

V&V Reference Report

L2 ASCDS Version : 10.4.1

Observation 16704 - L2 Version 1
Chandra X-Ray Center

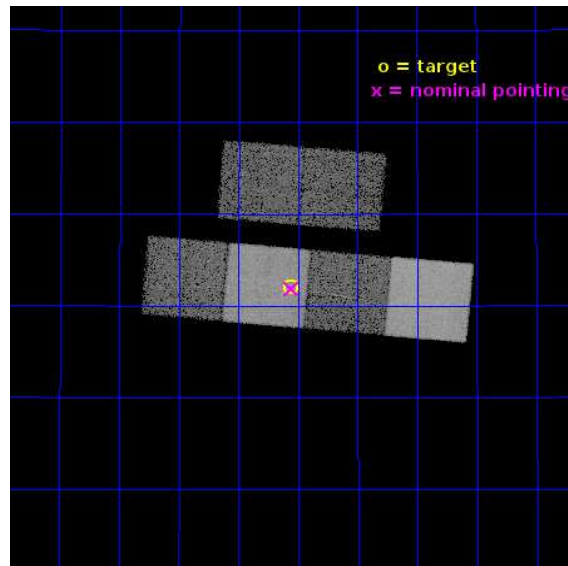
L2 Processing Date : Jul 24 2015

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1 Front

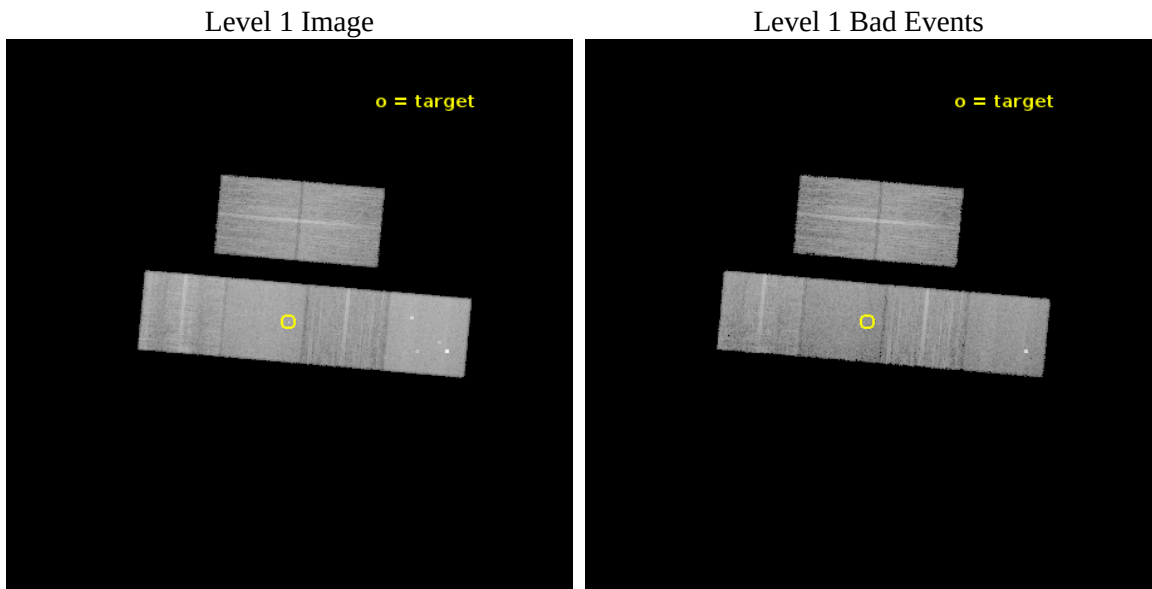
seq_num	401626	Sequence number
obs_id	16704	Observation id
title	Following a black hole X-ray transient through the transition into quiescence	Proposal title
observer	Dr. RICHARD PLOTKIN	Principal investigator
object	V404Cyg	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	306.015958	Observer's specified target RA [deg]
dec_targ	33.867281	Observer's specified target Dec [deg]
ra_nom	306.01414896153	Nominal RA [deg]
dec_nom	33.864536408841	Nominal Dec [deg]
roll_nom	185.15762274216	Nominal Roll [deg]
revision	1	Processing version of data
ontime	19539.167006373	Sum of GTIs [s]
livetime	19291.750308665	Livetime [s]
ontime2	19539.200291157	Sum of GTIs [s]
ontime3	19539.043886304	Sum of GTIs [s]
ontime5	19539.125966311	Sum of GTIs [s]
ontime6	19539.084926367	Sum of GTIs [s]
ontime7	19539.167006373	Sum of GTIs [s]
ontime8	19539.00284636	Sum of GTIs [s]
l2events	176723	Number of level 2 events



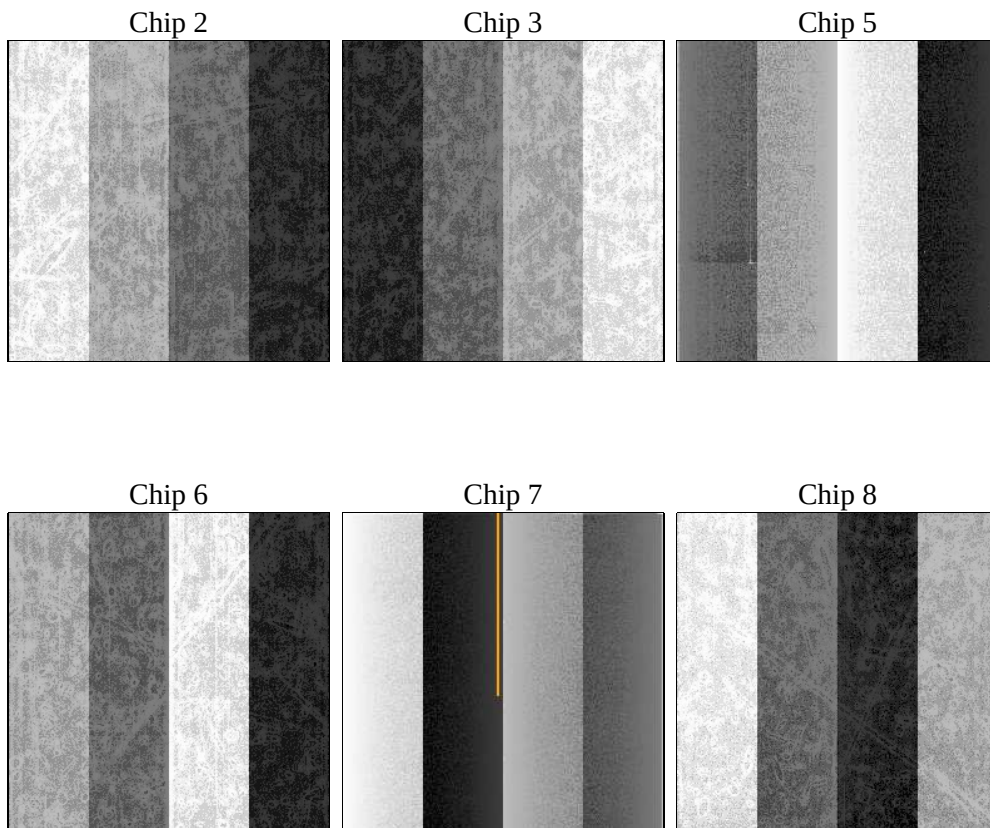
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	19576.678000	[s] Scheduled observation exposure time
ascdsver	10.4.1	Processing system revision	ontime	19539.167006373	Sum of GTIs [s]
caldsver	4.6.8	 	ontime2	19539.200291157	Sum of GTIs [s]
date	2015-07-24T16:06:25	Date and time of file creation	ontime3	19539.043886304	Sum of GTIs [s]
revision	1	Processing version of data	ontime5	19539.125966311	Sum of GTIs [s]
			ontime6	19539.084926367	Sum of GTIs [s]
			ontime7	19539.167006373	Sum of GTIs [s]
			ontime8	19539.00284636	Sum of GTIs [s]
			l1events	753313	Number of level 1 events
			tgmethod	TGDETECT	Method used to create src1a file
			src1a_pos	(4085.70, 4116.12)	src1a sky pixel position

2.1.4 Events

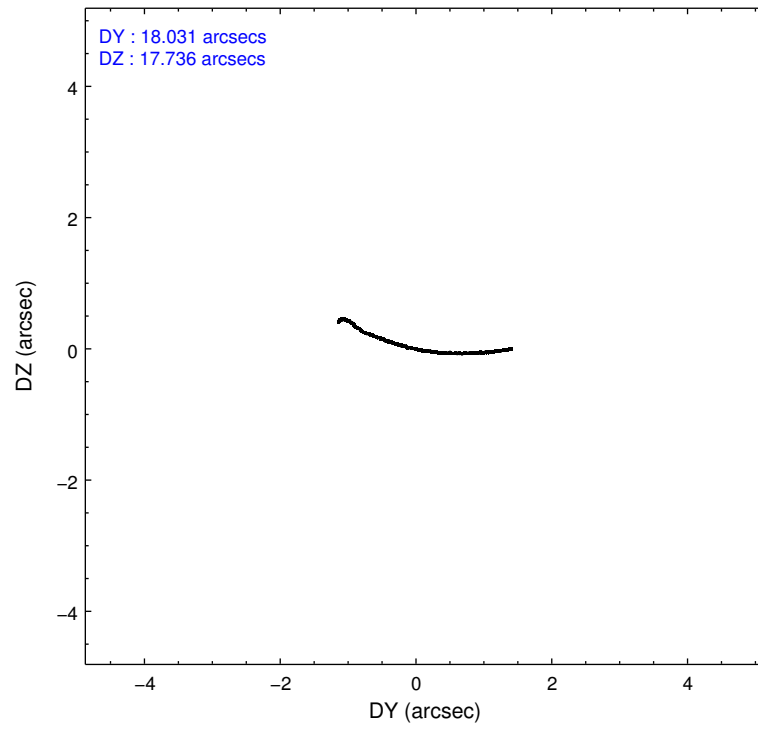
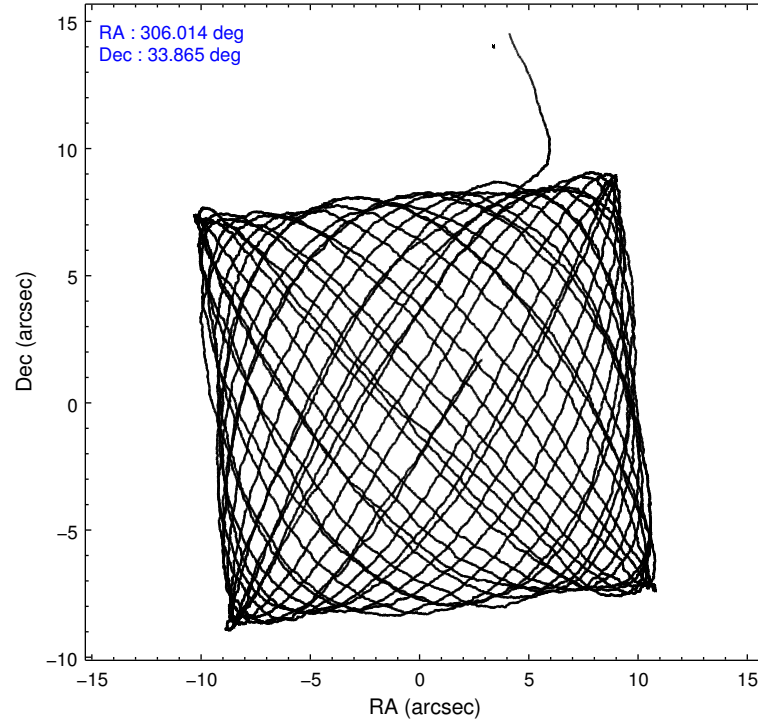
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	108079	100294	171129	104039	136875	132897	grade 0 events	4356	4203	7383	4808	5126	10427
rejected events	96354	88834	88377	90993	77284	97498		4%	4%	4%	4%	3%	7%
rejected %	89%	88%	51%	87%	56%	73%	grade 1 events	62	52	369	47	166	104
								0%	0%	0%	0%	0%	0%
							grade 2 events	2782	2537	27042	2871	12421	8336
								2%	2%	15%	2%	9%	6%
							grade 3 events	1173	1168	2497	1222	4726	3669
								1%	1%	1%	1%	3%	2%
							grade 4 events	1147	1196	2201	1181	4747	3603
								1%	1%	1%	1%	3%	2%
							grade 5 events	4374	5134	11294	5016	13442	7415
								4%	5%	6%	4%	9%	5%
							grade 6 events	2267	2357	43651	2965	32582	9367
								2%	2%	25%	2%	23%	7%
							grade 7 events	91918	83647	76692	85929	63665	89976
								85%	83%	44%	82%	46%	67%

