

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 12698 - L2 Version 2
Chandra X-Ray Center

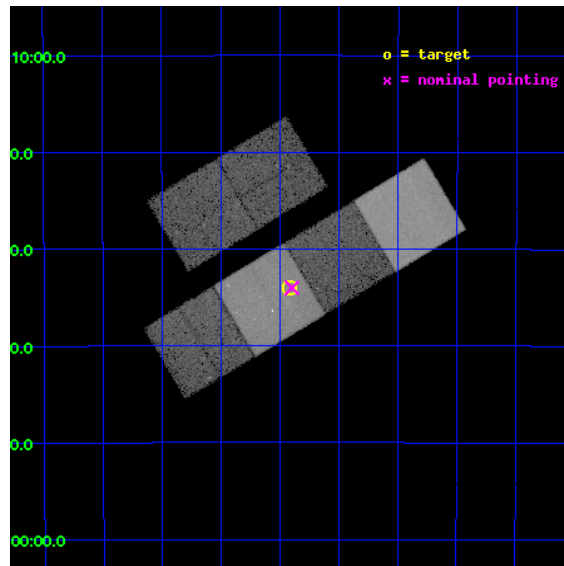
L2 Processing Date : Feb 9 2012

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1 Front

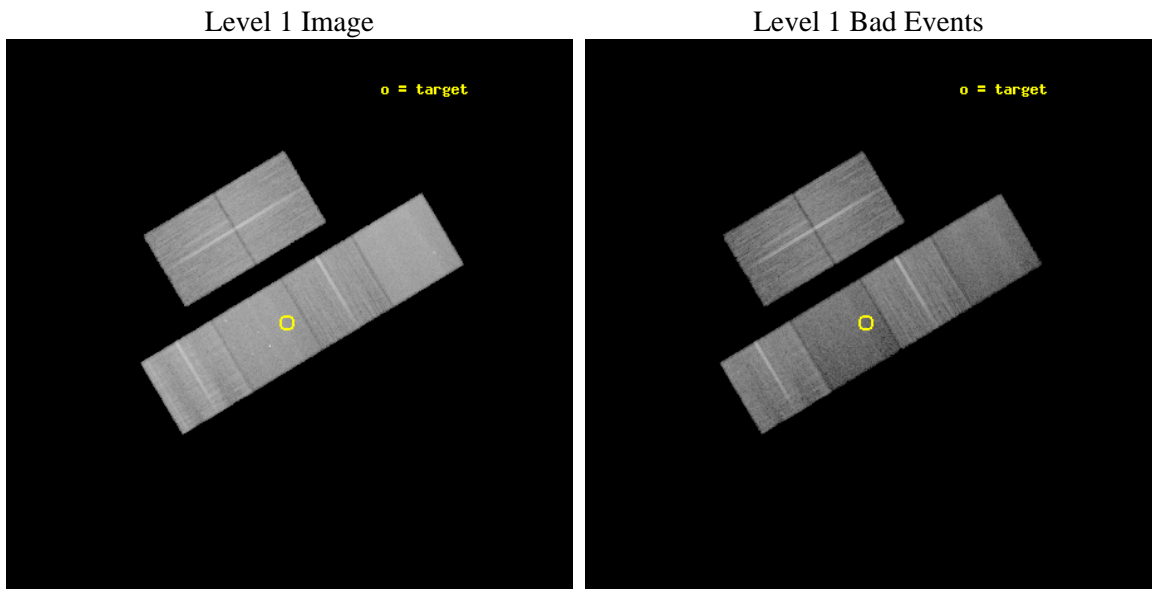
seq_num	501525	Sequence number
obs_id	12698	Observation id
title	SEARCH FOR JET BREAKS IN LONG GRB X-RAY AFTERGLOWS	Proposal title
observer	Prof. David Burrows	Principal investigator
object	GRB 101219B	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	12.23064	Observer's specified target RA [deg]
dec_targ	-34.56688	Observer's specified target Dec [deg]
ra_nom	12.224765550667	Nominal RA [deg]
dec_nom	-34.566940160357	Nominal Dec [deg]
roll_nom	149.12530260544	Nominal Roll [deg]
revision	2	Processing version of data
ontime	30053.486447215	Sum of GTIs [s]
livetime	29672.931105783	Livetime [s]
ontime2	30053.527487218	Sum of GTIs [s]
ontime3	30053.363327205	Sum of GTIs [s]
ontime5	30053.445407212	Sum of GTIs [s]
ontime6	30053.404367208	Sum of GTIs [s]
ontime7	30053.486447215	Sum of GTIs [s]
ontime8	30053.322287202	Sum of GTIs [s]
l2events	281721	Number of level 2 events



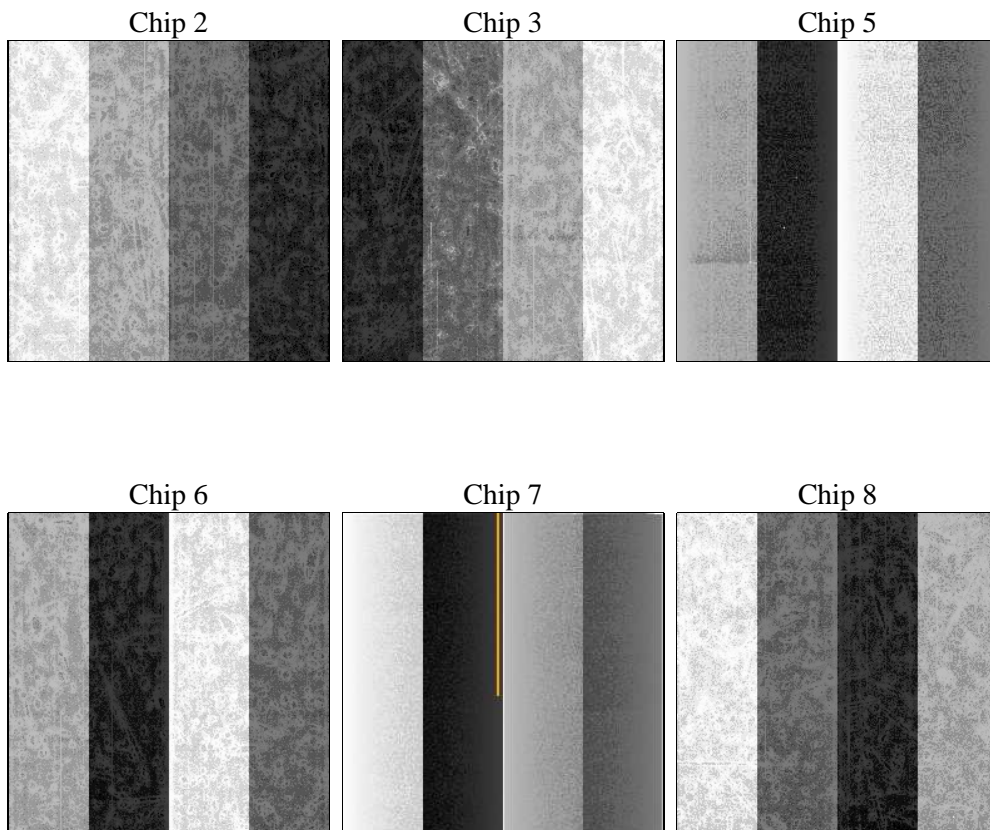
2 OBI

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	8.4.3	Processing system revision	ontime	30053.486447215	Sum of GTIs [s]
caldbver	4.4.7	 	ontime2	30053.527487218	Sum of GTIs [s]
date	2012-02-09T14:57:11	Date and time of file creation	ontime3	30053.363327205	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	30053.445407212	Sum of GTIs [s]
			ontime6	30053.404367208	Sum of GTIs [s]
			ontime7	30053.486447215	Sum of GTIs [s]
			ontime8	30053.322287202	Sum of GTIs [s]
			l1events	1179173	Number of level 1 events

