

V&V Reference Report

L2 ASCDS Version : 10.1.1

Observation 14536 - L2 Version 2
Chandra X-Ray Center

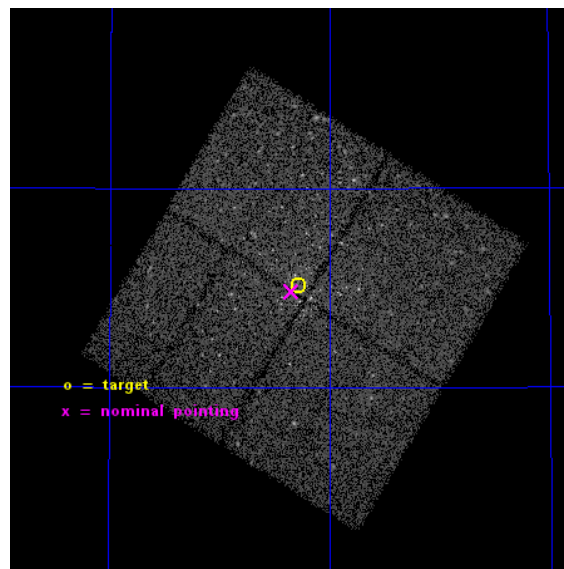
L2 Processing Date : Dec 9 2014

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Bias	3
2.1.3	Parameters	4
2.1.4	Events	4
2.2	Compared Parameters	5
2.3	Aspect	6
2.4	Star Slots	9
2.4.1	Slot 3	9
2.4.2	Slot 4	10
2.4.3	Slot 5	11
2.4.4	Slot 6	12
2.4.5	Slot 7	13
2.5	FID Slots	14
2.5.1	Slot 0	14
2.5.2	Slot 1	15
2.5.3	Slot 2	16
A	Summary	17
A.1	Status	17
A.2	Comments	17

1 Front

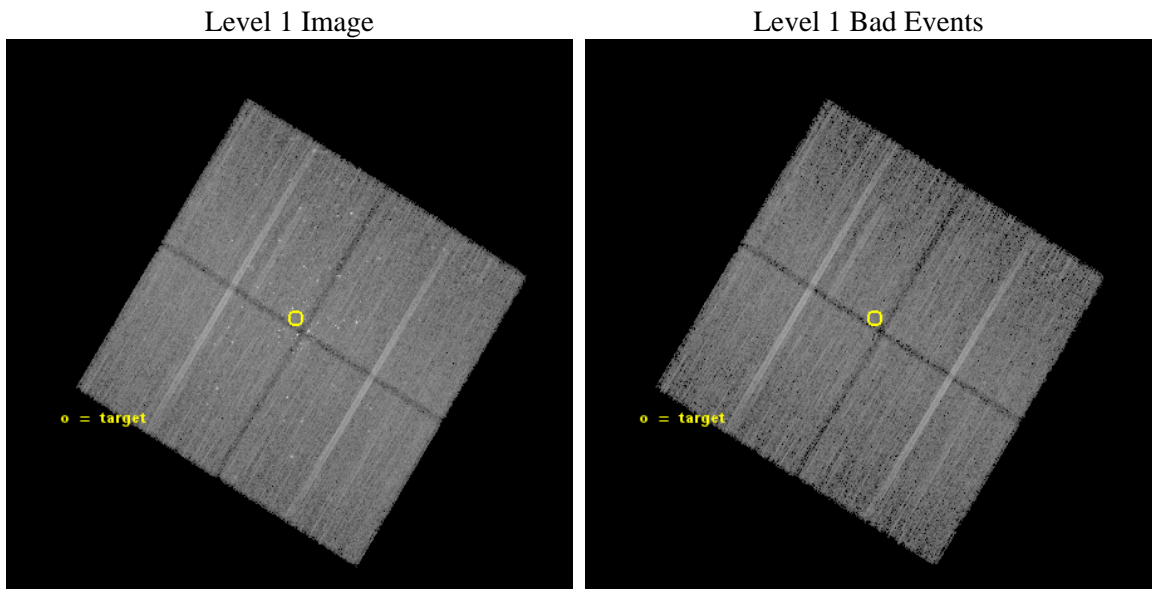
seq_num	200837	Sequence number
obs_id	14536	Observation id
title	Portrait of a Giant HII Bubble: Star Formation Processes in the Cepheus Loop	Proposal title
observer	Dr. Konstantin Getman	Principal investigator
object	Be59	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	0.570833	Observer's specified target RA [deg]
dec_targ	67.419194	Observer's specified target Dec [deg]
ra_nom	0.58666657236128	Nominal RA [deg]
dec_nom	67.41386748336	Nominal Dec [deg]
roll_nom	301.51177870045	Nominal Roll [deg]
revision	2	Processing version of data
ontime	46090.590190768	Sum of GTIs [s]
livetime	45488.382698527	Livetime [s]
ontime0	46087.326060414	Sum of GTIs [s]
ontime1	46090.508110762	Sum of GTIs [s]
ontime2	46087.408130467	Sum of GTIs [s]
ontime3	46090.590190768	Sum of GTIs [s]
l2events	101834	Number of level 2 events



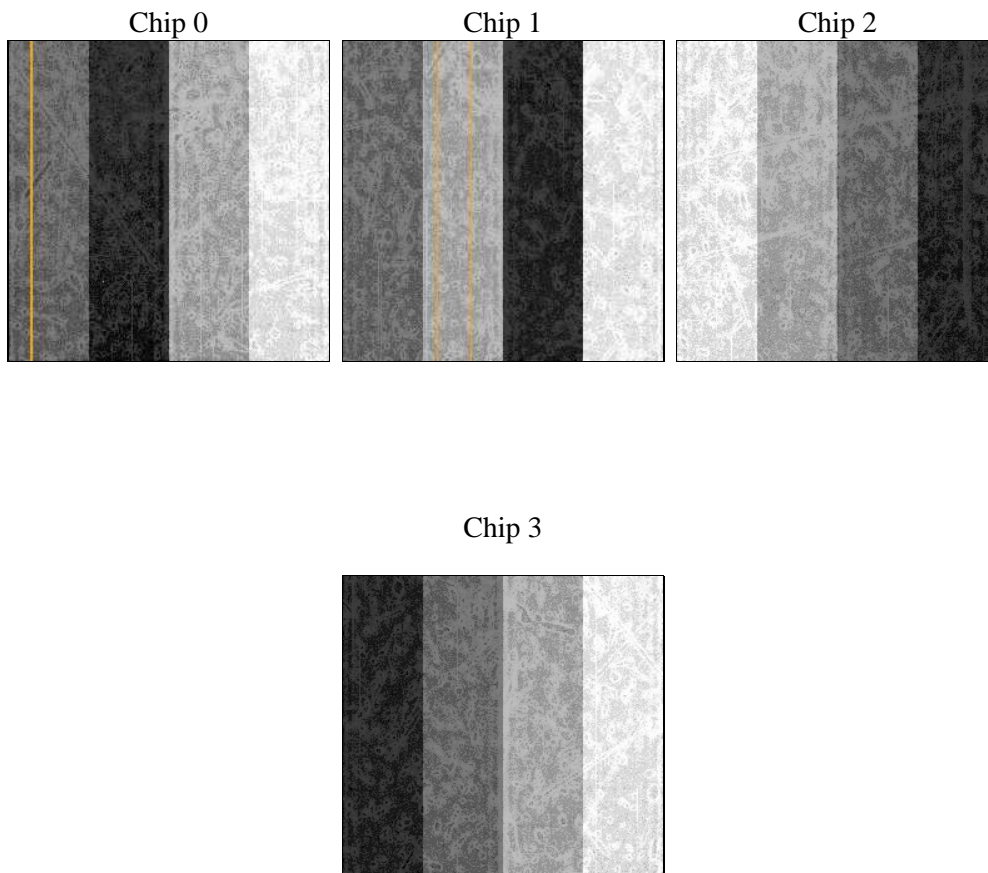
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	46000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	46090.590190768	Sum of GTIs [s]
caldsver	4.6.4	 	ontime0	46087.326060414	Sum of GTIs [s]
date	2014-12-09T21:54:49	Date and time of file creation	ontime1	46090.508110762	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	46087.408130467	Sum of GTIs [s]
			ontime3	46090.590190768	Sum of GTIs [s]
			l1events	786747	Number of level 1 events

