

V&V Reference Report

L2 ASCDS Version : 10.4.3

Observation 16655 - L2 Version 1
Chandra X-Ray Center

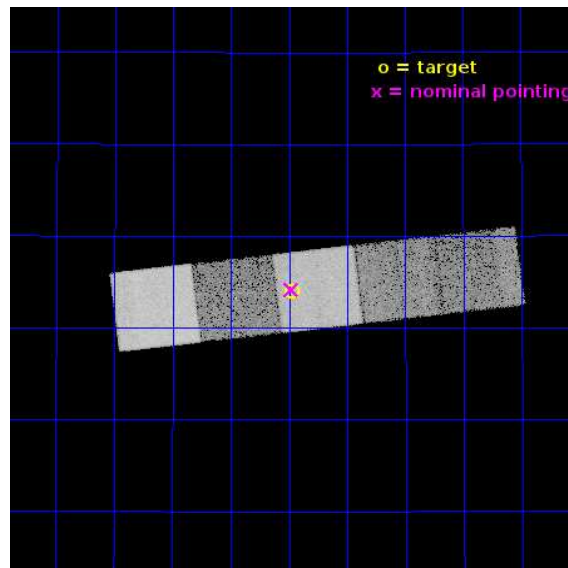
L2 Processing Date : Jan 7 2016

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1 Front

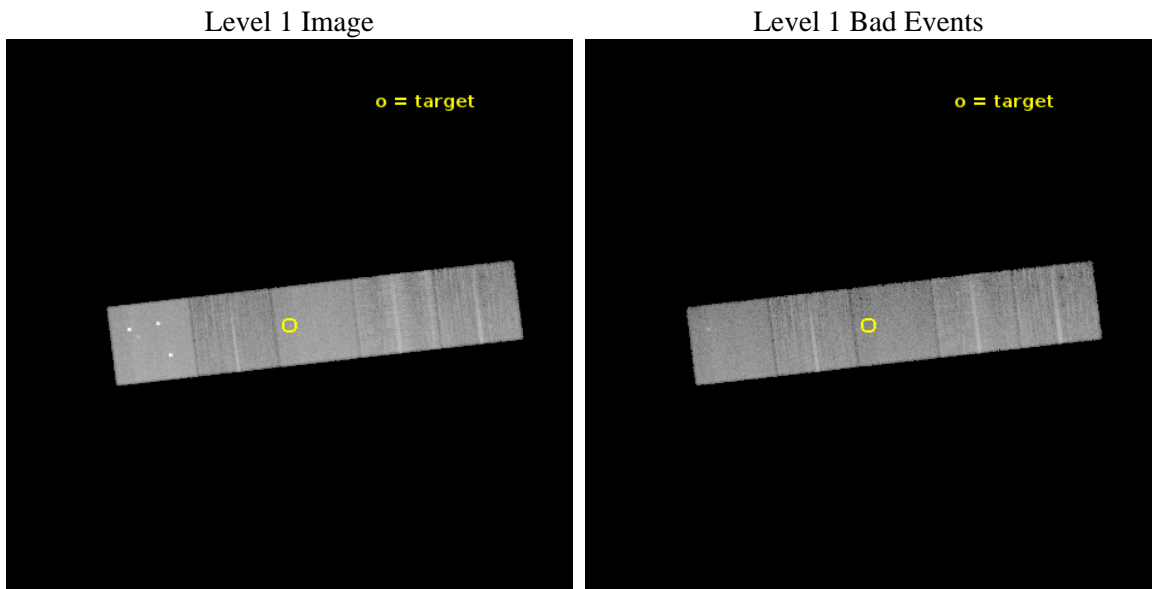
seq_num	200976	Sequence number
obs_id	16655	Observation id
title	HD191612 - constraining the structure of a massive magnetosphere	P
observer	Dr Yael Naze	Principal investigator
object	HD191612	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	302.369167	Observer's specified target RA [deg]
dec_targ	35.733694	Observer's specified target Dec [deg]
ra_nom	302.36971817048	Nominal RA [deg]
dec_nom	35.736067990434	Nominal Dec [deg]
roll_nom	353.1562923137	Nominal Roll [deg]
revision	1	Processing version of data
ontime	18060.511060238	Sum of GTIs [s]
livetime	17824.537187281	Livetime [s]
ontime5	18060.470020294	Sum of GTIs [s]
ontime6	18060.428980231	Sum of GTIs [s]
ontime7	18060.511060238	Sum of GTIs [s]
ontime8	18060.387940288	Sum of GTIs [s]
ontime9	18060.346900225	Sum of GTIs [s]
l2events	173277	Number of level 2 events



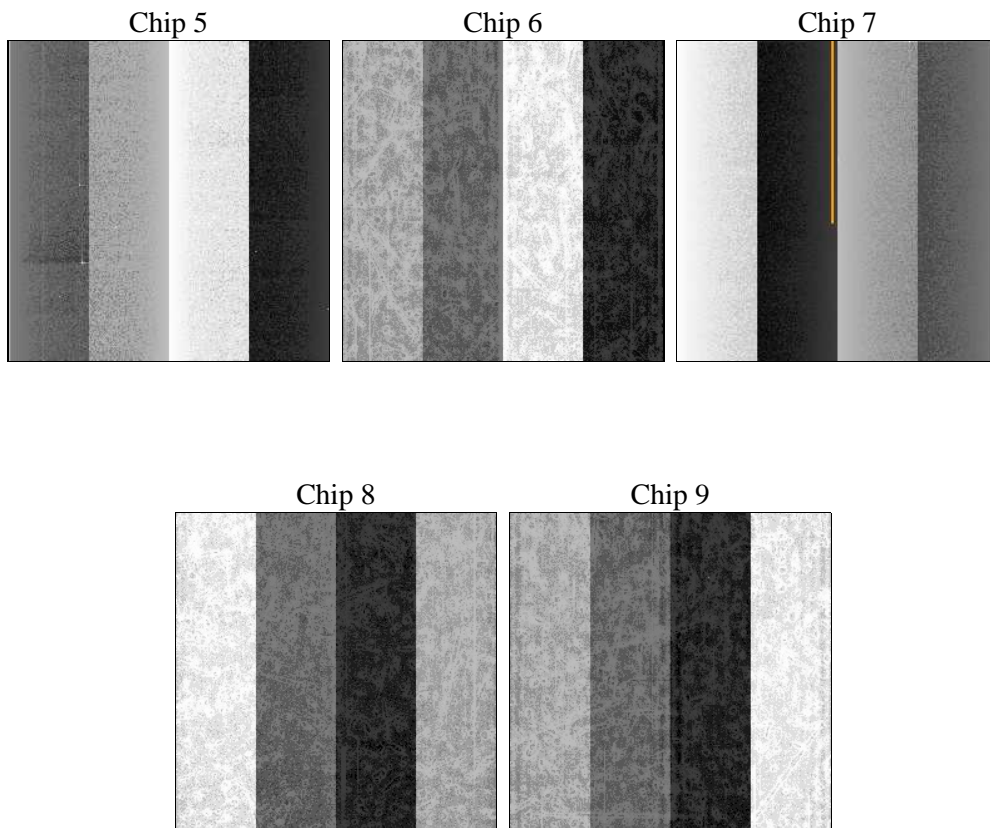
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	18000.000000	[s] Scheduled observation exposure time
ascdsver	10.4.3	Processing system revision	ontime	18060.511060238	Sum of GTIs [s]
caldsver	4.7.0	 	ontime5	18060.470020294	Sum of GTIs [s]
date	2016-01-07T18:05:17	Date and time of file creation	ontime6	18060.428980231	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	18060.511060238	Sum of GTIs [s]
			ontime8	18060.387940288	Sum of GTIs [s]
			ontime9	18060.346900225	Sum of GTIs [s]
			l1events	675965	Number of level 1 events
			tgmeth	TGDETECT	Method used to create src1a file
			zo_pos	(4099.05, 4079.29)	src1a sky pixel position

2.1.4 Events

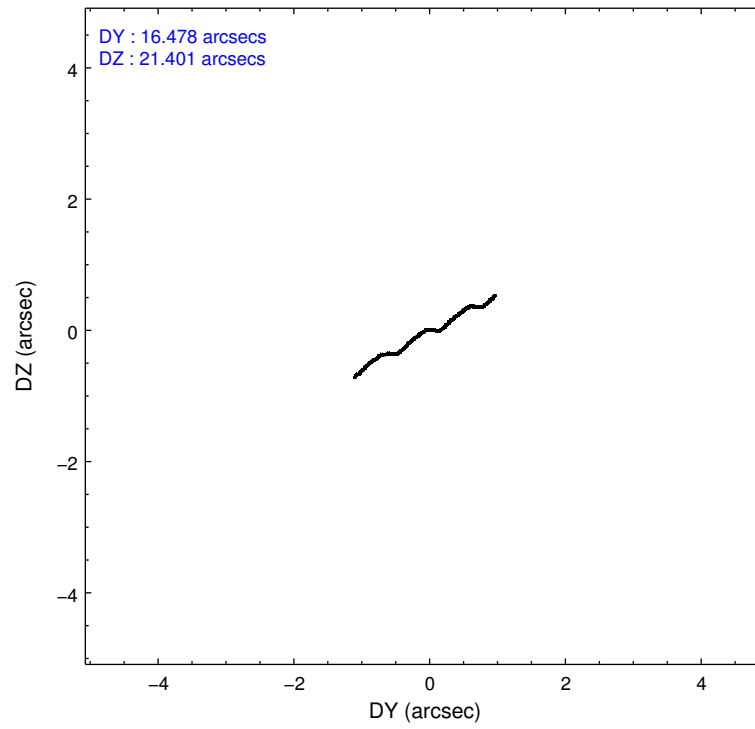
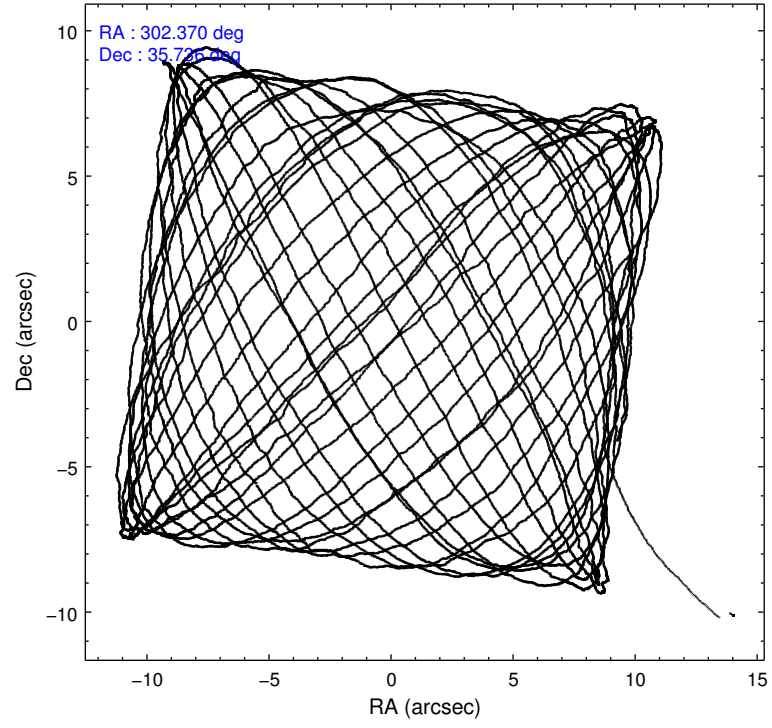
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	183508	104970	138636	142946	105905
rejected events	88471	92414	78276	103422	92803
rejected %	48%	88%	56%	72%	87%

