

V&V Reference Report

L2 ASCDS Version : 10.2.1

Observation 16593 - L2 Version 2
Chandra X-Ray Center

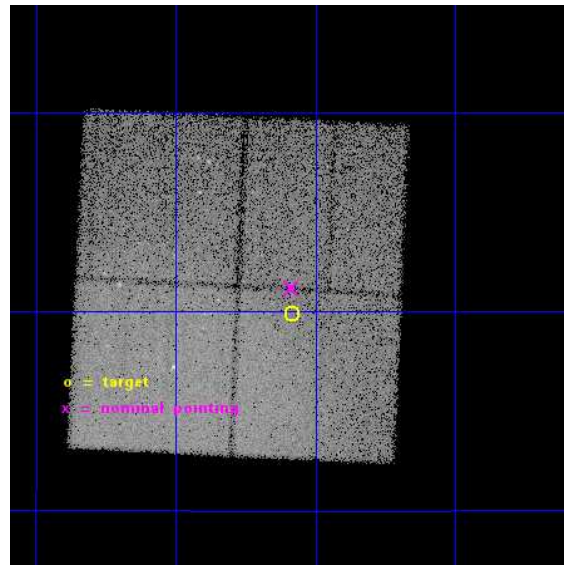
L2 Processing Date : Dec 10 2014

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1 Front

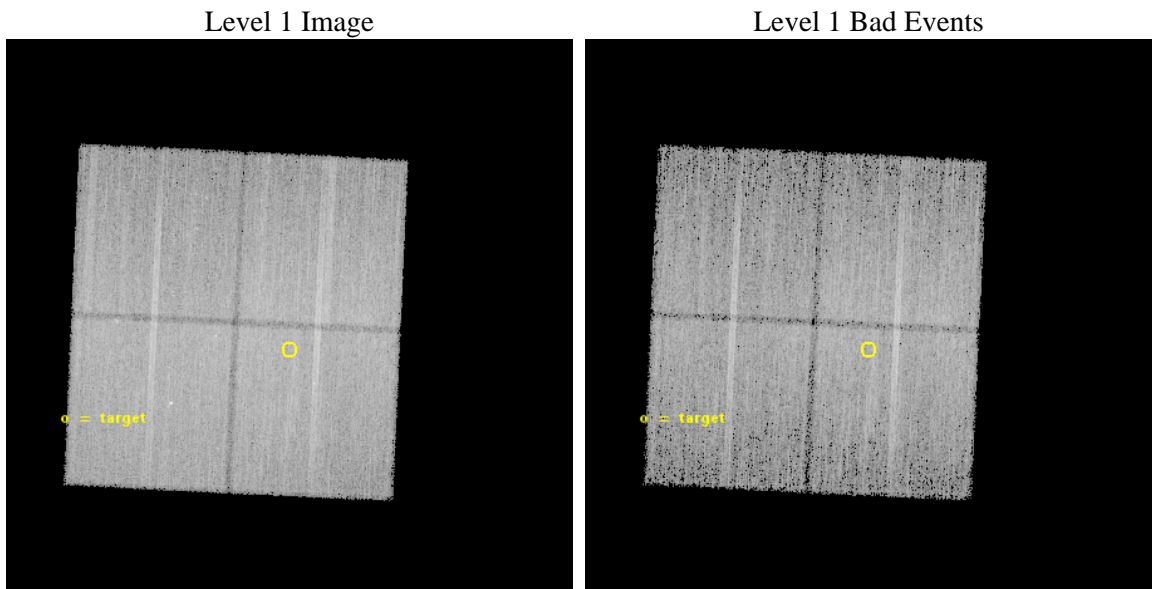
seq_num	801305	Sequence number
obs_id	16593	Observation id
title	Resolving the nearest cold front in the sky: the cleanest experimental tool to study detailed ICM physics	Proposal title
observer	Dr. Norbert Werner	Principal investigator
object	Virgo cold front	Source name
dtcycle	0	
cycle	P	events from 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	187.52149927383	Nominal RA [deg]
dec_nom	12.685889371051	Nominal Dec [deg]
roll_nom	92.708511512886	Nominal Roll [deg]
revision	2	Processing version of data
ontime	38083.377212048	Sum of GTIs [s]
livetime	37585.789852198	Livetime [s]
ontime0	38092.800292969	Sum of GTIs [s]
ontime1	38086.518252015	Sum of GTIs [s]
ontime2	38092.800292969	Sum of GTIs [s]
ontime3	38083.377212048	Sum of GTIs [s]
l2events	198748	Number of level 2 events



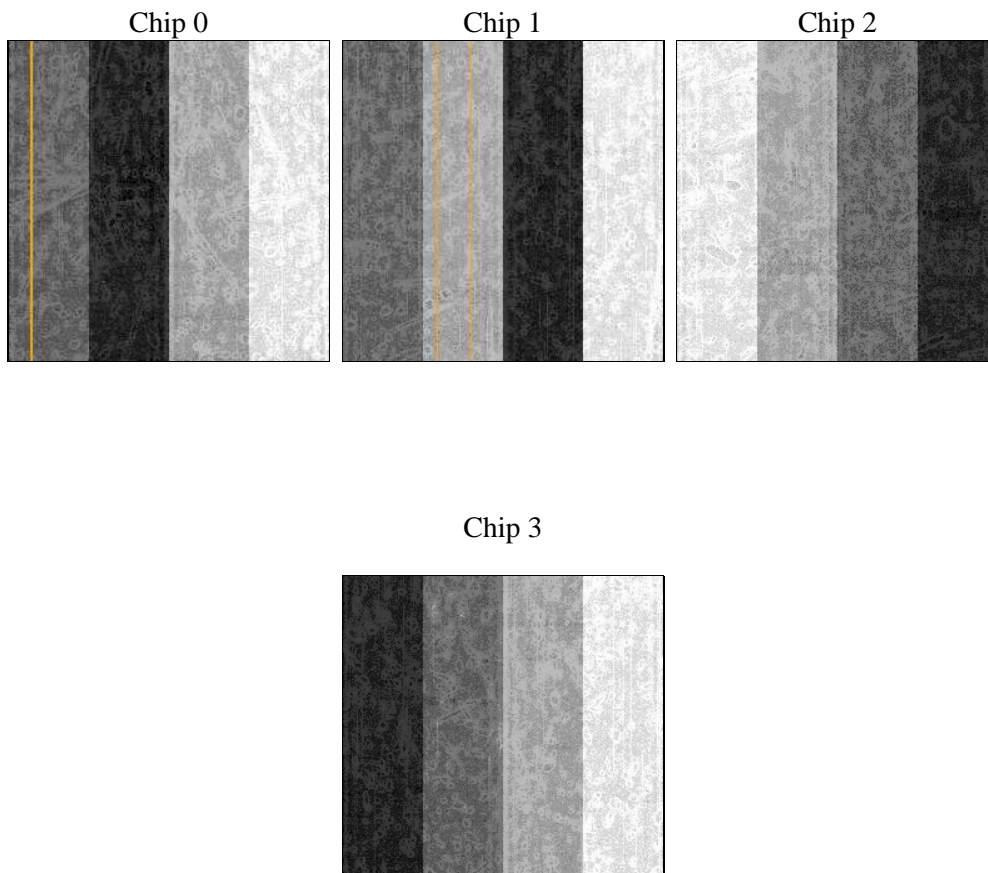
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	38000.380000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	38083.377212048	Sum of GTIs [s]
caldsver	4.6.4	 	ontime0	38092.800292969	Sum of GTIs [s]
date	2014-12-10T12:21:11	Date and time of file creation	ontime1	38086.518252015	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	38092.800292969	Sum of GTIs [s]
			ontime3	38083.377212048	Sum of GTIs [s]
			l1events	901184	Number of level 1 events

