

V&V Reference Report

L2 ASCDS Version : 10.6

Observation 20191 - L2 Version 2
Chandra X-Ray Center

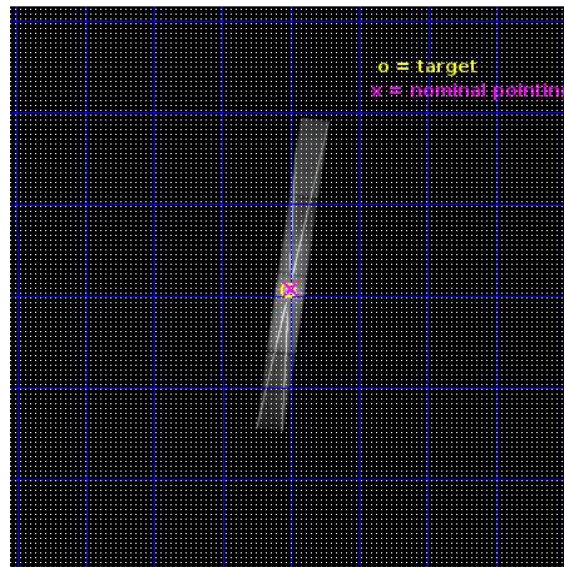
L2 Processing Date : May 11 2018

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1 Front

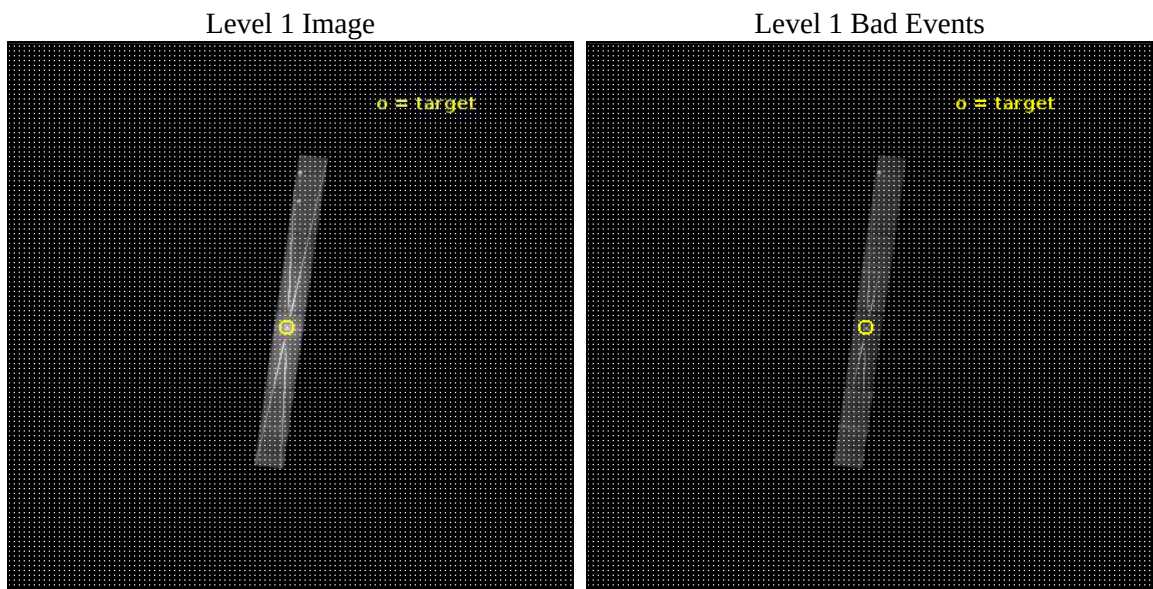
seq_num	401918	Sequence number
obs_id	20191	Observation id
title	Winds and jets in GX 13+1: a multi-wavelength campaign	Proposal ti
observer	Jeroen Homan	Principal investigator
object	GX 13+1	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	273.6295	Observer's specified target RA [deg]
dec_targ	-17.157208	Observer's specified target Dec [deg]
ra_nom	273.62402332671	Nominal RA [deg]
dec_nom	-17.153429798078	Nominal Dec [deg]
roll_nom	97.922274860731	Nominal Roll [deg]
revision	2	Processing version of data
ontime	25078.800996542	Sum of GTIs [s]
livetime	24249.469151559	Livetime [s]
ontime5	25078.800996542	Sum of GTIs [s]
ontime6	25077.559946418	Sum of GTIs [s]
ontime7	25078.800996542	Sum of GTIs [s]
ontime8	25078.772216916	Sum of GTIs [s]
l2events	2488823	Number of level 2 events



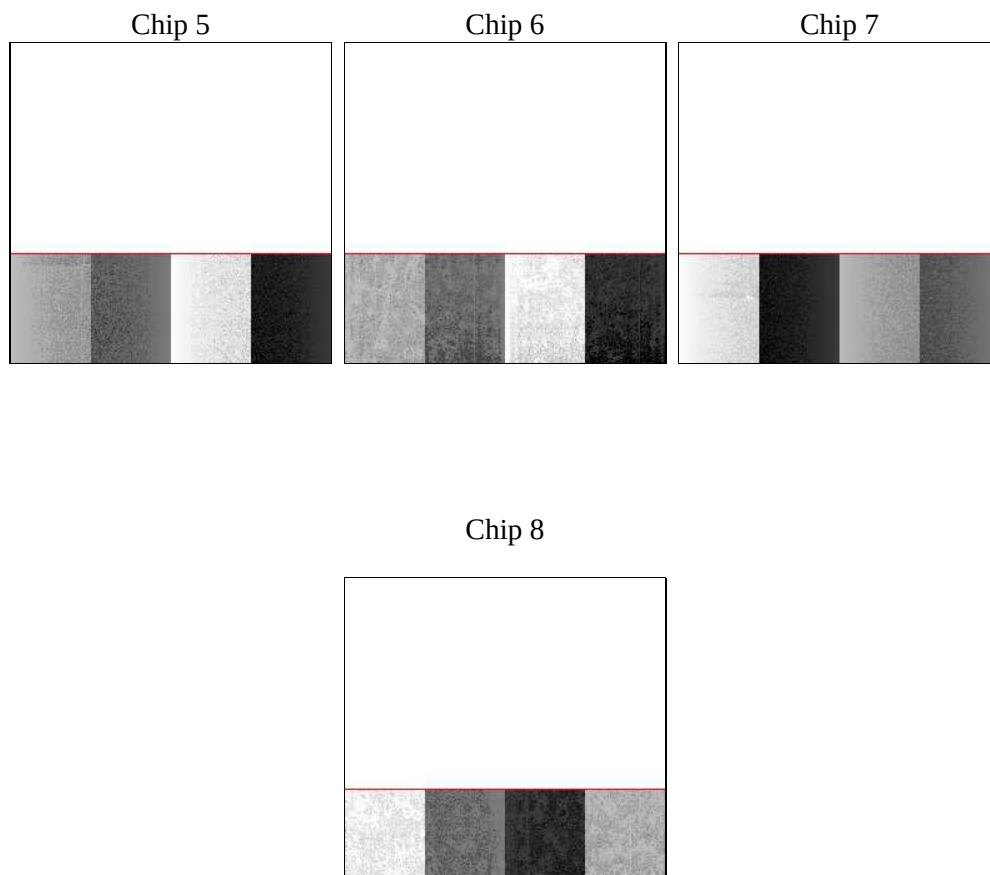
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	25000.000000	[s] Scheduled observation exposure time
ascdsver	10.6	Processing system revision	ontime	25078.800996542	Sum of GTIs [s]
caldsver	4.7.8	 	ontime5	25078.800996542	Sum of GTIs [s]
date	2018-05-11T17:08:21	Date and time of file creation	ontime6	25077.559946418	Sum of GTIs [s]
revision	2	Processing version of data	ontime7	25078.800996542	Sum of GTIs [s]
			ontime8	25078.772216916	Sum of GTIs [s]
			l1events	2945244	Number of level 1 events
			tgmethod	FINDZO	Method used to create src1a file
			zo_pos	(4057.66, 4068.84)	src1a sky pixel position
			zo_pos_tgd	(4056.96, 4068.12)	src1a sky pixel position via radetect

2.1.4 Events

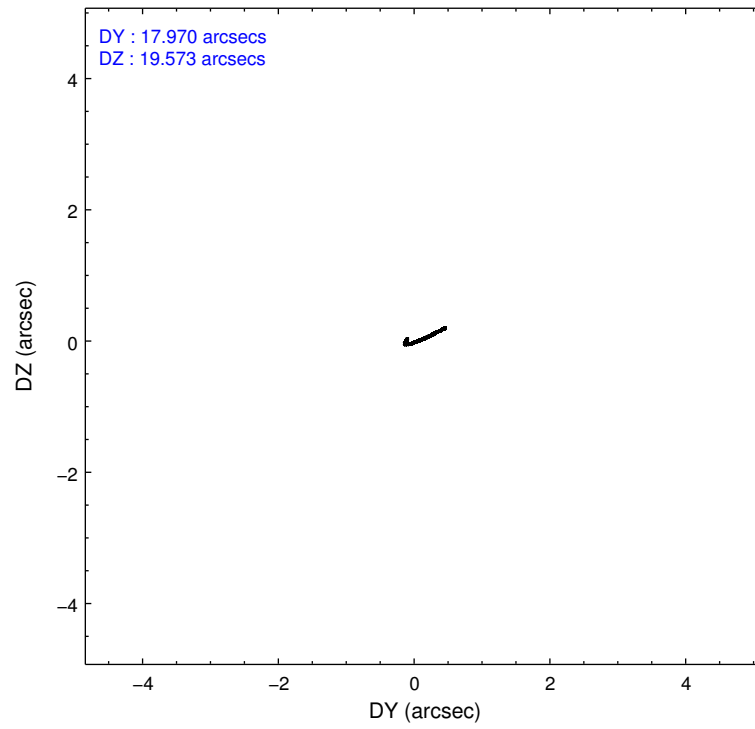
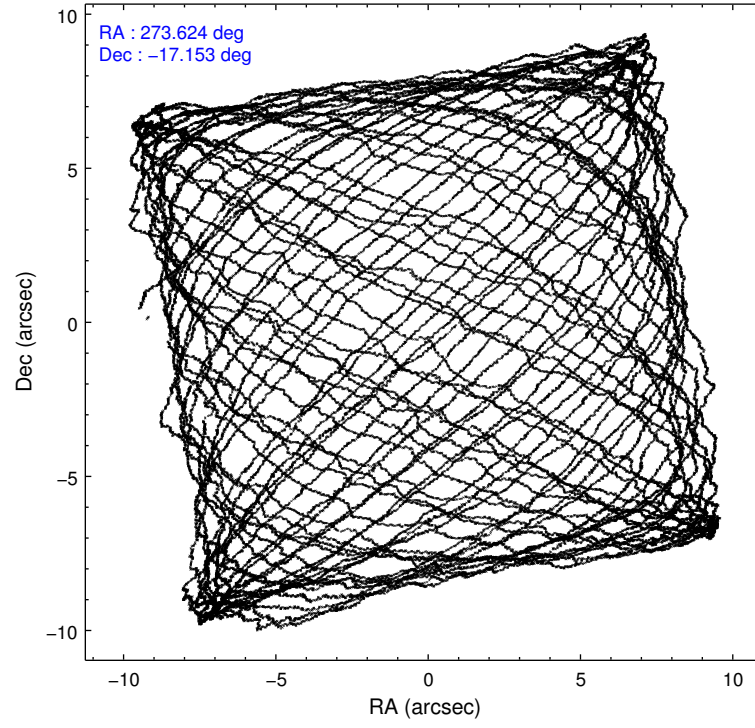
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	207965	973635	1491583	272061
rejected events	65776	94676	112480	69937
rejected %	31%	9%	7%	25%

