

V&V Reference Report

L2 ASCDS Version : 10.5.2

Observation 20046 - L2 Version 2
Chandra X-Ray Center

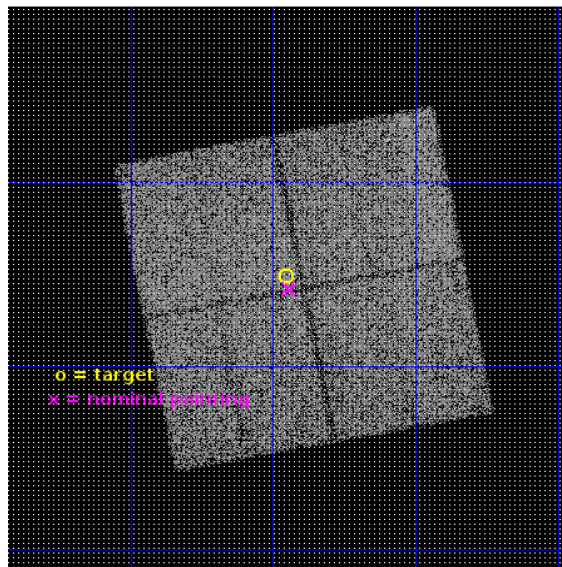
L2 Processing Date : Mar 27 2017

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1 Front

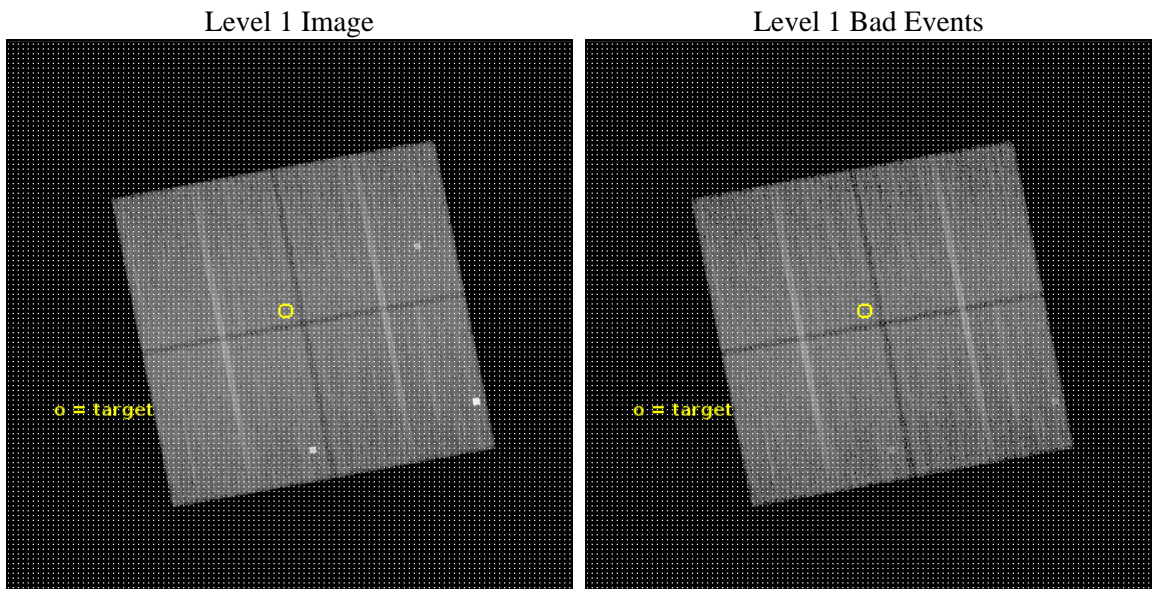
seq_num	703249	Sequence number
obs_id	20046	Observation id
title	QSOs at z=6: Black Hole Growth and Feedback in the Early Universe	
observer	Dr Roberto Gilli	Principal investigator
object	SDSSJ1030+0524	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	157.612917	Observer's specified target RA [deg]
dec_targ	5.415278	Observer's specified target Dec [deg]
ra_nom	157.61066468522	Nominal RA [deg]
dec_nom	5.4036806497263	Nominal Dec [deg]
roll_nom	259.20890338909	Nominal Roll [deg]
revision	2	Processing version of data
ontime	37075.959195018	Sum of GTIs [s]
livetime	36591.534493211	Livetime [s]
ontime0	37079.100285292	Sum of GTIs [s]
ontime1	37072.818124771	Sum of GTIs [s]
ontime2	37069.677044511	Sum of GTIs [s]
ontime3	37075.959195018	Sum of GTIs [s]
l2events	99233	Number of level 2 events



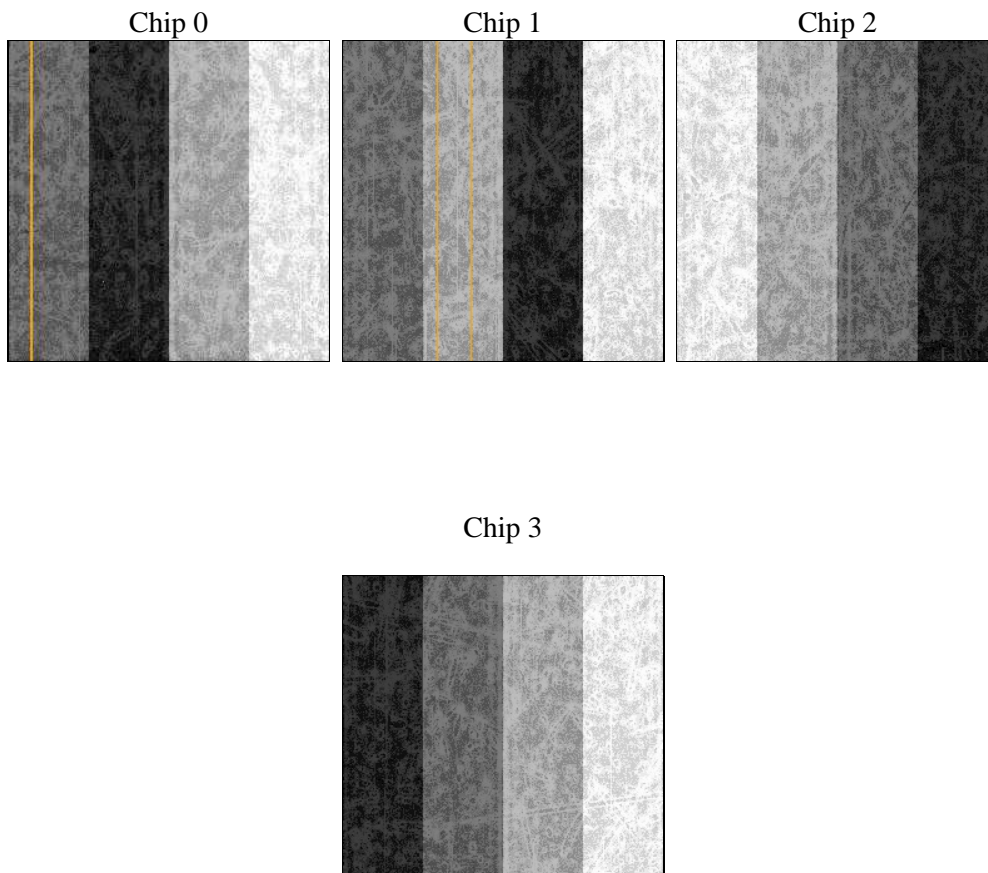
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	37000.000000	[s] Scheduled observation exposure time
ascdsver	10.5.2	Processing system revision	ontime	37075.959195018	Sum of GTIs [s]
caldbver	4.7.3	 	ontime0	37079.100285292	Sum of GTIs [s]
date	2017-03-27T16:45:57	Date and time of file creation	ontime1	37072.818124771	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	37069.677044511	Sum of GTIs [s]
			ontime3	37075.959195018	Sum of GTIs [s]
			l1events	1098290	Number of level 1 events

