

V&V Reference Report

L2 ASCDS Version : 10.9.2

Observation 19681 - L2 Version 3
Chandra X-Ray Center

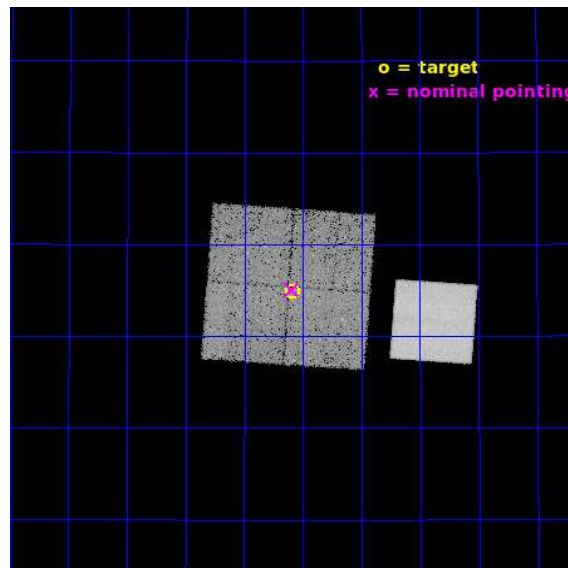
L2 Processing Date : Oct 26 2020

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1 Front

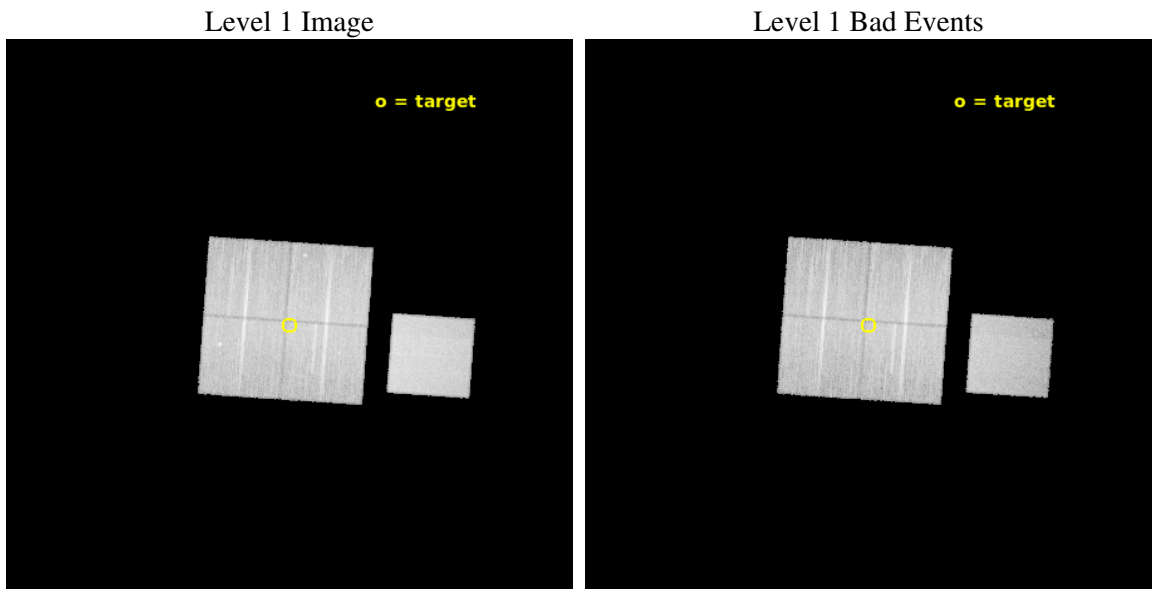
seq_num	901388	Sequence number
obs_id	19681	Observation id
title	The Chandra Deep Wide-Field Survey: Completing the new generation of Chandra extragalactic surveys	Proposal title
observer	Ryan Hickox	Principal investigator
object	Xbootes (CDWFS)	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	218.27178	Observer's specified target RA [deg]
dec_targ	35.414651	Observer's specified target Dec [deg]
ra_nom	218.2733192121	Nominal RA [deg]
dec_nom	35.417945039949	Nominal Dec [deg]
roll_nom	94.075986127914	Nominal Roll [deg]
revision	3	Processing version of data
ontime	23051.600177407	Sum of GTIs [s]
livetime	22750.414050748	Livetime [s]
ontime0	23051.600177407	Sum of GTIs [s]
ontime1	23051.600177407	Sum of GTIs [s]
ontime2	23042.176956773	Sum of GTIs [s]
ontime3	23051.600177407	Sum of GTIs [s]
ontime7	23051.600177407	Sum of GTIs [s]
l2events	152259	Number of level 2 events



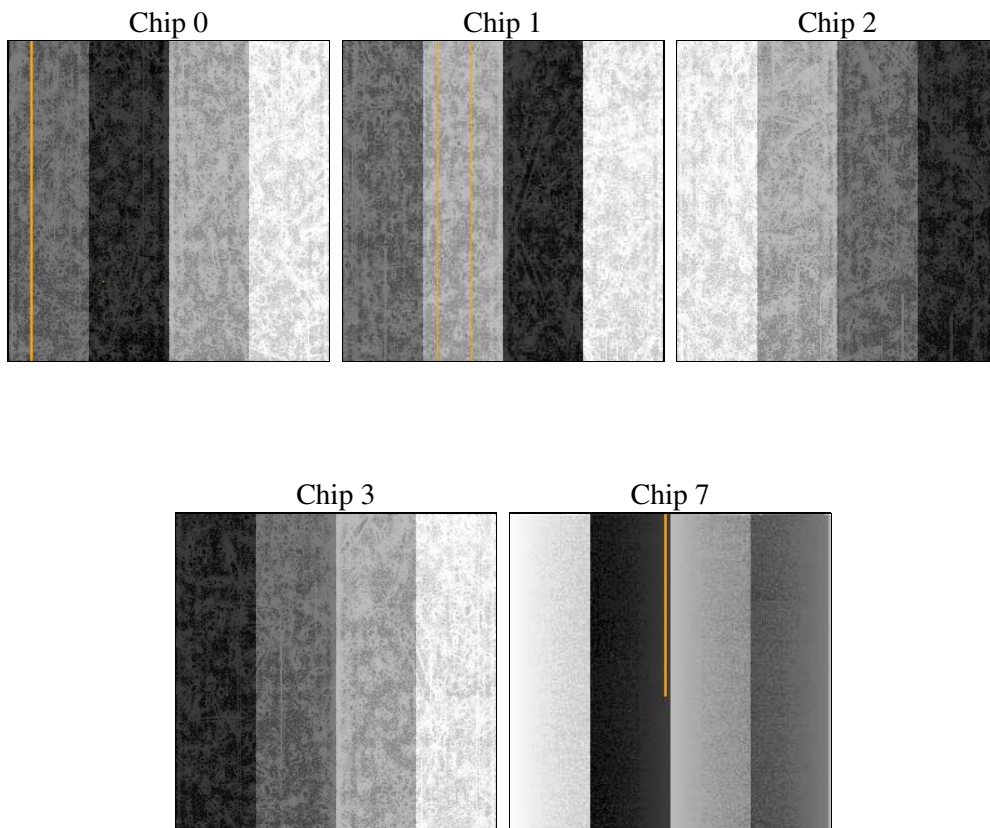
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	23000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	23051.600177407	Sum of GTIs [s]
caldsver	4.9.3	 	ontime0	23051.600177407	Sum of GTIs [s]
date	2020-10-27T00:10:34	Date and time of file creation	ontime1	23051.600177407	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	23042.176956773	Sum of GTIs [s]
			ontime3	23051.600177407	Sum of GTIs [s]
			ontime7	23051.600177407	Sum of GTIs [s]
			l1events	907261	Number of level 1 events

