

V&V Reference Report

L2 ASCDS Version : 10.4.3.1

Observation 18855 - L2 Version 1
Chandra X-Ray Center

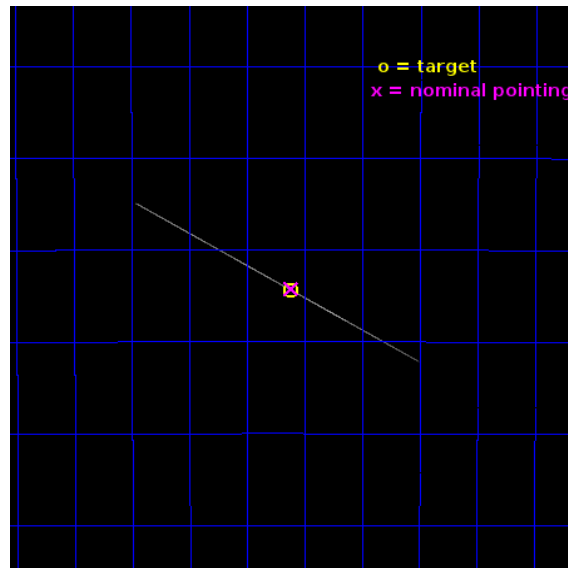
L2 Processing Date : May 28 2016

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Bias	3
2.1.3	Parameters	4
2.1.4	Events	4
2.2	Compared Parameters	5
2.3	Aspect	6
2.4	Star Slots	9
2.4.1	Slot 3	9
2.4.2	Slot 4	10
2.4.3	Slot 5	11
2.4.4	Slot 6	12
2.4.5	Slot 7	13
2.5	FID Slots	14
2.5.1	Slot 0	14
2.5.2	Slot 1	15
2.5.3	Slot 2	16
3	Gratings	17
3.1	HEG Arm	17
3.2	MEG Arm	19
A	Summary	21
A.1	Status	21
A.2	Comments	21

1 Front

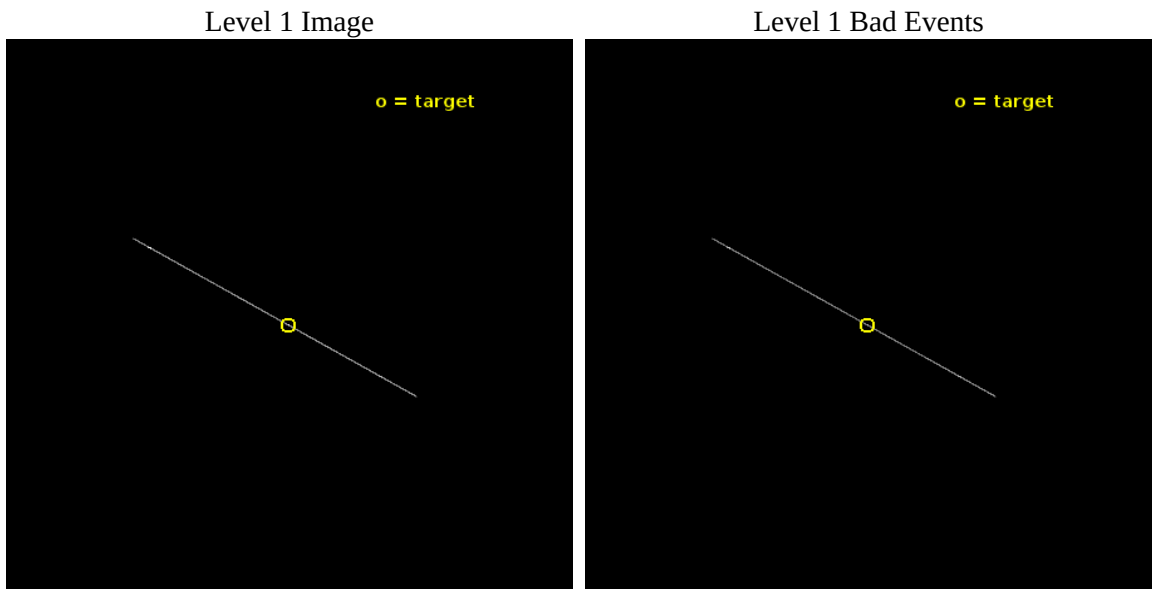
seq_num	401721	Sequence number
obs_id	18855	Observation id
title	FOLLOWING THE ULTRA-FAST WINDS IN STELLAR-MASS BLACK HOLE, IGR J17091-3624	Proposal title
observer	Dr. Ashley King	Principal investigator
object	IGR J17091-3624	Source name
ra_targ	257.279167	Observer's specified target RA [deg]
dec_targ	-36.406944	Observer's specified target Dec [deg]
ra_nom	257.2786917847	Nominal RA [deg]
dec_nom	-36.404285558006	Nominal Dec [deg]
roll_nom	30.156372083236	Nominal Roll [deg]
revision	1	Processing version of data
ontime	20047.25	Sum of GTIs [s]
livetime	19968.940429688	Livetime [s]
ontime5	20047.25	Sum of GTIs [s]
ontime6	20047.25	Sum of GTIs [s]
ontime7	20047.25	Sum of GTIs [s]
ontime8	20047.25	Sum of GTIs [s]
l2events	688372	Number of level 2 events



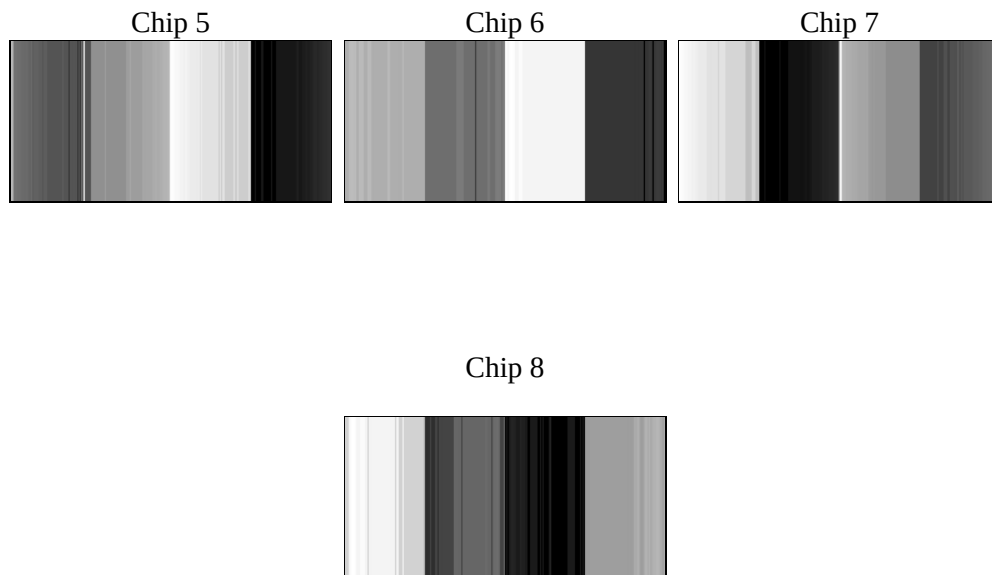
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	19926.749000	[s] Scheduled observation exposure time
ascdsver	10.4.3.1	Processing system revision	ontime	20047.25	Sum of GTIs [s]
caldsver	4.7.1	 	ontime5	20047.25	Sum of GTIs [s]
date	2016-05-28T06:07:02	Date and time of file creation	ontime6	20047.25	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	20047.25	Sum of GTIs [s]
			ontime8	20047.25	Sum of GTIs [s]
			l1events	2078983	Number of level 1 events
			tgmethod	TGDETECT	Method used to create src1a file
			zo_pos	(4082.45, 4083.57)	src1a sky pixel position

2.1.4 Events

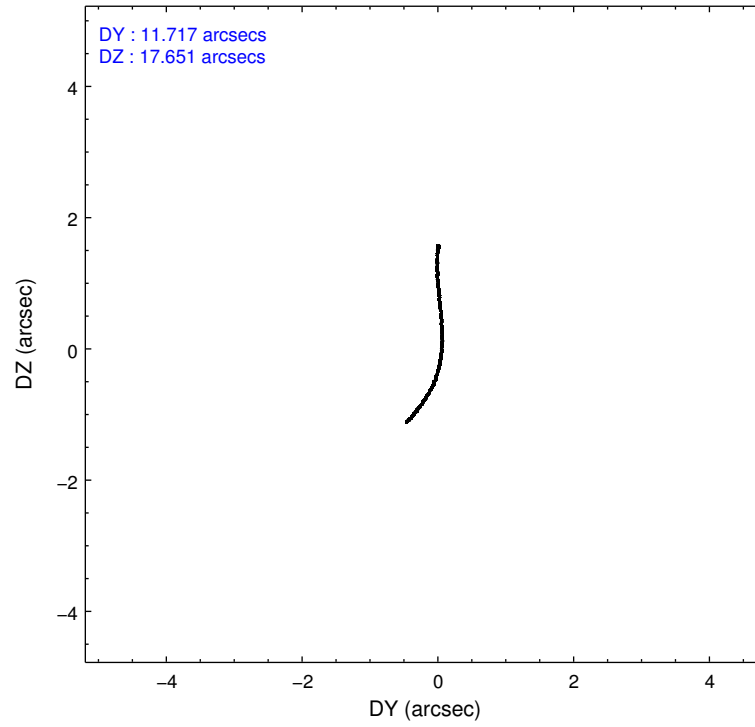
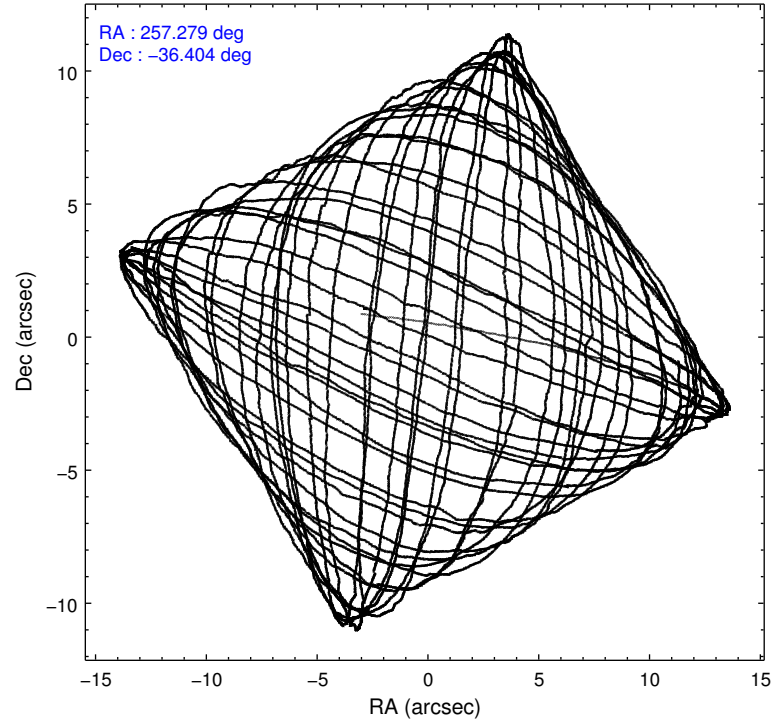
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	765902	337669	584954	390458
rejected events	271876	200329	193346	288916
rejected %	35%	59%	33%	73%

