

V&V Reference Report

L2 ASCDS Version : 10.1.1

Observation 16513 - L2 Version 2
Chandra X-Ray Center

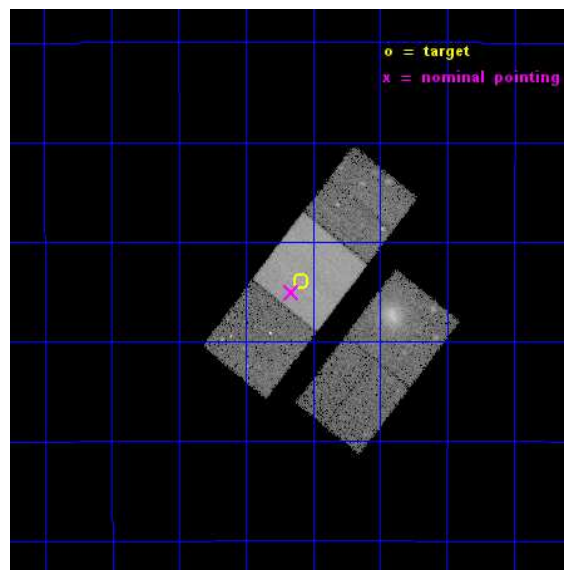
L2 Processing Date : Dec 7 2014

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1 Front

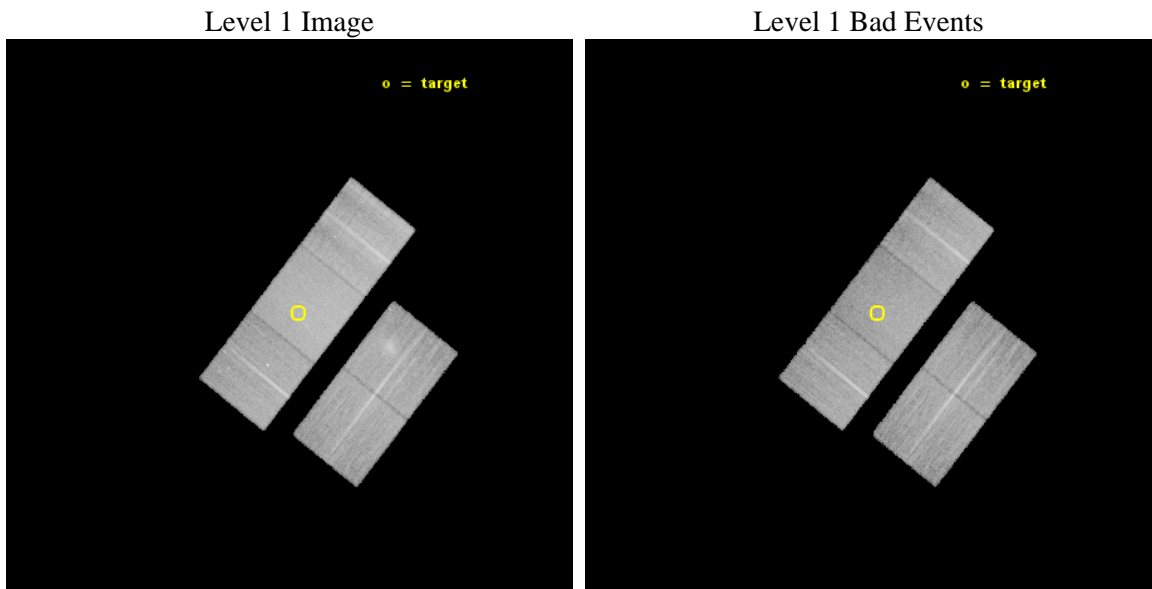
seq_num	801224	Sequence number
obs_id	16513	Observation id
title	Extreme constraints on ICM physics and cosmology: a deep observation of XMMUJ0044, the most distant massive cluster	Proposal title
observer	Dr Paolo Tozzi	Principal investigator
object	XMMUJ0044.0-2033	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	11.021667	Observer's specified target RA [deg]
dec_targ	-20.566583	Observer's specified target Dec [deg]
ra_nom	11.040235573715	Nominal RA [deg]
dec_nom	-20.584653933987	Nominal Dec [deg]
roll_nom	308.16315630678	Nominal Roll [deg]
revision	2	Processing version of data
ontime	30070.000231266	Sum of GTIs [s]
livetime	29677.113541032	Livetime [s]
ontime2	30063.718170524	Sum of GTIs [s]
ontime3	30070.000231266	Sum of GTIs [s]
ontime6	30070.000231266	Sum of GTIs [s]
ontime7	30070.000231266	Sum of GTIs [s]
ontime8	30070.000231266	Sum of GTIs [s]
l2events	156279	Number of level 2 events



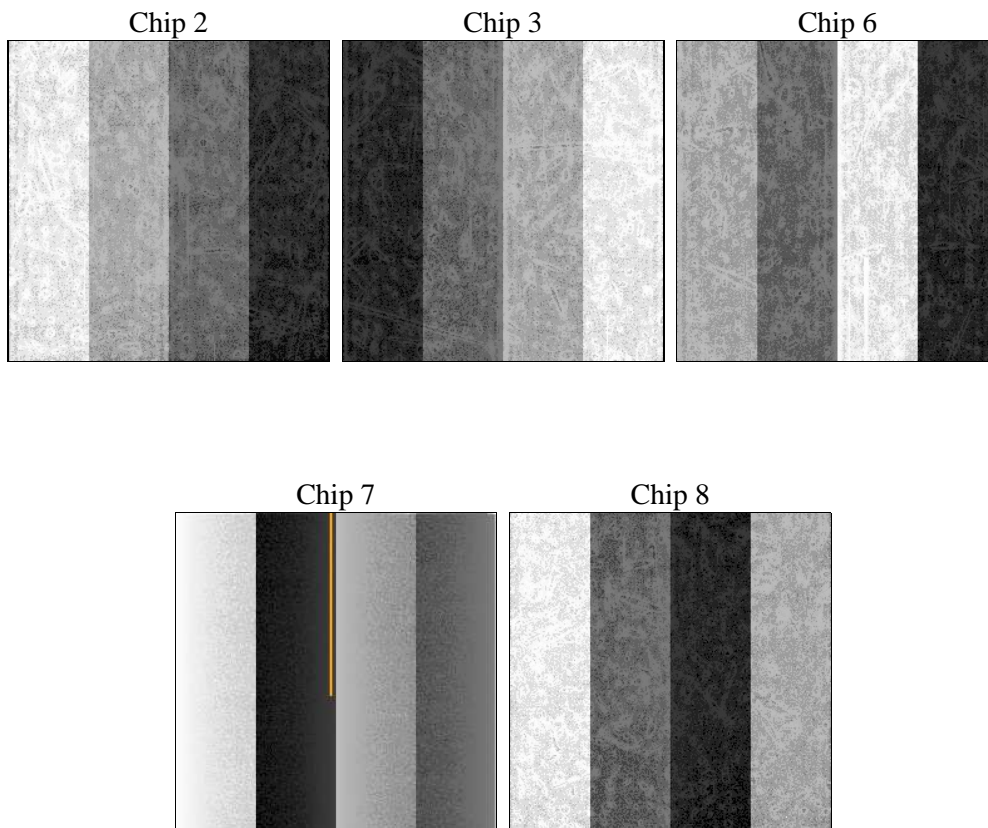
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	30000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	30070.000231266	Sum of GTIs [s]
caldsver	4.6.4	 	ontime2	30063.718170524	Sum of GTIs [s]
date	2014-12-08T02:23:41	Date and time of file creation	ontime3	30070.000231266	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	30070.000231266	Sum of GTIs [s]
			ontime7	30070.000231266	Sum of GTIs [s]
			ontime8	30070.000231266	Sum of GTIs [s]
			l1events	822323	Number of level 1 events