2.1.4 Events

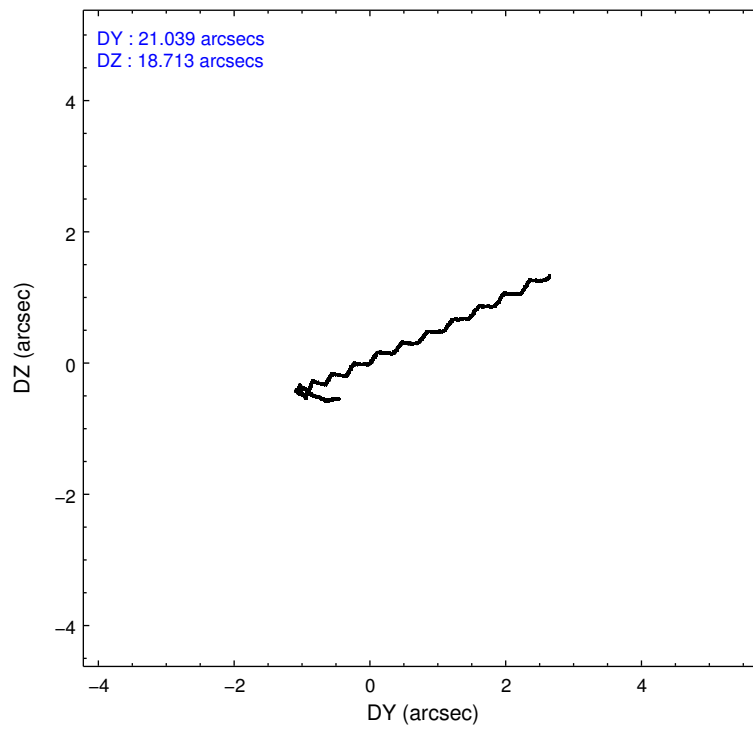
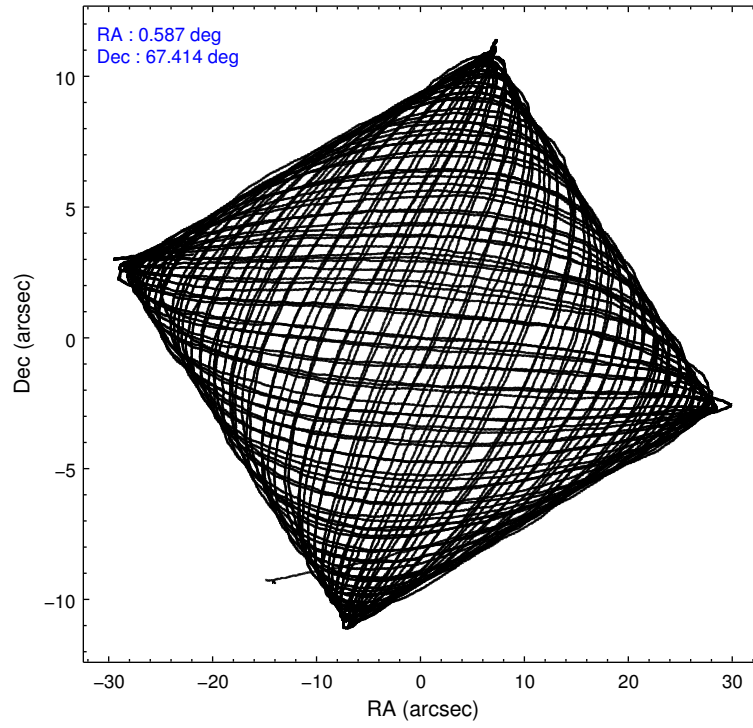
	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	185491	192092	209126	200038
rejected events	158738	159987	181394	167384
rejected %	85%	83%	86%	83%

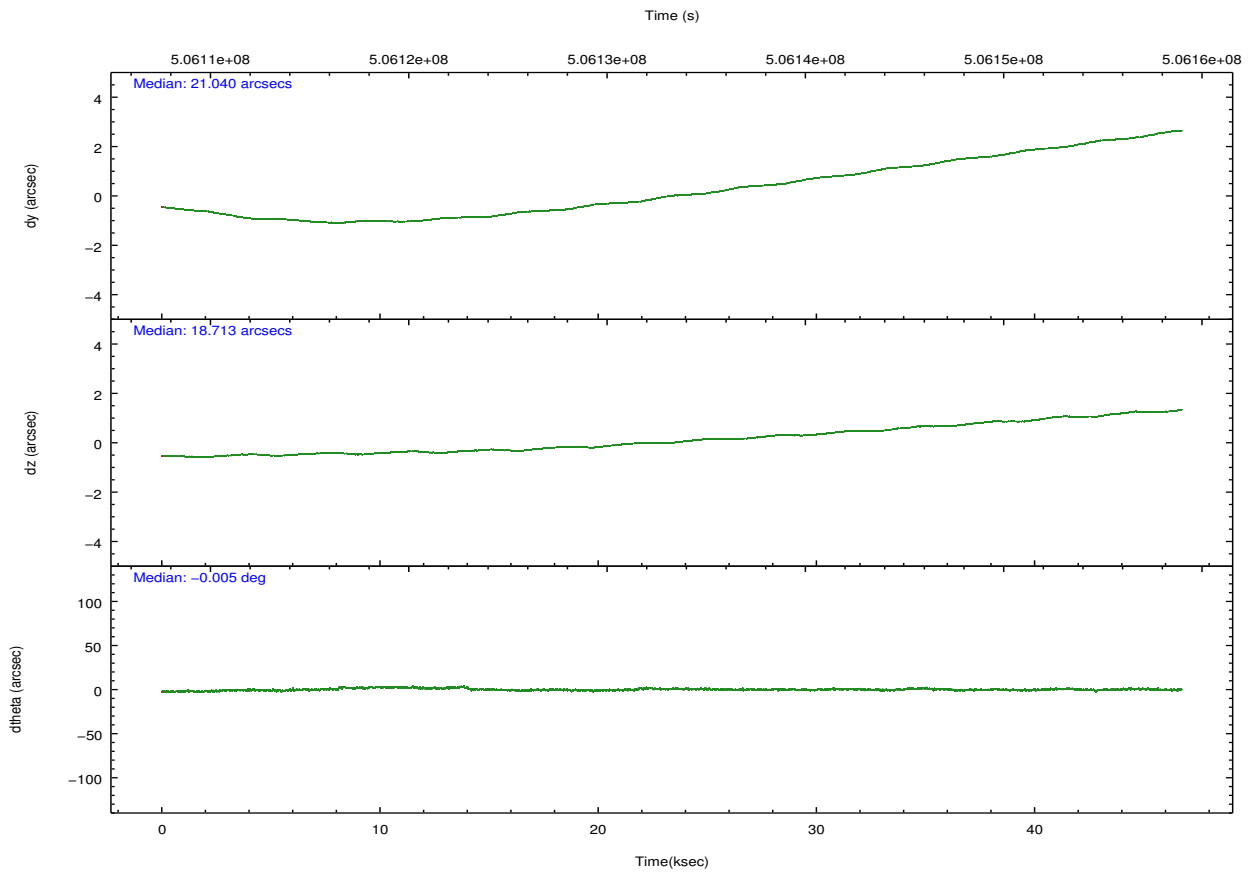
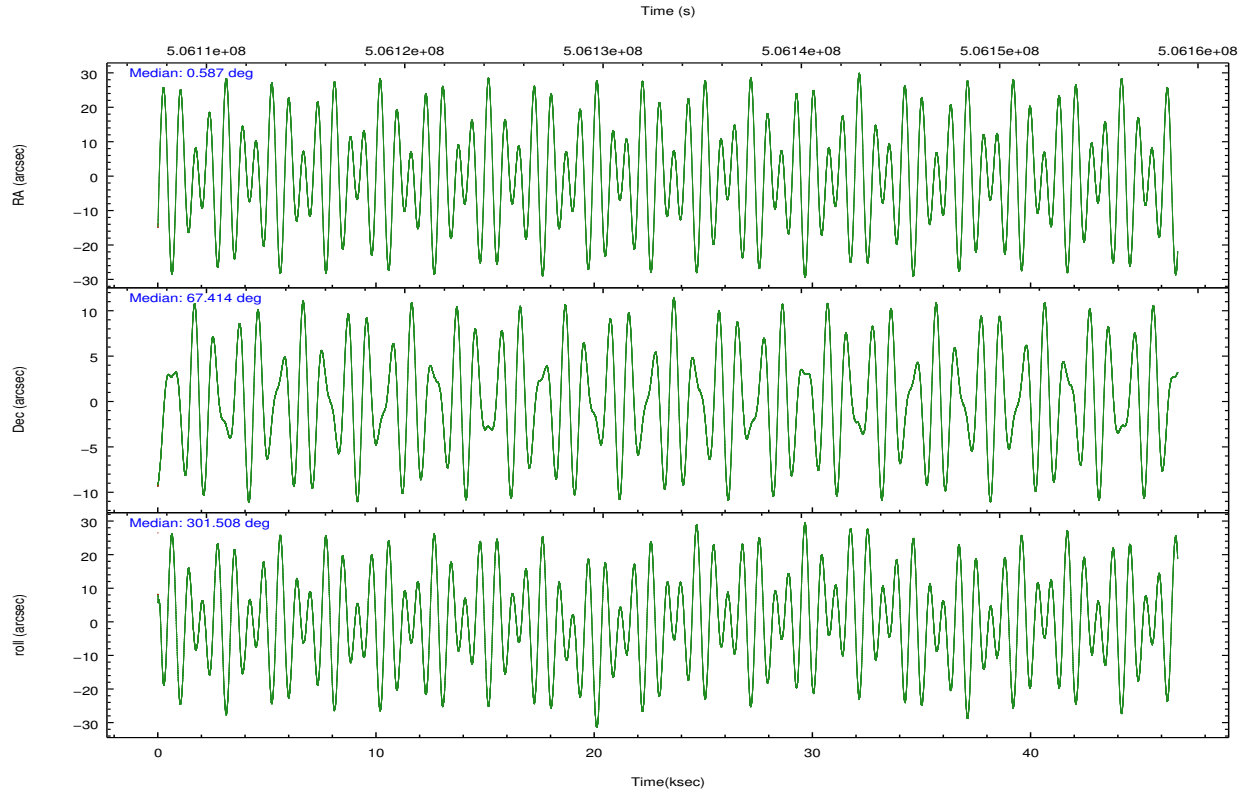
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	11017	14301	12264	16400
	5%	7%	5%	8%
grade 1 events	116	130	141	136
	0%	0%	0%	0%
grade 2 events	6215	6808	6079	6086
	3%	3%	2%	3%
grade 3 events	2502	2708	2470	2722
	1%	1%	1%	1%
grade 4 events	2323	2779	2542	2682
	1%	1%	1%	1%
grade 5 events	8135	8817	7416	9346
	4%	4%	3%	4%
grade 6 events	4696	5510	4380	4768
	2%	2%	2%	2%
grade 7 events	150487	151039	173834	157898
	81%	78%	83%	78%

