

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 4216 - L2 Version 4
Chandra X-Ray Center

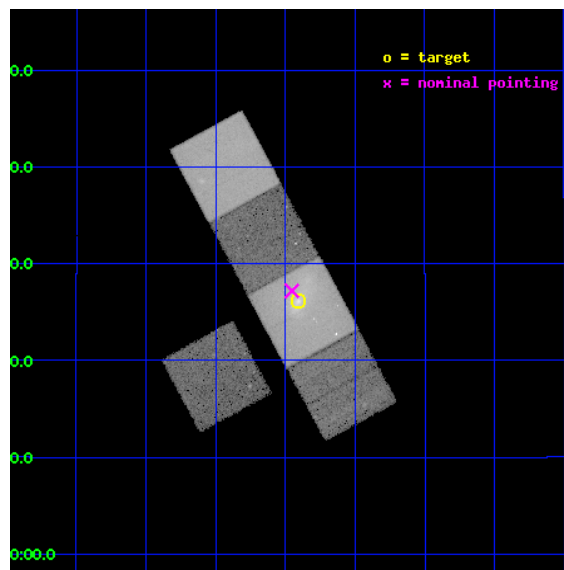
L2 Processing Date : Mar 14 2013

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1 Front

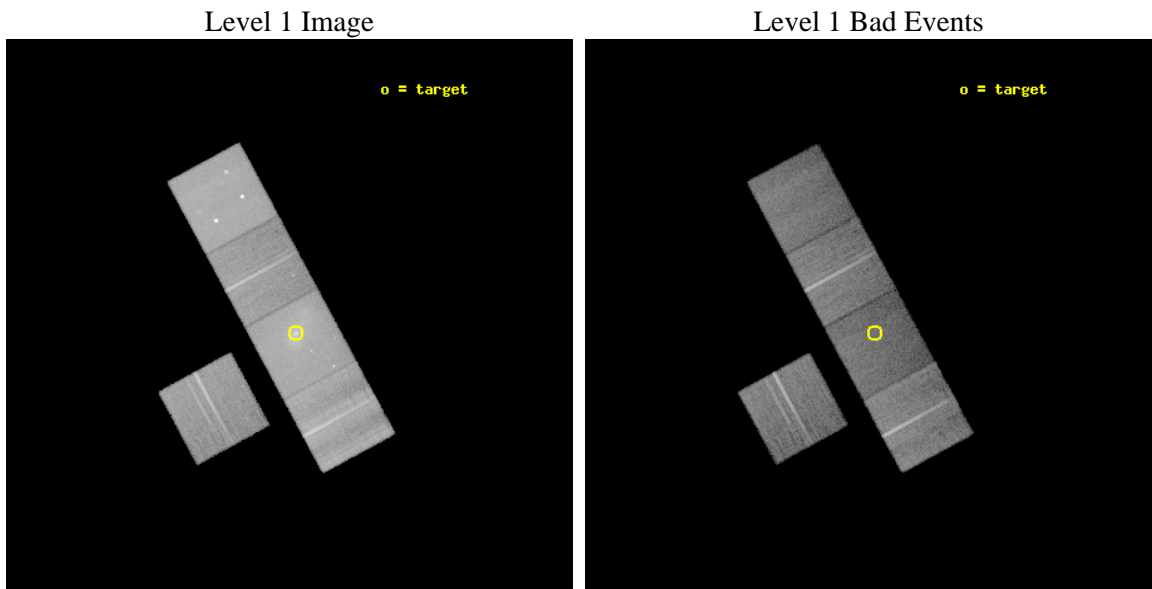
seq_num	800372	Sequence number
obs_id	4216	Observation id
title	THE REMARKABLE ARC IN ABELL 1201 - PROBING THE MASS PROFILE OF CLUSTERS DOWN TO 10KPC	Proposal title
observer	Dr Alastair Edge	Principal investigator
object	ABELL 1201	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	168.226667	Observer's specified target RA [deg]
dec_targ	13.436111	Observer's specified target Dec [deg]
ra_nom	168.23836314471	Nominal RA [deg]
dec_nom	13.453491753153	Nominal Dec [deg]
roll_nom	61.574353217509	Nominal Roll [deg]
revision	4	Processing version of data
ontime	40175.999922723	Sum of GTIs [s]
livetime	39651.070906591	Livetime [s]
ontime3	40169.71800226	Sum of GTIs [s]
ontime5	40175.999922723	Sum of GTIs [s]
ontime6	40175.999922723	Sum of GTIs [s]
ontime7	40175.999922723	Sum of GTIs [s]
ontime8	40172.858932555	Sum of GTIs [s]
l2events	408246	Number of level 2 events



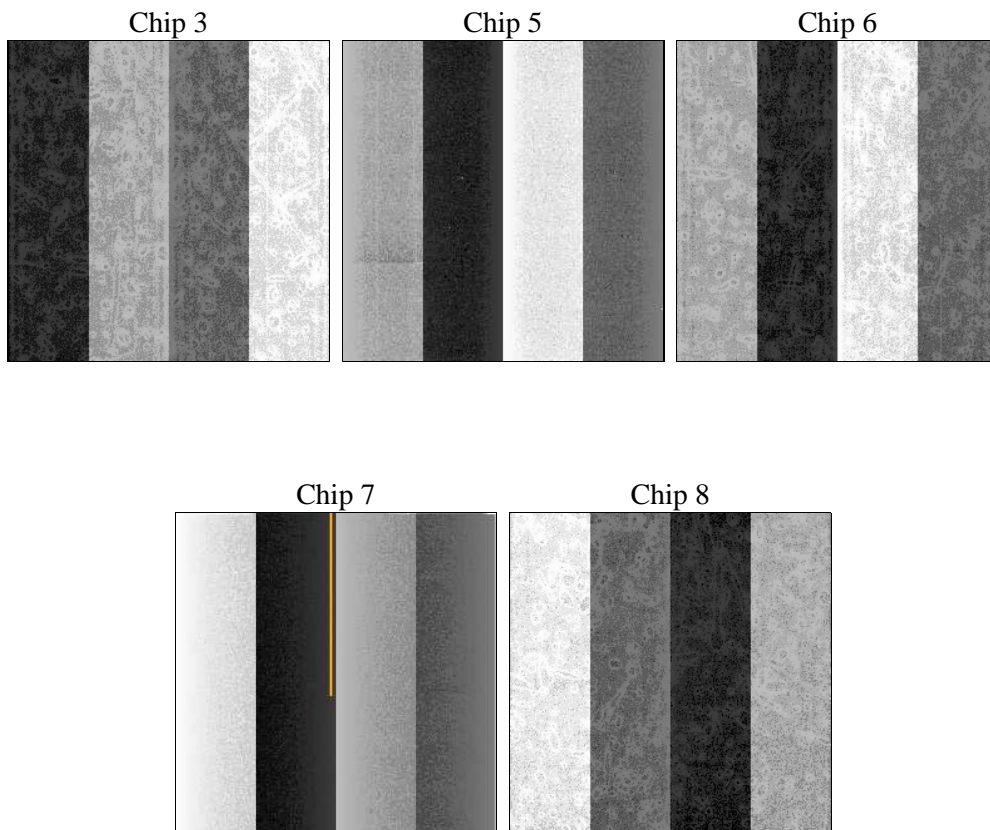
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	5	Obi number	sched_exp_time	39993.318000	[s] Scheduled observation exposure time
ascdsver	8.5.1.1	Processing system revision	ontime	40175.999922723	Sum of GTIs [s]
caldbver	4.5.6	 	ontime3	40169.71800226	Sum of GTIs [s]
date	2013-03-14T21:09:28	Date and time of file creation	ontime5	40175.999922723	Sum of GTIs [s]
revision	4	Processing version of data	ontime6	40175.999922723	Sum of GTIs [s]
			ontime7	40175.999922723	Sum of GTIs [s]
			ontime8	40172.858932555	Sum of GTIs [s]
			l1events	1162743	Number of level 1 events

