

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 12365 - L2 Version 3
Chandra X-Ray Center

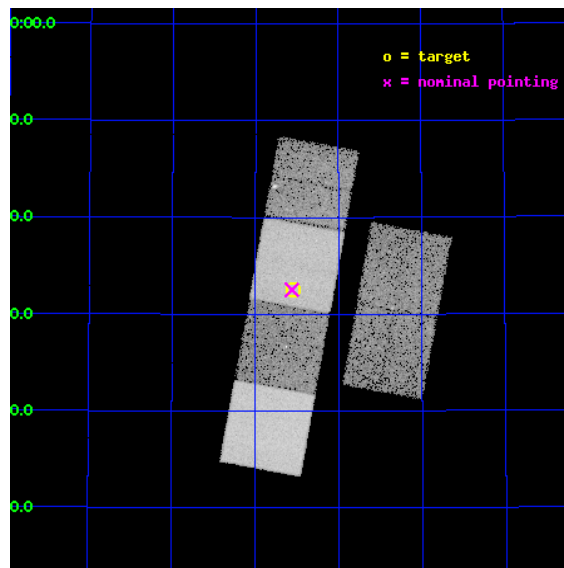
L2 Processing Date : Feb 26 2012

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1 Front

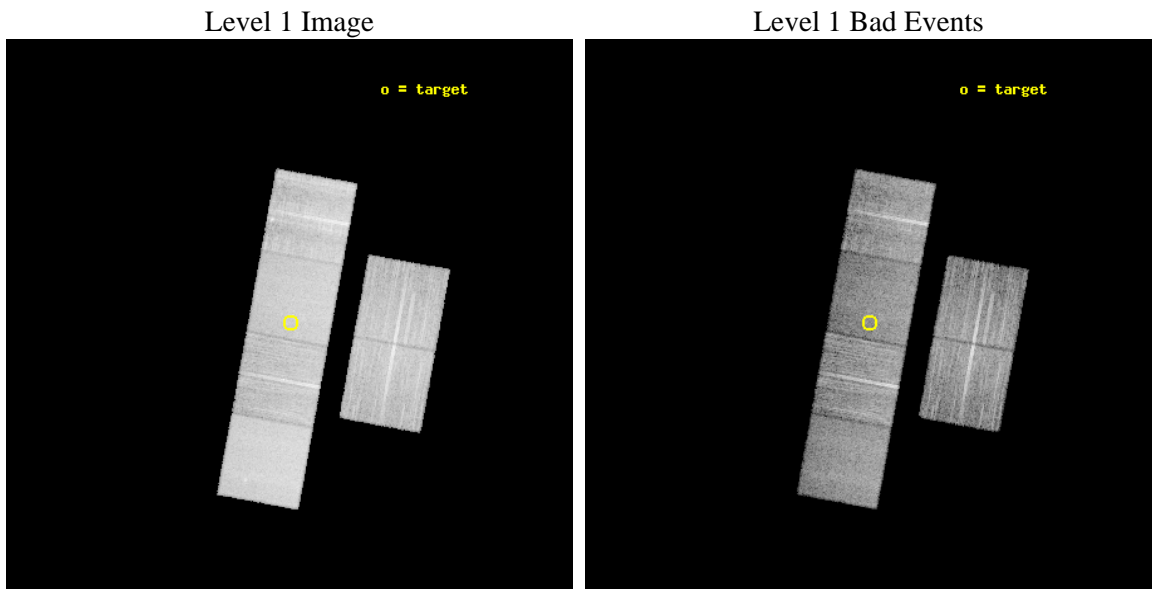
seq_num	200699	Sequence number
obs_id	12365	Observation id
title	X-rays from Planetary Nebulae: Unveiling Binarity, Magnetic Fields, and Wind Collisions	Proposal title
observer	Dr. Joel Kastner	Principal investigator
object	NGC 7008	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	315.135417	Observer's specified target RA [deg]
dec_targ	54.543389	Observer's specified target Dec [deg]
ra_nom	315.14021774236	Nominal RA [deg]
dec_nom	54.542215317066	Nominal Dec [deg]
roll_nom	280.37344426179	Nominal Roll [deg]
revision	3	Processing version of data
ontime	18457.5999313	Sum of GTIs [s]
livetime	18223.878687137	Livetime [s]
ontime2	18454.358930826	Sum of GTIs [s]
ontime3	18454.358930945	Sum of GTIs [s]
ontime5	18457.5999313	Sum of GTIs [s]
ontime6	18457.5999313	Sum of GTIs [s]
ontime7	18457.5999313	Sum of GTIs [s]
ontime8	18457.5999313	Sum of GTIs [s]
l2events	190969	Number of level 2 events



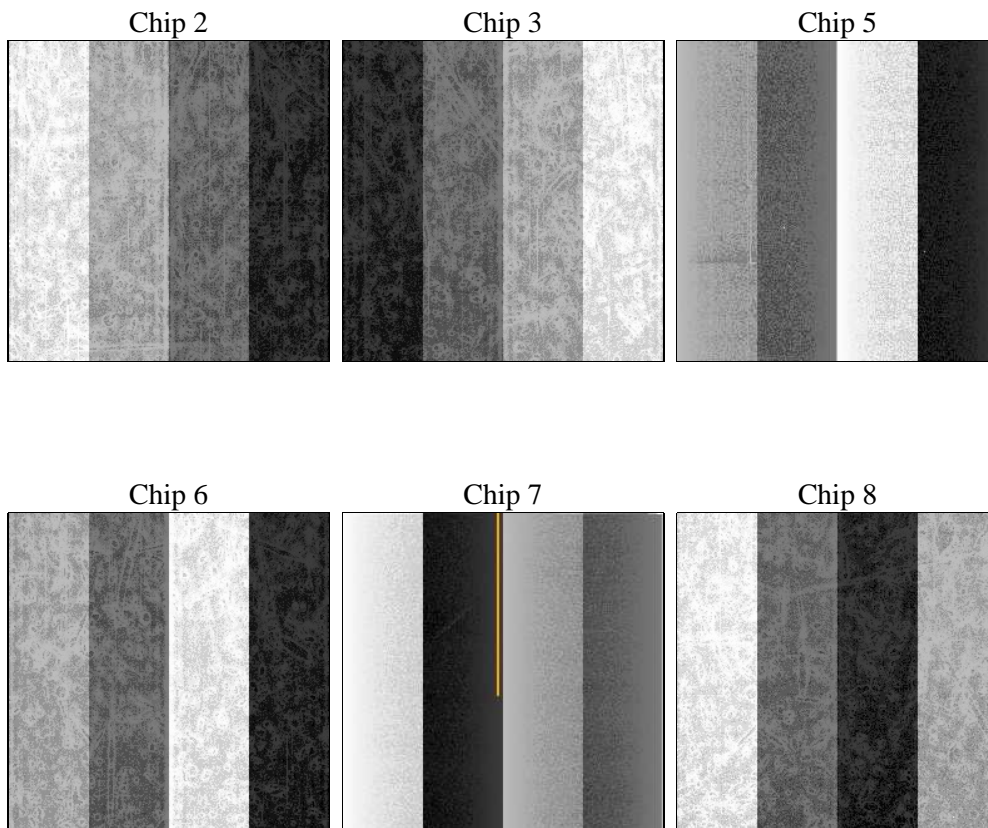
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	18500.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	18457.5999313	Sum of GTIs [s]
caldsver	4.4.8	 	ontime2	18454.358930826	Sum of GTIs [s]
date	2012-02-26T15:26:38	Date and time of file creation	ontime3	18454.358930945	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	18457.5999313	Sum of GTIs [s]
			ontime6	18457.5999313	Sum of GTIs [s]
			ontime7	18457.5999313	Sum of GTIs [s]
			ontime8	18457.5999313	Sum of GTIs [s]
			l1events	810497	Number of level 1 events

