

V&V Reference Report

L2 ASCDS Version : 10.5.4

Observation 19335 - L2 Version 3
Chandra X-Ray Center

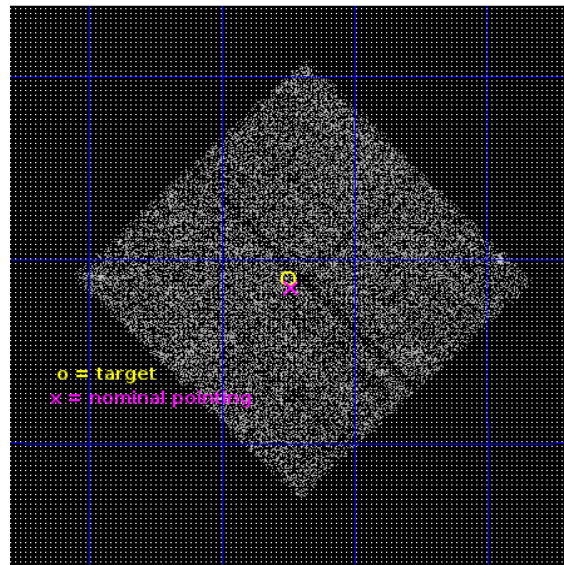
L2 Processing Date : Apr 28 2017

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

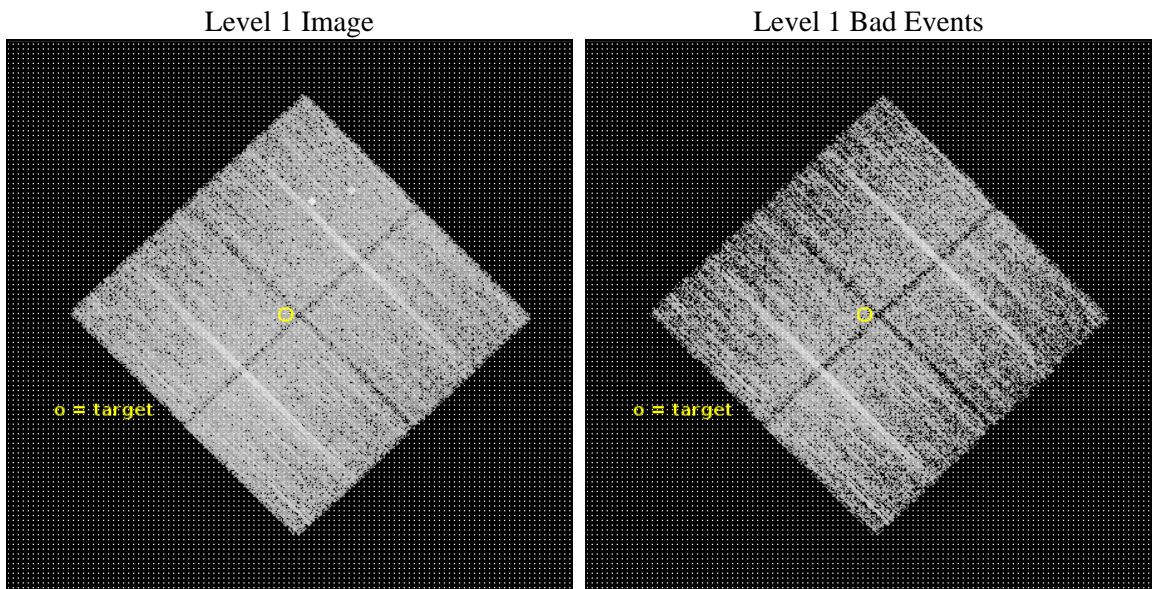
seq_num	601292	Sequence number
obs_id	19335	Observation id
title	MISSING BARYONS AND THE WARM-HOT CIRCUMGALACTIC MEDIUM OF AN EDGE-ON SPIRAL GALAXY	Proposal title
observer	Anjali Gupta	Principal investigator
object	NGC 3221 Off-field 1	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	154.562083	Observer's specified target RA [deg]
dec_targ	22.316333	Observer's specified target Dec [deg]
ra_nom	154.55918228067	Nominal RA [deg]
dec_nom	22.307899435886	Nominal Dec [deg]
roll_nom	225.78730391745	Nominal Roll [deg]
revision	3	Processing version of data
ontime	10078.100077629	Sum of GTIs [s]
livetime	9946.4222807255	Livetime [s]
ontime0	10078.100077629	Sum of GTIs [s]
ontime1	10078.100077629	Sum of GTIs [s]
ontime2	10078.100077629	Sum of GTIs [s]
ontime3	10078.100077629	Sum of GTIs [s]
l2events	26283	Number of level 2 events



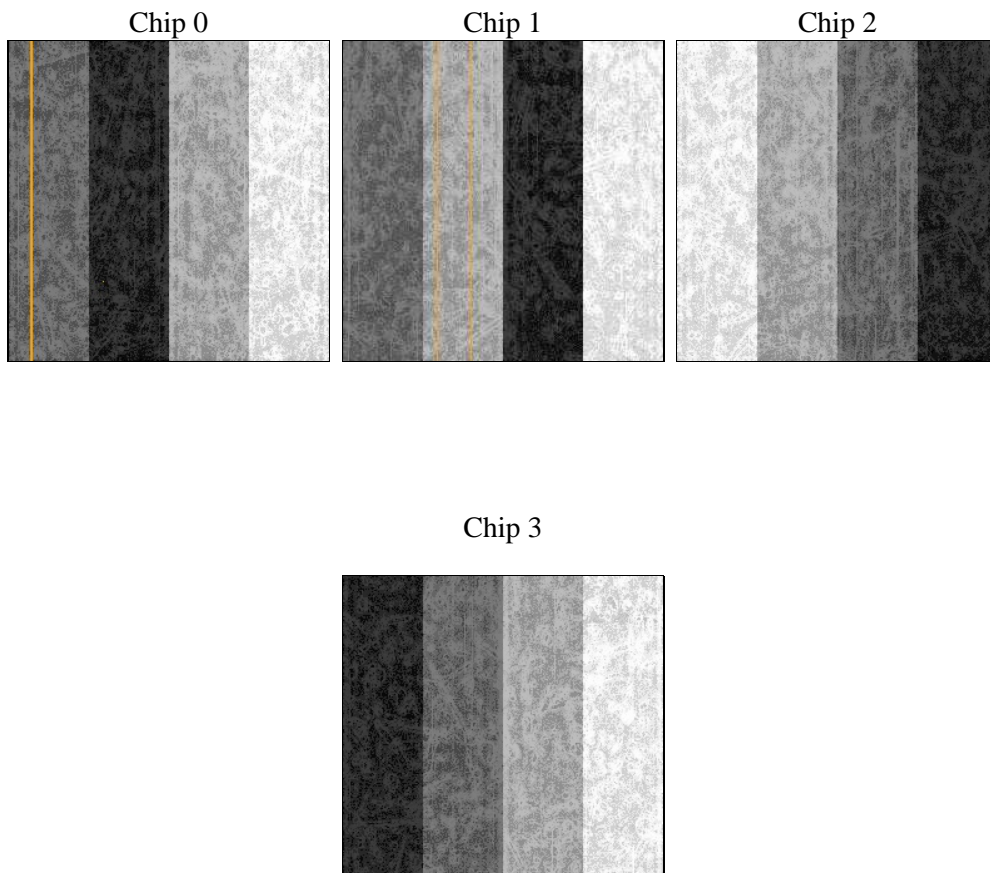
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	2	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.5.4	Processing system revision	ontime	10078.100077629	Sum of GTIs [s]
caldsver	4.7.3	 	ontime0	10078.100077629	Sum of GTIs [s]
date	2017-04-28T21:40:53	Date and time of file creation	ontime1	10078.100077629	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	10078.100077629	Sum of GTIs [s]
			ontime3	10078.100077629	Sum of GTIs [s]
			l1events	291064	Number of level 1 events

