

V&V Reference Report

L2 ASCDS Version : 8.4.3.1

Observation 13823 - L2 Version 3
Chandra X-Ray Center

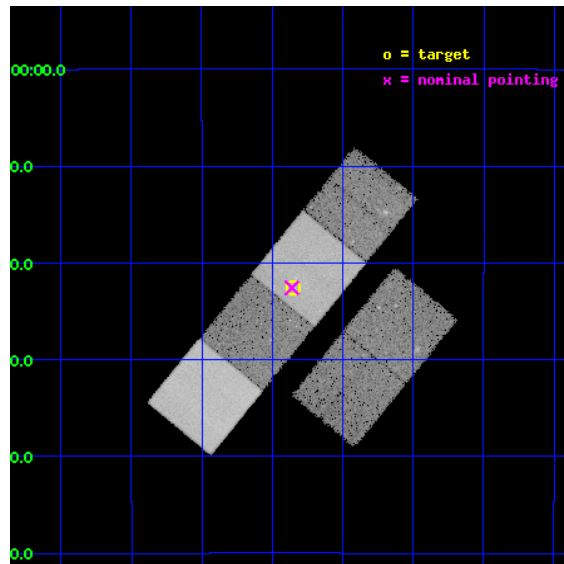
L2 Processing Date : Mar 2 2012

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1 Front

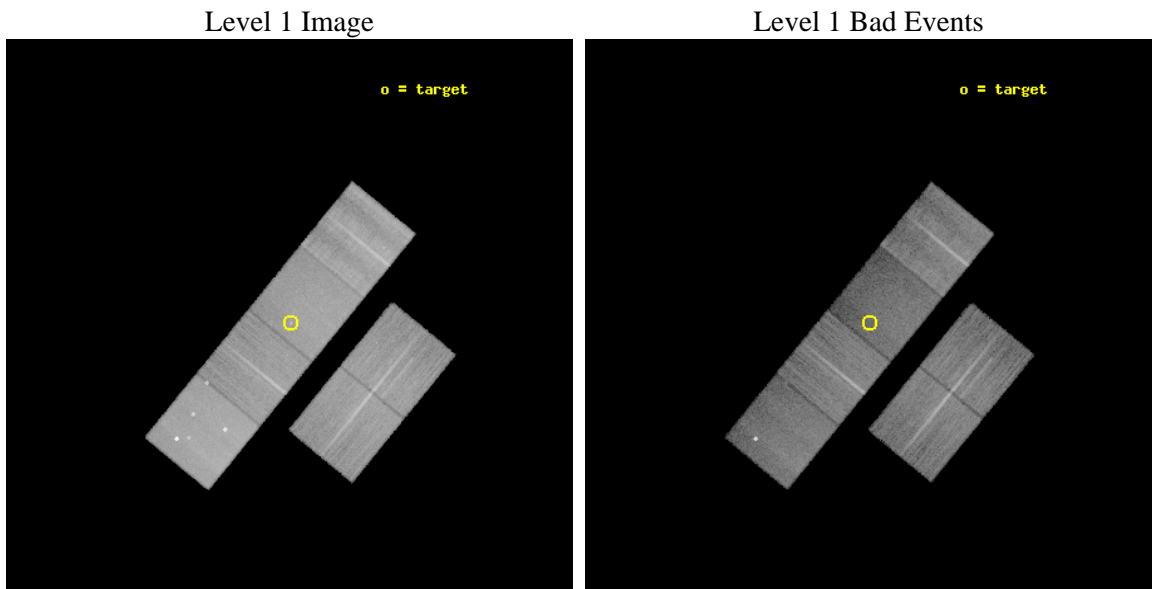
seq_num	600997	Sequence number
obs_id	13823	Observation id
title	Colliding Galaxies Arp 256 and NGC 5754/52	Proposal title
observer	Prof. Saul Rappaport	Principal investigator
object	Arp 256	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	4.712083	Observer's specified target RA [deg]
dec_targ	-10.376778	Observer's specified target Dec [deg]
ra_nom	4.7151435909979	Nominal RA [deg]
dec_nom	-10.37642678284	Nominal Dec [deg]
roll_nom	309.27305733058	Nominal Roll [deg]
revision	3	Processing version of data
ontime	29961.599888444	Sum of GTIs [s]
livetime	29582.208069947	Livetime [s]
ontime2	29961.599888444	Sum of GTIs [s]
ontime3	29961.599888444	Sum of GTIs [s]
ontime5	29961.599888444	Sum of GTIs [s]
ontime6	29958.358878076	Sum of GTIs [s]
ontime7	29961.599888444	Sum of GTIs [s]
ontime8	29958.358848214	Sum of GTIs [s]
l2events	279634	Number of level 2 events



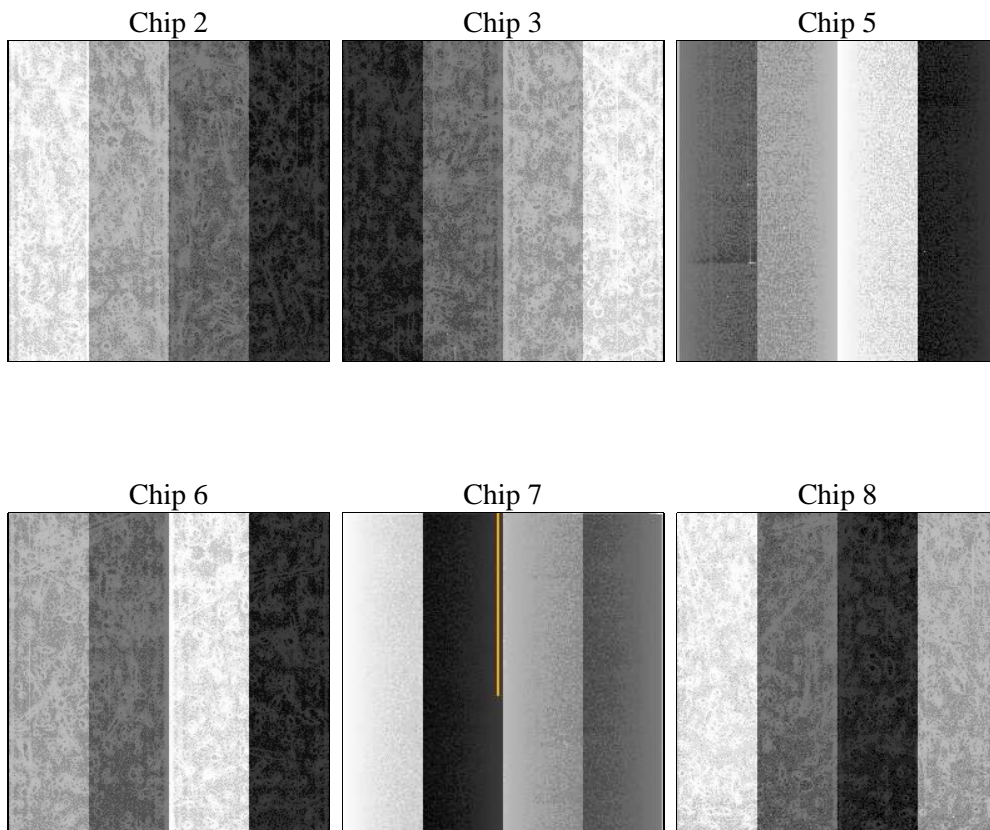
2 OBI

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	29961.599888444	Sum of GTIs [s]
caldsver	4.4.8	 	ontime2	29961.599888444	Sum of GTIs [s]
date	2012-03-02T15:50:35	Date and time of file creation	ontime3	29961.599888444	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	29961.599888444	Sum of GTIs [s]
			ontime6	29958.358878076	Sum of GTIs [s]
			ontime7	29961.599888444	Sum of GTIs [s]
			ontime8	29958.358848214	Sum of GTIs [s]
			l1events	1193728	Number of level 1 events

