

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 2700 - L2 Version 4
Chandra X-Ray Center

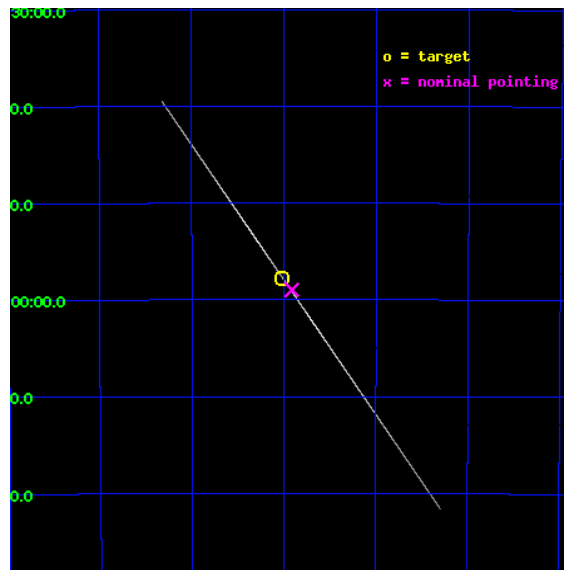
L2 Processing Date : Sep 27 2012

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Parameters	4
2.1.3	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
3	Gratings	17
3.1	HEG Arm	17
3.2	MEG Arm	19
A	Summary	21
A.1	Status	21
A.2	Comments	21

1 Front

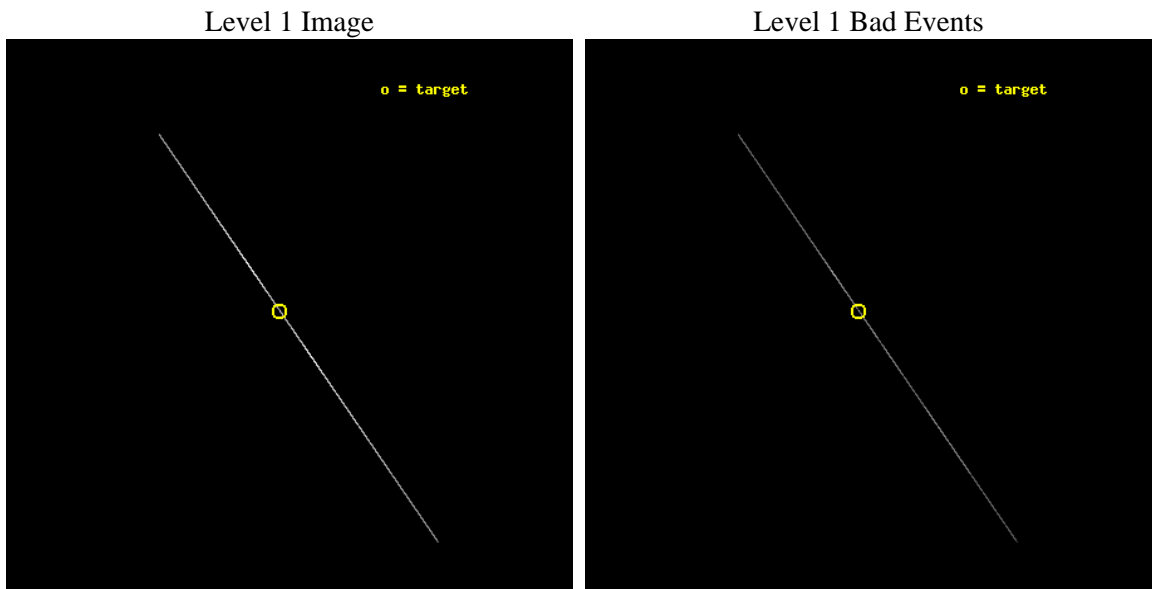
seq_num	400180	Sequence number
obs_id	2700	Observation id
title	RESOLVING GALACTIC BLACK HOLE ACCRETION GEOMETRY WITH CHANDRA	Prop
observer	Prof. Walter Lewin	Principal investigator
object	XTE J1650-500	Source name
ra_targ	252.504167	Observer's specified target RA [deg]
dec_targ	-49.9625	Observer's specified target Dec [deg]
ra_nom	252.47865403107	Nominal RA [deg]
dec_nom	-49.983056797718	Nominal Dec [deg]
roll_nom	235.28155381258	Nominal Roll [deg]
revision	4	Processing version of data
ontime	28612.501198739	Sum of GTIs [s]
livetime	28500.733615931	Livetime [s]
ontime4	28666.5	Sum of GTIs [s]
ontime5	28666.5	Sum of GTIs [s]
ontime6	20850.55698964	Sum of GTIs [s]
ontime7	28612.501198739	Sum of GTIs [s]
ontime8	23316.602158815	Sum of GTIs [s]
ontime9	28646.080386832	Sum of GTIs [s]
l2events	9609171	Number of level 2 events



2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Parameters

obi_num	0	Obi number	sched_exp_time	29000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	28612.501198739	Sum of GTIs [s]
caldbver	4.5.1.1	 	ontime4	28666.5	Sum of GTIs [s]
date	2012-09-26T04:02:44	Date and time of file creation	ontime5	28666.5	Sum of GTIs [s]
revision	4	Processing version of data	ontime6	20850.55698964	Sum of GTIs [s]
			ontime7	28612.501198739	Sum of GTIs [s]
			ontime8	23316.602158815	Sum of GTIs [s]
			ontime9	28646.080386832	Sum of GTIs [s]
			l1events	10493128	Number of level 1 events

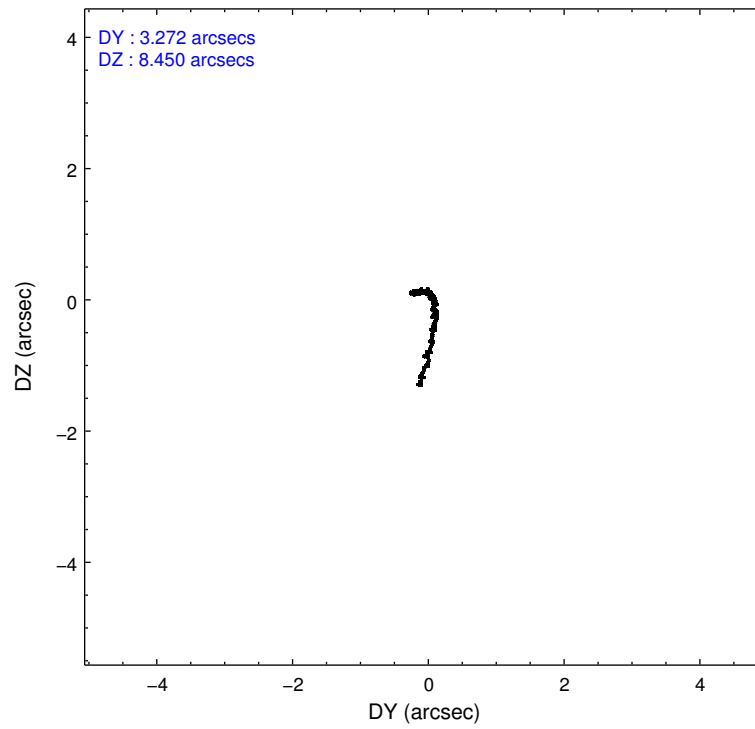
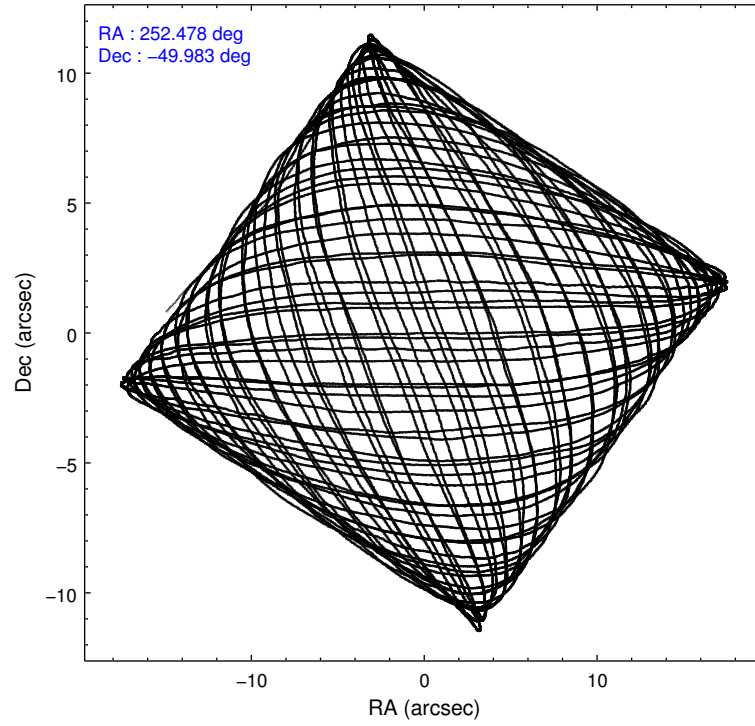
2.1.3 Events

