

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 701 - L2 Version 5
Chandra X-Ray Center

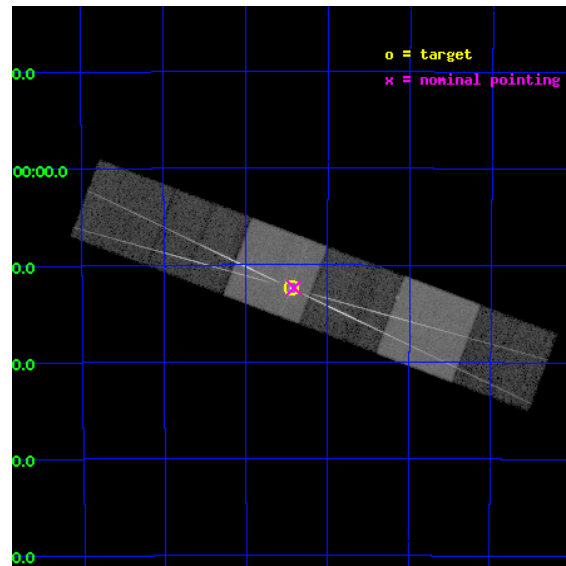
L2 Processing Date : Aug 31 2012

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1 Front

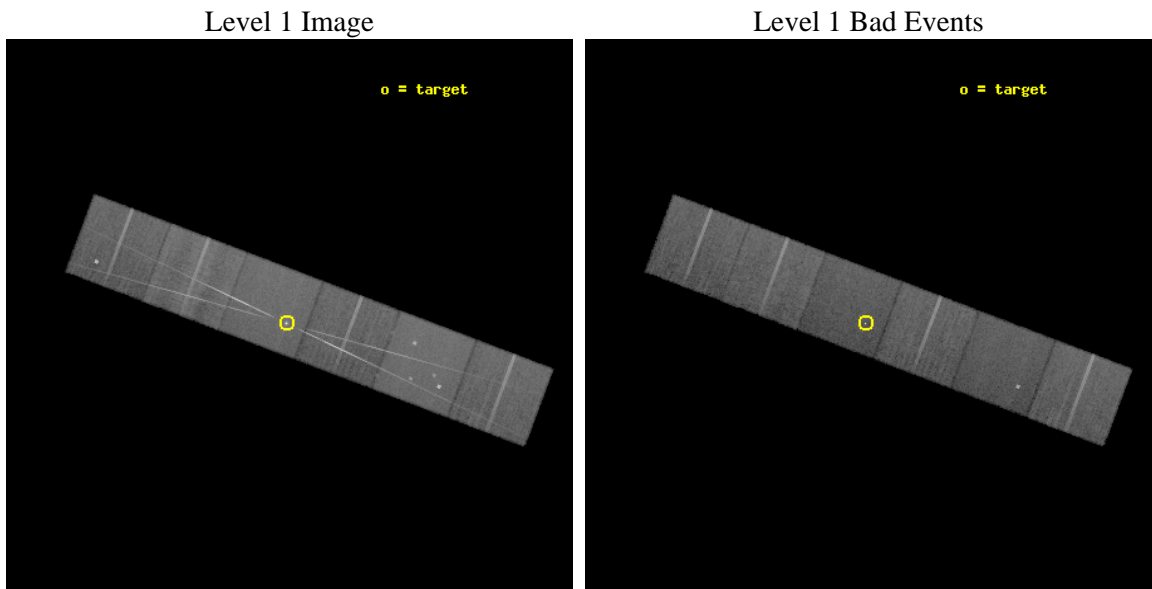
seq_num	400068	Sequence number
obs_id	701	Observation id
title	RESOLVING LOW ENERGY LINES FROM LMXRB	Proposal title
observer	Dr Lorella Angelini	Principal investigator
object	X0918-54	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	140.11125	Observer's specified target RA [deg]
dec_targ	-55.206389	Observer's specified target Dec [deg]
ra_nom	140.10314357785	Nominal RA [deg]
dec_nom	-55.206202430167	Nominal Dec [deg]
roll_nom	200.61498854369	Nominal Roll [deg]
revision	5	Processing version of data
ontime	28847.737116888	Sum of GTIs [s]
livetime	28482.449699492	Livetime [s]
ontime4	28847.778156891	Sum of GTIs [s]
ontime5	28847.696076885	Sum of GTIs [s]
ontime6	28847.655036896	Sum of GTIs [s]
ontime7	28847.737116888	Sum of GTIs [s]
ontime8	28847.613996893	Sum of GTIs [s]
ontime9	28844.33199665	Sum of GTIs [s]
l2events	382383	Number of level 2 events



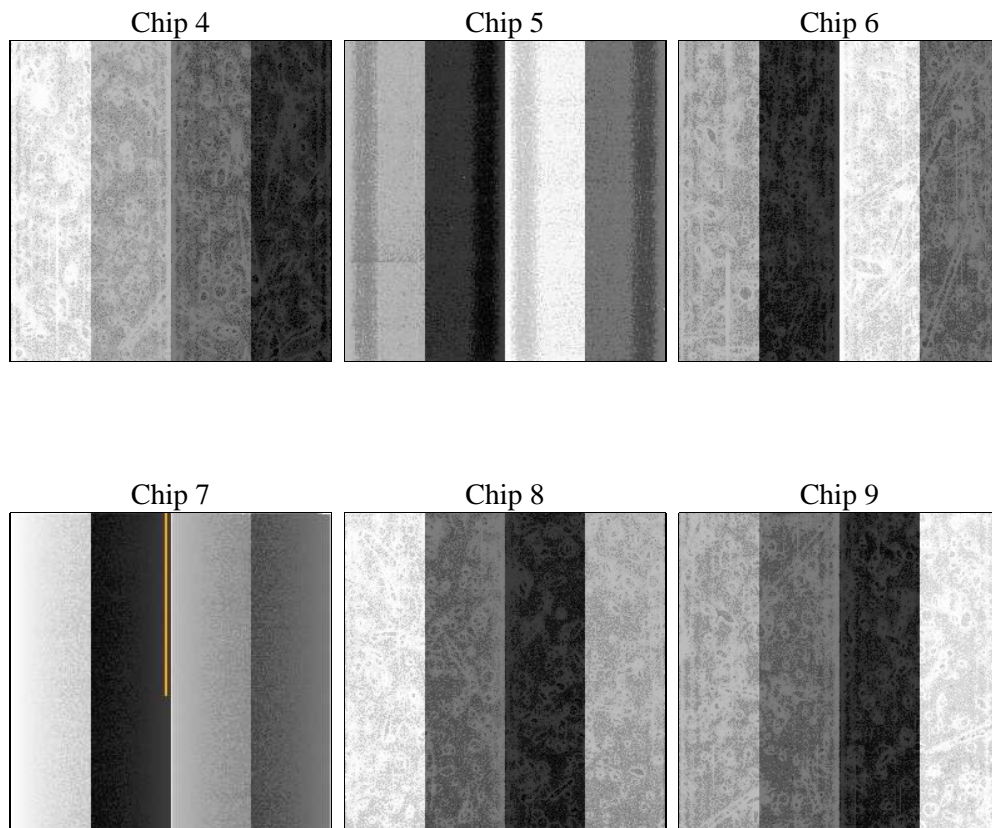
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	3	Obi number	sched_exp_time	28895.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	28847.737116888	Sum of GTIs [s]
caldsver	4.5.1.1	 	ontime4	28847.778156891	Sum of GTIs [s]
date	2012-08-30T18:40:40	Date and time of file creation	ontime5	28847.696076885	Sum of GTIs [s]
revision	4	Processing version of data	ontime6	28847.655036896	Sum of GTIs [s]
			ontime7	28847.737116888	Sum of GTIs [s]
			ontime8	28847.613996893	Sum of GTIs [s]
			ontime9	28844.33199665	Sum of GTIs [s]
			l1events	1303763	Number of level 1 events

2.1.4 Events

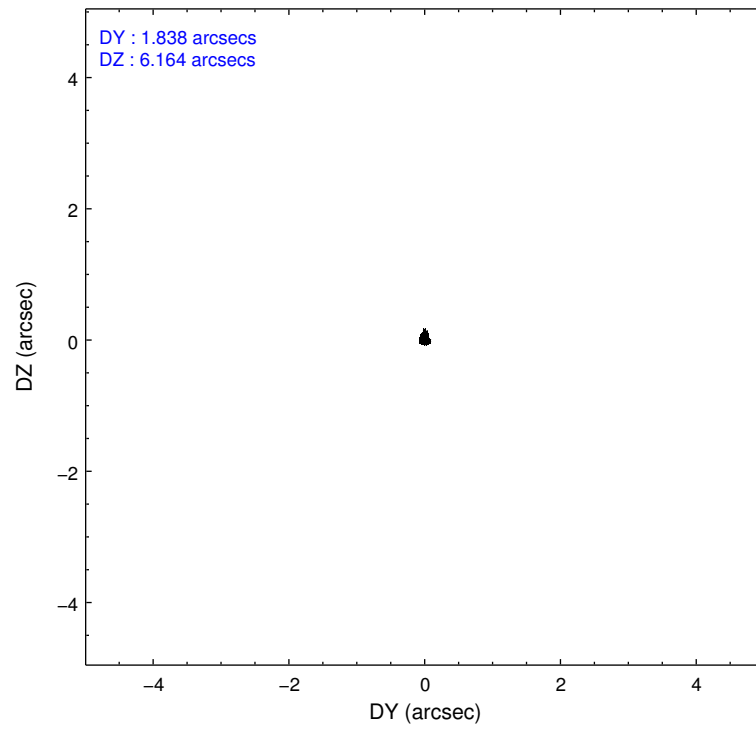
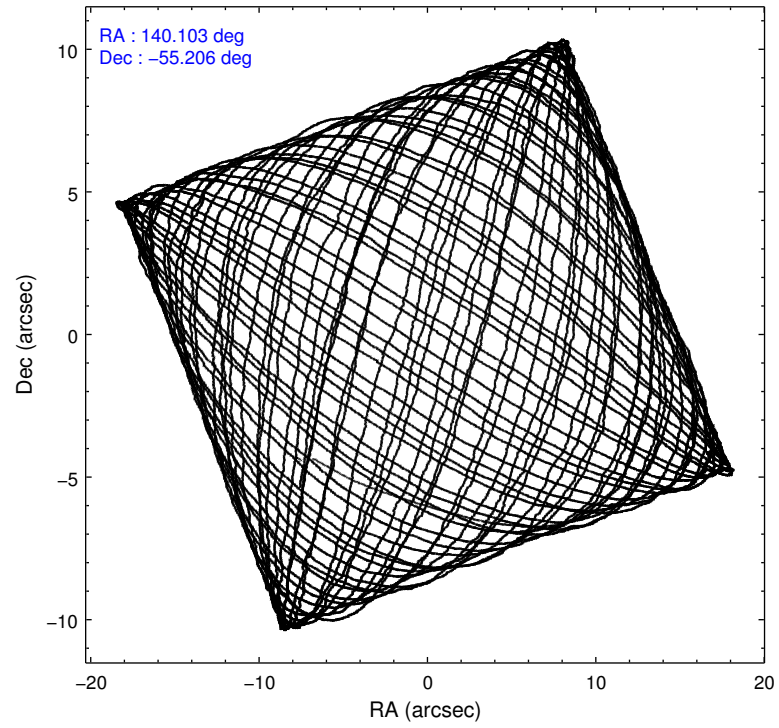
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	188241	237355	210303	246207	248174	173483	grade 0 events	12662	20754	42838	18445	39299	18676
rejected events	162122	114407	146695	116251	163190	141739		6%	8%	20%	7%	15%	10%
rejected %	86%	48%	69%	47%	65%	81%	grade 1 events	107	2841	221	374	233	114
								0%	1%	0%	0%	0%	0%
							grade 2 events	5800	34901	8919	27816	13811	4693
								3%	14%	4%	11%	5%	2%
							grade 3 events	1922	6340	3368	12840	8484	2136
								1%	2%	1%	5%	3%	1%
							grade 4 events	2029	6467	3356	12833	7695	2073
								1%	2%	1%	5%	3%	1%
							grade 5 events	5330	16482	6351	19570	8429	6267
								2%	6%	3%	7%	3%	3%
							grade 6 events	3707	54505	5136	58031	15704	4170
								1%	22%	2%	23%	6%	2%
							grade 7 events	156684	95065	140114	96298	154519	135354
								83%	40%	66%	39%	62%	78%

