

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 5777 - L2 Version 4
Chandra X-Ray Center

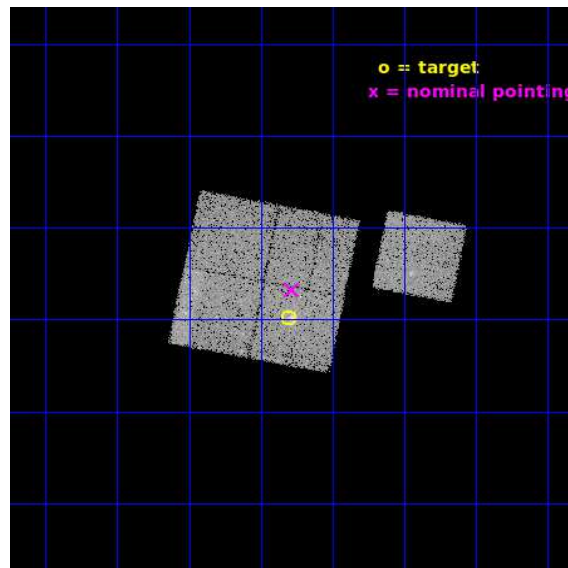
L2 Processing Date : Oct 10 2020

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1 Front

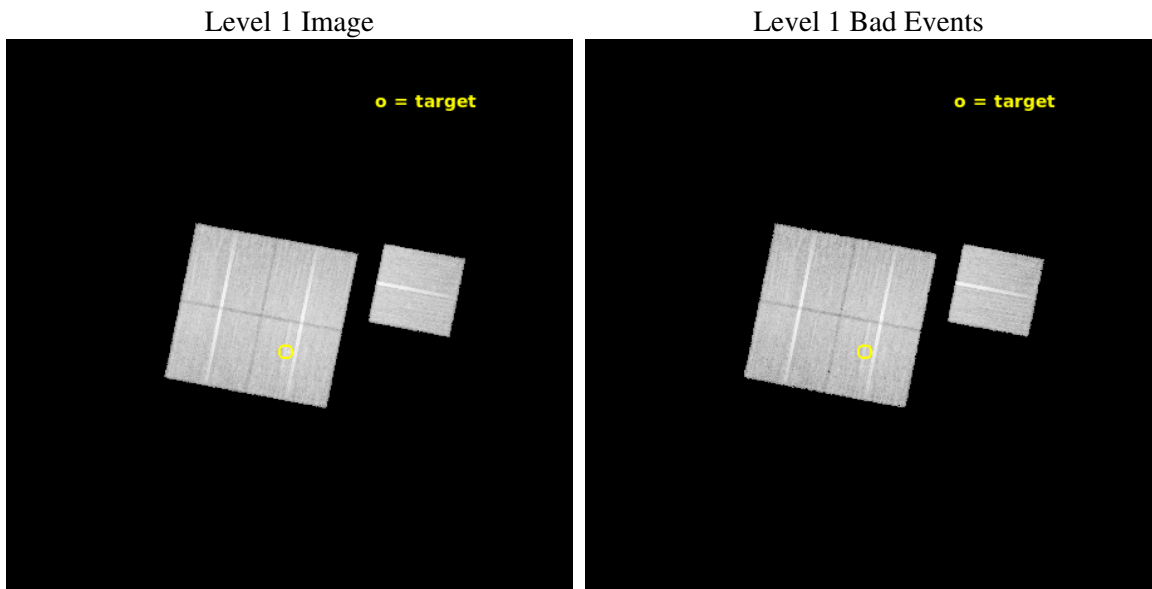
seq_num	800490	Sequence number
obs_id	5777	Observation id
title	Chandra observations of high-redshift clusters of galaxies from the 400 Square Degrees ROSAT PSPC survey	Proposal title
observer	Dr. Stephen Murray	Principal investigator
object	CIG J0159+0030	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	29.825833	Observer's specified target RA [deg]
dec_targ	0.5025	Observer's specified target Dec [deg]
ra_nom	29.820775329857	Nominal RA [deg]
dec_nom	0.55461033933205	Nominal Dec [deg]
roll_nom	101.10490136065	Nominal Roll [deg]
revision	4	Processing version of data
ontime	20143.799961239	Sum of GTIs [s]
livetime	19880.606385096	Livetime [s]
ontime0	20140.658980936	Sum of GTIs [s]
ontime1	20140.658980995	Sum of GTIs [s]
ontime2	20140.658970982	Sum of GTIs [s]
ontime3	20143.799961239	Sum of GTIs [s]
ontime6	20140.658961058	Sum of GTIs [s]
l2events	61148	Number of level 2 events



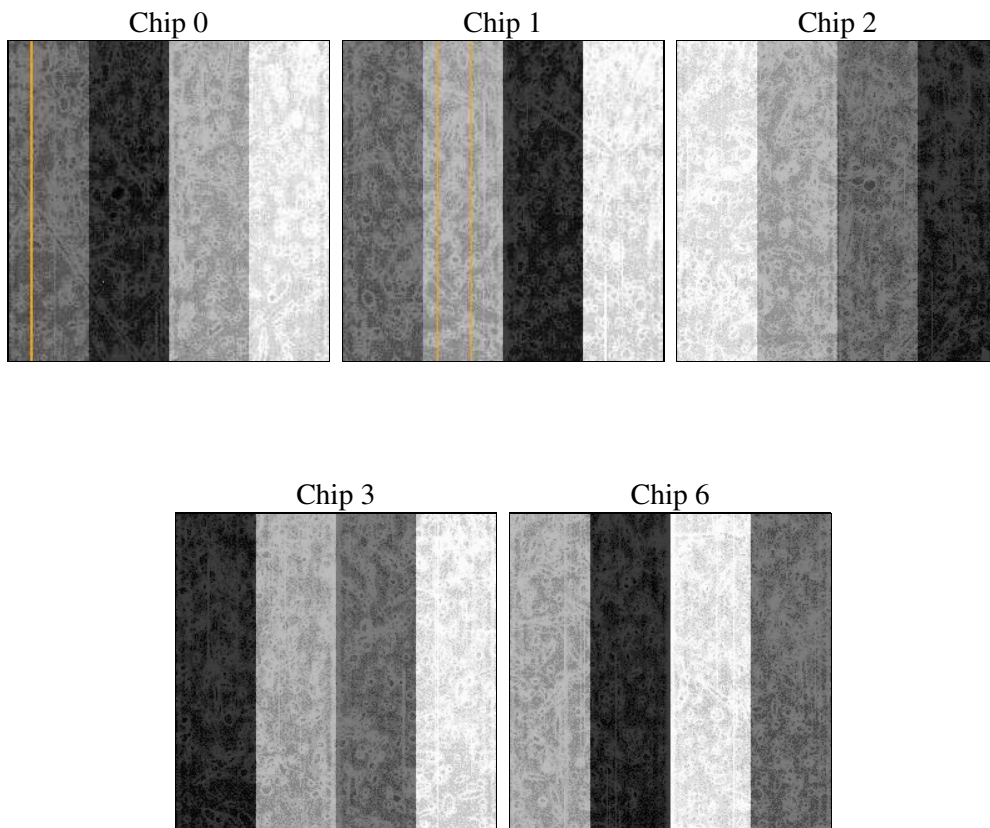
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	20000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	20143.799961239	Sum of GTIs [s]
caldsver	4.9.2	 	ontime0	20140.658980936	Sum of GTIs [s]
date	2020-10-10T08:04:44	Date and time of file creation	ontime1	20140.658980995	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	20140.658970982	Sum of GTIs [s]
			ontime3	20143.799961239	Sum of GTIs [s]
			ontime6	20140.658961058	Sum of GTIs [s]
			l1events	688776	Number of level 1 events

