

V&V Reference Report

L2 ASCDS Version : 10.9.2

Observation 19678 - L2 Version 3
Chandra X-Ray Center

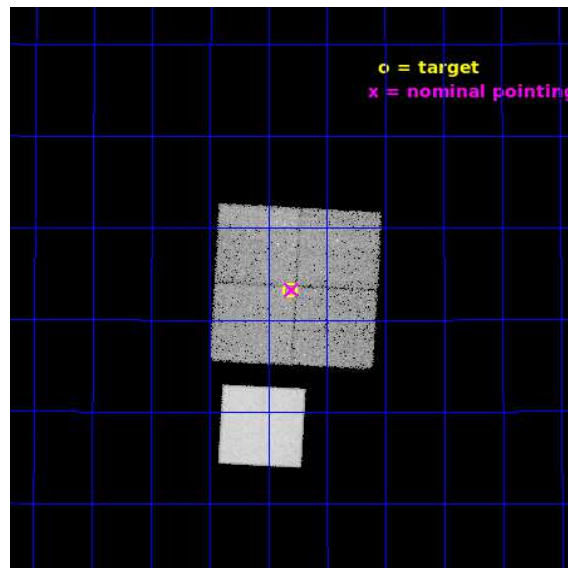
L2 Processing Date : Oct 26 2020

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1 Front

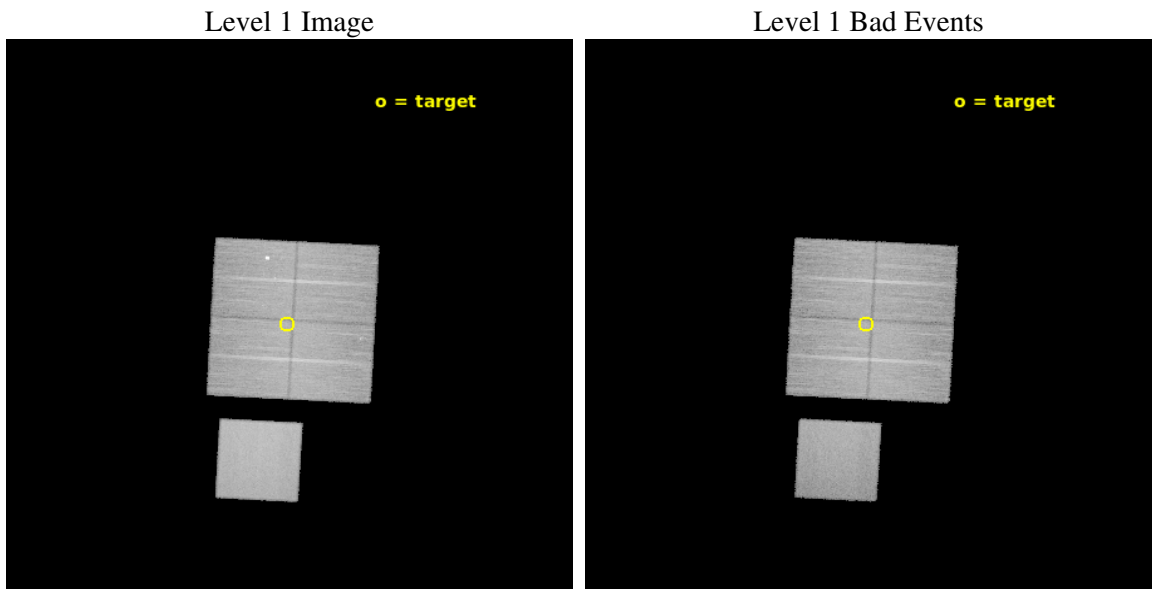
seq_num	901385	Sequence number
obs_id	19678	Observation id
title	The Chandra Deep Wide-Field Survey: Completing the new generation of Chandra extragalactic surveys	Proposal title
observer	Ryan Hickox	Principal investigator
object	Xbootes (CDWFS)	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	217.20466	Observer's specified target RA [deg]
dec_targ	35.387184	Observer's specified target Dec [deg]
ra_nom	217.19960699446	Nominal RA [deg]
dec_nom	35.388422730228	Nominal Dec [deg]
roll_nom	183.09407367633	Nominal Roll [deg]
revision	3	Processing version of data
ontime	25946.32309556	Sum of GTIs [s]
livetime	25607.315282911	Livetime [s]
ontime0	25955.623136878	Sum of GTIs [s]
ontime1	25955.664176941	Sum of GTIs [s]
ontime2	25955.705216885	Sum of GTIs [s]
ontime3	25946.32309556	Sum of GTIs [s]
ontime7	25955.787296891	Sum of GTIs [s]
l2events	175724	Number of level 2 events



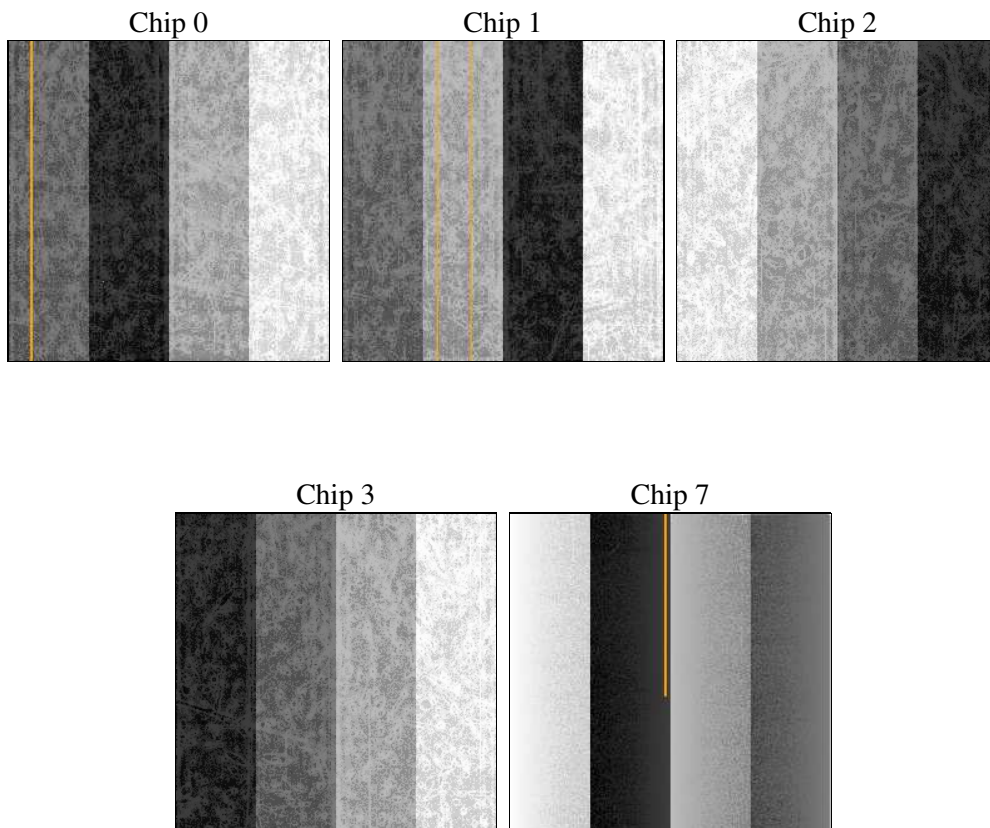
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	25900.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	25946.32309556	Sum of GTIs [s]
caldsver	4.9.3	 	ontime0	25955.623136878	Sum of GTIs [s]
date	2020-10-27T00:49:48	Date and time of file creation	ontime1	25955.664176941	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	25955.705216885	Sum of GTIs [s]
			ontime3	25946.32309556	Sum of GTIs [s]
			ontime7	25955.787296891	Sum of GTIs [s]
			l1events	989821	Number of level 1 events