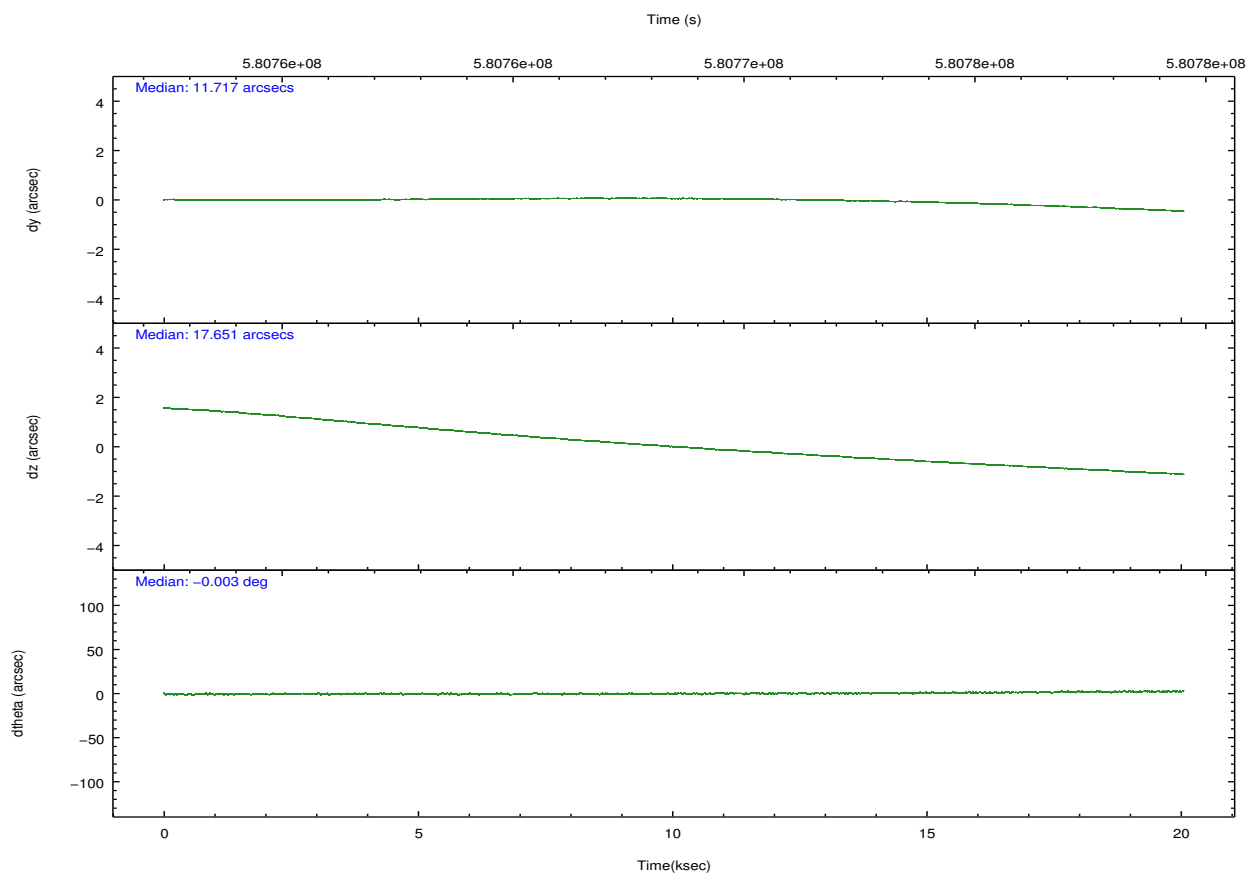
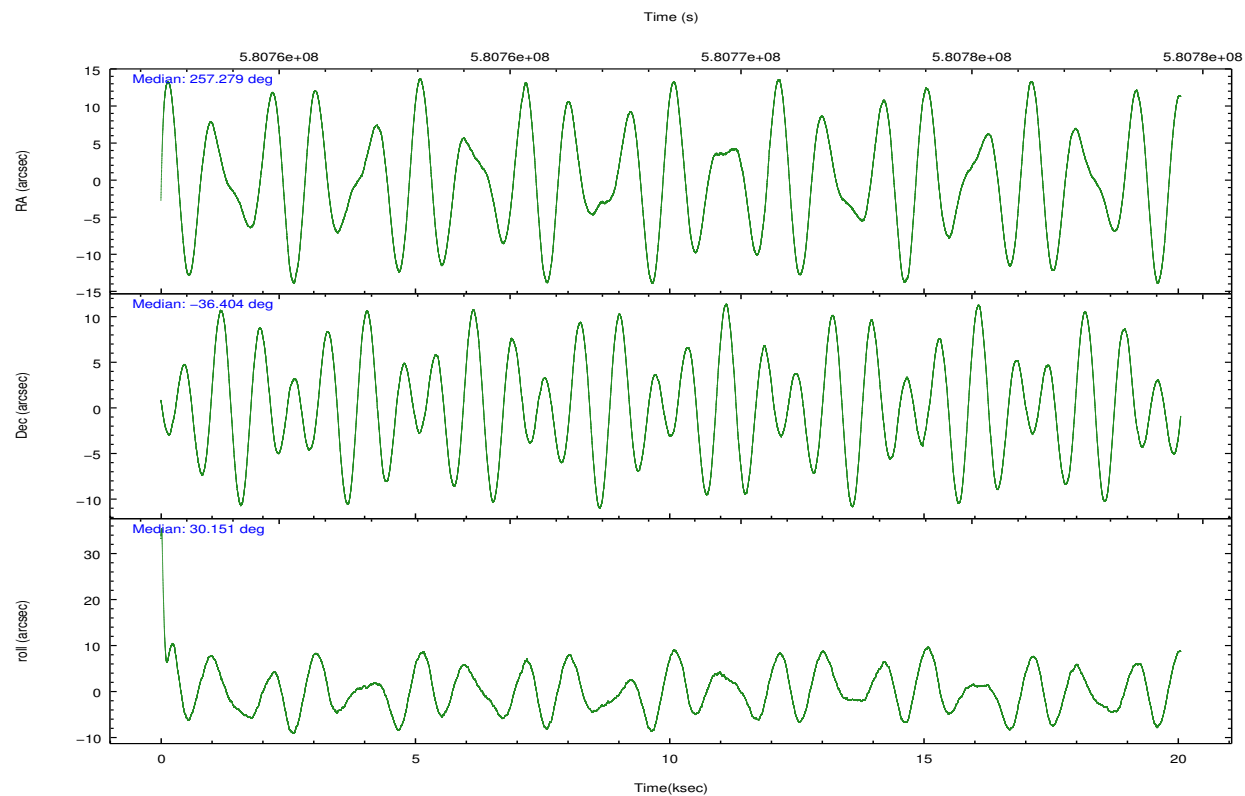
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	178333	5532	58669	25128
	23%	1%	10%	6%
grade 1 events	272	125	874	285
	0%	0%	0%	0%
grade 2 events	243049	109756	119236	44369
	31%	32%	20%	11%
grade 3 events	2983	2956	31261	6976
	0%	0%	5%	1%
grade 4 events	2844	2823	30949	6859
	0%	0%	5%	1%
grade 5 events	14218	6942	20159	9860
	1%	2%	3%	2%
grade 6 events	67053	16386	151841	18301
	8%	4%	25%	4%
grade 7 events	257150	193149	171965	278680
	33%	57%	29%	71%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-5678	ACIS-5678	Obspar file type	PREDICTED	ACTUAL
Grating	HETG	HETG	Obspar update status	NONE	UPDATED
Data mode	CC33_FAINT	CC33_FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	257.262104	257.2786917847023	Subarray requested	NONE	NONE
[deg] Pointing Dec	-36.428260	-36.40428555800641	Alternating exposures requested	N	N
[deg] Pointing Roll	29.989868	30.156372083236	[s] Primary exposure time	0.000000	0
[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)	580758584.184000	580757249.21561			
Observation start date	2016-05-27T17:48:36	2016-05-27T17:27:29			
[s] Observation end time (MET)	580778511.184000	580778726.55434			
Observation end date	2016-05-27T23:20:43	2016-05-27T23:25:26			
Read mode	CONTINUOUS	CONTINUOUS			

