

V&V Reference Report

L2 ASCDS Version : 10.9.2

Observation 20151 - L2 Version 2
Chandra X-Ray Center

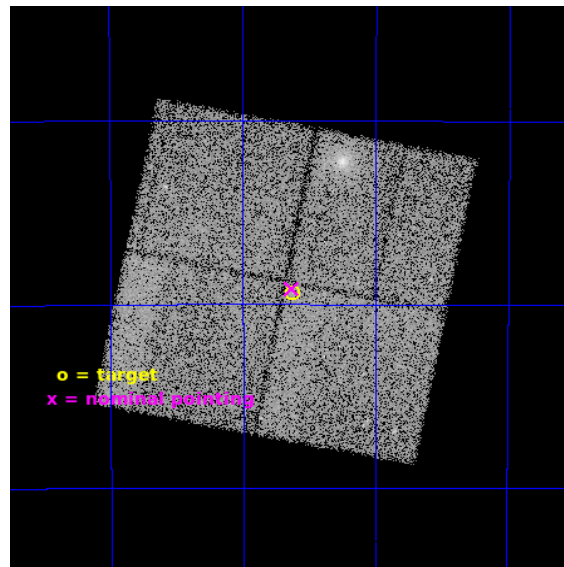
L2 Processing Date : Oct 27 2020

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1 Front

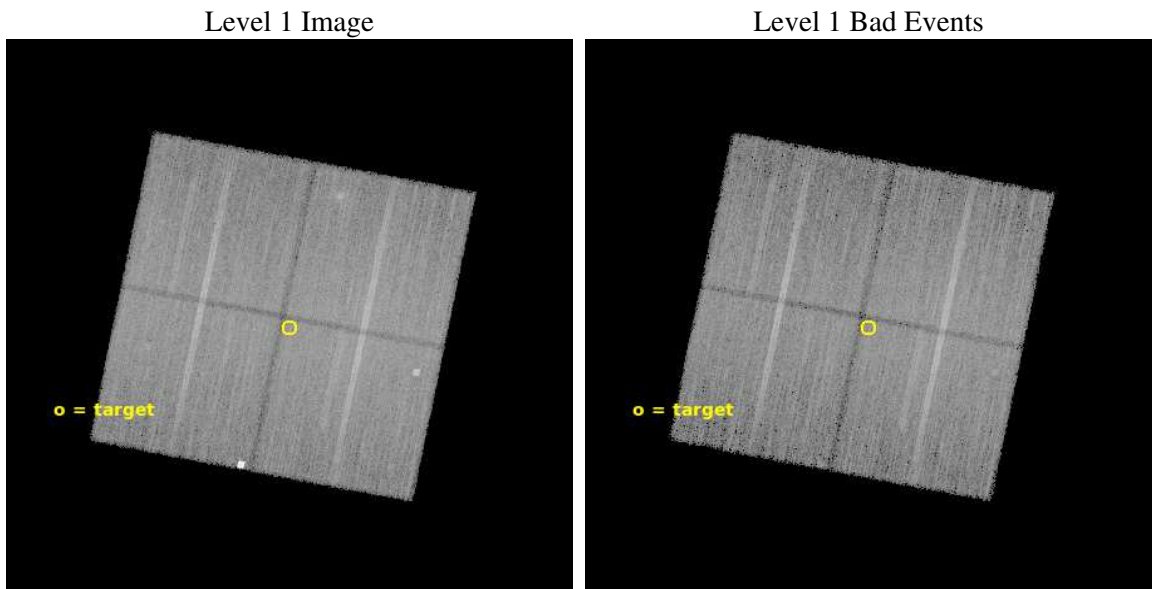
seq_num	201173	Sequence number
obs_id	20151	Observation id
title	Secret Lives of Cepheids: beta Dor as a Test of Cepheid X-ray Heating Mechanisms	Proposal title
observer	Scott Engle	Principal investigator
object	beta Dor	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	83.40625	Observer's specified target RA [deg]
dec_targ	-62.489833	Observer's specified target Dec [deg]
ra_nom	83.407649044965	Nominal RA [deg]
dec_nom	-62.485834423515	Nominal Dec [deg]
roll_nom	101.19395849289	Nominal Roll [deg]
revision	2	Processing version of data
ontime	37077.859107494	Sum of GTIs [s]
livetime	36593.409581932	Livetime [s]
ontime0	37077.735987544	Sum of GTIs [s]
ontime1	37074.636047244	Sum of GTIs [s]
ontime2	37077.818067551	Sum of GTIs [s]
ontime3	37077.859107494	Sum of GTIs [s]
l2events	109433	Number of level 2 events



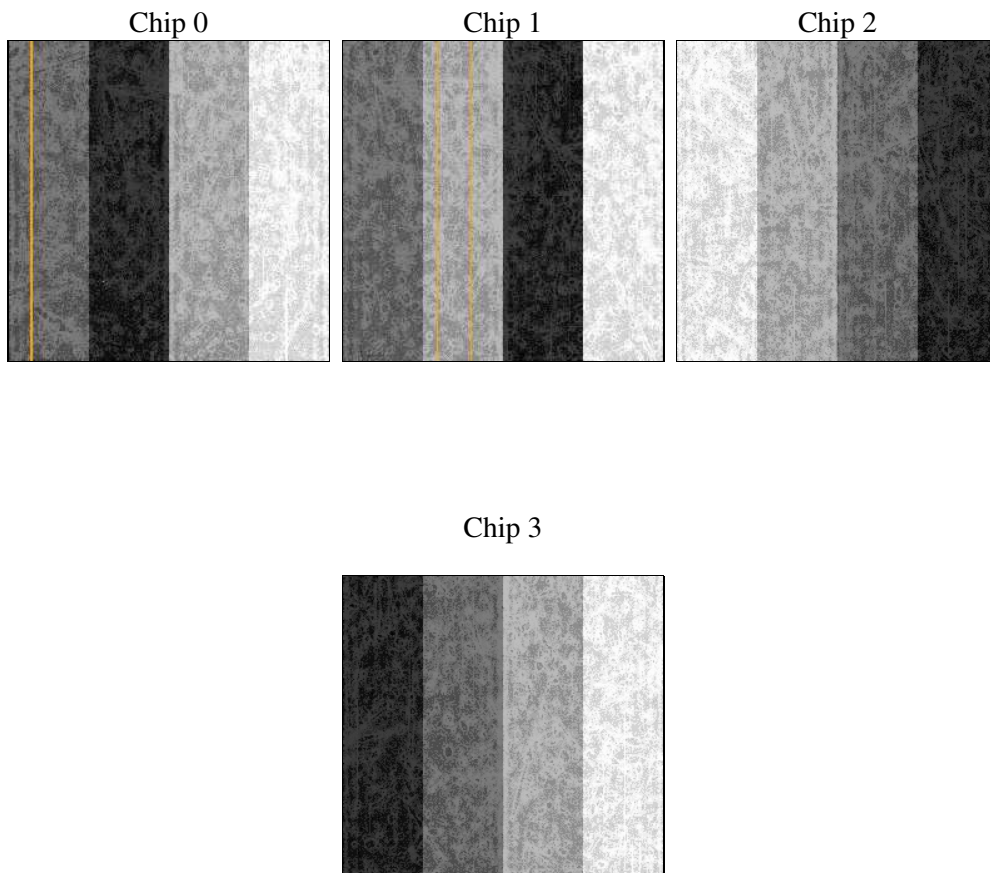
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	37000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	37077.859107494	Sum of GTIs [s]
caldsver	4.9.3	 	ontime0	37077.735987544	Sum of GTIs [s]
date	2020-10-27T17:17:01	Date and time of file creation	ontime1	37074.636047244	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	37077.818067551	Sum of GTIs [s]
			ontime3	37077.859107494	Sum of GTIs [s]
			l1events	1085373	Number of level 1 events

