

V&V Reference Report

L2 ASCDS Version : 10.8

Observation 22273 - L2 Version 1
Chandra X-Ray Center

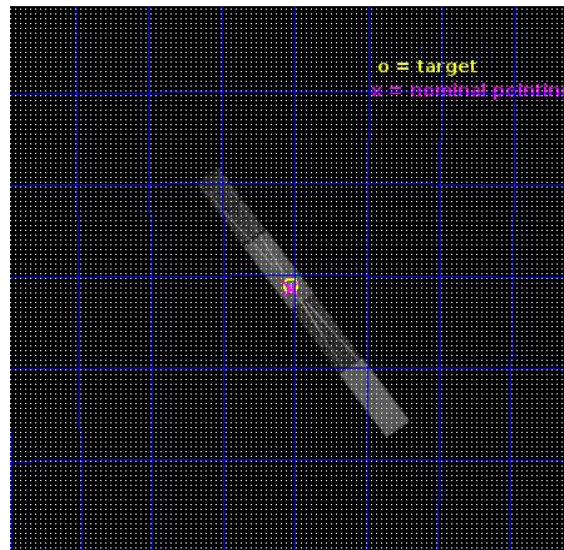
L2 Processing Date : Jul 5 2019

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1 Front

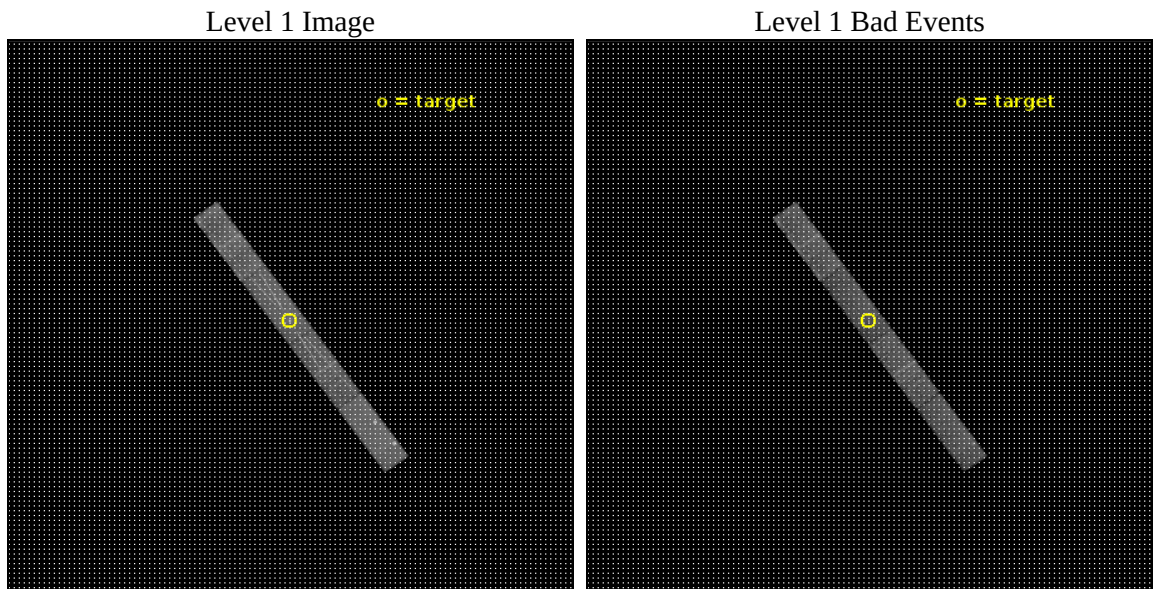
seq_num	201232	Sequence number
obs_id	22273	Observation id
title	Eta Carinae: X-ray Emission Line Diagnostics On the Approach to Periastron Passage	Proposal title
observer	Michael Corcoran	Principal investigator
object	Eta Carinae	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	161.264583	Observer's specified target RA [deg]
dec_targ	-59.684444	Observer's specified target Dec [deg]
ra_nom	161.26231430901	Nominal RA [deg]
dec_nom	-59.690837040645	Nominal Dec [deg]
roll_nom	234.15467684718	Nominal Roll [deg]
revision	1	Processing version of data
ontime	16018.80063653	Sum of GTIs [s]
livetime	15489.07429562	Livetime [s]
ontime5	16018.80063653	Sum of GTIs [s]
ontime6	16018.80063653	Sum of GTIs [s]
ontime7	16018.80063653	Sum of GTIs [s]
ontime8	16018.80063653	Sum of GTIs [s]
l2events	98117	Number of level 2 events



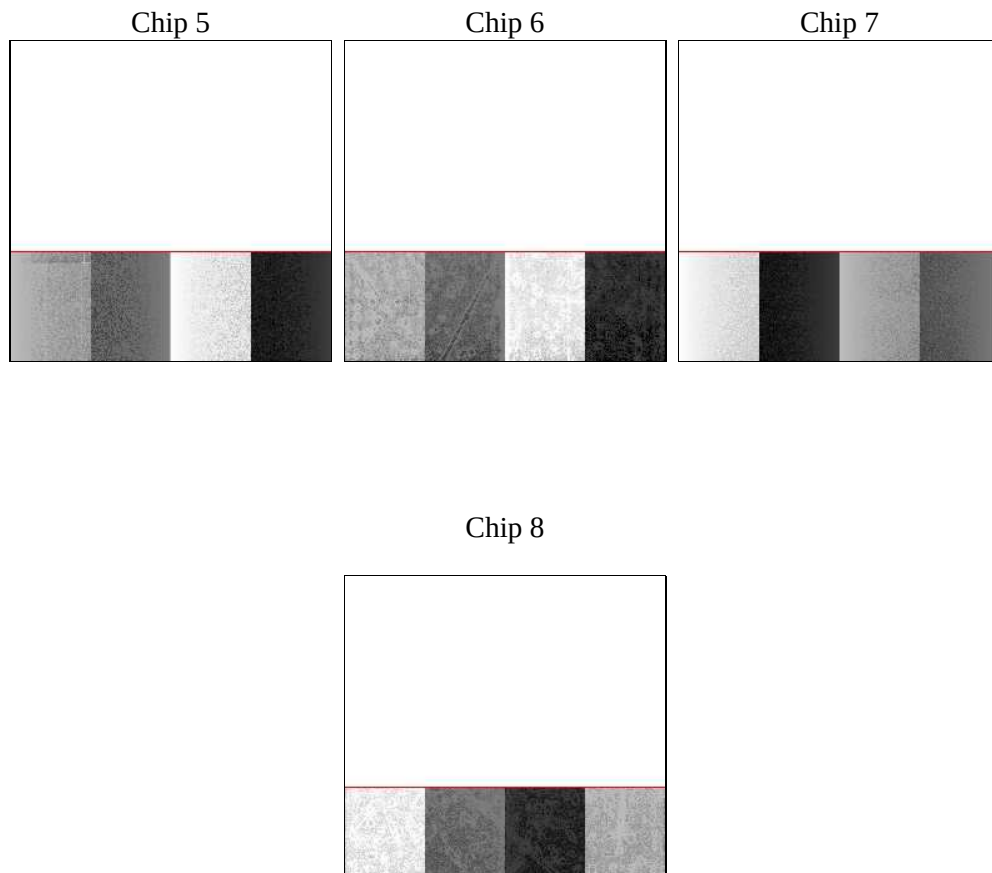
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	16000.000000	[s] Scheduled observation exposure time
ascdsver	10.8	Processing system revision	ontime	16018.80063653	Sum of GTIs [s]
caldsver	4.8.3.1	 	ontime5	16018.80063653	Sum of GTIs [s]
date	2019-07-05T04:25:17	Date and time of file creation	ontime6	16018.80063653	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	16018.80063653	Sum of GTIs [s]
			ontime8	16018.80063653	Sum of GTIs [s]
			l1events	280988	Number of level 1 events
			tgmethod	FINDZO	Method used to create src1a file
			zo_pos	(4087.81, 4142.15)	src1a sky pixel position
				(4087.97	src1a sky pixel position via

2.1.4 Events

	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	78708	56931	80346	65003
rejected events	36042	42725	34316	45899
rejected %	45%	75%	42%	70%

