

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 10319 - L2 Version 3
Chandra X-Ray Center

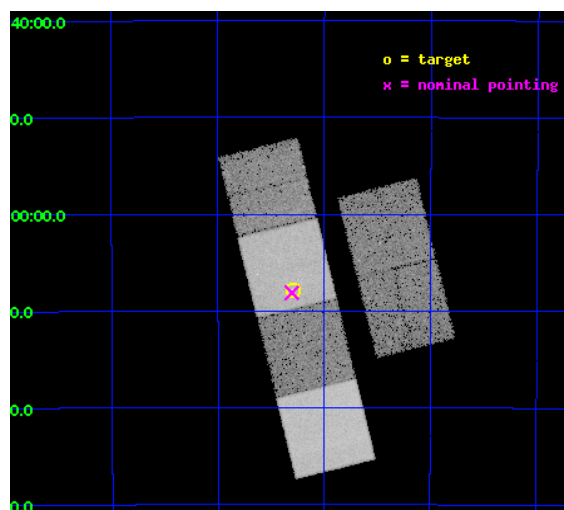
L2 Processing Date : Jun 1 2012

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1 Front

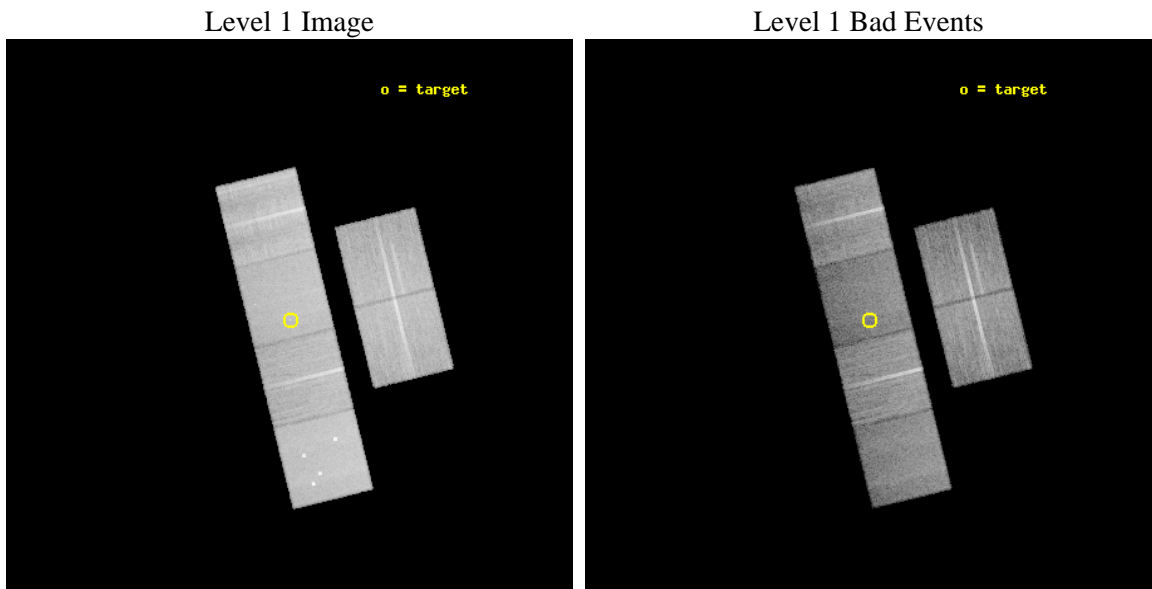
seq_num	701862	Sequence number
obs_id	10319	Observation id
title	The nature of active nuclei in radio galaxies: observations of the 2Jy sample	Proposal title
observer	Dr Martin Hardcastle	Principal investigator
object	PKS 0043-42	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	11.574167	Observer's specified target RA [deg]
dec_targ	-42.130944	Observer's specified target Dec [deg]
ra_nom	11.576144554618	Nominal RA [deg]
dec_nom	-42.135571796638	Nominal Dec [deg]
roll_nom	256.22444204342	Nominal Roll [deg]
revision	3	Processing version of data
ontime	18617.599930704	Sum of GTIs [s]
livetime	18381.852670208	Livetime [s]
ontime2	18611.118069708	Sum of GTIs [s]
ontime3	18617.599930704	Sum of GTIs [s]
ontime5	18617.599930704	Sum of GTIs [s]
ontime6	18617.599930704	Sum of GTIs [s]
ontime7	18617.599930704	Sum of GTIs [s]
ontime8	18617.599930704	Sum of GTIs [s]
l2events	241517	Number of level 2 events



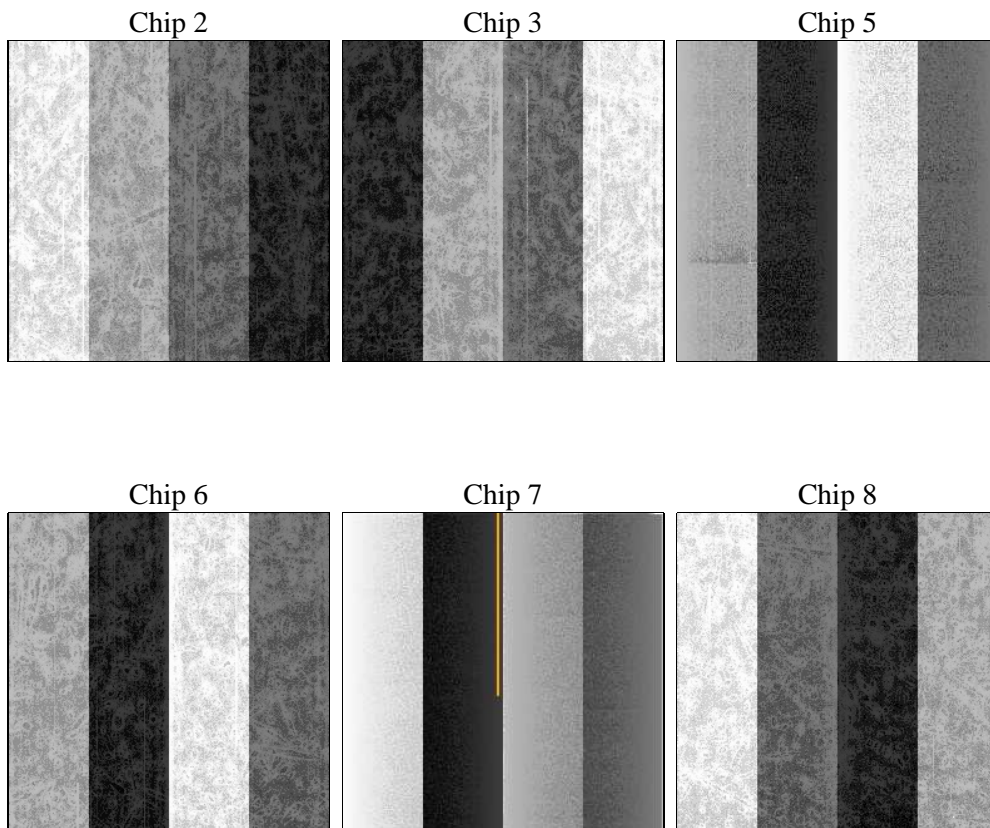
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	18476.485000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	18617.599930704	Sum of GTIs [s]
caldbver	4.4.9	 	ontime2	18611.118069708	Sum of GTIs [s]
date	2012-06-01T20:39:03	Date and time of file creation	ontime3	18617.599930704	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	18617.599930704	Sum of GTIs [s]
			ontime6	18617.599930704	Sum of GTIs [s]
			ontime7	18617.599930704	Sum of GTIs [s]
			ontime8	18617.599930704	Sum of GTIs [s]
			l1events	1077133	Number of level 1 events

