

V&V Reference Report

L2 ASCDS Version : 10.2.1

Observation 16592 - L2 Version 2
Chandra X-Ray Center

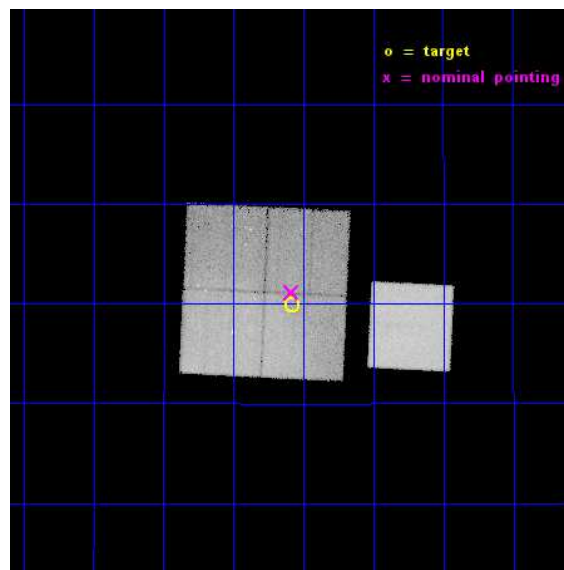
L2 Processing Date : Dec 10 2014

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1 Front

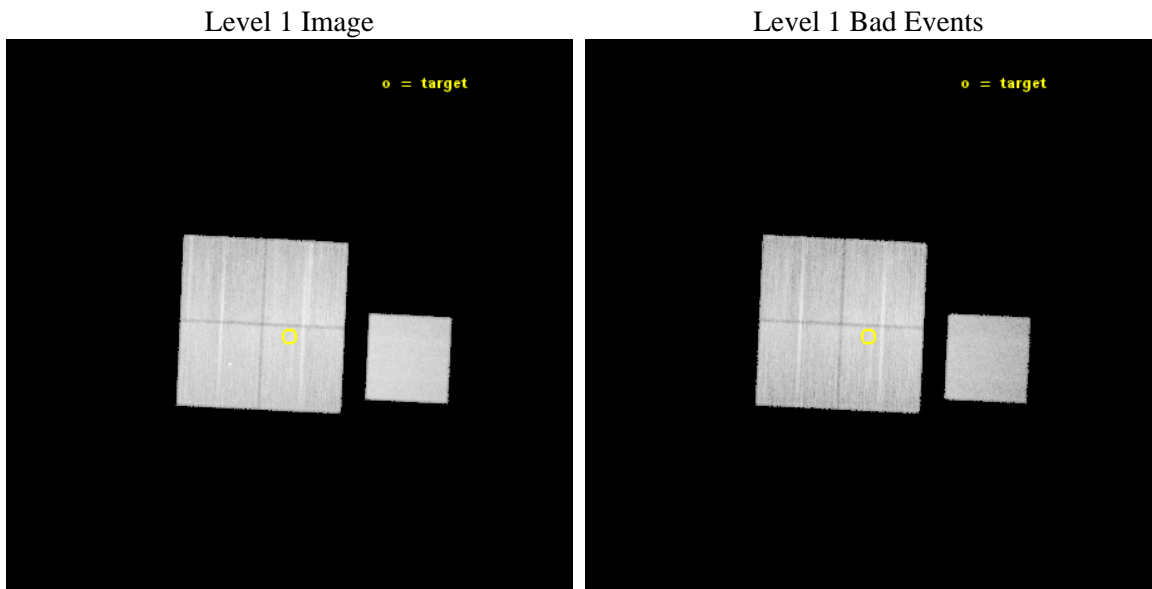
seq_num	801305	Sequence number
obs_id	16592	Observation id
title	Resolving the nearest cold front in the sky: the cleanest experimental tool to study detailed ICM physics	Proposal title
observer	Dr. Norbert Werner	Principal investigator
object	Virgo cold front	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	187.52067	Observer's specified target RA [deg]
dec_targ	12.664798	Observer's specified target Dec [deg]
ra_nom	187.52150256714	Nominal RA [deg]
dec_nom	12.685904761424	Nominal Dec [deg]
roll_nom	92.708509039612	Nominal Roll [deg]
revision	2	Processing version of data
ontime	36080.900277495	Sum of GTIs [s]
livetime	35609.476752998	Livetime [s]
ontime0	36080.900277495	Sum of GTIs [s]
ontime1	36077.759227216	Sum of GTIs [s]
ontime2	36077.759267151	Sum of GTIs [s]
ontime3	36080.900277495	Sum of GTIs [s]
ontime7	36080.900277495	Sum of GTIs [s]
l2events	316360	Number of level 2 events



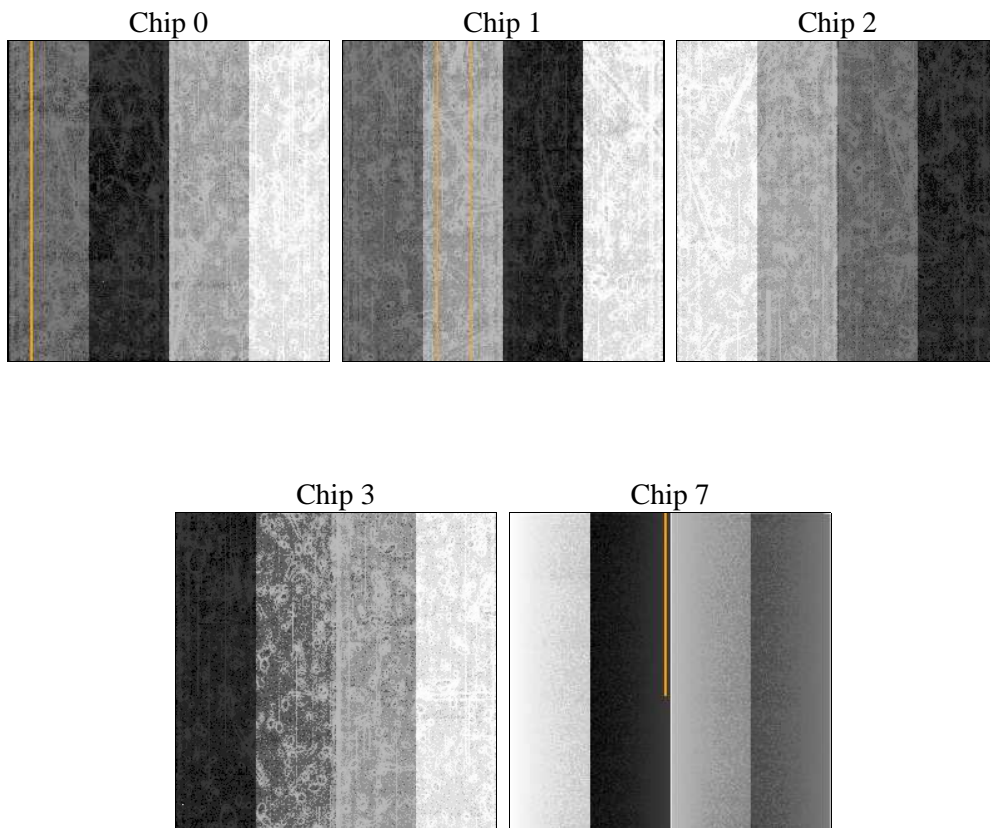
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	36017.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	36080.900277495	Sum of GTIs [s]
caldbver	4.6.4	 	ontime0	36080.900277495	Sum of GTIs [s]
date	2014-12-10T13:10:29	Date and time of file creation	ontime1	36077.759227216	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	36077.759267151	Sum of GTIs [s]
			ontime3	36080.900277495	Sum of GTIs [s]
			ontime7	36080.900277495	Sum of GTIs [s]
			l1events	1227911	Number of level 1 events

