

V&V Reference Report

L2 ASCDS Version : 10.8

Observation 21178 - L2 Version 1
Chandra X-Ray Center

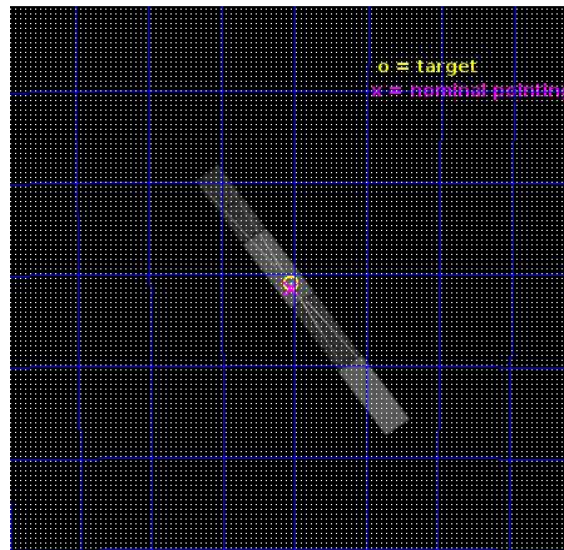
L2 Processing Date : Jul 2 2019

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1 Front

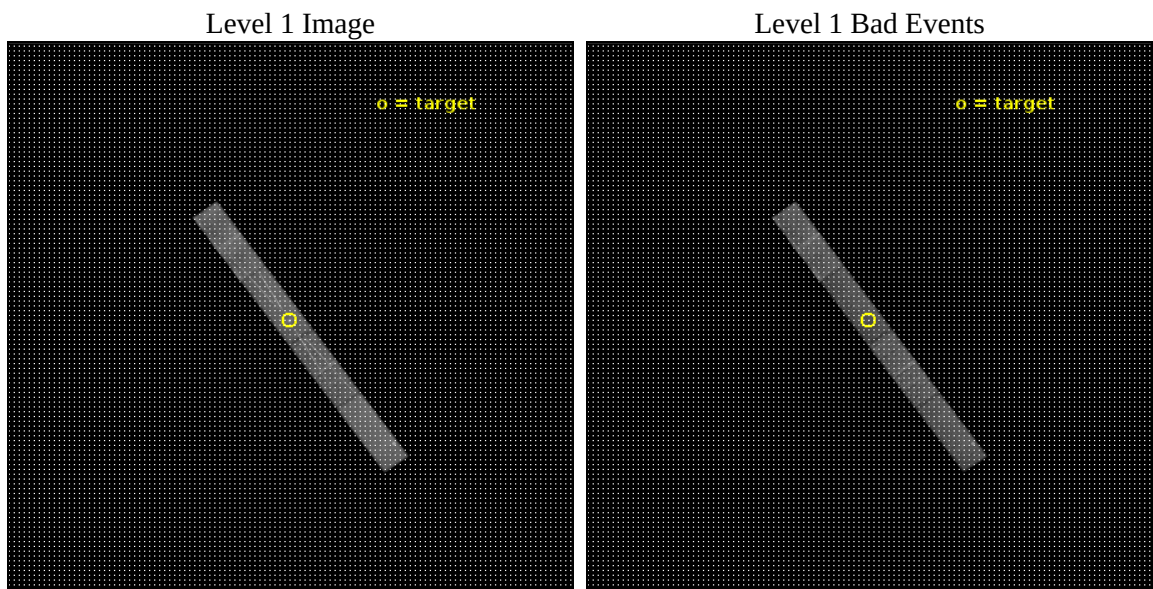
seq_num	201232	Sequence number
obs_id	21178	Observation id
title	Eta Carinae: X-ray Emission Line Diagnostics On the Approach to Periastron Passage	Proposal title
observer	Michael Corcoran	Principal investigator
object	Eta Carinae	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	161.264583	Observer's specified target RA [deg]
dec_targ	-59.684444	Observer's specified target Dec [deg]
ra_nom	161.26123127734	Nominal RA [deg]
dec_nom	-59.693728310935	Nominal Dec [deg]
roll_nom	234.15371769572	Nominal Roll [deg]
revision	1	Processing version of data
ontime	30016.80119276	Sum of GTIs [s]
livetime	29024.174427345	Livetime [s]
ontime5	30016.80119276	Sum of GTIs [s]
ontime6	30016.80119276	Sum of GTIs [s]
ontime7	30016.80119276	Sum of GTIs [s]
ontime8	30015.560152769	Sum of GTIs [s]
l2events	183111	Number of level 2 events



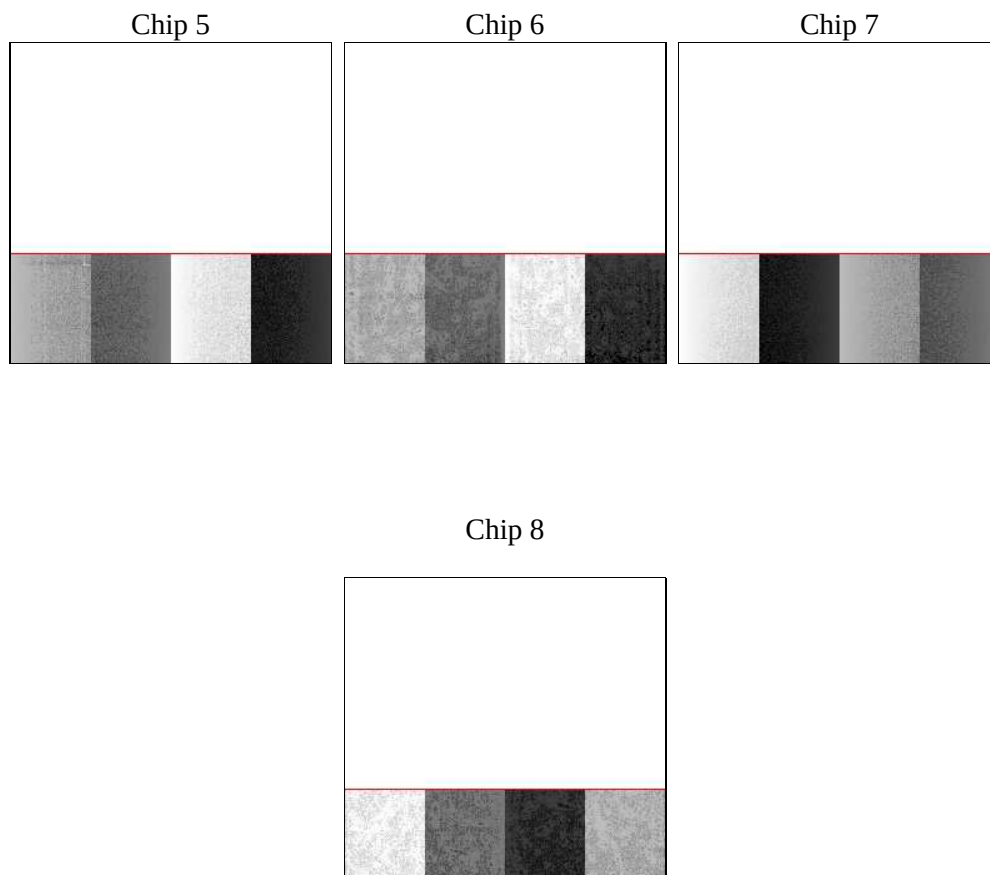
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	30000.000000	[s] Scheduled observation exposure time
ascdsver	10.8	Processing system revision	ontime	30016.80119276	Sum of GTIs [s]
caldsver	4.8.3	 	ontime5	30016.80119276	Sum of GTIs [s]
date	2019-07-02T14:04:18	Date and time of file creation	ontime6	30016.80119276	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	30016.80119276	Sum of GTIs [s]
			ontime8	30015.560152769	Sum of GTIs [s]
			l1events	506039	Number of level 1 events
			tgmethod	FINDZO	Method used to create src1a file
			zo_pos	(4083.22, 4164.99)	src1a sky pixel position
			zo_pos_tgd	(4083.35, 4165.21)	src1a sky pixel position via radetect

2.1.4 Events

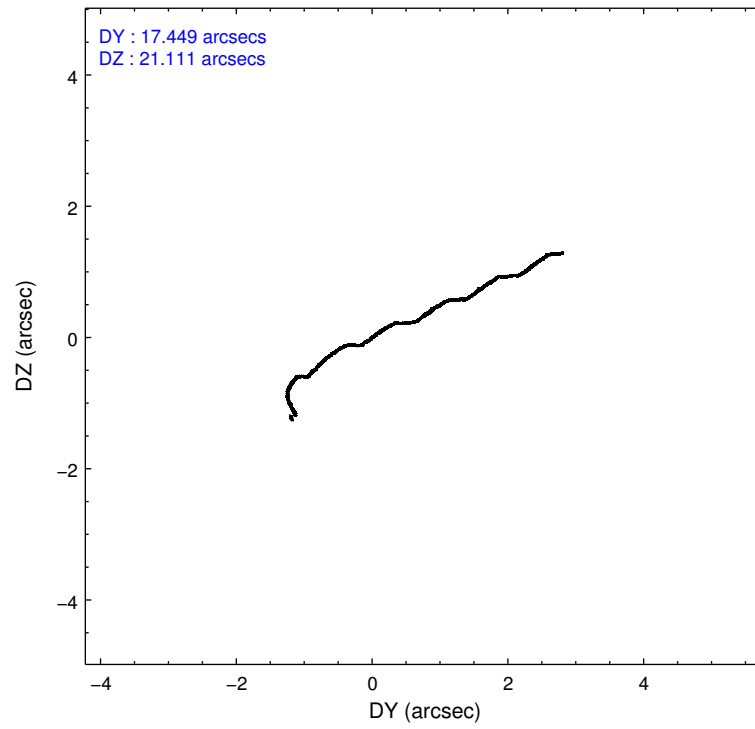
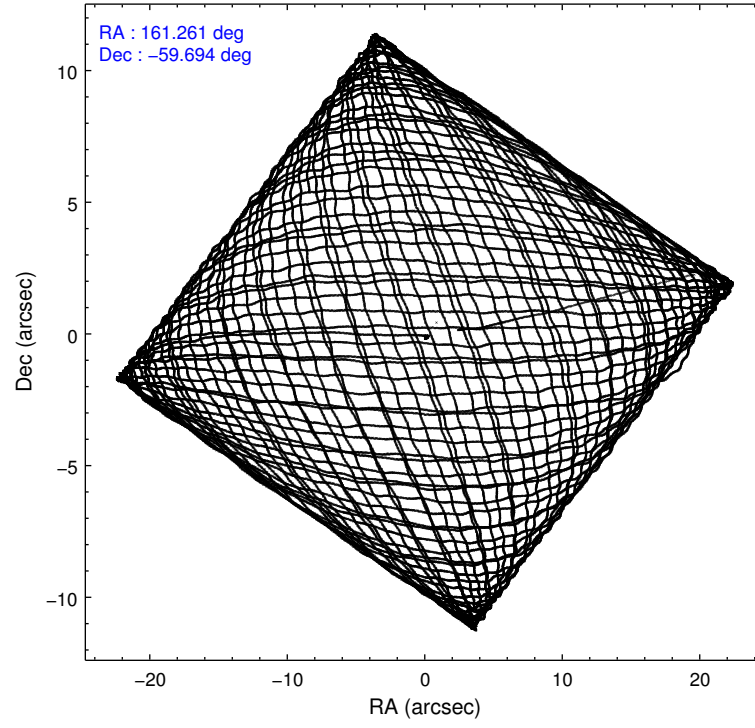
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	133469	105030	147221	120319
rejected events	67406	78163	62006	84832
rejected %	50%	74%	42%	70%

