

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 13488 - L2 Version 2
Chandra X-Ray Center

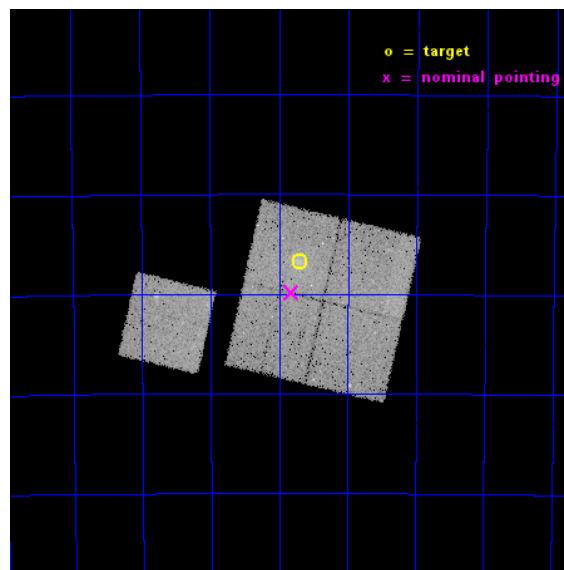
L2 Processing Date : Nov 29 2014

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1 Front

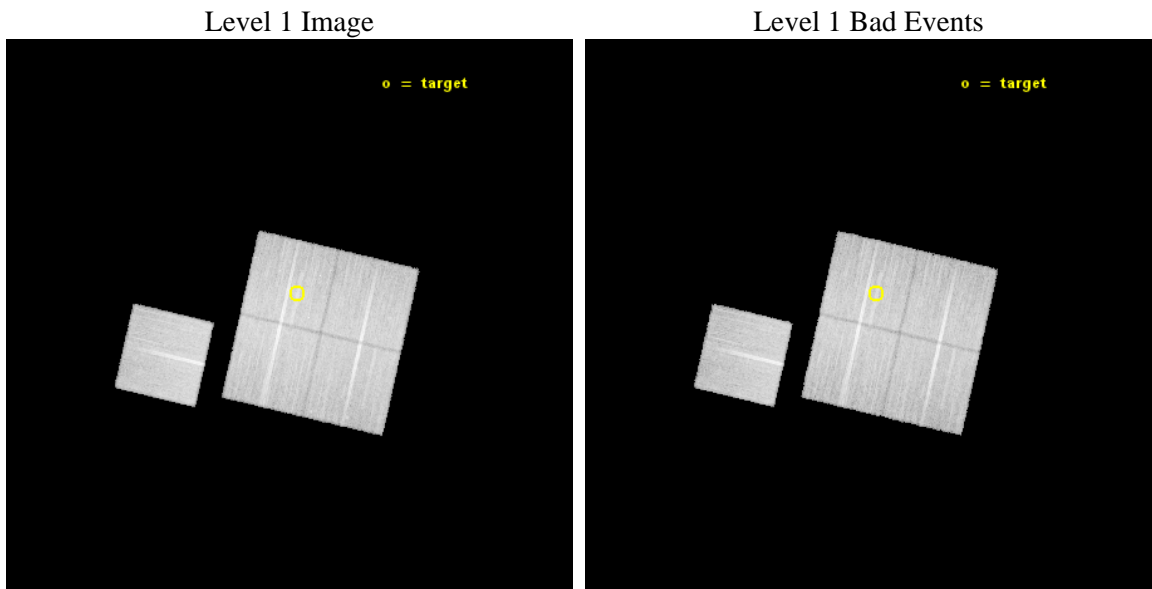
seq_num	801129	Sequence number
obs_id	13488	Observation id
title	Cosmology and Cluster Evolution from the 80 Most Massive Clusters in 2000 deg ² from the South Pole Telescope Survey	Proposal title
observer	Dr. Bradford Benson	Principal investigator
object	SPT-CLJ2148-6116	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	327.175	Observer's specified target RA [deg]
dec_targ	-61.2785	Observer's specified target Dec [deg]
ra_nom	327.20505317119	Nominal RA [deg]
dec_nom	-61.330985136236	Nominal Dec [deg]
roll_nom	283.04032281129	Nominal Roll [deg]
revision	2	Processing version of data
ontime	36778.318312347	Sum of GTIs [s]
livetime	36297.782507792	Livetime [s]
ontime0	36784.600282907	Sum of GTIs [s]
ontime1	36772.03640151	Sum of GTIs [s]
ontime2	36784.600282907	Sum of GTIs [s]
ontime3	36778.318312347	Sum of GTIs [s]
ontime6	36784.600282907	Sum of GTIs [s]
l2events	99047	Number of level 2 events



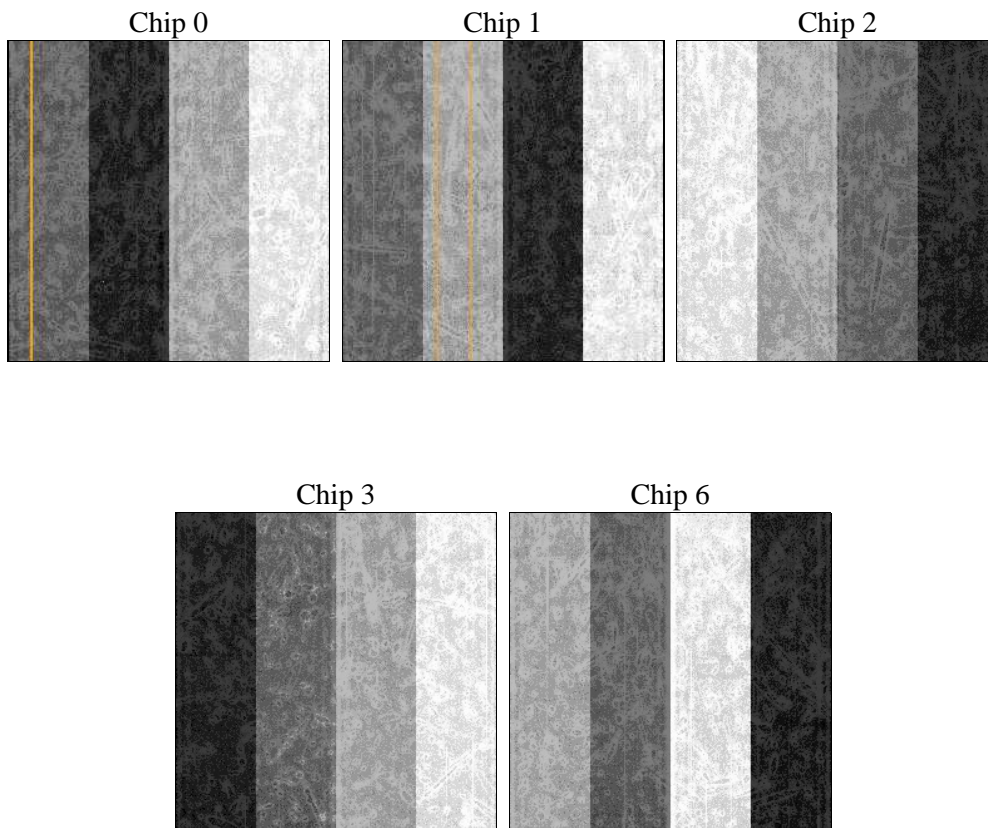
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	36700.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	36778.318312347	Sum of GTIs [s]
caldbver	4.6.4	 	ontime0	36784.600282907	Sum of GTIs [s]
date	2014-11-29T15:16:29	Date and time of file creation	ontime1	36772.03640151	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	36784.600282907	Sum of GTIs [s]
			ontime3	36778.318312347	Sum of GTIs [s]
			ontime6	36784.600282907	Sum of GTIs [s]
			l1events	940957	Number of level 1 events