2.1.4 Events

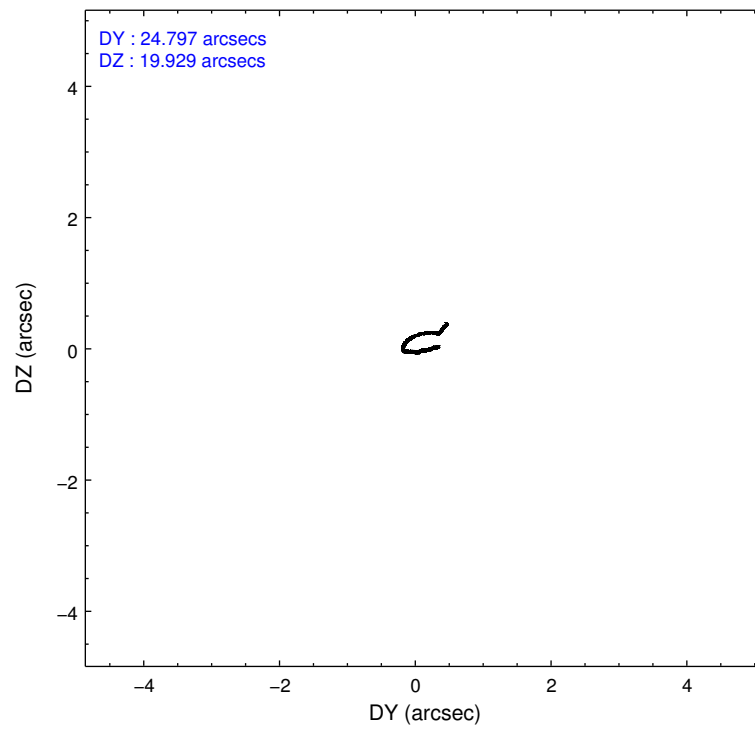
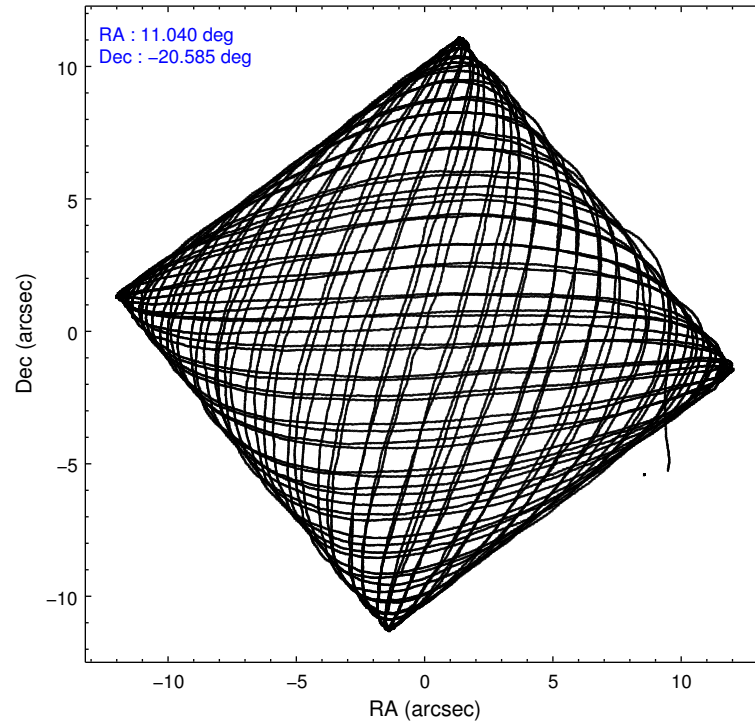
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	136597	147486	145939	199179	193122
rejected events	120510	120487	127007	113623	141714
rejected %	88%	81%	87%	57%	73%

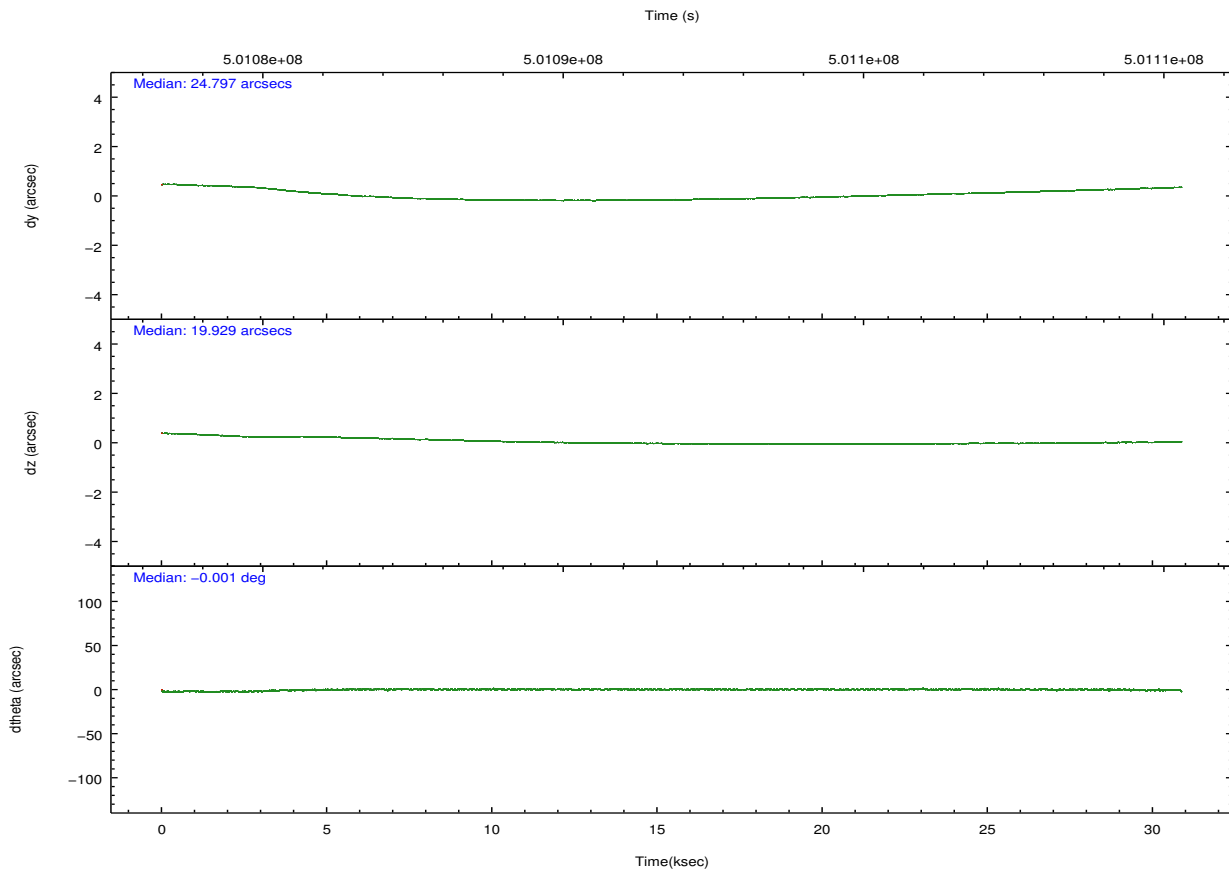
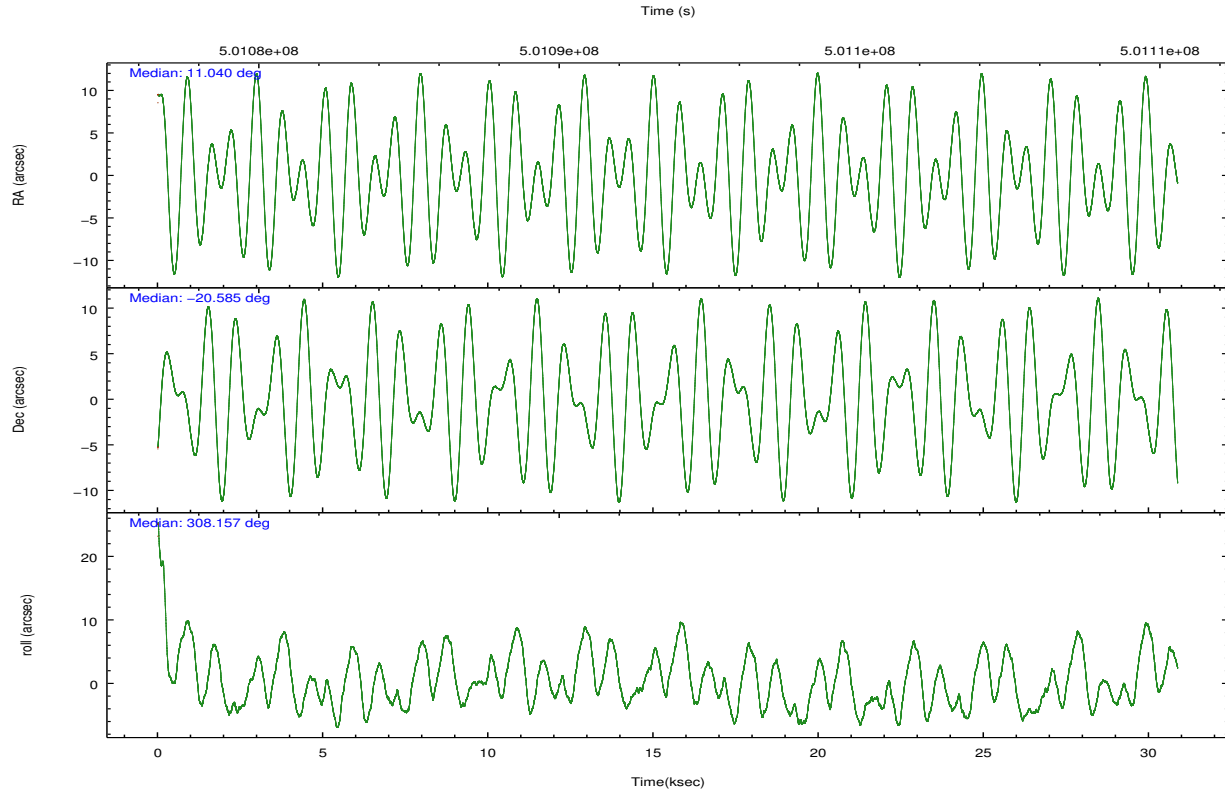
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	5694	14378	6869	7459	14841
	4%	9%	4%	3%	7%
grade 1 events	68	113	82	262	132
	0%	0%	0%	0%	0%
grade 2 events	3816	4793	4166	17526	12196
	2%	3%	2%	8%	6%
grade 3 events	1664	1993	1814	7191	5307
	1%	1%	1%	3%	2%
grade 4 events	1708	2081	1869	7118	5054
	1%	1%	1%	3%	2%
grade 5 events	6290	7599	7743	20209	11283
	4%	5%	5%	10%	5%
grade 6 events	3206	3760	4218	46274	14053
	2%	2%	2%	23%	7%
grade 7 events	114151	112769	119178	93140	130256
	83%	76%	81%	46%	67%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-23678	ACIS-23678	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	11.012969	11.04023557371473	Subarray requested	NONE	NONE
[deg] Pointing Dec	-20.574843	-20.58465393398718	Alternating exposures requested	N	N
[deg] Pointing Roll	307.996943	308.1631563067833	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	501079061.184000	501077642.62066			
Observation start date	2013-11-17T12:36:34	2013-11-17T12:14:02			
[s] Observation end time (MET)	501109061.184000	501109871.18492			
Observation end date	2013-11-17T20:56:34	2013-11-17T21:11:11			
Read mode	TIMED	TIMED			

