

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 6391 - L2 Version 5
Chandra X-Ray Center

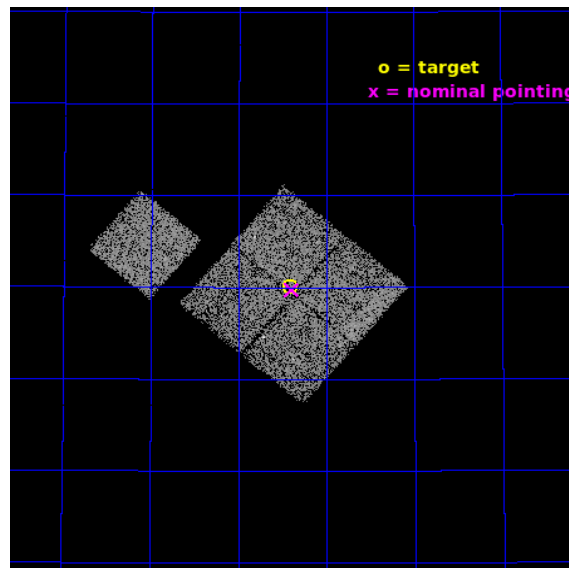
L2 Processing Date : Oct 10 2020

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

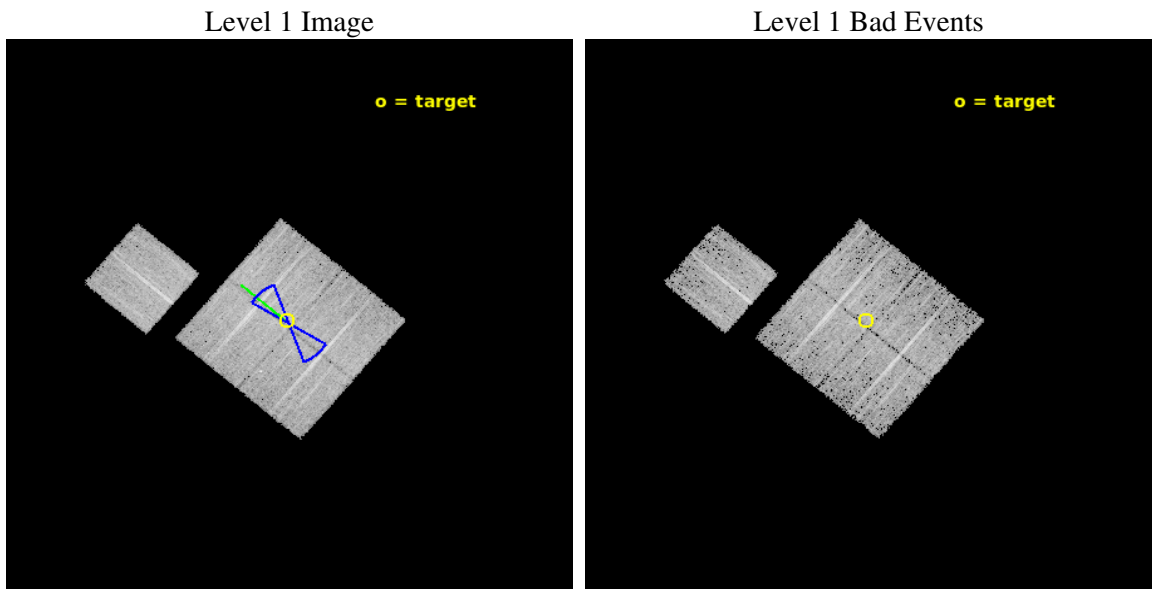
seq_num	900353	Sequence number
obs_id	6391	Observation id
title	Deep Chandra Imaging of the Extended Groth Strip: The Co-evolution of Black Holes and Galaxies	Proposal title
observer	Prof Kirpal Nandra	Principal investigator
object	Extended Groth Strip (EGS)	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	214.102081	Observer's specified target RA [deg]
dec_targ	52.334053	Observer's specified target Dec [deg]
ra_nom	214.09845397621	Nominal RA [deg]
dec_nom	52.329098751701	Nominal Dec [deg]
roll_nom	310.20845002175	Nominal Roll [deg]
revision	5	Processing version of data
ontime	8565.2999835014	Sum of GTIs [s]
livetime	8453.3880335349	Livetime [s]
ontime0	8565.2999835014	Sum of GTIs [s]
ontime1	8565.2999835014	Sum of GTIs [s]
ontime2	8565.2999835014	Sum of GTIs [s]
ontime3	8565.2999835014	Sum of GTIs [s]
ontime6	8565.2999835014	Sum of GTIs [s]
l2events	28281	Number of level 2 events



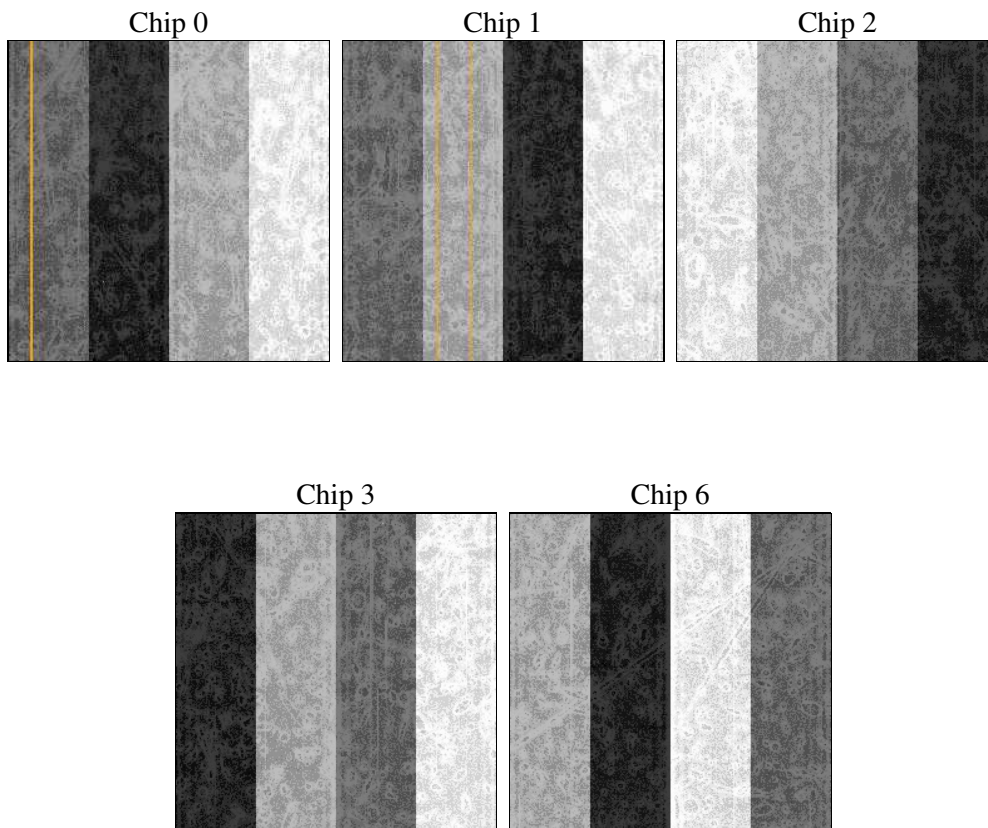
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	8389.742000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	8565.2999835014	Sum of GTIs [s]
caldsver	4.9.2	 	ontime0	8565.2999835014	Sum of GTIs [s]
date	2020-10-10T13:09:42	Date and time of file creation	ontime1	8565.2999835014	Sum of GTIs [s]
revision	5	Processing version of data	ontime2	8565.2999835014	Sum of GTIs [s]
			ontime3	8565.2999835014	Sum of GTIs [s]
			ontime6	8565.2999835014	Sum of GTIs [s]
			l1events	232171	Number of level 1 events

