

# V&V Reference Report

## L2 ASCDS Version : 10.9.2

Observation 20475 - L2 Version 2  
Chandra X-Ray Center

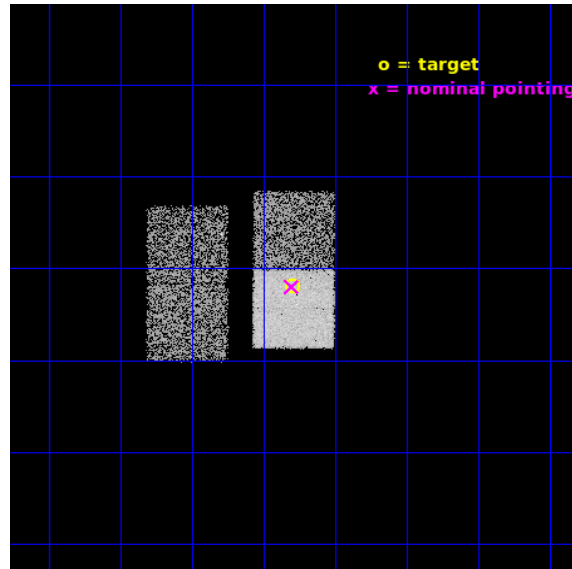
L2 Processing Date : Oct 27 2020

## 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

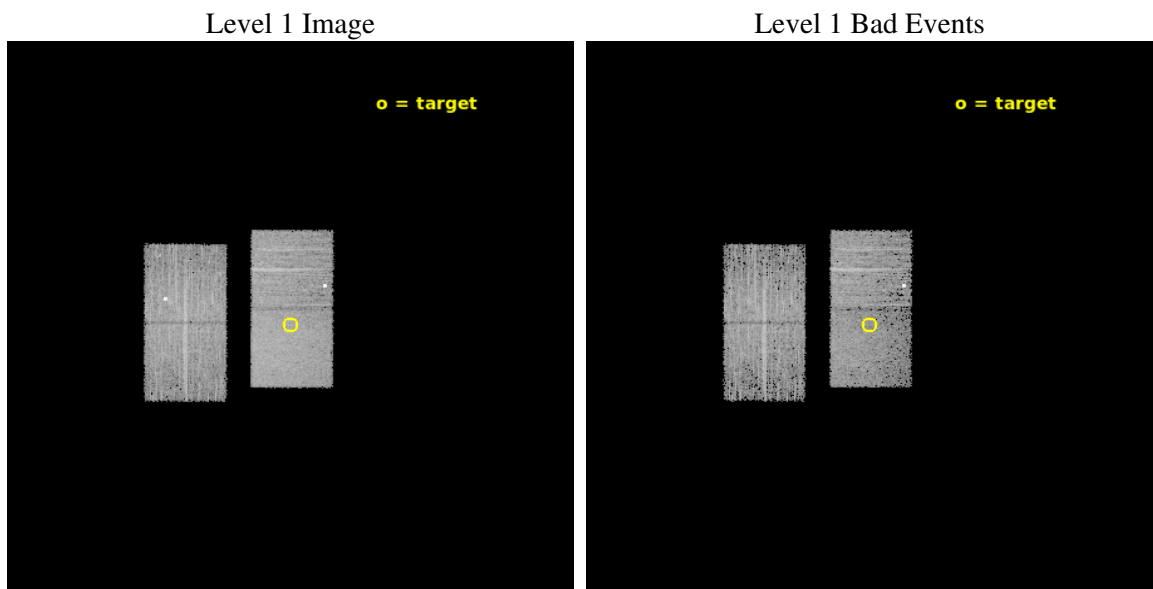
seq_num	703578	Sequence number
obs_id	20475	Observation id
title	Young Radio Sources at High Redshift	Proposal title
observer	Aneta Siemiginowska	Principal investigator
object	4C+04.11	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	47.949583	Observer's specified target RA [deg]
dec_targ	5.134389	Observer's specified target Dec [deg]
ra_nom	47.950777542365	Nominal RA [deg]
dec_nom	5.1337277905122	Nominal Dec [deg]
roll_nom	90.152169391991	Nominal Roll [deg]
revision	2	Processing version of data
ontime	6066.7000467777	Sum of GTIs [s]
liveltime	5987.434144427	Livetime [s]
ontime2	6063.5590164661	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	36812	Number of level 2 events



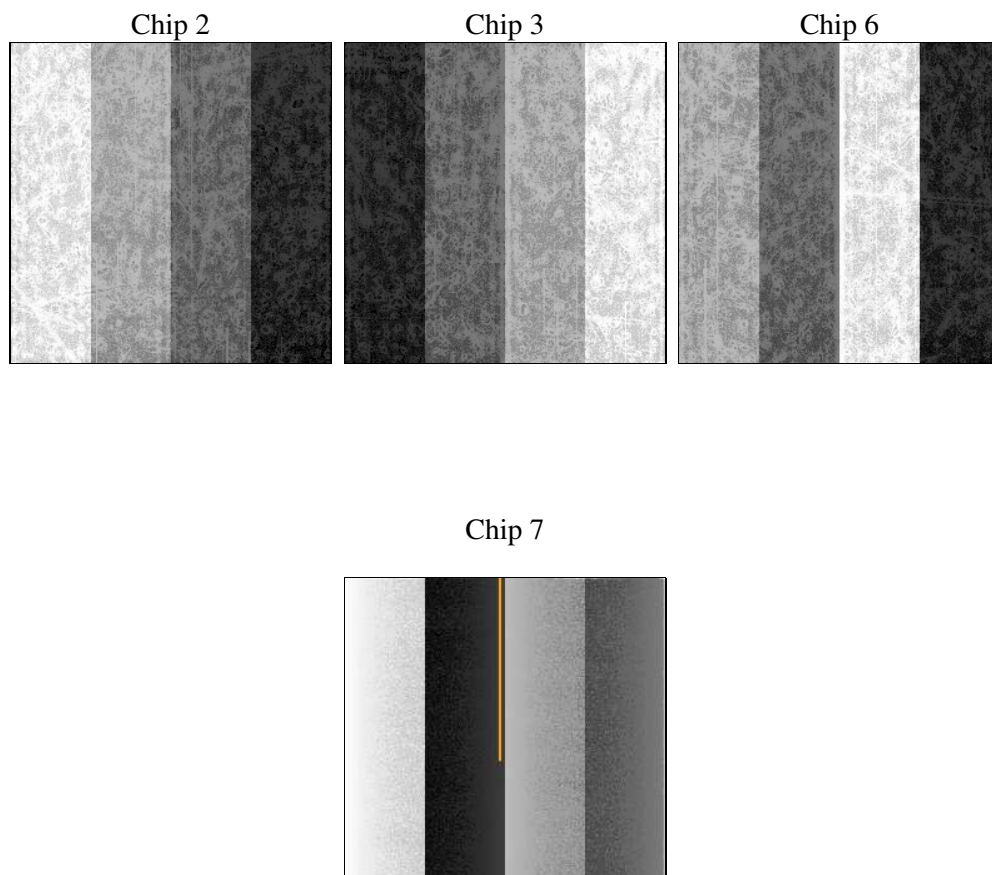
## 2 OBI

### 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	10.9.2	Processing system revision	ontime	6066.7000467777	Sum of GTIs [s]
caldsver	4.9.3	&#160	ontime2	6063.5590164661	Sum of GTIs [s]
date	2020-10-27T06:49:16	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	203297	Number of level 1 events

### 2.1.4 Events

	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	49738	43851	51400	58308
rejected events	43150	39237	46224	33317
rejected %	86%	89%	89%	57%

	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	1687	1594	1447	2031
	3%	3%	2%	3%
grade 1 events	38	28	1881	89
	0%	0%	3%	0%
grade 2 events	3004	1018	1451	5292
	6%	2%	2%	9%
grade 3 events	461	469	416	1899
	0%	1%	0%	3%
grade 4 events	504	482	444	1863
	1%	1%	0%	3%
grade 5 events	1648	2063	1914	5580
	3%	4%	3%	9%
grade 6 events	934	1055	1419	13917
	1%	2%	2%	23%
grade 7 events	41462	37142	42428	27637
	83%	84%	82%	47%