2.3 Aspect



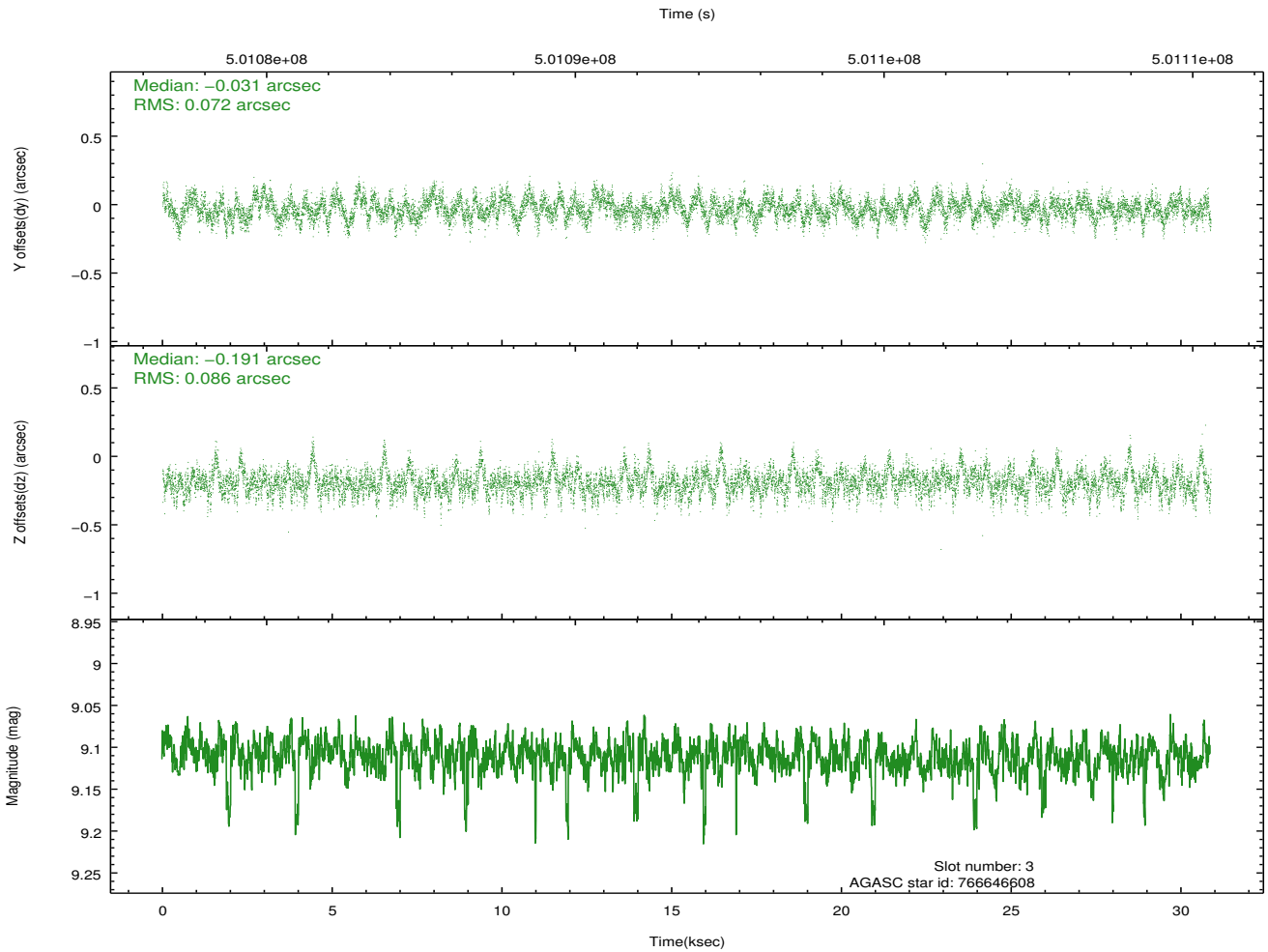
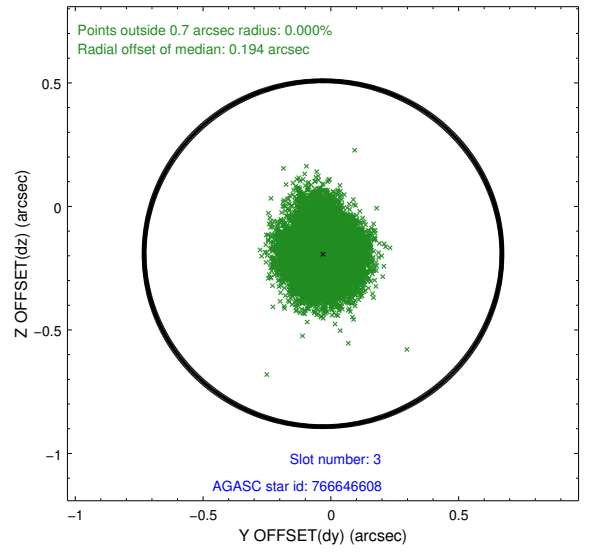
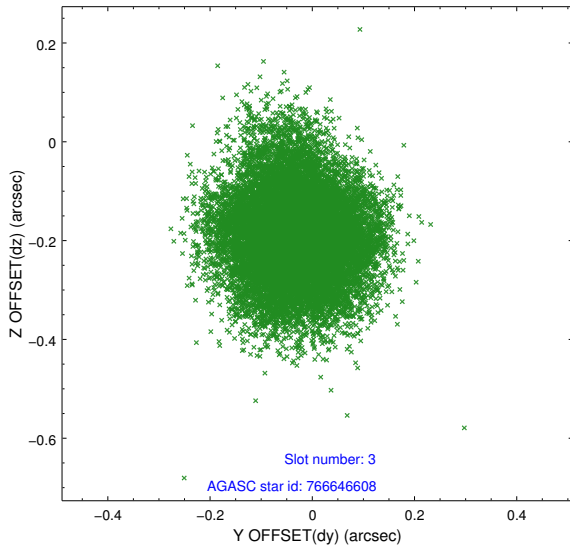


