

V&V Reference Report

L2 ASCDS Version : 10.3.3

Observation 17645 - L2 Version 1
Chandra X-Ray Center

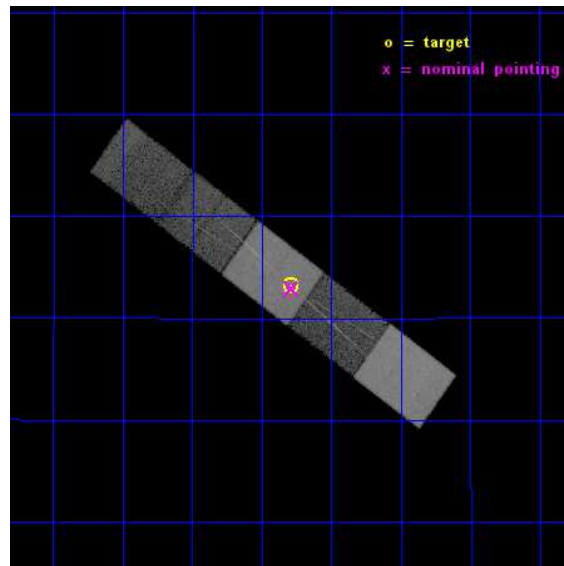
L2 Processing Date : Apr 11 2015

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1 Front

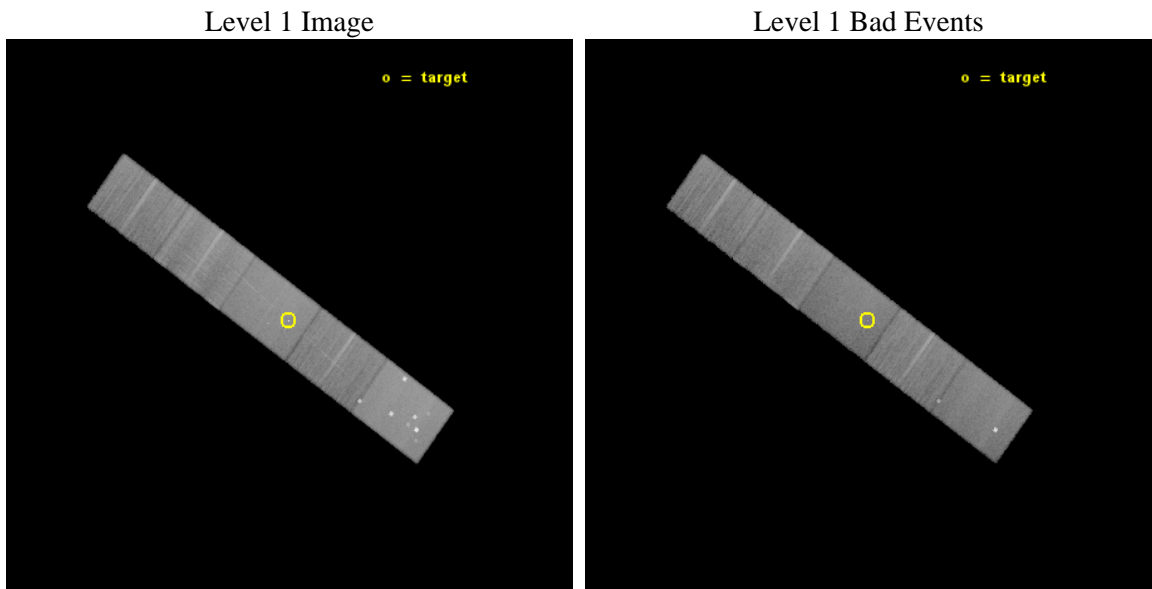
seq_num	703109	Sequence number
obs_id	17645	Observation id
title	An X-ray, UV, and radio probe of the PG 1211+143 inflow-outflow dynamics	Proposal title
observer	Prof. Julia Lee	Principal investigator
object	PG 1211+143	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	183.573333	Observer's specified target RA [deg]
dec_targ	14.053472	Observer's specified target Dec [deg]
ra_nom	183.57189691772	Nominal RA [deg]
dec_nom	14.048218806602	Nominal Dec [deg]
roll_nom	216.15696797695	Nominal Roll [deg]
revision	1	Processing version of data
ontime	45086.399551988	Sum of GTIs [s]
livetime	44328.384182468	Livetime [s]
ontime5	45086.399551988	Sum of GTIs [s]
ontime6	45083.958511829	Sum of GTIs [s]
ontime7	45086.399551988	Sum of GTIs [s]
ontime8	45086.399551988	Sum of GTIs [s]
ontime9	45083.958501816	Sum of GTIs [s]
l2events	267586	Number of level 2 events



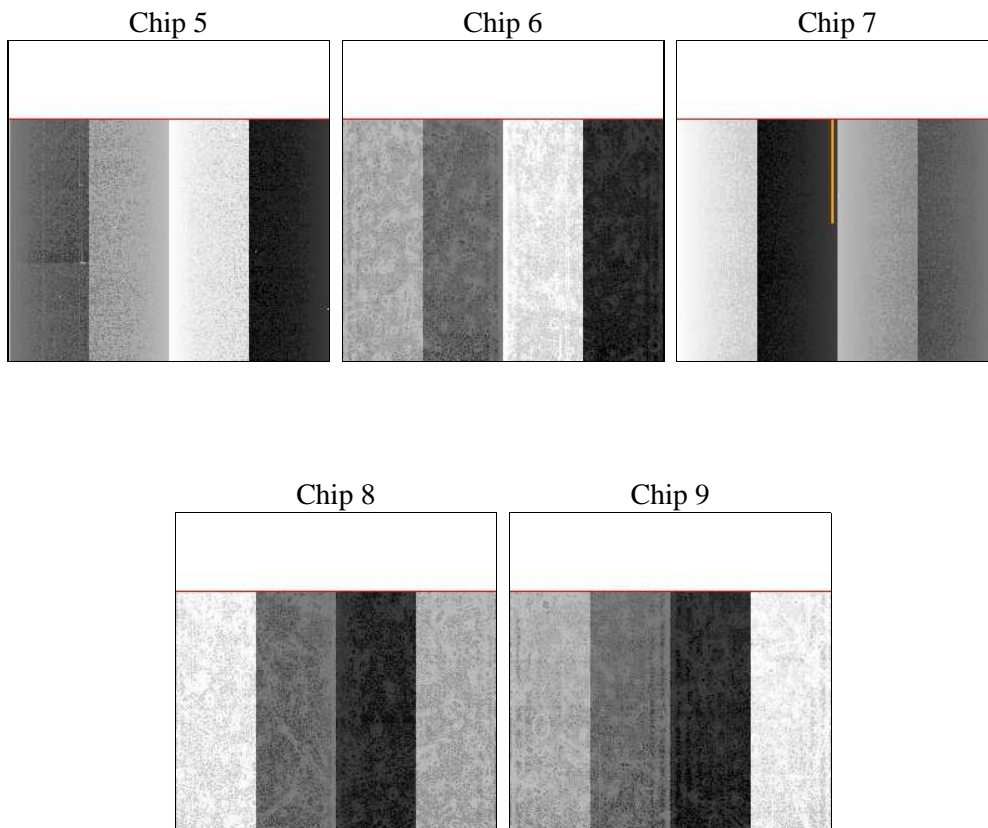
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	45000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.3	Processing system revision	ontime	45086.399551988	Sum of GTIs [s]
caldsver	4.6.7	 	ontime5	45086.399551988	Sum of GTIs [s]
date	2015-04-11T16:18:38	Date and time of file creation	ontime6	45083.958511829	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	45086.399551988	Sum of GTIs [s]
			ontime8	45086.399551988	Sum of GTIs [s]
			ontime9	45083.958501816	Sum of GTIs [s]
			l1events	1053545	Number of level 1 events
			tgmethod	TGDETECT	Method used to create src1a file
			zo_pos	(4084.74, 4135.04)	src1a sky pixel position

