

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 5000 - L2 Version 5
Chandra X-Ray Center

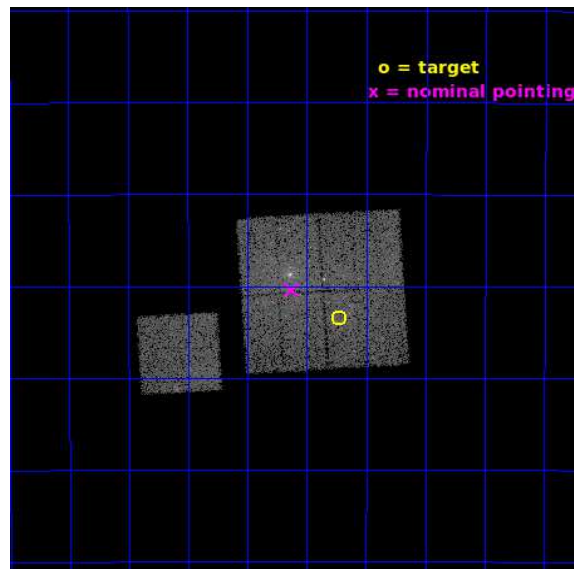
L2 Processing Date : Oct 5 2020

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1 Front

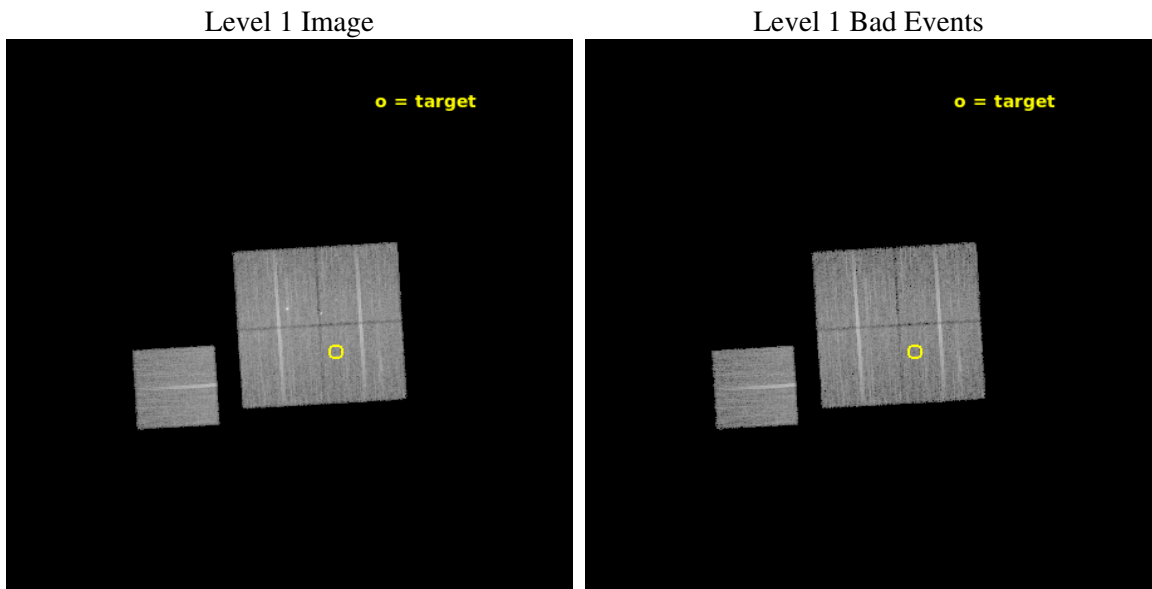
seq_num	800443	Sequence number
obs_id	5000	Observation id
title	Study of Candidate 'Fossil Groups	Proposal title
observer	Dr. Stephen Murray	Principal investigator
object	NGC 5419	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	210.807083	Observer's specified target RA [deg]
dec_targ	-34.057111	Observer's specified target Dec [deg]
ra_nom	210.9063296549	Nominal RA [deg]
dec_nom	-34.006541849449	Nominal Dec [deg]
roll_nom	266.50954737306	Nominal Roll [deg]
revision	5	Processing version of data
ontime	15009.648022056	Sum of GTIs [s]
livetime	14813.535920705	Livetime [s]
ontime0	15009.648022056	Sum of GTIs [s]
ontime1	15009.689062059	Sum of GTIs [s]
ontime2	15003.448061943	Sum of GTIs [s]
ontime3	15006.630151808	Sum of GTIs [s]
ontime6	15003.325001657	Sum of GTIs [s]
l2events	57352	Number of level 2 events



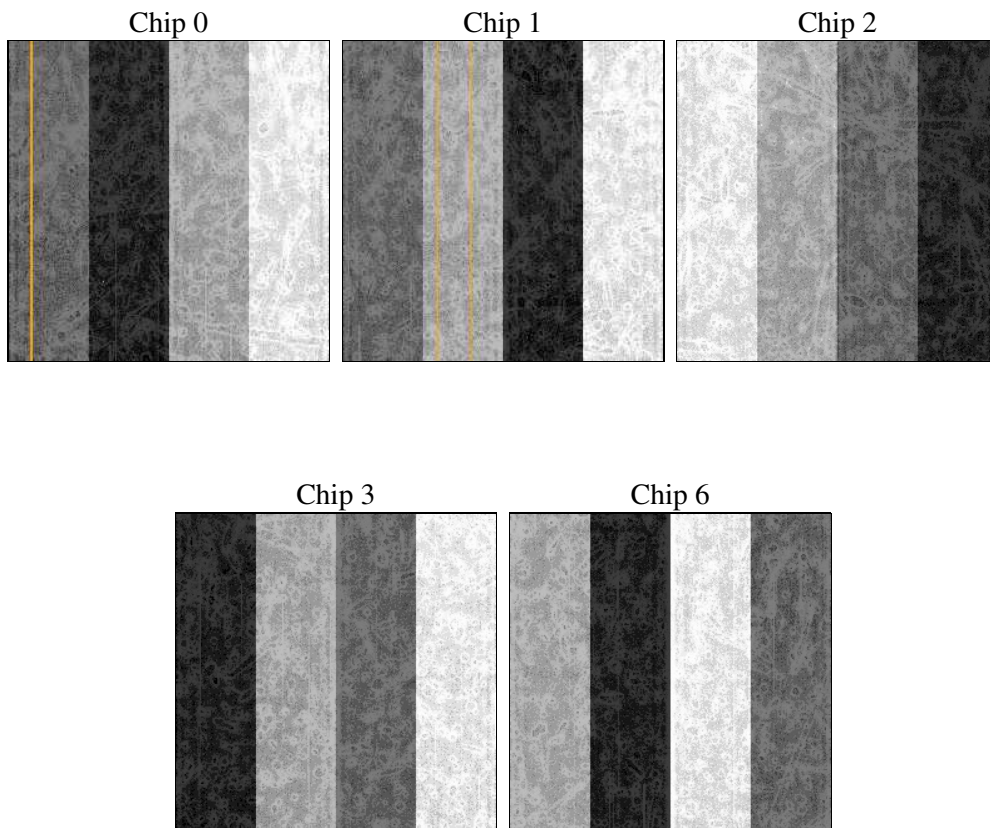
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	15231.482000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	15009.648022056	Sum of GTIs [s]
caldsver	4.9.2	 	ontime0	15009.648022056	Sum of GTIs [s]
date	2020-10-05T23:59:53	Date and time of file creation	ontime1	15009.689062059	Sum of GTIs [s]
revision	5	Processing version of data	ontime2	15003.448061943	Sum of GTIs [s]
			ontime3	15006.630151808	Sum of GTIs [s]
			ontime6	15003.325001657	Sum of GTIs [s]
			l1events	479002	Number of level 1 events

