

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 4709 - L2 Version 4  
Chandra X-Ray Center

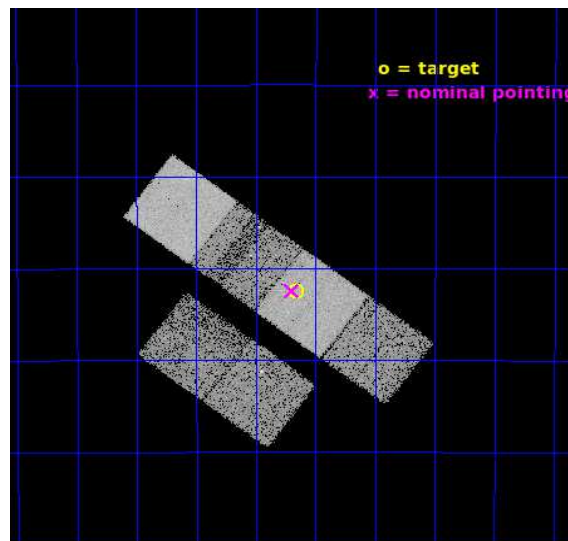
L2 Processing Date : Oct 2 2020

## 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

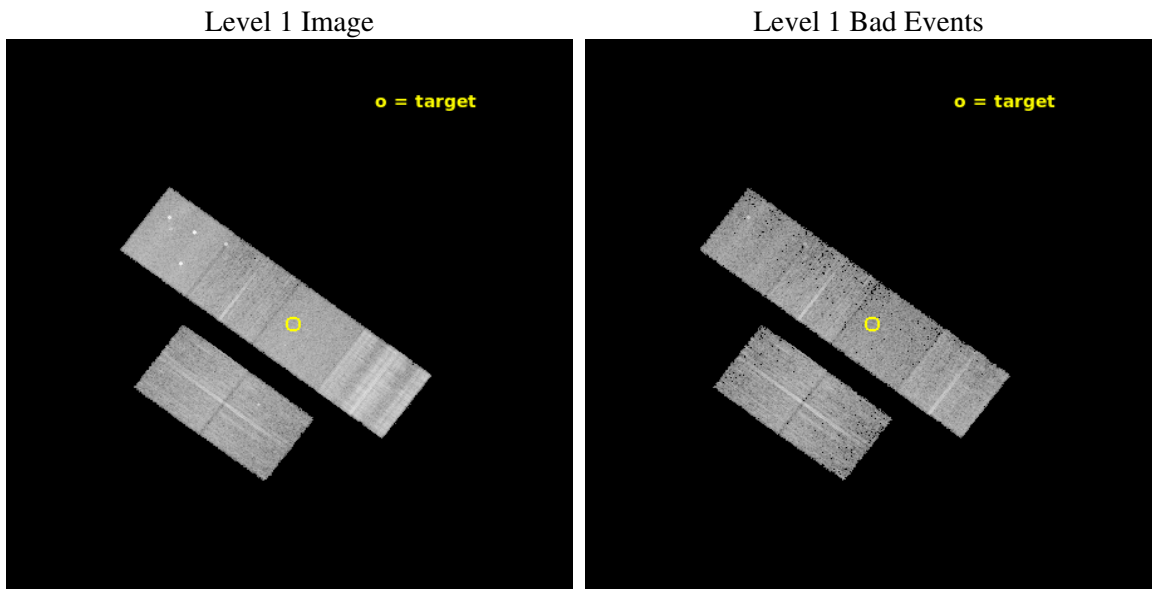
seq_num	600364	Sequence number
obs_id	4709	Observation id
title	Using the Sculptor Dwarf Spheroidal Galaxy to Constrain X-ray Binary Production in Population II	Proposal title
observer	Thomas Maccarone	Principal investigator
object	SCULPTOR DWARF SPHEROIDAL	Source name
dtcycle	0	&#160
cycle	P	events 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	15.049735171601	Nominal RA [deg]
dec_nom	-33.707264217965	Nominal Dec [deg]
roll_nom	36.808692653942	Nominal Roll [deg]
revision	4	Processing version of data
ontime	6169.5999770164	Sum of GTIs [s]
livetime	6091.4767872204	Livetime [s]
ontime2	6169.5999770164	Sum of GTIs [s]
ontime3	6169.5999770164	Sum of GTIs [s]
ontime5	6169.5999770164	Sum of GTIs [s]
ontime6	6169.5999770164	Sum of GTIs [s]
ontime7	6169.5999770164	Sum of GTIs [s]
ontime8	6169.5999770164	Sum of GTIs [s]
l2events	90357	Number of level 2 events



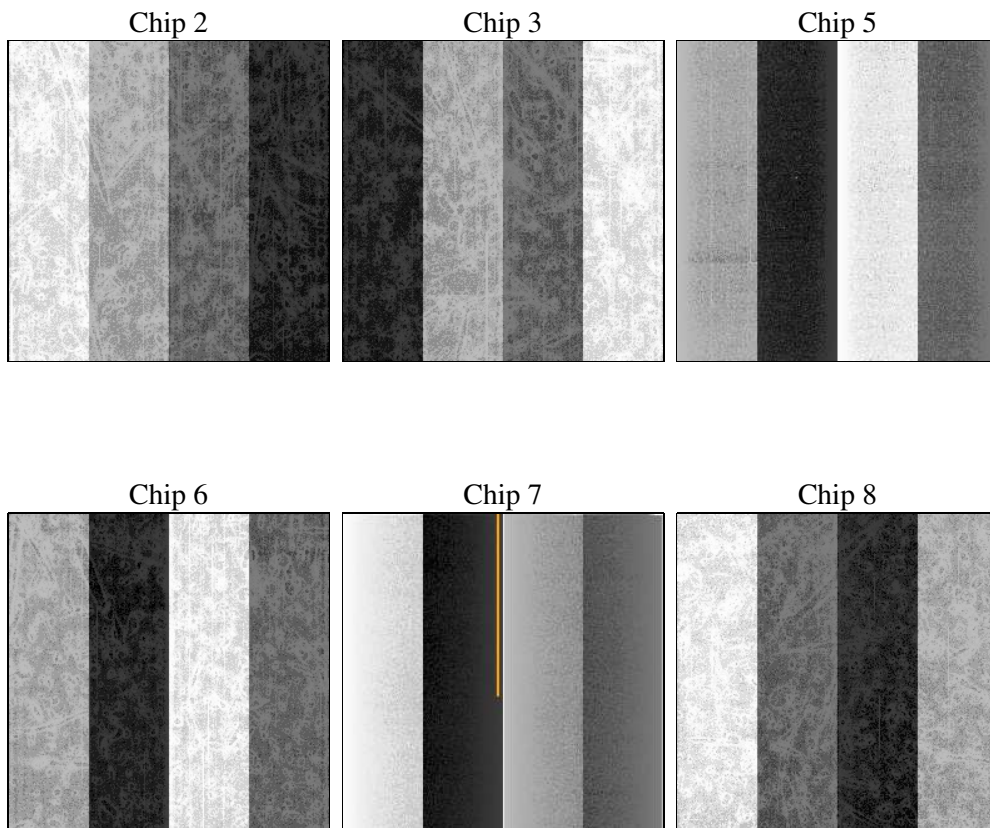
## 2 OBI

### 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	6169.5999770164	Sum of GTIs [s]
caldsver	4.9.2	&#160	ontime2	6169.5999770164	Sum of GTIs [s]
date	2020-10-02T07:57:40	Date and time of file creation	ontime3	6169.5999770164	Sum of GTIs [s]
revision	4	Processing version of data	ontime5	6169.5999770164	Sum of GTIs [s]
			ontime6	6169.5999770164	Sum of GTIs [s]
			ontime7	6169.5999770164	Sum of GTIs [s]
			ontime8	6169.5999770164	Sum of GTIs [s]
			l1events	500114	Number of level 1 events

