

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 13215 - L2 Version 2
Chandra X-Ray Center

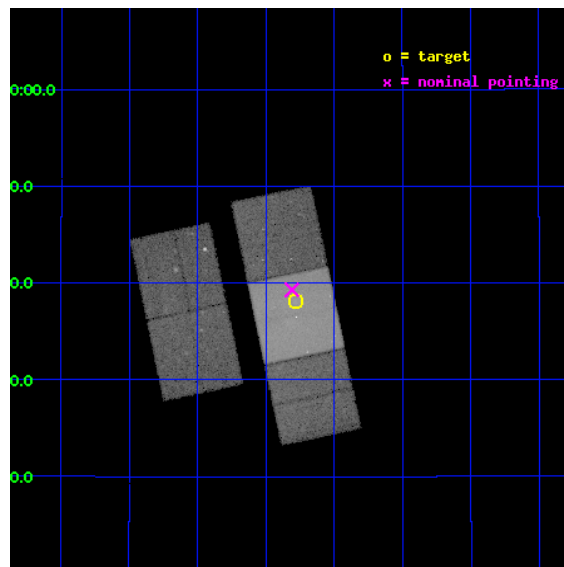
L2 Processing Date : Feb 2 2012

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

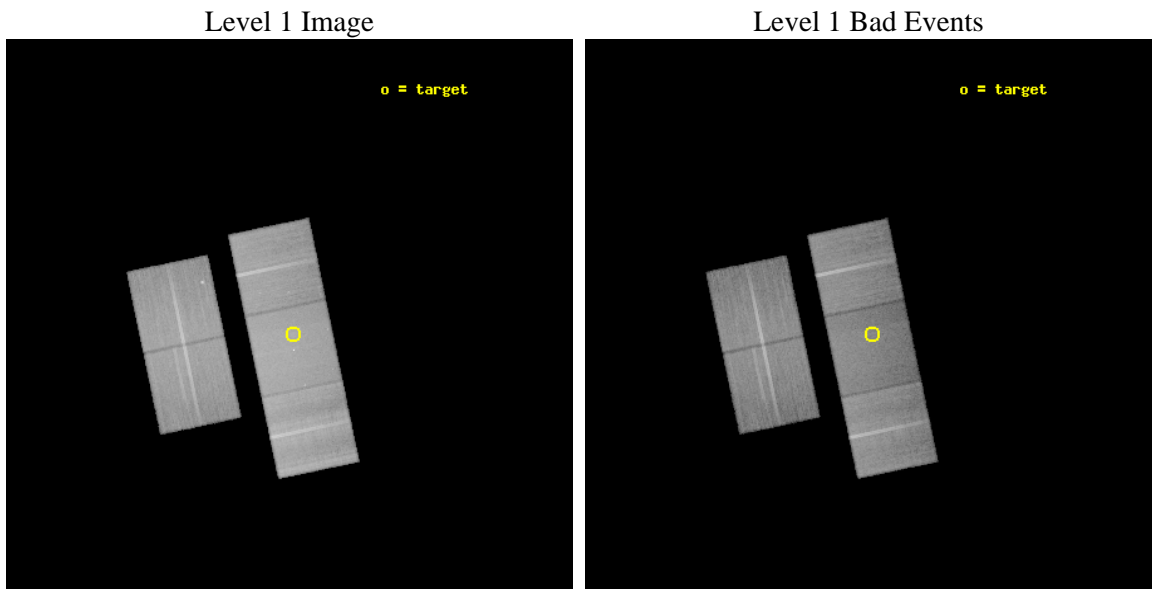
seq_num	801027	Sequence number
obs_id	13215	Observation id
title	Chandra Study of the X-ray Bright Distant Galaxy Cluster XMMU J0954+1738 at z=0.83	Proposal title
observer	Prof. Dr. Hans Boehringer	Principal investigator
object	XMMU J0954+1738	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	148.57125	Observer's specified target RA [deg]
dec_targ	17.634972	Observer's specified target Dec [deg]
ra_nom	148.57743025036	Nominal RA [deg]
dec_nom	17.654965155512	Nominal Dec [deg]
roll_nom	78.154750630132	Nominal Roll [deg]
revision	2	Processing version of data
ontime	45042.26898253	Sum of GTIs [s]
livetime	44453.758578637	Livetime [s]
ontime2	45023.258820355	Sum of GTIs [s]
ontime3	45042.186902523	Sum of GTIs [s]
ontime6	45039.086912155	Sum of GTIs [s]
ontime7	45042.26898253	Sum of GTIs [s]
ontime8	45039.005011678	Sum of GTIs [s]
l2events	303686	Number of level 2 events



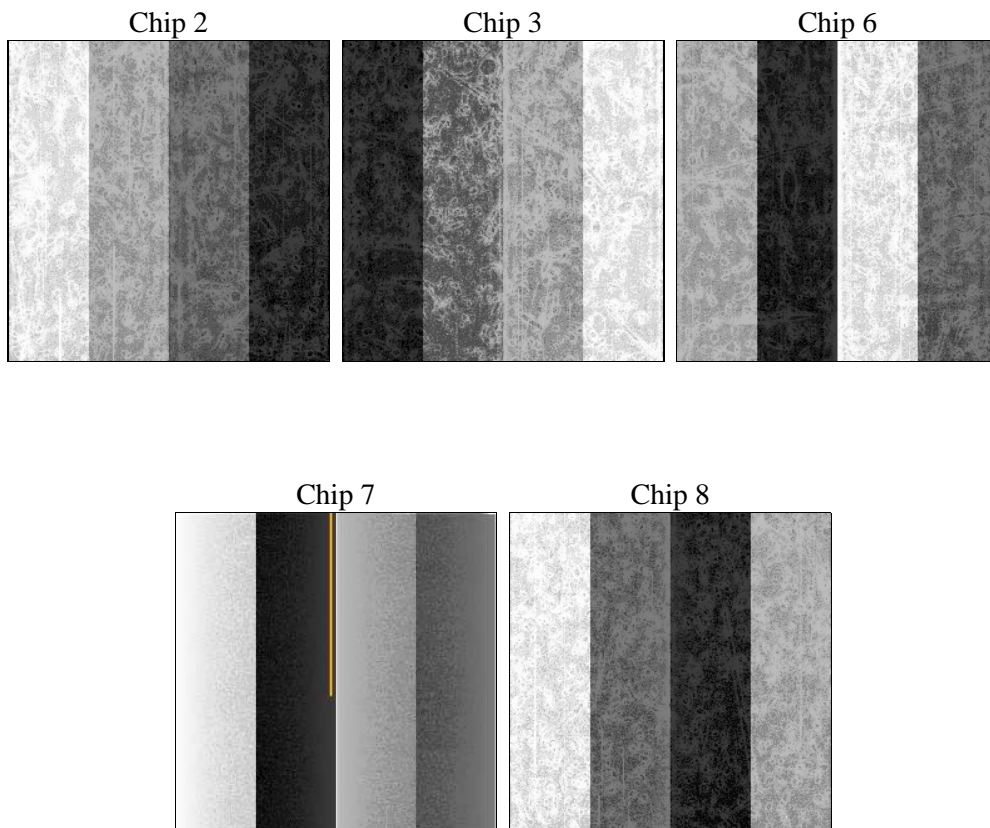
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	45000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	45042.26898253	Sum of GTIs [s]
caldbver	4.4.7	 	ontime2	45023.258820355	Sum of GTIs [s]
date	2012-02-02T05:21:47	Date and time of file creation	ontime3	45042.186902523	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	45039.086912155	Sum of GTIs [s]
			ontime7	45042.26898253	Sum of GTIs [s]
			ontime8	45039.005011678	Sum of GTIs [s]
			l1events	1773565	Number of level 1 events