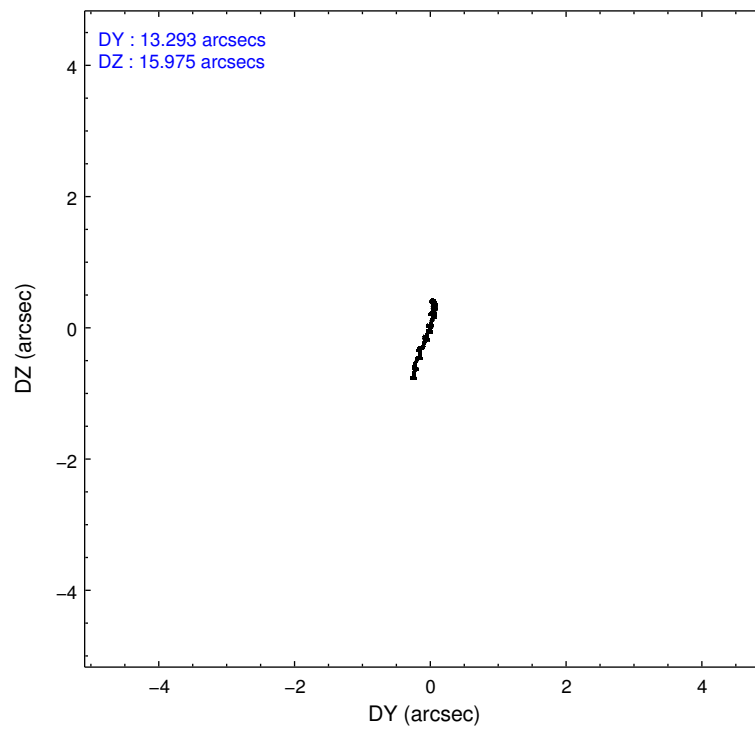
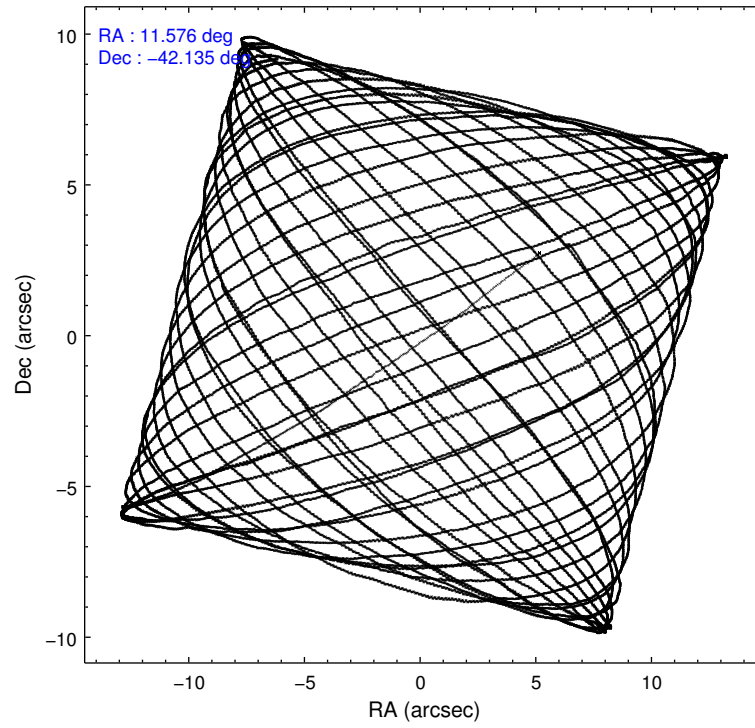
2.1.4 Events

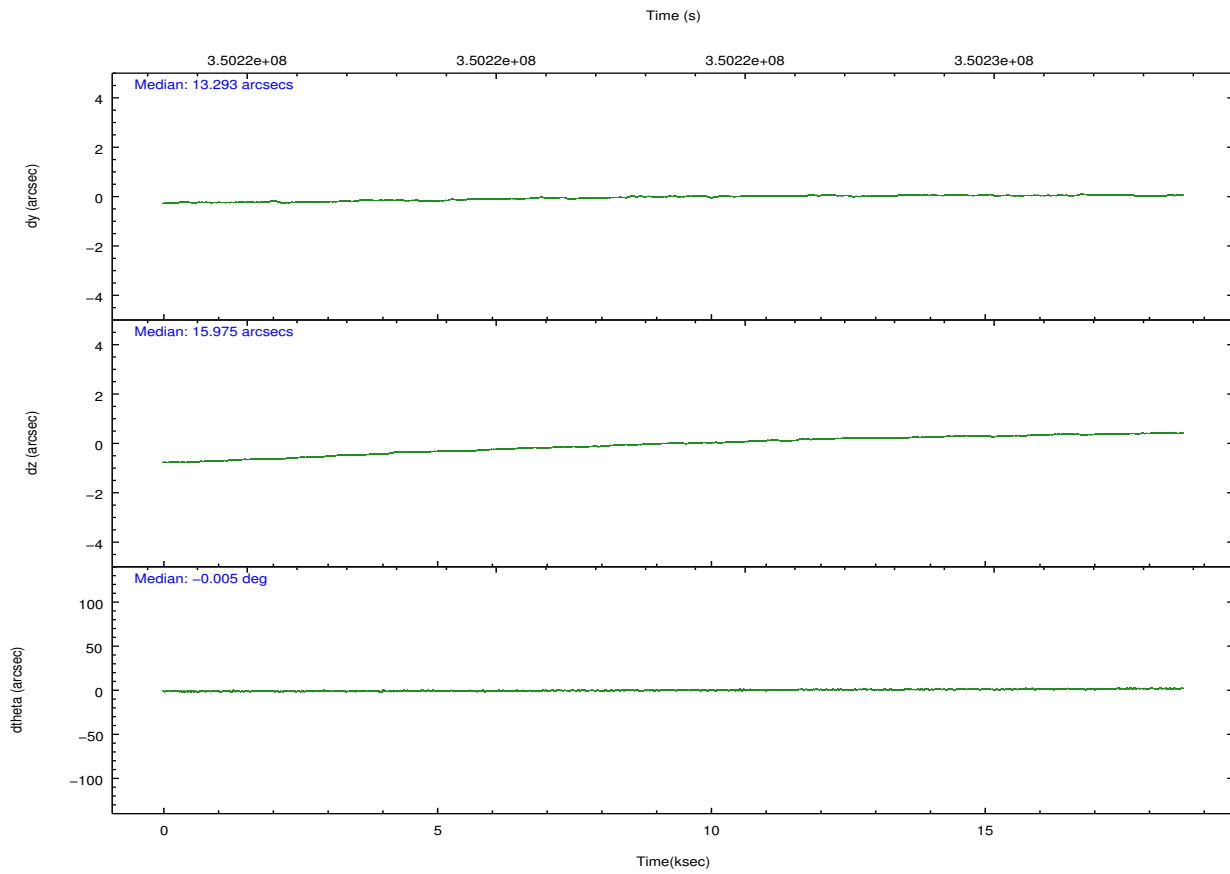
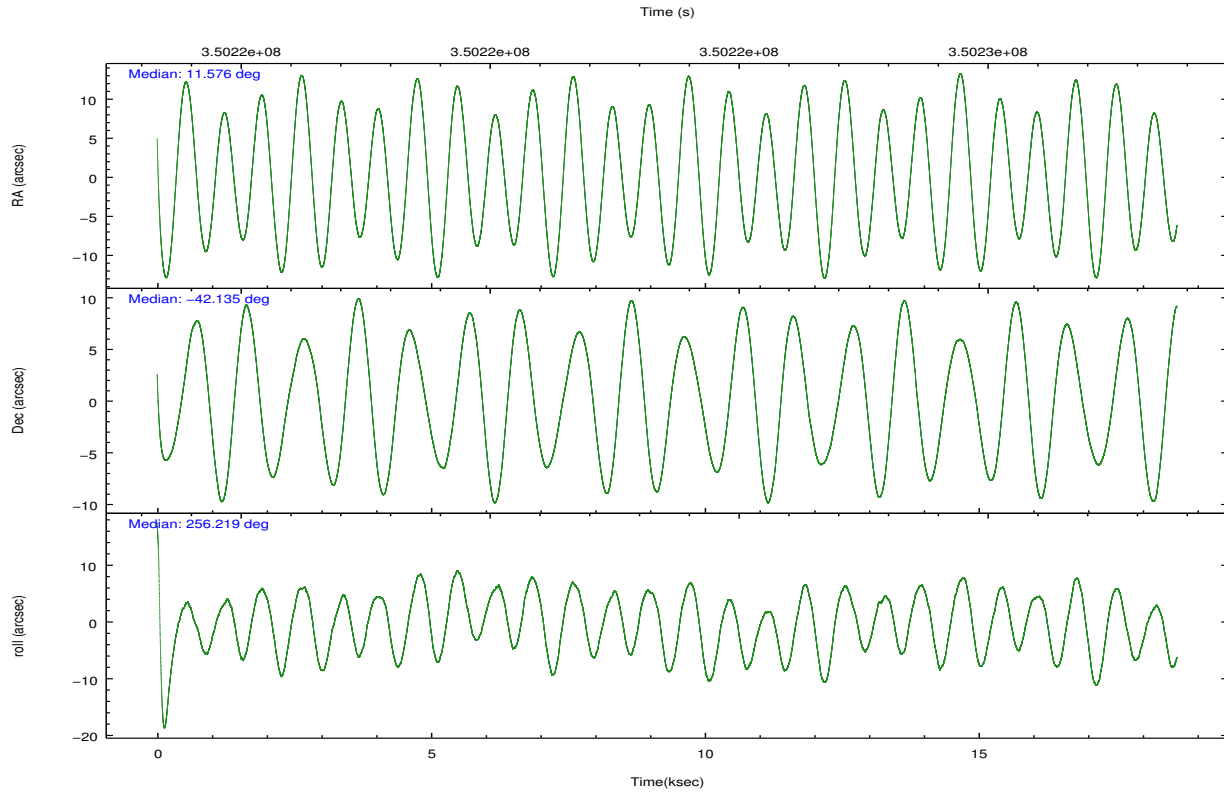
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	167695	149580	223243	160135	178429	198051	grade 0 events	5956	5386	14688	6150	7909	15099
rejected events	151695	134922	109854	143259	96172	146995		3%	3%	6%	3%	4%	7%
rejected %	90%	90%	49%	89%	53%	74%	grade 1 events	95	94	485	89	231	186
								0%	0%	0%	0%	0%	0%
							grade 2 events	3917	3156	33164	3706	17074	12080
								2%	2%	14%	2%	9%	6%
							grade 3 events	1666	1635	4776	1788	7688	5505
								0%	1%	2%	1%	4%	2%
							grade 4 events	1706	1660	4699	1808	7386	5024
								1%	1%	2%	1%	4%	2%
							grade 5 events	5430	6206	17579	6335	18911	9091
								3%	4%	7%	3%	10%	4%
							grade 6 events	2910	2958	57180	3581	42970	13749
								1%	1%	25%	2%	24%	6%
							grade 7 events	146015	128485	90672	136678	76260	137317
								87%	85%	40%	85%	42%	69%