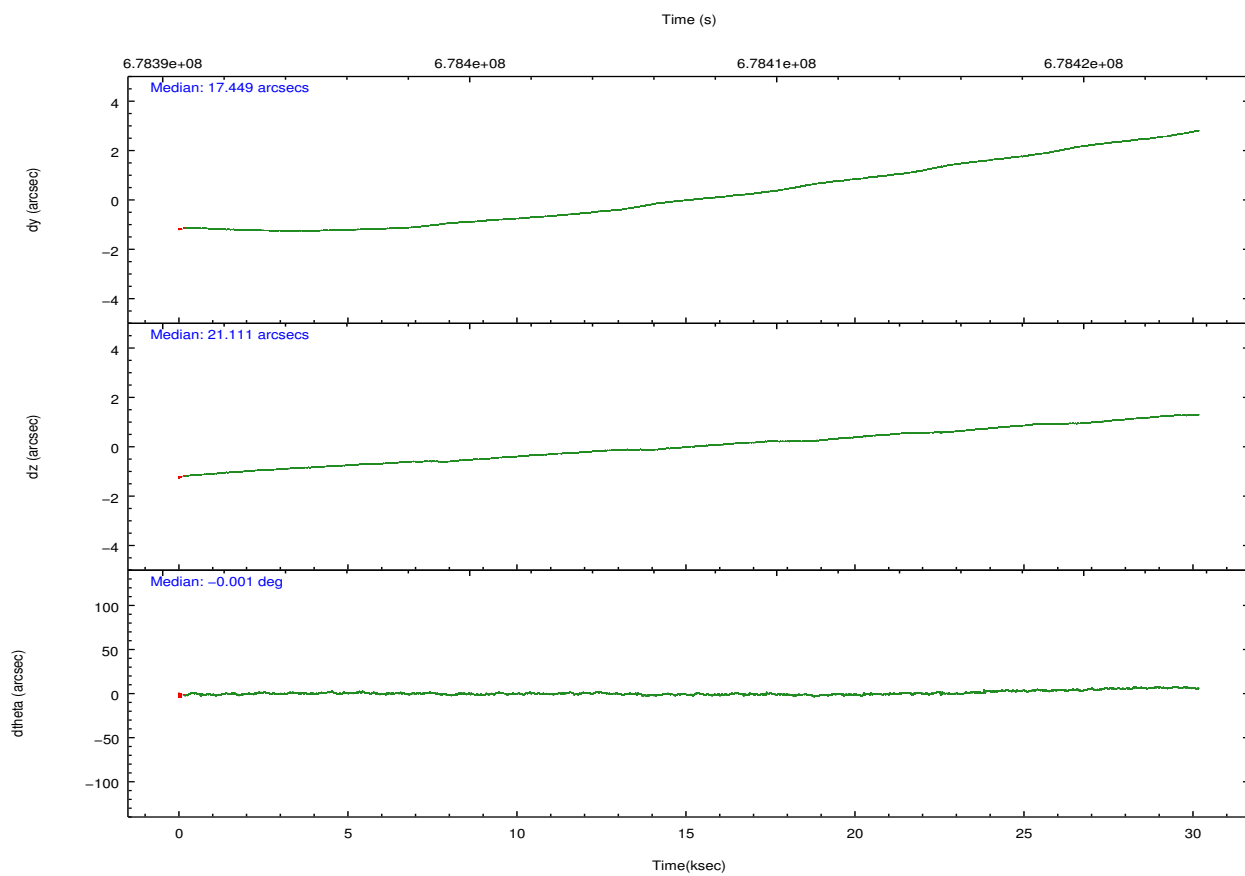
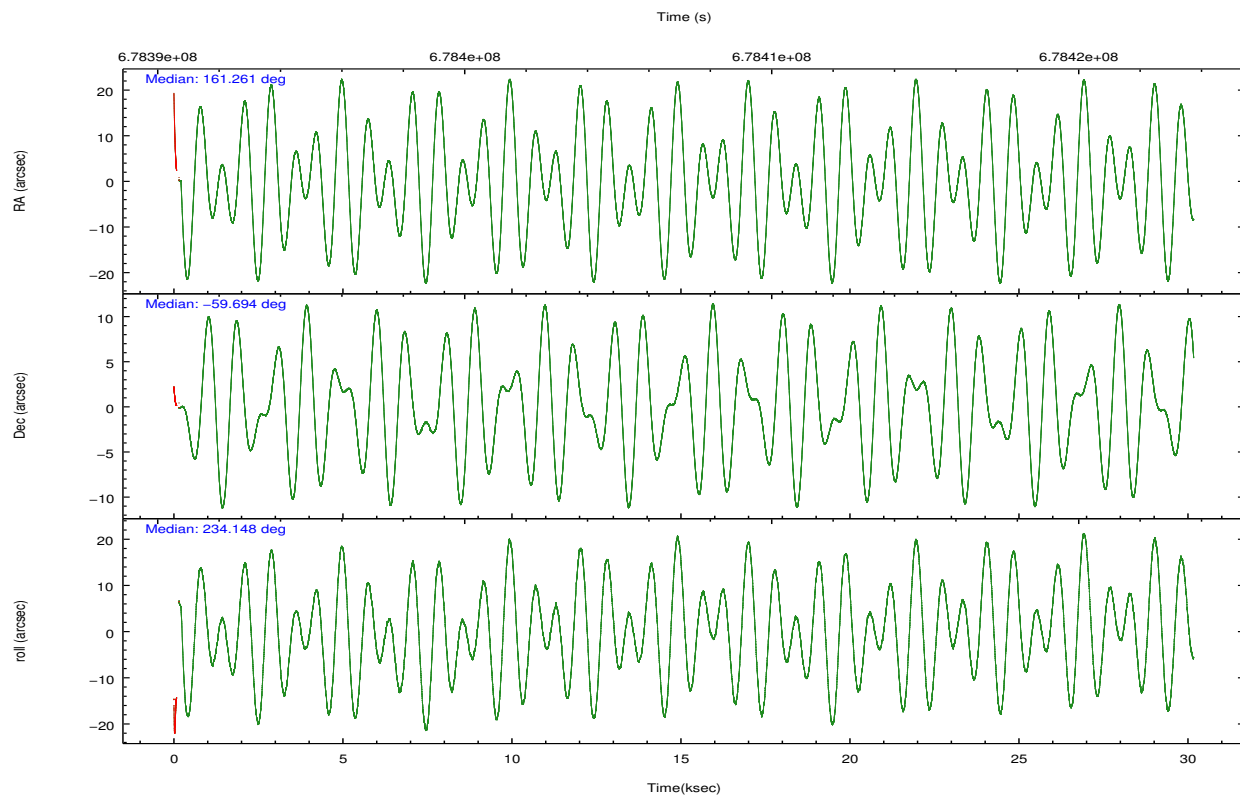
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	7113	15525	11139	11825
	5%	14%	7%	9%
grade 1 events	2636	67	507	76
	1%	0%	0%	0%
grade 2 events	19037	4477	18568	7488
	14%	4%	12%	6%
grade 3 events	3685	2022	8599	3685
	2%	1%	5%	3%
grade 4 events	3570	1977	8252	3489
	2%	1%	5%	2%
grade 5 events	10017	3490	12338	5176
	7%	3%	8%	4%
grade 6 events	33391	3108	39576	9249
	25%	2%	26%	7%
grade 7 events	54020	74364	48242	79331
	40%	70%	32%	65%

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	161.266061	161.2612312773414	Subarray requested	CUSTOM	CUSTOM
[deg] Pointing Dec	-59.666402	-59.69372831093532	Subarray start row	1	1
[deg] Pointing Roll	234.001279	234.1537176957157	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	-182.1344861297048			
[mm] SIM translation stage offset	-8	-7.998036453302973			
Phase constraints	Y	Y			
[d] Phase period	2024.000000	2024.000000			
[d] Phase epoch (MJD)	56871.291953	56871.291953			
Phase start	0.797000	0.797000			
Phase end	0.930000	0.930000			
Phase start error	0.010000	0.010000			
Phase end error	0.010000	0.010000			
[s] Observation start time (MET)	678392218.184000	678390995.77693			
Observation start date	2019-07-01T18:15:49	2019-07-01T17:56:35			
[s] Observation end time (MET)	678422218.184000	678423061.87885			
Observation end date	2019-07-02T02:35:49	2019-07-02T02:51:01			
Read mode	TIMED	TIMED			

