

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 3821 - L2 Version 3
Chandra X-Ray Center

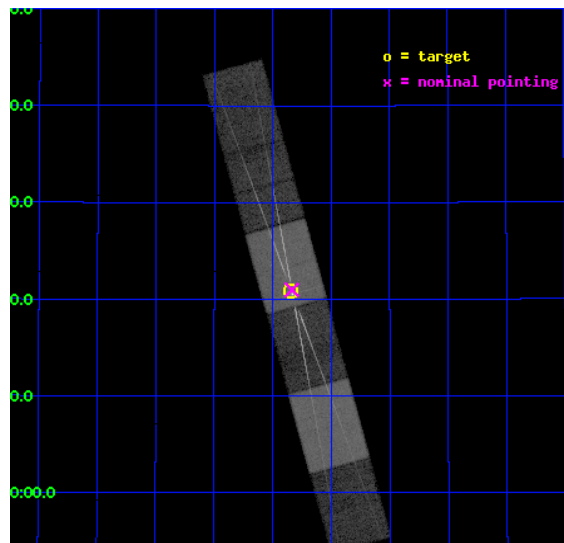
L2 Processing Date : Nov 2 2012

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1 Front

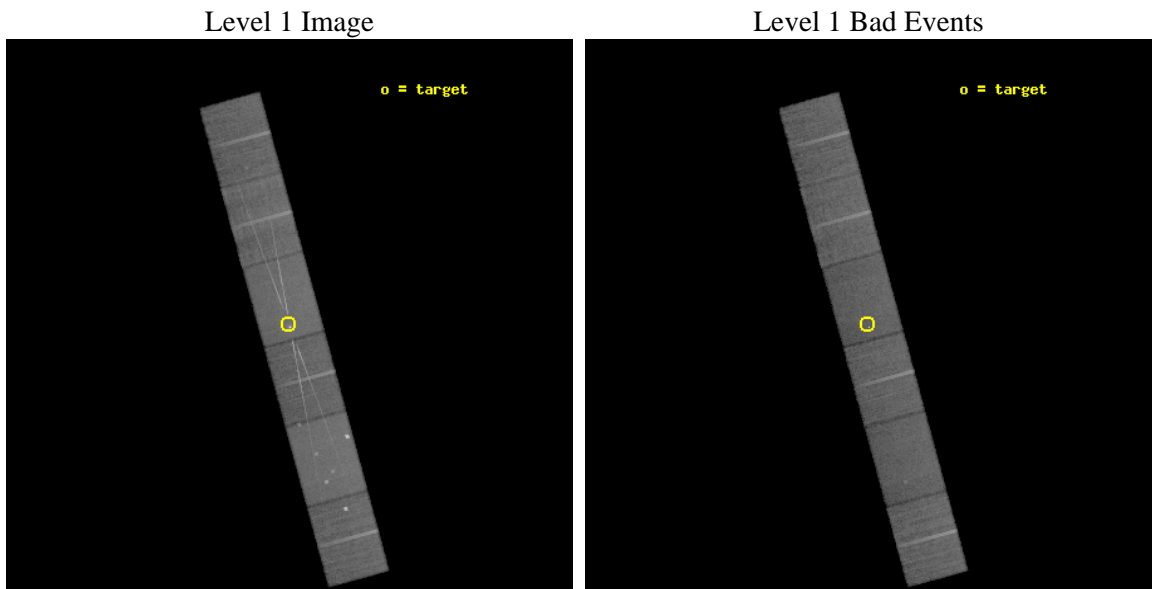
seq_num	400308	Sequence number
obs_id	3821	Observation id
title	X-RAY TRANSMISSION SPECTROSCOPY DURING THE STAR-RISE OF HER X-1	Pr
observer	Dr. Mario Jimenez-Garate	Principal investigator
object	HER X-1	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	254.460417	Observer's specified target RA [deg]
dec_targ	35.347778	Observer's specified target Dec [deg]
ra_nom	254.45895270676	Nominal RA [deg]
dec_nom	35.349670128699	Nominal Dec [deg]
roll_nom	254.69270576577	Nominal Roll [deg]
revision	3	Processing version of data
ontime	30097.5	Sum of GTIs [s]
livetime	29611.39926959	Livetime [s]
ontime4	30097.5	Sum of GTIs [s]
ontime5	30097.5	Sum of GTIs [s]
ontime6	30097.5	Sum of GTIs [s]
ontime7	30097.5	Sum of GTIs [s]
ontime8	30097.5	Sum of GTIs [s]
ontime9	30094.959039748	Sum of GTIs [s]
l2events	294211	Number of level 2 events



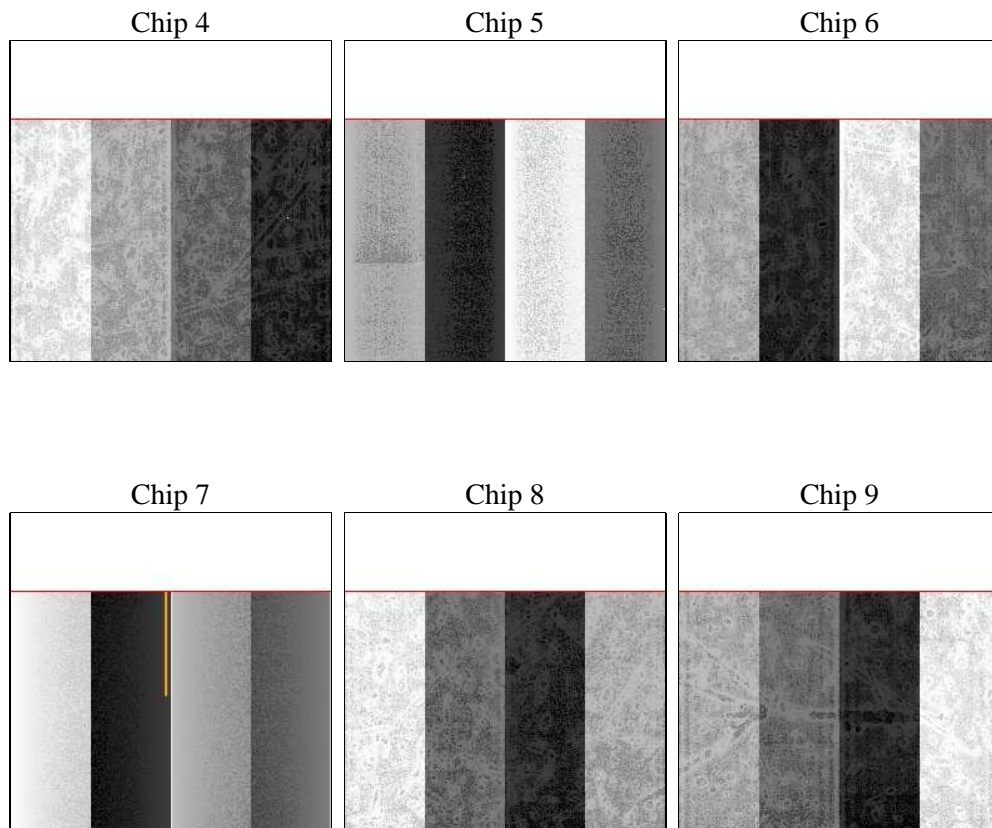
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	29950.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	30097.5	Sum of GTIs [s]
caldsver	4.5.2	 	ontime4	30097.5	Sum of GTIs [s]
date	2012-11-02T17:03:32	Date and time of file creation	ontime5	30097.5	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	30097.5	Sum of GTIs [s]
			ontime7	30097.5	Sum of GTIs [s]
			ontime8	30097.5	Sum of GTIs [s]
			ontime9	30094.959039748	Sum of GTIs [s]
			l1events	1147725	Number of level 1 events

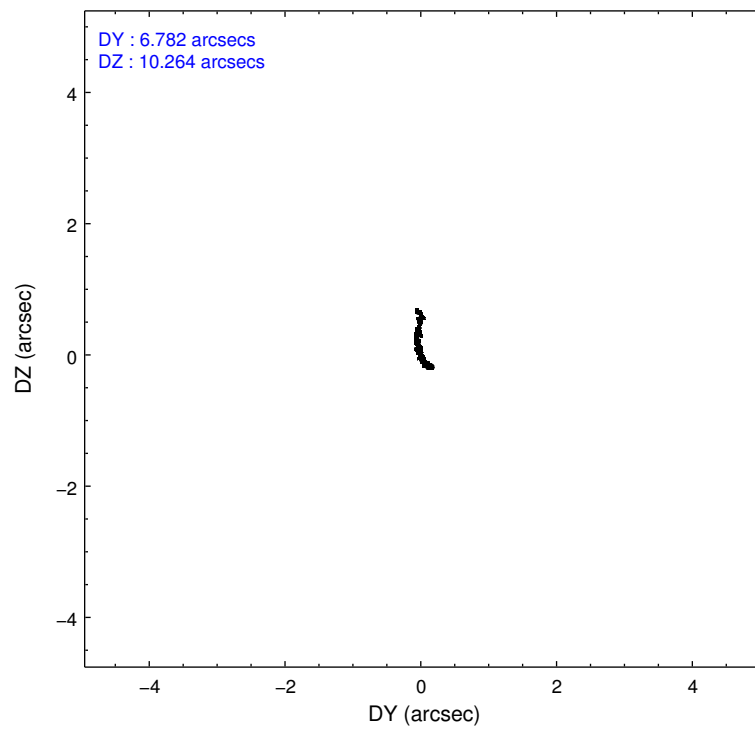
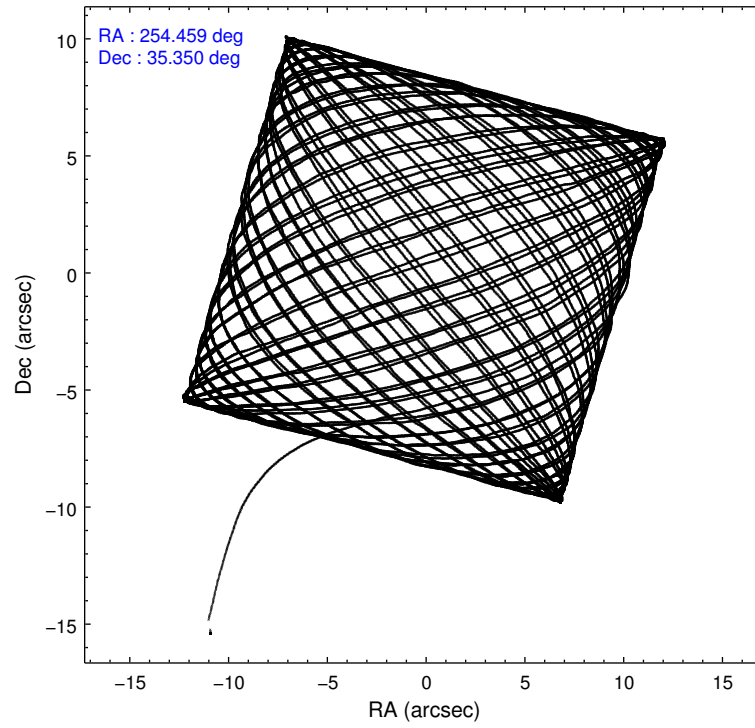
2.1.4 Events

