

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 4701 - L2 Version 5  
Chandra X-Ray Center

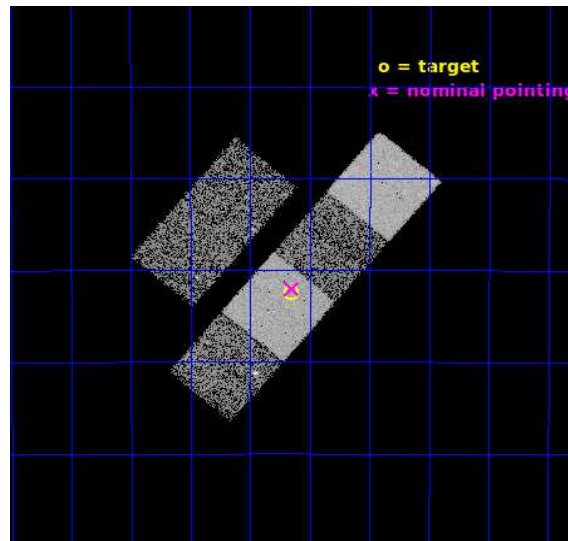
L2 Processing Date : Sep 25 2020

## 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

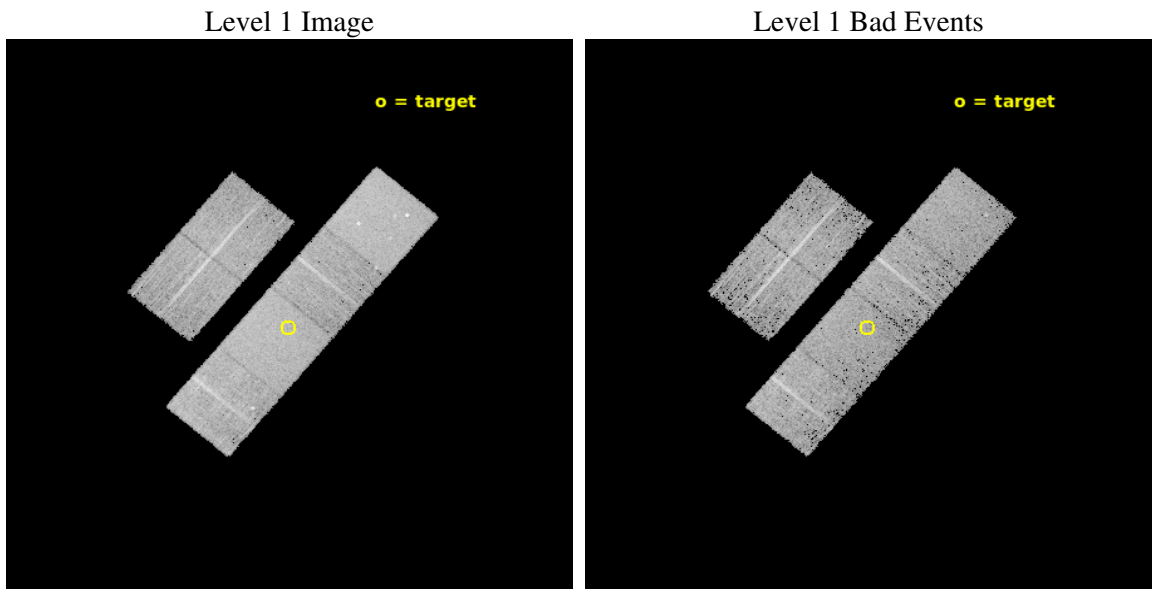
seq_num	600356	Sequence number
obs_id	4701	Observation id
title	Using the Sculptor Dwarf Spheroidal Galaxy to Constrain X-ray Binary Production in Population II	Proposal title
observer	Thomas Maccarone	Principal investigator
object	SCULPTOR DWARF SPHEROIDAL	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	15.039167	Observer's specified target RA [deg]
dec_targ	-33.708889	Observer's specified target Dec [deg]
ra_nom	15.037562231068	Nominal RA [deg]
dec_nom	-33.700453468637	Nominal Dec [deg]
roll_nom	130.0208808126	Nominal Roll [deg]
revision	5	Processing version of data
ontime	6147.1999770999	Sum of GTIs [s]
livetime	6069.3604295904	Livetime [s]
ontime2	6147.1999770999	Sum of GTIs [s]
ontime3	6147.1999770999	Sum of GTIs [s]
ontime5	6147.1999770999	Sum of GTIs [s]
ontime6	6140.7179867029	Sum of GTIs [s]
ontime7	6147.1999770999	Sum of GTIs [s]
ontime8	6147.1999770999	Sum of GTIs [s]
l2events	70348	Number of level 2 events



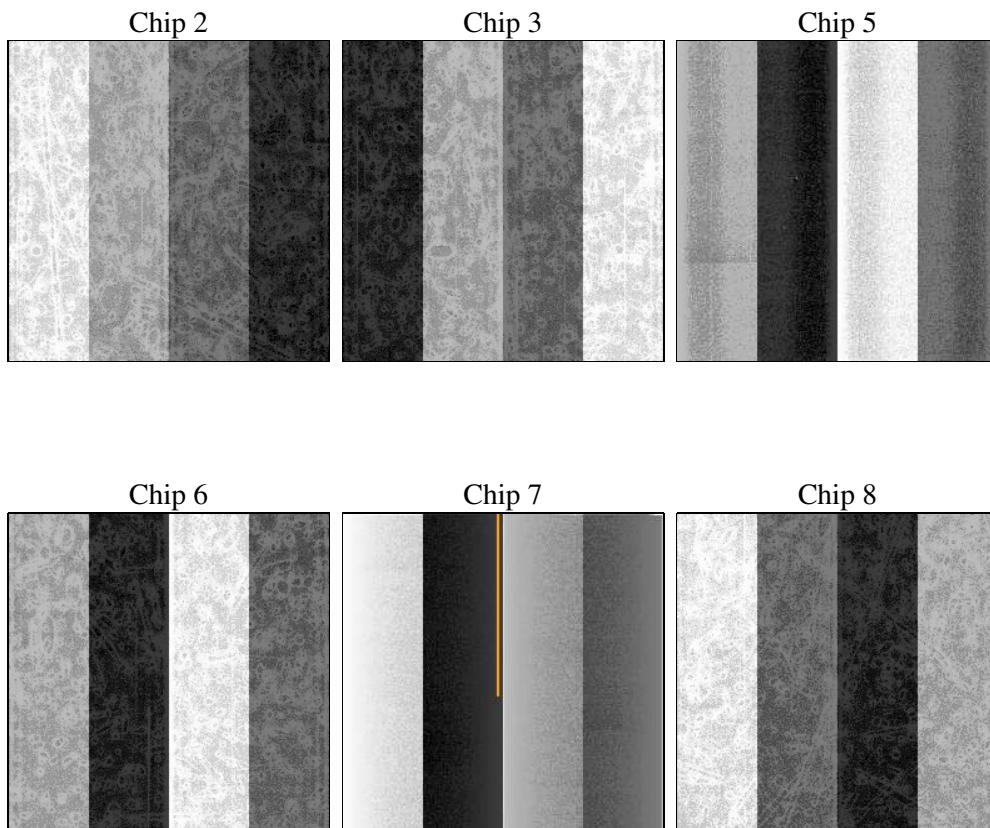
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	6000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	6147.1999770999	Sum of GTIs [s]
caldsver	4.9.2	&#160	ontime2	6147.1999770999	Sum of GTIs [s]
date	2020-09-26T02:58:35	Date and time of file creation	ontime3	6147.1999770999	Sum of GTIs [s]
revision	5	Processing version of data	ontime5	6147.1999770999	Sum of GTIs [s]
			ontime6	6140.7179867029	Sum of GTIs [s]
			ontime7	6147.1999770999	Sum of GTIs [s]
			ontime8	6147.1999770999	Sum of GTIs [s]
			l1events	383572	Number of level 1 events

