

V&V Reference Report

L2 ASCDS Version : 10.6

Observation 19334 - L2 Version 1
Chandra X-Ray Center

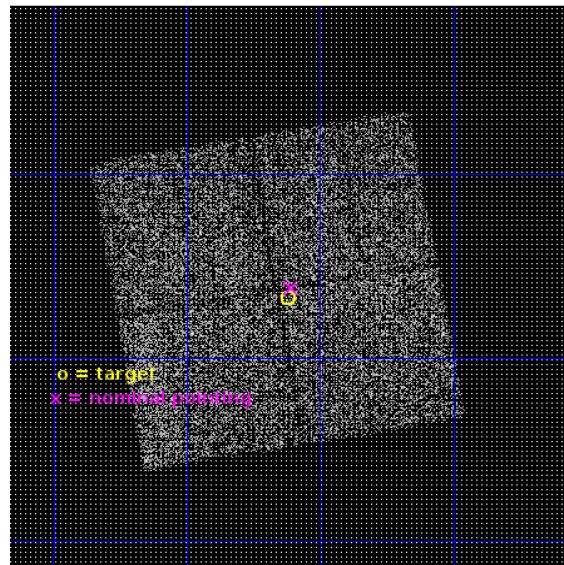
L2 Processing Date : Nov 15 2017

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1 Front

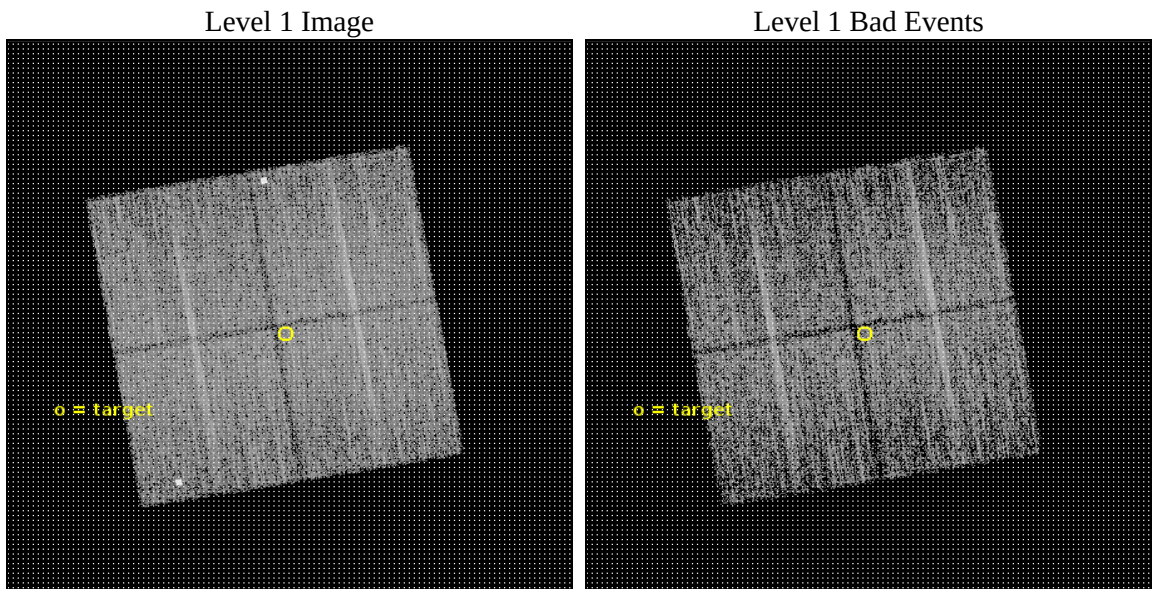
seq_num	601291	Sequence number
obs_id	19334	Observation id
title	MISSING BARYONS AND THE WARM-HOT CIRCUMGALACTIC MEDIUM OF AN EDGE-ON SPIRAL GALAXY	Proposal title
observer	Anjali Gupta	Principal investigator
object	NGC3221	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	155.53	Observer's specified target RA [deg]
dec_targ	21.554583	Observer's specified target Dec [deg]
ra_nom	155.52699869798	Nominal RA [deg]
dec_nom	21.563733039974	Nominal Dec [deg]
roll_nom	80.209814881747	Nominal Roll [deg]
revision	1	Processing version of data
ontime	10081.200077653	Sum of GTIs [s]
livetime	9949.4817769669	Livetime [s]
ontime0	10081.200077653	Sum of GTIs [s]
ontime1	10081.200077653	Sum of GTIs [s]
ontime2	10081.200077653	Sum of GTIs [s]
ontime3	10081.200077653	Sum of GTIs [s]
l2events	25653	Number of level 2 events



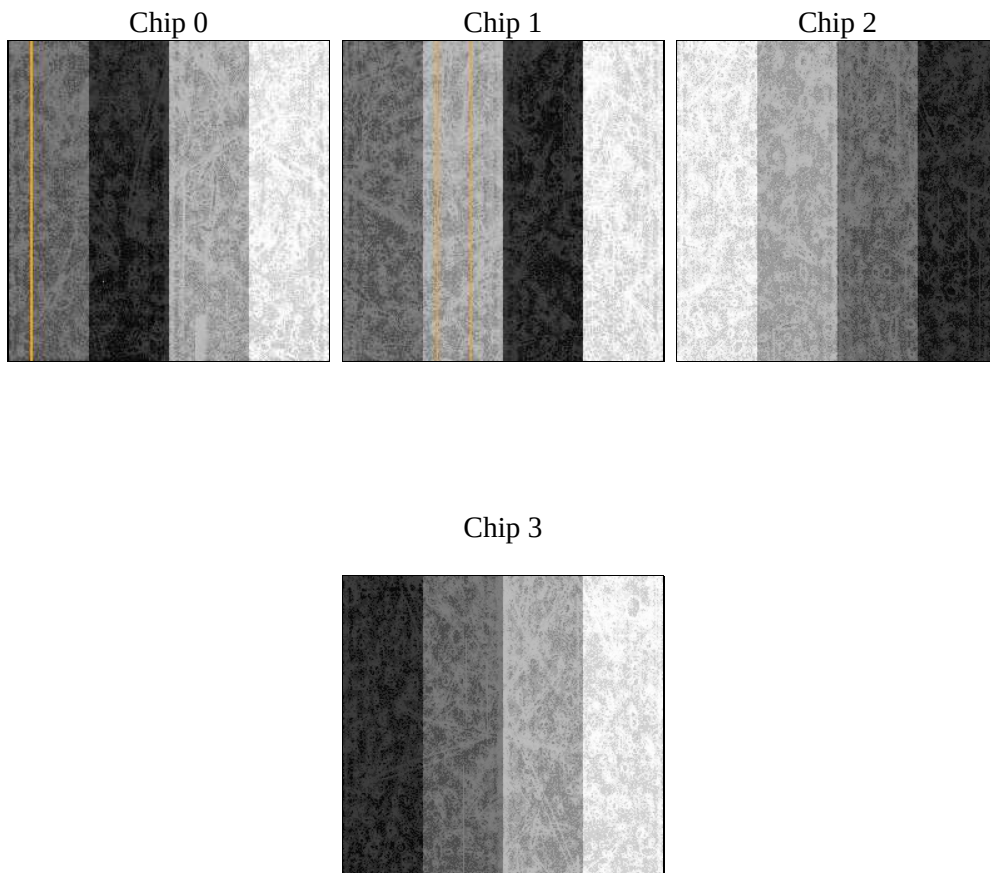
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.6	Processing system revision	ontime	10081.200077653	Sum of GTIs [s]
caldsver	4.7.6	 	ontime0	10081.200077653	Sum of GTIs [s]
date	2017-11-15T19:54:22	Date and time of file creation	ontime1	10081.200077653	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	10081.200077653	Sum of GTIs [s]
			ontime3	10081.200077653	Sum of GTIs [s]
			l1events	280316	Number of level 1 events