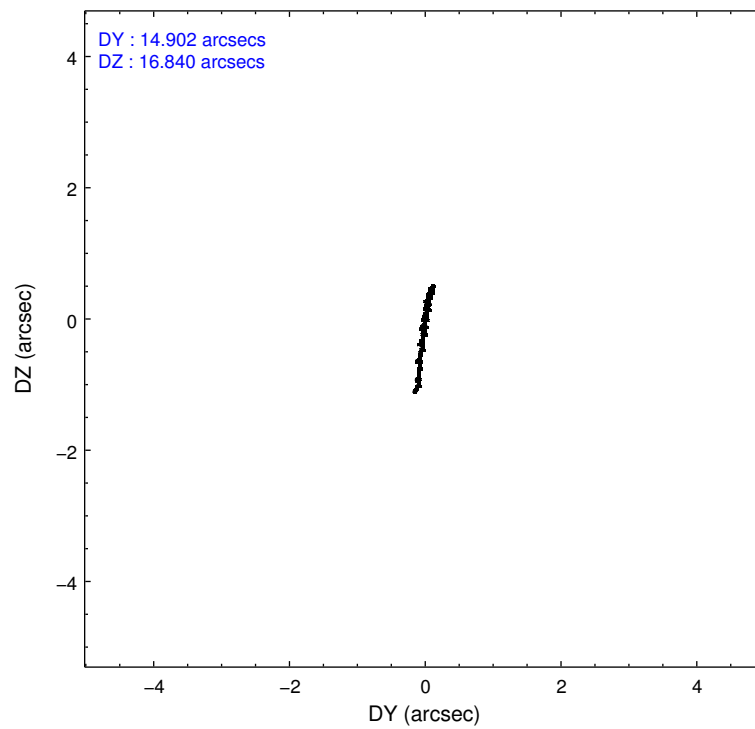
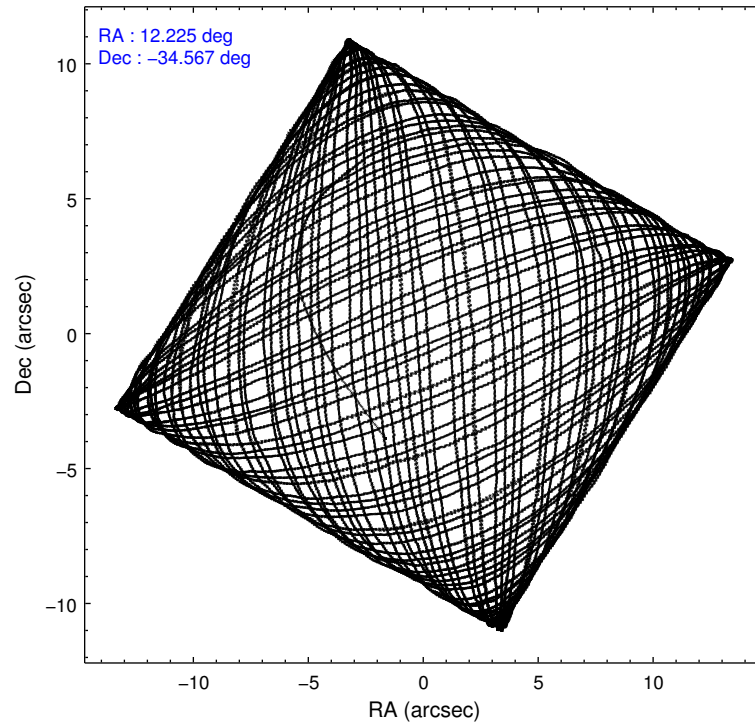
2.1.4 Events

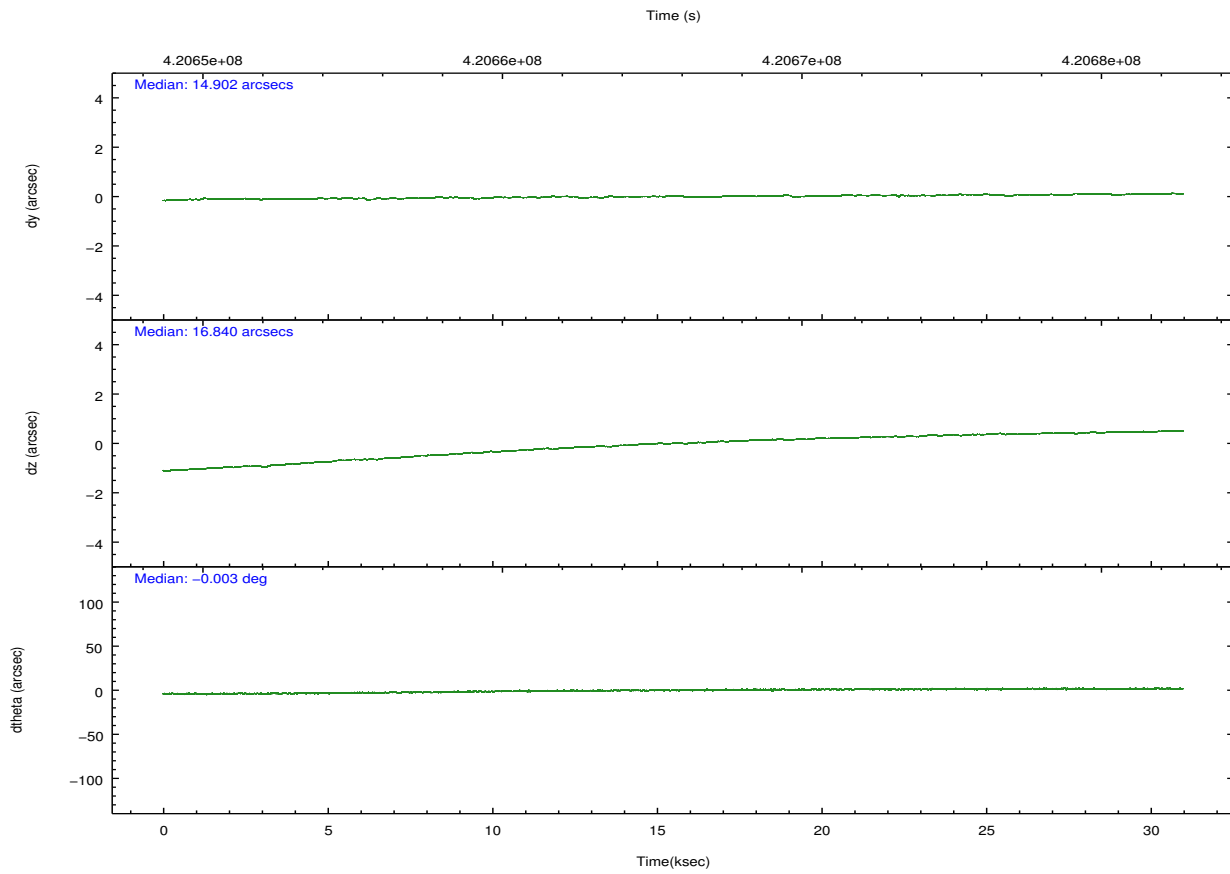
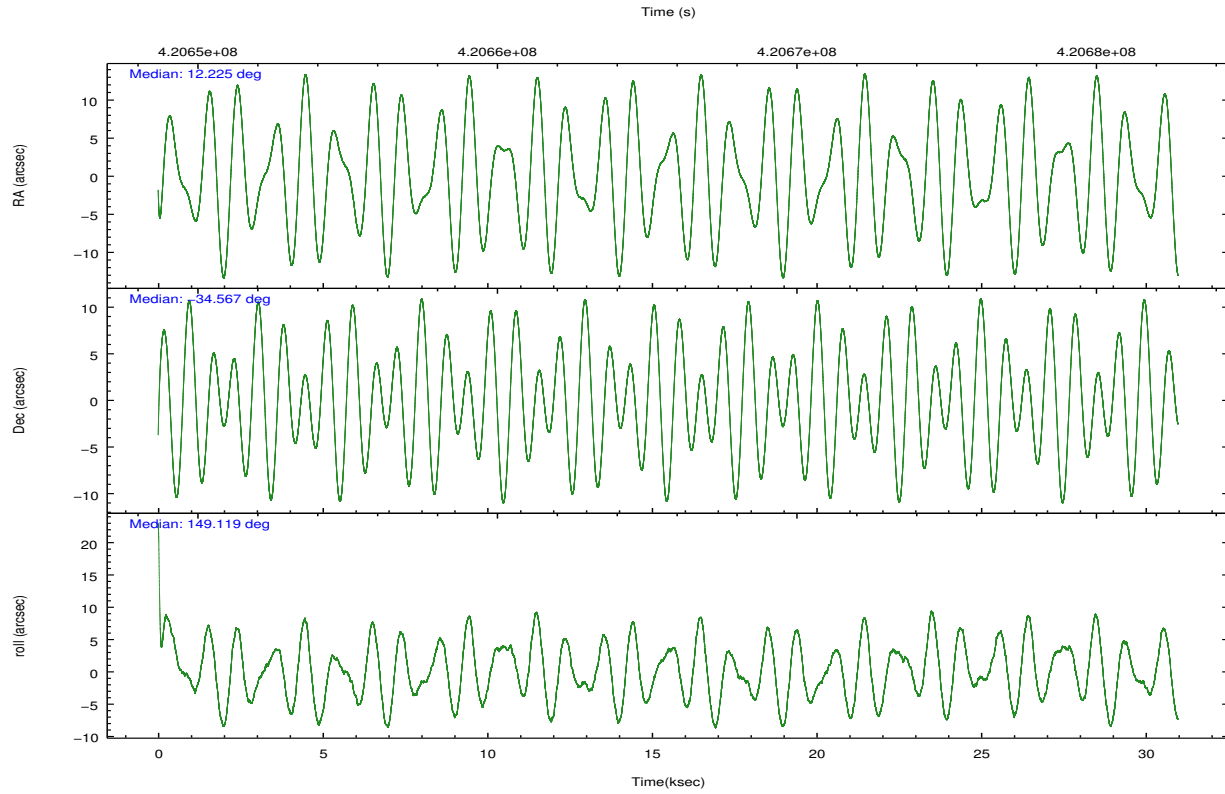
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	179170	170018	241712	175497	192550	220226	grade 0 events	7261	6618	8815	7275	10133	16410
rejected events	159897	152150	117282	155554	97109	160886		4%	3%	3%	4%	5%	7%
rejected %	89%	89%	48%	88%	50%	73%	grade 1 events	98	94	439	76	273	183
								0%	0%	0%	0%	0%	0%
							grade 2 events	4667	3919	39374	4530	20478	14114
								2%	2%	16%	2%	10%	6%
							grade 3 events	1950	1971	5170	2027	8629	6542
								1%	1%	2%	1%	4%	2%
							grade 4 events	1966	1927	5012	1941	8549	6086
								1%	1%	2%	1%	4%	2%
							grade 5 events	6174	6872	19312	7115	20055	10690
								3%	4%	7%	4%	10%	4%
							grade 6 events	3431	3436	66067	4172	47663	16195
								1%	2%	27%	2%	24%	7%
							grade 7 events	153623	145181	97523	148361	76770	150006
								85%	85%	40%	84%	39%	68%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-235678	ACIS-235678	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	12.257951	12.22476555066714	CCD I2 on	O2	Y
[deg] Pointing Dec	-34.566990	-34.56694016035704	CCD I3 on	O3	Y
[deg] Pointing Roll	148.987500	149.1253026054355	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O1	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	O5	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	O4	Y
[s] Observation start time (MET)	420651169.184000	420649137.64978	CCD S5 on	N	N
Observation start date	2011-05-01T15:31:43	2011-05-01T14:58:57	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	420681169.184000	420682650.53902	On-chip summing requested	N	N
Observation end date	2011-05-01T23:51:43	2011-05-02T00:17:30	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