2.1.4 Events

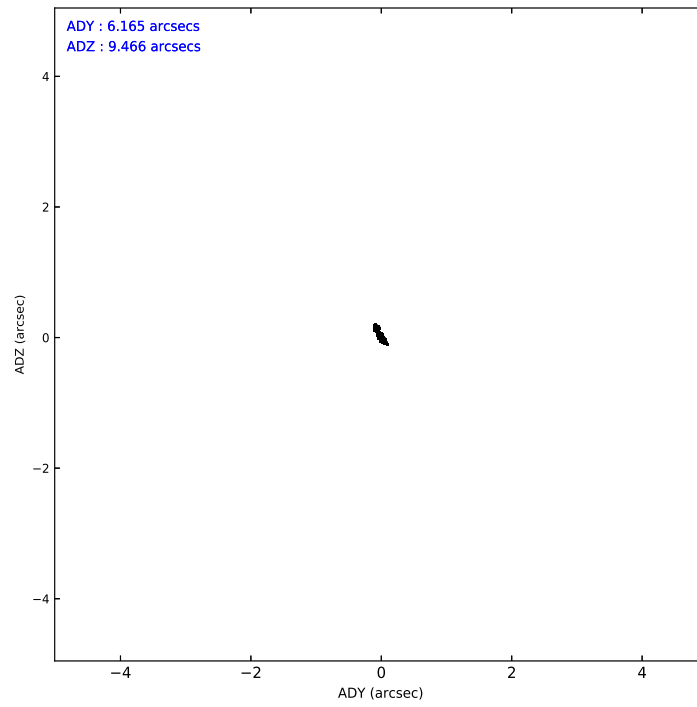
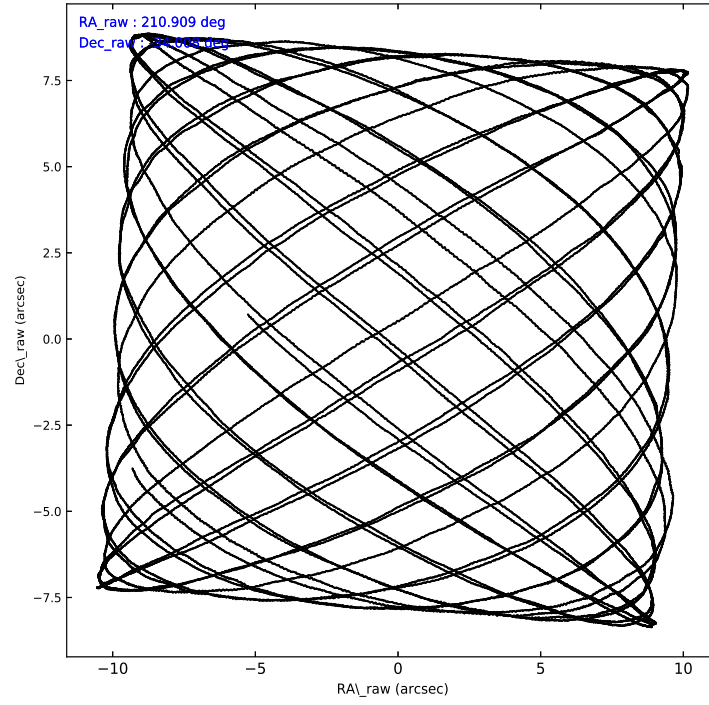
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	92641	91869	99397	100583	94512
rejected events	80198	78131	86726	84006	83289
rejected %	86%	85%	87%	83%	88%

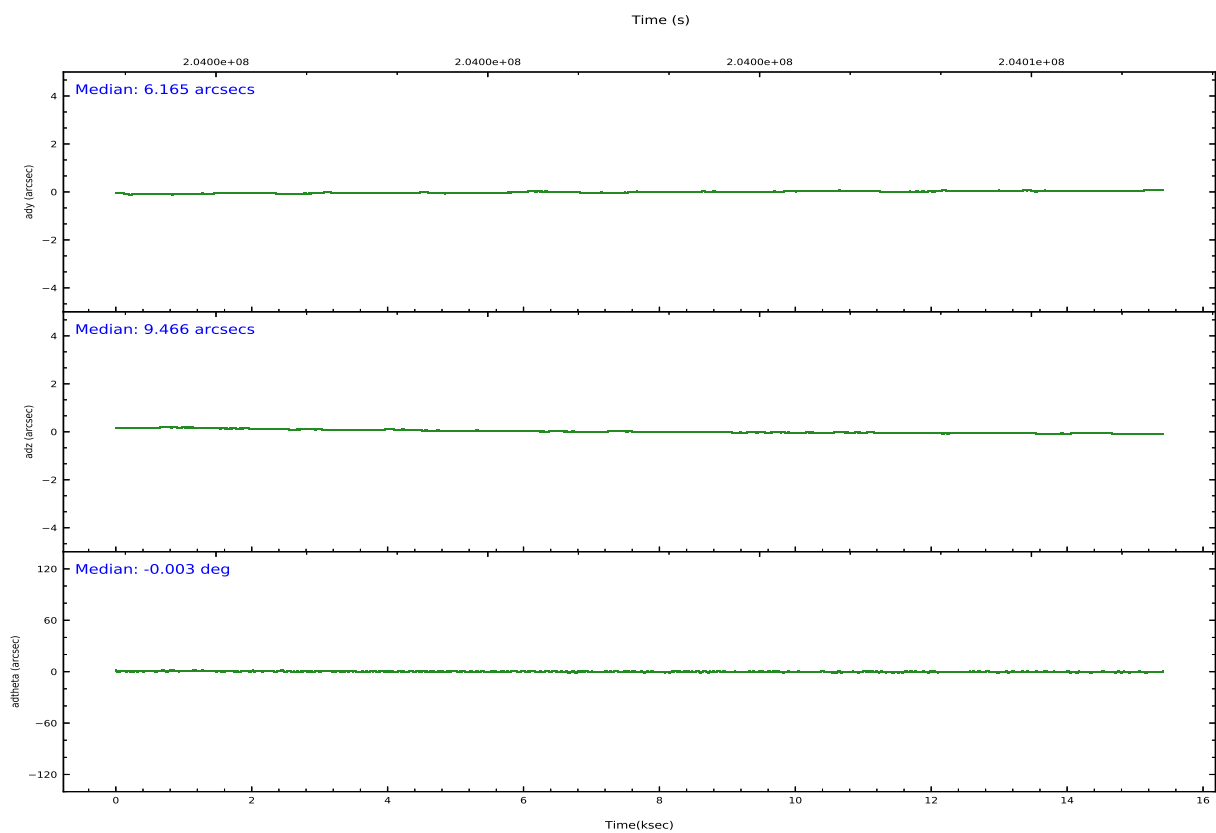
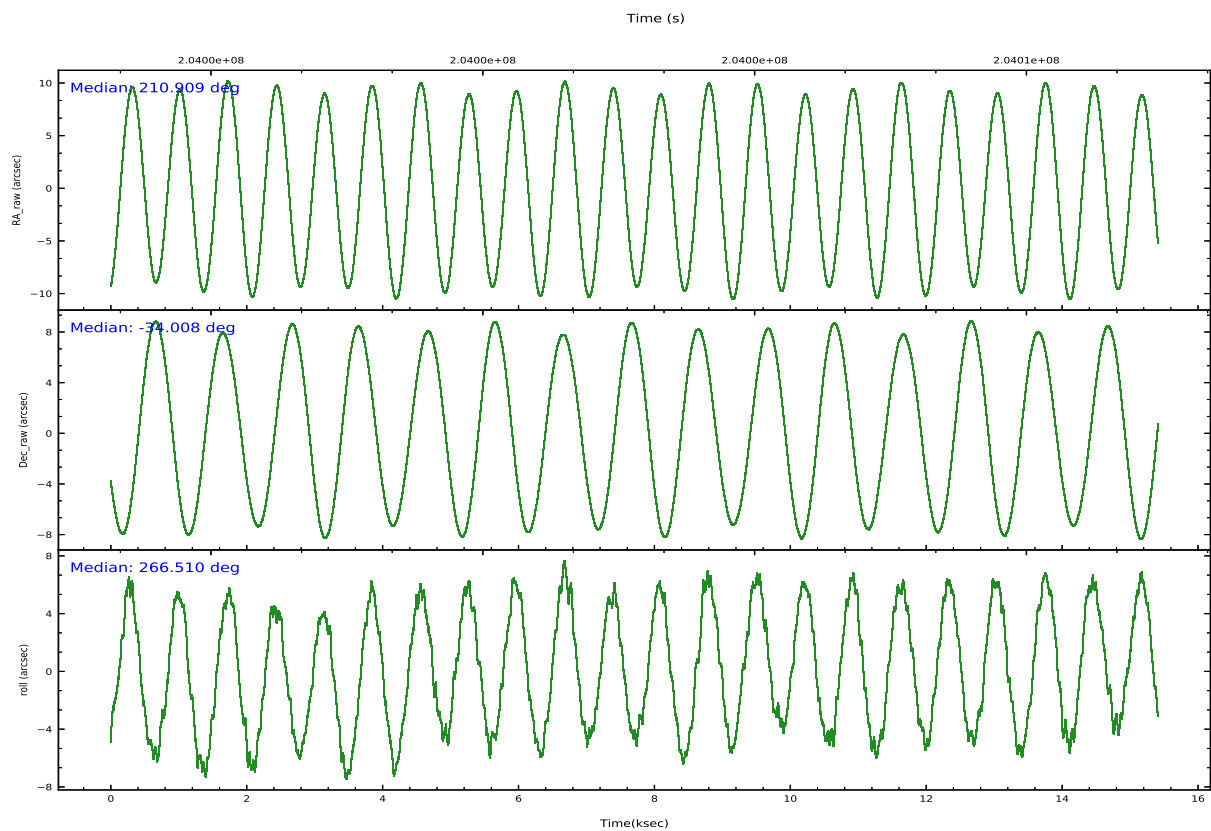
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	5876	6698	6459	9693	4845
	6%	7%	6%	9%	5%
grade 1 events	57	53	64	133	47
	0%	0%	0%	0%	0%
grade 2 events	2399	2542	2401	2566	2154
	2%	2%	2%	2%	2%
grade 3 events	1227	1234	1049	1230	1070
	1%	1%	1%	1%	1%
grade 4 events	1063	1229	1066	1216	1101
	1%	1%	1%	1%	1%
grade 5 events	3298	3346	2993	3693	3571
	3%	3%	3%	3%	3%
grade 6 events	1883	2038	1700	1879	2056
	2%	2%	1%	1%	2%
grade 7 events	76838	74729	83665	80173	79668
	82%	81%	84%	79%	84%