2.1.4 Events

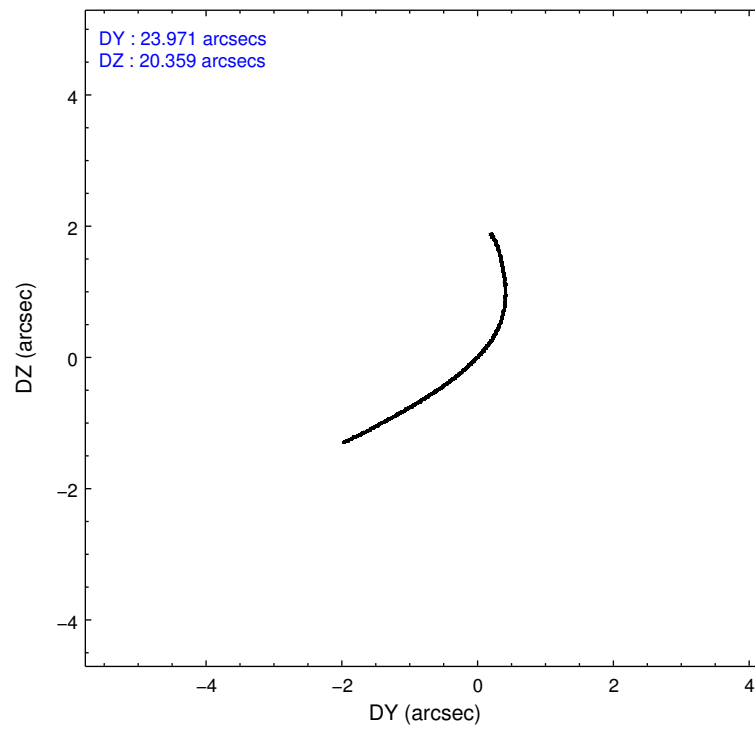
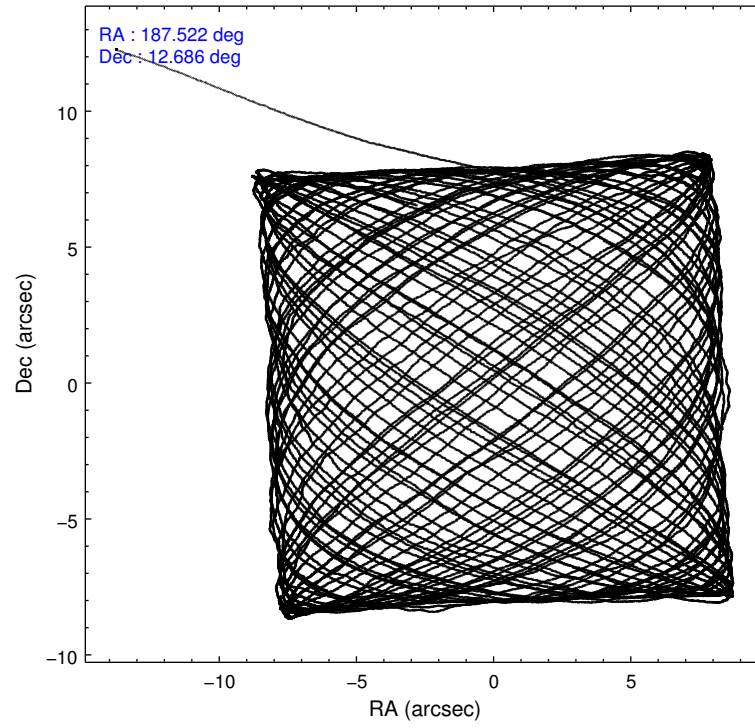
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
level 1 events	206381	257016	256216	252576	255722
rejected events	160135	174135	208158	195423	130211
rejected %	77%	67%	81%	77%	50%

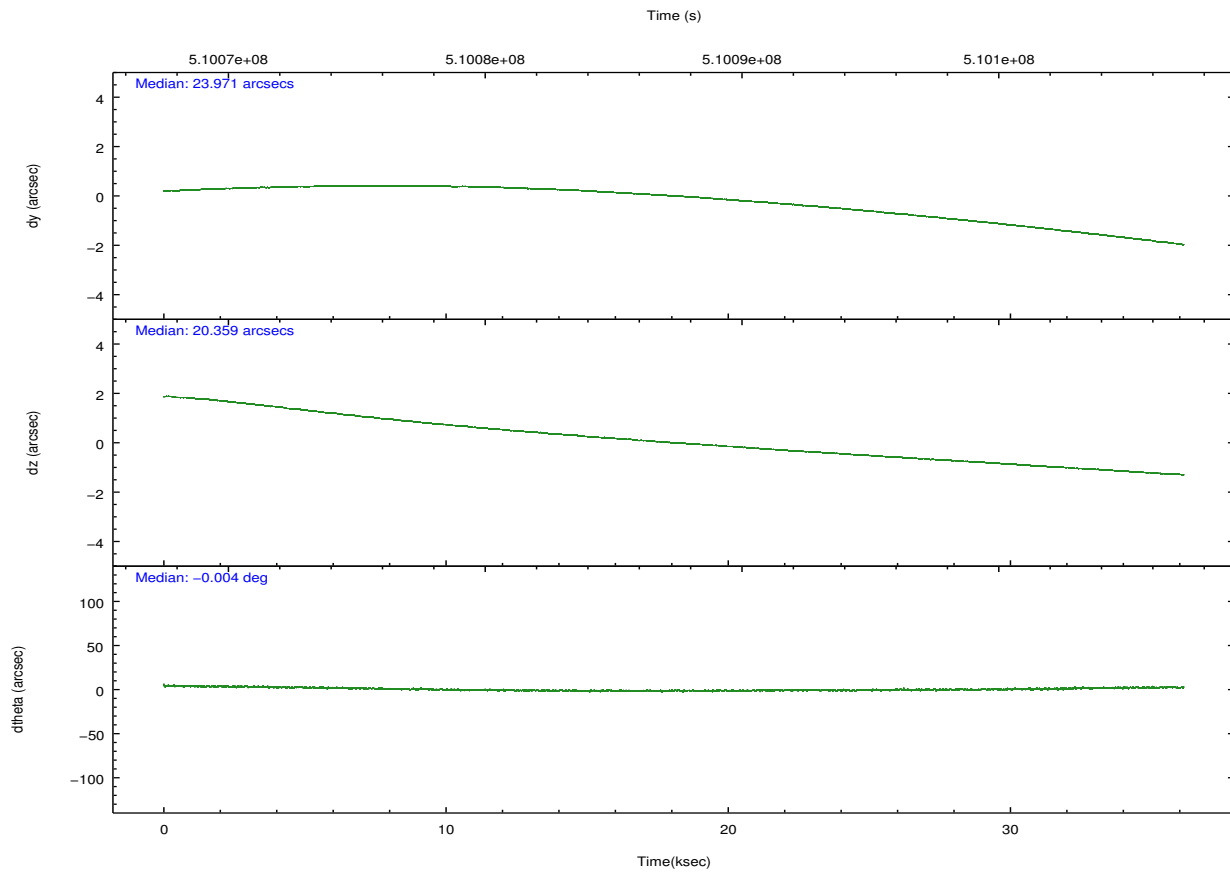
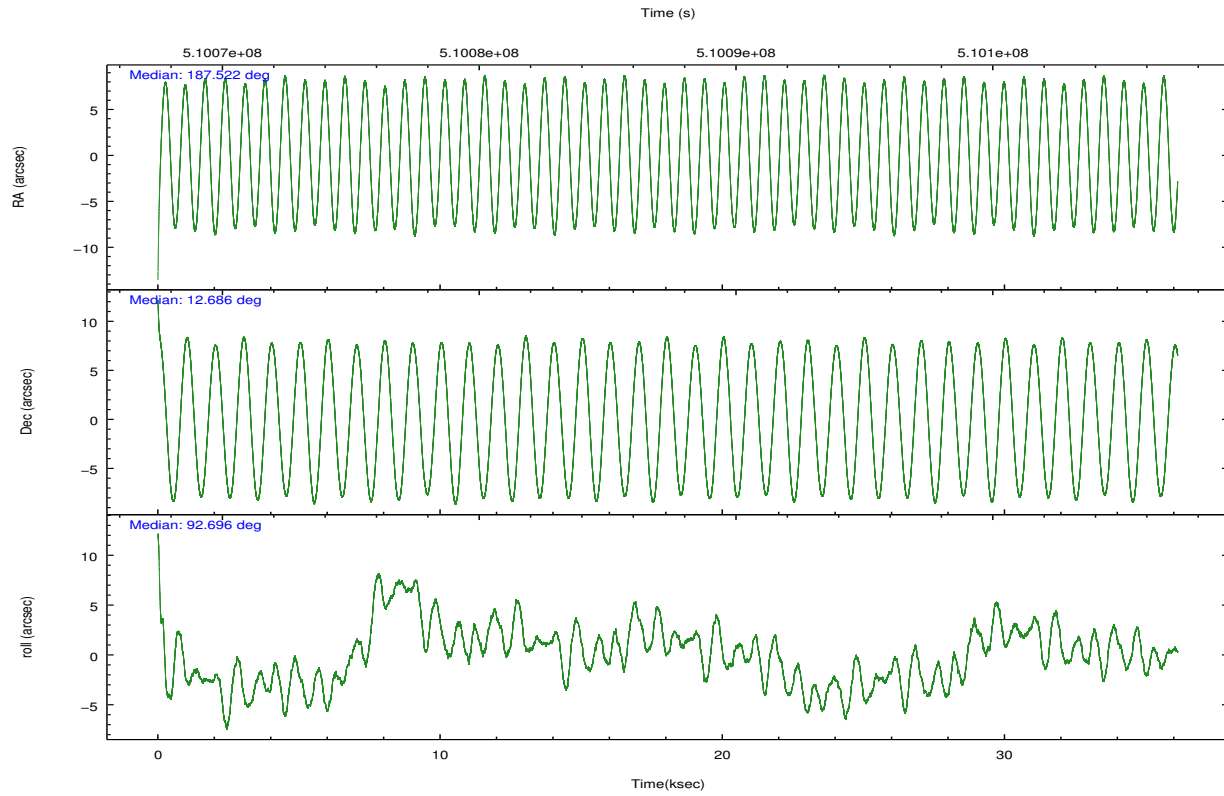
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
grade 0 events	25667	56478	25347	37259	15812
	12%	21%	9%	14%	6%
grade 1 events	175	267	187	209	445
	0%	0%	0%	0%	0%
grade 2 events	10886	12842	11557	8792	30054
	5%	4%	4%	3%	11%
grade 3 events	2556	3796	2363	3171	11375
	1%	1%	0%	1%	4%
grade 4 events	2507	3850	3589	3055	11451
	1%	1%	1%	1%	4%
grade 5 events	7491	7877	7115	8522	23245
	3%	3%	2%	3%	9%
grade 6 events	4638	5928	5210	4889	56854
	2%	2%	2%	1%	22%
grade 7 events	152461	165978	200848	186679	106486
	73%	64%	78%	73%	41%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
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	187.536834	187.5215025671376	CCD I2 on	Y	Y
[deg] Pointing Dec	12.662822	12.68590476142444	CCD I3 on	Y	Y
[deg] Pointing Roll	92.496454	92.70850903961247	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	-227.592463	-227.5933067819097	CCD S3 on	O1	Y
[mm] SIM translation stage offset	-6	-5.999146221020027	CCD S4 on	N	N
[s] Observation start time (MET)	510069402.184000	510068215.87708	CCD S5 on	N	N
Observation start date	2014-03-01T13:55:35	2014-03-01T13:36:55	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	510105419.184000	510106369.45418	On-chip summing requested	N	N
Observation end date	2014-03-01T23:55:52	2014-03-02T00:12:49	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





