

V&V Reference Report

L2 ASCDS Version : 10.8.1

Observation 21238 - L2 Version 2
Chandra X-Ray Center

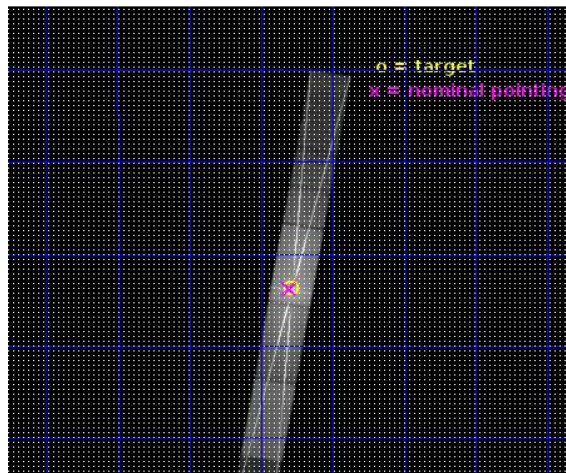
L2 Processing Date : Oct 21 2019

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1 Front

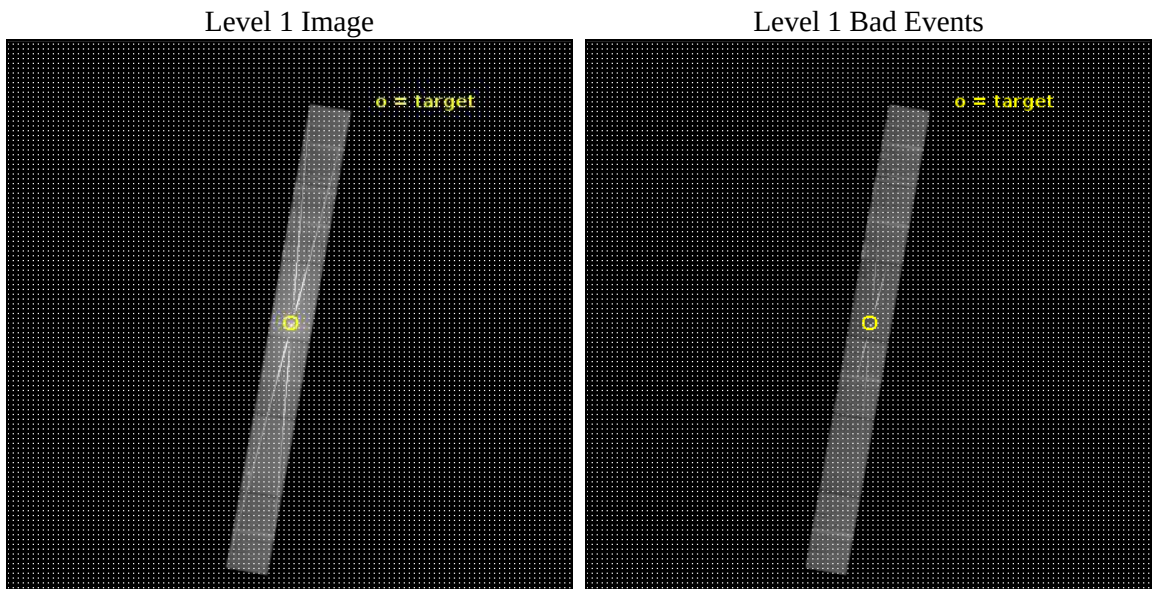
seq_num	402070	Sequence number
obs_id	21238	Observation id
title	An Integrated Approach to Winds, Jets, and State Transitions	Propo
observer	Joey Neilsen	Principal investigator
object	EXO 1846-031	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	282.3213	Observer's specified target RA [deg]
dec_targ	-3.0622	Observer's specified target Dec [deg]
ra_nom	282.3250813039	Nominal RA [deg]
dec_nom	-3.0632948696684	Nominal Dec [deg]
roll_nom	279.81069511251	Nominal Roll [deg]
revision	2	Processing version of data
ontime	29187.995790839	Sum of GTIs [s]
livetime	28537.34433989	Livetime [s]
ontime4	29188.036830783	Sum of GTIs [s]
ontime5	29187.954750776	Sum of GTIs [s]
ontime6	29187.913710833	Sum of GTIs [s]
ontime7	29187.995790839	Sum of GTIs [s]
ontime8	29187.87267077	Sum of GTIs [s]
ontime9	29187.831630826	Sum of GTIs [s]
l2events	1902224	Number of level 2 events



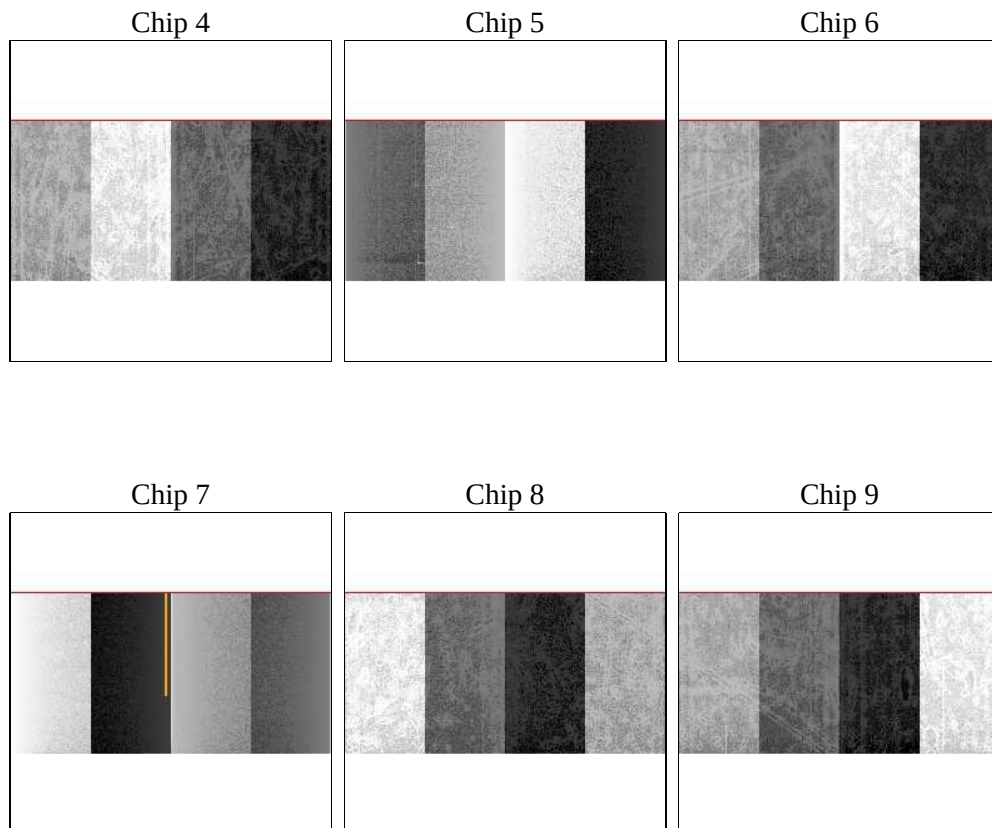
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	29115.950000	[s] Scheduled observation exposure time
ascdsver	10.8.1	Processing system revision	ontime	29187.995790839	Sum of GTIs [s]
caldsver	4.8.4.2	 	ontime4	29188.036830783	Sum of GTIs [s]
date	2019-10-20T20:21:07	Date and time of file creation	ontime5	29187.954750776	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	29187.913710833	Sum of GTIs [s]
			ontime7	29187.995790839	Sum of GTIs [s]
			ontime8	29187.87267077	Sum of GTIs [s]
			ontime9	29187.831630826	Sum of GTIs [s]
			l1events	2687504	Number of level 1 events
			tgmethod	MANUAL	Method used to create src1a file
			src1a_pos	(4125.04, 4080.06)	src1a sky pixel position

2.1.4 Events

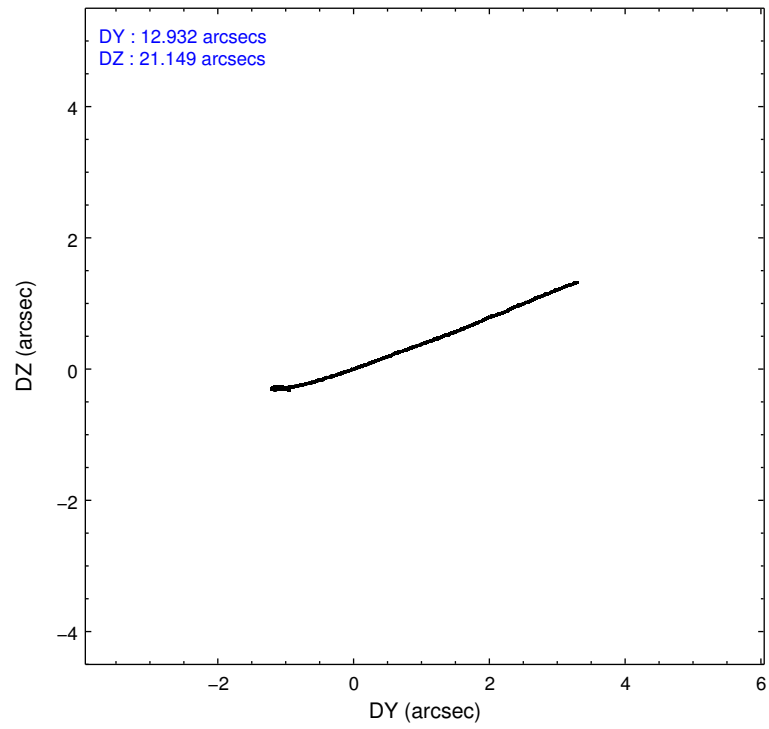
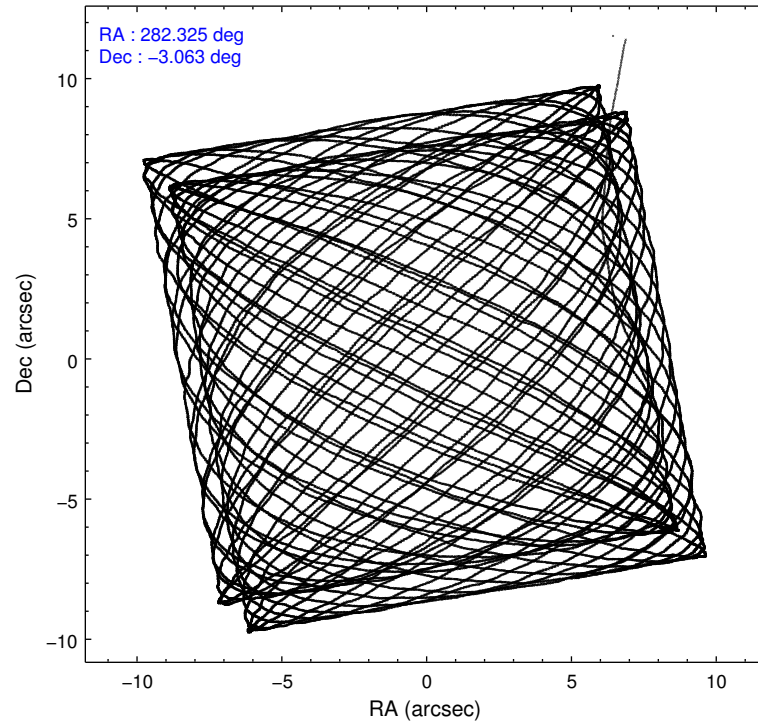
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	150410	259346	772101	1056703	302684	146260	grade 0 events	17474	25941	479046	180270	127435	25736
rejected events	120672	98470	129600	119837	115787	105308		11%	10%	62%	17%	42%	17%
rejected %	80%	37%	16%	11%	38%	72%	grade 1 events	142	575	7295	3236	748	158
								0%	0%	0%	0%	0%	0%
							grade 2 events	5016	53125	82894	234877	26116	6308
								3%	20%	10%	22%	8%	4%
							grade 3 events	2265	9178	27491	102436	9246	2684
								1%	3%	3%	9%	3%	1%
							grade 4 events	2155	9174	27035	101577	9066	2579
								1%	3%	3%	9%	2%	1%
							grade 5 events	5774	15434	11102	31434	8680	6463
								3%	5%	1%	2%	2%	4%
							grade 6 events	2835	63473	26120	317838	15064	3655
								1%	24%	3%	30%	4%	2%
							grade 7 events	114749	82446	111118	85035	106329	98677
								76%	31%	14%	8%	35%	67%