2.1.4 Events

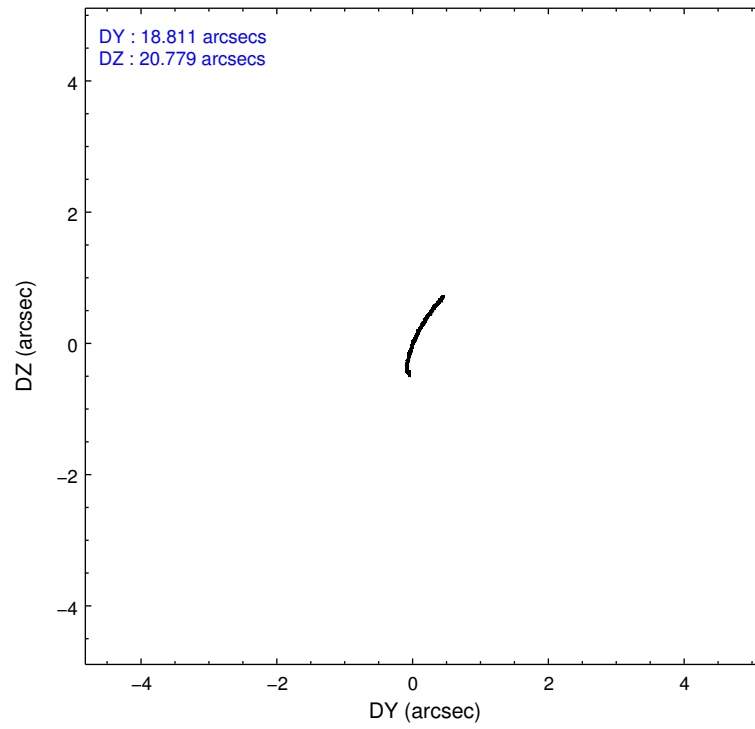
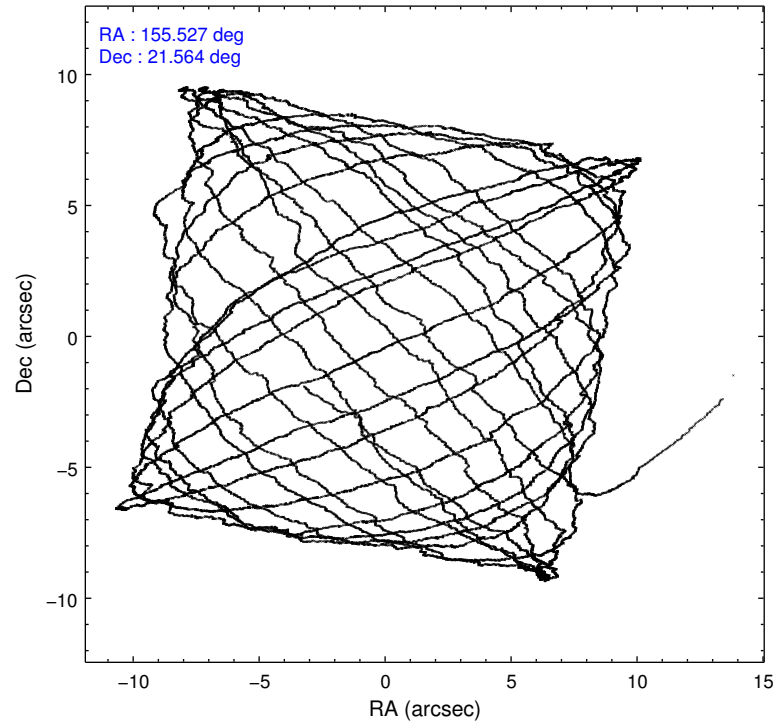
	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	64955	70969	75191	69201
rejected events	57183	59401	64714	62090
rejected %	88%	83%	86%	89%

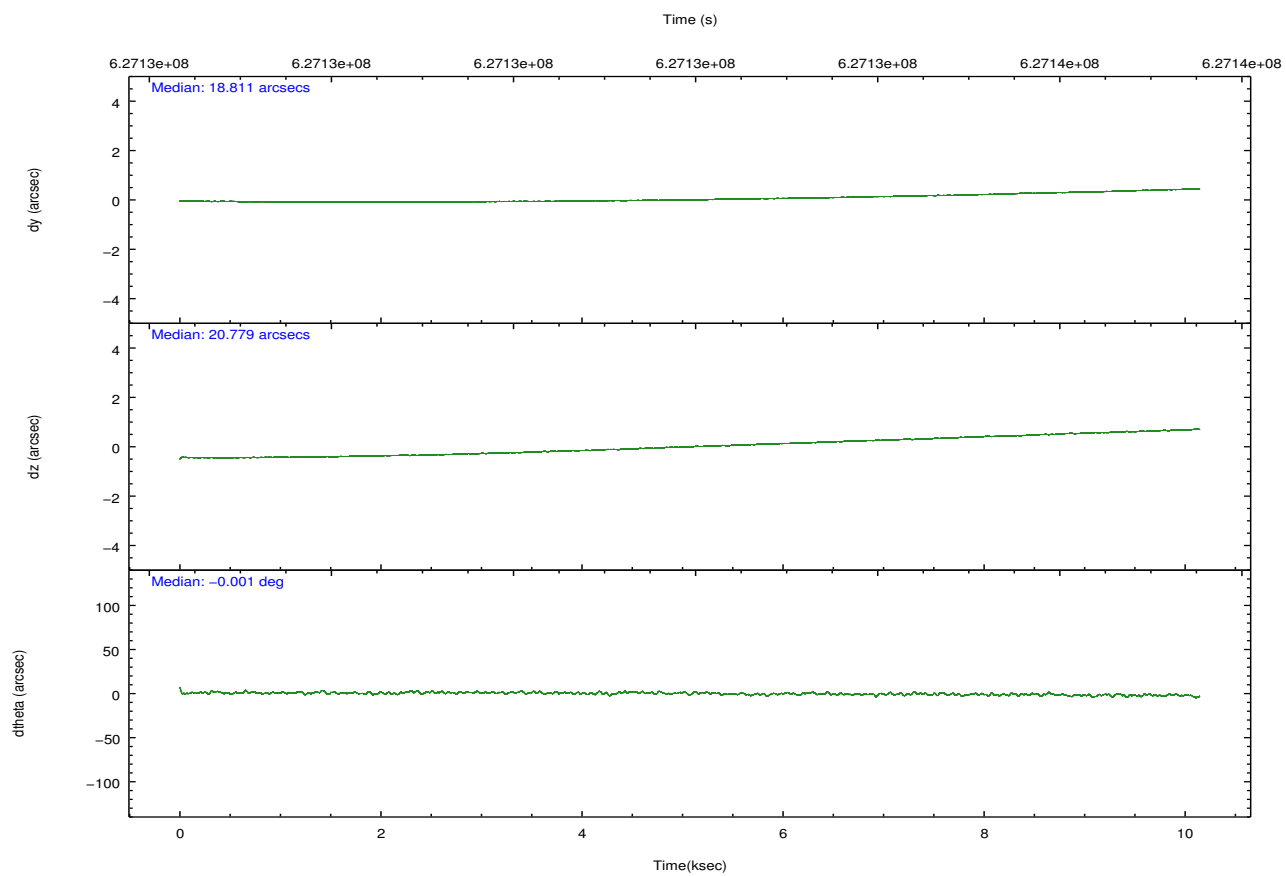
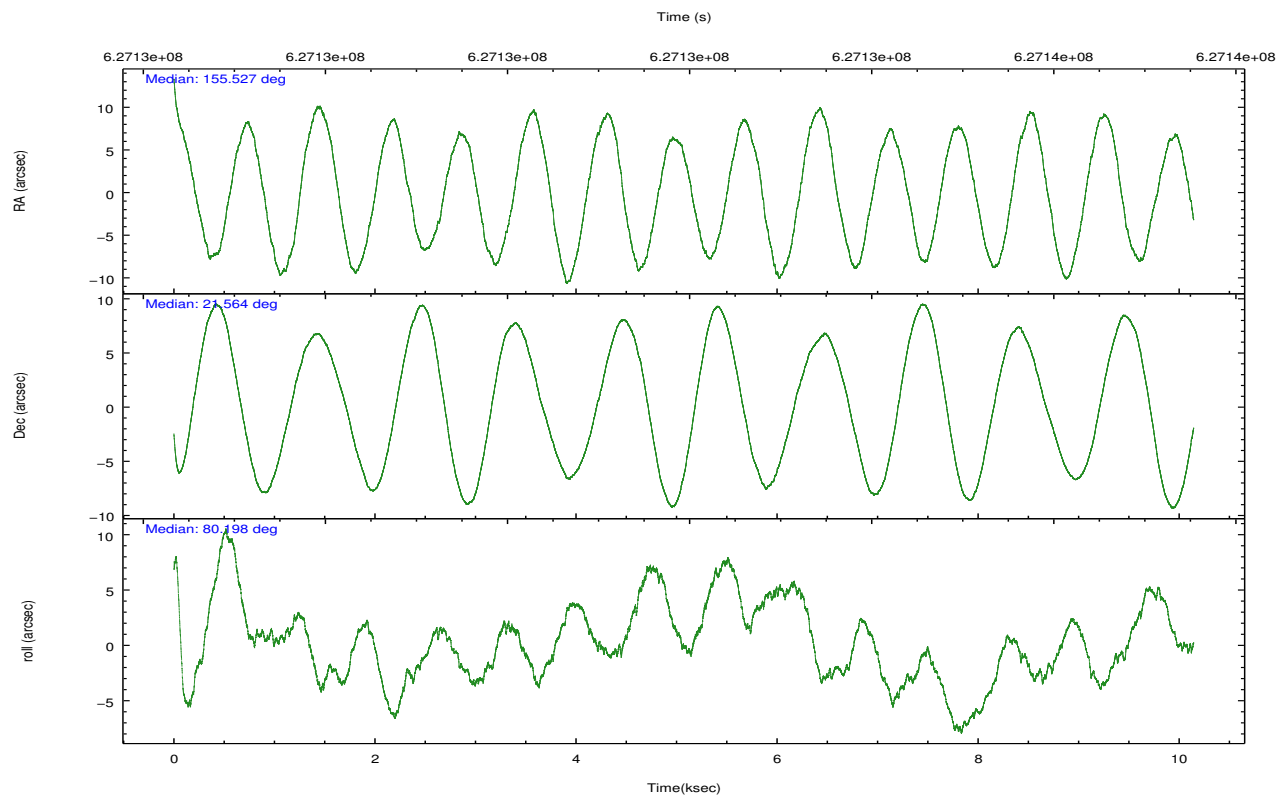
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	2634	5837	5785	2497
	4%	8%	7%	3%
grade 1 events	38	56	43	39
	0%	0%	0%	0%
grade 2 events	1959	2242	1750	1580
	3%	3%	2%	2%
grade 3 events	843	812	729	732
	1%	1%	0%	1%
grade 4 events	746	753	765	719
	1%	1%	1%	1%
grade 5 events	2890	2958	2692	3257
	4%	4%	3%	4%
grade 6 events	1593	1929	1450	1587
	2%	2%	1%	2%
grade 7 events	54252	56382	61977	58790
	83%	79%	82%	84%