2.1.4 Events

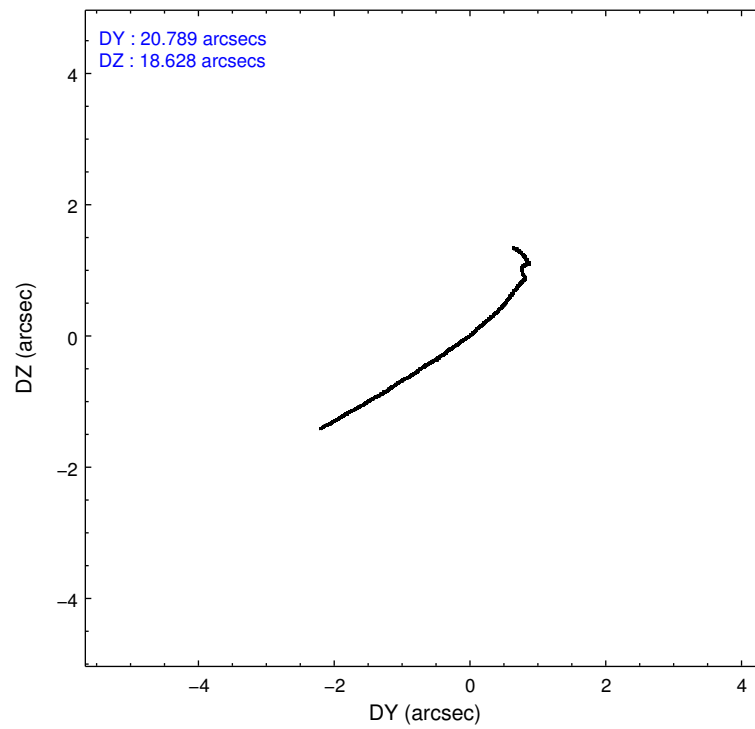
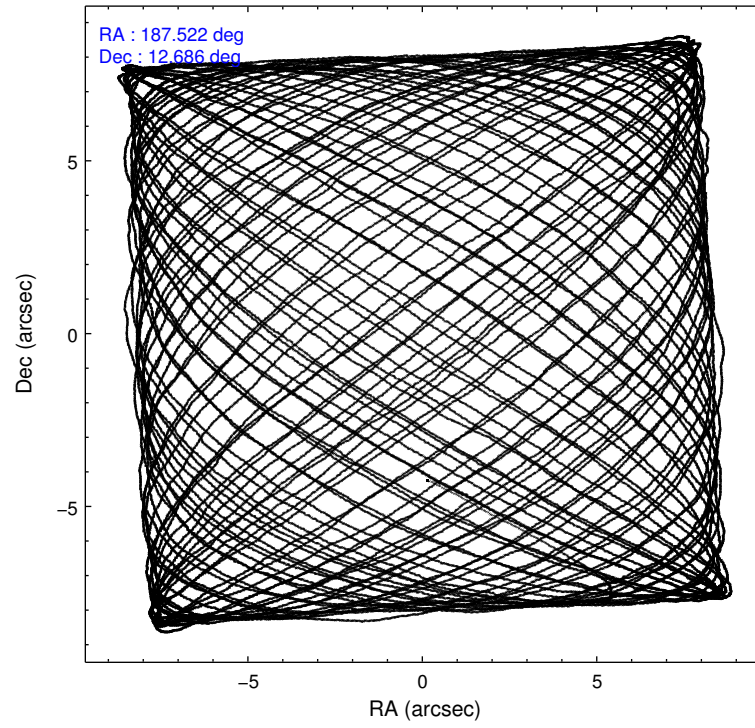
	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	194607	243194	229218	234165
rejected events	150368	157725	184497	176075
rejected %	77%	64%	80%	75%

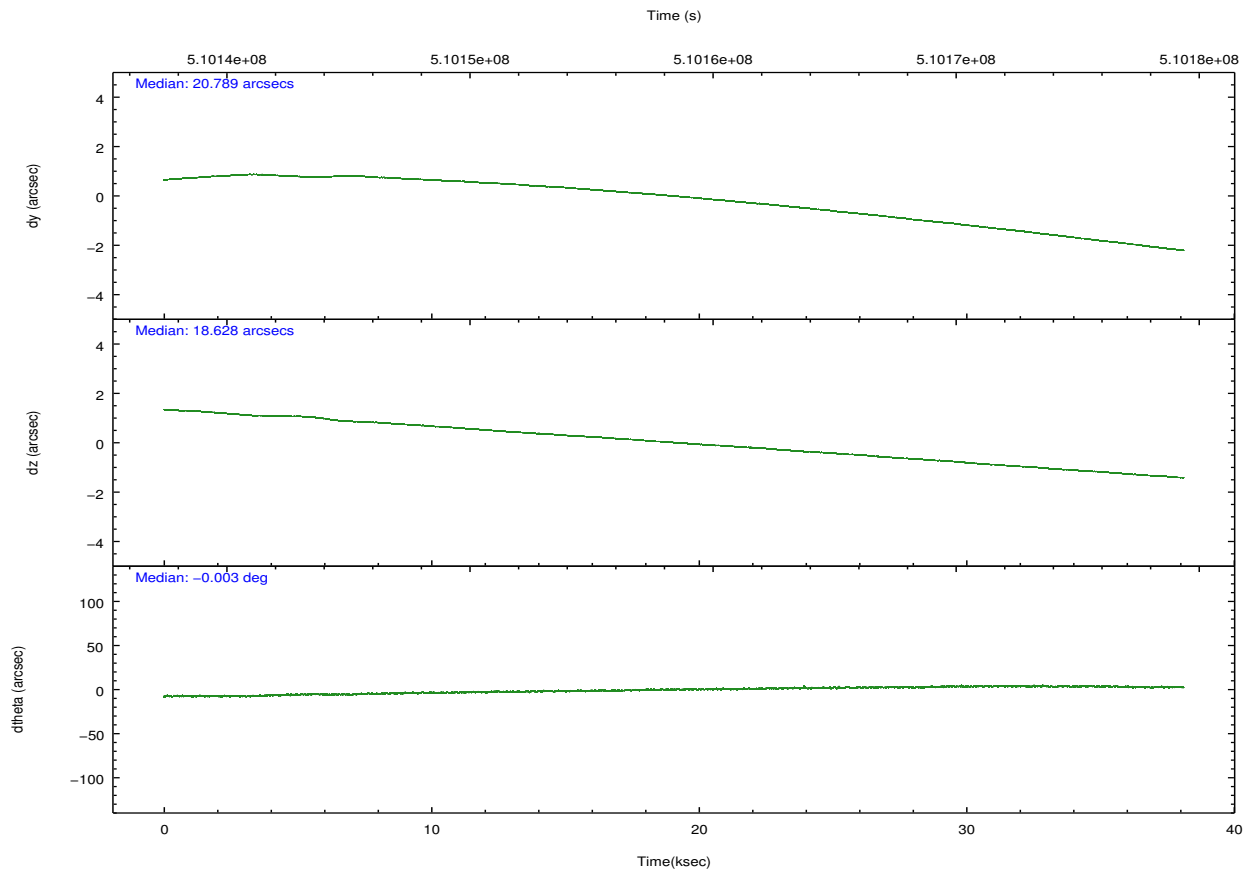
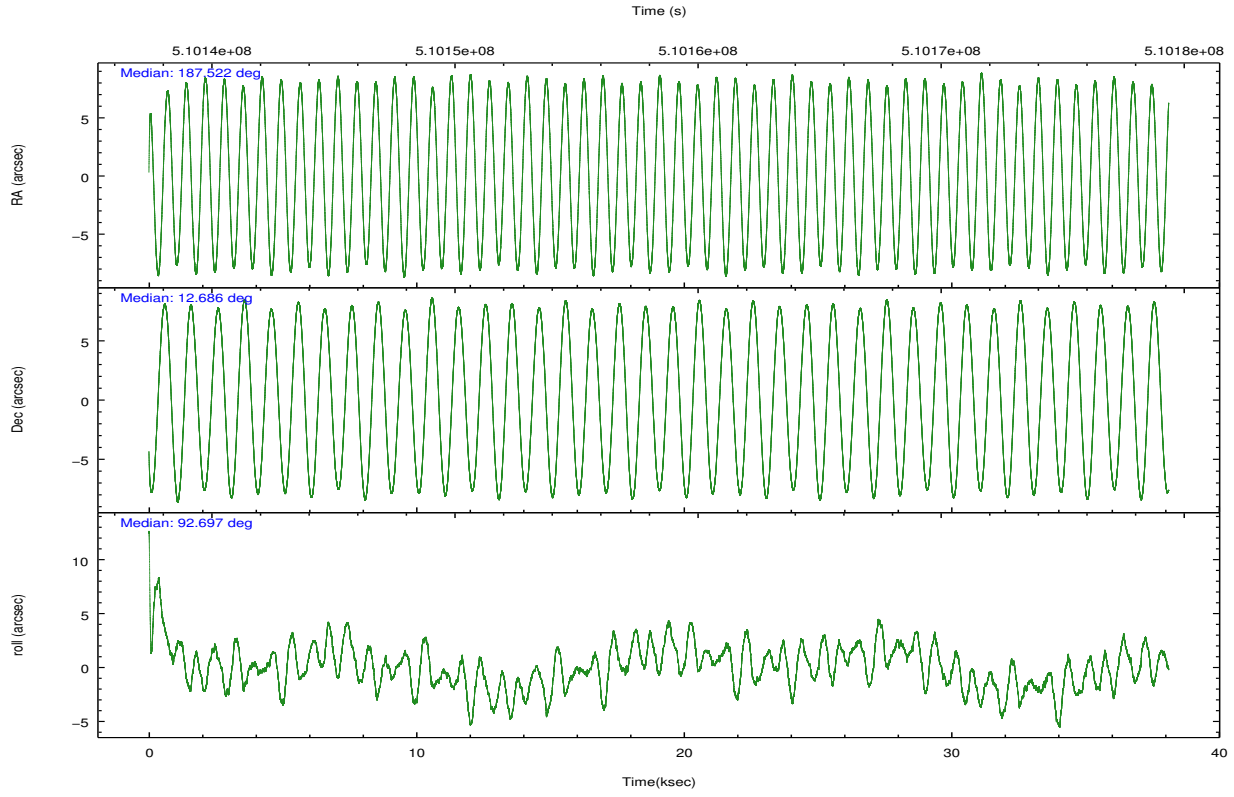
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	24950	58725	24388	38277
	12%	24%	10%	16%
grade 1 events	157	231	169	224
	0%	0%	0%	0%
grade 2 events	9489	12687	9895	8690
	4%	5%	4%	3%
grade 3 events	2673	3970	2335	3186
	1%	1%	1%	1%
grade 4 events	2407	3973	3257	3174
	1%	1%	1%	1%
grade 5 events	8041	8335	7498	9041
	4%	3%	3%	3%
grade 6 events	4723	6117	4847	4766
	2%	2%	2%	2%
grade 7 events	142167	149156	176829	166807
	73%	61%	77%	71%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-0123	ACIS-0123	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	187.5214992738344	CCD I2 on	Y	Y
[deg] Pointing Dec	12.662822	12.68588937105135	CCD I3 on	Y	Y
[deg] Pointing Roll	92.496454	92.70851151288628	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	N
[mm] SIM translation stage offset	-6	-5.999146221020027	CCD S4 on	N	N
[s] Observation start time (MET)	510139434.184000	510138241.83093	CCD S5 on	N	N
Observation start date	2014-03-02T09:22:47	2014-03-02T09:04:01	Number of optional ACIS chips dropped	1	1
[s] Observation end time (MET)	510177435.184000	510177671.02061	On-chip summing requested	N	N
Observation end date	2014-03-02T19:56:08	2014-03-02T20:01:11	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