2.1.4 Events

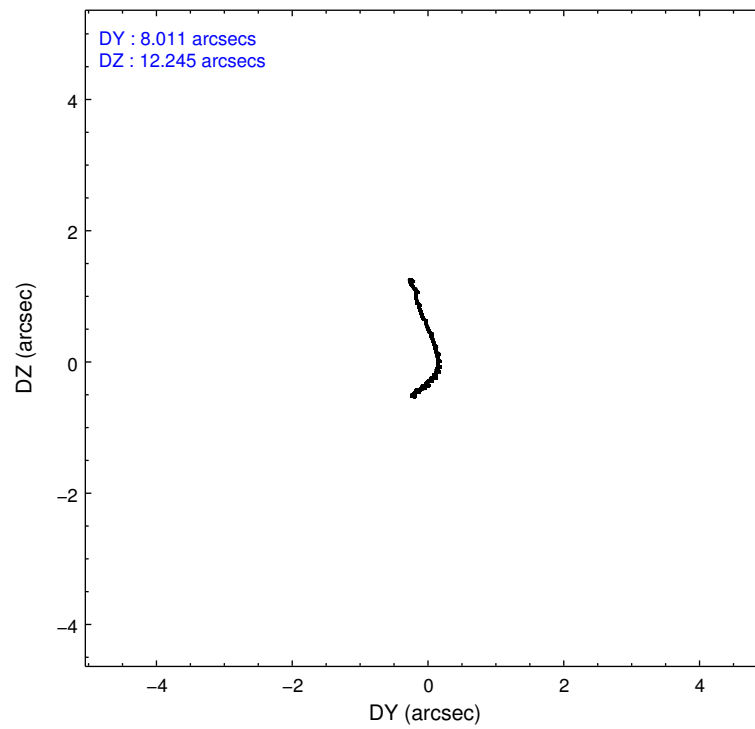
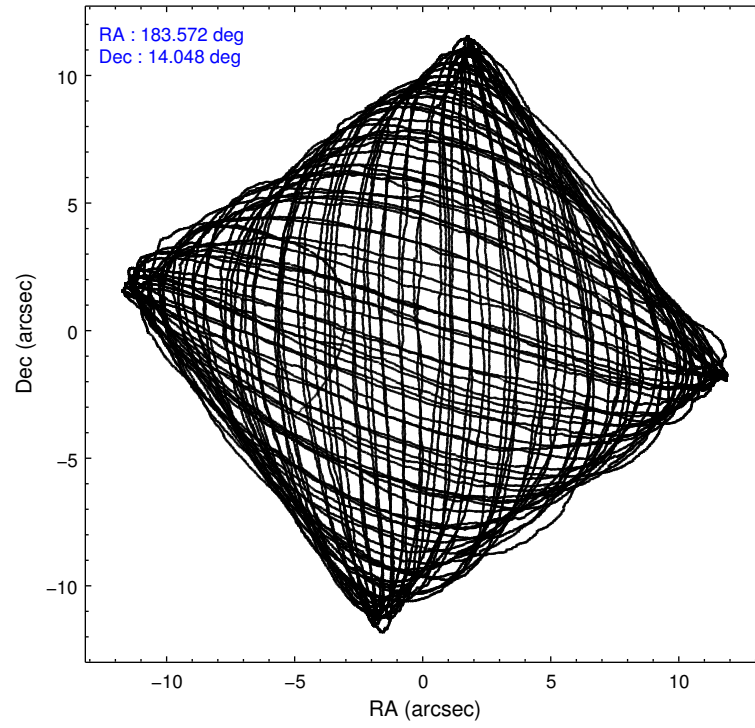
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	295491	165021	219970	210233	162830
rejected events	145502	144187	121919	154753	142712
rejected %	49%	87%	55%	73%	87%