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	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	155.537314	155.5269986979819	Subarray requested	NONE	NONE
[deg] Pointing Dec	21.537885	21.56373303997429	Alternating exposures requested	N	N
[deg] Pointing Roll	79.997311	80.20981488174678	[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)	627127007.184000	627125792.41556			
Observation start date	2017-11-15T09:55:38	2017-11-15T09:36:32			
[s] Observation end time (MET)	627137007.184000	627137636.80375			
Observation end date	2017-11-15T12:42:18	2017-11-15T12:53:56			
Read mode	TIMED	TIMED			

2.3 Aspect



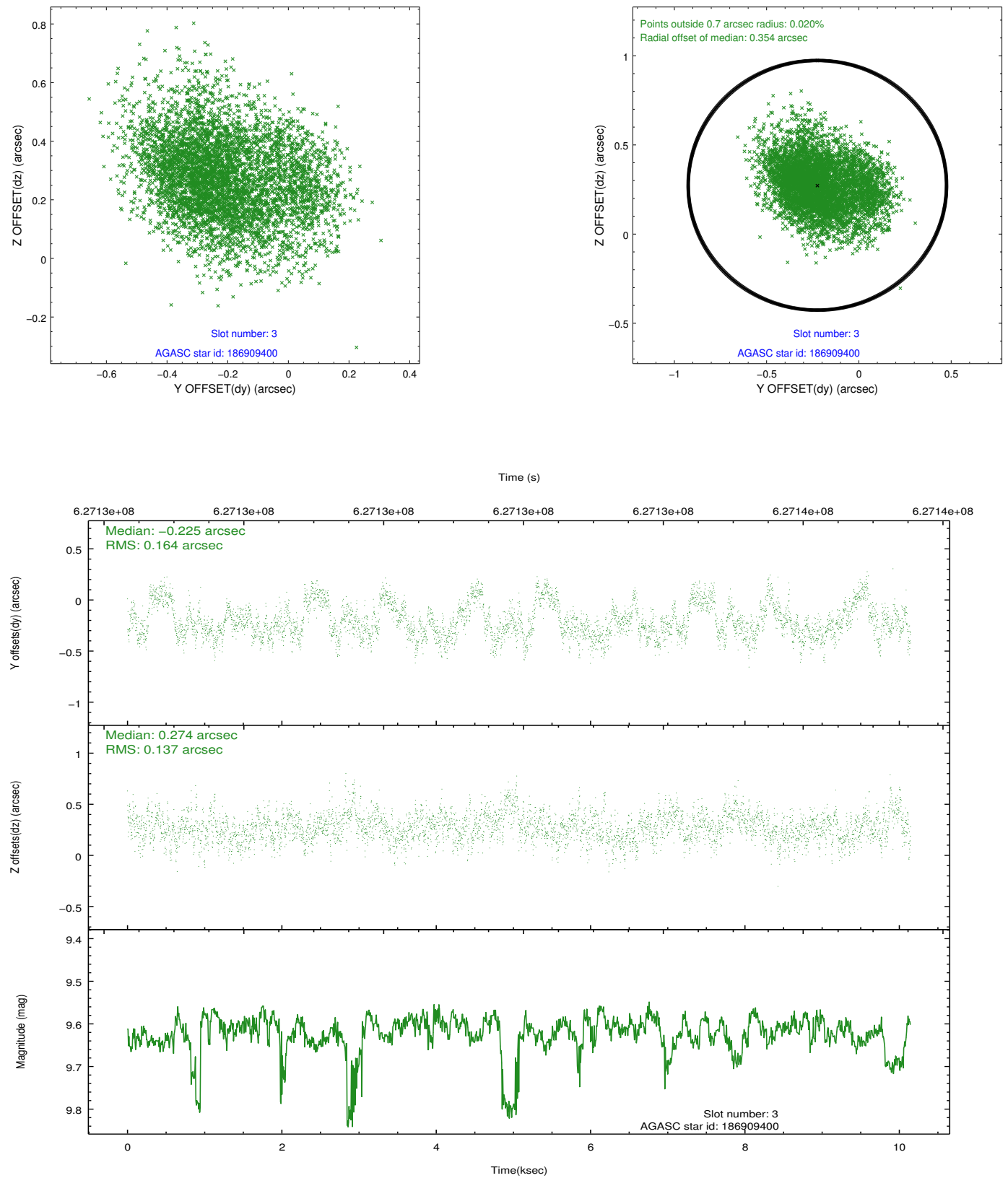


Slot Statistics

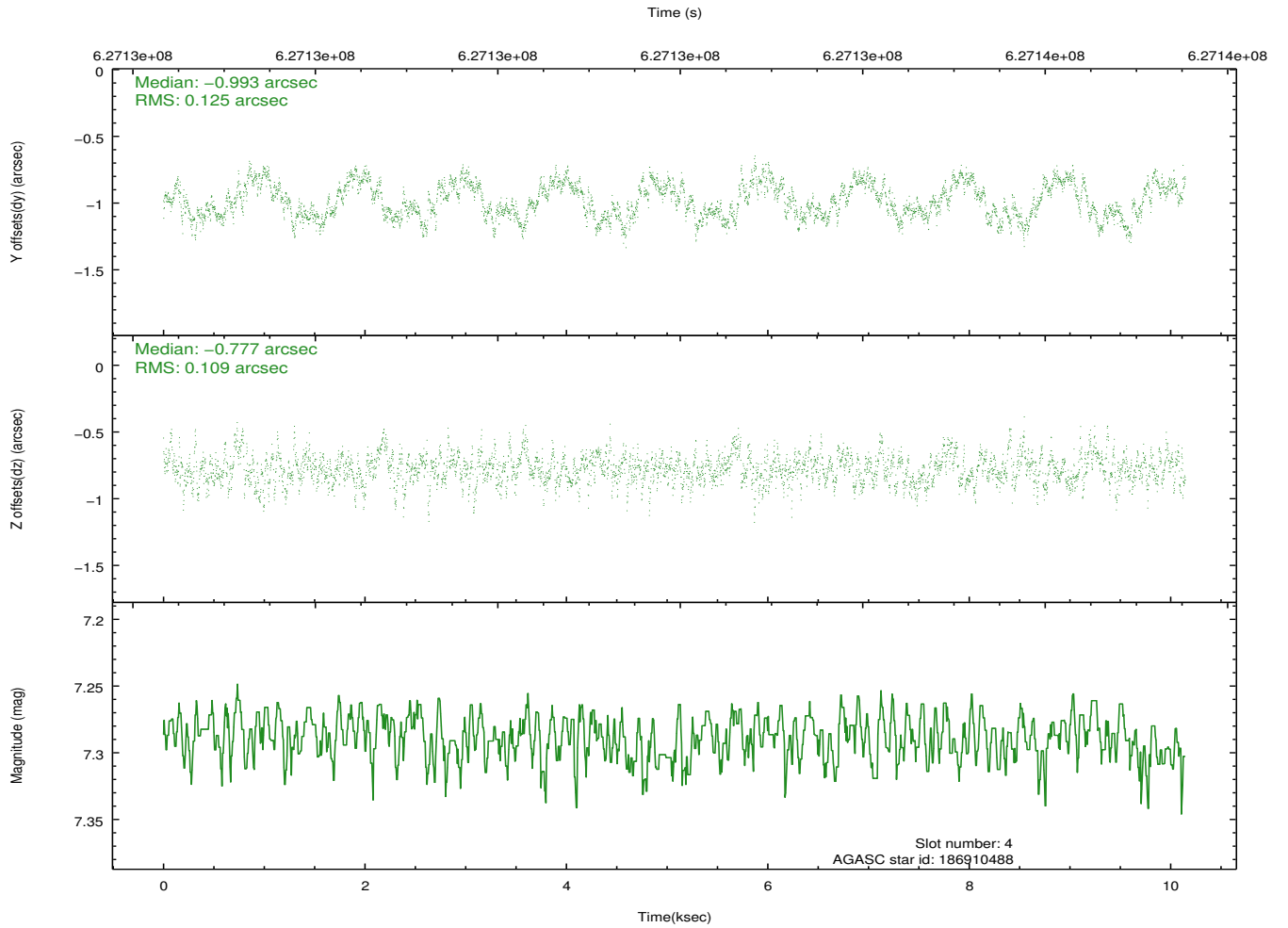
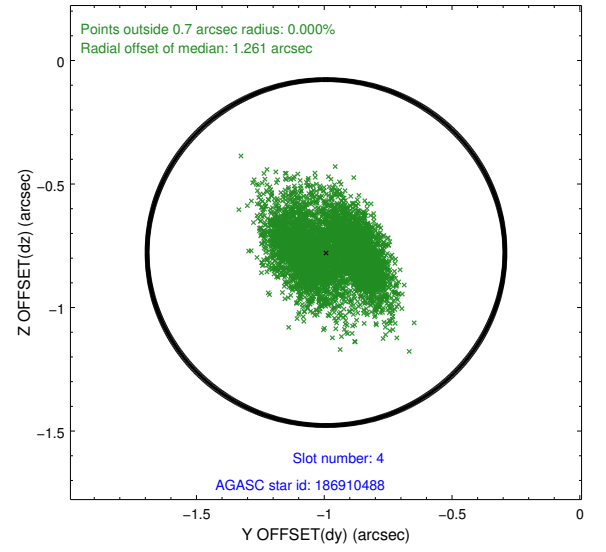
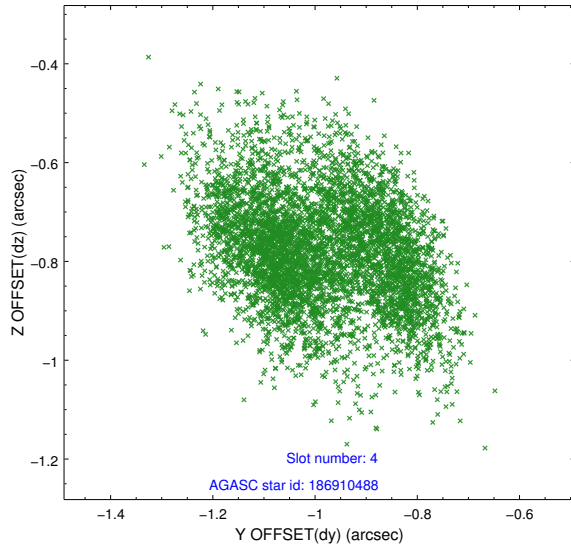
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.24	2475	-0.062	-0.087	0.017	0.028	0.000000	0.000000	920.39	-844.67
1	FID		ACIS-I-2	7.13	2474	-0.356	-0.165	0.010	0.016	0.000000	0.000000	-773.71	-851.42
2	FID		ACIS-I-4	7.17	2475	0.320	0.318	0.010	0.015	0.000000	0.000000	2140.46	1055.25
3	GUIDE	used	186909400	9.62	4937	-0.225	0.274	0.231	0.367	156.218285	21.895803	1669.47	-2014.64
4	GUIDE	used	186910488	7.29	4949	-0.993	-0.777	0.180	0.275	155.064237	22.011425	1406.23	1850.80
5	GUIDE	used	186911768	8.93	4943	0.306	-0.036	0.145	0.249	155.428348	21.393746	-574.03	270.90
6	GUIDE	used	186914112	9.61	4943	0.479	0.613	0.254	0.411	155.554039	21.133922	-1421.70	-307.37
7	GUIDE	used	186911048	9.21	4945	0.397	-0.073	0.213	0.365	155.458376	21.346993	-722.81	142.11