2.1.4 Events

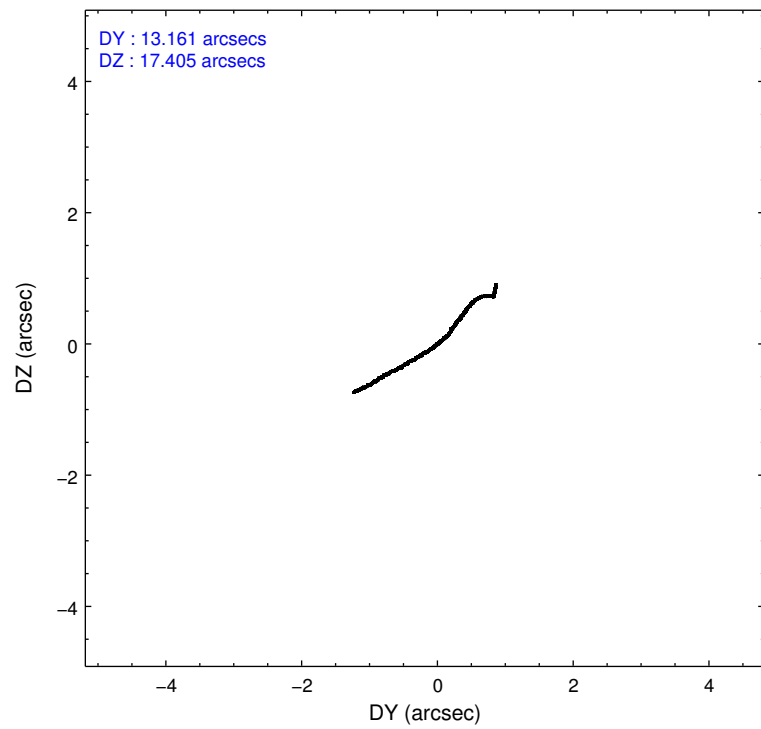
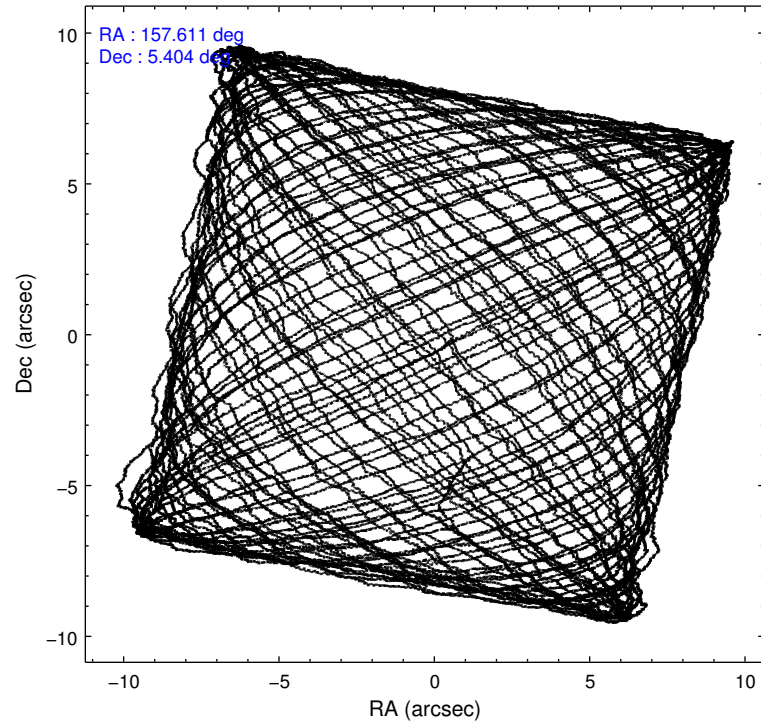
	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	285282	259222	292975	260811
rejected events	215365	223488	251623	232688
rejected %	75%	86%	85%	89%

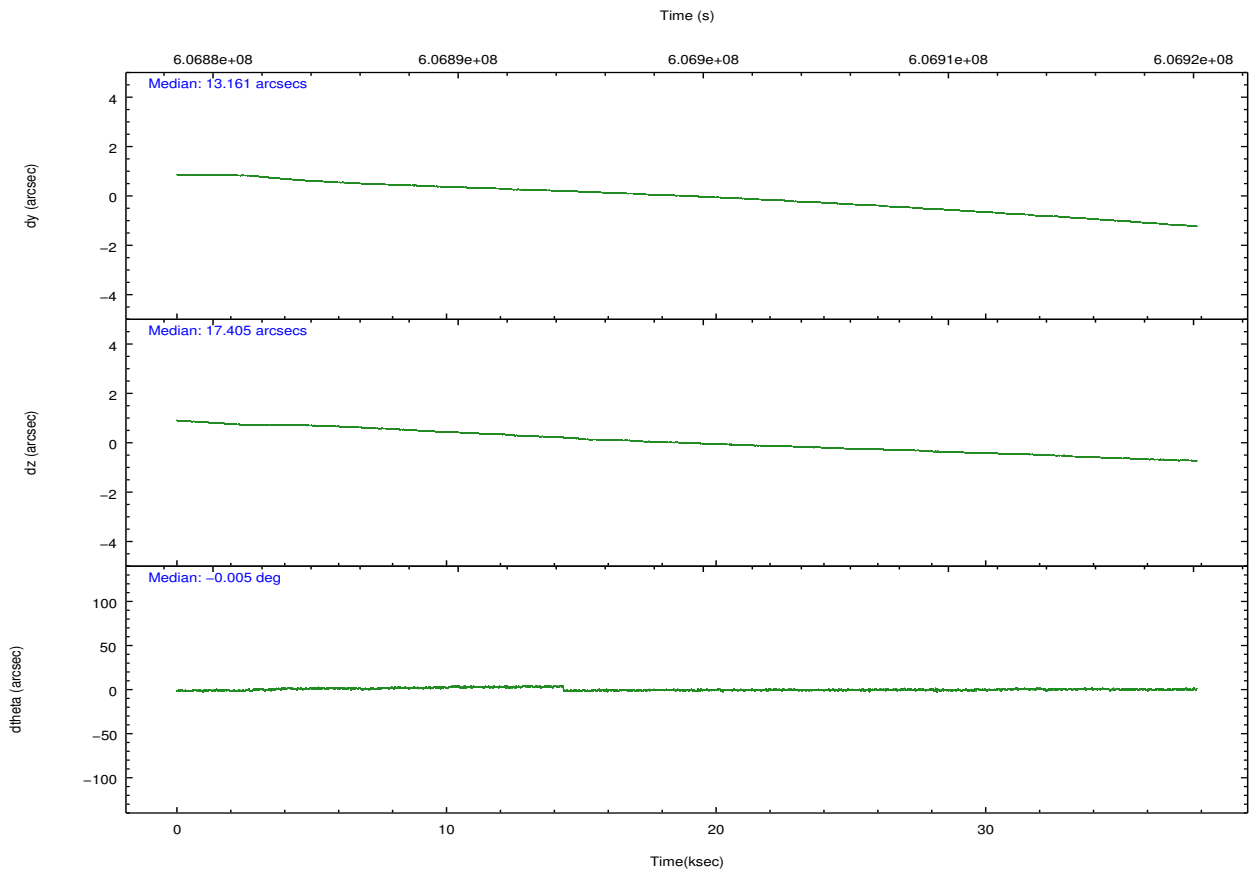
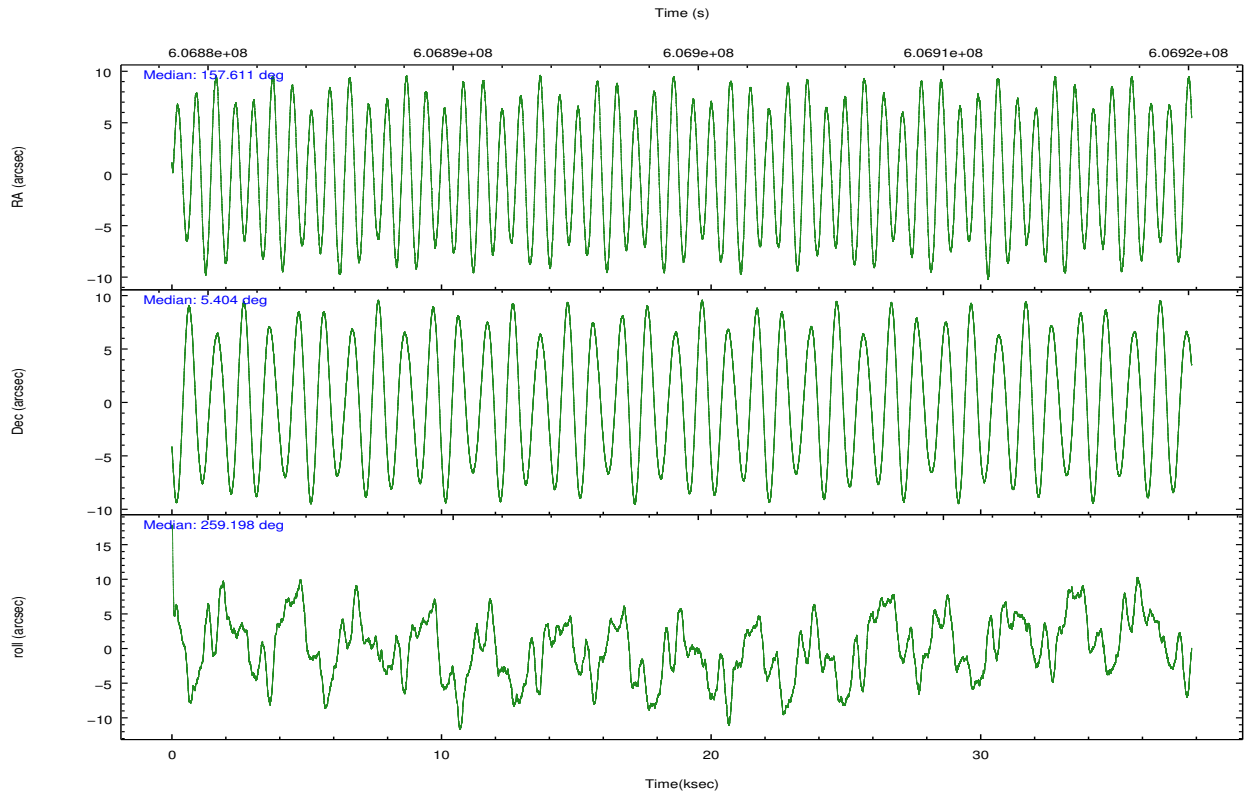
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	50137	14479	22589	9895
	17%	5%	7%	3%
grade 1 events	336	171	274	151
	0%	0%	0%	0%
grade 2 events	7488	7755	7083	6173
	2%	2%	2%	2%
grade 3 events	3167	3097	2870	2932
	1%	1%	0%	1%
grade 4 events	2862	3112	3039	3038
	1%	1%	1%	1%
grade 5 events	11414	11886	10666	12661
	4%	4%	3%	4%
grade 6 events	6267	7294	5772	6087
	2%	2%	1%	2%
grade 7 events	203611	211428	240682	219874
	71%	81%	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	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	157.601431	157.6106646852173	Subarray requested	NONE	NONE
[deg] Pointing Dec	5.429713	5.403680649726308	Alternating exposures requested	N	N
[deg] Pointing Roll	259.001084	259.2089033890936	[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)	606881258.184000	606880041.45933			
Observation start date	2017-03-26T02:06:29	2017-03-26T01:47:21			
[s] Observation end time (MET)	606918258.184000	606919224.64911			
Observation end date	2017-03-26T12:23:09	2017-03-26T12:40:24			
Read mode	TIMED	TIMED			