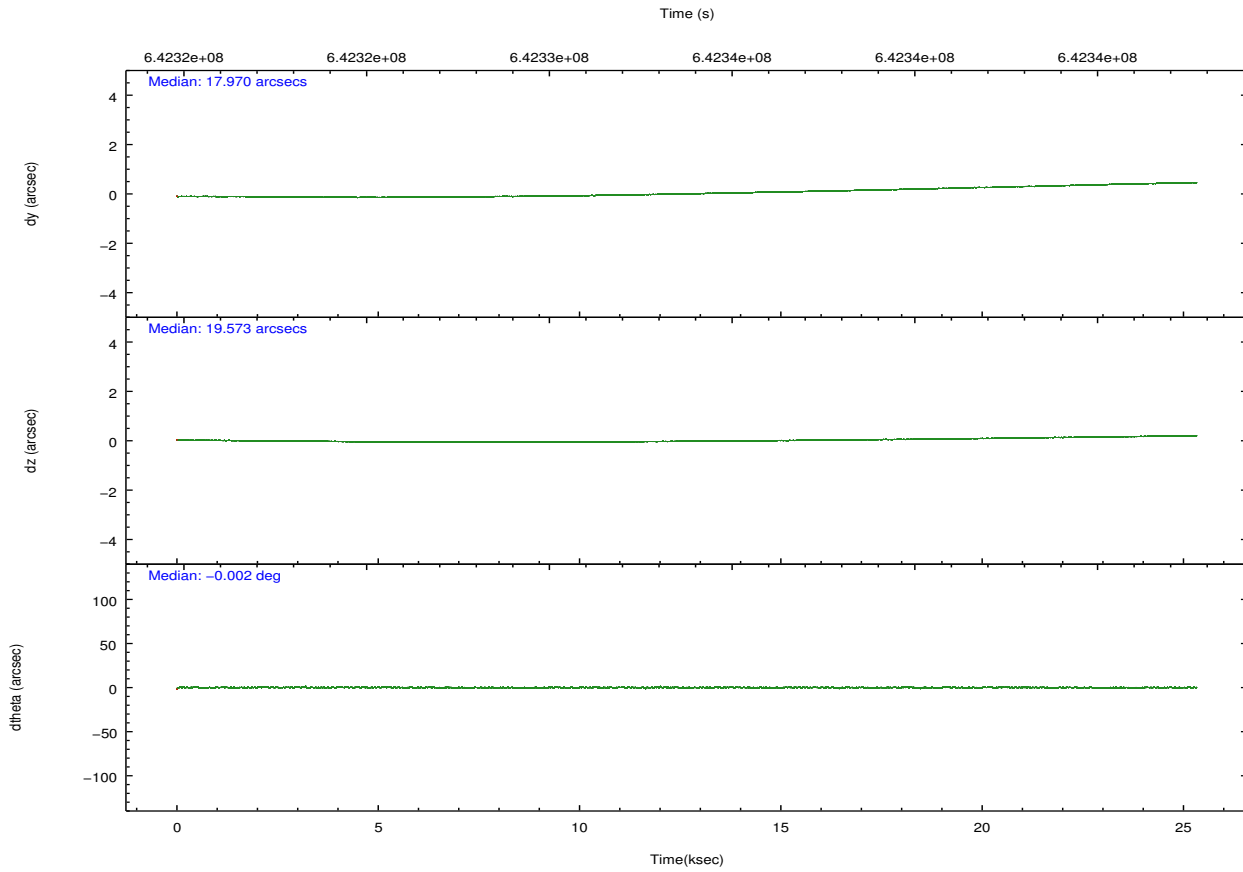
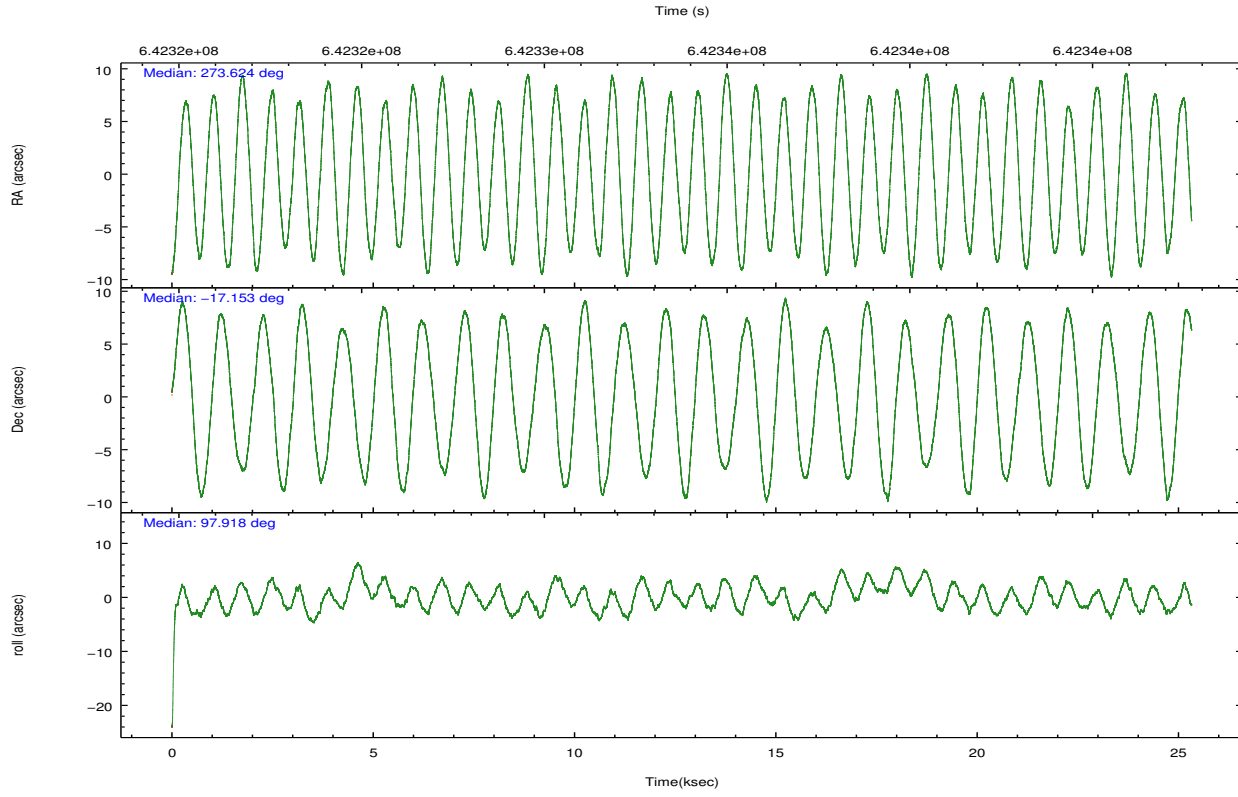
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	42564	617251	249680	144106
	20%	63%	16%	52%
grade 1 events	11588	10332	5417	692
	5%	1%	0%	0%
grade 2 events	38174	124582	330742	26104
	18%	12%	22%	9%
grade 3 events	10314	41600	145208	9468
	4%	4%	9%	3%
grade 4 events	9386	41113	144556	9374
	4%	4%	9%	3%
grade 5 events	8367	12205	33811	4781
	4%	1%	2%	1%
grade 6 events	41764	54501	508989	13094
	20%	5%	34%	4%
grade 7 events	45808	72051	73180	64442
	22%	7%	4%	23%

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	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	273.641971	273.6240233267093	Subarray requested	CUSTOM	CUSTOM
[deg] Pointing Dec	-17.174882	-17.15342979807772	Subarray start row	1	1
[deg] Pointing Roll	97.770952	97.92227486073138	Subarray row count	350	350
[mm] SIM focus pos	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
[mm] SIM defocus	0	0.001444936568705701	[s] Primary exposure time	0.000000	1.2
[mm] SIM translation stage pos	-182.132523	-182.1370004450064			
[mm] SIM translation stage offset	-8	-7.995522138001405			
[s] Observation start time (MET)	642321427.184000	642320534.76042			
Observation start date	2018-05-10T06:35:58	2018-05-10T06:22:14			
[s] Observation end time (MET)	642346427.184000	642347732.62453			
Observation end date	2018-05-10T13:32:38	2018-05-10T13:55:32			
Read mode	TIMED	TIMED			