### 2.1.4 Events

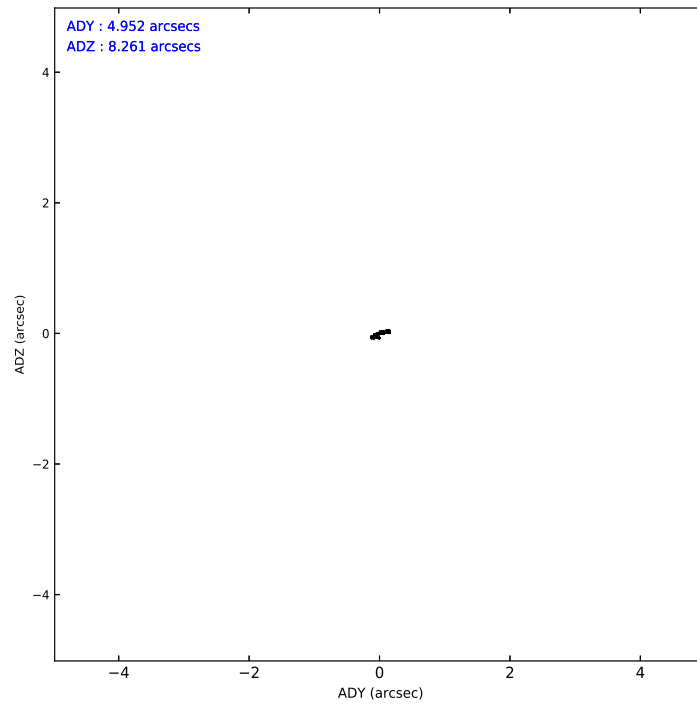
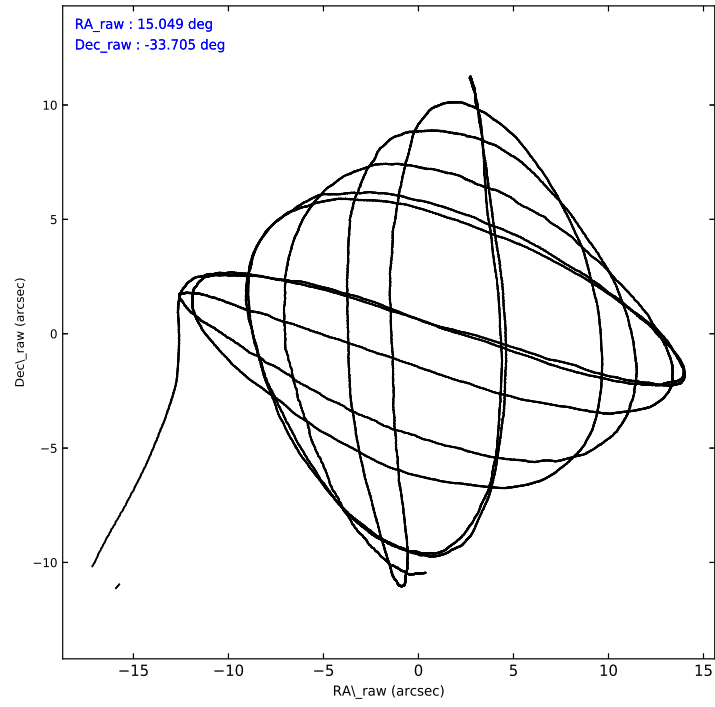
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	68275	62081	88380	68137	74246	138995	grade 0 events	5022	4328	7007	4681	3092	25827
rejected events	58410	52560	52469	58106	47371	75337		7%	6%	7%	6%	4%	18%
rejected %	85%	84%	59%	85%	63%	54%	grade 1 events	43	38	334	29	70	230
								0%	0%	0%	0%	0%	0%
							grade 2 events	2857	3133	11949	3582	6544	10223
								4%	5%	13%	5%	8%	7%
							grade 3 events	605	622	2046	661	2909	13409
								0%	1%	2%	0%	3%	9%
							grade 4 events	884	676	1893	661	2823	12133
								1%	1%	2%	0%	3%	8%
							grade 5 events	2148	2260	6068	2373	6820	3771
								3%	3%	6%	3%	9%	2%
							grade 6 events	2217	2274	19487	2156	16536	13527
								3%	3%	22%	3%	22%	9%
							grade 7 events	54499	48750	39596	53994	35452	59875
								79%	78%	44%	79%	47%	43%

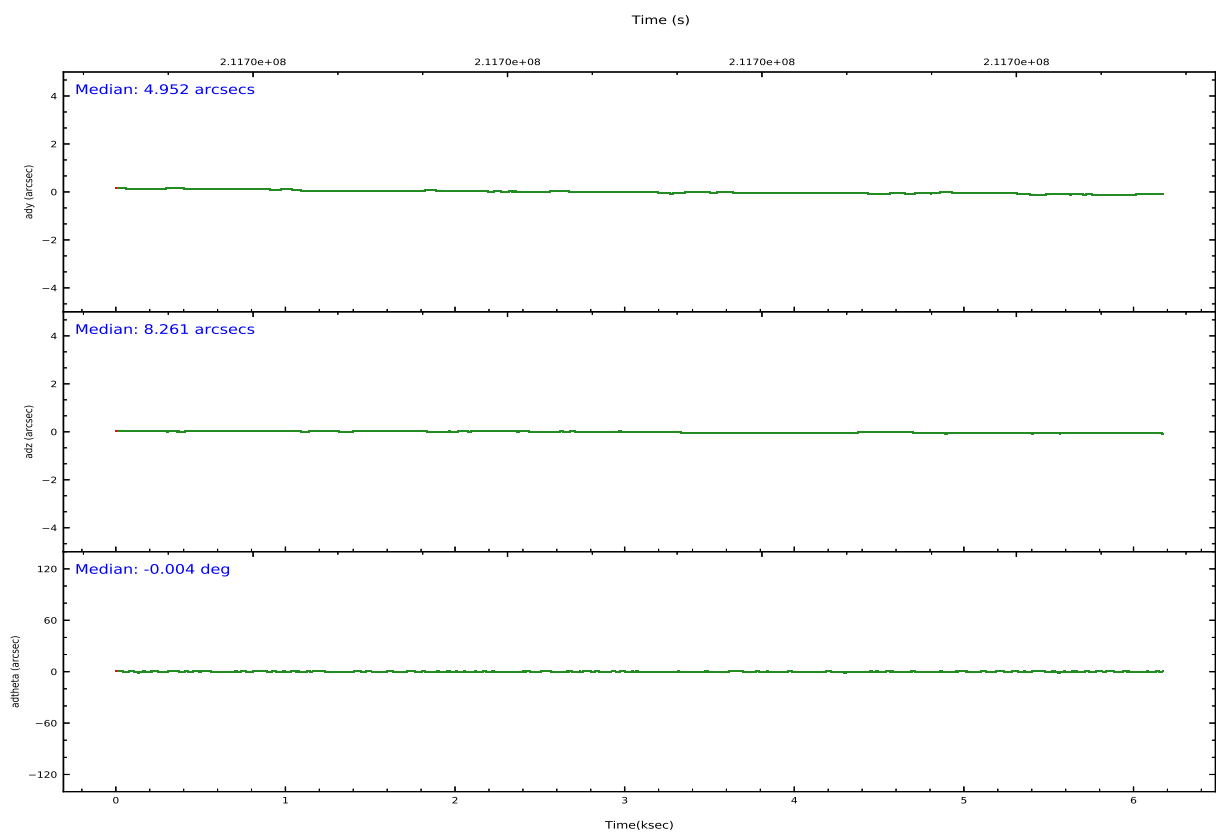
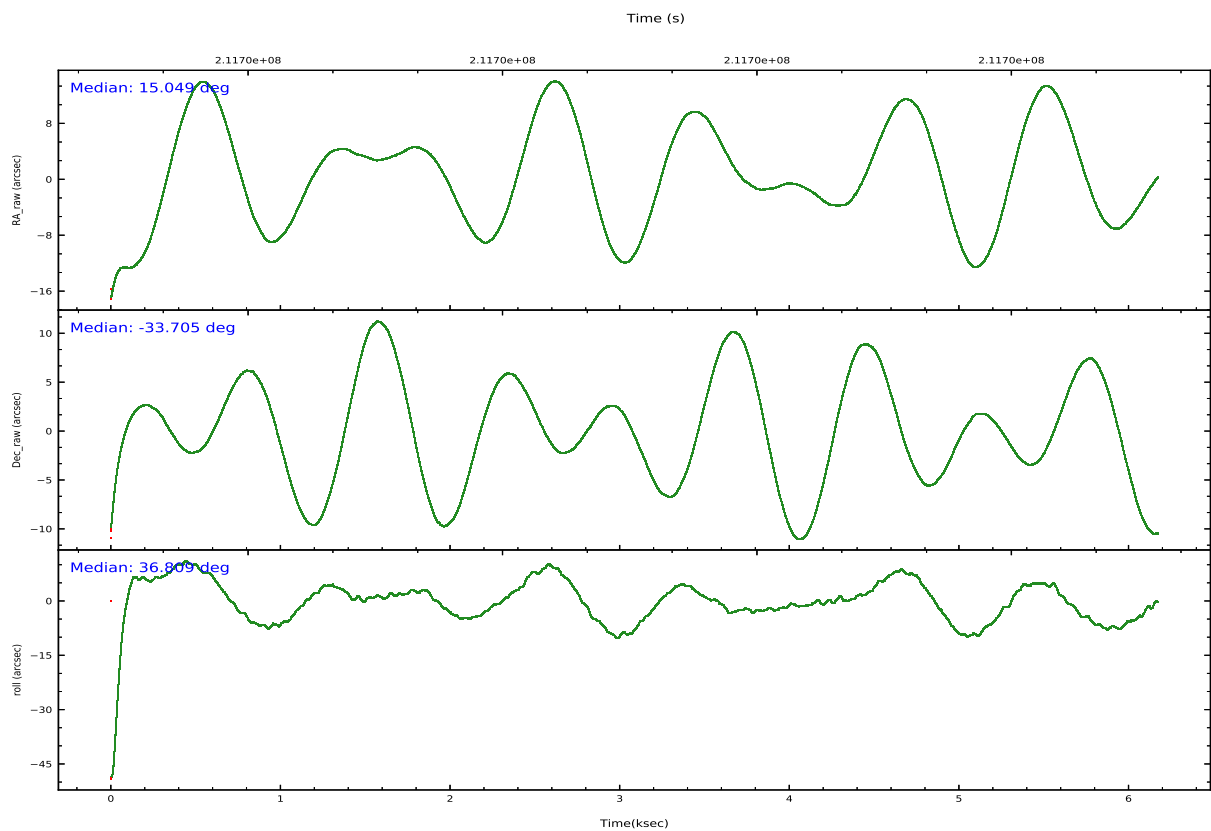