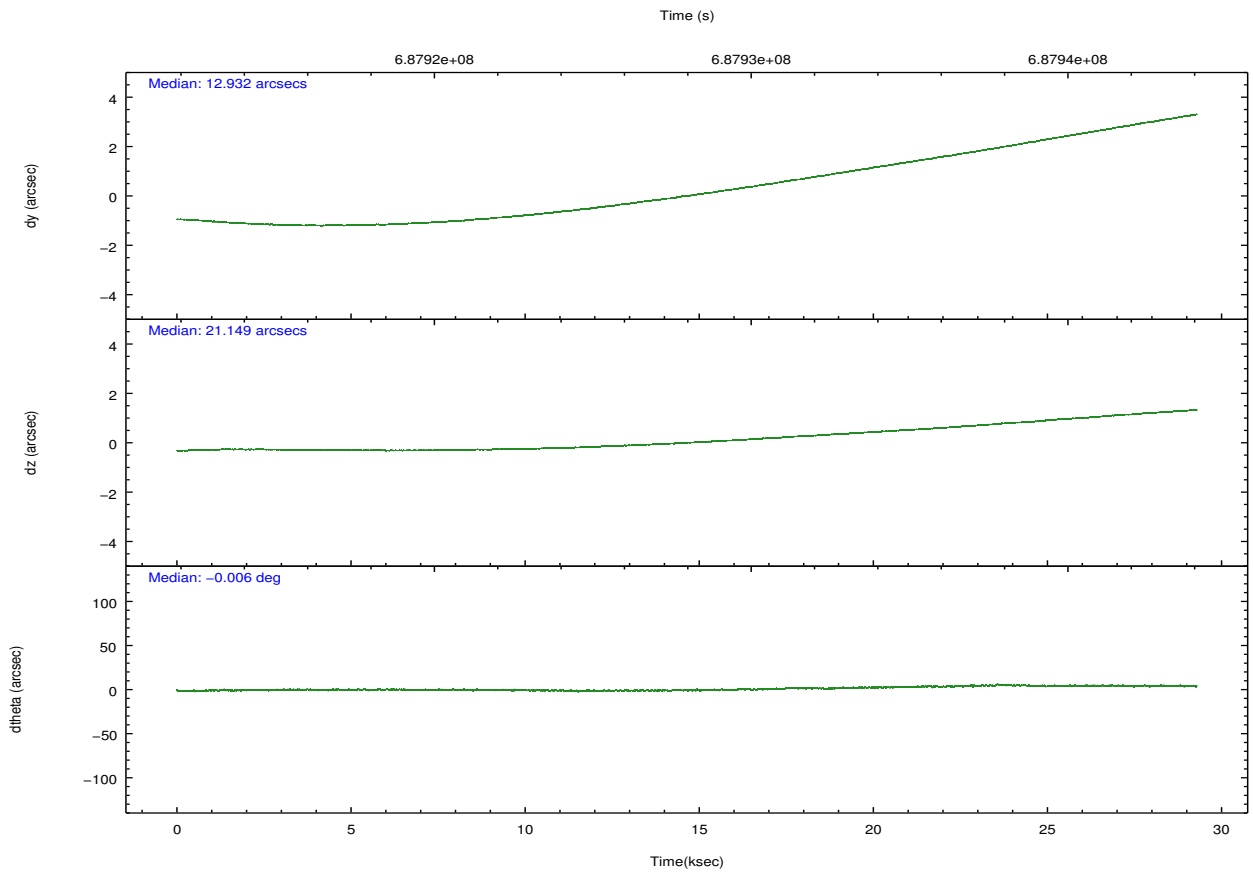
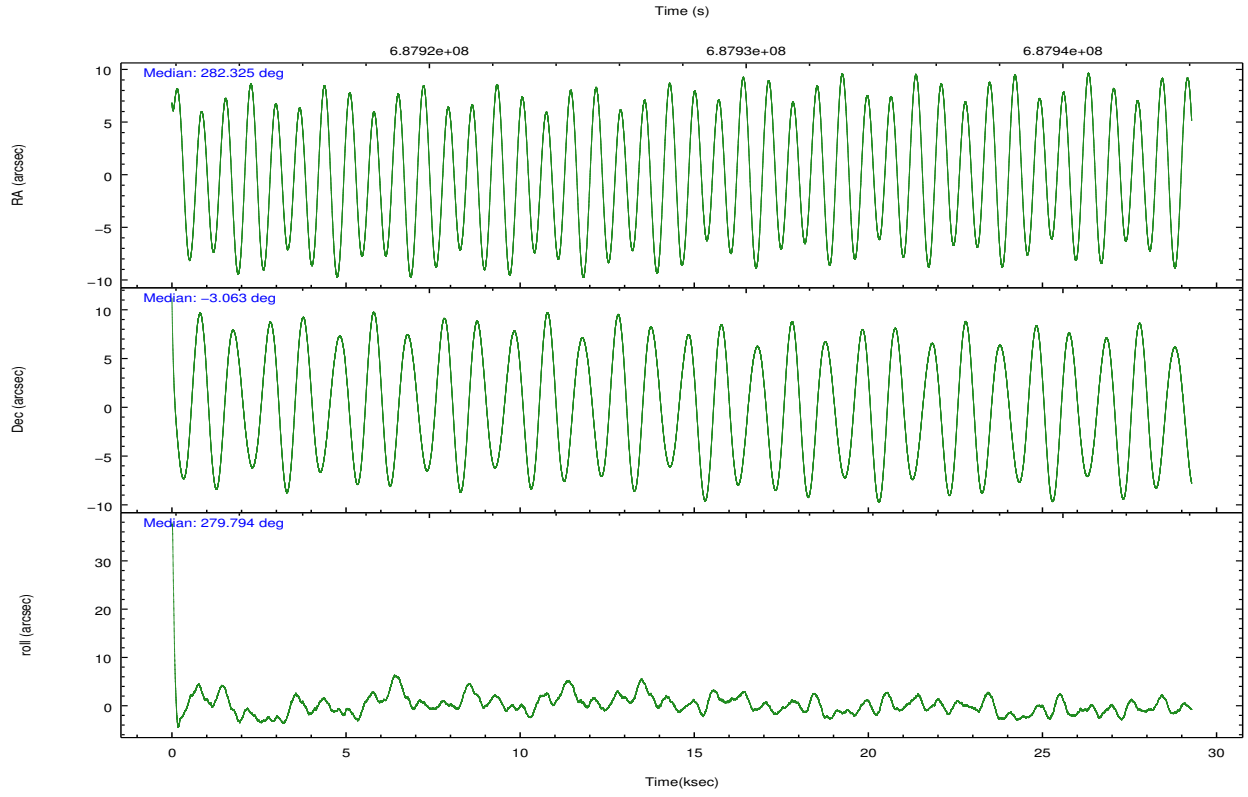
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-456789	ACIS-456789
Grating	HETG	HETG
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	282.307192	282.3250813038987
[deg] Pointing Dec	-3.042438	-3.063294869668388
[deg] Pointing Roll	279.653100	279.8106951125064
[mm] SIM focus pos	-0.684267	-0.6828225247311905
[mm] SIM defocus	0	0.001444936568705701
[mm] SIM translation stage pos	-190.132523	-190.1400660498719
[mm] SIM translation stage offset	0	0.00754346686406393
[s] Observation start time (MET)	687913504.184000	687912033.26208
Observation start date	2019-10-19T23:03:55	2019-10-19T22:40:33
[s] Observation end time (MET)	687942620.184000	687943571.4889899
Observation end date	2019-10-20T07:09:11	2019-10-20T07:26:11
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
CCD I0 on	N	N
CCD I1 on	N	N
CCD I2 on	N	N
CCD I3 on	N	N
CCD S0 on	O1	Y
CCD S1 on	Y	Y
CCD S2 on	Y	Y
CCD S3 on	Y	Y
CCD S4 on	Y	Y
CCD S5 on	O2	Y
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	CUSTOM	1/2
Subarray start row	257	257
Subarray row count	512	512
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	1.8