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	210.894642	210.9063296549	Subarray requested	NONE	NONE
[deg] Pointing Dec	-33.984011	-34.006541849449	Alternating exposures requested	N	N
[deg] Pointing Roll	266.293392	266.50954737306	[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	-225.592463	-225.5843688559632			
[mm] SIM translation stage offset	-8	-8.008084146966468			
[s] Observation start time (MET)	203994706.184000	203994330.06819			
Observation start date	2004-06-19T01:10:42	2004-06-19T01:05:30			
[s] Observation end time (MET)	204009937.184000	204010162.73139			
Observation end date	2004-06-19T05:24:33	2004-06-19T05:29:22			
Read mode	TIMED	TIMED			

2.3 Aspect



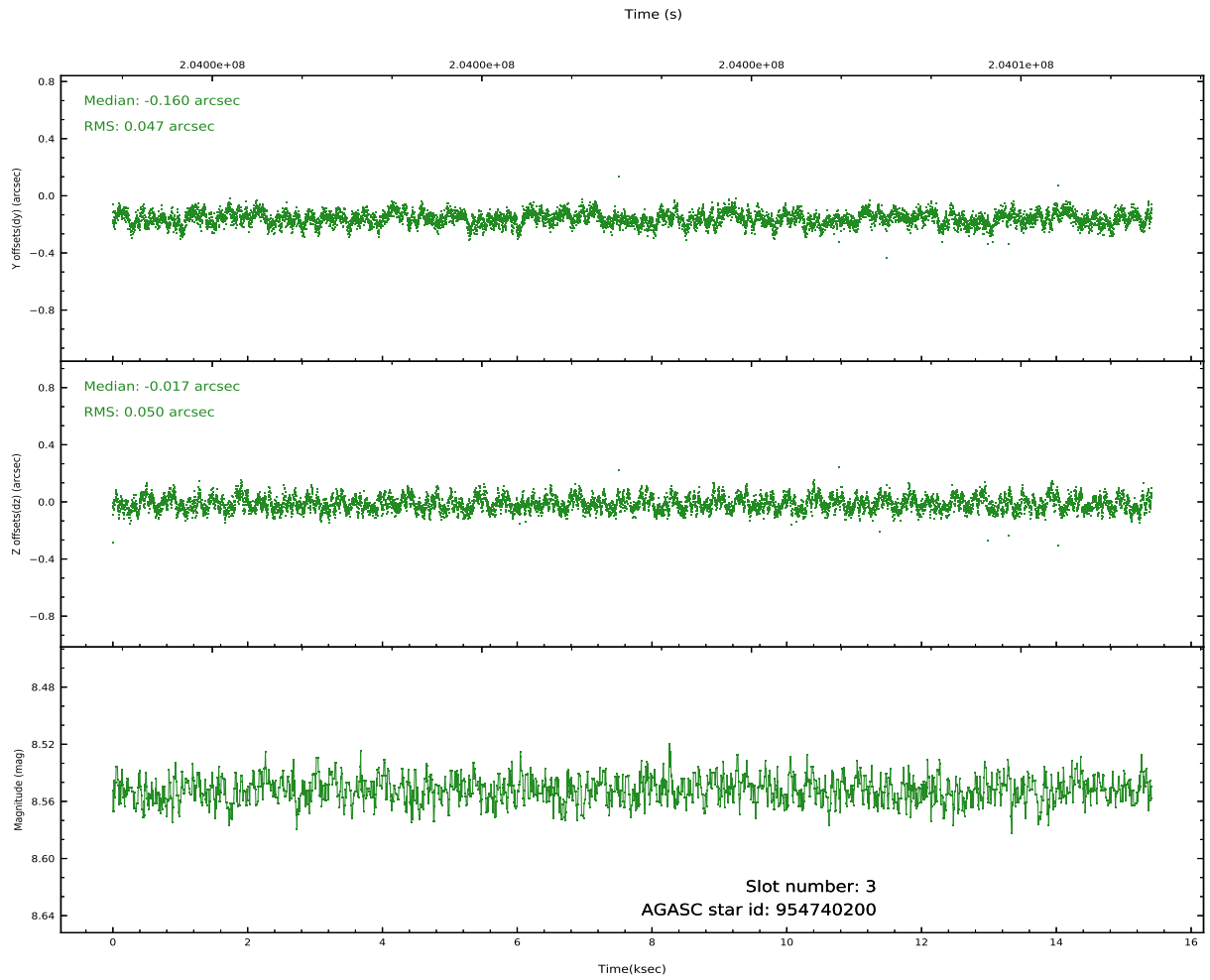
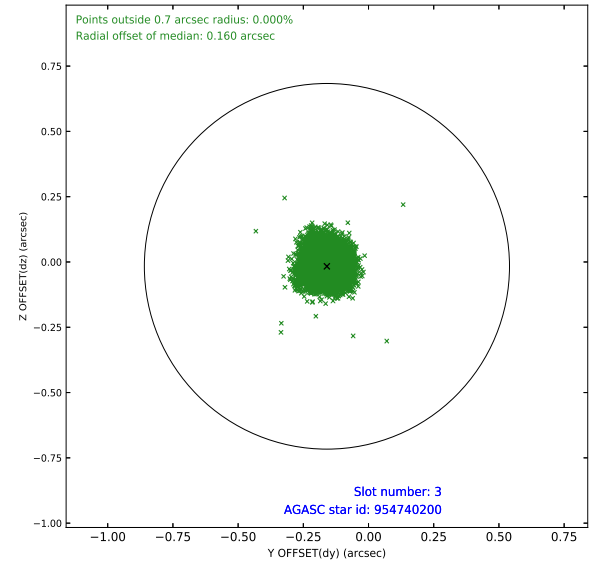
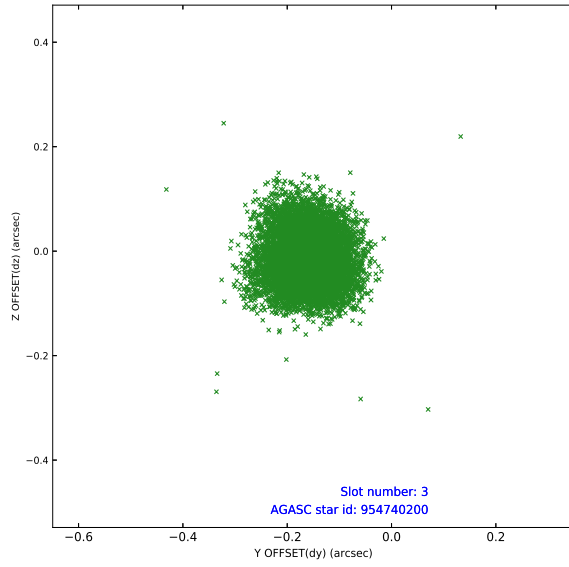