2.4 Star Slots

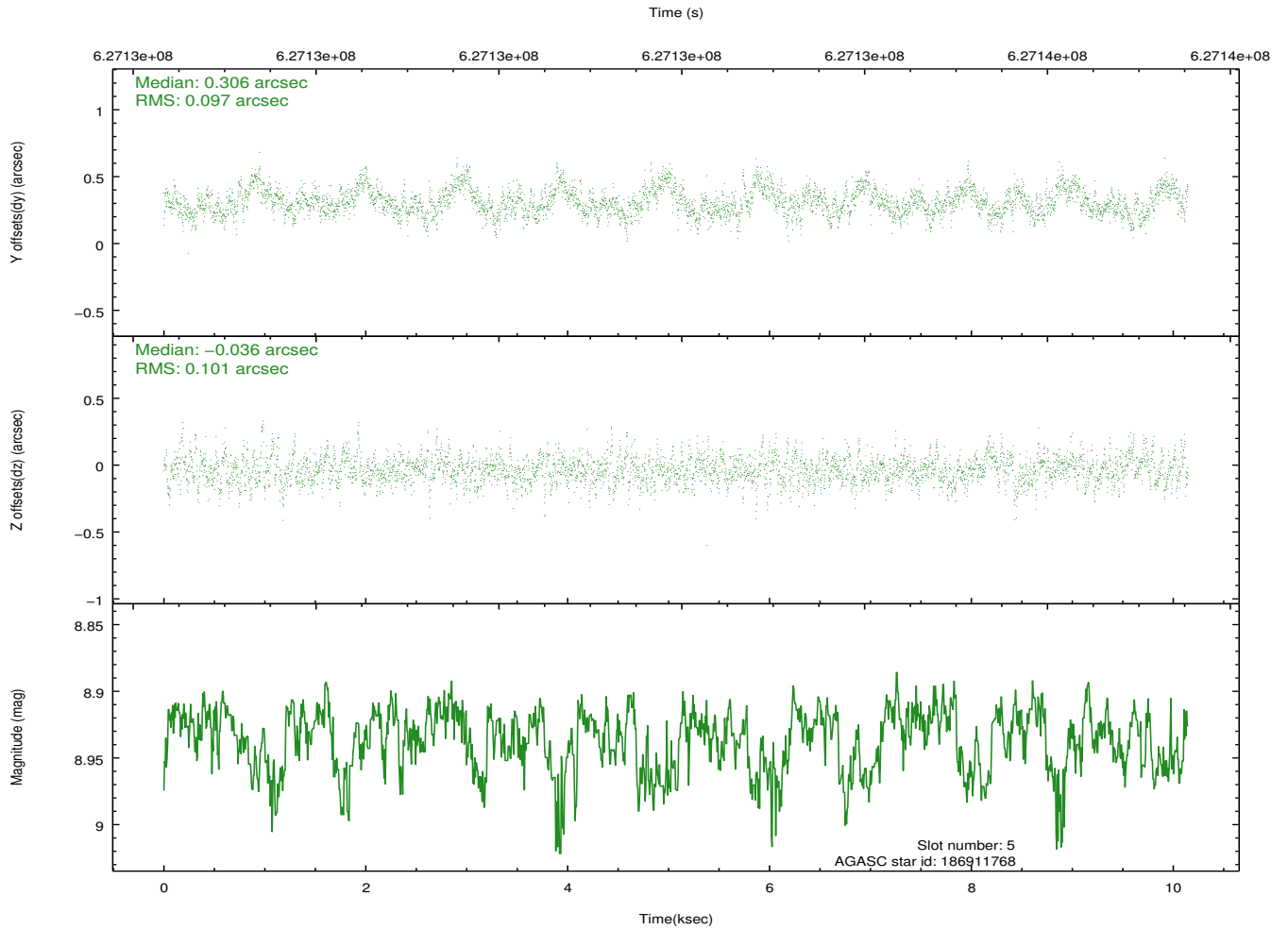
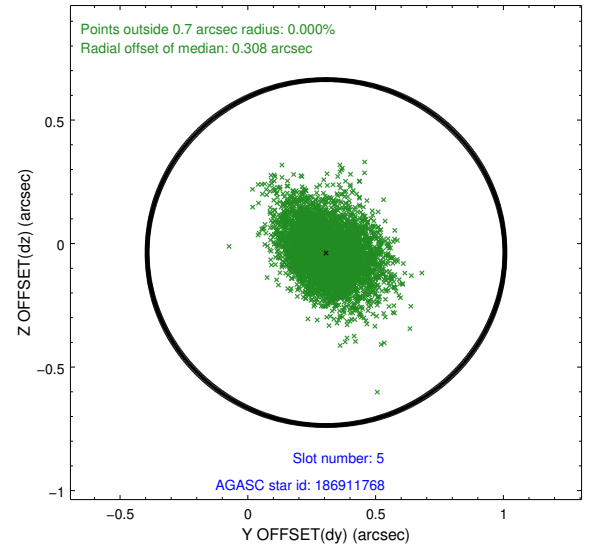
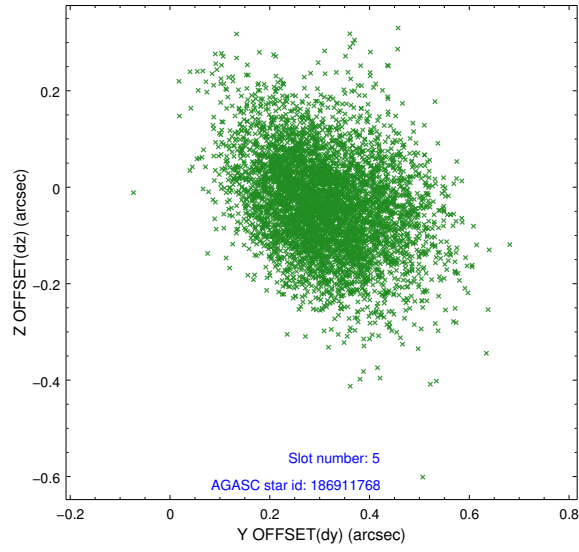
