

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 11045 - L2 Version 3
Chandra X-Ray Center

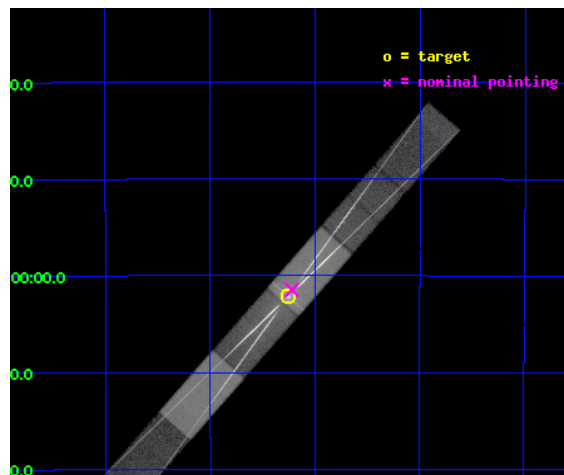
L2 Processing Date : Jul 11 2012

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1 Front

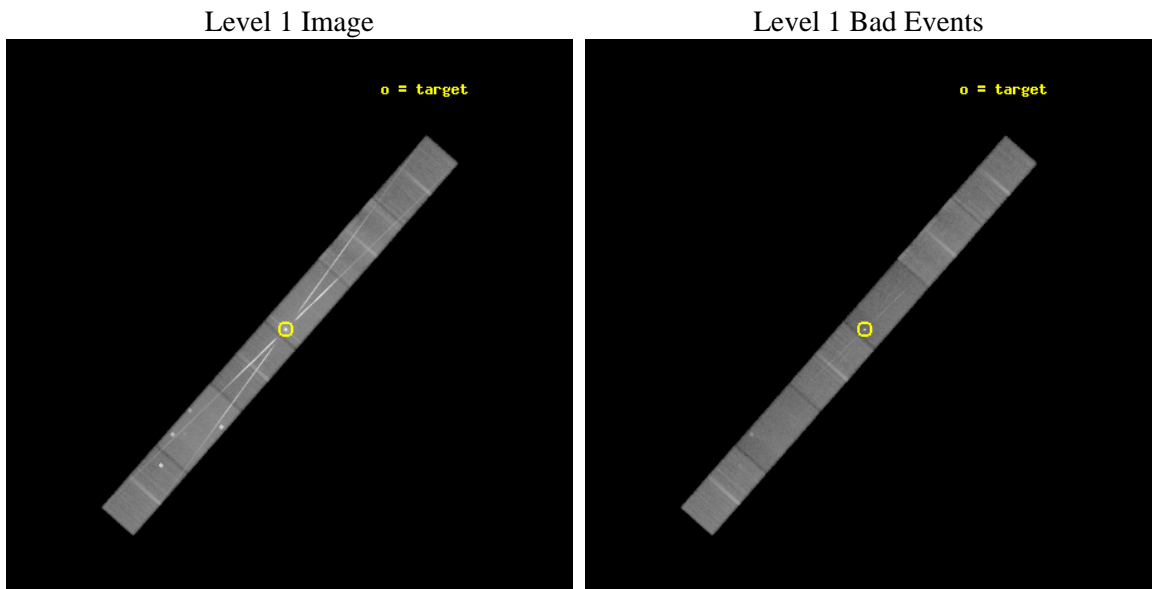
seq_num	401080	Sequence number
obs_id	11045	Observation id
title	X-ray Column Density Towards the Low Mass X-ray Binary 4U 1702-429	
observer	Dr. Tolga Guver	Principal investigator
object	4U 1702-429	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	256.56375	Observer's specified target RA [deg]
dec_targ	-43.035722	Observer's specified target Dec [deg]
ra_nom	256.55506133912	Nominal RA [deg]
dec_nom	-43.024597670799	Nominal Dec [deg]
roll_nom	311.40770001246	Nominal Roll [deg]
revision	3	Processing version of data
ontime	50262.954429209	Sum of GTIs [s]
livetime	49142.505308183	Livetime [s]
ontime4	50262.995469213	Sum of GTIs [s]
ontime5	50262.913389206	Sum of GTIs [s]
ontime6	50262.872349203	Sum of GTIs [s]
ontime7	50262.954429209	Sum of GTIs [s]
ontime8	50262.831309199	Sum of GTIs [s]
ontime9	50262.790269196	Sum of GTIs [s]
l2events	909879	Number of level 2 events



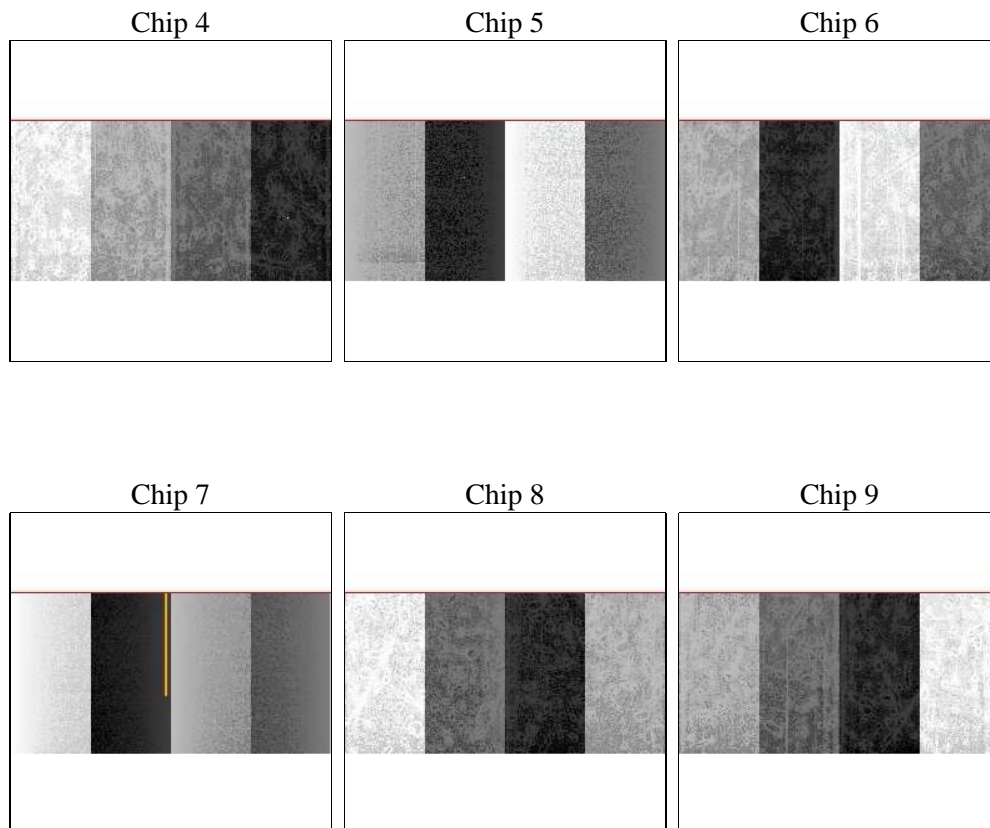
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	50167.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	50262.954429209	Sum of GTIs [s]
caldbver	4.5.0	 	ontime4	50262.995469213	Sum of GTIs [s]
date	2012-06-29T11:45:44	Date and time of file creation	ontime5	50262.913389206	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	50262.872349203	Sum of GTIs [s]
			ontime7	50262.954429209	Sum of GTIs [s]
			ontime8	50262.831309199	Sum of GTIs [s]
			ontime9	50262.790269196	Sum of GTIs [s]
			l1events	2100781	Number of level 1 events

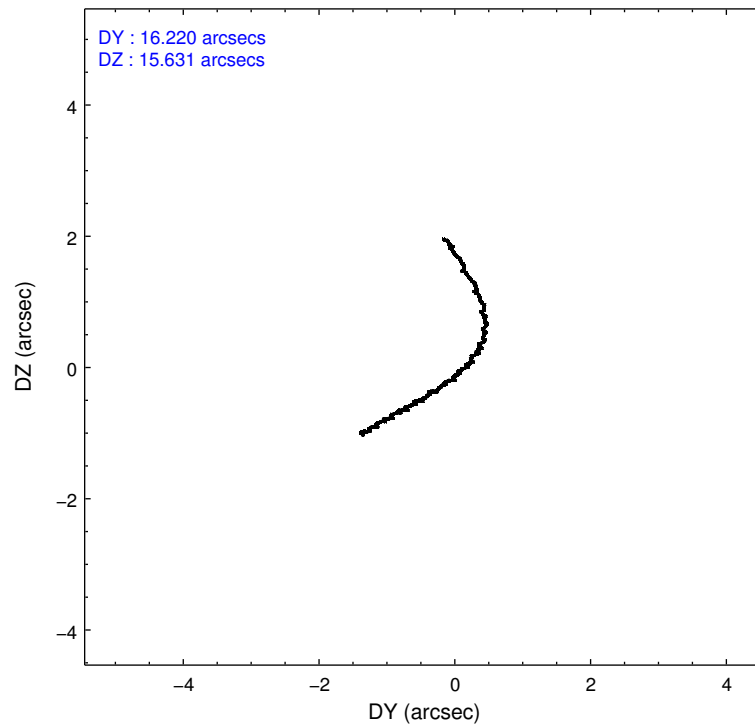
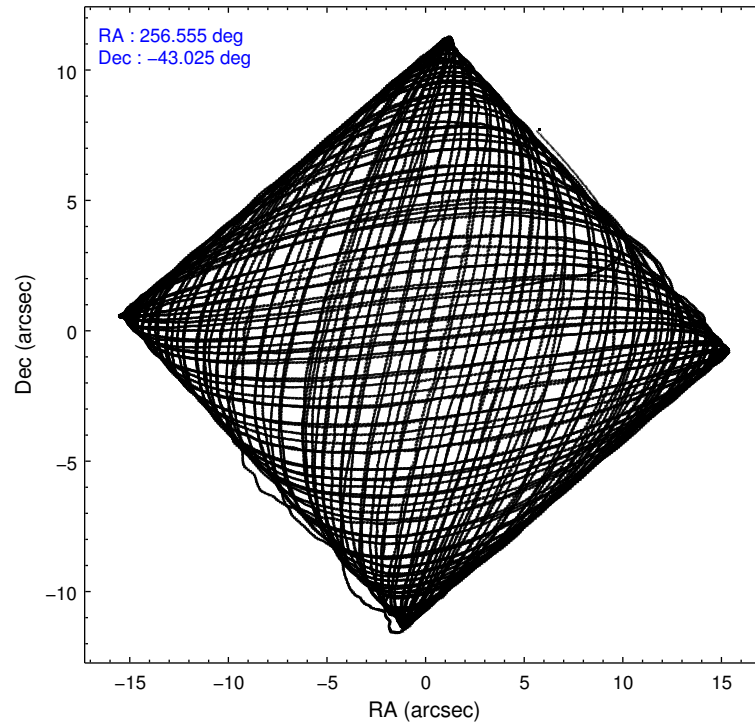
2.1.4 Events