2.1.4 Events

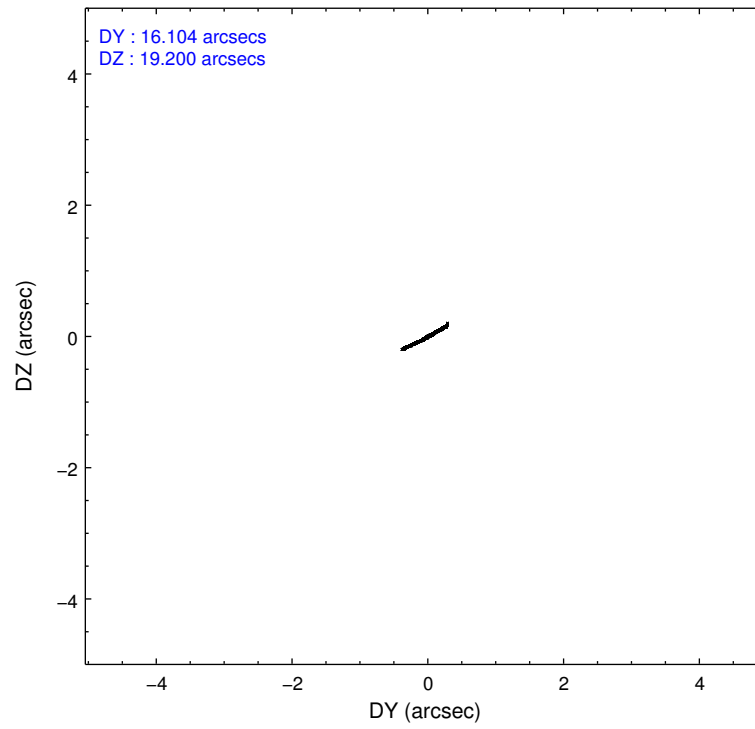
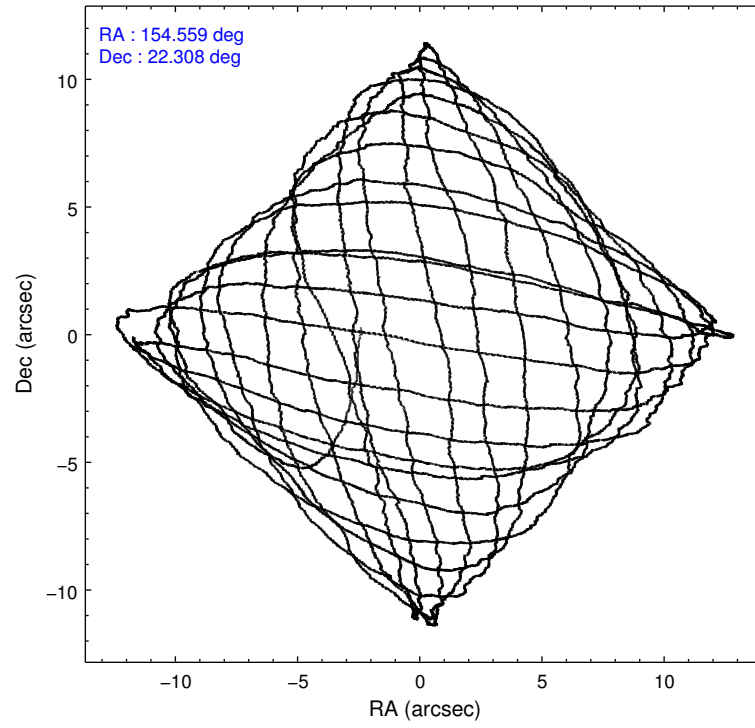
	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	67258	72550	78293	72963
rejected events	59107	63097	70778	65509
rejected %	87%	86%	90%	89%

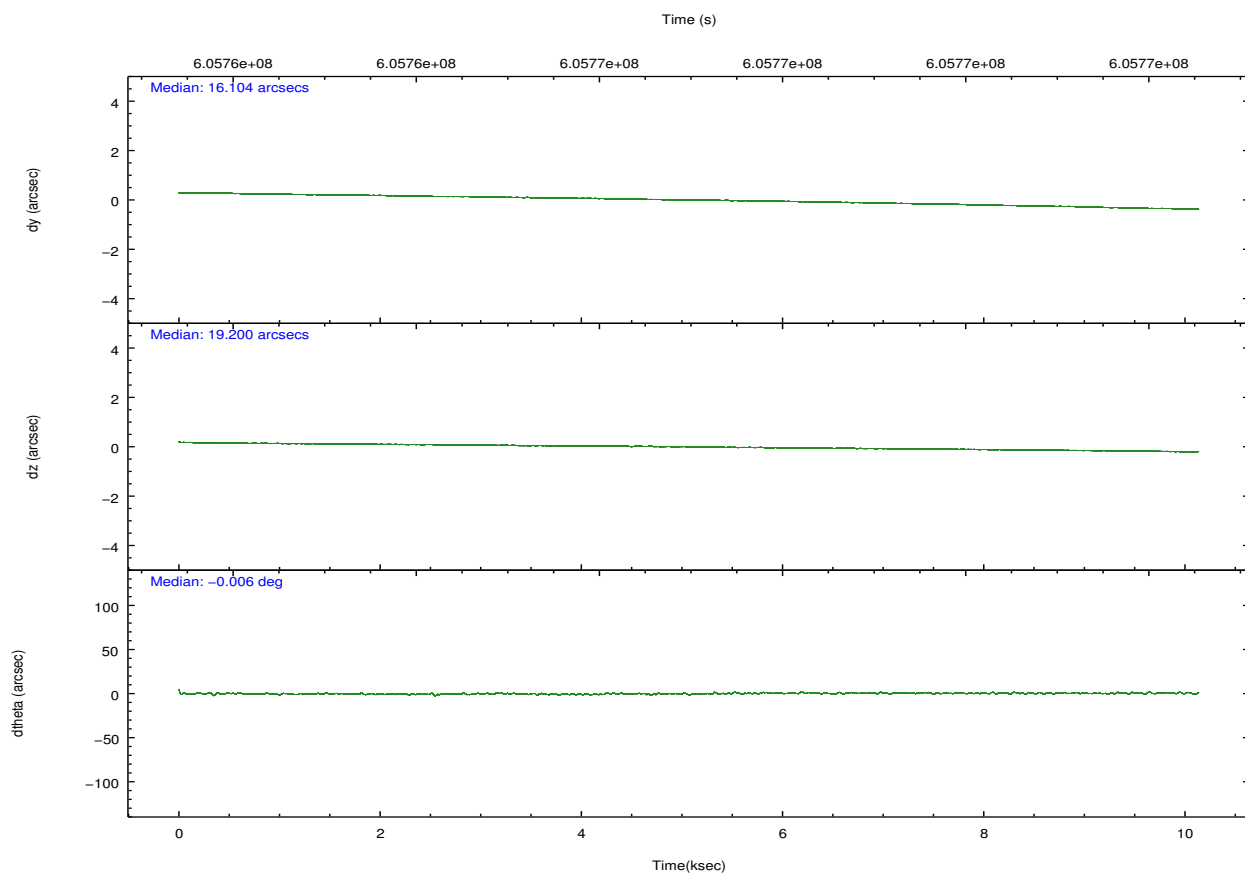
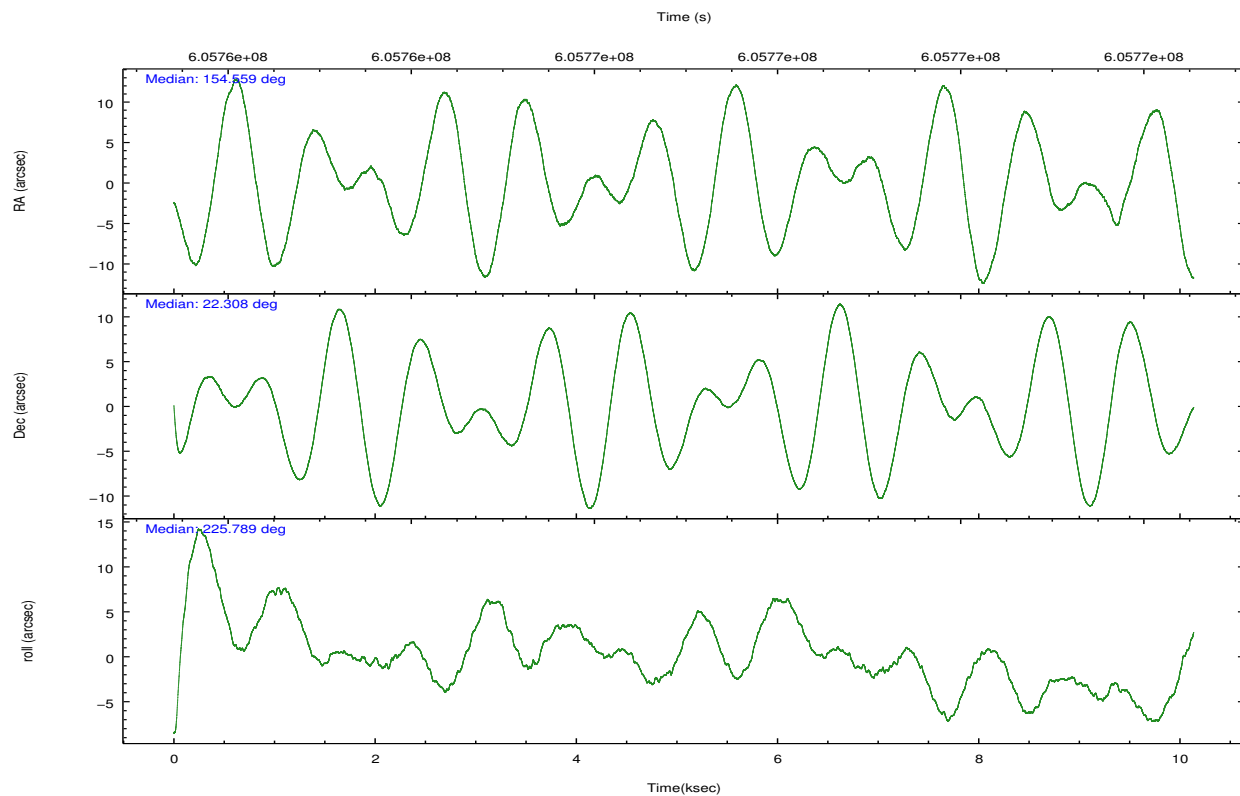
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	2946	3875	2627	2638
	4%	5%	3%	3%
grade 1 events	32	48	39	32
	0%	0%	0%	0%
grade 2 events	1902	1952	1813	1628
	2%	2%	2%	2%
grade 3 events	846	819	758	792
	1%	1%	0%	1%
grade 4 events	801	794	775	808
	1%	1%	0%	1%
grade 5 events	2965	3157	2820	3379
	4%	4%	3%	4%
grade 6 events	1661	2015	1548	1593
	2%	2%	1%	2%
grade 7 events	56105	59890	67913	62093
	83%	82%	86%	85%