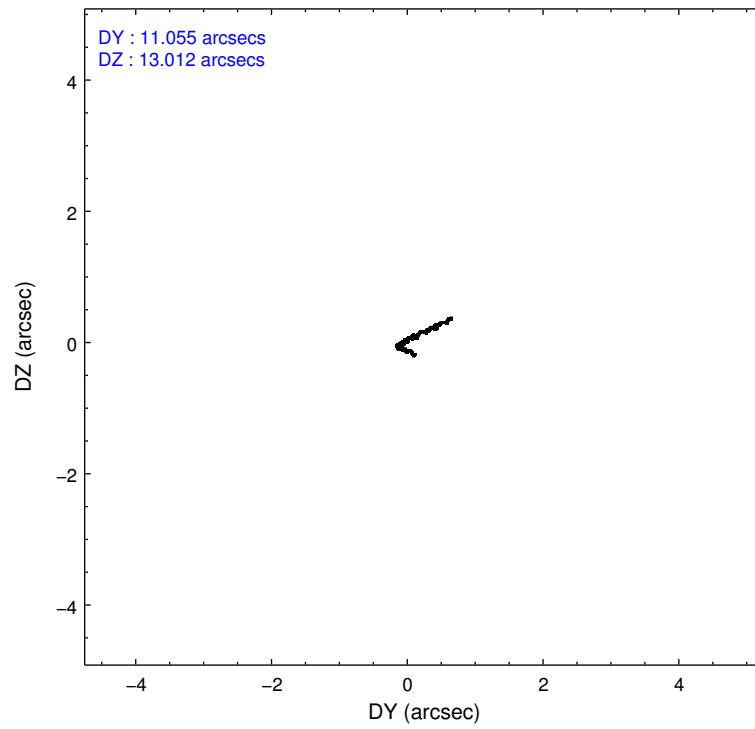
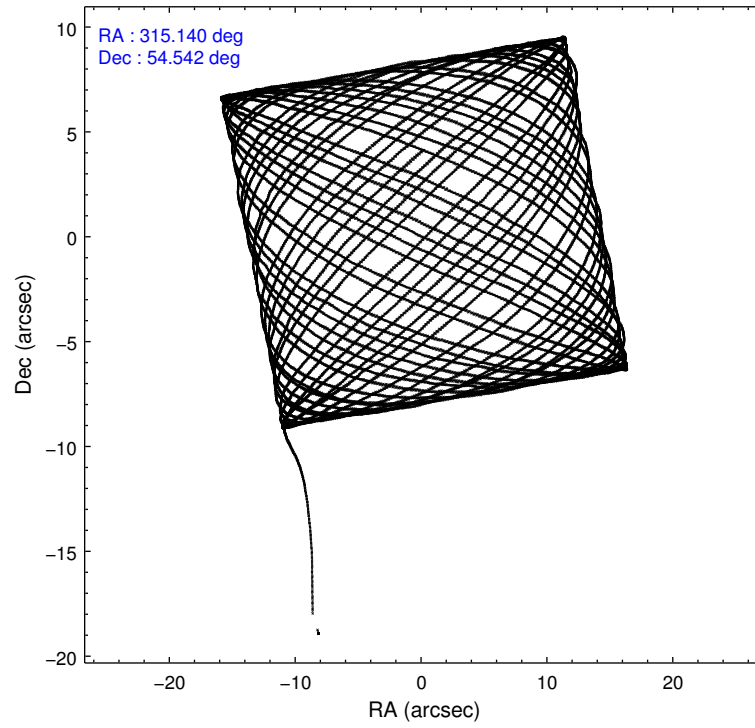
2.1.4 Events

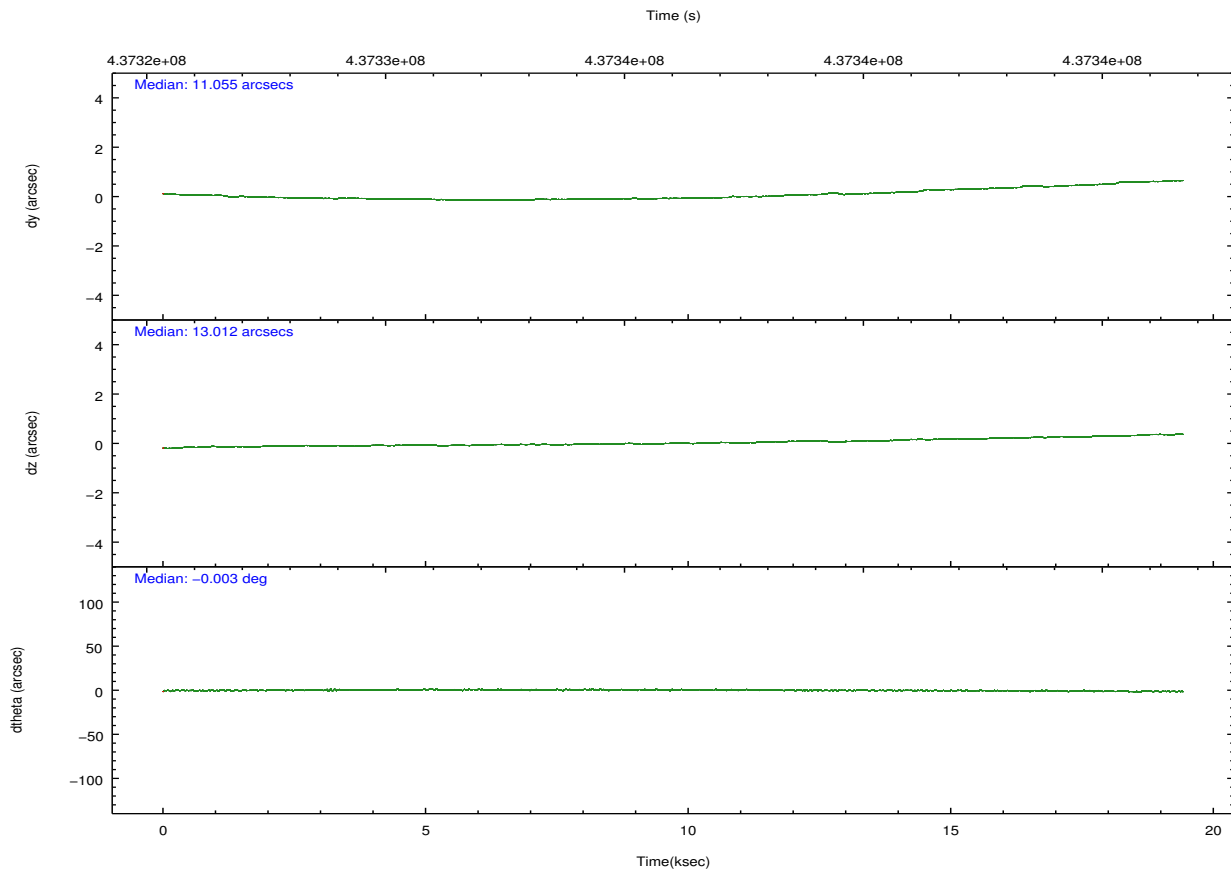
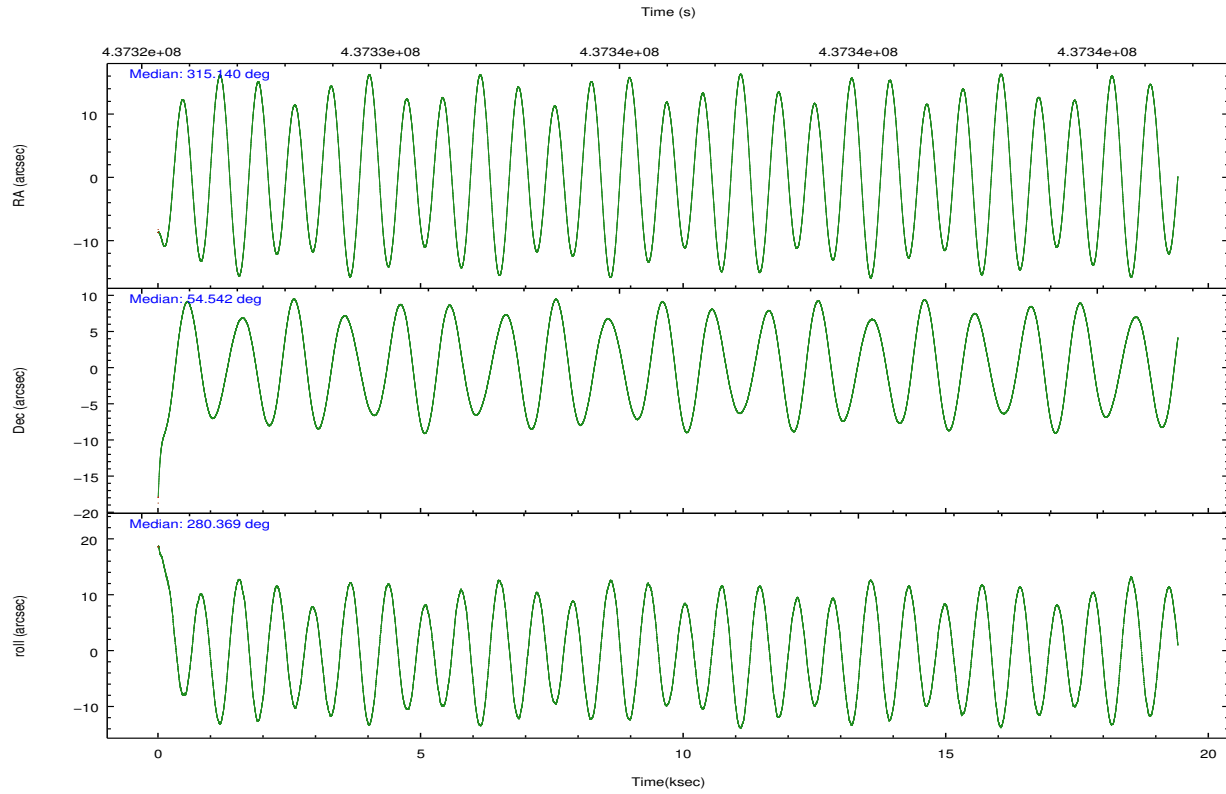
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	113564	109978	174904	118399	145747	147905	grade 0 events	4381	4213	4966	4729	5703	11845
rejected events	101119	97929	91331	105000	81752	108810		3%	3%	2%	3%	3%	8%
rejected %	89%	89%	52%	88%	56%	73%	grade 1 events	60	71	271	45	173	103
								0%	0%	0%	0%	0%	0%
							grade 2 events	2986	2672	25802	2965	12932	9028
								2%	2%	14%	2%	8%	6%
							grade 3 events	1270	1325	2996	1405	5563	4170
								1%	1%	1%	1%	3%	2%
							grade 4 events	1296	1356	3014	1363	5417	3883
								1%	1%	1%	1%	3%	2%
							grade 5 events	4978	5408	13081	5383	15183	7769
								4%	4%	7%	4%	10%	5%
							grade 6 events	2514	2487	46850	2943	34411	10189
								2%	2%	26%	2%	23%	6%
							grade 7 events	96079	92446	77924	99566	66365	100918
								84%	84%	44%	84%	45%	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	315.109214	315.1402177423626	CCD I2 on	O4	Y
[deg] Pointing Dec	54.562828	54.54221531706554	CCD I3 on	O5	Y
[deg] Pointing Roll	280.242065	280.3734442617926	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O3	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	O1	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	O2	Y
[s] Observation start time (MET)	437327226.184000	437325578.89927	CCD S5 on	N	N
Observation start date	2011-11-10T15:46:00	2011-11-10T15:19:38	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	437345726.184000	437346671.35038	On-chip summing requested	N	N
Observation end date	2011-11-10T20:54:20	2011-11-10T21:11:11	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