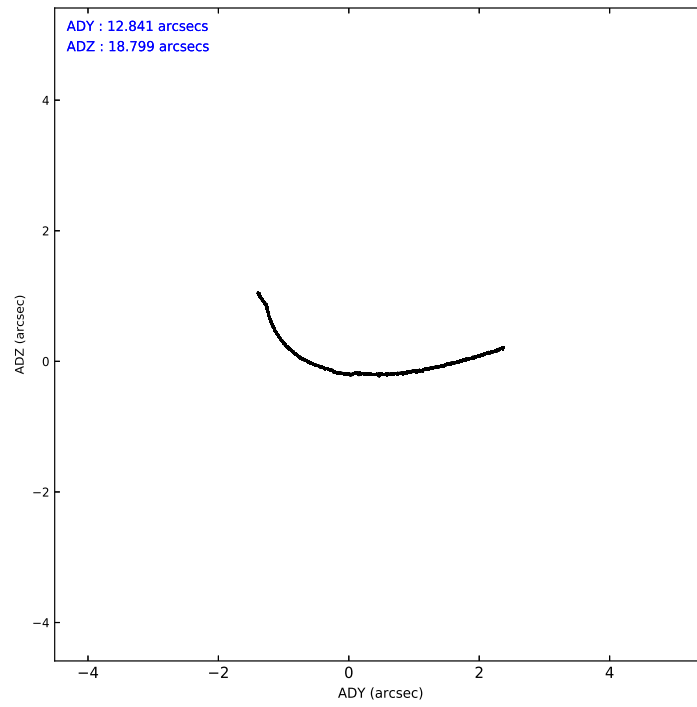
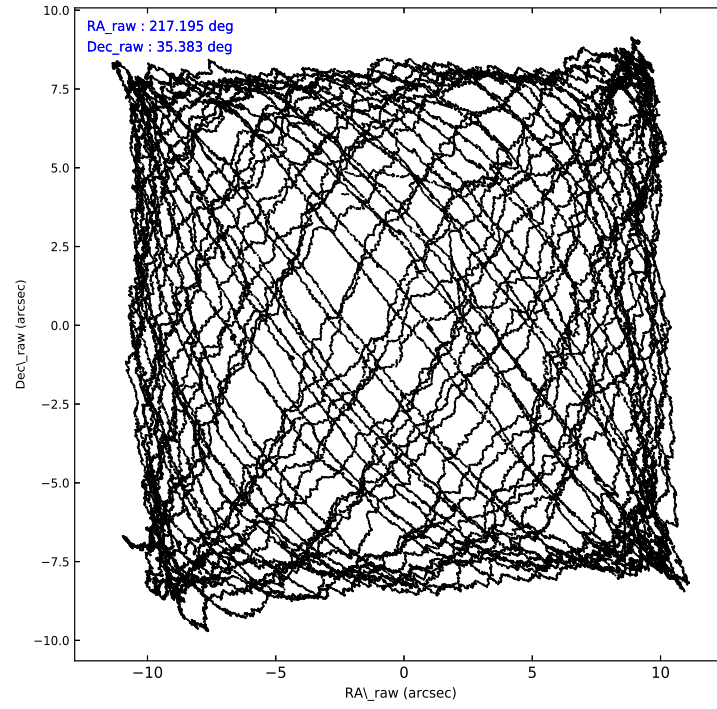
2.1.4 Events

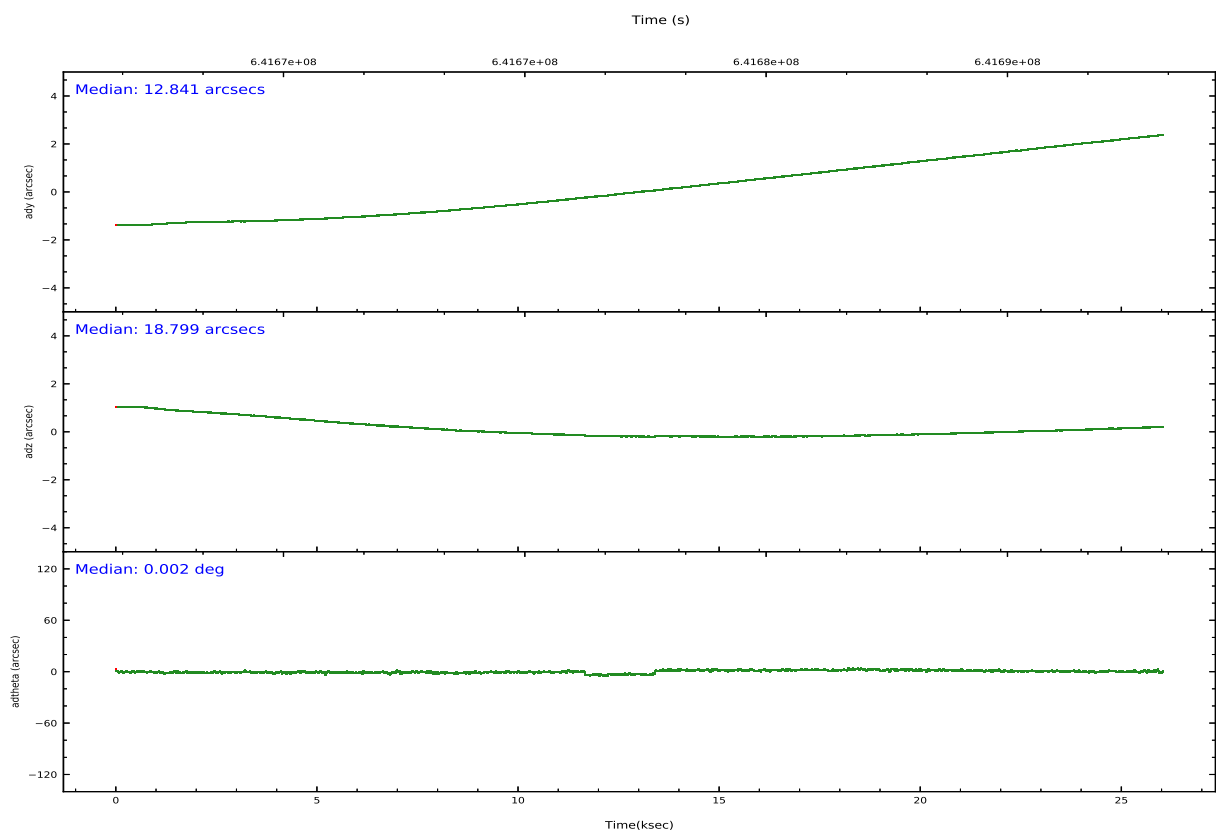
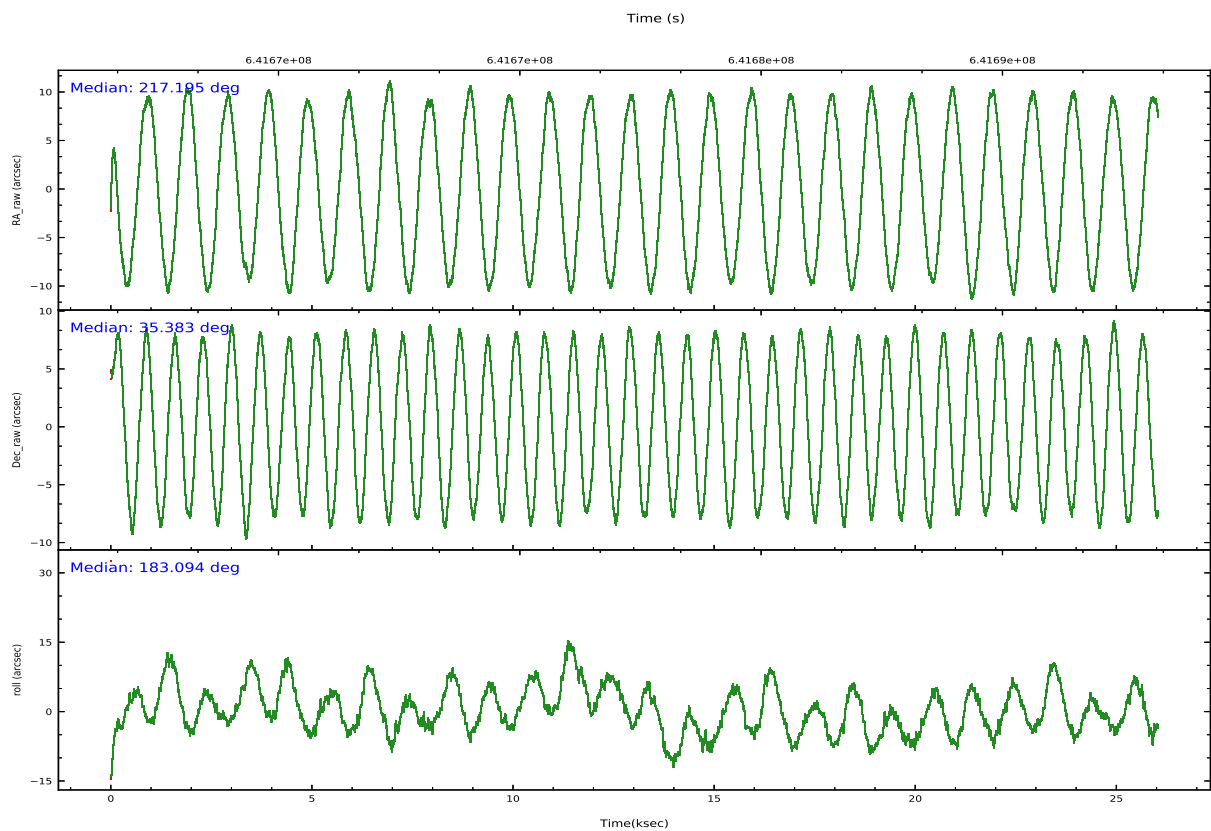
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
level 1 events	176384	185309	192992	187024	248112	grade 0 events	7393	12387	7756	7090	9161
rejected events	154865	156937	172030	167015	140455		4%	6%	4%	3%	3%
rejected %	87%	84%	89%	89%	56%	grade 1 events	97	111	140	128	336
							0%	0%	0%	0%	0%
						grade 2 events	5537	6149	5106	4499	23055
							3%	3%	2%	2%	9%
						grade 3 events	2224	2375	2045	2168	8524
							1%	1%	1%	1%	3%
						grade 4 events	2034	2341	2121	2041	8452
							1%	1%	1%	1%	3%
						grade 5 events	8197	8763	7574	9171	24873
							4%	4%	3%	4%	10%
						grade 6 events	4340	5133	3940	4215	58497
							2%	2%	2%	2%	23%
						grade 7 events	146562	148050	164310	157712	115214
							83%	79%	85%	84%	46%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-01237	ACIS-01237	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	217.223626	217.19960699446	CCD I2 on	Y	Y
[deg] Pointing Dec	35.397889	35.388422730228	CCD I3 on	Y	Y
[deg] Pointing Roll	182.880391	183.09407367633	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	N	N
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	O1	Y
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	641663970.184000	641662856.28408	CCD S5 on	N	N
Observation start date	2018-05-02T15:58:21	2018-05-02T15:40:56	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	641689870.184000	641690742.94823	On-chip summing requested	N	N
Observation end date	2018-05-02T23:10:01	2018-05-02T23:25:42	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



