

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 7170 - L2 Version 5
Chandra X-Ray Center

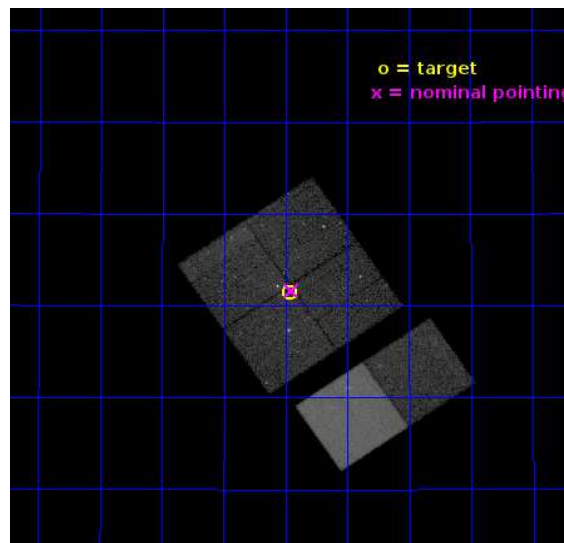
L2 Processing Date : Jul 27 2015

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1 Front

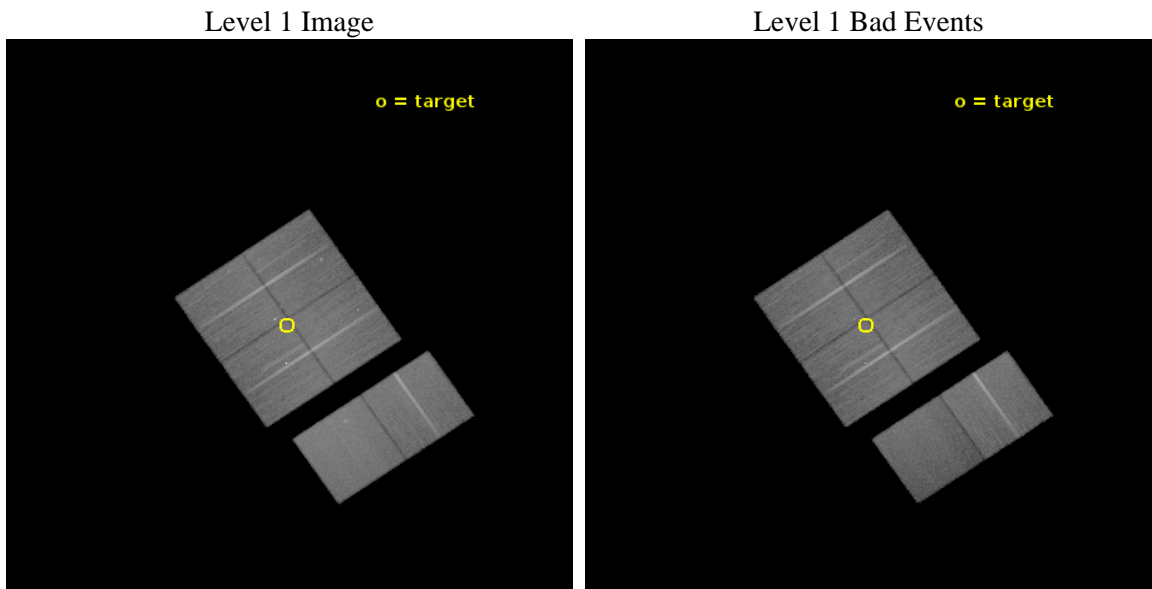
seq_num	600486	Sequence number
obs_id	7170	Observation id
title	The Chandra ACIS Survey of M33 (ChASem33): A Deep Survey of the Nearest Face-on Spiral Galaxy	Proposal title
observer	Dr Manami Sasaki	Principal investigator
object	M33 Field 5	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	23.36625	Observer's specified target RA [deg]
dec_targ	30.523694	Observer's specified target Dec [deg]
ra_nom	23.363323996305	Nominal RA [deg]
dec_nom	30.527602048335	Nominal Dec [deg]
roll_nom	145.710169721	Nominal Roll [deg]
revision	5	Processing version of data
ontime	41487.749120235	Sum of GTIs [s]
livetime	40962.406259952	Livetime [s]
ontime0	41490.990020782	Sum of GTIs [s]
ontime1	41490.990050882	Sum of GTIs [s]
ontime2	41487.749000639	Sum of GTIs [s]
ontime3	41487.749120235	Sum of GTIs [s]
ontime6	41494.231011182	Sum of GTIs [s]
ontime7	41494.231011182	Sum of GTIs [s]
l2events	243887	Number of level 2 events



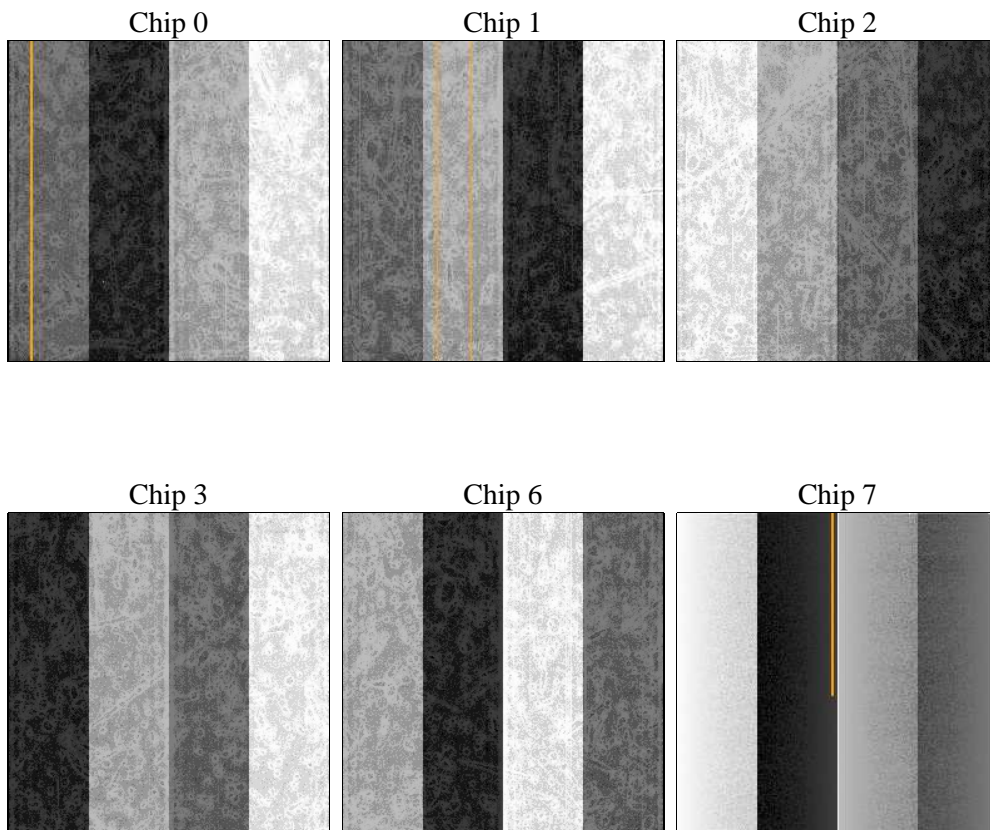
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	41350.000000	[s] Scheduled observation exposure time
ascdsver	10.4.1	Processing system revision	ontime	41487.749120235	Sum of GTIs [s]
caldbver	4.6.8	 	ontime0	41490.990020782	Sum of GTIs [s]
date	2015-07-27T16:35:54	Date and time of file creation	ontime1	41490.990050882	Sum of GTIs [s]
revision	5	Processing version of data	ontime2	41487.749000639	Sum of GTIs [s]
			ontime3	41487.749120235	Sum of GTIs [s]
			ontime6	41494.231011182	Sum of GTIs [s]
			ontime7	41494.231011182	Sum of GTIs [s]
			l1events	1555865	Number of level 1 events