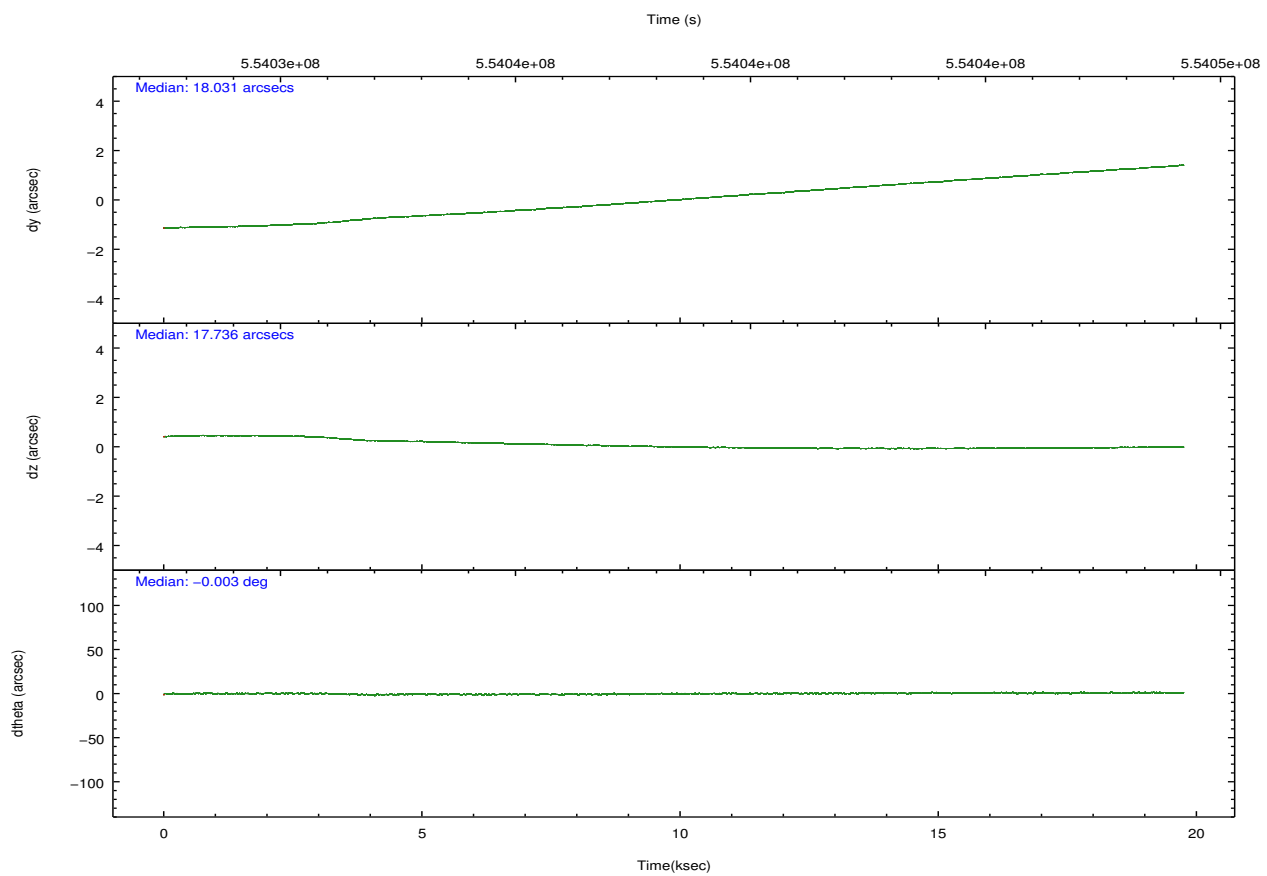
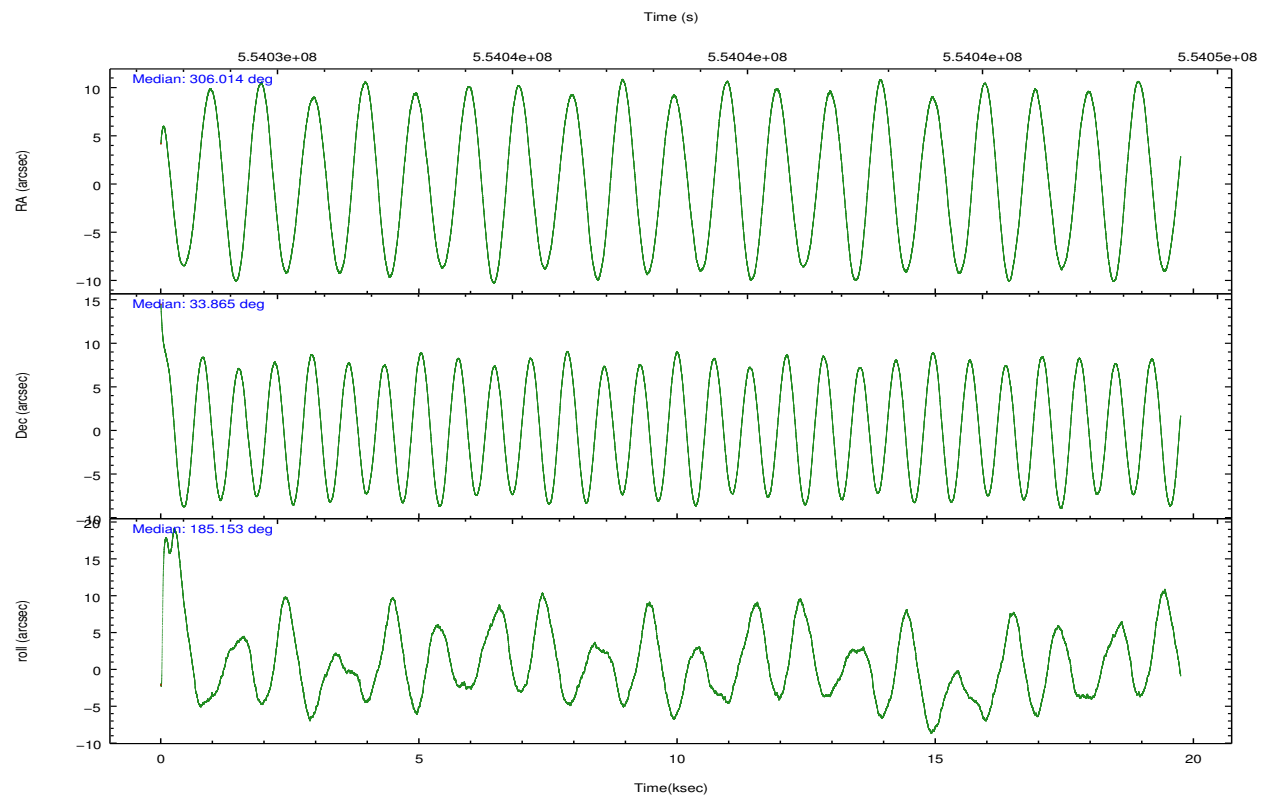
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-235678	ACIS-235678
Grating	HETG	HETG
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	306.040945	306.0141489615268
[deg] Pointing Dec	33.880637	33.86453640884123
[deg] Pointing Roll	184.986069	185.1576227421591
[mm] SIM focus pos	-0.684267	-0.6828225247311905
[mm] SIM defocus	0	0.001444936568705701
[mm] SIM translation stage pos	-190.132523	-190.1425803651734
[mm] SIM translation stage offset	0	0.01005778216563158
[s] Observation start time (MET)	554028658.184000	554027520.9363101
Observation start date	2015-07-23T08:49:50	2015-07-23T08:32:00
[s] Observation end time (MET)	554048235.184000	554048452.97498
Observation end date	2015-07-23T14:16:07	2015-07-23T14:20:52
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	Y	Y
CCD I3 on	Y	Y
CCD S0 on	N	N
CCD S1 on	O2	Y
CCD S2 on	Y	Y
CCD S3 on	Y	Y
CCD S4 on	O1	Y
CCD S5 on	N	N
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.2