2.3 Aspect



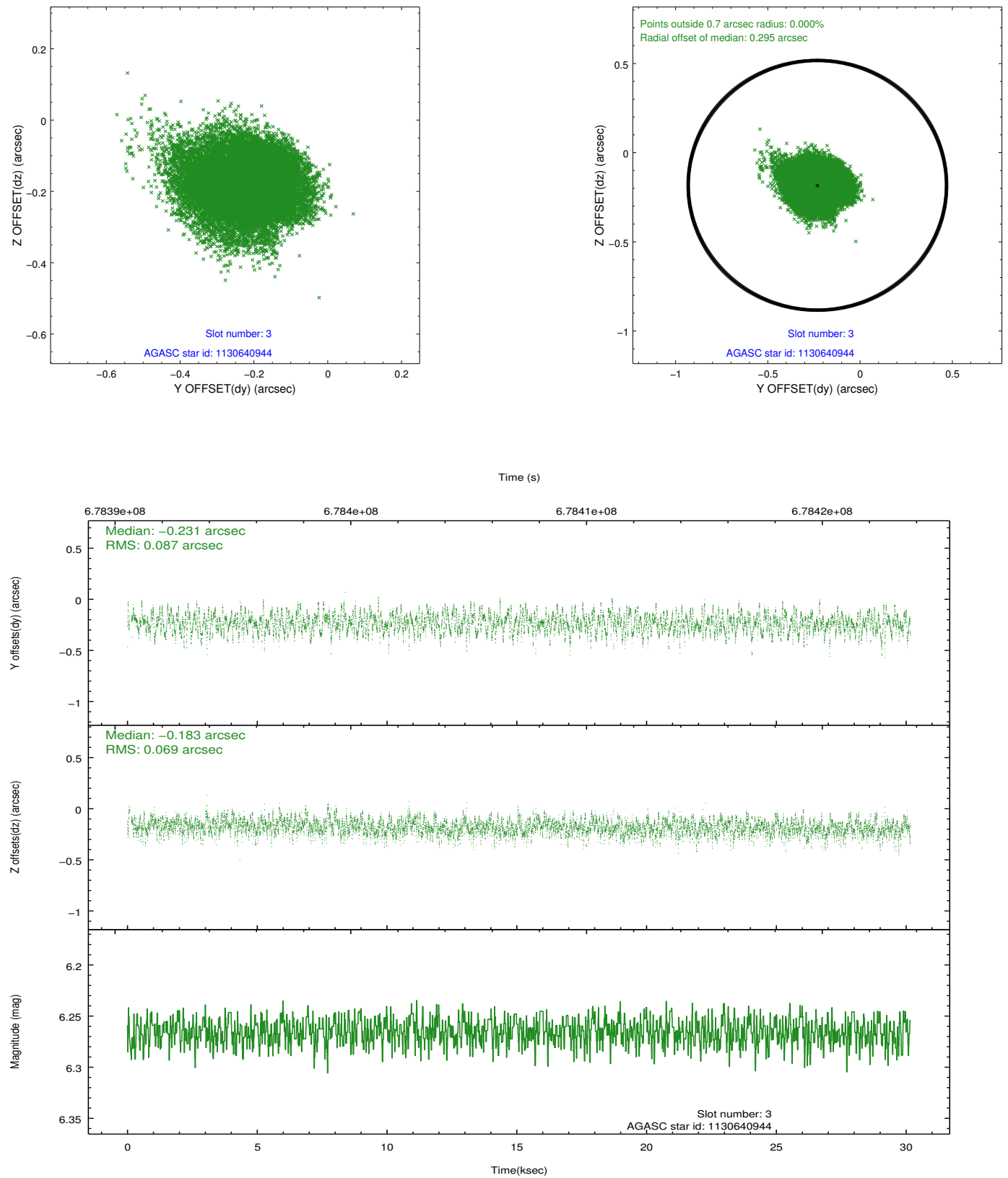


Slot Statistics

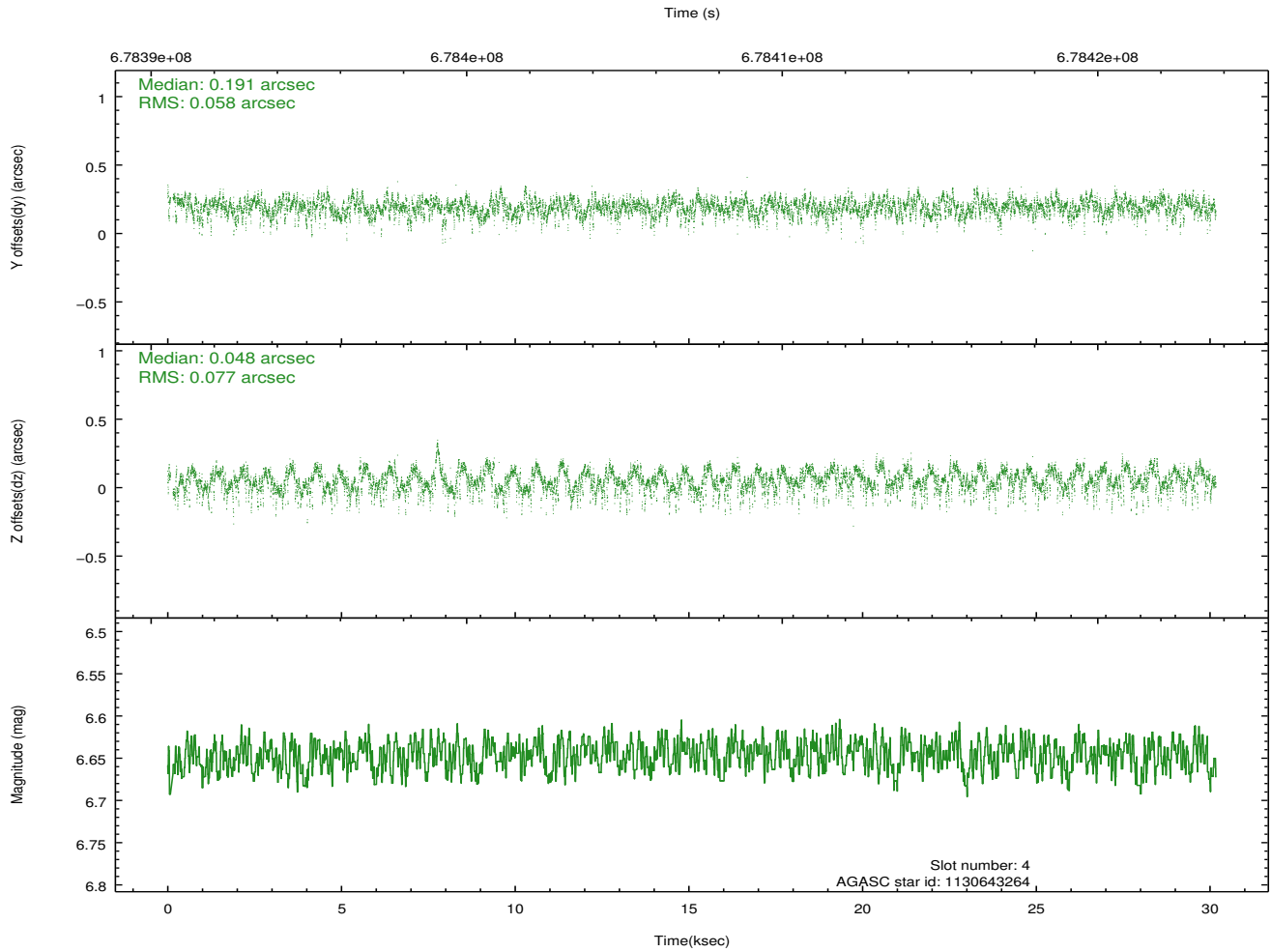
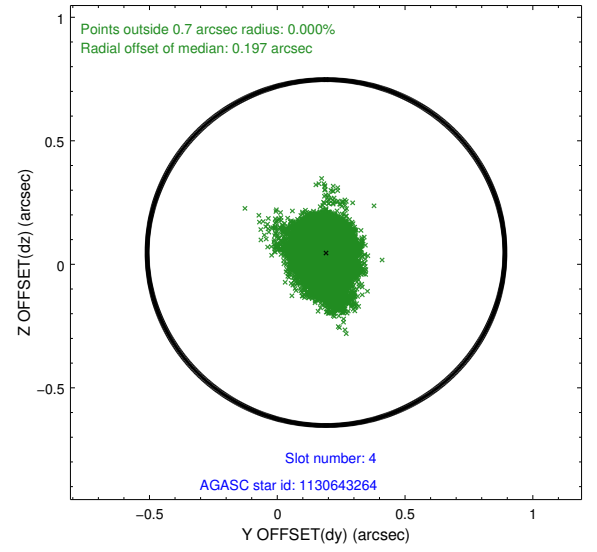
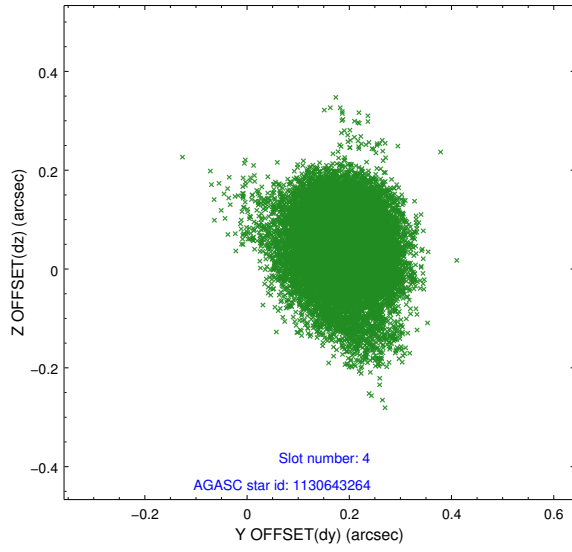
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.04	7342	1.000	-0.070	-0.269	0.034	0.060	0.000000	0.000000	-770.35	-1907
1	FID		ACIS-S-5	7.17	7341	1.000	-0.343	-0.027	0.032	0.047	0.000000	0.000000	-1823.66	-5
2	FID		ACIS-S-6	7.36	7342	1.000	0.388	0.300	0.025	0.038	0.000000	0.000000	391.81	638
3	GUIDE	used	1130640944	6.27	14684	1.000	-0.231	-0.183	0.121	0.186	162.022531	-59.919161	-60.04	1643
4	GUIDE	used	1130643264	6.65	14684	1.000	0.191	0.048	0.102	0.165	160.322990	-59.676912	1048.42	-1357
5	GUIDE	used	1130632200	7.57	14613	1.000	0.156	0.461	0.114	0.180	161.433843	-59.407820	-933.08	-298
6	GUIDE	used	1174033144	8.45	14678	1.000	-0.101	-0.316	0.111	0.189	161.168741	-60.059230	1246.85	689
7	MONITOR	unused		0.00	0	0.000	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0