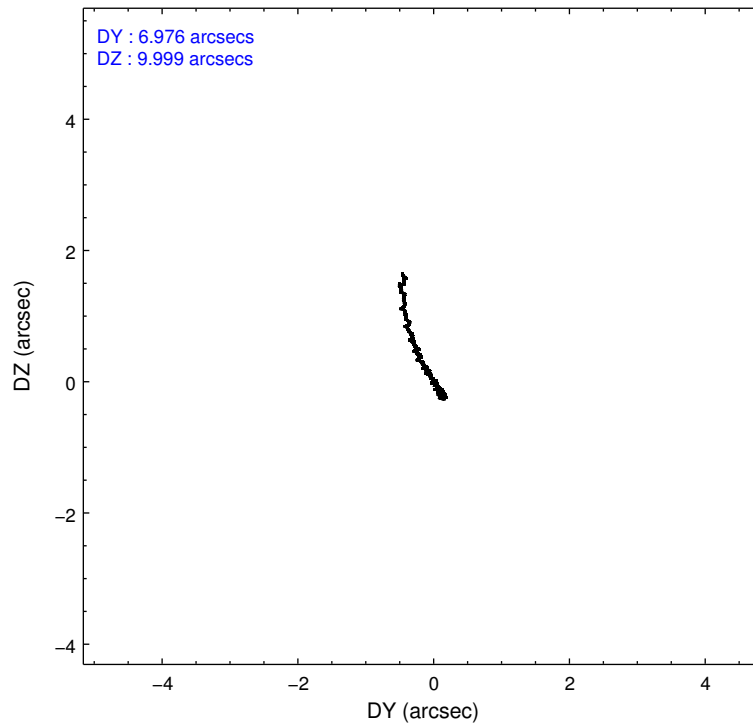
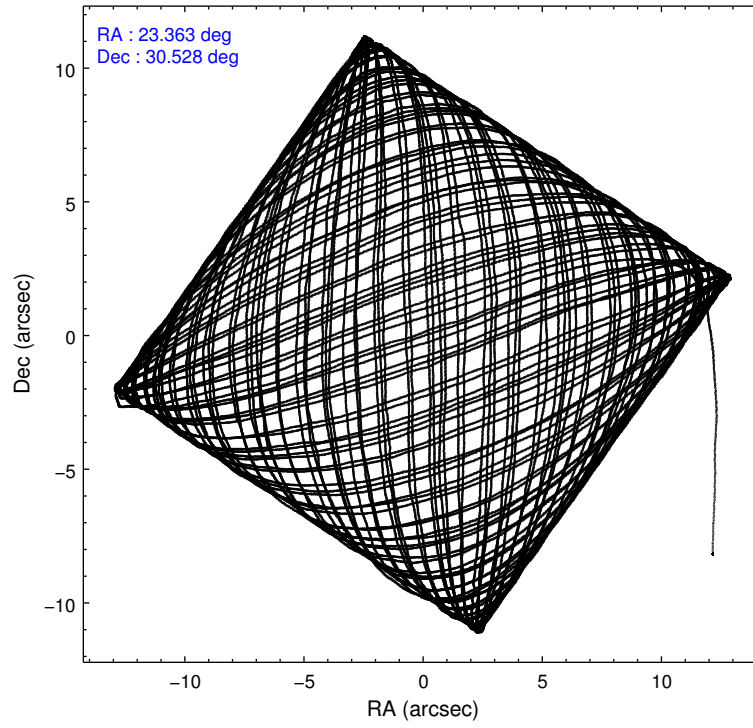
2.1.4 Events

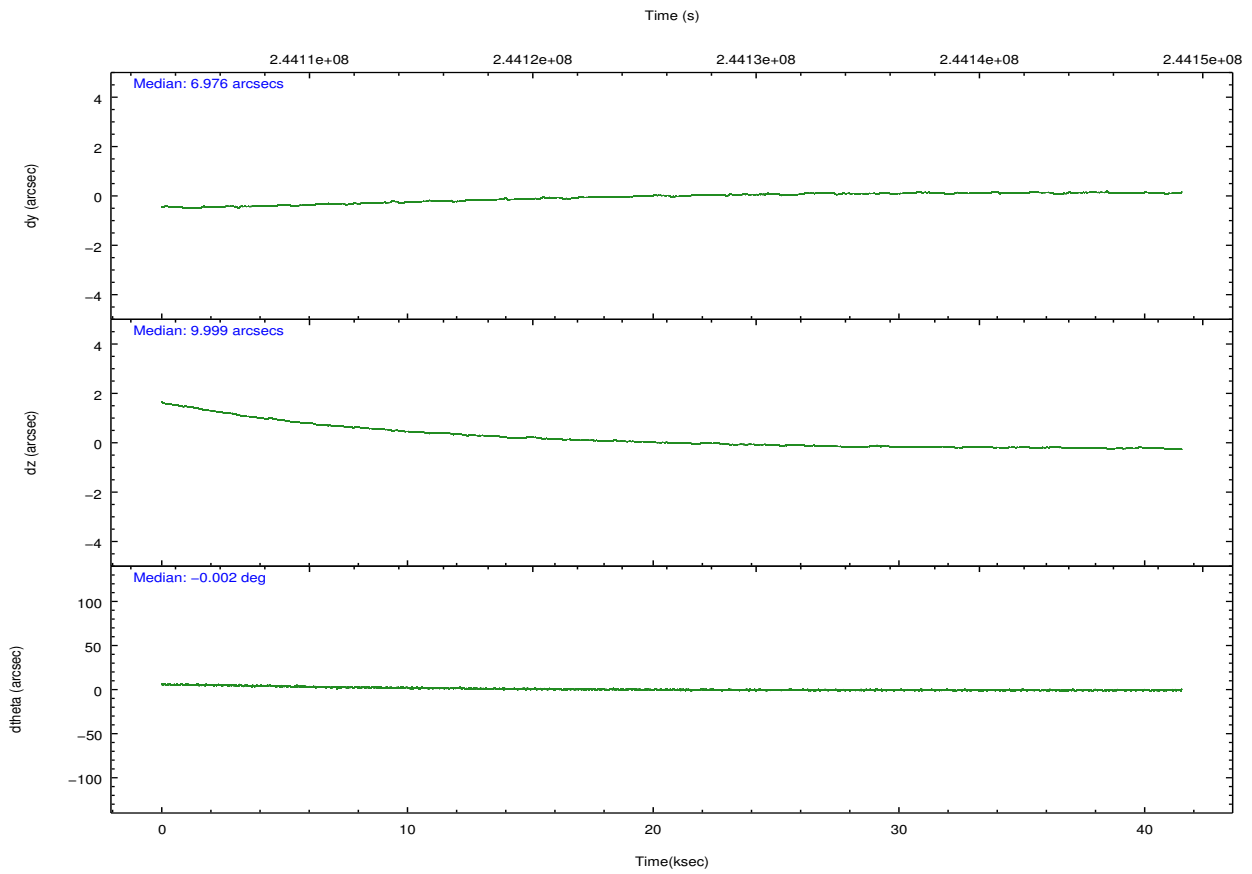
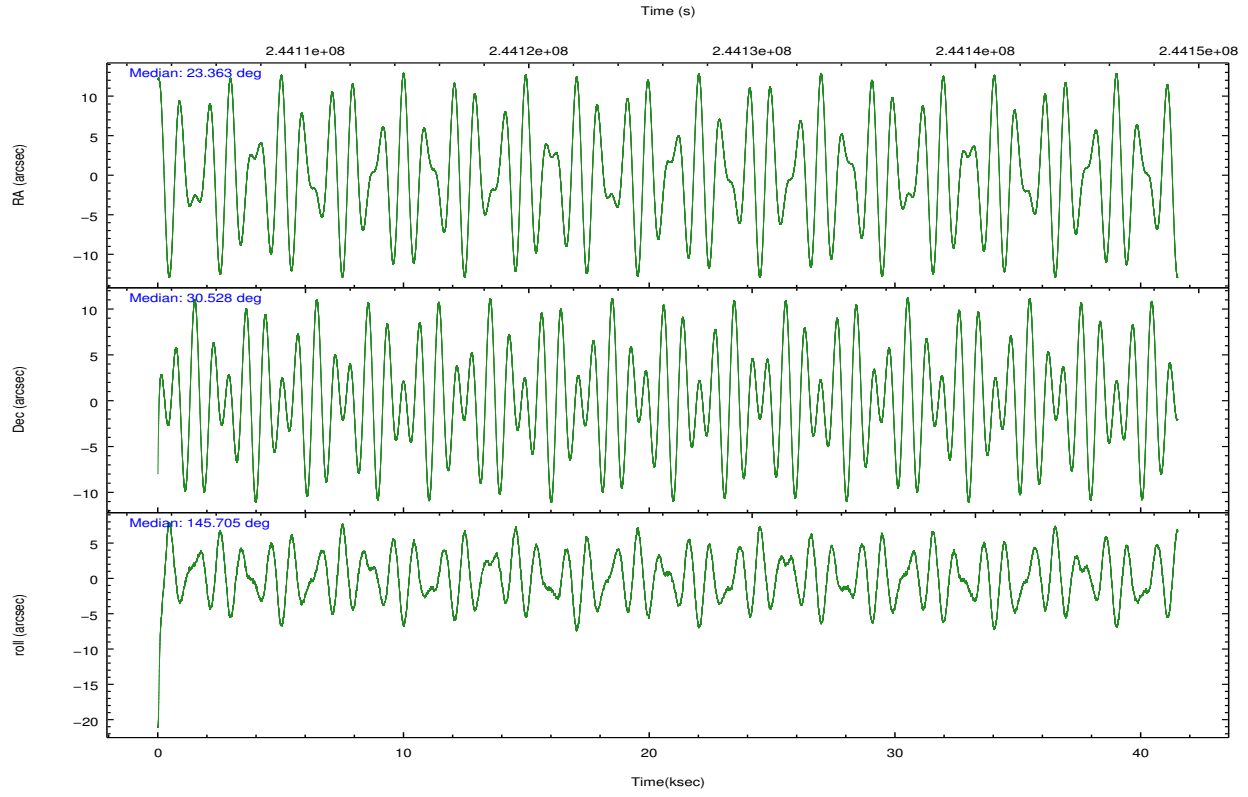
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	234246	247435	265107	259515	261226	288336	grade 0 events	10580	16141	9831	15874	9215	10884
rejected events	207858	212469	240093	227213	235299	164033		4%	6%	3%	6%	3%	3%
rejected %	88%	85%	90%	87%	90%	56%	grade 1 events	146	307	147	469	129	251
								0%	0%	0%	0%	0%	0%
							grade 2 events	6234	7075	5998	6167	5901	25496
								2%	2%	2%	2%	2%	8%
							grade 3 events	2959	3448	2720	3176	2984	12108
								1%	1%	1%	1%	1%	4%
							grade 4 events	2747	3376	2726	3036	2884	11935
								1%	1%	1%	1%	1%	4%
							grade 5 events	8756	9952	8253	10550	10710	30596
								3%	4%	3%	4%	4%	10%
							grade 6 events	4784	6036	4642	5100	5955	68765
								2%	2%	1%	1%	2%	23%
							grade 7 events	198040	201100	230790	215143	223448	128301
								84%	81%	87%	82%	85%	44%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	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	23.395045	23.36332399630487	Subarray requested	NONE	NONE
[deg] Pointing Dec	30.525656	30.52760204833496	Alternating exposures requested	N	N
[deg] Pointing Roll	145.485377	145.7101697210005	[s] Primary exposure time	0.000000	3.2
[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)	244105629.184000	244103796.50521			
Observation start date	2005-09-26T07:06:05	2005-09-26T06:36:36			
[s] Observation end time (MET)	244146979.184000	244147716.21973			
Observation end date	2005-09-26T18:35:15	2005-09-26T18:48:36			
Read mode	TIMED	TIMED			