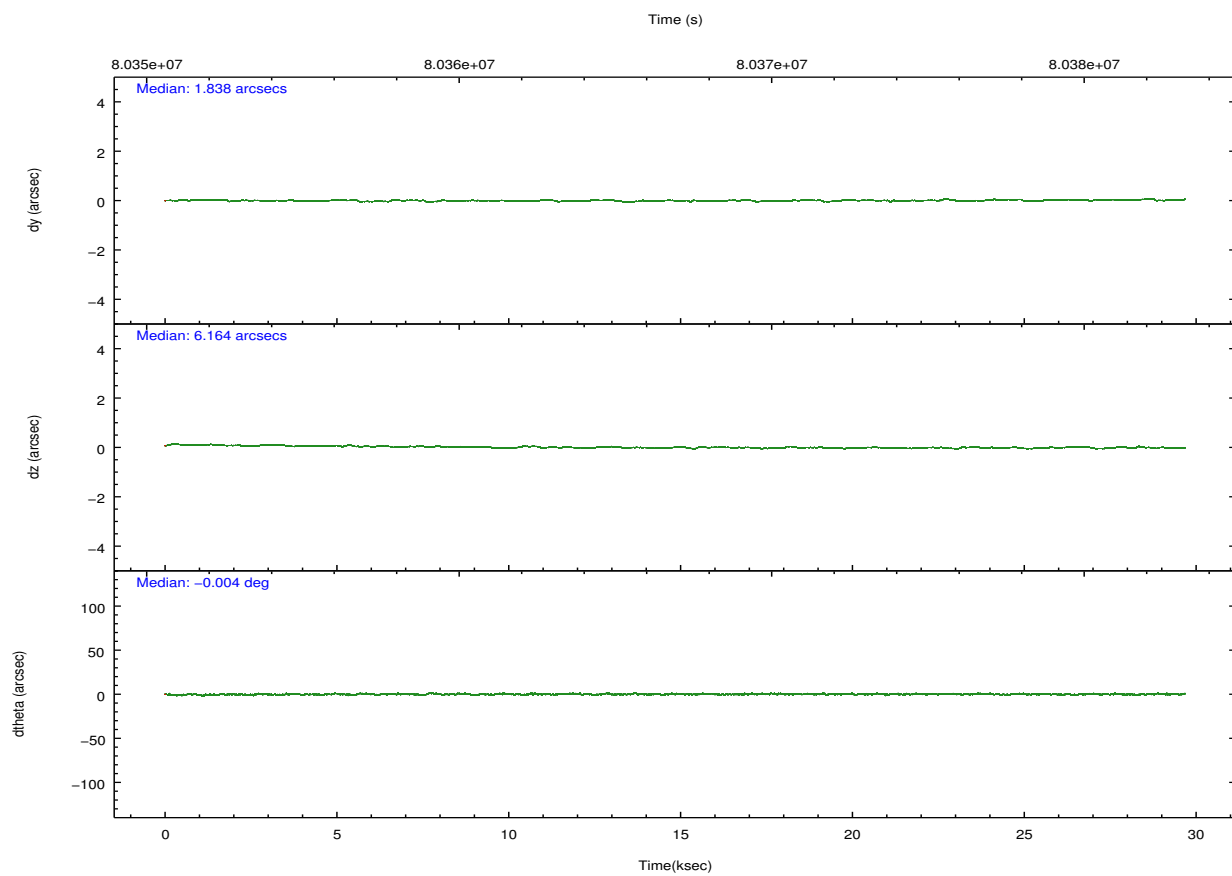
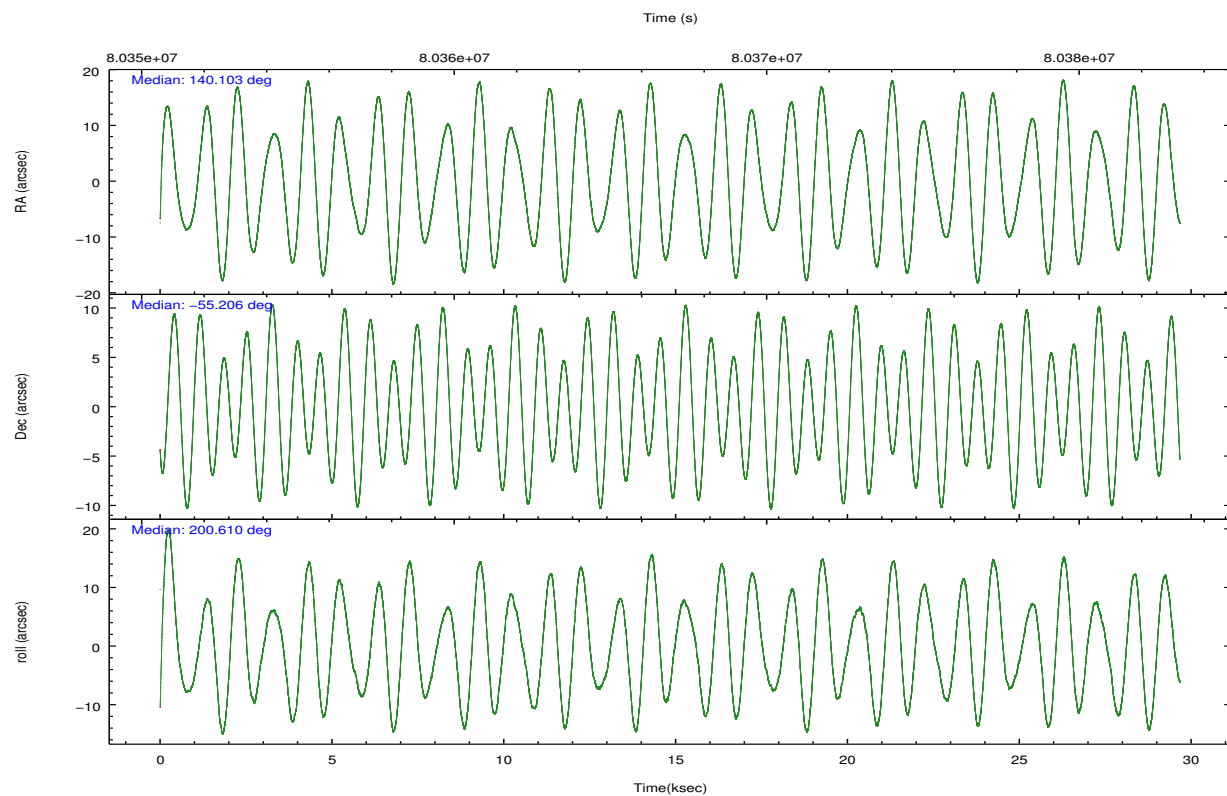
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-456789	ACIS-456789
Grating	HETG	HETG
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	140.133380	140.1031435778494
[deg] Pointing Dec	-55.184949	-55.20620243016685
[deg] Pointing Roll	200.483190	200.6149885436942
[mm] SIM focus pos	-0.684267	-0.6828225247311905
[mm] SIM defocus	0	0.001444936568705701
[mm] SIM translation stage pos	-187.132523	-187.1228876879999
[mm] SIM translation stage offset	-3	-3.009634895007935
[s] Observation start time (MET)	80352852.184000	80351510.60962901
Observation start date	2000-07-19T00:13:08	2000-07-18T23:51:50
[s] Observation end time (MET)	80381747.184000	80382277.01077101
Observation end date	2000-07-19T08:14:43	2000-07-19T08:24:37
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.2