2.1.4 Events

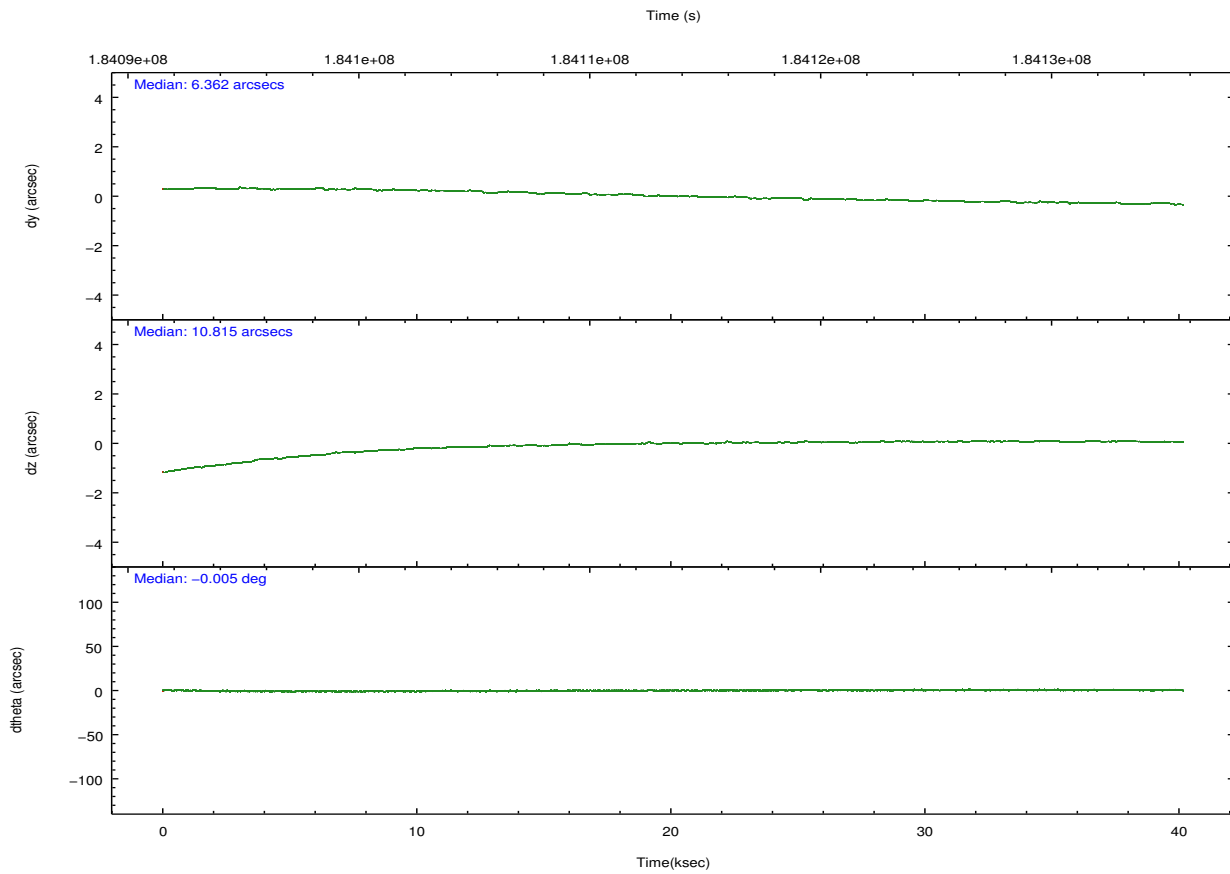
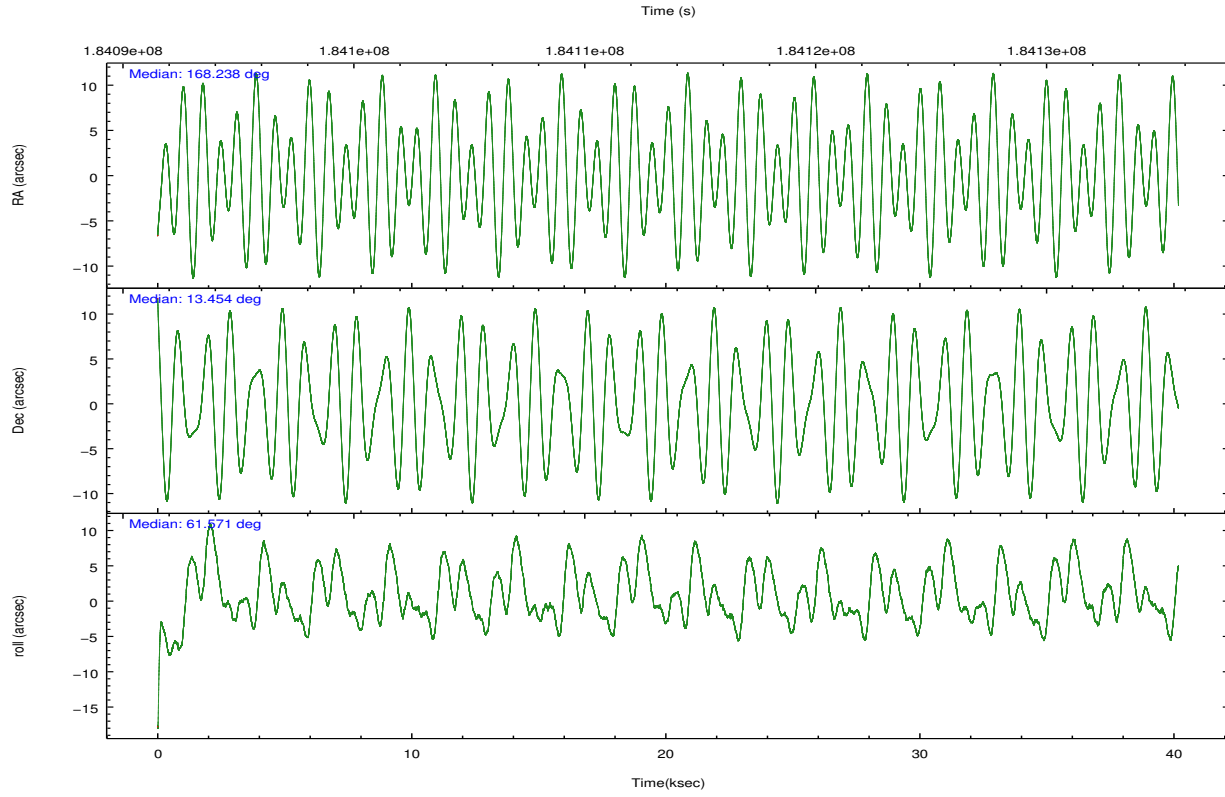
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	165353	292797	175395	280128	249070
rejected events	144925	116403	148575	98332	163063
rejected %	87%	39%	84%	35%	65%

	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	9021	32490	13445	29703	31091
	5%	11%	7%	10%	12%
grade 1 events	75	343	85	182	187
	0%	0%	0%	0%	0%
grade 2 events	4096	50320	5057	39049	15401
	2%	17%	2%	13%	6%
grade 3 events	2104	9515	2205	18015	11338
	1%	3%	1%	6%	4%
grade 4 events	2016	9597	2237	17952	10535
	1%	3%	1%	6%	4%
grade 5 events	6167	18629	6271	19594	9205
	3%	6%	3%	6%	3%
grade 6 events	3790	78439	4544	79898	19412
	2%	26%	2%	28%	7%
grade 7 events	138084	93464	141551	75735	151901
	83%	31%	80%	27%	60%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-35678	ACIS-35678	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	168.239501	168.2383631447125	Subarray requested	NONE	NONE
[deg] Pointing Dec	13.426271	13.45349175315272	Alternating exposures requested	N	N
[deg] Pointing Roll	61.417472	61.57435321750892	[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)	184093705.184000	184092012.84691			
Observation start date	2003-11-01T17:07:21	2003-11-01T16:40:12			
[s] Observation end time (MET)	184133698.184000	184134012.73622			
Observation end date	2003-11-02T04:13:54	2003-11-02T04:20:12			
Read mode	TIMED	TIMED			