2.1.4 Events

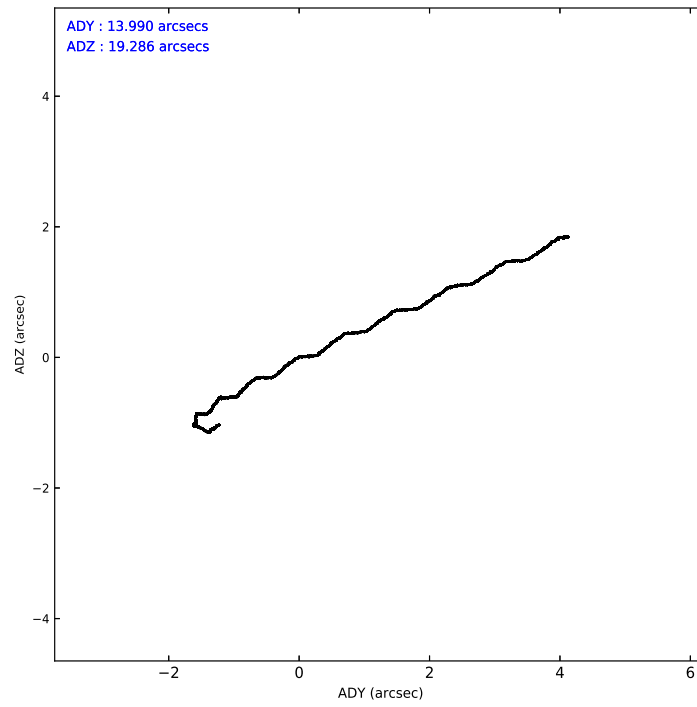
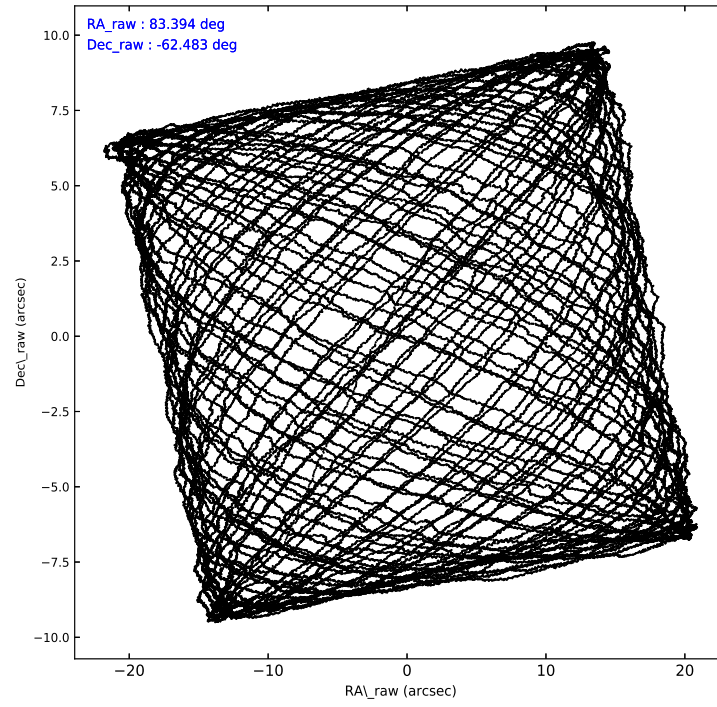
	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	252587	270973	283751	278062
rejected events	220768	224056	249507	245811
rejected %	87%	82%	87%	88%

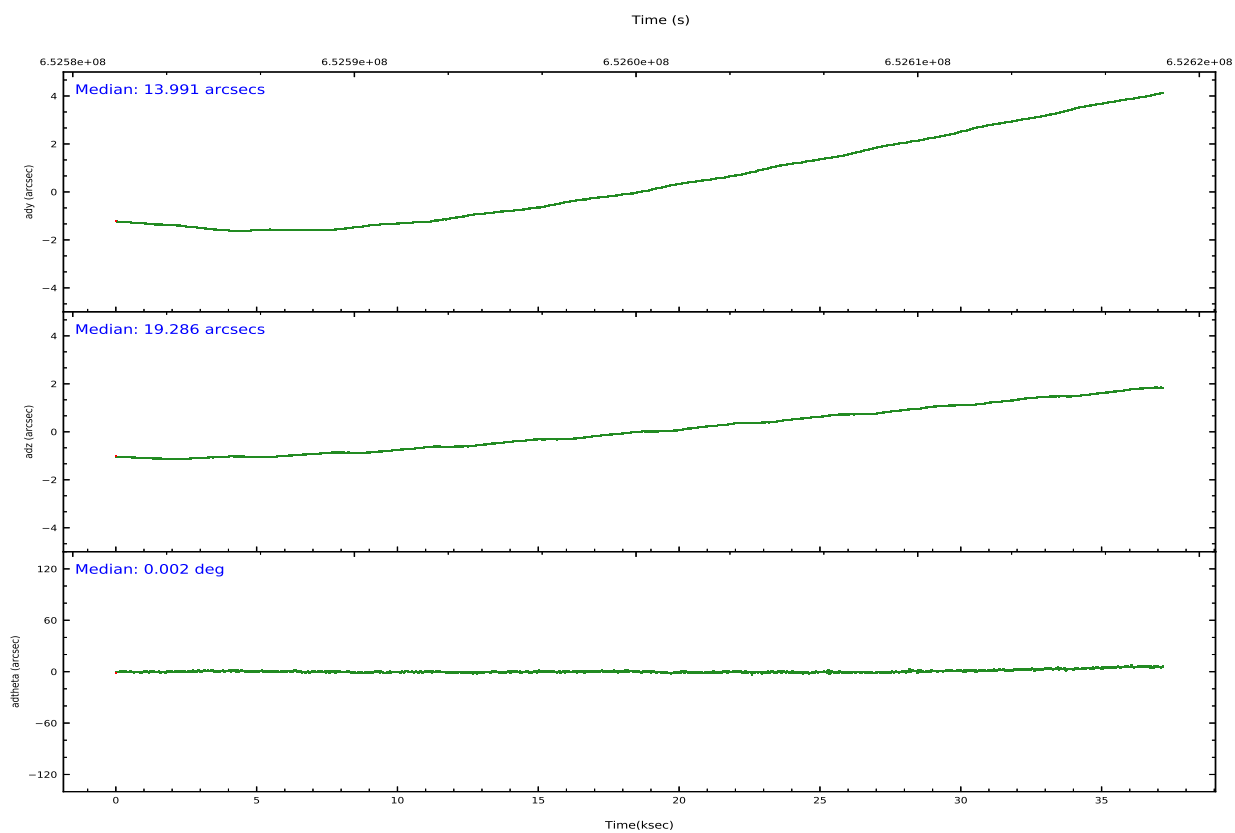
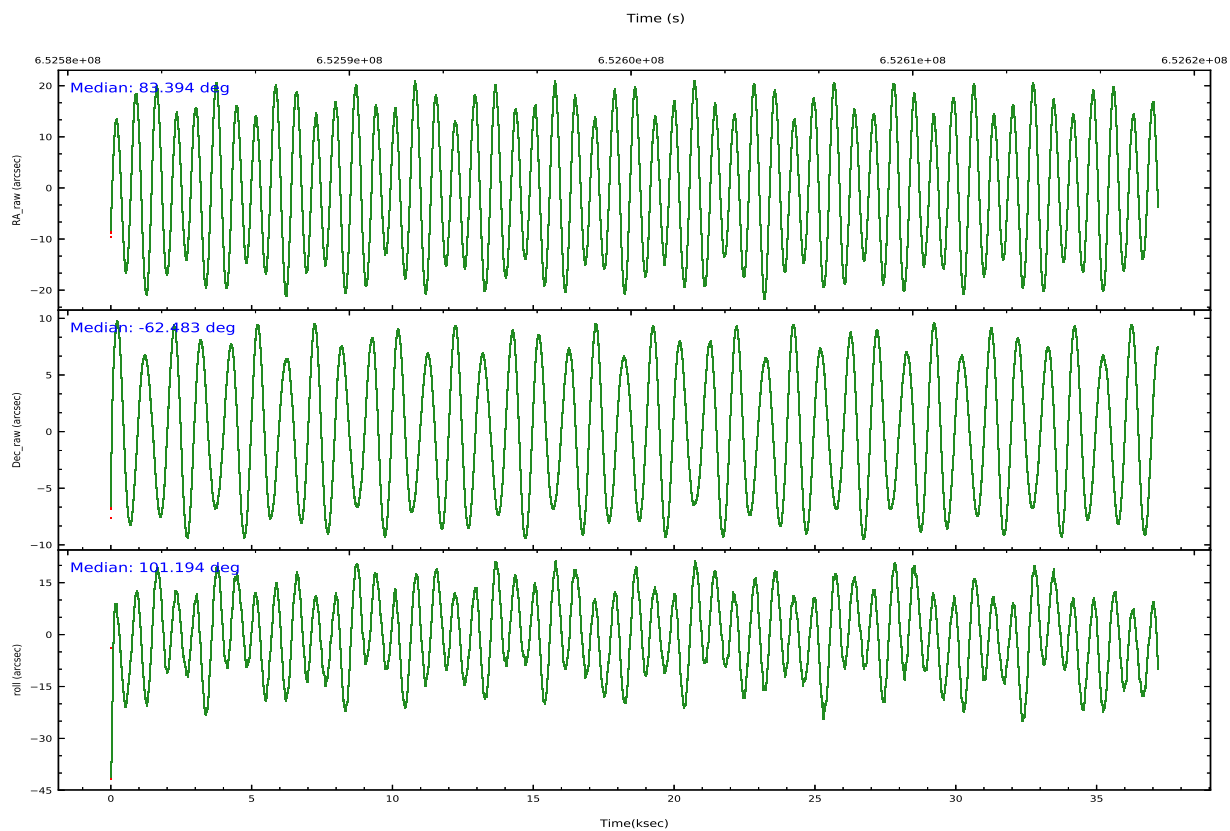
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	11054	12257	13648	11670
	4%	4%	4%	4%
grade 1 events	152	135	184	201
	0%	0%	0%	0%
grade 2 events	8056	20520	8090	8317
	3%	7%	2%	2%
grade 3 events	3213	3297	3131	3065
	1%	1%	1%	1%
grade 4 events	2984	3253	3282	3050
	1%	1%	1%	1%
grade 5 events	12133	12570	11150	13390
	4%	4%	3%	4%
grade 6 events	6518	7600	6103	6158
	2%	2%	2%	2%
grade 7 events	208477	211341	238163	232211
	82%	77%	83%	83%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-0123	ACIS-0123	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	83.433603	83.407649044965	Subarray requested	NONE	NONE
[deg] Pointing Dec	-62.503463	-62.485834423515	Alternating exposures requested	N	N
[deg] Pointing Roll	101.022957	101.19395849289	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
Phase constraints	Y	Y			
[d] Phase period	9.842600	9.842600			
[d] Phase epoch (MJD)	56367.524600	56367.524600			
Phase start	0.140000	0.140000			
Phase end	0.200000	0.200000			
Phase start error	0.020000	0.020000			
Phase end error	0.020000	0.020000			
[s] Observation start time (MET)	652581715.184000	652580678.76819			
Observation start date	2018-09-06T00:40:46	2018-09-06T00:24:38			
[s] Observation end time (MET)	652618715.184000	652619550.8705			
Observation end date	2018-09-06T10:57:26	2018-09-06T11:12:30			
Read mode	TIMED	TIMED			