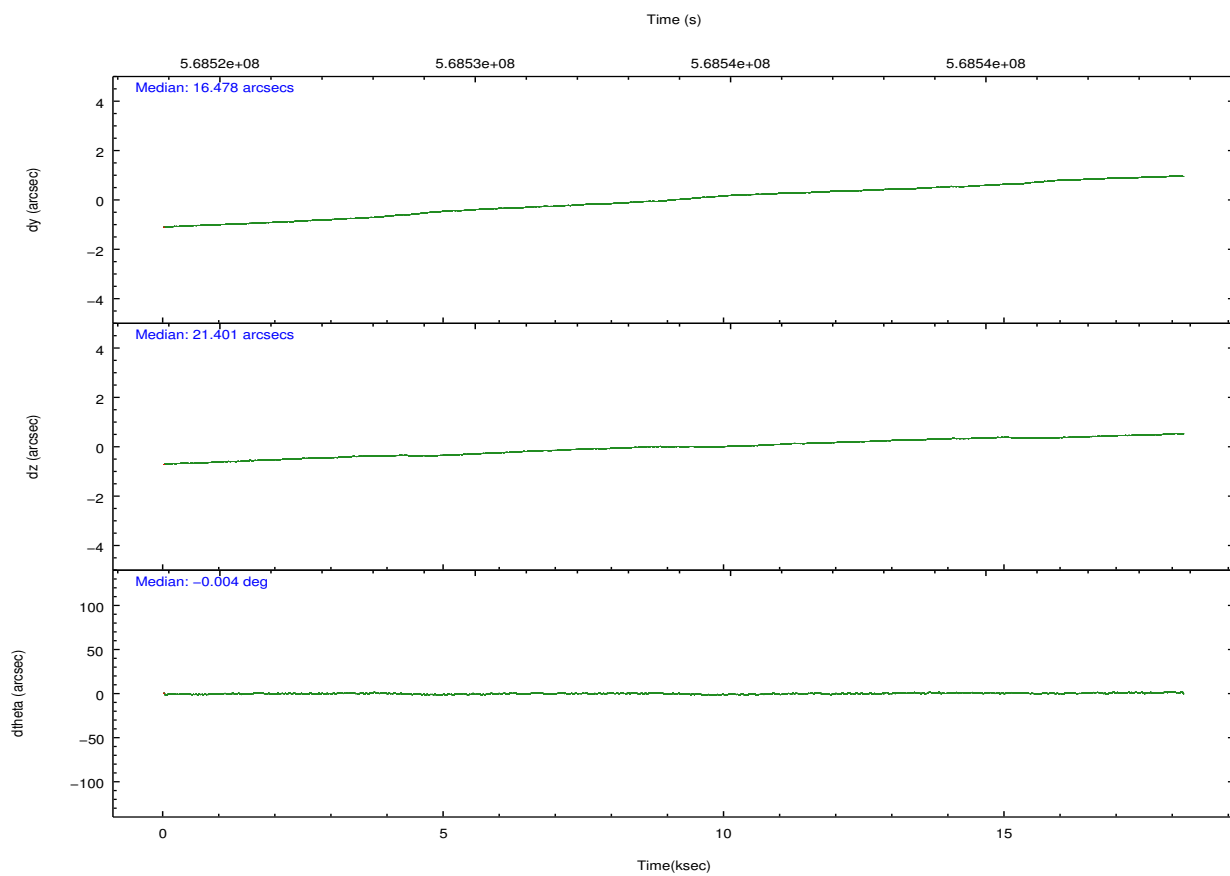
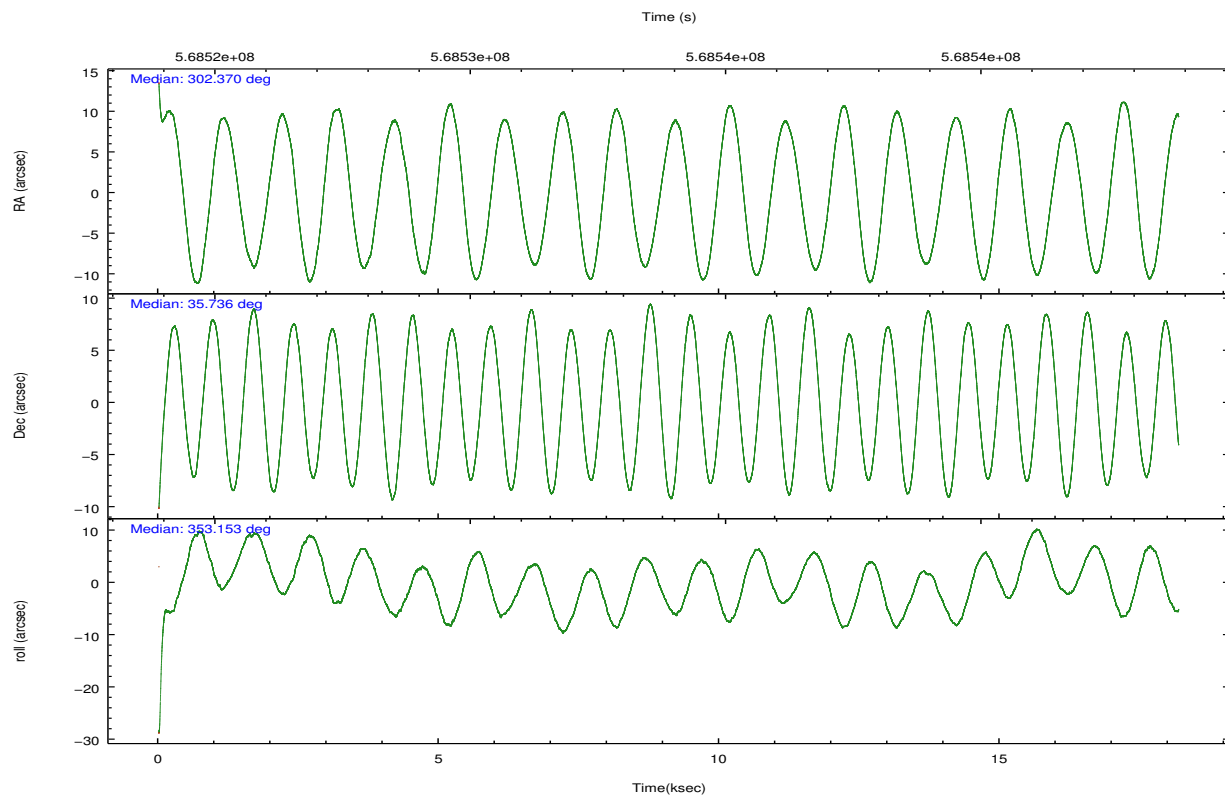
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	15915	4329	5190	11724	4665
	8%	4%	3%	8%	4%
grade 1 events	502	41	172	114	76
	0%	0%	0%	0%	0%
grade 2 events	28922	2842	12436	9580	2945
	15%	2%	8%	6%	2%
grade 3 events	2982	1258	4983	4085	1342
	1%	1%	3%	2%	1%
grade 4 events	2708	1256	4903	3755	1321
	1%	1%	3%	2%	1%
grade 5 events	12771	5443	14125	7835	5850
	6%	5%	10%	5%	5%
grade 6 events	44520	2873	32858	10382	2831
	24%	2%	23%	7%	2%
grade 7 events	75188	86928	63969	95471	86875
	40%	82%	46%	66%	82%

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	302.3697181704773	CCD I2 on	N	N
[deg] Pointing Dec	35.724926	35.73606799043367	CCD I3 on	N	N
[deg] Pointing Roll	353.017741	353.1562923136996	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	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	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)	568525005.184000	568524026.81996			
Observation start date	2016-01-07T03:35:37	2016-01-07T03:20:26			
[s] Observation end time (MET)	568543005.184000	568544092.2211			
Observation end date	2016-01-07T08:35:37	2016-01-07T08:54:52			
Read mode	TIMED	TIMED			

