

V&V Reference Report

L2 ASCDS Version : 10.4.3

Observation 16654 - L2 Version 1
Chandra X-Ray Center

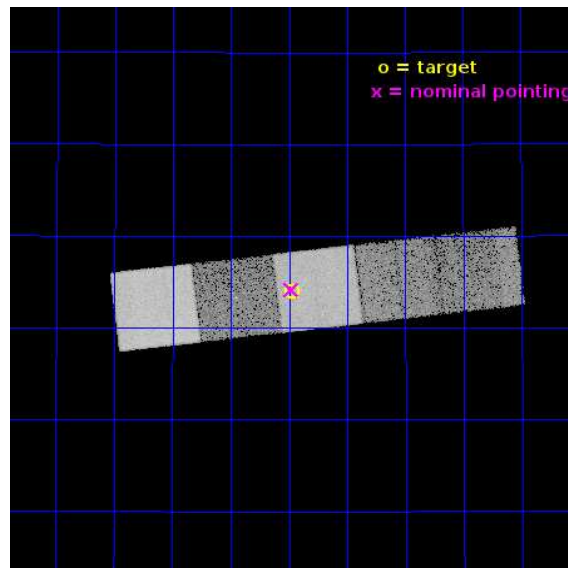
L2 Processing Date : Jan 9 2016

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1 Front

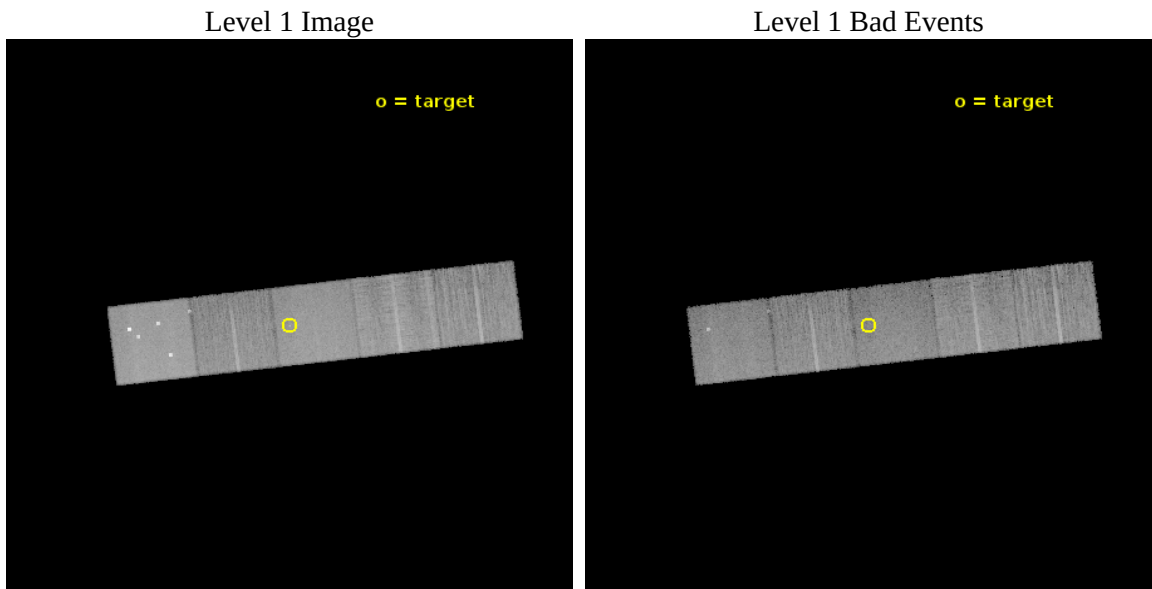
seq_num	200976	Sequence number
obs_id	16654	Observation id
title	HD191612 - constraining the structure of a massive magnetosphere	P
observer	Dr Yael Naze	Principal investigator
object	HD191612	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	302.369167	Observer's specified target RA [deg]
dec_targ	35.733694	Observer's specified target Dec [deg]
ra_nom	302.36966130623	Nominal RA [deg]
dec_nom	35.736071389144	Nominal Dec [deg]
roll_nom	353.15633805601	Nominal Roll [deg]
revision	1	Processing version of data
ontime	17095.082394838	Sum of GTIs [s]
livetime	16871.722558133	Livetime [s]
ontime5	17095.041354895	Sum of GTIs [s]
ontime6	17095.000314832	Sum of GTIs [s]
ontime7	17095.082394838	Sum of GTIs [s]
ontime8	17094.959274888	Sum of GTIs [s]
ontime9	17091.777234554	Sum of GTIs [s]
l2events	162507	Number of level 2 events



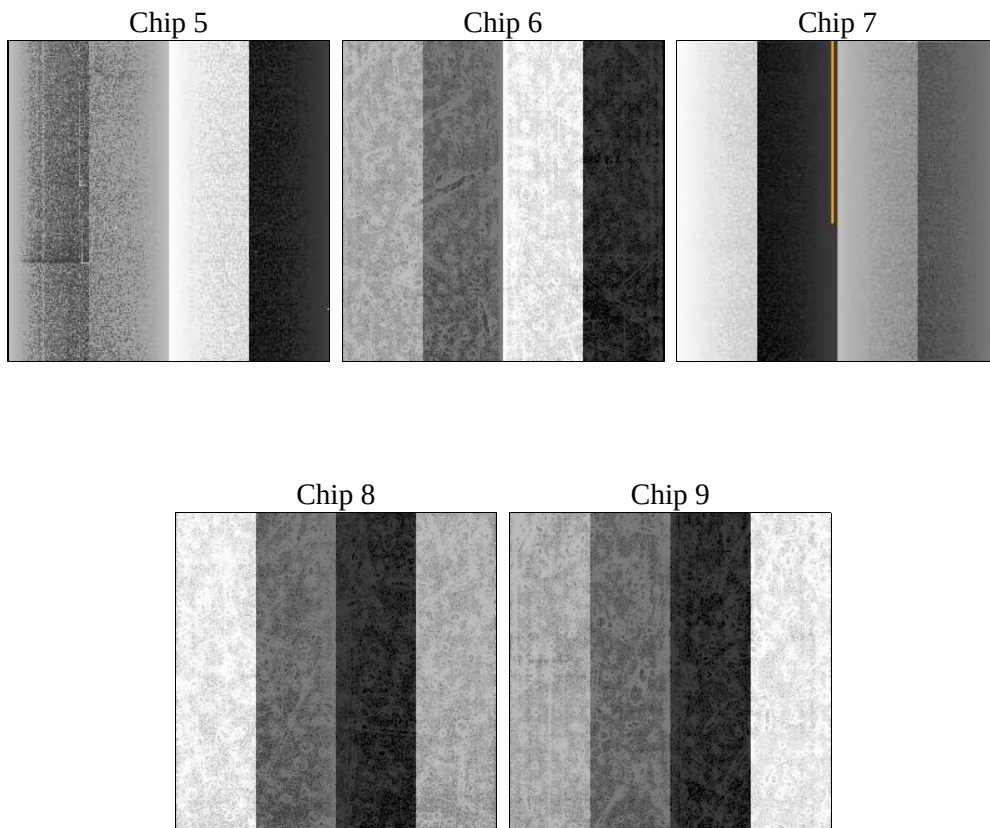
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	17034.992000	[s] Scheduled observation exposure time
ascdsver	10.4.3	Processing system revision	ontime	17095.082394838	Sum of GTIs [s]
caldsver	4.7.0	 	ontime5	17095.041354895	Sum of GTIs [s]
date	2016-01-09T13:36:20	Date and time of file creation	ontime6	17095.000314832	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	17095.082394838	Sum of GTIs [s]
			ontime8	17094.959274888	Sum of GTIs [s]
			ontime9	17091.777234554	Sum of GTIs [s]
			l1events	650315	Number of level 1 events
			tgmethod	TGDETECT	Method used to create src1a file
			zo_pos	(4099.97, 4079.78)	src1a sky pixel position

2.1.4 Events

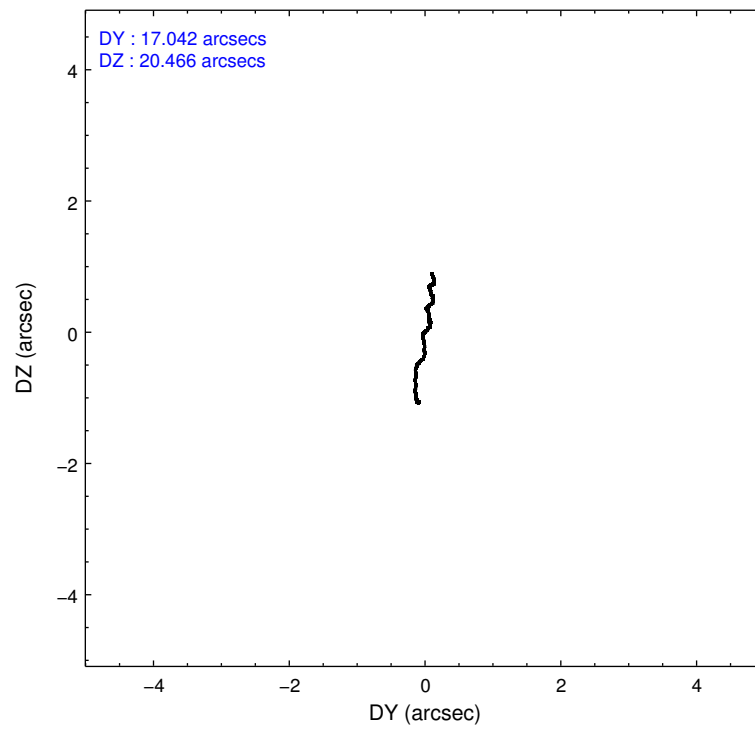
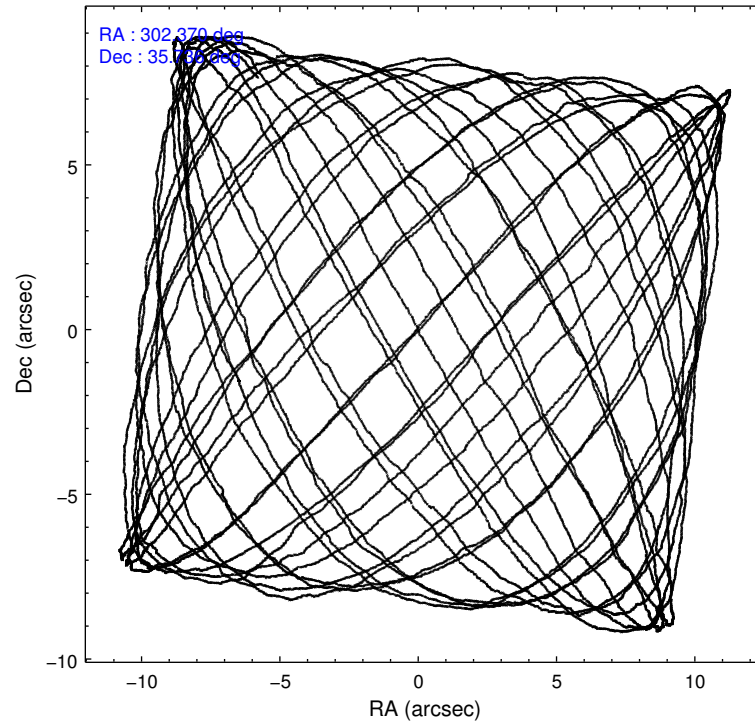
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	176443	100077	132176	135201	106418
rejected events	85549	88303	75239	99404	94067
rejected %	48%	88%	56%	73%	88%