2.3 Aspect



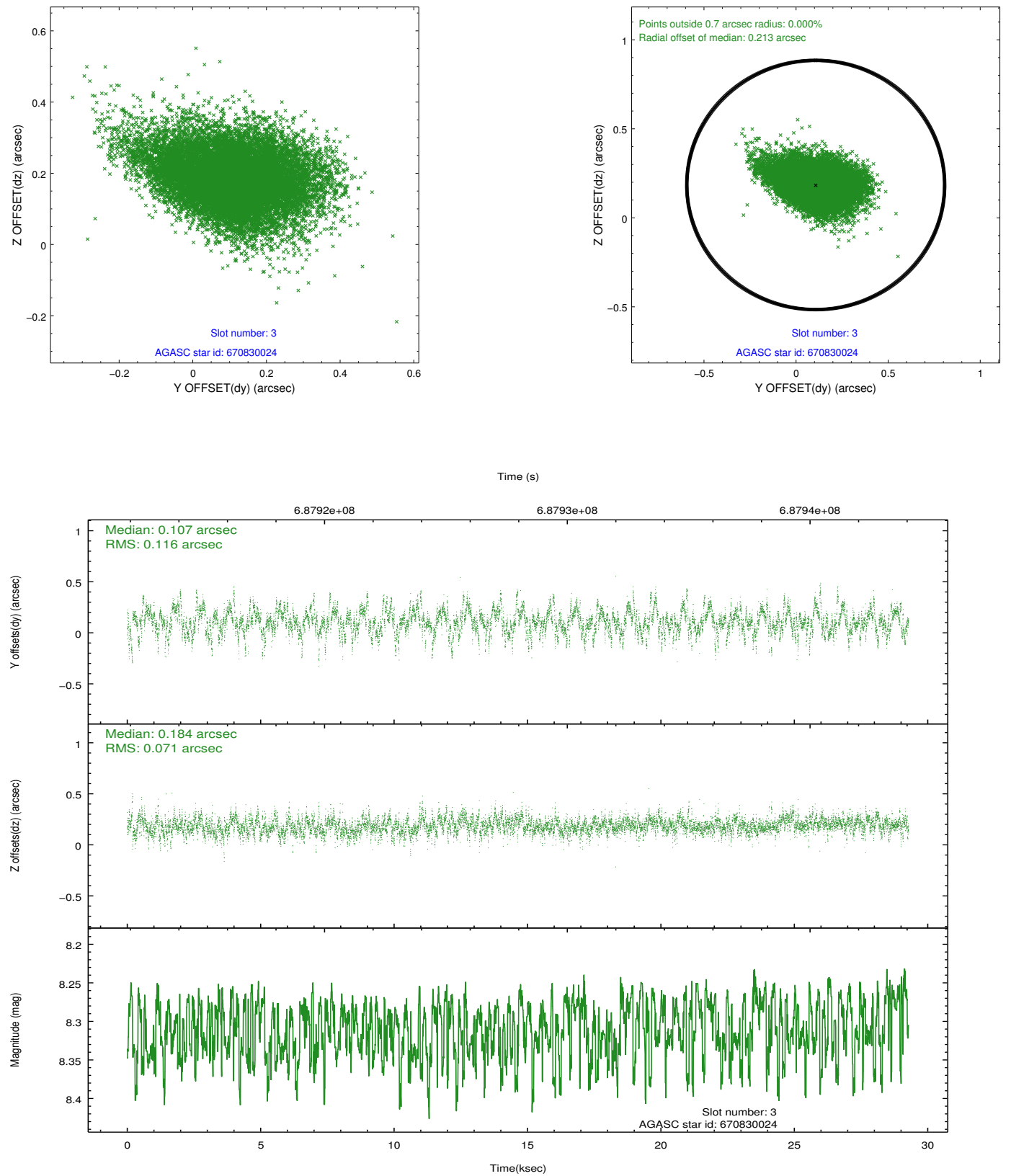


Slot Statistics

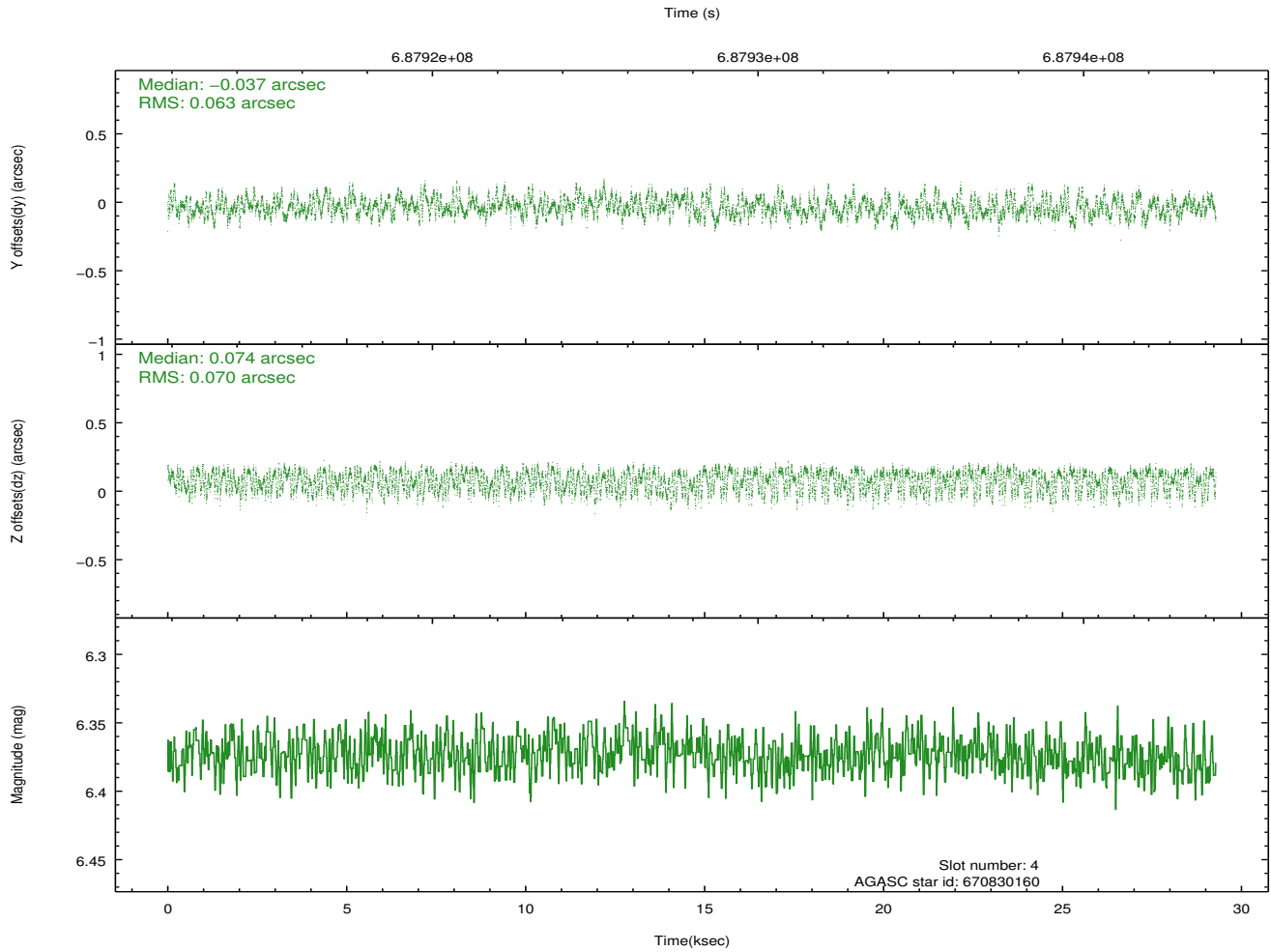
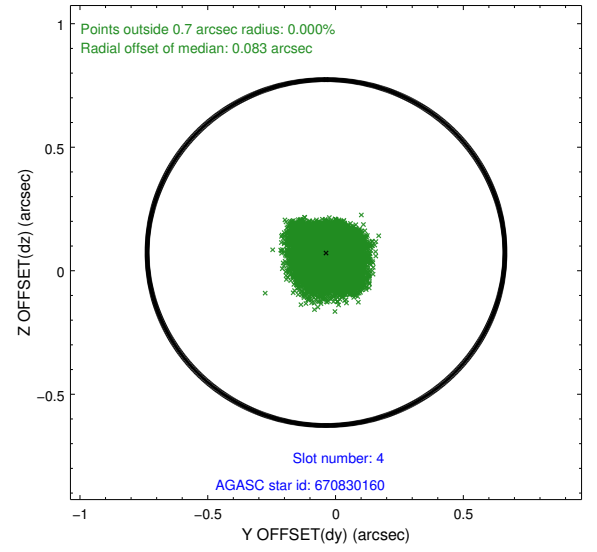
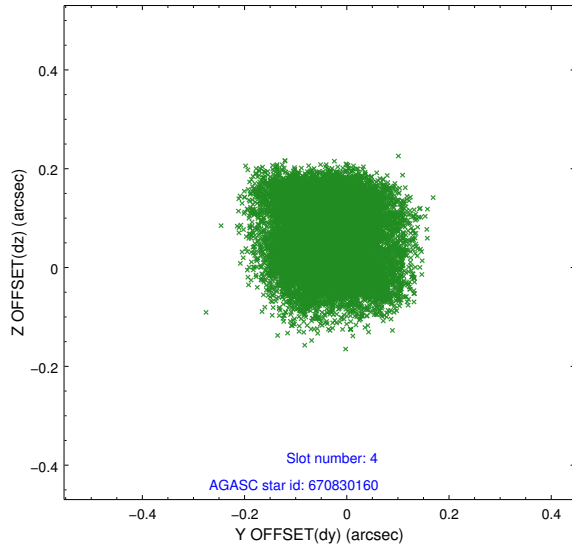
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.03	7142	1.000	-0.269	-0.158	0.046	0.078	0.000000	0.000000	-766.45	-1743
1	FID		ACIS-S-4	7.16	7140	1.000	0.688	0.166	0.055	0.069	0.000000	0.000000	2147.70	165
2	FID		ACIS-S-5	7.13	7143	1.000	-0.458	0.003	0.054	0.068	0.000000	0.000000	-1819.42	159
3	GUIDE	used	670830024	8.31	14276	1.000	0.107	0.184	0.140	0.248	281.863539	-3.639841	1858.69	-1935
4	GUIDE	used	670830160	6.37	14287	1.000	-0.037	0.074	0.102	0.156	282.842323	-3.317856	1300.28	1729
5	GUIDE	used	670830248	7.19	14284	1.000	-0.051	0.182	0.135	0.193	282.772544	-3.261134	1057.33	1515
6	GUIDE	used	670830256	8.22	14282	1.000	0.071	-0.209	0.084	0.133	282.680944	-3.575346	2116.38	1001
7	GUIDE	used	670830552	6.39	14285	1.000	-0.087	-0.235	0.076	0.122	282.536849	-3.622664	2198.76	462