2.3 Aspect



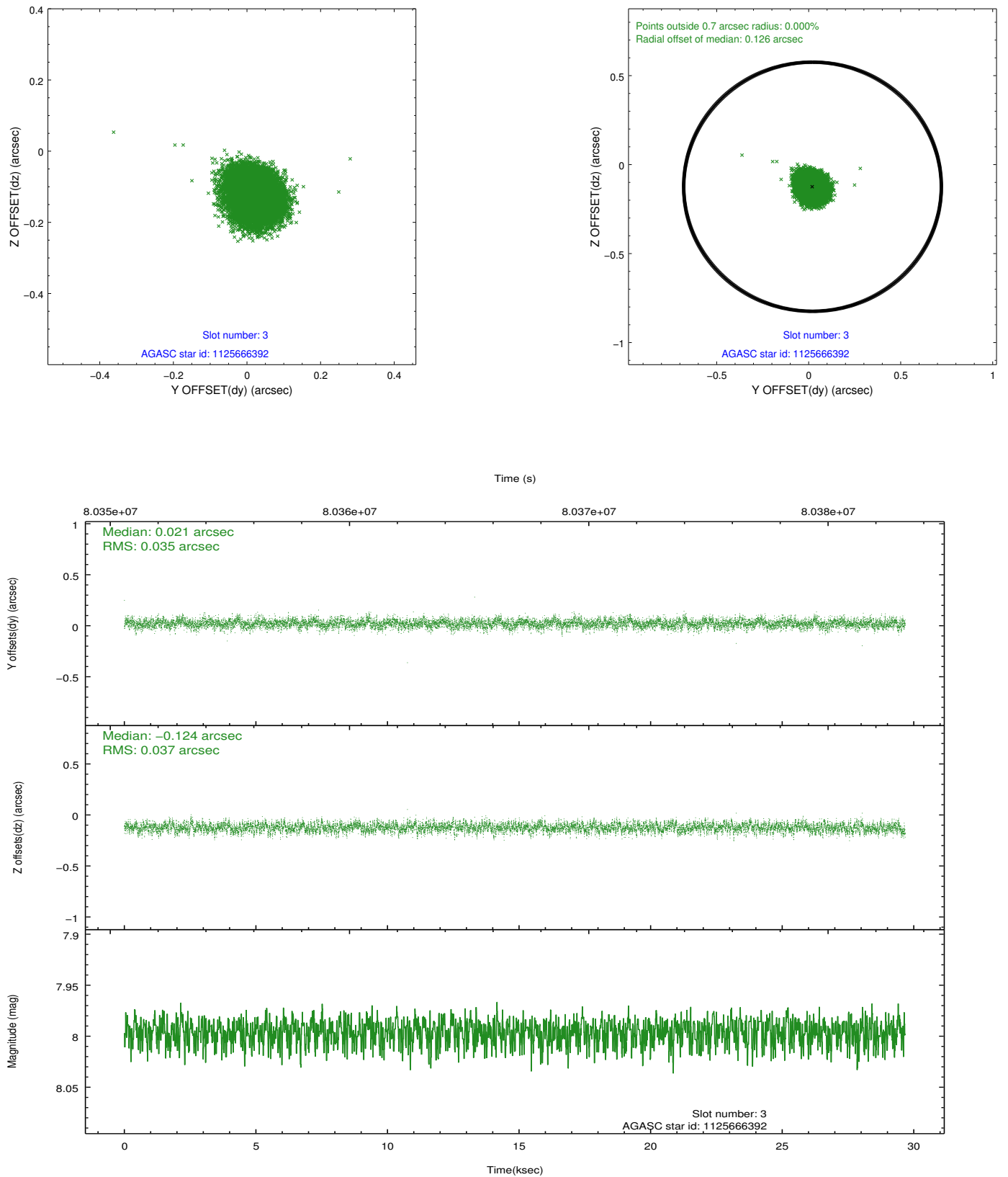


Slot Statistics

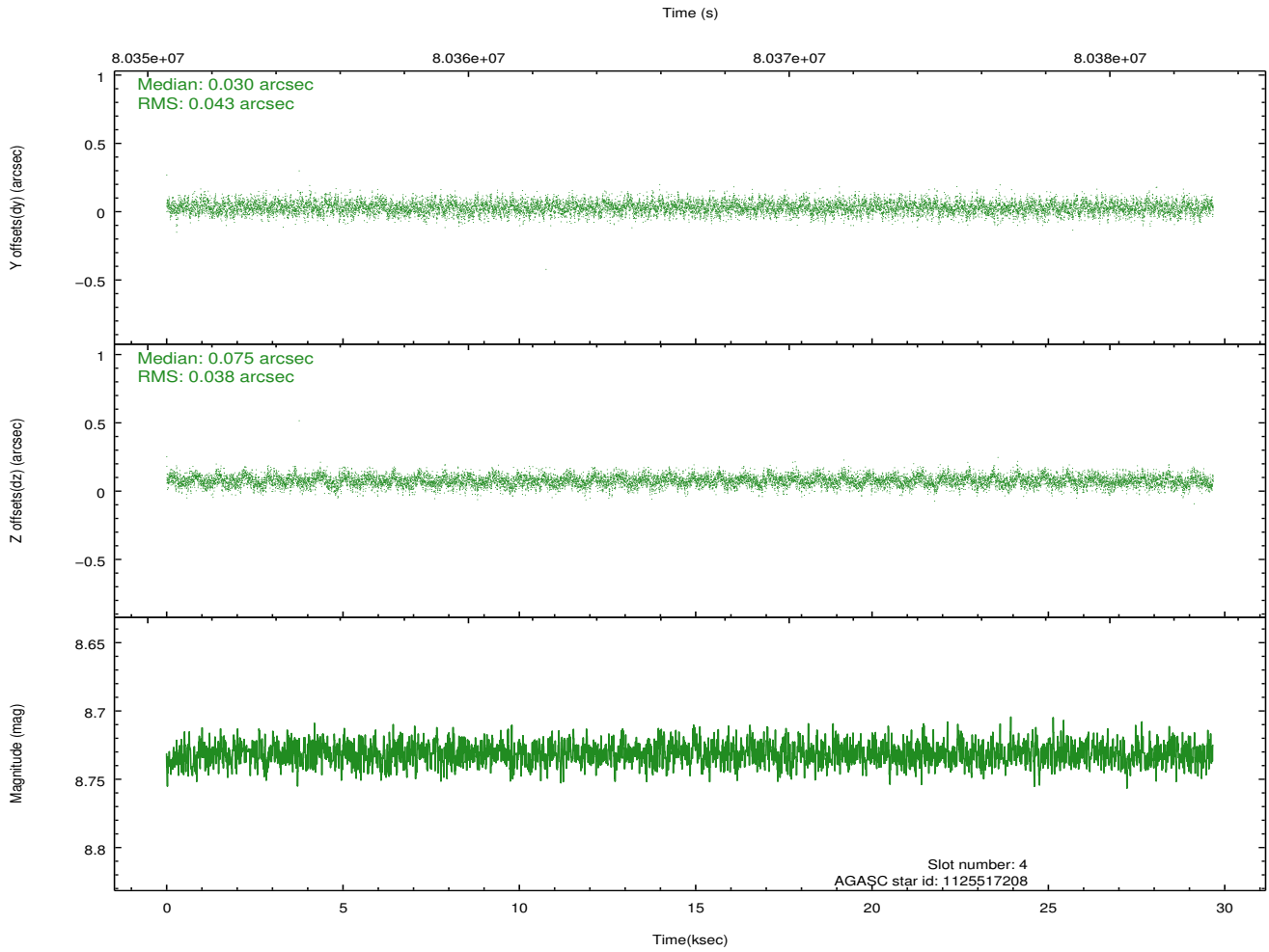
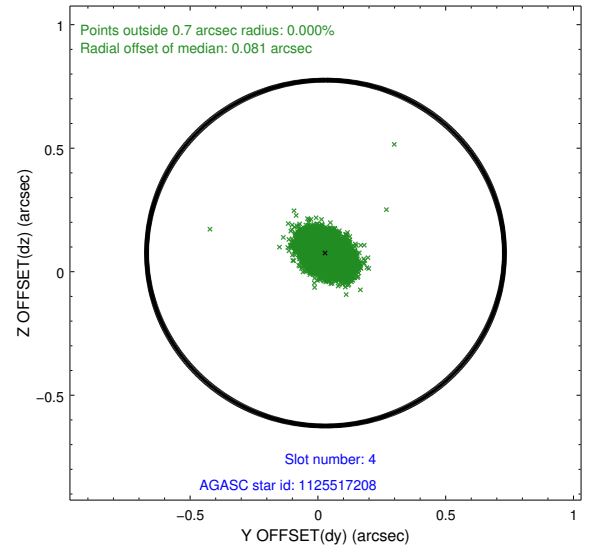
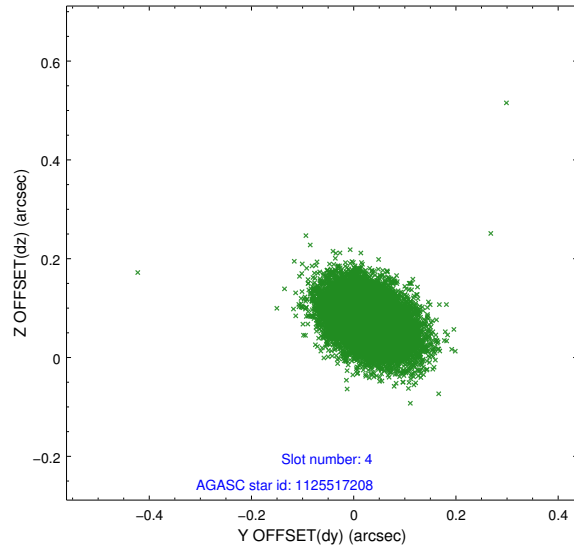
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.19	7238	-0.003	0.044	0.007	0.013	0.000000	0.000000	941.75	-1785.06
1	FID	ACIS-S-5	7.24	7237	0.014	0.024	0.006	0.011	0.000000	0.000000	-1807.14	112.45
2	FID	ACIS-S-6	7.38	7237	-0.033	-0.056	0.007	0.012	0.000000	0.000000	407.26	756.36
3	GUIDE	1125666392	8.00	14469	0.021	-0.124	0.053	0.087	140.024785	-55.253220	295.60	152.45
4	GUIDE	1125517208	8.73	14473	0.030	0.075	0.060	0.101	139.179347	-55.224403	1890.30	-539.52
5	GUIDE	1125653928	9.15	14470	-0.039	-0.017	0.078	0.127	140.835906	-55.611798	-797.16	1946.11
6	GUIDE	1125536552	9.27	14468	0.014	-0.038	0.082	0.135	139.938527	-54.750752	-166.65	-1605.21
7	GUIDE	1125662336	9.20	14471	-0.029	0.103	0.071	0.116	140.980431	-54.839939	-2075.08	-539.14

