

V&V Reference Report

L2 ASCDS Version : 10.2.4

Observation 16307 - L2 Version 1
Chandra X-Ray Center

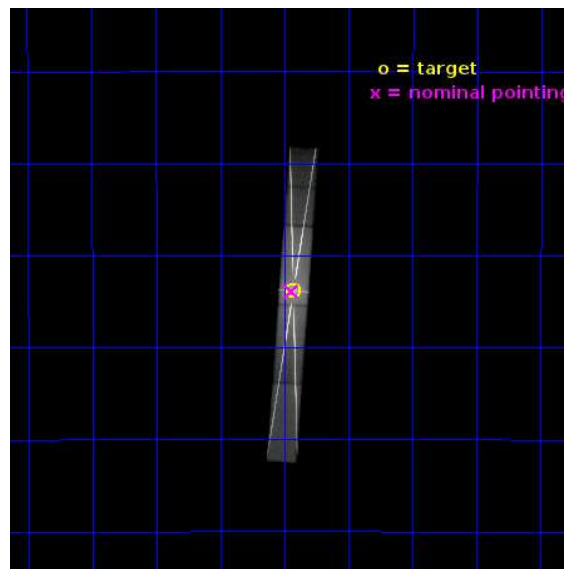
L2 Processing Date : Jul 23 2014

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1 Front

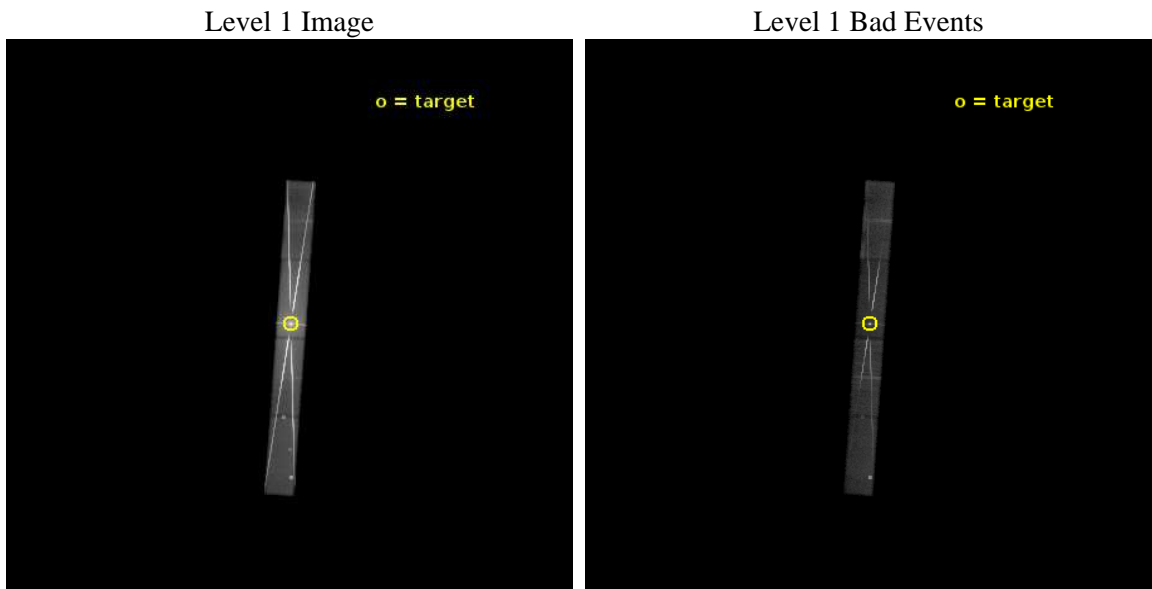
seq_num	901123	Sequence number
obs_id	16307	Observation id
title	Detect Broad High Z Lines in GX 3+1	Proposal title
observer	Prof. Claude Canizares	Principal investigator
object	GX 3+1	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	266.983333	Observer's specified target RA [deg]
dec_targ	-26.5635	Observer's specified target Dec [deg]
ra_nom	266.98636335018	Nominal RA [deg]
dec_nom	-26.565030953075	Nominal Dec [deg]
roll_nom	273.91454582288	Nominal Roll [deg]
revision	1	Processing version of data
ontime	45081.261696041	Sum of GTIs [s]
livetime	43590.467700678	Livetime [s]
ontime5	45081.220656037	Sum of GTIs [s]
ontime6	45081.179616034	Sum of GTIs [s]
ontime7	45081.261696041	Sum of GTIs [s]
ontime8	45081.138576031	Sum of GTIs [s]
l2events	4455919	Number of level 2 events



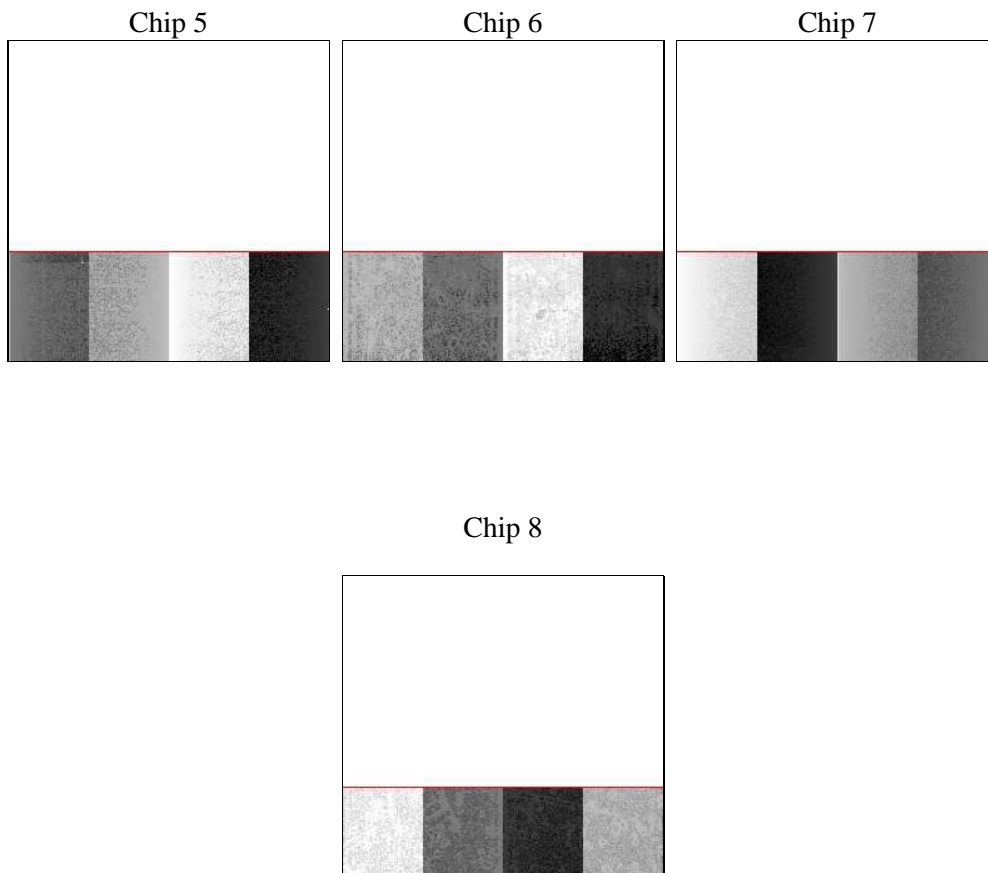
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	45000.000000	[s] Scheduled observation exposure time
ascdsver	10.2.4	Processing system revision	ontime	45081.261696041	Sum of GTIs [s]
caldbver	4.6.2	 	ontime5	45081.220656037	Sum of GTIs [s]
date	2014-07-23T22:23:43	Date and time of file creation	ontime6	45081.179616034	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	45081.261696041	Sum of GTIs [s]
			ontime8	45081.138576031	Sum of GTIs [s]
			l1events	5088822	Number of level 1 events
			tgmethod	FINDZO	Method used to create src1a file
			zo_pos	(4114.24, 4106.53)	src1a sky pixel position
			zo_pos_tgd	(4113.73, 4107.00)	src1a sky pixel position via todetect

2.1.4 Events

	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	351689	1853711	2392961	490461
rejected events	77345	127439	167979	85537
rejected %	21%	6%	7%	17%

	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	75725	1218705	423994	299492
	21%	65%	17%	61%
grade 1 events	639	21150	9804	1557
	0%	1%	0%	0%
grade 2 events	81872	235569	539463	49736
	23%	12%	22%	10%
grade 3 events	24470	83655	238868	17521
	6%	4%	9%	3%
grade 4 events	23028	82411	237742	17189
	6%	4%	9%	3%
grade 5 events	18587	21882	54631	6511
	5%	1%	2%	1%
grade 6 events	69266	106031	785023	21006
	19%	5%	32%	4%
grade 7 events	58102	84308	103436	77449
	16%	4%	4%	15%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-5678	ACIS-5678	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	266.968903	266.9863633501847	Subarray requested	CUSTOM	CUSTOM
[deg] Pointing Dec	-26.542467	-26.56503095307452	Subarray start row	1	1
[deg] Pointing Roll	273.750113	273.9145458228787	Subarray row count	350	350
[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	1.2
[mm] SIM translation stage pos	-182.132523	-182.1370004450064			
[mm] SIM translation stage offset	-8	-7.995522138001405			
[s] Observation start time (MET)	522460664.184000	522459486.1489			
Observation start date	2014-07-22T23:56:37	2014-07-22T23:38:06			
[s] Observation end time (MET)	522505664.184000	522506418.8515			
Observation end date	2014-07-23T12:26:37	2014-07-23T12:40:18			
Read mode	TIMED	TIMED			