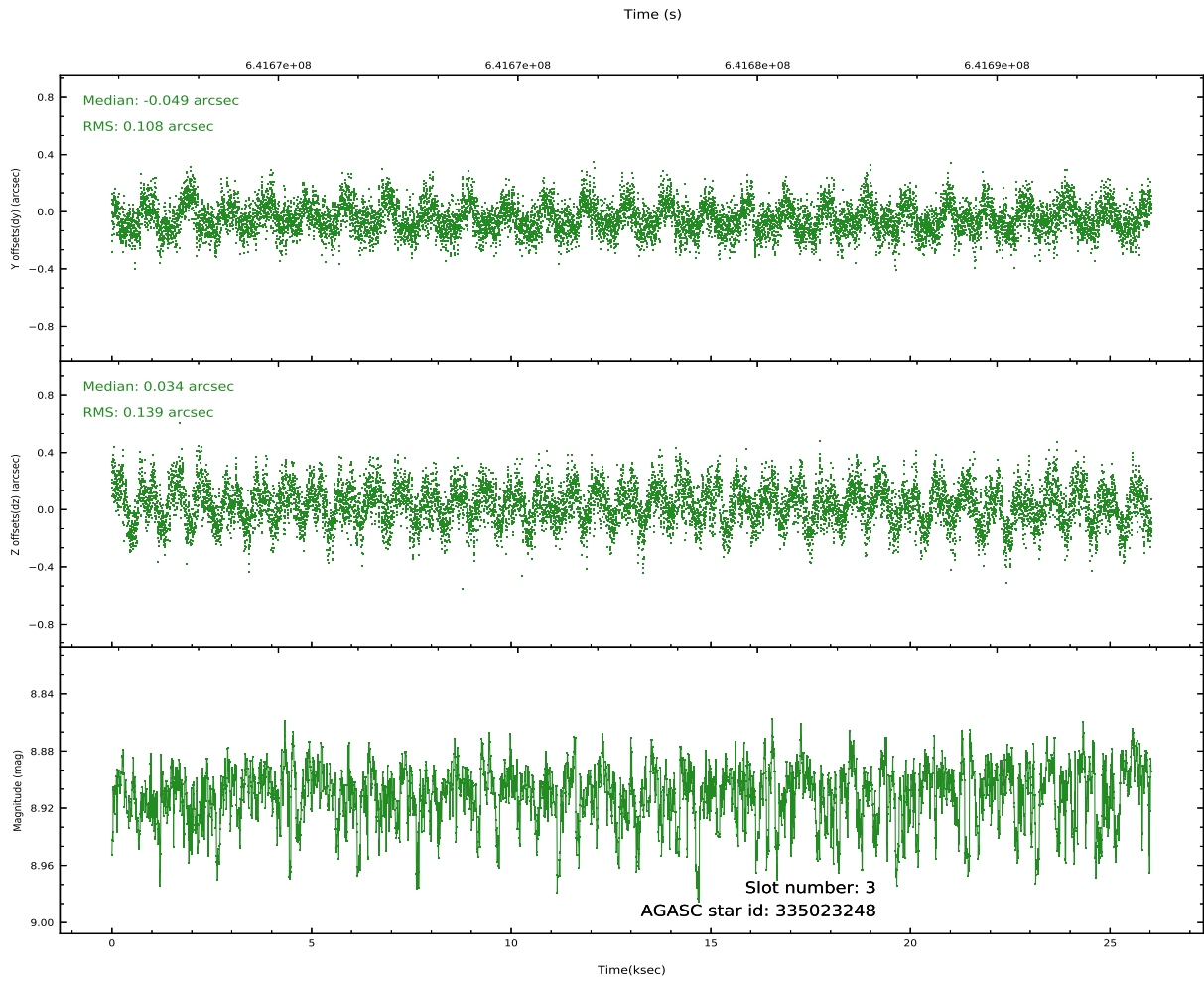
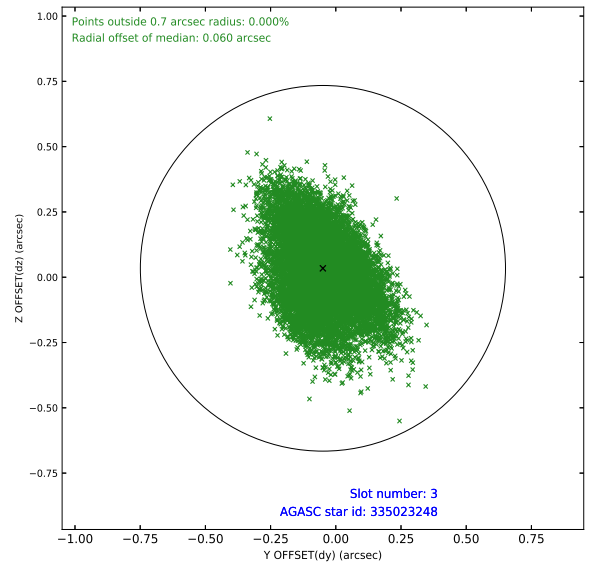
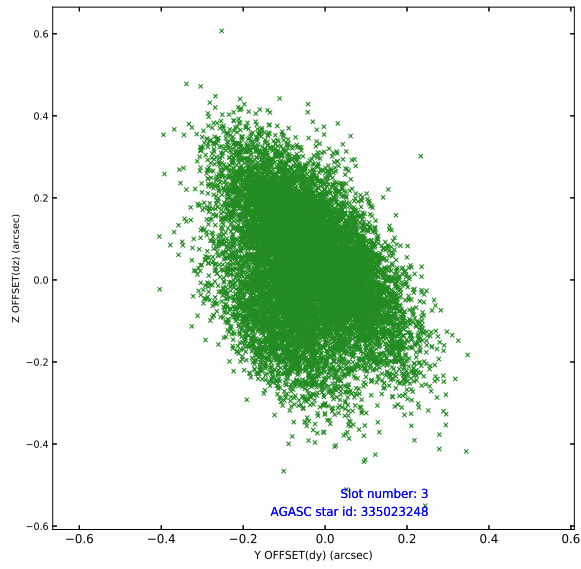


