

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 14010 - L2 Version 2
Chandra X-Ray Center

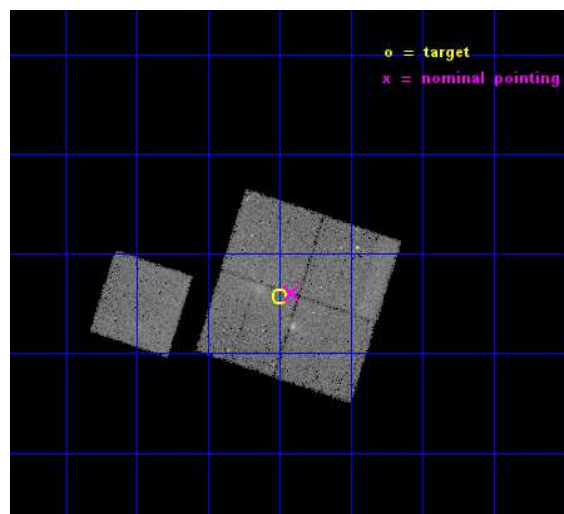
L2 Processing Date : Nov 27 2014

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1 Front

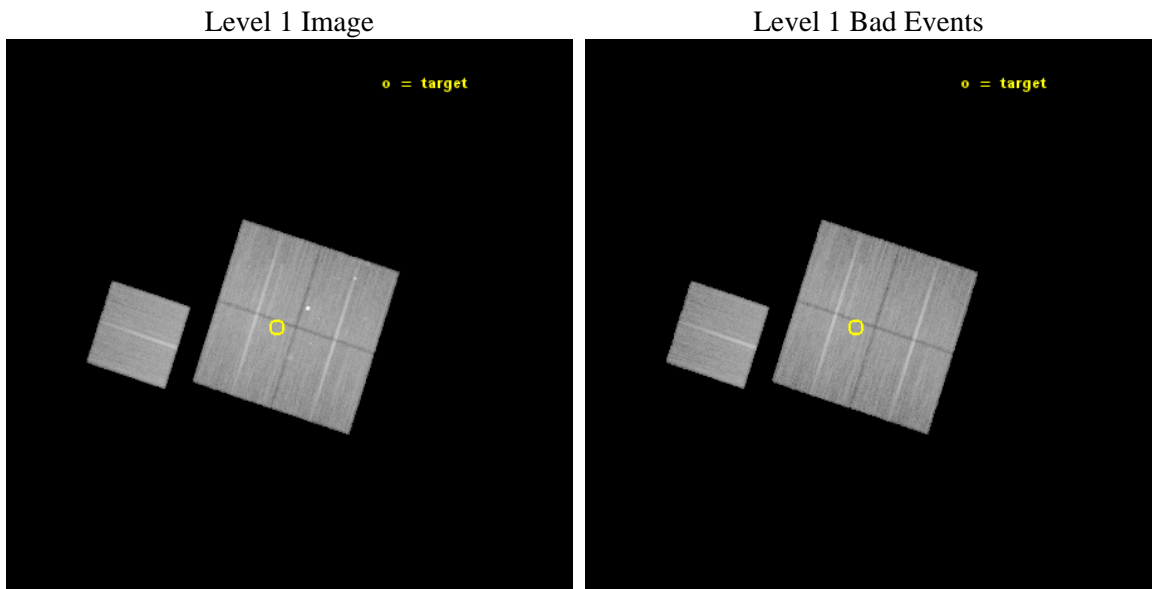
seq_num	801190	Sequence number
obs_id	14010	Observation id
title	Dark and Luminous Matter in the Twin Clusters of Abell 2465	Propos
observer	Prof. Gary Wegner	Principal investigator
object	Abell 2465	Source name
dtycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	339.875833	Observer's specified target RA [deg]
dec_targ	-5.739167	Observer's specified target Dec [deg]
ra_nom	339.85444558952	Nominal RA [deg]
dec_nom	-5.7330964561717	Nominal Dec [deg]
roll_nom	288.00655071012	Nominal Roll [deg]
revision	2	Processing version of data
ontime	40085.21295774	Sum of GTIs [s]
livetime	39561.470140142	Livetime [s]
ontime0	40081.989827394	Sum of GTIs [s]
ontime1	40085.171917737	Sum of GTIs [s]
ontime2	40085.21295774	Sum of GTIs [s]
ontime3	40082.112947404	Sum of GTIs [s]
ontime6	40085.08983773	Sum of GTIs [s]
l2events	114535	Number of level 2 events



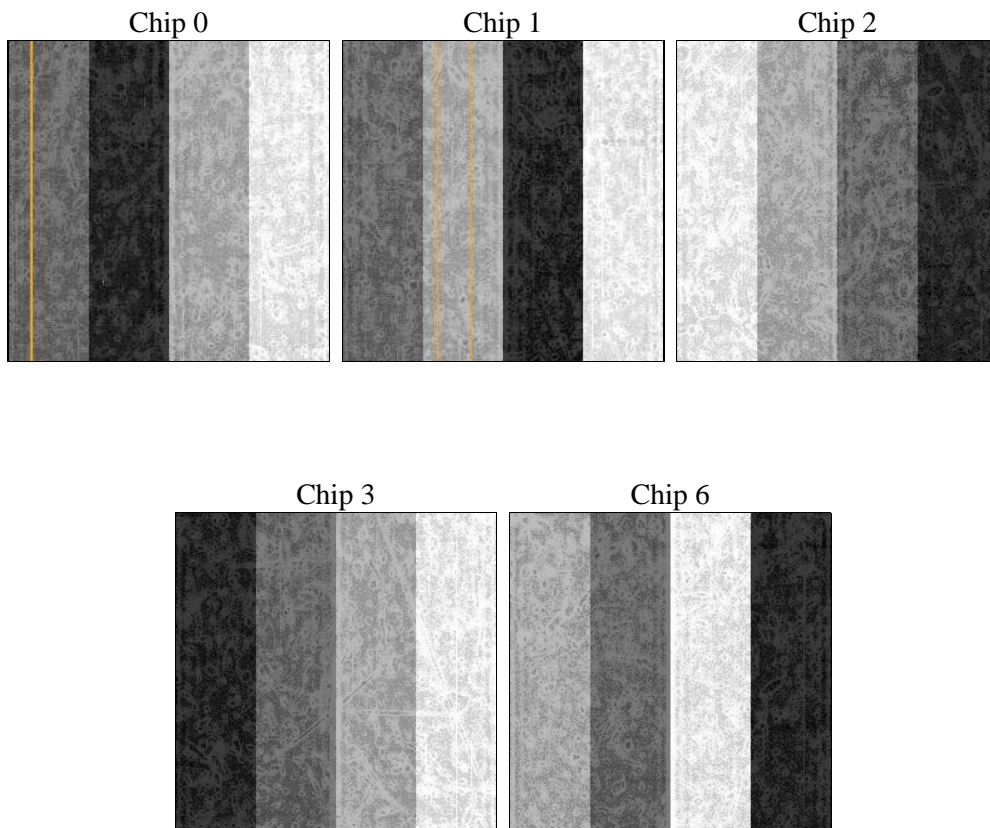
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	40000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	40085.21295774	Sum of GTIs [s]
caldbver	4.6.4	 	ontime0	40081.989827394	Sum of GTIs [s]
date	2014-11-27T23:19:51	Date and time of file creation	ontime1	40085.171917737	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	40085.21295774	Sum of GTIs [s]
			ontime3	40082.112947404	Sum of GTIs [s]
			ontime6	40085.08983773	Sum of GTIs [s]
			l1events	1083171	Number of level 1 events