2.1.4 Events

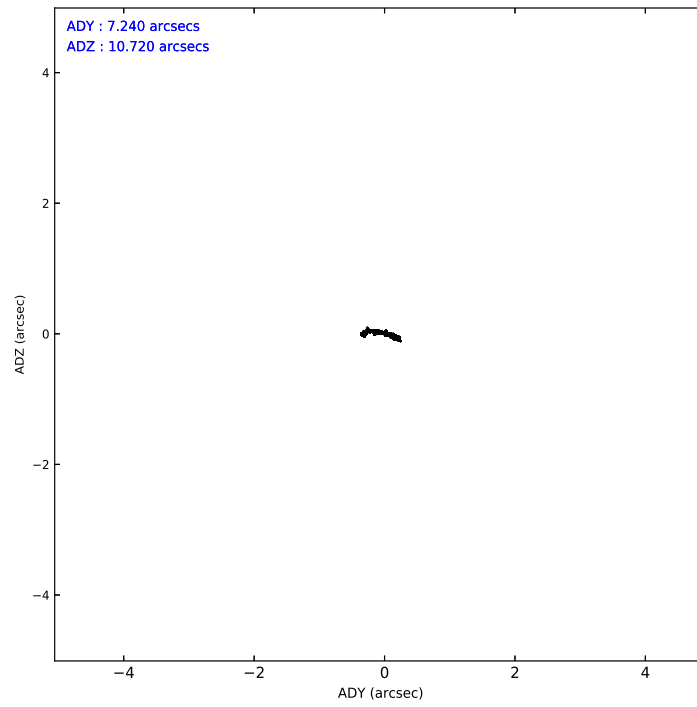
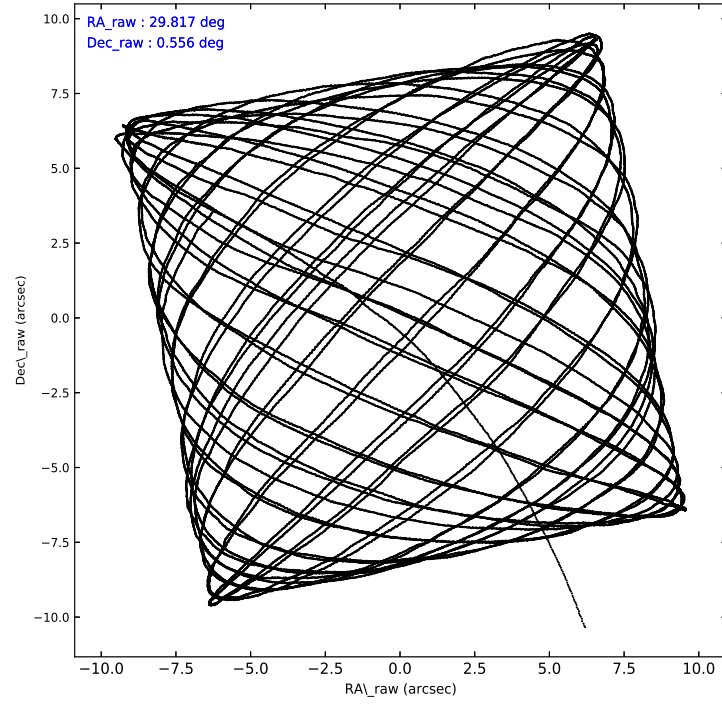
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	131276	129641	145564	140620	141675
rejected events	117119	113006	131270	126053	126832
rejected %	89%	87%	90%	89%	89%

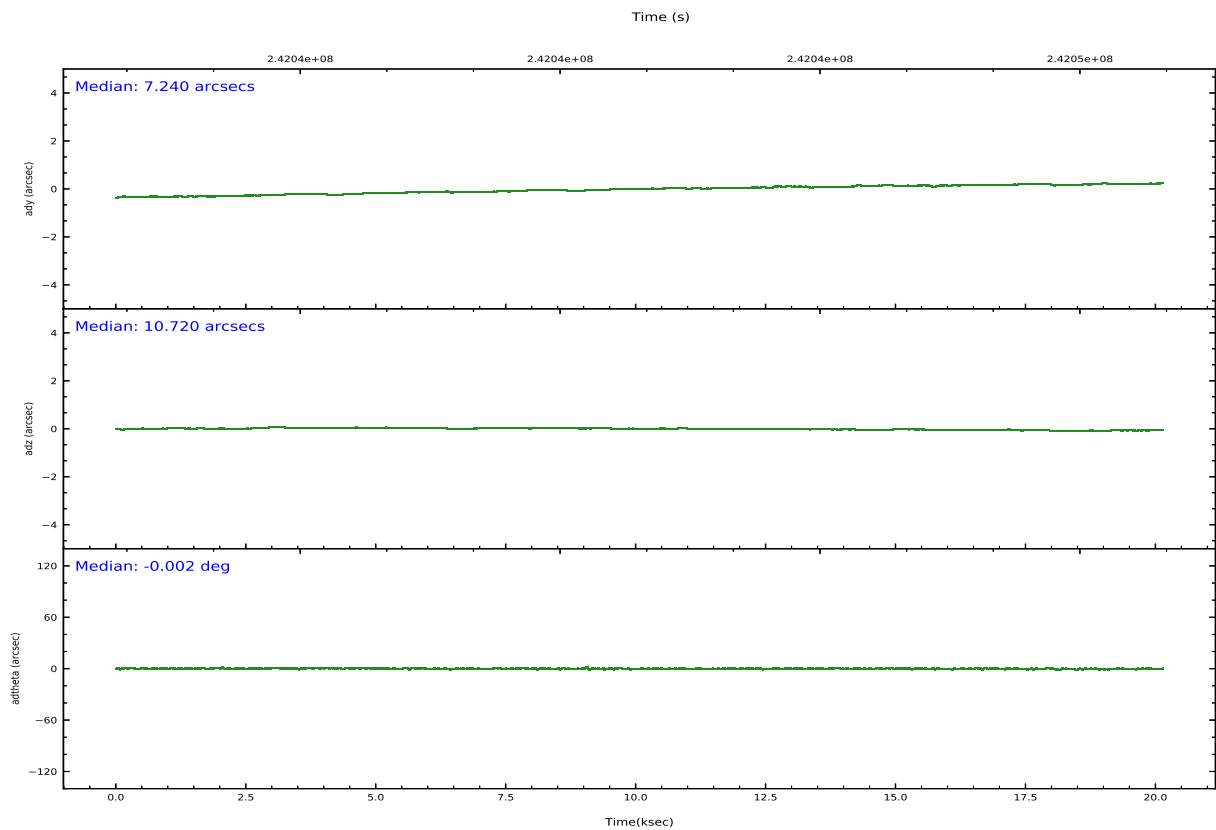
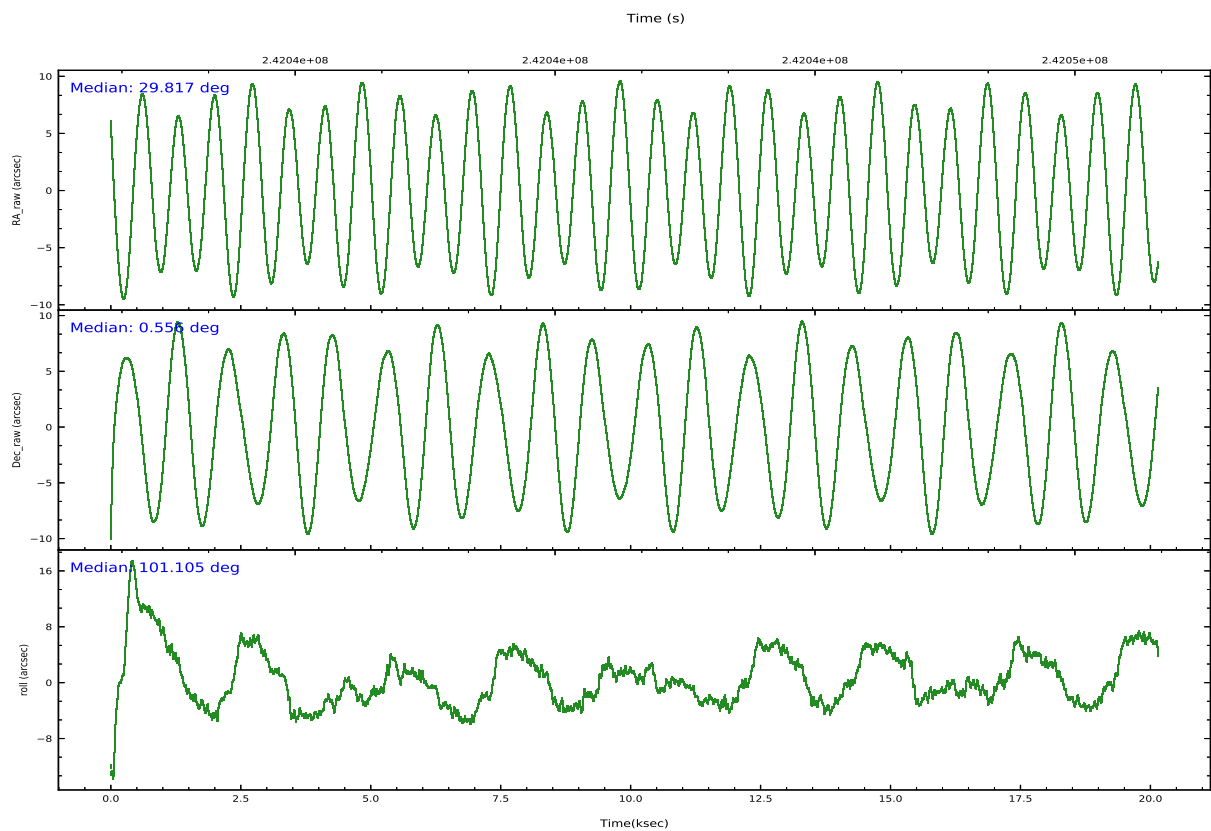
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	5534	6616	5849	6367	6030
	4%	5%	4%	4%	4%
grade 1 events	70	61	78	72	69
	0%	0%	0%	0%	0%
grade 2 events	3230	3670	3221	2927	3085
	2%	2%	2%	2%	2%
grade 3 events	1618	1715	1462	1423	1592
	1%	1%	1%	1%	1%
grade 4 events	1454	1716	1621	1510	1507
	1%	1%	1%	1%	1%
grade 5 events	4472	5040	4269	5409	5038
	3%	3%	2%	3%	3%
grade 6 events	2570	3297	2451	2621	2932
	1%	2%	1%	1%	2%
grade 7 events	112328	107526	126613	120291	121422
	85%	82%	86%	85%	85%