Slot Statistics

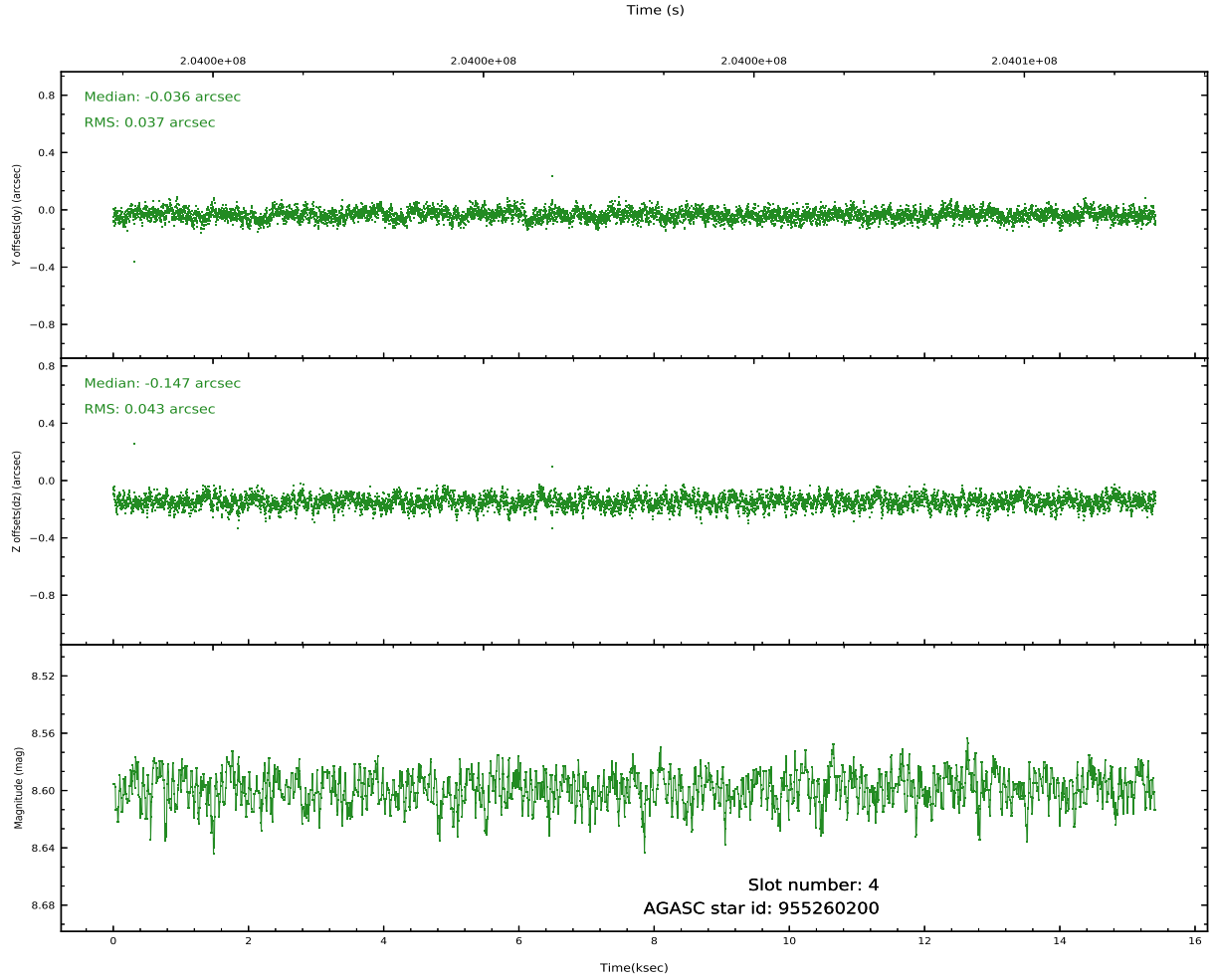
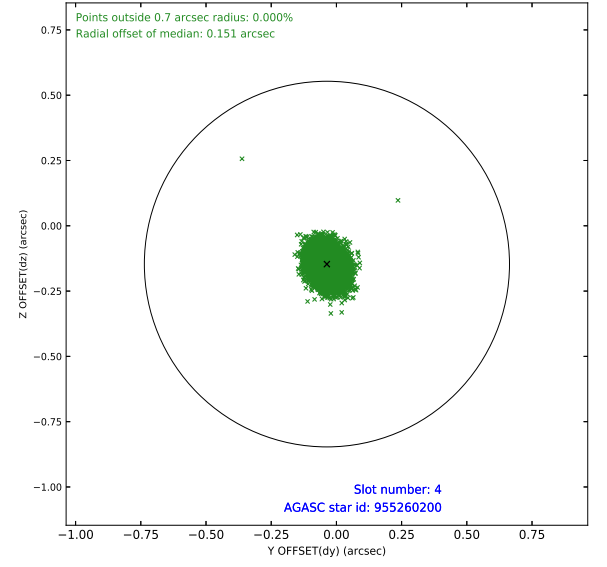
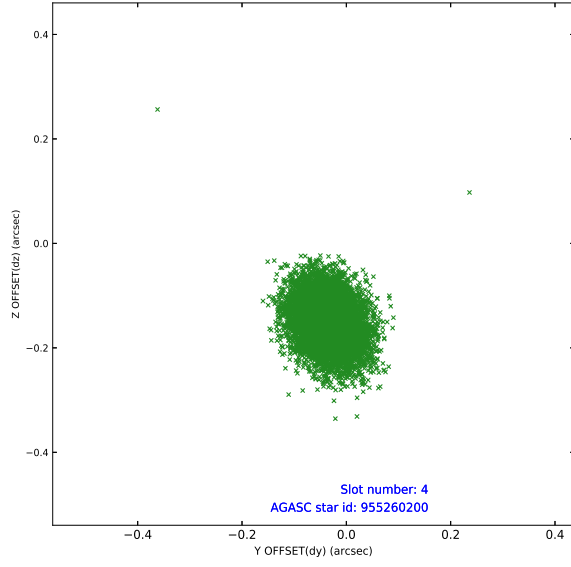
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.23	3760	1.000	0.106	-0.107	0.006	0.011	0.000000	0.000000	933.52	-997
1	FID		ACIS-I-5	7.22	3760	1.000	-0.266	0.082	0.006	0.011	0.000000	0.000000	-1814.82	900
2	FID		ACIS-I-6	7.25	3760	1.000	0.068	0.096	0.007	0.011	0.000000	0.000000	398.68	1544
3	GUIDE	used	954740200	8.55	7517	1.000	-0.160	-0.017	0.074	0.115	210.828569	-33.446121	-1919.10	-323
4	GUIDE	used	955260200	8.60	7519	1.000	-0.036	-0.147	0.060	0.098	210.218841	-34.127979	654.04	-1975
5	GUIDE	used	955261632	7.93	7519	1.000	0.213	0.100	0.057	0.090	210.777259	-34.540798	2023.45	-217
6	GUIDE	used	955263032	8.67	7516	1.000	0.150	-0.042	0.056	0.091	211.177099	-34.436586	1573.26	942
7	GUIDE	used	954861224	8.93	7518	1.000	-0.170	0.103	0.085	0.137	211.716360	-33.398119	-2254.73	2329

