

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 5195 - L2 Version 5
Chandra X-Ray Center

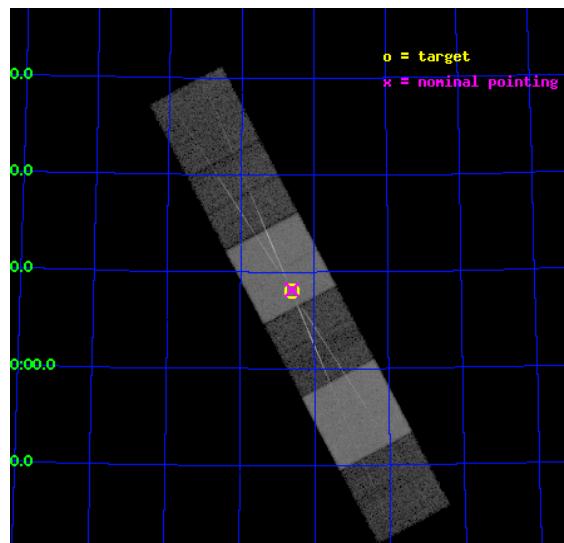
L2 Processing Date : Nov 5 2012

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1 Front

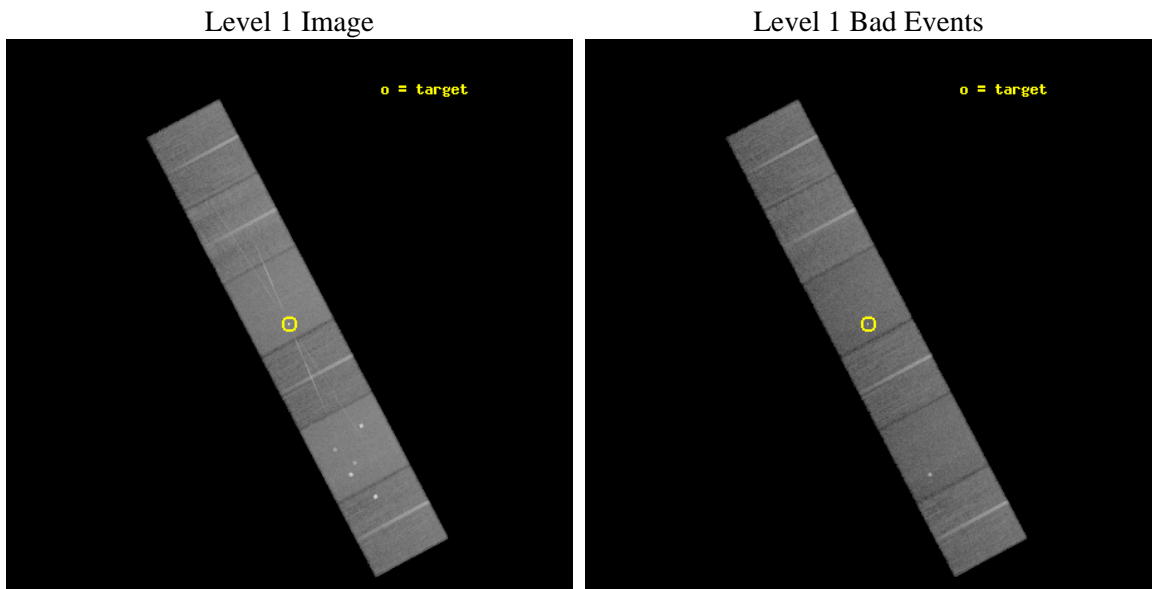
seq_num	700679	Sequence number
obs_id	5195	Observation id
title	SEARCHING FOR HIGHLY IONIZED WARM ABSORBERS IN HIGH LUMINOSITY AGN: 4C 74.26	Proposal title
observer	Dr. Shai Kaspi	Principal investigator
object	4C 74.26	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	310.655	Observer's specified target RA [deg]
dec_targ	75.134028	Observer's specified target Dec [deg]
ra_nom	310.65194978433	Nominal RA [deg]
dec_nom	75.136098154754	Nominal Dec [deg]
roll_nom	242.15958090128	Nominal Roll [deg]
revision	5	Processing version of data
ontime	31873.562054545	Sum of GTIs [s]
livetime	31469.959819855	Livetime [s]
ontime4	31873.603054643	Sum of GTIs [s]
ontime5	31876.76194489	Sum of GTIs [s]
ontime6	31873.479944617	Sum of GTIs [s]
ontime7	31873.562054545	Sum of GTIs [s]
ontime8	31873.438904613	Sum of GTIs [s]
ontime9	31870.156894356	Sum of GTIs [s]
l2events	342864	Number of level 2 events



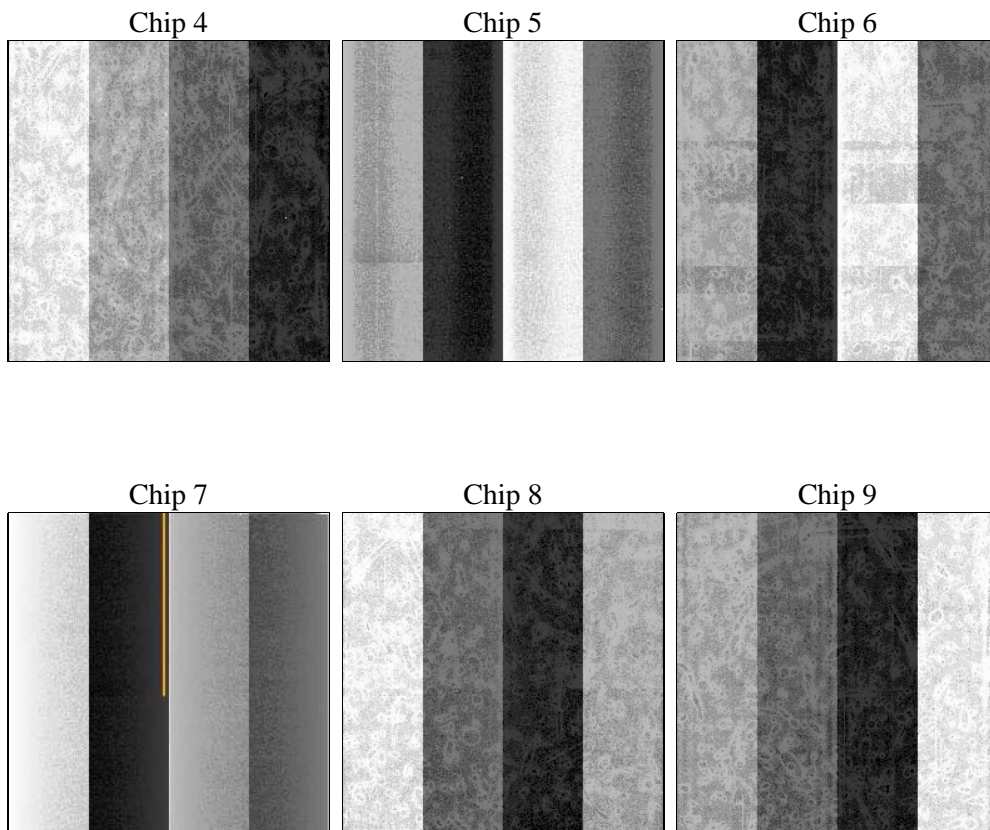
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	32151.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	31873.562054545	Sum of GTIs [s]
caldbver	4.5.2	 	ontime4	31873.603054643	Sum of GTIs [s]
date	2012-11-05T18:10:51	Date and time of file creation	ontime5	31876.76194489	Sum of GTIs [s]
revision	5	Processing version of data	ontime6	31873.479944617	Sum of GTIs [s]
			ontime7	31873.562054545	Sum of GTIs [s]
			ontime8	31873.438904613	Sum of GTIs [s]
			ontime9	31870.156894356	Sum of GTIs [s]
			l1events	1498843	Number of level 1 events

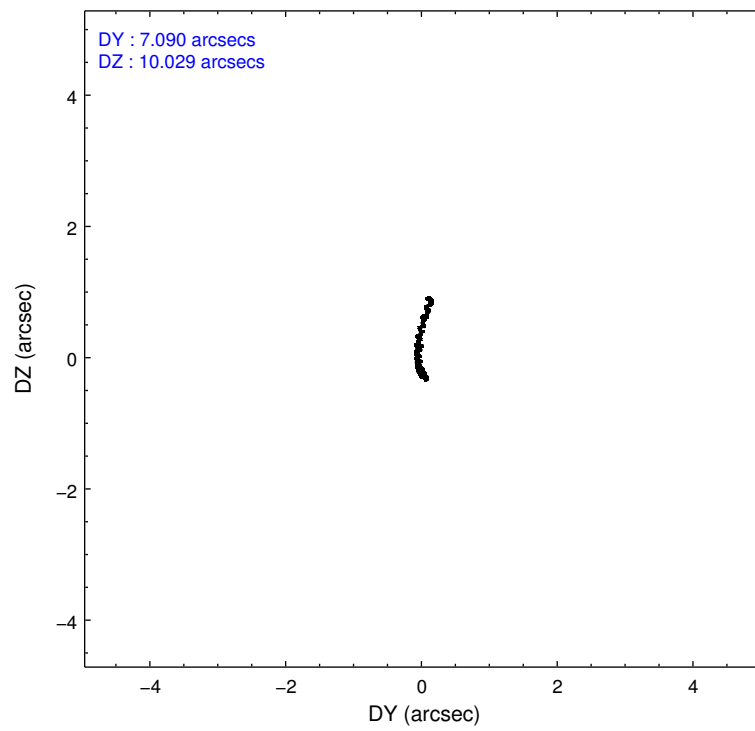
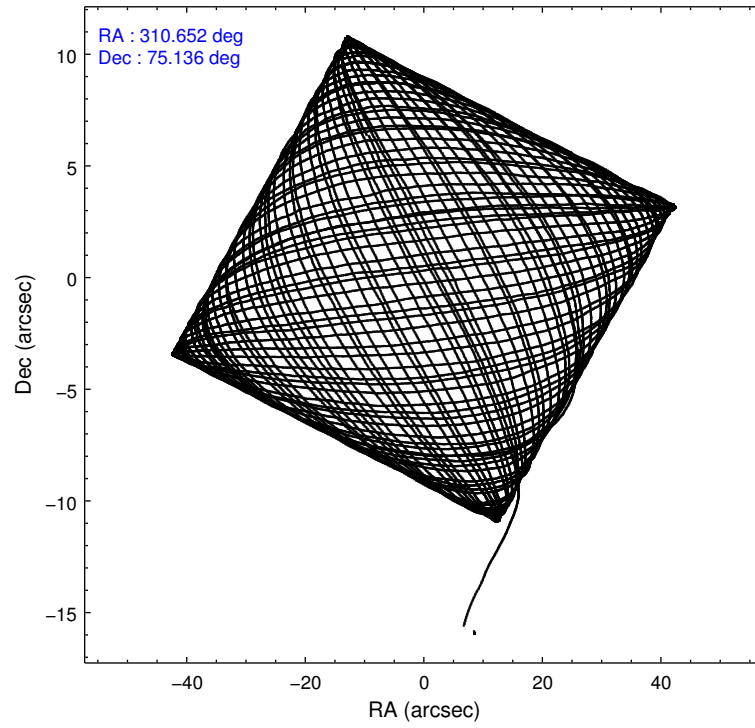
2.1.4 Events