2.3 Aspect





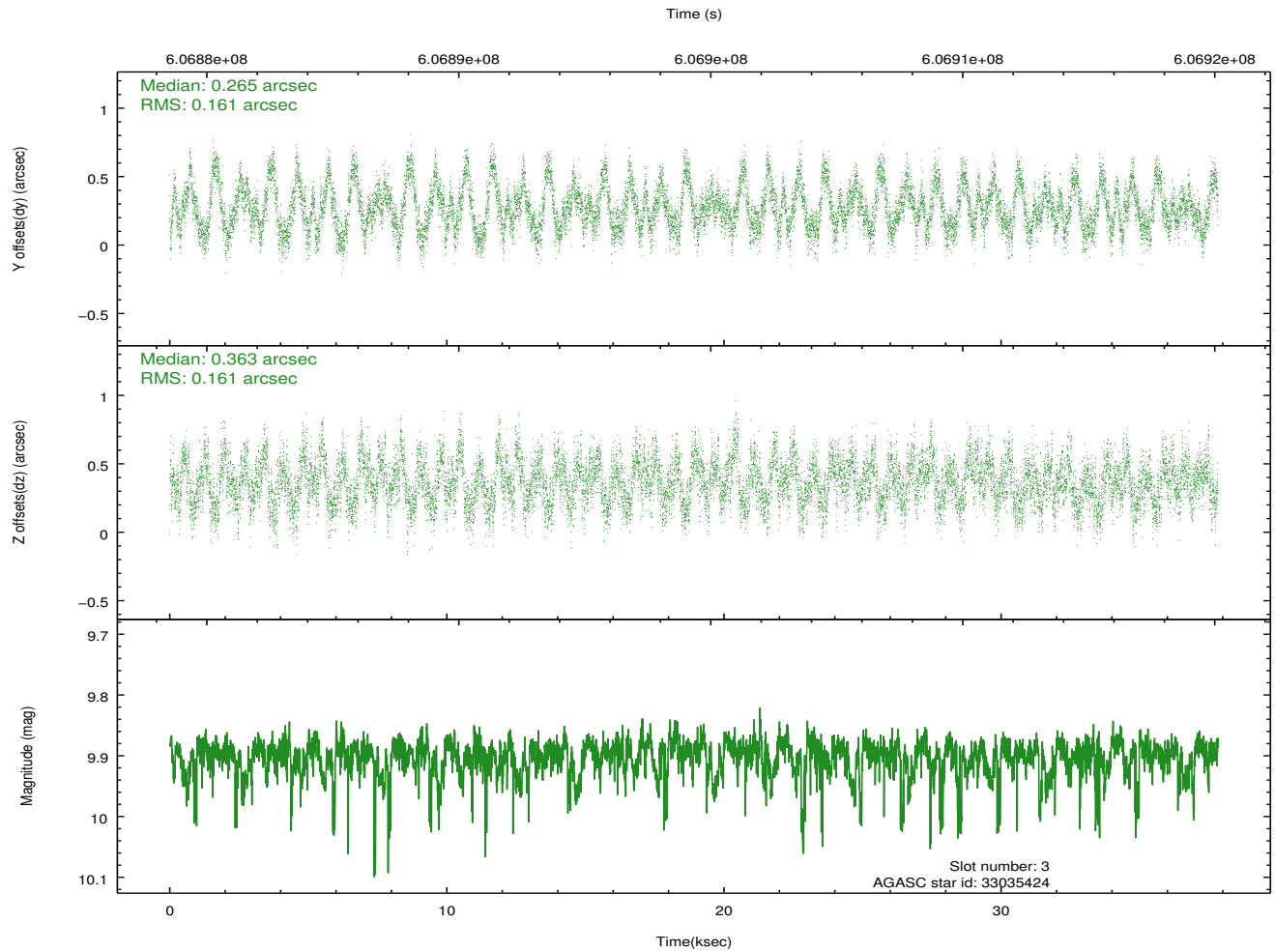
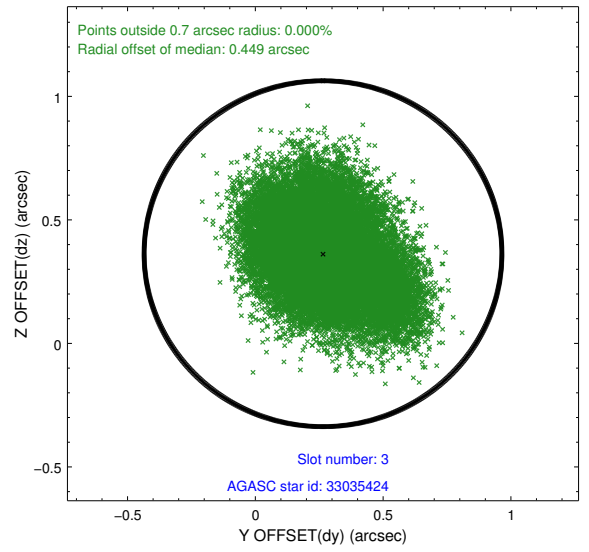
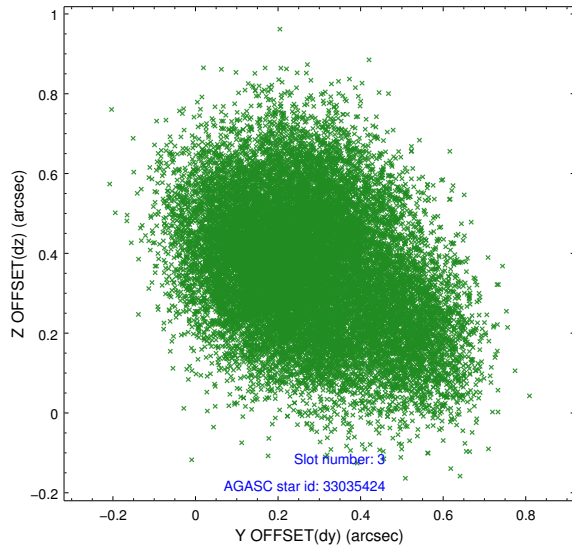
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.14	9225	-0.048	-0.088	0.061	0.077	0.000000	0.000000	926.42	-841.14
1	FID		ACIS-I-4	7.08	9226	0.389	0.108	0.046	0.059	0.000000	0.000000	2146.82	1058.87
2	FID		ACIS-I-5	7.14	9225	-0.435	0.049	0.026	0.035	0.000000	0.000000	-1822.03	1056.52
3	GUIDE	used	33035424	9.90	18415	0.265	0.363	0.246	0.386	157.358260	5.687209	-742.86	-1031.98
4	GUIDE	used	33557464	8.24	18369	-0.350	0.004	0.128	0.214	157.961805	4.935650	1498.92	1606.93
5	GUIDE	used	33948960	9.28	18435	0.751	0.410	0.163	0.263	158.045331	5.204179	493.94	1717.42
6	GUIDE	used	33949536	9.12	18425	-0.379	-0.823	0.343	0.444	158.026617	5.246866	354.81	1620.89
7	GUIDE	used	33951168	8.19	18442	-0.315	0.027	0.142	0.223	157.753293	5.341322	208.88	594.40