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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	0.523581	0.5866665723612812	Subarray requested	NONE	NONE
[deg] Pointing Dec	67.426867	67.41386748336012	Alternating exposures requested	N	N
[deg] Pointing Roll	301.361344	301.5117787004485	[s] Primary exposure time	0.000000	3.1
[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)	506110630.184000	506109149.57177			
Observation start date	2014-01-14T18:16:03	2014-01-14T17:52:29			
[s] Observation end time (MET)	506156630.184000	506157246.67439			
Observation end date	2014-01-15T07:02:43	2014-01-15T07:14:06			
Read mode	TIMED	TIMED			

2.3 Aspect





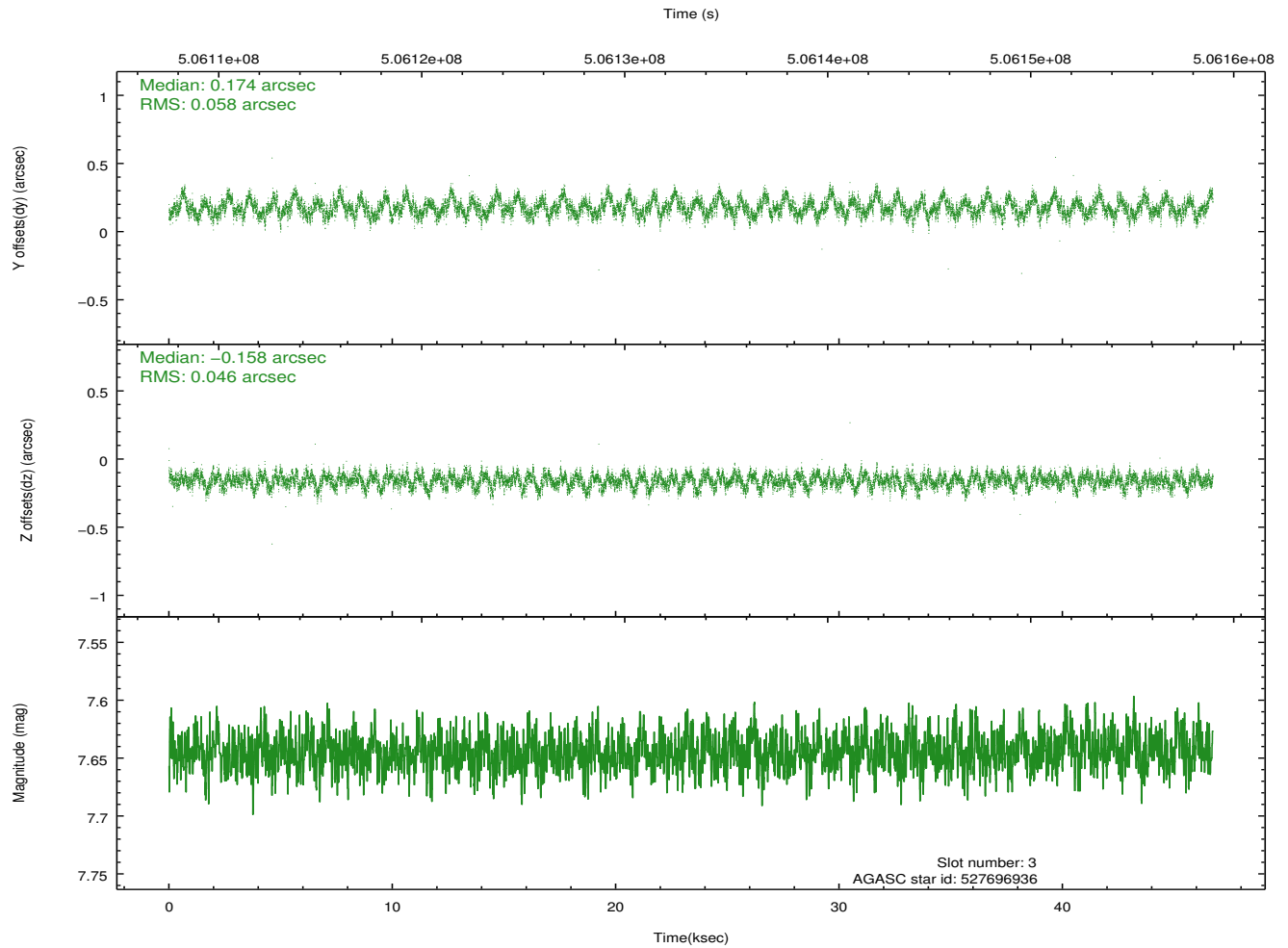
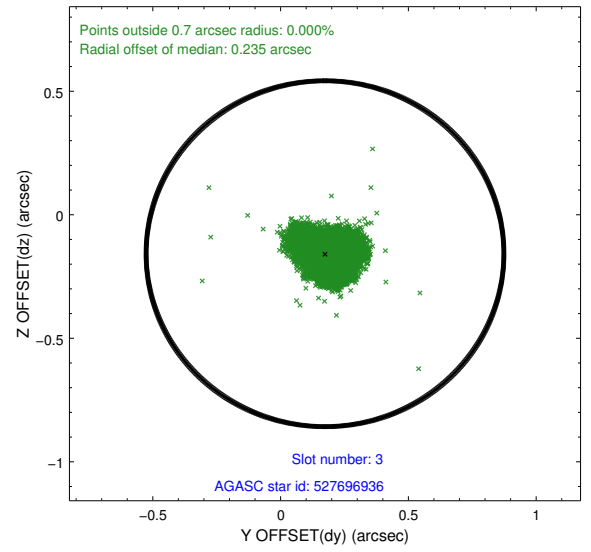
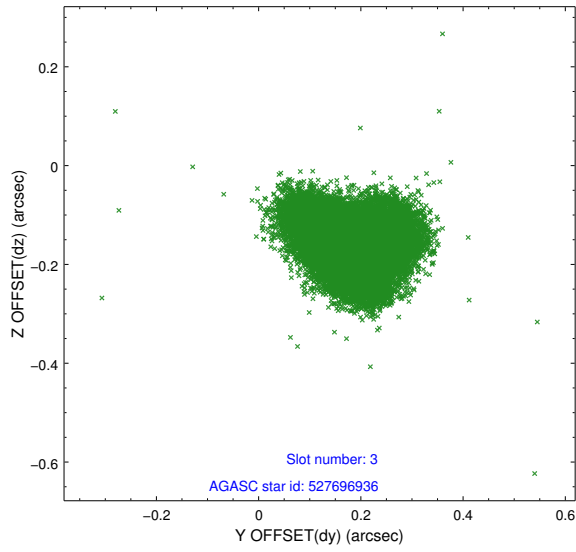
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.13	11399	-0.037	-0.026	0.020	0.032	0.000000	0.000000	917.97	-842.55
1	FID		ACIS-I-4	7.06	11397	0.251	0.061	0.036	0.059	0.000000	0.000000	2138.22	1057.40
2	FID		ACIS-I-5	7.11	11399	-0.316	0.038	0.028	0.050	0.000000	0.000000	-1830.41	1055.04
3	GUIDE	used	527696936	7.65	22795	0.174	-0.158	0.080	0.126	0.602709	67.162823	869.67	-400.40
4	GUIDE	used	562693488	8.44	22792	-0.035	0.057	0.106	0.167	359.752412	66.814430	1309.32	-2076.26
5	GUIDE	used	562823808	7.06	22798	-0.026	-0.063	0.059	0.094	1.286818	67.840012	-735.79	1662.18
6	GUIDE	used	562826720	8.38	22792	-0.118	0.105	0.077	0.128	0.103663	67.851909	-1604.72	310.73
7	GUIDE	used	527699936	8.54	22792	-0.005	0.049	0.102	0.155	2.165844	67.296313	1563.12	1719.56

