

V&V Reference Report

L2 ASCDS Version : 10.5.2

Observation 19336 - L2 Version 3
Chandra X-Ray Center

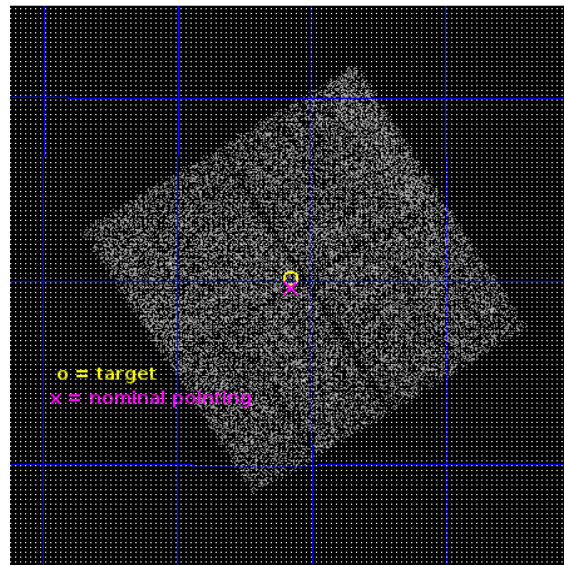
L2 Processing Date : Apr 10 2017

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1 Front

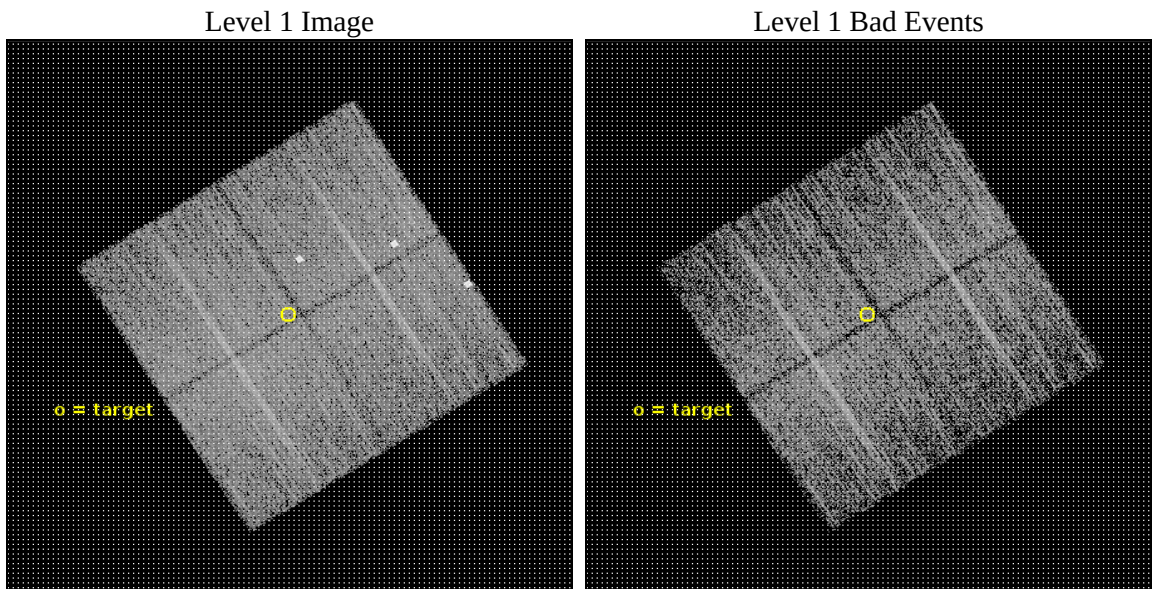
seq_num	601293	Sequence number
obs_id	19336	Observation id
title	MISSING BARYONS AND THE WARM-HOT CIRCUMGALACTIC MEDIUM OF AN EDGE-ON SPIRAL GALAXY	Proposal title
observer	Anjali Gupta	Principal investigator
object	NGC 3221 Off-field 2	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	156.394583	Observer's specified target RA [deg]
dec_targ	20.502833	Observer's specified target Dec [deg]
ra_nom	156.39365760816	Nominal RA [deg]
dec_nom	20.49407352704	Nominal Dec [deg]
roll_nom	237.89024015028	Nominal Roll [deg]
revision	3	Processing version of data
ontime	10076.85631299	Sum of GTIs [s]
livetime	9945.1947667873	Livetime [s]
ontime0	10076.73319304	Sum of GTIs [s]
ontime1	10073.633192658	Sum of GTIs [s]
ontime2	10076.815273046	Sum of GTIs [s]
ontime3	10076.85631299	Sum of GTIs [s]
l2events	27699	Number of level 2 events



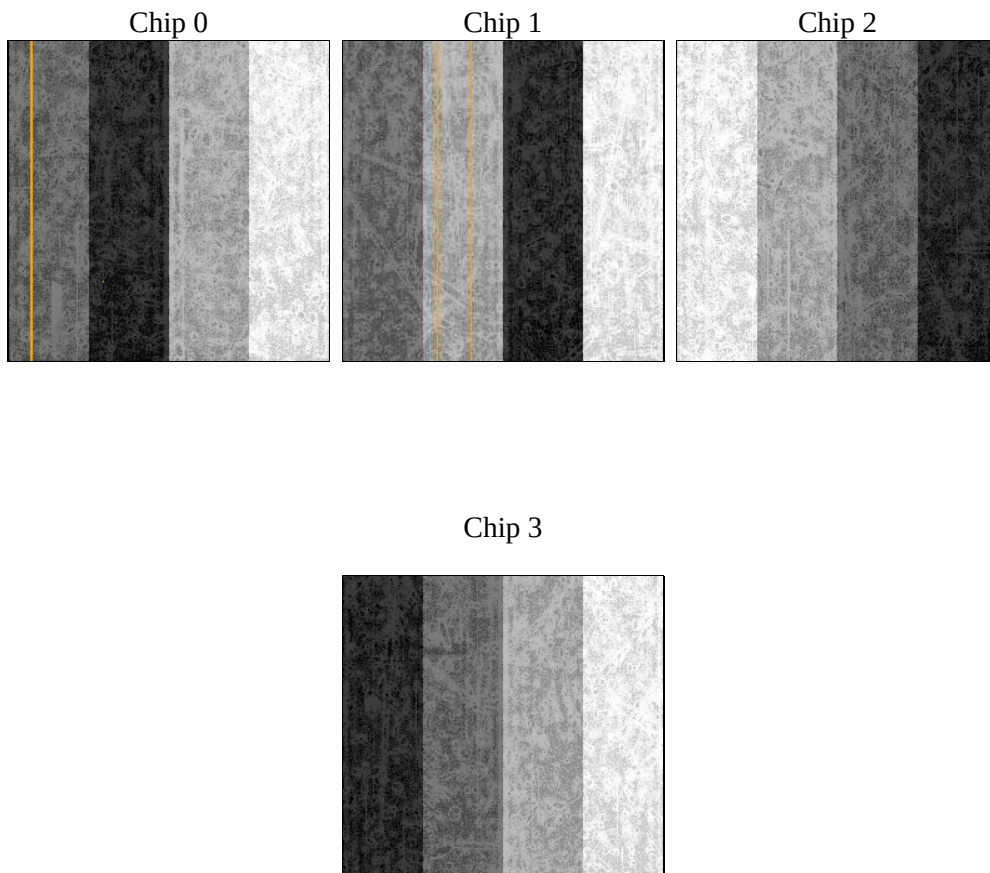
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.5.2	Processing system revision	ontime	10076.85631299	Sum of GTIs [s]
caldbver	4.7.3	 	ontime0	10076.73319304	Sum of GTIs [s]
date	2017-04-10T14:49:56	Date and time of file creation	ontime1	10073.633192658	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	10076.815273046	Sum of GTIs [s]
			ontime3	10076.85631299	Sum of GTIs [s]
			l1events	282317	Number of level 1 events