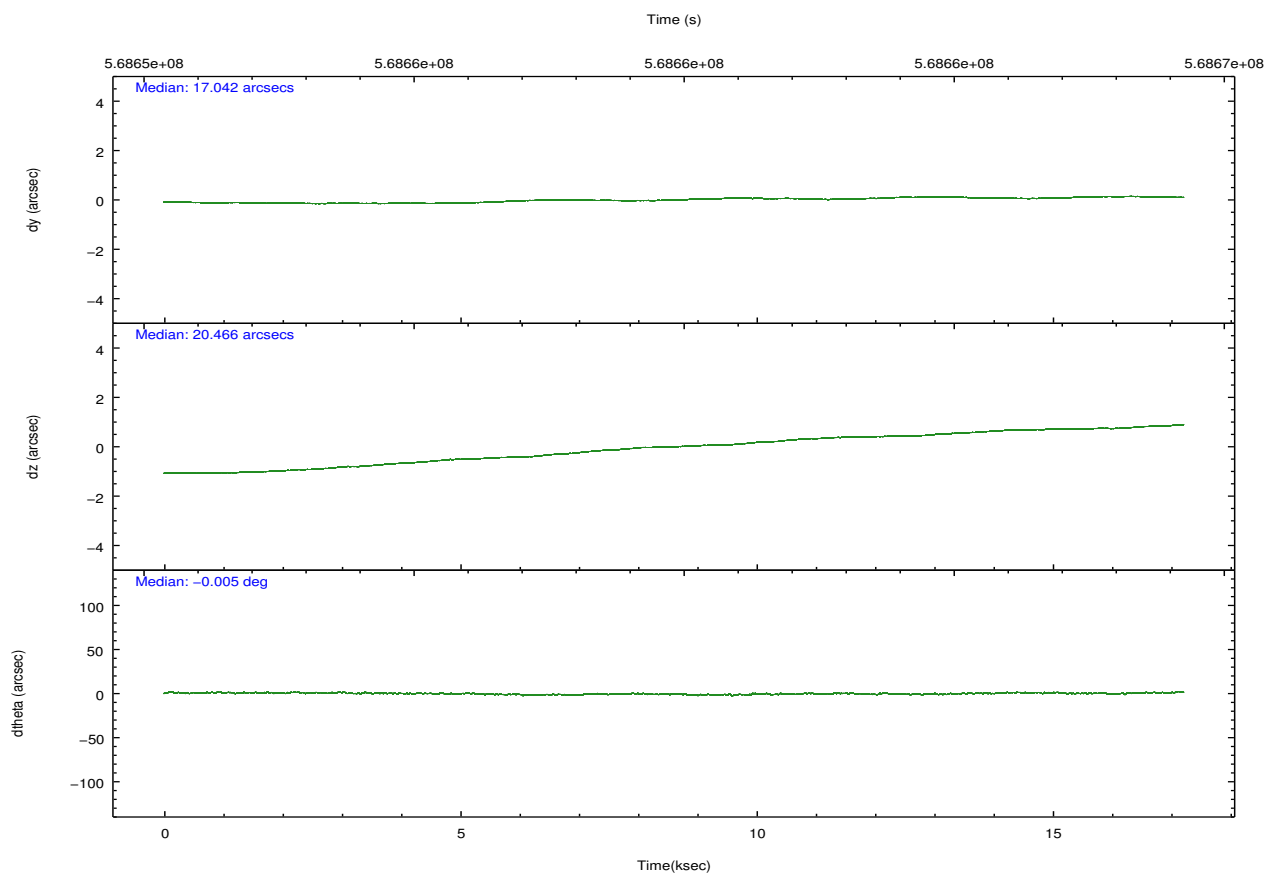
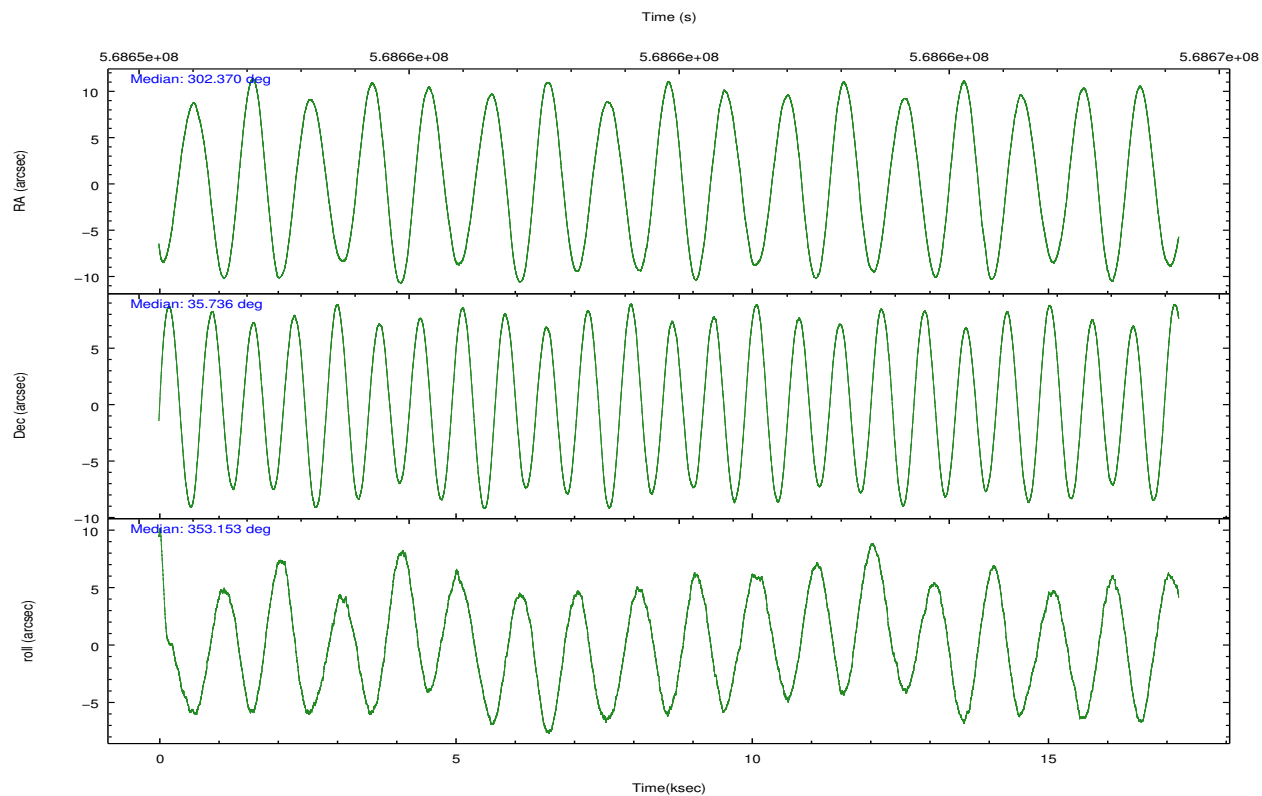
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	15598	3900	4785	10519	4417
	8%	3%	3%	7%	4%
grade 1 events	1001	60	170	109	63
	0%	0%	0%	0%	0%
grade 2 events	27539	2731	11895	8782	2760
	15%	2%	8%	6%	2%
grade 3 events	2805	1207	4671	3552	1256
	1%	1%	3%	2%	1%
grade 4 events	2549	1151	4619	3350	1179
	1%	1%	3%	2%	1%
grade 5 events	11571	5051	13420	7185	5536
	6%	5%	10%	5%	5%
grade 6 events	42421	2786	30983	9599	2742
	24%	2%	23%	7%	2%
grade 7 events	72959	83191	61633	92105	88465
	41%	83%	46%	68%	83%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-56789	ACIS-56789	Obspar file type	PREDICTED	ACTUAL
Grating	HETG	HETG	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	302.338787	302.3696613062313	CCD I2 on	N	N
[deg] Pointing Dec	35.724926	35.73607138914372	CCD I3 on	N	N
[deg] Pointing Roll	353.017741	353.1563380560118	CCD S0 on	O1	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	Y	Y
Phase constraints	Y	Y	CCD S5 on	O2	Y
[d] Phase period	537.200000	537.200000	Number of optional ACIS chips dropped	1	1
[d] Phase epoch (MJD)	56637.800000	56637.800000	On-chip summing requested	N	N
Phase start	0.400000	0.400000	Subarray requested	NONE	NONE
Phase end	0.600000	0.600000	Alternating exposures requested	N	N
Phase start error	0.010000	0.010000	[s] Primary exposure time	0.000000	3.1
Phase end error	0.010000	0.010000			
[s] Observation start time (MET)	568651364.184000	568650056.21462			
Observation start date	2016-01-08T14:41:36	2016-01-08T14:20:56			
[s] Observation end time (MET)	568668399.184000	568668623.06567			
Observation end date	2016-01-08T19:25:31	2016-01-08T19:30:23			
Read mode	TIMED	TIMED			