### 2.1.4 Events

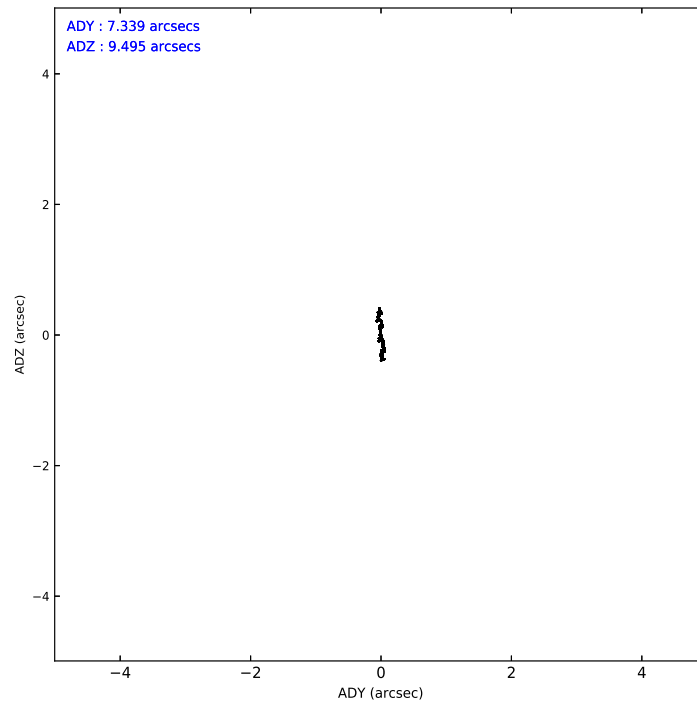
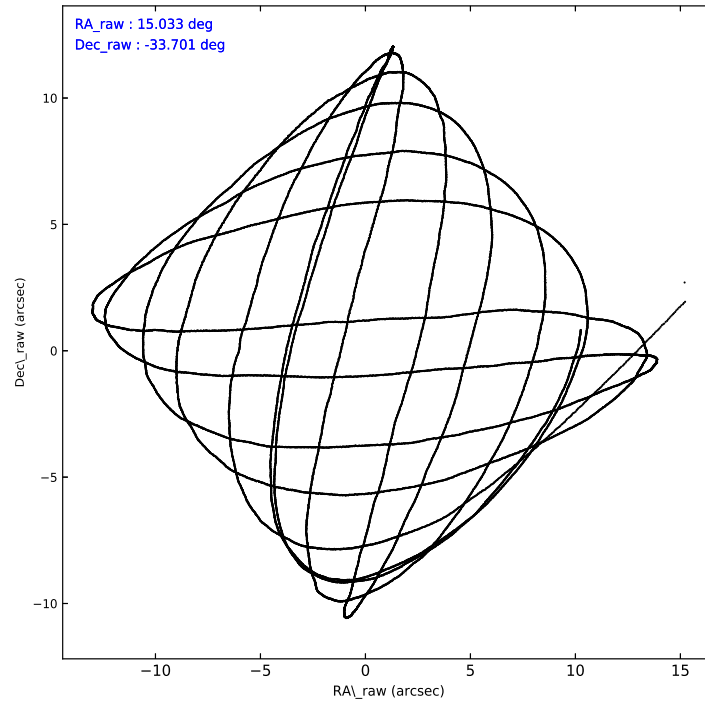
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	53825	53249	80454	54199	72280	69565	grade 0 events	2808	2646	4239	2580	2752	4932
rejected events	48501	48258	50428	48912	48099	57220		5%	4%	5%	4%	3%	7%
rejected %	90%	90%	62%	90%	66%	82%	grade 1 events	39	35	287	28	68	42
								0%	0%	0%	0%	0%	0%
							grade 2 events	1278	1185	10654	1296	5900	3303
								2%	2%	13%	2%	8%	4%
							grade 3 events	641	591	1437	661	2593	1615
								1%	1%	1%	1%	3%	2%
							grade 4 events	612	605	1418	598	2577	1522
								1%	1%	1%	1%	3%	2%
							grade 5 events	2115	2335	5895	2530	6955	3186
								3%	4%	7%	4%	9%	4%
							grade 6 events	1132	1113	19057	1284	15810	4000
								2%	2%	23%	2%	21%	5%
							grade 7 events	45200	44739	37467	45222	35625	50965
								83%	84%	46%	83%	49%	73%

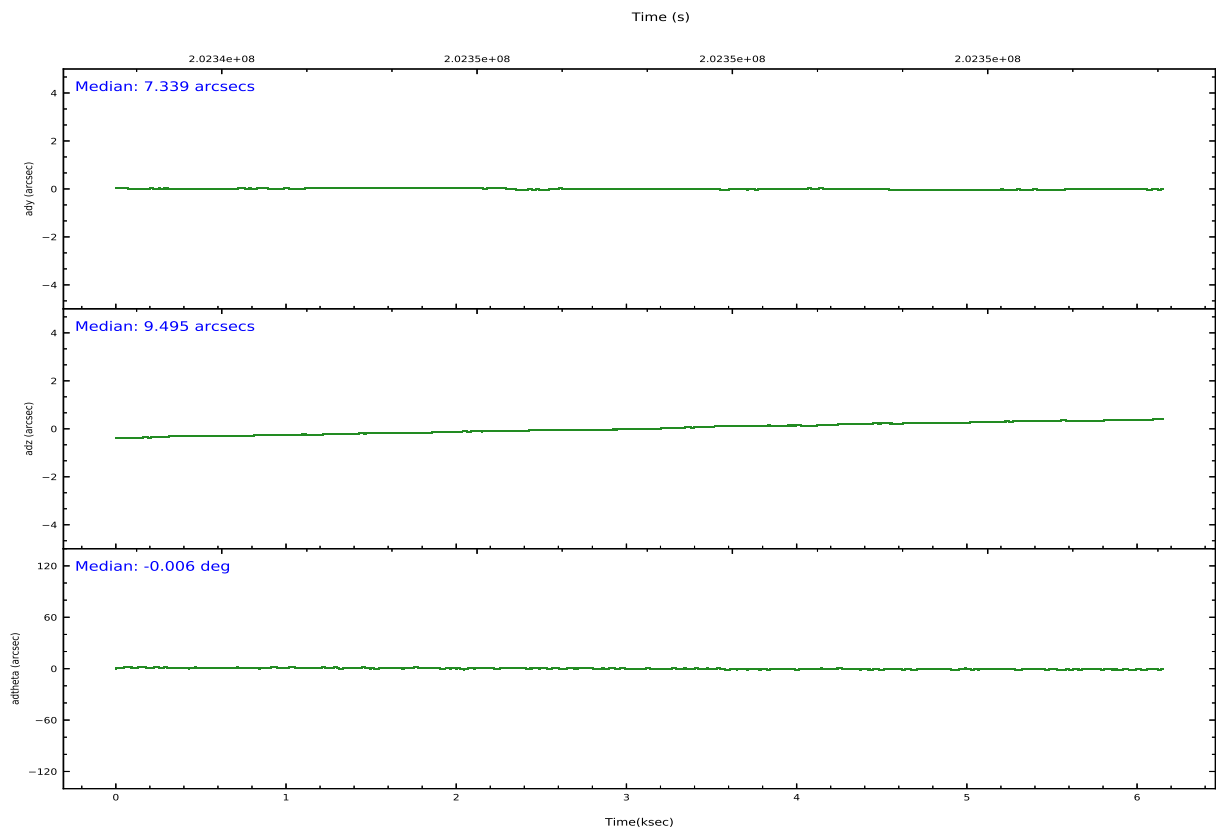
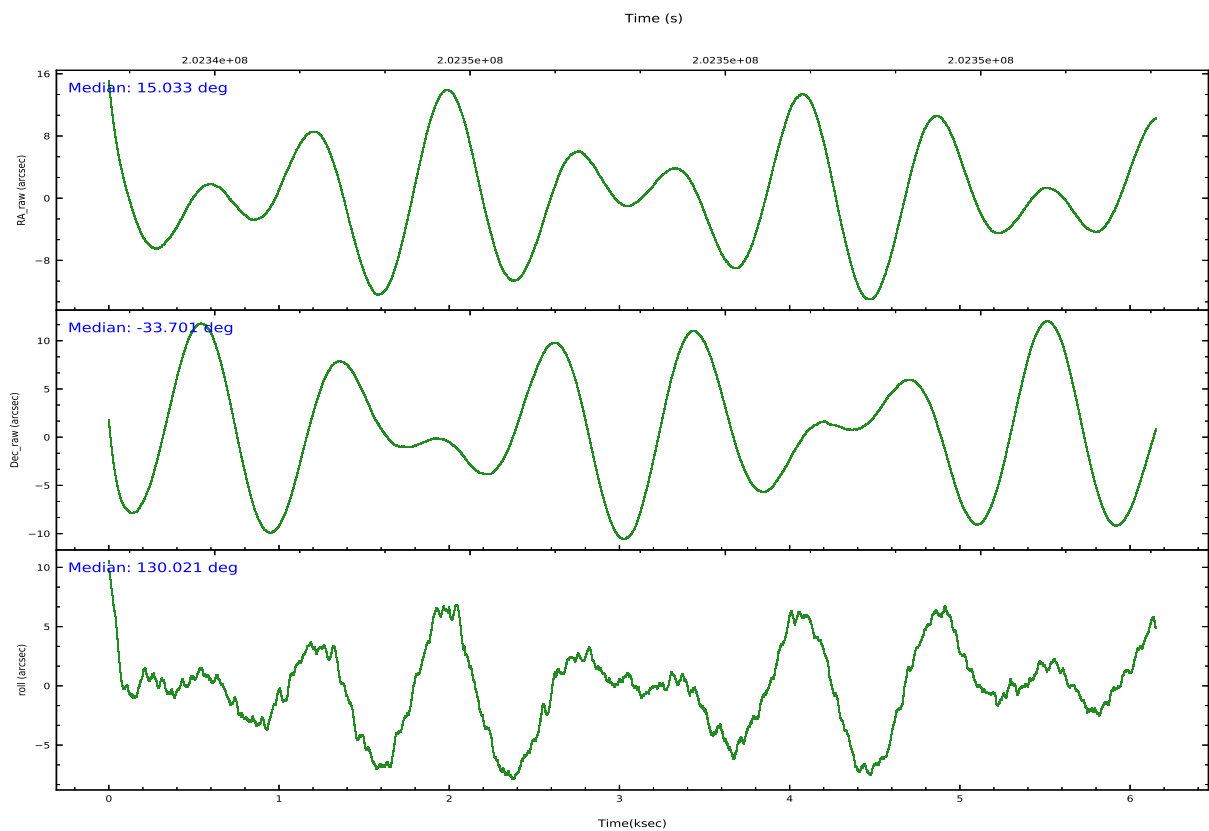