2.4 Star Slots

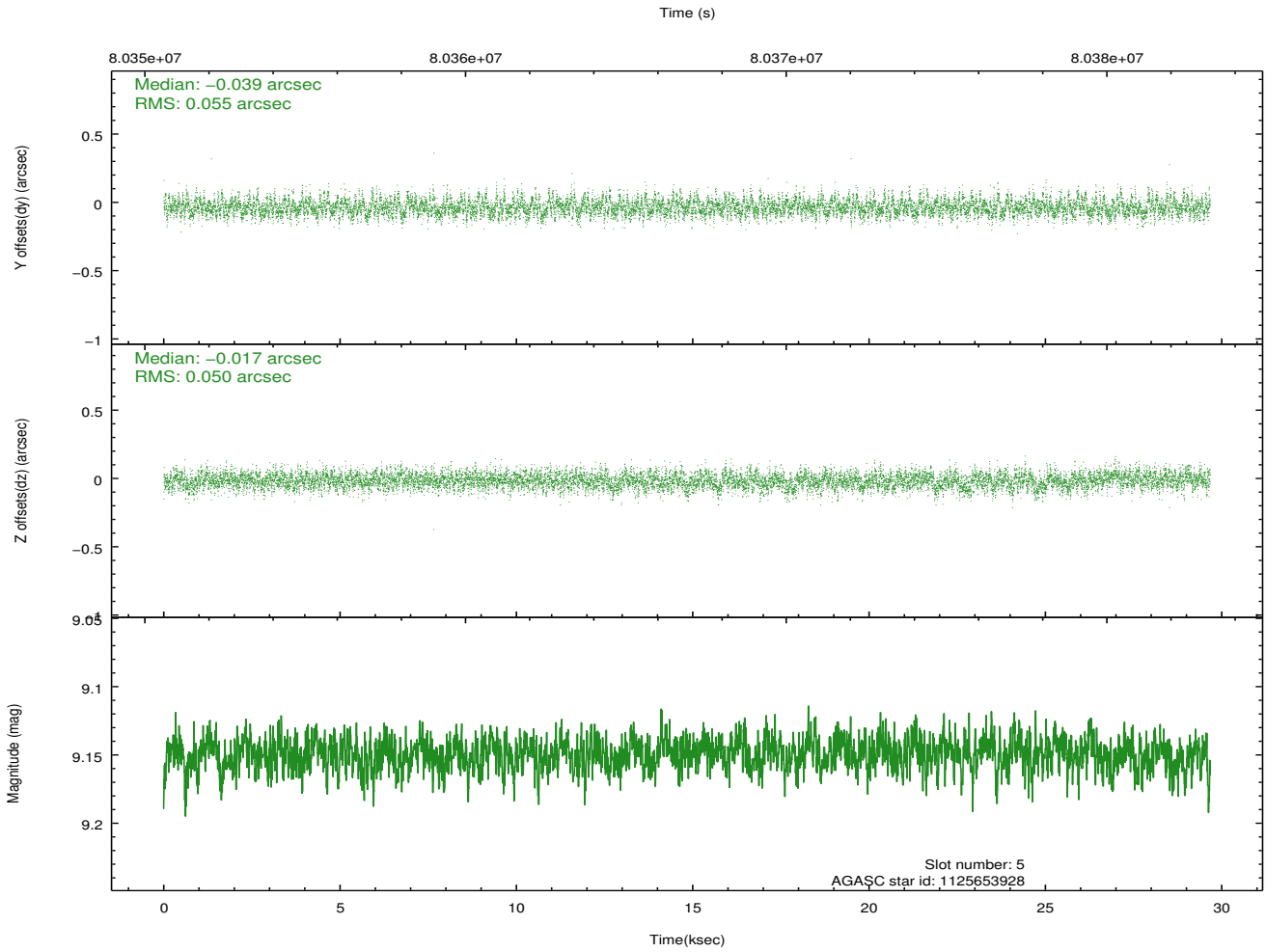
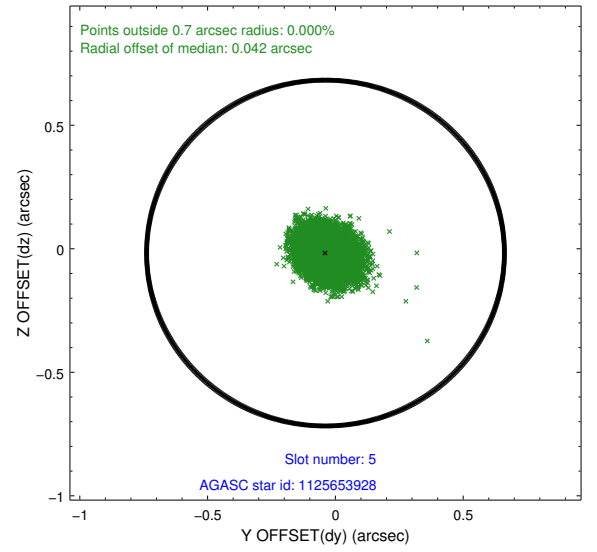
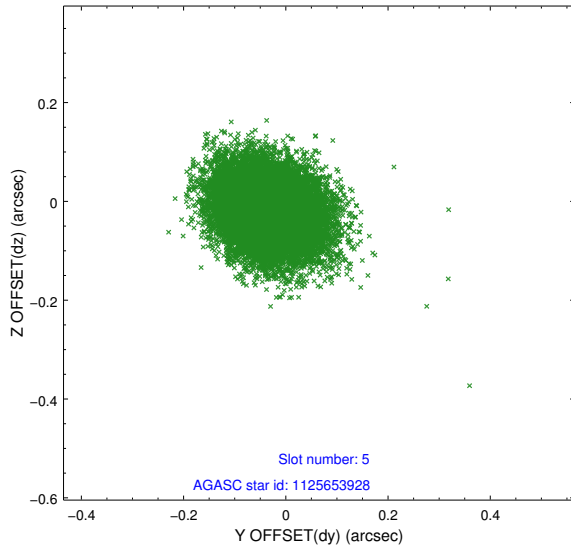
2.4.1 Slot 3



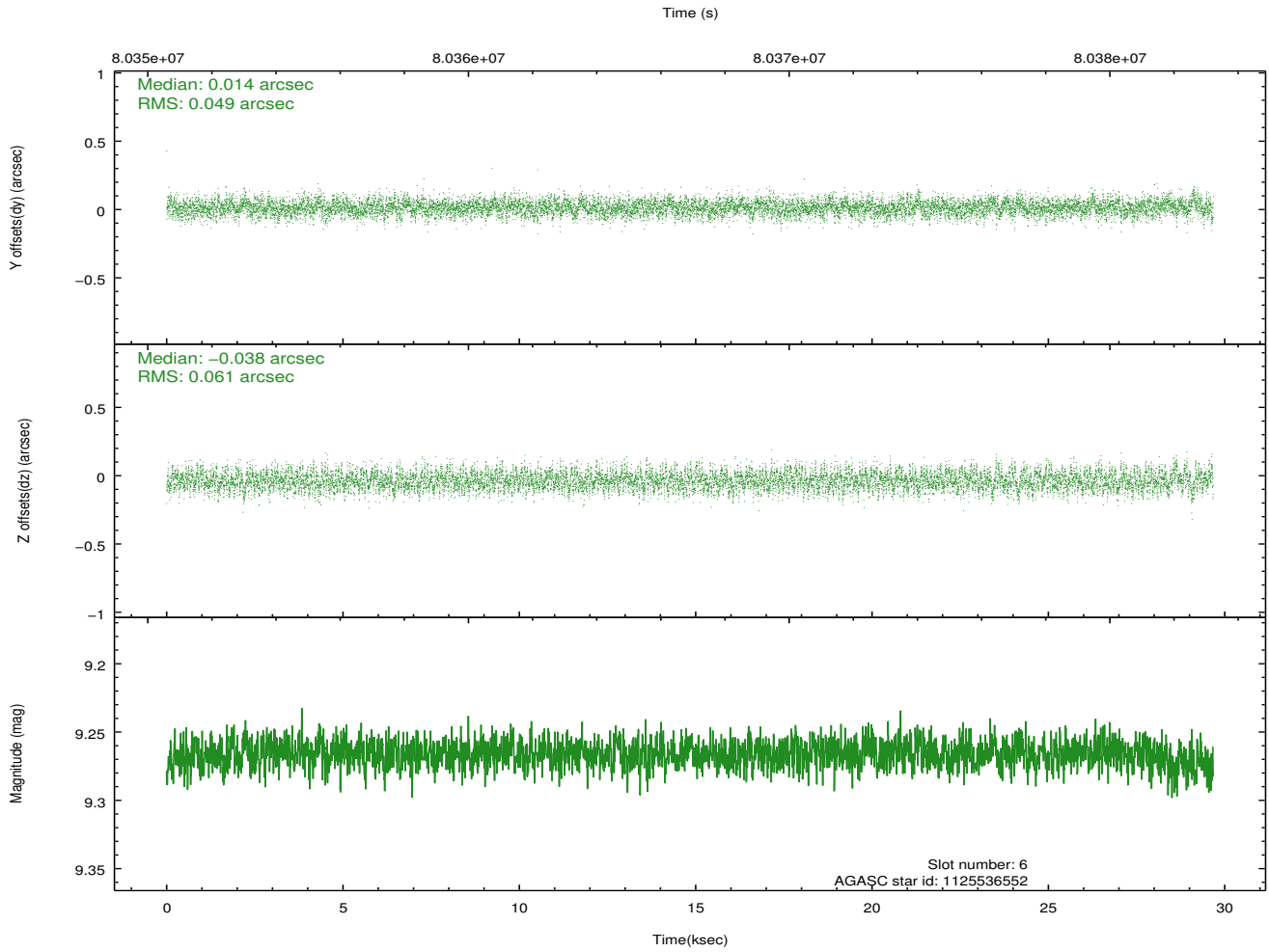
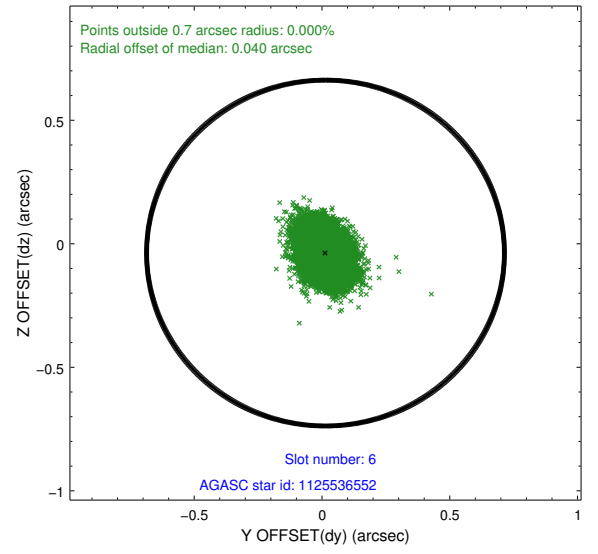
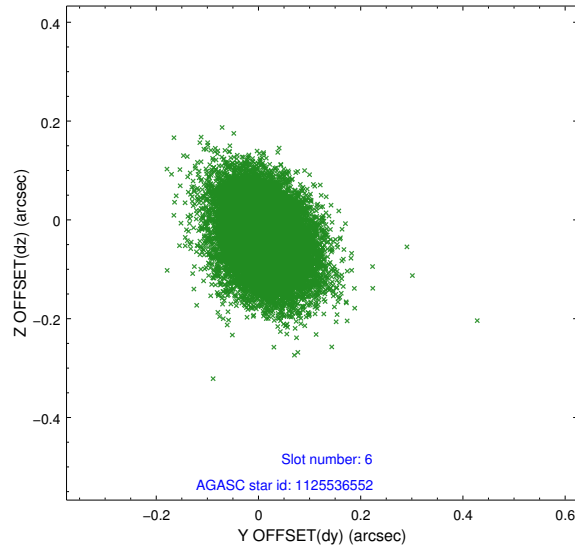
2.4.2 Slot 4