2.4.1 Slot 3



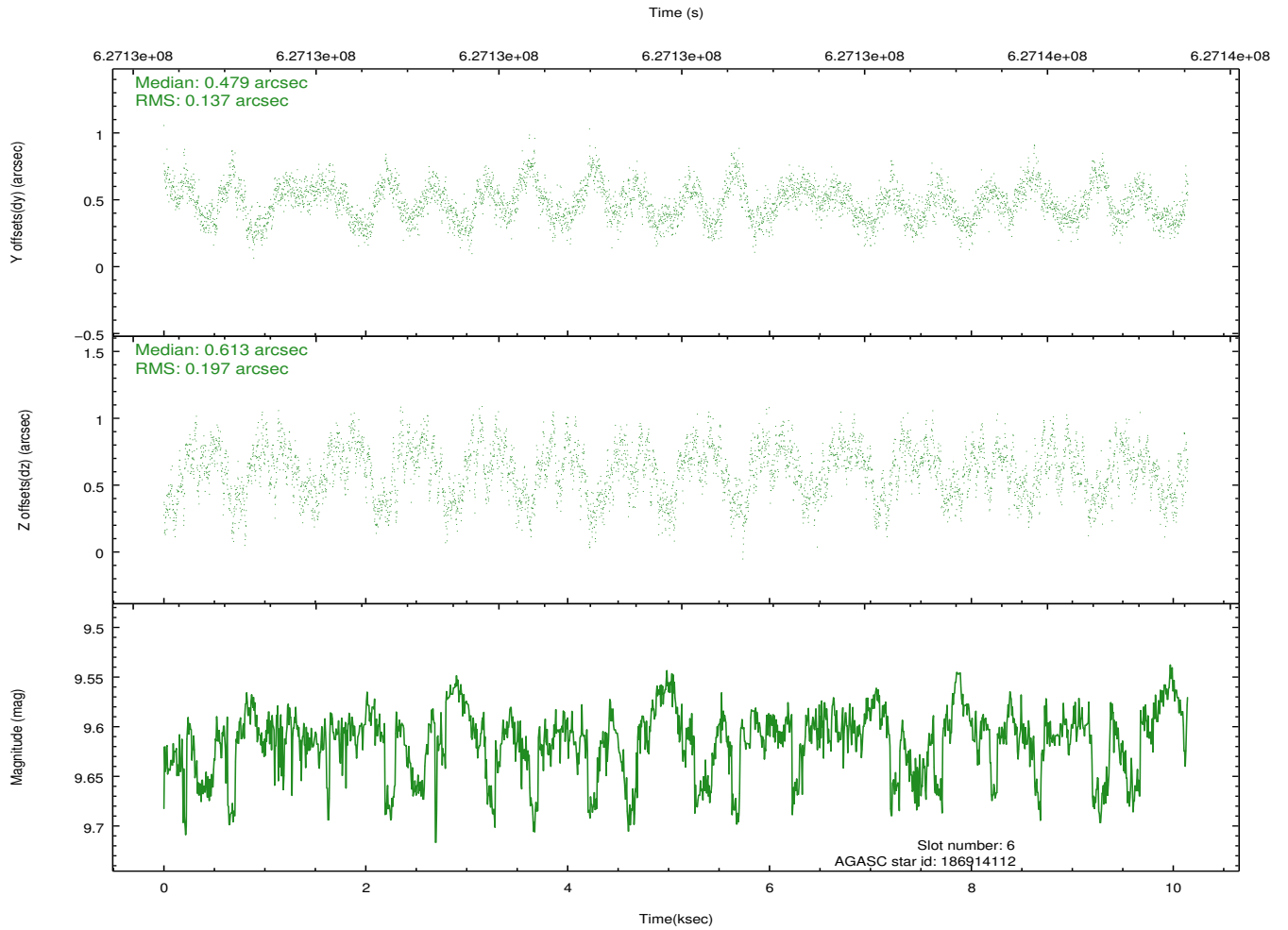
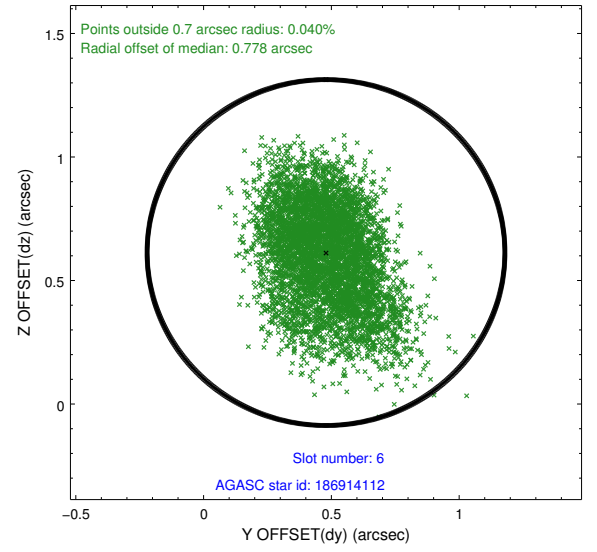
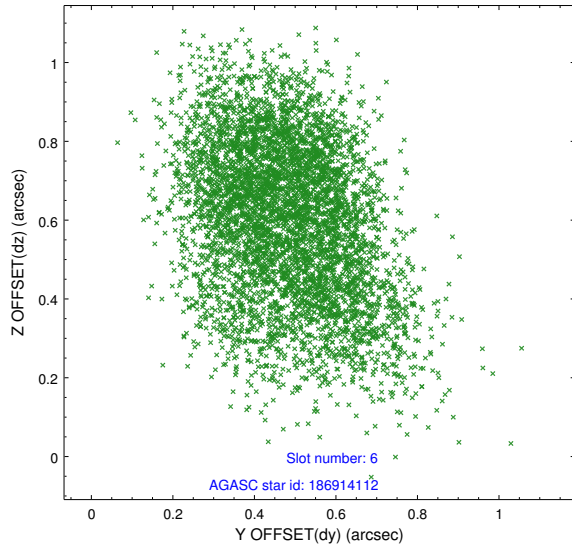
2.4.2 Slot 4