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-235678	ACIS-235678	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	15.064281	15.037562231068	Subarray requested	NONE	NONE
[deg] Pointing Dec	-33.709456	-33.700453468637	Alternating exposures requested	N	N
[deg] Pointing Roll	129.883738	130.0208808126	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	202344531.184000	202342667.03264			
Observation start date	2004-05-30T22:47:47	2004-05-30T22:17:47			
[s] Observation end time (MET)	202350531.184000	202351731.62054			
Observation end date	2004-05-31T00:27:47	2004-05-31T00:48:51			
Read mode	TIMED	TIMED			

## 2.3 Aspect



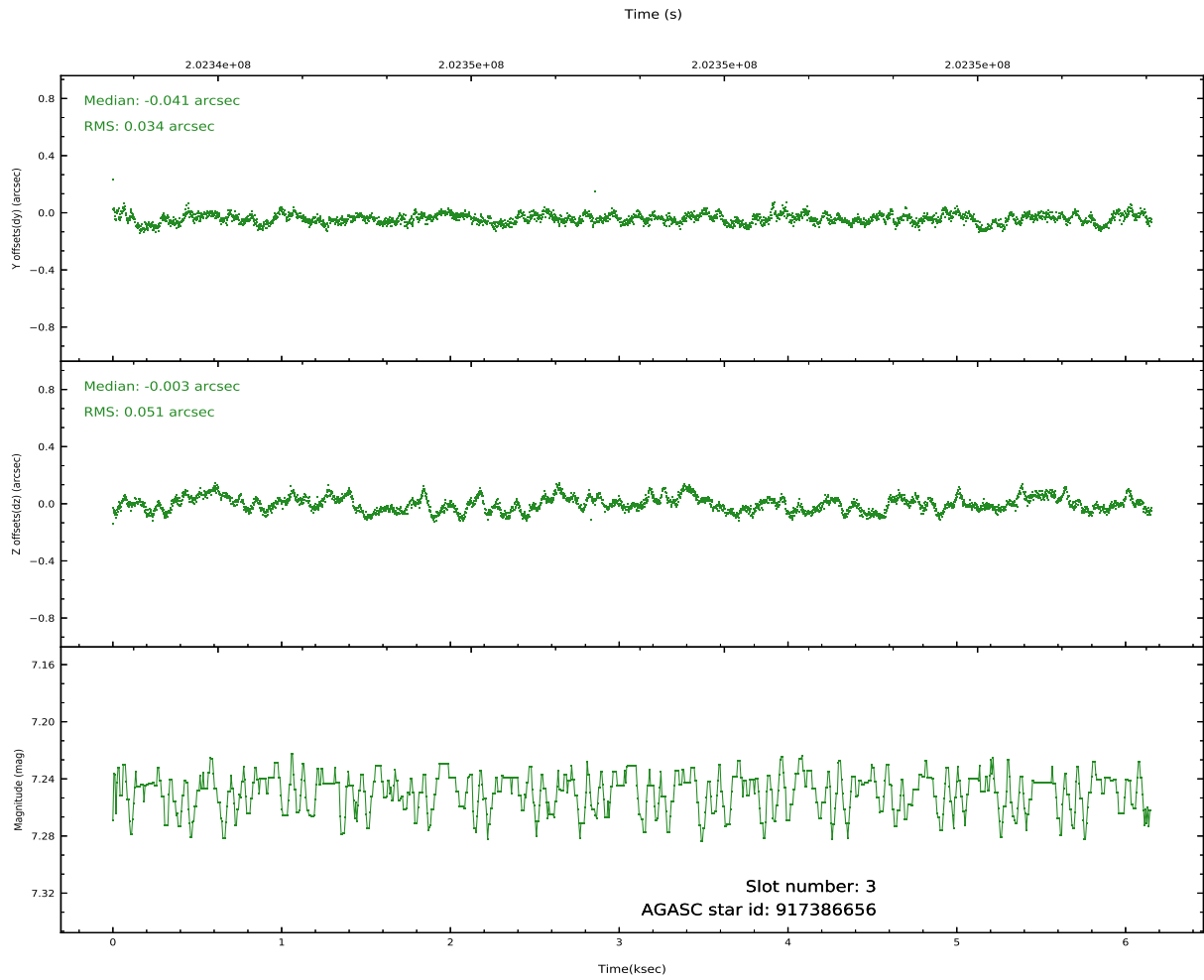
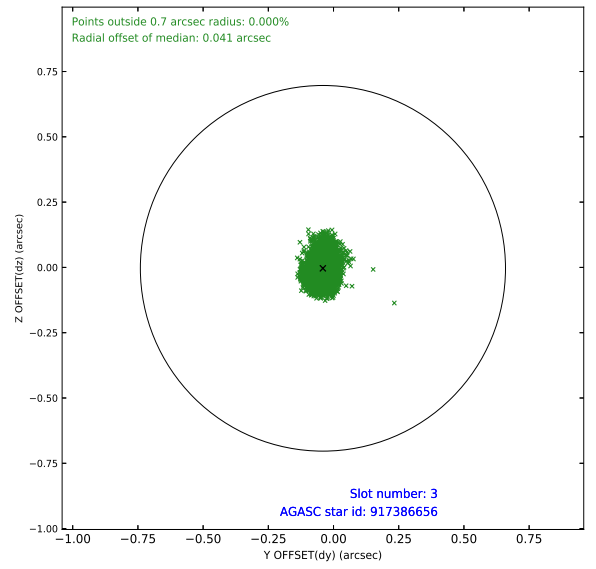
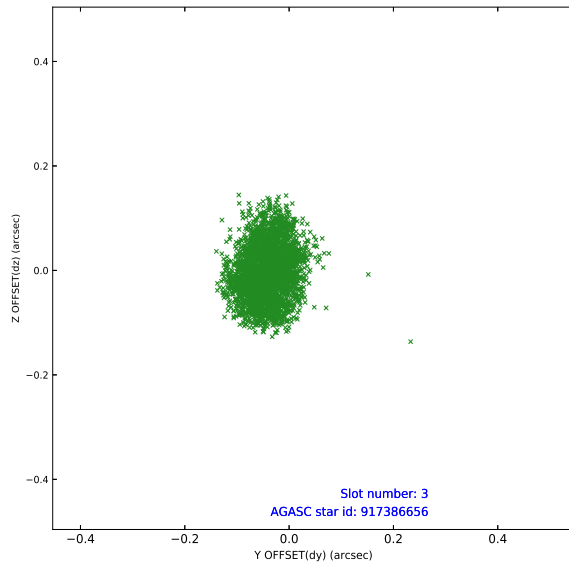