2.3 Aspect

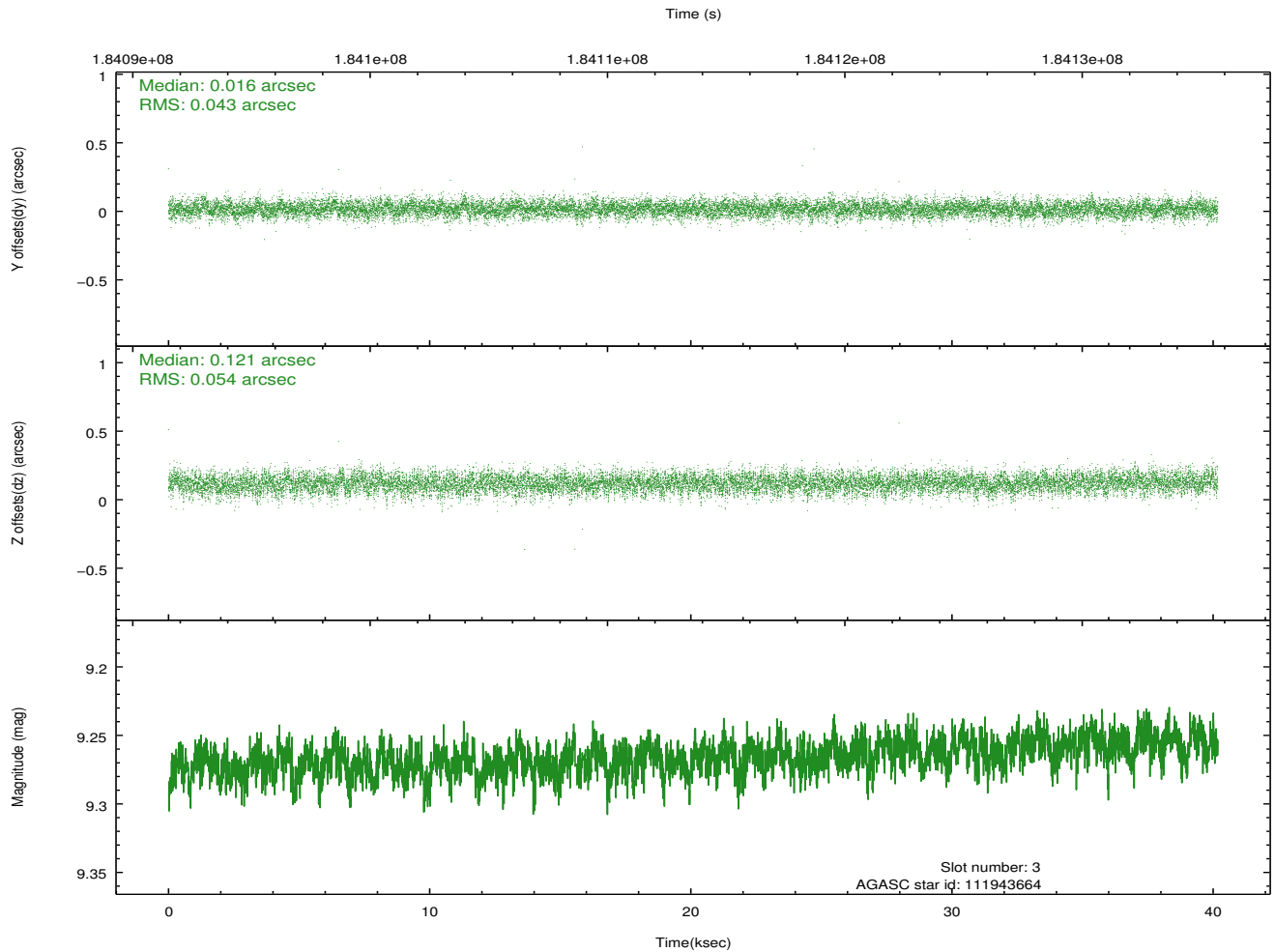
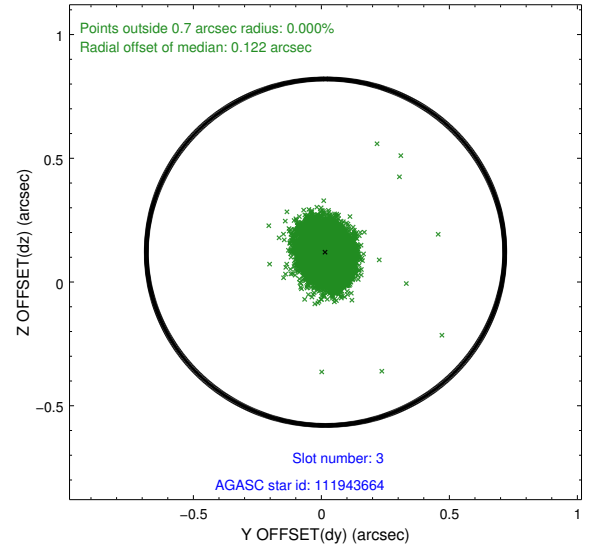
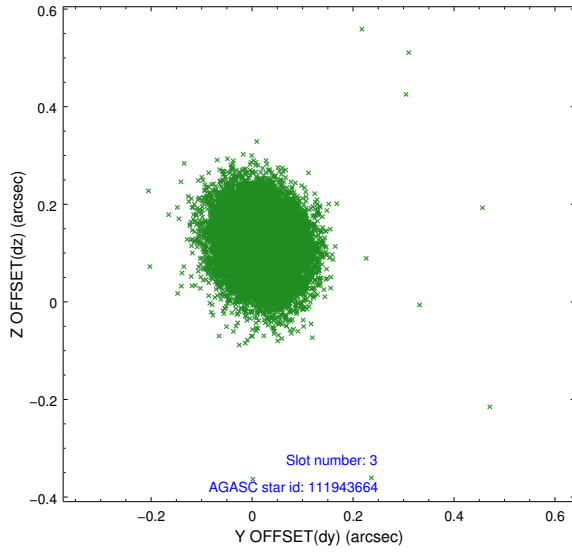