2.3 Aspect



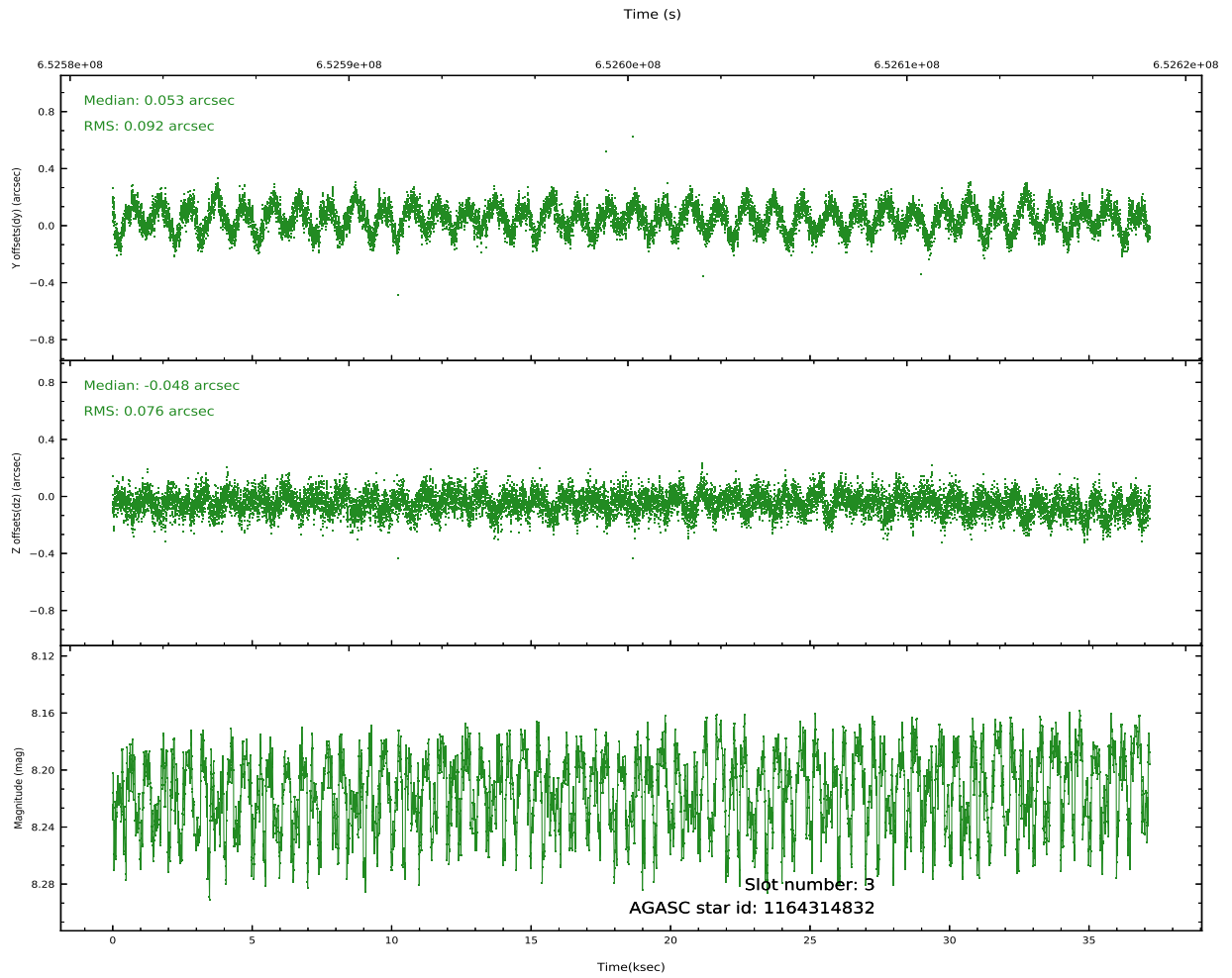
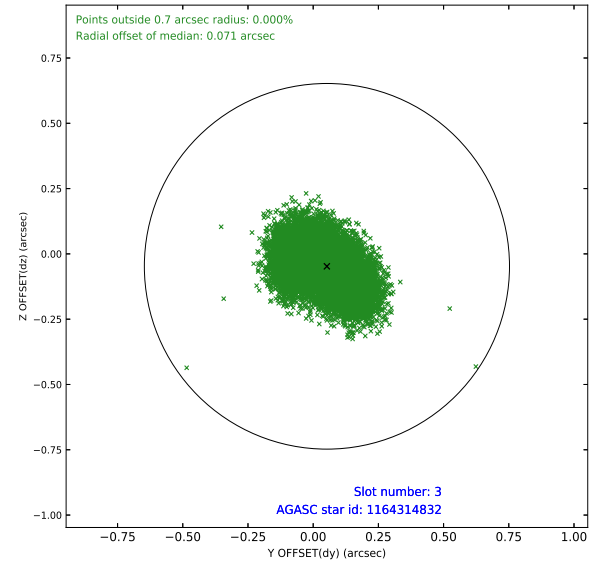
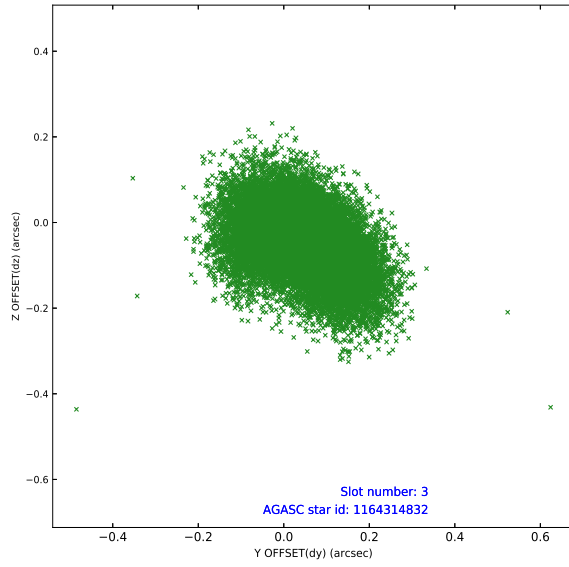