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	29.835425	29.820775329857	Subarray requested	NONE	NONE
[deg] Pointing Dec	0.535578	0.55461033933205	Alternating exposures requested	N	N
[deg] Pointing Roll	100.901076	101.10490136065	[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	-225.840463	-225.8433433320239			
[mm] SIM translation stage offset	-7.752	-7.749109670905796			
[s] Observation start time (MET)	242031602.184000	242030412.05993			
Observation start date	2005-09-02T06:58:58	2005-09-02T06:40:12			
[s] Observation end time (MET)	242051602.184000	242052461.86094			
Observation end date	2005-09-02T12:32:18	2005-09-02T12:47:41			
Read mode	TIMED	TIMED			

2.3 Aspect



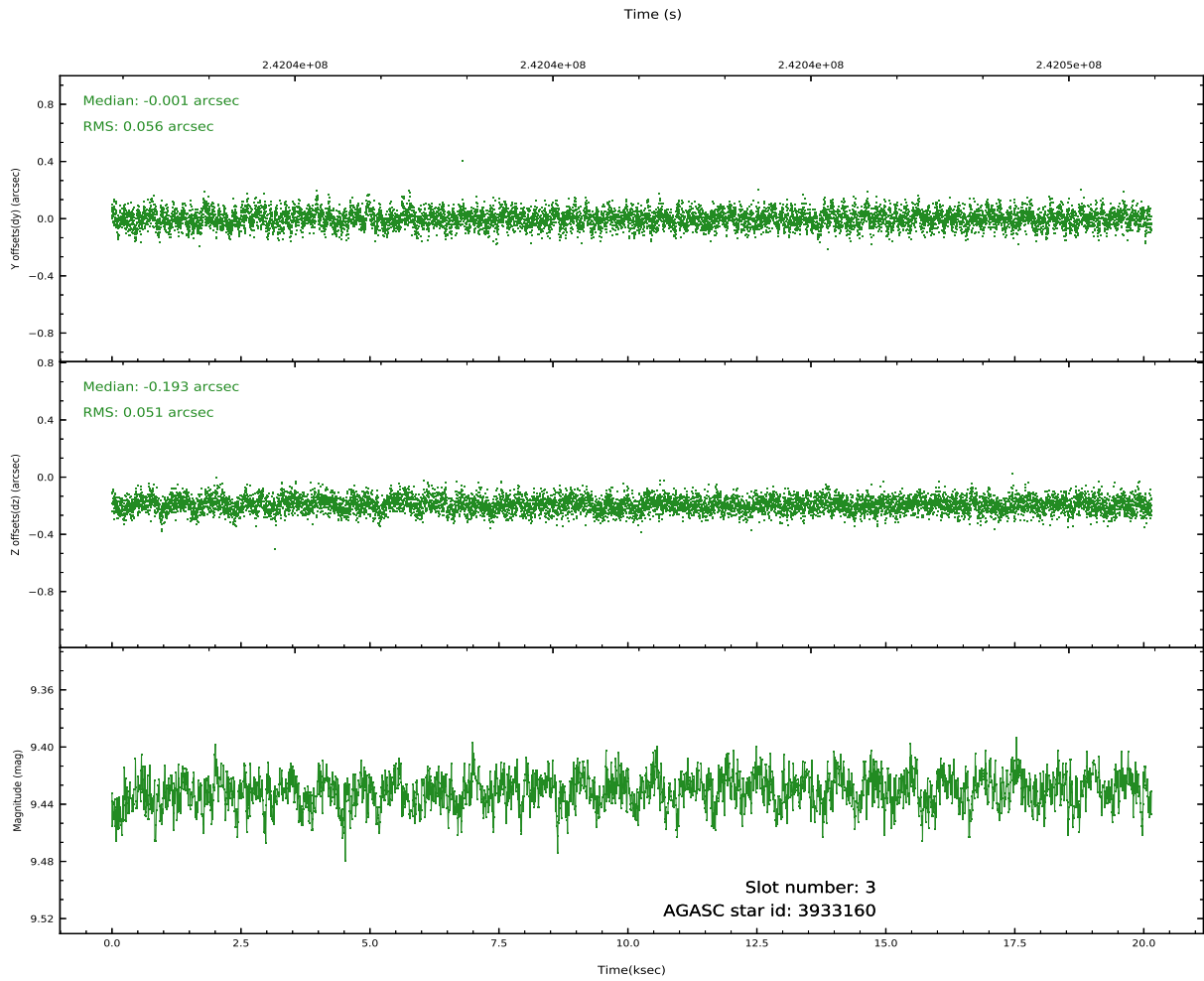
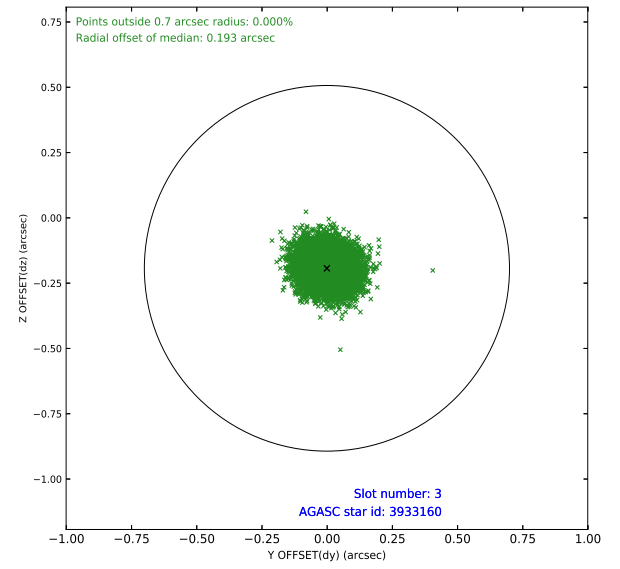
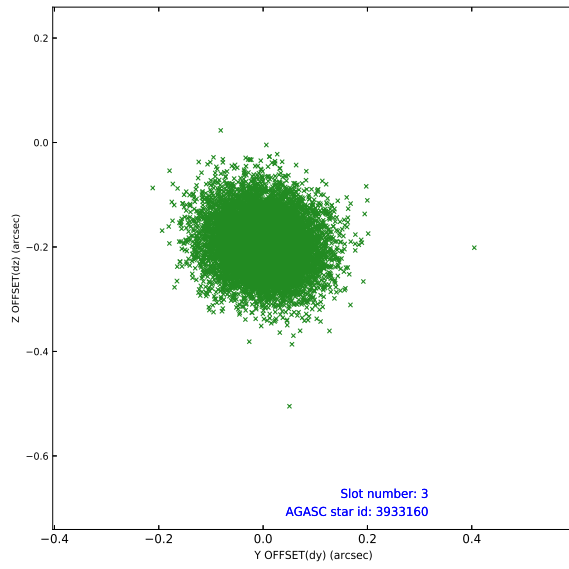