2.3 Aspect



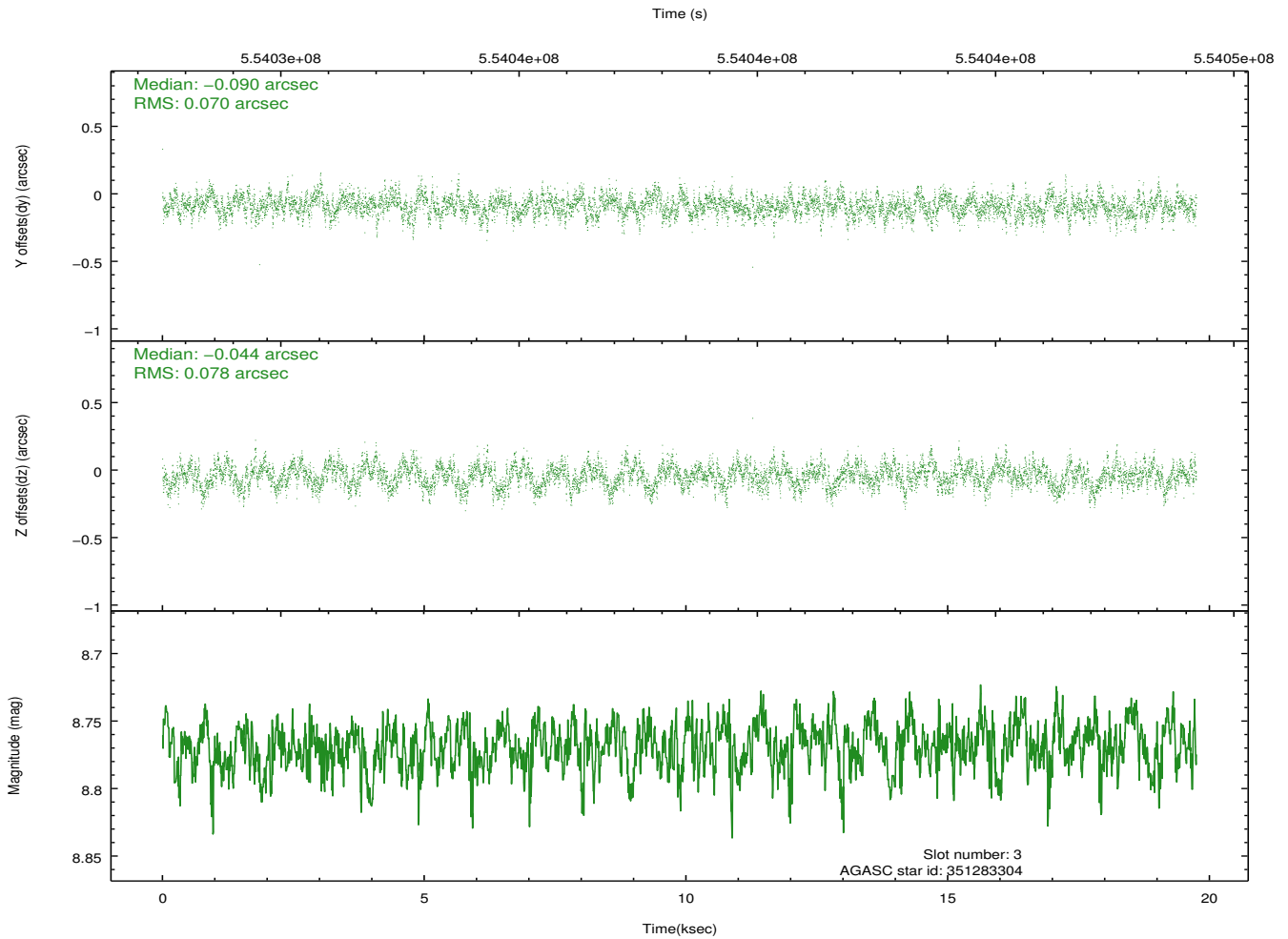
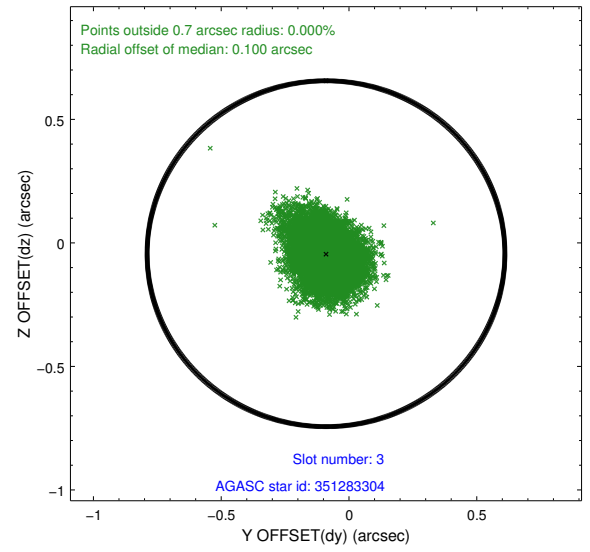
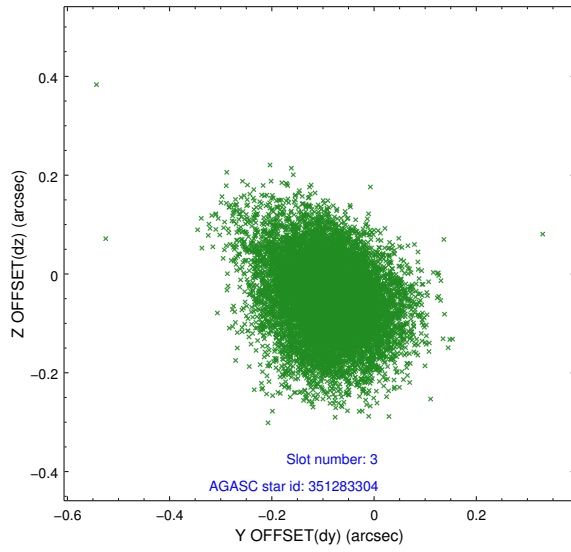


Slot Statistics

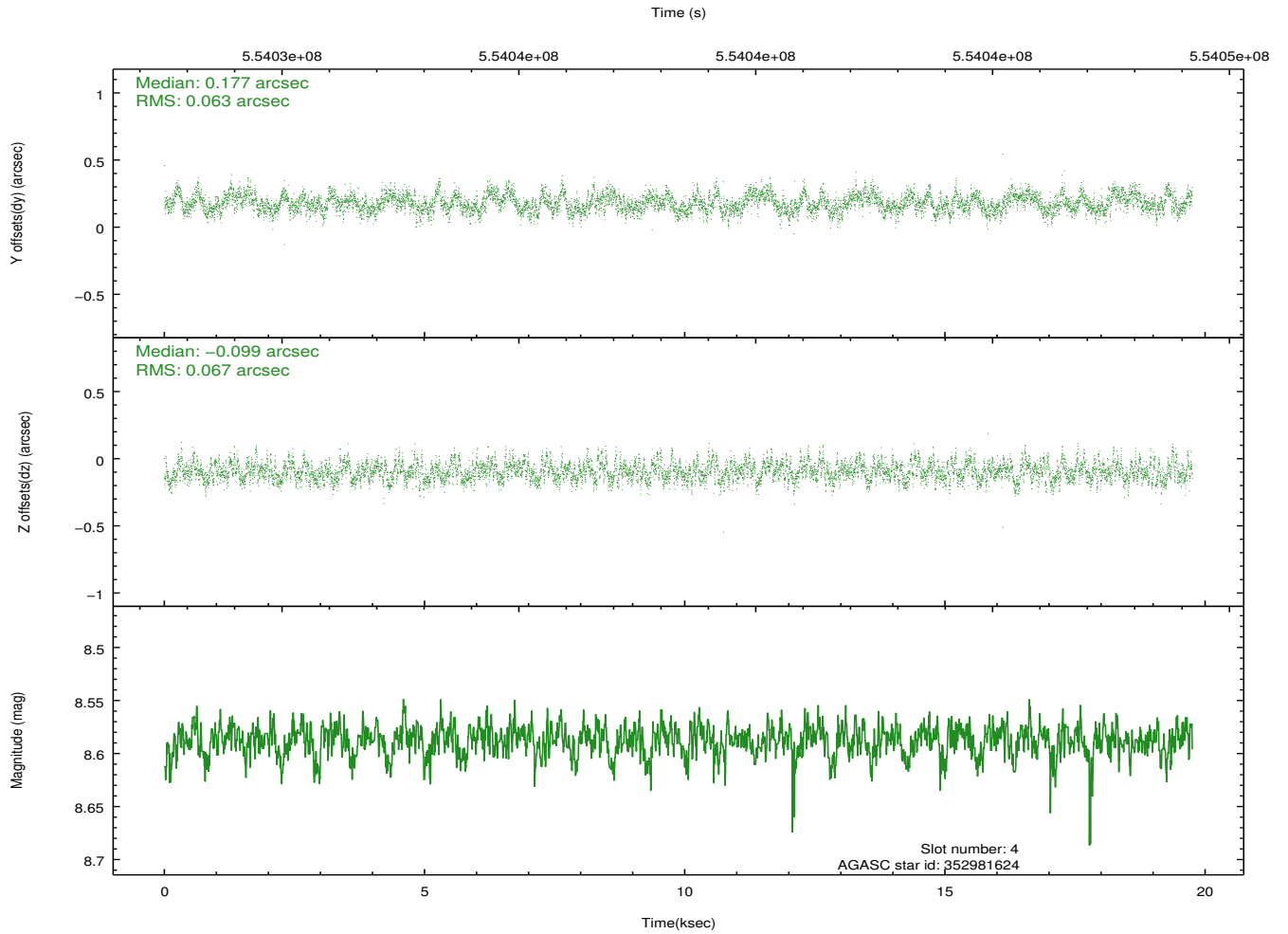
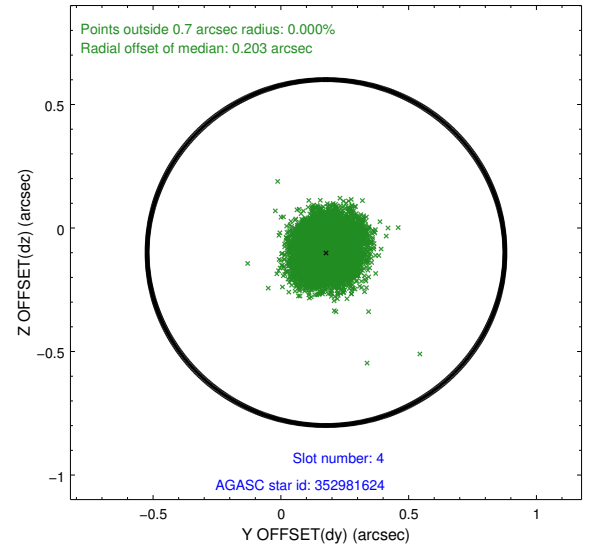
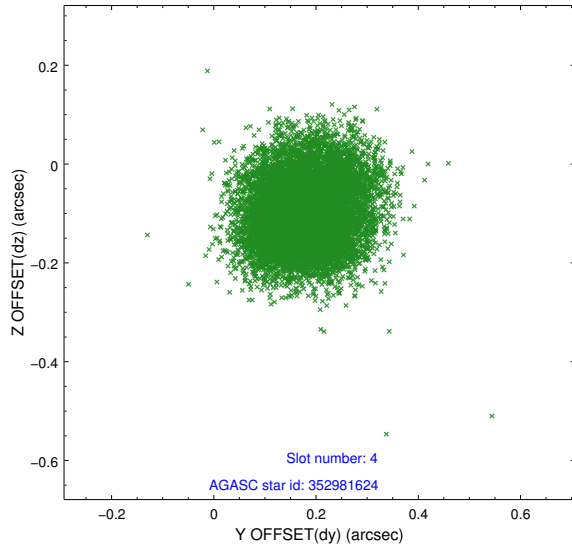
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.06	4818	-0.101	-0.097	0.016	0.033	0.000000	0.000000	-771.24	-1739.32
1	FID		ACIS-S-4	7.15	4818	0.314	0.075	0.024	0.037	0.000000	0.000000	2142.39	169.10
2	FID		ACIS-S-5	7.17	4817	-0.245	0.029	0.014	0.020	0.000000	0.000000	-1823.95	162.99
3	GUIDE	used	351283304	8.77	9633	-0.090	-0.044	0.111	0.181	305.363456	34.187296	1913.95	-1281.38
4	GUIDE	used	352981624	8.59	9633	0.177	-0.099	0.099	0.156	306.081516	34.222239	-226.16	-1214.54
5	GUIDE	used	352985512	8.88	9629	0.054	0.027	0.101	0.164	306.411799	34.272698	-1221.26	-1312.04
6	GUIDE	used	351279832	8.62	9628	-0.105	0.059	0.106	0.180	305.274374	34.407915	2103.05	-2097.04
7	GUIDE	used	351277912	8.72	9632	-0.037	0.048	0.115	0.187	305.316013	34.433041	1971.85	-2175.55