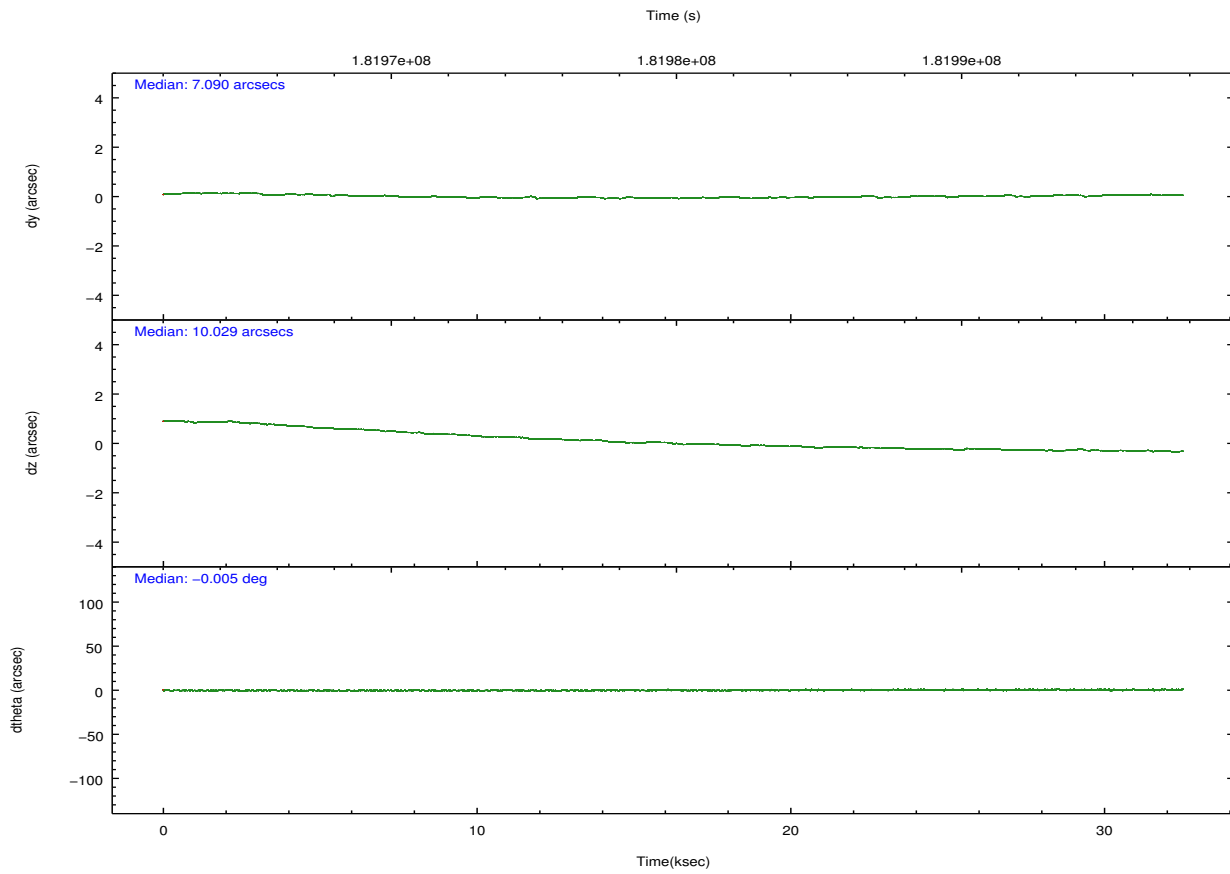
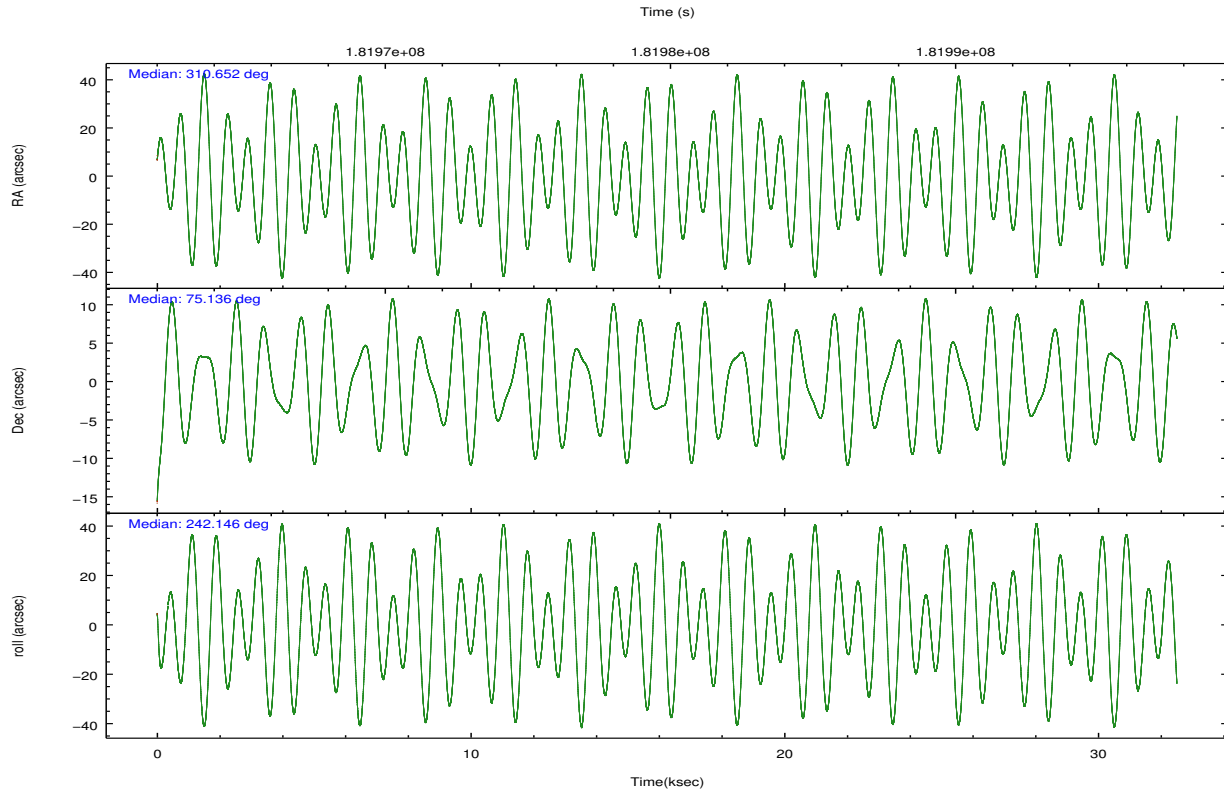
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	233566	305883	209562	285711	261130	202991	grade 0 events	19217	19352	14784	12524	18703	10296
rejected events	200298	162976	178698	161503	205302	178237		8%	6%	7%	4%	7%	5%
rejected %	85%	53%	85%	56%	78%	87%	grade 1 events	220	392	123	375	174	104
								0%	0%	0%	0%	0%	0%
							grade 2 events	5075	41602	5786	25175	11881	4742
								2%	13%	2%	8%	4%	2%
							grade 3 events	2615	5744	2525	11283	5685	2479
								1%	1%	1%	3%	2%	1%
							grade 4 events	2510	5385	2684	11290	5408	2355
								1%	1%	1%	3%	2%	1%
							grade 5 events	8655	22485	9239	26894	12157	9784
								3%	7%	4%	9%	4%	4%
							grade 6 events	3859	70856	5094	63959	14155	4888
								1%	23%	2%	22%	5%	2%
							grade 7 events	191415	140067	169327	134211	192967	168343
								81%	45%	80%	46%	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	310.646505	310.6519497843257	Subarray requested	NONE	NONE
[deg] Pointing Dec	75.163322	75.13609815475427	Alternating exposures requested	N	N
[deg] Pointing Roll	242.008214	242.159580901278	[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	-190.132523	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	181963980.184000	181962934.5178			
Observation start date	2003-10-08T01:31:56	2003-10-08T01:15:34			
[s] Observation end time (MET)	181996131.184000	181997184.38178			
Observation end date	2003-10-08T10:27:47	2003-10-08T10:46:24			
Read mode	TIMED	TIMED			

2.3 Aspect



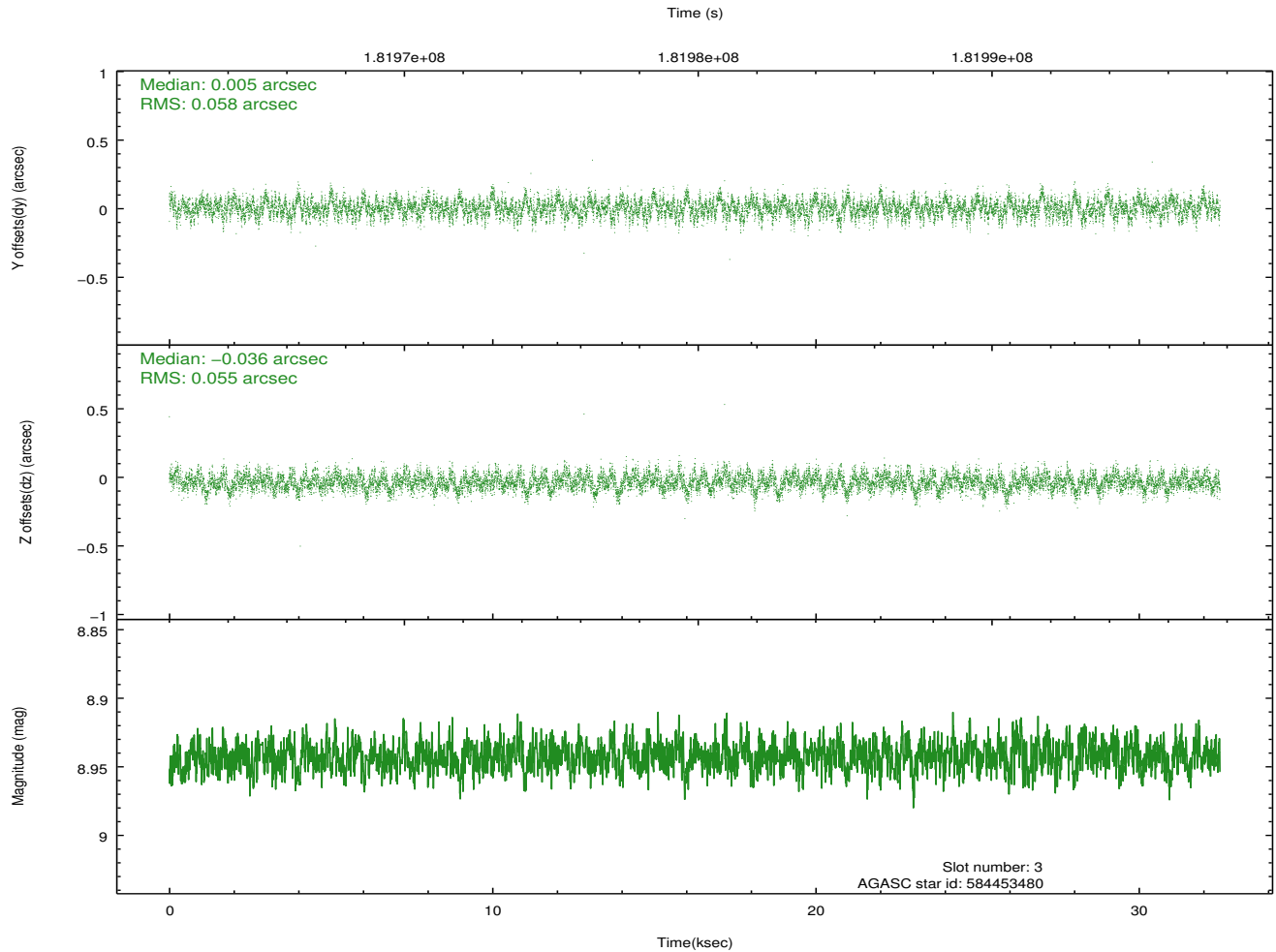
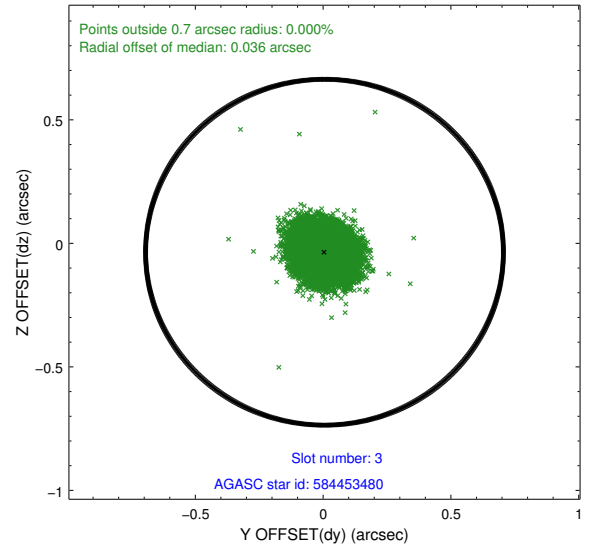
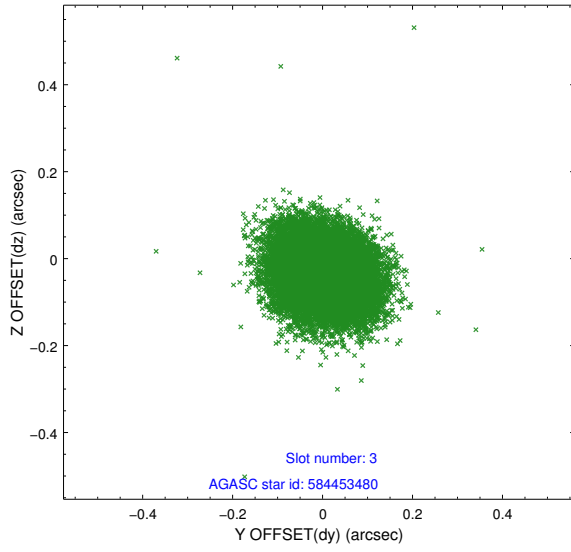