2.4 Star Slots

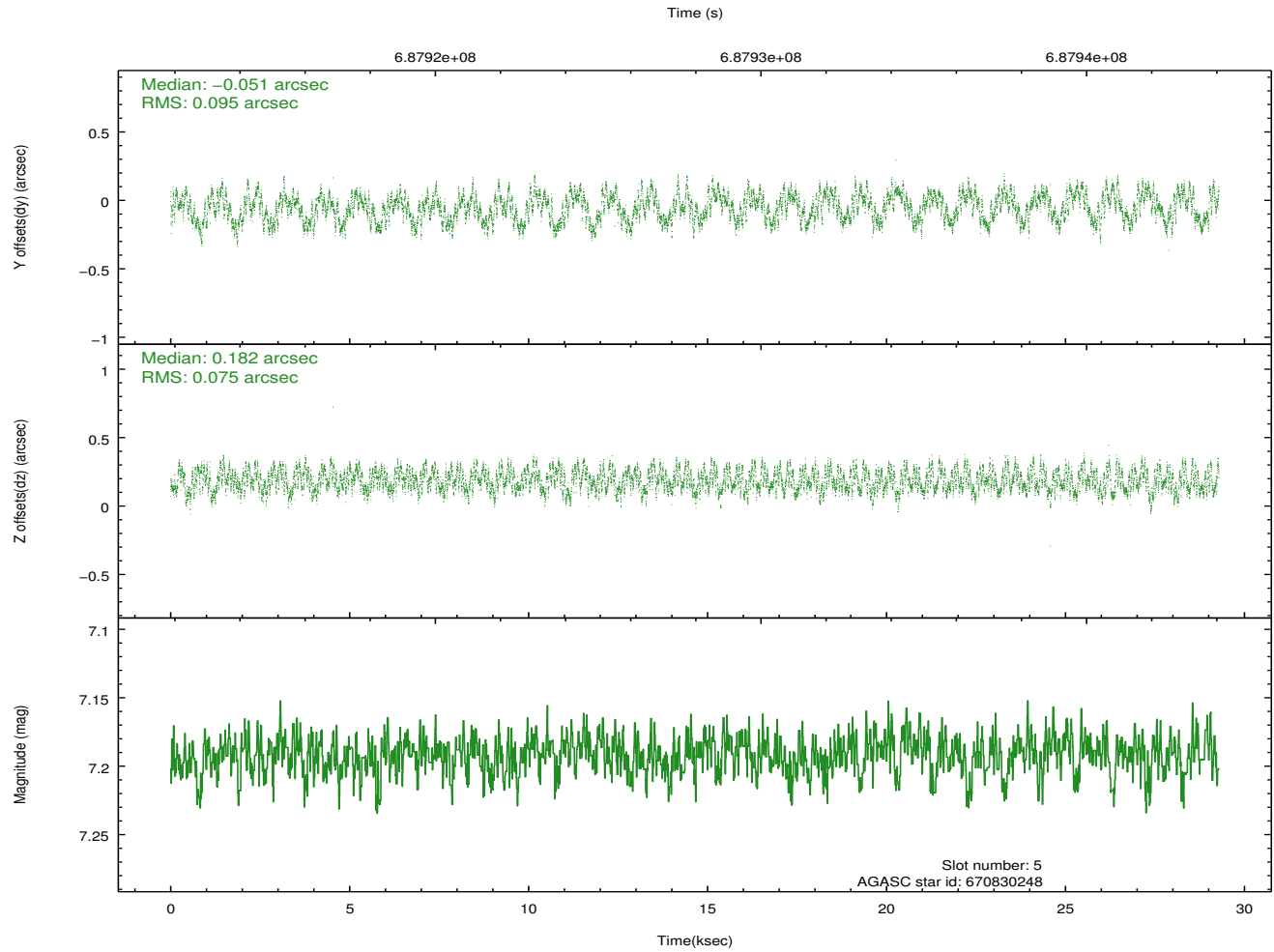
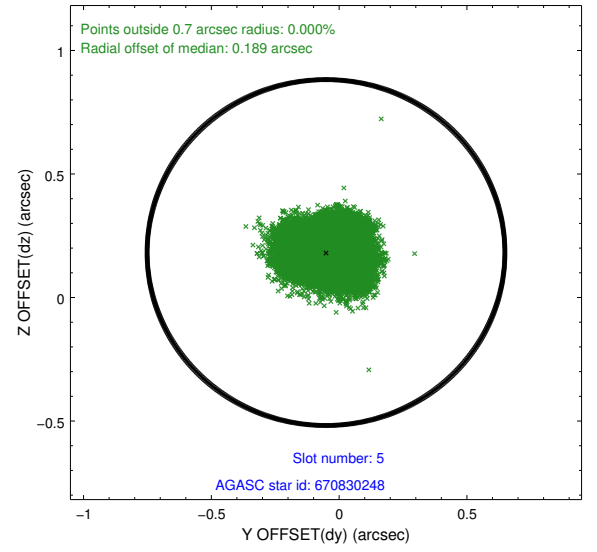
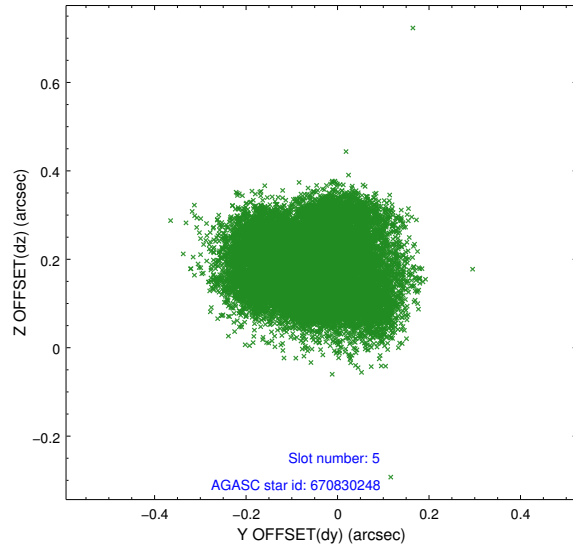
2.4.1 Slot 3



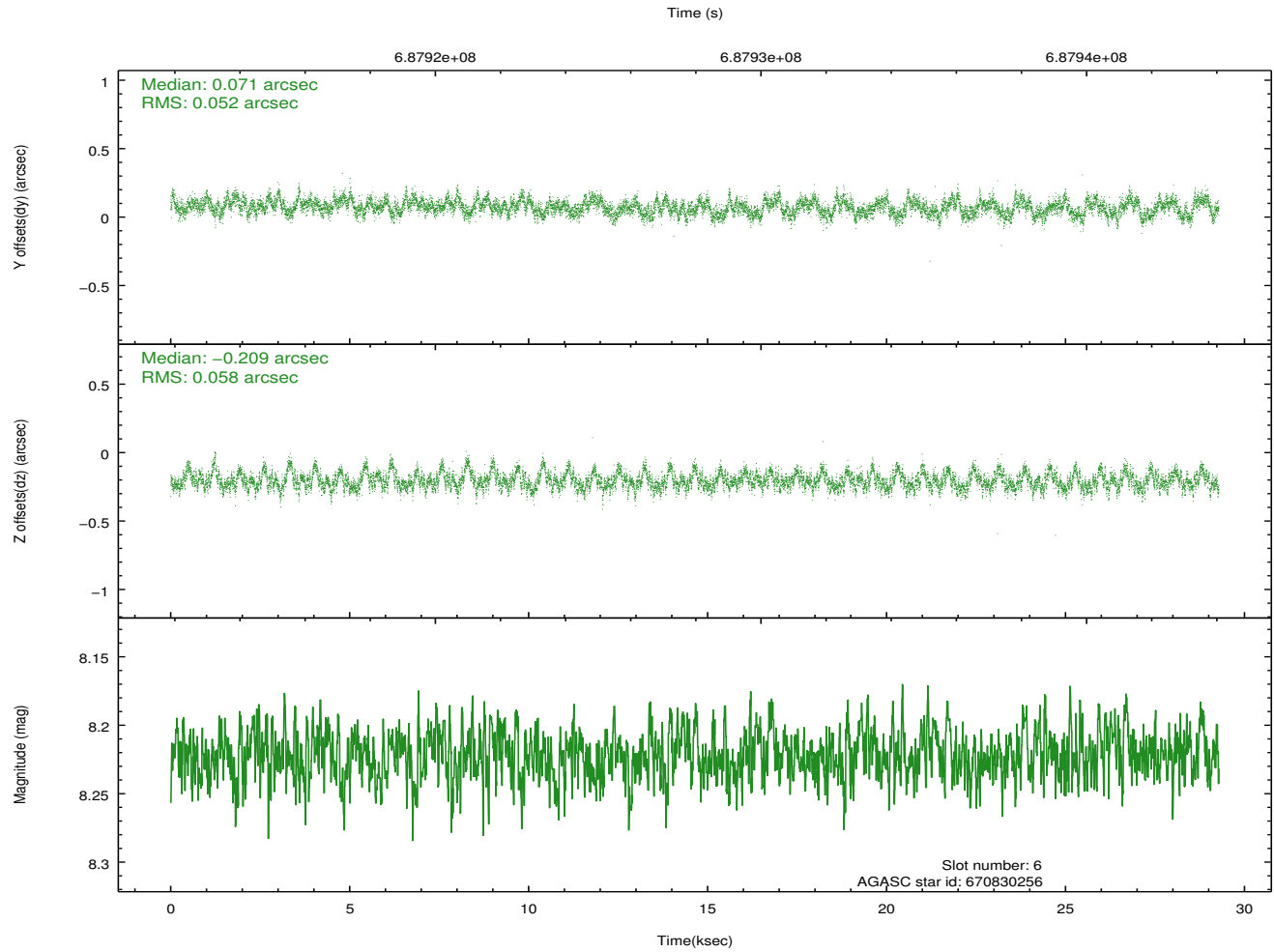
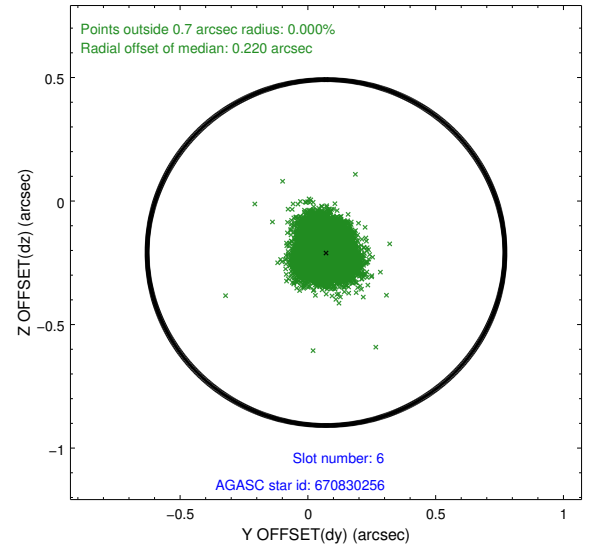
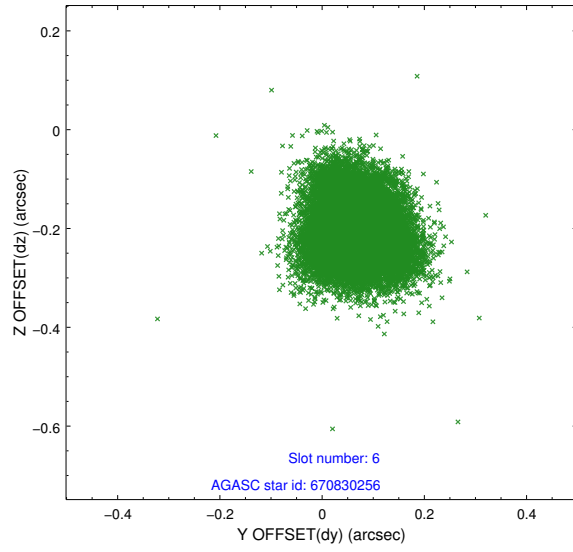
2.4.2 Slot 4