2.3 Aspect



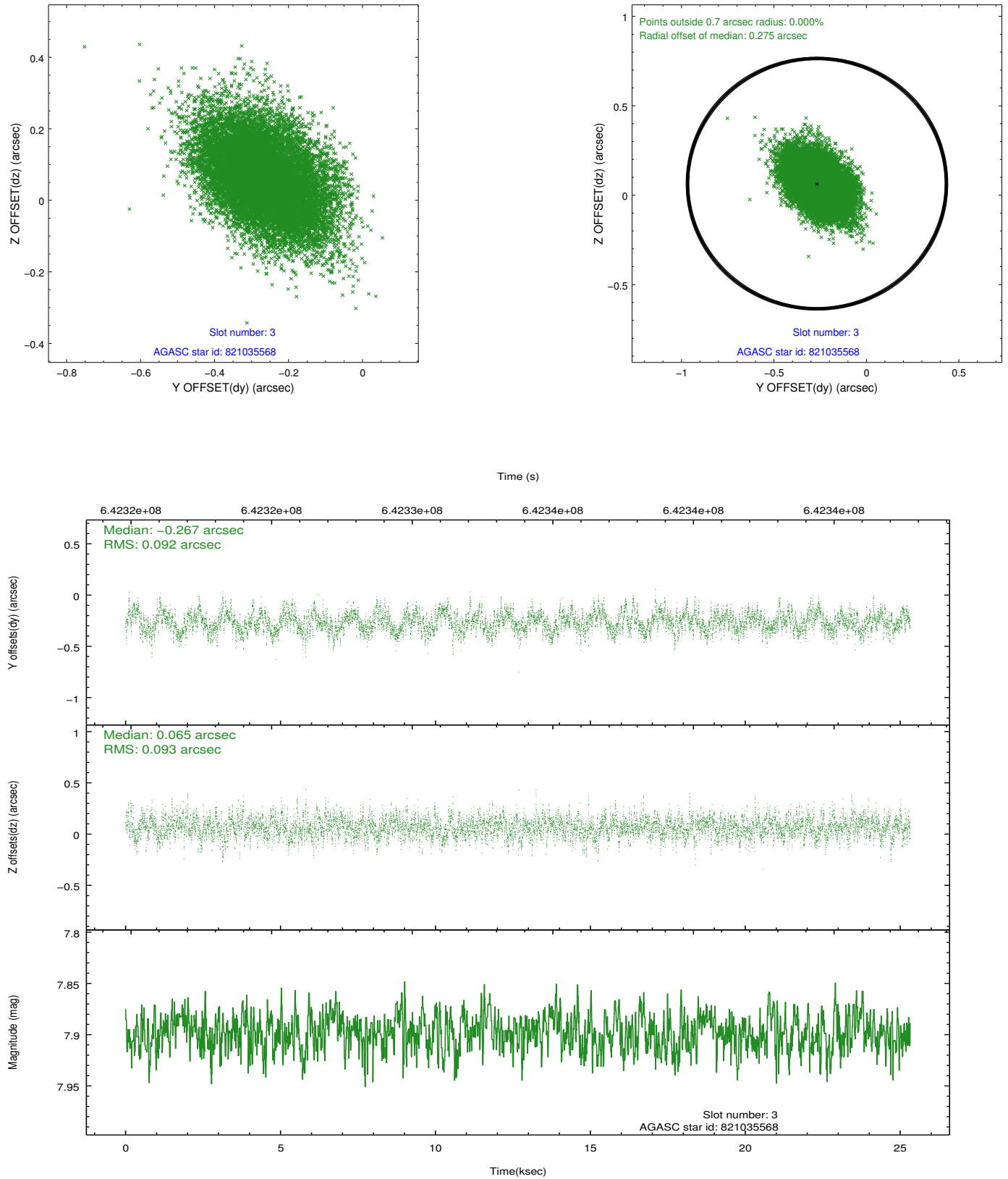


Slot Statistics

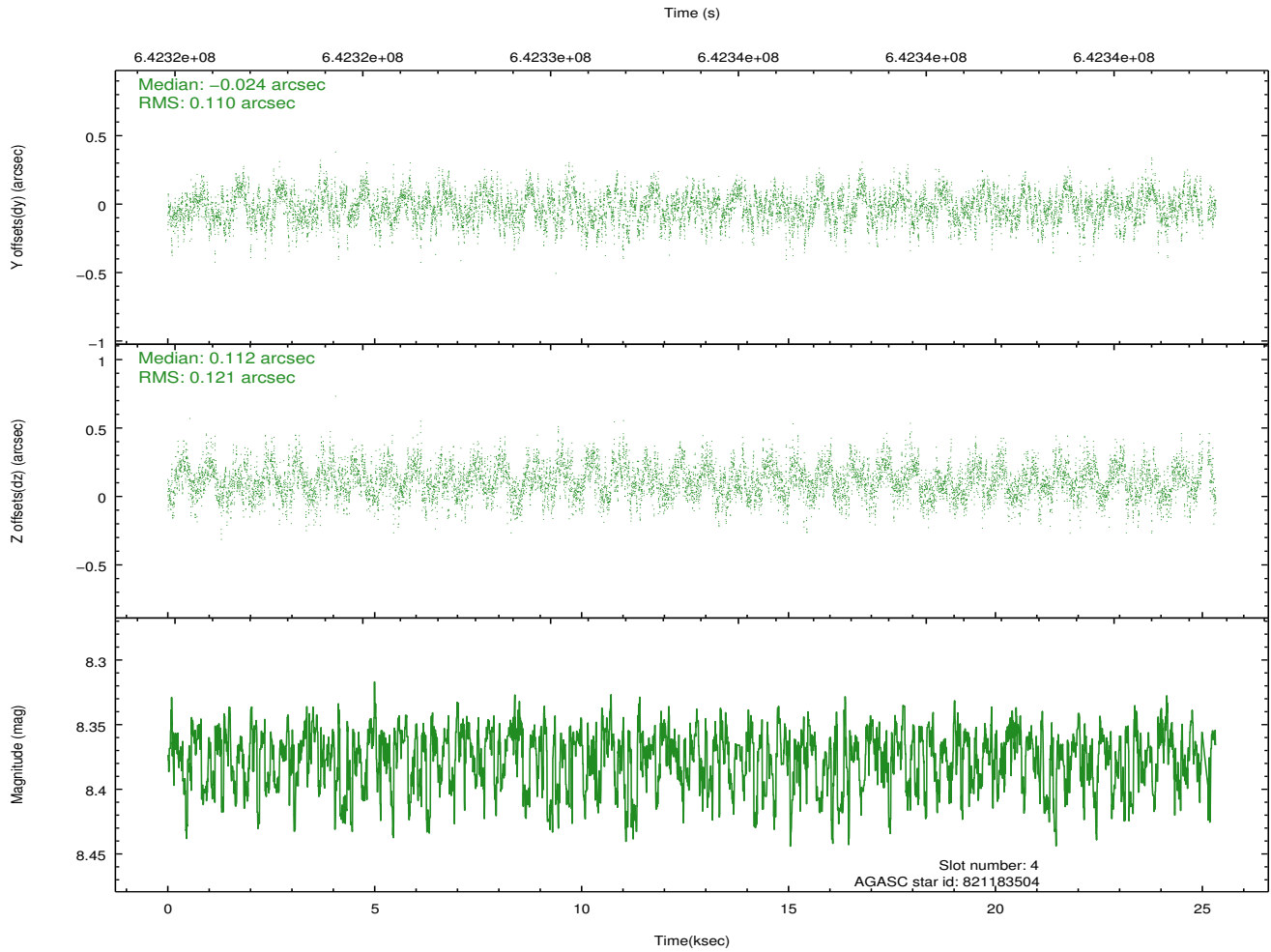
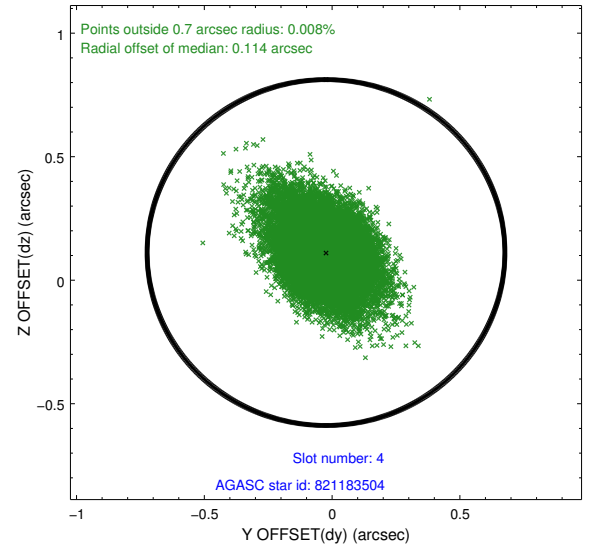
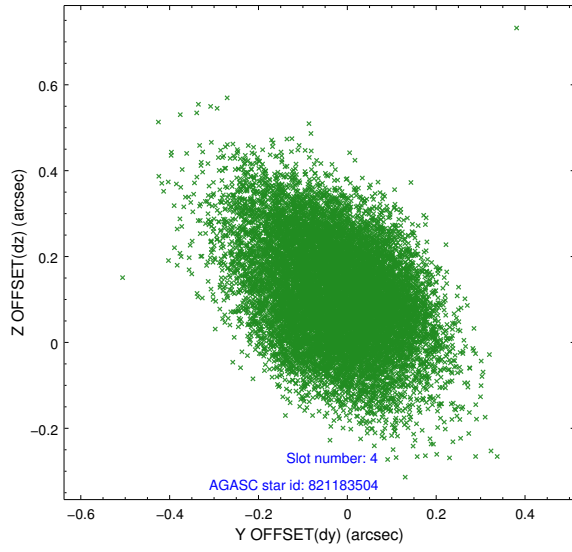
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.08	6178	-0.356	-0.237	0.017	0.031	0.000000	0.000000	-770.95	-1906.02
1	FID		ACIS-S-4	7.16	6178	0.374	0.215	0.009	0.019	0.000000	0.000000	2143.09	2.64
2	FID		ACIS-S-6	7.38	6176	-0.044	0.029	0.012	0.019	0.000000	0.000000	391.60	640.05
3	GUIDE	used	821035568	7.90	12355	-0.267	0.065	0.137	0.228	273.834124	-16.831485	1135.13	-822.73
4	GUIDE	used	821183504	8.37	12286	-0.024	0.112	0.172	0.283	274.206900	-16.517860	2077.79	-2251.00
5	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
6	GUIDE	used	821568752	8.26	12352	0.074	-0.328	0.123	0.215	273.050073	-17.733446	-1720.75	2282.96
7	GUIDE	used	821579296	8.47	12348	0.221	0.146	0.136	0.221	273.605242	-17.813626	-2261.01	436.09