2.4 Star Slots

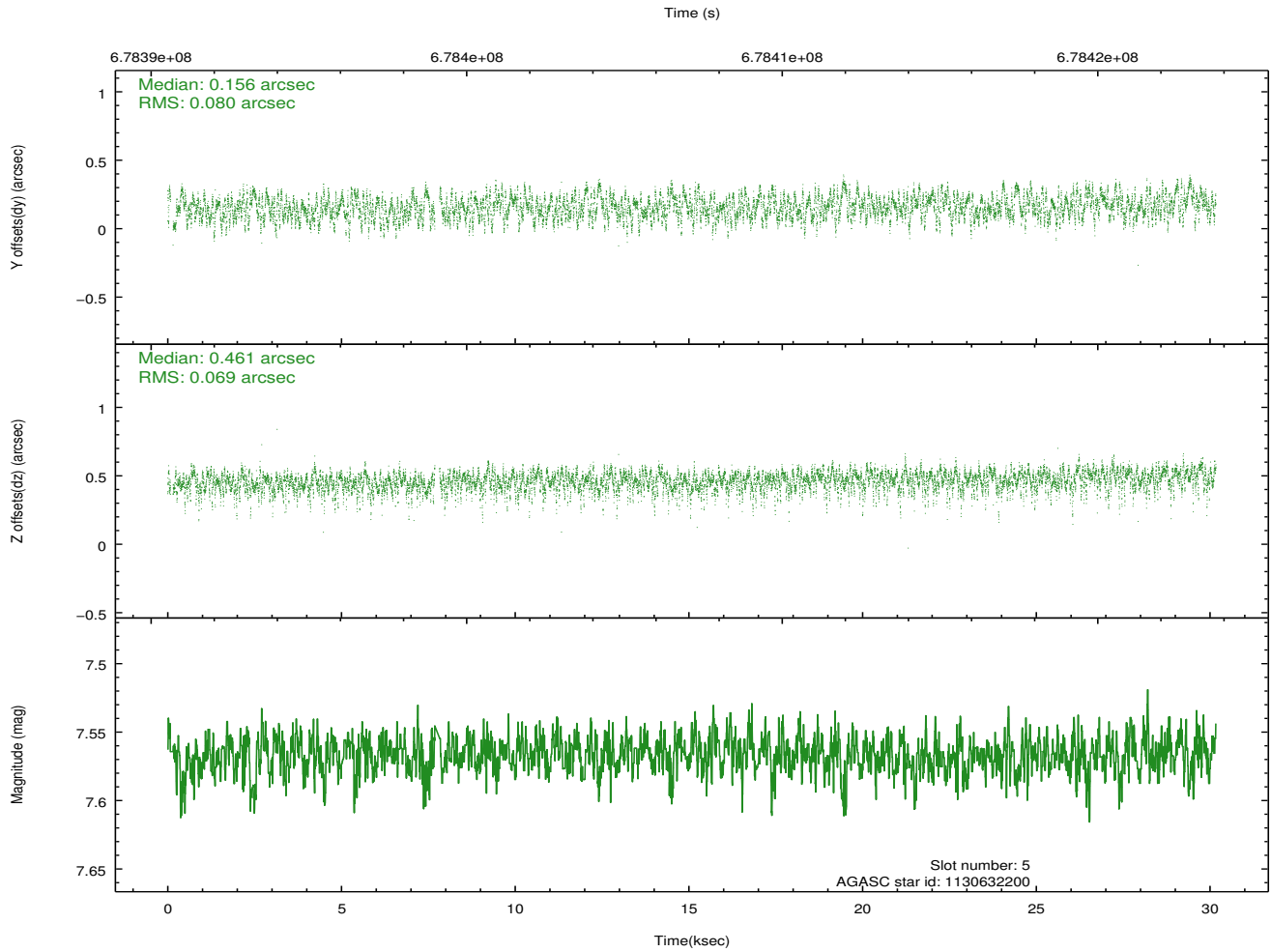
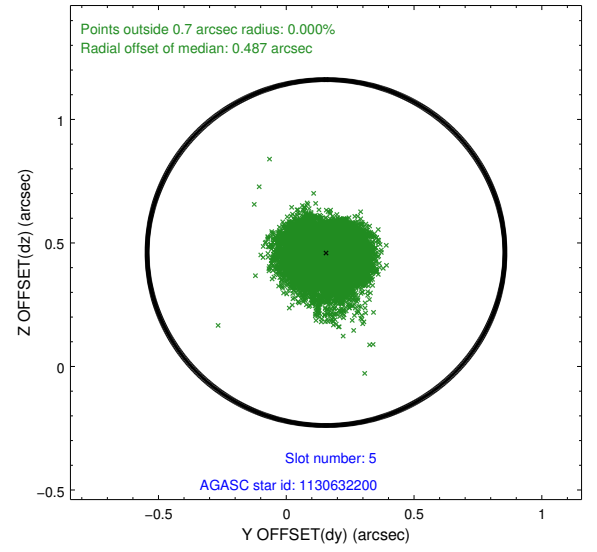
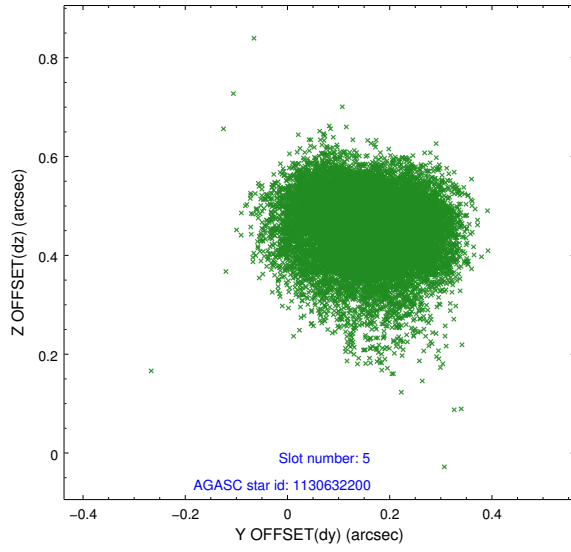
2.4.1 Slot 3



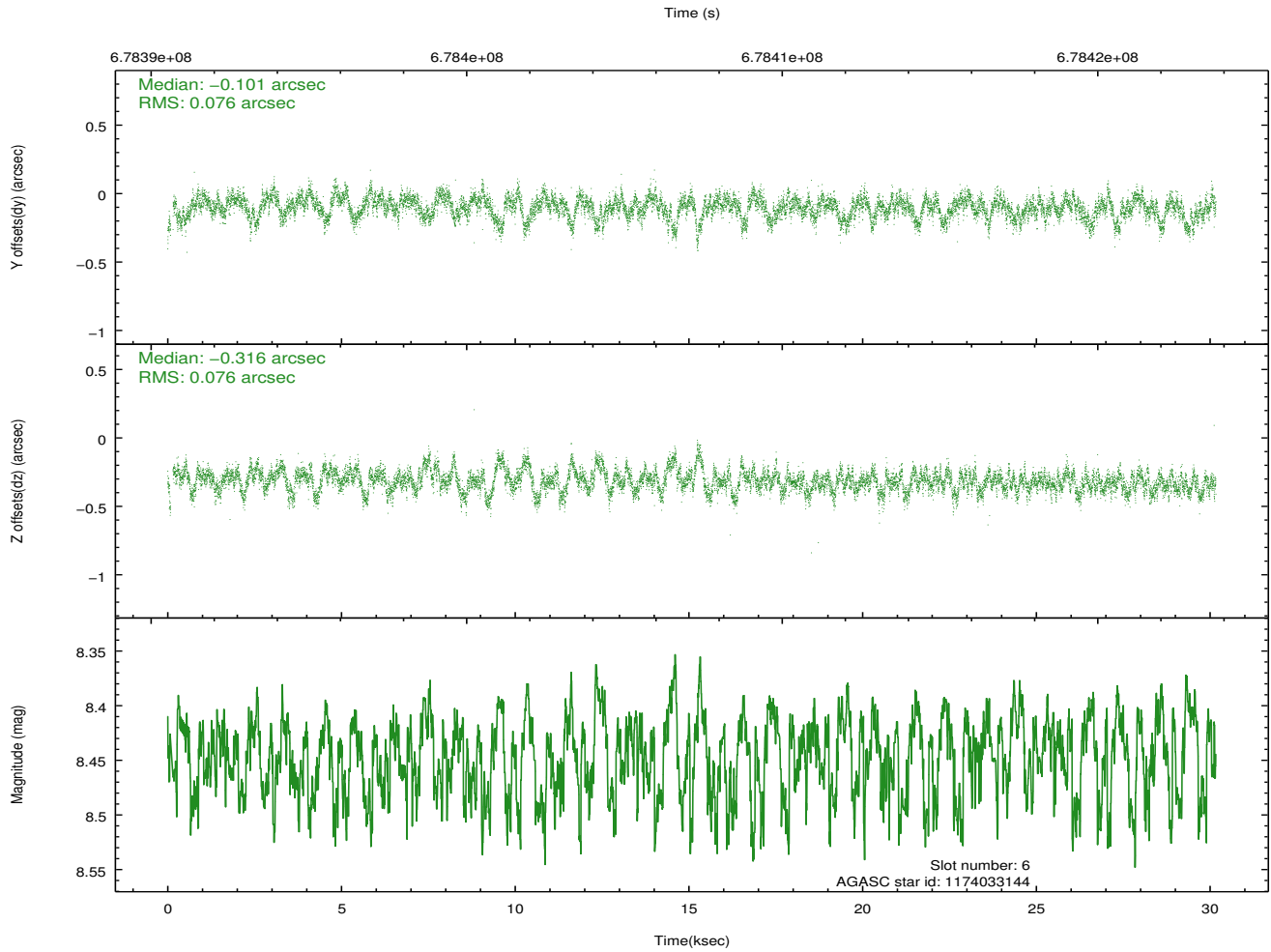
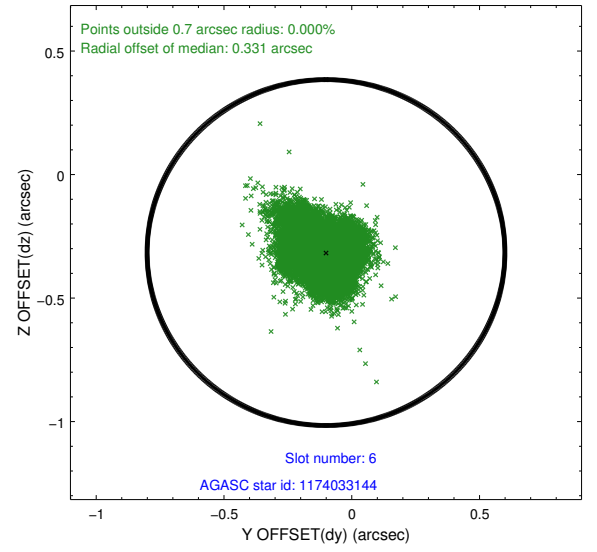
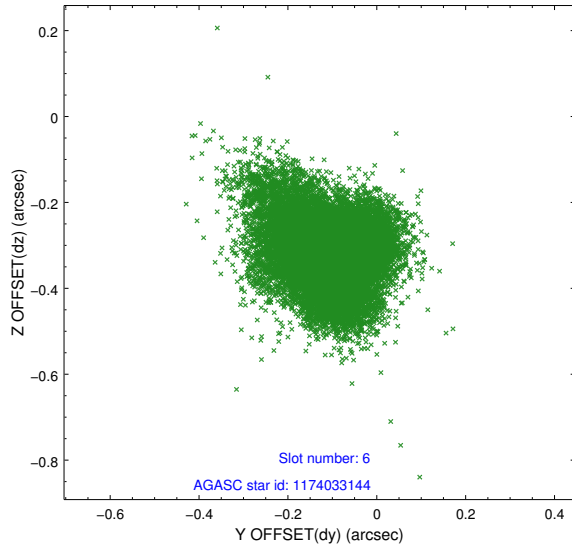
2.4.2 Slot 4