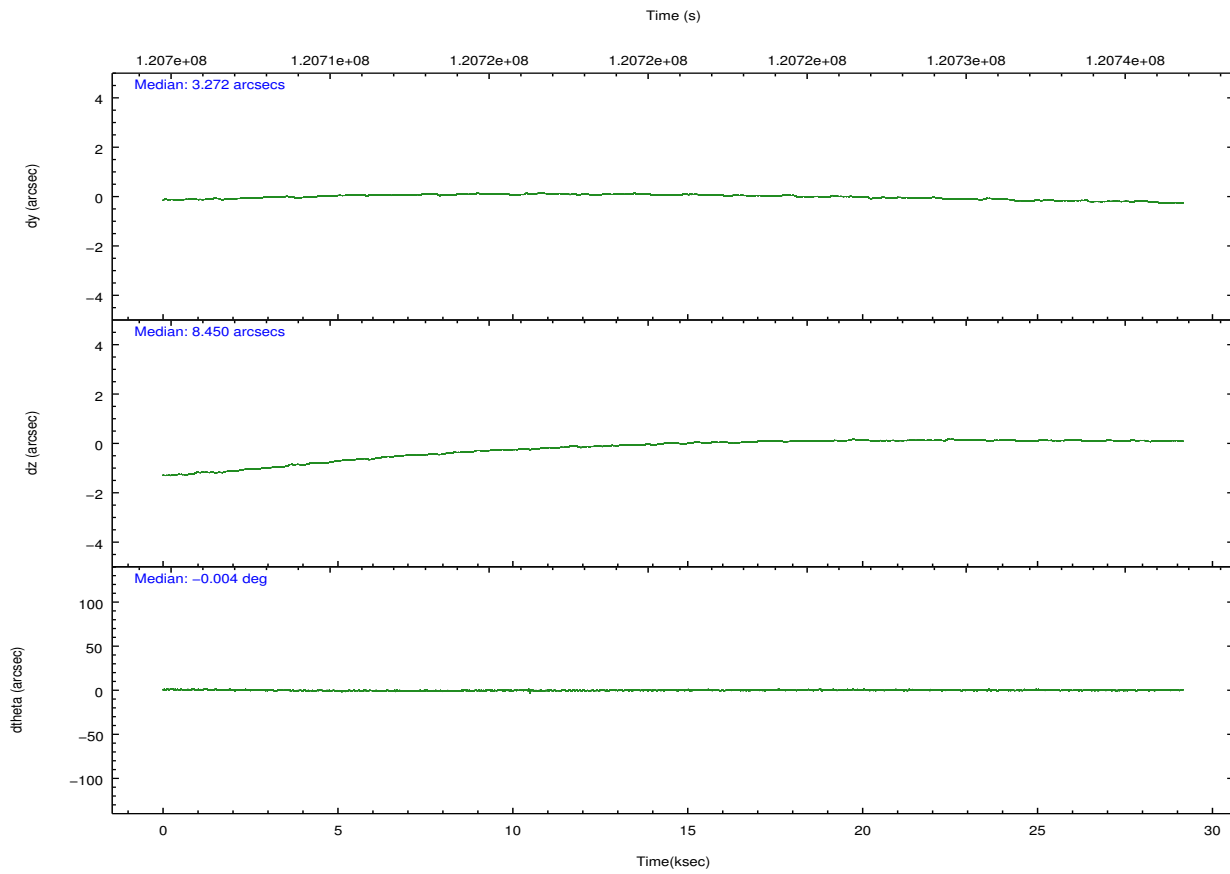
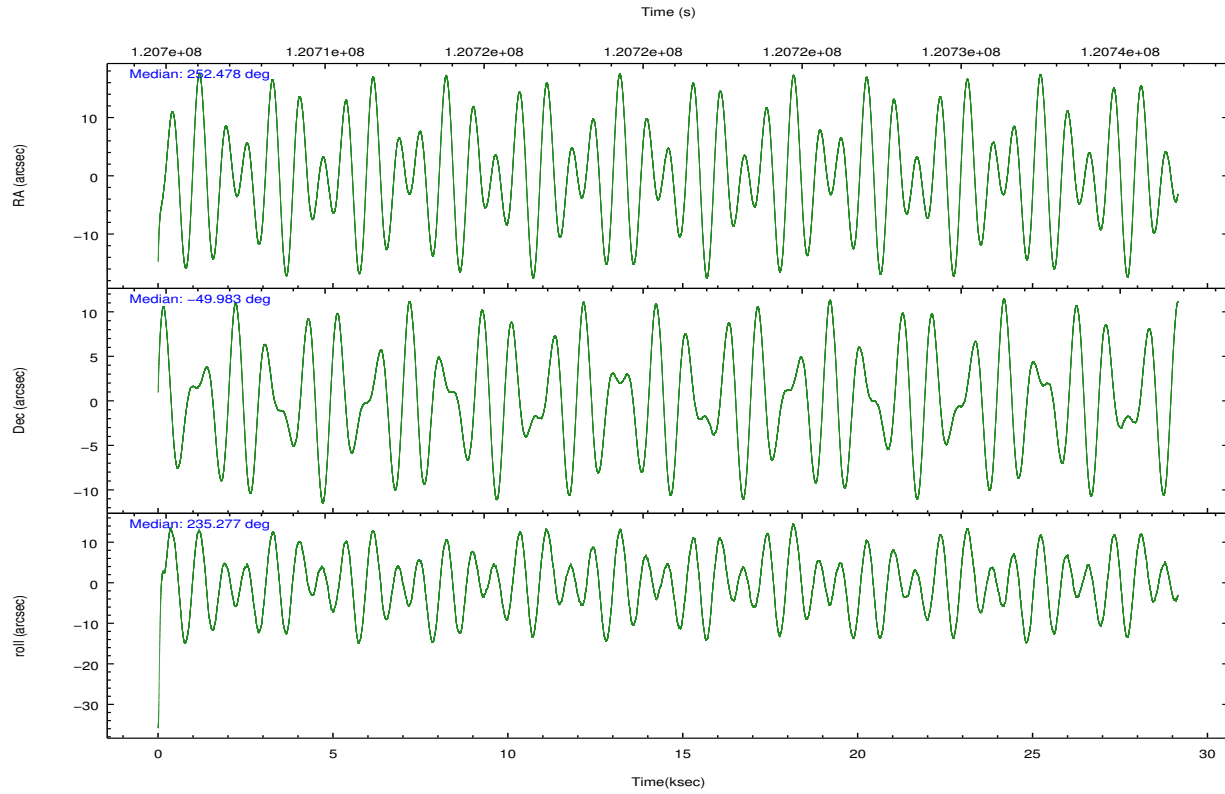
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	325447	1106736	3204722	2188504	3026103	641616	grade 0 events	6086	110656	19210	221477	55905	19661
rejected events	7179	29221	17324	77386	19394	9192		1%	9%	0%	10%	1%	3%
rejected %	2%	2%	0%	3%	0%	1%	grade 1 events	102	238	120	6033	270	136
								0%	0%	0%	0%	0%	0%
							grade 2 events	281790	582430	2940578	774684	2737048	562860
								86%	52%	91%	35%	90%	87%
							grade 3 events	4600	32686	3594	125900	12802	4657
								1%	2%	0%	5%	0%	0%
							grade 4 events	4652	32451	3521	122856	12276	4834
								1%	2%	0%	5%	0%	0%
							grade 5 events	7048	28777	16856	71186	19124	8988
								2%	2%	0%	3%	0%	1%
							grade 6 events	21169	319498	220843	866368	188678	40480
								6%	28%	6%	39%	6%	6%
							grade 7 events	0	0	0	0	0	0
								0%	0%	0%	0%	0%	0%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-456789	ACIS-456789	Obspar file type	PREDICTED	ACTUAL
Grating	HETG	HETG	Obspar update status	NONE	UPDATED
Data mode	CC33_GRADED	CC33_GRADED	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	252.481663	252.4786540310708	Subarray requested	NONE	NONE
[deg] Pointing Dec	-49.955874	-49.98305679771756	Alternating exposures requested	N	N
[deg] Pointing Roll	235.127243	235.2815538125793	[s] Primary exposure time	0.000000	0
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-194.132523	-194.1227414875429			
[mm] SIM translation stage offset	4	3.990218904535112			
[s] Observation start time (MET)	120706364.184000	120705107.1909			
Observation start date	2001-10-29T01:31:40	2001-10-29T01:11:47			
[s] Observation end time (MET)	120735364.184000	120736186.72964			
Observation end date	2001-10-29T09:35:00	2001-10-29T09:49:46			
Read mode	CONTINUOUS	CONTINUOUS			

2.3 Aspect





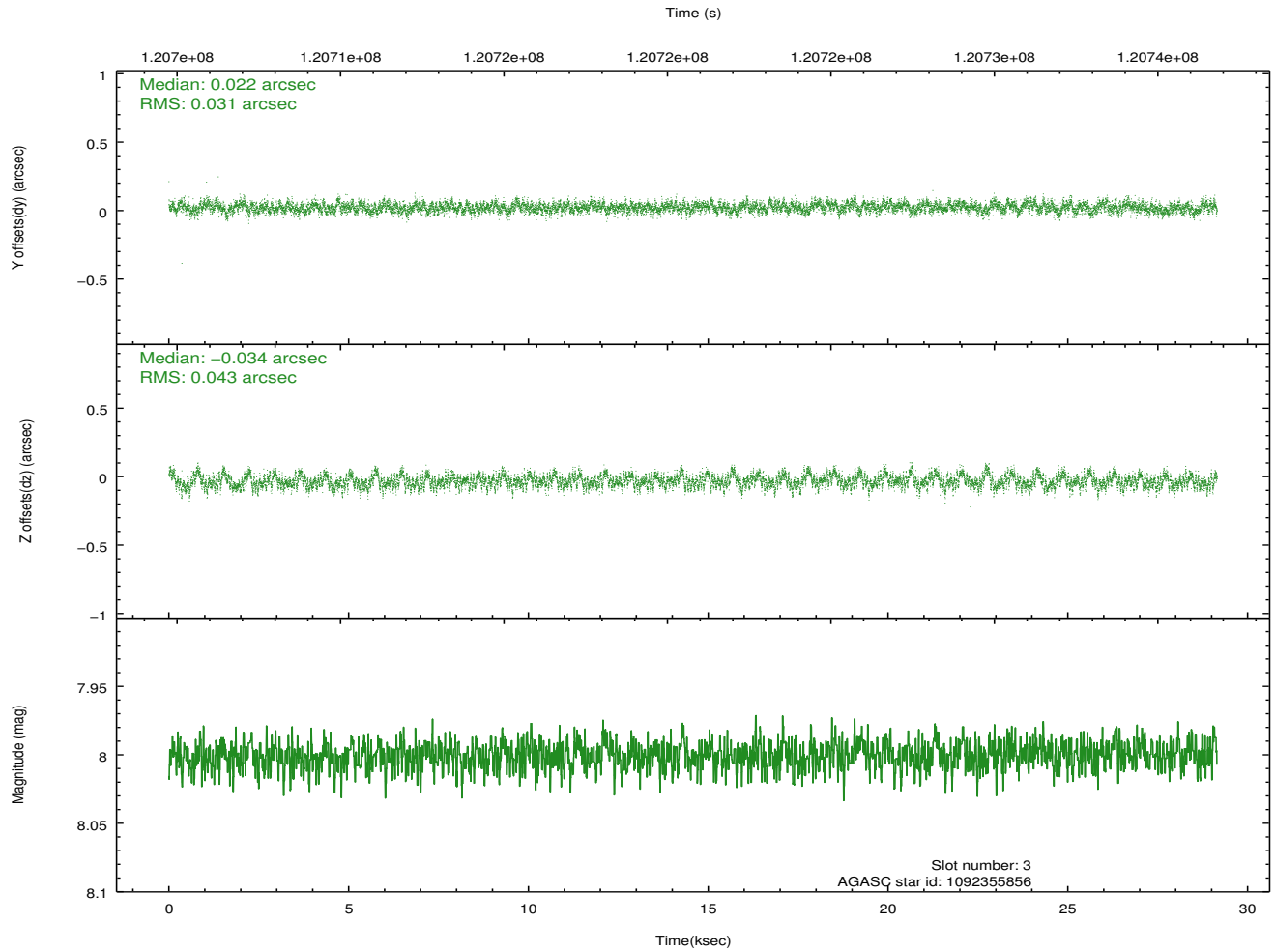
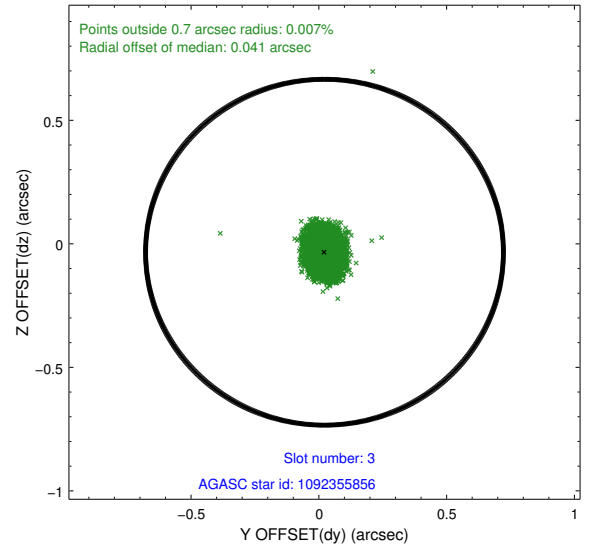
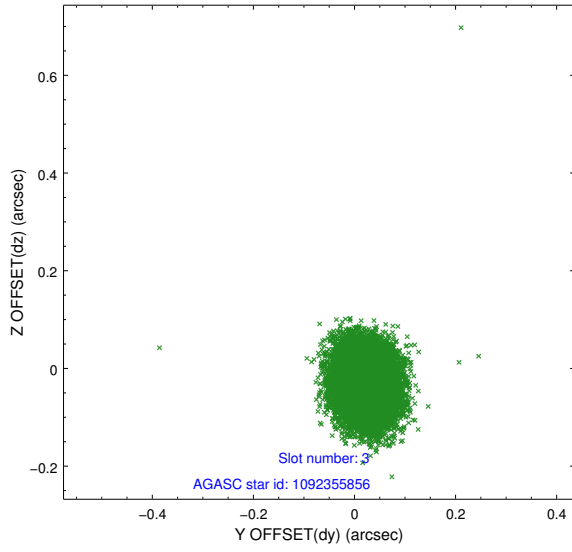
Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.12	7110	-0.023	0.033	0.008	0.013	0.000000	0.000000	-756.17	-1647.30
1	FID	ACIS-S-4	7.20	7111	0.020	0.002	0.012	0.020	0.000000	0.000000	2157.10	261.10
2	FID	ACIS-S-5	7.24	7111	-0.028	-0.026	0.009	0.016	0.000000	0.000000	-1808.92	254.82
3	GUIDE	1092355856	8.00	14222	0.022	-0.034	0.056	0.090	252.380362	-50.402230	1450.81	728.56
4	GUIDE	1092357952	8.63	14222	-0.091	0.004	0.071	0.115	252.624295	-49.307047	-2107.90	-1060.44
5	GUIDE	1092487776	8.60	14220	-0.005	-0.039	0.082	0.129	253.418062	-50.236939	-392.43	2355.38
6	GUIDE	1092887464	9.13	14219	0.112	0.146	0.074	0.120	252.580430	-50.702145	2074.97	1721.79
7	GUIDE	1092355456	9.91	14138	-0.031	-0.076	0.134	0.224	252.219249	-49.433813	-1190.10	-1577.70