2.4 Star Slots

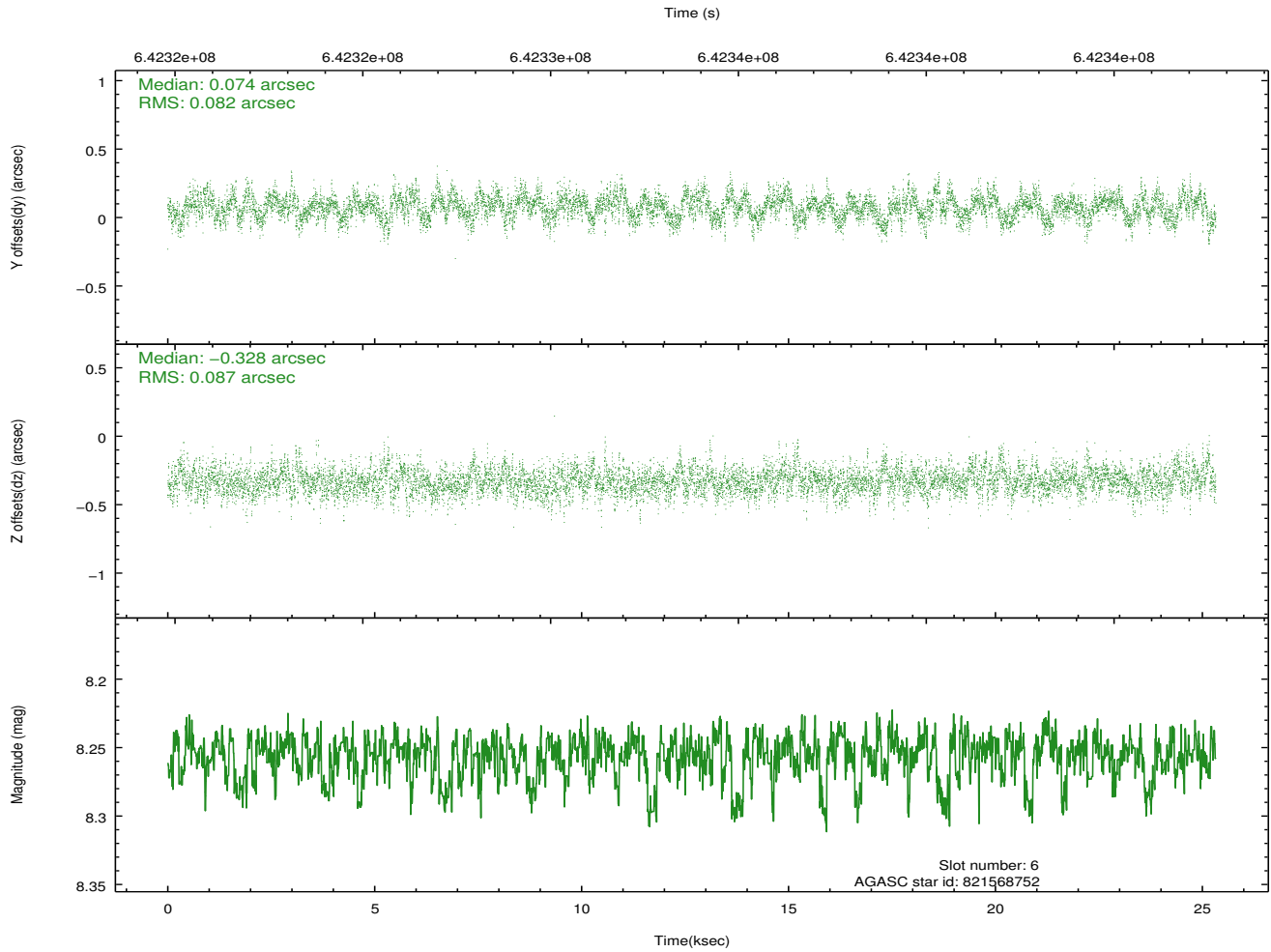
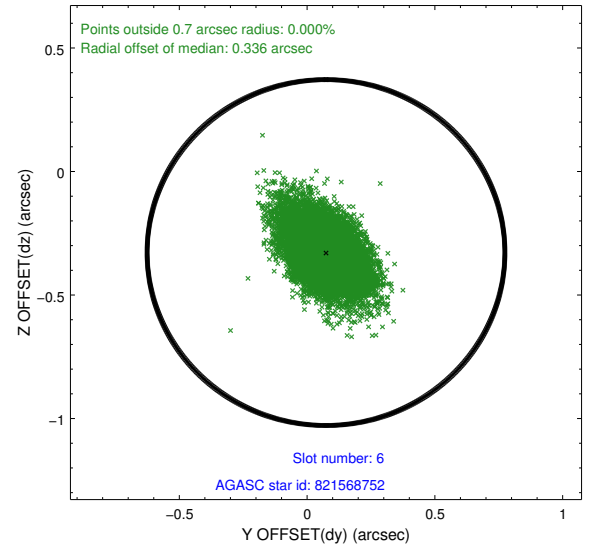
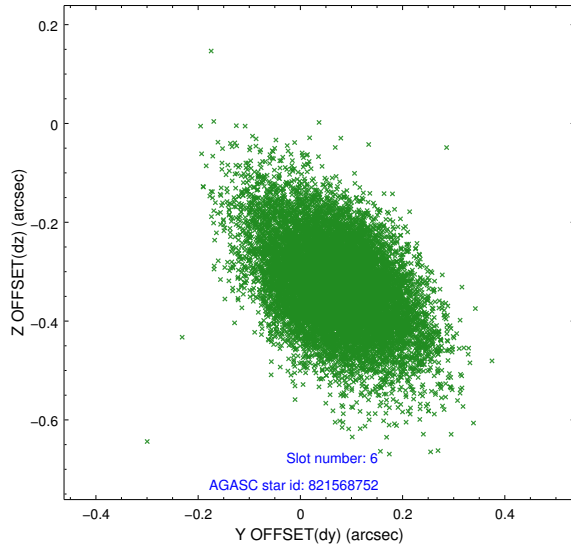
2.4.1 Slot 3



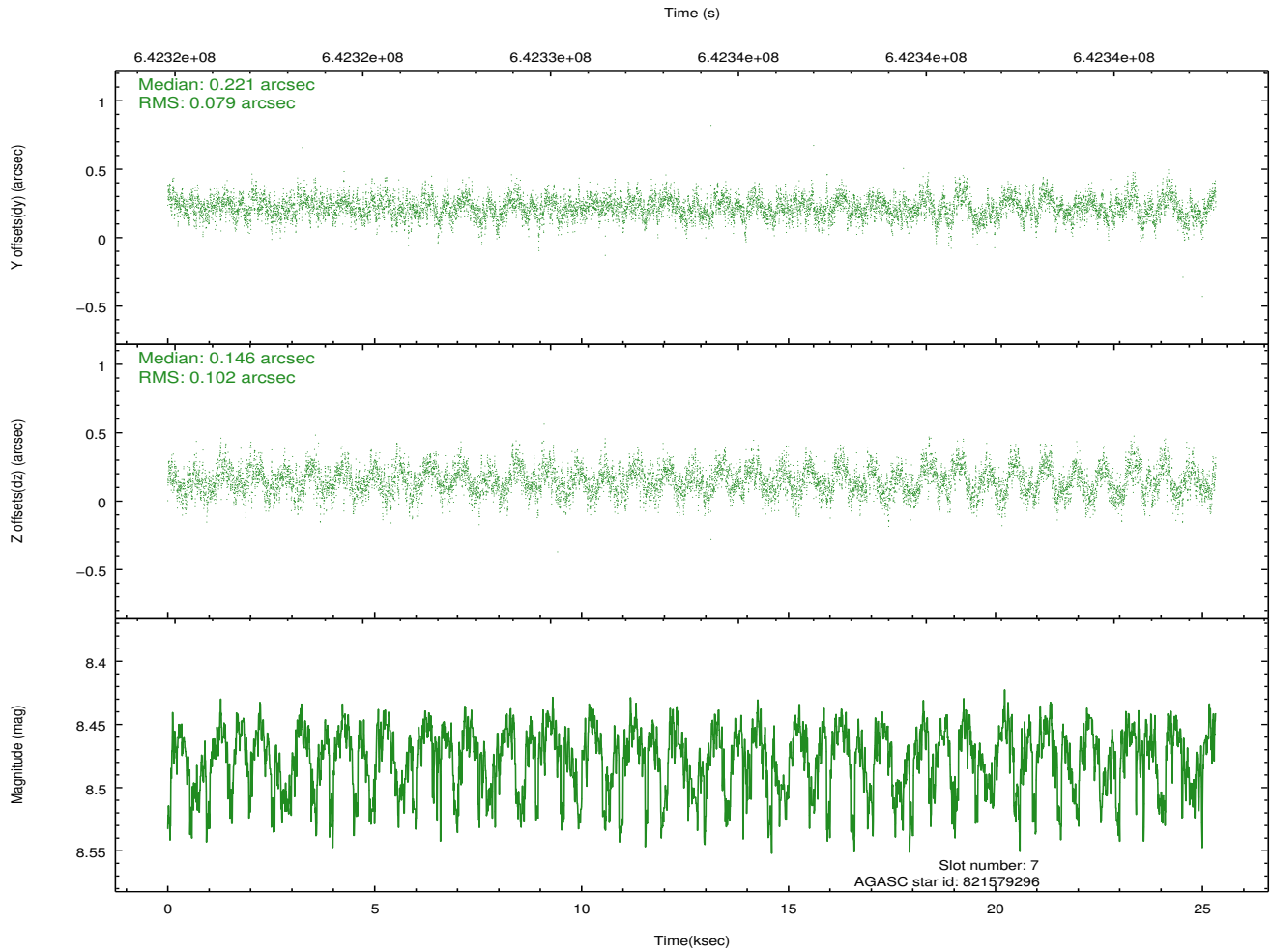
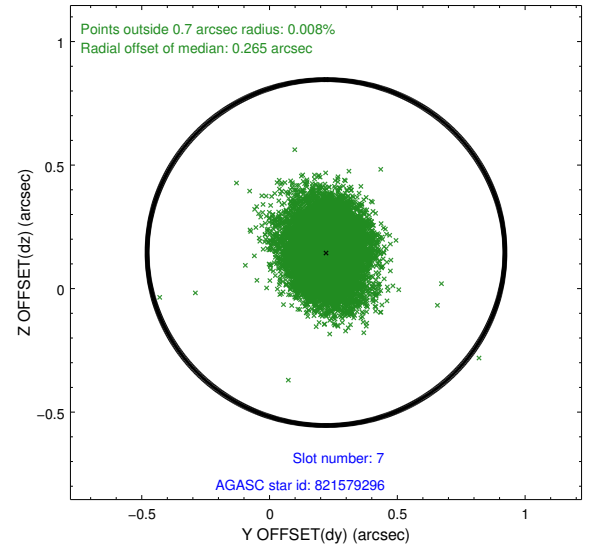
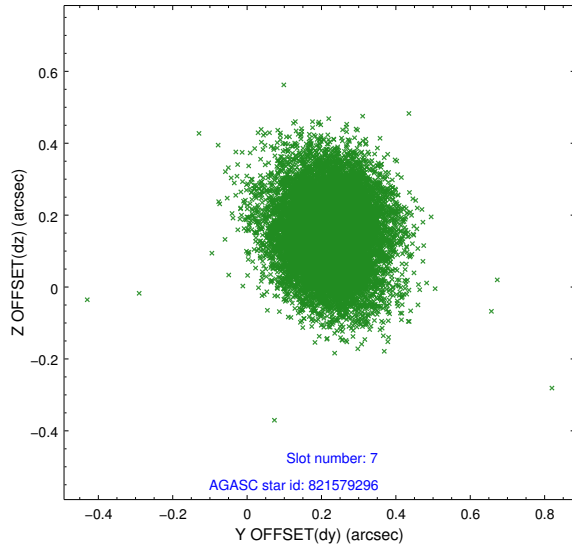
2.4.2 Slot 4