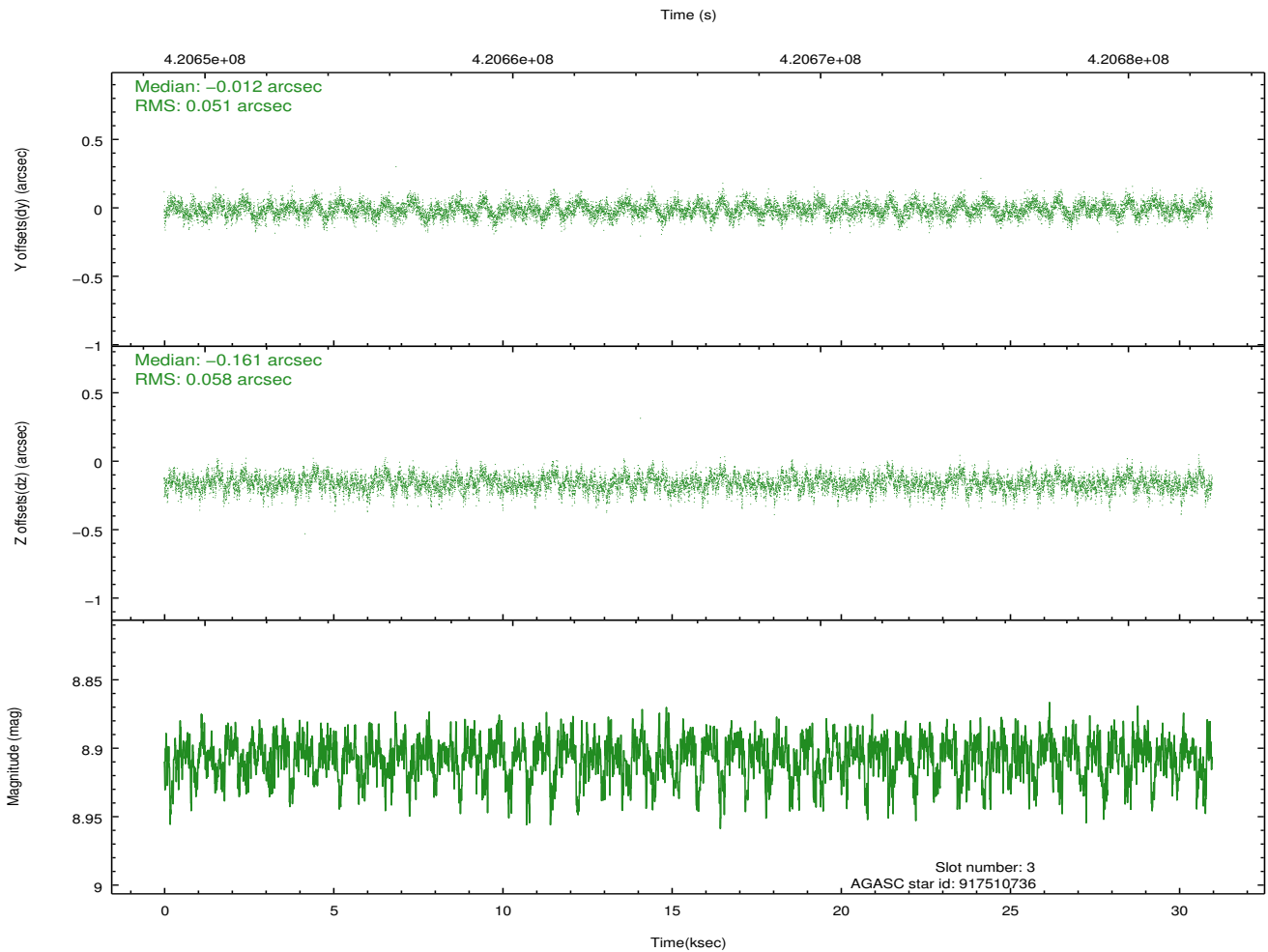
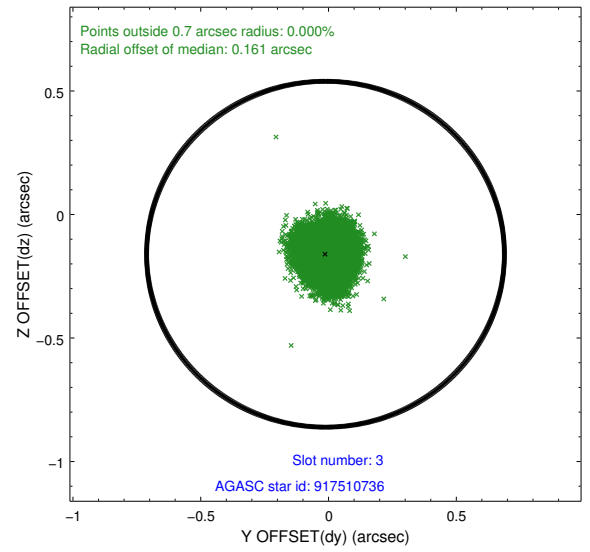
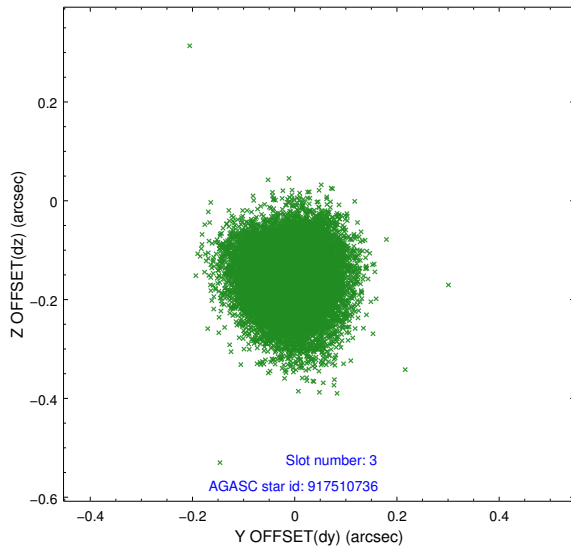