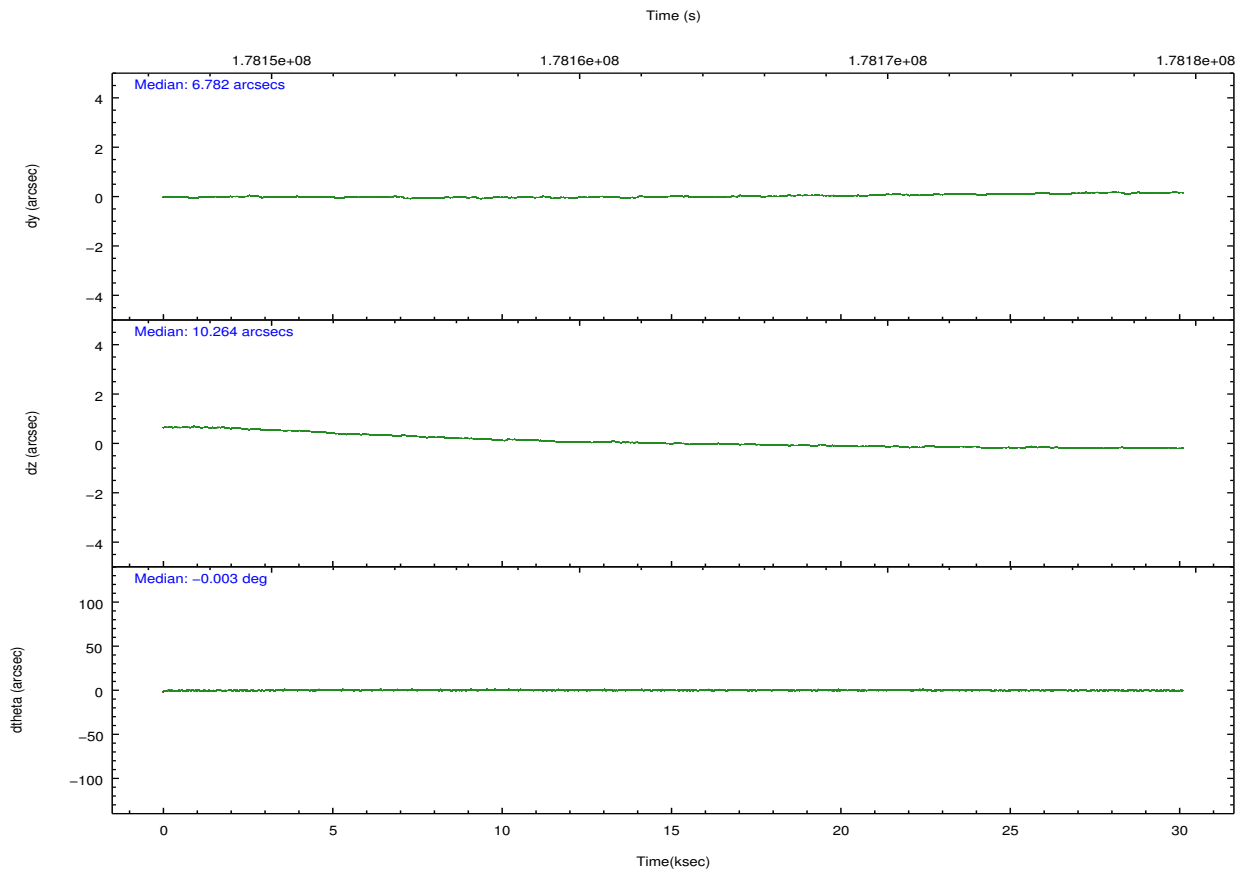
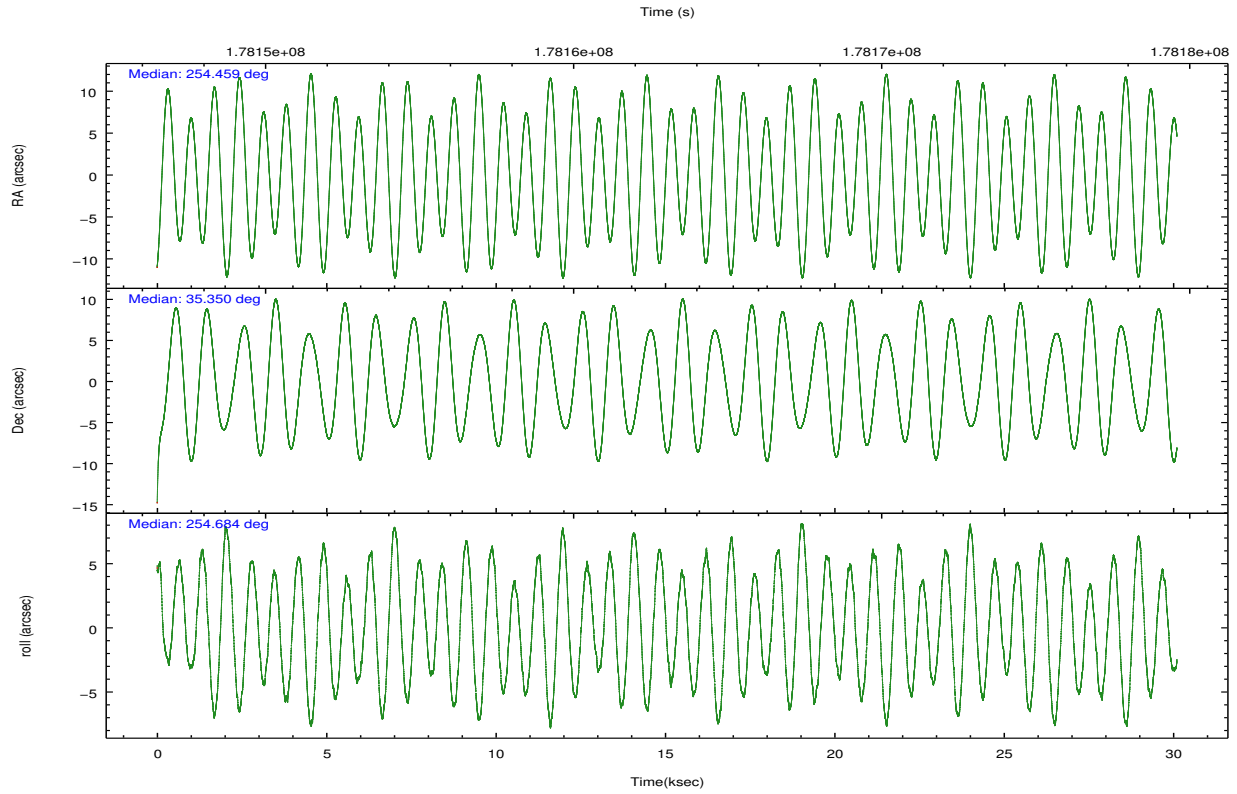
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	172298	229466	171096	228029	193356	153480	grade 0 events	16489	18043	20369	13659	16897	9234
rejected events	144648	117762	133377	118837	147877	132825		9%	7%	11%	5%	8%	6%
rejected %	83%	51%	77%	52%	76%	86%	grade 1 events	141	273	120	478	117	70
								0%	0%	0%	0%	0%	0%
							grade 2 events	4137	32923	6436	22647	9105	3677
								2%	14%	3%	9%	4%	2%
							grade 3 events	2104	5375	2744	10333	4389	2062
								1%	2%	1%	4%	2%	1%
							grade 4 events	1947	4800	2778	10215	4257	1938
								1%	2%	1%	4%	2%	1%
							grade 5 events	6162	16645	6587	19938	8498	6855
								3%	7%	3%	8%	4%	4%
							grade 6 events	3215	51992	5602	53572	11156	3912
								1%	22%	3%	23%	5%	2%
							grade 7 events	138103	99415	126460	97187	138937	125732
								80%	43%	73%	42%	71%	81%

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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	254.450036	254.4589527067644	Subarray requested	CUSTOM	CUSTOM
[deg] Pointing Dec	35.375936	35.34967012869916	Subarray start row	1	1
[deg] Pointing Roll	254.541248	254.6927057657671	Subarray row count	774	774
[mm] SIM focus pos	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
[mm] SIM defocus	0	0.001444936568705701	[s] Primary exposure time	0.000000	2.5
[mm] SIM translation stage pos	-187.132523	-187.1254020033014			
[mm] SIM translation stage offset	-3	-3.007120579706367			
Phase constraints	Y	Y			
[d] Phase period	1.700167	1.700167			
[d] Phase epoch (MJD)	50290.659249	50290.659249			
Phase start	0.130000	0.130000			
Phase end	0.780000	0.780000			
Phase start error	0.010000	0.010000			
Phase end error	0.010000	0.010000			
[s] Observation start time (MET)	178148131.184000	178146979.79169			
Observation start date	2003-08-24T21:34:27	2003-08-24T21:16:19			
[s] Observation end time (MET)	178178081.184000	178179369.79308			
Observation end date	2003-08-25T05:53:37	2003-08-25T06:16:09			
Read mode	TIMED	TIMED			