2.4.3 Slot 6

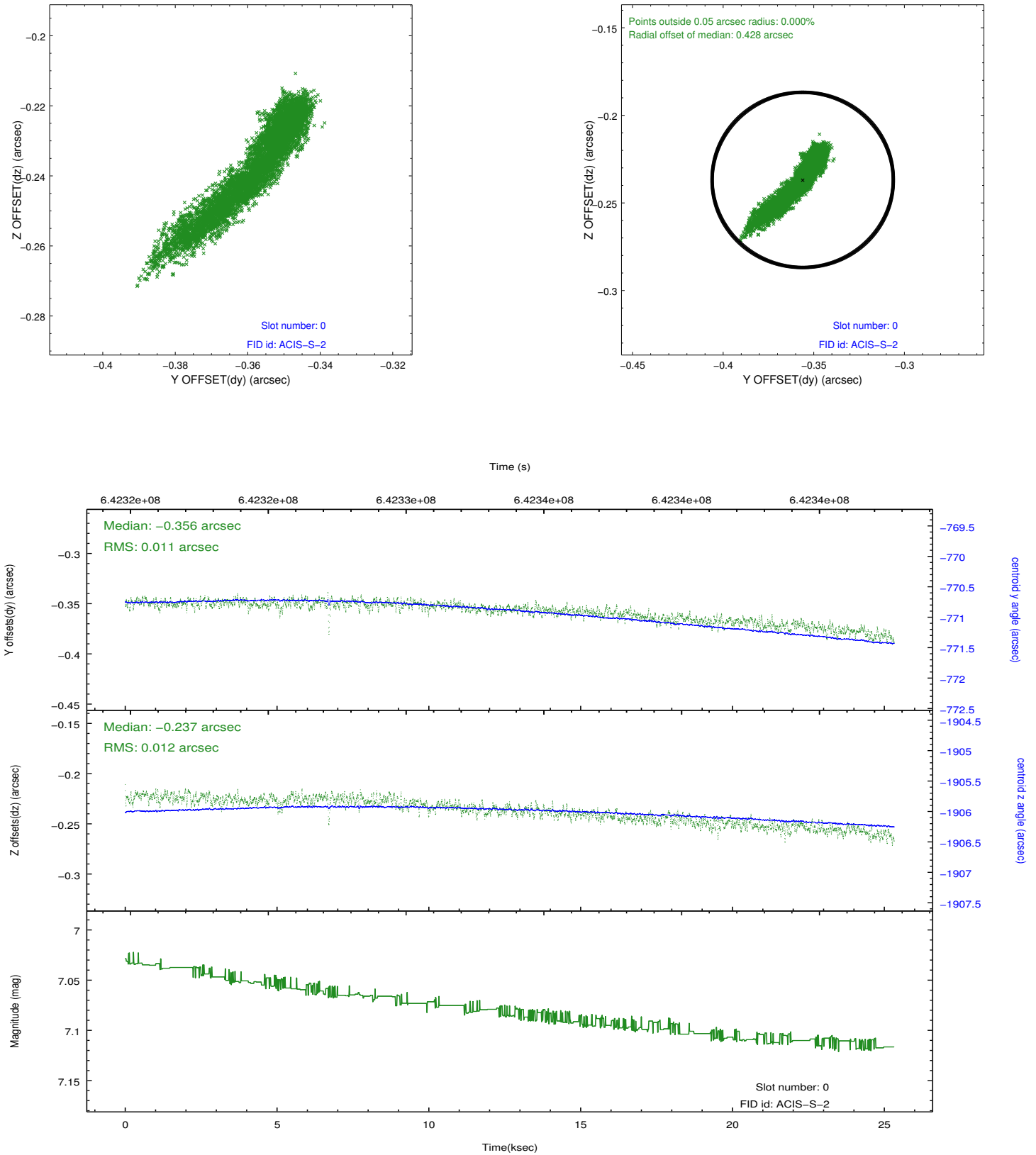


2.4.4 Slot 7

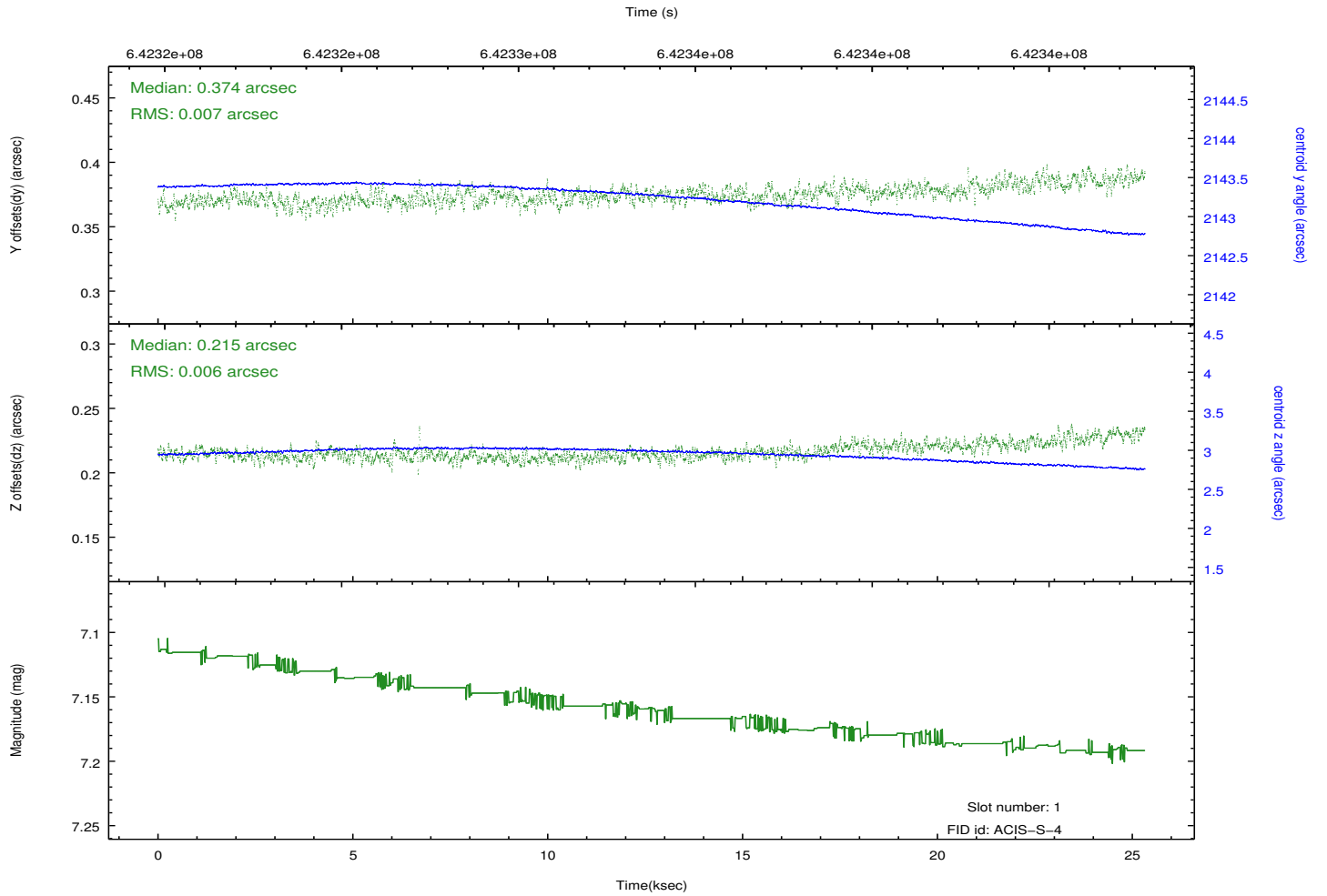
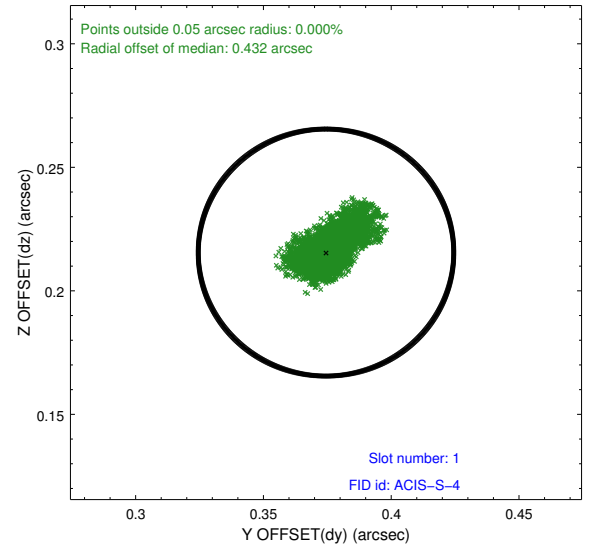
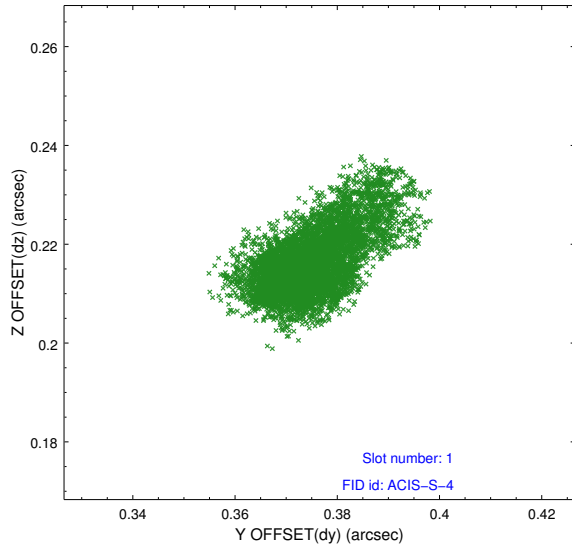