2.3 Aspect



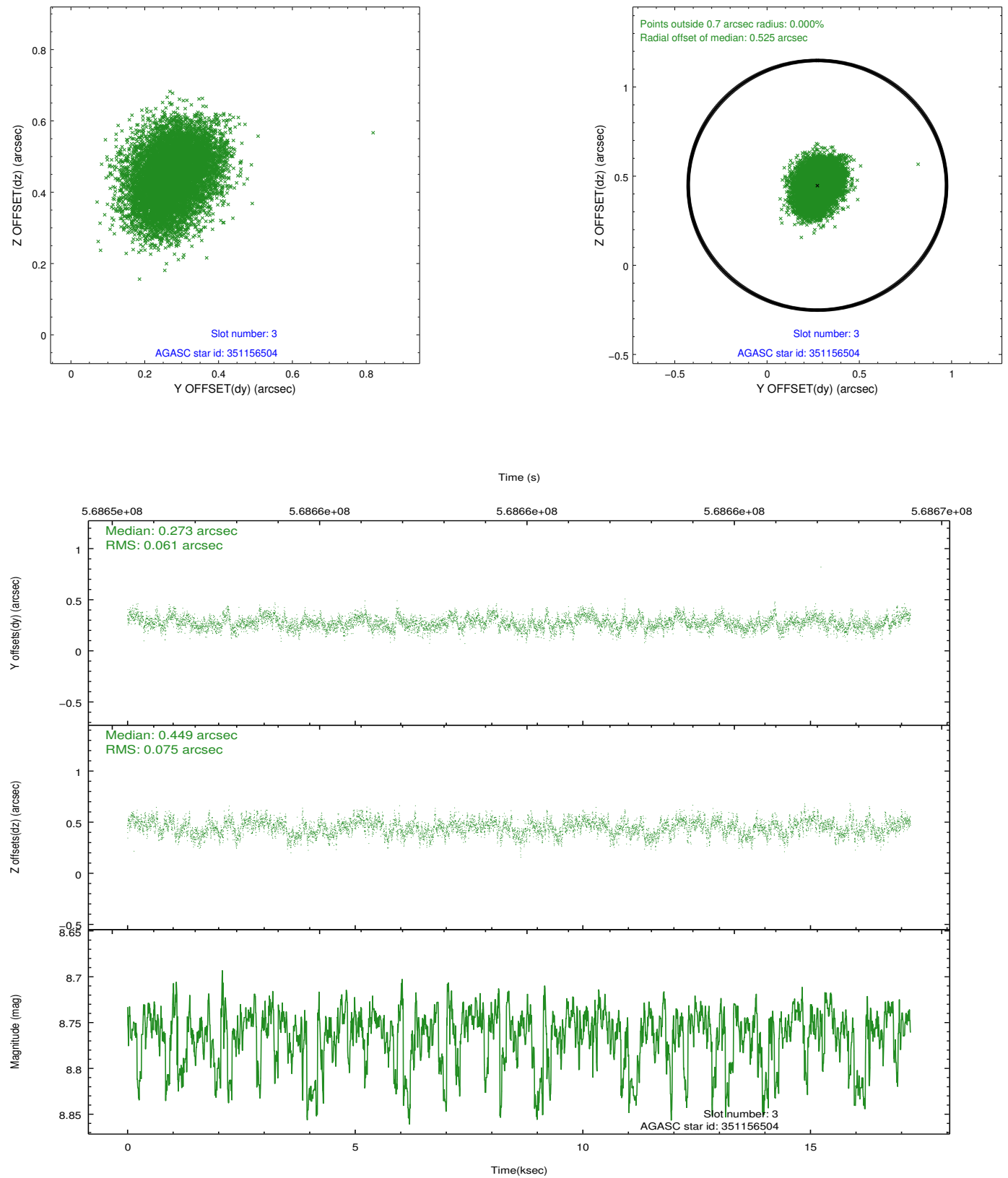


Slot Statistics

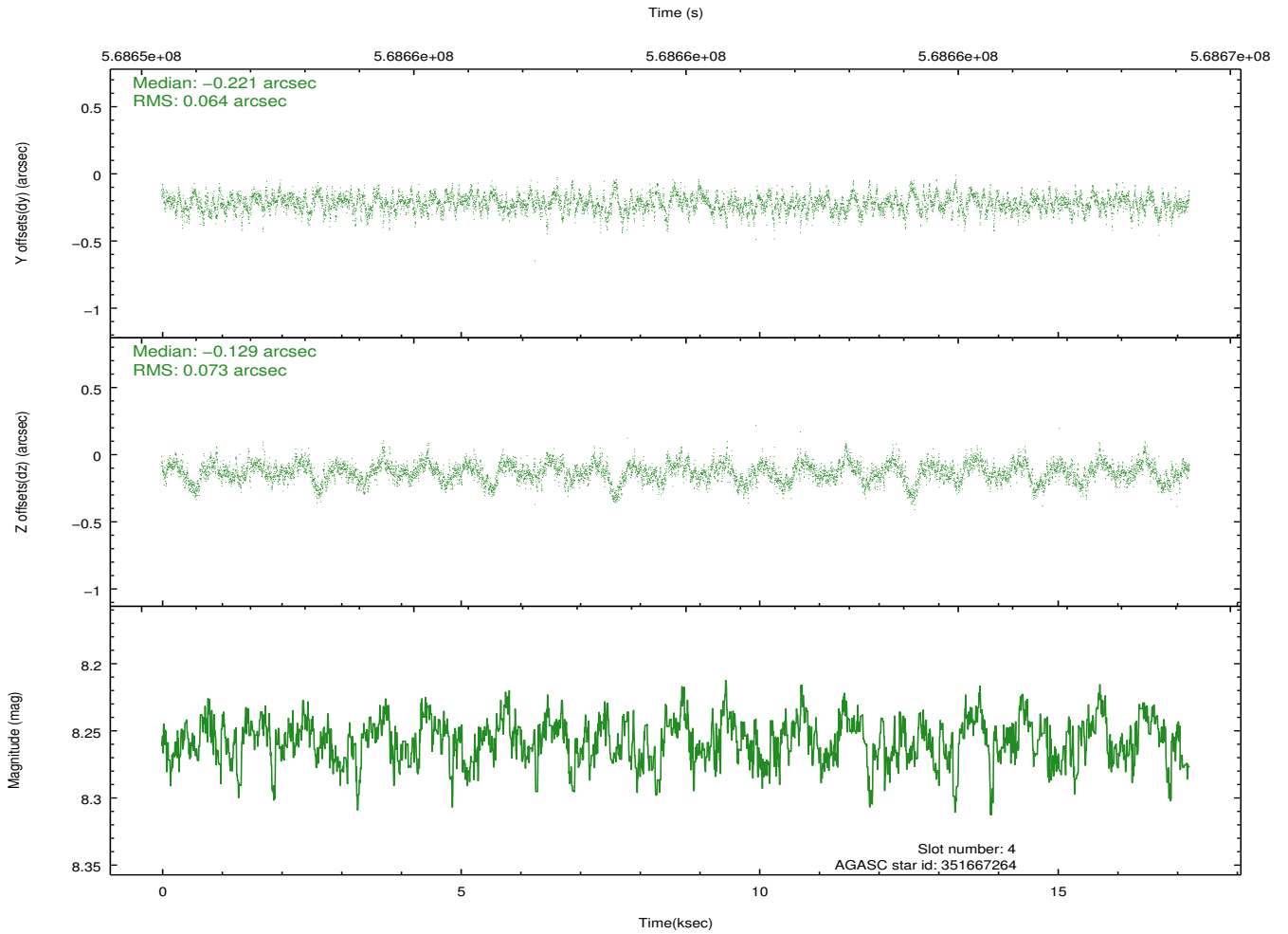
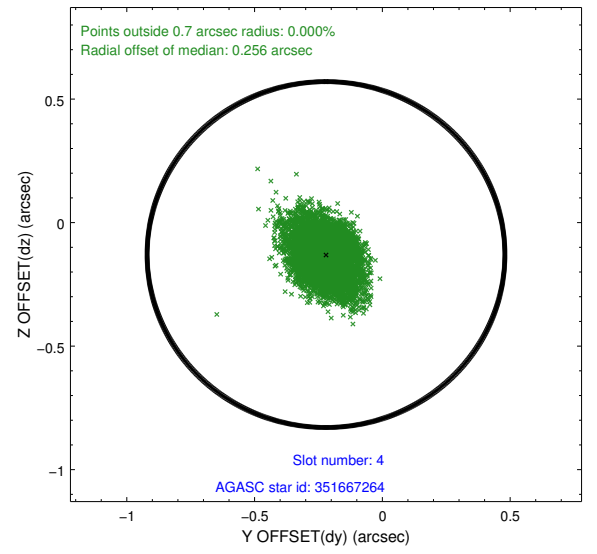
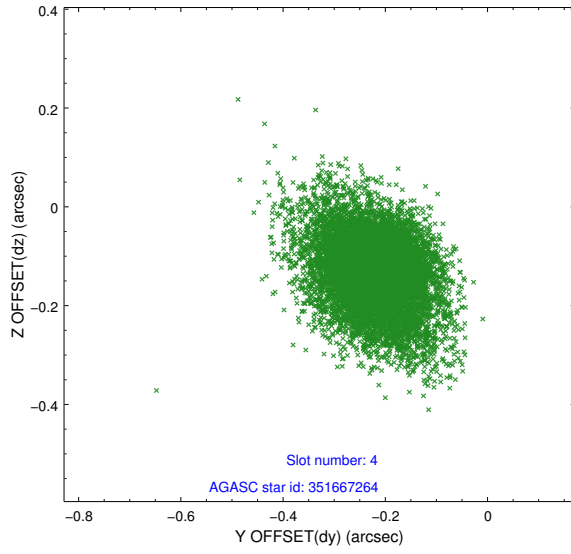
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.12	4199	-0.180	-0.117	0.010	0.019	0.000000	0.000000	-770.21	-1742.00
1	FID		ACIS-S-4	7.21	4199	0.427	0.118	0.011	0.021	0.000000	0.000000	2143.53	166.51
2	FID		ACIS-S-5	7.23	4199	-0.277	0.008	0.013	0.022	0.000000	0.000000	-1822.87	160.29
3	GUIDE	used	351156504	8.76	8384	0.273	0.449	0.104	0.165	301.545892	35.336210	-2141.62	-1662.42
4	GUIDE	used	351667264	8.26	8393	-0.221	-0.129	0.100	0.173	301.740045	36.396586	-2017.07	2194.11
5	GUIDE	used	351155096	7.76	8393	0.191	0.229	0.067	0.109	301.647496	35.132041	-1761.23	-2358.48
6	GUIDE	used	351684368	8.13	8396	-0.186	-0.264	0.121	0.185	302.607758	35.866756	716.61	602.84
7	GUIDE	used	351693800	8.11	8391	-0.064	-0.270	0.109	0.168	302.737590	35.953172	1053.72	959.18