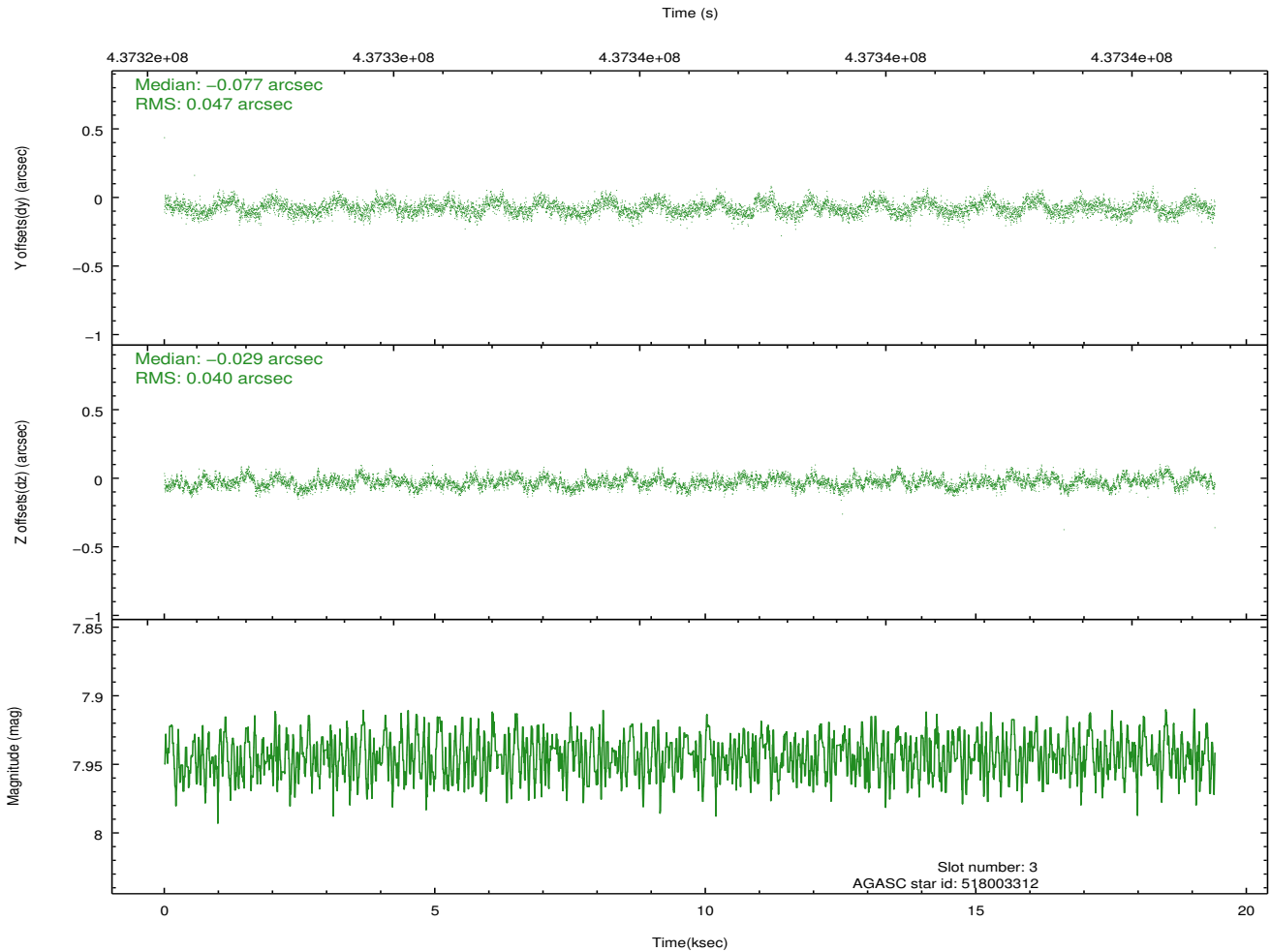
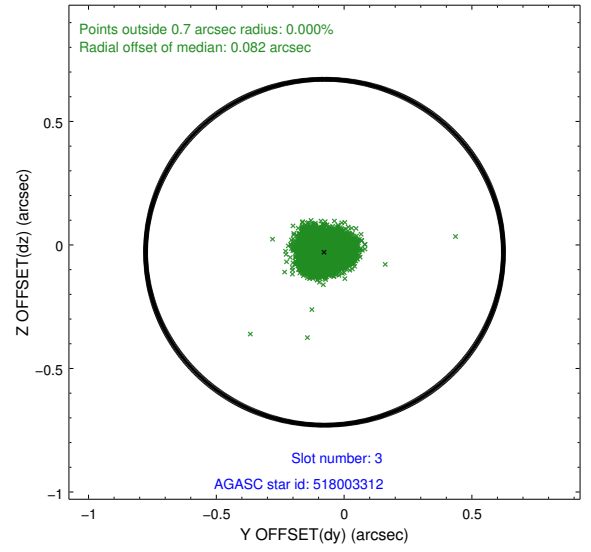
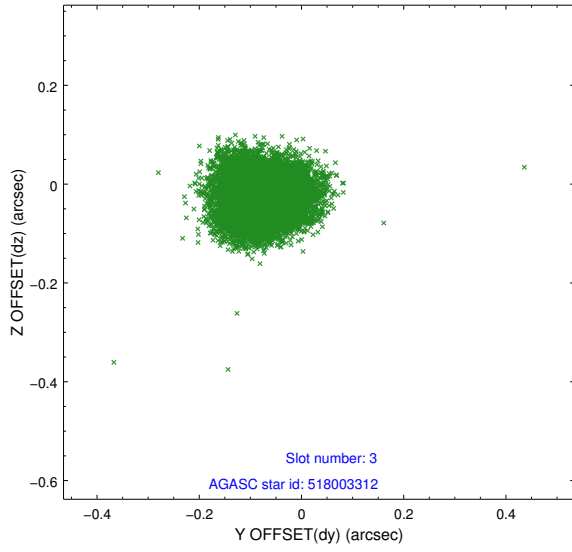