Slot Statistics

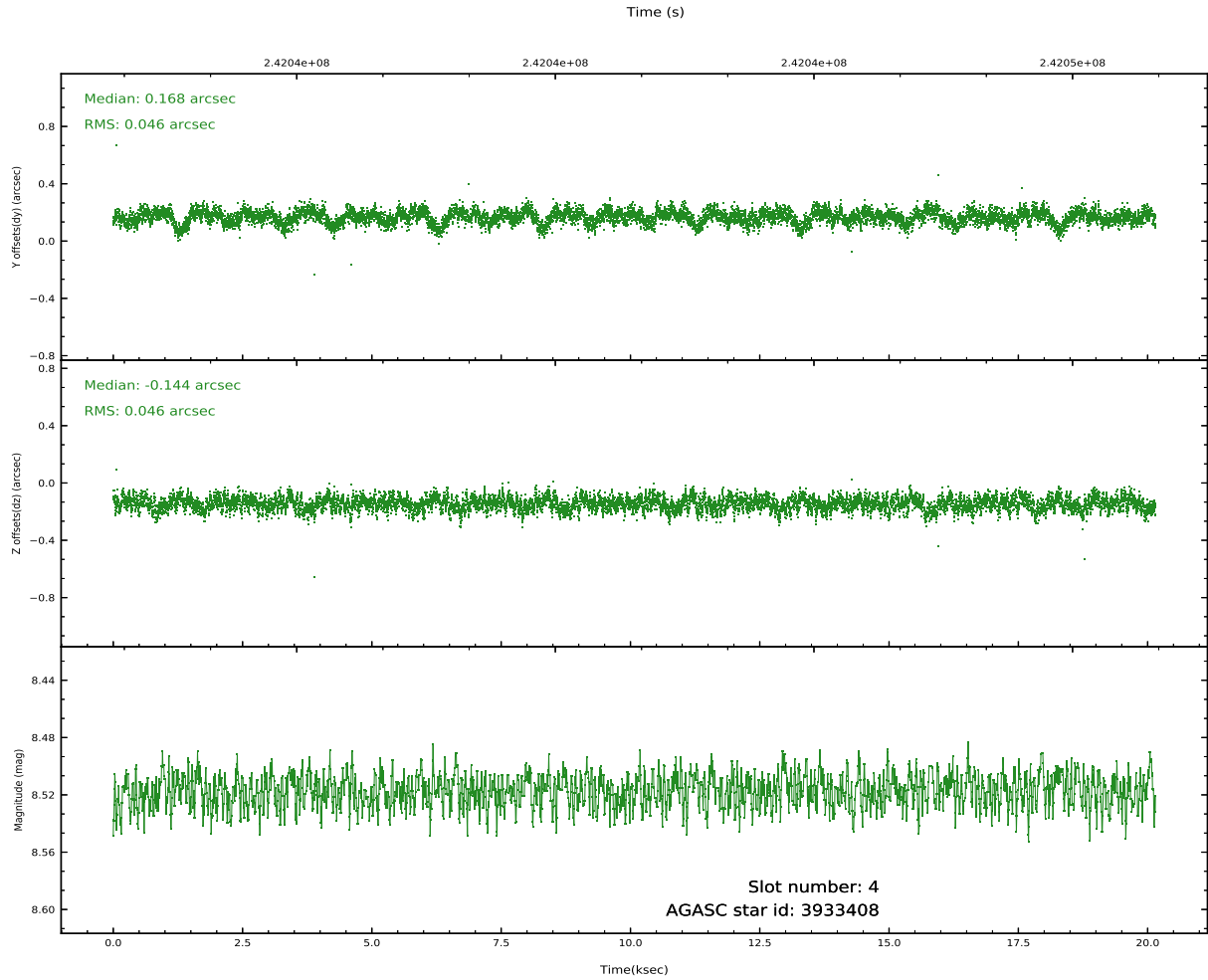
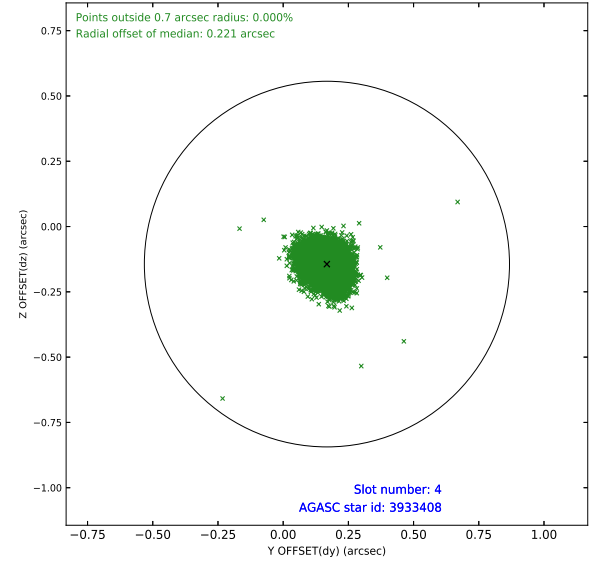
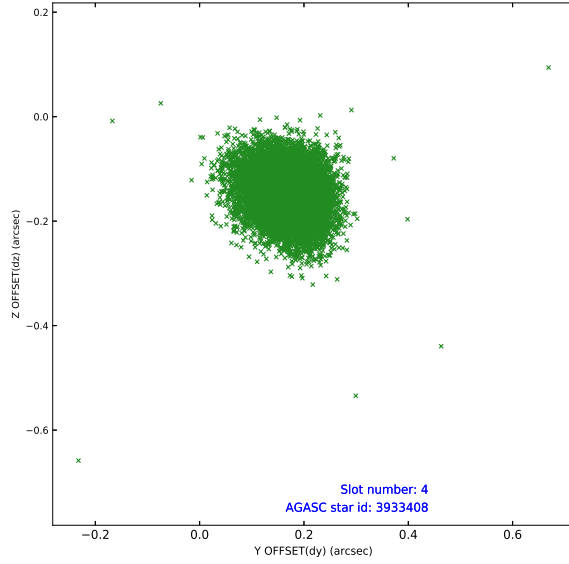
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.24	4914	1.000	0.129	-0.142	0.007	0.013	0.000000	0.000000	932.45	-993
1	FID		ACIS-I-5	7.22	4915	1.000	-0.269	0.098	0.007	0.012	0.000000	0.000000	-1815.95	904
2	FID		ACIS-I-6	7.25	4915	1.000	0.048	0.115	0.007	0.012	0.000000	0.000000	397.72	1548
3	GUIDE	used	3933160	9.43	9819	1.000	-0.001	-0.193	0.080	0.130	29.607018	0.758442	943.68	655
4	GUIDE	used	3933408	8.52	9826	1.000	0.168	-0.144	0.068	0.111	29.793077	0.506917	-71.83	169
5	GUIDE	used	3936888	9.65	9771	1.000	-0.104	0.124	0.092	0.153	29.975632	1.145154	2059.92	-910
6	GUIDE	used	4858264	8.58	9829	1.000	0.063	0.005	0.072	0.117	30.366209	0.475653	-572.67	-1835
7	GUIDE	used	4858896	9.89	9815	1.000	-0.126	0.211	0.134	0.216	30.397960	0.910376	942.66	-2243

