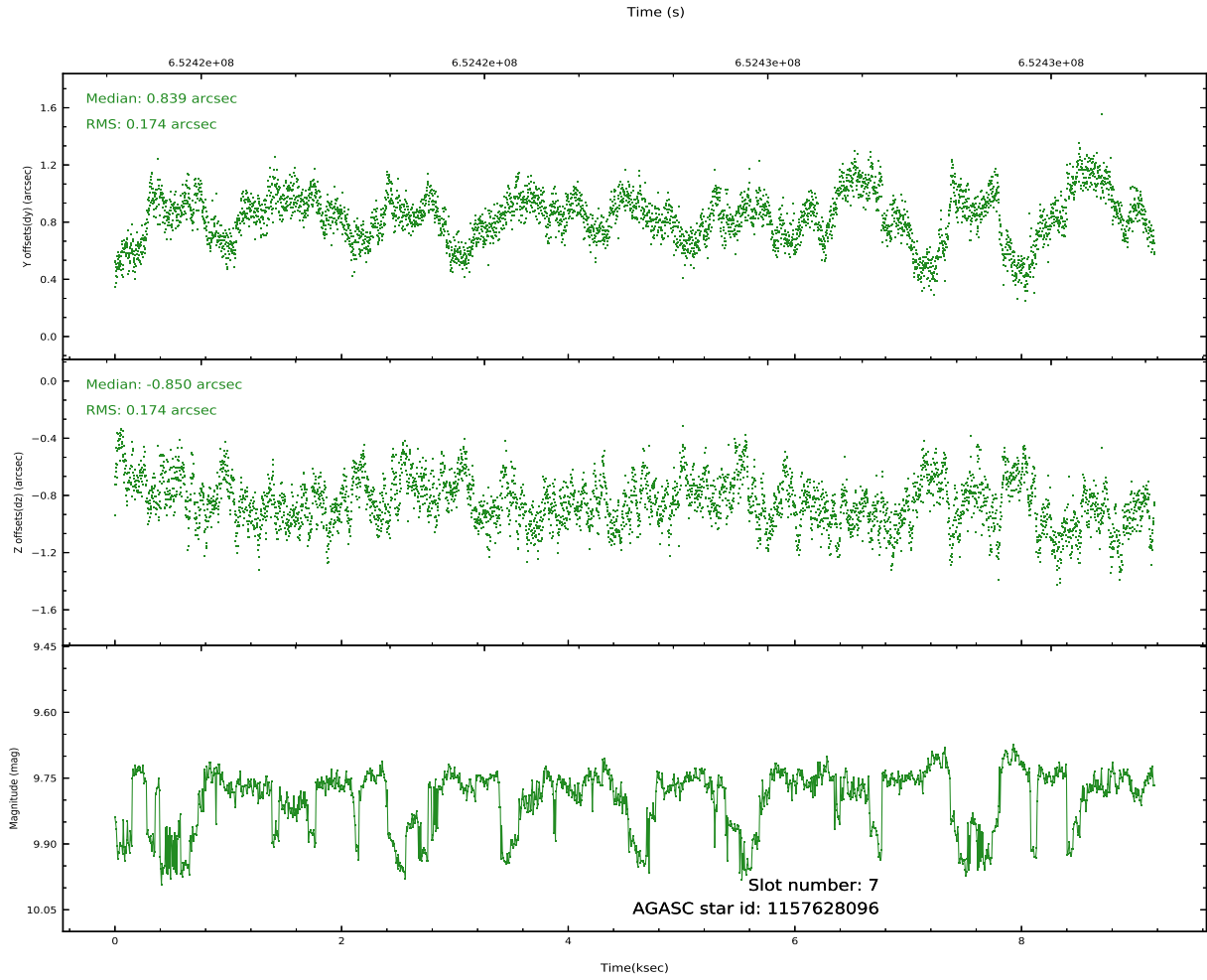
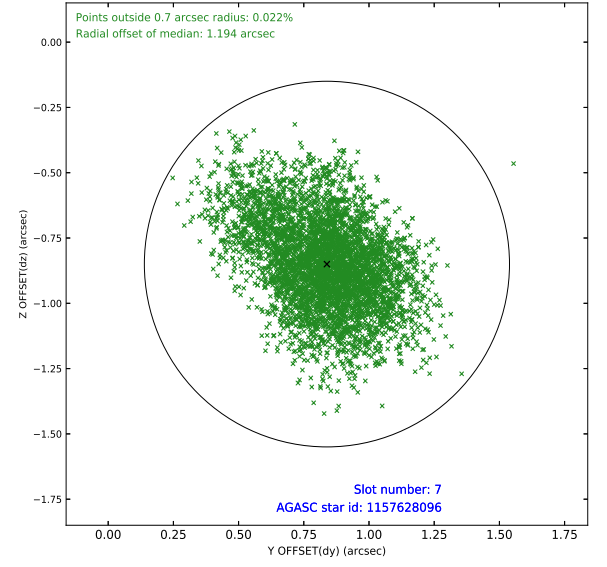
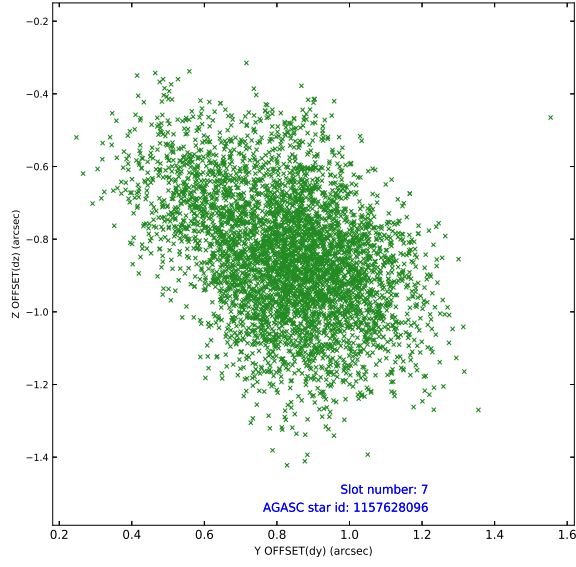