2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	68536	74302	72496	66983
rejected events	57263	59387	64530	59226
rejected %	83%	79%	89%	88%

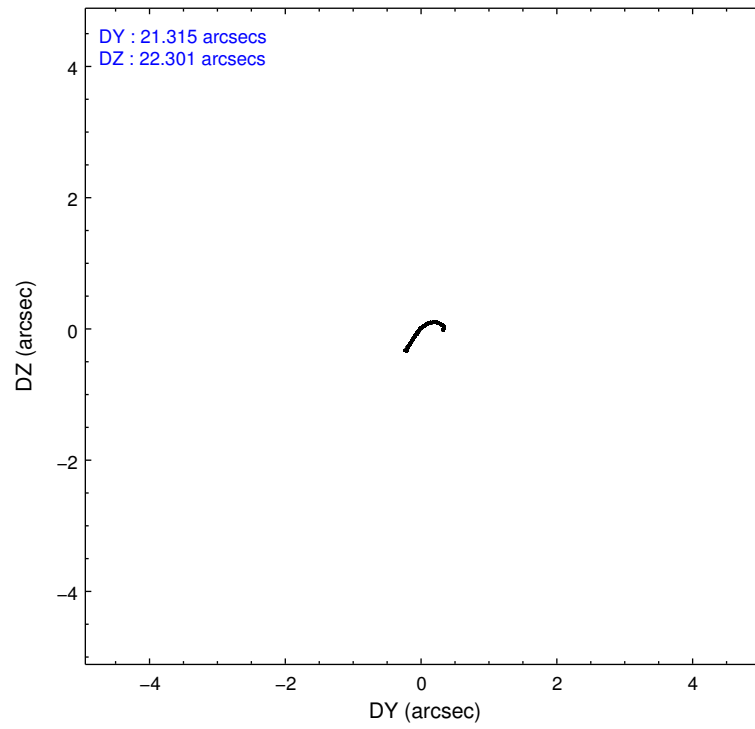
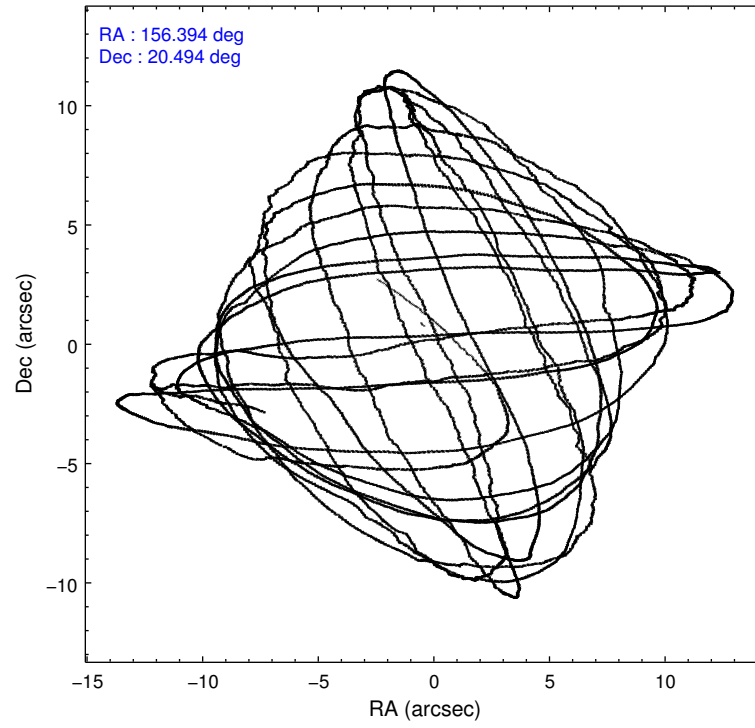
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	5932	8990	2983	2776
	8%	12%	4%	4%
grade 1 events	51	43	51	36
	0%	0%	0%	0%
grade 2 events	2024	2316	1929	1671
	2%	3%	2%	2%
grade 3 events	810	838	728	799
	1%	1%	1%	1%
grade 4 events	807	820	780	803
	1%	1%	1%	1%
grade 5 events	2990	3088	2727	3257
	4%	4%	3%	4%
grade 6 events	1706	1966	1564	1718
	2%	2%	2%	2%
grade 7 events	54216	56241	61734	55923
	79%	75%	85%	83%