2.4.3 Slot 5

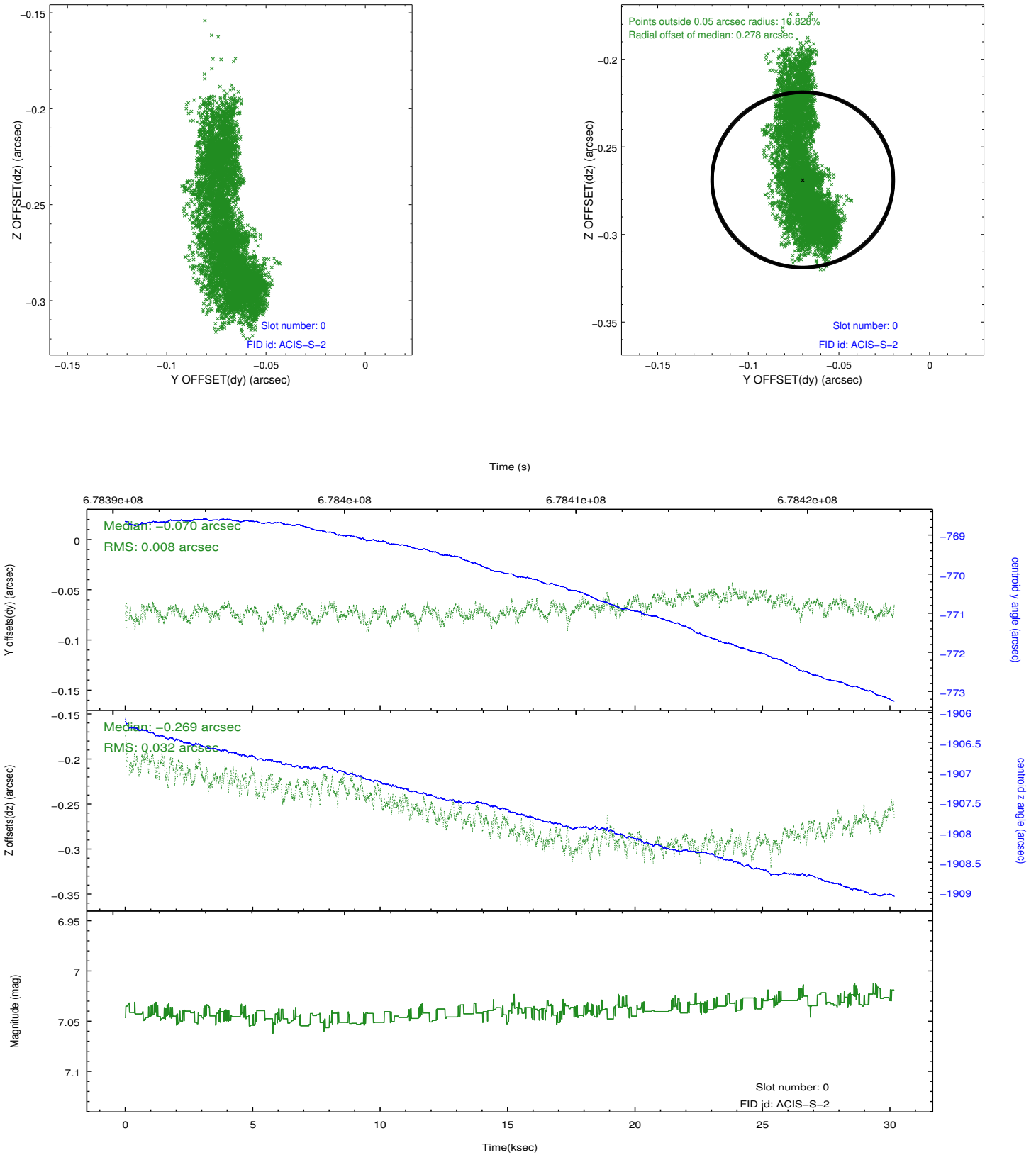


2.4.4 Slot 6

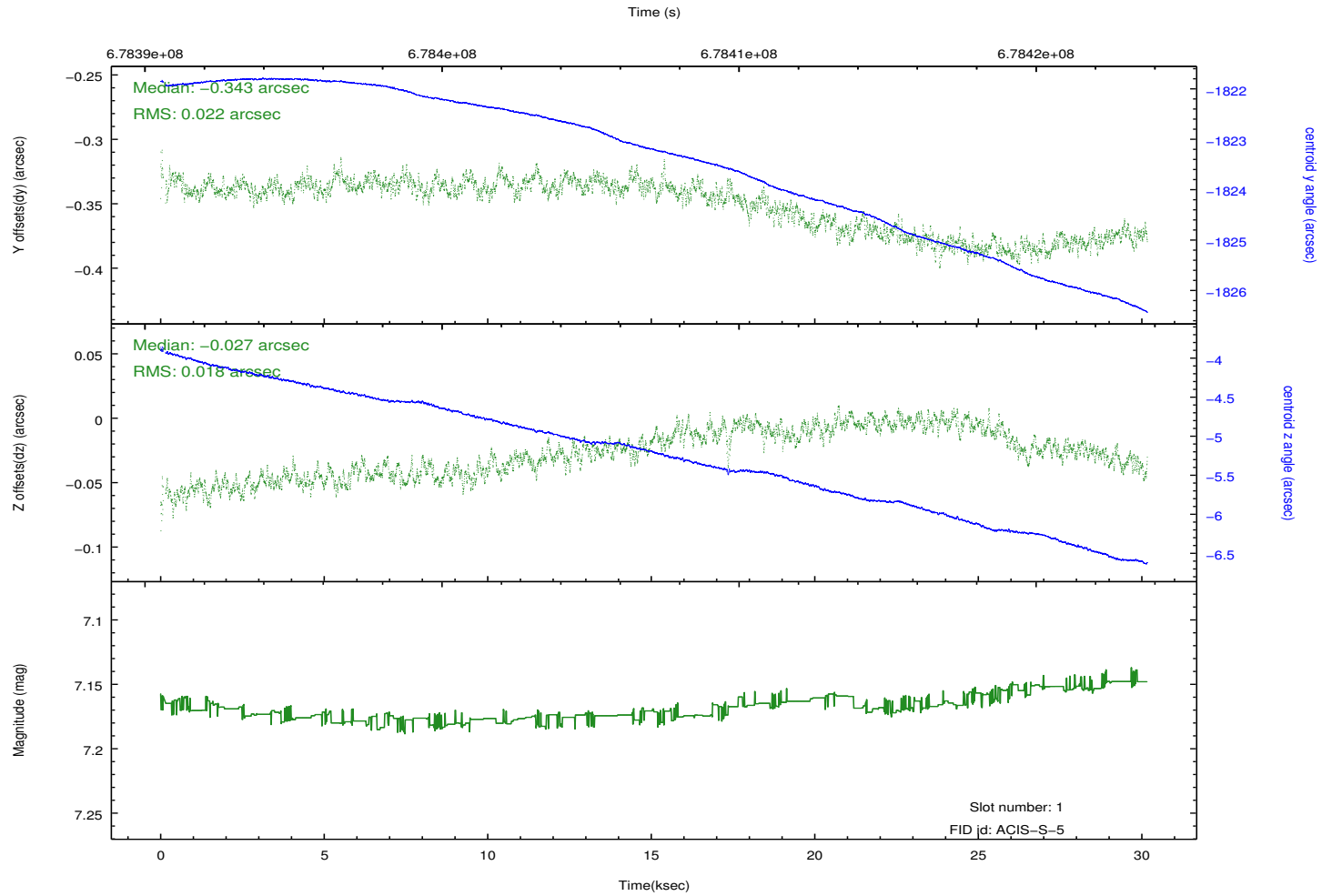
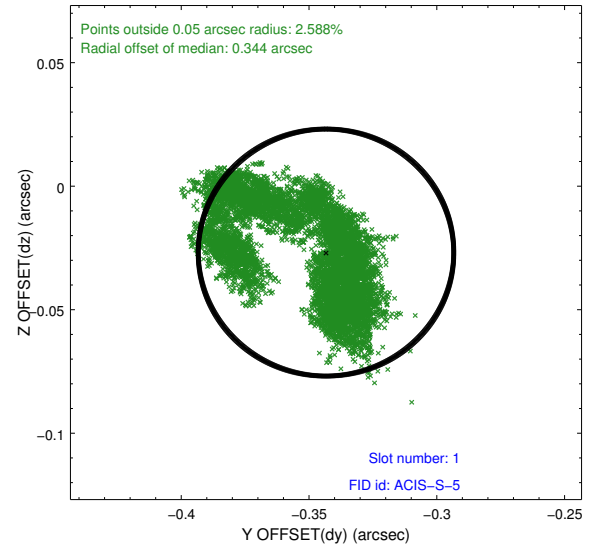
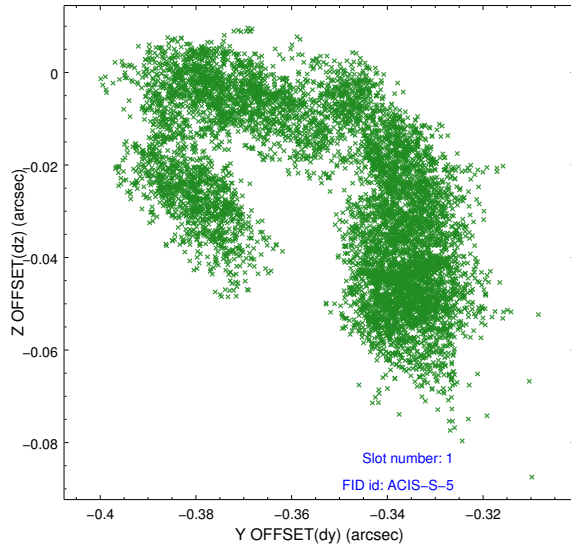