2.1.4 Events

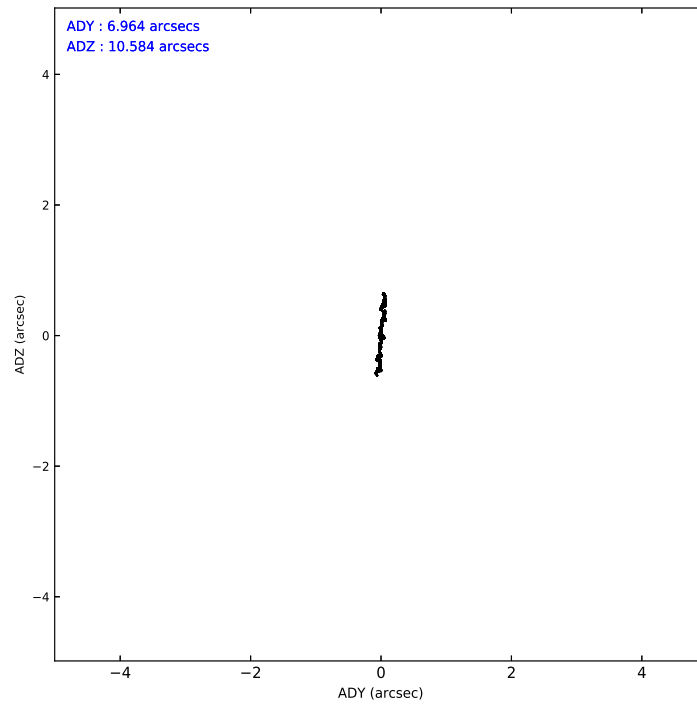
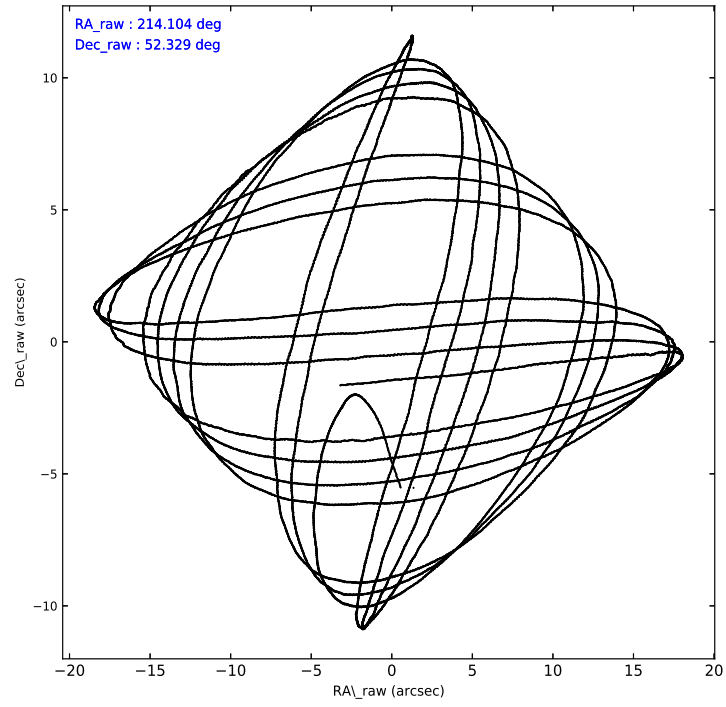
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	44050	44254	48337	47813	47717
rejected events	37476	37058	41839	41744	40370
rejected %	85%	83%	86%	87%	84%

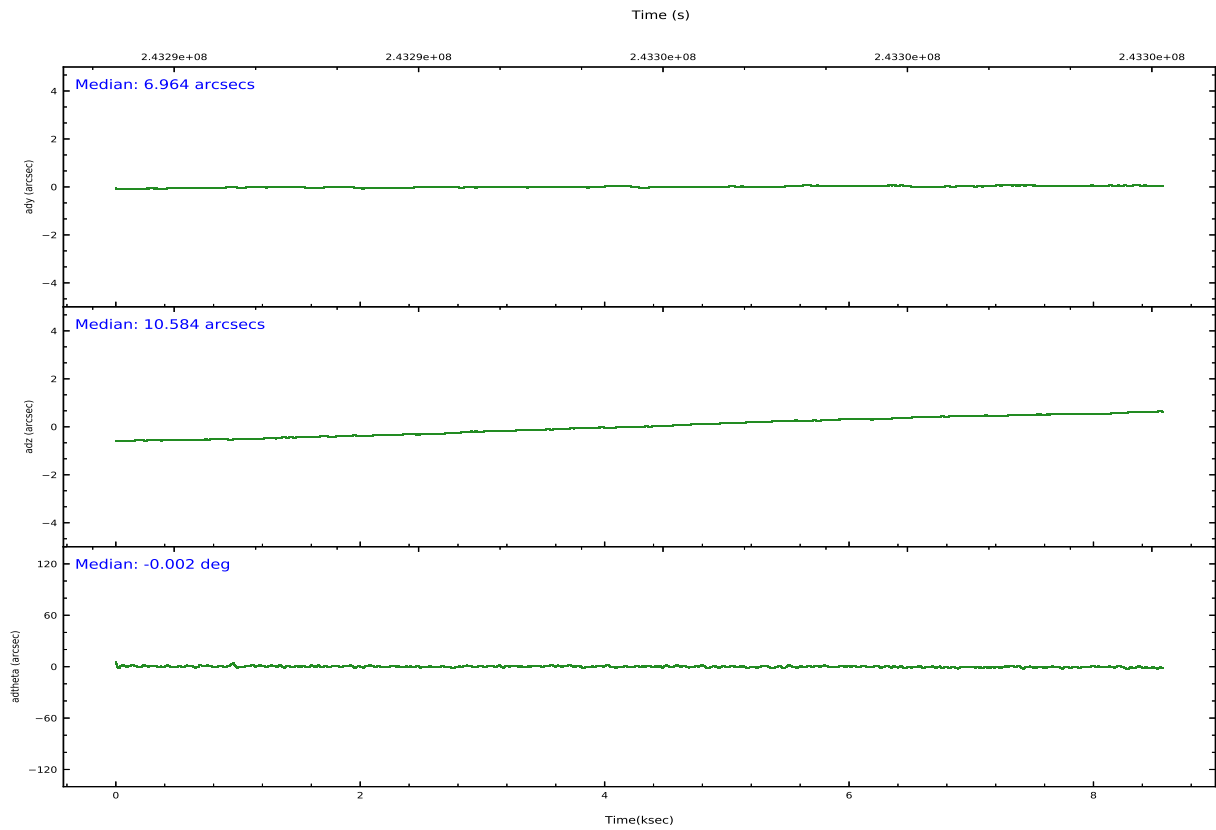
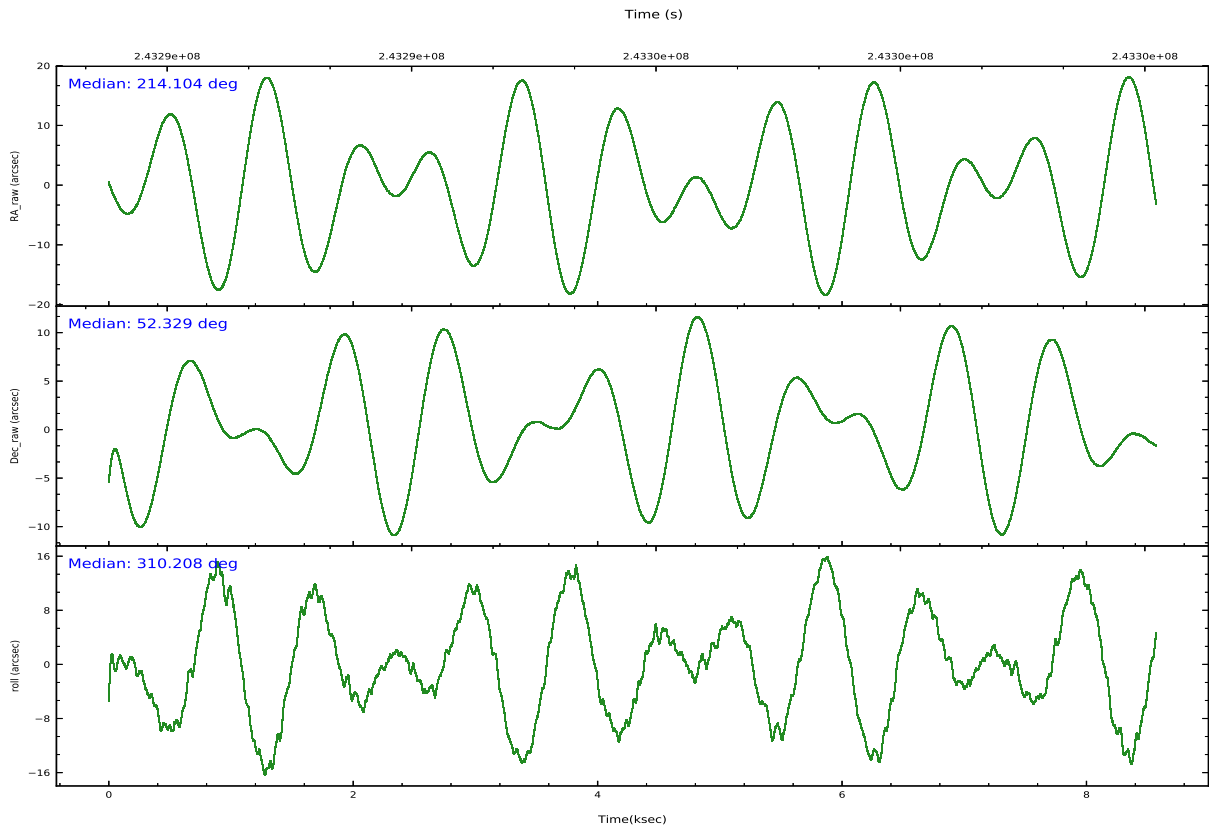
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	3043	3318	3092	2746	3638
	6%	7%	6%	5%	7%
grade 1 events	34	21	27	32	31
	0%	0%	0%	0%	0%
grade 2 events	1477	1513	1439	1184	1363
	3%	3%	2%	2%	2%
grade 3 events	589	647	548	640	617
	1%	1%	1%	1%	1%
grade 4 events	556	616	596	538	585
	1%	1%	1%	1%	1%
grade 5 events	1596	1712	1453	1789	1814
	3%	3%	3%	3%	3%
grade 6 events	1066	1304	985	1109	1303
	2%	2%	2%	2%	2%
grade 7 events	35689	35123	40197	39775	38366
	81%	79%	83%	83%	80%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-01236	ACIS-01236	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	214.062099	214.09845397621	Subarray requested	NONE	NONE
[deg] Pointing Dec	52.338792	52.329098751701	Alternating exposures requested	N	N
[deg] Pointing Roll	310.031650	310.20845002175	[s] Primary exposure time	0.000000	3.1
[deg] Roll angle	50.756000	50.756000			
[deg] Roll tolerance	20.000000	20.000000			
Roll constraint allows 180D rotation	Y	Y			
[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			
[s] Observation start time (MET)	243291703.184000	243290581.96781			
Observation start date	2005-09-16T21:00:39	2005-09-16T20:43:01			
[s] Observation end time (MET)	243300093.184000	243300326.13076			
Observation end date	2005-09-16T23:20:29	2005-09-16T23:25:26			
Read mode	TIMED	TIMED			