2.4 Star Slots

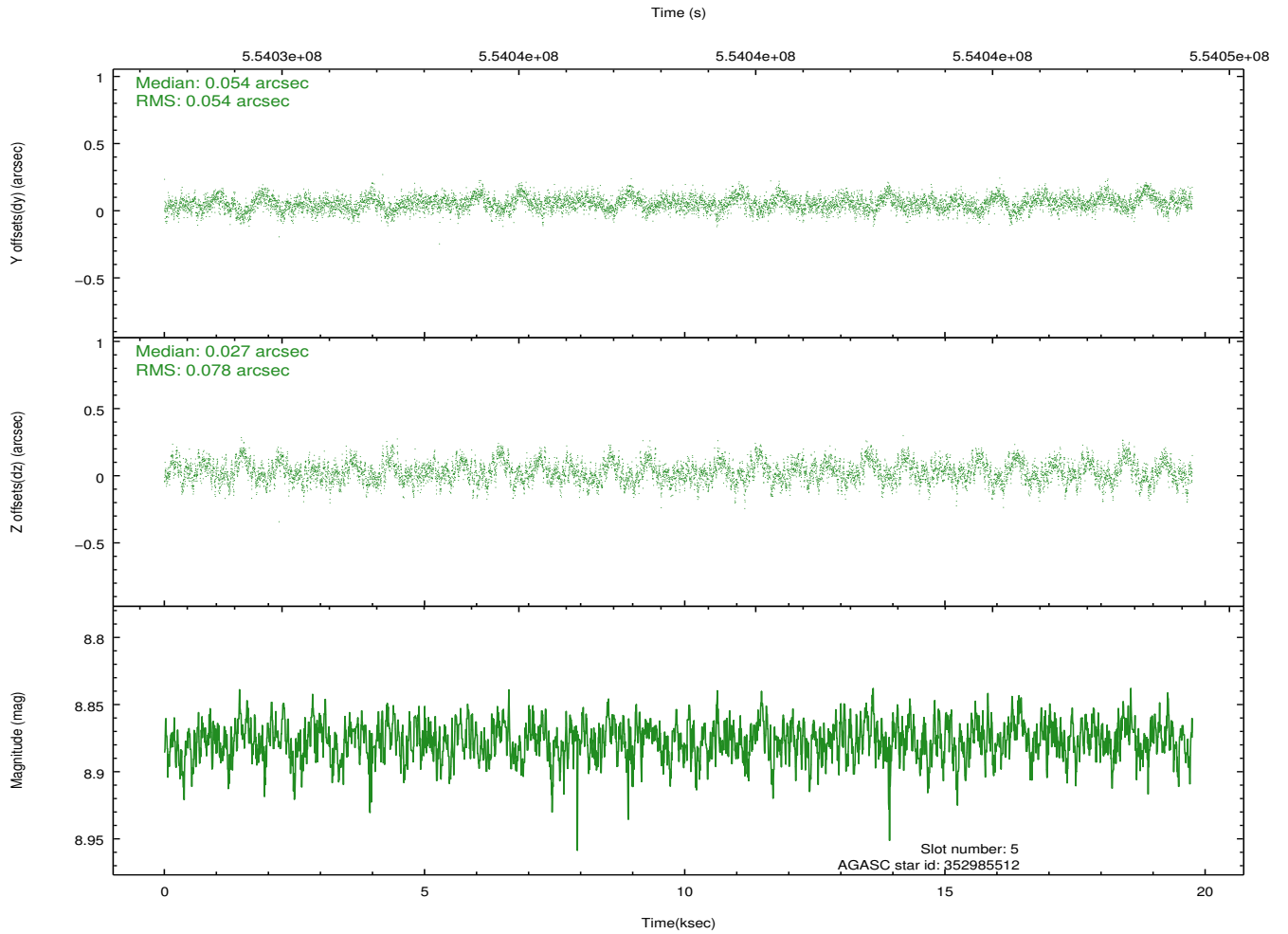
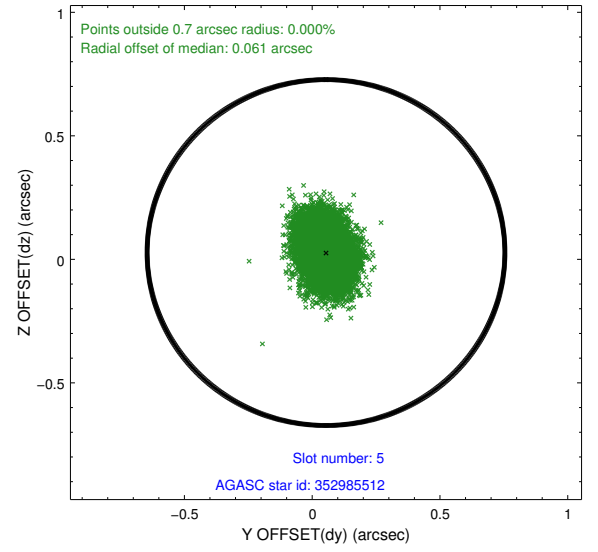
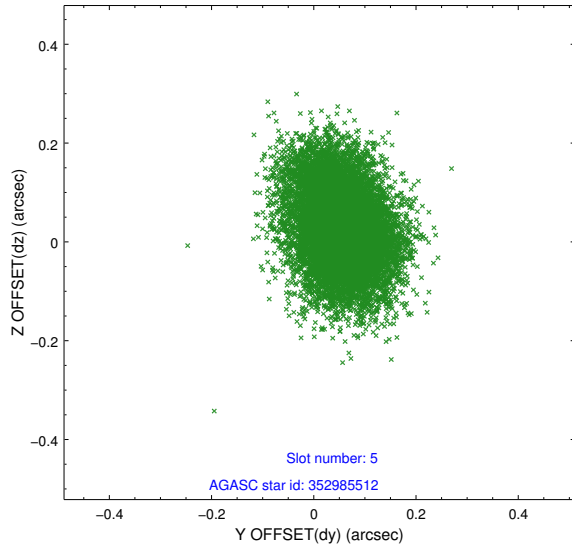
2.4.1 Slot 3



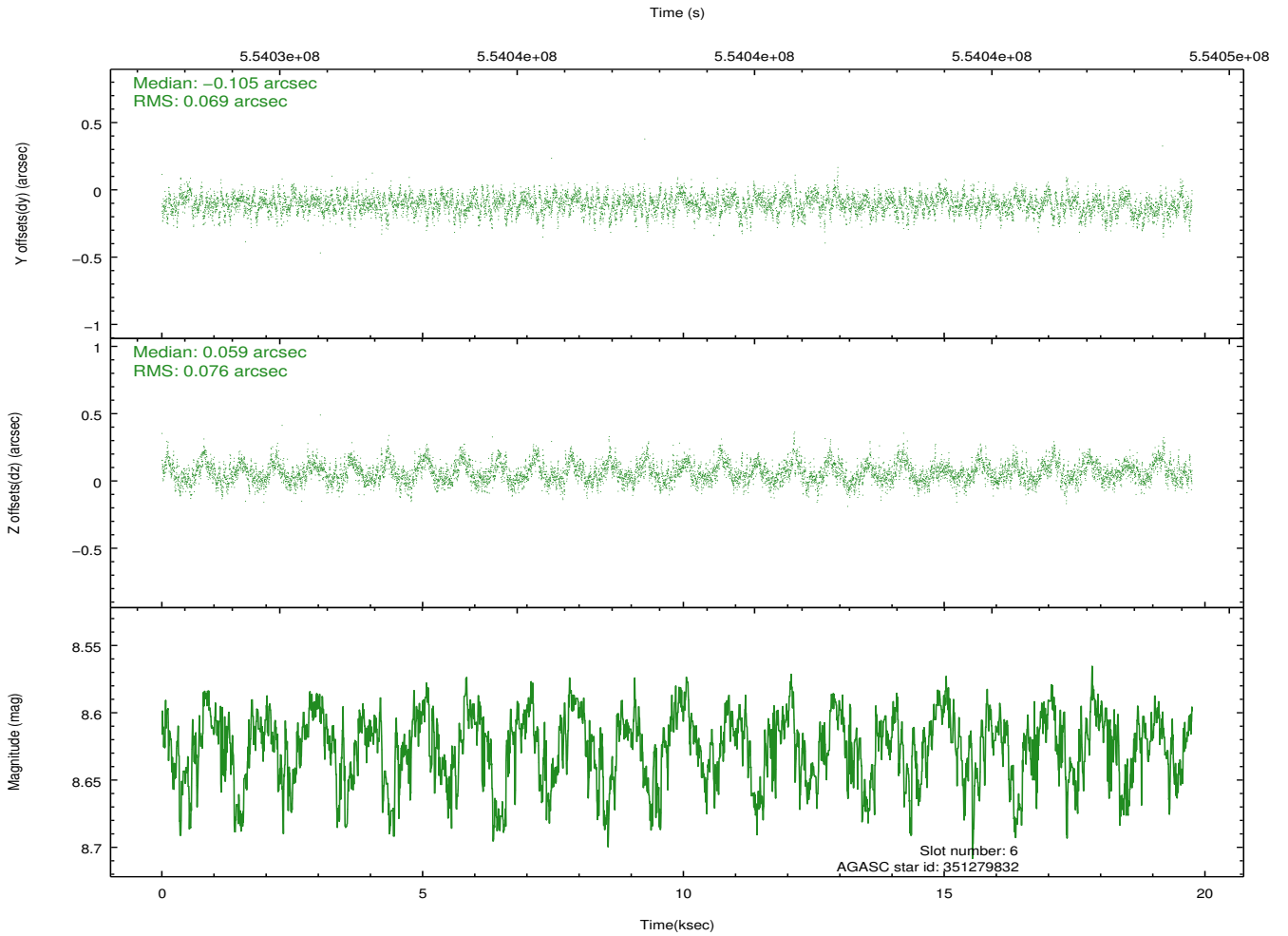
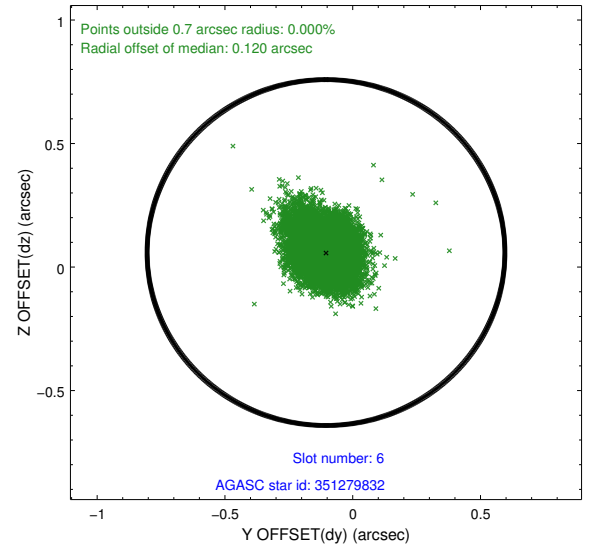
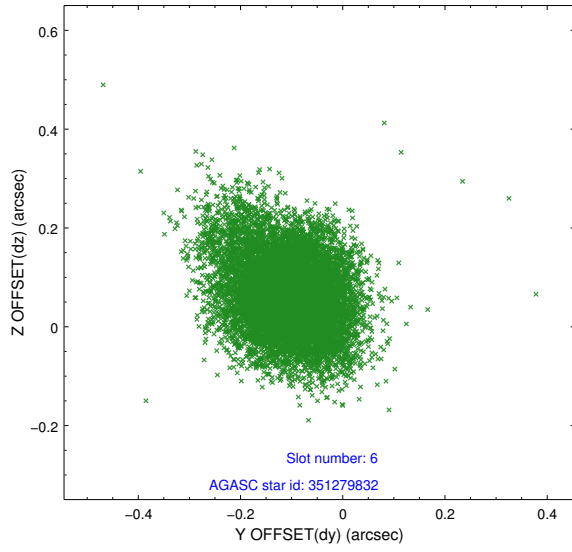
2.4.2 Slot 4