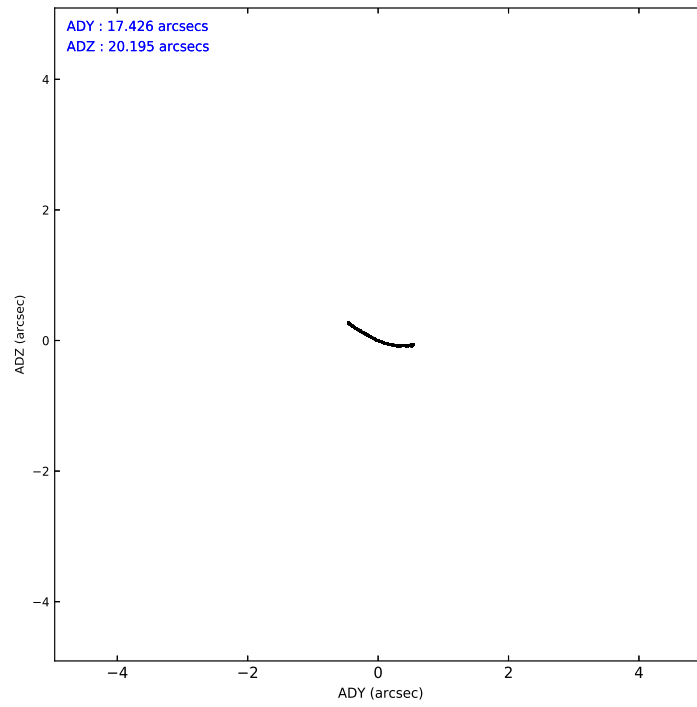
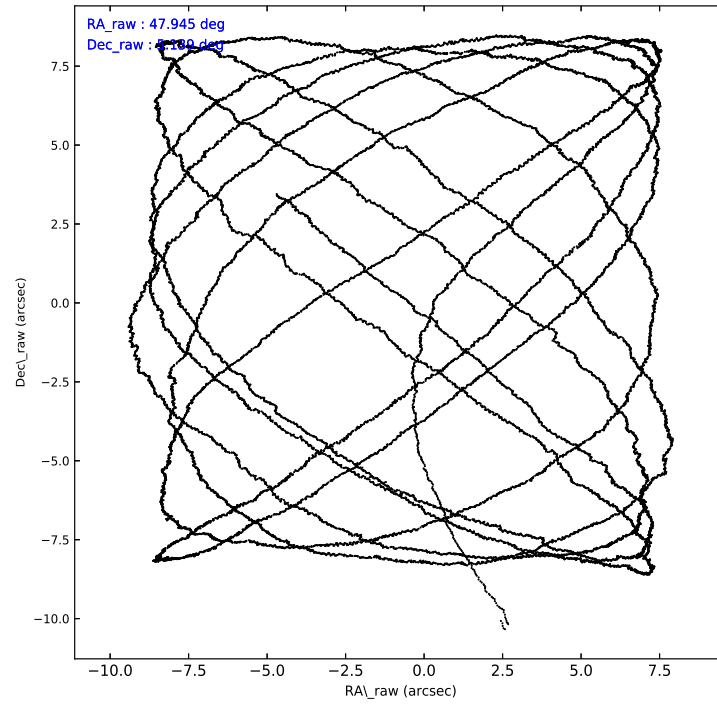


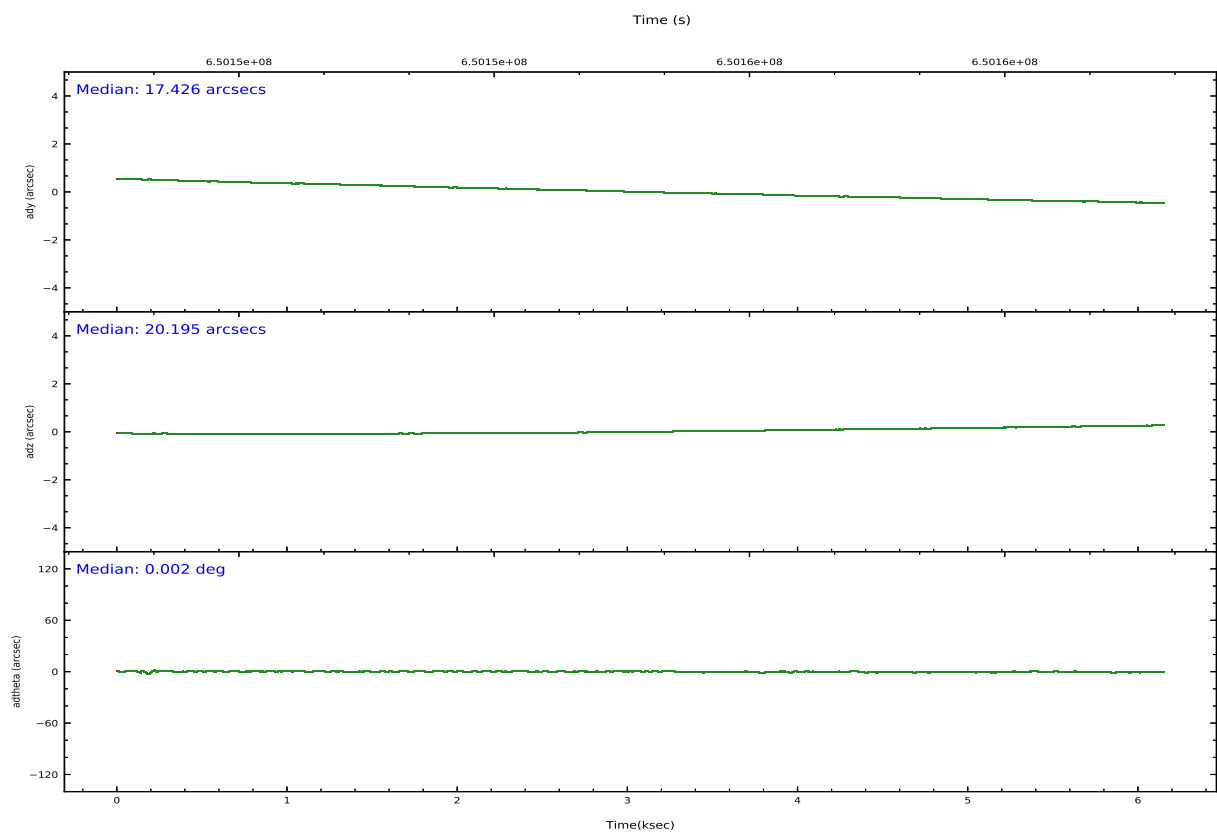
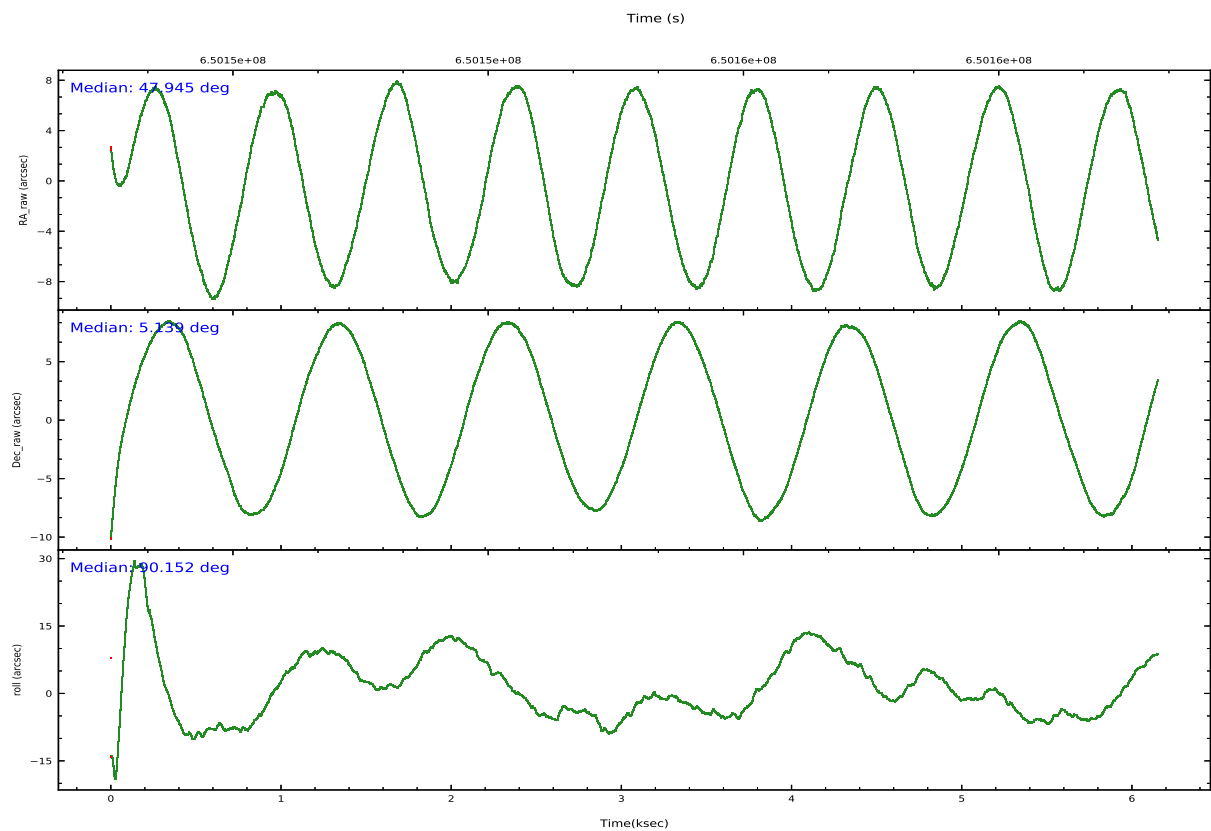
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-2367	ACIS-2367
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	47.959049	47.950777542365
[deg] Pointing Dec	5.115223	5.1337277905122
[deg] Pointing Roll	89.999154	90.15216939199099
[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)	650151437.184000	650150240.6489201
Observation start date	2018-08-08T21:36:08	2018-08-08T21:17:20
[s] Observation end time (MET)	650157437.184000	650158355.5743999
Observation end date	2018-08-08T23:16:08	2018-08-08T23:32:35
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar version number	8	8
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
CCD I0 on	N	N
CCD I1 on	N	N
CCD I2 on	O1	Y
CCD I3 on	O3	Y
CCD S0 on	N	N
CCD S1 on	N	N
CCD S2 on	O2	Y
CCD S3 on	Y	Y
CCD S4 on	N	N
CCD S5 on	N	N
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