Slot Statistics

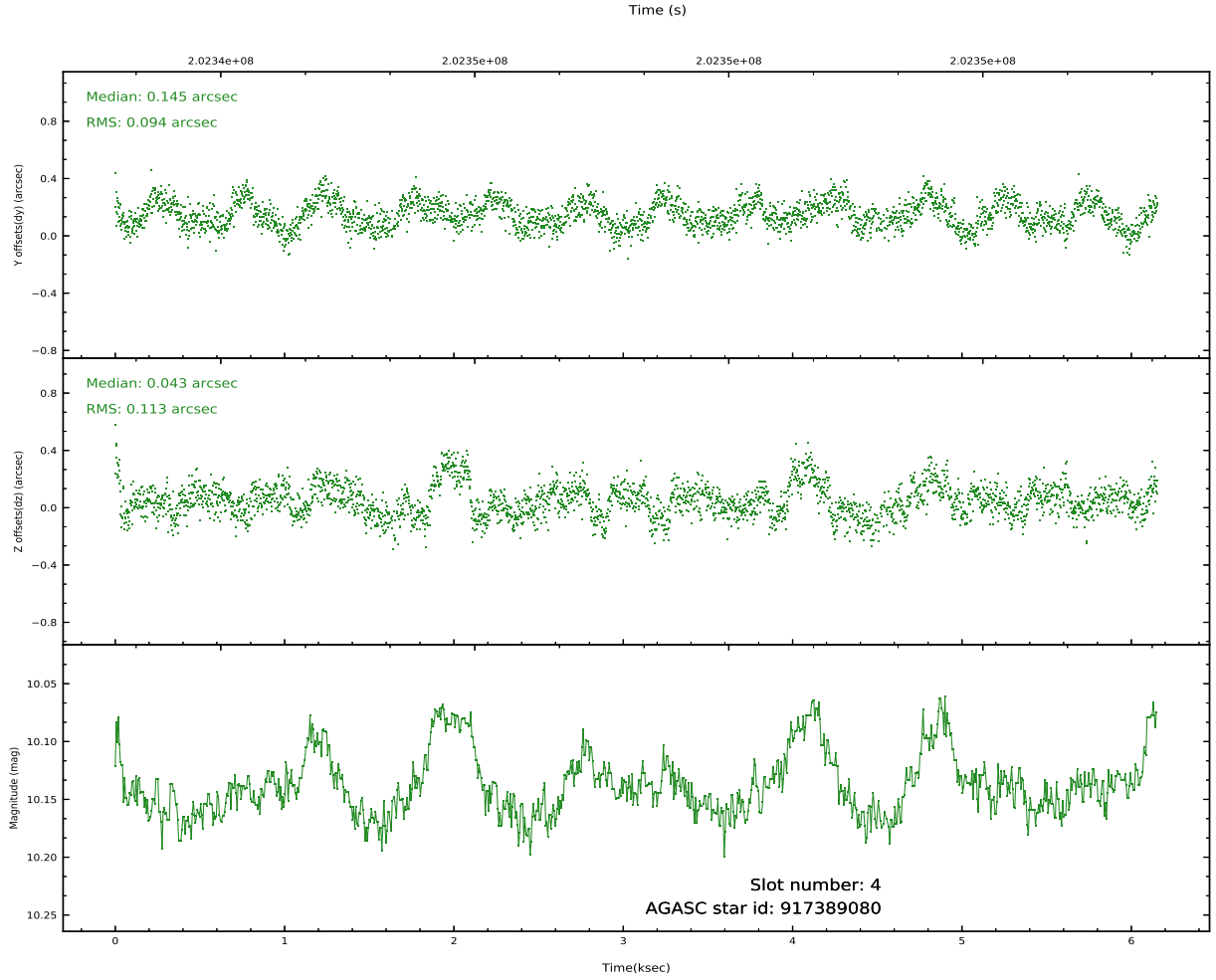
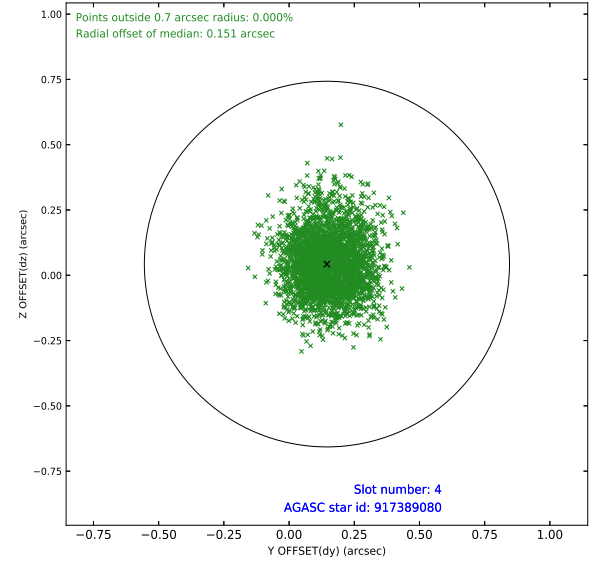
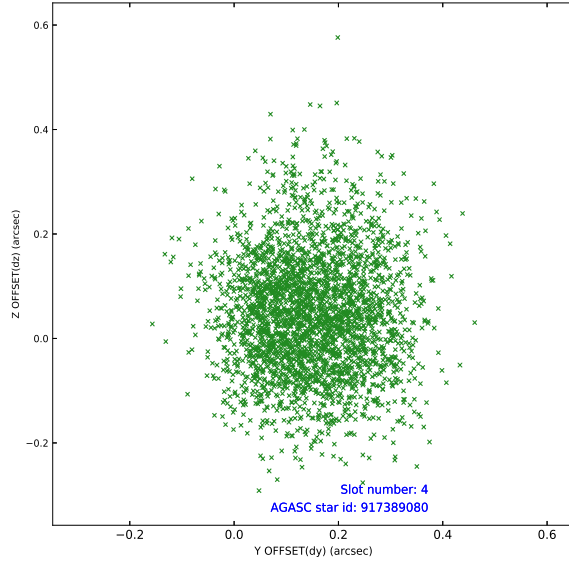
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.10	1501	1.000	-0.066	-0.064	0.010	0.016	0.000000	0.000000	-760.11	-1730
1	FID		ACIS-S-4	7.20	1501	1.000	0.138	0.049	0.006	0.011	0.000000	0.000000	2152.88	176
2	FID		ACIS-S-5	7.23	1502	1.000	-0.104	0.025	0.009	0.015	0.000000	0.000000	-1811.81	171
3	GUIDE	used	917386656	7.25	3003	1.000	-0.041	-0.003	0.067	0.103	15.342124	-33.359890	429.75	-1447
4	GUIDE	used	917389080	10.14	2974	1.000	0.145	0.043	0.155	0.258	15.722484	-33.662555	-1138.90	-1618
5	GUIDE	used	917389288	9.56	2992	1.000	-0.058	0.189	0.119	0.202	15.394706	-33.185862	807.10	-1971
6	GUIDE	used	917650528	8.72	3003	1.000	-0.086	-0.303	0.095	0.143	14.274554	-33.869842	1064.04	2186
7	GUIDE	used	917389592	9.98	3001	1.000	0.040	0.067	0.208	0.340	16.074673	-33.644125	-1771.56	-2464