## 2.2 Compared Parameters

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	15.037057	15.049735171601	Subarray requested	NONE	NONE
[deg] Pointing Dec	-33.729712	-33.707264217965	Alternating exposures requested	N	N
[deg] Pointing Roll	36.644041	36.808692653942	[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	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	211695366.184000	211693727.07297			
Observation start date	2004-09-16T04:15:02	2004-09-16T03:48:47			
[s] Observation end time (MET)	211701366.184000	211702540.53586			
Observation end date	2004-09-16T05:55:02	2004-09-16T06:15:40			
Read mode	TIMED	TIMED			

## 2.3 Aspect



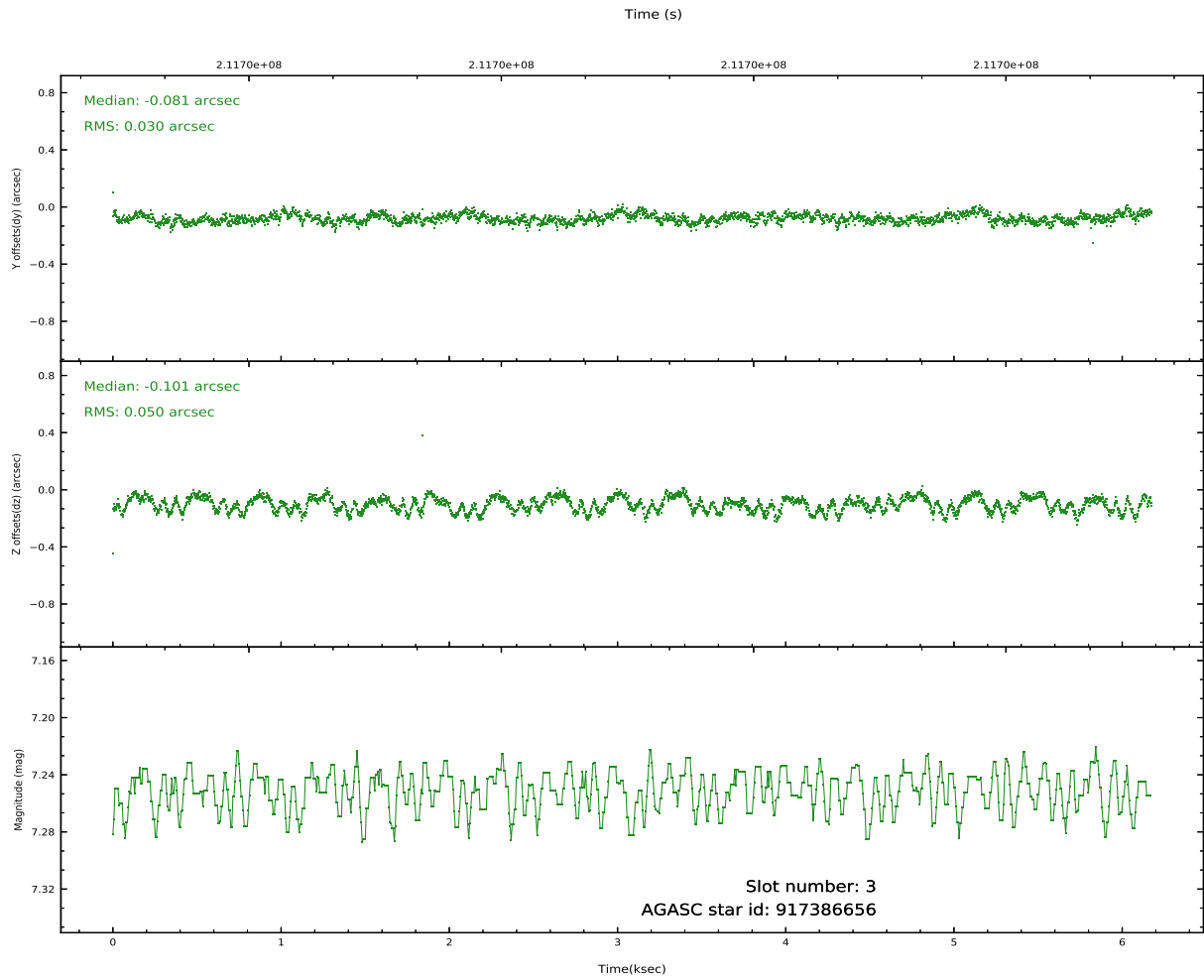
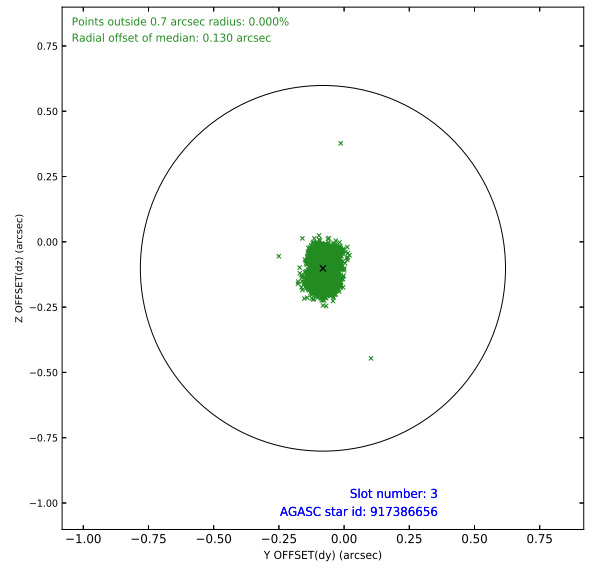
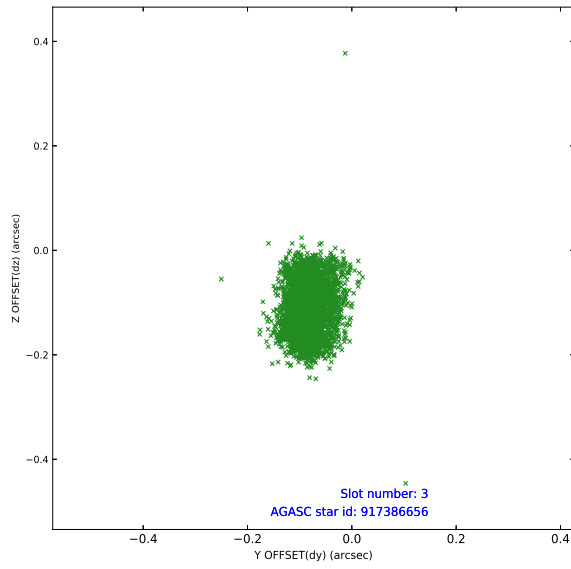