2.3 Aspect





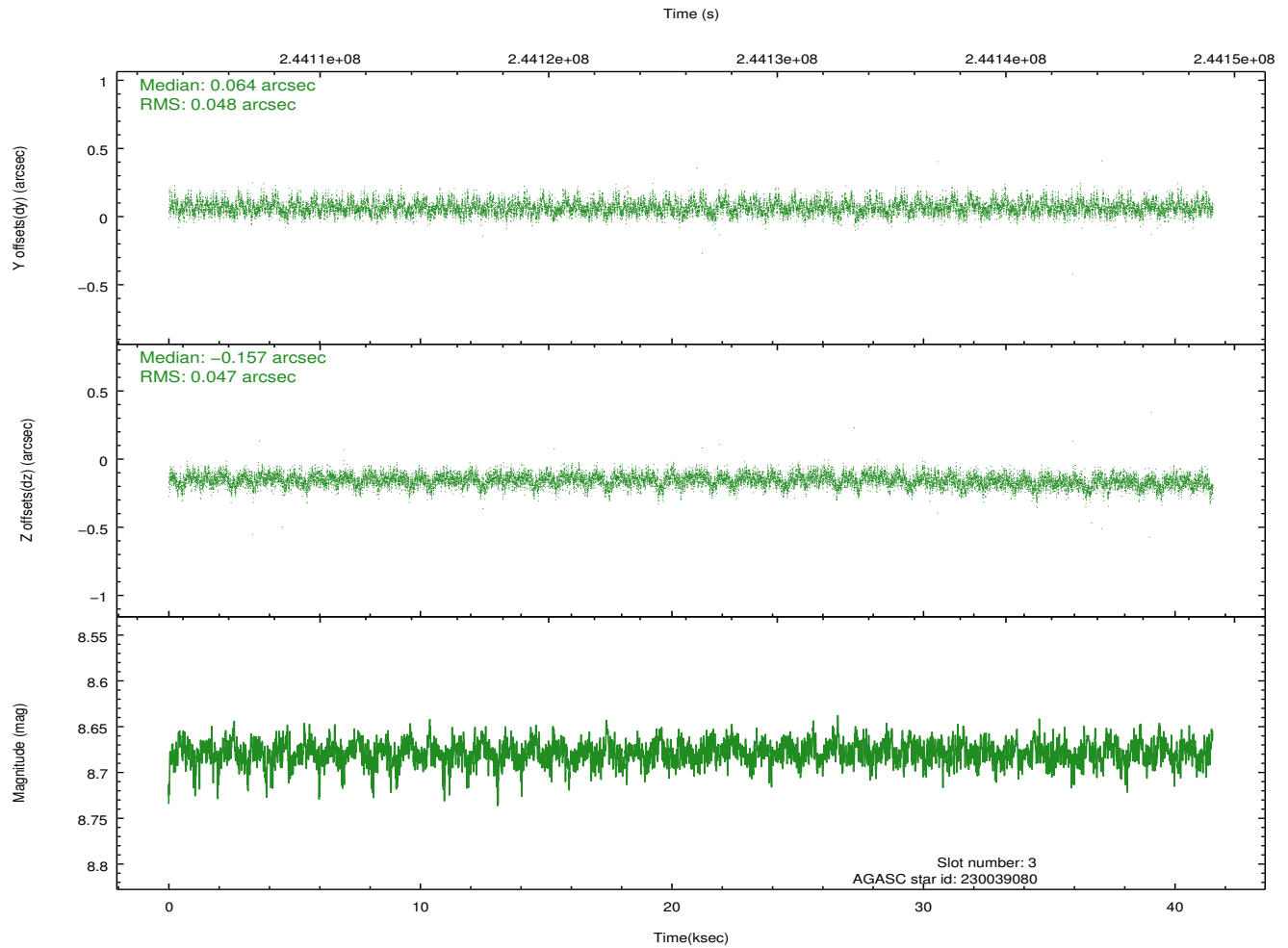
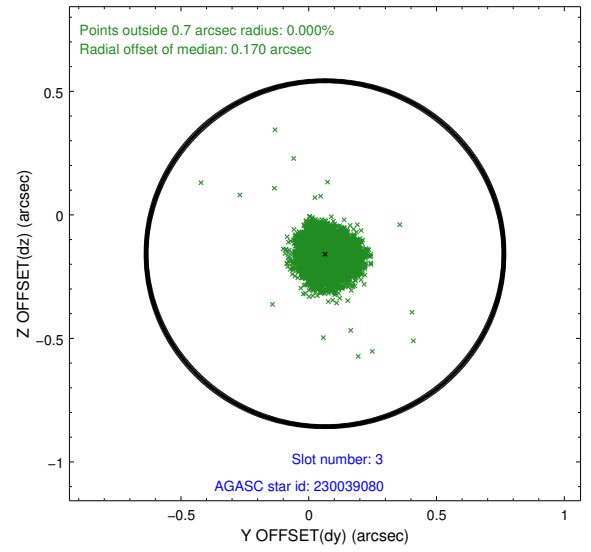
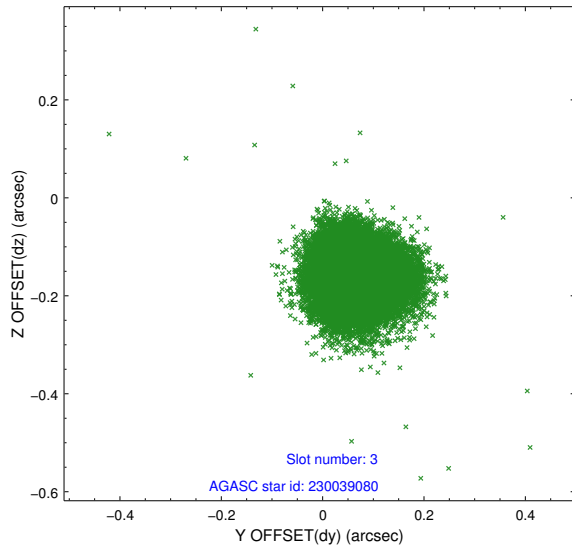
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.25	10122	0.012	0.001	0.025	0.048	0.000000	0.000000	932.79	-833.68
1	FID		ACIS-I-5	7.23	10121	-0.154	0.032	0.013	0.030	0.000000	0.000000	-1815.47	1063.85
2	FID		ACIS-I-6	7.26	10120	0.050	0.038	0.017	0.029	0.000000	0.000000	398.36	1708.36
3	GUIDE	used	230039080	8.68	20236	0.064	-0.157	0.071	0.113	23.320866	29.887774	-1110.40	2023.24
4	GUIDE	used	300553080	9.04	20228	0.001	0.093	0.078	0.125	23.777101	30.773227	-467.40	-1405.33
5	GUIDE	used	300559160	9.40	20226	0.053	0.106	0.097	0.163	24.161026	30.632205	-1732.90	-1667.12
6	GUIDE	used	300559960	7.87	20242	-0.110	-0.096	0.059	0.093	22.944463	30.624765	1353.33	494.65
7	GUIDE	used	300417960	9.20	20231	-0.013	0.054	0.100	0.160	22.346894	30.364196	2361.96	2311.76