Slot Statistics

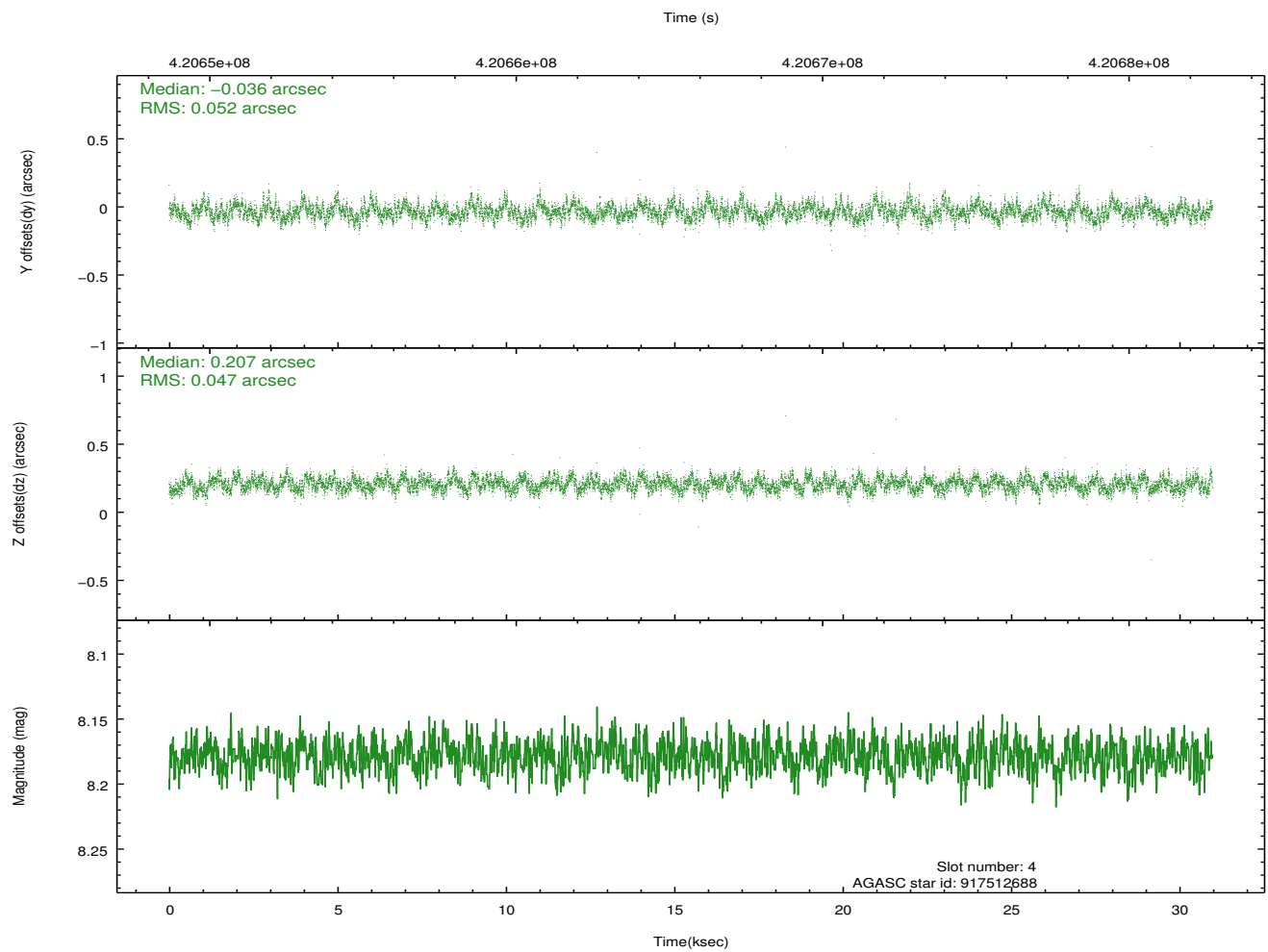
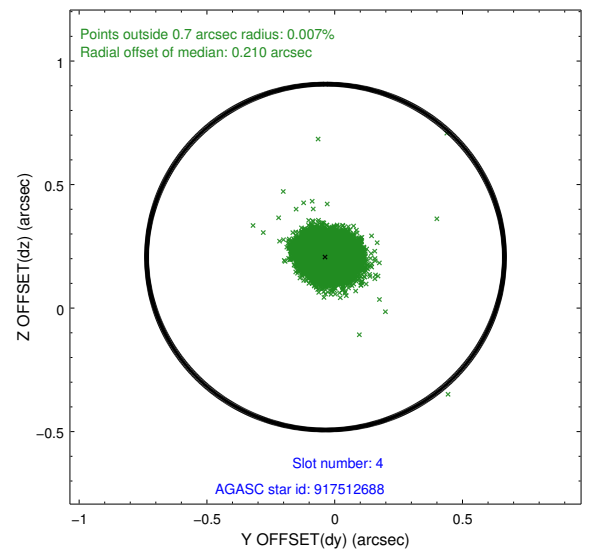
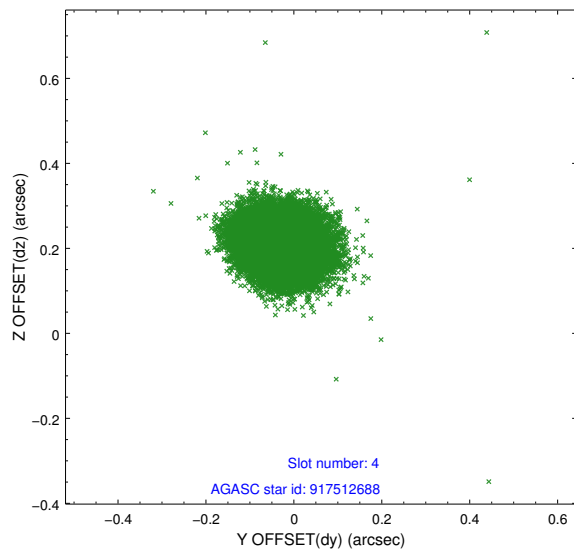
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.89	7556	-0.070	-0.027	0.015	0.023	0.000000	0.000000	-767.96	-1738.16
1	FID	ACIS-S-4	6.97	7555	0.188	0.042	0.007	0.013	0.000000	0.000000	2145.57	170.28
2	FID	ACIS-S-5	7.01	7556	-0.148	-0.005	0.014	0.022	0.000000	0.000000	-1820.77	164.04
3	GUIDE	917510736	8.91	15093	-0.012	-0.161	0.082	0.134	12.210042	-34.915442	-524.93	1148.11
4	GUIDE	917512688	8.18	15108	-0.036	0.207	0.074	0.118	12.277445	-33.826306	1324.14	-2314.92
5	GUIDE	917512840	7.94	15112	0.076	0.229	0.056	0.093	12.811982	-34.083810	-521.30	-2337.92
6	GUIDE	917514008	8.44	15108	-0.010	-0.041	0.068	0.108	13.081146	-34.598136	-2153.19	-1152.37
7	GUIDE	917516248	9.18	15074	-0.019	-0.233	0.099	0.157	11.714622	-34.329985	1822.08	105.13