Slot Statistics

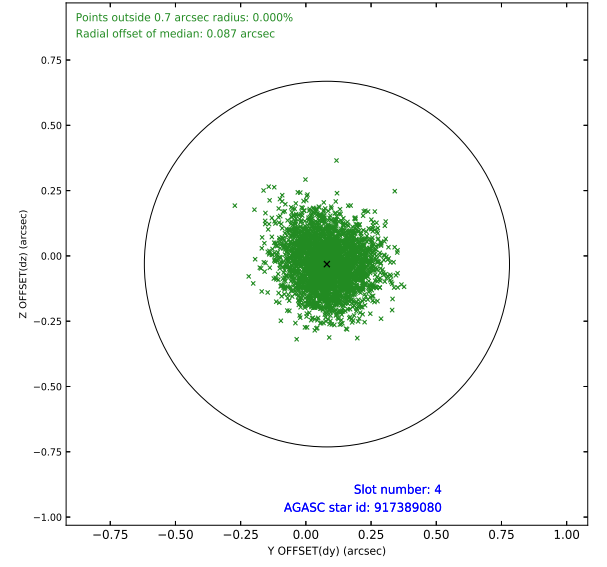
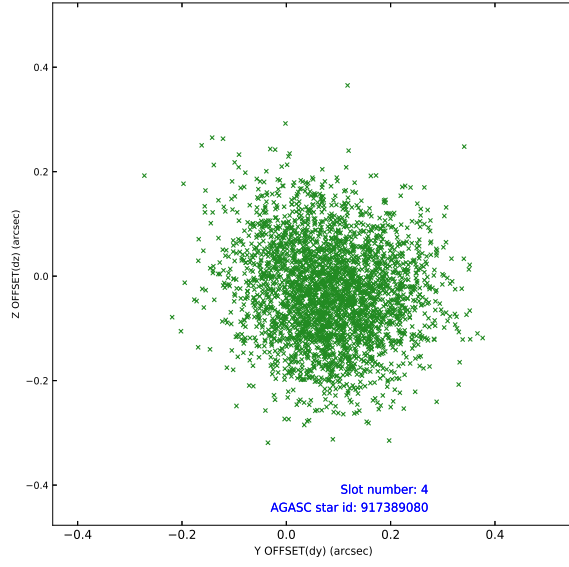
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.10	1506	1.000	-0.068	-0.085	0.007	0.010	0.000000	0.000000	-757.71	-1729
1	FID		ACIS-S-4	7.21	1507	1.000	0.165	0.055	0.006	0.011	0.000000	0.000000	2155.36	178
2	FID		ACIS-S-5	7.23	1507	1.000	-0.129	0.039	0.007	0.012	0.000000	0.000000	-1809.39	172
3	GUIDE	used	917386656	7.25	3012	1.000	-0.081	-0.101	0.063	0.096	15.342124	-33.359890	1530.15	519
4	GUIDE	used	917389080	10.11	3005	1.000	0.081	-0.031	0.141	0.224	15.722484	-33.662555	1789.18	-1037
5	GUIDE	used	917389288	9.57	3010	1.000	-0.071	0.035	0.113	0.183	15.394706	-33.185862	2032.80	925
6	GUIDE	used	917390768	9.87	3012	1.000	-0.007	0.077	0.136	0.216	14.870561	-33.104152	941.99	2106
7	GUIDE	used	917650528	8.71	3011	1.000	0.071	0.025	0.062	0.098	14.274554	-33.869842	-2134.14	949

