

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 3755 - L2 Version 4
Chandra X-Ray Center

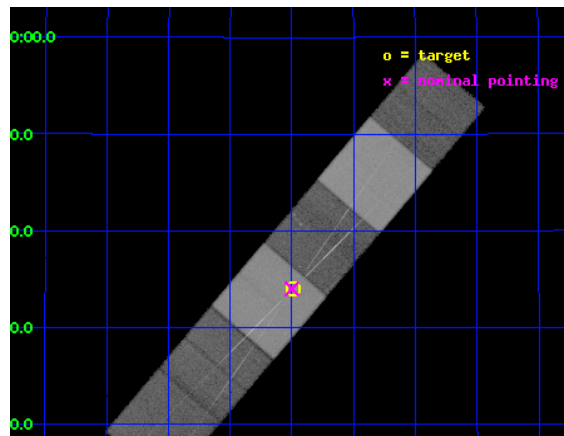
L2 Processing Date : Apr 30 2013

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1 Front

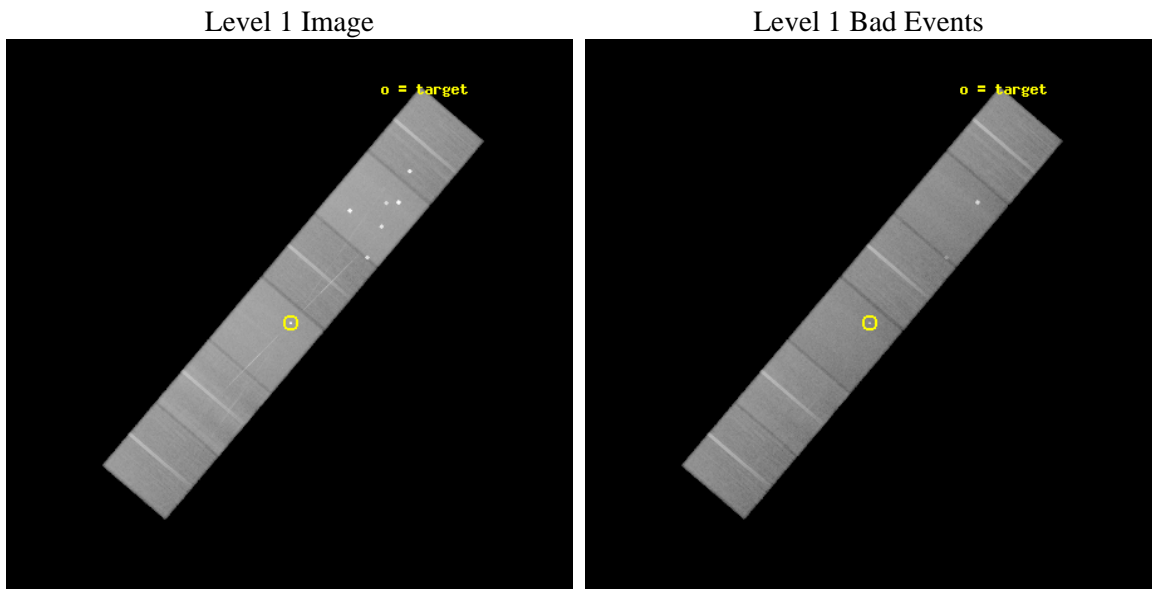
seq_num	200225	Sequence number
obs_id	3755	Observation id
title	HIGH-RESOLUTION SPECTROSCOPY OF THE CLASSICAL T TAURI STAR SU AUR	
observer	DR KESTER SMITH	Principal investigator
object	SU AUR	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	73.9975	Observer's specified target RA [deg]
dec_targ	30.567083	Observer's specified target Dec [deg]
ra_nom	74.000073352281	Nominal RA [deg]
dec_nom	30.567044478972	Nominal Dec [deg]
roll_nom	130.37282670739	Nominal Roll [deg]
revision	4	Processing version of data
ontime	99772.799628317	Sum of GTIs [s]
livetime	98509.416363456	Livetime [s]
ontime4	99769.558658063	Sum of GTIs [s]
ontime5	99772.799628317	Sum of GTIs [s]
ontime6	99772.799628317	Sum of GTIs [s]
ontime7	99772.799628317	Sum of GTIs [s]
ontime8	99772.799628317	Sum of GTIs [s]
ontime9	99772.799628317	Sum of GTIs [s]
l2events	847215	Number of level 2 events



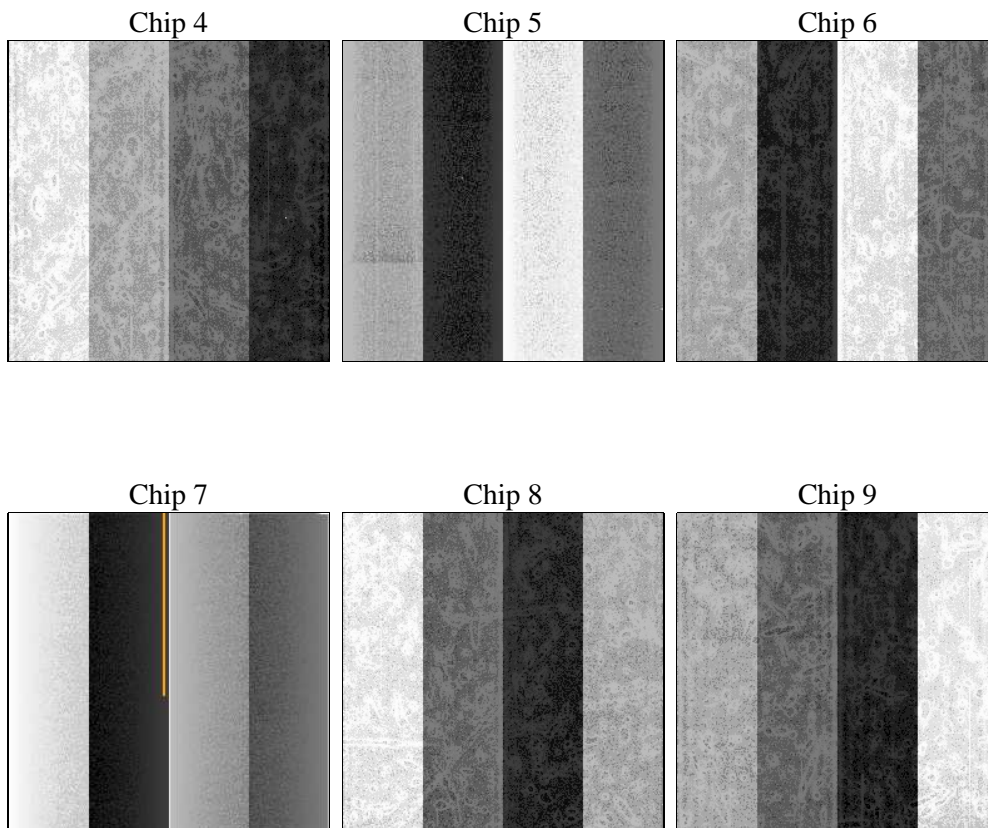
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	5	Obi number	sched_exp_time	99632.733000	[s] Scheduled observation exposure time
ascdsver	8.5.1.1	Processing system revision	ontime	99772.799628317	Sum of GTIs [s]
caldbver	4.5.6	 	ontime4	99769.558658063	Sum of GTIs [s]
date	2013-04-29T23:08:41	Date and time of file creation	ontime5	99772.799628317	Sum of GTIs [s]
revision	4	Processing version of data	ontime6	99772.799628317	Sum of GTIs [s]
			ontime7	99772.799628317	Sum of GTIs [s]
			ontime8	99772.799628317	Sum of GTIs [s]
			ontime9	99772.799628317	Sum of GTIs [s]
			l1events	3825304	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	573810	848823	519492	714619	659766	508794	grade 0 events	49157	88657	31020	28157	46565	26307
rejected events	488671	432781	449006	415874	517662	445109		8%	10%	5%	3%	7%	5%
rejected %	85%	50%	86%	58%	78%	87%	grade 1 events	571	1581	261	759	450	236
								0%	0%	0%	0%	0%	0%
							grade 2 events	12928	117809	13609	59341	30315	12317
								2%	13%	2%	8%	4%	2%
							grade 3 events	6600	14422	6350	26761	14901	6492
								1%	1%	1%	3%	2%	1%
							grade 4 events	6342	13278	6359	26561	14019	6165
								1%	1%	1%	3%	2%	1%
							grade 5 events	23206	60327	24571	67408	32063	26192
								4%	7%	4%	9%	4%	5%
							grade 6 events	10182	182240	13198	158167	36372	12454
								1%	21%	2%	22%	5%	2%
							grade 7 events	464824	370509	424124	347465	485081	418631
								81%	43%	81%	48%	73%	82%