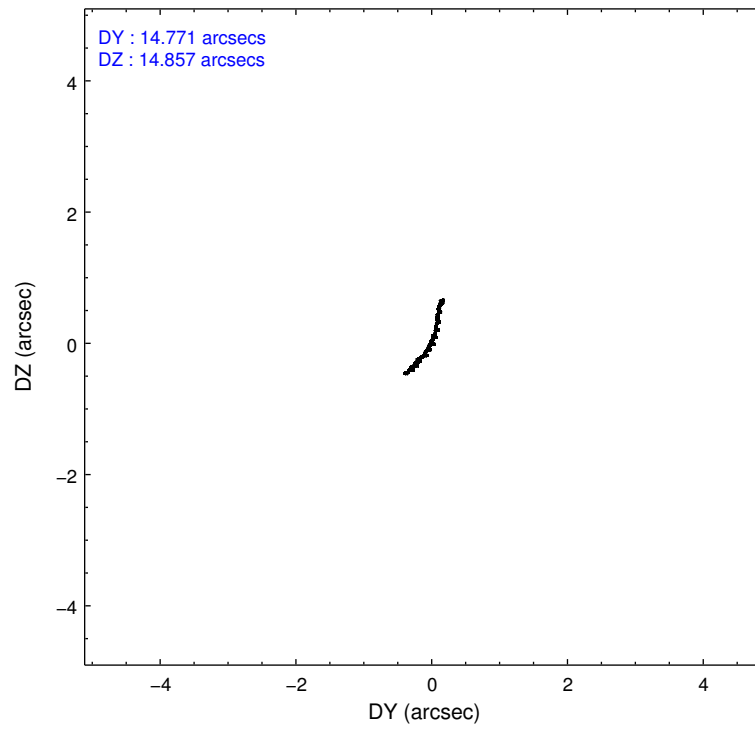
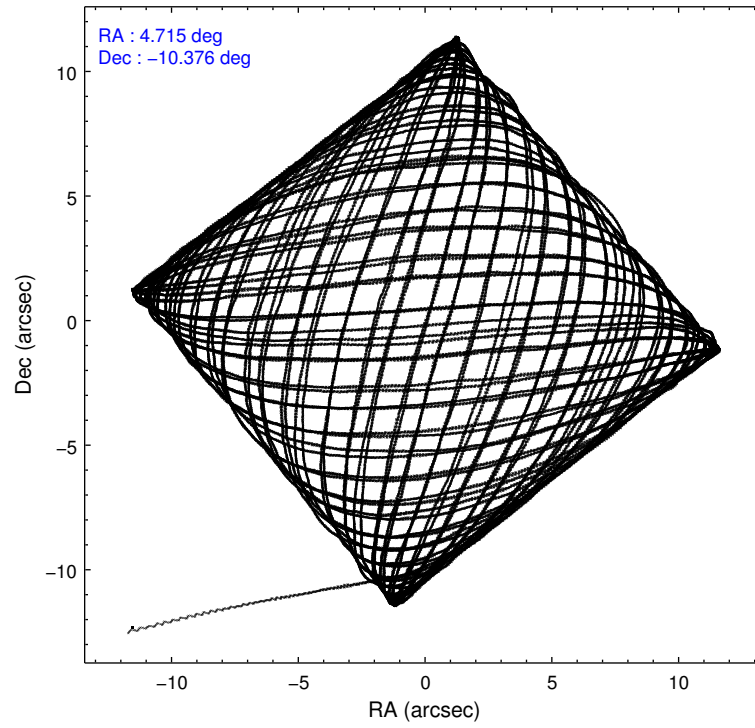
2.1.4 Events

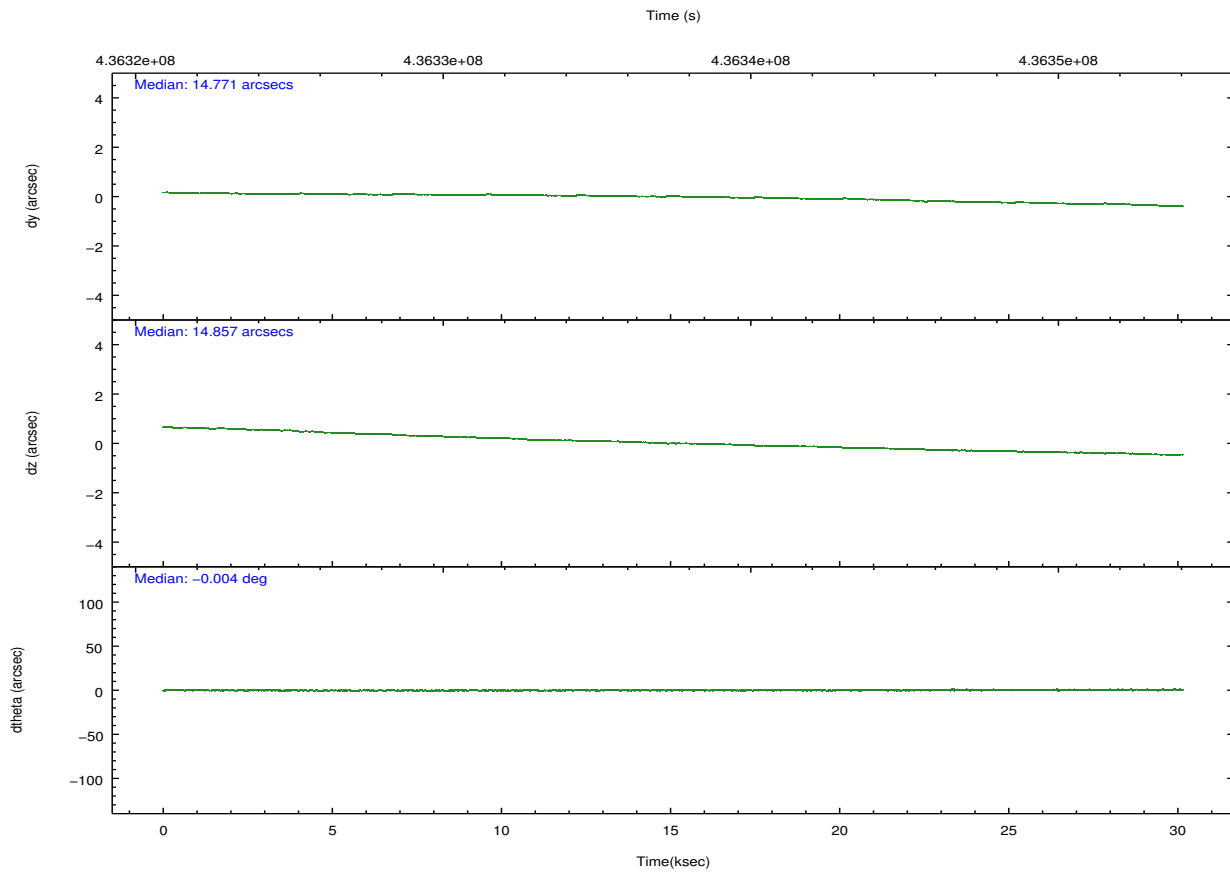
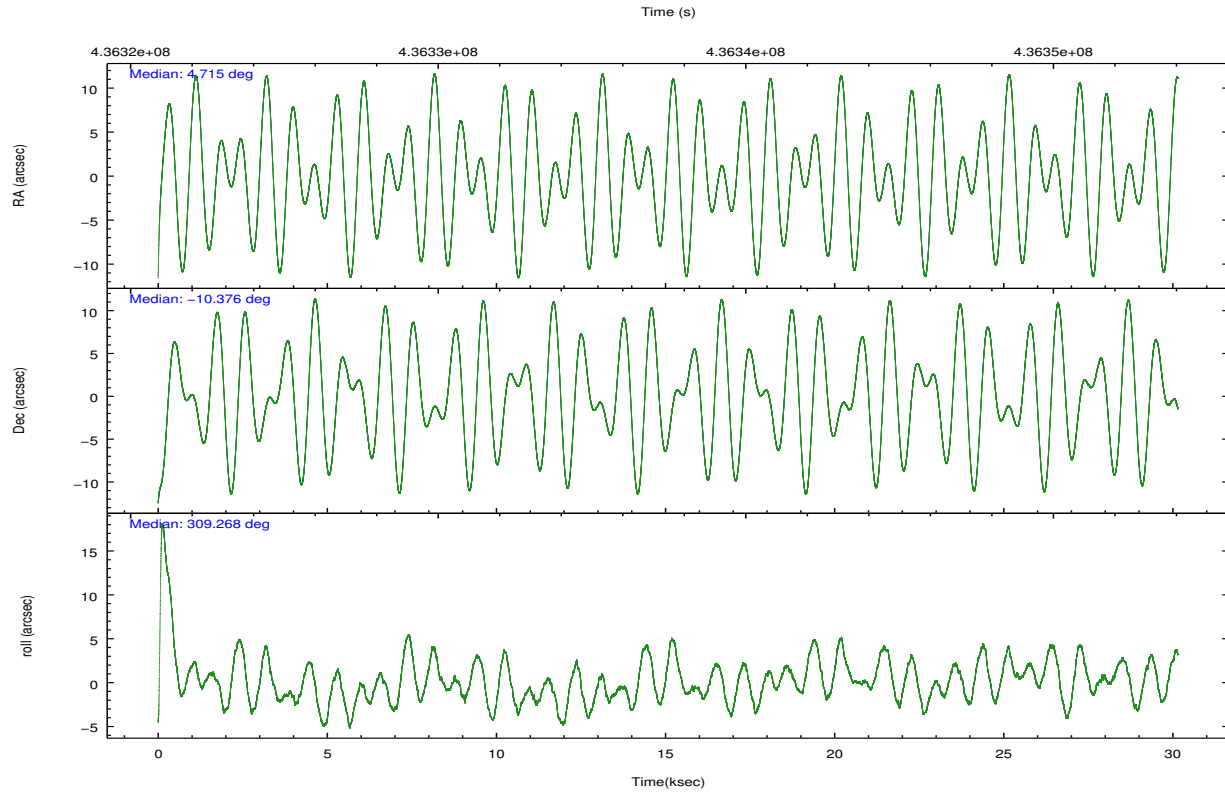
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	177251	166166	261430	174128	192990	221763	grade 0 events	6779	7061	17372	7263	9353	17374
rejected events	158239	147561	124346	154157	100040	159797		3%	4%	6%	4%	4%	7%
rejected %	89%	88%	47%	88%	51%	72%	grade 1 events	113	119	638	119	309	202
								0%	0%	0%	0%	0%	0%
							grade 2 events	4793	4119	42734	4484	20146	14850
								2%	2%	16%	2%	10%	6%
							grade 3 events	1945	1959	5058	2040	8419	6689
								1%	1%	1%	1%	4%	3%
							grade 4 events	1998	1926	4804	2037	8144	6250
								1%	1%	1%	1%	4%	2%
							grade 5 events	6153	7270	19651	7344	20810	10821
								3%	4%	7%	4%	10%	4%
							grade 6 events	3500	3543	67124	4150	46898	16806
								1%	2%	25%	2%	24%	7%
							grade 7 events	151970	140169	104049	146691	78911	148771
								85%	84%	39%	84%	40%	67%