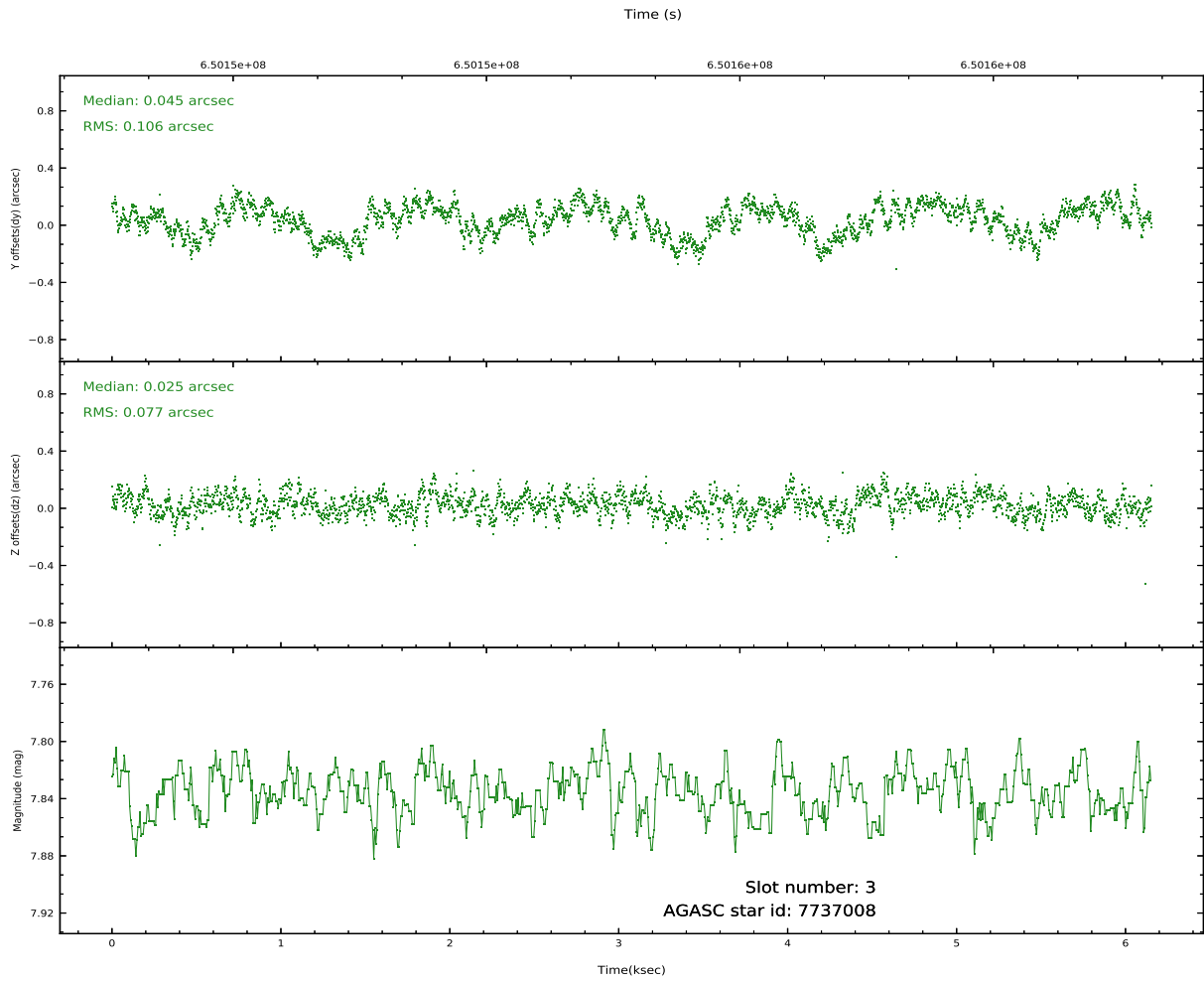
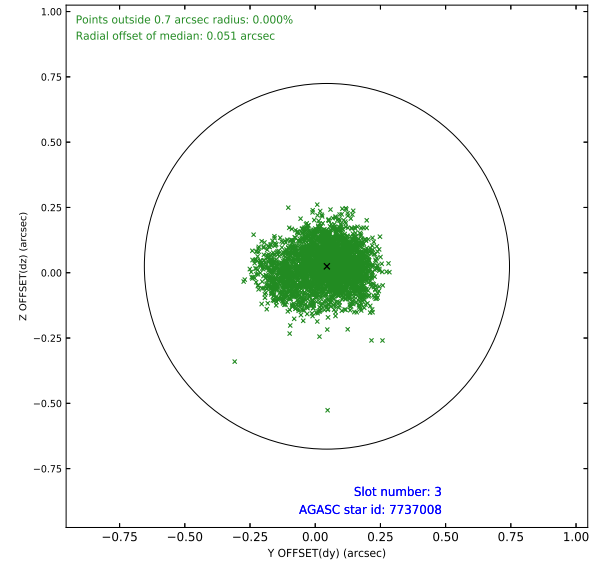
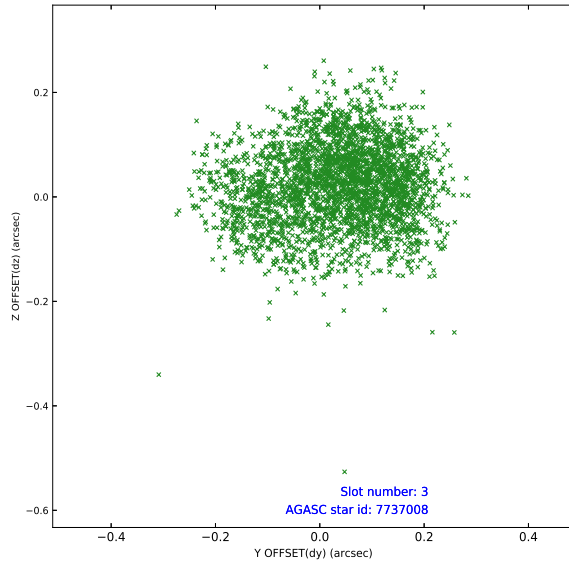