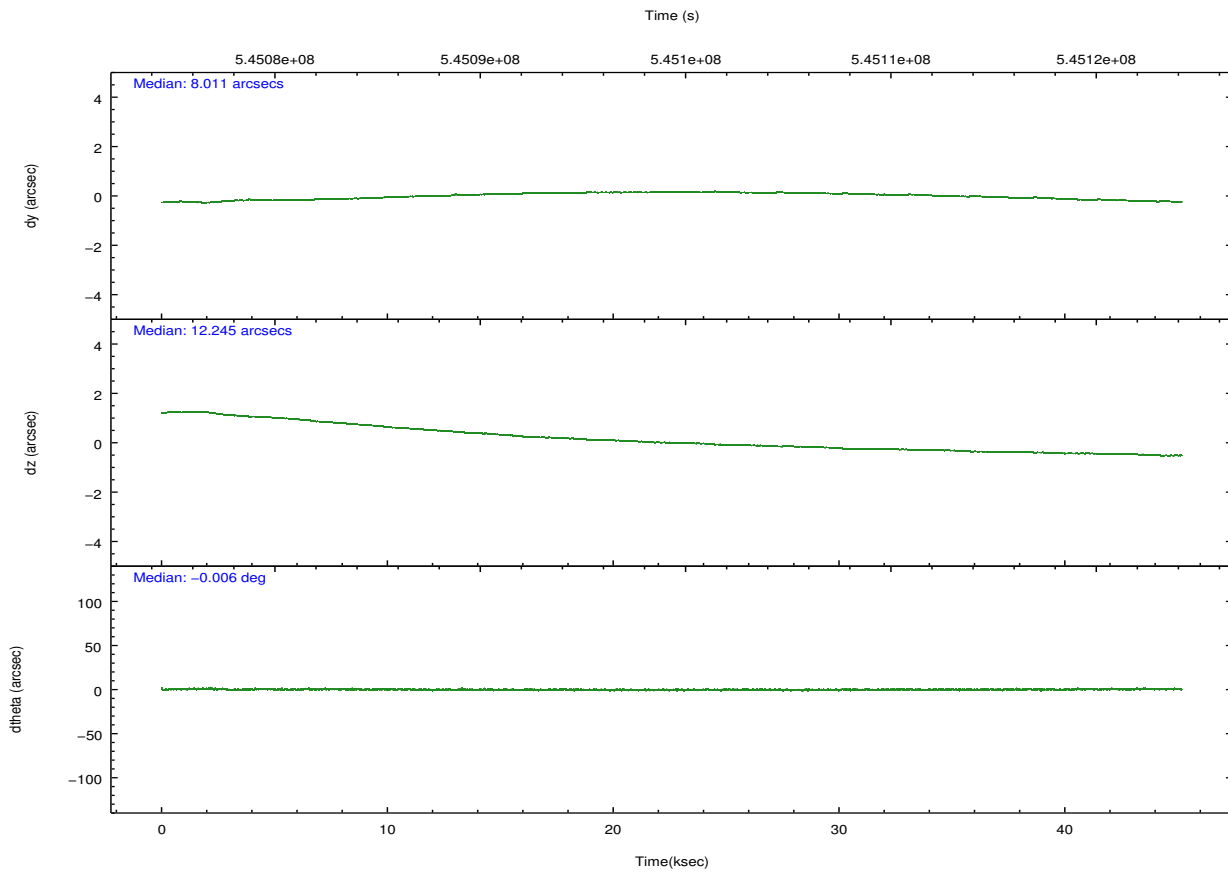
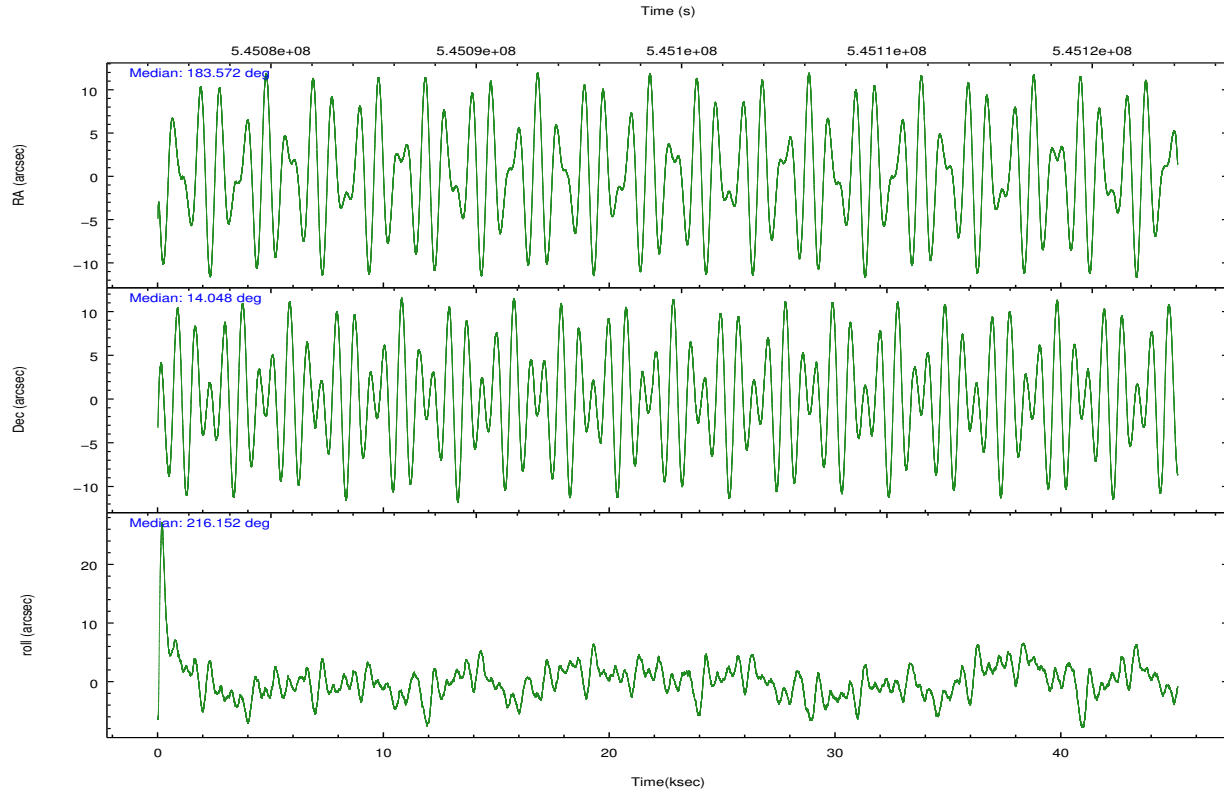
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	31351	7616	9063	15259	6893
	10%	4%	4%	7%	4%
grade 1 events	943	71	265	108	73
	0%	0%	0%	0%	0%
grade 2 events	40786	4505	20474	13424	4391
	13%	2%	9%	6%	2%
grade 3 events	5050	2142	8468	5806	2234
	1%	1%	3%	2%	1%
grade 4 events	4666	2034	8435	5612	2211
	1%	1%	3%	2%	1%
grade 5 events	19834	7863	21360	11628	9026
	6%	4%	9%	5%	5%
grade 6 events	68152	4538	51620	15379	4391
	23%	2%	23%	7%	2%
grade 7 events	124709	136252	100285	143017	133611
	42%	82%	45%	68%	82%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-56789	ACIS-56789	Obspar file type	PREDICTED	ACTUAL
Grating	HETG	HETG	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	183.582991	183.5718969177213	CCD I2 on	N	N
[deg] Pointing Dec	14.073468	14.04821880660249	CCD I3 on	N	N
[deg] Pointing Roll	215.997654	216.1569679769497	CCD S0 on	O1	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-187.132523	-187.1254020033014	CCD S3 on	Y	Y
[mm] SIM translation stage offset	-3	-3.007120579706367	CCD S4 on	Y	Y
[s] Observation start time (MET)	545076911.184000	545075693.6962399	CCD S5 on	Y	Y
Observation start date	2015-04-10T18:14:04	2015-04-10T17:54:53	Number of optional ACIS chips dropped	1	1
[s] Observation end time (MET)	545121911.184000	545122577.1988699	On-chip summing requested	N	N
Observation end date	2015-04-11T06:44:04	2015-04-11T06:56:17	Subarray requested	CUSTOM	CUSTOM
Read mode	TIMED	TIMED	Subarray start row	1	1
			Subarray row count	774	774
			Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	2.4