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	154.566433	154.5591822806661	Subarray requested	NONE	NONE
[deg] Pointing Dec	22.334686	22.3078994358856	Alternating exposures requested	N	N
[deg] Pointing Roll	225.575878	225.787303917453	[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)	605762028.184000	605760888.48185			
Observation start date	2017-03-13T03:12:39	2017-03-13T02:54:48			
[s] Observation end time (MET)	605772028.184000	605772742.09504			
Observation end date	2017-03-13T05:59:19	2017-03-13T06:12:22			
Read mode	TIMED	TIMED			

2.3 Aspect



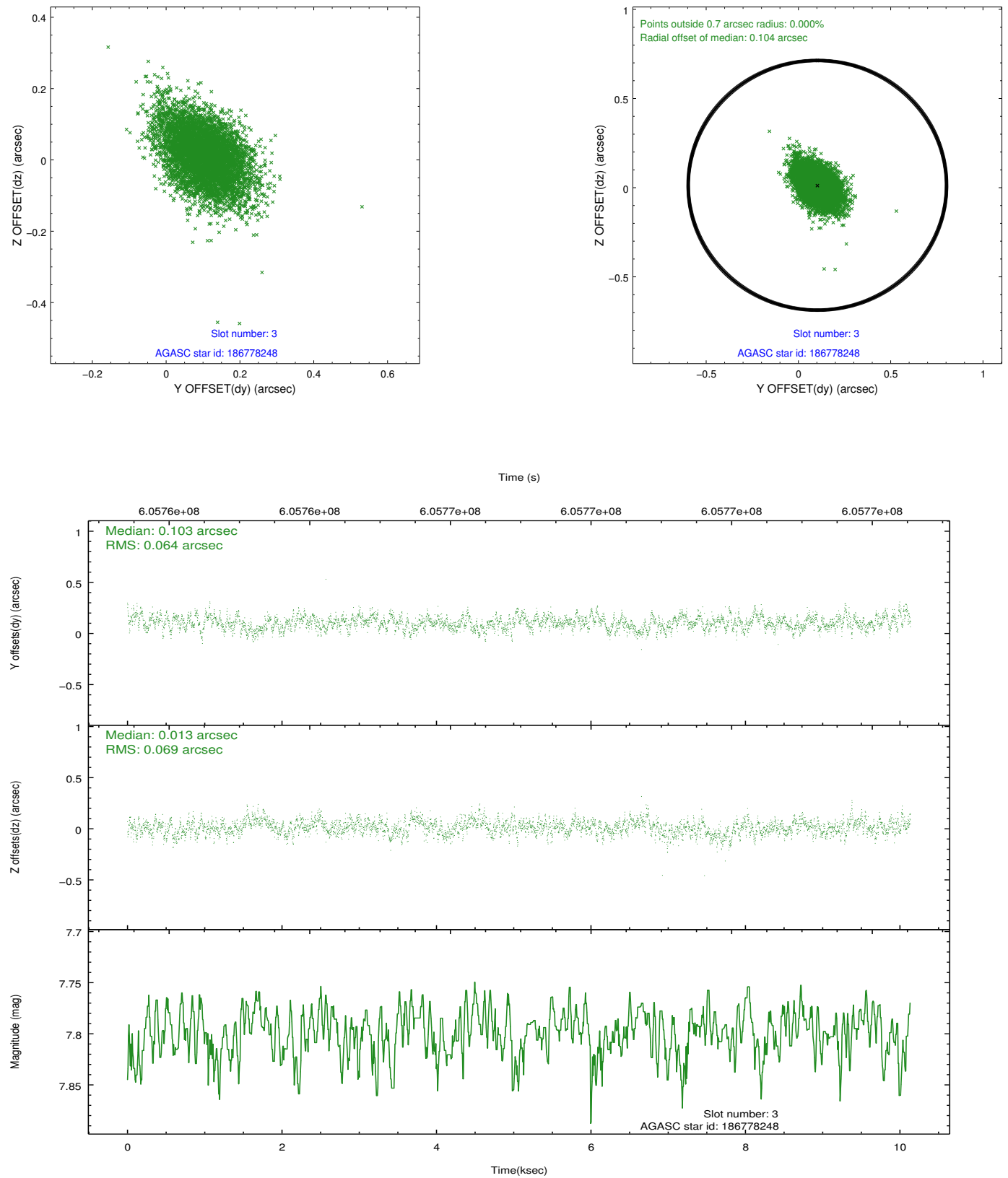


Slot Statistics

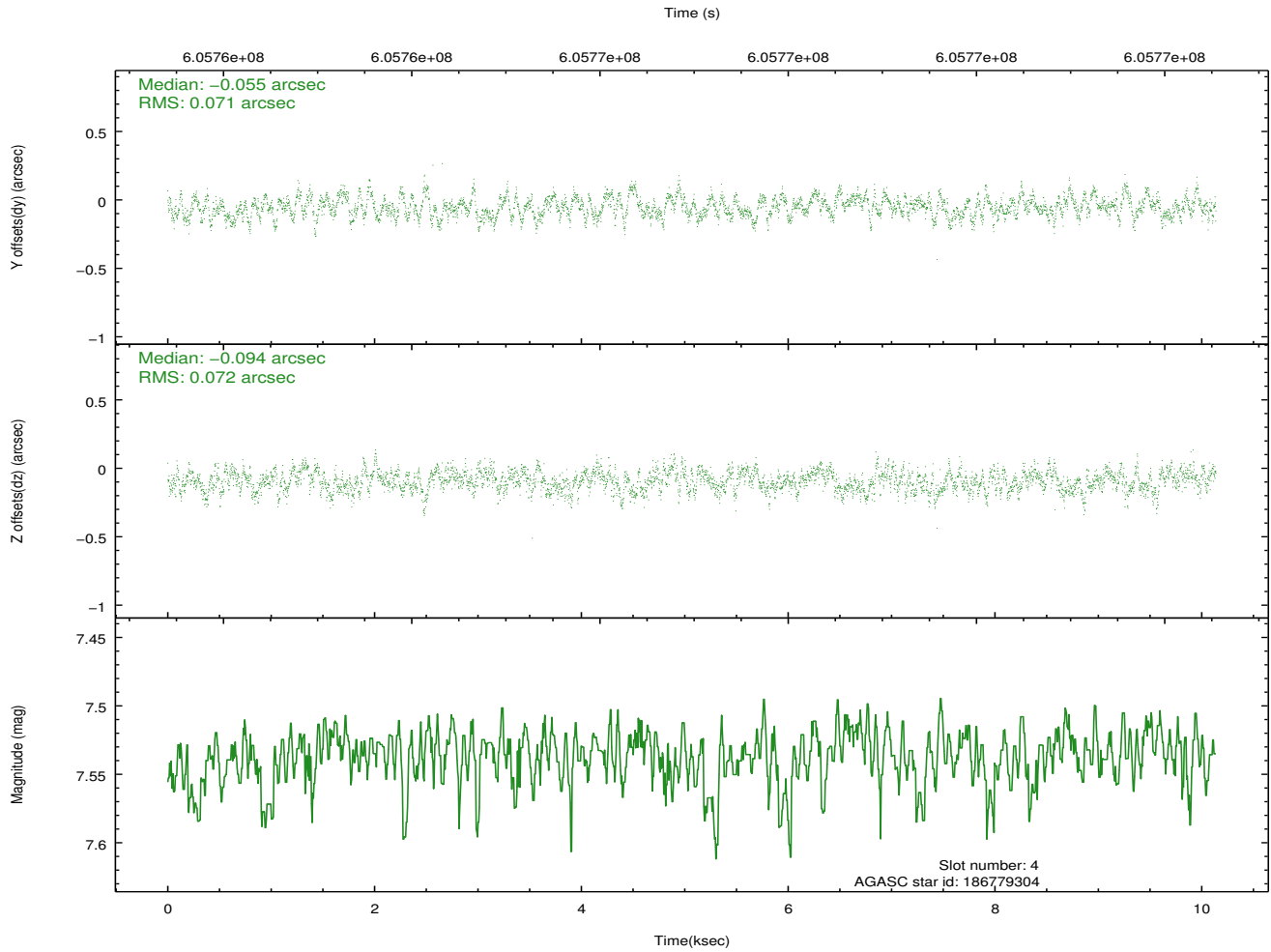
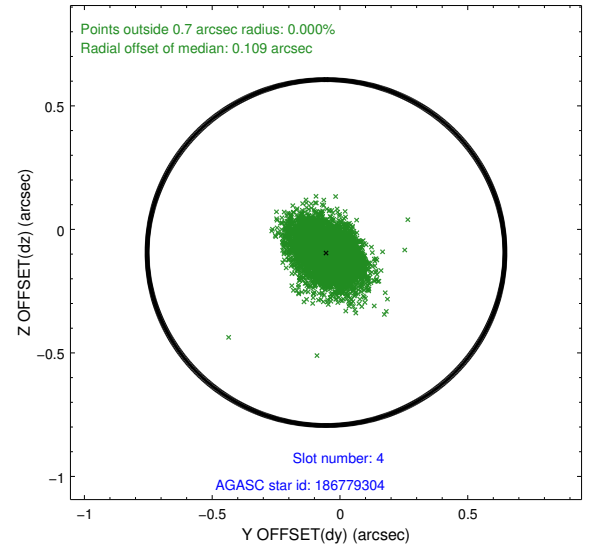
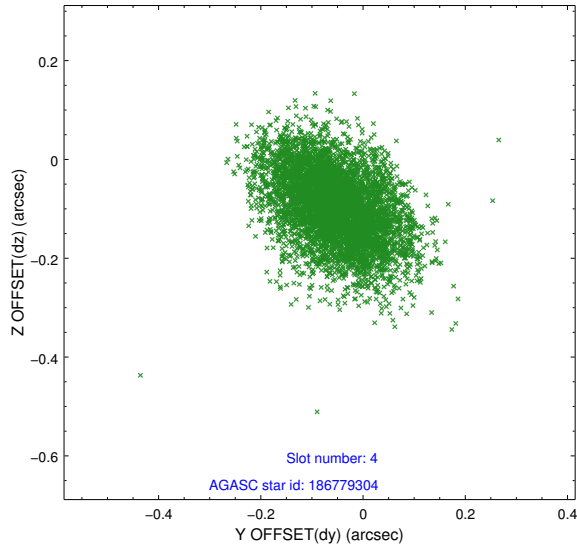
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.19	2473	-0.069	-0.020	0.010	0.018	0.000000	0.000000	923.34	-842.85
1	FID		ACIS-I-4	7.14	2473	0.439	0.071	0.015	0.022	0.000000	0.000000	2144.03	1056.87
2	FID		ACIS-I-5	7.20	2473	-0.468	0.020	0.010	0.018	0.000000	0.000000	-1824.53	1054.97
3	GUIDE	used	186778248	7.80	4945	0.103	0.013	0.097	0.166	154.251642	21.913046	1819.14	311.87
4	GUIDE	used	186779304	7.54	4945	-0.055	-0.094	0.108	0.175	154.495566	21.968561	1107.56	753.86
5	GUIDE	used	186910328	8.75	4945	-0.225	-0.044	0.103	0.170	154.791807	22.043886	221.15	1269.51
6	GUIDE	used	186910488	7.32	4946	0.086	0.179	0.104	0.179	155.064237	22.011425	-333.55	1999.99
7	GUIDE	used	258082040	8.17	4943	0.089	-0.052	0.096	0.166	154.912014	22.506617	-1247.62	387.87