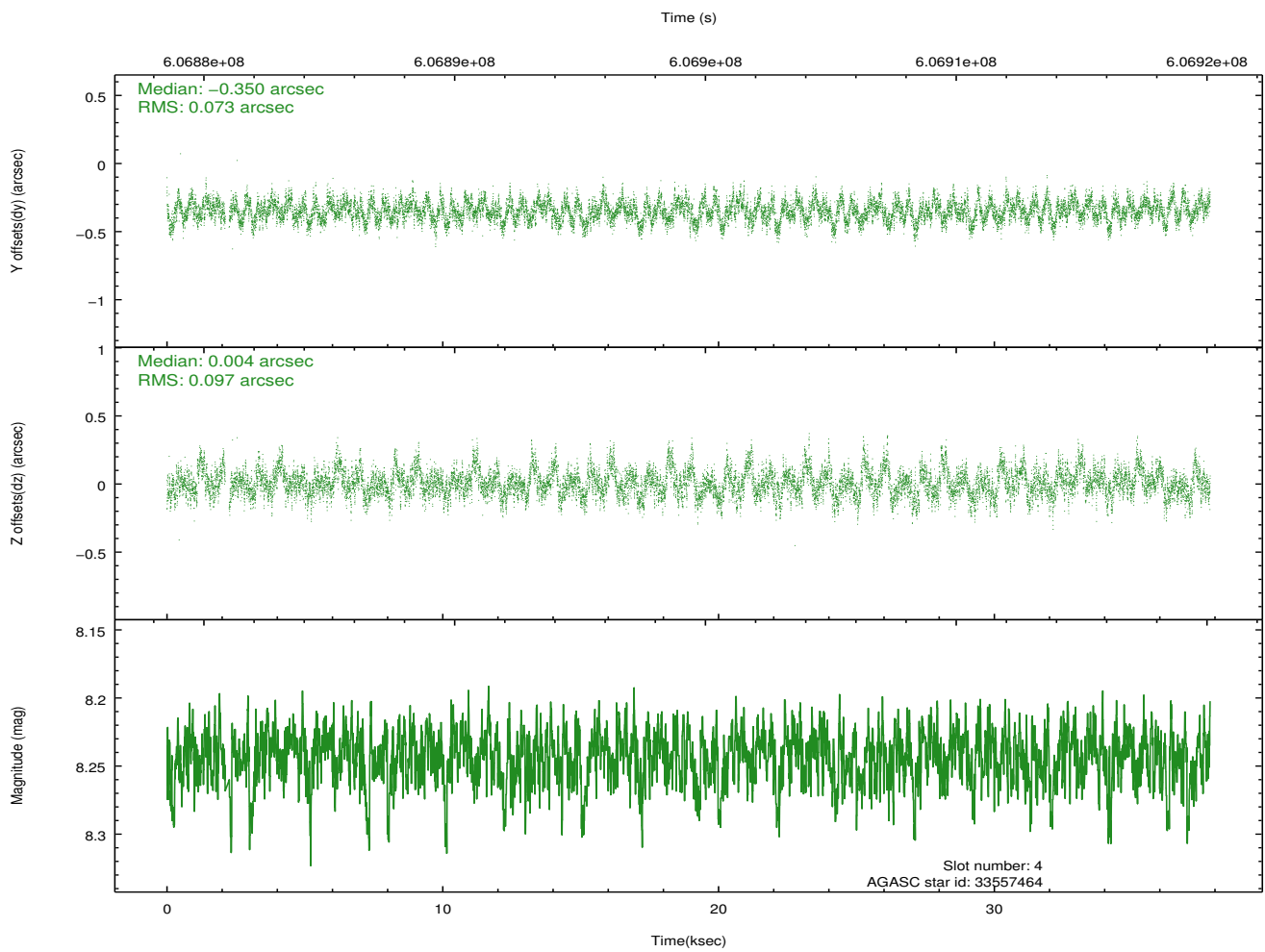
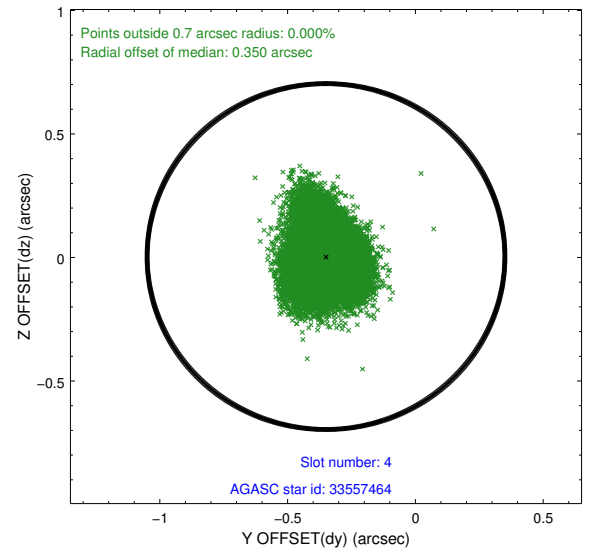
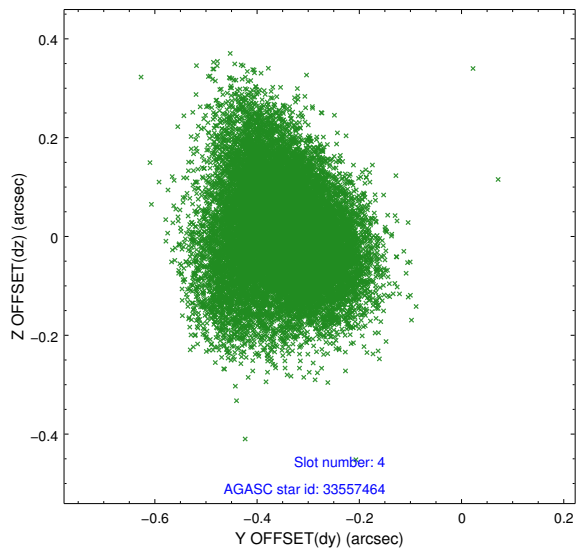
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2.4 Star Slots