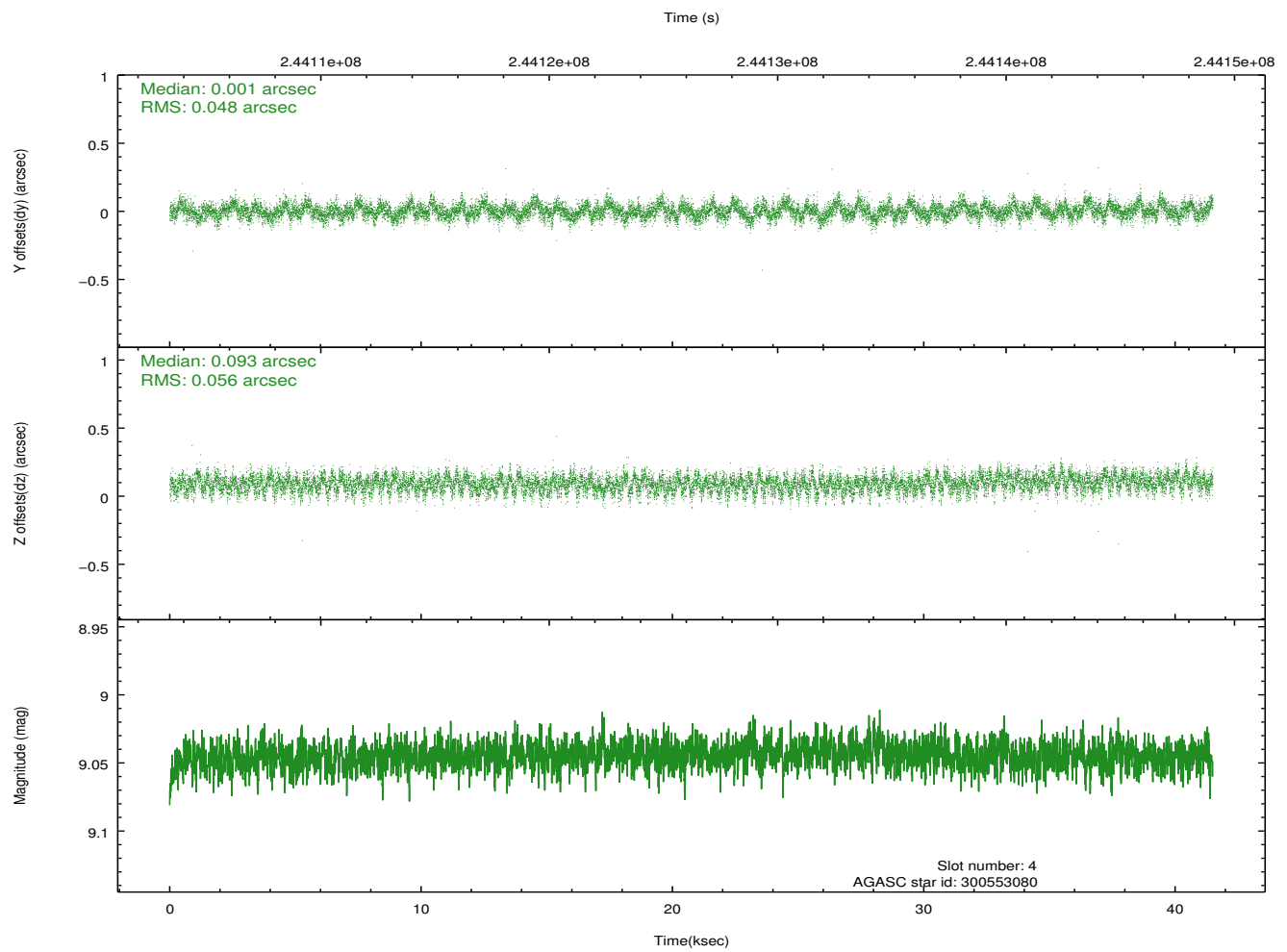
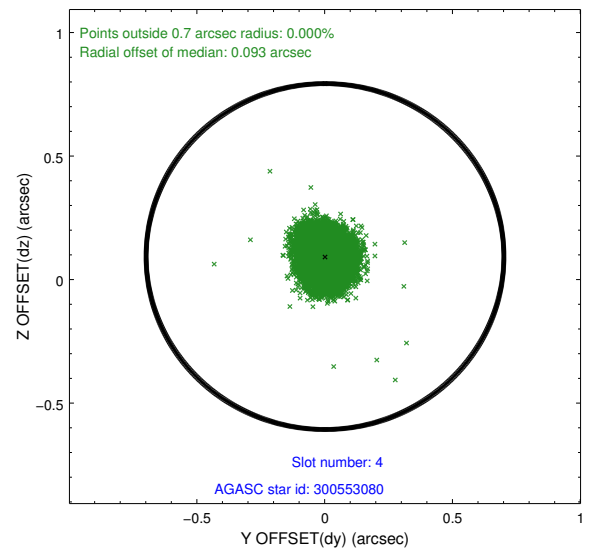
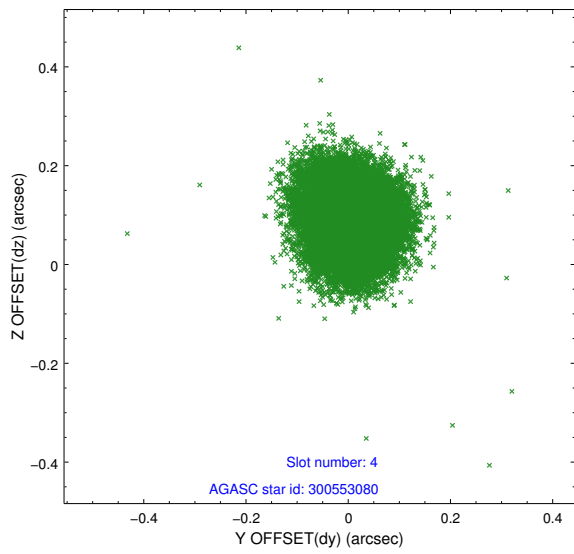
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2.4 Star Slots