2.1.4 Events

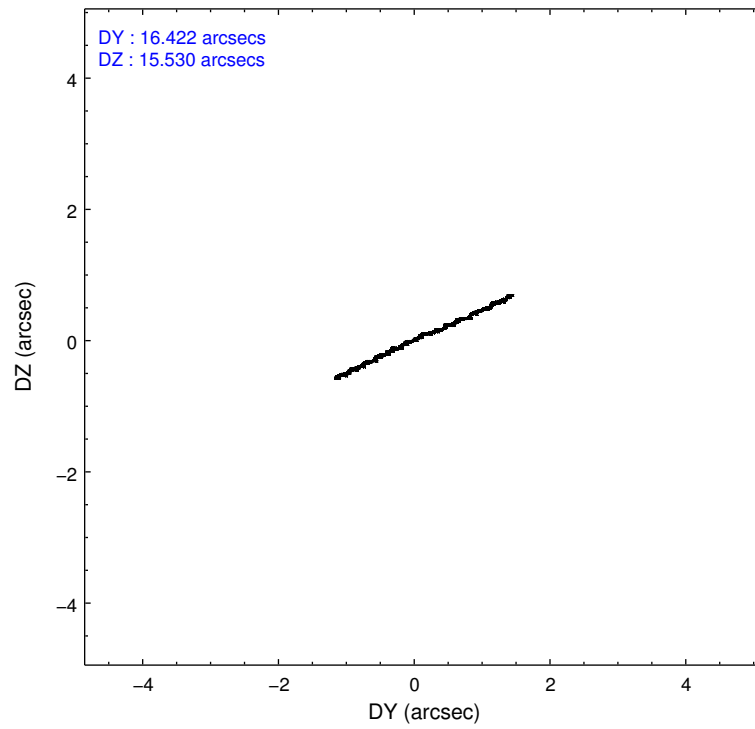
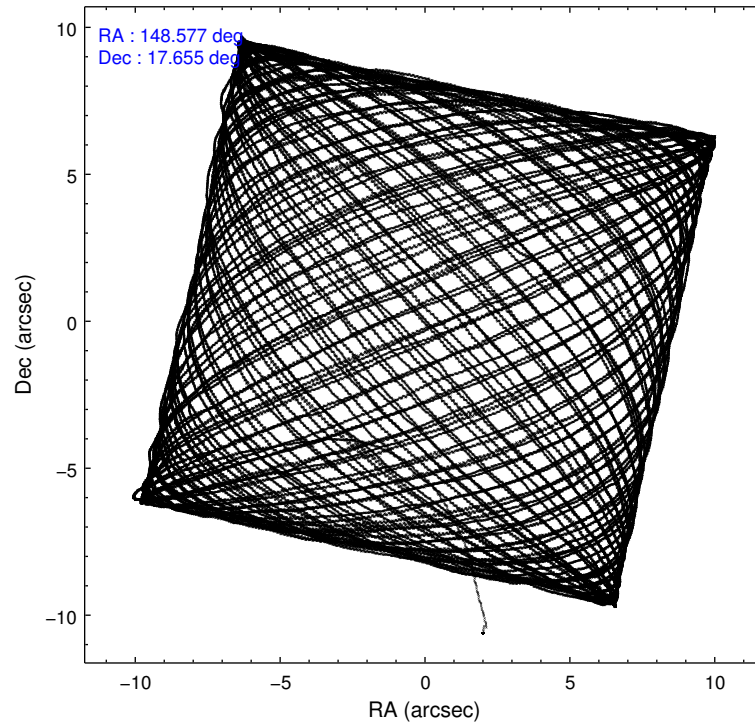
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	320606	308027	326588	401322	417022
rejected events	284588	275534	290294	219894	309044
rejected %	88%	89%	88%	54%	74%

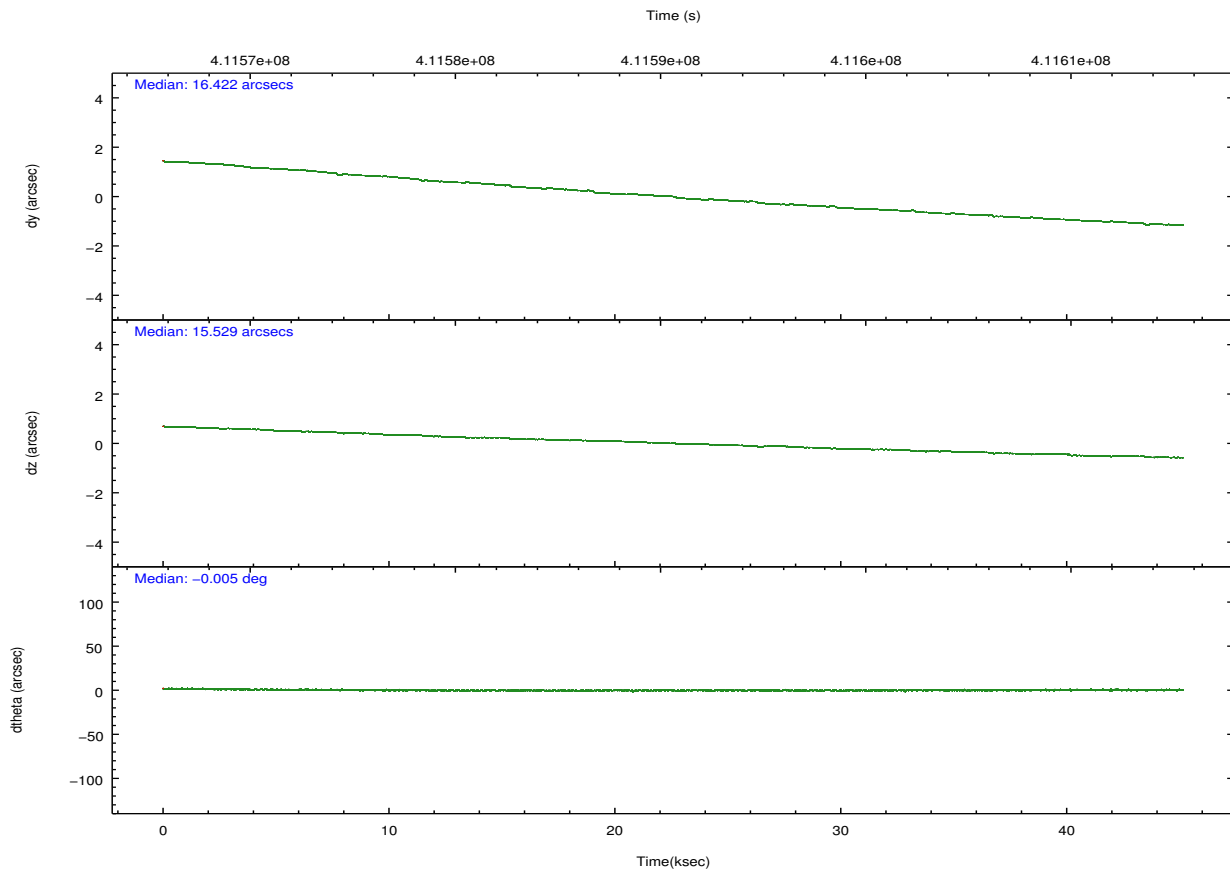
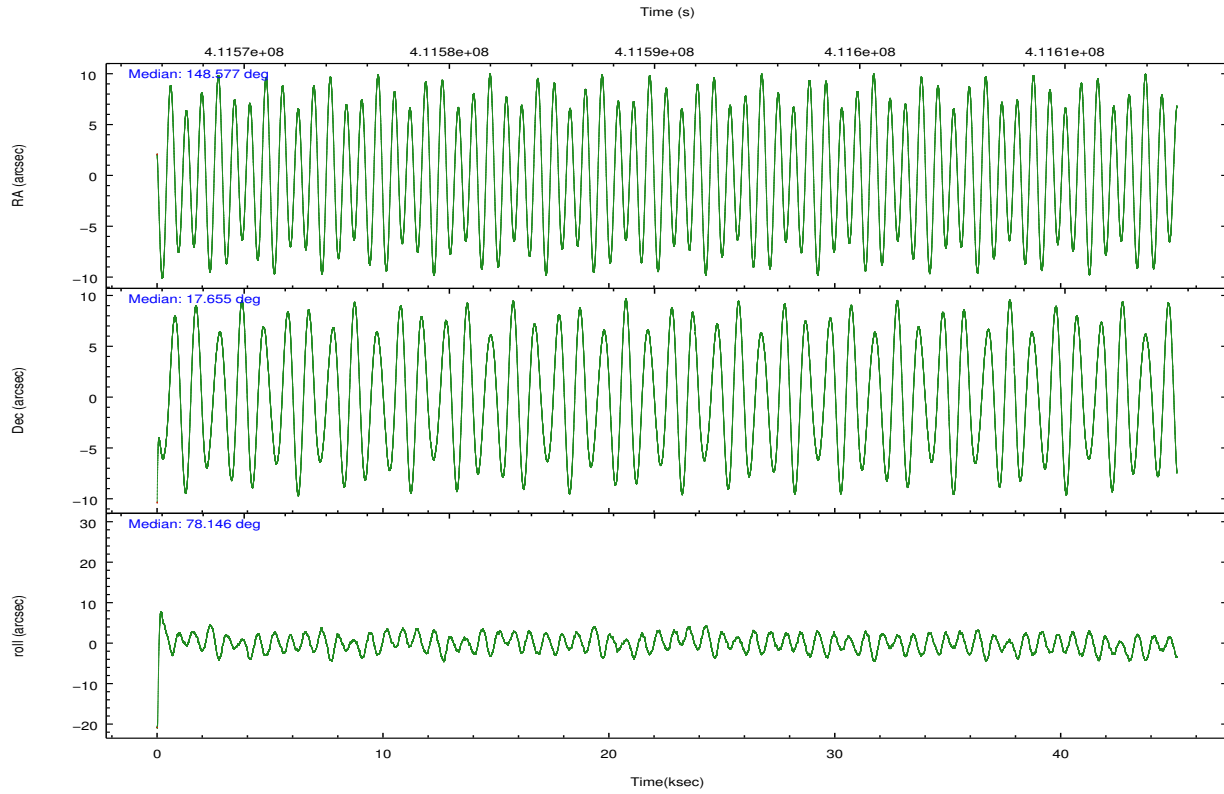
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	13475	11384	12751	17099	30962
	4%	3%	3%	4%	7%
grade 1 events	169	177	185	556	313
	0%	0%	0%	0%	0%
grade 2 events	8633	7168	8177	37268	25439
	2%	2%	2%	9%	6%
grade 3 events	3610	3615	3698	16081	11718
	1%	1%	1%	4%	2%
grade 4 events	3720	3557	3550	16165	10867
	1%	1%	1%	4%	2%
grade 5 events	12293	14714	14779	41793	21442
	3%	4%	4%	10%	5%
grade 6 events	6582	6770	8122	94827	28995
	2%	2%	2%	23%	6%
grade 7 events	272124	260642	275326	177533	287286
	84%	84%	84%	44%	68%