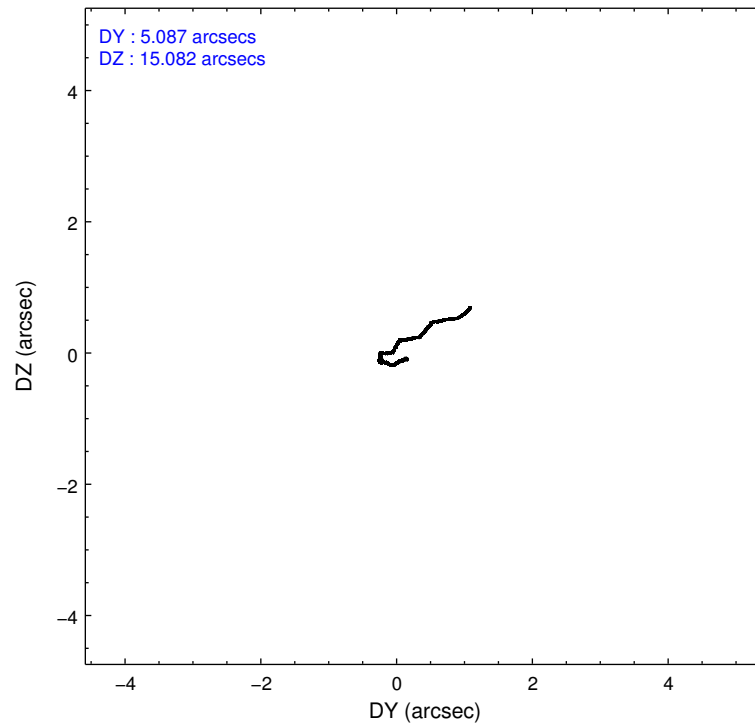
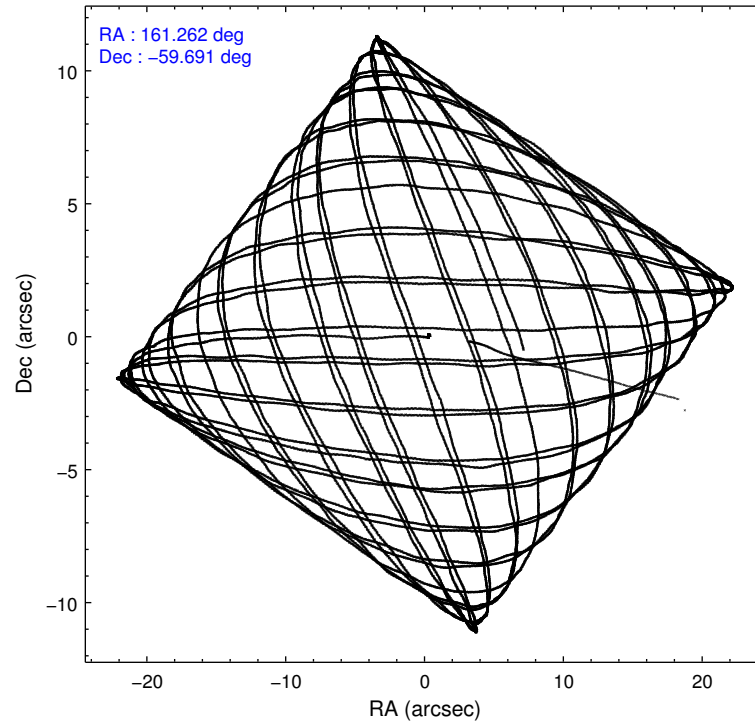
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	11083	8238	6034	6629
	14%	14%	7%	10%
grade 1 events	518	47	279	39
	0%	0%	0%	0%
grade 2 events	10673	2401	10047	4041
	13%	4%	12%	6%
grade 3 events	1921	1106	4720	2025
	2%	1%	5%	3%
grade 4 events	1844	1079	4530	1995
	2%	1%	5%	3%
grade 5 events	5258	1959	6863	2906
	6%	3%	8%	4%
grade 6 events	18066	1624	21511	4844
	22%	2%	26%	7%
grade 7 events	29345	40477	26362	42524
	37%	71%	32%	65%

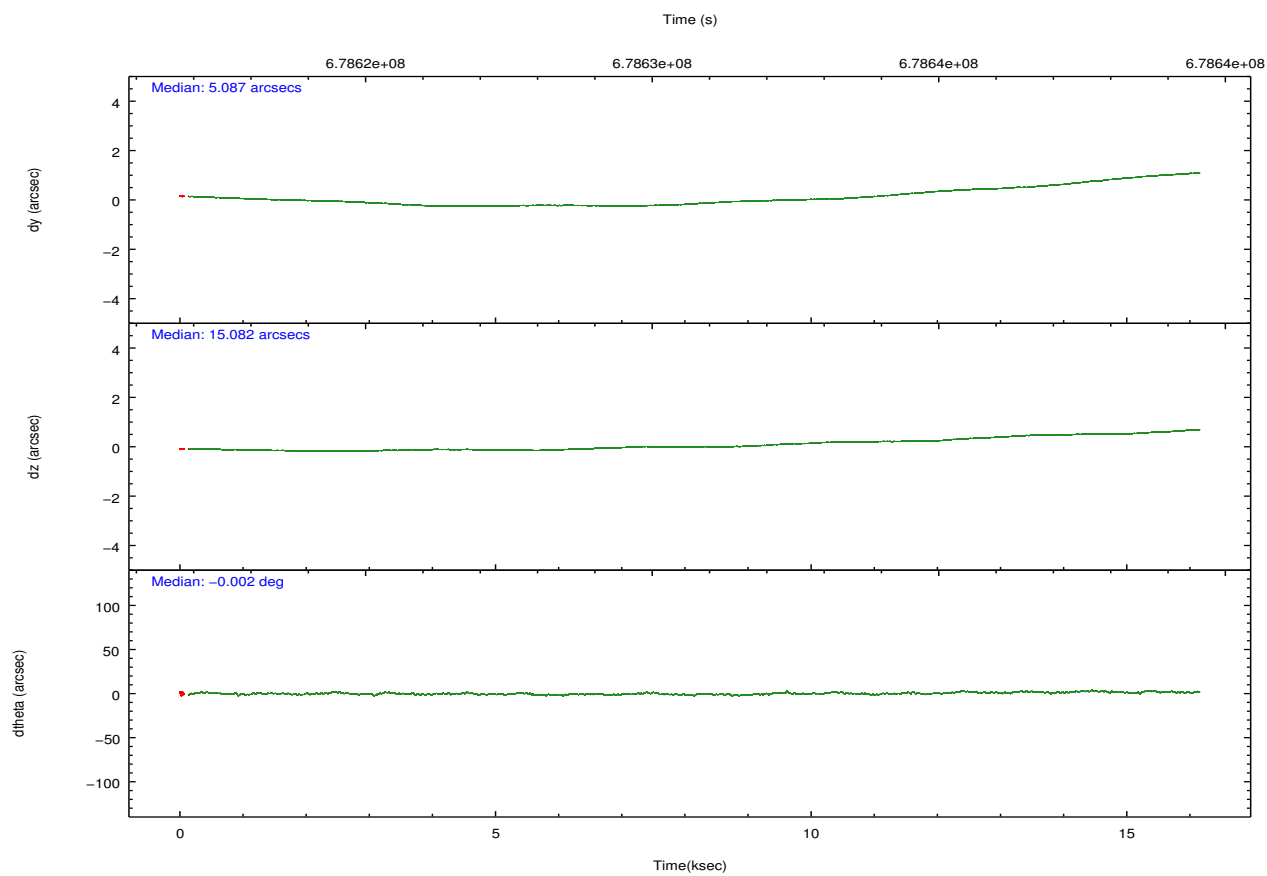
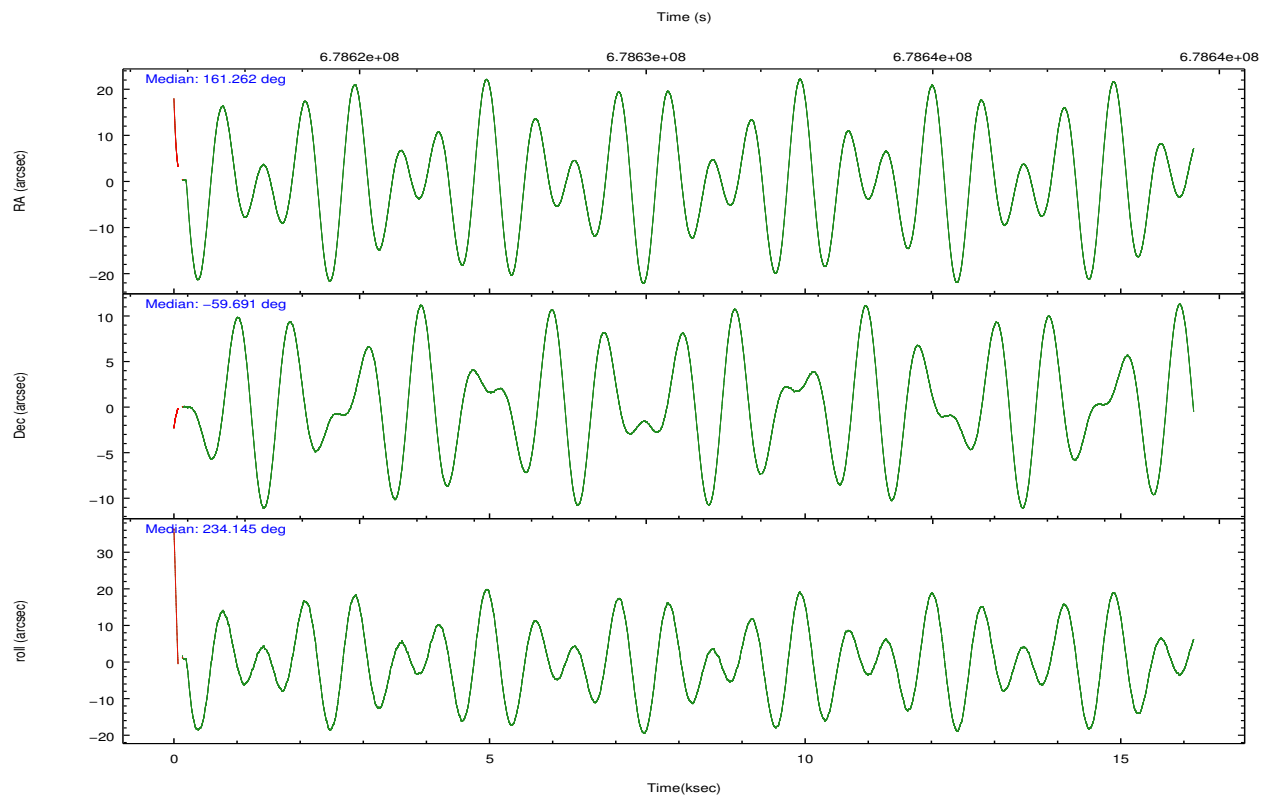
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-5678	ACIS-5678
Grating	HETG	HETG
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	161.267174	161.2623143090073
[deg] Pointing Dec	-59.663507	-59.69083704064495
[deg] Pointing Roll	234.002243	234.1546768471832
[mm] SIM focus pos	-0.684267	-0.6828225247311905
[mm] SIM defocus	0	0.001444936568705701
[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)	678622754.184000	678621692.54076
Observation start date	2019-07-04T10:18:05	2019-07-04T10:01:32
[s] Observation end time (MET)	678638754.184000	678639542.9168299
Observation end date	2019-07-04T14:44:45	2019-07-04T14:59:02
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	CUSTOM	CUSTOM
Subarray start row	1	1
Subarray row count	350	350
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	1.2