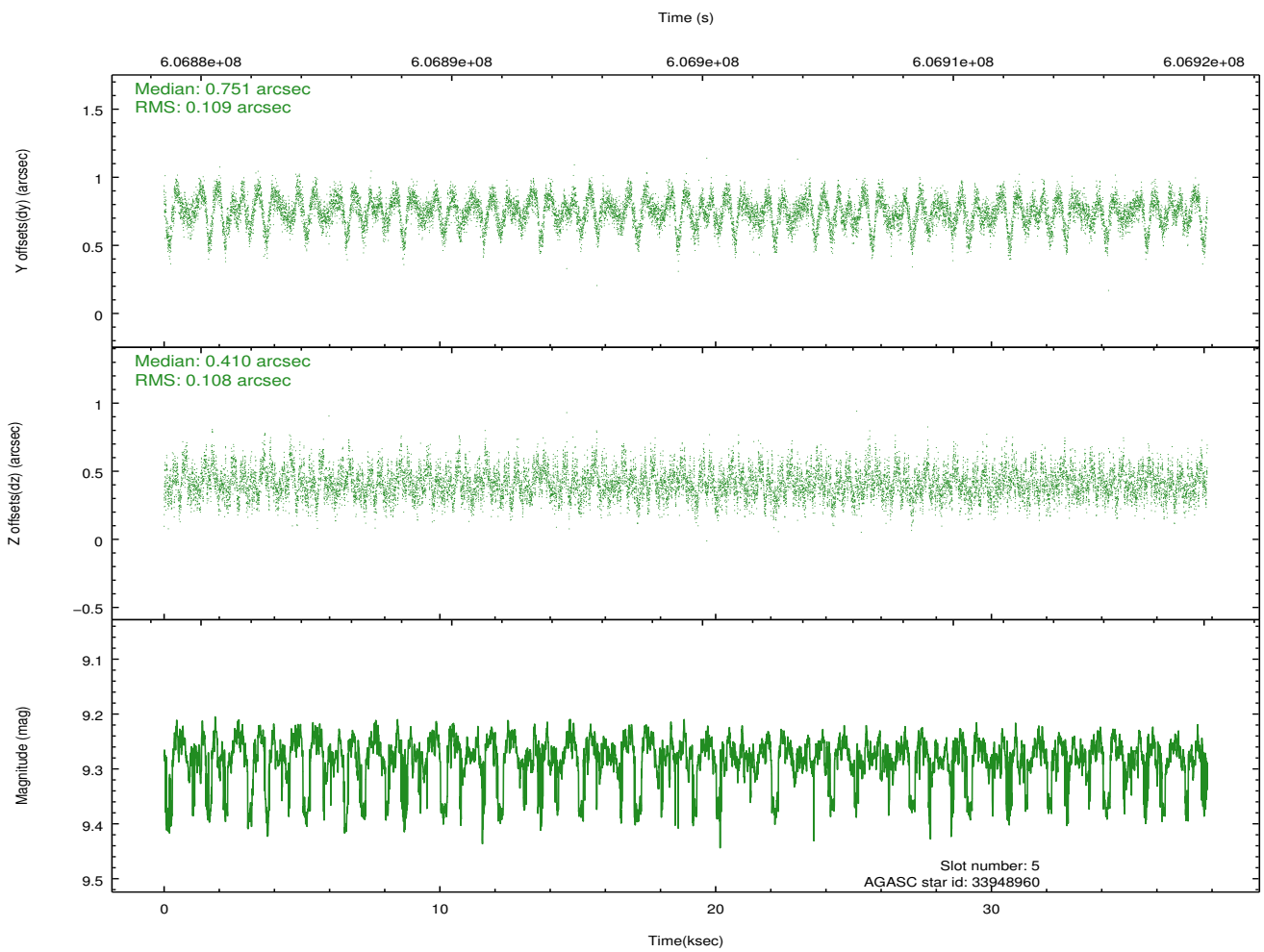
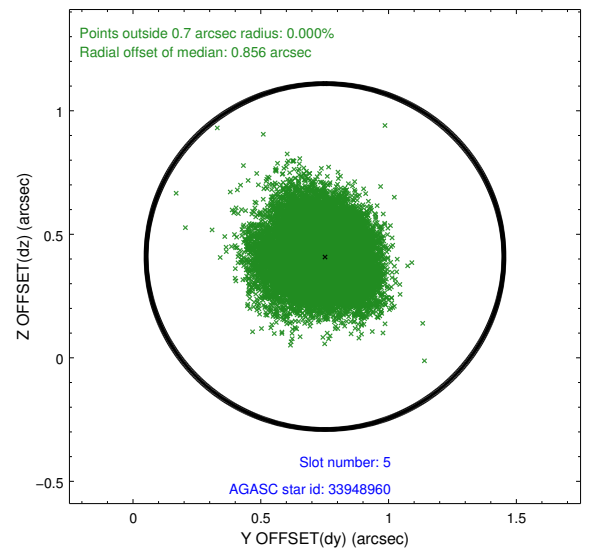
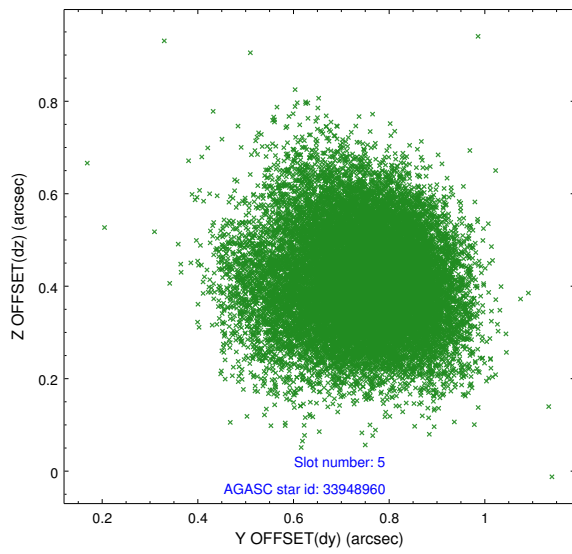
2.4.1 Slot 3



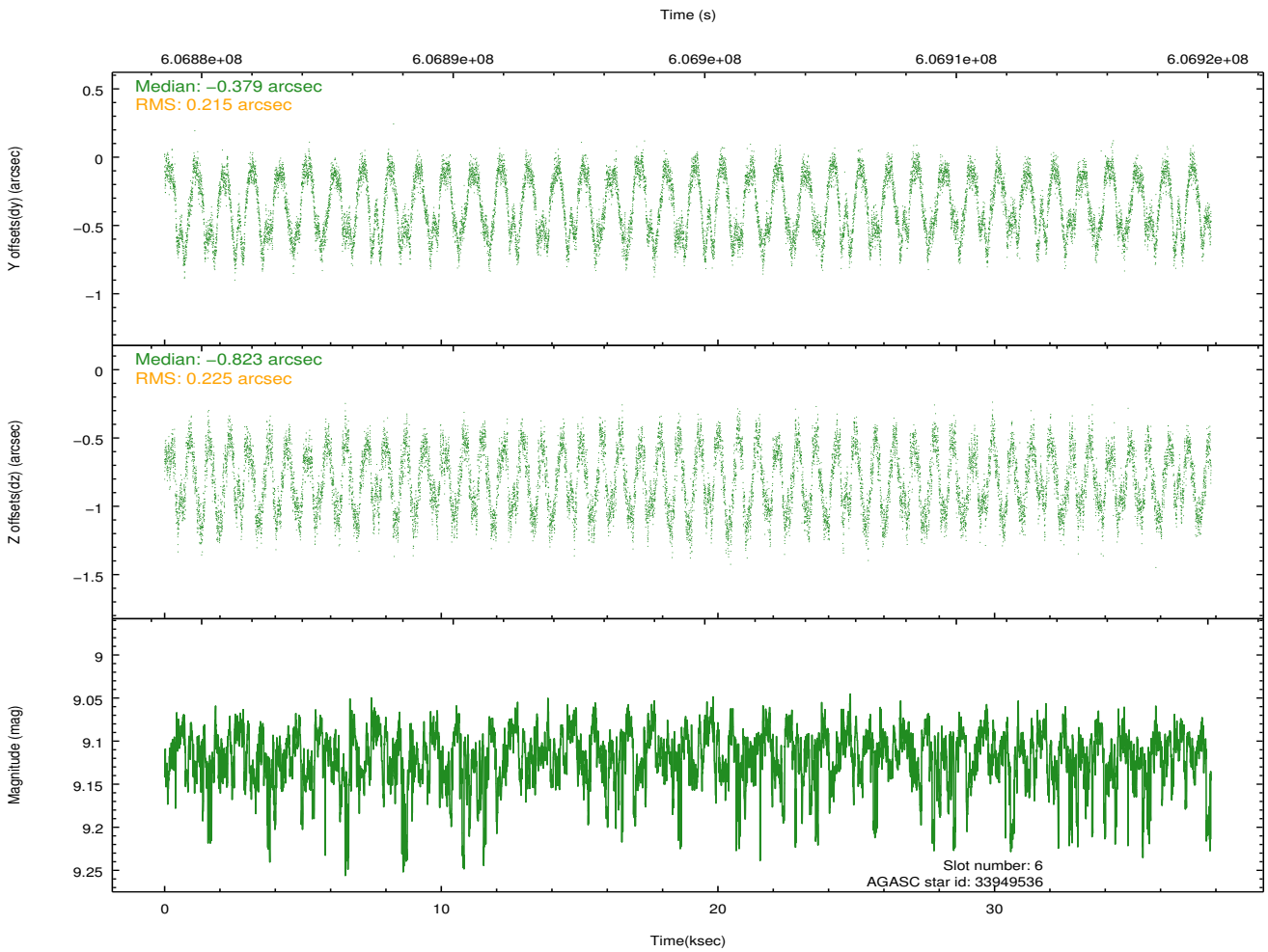
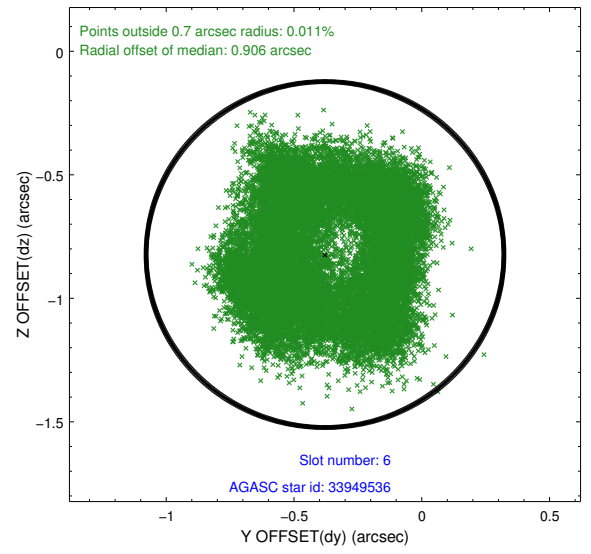
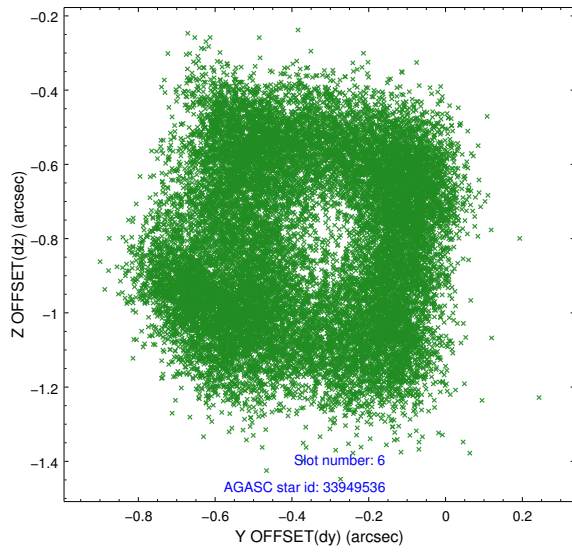
2.4.2 Slot 4