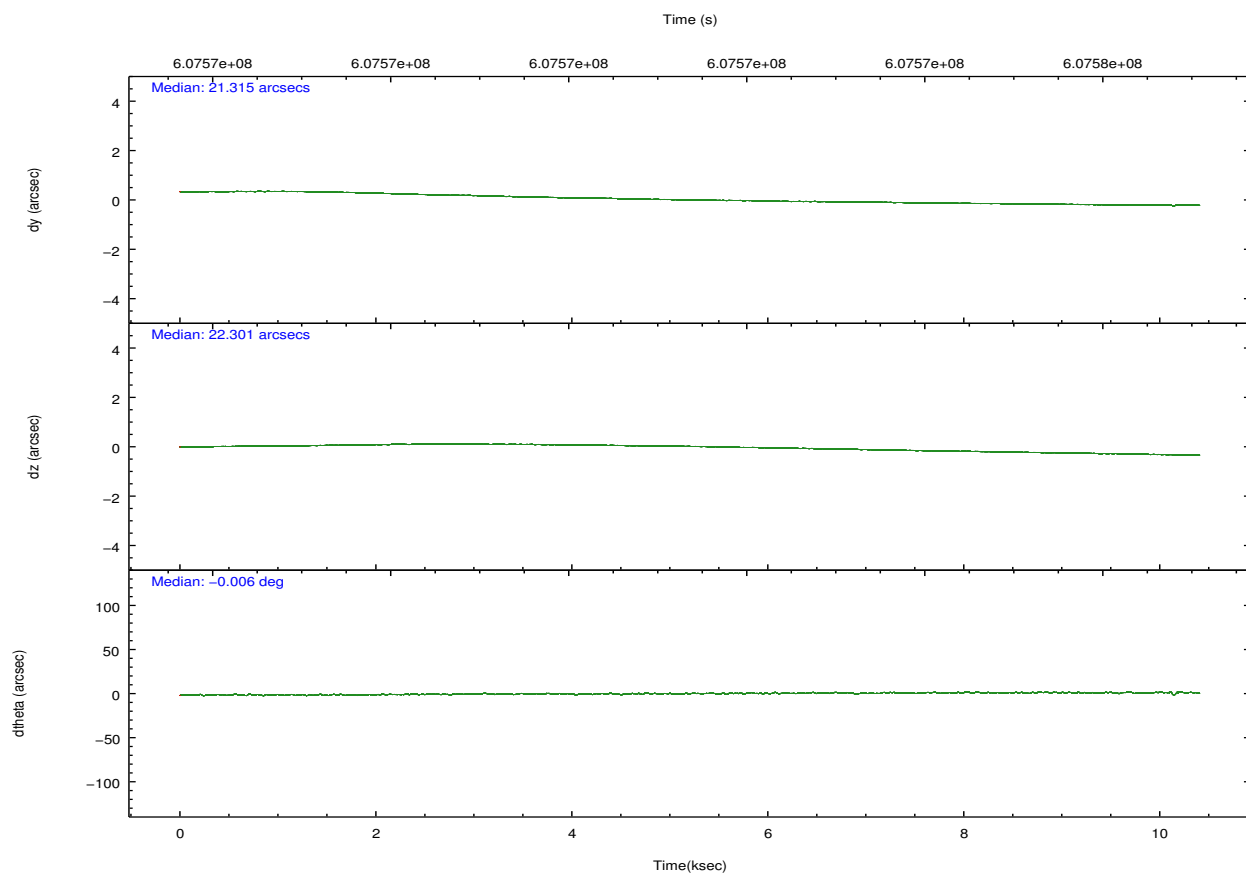
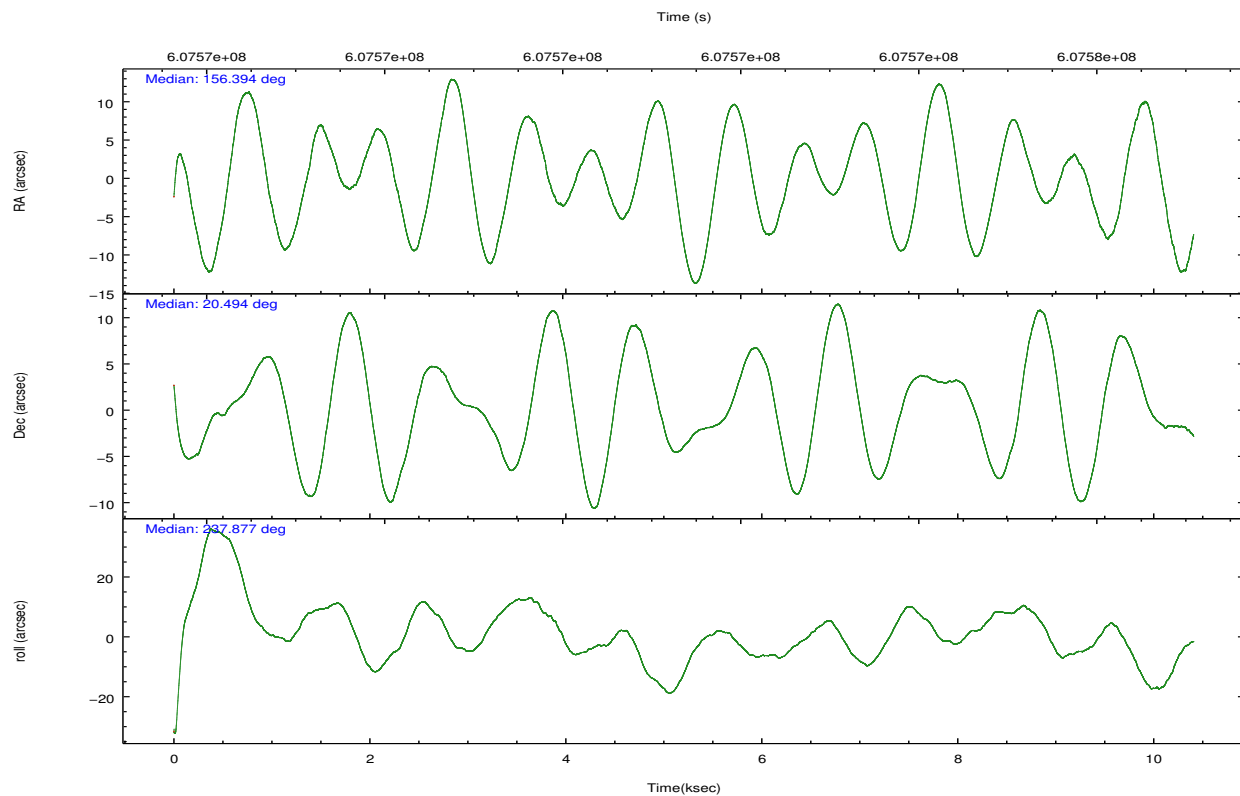
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-0123	ACIS-0123
Grating	NONE	NONE
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	156.394691	156.3936576081621
[deg] Pointing Dec	20.521689	20.49407352703992
[deg] Pointing Roll	237.681246	237.8902401502801
[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)	607566538.184000	607565055.14906
Observation start date	2017-04-03T00:27:49	2017-04-03T00:04:15
[s] Observation end time (MET)	607576538.184000	607577189.0997699
Observation end date	2017-04-03T03:14:29	2017-04-03T03:26:29
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.1