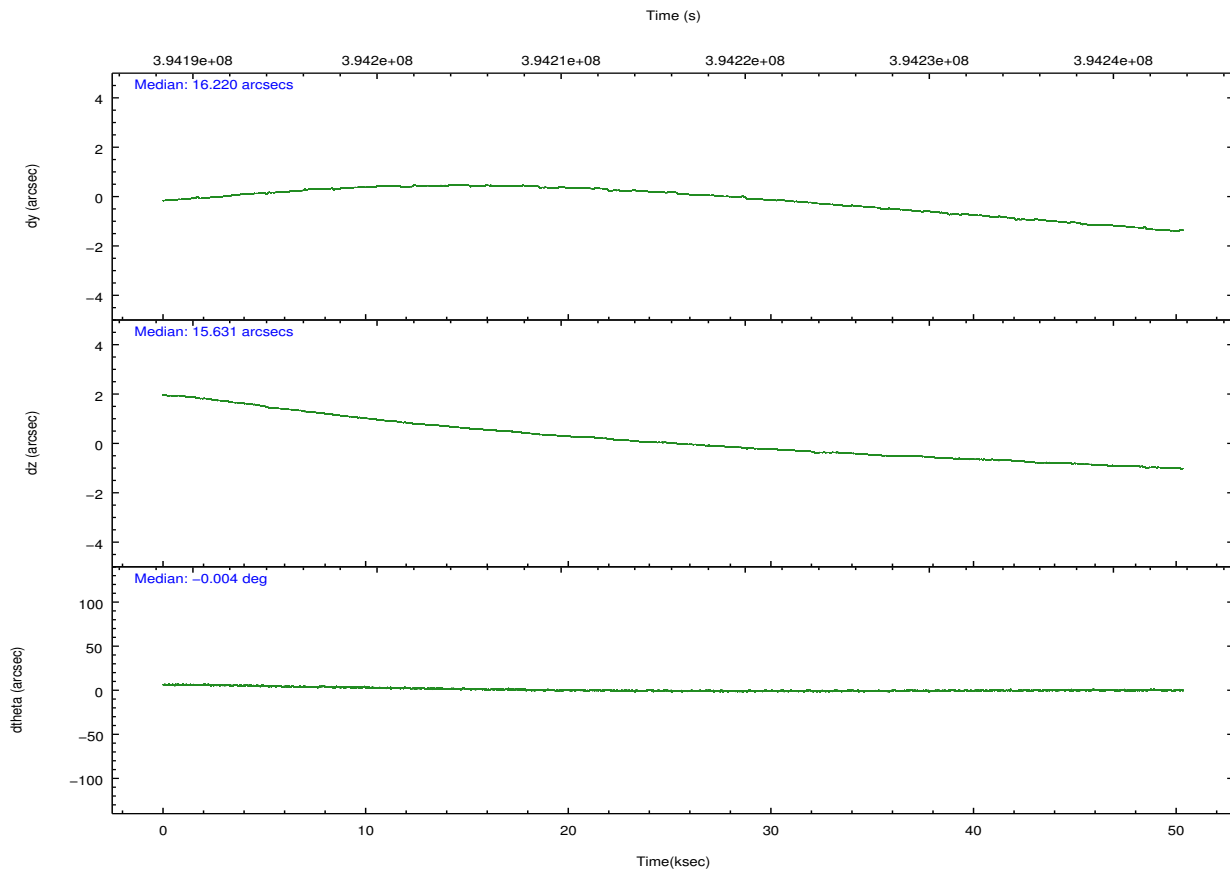
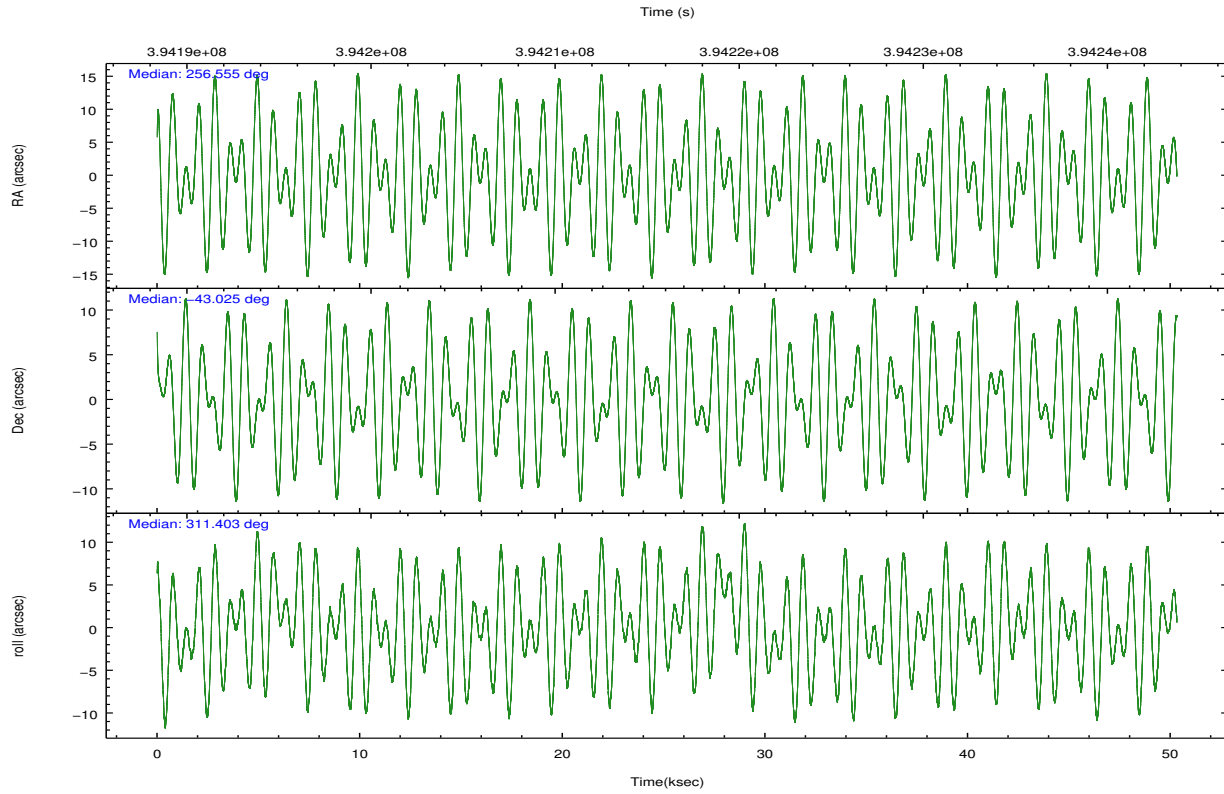
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	262206	356910	421951	527233	324476	208005	grade 0 events	31082	46394	167300	74390	60993	16502
rejected events	213755	148081	184322	138520	204139	174016		11%	12%	39%	14%	18%	7%
rejected %	81%	41%	43%	26%	62%	83%	grade 1 events	256	622	1072	1140	340	118
								0%	0%	0%	0%	0%	0%
							grade 2 events	6673	60218	32288	92716	21512	6088
								2%	16%	7%	17%	6%	2%
							grade 3 events	3308	11018	11607	41796	9199	3256
								1%	3%	2%	7%	2%	1%
							grade 4 events	3075	10542	11371	41634	8745	3113
								1%	2%	2%	7%	2%	1%
							grade 5 events	9038	25360	9766	29668	12767	9410
								3%	7%	2%	5%	3%	4%
							grade 6 events	4317	80676	15085	138209	19913	5033
								1%	22%	3%	26%	6%	2%
							grade 7 events	204457	122080	173462	107680	191007	164485
								77%	34%	41%	20%	58%	79%

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	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	256.519465	256.555061339123	CCD I2 on	N	N
[deg] Pointing Dec	-43.016229	-43.02459767079897	CCD I3 on	N	N
[deg] Pointing Roll	311.226787	311.4077000124626	CCD S0 on	O1	Y
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	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	Y	Y
[s] Observation start time (MET)	394191079.184000	394189955.92396	CCD S5 on	Y	Y
Observation start date	2010-06-29T09:30:13	2010-06-29T09:12:35	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	394241246.184000	394242013.11412	On-chip summing requested	N	N
Observation end date	2010-06-29T23:26:20	2010-06-29T23:40:13	Subarray requested	CUSTOM	1/2
Read mode	TIMED	TIMED	Subarray start row	257	257
			Subarray row count	512	512
			Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	1.8

2.3 Aspect



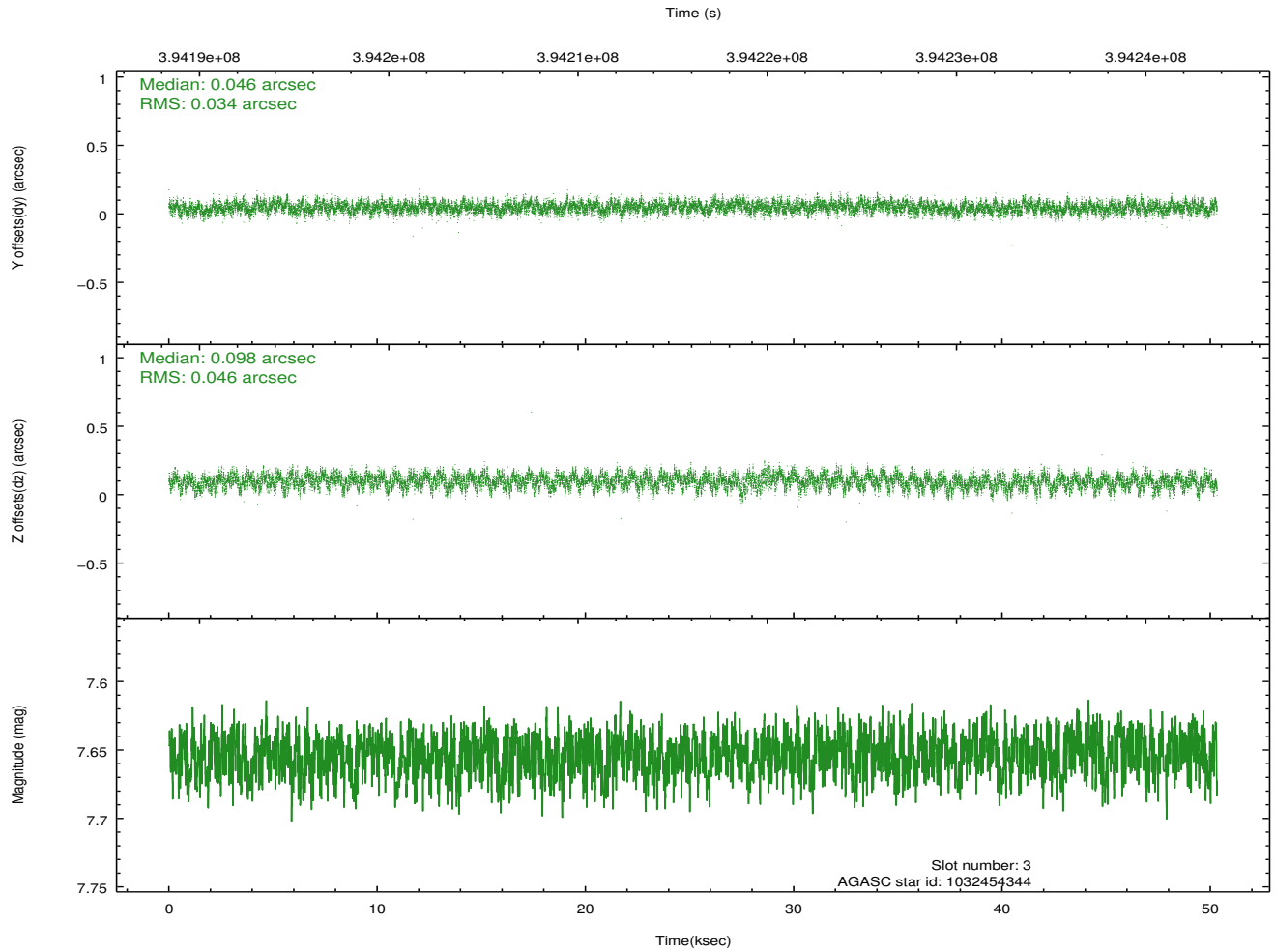
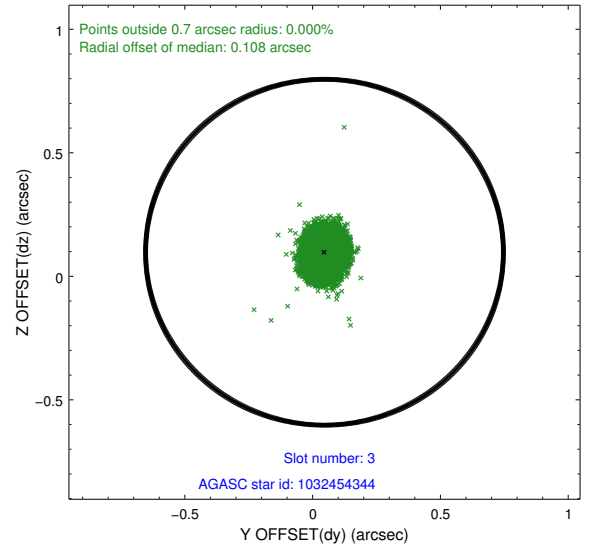
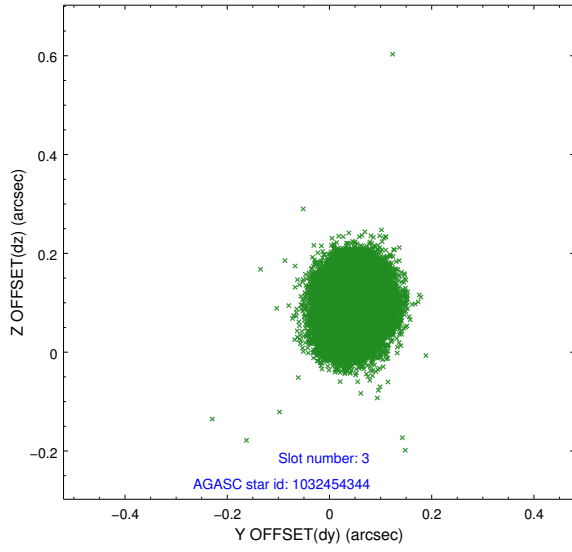