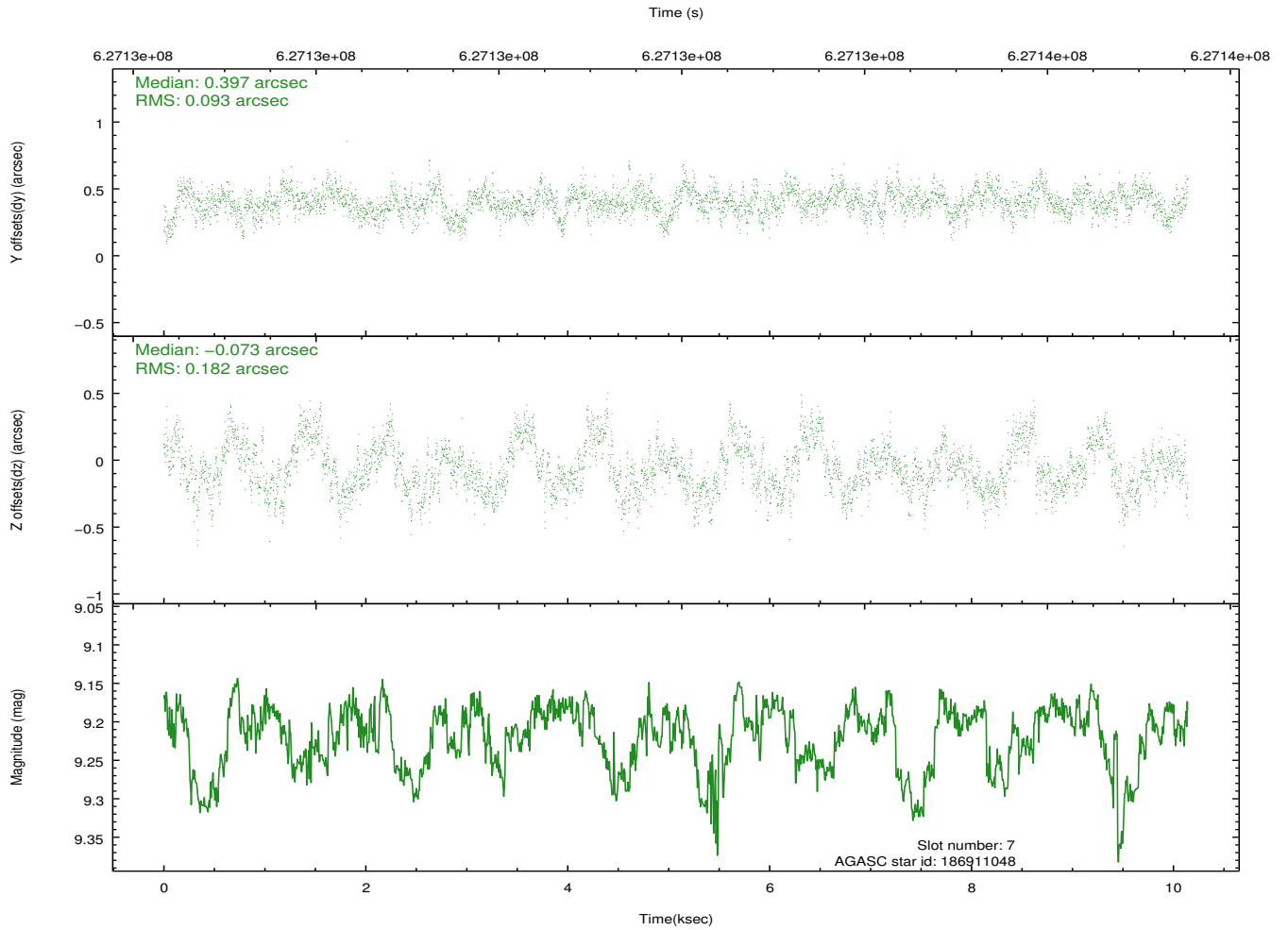
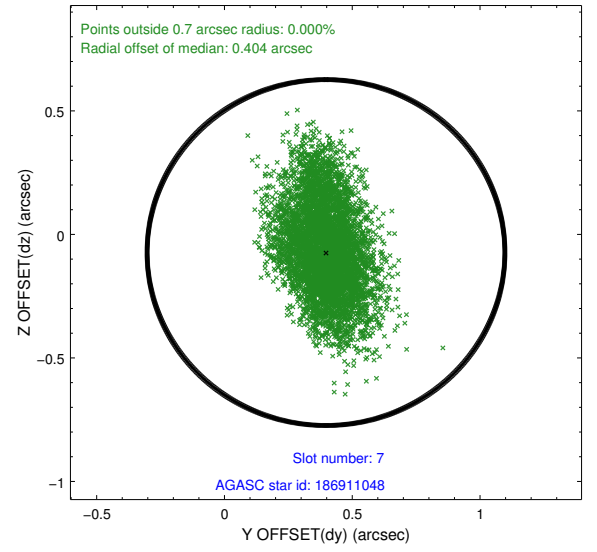
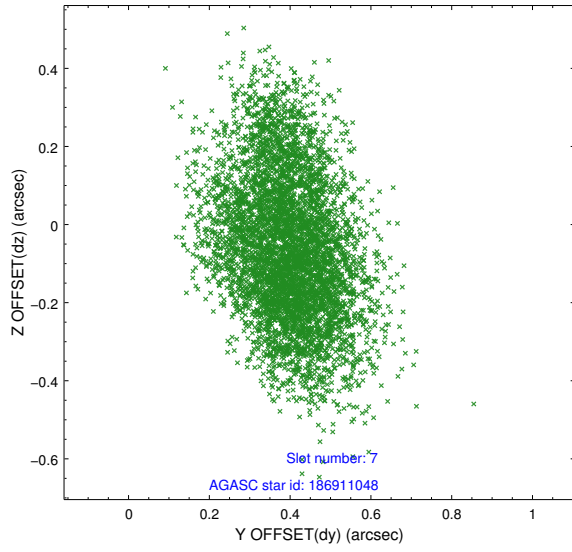
2.4.3 Slot 5