Slot Statistics

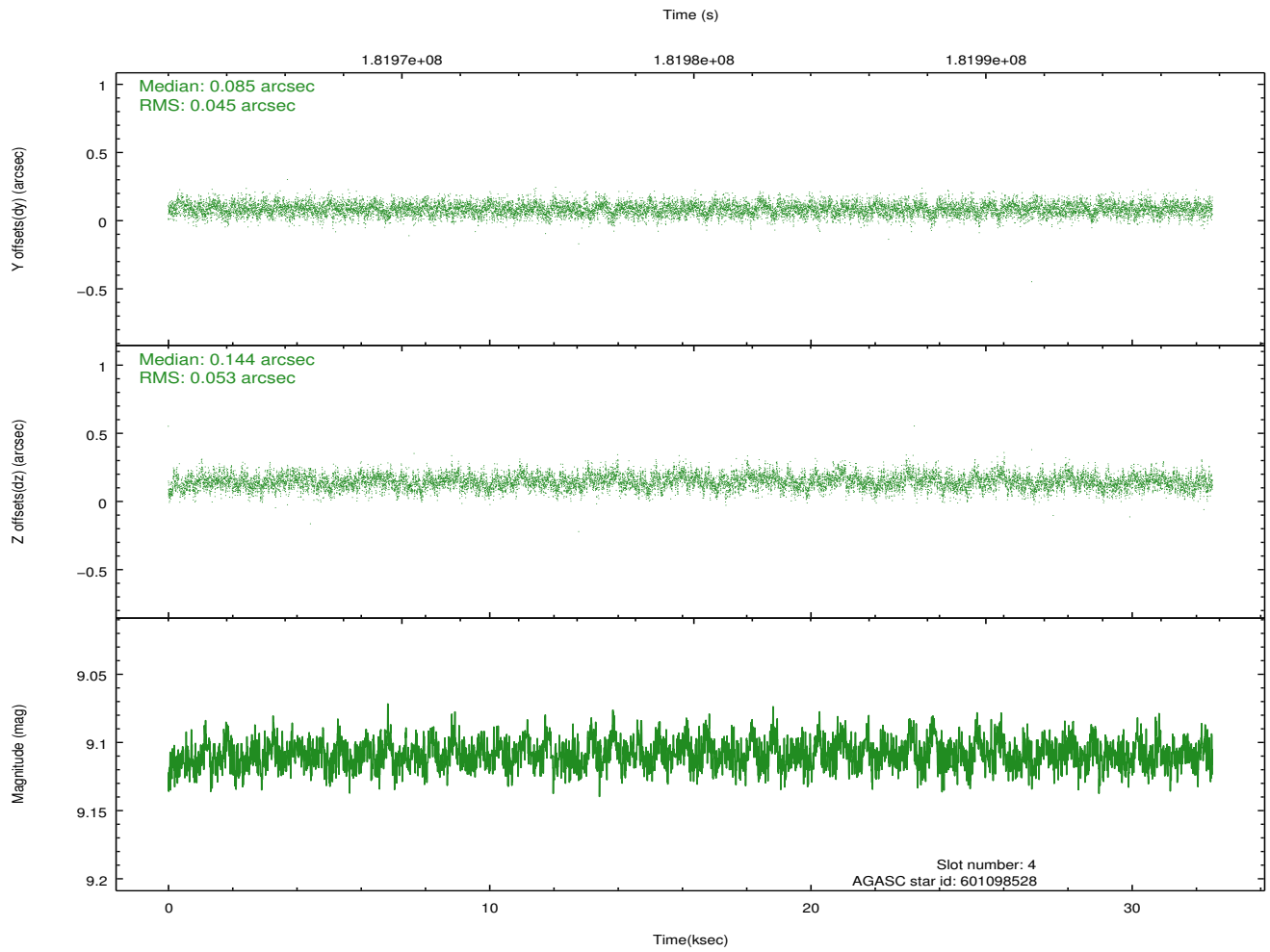
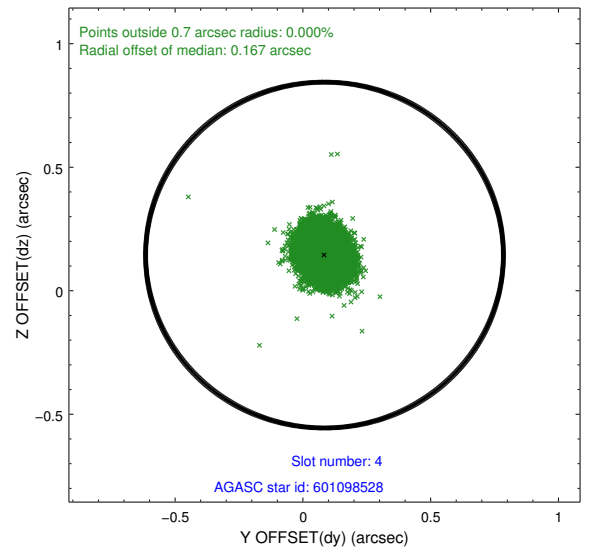
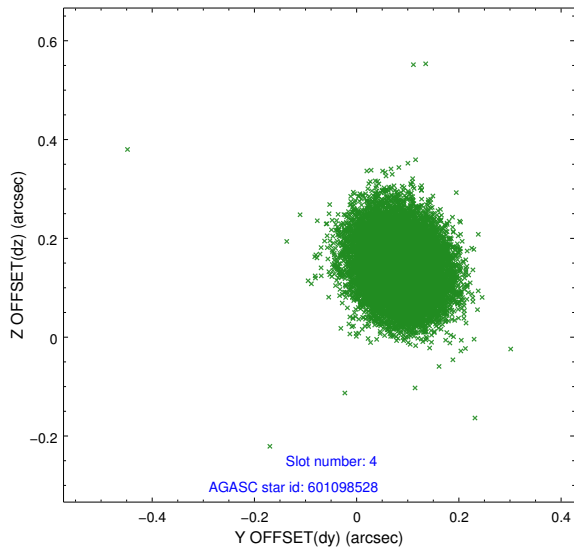
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	7909	-0.041	-0.010	0.010	0.017	0.000000	0.000000	-759.87	-1731.37
1	FID	ACIS-S-4	7.20	7907	0.054	0.023	0.007	0.013	0.000000	0.000000	2153.45	177.13
2	FID	ACIS-S-5	7.23	7909	-0.044	-0.004	0.010	0.016	0.000000	0.000000	-1812.67	170.78
3	GUIDE	584453480	8.94	15819	0.005	-0.036	0.085	0.136	311.245727	74.720187	1139.25	1249.45
4	GUIDE	601098528	9.11	15816	0.085	0.144	0.074	0.121	310.058226	75.008164	748.38	-222.63
5	GUIDE	584456408	9.42	15818	0.015	0.025	0.108	0.170	307.720285	74.988328	1777.58	-2144.03
6	GUIDE	586155048	7.94	15823	-0.050	-0.217	0.060	0.096	312.135794	74.489876	1451.65	2395.16
7	GUIDE	600992280	9.20	15818	-0.056	0.085	0.102	0.164	307.494541	75.010644	1794.16	-2368.47