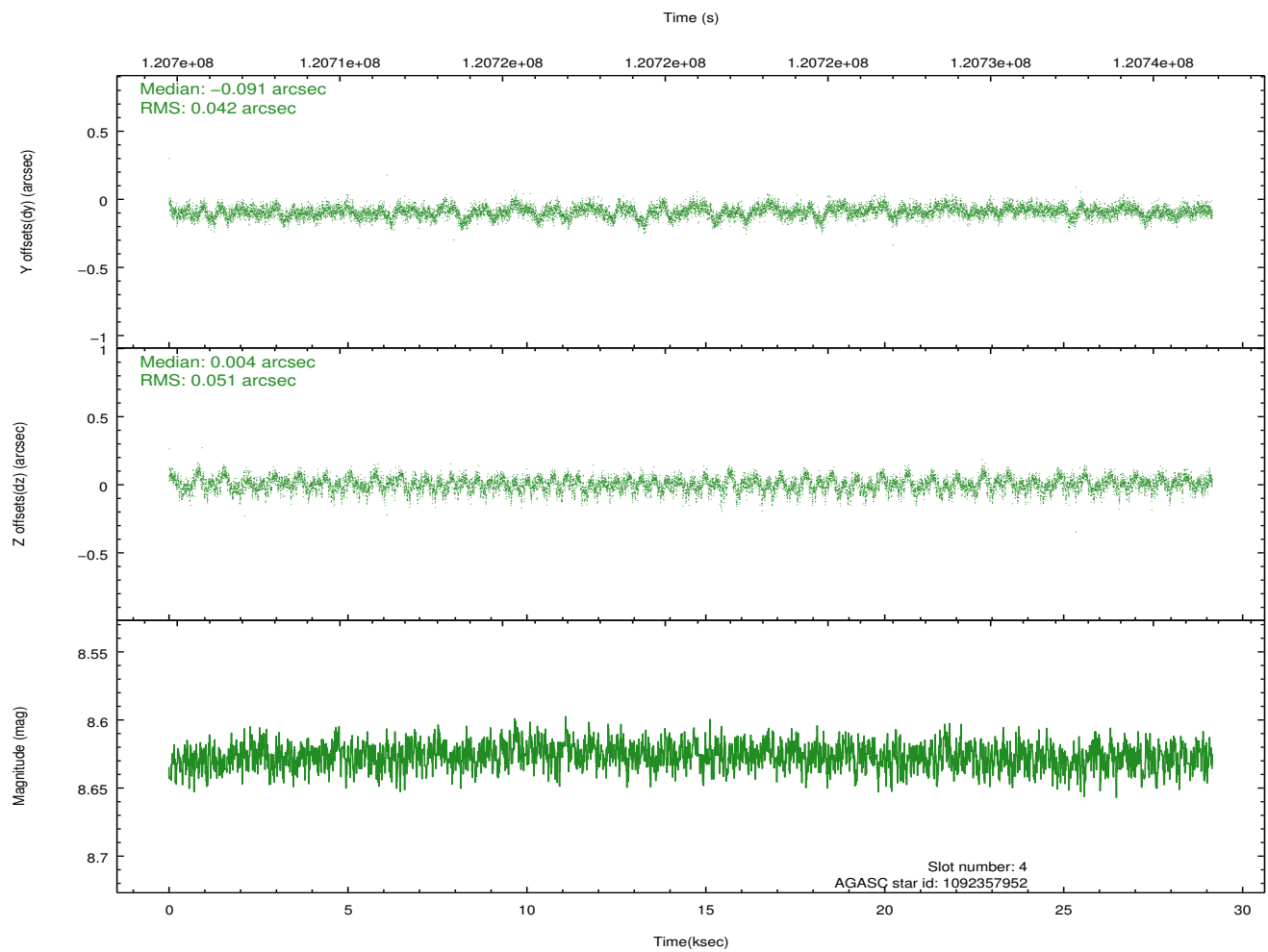
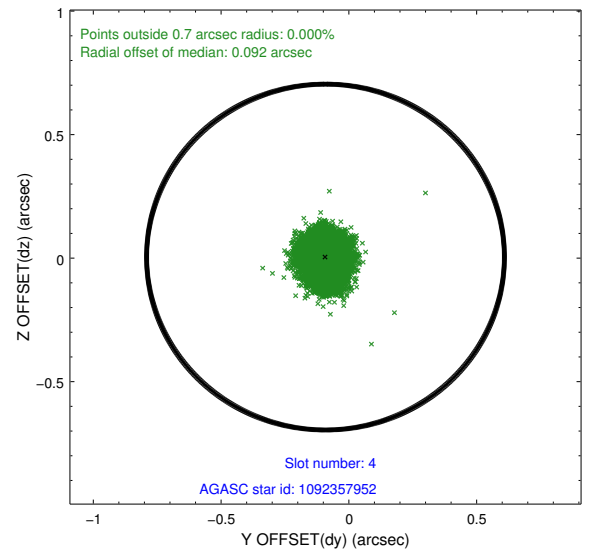
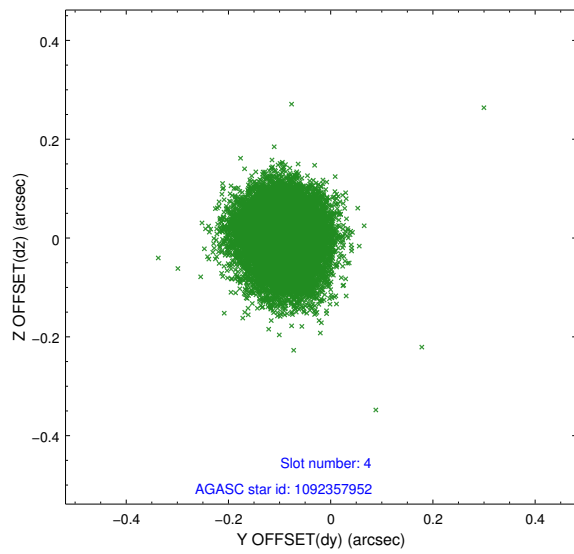
∞