Slot Statistics

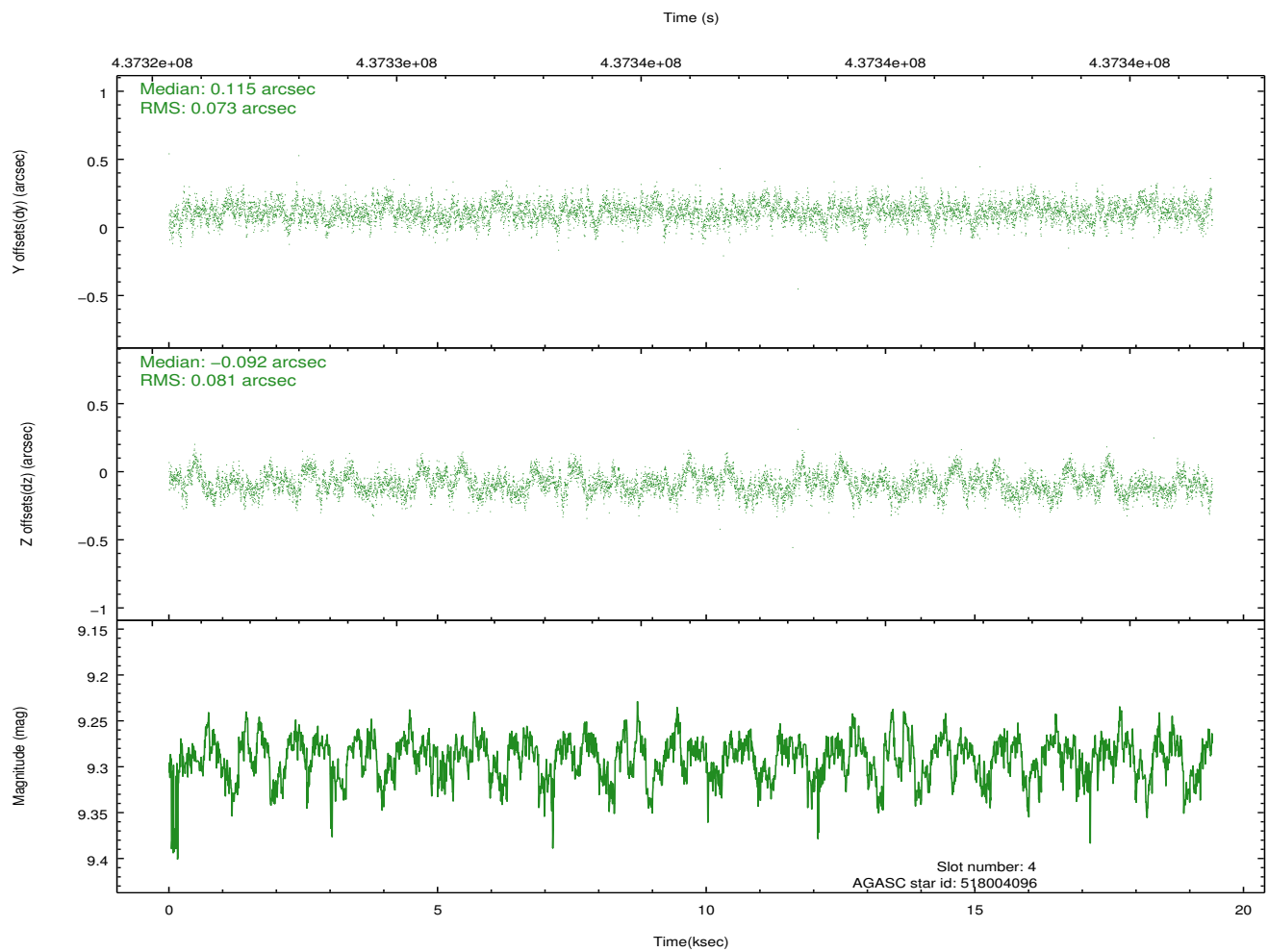
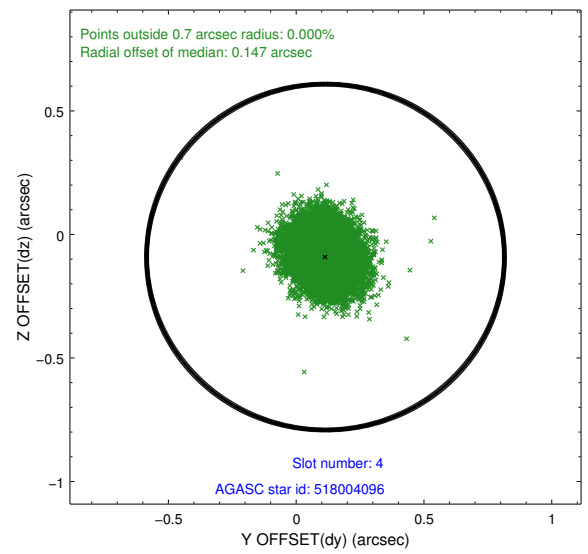
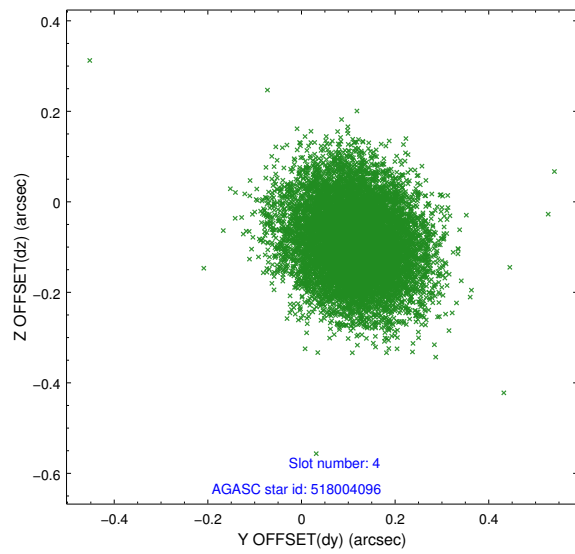
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.96	4737	-0.053	-0.064	0.007	0.012	0.000000	0.000000	-764.10	-1734.43
1	FID	ACIS-S-4	7.05	4737	0.209	0.043	0.007	0.012	0.000000	0.000000	2149.39	173.90
2	FID	ACIS-S-5	7.09	4736	-0.187	0.029	0.007	0.011	0.000000	0.000000	-1816.78	167.86
3	GUIDE	518003312	7.94	9473	-0.077	-0.029	0.066	0.104	315.946818	54.344413	1075.96	1592.37
4	GUIDE	518004096	9.29	9457	0.115	-0.092	0.116	0.187	314.550432	53.988737	1819.18	-1529.65
5	GUIDE	518528232	7.23	9473	-0.120	0.001	0.082	0.136	315.970210	55.230297	-2060.99	2168.55
6	GUIDE	518529104	9.08	9470	-0.031	0.104	0.134	0.206	313.880198	54.930669	-1777.28	-2261.61
7	GUIDE	517998768	9.24	9466	0.113	0.016	0.097	0.158	315.937472	53.962117	2429.97	1343.61

