

V&V Reference Report

L2 ASCDS Version : 10.9.2

Observation 19436 - L2 Version 2
Chandra X-Ray Center

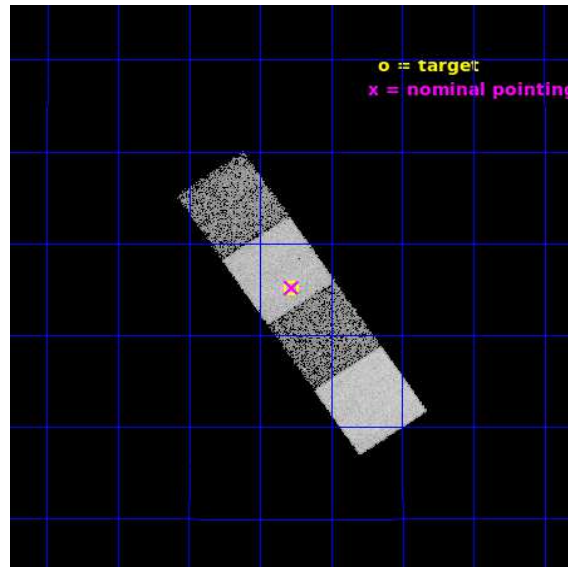
L2 Processing Date : Oct 25 2020

Contents

1	Front	2
2	OBI	3
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
A	Summary	17
A.1	Status	17
A.2	Comments	17

1 Front

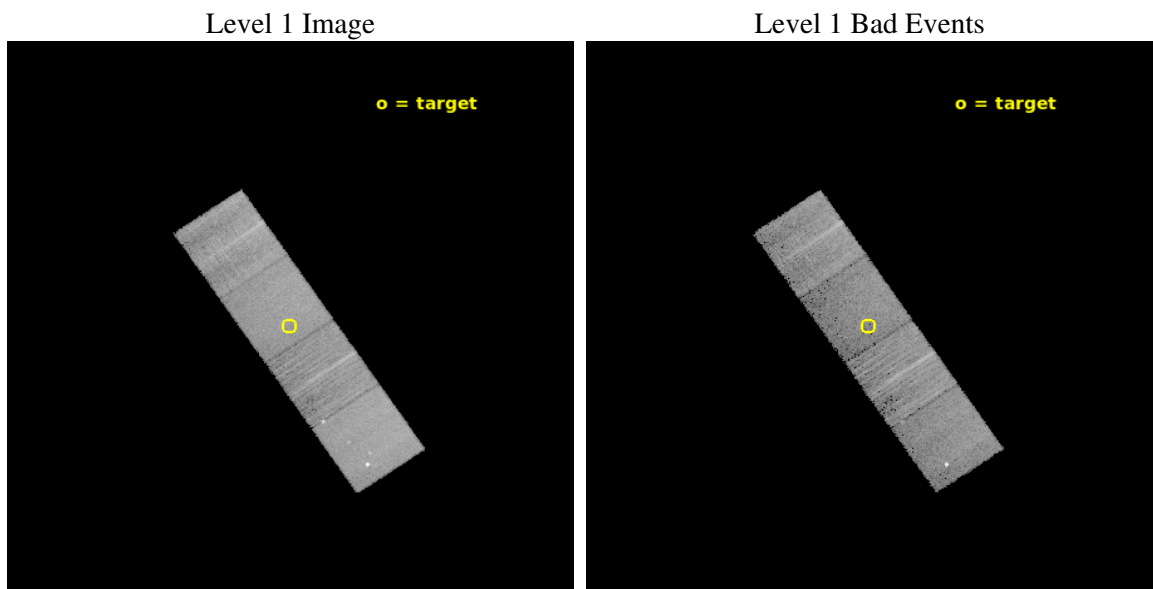
seq_num	601393	Sequence number
obs_id	19436	Observation id
title	Spiral galaxies of the Virgo cluster	Proposal title
observer	Roberto Soria	Principal investigator
object	NGC 4416	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	186.694583	Observer's specified target RA [deg]
dec_targ	7.919	Observer's specified target Dec [deg]
ra_nom	186.69411194876	Nominal RA [deg]
dec_nom	7.9198704872144	Nominal Dec [deg]
roll_nom	235.81873229675	Nominal Roll [deg]
revision	2	Processing version of data
ontime	7908.1000609398	Sum of GTIs [s]
livetime	7804.774911785	Livetime [s]
ontime5	7908.1000609398	Sum of GTIs [s]
ontime6	7908.1000609398	Sum of GTIs [s]
ontime7	7908.1000609398	Sum of GTIs [s]
ontime8	7898.6769001484	Sum of GTIs [s]
l2events	86456	Number of level 2 events



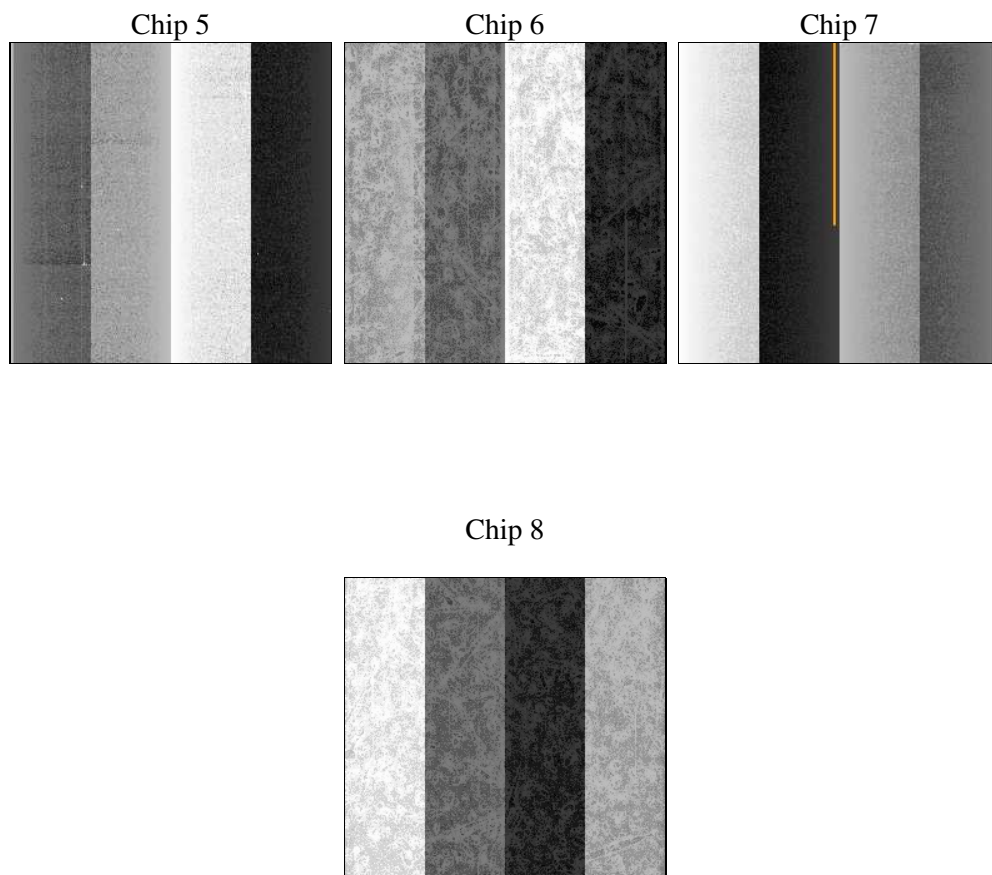
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	8000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	7908.1000609398	Sum of GTIs [s]
caldsver	4.9.3	 	ontime5	7908.1000609398	Sum of GTIs [s]
date	2020-10-25T21:04:23	Date and time of file creation	ontime6	7908.1000609398	Sum of GTIs [s]
revision	2	Processing version of data	ontime7	7908.1000609398	Sum of GTIs [s]
			ontime8	7898.6769001484	Sum of GTIs [s]
			l1events	312092	Number of level 1 events