2.1.4 Events

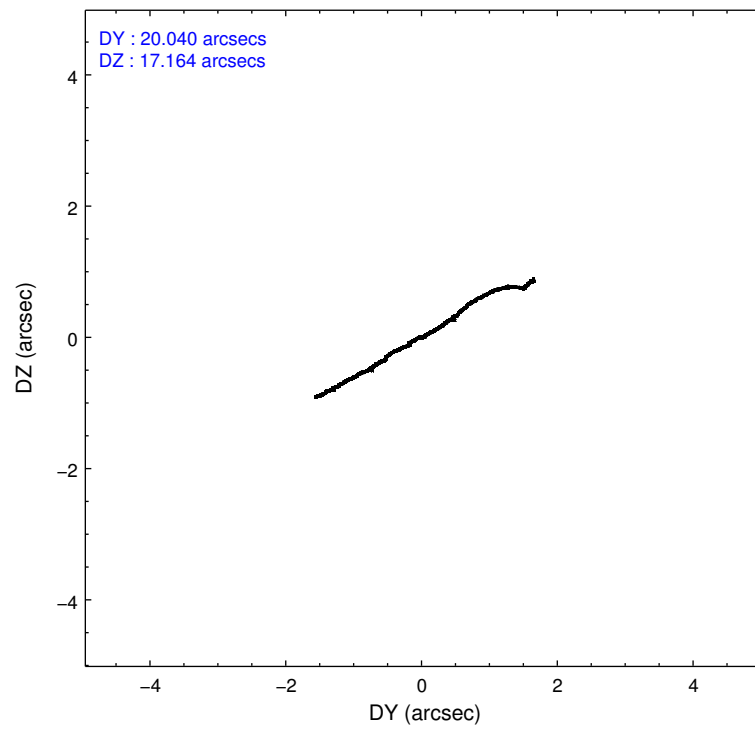
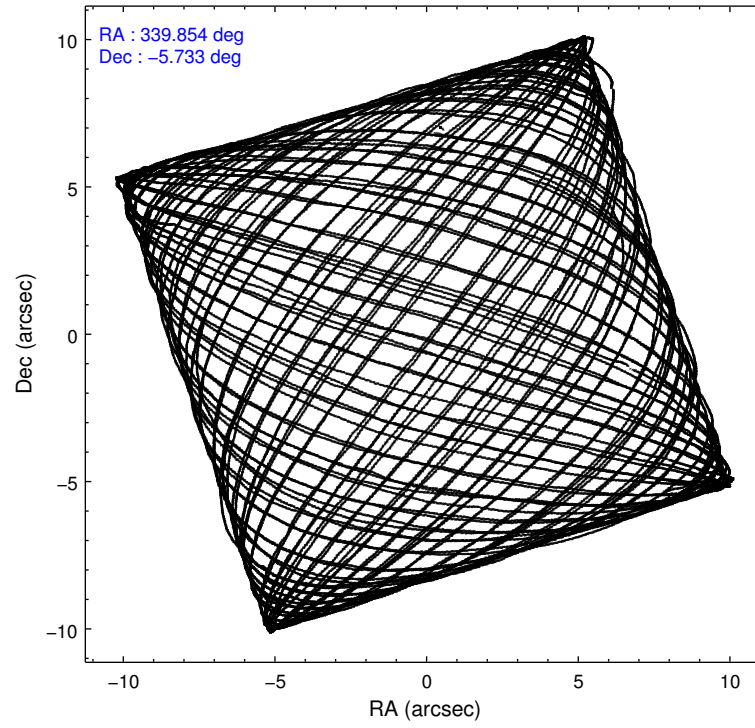
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	200898	218179	220946	219046	224102
rejected events	173995	179419	193622	194244	197625
rejected %	86%	82%	87%	88%	88%

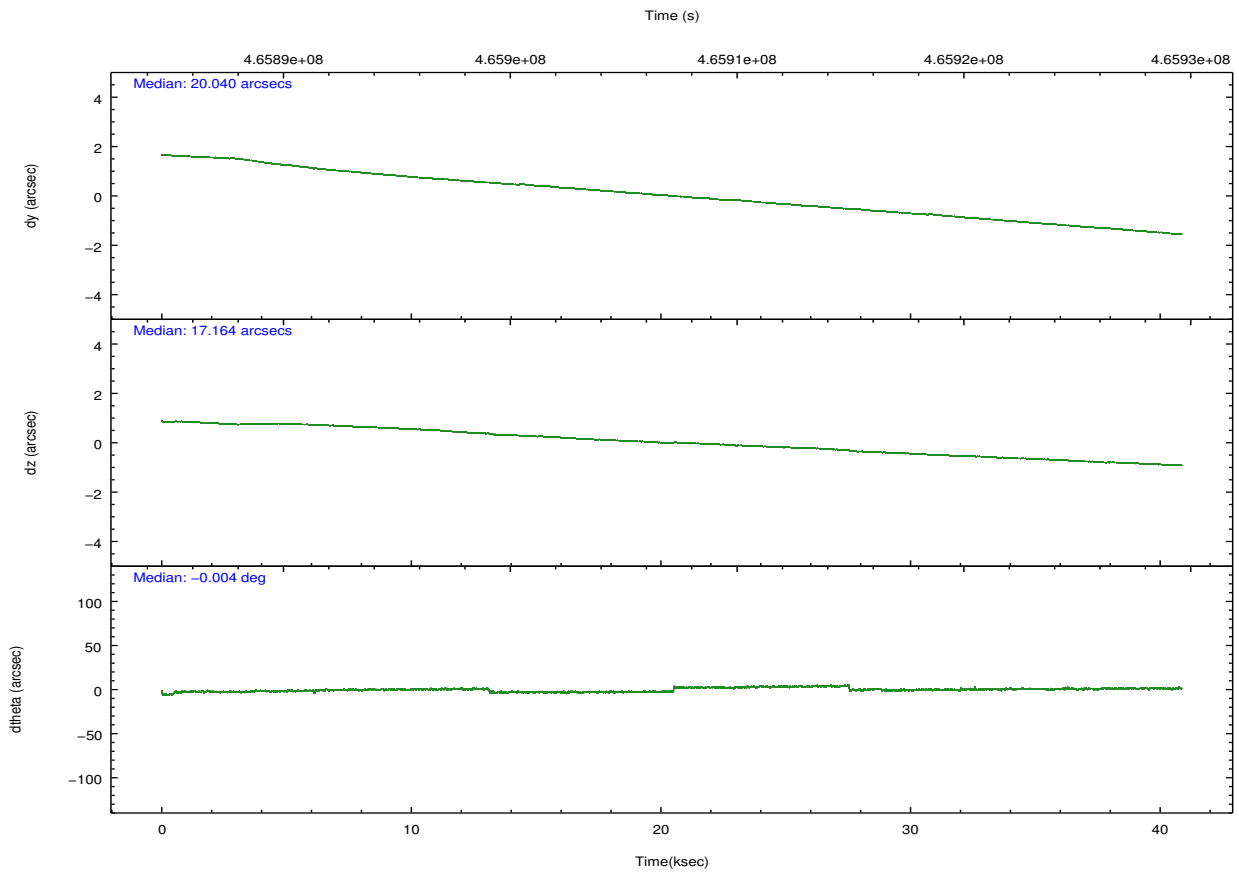
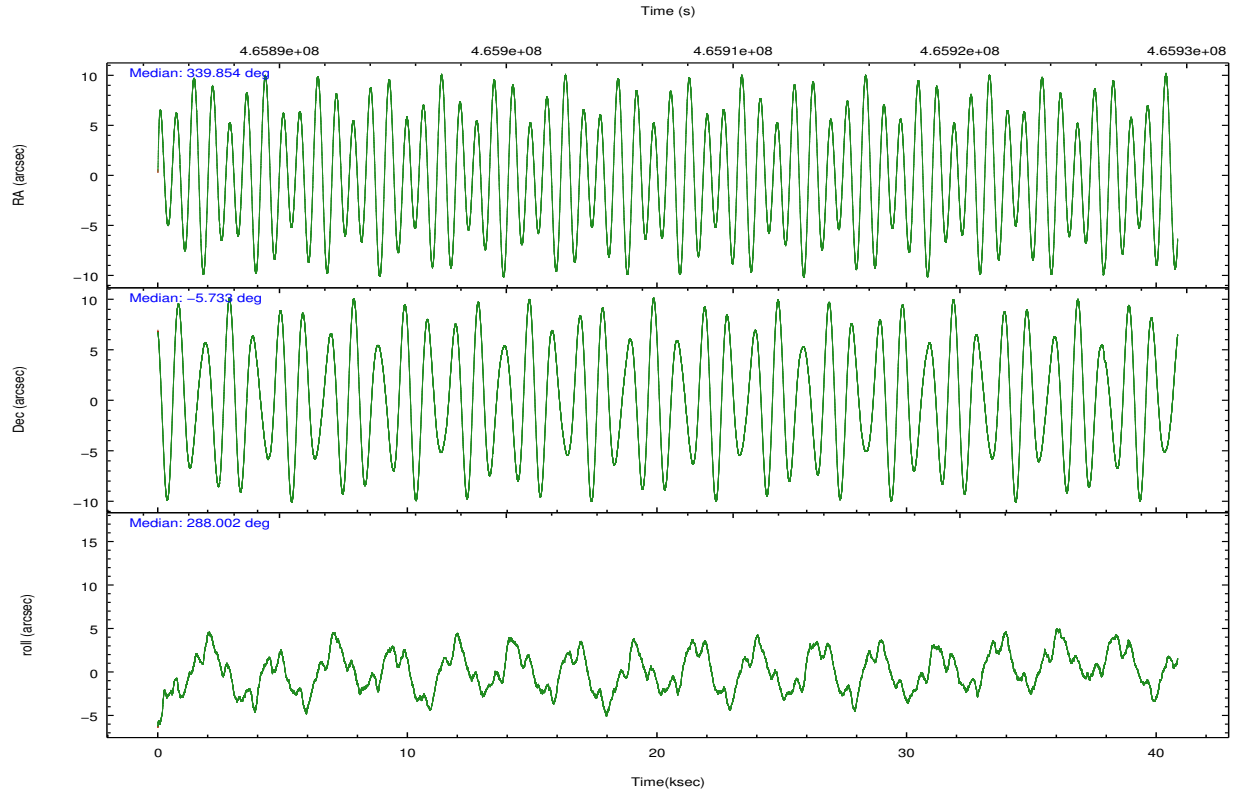
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	10085	20096	10734	8996	9291
	5%	9%	4%	4%	4%
grade 1 events	124	248	126	135	117
	0%	0%	0%	0%	0%
grade 2 events	6433	6833	6353	5364	5914
	3%	3%	2%	2%	2%
grade 3 events	2706	2836	2582	2596	2663
	1%	1%	1%	1%	1%
grade 4 events	2412	2892	2673	2657	2691
	1%	1%	1%	1%	1%
grade 5 events	10174	10835	9654	11391	11140
	5%	4%	4%	5%	4%
grade 6 events	5269	6107	4983	5190	5923
	2%	2%	2%	2%	2%
grade 7 events	163695	168332	183841	182717	186363
	81%	77%	83%	83%	83%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01236	ACIS-01236	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	339.833836	339.8544455895211	CCD I2 on	Y	Y
[deg] Pointing Dec	-5.714772	-5.73309645617173	CCD I3 on	Y	Y
[deg] Pointing Roll	287.795811	288.0065507101229	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	O2	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	O1	N
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	465887550.184000	465885923.65048	CCD S5 on	N	N
Observation start date	2012-10-06T05:11:23	2012-10-06T04:45:23	Number of optional ACIS chips dropped	1	1
[s] Observation end time (MET)	465927550.184000	465928380.69026	On-chip summing requested	N	N
Observation end date	2012-10-06T16:18:03	2012-10-06T16:33:00	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