2.3 Aspect



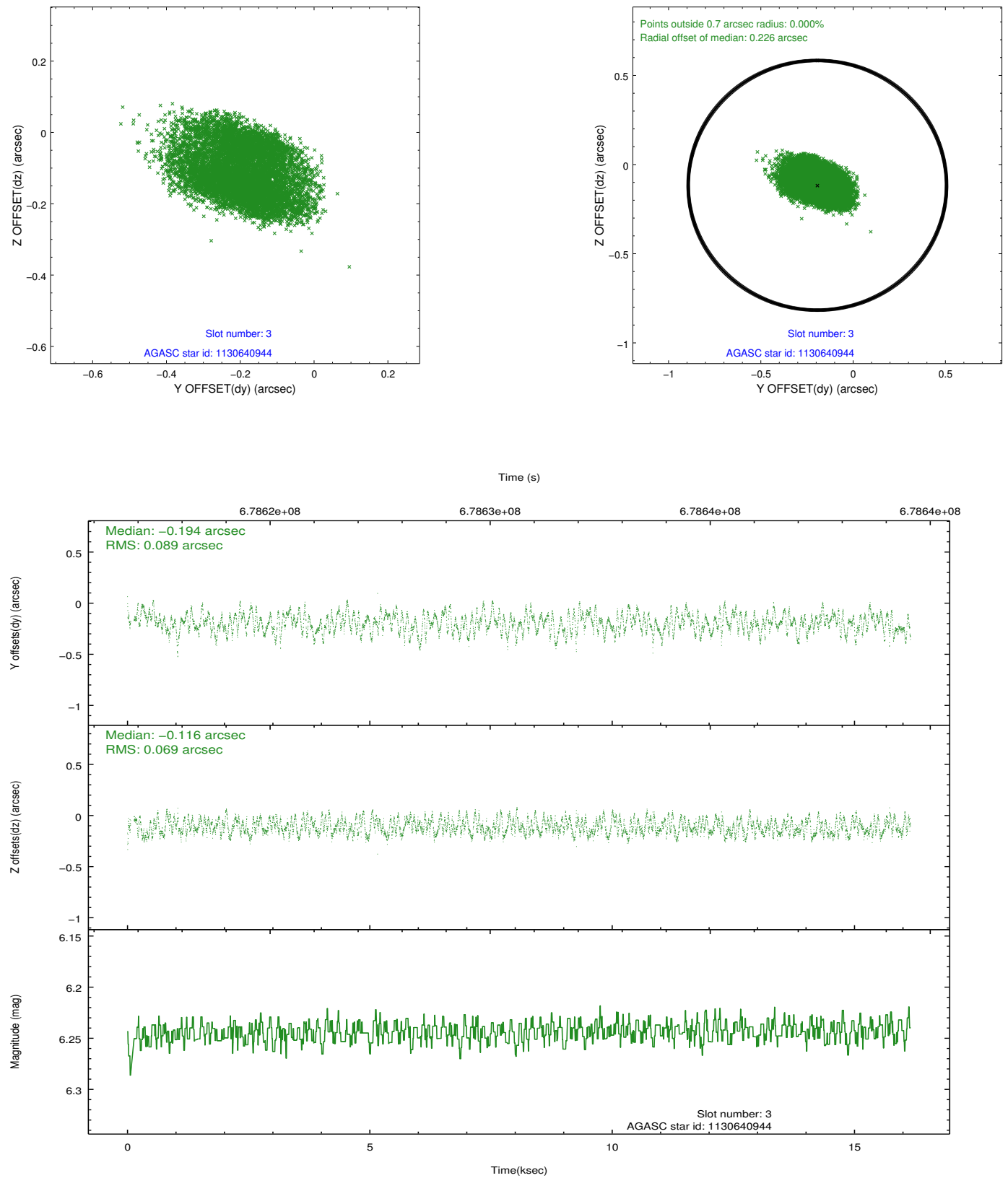


Slot Statistics

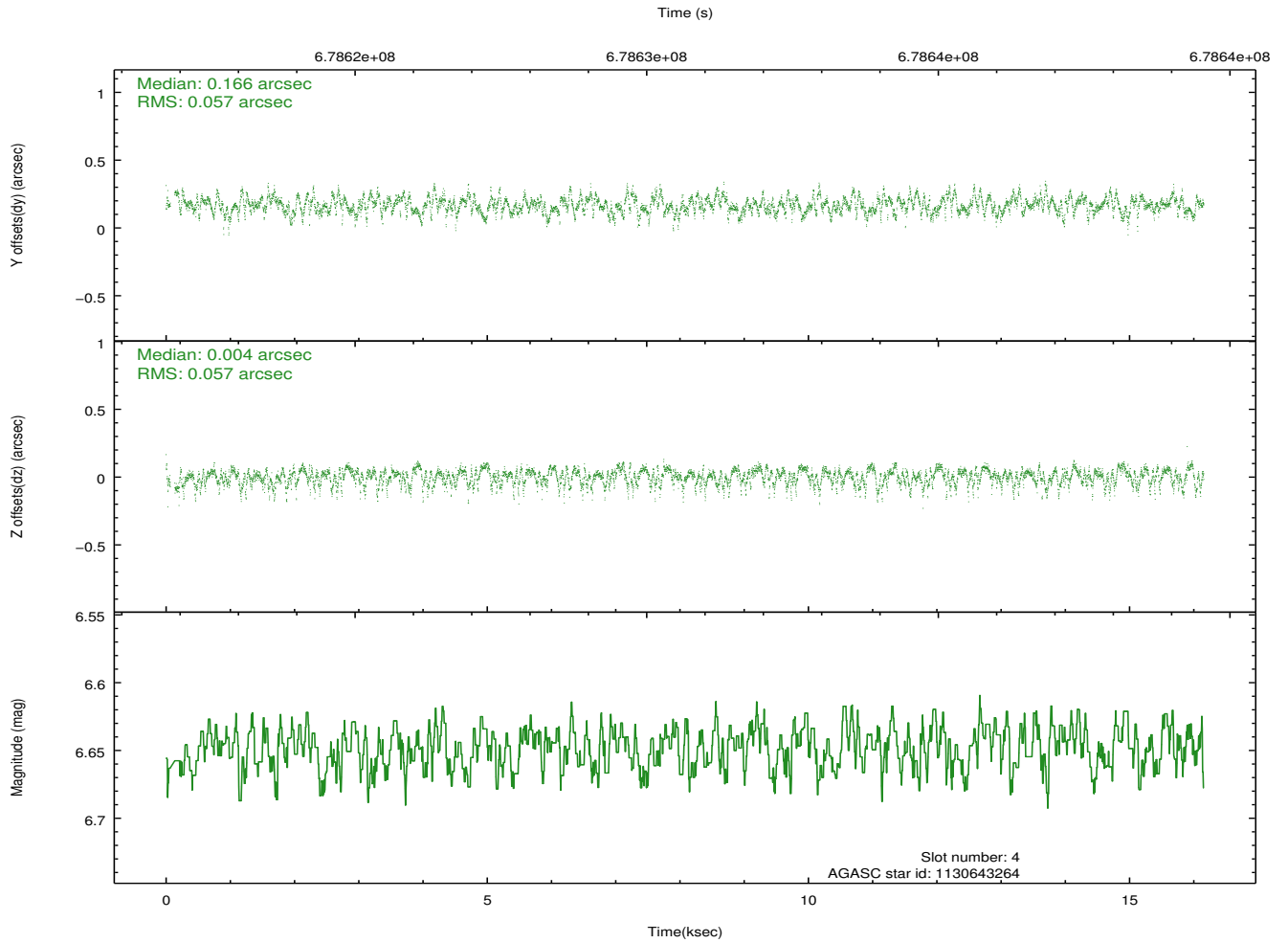
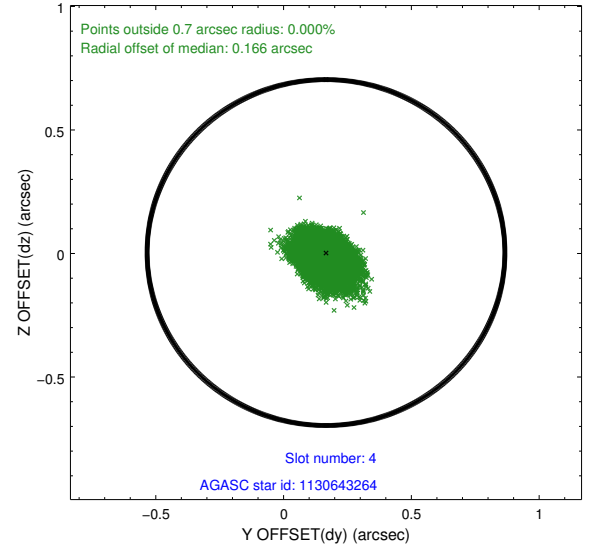
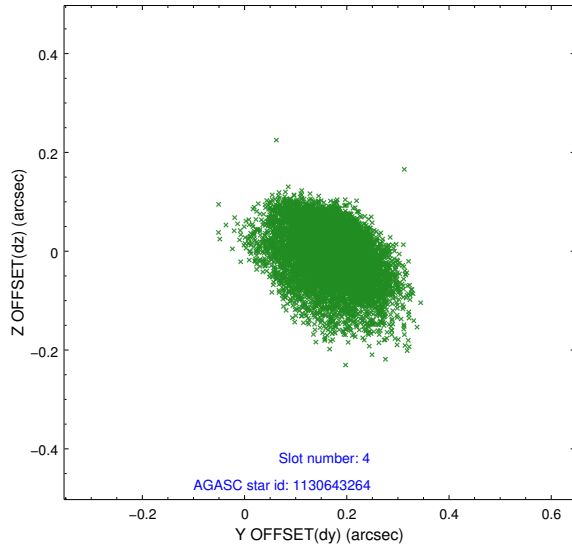
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	6.99	3924	1.000	-0.033	-0.156	0.016	0.027	0.000000	0.000000	-757.45	-1901
1	FID		ACIS-S-5	7.12	3924	1.000	-0.269	-0.017	0.011	0.019	0.000000	0.000000	-1810.84	0
2	FID		ACIS-S-6	7.30	3924	1.000	0.276	0.180	0.013	0.023	0.000000	0.000000	404.28	644
3	GUIDE	used	1130640944	6.24	7849	1.000	-0.194	-0.116	0.120	0.191	162.022531	-59.919161	-50.34	1648
4	GUIDE	used	1130643264	6.65	7849	1.000	0.166	0.004	0.083	0.142	160.322990	-59.676912	1058.24	-1352
5	GUIDE	used	1130632200	7.55	7848	1.000	0.054	0.333	0.098	0.157	161.433843	-59.407820	-923.33	-293
6	GUIDE	used	1174033144	8.43	7845	1.000	-0.029	-0.215	0.097	0.155	161.168741	-60.059230	1256.60	694
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