2.5 FID Slots

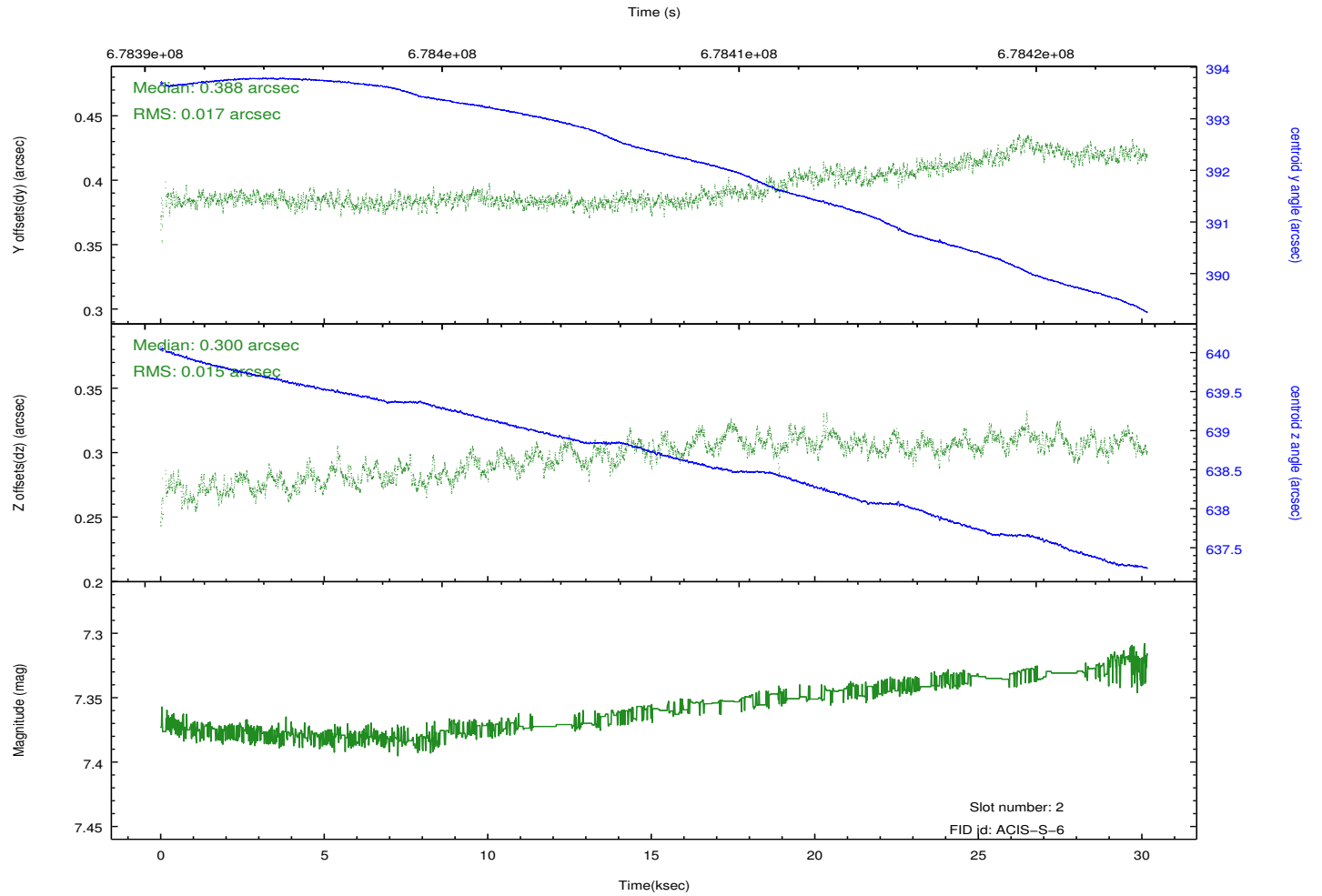
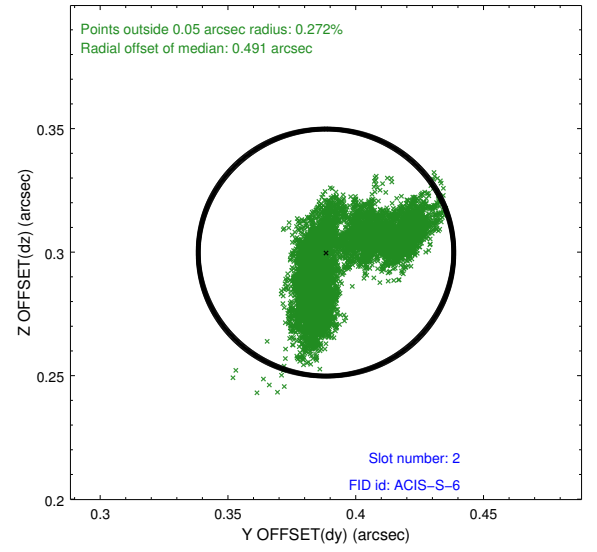
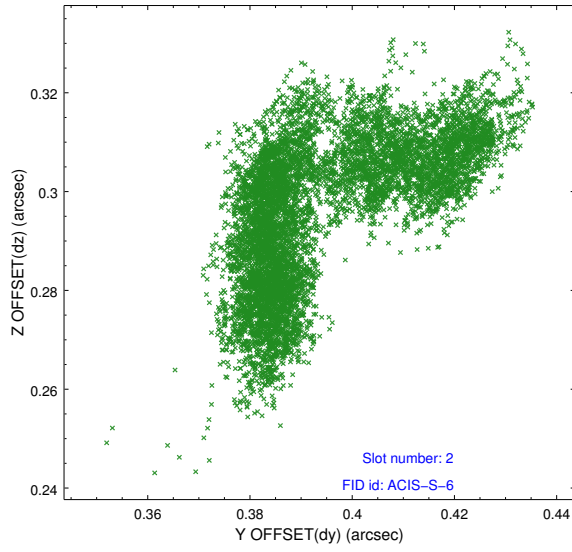
2.5.1 Slot 0