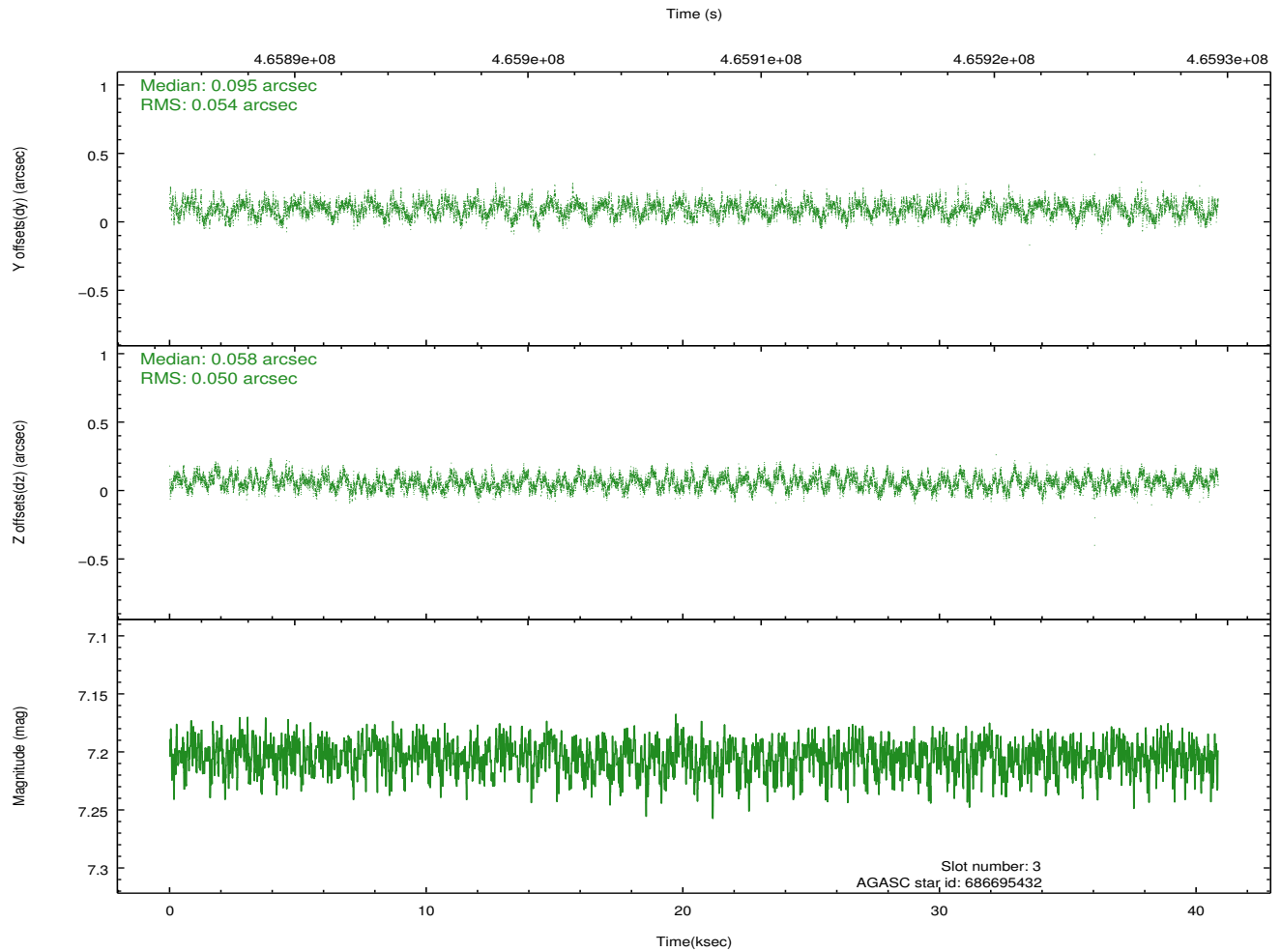
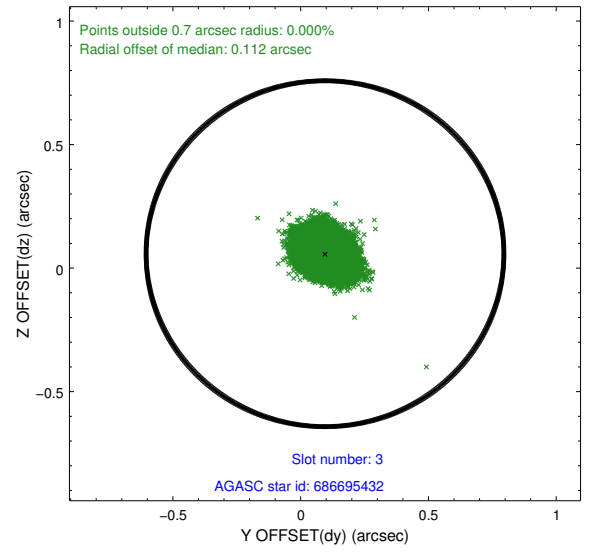
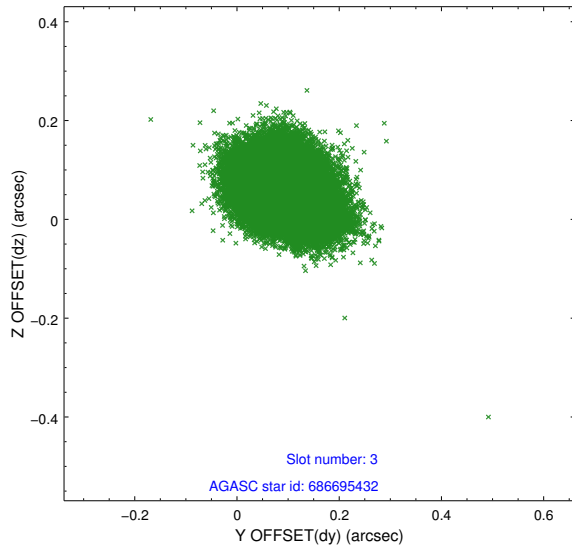
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.11	9965	-0.023	-0.081	0.041	0.069	0.000000	0.000000	919.26	-840.88
1	FID		ACIS-I-4	7.03	9962	0.248	0.094	0.032	0.044	0.000000	0.000000	2139.53	1059.11
2	FID		ACIS-I-5	7.09	9965	-0.323	0.062	0.020	0.035	0.000000	0.000000	-1829.07	1056.84
3	GUIDE	used	686695432	7.20	19930	0.095	0.058	0.080	0.123	339.324536	-6.067444	653.26	-2124.56
4	GUIDE	used	686821872	9.00	19917	0.006	-0.146	0.087	0.139	340.273450	-5.812844	818.16	1390.98
5	GUIDE	used	686822592	8.72	19917	-0.134	-0.052	0.077	0.127	340.352201	-5.655361	364.96	1833.79
6	GUIDE	used	686824768	9.31	19892	0.005	-0.122	0.110	0.178	340.130907	-5.833997	734.79	881.83
7	GUIDE	used	686694672	8.63	19898	0.029	0.261	0.088	0.148	339.082138	-5.602381	-1206.18	-2440.92