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	11.565401	11.5761445546184	CCD I2 on	O1	Y
[deg] Pointing Dec	-42.109417	-42.1355717966379	CCD I3 on	O2	Y
[deg] Pointing Roll	256.060602	256.2244420434224	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	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	Y	Y
[s] Observation start time (MET)	350214374.184000	350213228.66156	CCD S5 on	N	N
Observation start date	2009-02-05T09:45:08	2009-02-05T09:27:08	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	350232851.184000	350233080.35004	On-chip summing requested	N	N
Observation end date	2009-02-05T14:53:05	2009-02-05T14:58:00	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



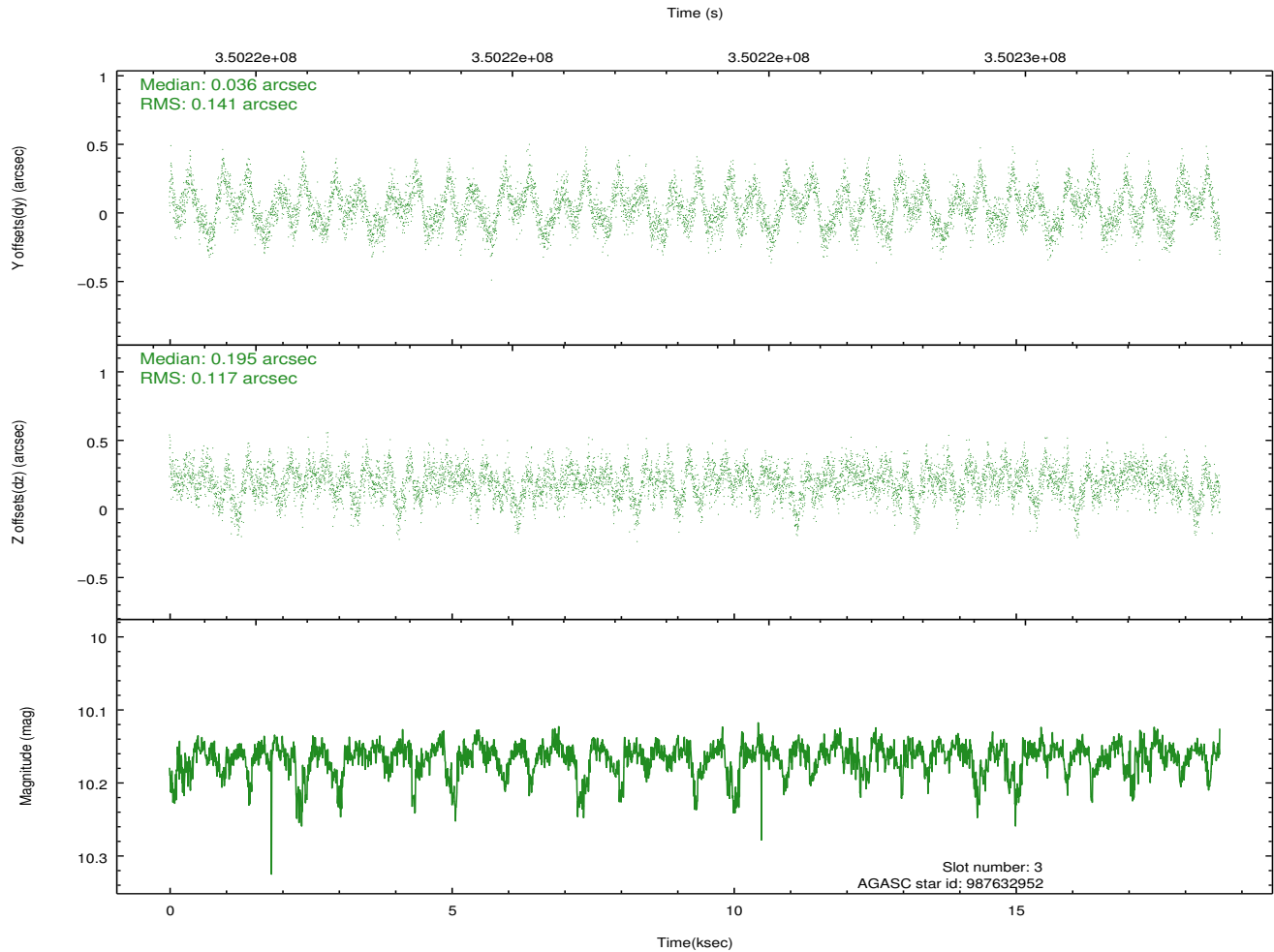
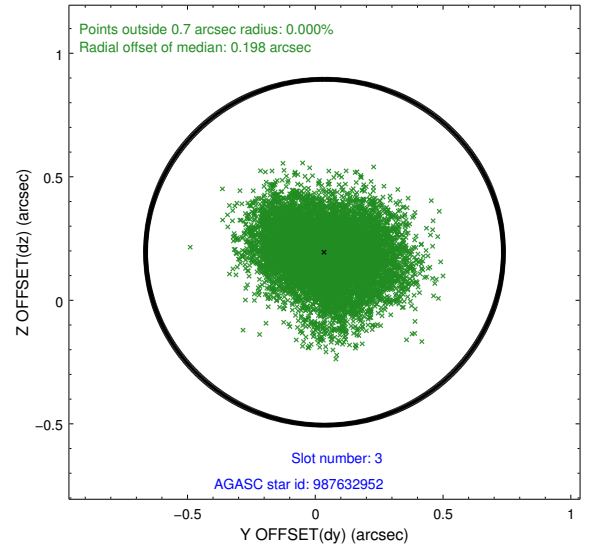
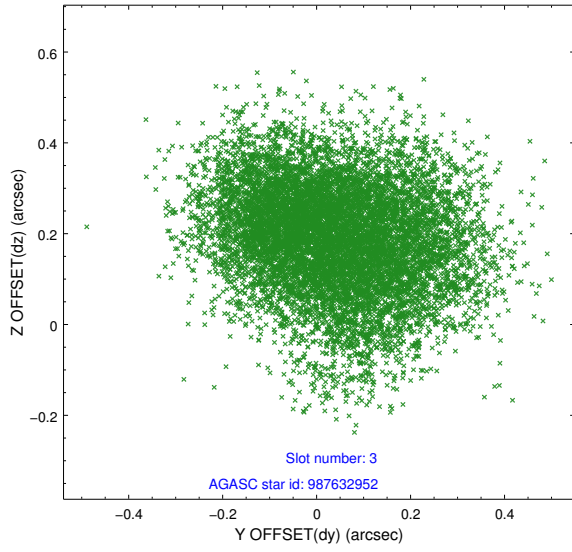