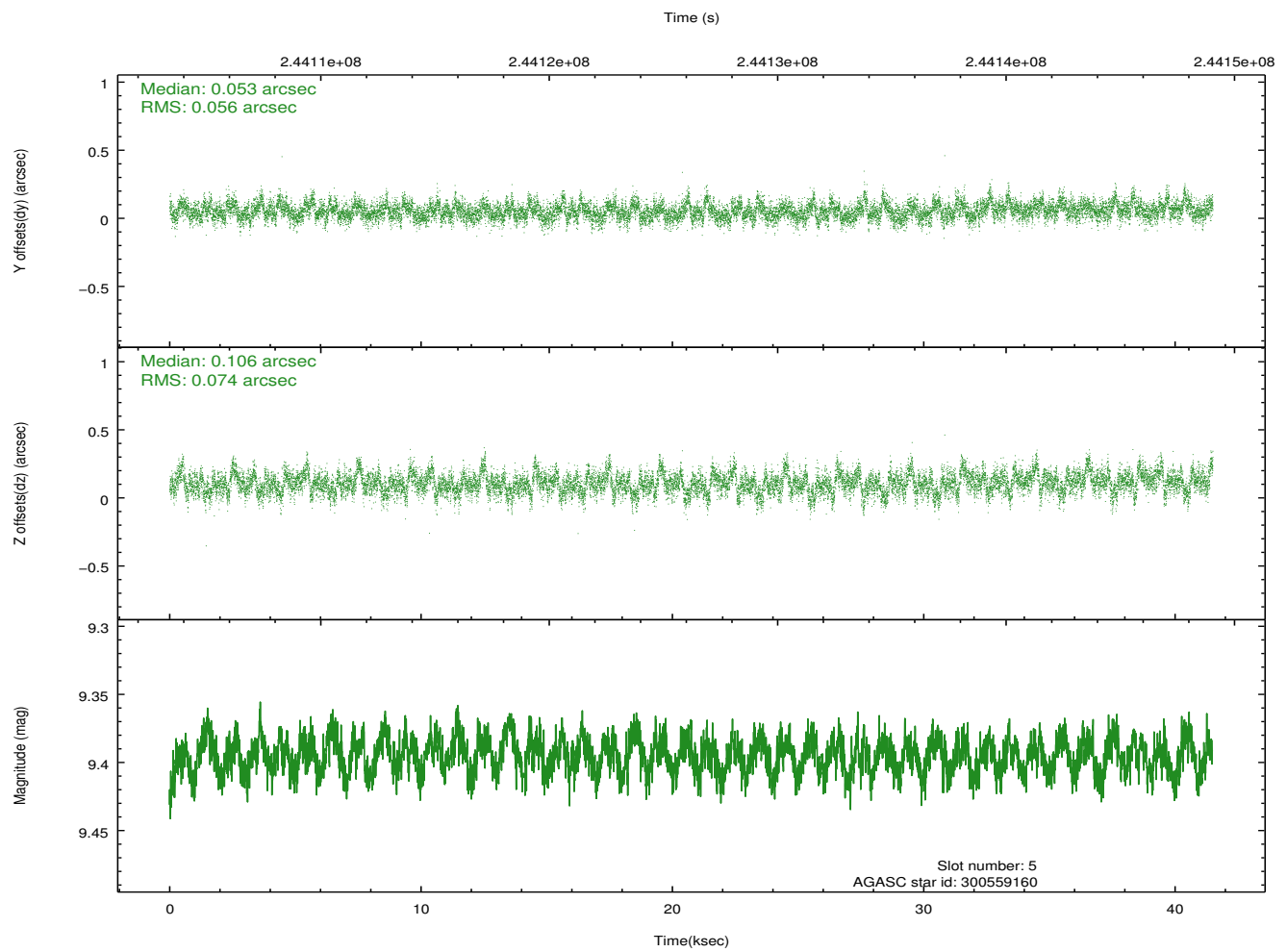
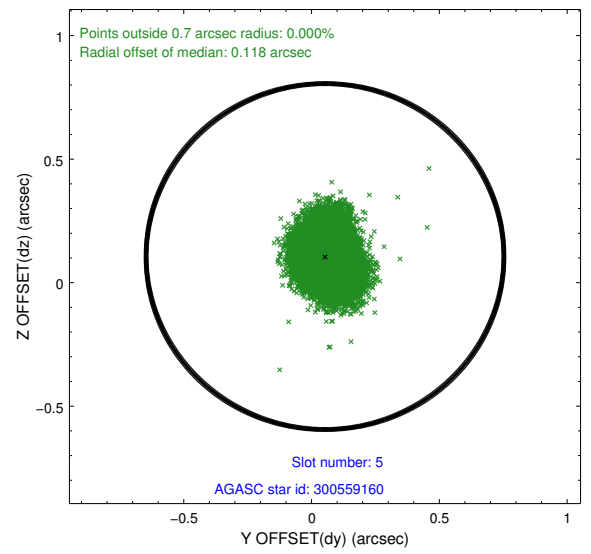
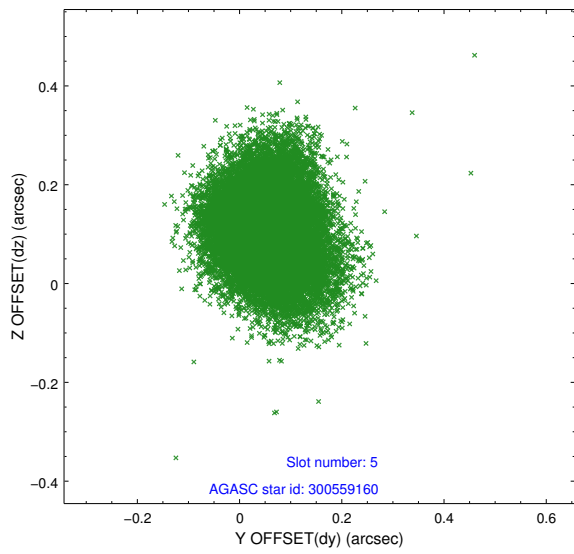
2.4.1 Slot 3



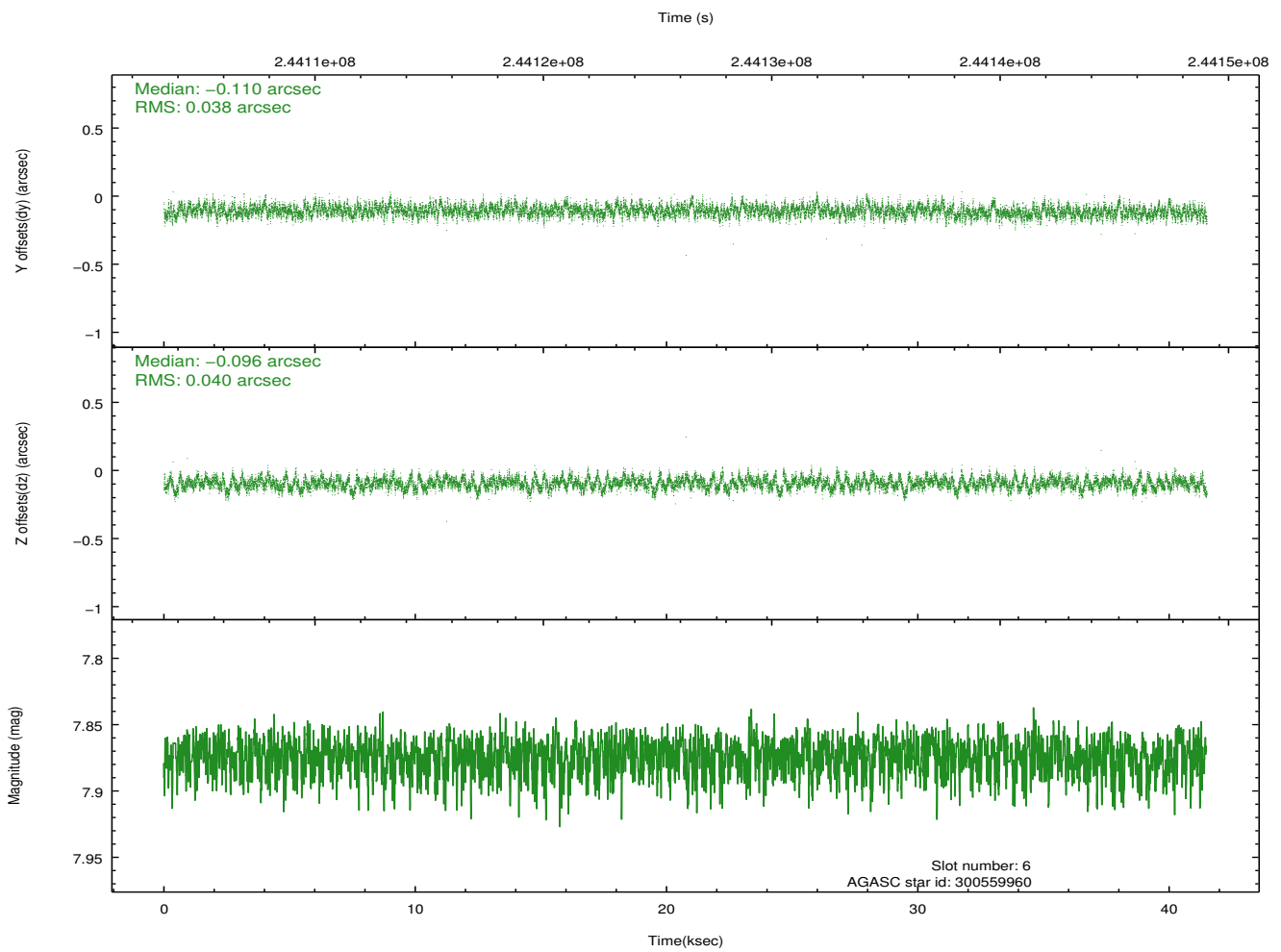
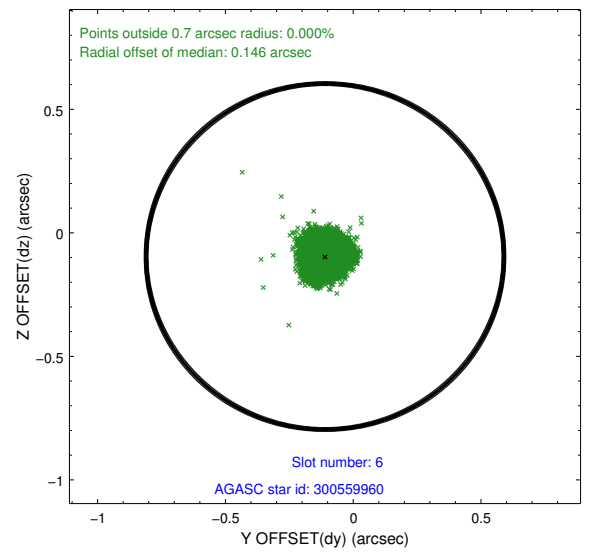
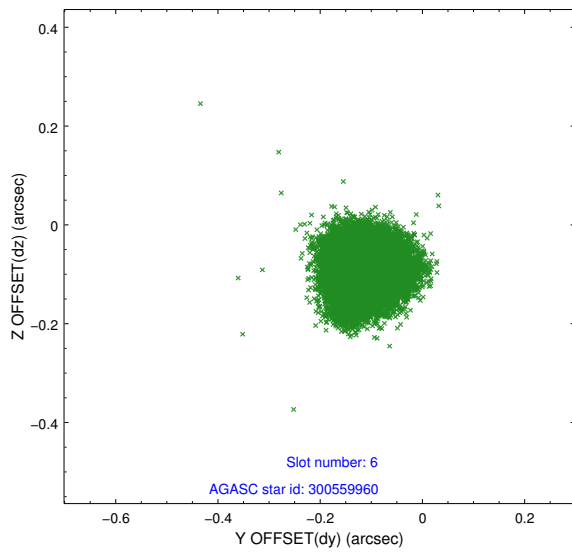
2.4.2 Slot 4