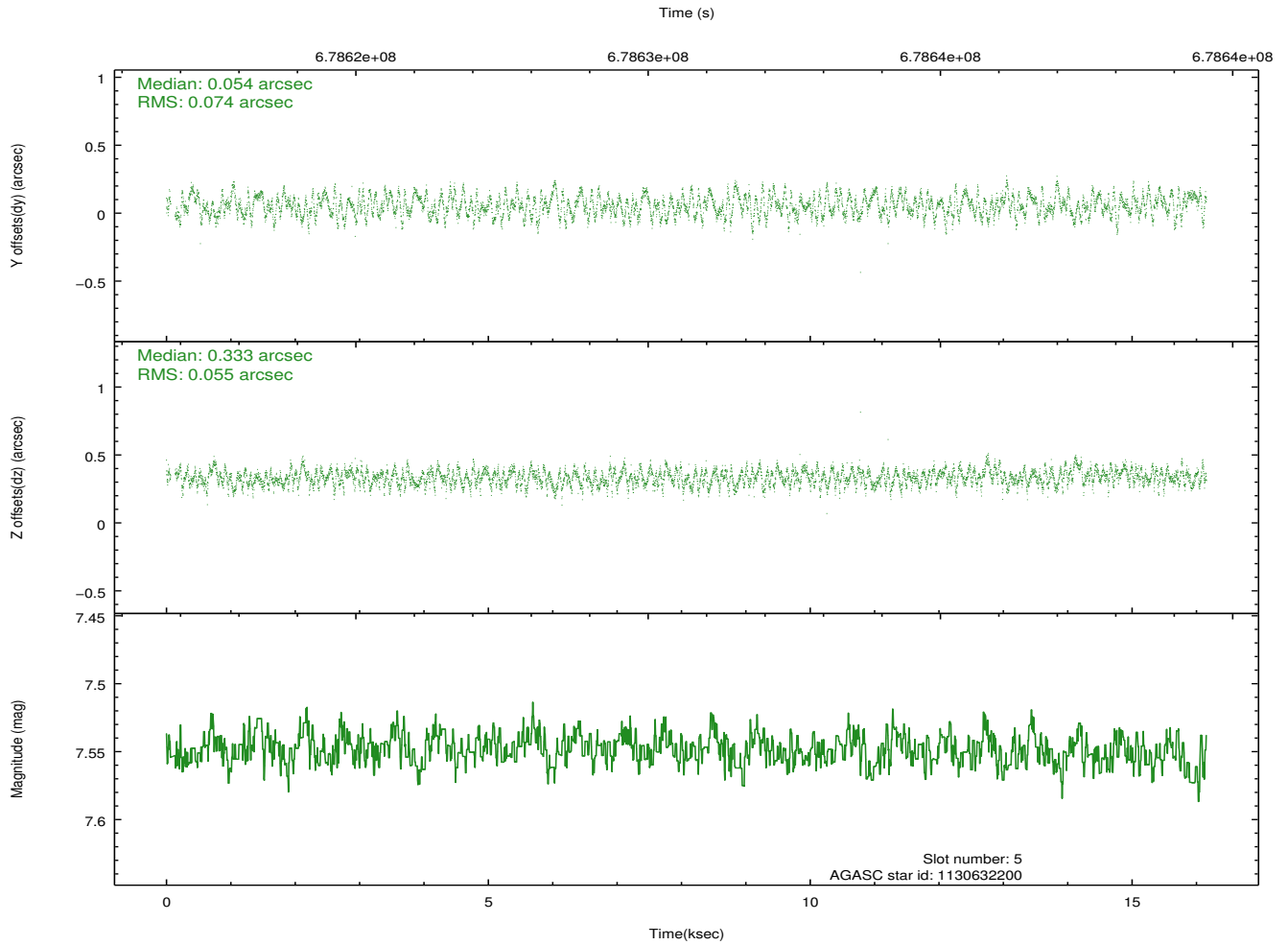
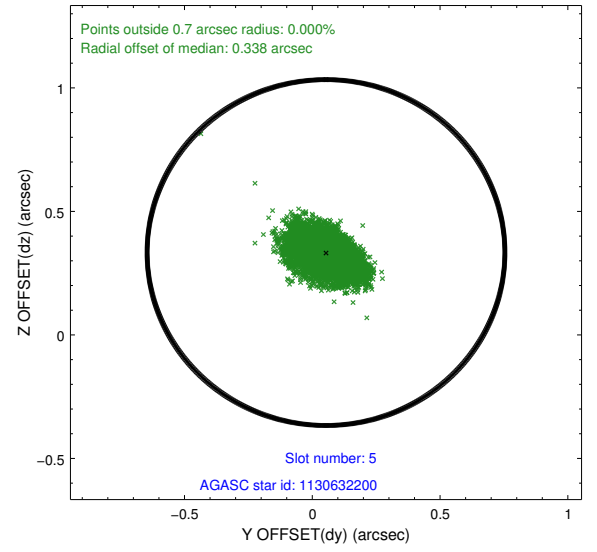
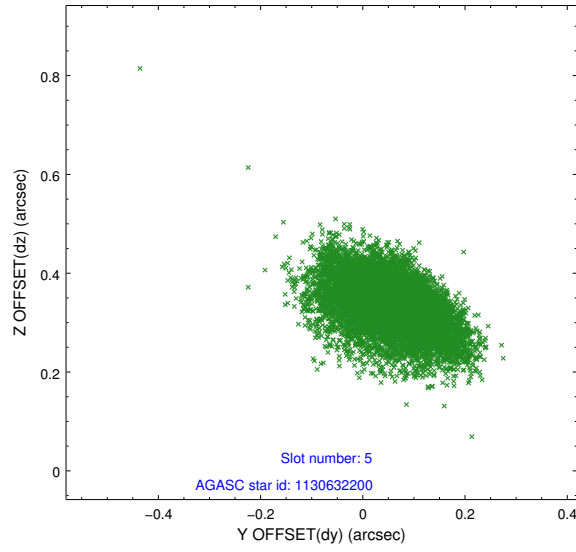
2.4.1 Slot 3



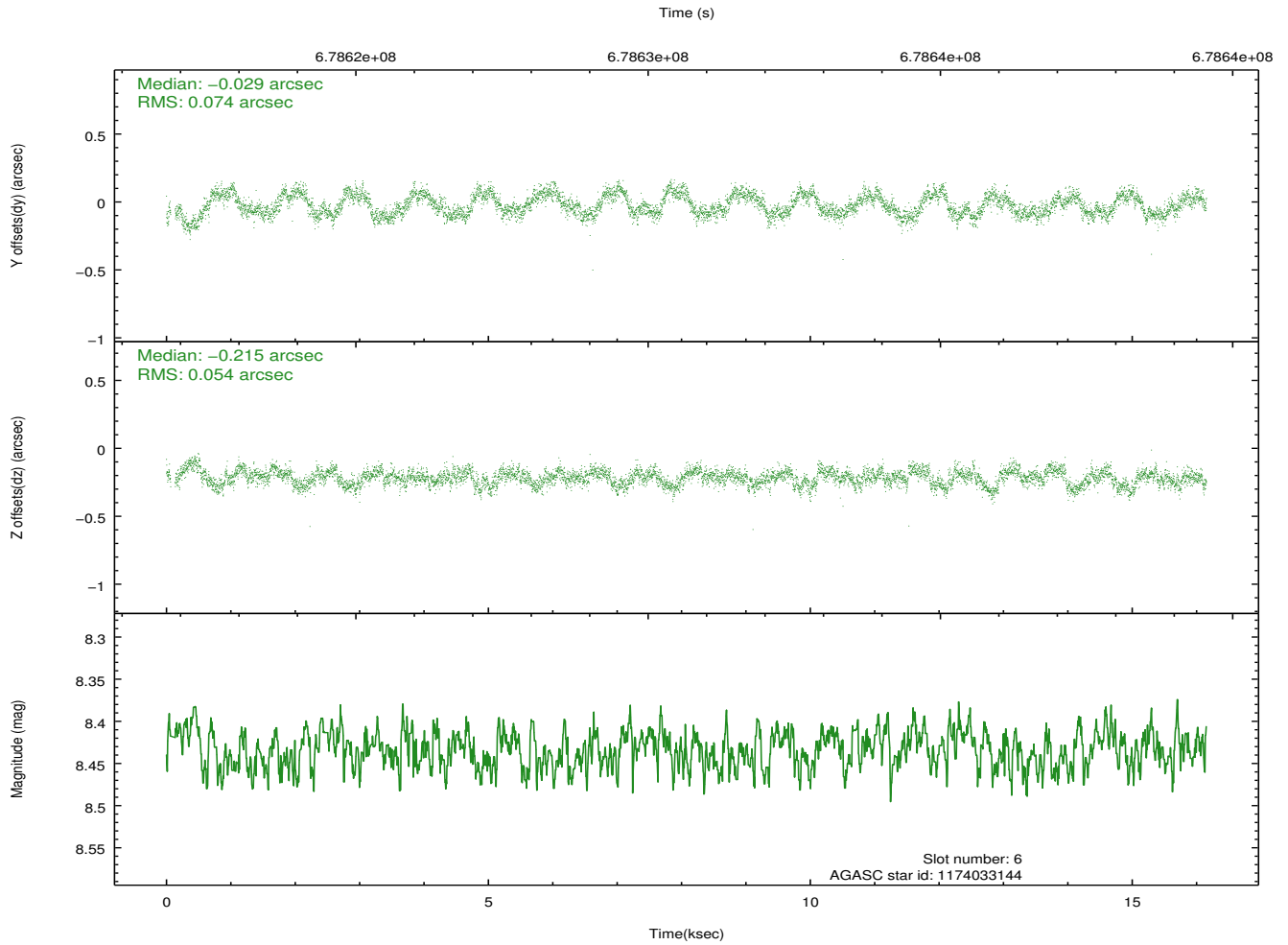
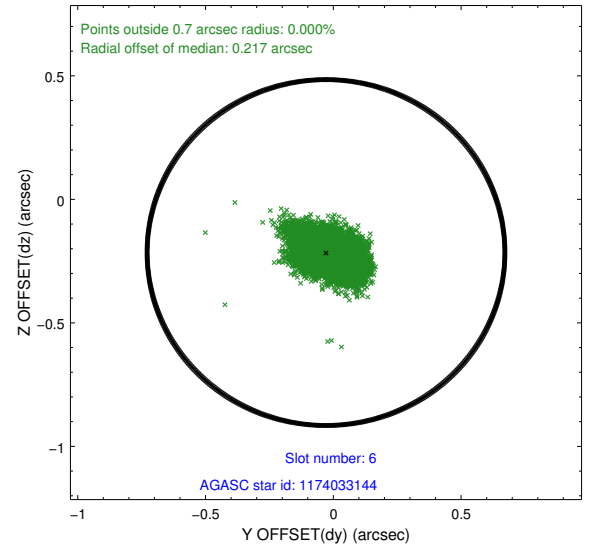
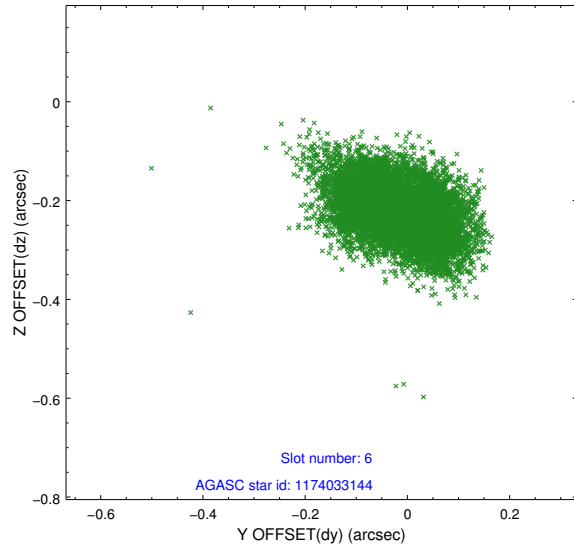
2.4.2 Slot 4