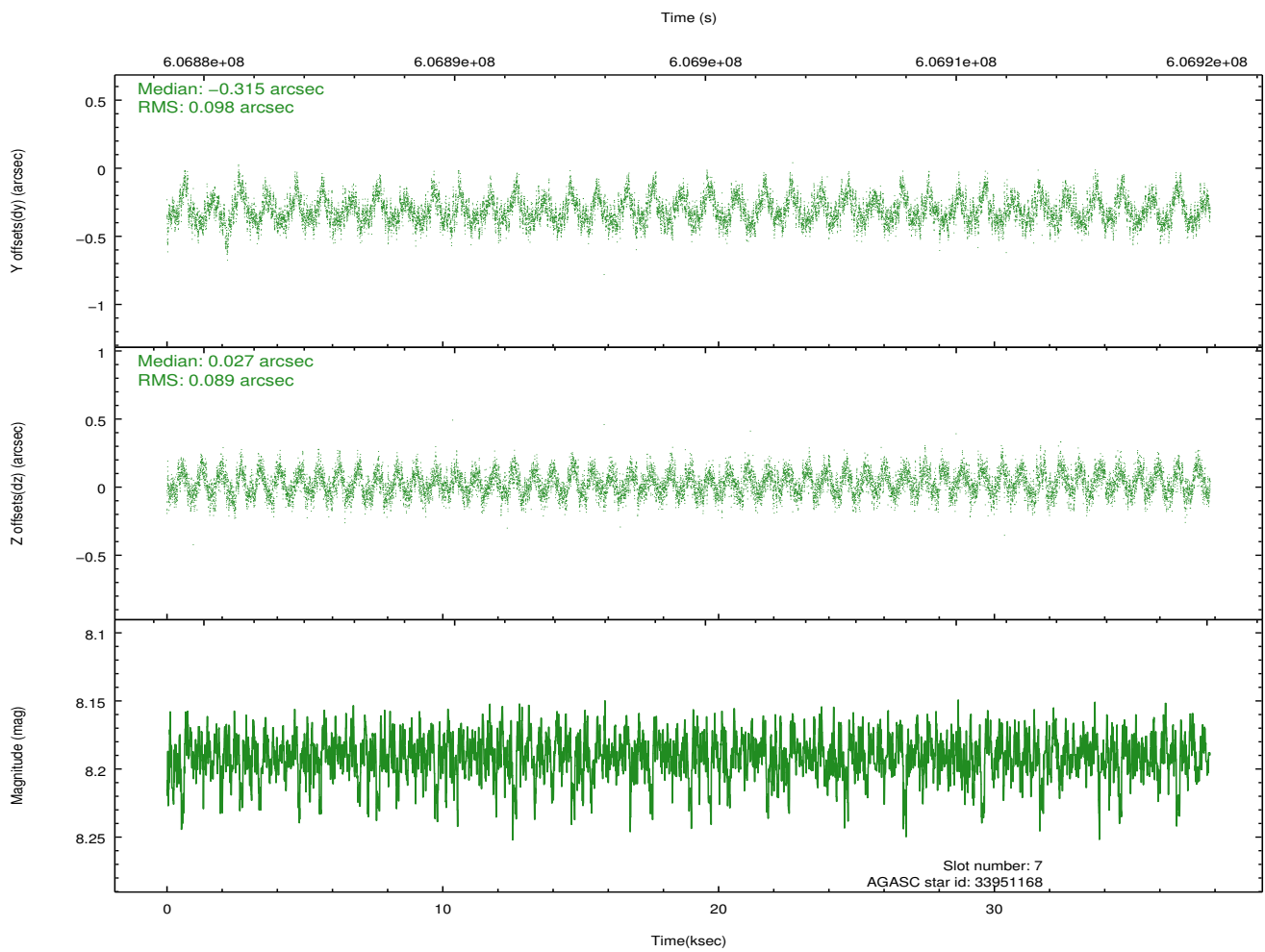
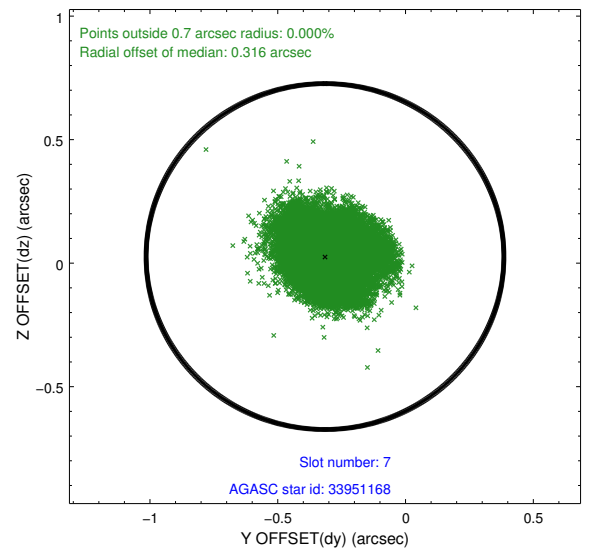
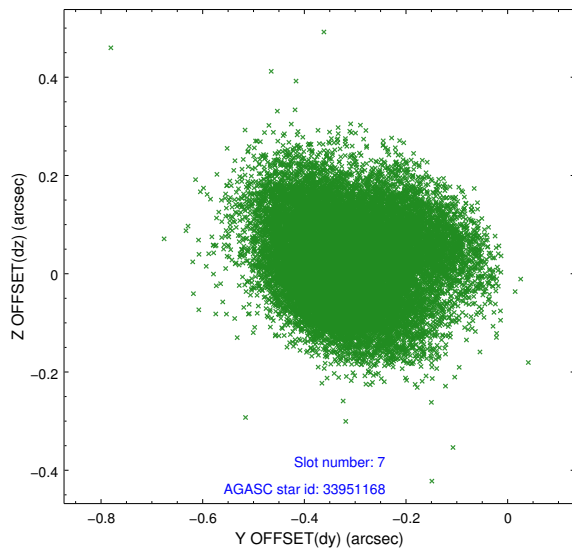
2.4.3 Slot 5