Slot Statistics

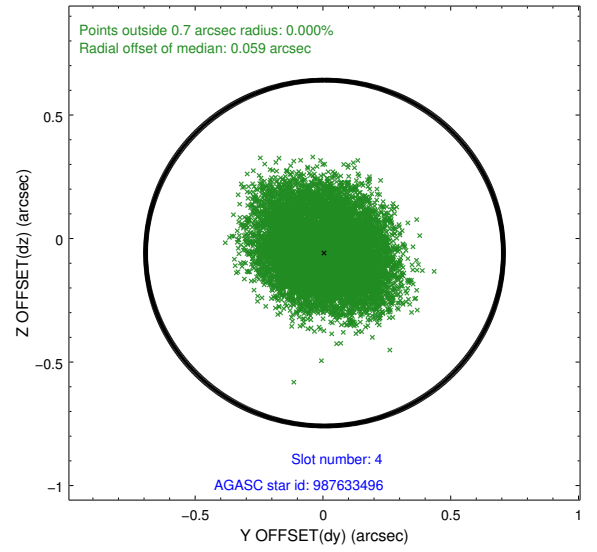
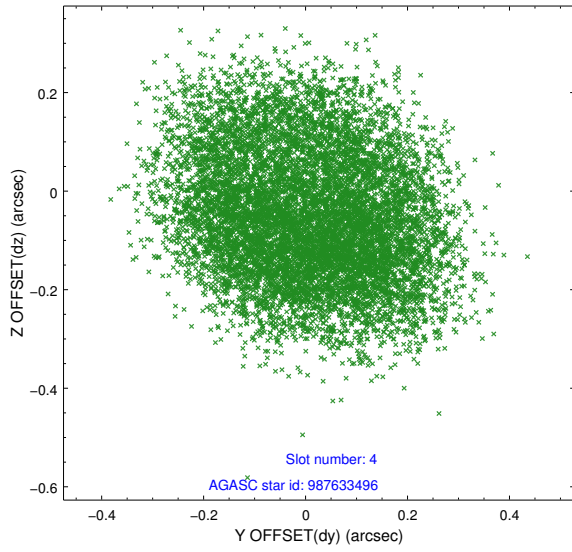
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.93	4543	-0.037	-0.001	0.009	0.014	0.000000	0.000000	-766.18	-1737.27
1	FID	ACIS-S-4	7.02	4542	0.141	0.018	0.006	0.011	0.000000	0.000000	2147.16	171.04
2	FID	ACIS-S-5	7.05	4543	-0.136	-0.009	0.008	0.015	0.000000	0.000000	-1818.87	164.89
3	GUIDE	987632952	10.16	9058	0.036	0.195	0.199	0.312	11.608051	-41.722215	-1380.24	-223.66
4	GUIDE	987633496	9.90	9051	0.006	-0.059	0.205	0.304	10.699914	-42.406556	1604.73	-1972.39
5	GUIDE	987635144	9.64	9071	-0.123	-0.178	0.272	0.379	11.656800	-42.160357	120.06	280.95
6	GUIDE	987635520	9.26	9082	-0.030	-0.060	0.104	0.165	11.759177	-41.845950	-1044.97	276.56
7	GUIDE	988021504	8.50	9078	0.087	0.087	0.116	0.179	11.151827	-42.598572	1976.06	-638.03