2.3 Aspect



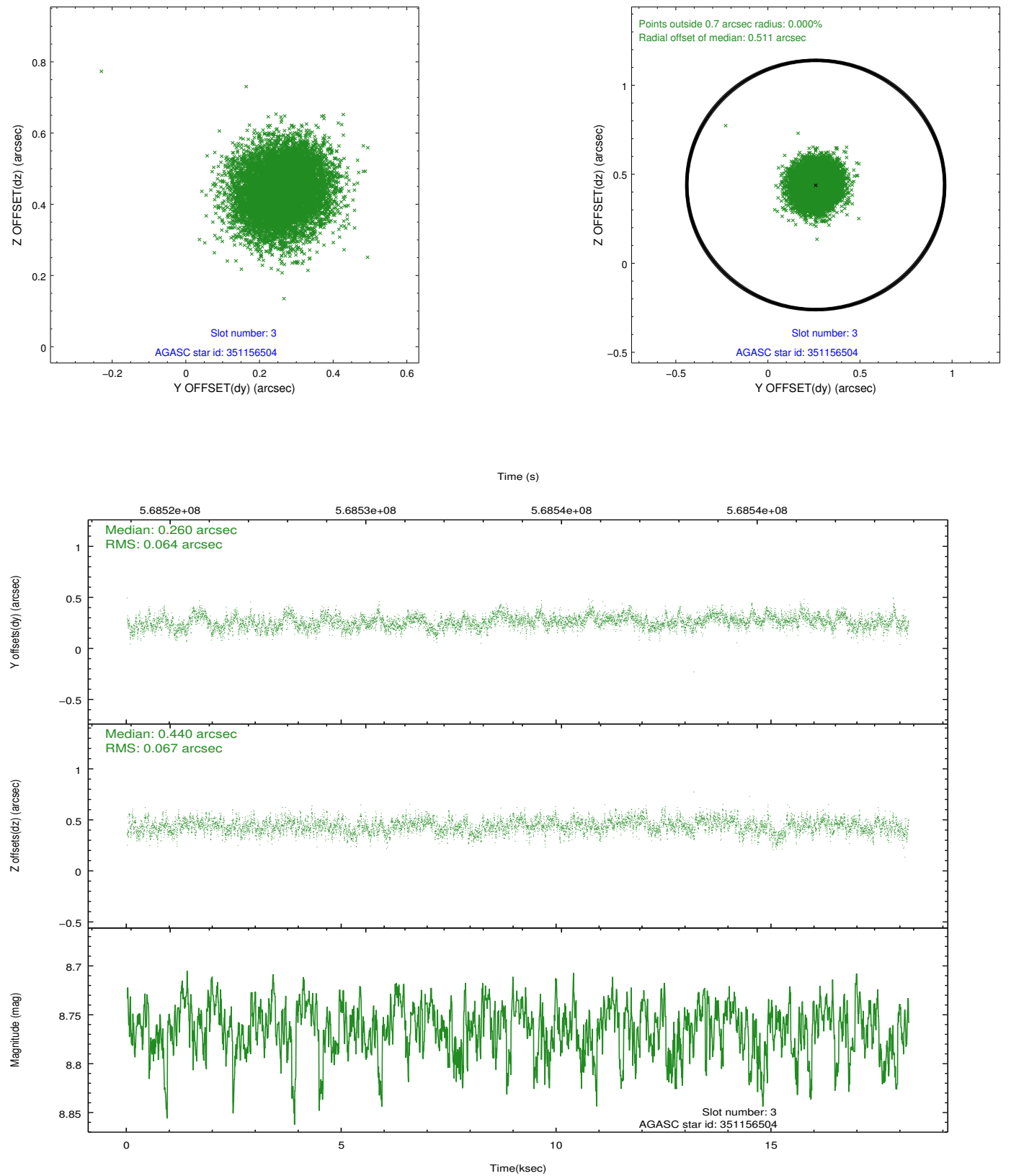


Slot Statistics

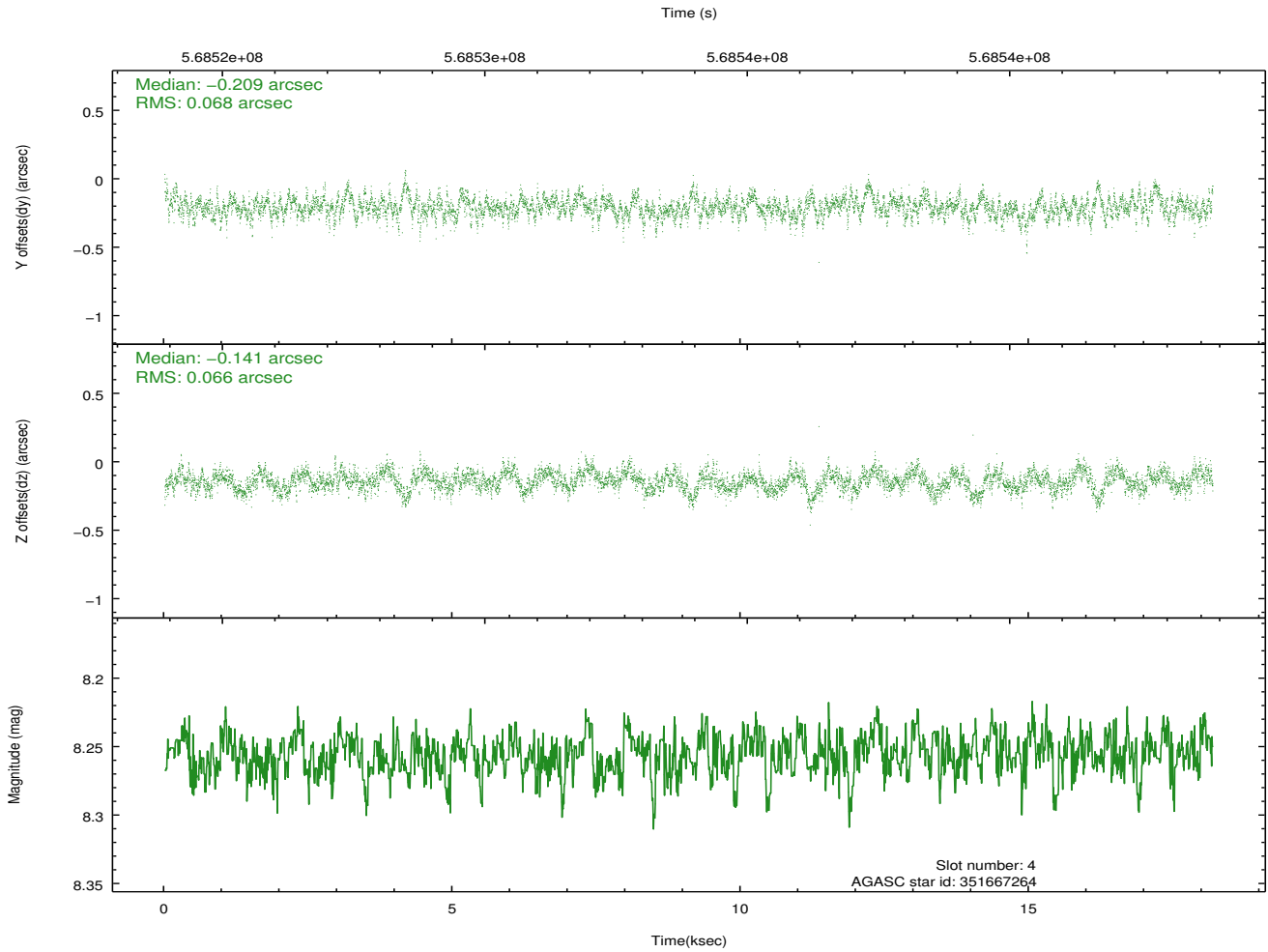
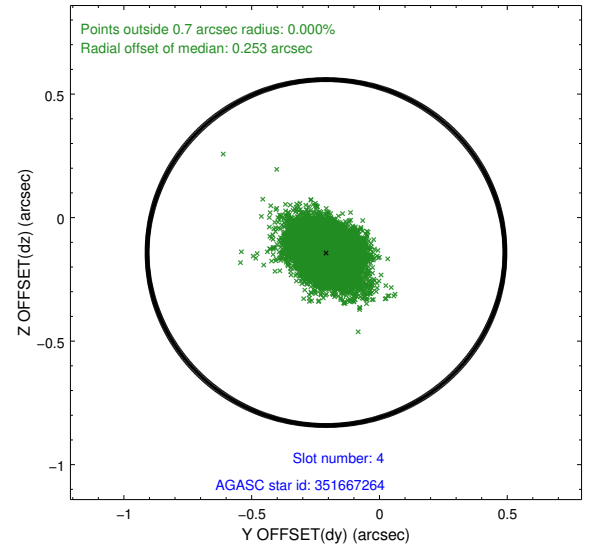
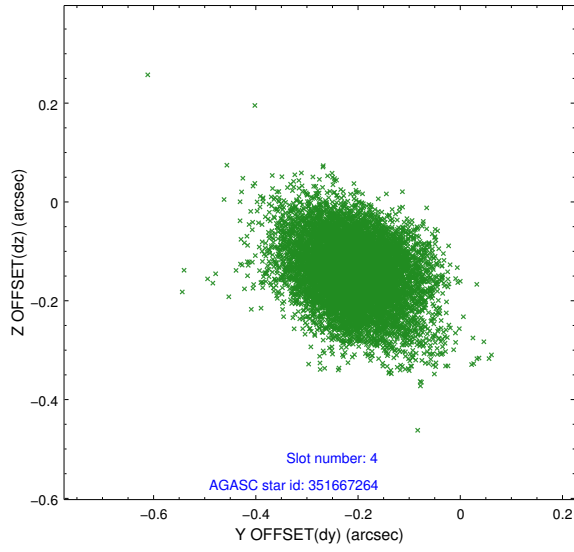
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.11	4433	-0.170	-0.111	0.027	0.041	0.000000	0.000000	-769.63	-1743.03
1	FID		ACIS-S-4	7.21	4435	0.382	0.113	0.012	0.031	0.000000	0.000000	2144.10	165.45
2	FID		ACIS-S-5	7.23	4434	-0.242	0.008	0.025	0.040	0.000000	0.000000	-1822.27	159.26
3	GUIDE	used	351156504	8.76	8865	0.260	0.440	0.099	0.157	301.545892	35.336210	-2141.80	-1662.43
4	GUIDE	used	351667264	8.26	8869	-0.209	-0.141	0.099	0.166	301.740045	36.396586	-2017.18	2194.11
5	GUIDE	used	351155096	7.76	8869	0.199	0.231	0.067	0.110	301.647496	35.132041	-1761.38	-2358.50
6	GUIDE	used	351684368	8.12	8870	-0.196	-0.255	0.081	0.132	302.607758	35.866756	716.45	602.85
7	GUIDE	used	351693800	8.11	8866	-0.054	-0.272	0.105	0.161	302.737590	35.953172	1053.58	959.15