2.4 Star Slots

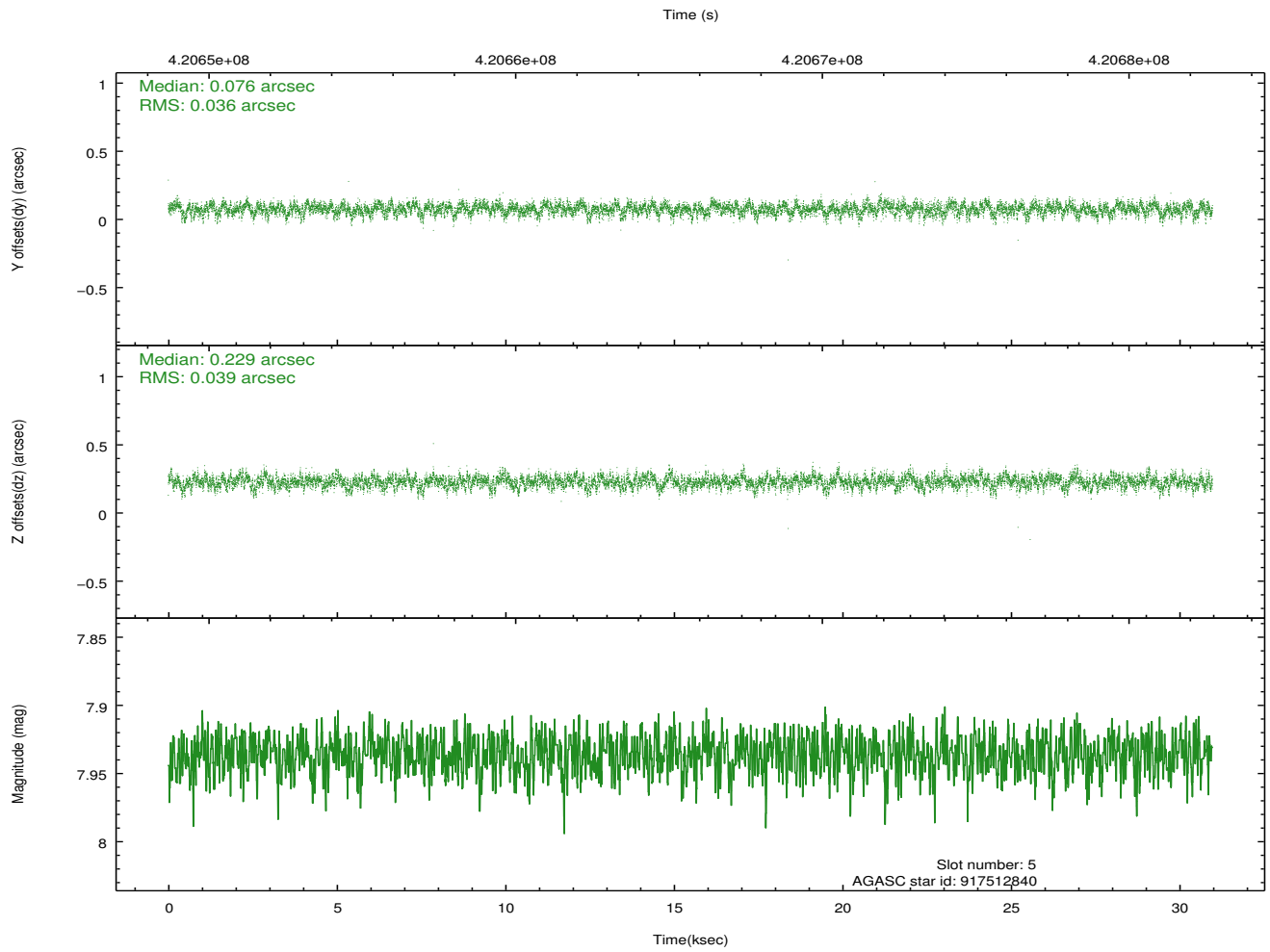
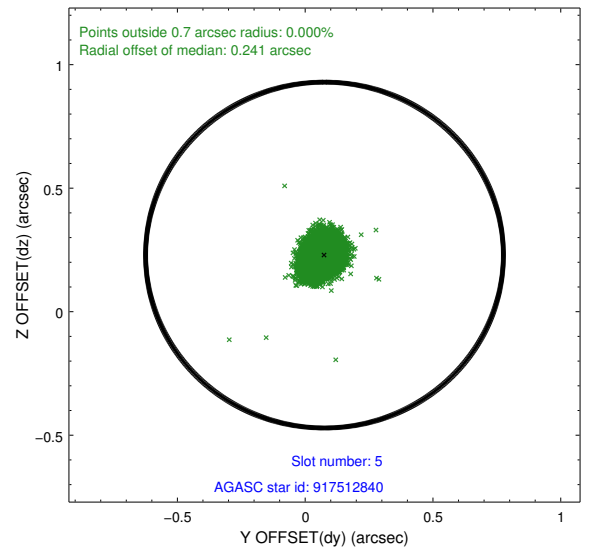
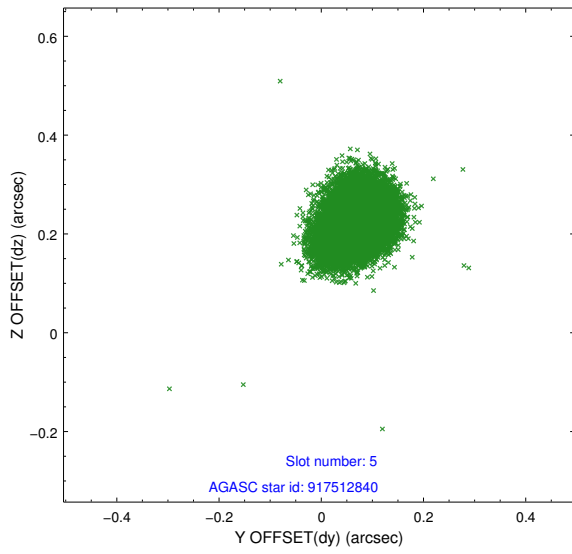
2.4.1 Slot 3



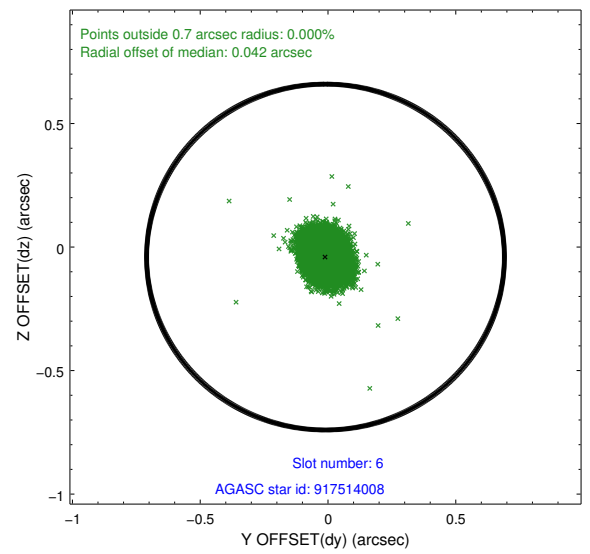
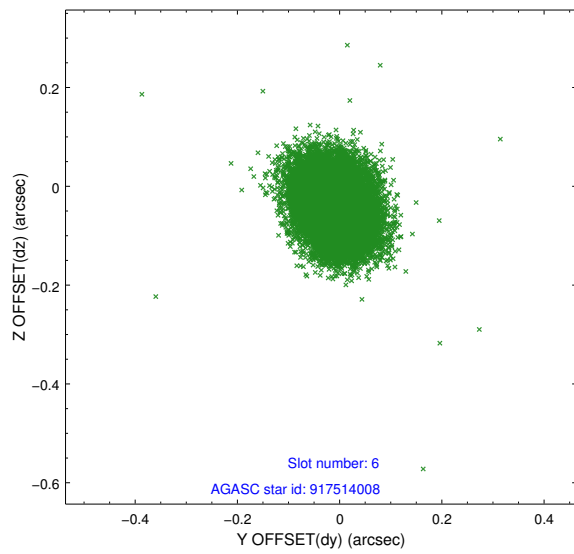
2.4.2 Slot 4