2.4 Star Slots

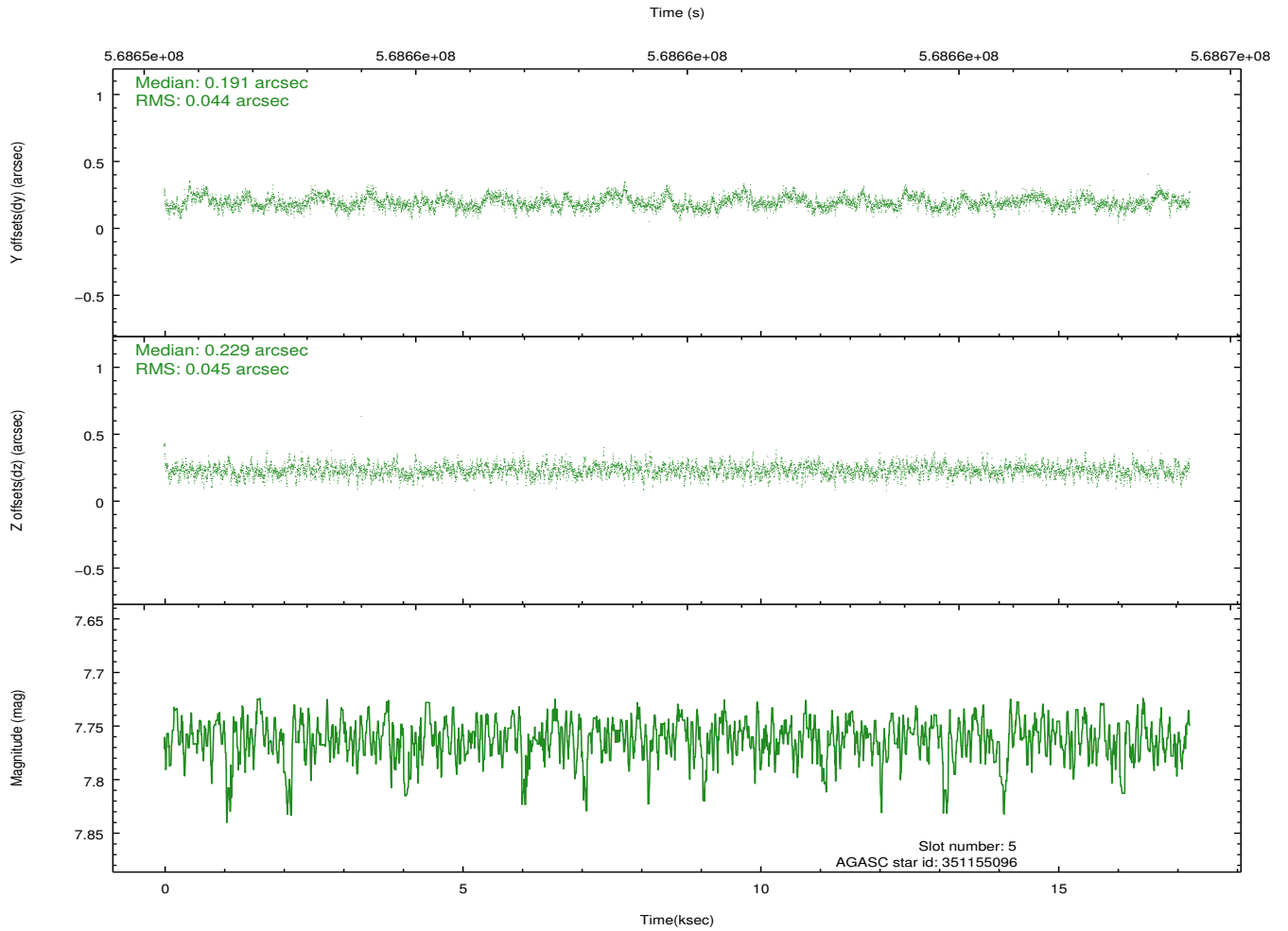
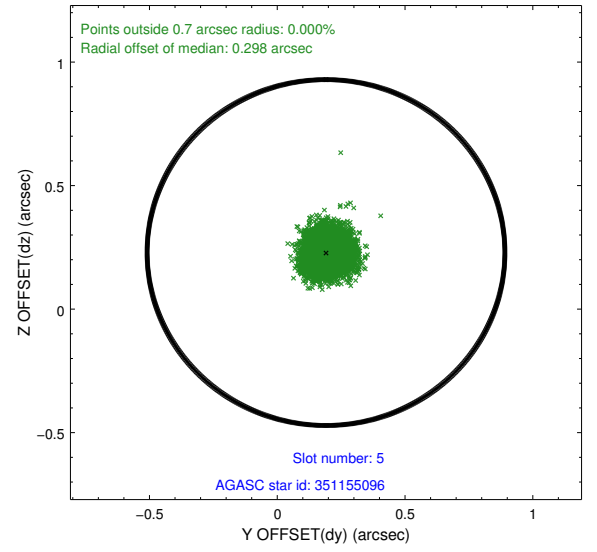
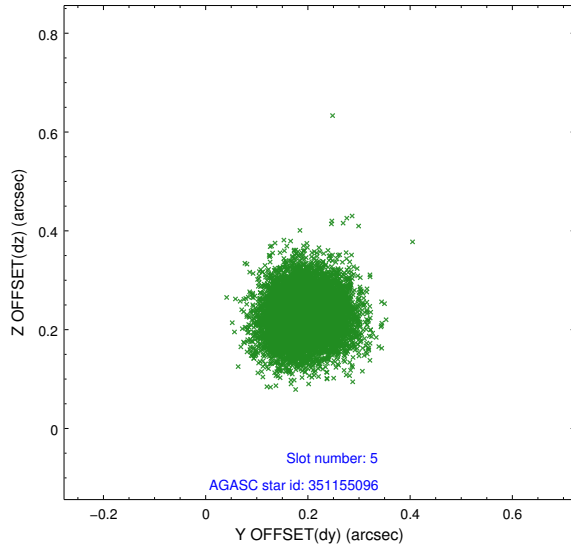
2.4.1 Slot 3



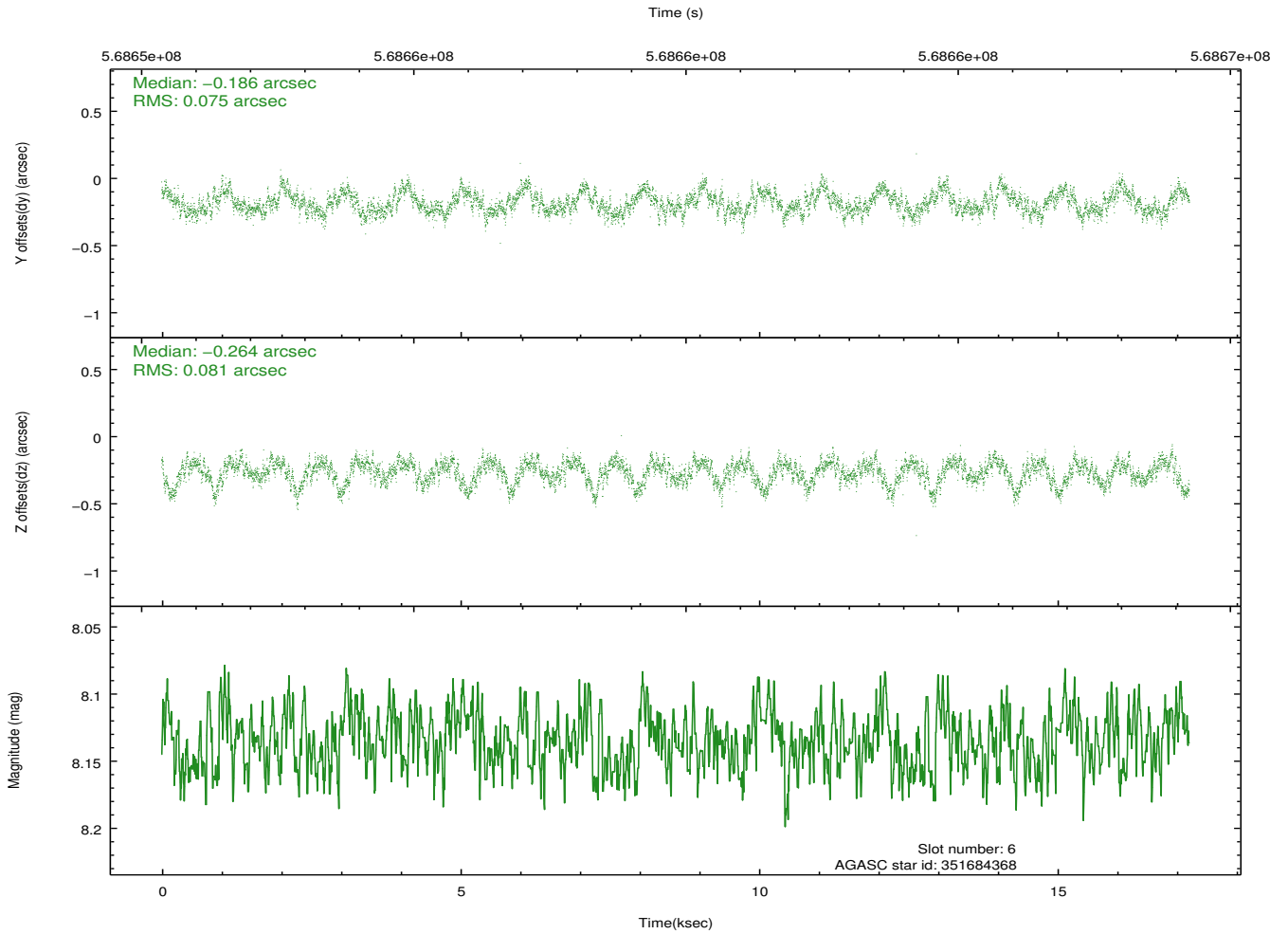
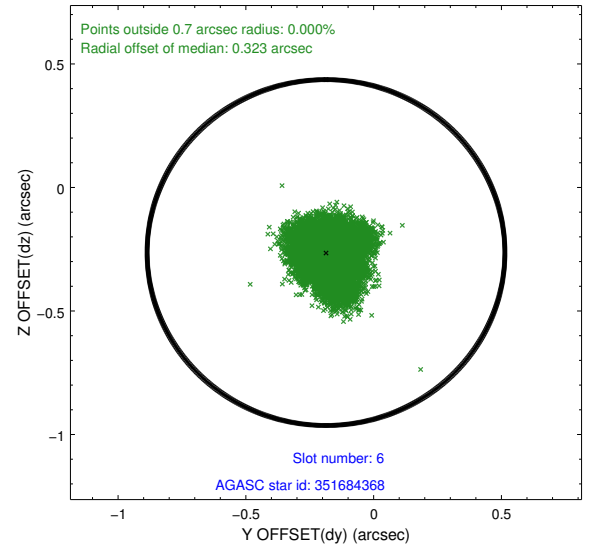
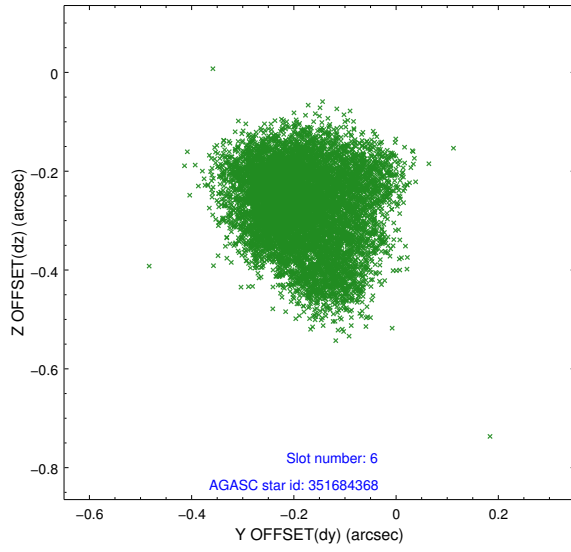
2.4.2 Slot 4