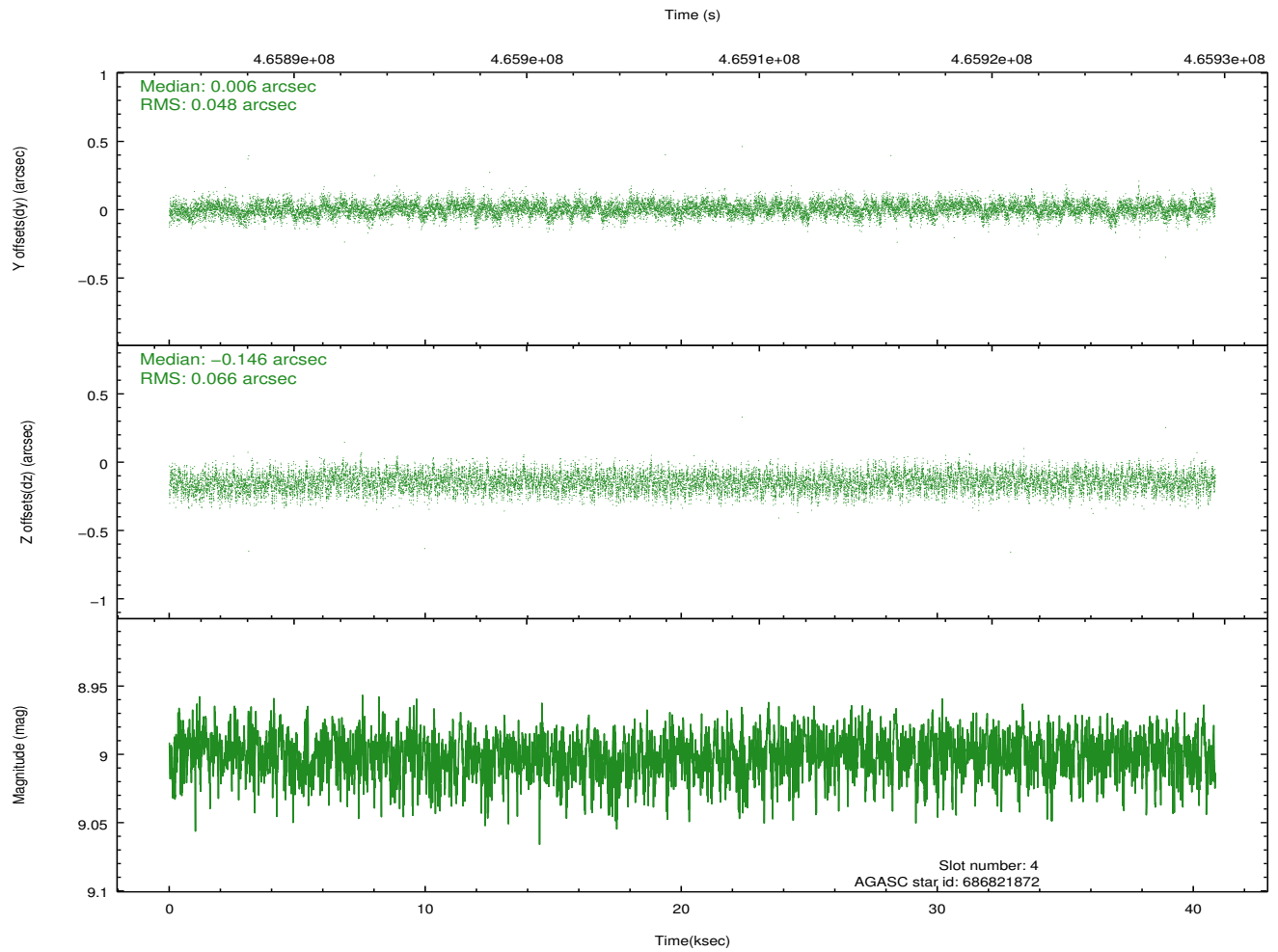
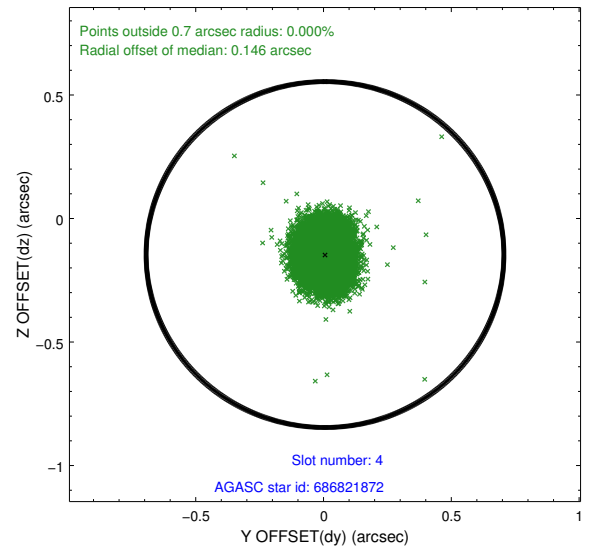
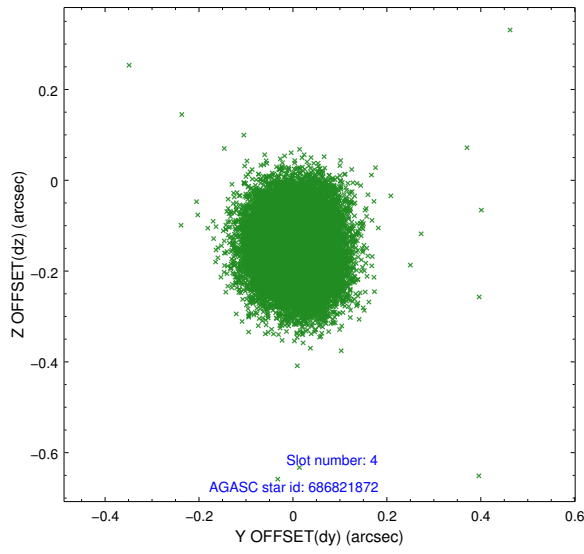
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2.4 Star Slots