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	4.689014	4.715143590997855	CCD I2 on	O5	Y
[deg] Pointing Dec	-10.367098	-10.37642678283963	CCD I3 on	O4	Y
[deg] Pointing Roll	309.111737	309.2730573305761	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)	436322550.184000	436321297.1714	CCD S5 on	N	N
Observation start date	2011-10-30T00:41:24	2011-10-30T00:21:37	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	436352550.184000	436353386.84809	On-chip summing requested	N	N
Observation end date	2011-10-30T09:01:24	2011-10-30T09:16:26	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



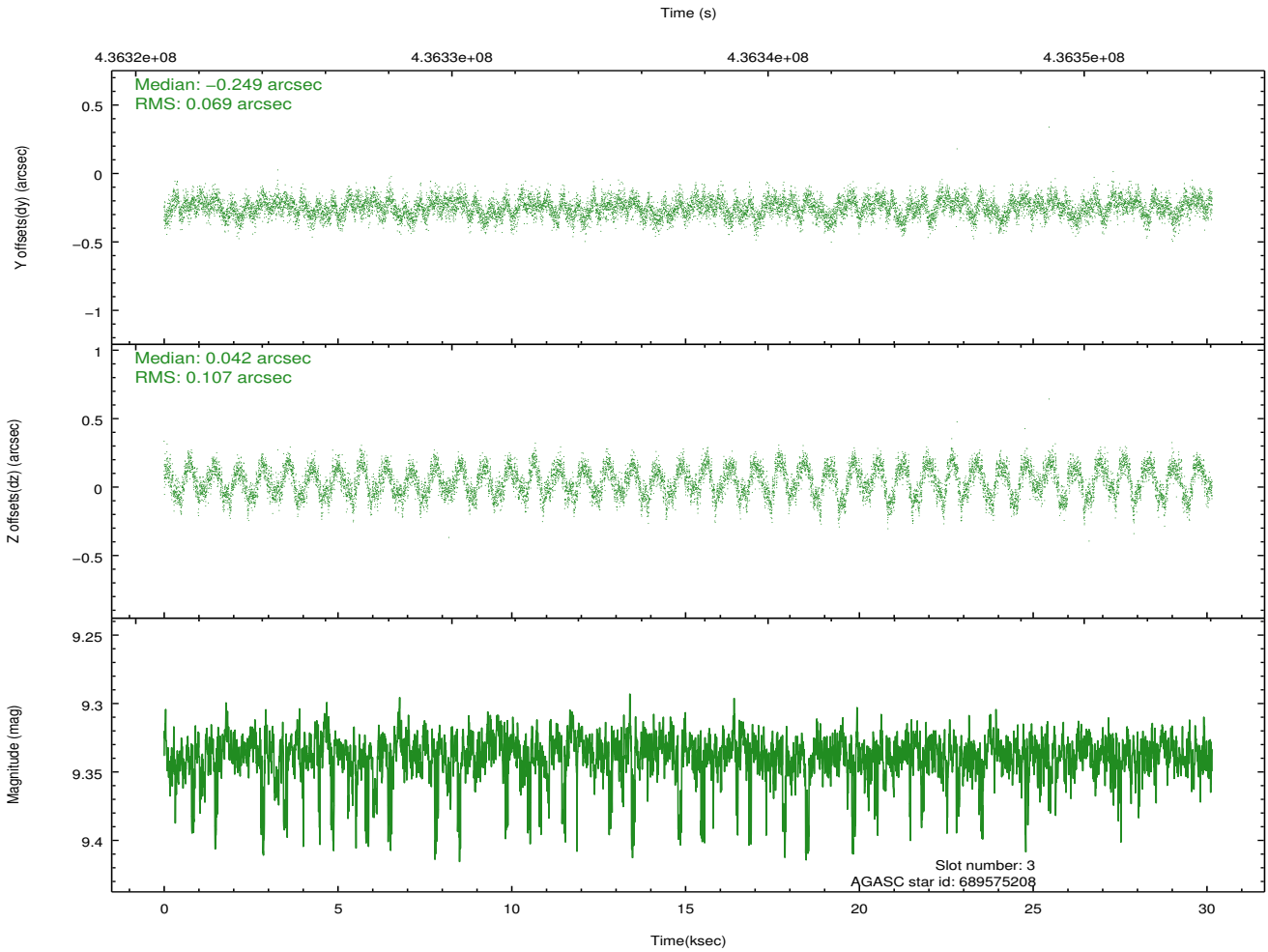
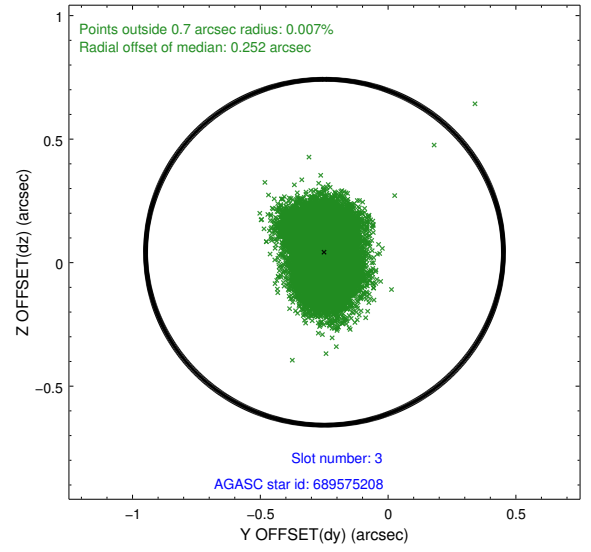
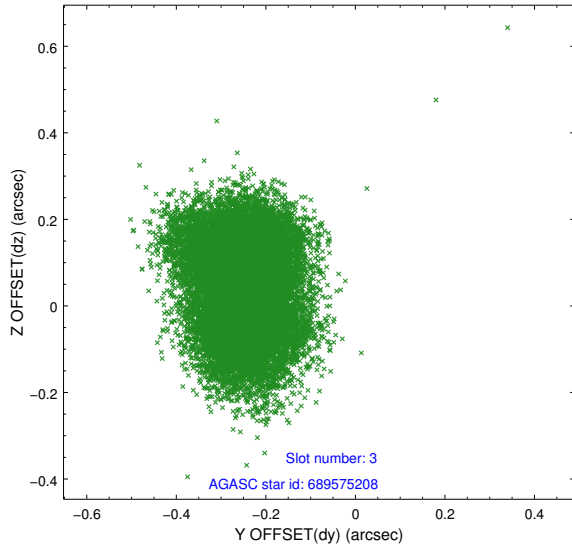