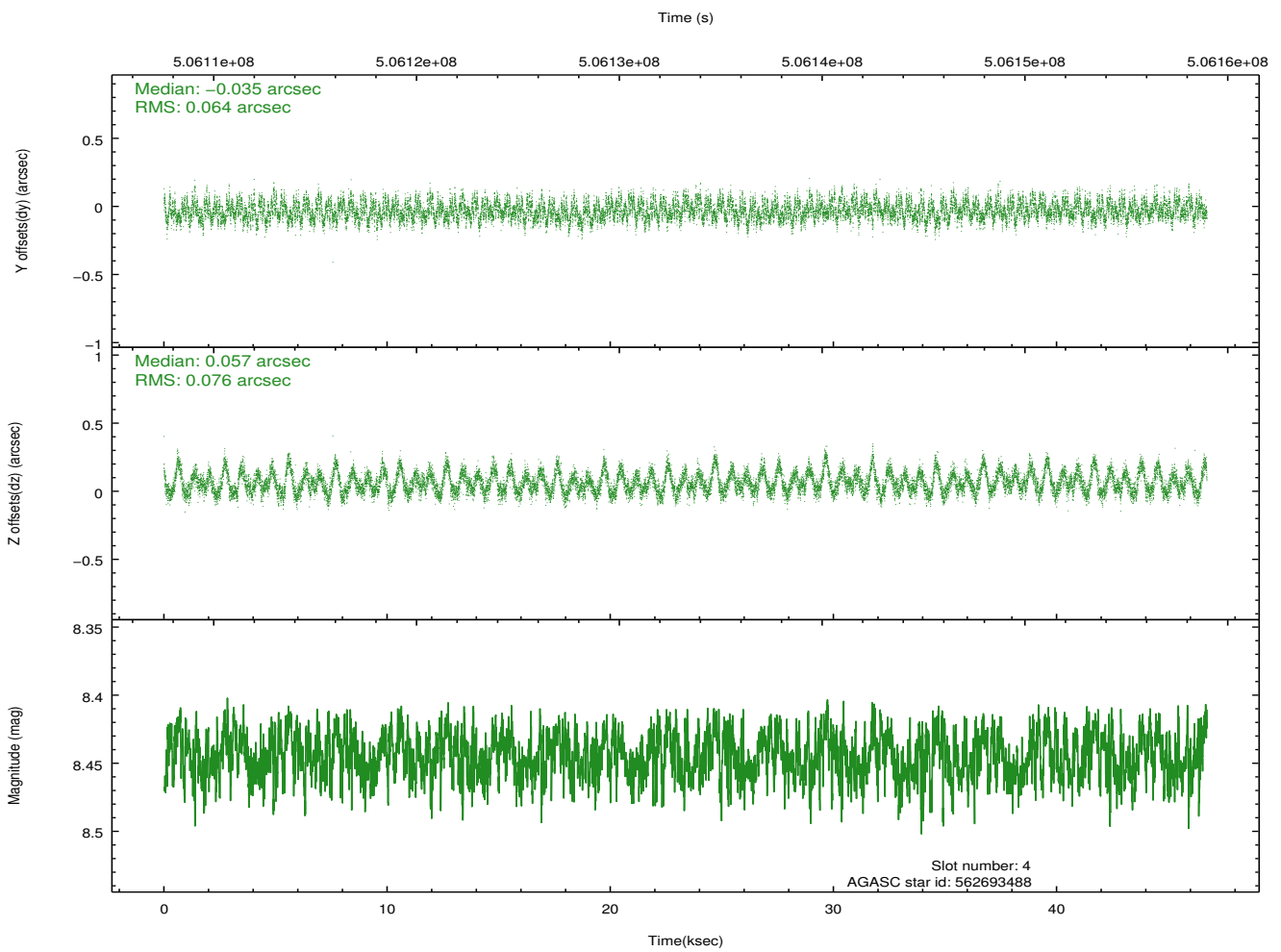
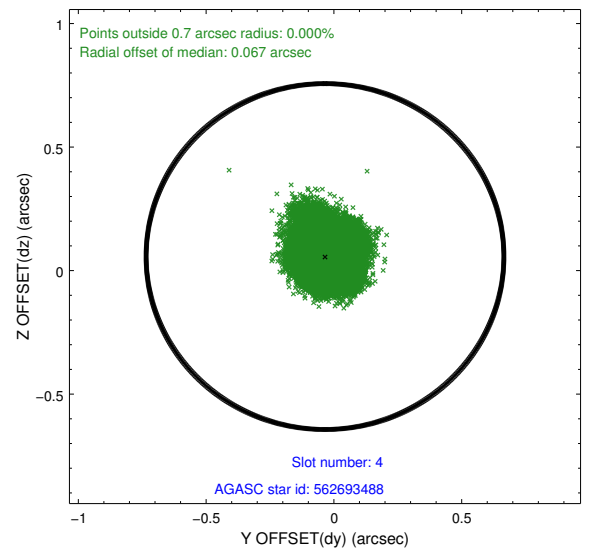
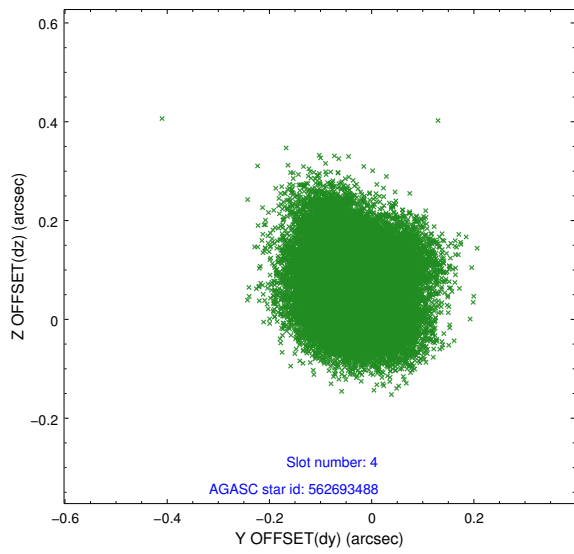
∞