## 2.4 Star Slots

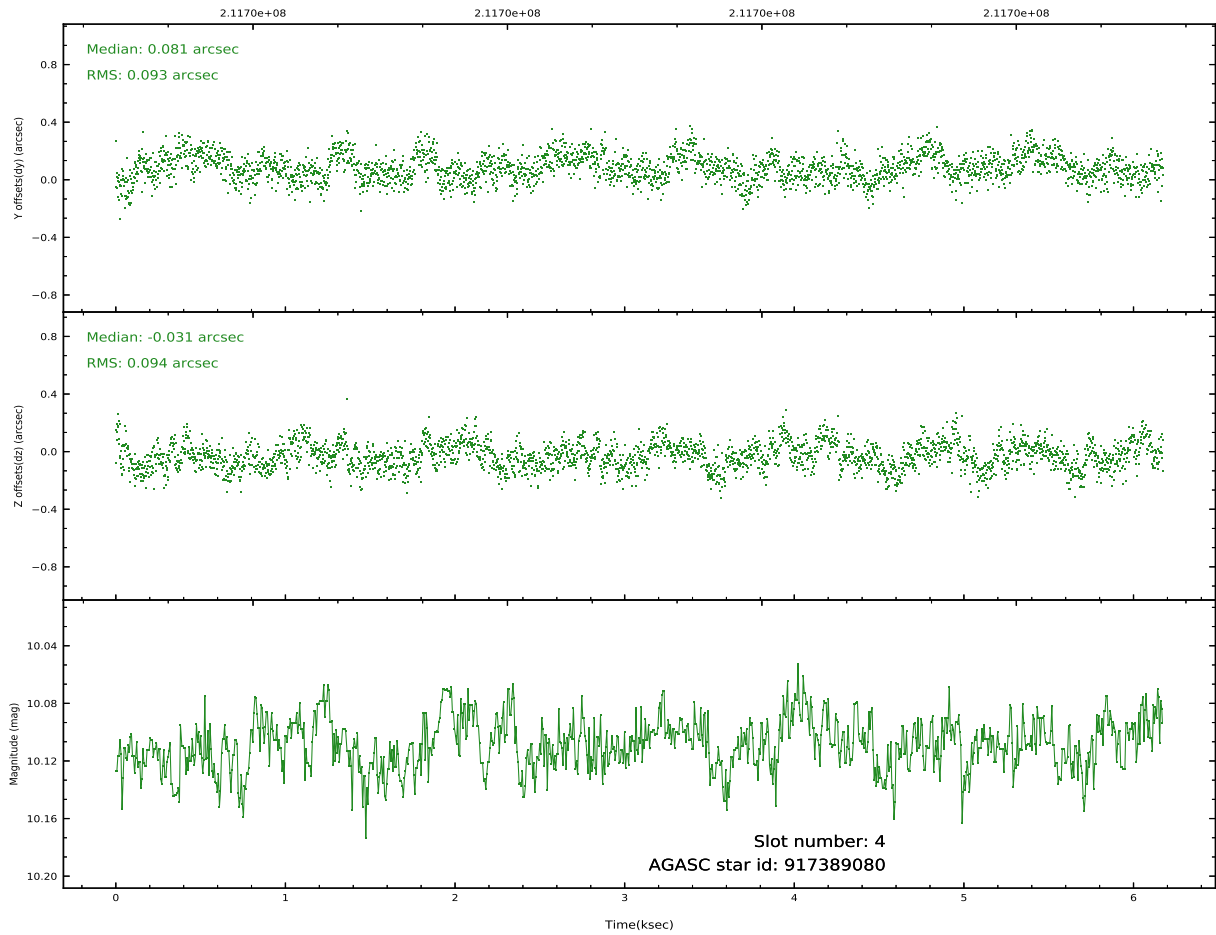
### 2.4.1 Slot 3



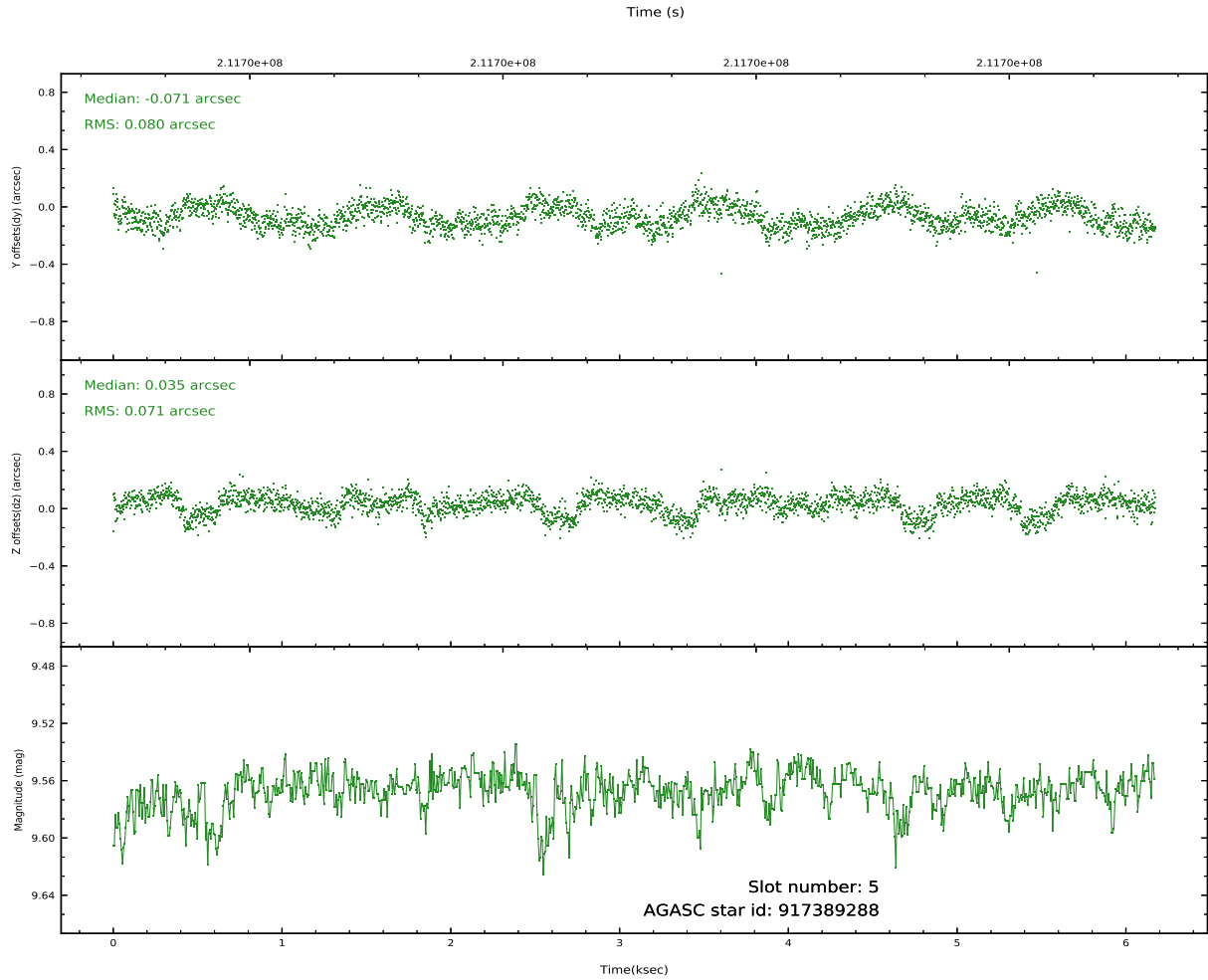
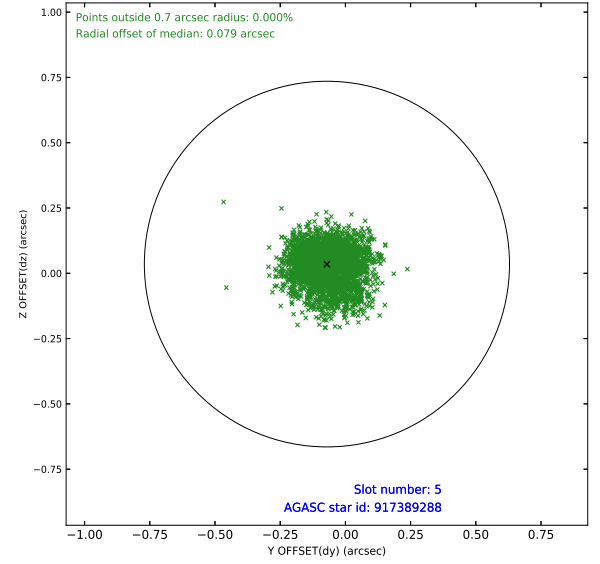
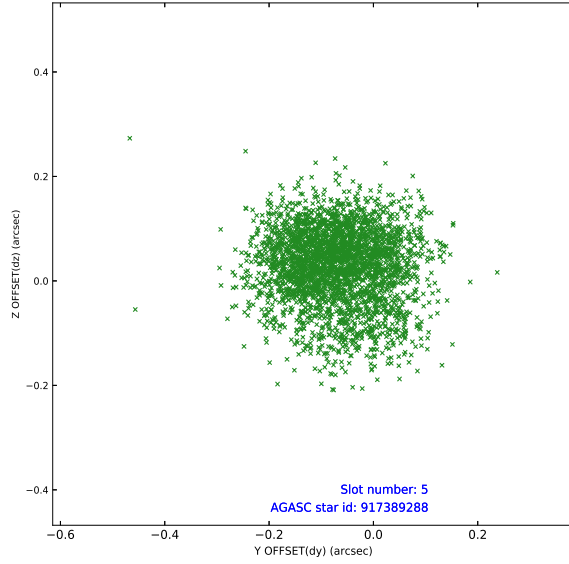
## 2.4.2 Slot 4



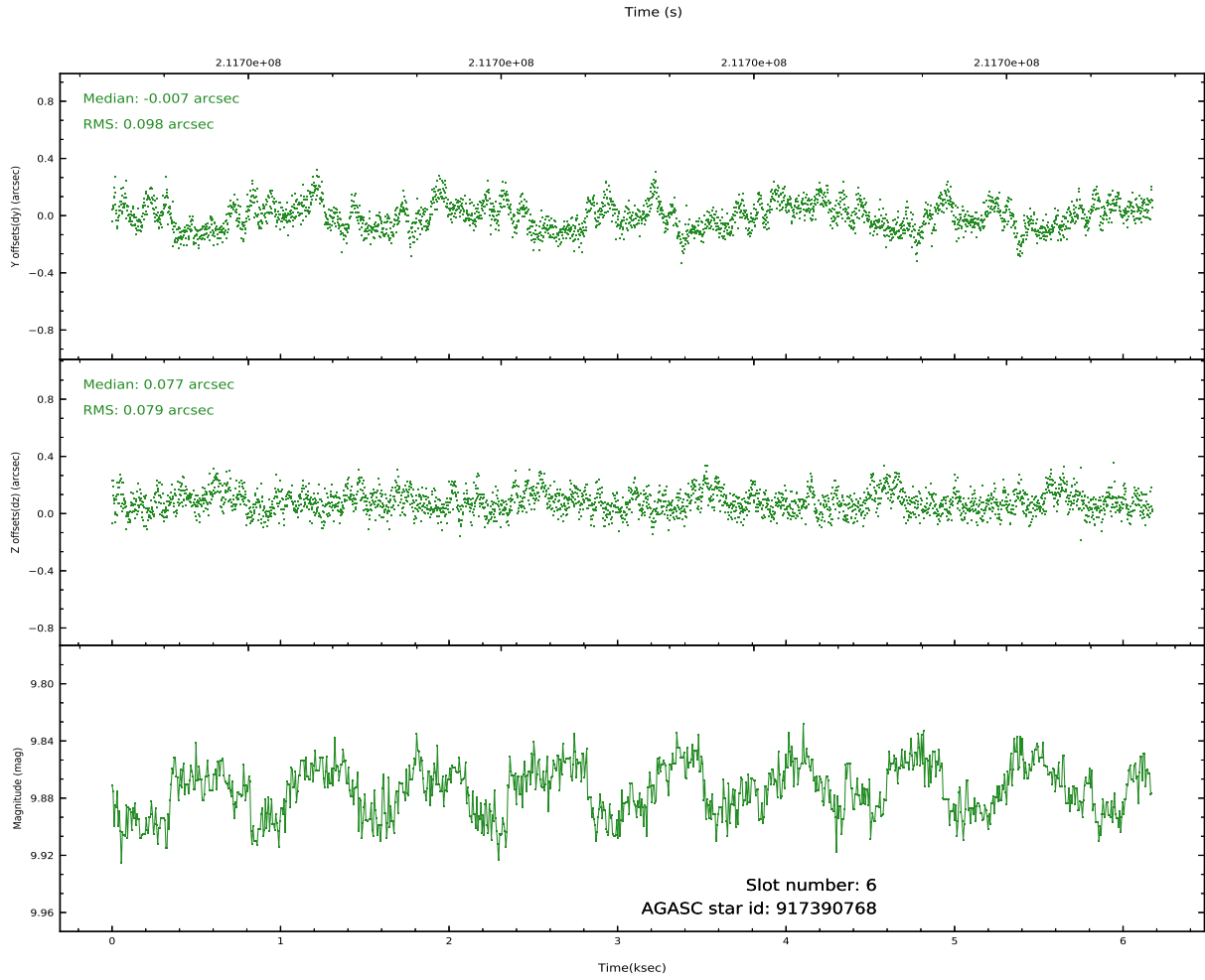
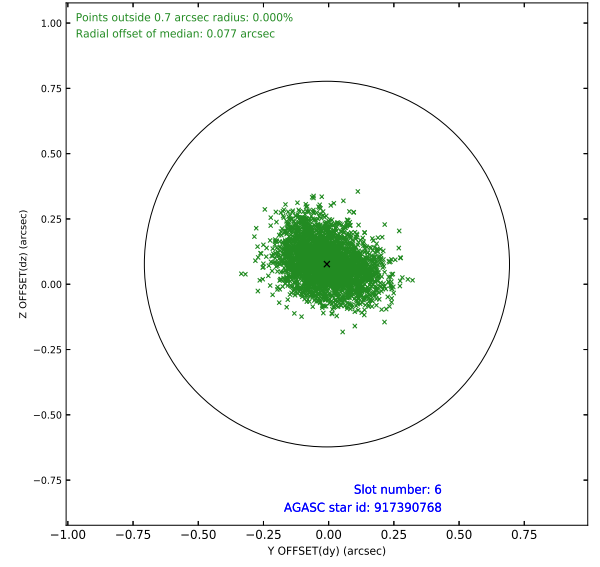
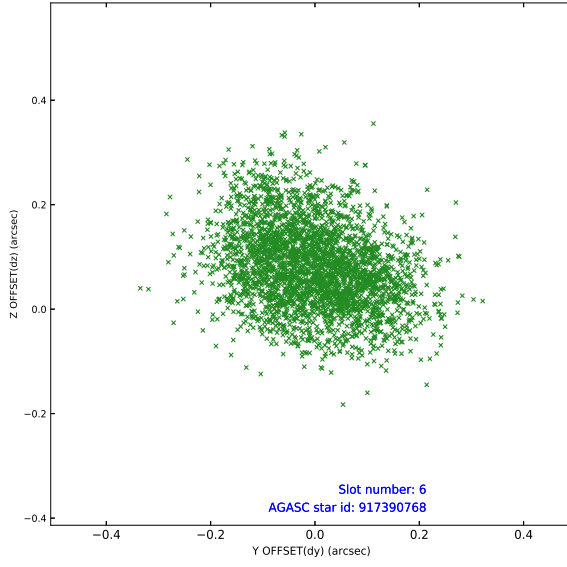
Time (s)