Slot Statistics

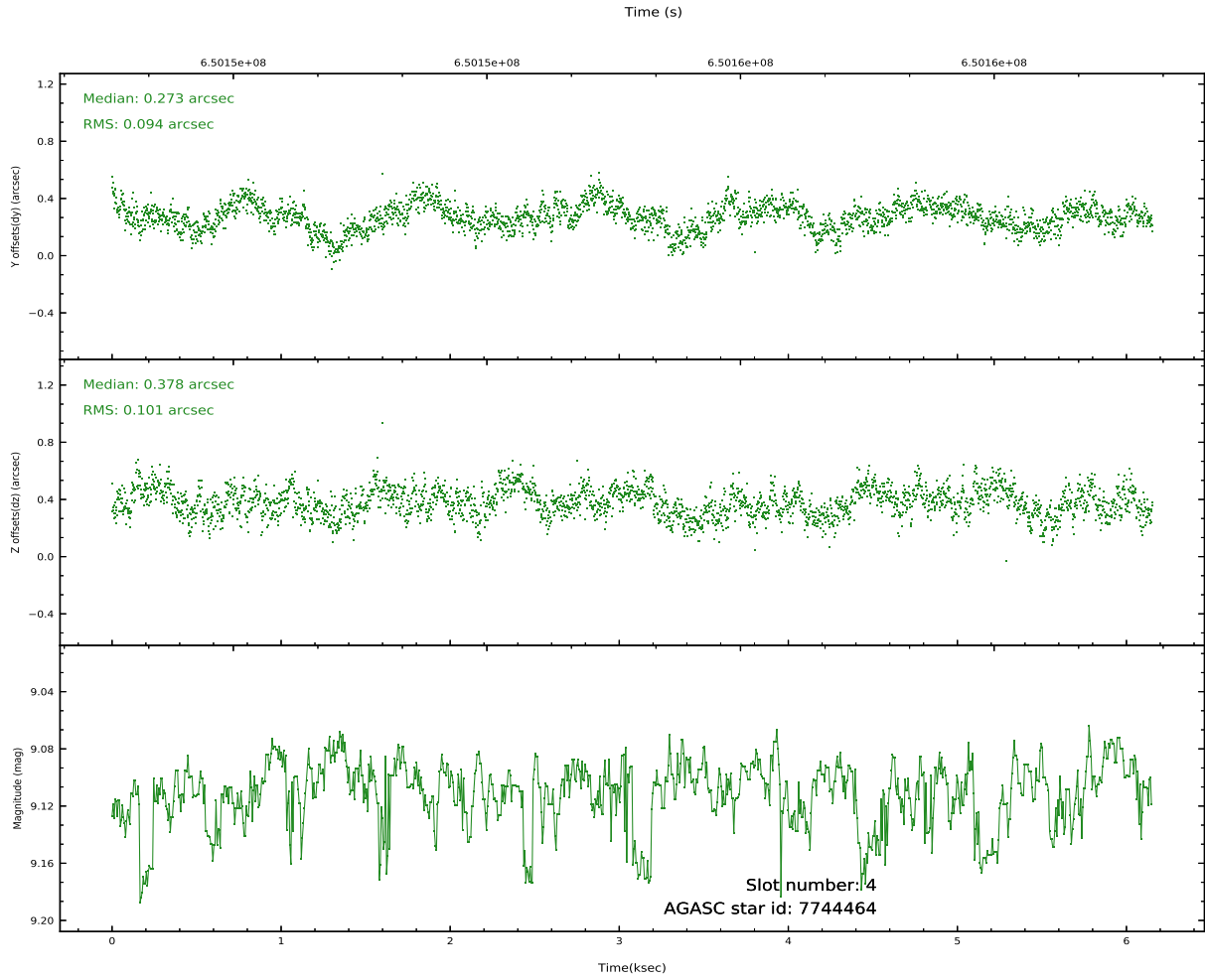
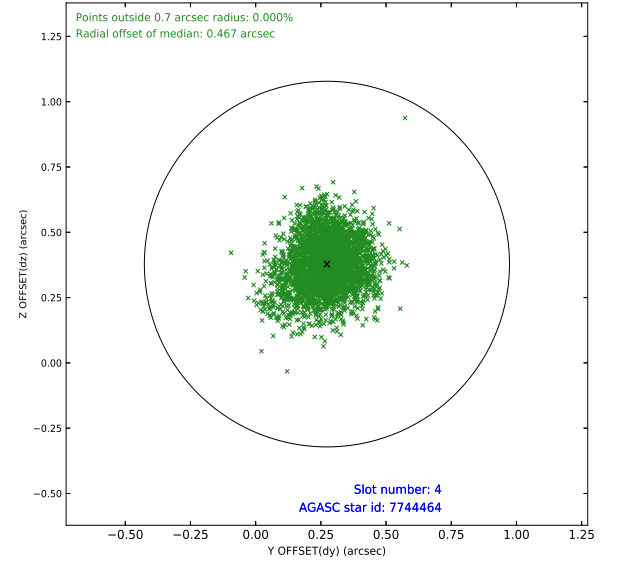
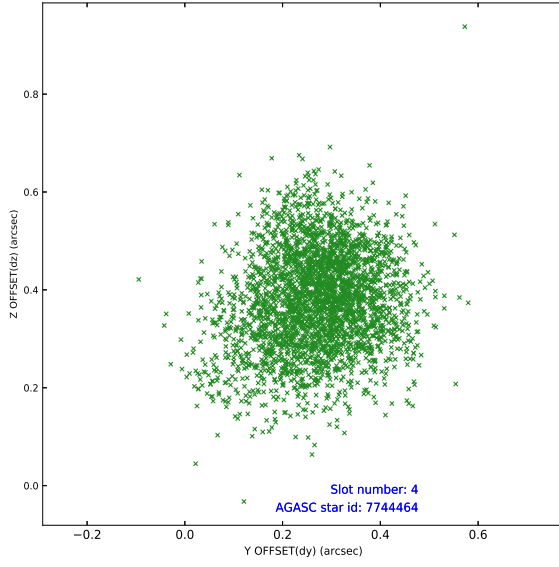
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.15	1502	1.000	0.116	-0.089	0.009	0.016	0.000000	0.000000	-770.56	-1741
1	FID		ACIS-S-4	7.24	1502	1.000	0.126	-0.032	0.008	0.014	0.000000	0.000000	2142.50	165
2	FID		ACIS-S-5	7.24	1502	1.000	-0.272	0.129	0.008	0.017	0.000000	0.000000	-1822.35	160
3	GUIDE	used	7737008	7.83	3003	1.000	0.045	0.025	0.141	0.223	47.893265	4.723267	-1410.80	236
4	GUIDE	used	7744464	9.11	3001	1.000	0.273	0.378	0.146	0.239	48.361539	4.821221	-1057.85	-1443
5	GUIDE	used	8136456	9.78	2985	1.000	0.000	-0.095	0.249	0.426	47.995092	5.433970	1147.30	-129
6	GUIDE	used	8137336	9.51	2999	1.000	-0.108	0.066	0.245	0.416	48.165178	5.210947	345.36	-739
7	GUIDE	used	7995824	9.61	2998	1.000	-0.152	-0.381	0.340	0.473	47.351147	5.221350	383.27	2178

## 2.4 Star Slots

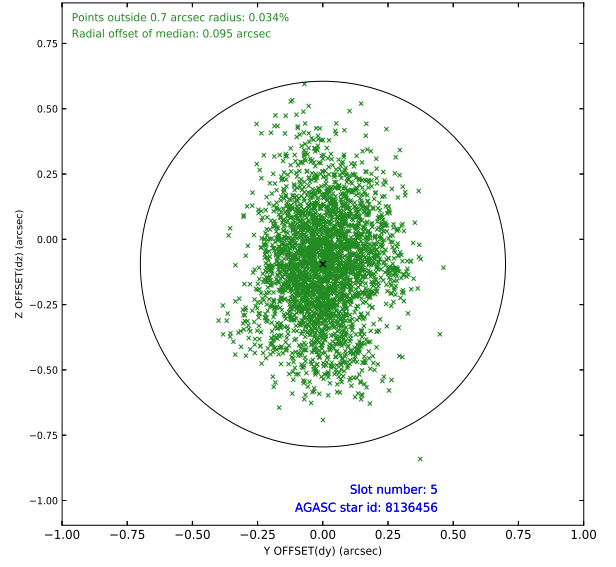
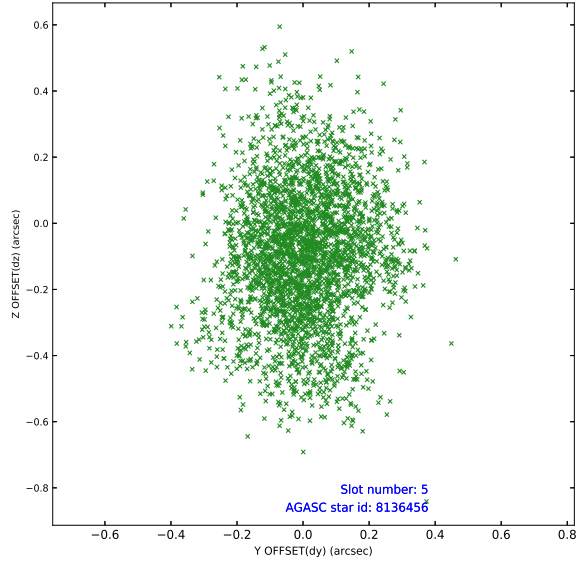
### 2.4.1 Slot 3