2.4 Star Slots

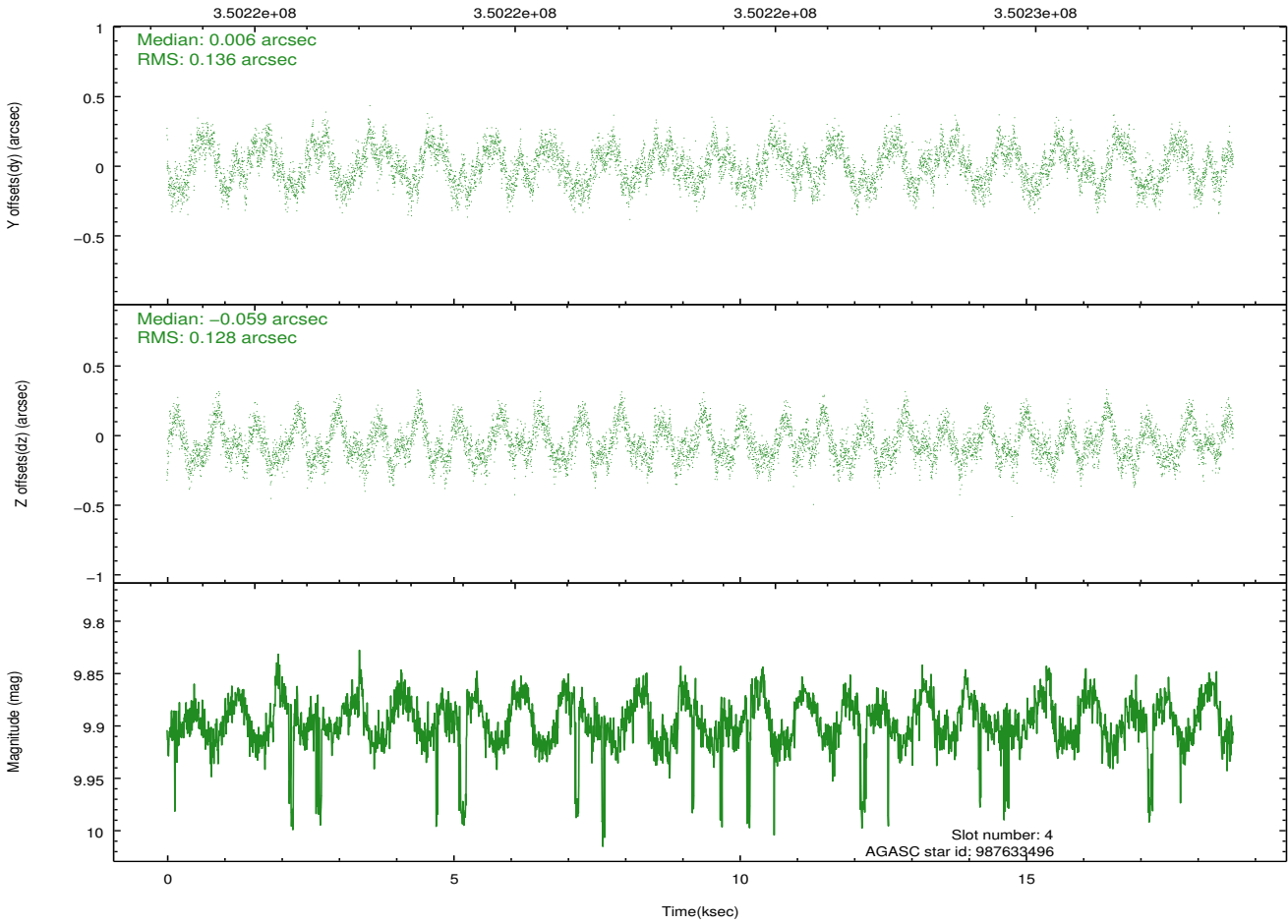
2.4.1 Slot 3



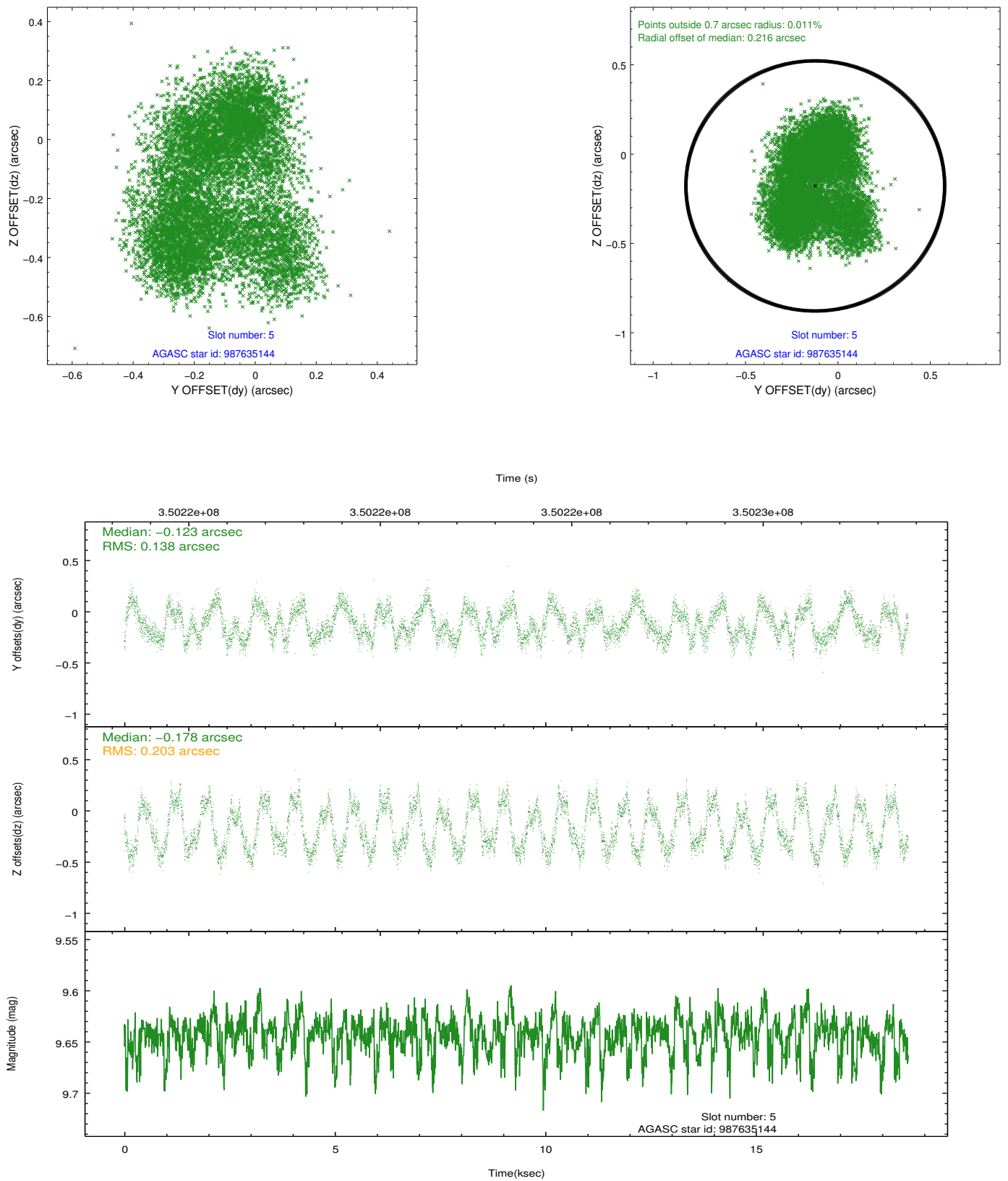
2.4.2 Slot 4



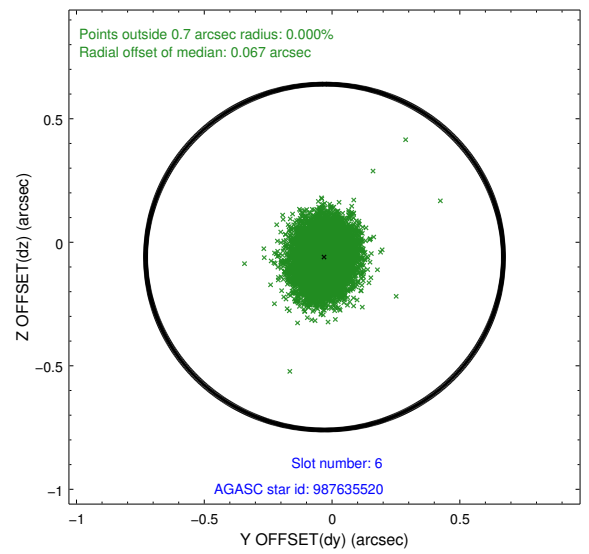
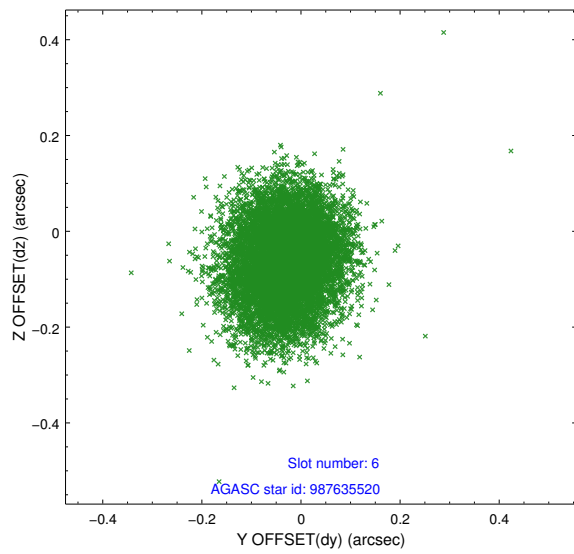
Time (s)