2.3 Aspect





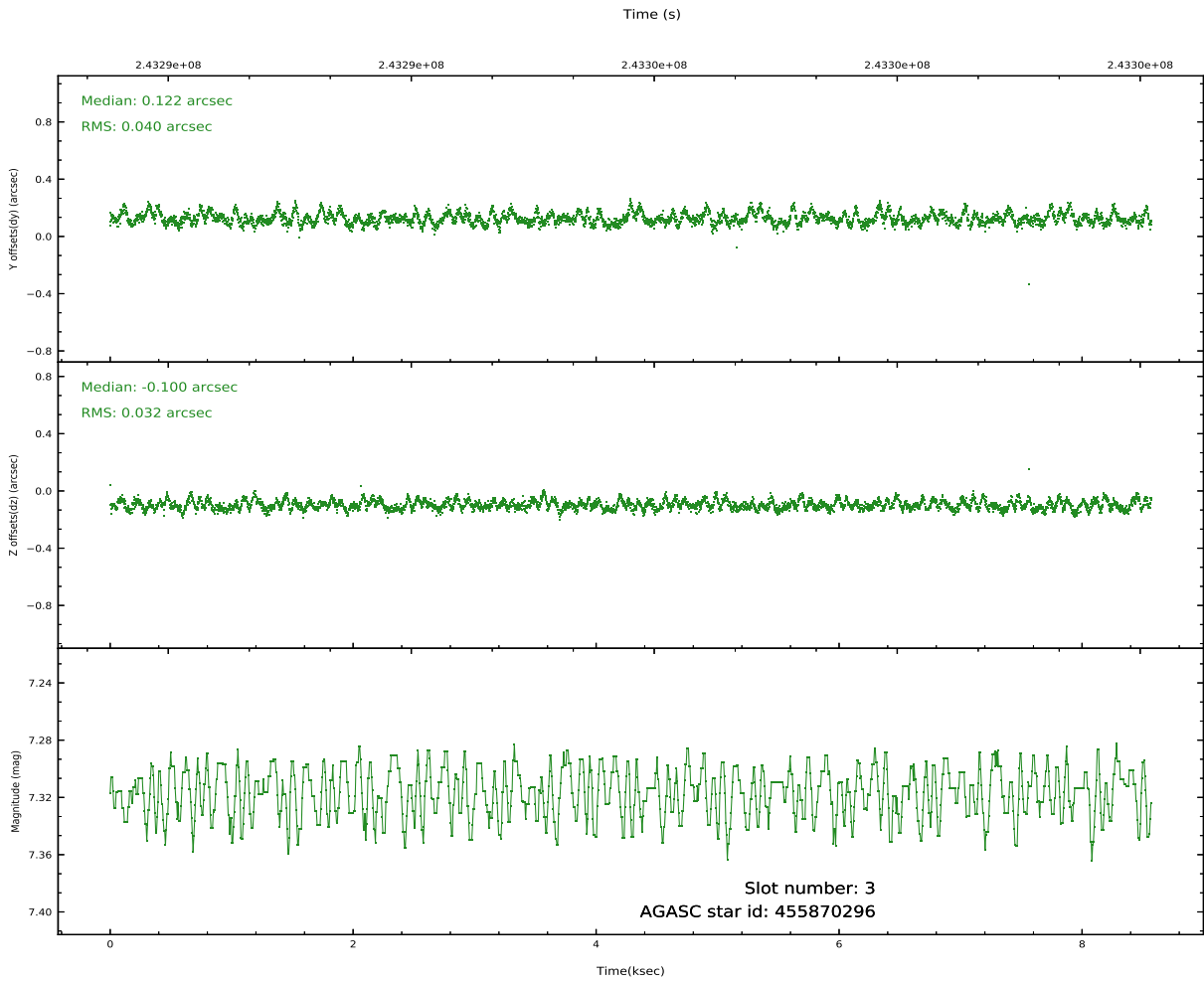
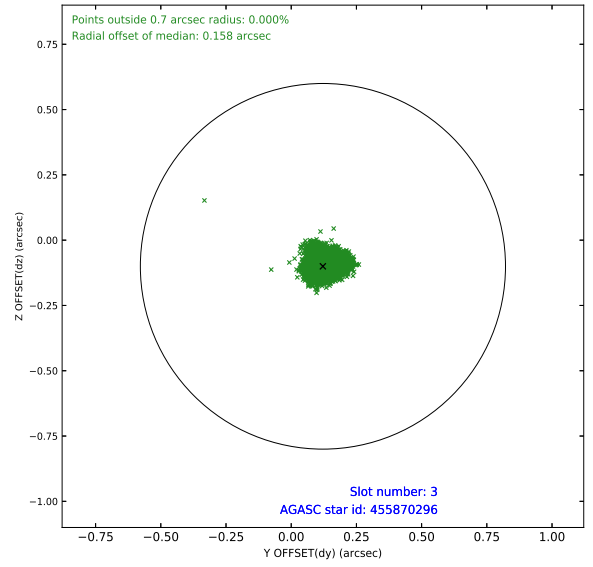
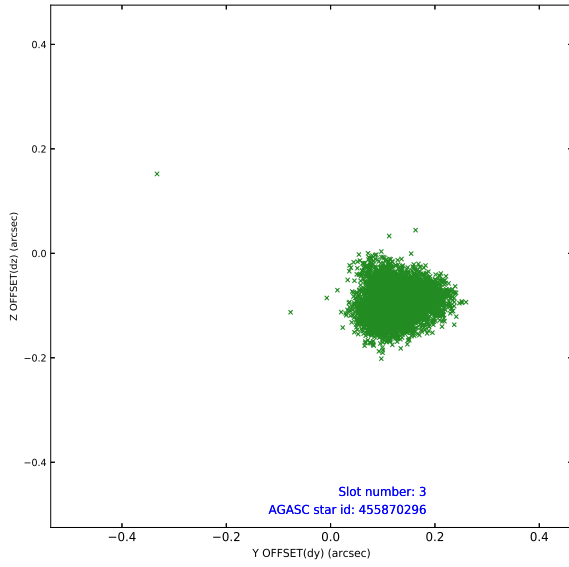
Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-2	7.14	2091	1.000	-0.181	-0.124	0.012	0.019	0.000000	0.000000	-761.64	-840
1	FID		ACIS-I-4	7.18	2091	1.000	0.098	0.091	0.013	0.021	0.000000	0.000000	2152.40	1065
2	FID		ACIS-I-6	7.26	2091	1.000	-0.016	0.095	0.013	0.024	0.000000	0.000000	399.43	1708
3	GUIDE	used	455870296	7.32	4182	1.000	0.122	-0.100	0.055	0.089	214.629779	52.033323	1646.79	258
4	GUIDE	used	455871352	8.10	4181	1.000	-0.011	0.128	0.047	0.077	215.099961	52.172669	1919.38	1380
5	GUIDE	used	505806936	7.02	4182	1.000	-0.039	-0.184	0.068	0.111	213.820815	52.535927	-883.76	52
6	GUIDE	used	505812376	7.63	4181	1.000	-0.077	0.002	0.059	0.092	214.039537	52.937930	-1683.68	1349
7	GUIDE	used	504894728	8.82	4181	1.000	-0.004	0.148	0.060	0.099	213.220892	52.722550	-2246.42	-508