Slot Statistics

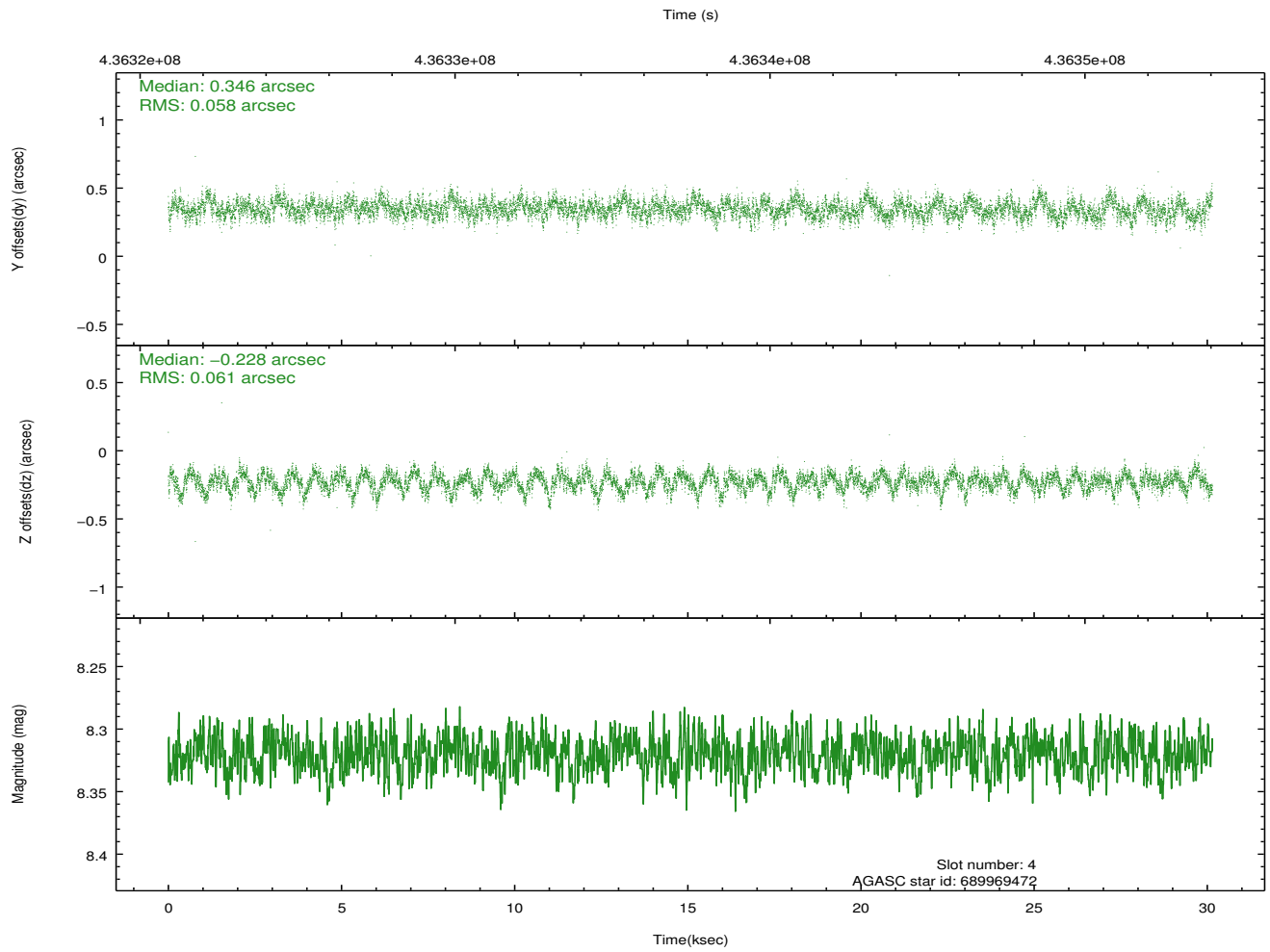
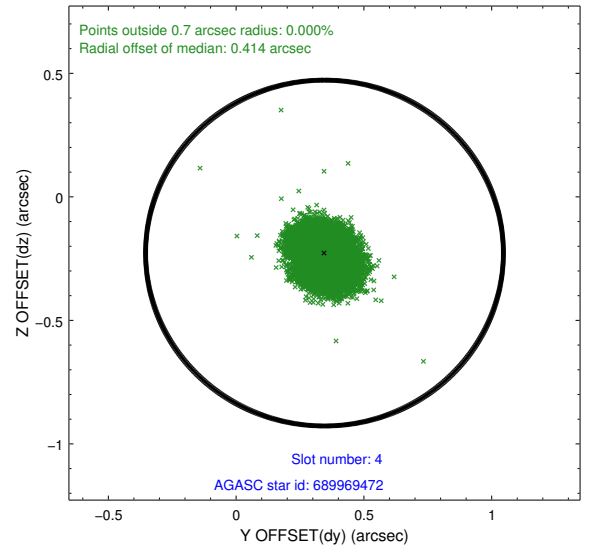
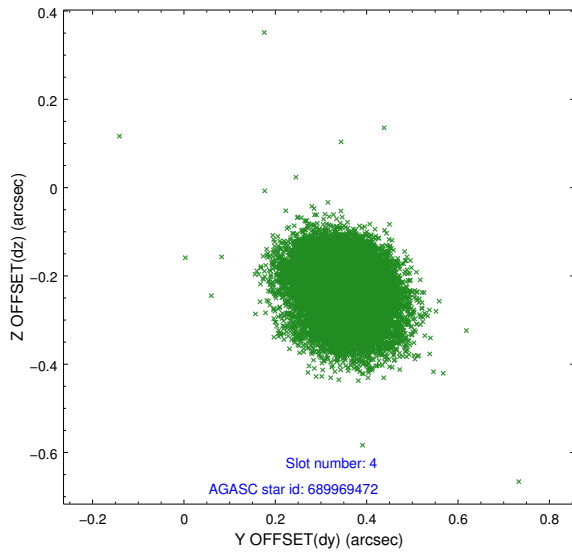
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.96	7354	-0.131	-0.062	0.013	0.020	0.000000	0.000000	-767.82	-1736.34
1	FID	ACIS-S-4	7.05	7354	0.322	0.079	0.007	0.013	0.000000	0.000000	2145.88	172.21
2	FID	ACIS-S-5	7.08	7354	-0.224	-0.009	0.012	0.019	0.000000	0.000000	-1820.66	165.88
3	GUIDE	689575208	9.34	14690	-0.249	0.042	0.138	0.210	4.773175	-9.964865	-932.66	1142.53
4	GUIDE	689969472	8.32	14702	0.346	-0.228	0.090	0.145	4.698058	-10.949403	1647.60	-1297.46
5	GUIDE	689969848	9.48	14662	0.085	-0.058	0.153	0.242	4.254037	-10.462672	-702.85	-1412.57
6	GUIDE	689969992	10.04	14683	-0.077	0.282	0.220	0.350	4.173422	-10.176534	-1683.26	-985.51
7	GUIDE	690099320	8.60	14668	-0.091	-0.022	0.089	0.156	5.340153	-10.683421	2338.70	1067.90