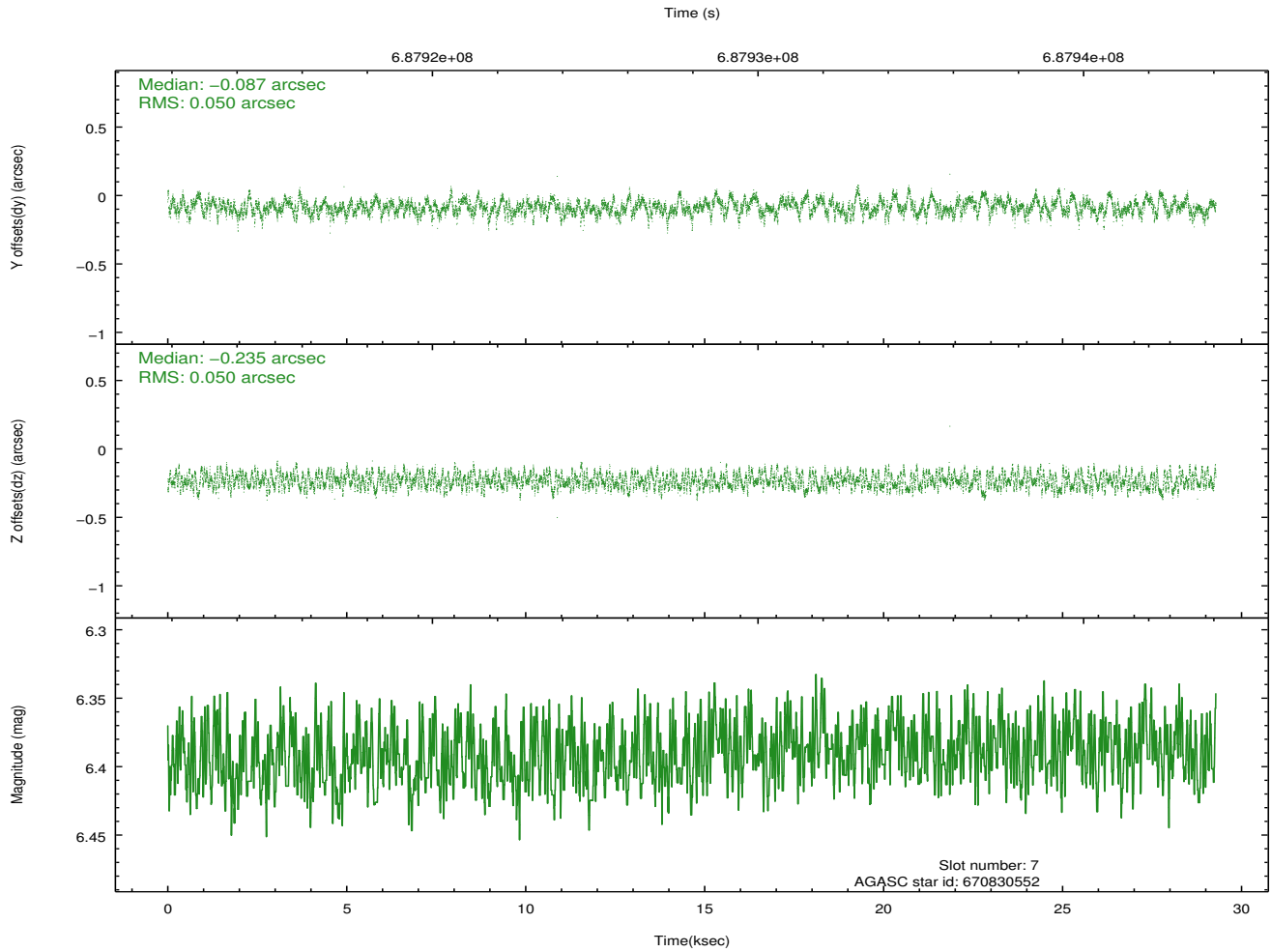
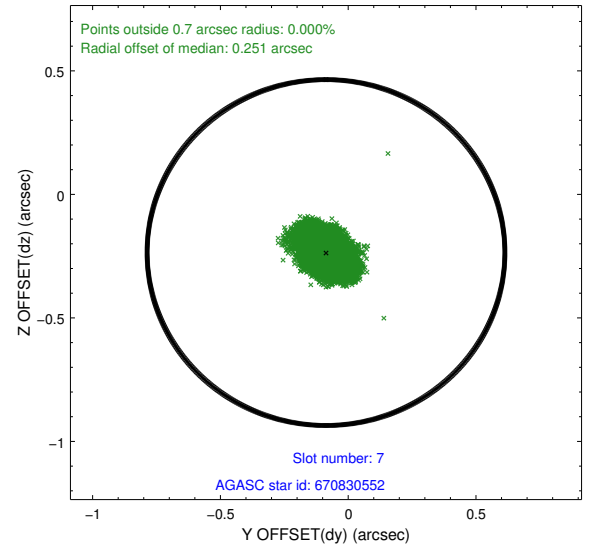
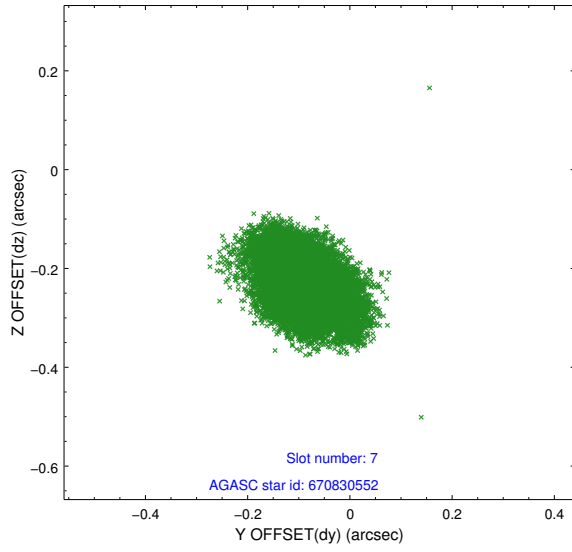
2.4.3 Slot 5