2.3 Aspect



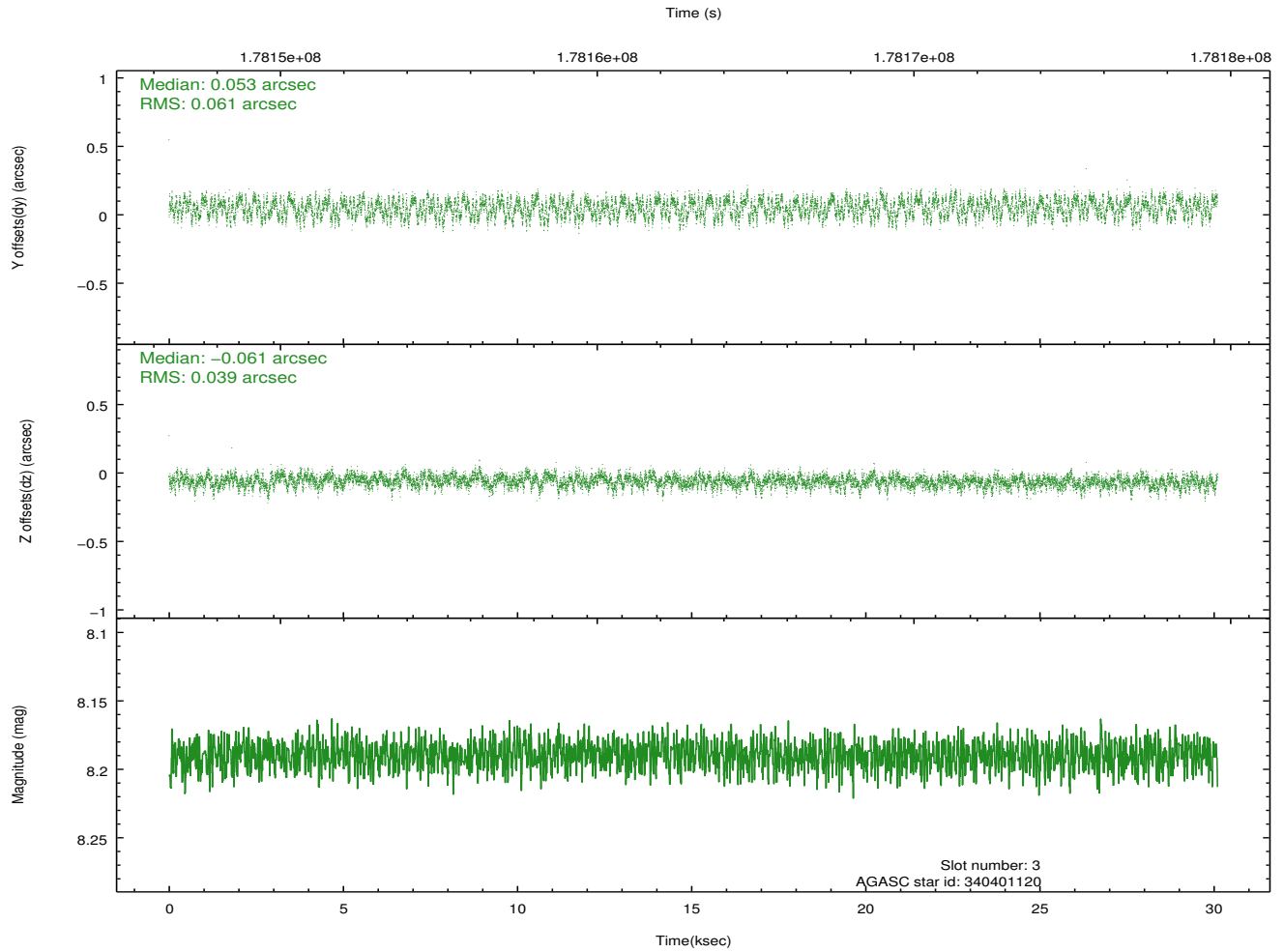
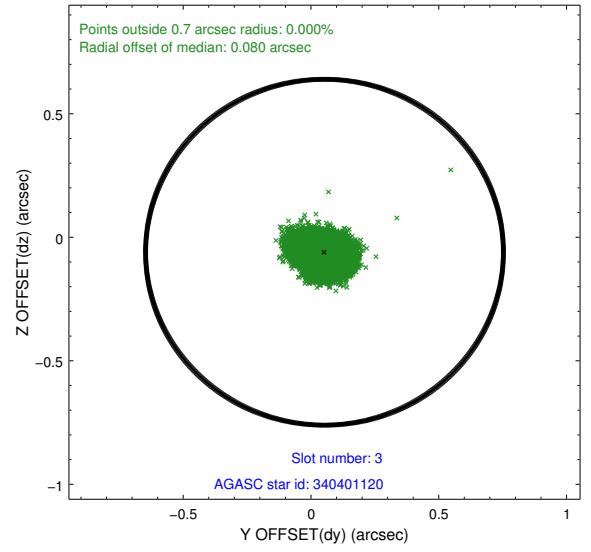
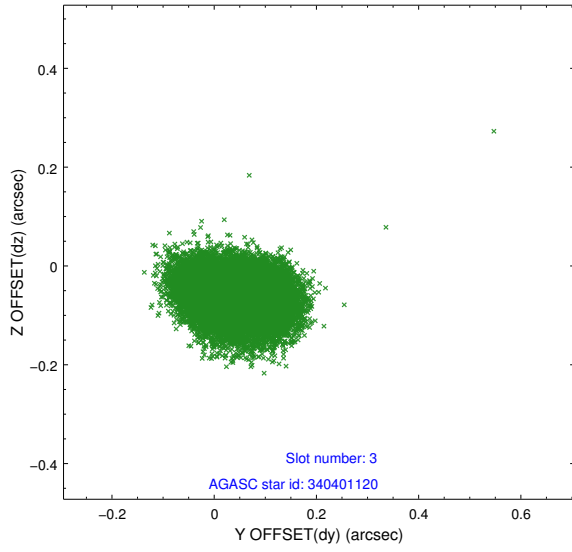


Slot Statistics

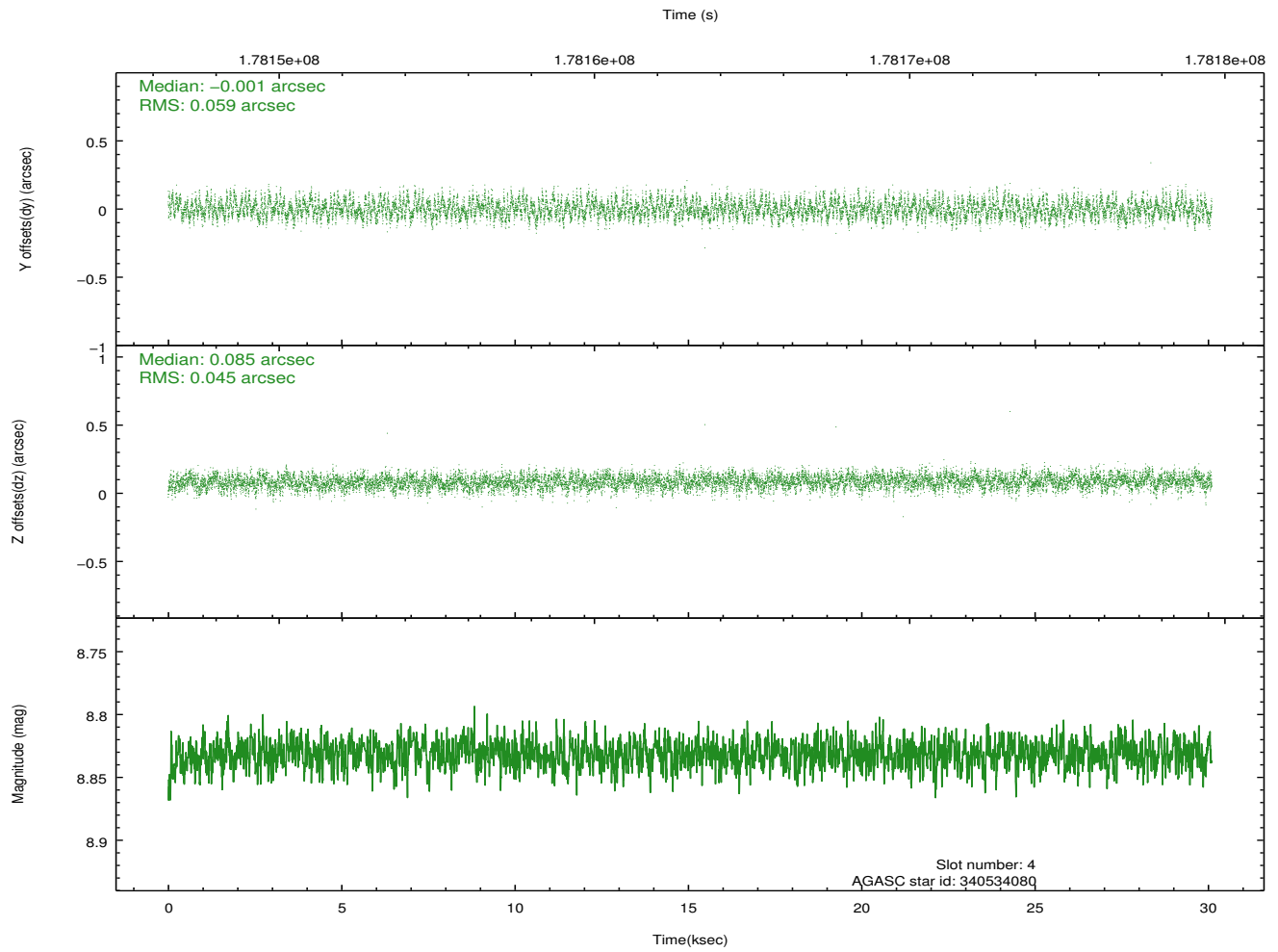
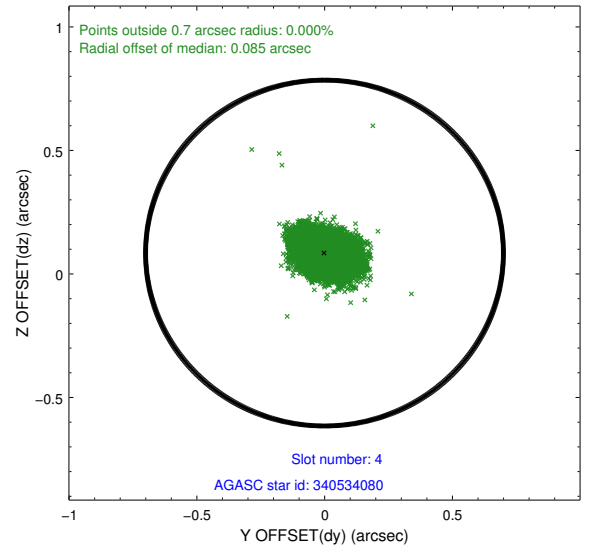
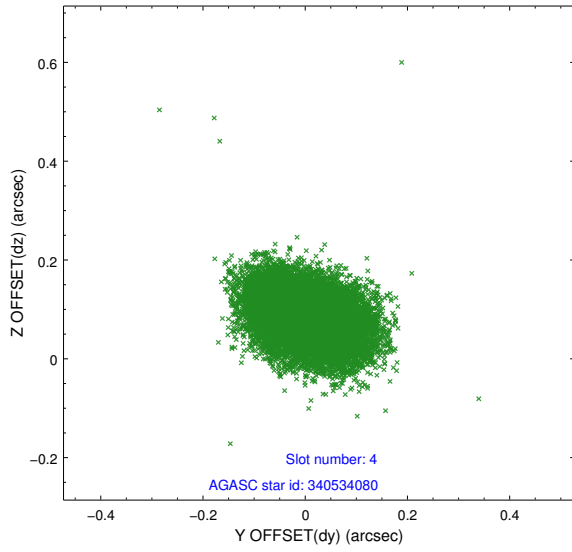
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.09	7343	-0.051	-0.082	0.008	0.014	0.000000	0.000000	-759.43	-1793.77
1	FID	ACIS-S-4	7.19	7343	0.080	0.046	0.006	0.011	0.000000	0.000000	2153.98	114.71
2	FID	ACIS-S-5	7.22	7343	-0.060	0.044	0.008	0.012	0.000000	0.000000	-1812.15	108.53
3	GUIDE	340401120	8.19	14682	0.053	-0.061	0.078	0.120	253.574895	35.128140	1536.36	-2248.12
4	GUIDE	340534080	8.83	14679	-0.001	0.085	0.079	0.128	255.228954	35.471551	-949.11	2107.08
5	GUIDE	340534896	8.60	14684	-0.036	-0.020	0.065	0.105	255.288450	35.541682	-1240.03	2205.56
6	GUIDE	341060696	9.19	14681	-0.093	0.067	0.078	0.132	254.855764	35.681180	-1378.32	849.03
7	GUIDE	340402112	8.51	14683	0.073	-0.071	0.092	0.147	253.640936	34.860529	2416.58	-1811.00