2.4 Star Slots

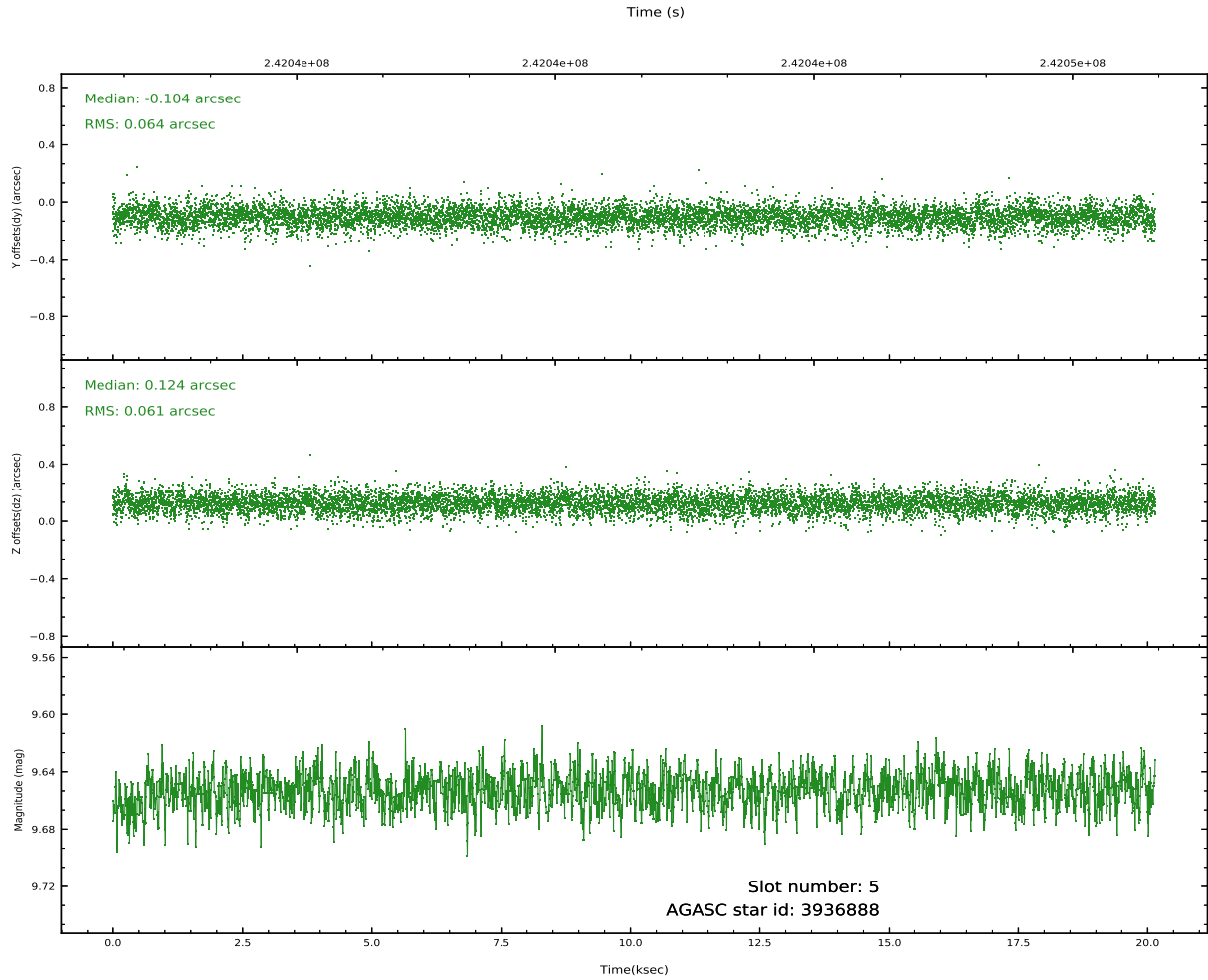
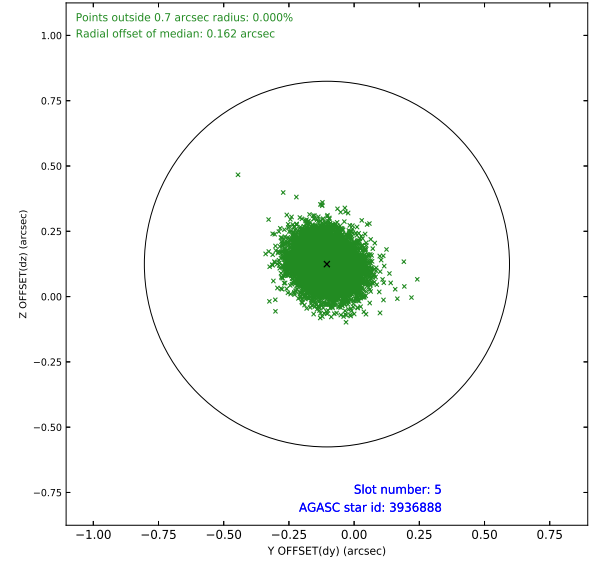
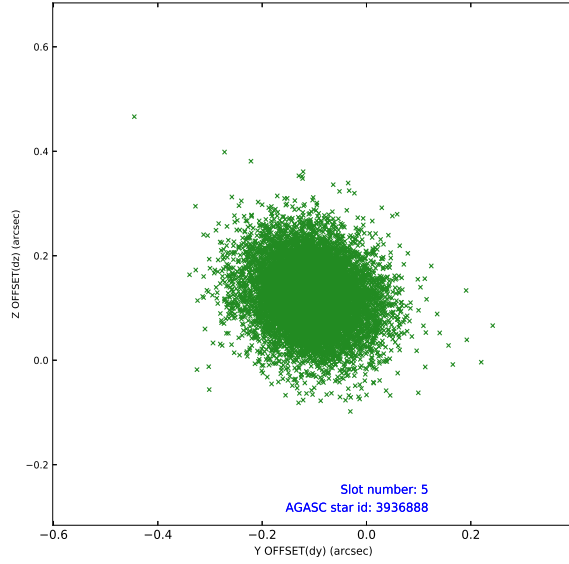
2.4.1 Slot 3



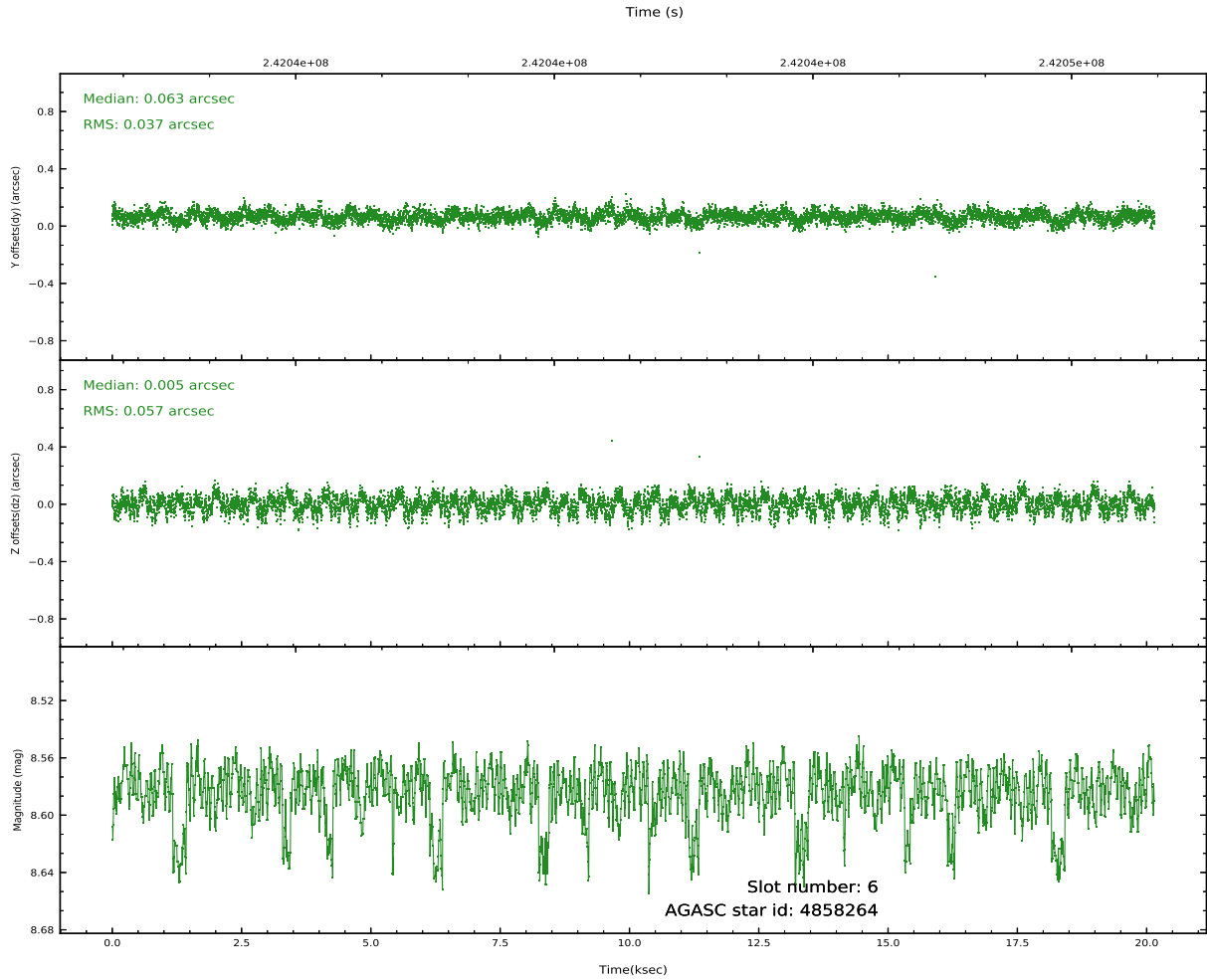
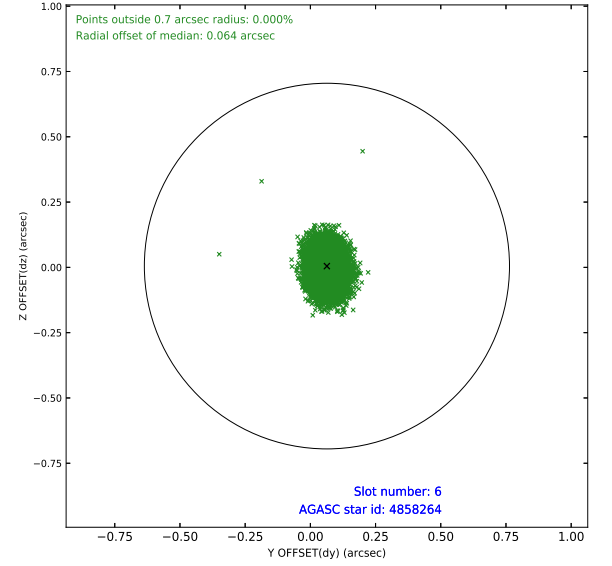
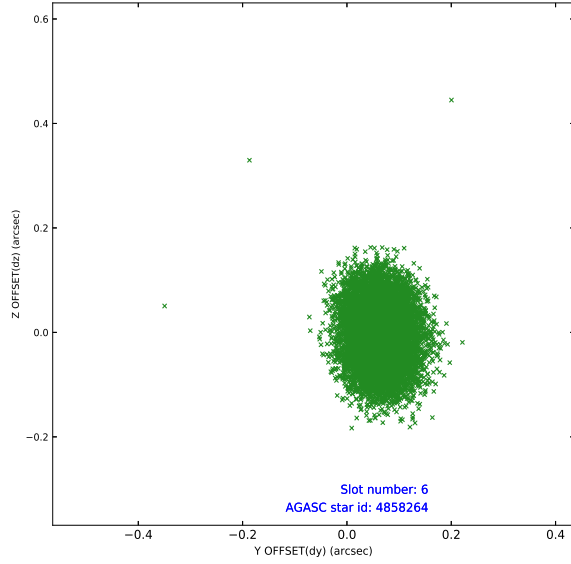
2.4.2 Slot 4