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	74.030017	74.00007335228076	Subarray requested	NONE	NONE
[deg] Pointing Dec	30.558229	30.5670444789724	Alternating exposures requested	N	N
[deg] Pointing Roll	130.200980	130.3728267073875	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-187.132523	-187.1254020033014			
[mm] SIM translation stage offset	-3	-3.007120579706367			
[s] Observation start time (MET)	186314645.184000	186313426.76817			
Observation start date	2003-11-27T10:03:01	2003-11-27T09:43:46			
[s] Observation end time (MET)	186414278.184000	186414592.22256			
Observation end date	2003-11-28T13:43:34	2003-11-28T13:49:52			
Read mode	TIMED	TIMED			

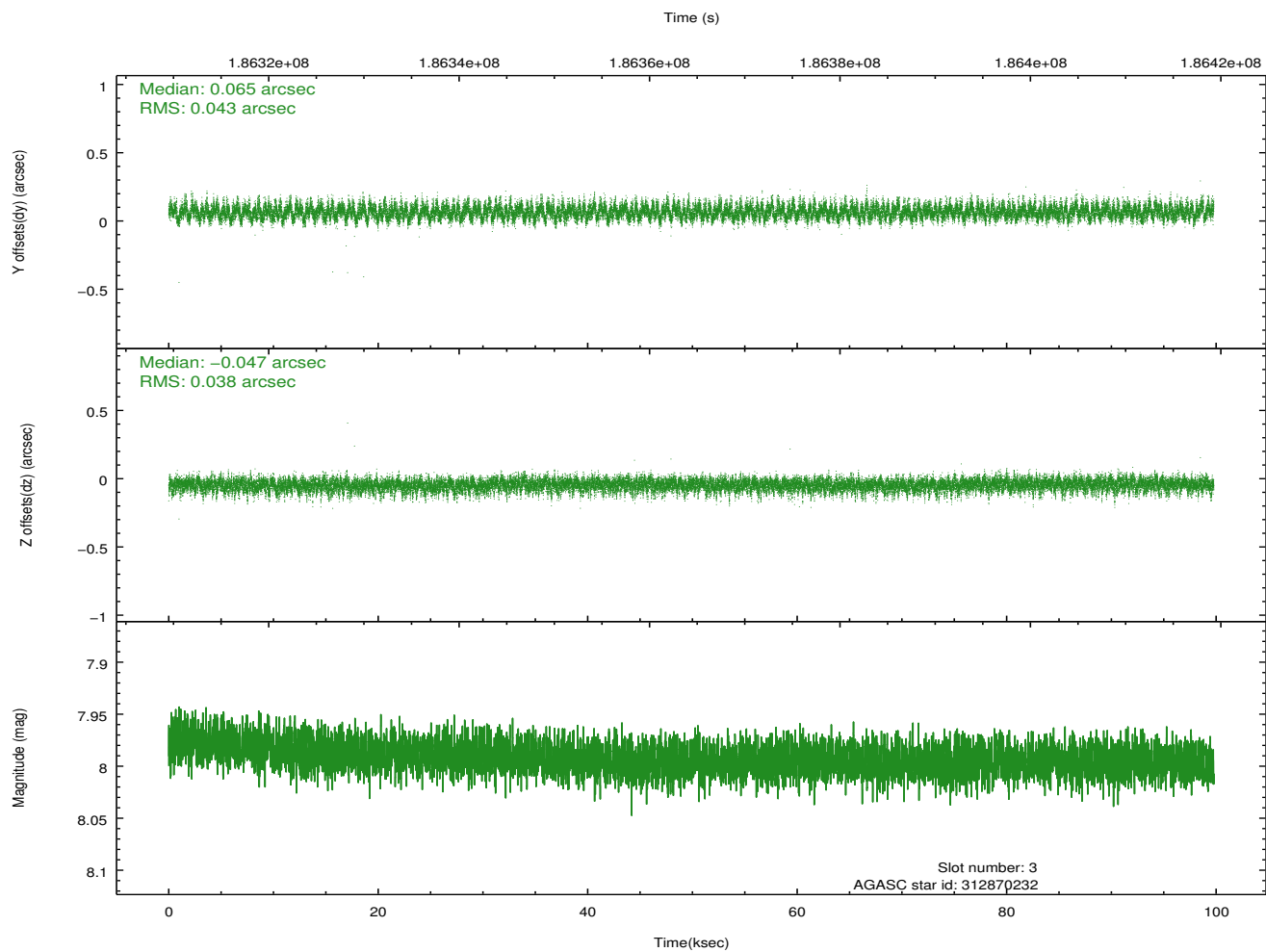
2.3 Aspect

Slot Statistics

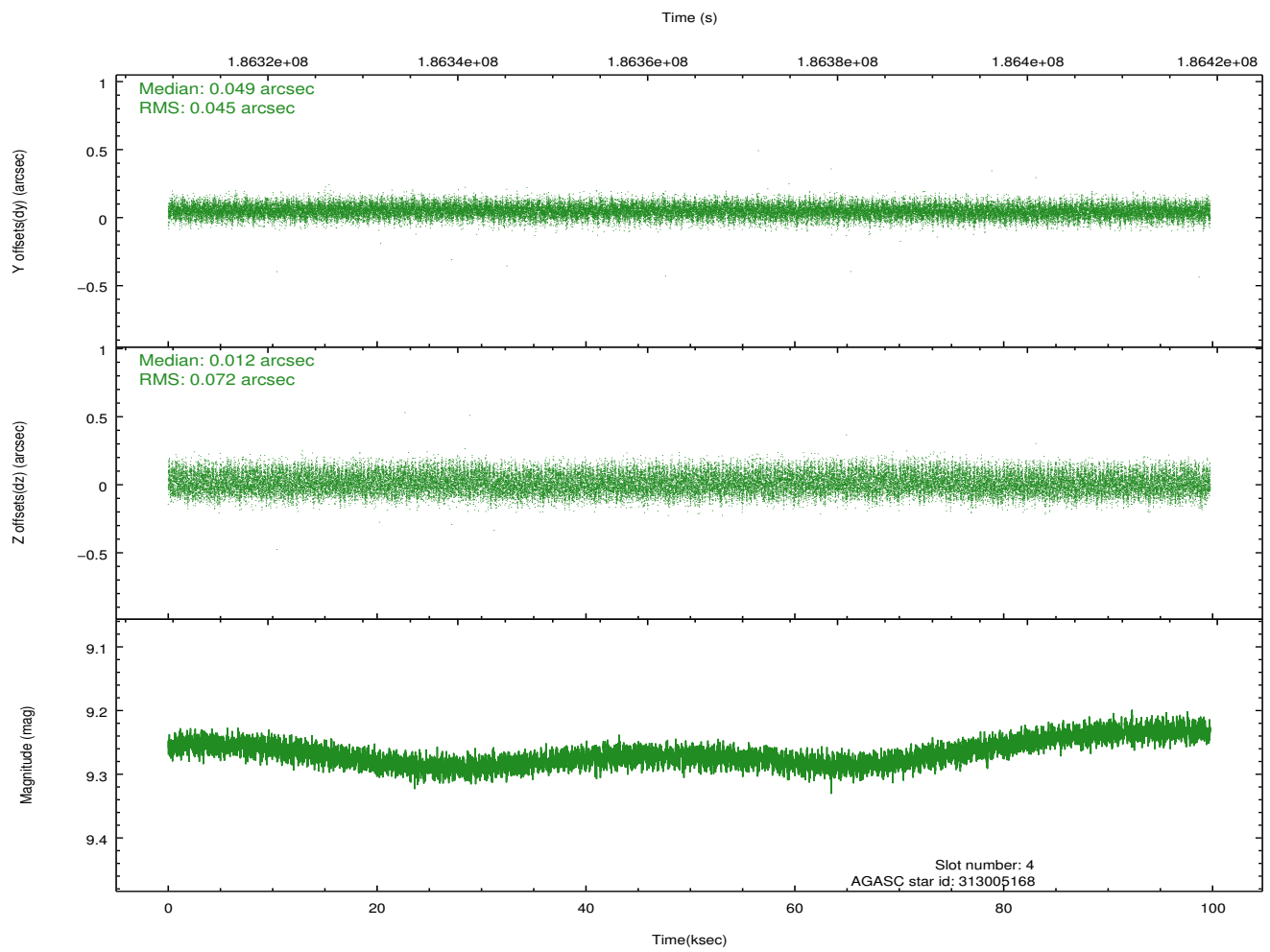
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.18	24333	0.001	-0.002	0.031	0.059	0.000000	0.000000	936.96	-1787.53
1	FID	ACIS-S-4	7.20	24334	0.072	0.004	0.032	0.049	0.000000	0.000000	2154.39	116.71
2	FID	ACIS-S-5	7.23	24336	-0.103	0.012	0.023	0.031	0.000000	0.000000	-1812.12	110.24
3	GUIDE	312870232	7.99	48666	0.065	-0.047	0.061	0.097	73.950966	30.337905	-447.13	699.68
4	GUIDE	313005168	9.27	48647	0.049	0.012	0.091	0.146	74.639616	30.697641	-830.56	-1768.37
5	GUIDE	313006640	9.04	48647	0.060	-0.030	0.085	0.139	74.535303	30.638765	-785.84	-1384.80
6	GUIDE	313012784	8.26	48663	0.070	0.139	0.050	0.080	74.505645	30.125716	-2142.71	-127.94
7	GUIDE	312872256	8.04	48668	-0.243	-0.071	0.046	0.075	73.250802	30.830210	2308.82	1202.66