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	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	148.586745	148.5774302503554	CCD I2 on	O1	Y
[deg] Pointing Dec	17.629109	17.65496515551229	CCD I3 on	Y	Y
[deg] Pointing Roll	77.995312	78.15475063013236	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	N	N
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	Y	Y
[s] Observation start time (MET)	411568177.184000	411566530.17928	CCD S5 on	N	N
Observation start date	2011-01-16T12:28:31	2011-01-16T12:02:10	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	411613177.184000	411614106.06924	On-chip summing requested	N	N
Observation end date	2011-01-17T00:58:31	2011-01-17T01:15:06	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



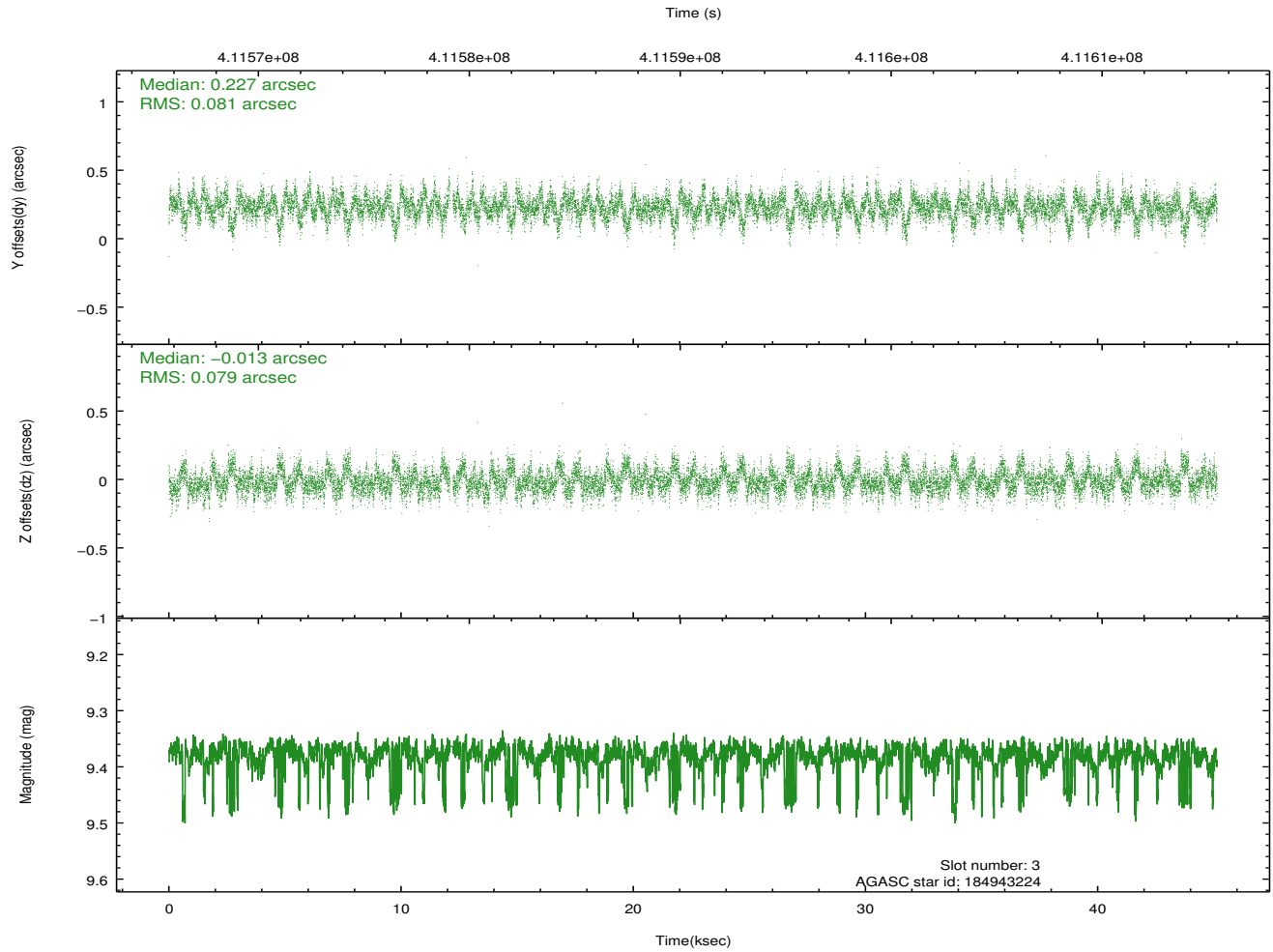
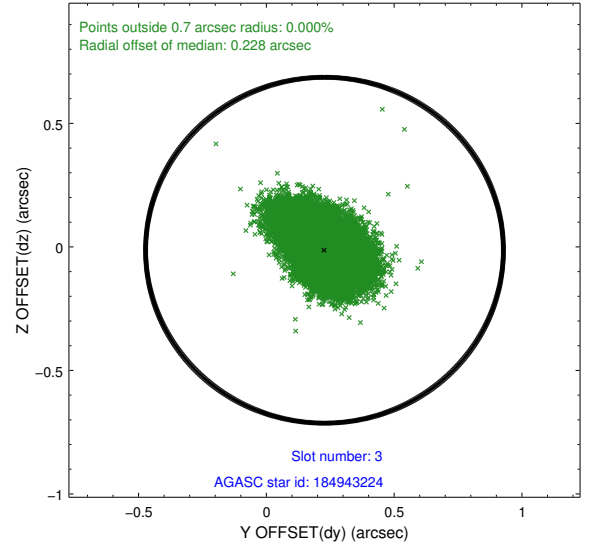
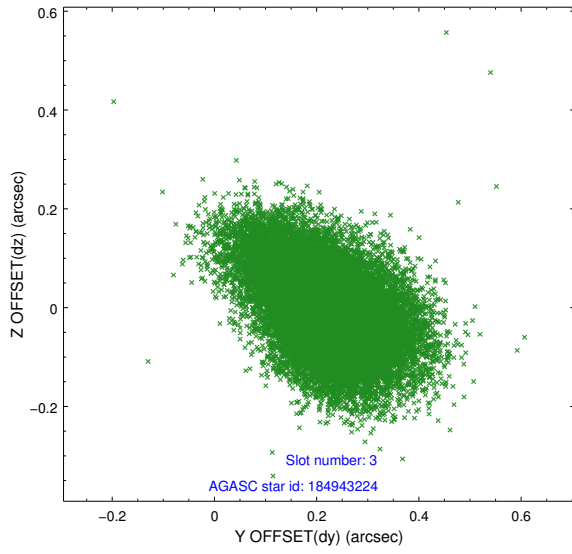