2.4 Star Slots

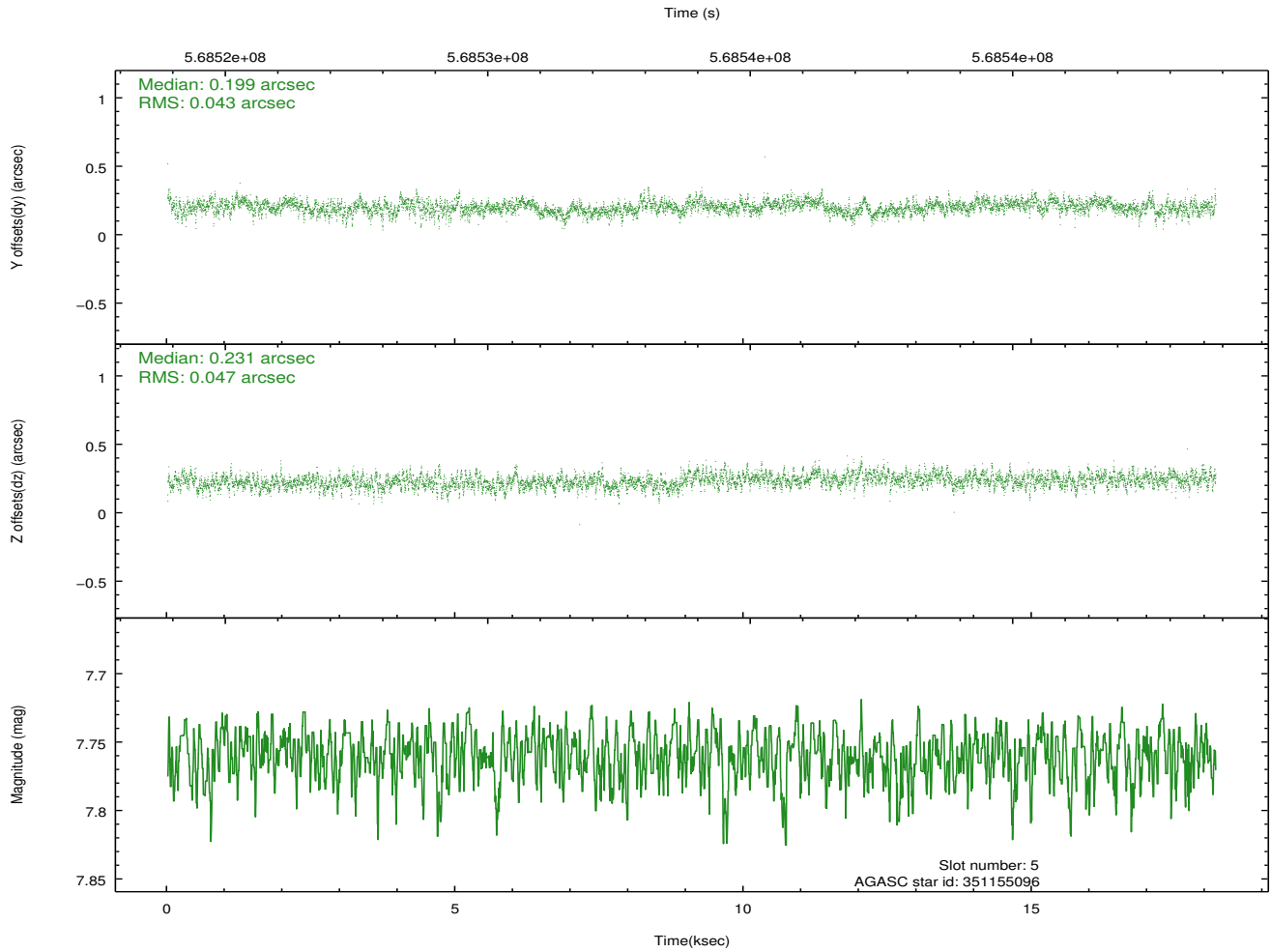
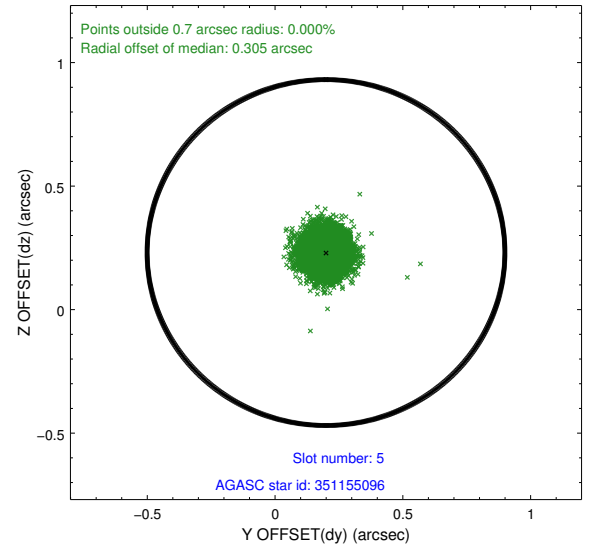
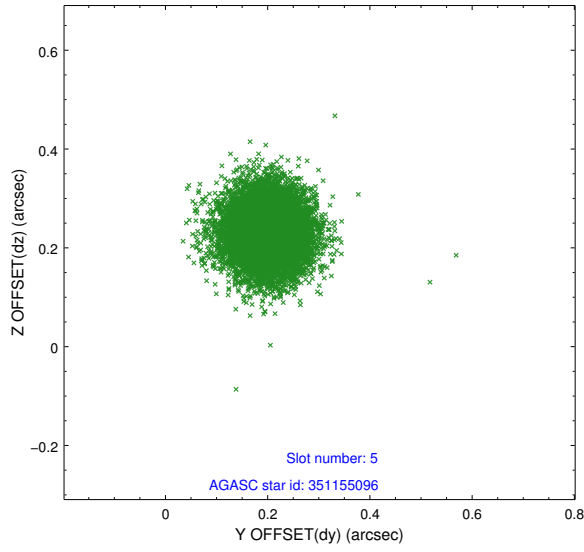
2.4.1 Slot 3



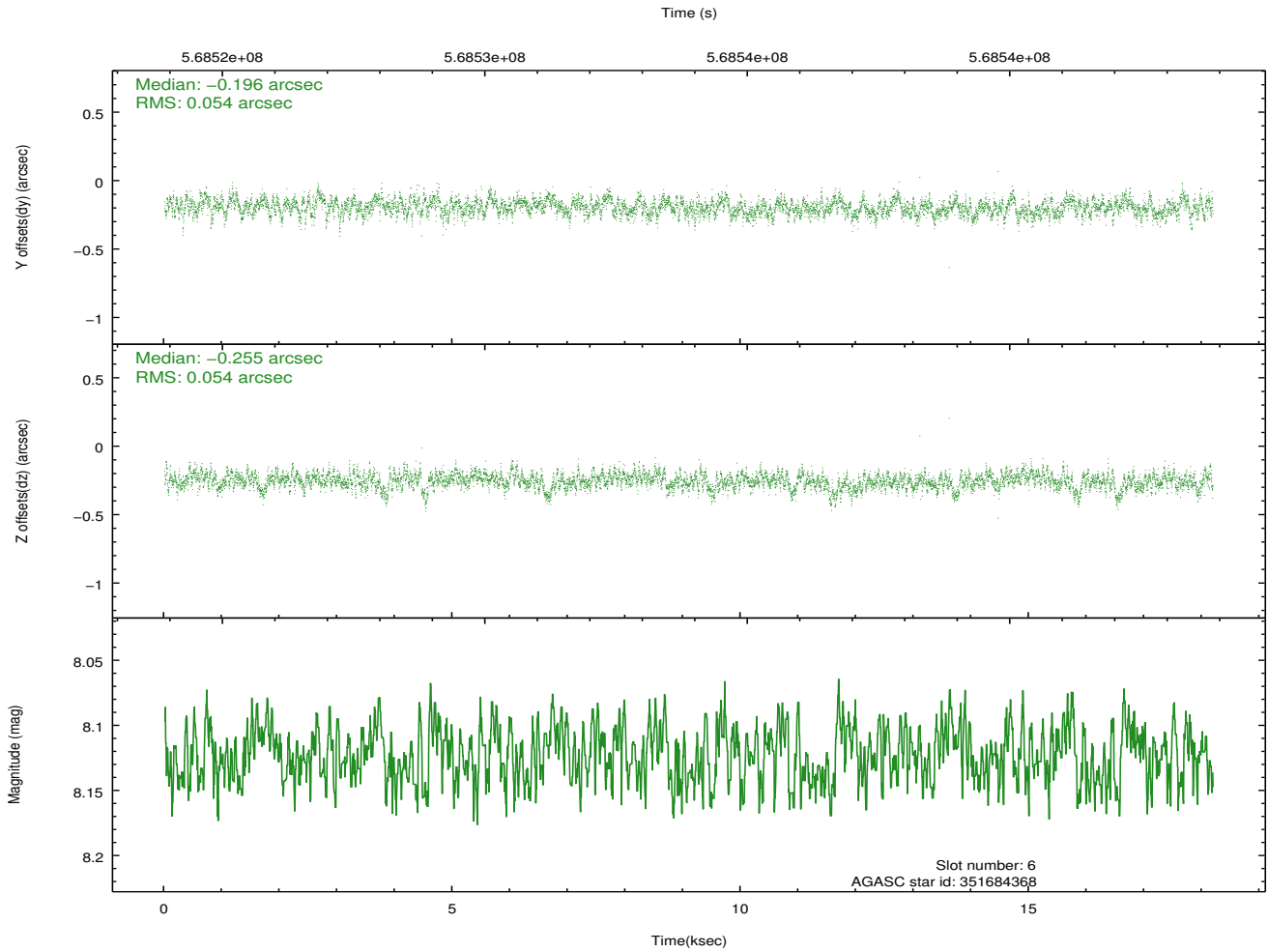
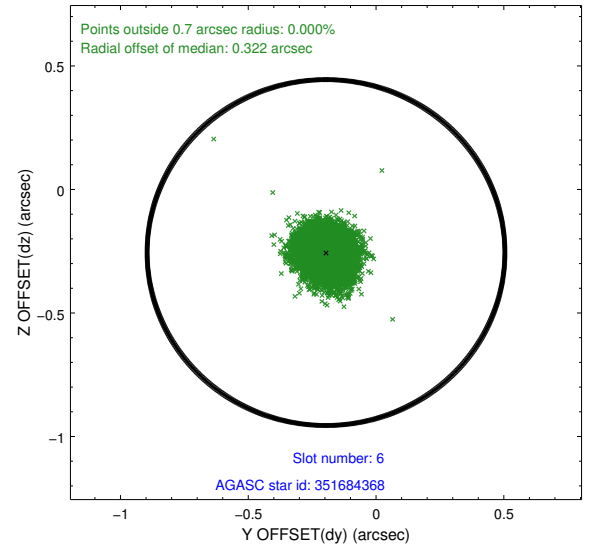
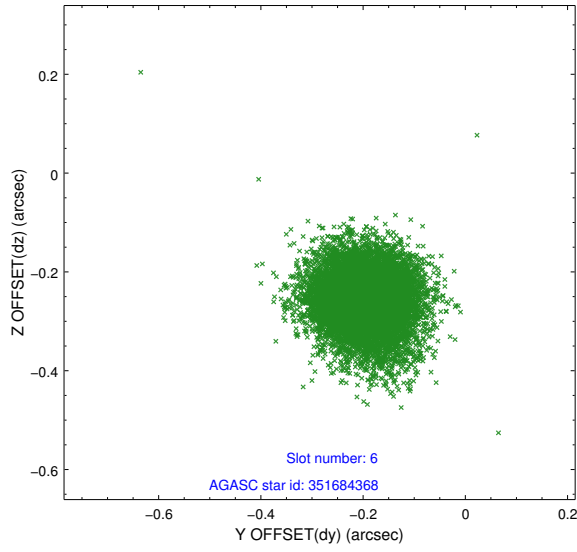
2.4.2 Slot 4