2.1.4 Events

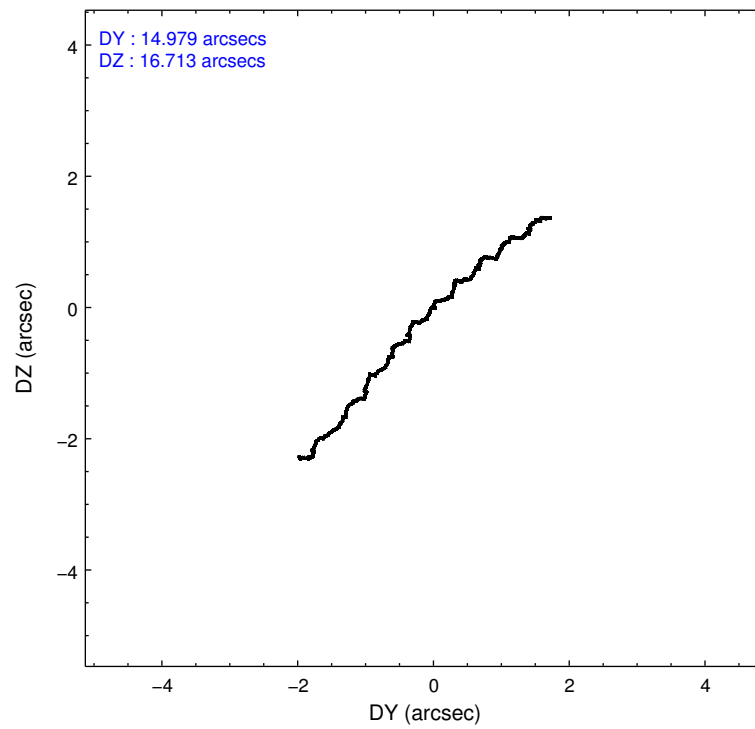
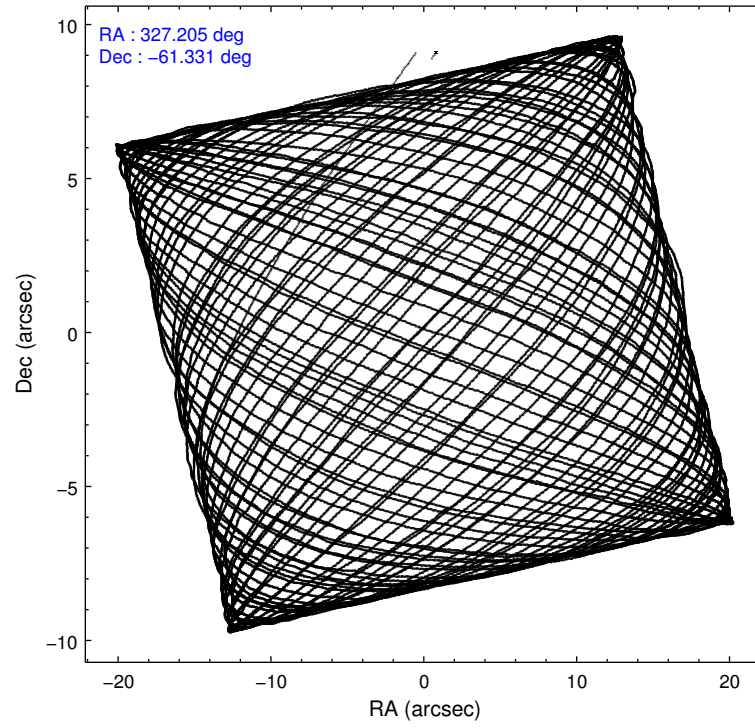
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	174253	182493	195608	192561	196042
rejected events	151527	157395	173374	168873	172568
rejected %	86%	86%	88%	87%	88%

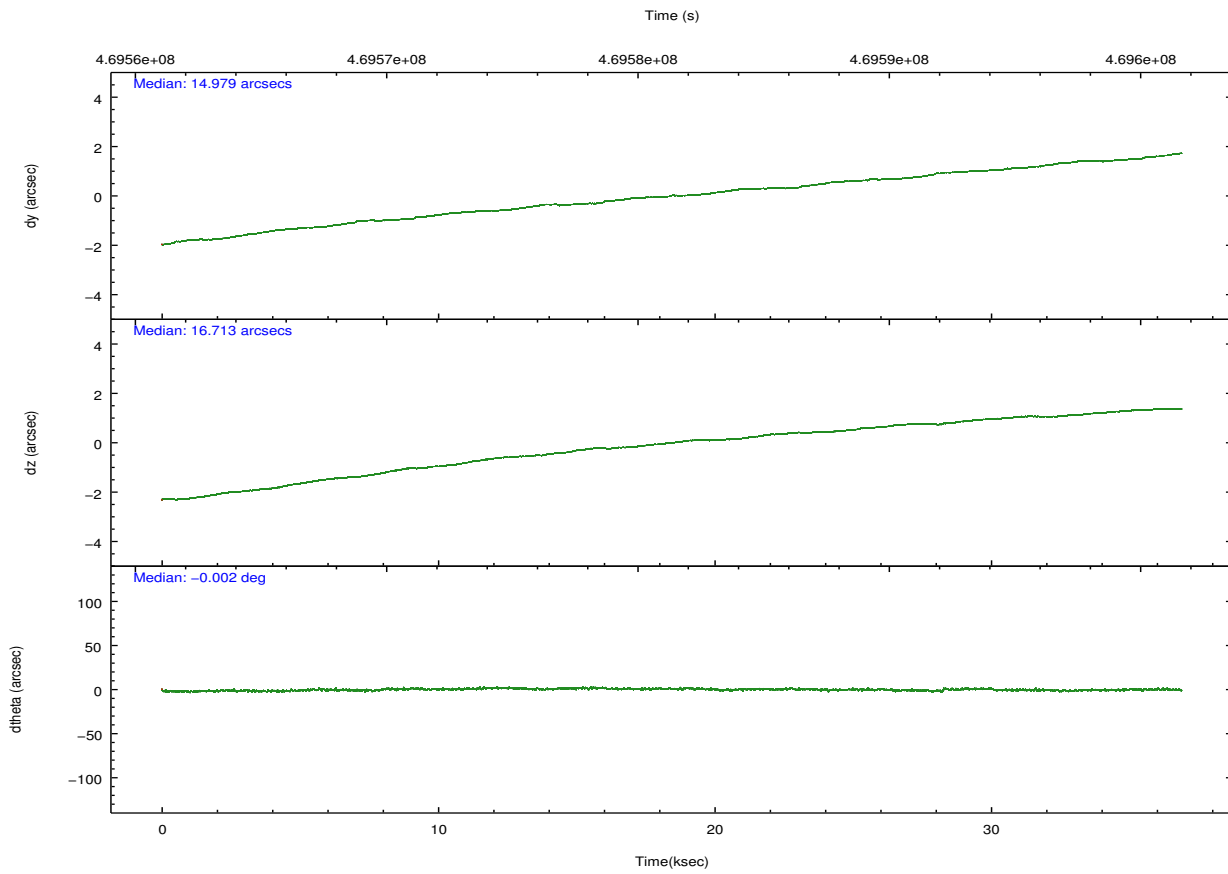
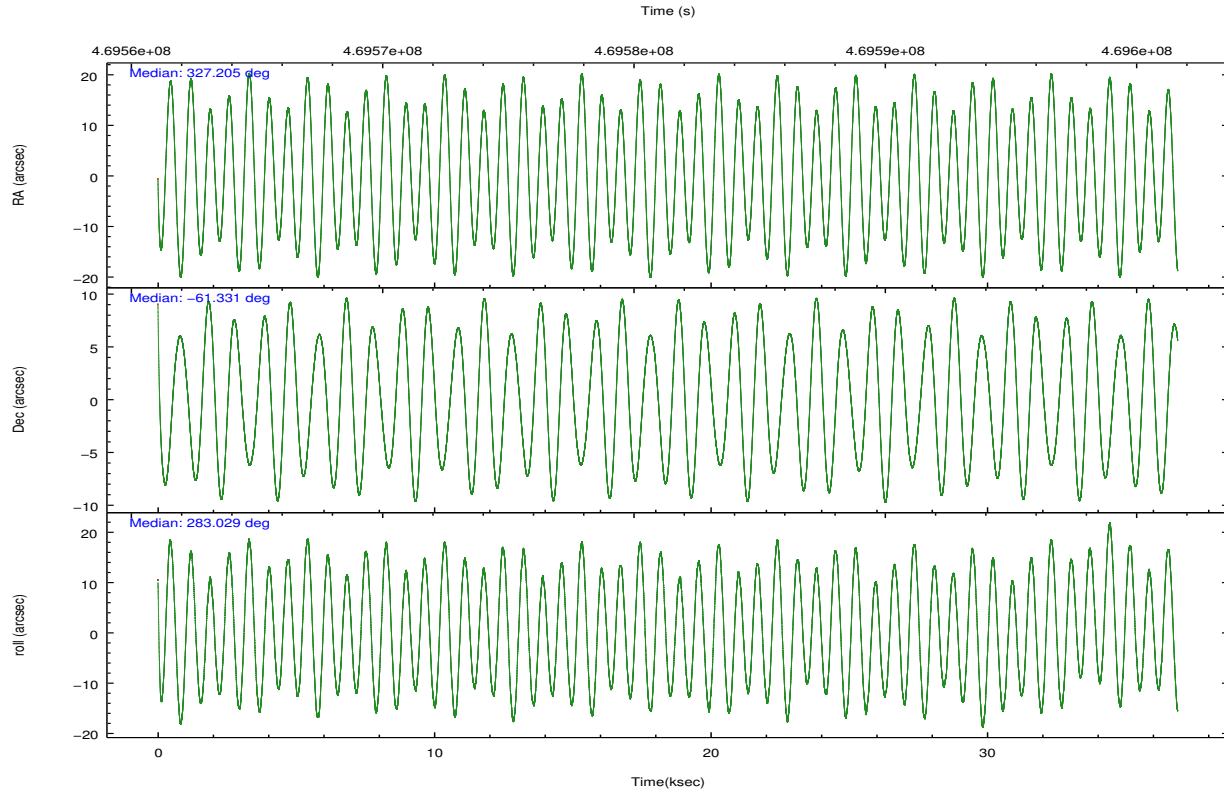
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	7661	8901	7897	9194	8042
	4%	4%	4%	4%	4%
grade 1 events	105	110	122	114	114
	0%	0%	0%	0%	0%
grade 2 events	5745	5935	5530	5072	5372
	3%	3%	2%	2%	2%
grade 3 events	2389	2550	2236	2417	2414
	1%	1%	1%	1%	1%
grade 4 events	2203	2439	2215	2373	2408
	1%	1%	1%	1%	1%
grade 5 events	8791	9498	8186	9939	9696
	5%	5%	4%	5%	4%
grade 6 events	4730	5276	4356	4633	5239
	2%	2%	2%	2%	2%
grade 7 events	142629	147784	165066	158819	162757
	81%	80%	84%	82%	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	327.165812	327.2050531711873	CCD I2 on	Y	Y
[deg] Pointing Dec	-61.310958	-61.33098513623565	CCD I3 on	Y	Y
[deg] Pointing Roll	282.797209	283.0403228112885	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	O1	Y
[mm] SIM translation stage pos	-225.842463	-225.8433433320239	CCD S3 on	N	N
[mm] SIM translation stage offset	-7.75	-7.749109670905796	CCD S4 on	N	N
[s] Observation start time (MET)	469563090.184000	469562144.26046	CCD S5 on	N	N
Observation start date	2012-11-17T18:10:23	2012-11-17T17:55:44	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	469599790.184000	469601004.06254	On-chip summing requested	N	N
Observation end date	2012-11-18T04:22:03	2012-11-18T04:43:24	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