2.4 Star Slots

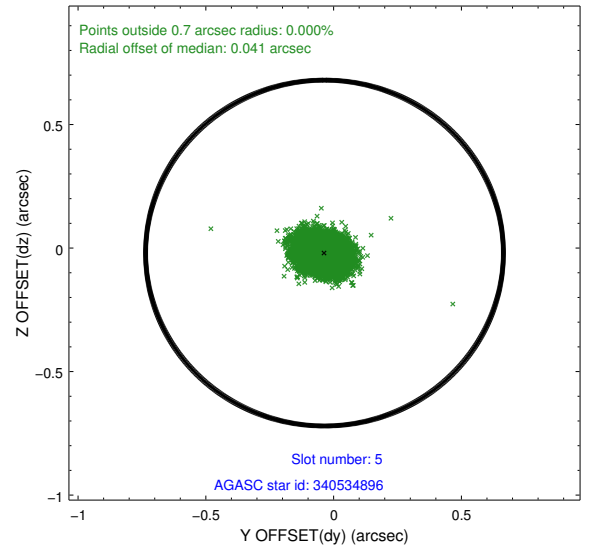
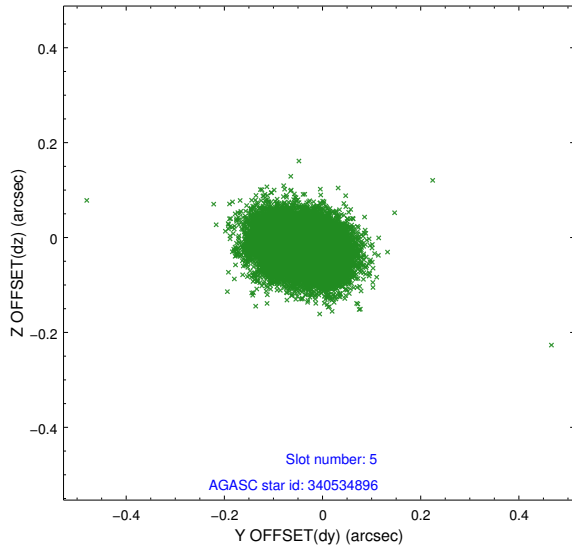
2.4.1 Slot 3



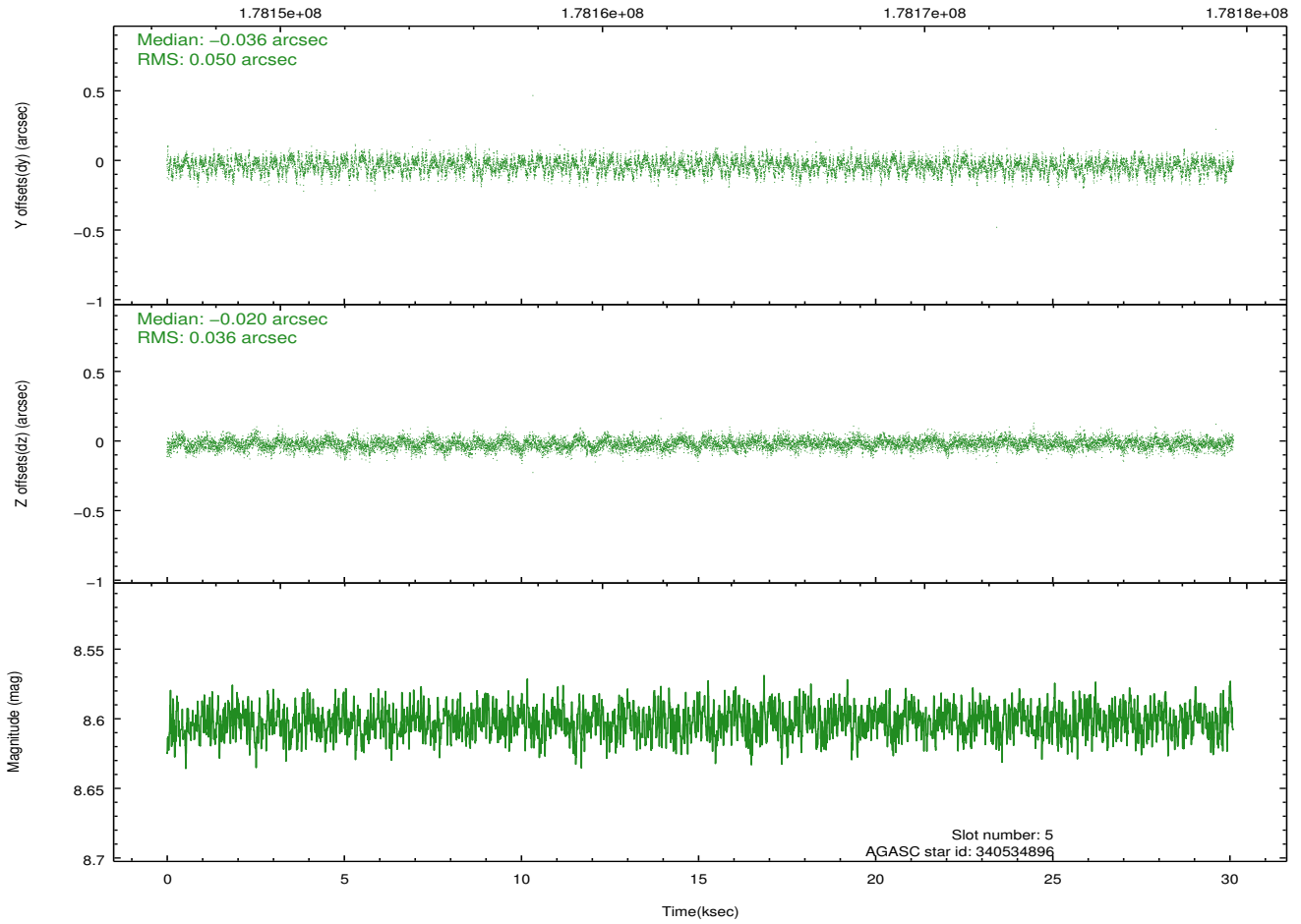
2.4.2 Slot 4



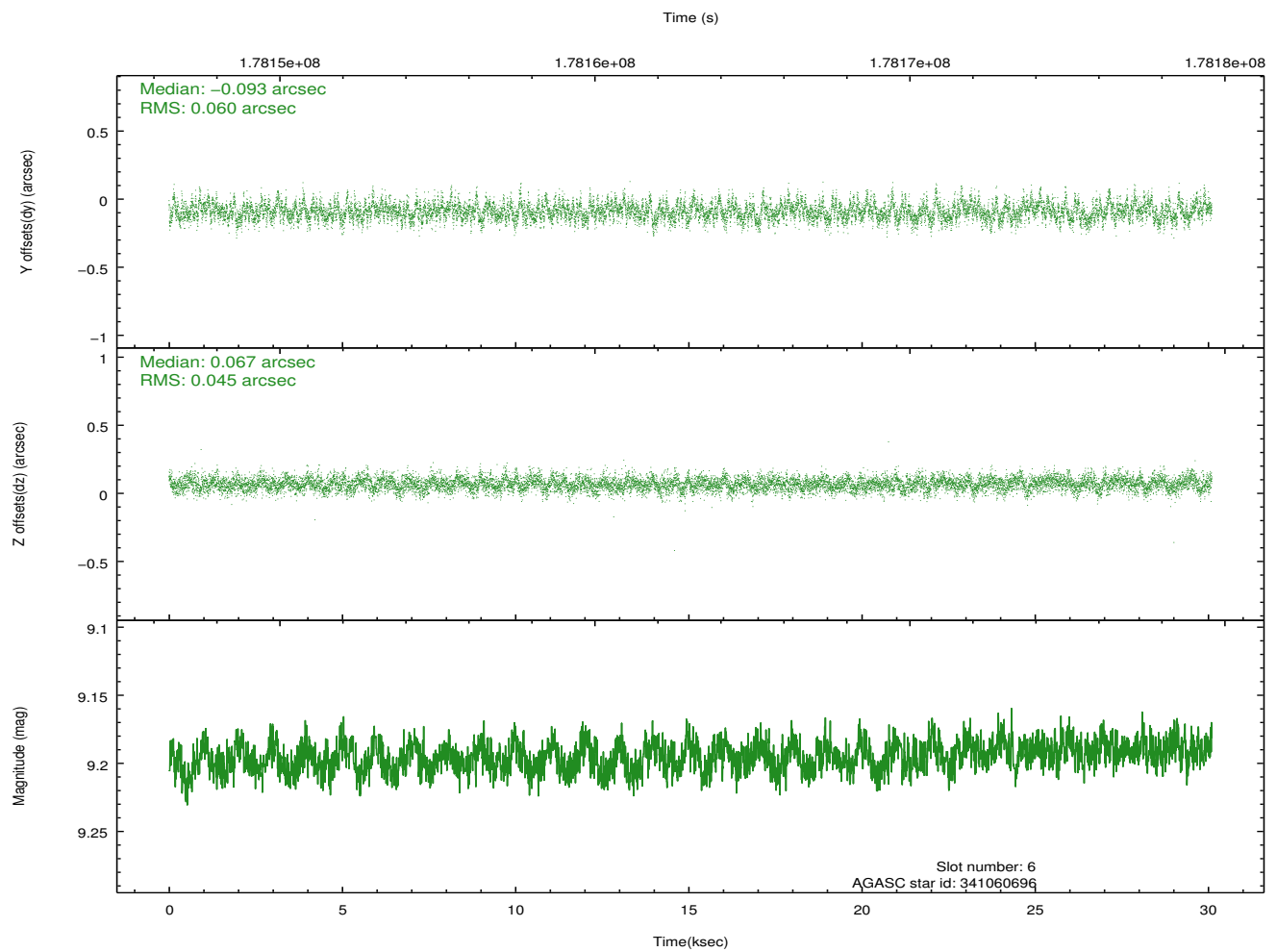
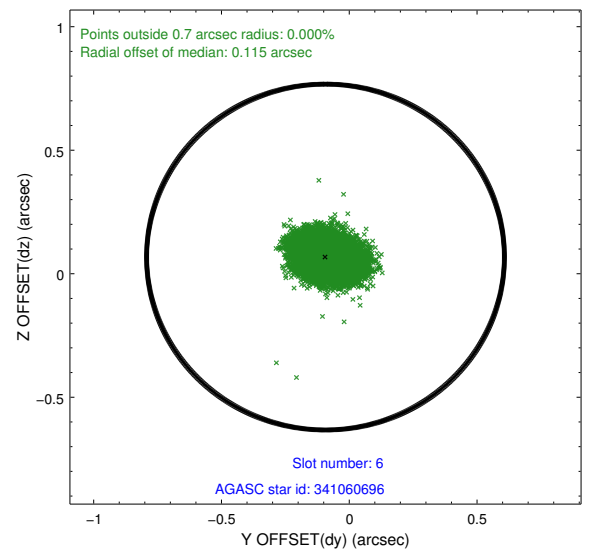
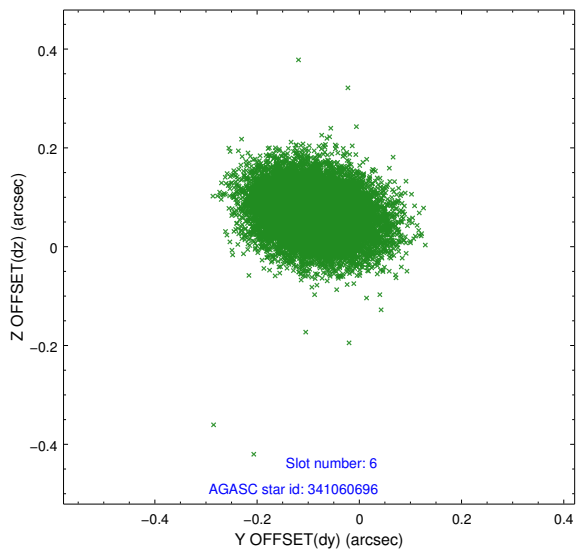
2.4.3 Slot 5