Slot Statistics

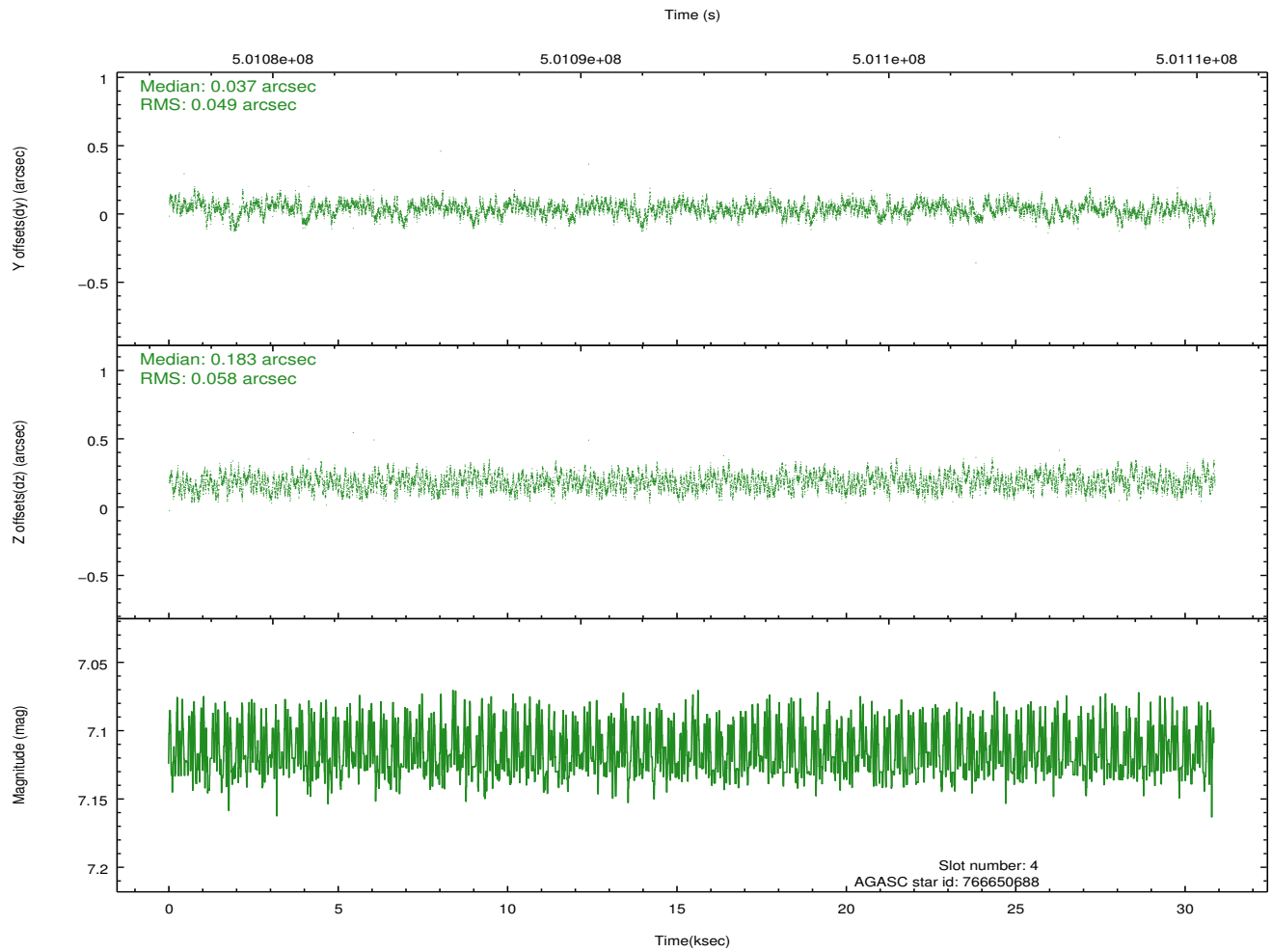
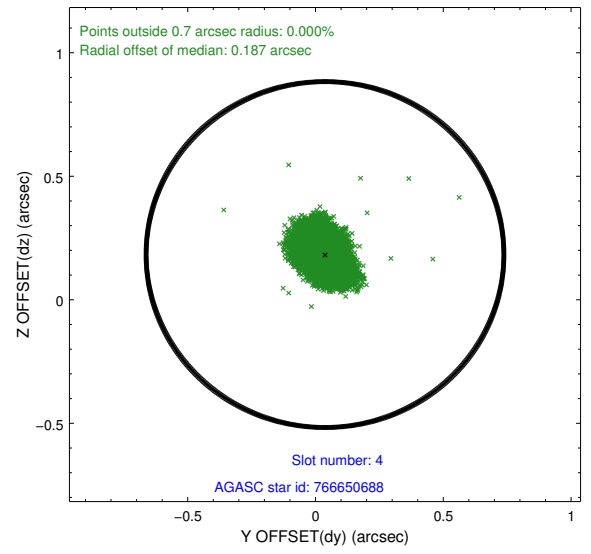
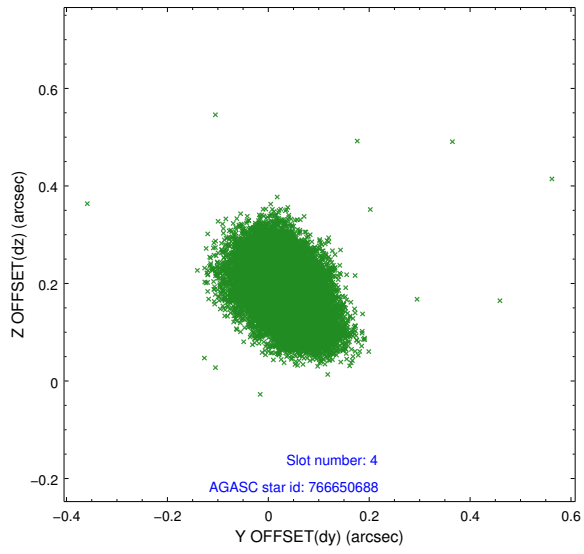
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.97	7530	-0.223	-0.130	0.006	0.011	0.000000	0.000000	-778.39	-1741.58
1	FID		ACIS-S-4	7.07	7529	0.245	0.137	0.007	0.012	0.000000	0.000000	2135.42	166.94
2	FID		ACIS-S-6	7.20	7529	-0.050	0.000	0.008	0.014	0.000000	0.000000	383.98	804.37
3	GUIDE	used	766646608	9.11	15049	-0.031	-0.191	0.120	0.193	11.216160	-20.336771	-252.03	1067.55
4	GUIDE	used	766650688	7.12	15059	0.037	0.183	0.082	0.130	10.374072	-20.299617	-2104.93	-1092.44
5	GUIDE	used	766654496	9.37	15043	-0.115	-0.047	0.121	0.198	11.545095	-20.663870	1357.88	1211.90
6	GUIDE	used	766649880	9.76	15033	0.060	-0.013	0.223	0.348	10.691593	-20.360135	-1274.95	-379.41
7	GUIDE	used	766653384	9.66	15042	0.051	0.075	0.184	0.293	10.985393	-21.081265	1380.38	-1195.87