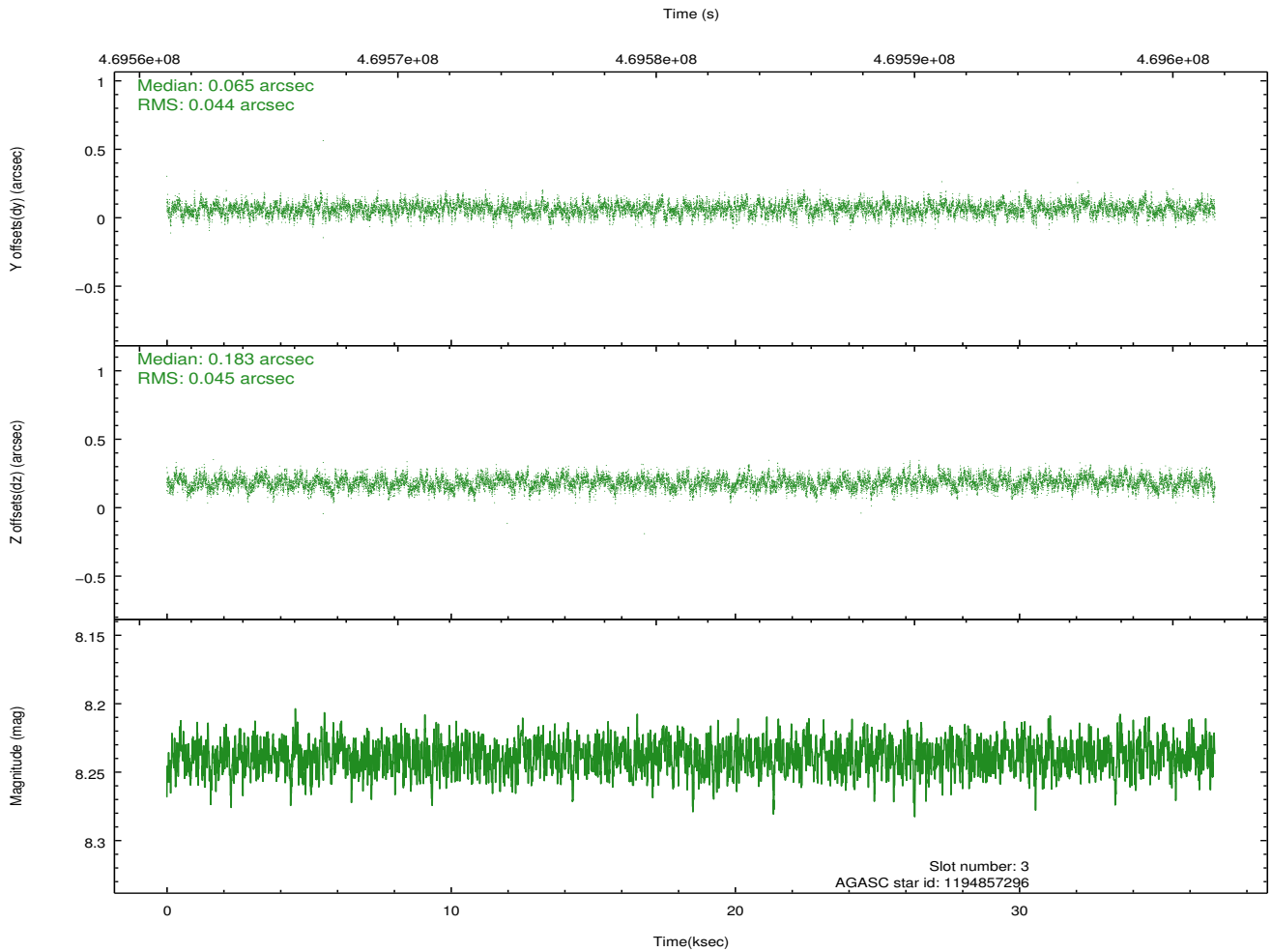
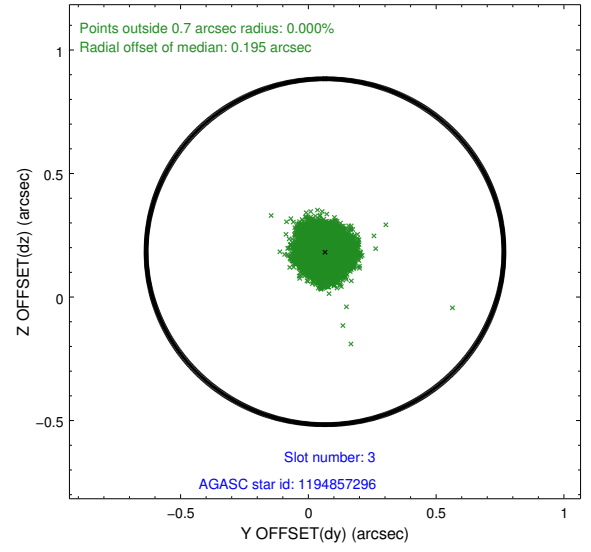
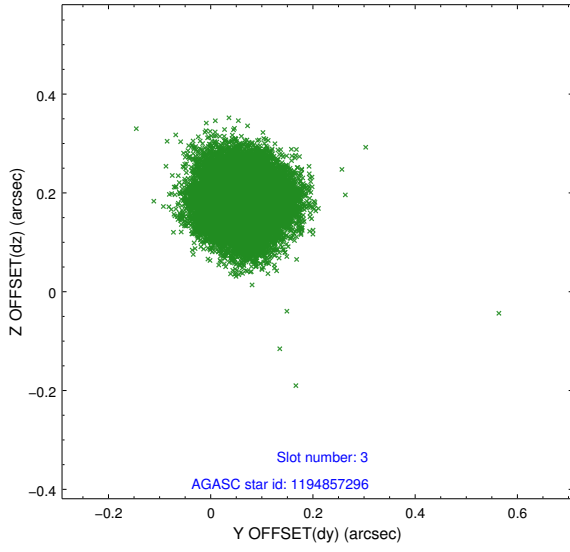
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-2	7.01	8996	-0.114	-0.047	0.018	0.027	0.000000	0.000000	-770.32	-1004.63
1	FID		ACIS-I-4	6.96	8997	0.185	0.079	0.013	0.021	0.000000	0.000000	2143.99	901.58
2	FID		ACIS-I-5	7.04	8997	-0.170	0.038	0.017	0.030	0.000000	0.000000	-1823.76	898.44
3	GUIDE	used	1194857296	8.24	17989	0.065	0.183	0.068	0.107	325.941704	-61.662786	791.97	-2323.74
4	GUIDE	used	1194858272	8.39	17986	0.136	-0.118	0.091	0.150	326.252840	-61.848659	1555.67	-1943.06
5	GUIDE	used	1194859480	8.74	17989	-0.029	-0.265	0.091	0.146	327.388304	-61.463560	621.43	251.27
6	GUIDE	used	1194861696	8.96	17984	-0.089	0.059	0.087	0.140	327.103728	-60.834669	-1695.92	273.54
7	GUIDE	used	1194862512	9.18	17867	-0.080	0.143	0.090	0.145	327.784976	-60.725155	-1809.56	1530.00