2.4 Star Slots

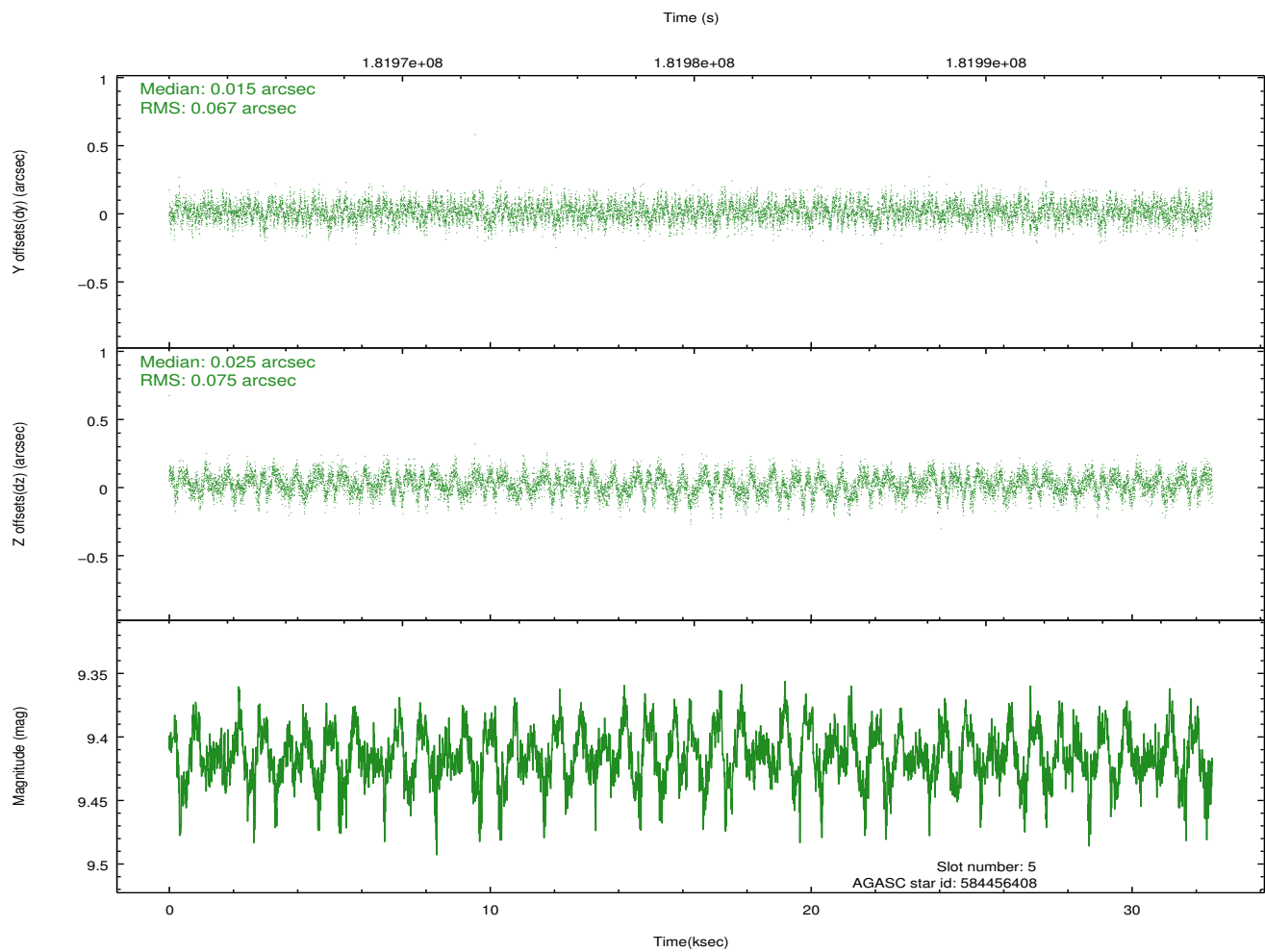
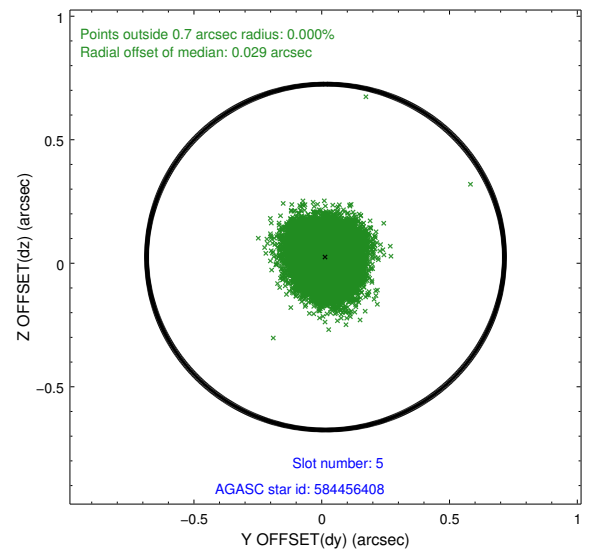
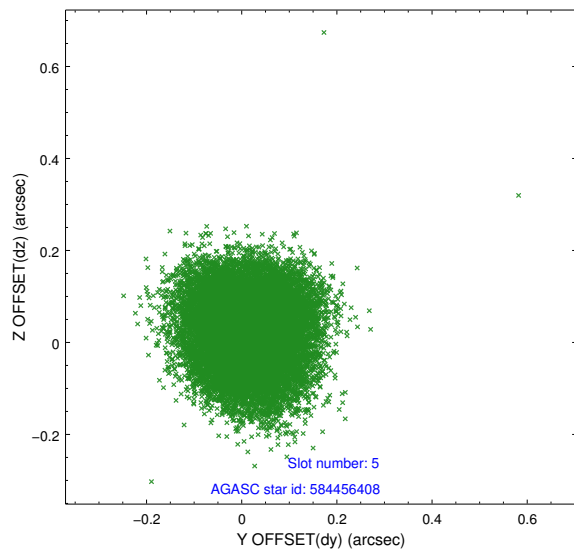
2.4.1 Slot 3



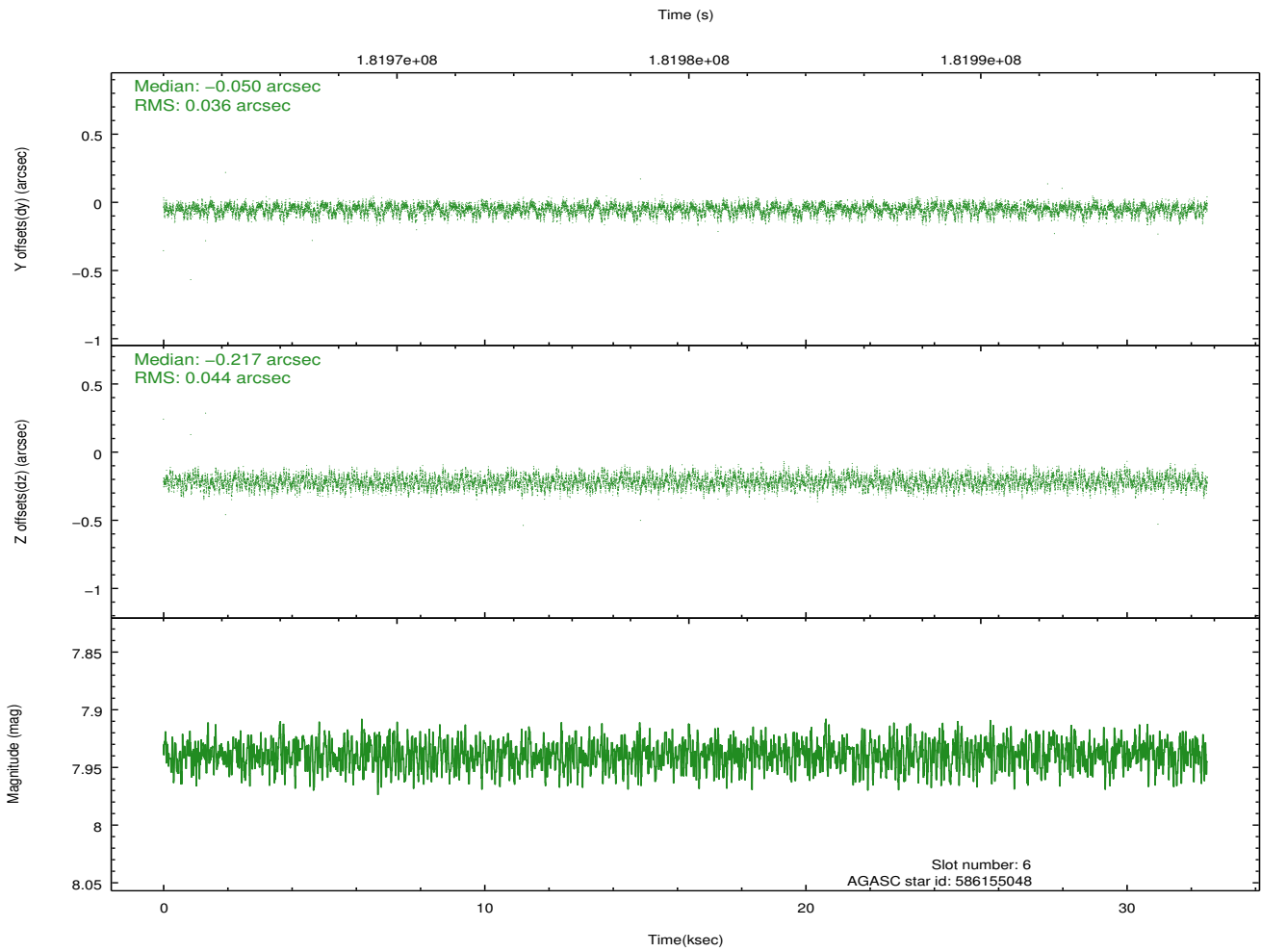
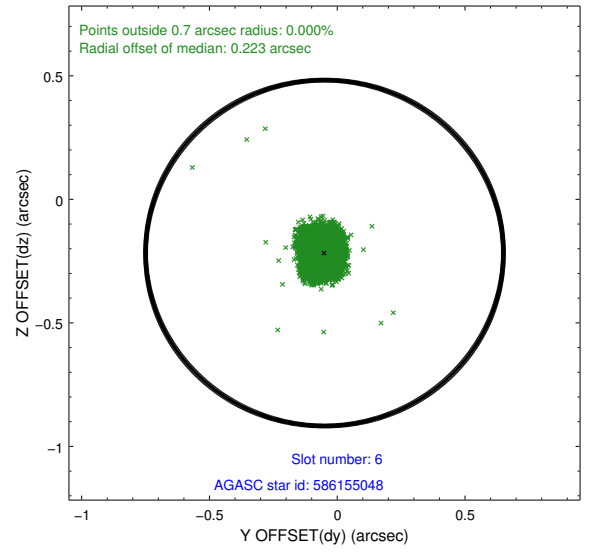
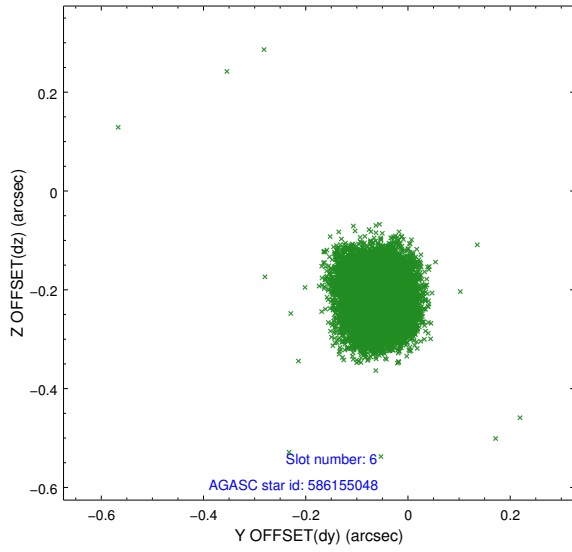
2.4.2 Slot 4