Slot Statistics

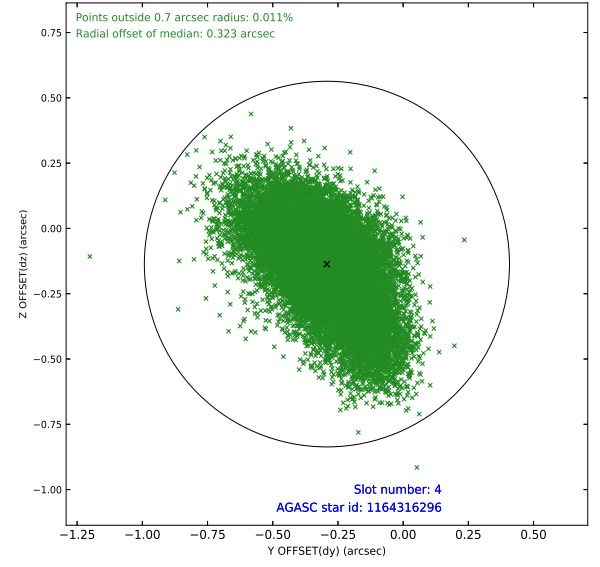
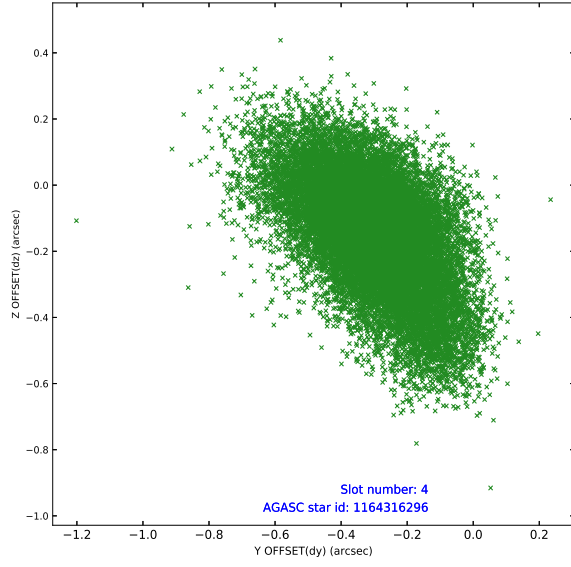
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.11	9070	1.000	0.115	-0.051	0.045	0.101	0.000000	0.000000	925.08	-843
1	FID		ACIS-I-4	7.08	9068	1.000	0.125	0.008	0.036	0.053	0.000000	0.000000	2145.27	1056
2	FID		ACIS-I-5	7.09	9070	1.000	-0.333	0.115	0.028	0.064	0.000000	0.000000	-1823.21	1054
3	GUIDE	used	1164314832	8.21	18128	1.000	0.053	-0.048	0.128	0.203	83.906470	-62.052128	1438.78	-1093
4	GUIDE	used	1164316296	9.73	18117	1.000	-0.292	-0.137	0.230	0.411	82.512520	-62.448874	474.51	1470
5	GUIDE	used	1164320624	9.02	18123	1.000	-0.043	-0.163	0.132	0.215	84.105569	-62.319861	428.39	-1228
6	GUIDE	used	1164320776	7.53	18136	1.000	0.020	0.204	0.112	0.180	85.024616	-62.937430	-2063.24	-2252
7	GUIDE	used	1164321856	9.05	18045	1.000	0.268	0.142	0.174	0.303	84.402690	-62.802970	-1374.17	-1356