Slot Statistics

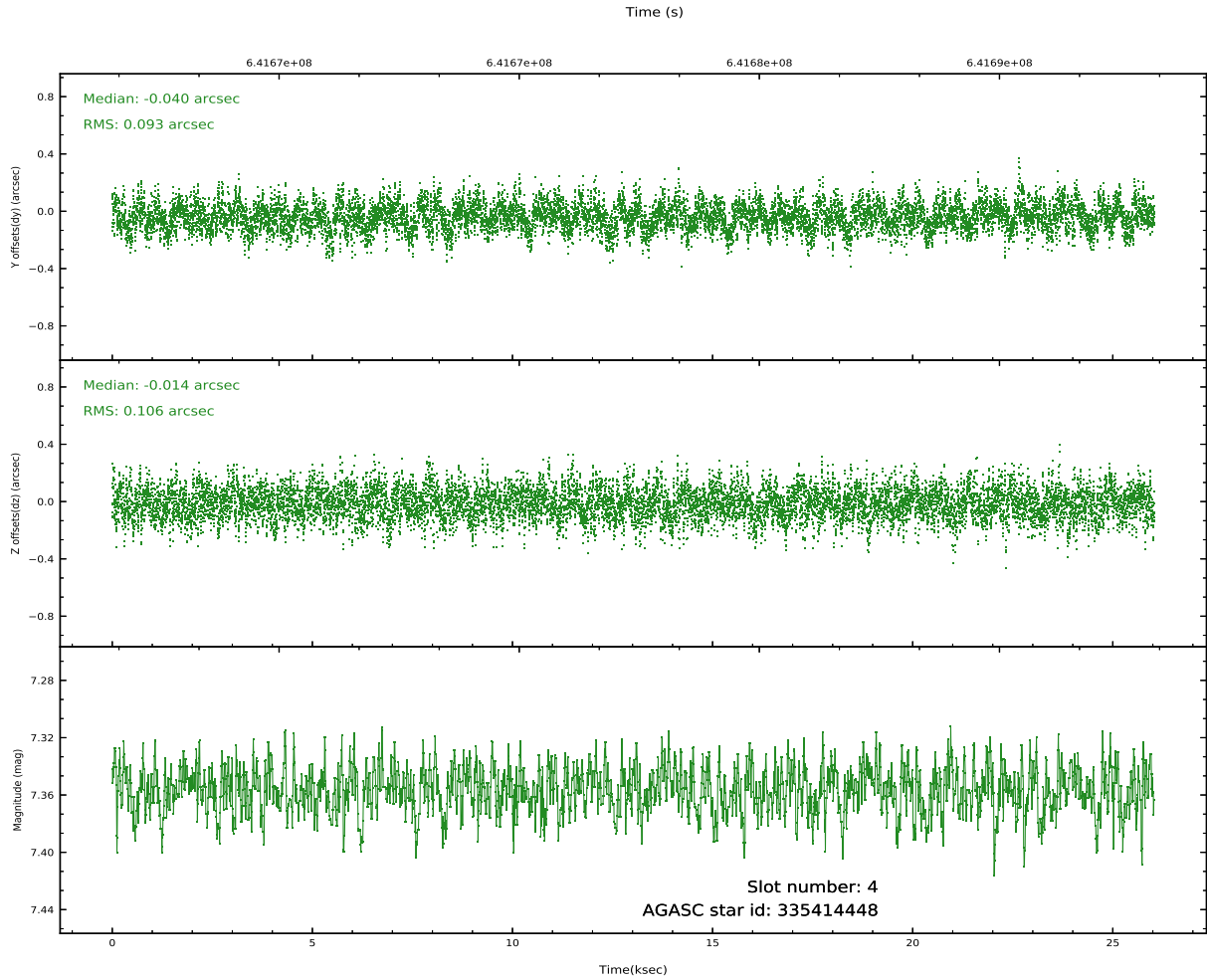
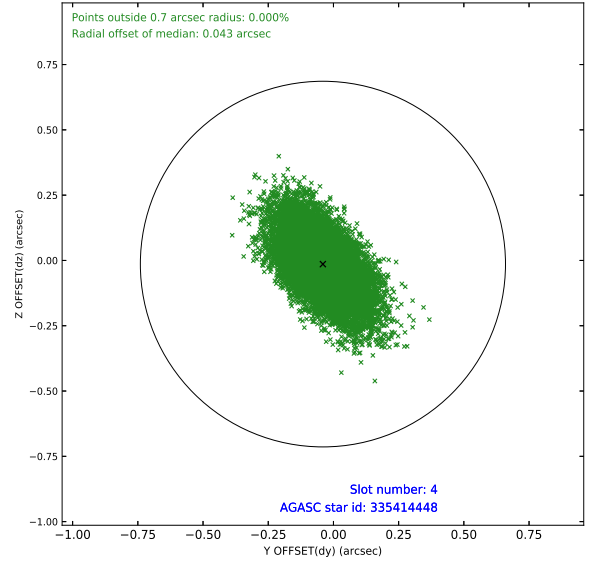
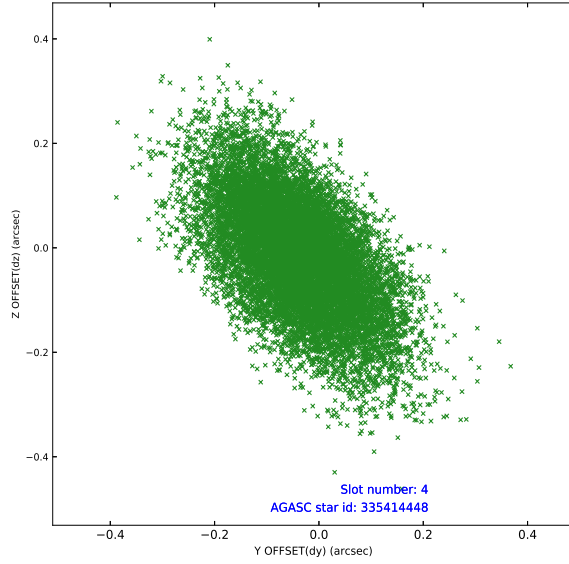
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-2	7.05	6352	1.000	0.024	0.002	0.018	0.034	0.000000	0.000000	-767.69	-848
1	FID		ACIS-I-4	7.11	6351	1.000	0.158	-0.002	0.022	0.034	0.000000	0.000000	2146.58	1056
2	FID		ACIS-I-5	7.13	6348	1.000	-0.288	0.069	0.022	0.041	0.000000	0.000000	-1821.56	1055
3	GUIDE	used	335023248	8.91	12693	1.000	-0.049	0.034	0.186	0.310	217.634832	34.944512	-1130.06	1688
4	GUIDE	used	335414448	7.36	12701	1.000	-0.040	-0.014	0.146	0.256	216.992261	35.577204	643.34	-677
5	GUIDE	used	335417968	9.38	12683	1.000	0.070	0.009	0.218	0.340	217.358149	35.055285	-333.29	1251
6	GUIDE	used	335422272	9.39	12683	1.000	0.125	0.075	0.349	0.489	217.586135	35.522660	-1083.33	-397
7	GUIDE	used	335030384	8.79	12690	1.000	-0.101	-0.088	0.144	0.260	216.806407	34.722197	1354.91	2365

