

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 11848 - L2 Version 2
Chandra X-Ray Center

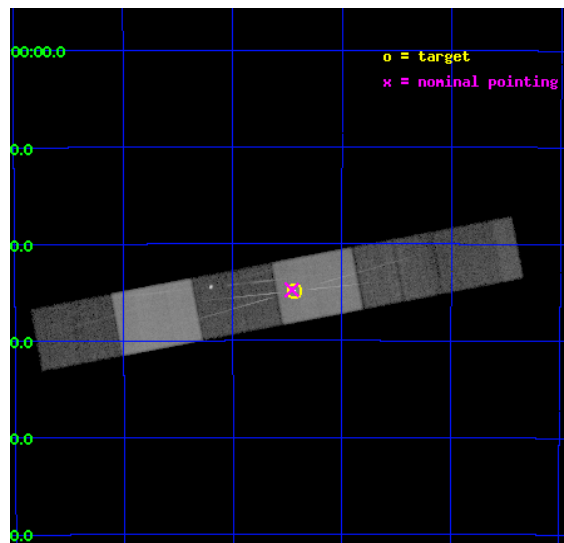
L2 Processing Date : Jun 24 2012

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1 Front

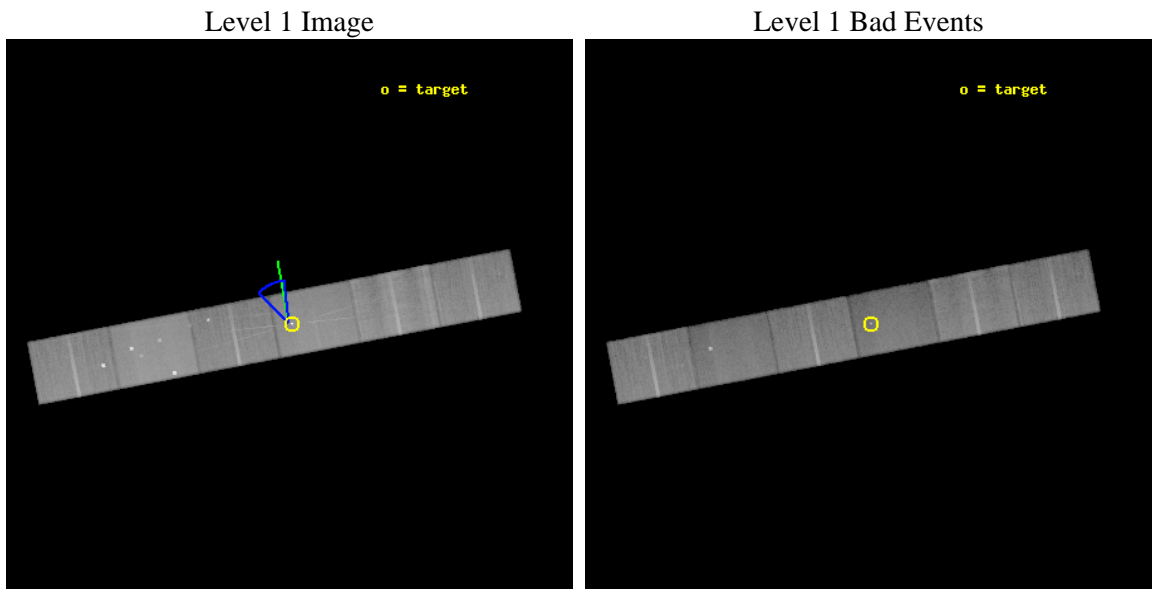
seq_num	702296	Sequence number
obs_id	11848	Observation id
title	A Deep Chandra HETG View of Outflowing Warm Absorbers and Relativistically Blurred Emission in ESO 323-G077	Proposal title
observer	Prof Claude Canizares	Principal investigator
object	ESO 323-G077	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	196.60875	Observer's specified target RA [deg]
dec_targ	-40.414444	Observer's specified target Dec [deg]
ra_nom	196.61469997076	Nominal RA [deg]
dec_nom	-40.412719998223	Nominal Dec [deg]
roll_nom	349.16339215897	Nominal Roll [deg]
revision	2	Processing version of data
ontime	46657.5	Sum of GTIs [s]
livetime	45903.940906085	Livetime [s]
ontime4	46654.958949268	Sum of GTIs [s]
ontime5	46657.5	Sum of GTIs [s]
ontime6	46657.5	Sum of GTIs [s]
ontime7	46657.5	Sum of GTIs [s]
ontime8	46657.5	Sum of GTIs [s]
ontime9	46657.5	Sum of GTIs [s]
l2events	461194	Number of level 2 events



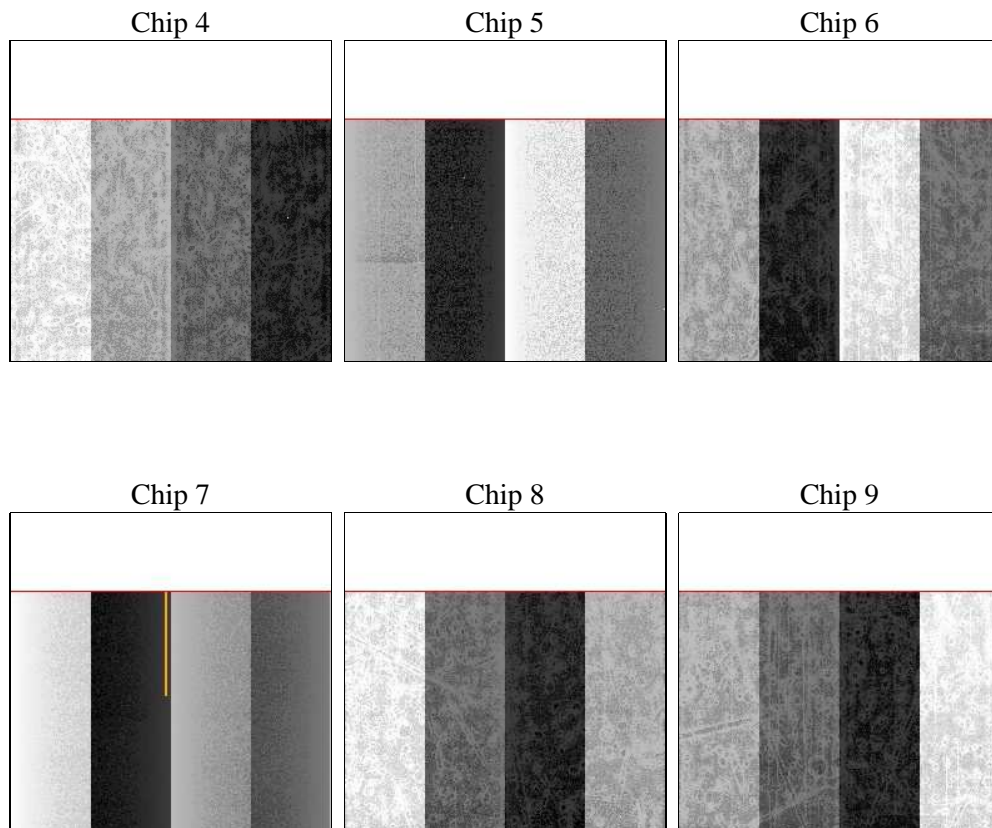
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	46500.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	46657.5	Sum of GTIs [s]
caldsver	4.4.10	 	ontime4	46654.958949268	Sum of GTIs [s]
date	2012-06-24T09:45:15	Date and time of file creation	ontime5	46657.5	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	46657.5	Sum of GTIs [s]
			ontime7	46657.5	Sum of GTIs [s]
			ontime8	46657.5	Sum of GTIs [s]
			ontime9	46657.5	Sum of GTIs [s]
			l1events	1990311	Number of level 1 events

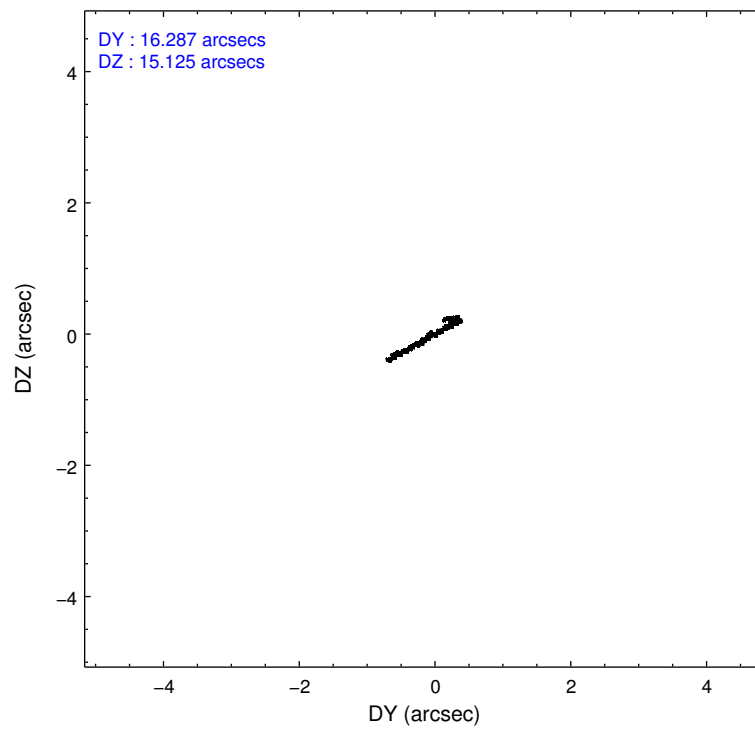
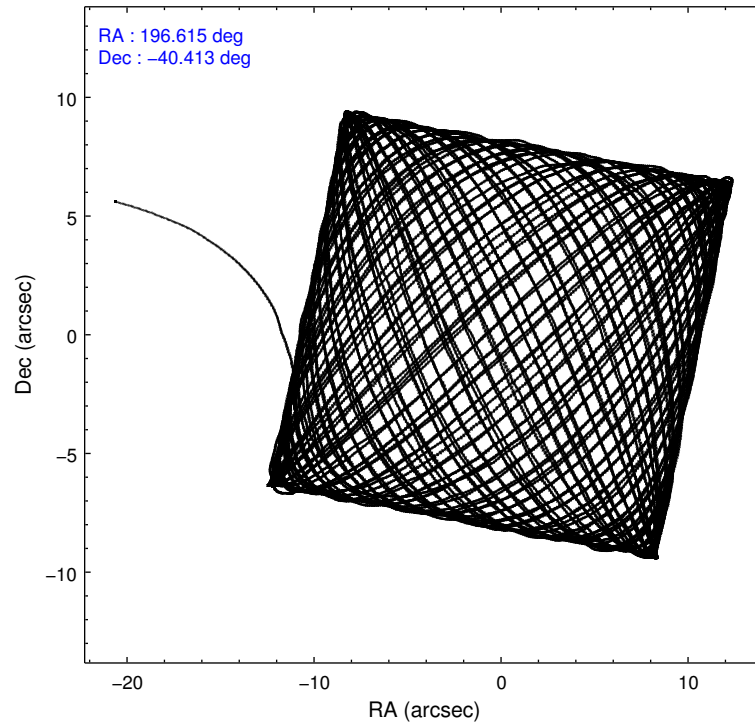
2.1.4 Events