2.3 Aspect





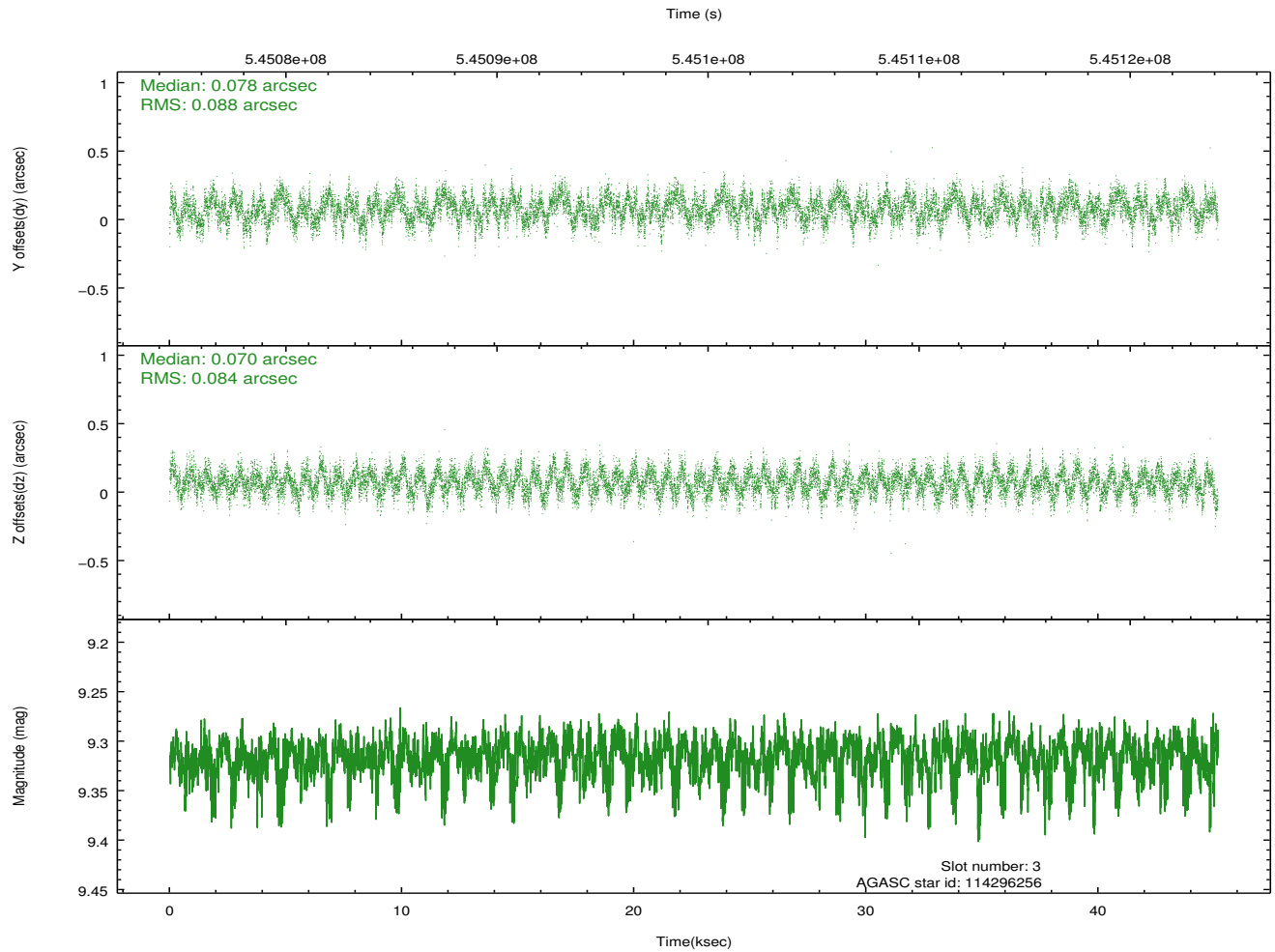
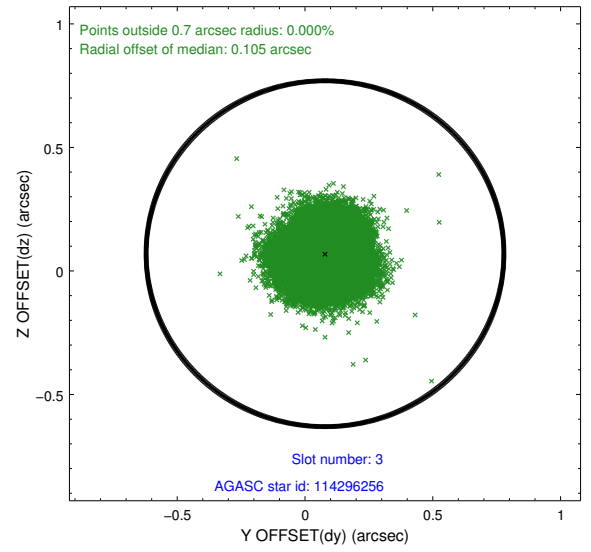
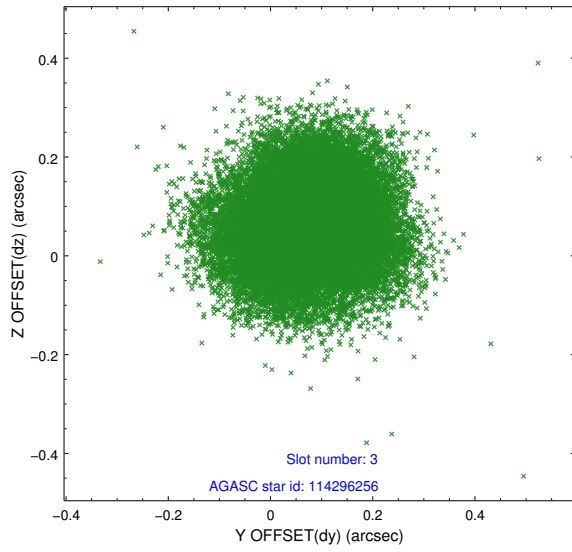
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-1	7.15	11015	0.090	-0.000	0.020	0.044	0.000000	0.000000	935.59	-1791.42
1	FID		ACIS-S-5	7.19	11015	-0.163	0.069	0.013	0.023	0.000000	0.000000	-1813.69	106.16
2	FID		ACIS-S-6	7.33	11015	0.051	-0.058	0.026	0.057	0.000000	0.000000	401.07	750.04
3	GUIDE	used	114296256	9.32	22016	0.078	0.070	0.131	0.204	182.985406	14.017213	1806.73	-1064.46
4	GUIDE	used	114297536	9.24	22015	0.003	0.055	0.105	0.176	183.757120	14.264956	-896.33	-200.49
5	GUIDE	used	114301168	9.18	22023	0.046	-0.060	0.123	0.195	182.996668	14.071189	1660.35	-1198.51
6	GUIDE	used	114303096	9.28	22019	-0.095	-0.015	0.131	0.208	183.214020	14.515722	105.03	-2044.80
7	GUIDE	used	115217168	9.56	22011	-0.047	-0.043	0.186	0.293	184.139200	14.158763	-1752.10	890.67