2.4.4 Slot 6

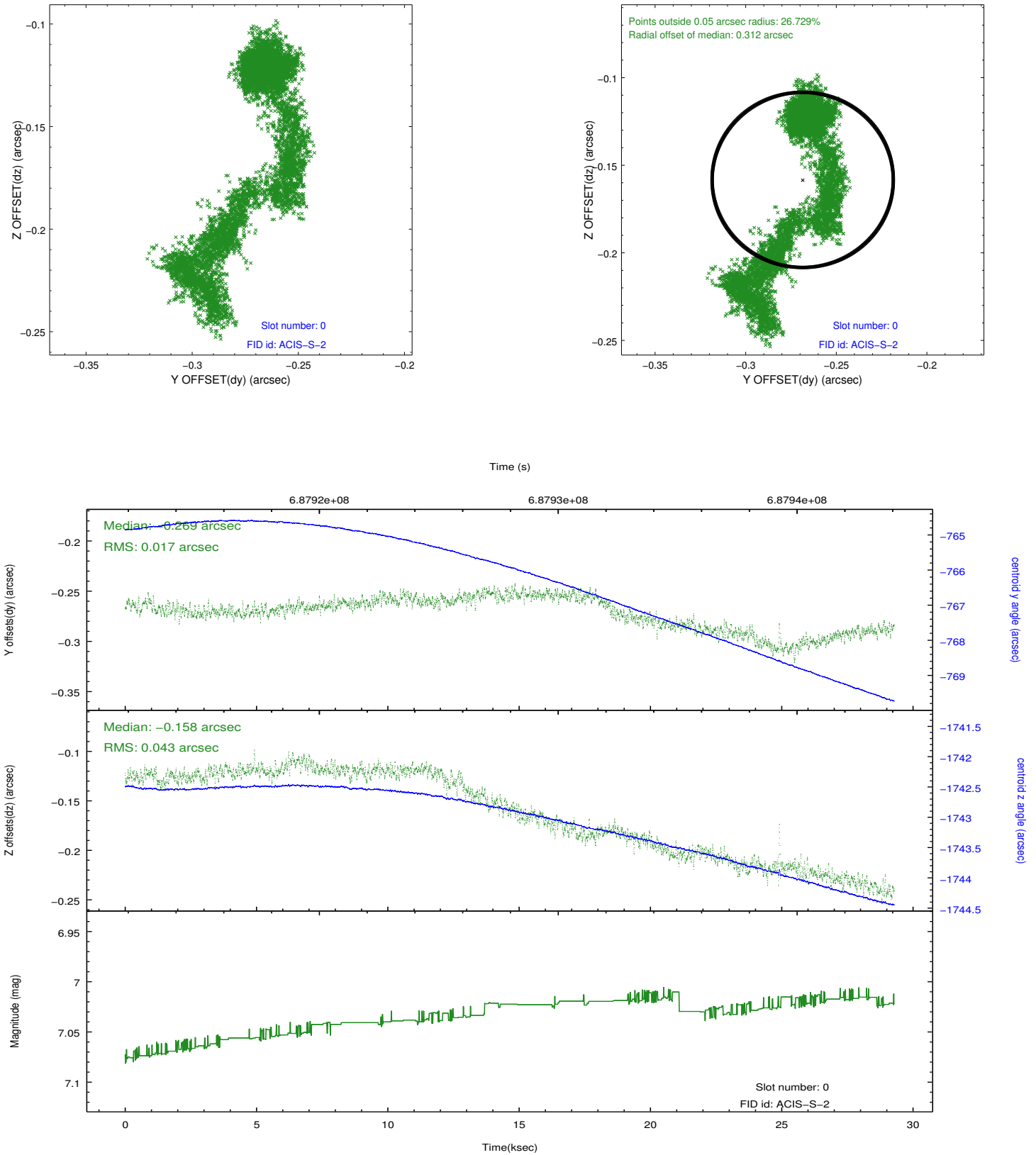


2.4.5 Slot 7

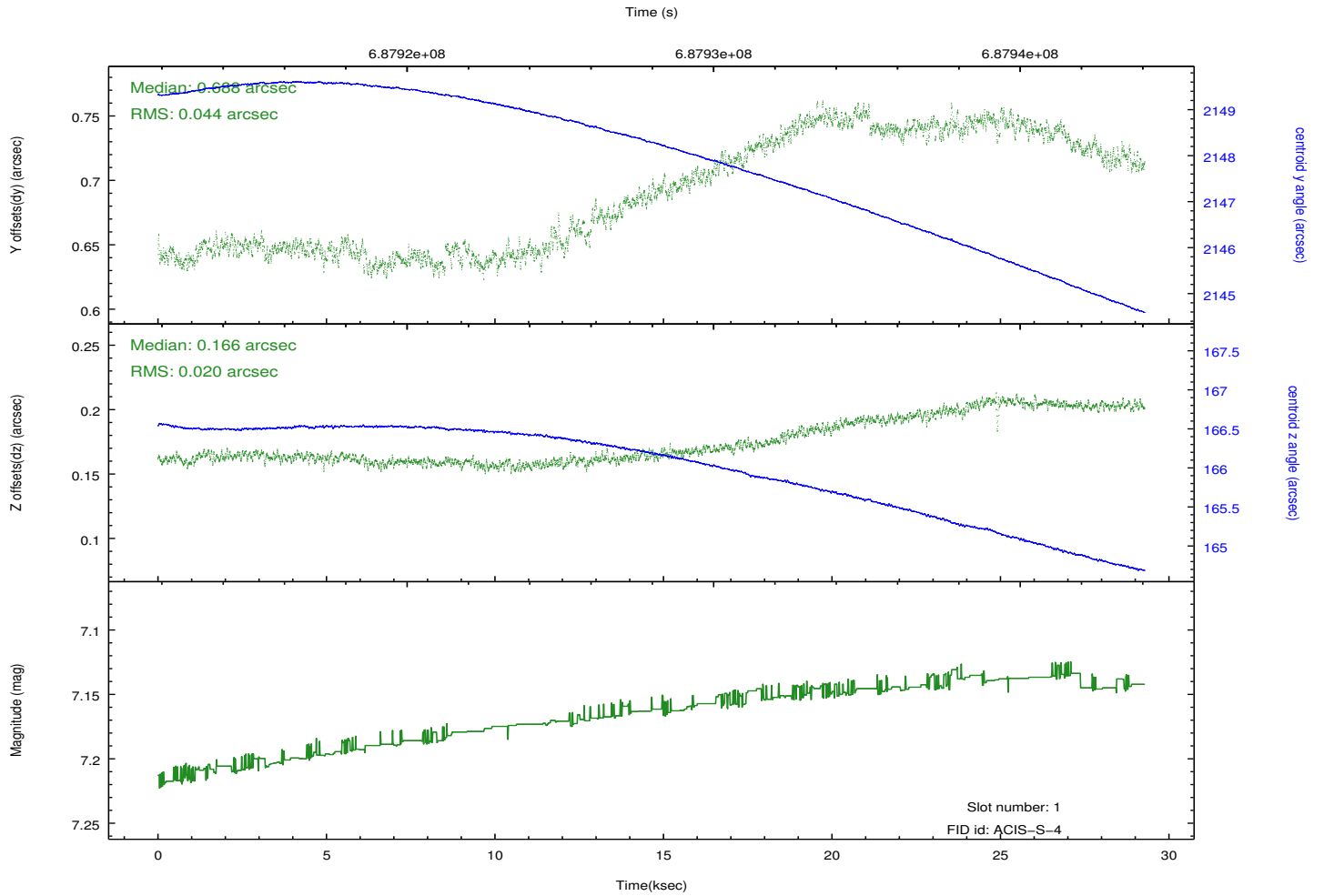
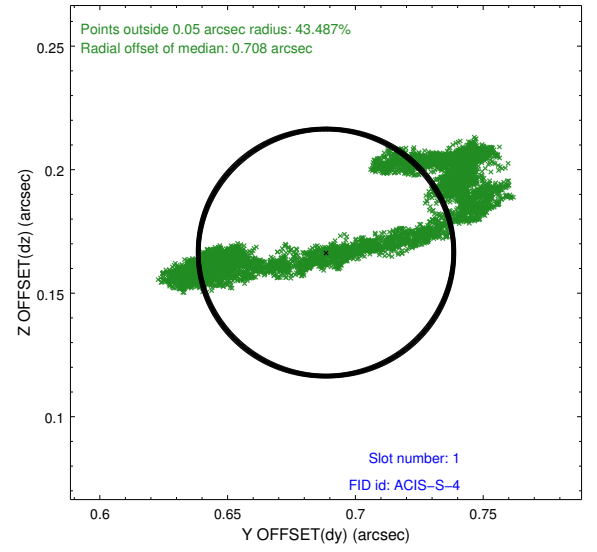
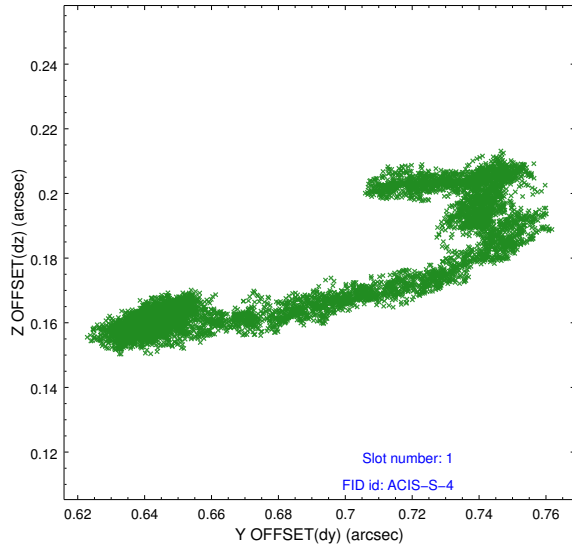