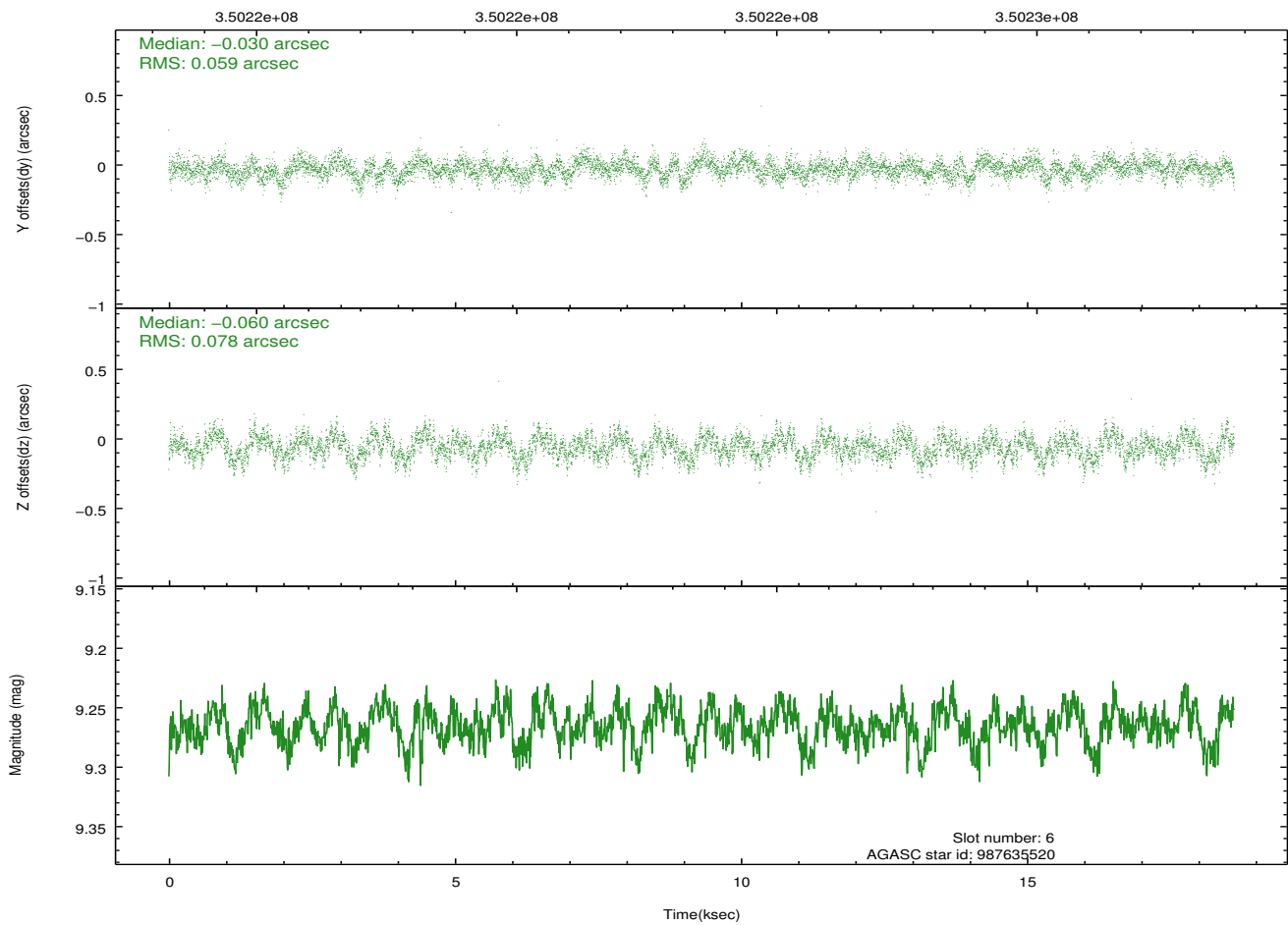
2.4.3 Slot 5



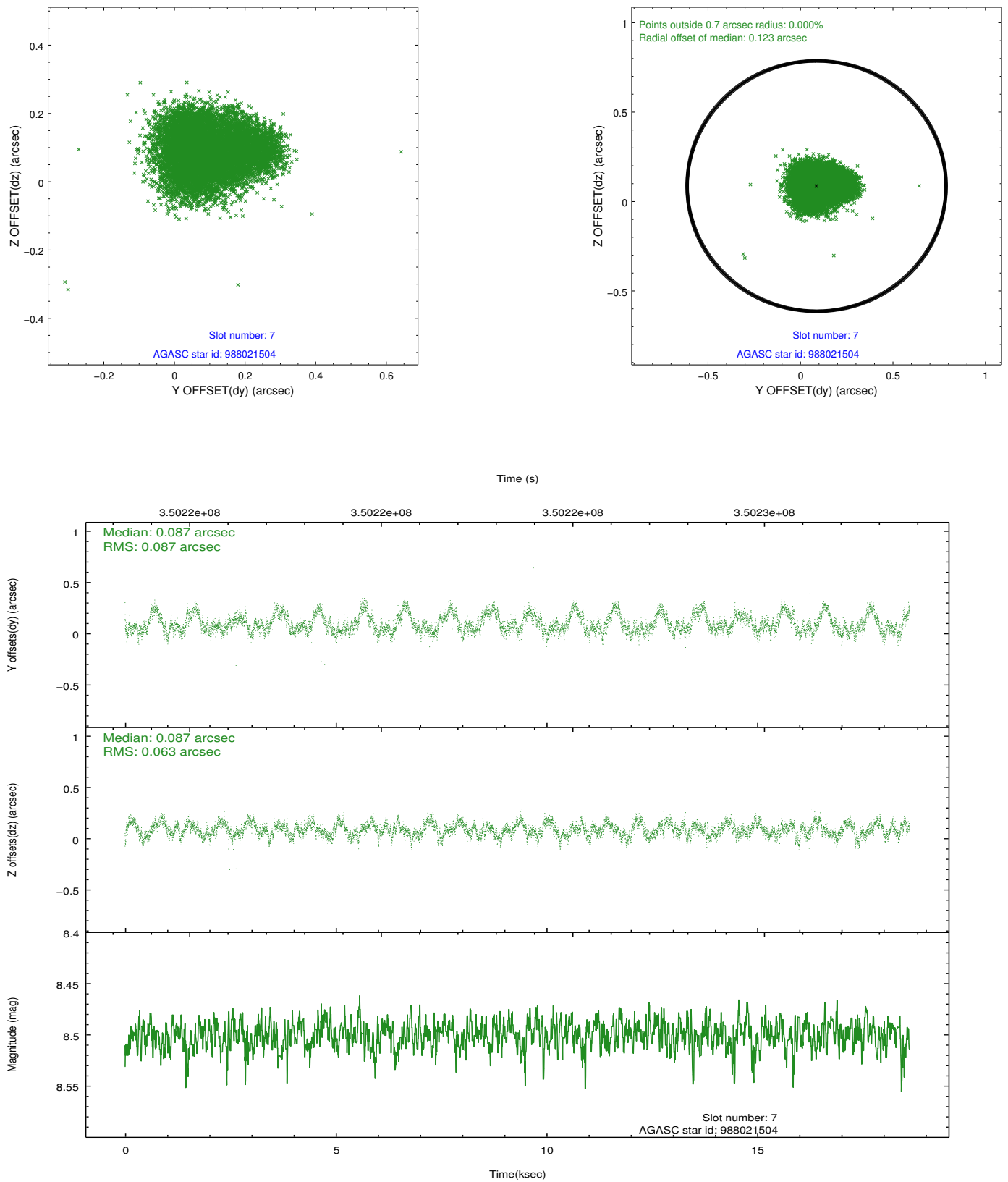
2.4.4 Slot 6



Time (s)