## 2.4 Star Slots

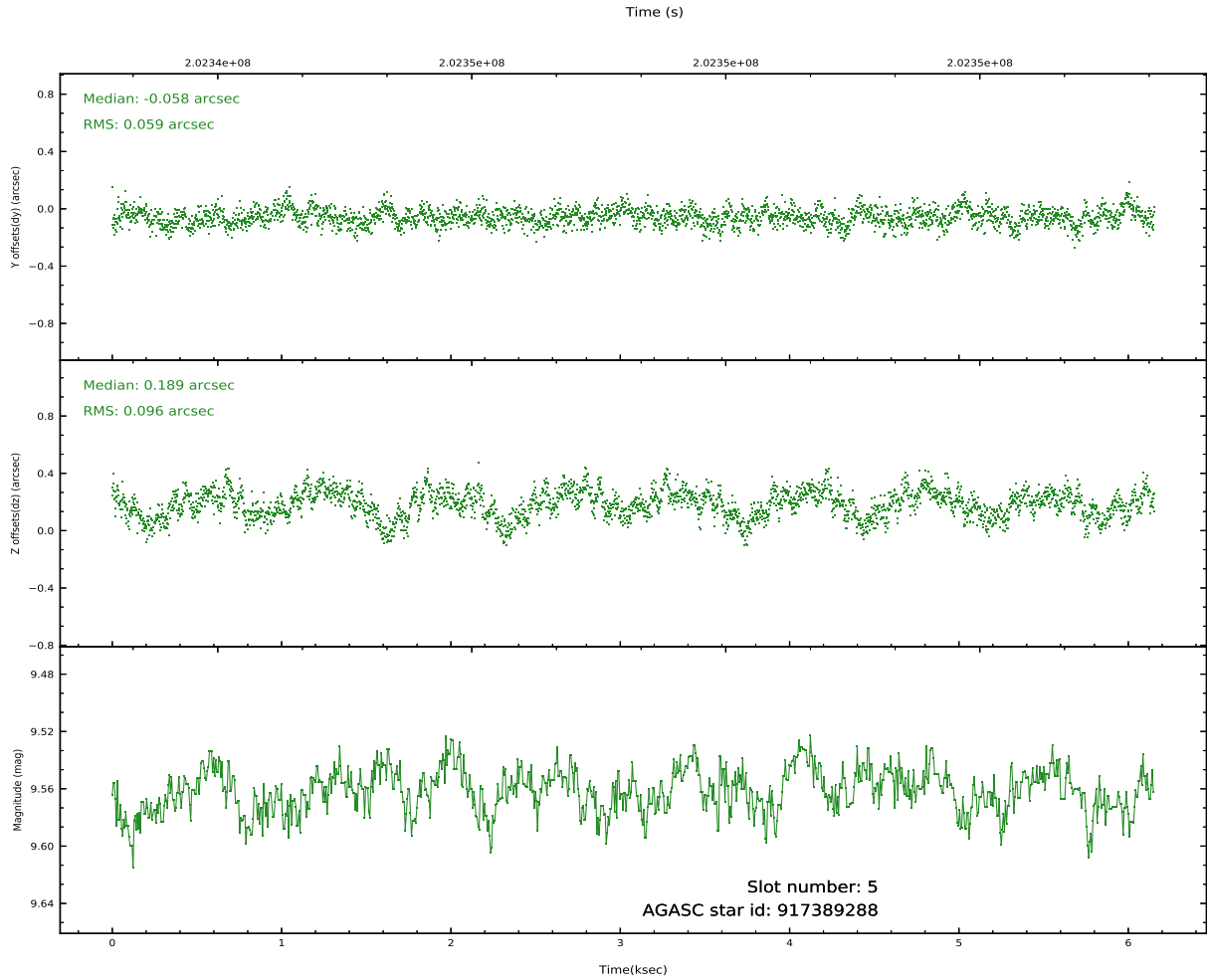
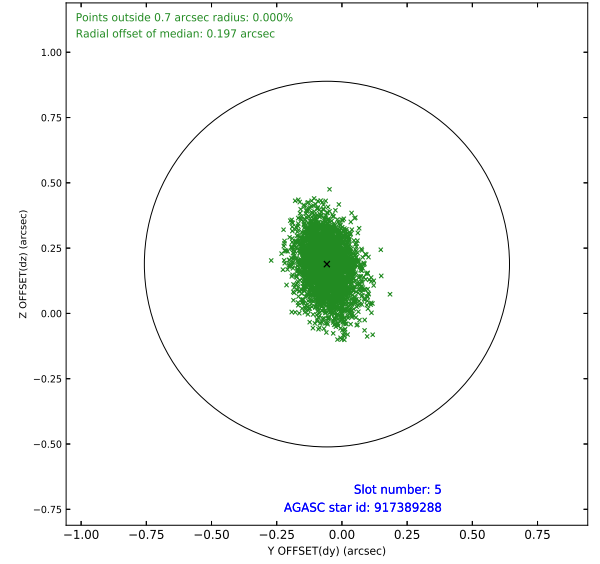
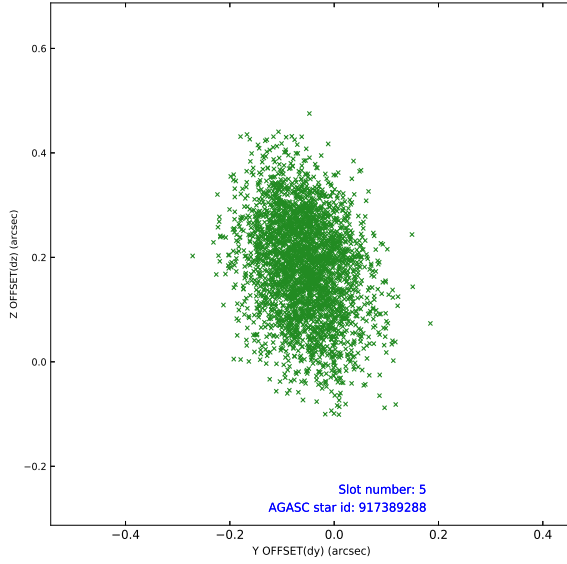
### 2.4.1 Slot 3



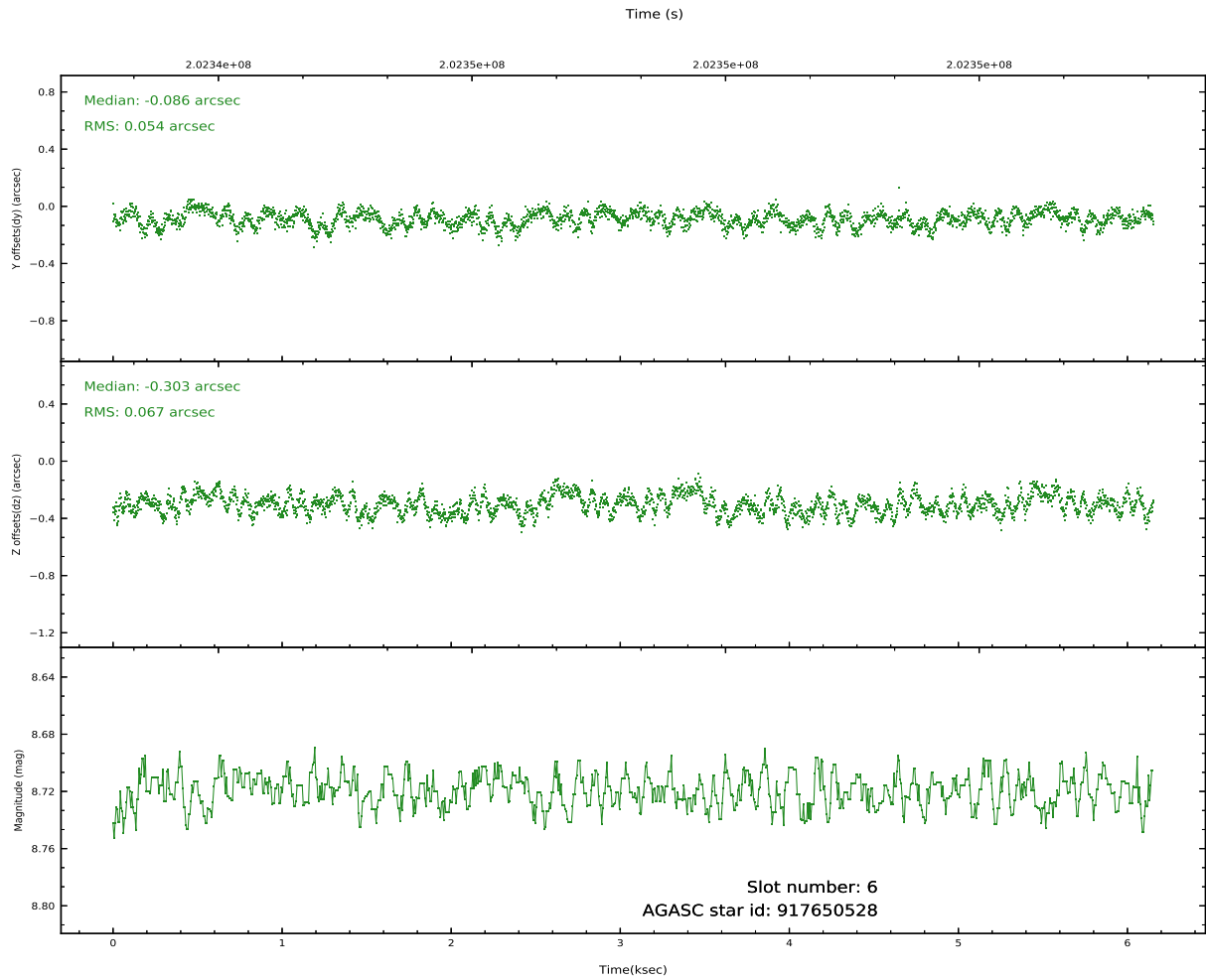
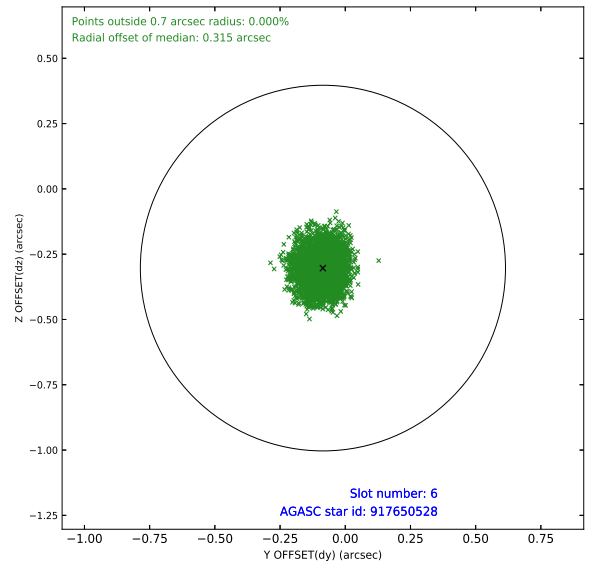
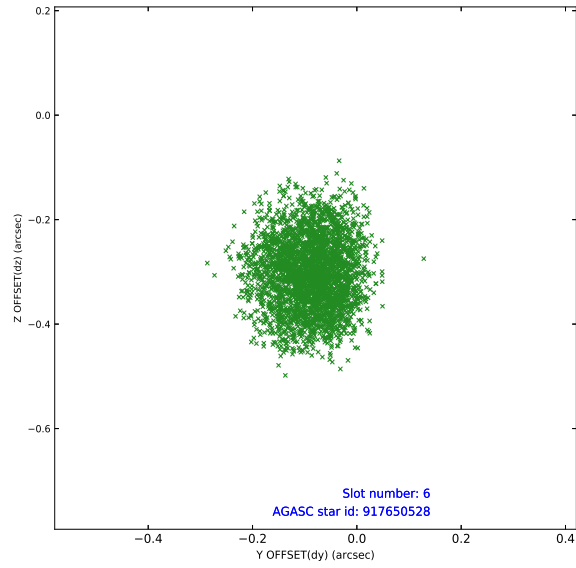
## 2.4.2 Slot 4