2.4 Star Slots

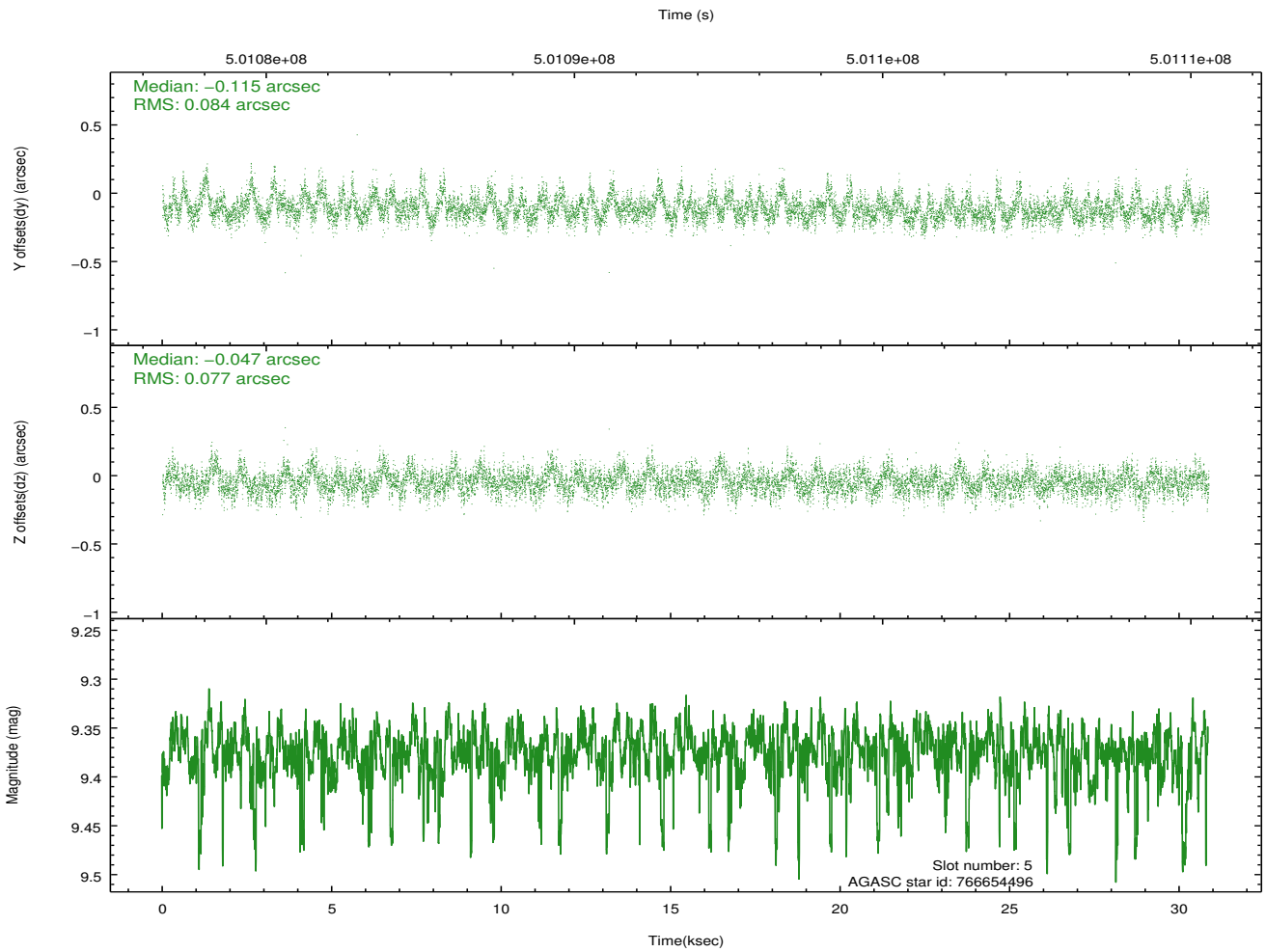
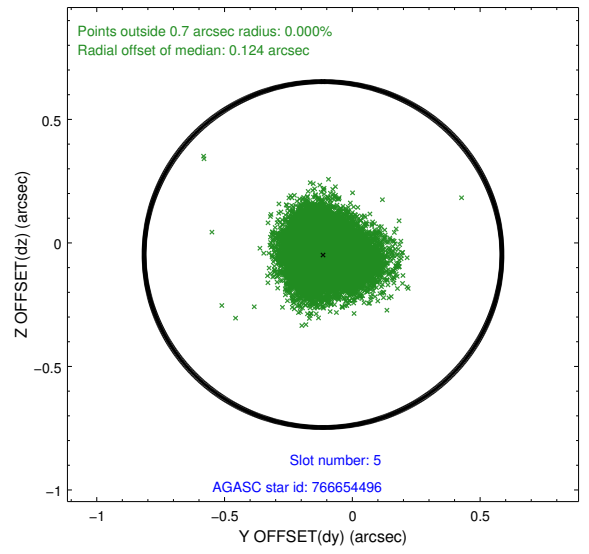
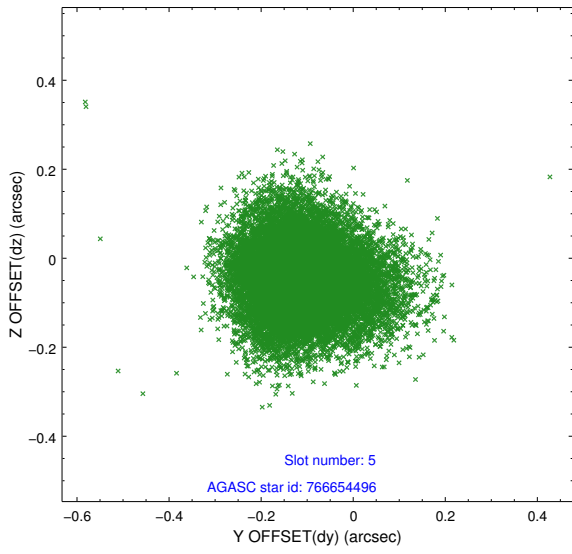
2.4.1 Slot 3



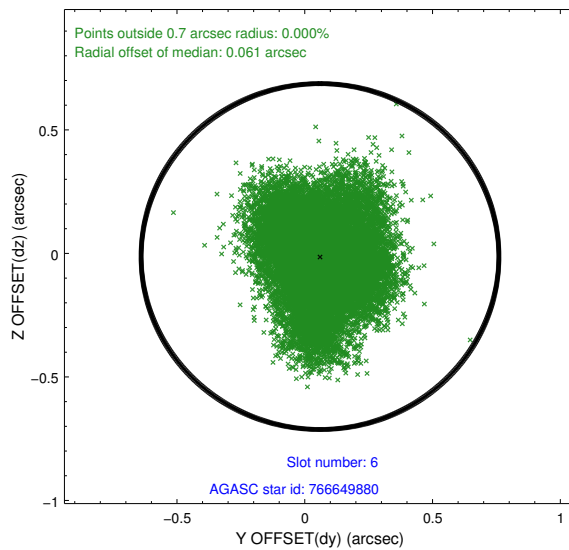
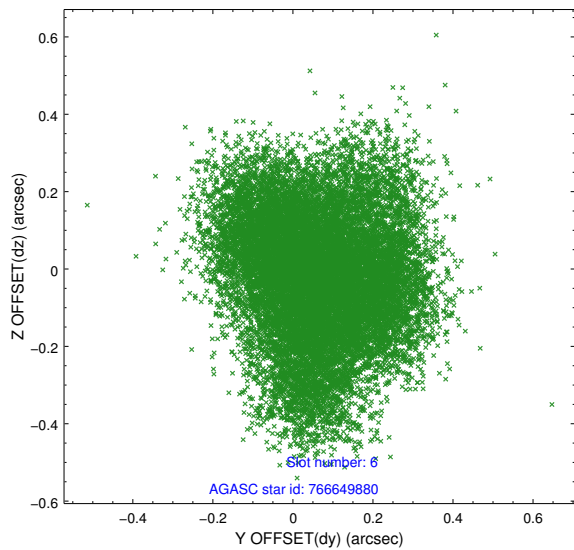
2.4.2 Slot 4