Slot Statistics

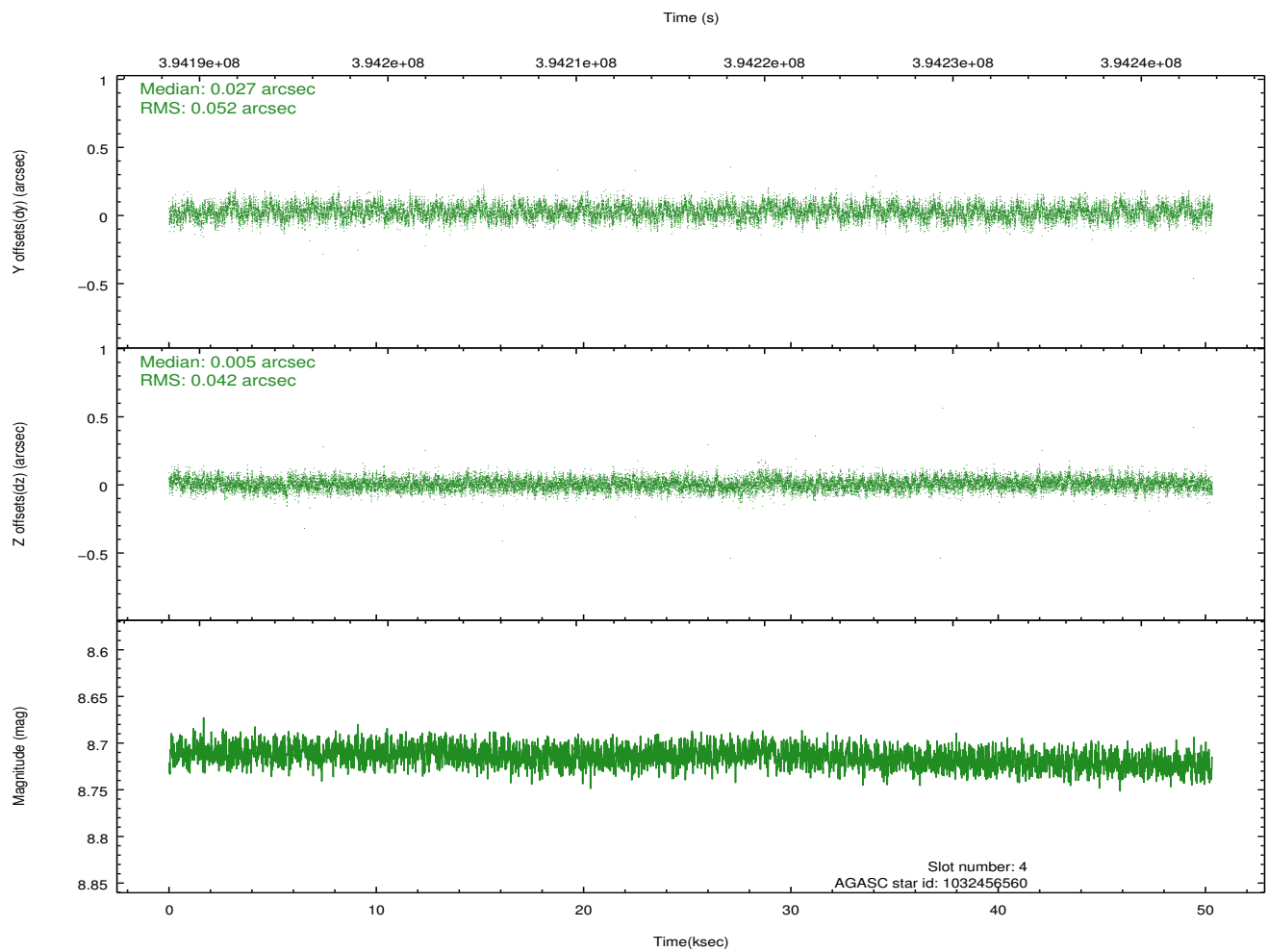
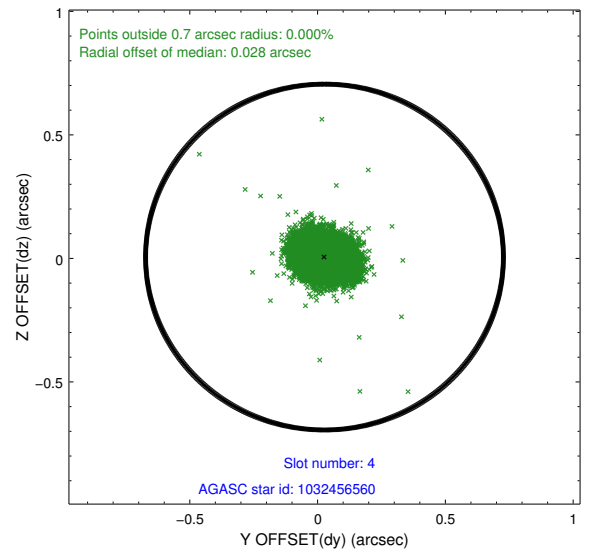
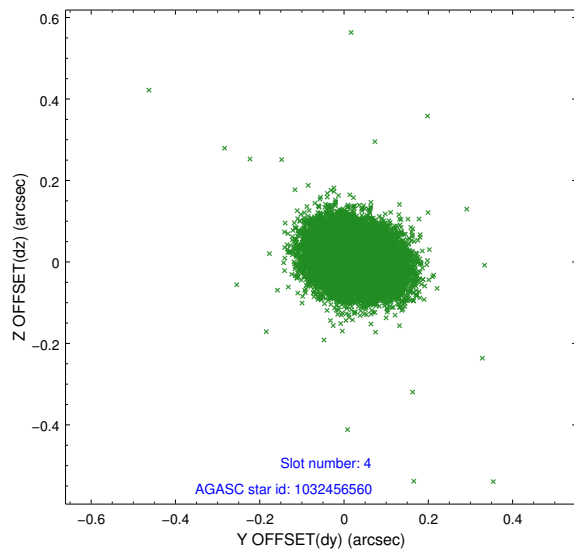
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.93	12274	-0.098	-0.023	0.017	0.033	0.000000	0.000000	-769.14	-1737.22
1	FID	ACIS-S-4	7.01	12274	0.189	0.052	0.019	0.032	0.000000	0.000000	2144.43	171.35
2	FID	ACIS-S-5	7.04	12276	-0.130	-0.020	0.018	0.031	0.000000	0.000000	-1822.04	164.93
3	GUIDE	1032454344	7.65	24547	0.046	0.098	0.061	0.098	256.002431	-42.969272	-1021.27	-915.57
4	GUIDE	1032456560	8.71	24529	0.027	0.005	0.070	0.114	256.656029	-42.346936	-1572.48	1861.02
5	GUIDE	1032982224	7.51	24549	0.022	-0.051	0.069	0.113	256.128626	-43.309766	123.97	-1467.96
6	GUIDE	1032454856	8.44	24538	-0.076	-0.063	0.070	0.114	257.392366	-43.035435	1574.76	1674.10
7	GUIDE	1032980152	8.60	24532	-0.021	0.014	0.073	0.120	257.470572	-43.265322	2328.65	1274.98