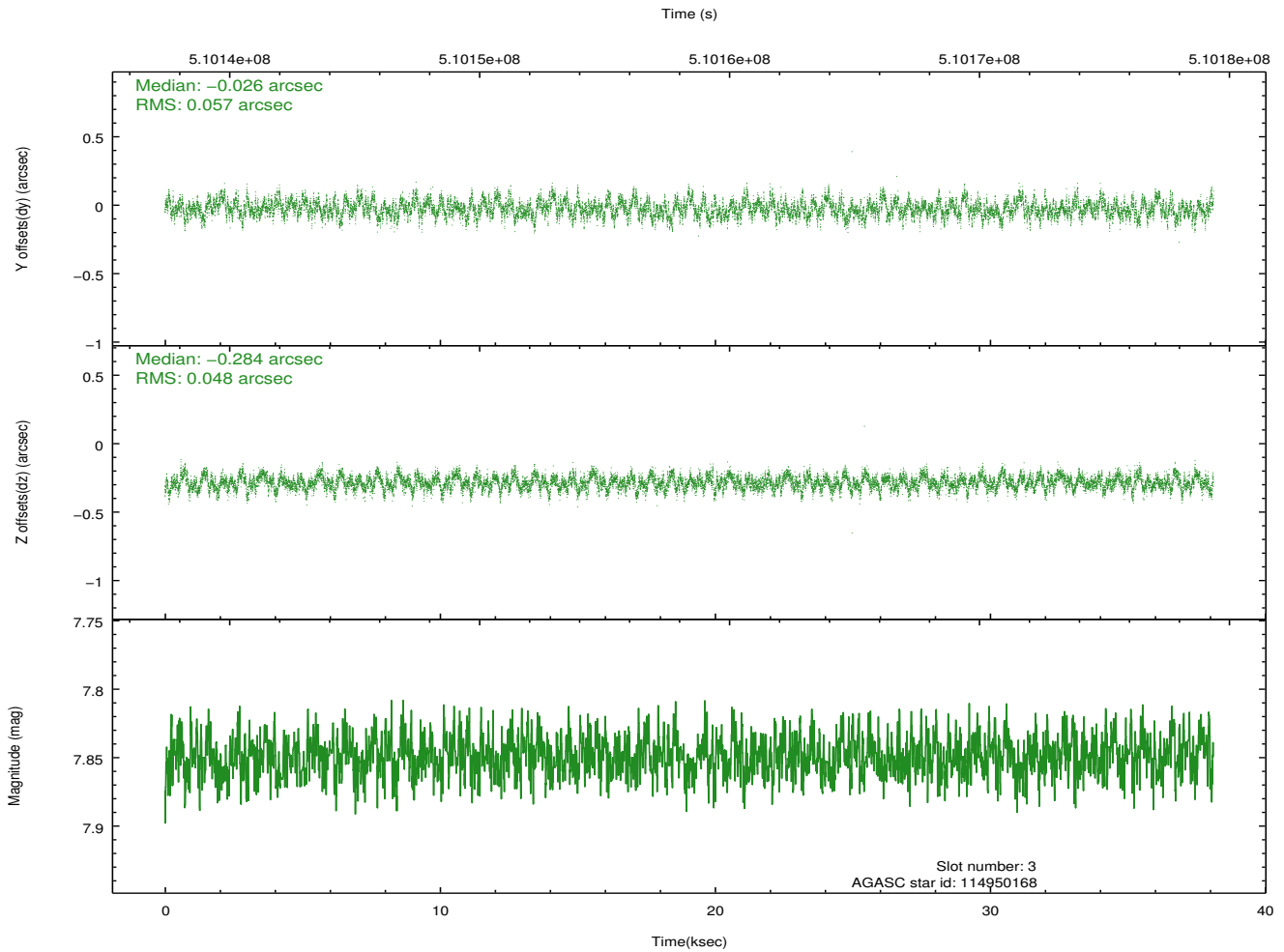
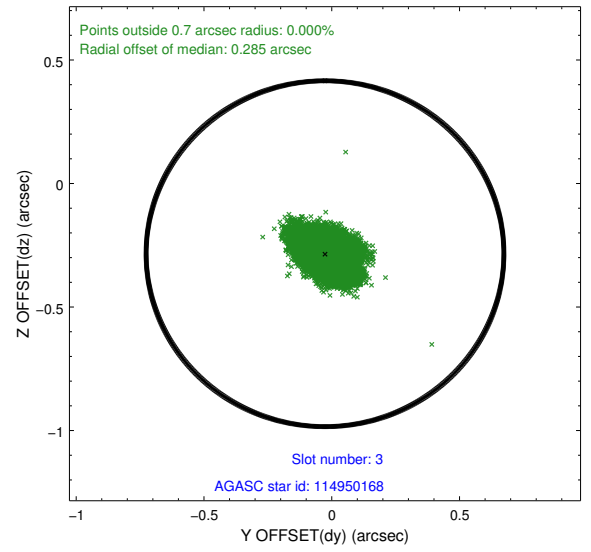
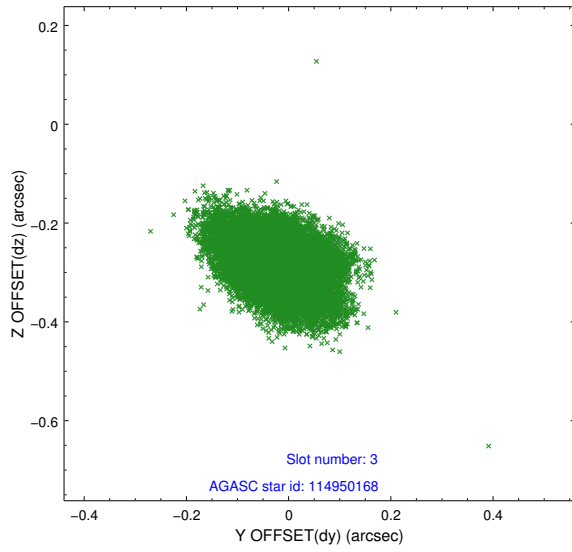