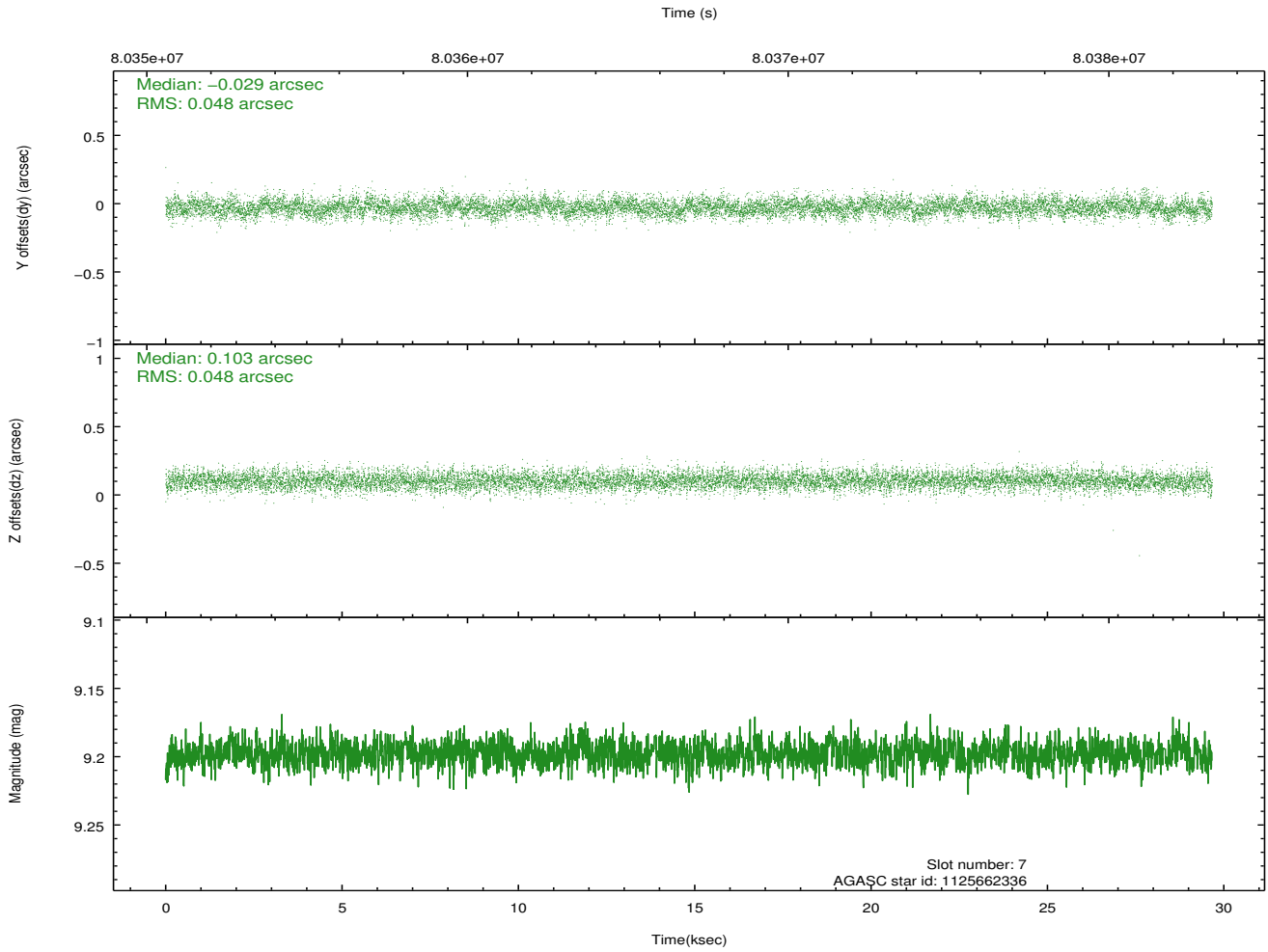
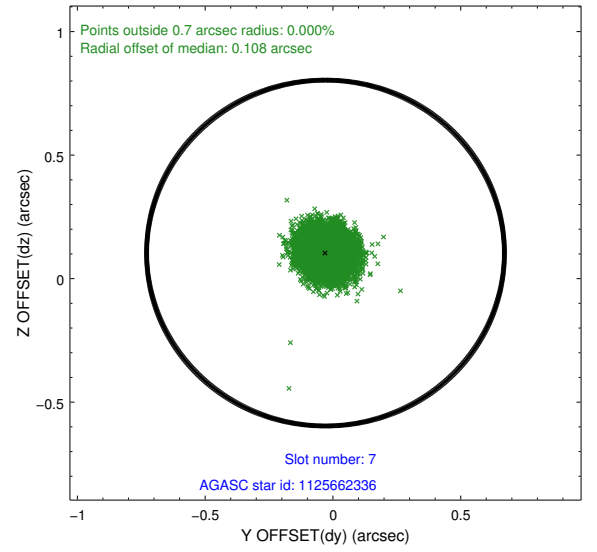
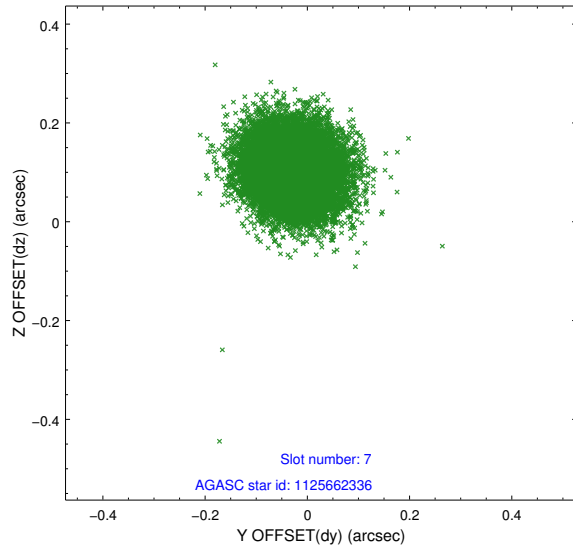
2.4.3 Slot 5