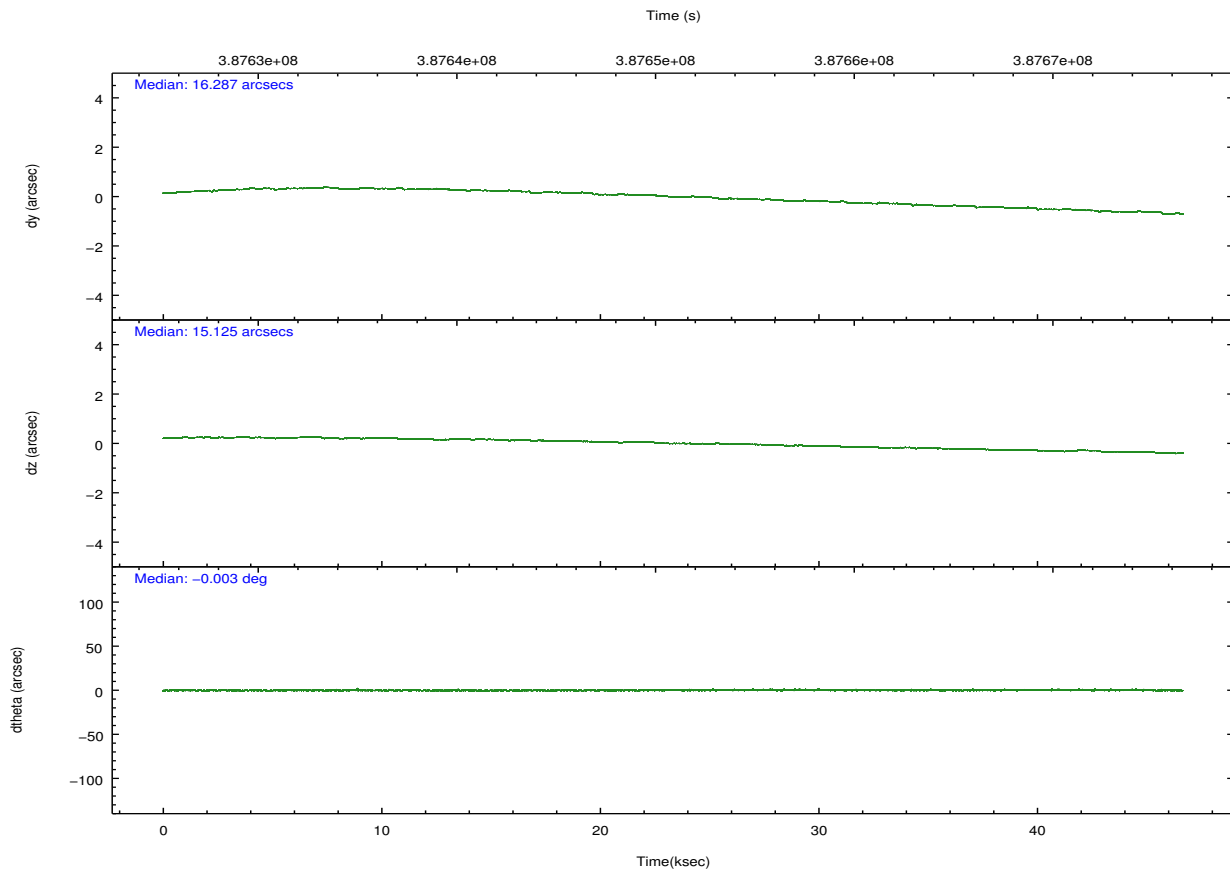
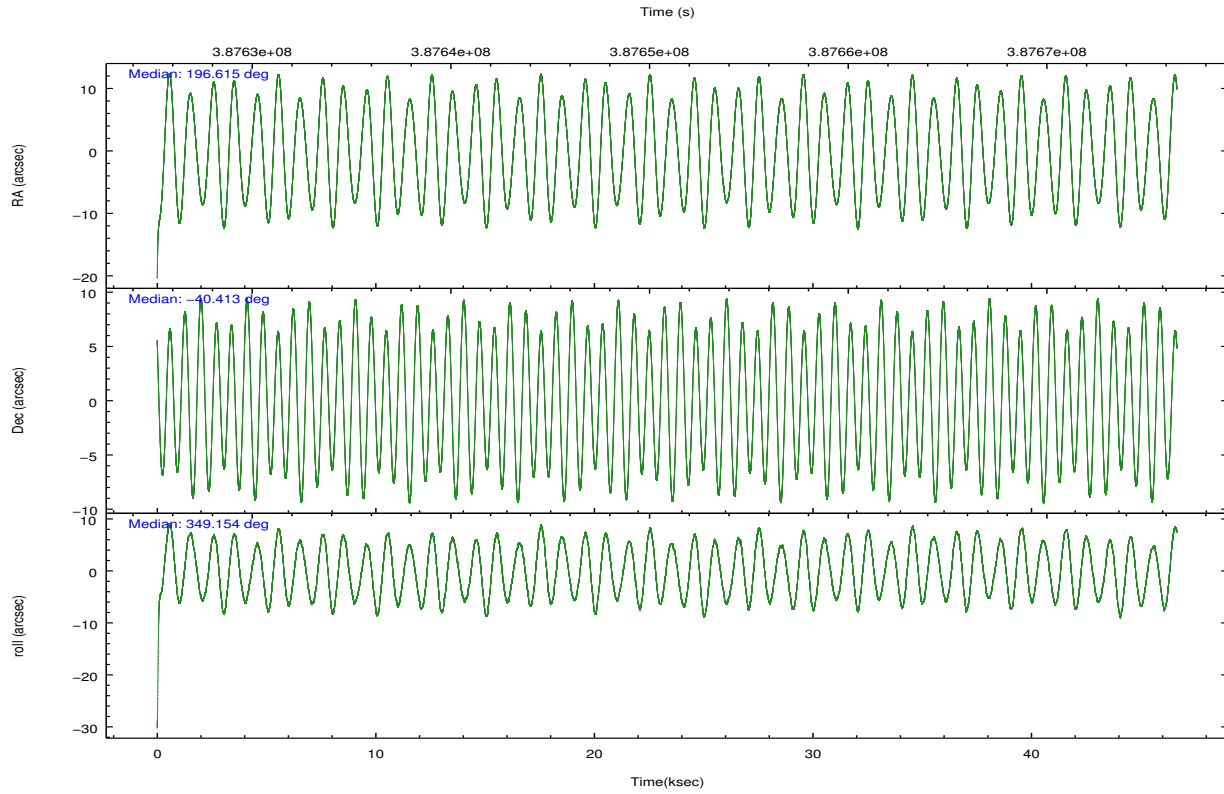
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	319903	429273	282419	339661	352069	266986	grade 0 events	24311	36844	16471	15967	26235	11787
rejected events	275736	209112	244001	180054	260637	235147		7%	8%	5%	4%	7%	4%
rejected %	86%	48%	86%	53%	74%	88%	grade 1 events	269	708	136	467	263	149
								0%	0%	0%	0%	0%	0%
							grade 2 events	7971	63340	7906	33584	21908	6836
								2%	14%	2%	9%	6%	2%
							grade 3 events	3480	9763	3711	15181	9918	3658
								1%	2%	1%	4%	2%	1%
							grade 4 events	3450	9251	3791	15171	9293	3425
								1%	2%	1%	4%	2%	1%
							grade 5 events	11736	33136	11801	34726	17223	13129
								3%	7%	4%	10%	4%	4%
							grade 6 events	5601	104239	7012	81921	25618	6628
								1%	24%	2%	24%	7%	2%
							grade 7 events	263085	171992	231591	142644	241611	221374
								82%	40%	82%	41%	68%	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	196.580938	196.6146999707562	Subarray requested	CUSTOM	CUSTOM
[deg] Pointing Dec	-40.422043	-40.41271999822333	Subarray start row	1	1
[deg] Pointing Roll	348.984879	349.1633921589728	Subarray row count	774	774
[deg] Roll angle	27.800000	27.800000	Alternating exposures requested	N	N
[deg] Roll tolerance	17.200000	17.200000	[s] Primary exposure time	0.000000	2.5
Roll constraint allows 180D rotation	N	N			
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-187.132523	-187.127916318603			
[mm] SIM translation stage offset	-3	-3.004606264404799			
[s] Observation start time (MET)	387627706.184000	387626263.5397			
Observation start date	2010-04-14T10:20:40	2010-04-14T09:57:43			
[s] Observation end time (MET)	387674206.184000	387674993.06717			
Observation end date	2010-04-14T23:15:40	2010-04-14T23:29:53			
Read mode	TIMED	TIMED			