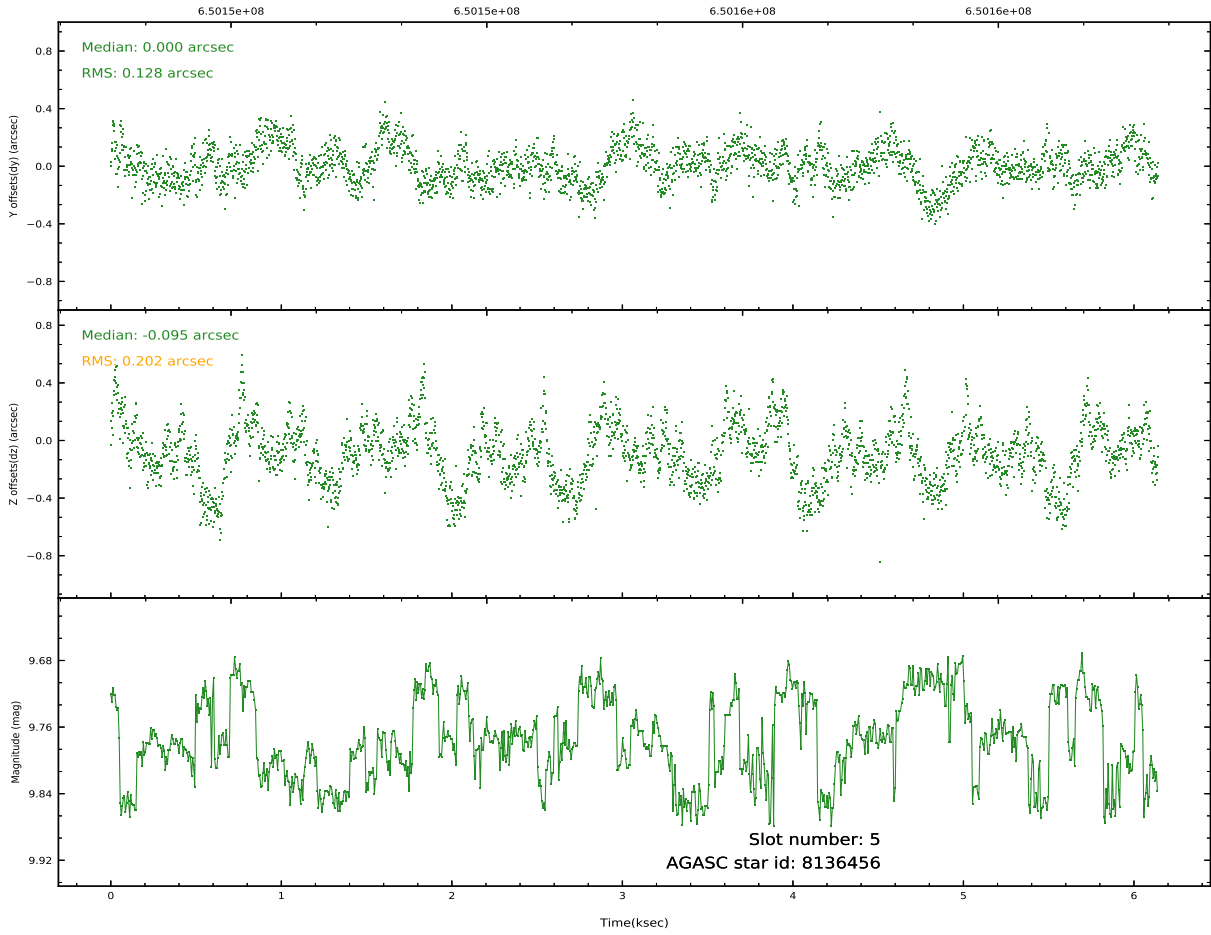
## 2.4.2 Slot 4



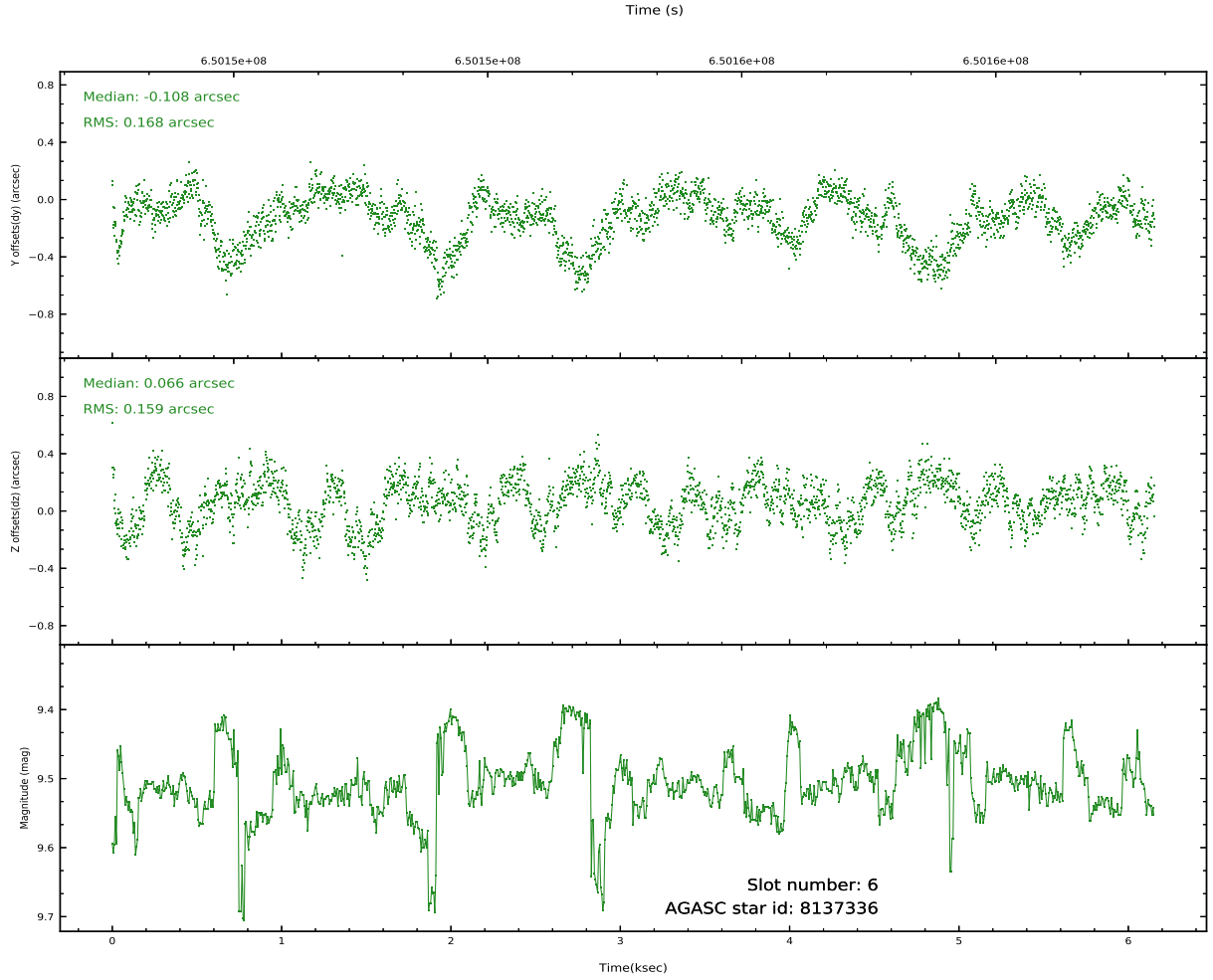
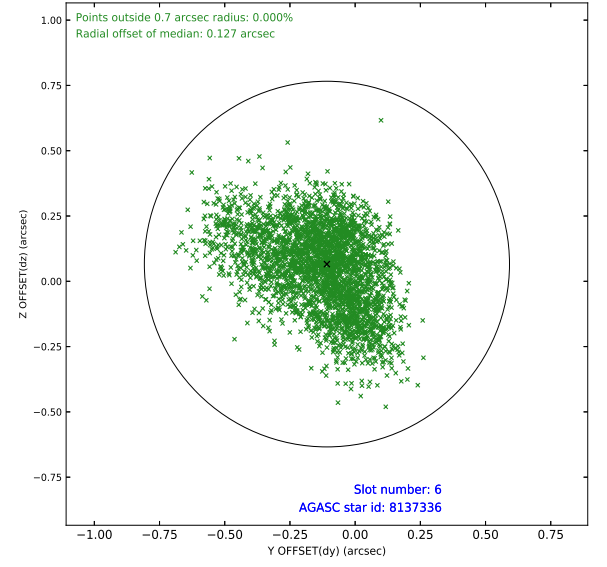
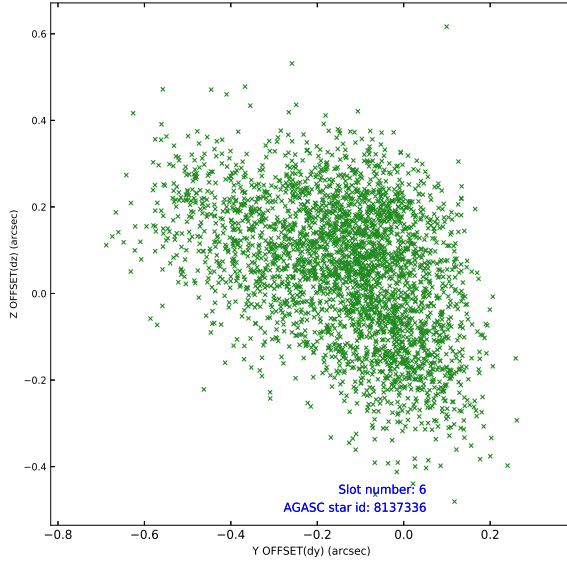
### 2.4.3 Slot 5