2.4 Star Slots

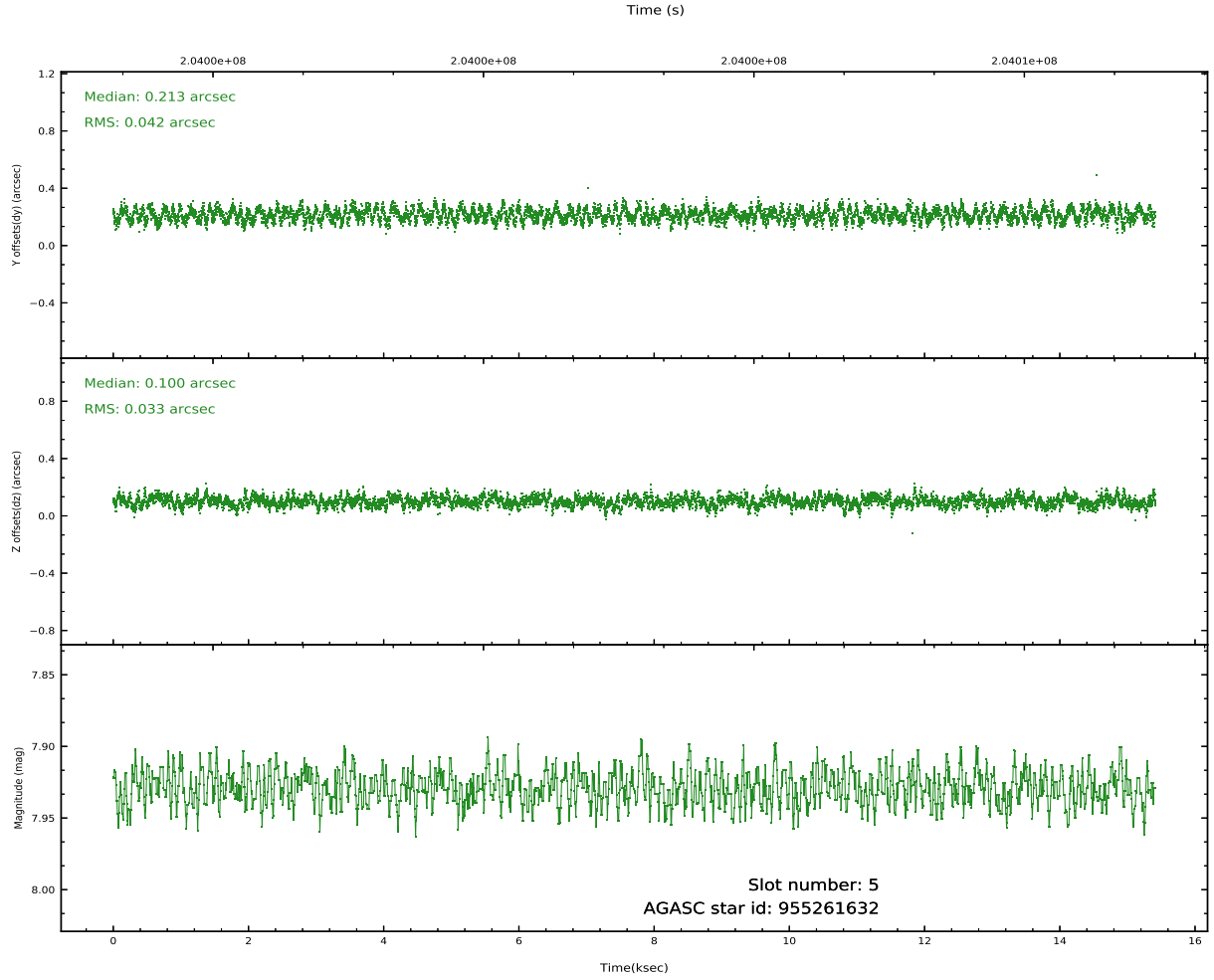
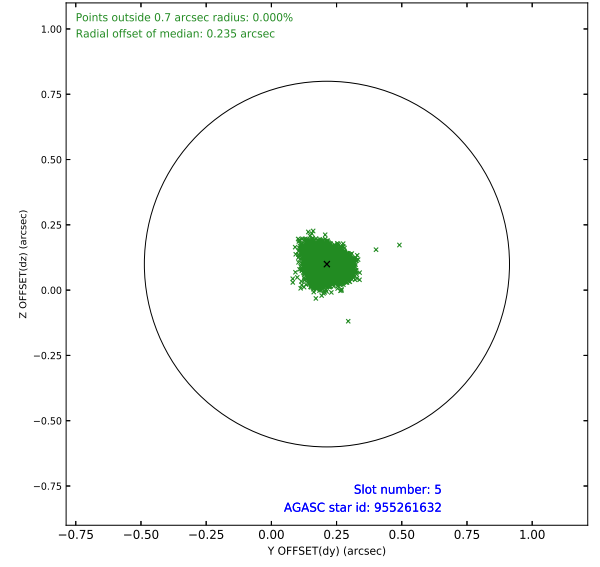
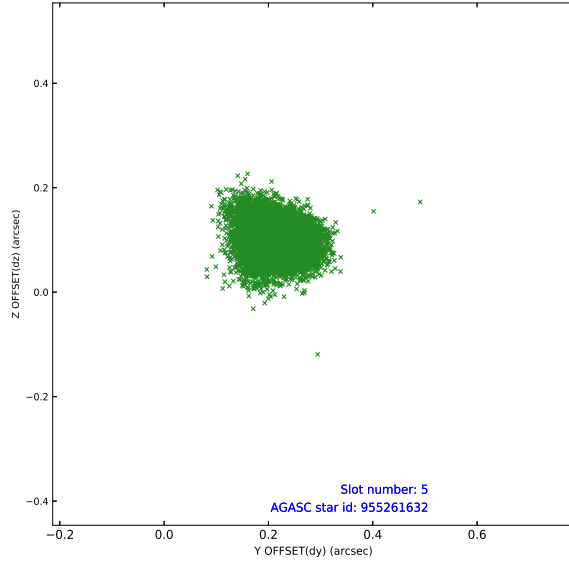
2.4.1 Slot 3



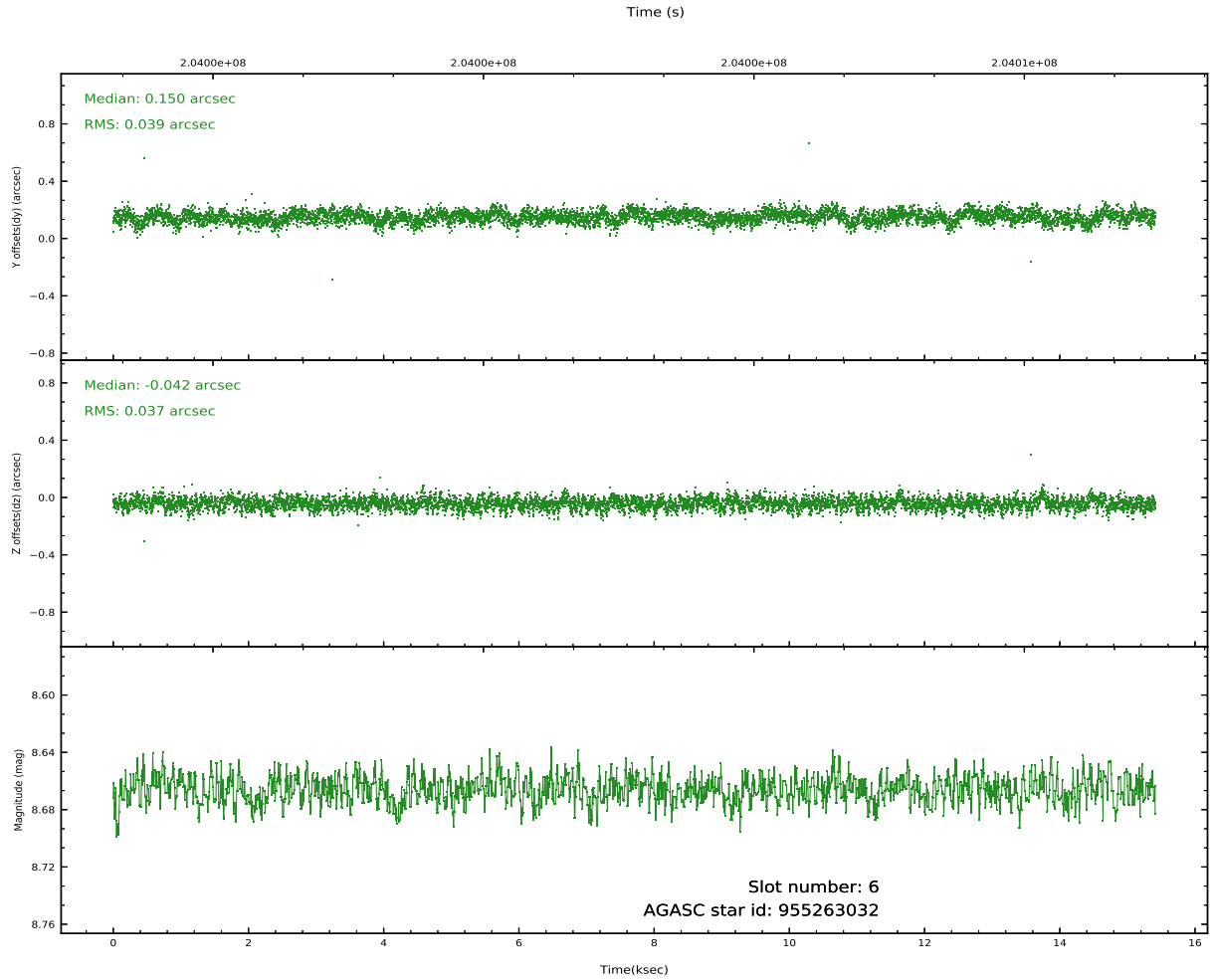
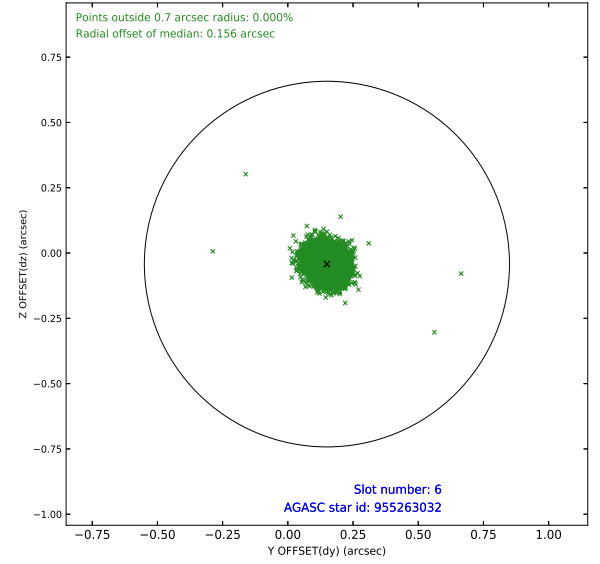
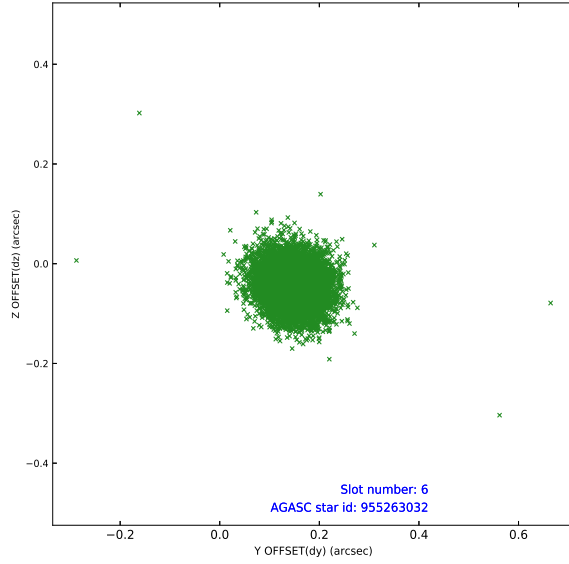
2.4.2 Slot 4