2.4 Star Slots

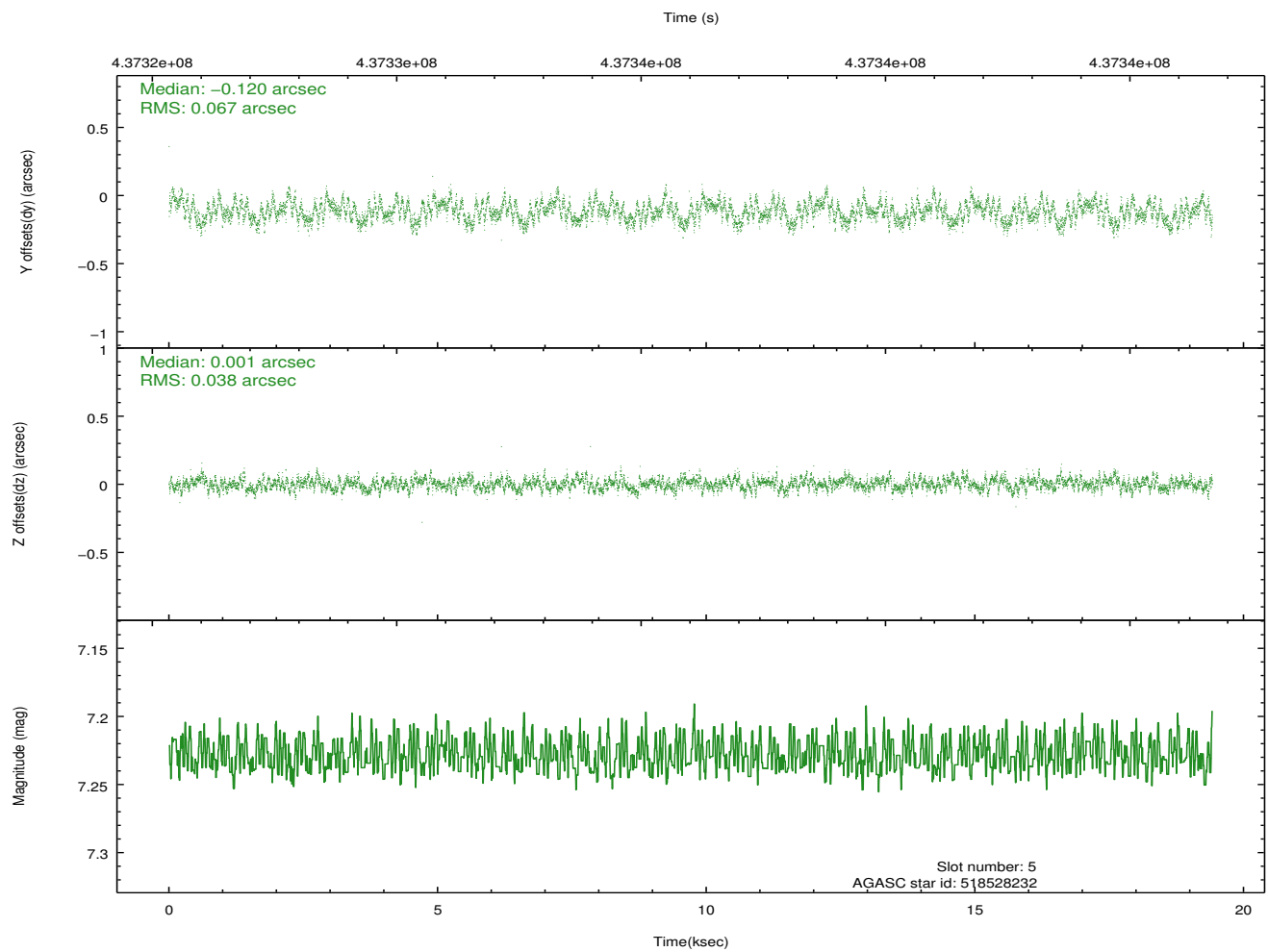
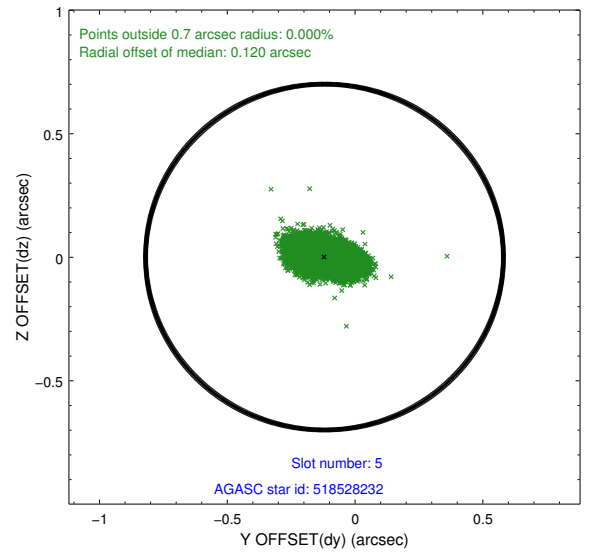
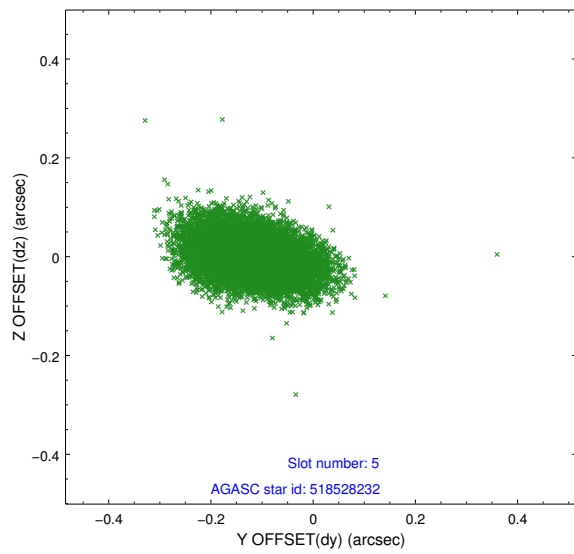
2.4.1 Slot 3



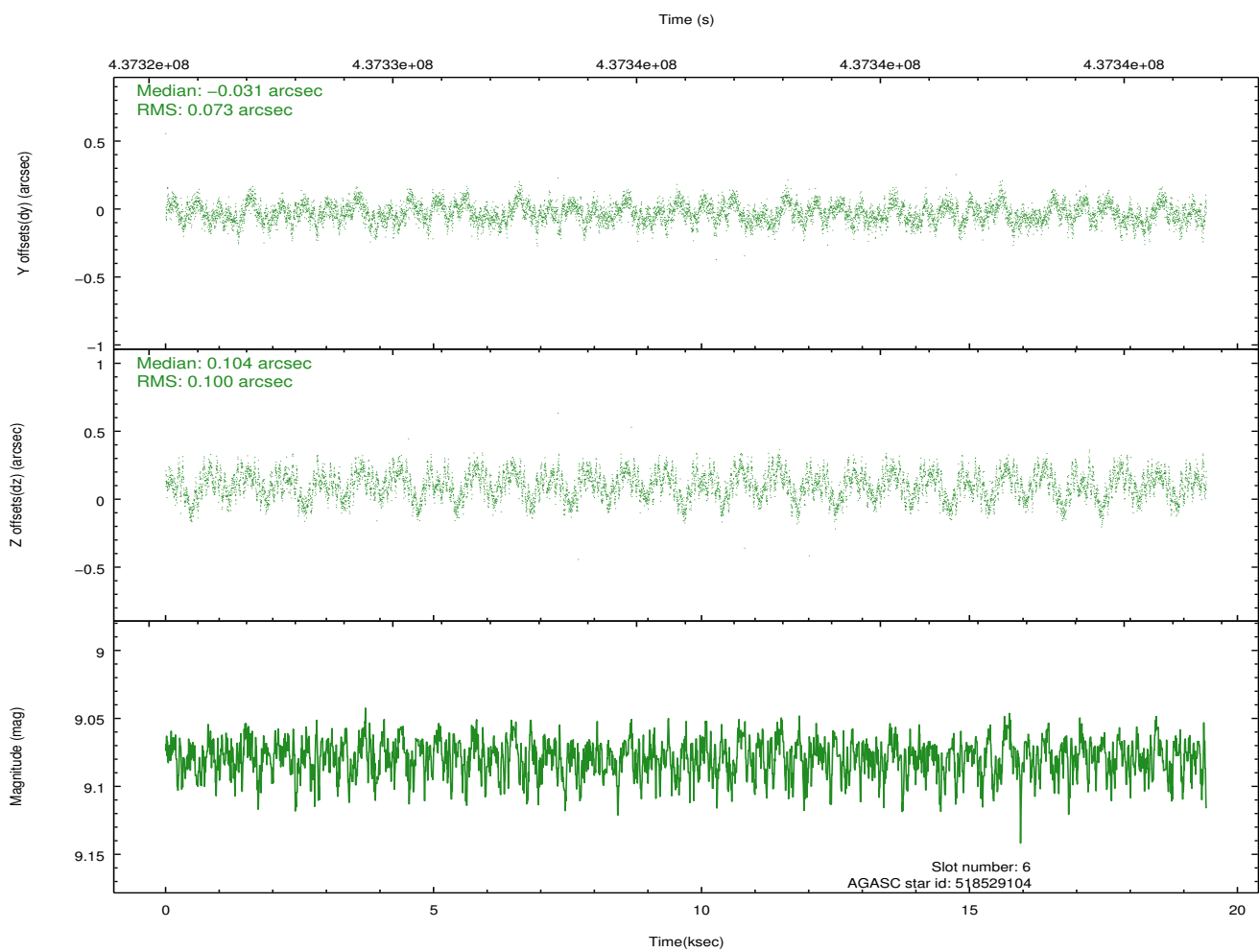
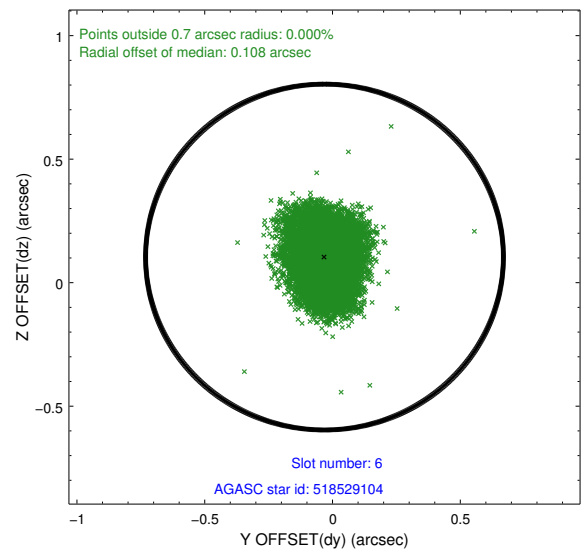
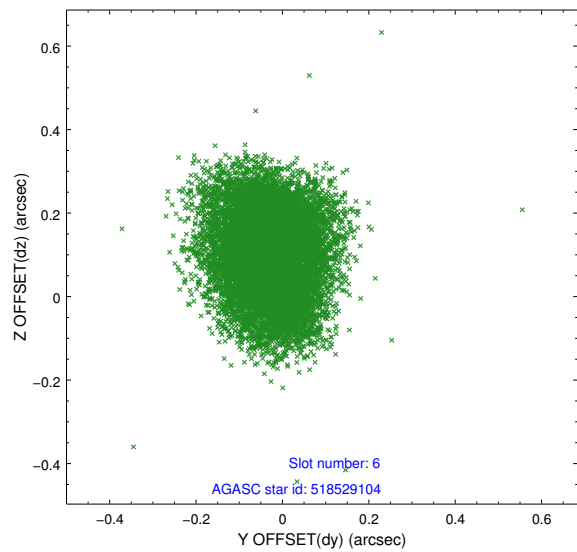
2.4.2 Slot 4