2.4 Star Slots

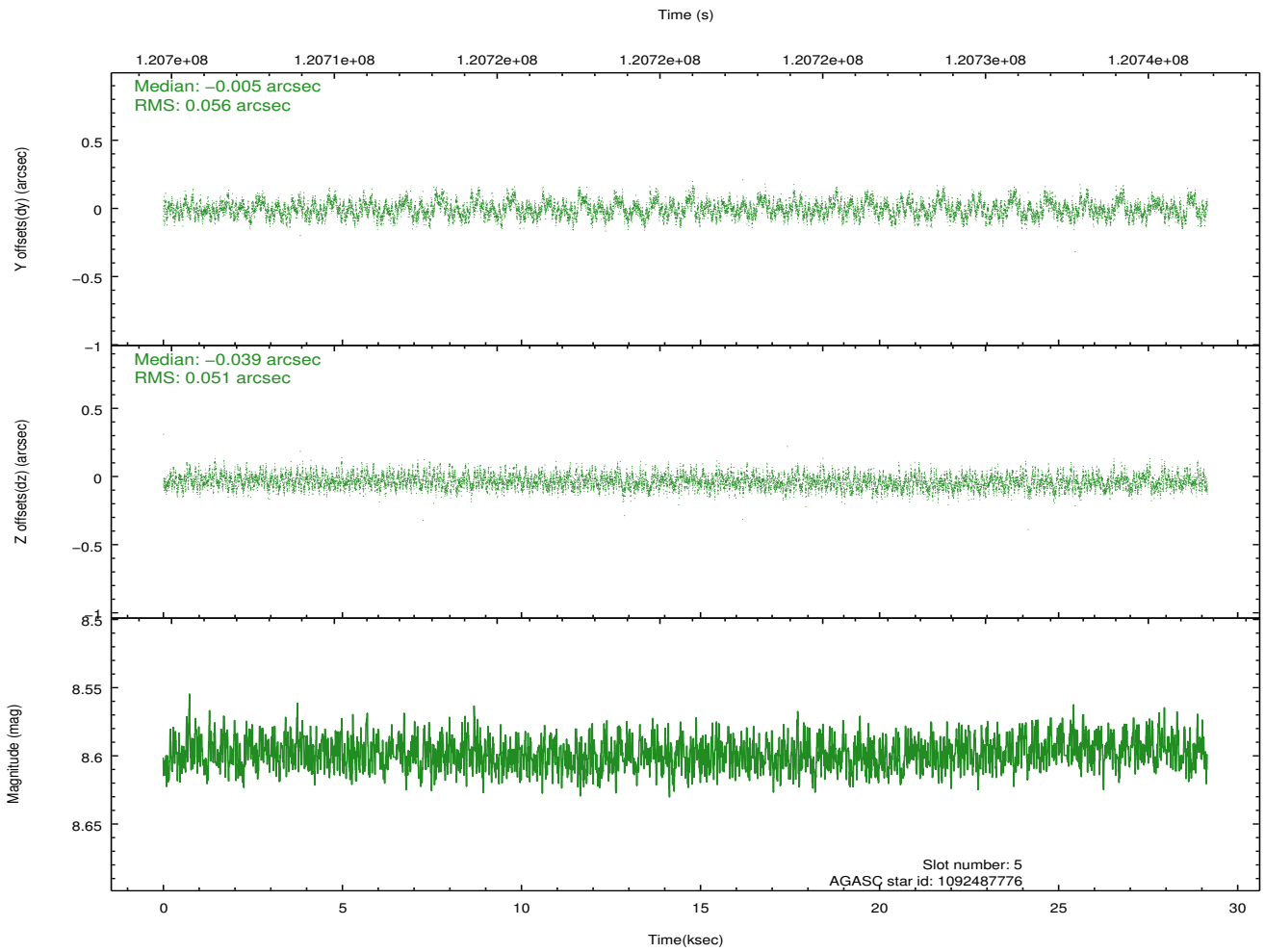
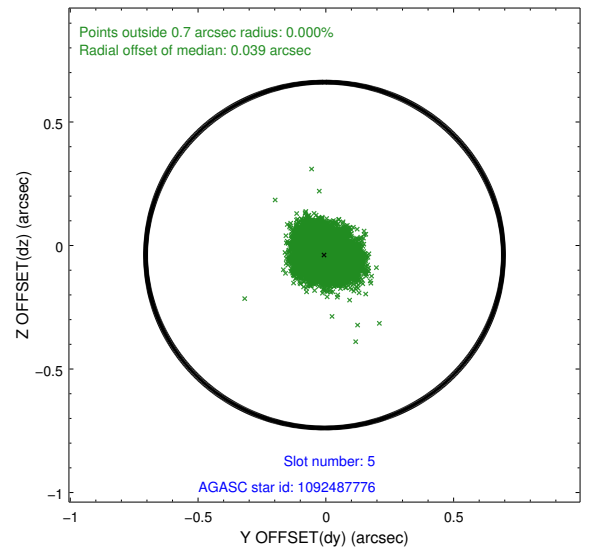
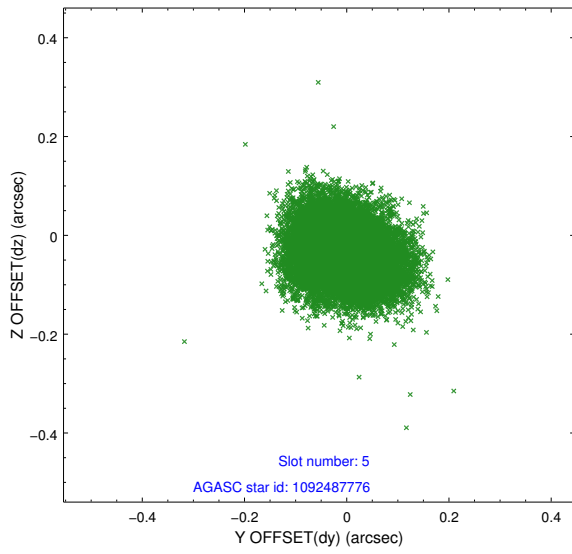
2.4.1 Slot 3



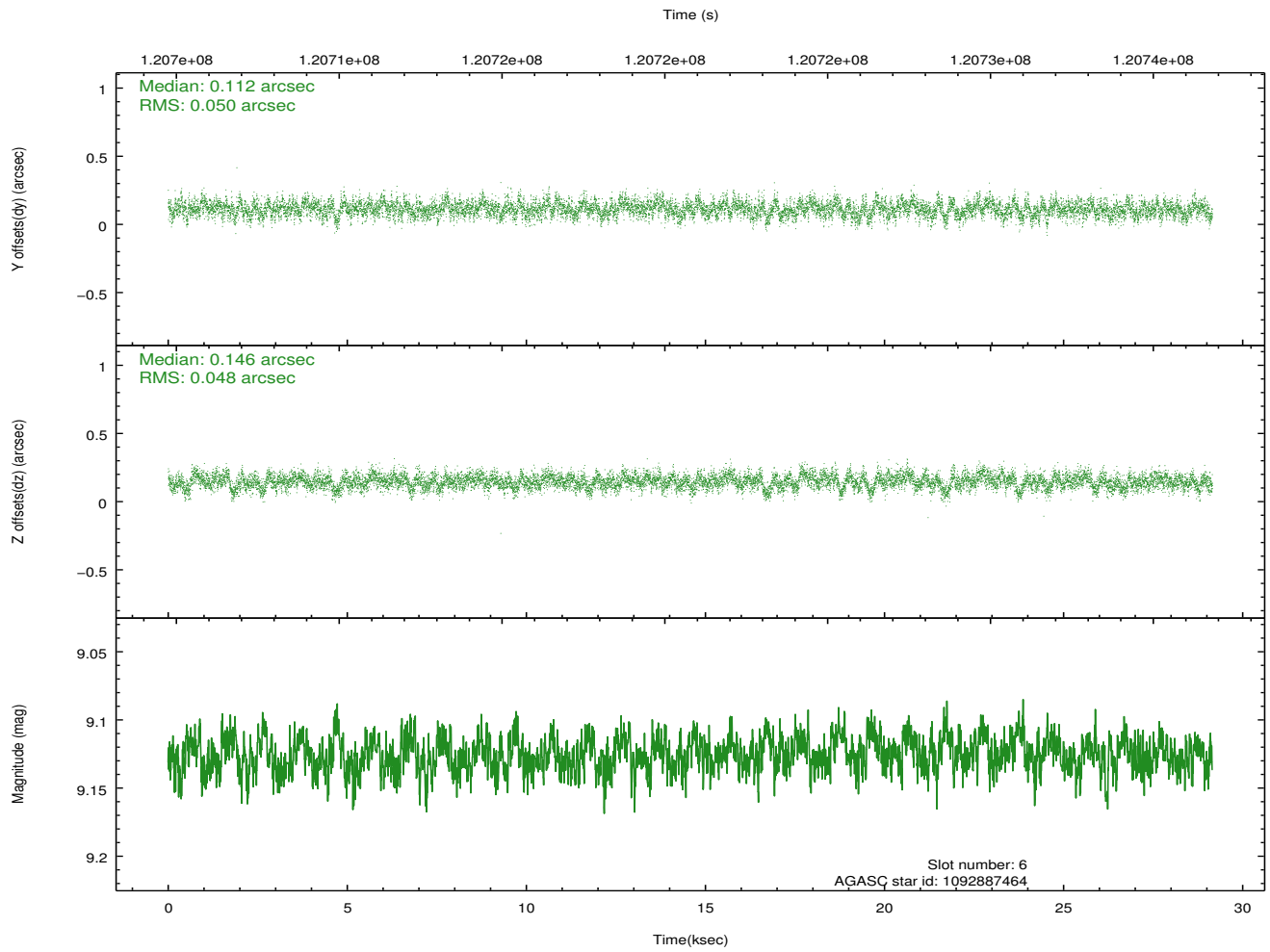
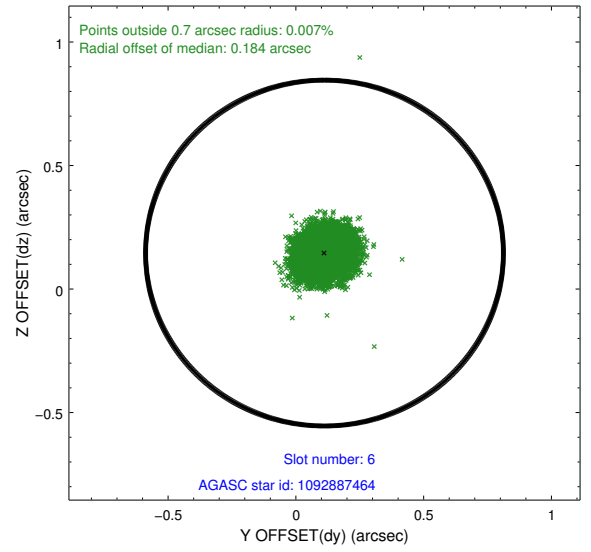
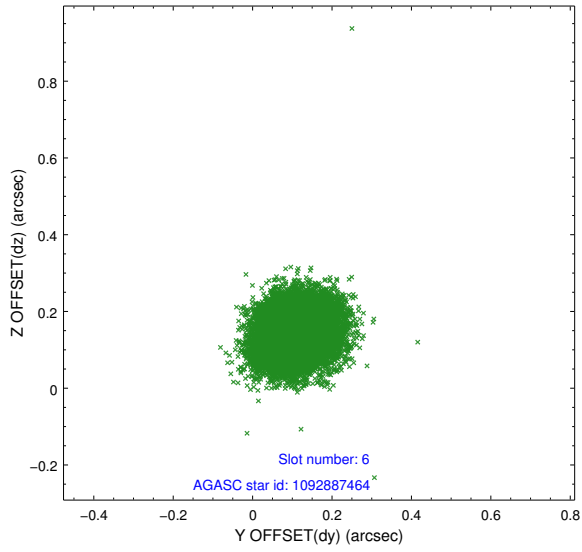
2.4.2 Slot 4