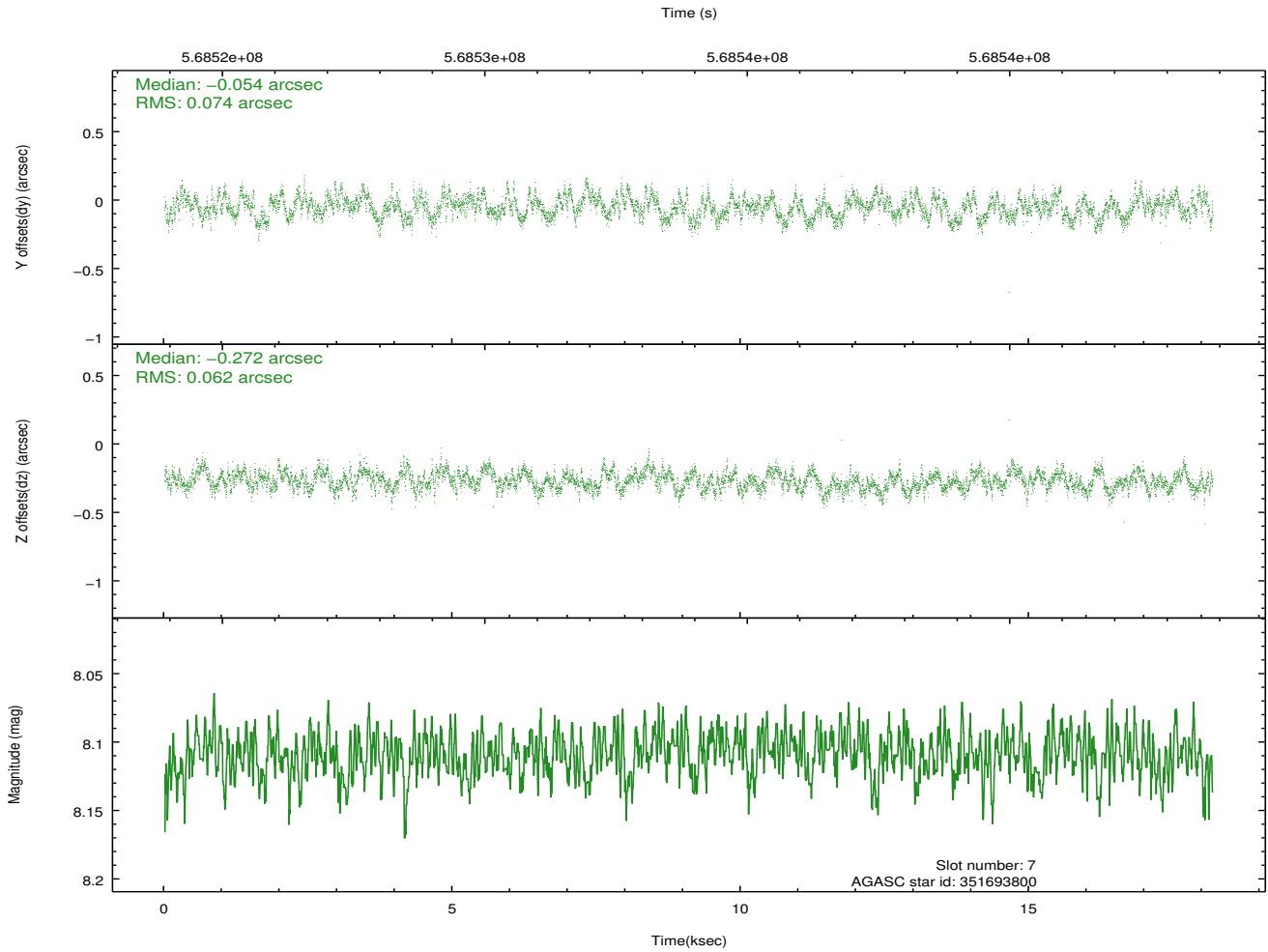
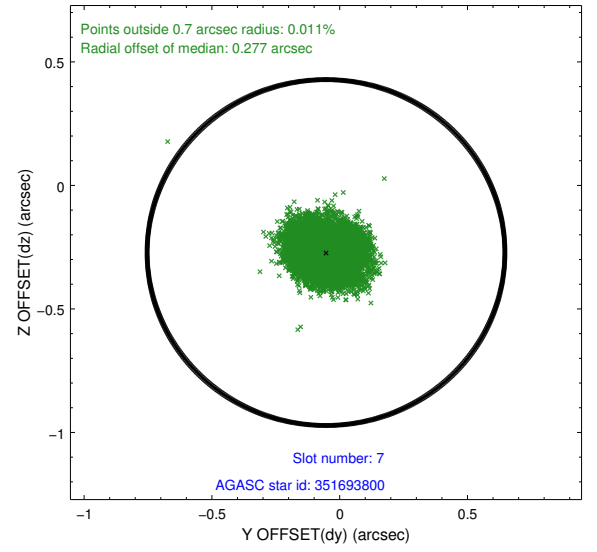
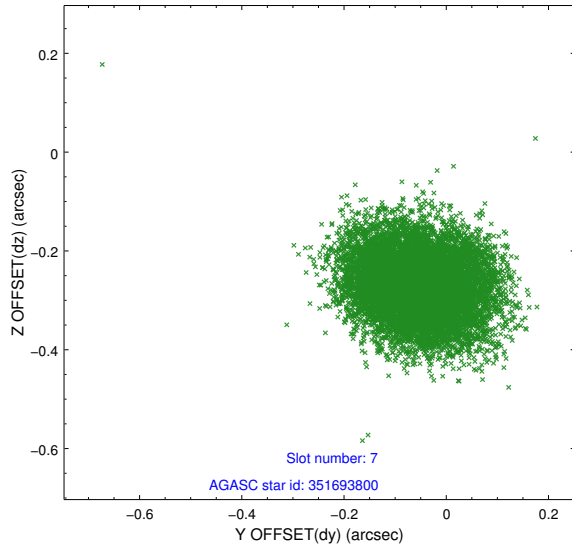
2.4.3 Slot 5