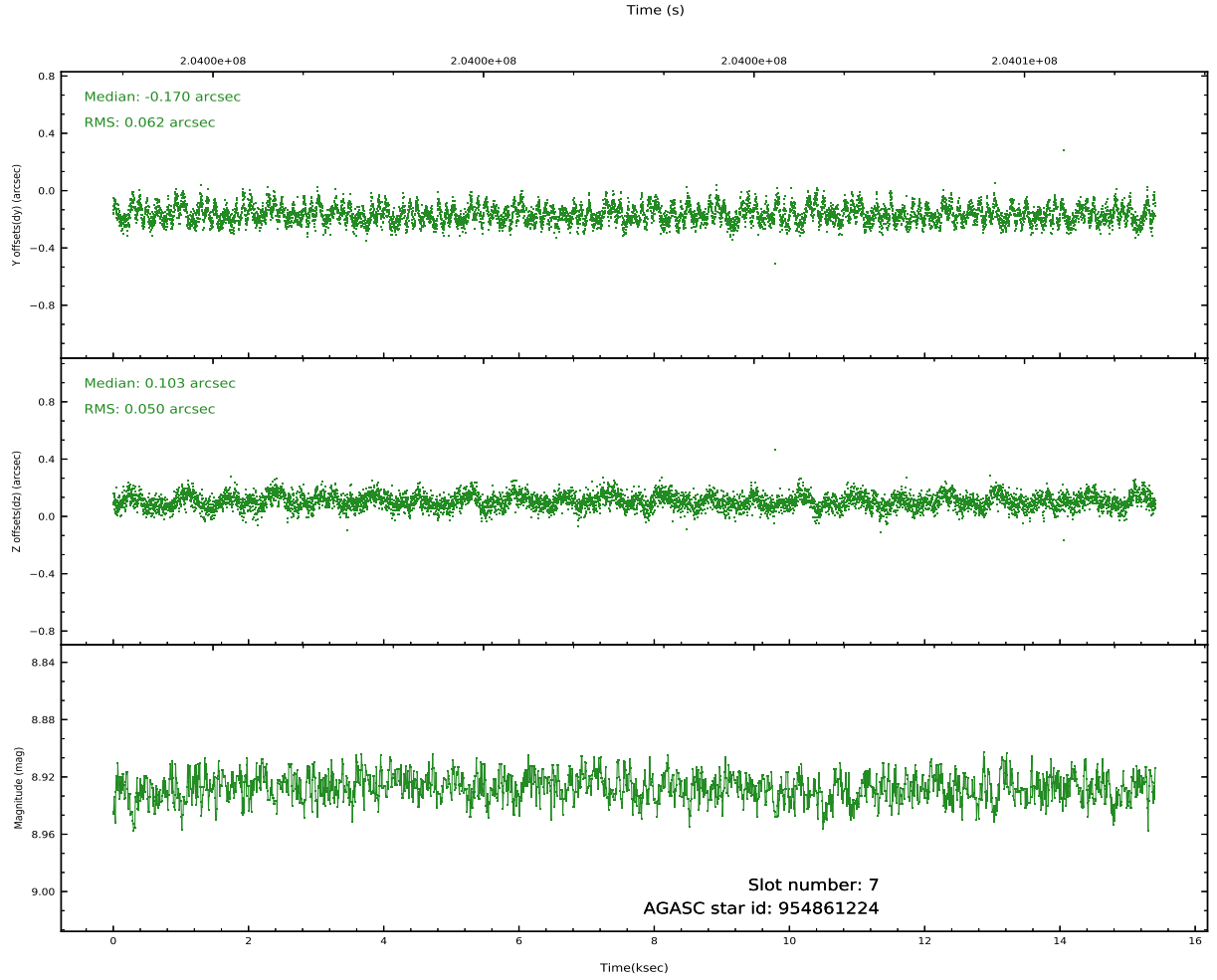
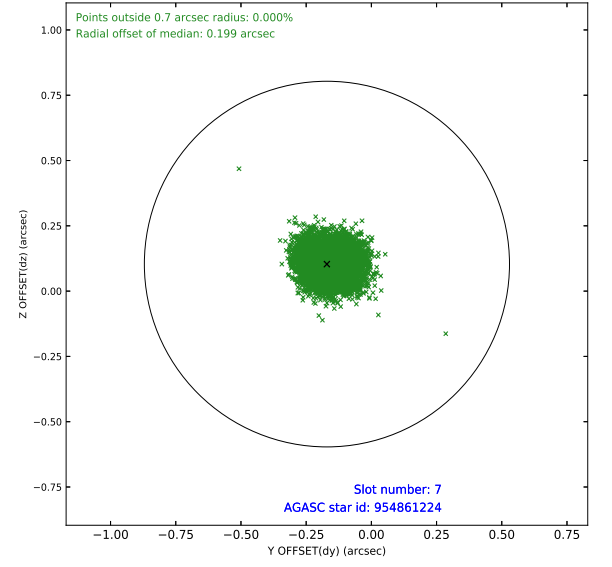
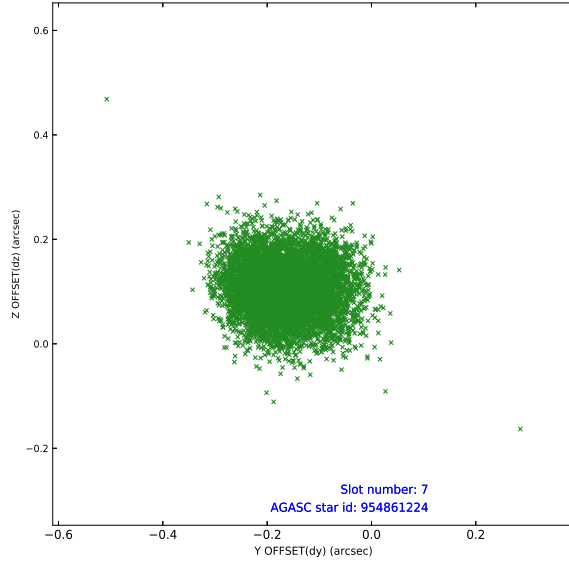
2.4.3 Slot 5