2.3 Aspect



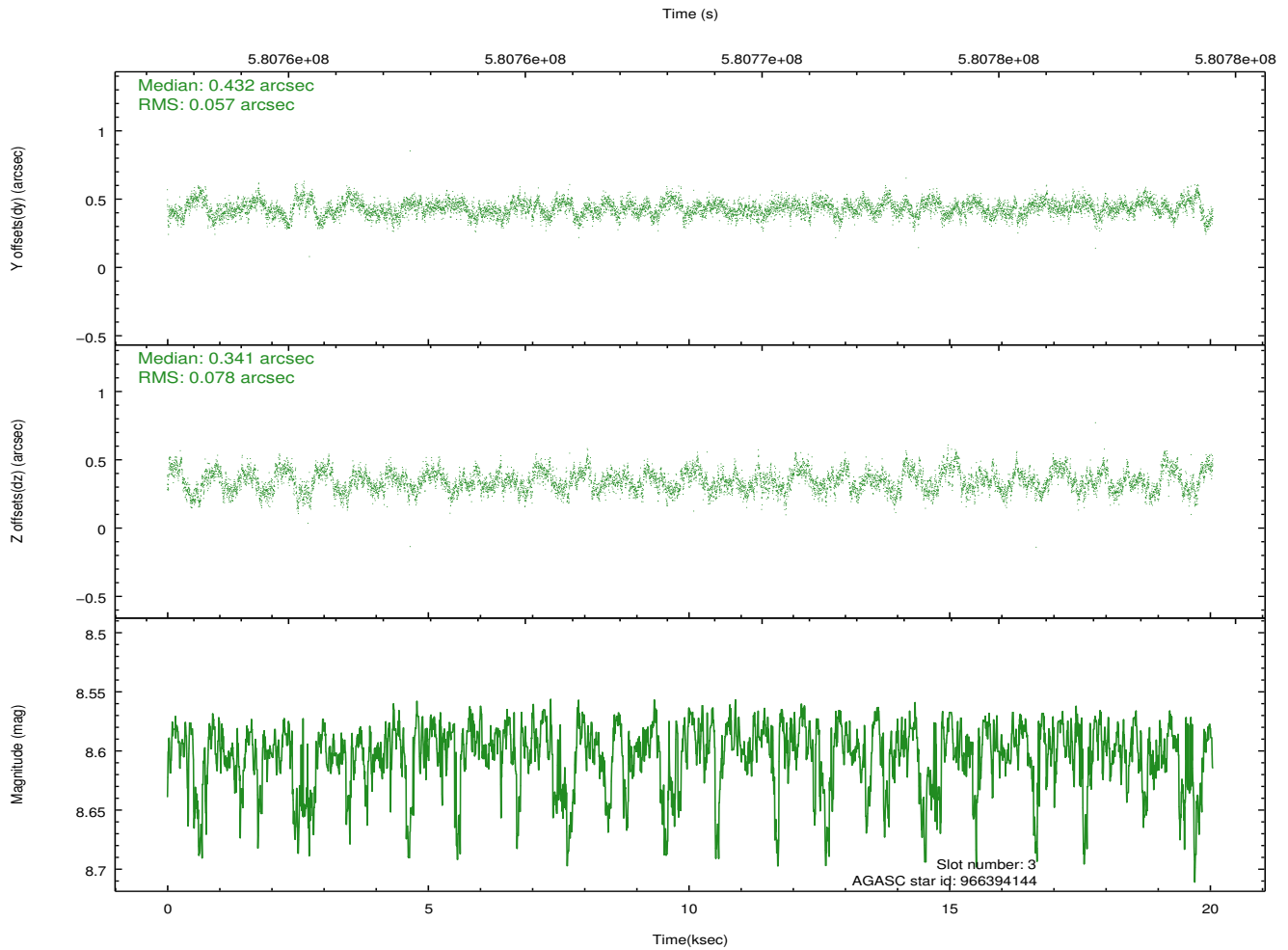
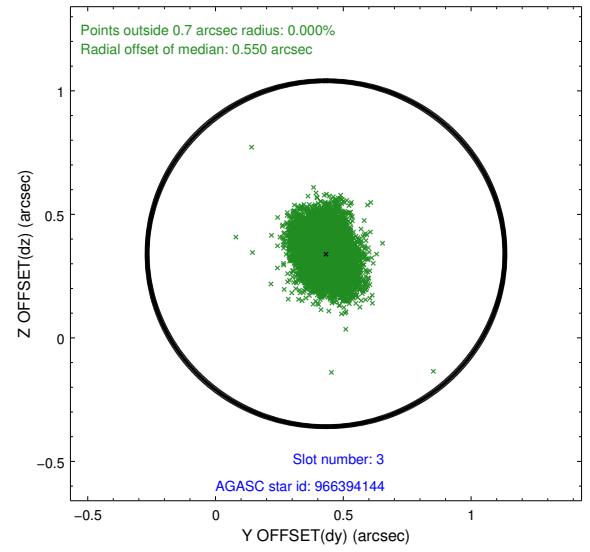
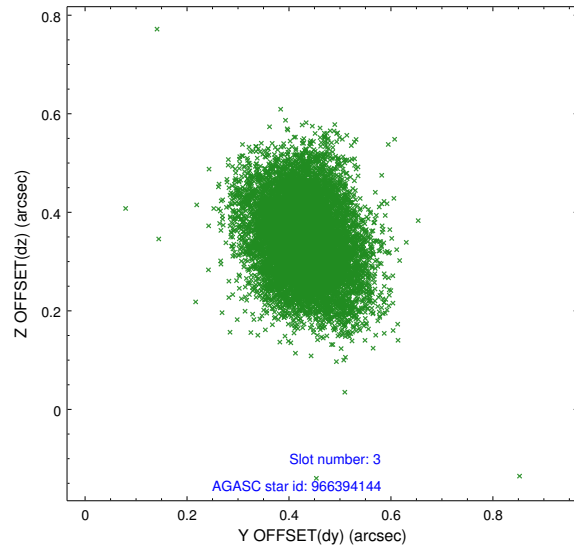


Slot Statistics

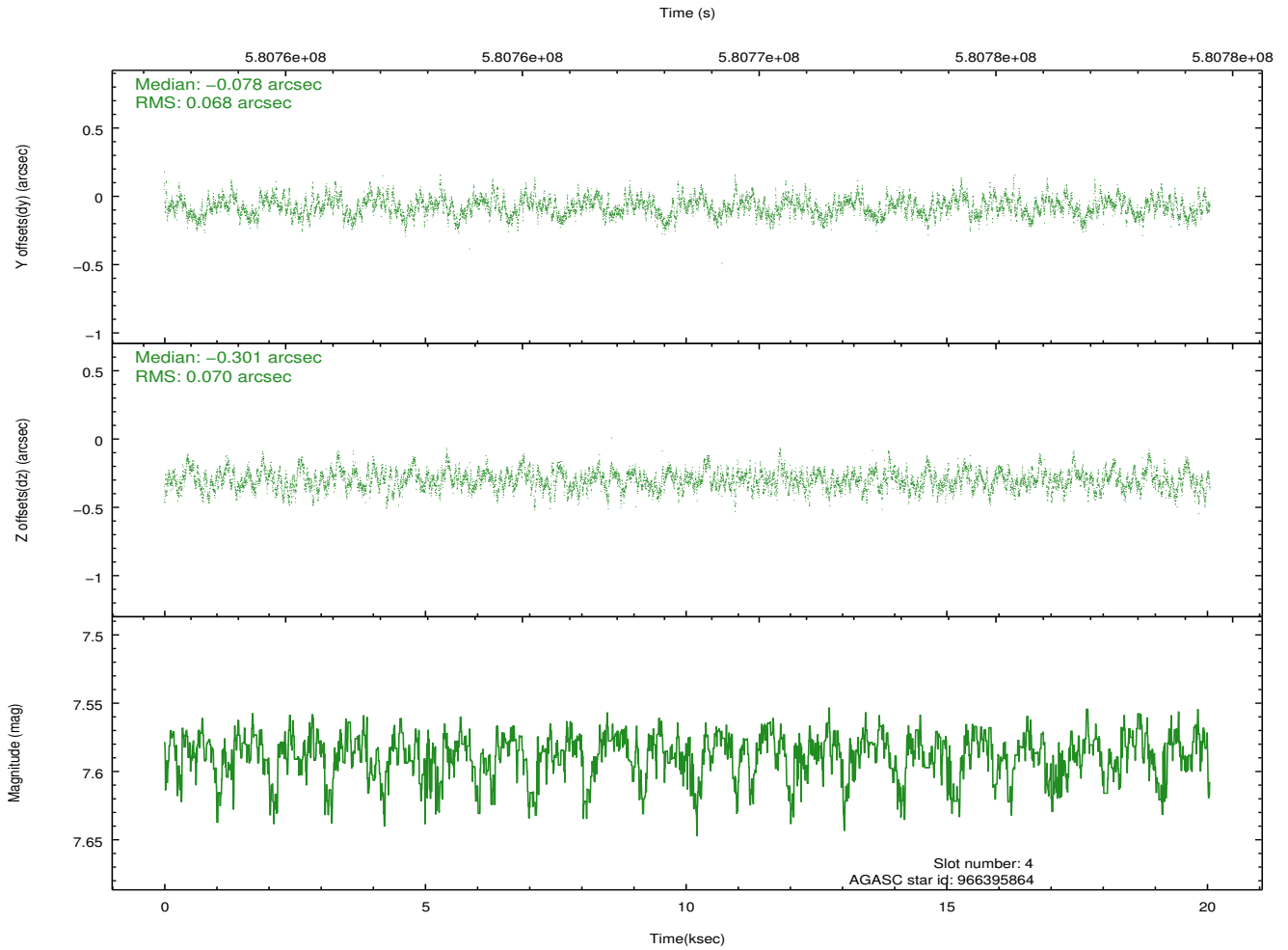
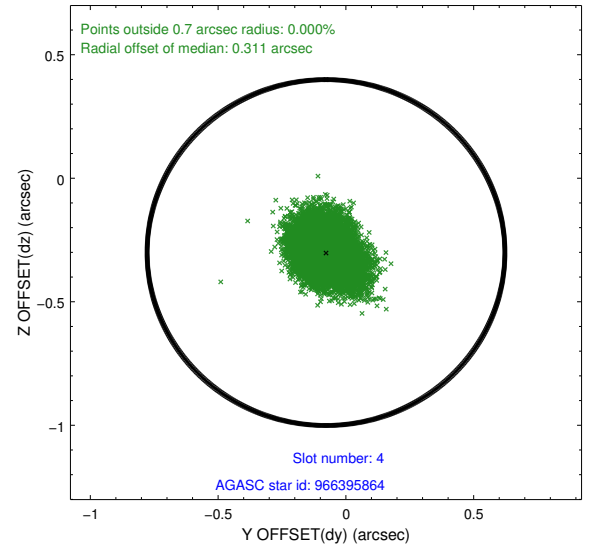
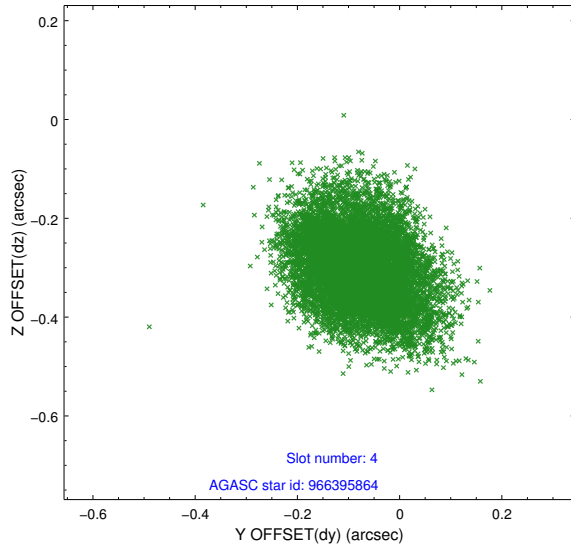
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.09	4890	-0.210	-0.128	0.012	0.021	0.000000	0.000000	-764.58	-1801.40
1	FID		ACIS-S-4	7.21	4891	0.237	0.126	0.014	0.021	0.000000	0.000000	2149.09	107.07
2	FID		ACIS-S-6	7.38	4891	-0.053	0.007	0.012	0.027	0.000000	0.000000	397.84	744.59
3	GUIDE	used	966394144	8.60	9774	0.432	0.341	0.103	0.167	256.902901	-37.062041	-2035.19	-1461.82
4	GUIDE	used	966395864	7.59	9782	-0.078	-0.301	0.104	0.171	256.670769	-36.077904	-862.63	1947.51
5	GUIDE	used	966396120	7.83	9781	0.044	0.364	0.091	0.140	256.737004	-36.720258	-1839.65	-156.36
6	GUIDE	used	966402904	8.05	9780	-0.281	-0.088	0.069	0.112	257.709598	-36.005094	1888.40	665.66
7	GUIDE	used	966398520	8.31	9782	-0.118	-0.320	0.076	0.126	256.842646	-35.892866	-97.43	2277.68