### 2.4.3 Slot 5

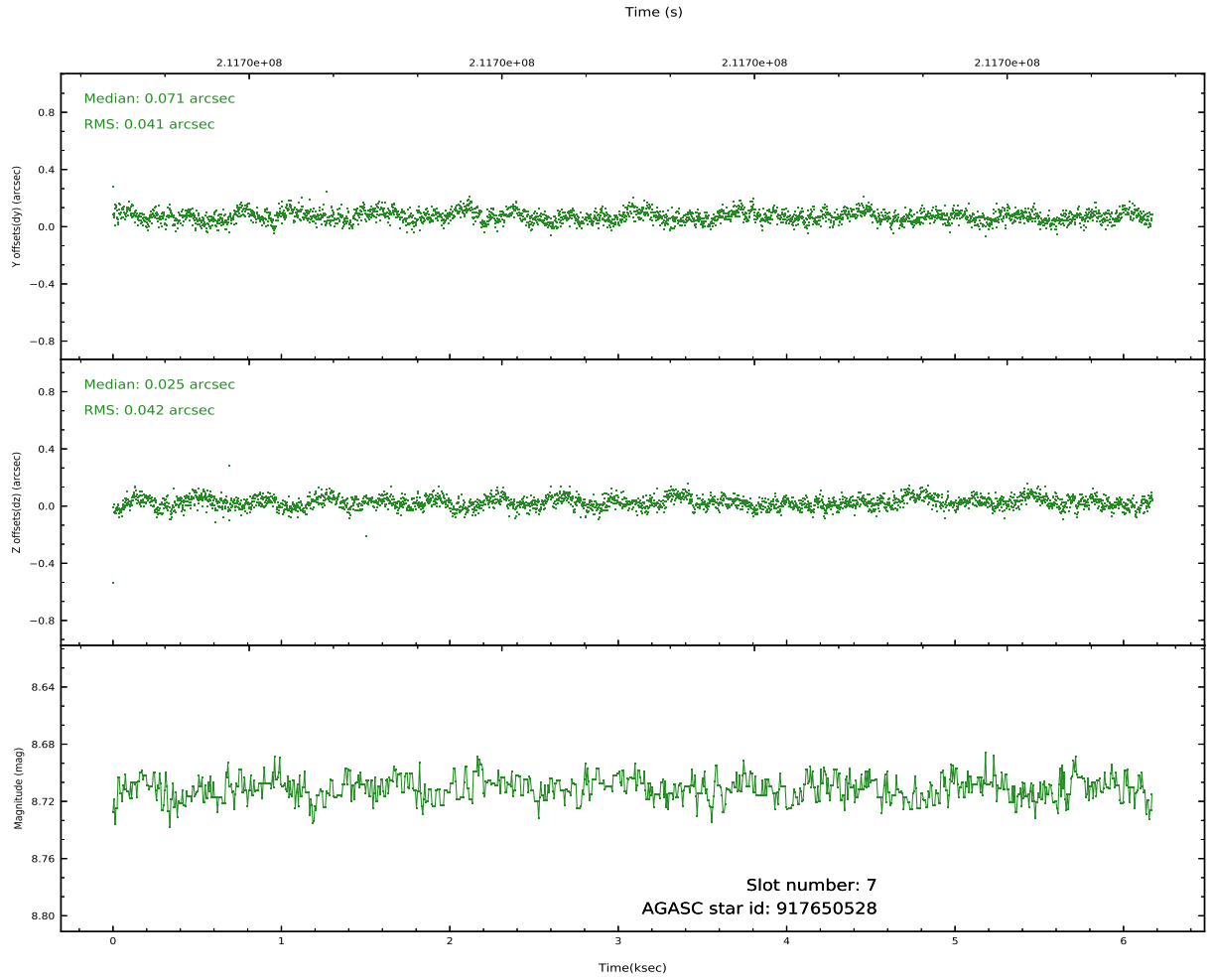
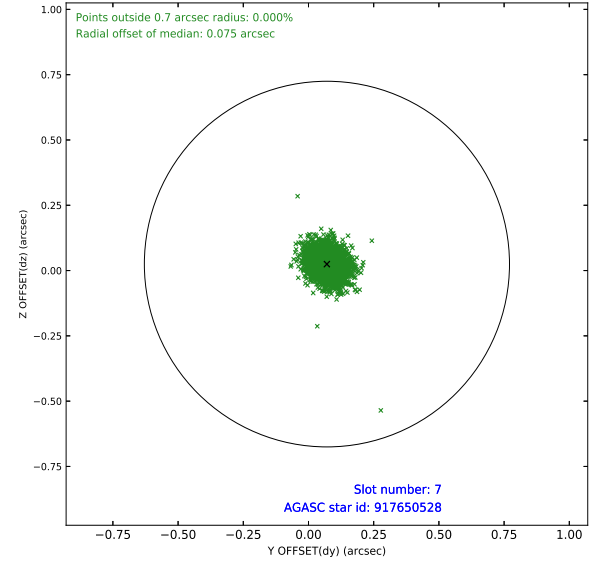
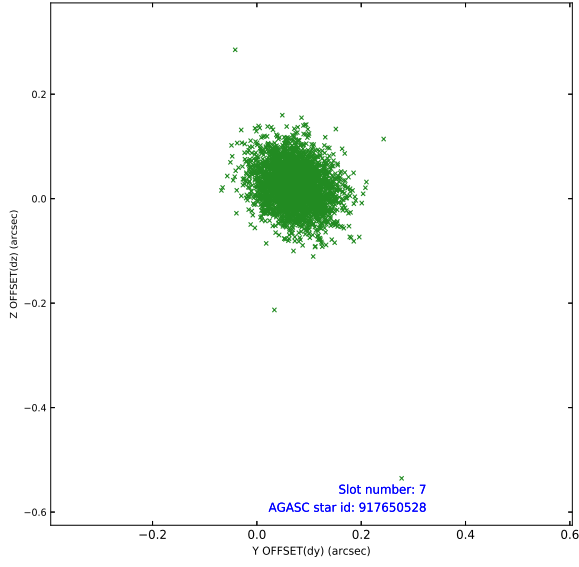