Time (s)

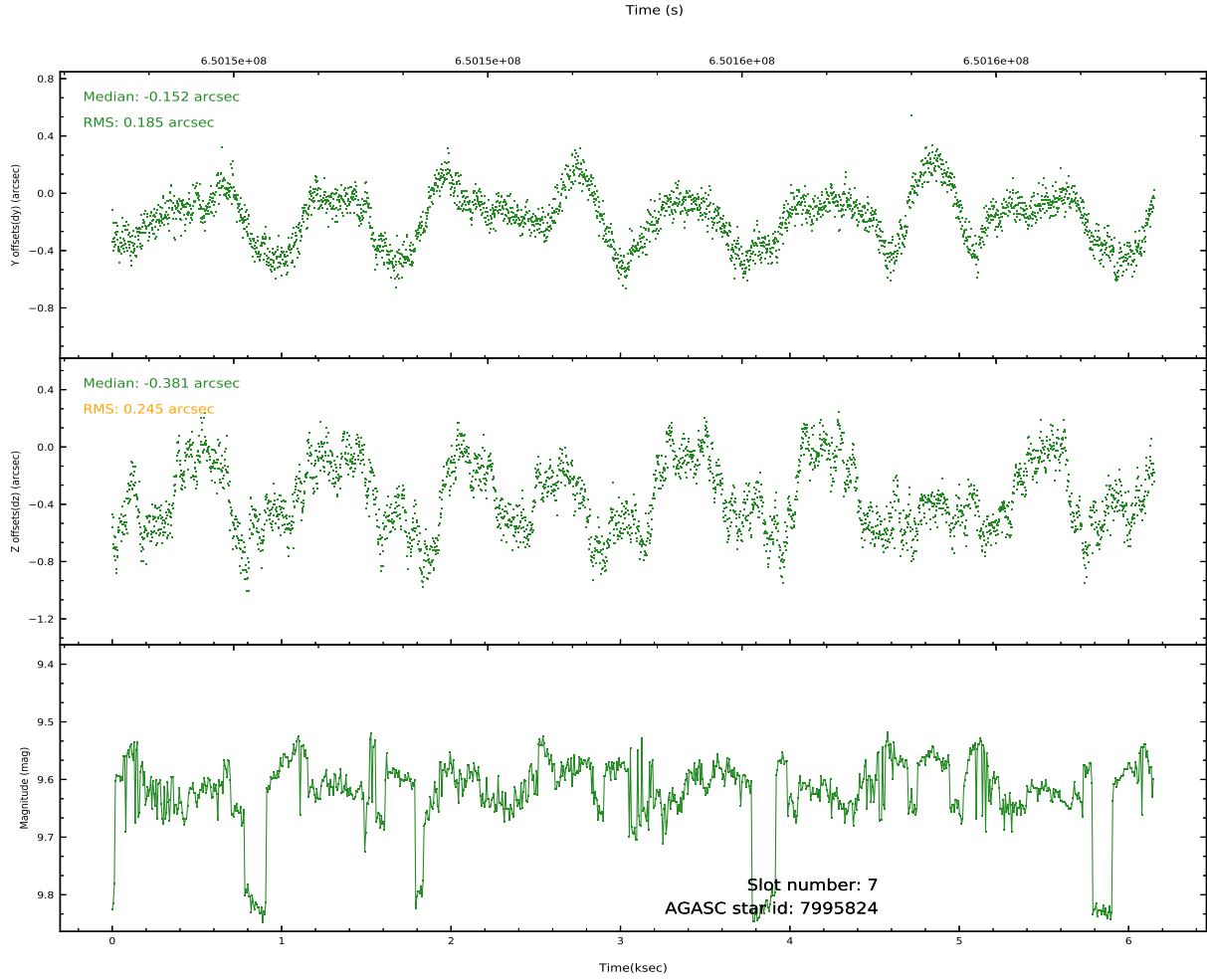
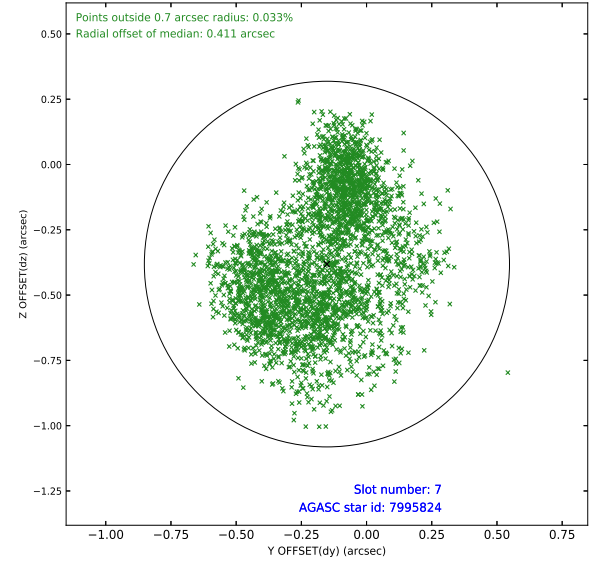
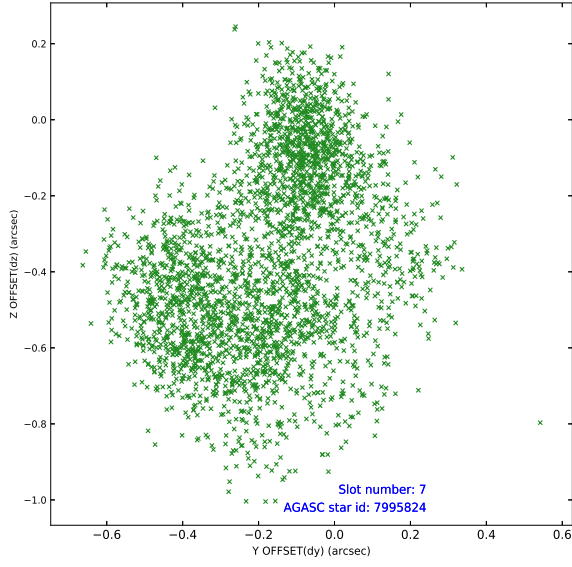