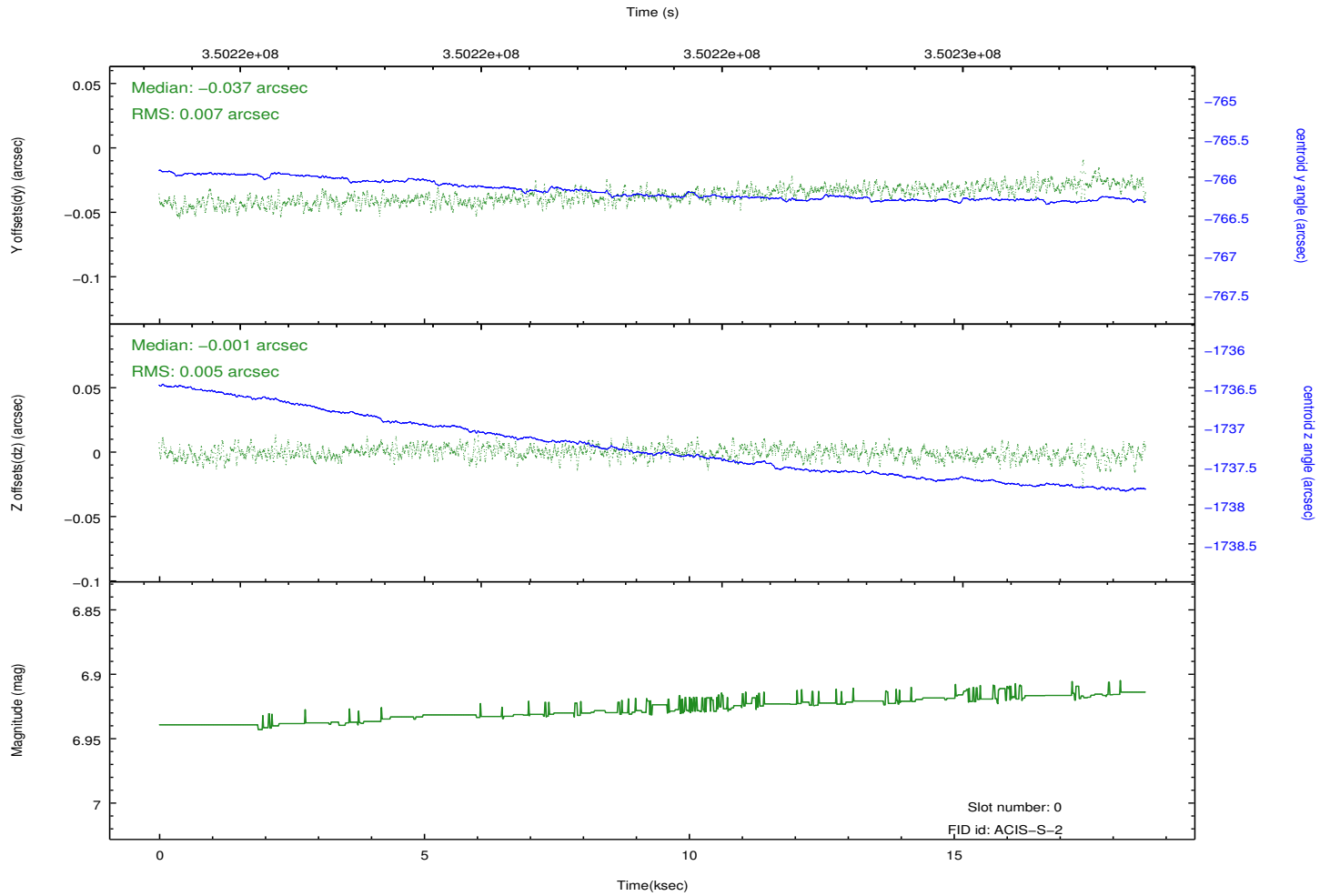
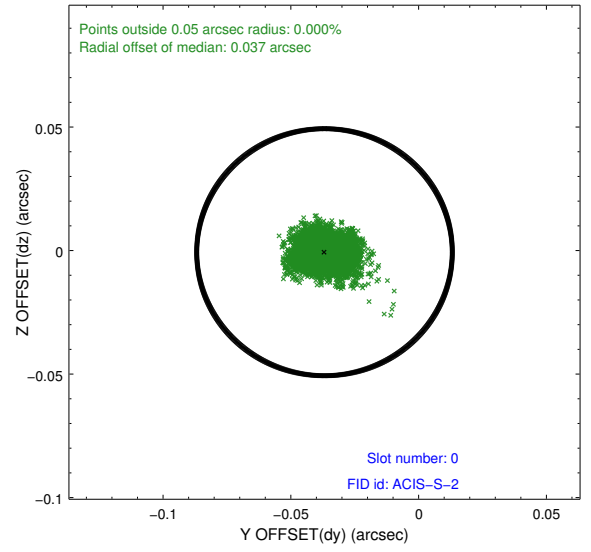
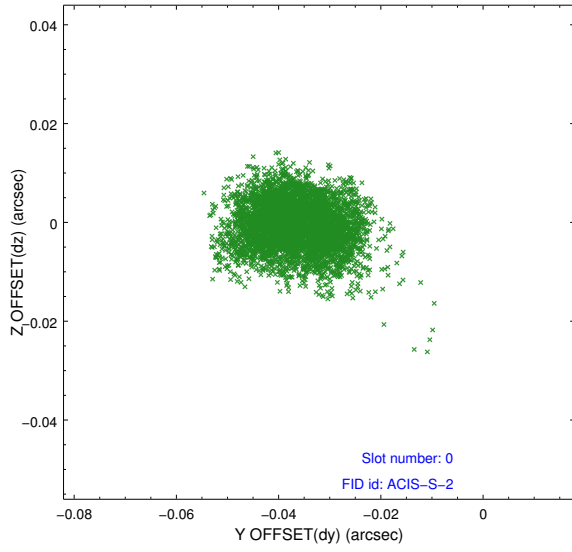


2.4.5 Slot 7

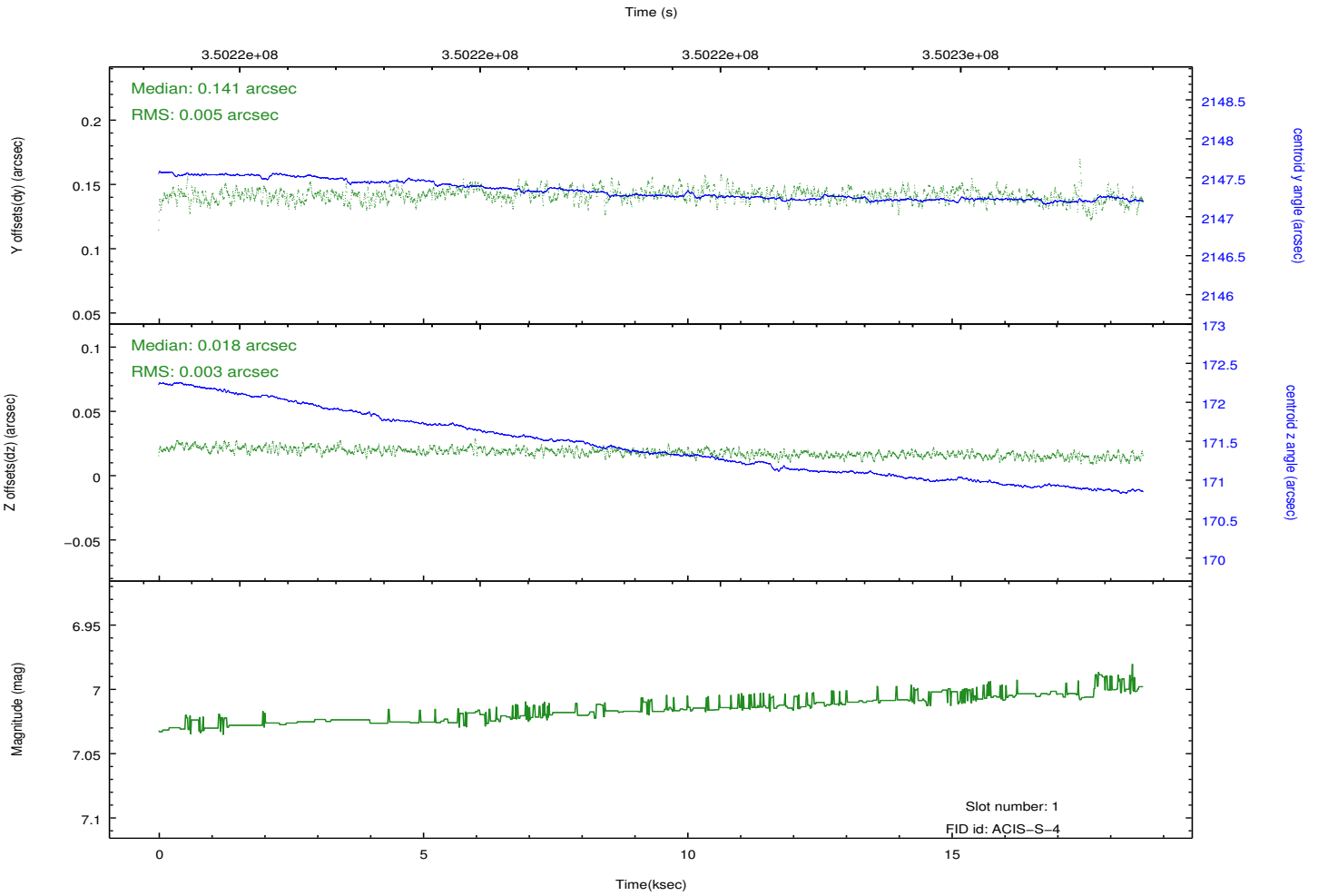
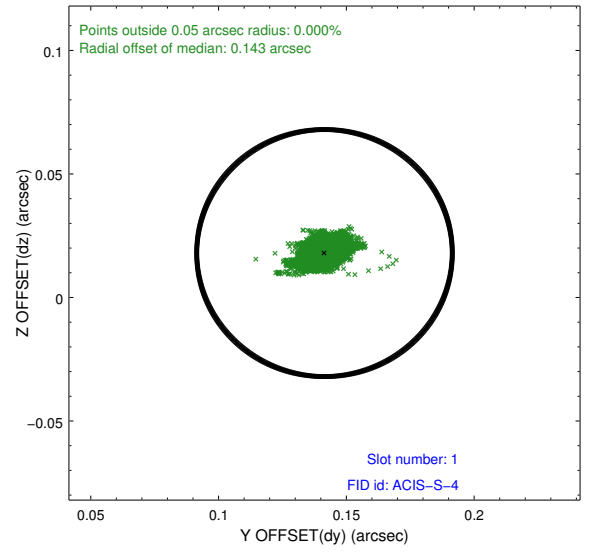
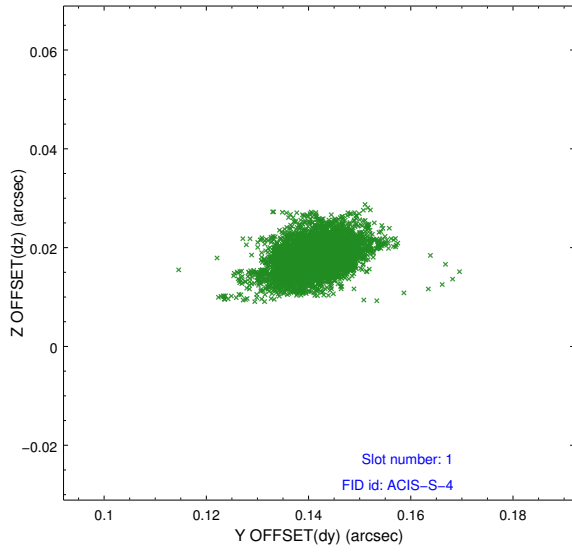