2.1.4 Events

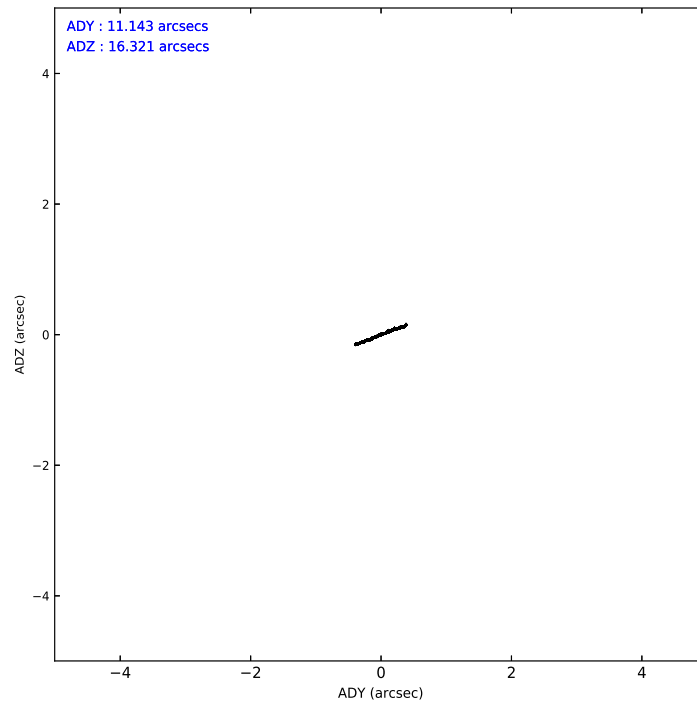
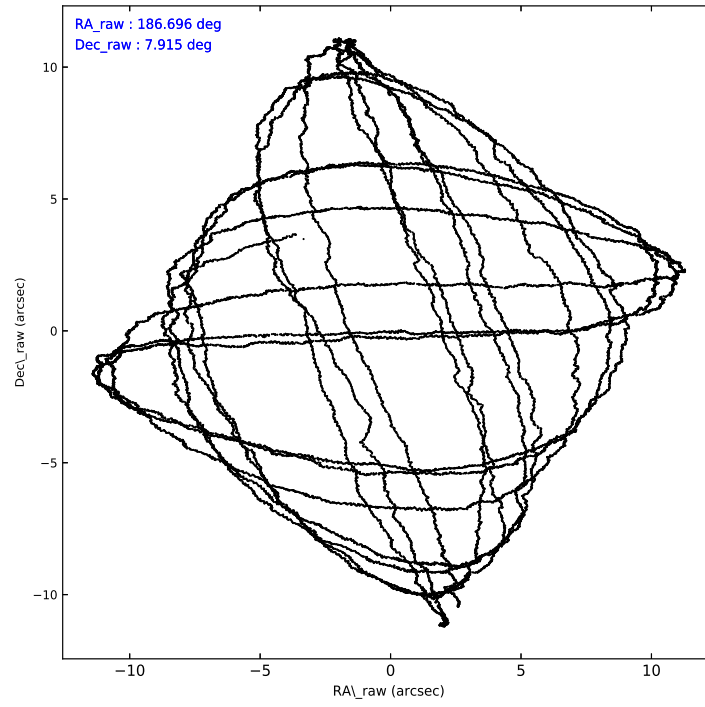
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	95634	62844	75399	78215
rejected events	50520	56244	42279	58759
rejected %	52%	89%	56%	75%

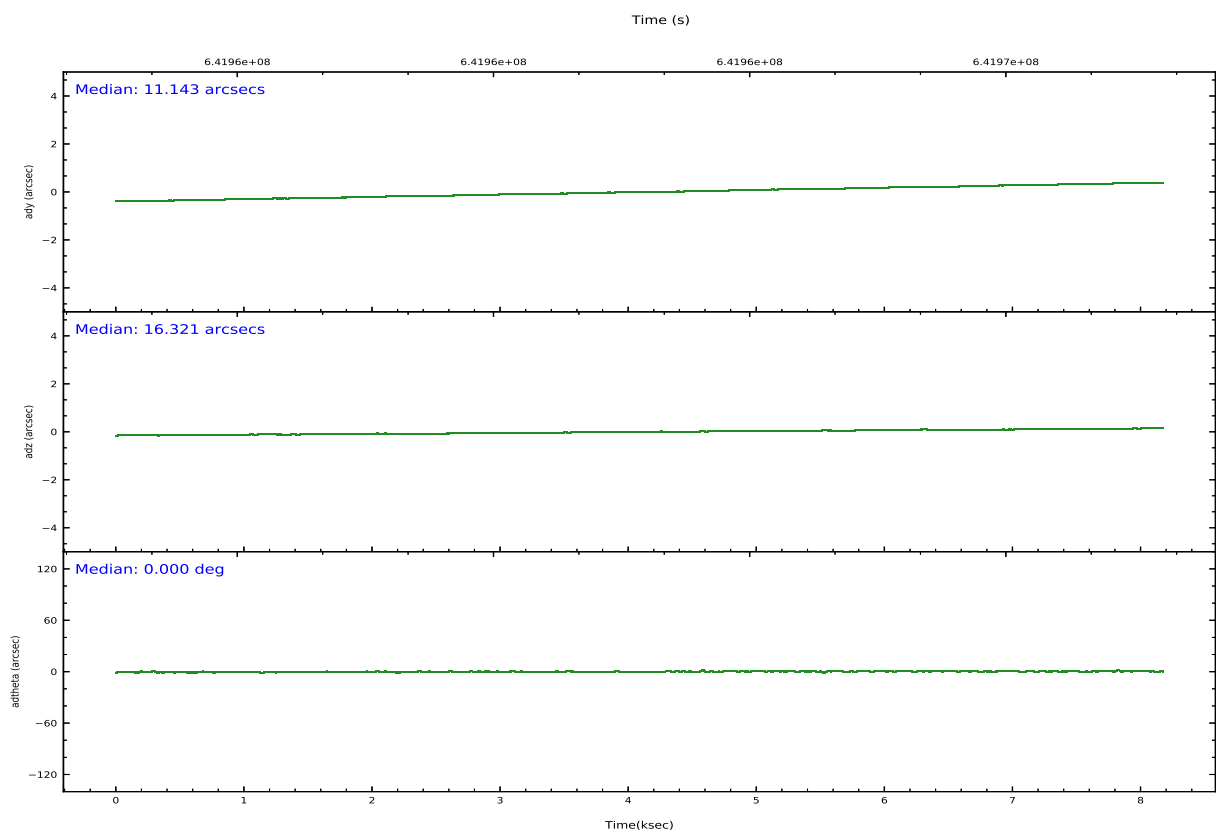
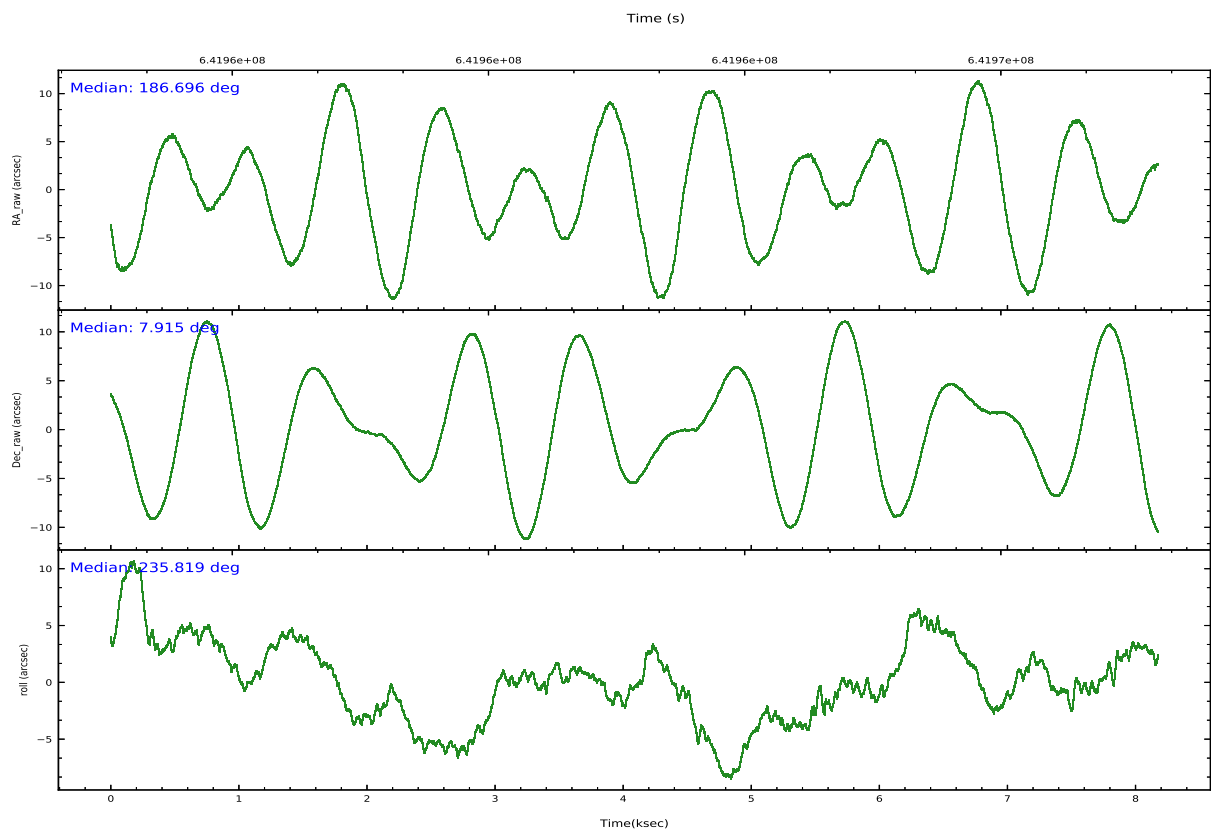
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	3510	2174	2871	5205
	3%	3%	3%	6%
grade 1 events	261	21	80	71
	0%	0%	0%	0%
grade 2 events	14047	1649	6945	4853
	14%	2%	9%	6%
grade 3 events	1333	548	2627	1986
	1%	0%	3%	2%
grade 4 events	1313	565	2576	1822
	1%	0%	3%	2%
grade 5 events	6067	2497	7272	3959
	6%	3%	9%	5%
grade 6 events	24934	1664	18115	5593
	26%	2%	24%	7%
grade 7 events	44169	53726	34913	54726
	46%	85%	46%	69%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-5678	ACIS-5678	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	186.697899	186.69411194876	Subarray requested	NONE	NONE
[deg] Pointing Dec	7.942009	7.9198704872144	Alternating exposures requested	N	N
[deg] Pointing Roll	235.665093	235.81873229675	[s] Primary exposure time	0.000000	3.1
[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)	641959229.184000	641958783.53906			
Observation start date	2018-05-06T01:59:20	2018-05-06T01:53:03			
[s] Observation end time (MET)	641967229.184000	641967925.5146			
Observation end date	2018-05-06T04:12:40	2018-05-06T04:25:25			
Read mode	TIMED	TIMED			