2.3 Aspect



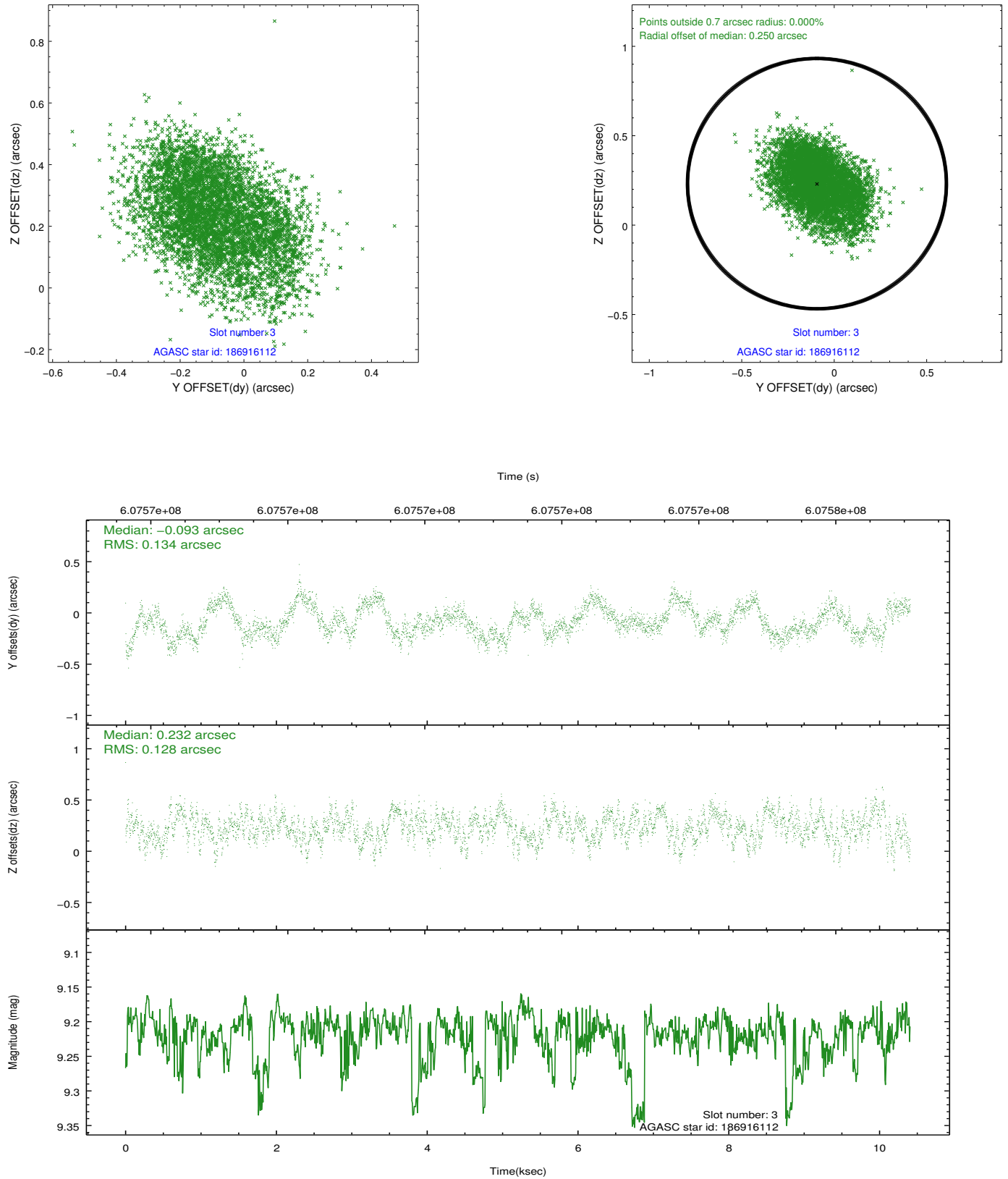


Slot Statistics

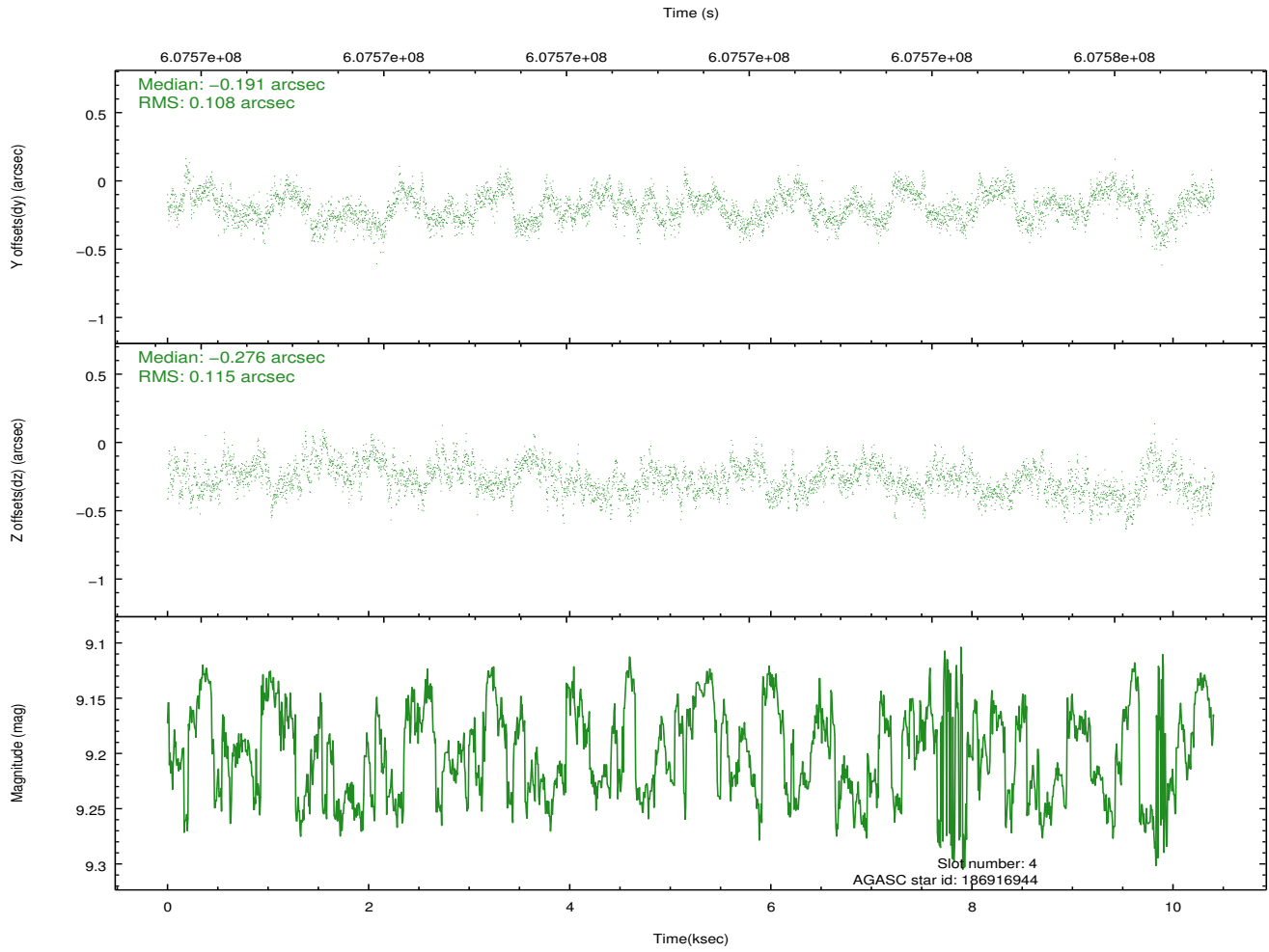
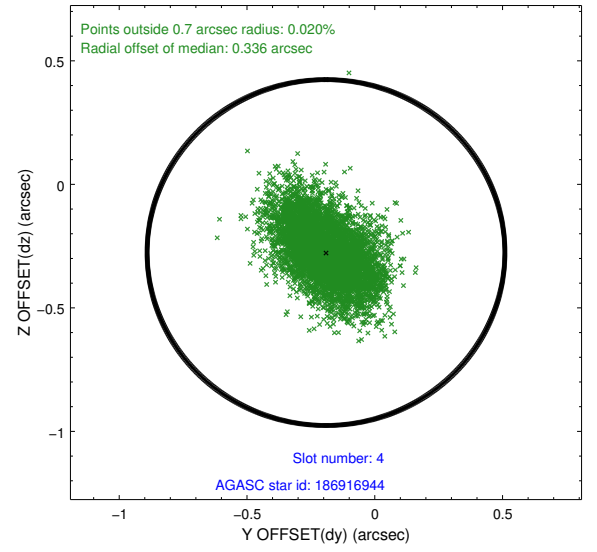
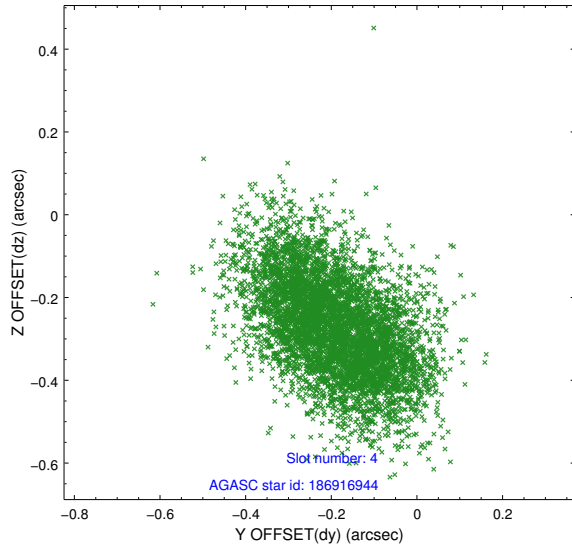
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.20	2537	0.083	-0.031	0.008	0.015	0.000000	0.000000	918.07	-846.01
1	FID		ACIS-I-5	7.18	2539	-0.417	0.029	0.006	0.012	0.000000	0.000000	-1830.39	1051.10
2	FID		ACIS-I-6	7.21	2539	0.243	0.072	0.009	0.016	0.000000	0.000000	383.05	1696.37
3	GUIDE	used	186916112	9.22	5073	-0.093	0.232	0.199	0.314	156.247087	20.725946	-355.24	-812.79
4	GUIDE	used	186916944	9.20	5071	-0.191	-0.276	0.166	0.274	156.549178	20.276162	468.48	913.44
5	GUIDE	used	186917480	9.64	5069	0.017	-0.200	0.189	0.313	156.951913	20.319435	-393.14	1977.24
6	GUIDE	used	186917568	9.82	5068	0.436	0.289	0.364	0.588	156.493532	20.349036	347.37	615.26
7	GUIDE	used	186918200	7.80	5076	-0.171	-0.040	0.164	0.258	156.743526	20.433649	-361.88	1163.78