Slot Statistics

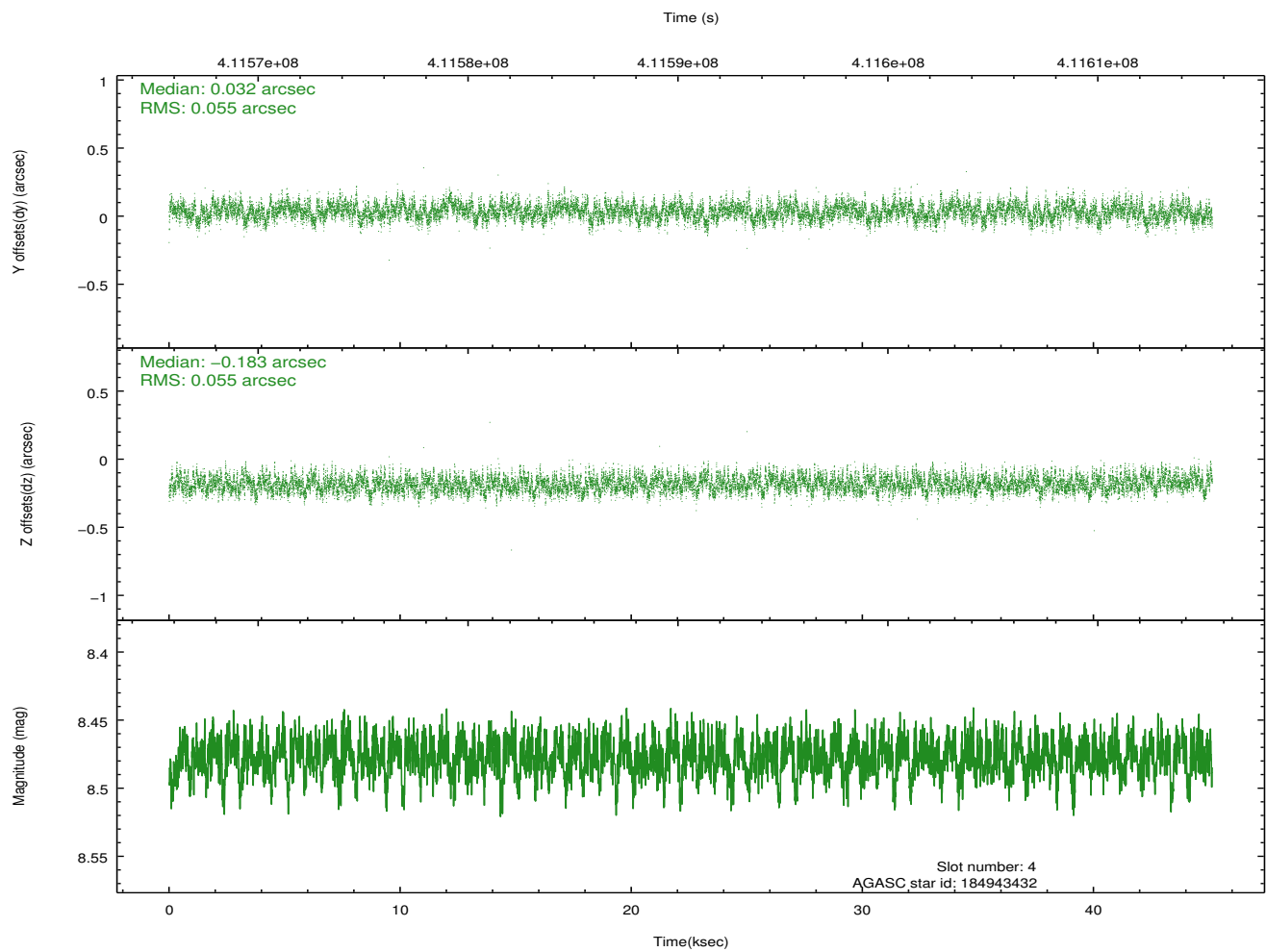
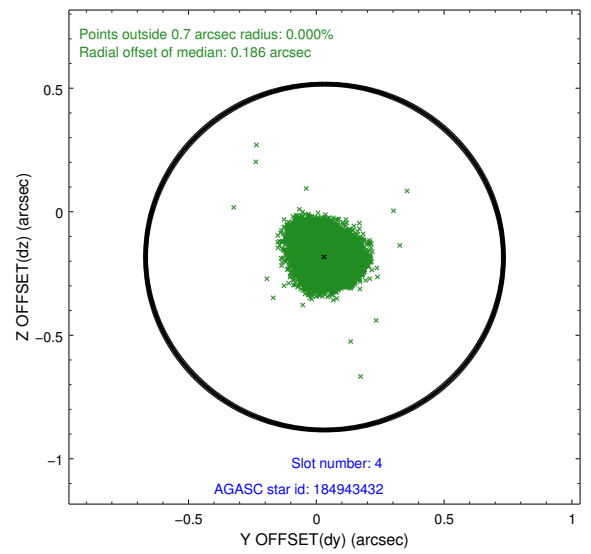
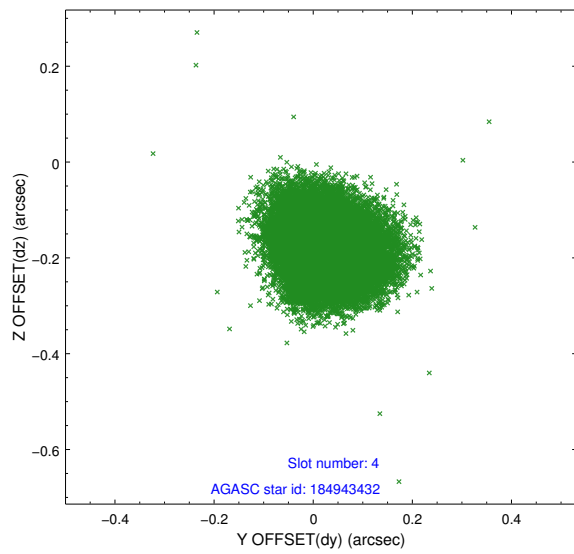
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.94	11011	-0.105	-0.018	0.014	0.023	0.000000	0.000000	-769.55	-1736.96
1	FID	ACIS-S-4	7.03	11010	0.203	0.056	0.013	0.026	0.000000	0.000000	2144.01	171.63
2	FID	ACIS-S-5	7.06	11009	-0.128	-0.028	0.016	0.041	0.000000	0.000000	-1822.45	165.17
3	GUIDE	184943224	9.38	21826	0.227	-0.013	0.117	0.206	147.948365	17.351606	-1430.12	1938.69
4	GUIDE	184943432	8.48	22008	0.032	-0.183	0.084	0.133	147.913077	17.475778	-1019.10	2148.15
5	GUIDE	185339440	8.59	22000	0.145	0.163	0.111	0.176	148.983258	17.541515	-23.81	-1396.12
6	GUIDE	185341024	9.35	21999	-0.117	0.098	0.102	0.167	148.923349	18.116620	1957.15	-761.71
7	GUIDE	185341112	8.77	22005	-0.289	-0.067	0.068	0.112	148.572585	18.202375	2008.57	476.94