2.3 Aspect



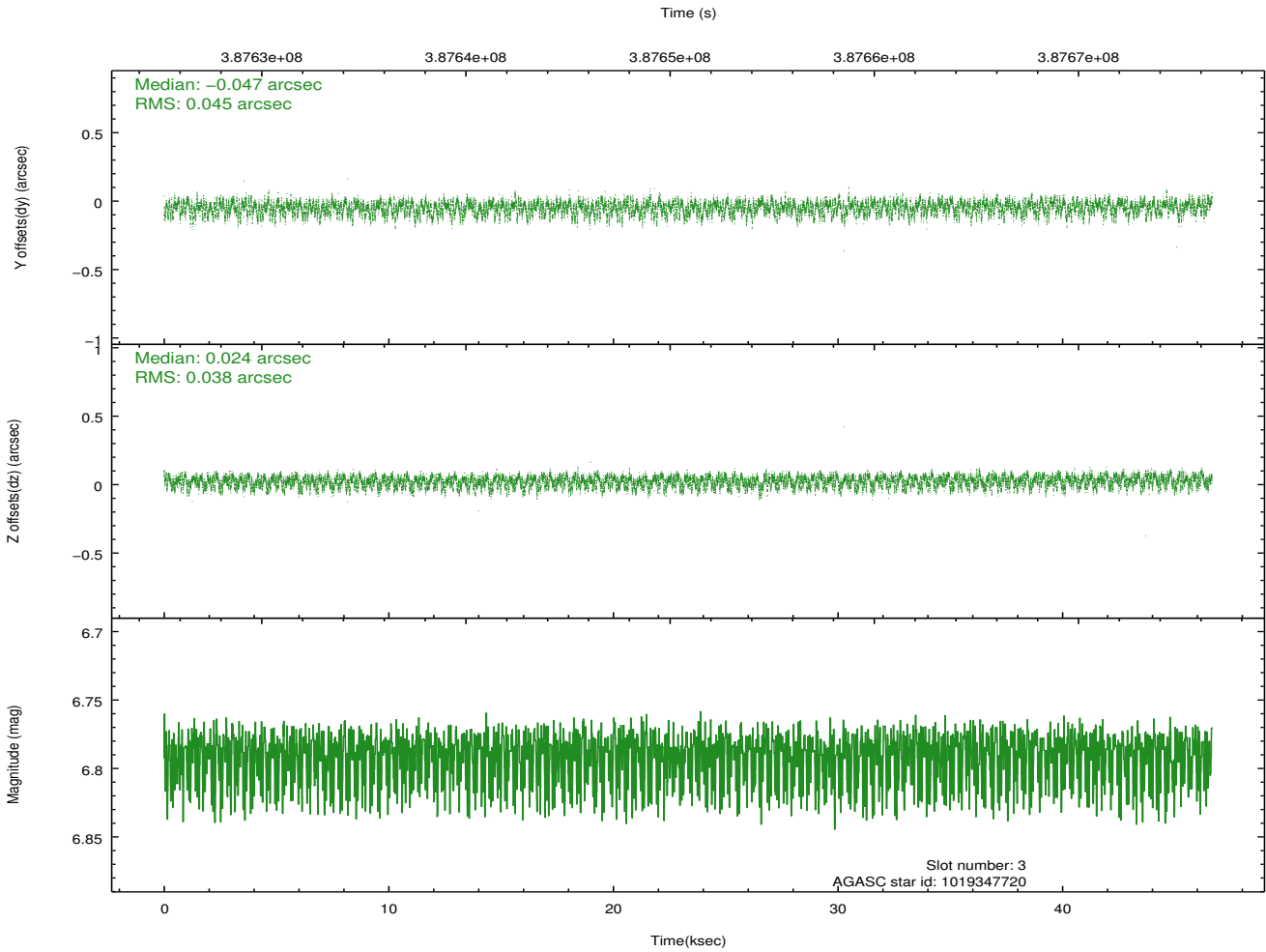
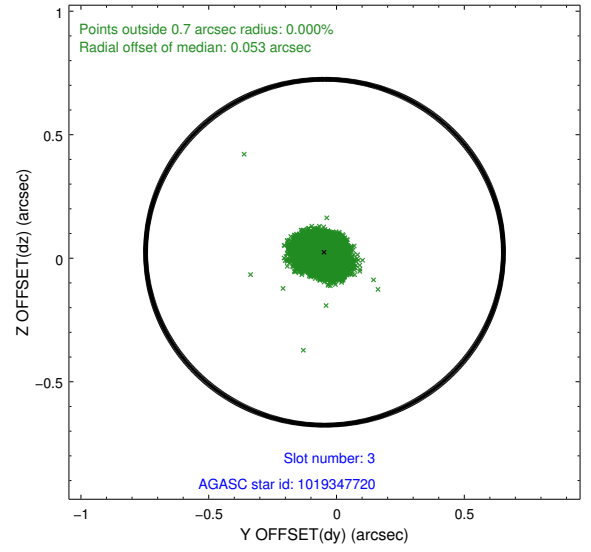
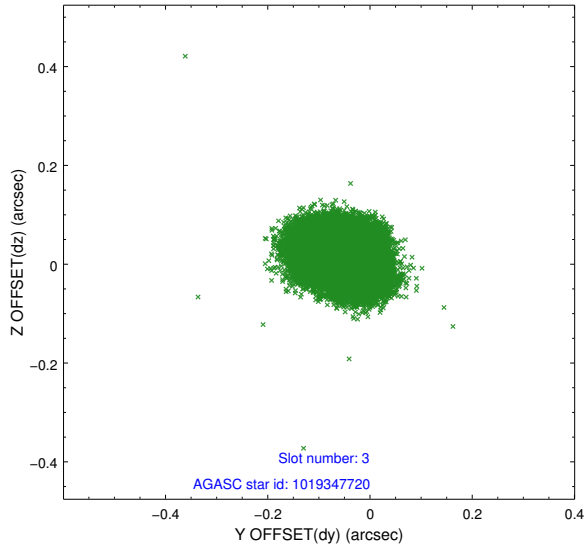


Slot Statistics

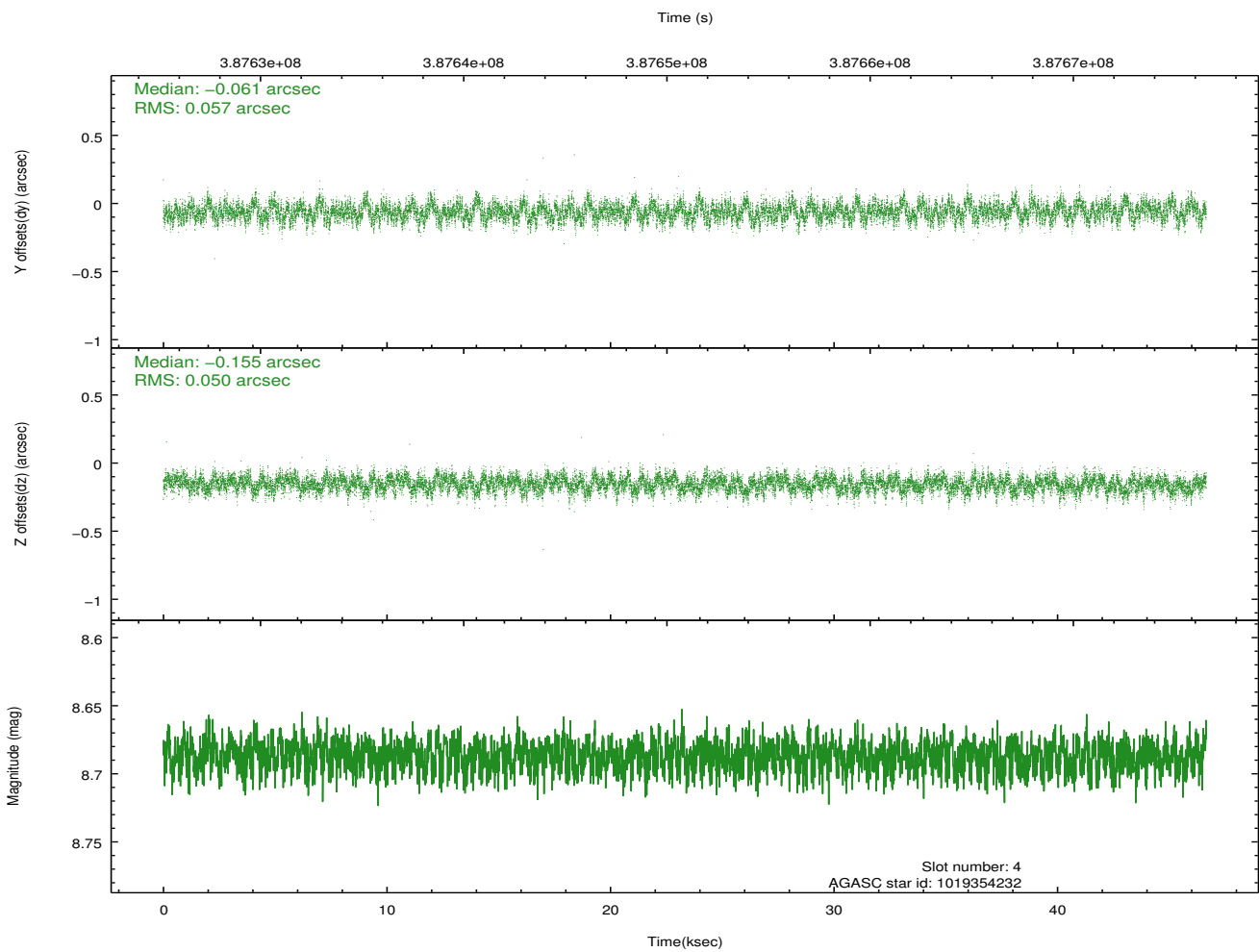
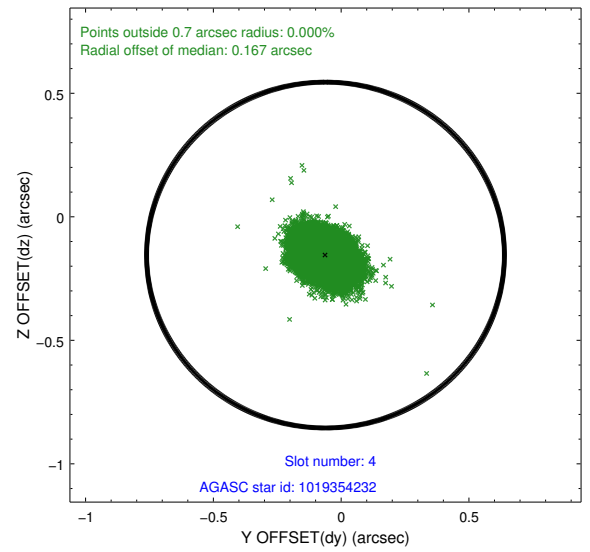
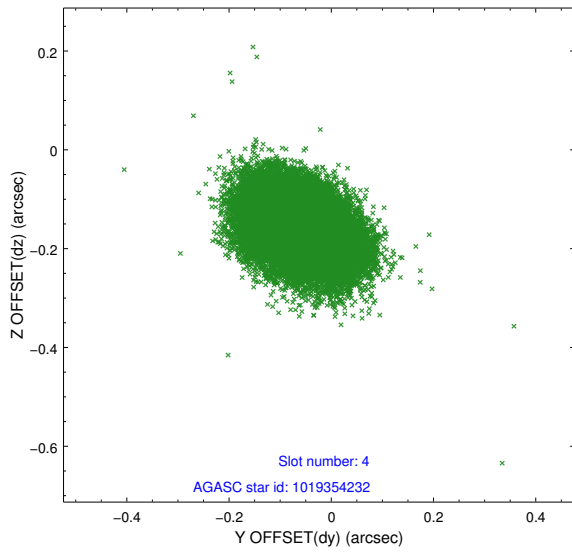
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.93	11380	-0.097	-0.097	0.012	0.020	0.000000	0.000000	-769.14	-1798.61
1	FID	ACIS-S-4	7.03	11378	0.207	0.073	0.006	0.012	0.000000	0.000000	2144.46	110.00
2	FID	ACIS-S-5	7.06	11380	-0.141	0.033	0.012	0.019	0.000000	0.000000	-1822.02	103.67
3	GUIDE	1019347720	6.79	22759	-0.047	0.024	0.064	0.100	195.947403	-40.851203	-1396.53	-1852.42
4	GUIDE	1019354232	8.69	22747	-0.061	-0.155	0.080	0.132	196.210847	-39.764819	-1457.20	2124.25
5	GUIDE	1019355392	8.21	22750	0.056	-0.113	0.064	0.105	197.294017	-39.873278	1558.95	2307.50
6	GUIDE	1019357032	8.10	22761	0.064	0.176	0.065	0.104	196.188297	-40.682535	-872.87	-1127.73
7	GUIDE	1019356296	7.46	22758	-0.008	0.067	0.063	0.118	197.330900	-41.019450	2411.97	-1730.37