2.4 Star Slots

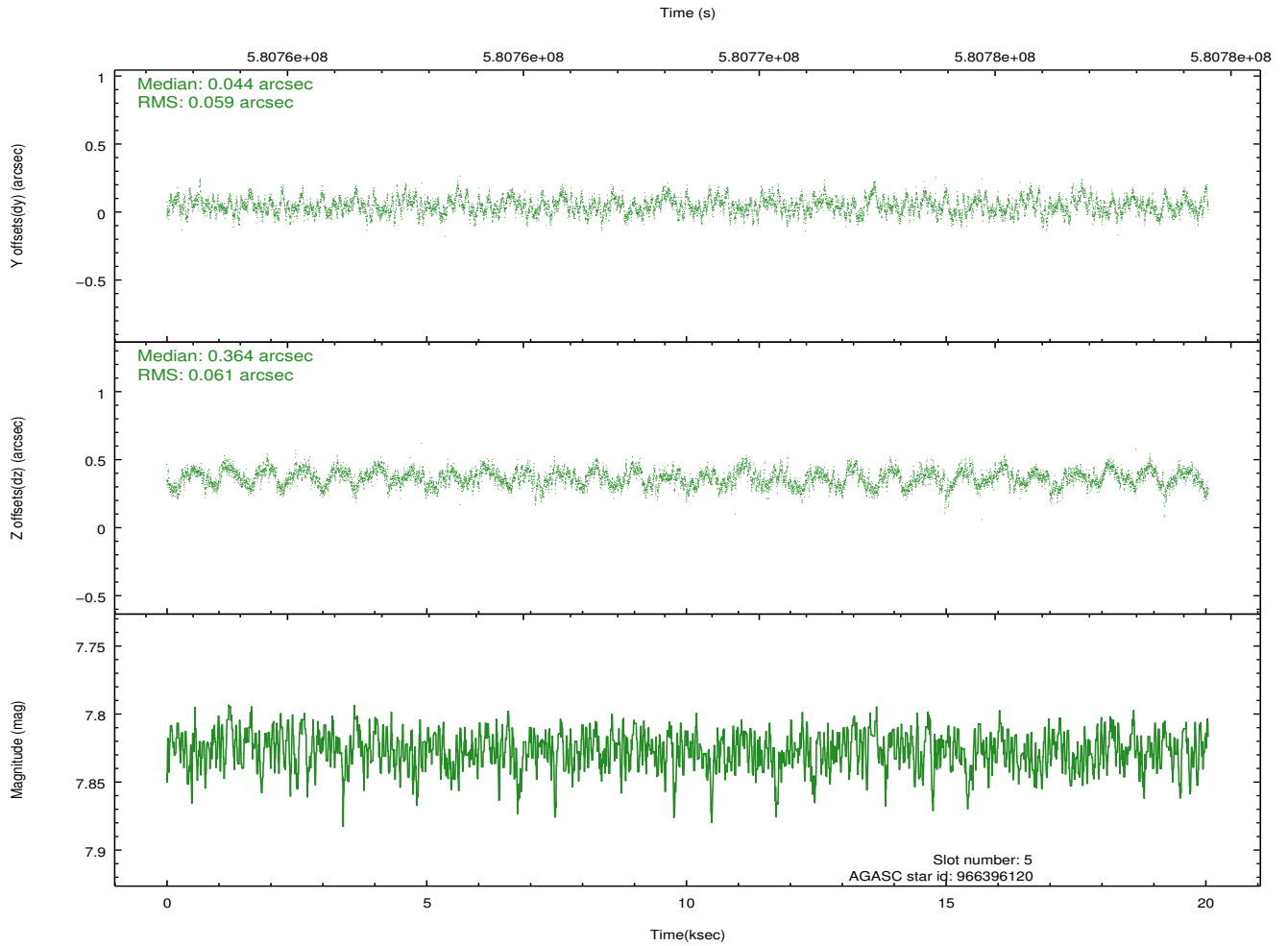
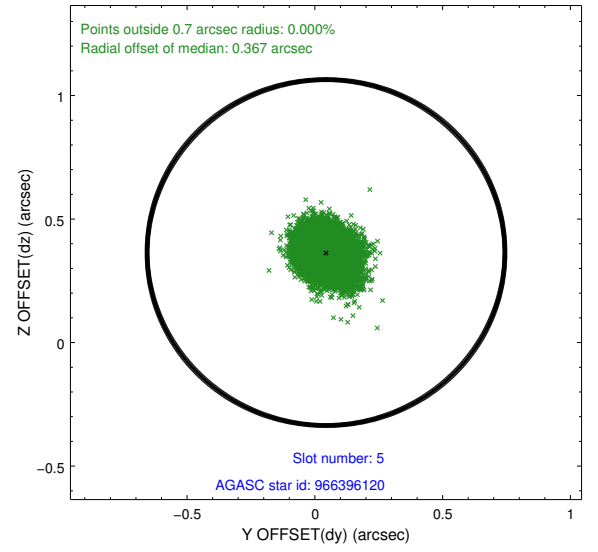
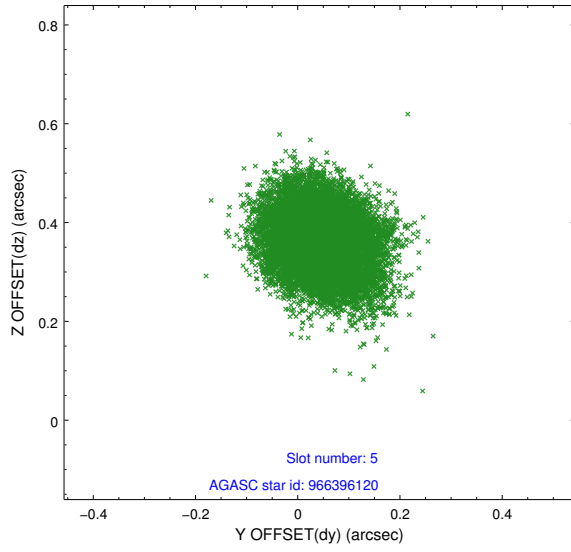
2.4.1 Slot 3



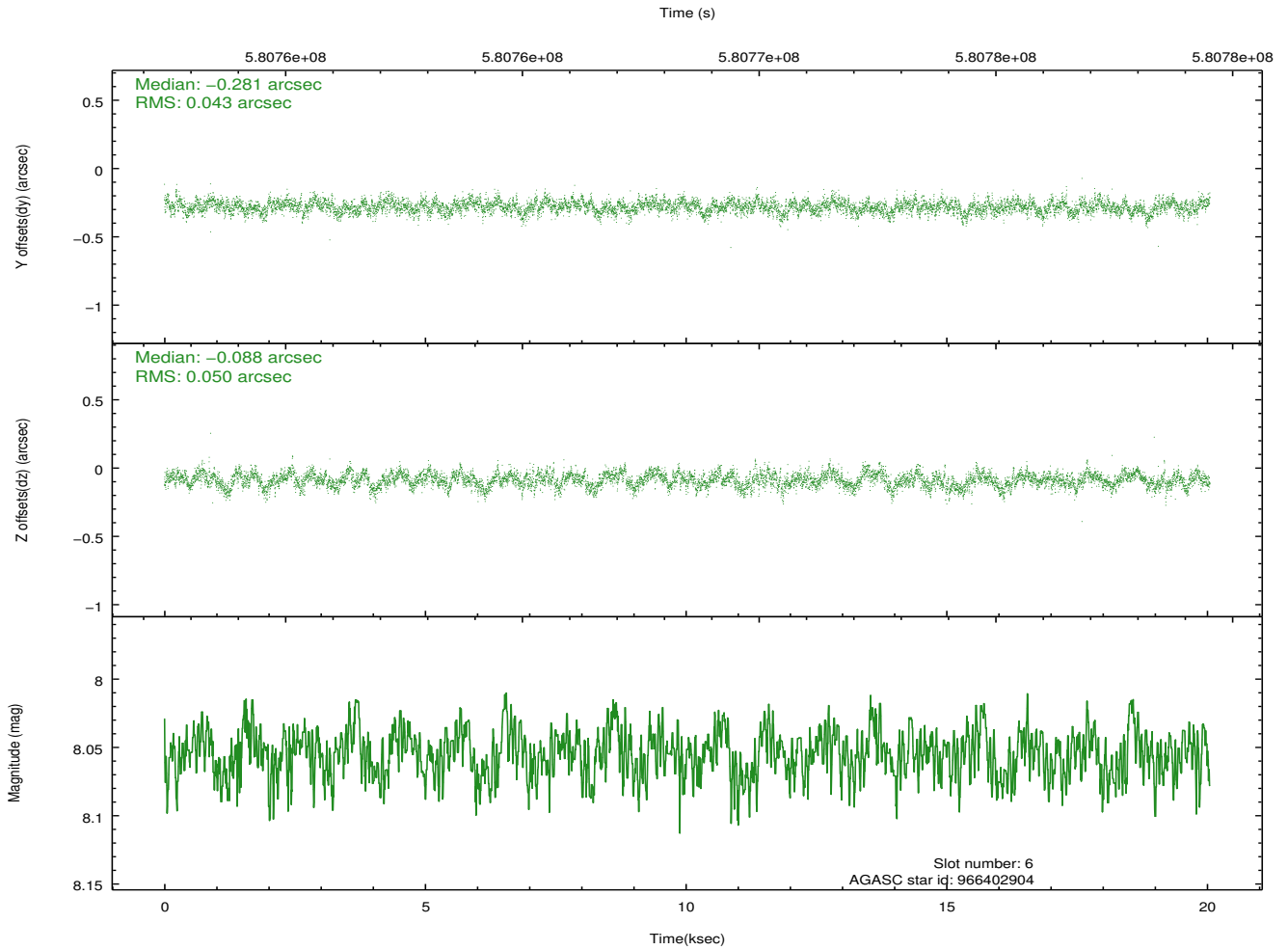
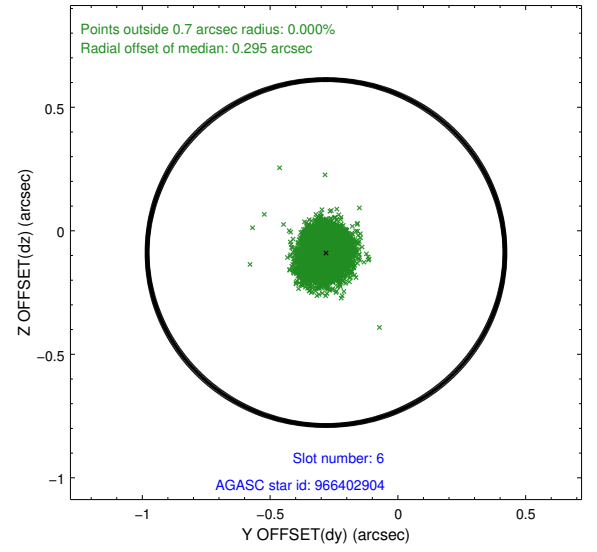
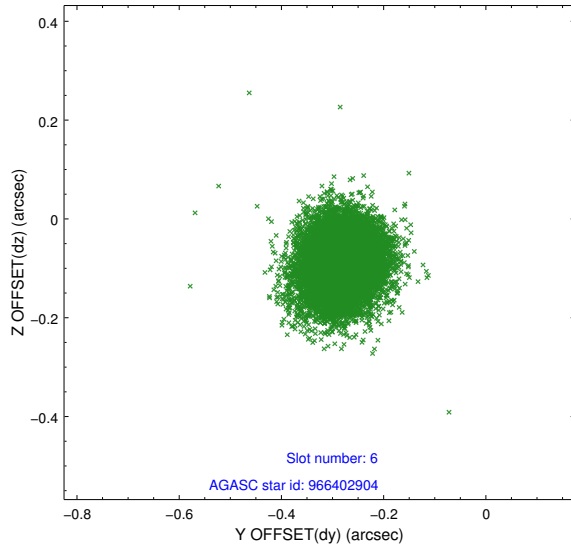
2.4.2 Slot 4