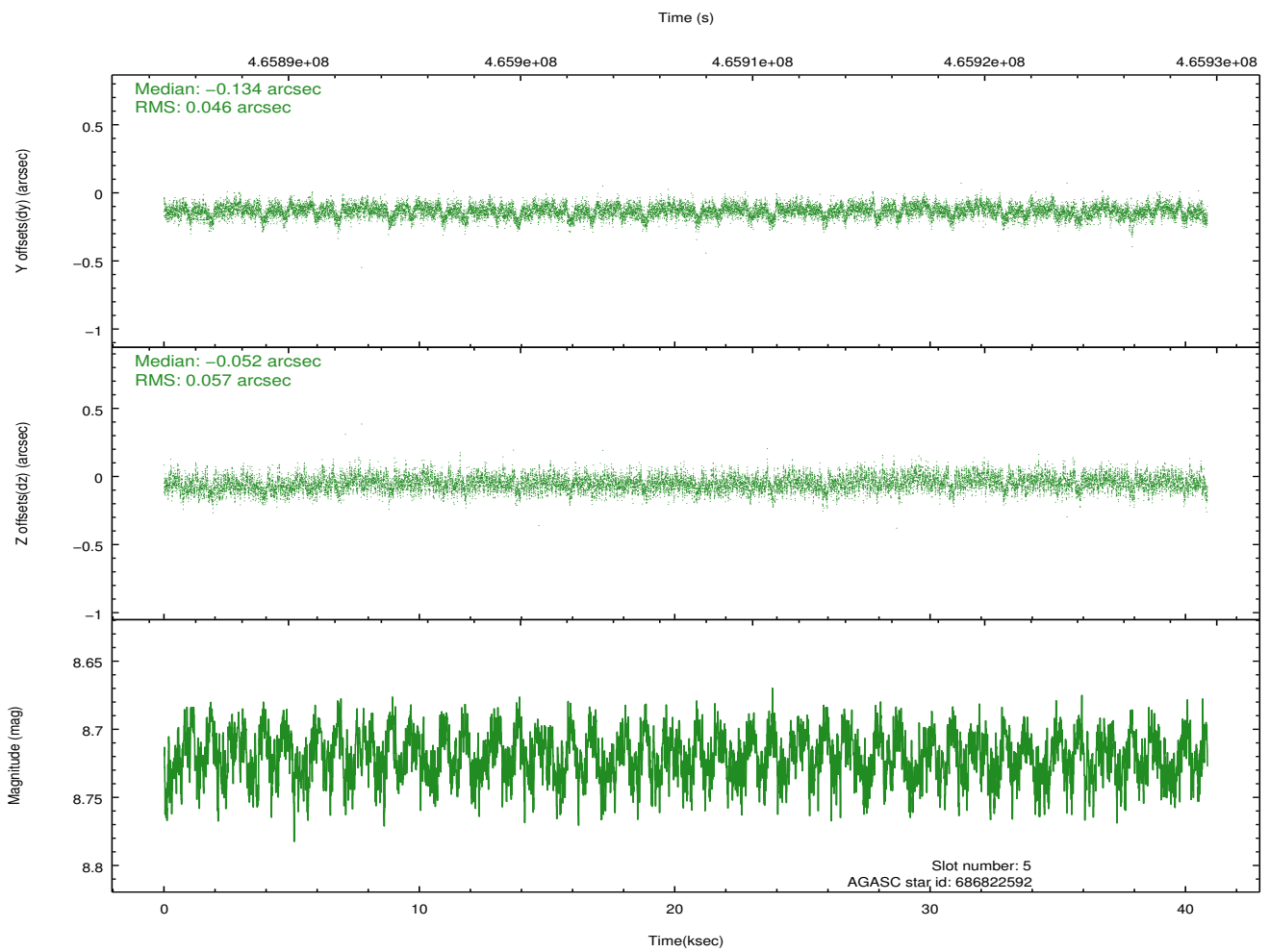
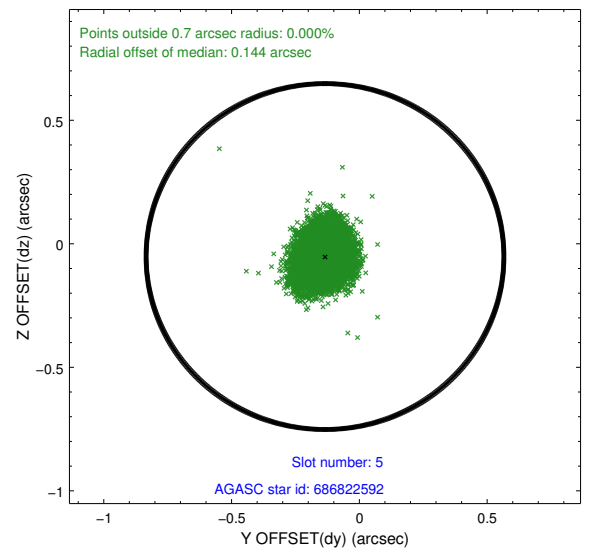
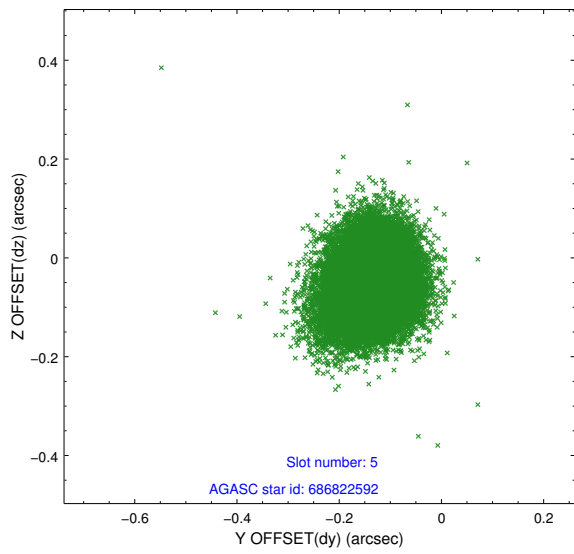
2.4.1 Slot 3



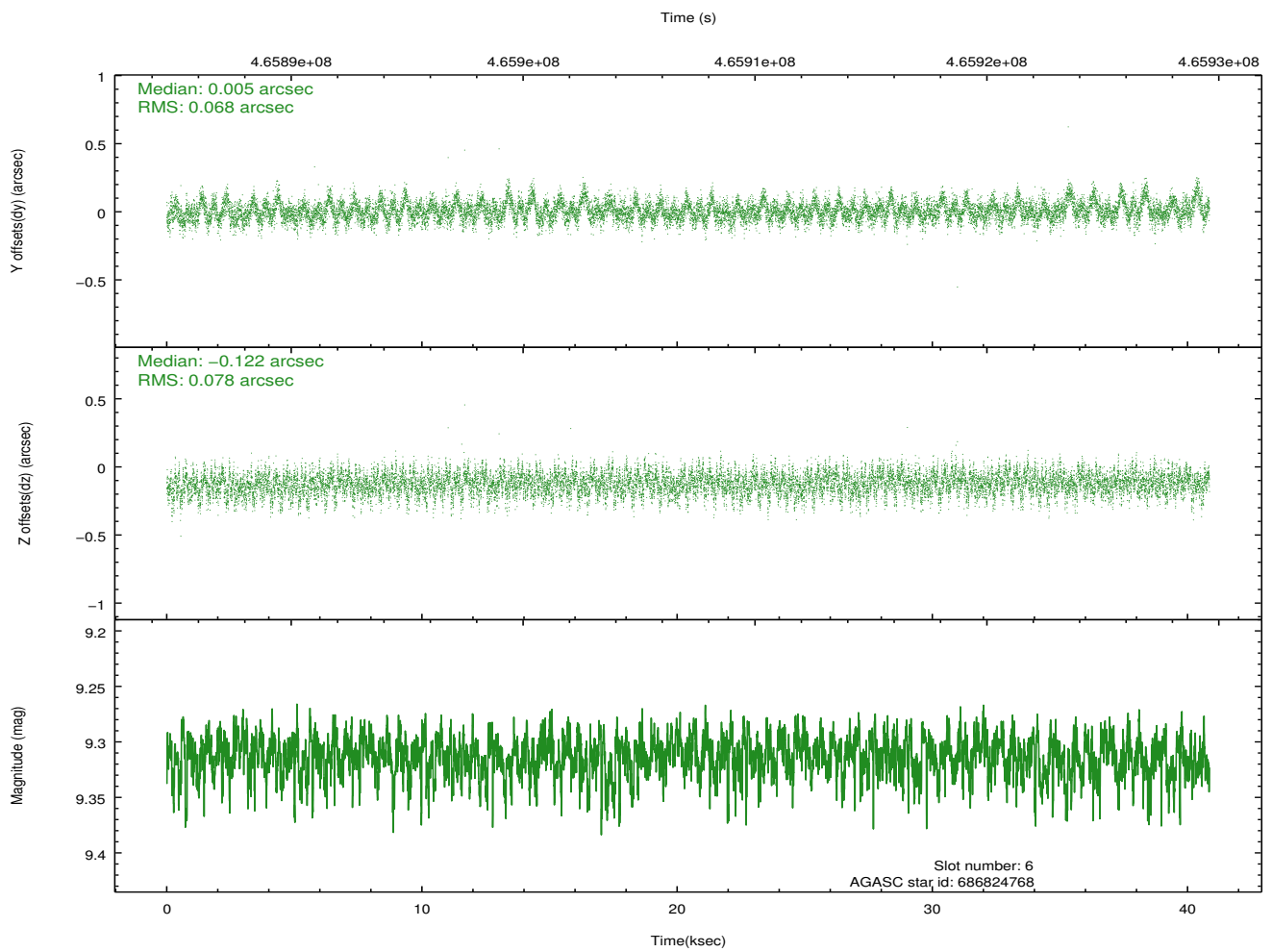
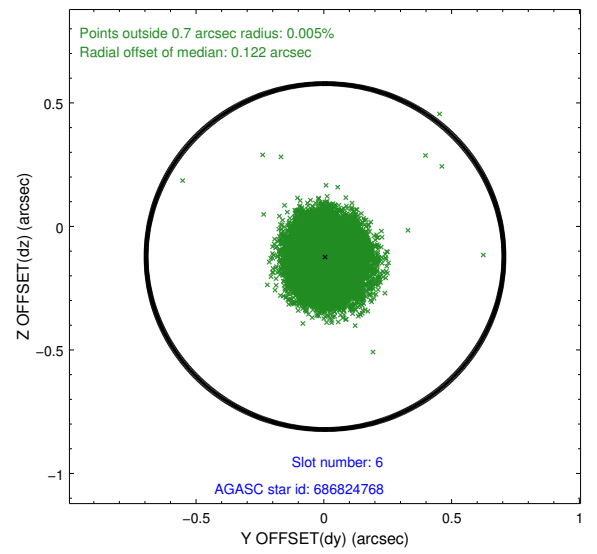
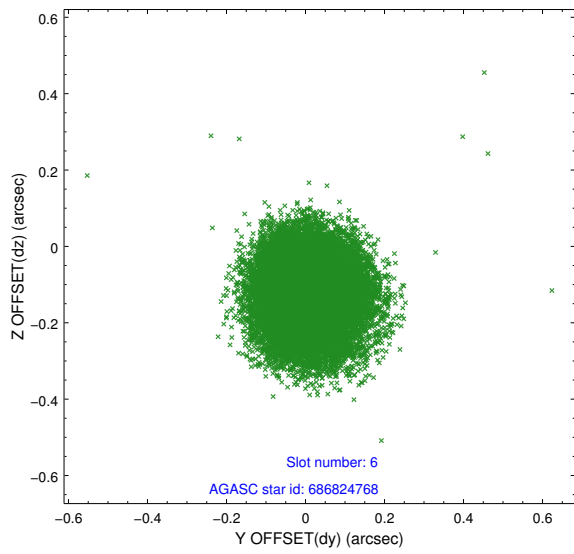
2.4.2 Slot 4