2.4 Star Slots

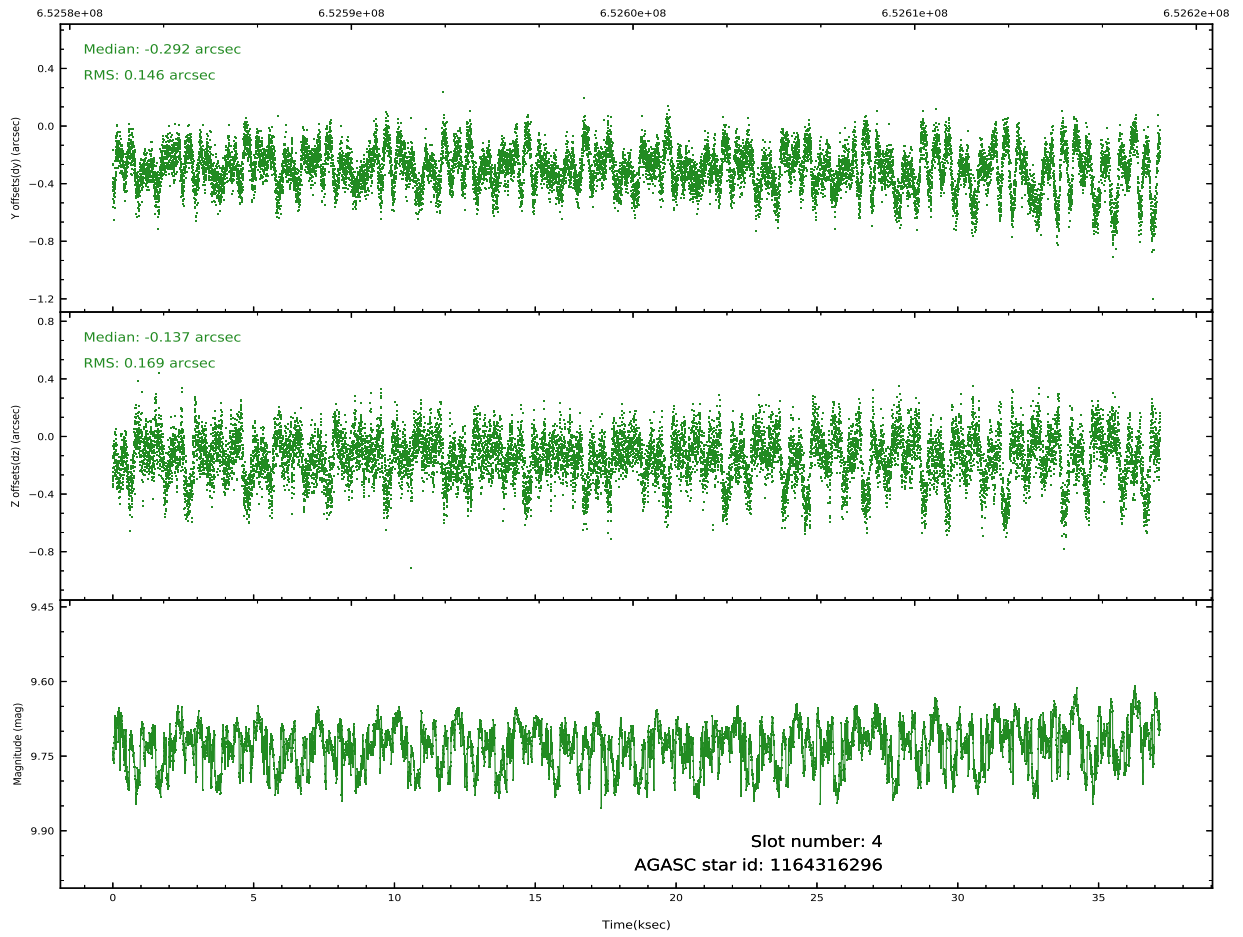
2.4.1 Slot 3



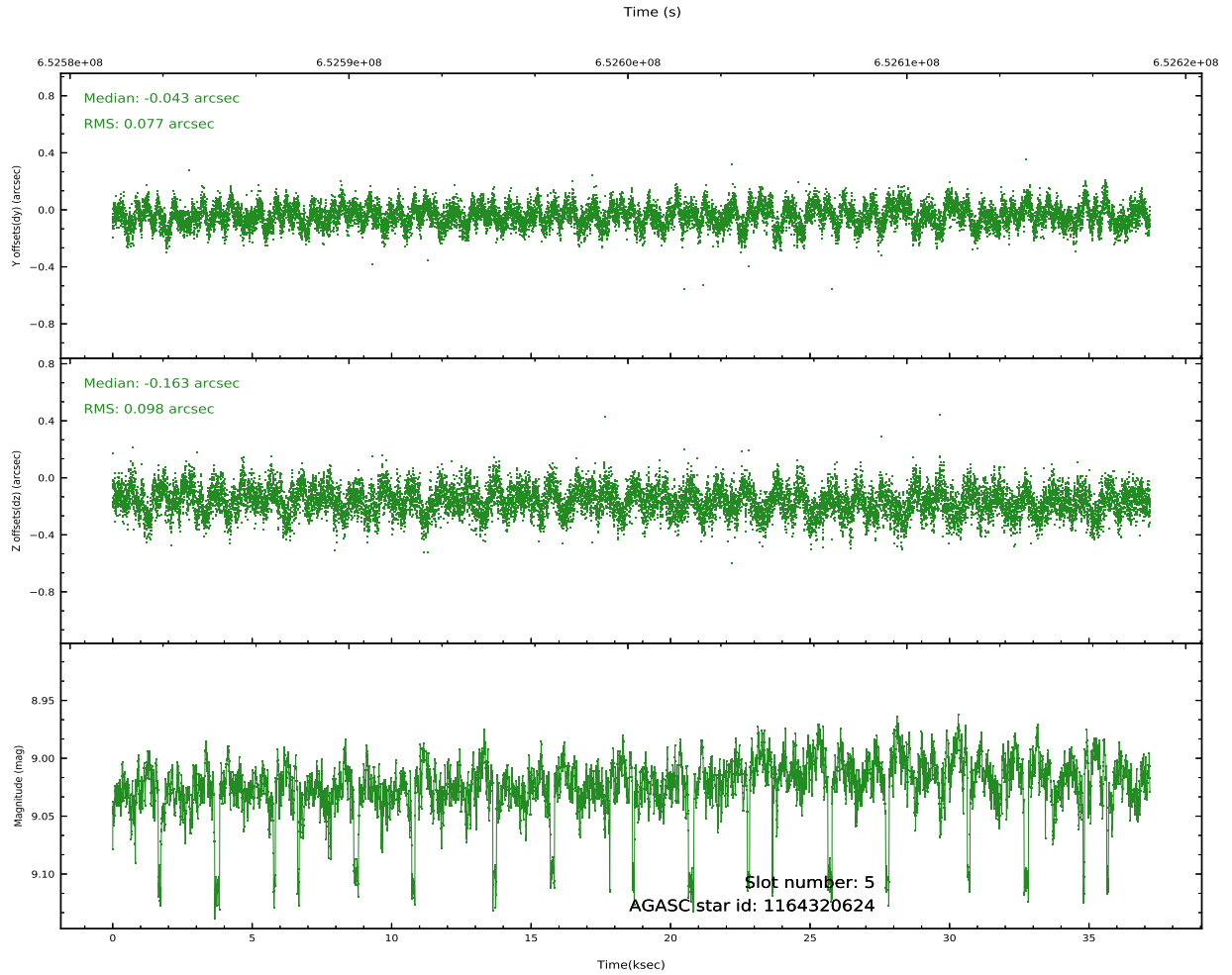
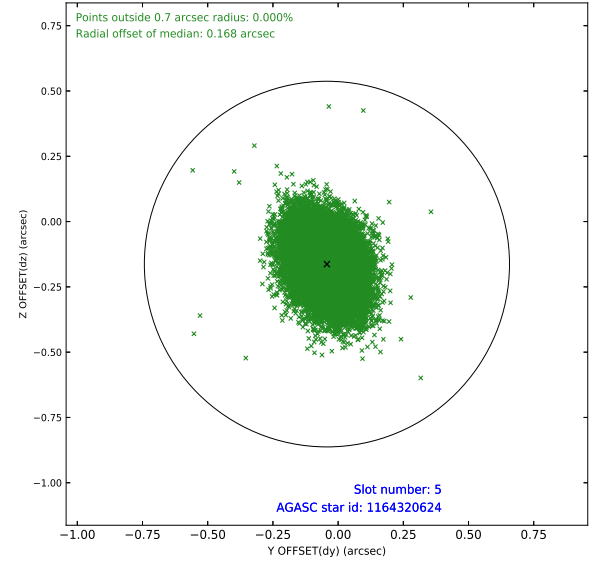
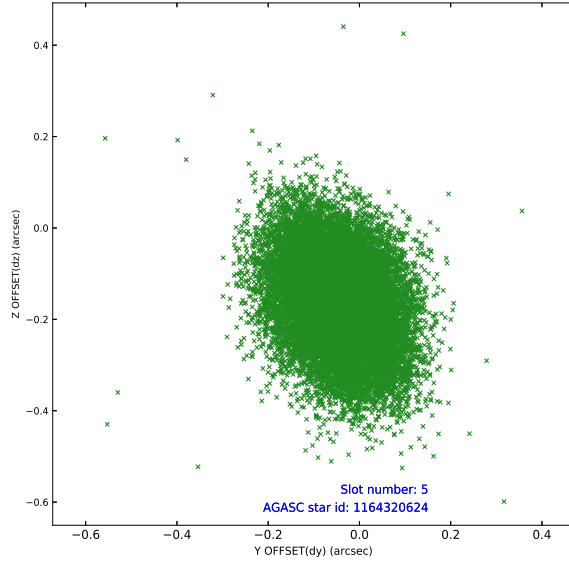
2.4.2 Slot 4



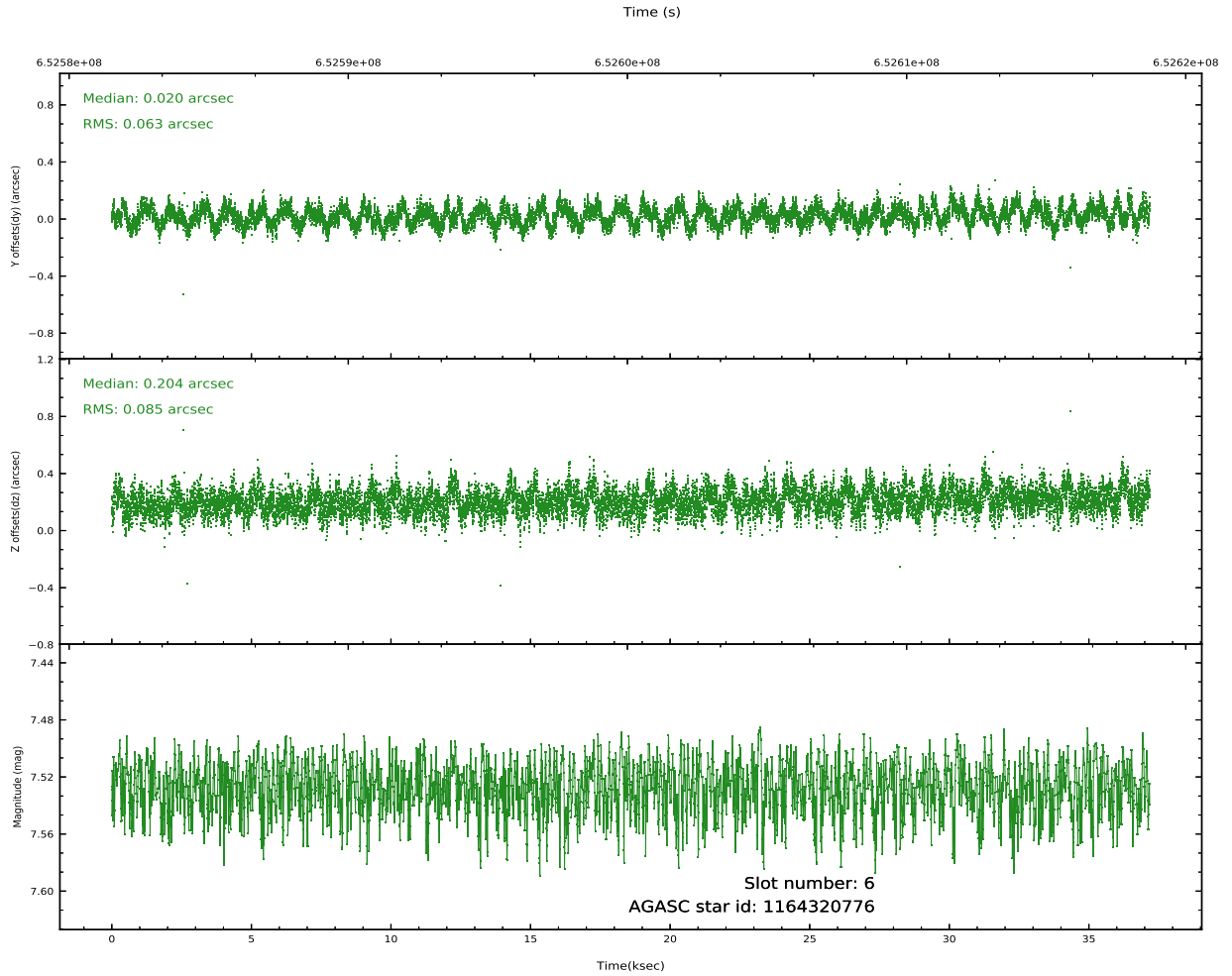
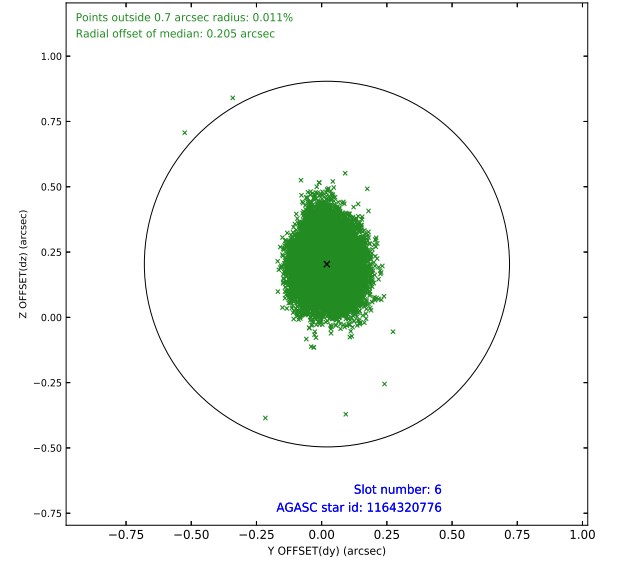
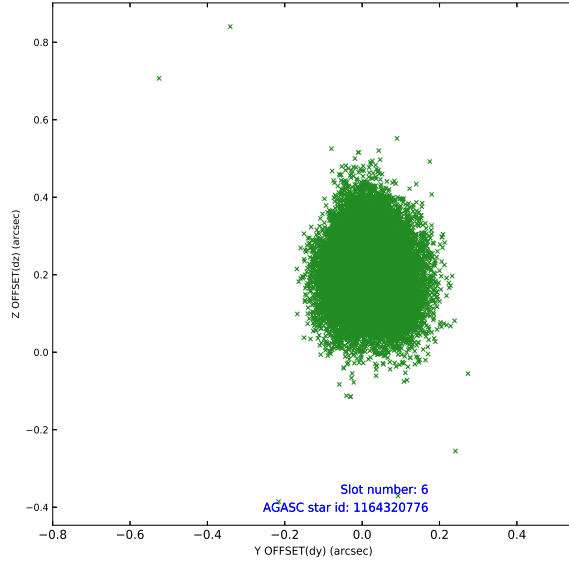
Time (s)