2.4 Star Slots

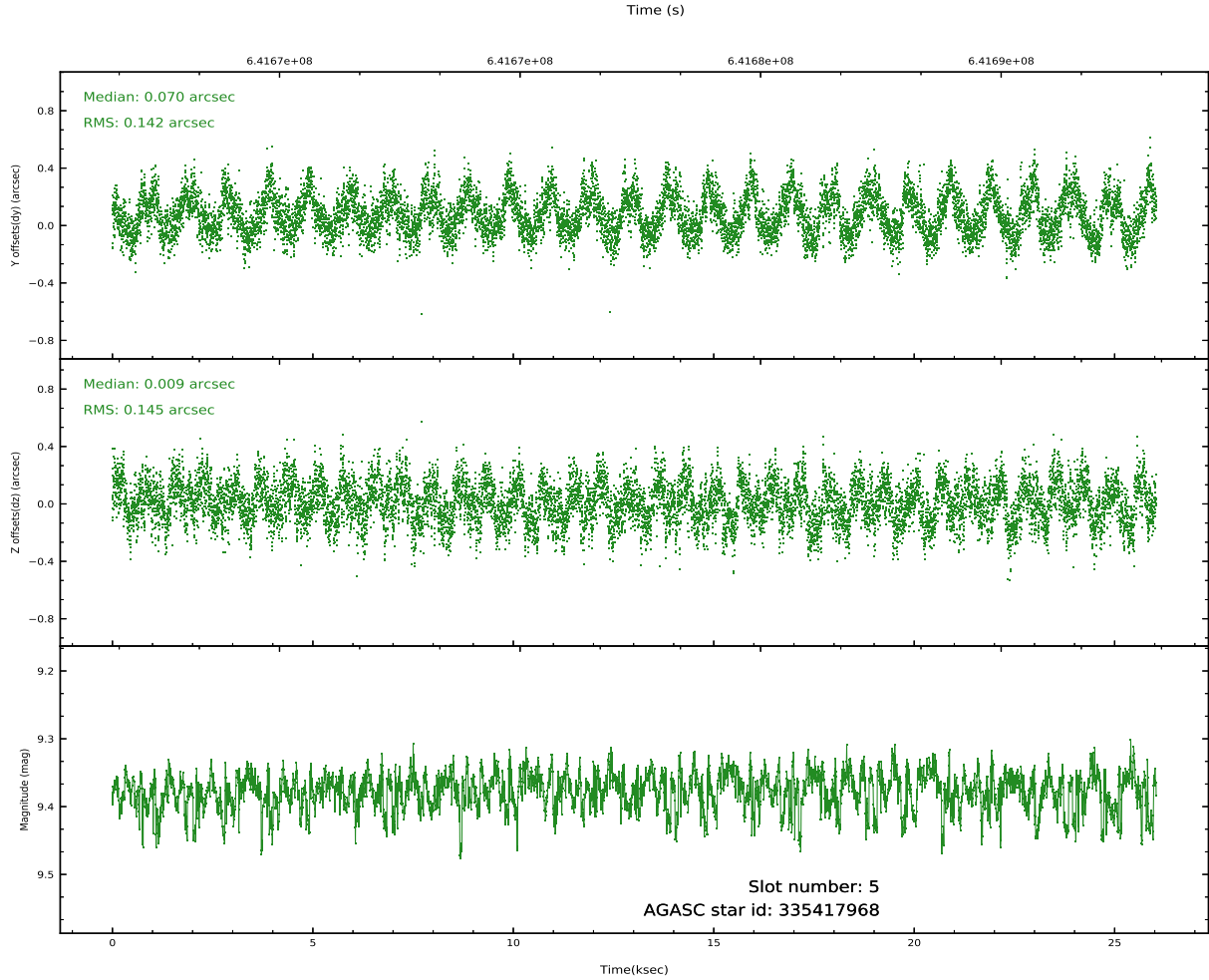
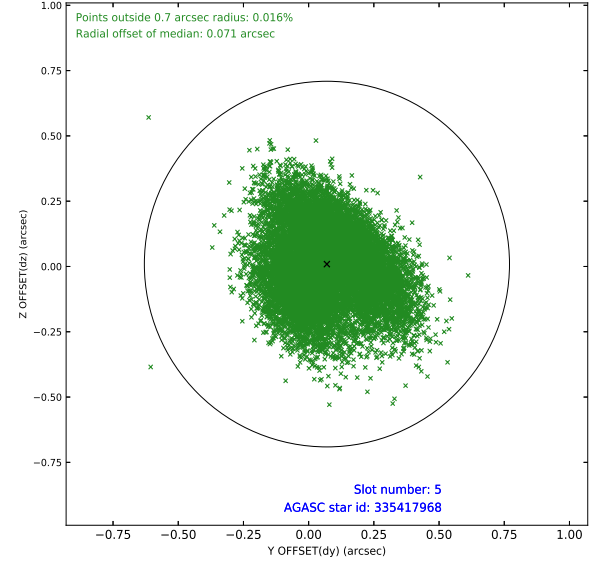
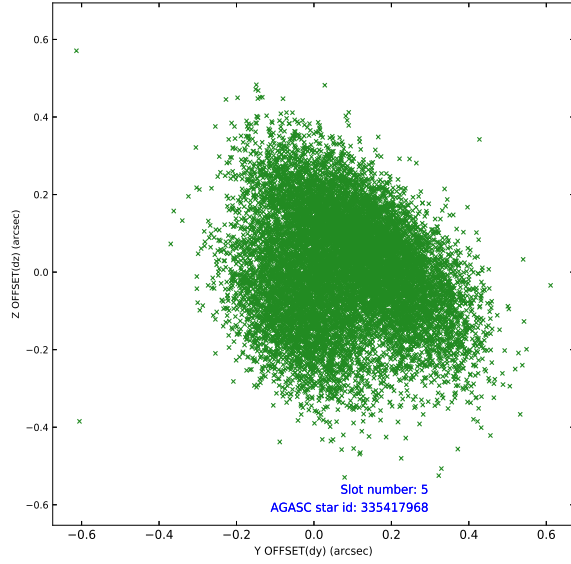
2.4.1 Slot 3



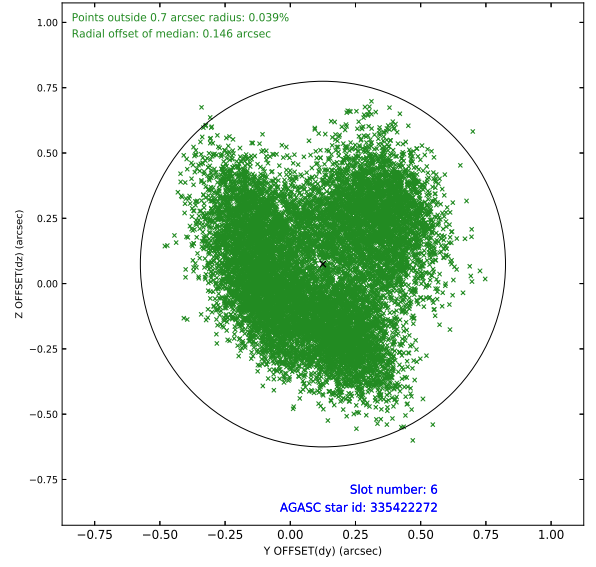
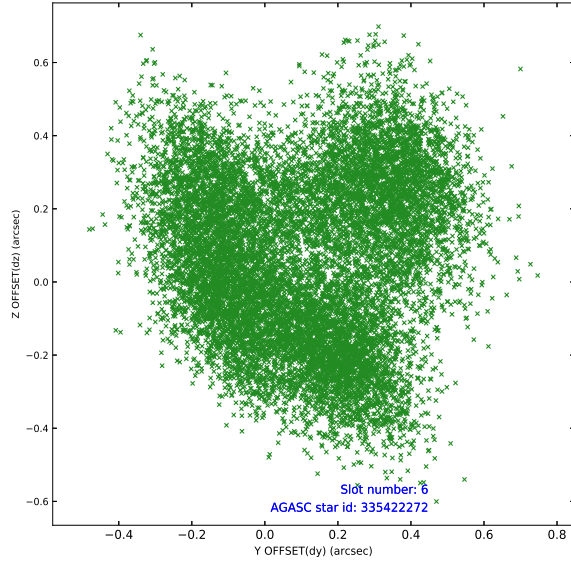
2.4.2 Slot 4