Slot Statistics

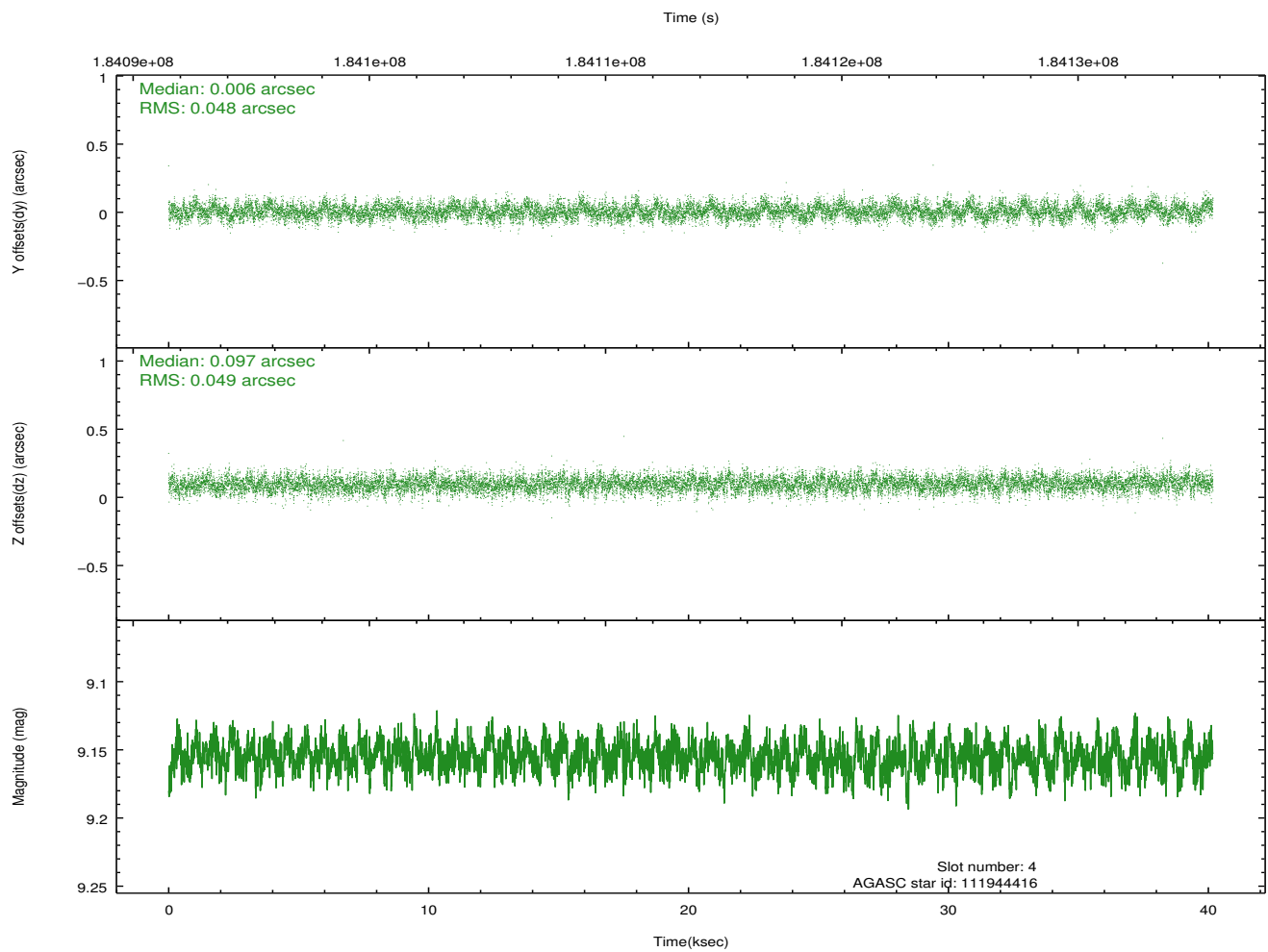
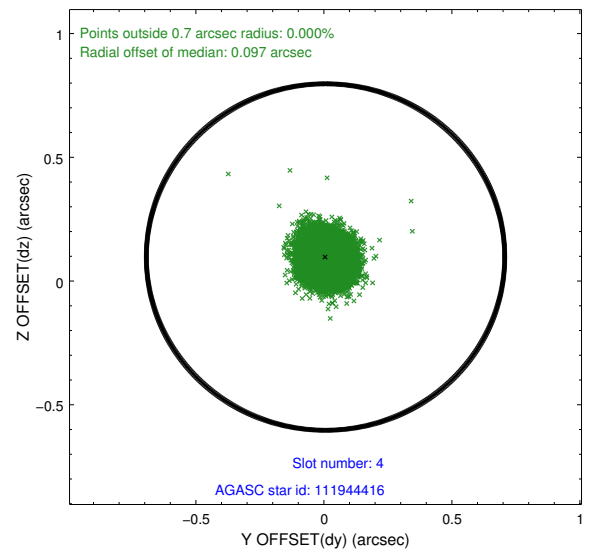
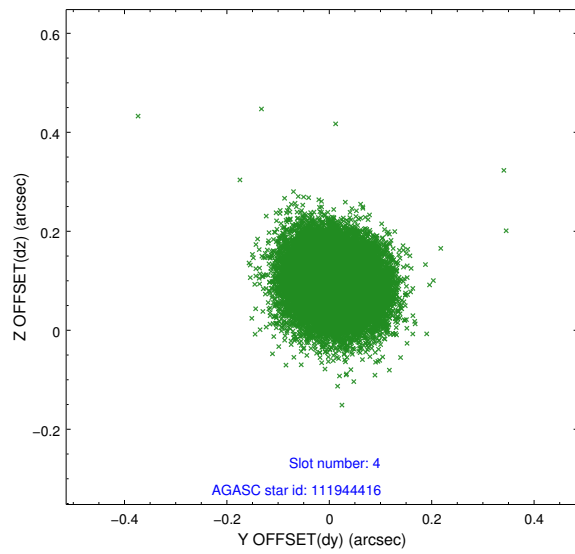
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	9801	-0.058	-0.013	0.008	0.014	0.000000	0.000000	-759.14	-1731.96
1	FID	ACIS-S-4	7.20	9800	0.064	0.032	0.008	0.015	0.000000	0.000000	2154.22	176.59
2	FID	ACIS-S-5	7.23	9799	-0.037	-0.010	0.008	0.018	0.000000	0.000000	-1811.98	170.18
3	GUIDE	111943664	9.27	19594	0.016	0.121	0.073	0.119	168.455104	13.231647	-253.56	-998.24
4	GUIDE	111944416	9.16	19594	0.006	0.097	0.073	0.116	168.281221	13.248301	-492.73	-434.72
5	GUIDE	111944480	8.62	19595	0.130	-0.014	0.059	0.095	167.667829	13.119228	-1927.66	1232.71
6	GUIDE	111945272	8.32	19599	-0.052	-0.080	0.070	0.117	167.422036	13.273538	-1849.43	2254.50
7	GUIDE	111937776	8.68	19599	-0.109	-0.123	0.073	0.119	168.023116	14.306189	2420.37	2178.63