2.5 FID Slots

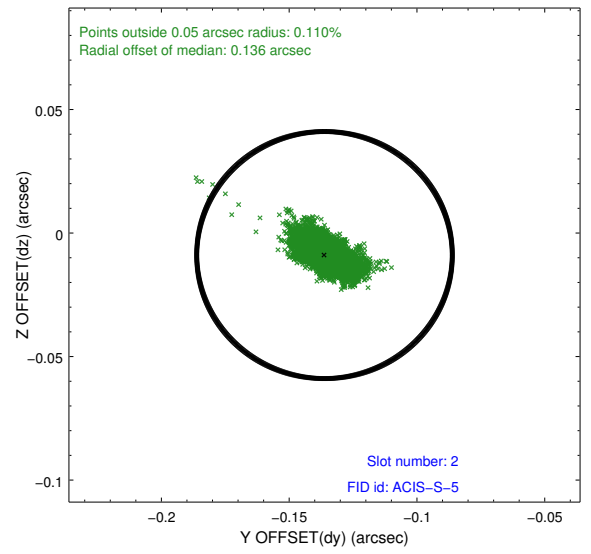
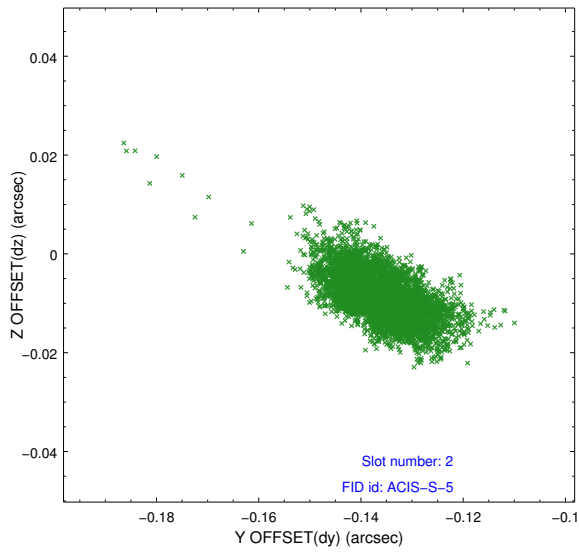
2.5.1 Slot 0



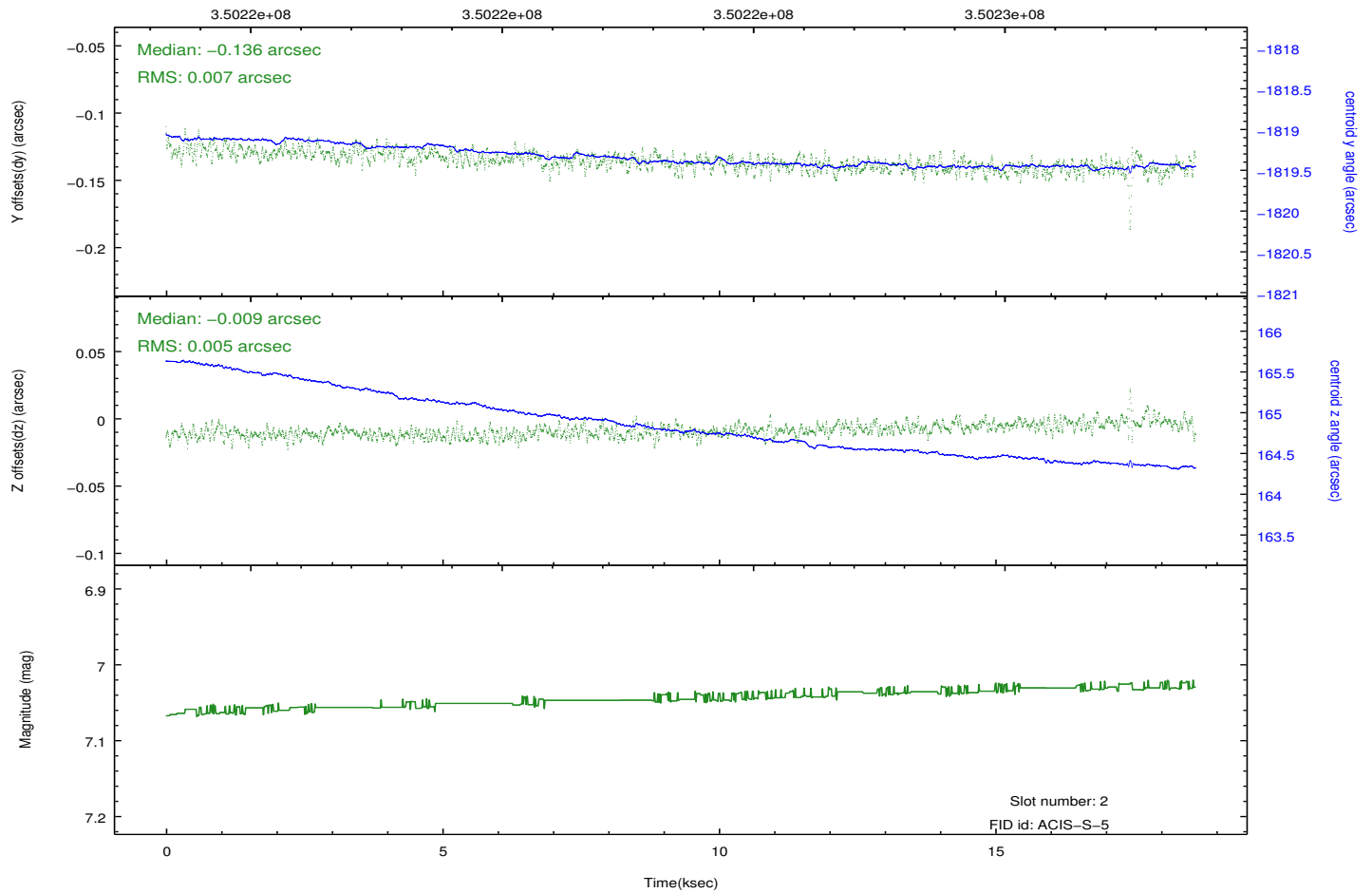
2.5.2 Slot 1



2.5.3 Slot 2



Time (s)



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.06.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	18.6175999

A.2 Comments

A spatial region of the original bias map for CCD = 2 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 = 2 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:
(11.28547, -42.22949), (11.29351, -42.23095), (11.33888, -42.09560), (11.33086, -42.09414)