2.4 Star Slots

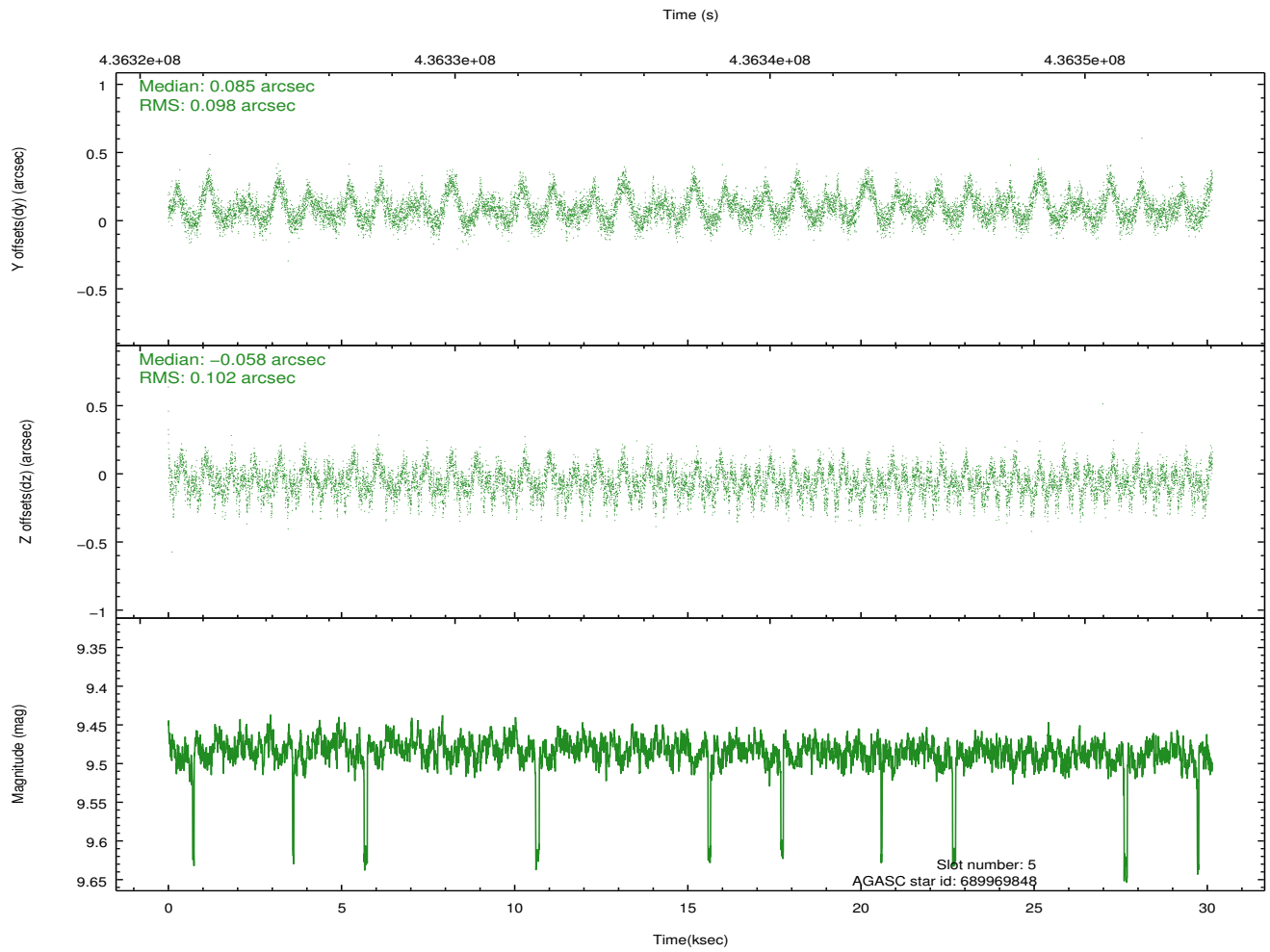
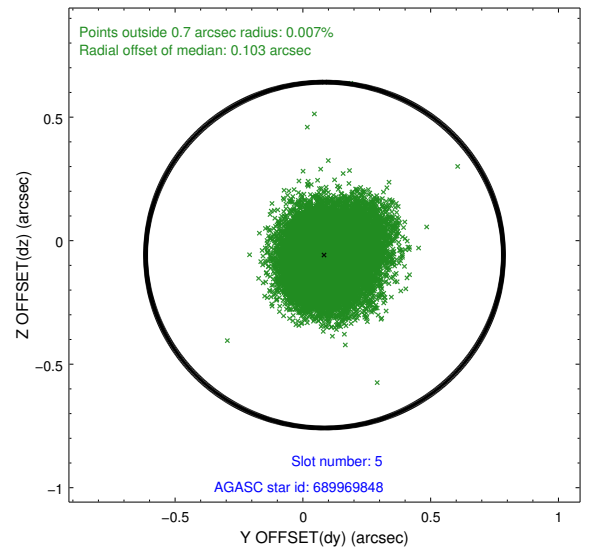
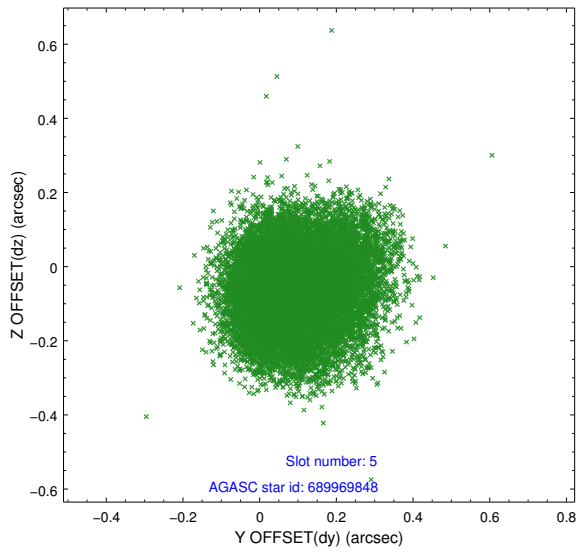
2.4.1 Slot 3



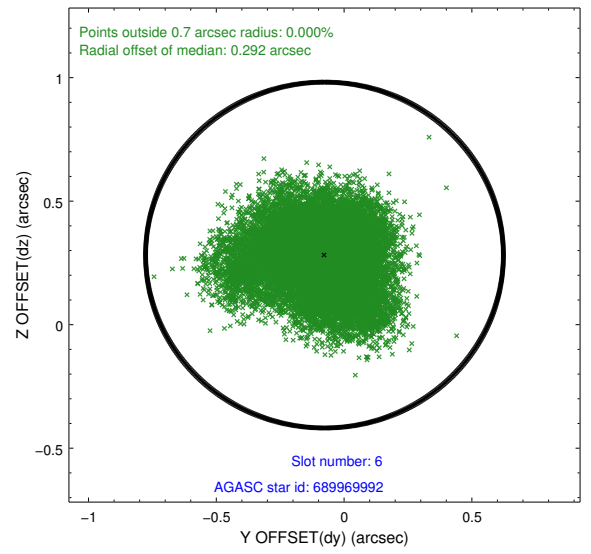
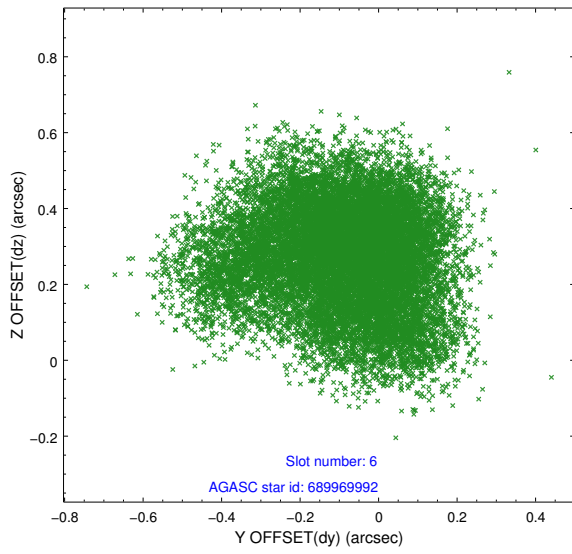
2.4.2 Slot 4