2.3 Aspect



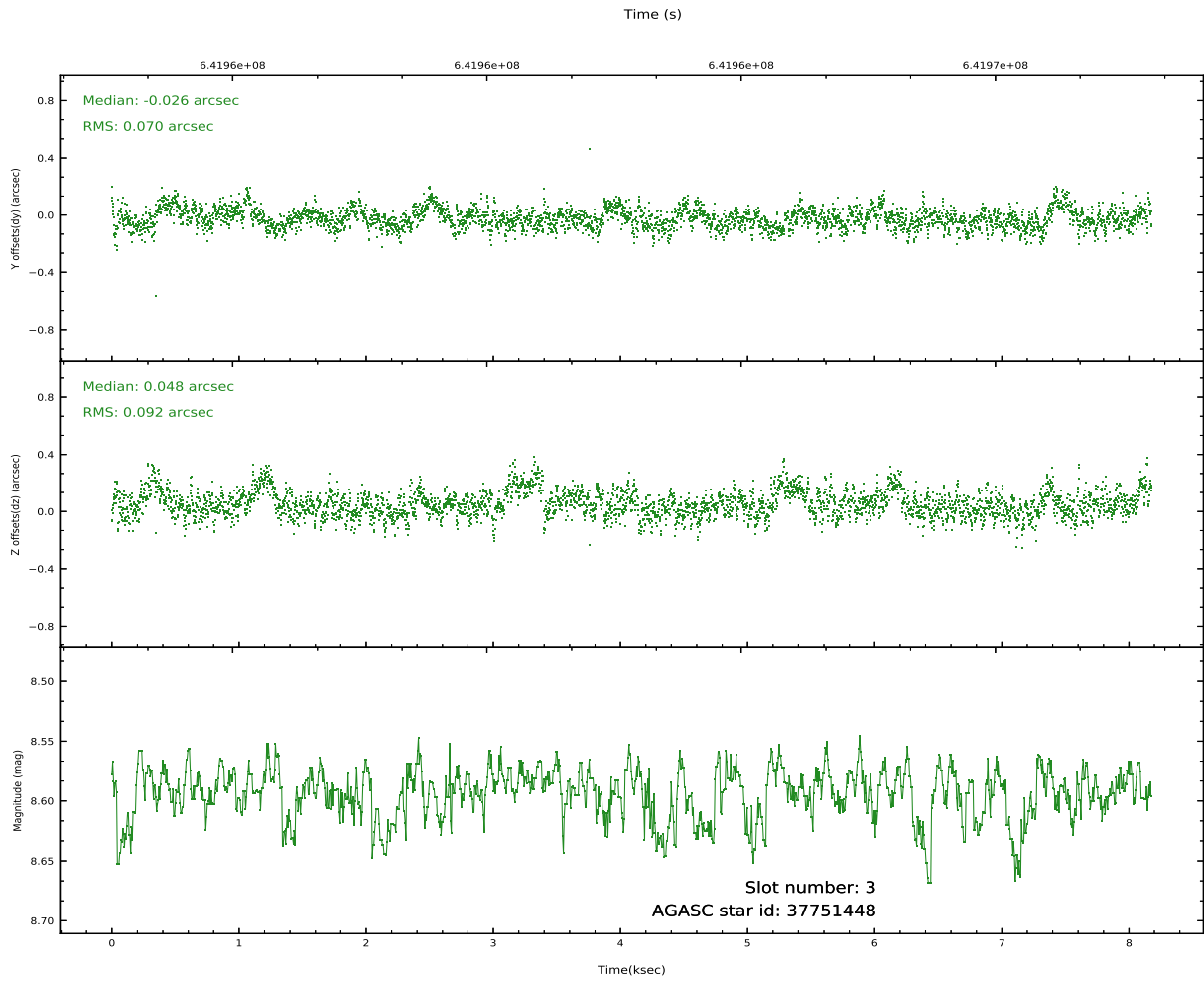
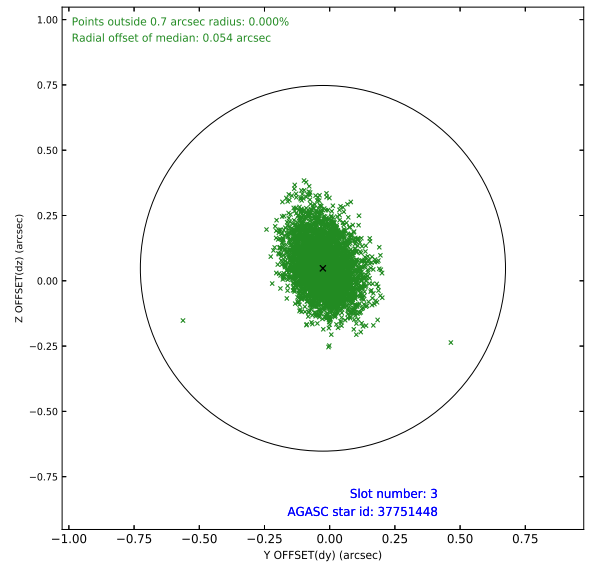
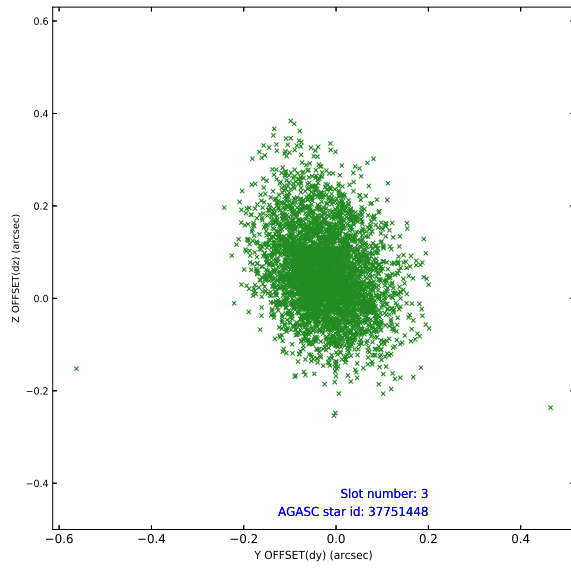