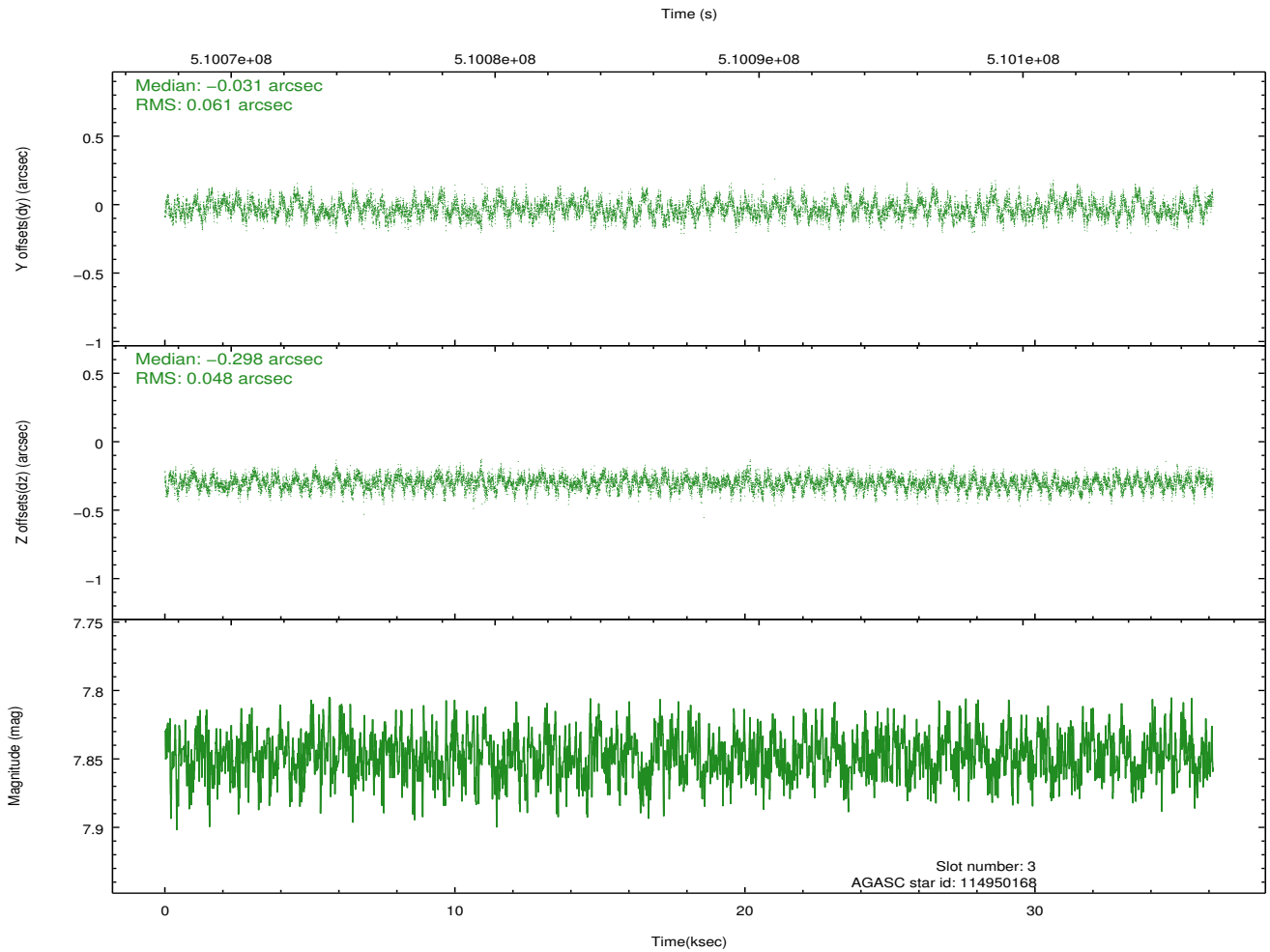
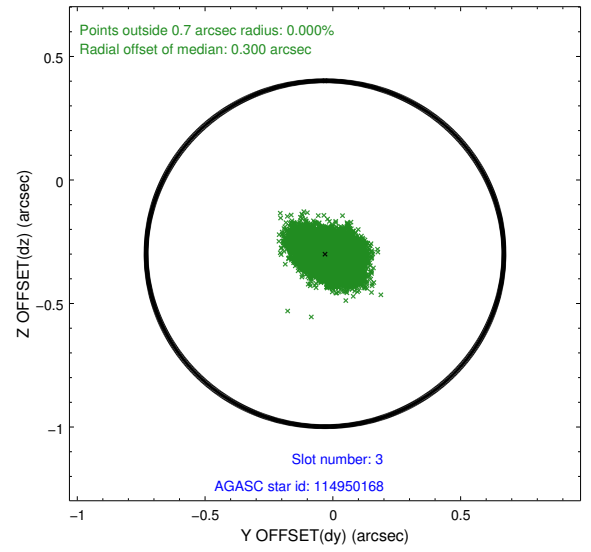
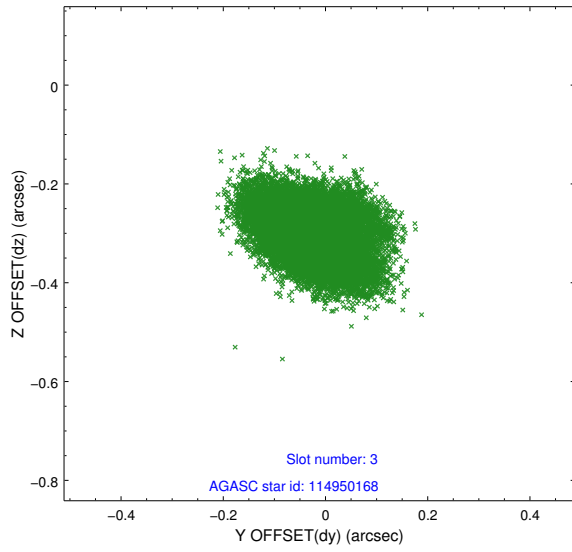
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.10	8814	0.080	-0.037	0.026	0.063	0.000000	0.000000	915.56	-967.35
1	FID		ACIS-I-5	7.10	8814	-0.332	0.050	0.022	0.036	0.000000	0.000000	-1833.02	930.09
2	FID		ACIS-I-6	7.11	8814	0.155	0.063	0.030	0.043	0.000000	0.000000	381.02	1574.74
3	GUIDE	used	114950168	7.85	17628	-0.031	-0.298	0.082	0.137	187.143398	12.117441	-1900.62	1468.78
4	GUIDE	used	114952824	8.57	17621	-0.036	0.110	0.082	0.131	187.703904	12.486727	-658.63	-557.95
5	GUIDE	used	114954440	9.18	17621	-0.026	-0.426	0.130	0.214	186.915066	12.219118	-1498.77	2253.53
6	GUIDE	used	114955056	8.32	17624	0.064	1.016	0.091	0.146	187.914001	12.127854	-1980.48	-1241.04
7	GUIDE	used	114957008	8.25	17621	0.030	-0.401	0.076	0.136	186.894794	12.099160	-1926.69	2346.73