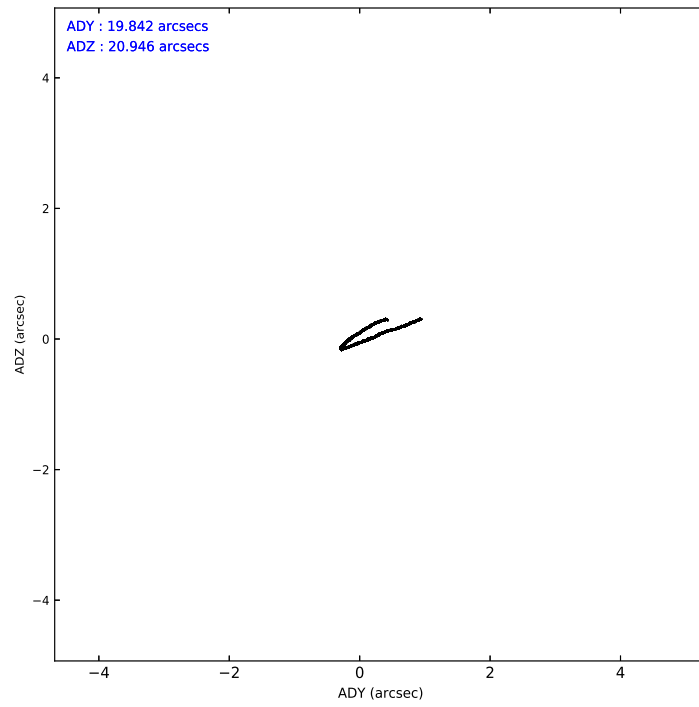
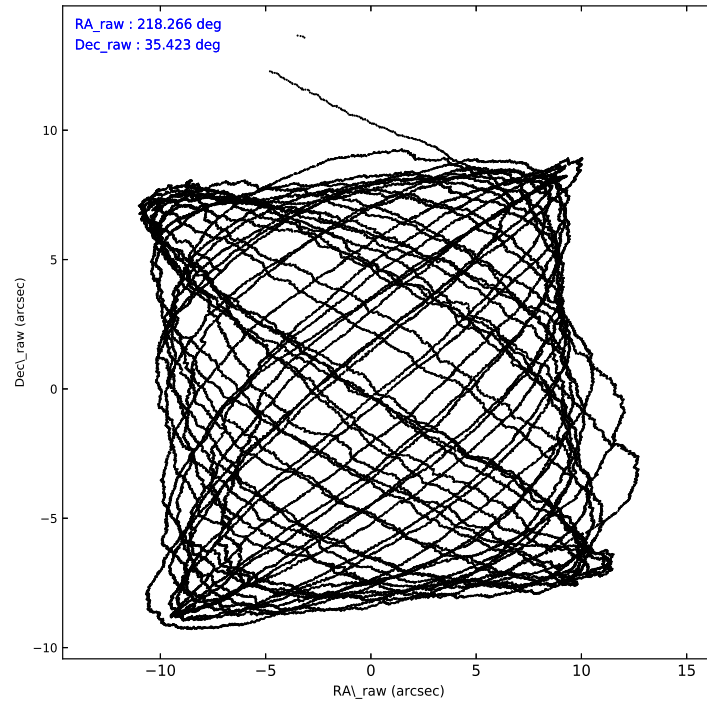
2.1.4 Events

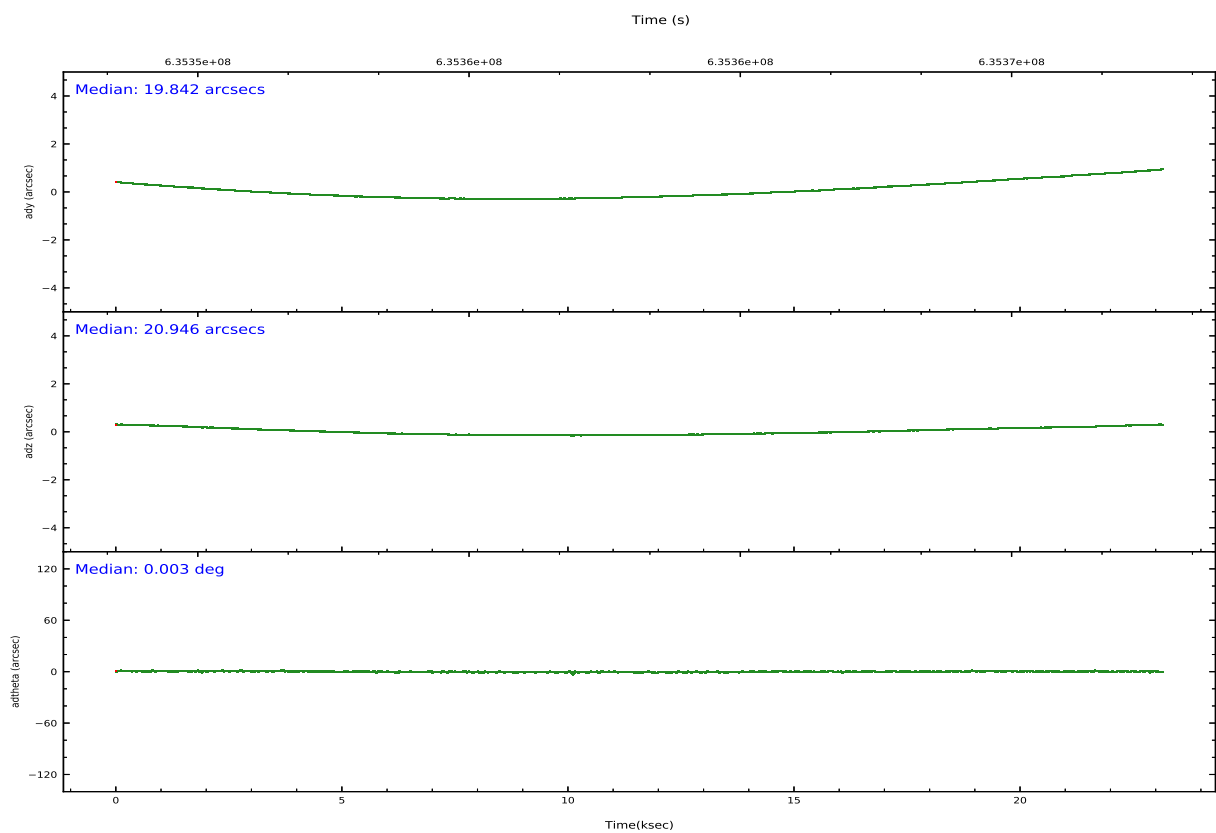
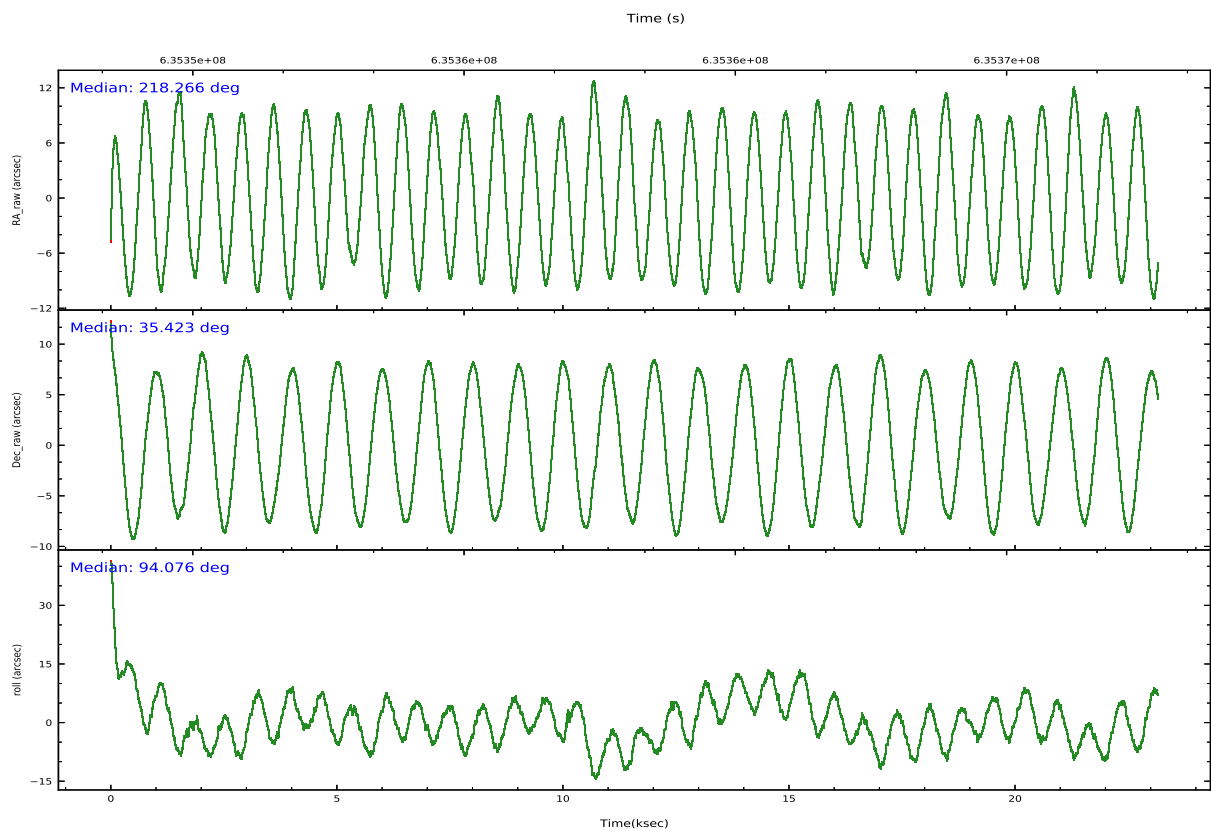
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
level 1 events	162302	165524	182088	176499	220848	grade 0 events	6025	6544	6533	6179	7810
rejected events	144047	145280	164265	158948	126665		3%	3%	3%	3%	3%
rejected %	88%	87%	90%	90%	57%	grade 1 events	72	85	103	99	314
							0%	0%	0%	0%	0%
						grade 2 events	4667	5142	4174	3940	19553
							2%	3%	2%	2%	8%
						grade 3 events	1837	1813	1686	1864	7288
							1%	1%	0%	1%	3%
						grade 4 events	1749	1736	1783	1808	7347
							1%	1%	0%	1%	3%
						grade 5 events	6647	6954	6264	7797	21597
							4%	4%	3%	4%	9%
						grade 6 events	3982	5013	3649	3763	52194
							2%	3%	2%	2%	23%
						grade 7 events	137323	138237	157896	151049	104745
							84%	83%	86%	85%	47%