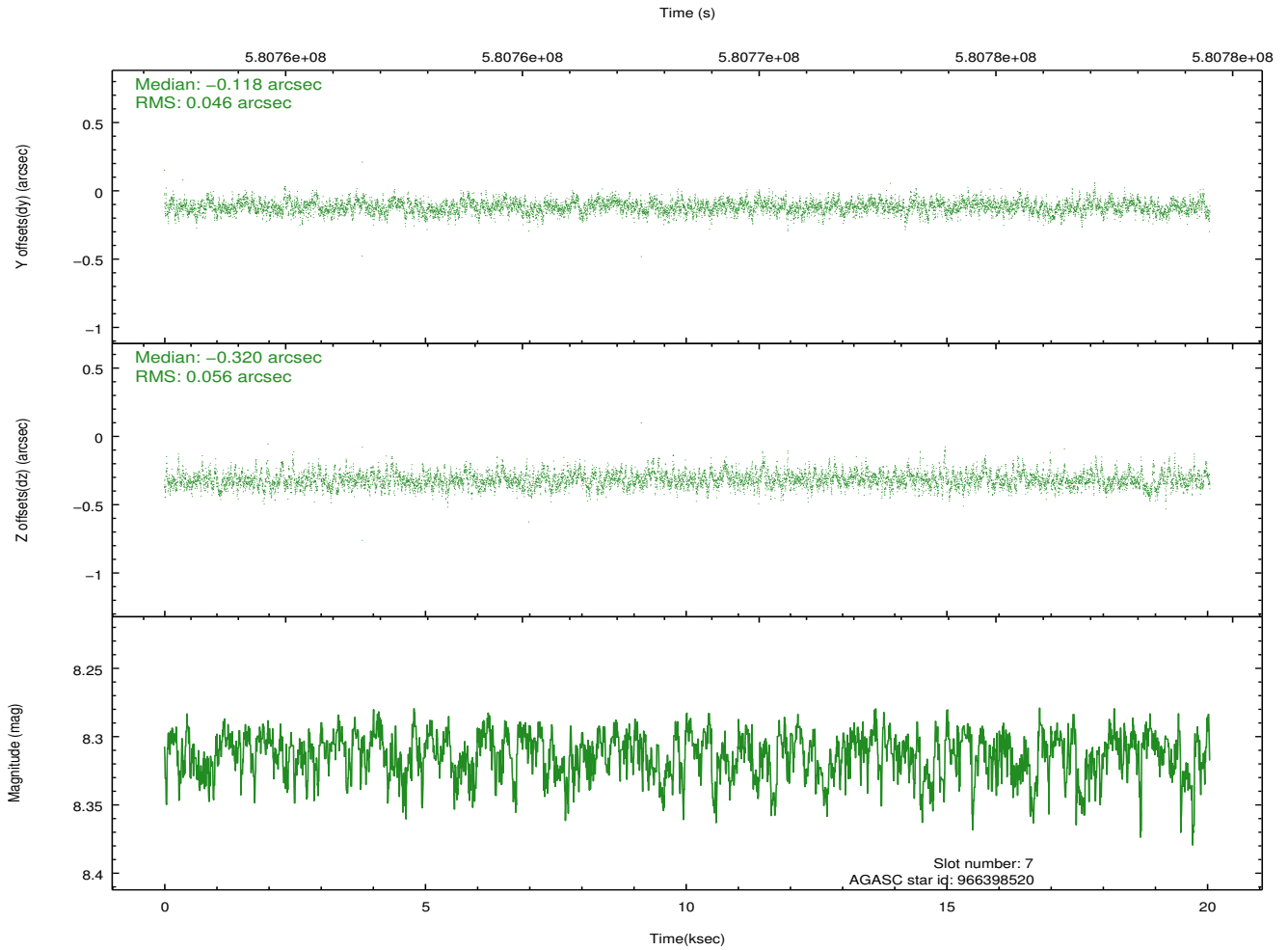
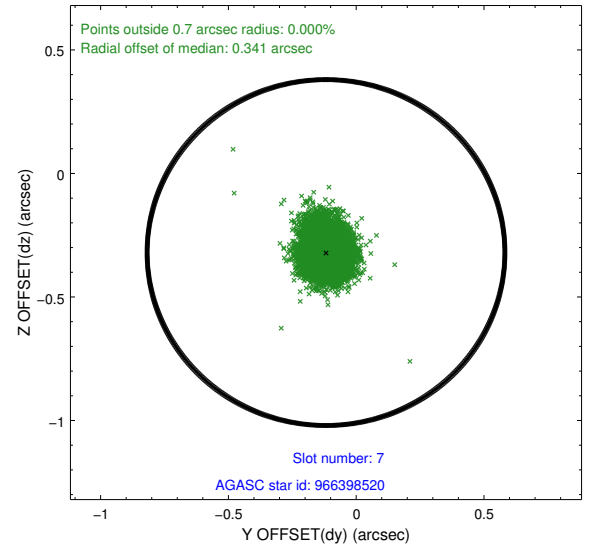
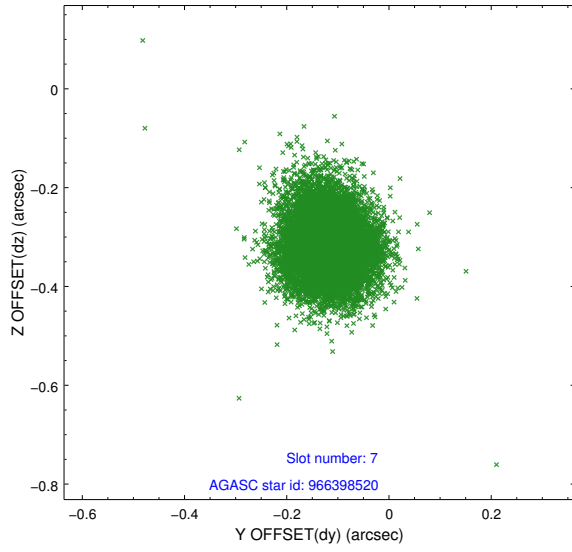
2.4.3 Slot 5