Slot Statistics

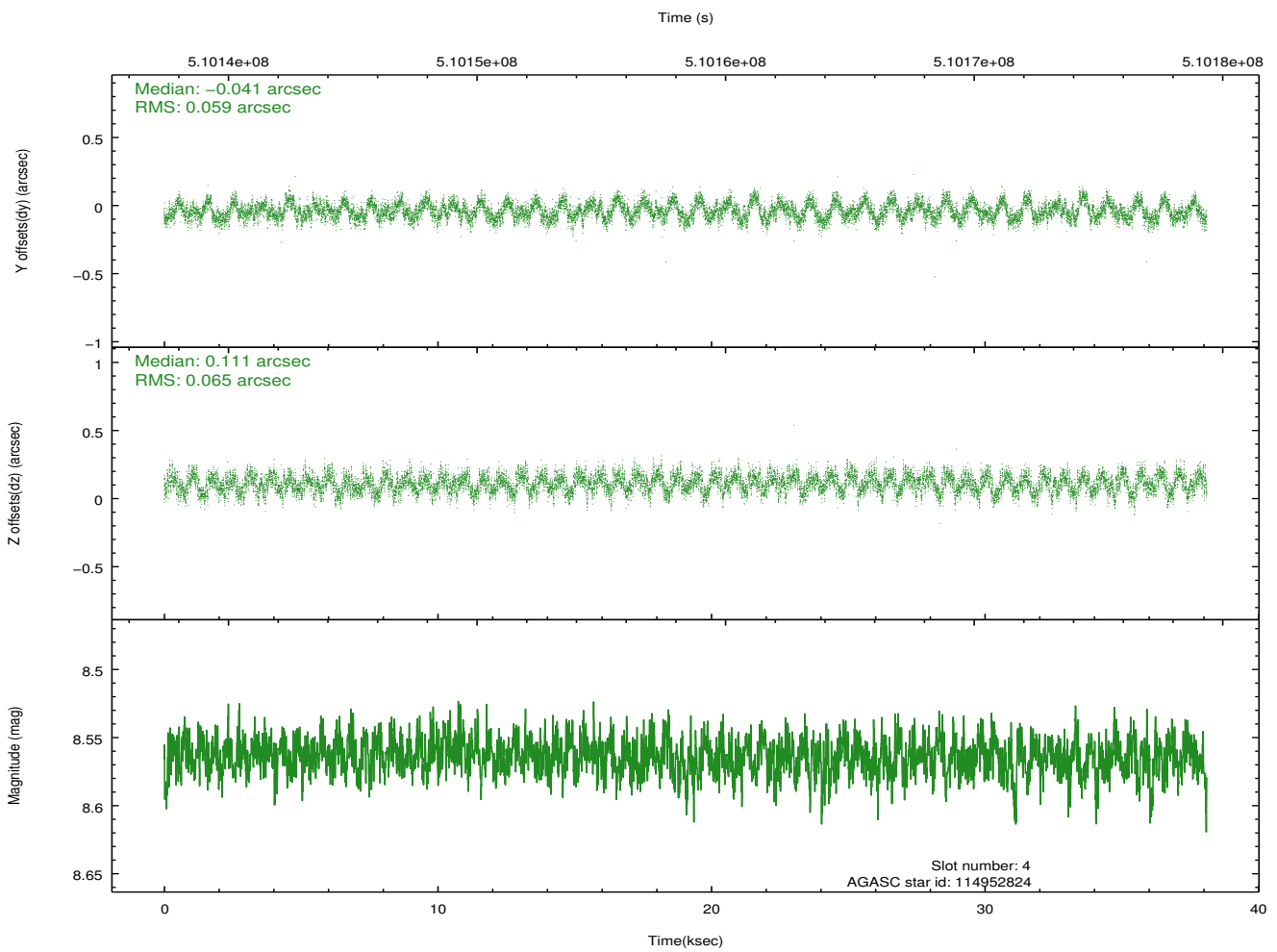
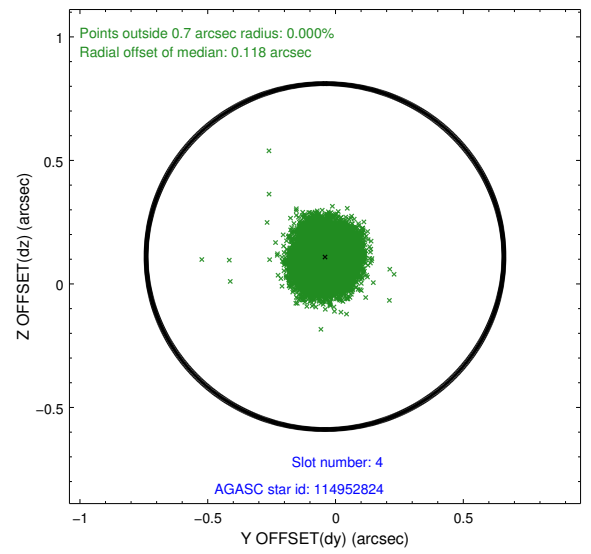
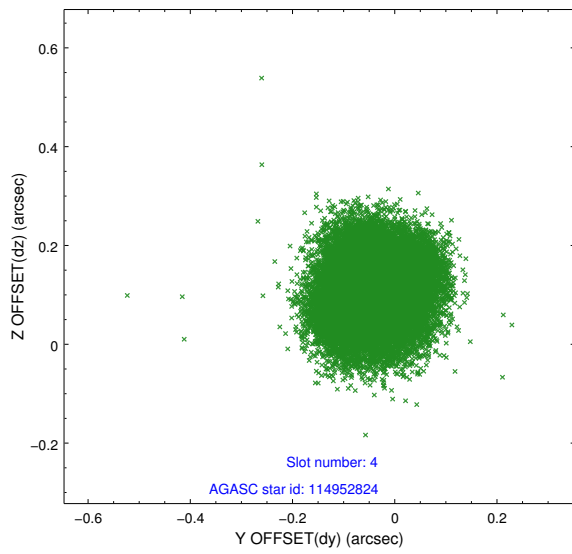
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.08	9298	0.106	-0.057	0.031	0.042	0.000000	0.000000	918.77	-965.49
1	FID		ACIS-I-5	7.07	9296	-0.302	0.079	0.015	0.025	0.000000	0.000000	-1829.77	932.05
2	FID		ACIS-I-6	7.09	9298	0.109	0.048	0.015	0.042	0.000000	0.000000	384.23	1576.61
3	GUIDE	used	114950168	7.85	18595	-0.026	-0.284	0.078	0.132	187.143398	12.117441	-1900.57	1468.81
4	GUIDE	used	114952824	8.56	18591	-0.041	0.111	0.096	0.143	187.703904	12.486727	-658.59	-557.96
5	GUIDE	used	114954440	9.17	18578	-0.017	-0.437	0.114	0.186	186.915066	12.219118	-1498.70	2253.52
6	GUIDE	used	114955056	8.31	18592	0.065	0.991	0.091	0.142	187.914001	12.127854	-1980.45	-1241.07
7	GUIDE	used	114957008	8.24	18595	0.018	-0.381	0.073	0.122	186.894794	12.099160	-1926.63	2346.76