2.4.4 Slot 6

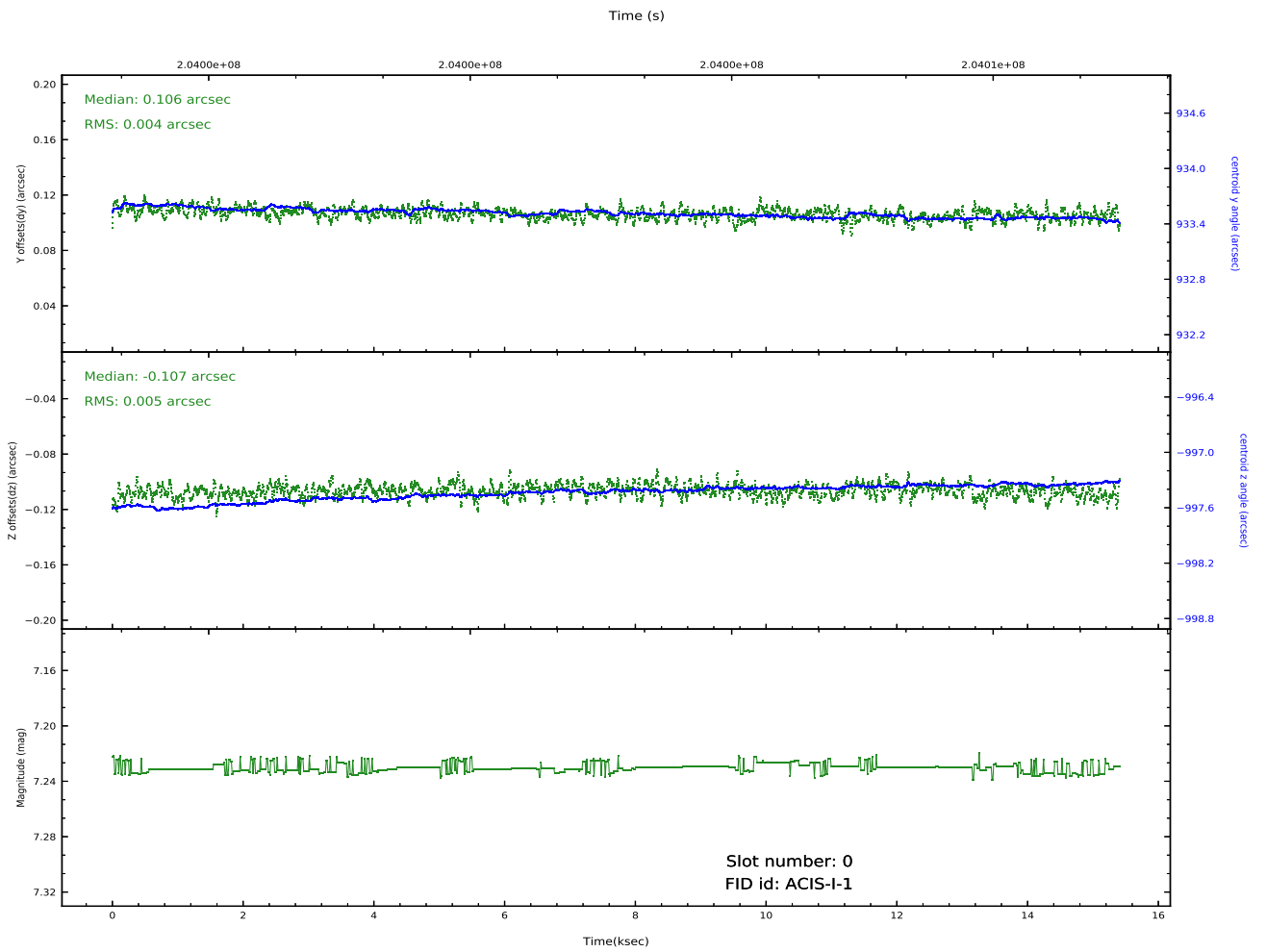
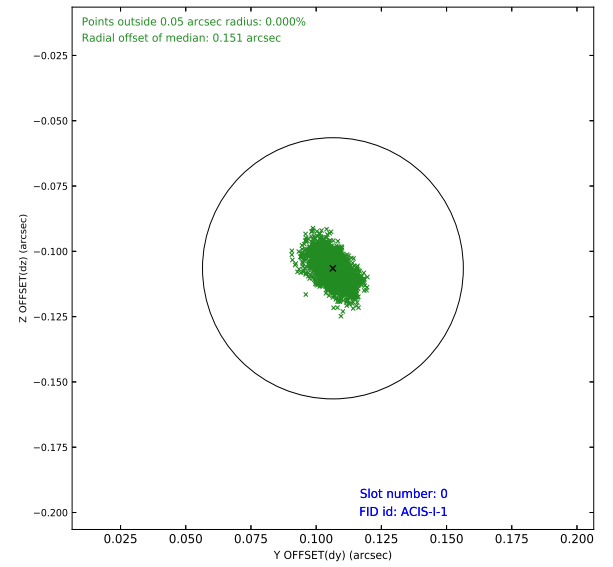
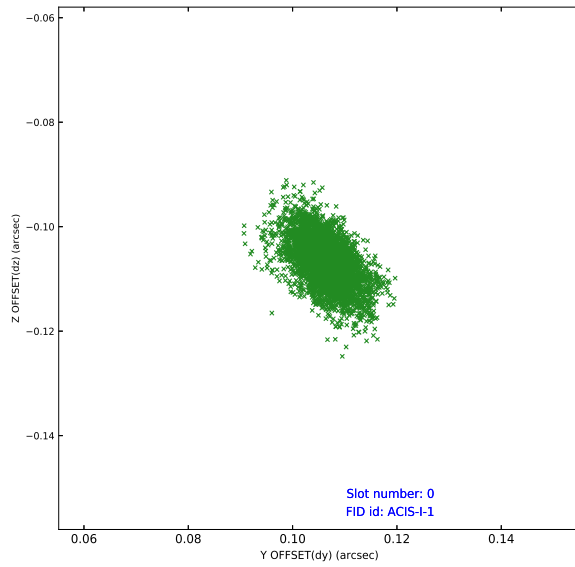


2.4.5 Slot 7

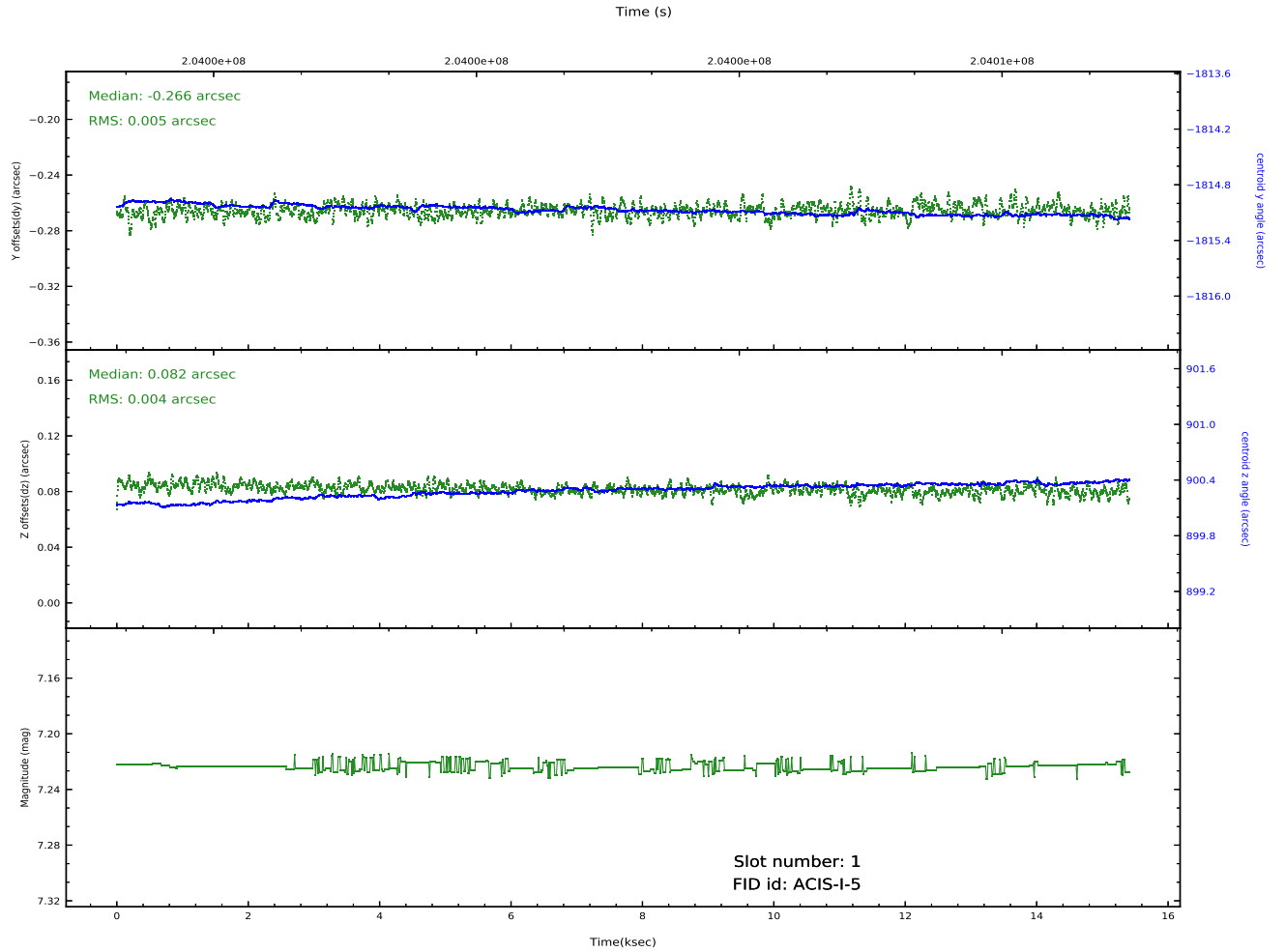
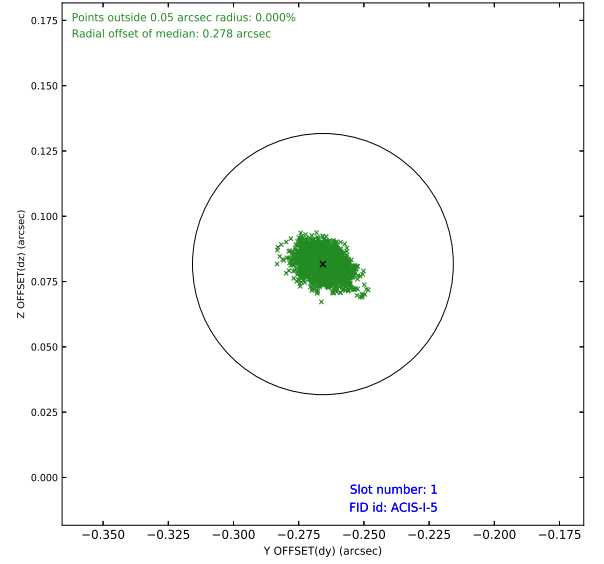
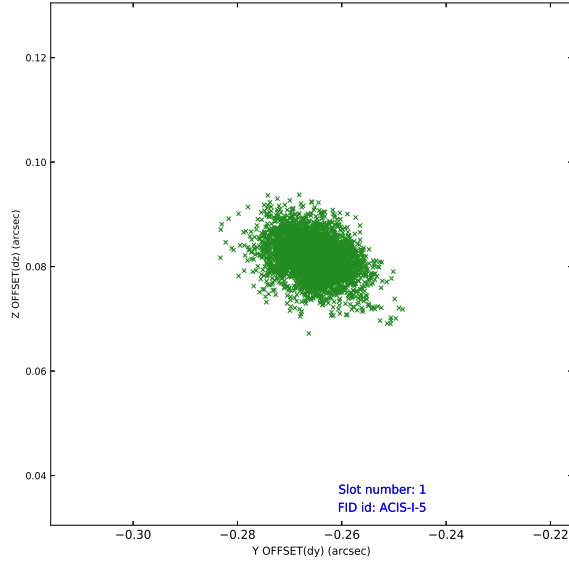