2.4 Star Slots

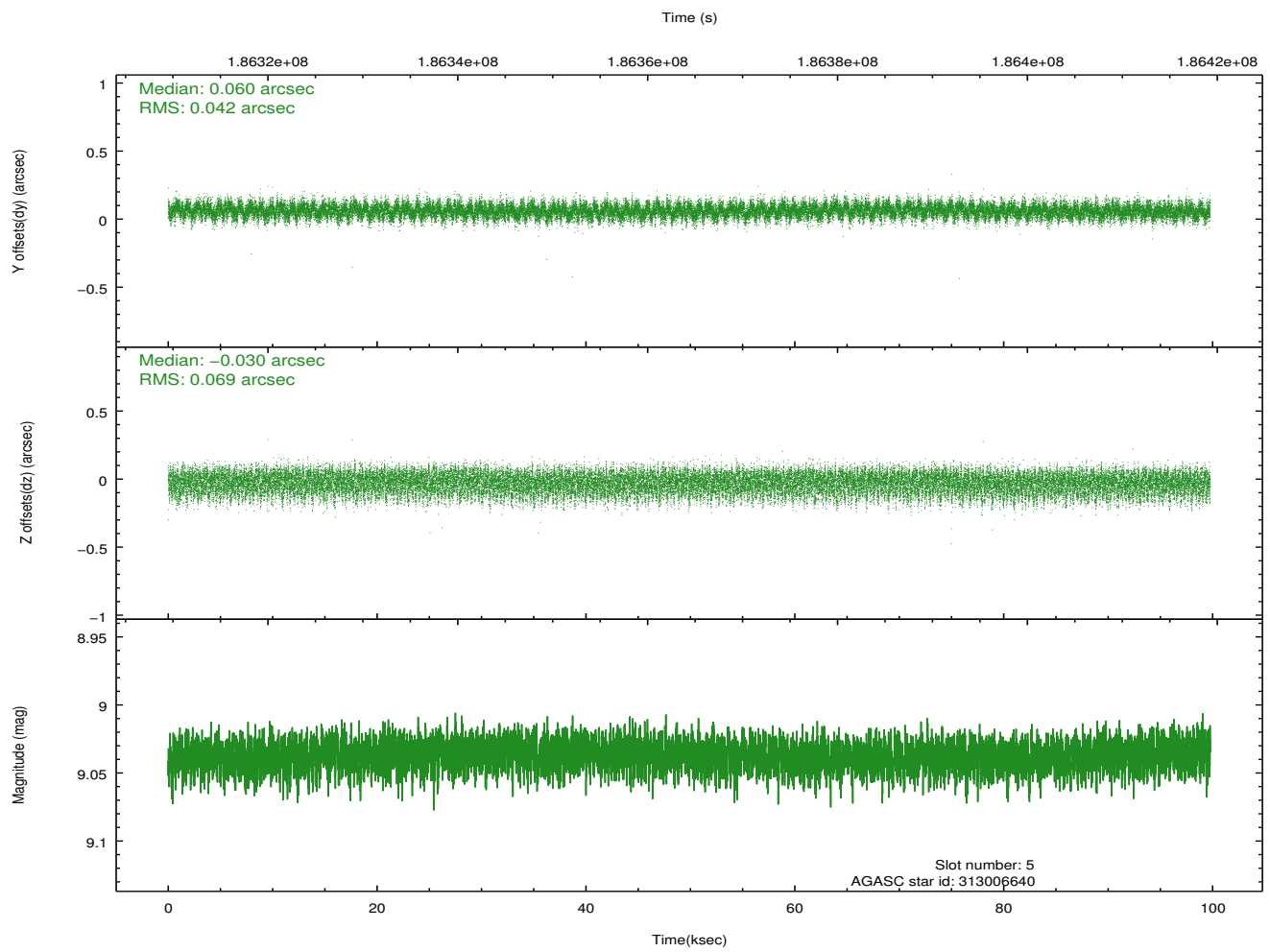
2.4.1 Slot 3



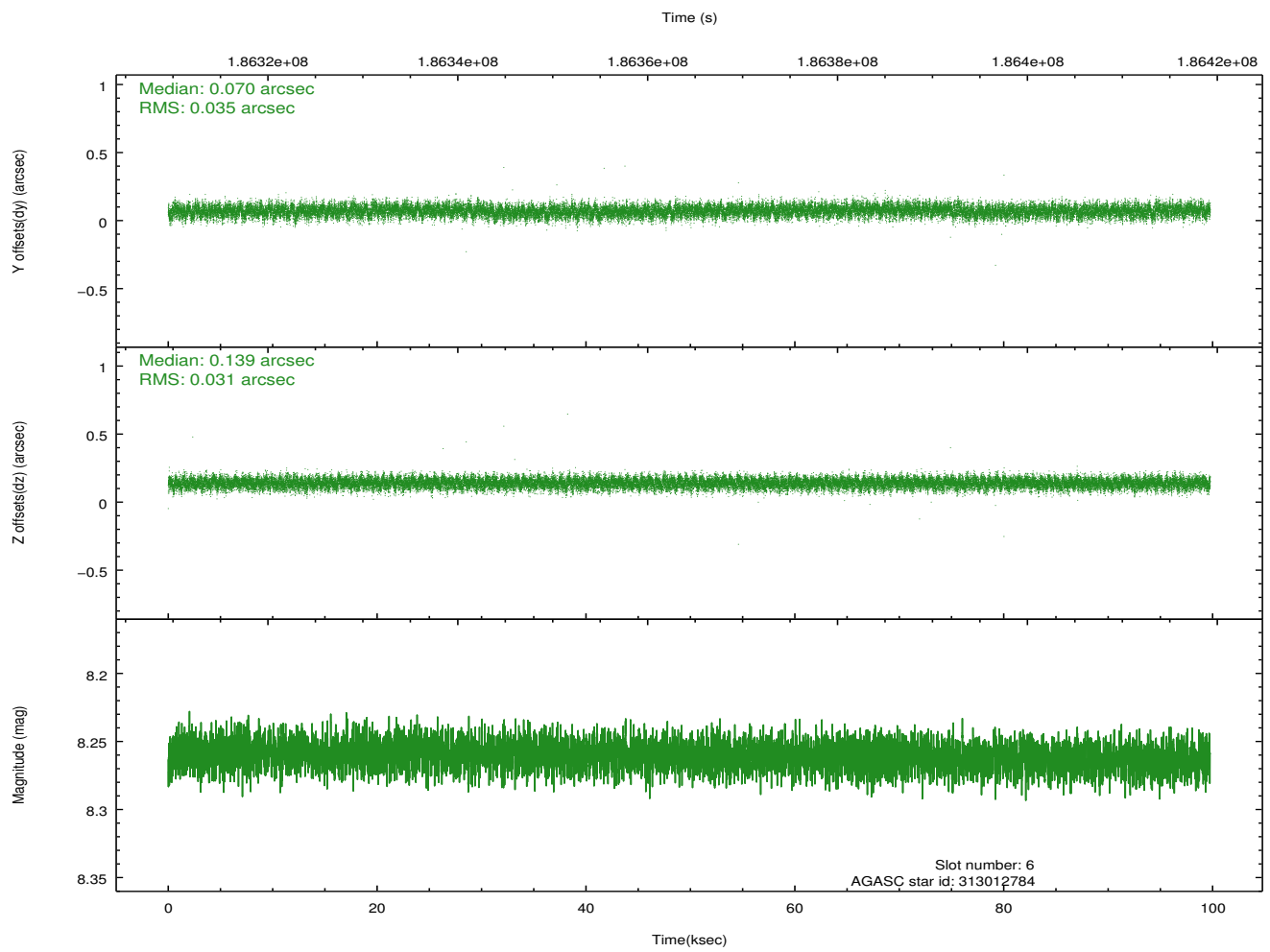
2.4.2 Slot 4



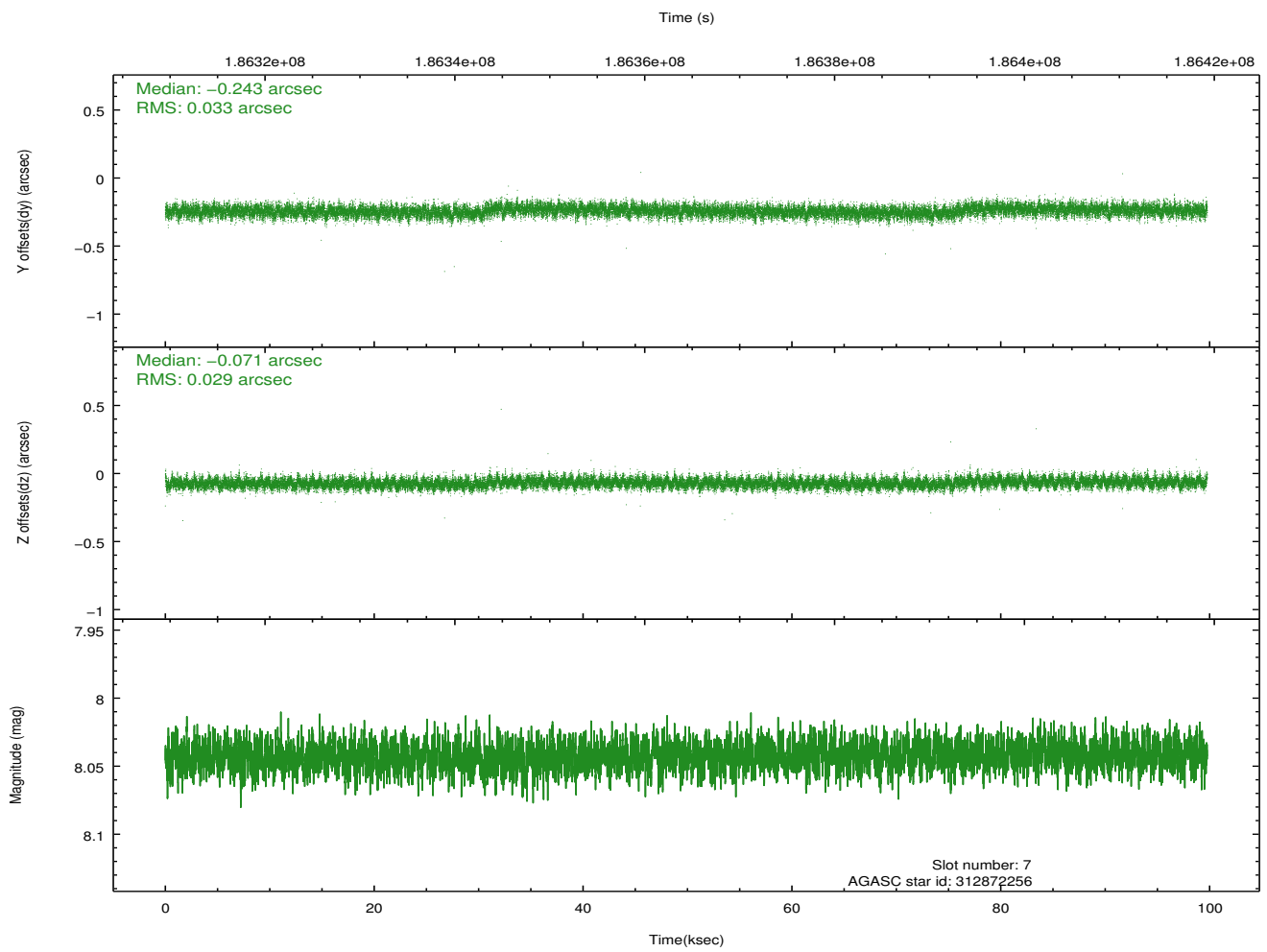