2.4.4 Slot 6

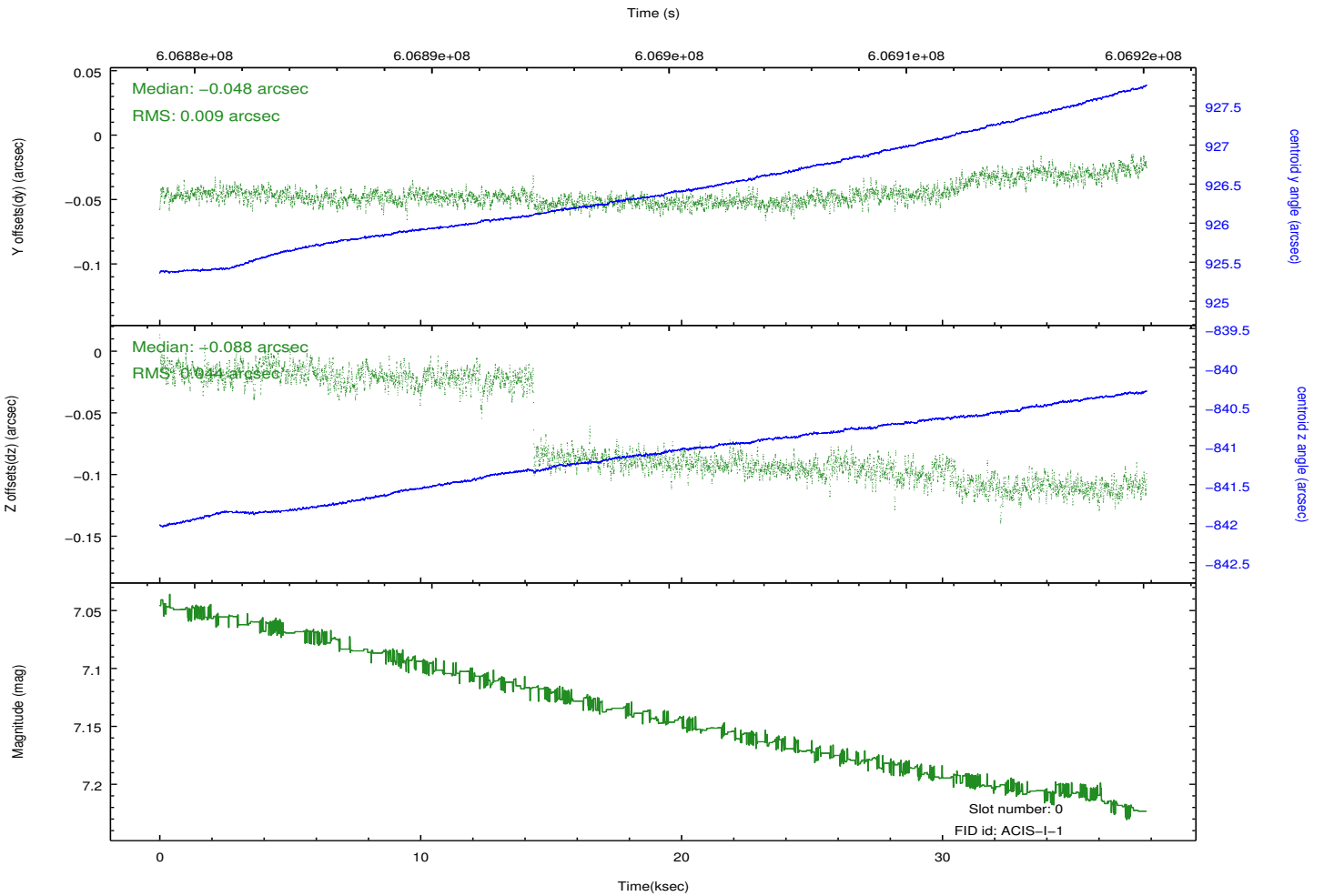
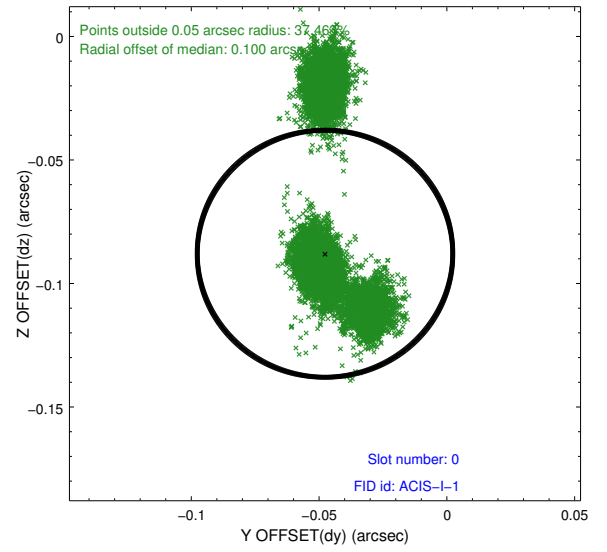
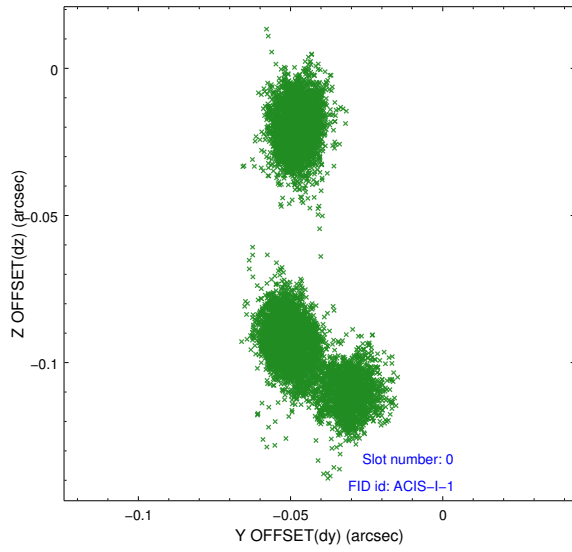


2.4.5 Slot 7

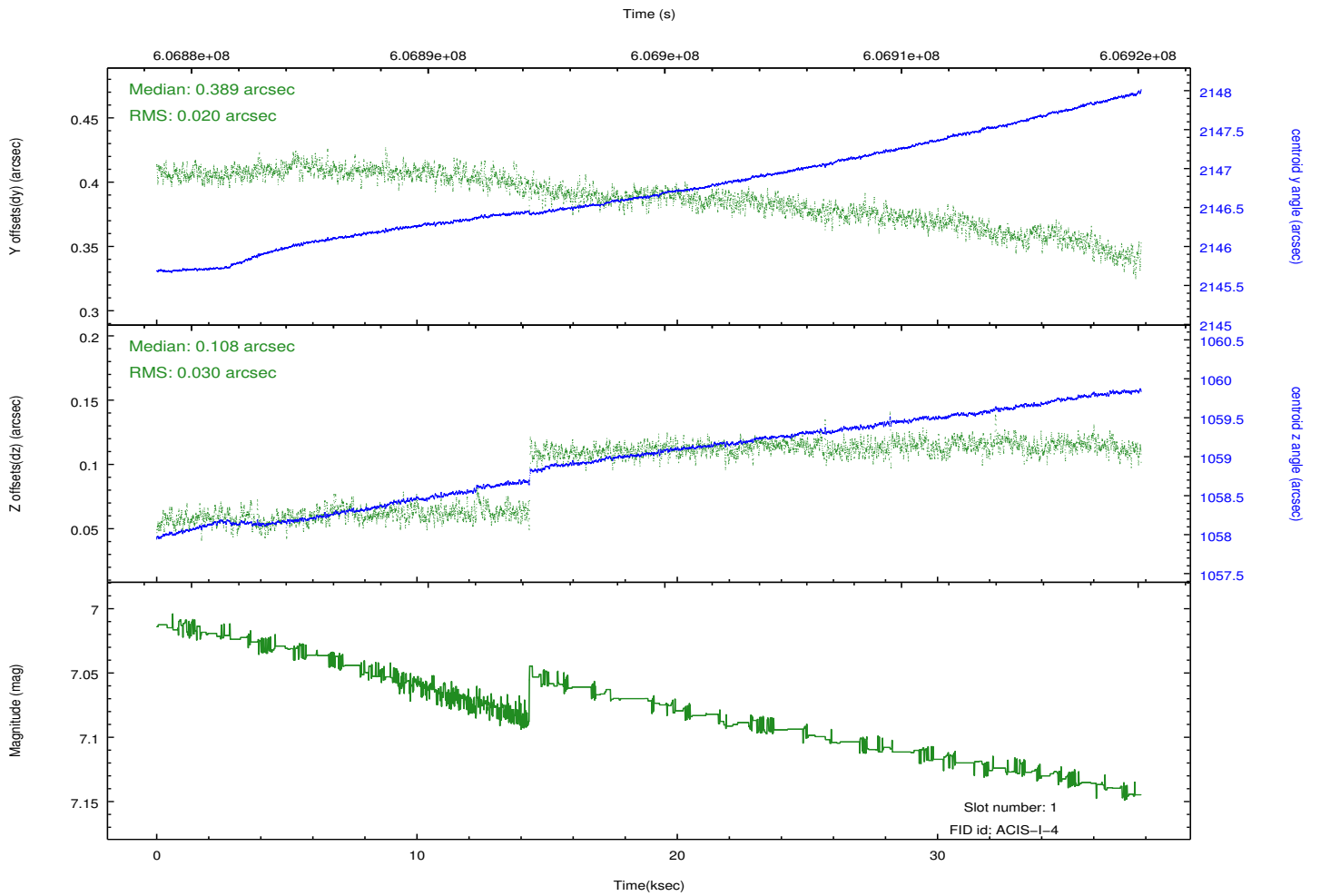
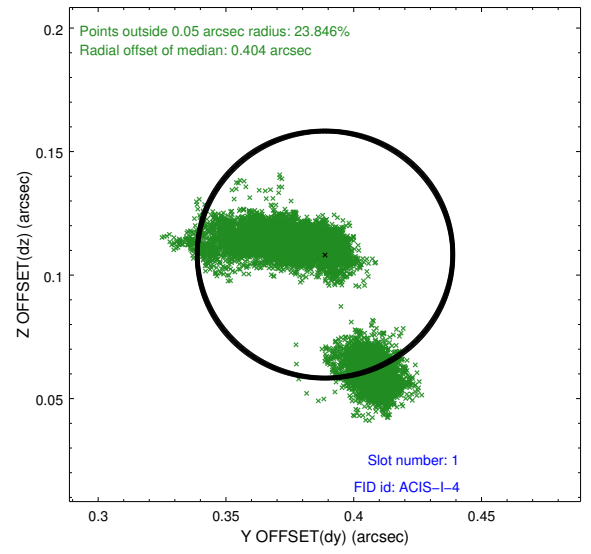
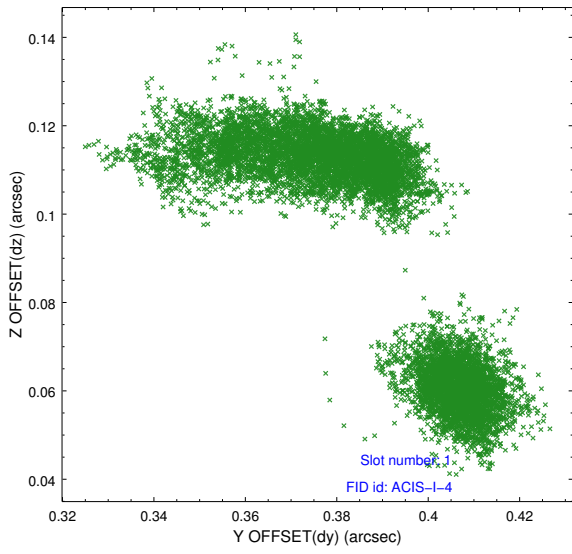