2.5 FID Slots

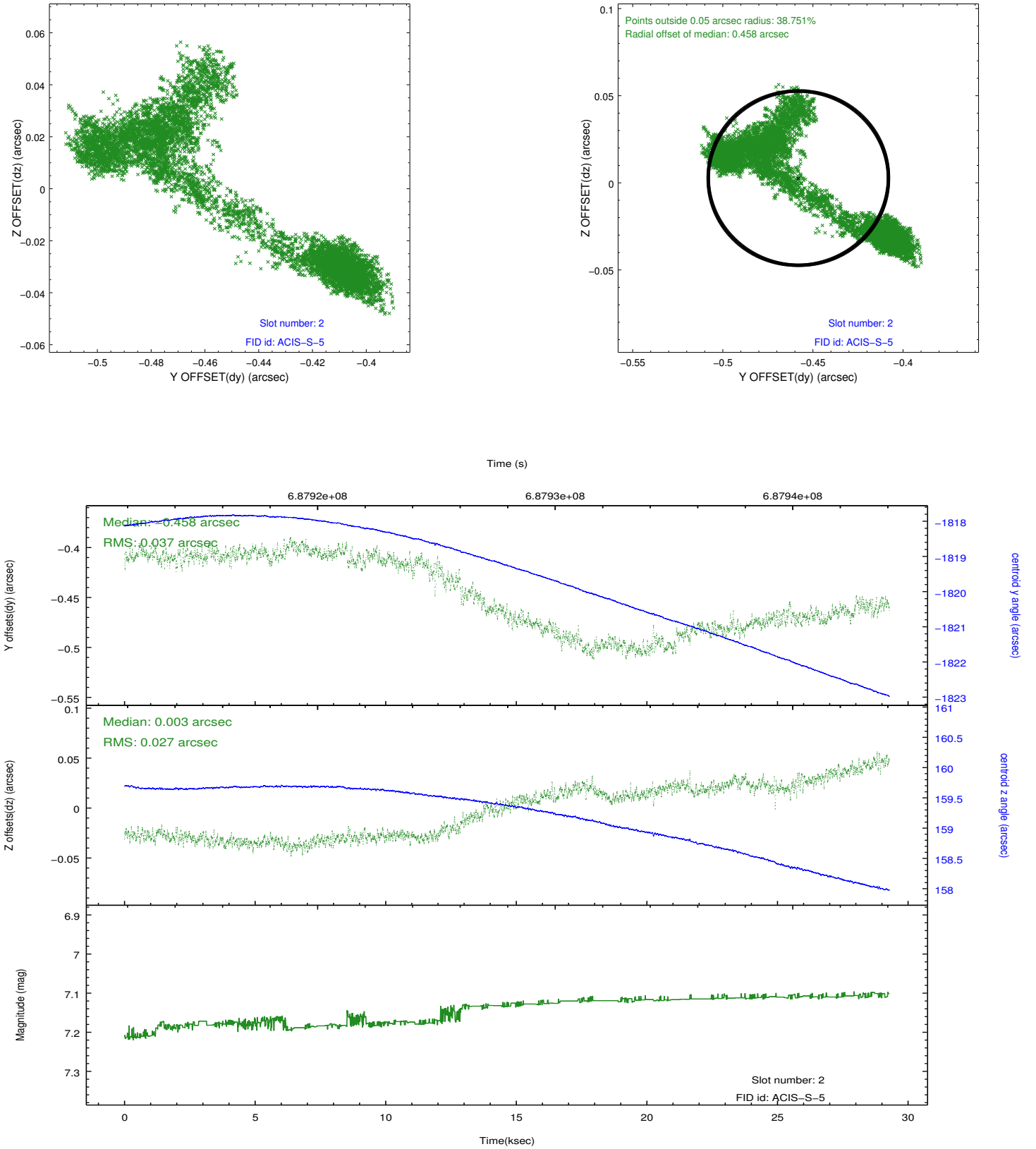
2.5.1 Slot 0



2.5.2 Slot 1

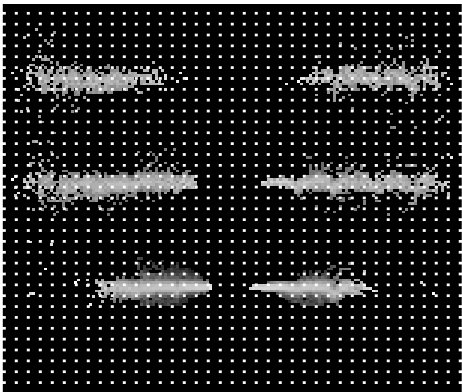


2.5.3 Slot 2

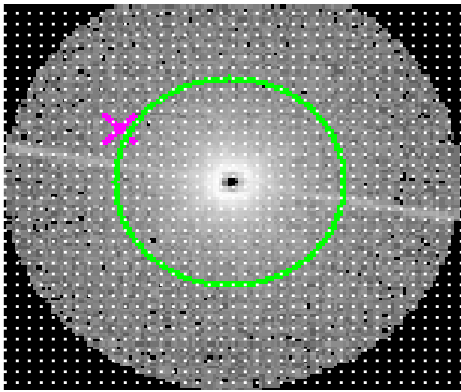


3 Gratings

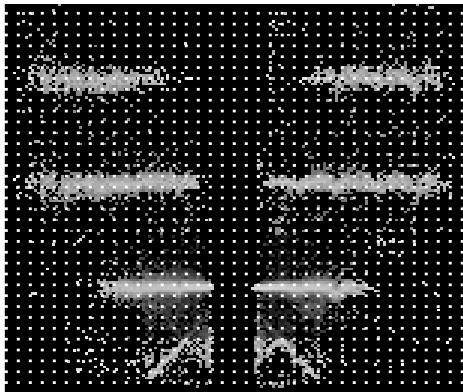
3.1 HEG Arm



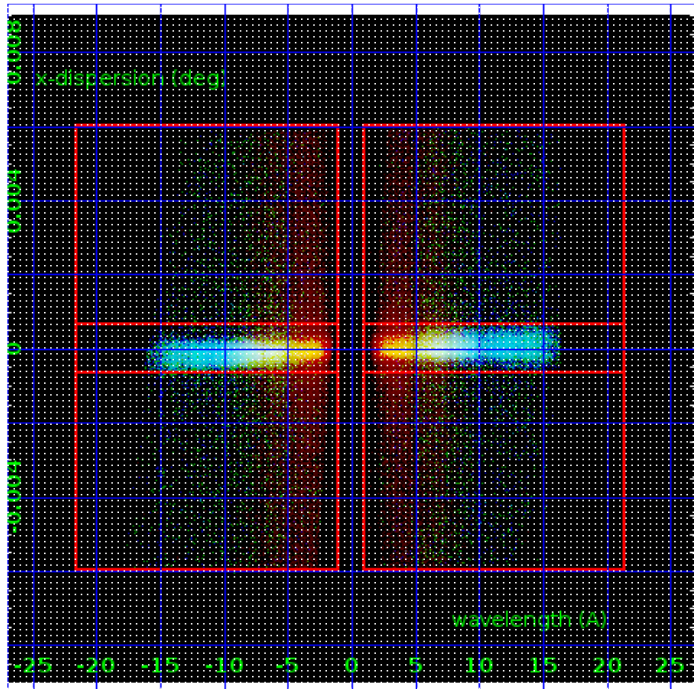
HEG Order Sort 123



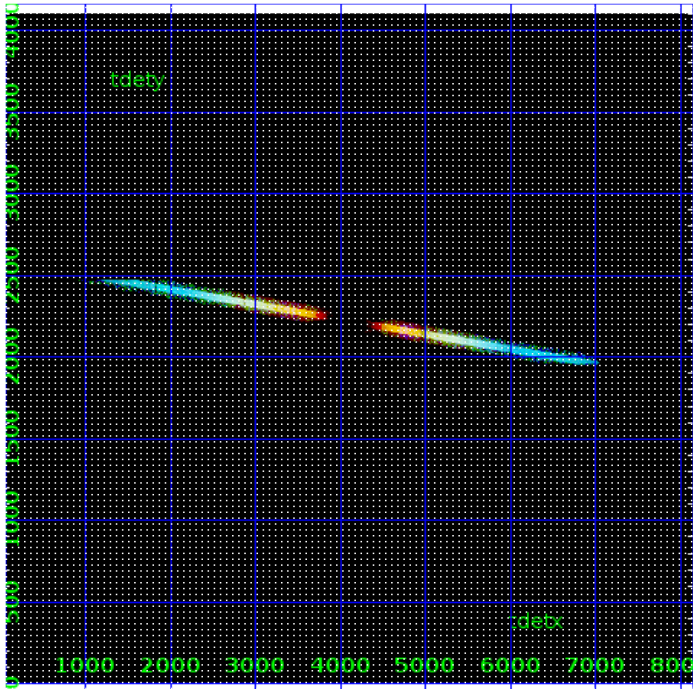
HEG Zero Order



HEG Order Sort ALL

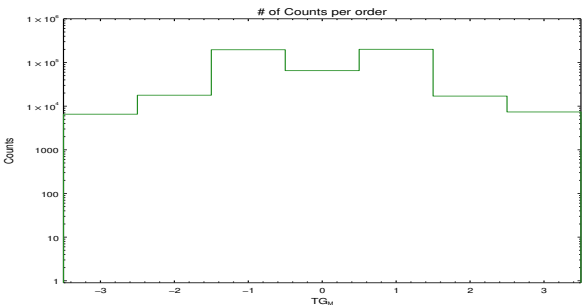


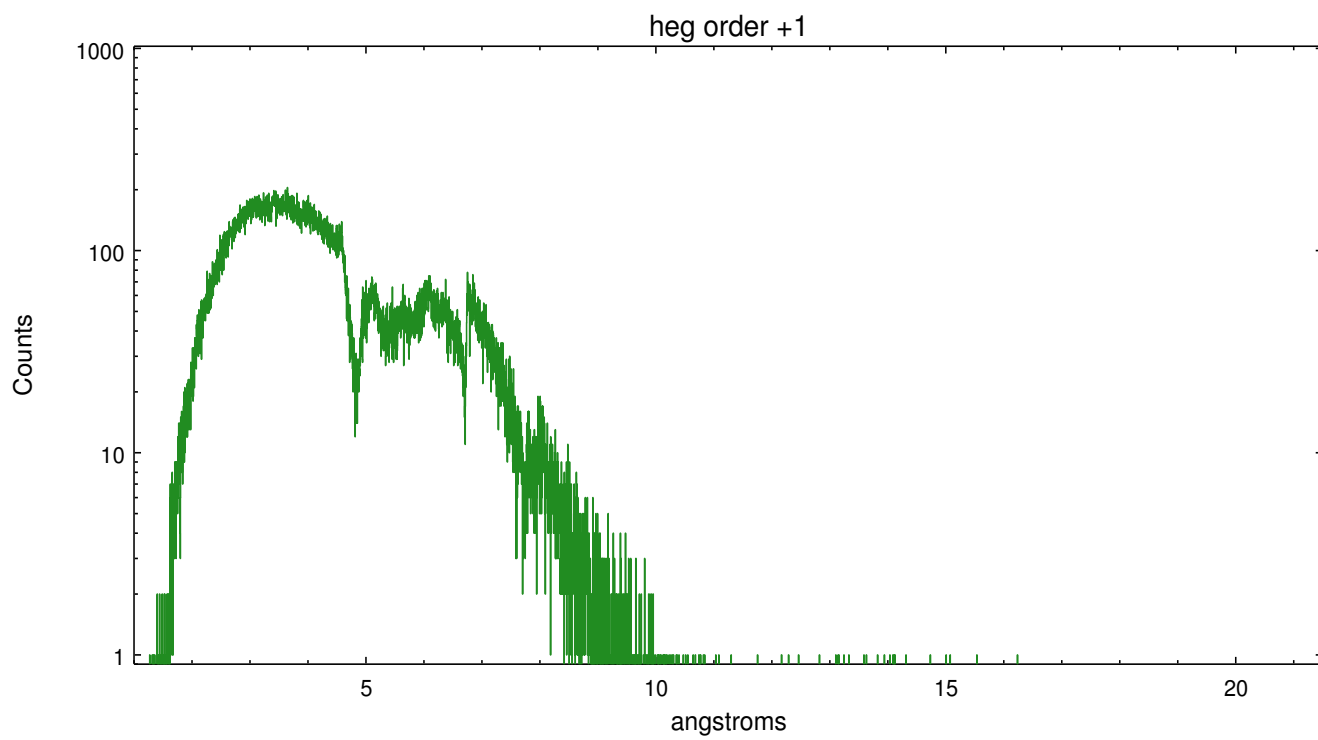
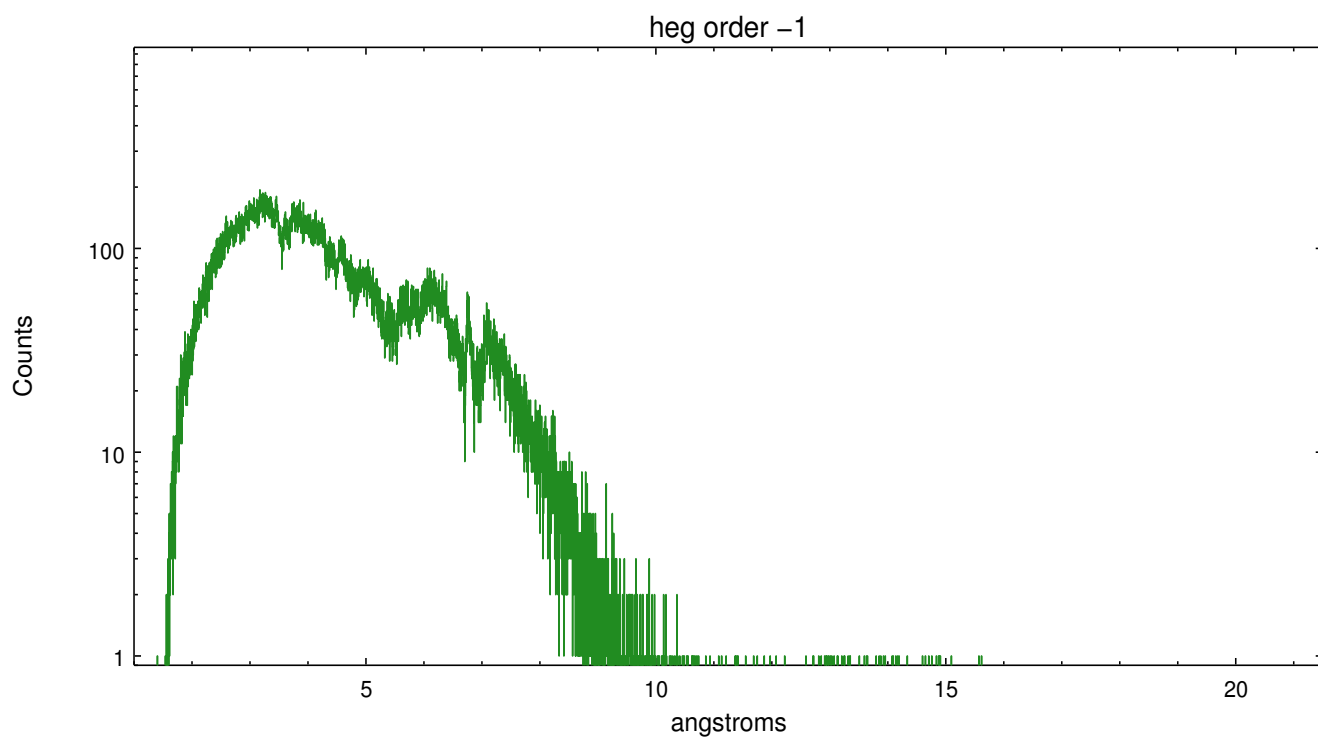
Spot Image HEG



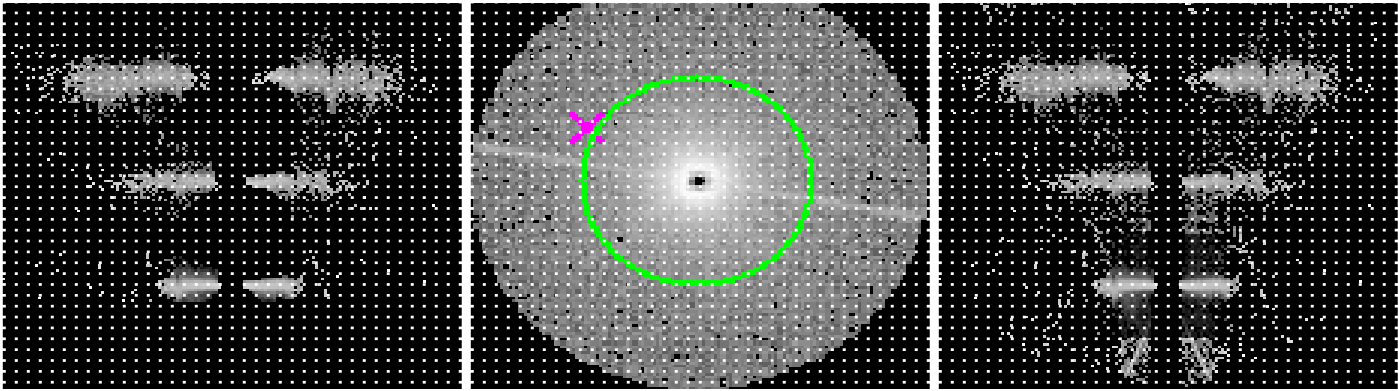
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	6548	17831	196042	65129	200713	17010	7365