2.4 Star Slots

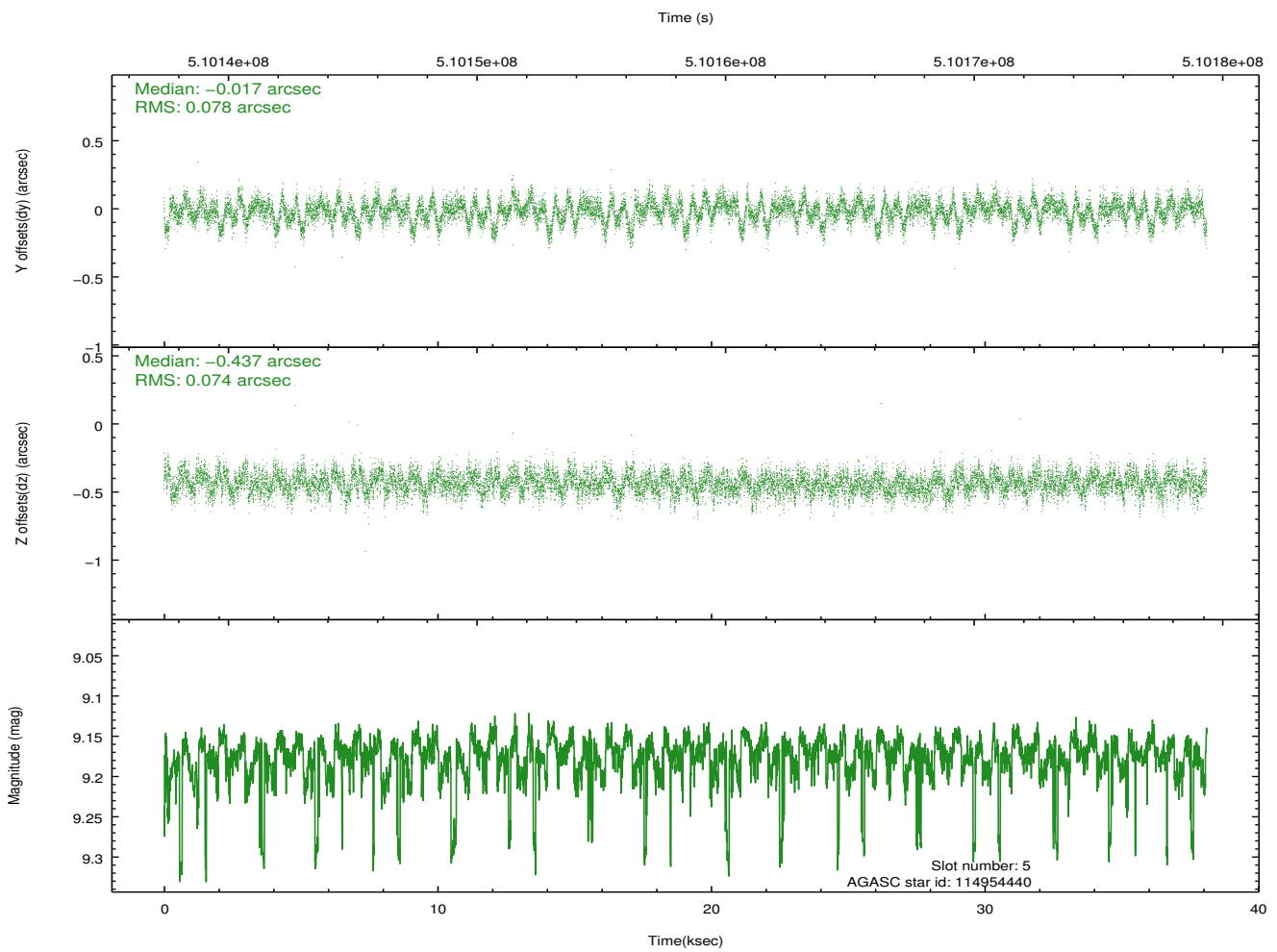
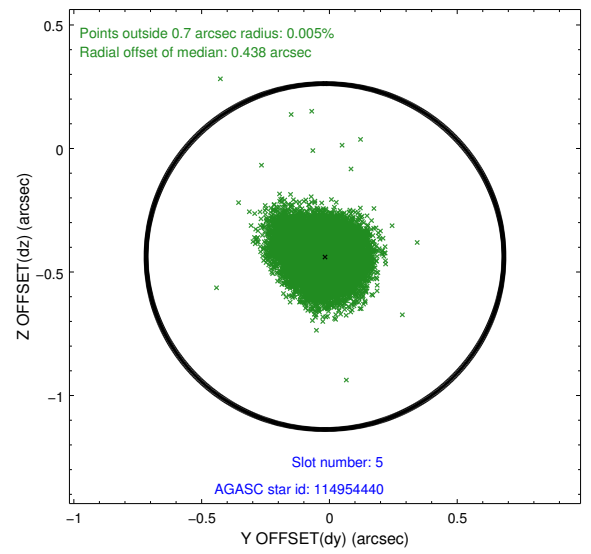
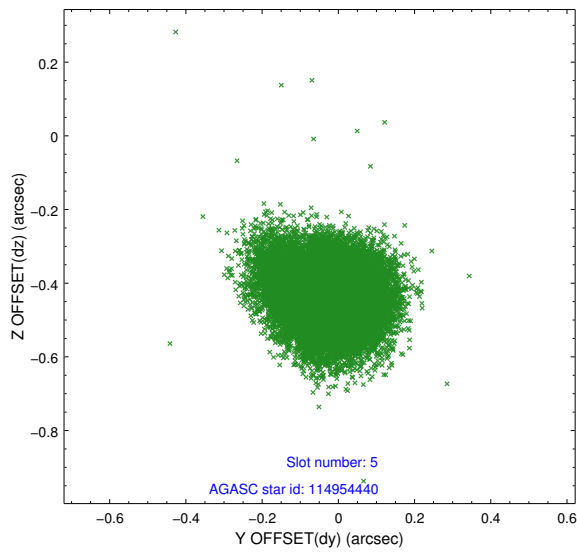
2.4.1 Slot 3



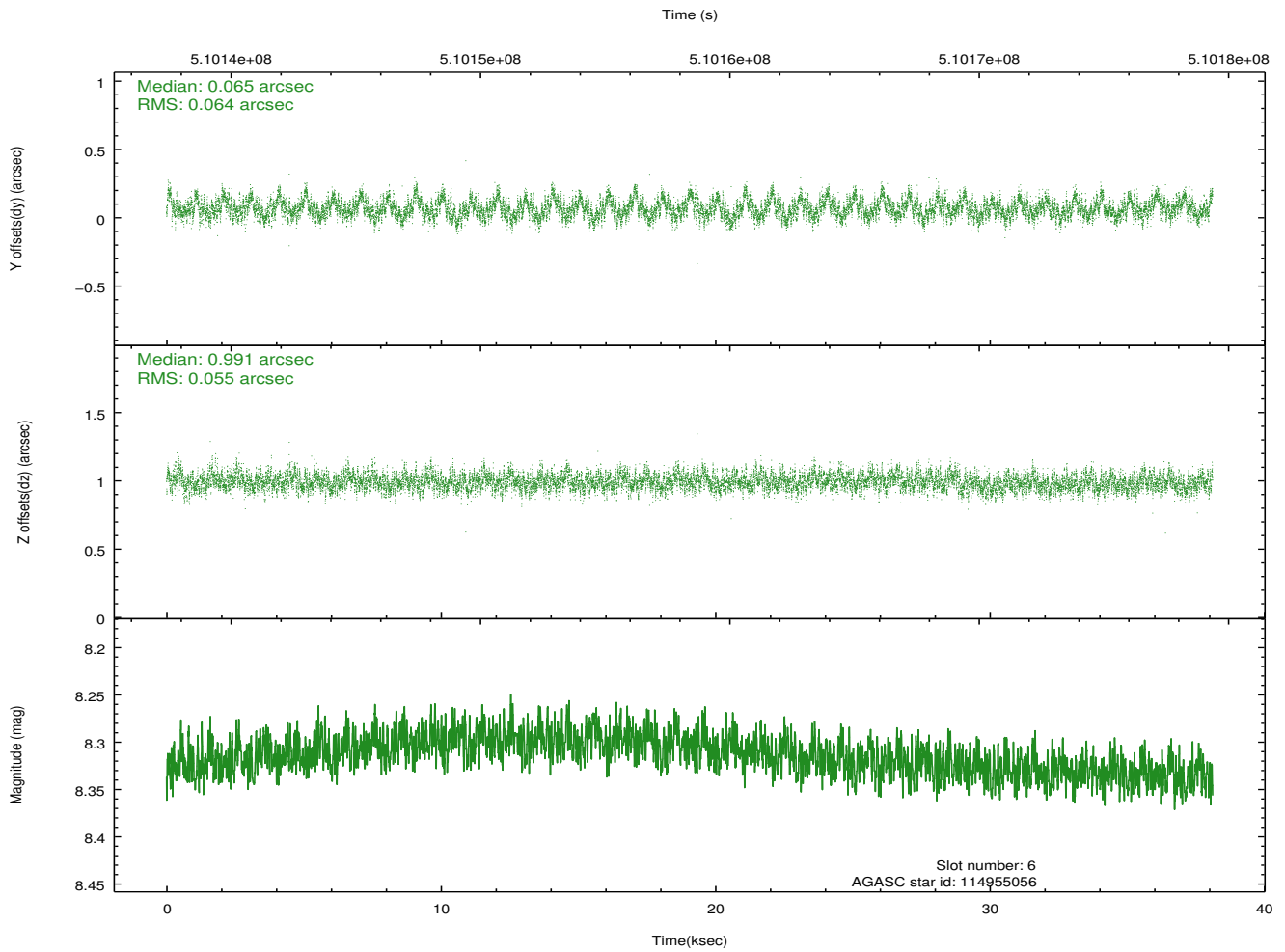
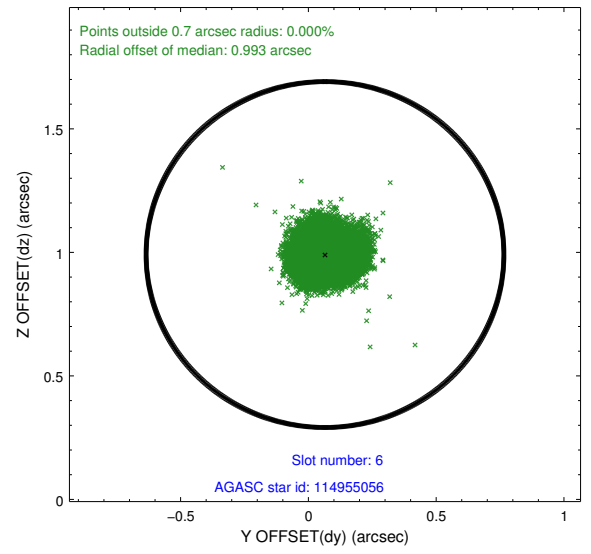
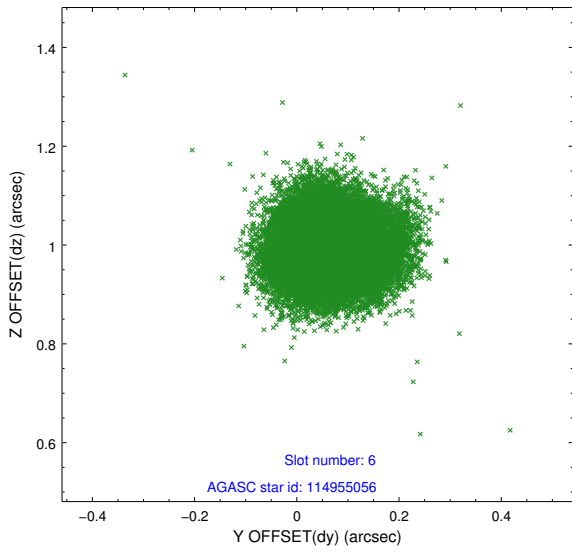
2.4.2 Slot 4