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	218.284496	218.2733192121	CCD I2 on	Y	Y
[deg] Pointing Dec	35.400463	35.417945039949	CCD I3 on	Y	Y
[deg] Pointing Roll	93.863953	94.07598612791401	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)	635348353.184000	635347407.07401	CCD S5 on	N	N
Observation start date	2018-02-18T13:38:04	2018-02-18T13:23:27	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	635371353.184000	635372446.28798	On-chip summing requested	N	N
Observation end date	2018-02-18T20:01:24	2018-02-18T20:20:46	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



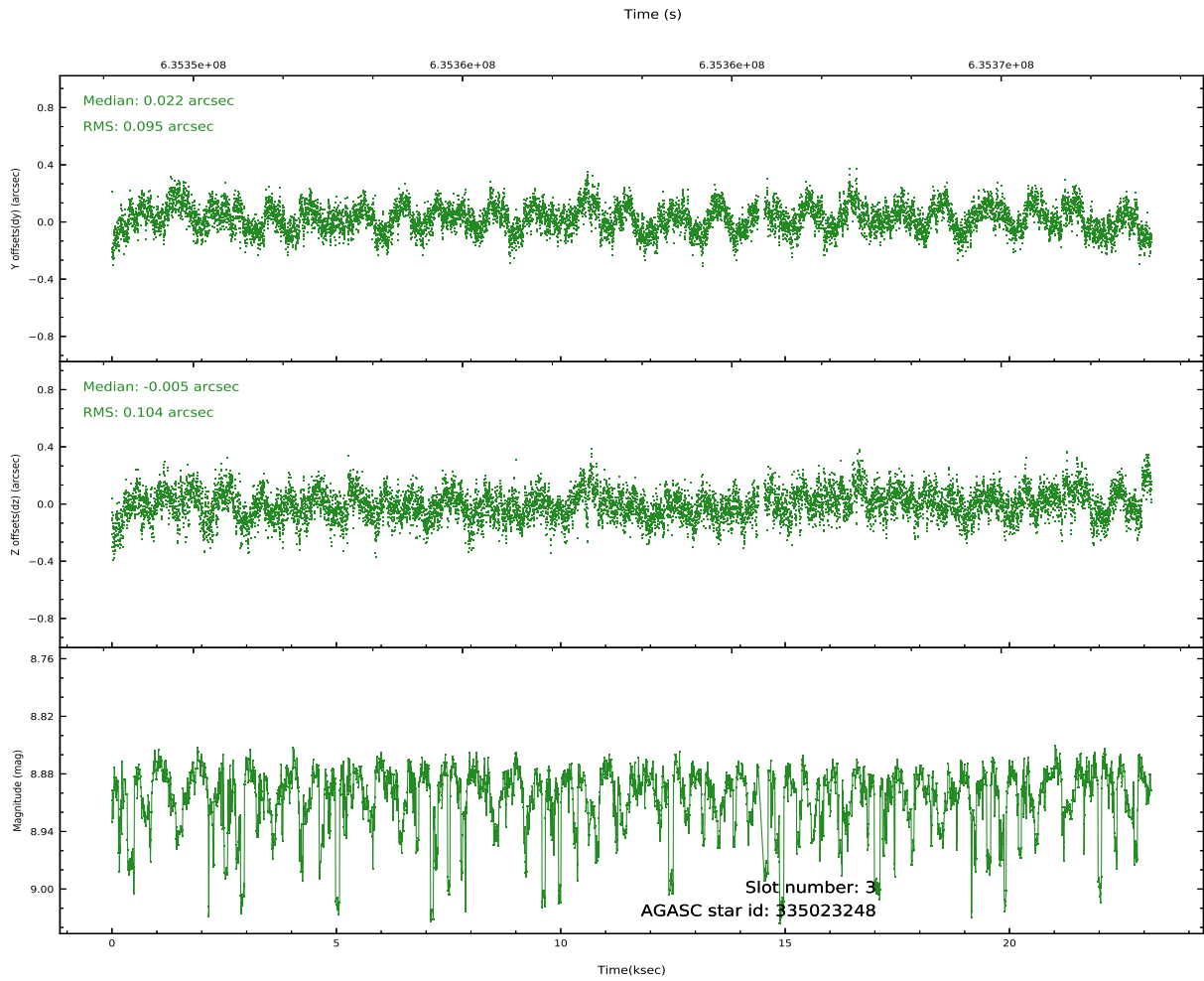
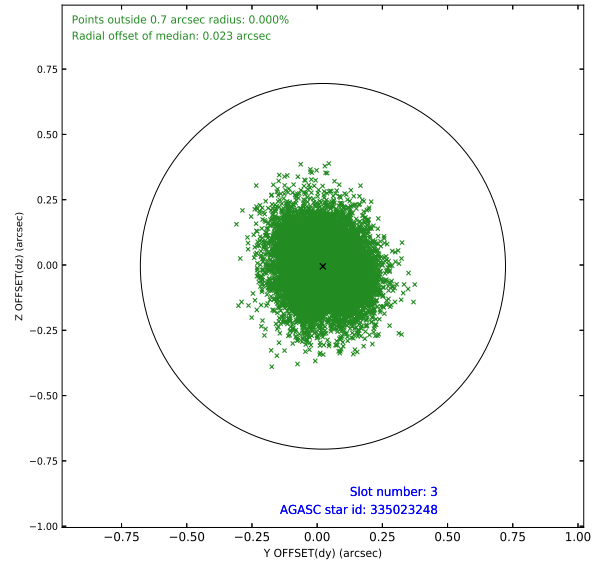
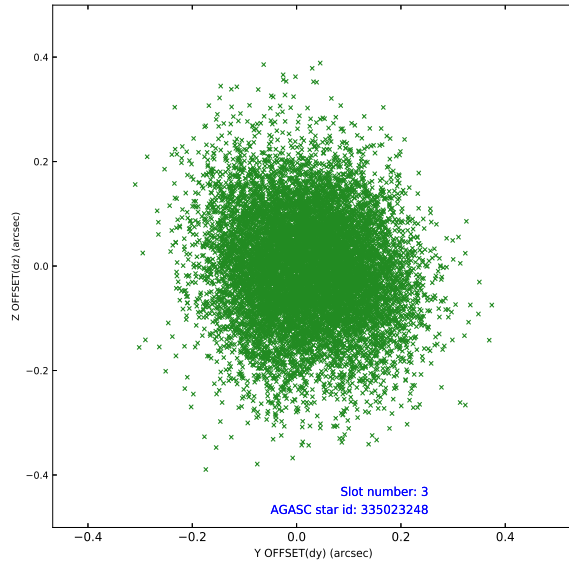