2.4 Star Slots

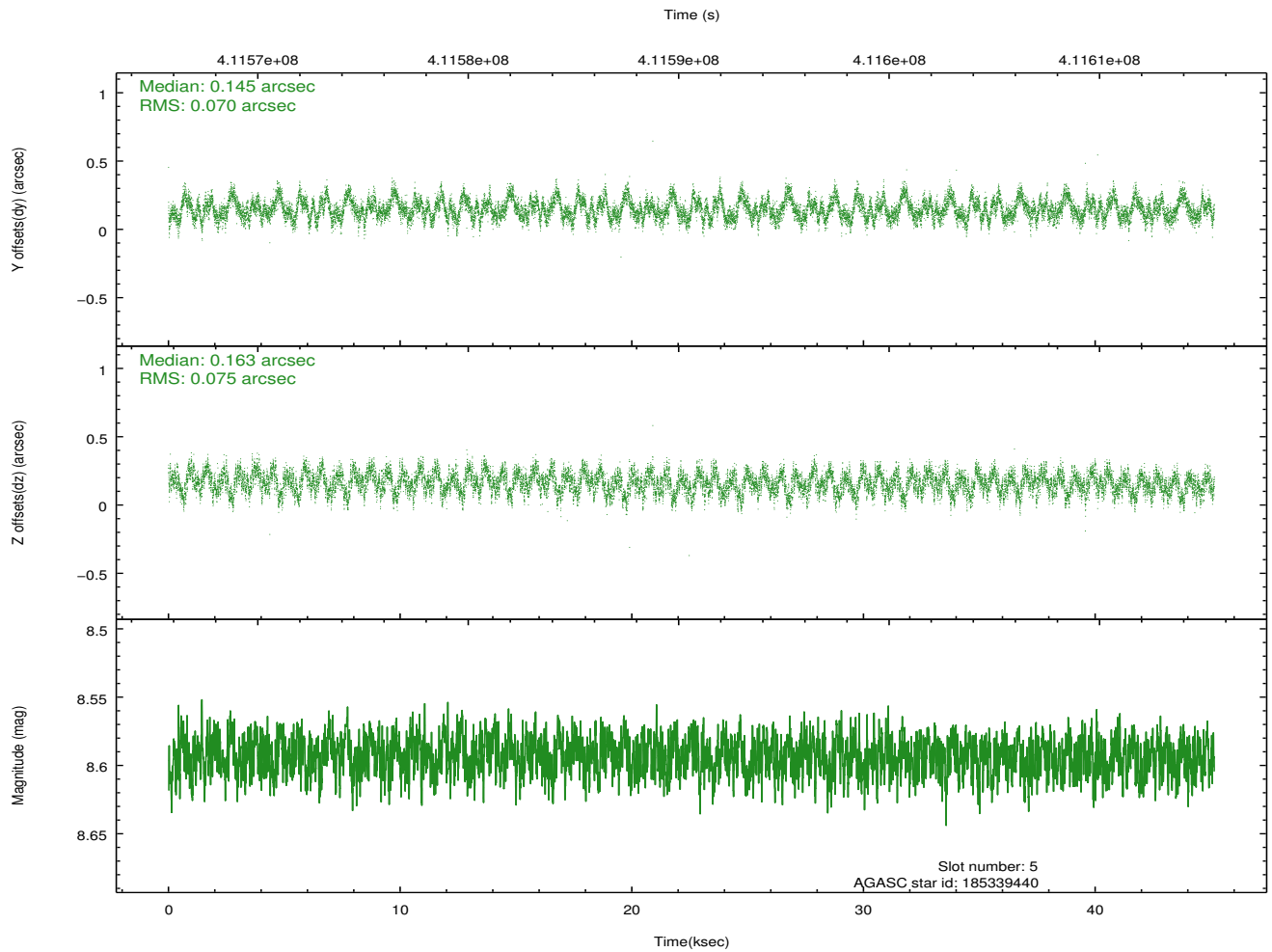
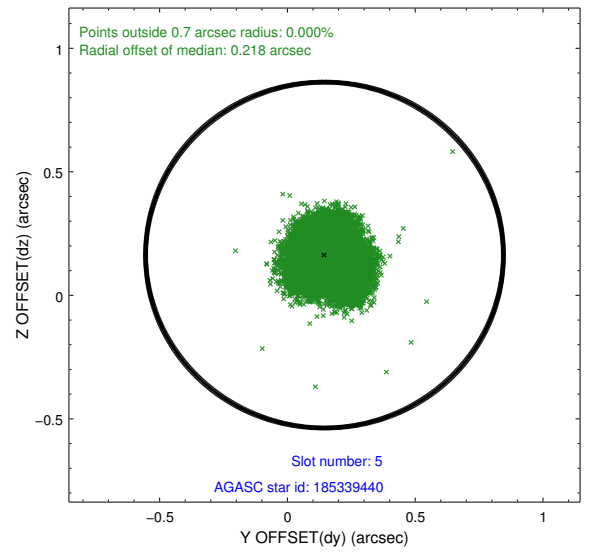
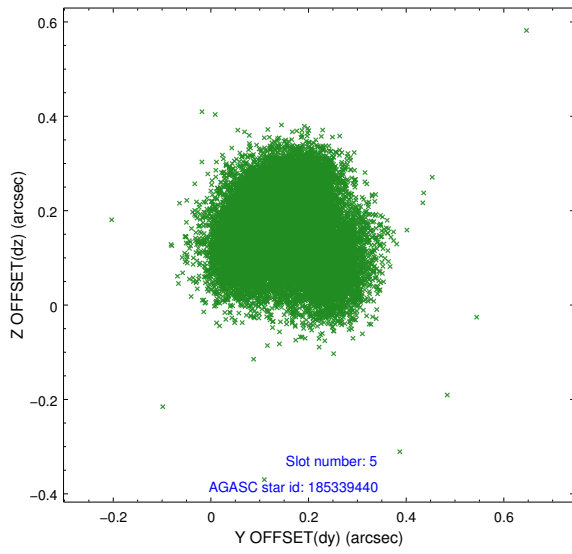
2.4.1 Slot 3



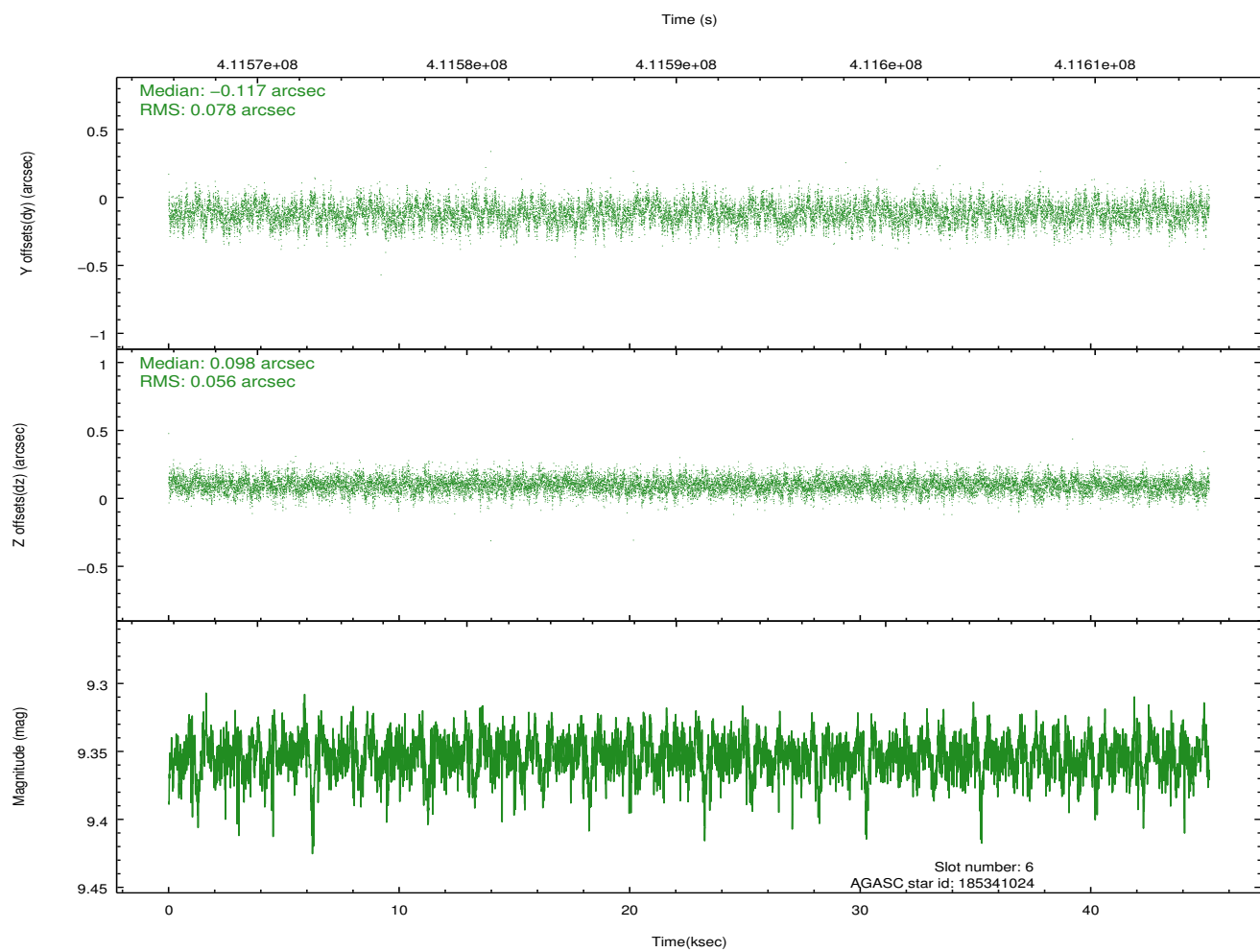
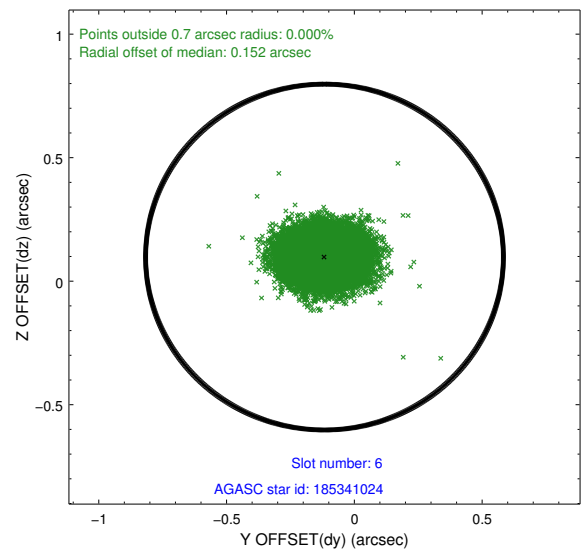
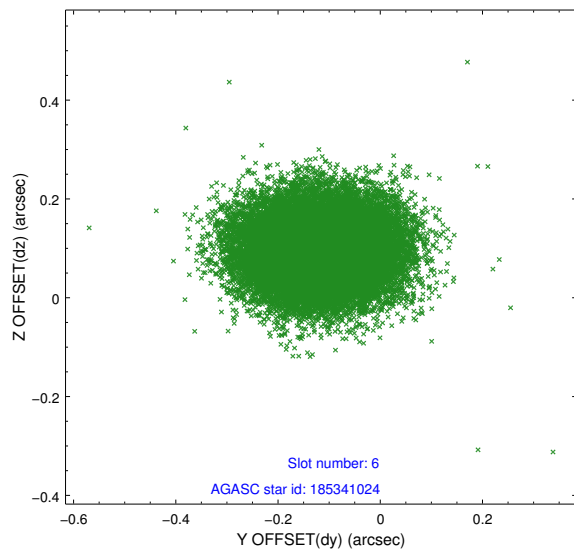
2.4.2 Slot 4