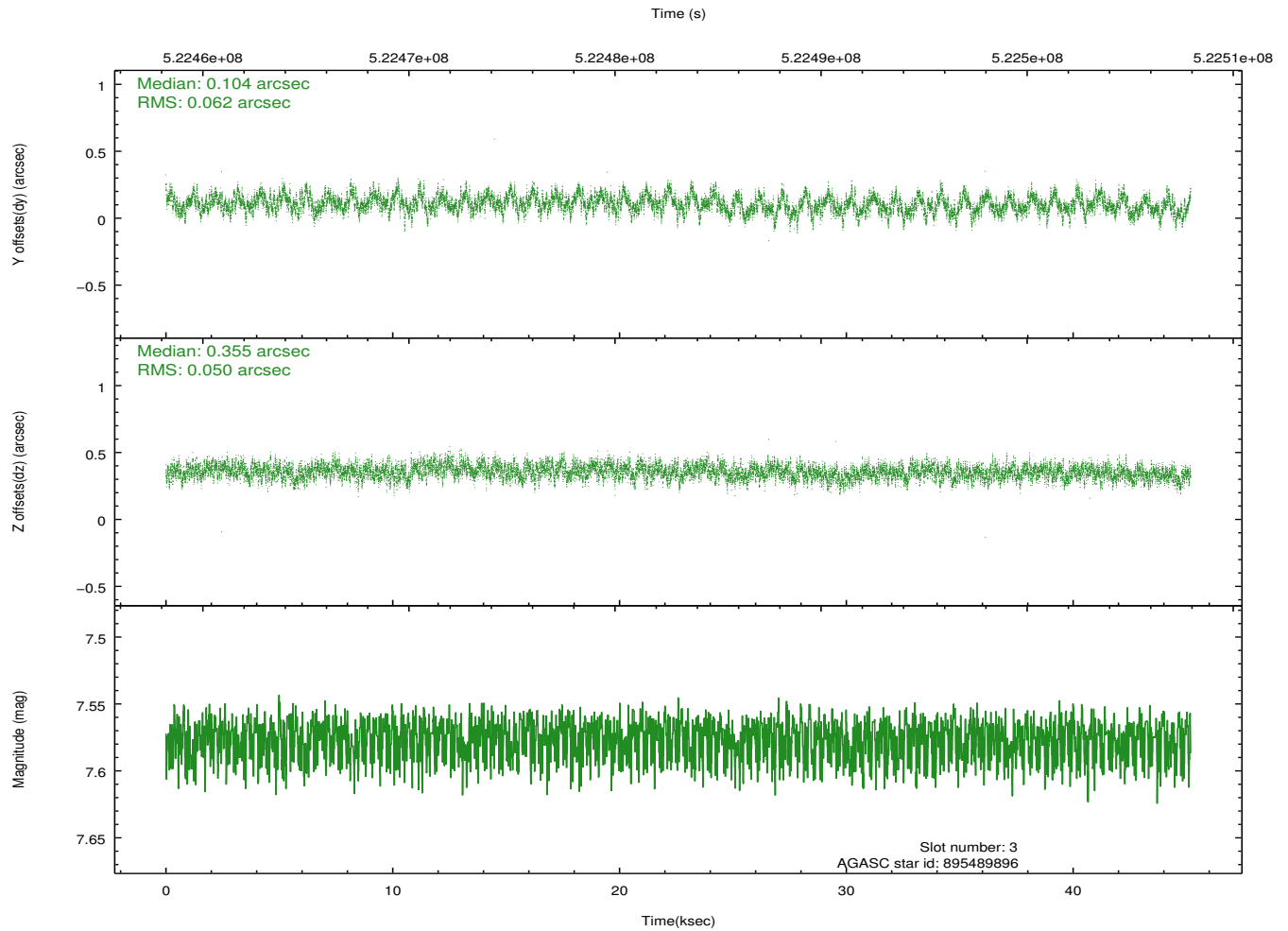
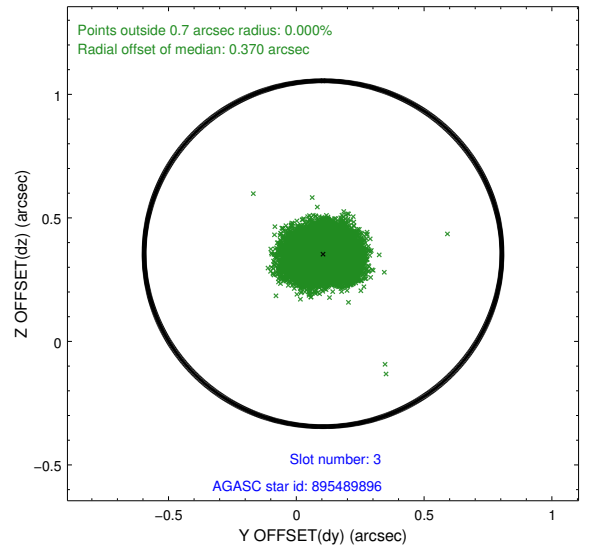
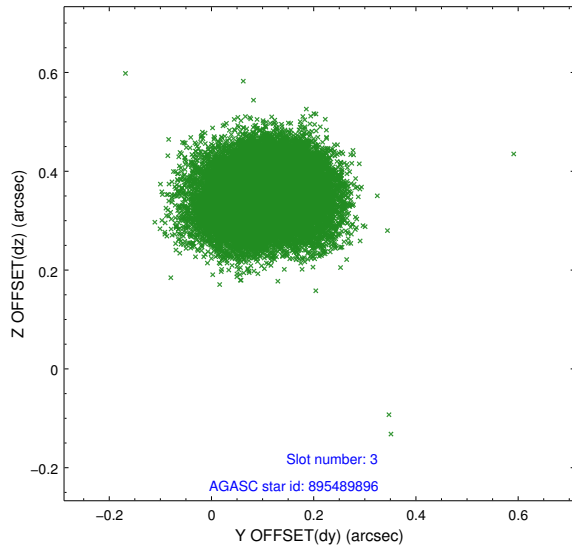
2.3 Aspect

Slot Statistics

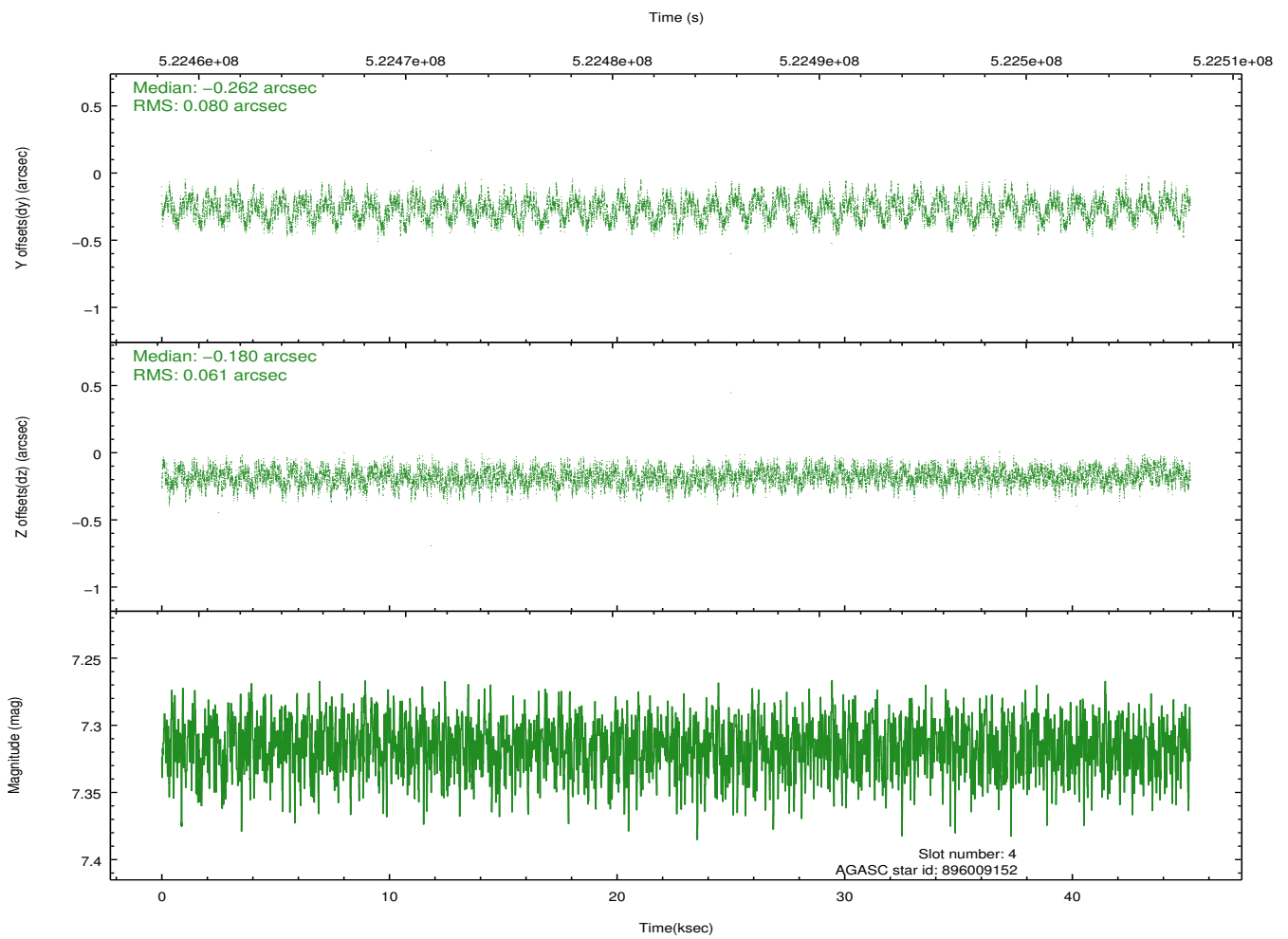
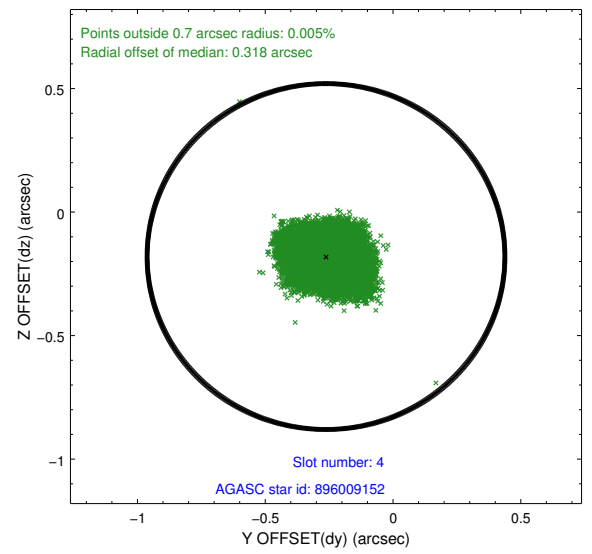
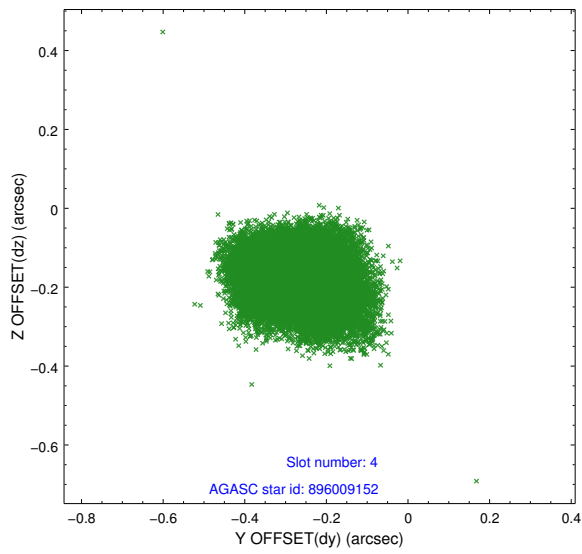
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.95	11021	-0.259	-0.164	0.019	0.039	0.000000	0.000000	-778.86	-1907.92
1	FID	ACIS-S-4	7.04	11021	0.248	0.164	0.018	0.025	0.000000	0.000000	2134.99	0.75
2	FID	ACIS-S-6	7.26	11021	-0.017	0.004	0.022	0.033	0.000000	0.000000	383.45	638.04
3	GUIDE	895489896	7.58	22039	0.104	0.355	0.085	0.137	266.605795	-26.200300	-1303.60	-1089.82
4	GUIDE	896009152	7.32	22037	-0.262	-0.180	0.111	0.166	267.588100	-27.061669	2000.33	1857.92
5	GUIDE	896013056	8.53	22039	-0.002	0.067	0.128	0.200	266.762141	-26.954413	1437.57	-758.89
6	GUIDE	896014680	8.77	22026	0.243	0.002	0.127	0.202	266.460330	-27.216583	2319.36	-1783.60
7	GUIDE	896008536	8.55	22035	-0.075	-0.258	0.211	0.280	267.569332	-27.063788	2003.44	1797.55