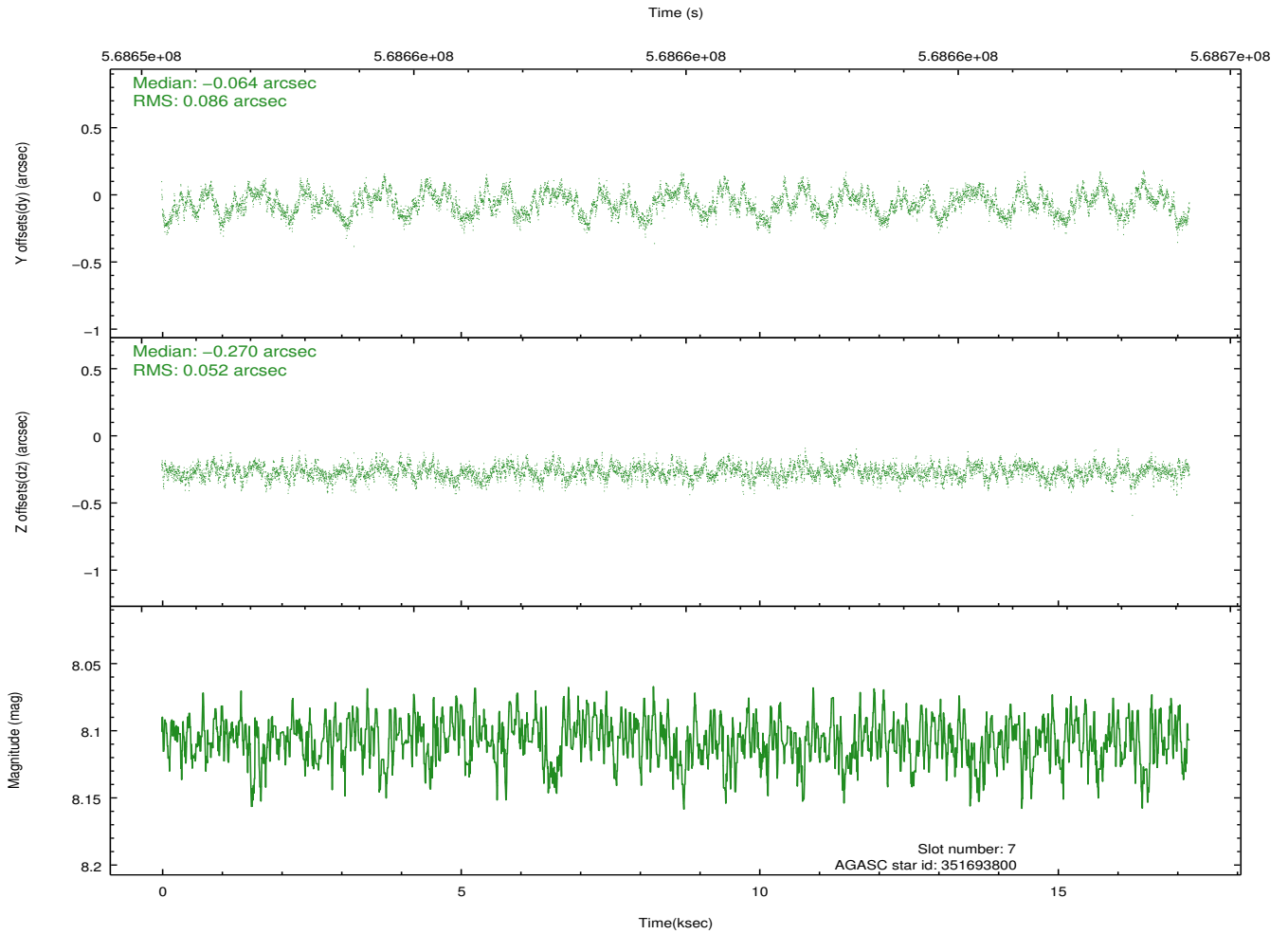
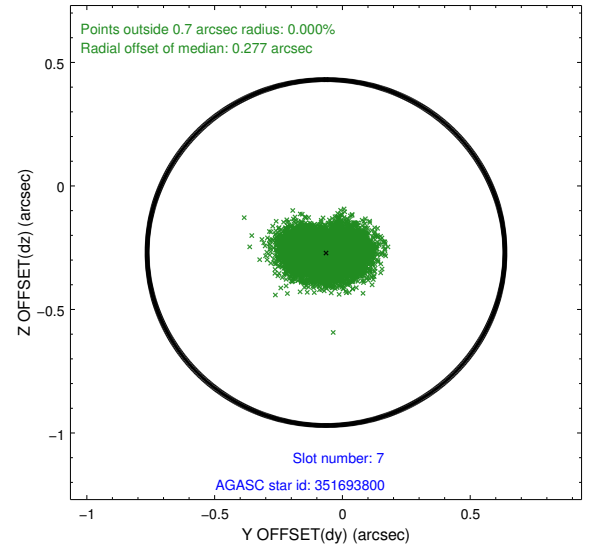
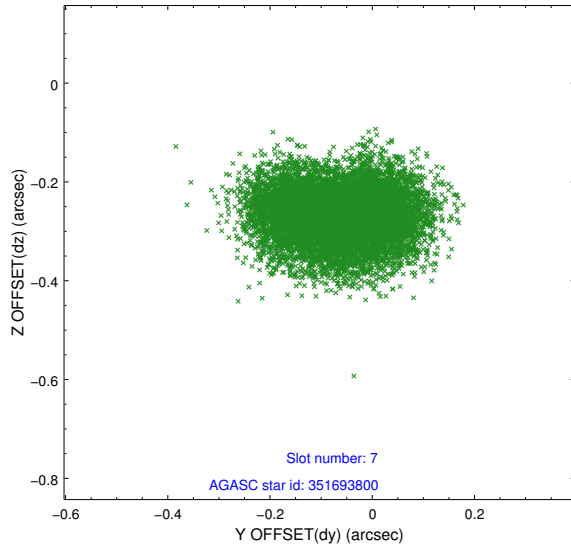
2.4.3 Slot 5