2.4.4 Slot 6

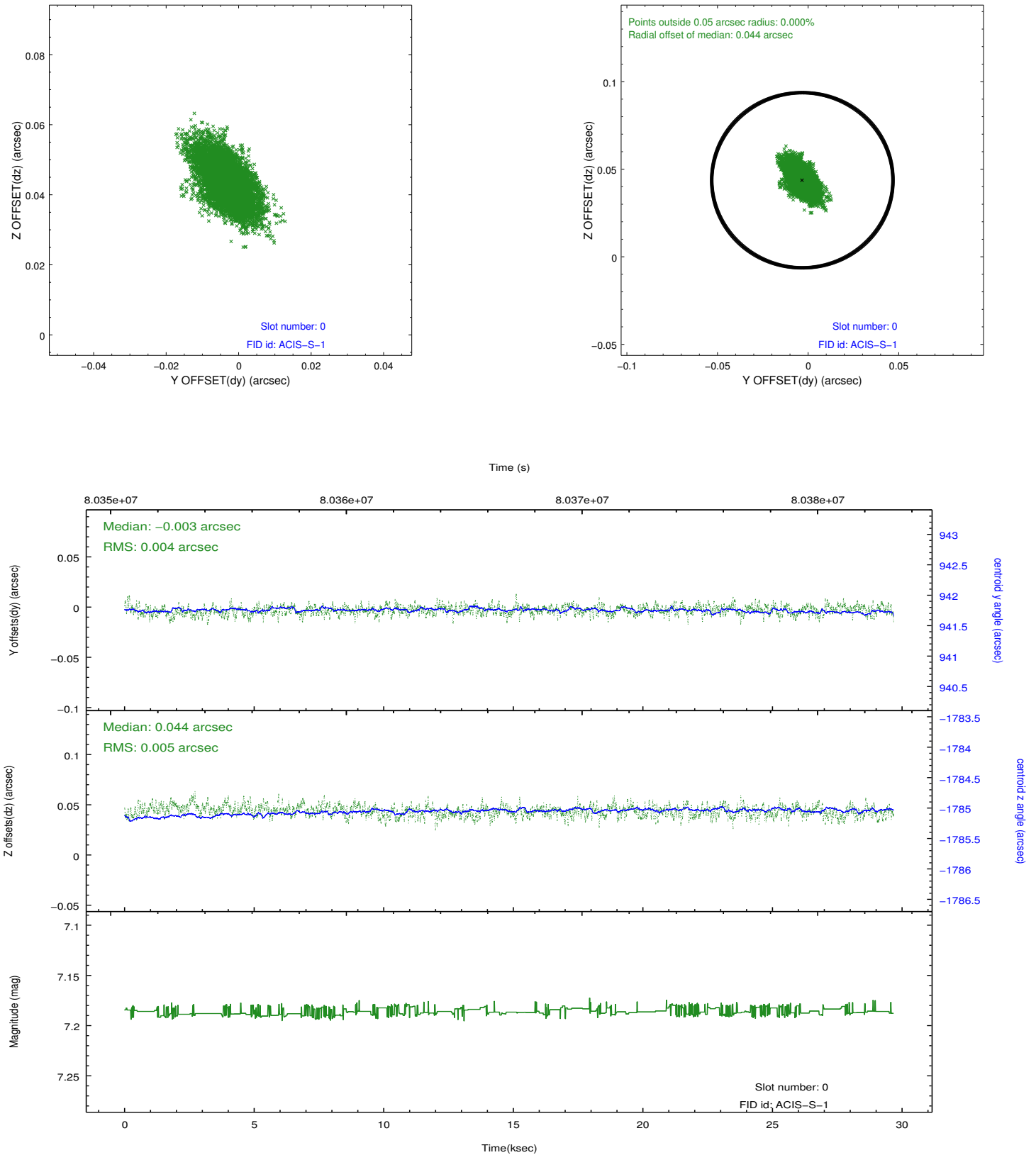


2.4.5 Slot 7

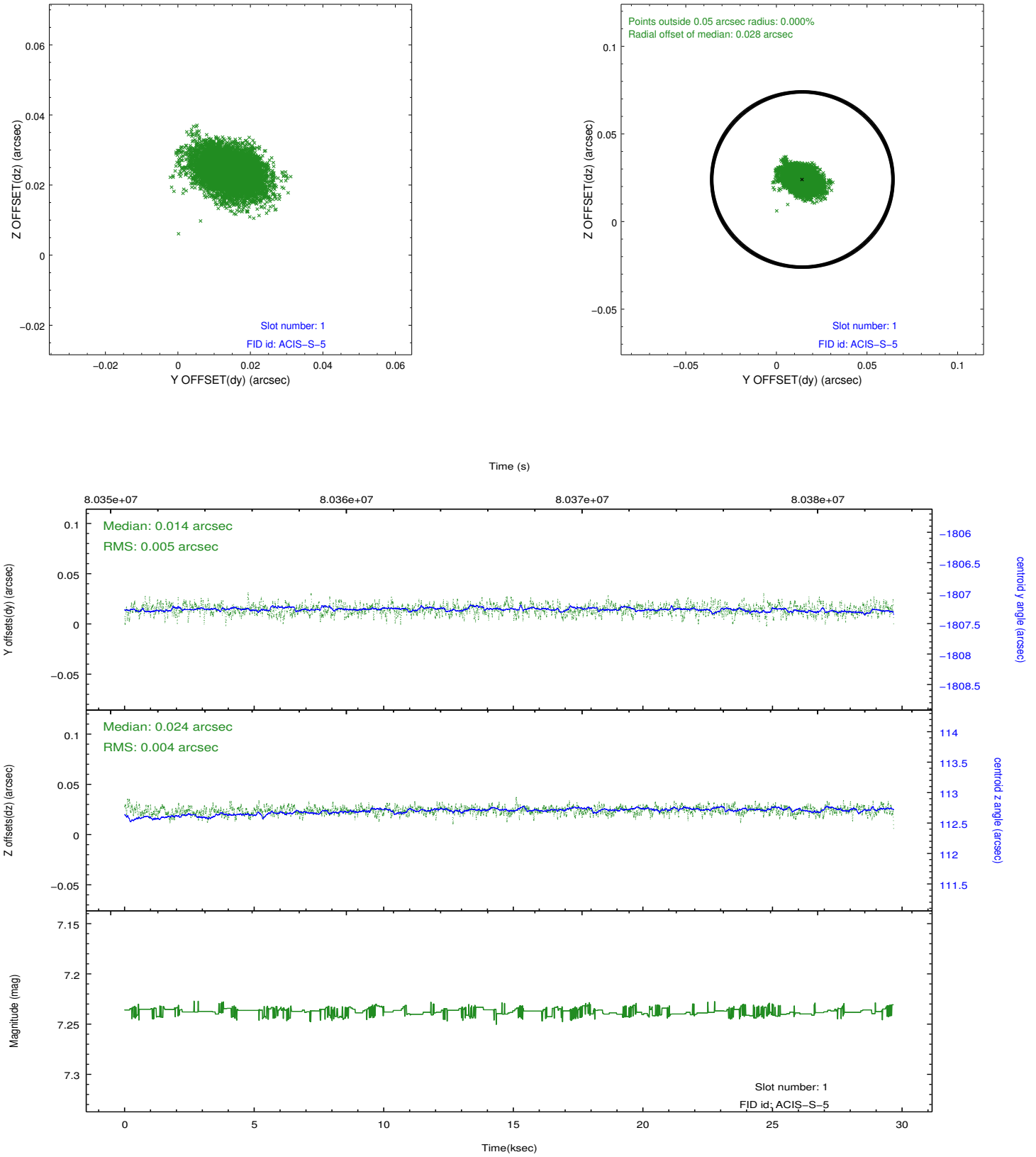


2.5 FID Slots

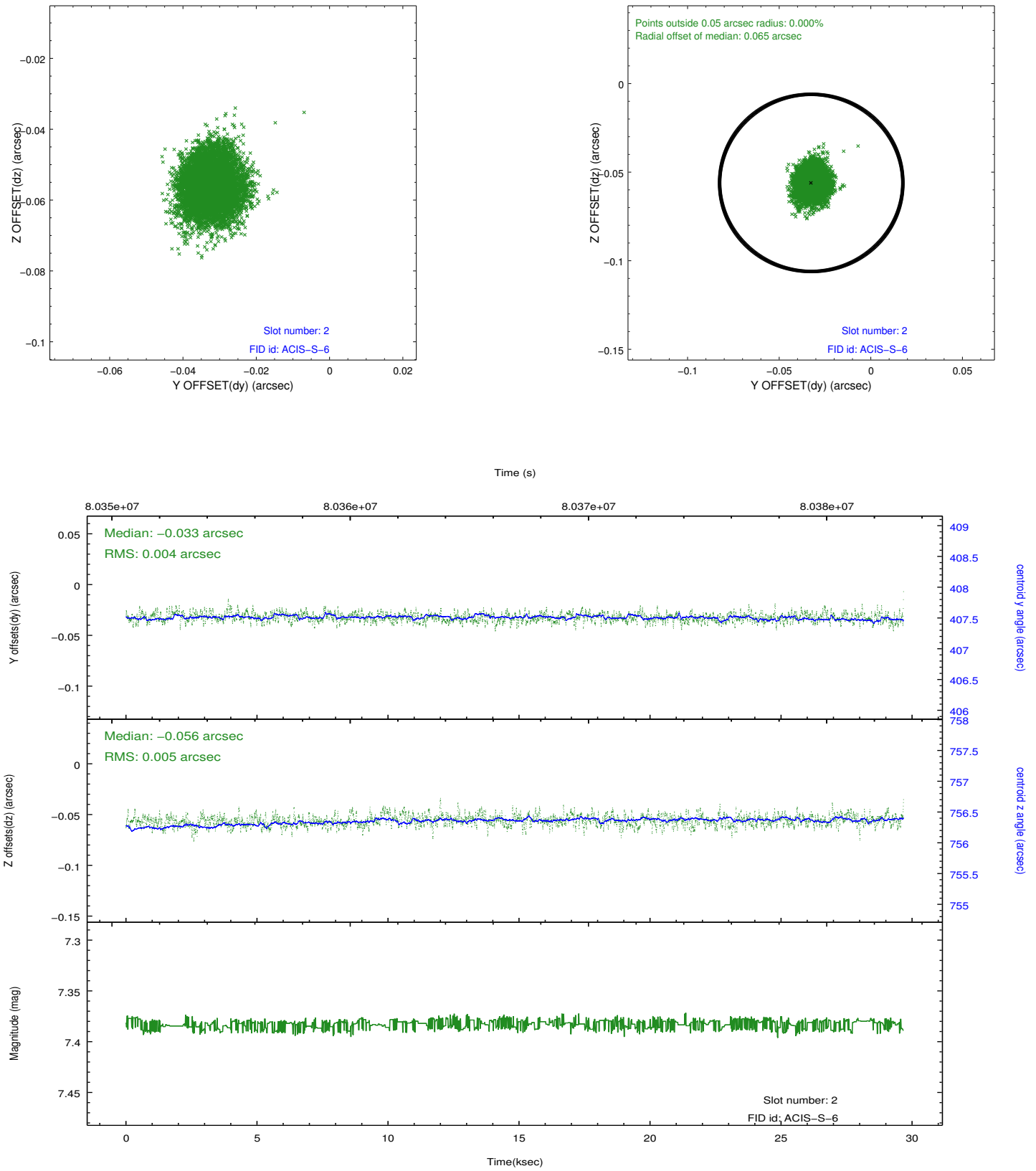
2.5.1 Slot 0



2.5.2 Slot 1

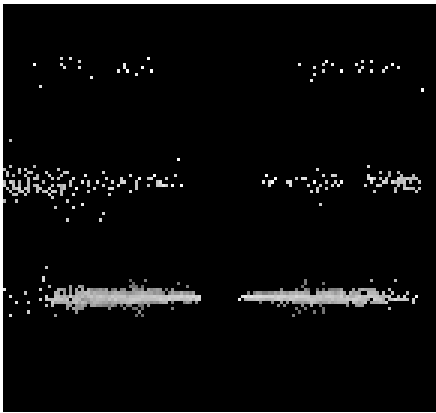


2.5.3 Slot 2

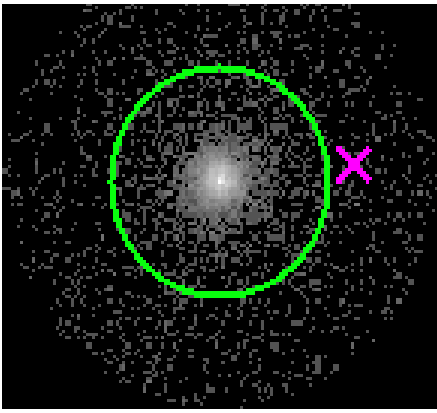


3 Gratings

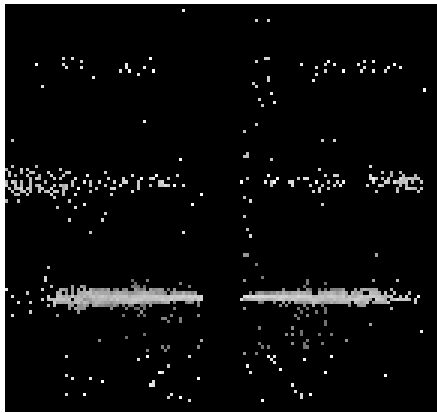
3.1 HEG Arm



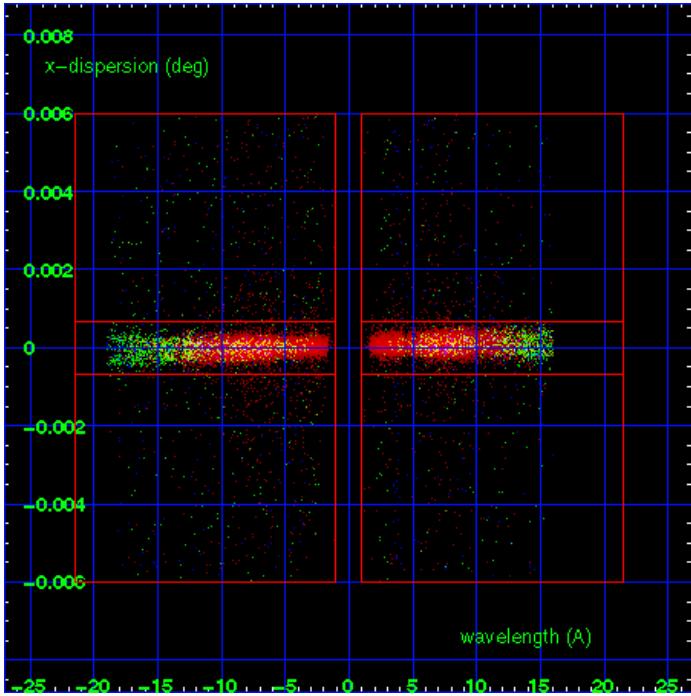