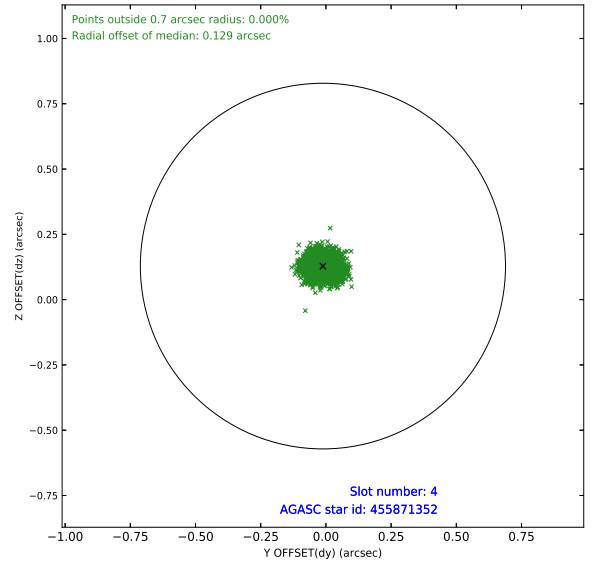
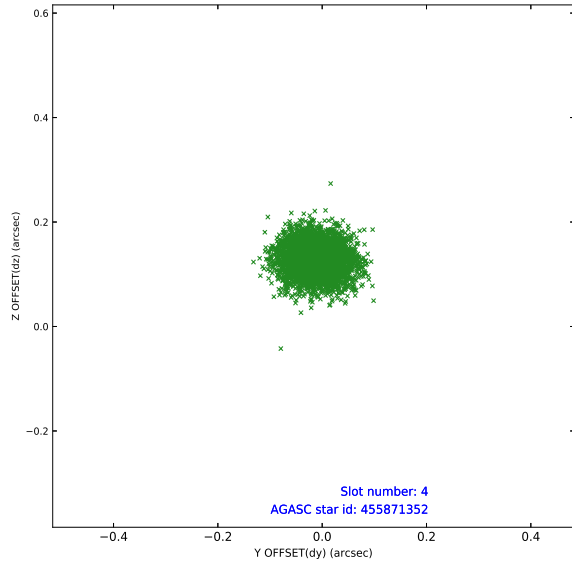
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2.4 Star Slots

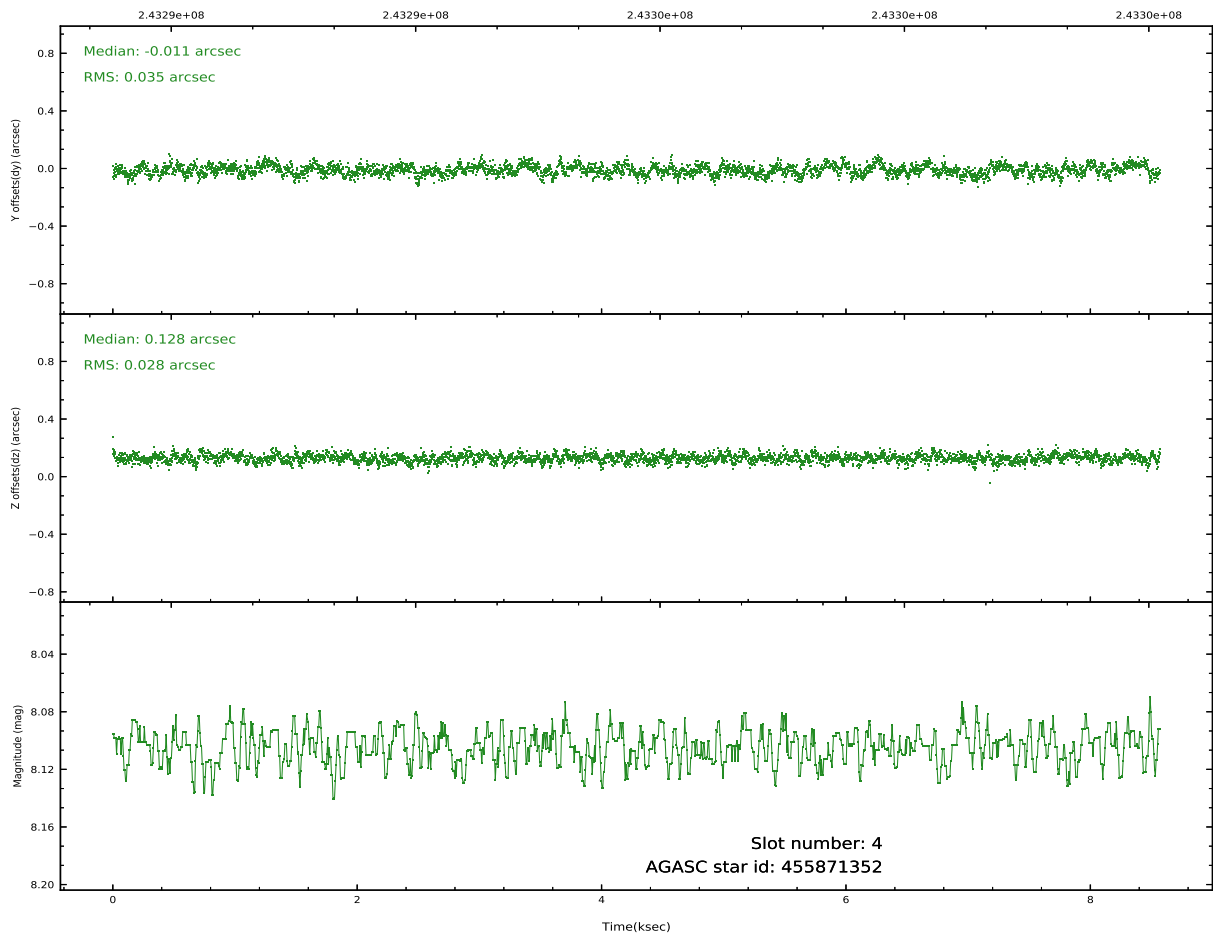
2.4.1 Slot 3



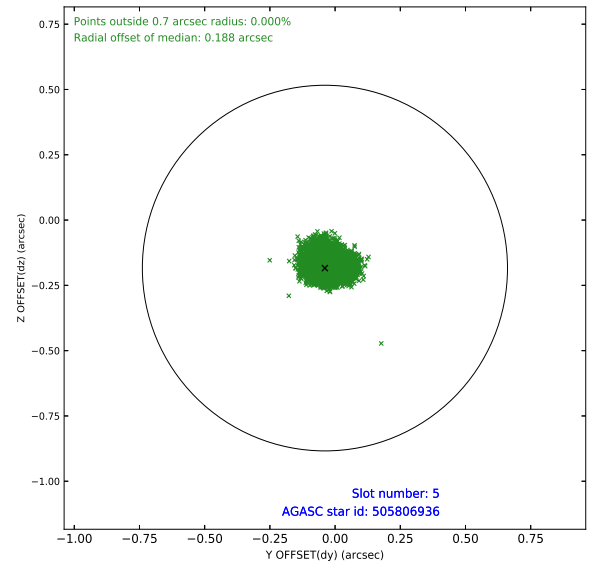
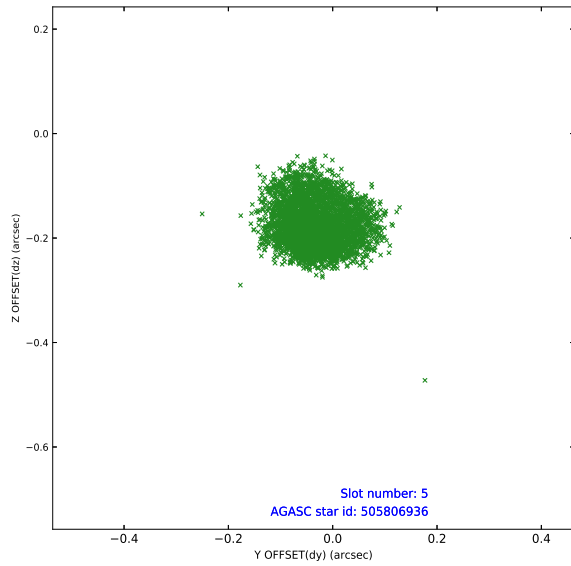
2.4.2 Slot 4