2.4 Star Slots

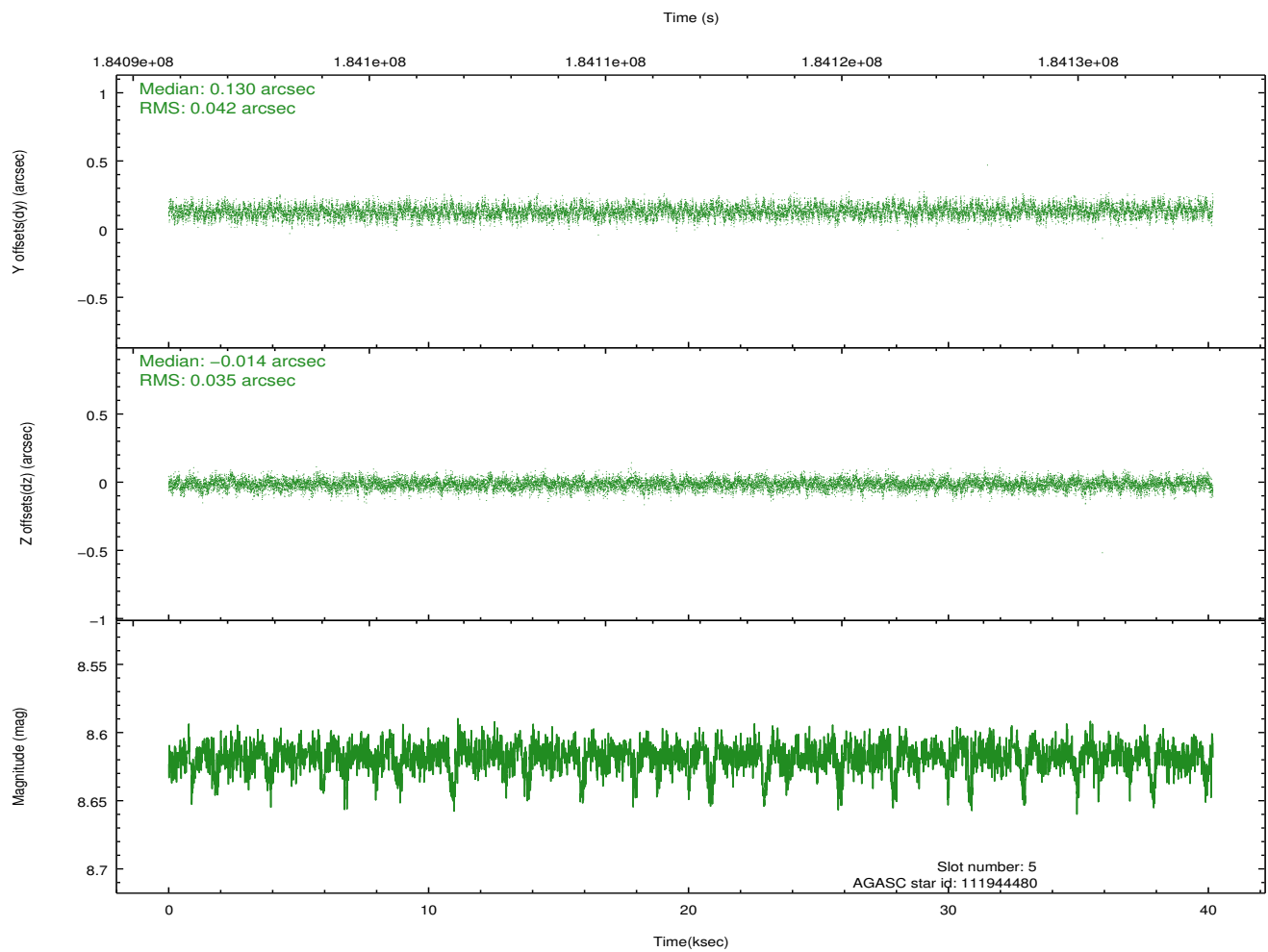
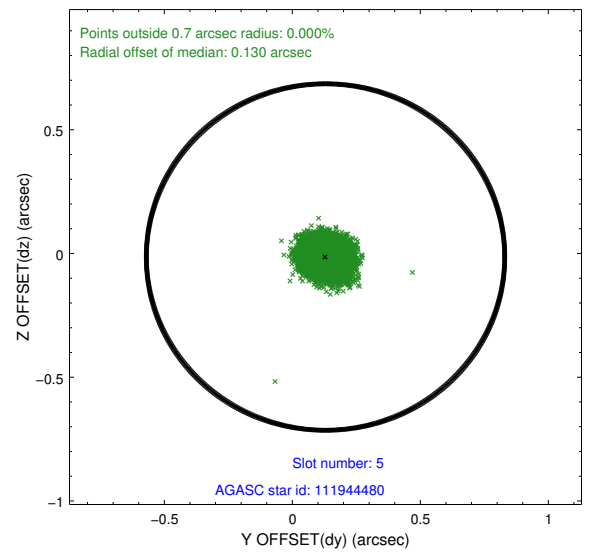
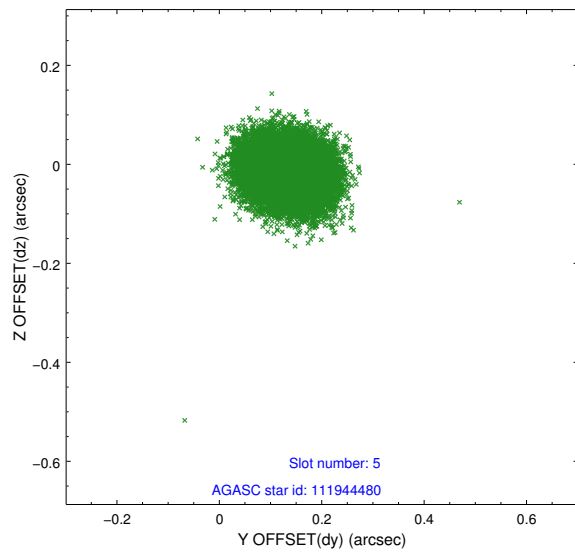
2.4.1 Slot 3



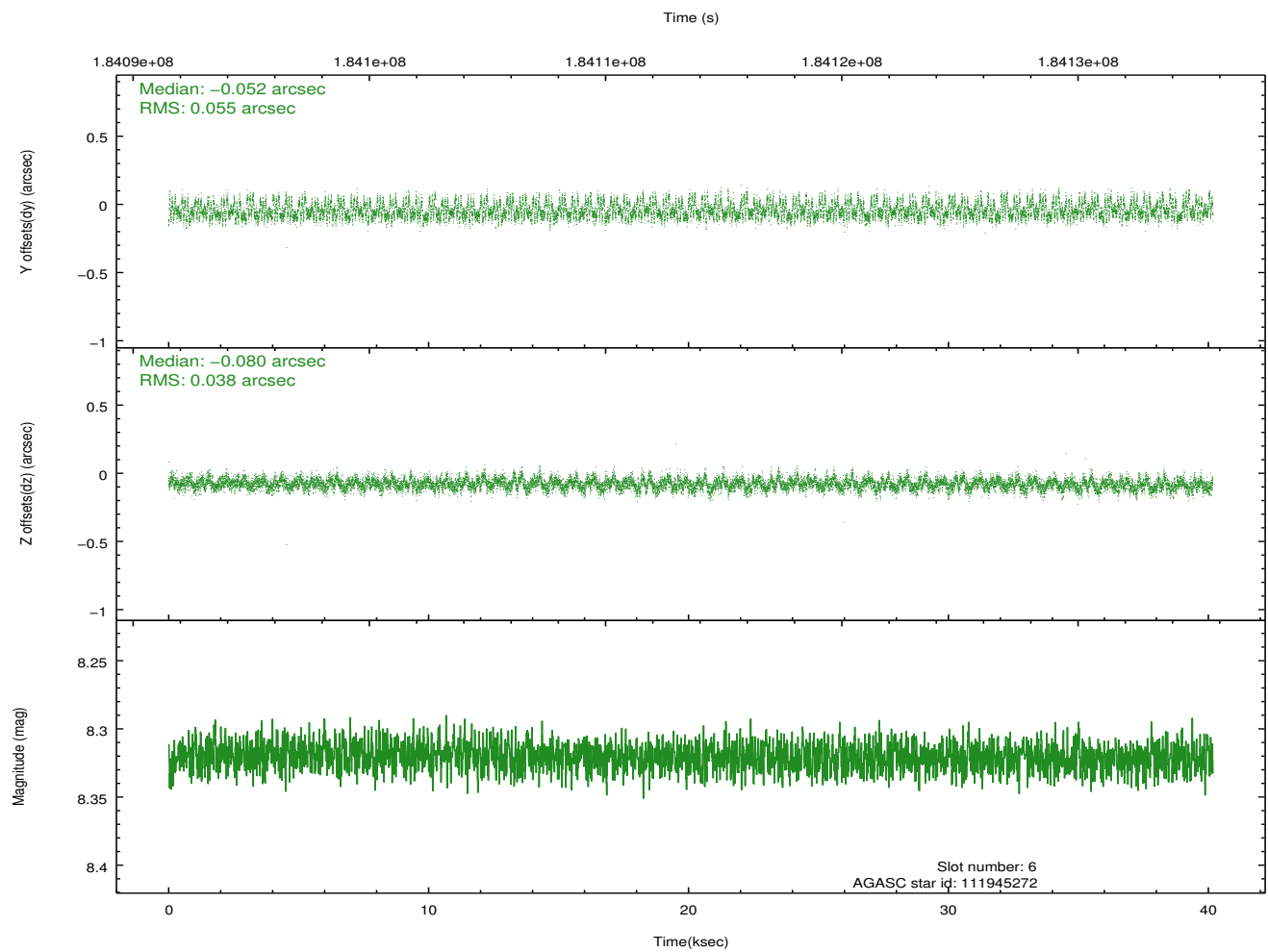
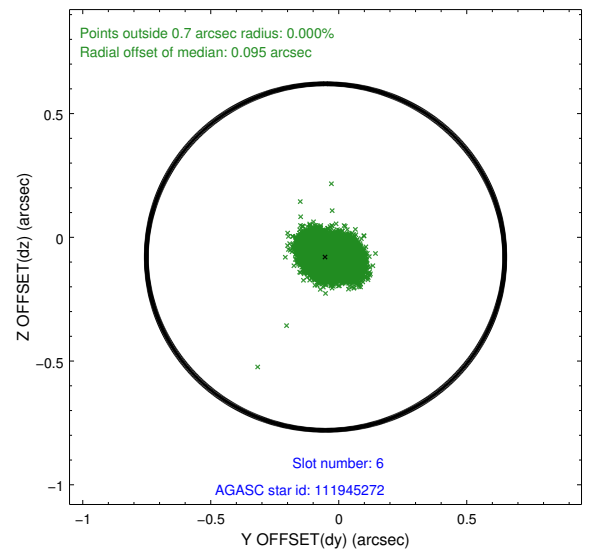
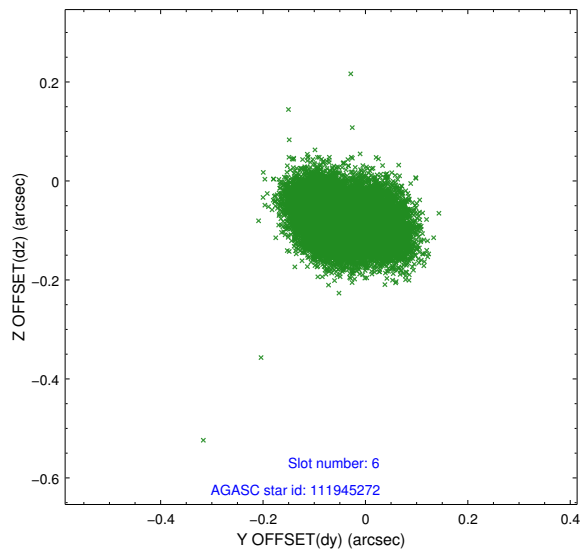
2.4.2 Slot 4