2.5.2 Slot 1

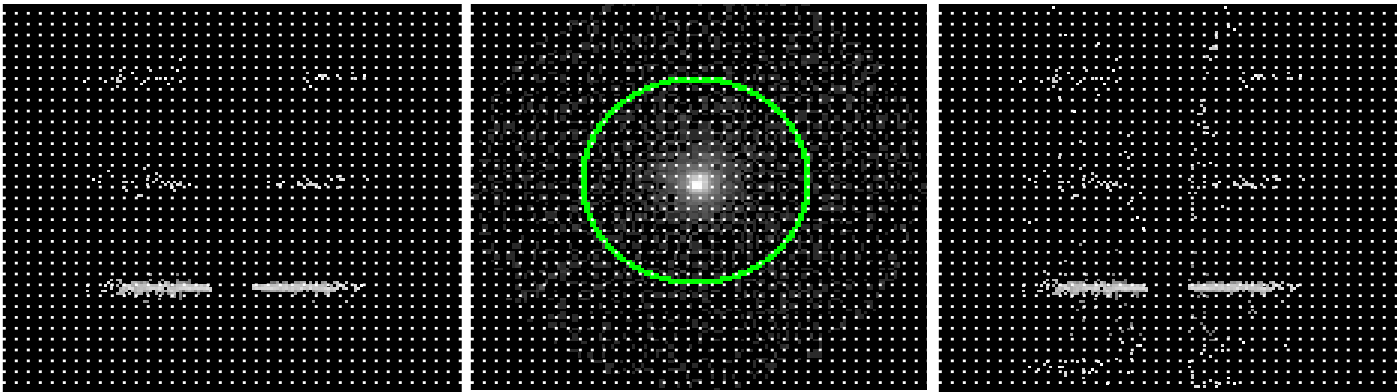


2.5.3 Slot 2



3 Gratings

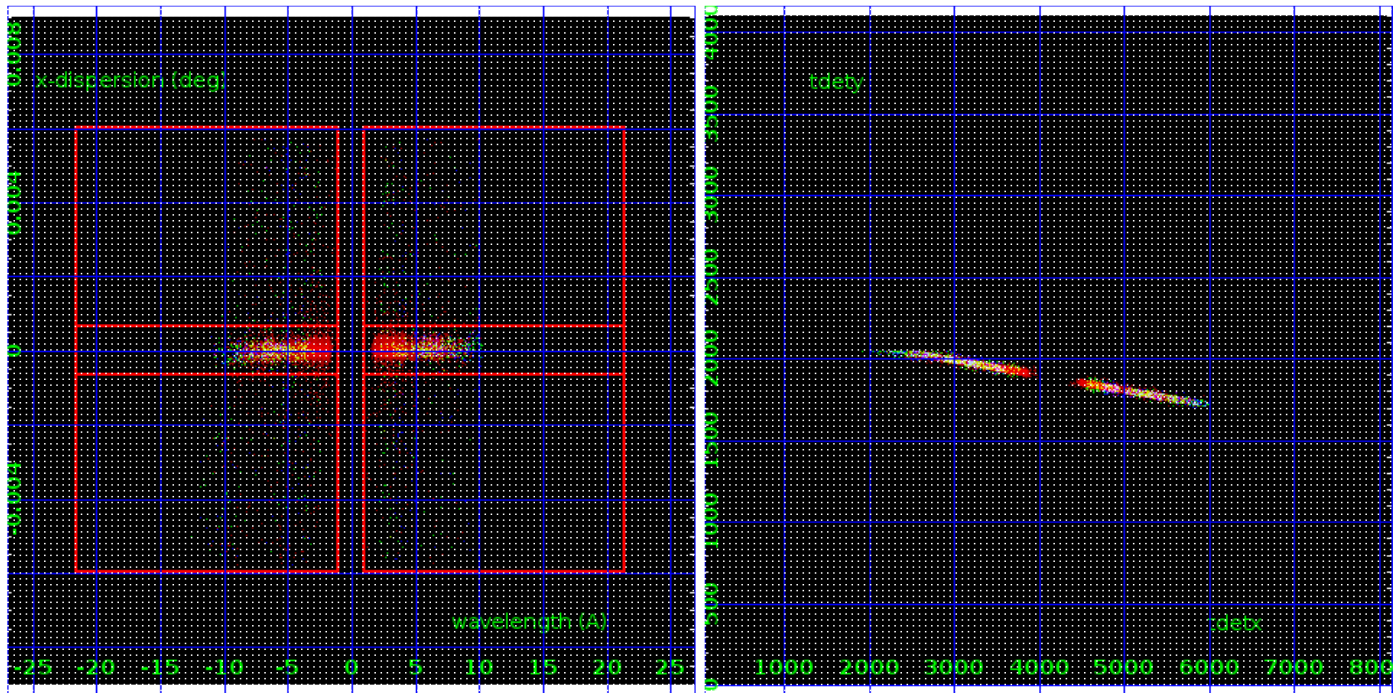
3.1 HEG Arm



HEG Order Sort 123

HEG Zero Order

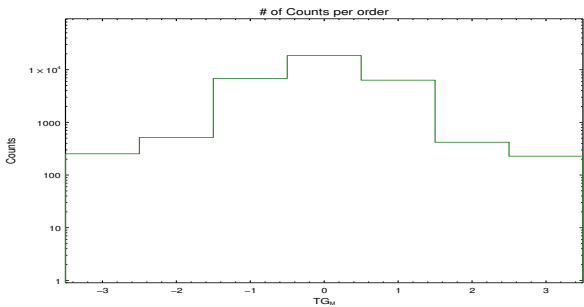
HEG Order Sort ALL

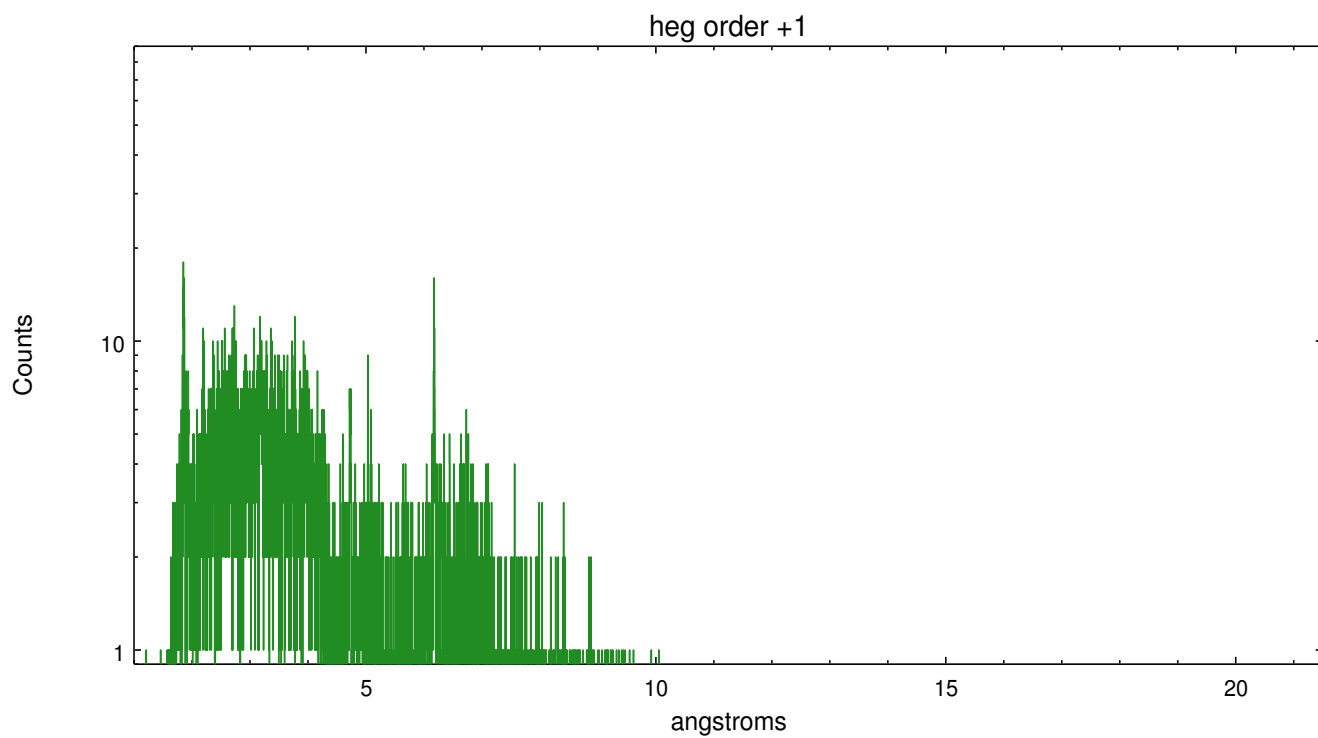
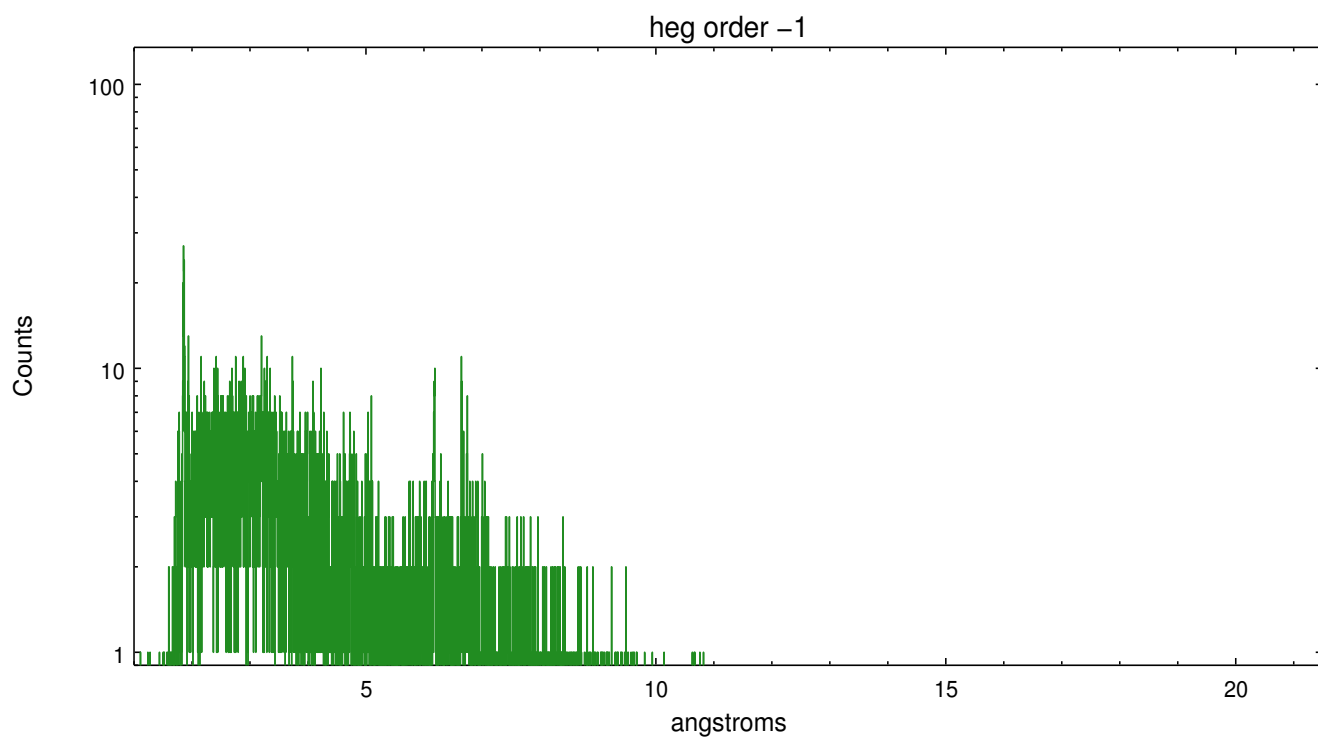


Spot Image HEG

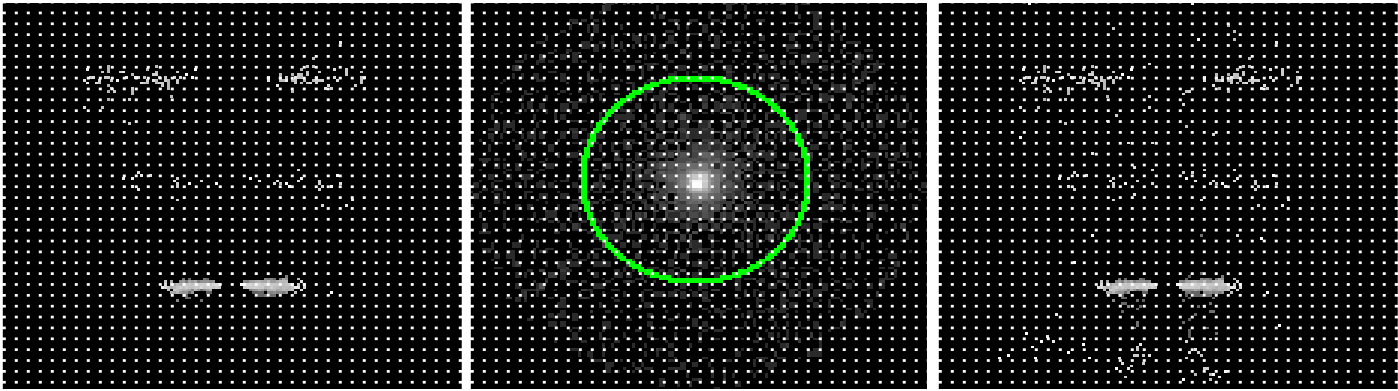
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	253	516	6825	18506	6320	419	228