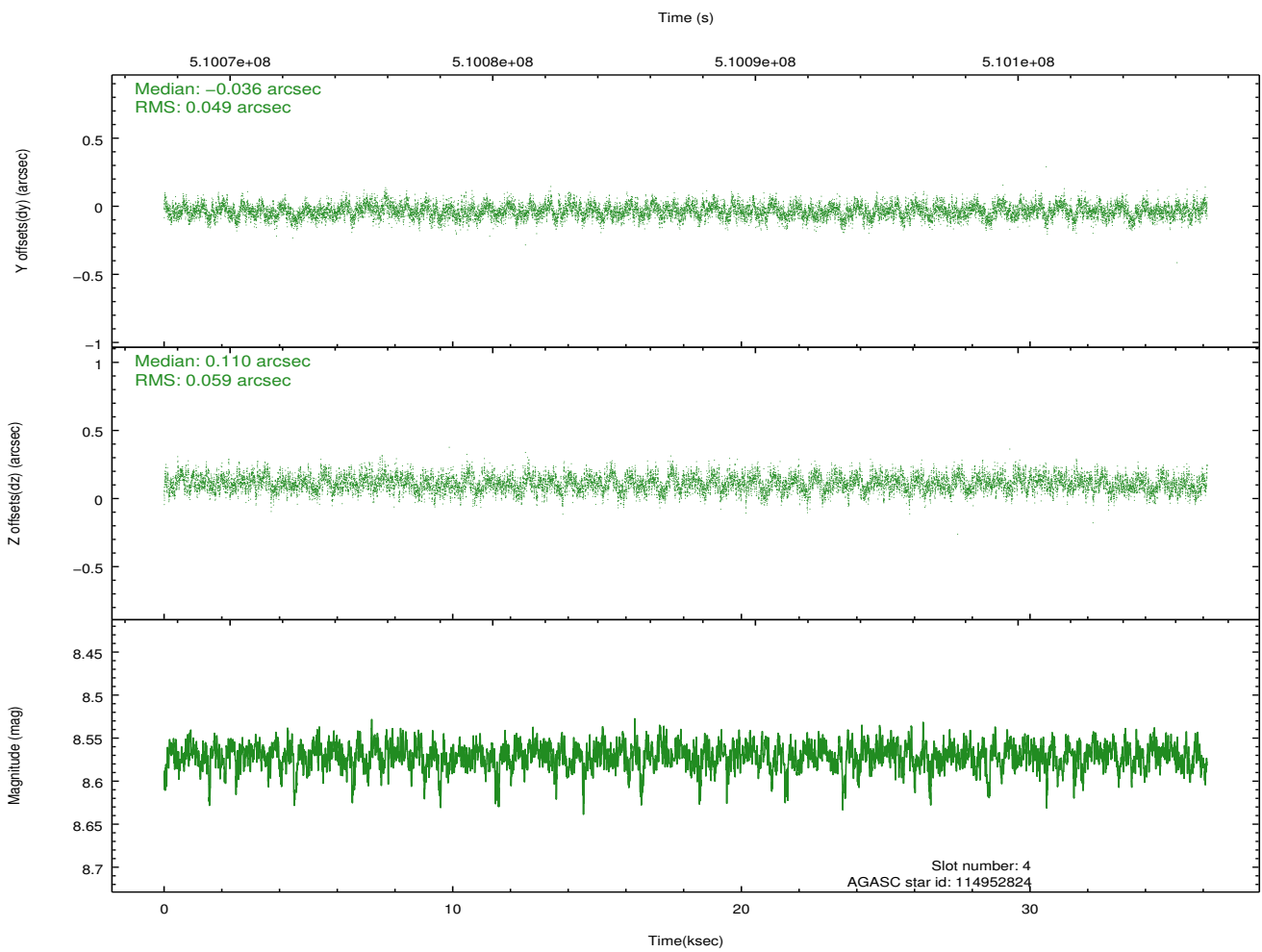
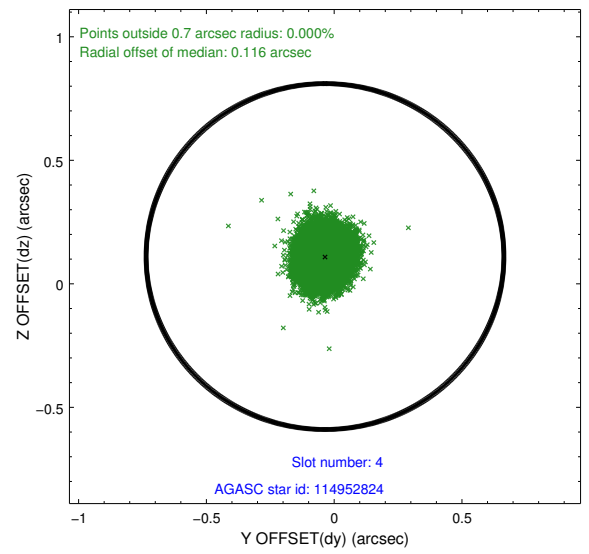
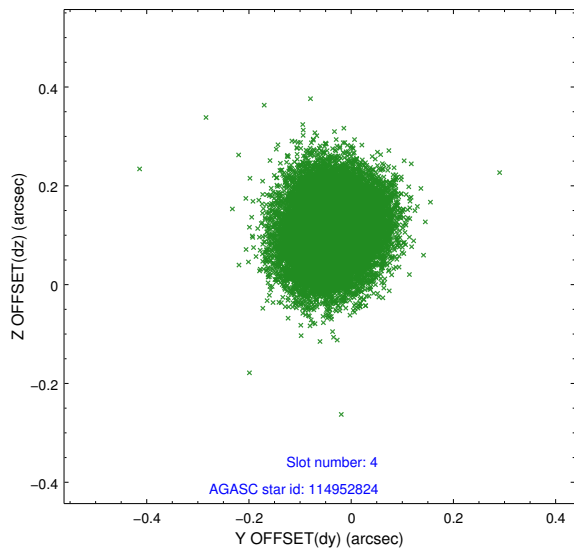
∞

2.4 Star Slots

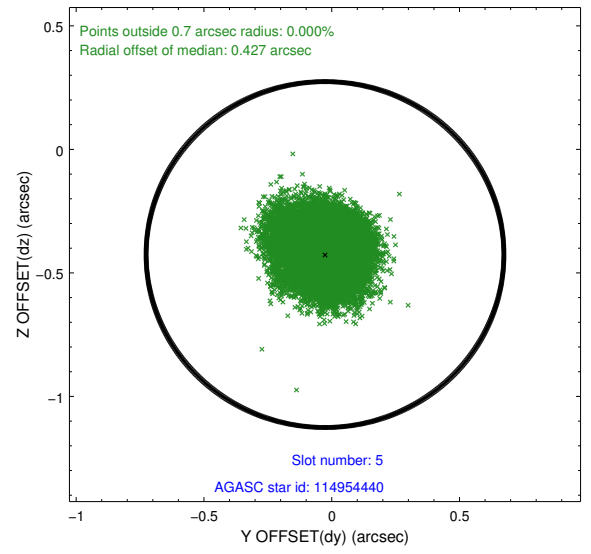
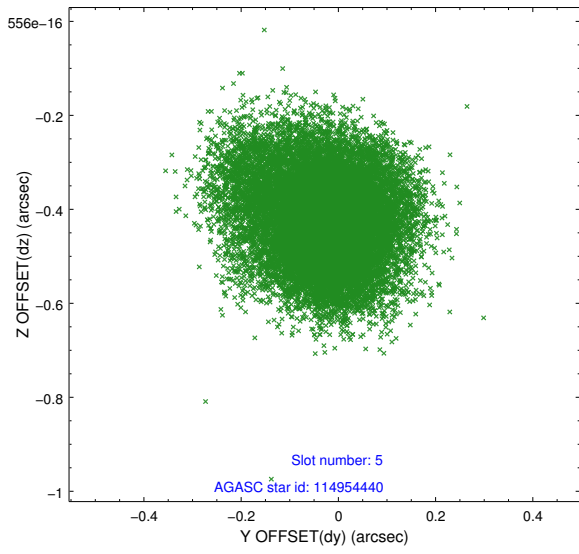
2.4.1 Slot 3