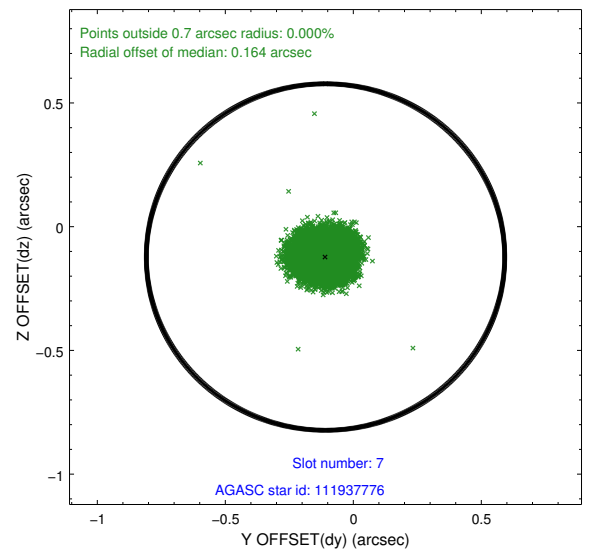
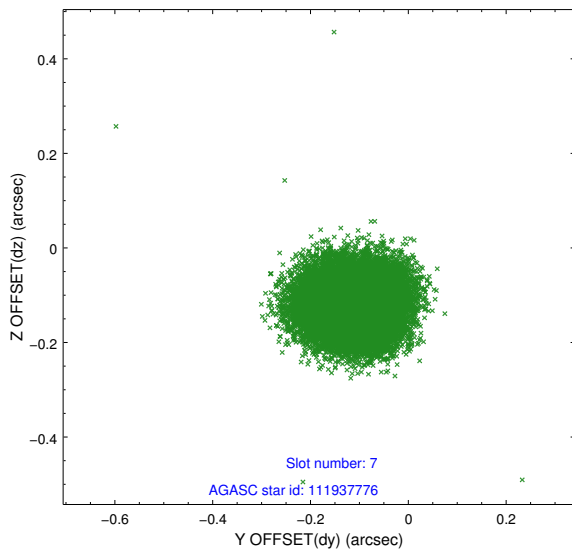
2.4.3 Slot 5