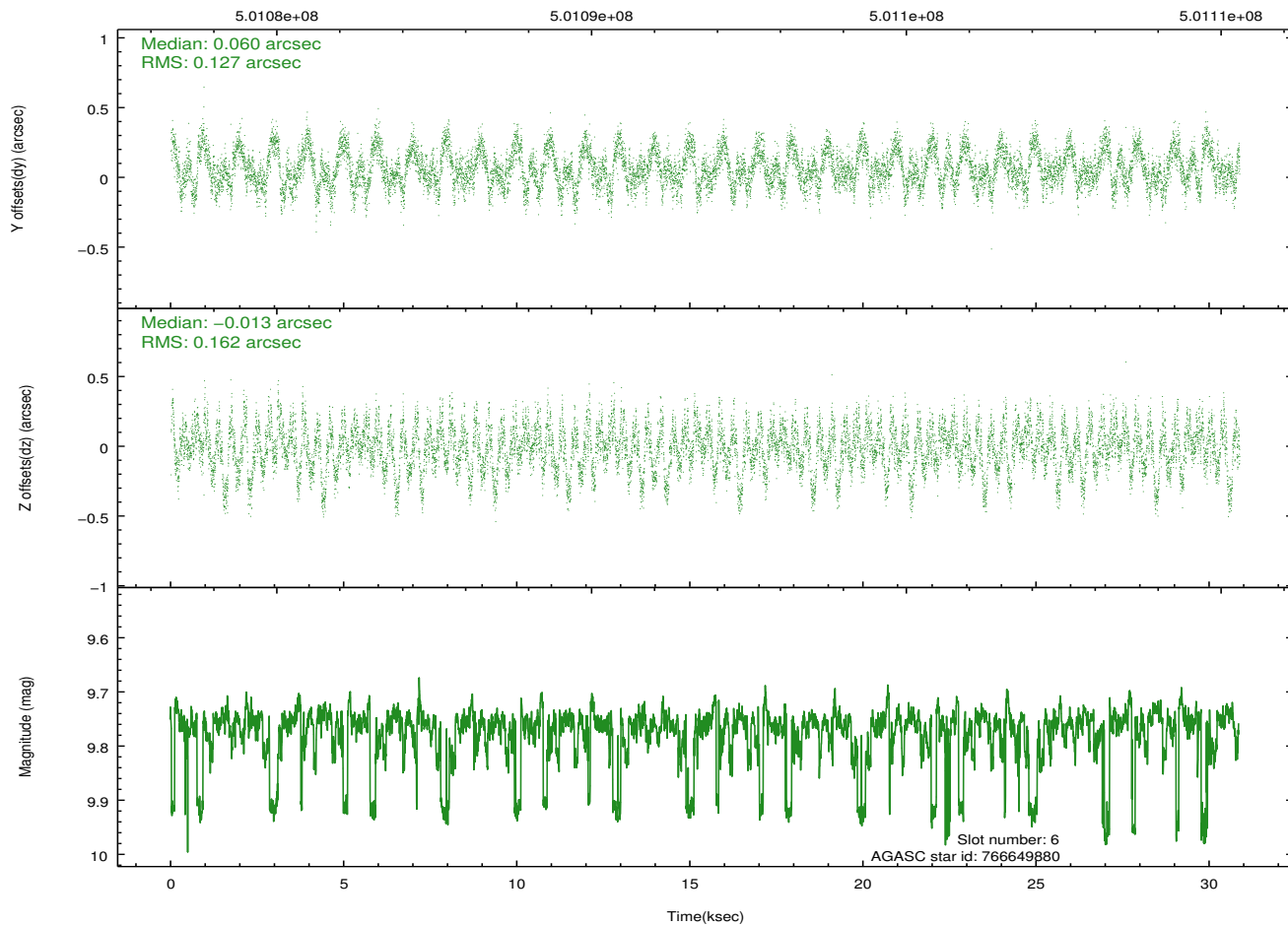
2.4.3 Slot 5



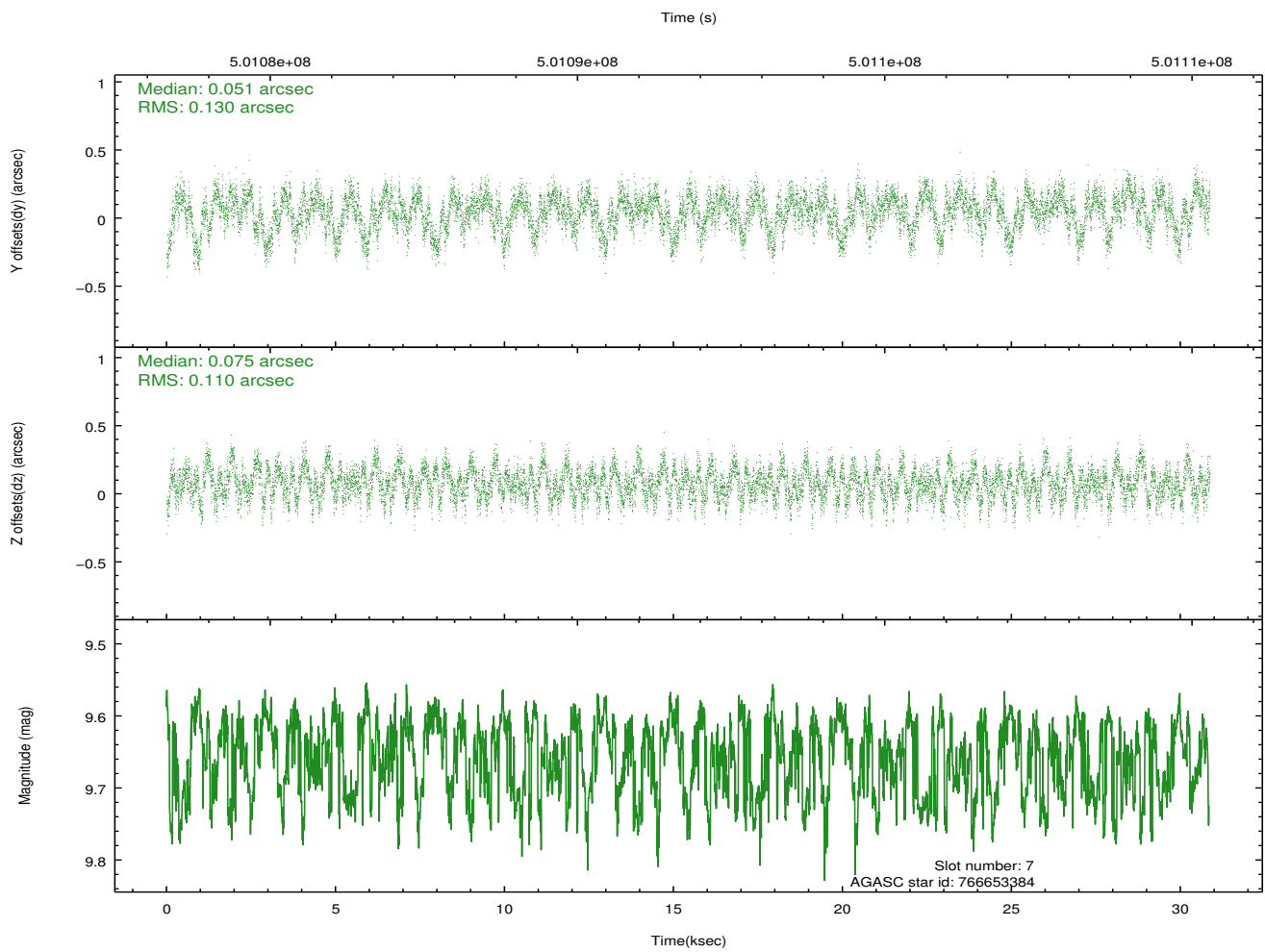
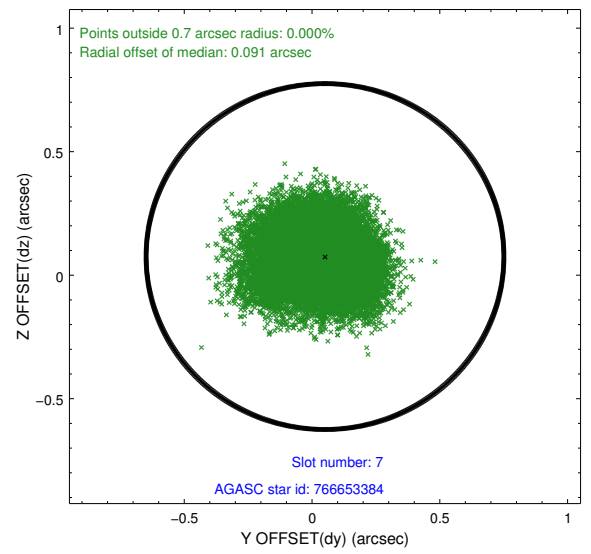
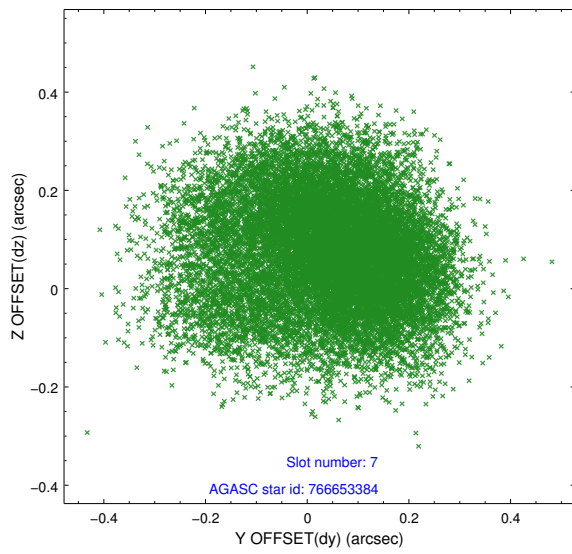
2.4.4 Slot 6



Time (s)