Slot Statistics

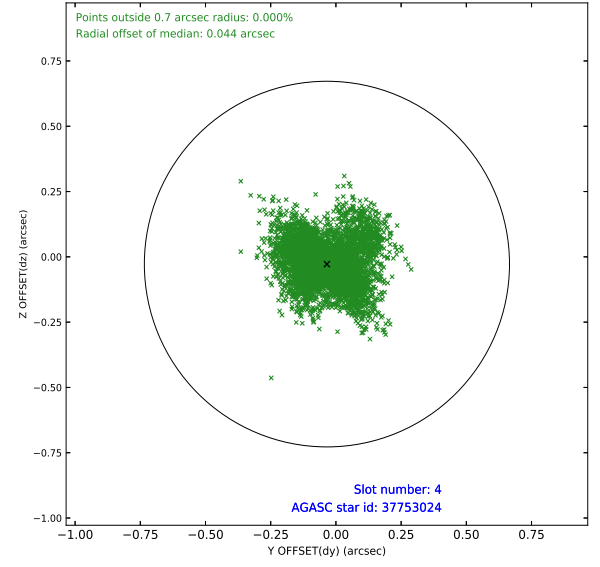
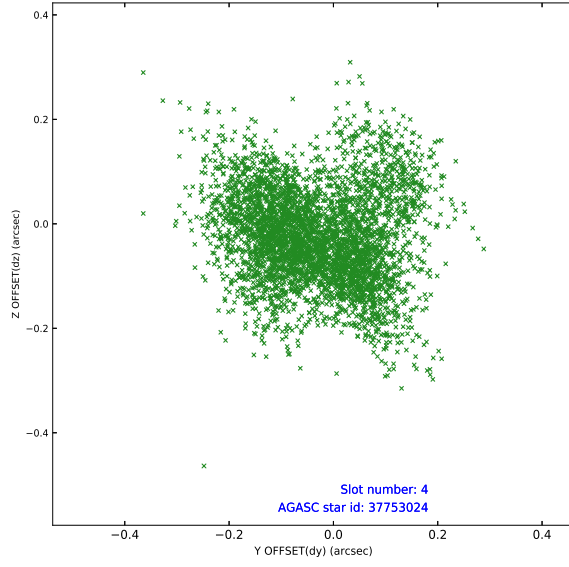
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.09	1995	1.000	0.057	-0.080	0.015	0.022	0.000000	0.000000	-764.07	-1737
1	FID		ACIS-S-4	7.22	1994	1.000	0.161	-0.006	0.017	0.026	0.000000	0.000000	2149.13	169
2	FID		ACIS-S-5	7.20	1995	1.000	-0.251	0.094	0.009	0.015	0.000000	0.000000	-1816.21	164
3	GUIDE	used	37751448	8.59	3989	1.000	-0.026	0.048	0.120	0.204	186.840242	7.148441	2072.37	2031
4	GUIDE	used	37753024	7.95	3988	1.000	-0.034	-0.028	0.149	0.235	186.830113	7.241612	1816.29	1811
5	GUIDE	used	114558520	9.87	3982	1.000	-0.016	0.018	0.229	0.359	186.384496	8.600501	-1328.10	-2257
6	GUIDE	used	114563576	7.84	3984	1.000	-0.119	-0.048	0.111	0.189	186.867039	8.012388	-548.88	353
7	GUIDE	used	114563648	9.71	3979	1.000	0.194	-0.012	0.198	0.353	187.009208	7.938475	-616.04	923