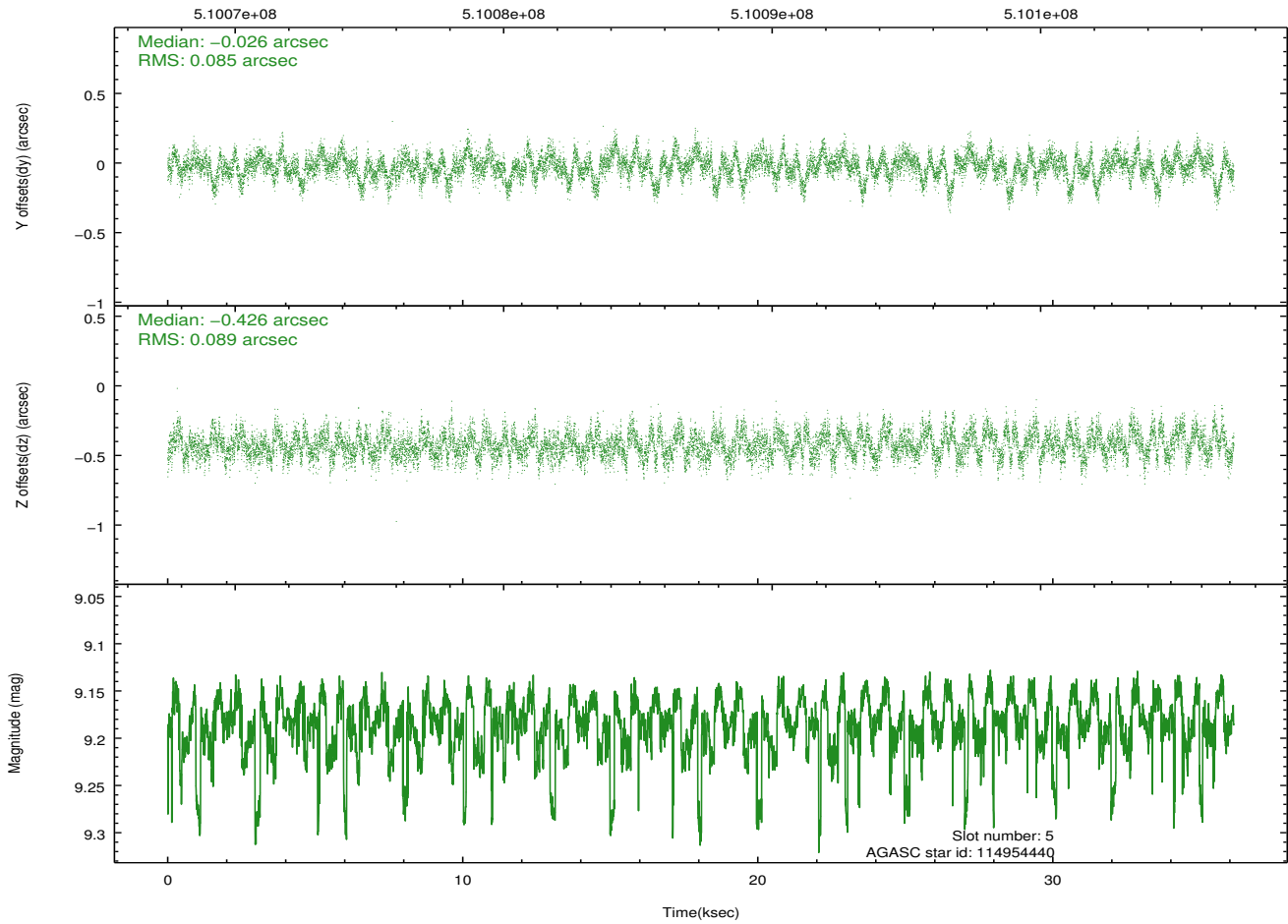
2.4.2 Slot 4



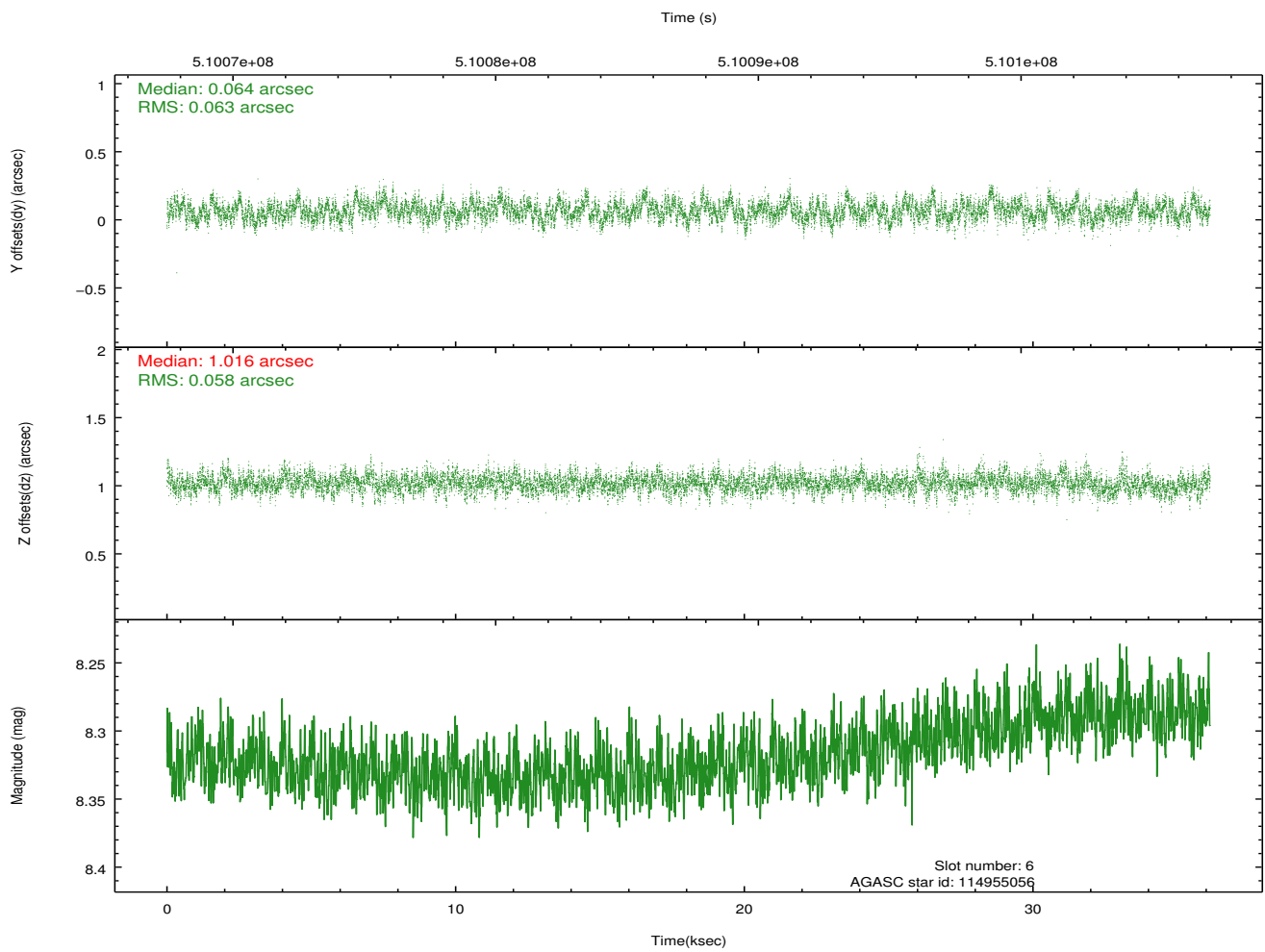
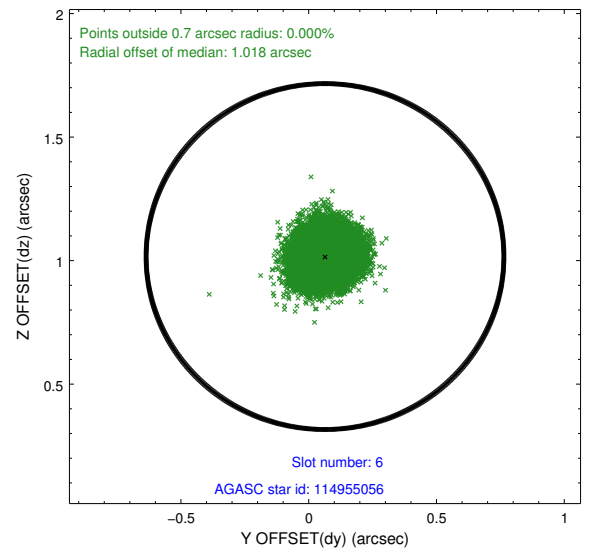
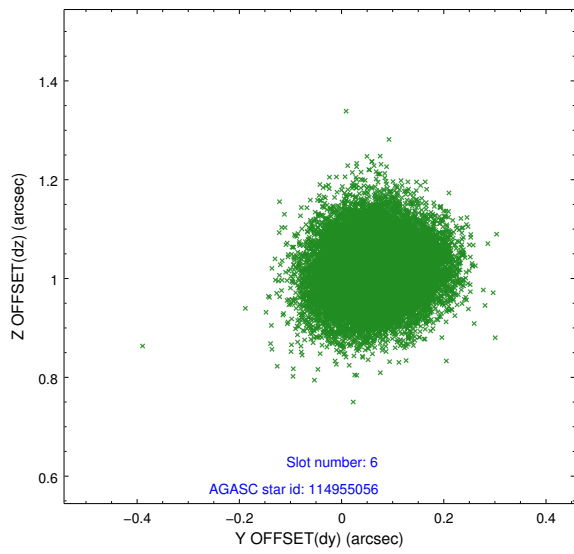
2.4.3 Slot 5