2.4.4 Slot 6

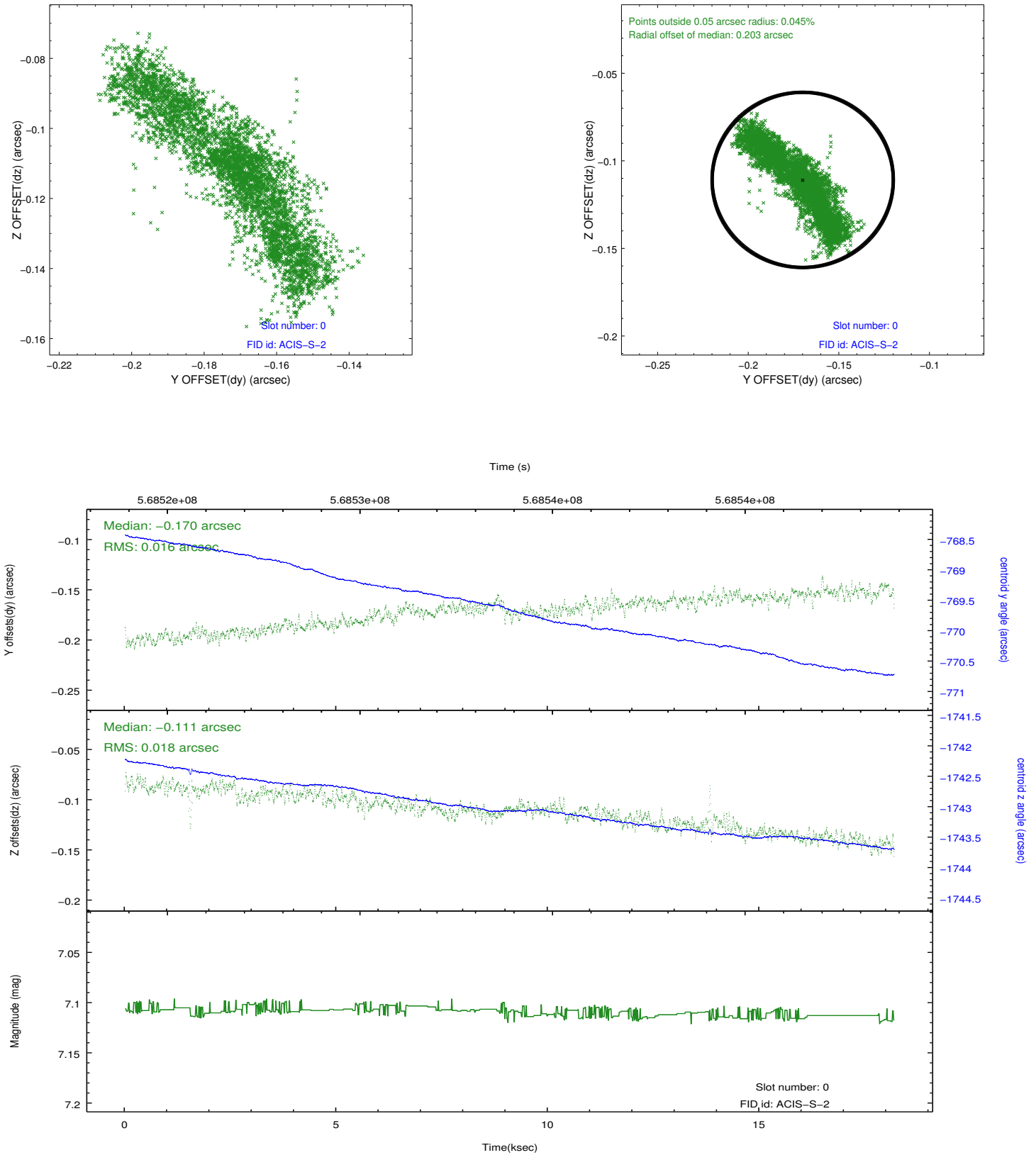


2.4.5 Slot 7

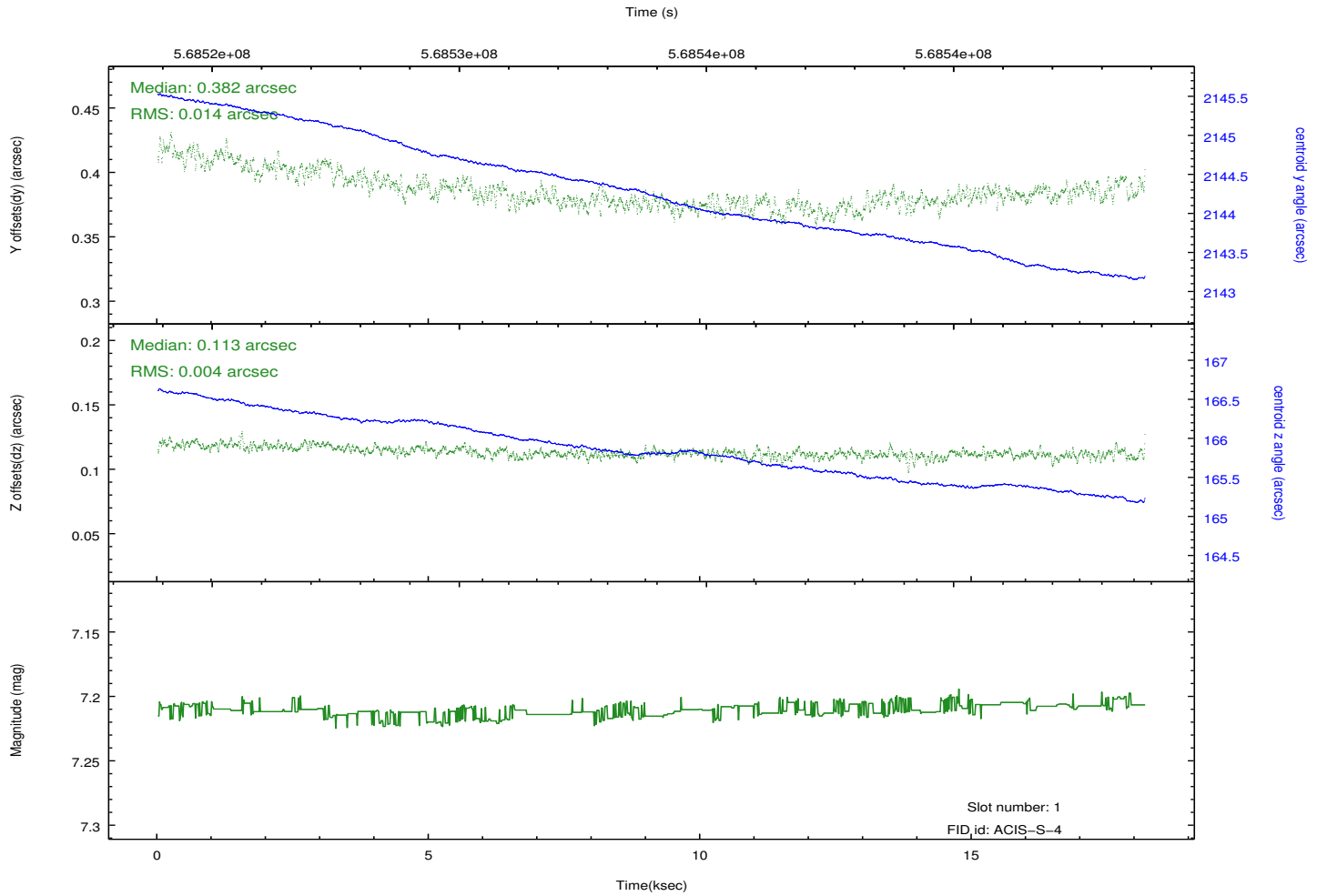
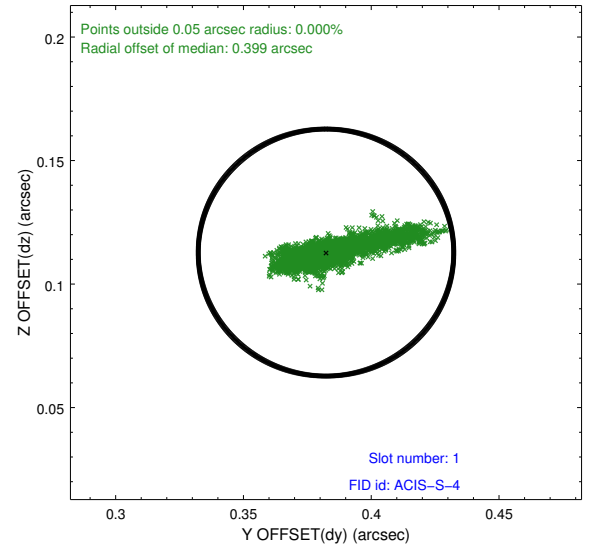
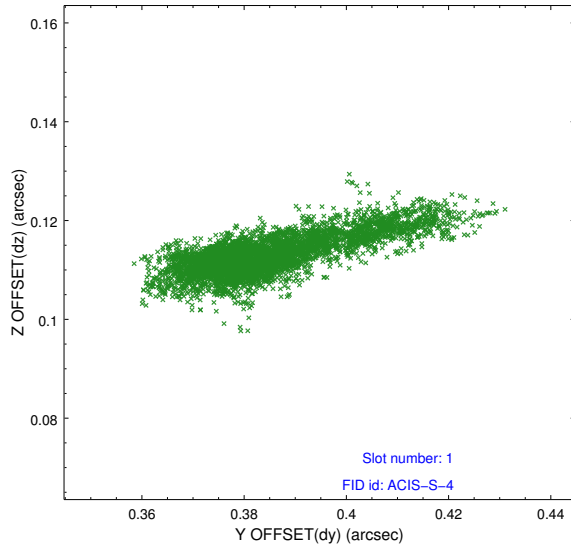