2.4 Star Slots

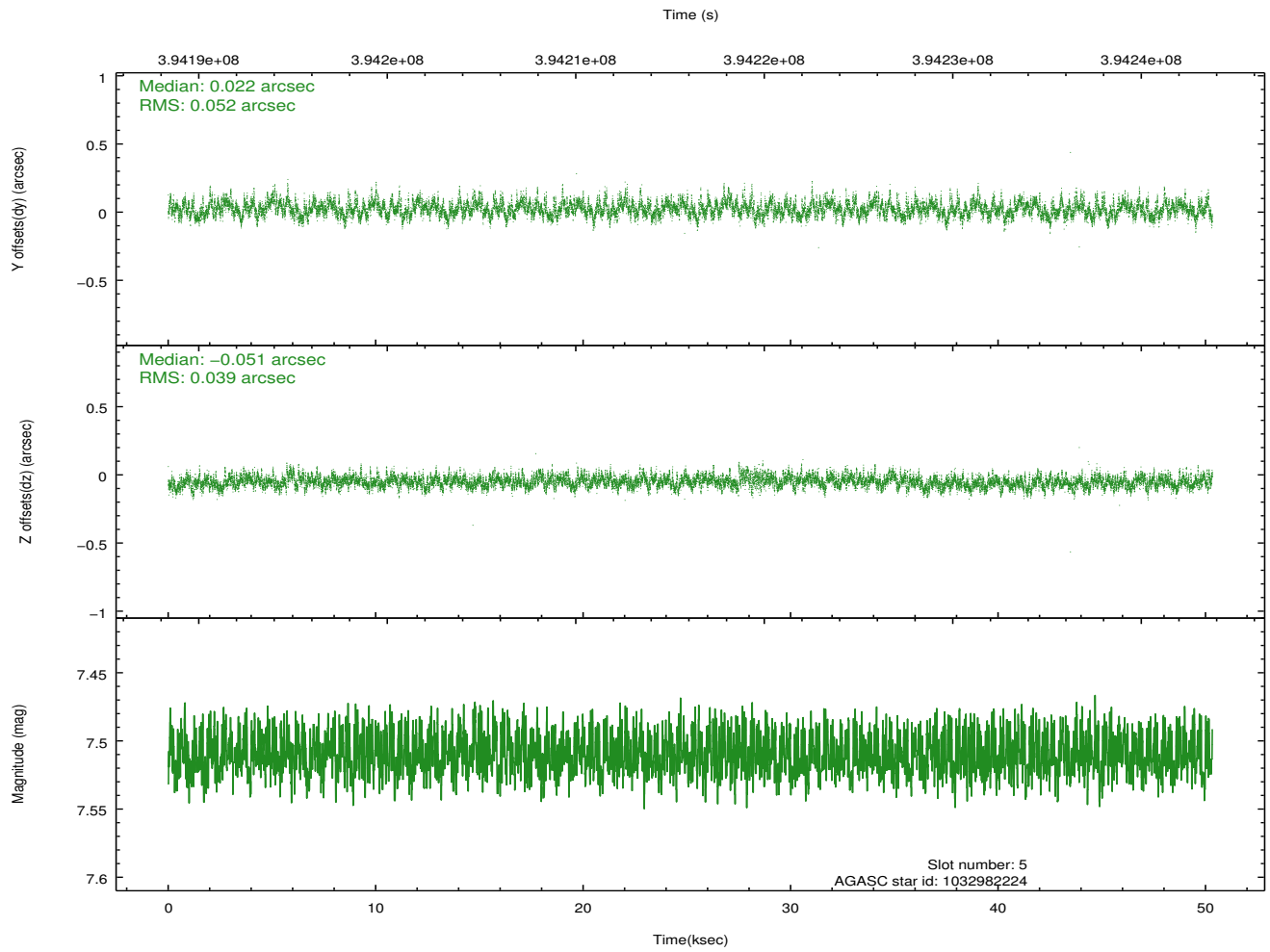
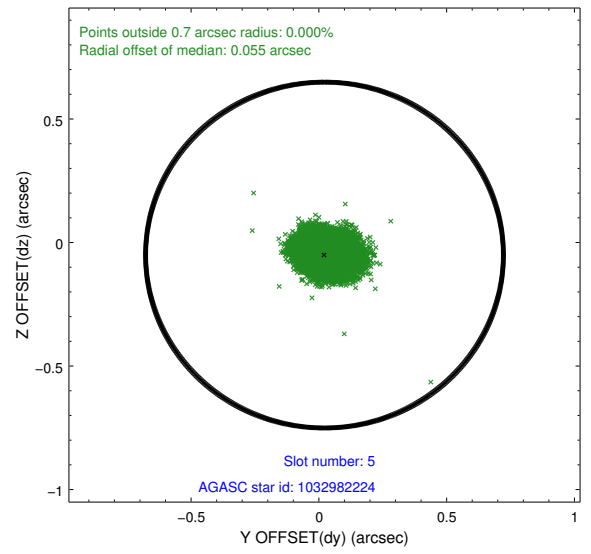
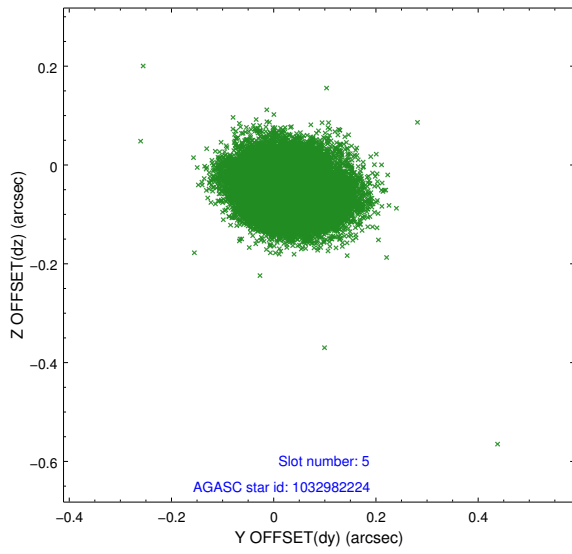
2.4.1 Slot 3



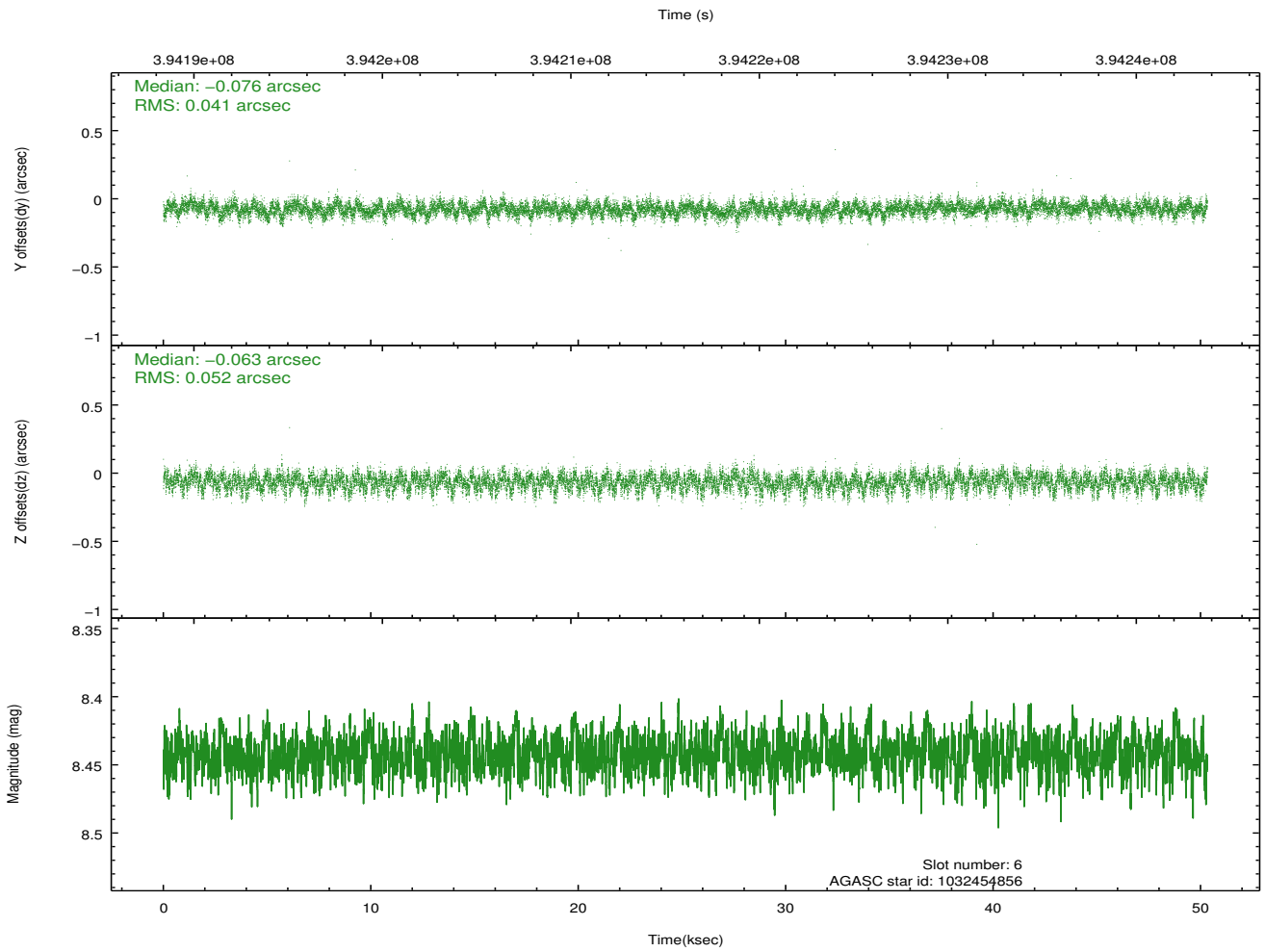
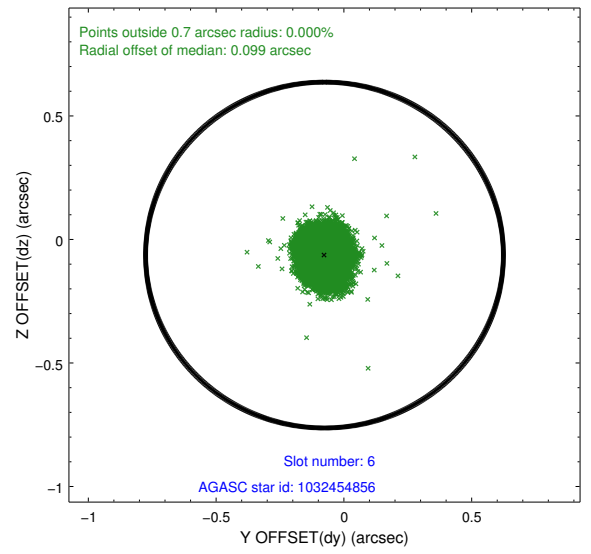
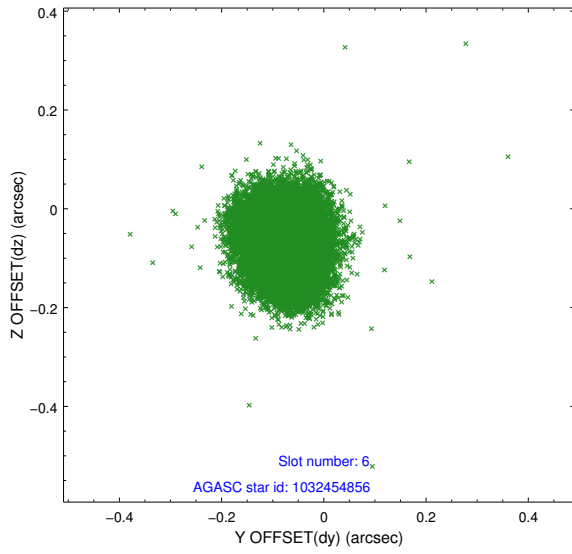
2.4.2 Slot 4