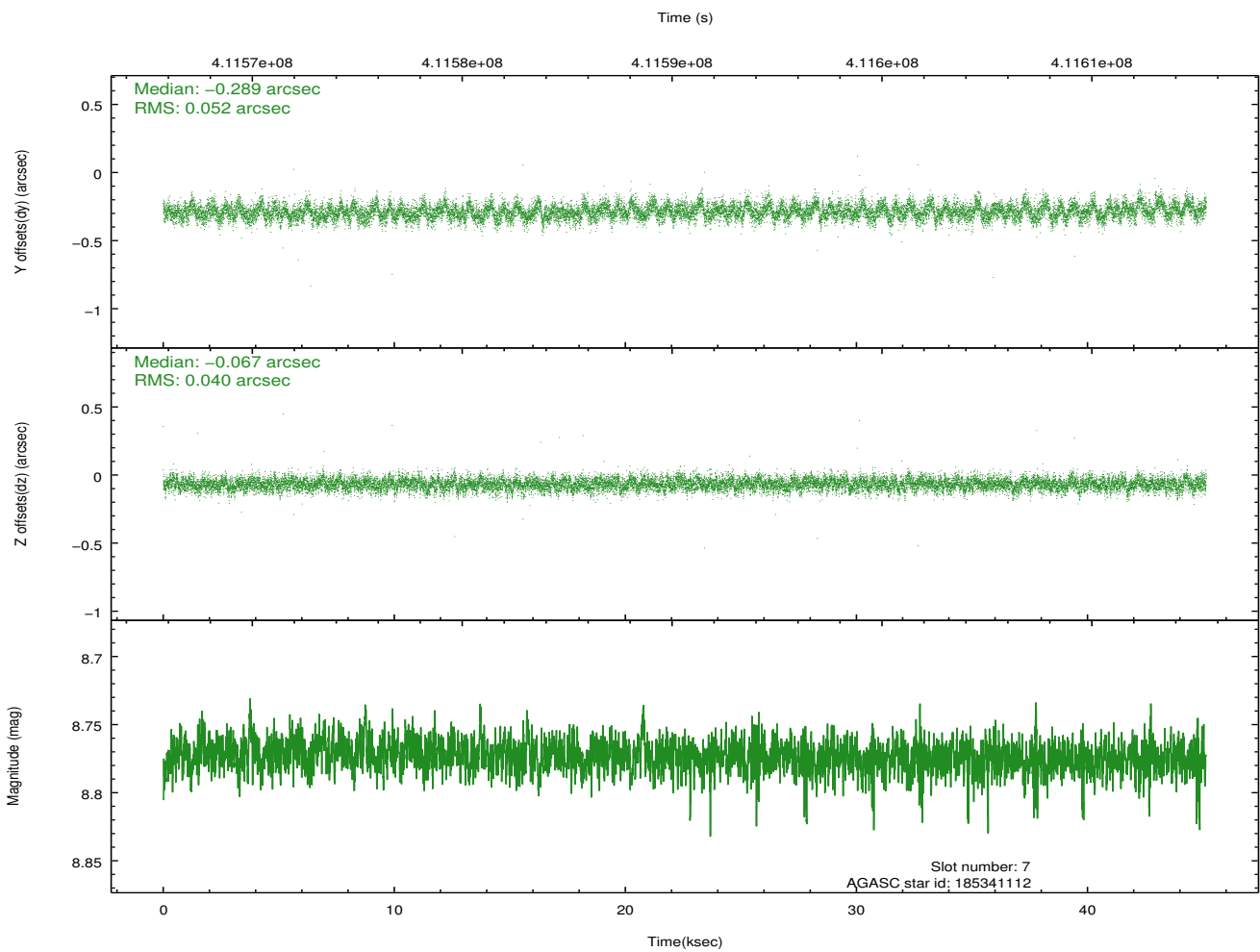
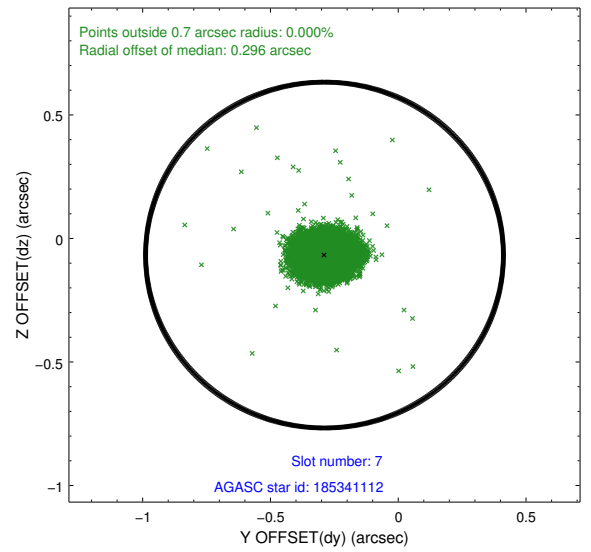
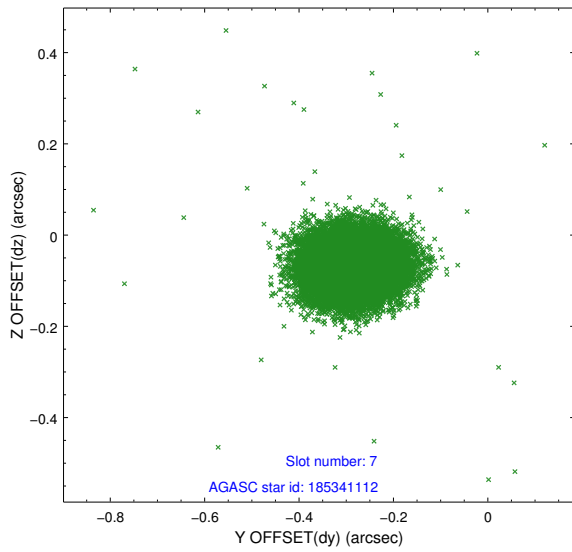
2.4.3 Slot 5