2.4 Star Slots

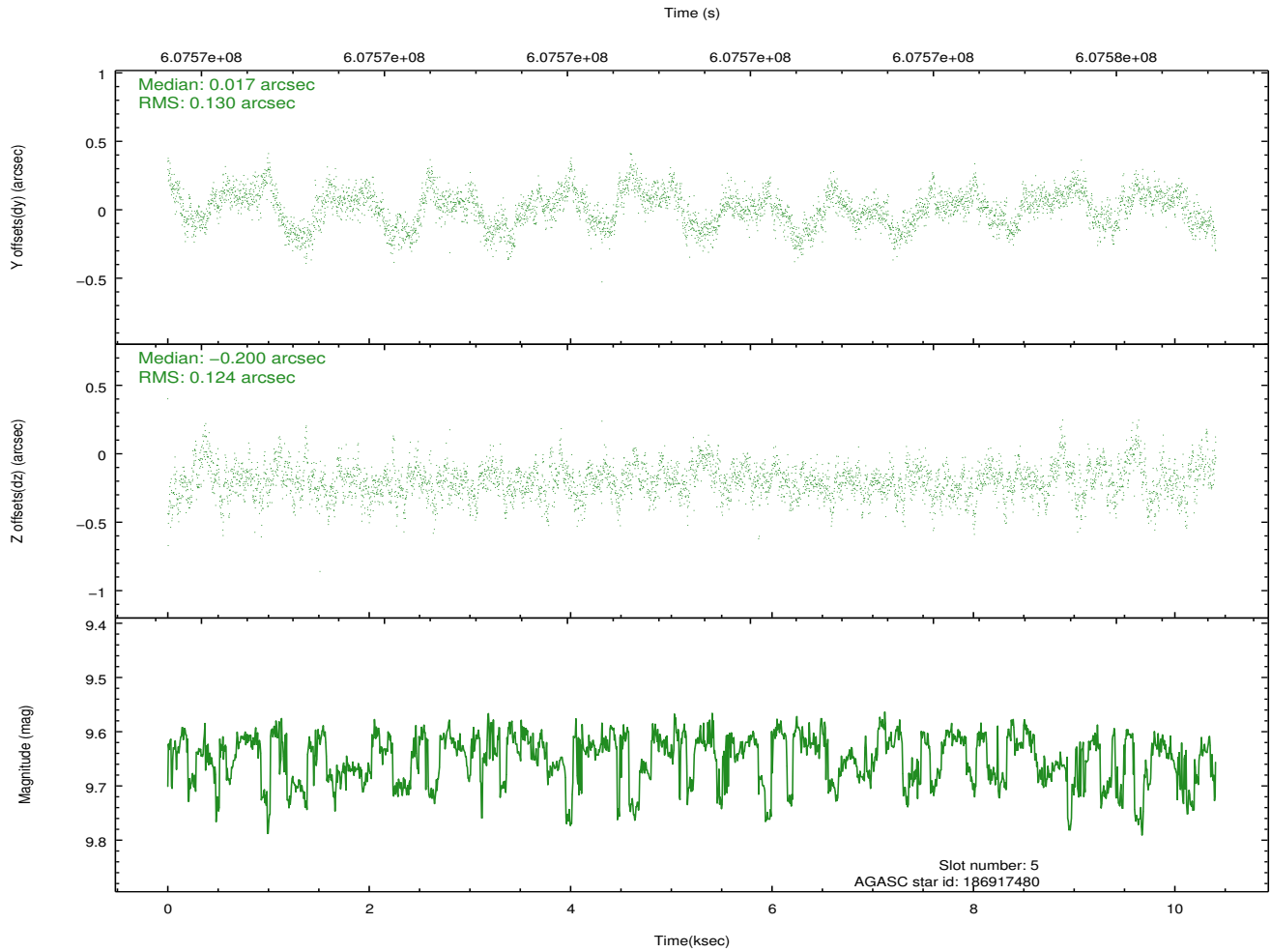
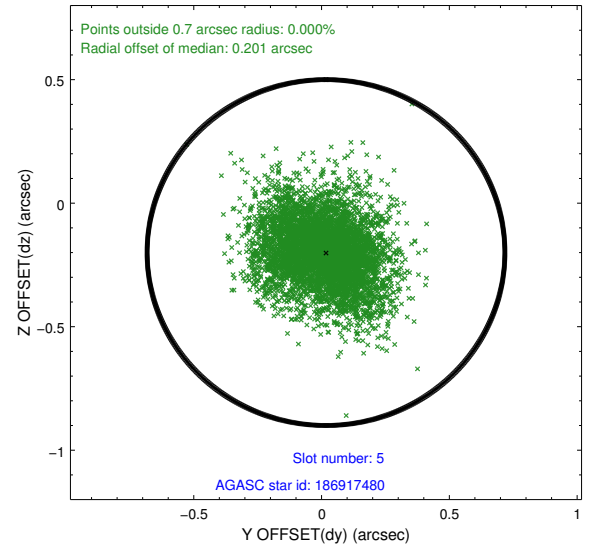
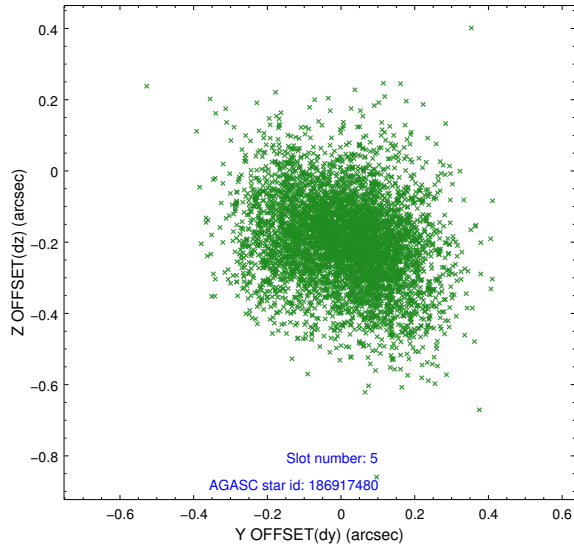
2.4.1 Slot 3