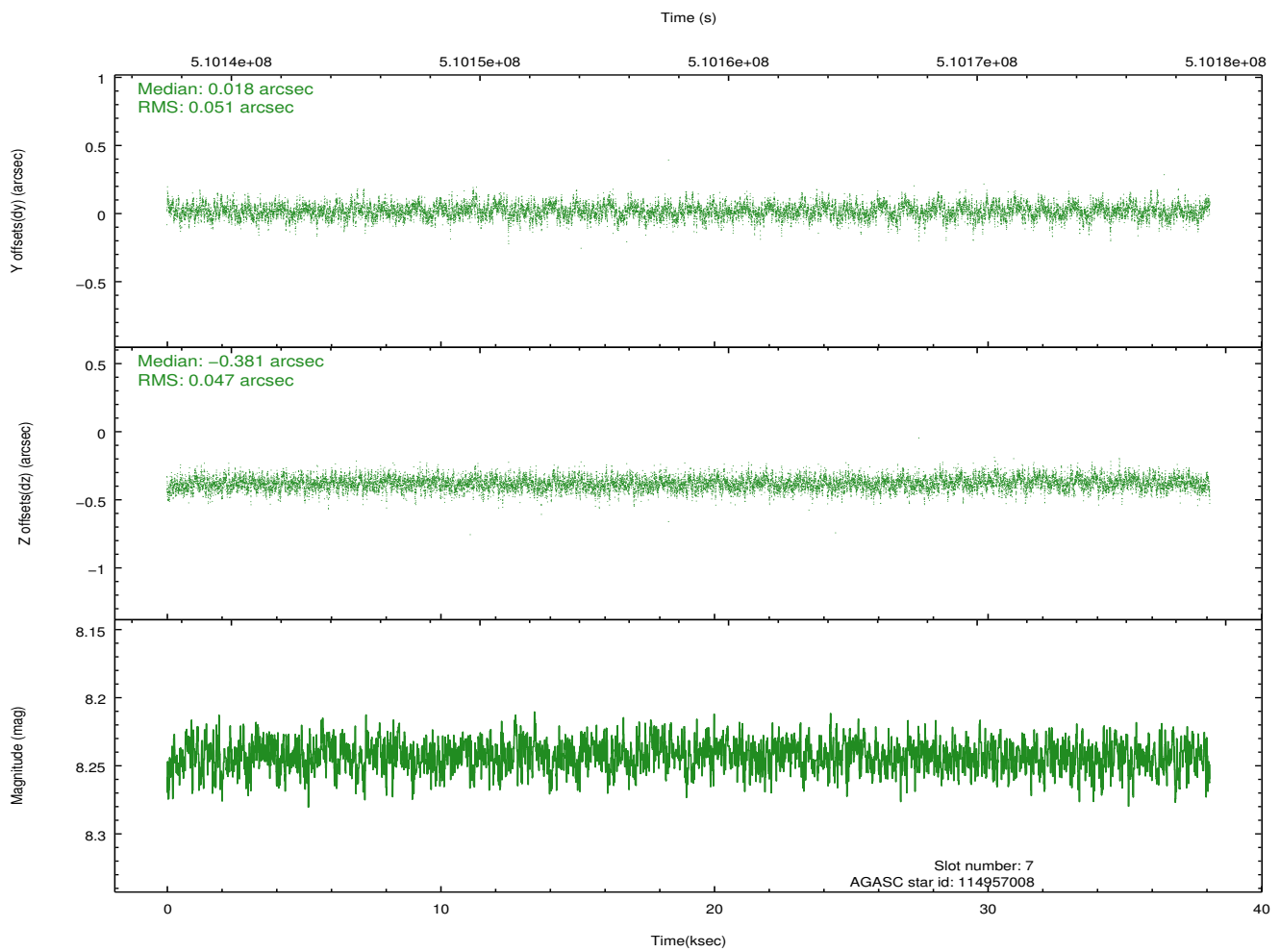
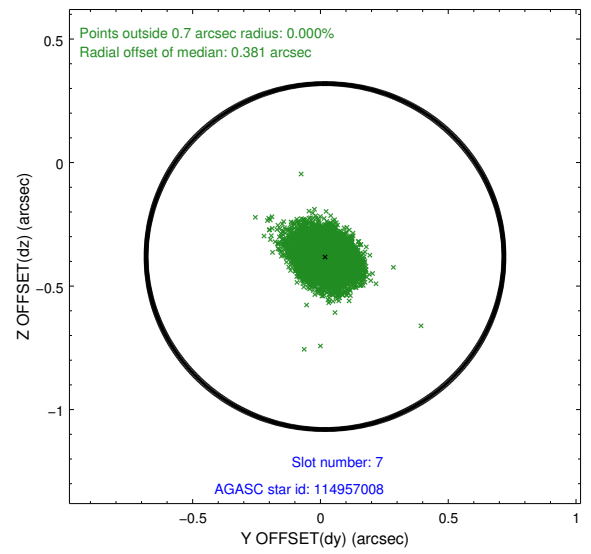
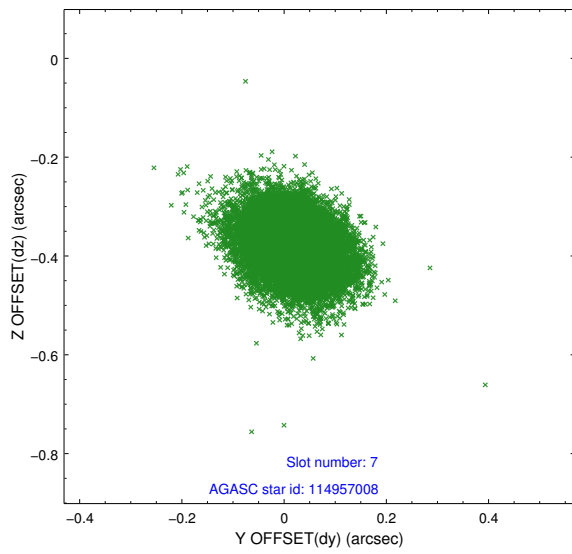
2.4.3 Slot 5