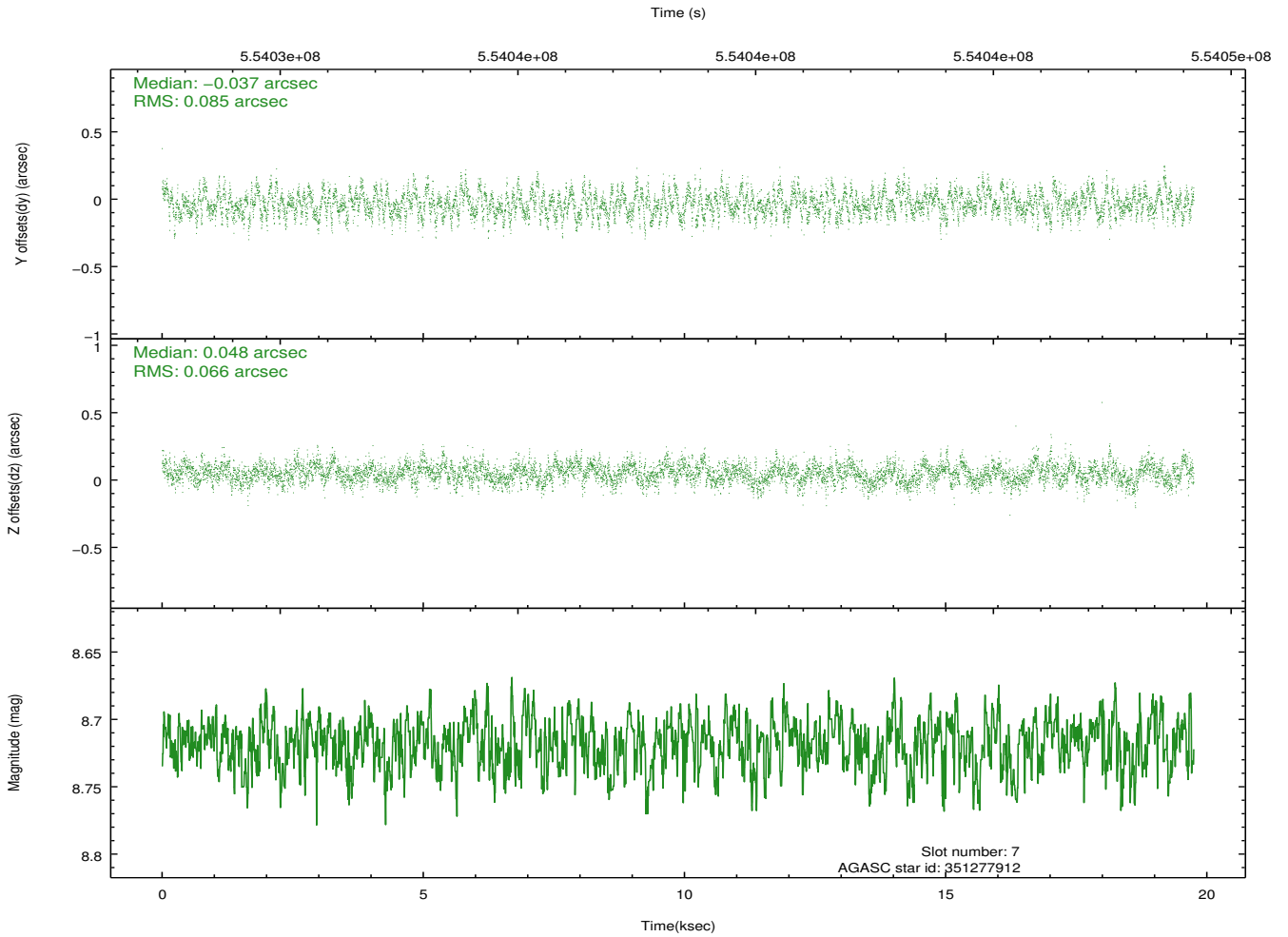
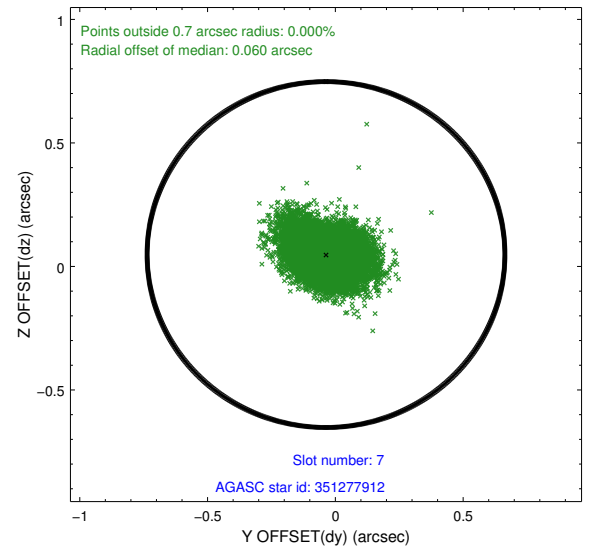
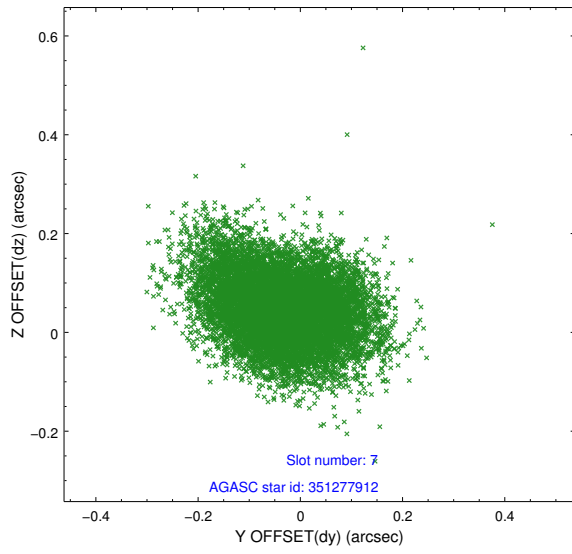
2.4.3 Slot 5