2.4 Star Slots

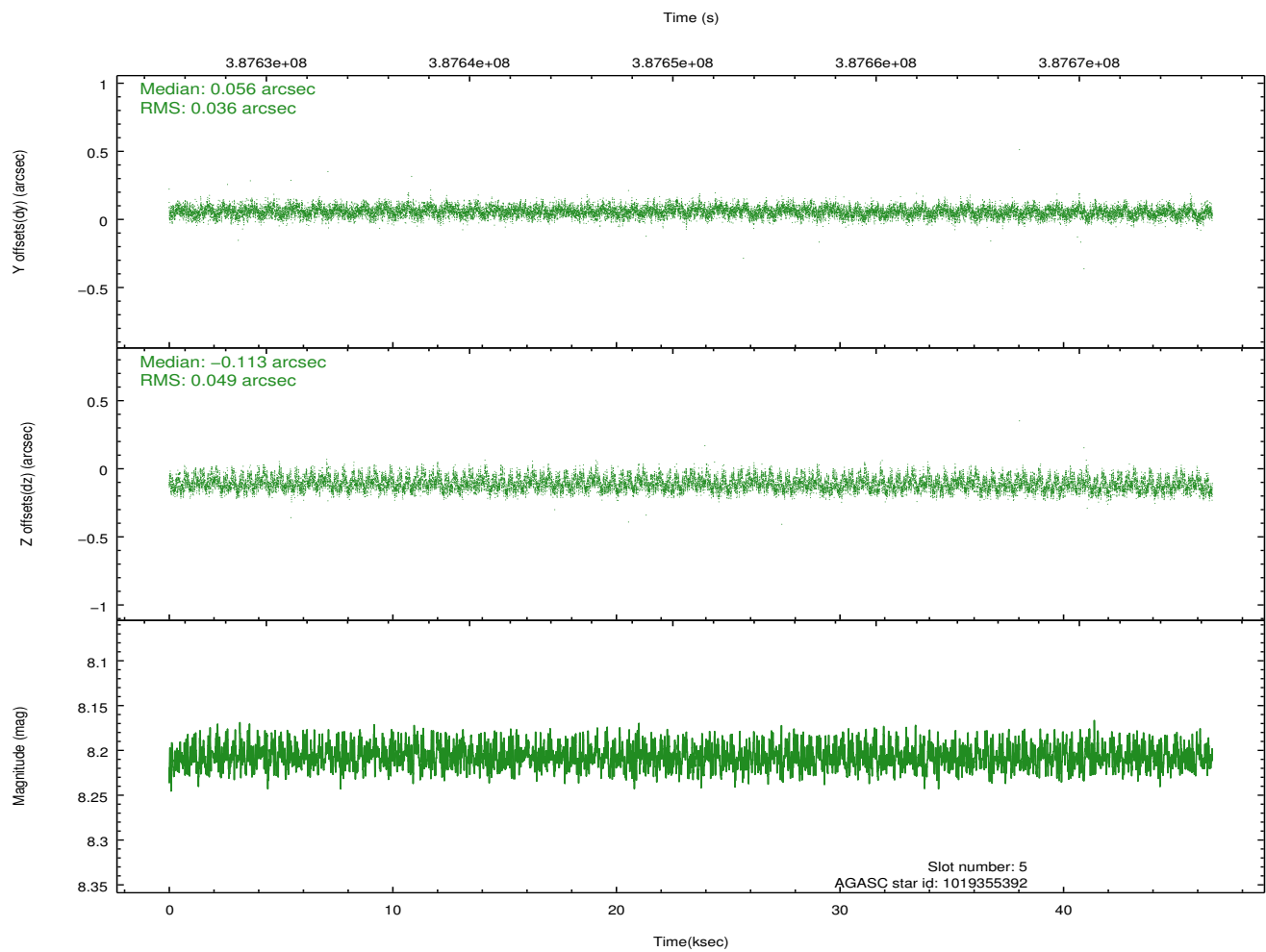
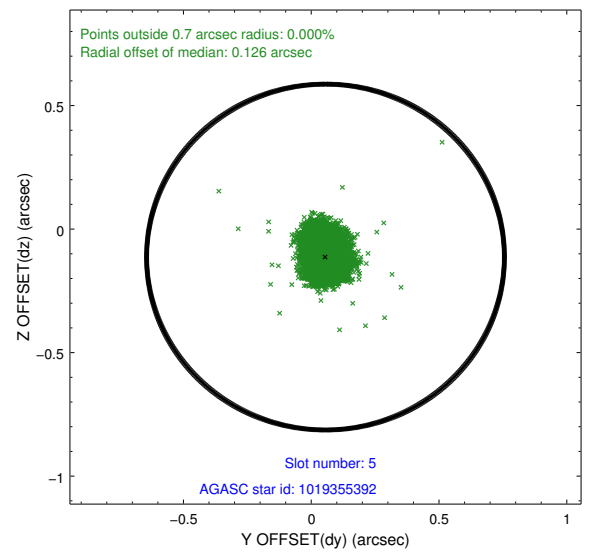
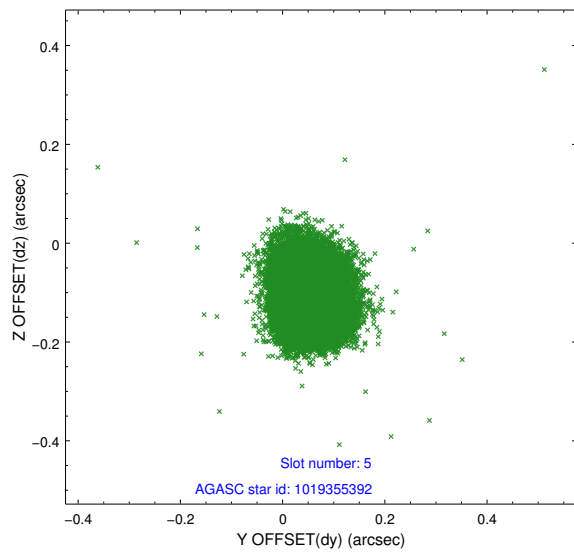
2.4.1 Slot 3



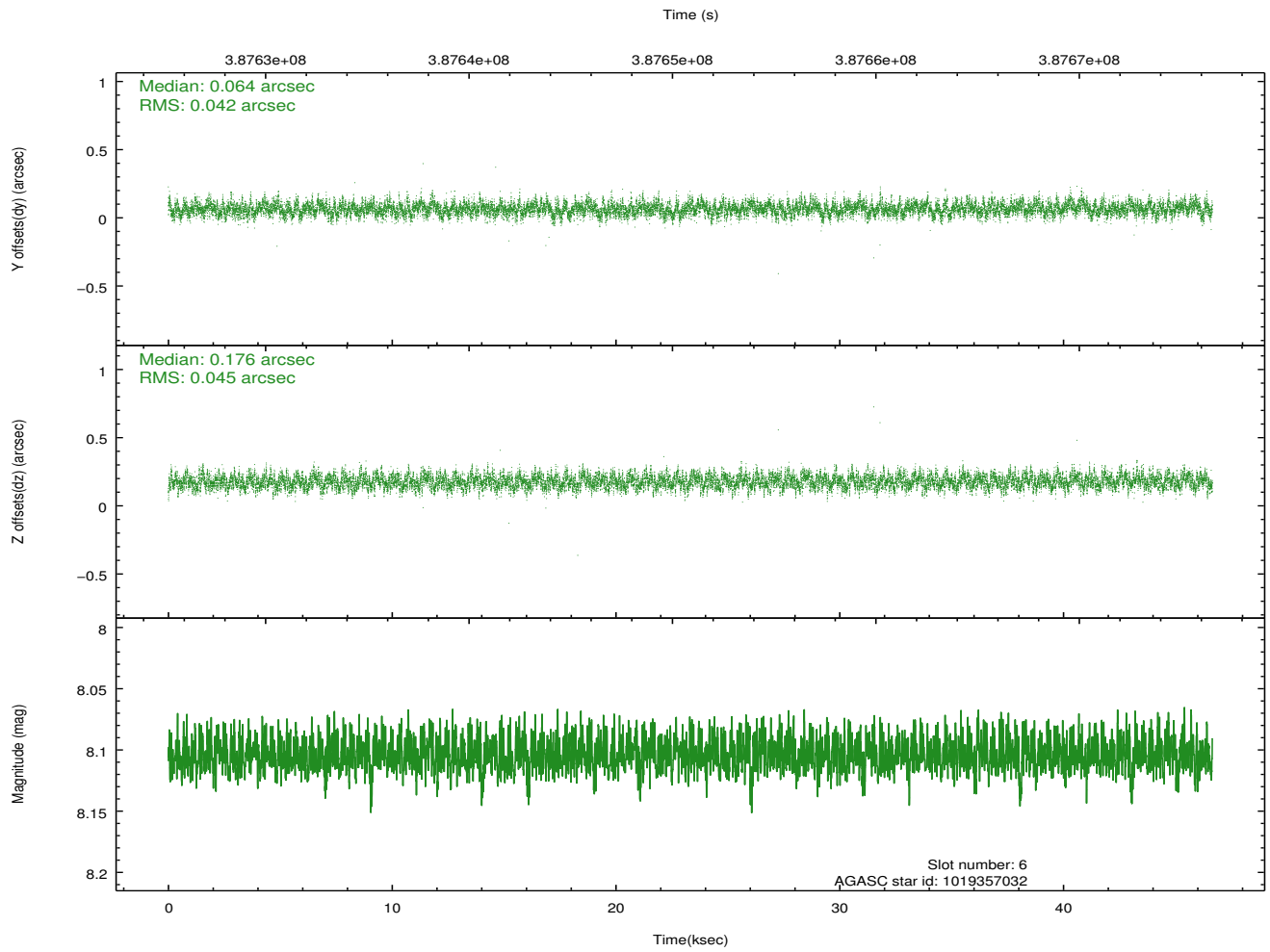
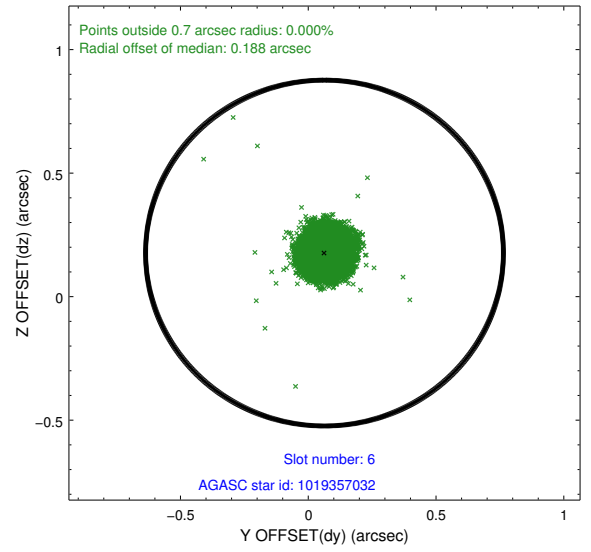
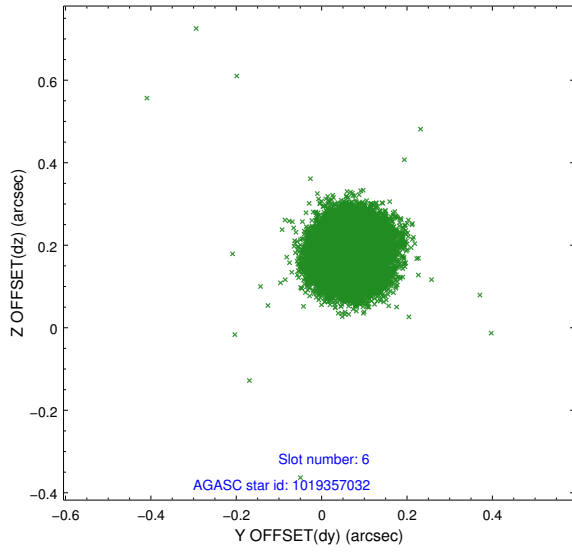
2.4.2 Slot 4