2.4 Star Slots

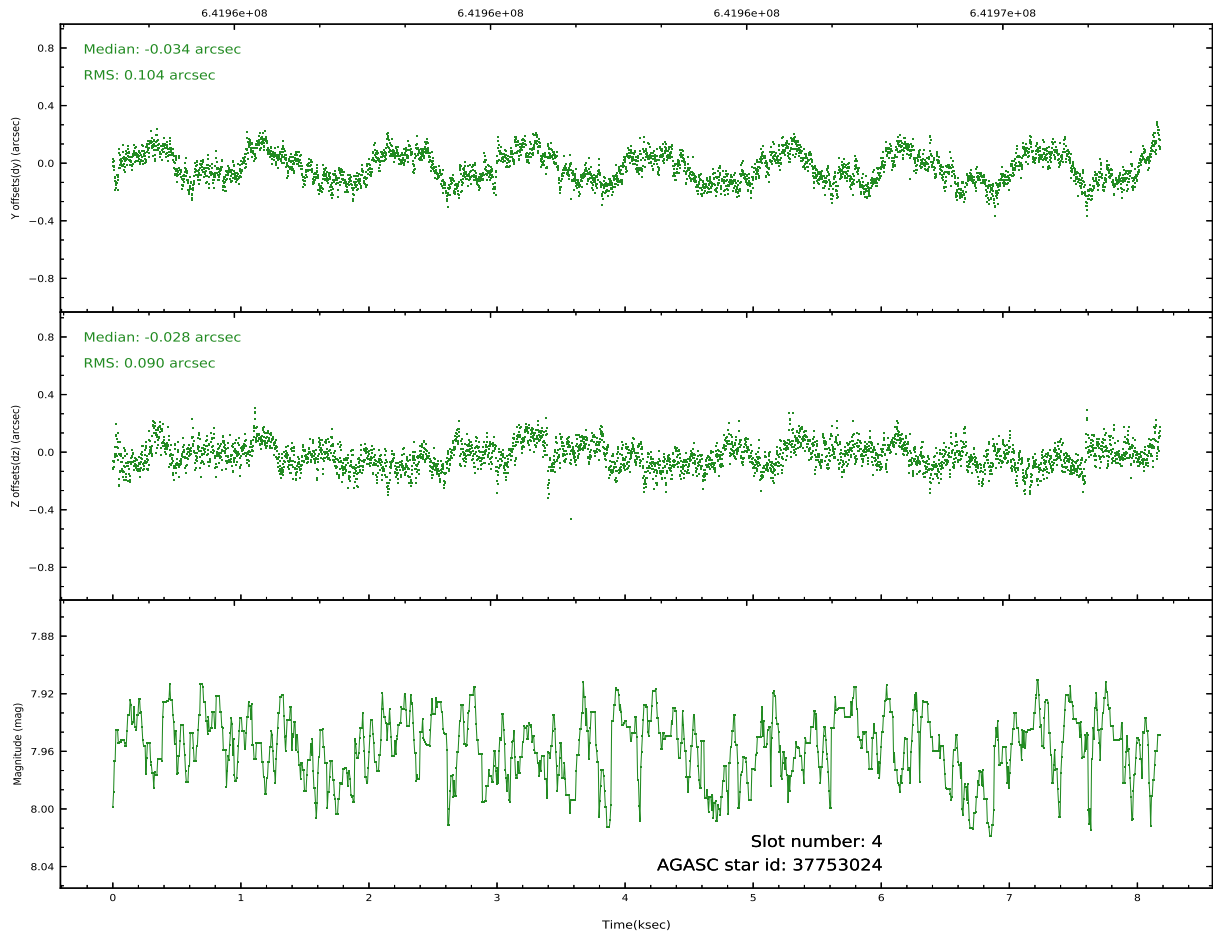
2.4.1 Slot 3



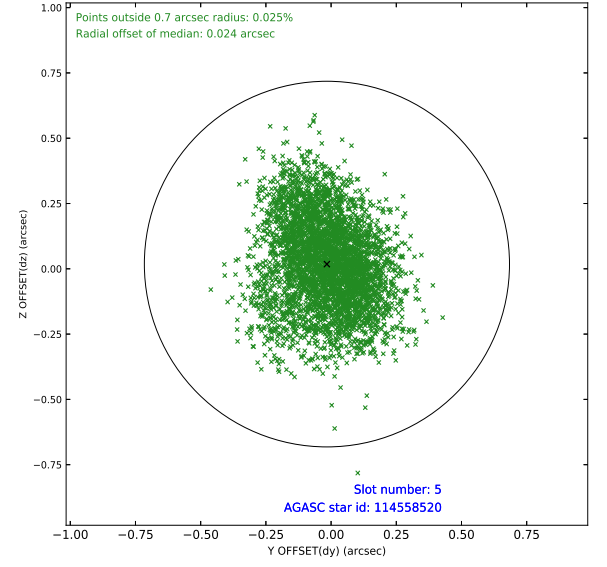
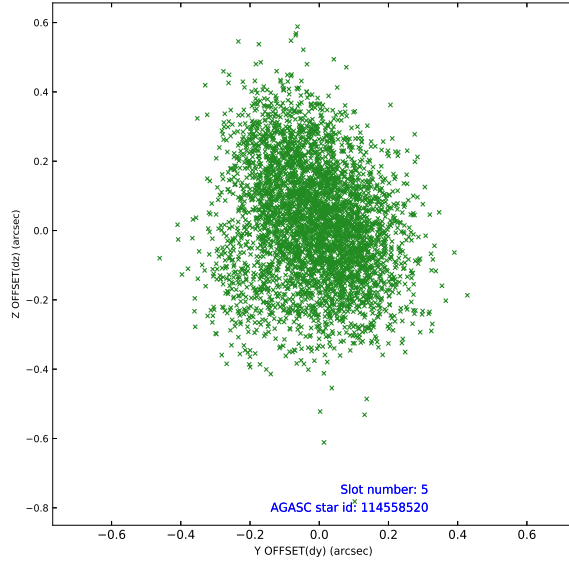
2.4.2 Slot 4



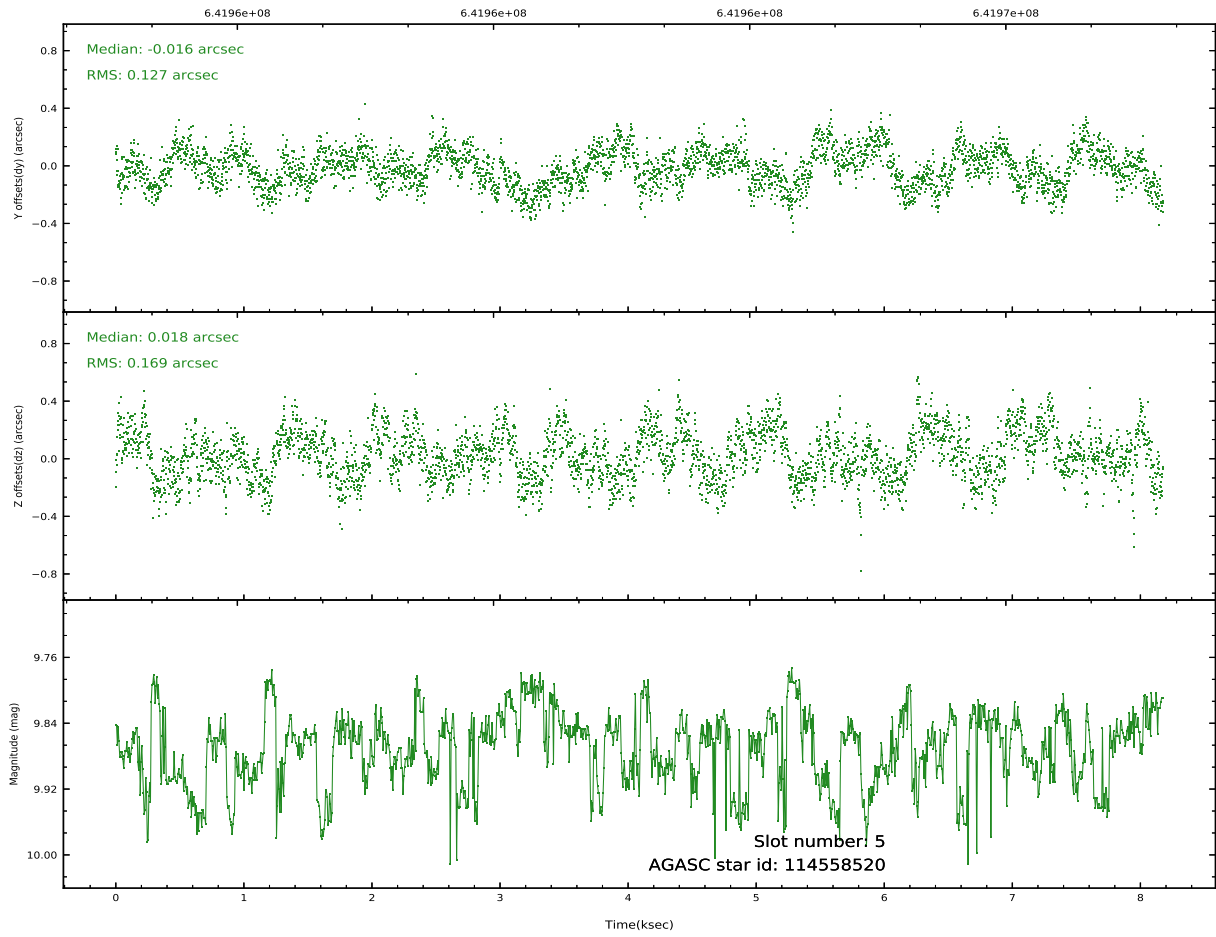
Time (s)



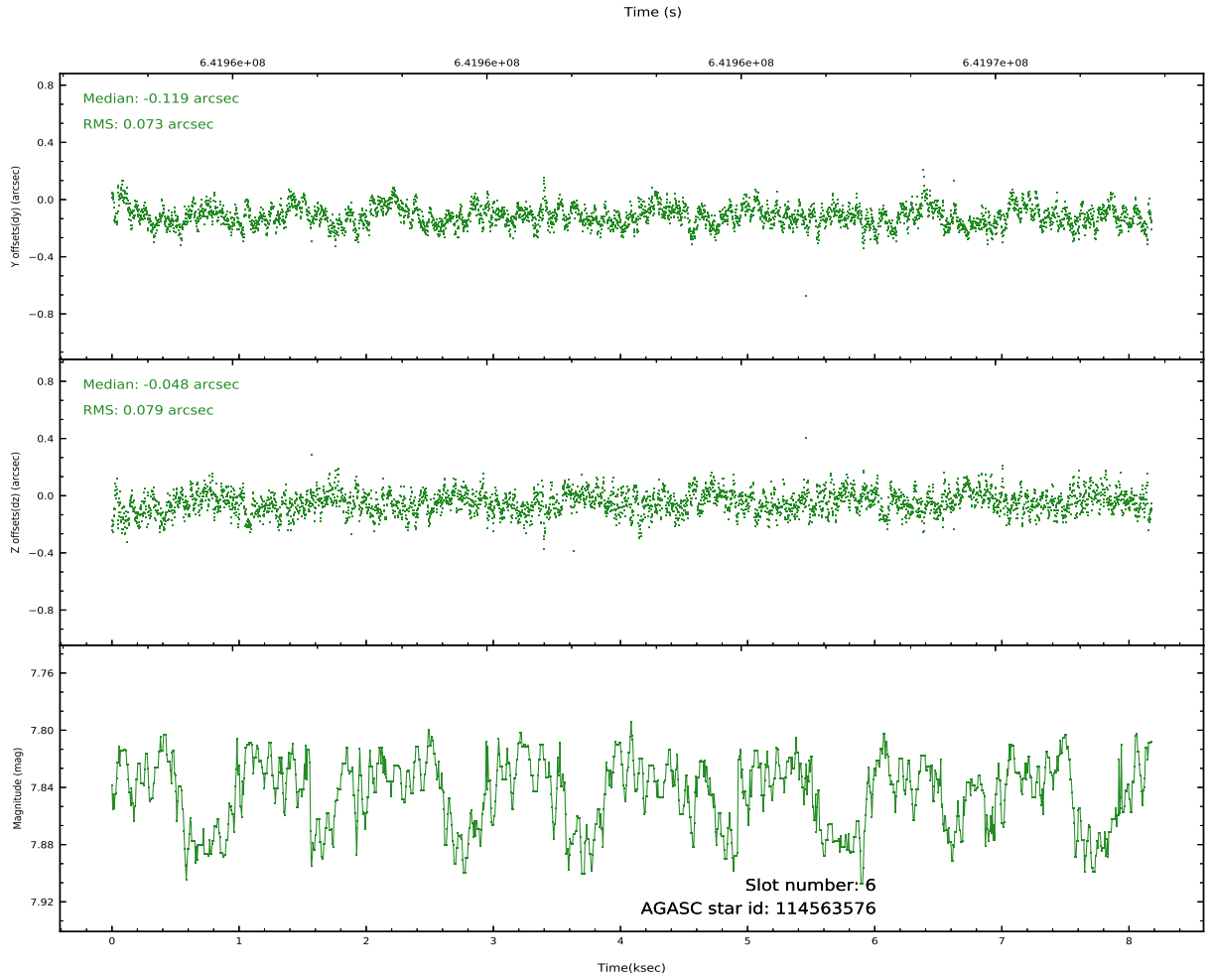
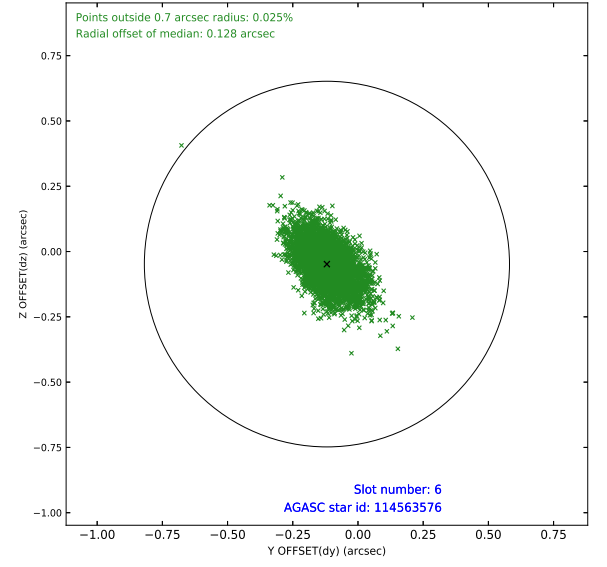
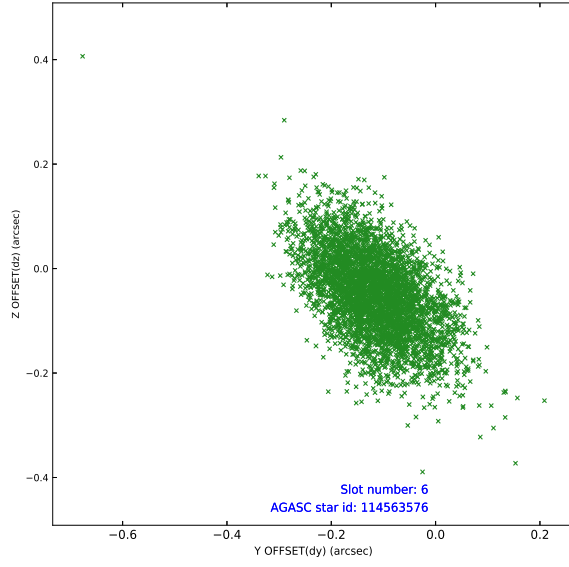
2.4.3 Slot 5