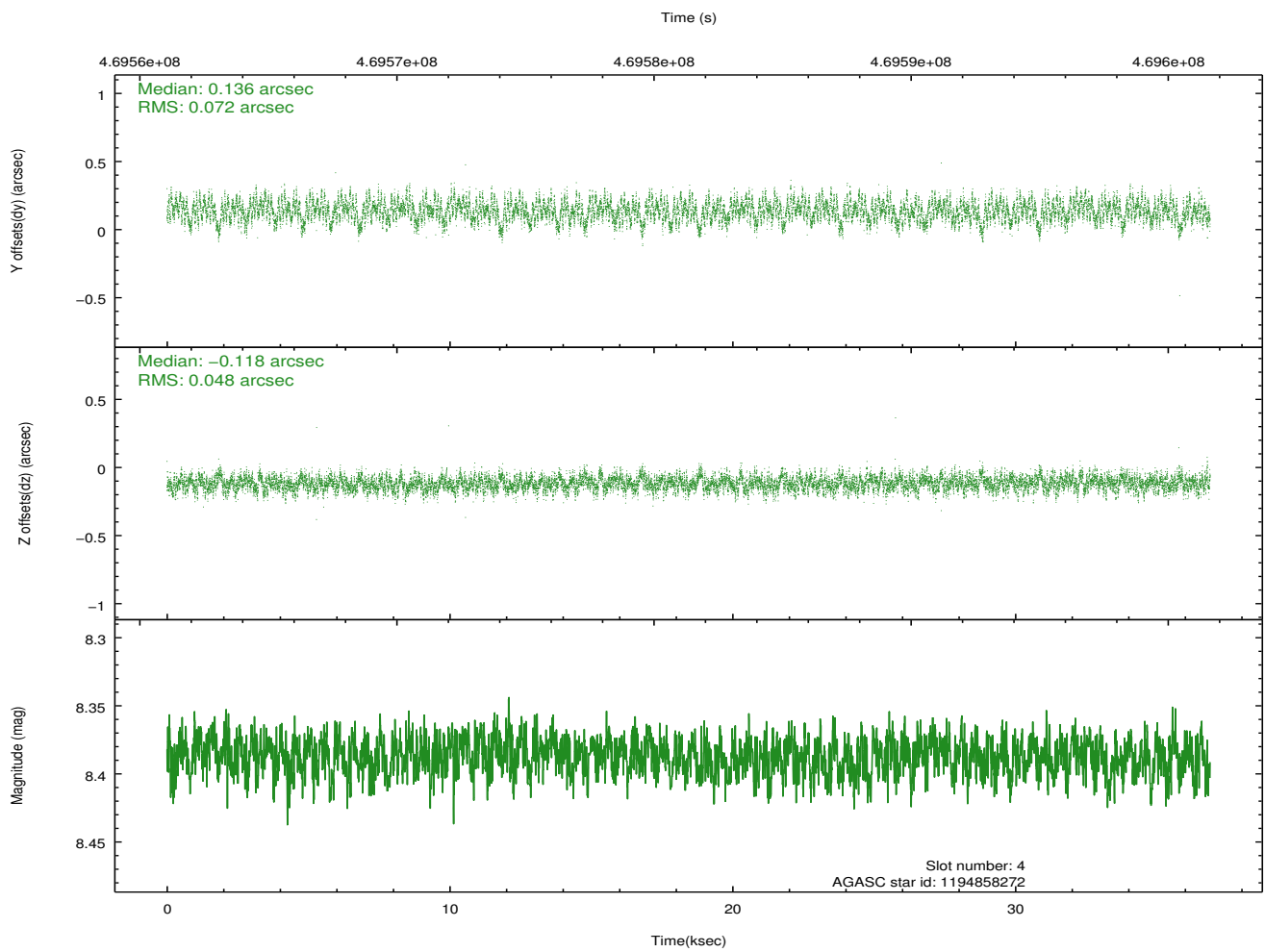
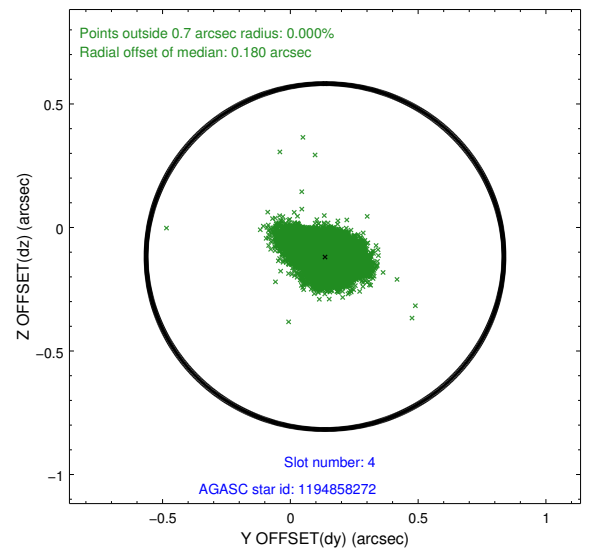
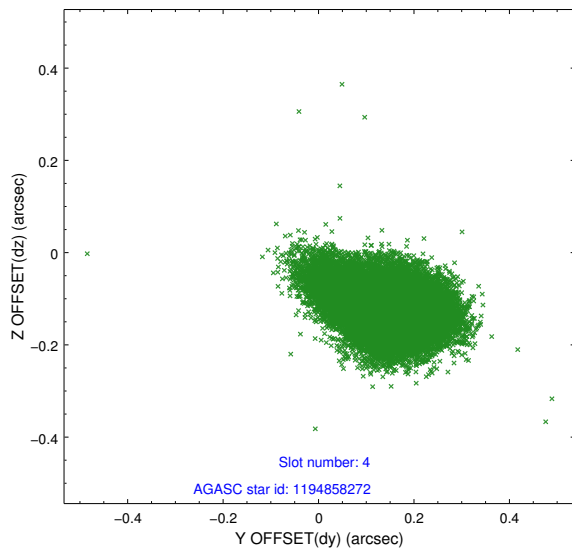
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2.4 Star Slots