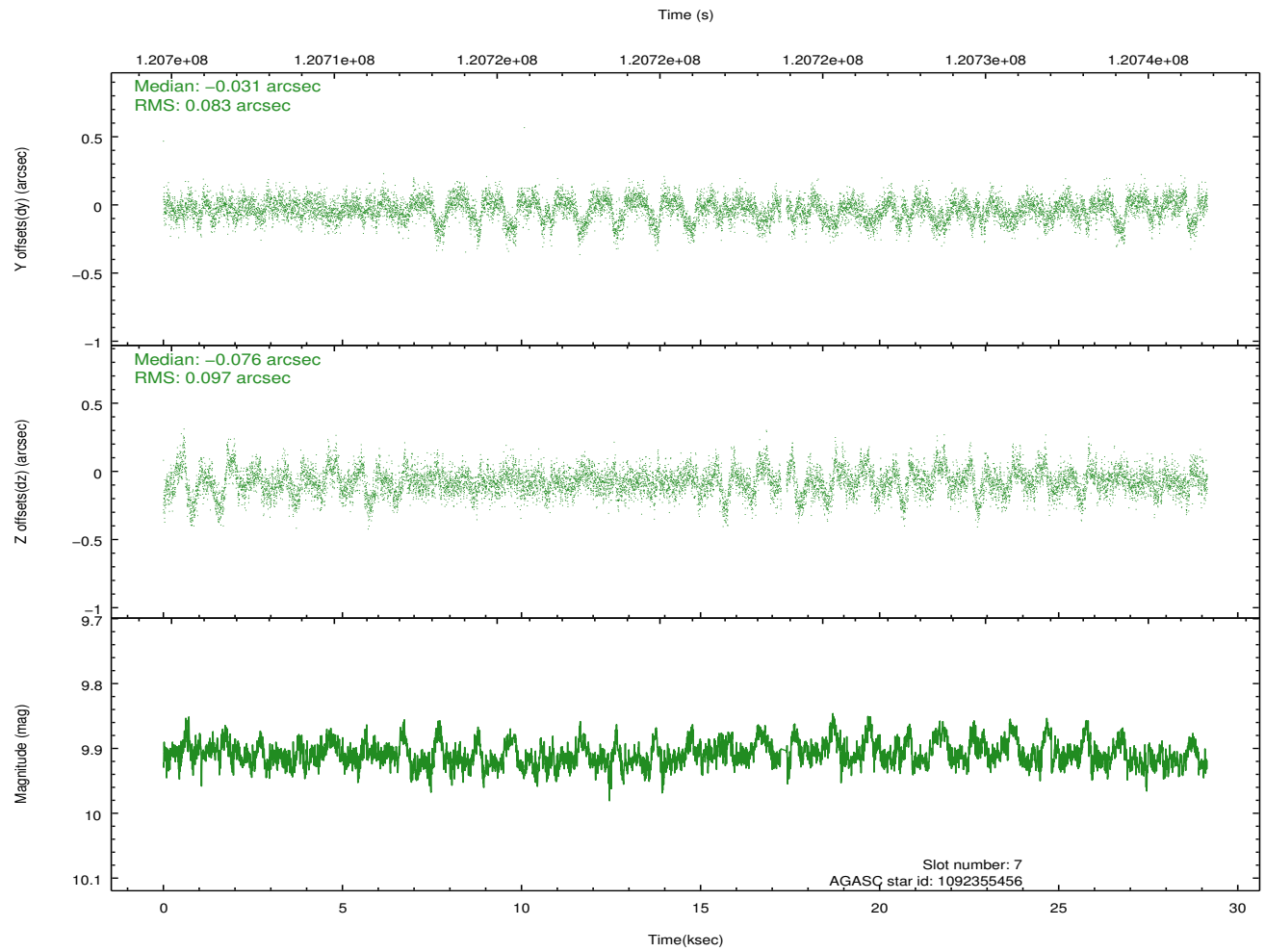
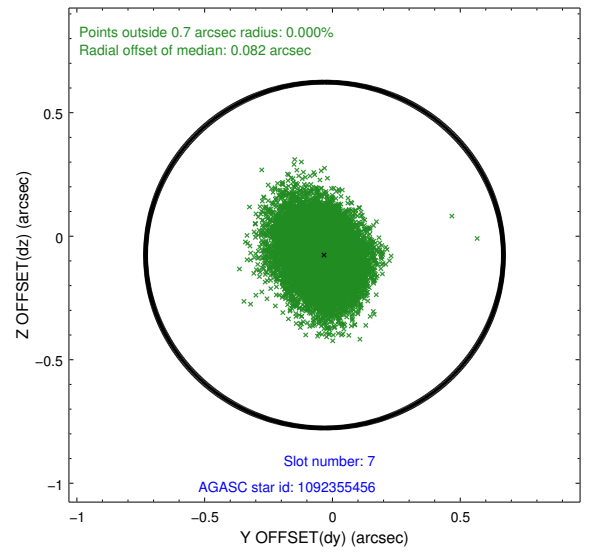
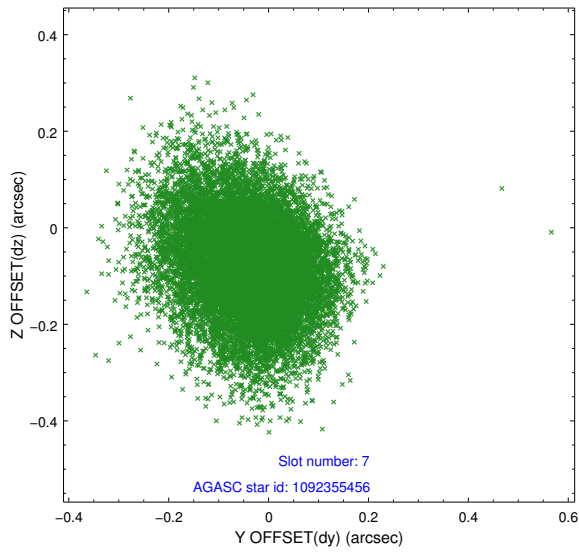
2.4.3 Slot 5



2.4.4 Slot 6

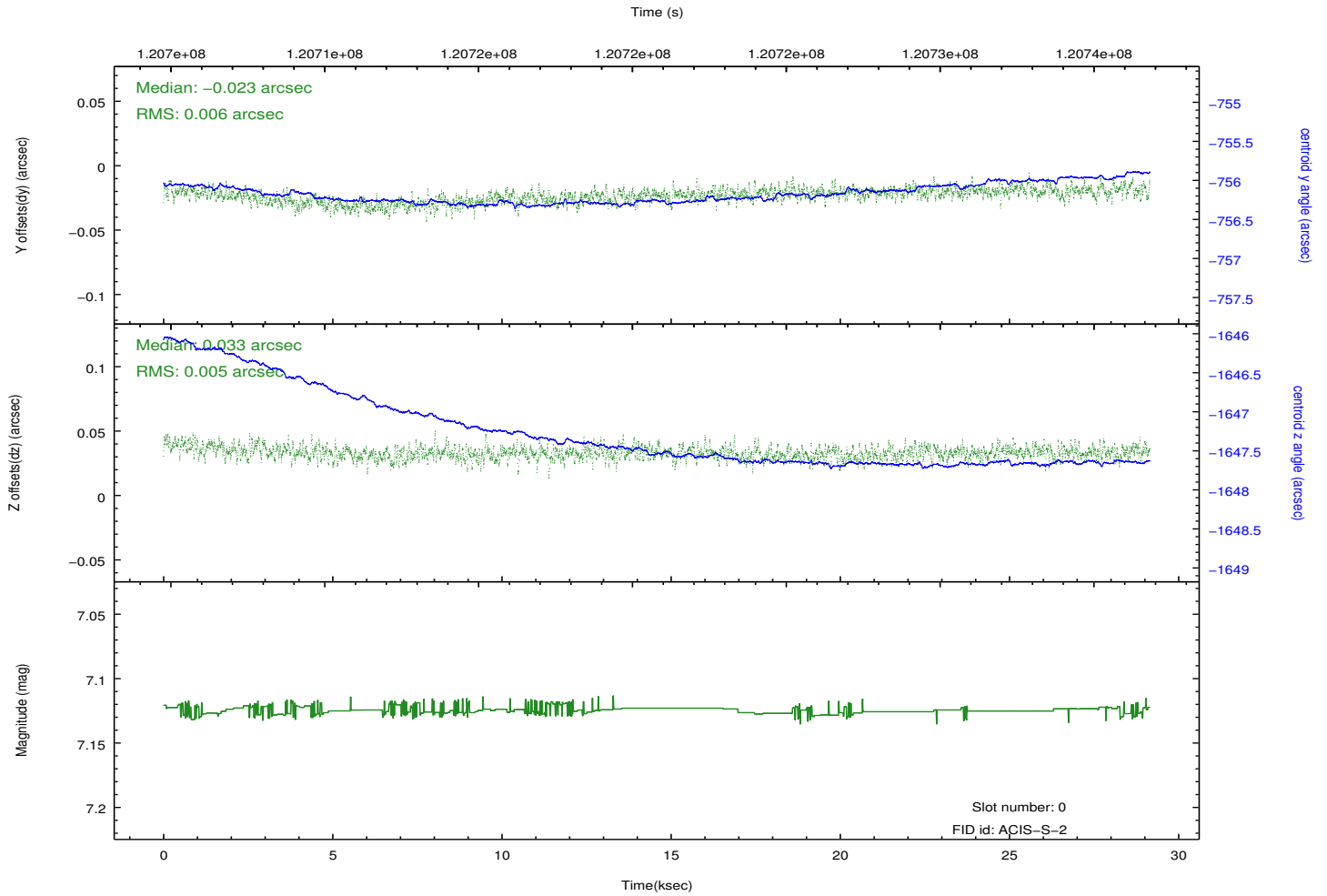
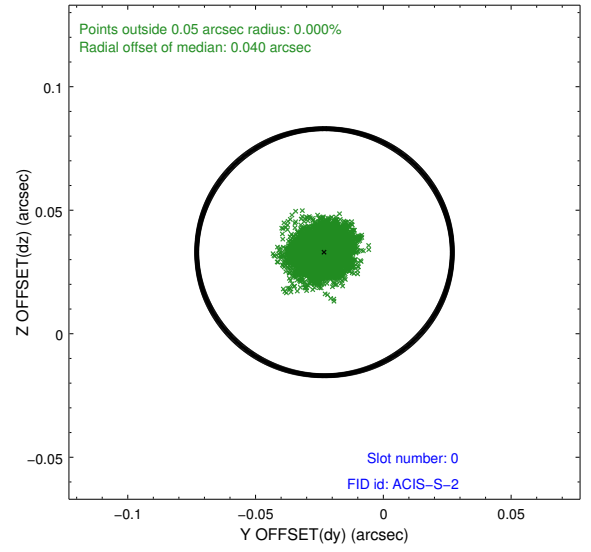
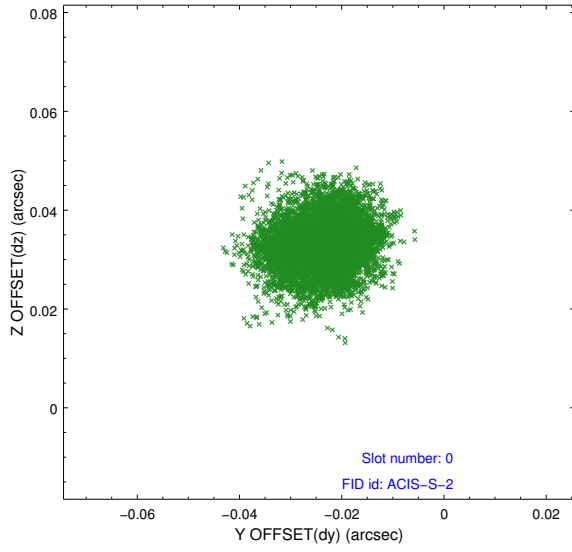