2.4.4 Slot 6

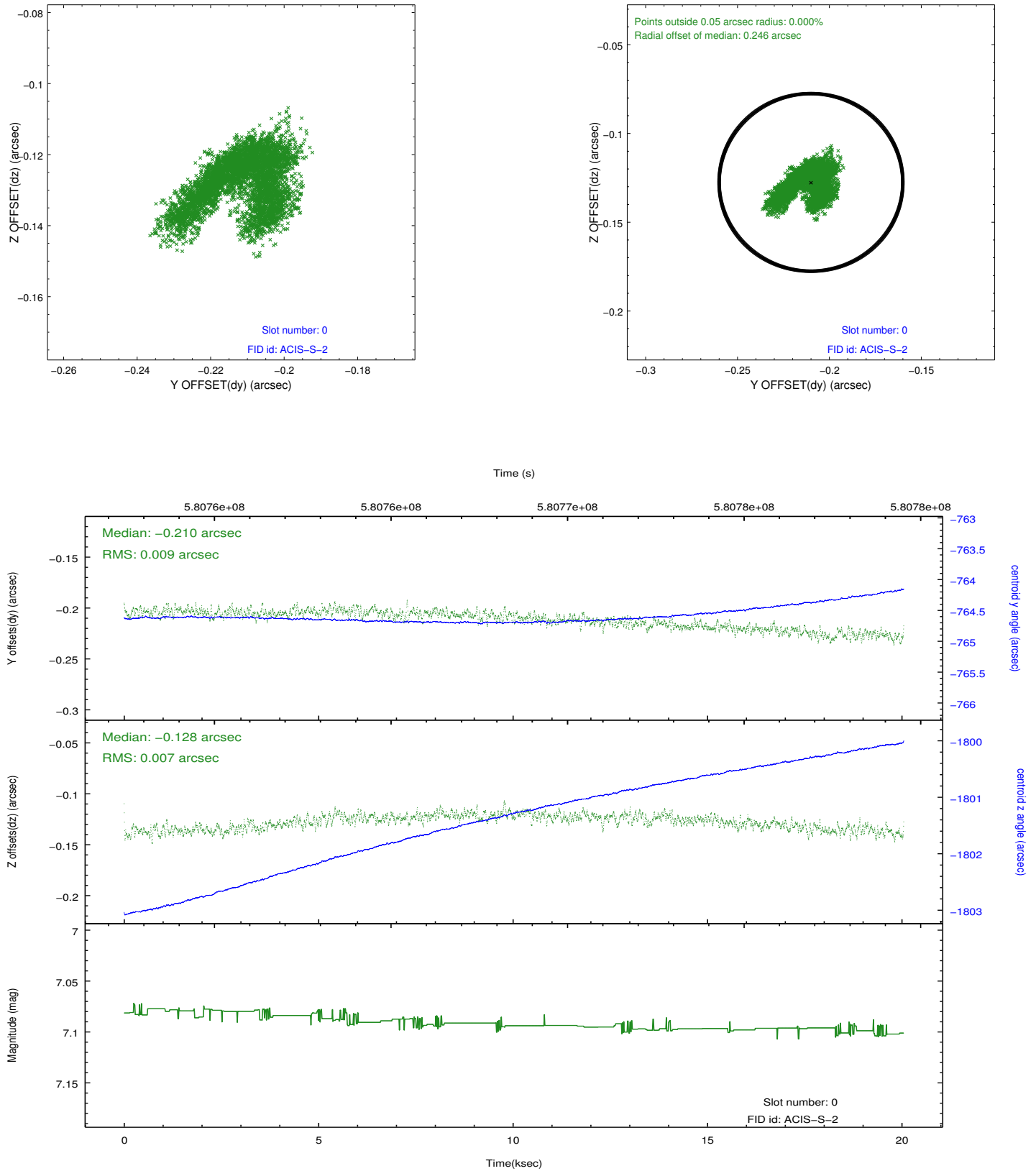


2.4.5 Slot 7

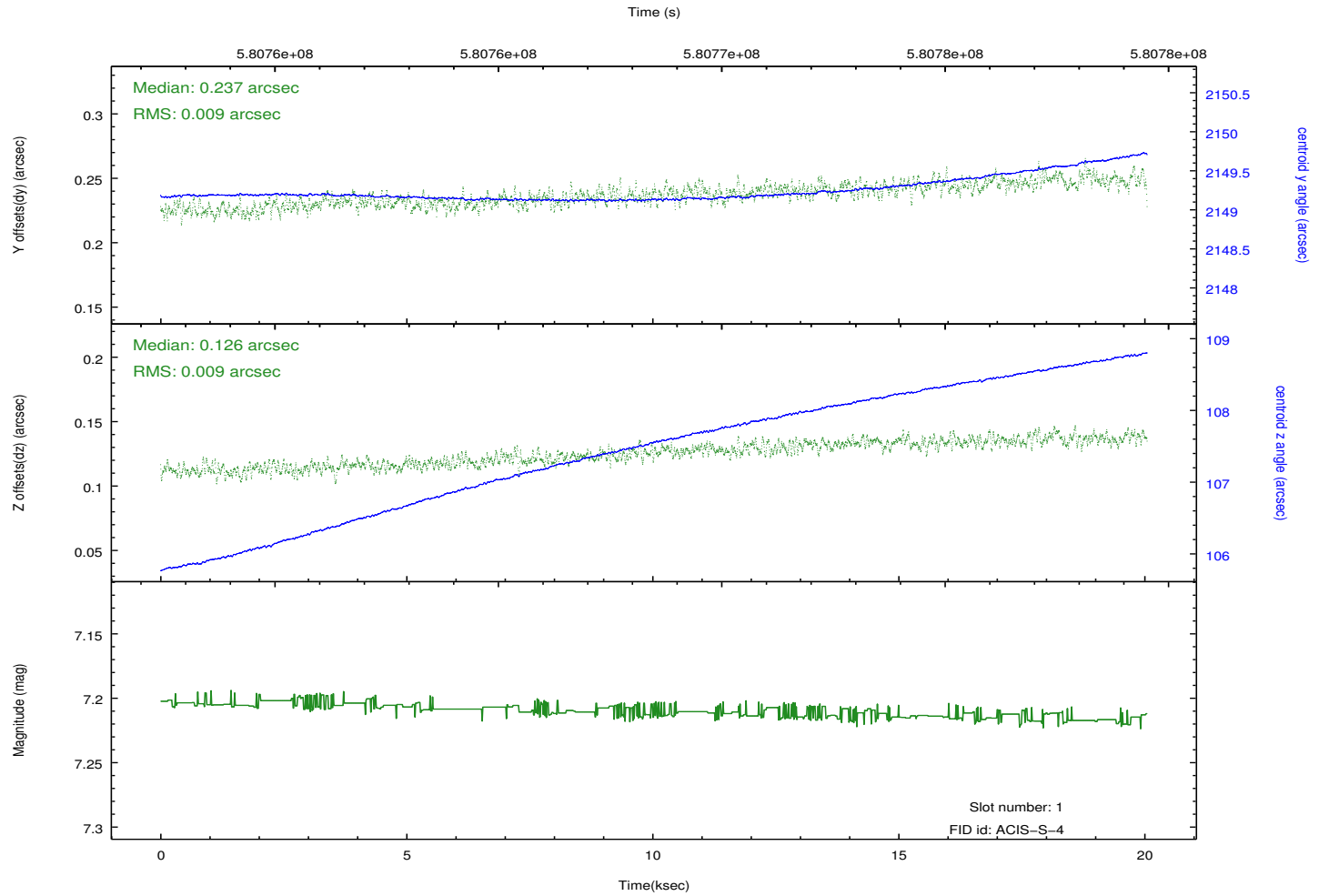
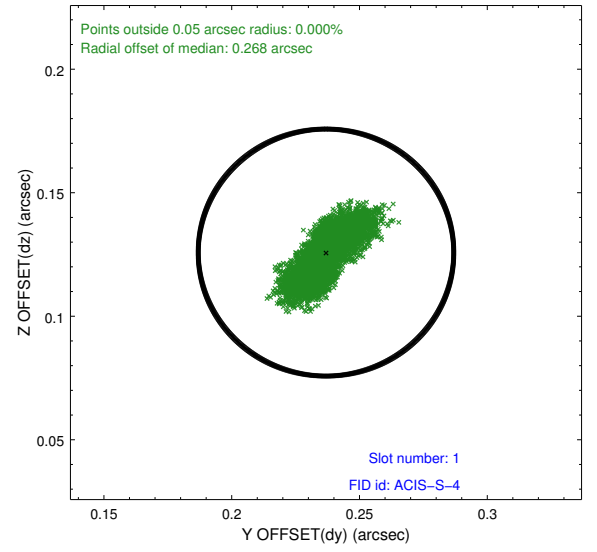
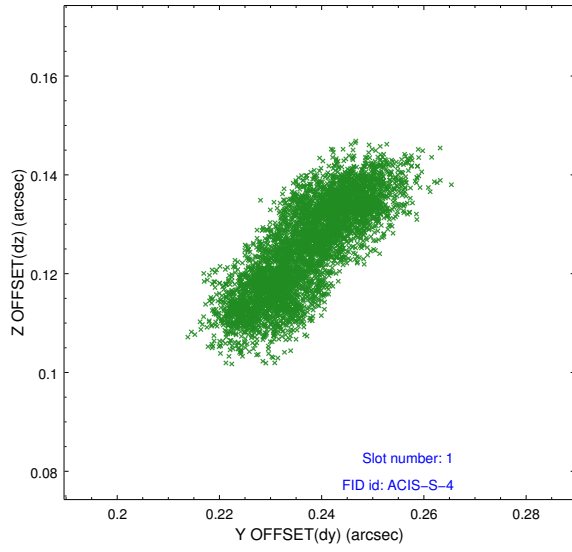