2.5 FID Slots

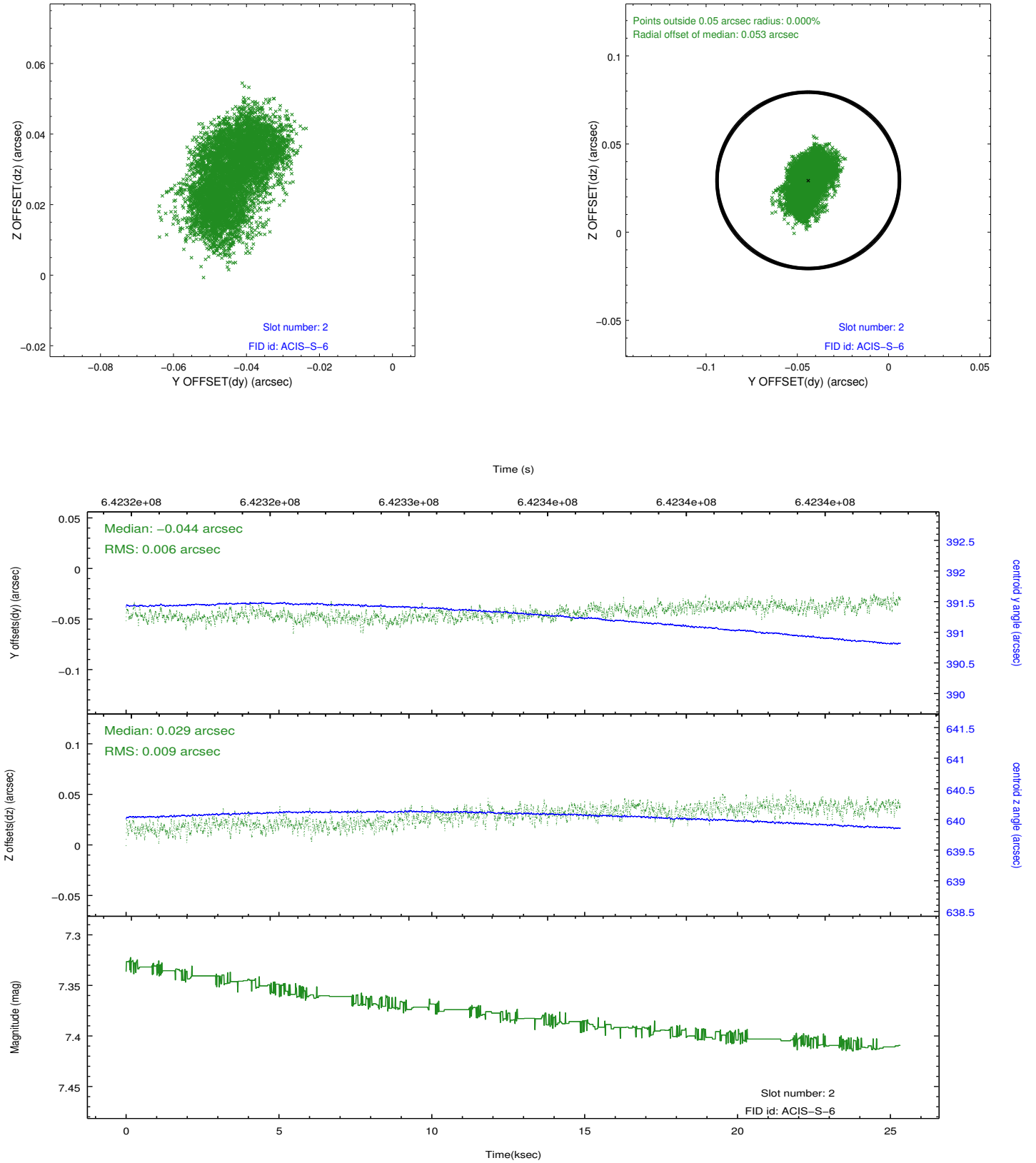
2.5.1 Slot 0



2.5.2 Slot 1

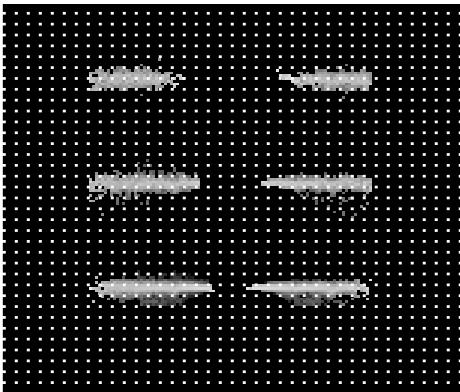


2.5.3 Slot 2

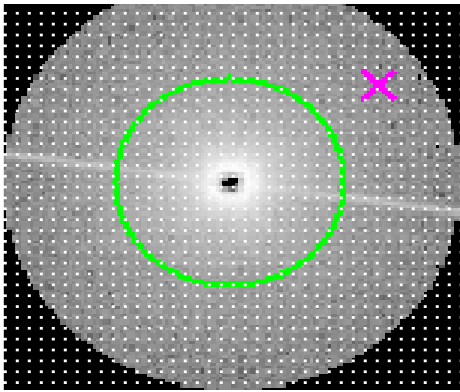


3 Gratings

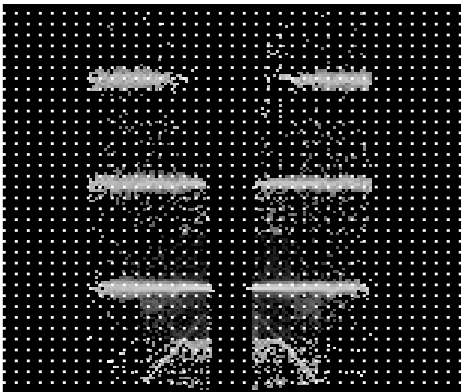
3.1 HEG Arm



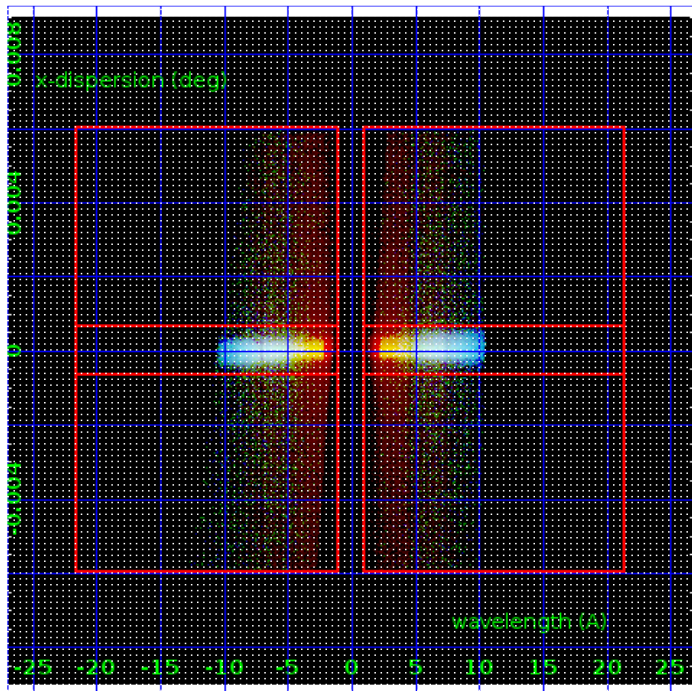
HEG Order Sort 123



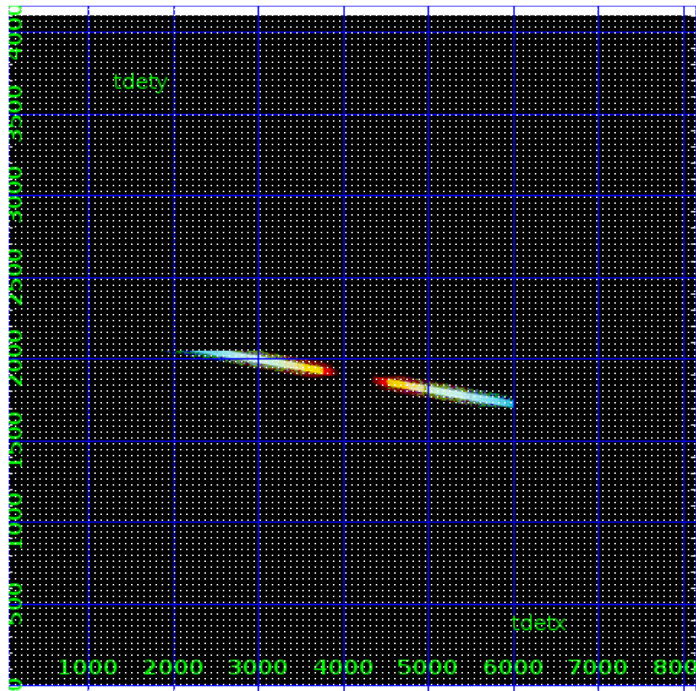