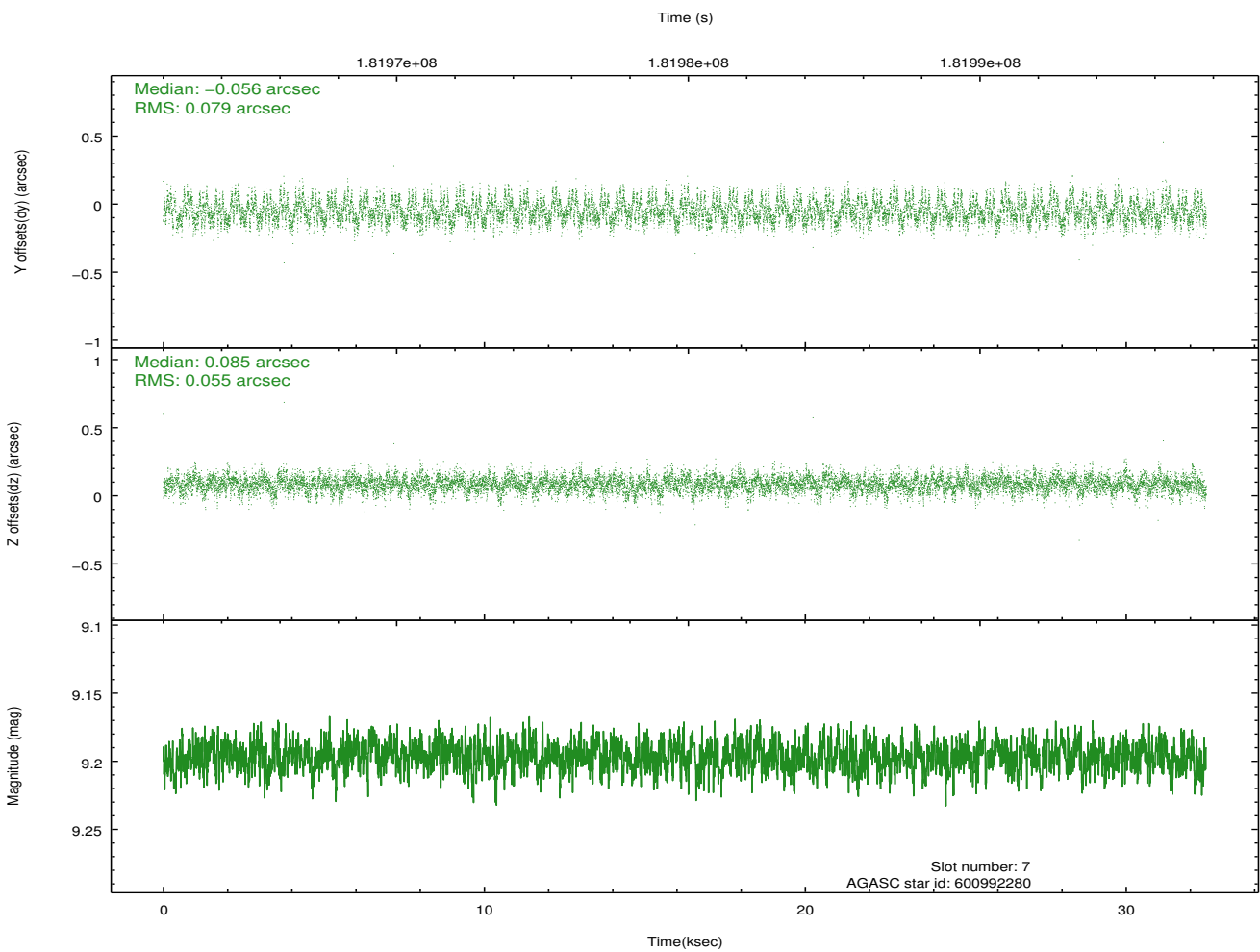
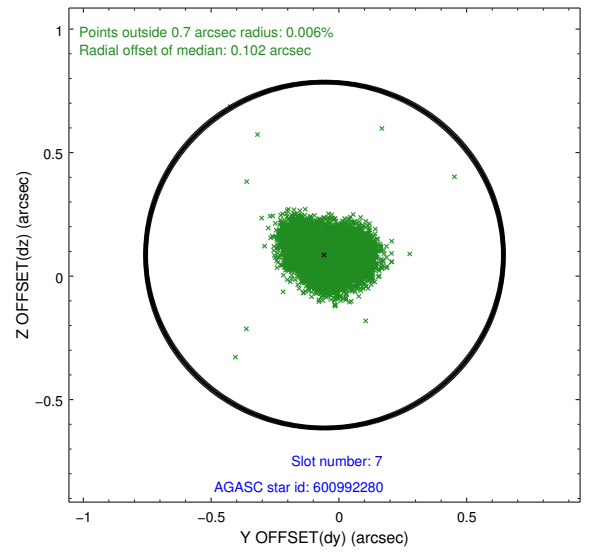
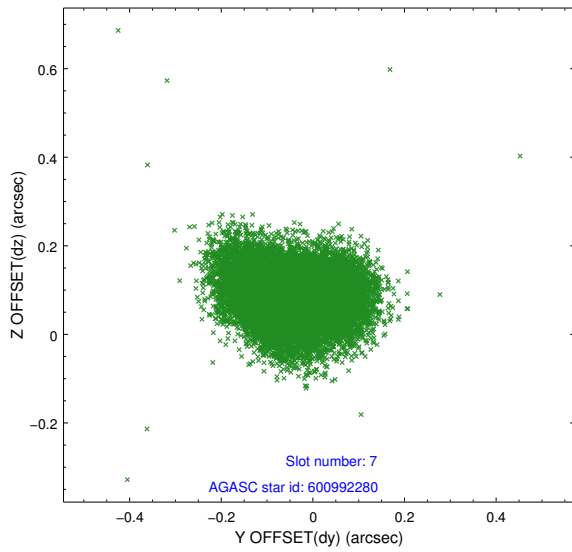
2.4.3 Slot 5



2.4.4 Slot 6

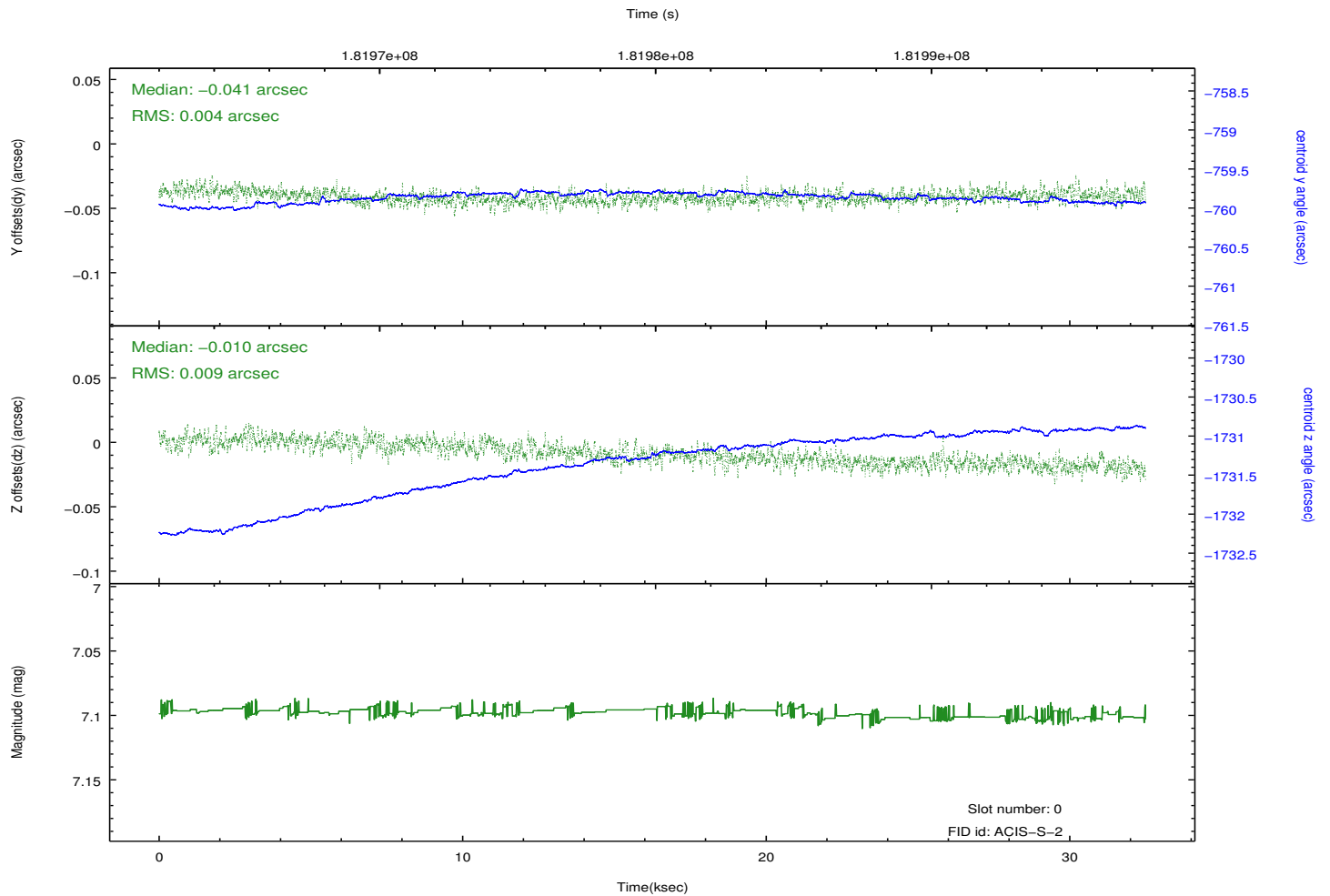
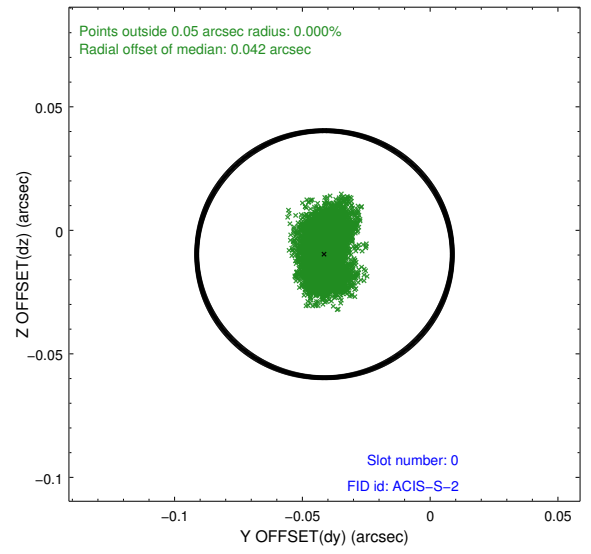
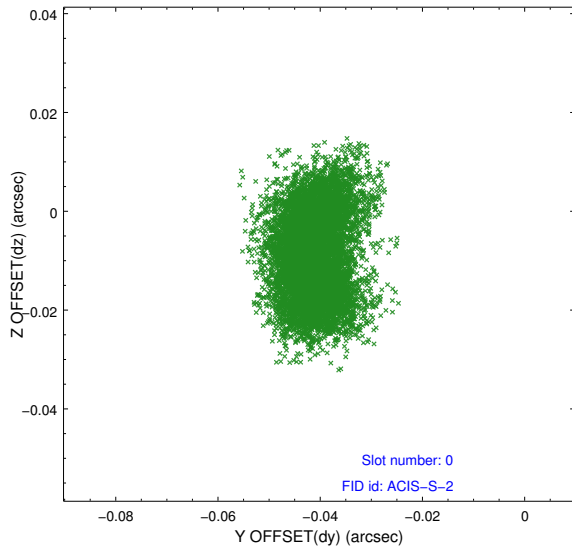