2.4.4 Slot 6

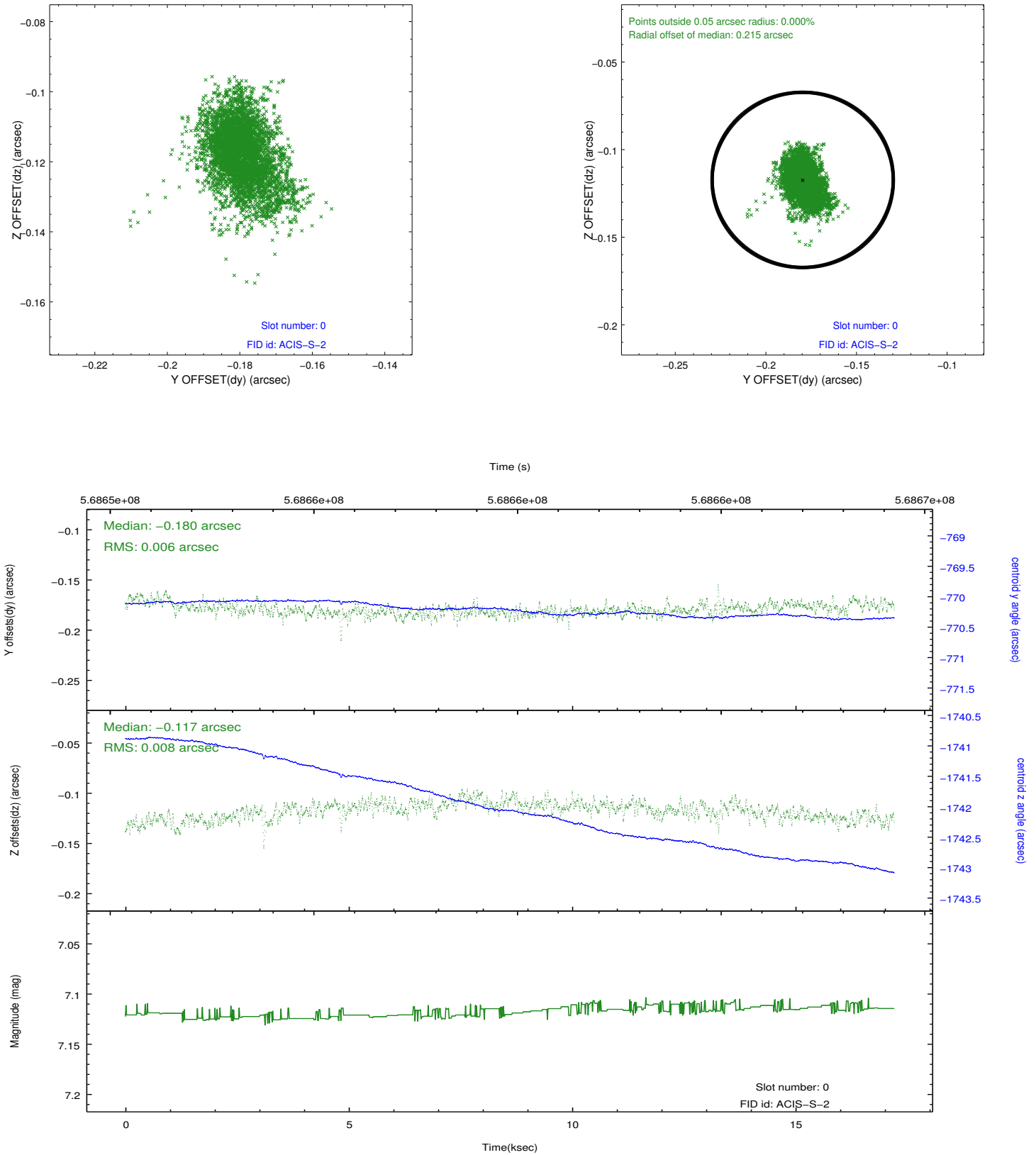


2.4.5 Slot 7

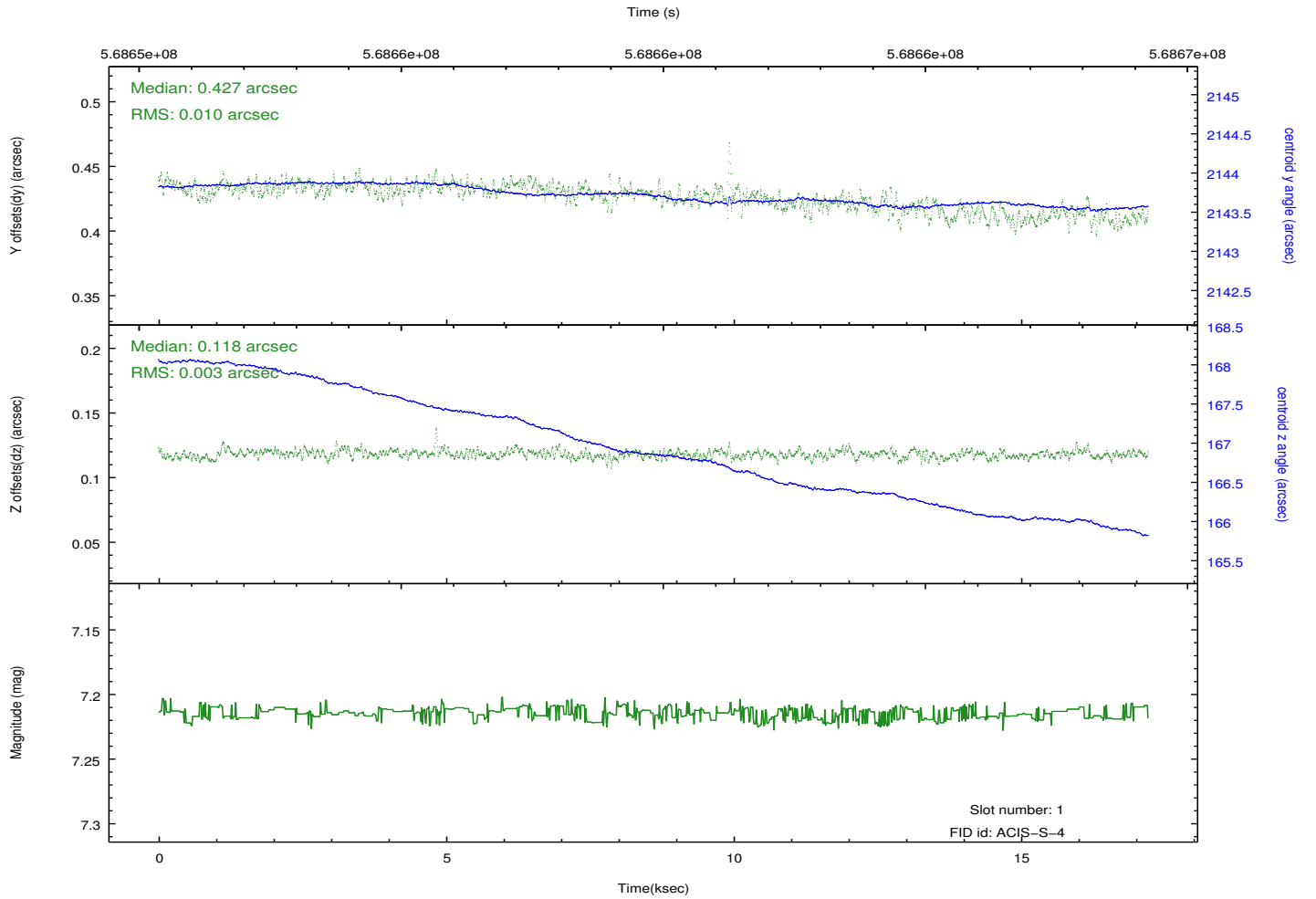
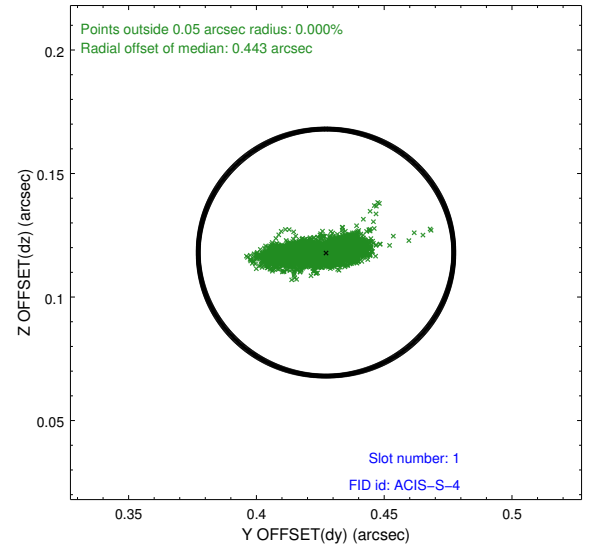
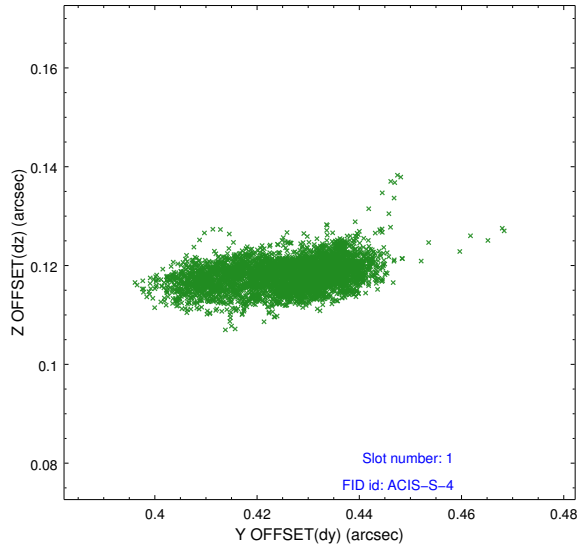