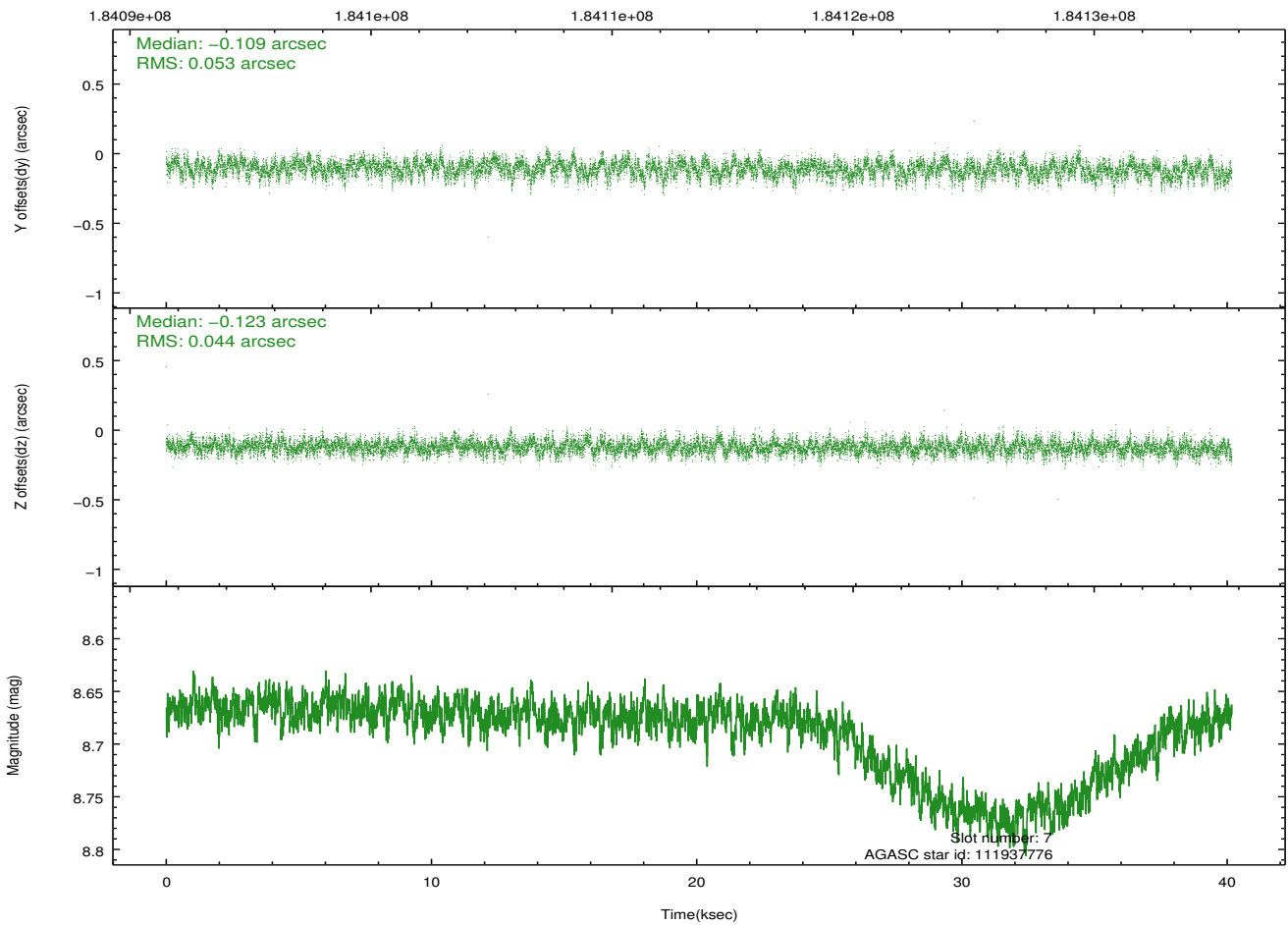
2.4.4 Slot 6



2.4.5 Slot 7

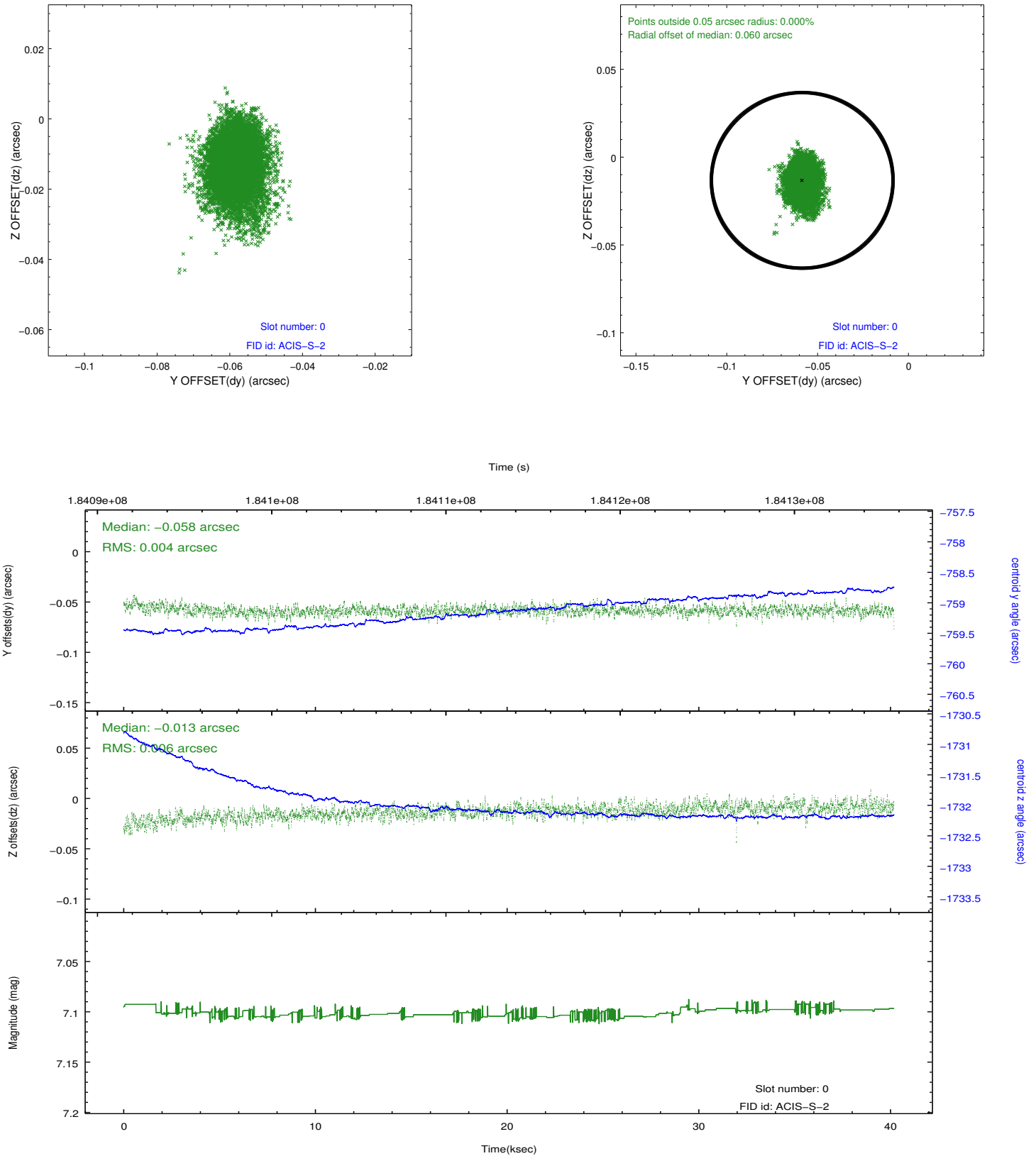


Time (s)

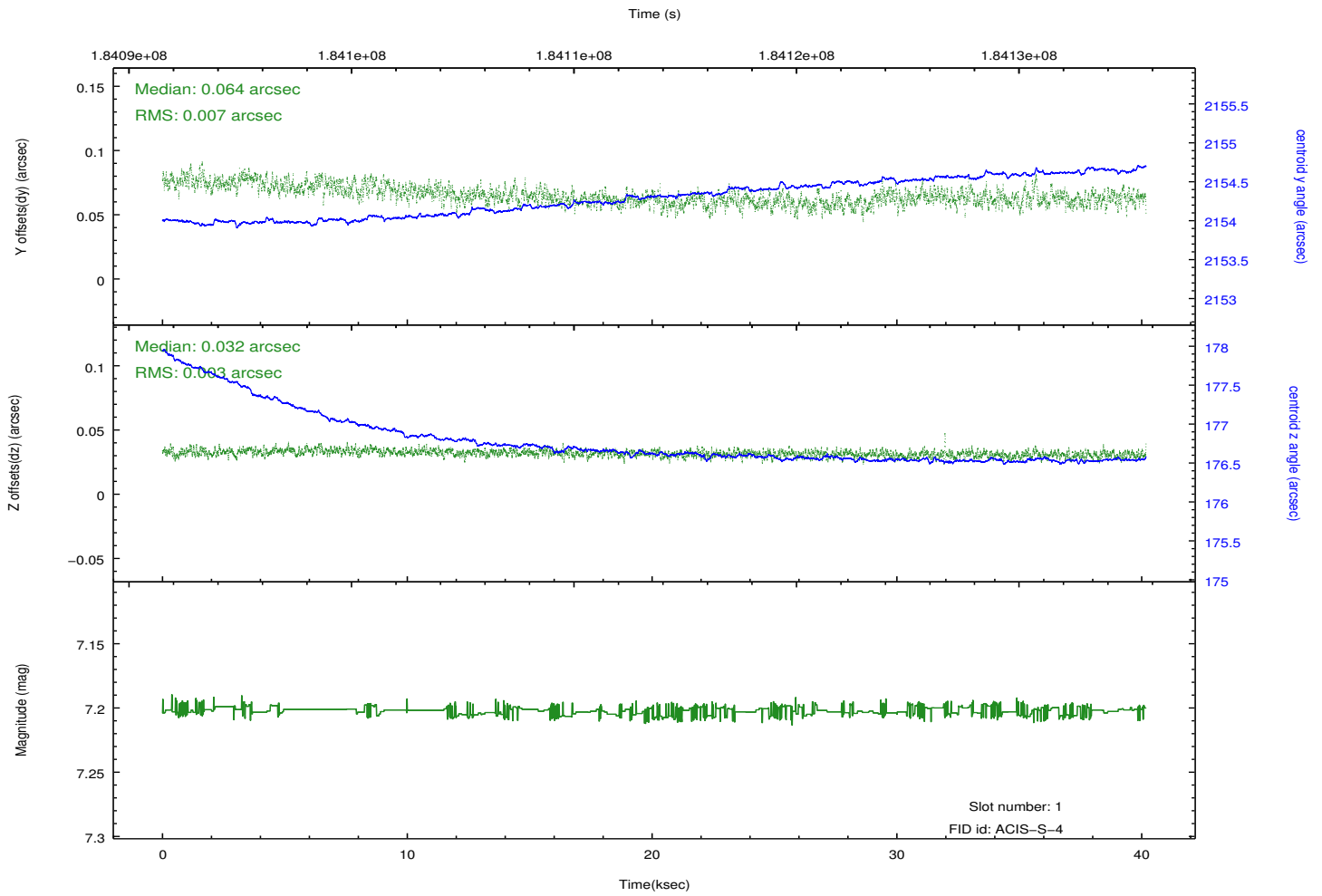
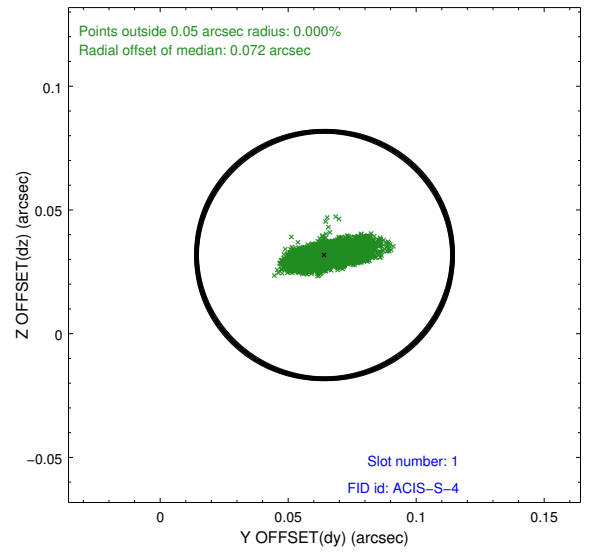
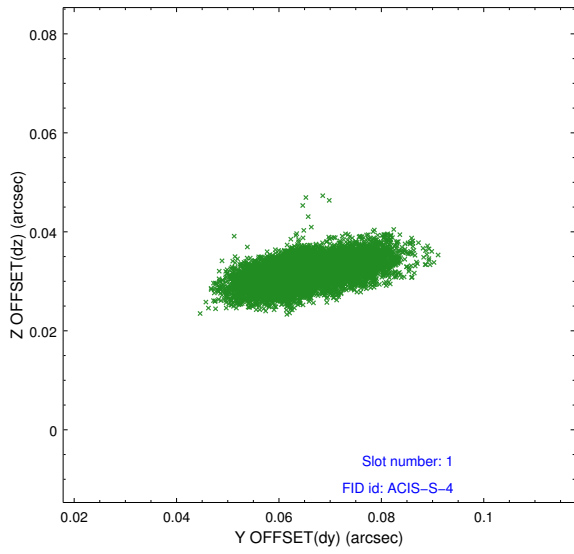