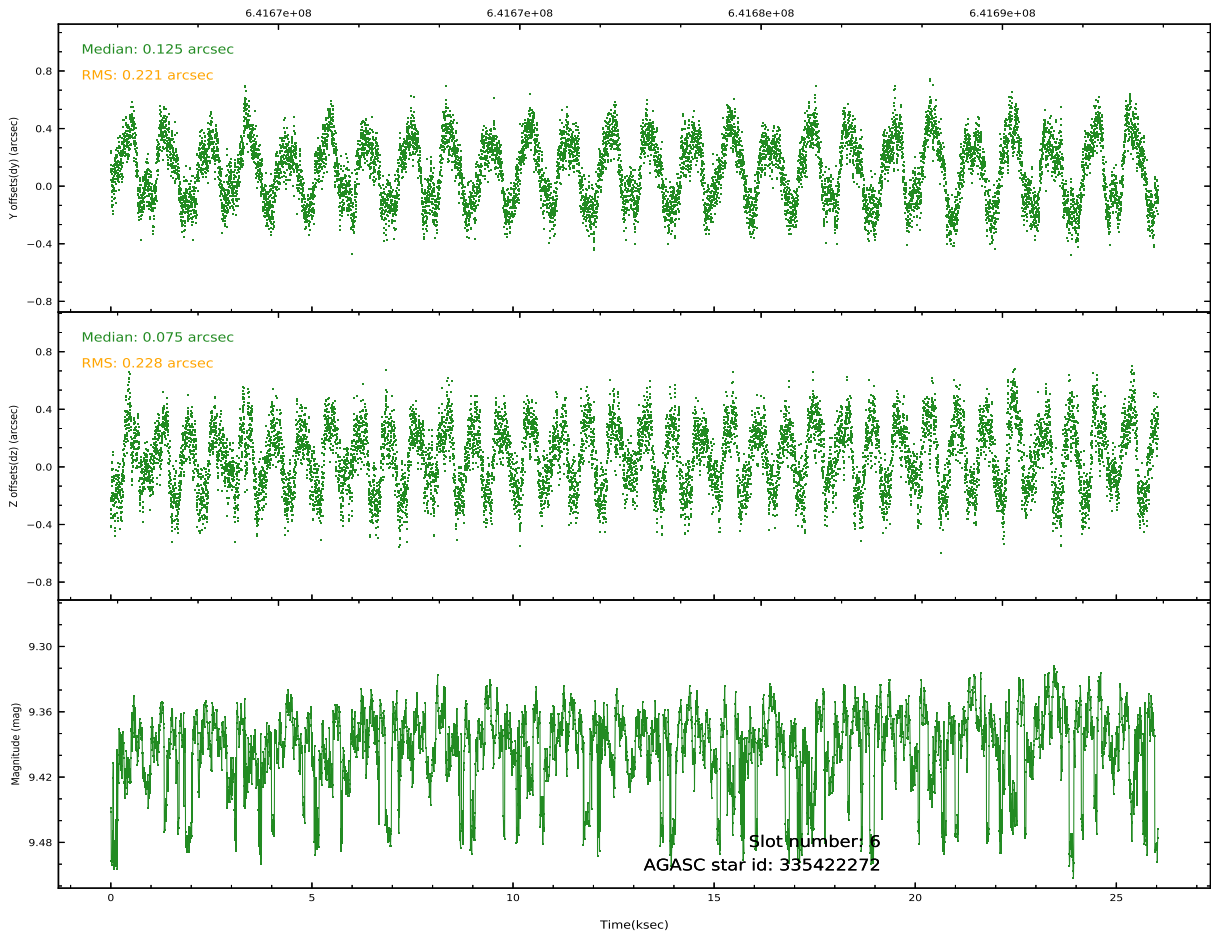
2.4.3 Slot 5



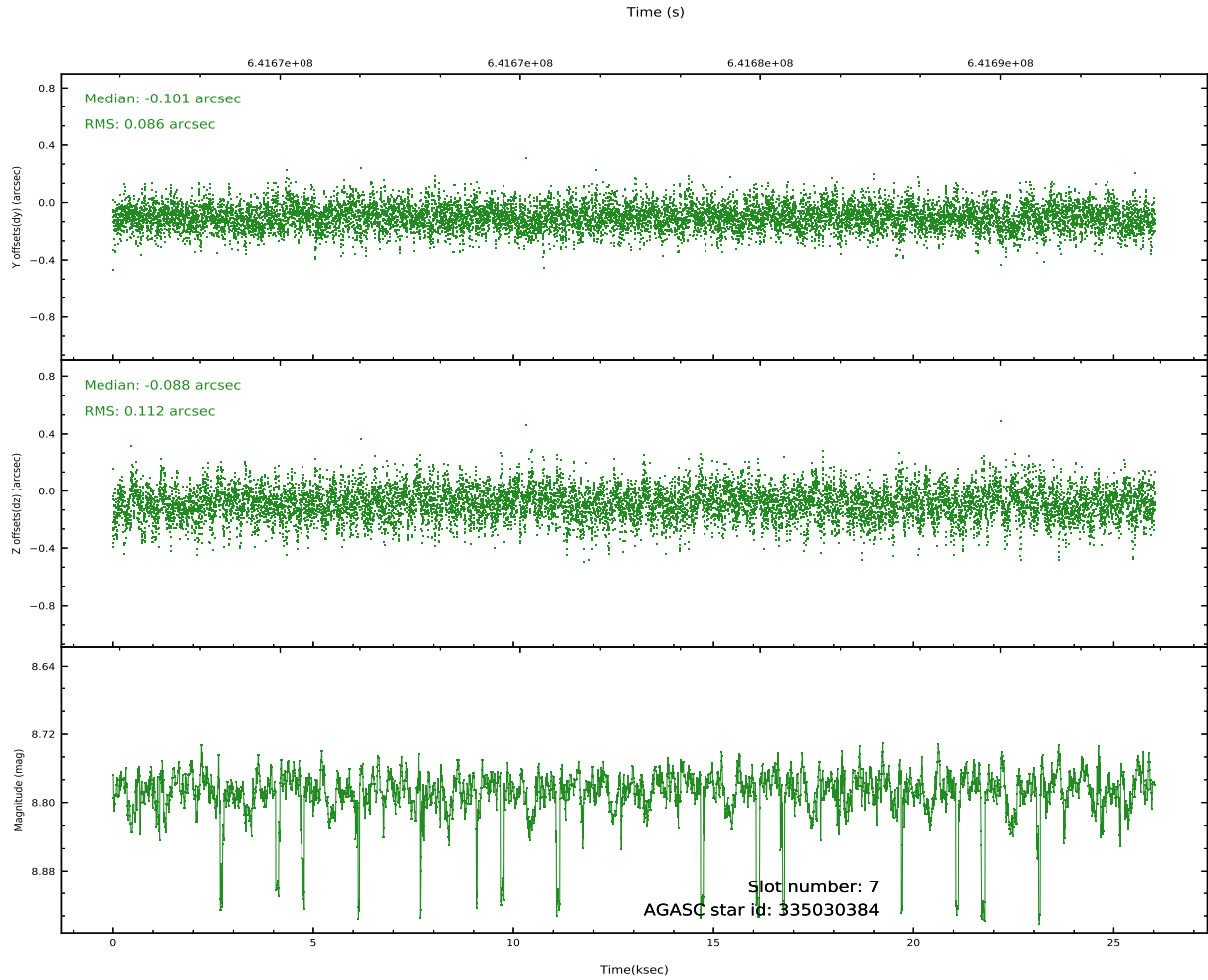
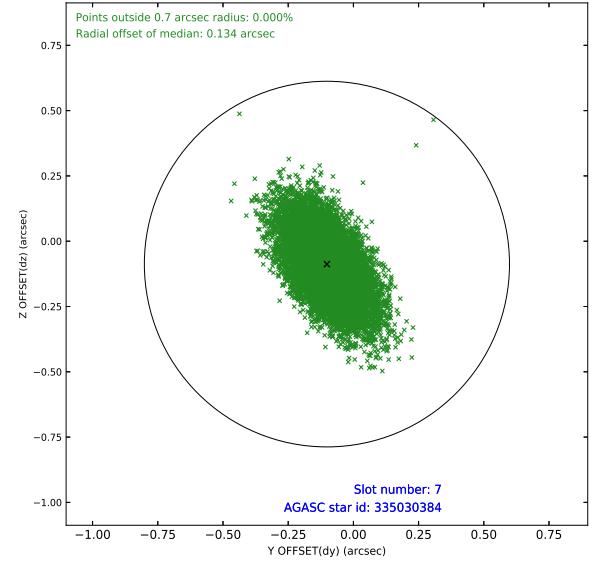
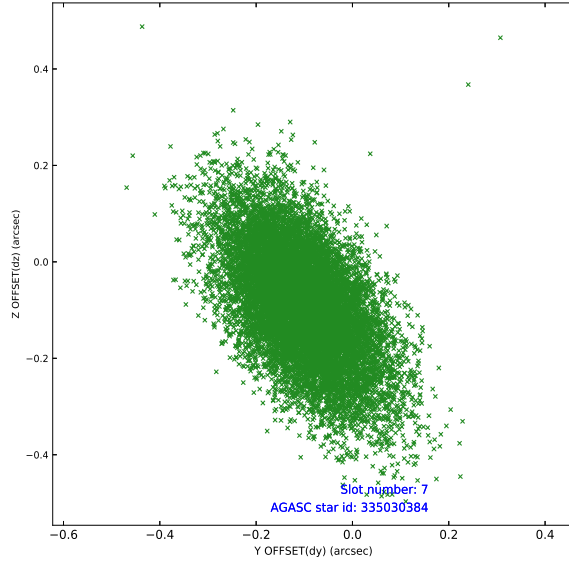
2.4.4 Slot 6



Time (s)

