

# V&V Reference Report

## L2 ASCDS Version : 10.9.2

Observation 20487 - L2 Version 2  
Chandra X-Ray Center

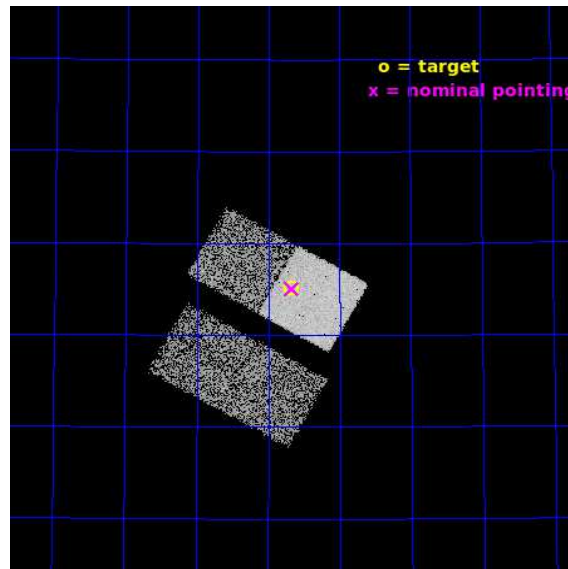
L2 Processing Date : Oct 24 2020

## 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

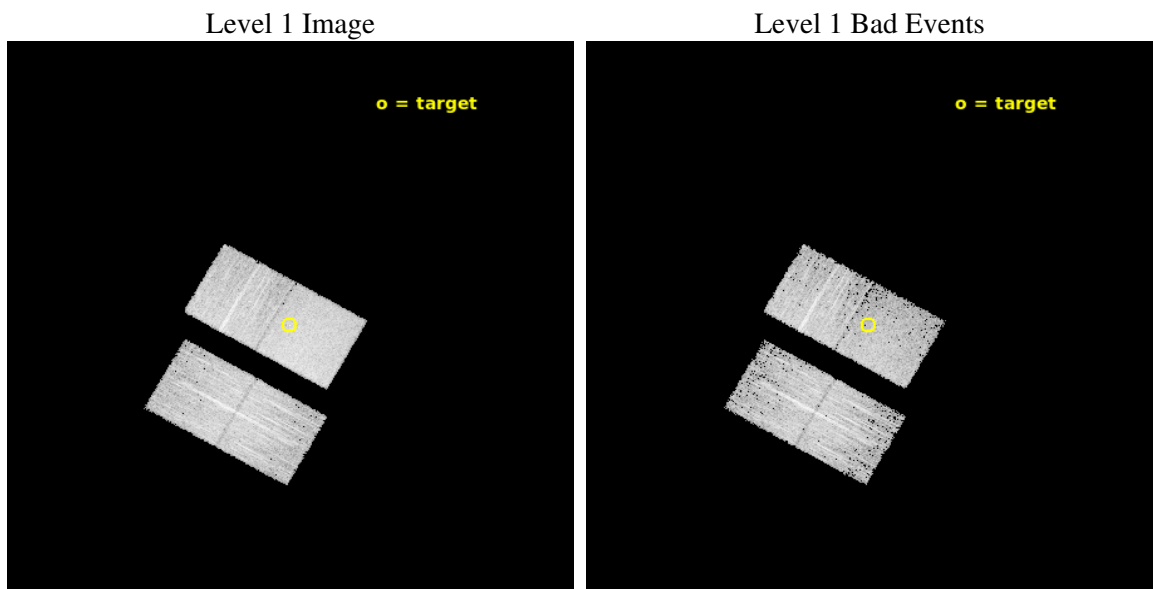
seq_num	703590	Sequence number
obs_id	20487	Observation id
title	Young Radio Sources at High Redshift	Proposal title
observer	Aneta Siemiginowska	Principal investigator
object	NVSS 210240+601510	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	315.6675	Observer's specified target RA [deg]
dec_targ	60.252722	Observer's specified target Dec [deg]
ra_nom	315.66713347794	Nominal RA [deg]
dec_nom	60.251321763717	Nominal Dec [deg]
roll_nom	29.534702216467	Nominal Roll [deg]
revision	2	Processing version of data
ontime	6066.7000467777	Sum of GTIs [s]
livetime	5987.434144427	Livetime [s]
ontime2	6066.7000467777	Sum of GTIs [s]
ontime3	6066.7000467777	Sum of GTIs [s]
ontime6	6066.7000467777	Sum of GTIs [s]
ontime7	6066.7000467777	Sum of GTIs [s]
l2events	36090	Number of level 2 events



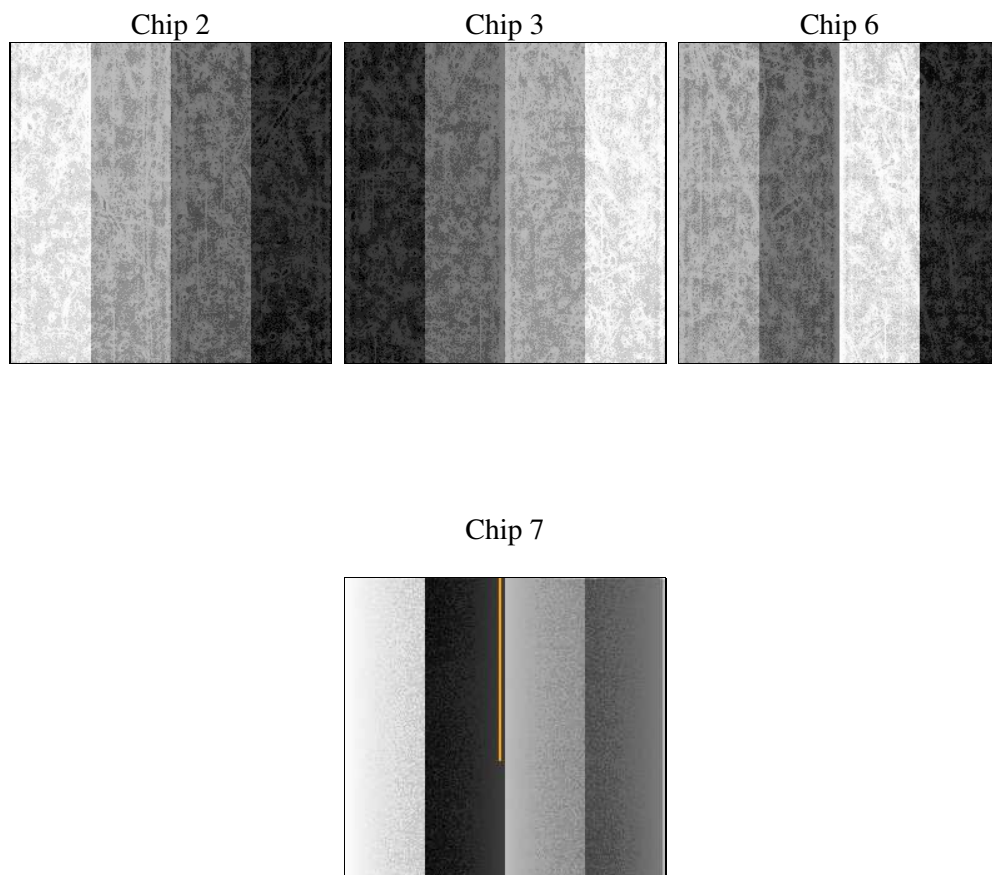
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	6000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	6066.7000467777	Sum of GTIs [s]
caldsver	4.9.3	&#160	ontime2	6066.7000467777	Sum of GTIs [s]
date	2020-10-25T00:26:48	Date and time of file creation	ontime3	6066.7000467777	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	6066.7000467777	Sum of GTIs [s]
			ontime7	6066.7000467777	Sum of GTIs [s]
			l1events	193550	Number of level 1 events

### 2.1.4 Events

	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	44570	45018	47125	56837
rejected events	39916	40531	42022	32379
rejected %	89%	90%	89%	56%