## 2.4.4 Slot 6



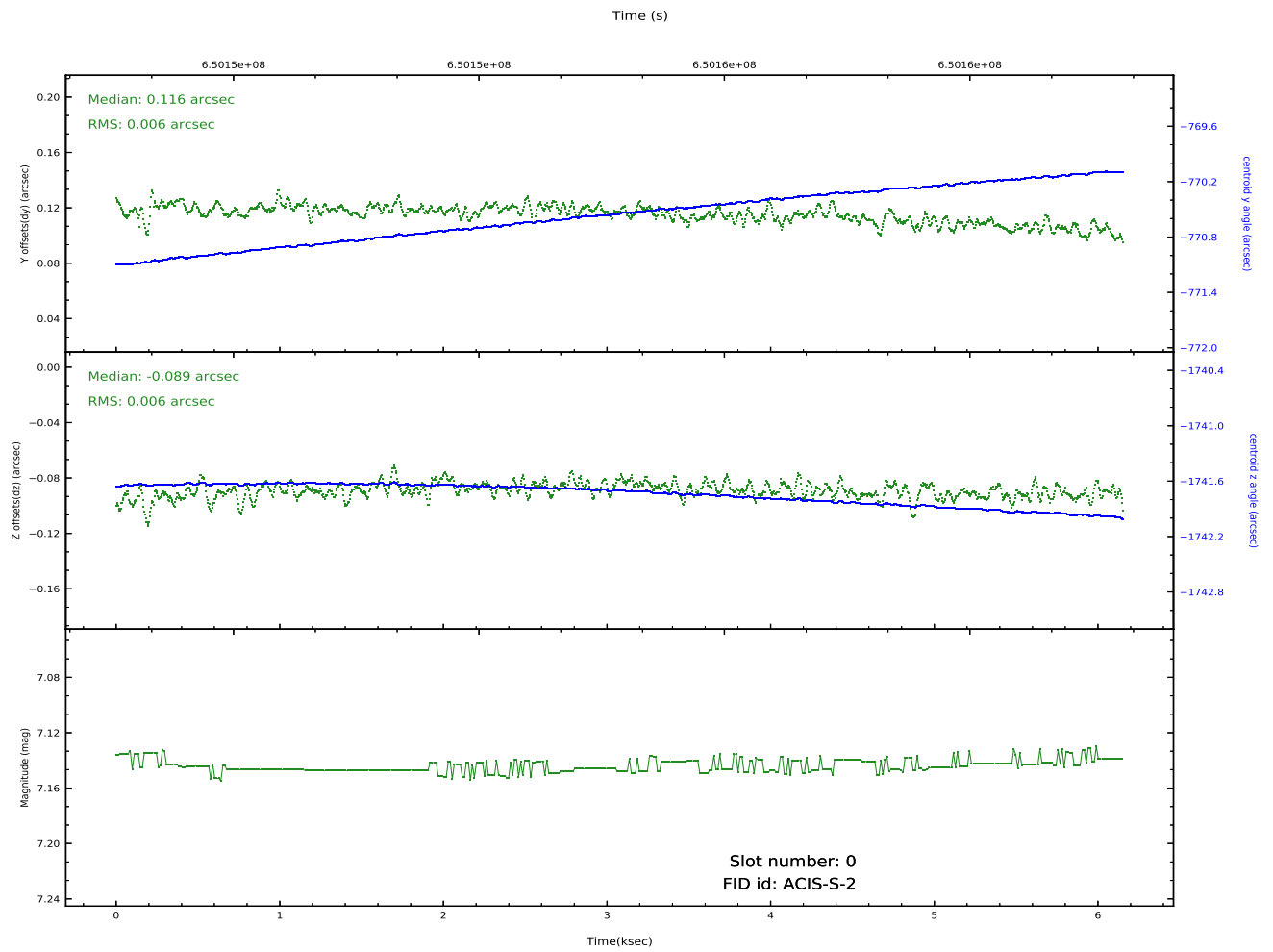
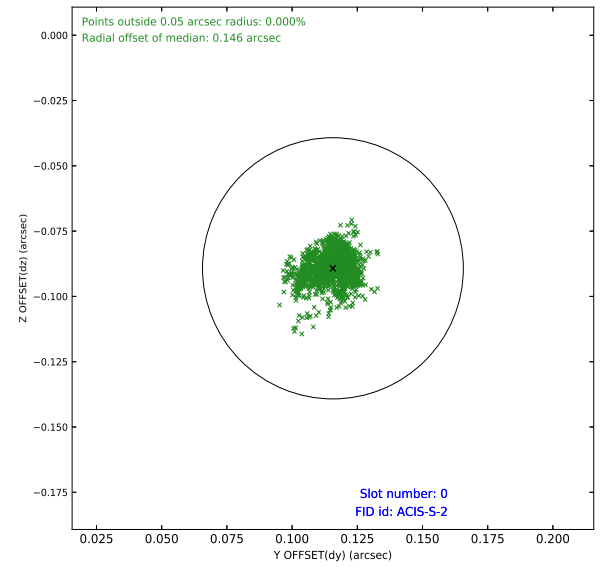
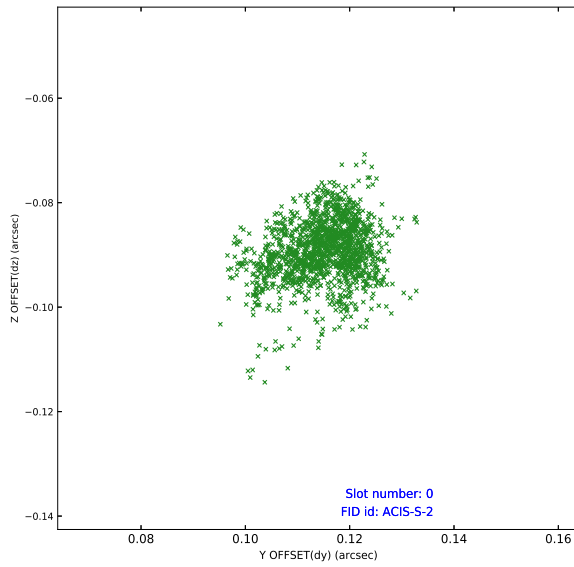


## 2.4.5 Slot 7

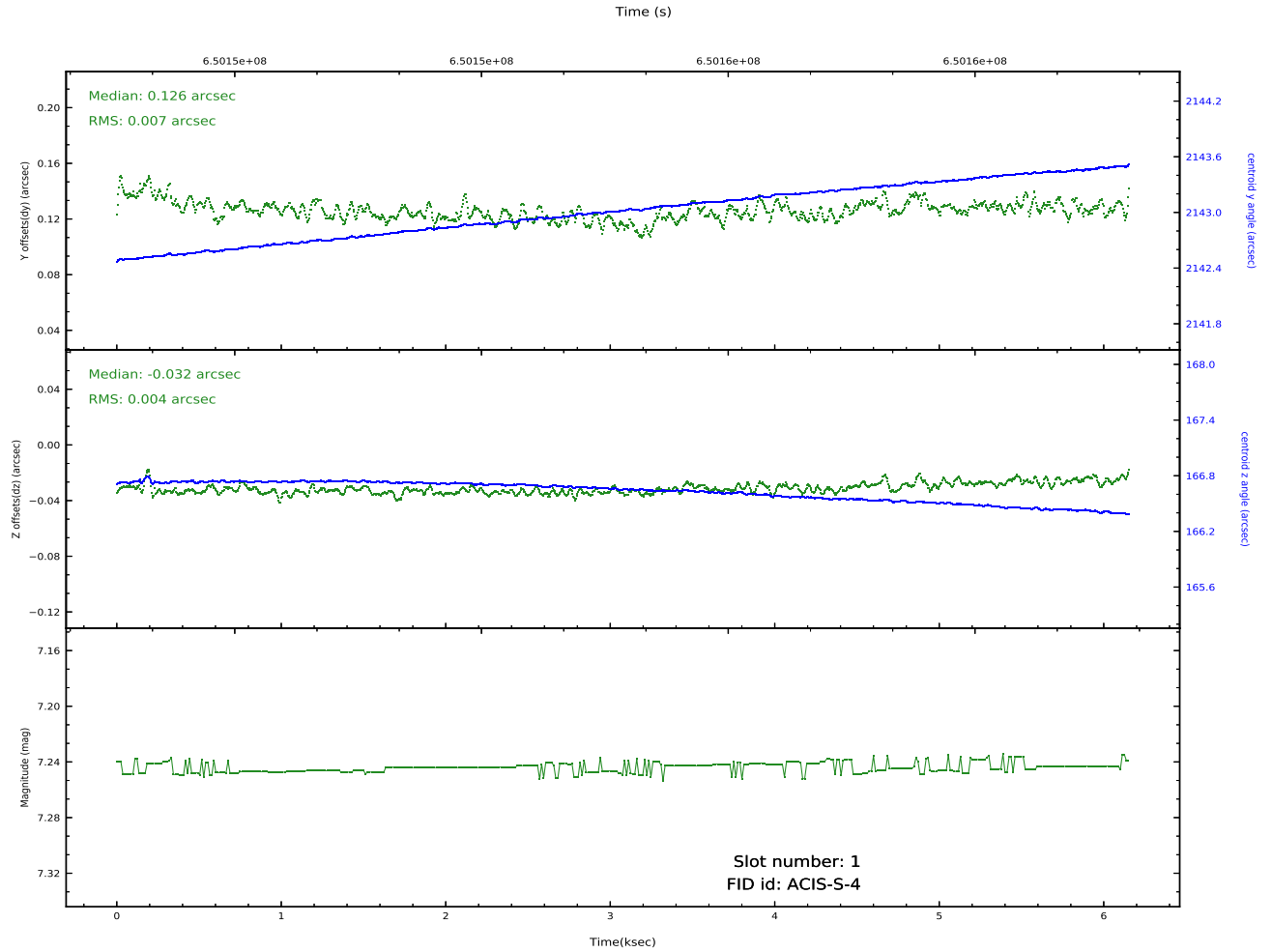
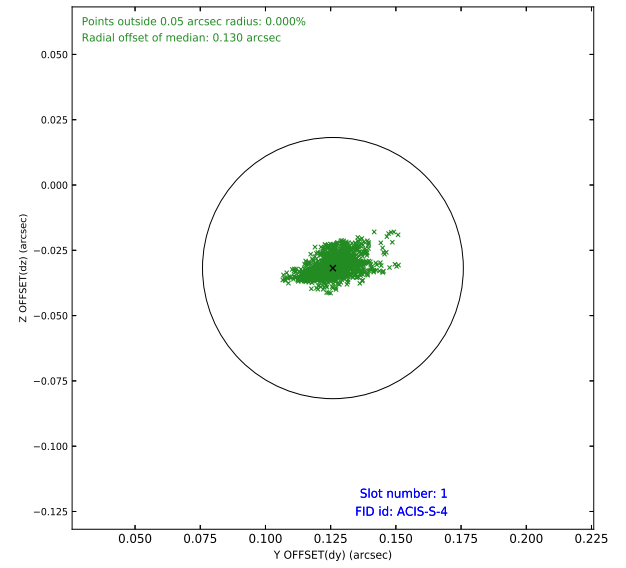
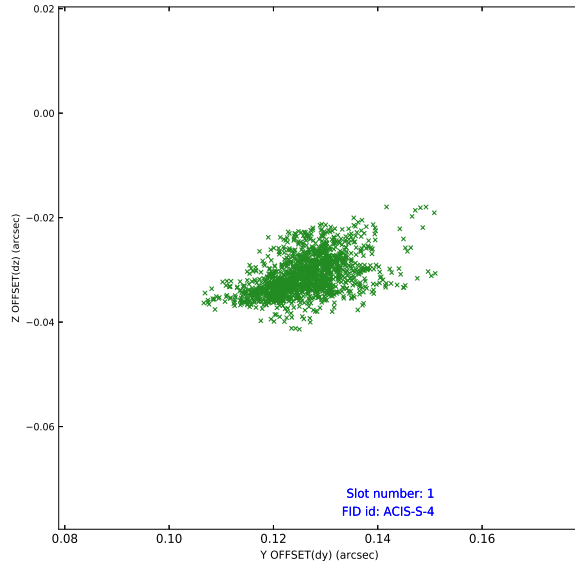