2.5 FID Slots

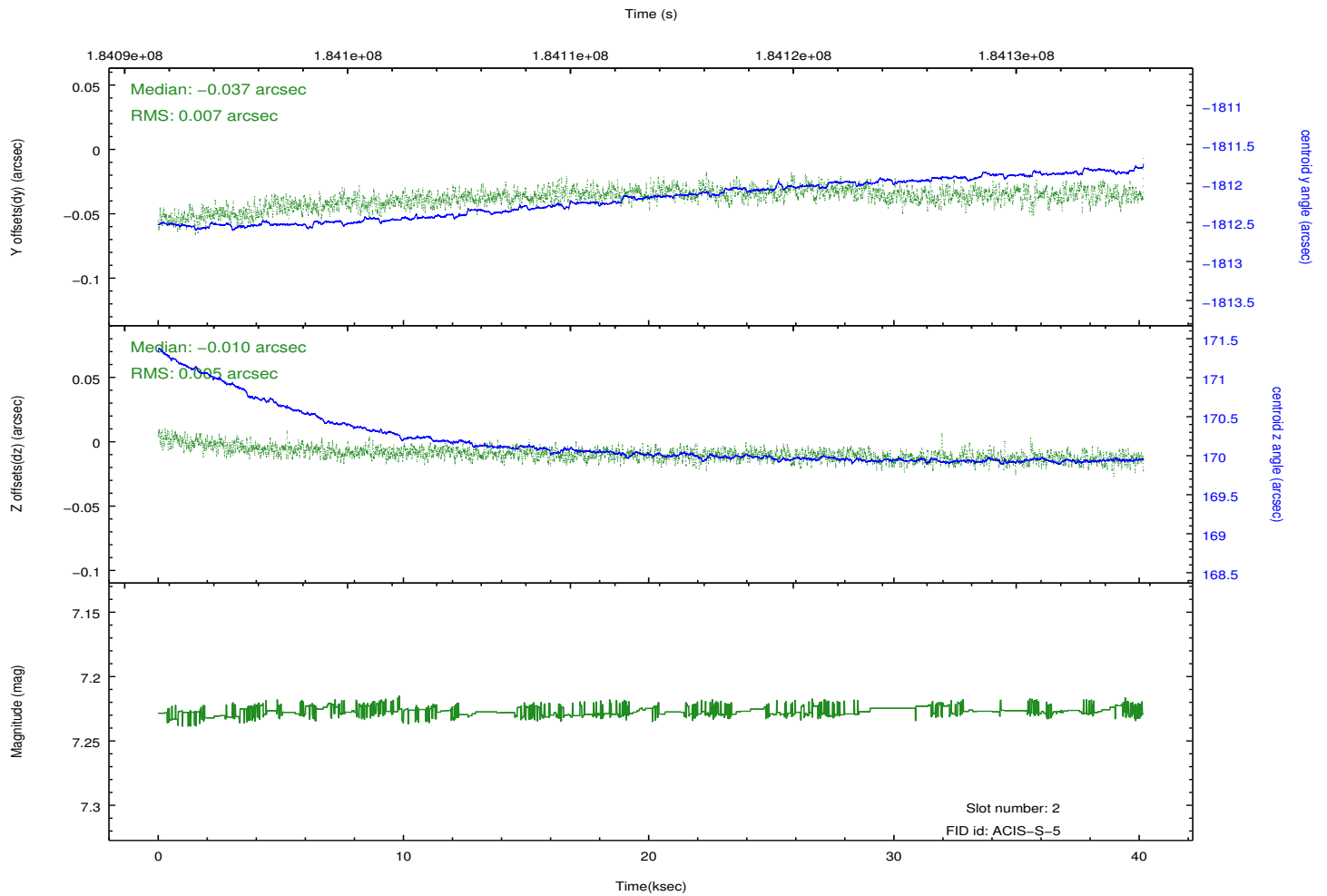
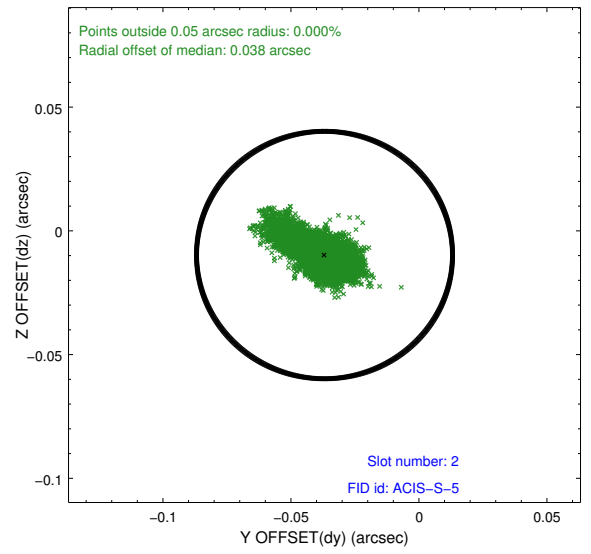
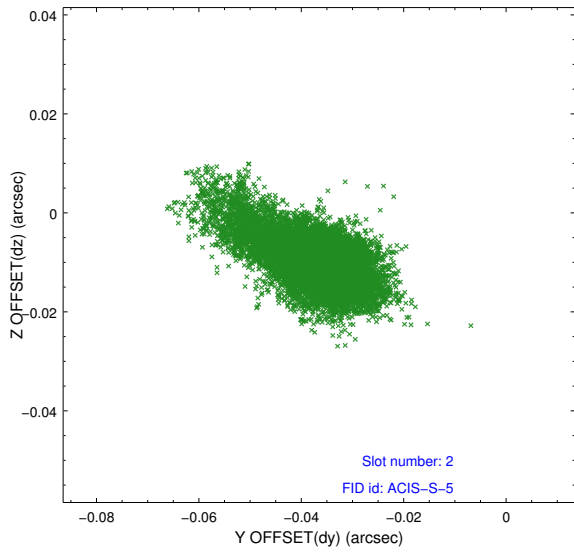
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2013.03.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	40.175

A.2 Comments

A spatial region of the original bias map for CCD = 3 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 = 3 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:
(168.32625, 13.25129), (168.33289, 13.24777), (168.40114, 13.37040), (168.39450, 13.37392)