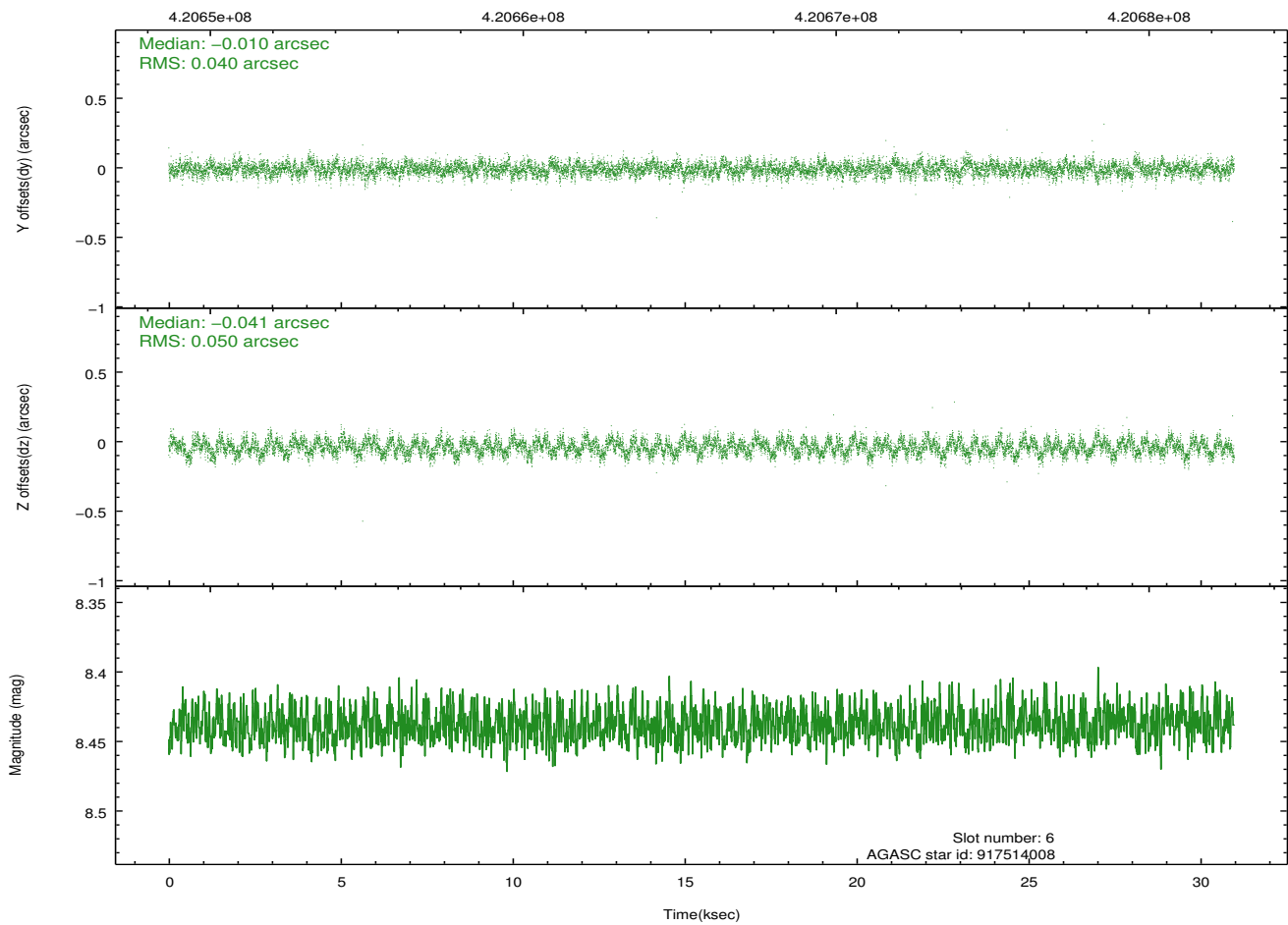
2.4.3 Slot 5



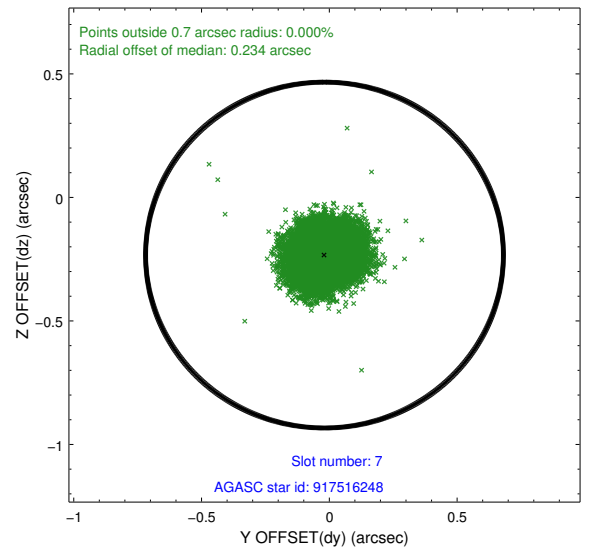
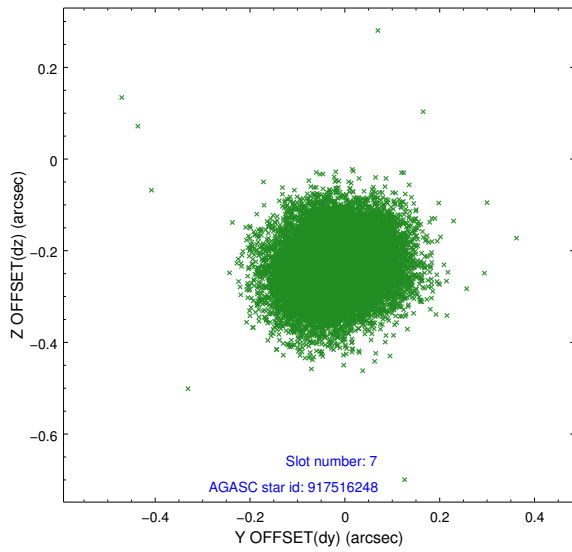
2.4.4 Slot 6



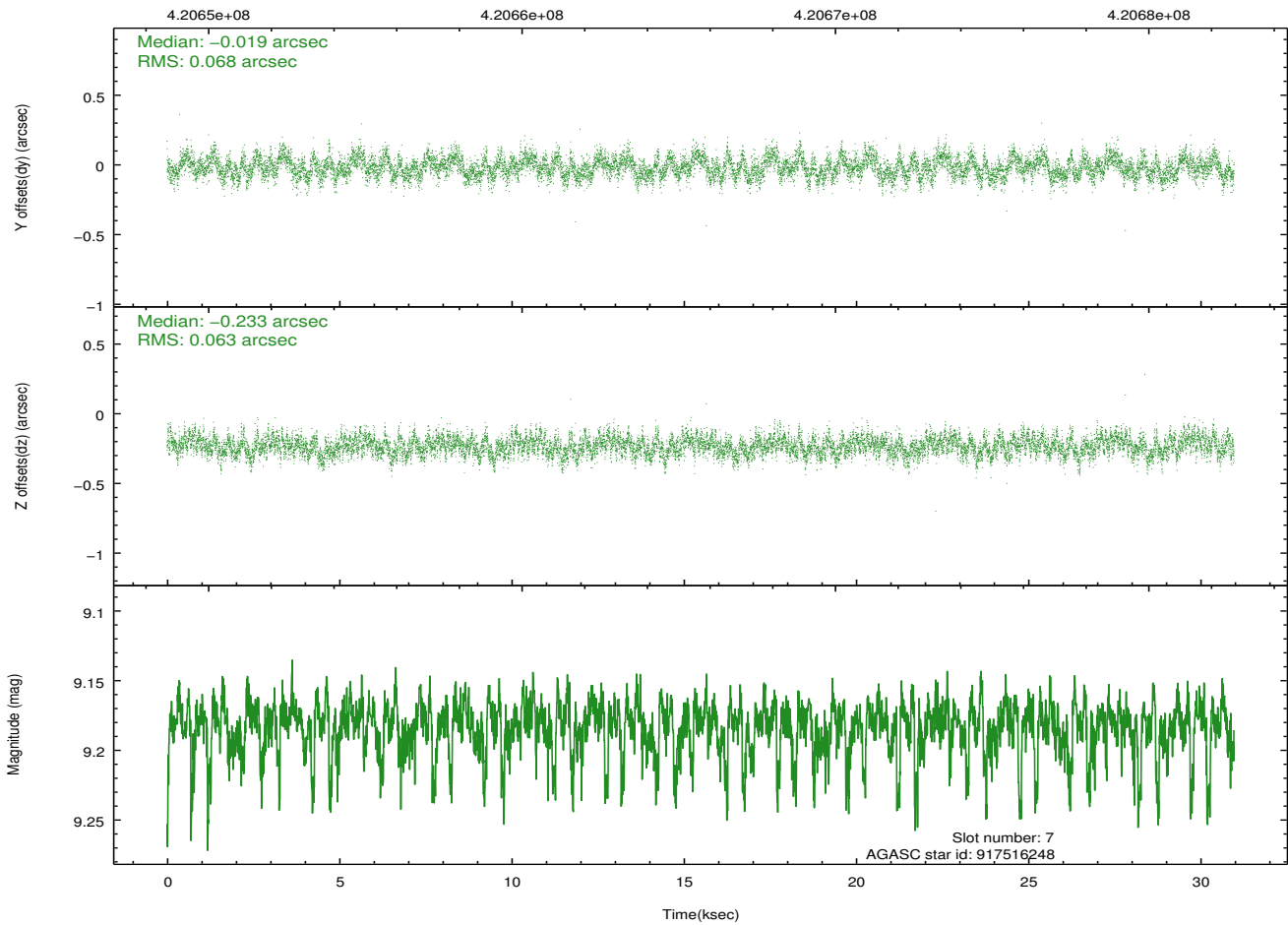
Time (s)