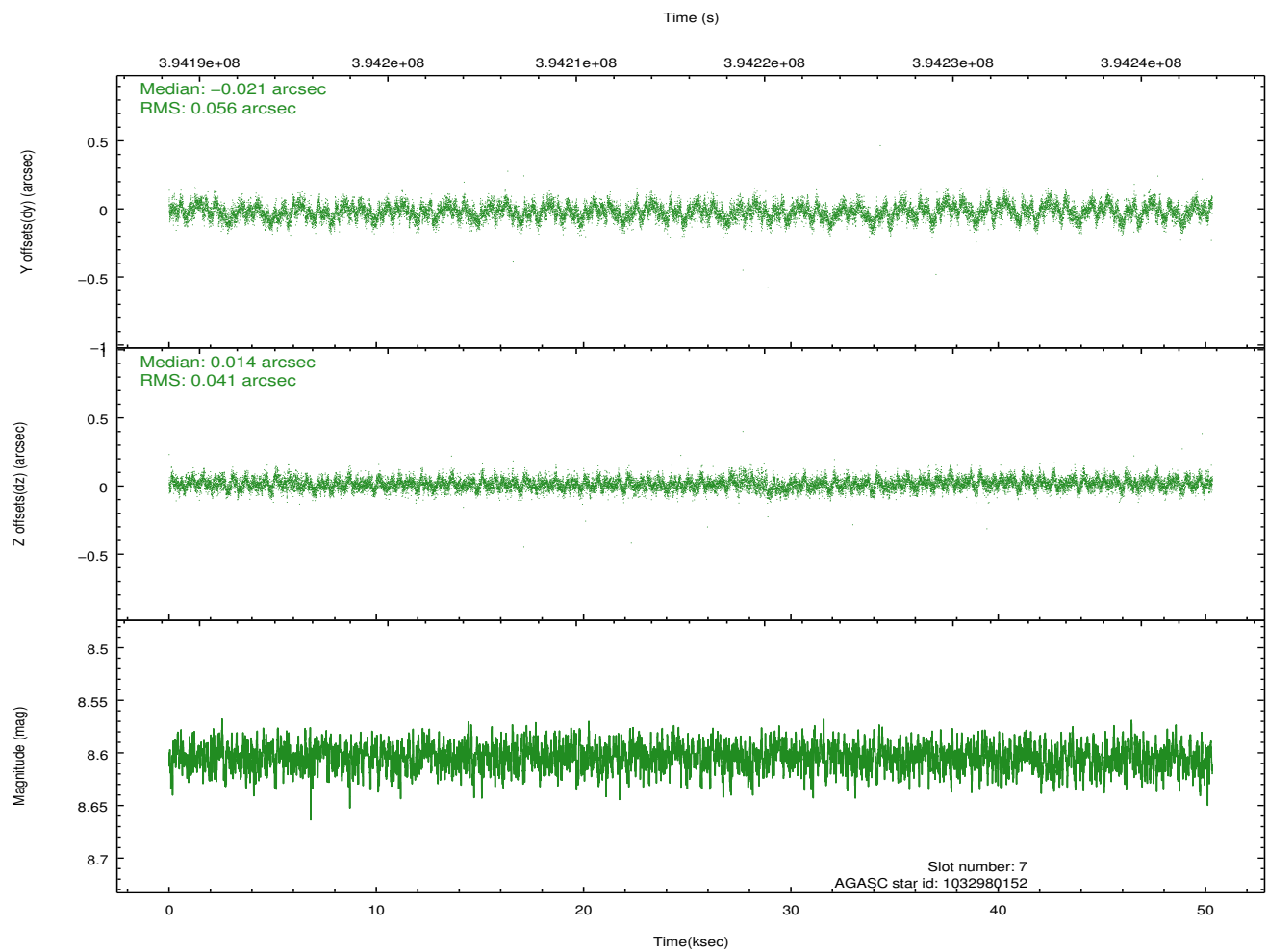
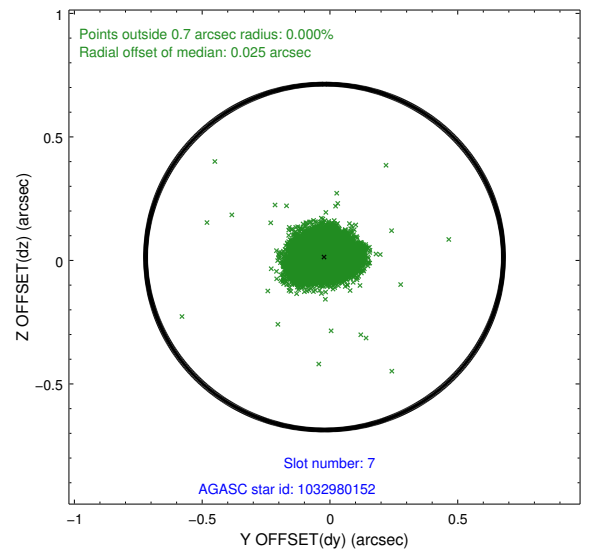
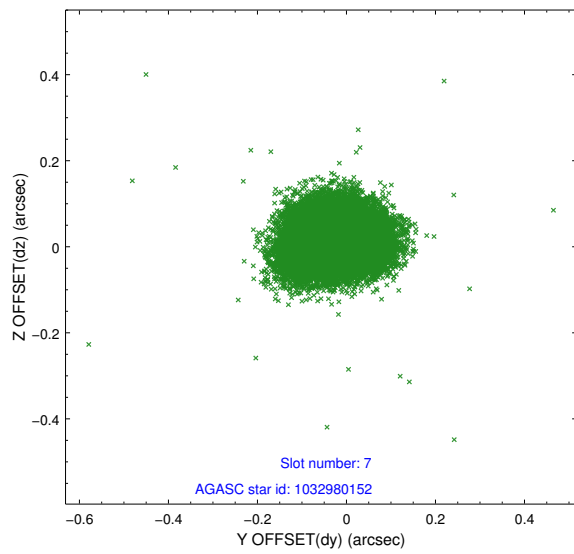
2.4.3 Slot 5