2.4 Star Slots

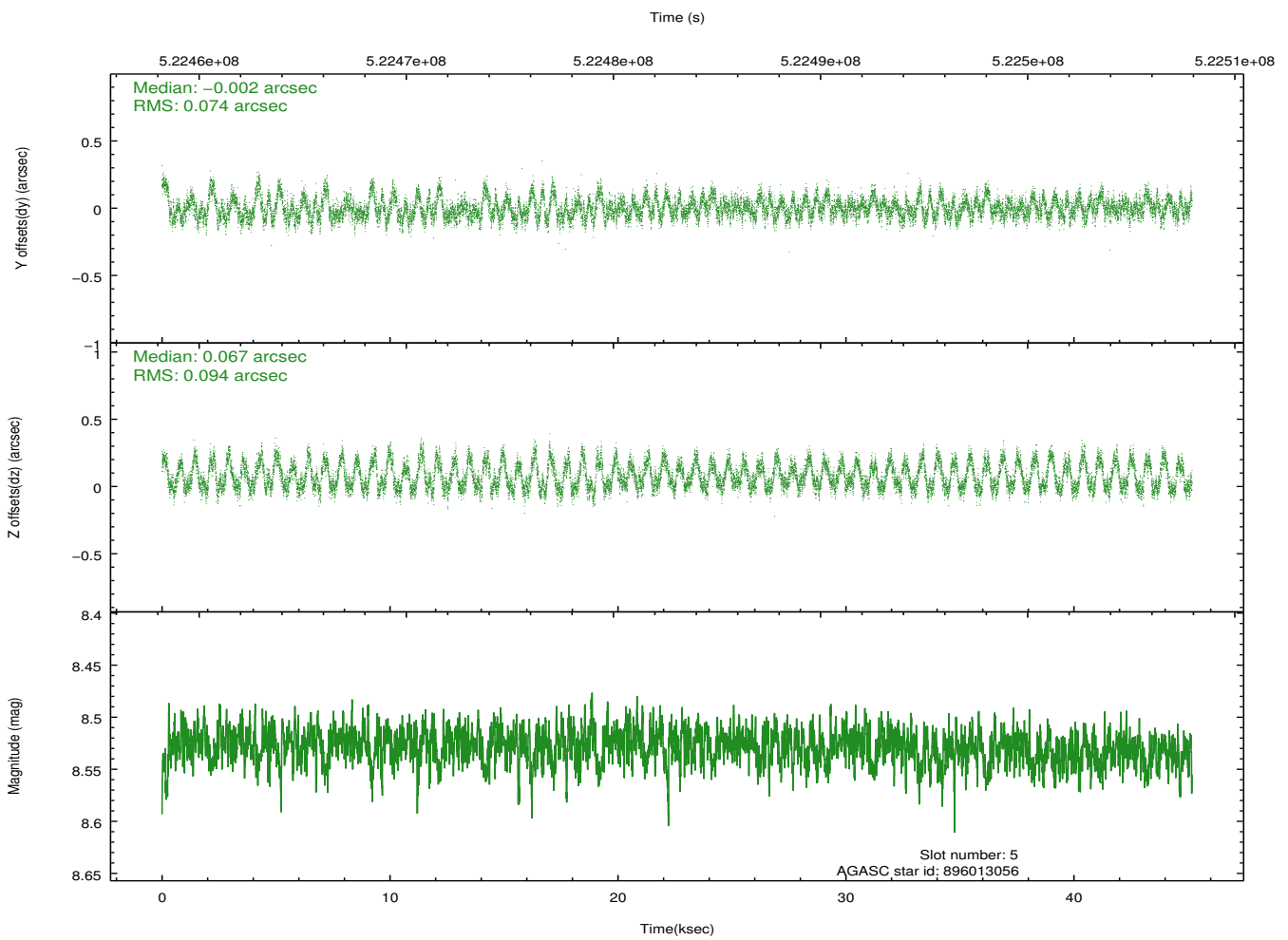
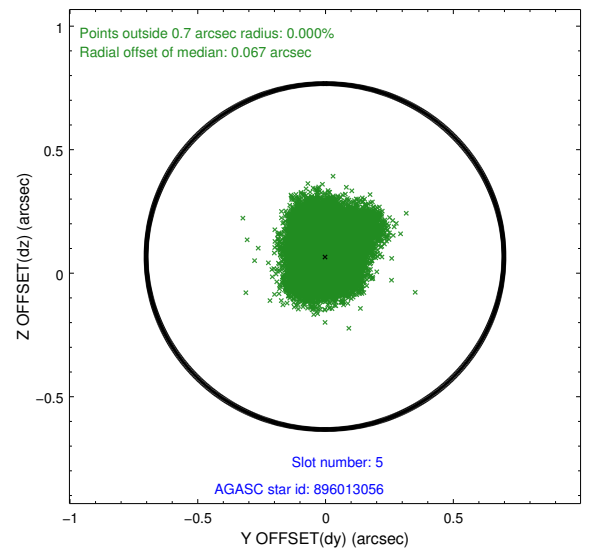
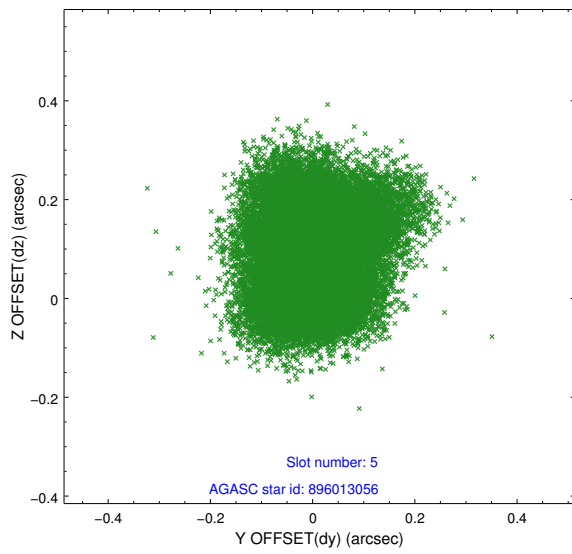
2.4.1 Slot 3