2.4.5 Slot 7

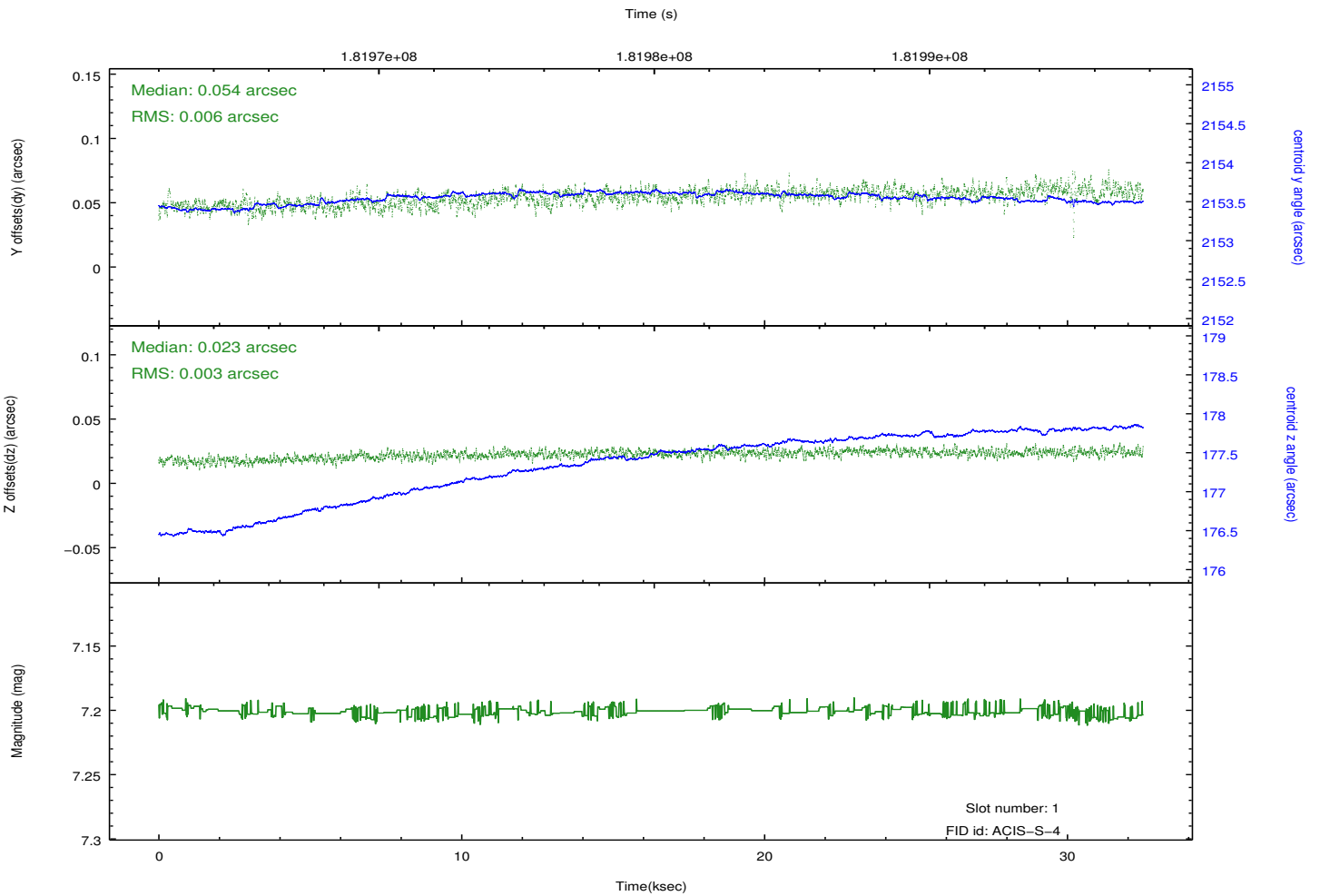
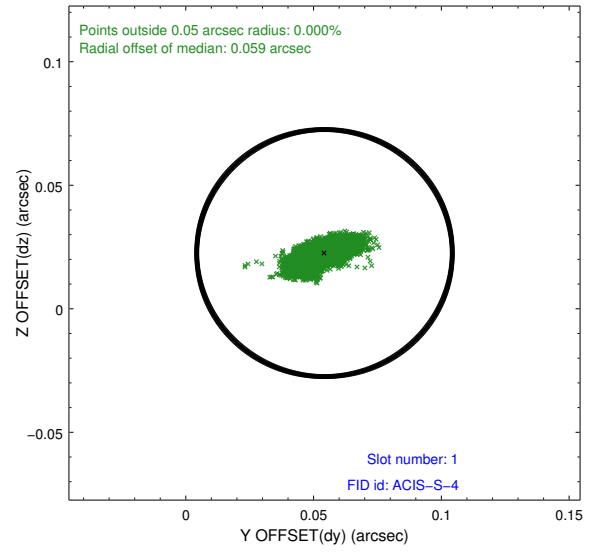
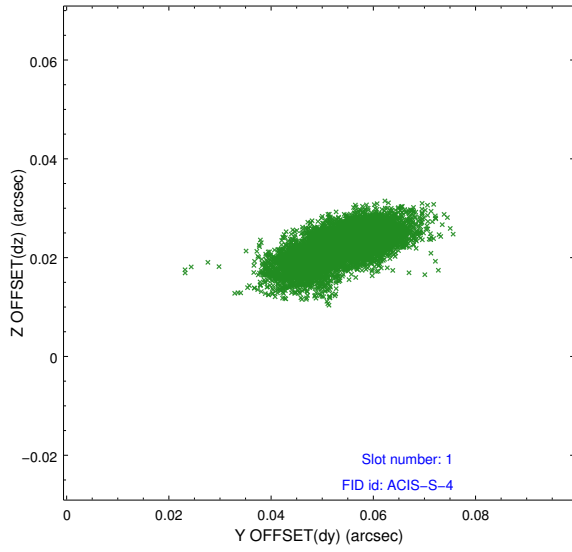


2.5 FID Slots

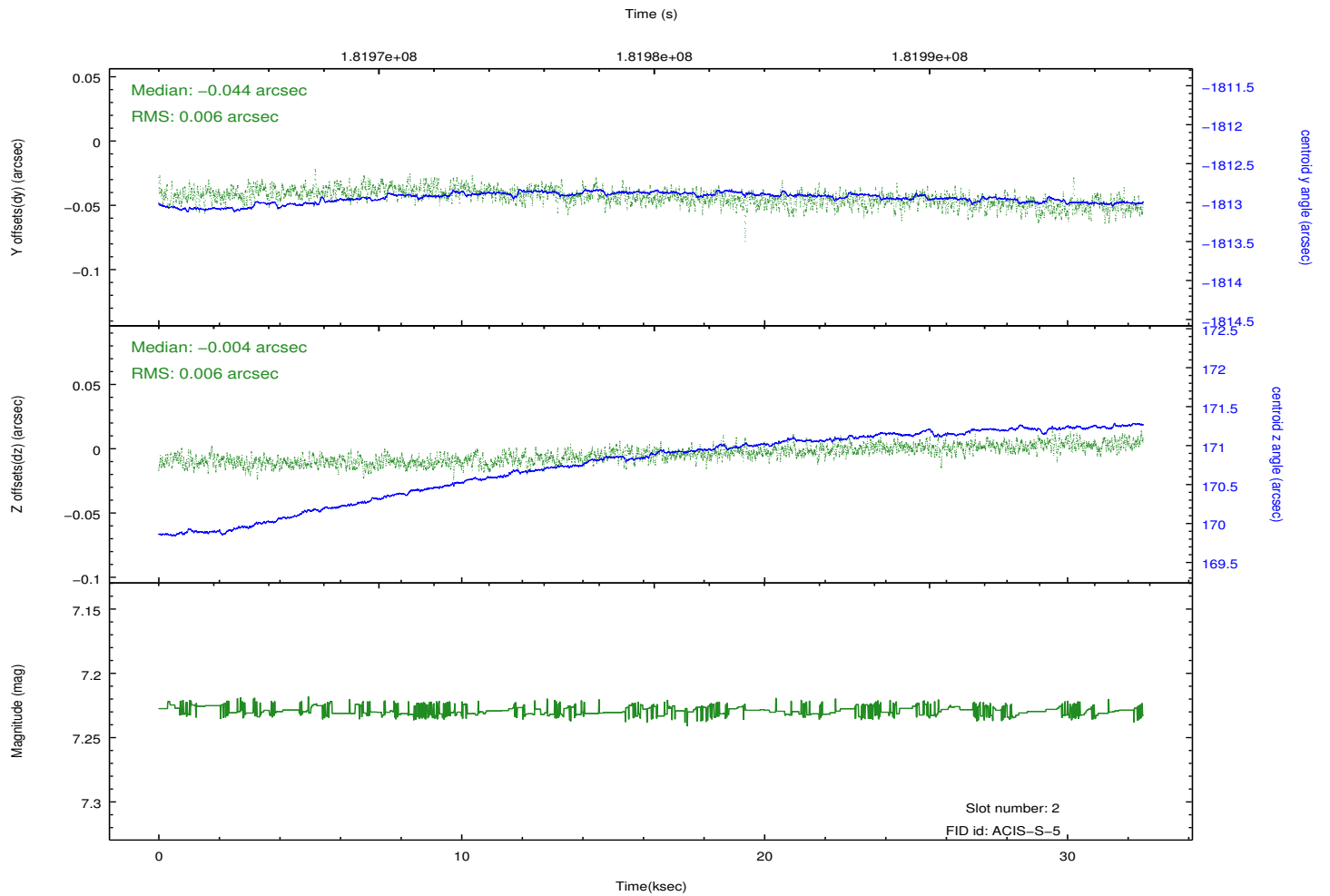
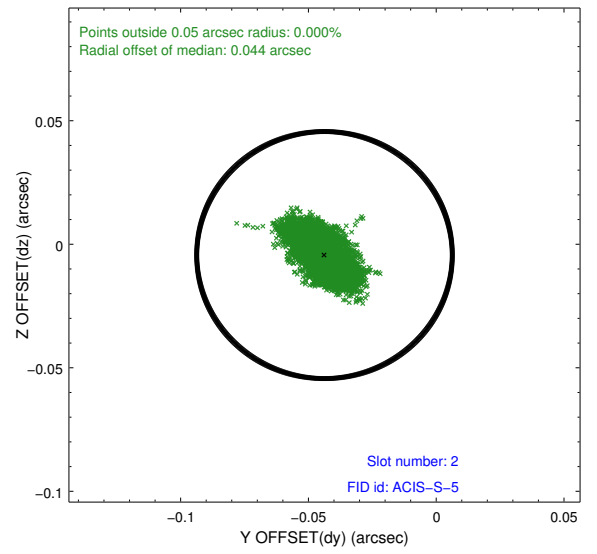
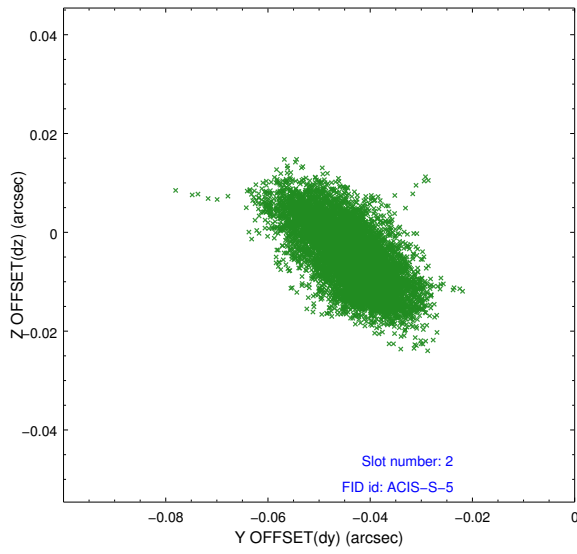
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