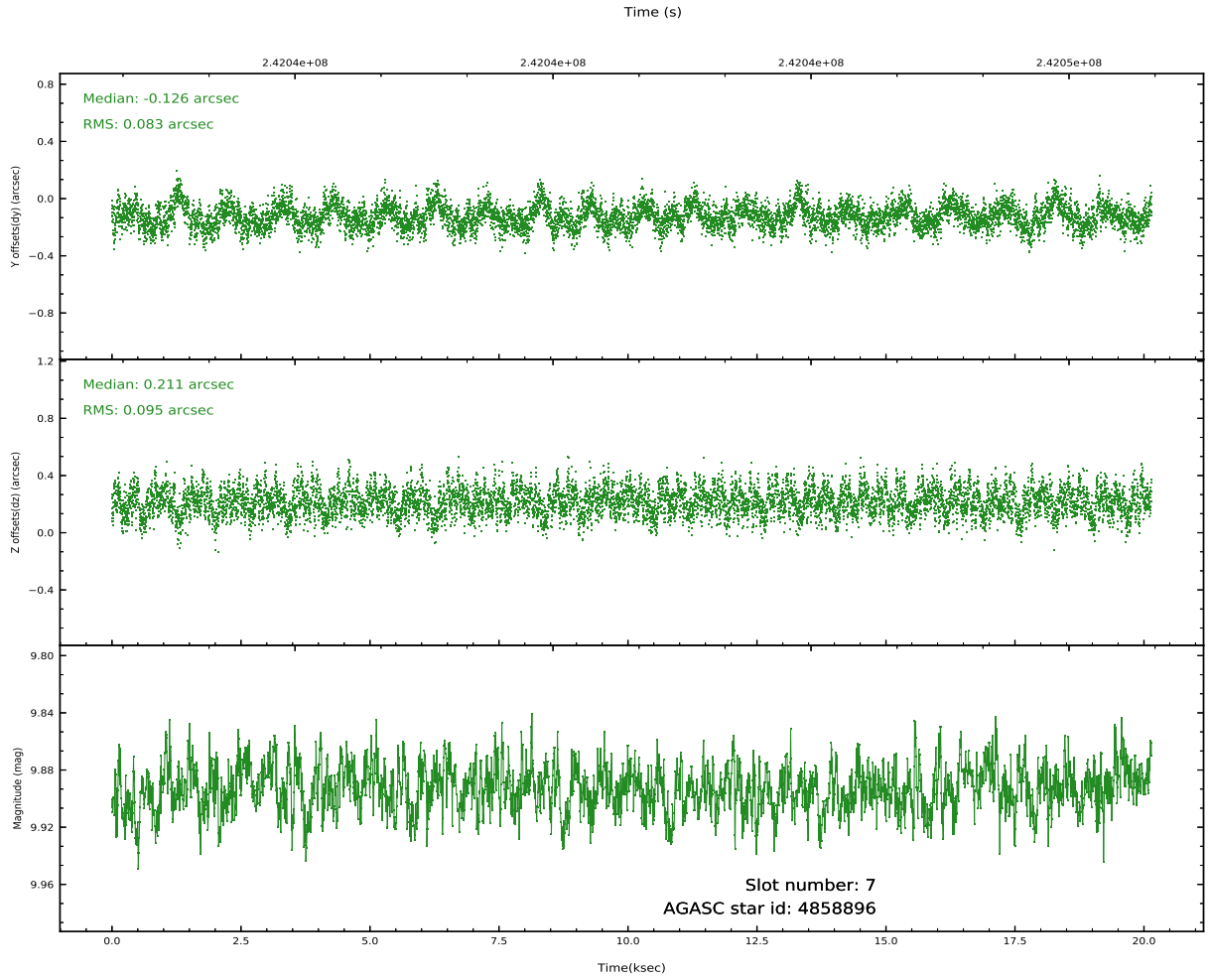
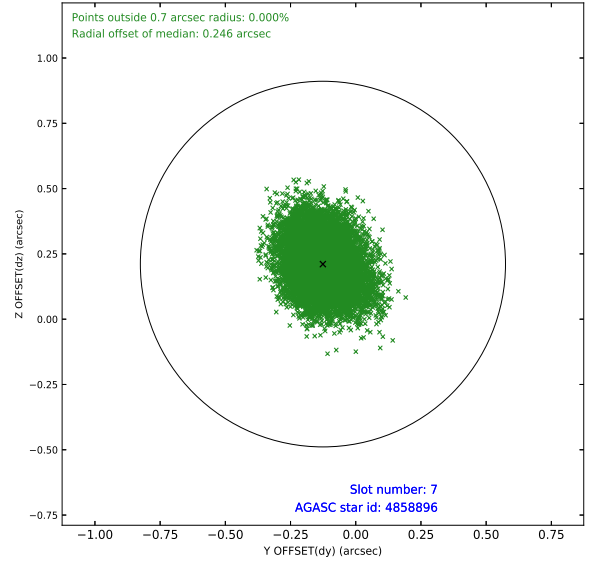
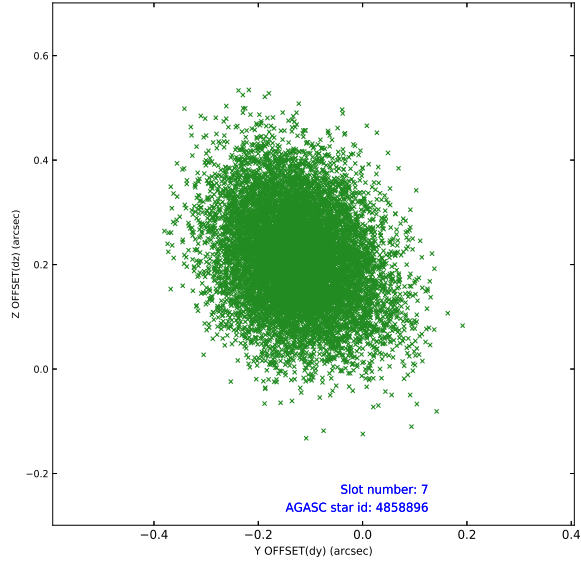
2.4.3 Slot 5