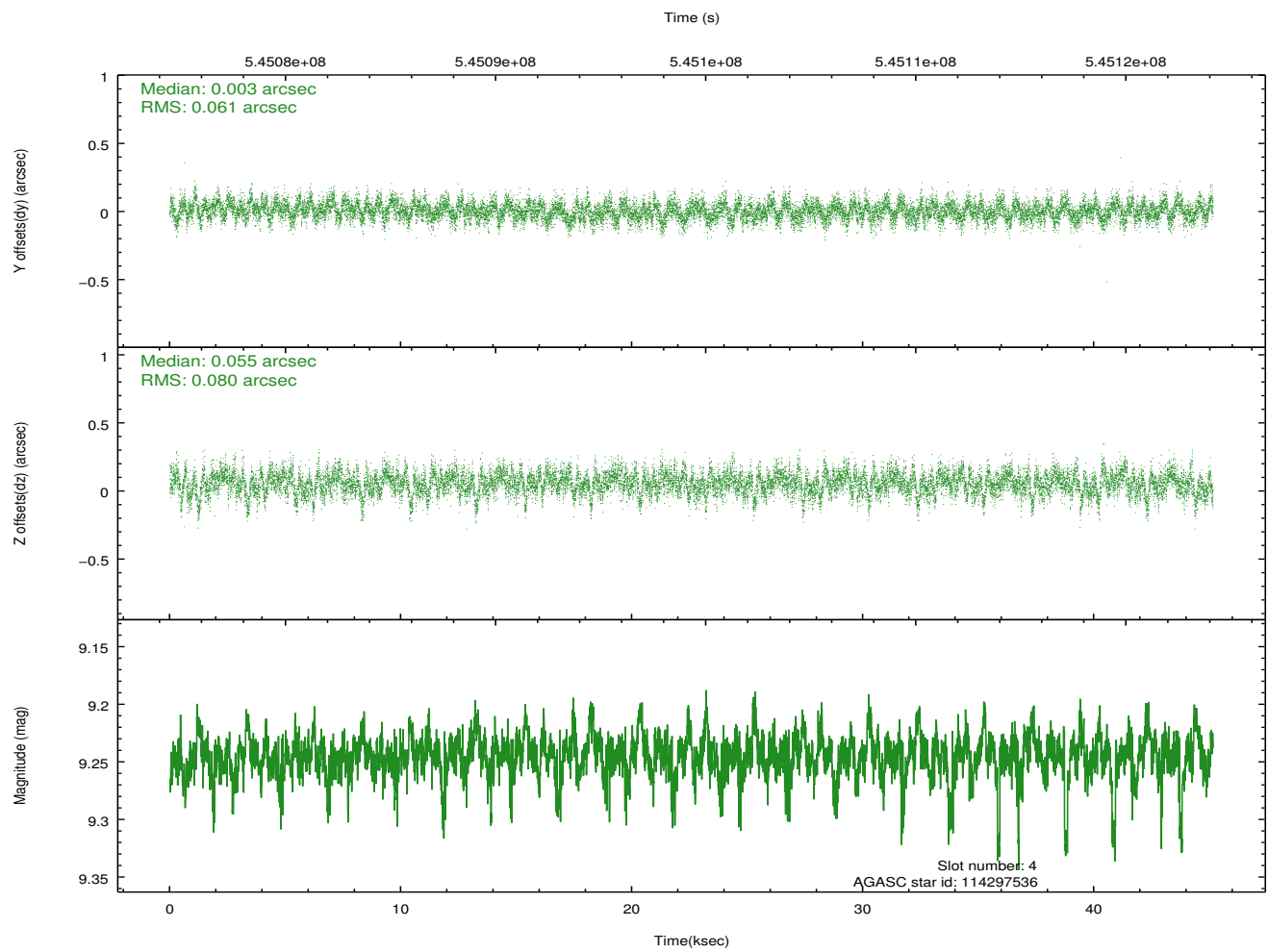
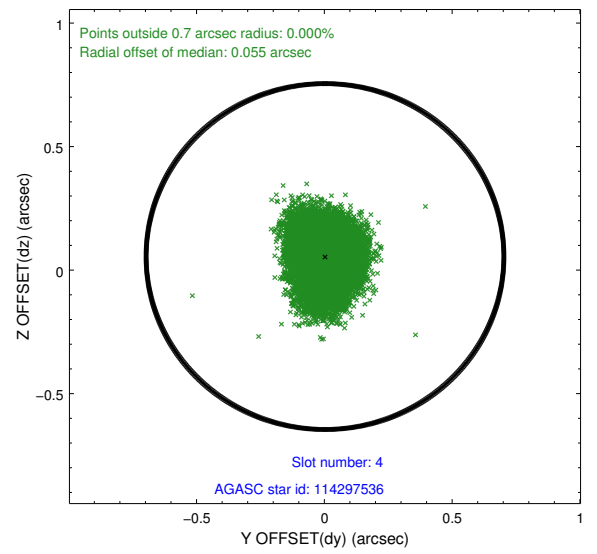
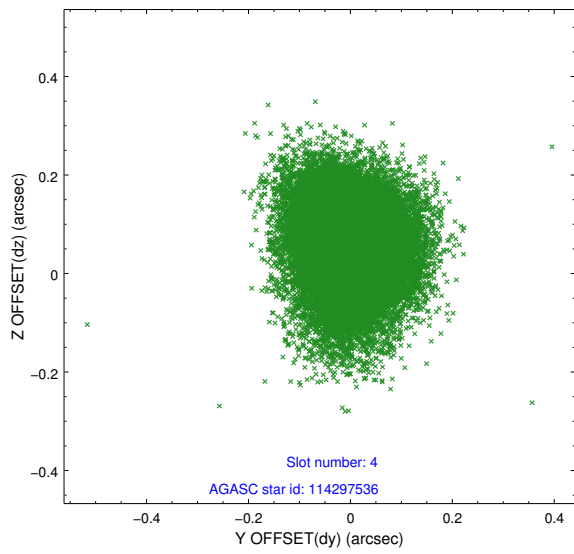
∞