2.4.3 Slot 5

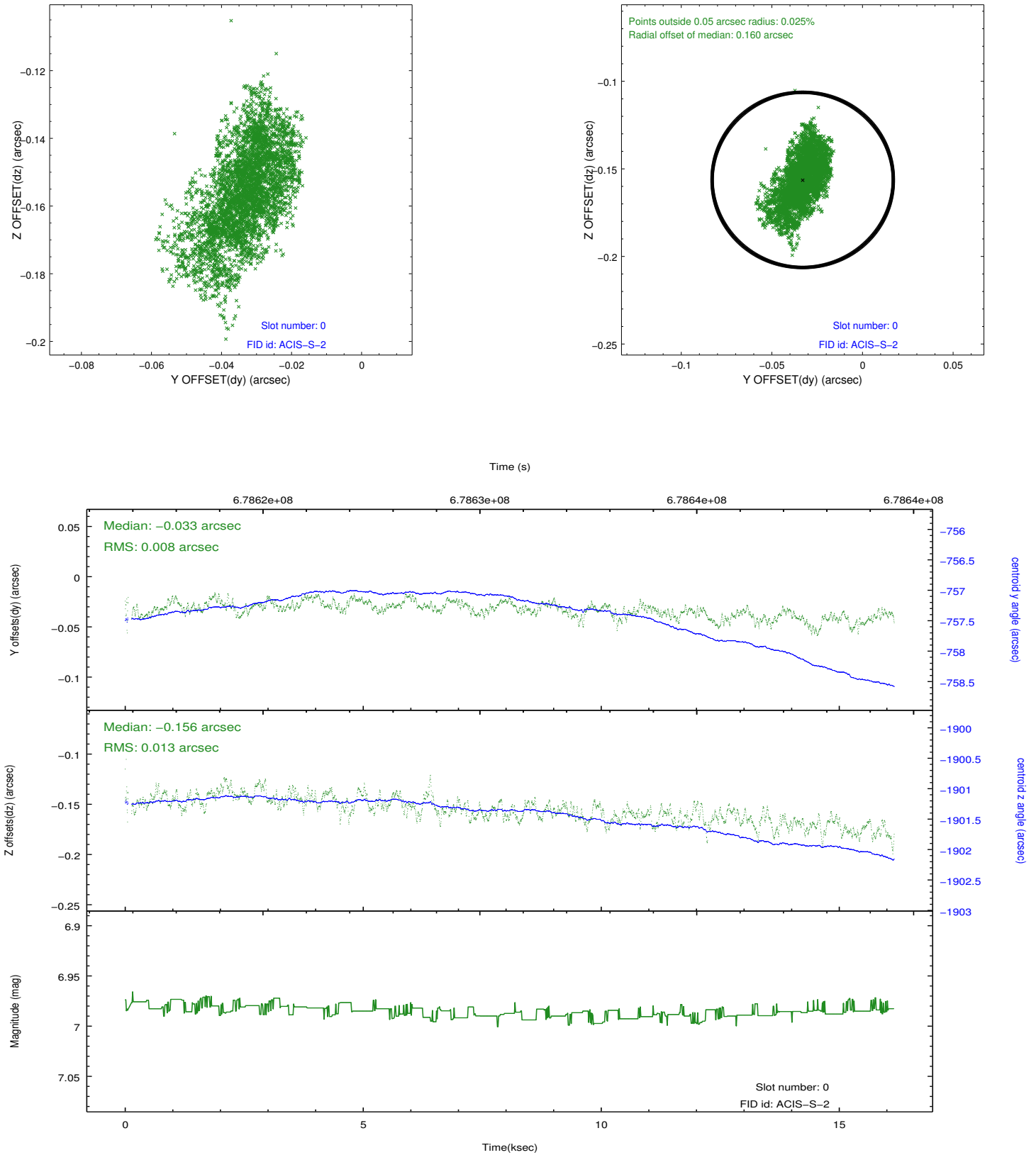


2.4.4 Slot 6

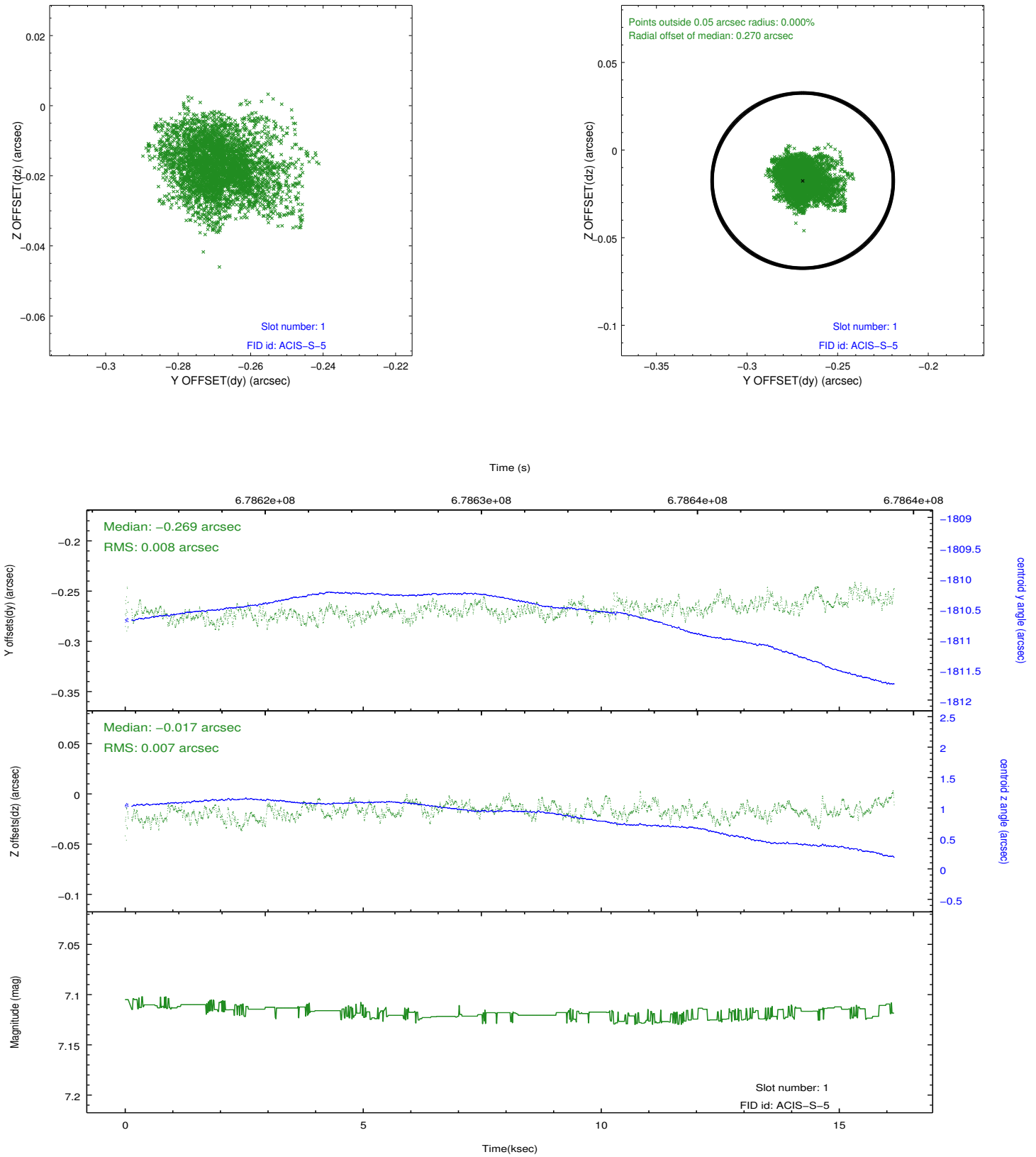


2.5 FID Slots

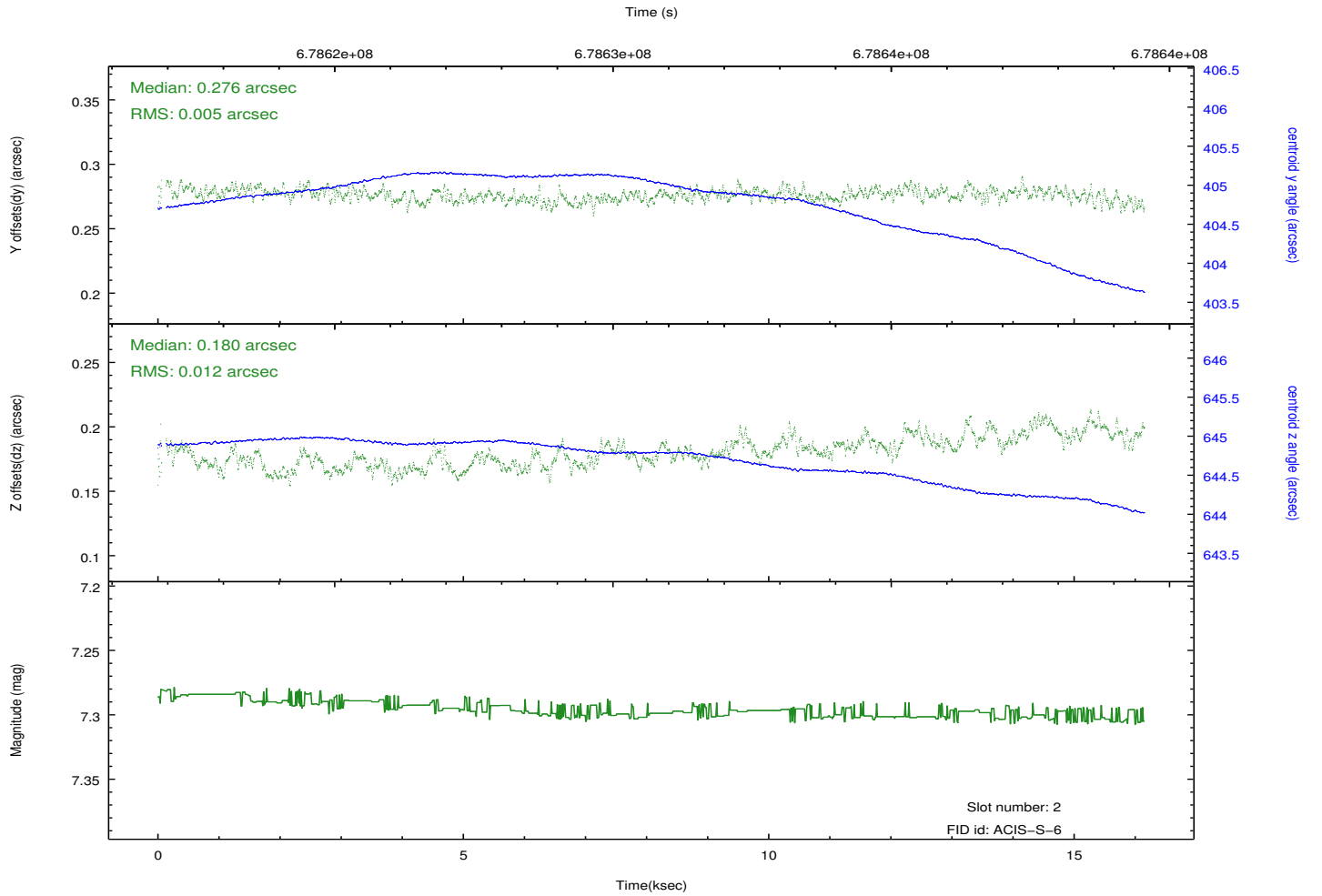
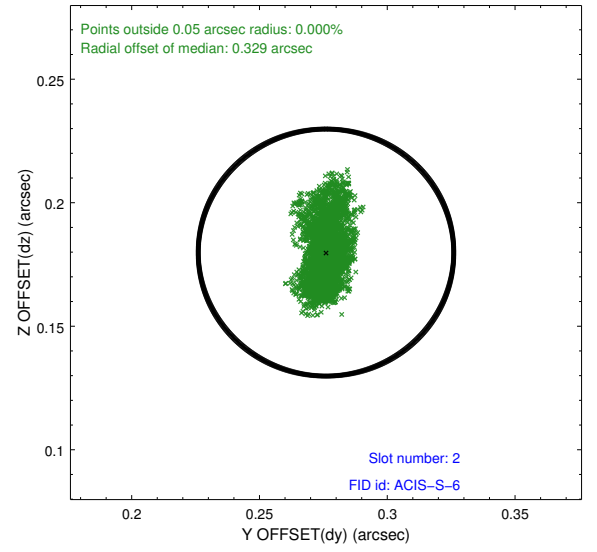
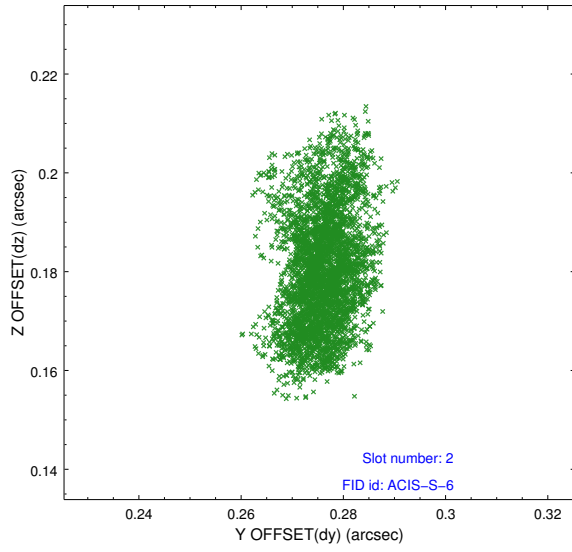
2.5.1 Slot 0