2.4.4 Slot 6

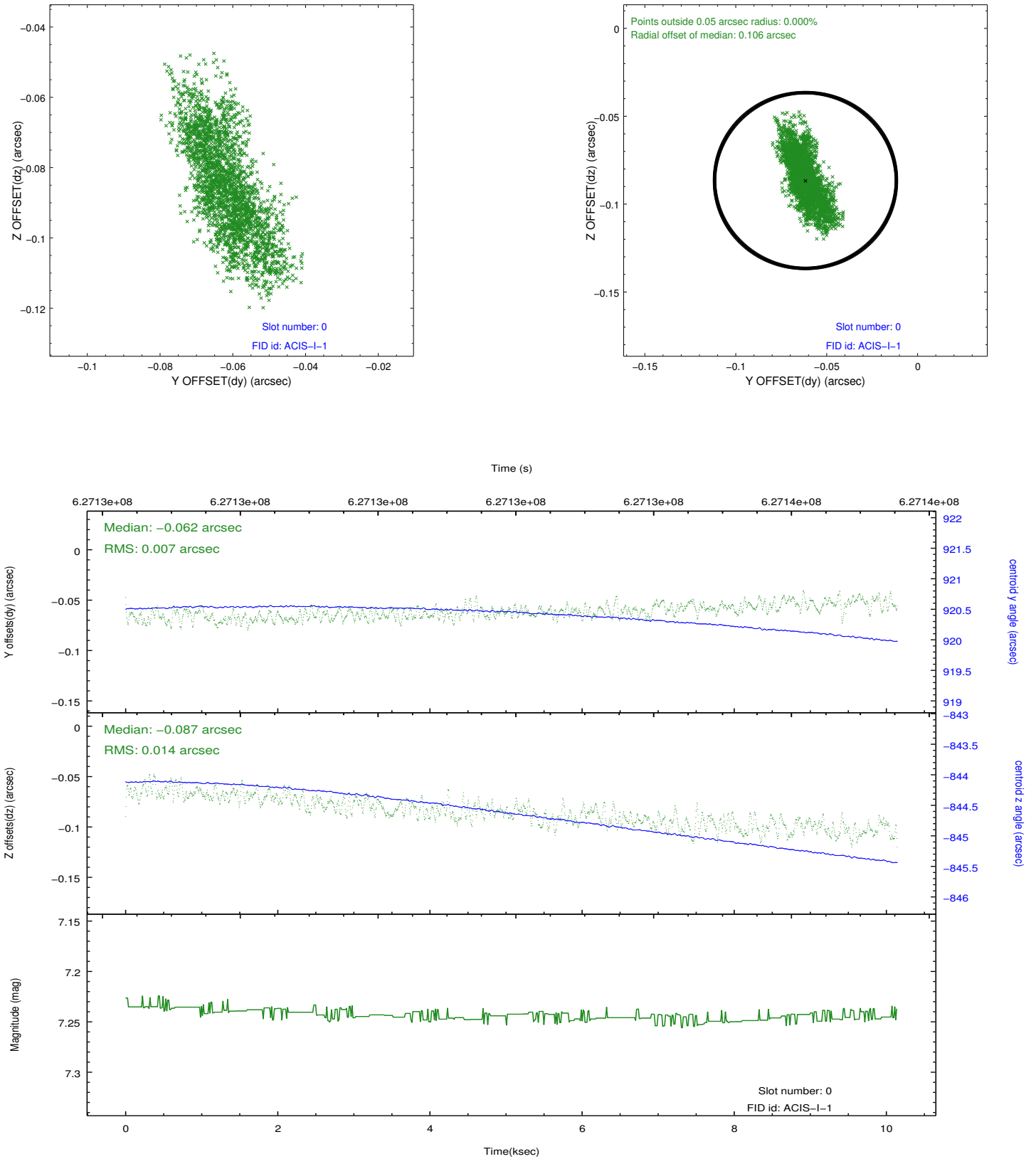


2.4.5 Slot 7

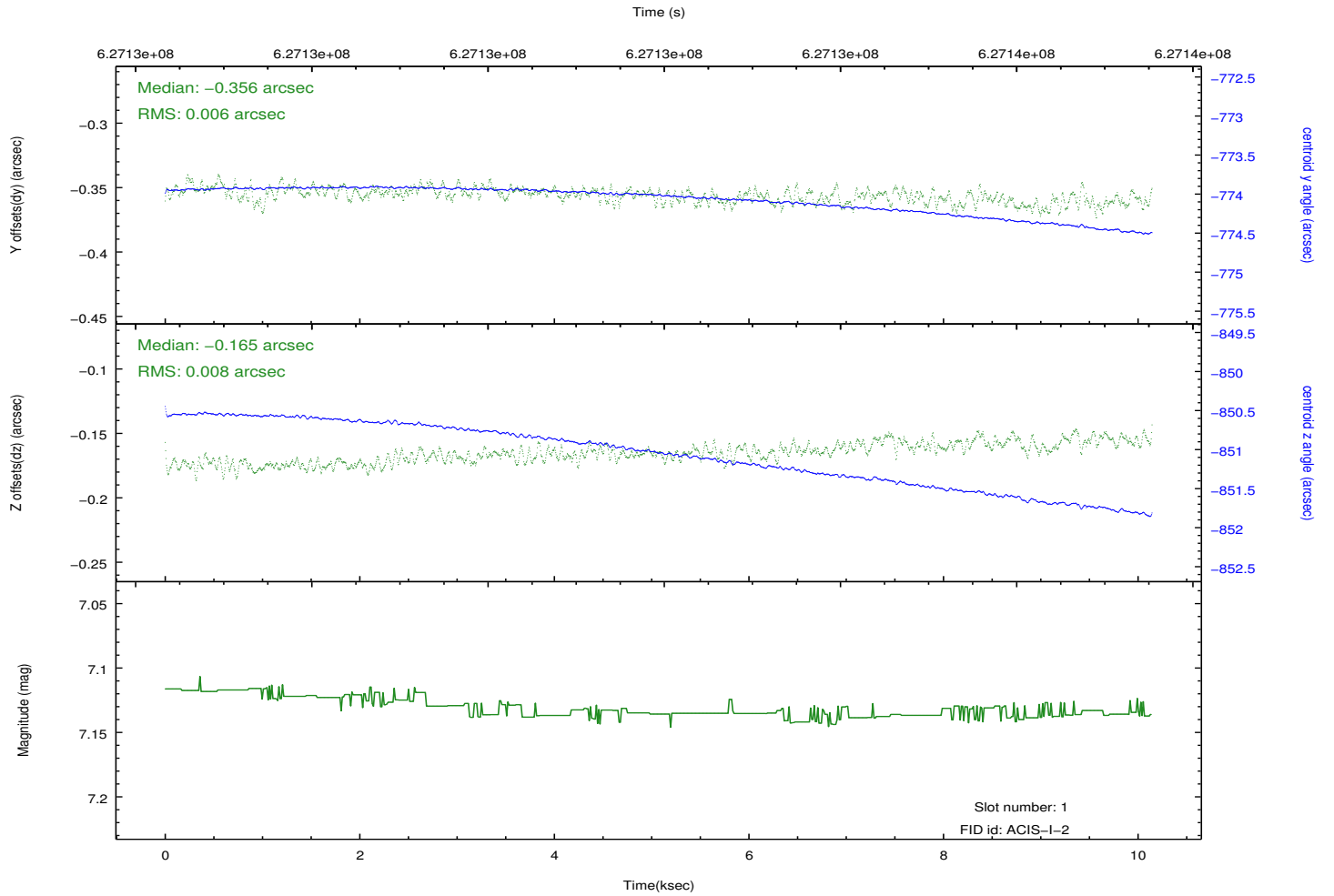
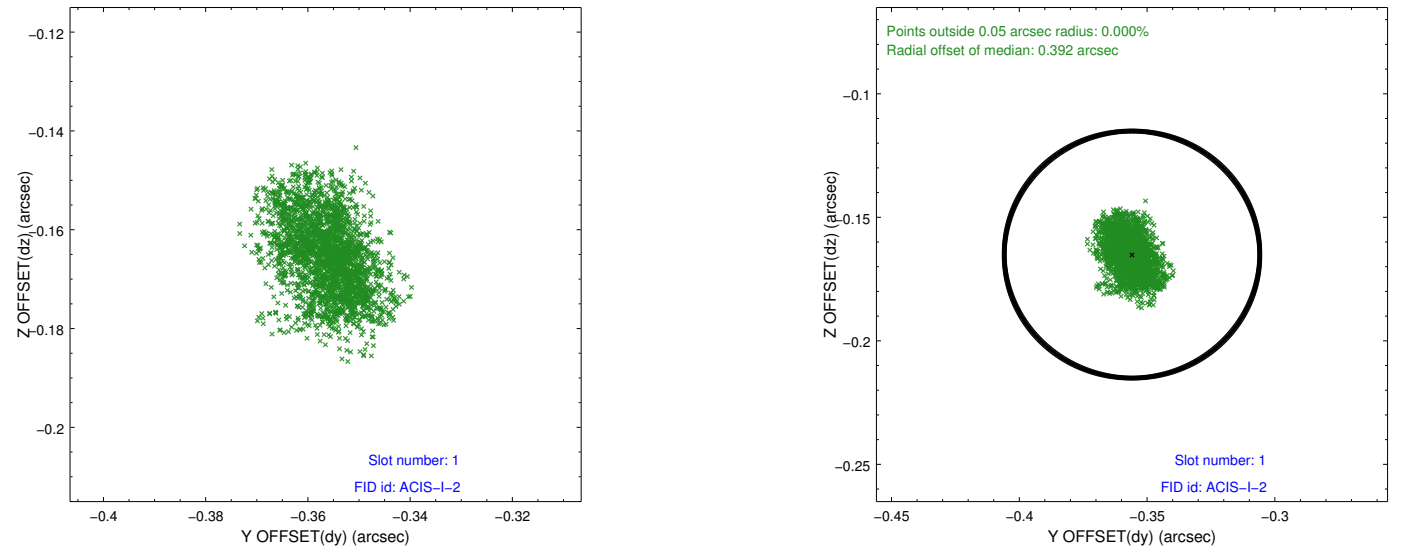