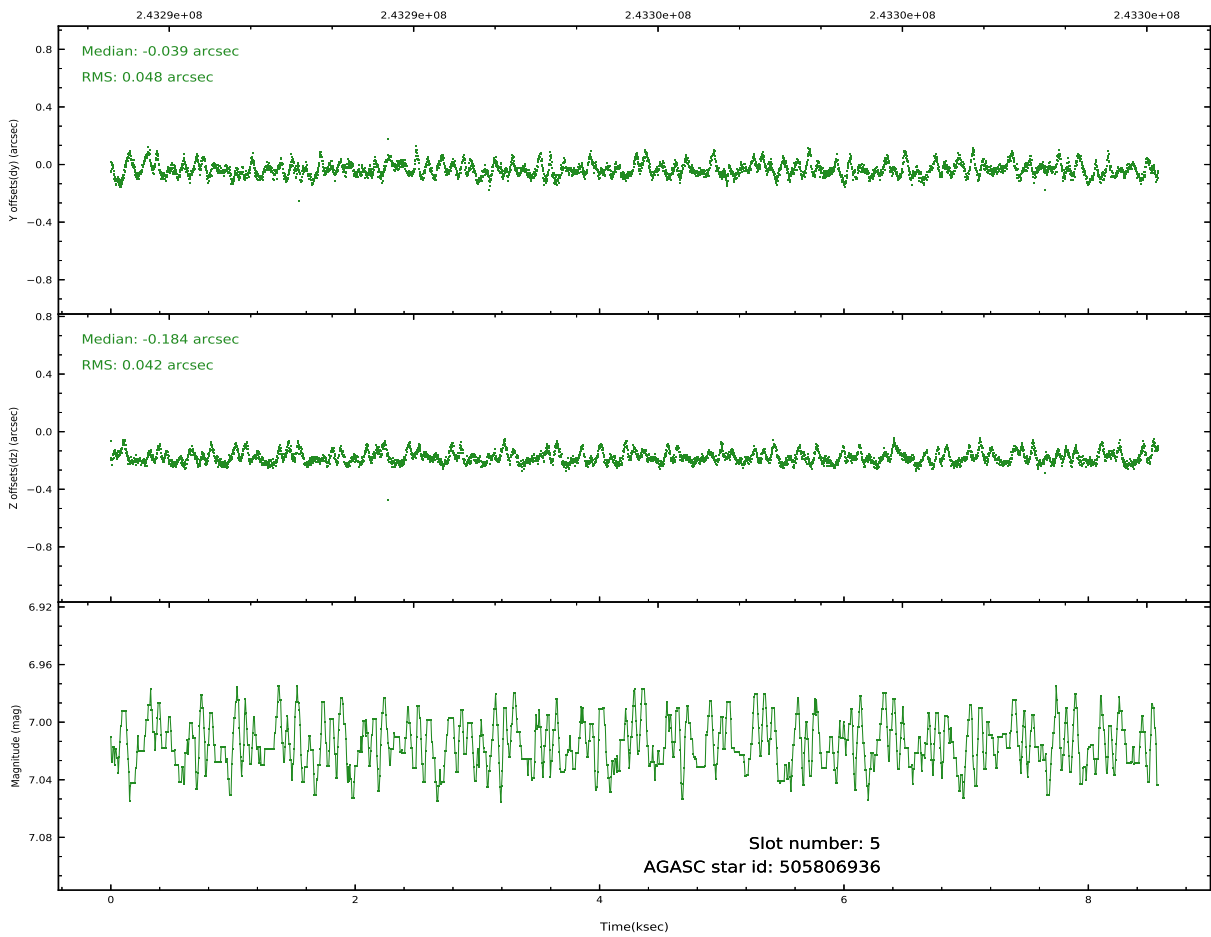
Time (s)



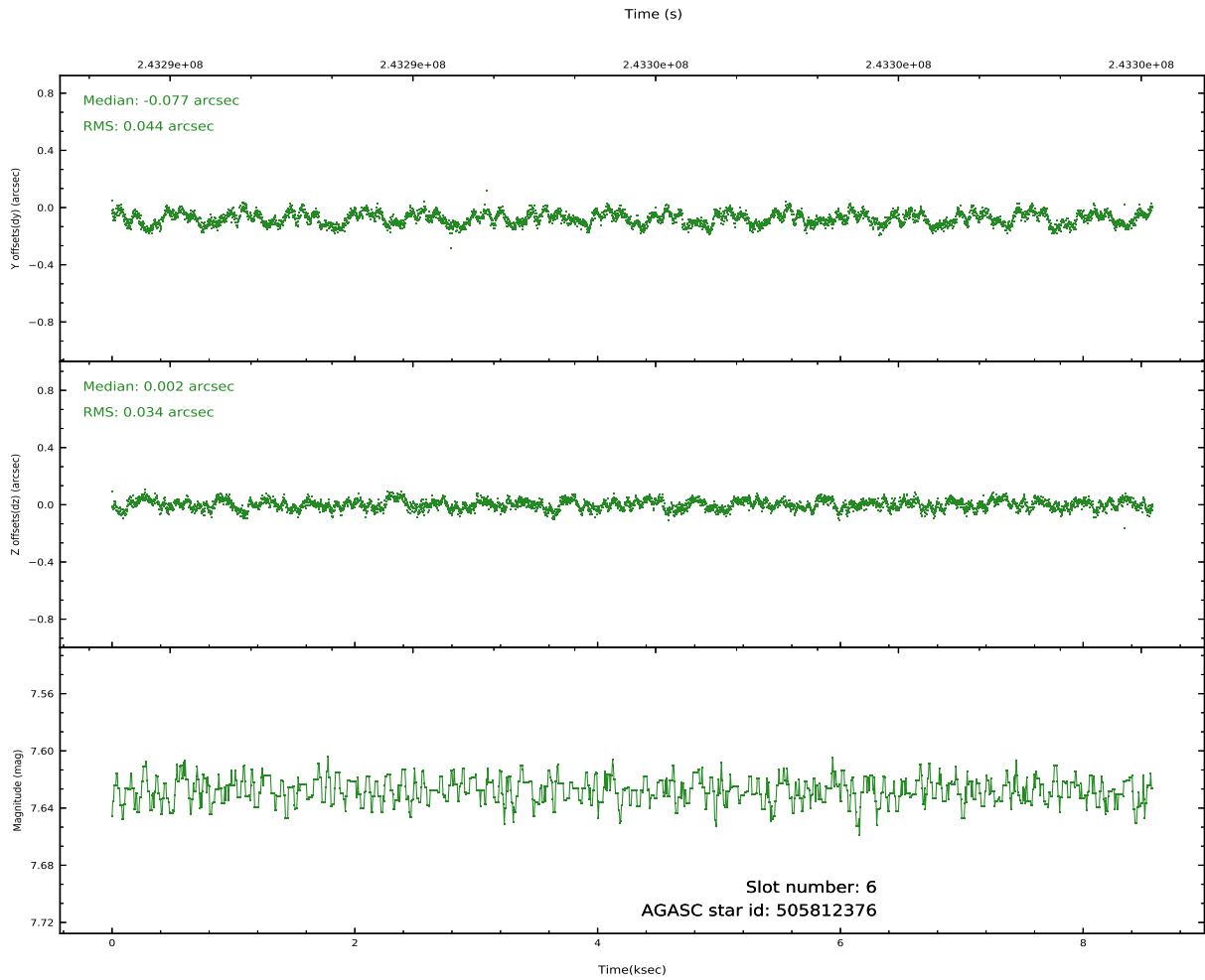
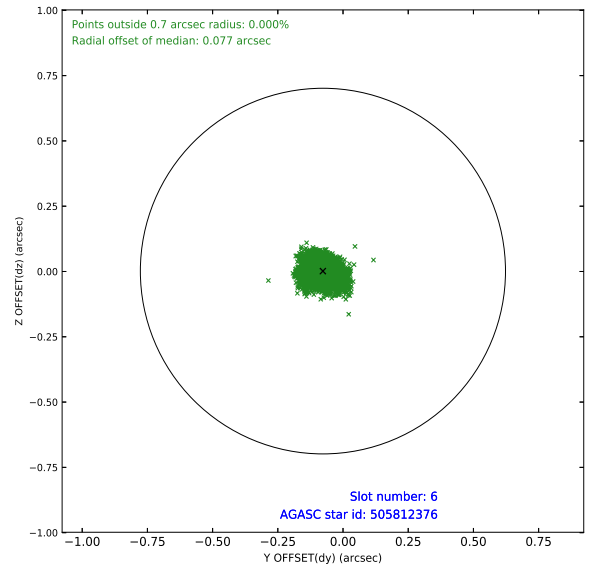
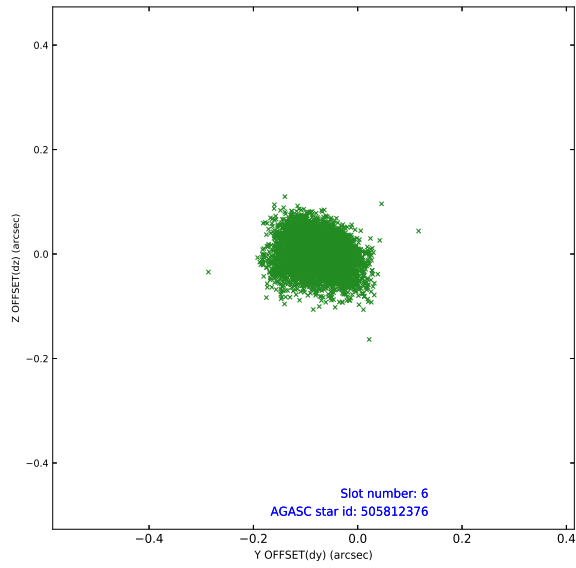
2.4.3 Slot 5