HEG Zero Order



HEG Order Sort ALL

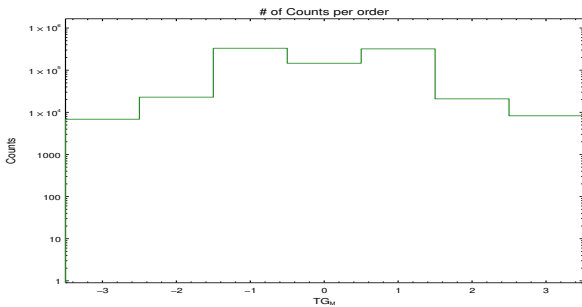


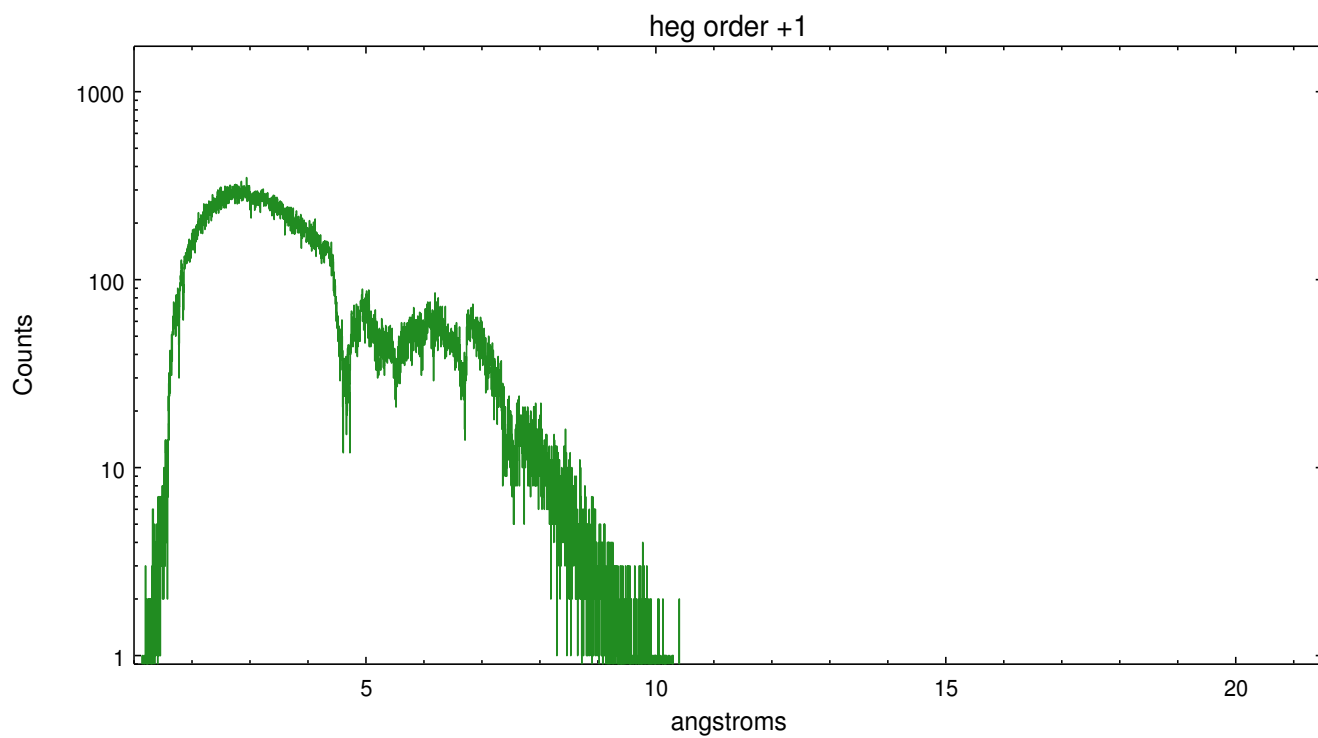
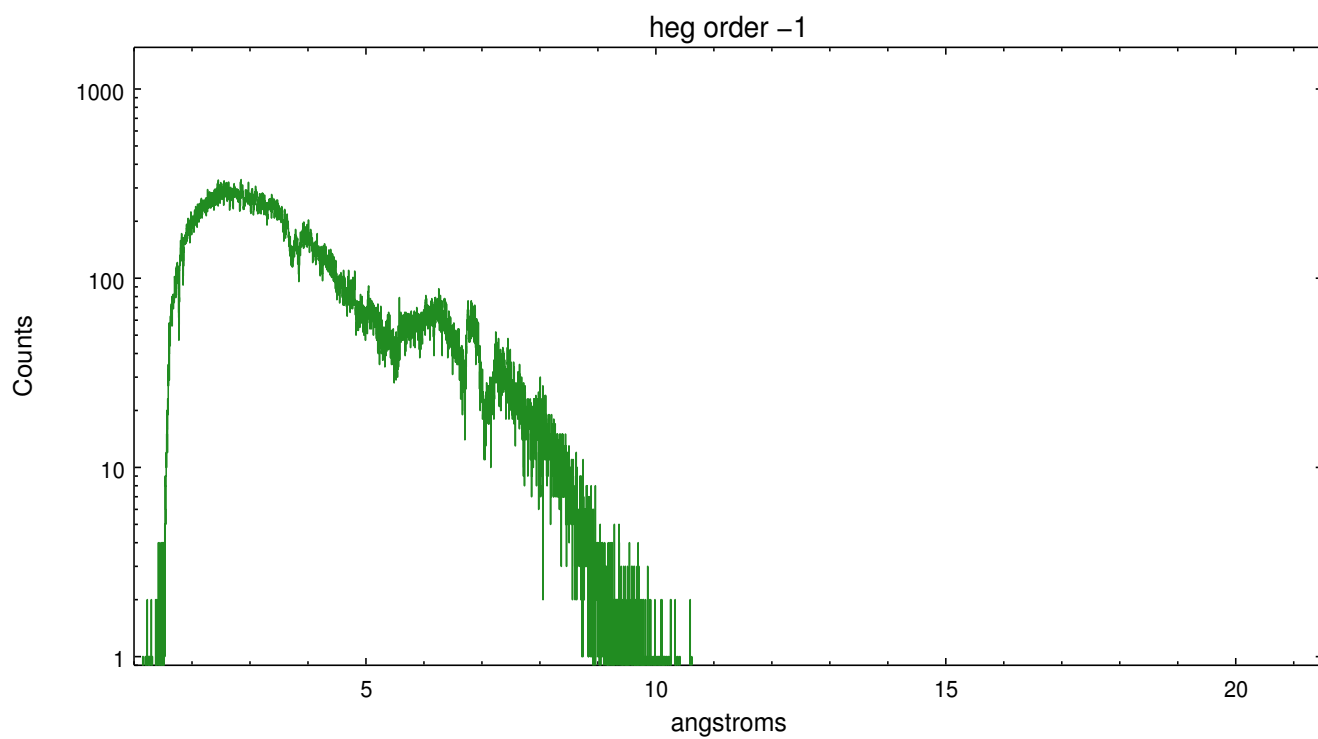
Spot Image HEG



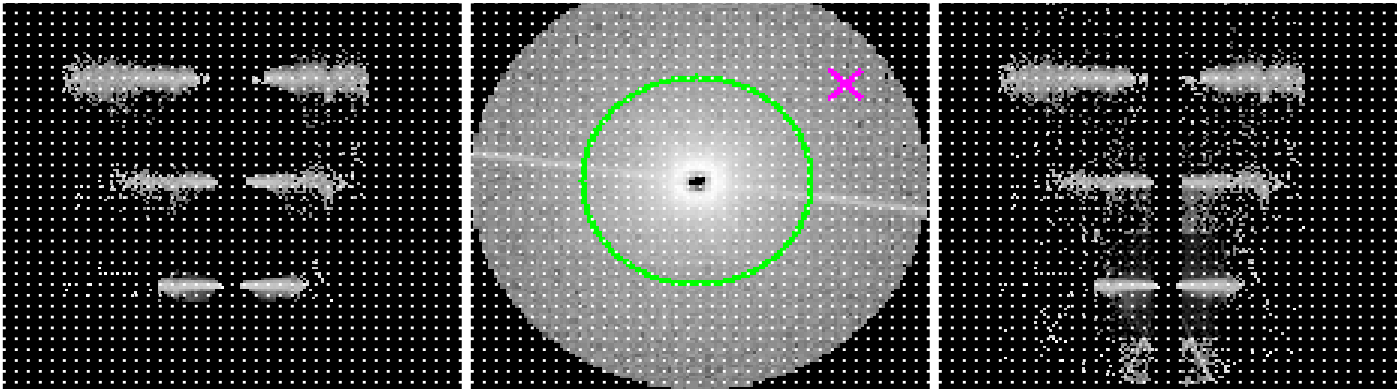
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	6855	22895	331455	145934	320172	20846	8264