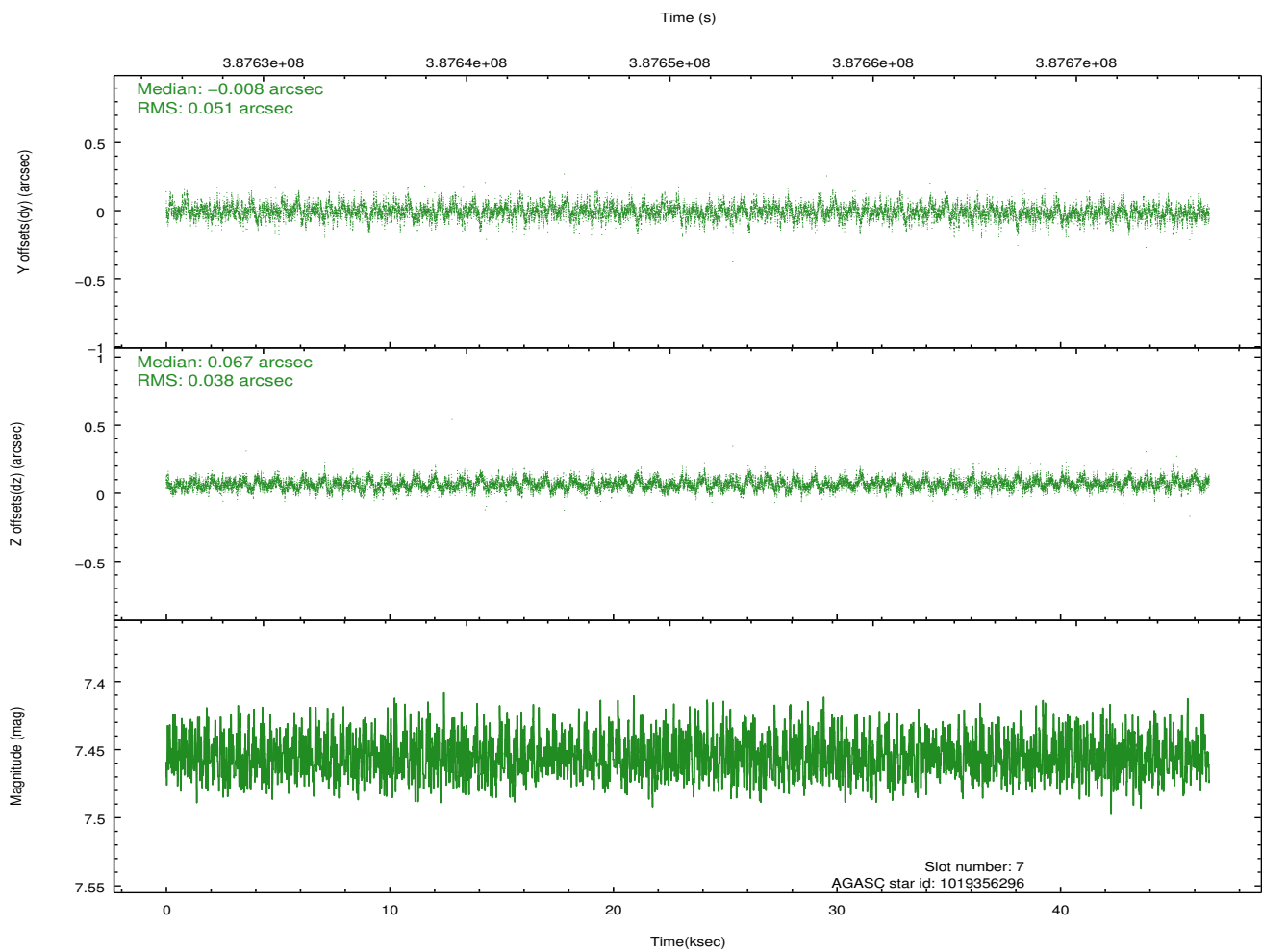
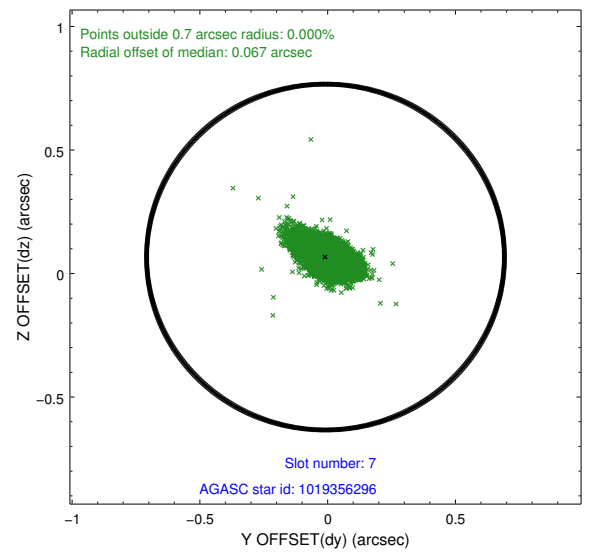
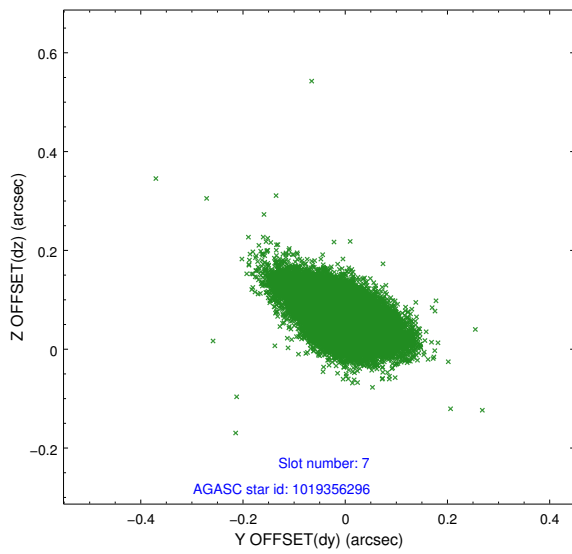
2.4.3 Slot 5