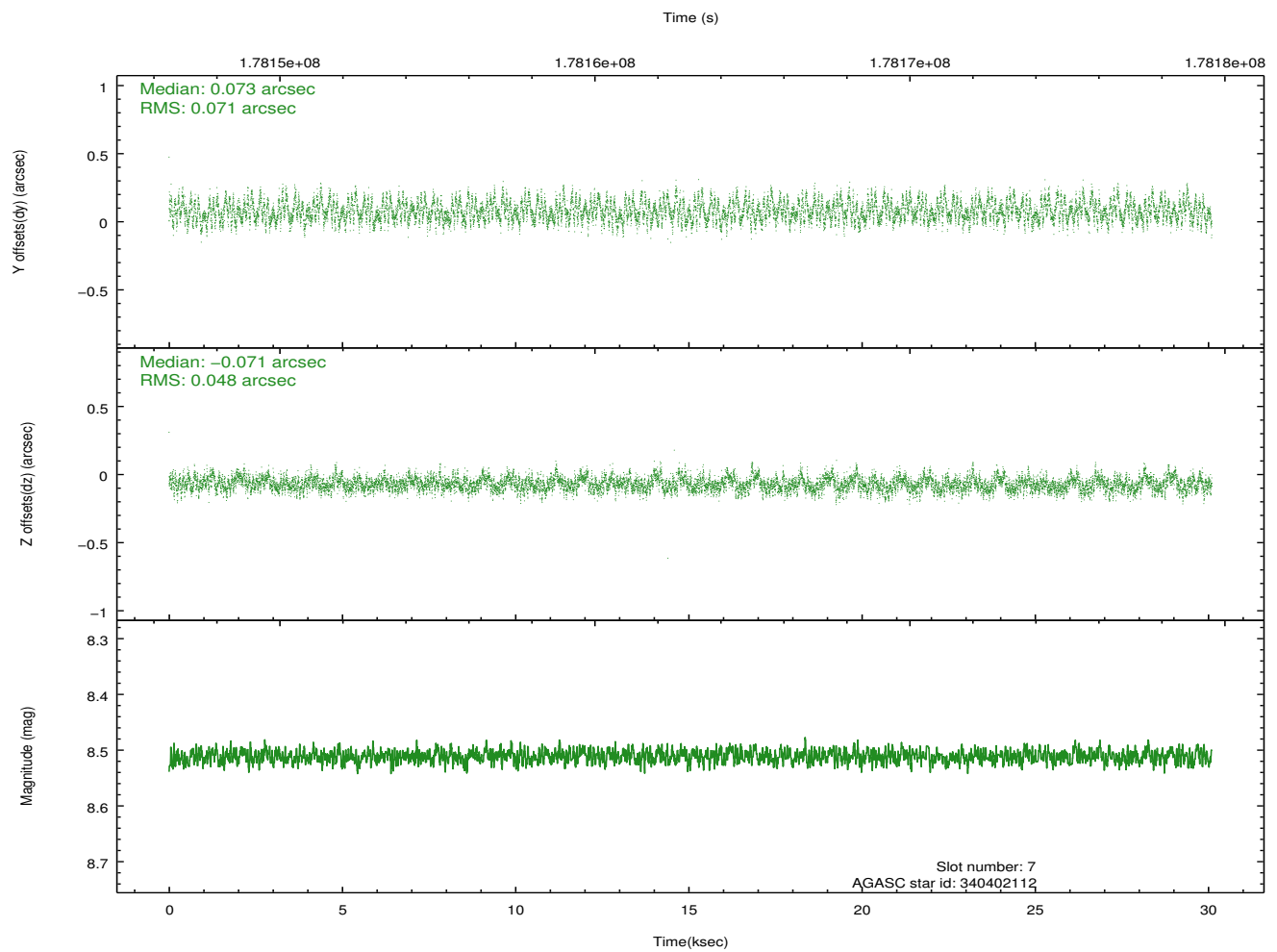
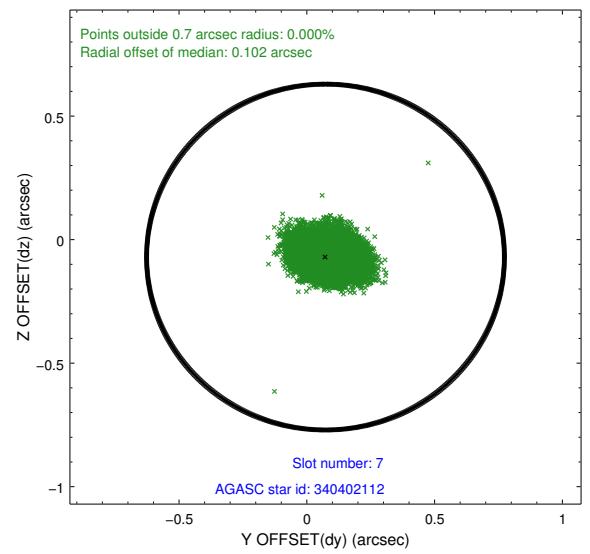
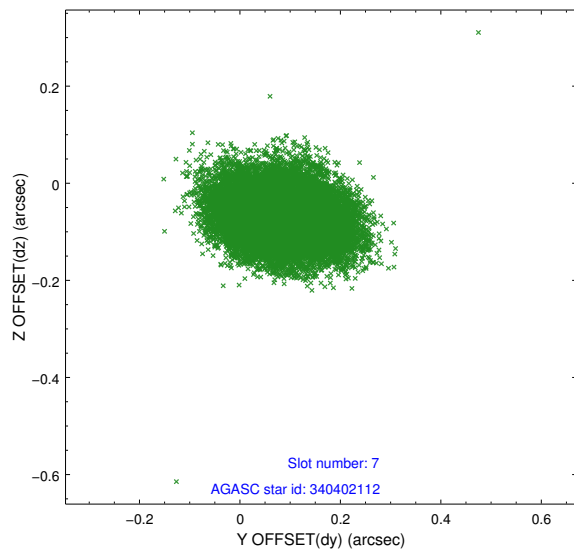
Time (s)