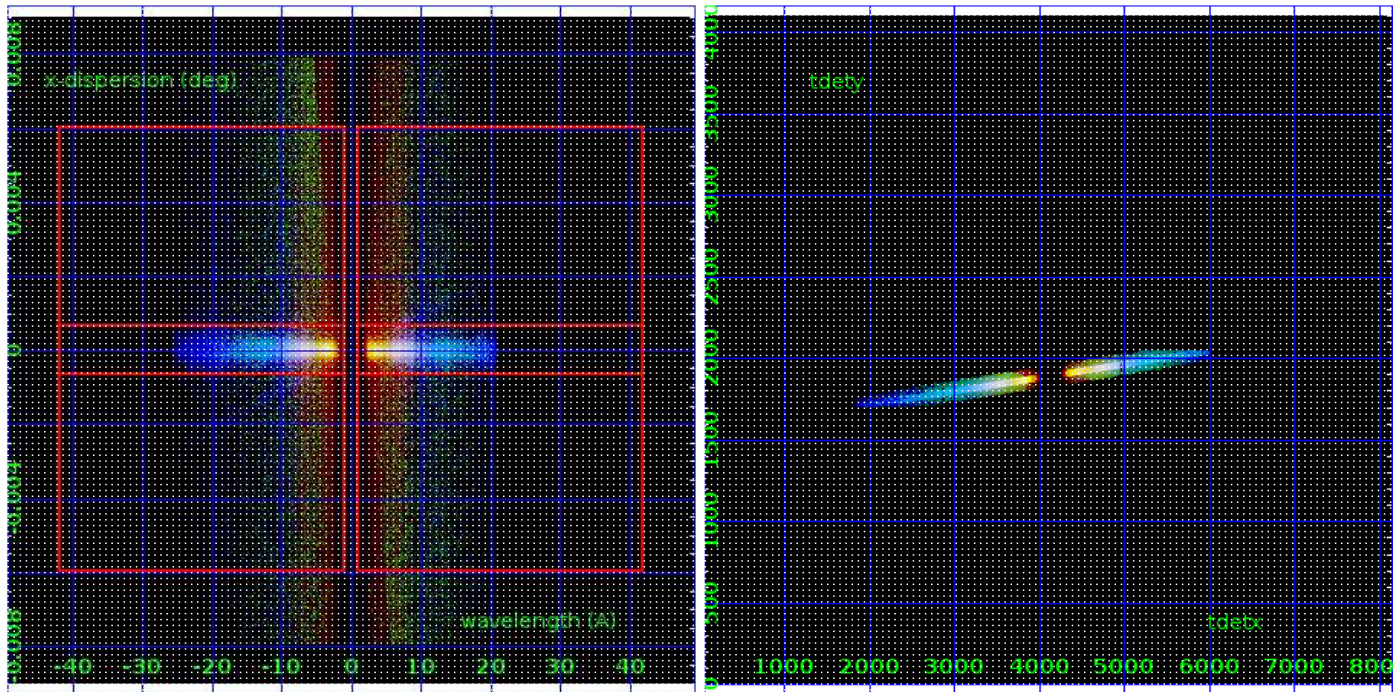
3.2 MEG Arm



MEG Order Sort 123

MEG Zero Order

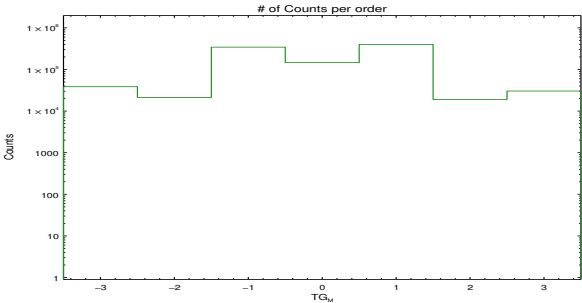
MEG Order Sort ALL

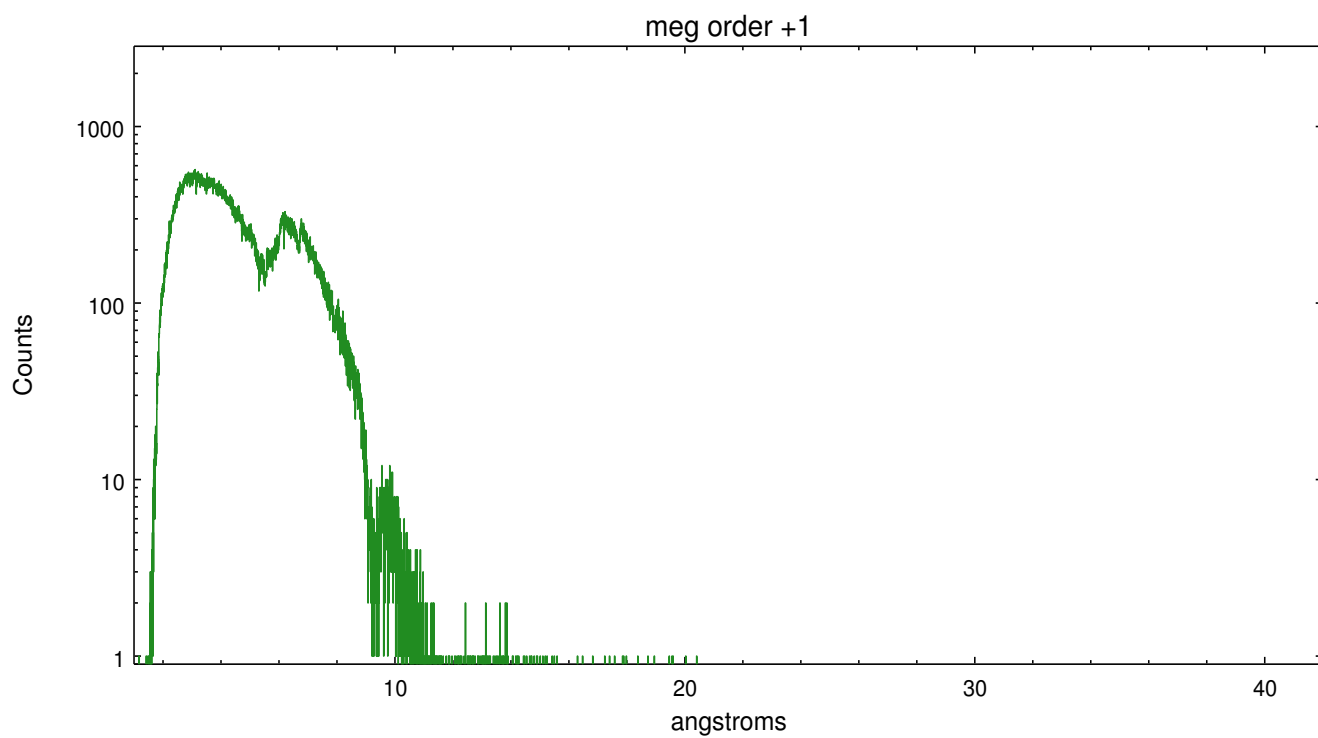
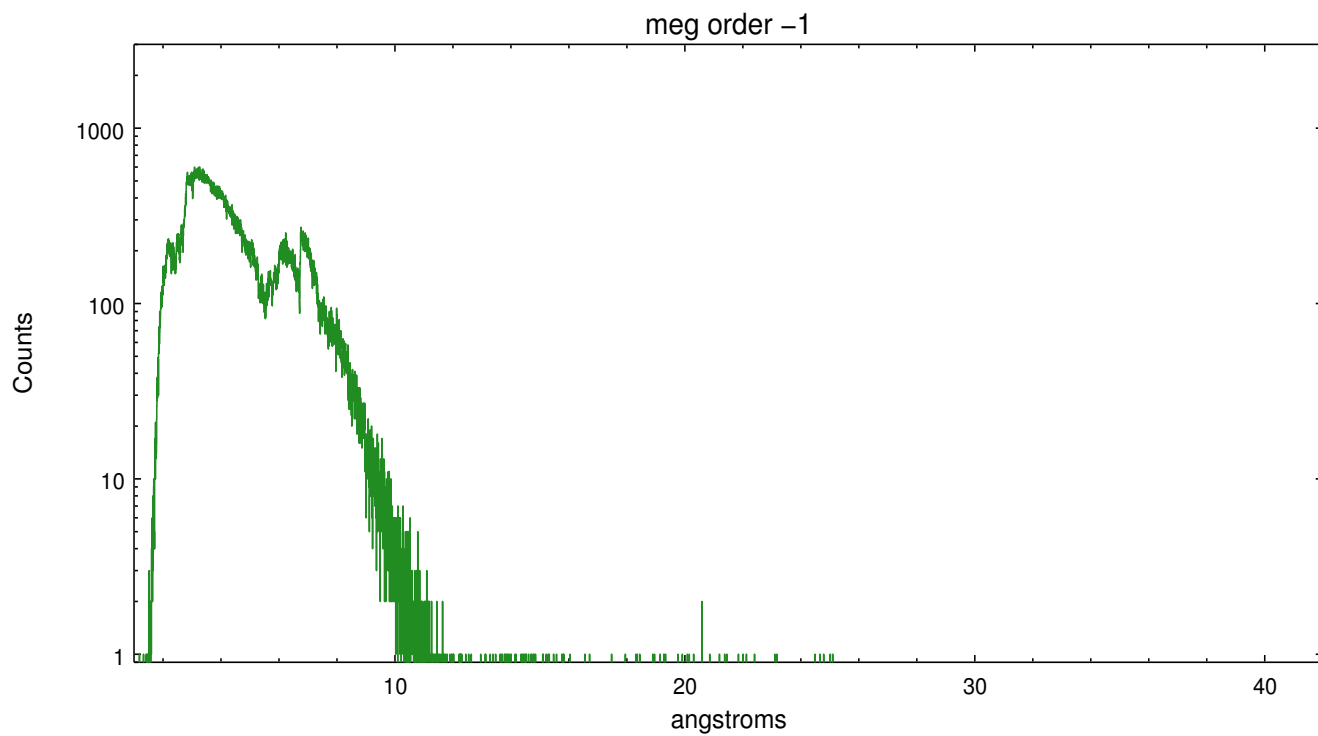


Spot Image MEG

Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	38539	21272	343891	145934	397901	18932	30323





A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2018.05.17
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	25.078800996542

A.2 Comments

Note: very bright source; grating spectra show in level 1 bad events image, meaning the dispersed spectra may have some CCD event pileup.