2.4.4 Slot 6

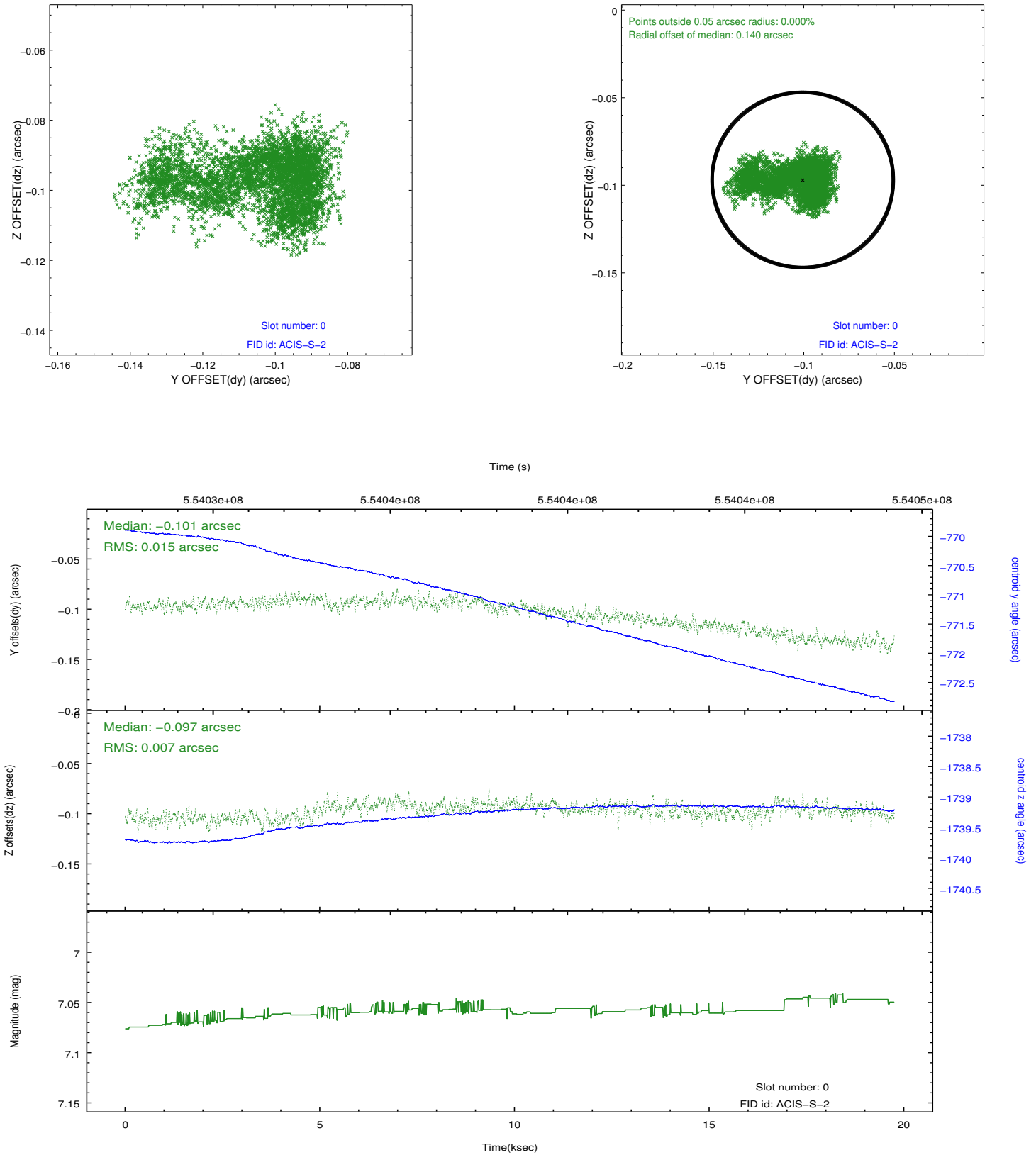


2.4.5 Slot 7

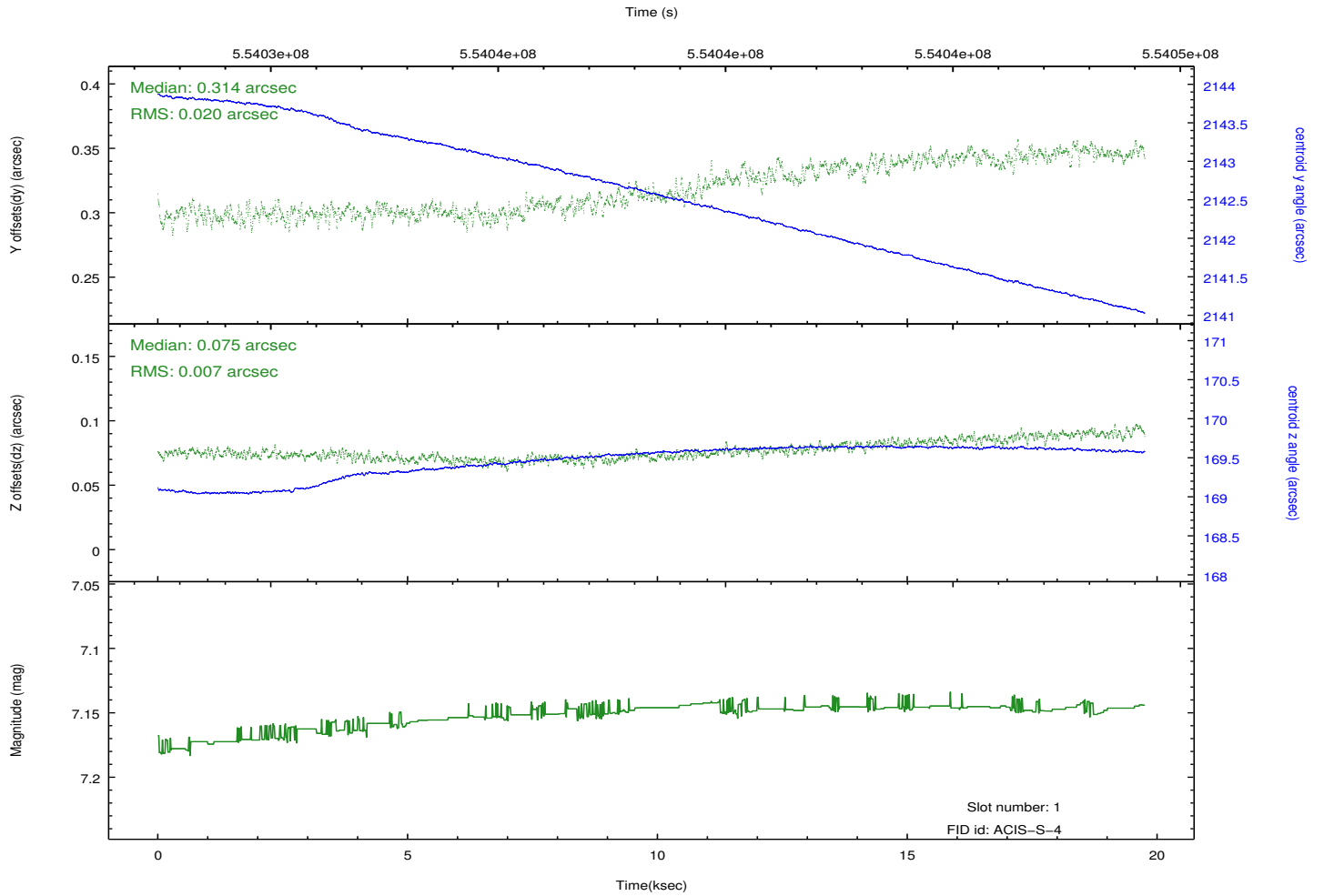
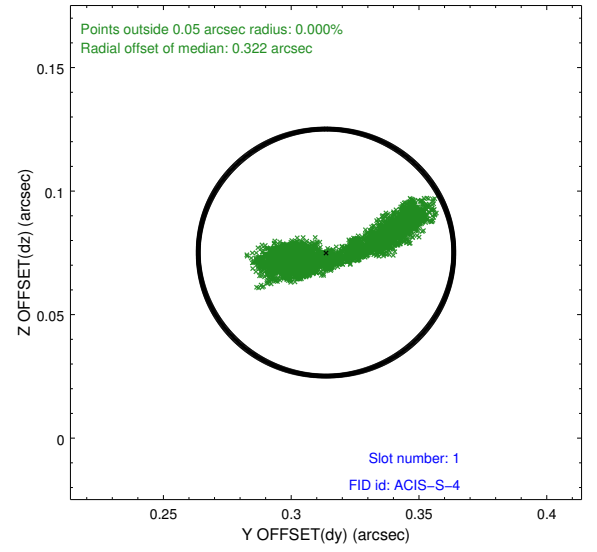
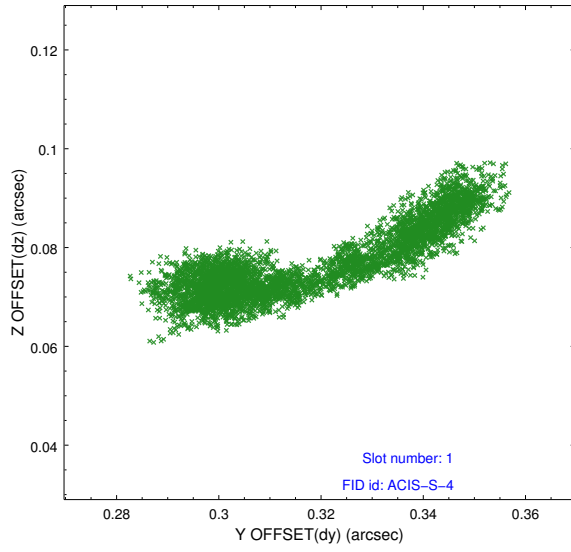


2.5 FID Slots

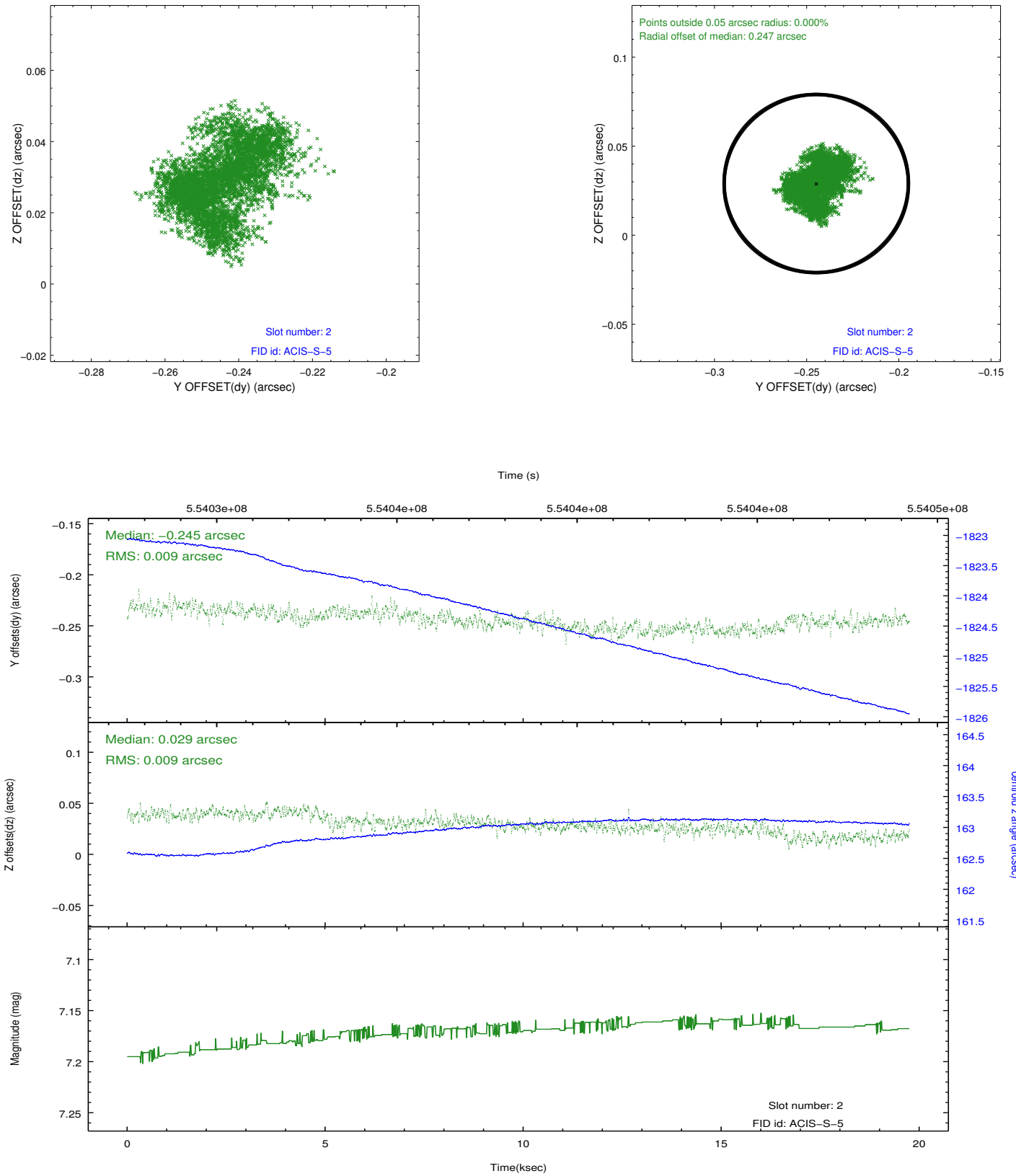
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