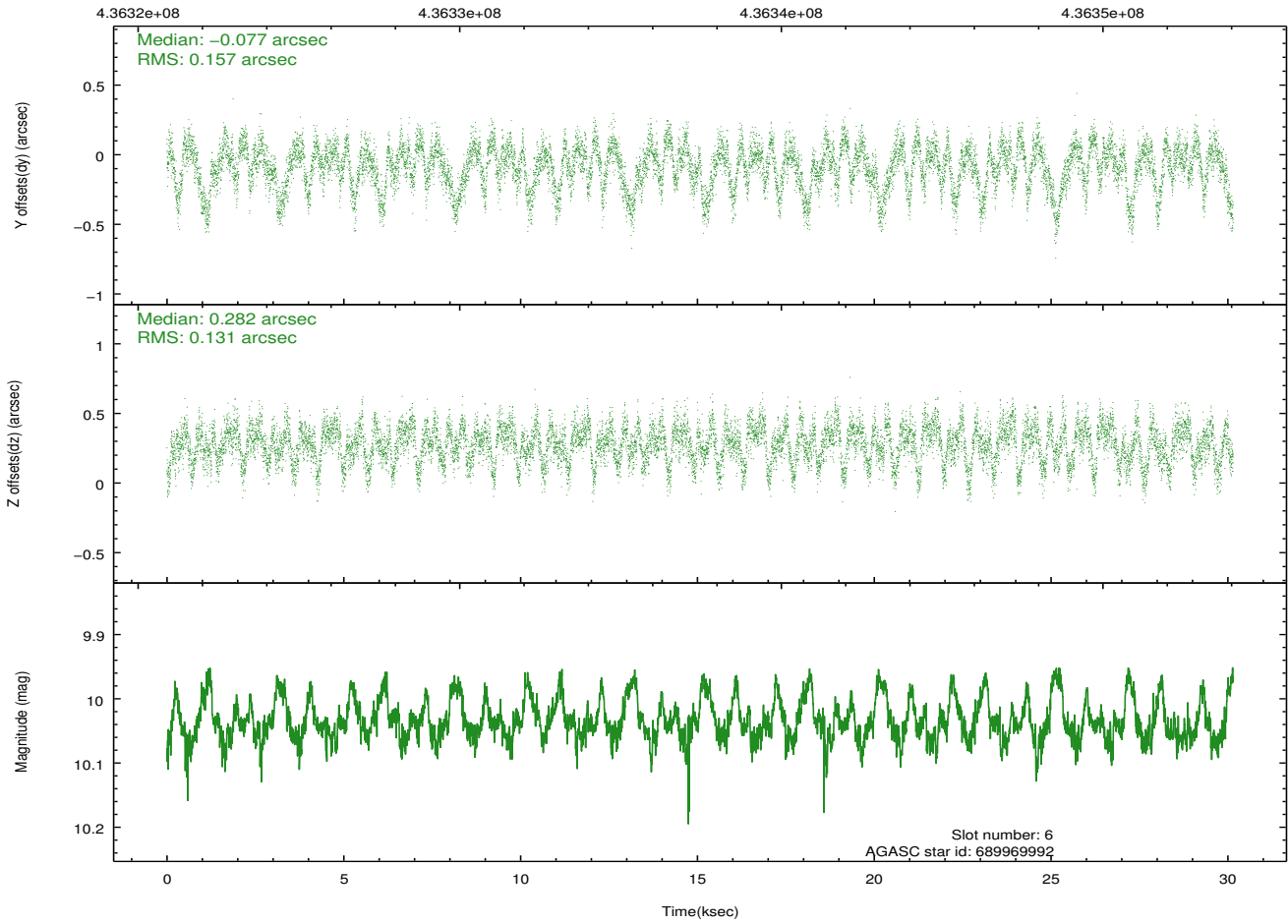
2.4.3 Slot 5



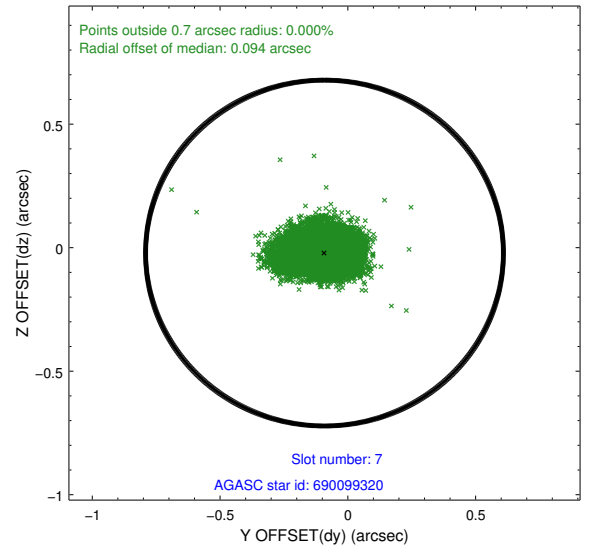
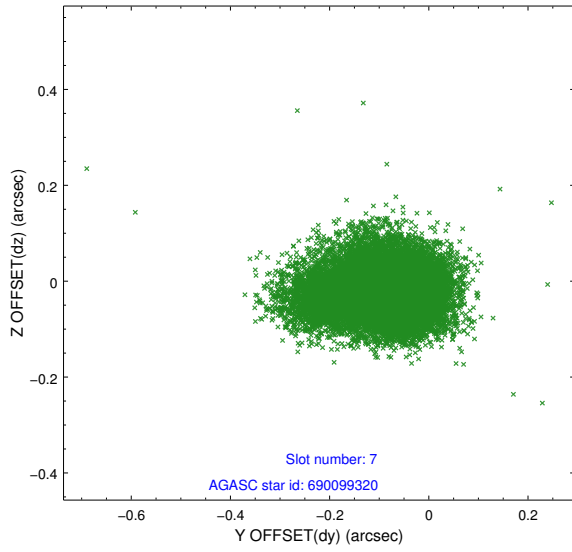
2.4.4 Slot 6



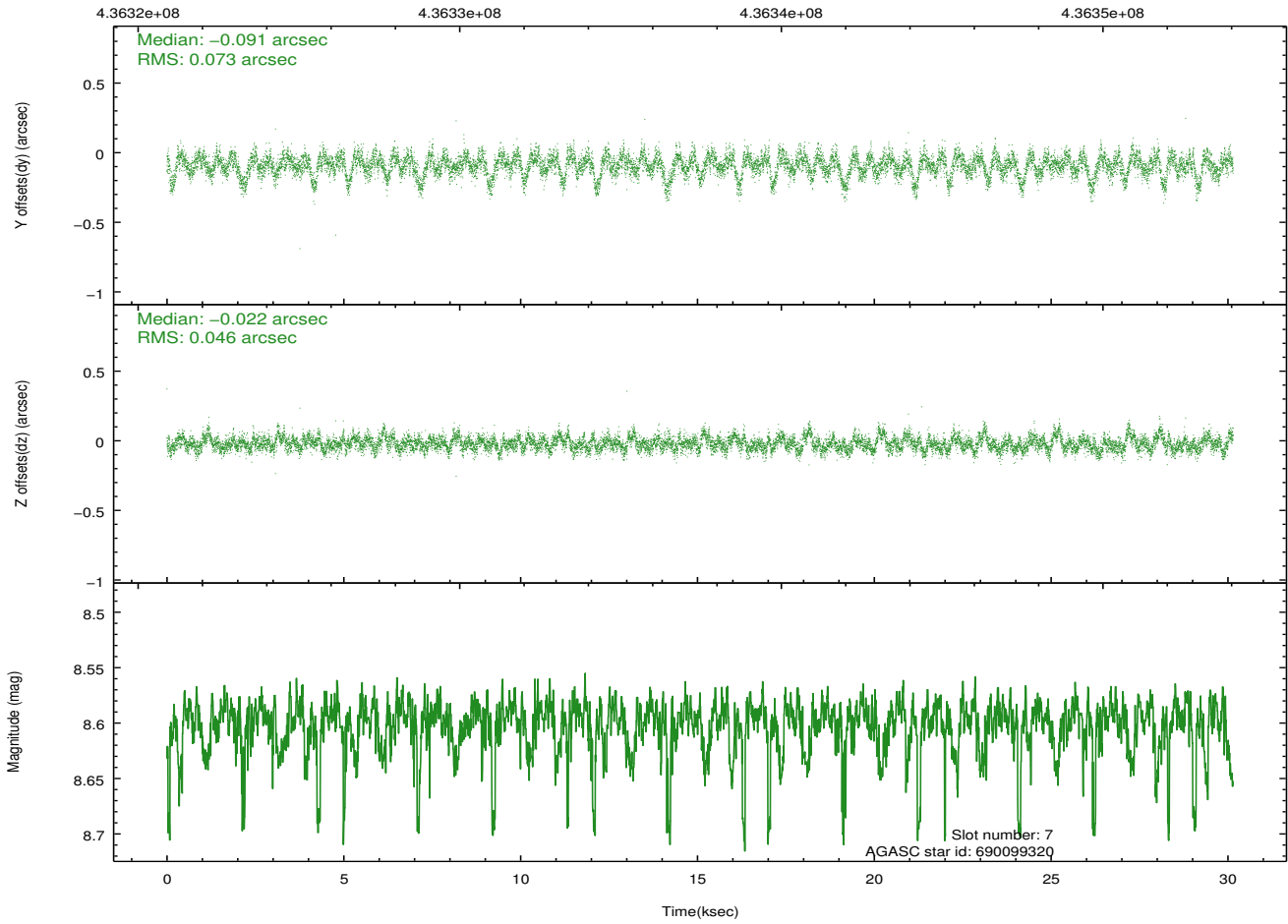
Time (s)