2.4.4 Slot 6

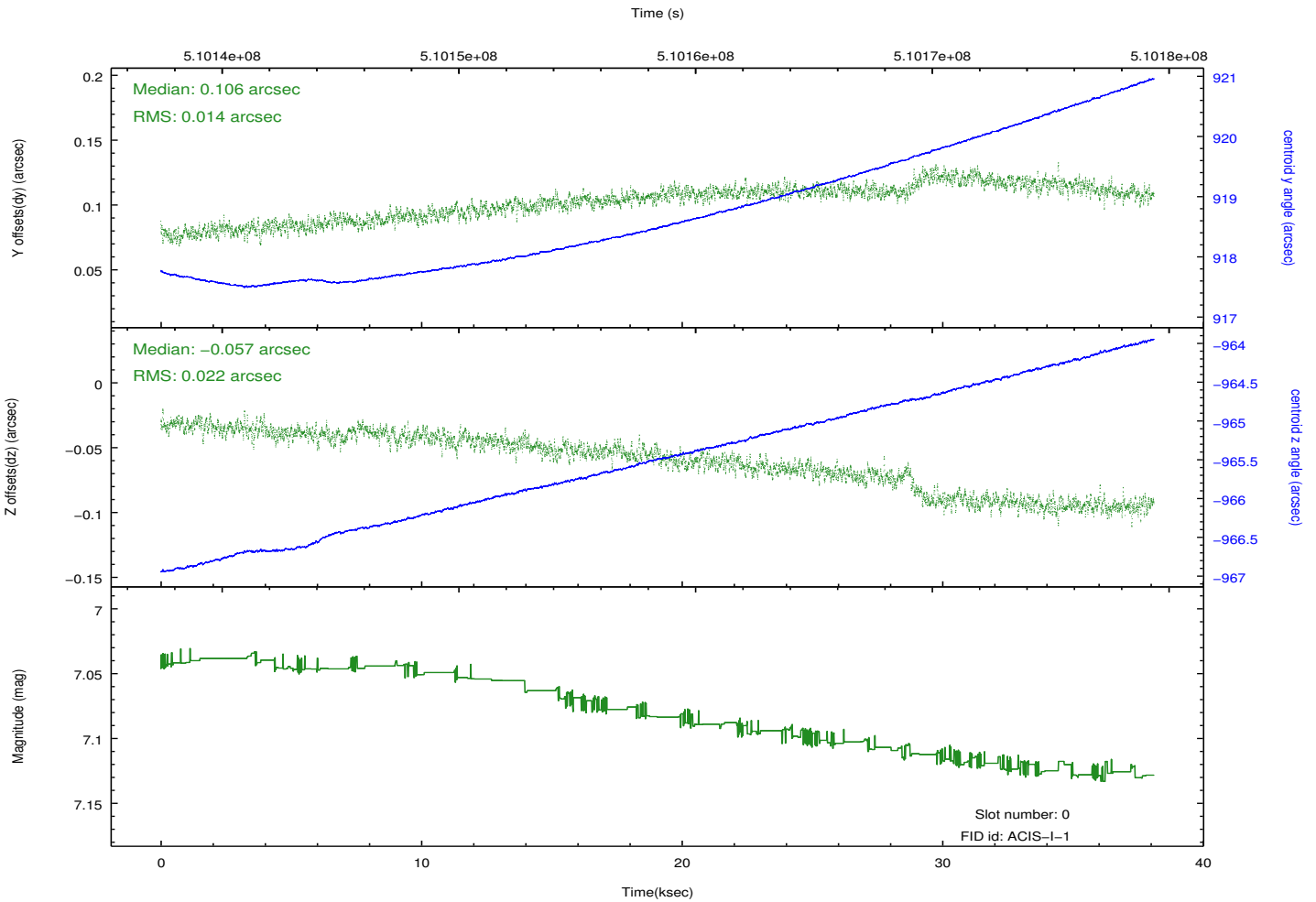
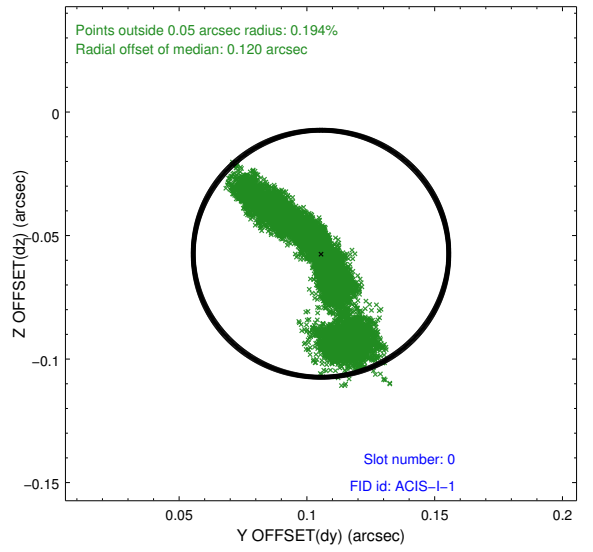
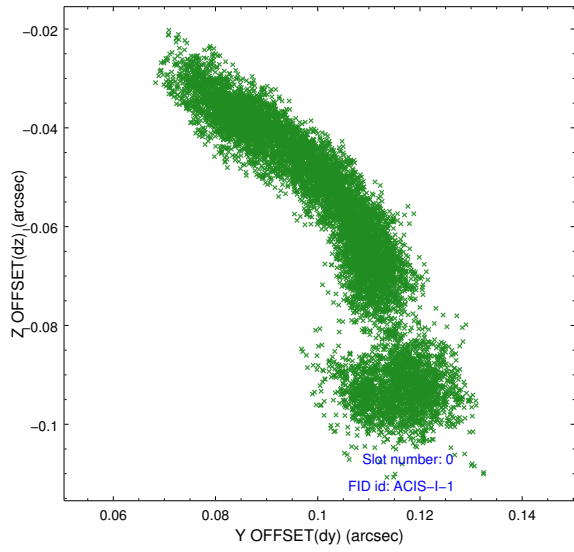


2.4.5 Slot 7

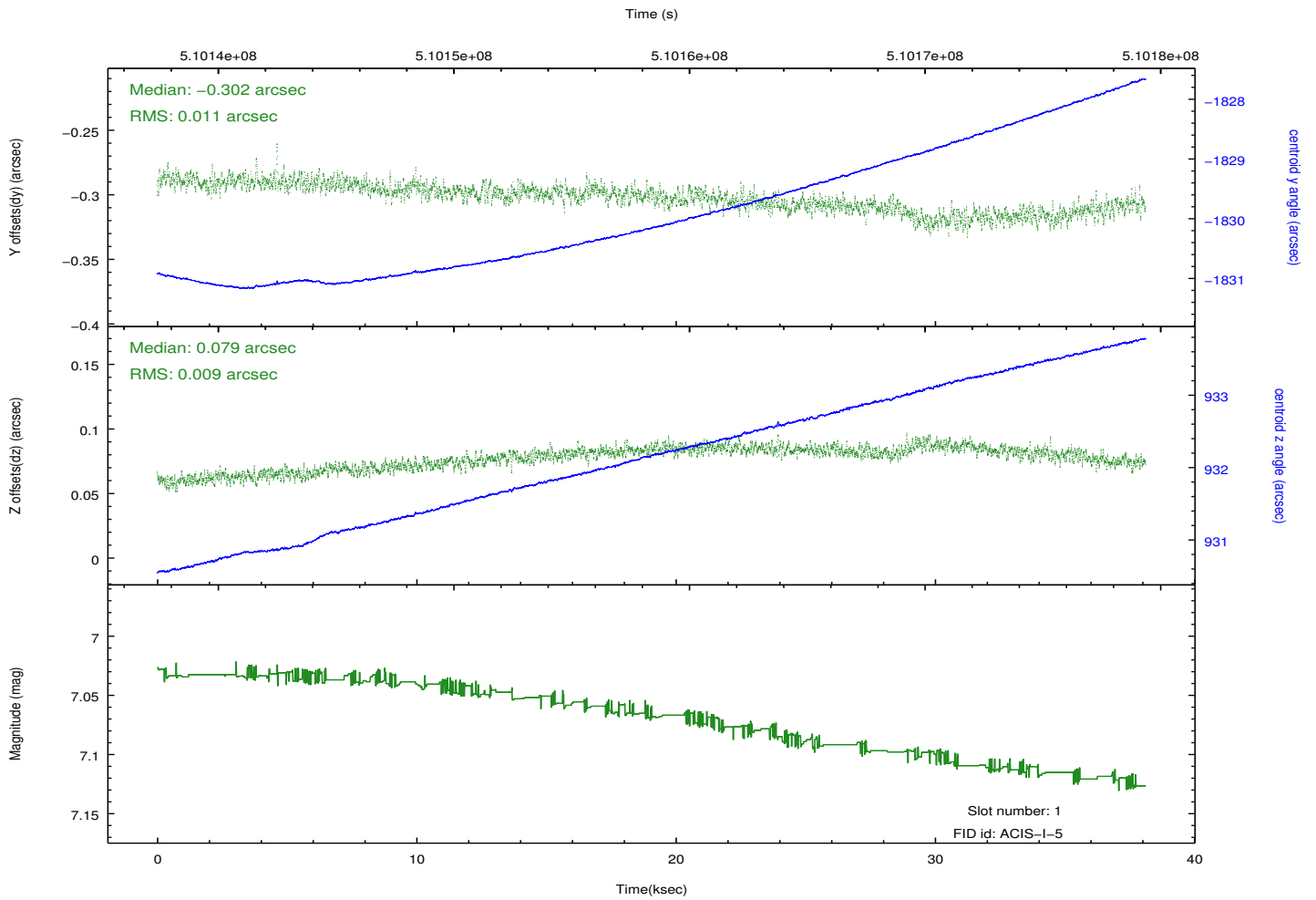
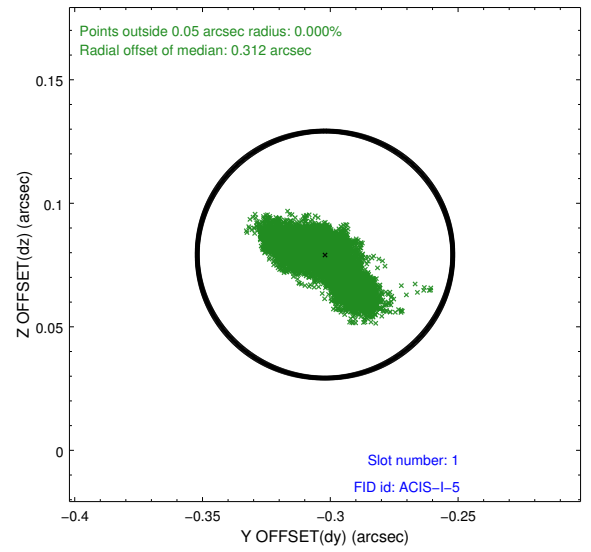
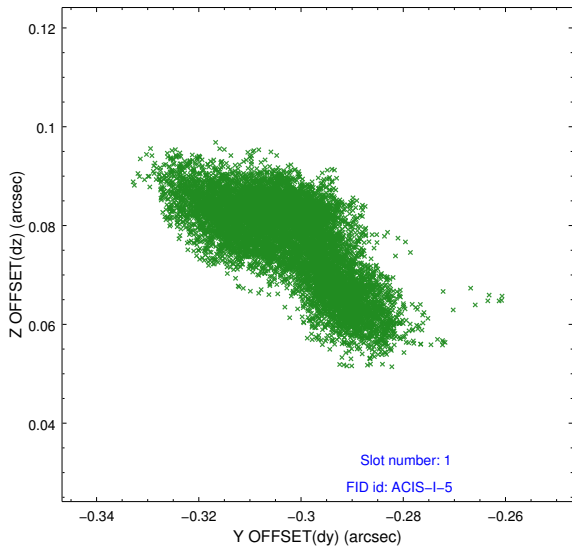