2.5.2 Slot 1

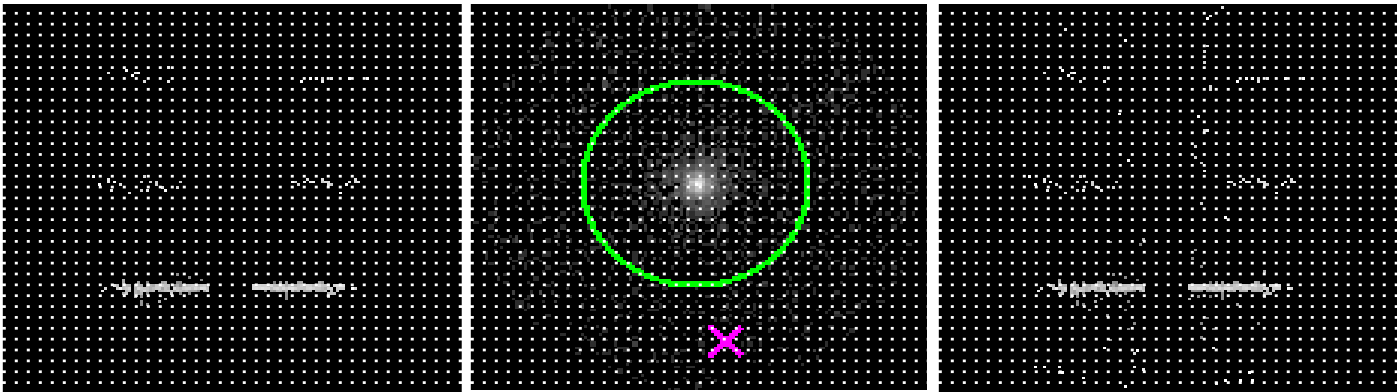


2.5.3 Slot 2



3 Gratings

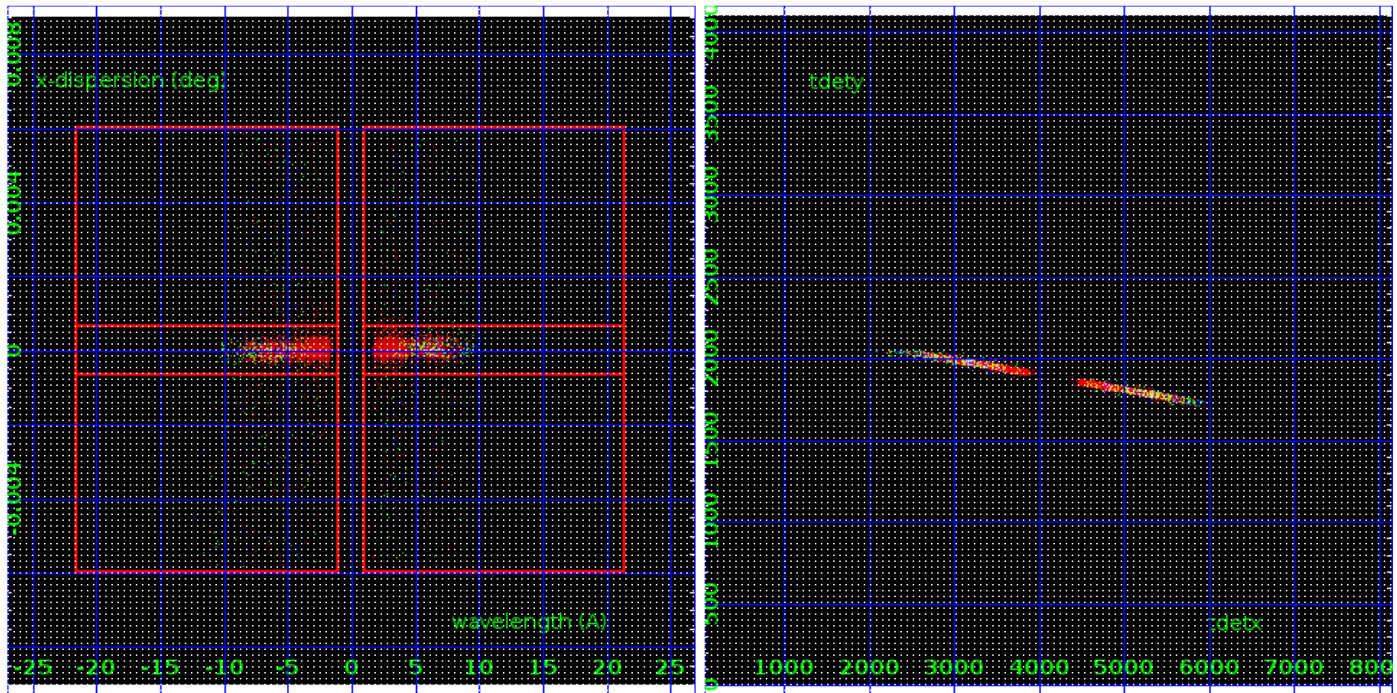
3.1 HEG Arm



HEG Order Sort 123

HEG Zero Order

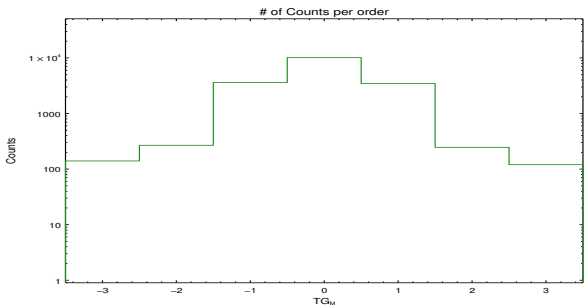
HEG Order Sort ALL