2.4.5 Slot 7

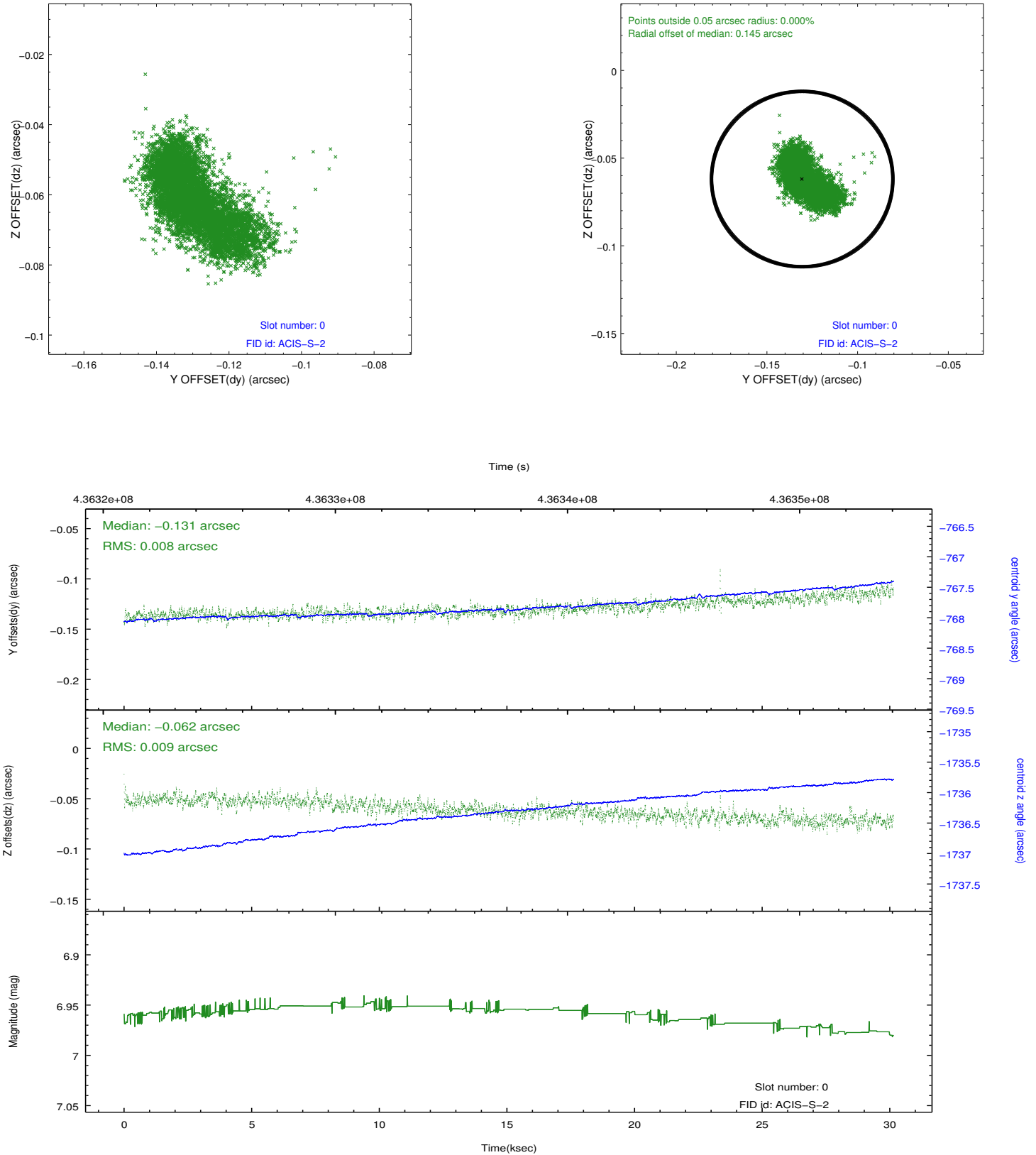


Time (s)

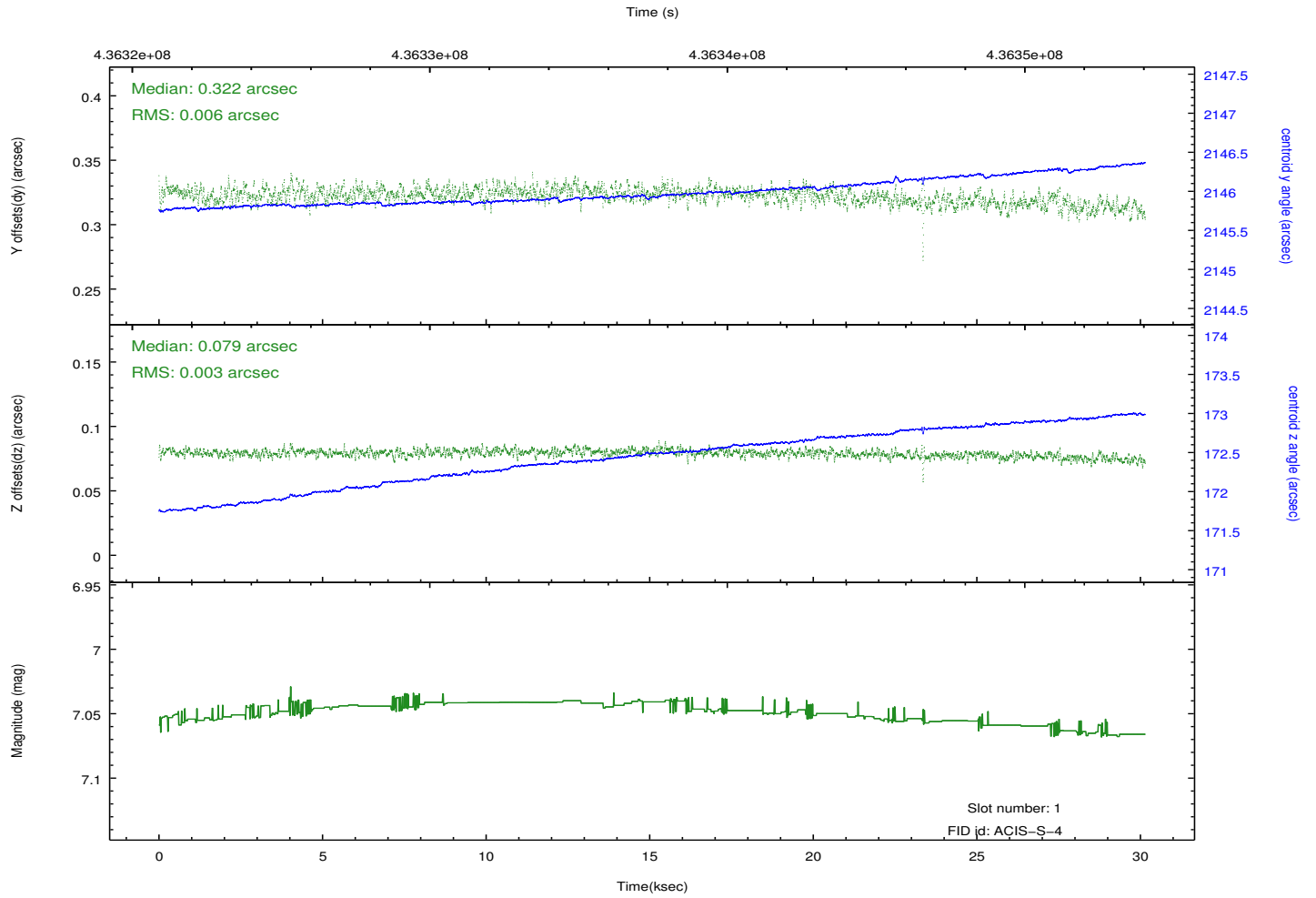
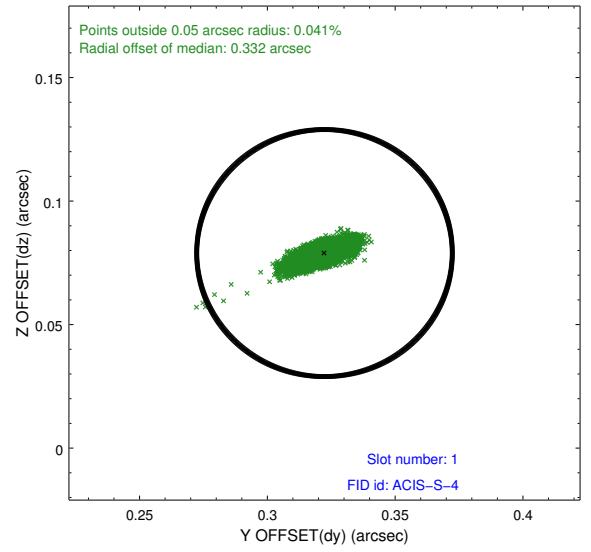
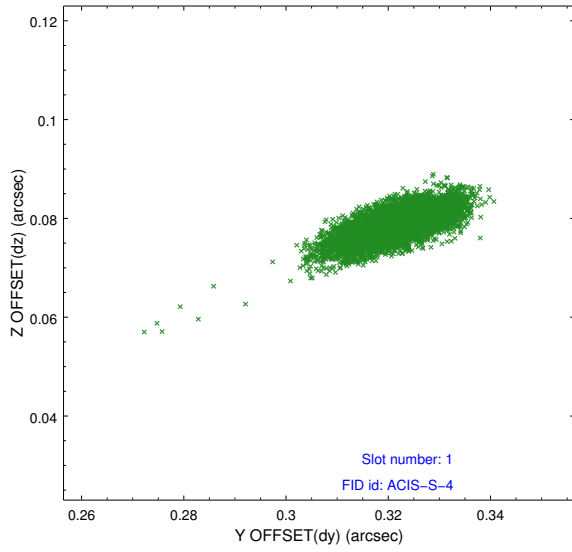