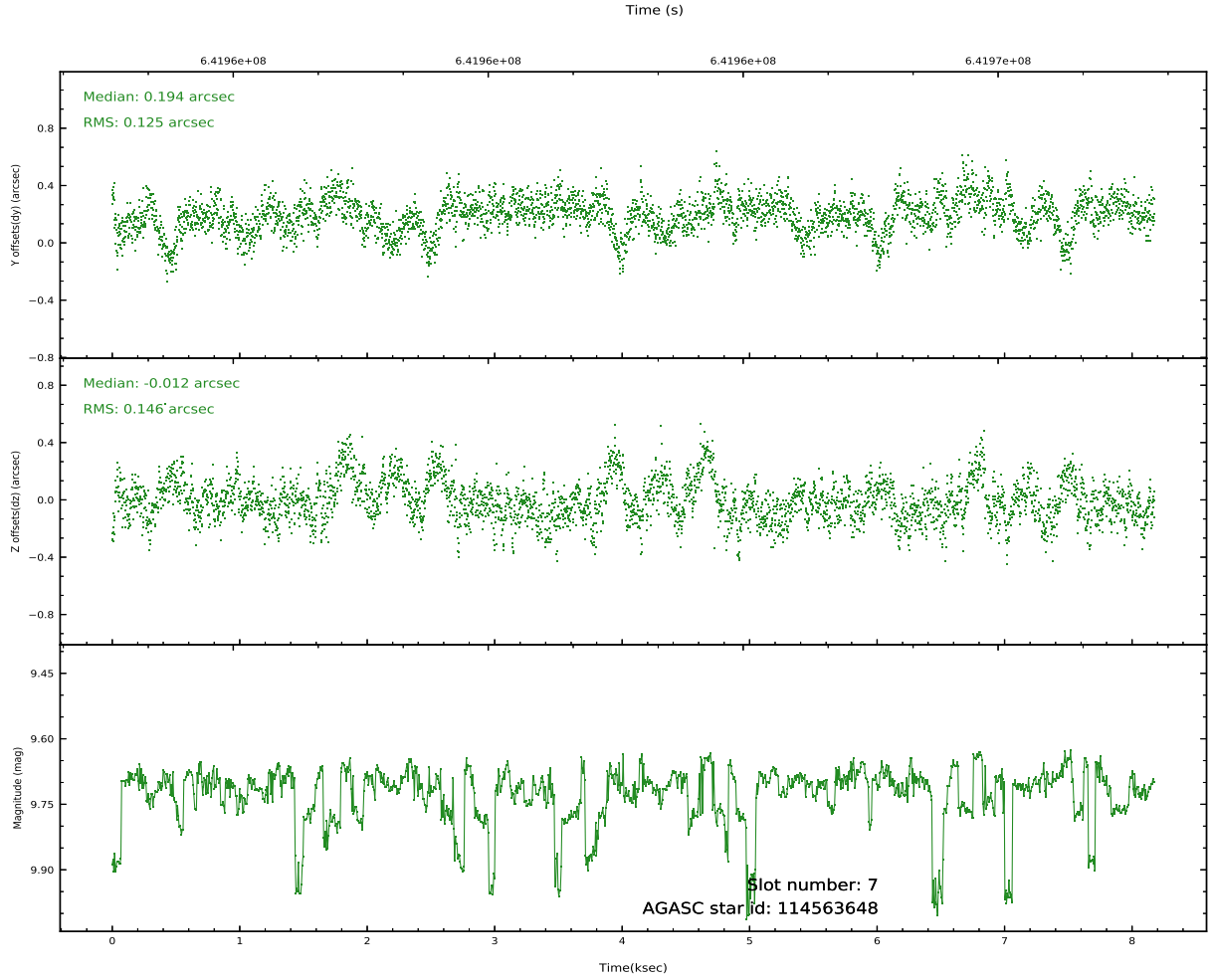
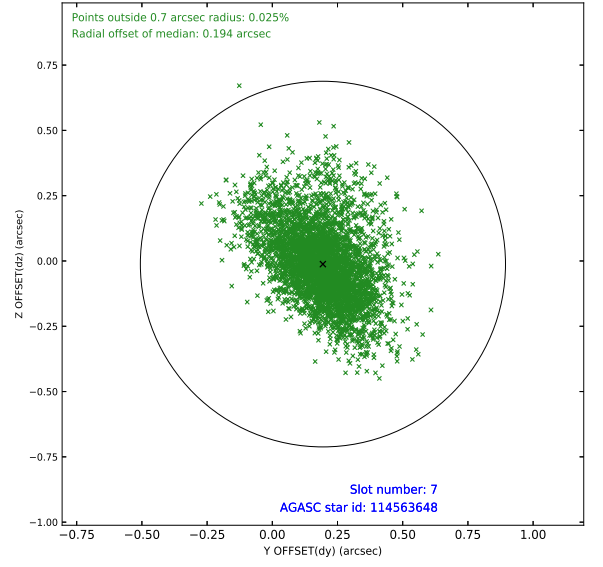
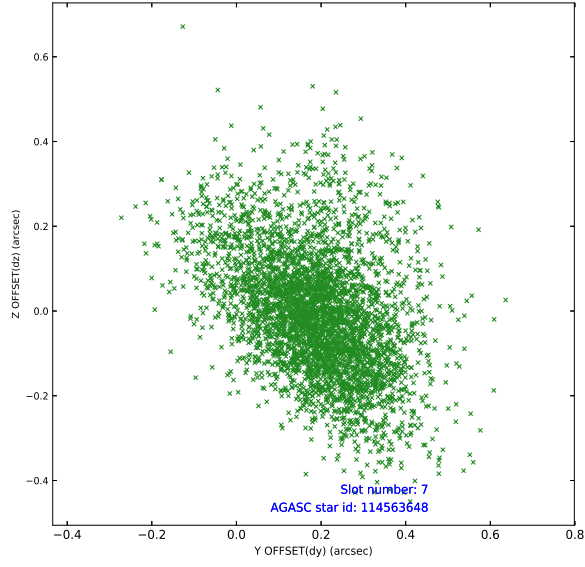
Time (s)