### 2.4.3 Slot 5

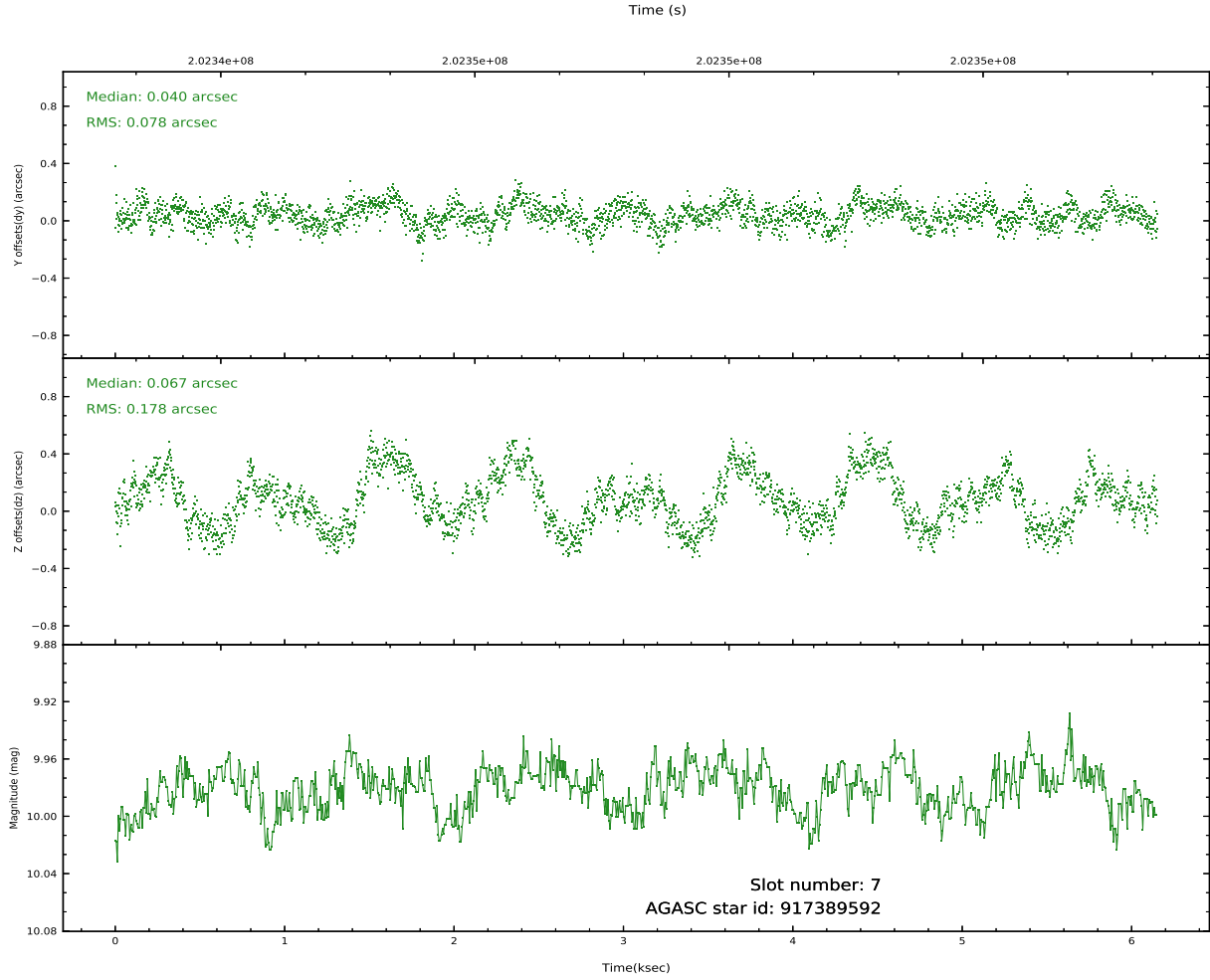
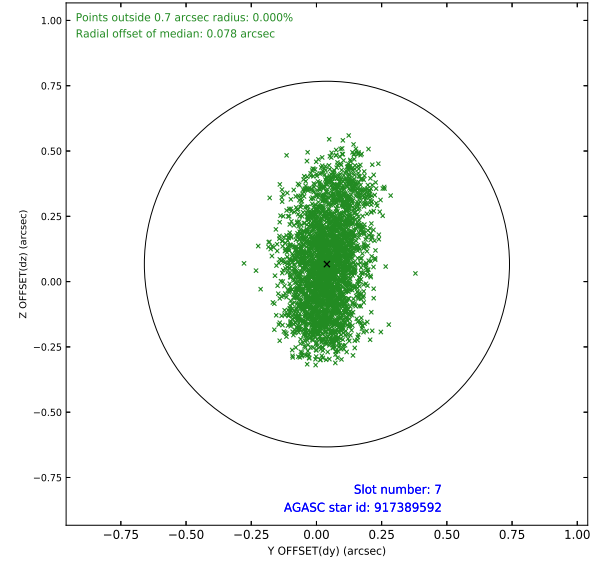
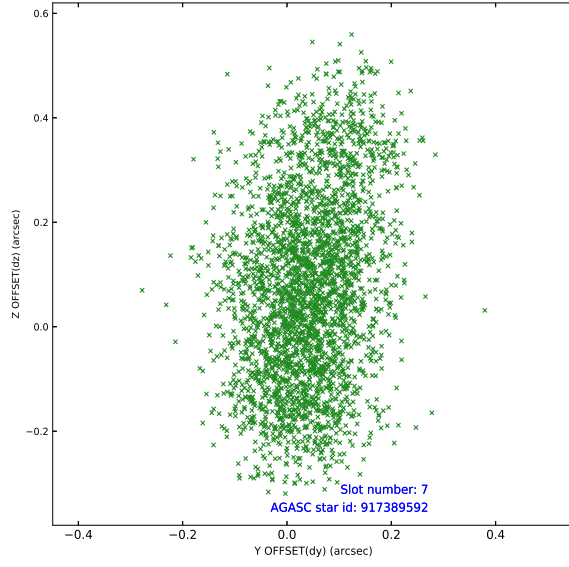