2.5 FID Slots

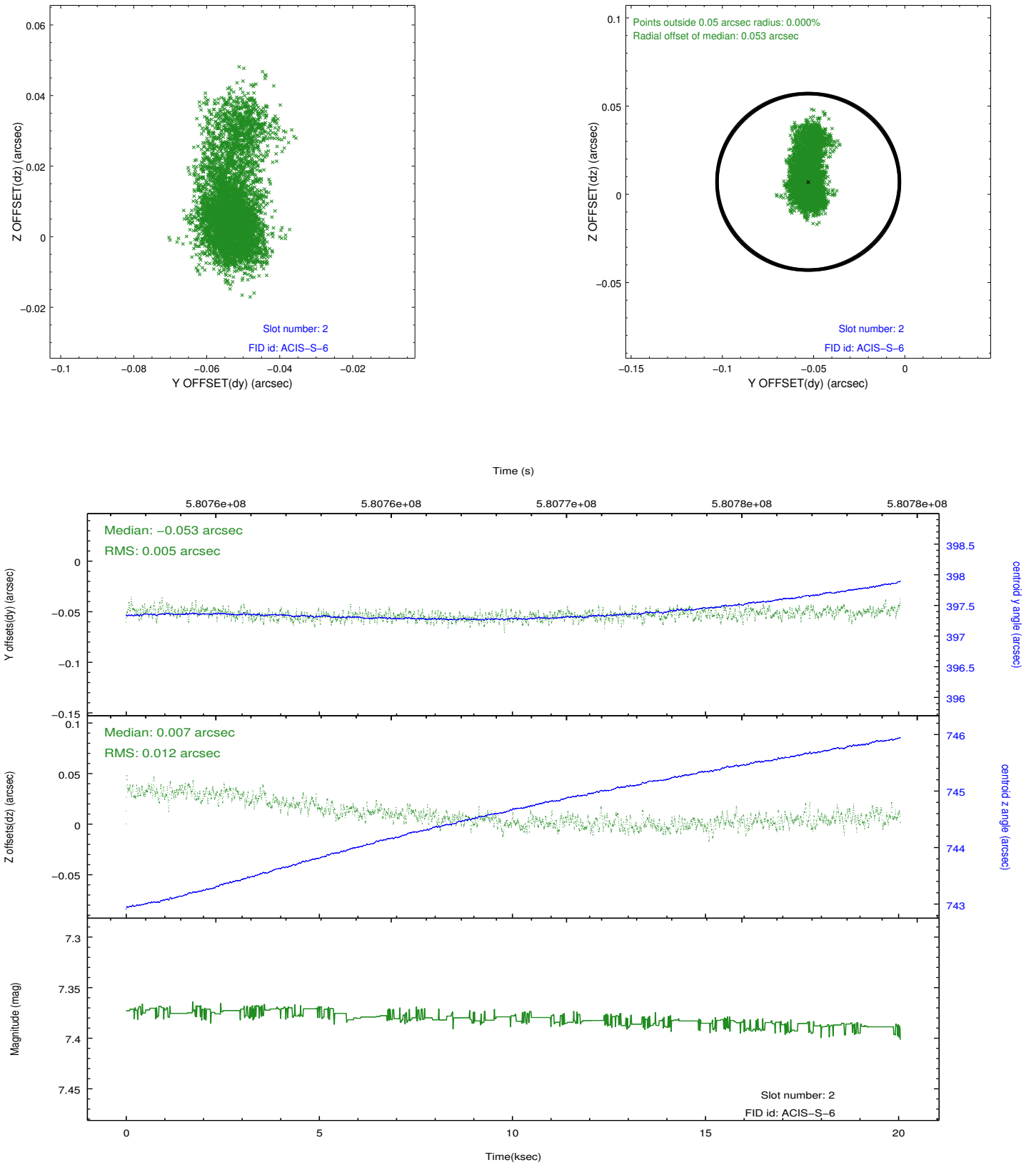
2.5.1 Slot 0



2.5.2 Slot 1

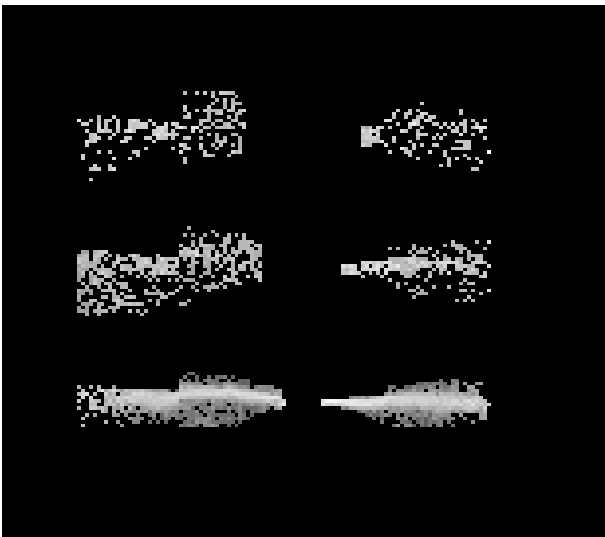


2.5.3 Slot 2

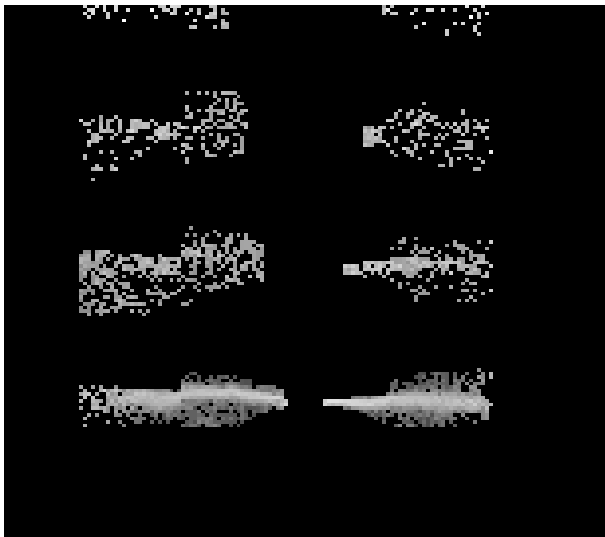


3 Gratings

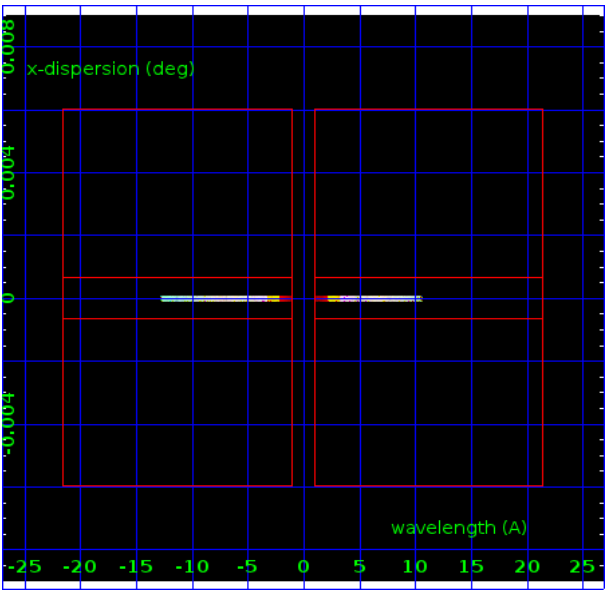
3.1 HEG Arm



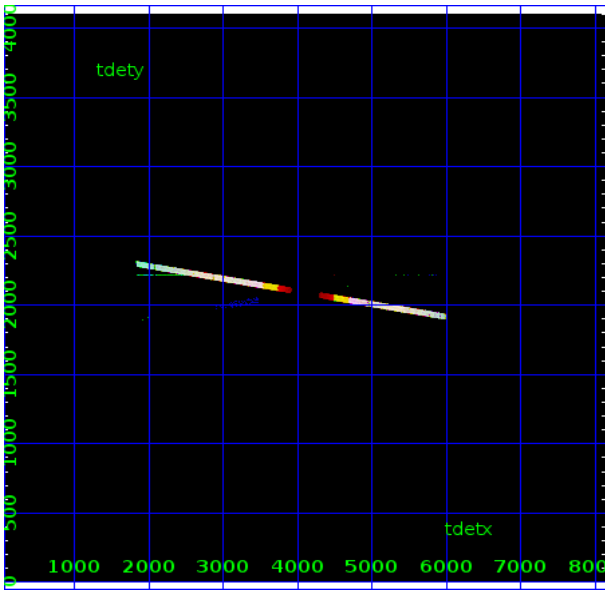
HEG Order Sort 123



HEG Order Sort ALL

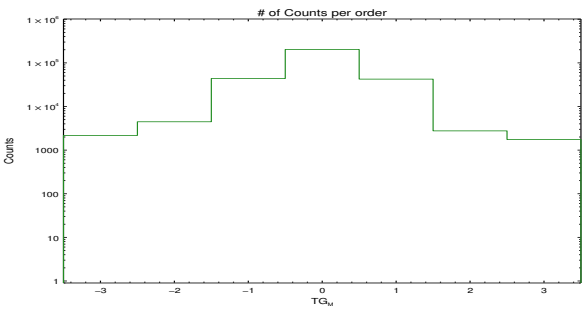


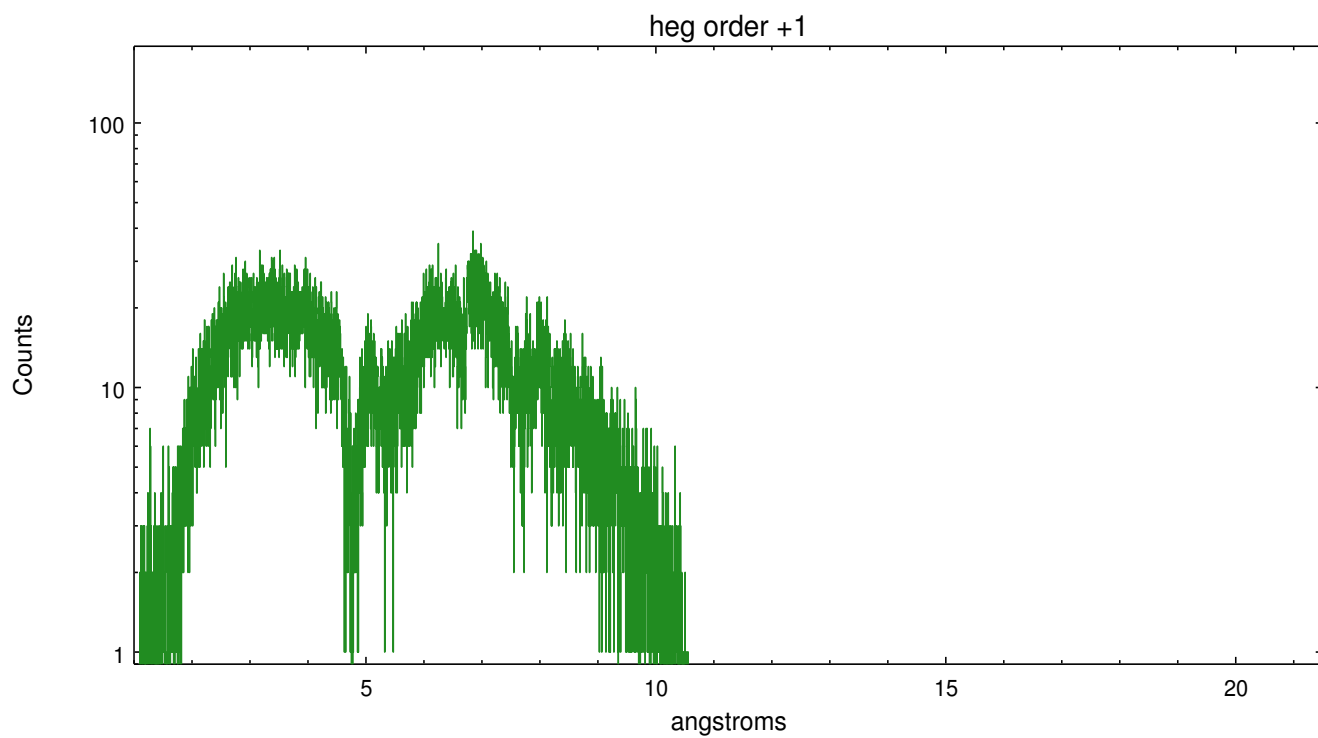
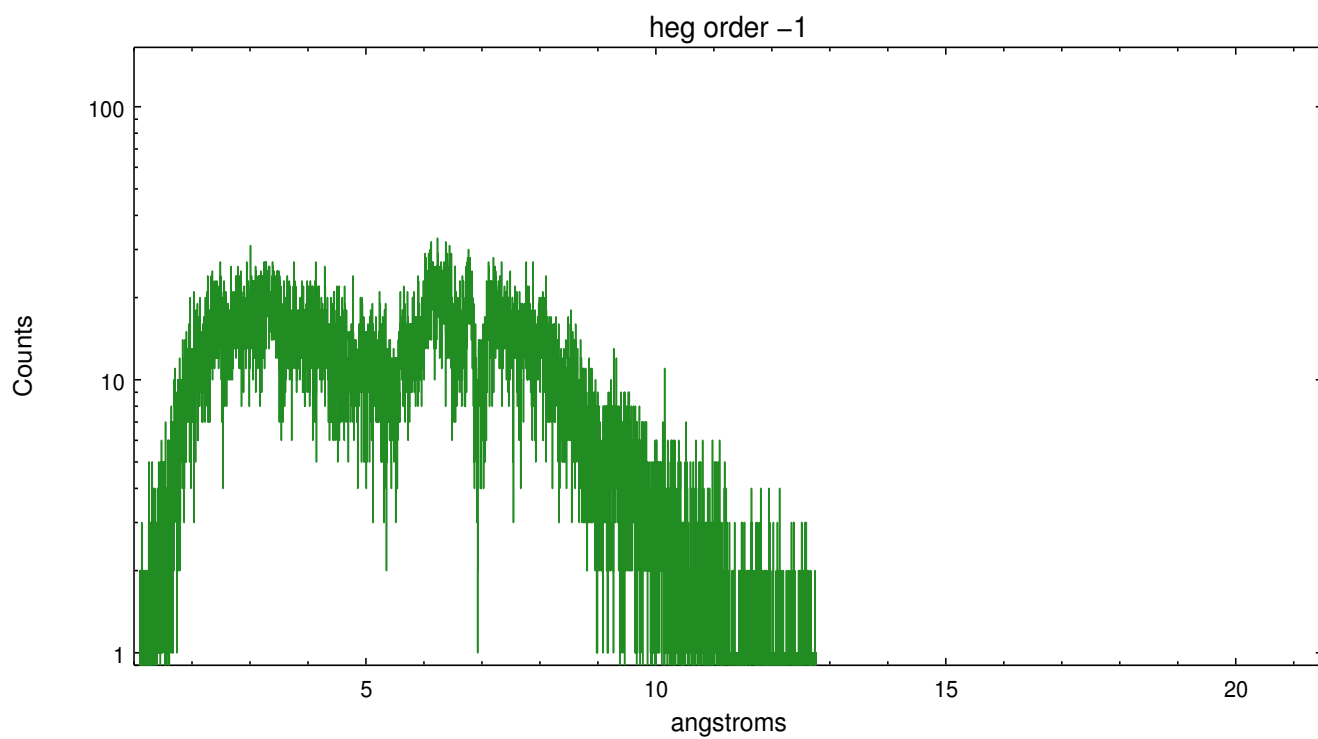
Spot Image HEG