2.4 Star Slots

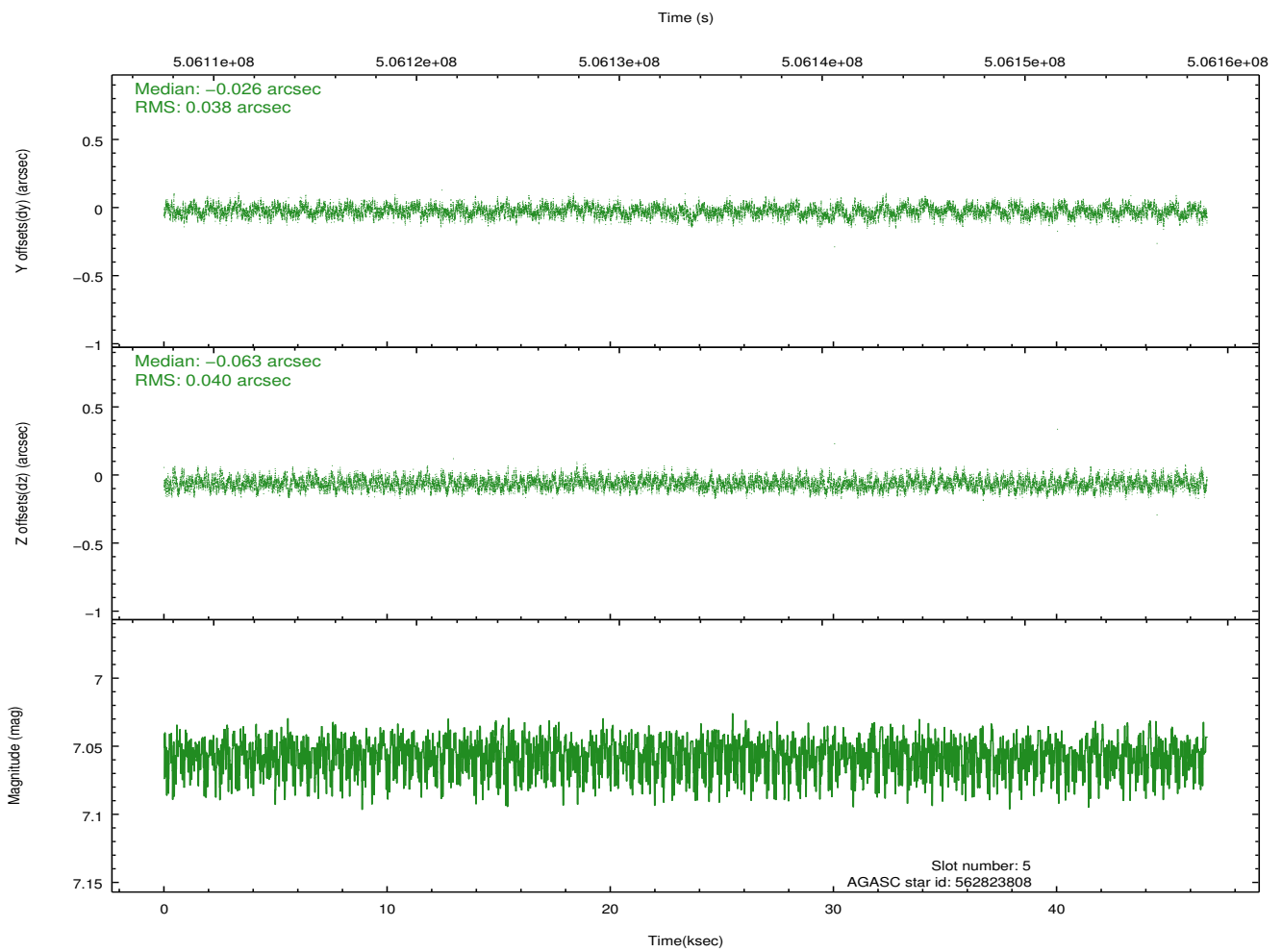
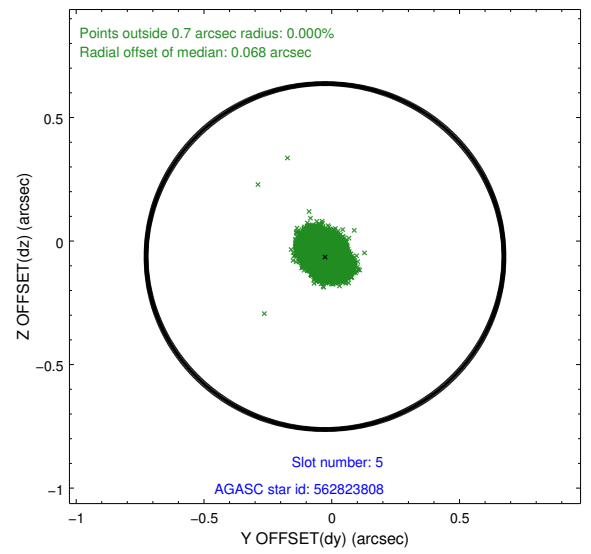
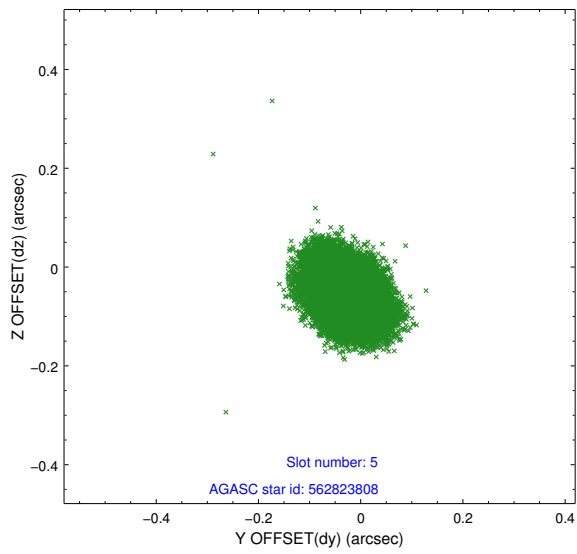
2.4.1 Slot 3



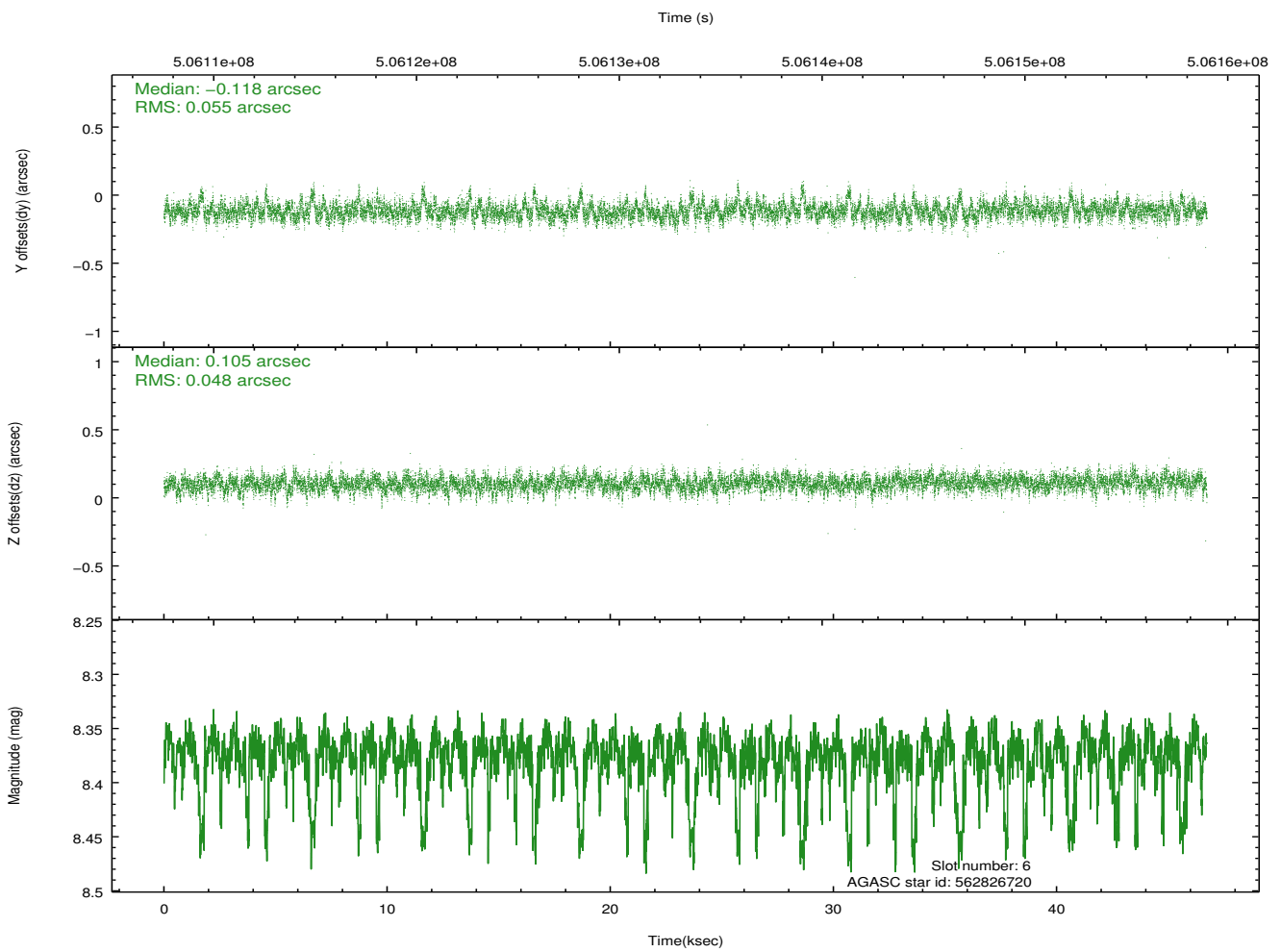
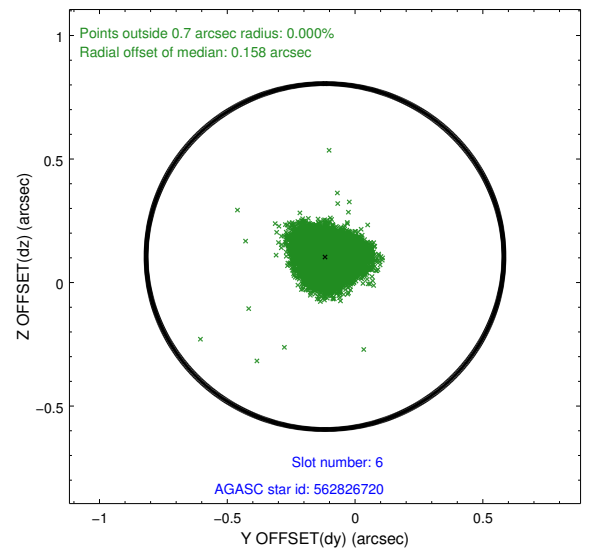
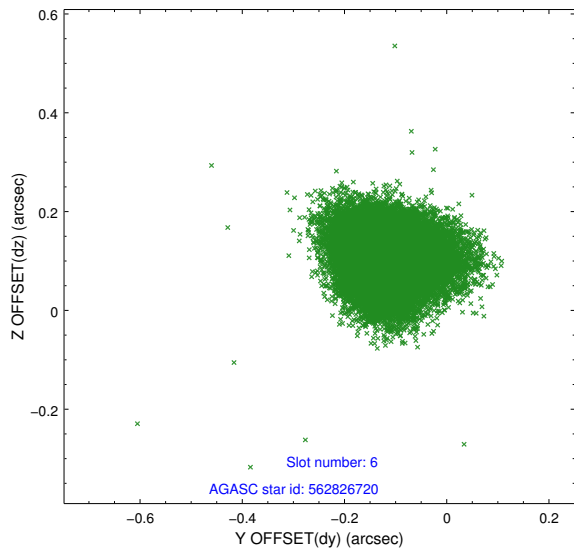
2.4.2 Slot 4