## 2.4.4 Slot 6



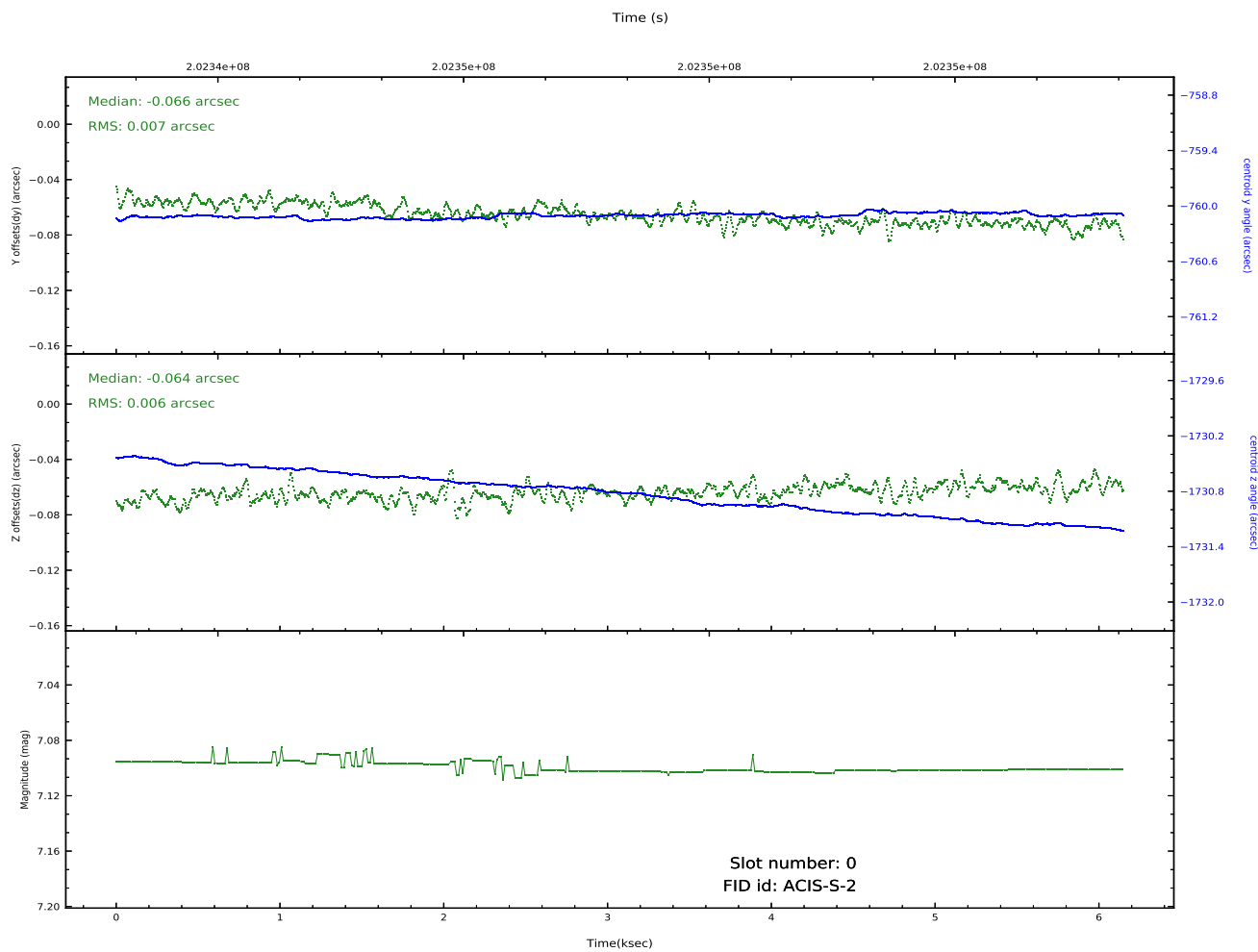
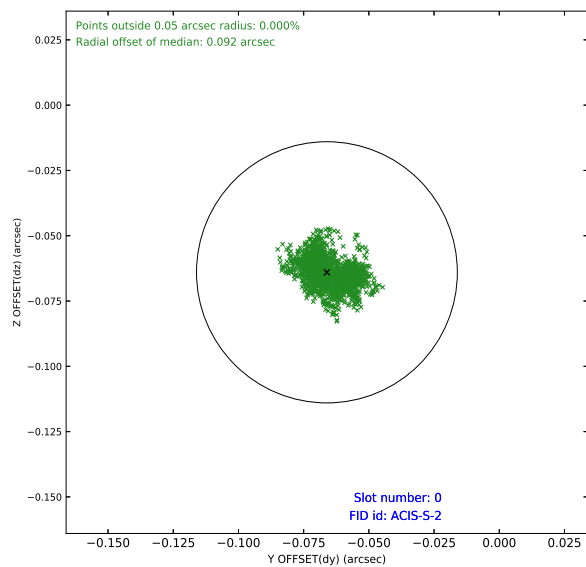
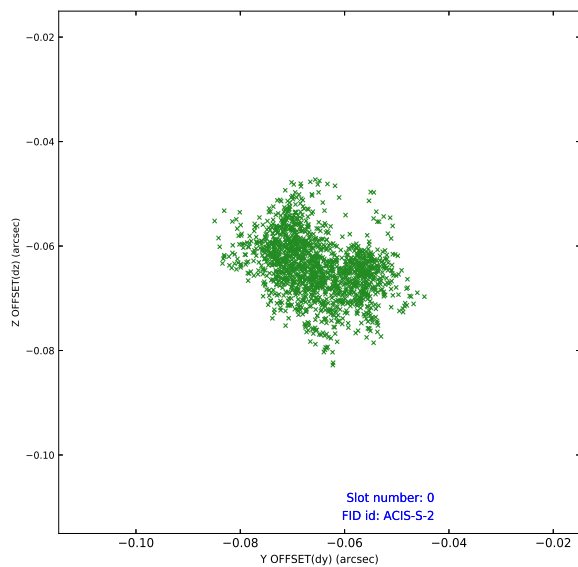


## 2.4.5 Slot 7

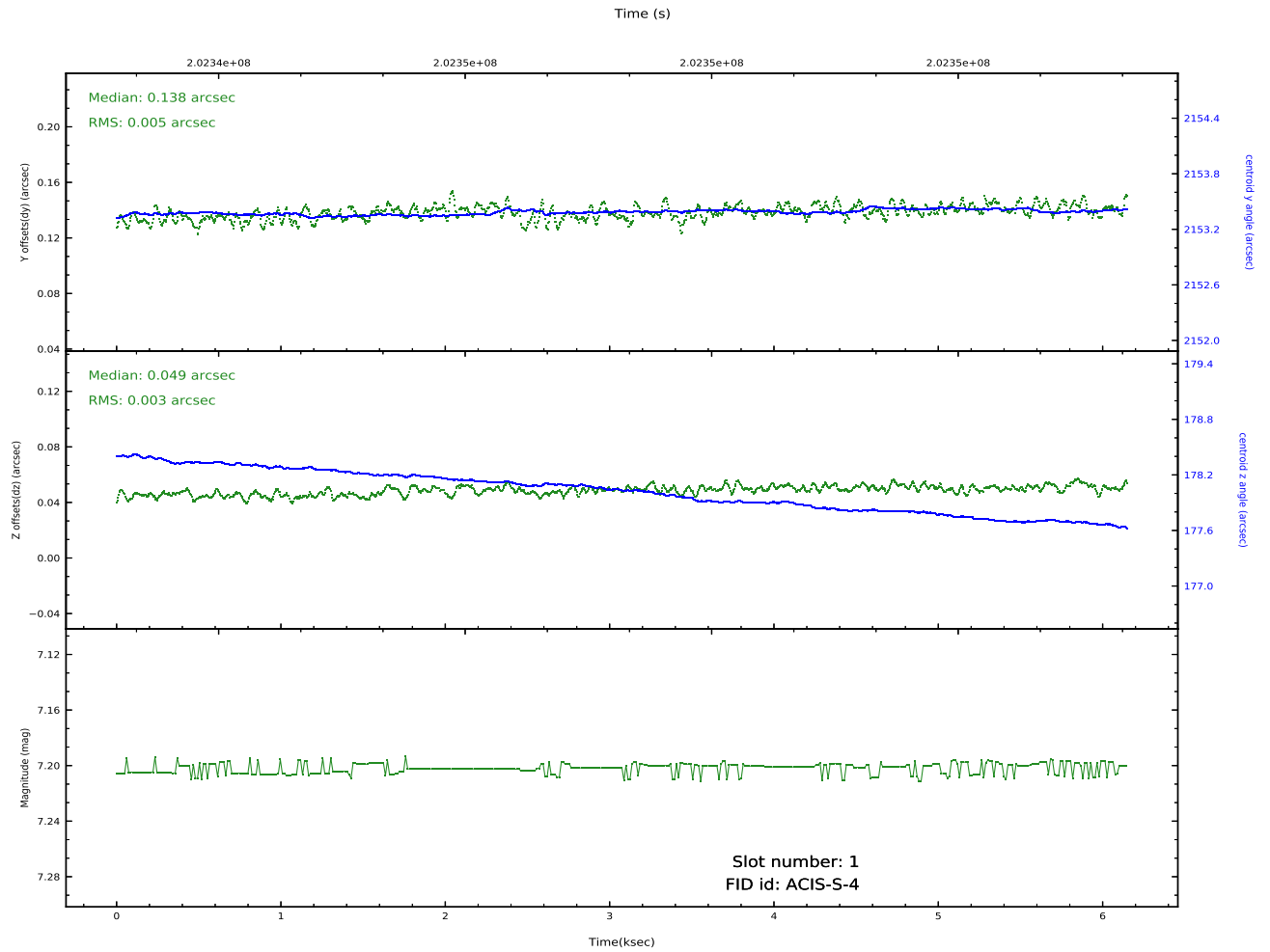
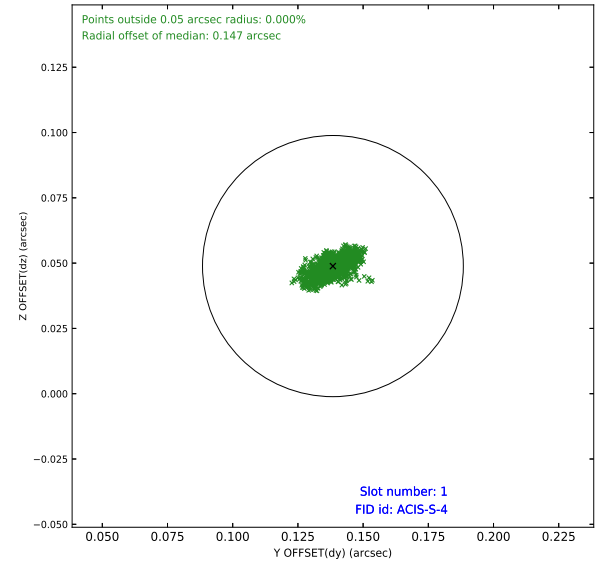
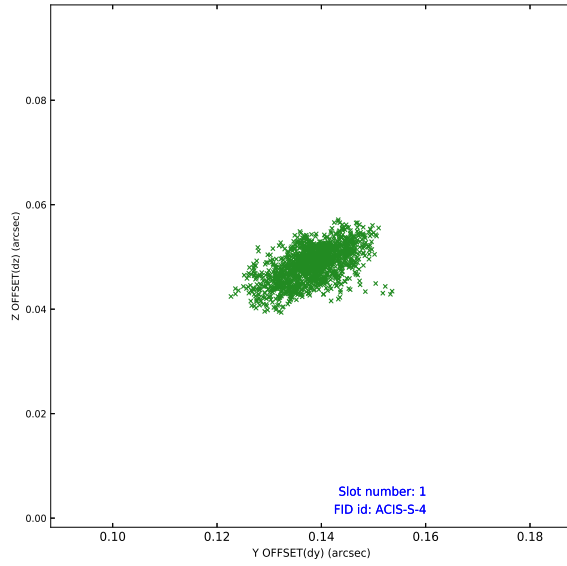