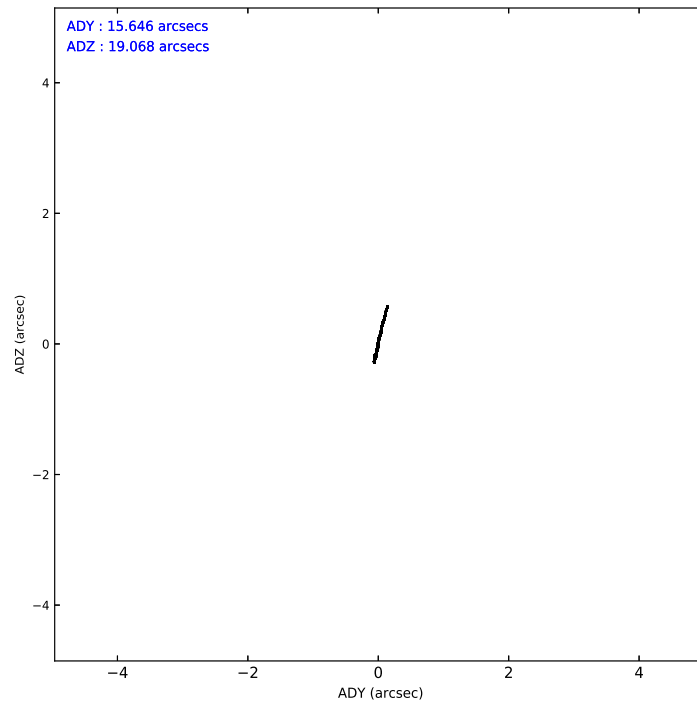
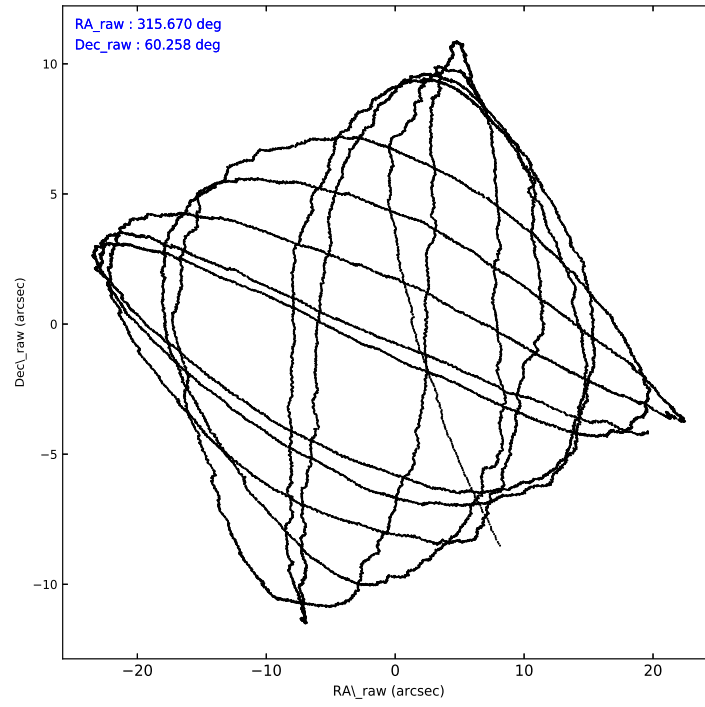
	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	1689	1554	1643	2019
	3%	3%	3%	3%
grade 1 events	34	21	16	75
	0%	0%	0%	0%
grade 2 events	1057	937	1275	5036
	2%	2%	2%	8%
grade 3 events	489	487	444	1915
	1%	1%	0%	3%
grade 4 events	483	510	476	1956
	1%	1%	1%	3%
grade 5 events	1758	2013	2012	5574
	3%	4%	4%	9%
grade 6 events	940	1003	1269	13568
	2%	2%	2%	23%
grade 7 events	38120	38493	39990	26694
	85%	85%	84%	46%

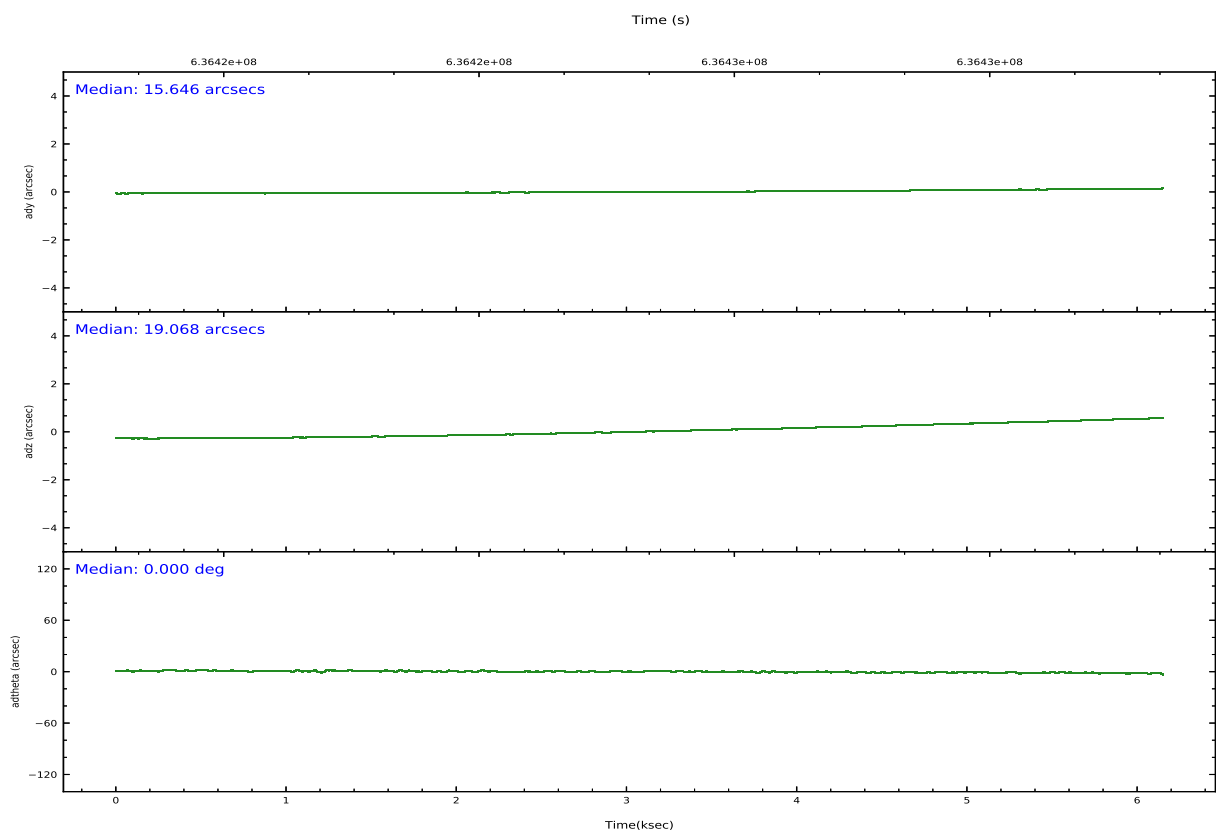
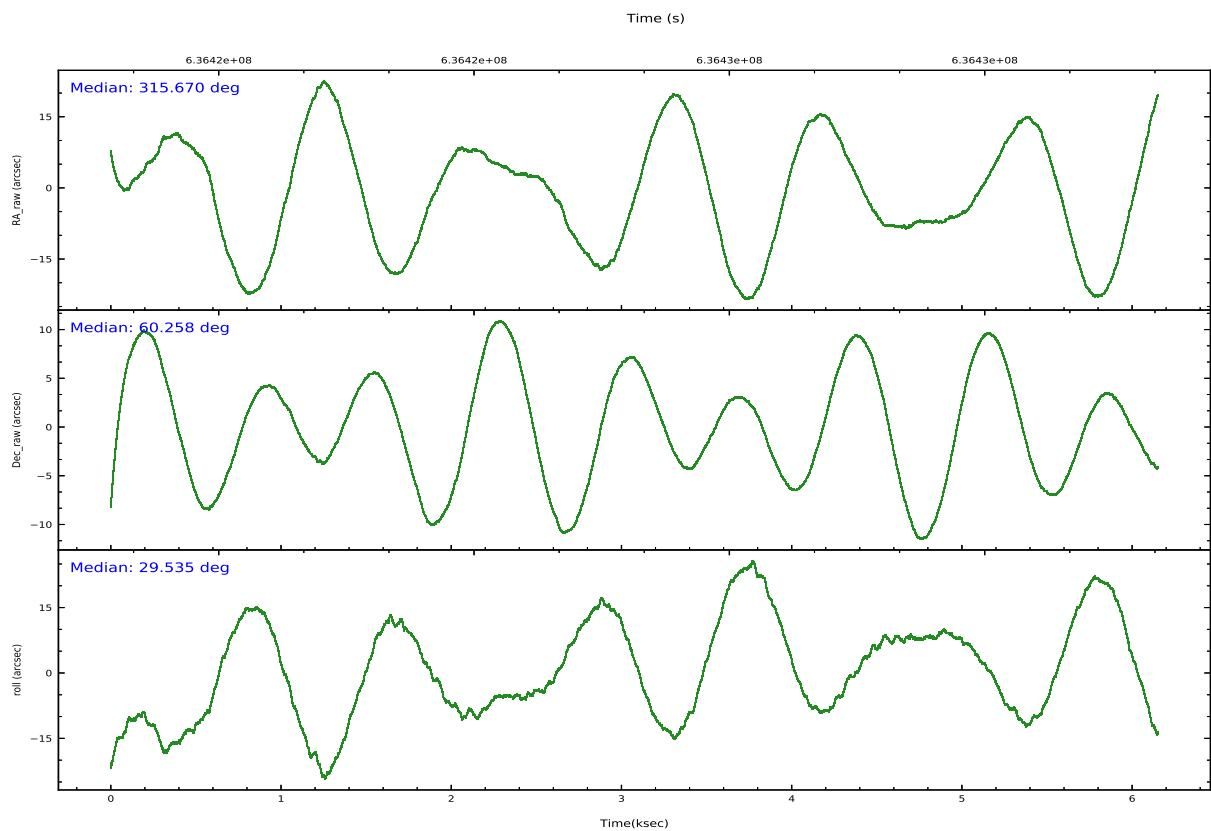