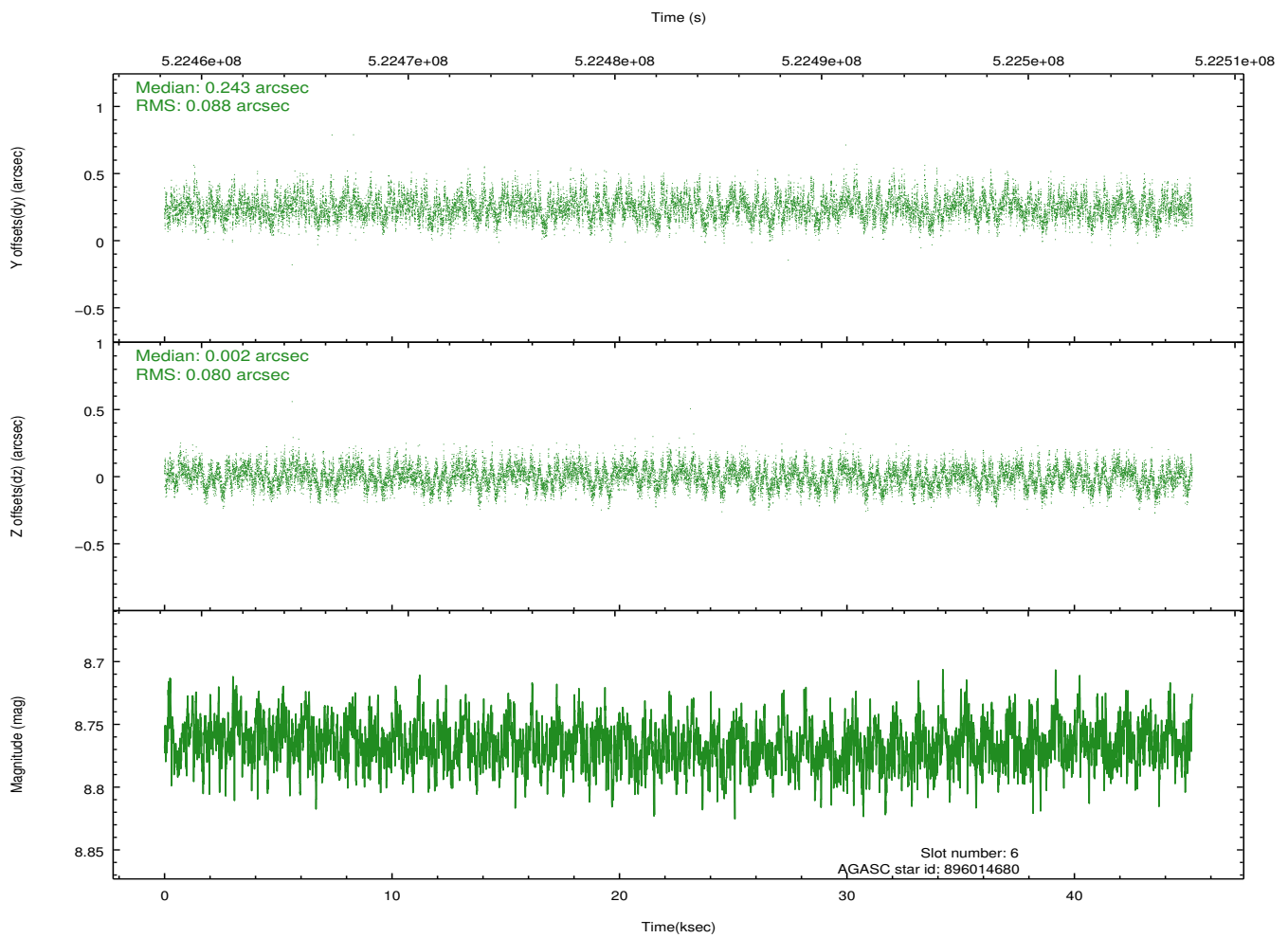
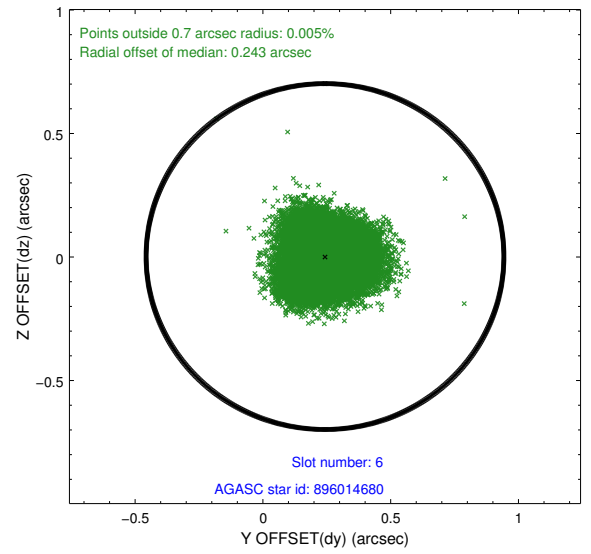
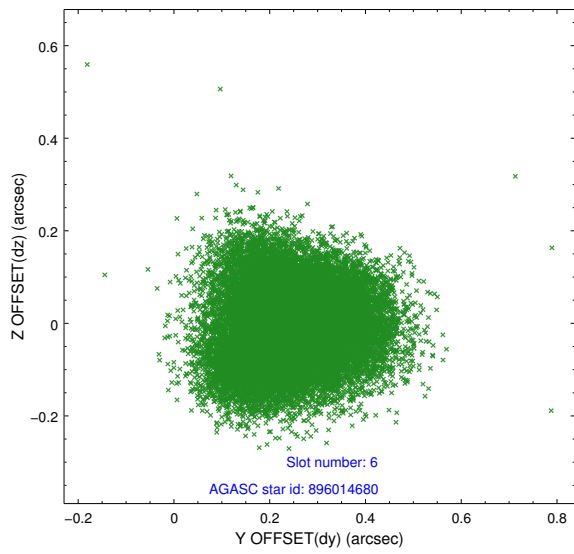
2.4.2 Slot 4



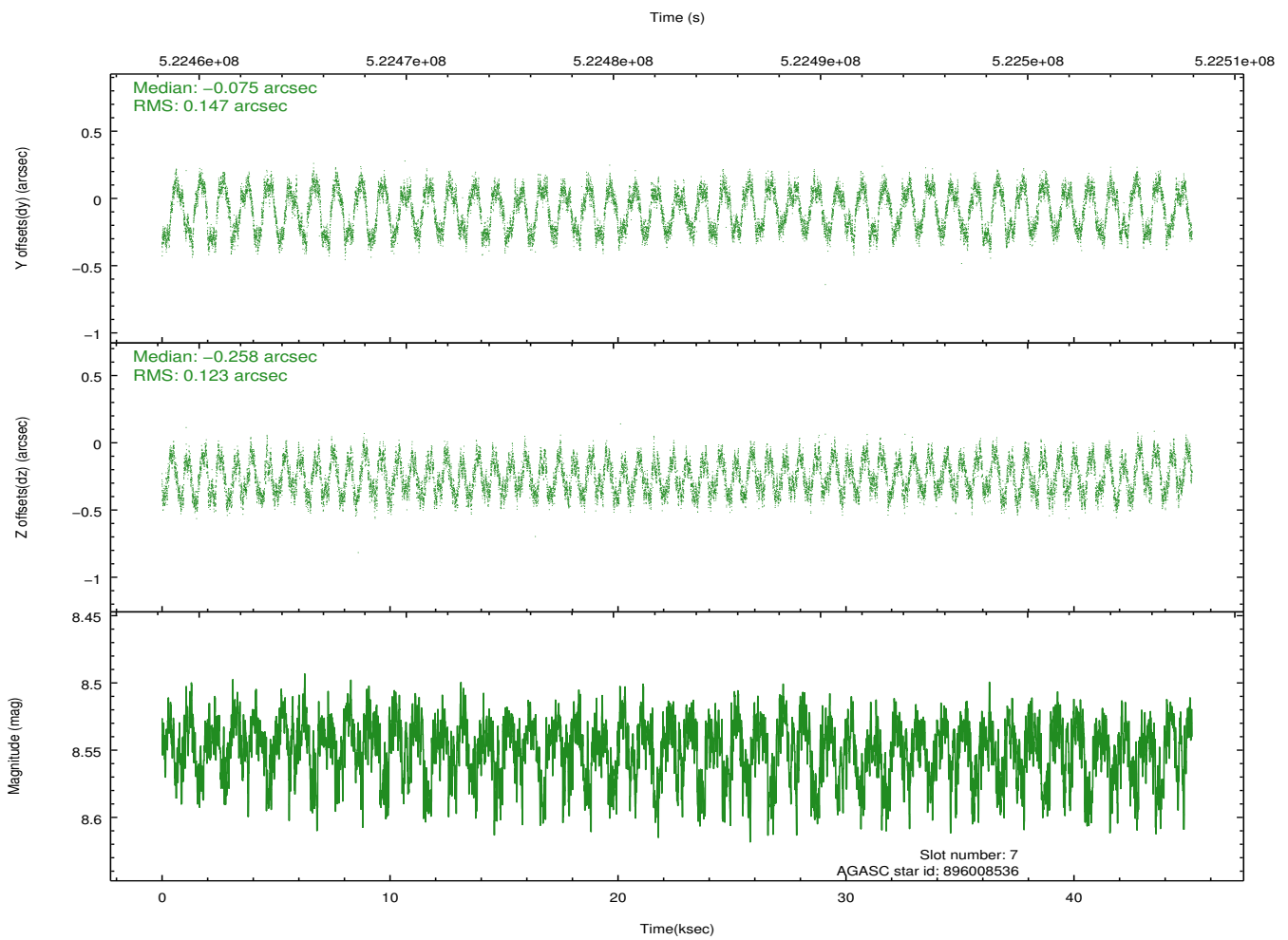
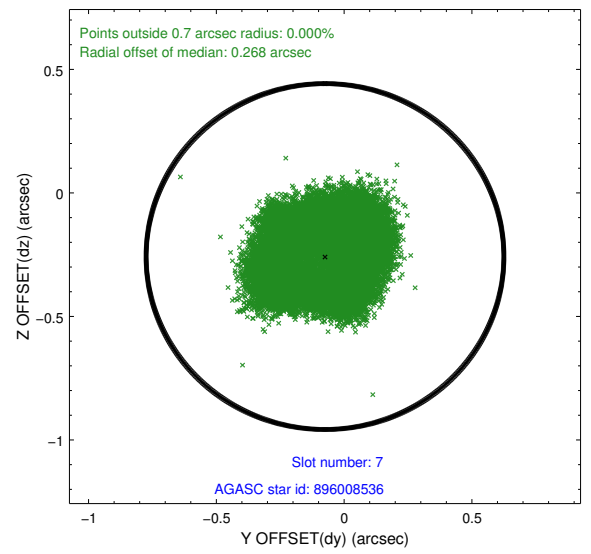
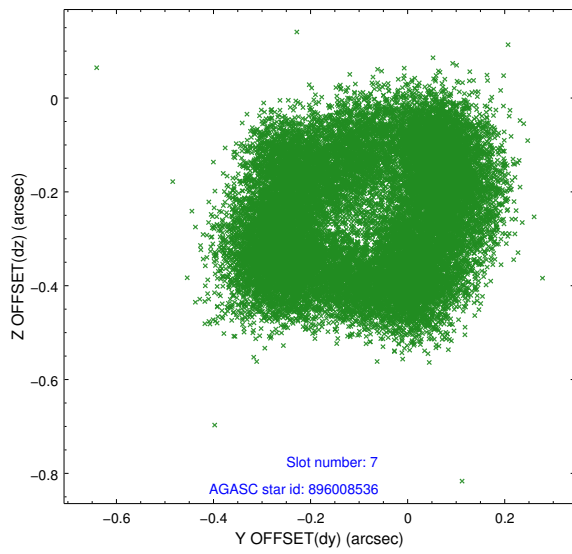
2.4.3 Slot 5