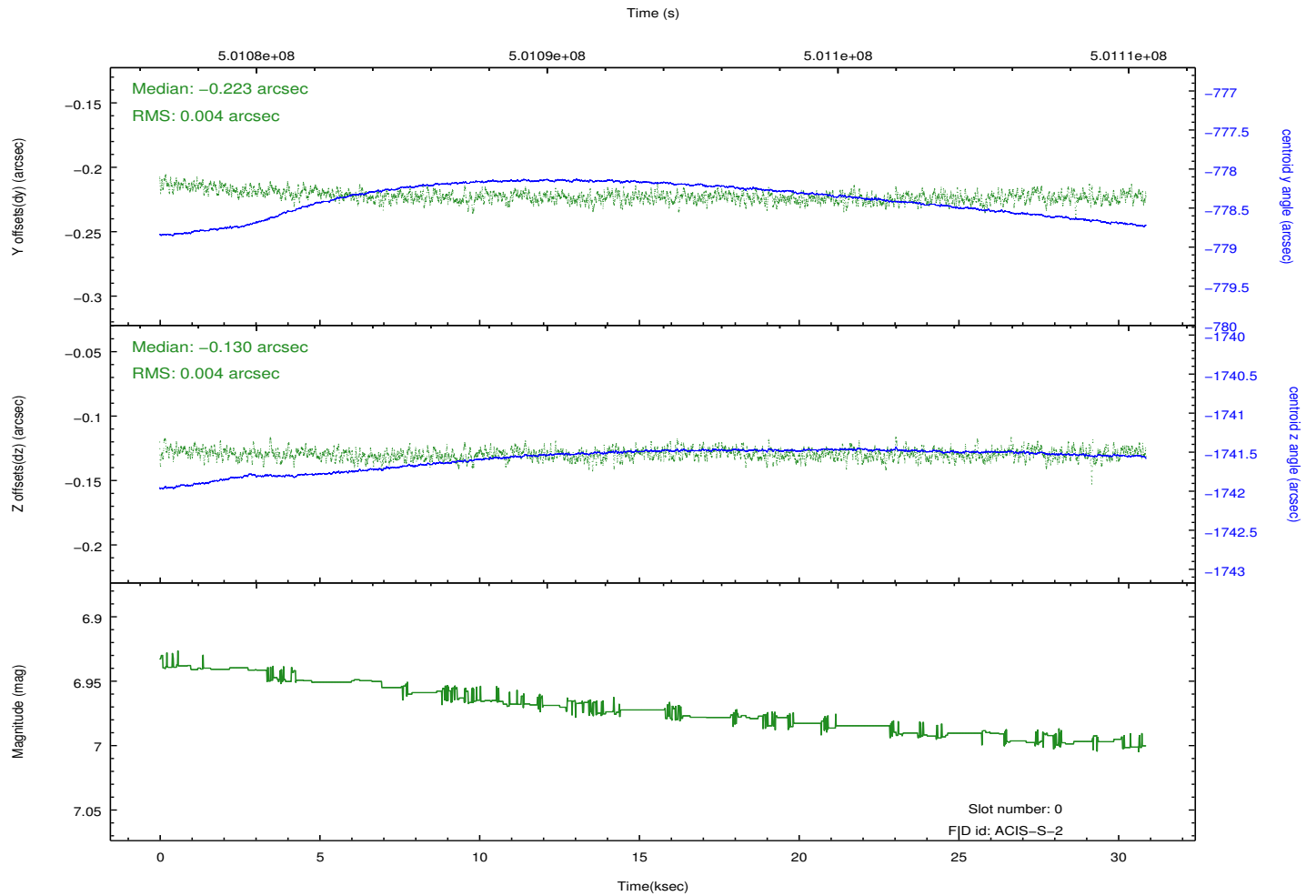
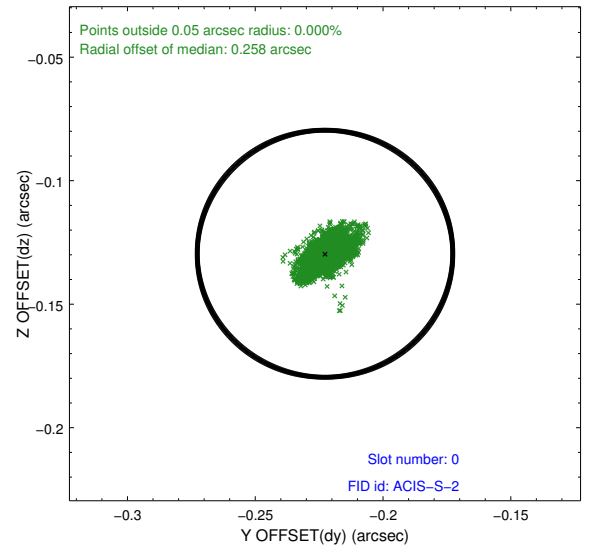
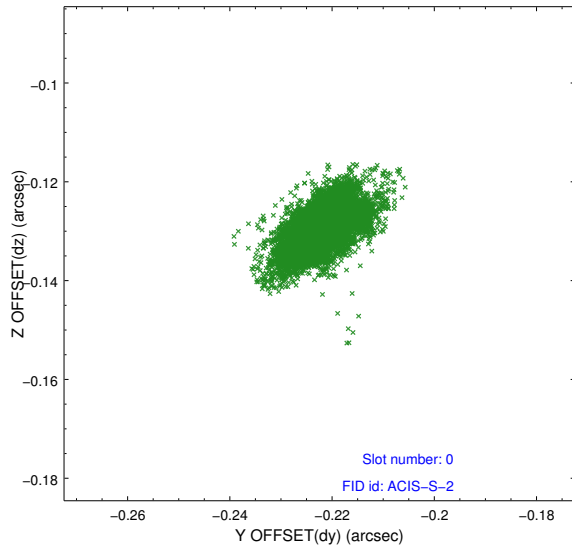


2.4.5 Slot 7

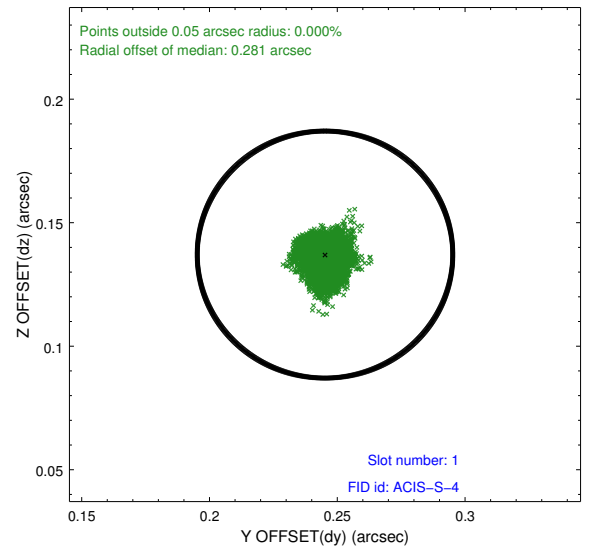
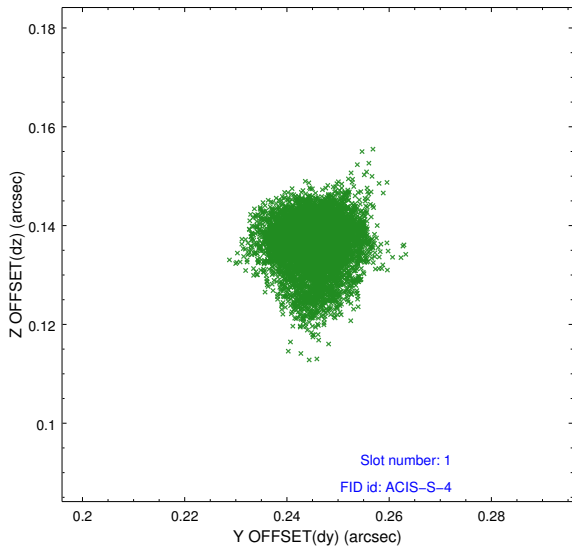