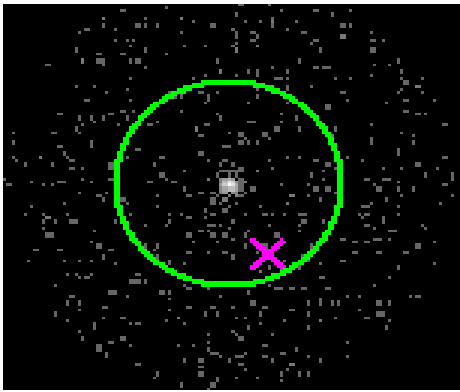


3 Gratings

3.1 HEG Arm



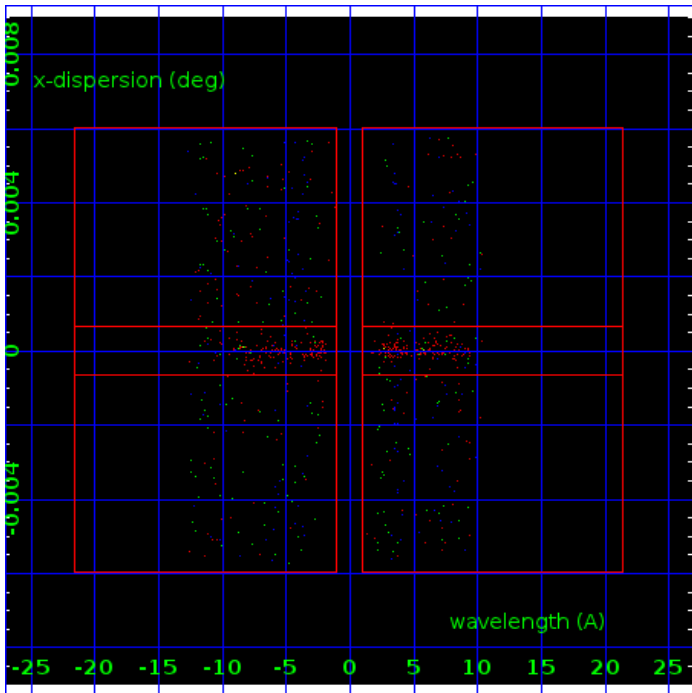
HEG Order Sort 123



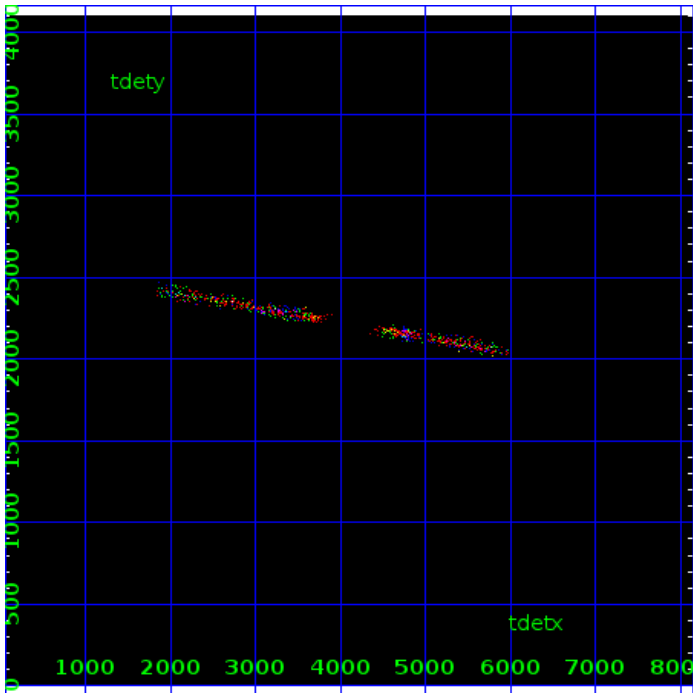
HEG Zero Order



HEG Order Sort ALL

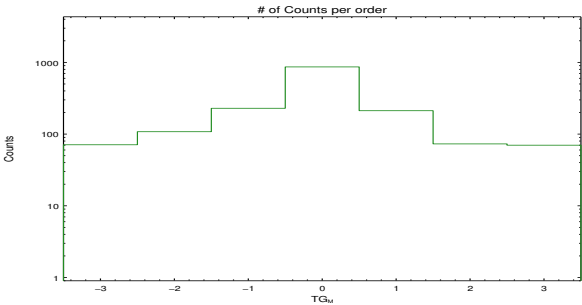


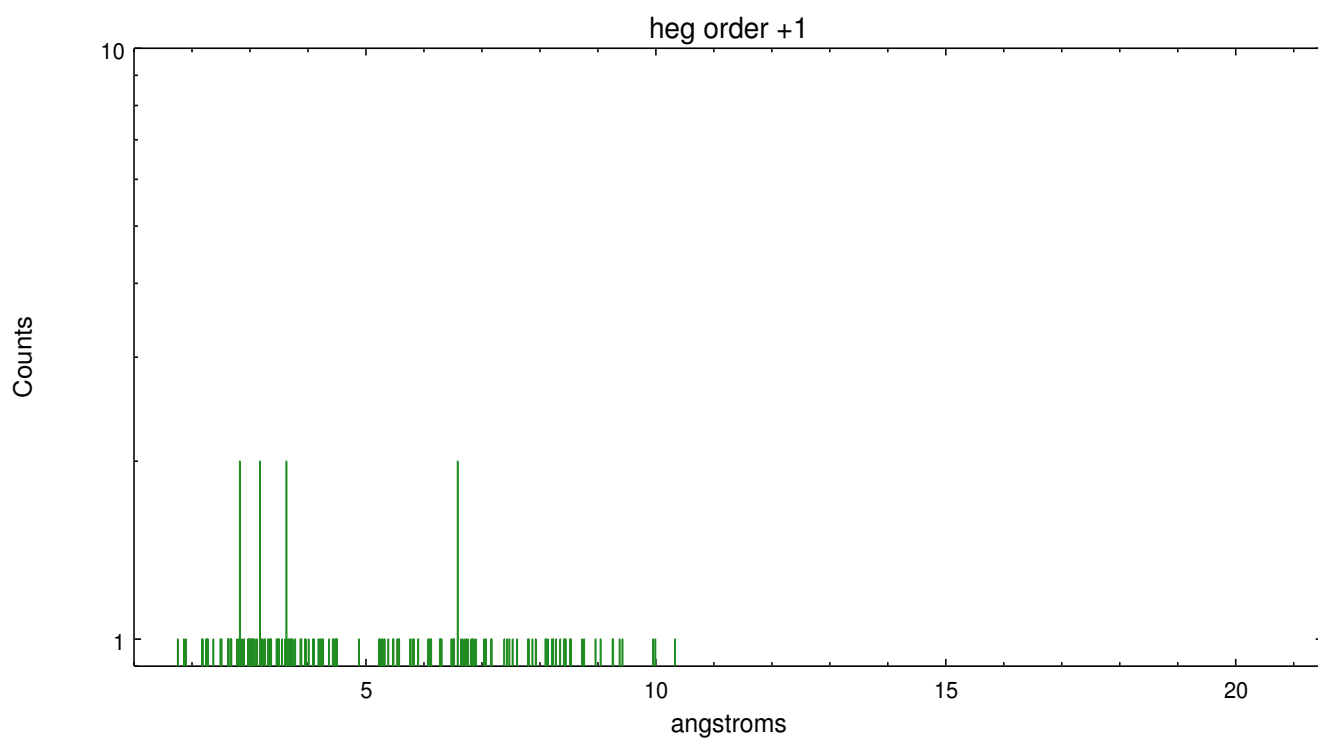
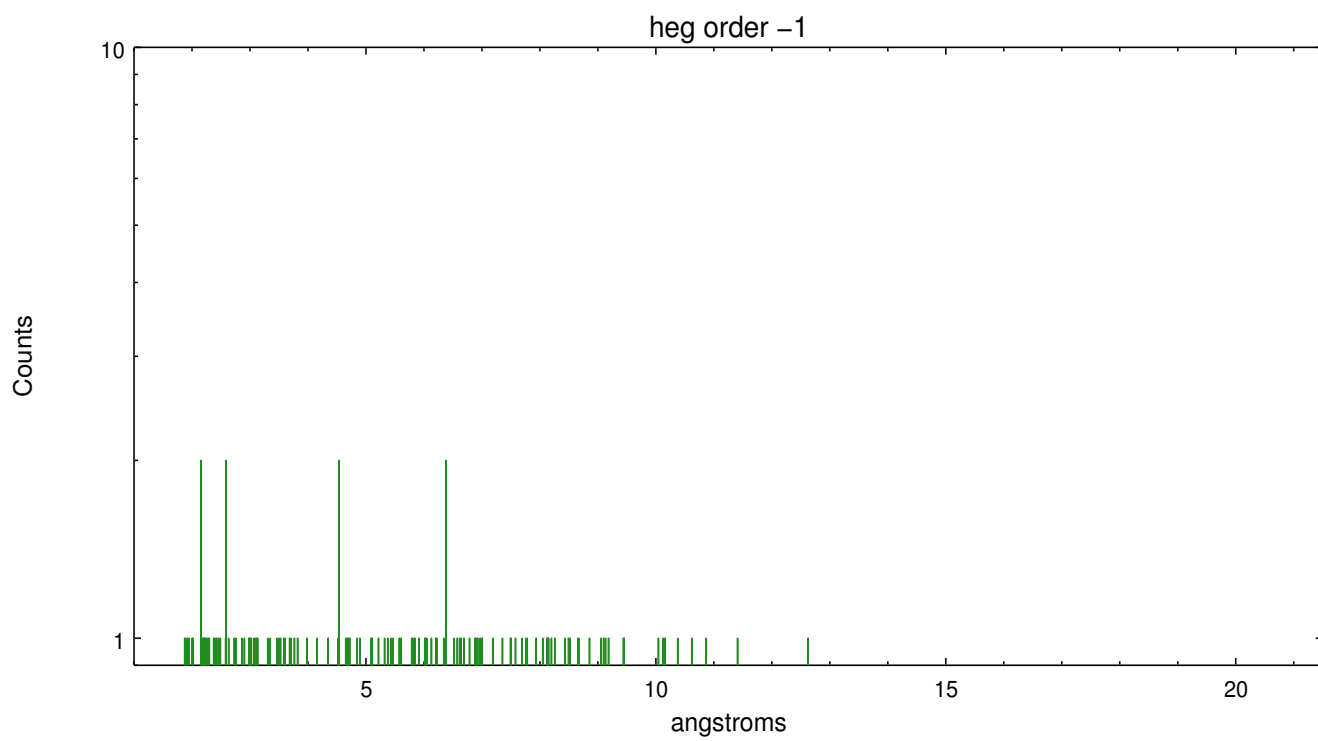
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	71	108	229	865	212	73	70