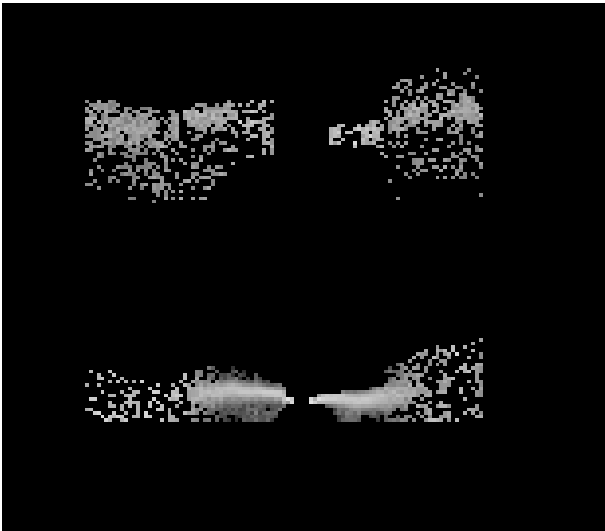
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	2175	4469	43780	202881	42415	2764	1752





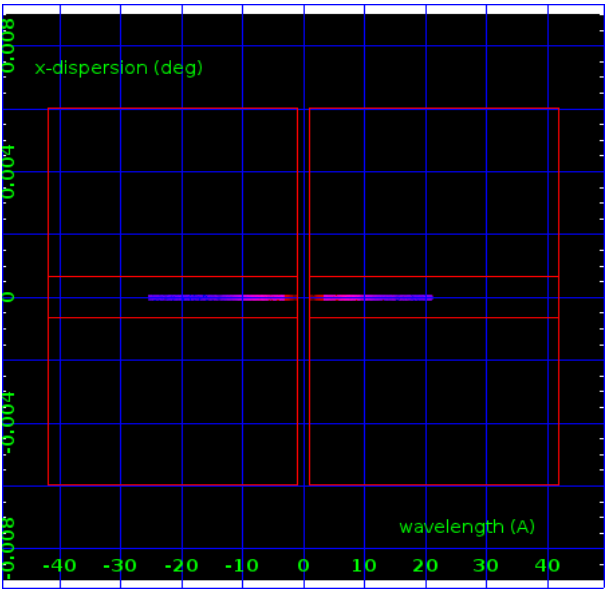
3.2 MEG Arm



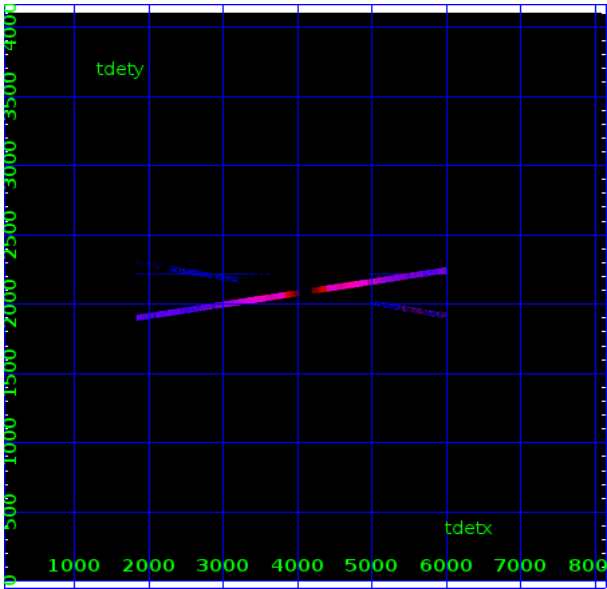
MEG Order Sort 123



MEG Order Sort ALL

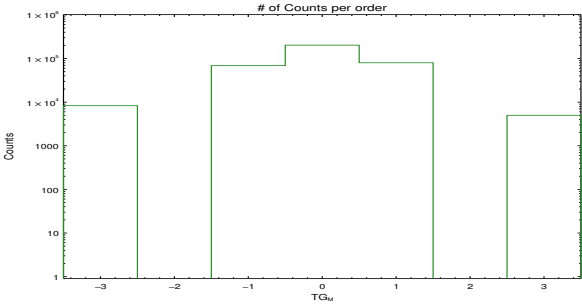


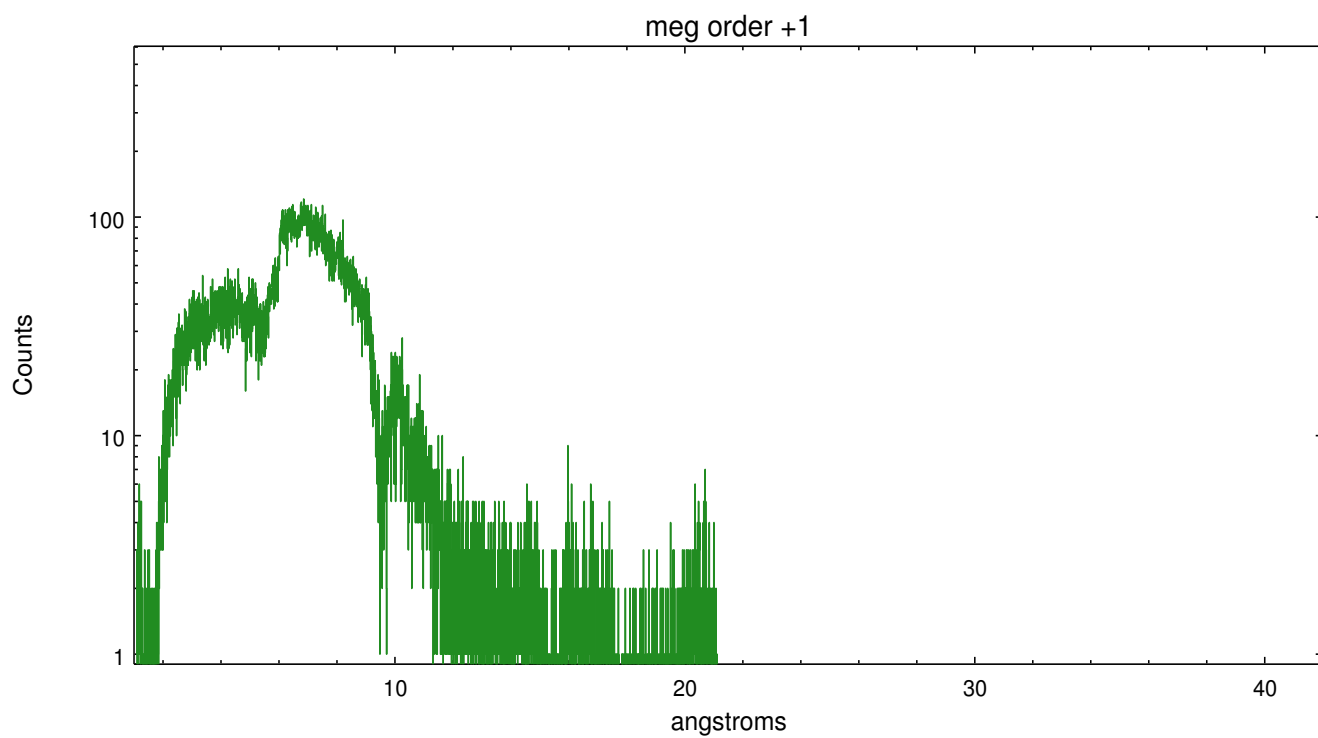
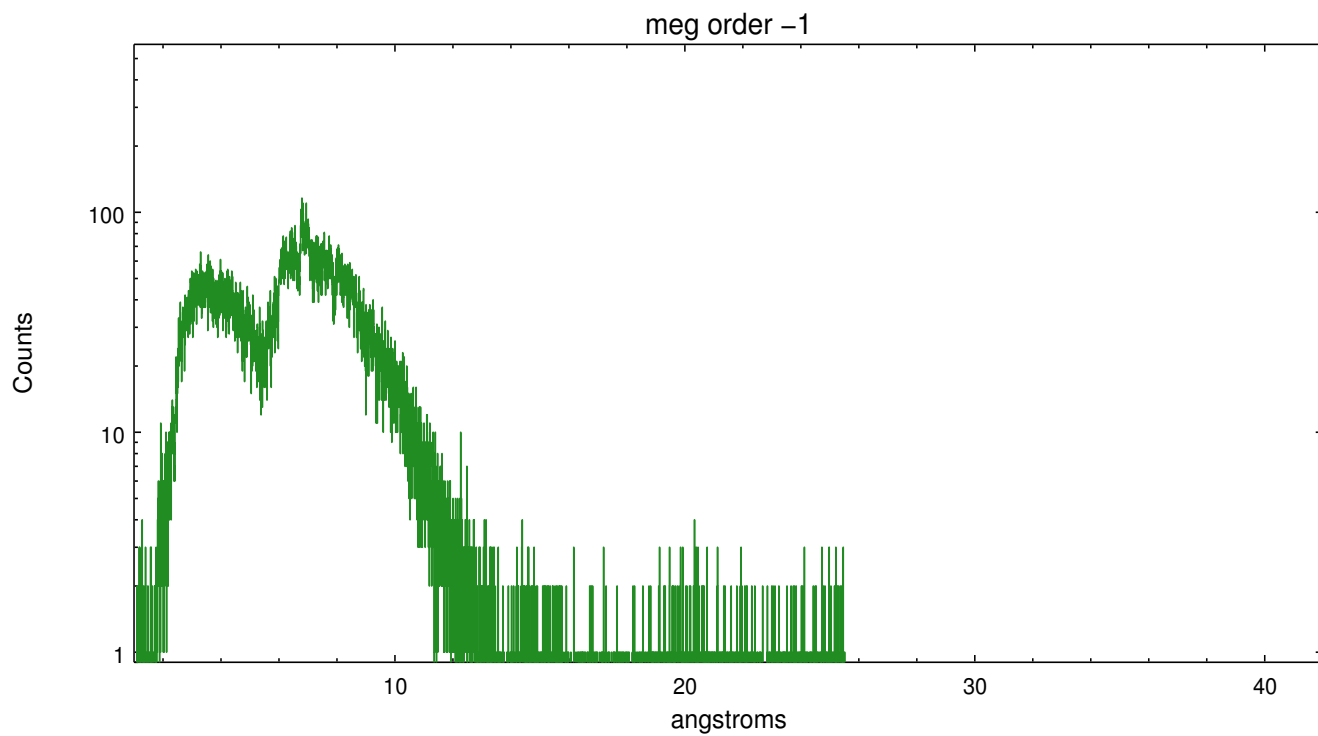
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	8303	0	68675	202881	79946	0	4995





A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2016.05.28
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.04725

A.2 Comments