2.5 FID Slots

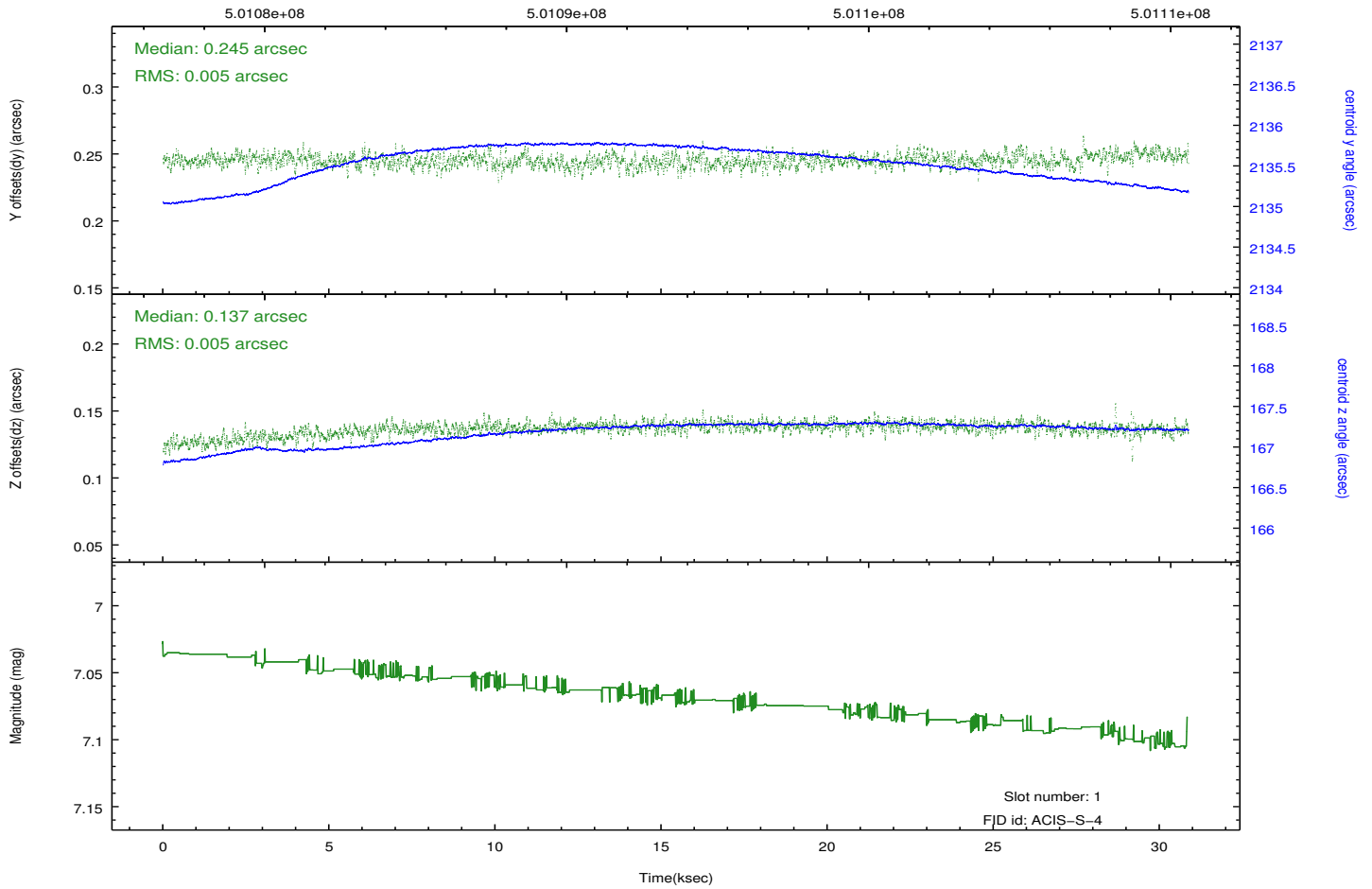
2.5.1 Slot 0



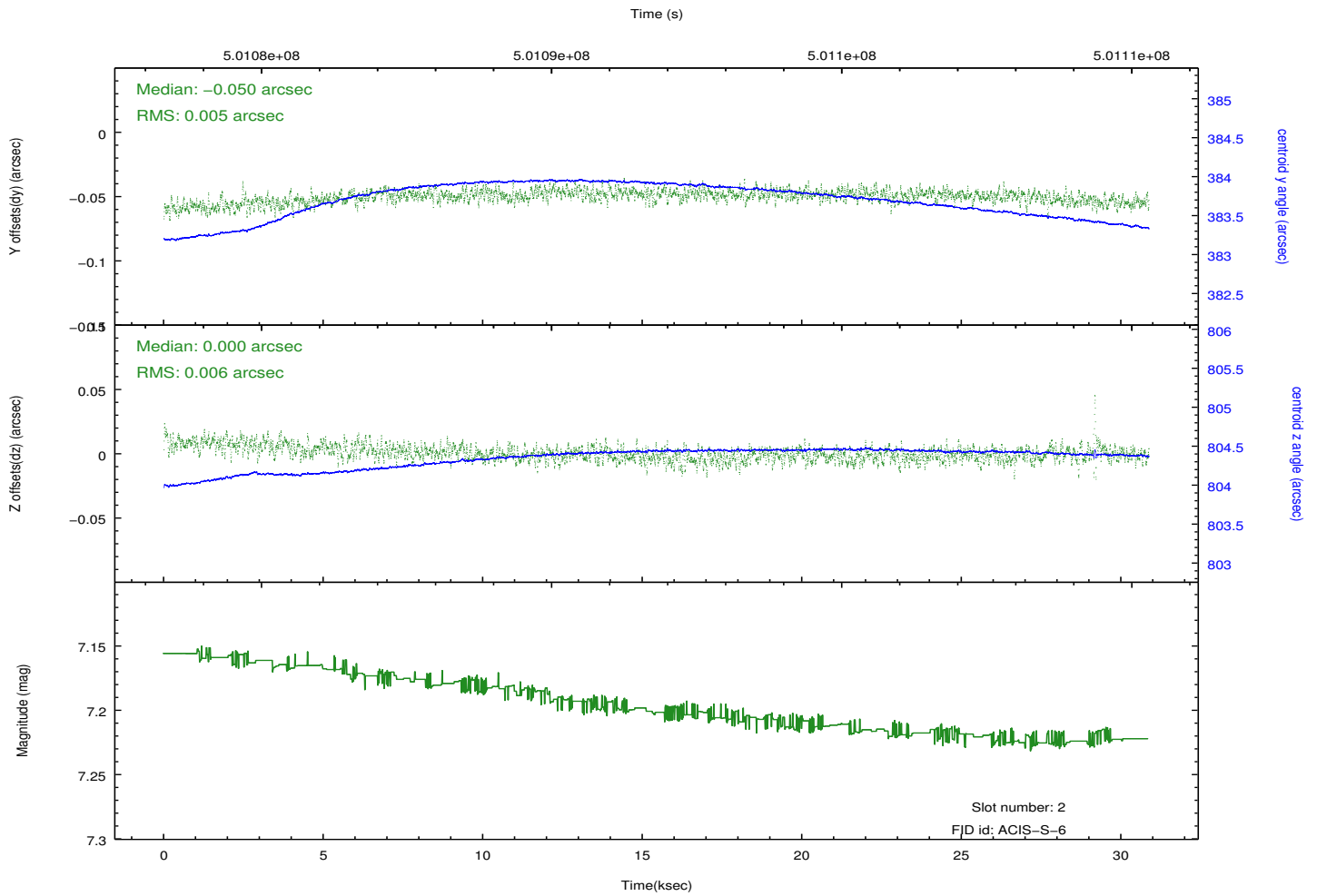
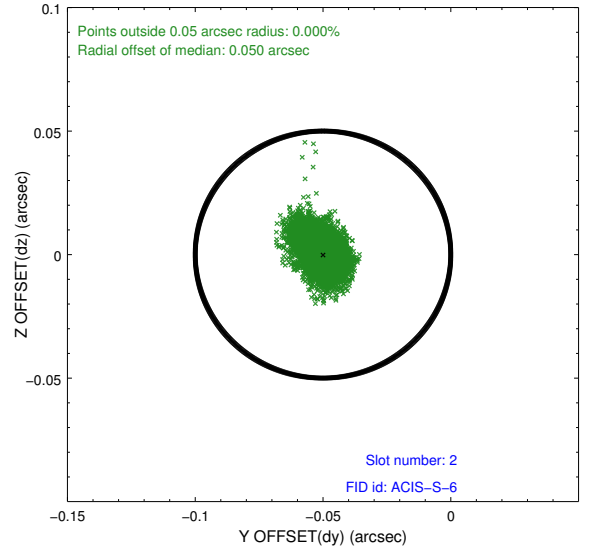
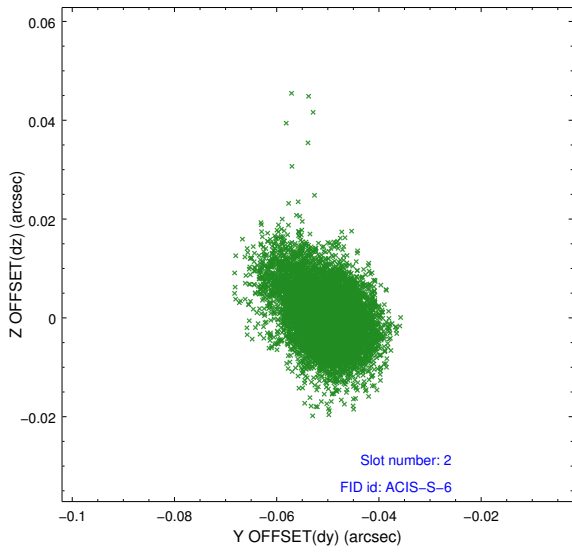
2.5.2 Slot 1



Time (s)



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2014.12.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.070000231266

A.2 Comments

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.