Slot Statistics

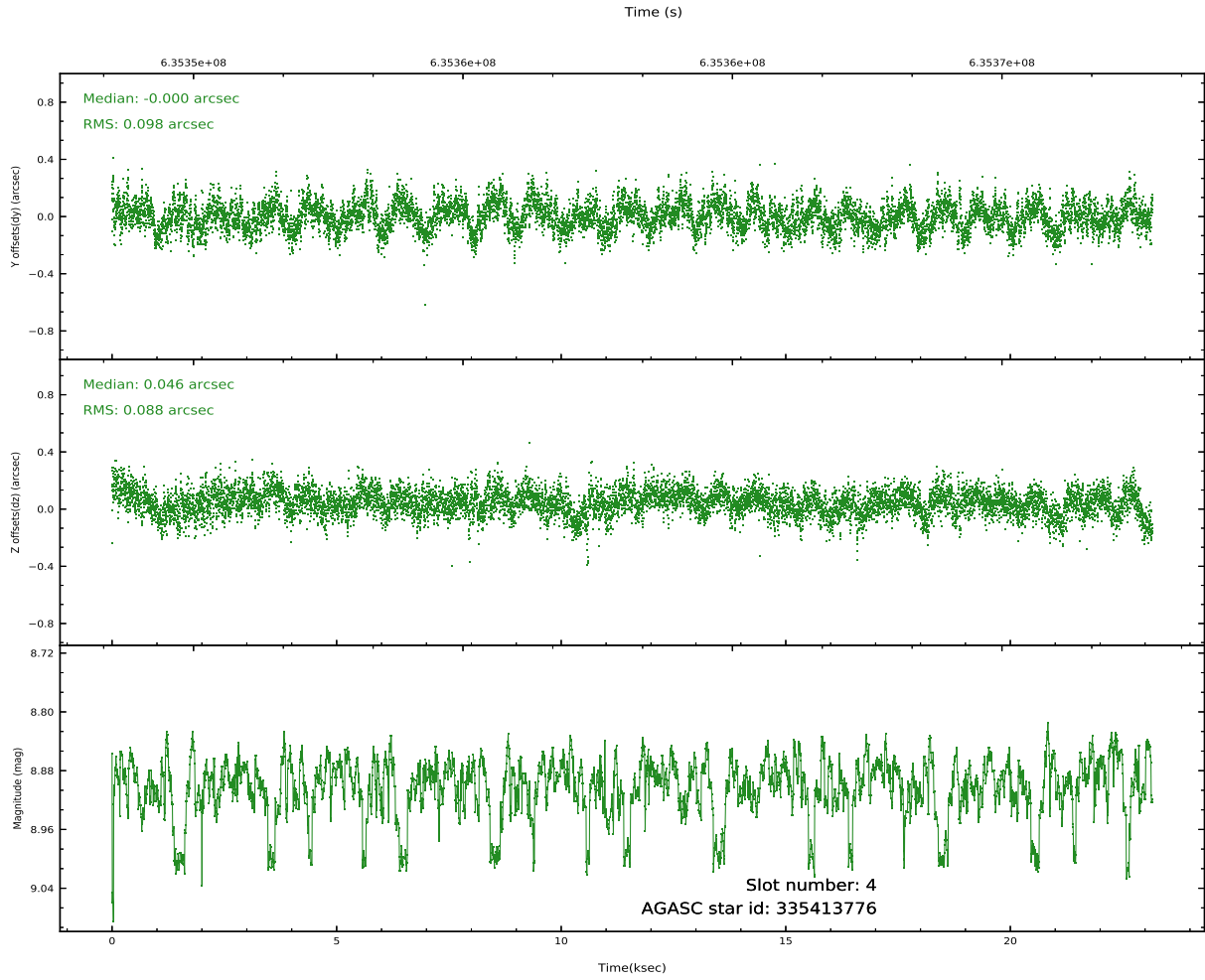
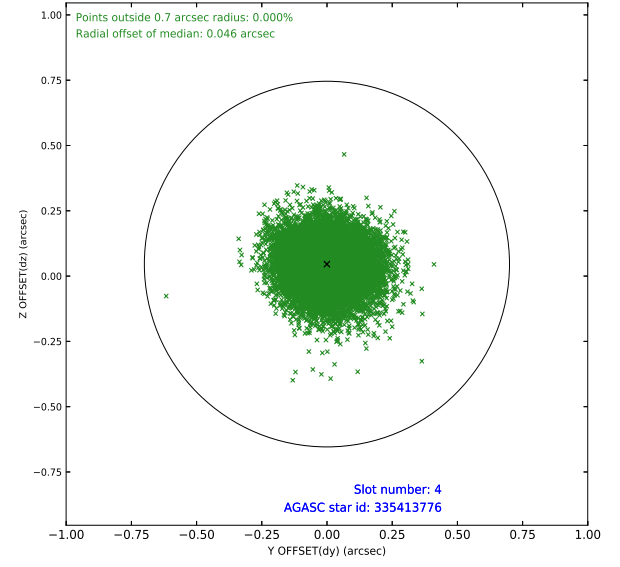
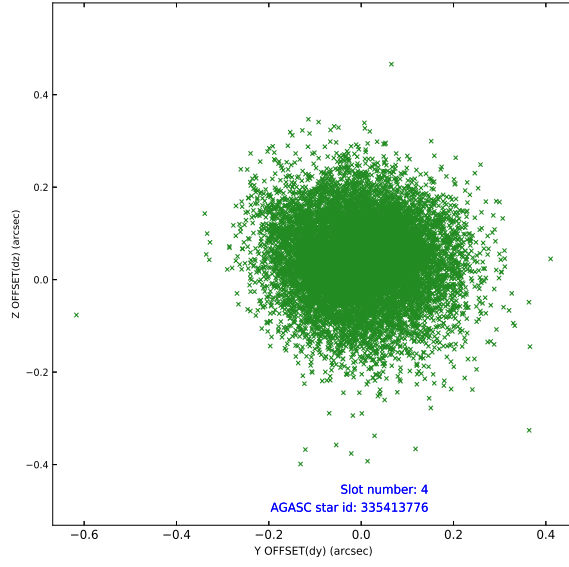
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.27	5650	1.000	0.220	-0.161	0.010	0.014	0.000000	0.000000	919.53	-844
1	FID		ACIS-I-5	7.27	5651	1.000	-0.315	0.184	0.010	0.015	0.000000	0.000000	-1828.87	1053
2	FID		ACIS-I-6	7.28	5650	1.000	0.004	0.048	0.014	0.021	0.000000	0.000000	384.93	1697
3	GUIDE	used	335023248	8.90	11226	1.000	0.022	-0.005	0.149	0.242	217.634832	34.944512	-1501.87	2023
4	GUIDE	used	335413776	8.90	11292	1.000	-0.000	0.046	0.140	0.225	218.421411	36.051962	2314.04	-554
5	GUIDE	used	335414336	8.90	11288	1.000	0.230	0.331	0.153	0.260	218.979022	35.090910	-1241.98	-1966
6	GUIDE	used	335421696	8.91	11289	1.000	-0.101	-0.308	0.133	0.222	218.045699	35.772449	1383.26	604
7	GUIDE	used	335422272	9.41	11286	1.000	-0.147	-0.060	0.208	0.316	217.586135	35.522660	584.90	2011