2.5 FID Slots

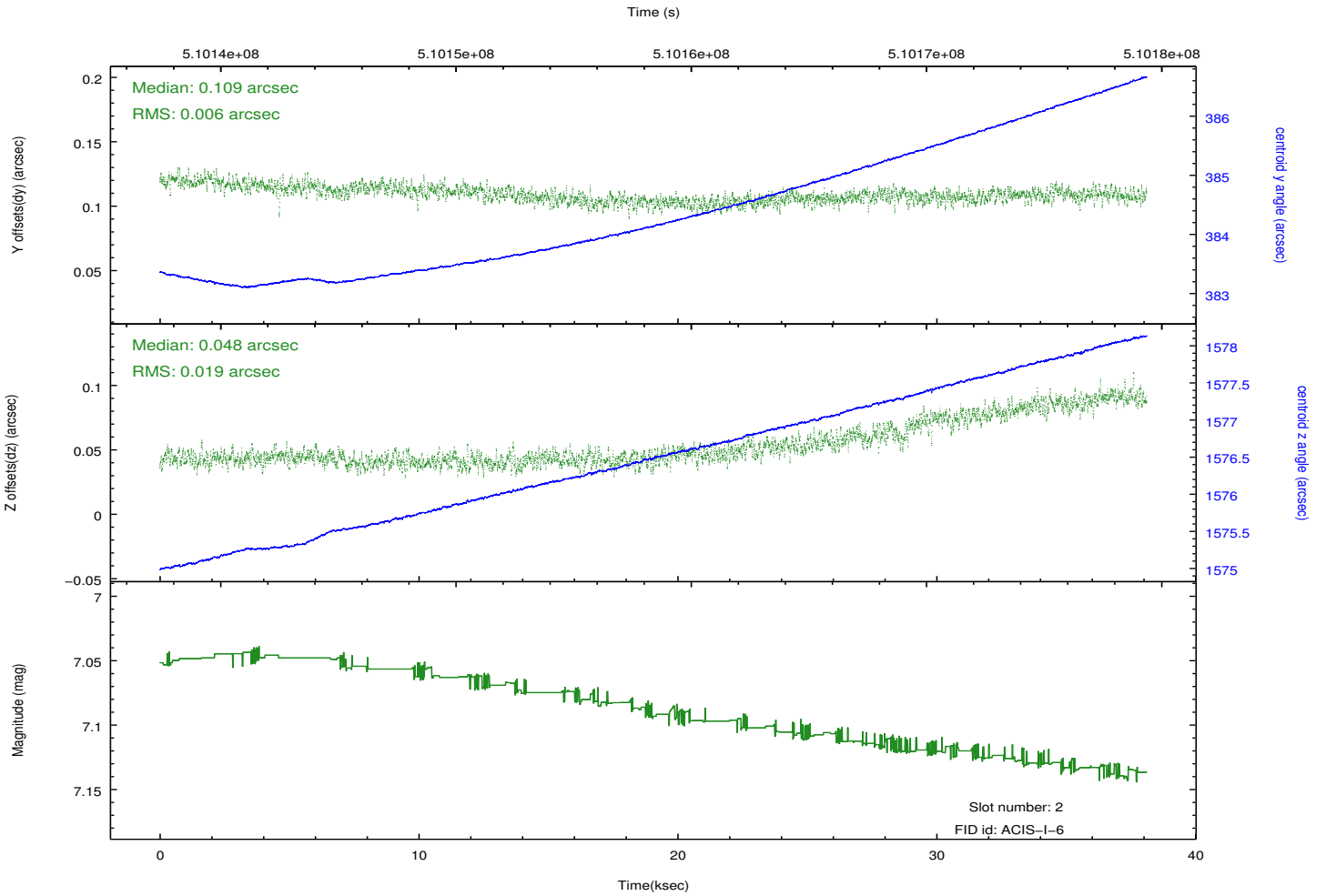
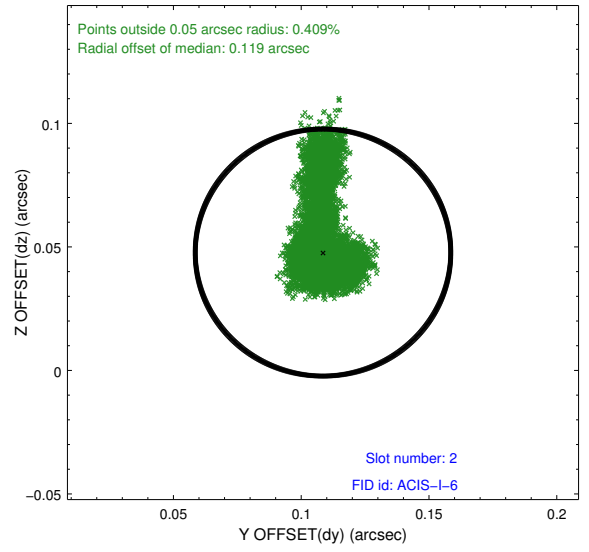
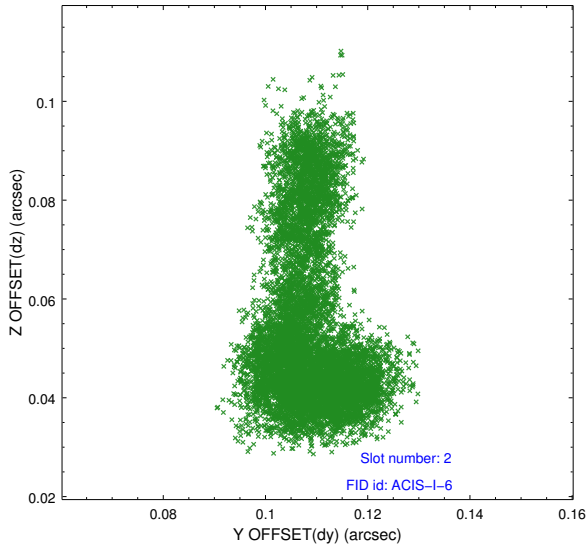
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	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	38.083377212048

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.