## 2.4.4 Slot 6



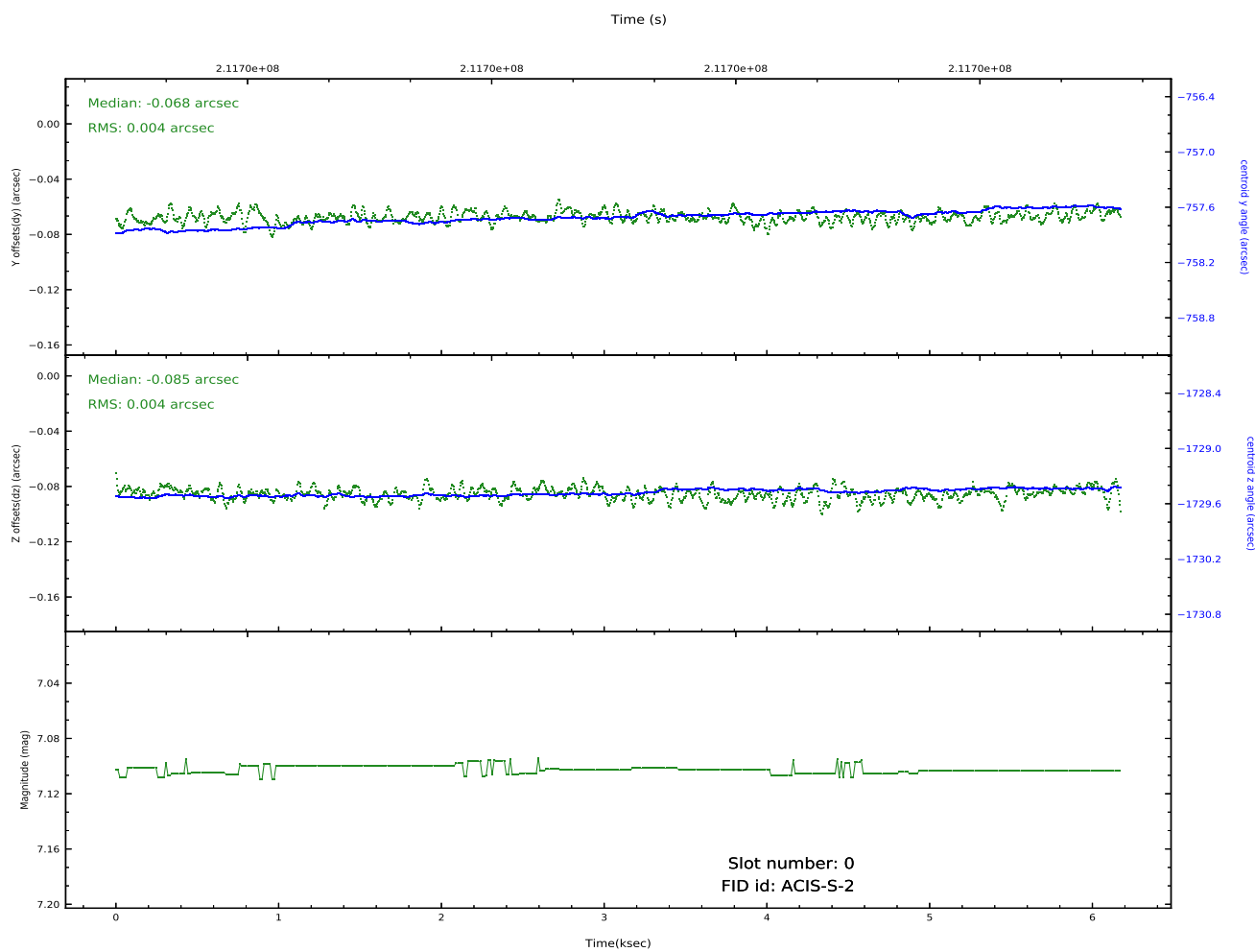
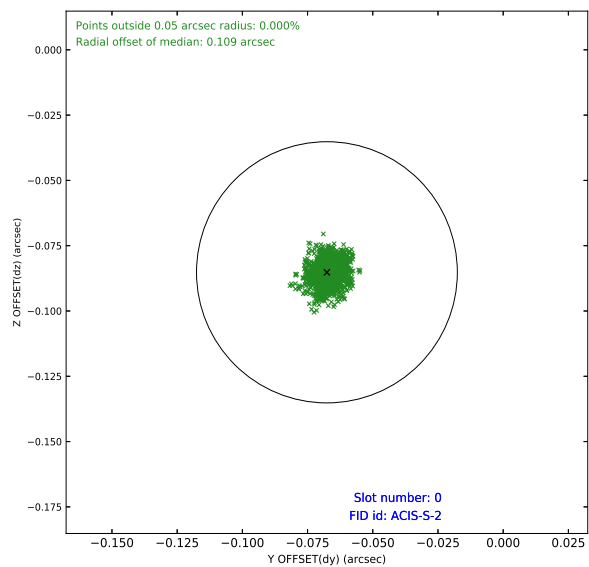
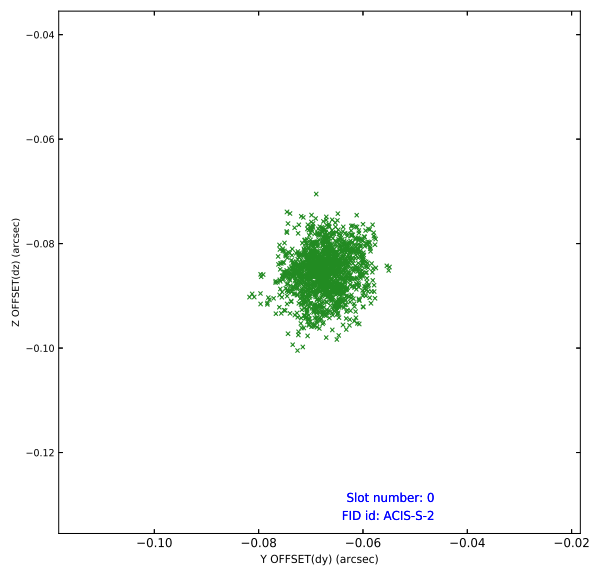


## 2.4.5 Slot 7

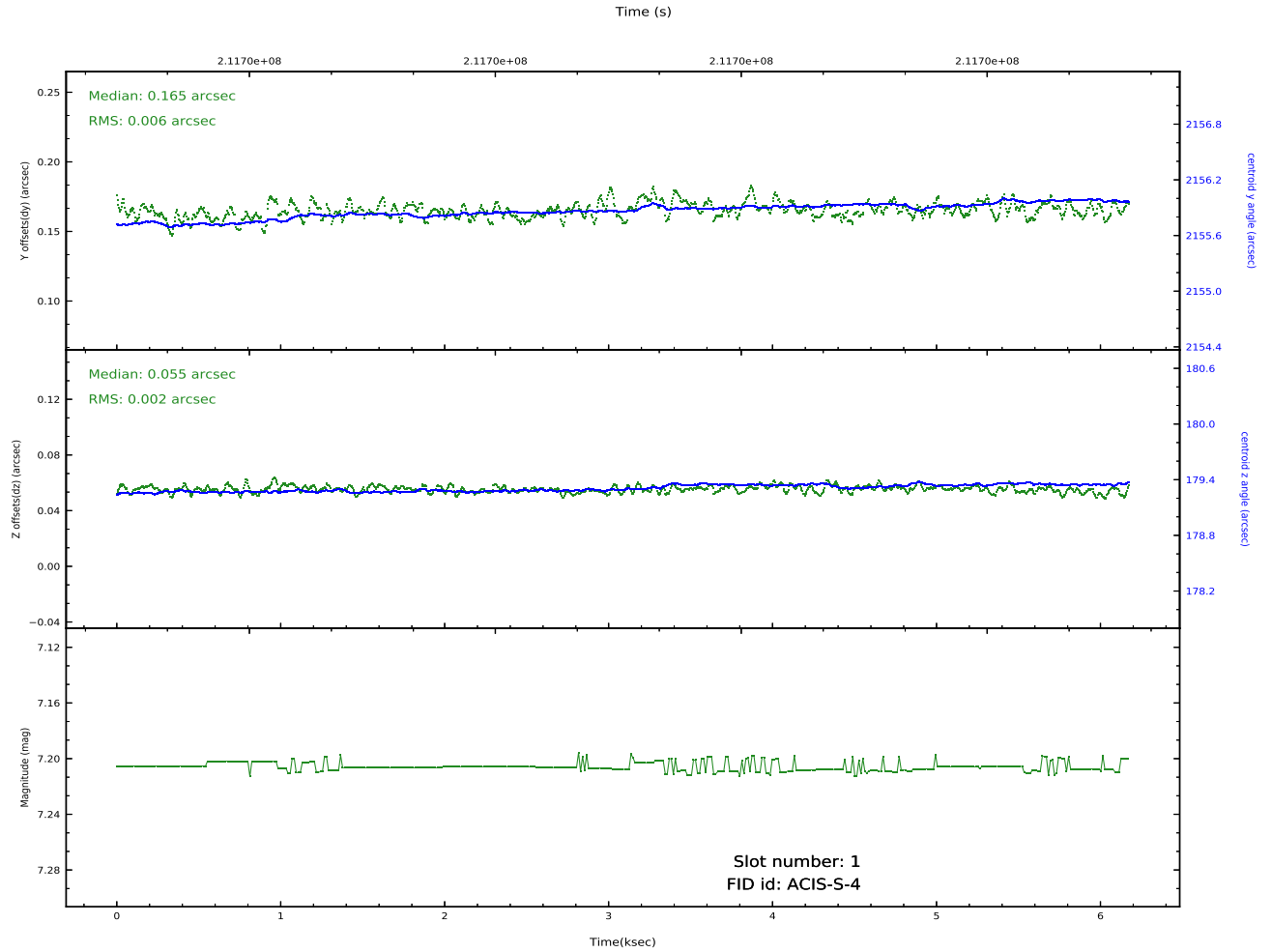
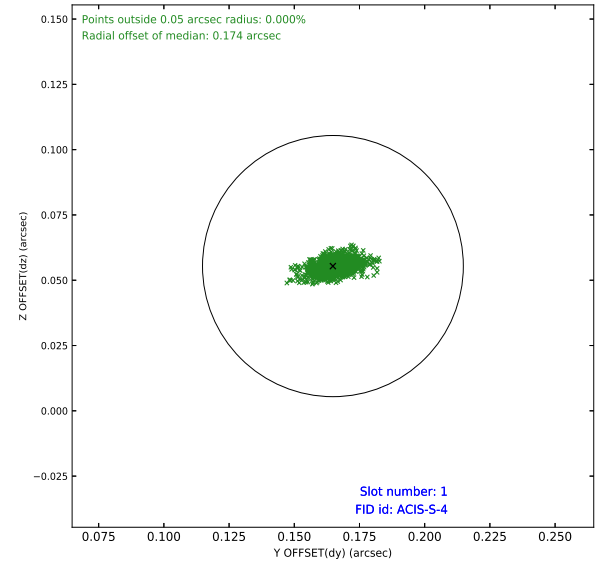
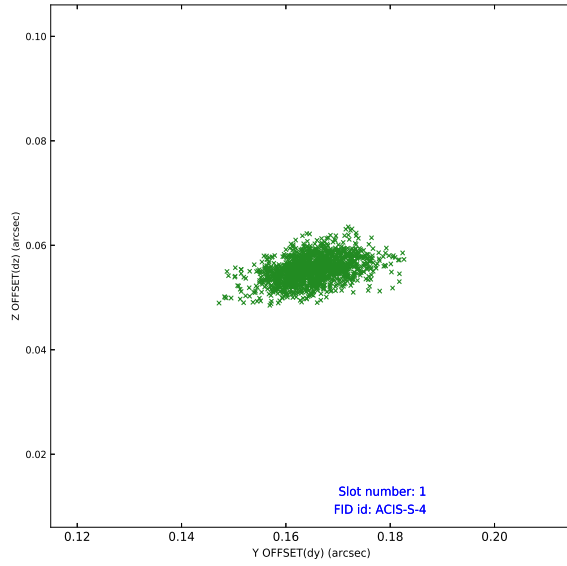