2.5 FID Slots

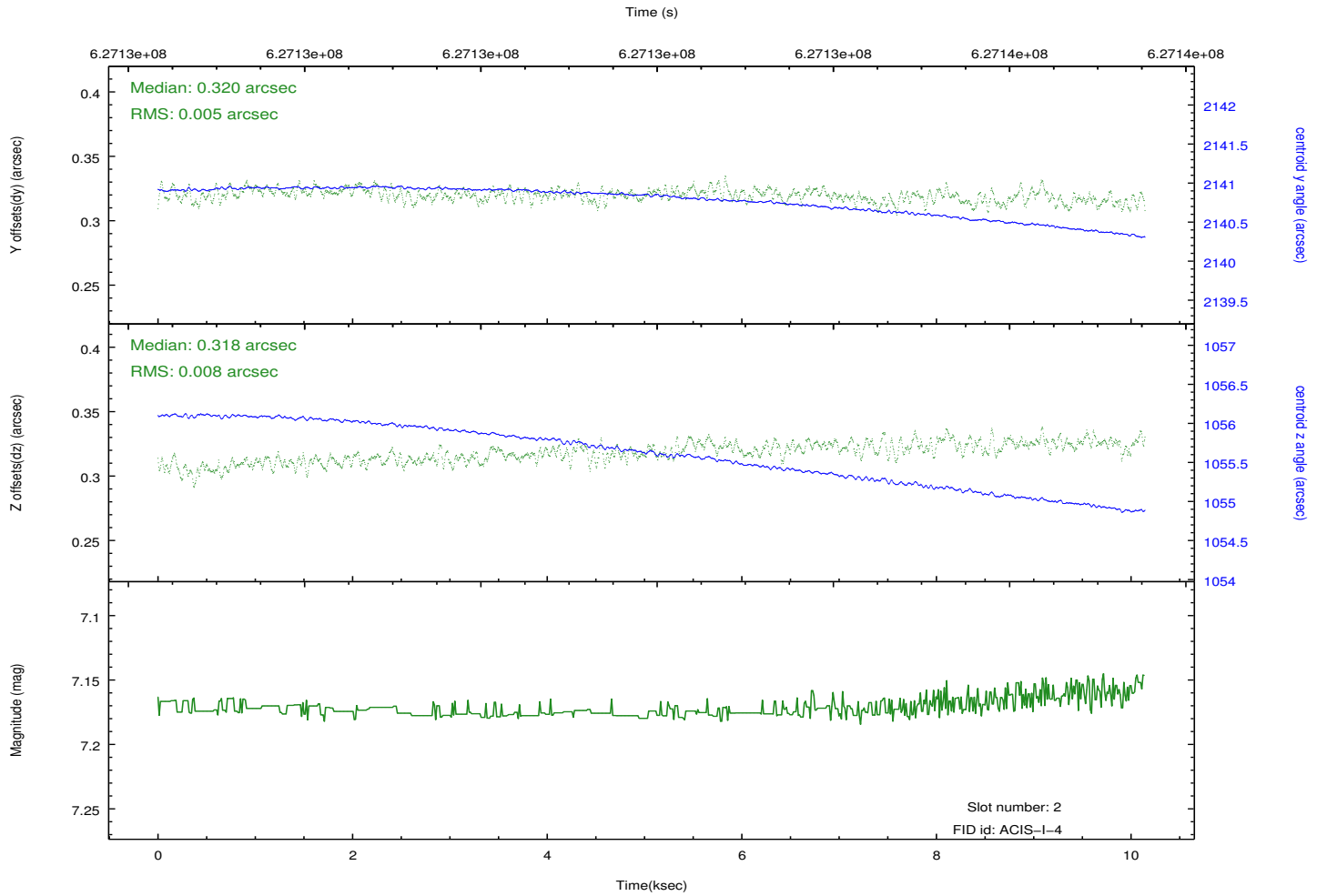
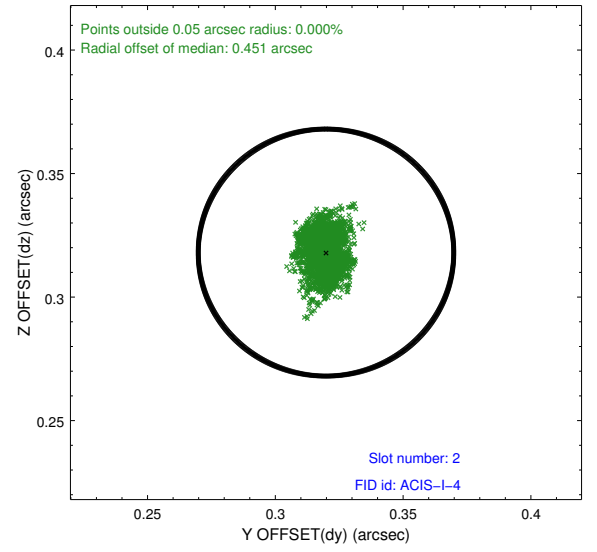
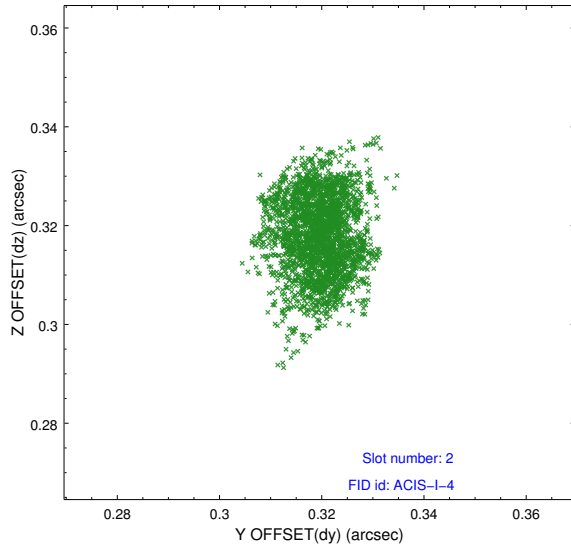
2.5.1 Slot 0



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)	2017.11.16
V&V Edition	2
V&V Disposition and Status	OK
V&V Charge Time	10.081200077653

A.2 Comments

A spatial region of the original bias map for CCD = 0 suffered from anomalously high data values. Pixels in the event data that were bias-corrected by one of the original affected bias pixels may have an apparent energy shift. While the change in energy is expected to be small (~20 eV), it depends on many parameters that have not yet been fully explored for this bias anomaly. In this case, the bias map for CCD = 0 could not be improved because no suitable data at a compatible temperature and time range are available to use as replacement values. The bias map used in this processing is the original bias map telemetered with the observation.