2.5 FID Slots

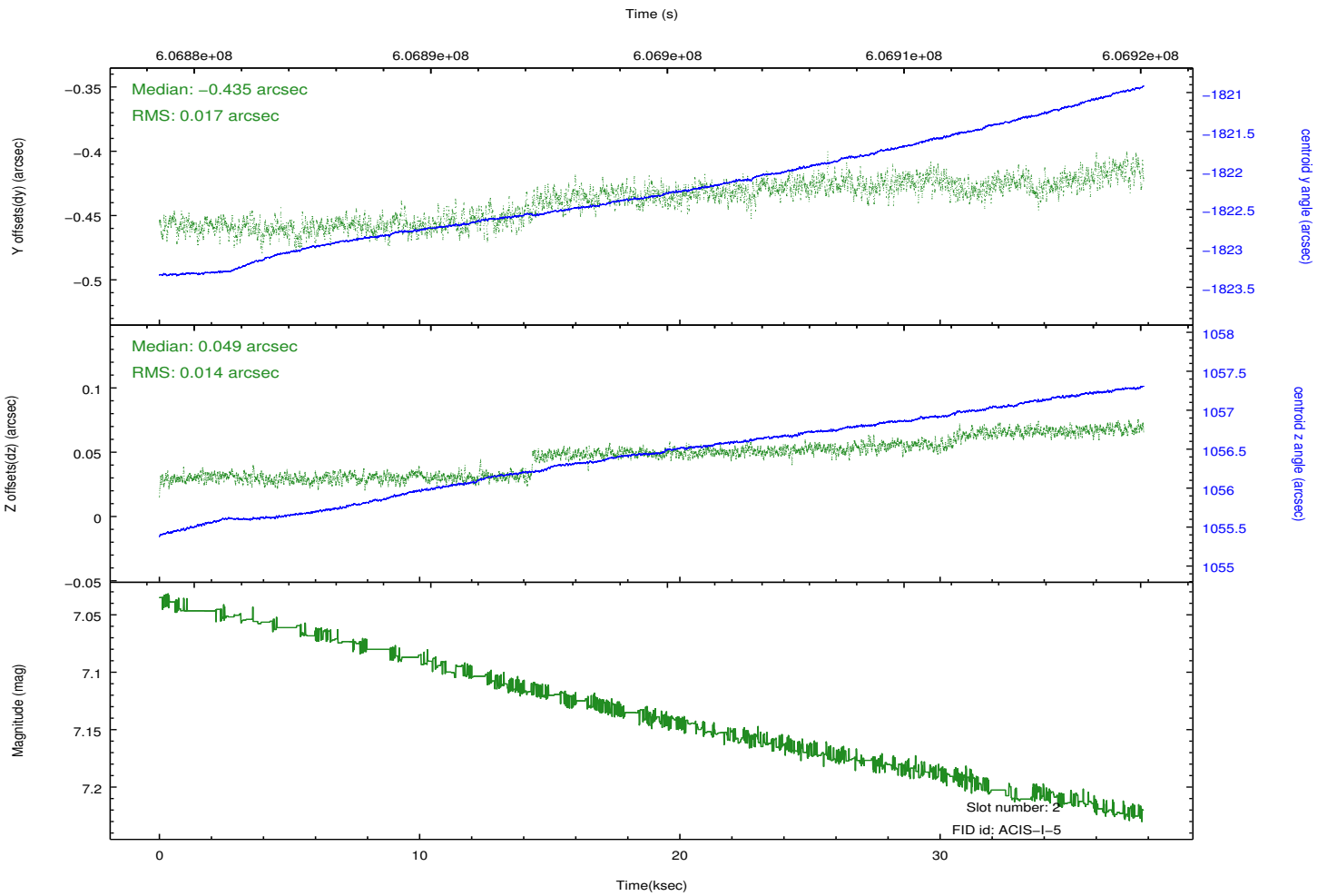
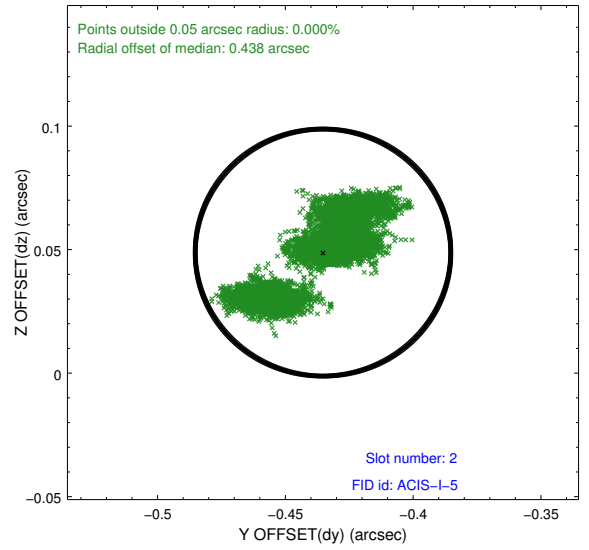
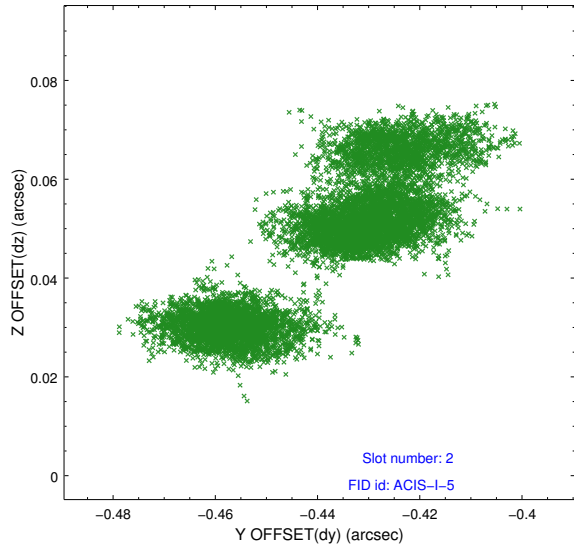
2.5.1 Slot 0



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)	2017.03.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	37.075959195018

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. The bias map for CCD = 0 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: (157.47227,5.33514), (157.47845,5.33395), (157.48601,5.37346), (157.48041,5.37773).