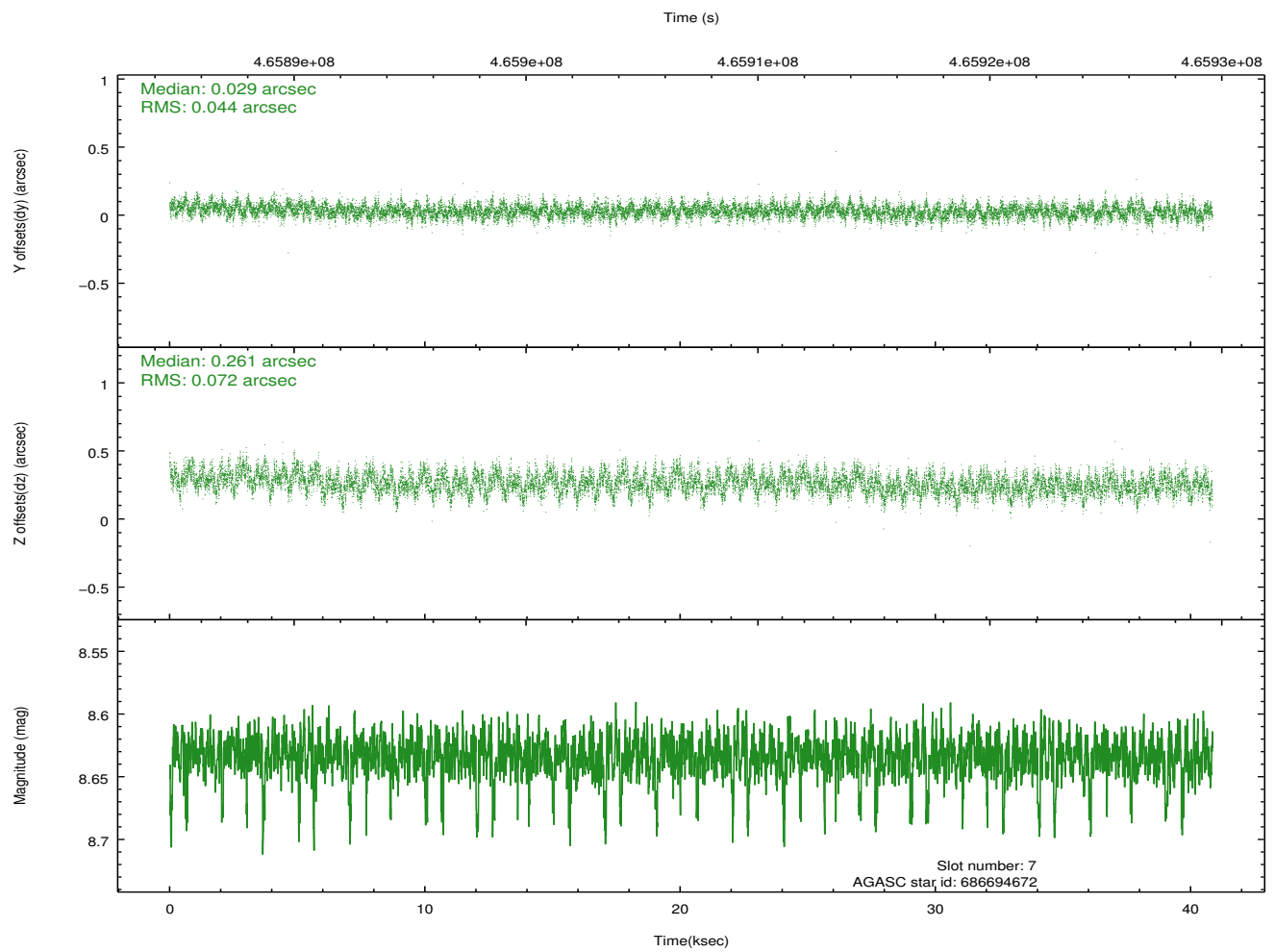
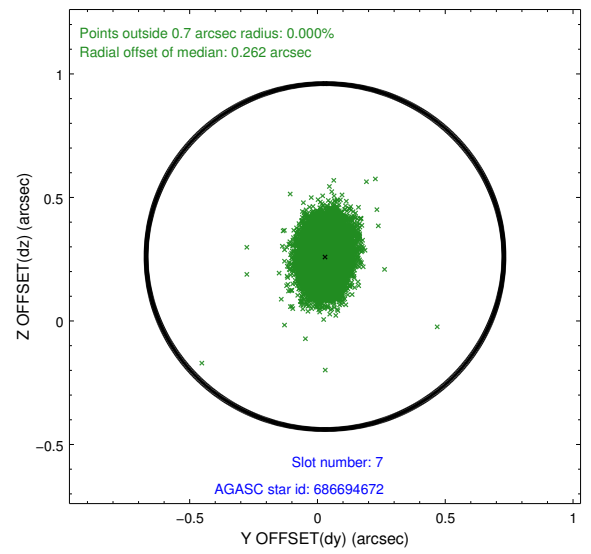
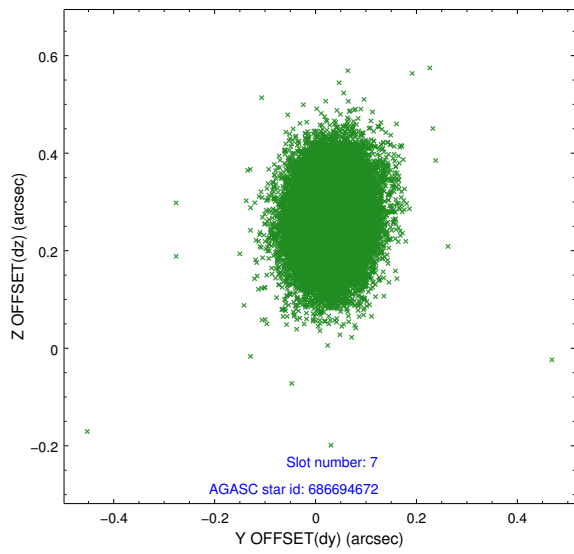
2.4.3 Slot 5