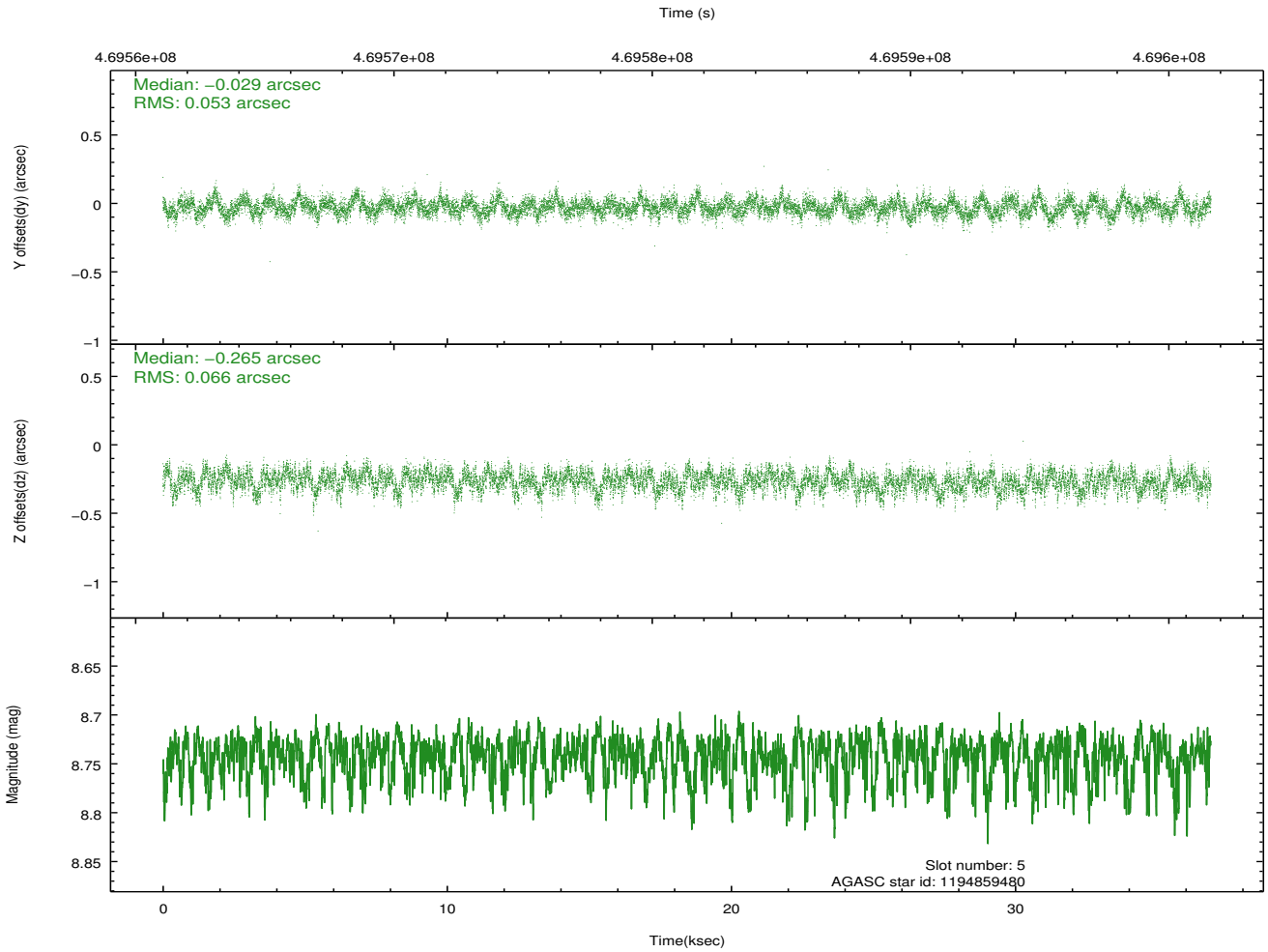
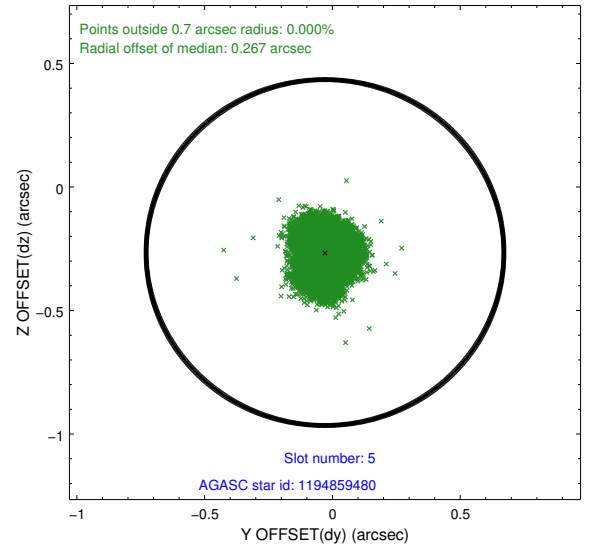
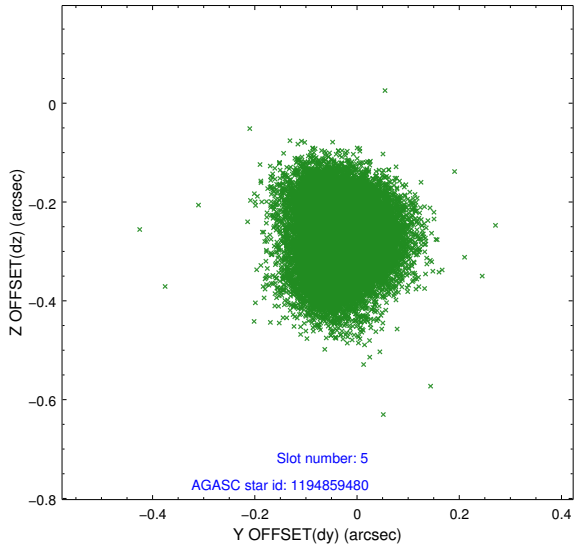
2.4.1 Slot 3



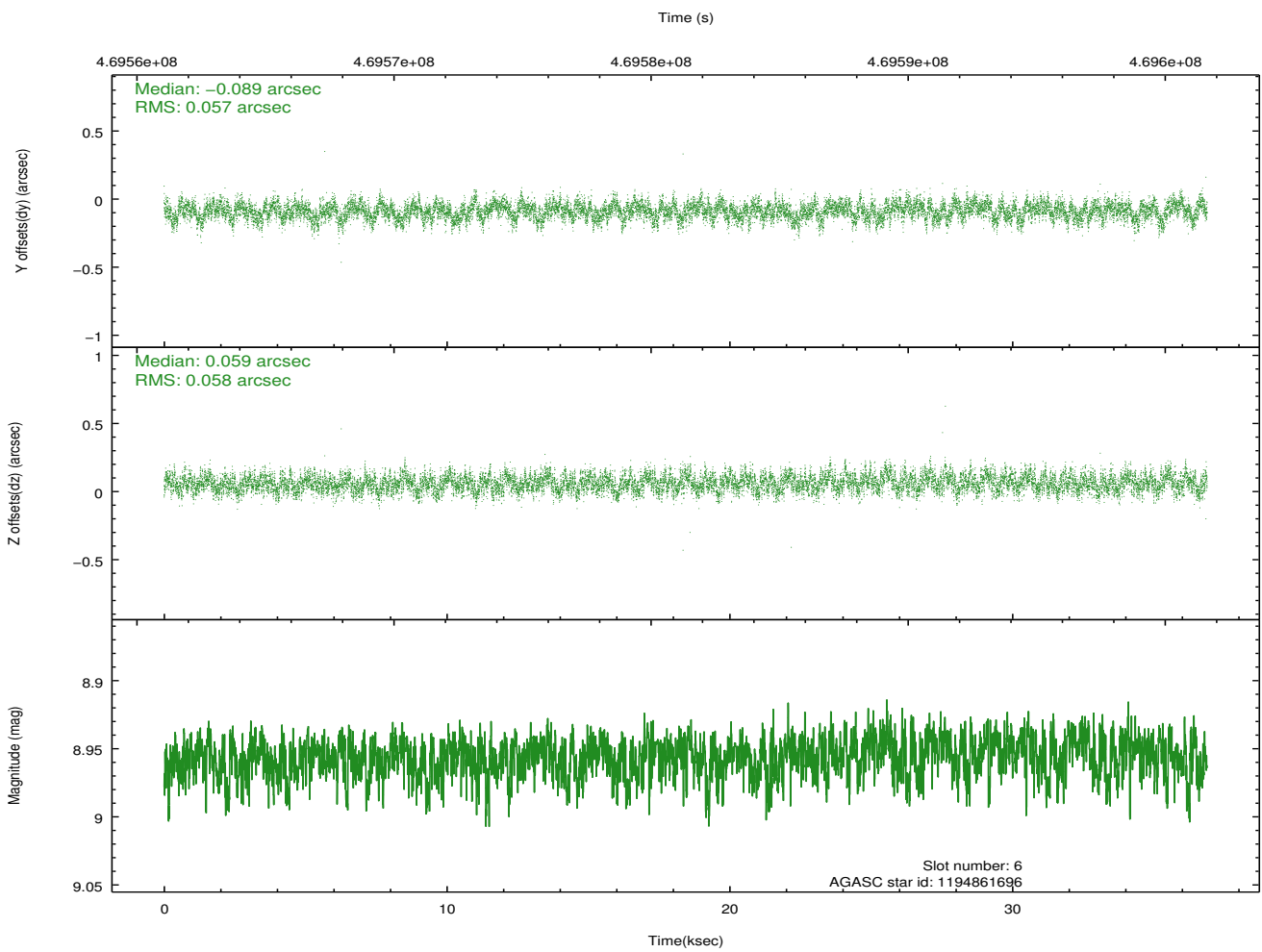
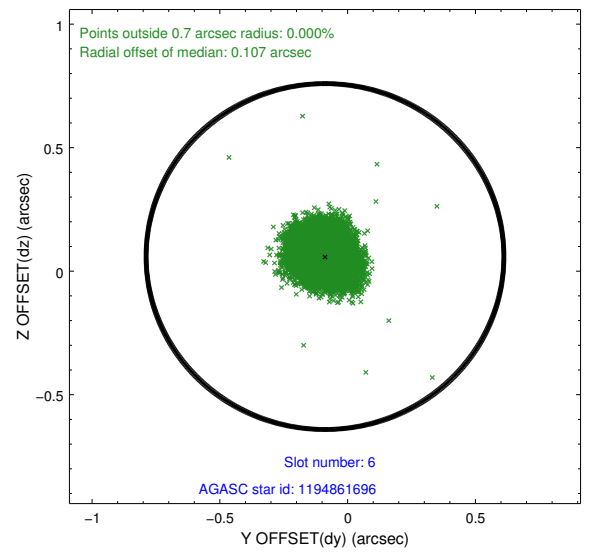
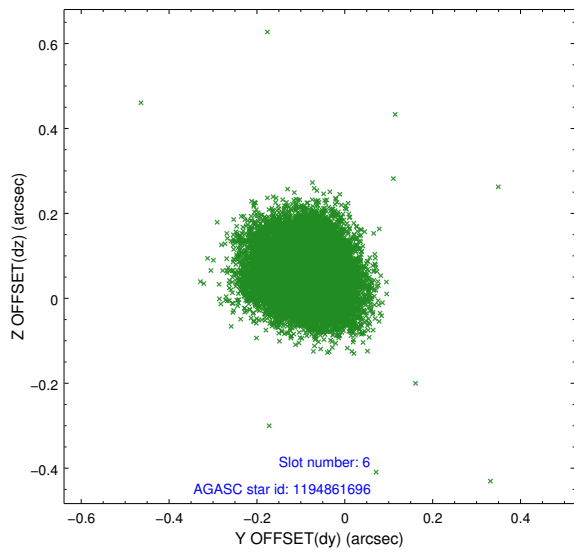
2.4.2 Slot 4