2.4.4 Slot 6

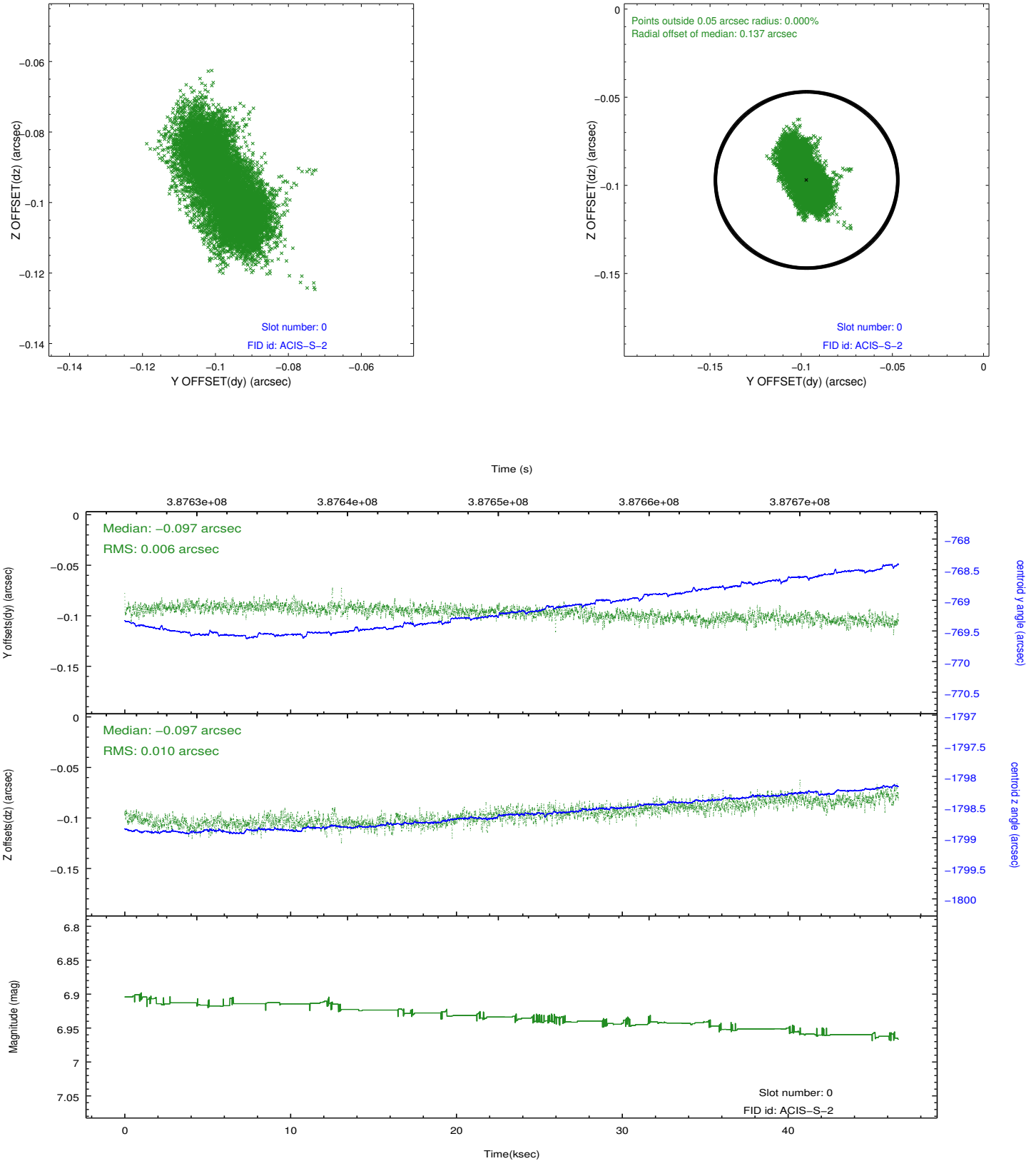


2.4.5 Slot 7

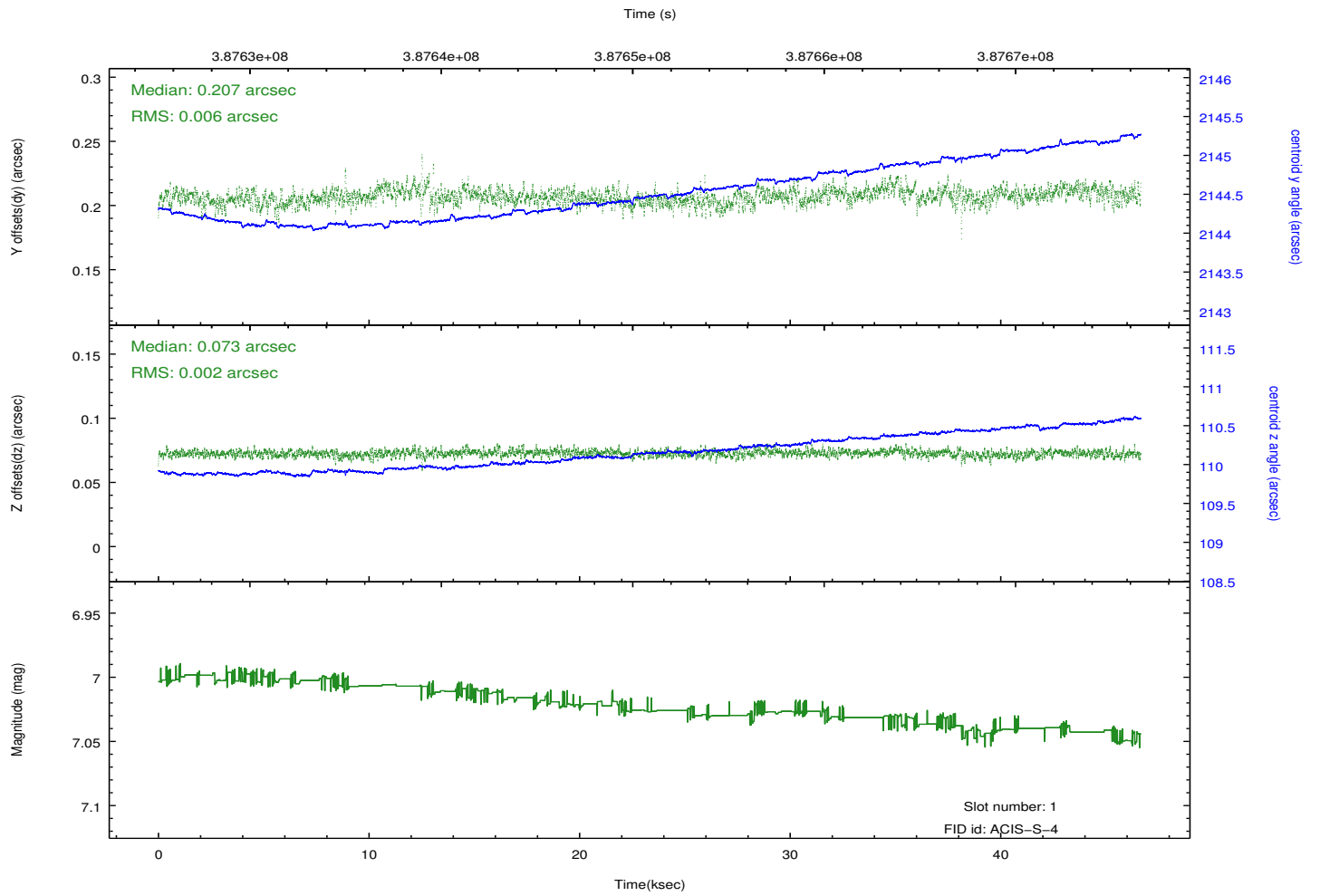
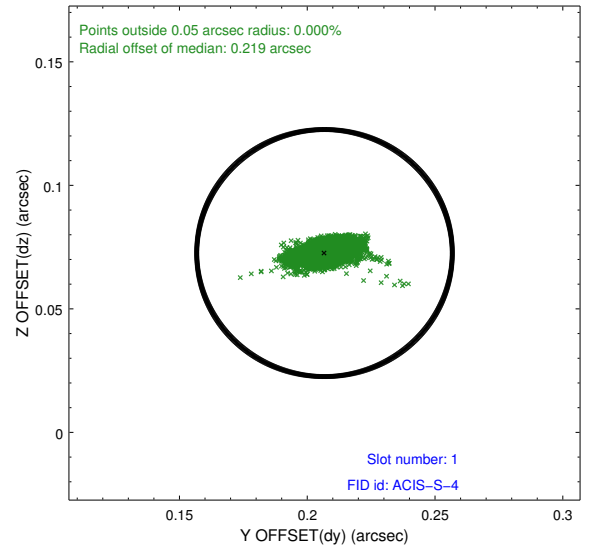
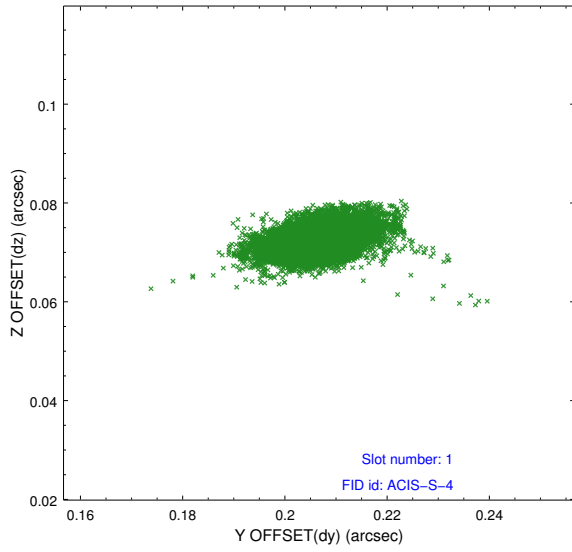


2.5 FID Slots

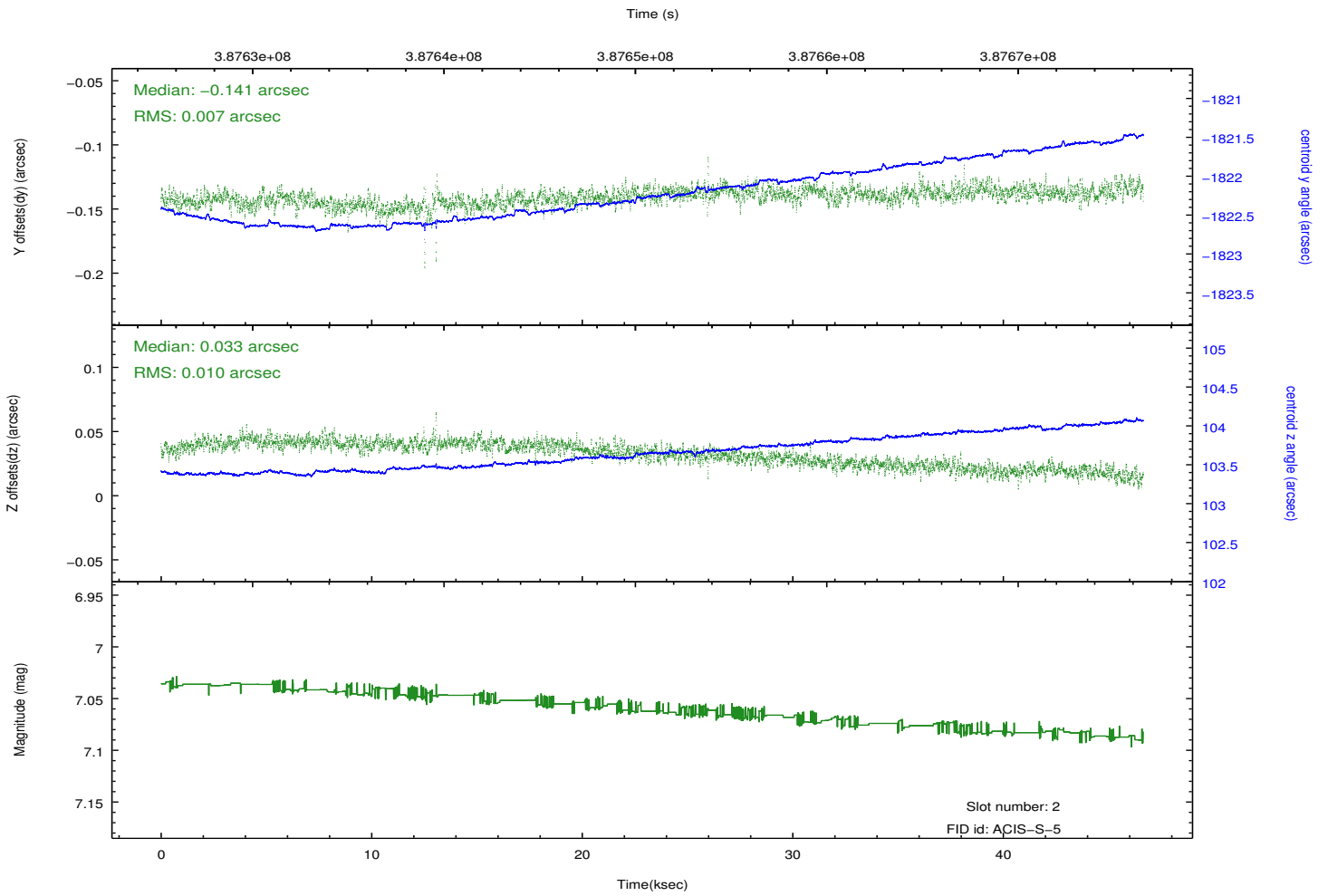
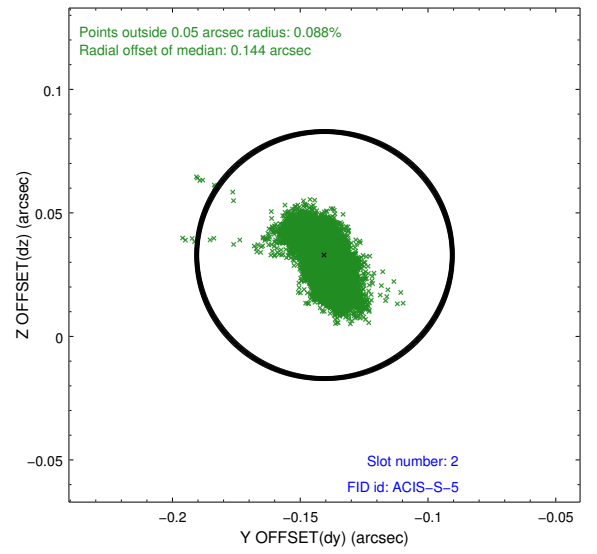
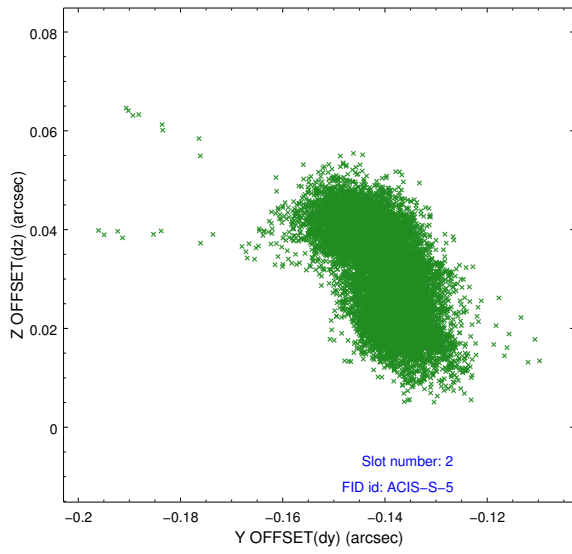
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