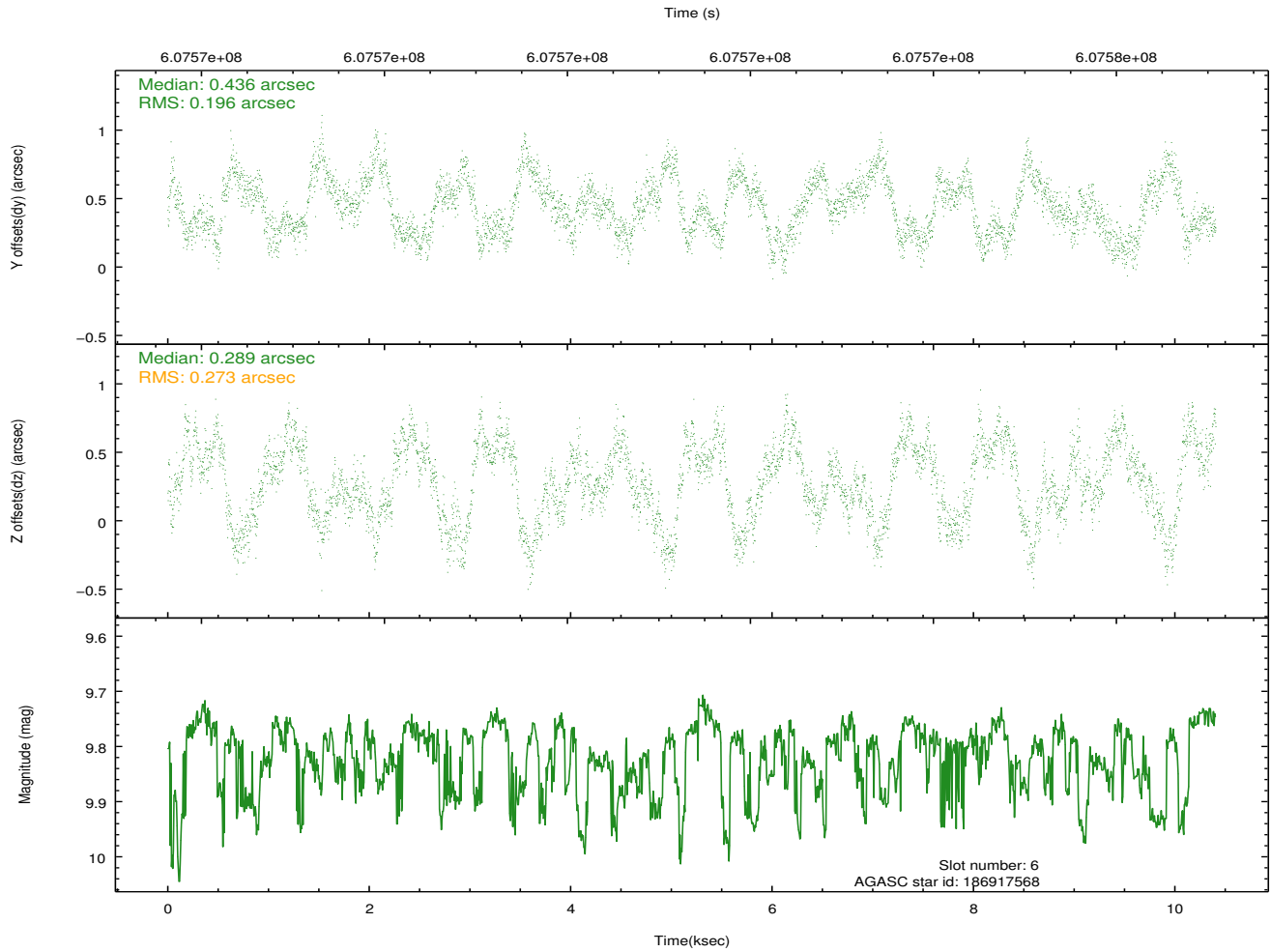
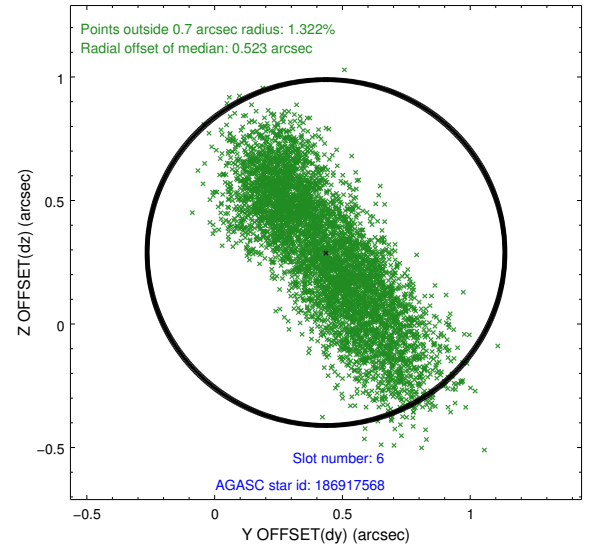
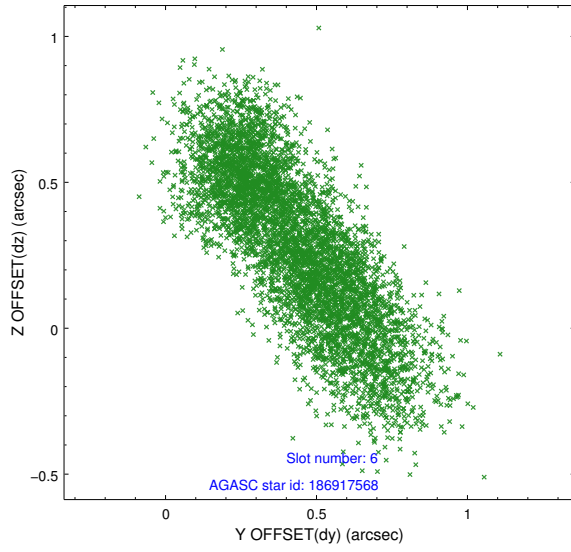
2.4.2 Slot 4



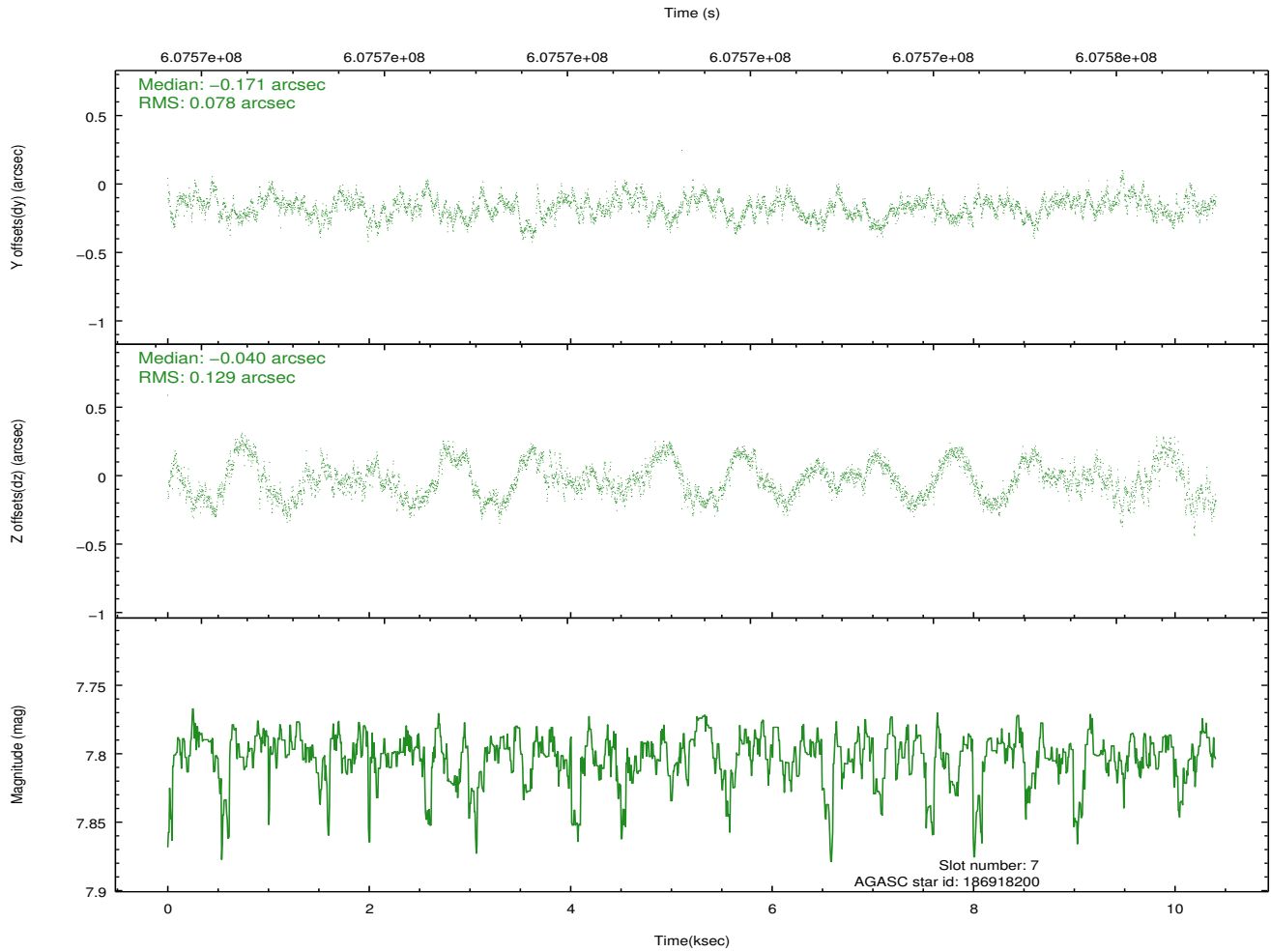
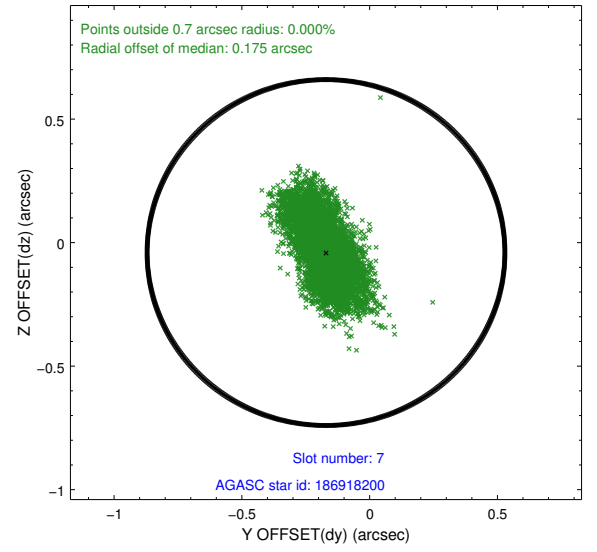
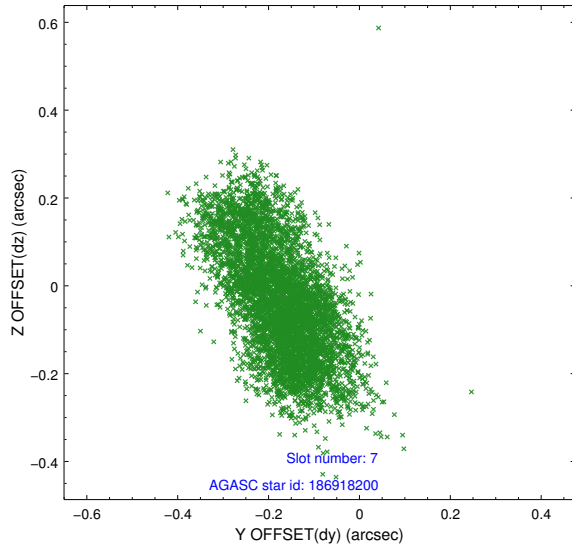
2.4.3 Slot 5