2.4.4 Slot 6

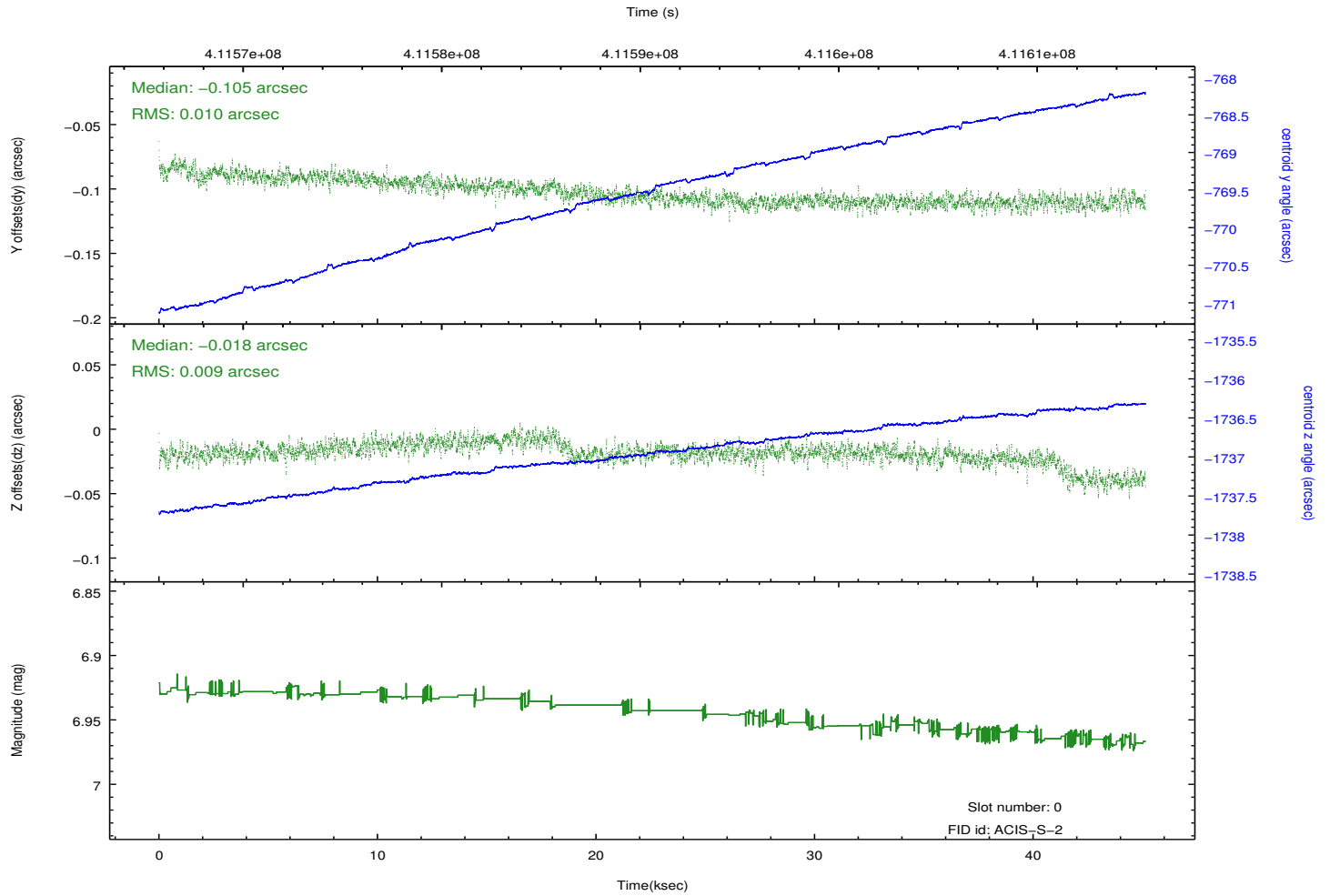
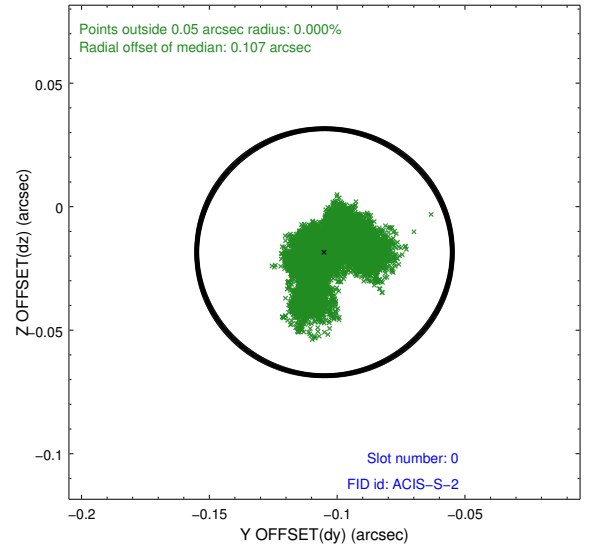
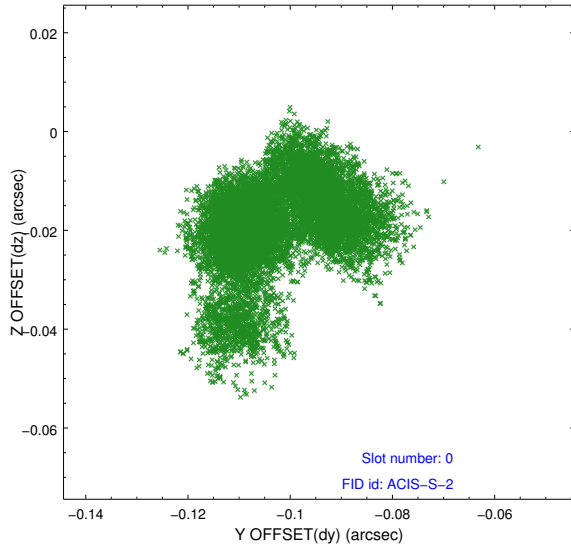


2.4.5 Slot 7

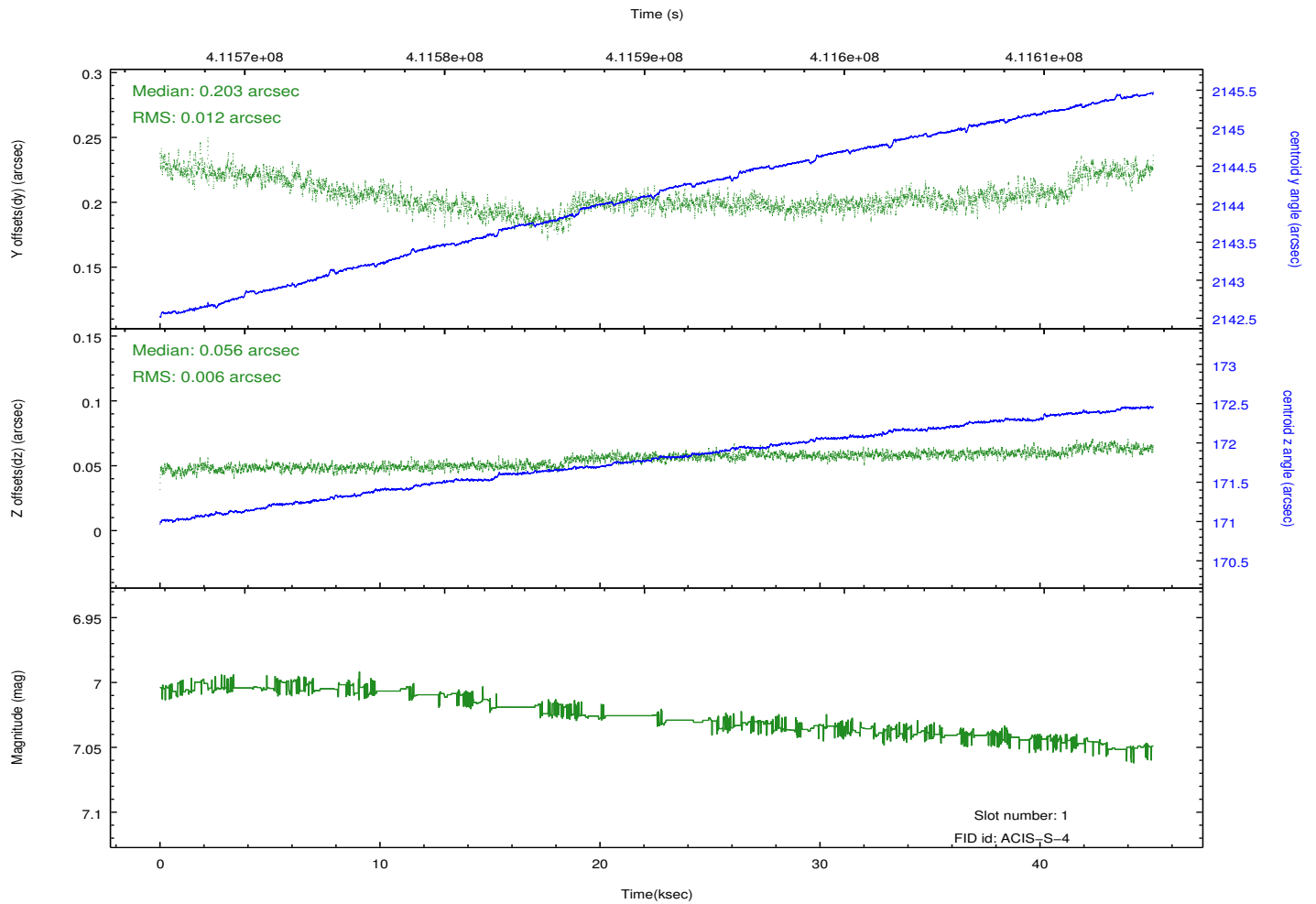
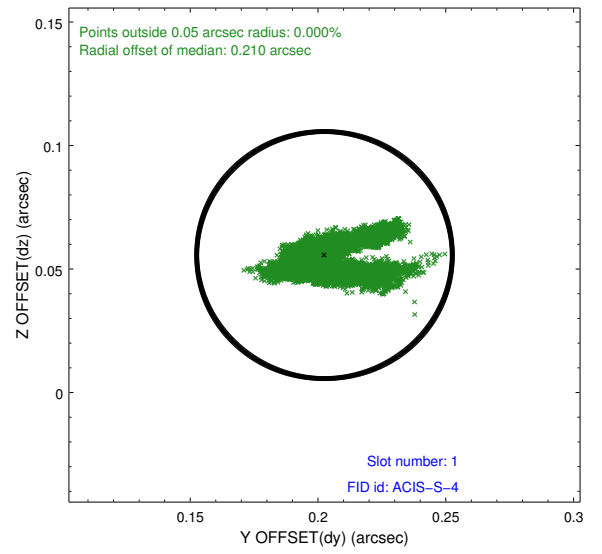
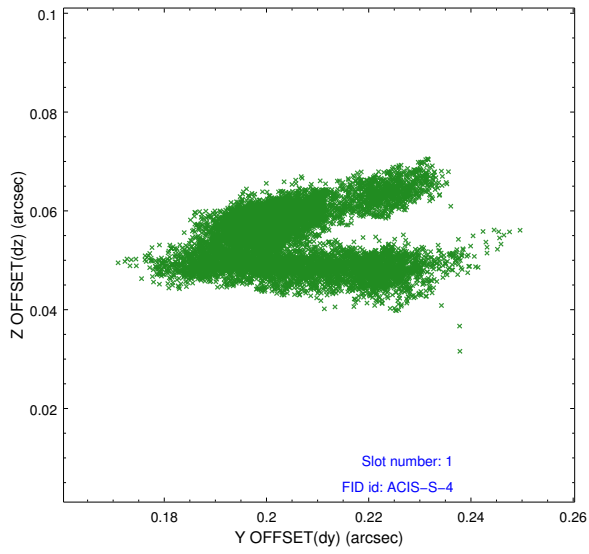