2.4.3 Slot 5



2.4.4 Slot 6

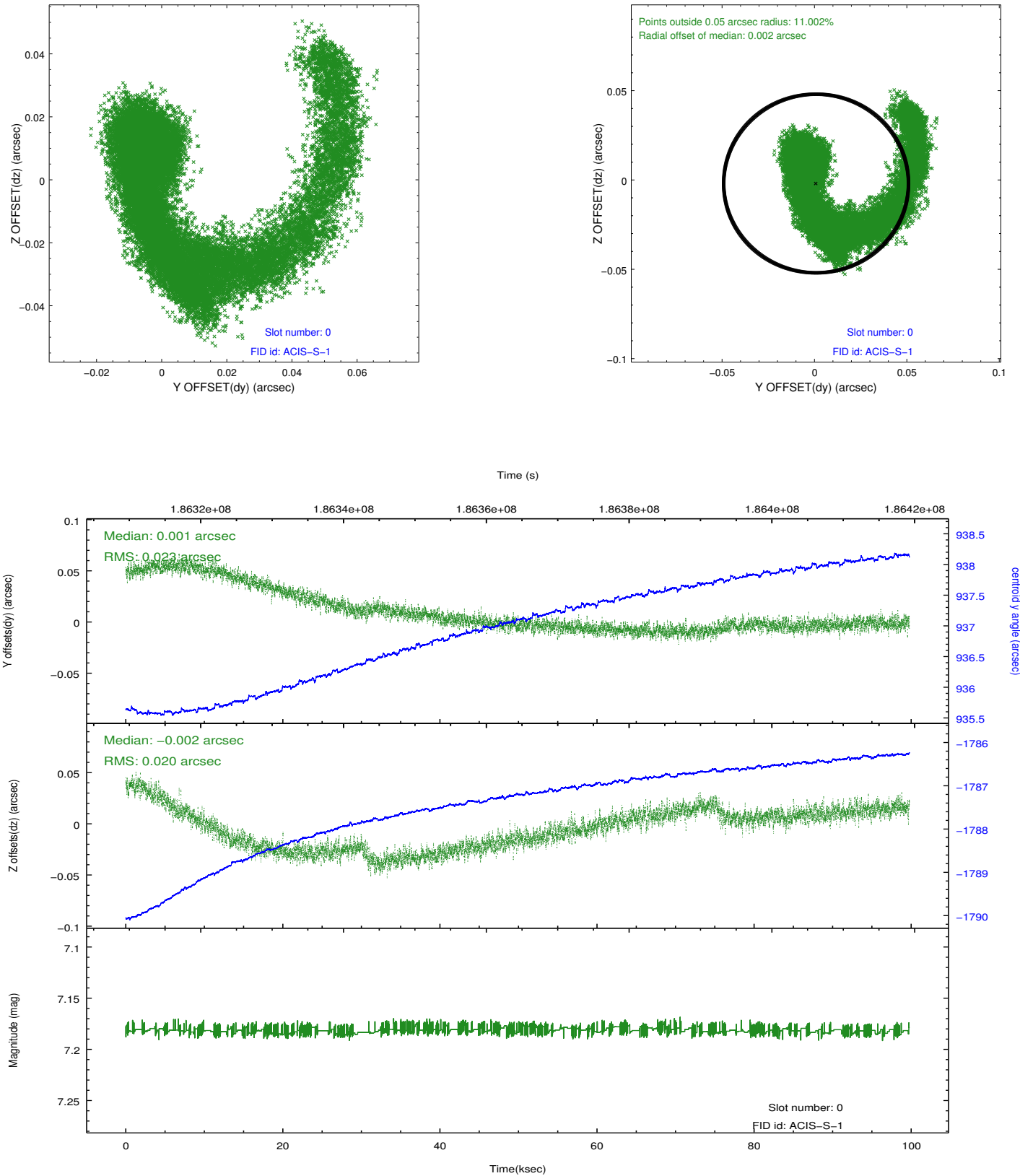


2.4.5 Slot 7

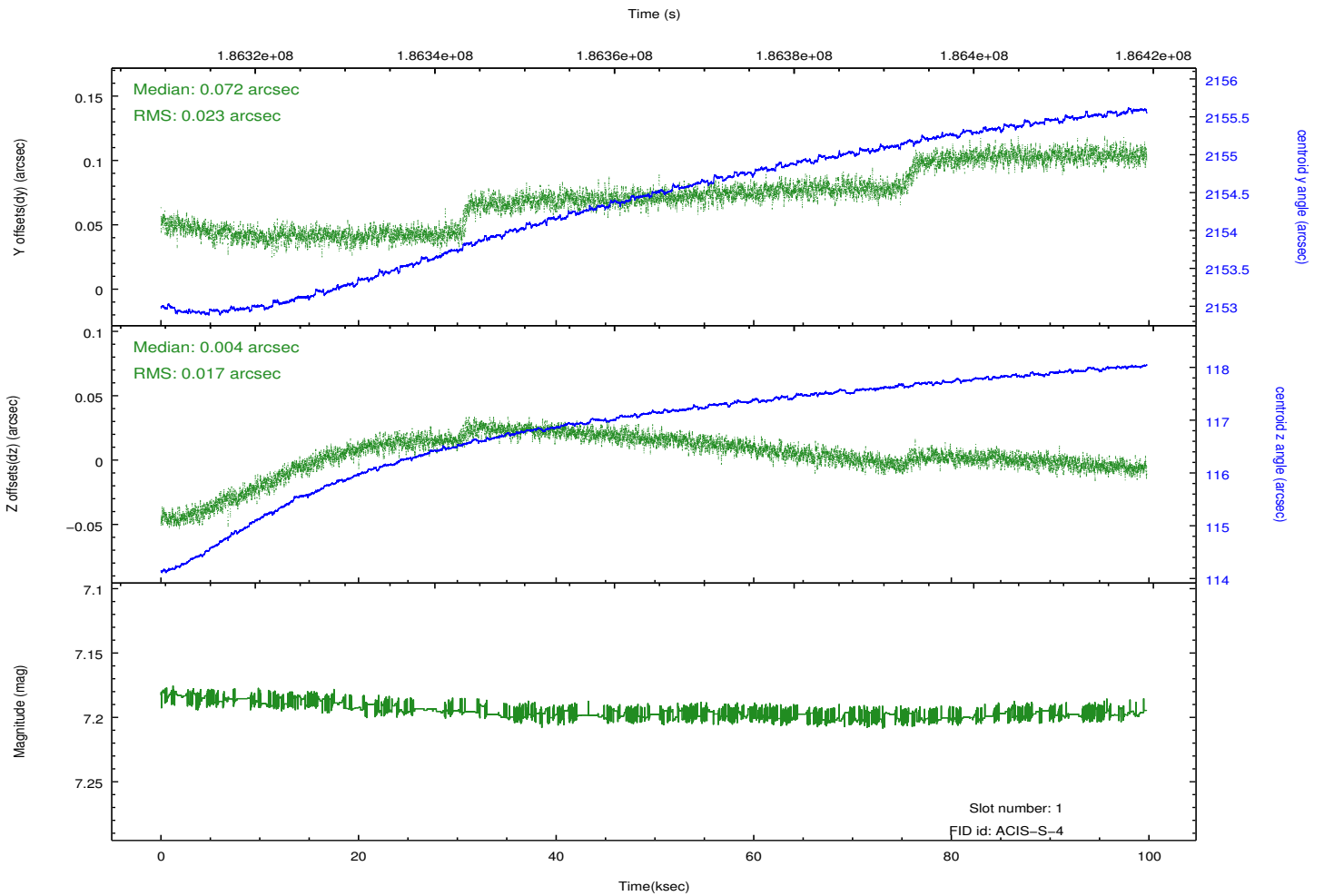
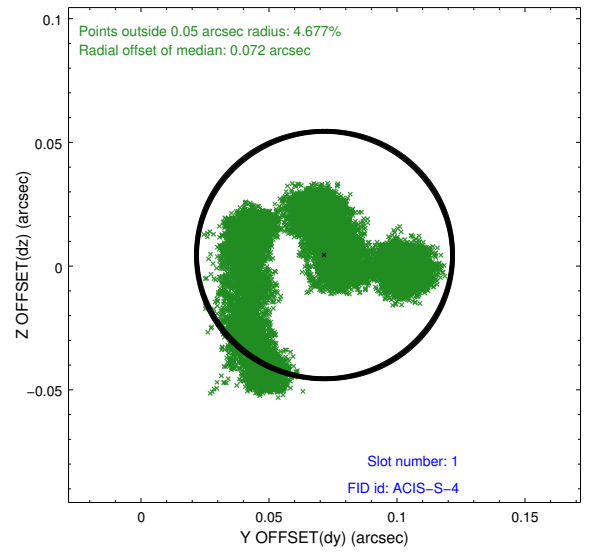