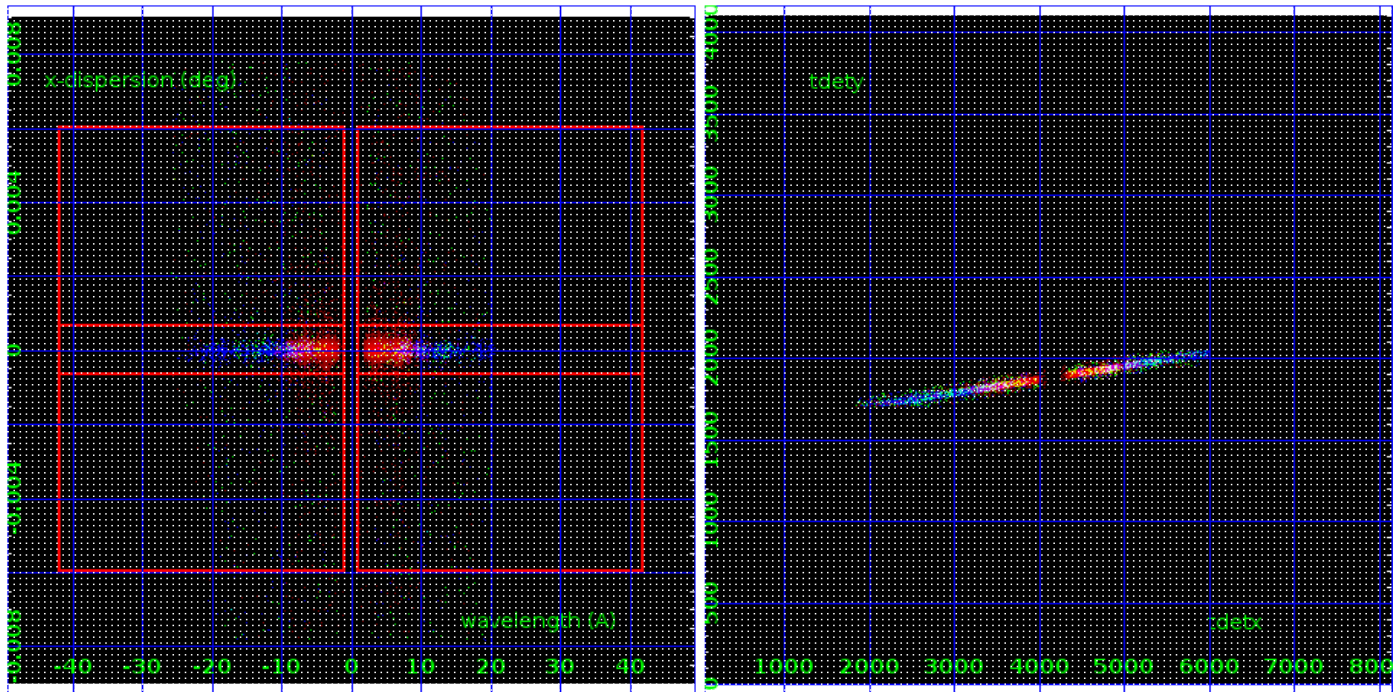
3.2 MEG Arm



MEG Order Sort 123

MEG Zero Order

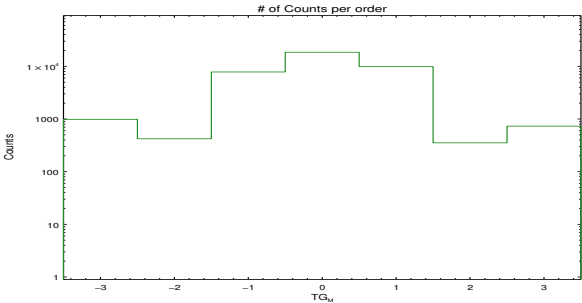
MEG Order Sort ALL

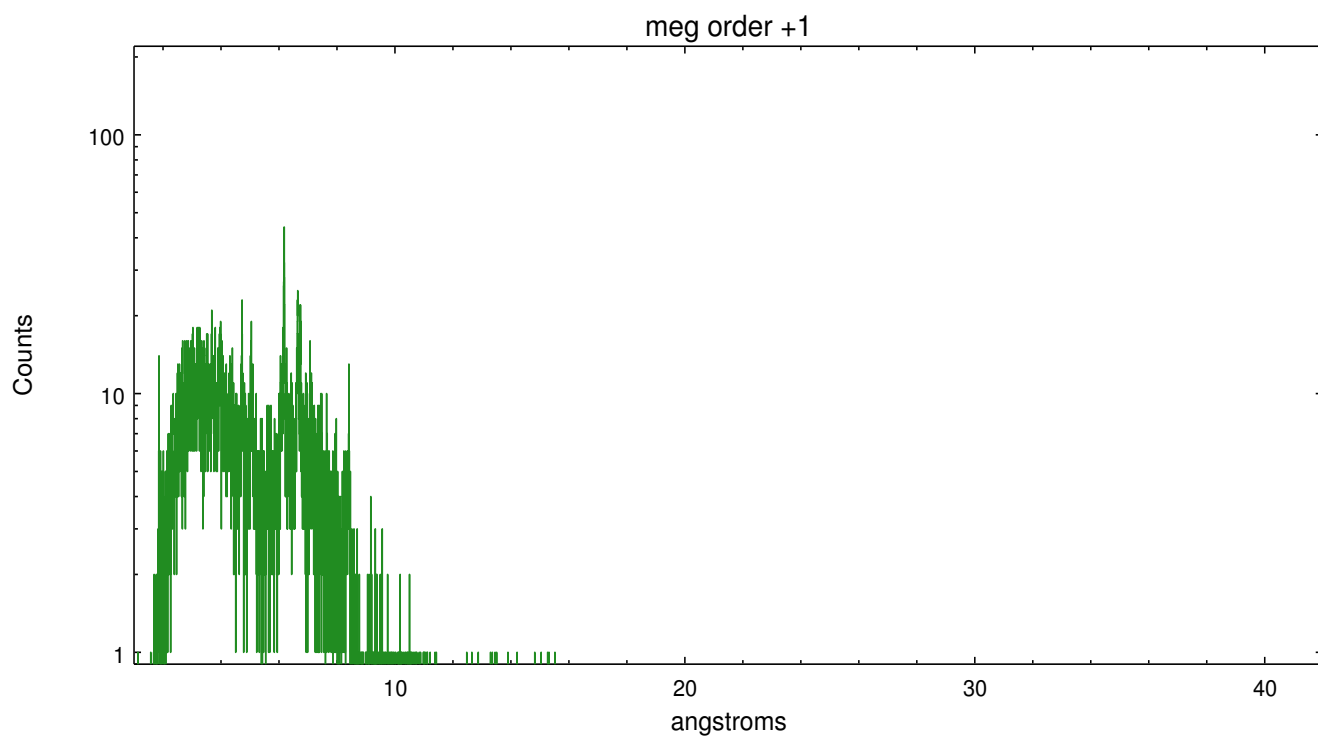
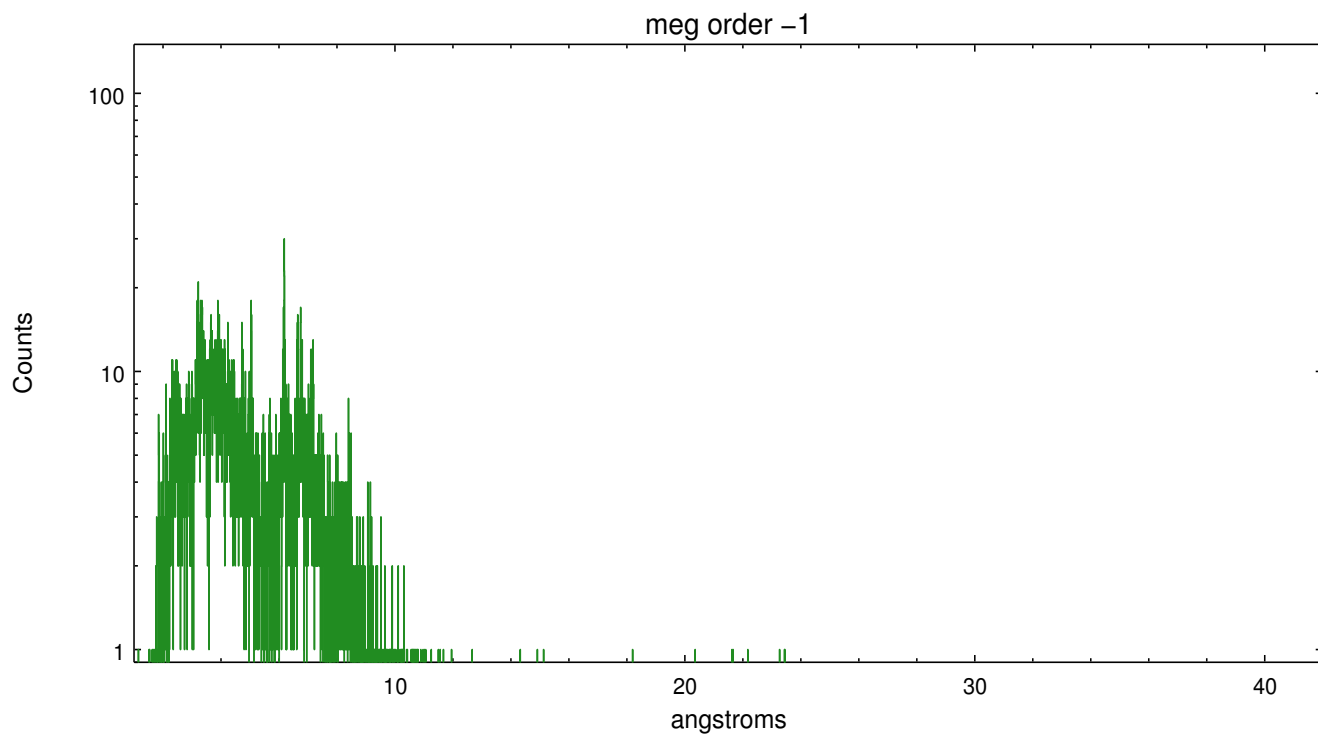


Spot Image MEG

Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	985	421	7814	18506	9864	353	732





A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2019.07.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.01680119276

A.2 Comments