2.4 Star Slots

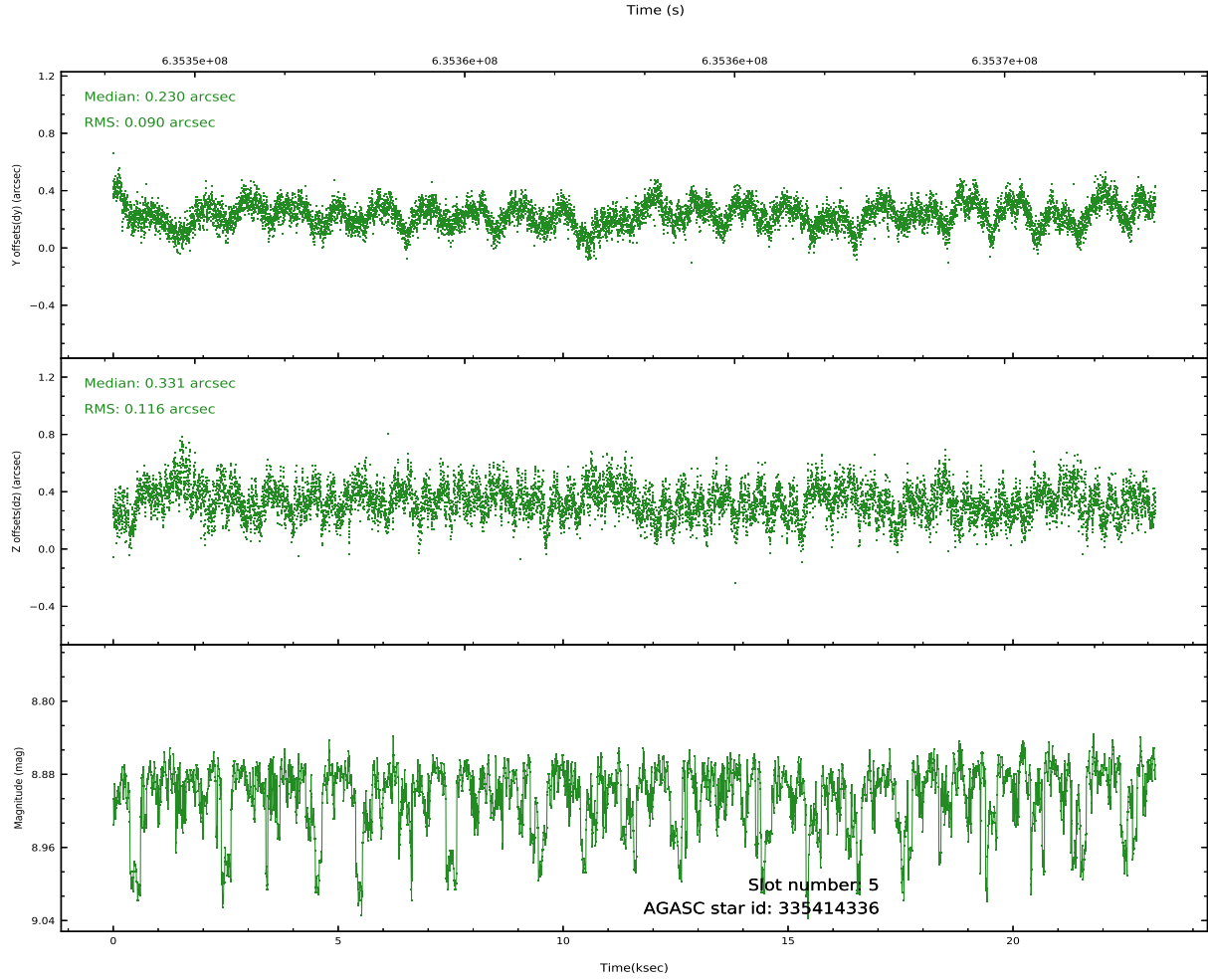
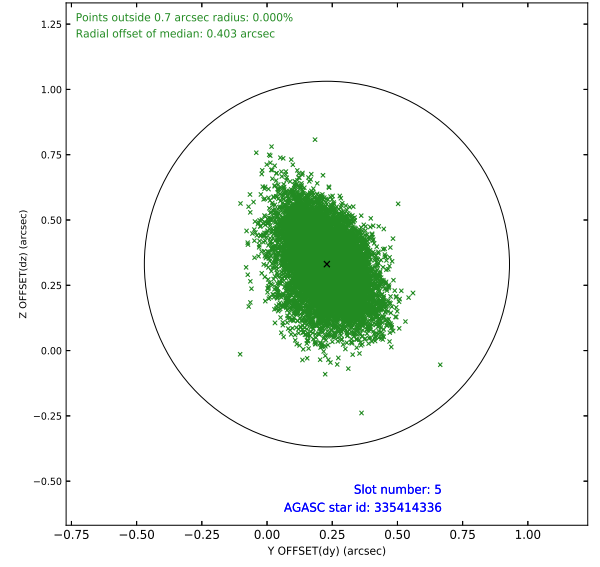
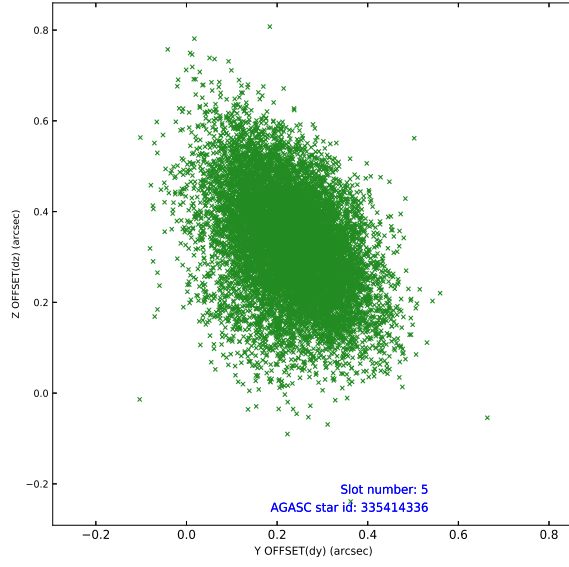
2.4.1 Slot 3



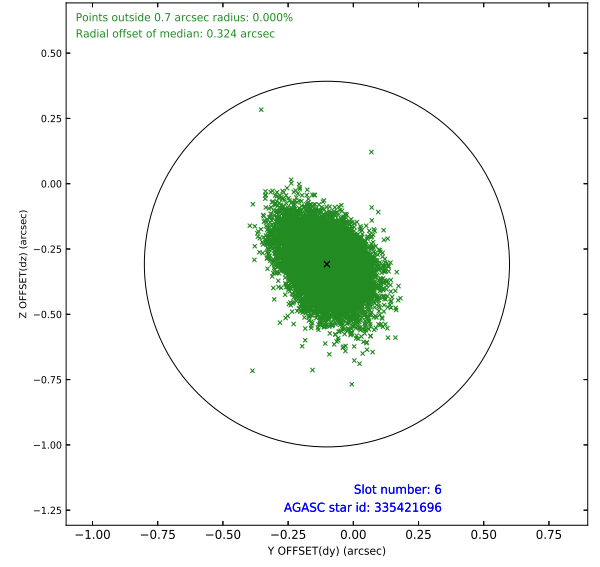
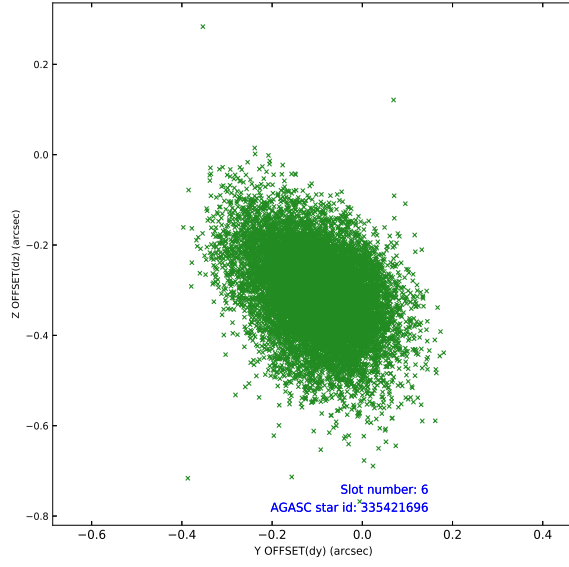
2.4.2 Slot 4