2.4.4 Slot 6

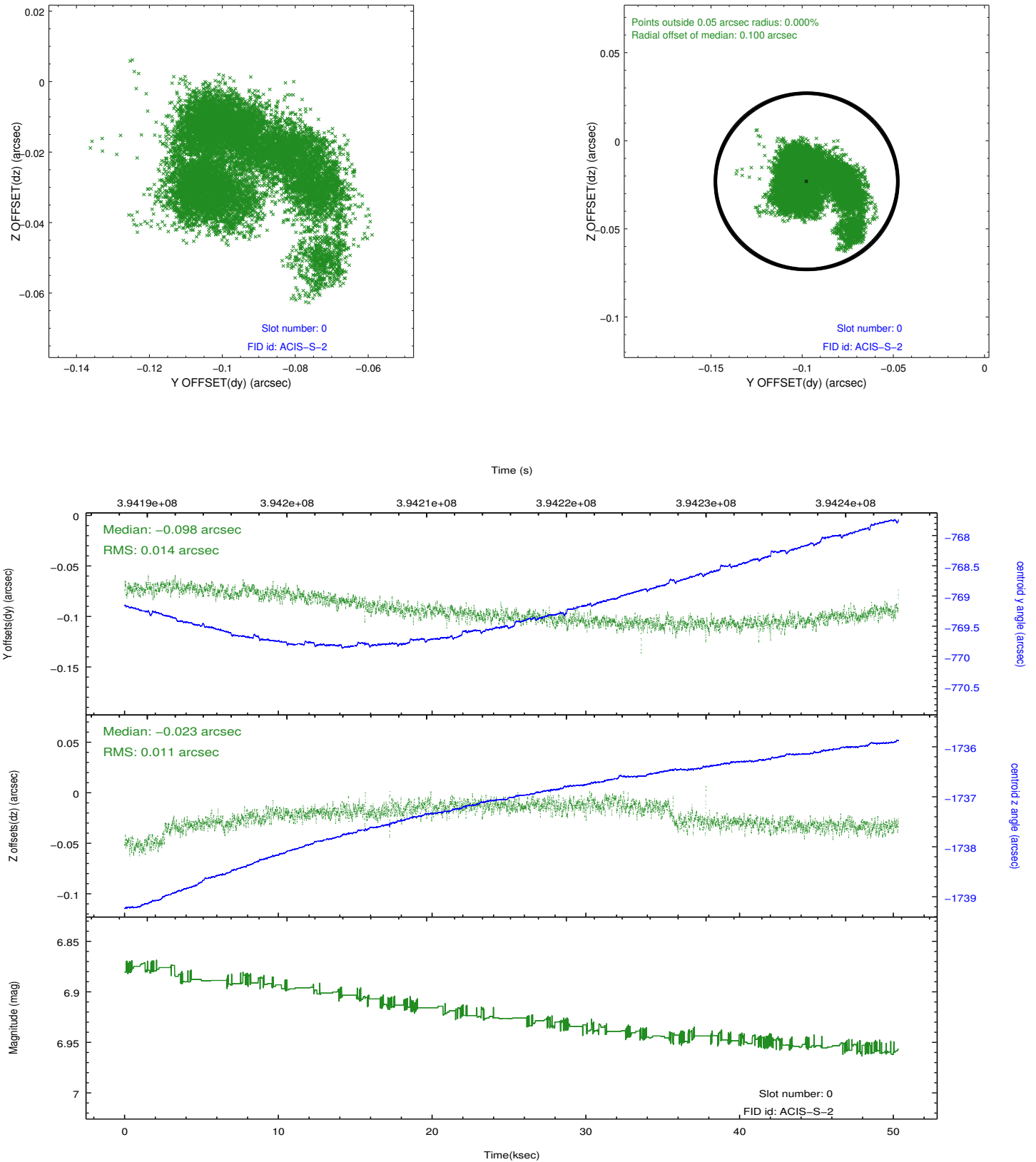


2.4.5 Slot 7

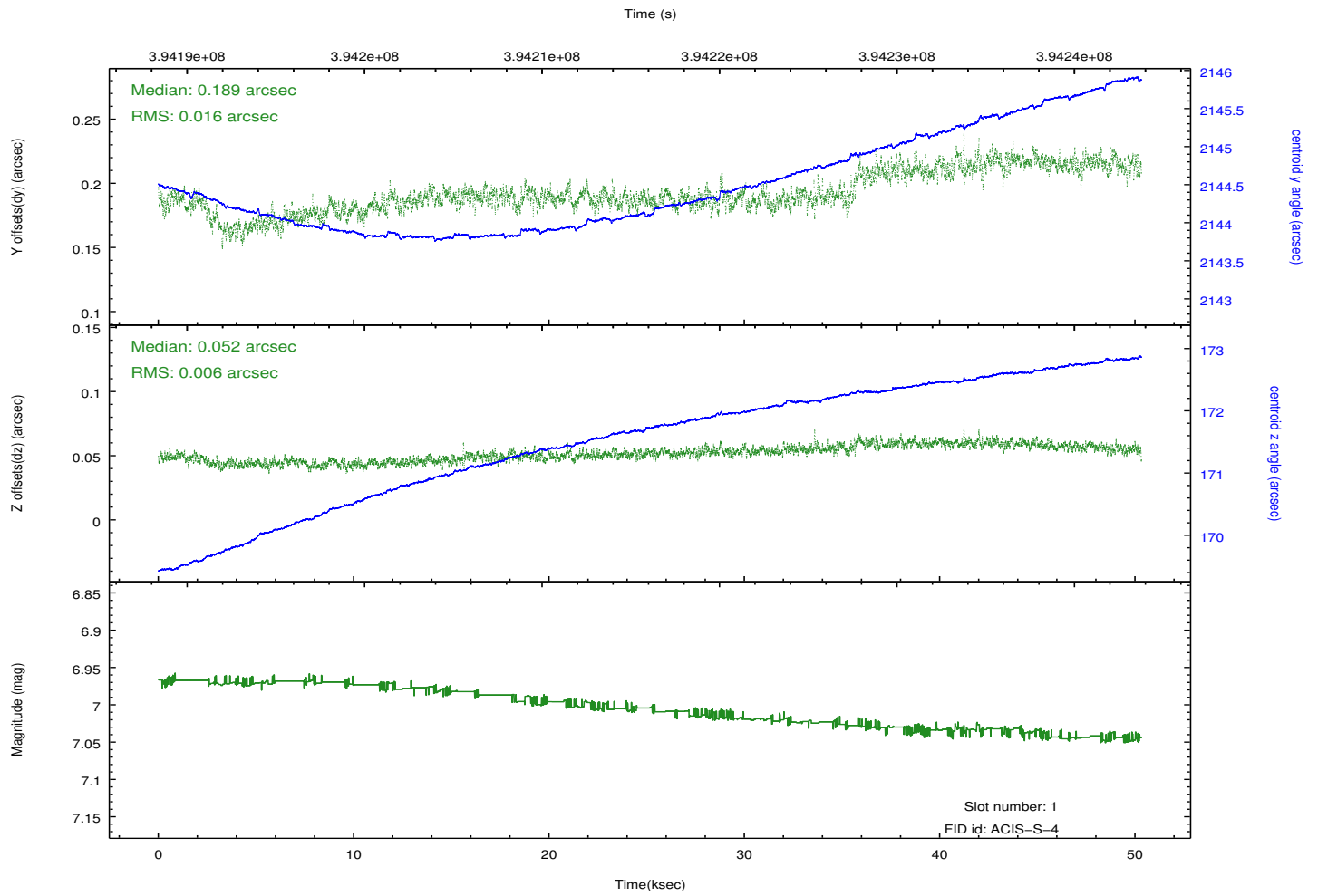
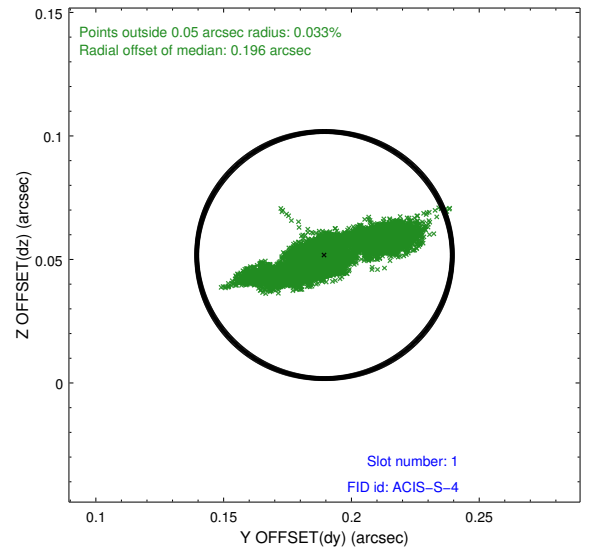
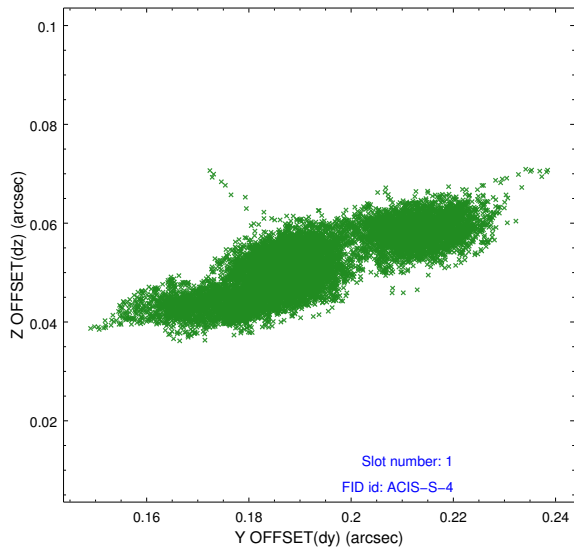


2.5 FID Slots

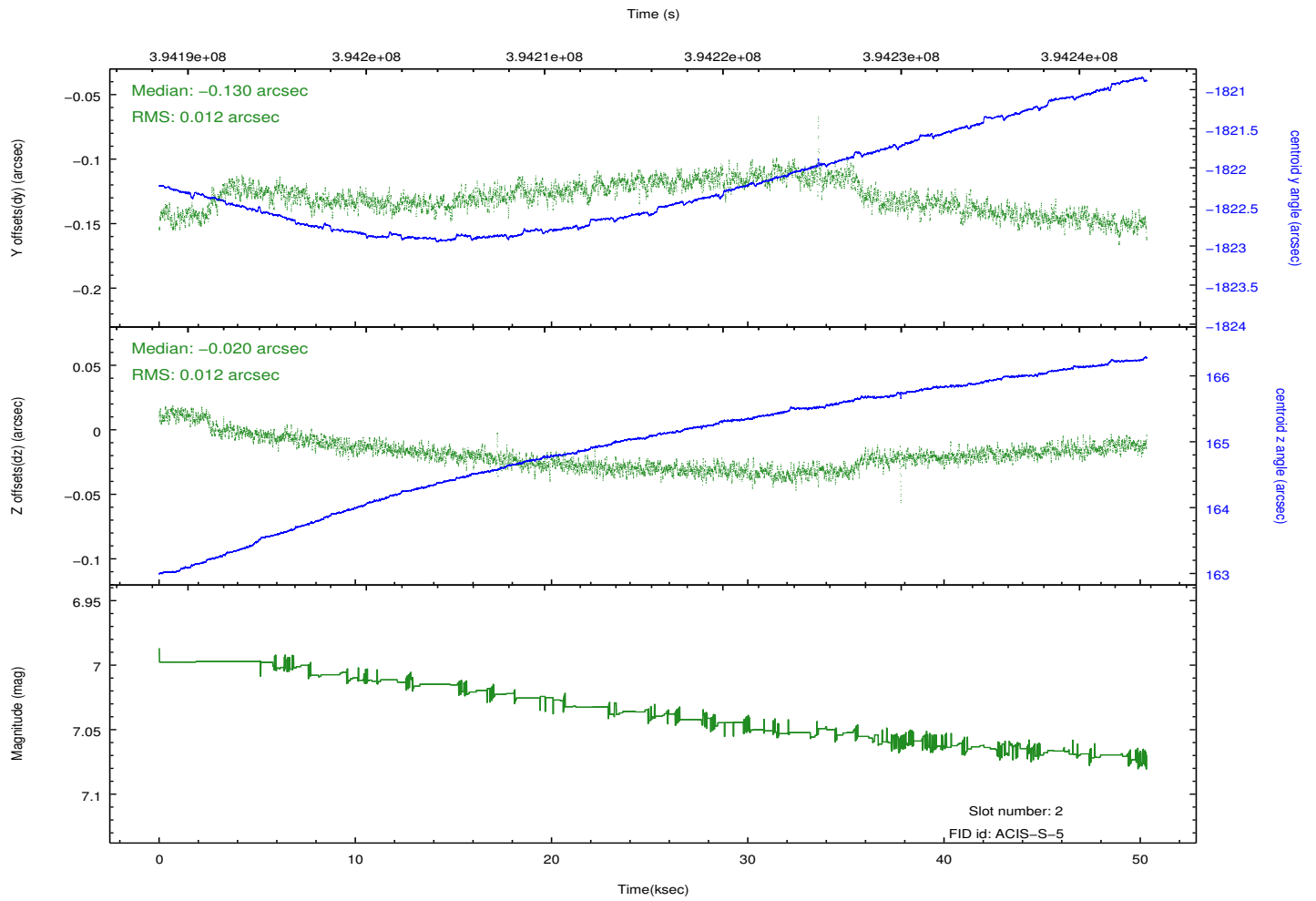
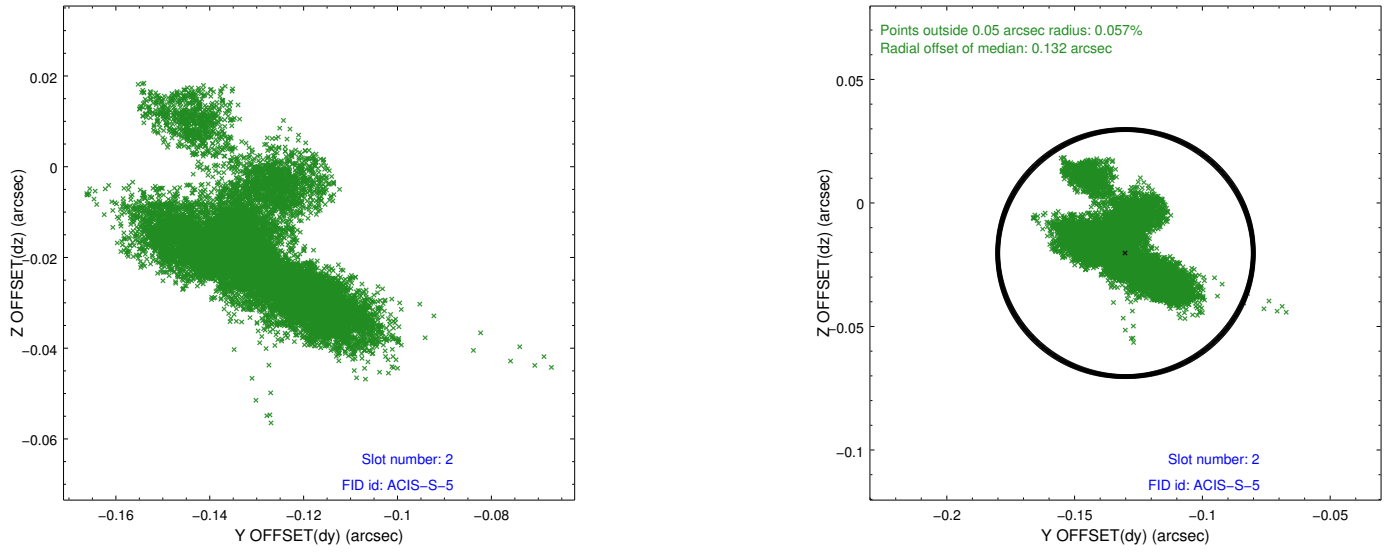
2.5.1 Slot 0