2.4.4 Slot 6

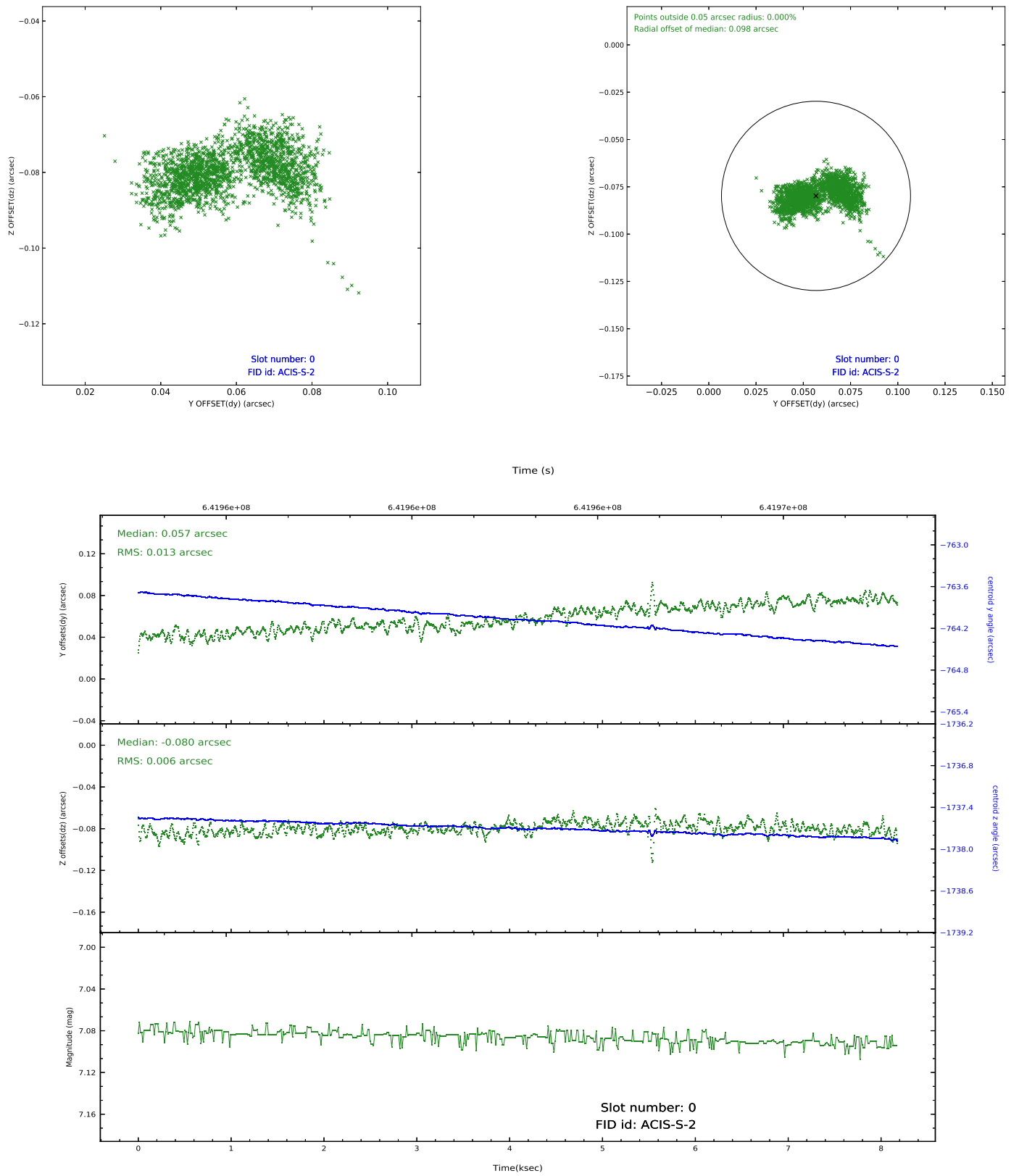


2.4.5 Slot 7

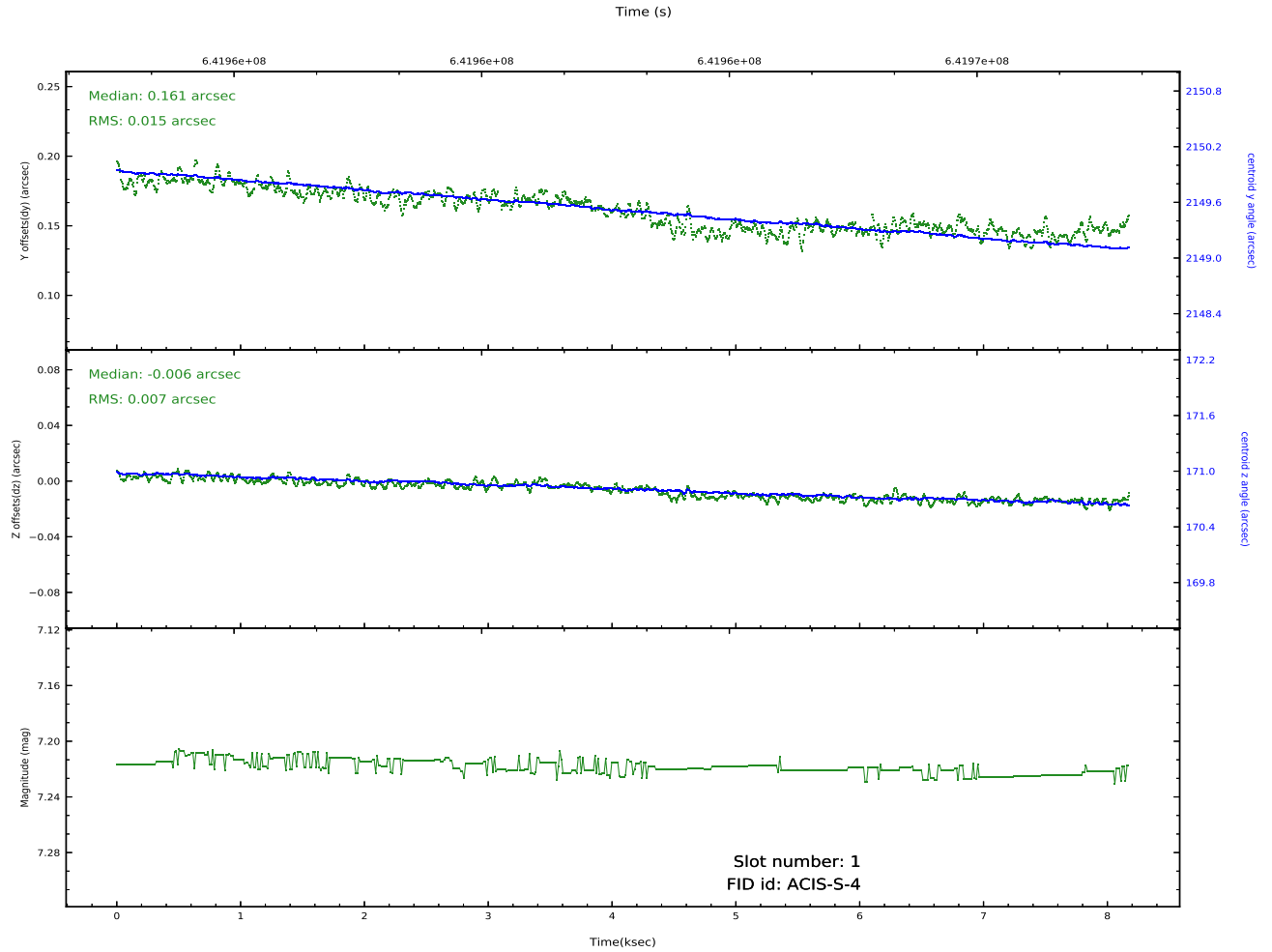
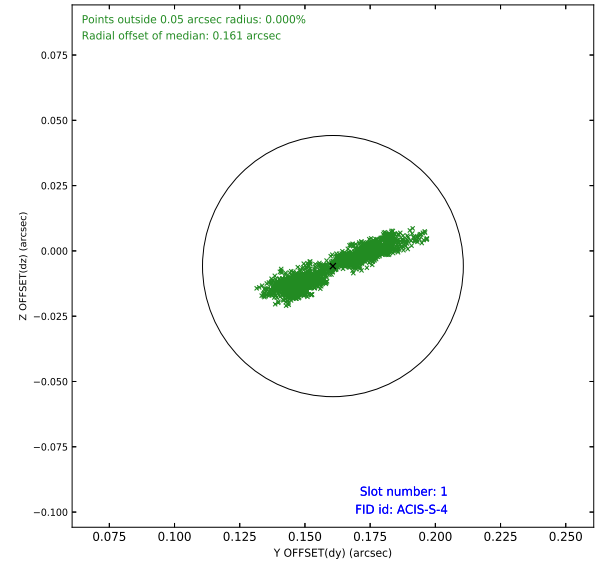
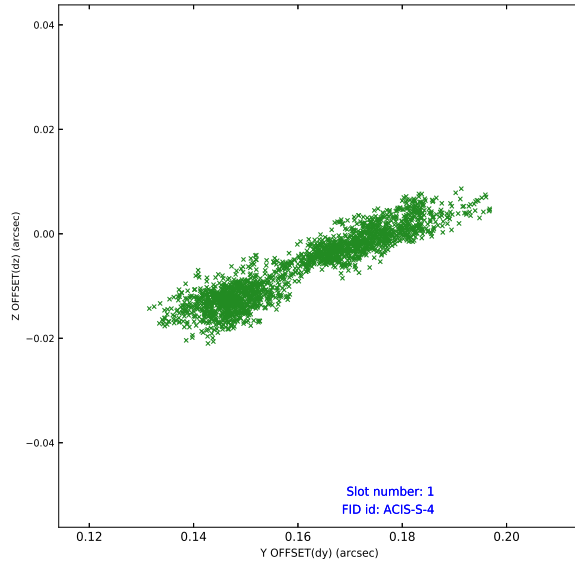