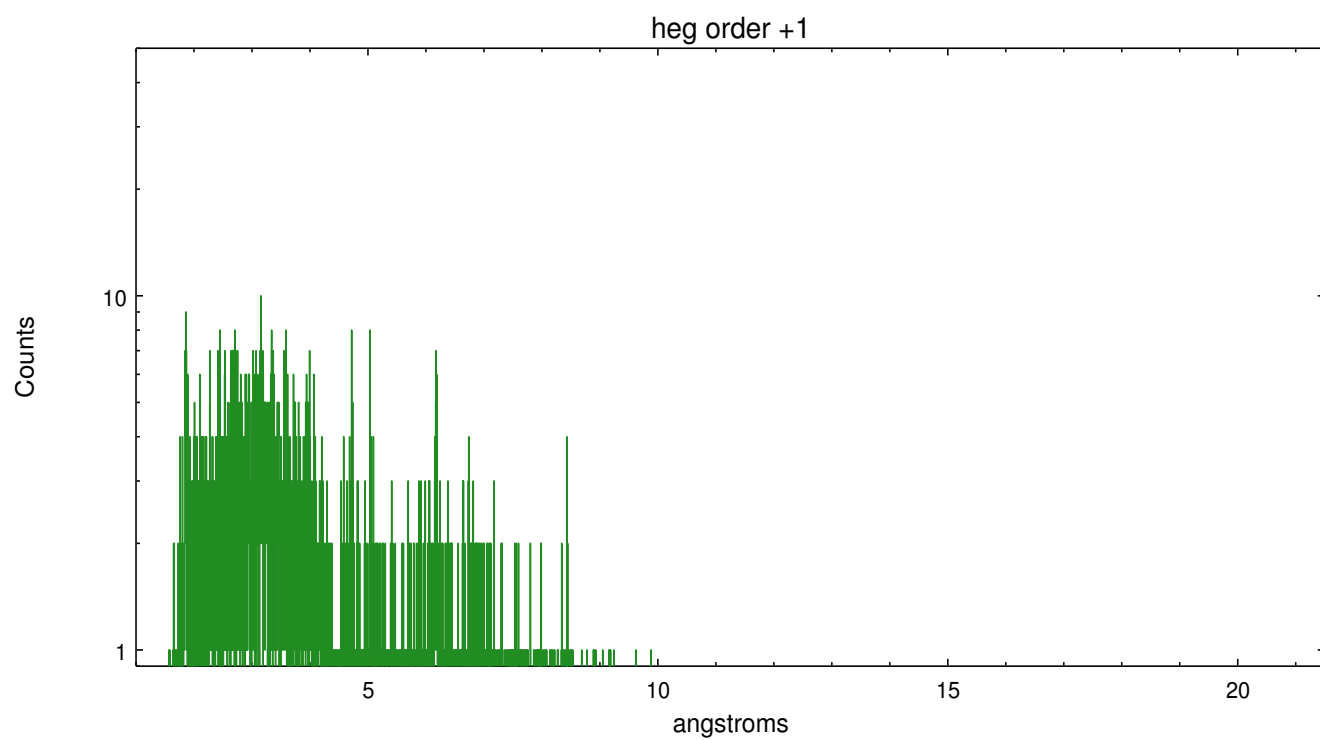
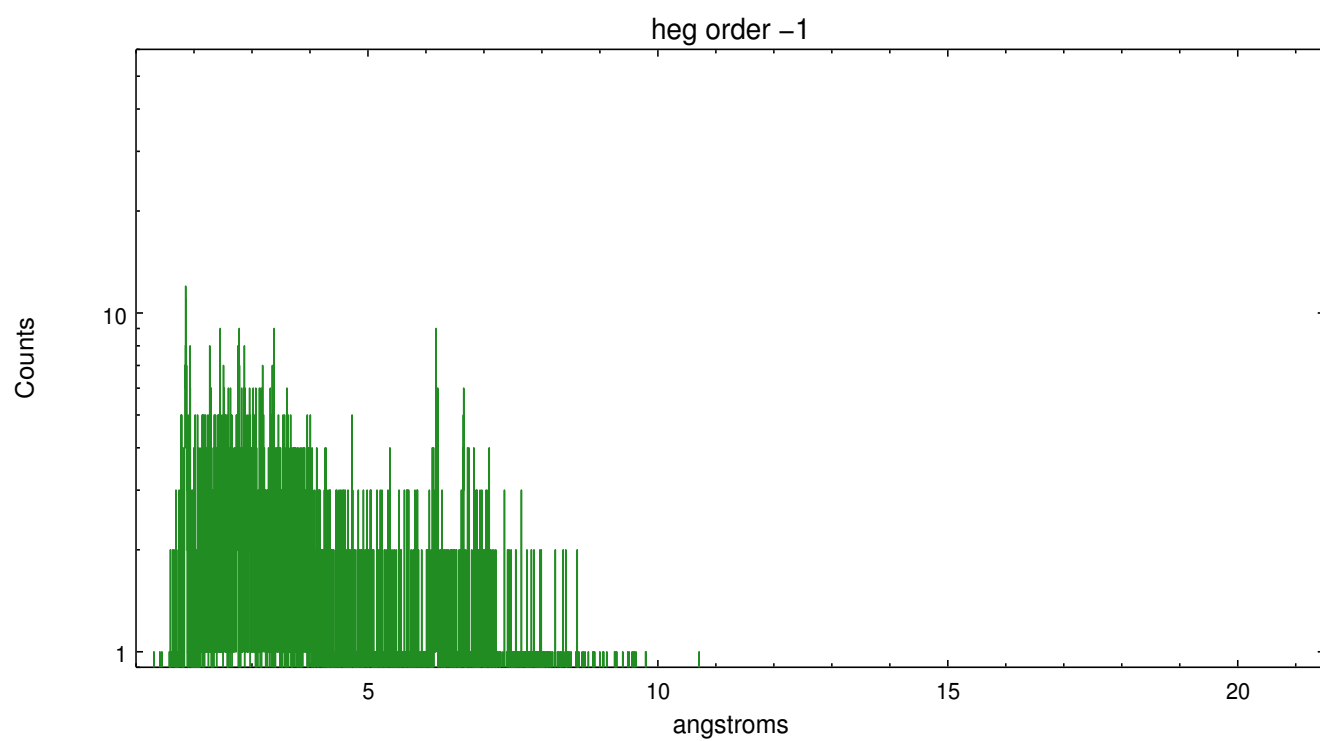


Spot Image HEG

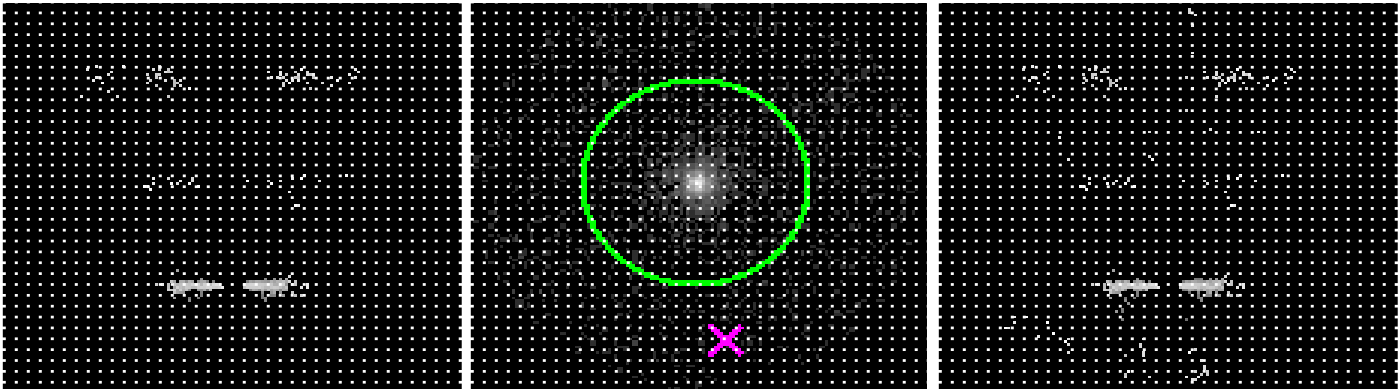
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	140	268	3622	10116	3462	246	120