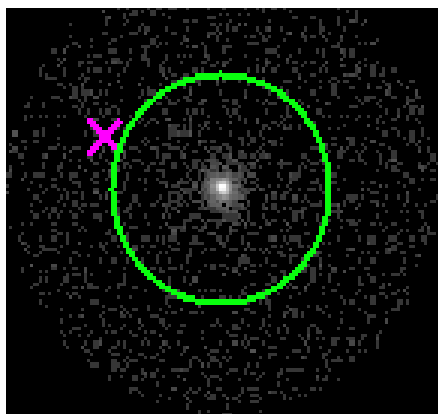


3 Gratings

3.1 HEG Arm



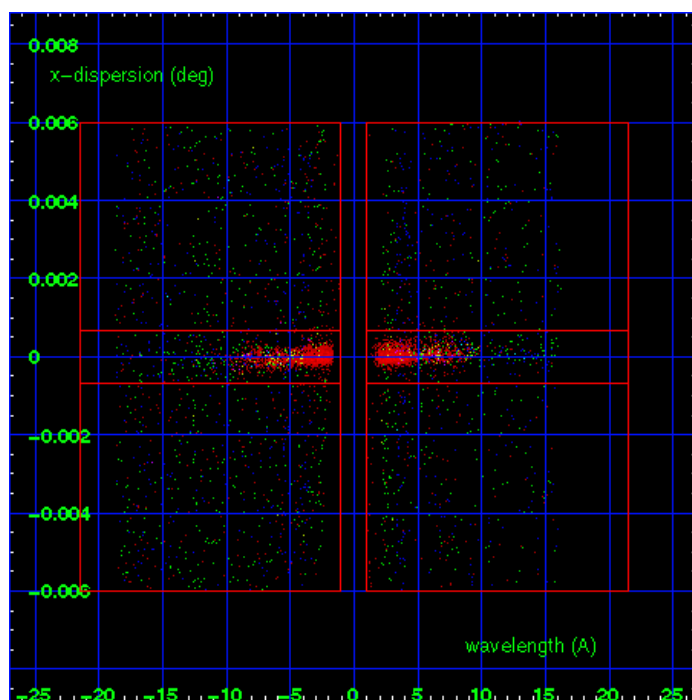
HEG Order Sort 123



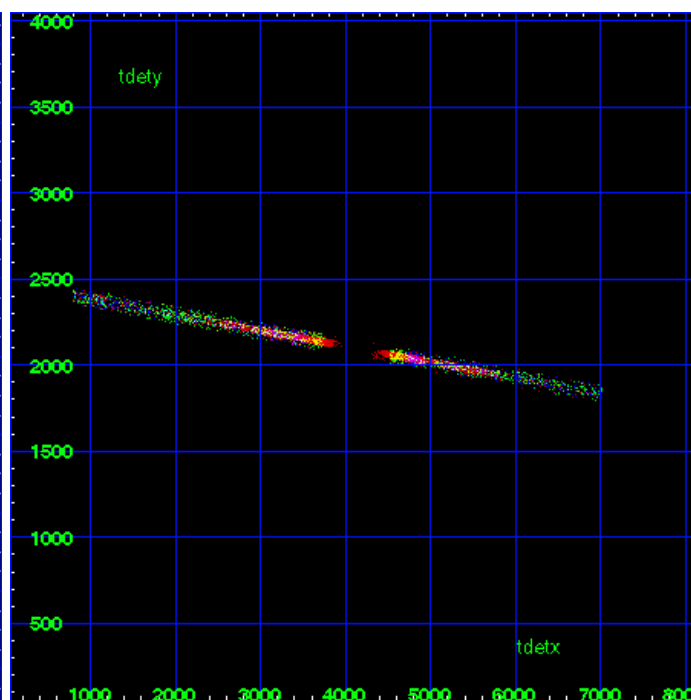
HEG Zero Order



HEG Order Sort ALL

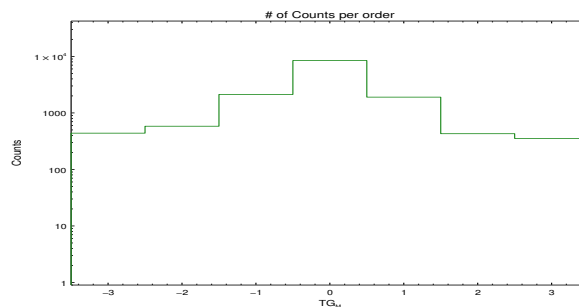


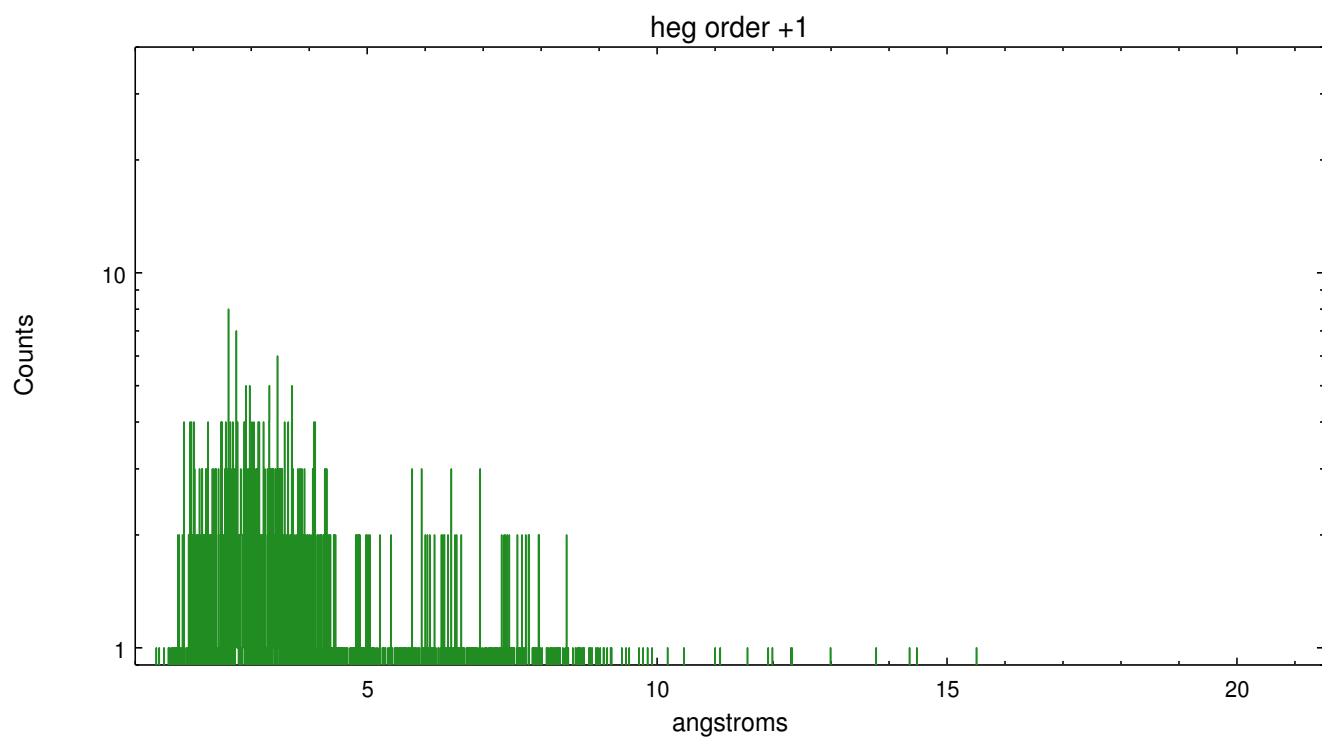
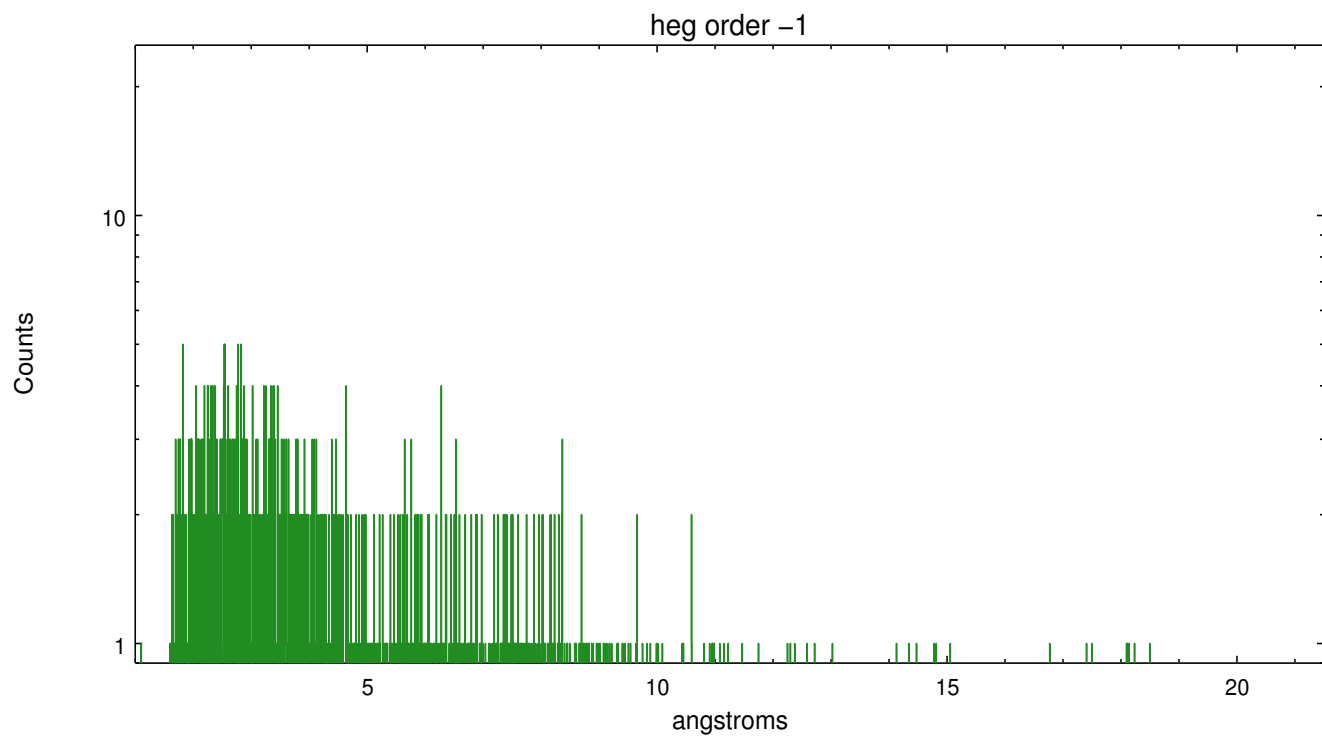
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	438	581	2123	8444	1901	429	353