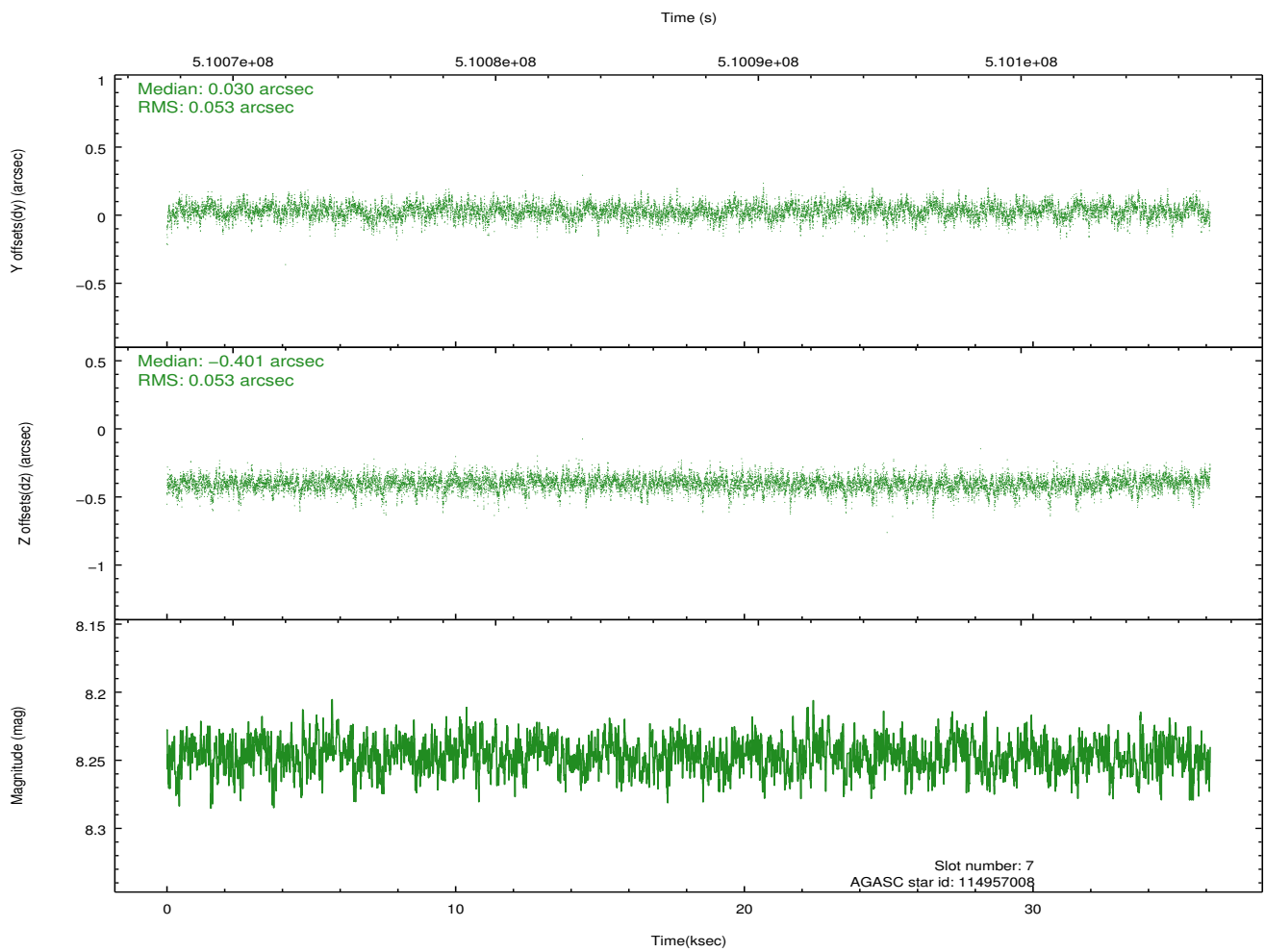
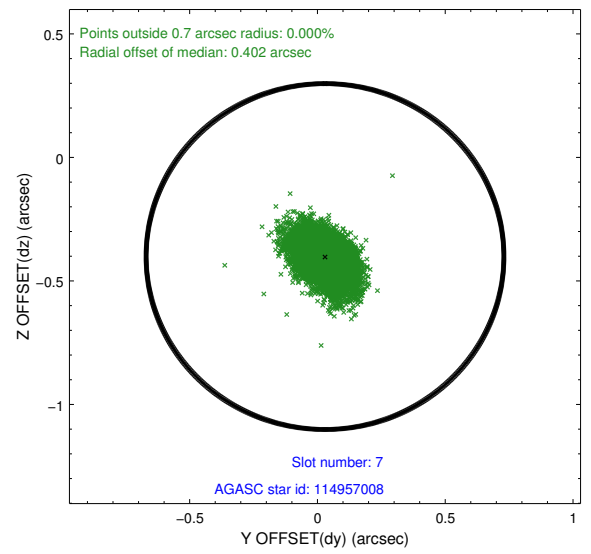
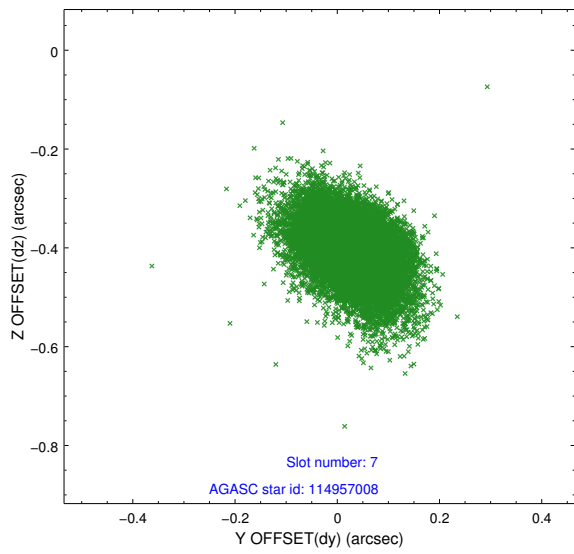
Time (s)