2.5 FID Slots

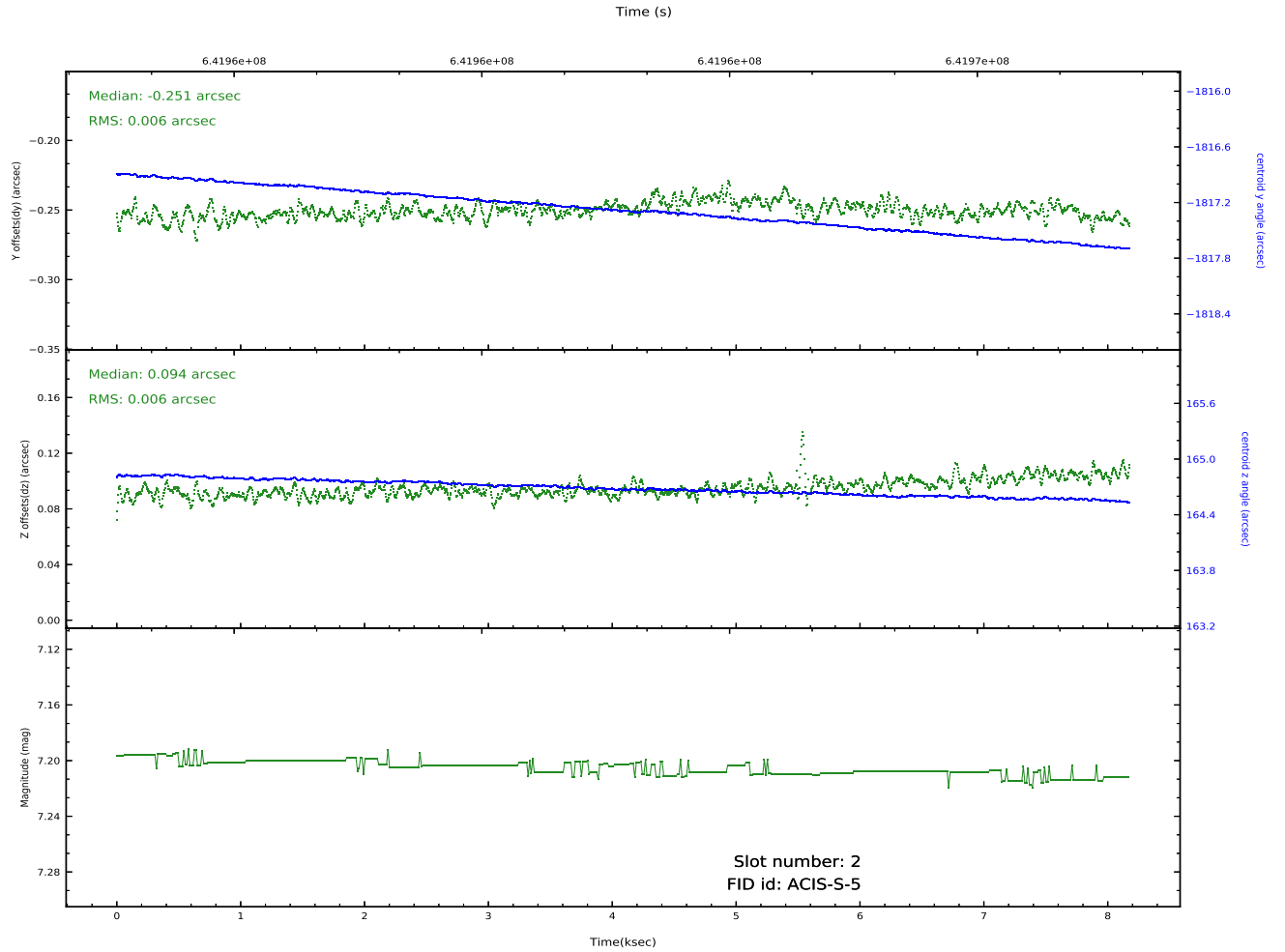
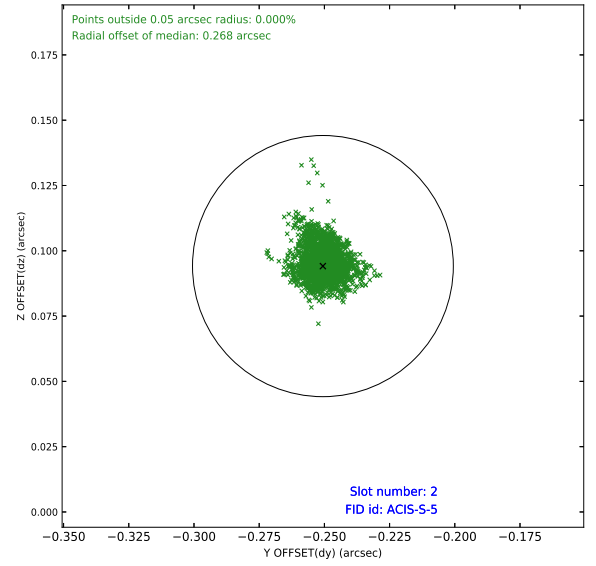
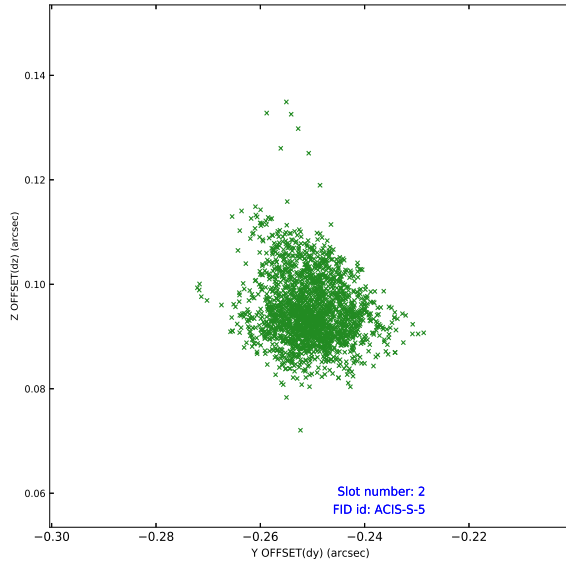
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2020.10.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.9081000609398

A.2 Comments