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-2367	ACIS-2367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	315.642265	315.66713347794	CCD I2 on	O1	Y
[deg] Pointing Dec	60.234403	60.251321763717	CCD I3 on	O3	Y
[deg] Pointing Roll	29.412138	29.534702216467	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	O2	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	N	N
[s] Observation start time (MET)	636422019.184000	636420910.13727	CCD S5 on	N	N
Observation start date	2018-03-02T23:52:30	2018-03-02T23:35:10	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	636428019.184000	636429030.70025	On-chip summing requested	N	N
Observation end date	2018-03-03T01:32:30	2018-03-03T01:50:30	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



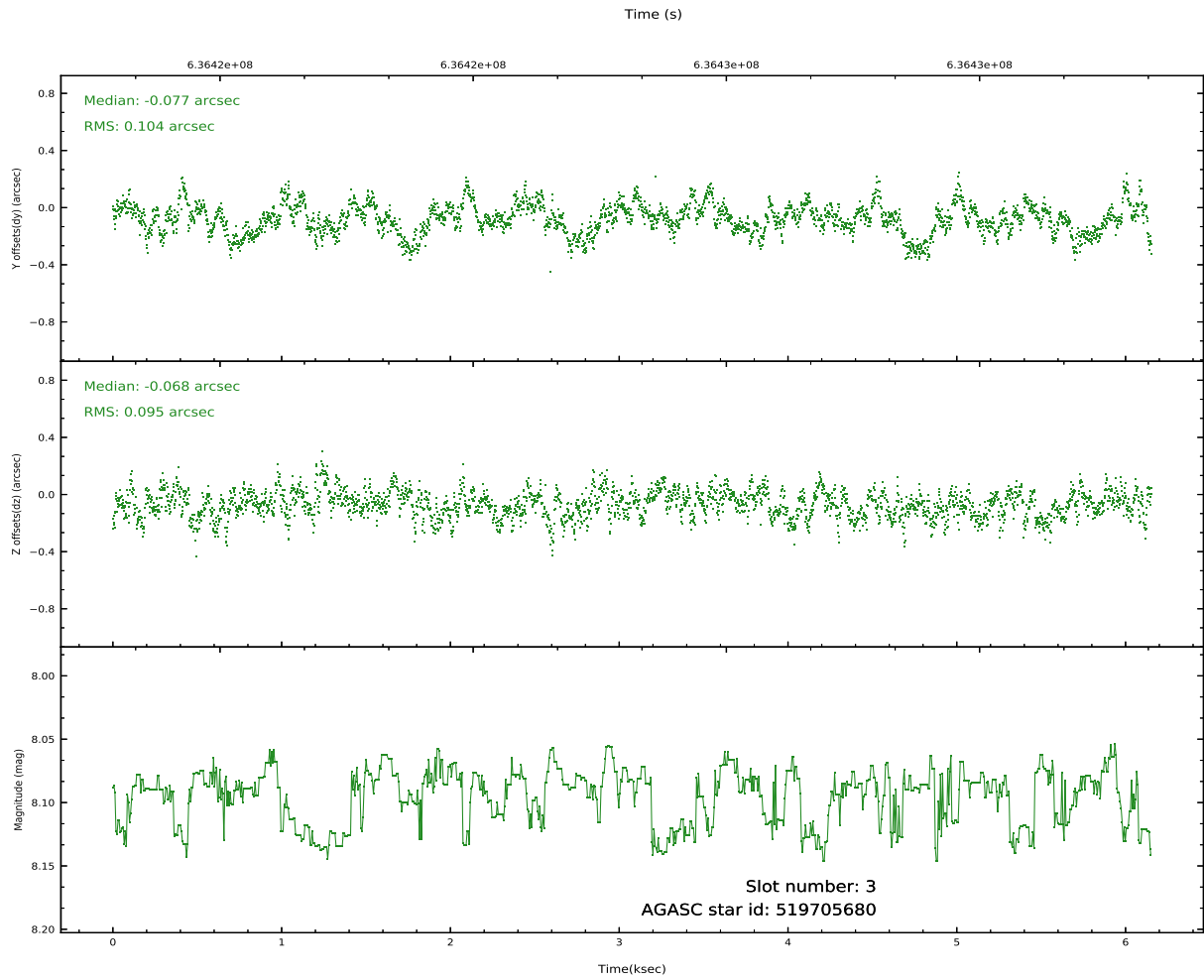
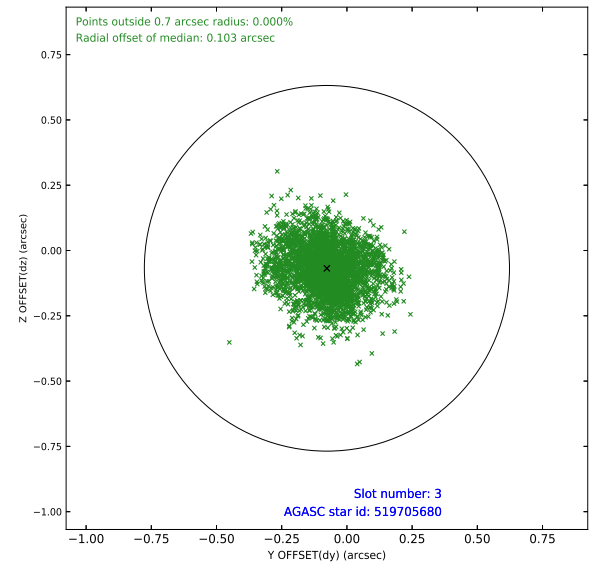
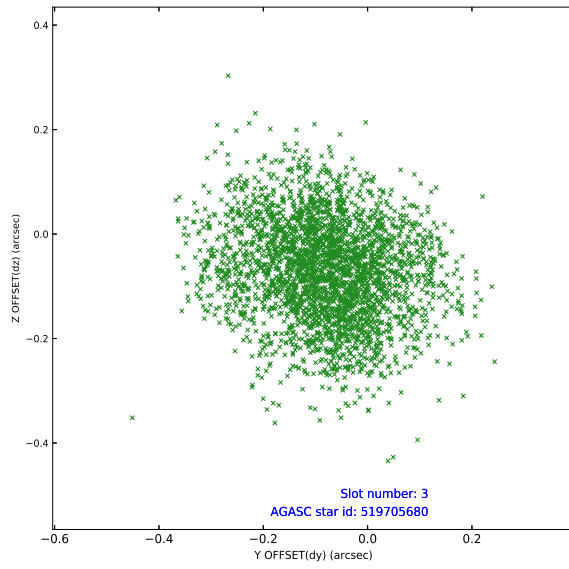