2.4.5 Slot 7

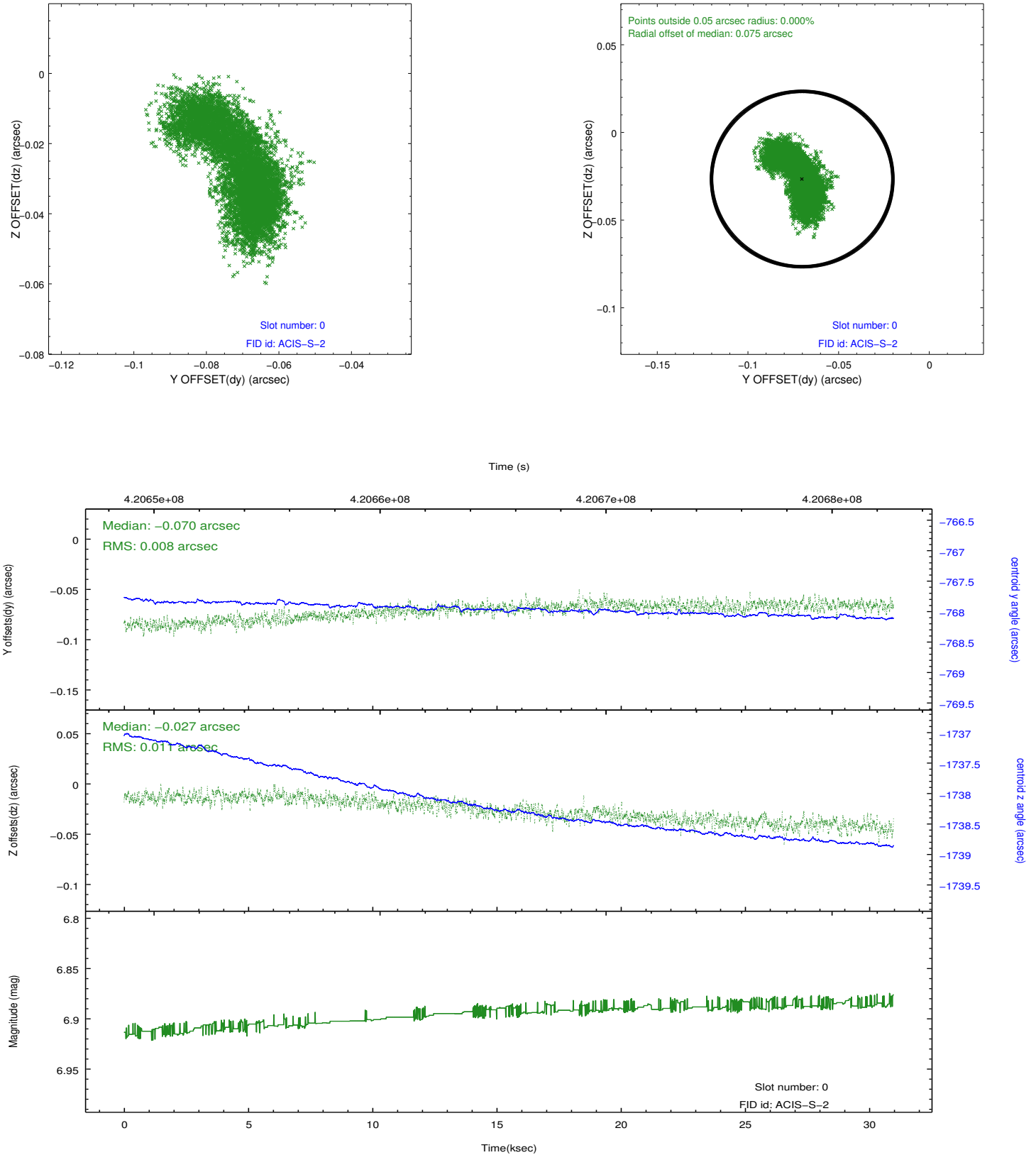


Time (s)

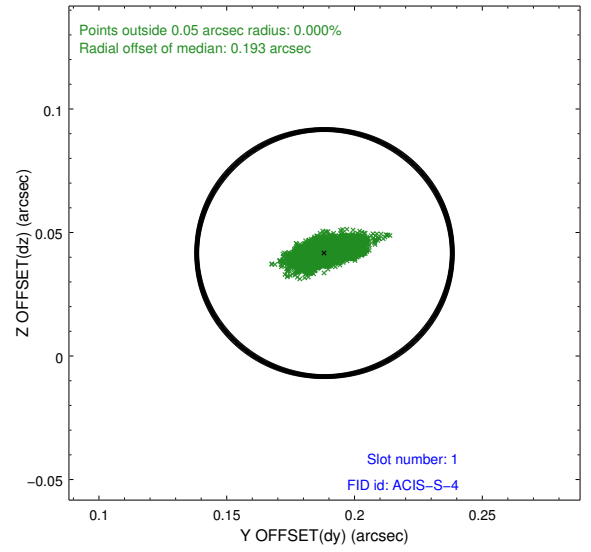
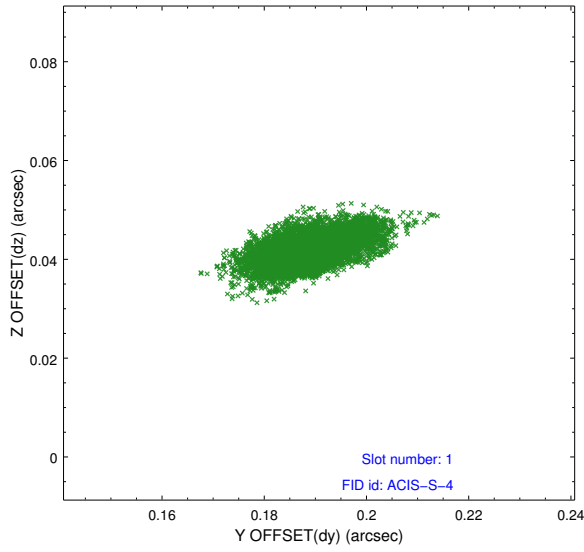