2.4 Star Slots

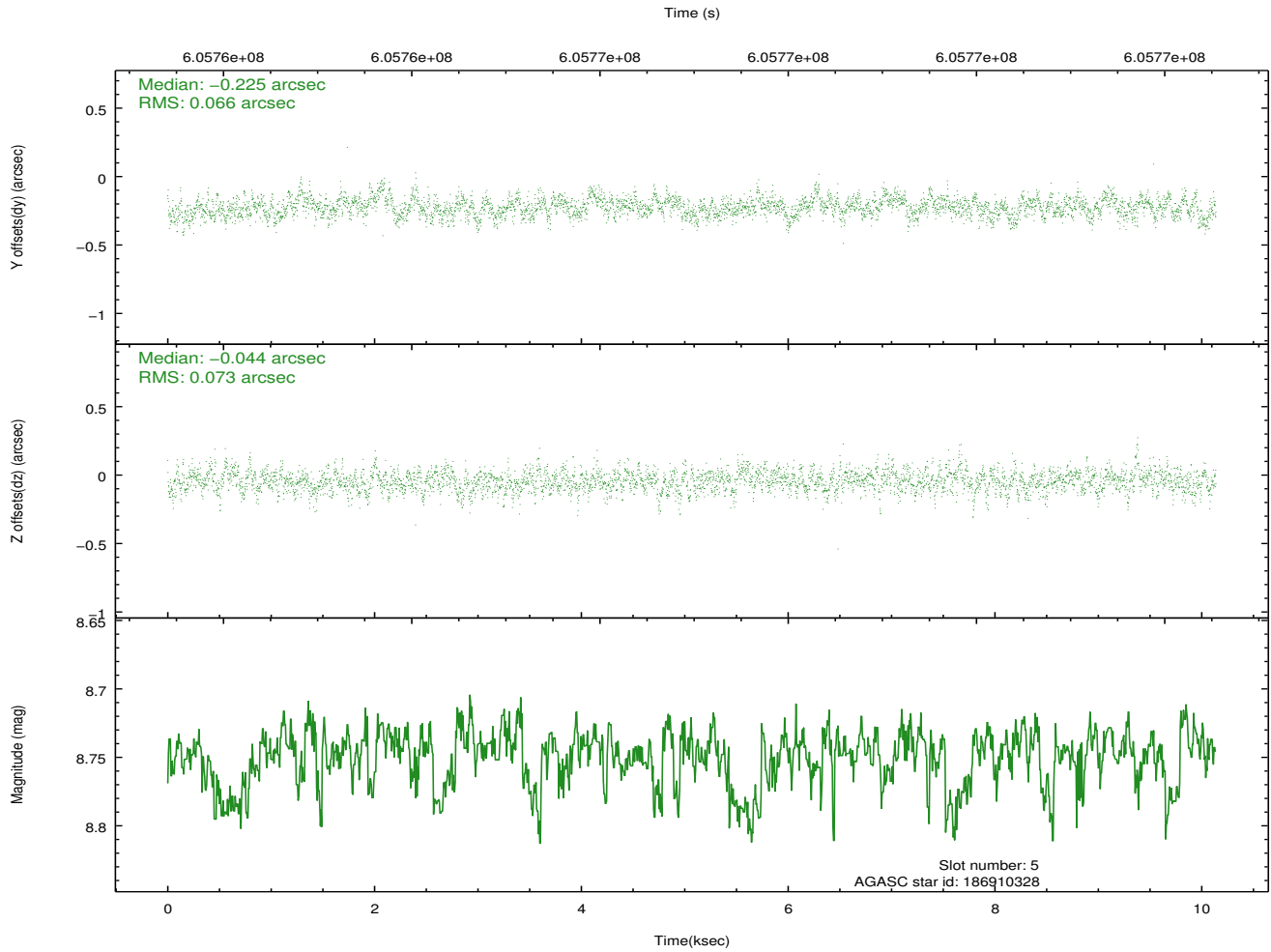
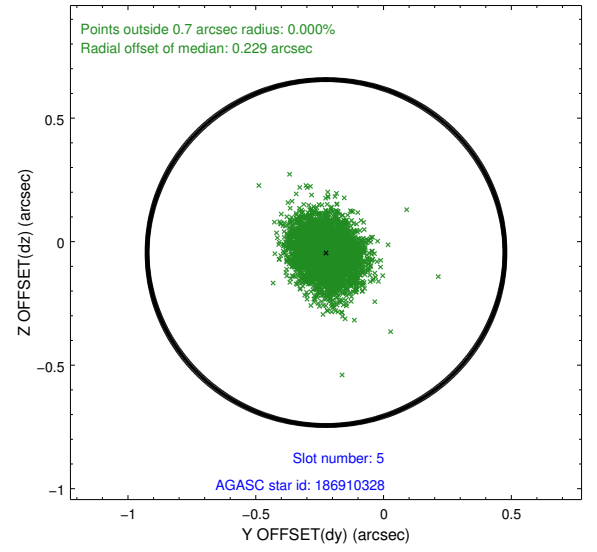
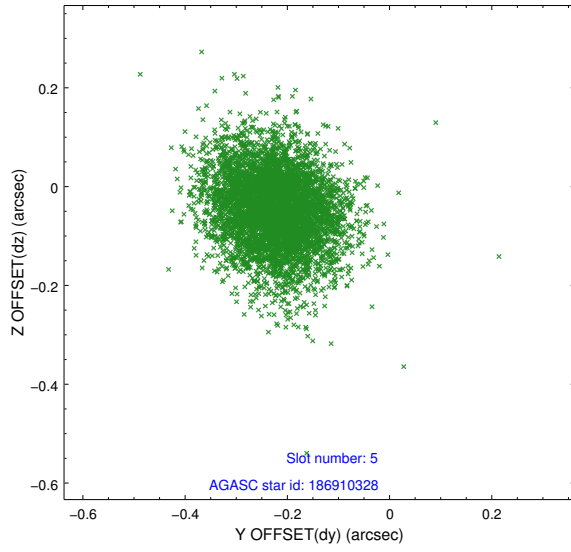
2.4.1 Slot 3