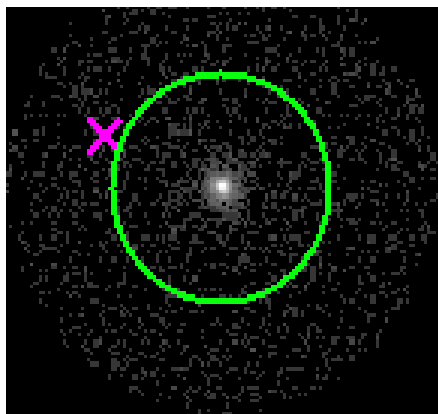




3.2 MEG Arm



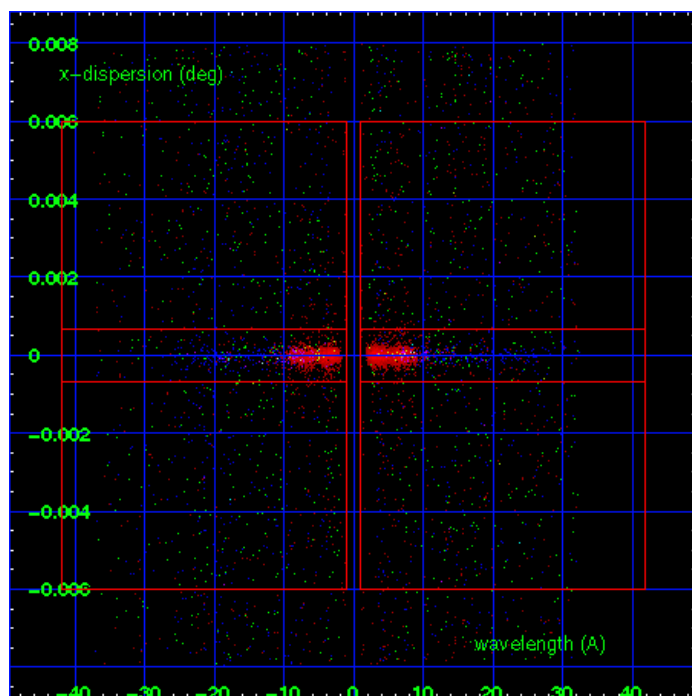
MEG Order Sort 123



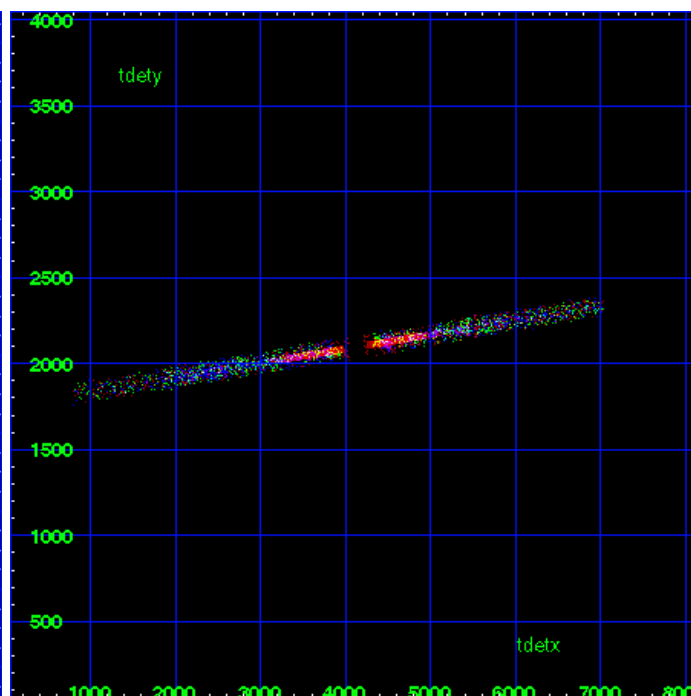
MEG Zero Order



MEG Order Sort ALL

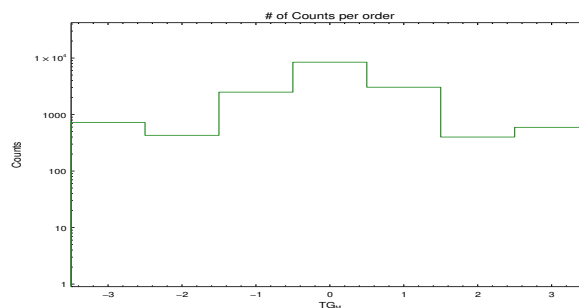


Spot Image MEG

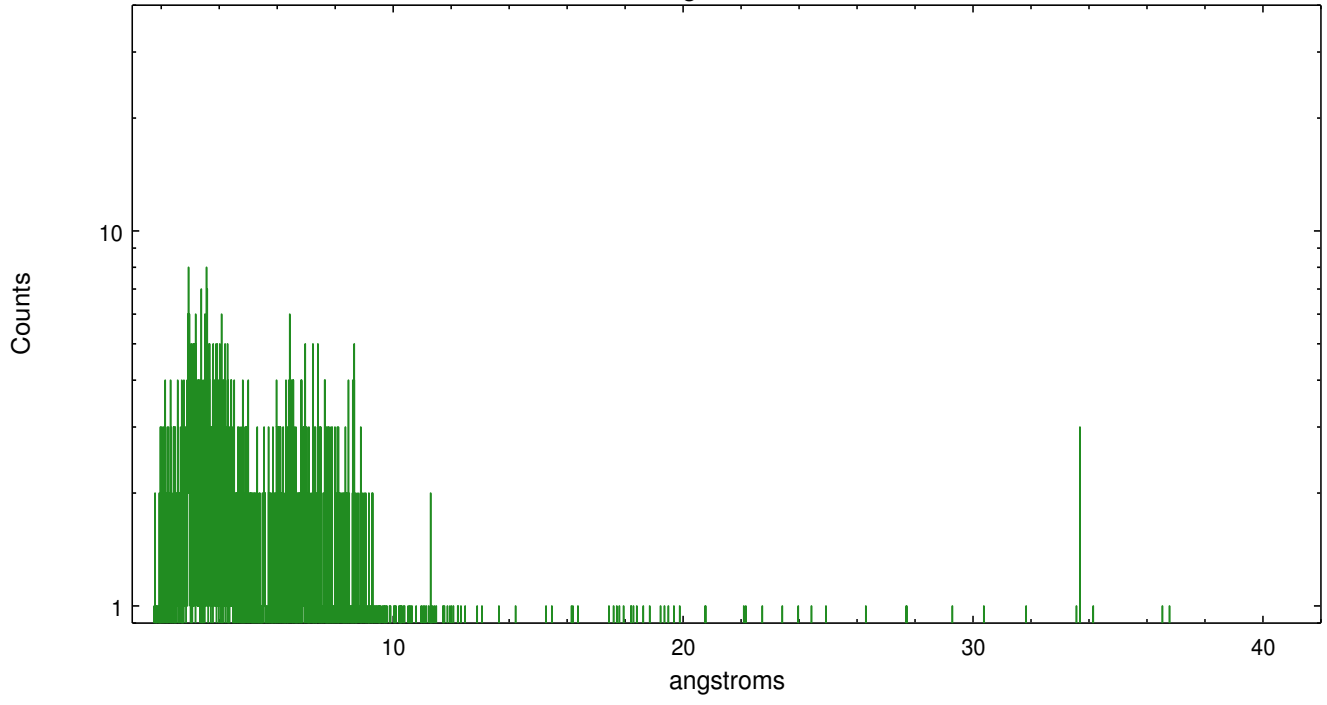


Full Detector MEG

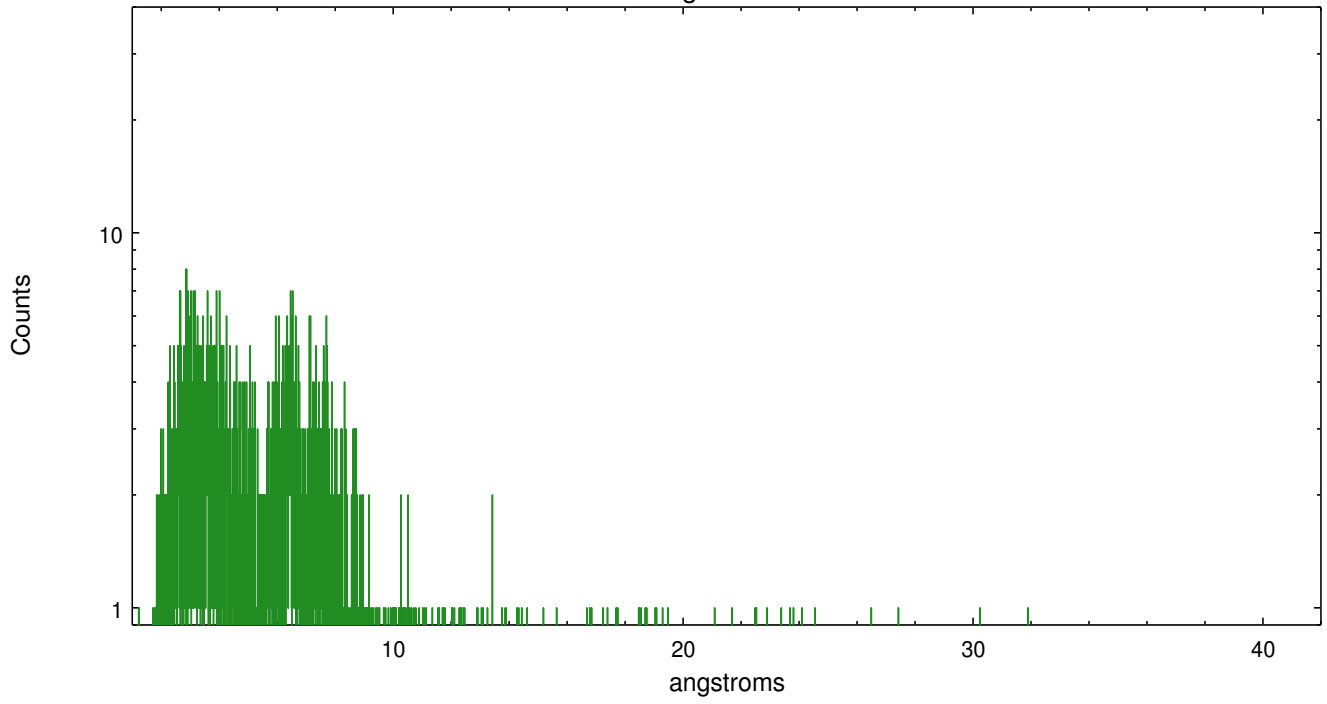
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	722	429	2492	8444	3046	400	594



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.06.25
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	46.6575

A.2 Comments

Roll constraint met. Another galaxy falls within the field of view. ESO 3223-081 is about 8 arcmin away on chip S2, near the edge of the chip. A dispersed spectrum is clearly seen for this bonus object, although it is significantly off-axis. === Roll angle constraint met. ===