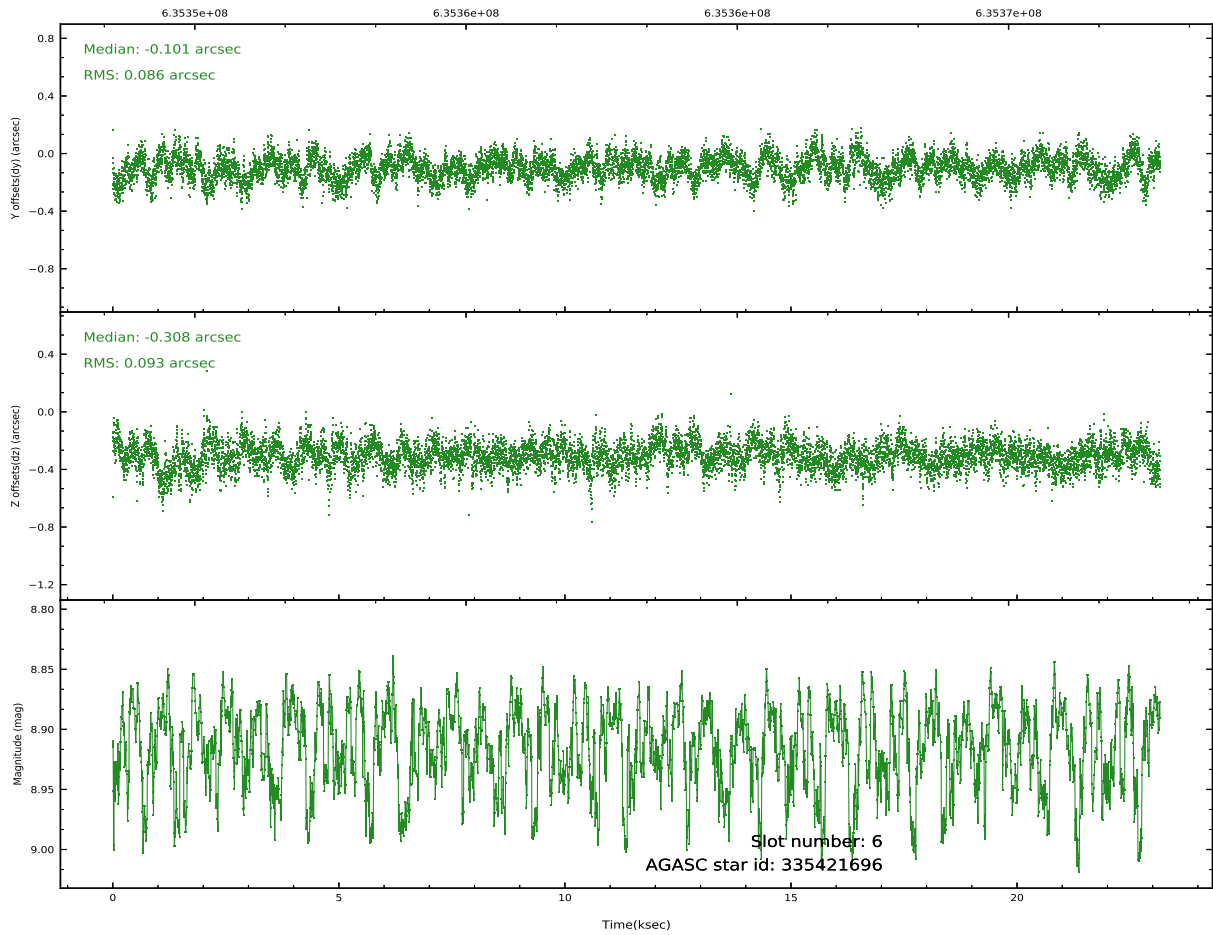
2.4.3 Slot 5



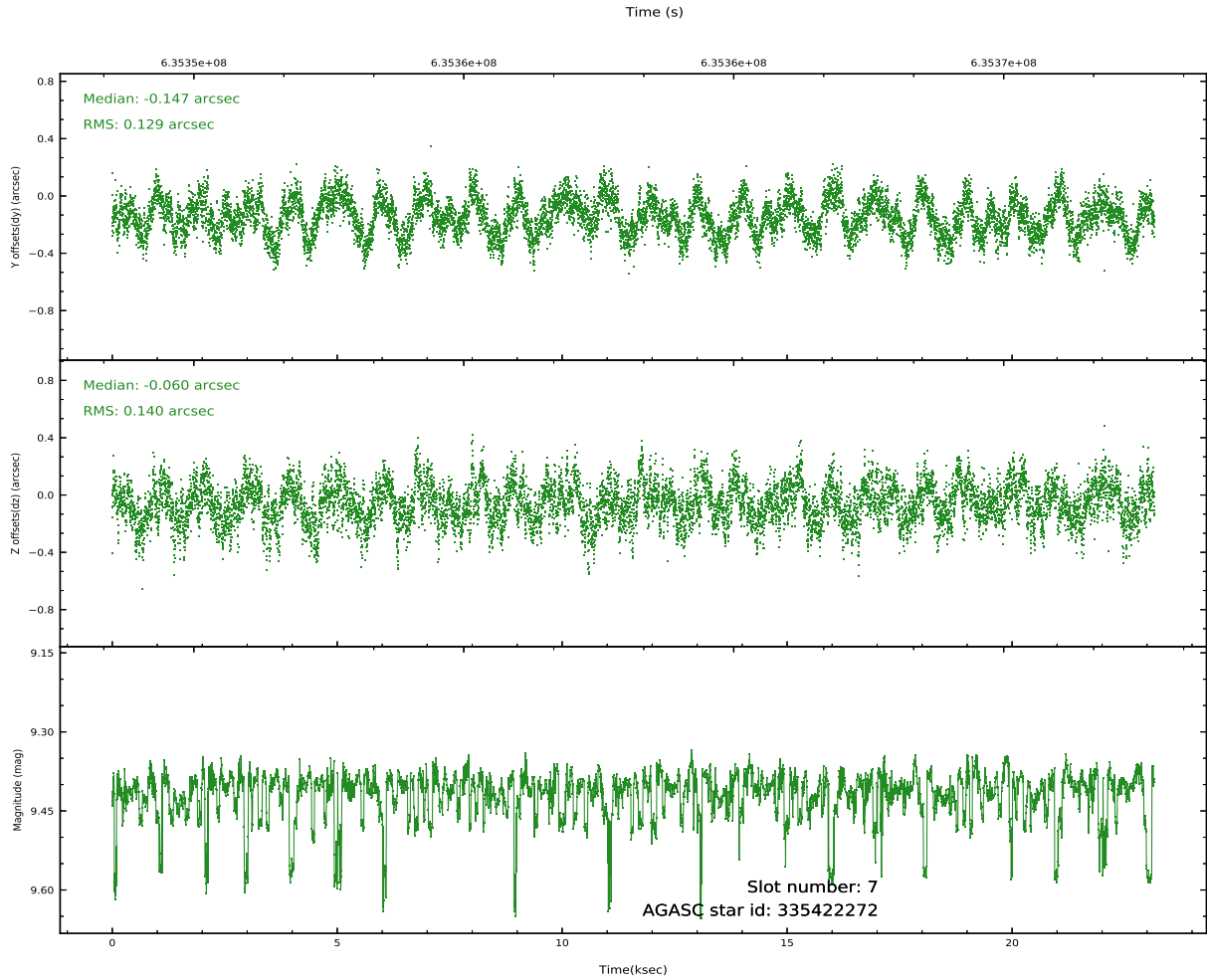
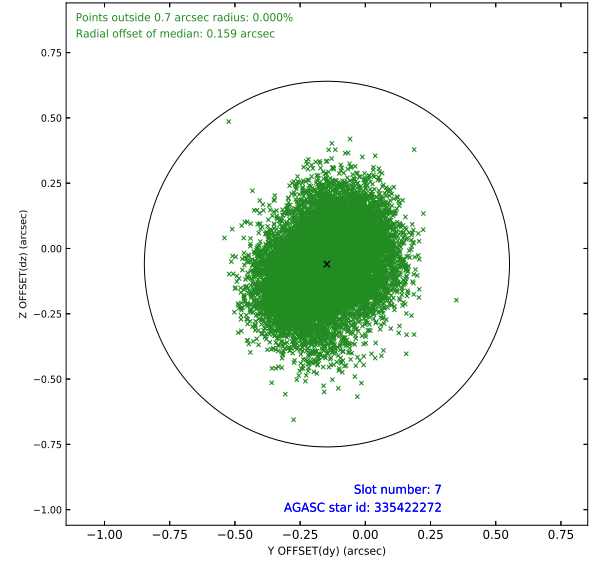
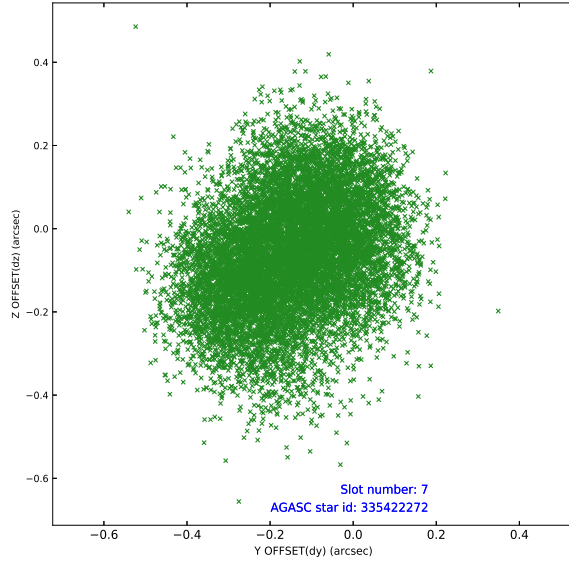
2.4.4 Slot 6



Time (s)