2.4.4 Slot 6

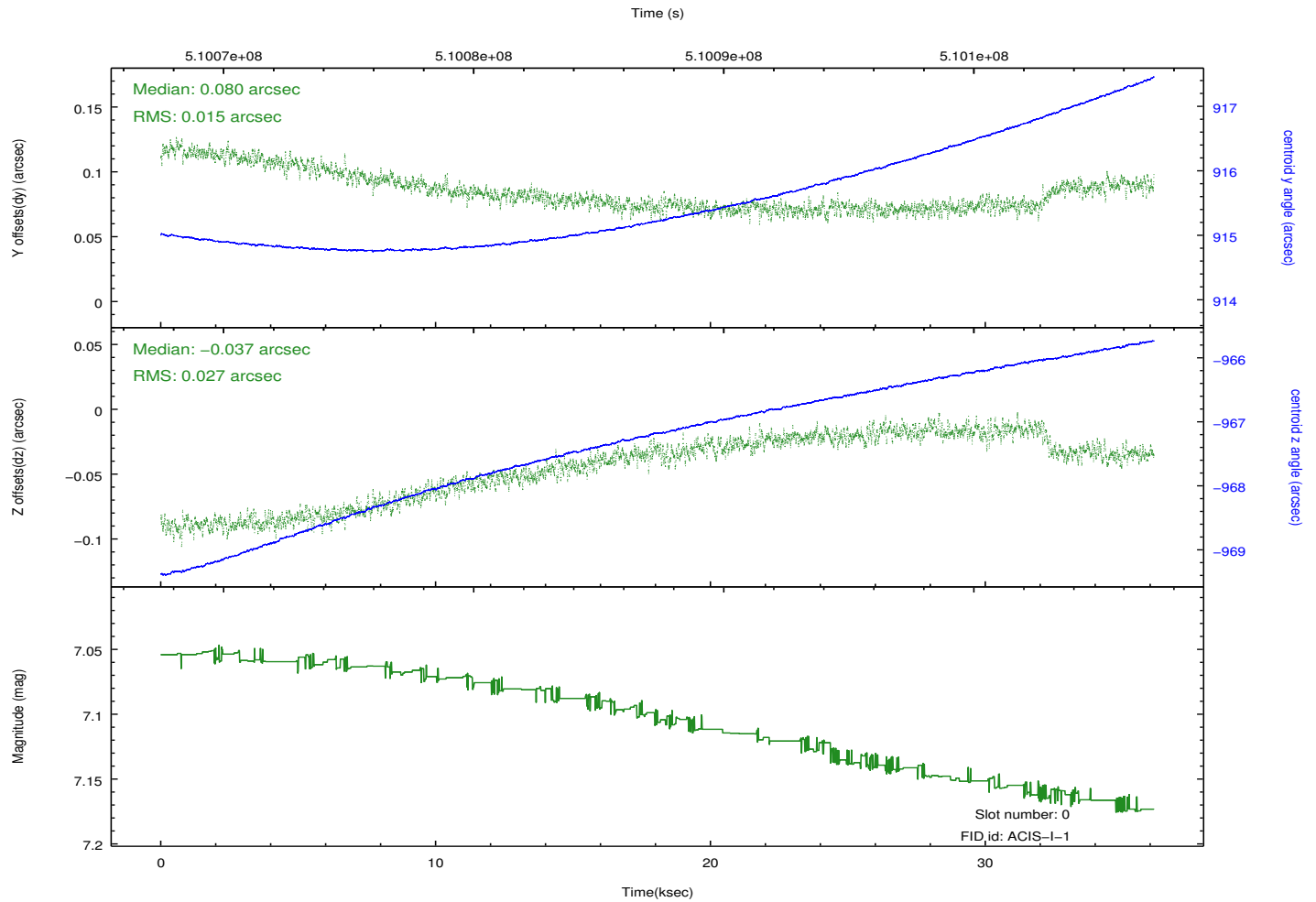
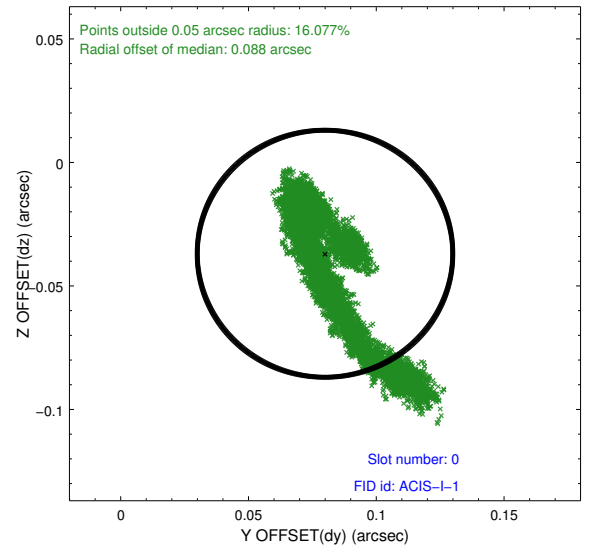
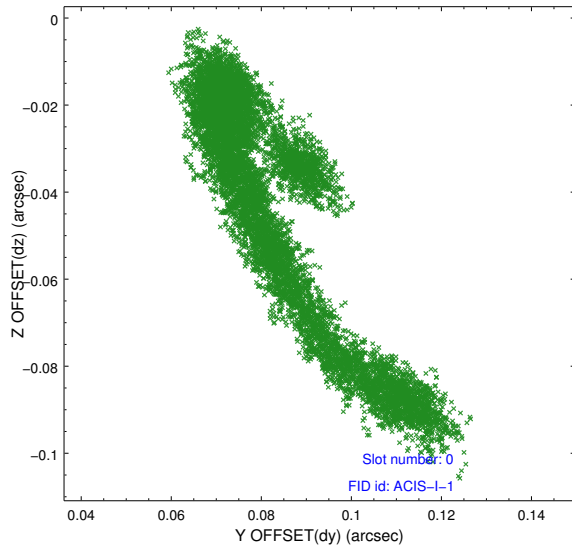


2.4.5 Slot 7

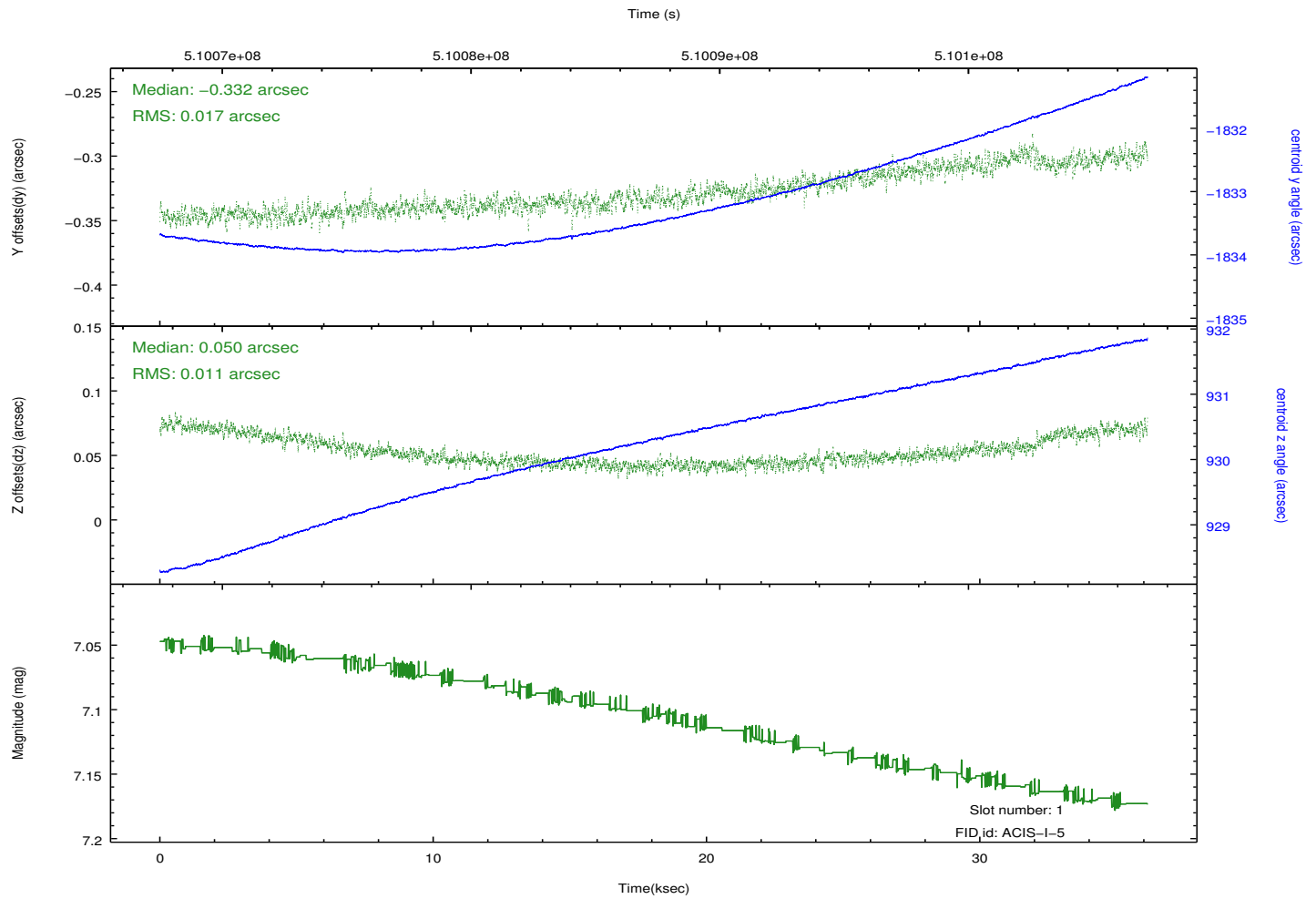
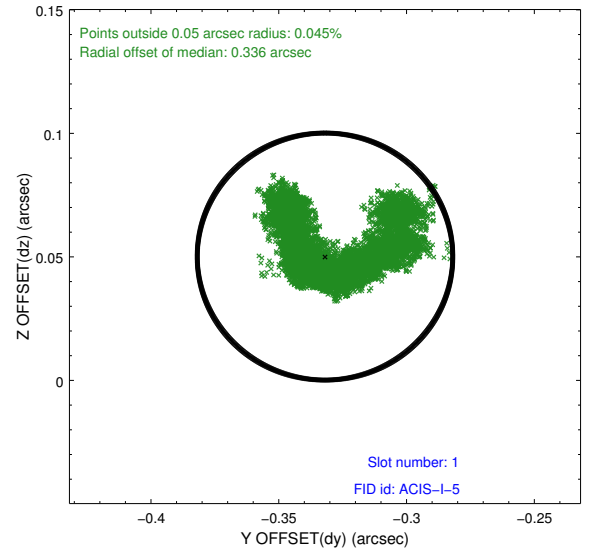
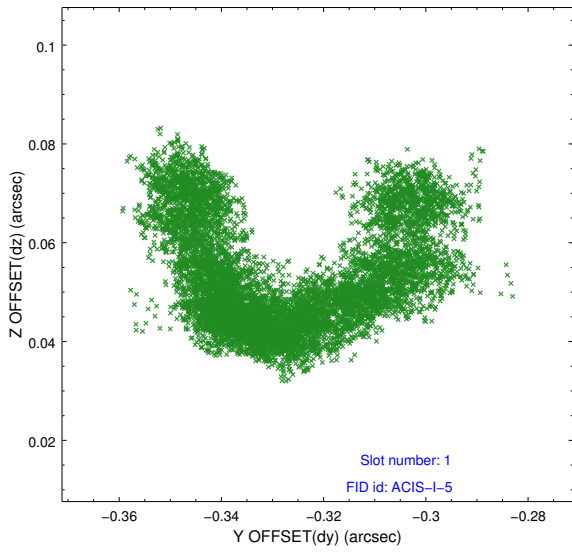