2.4.4 Slot 6

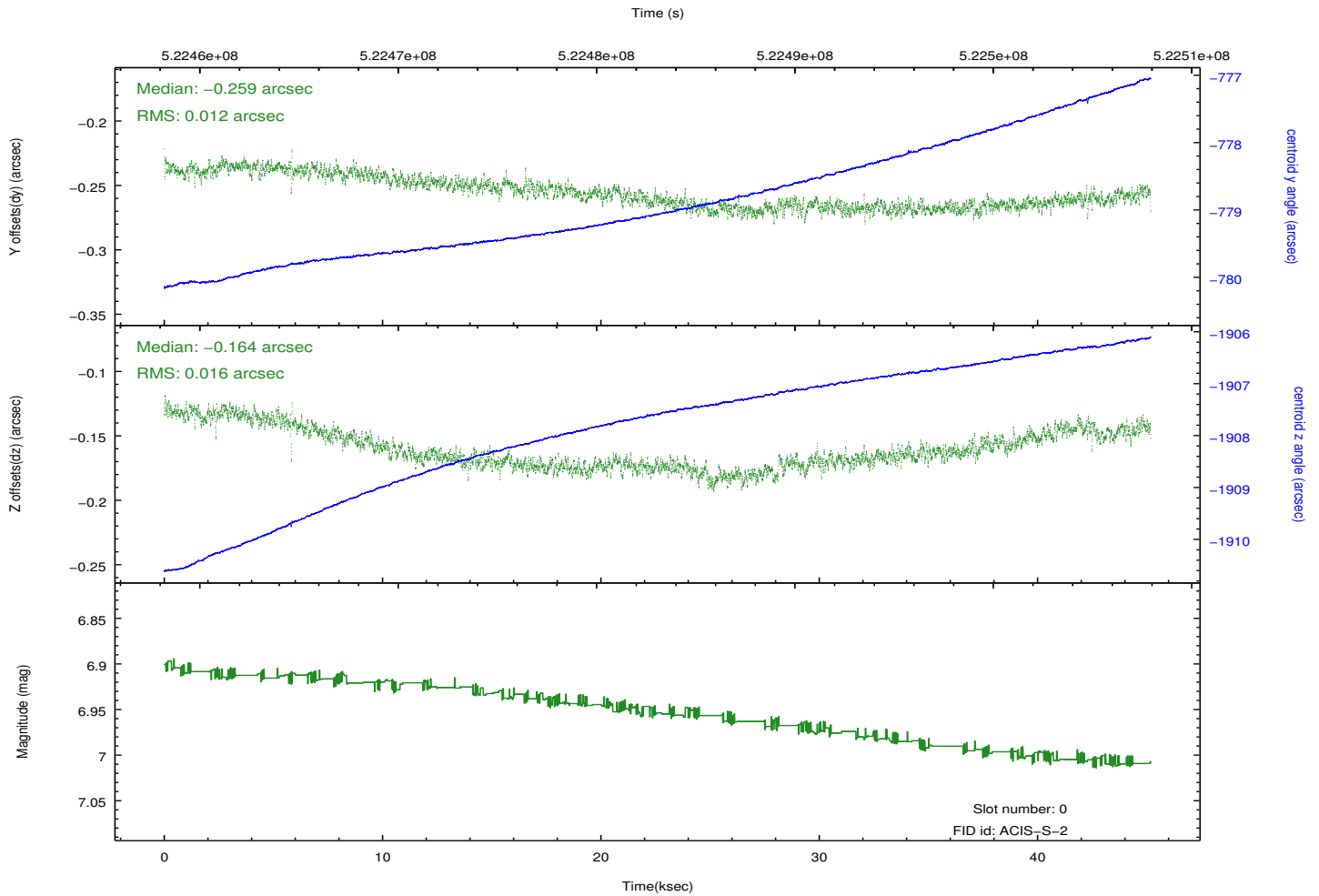
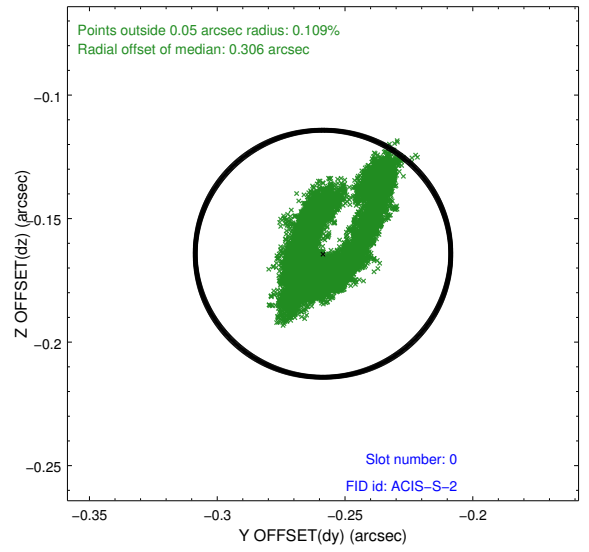
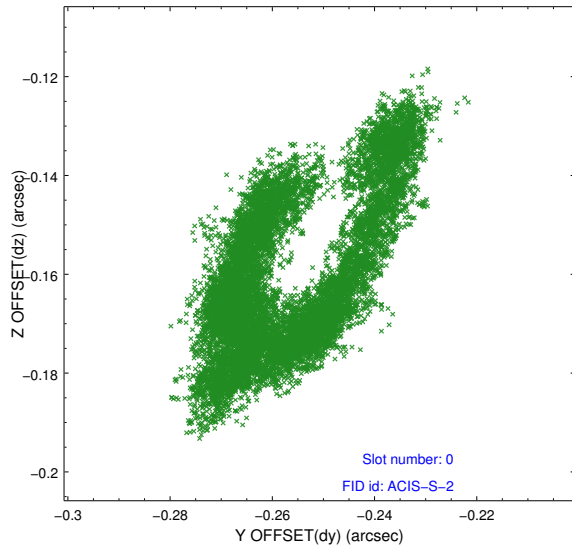


2.4.5 Slot 7

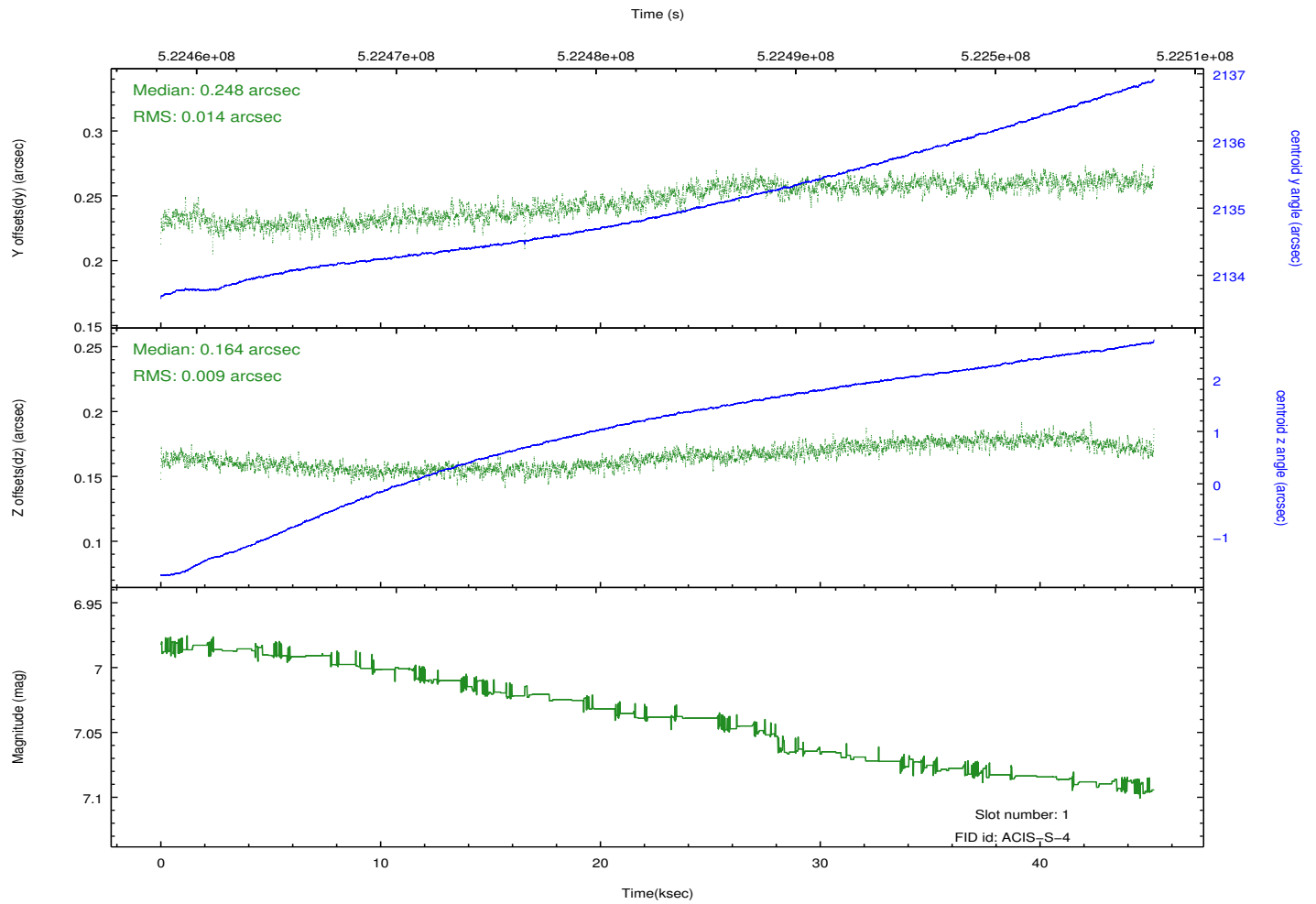
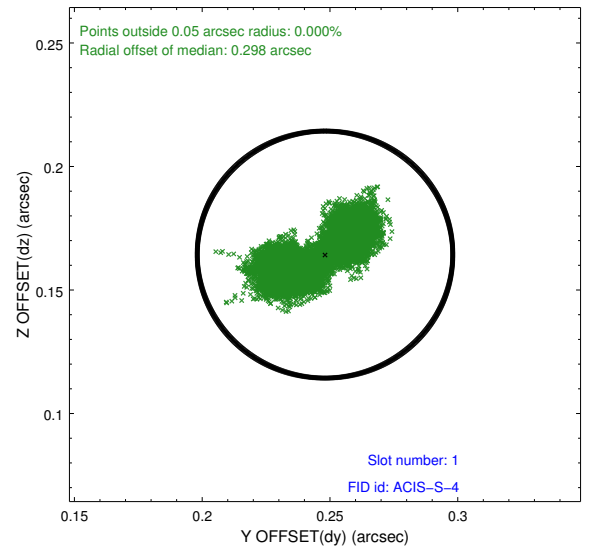
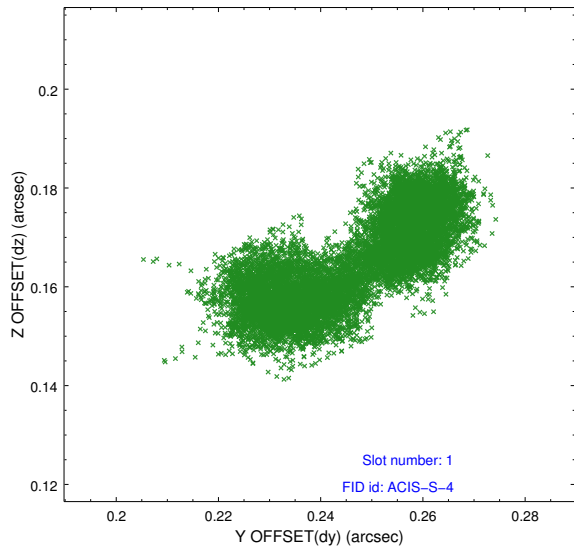