2.4.5 Slot 7

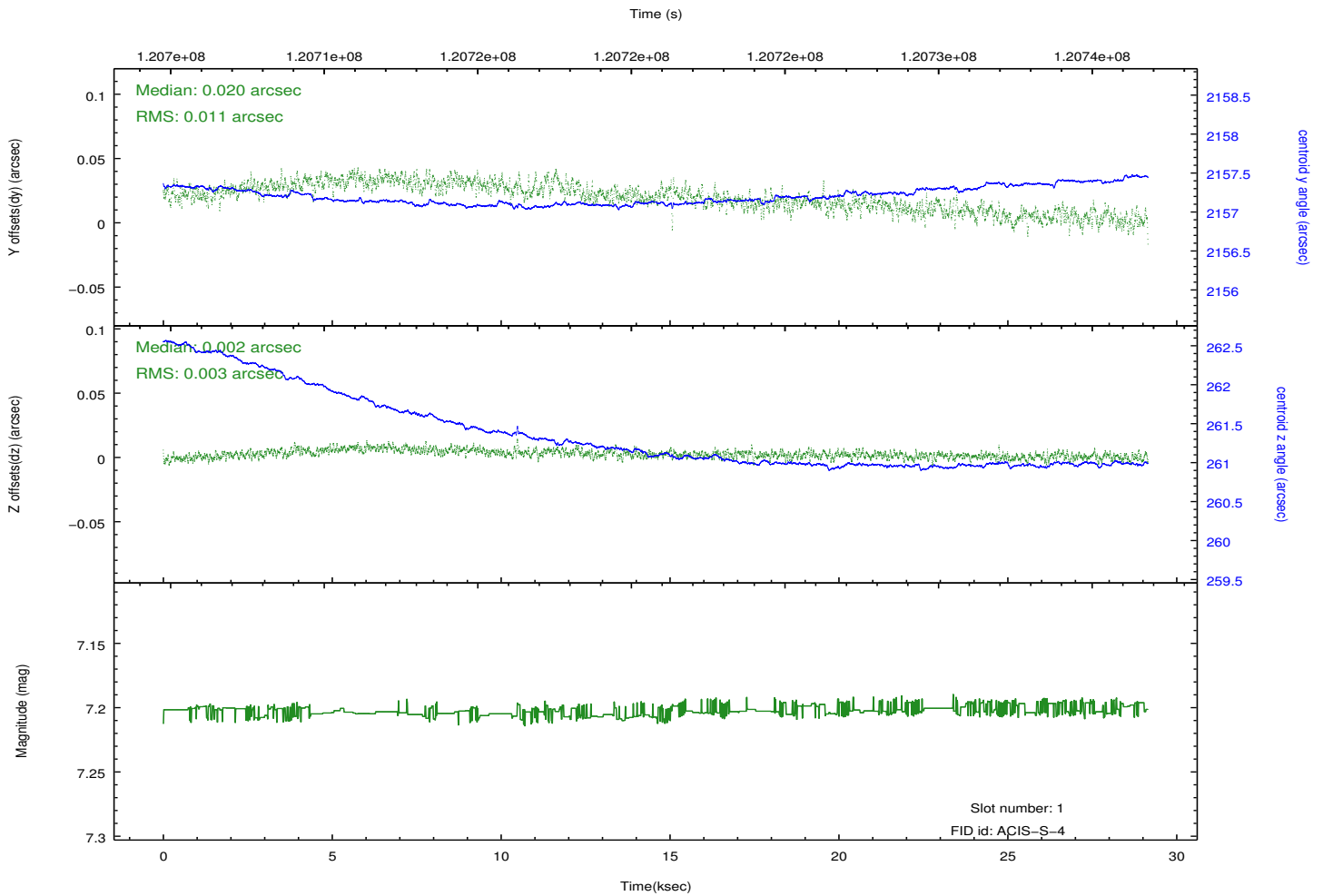
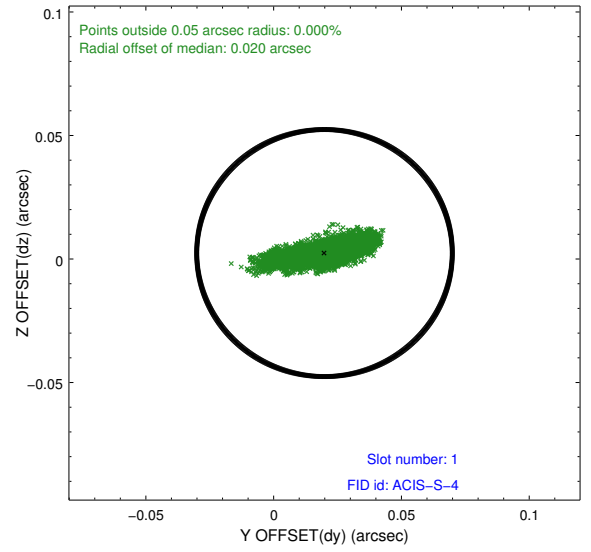
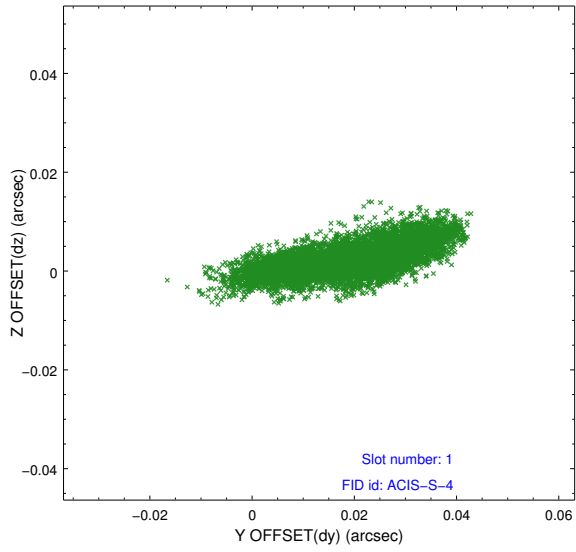


2.5 FID Slots

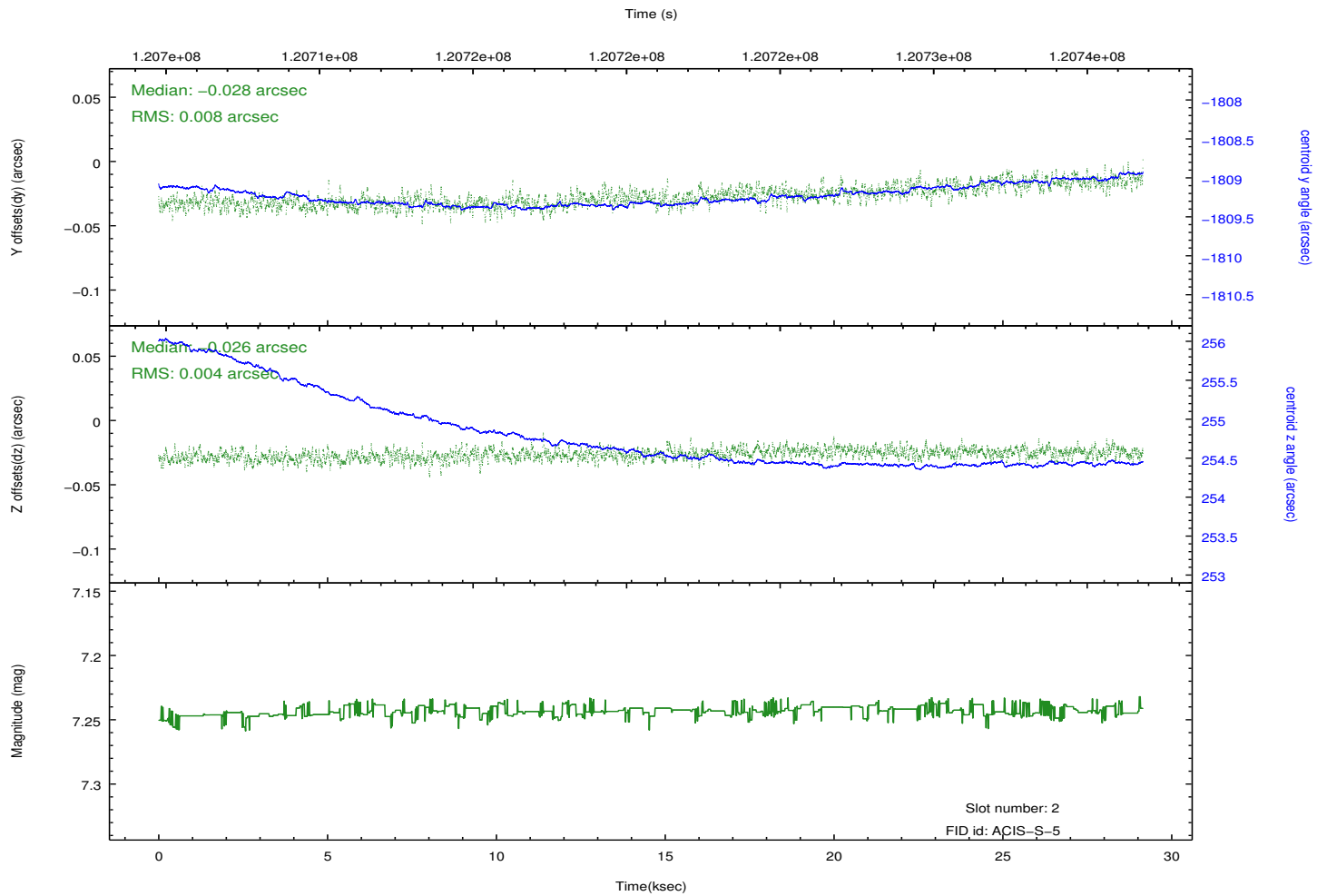
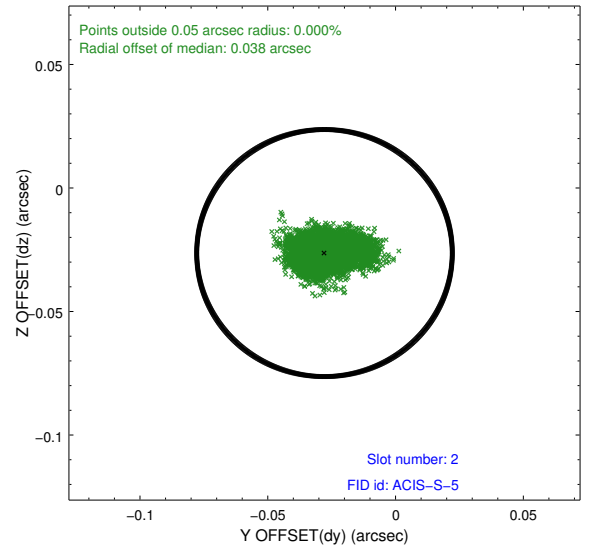
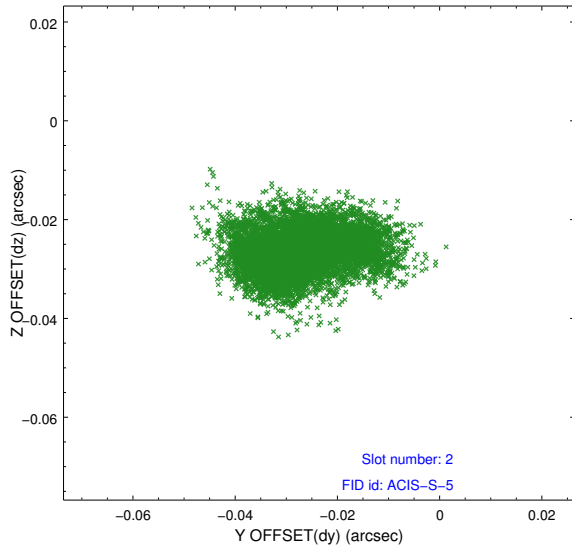
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