## 2.5 FID Slots

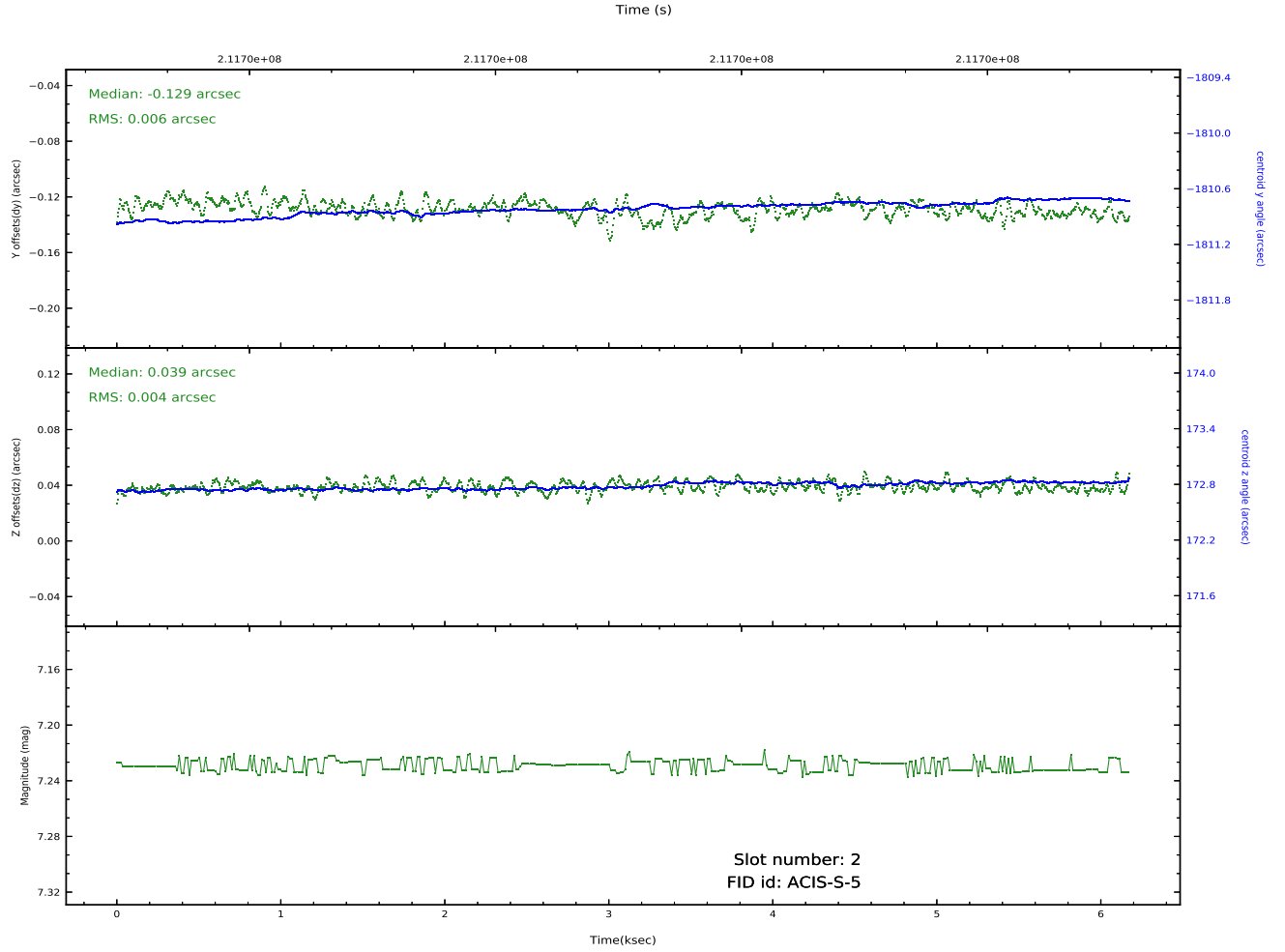
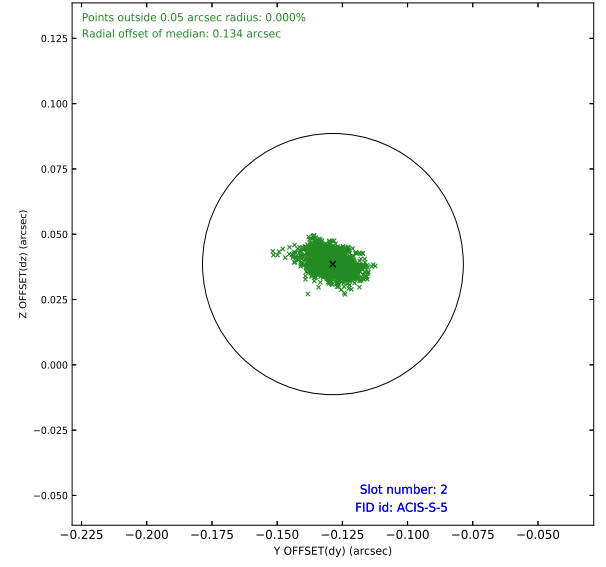
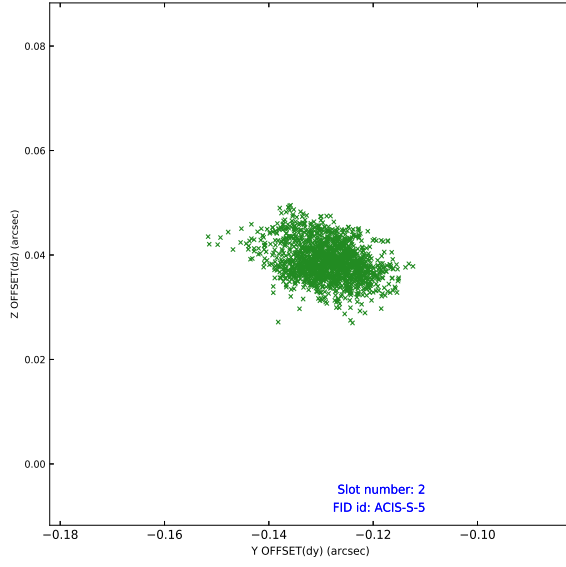
### 2.5.1 Slot 0



## 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)	2020.10.02
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	6.169

## A.2 Comments

Joint proposal with NOAO.