2.4.4 Slot 6

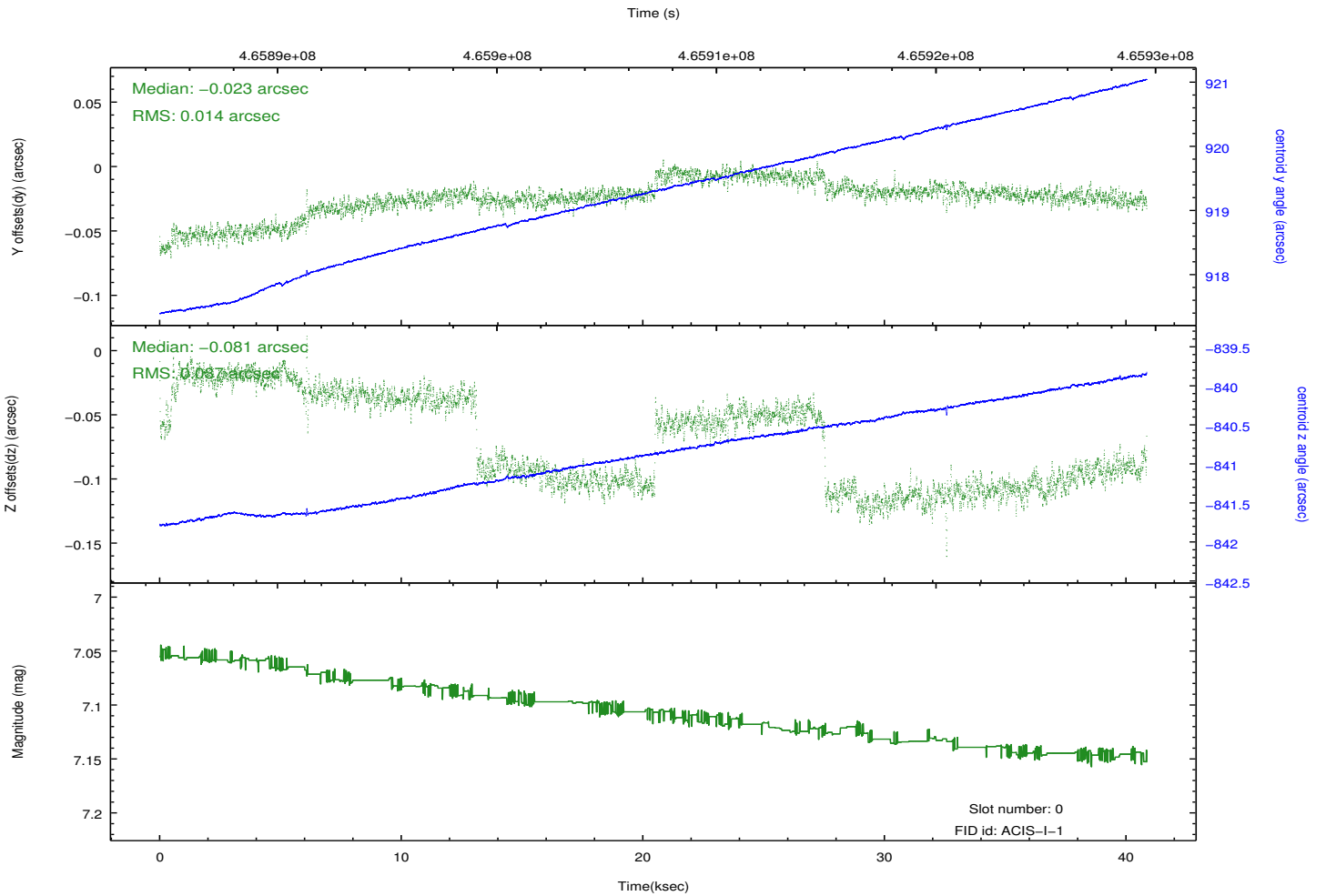
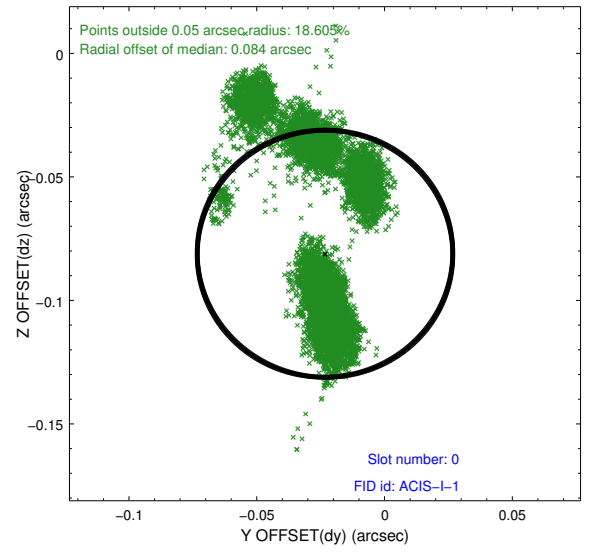
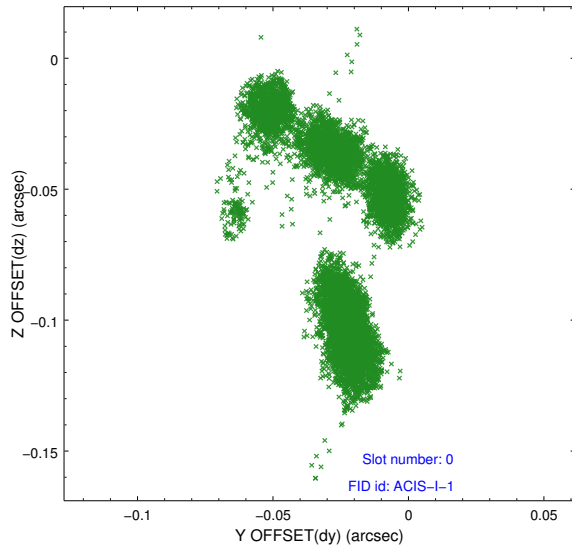


2.4.5 Slot 7

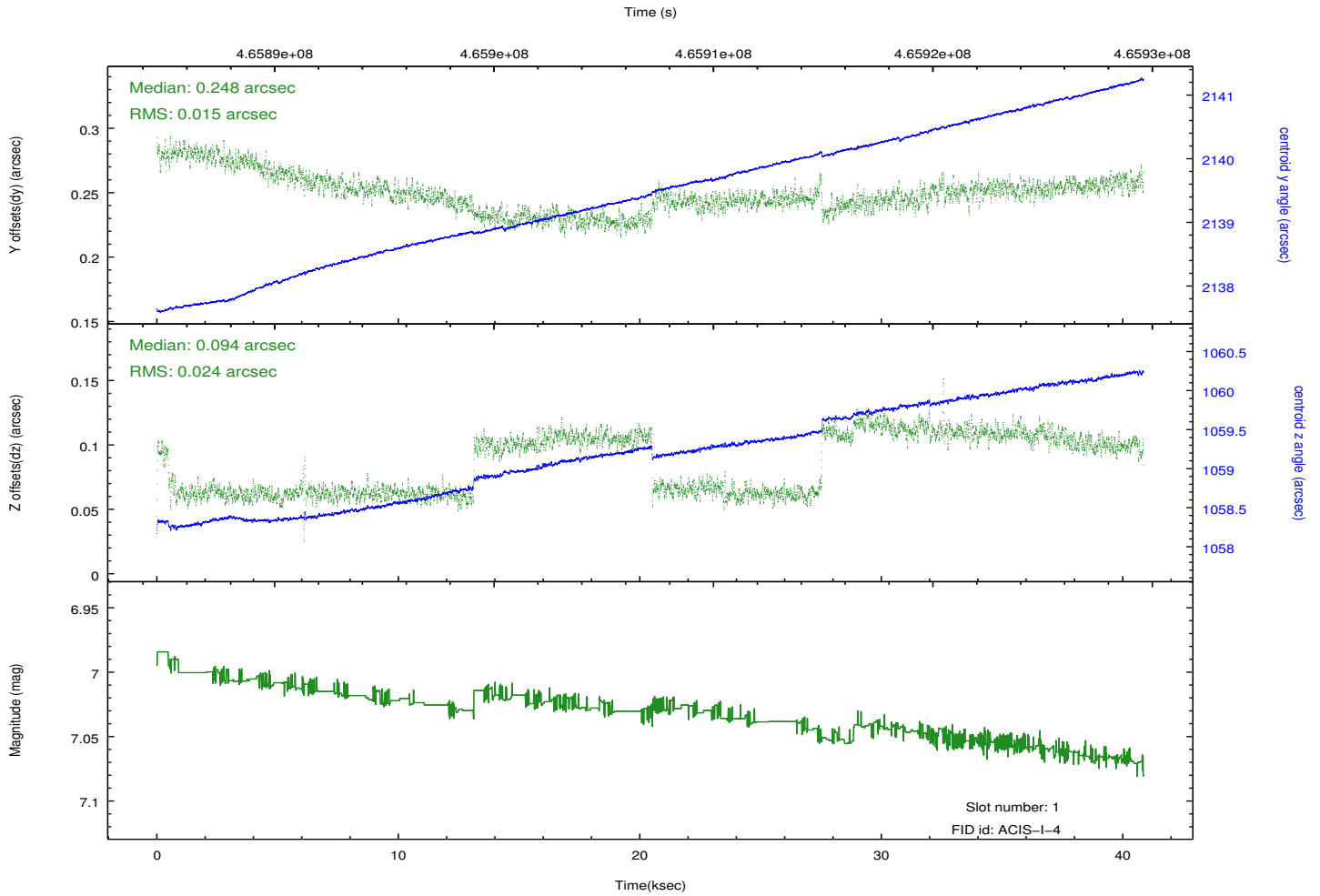
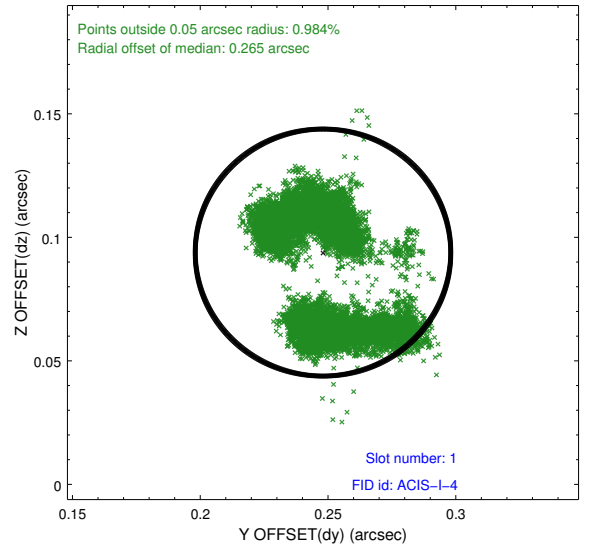
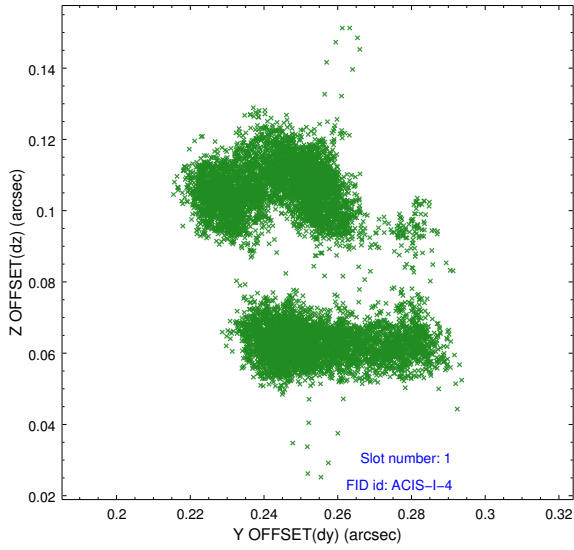