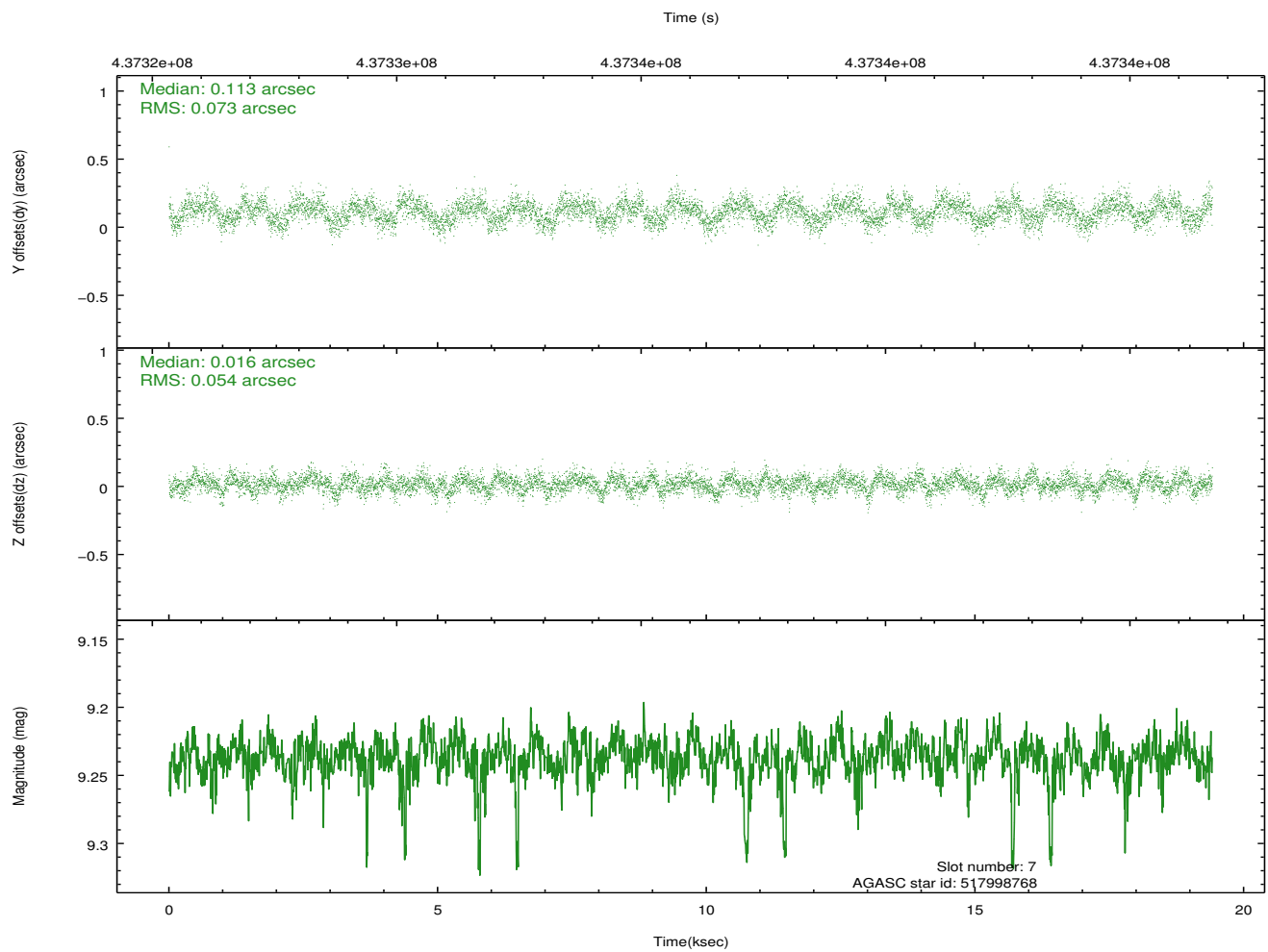
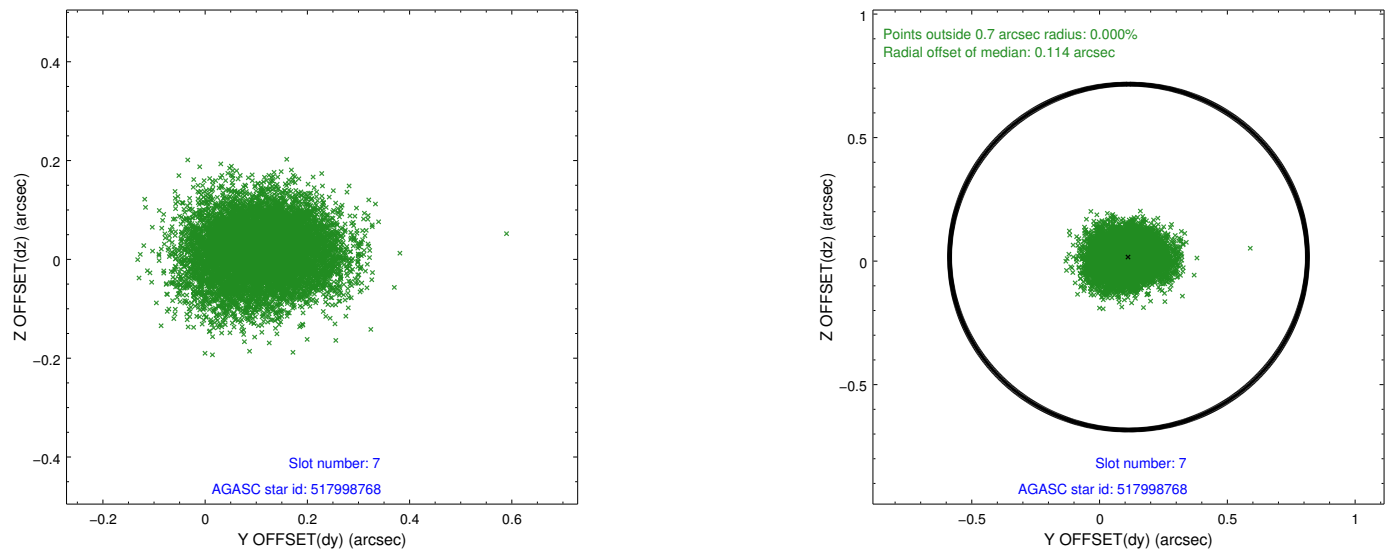
2.4.3 Slot 5