2.5.2 Slot 1

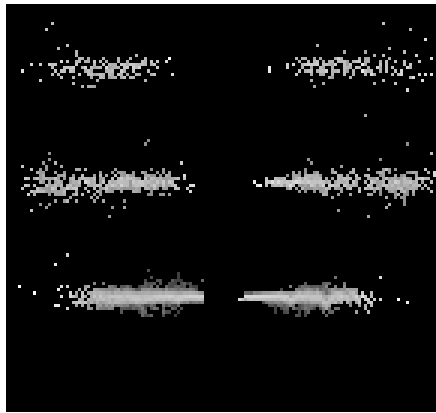


2.5.3 Slot 2

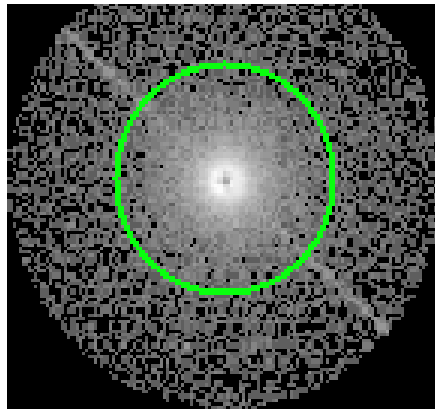


3 Gratings

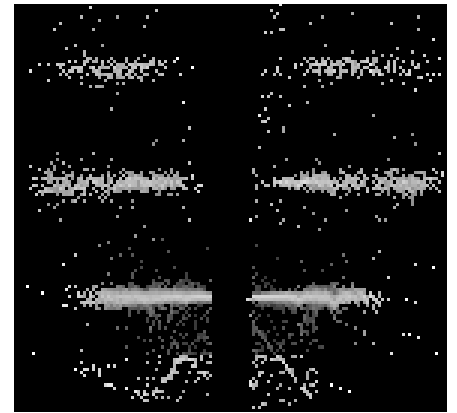
3.1 HEG Arm



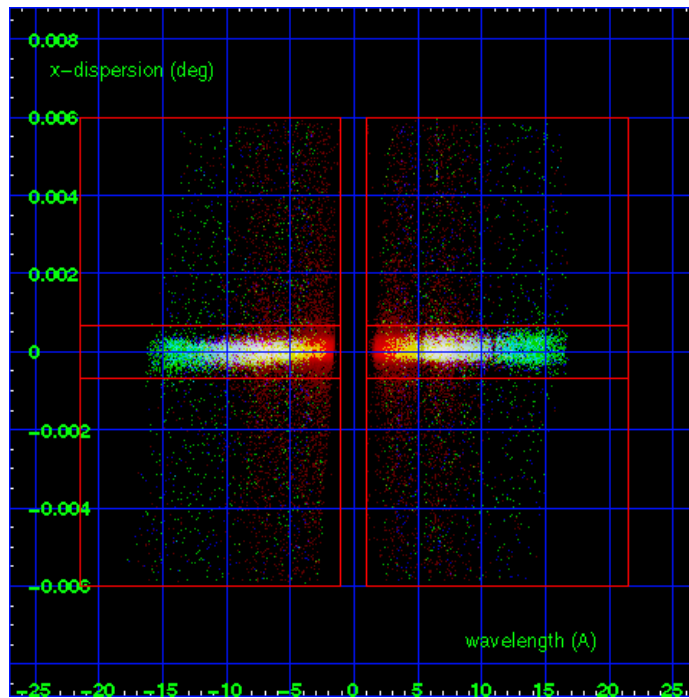
HEG Order Sort 123



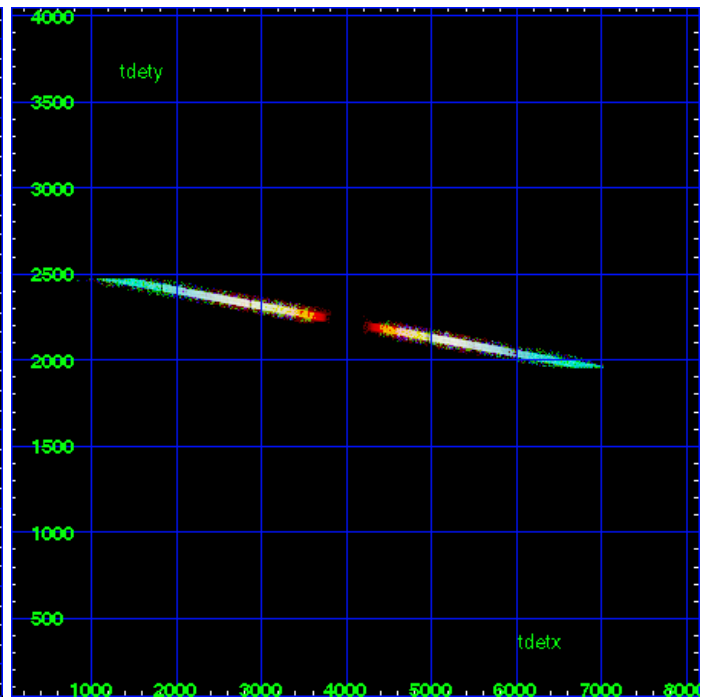
HEG Zero Order



HEG Order Sort ALL

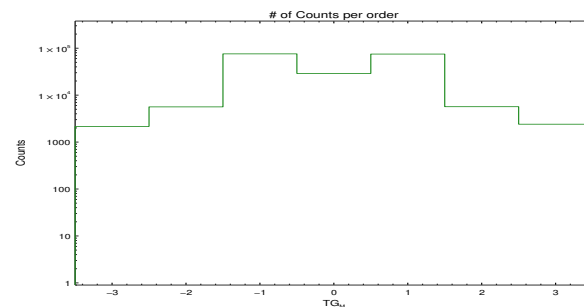


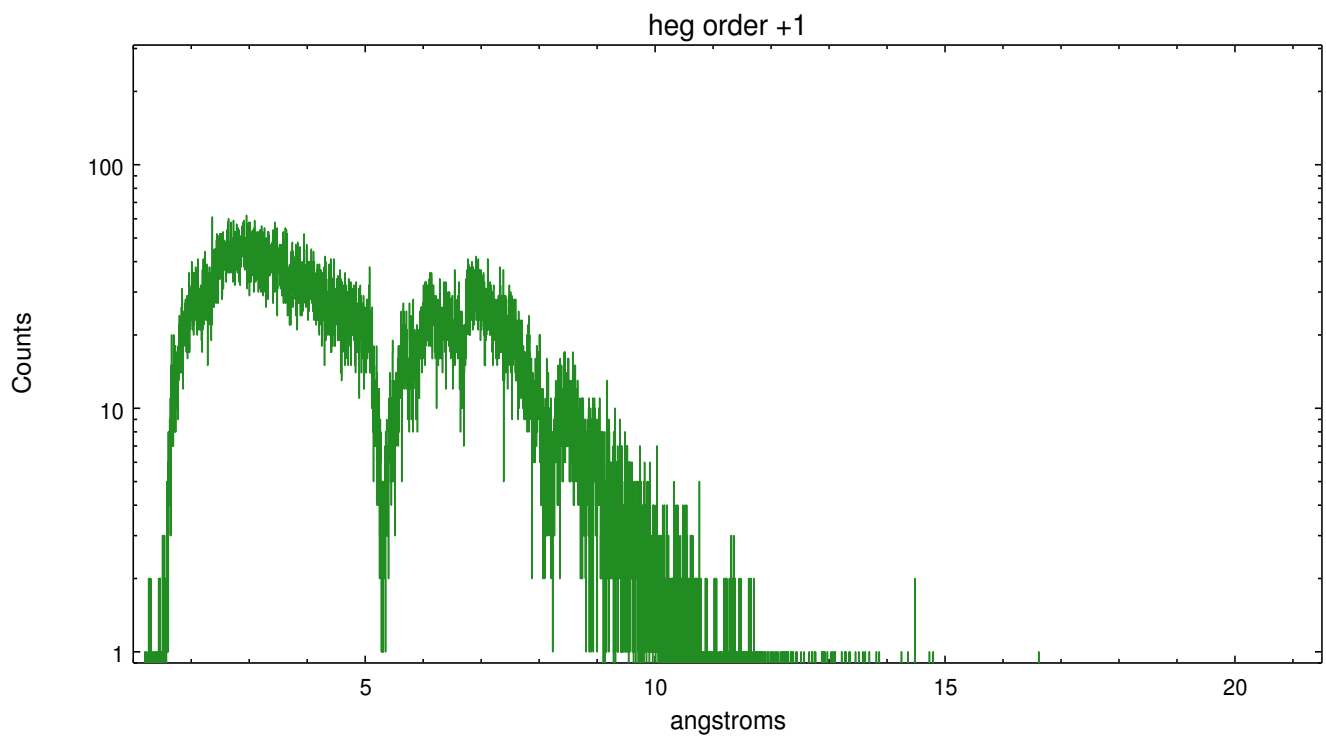
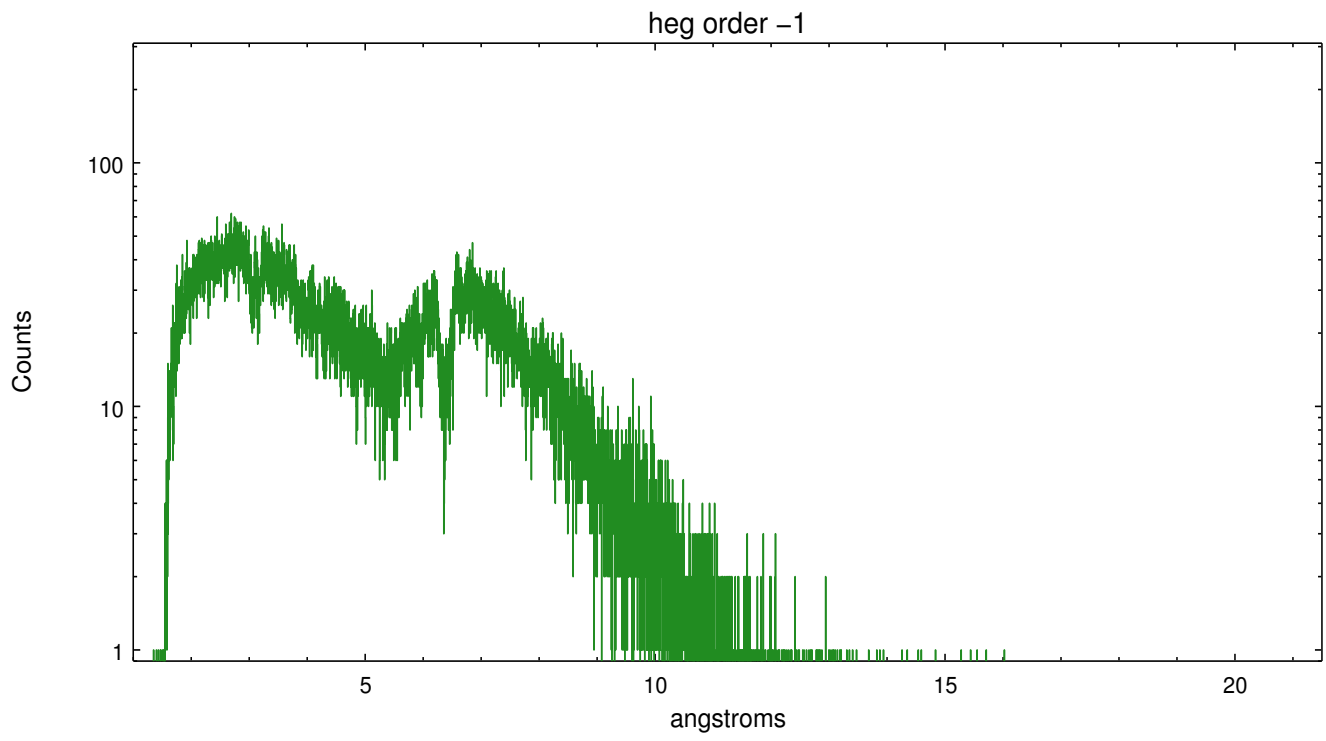
Spot Image HEG



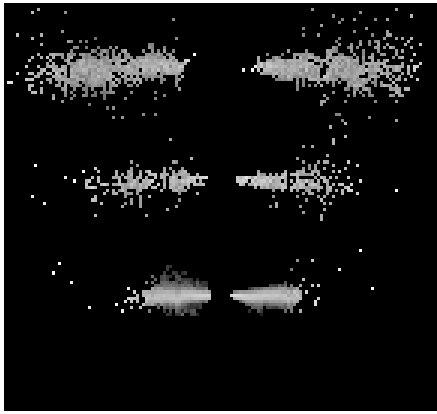
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	2156	5622	75730	28984	74942	5674	2401