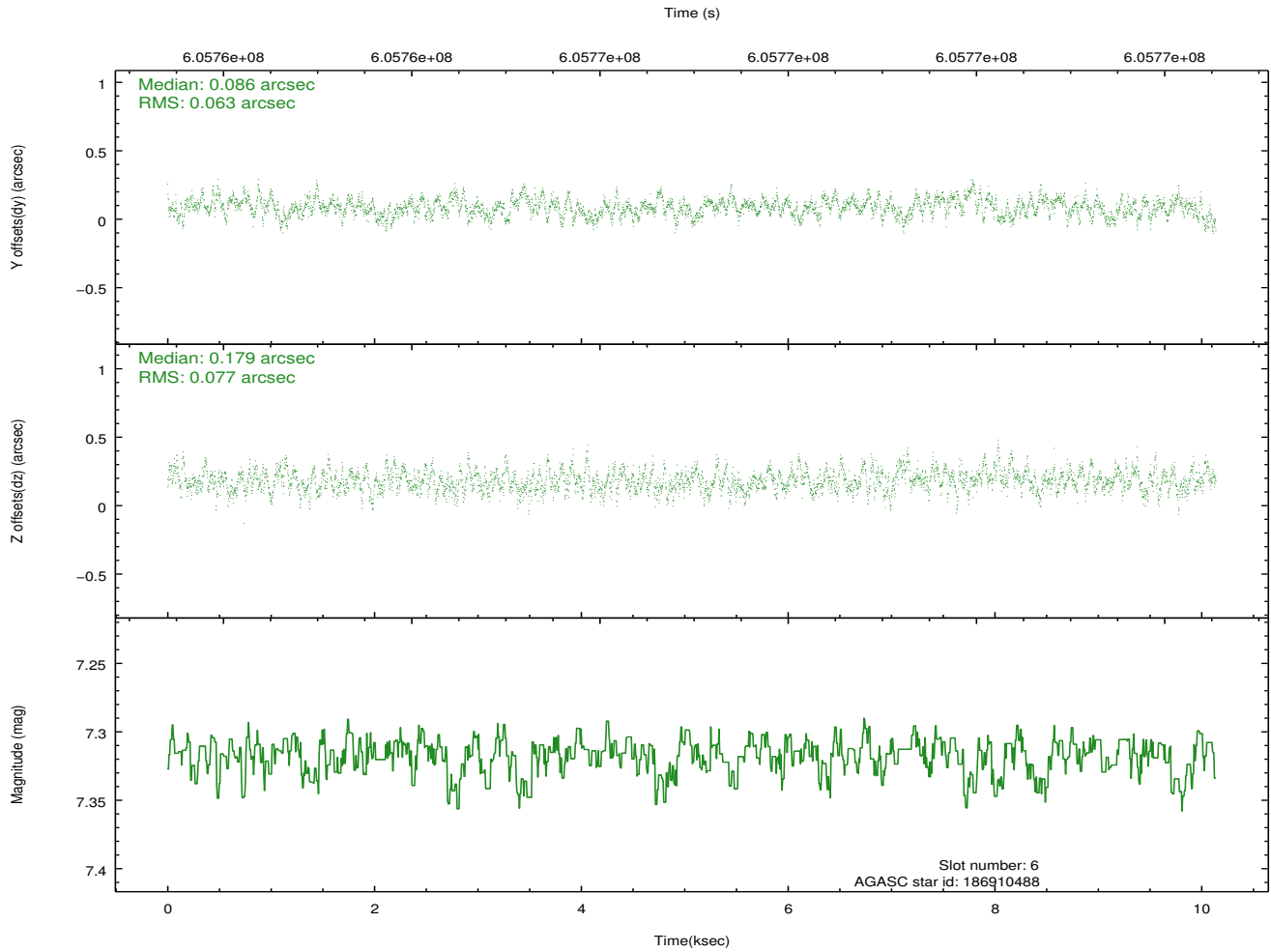
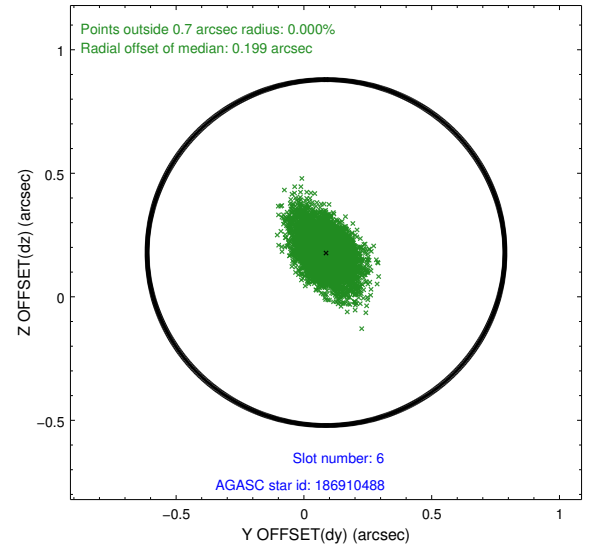
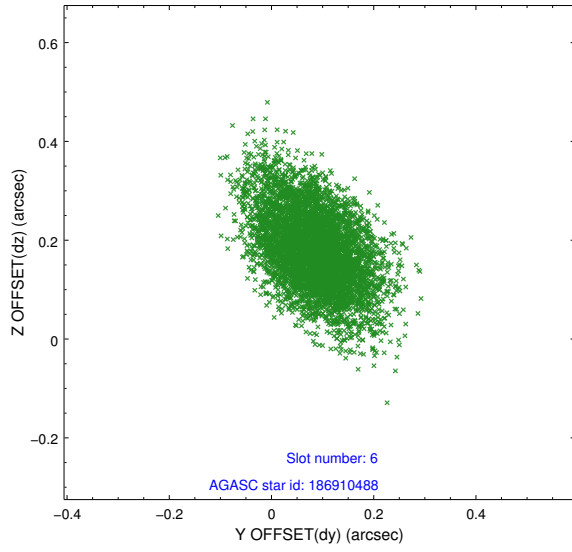
2.4.2 Slot 4