Slot Statistics

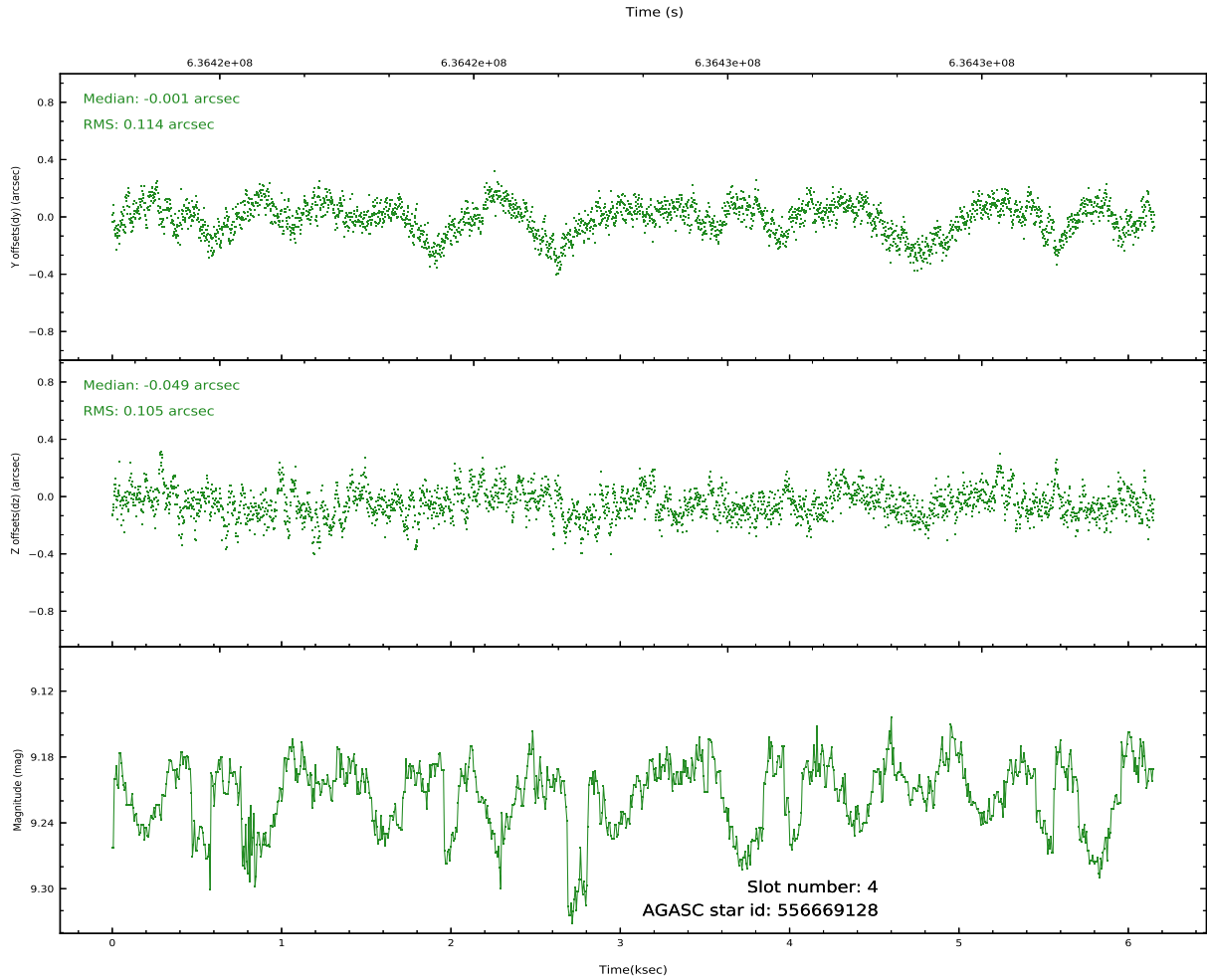
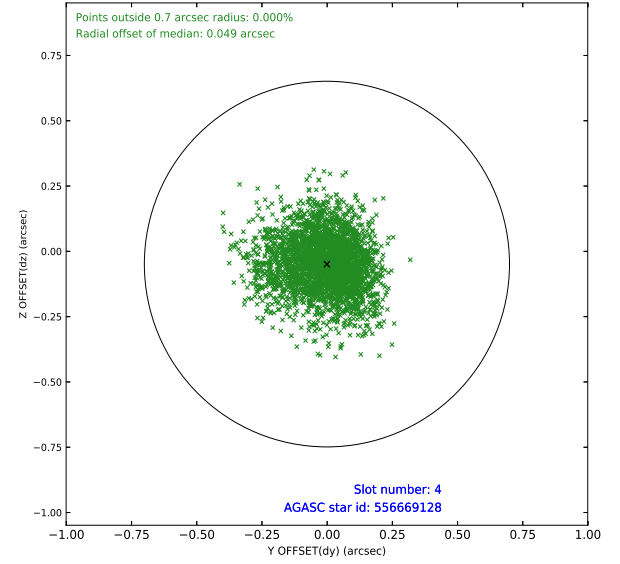
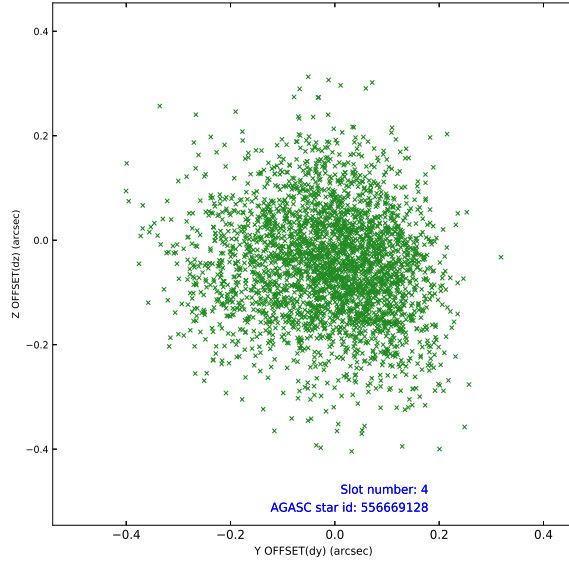
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.10	1501	1.000	0.116	-0.112	0.012	0.019	0.000000	0.000000	-768.67	-1740
1	FID		ACIS-S-5	7.20	1501	1.000	-0.176	0.159	0.013	0.021	0.000000	0.000000	-1822.37	160
2	FID		ACIS-S-6	7.37	1501	1.000	0.035	-0.038	0.007	0.012	0.000000	0.000000	392.02	805
3	GUIDE	used	519705680	8.09	3002	1.000	-0.077	-0.068	0.153	0.241	316.729092	59.889824	1109.75	-2030
4	GUIDE	used	556669128	9.21	2996	1.000	-0.001	-0.049	0.162	0.271	315.584404	60.252163	-58.29	105
5	GUIDE	used	556670144	9.33	3001	1.000	0.165	0.113	0.196	0.345	315.657253	60.055980	-291.88	-572
6	GUIDE	used	556670464	7.48	3001	1.000	-0.056	0.116	0.122	0.204	316.149390	60.256584	829.87	-372
7	GUIDE	used	556670792	9.03	2999	1.000	-0.034	-0.115	0.135	0.235	315.027562	60.745289	-37.07	2136