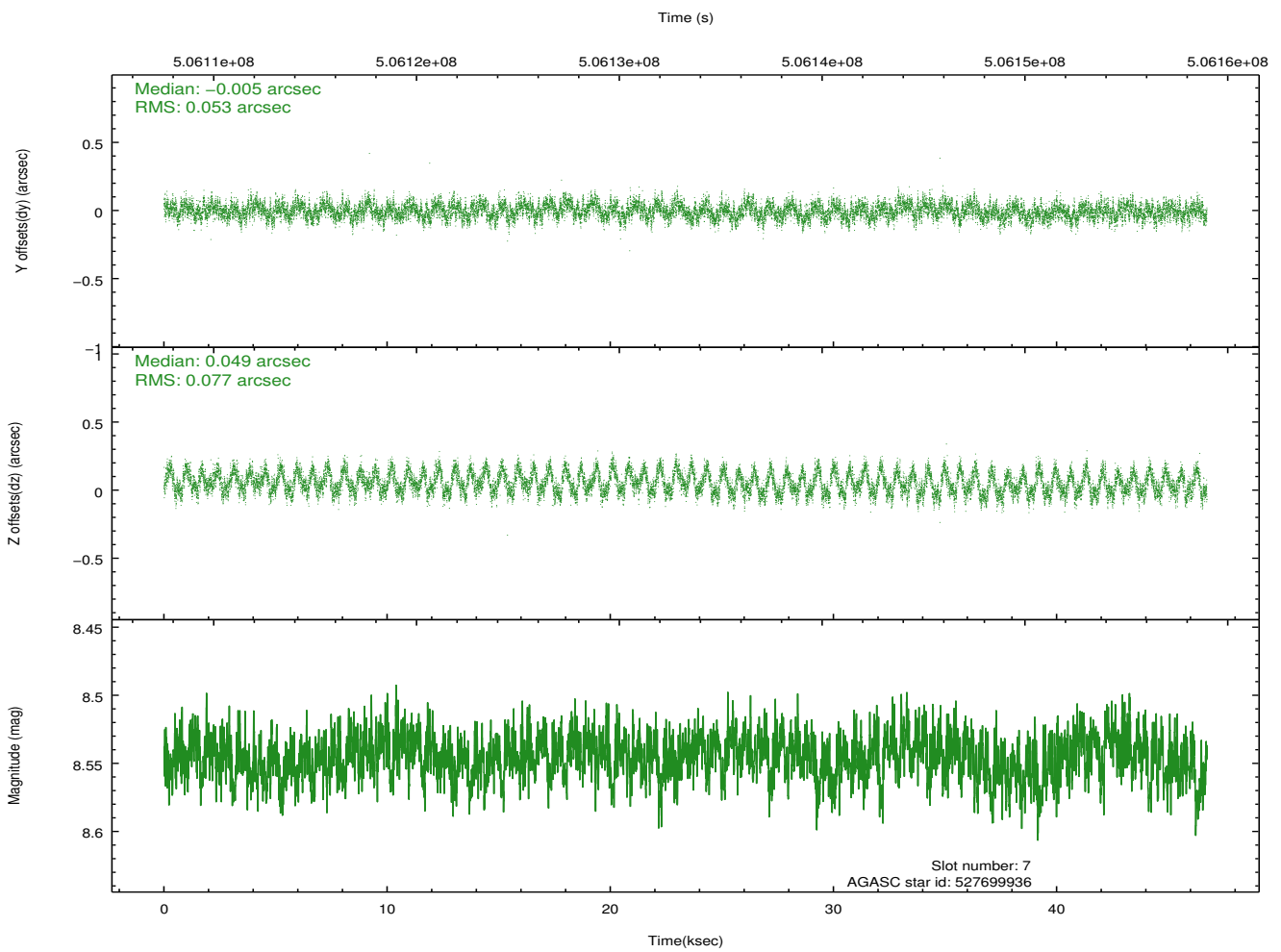
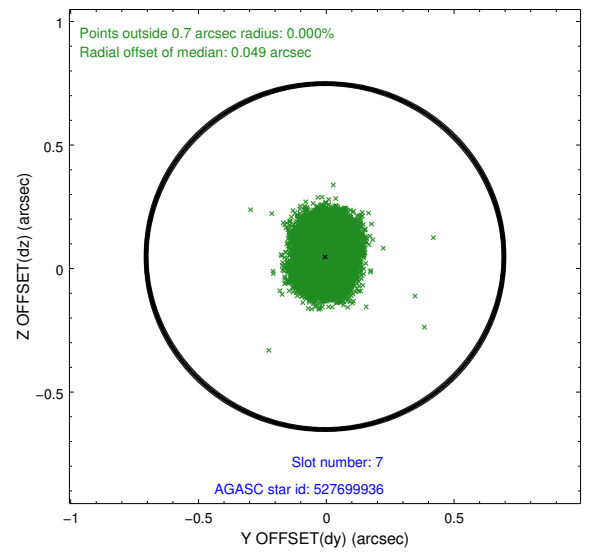
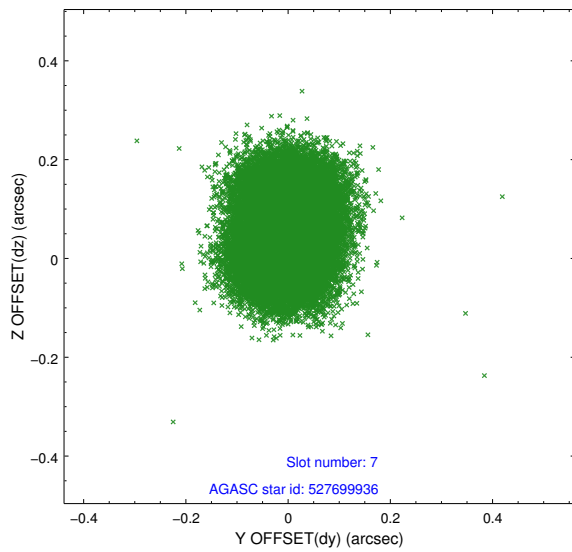
2.4.3 Slot 5