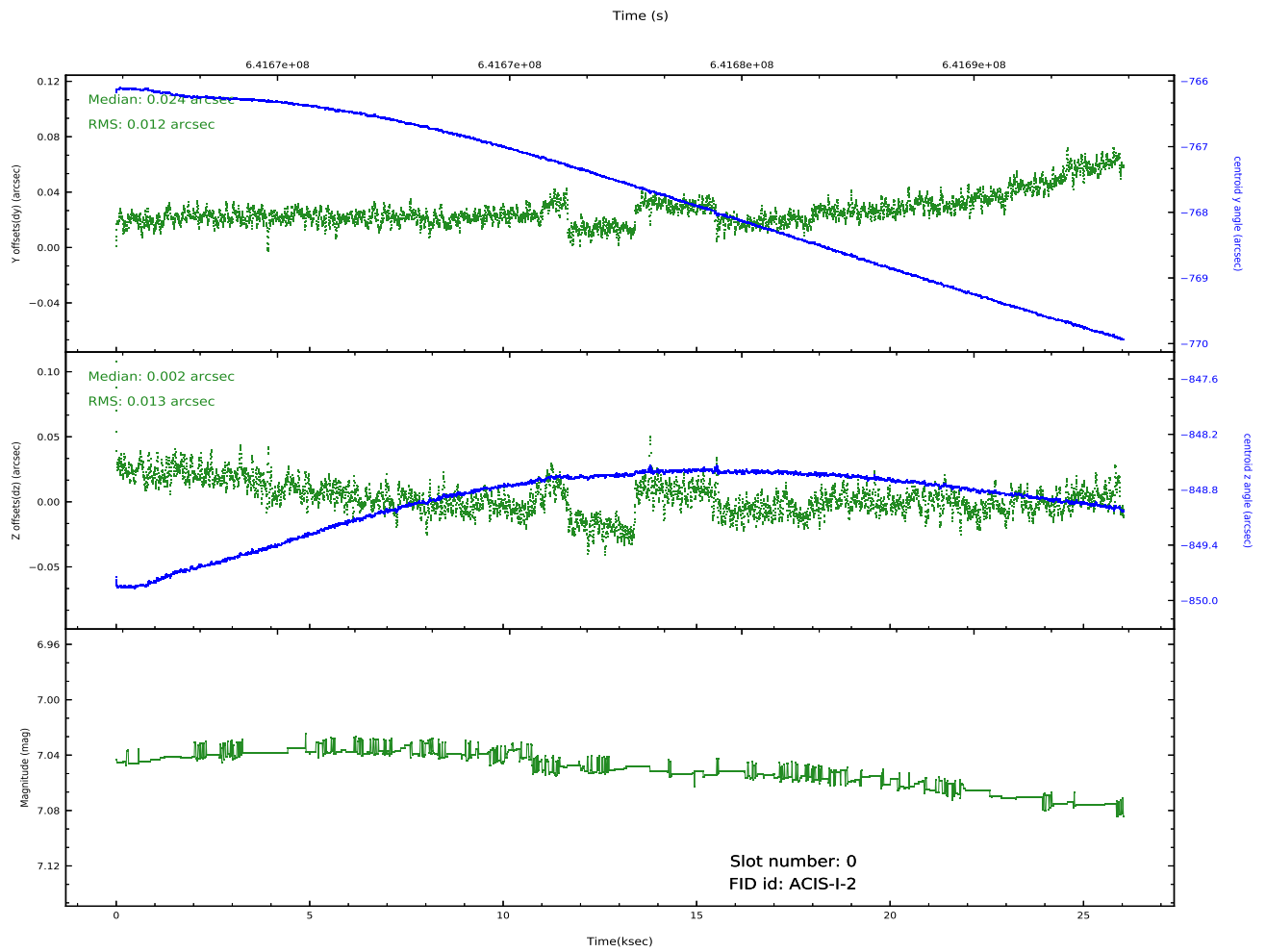
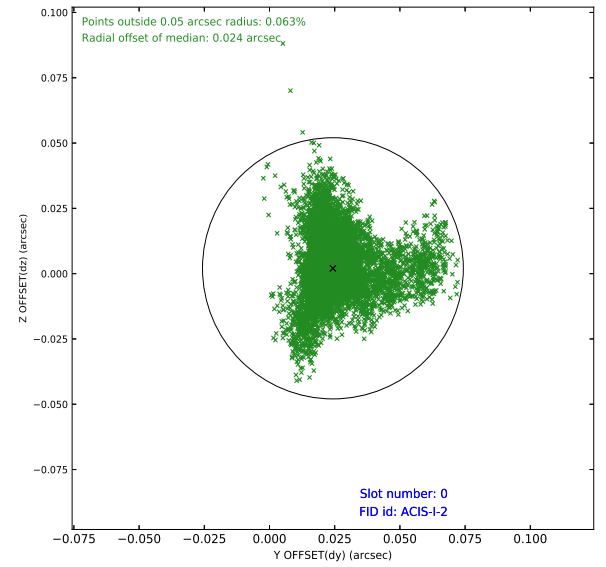
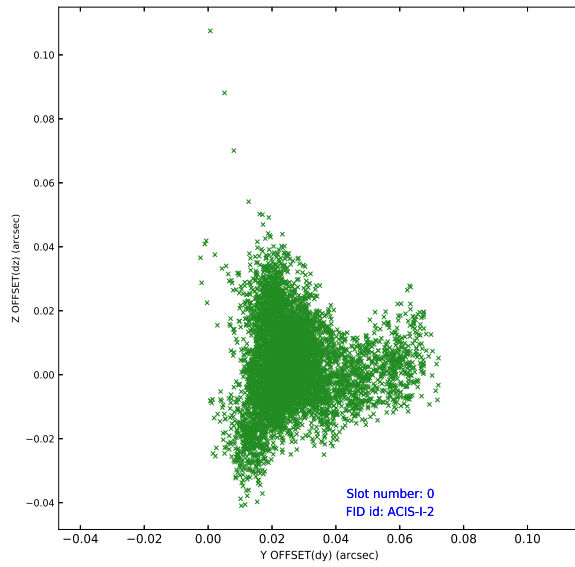


2.4.5 Slot 7

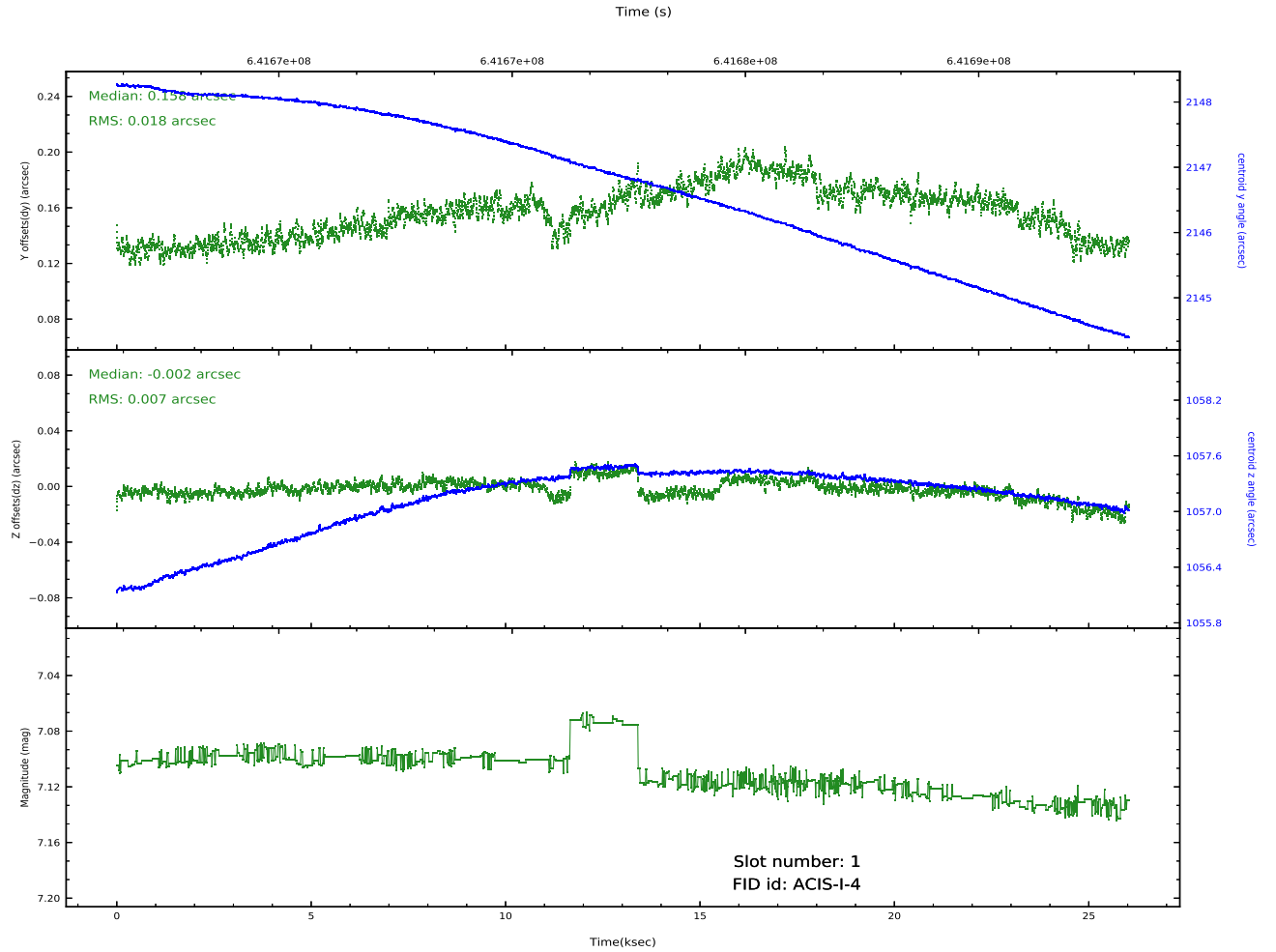
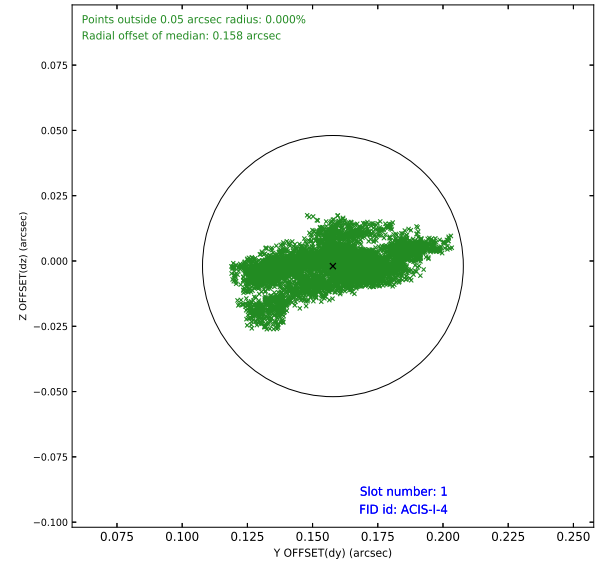
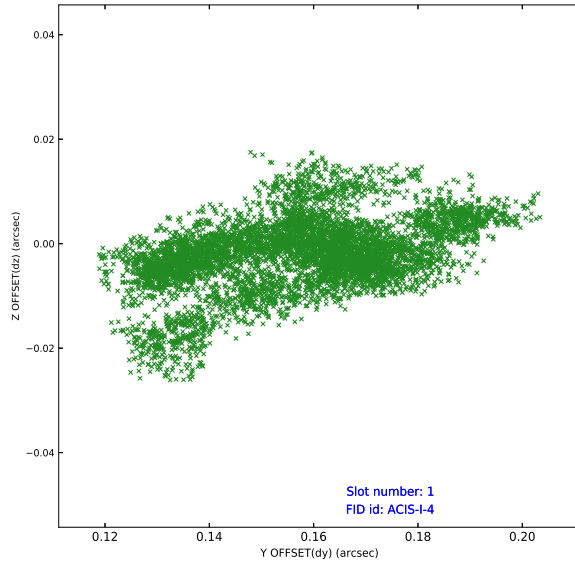