3 Gratings

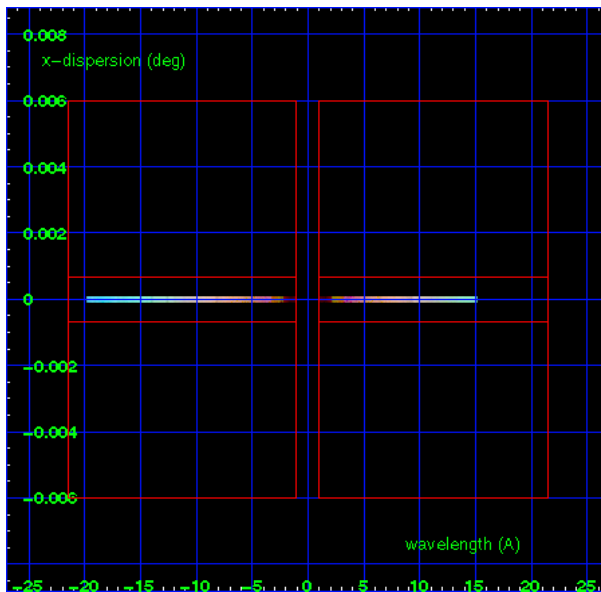
3.1 HEG Arm



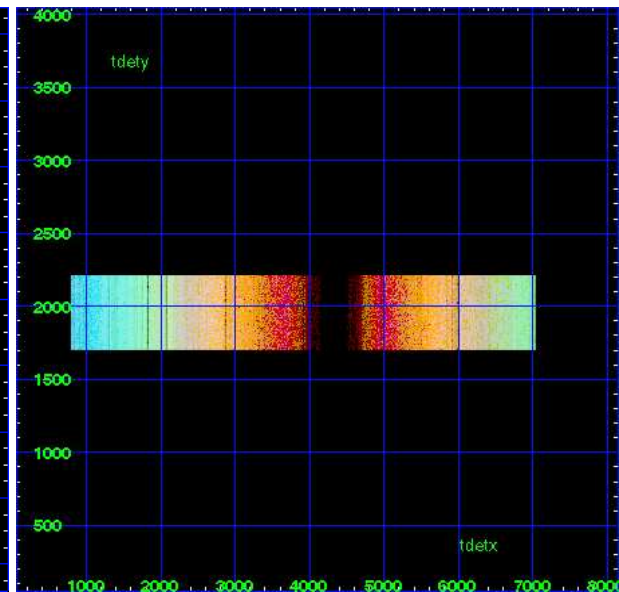
HEG Order Sort 123



HEG Order Sort ALL

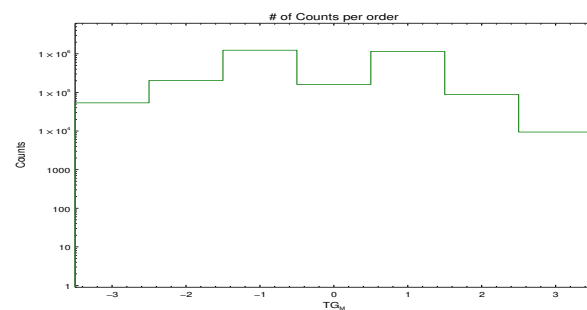


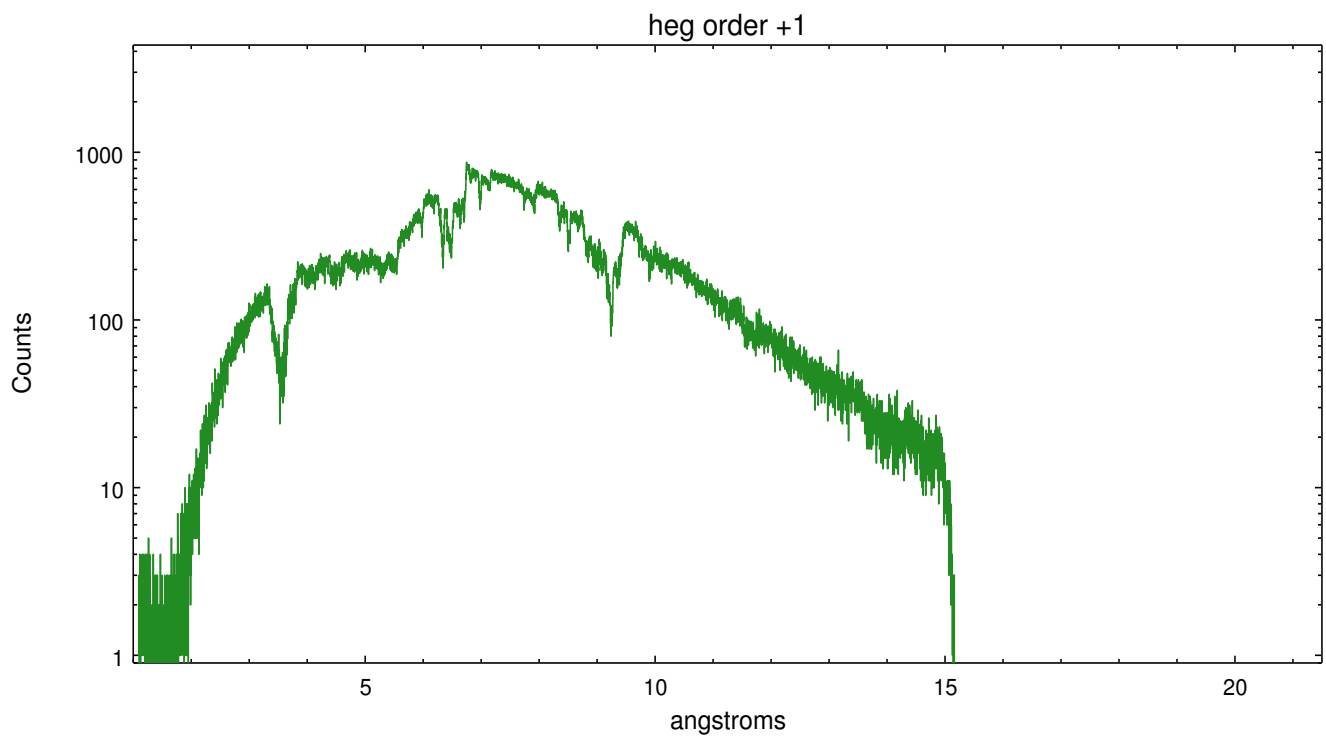
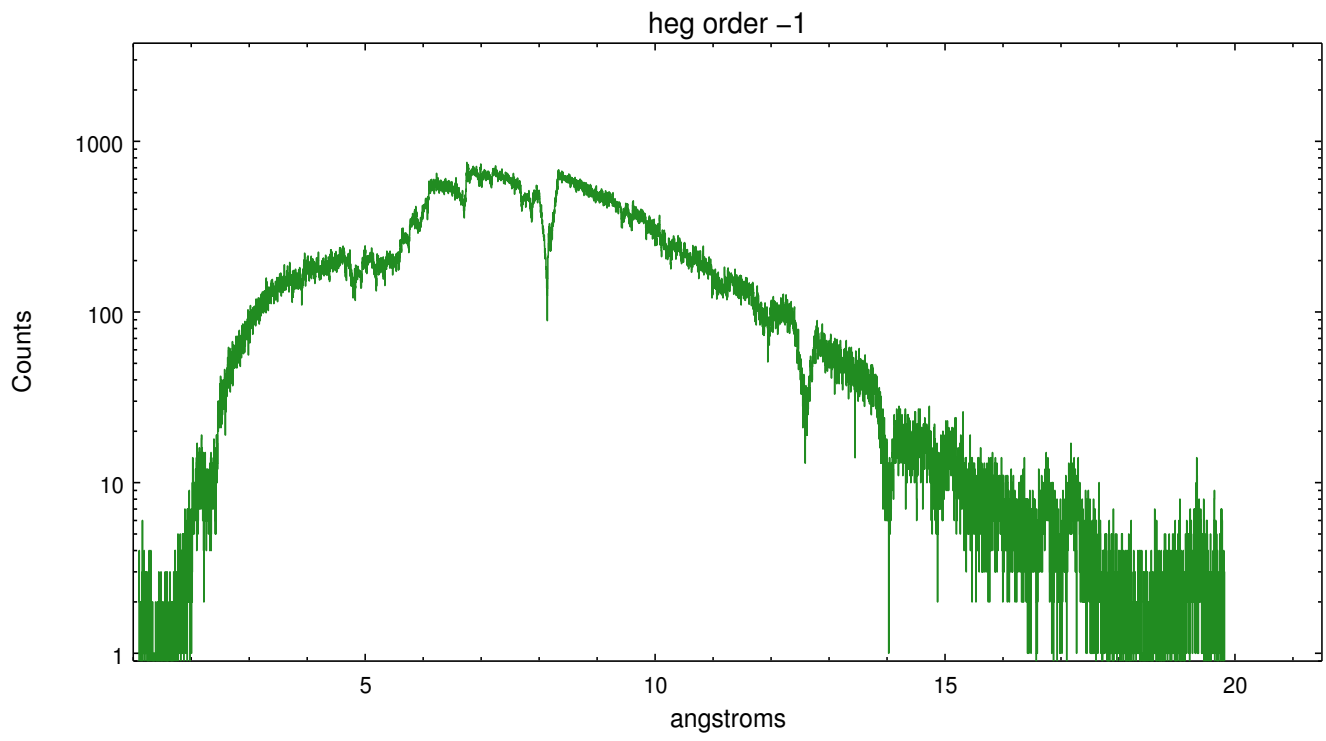
Spot Image HEG



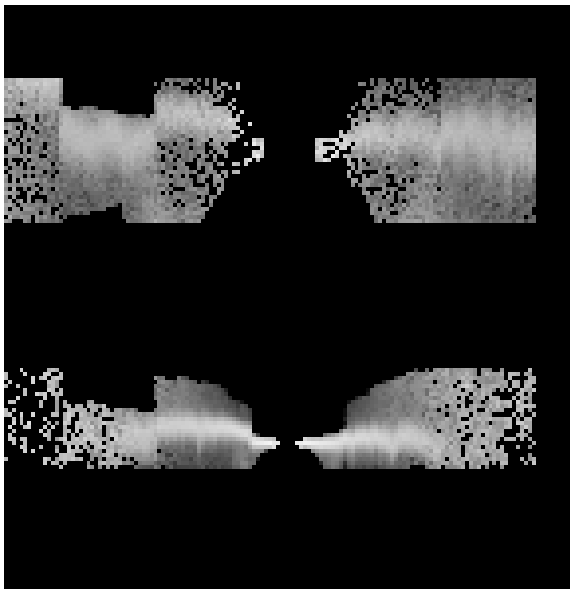
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	53697	204029	1235226	160966	1152295	88244	9407