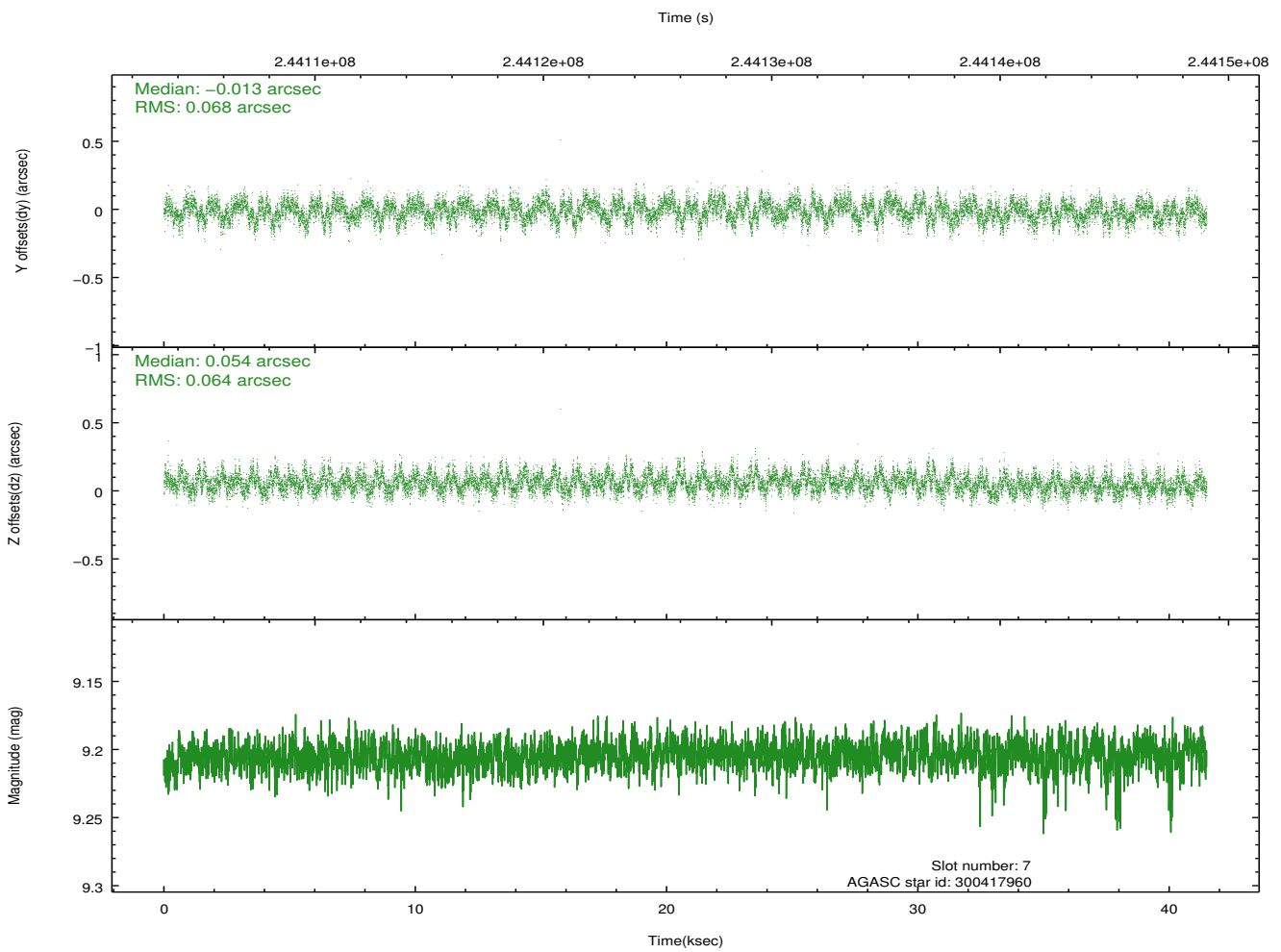
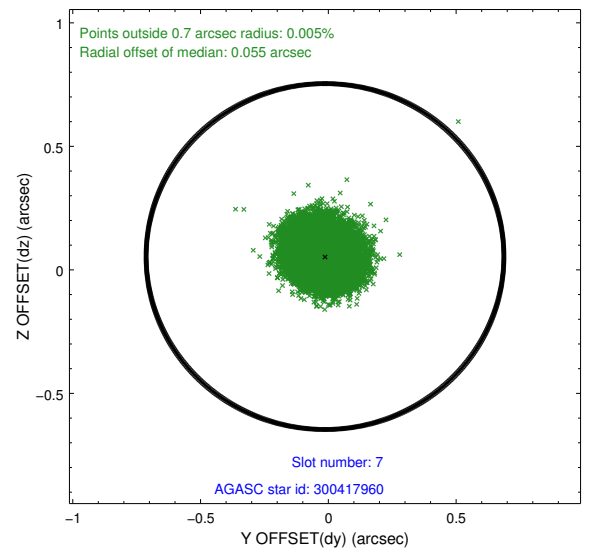
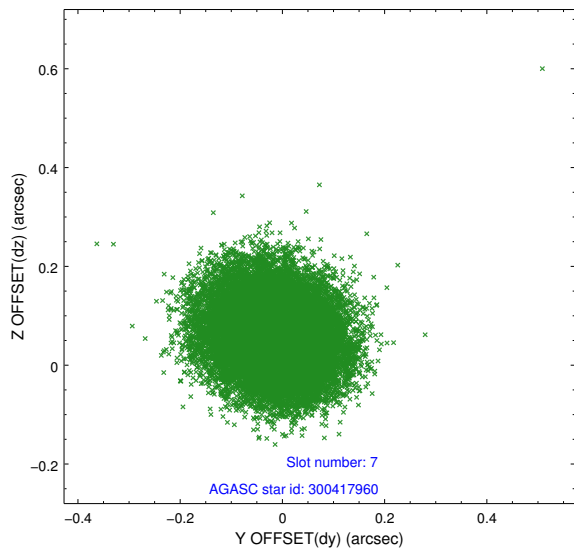
2.4.3 Slot 5