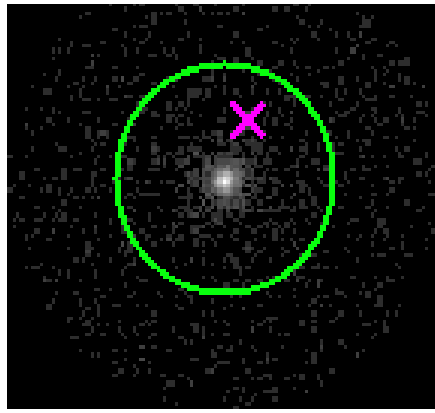


3 Gratings

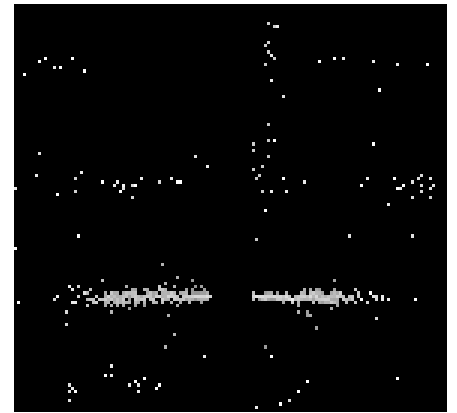
3.1 HEG Arm



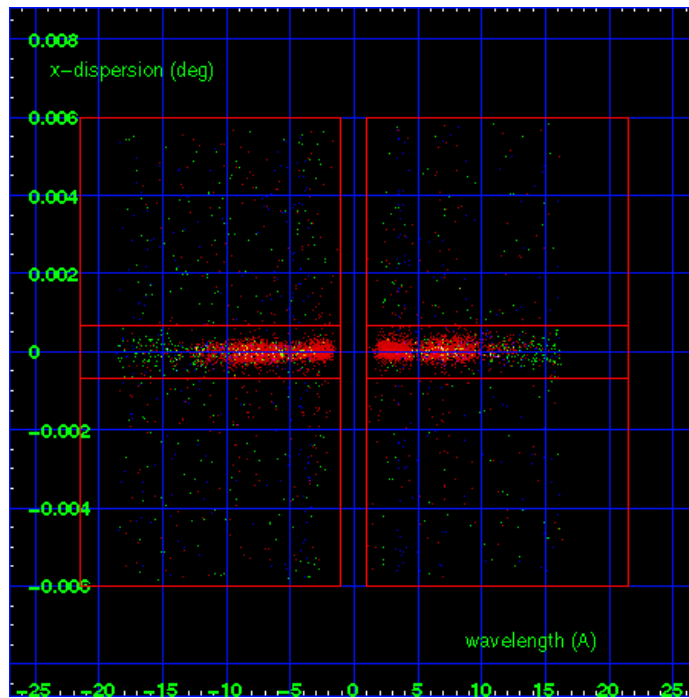
HEG Order Sort 123



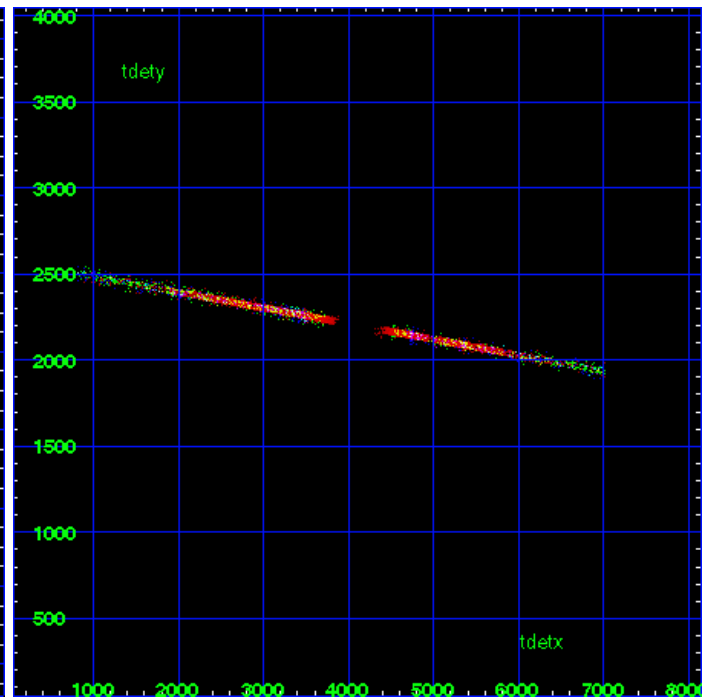
HEG Zero Order



HEG Order Sort ALL

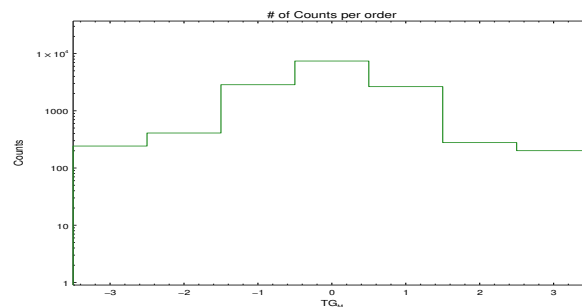


Spot Image HEG

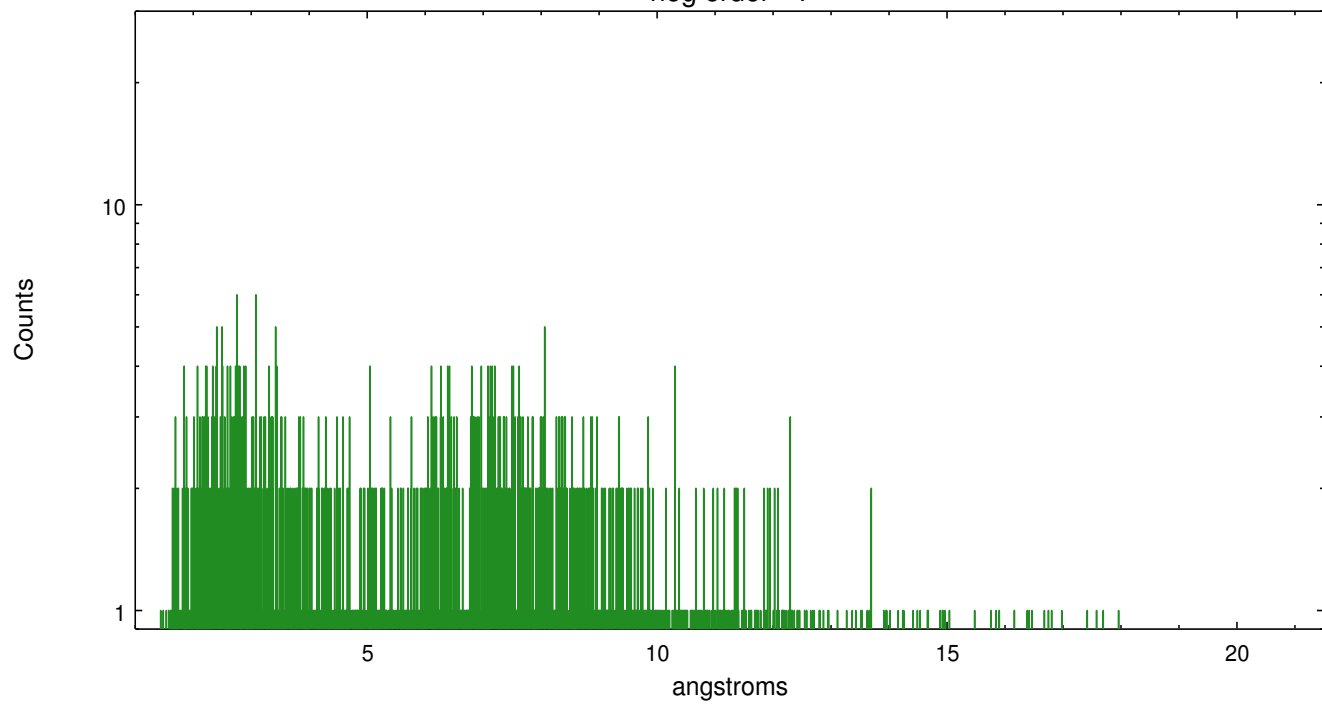


Full Detector HEG

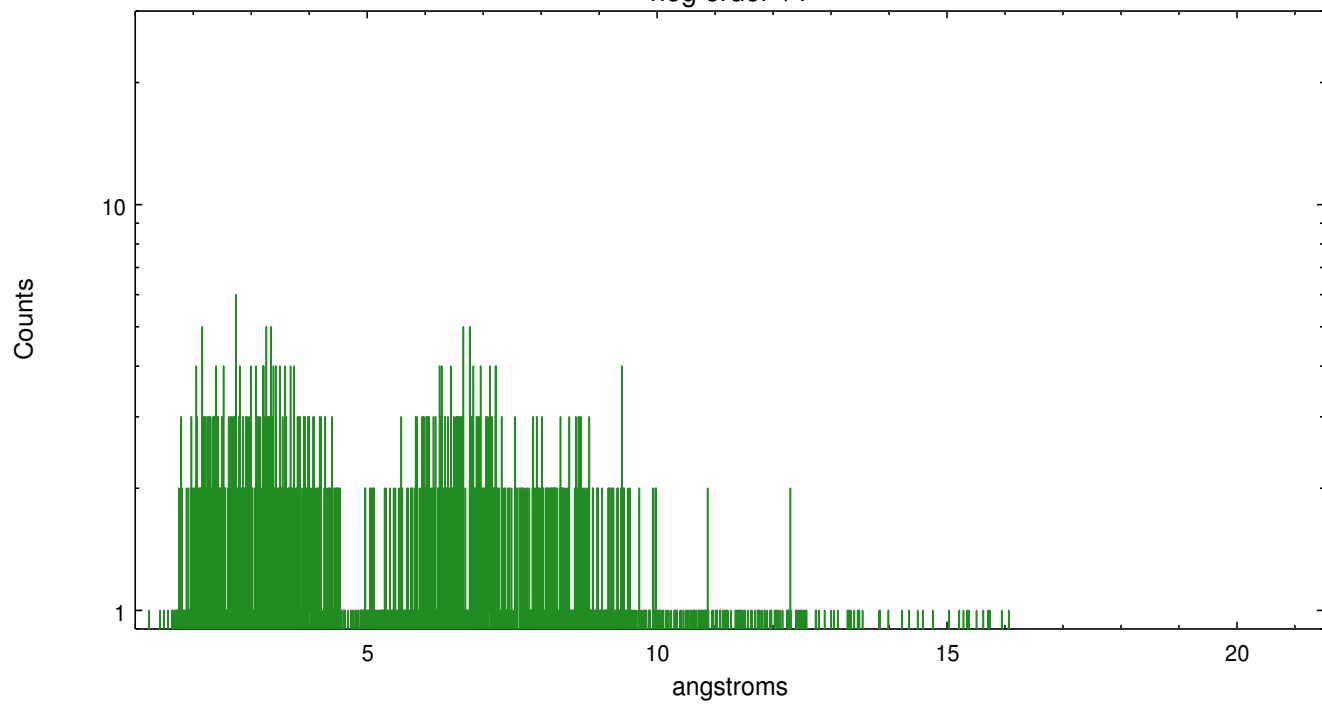
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	242	409	2858	7412	2645	278	201