2.5 FID Slots

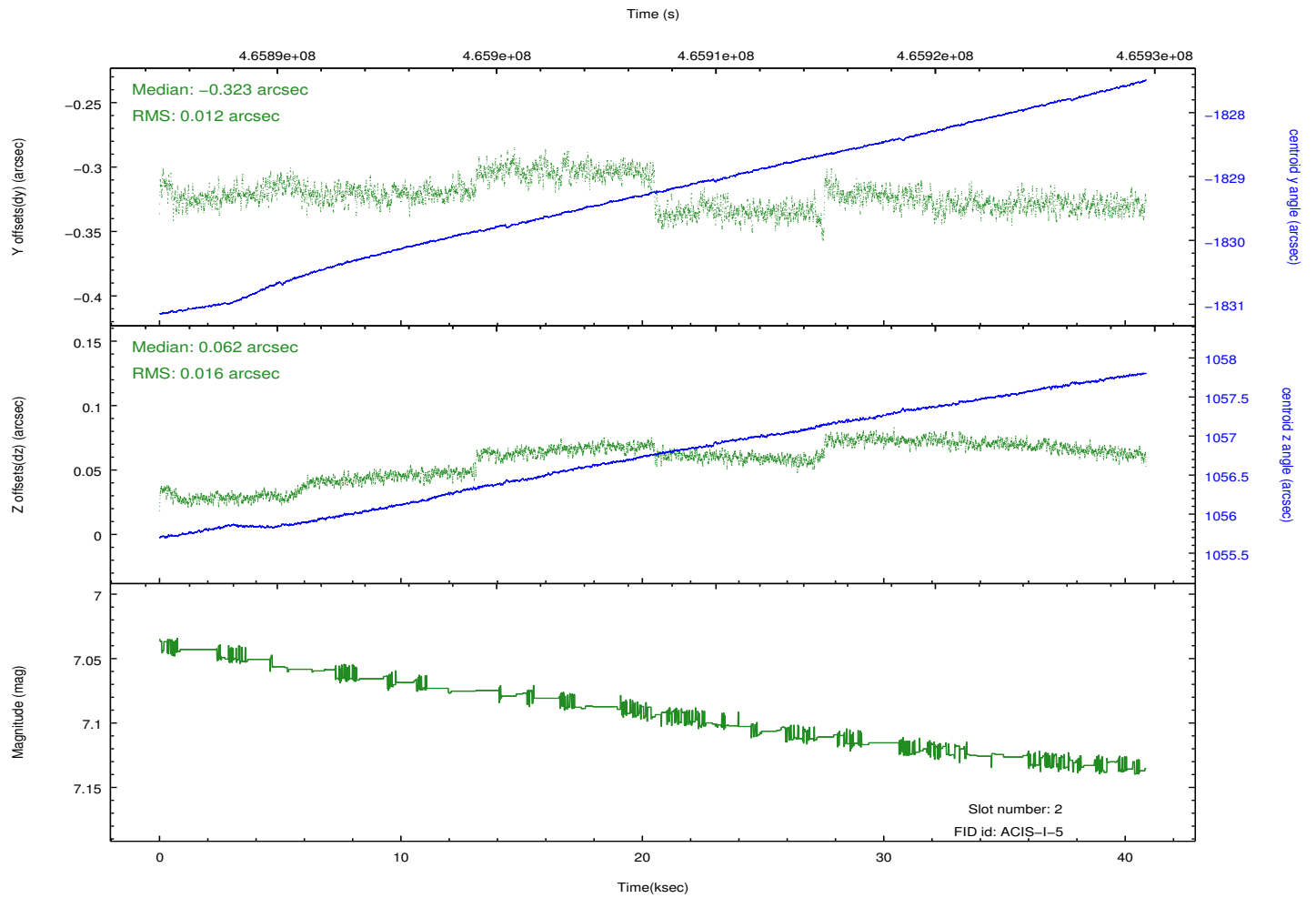
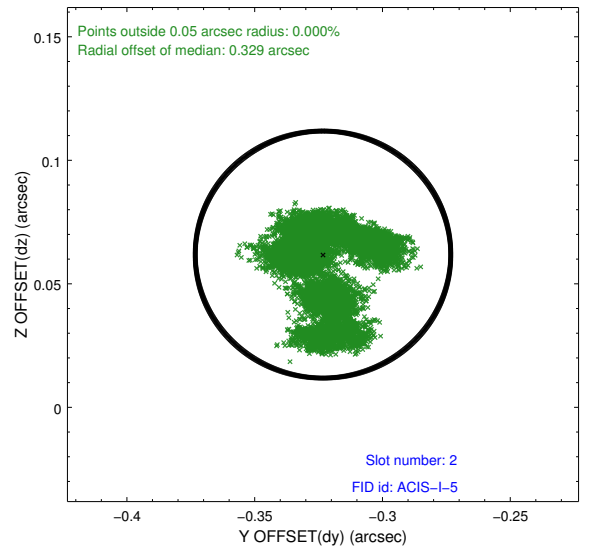
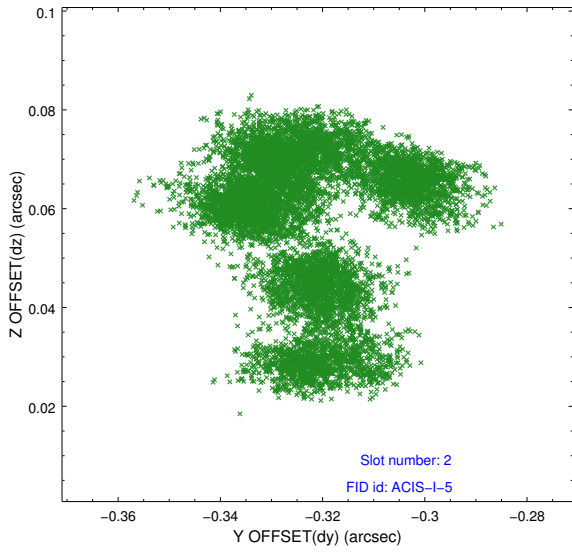
2.5.1 Slot 0



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)	2014.12.02
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	40.08521295774

A.2 Comments

These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.