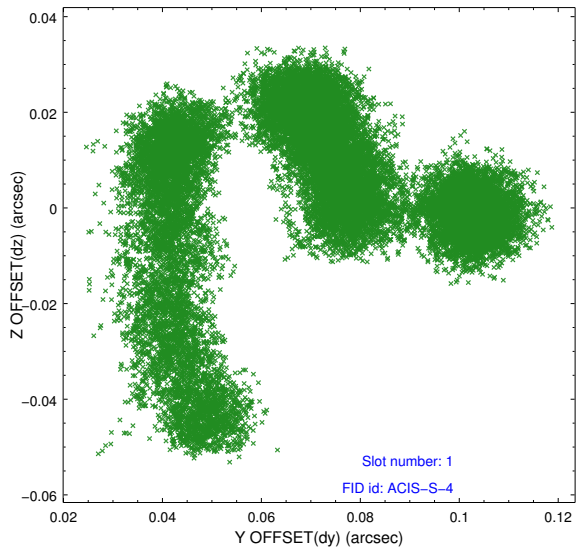


2.5 FID Slots

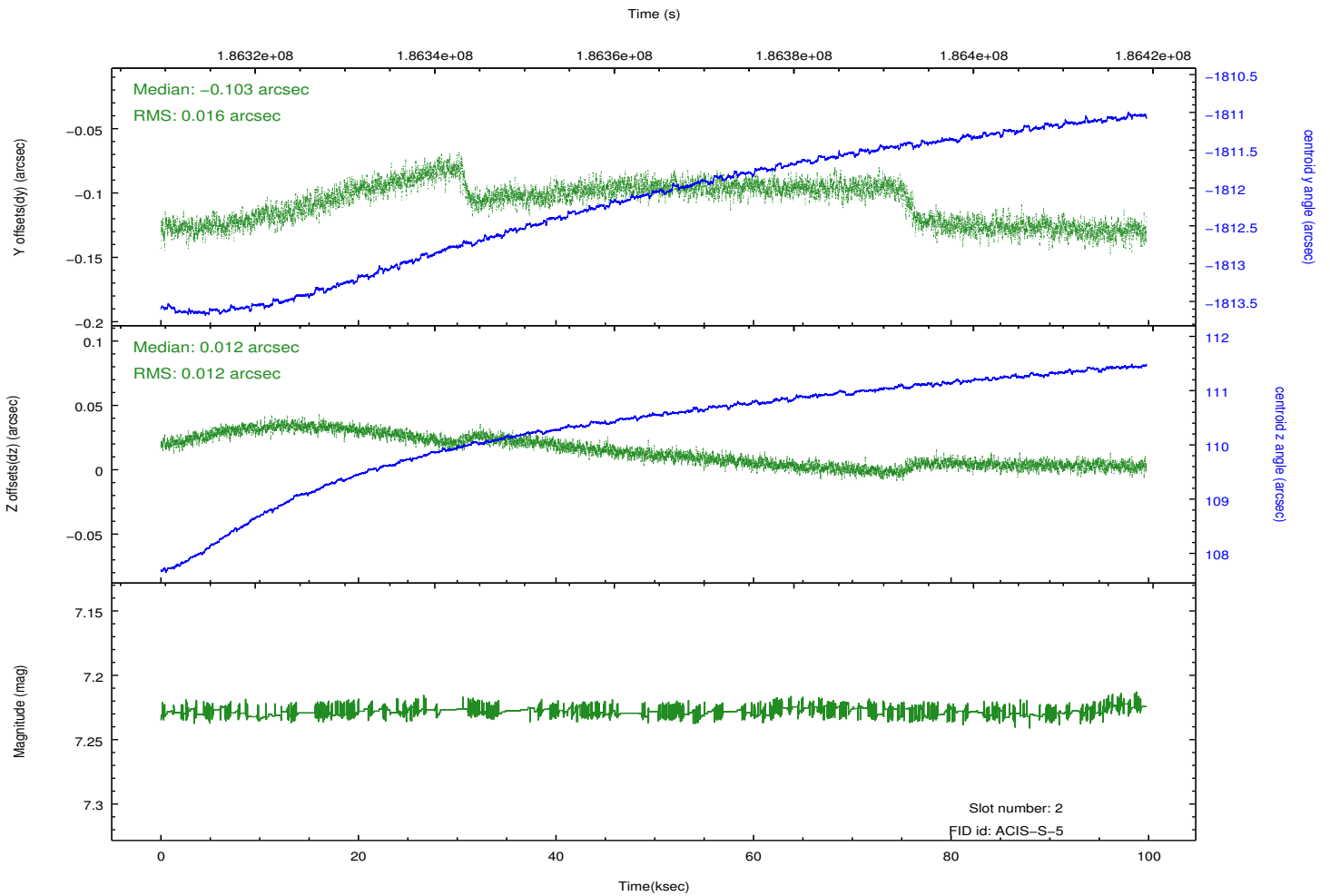
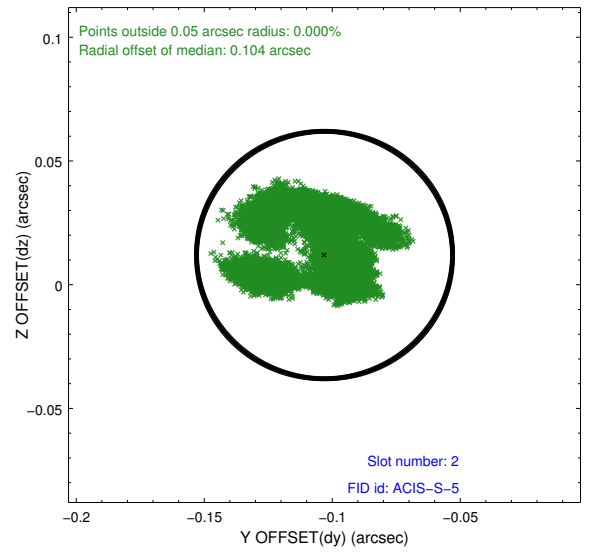
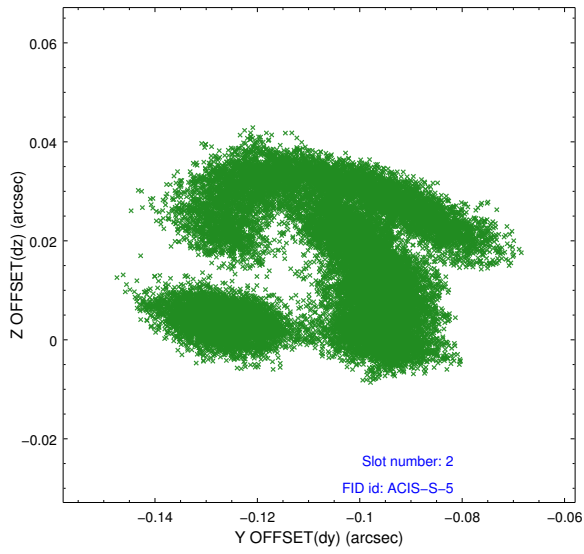
2.5.1 Slot 0