heg order -1



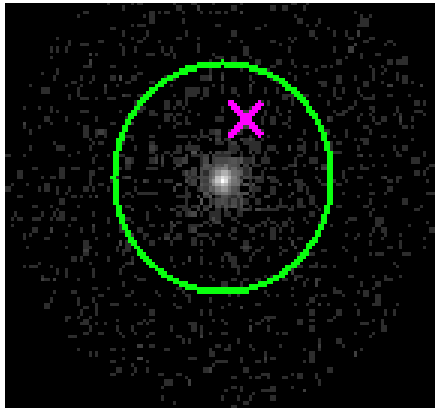
heg order +1



3.2 MEG Arm



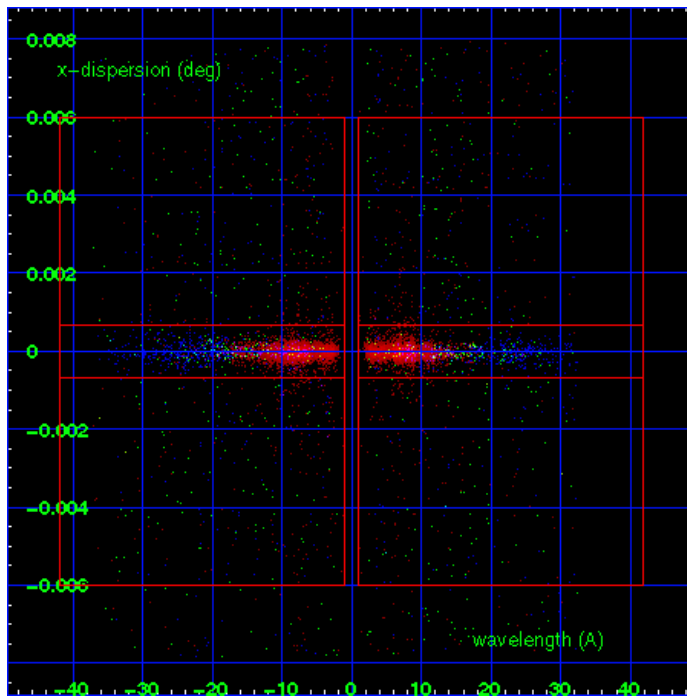
MEG Order Sort 123



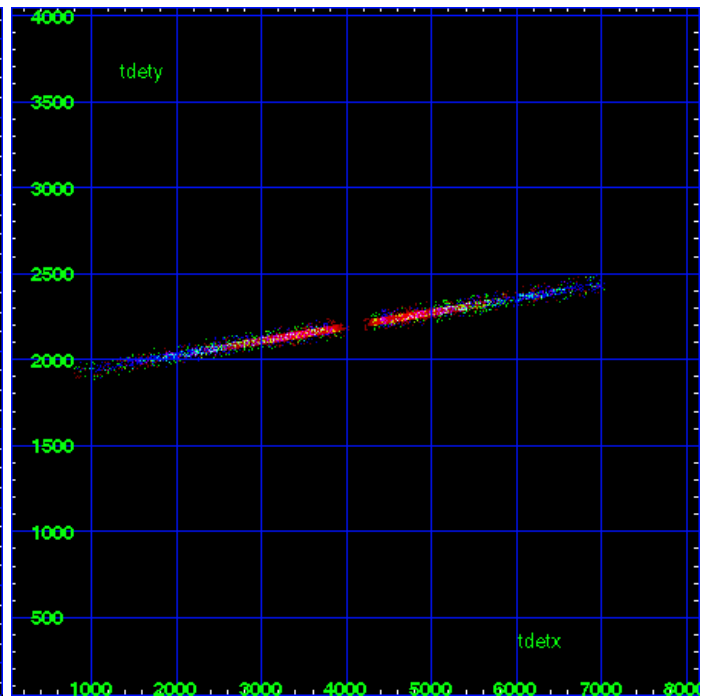
MEG Zero Order



MEG Order Sort ALL

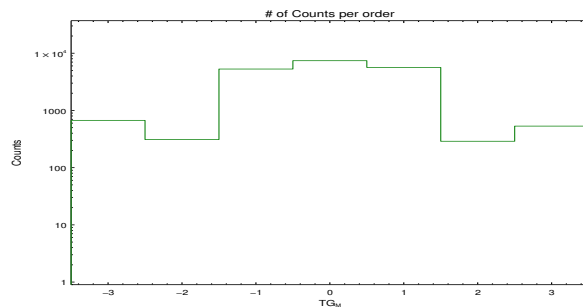


Spot Image MEG

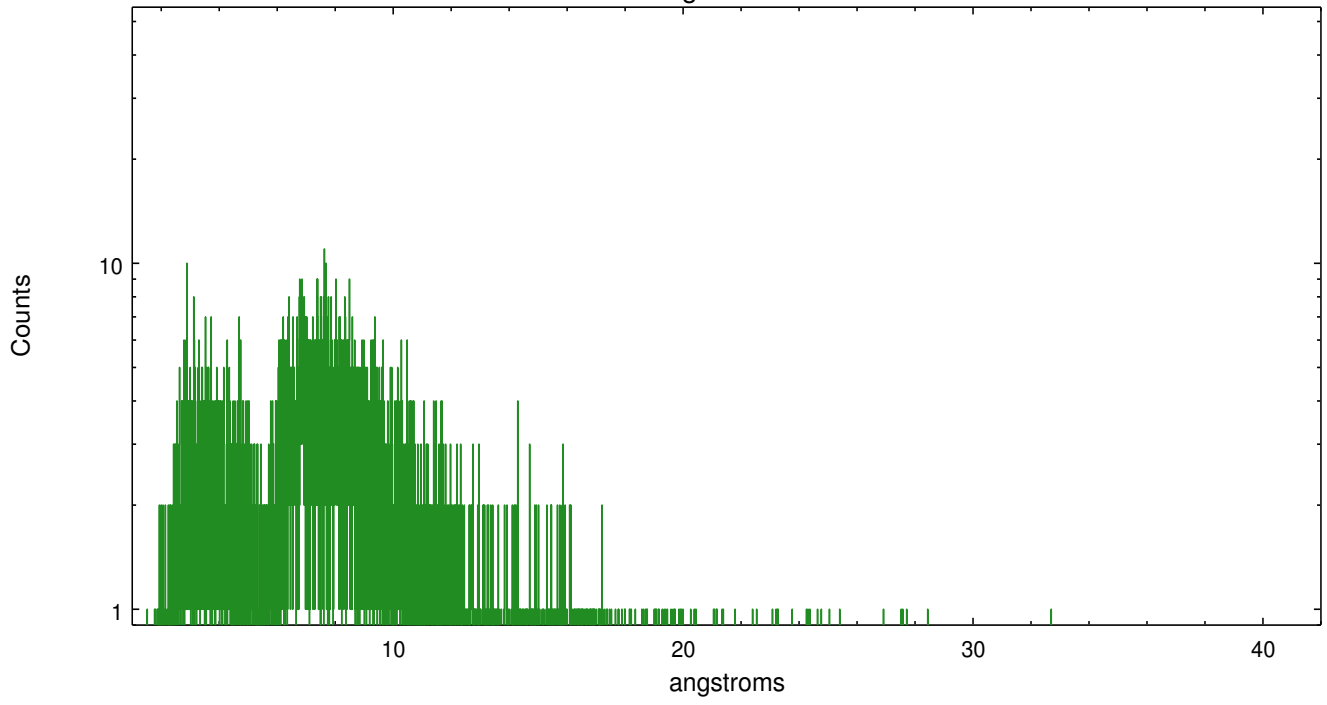


Full Detector MEG

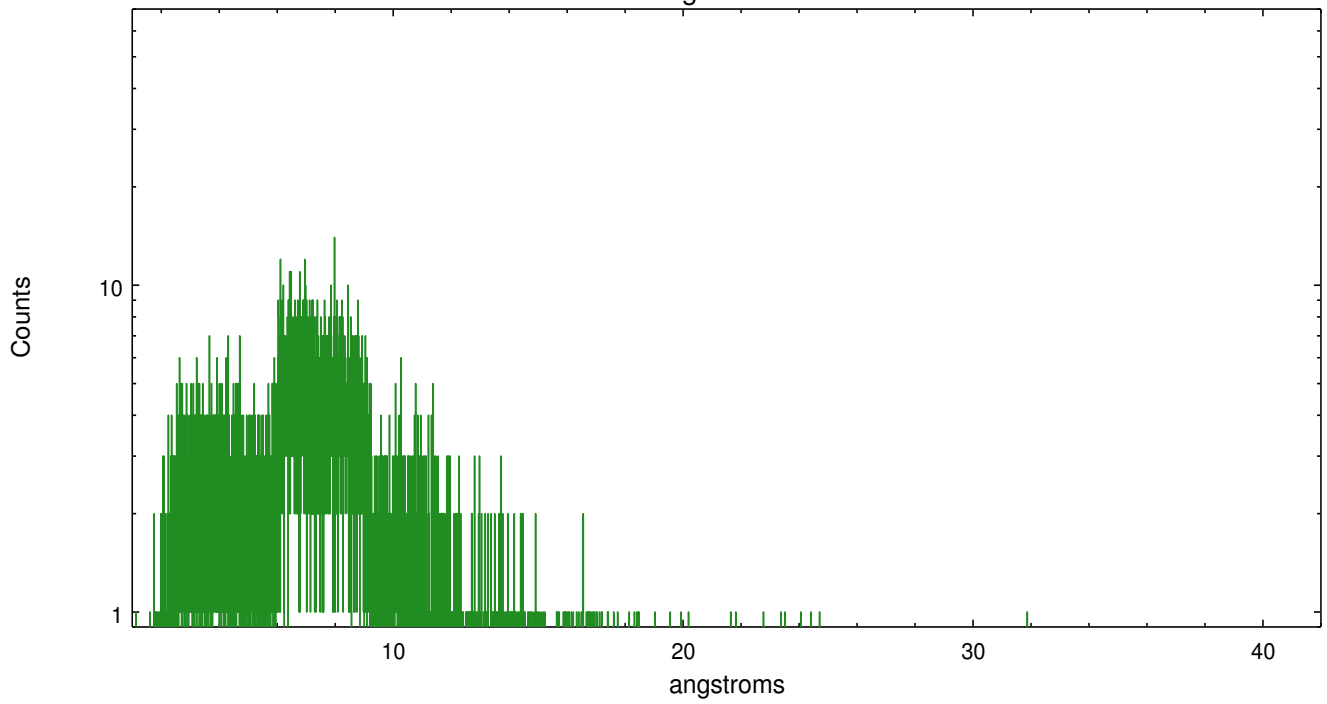
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	670	310	5292	7412	5650	289	532



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.12.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	31.832

A.2 Comments

Two CCD bias maps were incomplete because of data gaps in telemetry. Bias maps for chips 6 and 8 were reconstructed using scaled data from a comparable bias map for another observation to fill the missing data. The bias correction region includes the HEG minus arm. The pixels affected by the anomaly are bounded by sky coords:

CCD 6:

(310.26832,74.99537), (310.51869,75.11917), (310.50503,75.12100), (310.25475,74.99719)

(310.34782,74.98467), (310.59865,75.10838), (310.53798,75.11657), (310.28751,74.99279)

(310.48318,74.96636), (310.73480,75.08992), (310.69305,75.09560), (310.44167,74.97199)

(310.58285,74.95280), (310.83506,75.07625), (310.80556,75.08028), (310.55353,74.95679)

CCD 8:

(310.64121,75.26667), (310.89934,75.39003), (310.87594,75.39317), (310.61795,75.26978)

(310.88280,75.23408), (311.14235,75.35718), (311.10478,75.36228), (310.84544,75.23914)