## 2.4 Star Slots

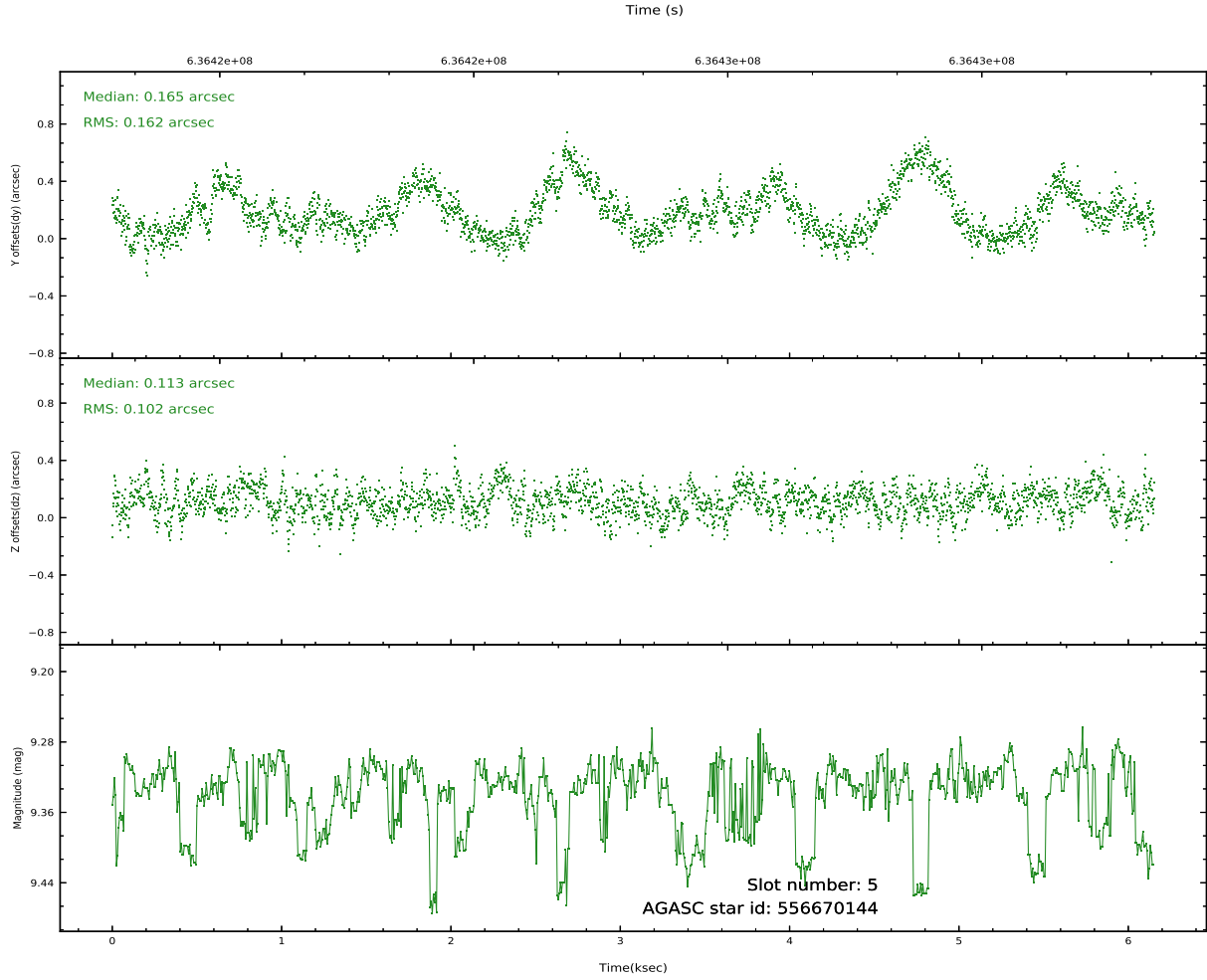
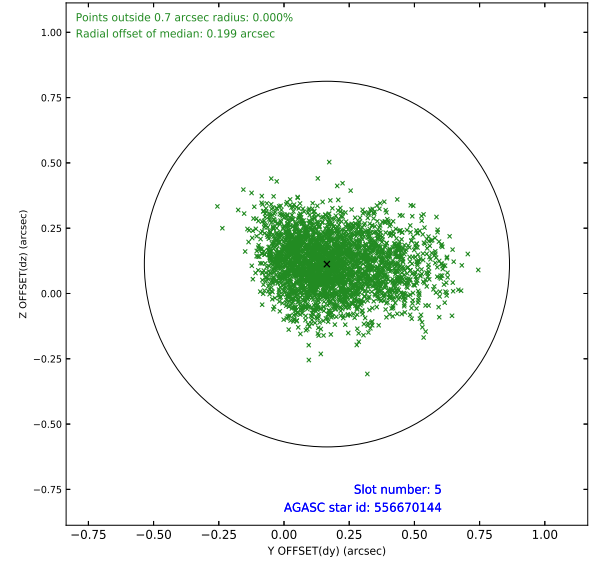
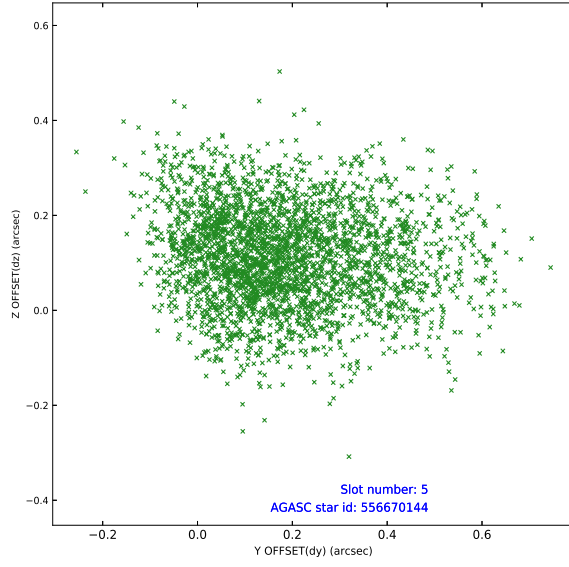
### 2.4.1 Slot 3



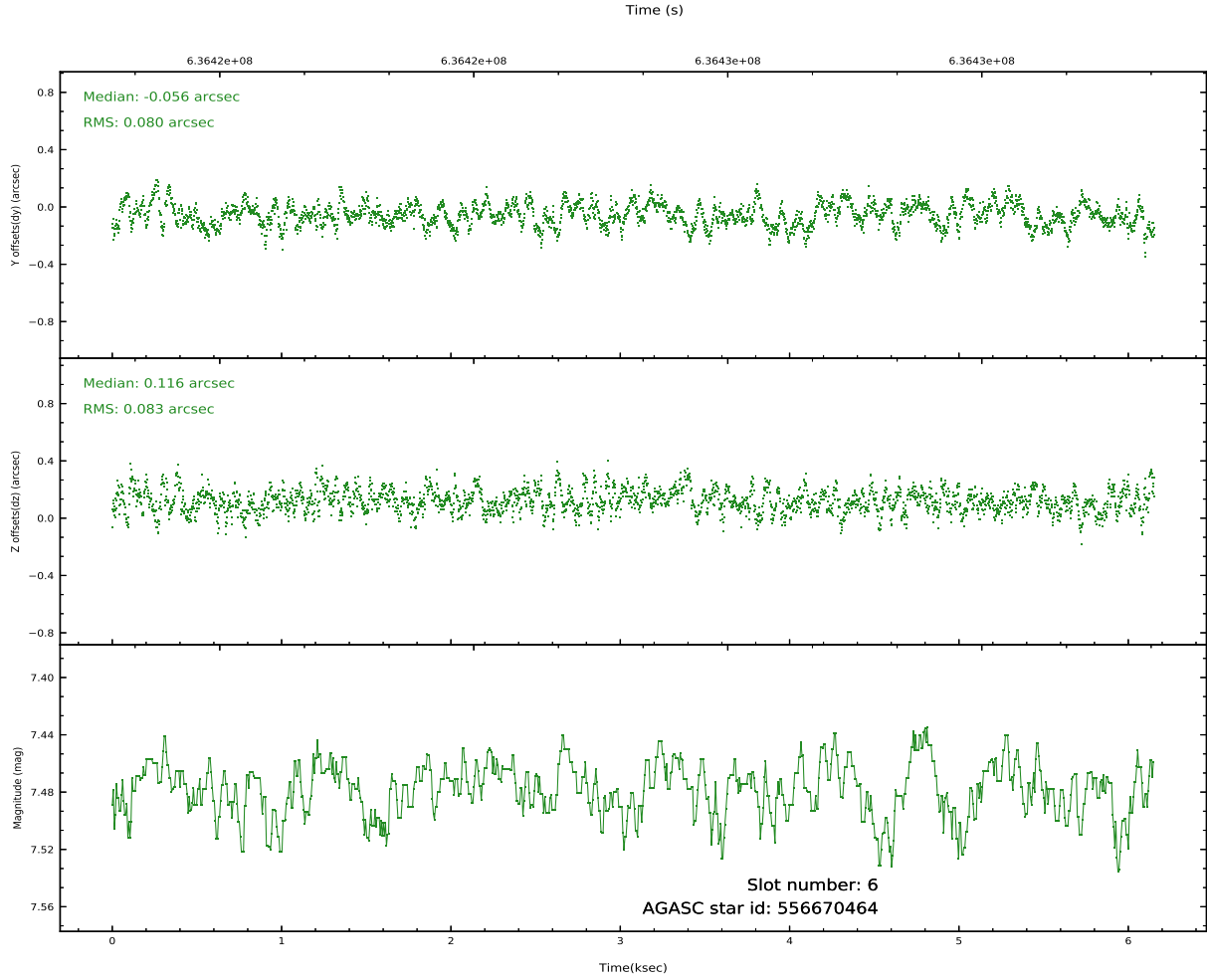
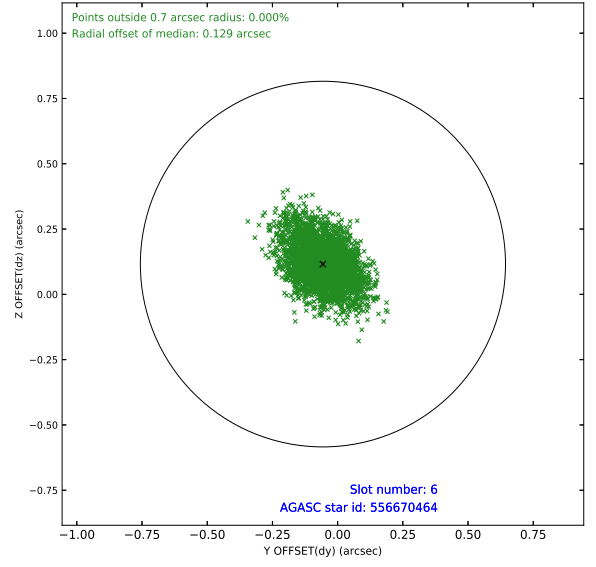
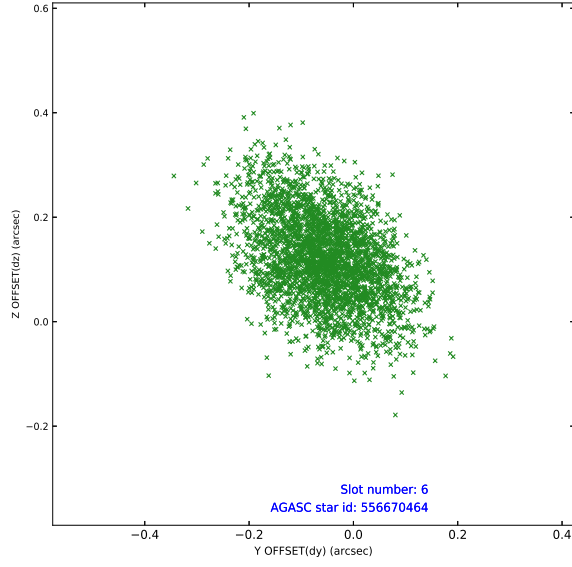
## 2.4.2 Slot 4