2.5 FID Slots

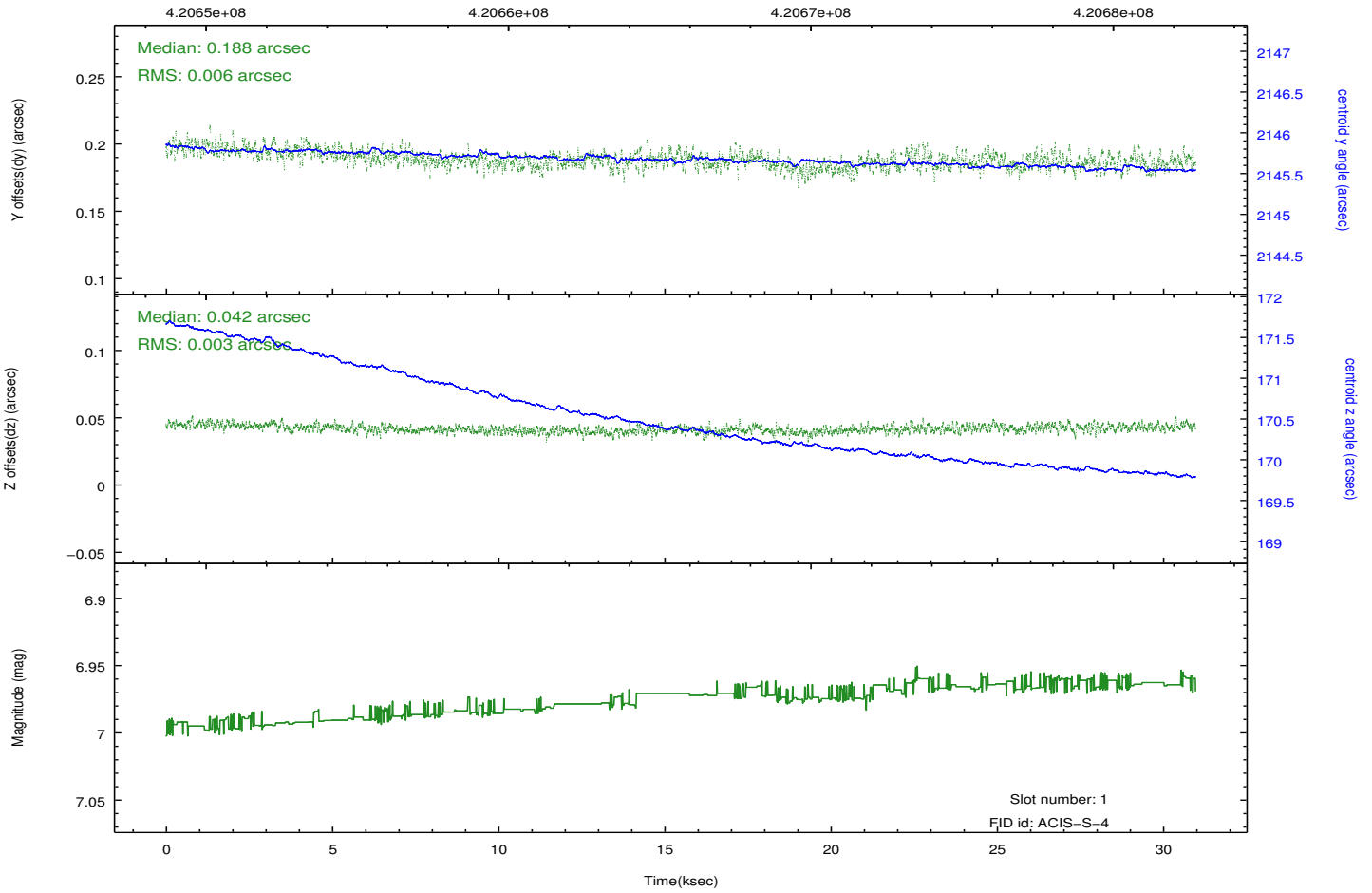
2.5.1 Slot 0



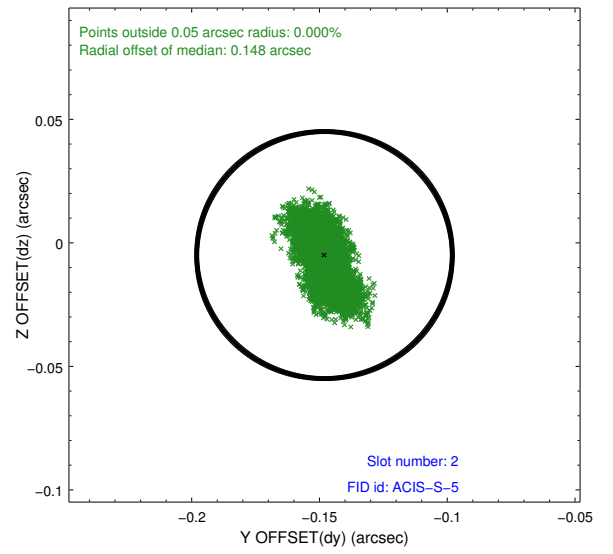
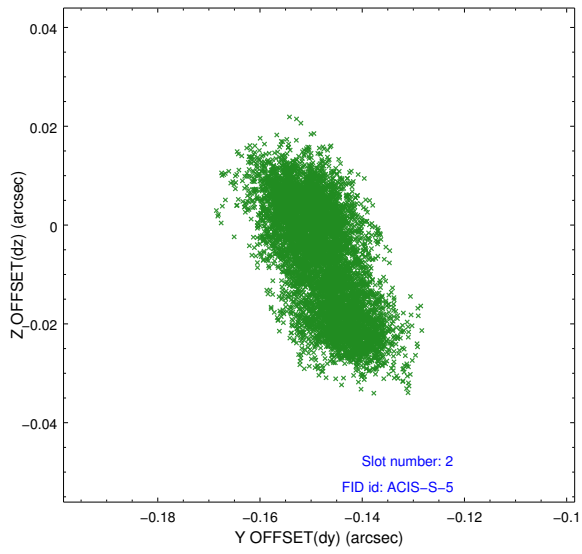
2.5.2 Slot 1



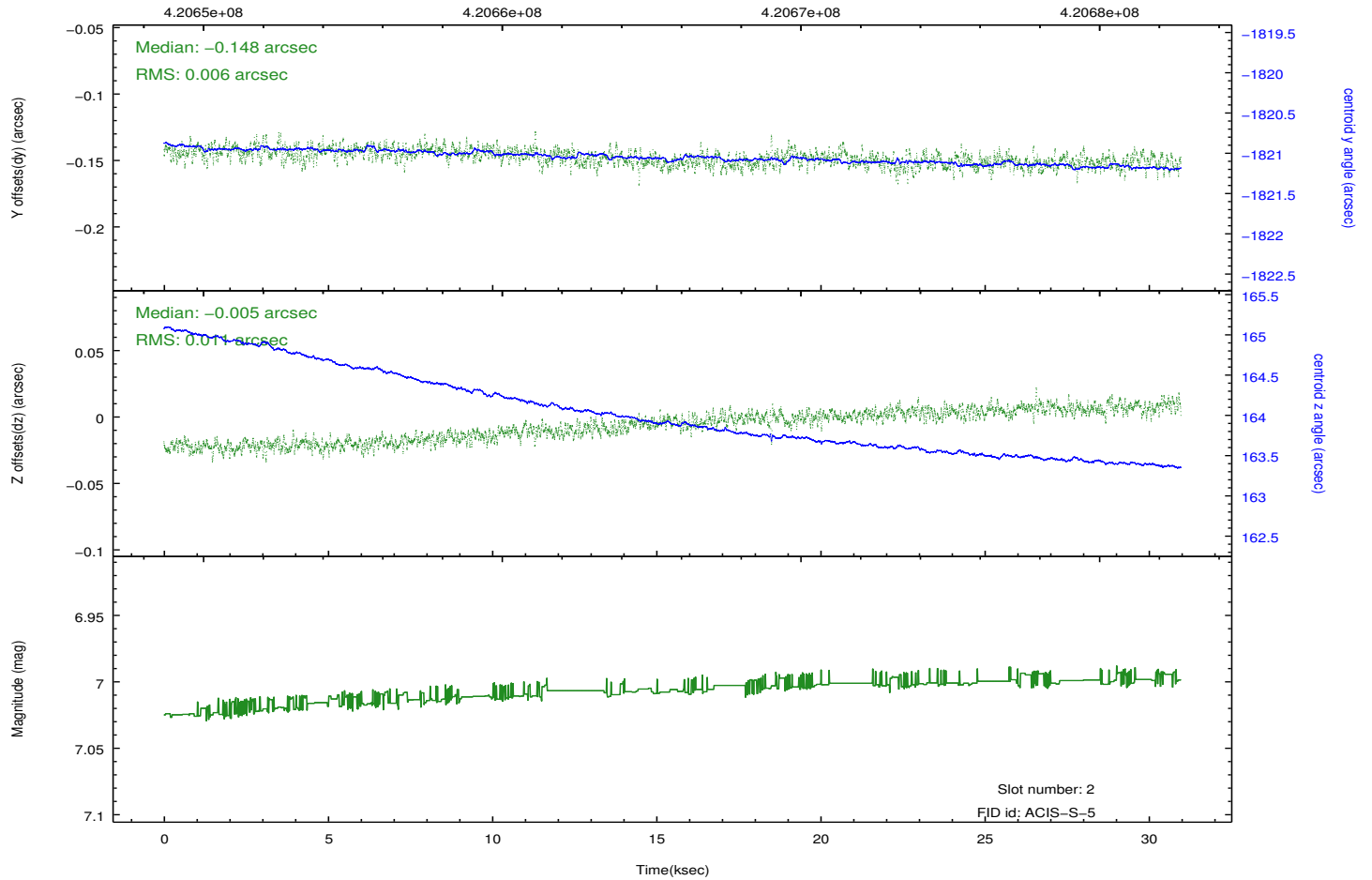
Time (s)



2.5.3 Slot 2



Time (s)



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2012.02.12
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.053486447811

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.