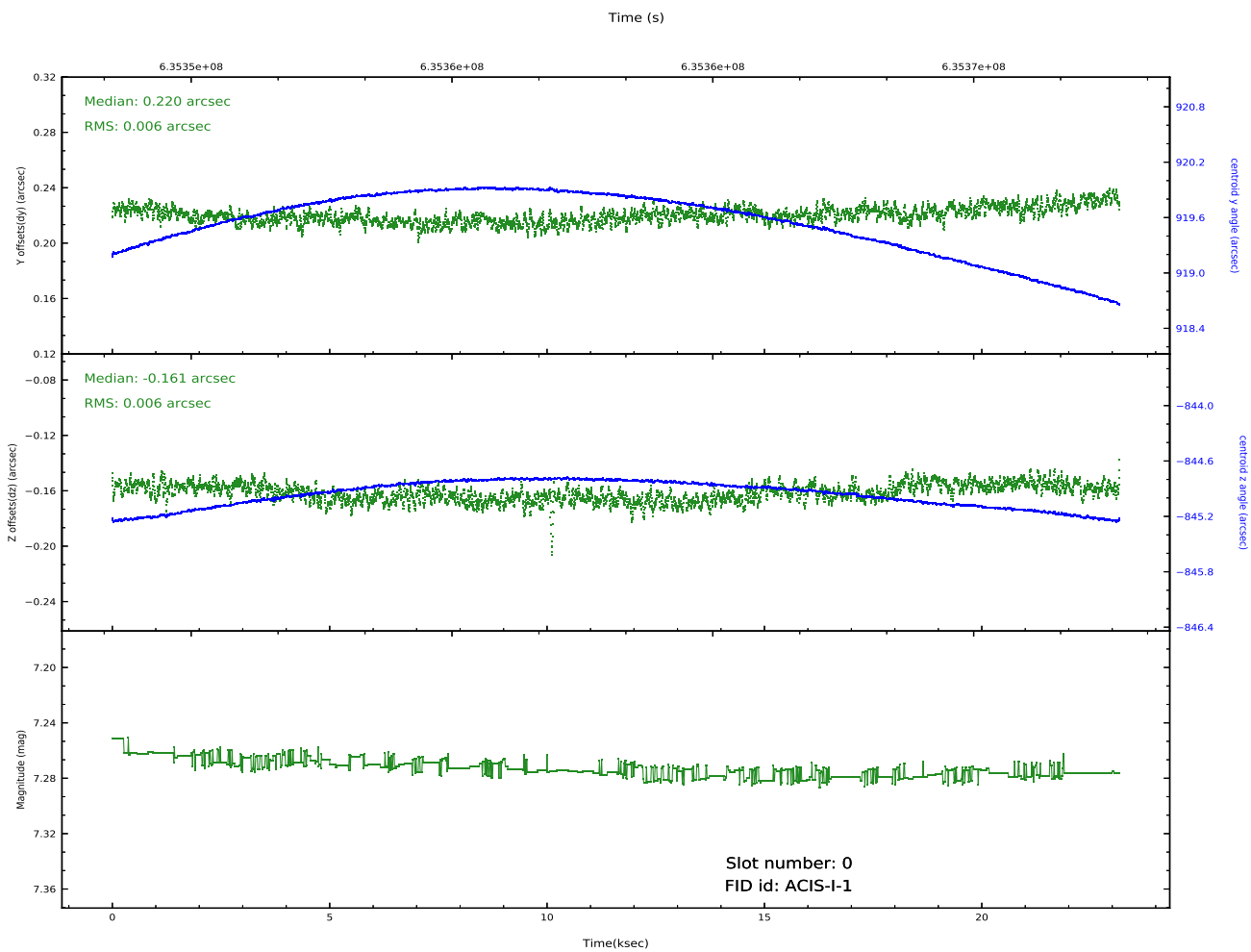
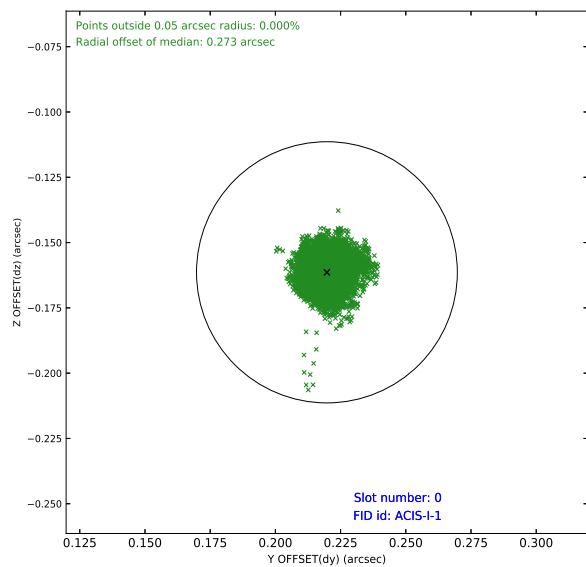
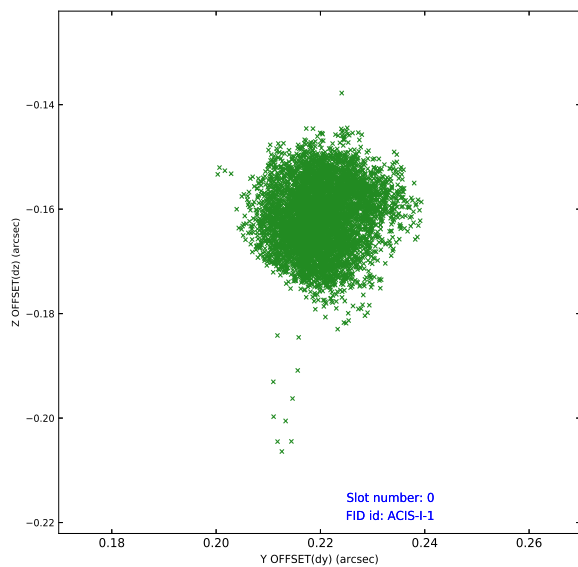


2.4.5 Slot 7

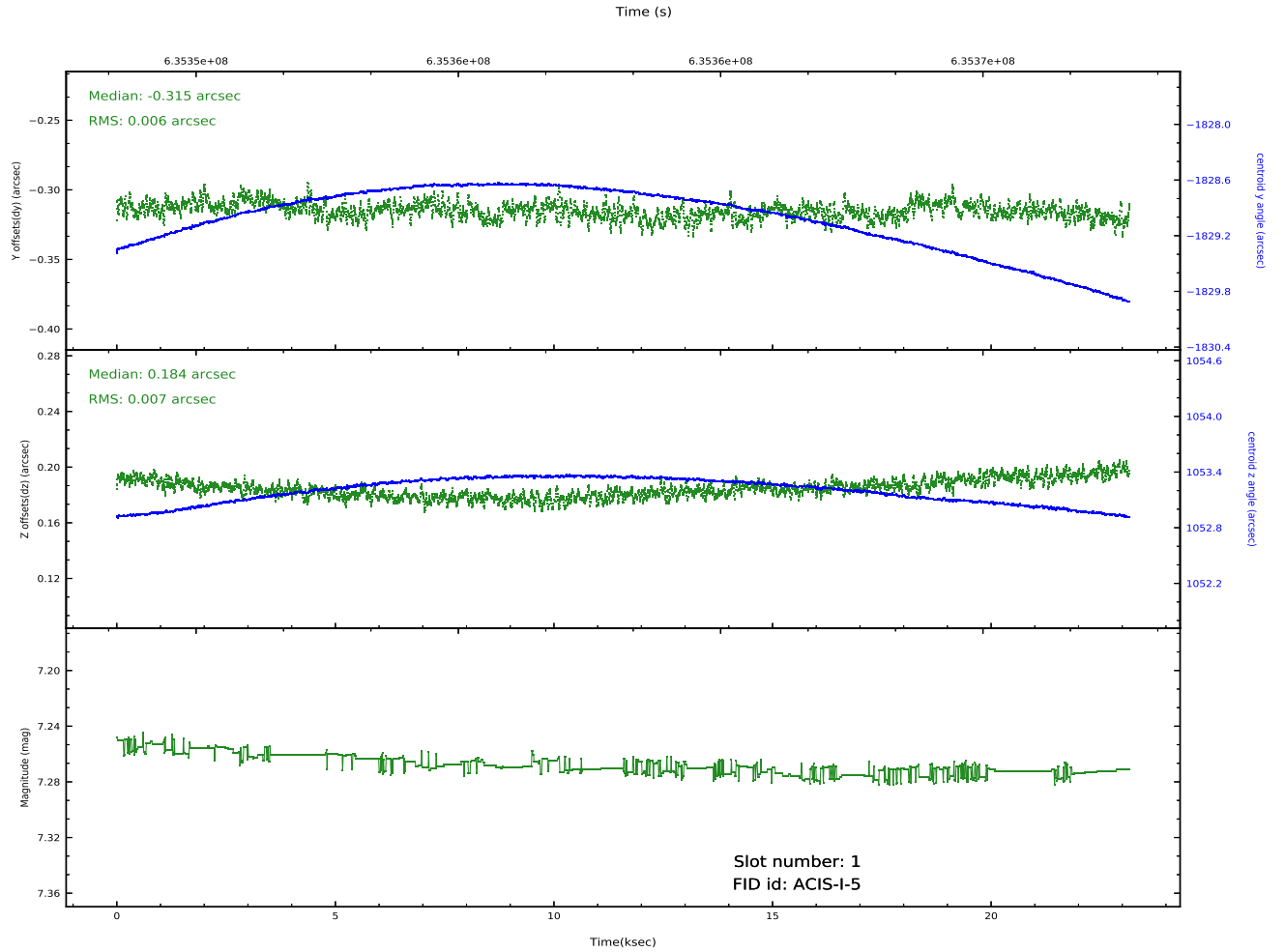
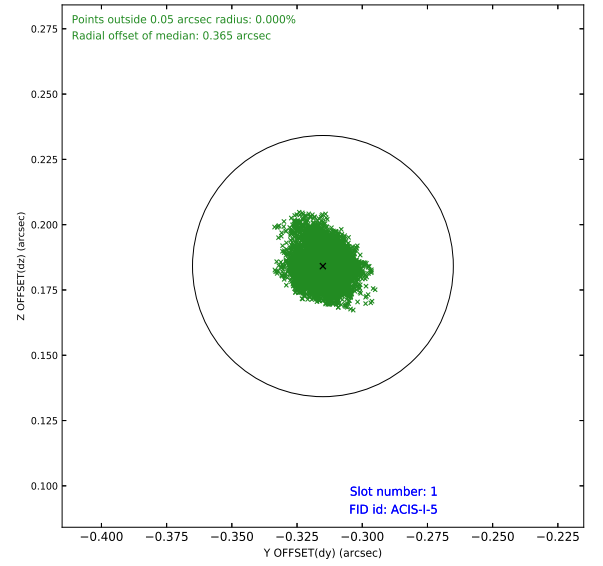
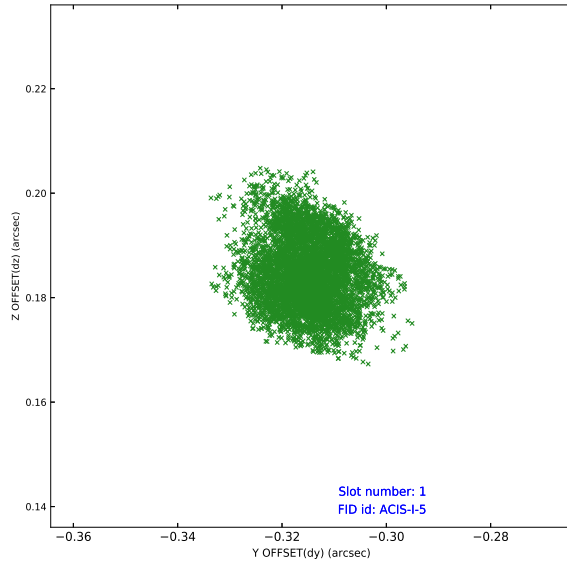