2.4.4 Slot 6

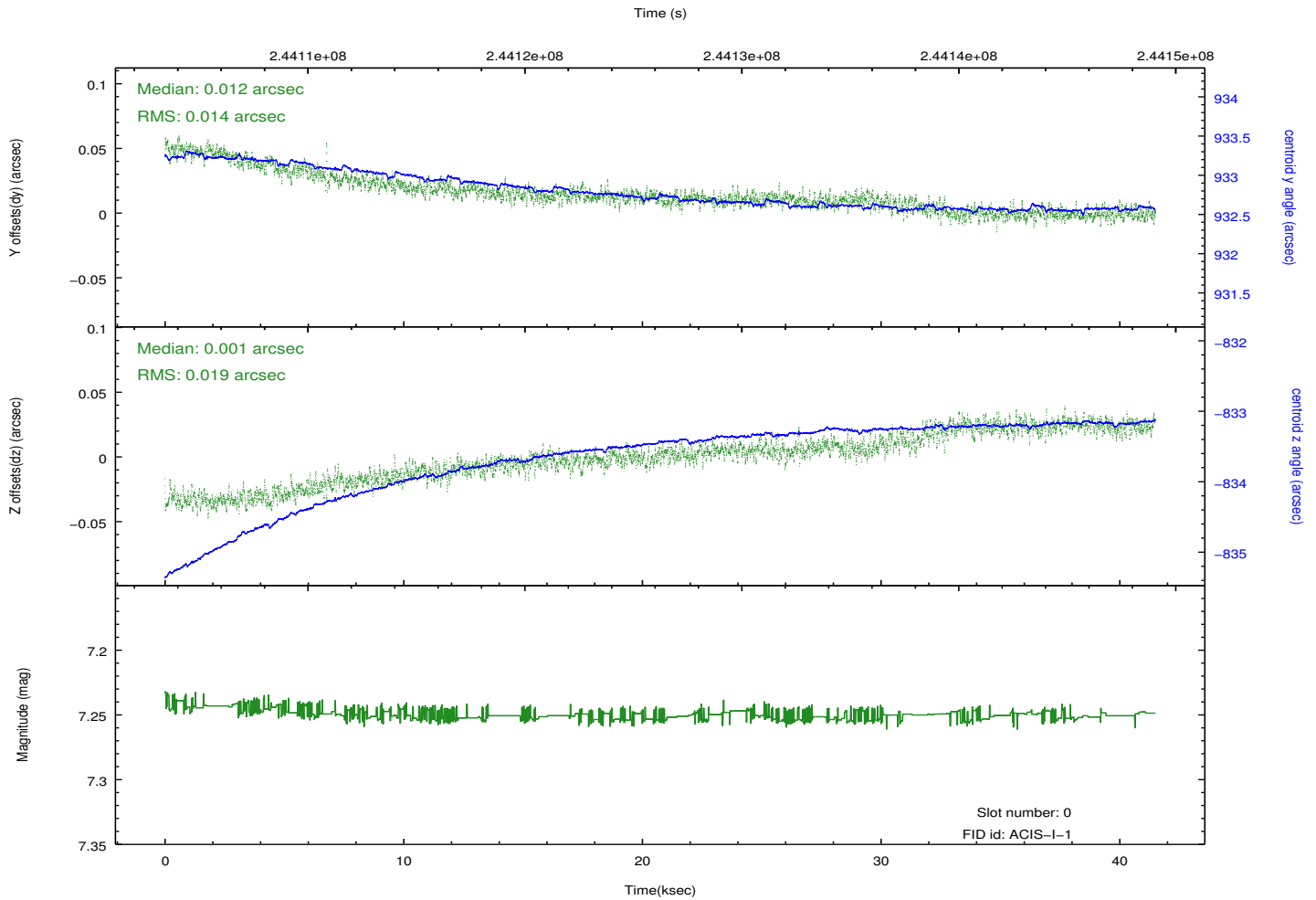
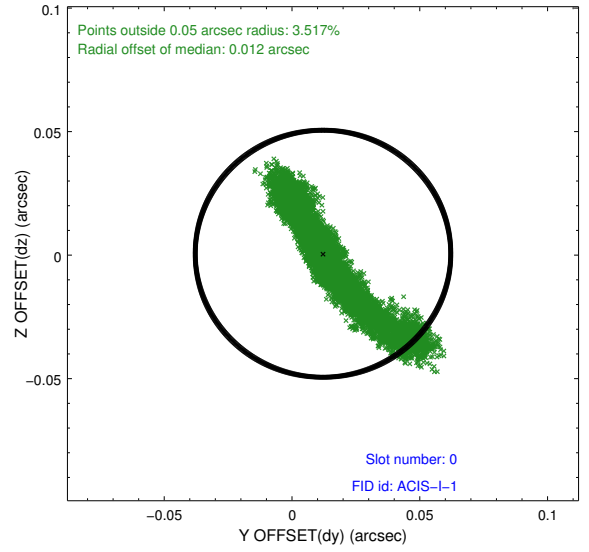
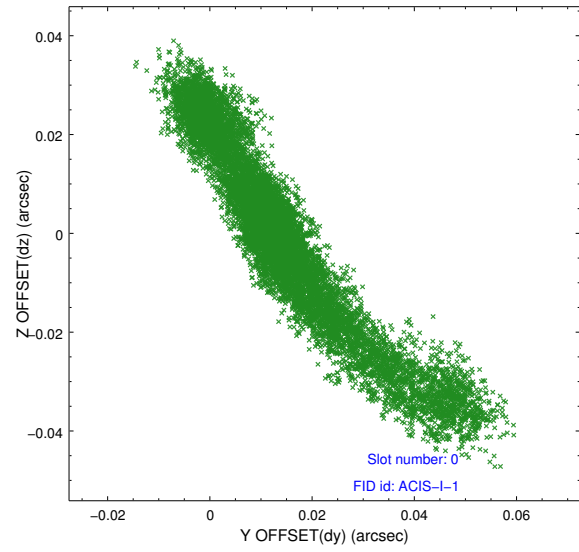


2.4.5 Slot 7

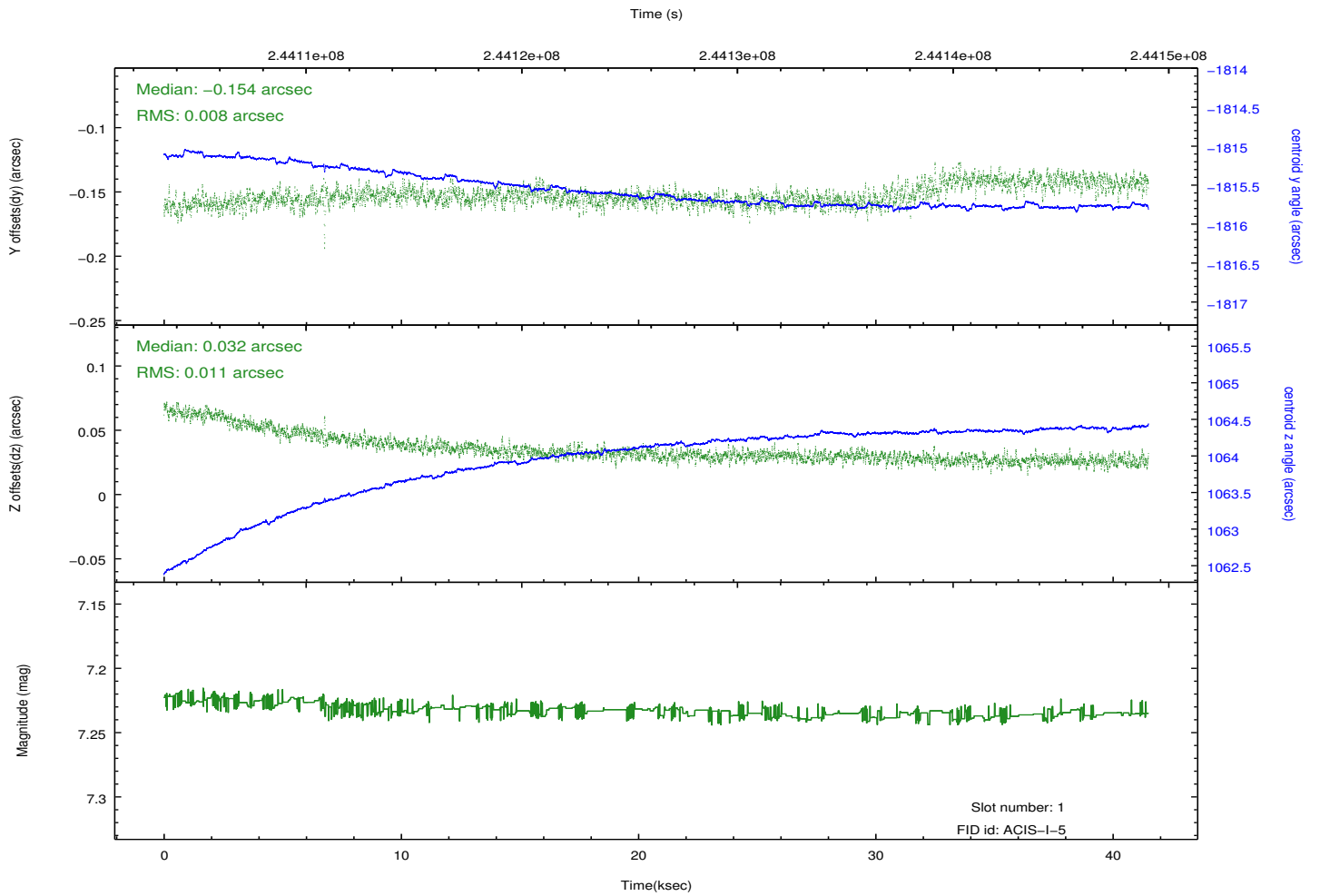
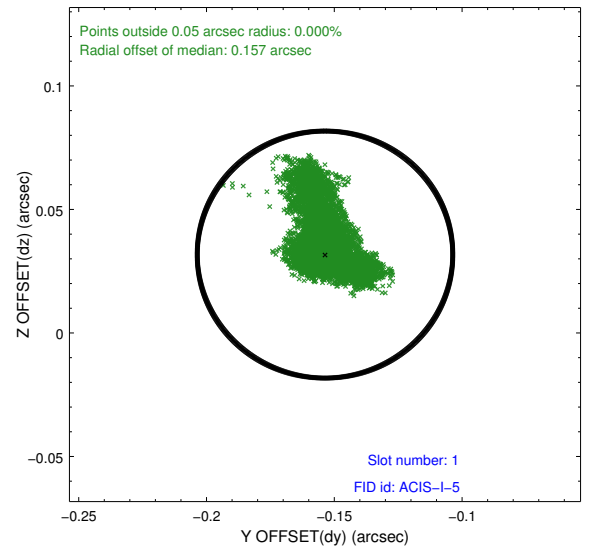
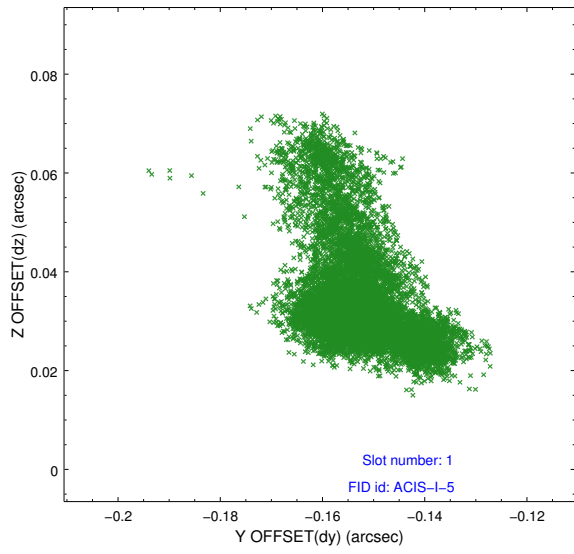