### 2.4.3 Slot 5

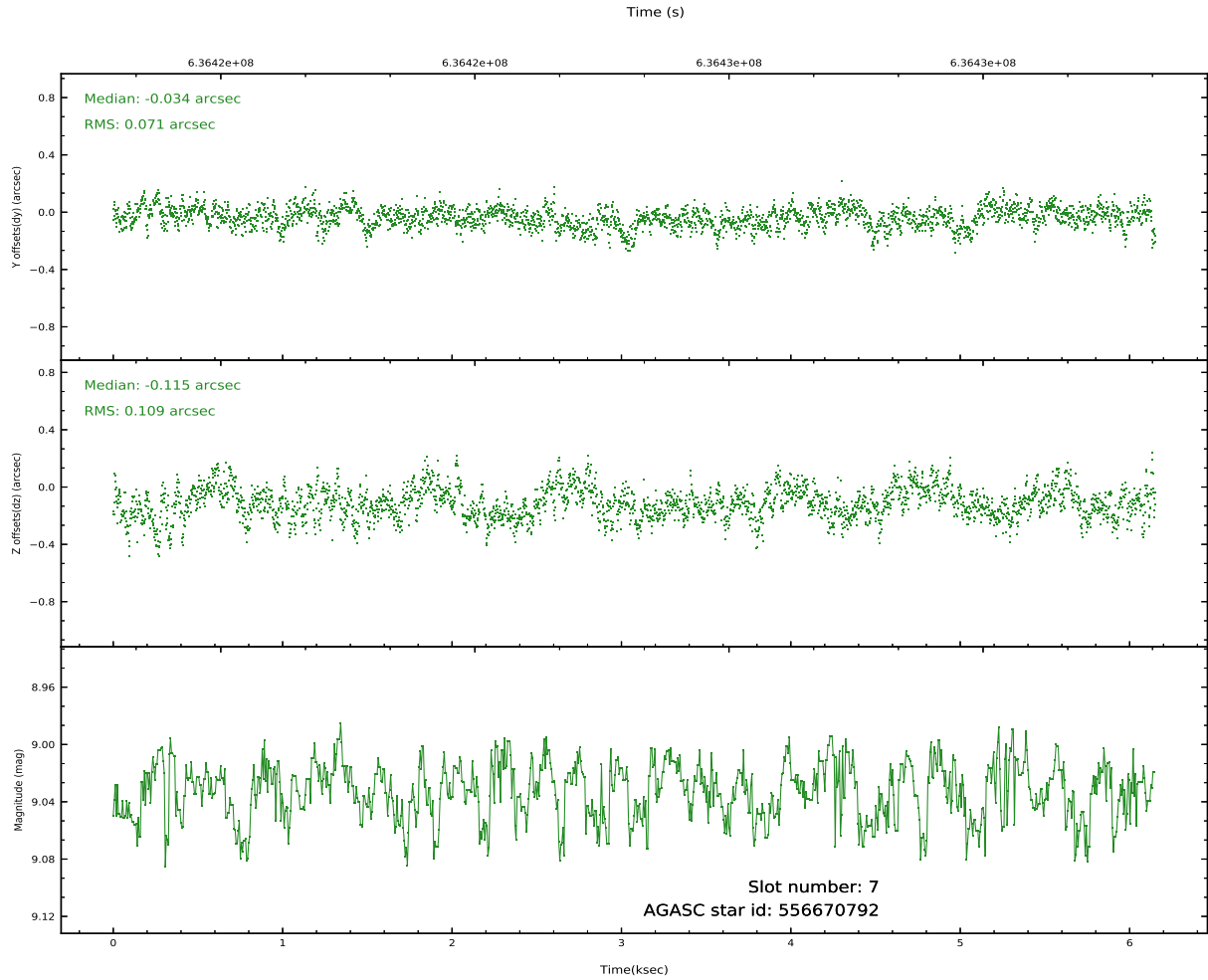
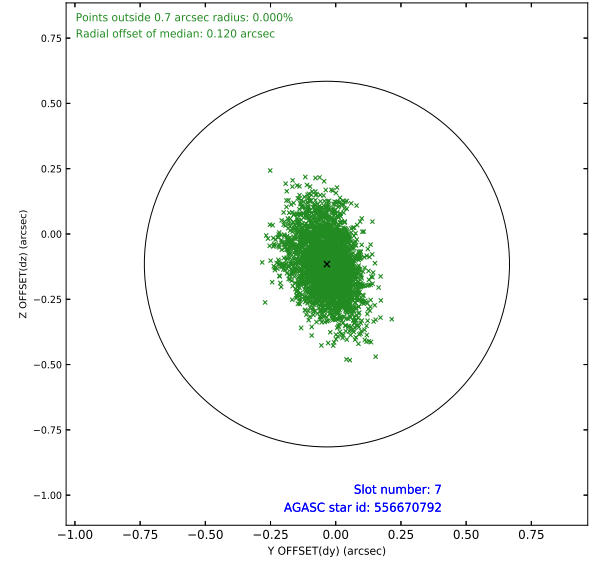
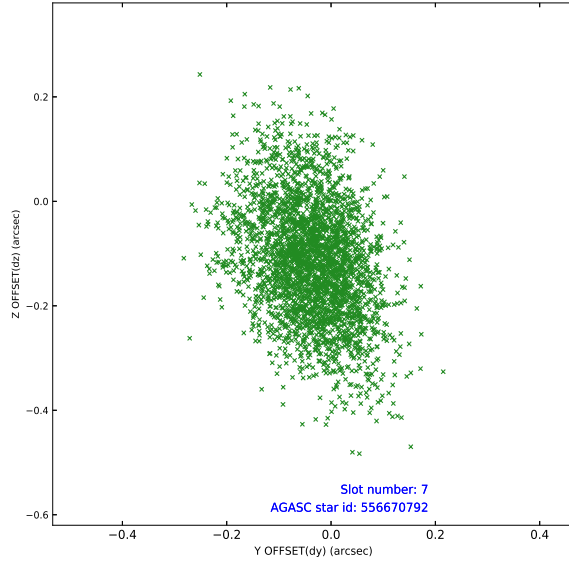