## 2.5 FID Slots

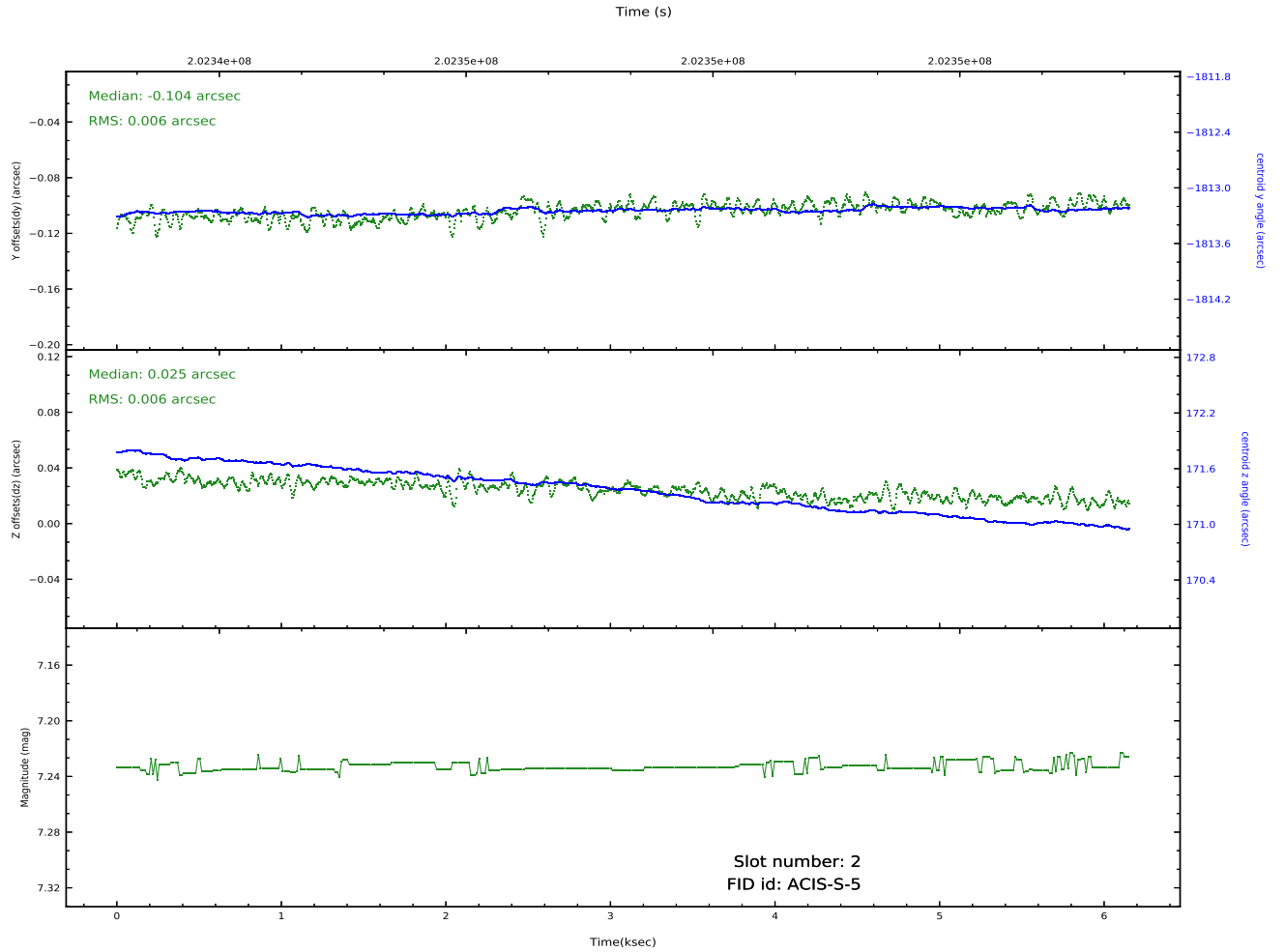
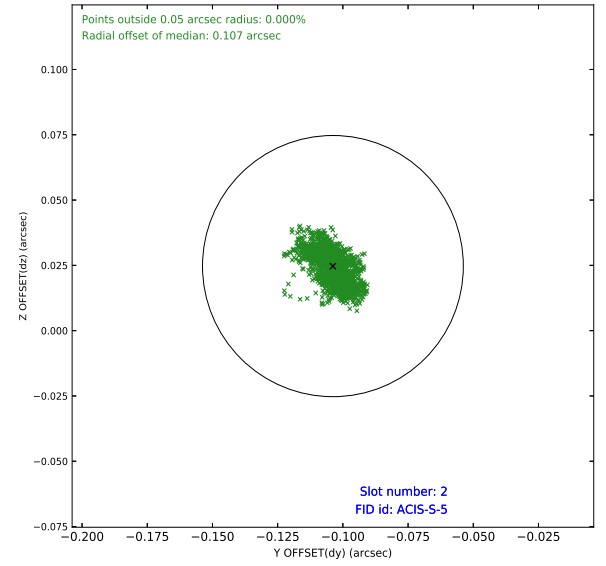
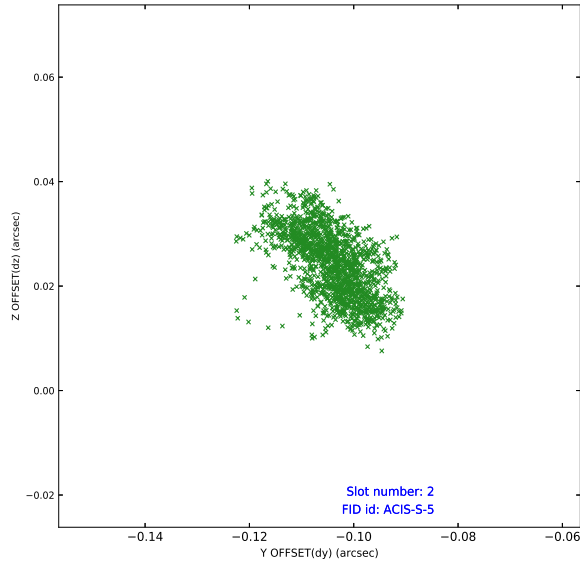
### 2.5.1 Slot 0



## 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)	2020.09.28
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	6.147

### A.2 Comments

Monitor constraint met. Joint Proposal: NOAO