2.5 FID Slots

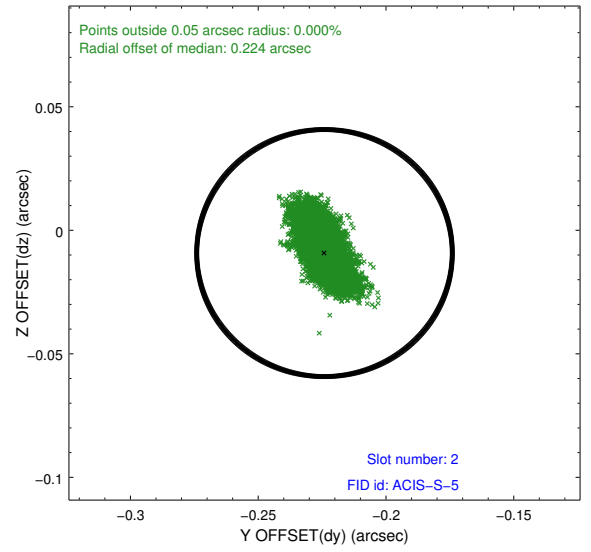
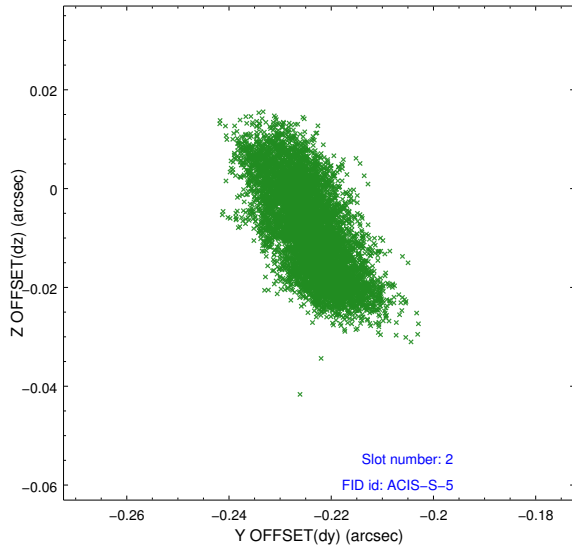
2.5.1 Slot 0



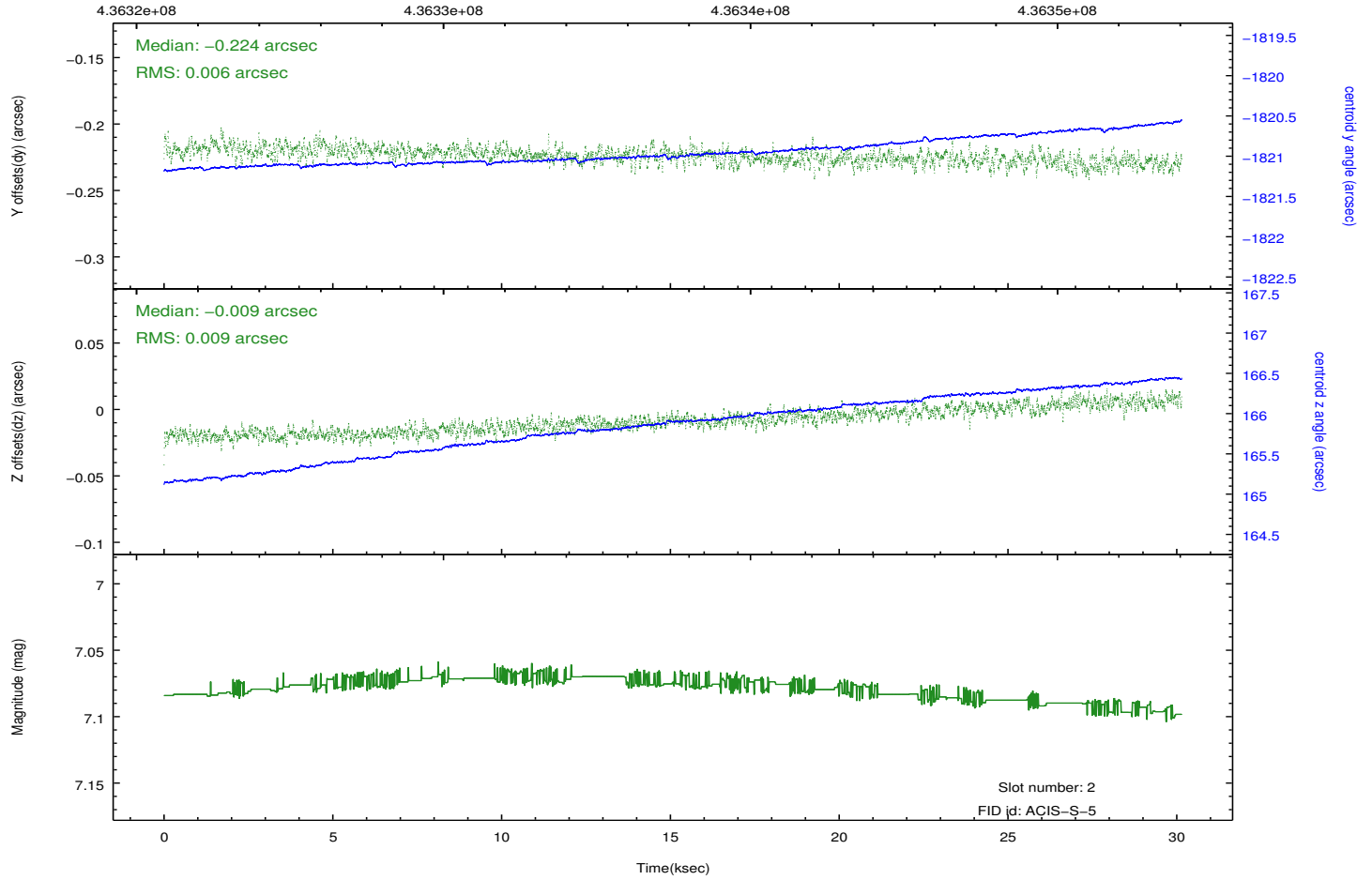
2.5.2 Slot 1



2.5.3 Slot 2



Time (s)



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.03.04
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	29.961599888444

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:
(4.52864, -10.34639), (4.52487, -10.34940), (4.61461, -10.45740), (4.61837, -10.45439)