2.4.4 Slot 6

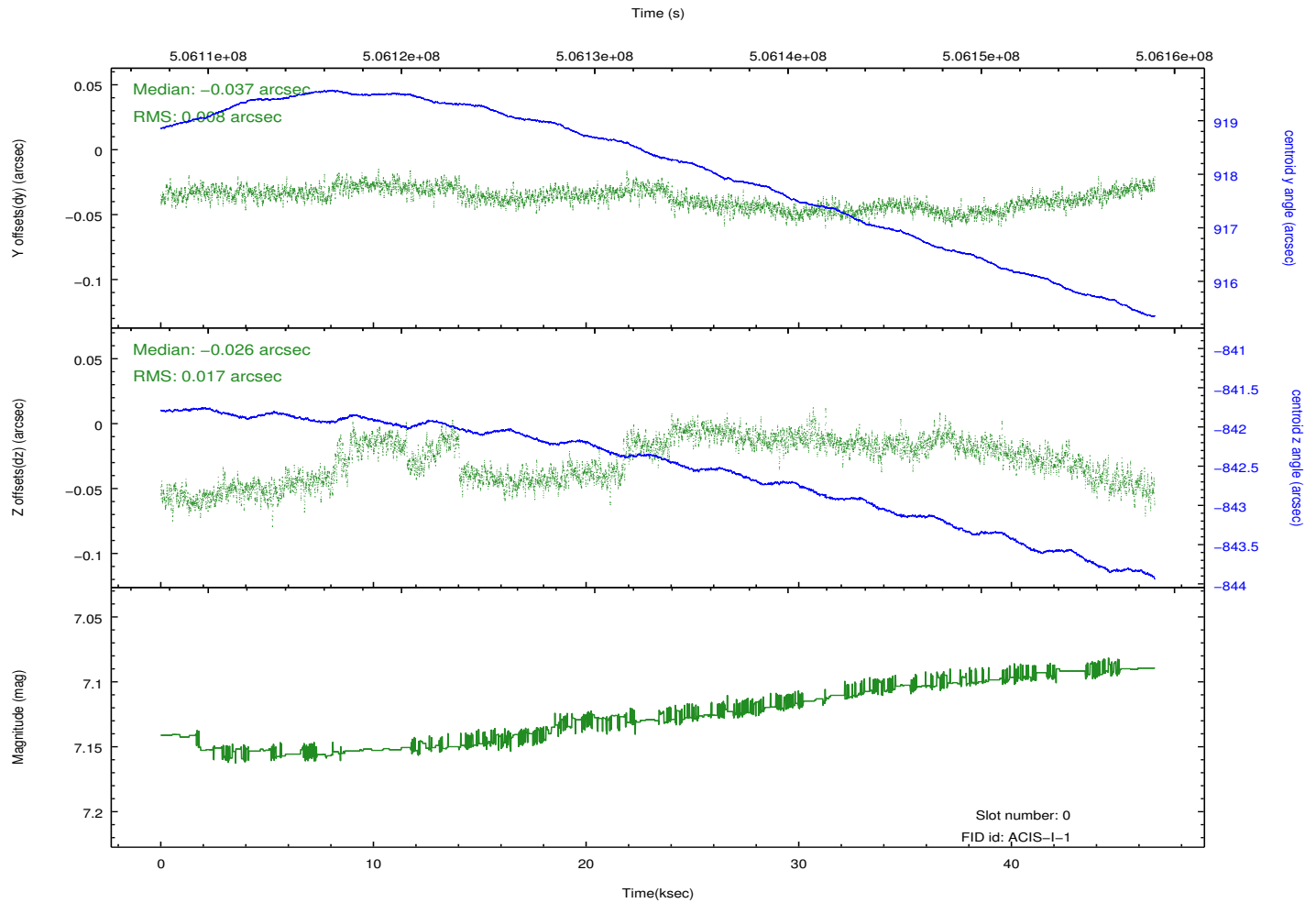
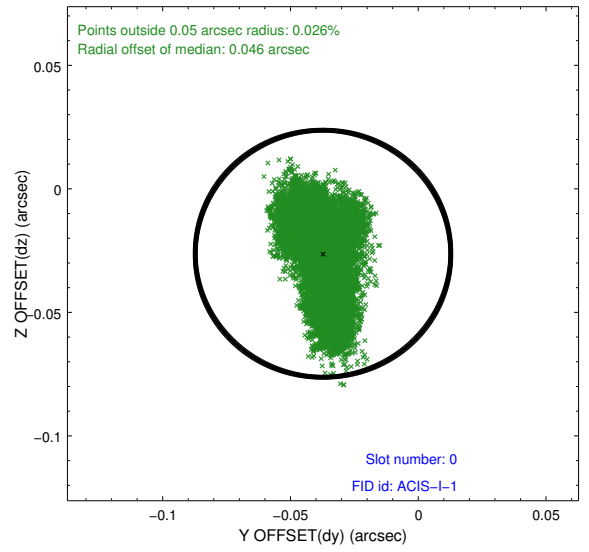
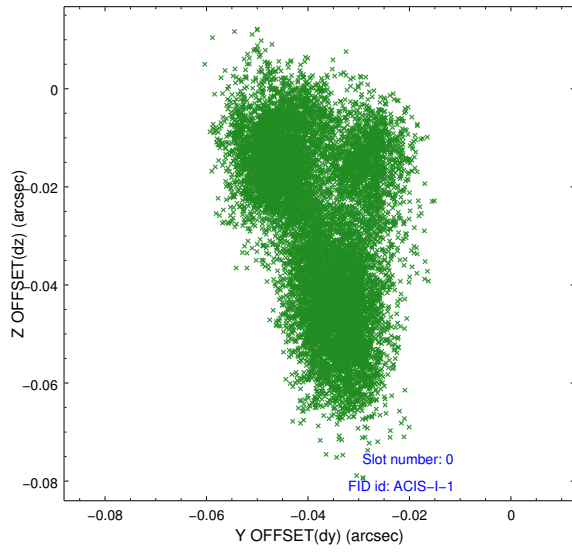


2.4.5 Slot 7

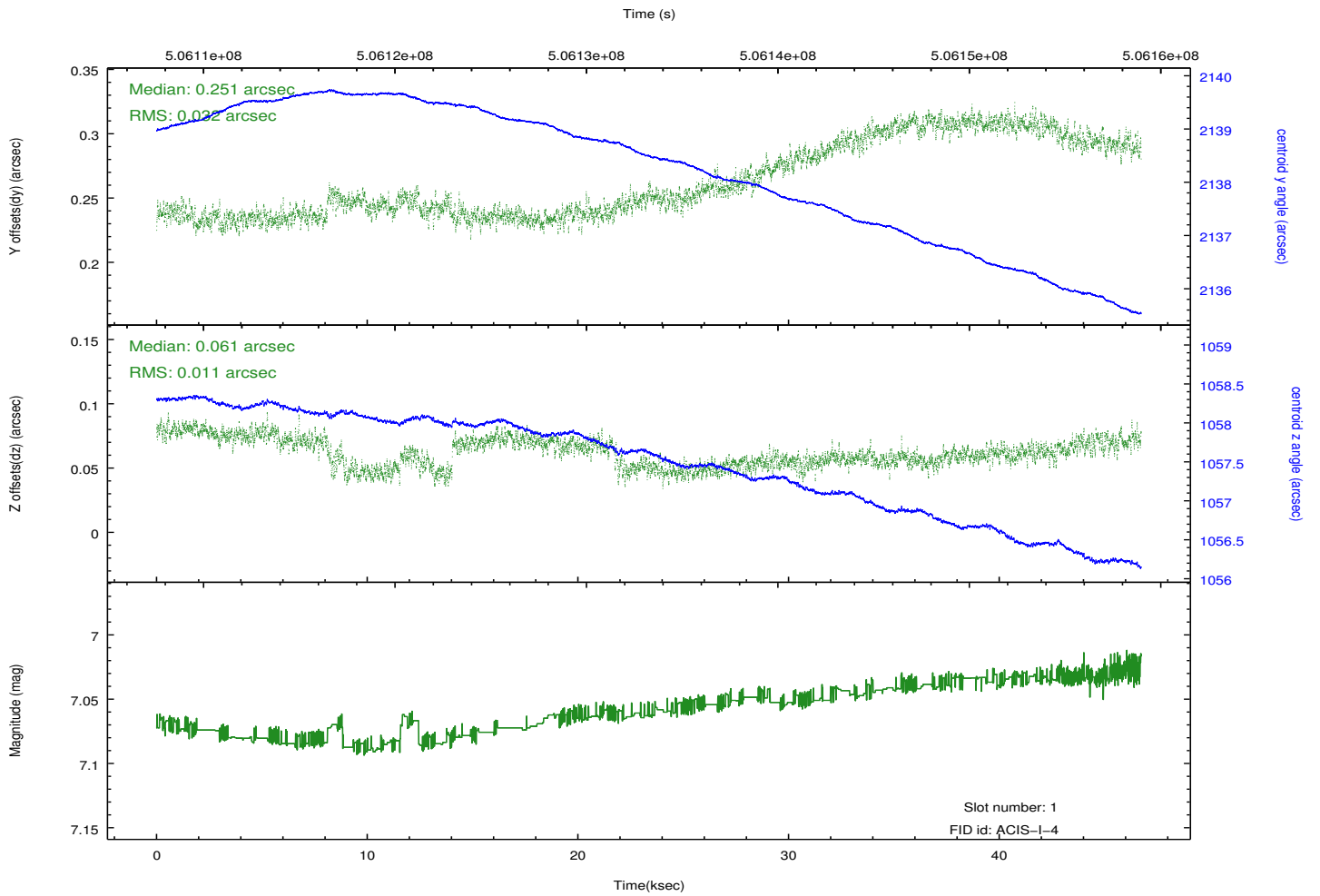
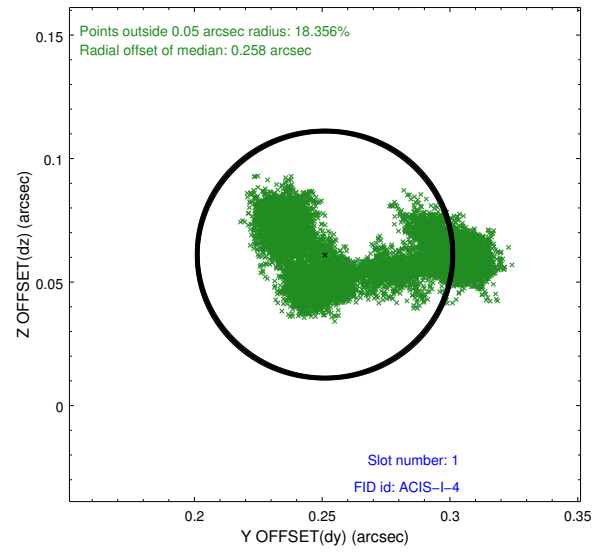
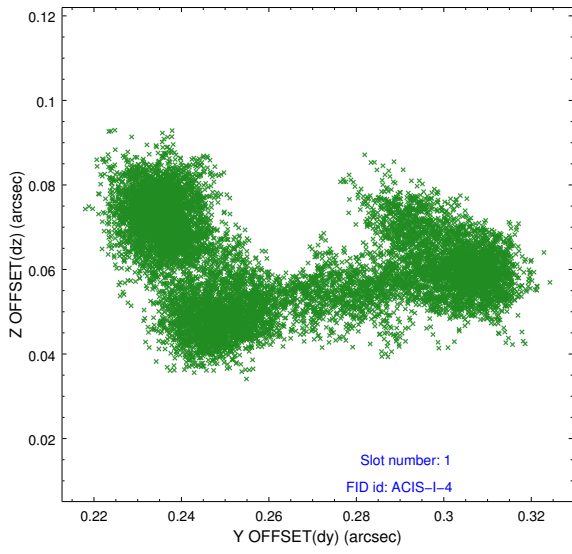