2.5 FID Slots

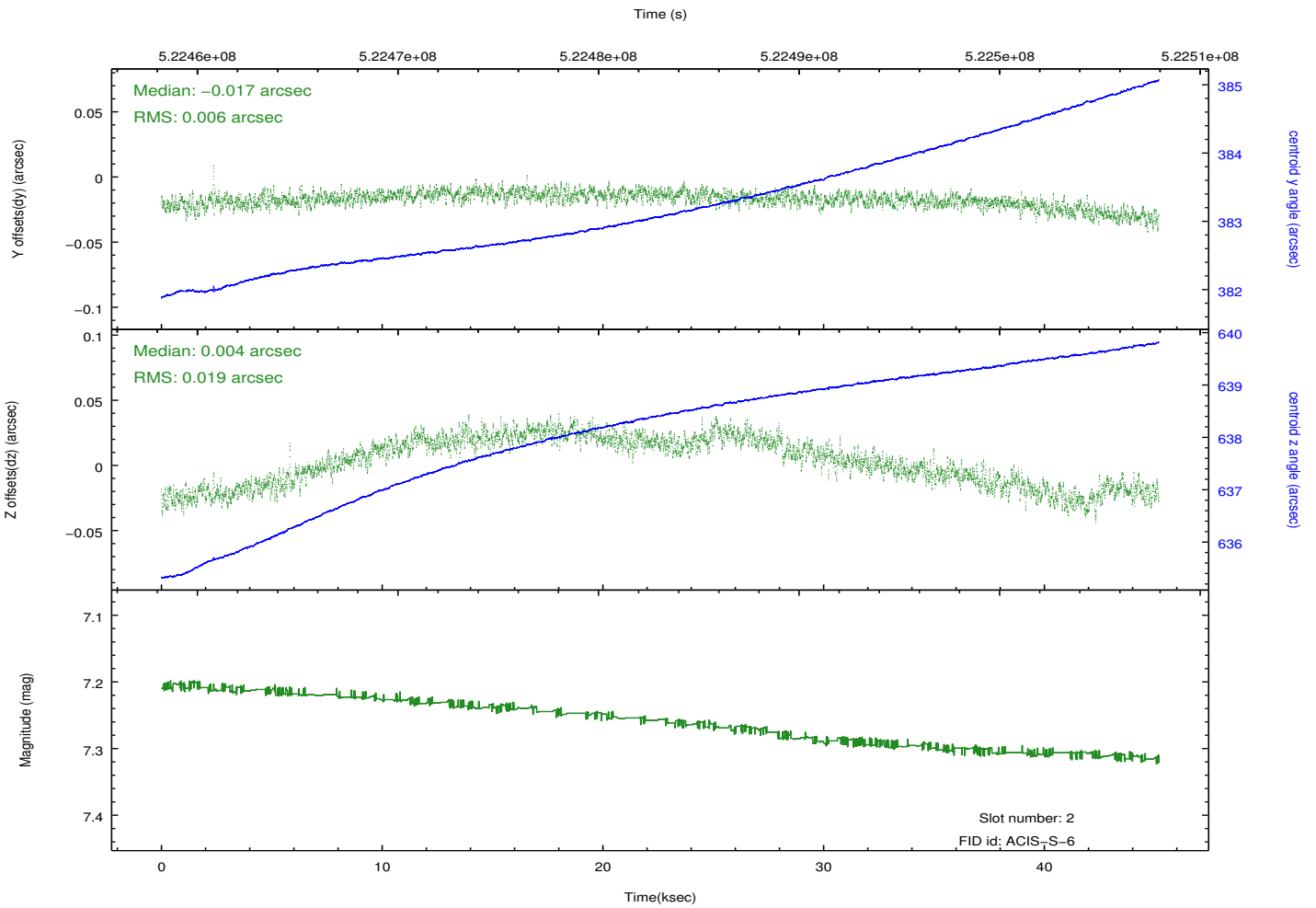
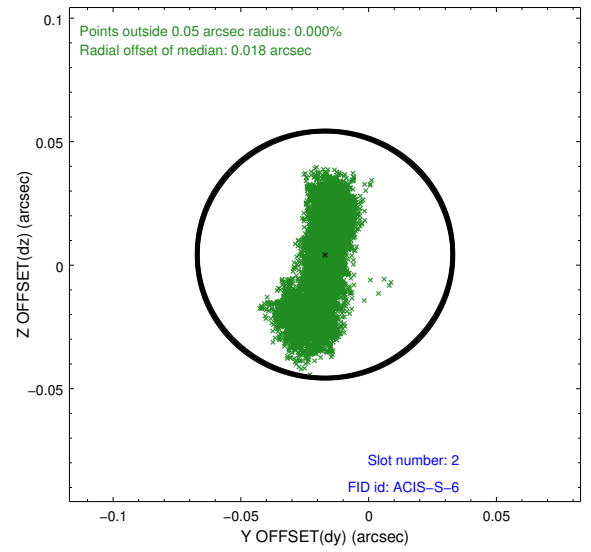
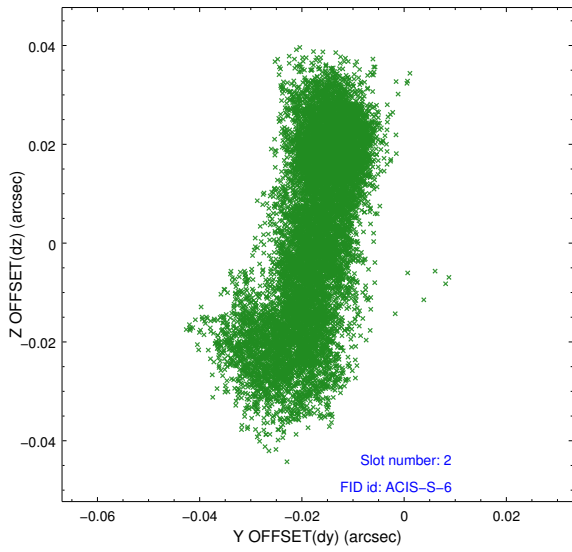
2.5.1 Slot 0