## 2.4.4 Slot 6



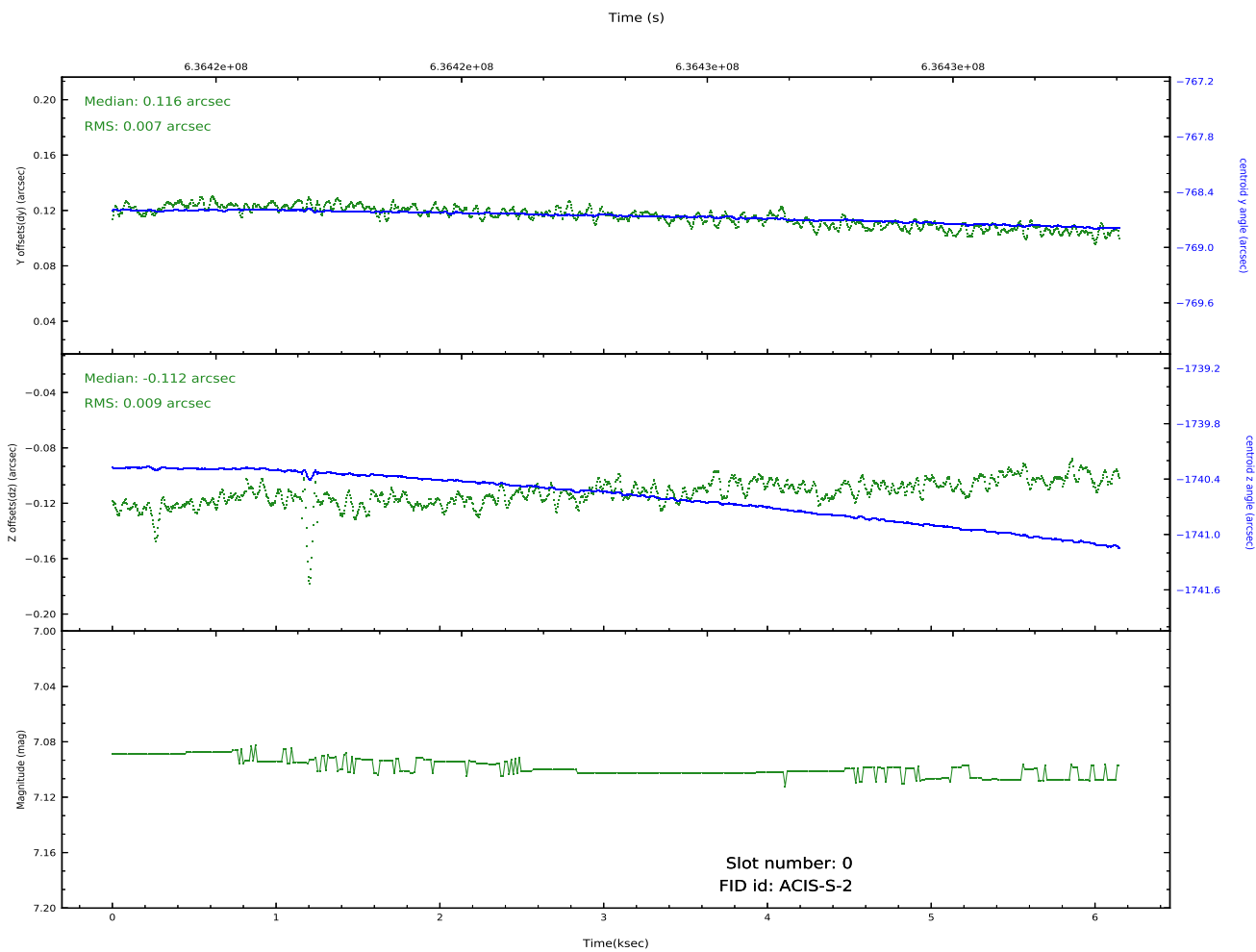
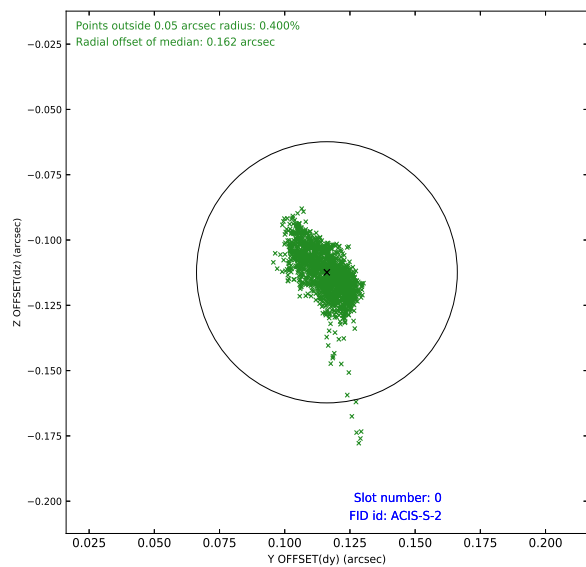
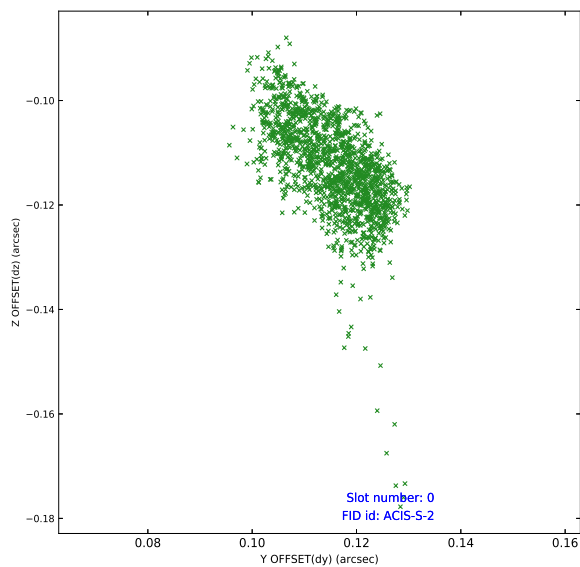


## 2.4.5 Slot 7

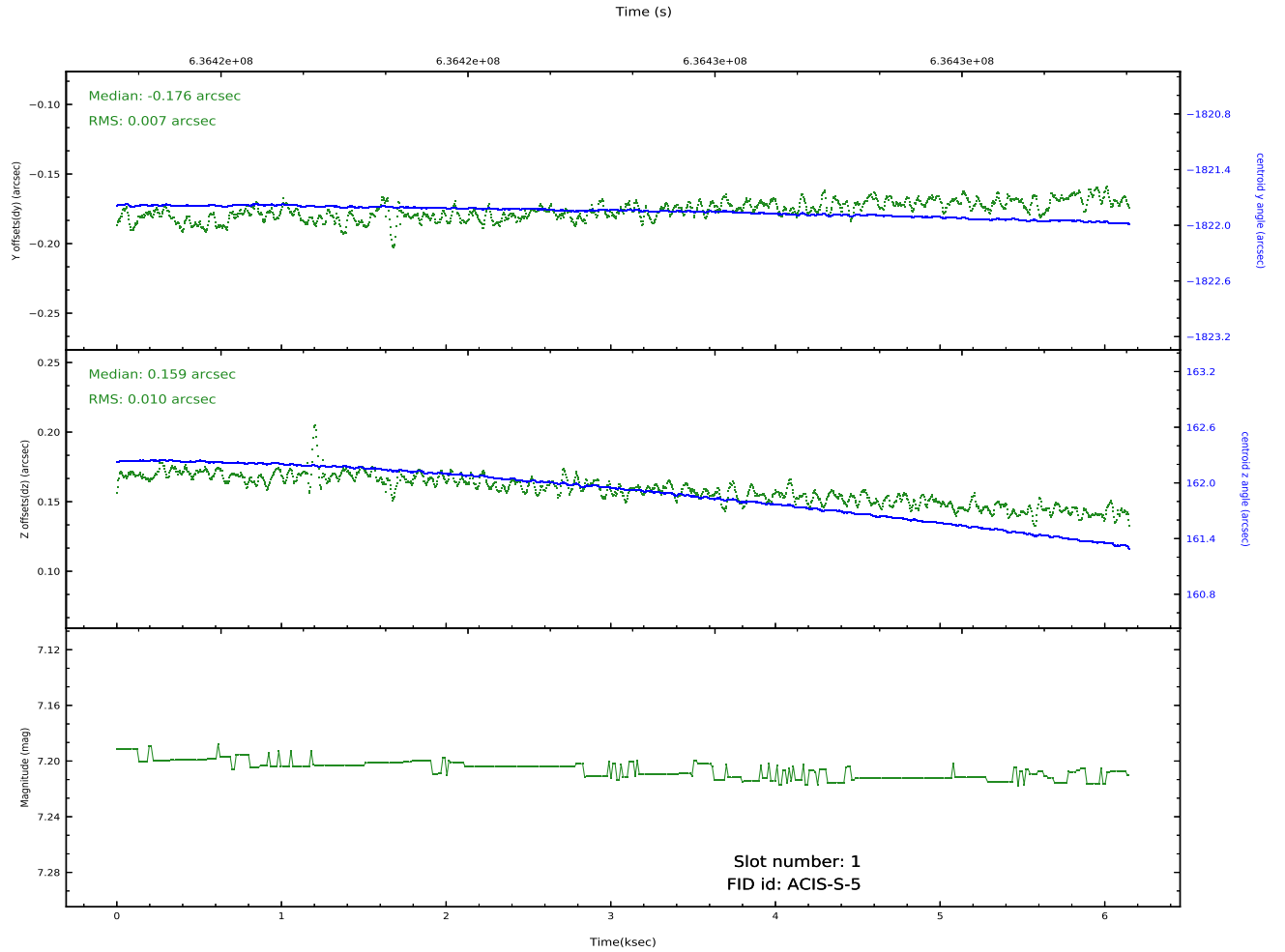
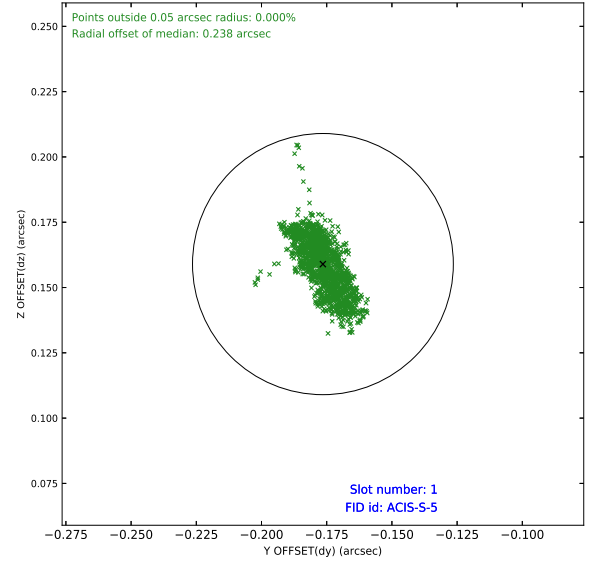
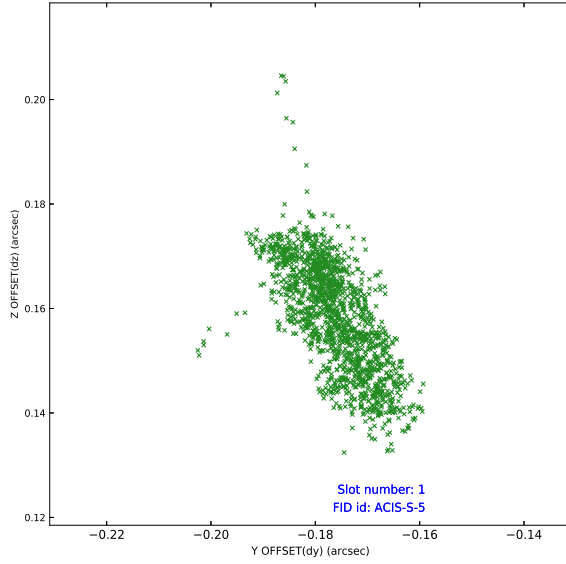