2.4 Star Slots

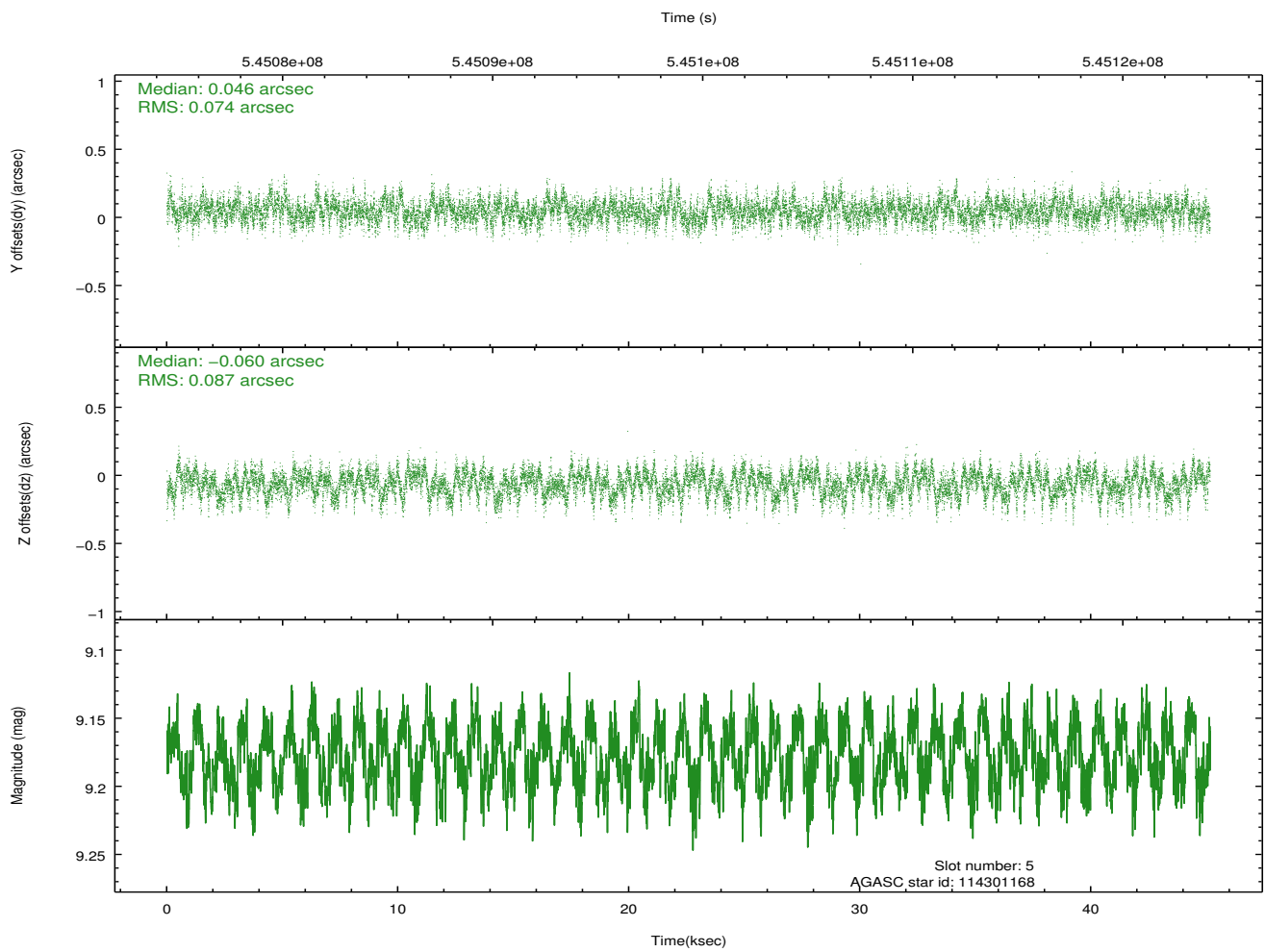
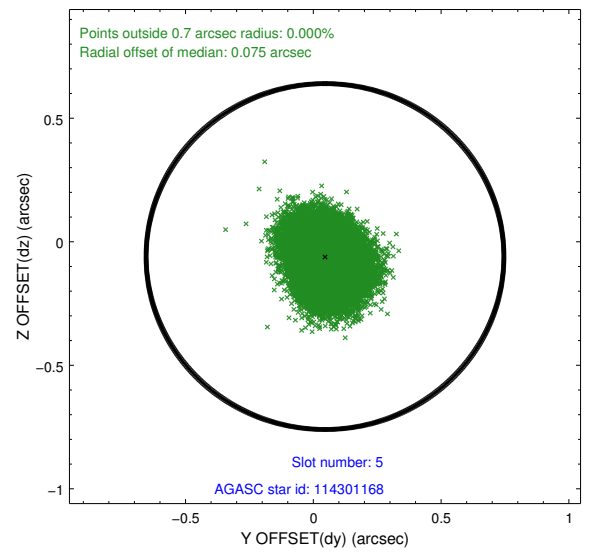
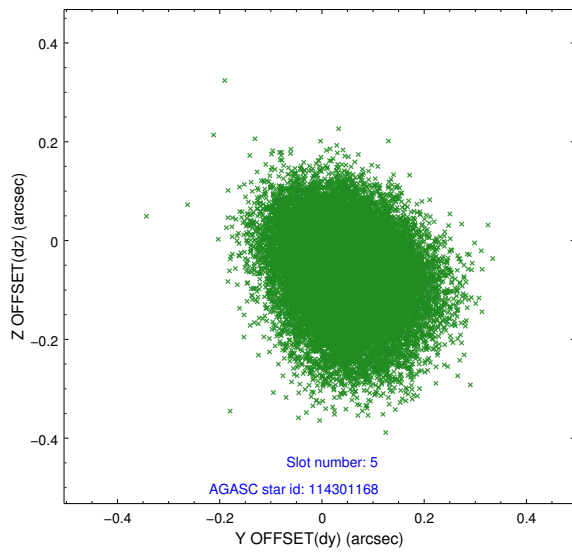
2.4.1 Slot 3



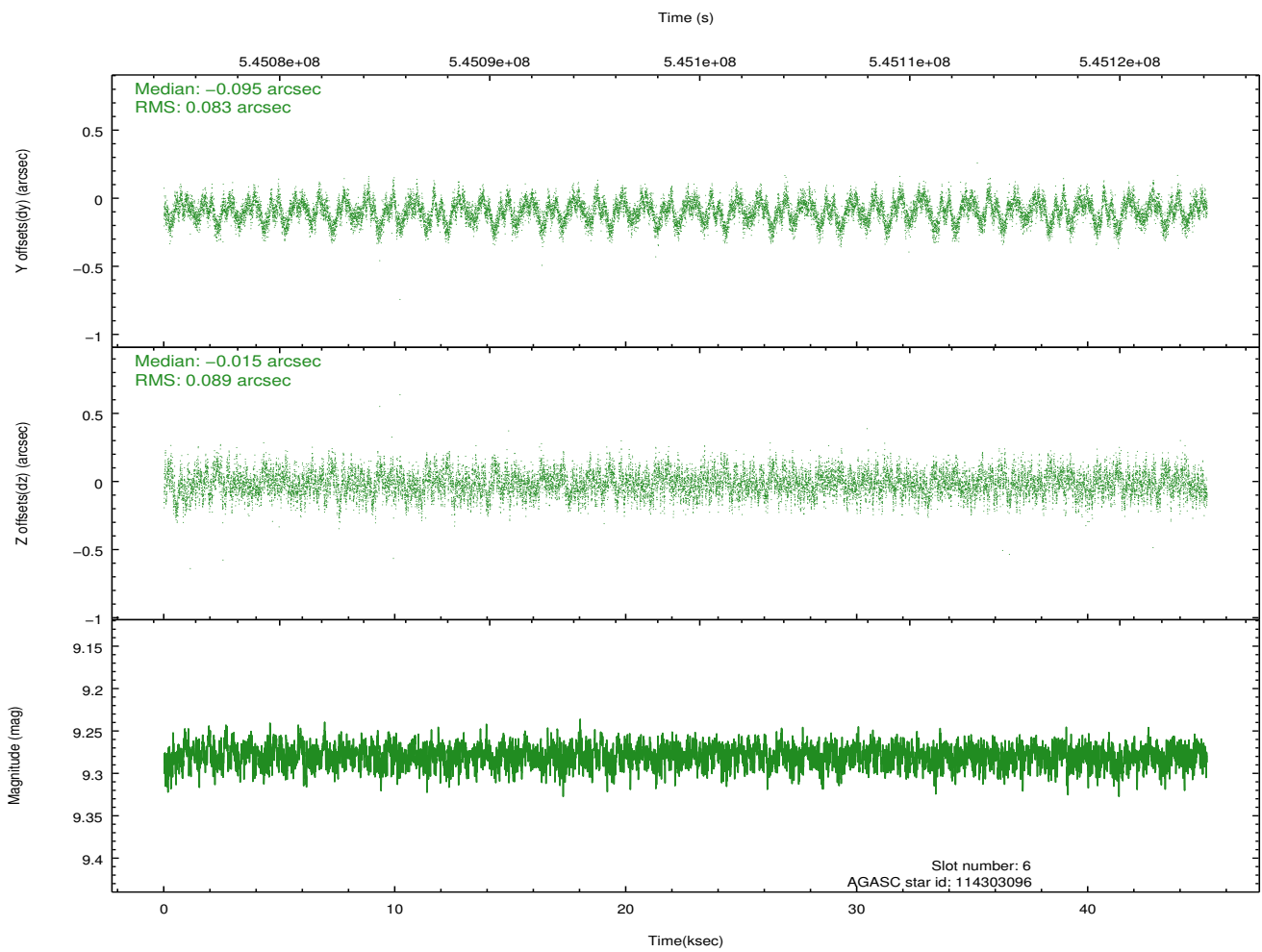
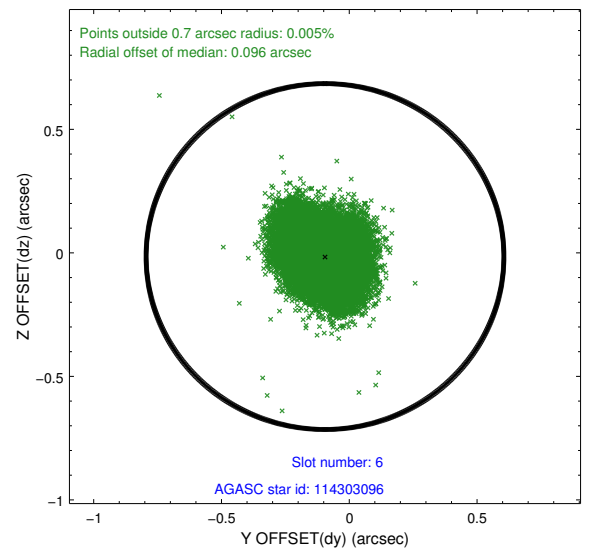
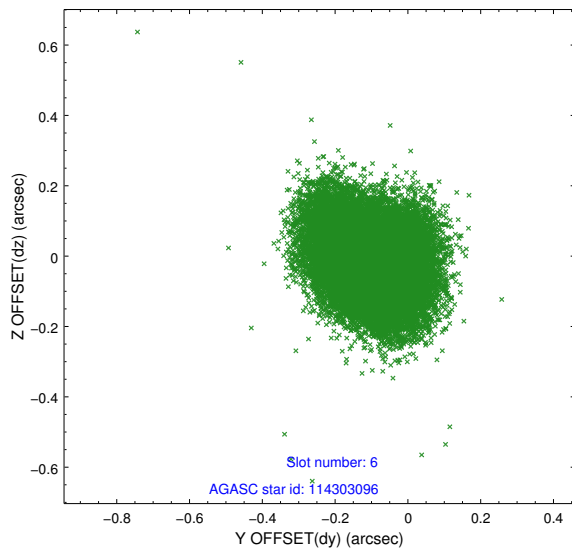
2.4.2 Slot 4