2.5.2 Slot 1

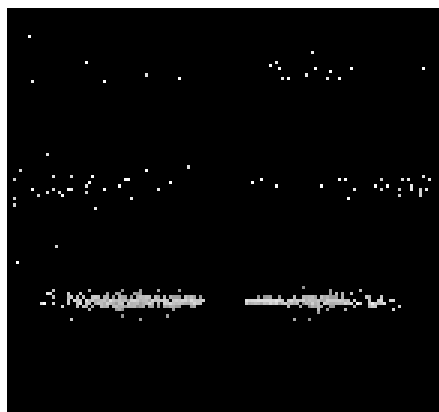


2.5.3 Slot 2

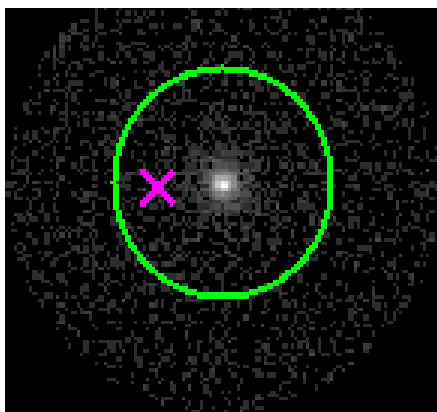


3 Gratings

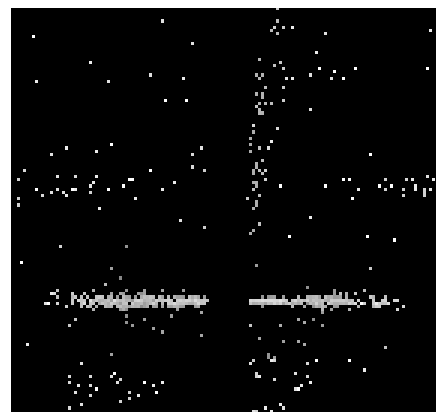
3.1 HEG Arm



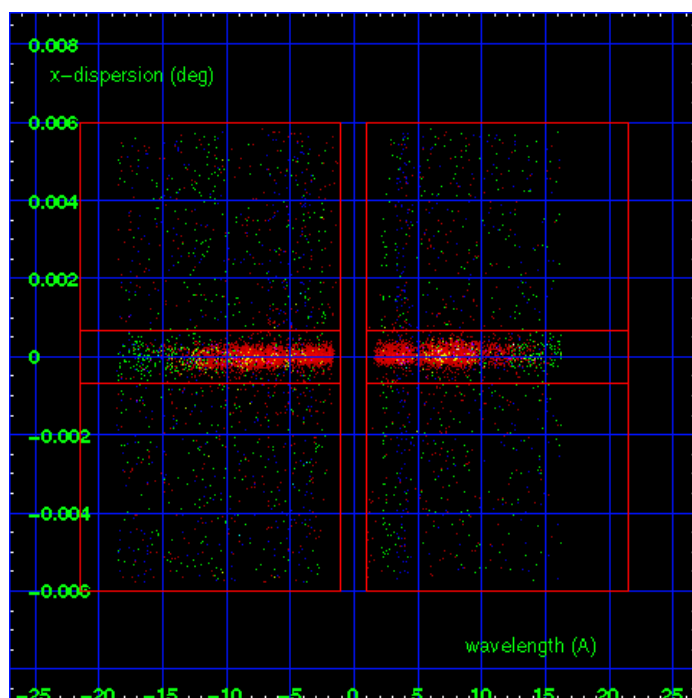
HEG Order Sort 123



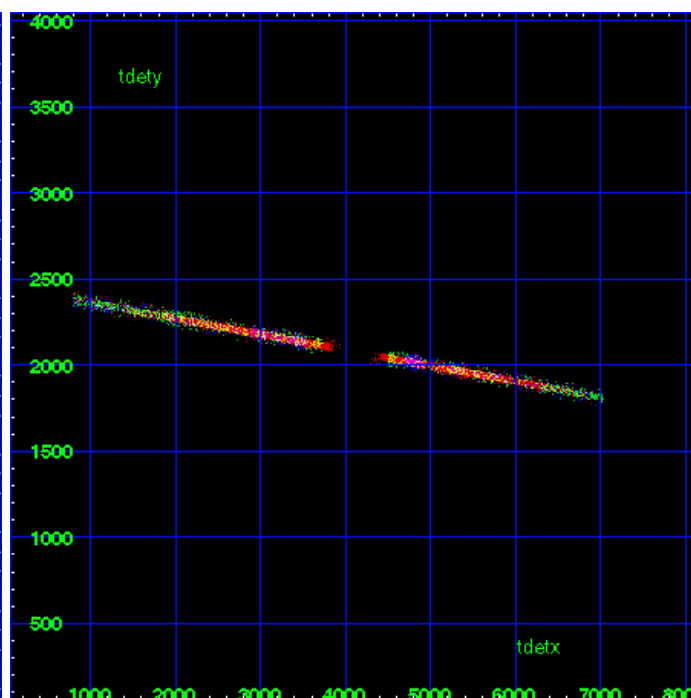
HEG Zero Order



HEG Order Sort ALL

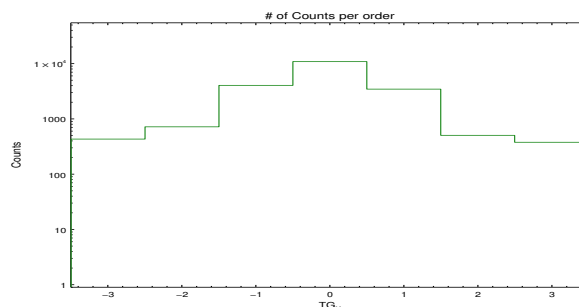


Spot Image HEG

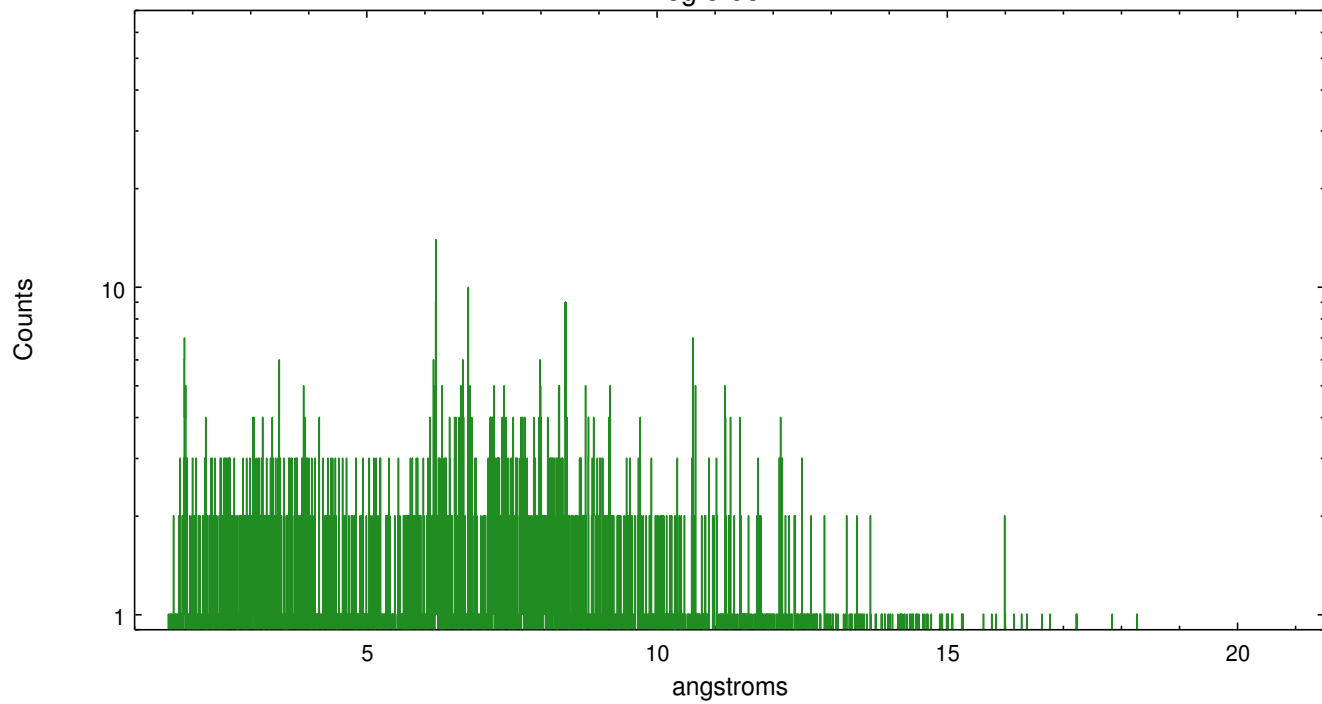


Full Detector HEG

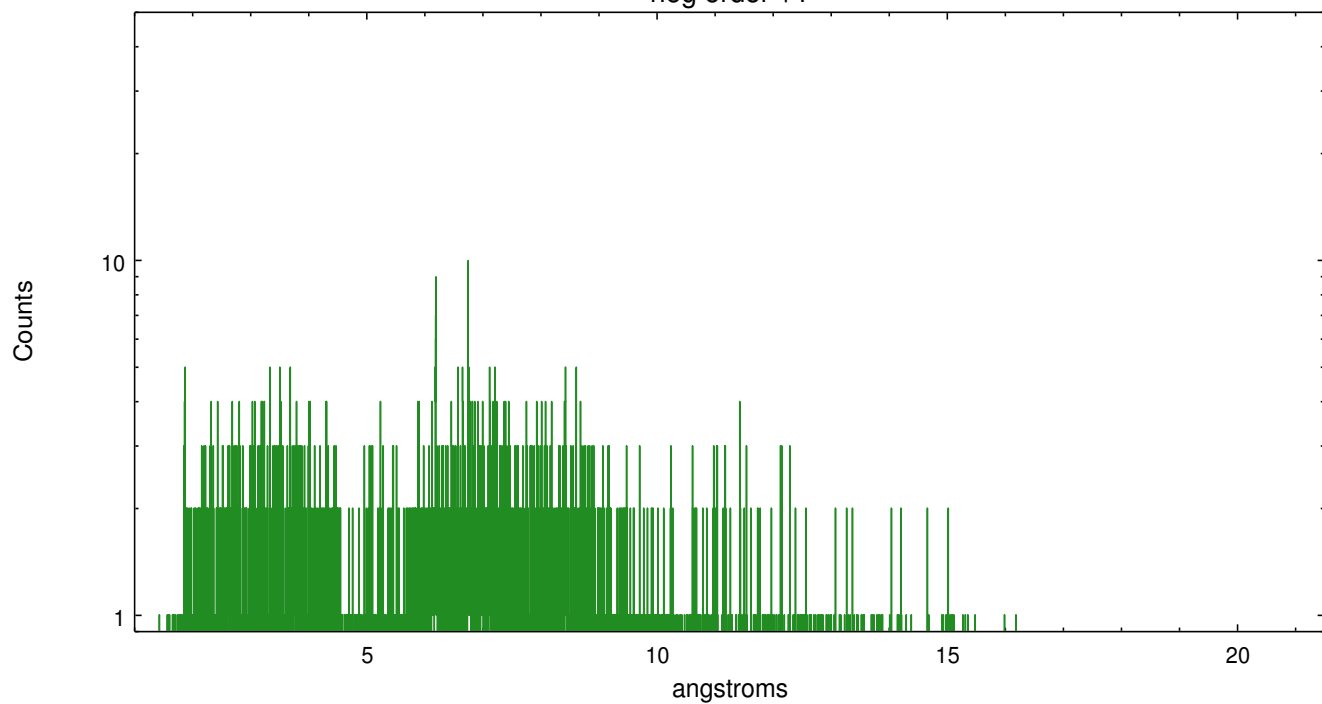
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	432	721	4063	10952	3473	505	378