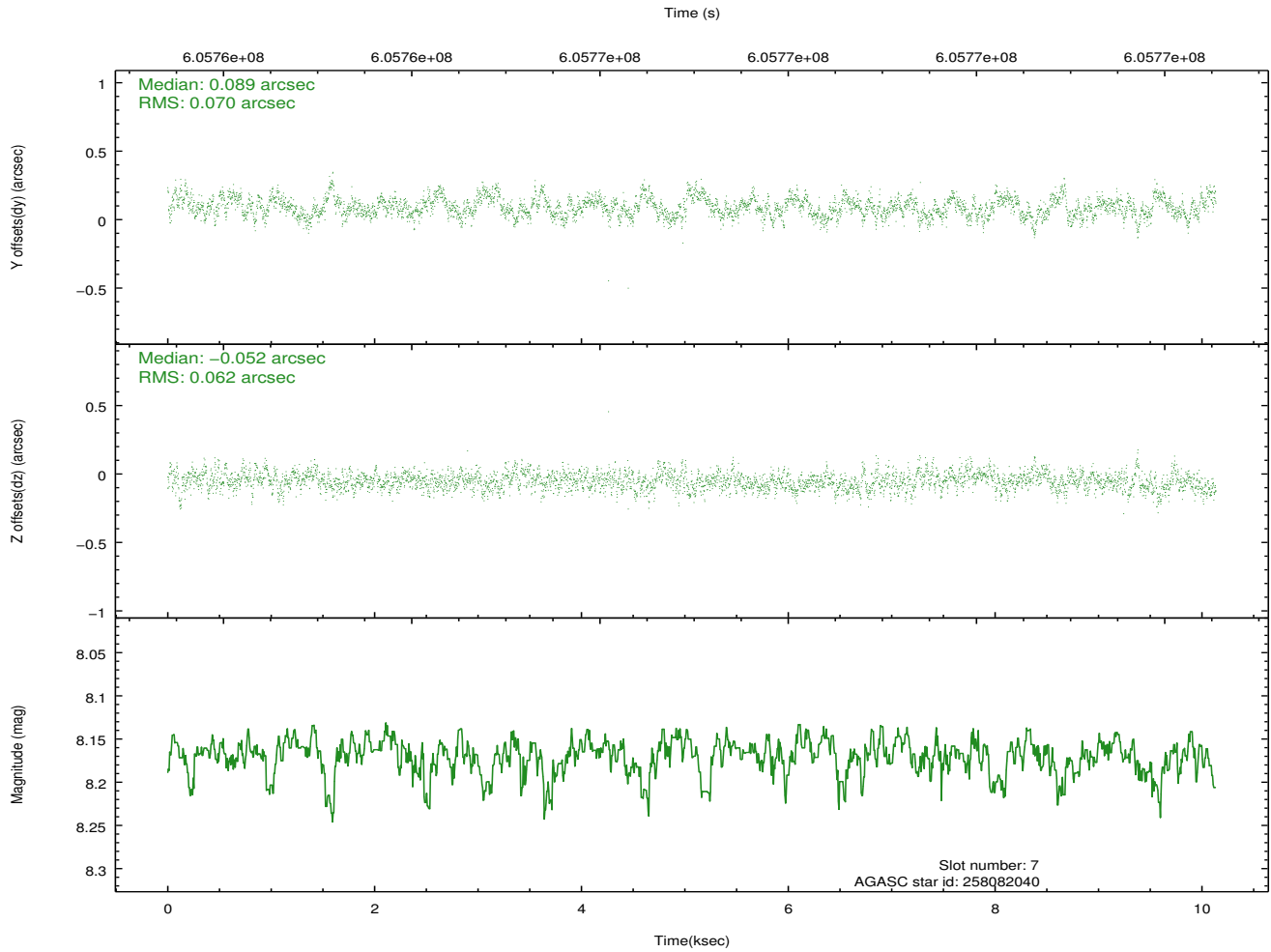
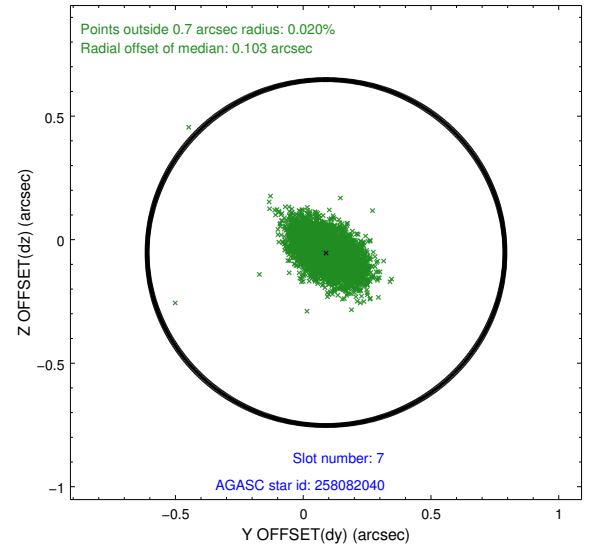
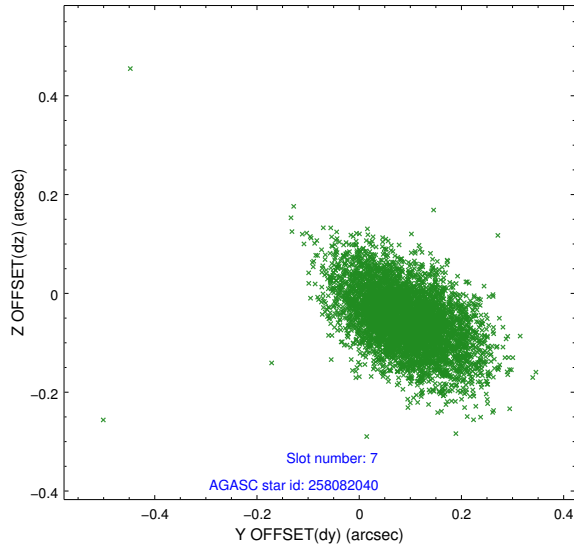
2.4.3 Slot 5