2.4.4 Slot 6

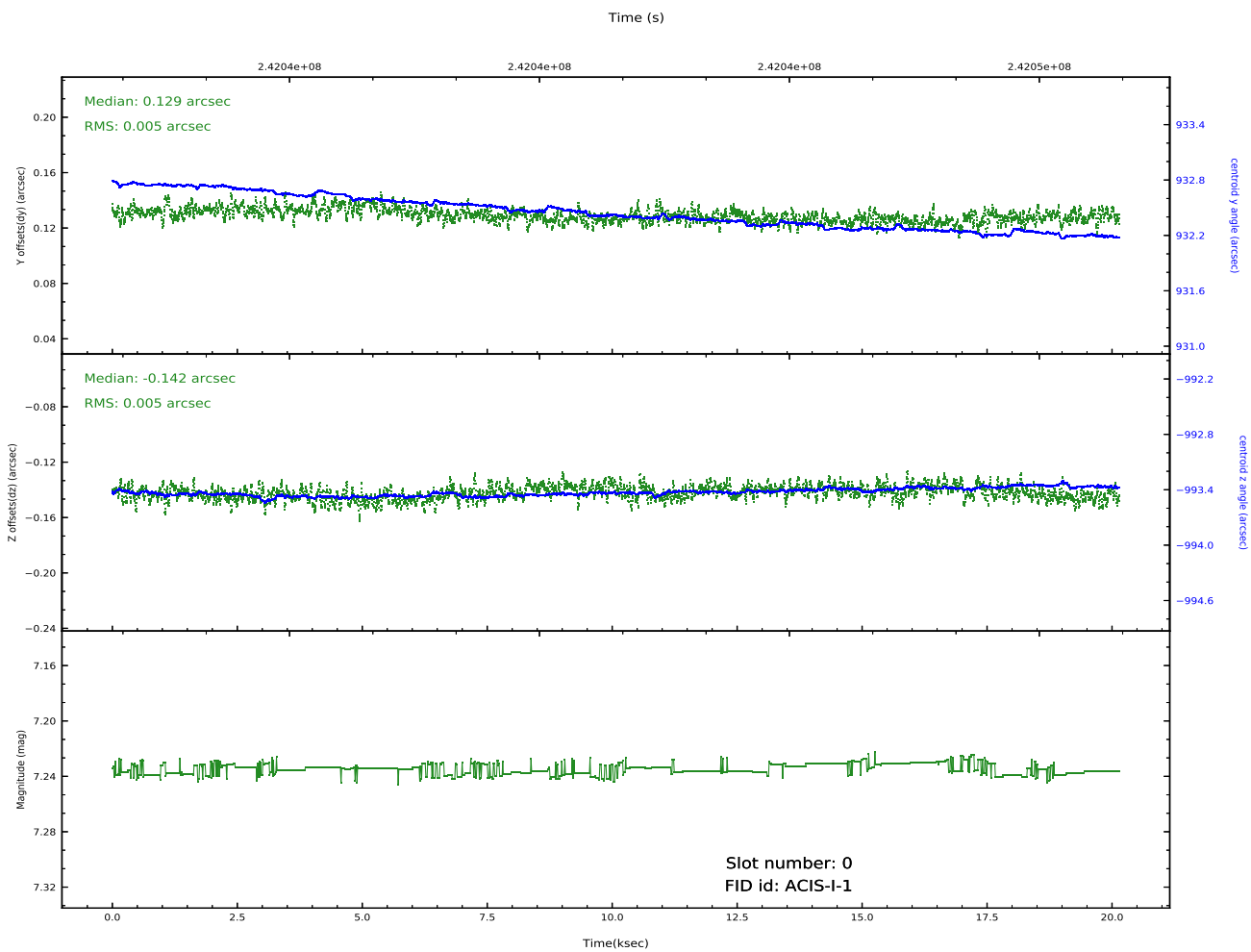
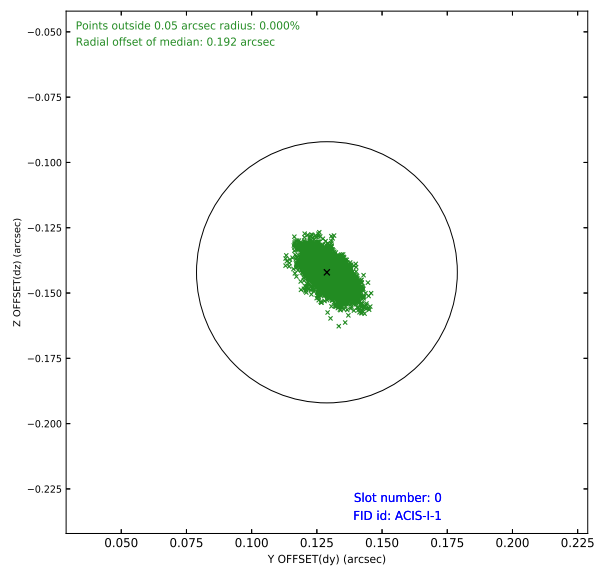
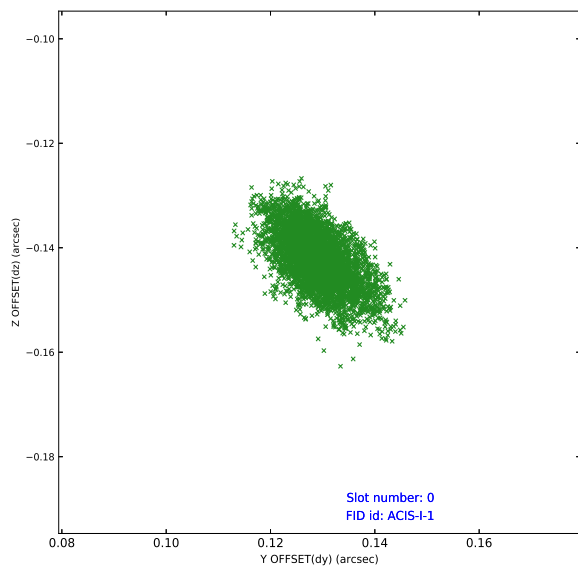


2.4.5 Slot 7

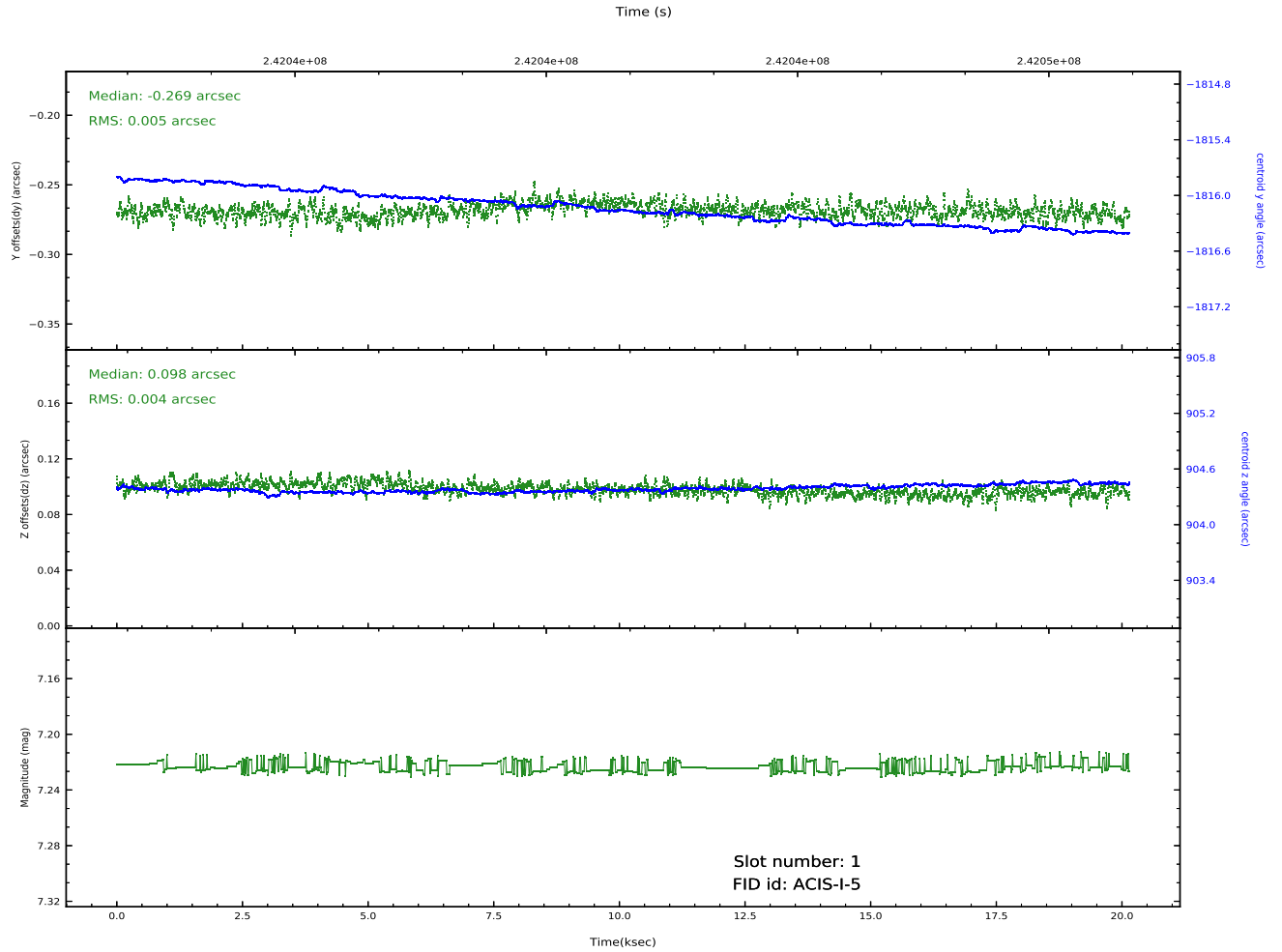
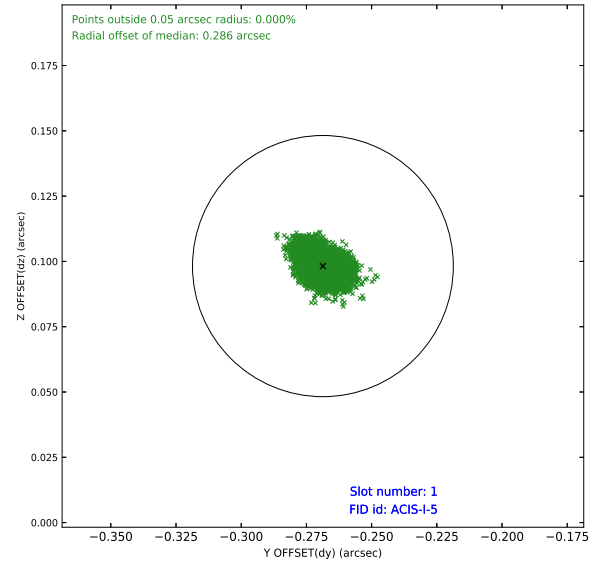
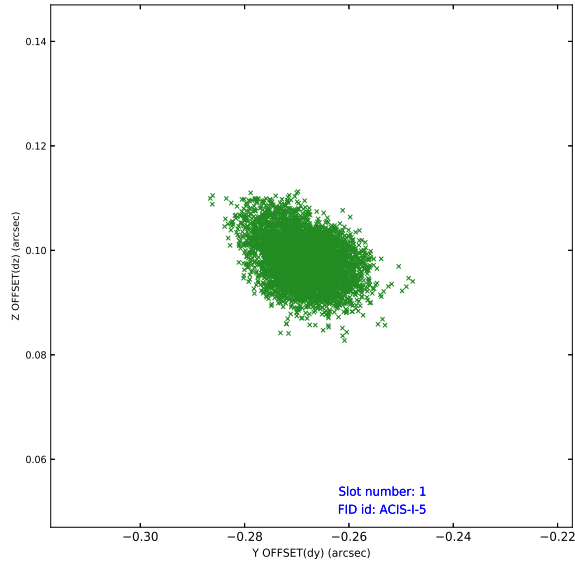