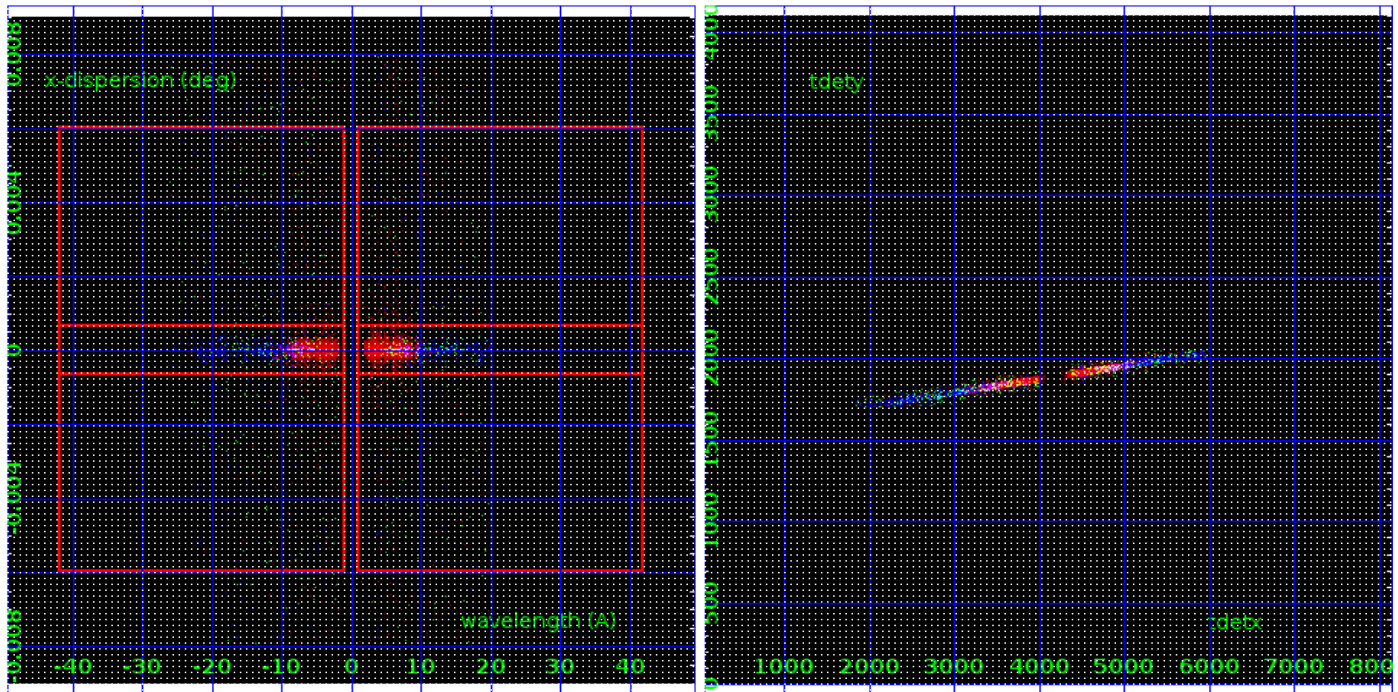
3.2 MEG Arm



MEG Order Sort 123

MEG Zero Order

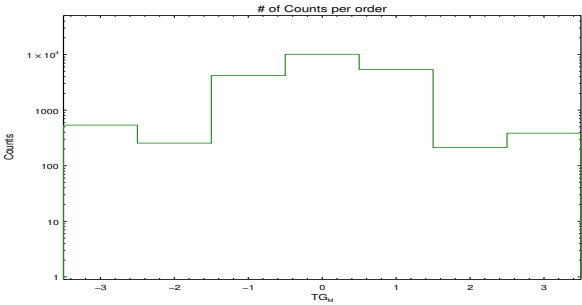
MEG Order Sort ALL

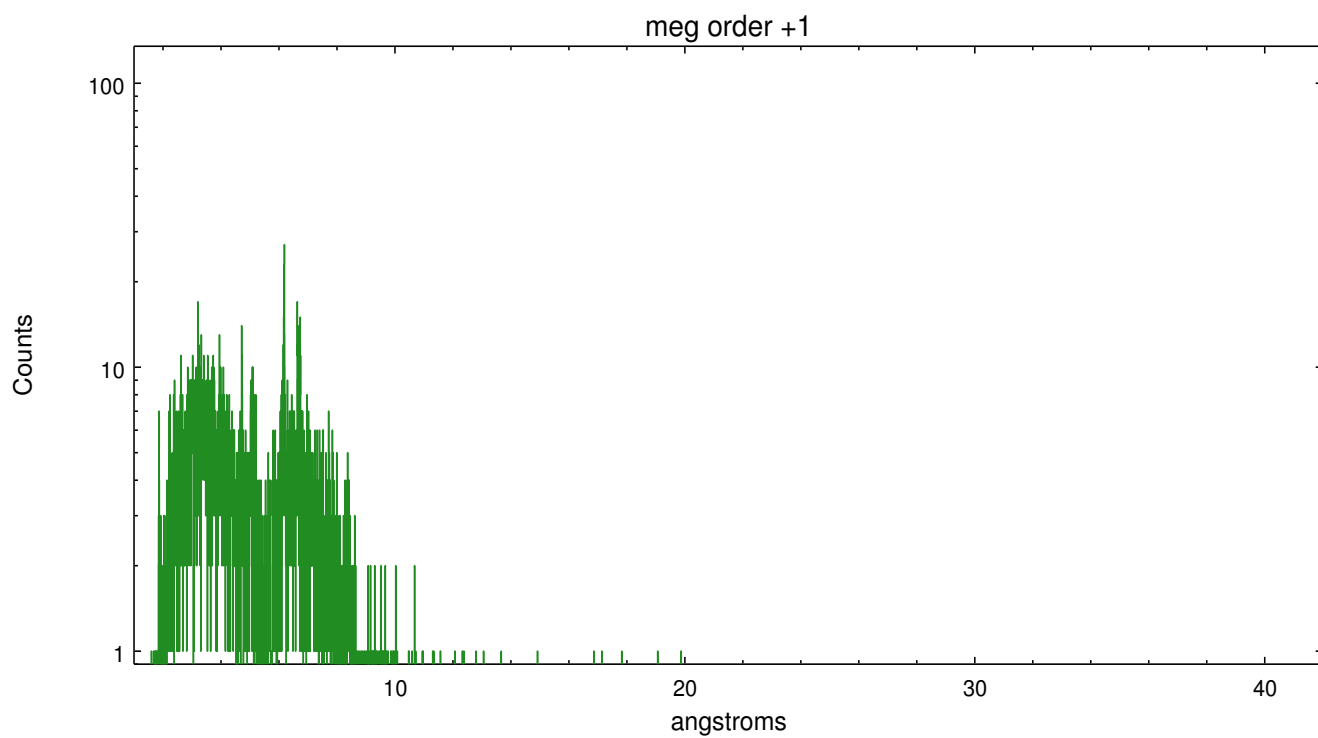
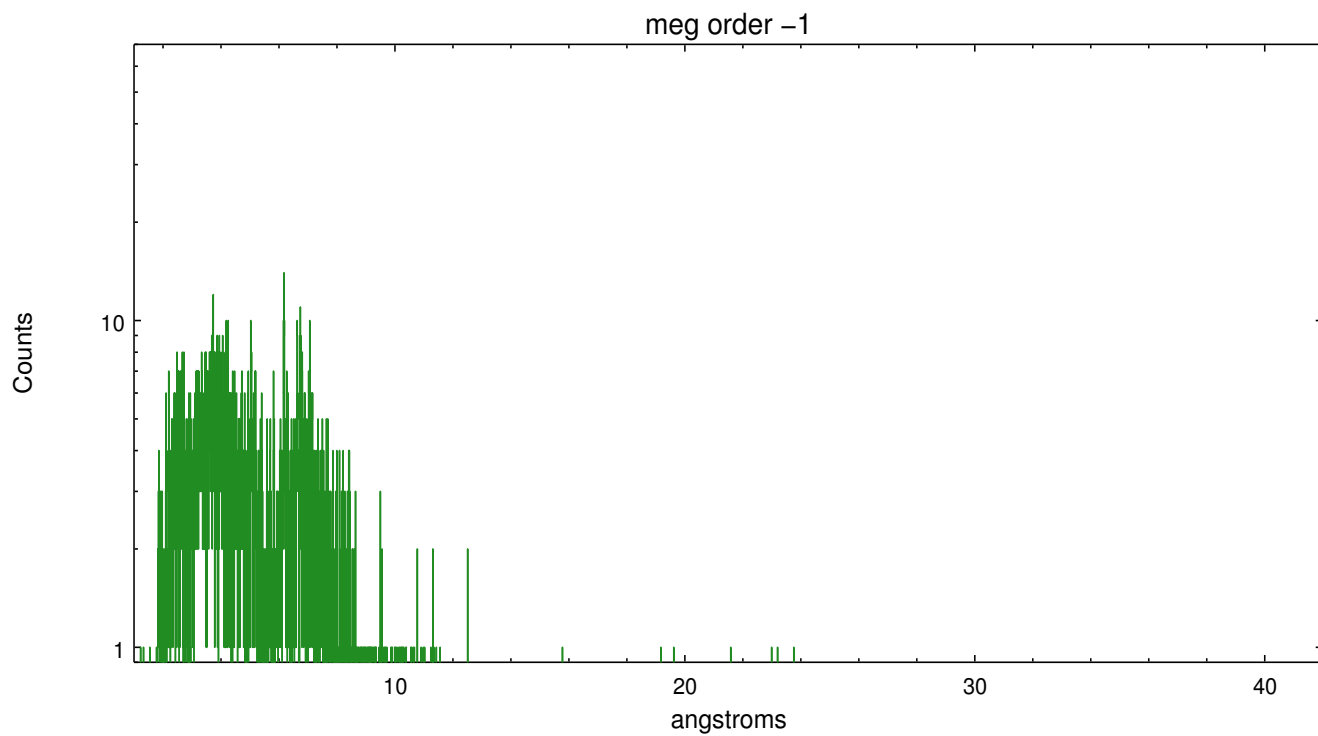


Spot Image MEG

Full Detector MEG

	order	order	order	order	order	order	order
	-3	-2	-1	0	1	2	3
Events	538	255	4183	10116	5364	212	385





A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2019.07.05
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	16.01880063653

A.2 Comments