2.5 FID Slots

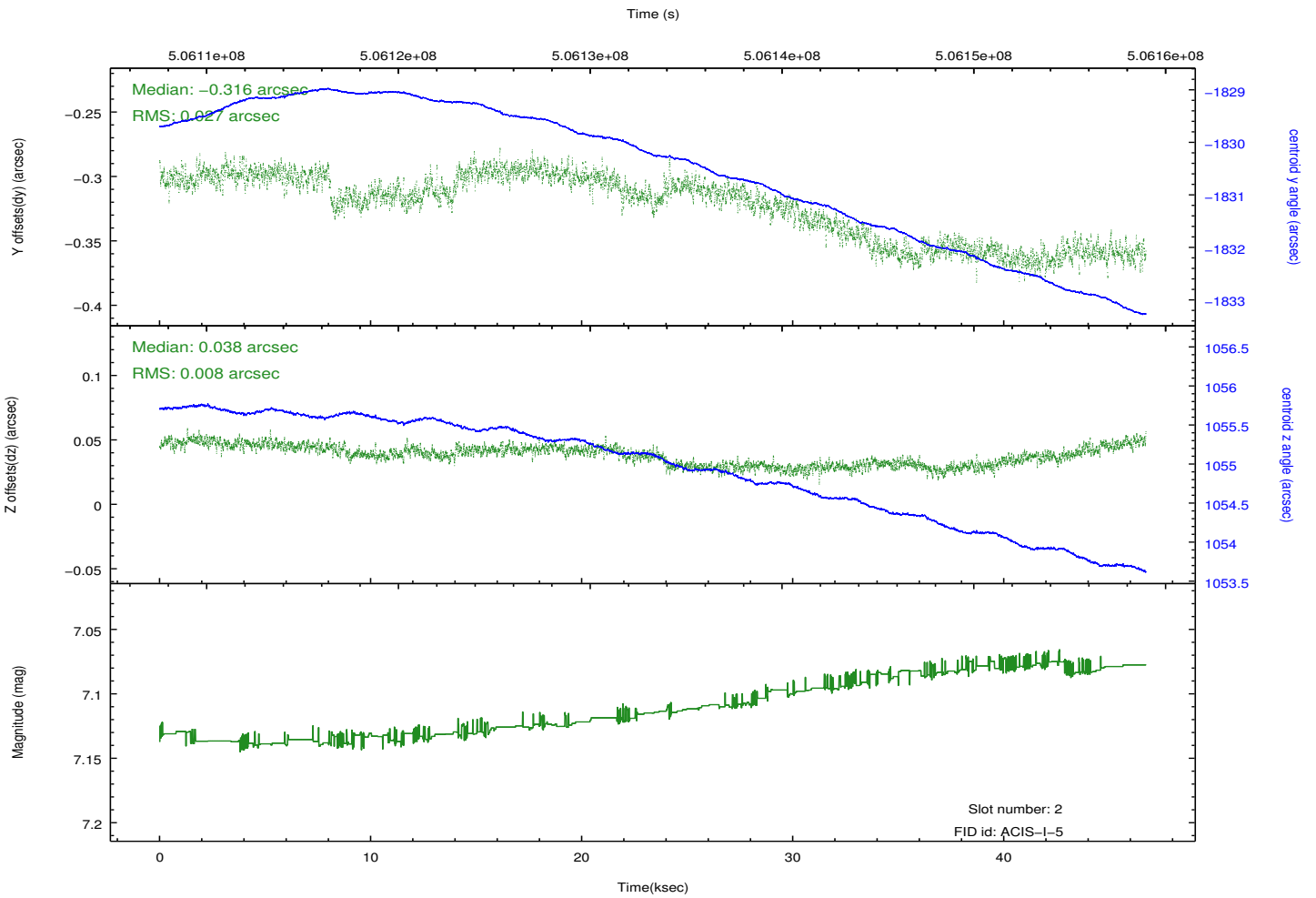
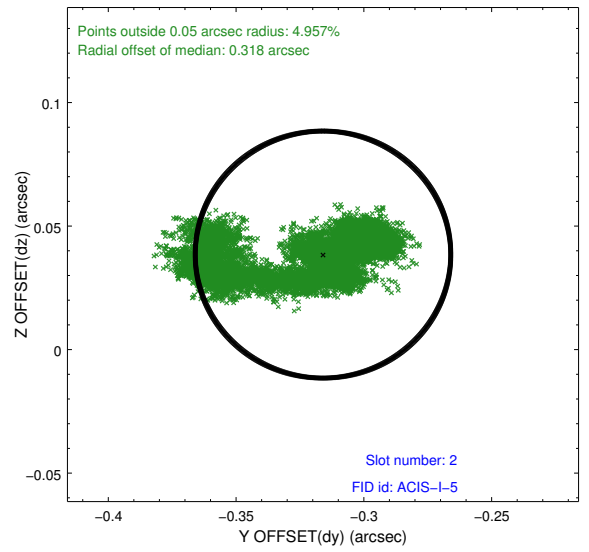
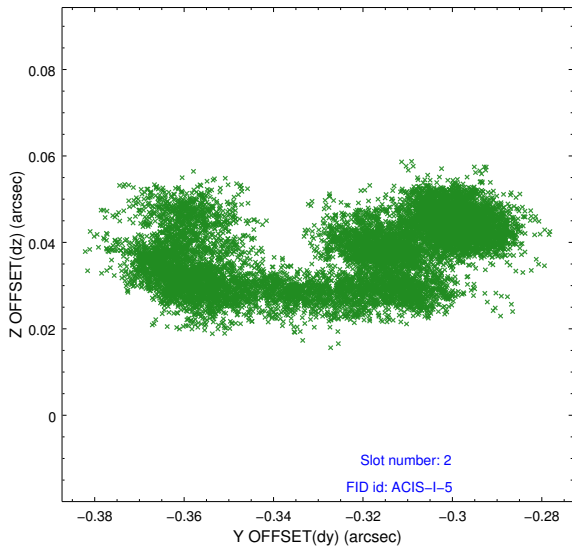
2.5.1 Slot 0



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)	2014.12.16
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	46.090590190768

A.2 Comments

Joint proposal with XMM.

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.