2.4.4 Slot 6

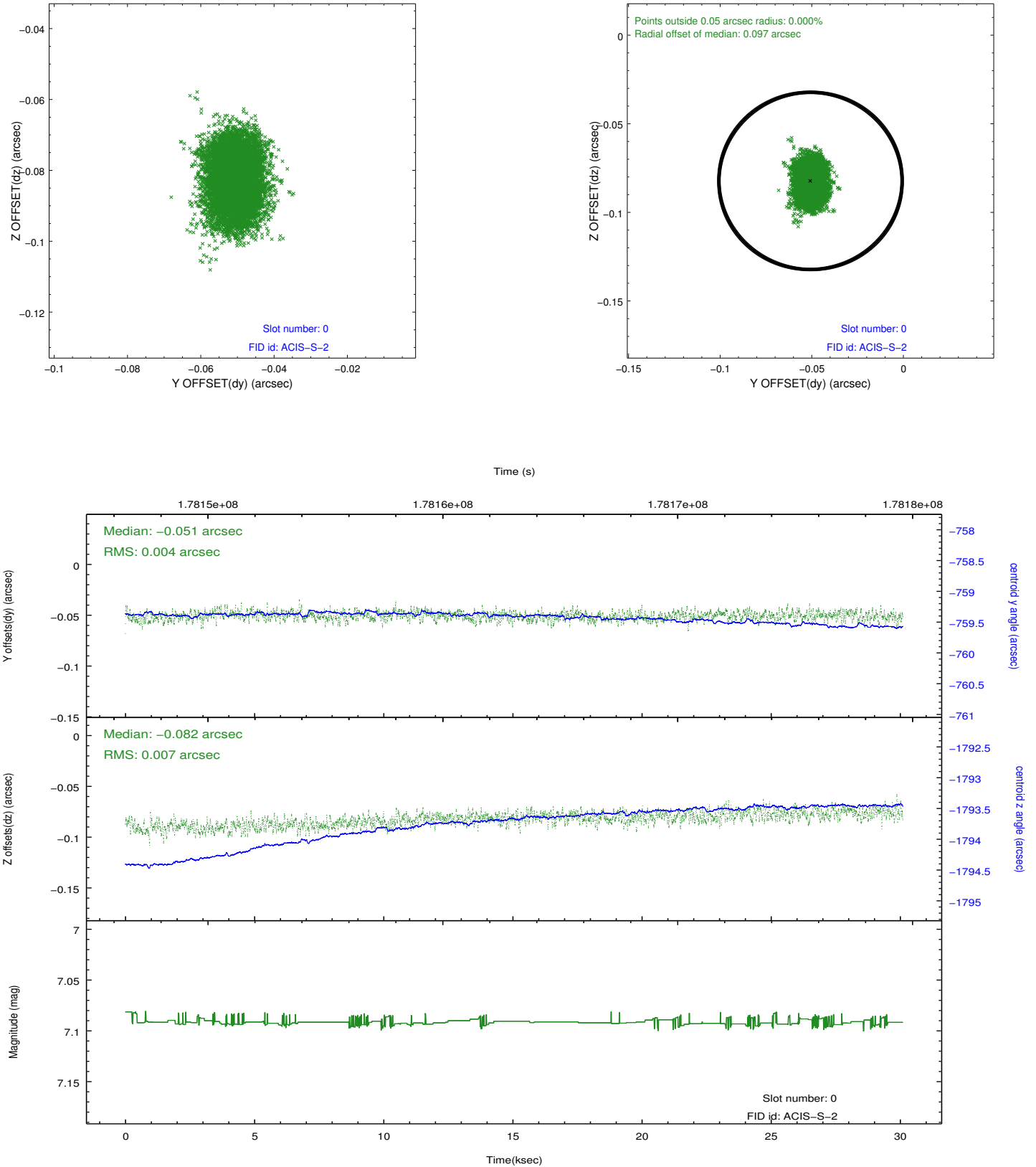


2.4.5 Slot 7

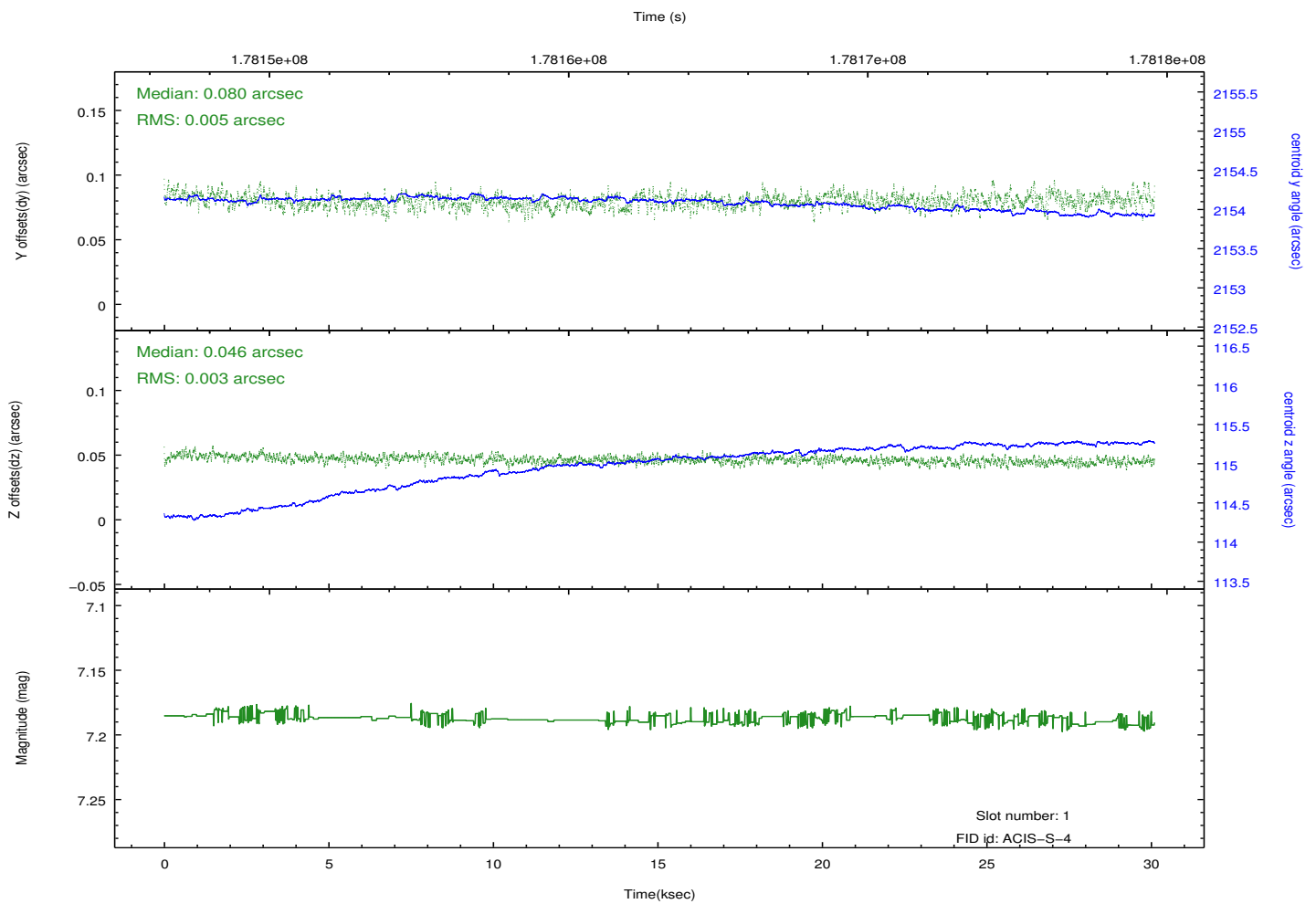
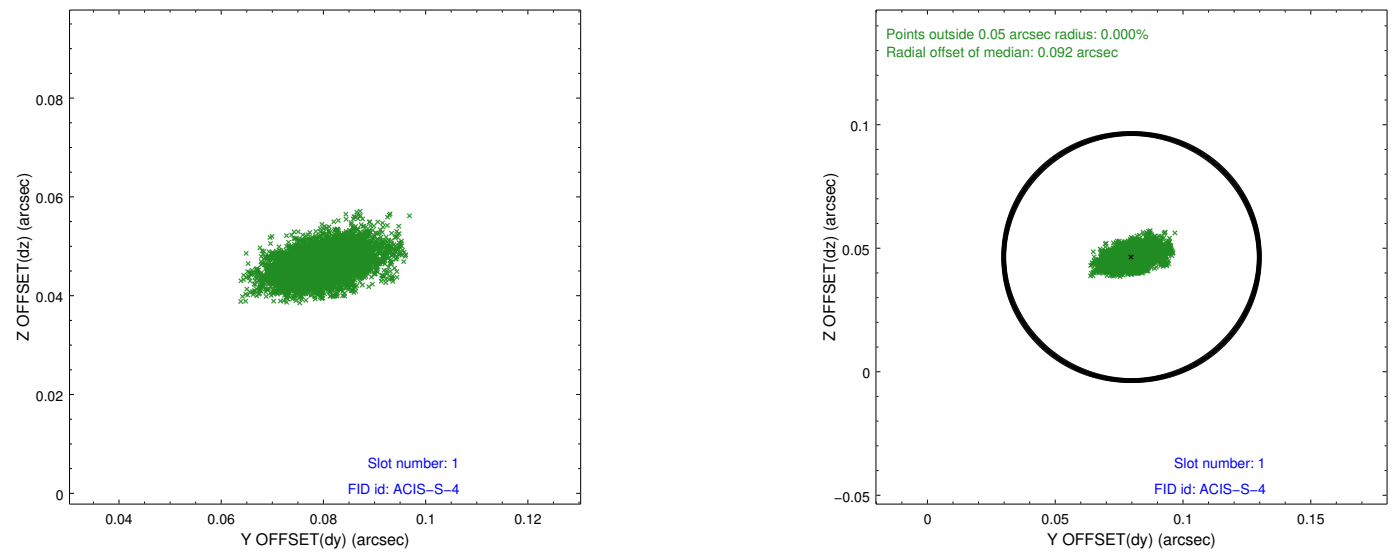


2.5 FID Slots

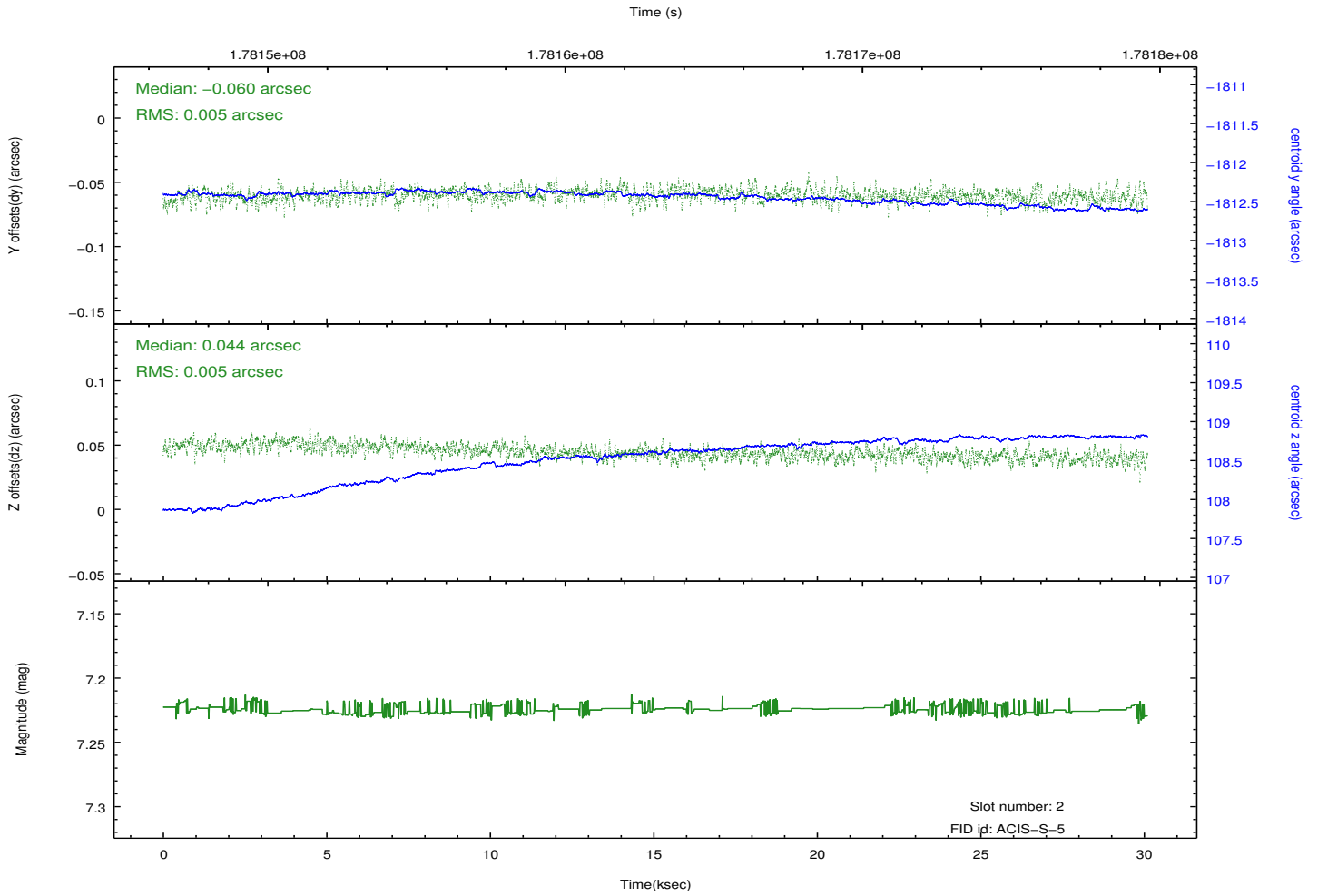
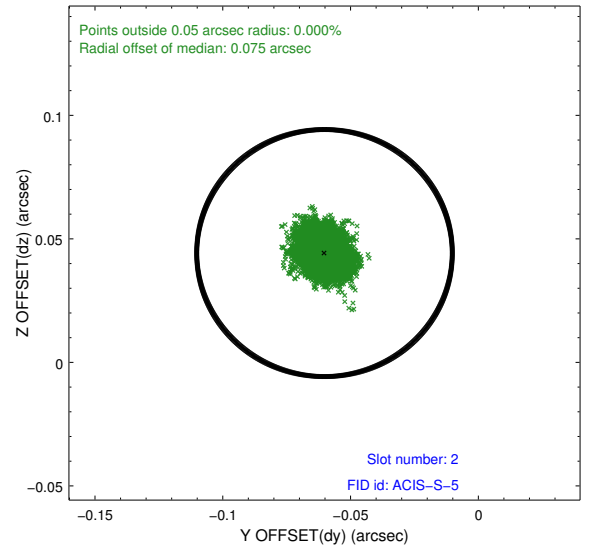
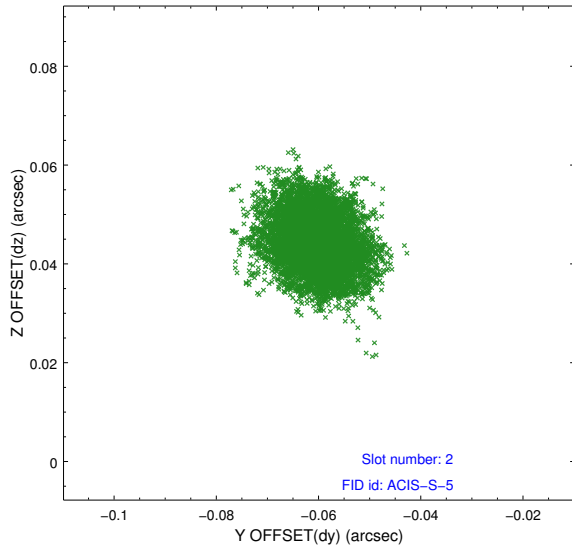
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