2.5 FID Slots

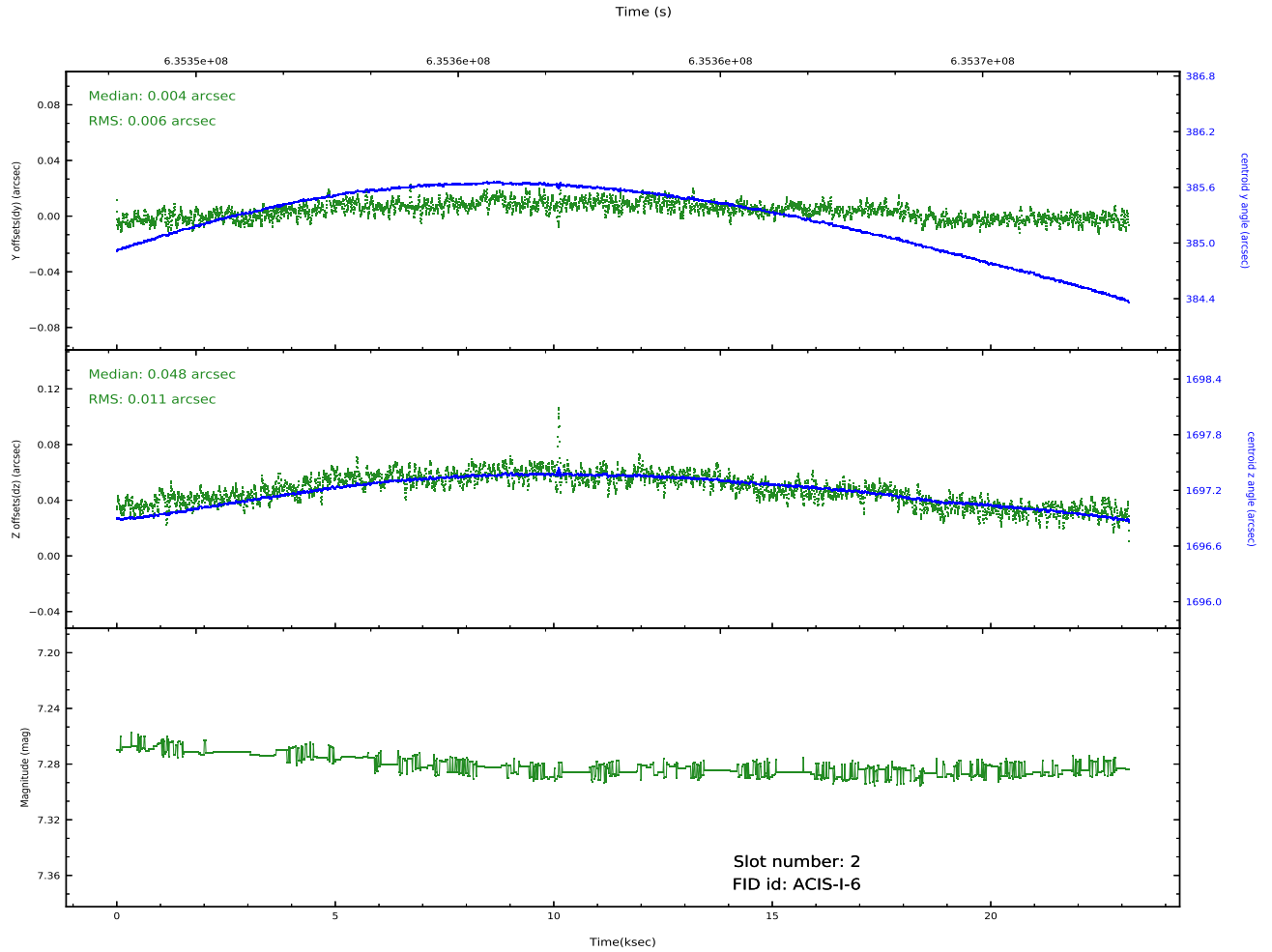
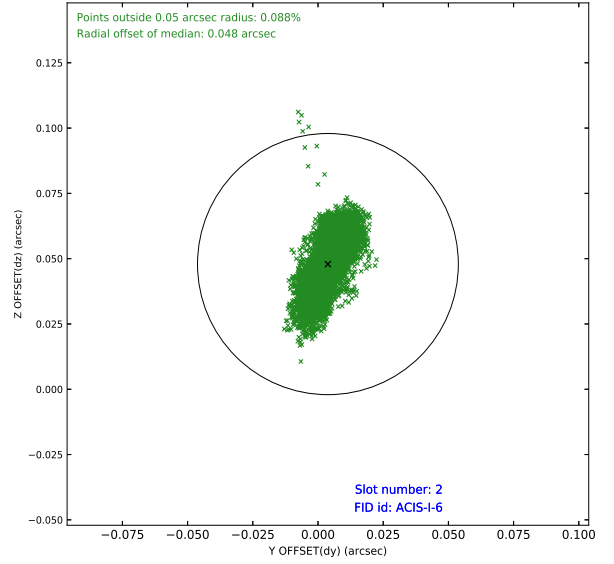
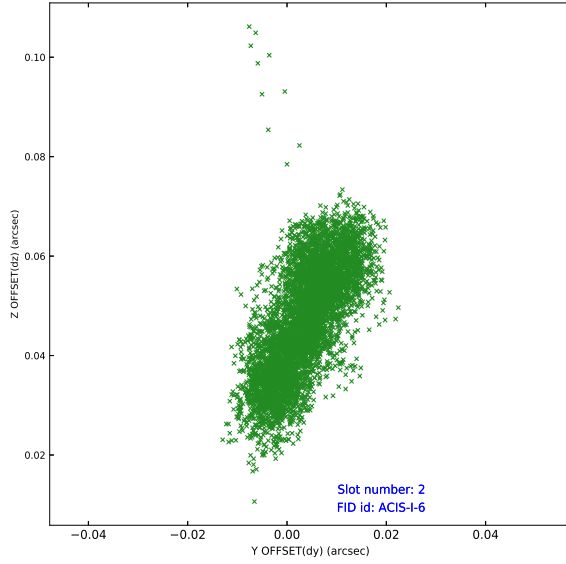
2.5.1 Slot 0



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	23.051600177407

A.2 Comments

A spatial region of the original bias map for CCD = 0 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 = 0 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: (218.32514,35.56806), (218.32146,35.56786), (218.33083,35.46015), (218.33451,35.46036).