2.4.4 Slot 6

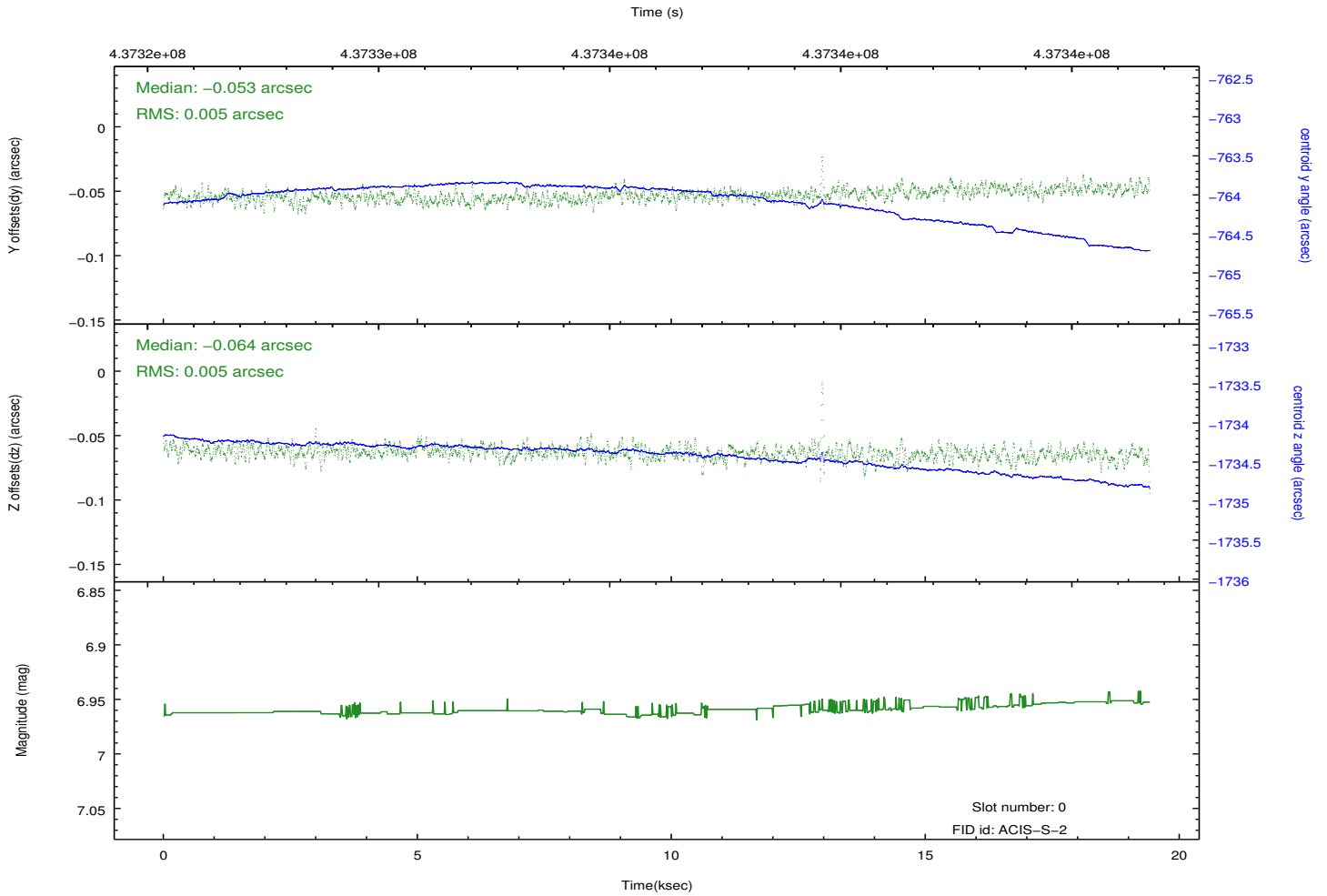
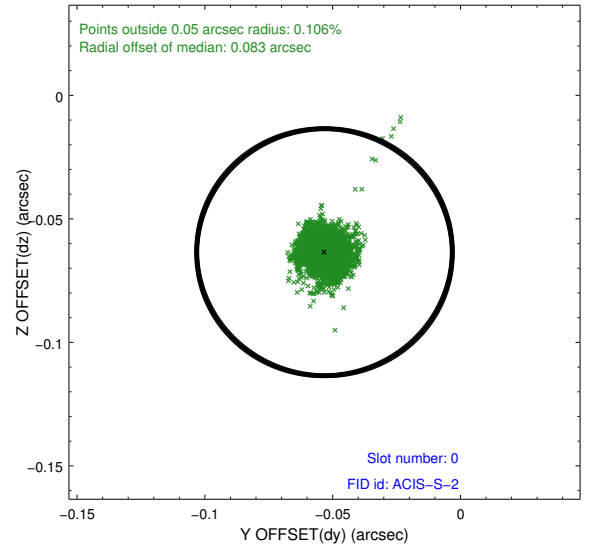
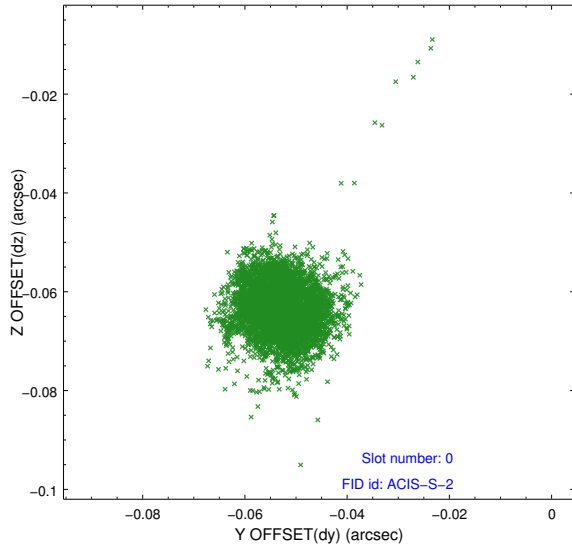


2.4.5 Slot 7

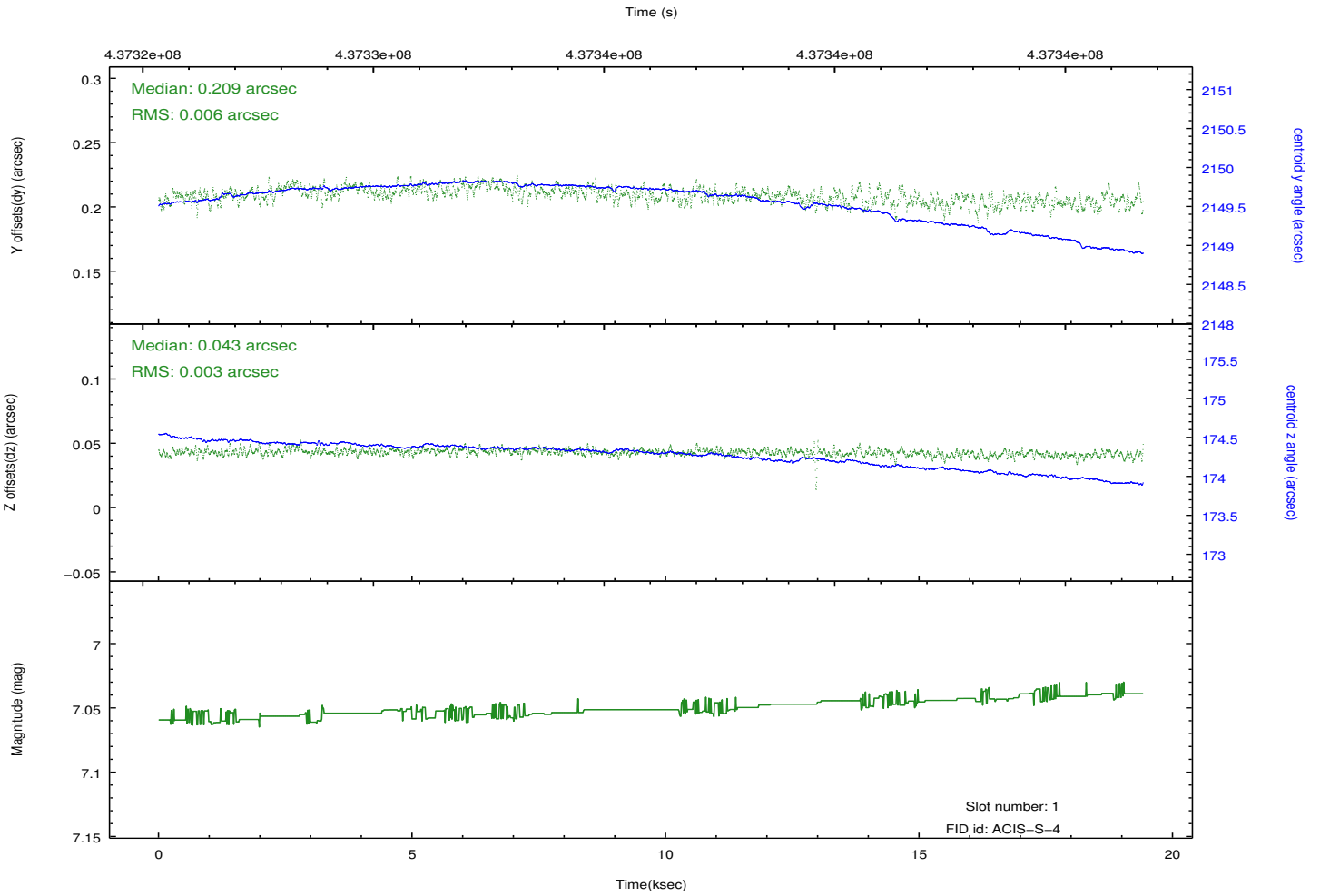
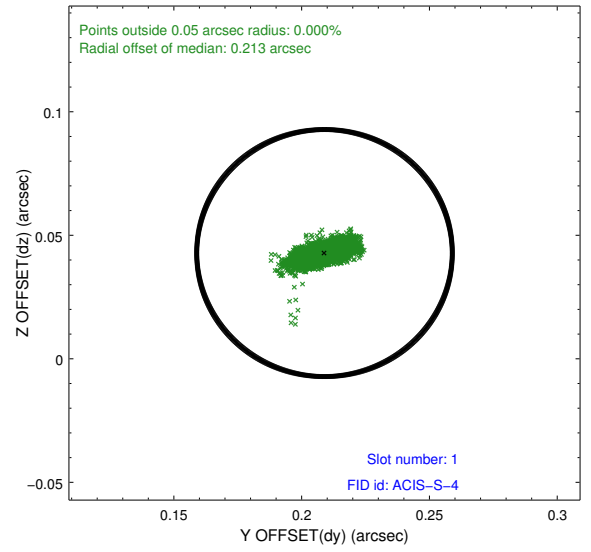
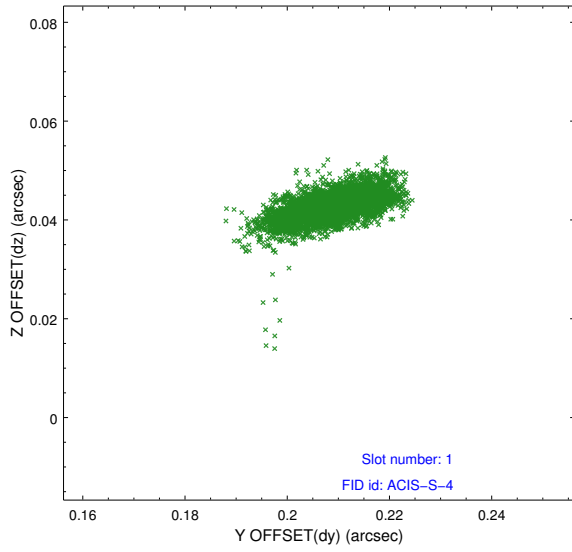