heg order -1



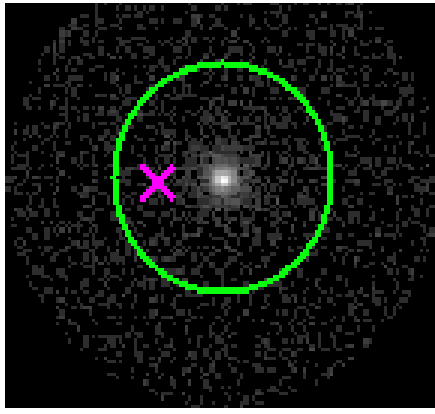
heg order +1



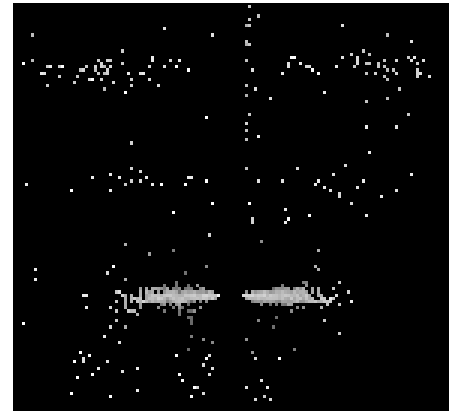
3.2 MEG Arm



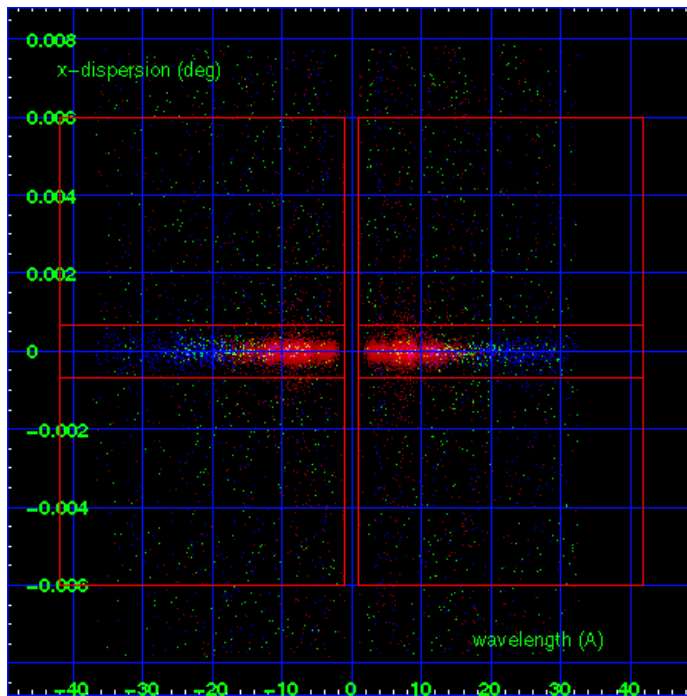
MEG Order Sort 123



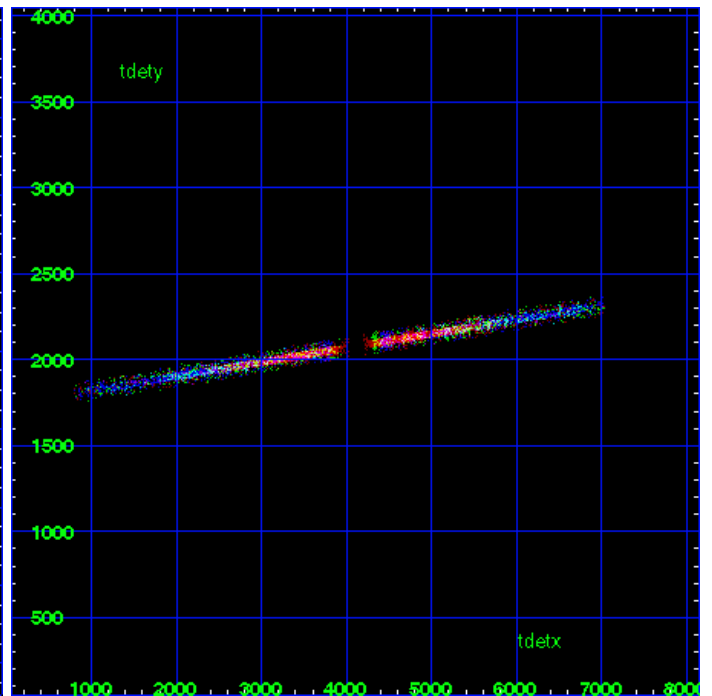
MEG Zero Order



MEG Order Sort ALL

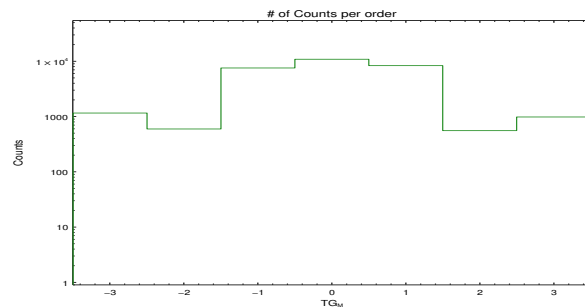


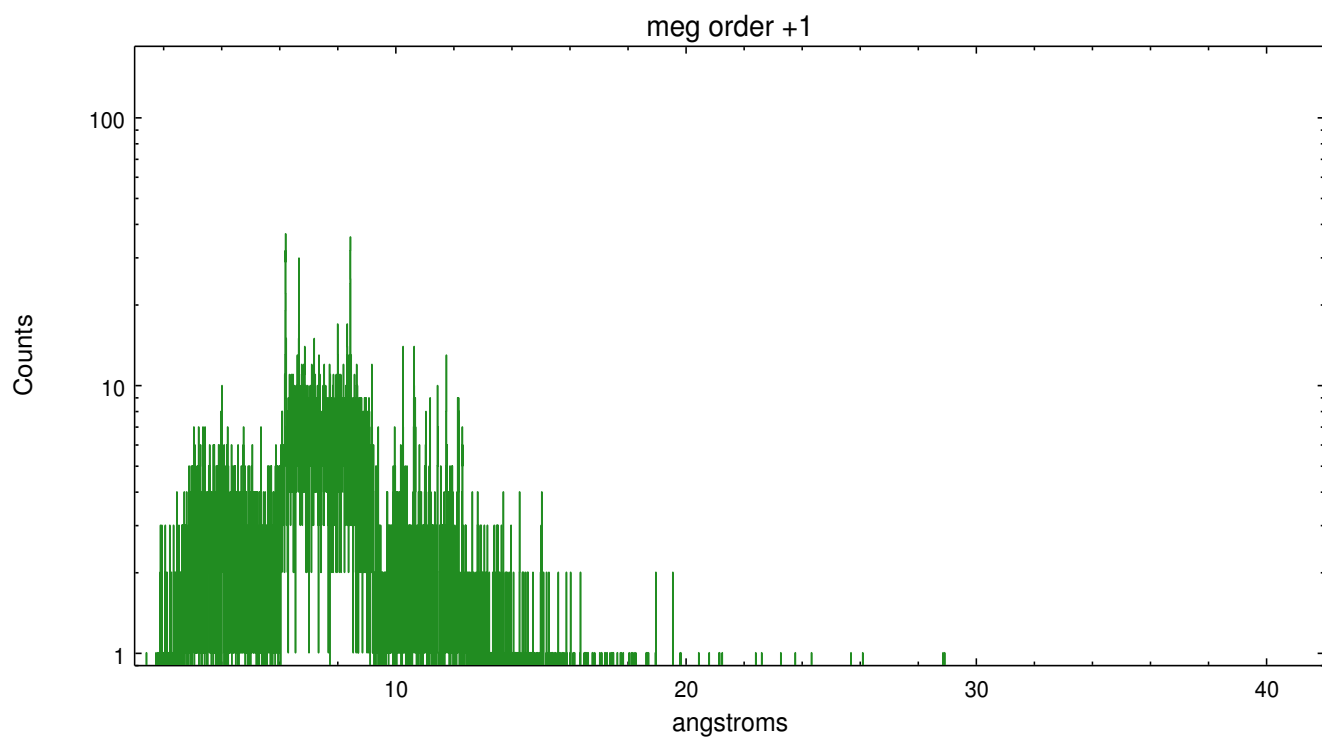
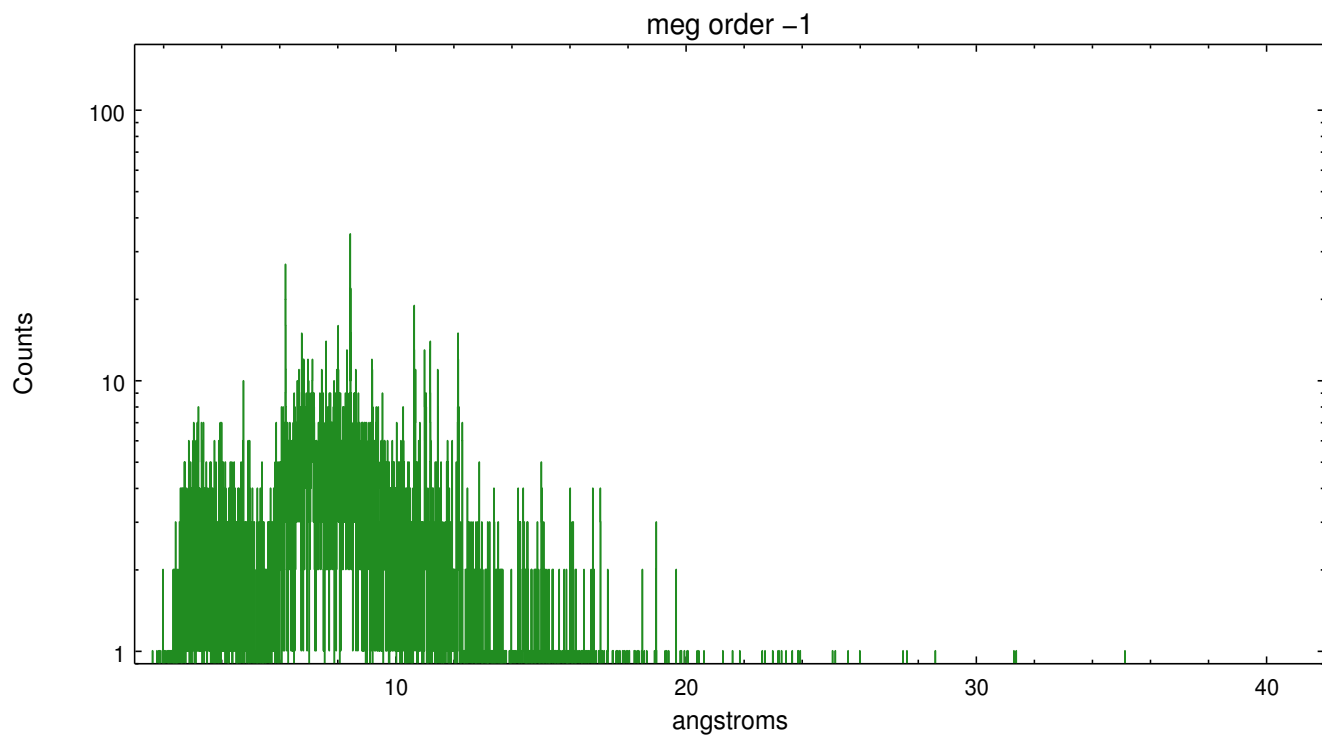
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1161	597	7612	10952	8393	557	985





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2013.05.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	99.772

A.2 Comments

A spatial region of the original bias map for CCD = 9 suffered from anomalously high data values. Pixels in the event data that were bias-corrected by one of the original affected bias pixels may have an apparent energy shift. While the change in energy is expected to be small (~20 eV), it depends on many parameters that have not yet been fully explored for this bias anomaly. The bias map for CCD = 9 has been reconstructed for this processing to remove this anomaly using scaled data from a comparable bias map from another observation. The pixels affected by the anomaly are bounded by sky coords: (74.21013,30.27218), (74.21340,30.26885), (74.23980,30.28818), (74.23653,30.29151).

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This region crosses one of the spectral arms.