2.5 FID Slots

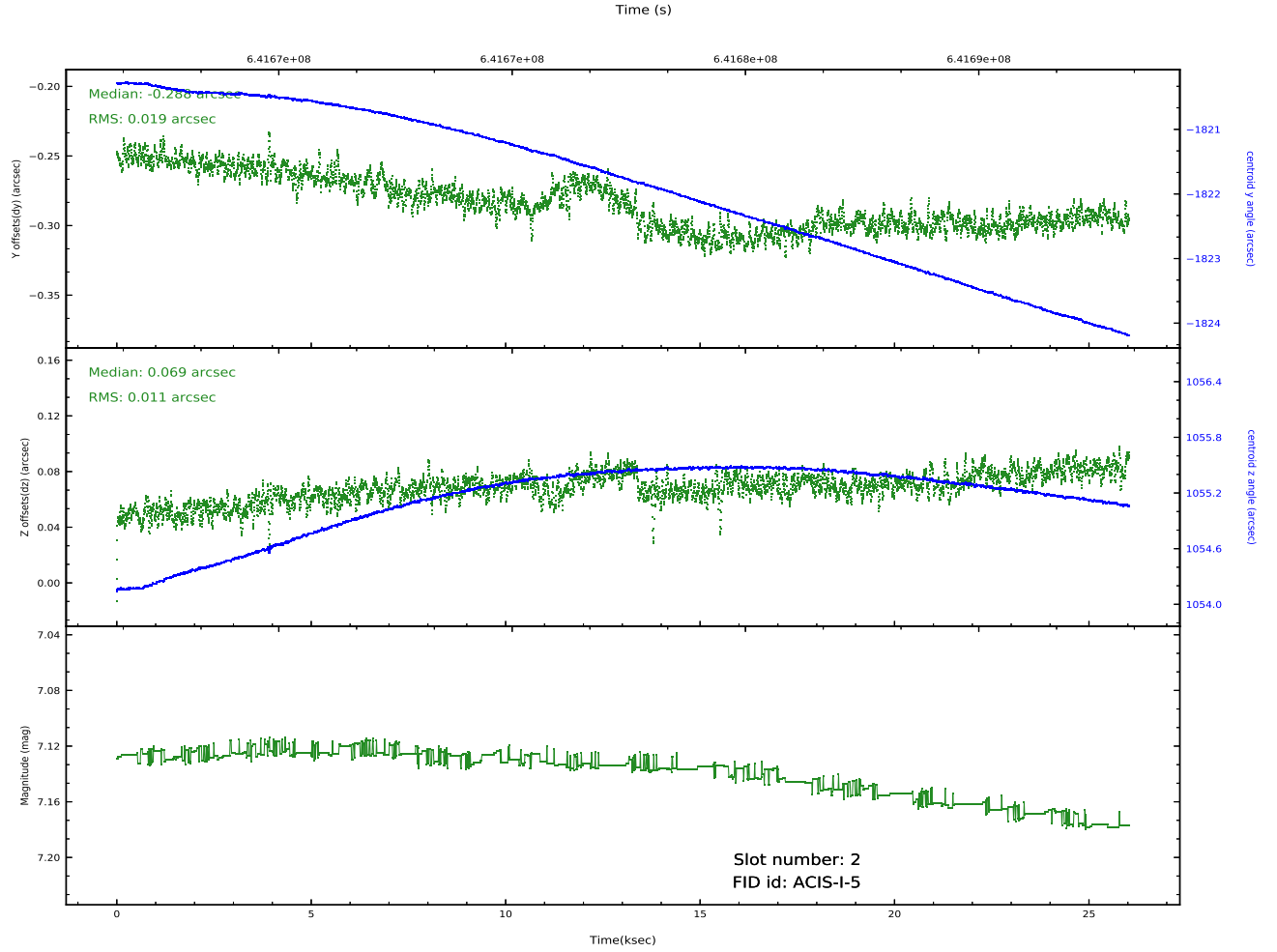
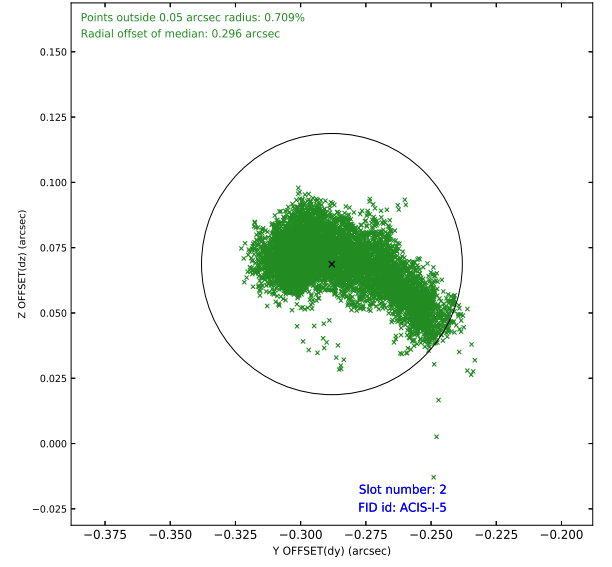
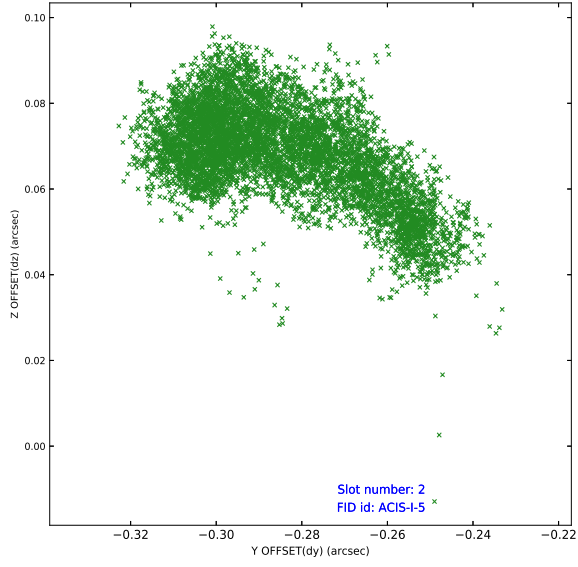
2.5.1 Slot 0



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)	2020.10.28
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	25.946323099256

A.2 Comments

A spatial region of the original bias map for CCD = 3 suffered from anomalously high data values. Pixels in the event data that were bias-corrected by one of the original 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 = 3 has been reconstructed for this processing to remove this anomaly using scaled data from a comparable bias map from another observation. The pixels affected by the anomaly are bounded by sky coords: (217.36920,35.33426), (217.36896,35.33821), (217.31238,35.33577), (217.31262,35.33182).