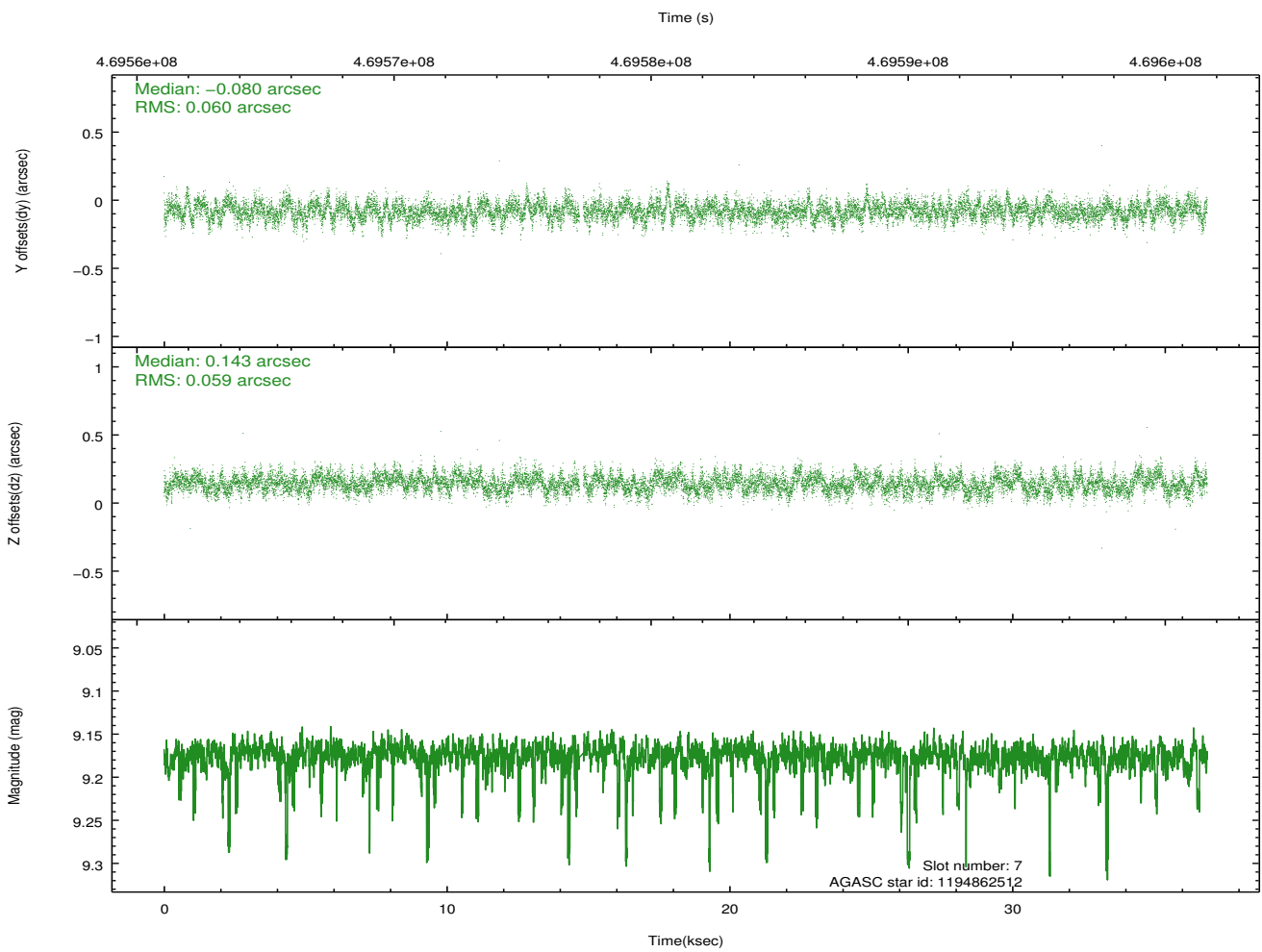
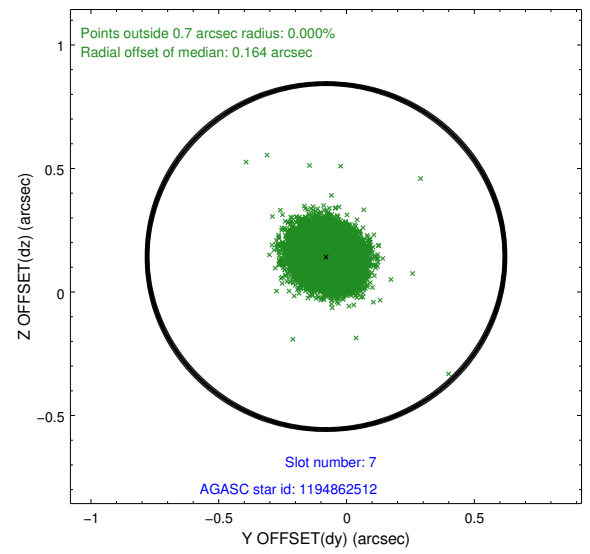
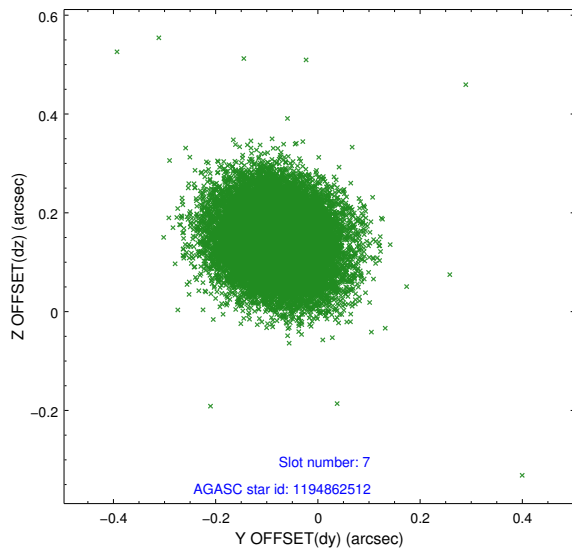
2.4.3 Slot 5