## 2.4.4 Slot 6



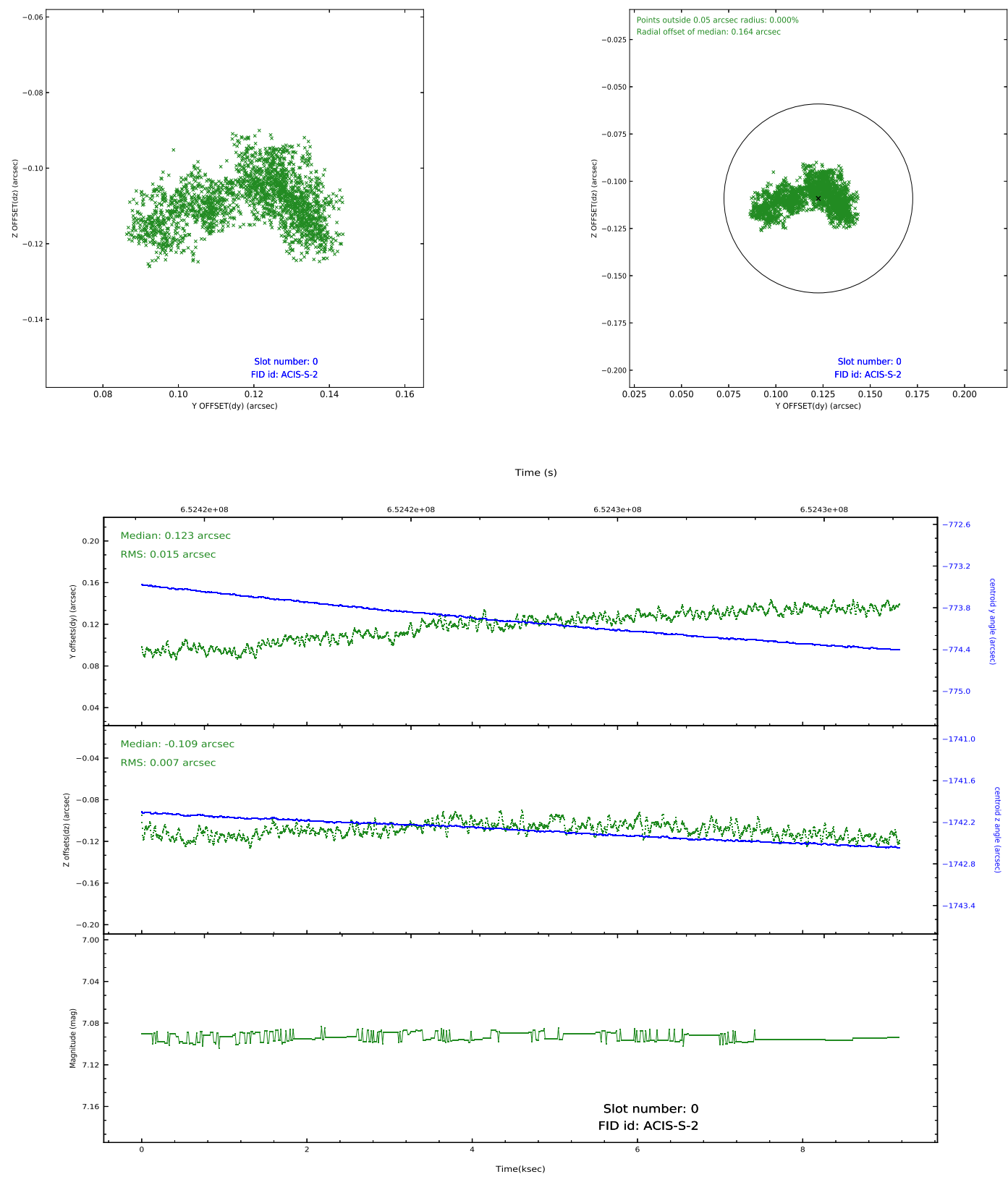


## 2.4.5 Slot 7

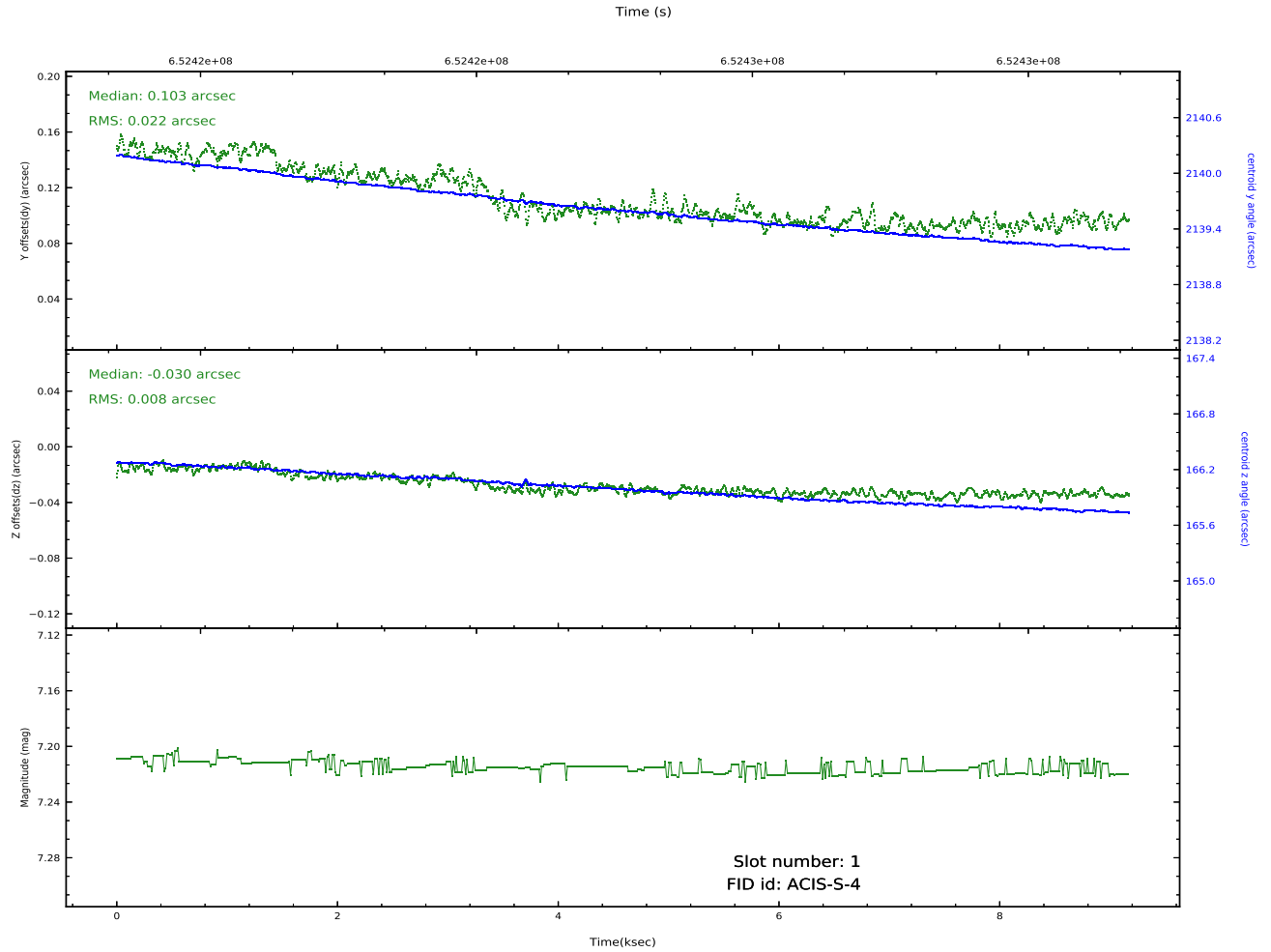