2.5 FID Slots

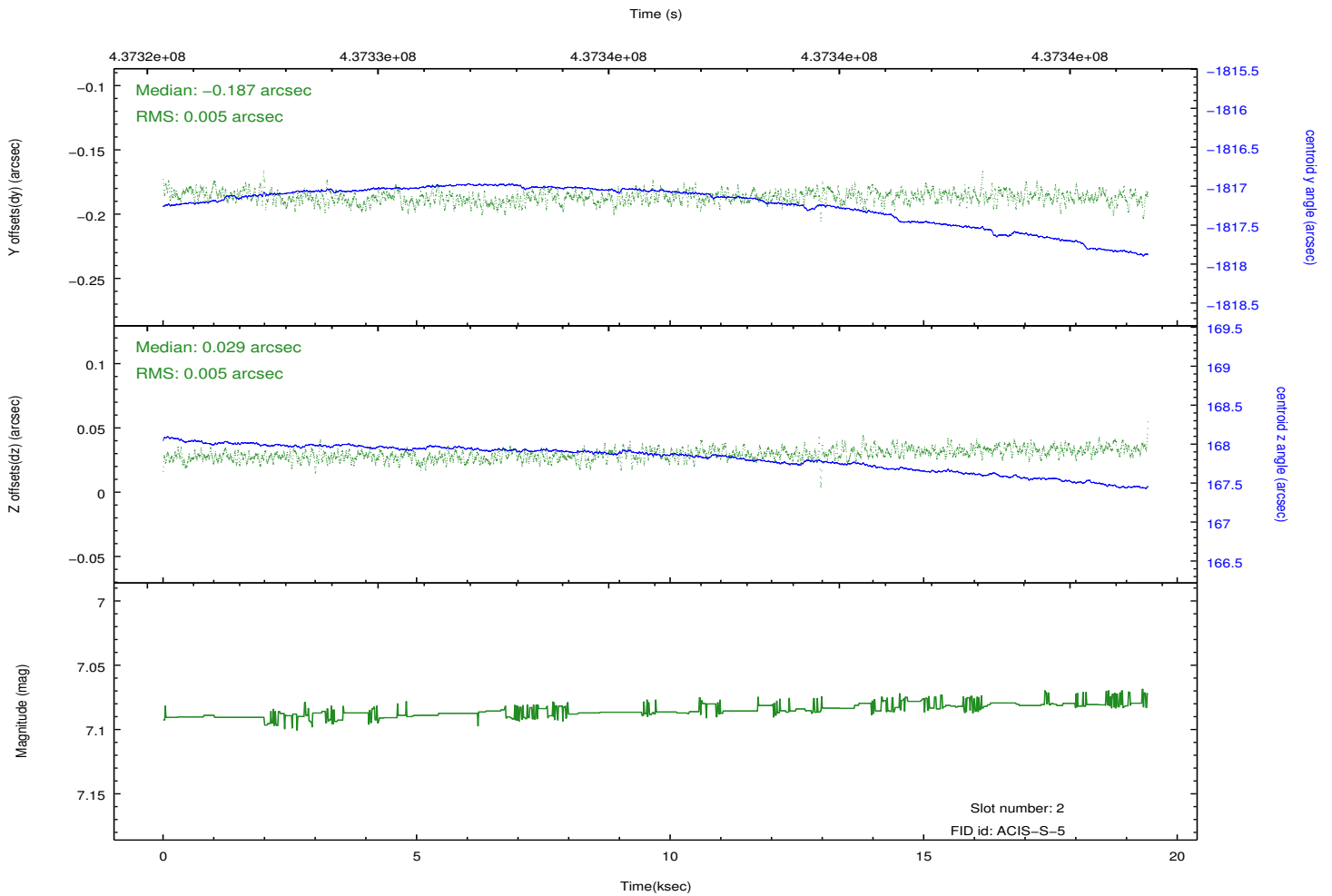
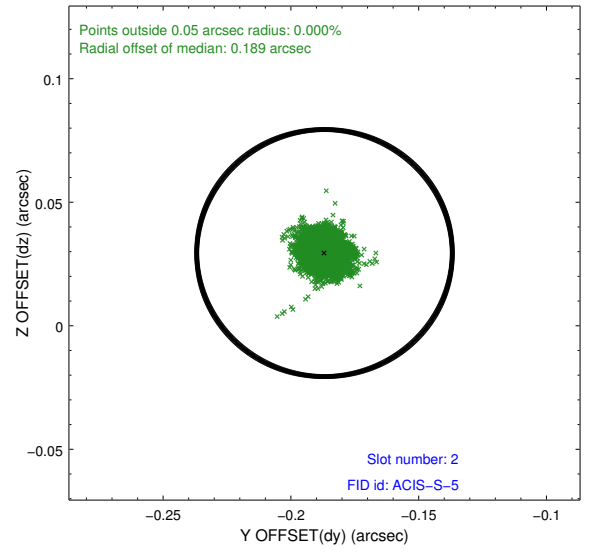
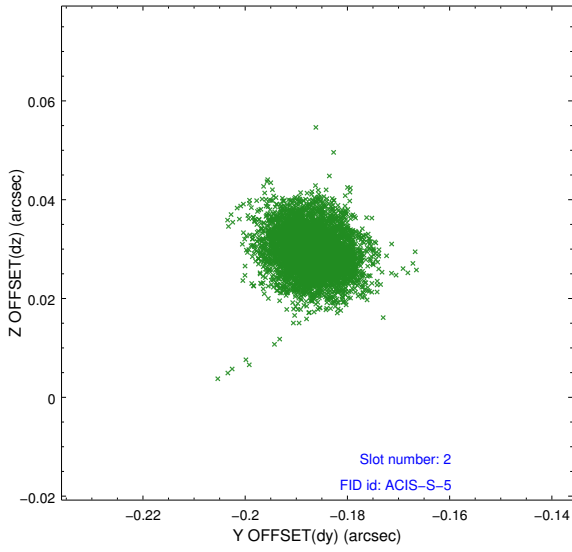
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.02.28
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	18.4575999313

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:
(314.88209, 54.65525), (314.87815, 54.65483), (314.88915, 54.62079), (314.89382, 54.61893)