## 2.5 FID Slots

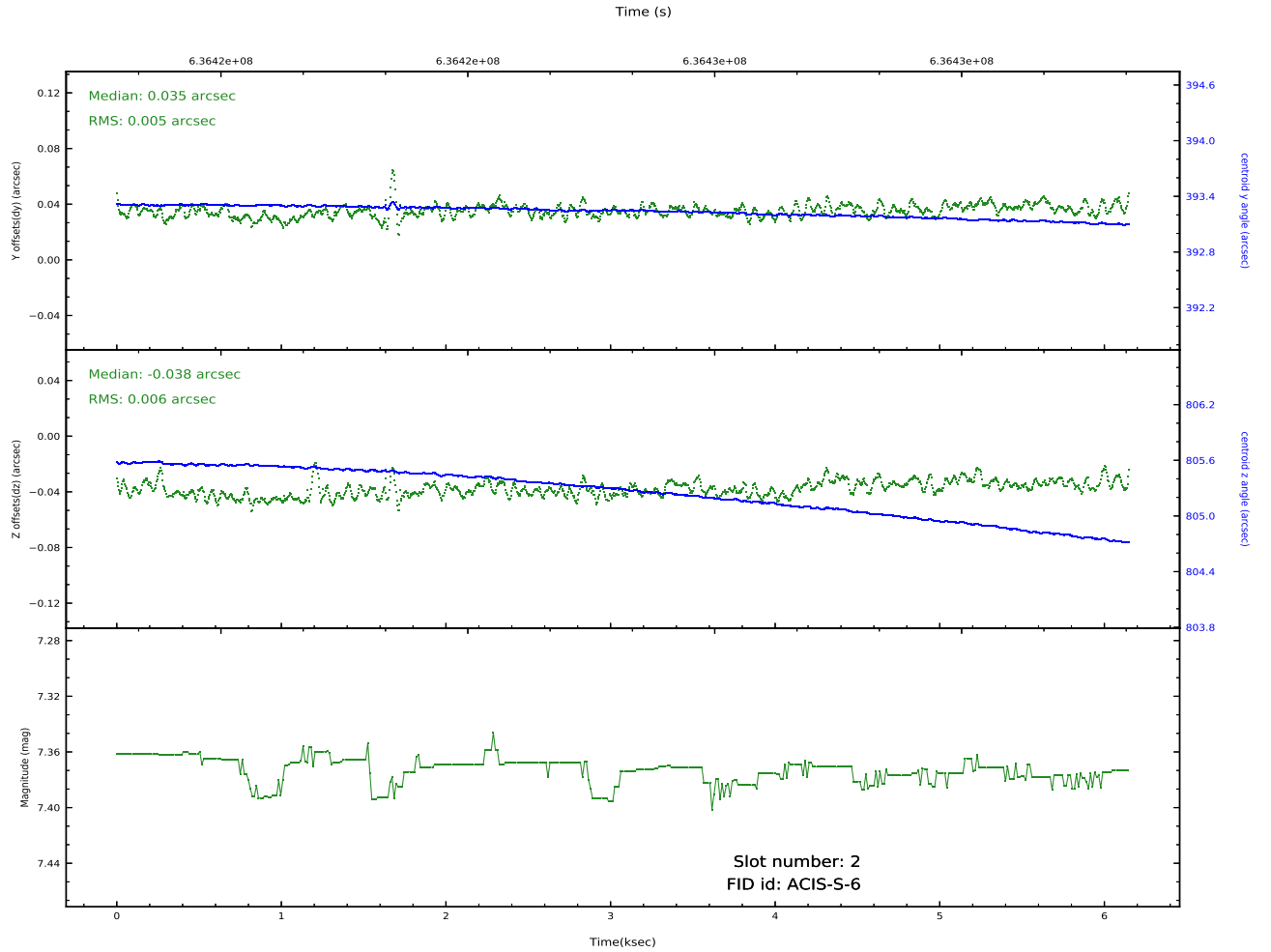
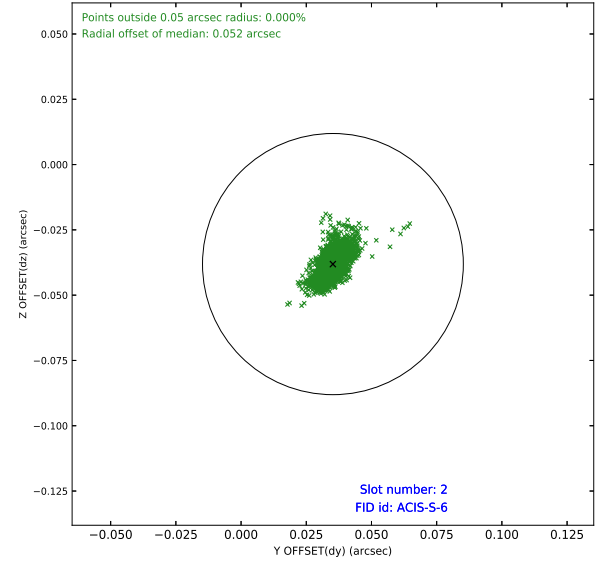
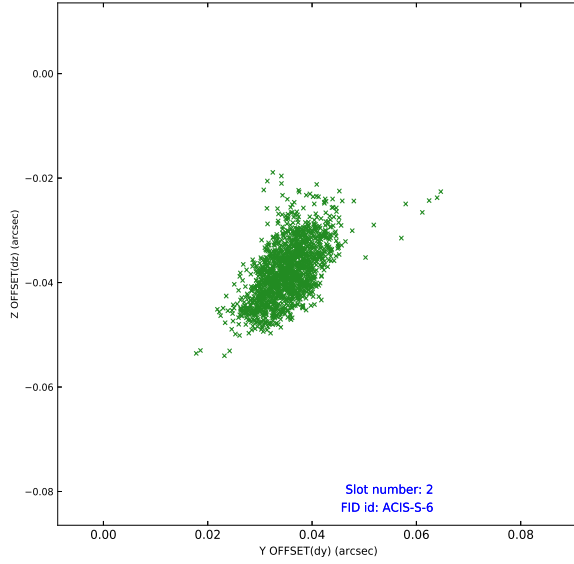
### 2.5.1 Slot 0



## 2.5.2 Slot 1



## 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2020.10.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	6.0667000467777

### A.2 Comments