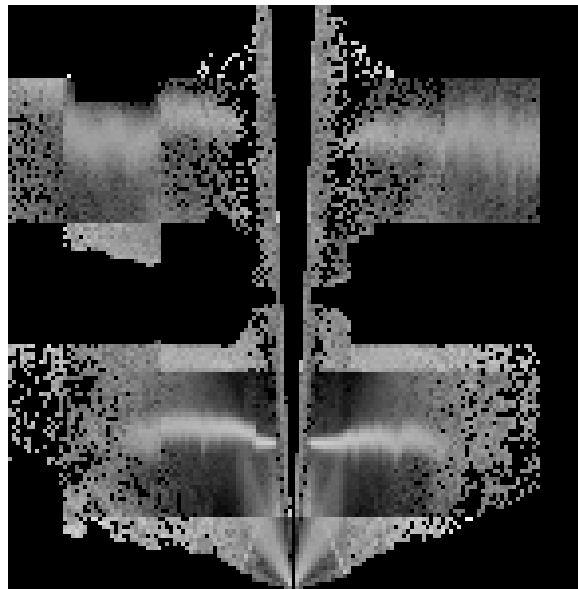




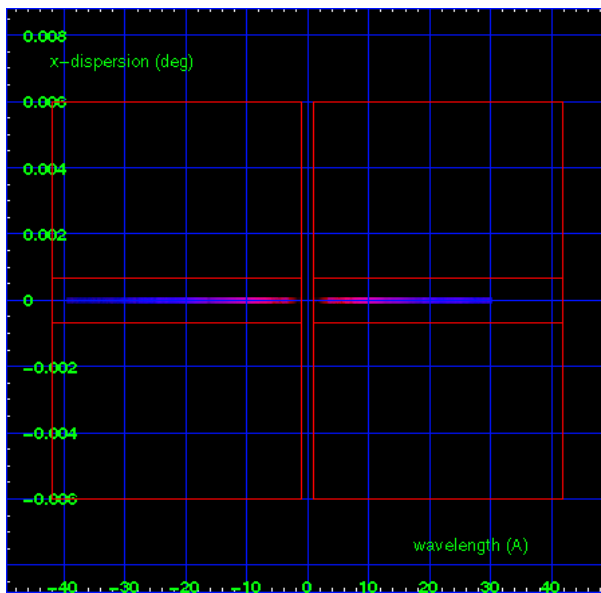
3.2 MEG Arm



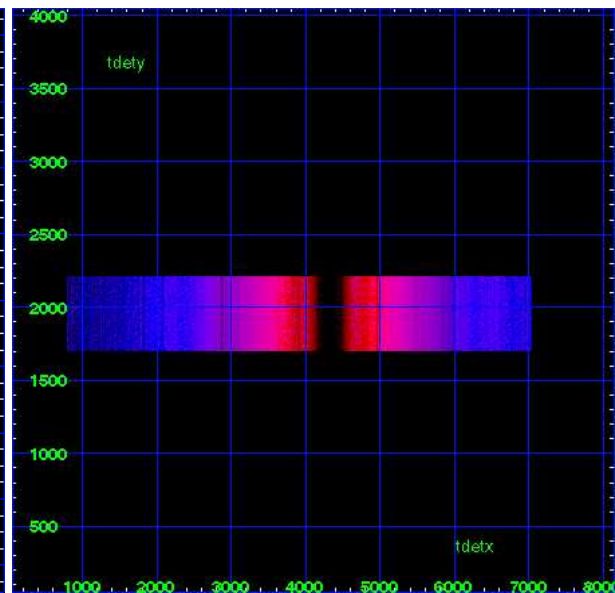
MEG Order Sort 123



MEG Order Sort ALL

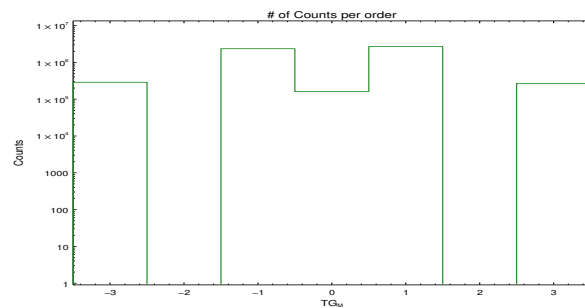


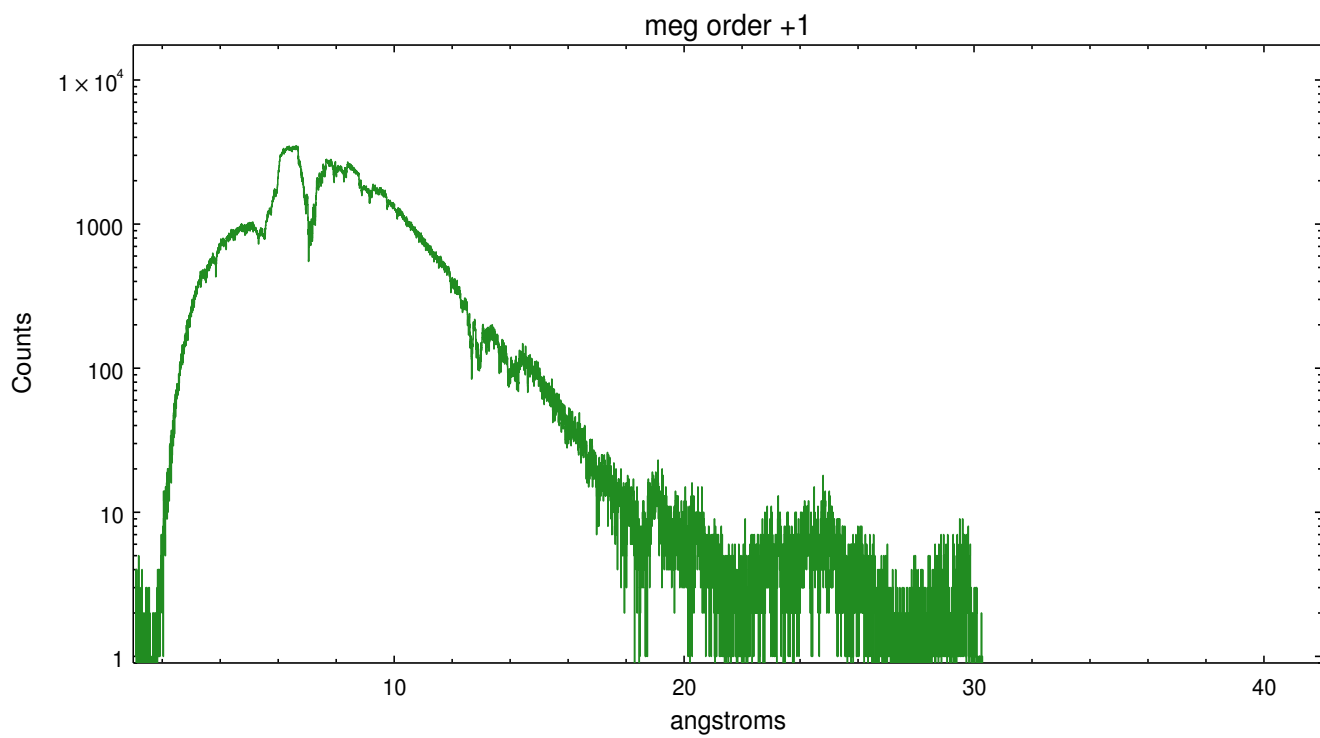
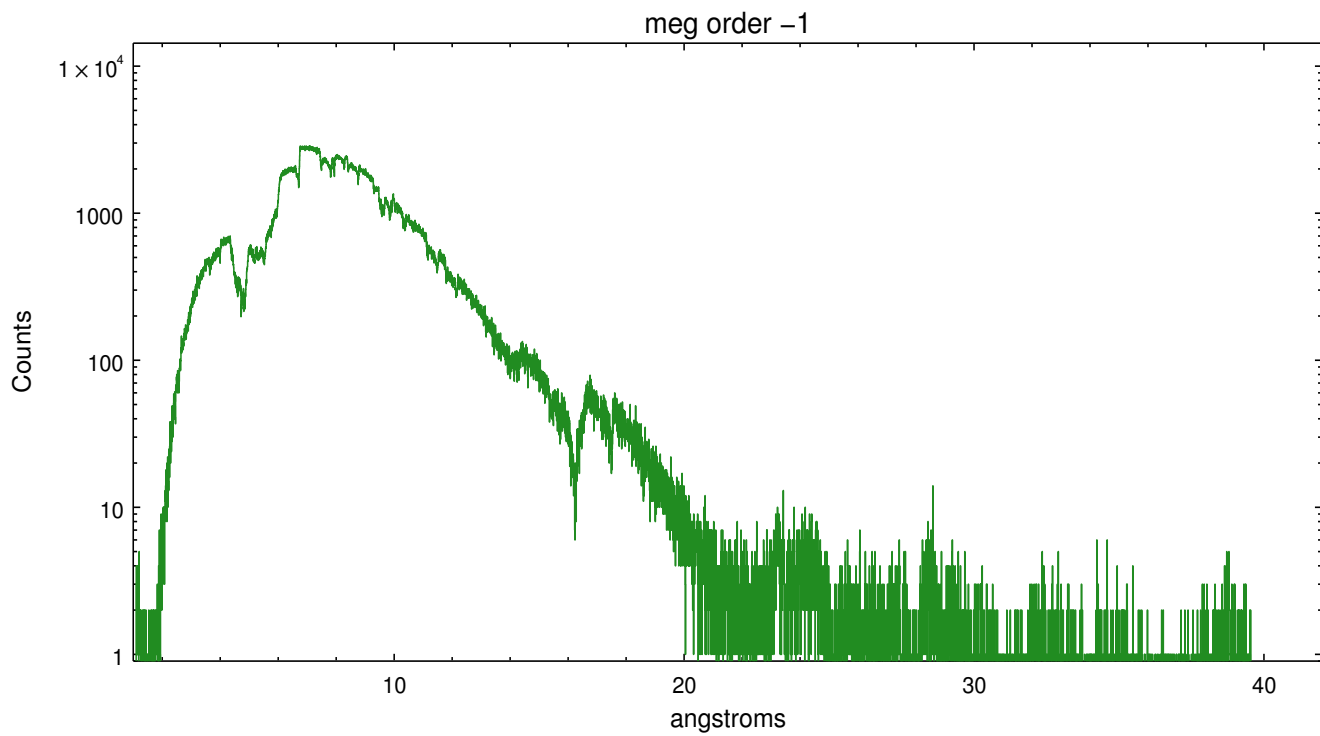
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	287807	0	2355426	160966	2684944	0	269157





A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2012.10.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	28.617

A.2 Comments