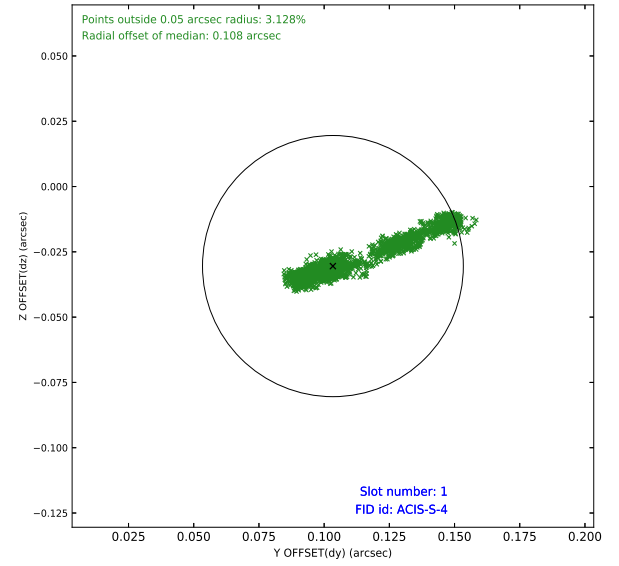
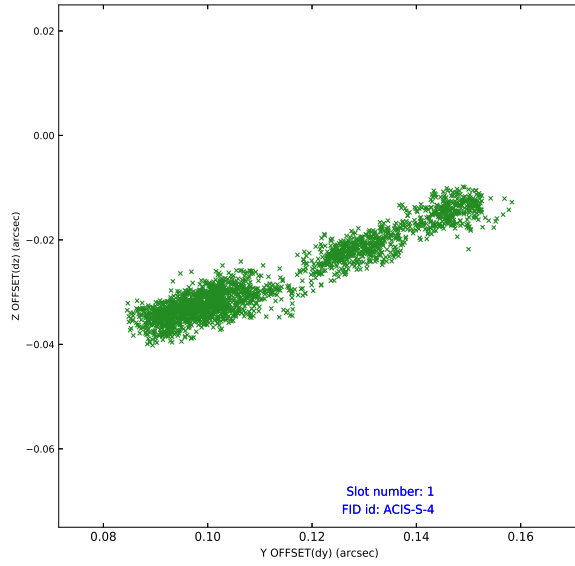


# 2.5 FID Slots

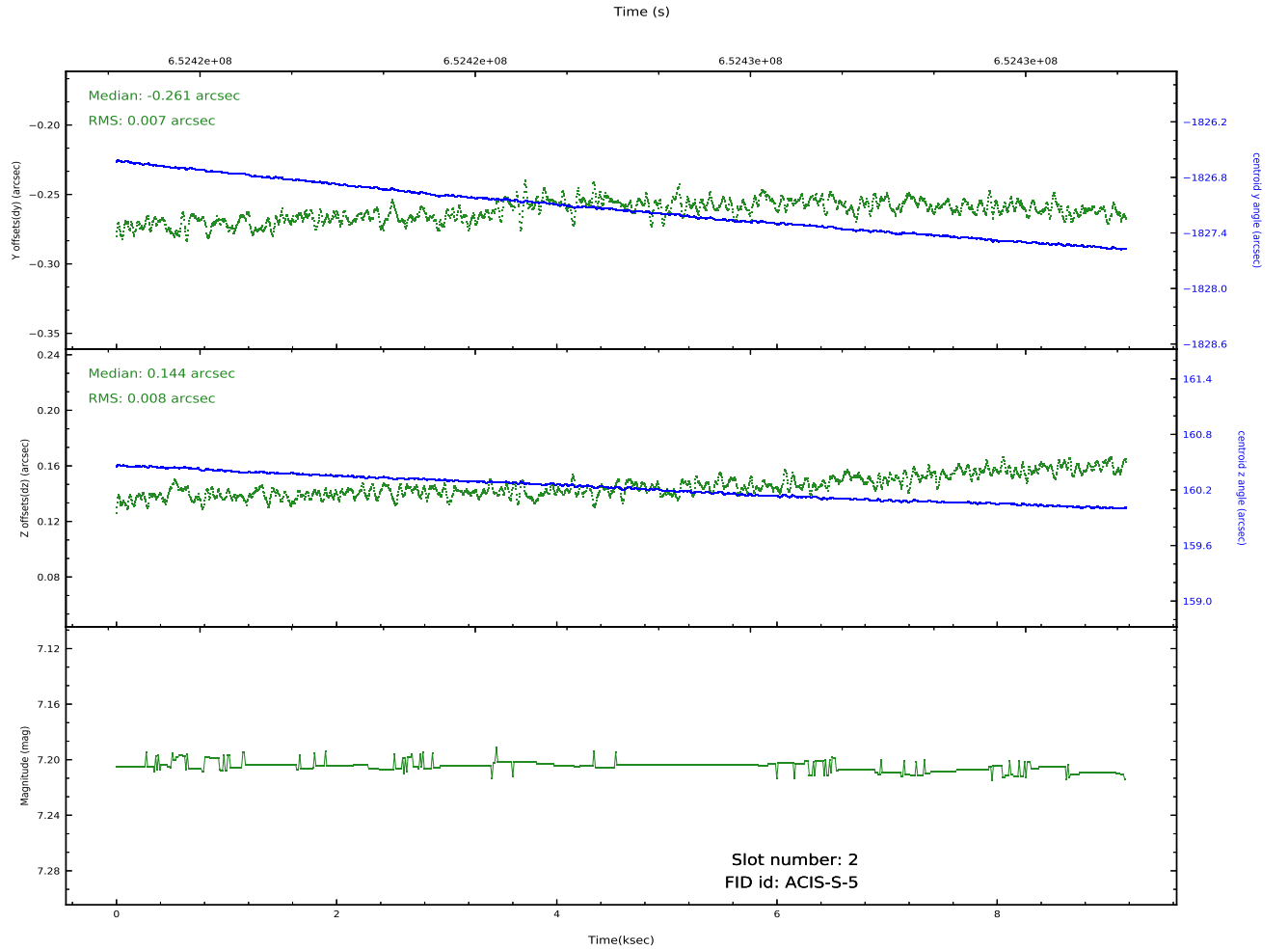