2.5 FID Slots

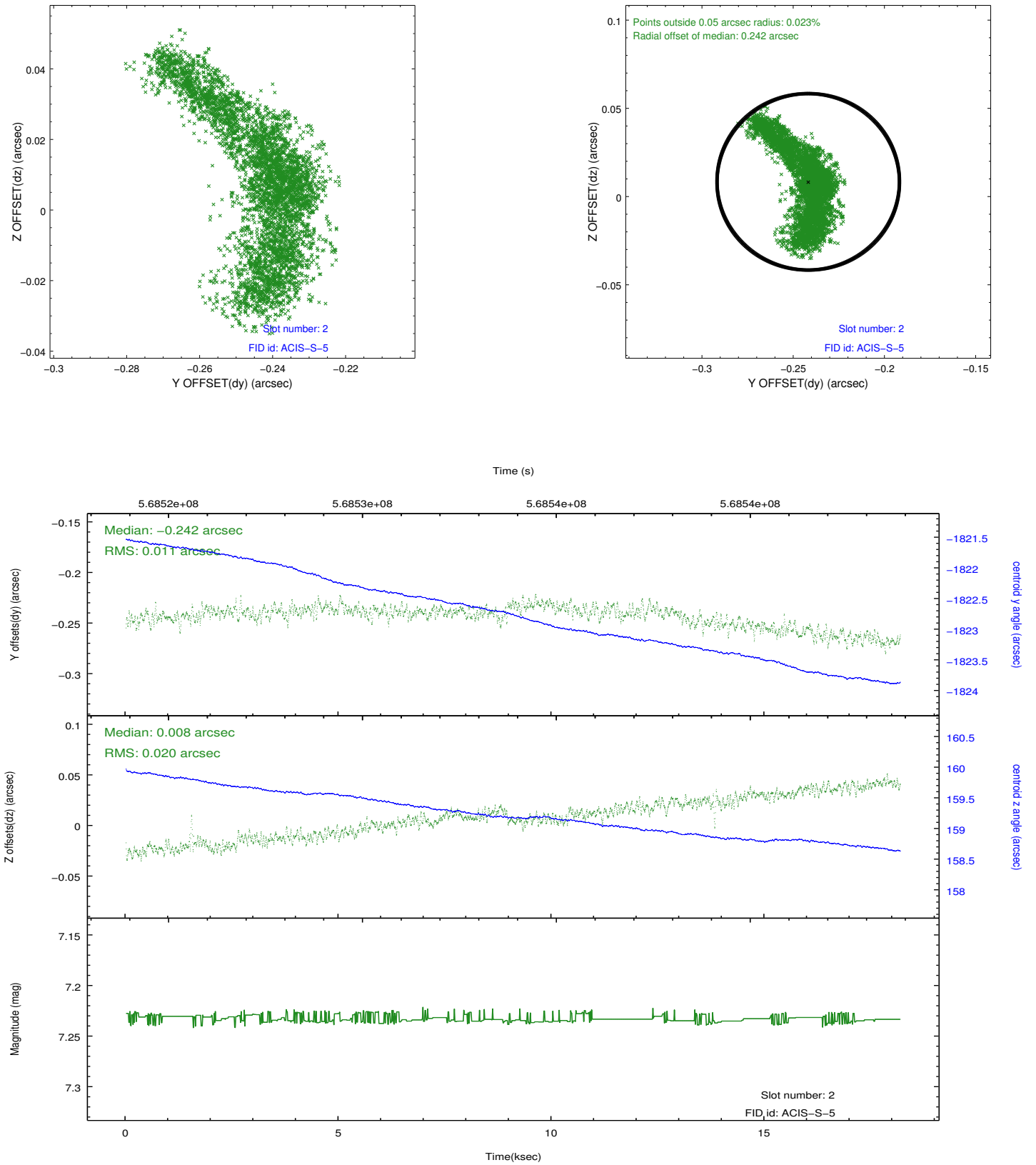
2.5.1 Slot 0



2.5.2 Slot 1

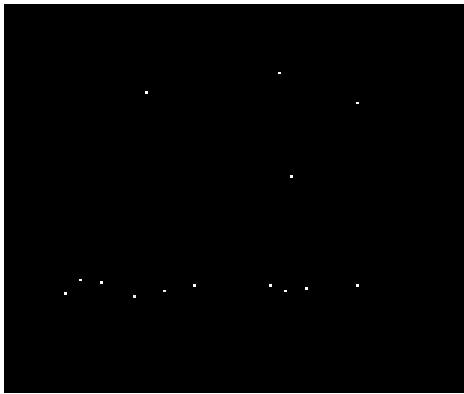


2.5.3 Slot 2

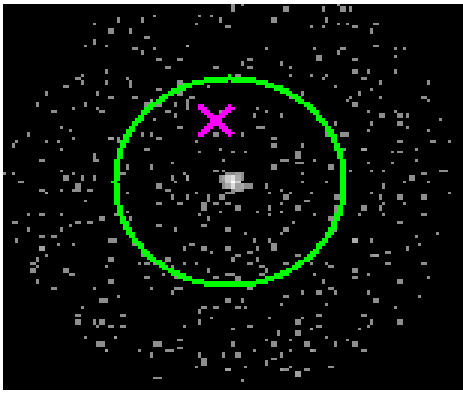


3 Gratings

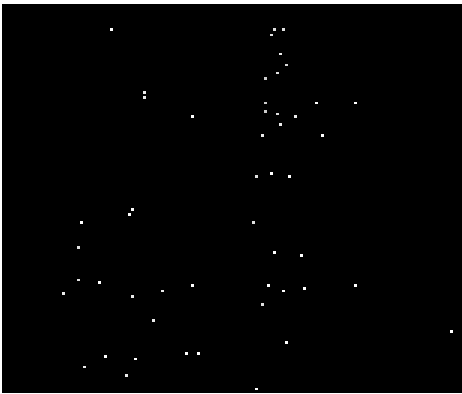
3.1 HEG Arm



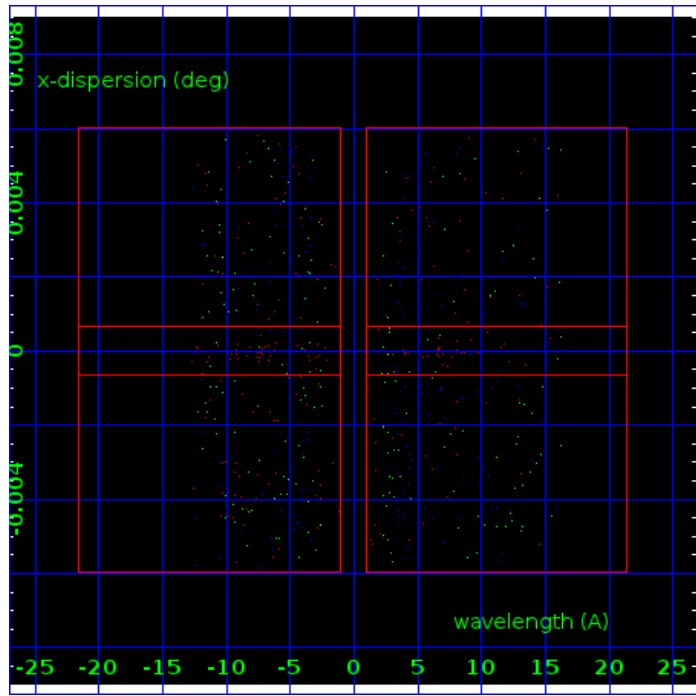
HEG Order Sort 123



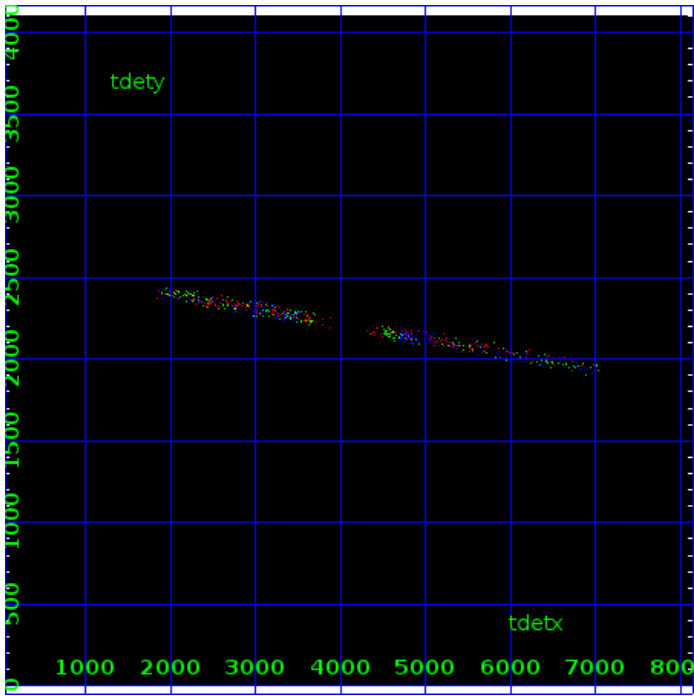
HEG Zero Order



HEG Order Sort ALL

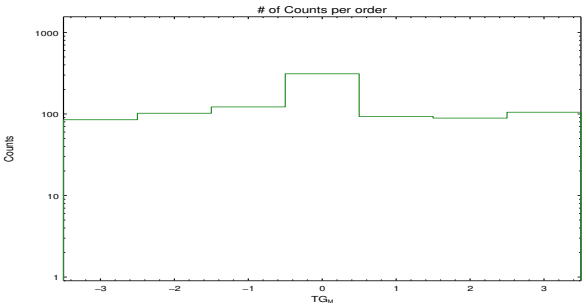


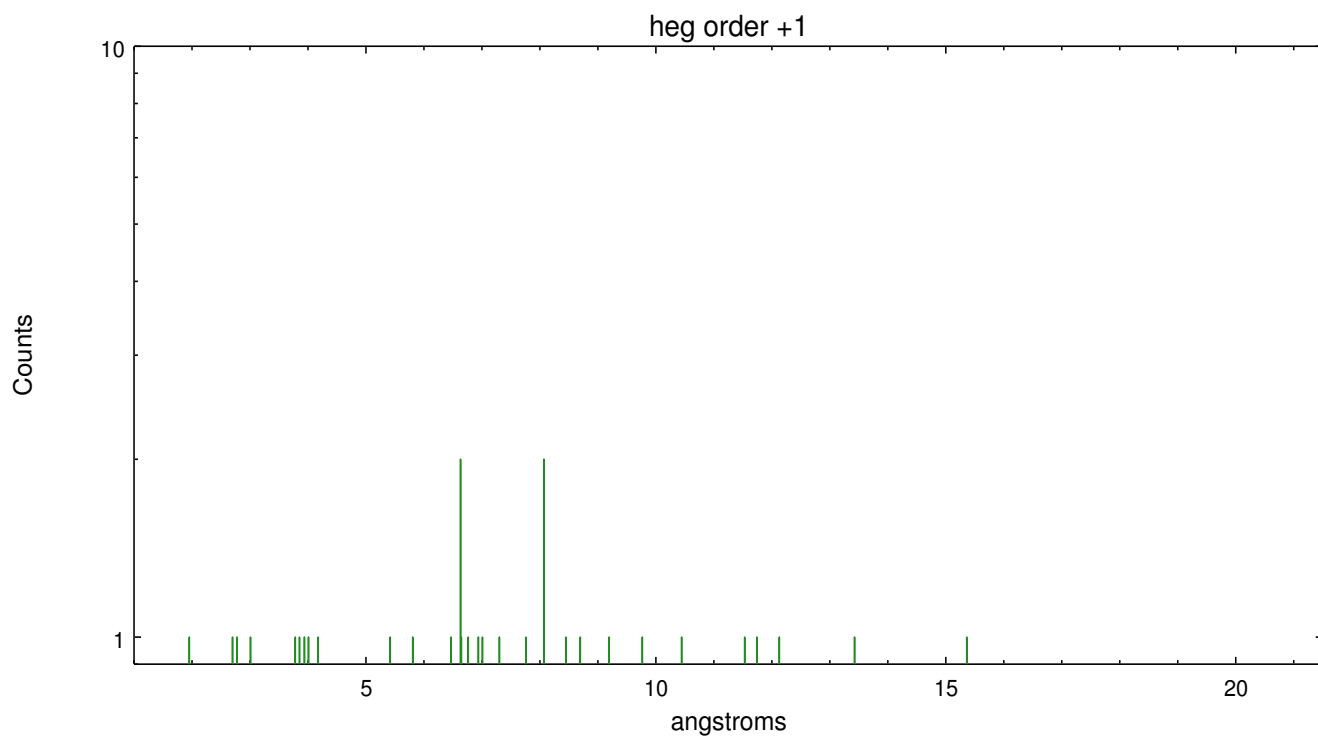
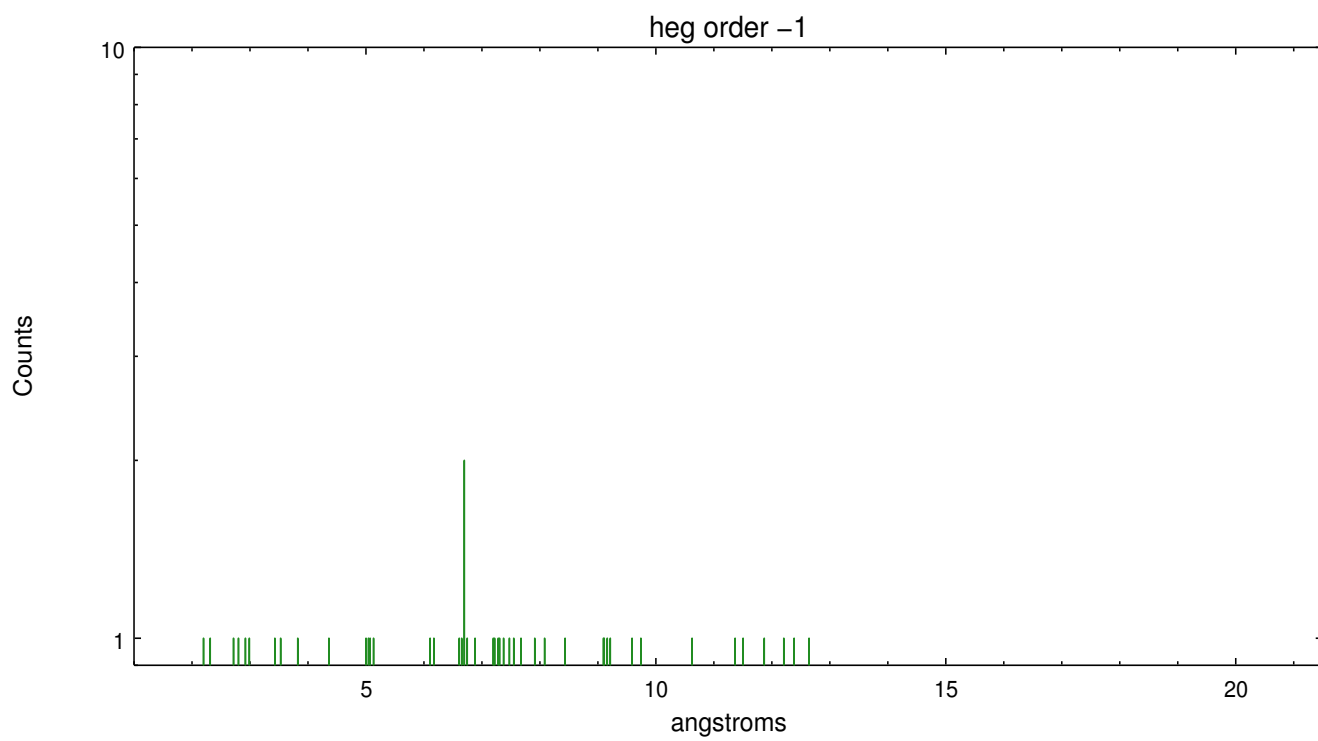
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	85	102	122	311	93	89	105