2.5 FID Slots

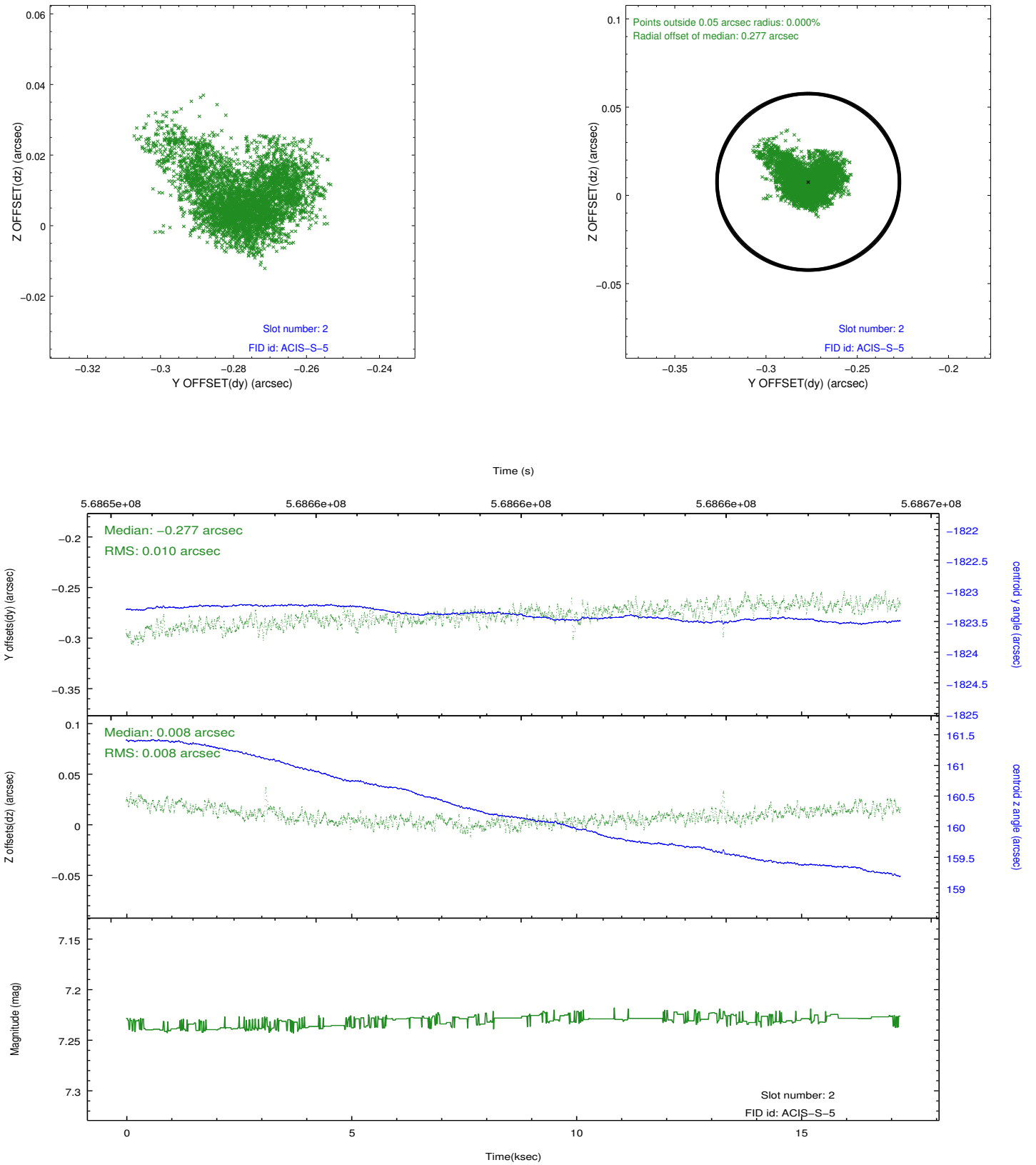
2.5.1 Slot 0



2.5.2 Slot 1

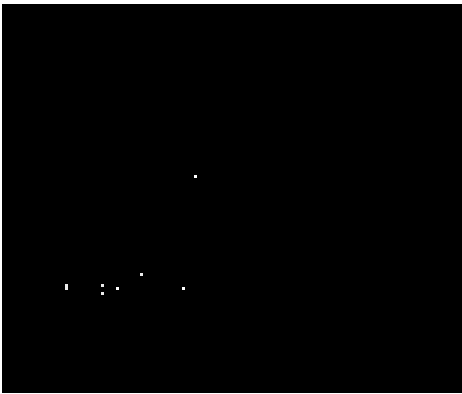


2.5.3 Slot 2

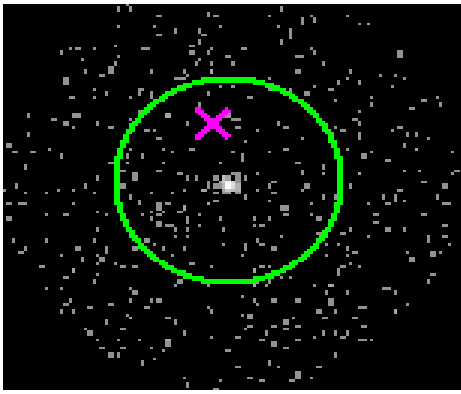


3 Gratings

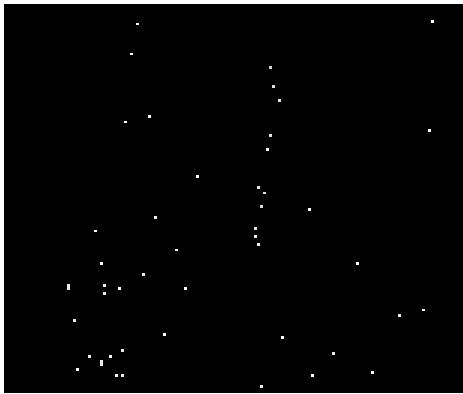
3.1 HEG Arm



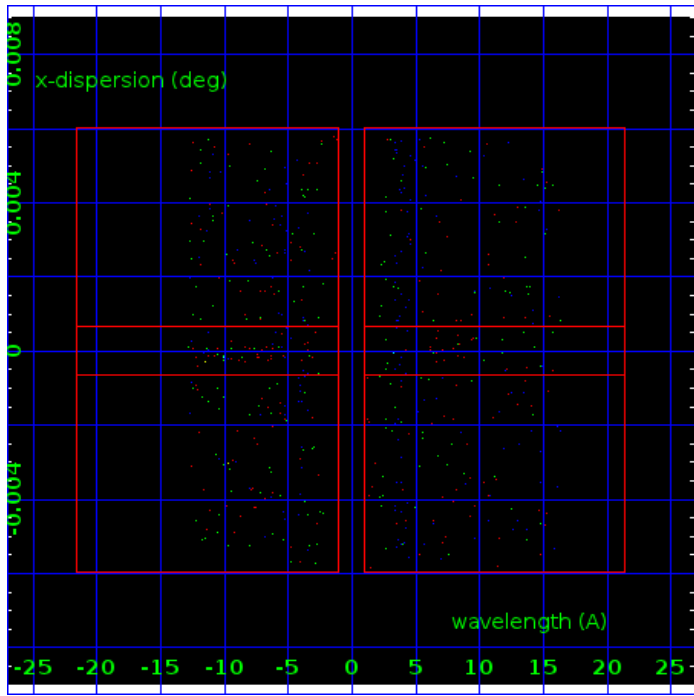
HEG Order Sort 123



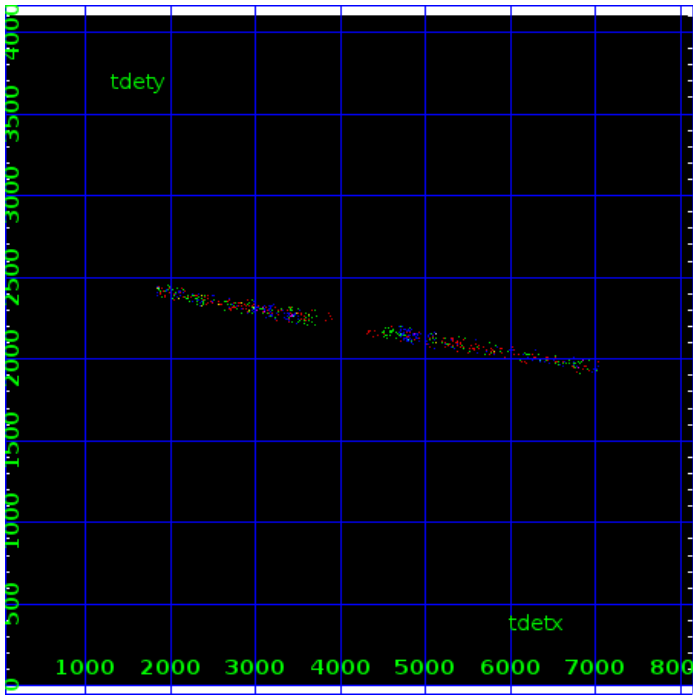
HEG Zero Order



HEG Order Sort ALL

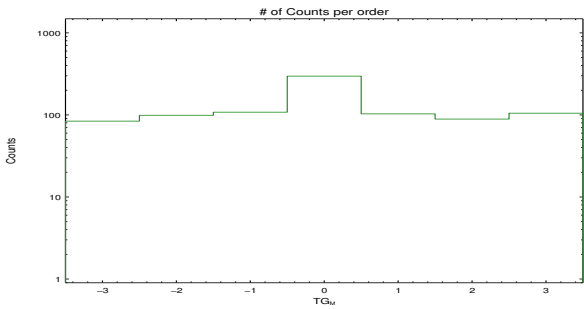


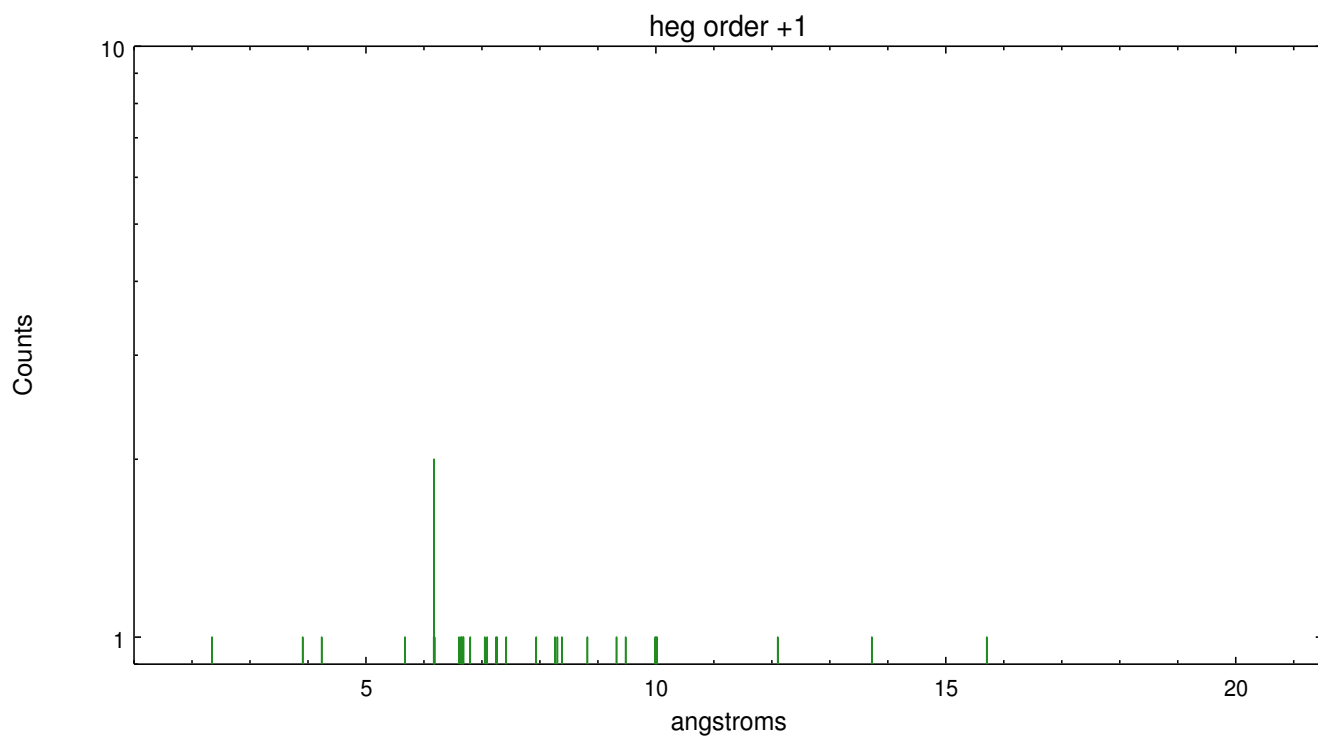
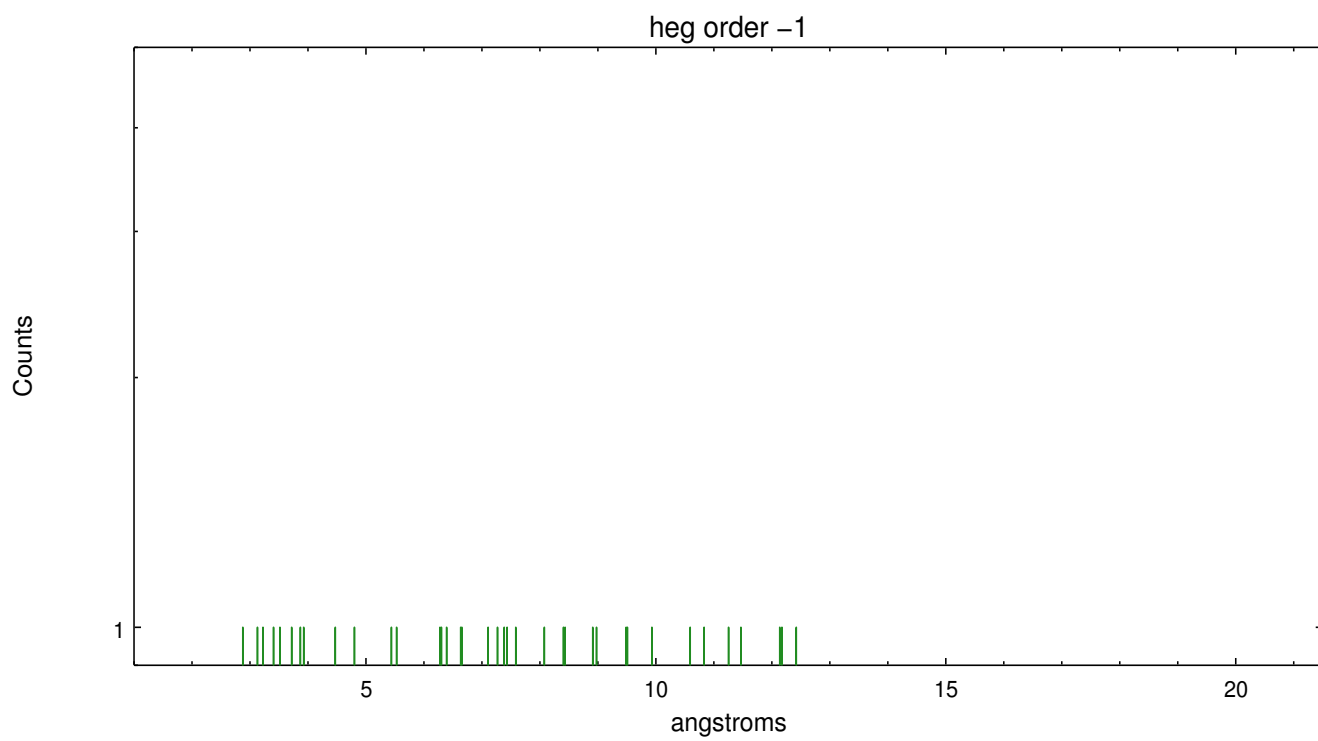
Spot Image HEG



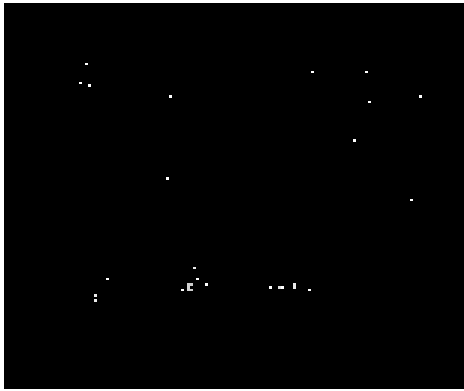
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	84	99	108	297	103	89	105