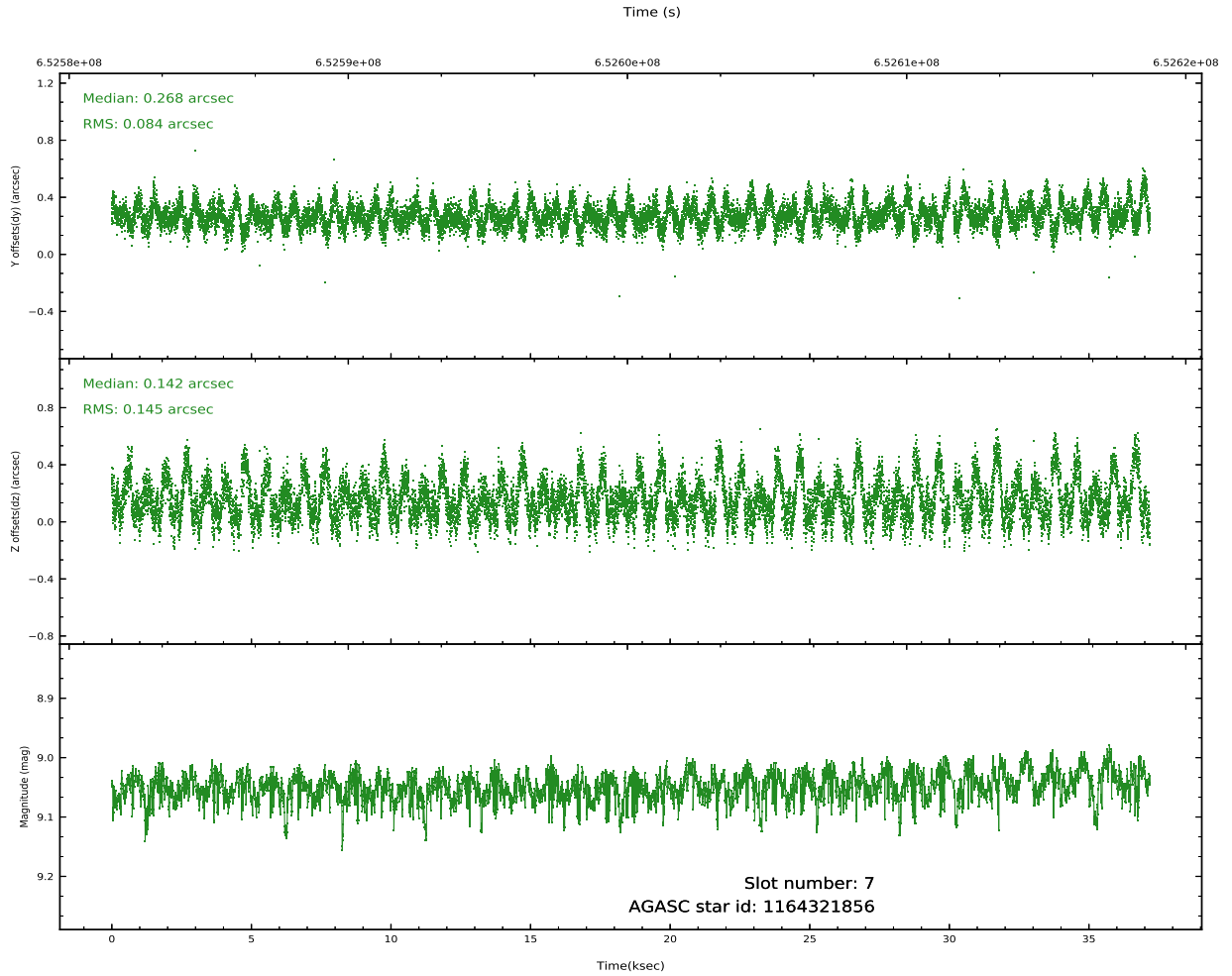
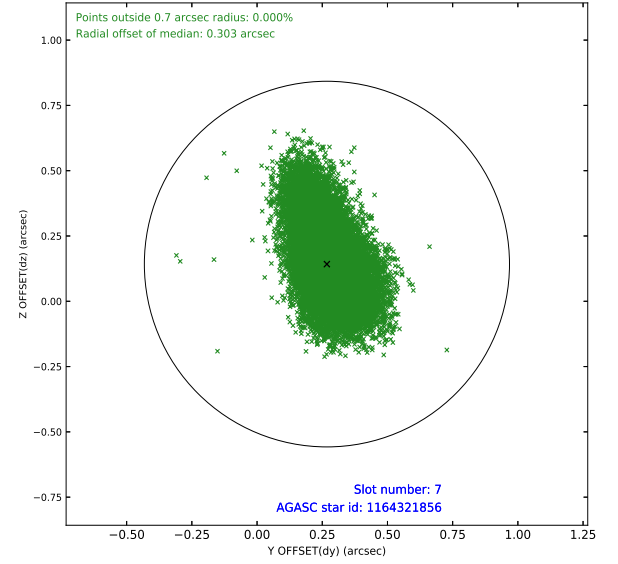
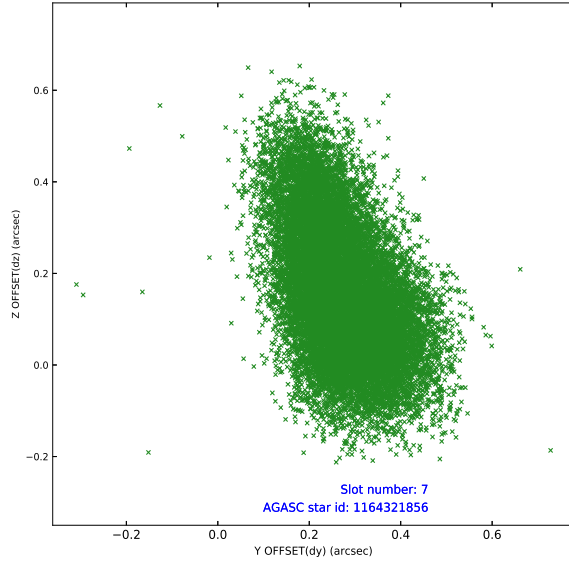
2.4.3 Slot 5