HEG Order Sort 123



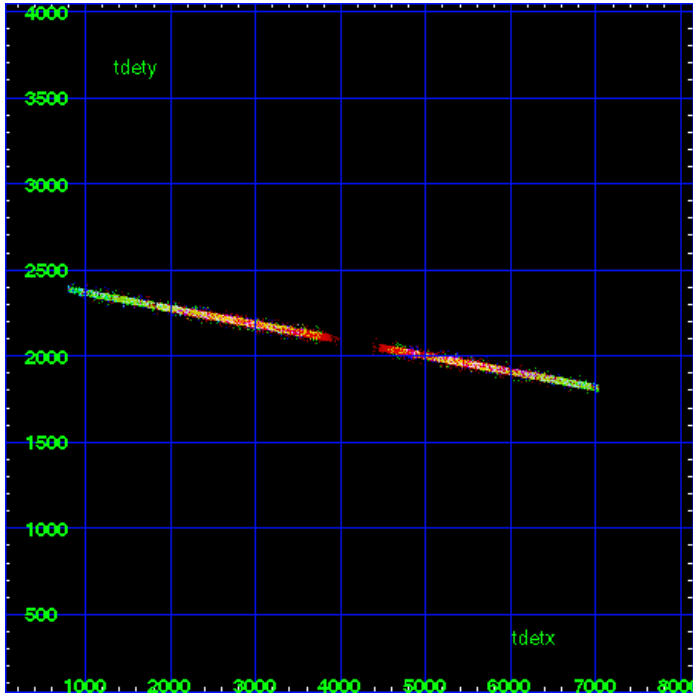
HEG Zero Order



HEG Order Sort ALL

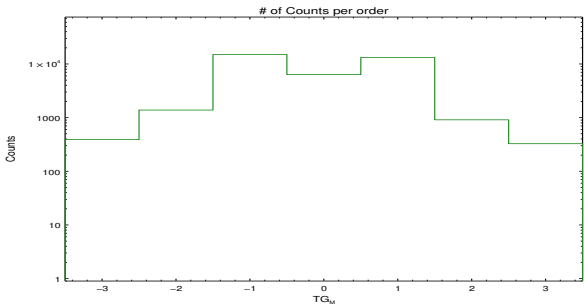


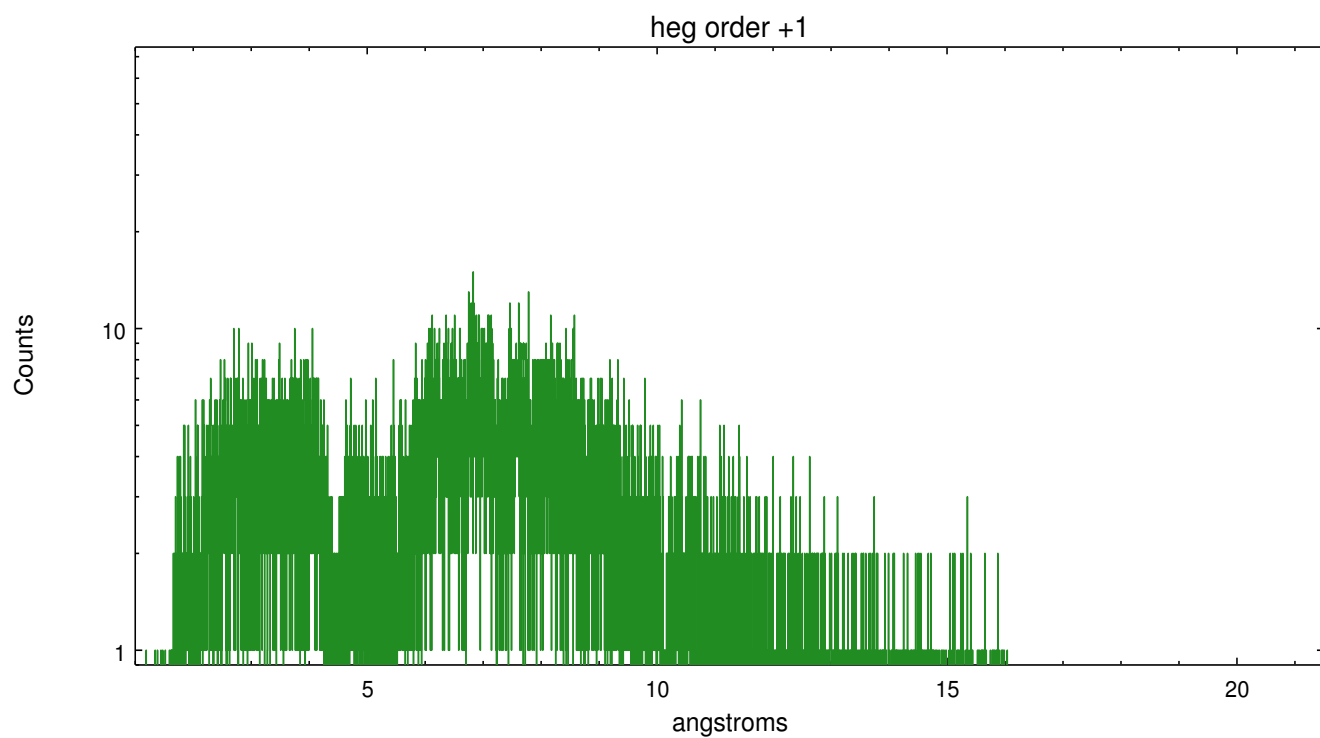
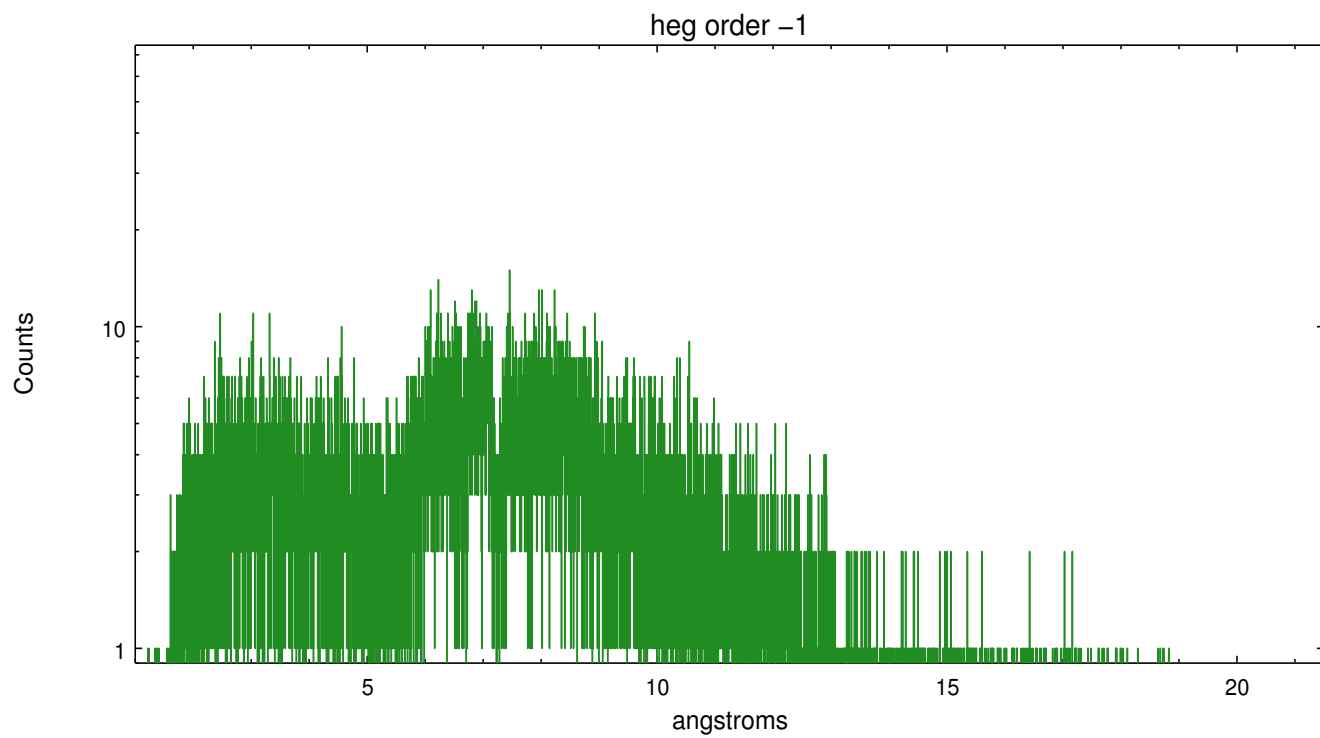
Spot Image HEG



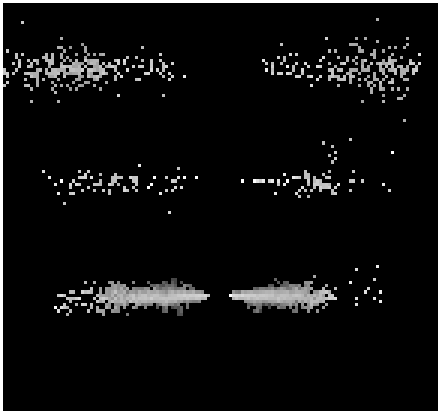
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	390	1384	14992	6343	13177	911	327