2.4.4 Slot 6

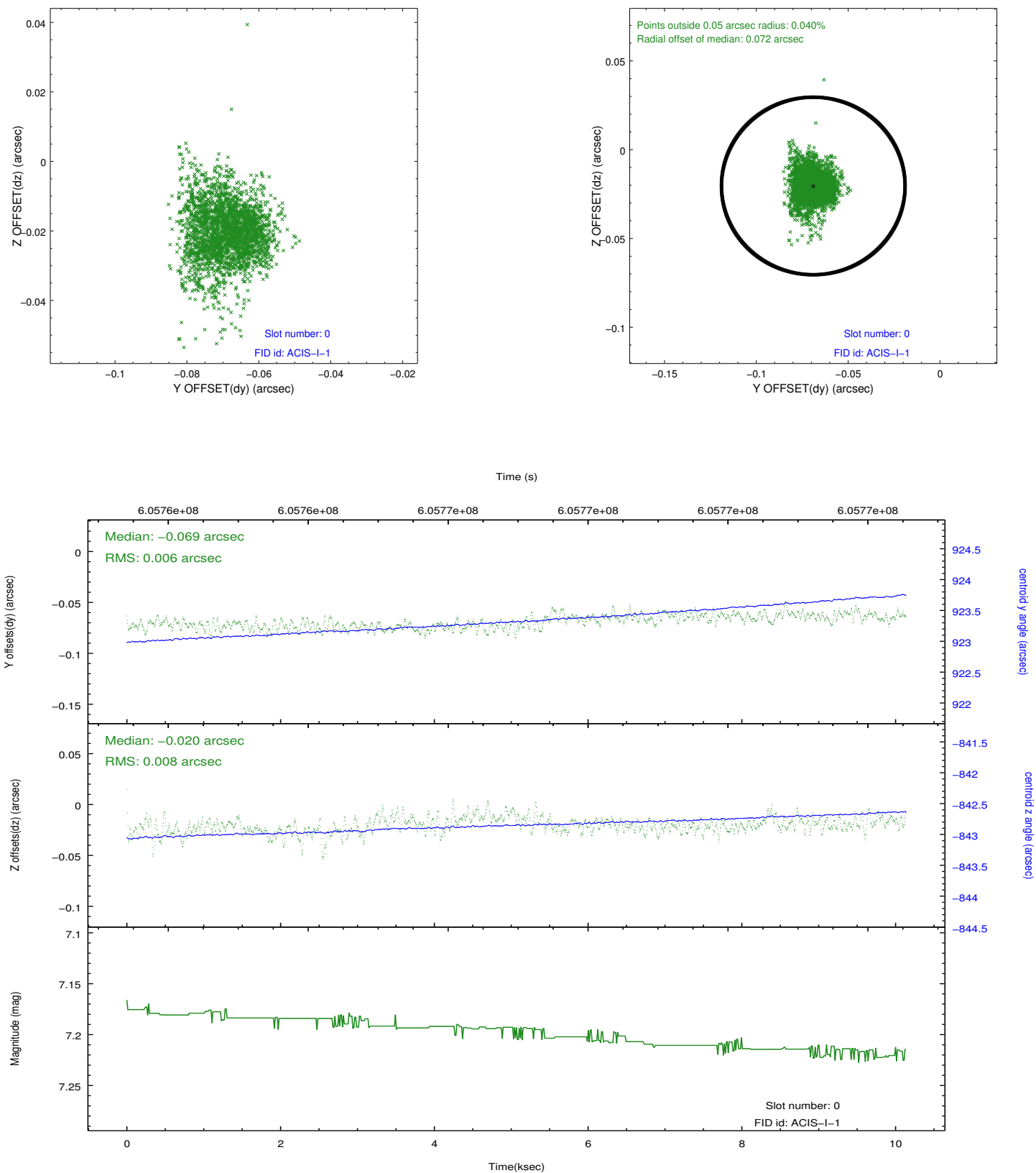


2.4.5 Slot 7

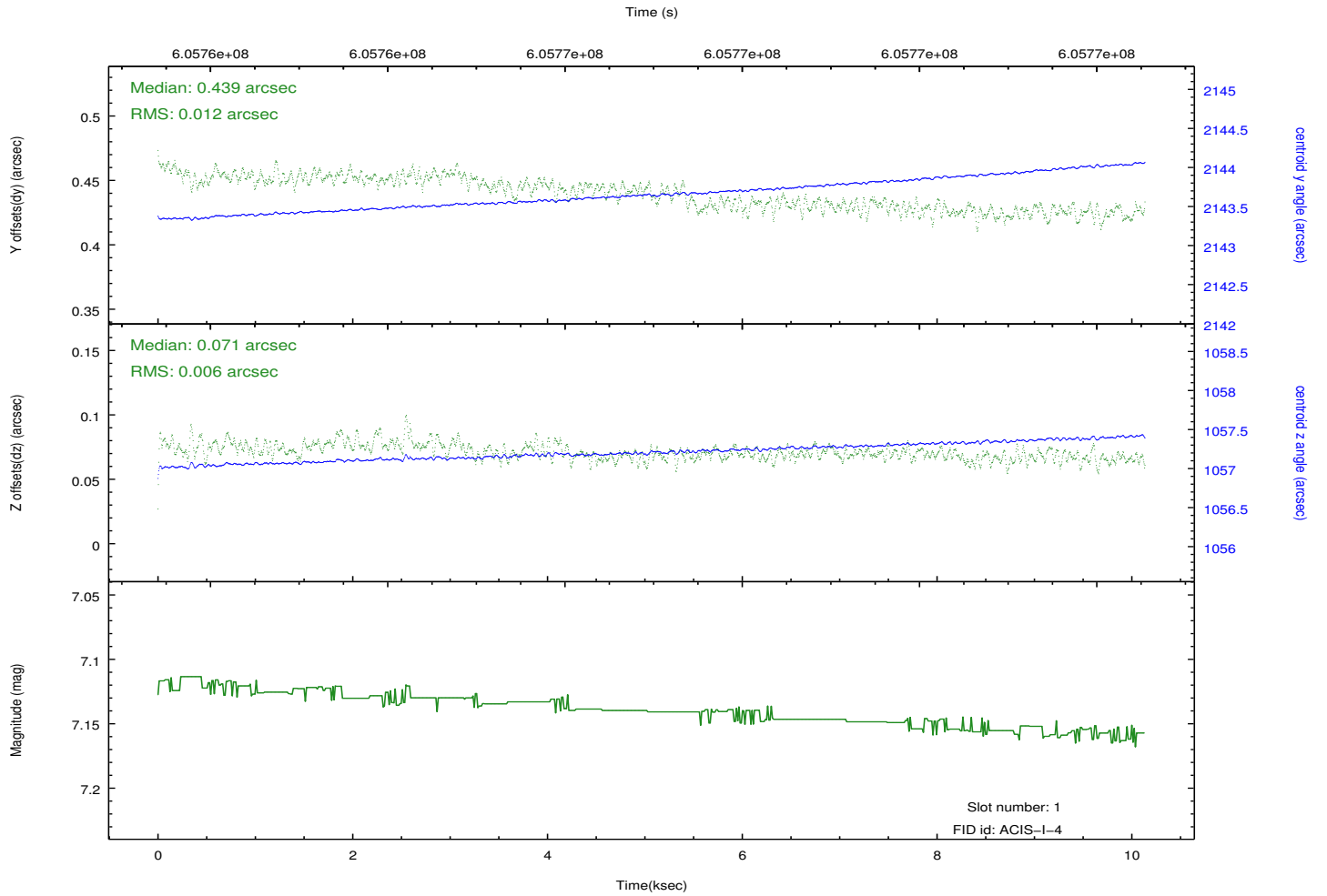
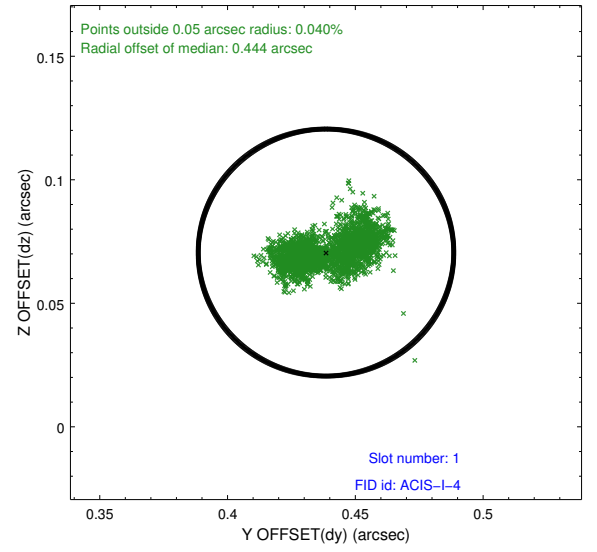
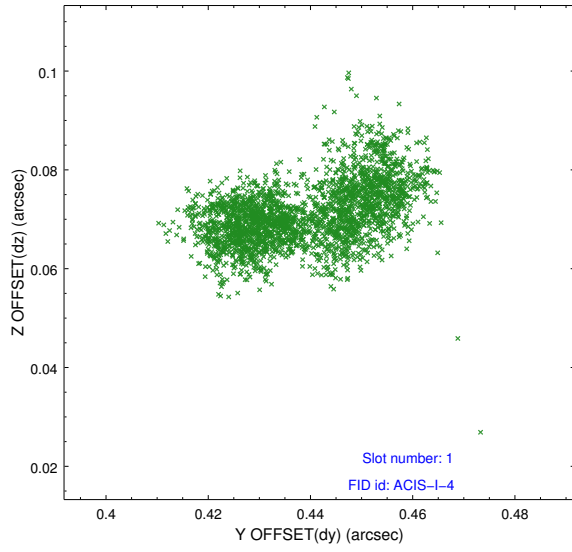


2.5 FID Slots

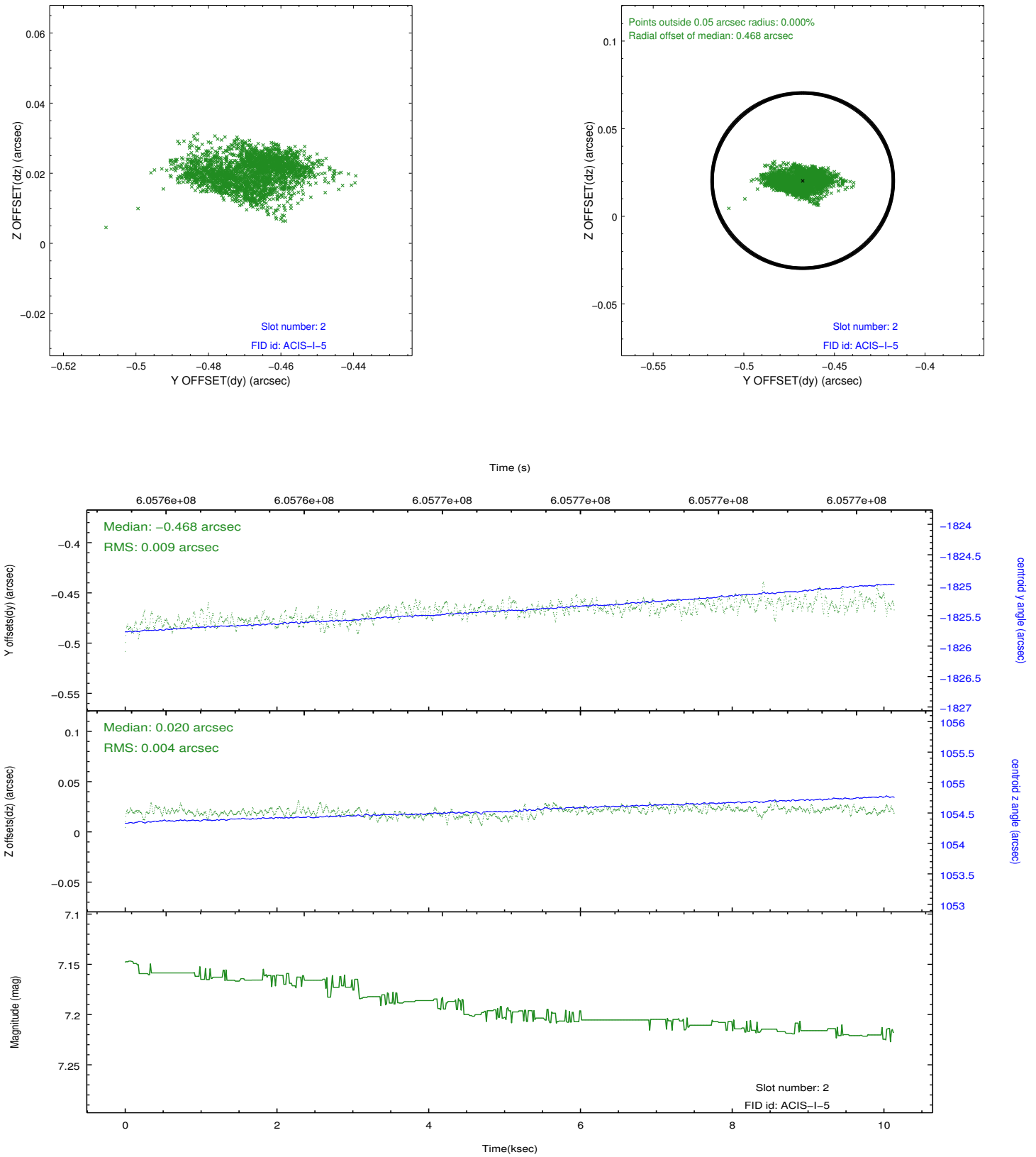
2.5.1 Slot 0



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)	2017.05.01
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.078100077629

A.2 Comments

The target name for this observation has been modified by adding the name of the target galaxy (from "Off-field 1" to "NGC 3221 Off-field 1") in order to allow target-based searches in the archive.

A spatial region of the original bias map for CCD = 1 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. The bias map for CCD = 1 has been reconstructed for this processing to remove this anomaly using scaled data from a comparable bias map from another observation. The pixels affected by the anomaly are bounded by sky coords: (154.61902,22.44939), (154.61563,22.45243), (154.60832,22.44549), (154.61253,22.44323).