2.4.4 Slot 6

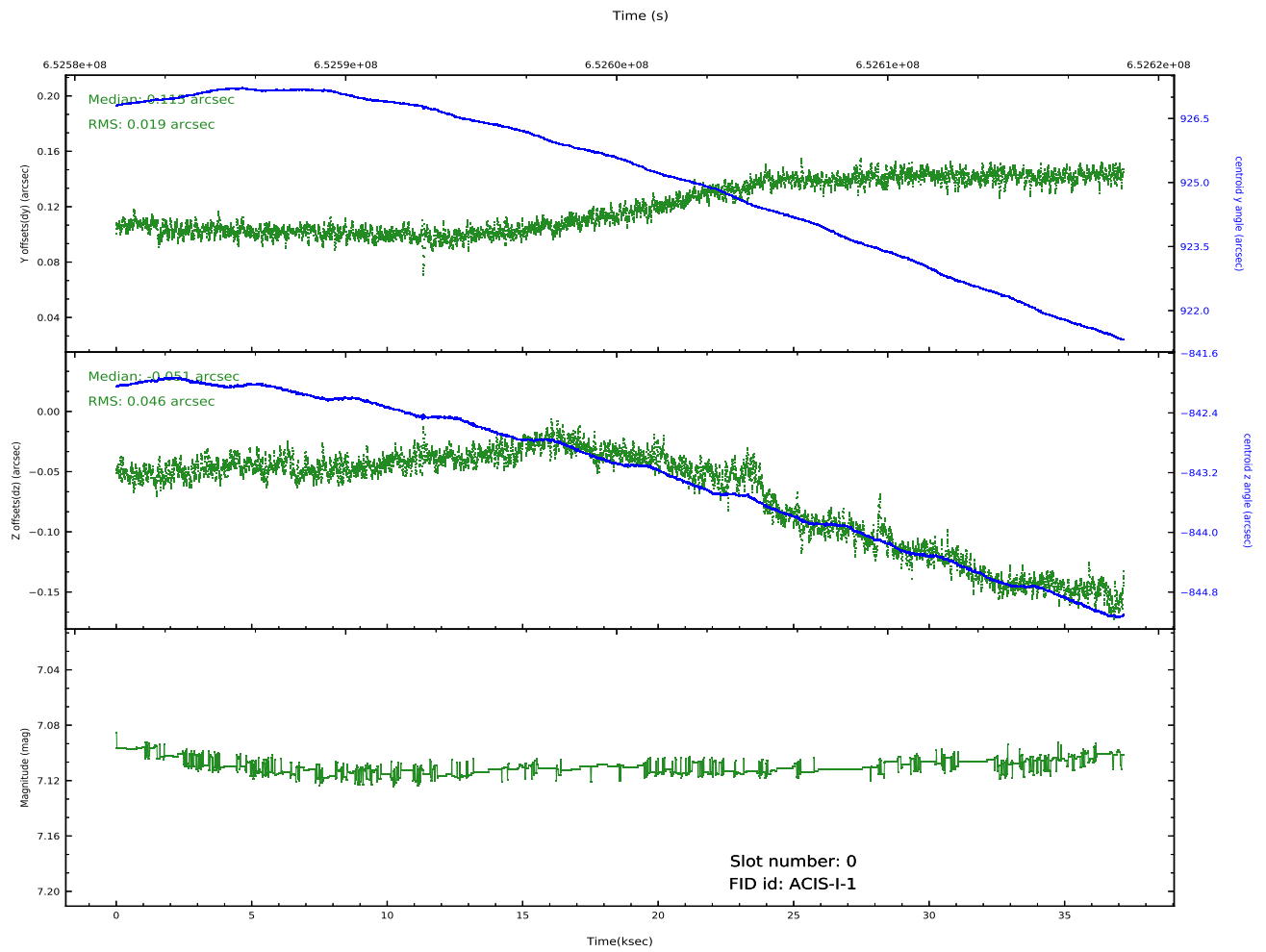
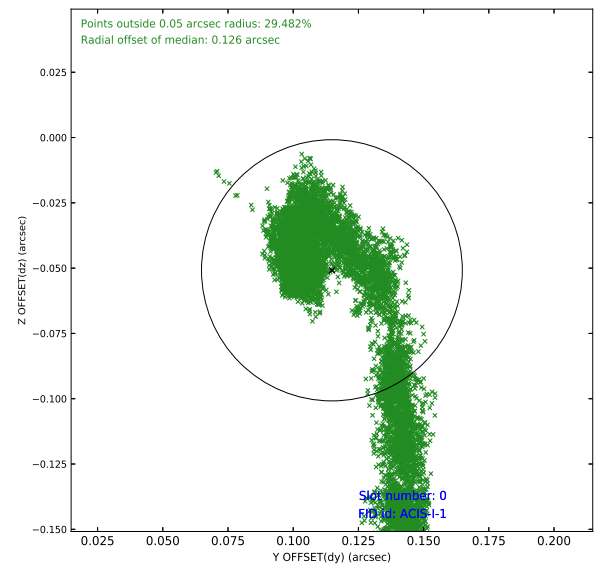
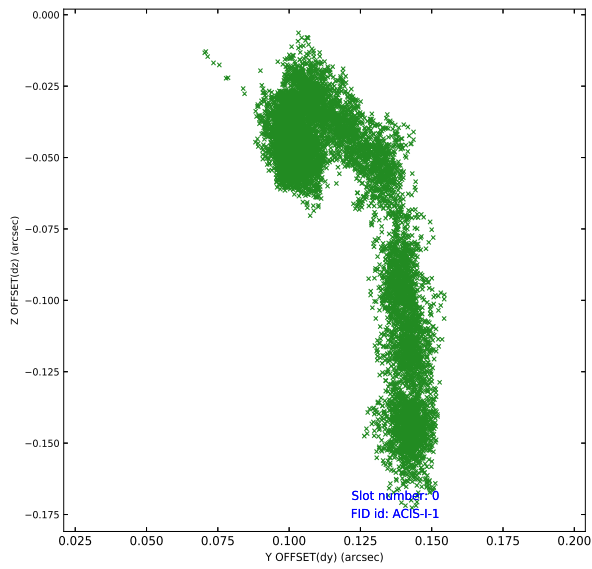


2.4.5 Slot 7

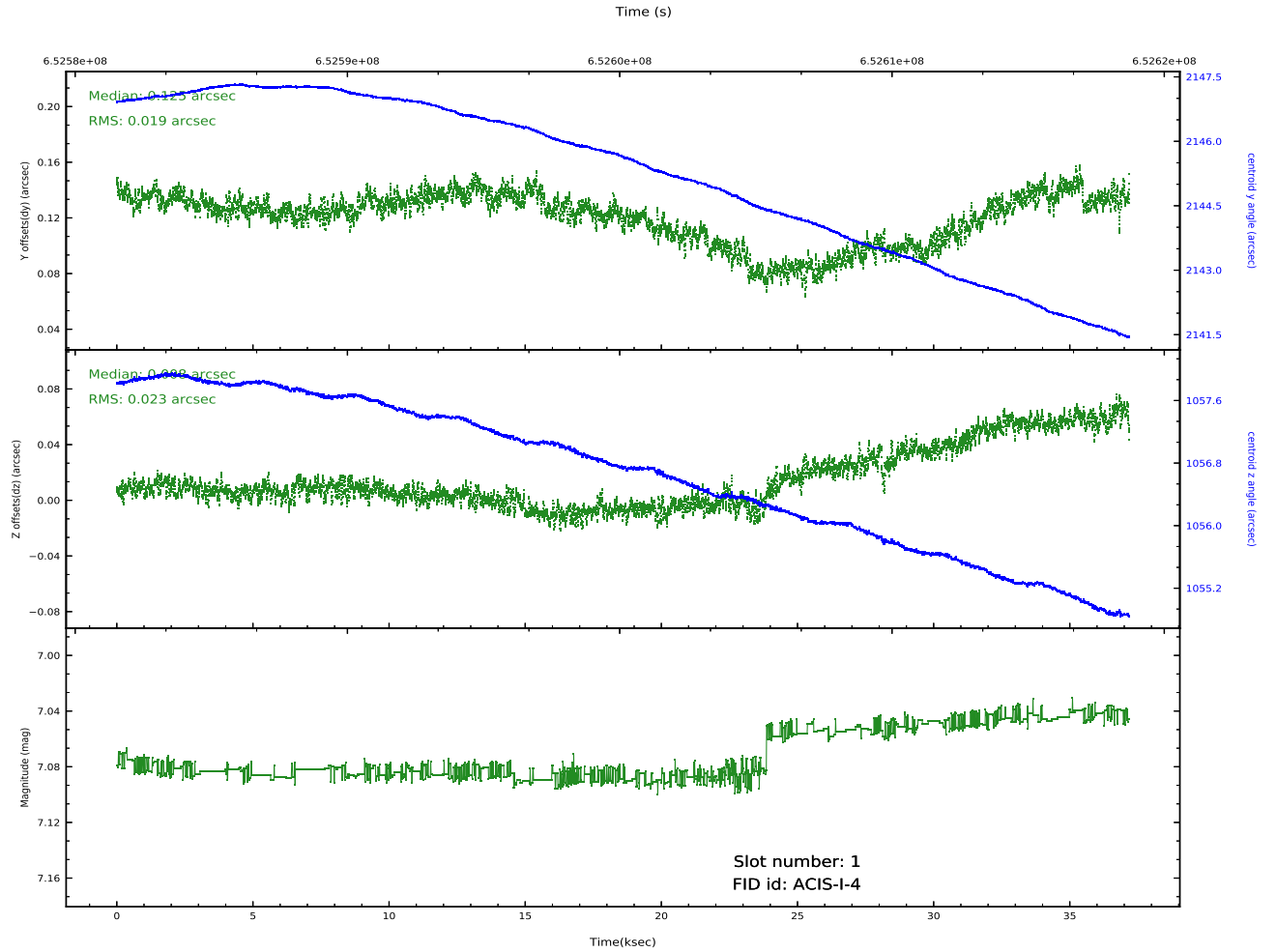
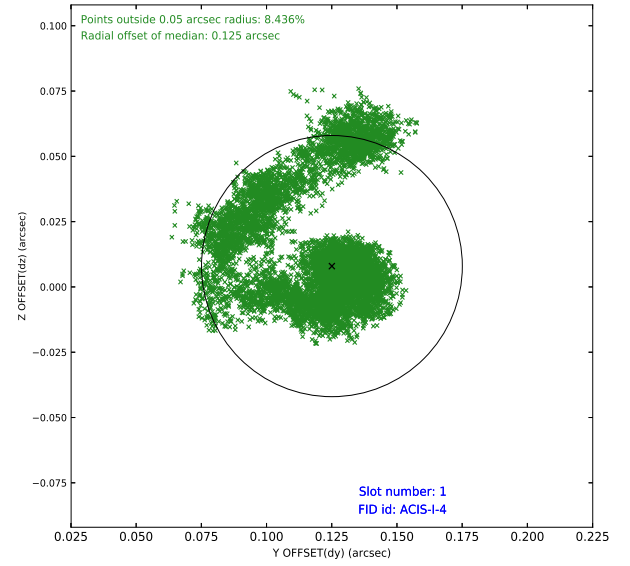
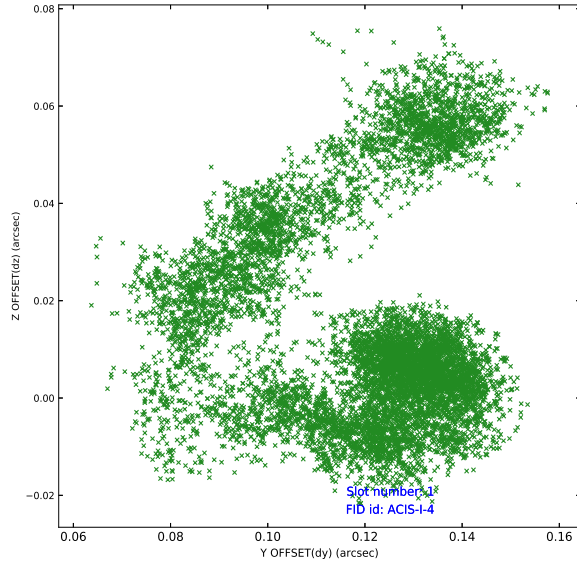