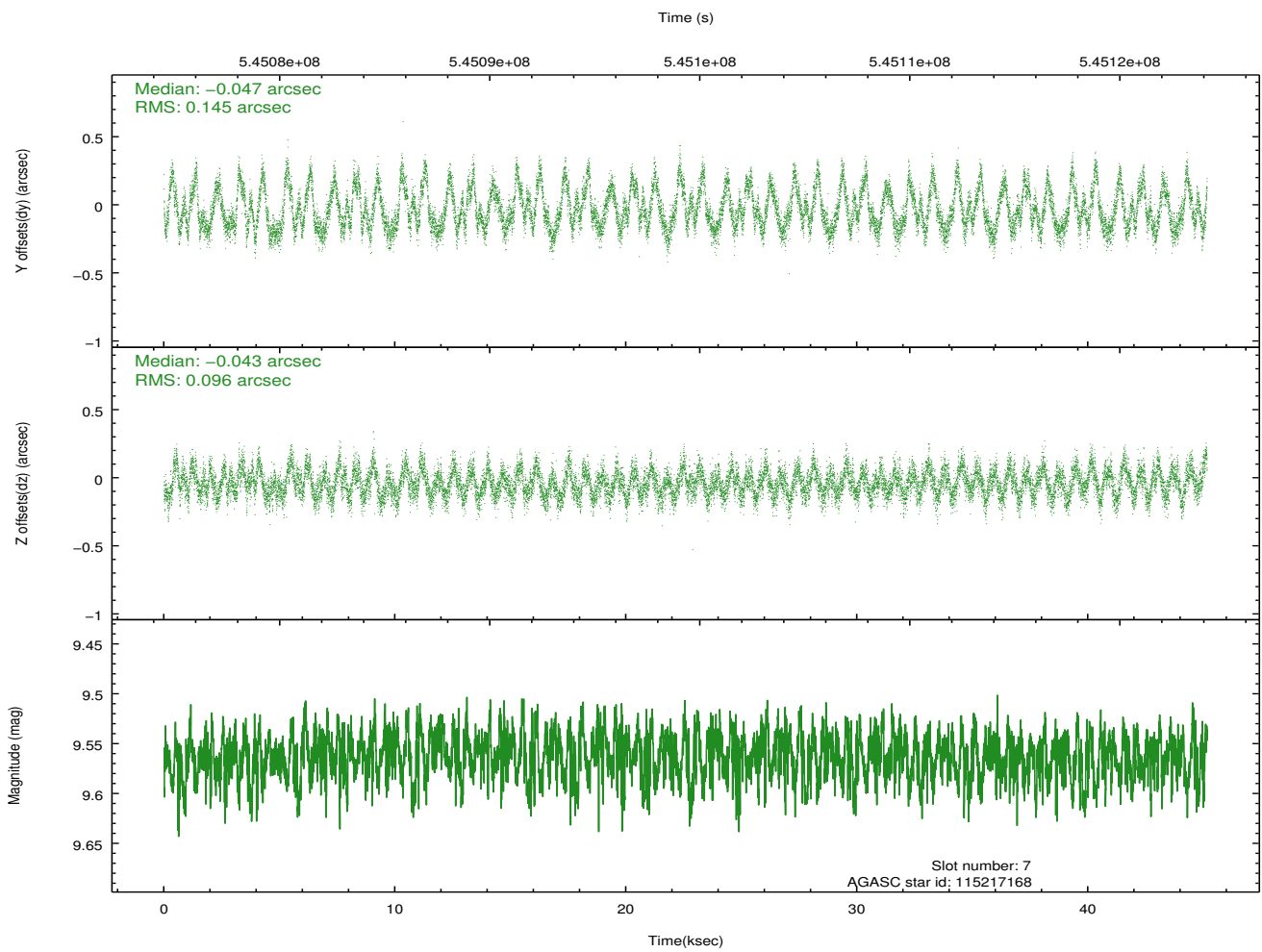
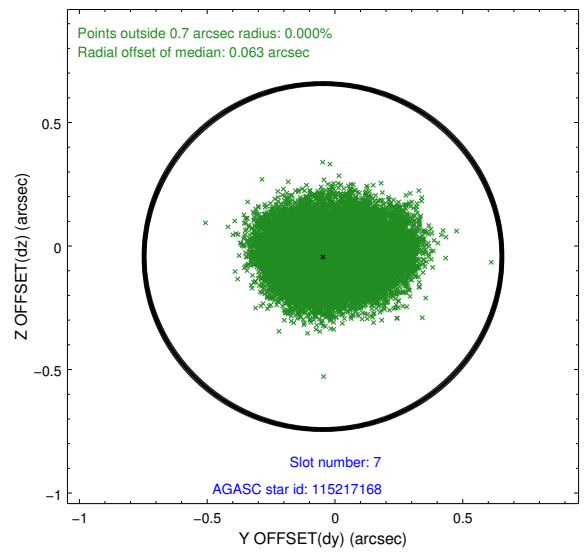
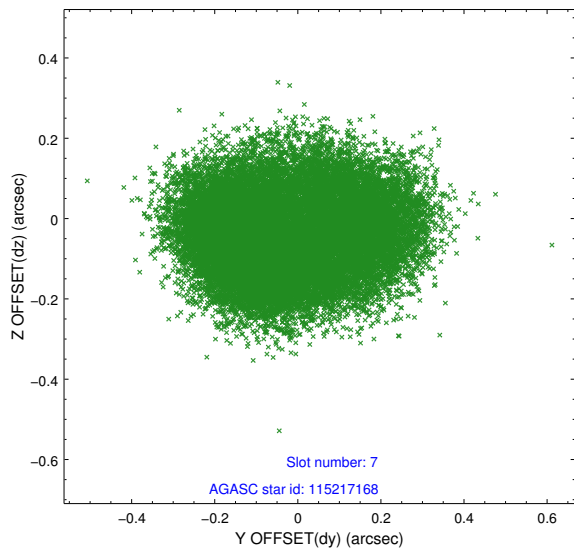
2.4.3 Slot 5