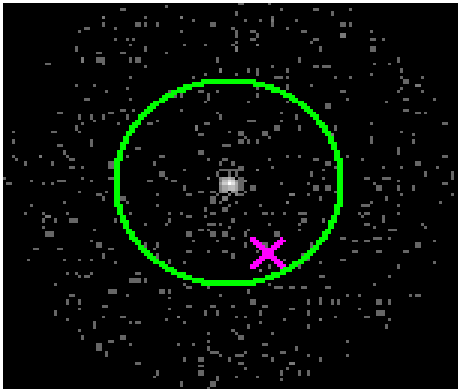




3.2 MEG Arm



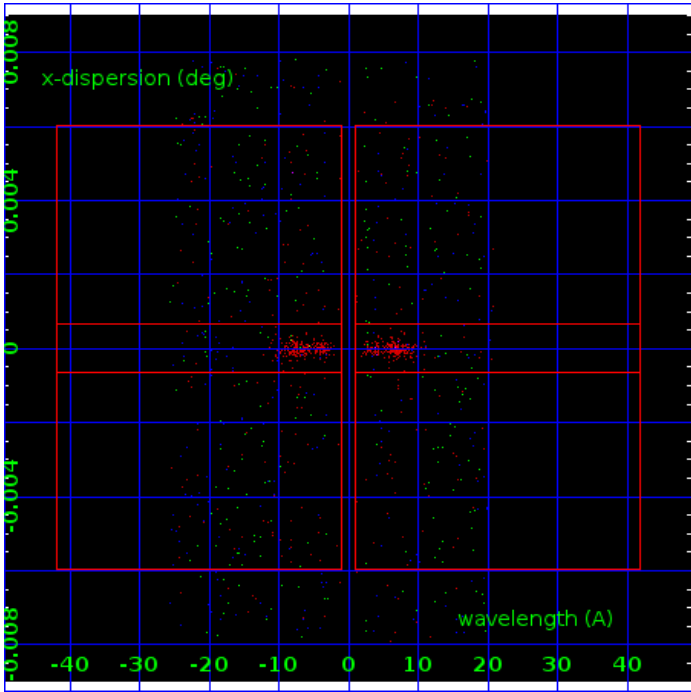
MEG Order Sort 123



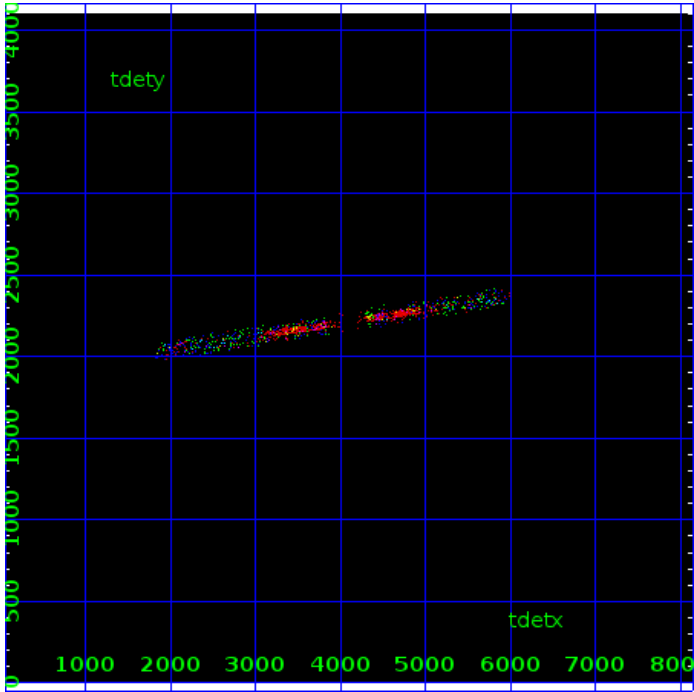
MEG Zero Order



MEG Order Sort ALL

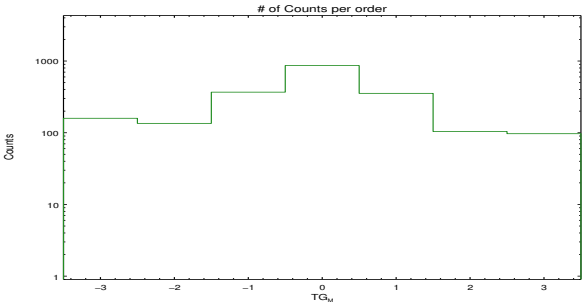


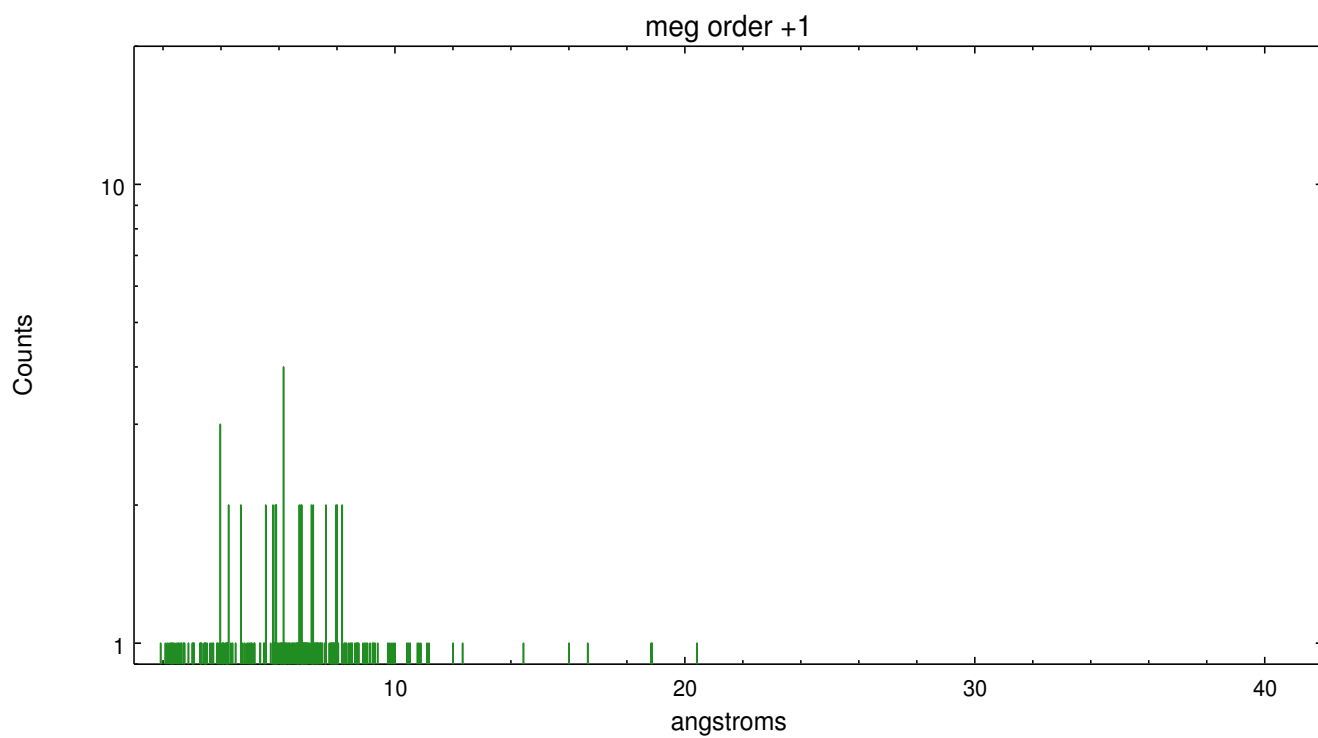
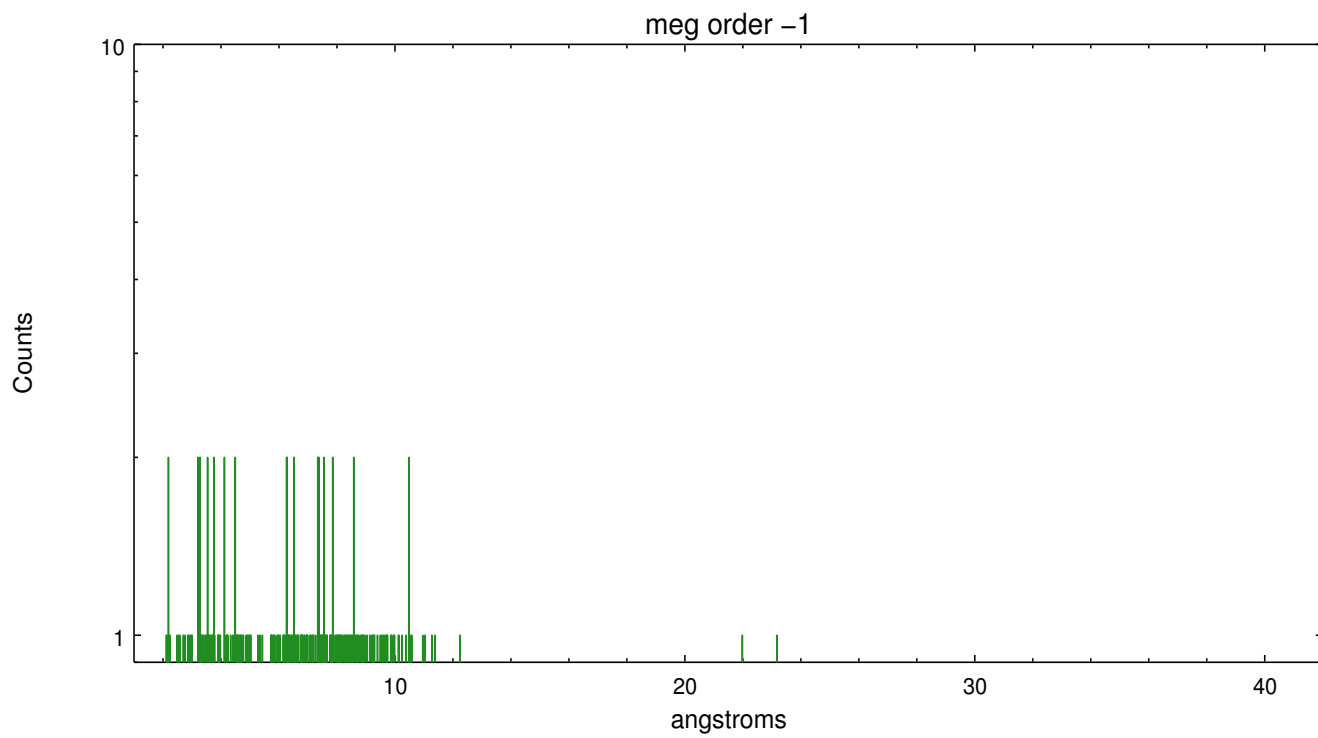
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	159	135	368	865	354	104	97





A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2015.07.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	19.539167006373

A.2 Comments