2.5.2 Slot 1

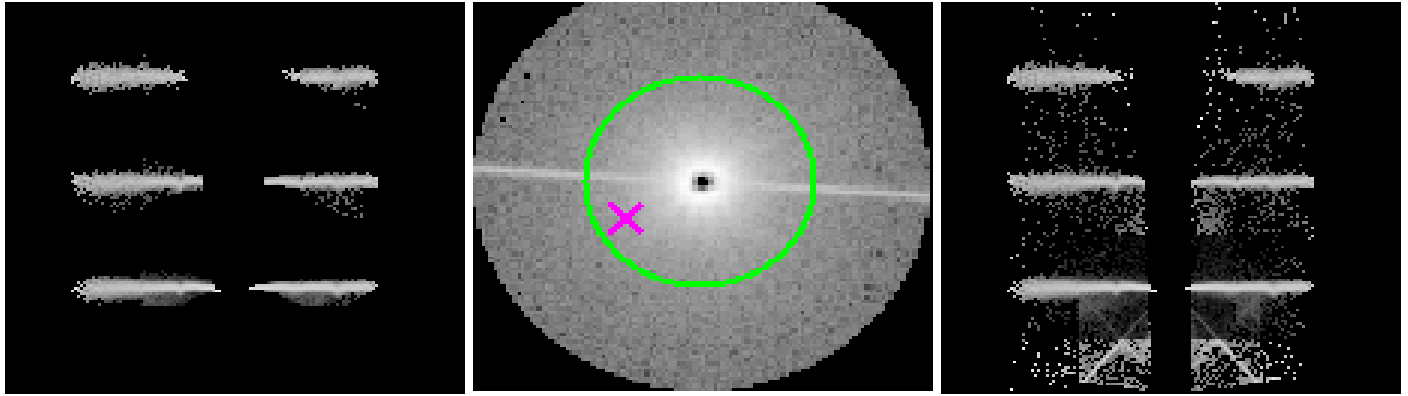


2.5.3 Slot 2



3 Gratings

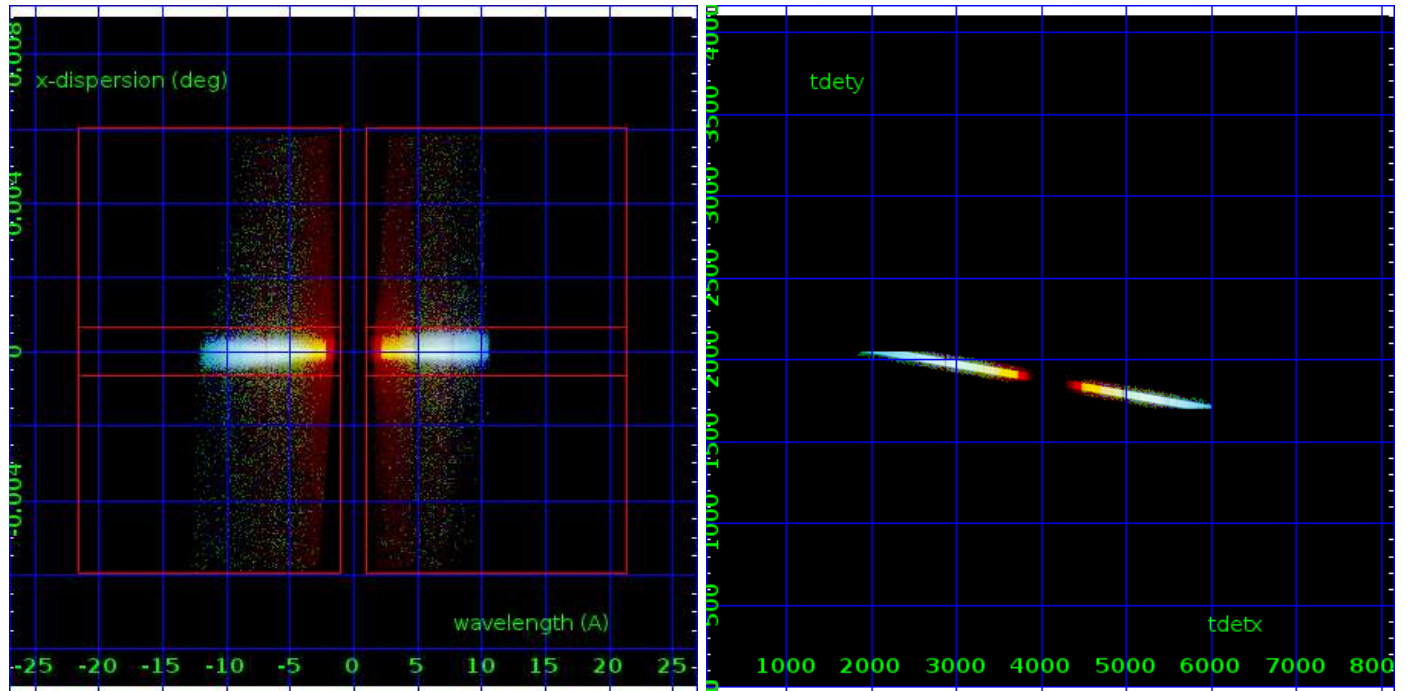
3.1 HEG Arm



HEG Order Sort 123

HEG Zero Order

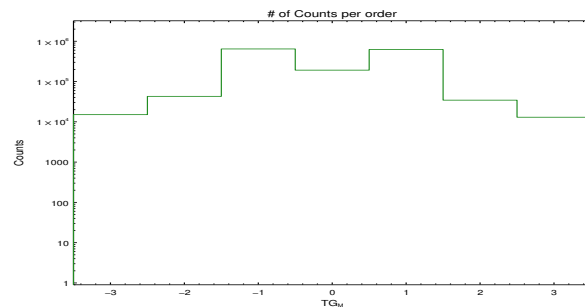
HEG Order Sort ALL

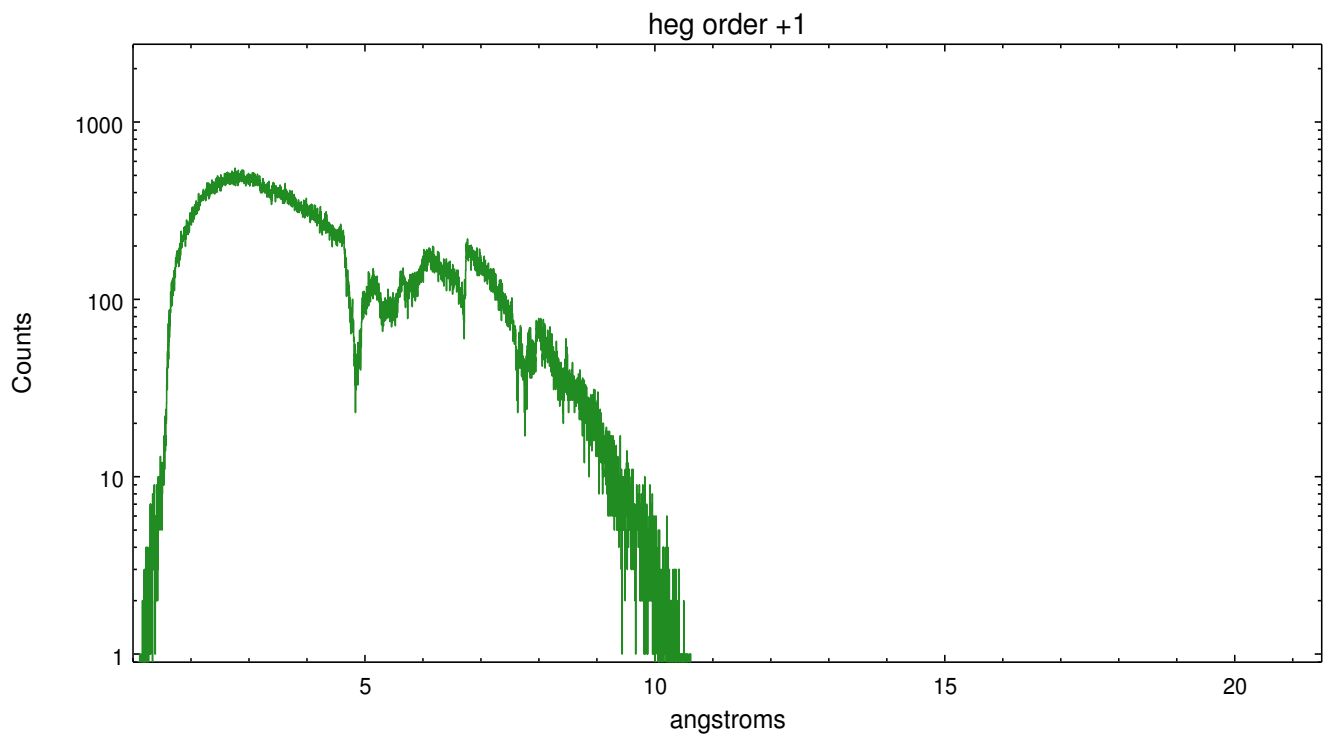
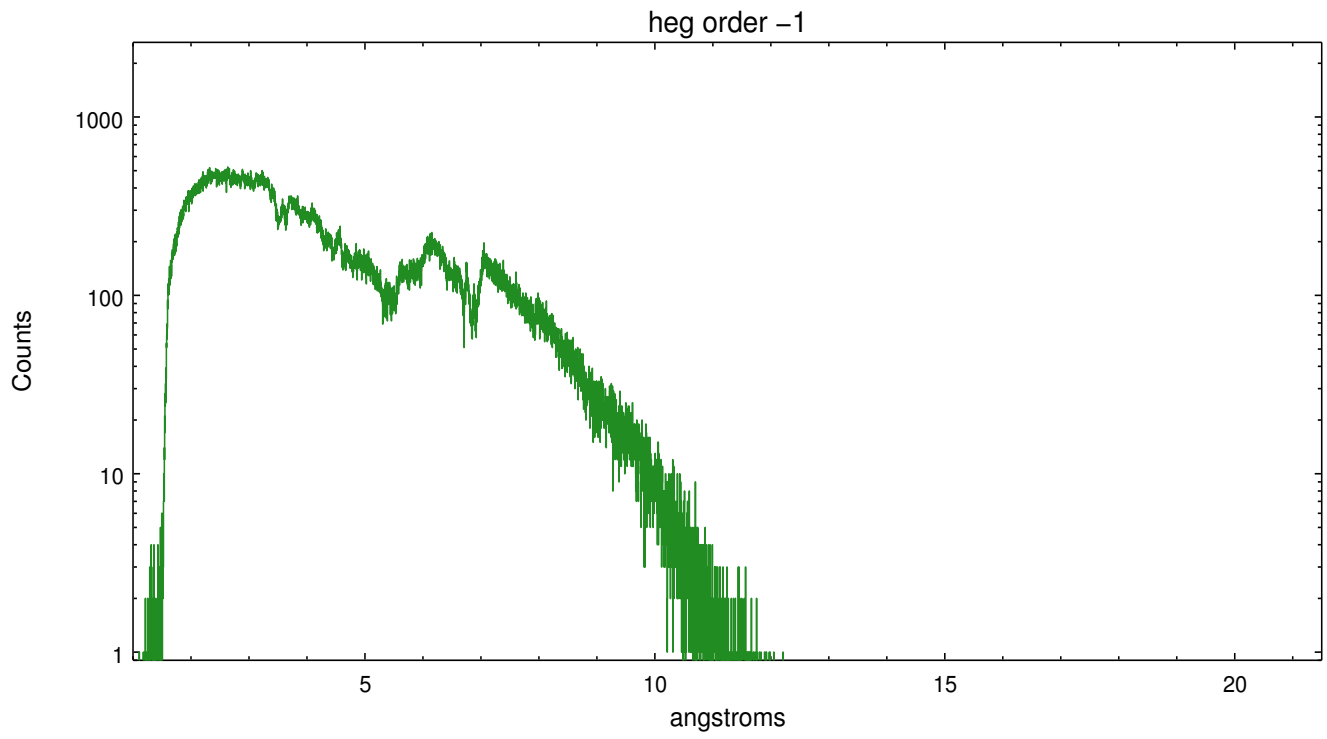


Spot Image HEG

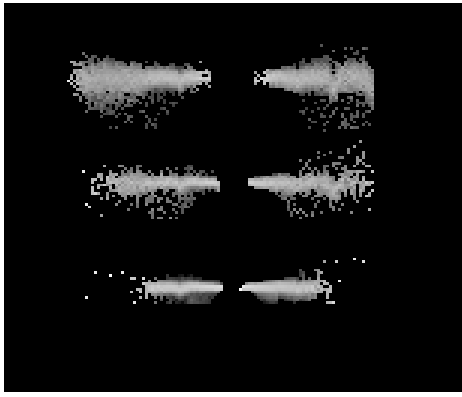
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	15072	42836	644260	191624	623257	34466	12990