## 2.5 FID Slots

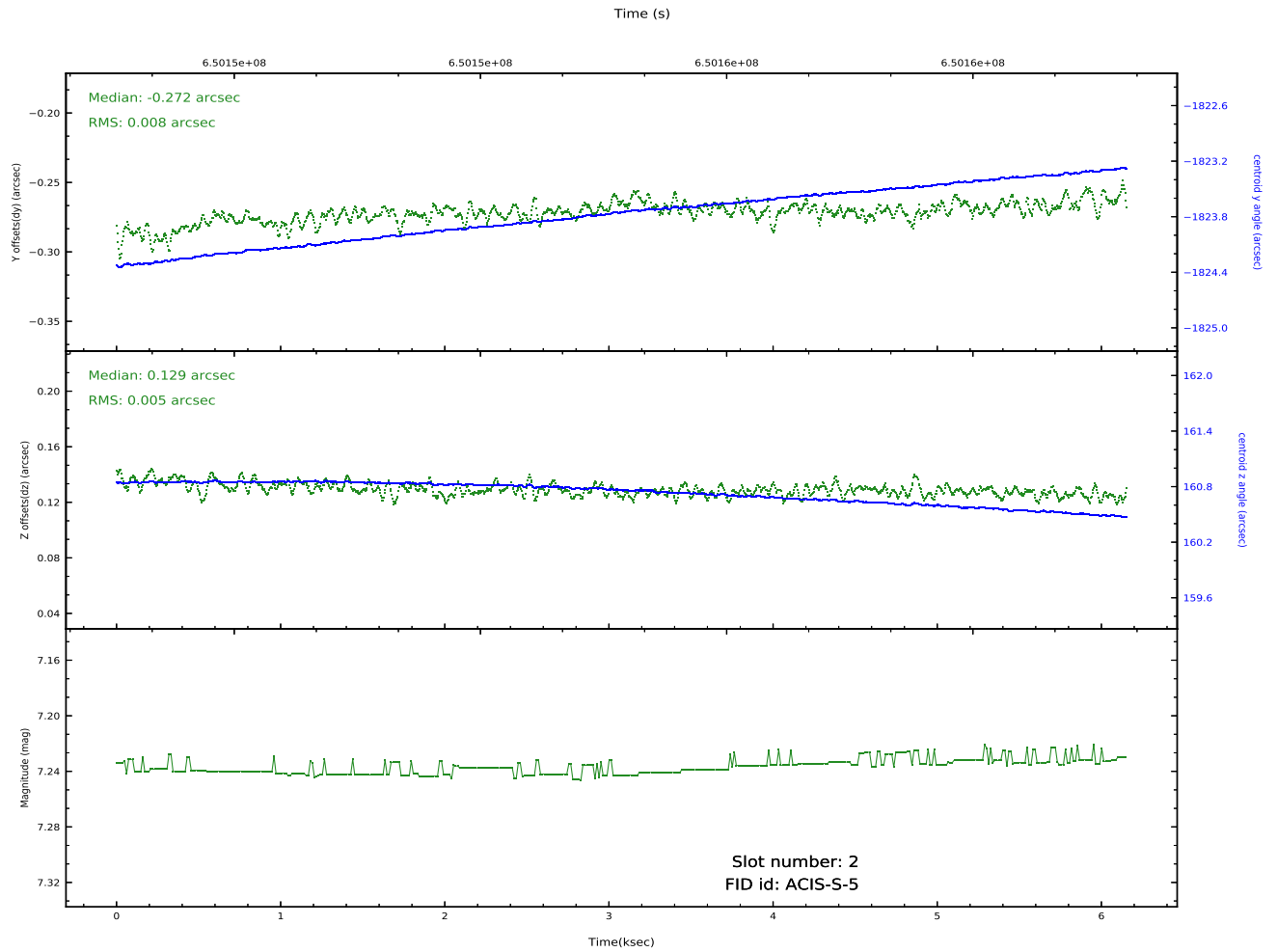
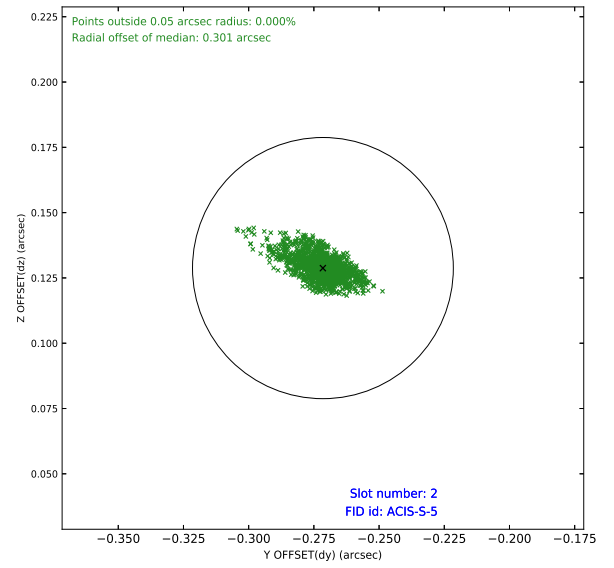
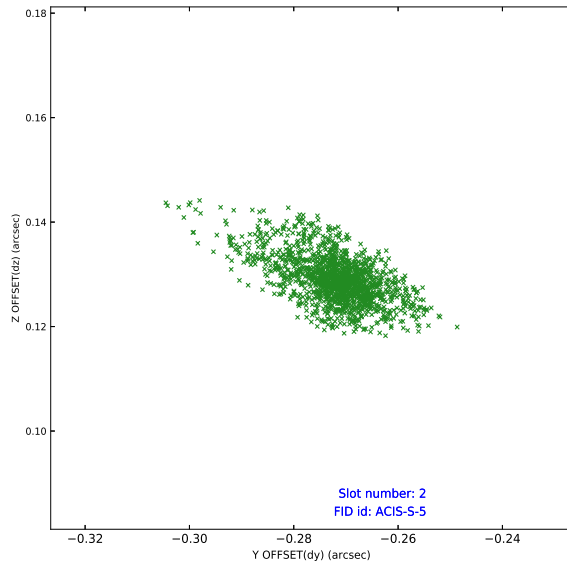
### 2.5.1 Slot 0



## 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)	2020.10.29
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	6.0667000467777

### A.2 Comments