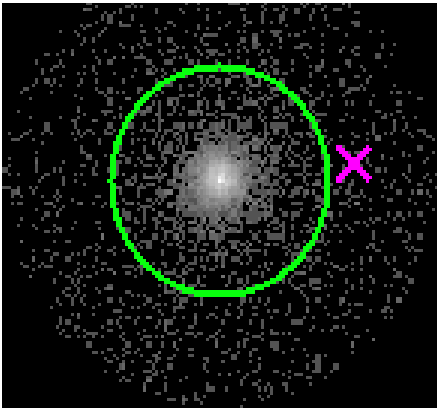




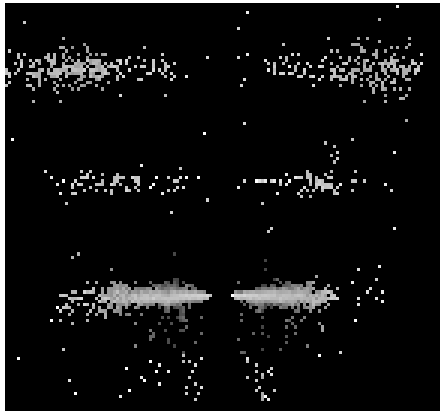
3.2 MEG Arm



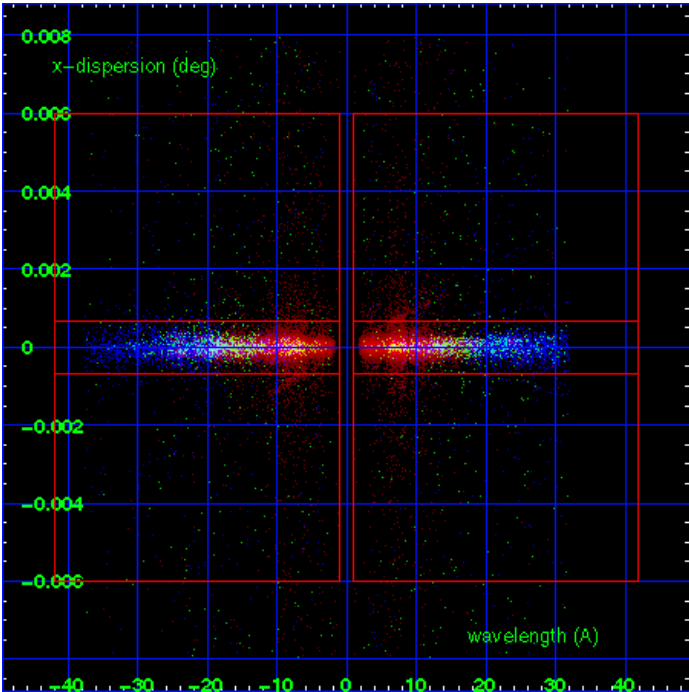
MEG Order Sort 123



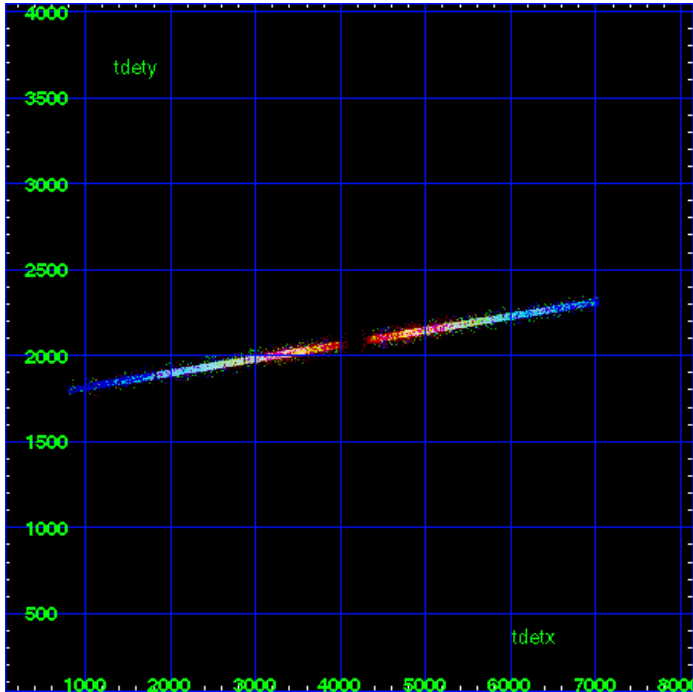
MEG Zero Order



MEG Order Sort ALL

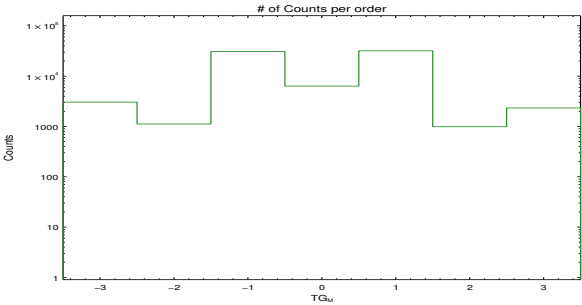


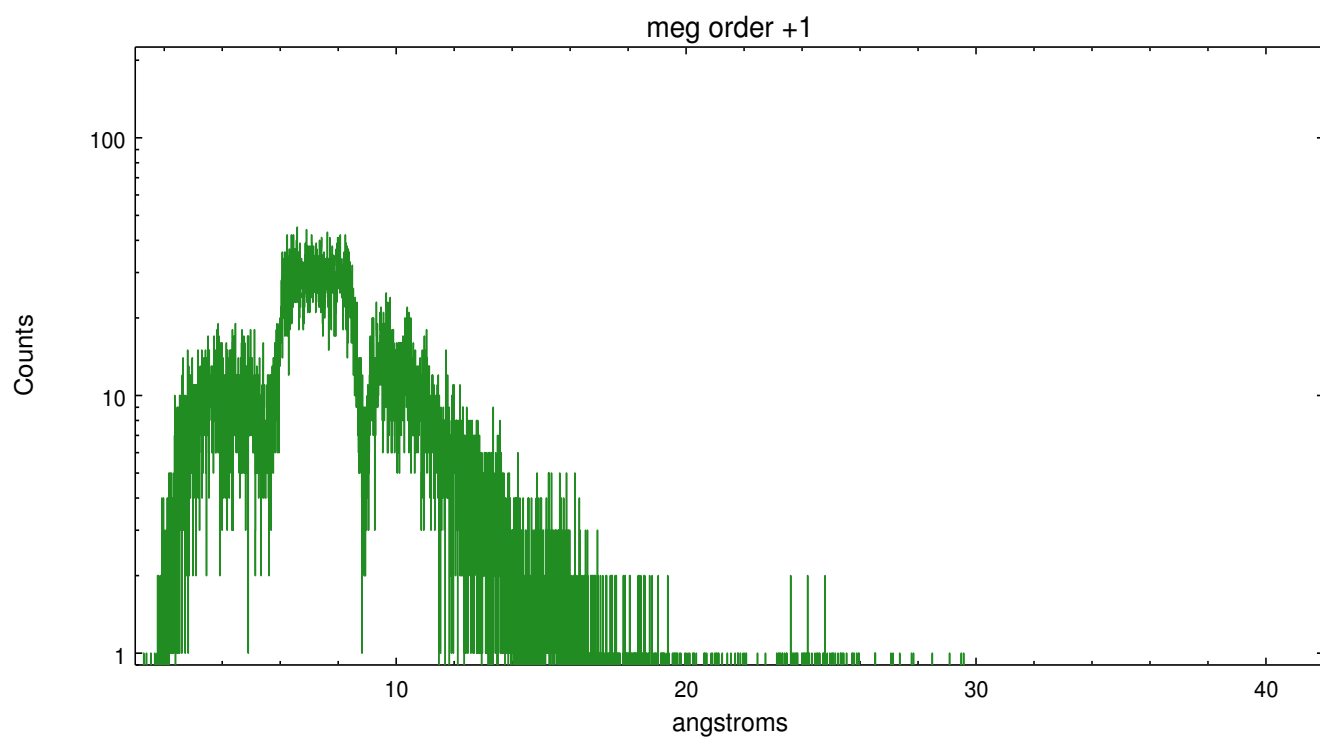
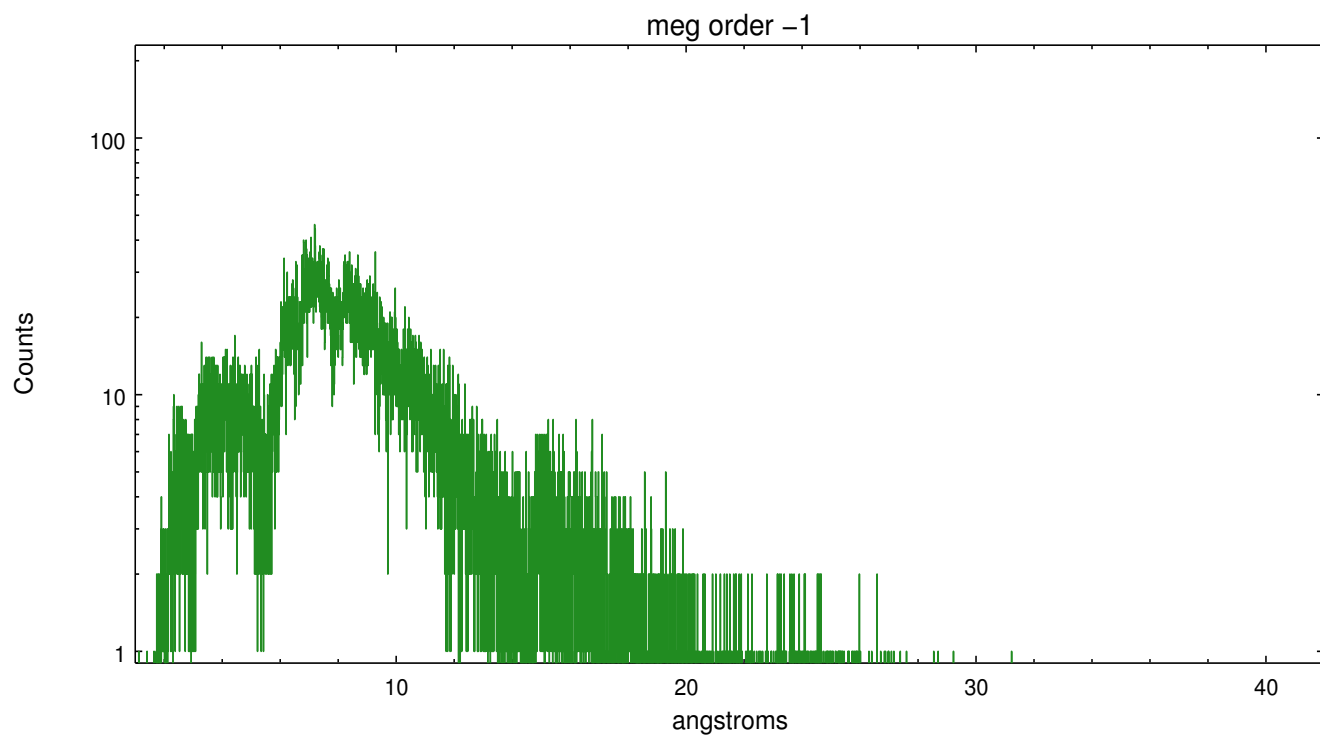
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	3044	1121	30891	6343	31858	989	2335





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.09.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	28.848

A.2 Comments

Zeroth order piled up. Standard data processing software did not correctly locate the zeroth order due to pileup. Manual intervention was used to input the correct sky coordinates (x=4058.1, y=4091.54) into the *src1a.fits file table. These corrected coordinates were determined using a software tool developed by CXC called findzero, which is expected to be released in CIAO as tg_findzo (currently in ISIS as findzo). The tool calculates the point of intersection of the readout streak and the meg arm. The zeroth order source position determined by the standard pipeline processing using the tool tgdetect was not used in this processing. The newly determined zeroth order coordinates have been placed in the *src1a.fits file, replacing the coordinates determined by tgdetect. Note that these corrected coordinates of the zeroth order cannot be reproduced by running tgdetect on the data.