2.5 FID Slots

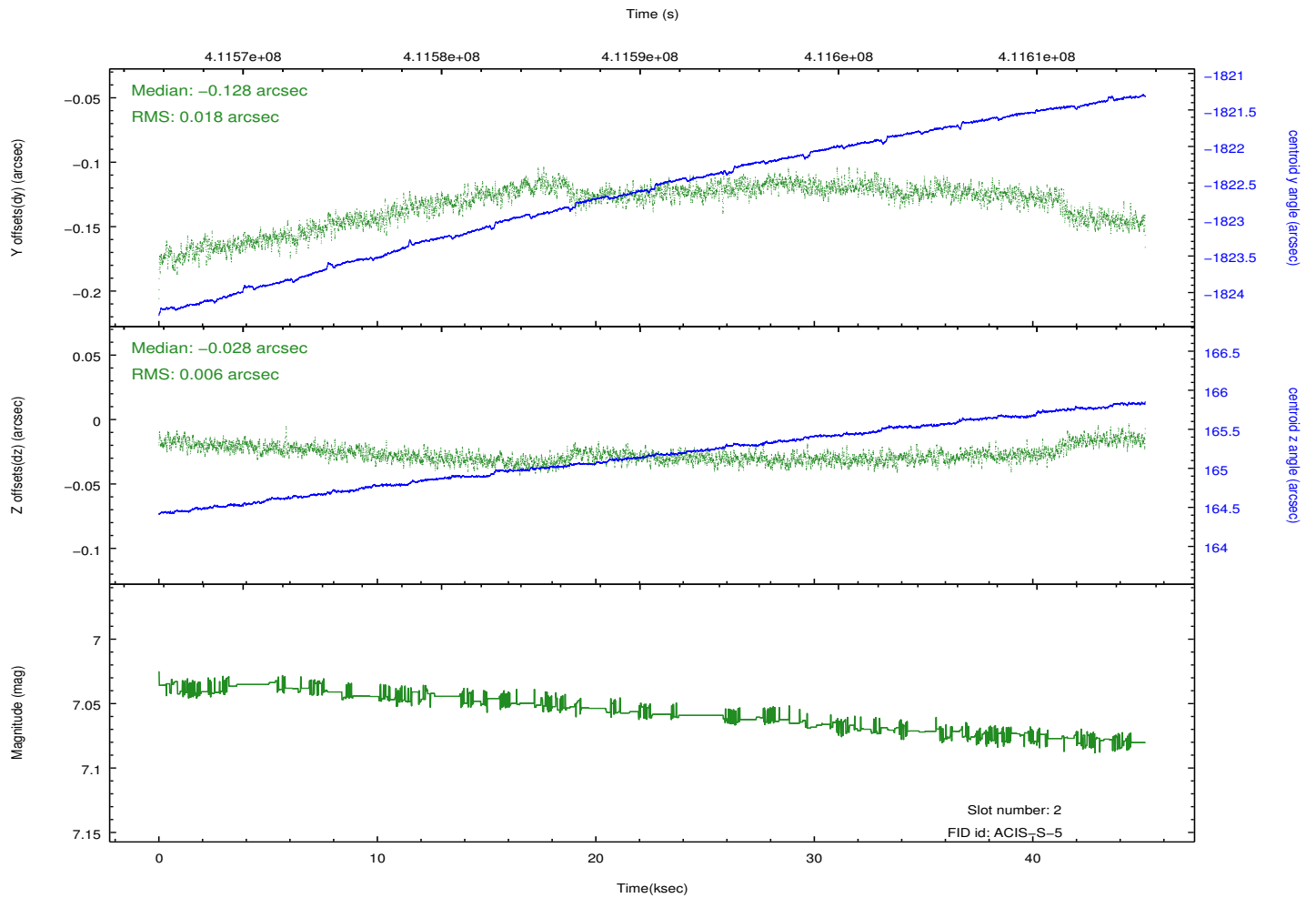
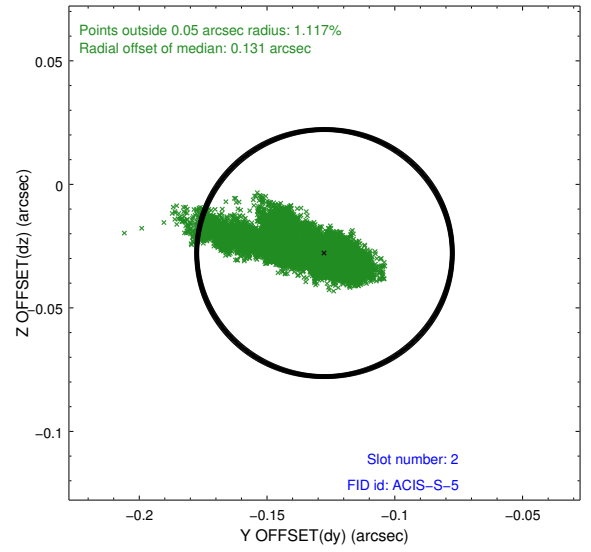
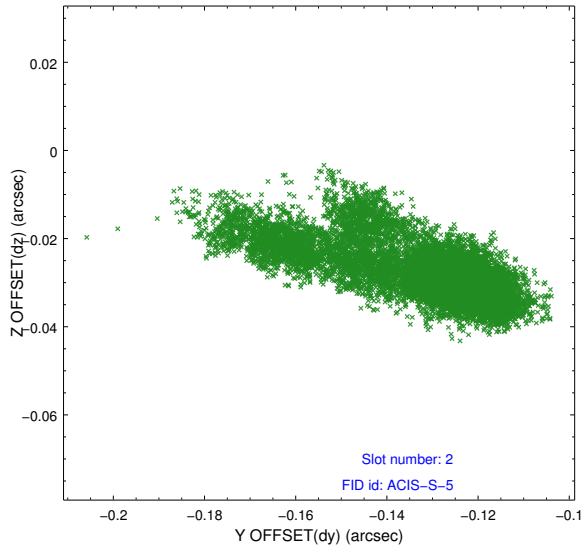
2.5.1 Slot 0



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)	2012.02.02
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	45.04226898402

A.2 Comments

The data for this observation have been processed using the 'EDSER' sub-pixel event-repositioning algorithm of Li et al. (2004, ApJ, 610, 1204). Small-scale features should become sharper for sources near the aim point. The improvement will be less noticeable for off-axis sources where the size of the point-spread function is comparable to or larger than the size of an ACIS pixel. To take full advantage of the improvement, images should be binned on spatial scales smaller than the size of an ACIS pixel. Note that, at present, the point-spread function has not been calibrated for data to which the EDSEr algorithm has been applied. If dither was disabled for the observation, then the algorithm can introduce artificial aliasing effects on spatial scales smaller than a pixel. If you would prefer to use no sub-pixel adjustment or to apply a coordinate randomization, then use `acis_process_events` to reprocess the data with the parameter `pix_adj=NONE` or `RANDOMIZE`, respectively.