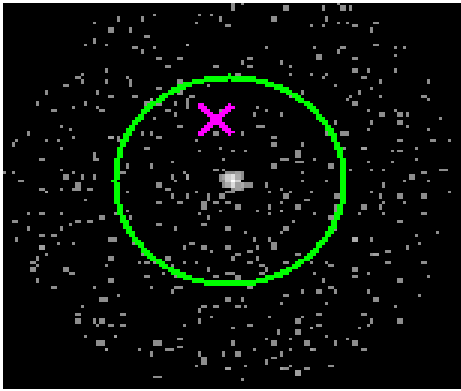




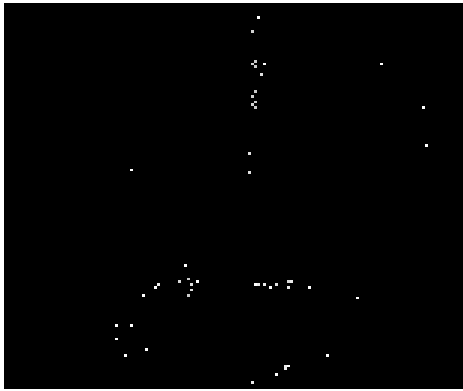
3.2 MEG Arm



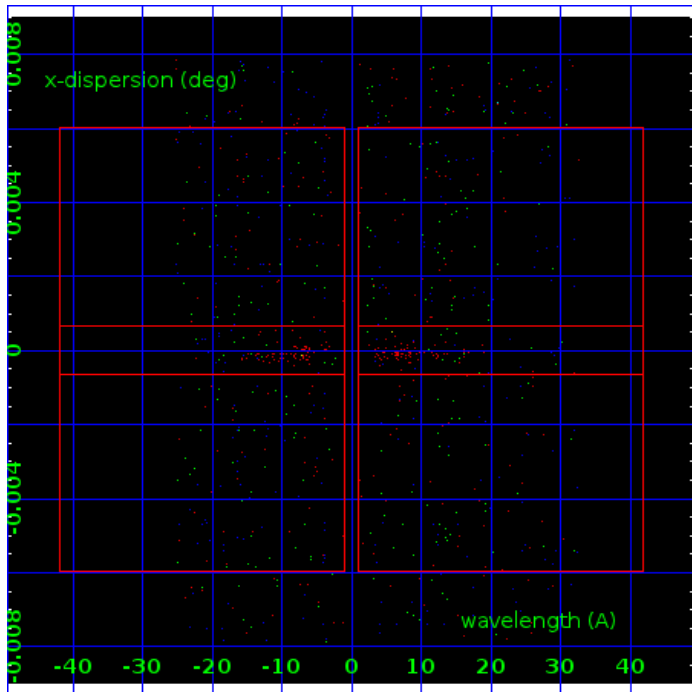
MEG Order Sort 123



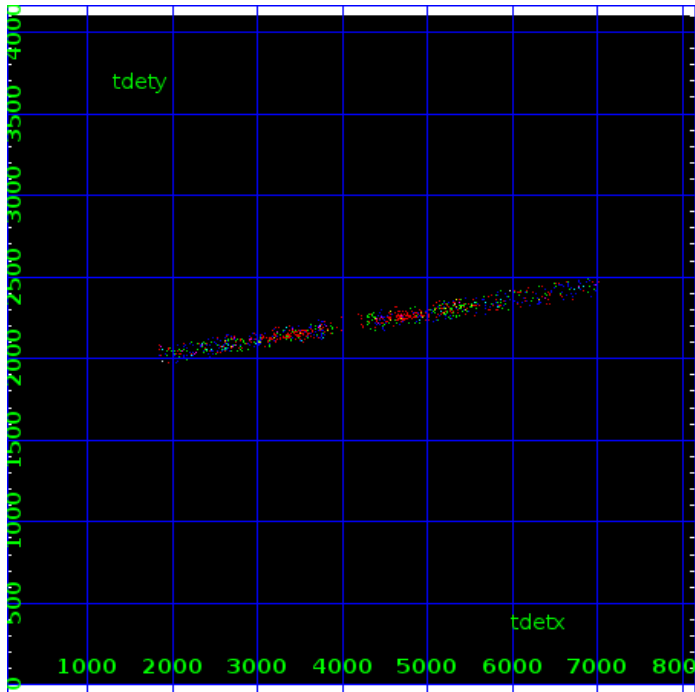
MEG Zero Order



MEG Order Sort ALL

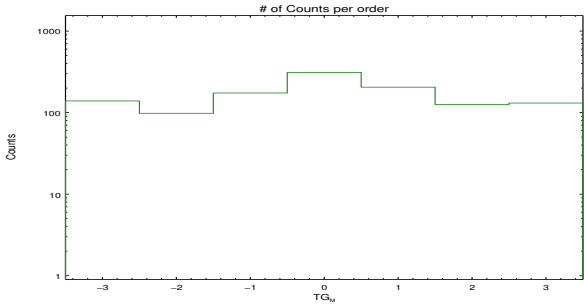


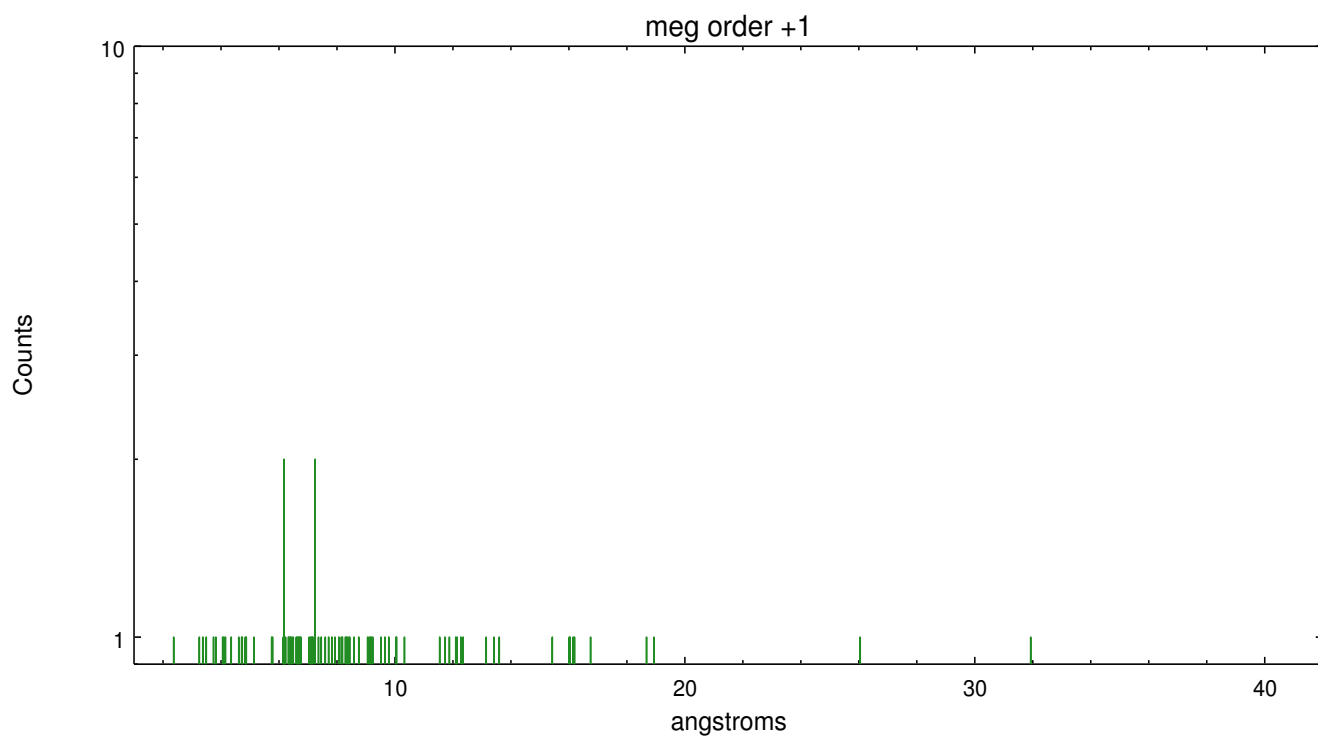
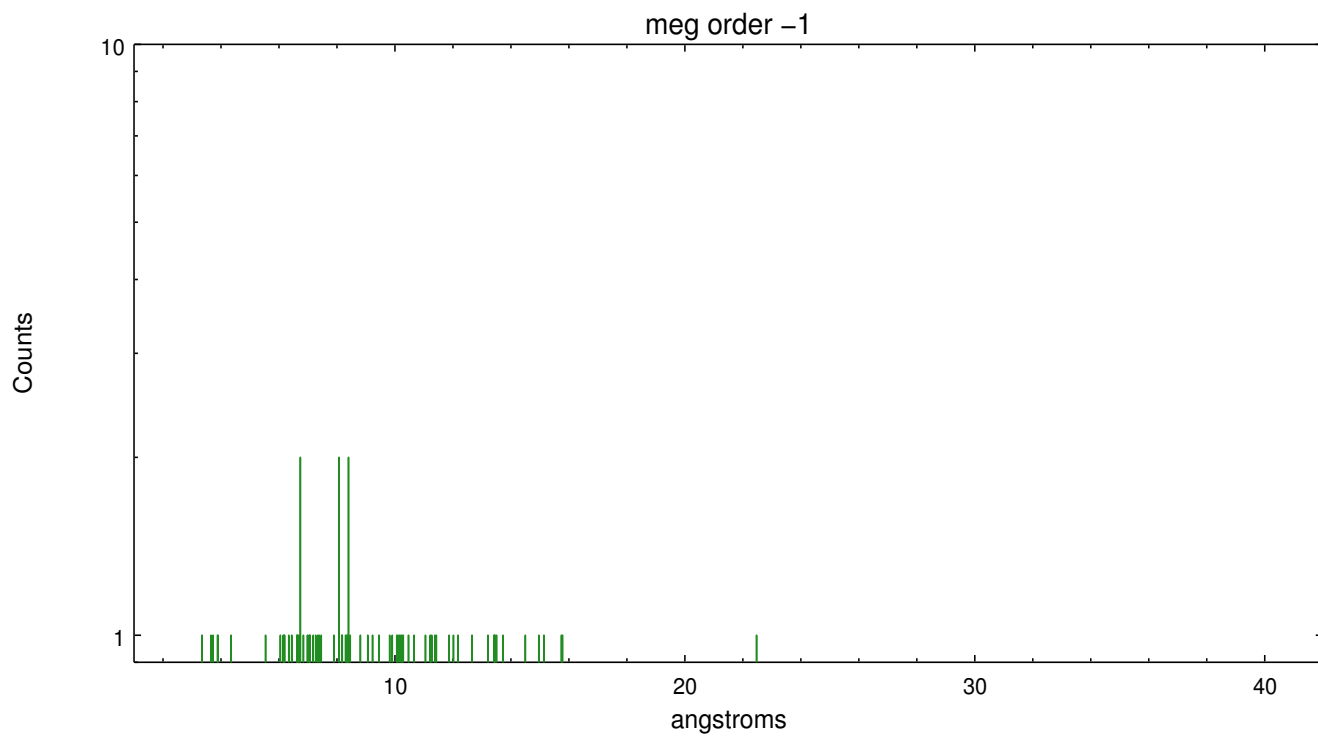
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	139	98	174	311	205	126	131





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2016.01.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	18.060511060238

A.2 Comments

The source is possibly extended and asymmetric. 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.