2.4.4 Slot 6

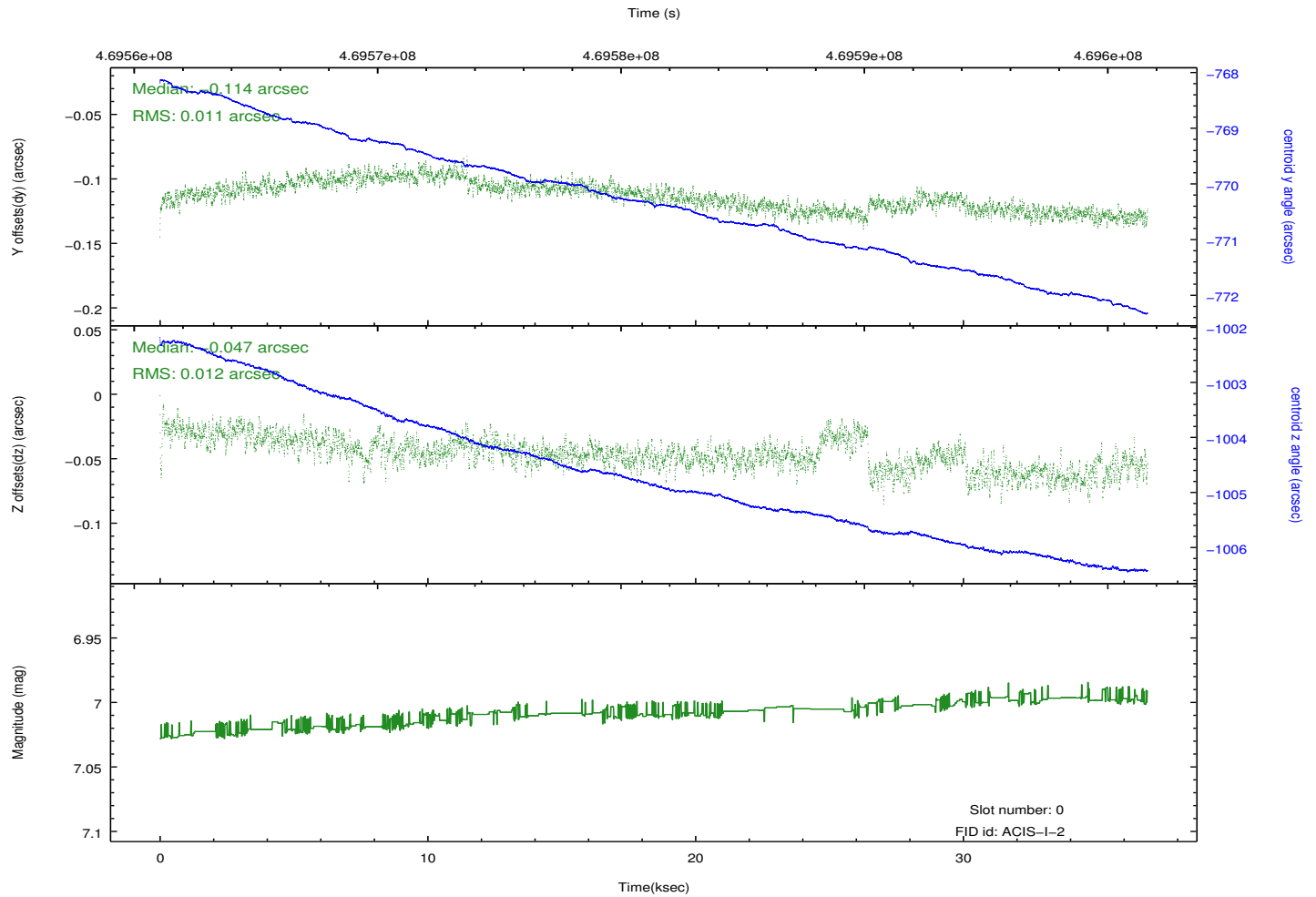
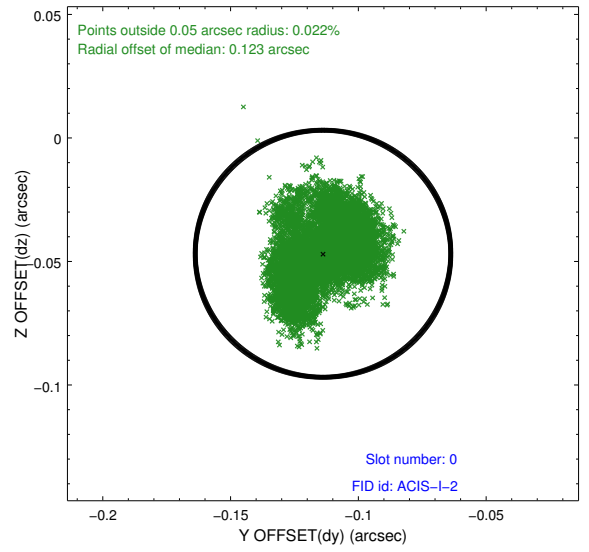
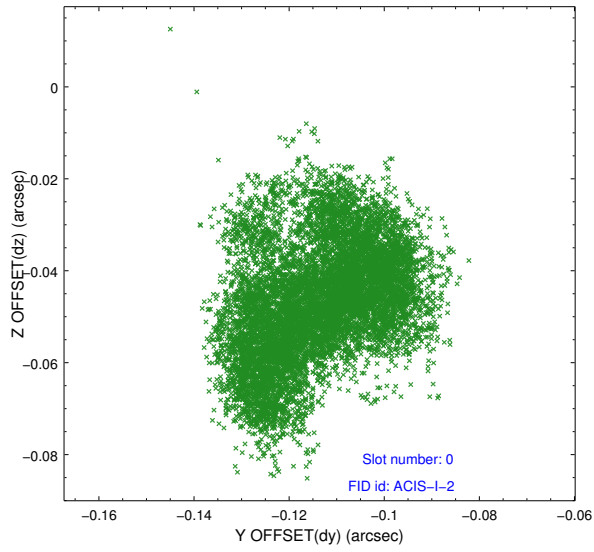


2.4.5 Slot 7

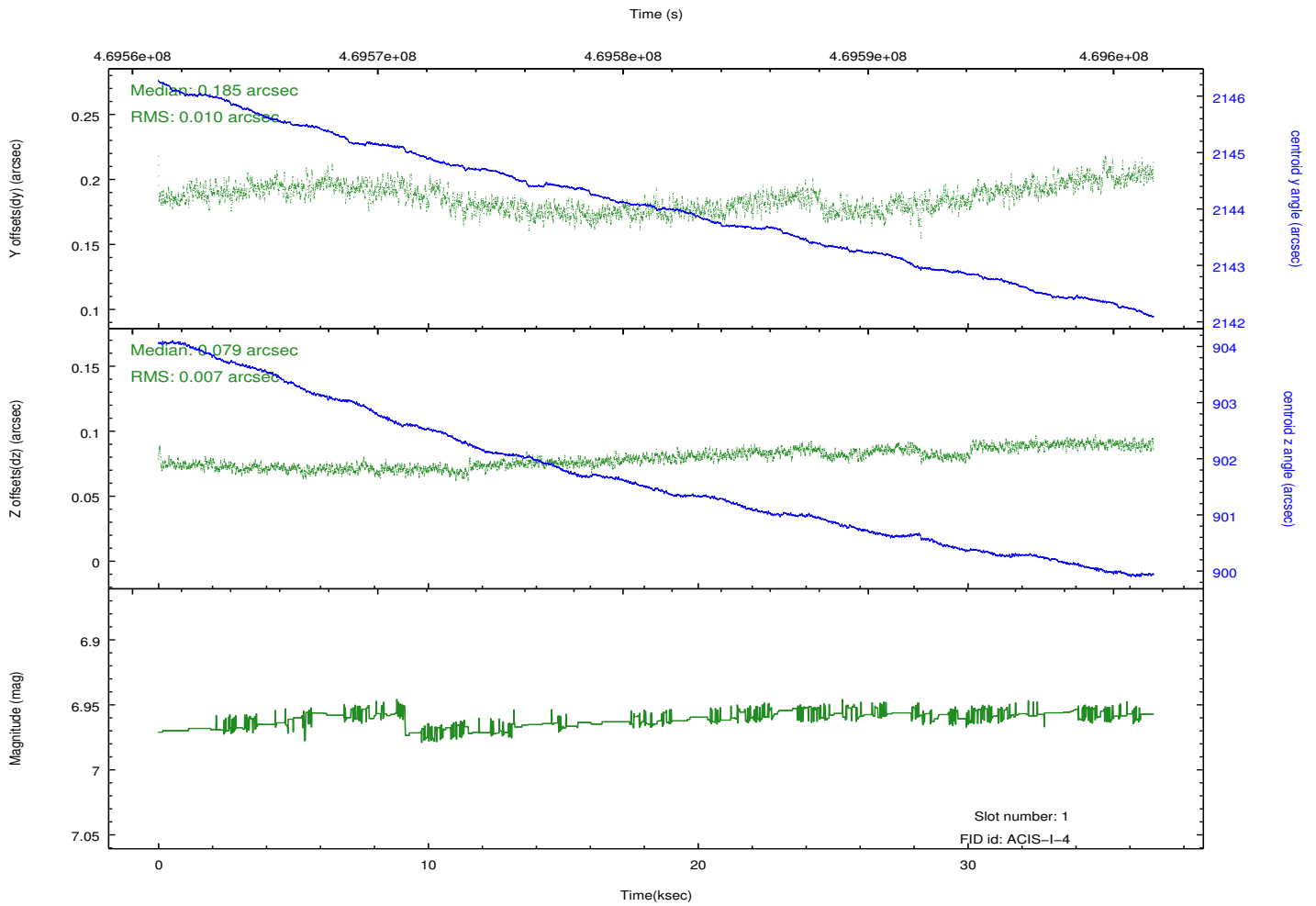
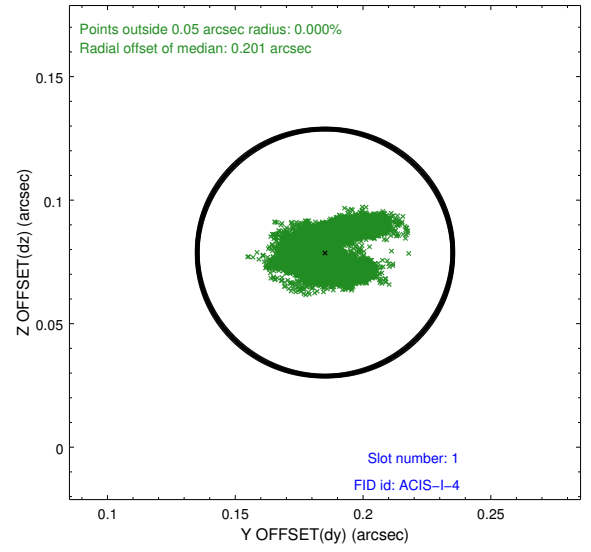
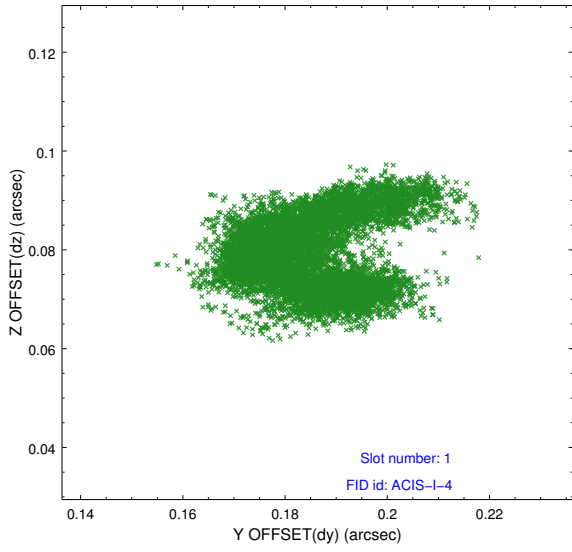