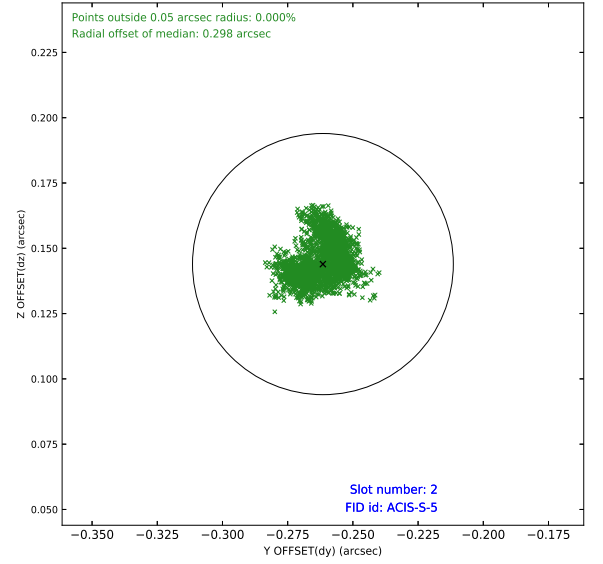
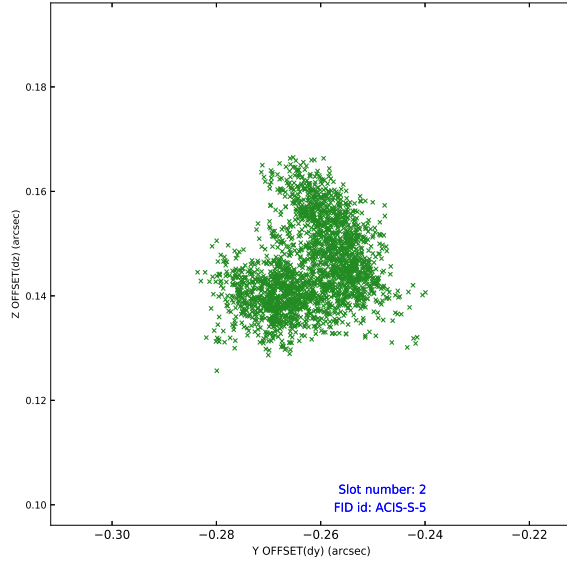
## 2.5.1 Slot 0



## 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)	2020.10.29
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	8.8895256097317

### A.2 Comments