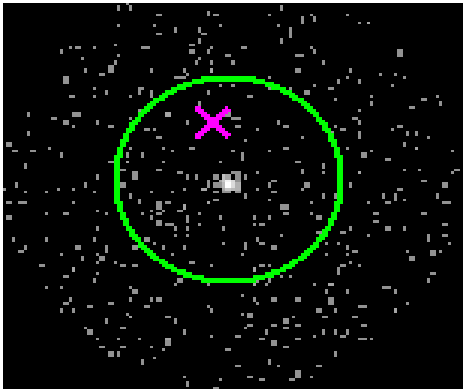




3.2 MEG Arm



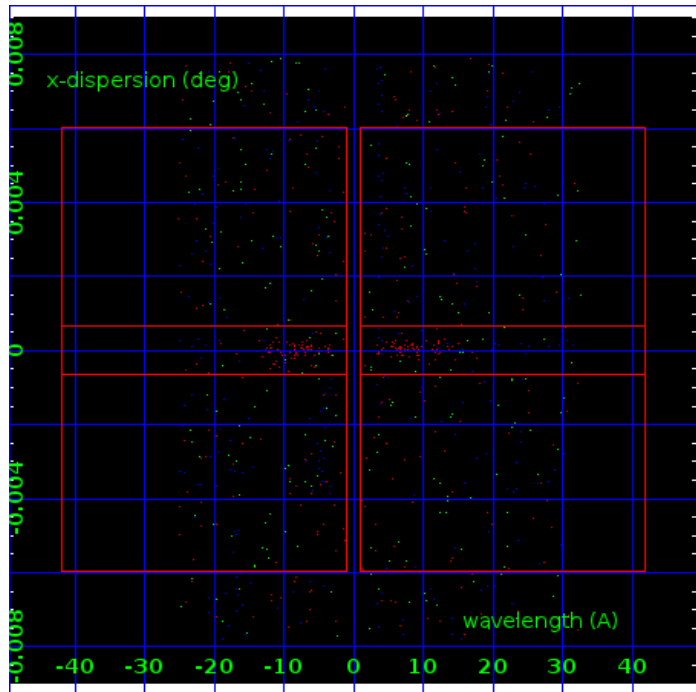
MEG Order Sort 123



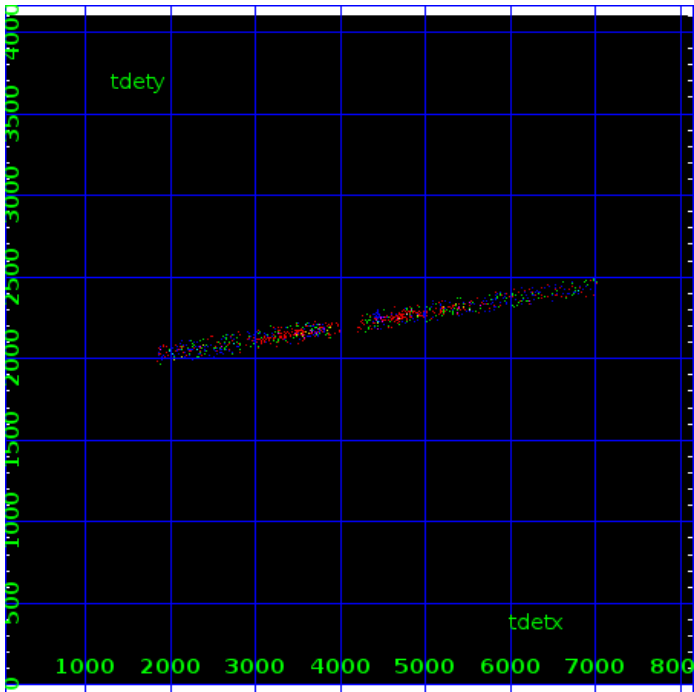
MEG Zero Order



MEG Order Sort ALL

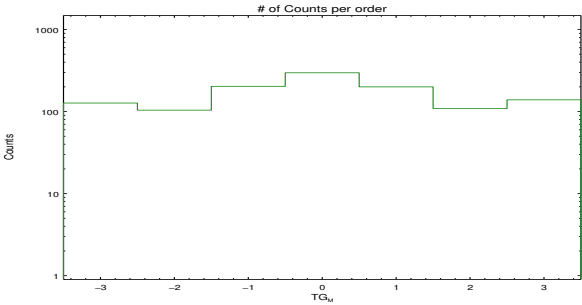


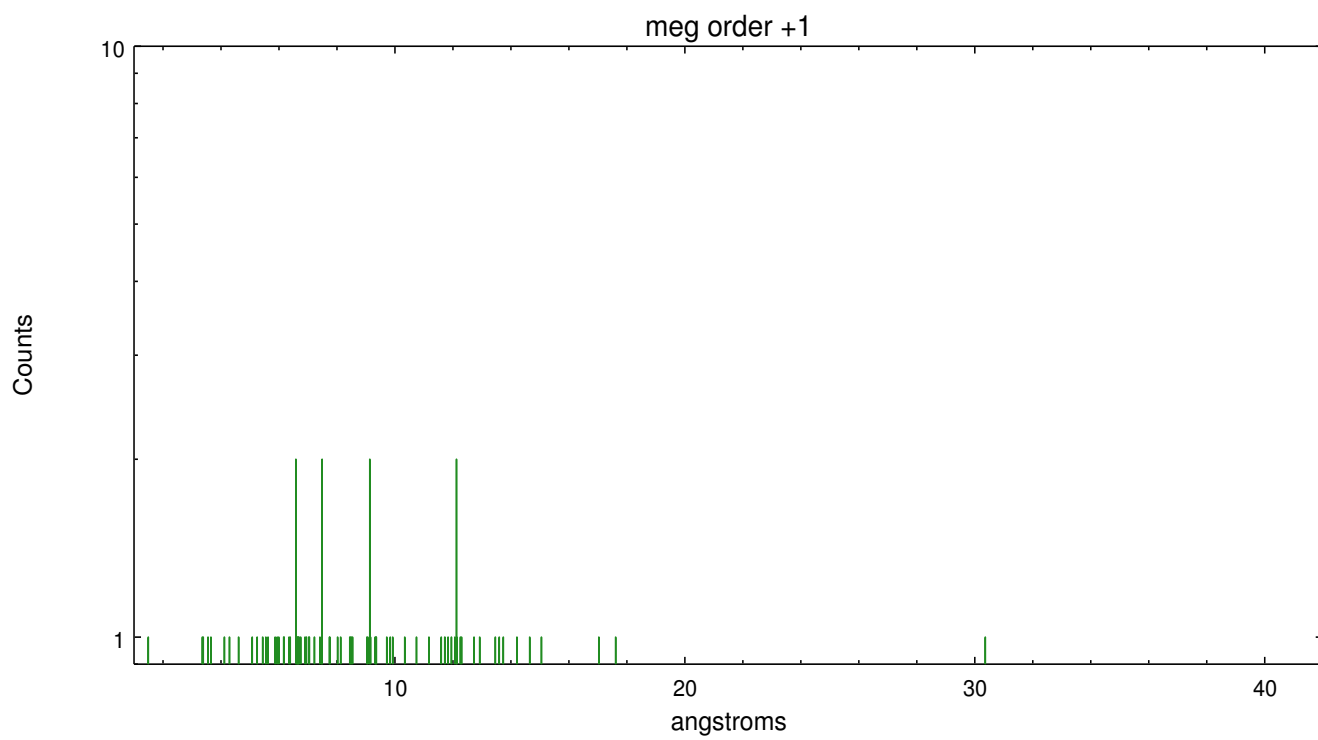
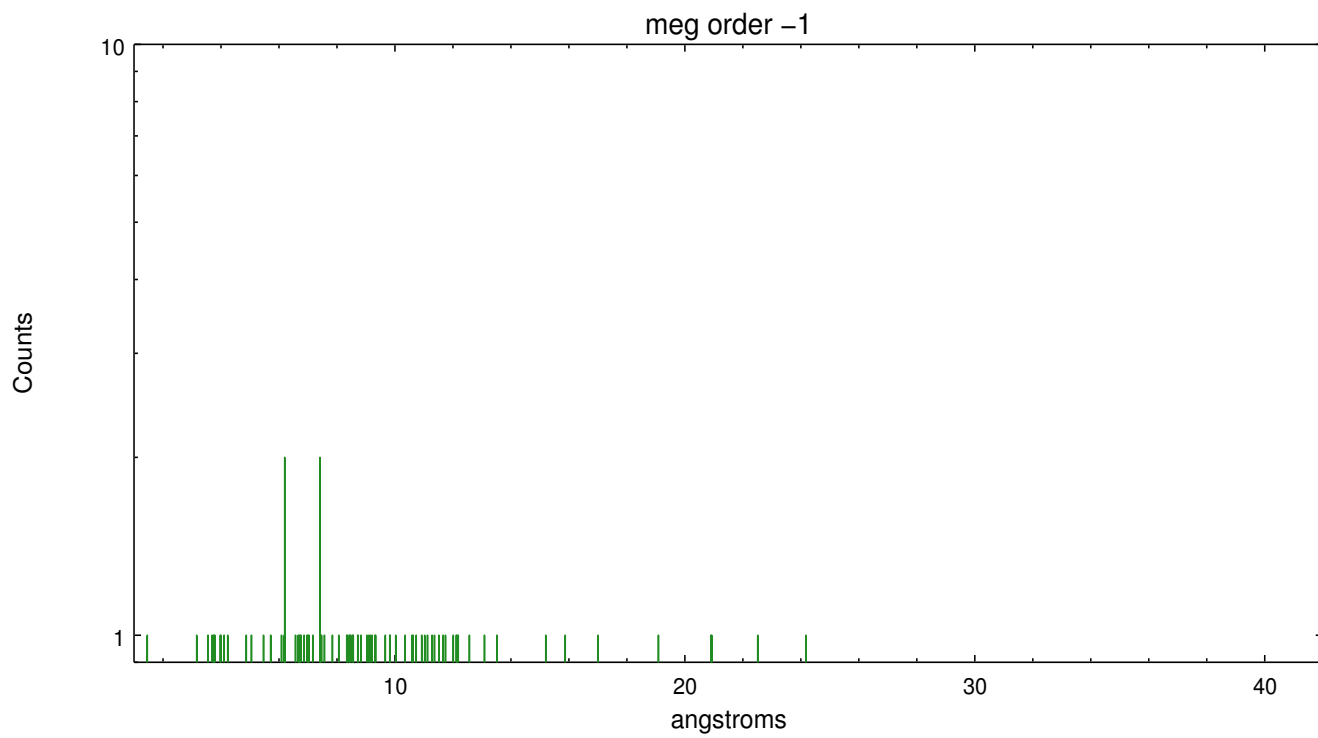
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	127	104	203	297	200	109	139





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2016.01.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	17.095082394838

A.2 Comments

The zeroth order position was determined using the centroid of the emission, which is not the location of the brightest X-ray emission in this case. No attempt has been made to extract the spectra from the same position for all the obsids in this program. A request to do that can be made. For grating analysis of localized X-ray emission within the extended emission, the investigator will need to extract one or more dispersed spectra using user-defined zeroth order positions for all positions of interest.