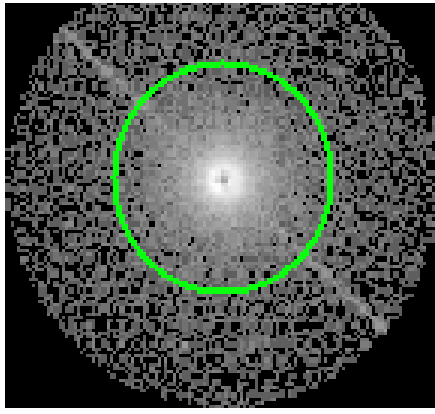




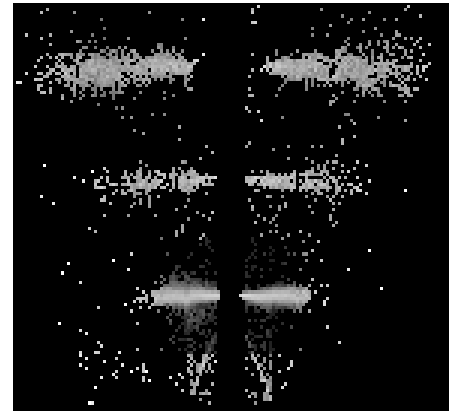
3.2 MEG Arm



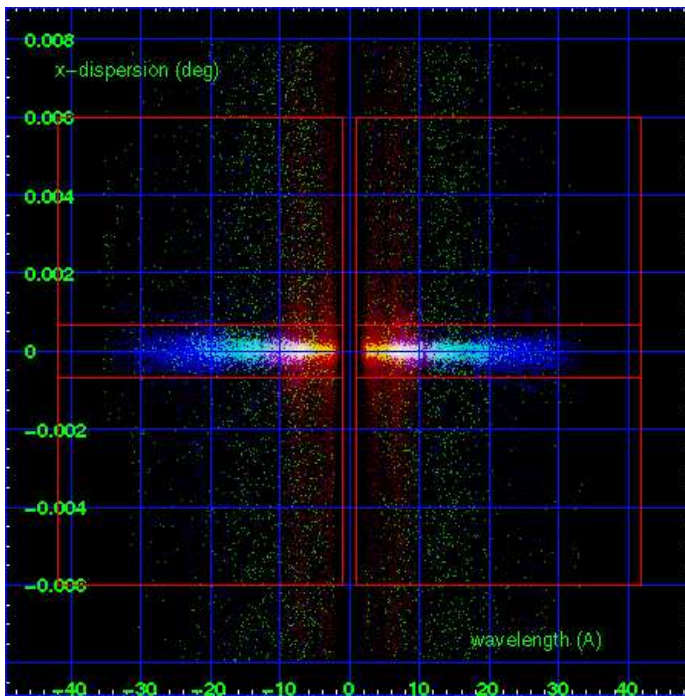
MEG Order Sort 123



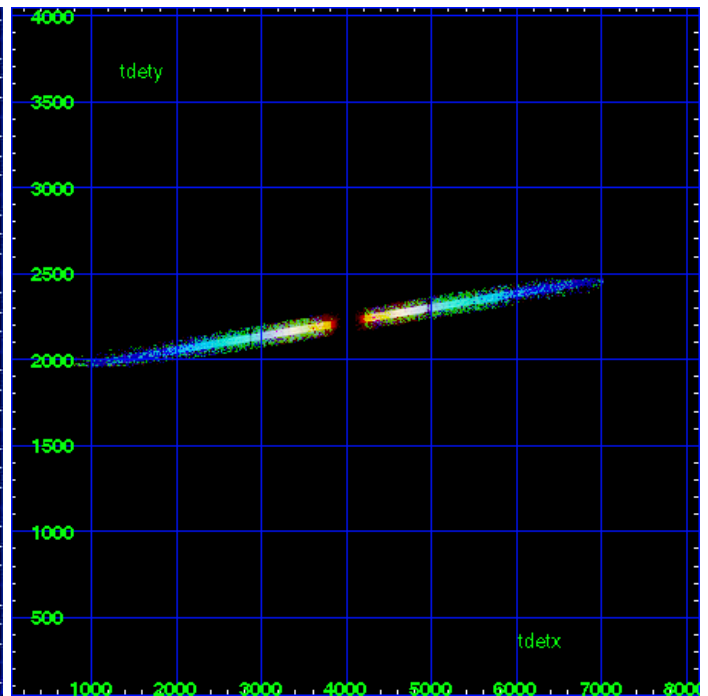
MEG Zero Order



MEG Order Sort ALL

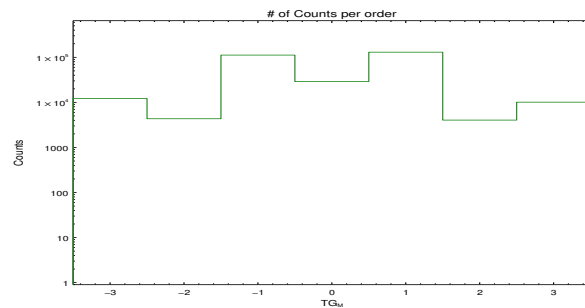


Spot Image MEG

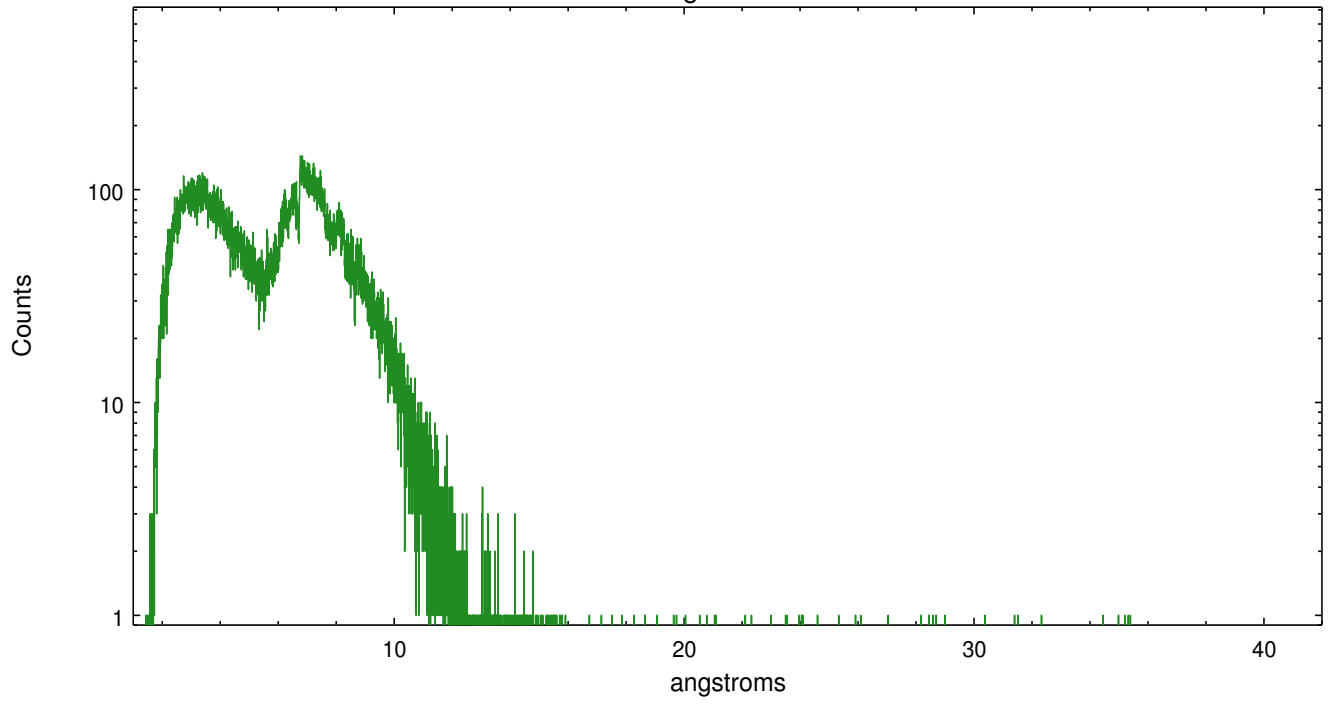


Full Detector MEG

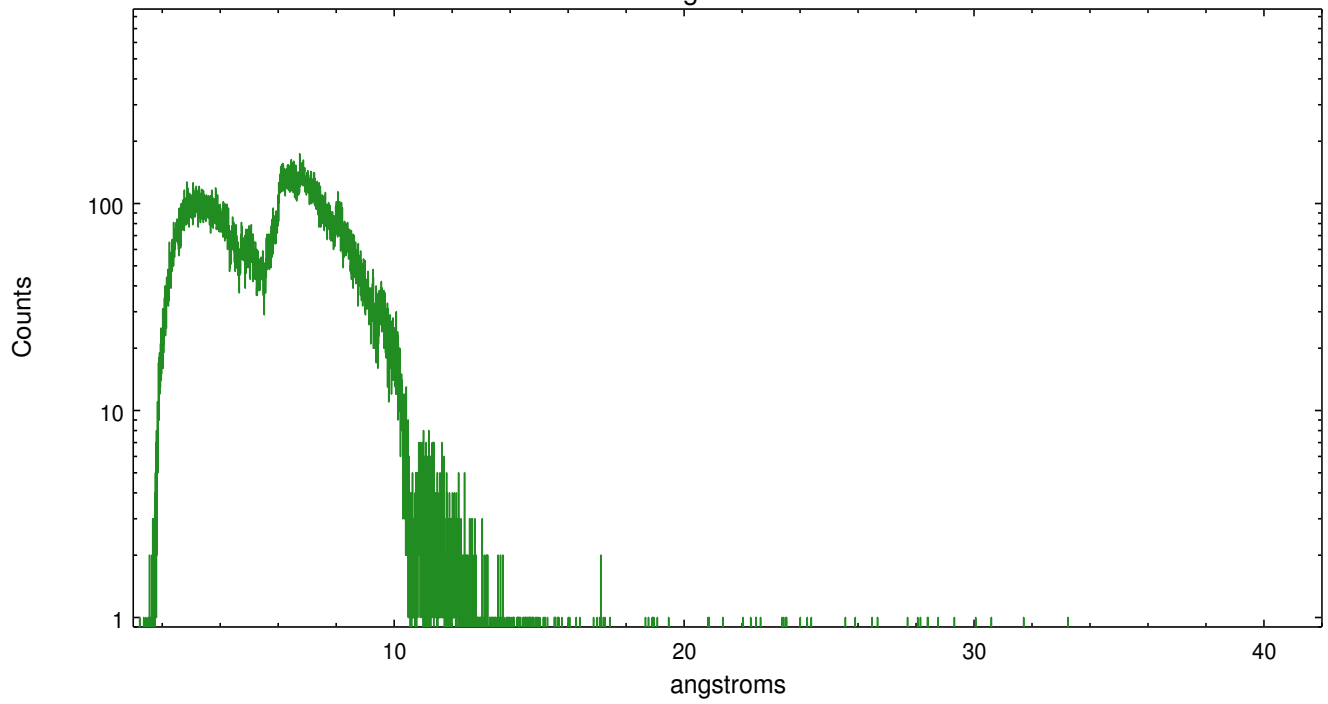
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	12177	4338	112086	28984	130061	4043	10109



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2012.07.12
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	50.26295442754

A.2 Comments

Warning: grating spectra are faintly visible in a 'bad-events' image, which means that there could be some pileup in the dispersed spectra.