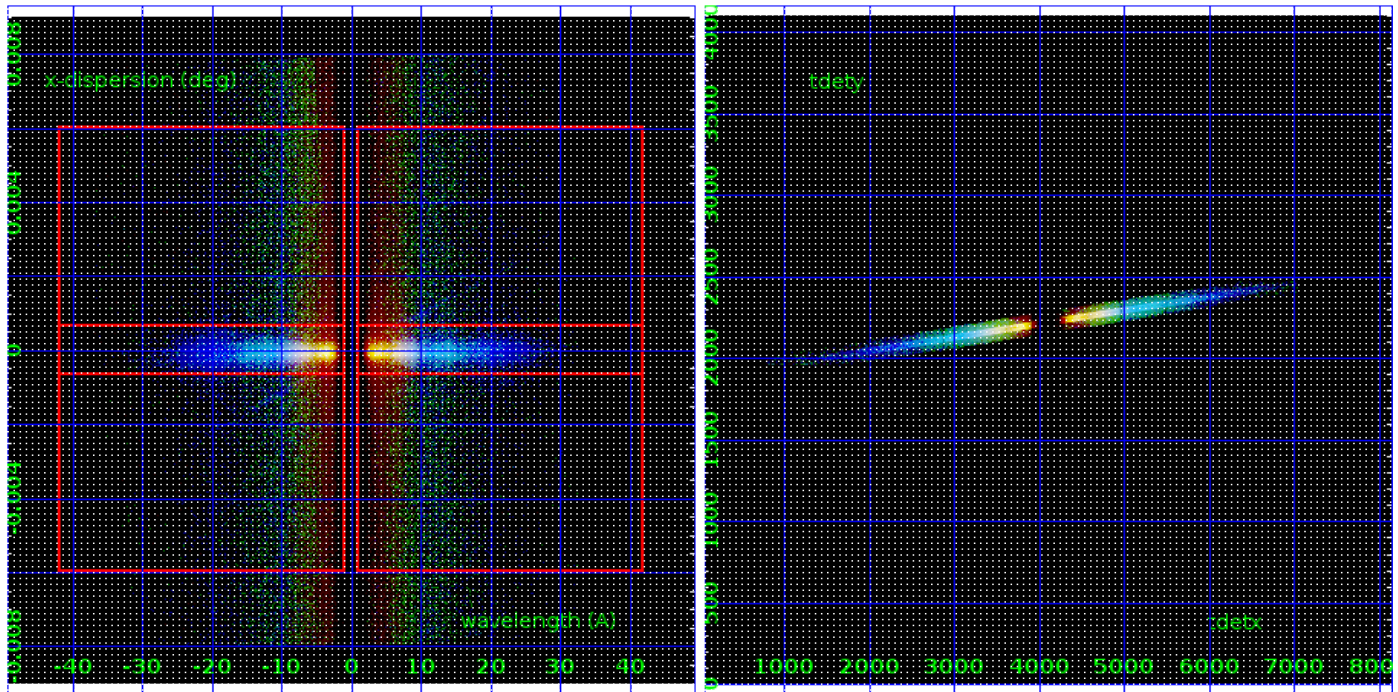
3.2 MEG Arm



MEG Order Sort 123

MEG Zero Order

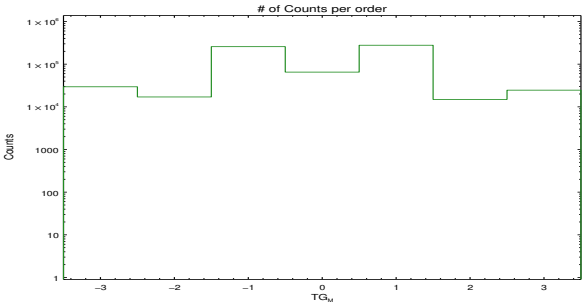
MEG Order Sort ALL

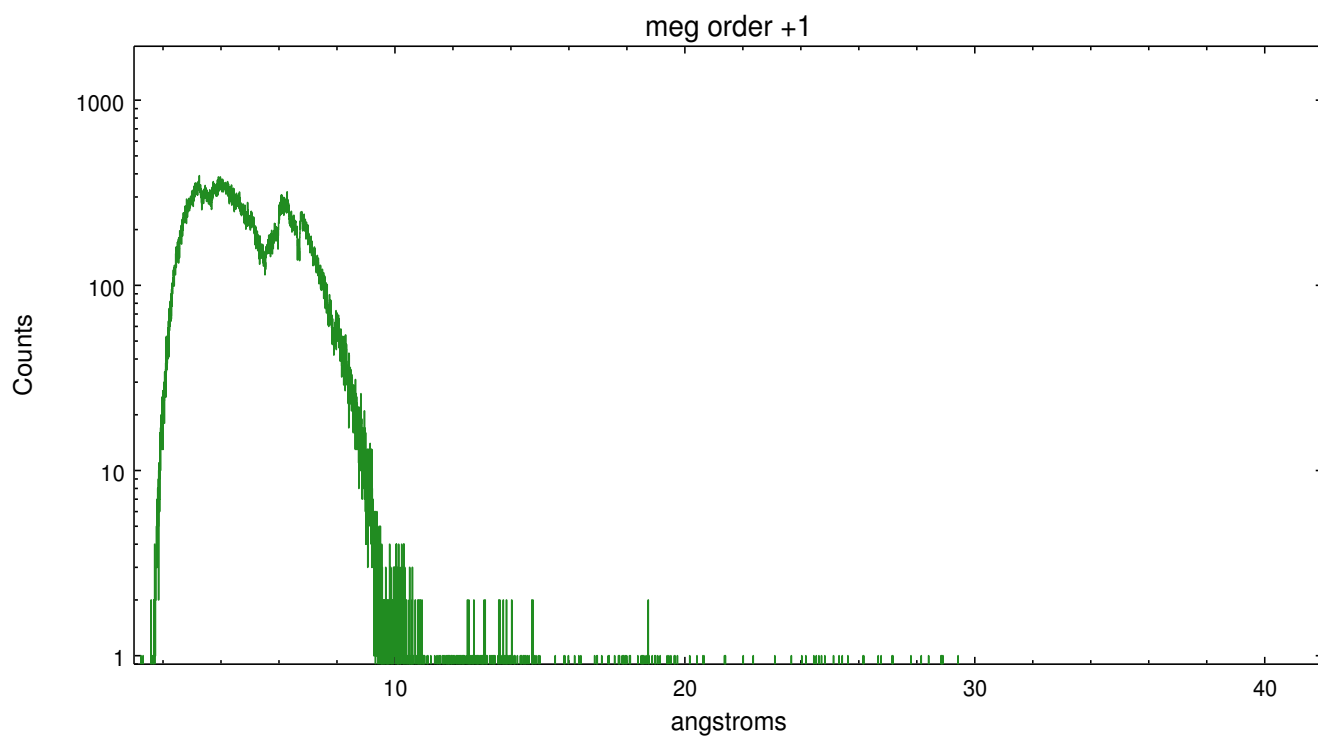
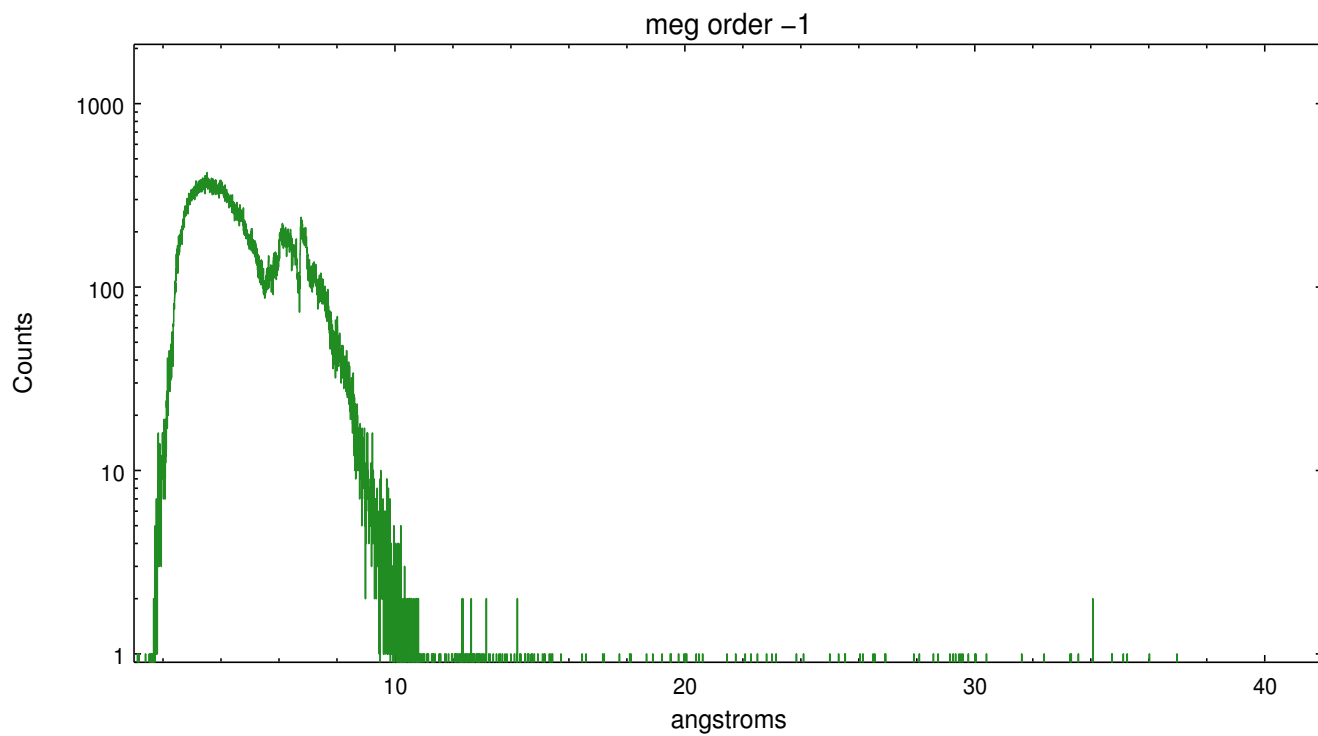


Spot Image MEG

Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	29527	17042	257479	65129	277815	14930	24586





A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2019.10.22
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	29.187995790839

A.2 Comments