2.5 FID Slots

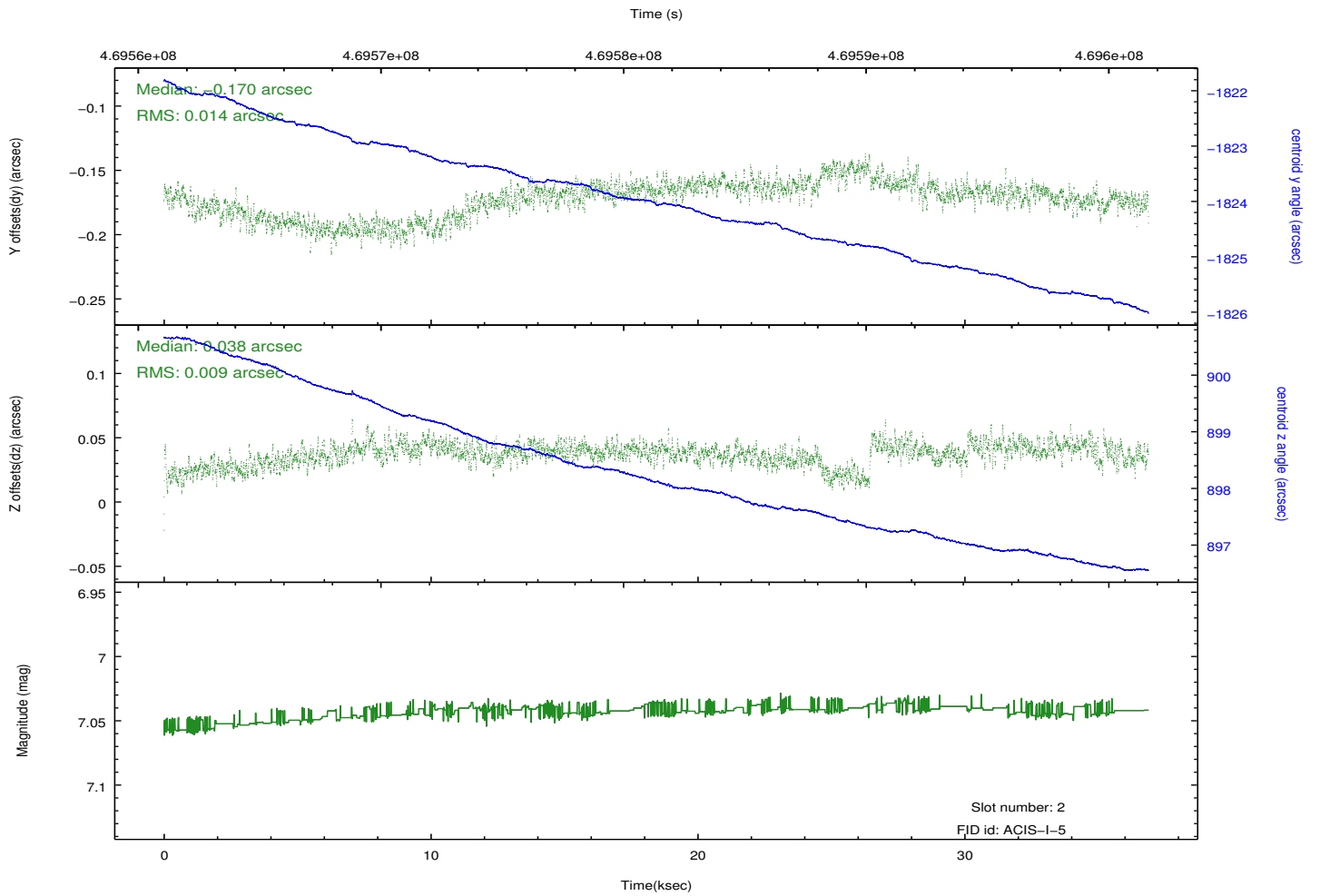
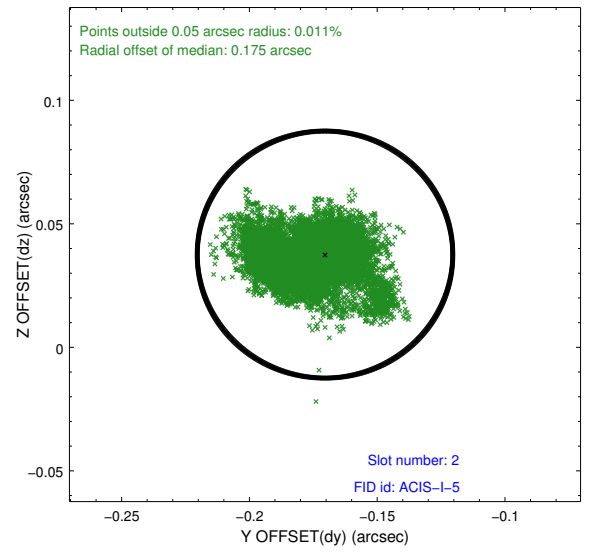
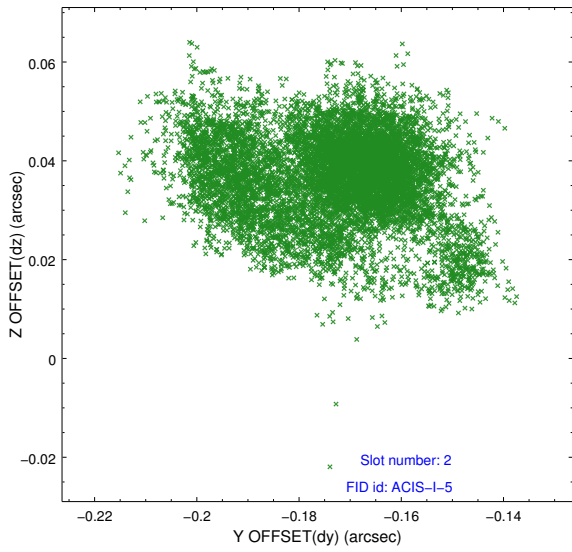
2.5.1 Slot 0



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)	2014.12.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	36.778318312347

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.