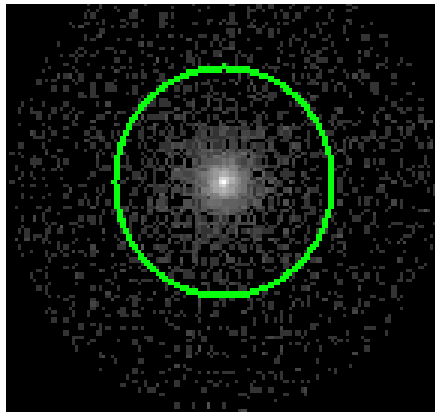


3 Gratings

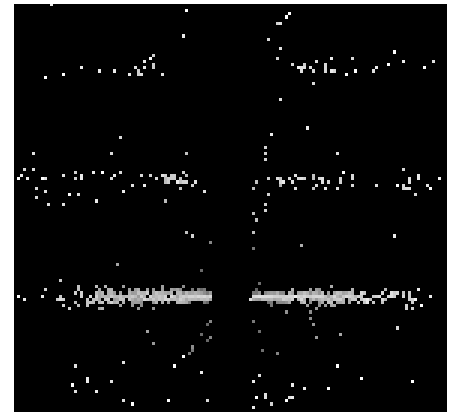
3.1 HEG Arm



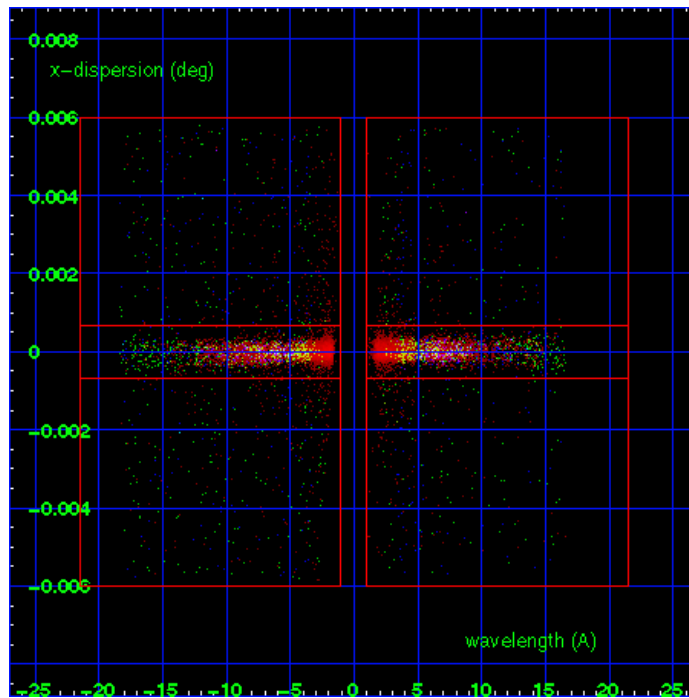
HEG Order Sort 123



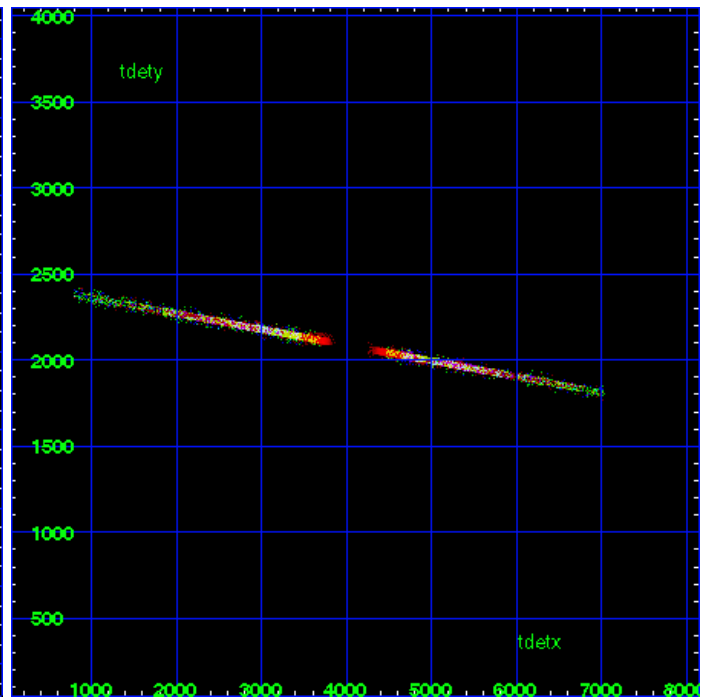
HEG Zero Order



HEG Order Sort ALL

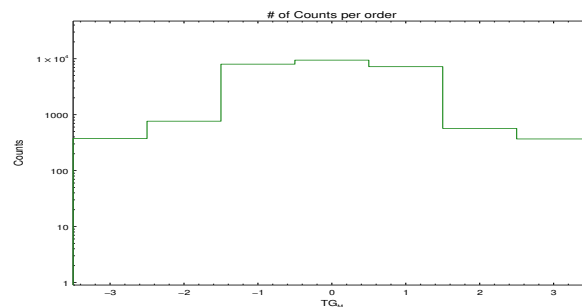


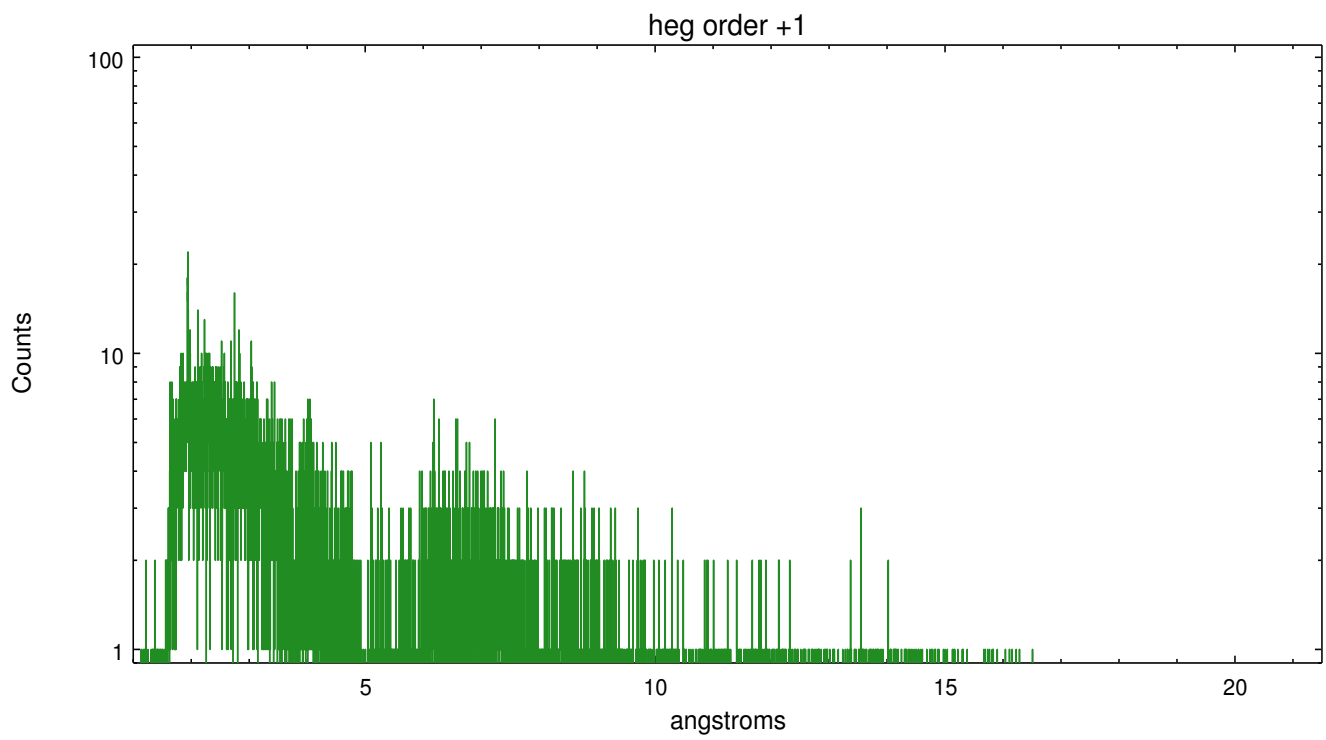
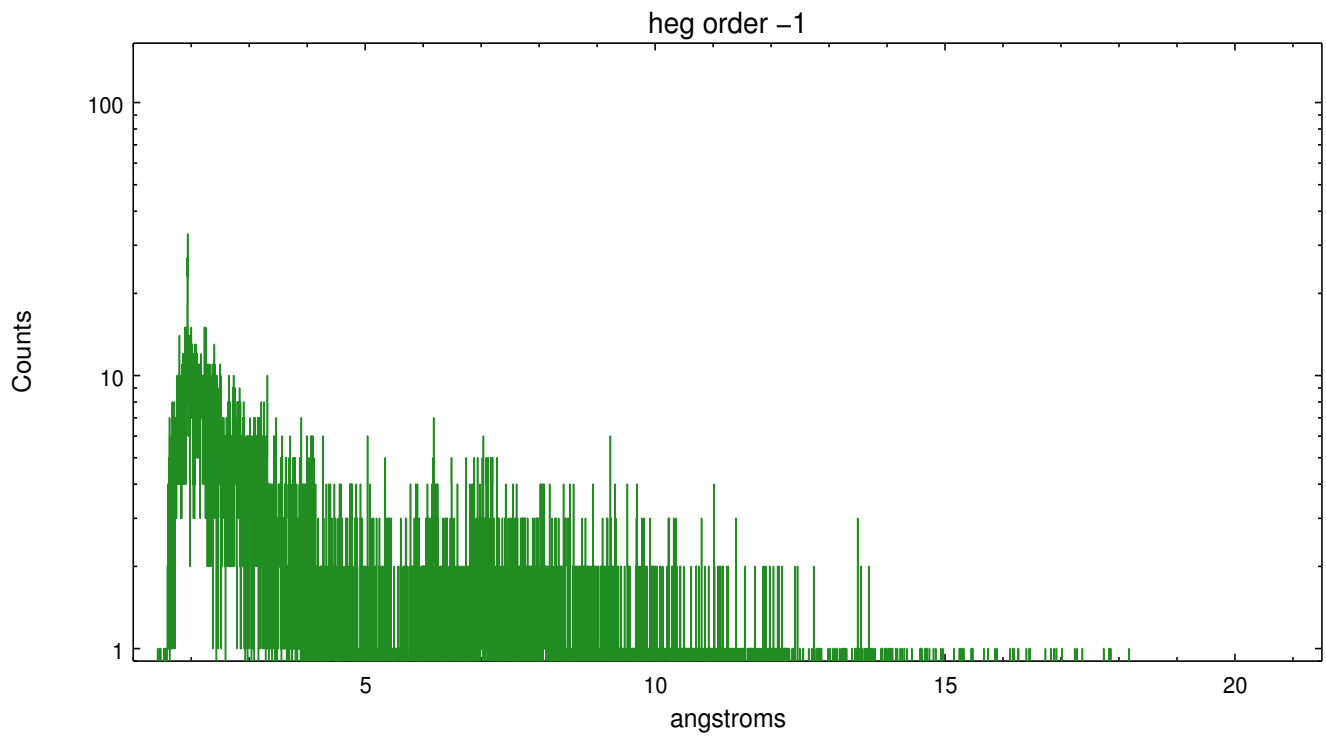
Spot Image HEG



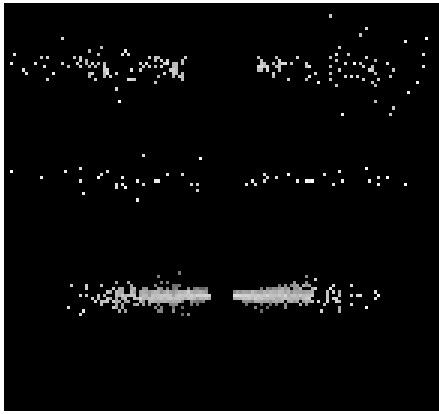
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	374	764	7992	9431	7216	568	368