2.5 FID Slots

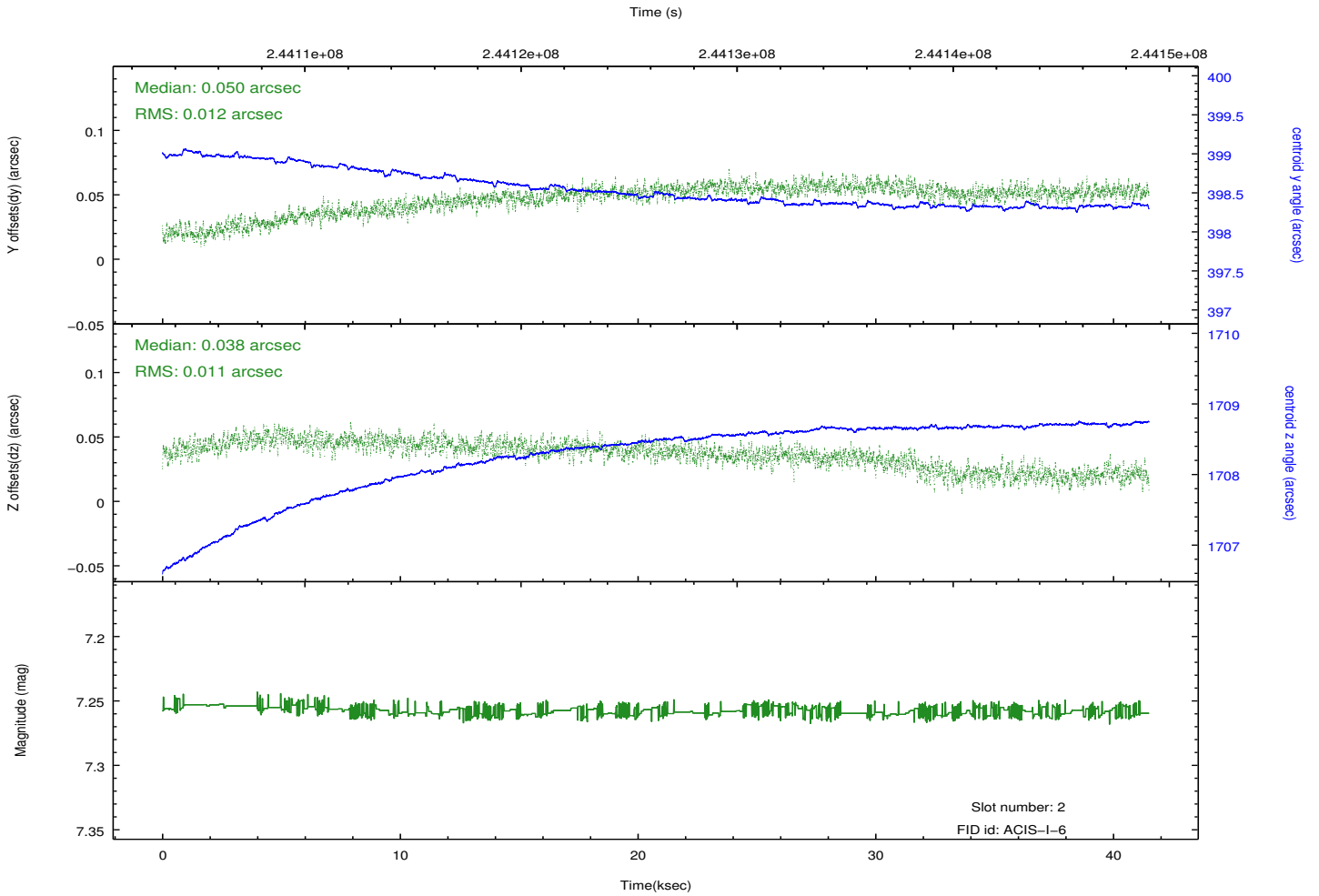
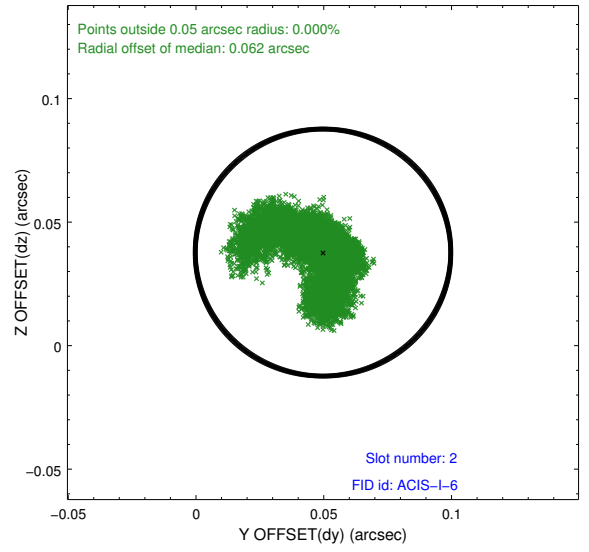
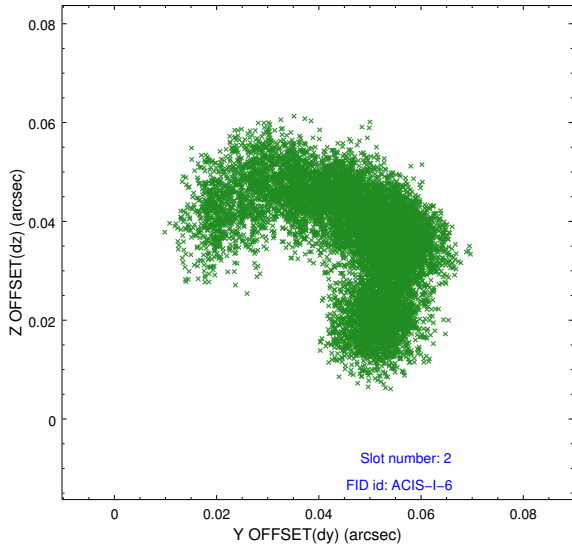
2.5.1 Slot 0



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)	2015.07.28
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	41.48791

A.2 Comments

Because an aspect solution is determined in a finite time interval, a small number of events registered within the delta time before the first aspect solution do not have proper sky coordinates. We apply a manual workaround to exclude those events with incorrect sky positions until the complete s/w resolution is obtained.

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As a consequence of the DEA-A shutdown anomaly on Sep 15th (DOY 258), 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. If using the FP temp values in the headers of data files (some CIAO tools require this information), investigators should subtract 1.3 degrees from the reported temperature to determine the true temperature.