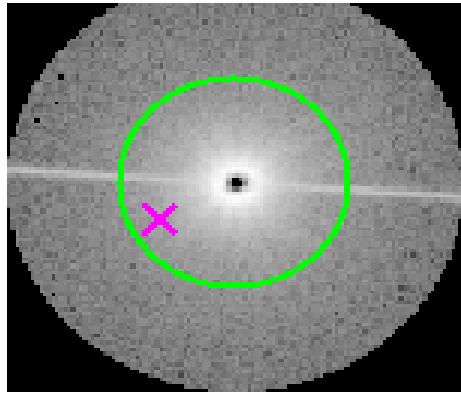




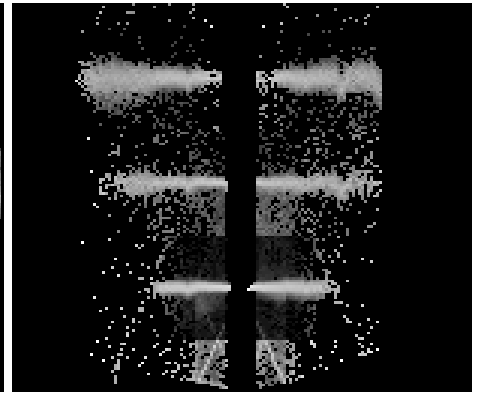
3.2 MEG Arm



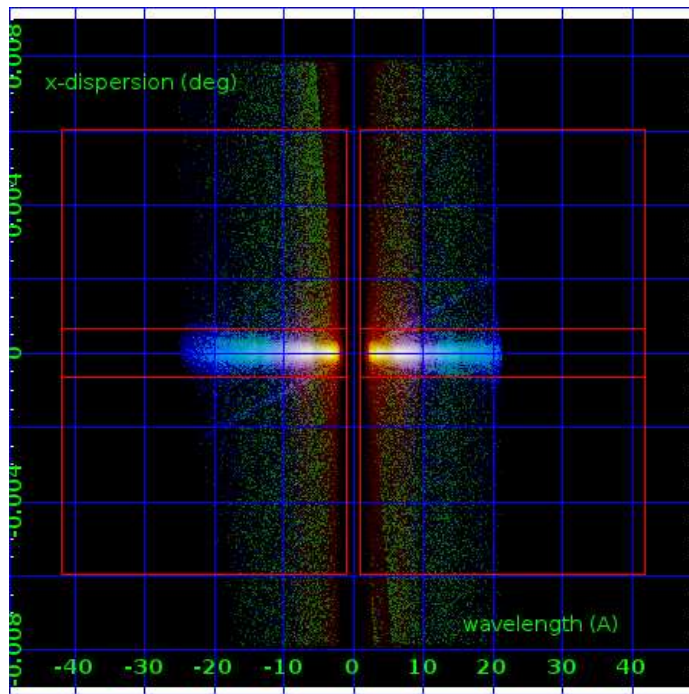
MEG Order Sort 123



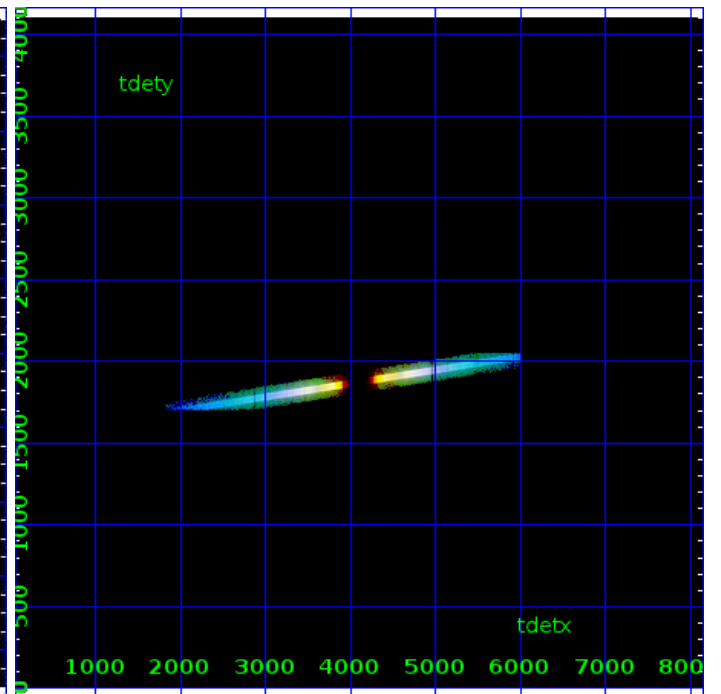
MEG Zero Order



MEG Order Sort ALL

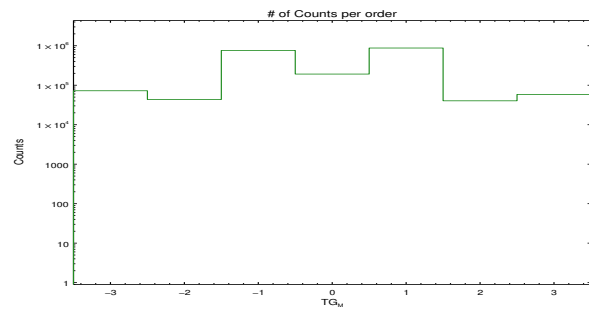


Spot Image MEG

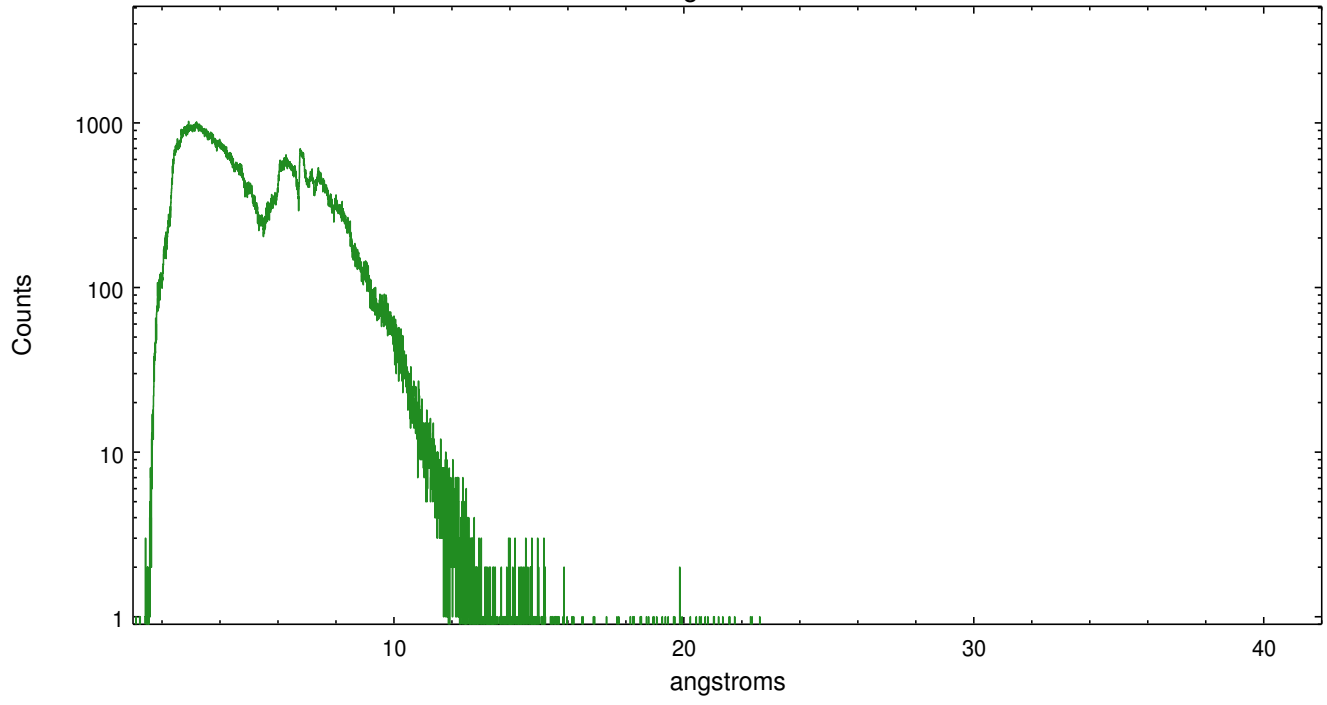


Full Detector MEG

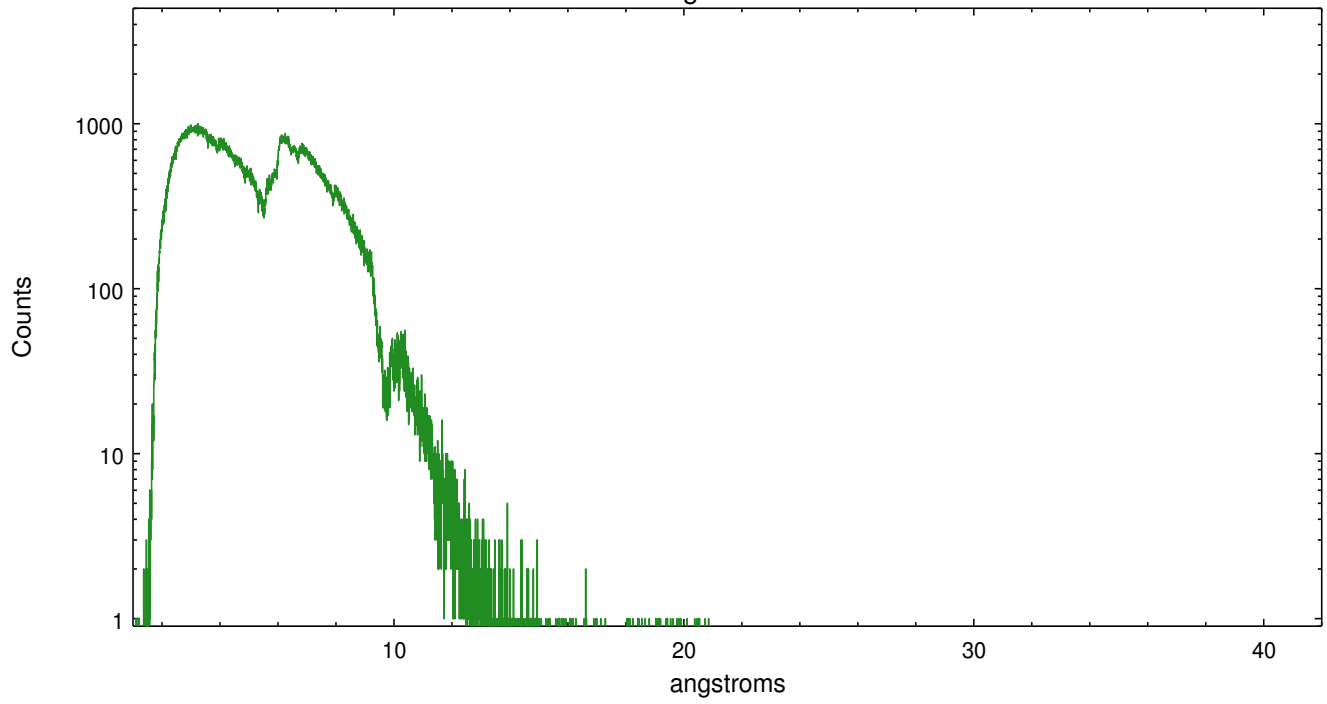
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	72501	43537	761978	191624	875716	40326	58536



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2014.07.24
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	45.081261696041

A.2 Comments

warning: very bright source, spectral arms show in bad-events image, meaning that the dispersed spectra may have significant pileup.