2.4.4 Slot 6

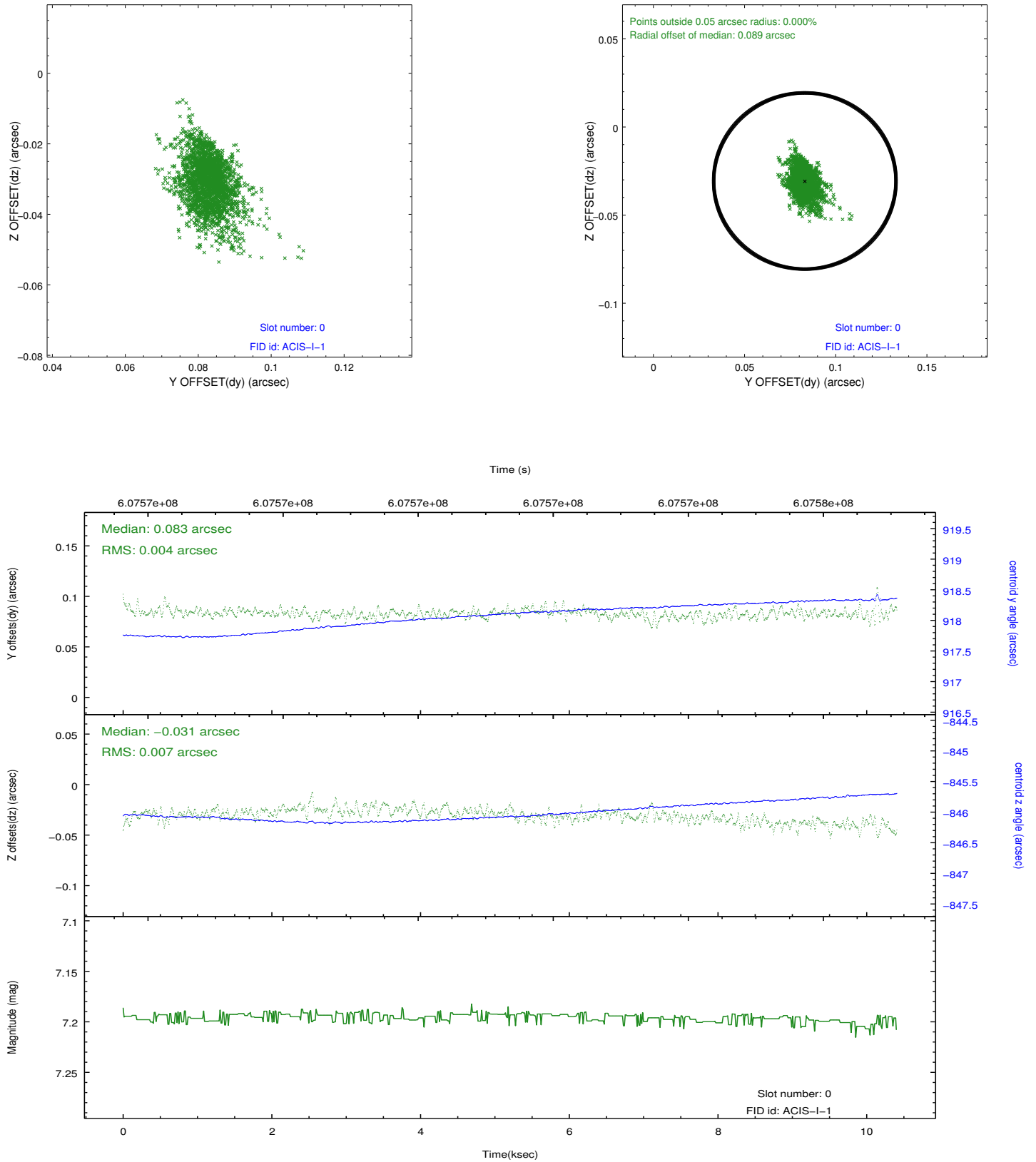


2.4.5 Slot 7

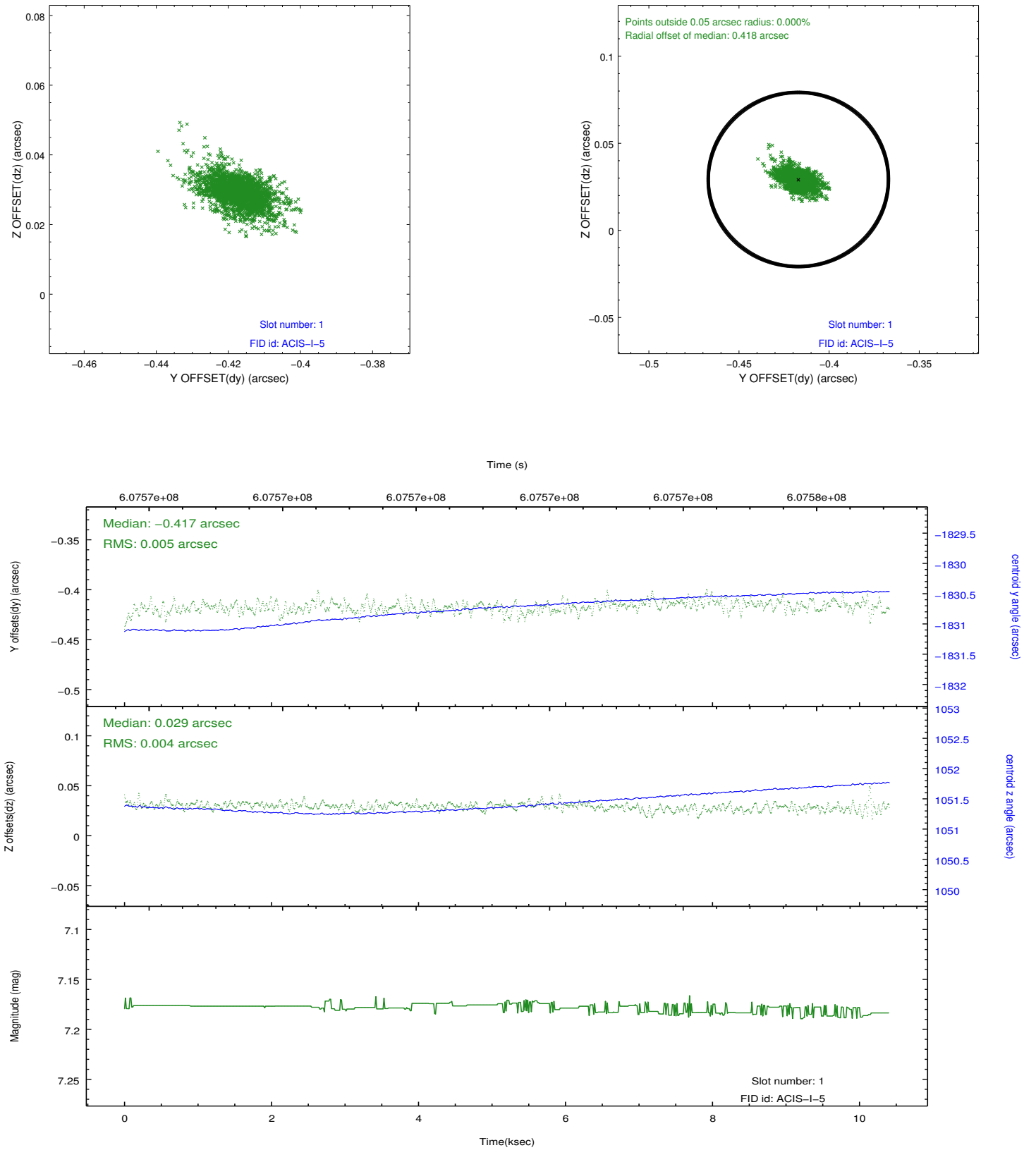


2.5 FID Slots

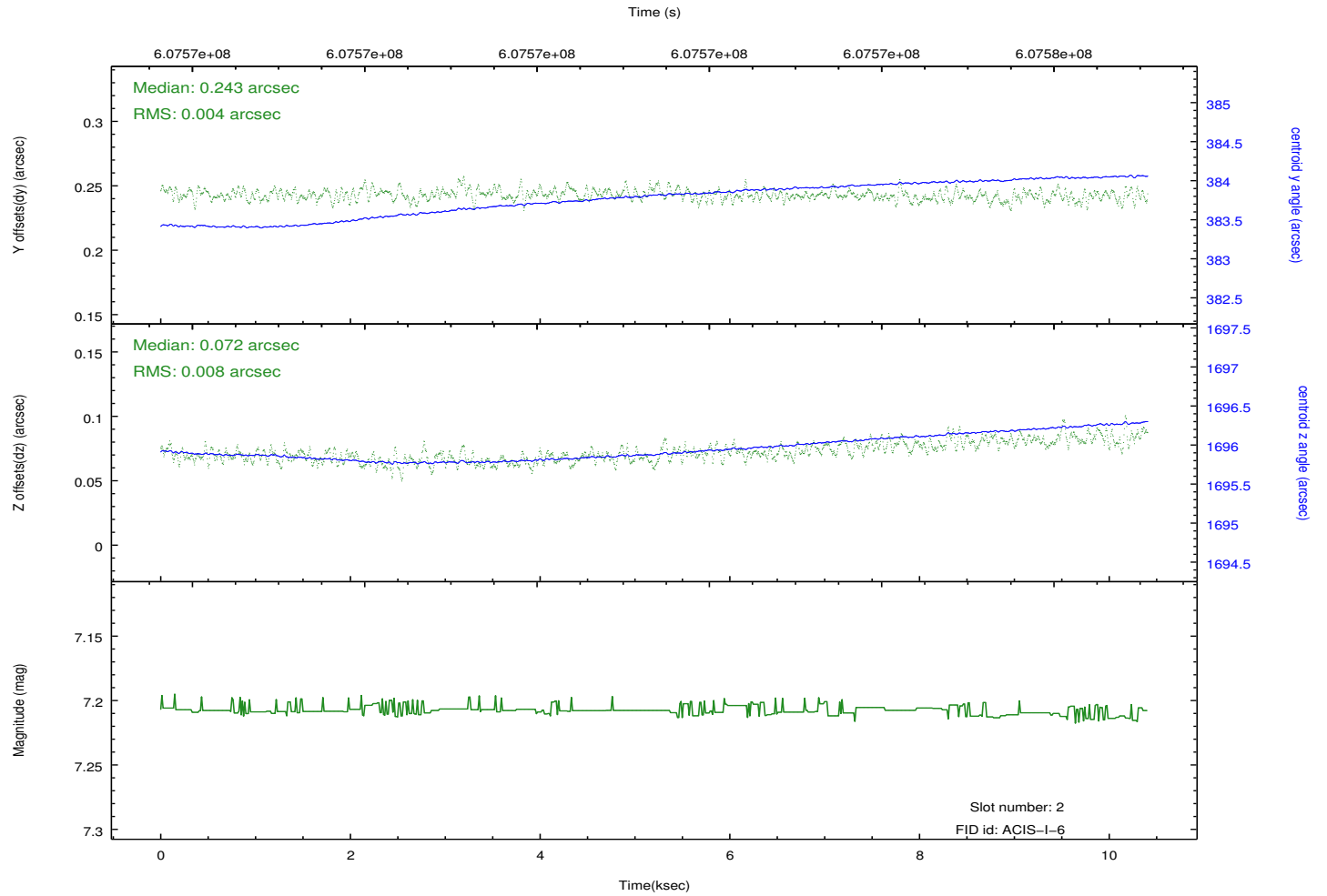
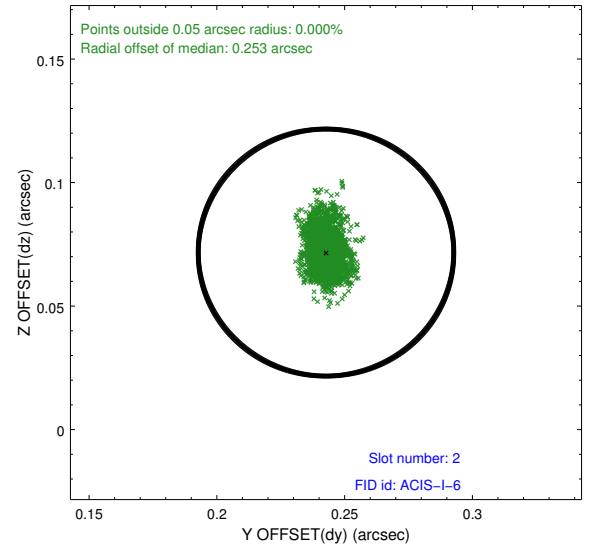
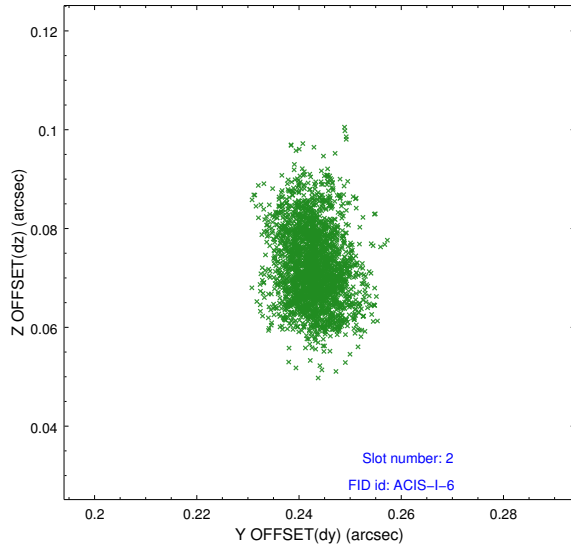
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2017.04.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.07685631299

A.2 Comments

The target name for this observation has been modified by adding the name of the target galaxy from "Off-field 2" to "NGC 3221 Off-field 2" in order to allow target-based searches in the archive.

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A spatial region of the original bias map for CCD = 6 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=6 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.