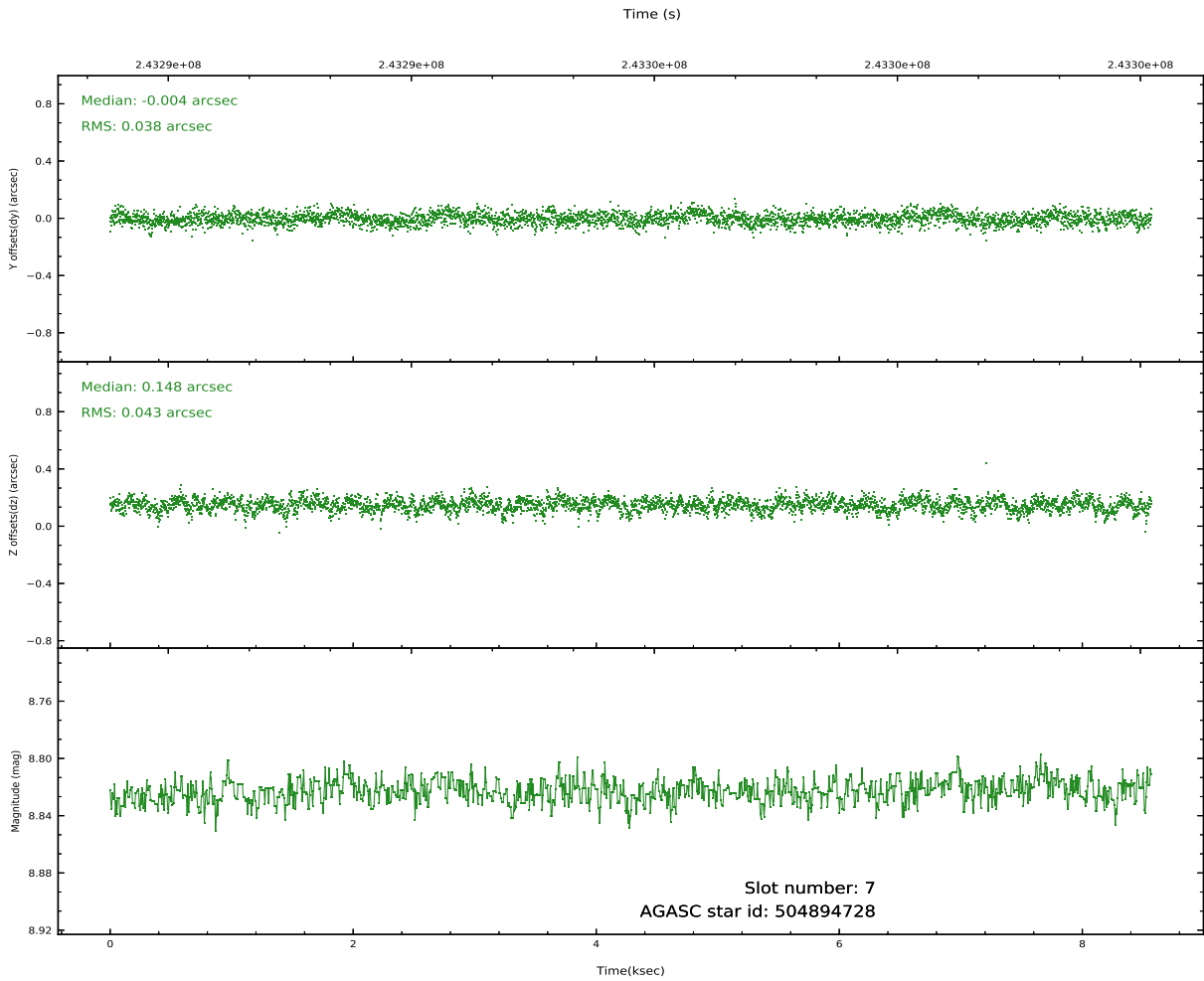
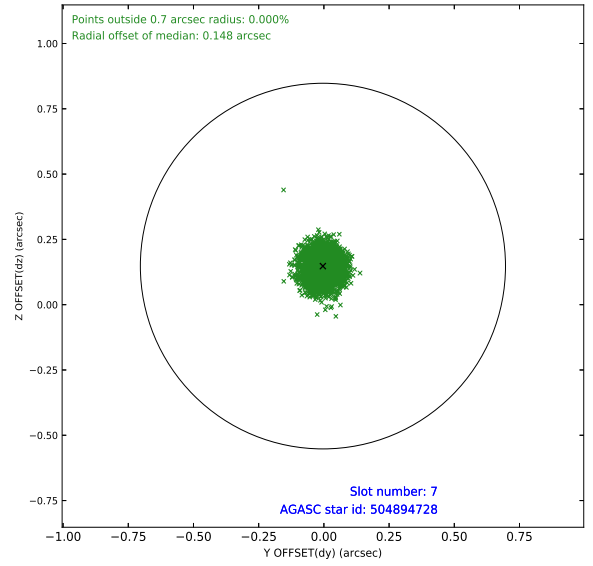
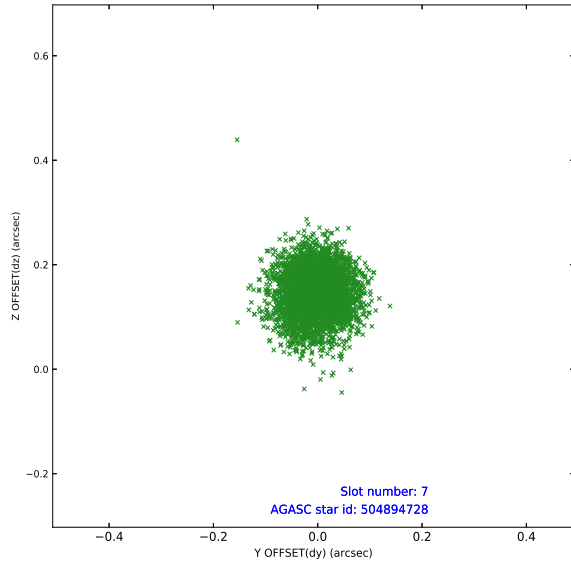
Time (s)