2.5 FID Slots

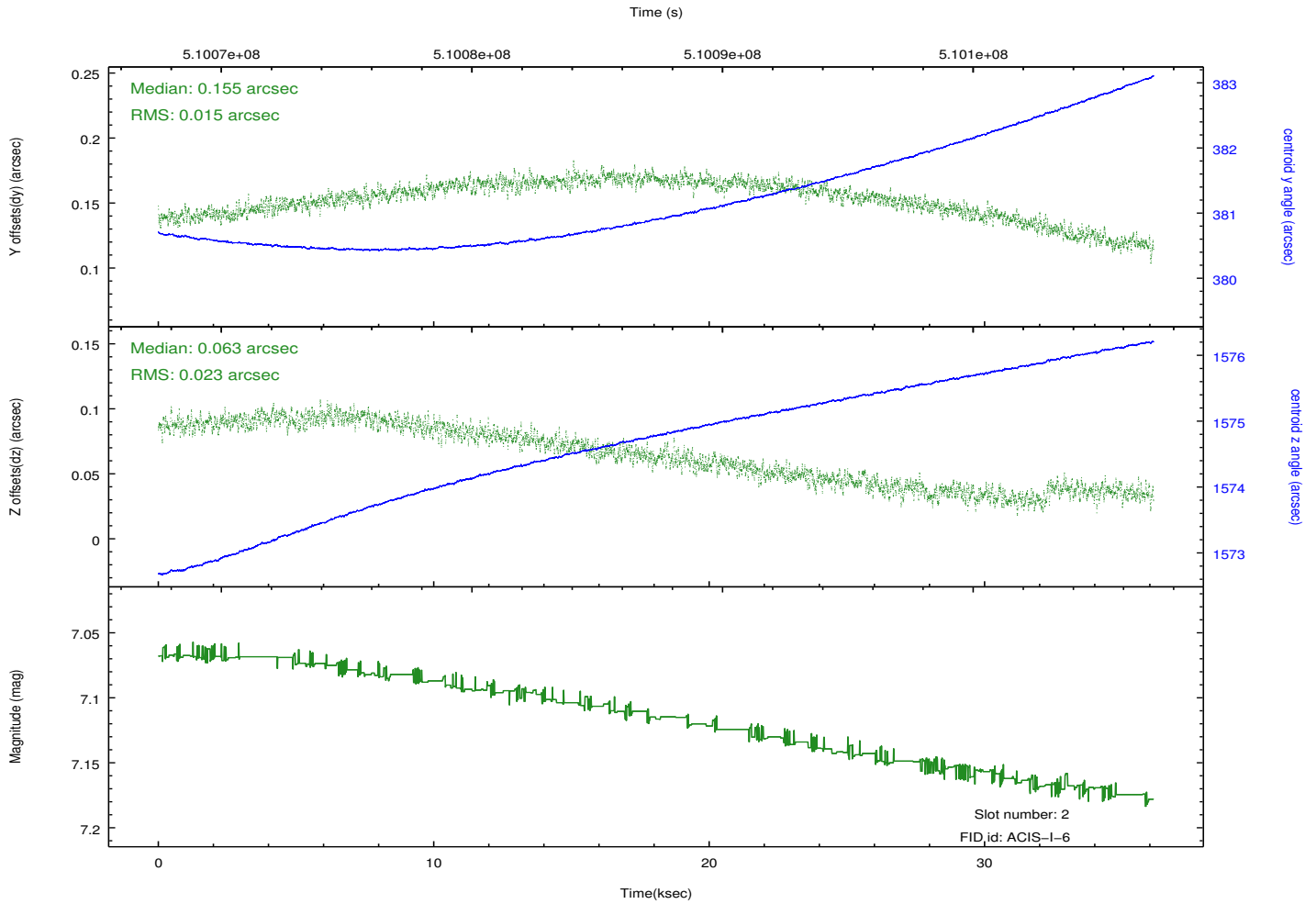
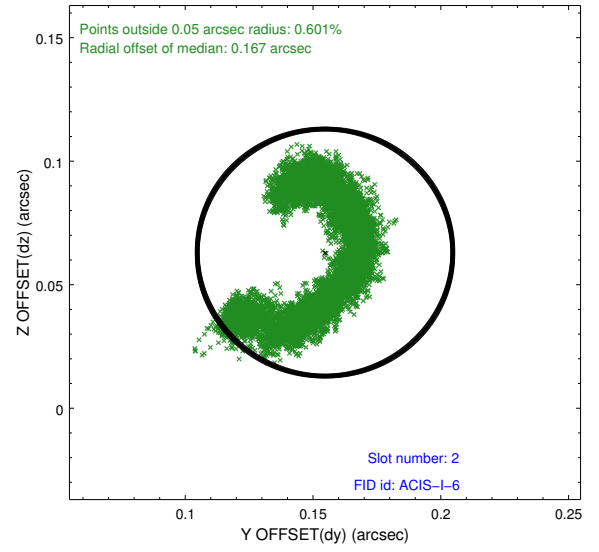
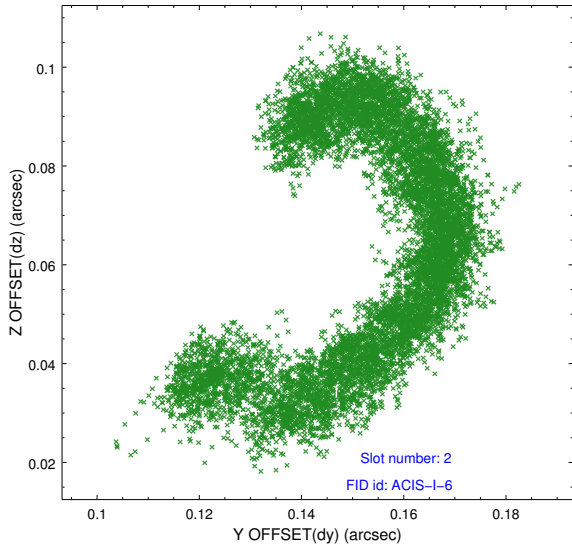
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2014.12.17
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	36.080900277495

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.