2.5 FID Slots

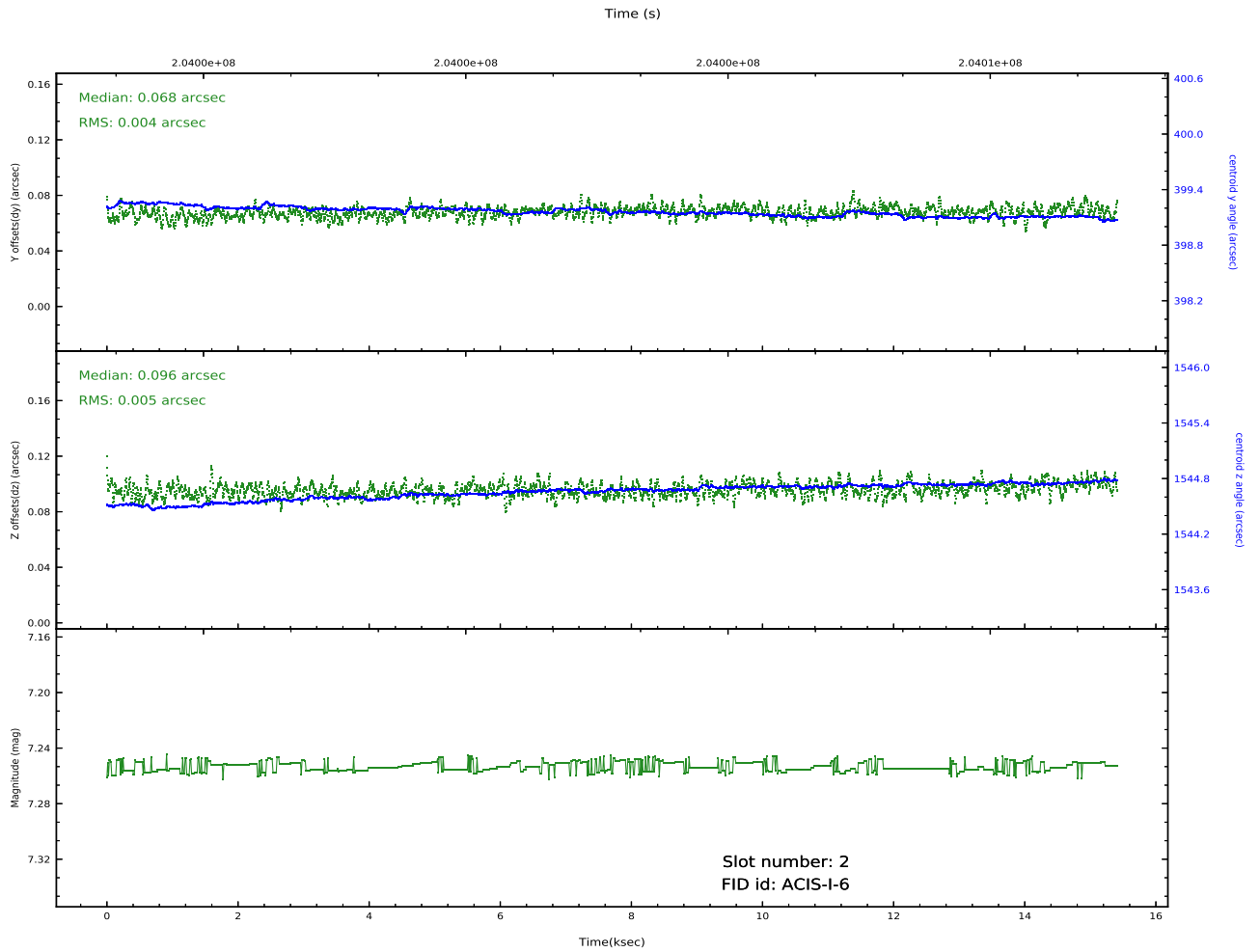
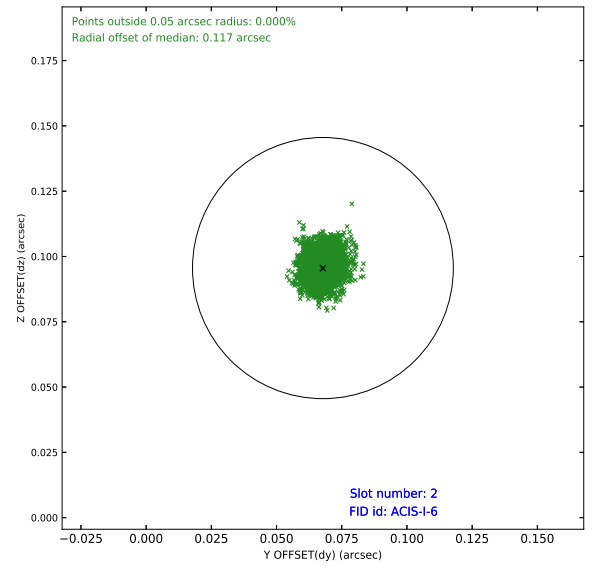
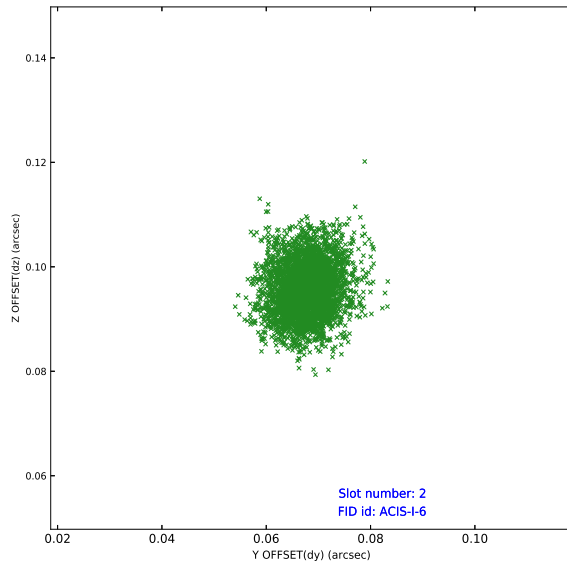
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2020.10.06
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	15.01

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:
(210.90621, -33.91099), (210.90244, -33.91079), (210.89513, -34.01012), (210.89891, -34.01032).