2.4.4 Slot 6

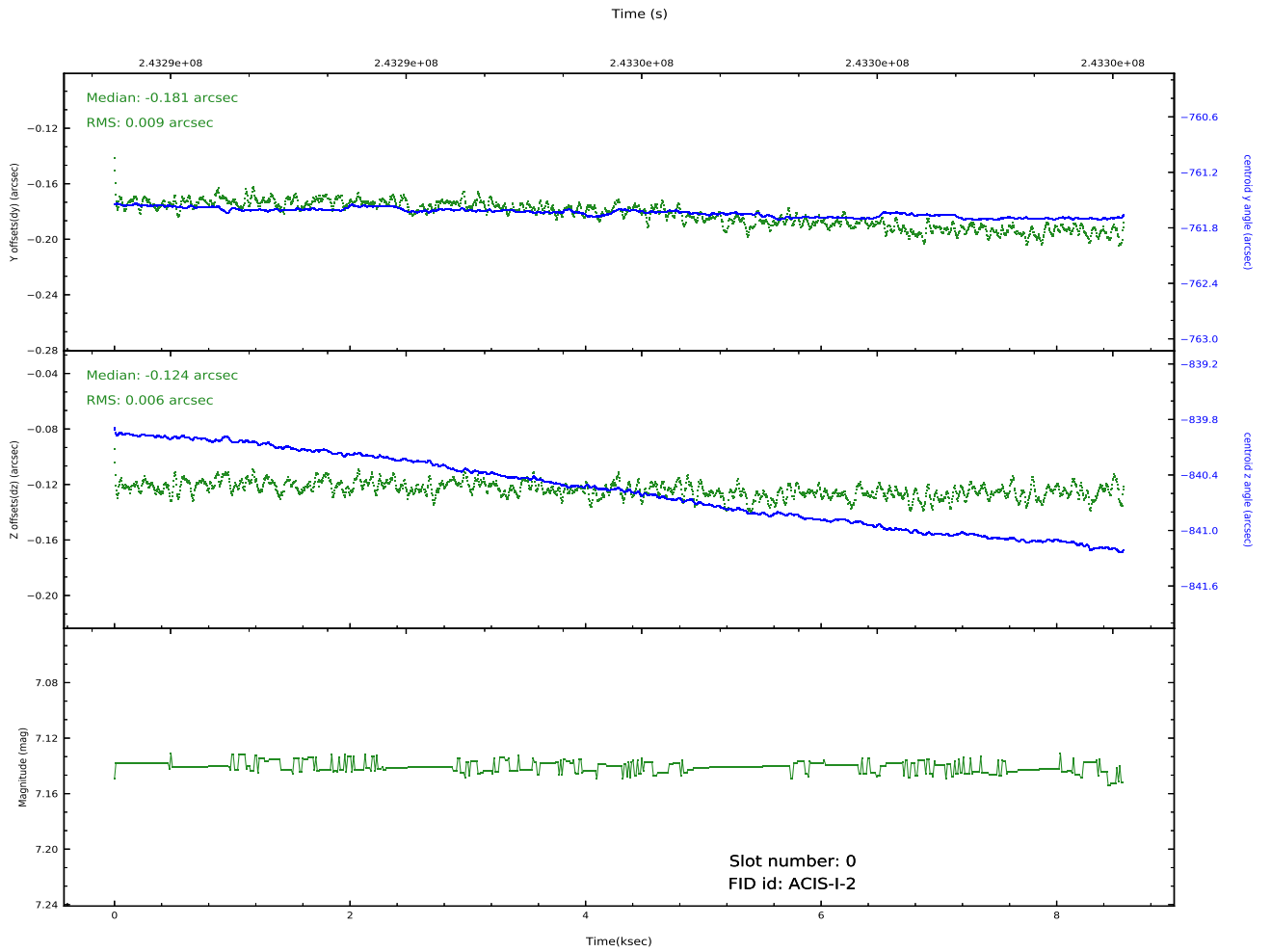
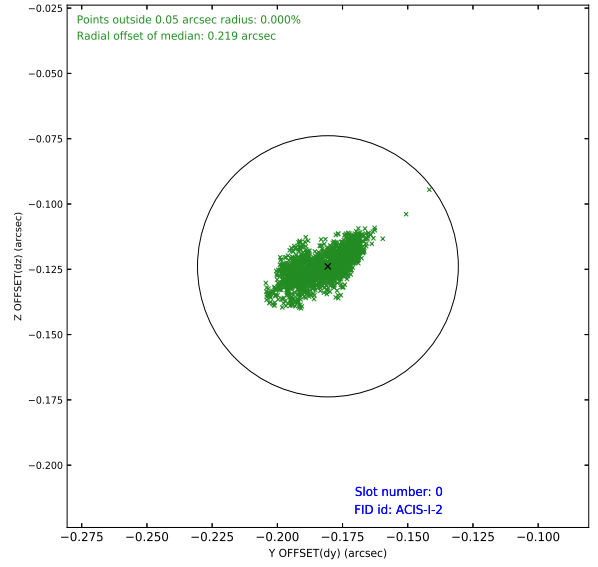
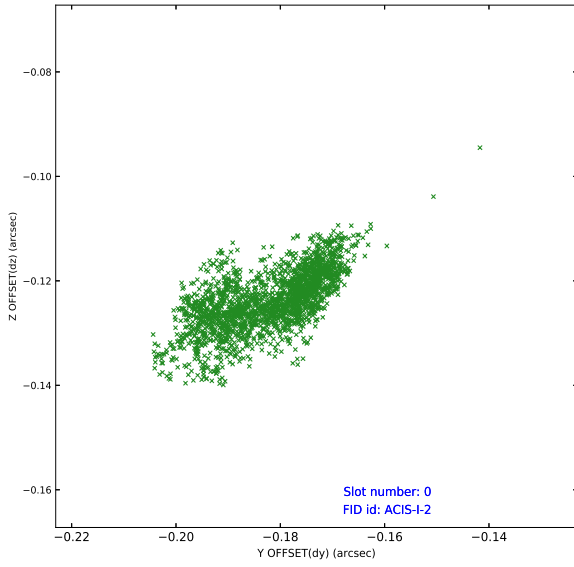


2.4.5 Slot 7

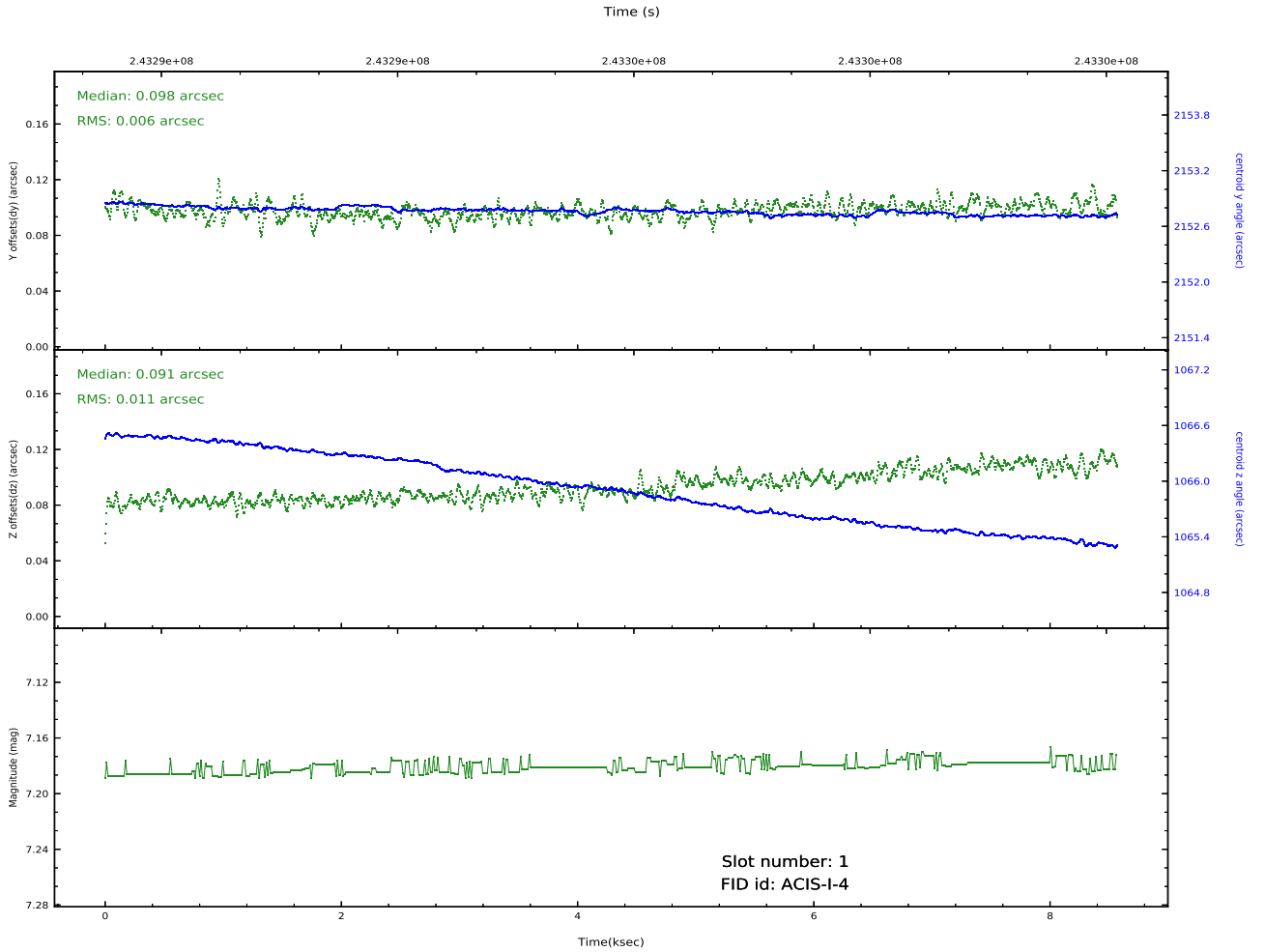
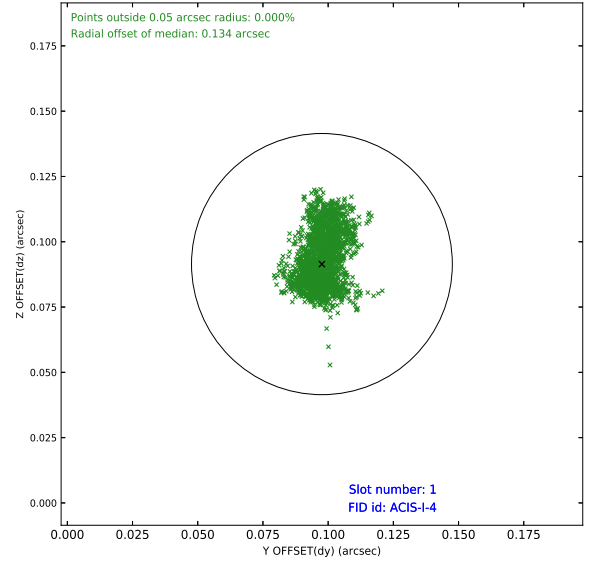
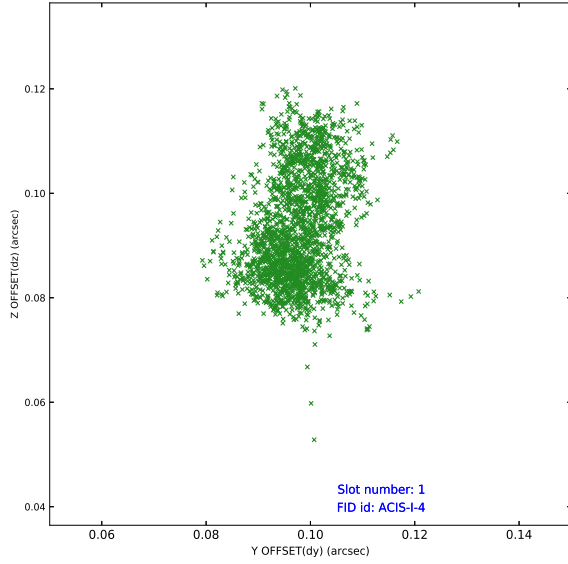