2.5 FID Slots

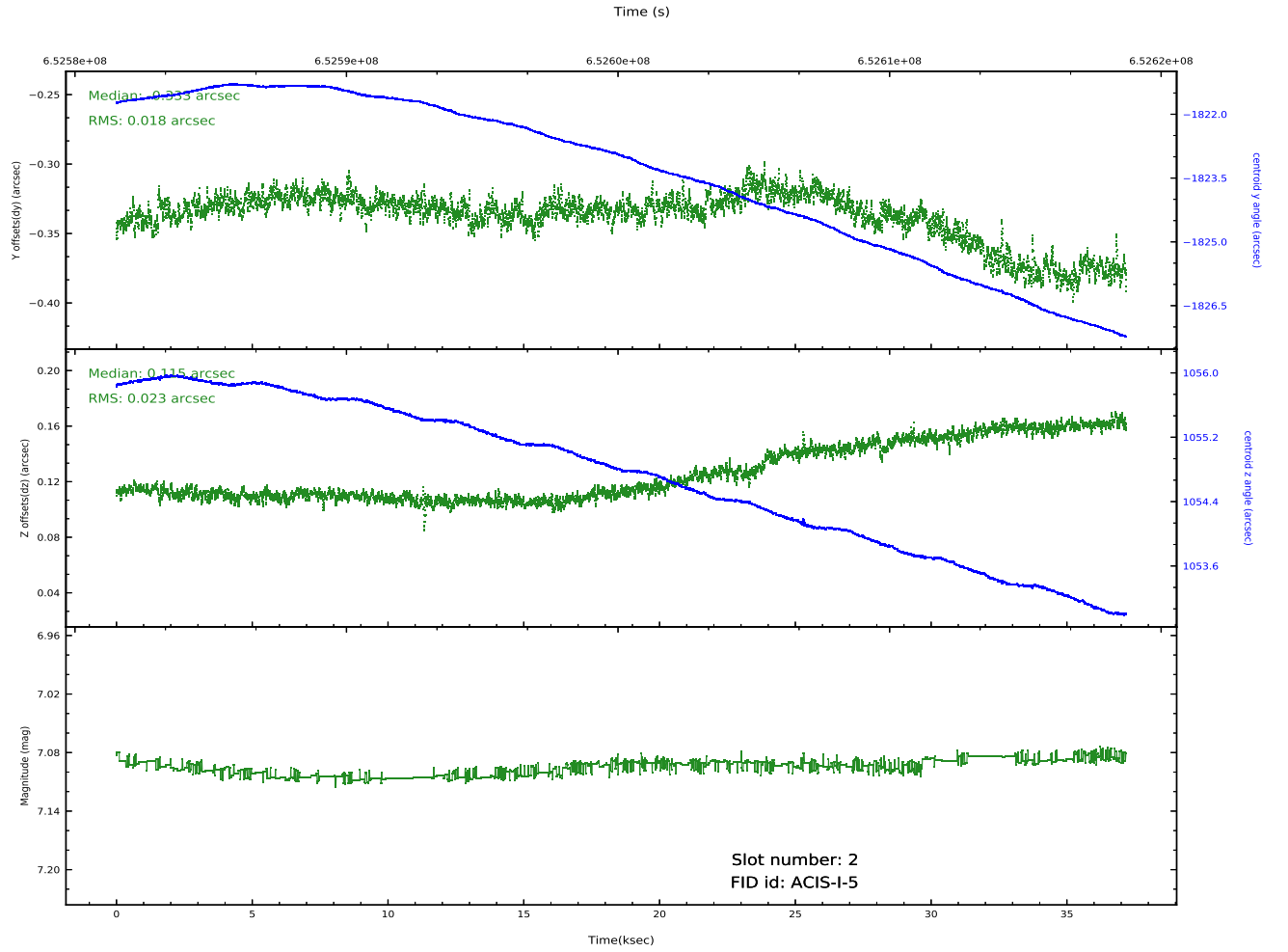
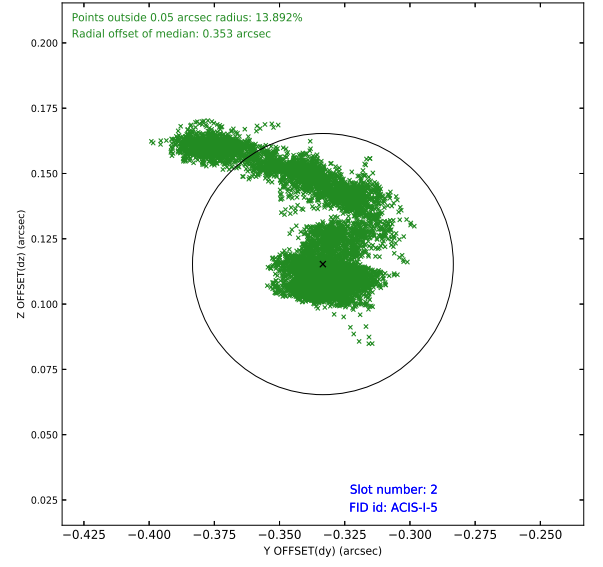
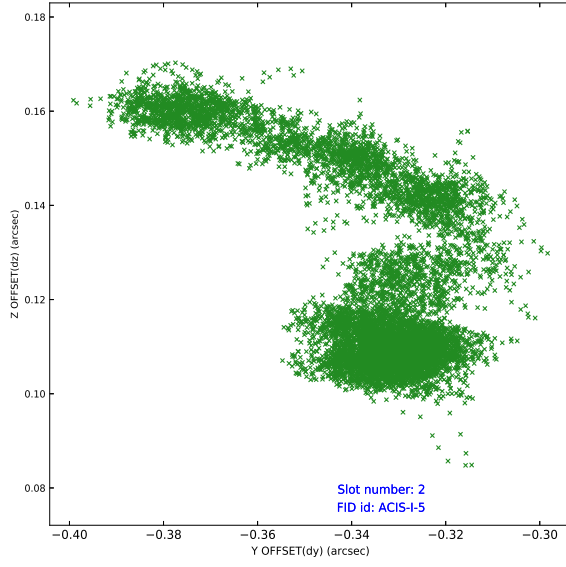
2.5.1 Slot 0



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)	2020.10.28
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	37.077859106779

A.2 Comments

Phase constraint met.