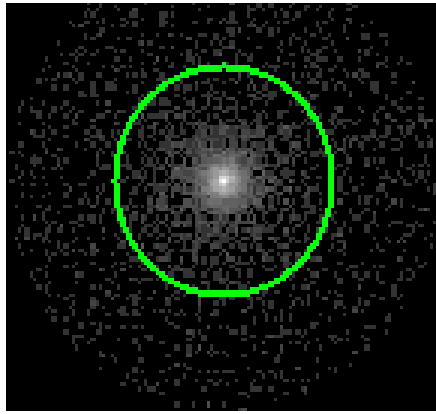




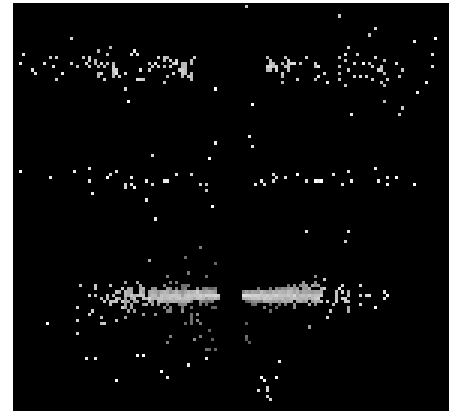
3.2 MEG Arm



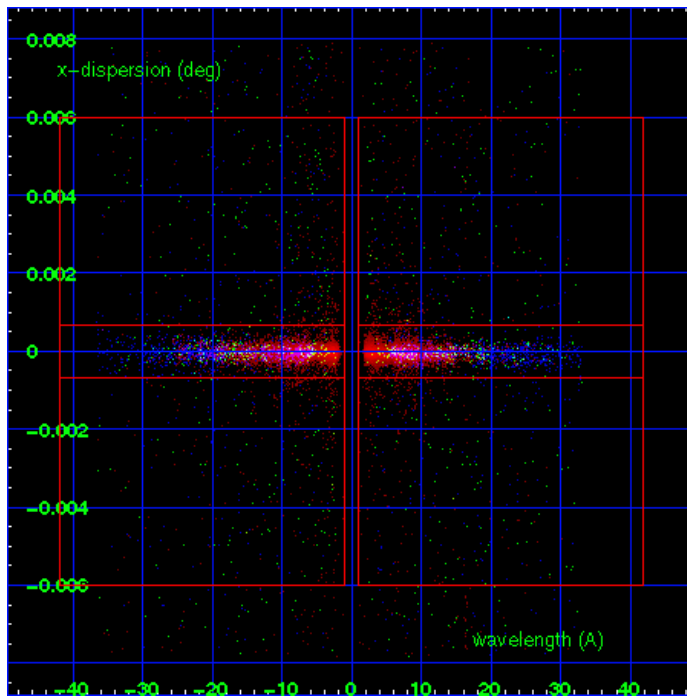
MEG Order Sort 123



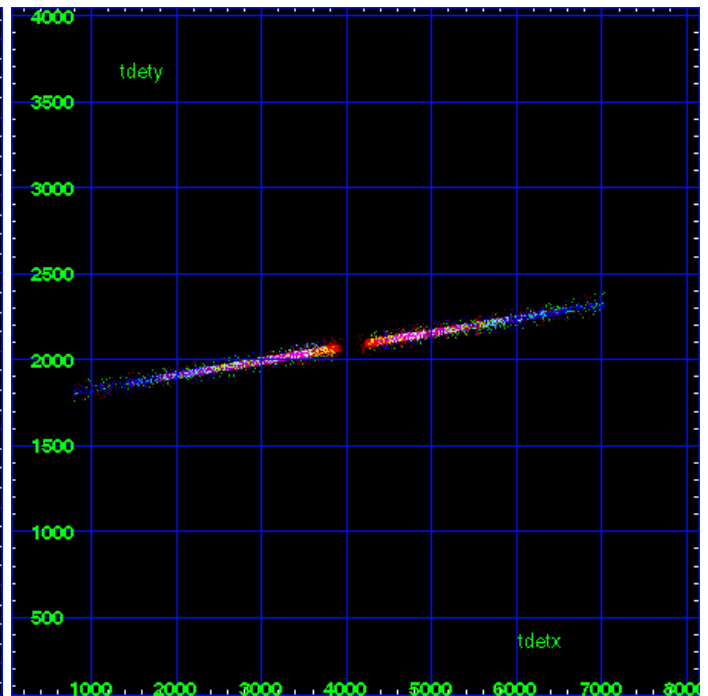
MEG Zero Order



MEG Order Sort ALL

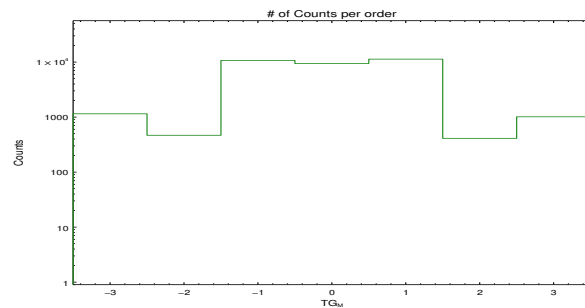


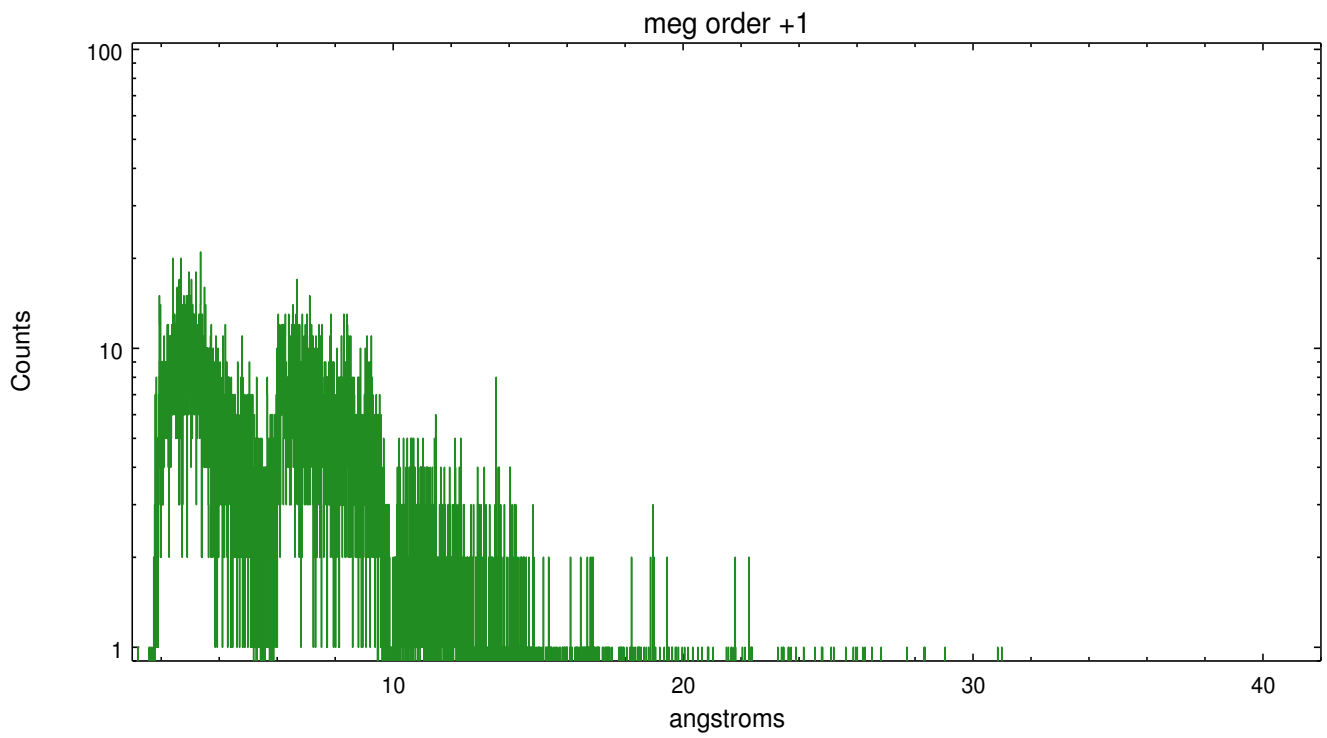
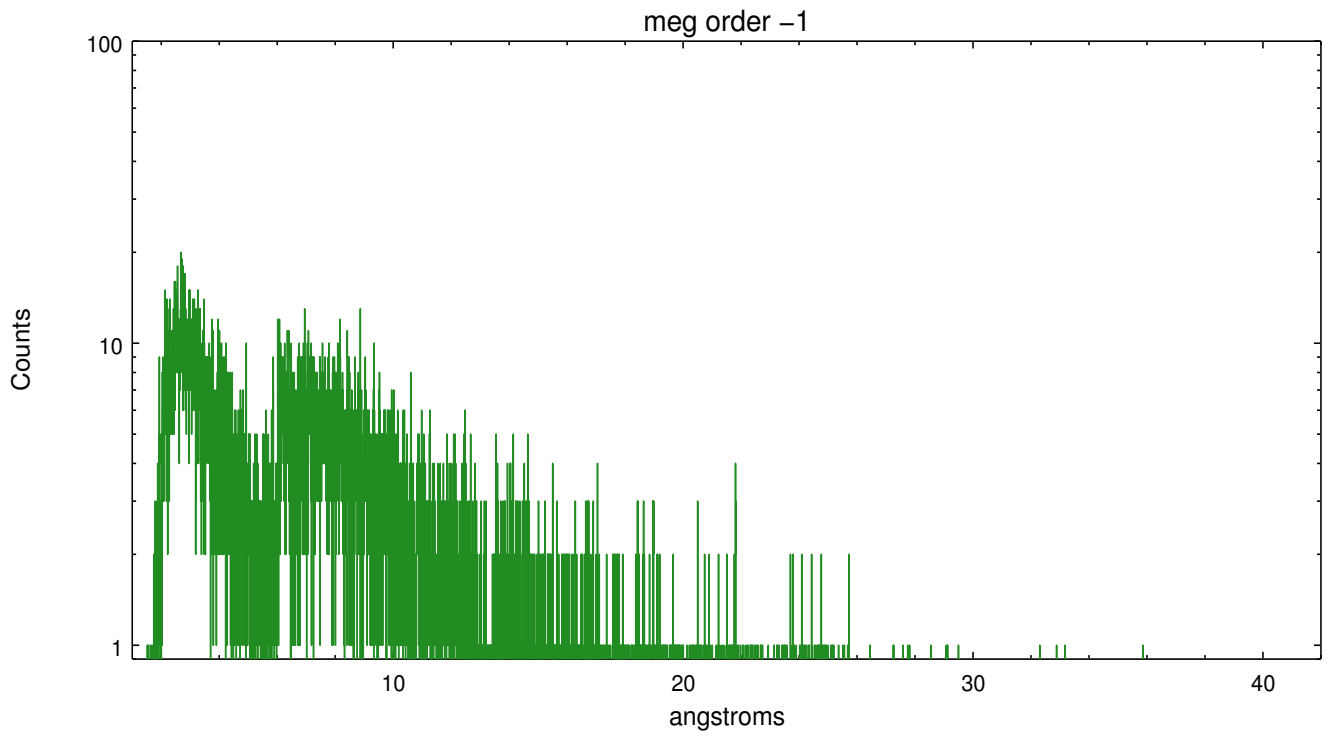
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1149	467	10729	9431	11308	411	1013





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.12.17
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.098

A.2 Comments