2.5 FID Slots

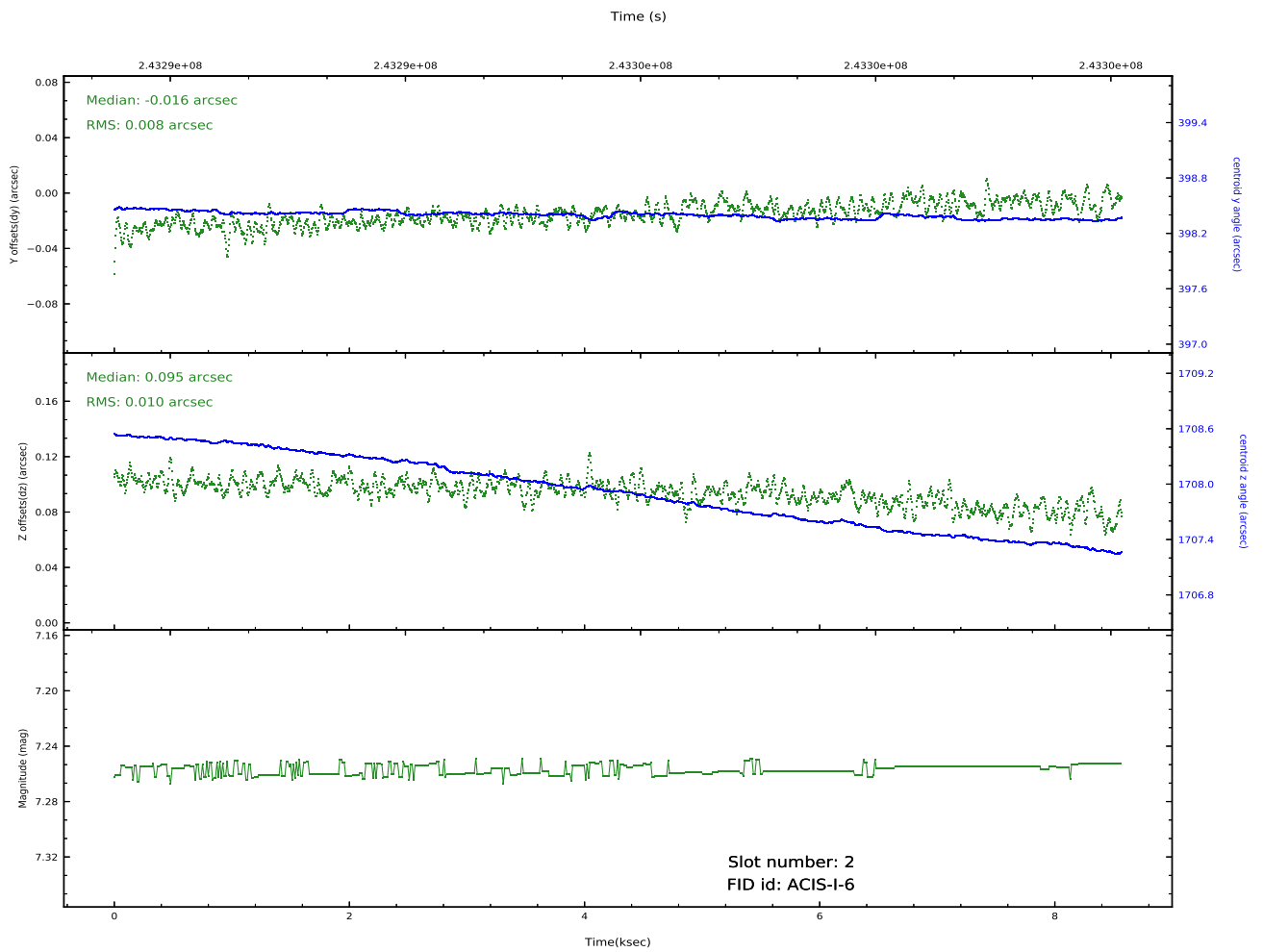
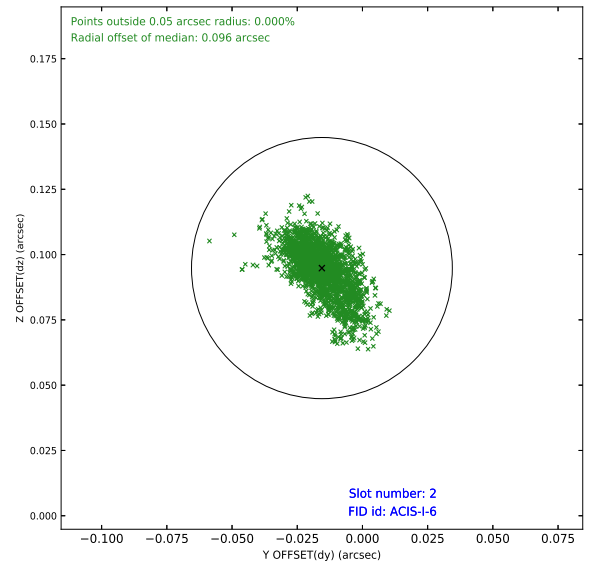
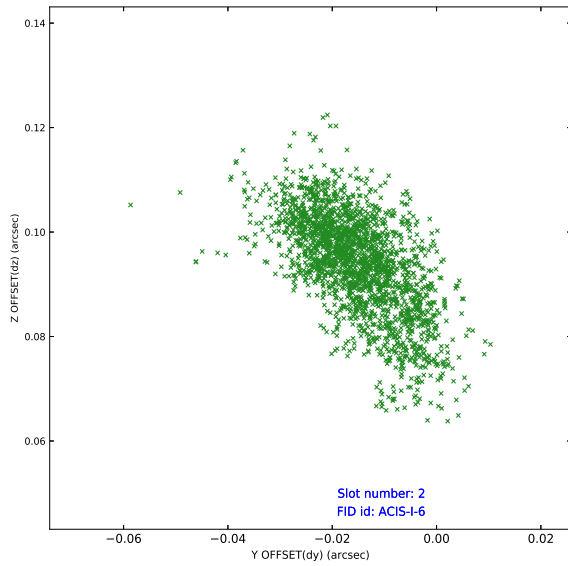
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2020.10.22
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	8.565299

A.2 Comments

As a consequence of the DEA-A shutdown anomaly on Sep 15th (DOY258), the reported value of the ACIS FP temperature was ~1.3 degrees warmer than the actual temperature. The value for FP temperature reported in the headers of the Level 2 event file and the Mission Timeline files ARE INCORRECT by this amount for this processing. However, the temperature is corrected in the processing in order to obtain the correct temperature for the CTI correction. So the calibrated data are correct.

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Roll constraint was met.