2.5 FID Slots

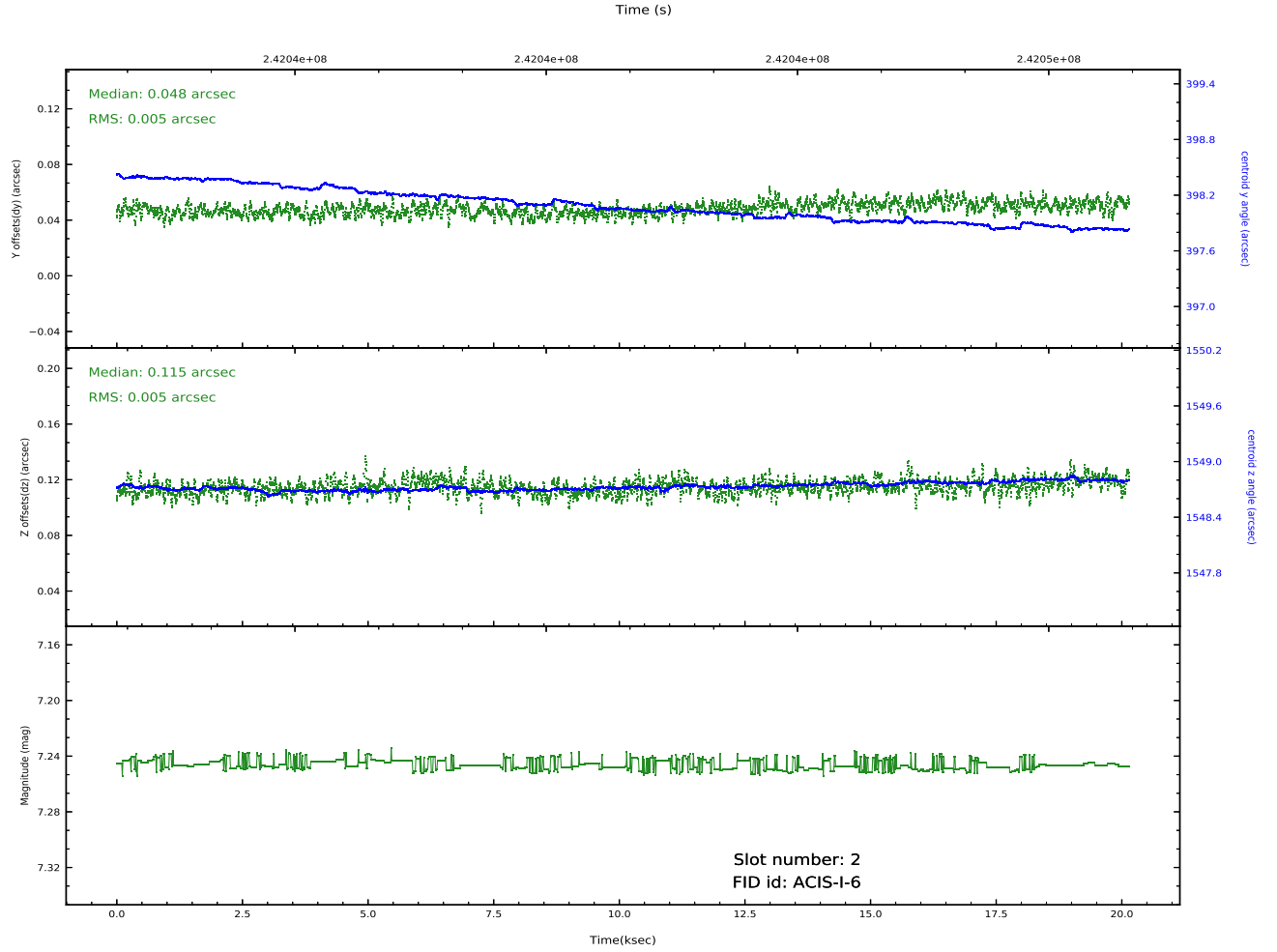
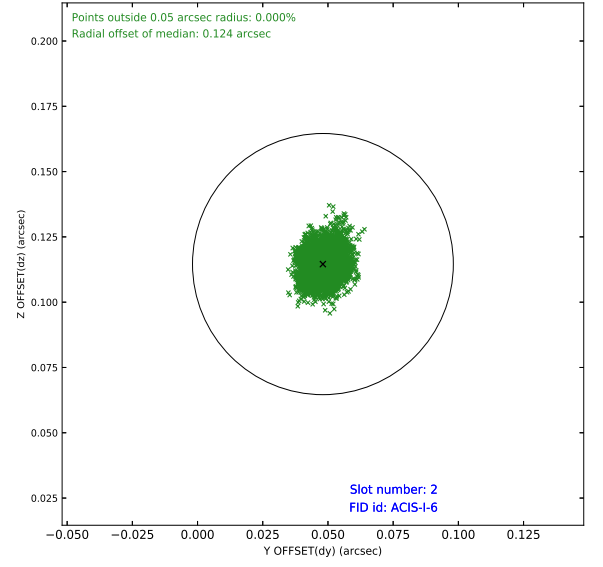
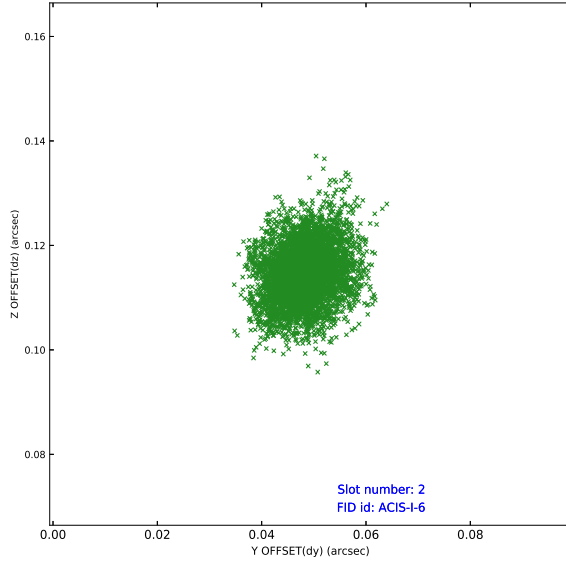
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2020.10.13
V&V Edition	1
V&V Disposition and Status	Repr+DD
V&V Charge Time	20.14379

A.2 Comments

SAP: please reprocess with the replacement bias for CCD_ID = 2

=====

The bias map for CCD_ID = 2 suffers from anomalously high bias values in an 'exacto-knife'-shaped area of the bias file. Pixels in the event data that have been bias-corrected by one of the affected bias pixels may have an apparent energy shift. While the change in energy is expected to be small (~ 20 eV), it depends on many parameters that have not yet been fully explored for this bias anomaly. The bias map for CCD_ID = 2 will be recreated to remove this anomaly and the data will be reprocessed.