2.4.4 Slot 6

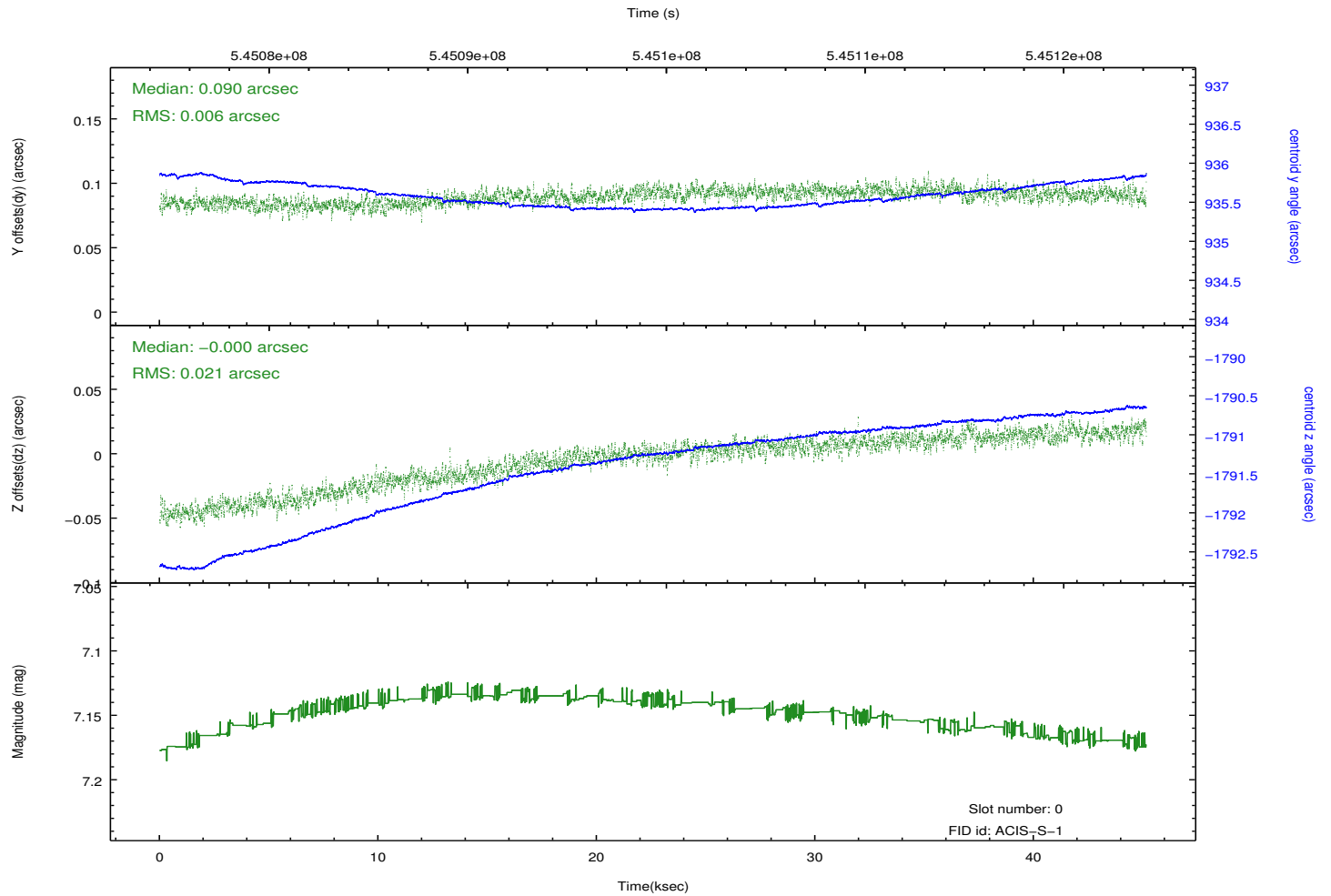
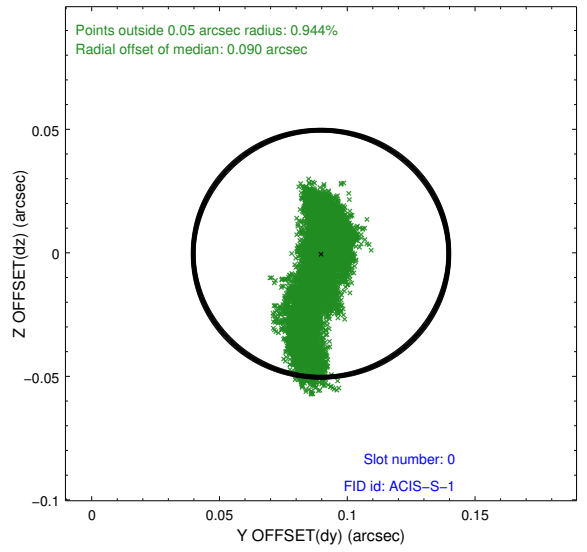
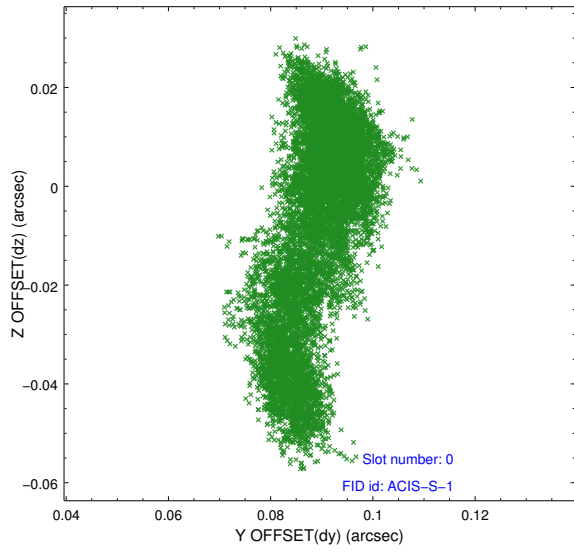


2.4.5 Slot 7

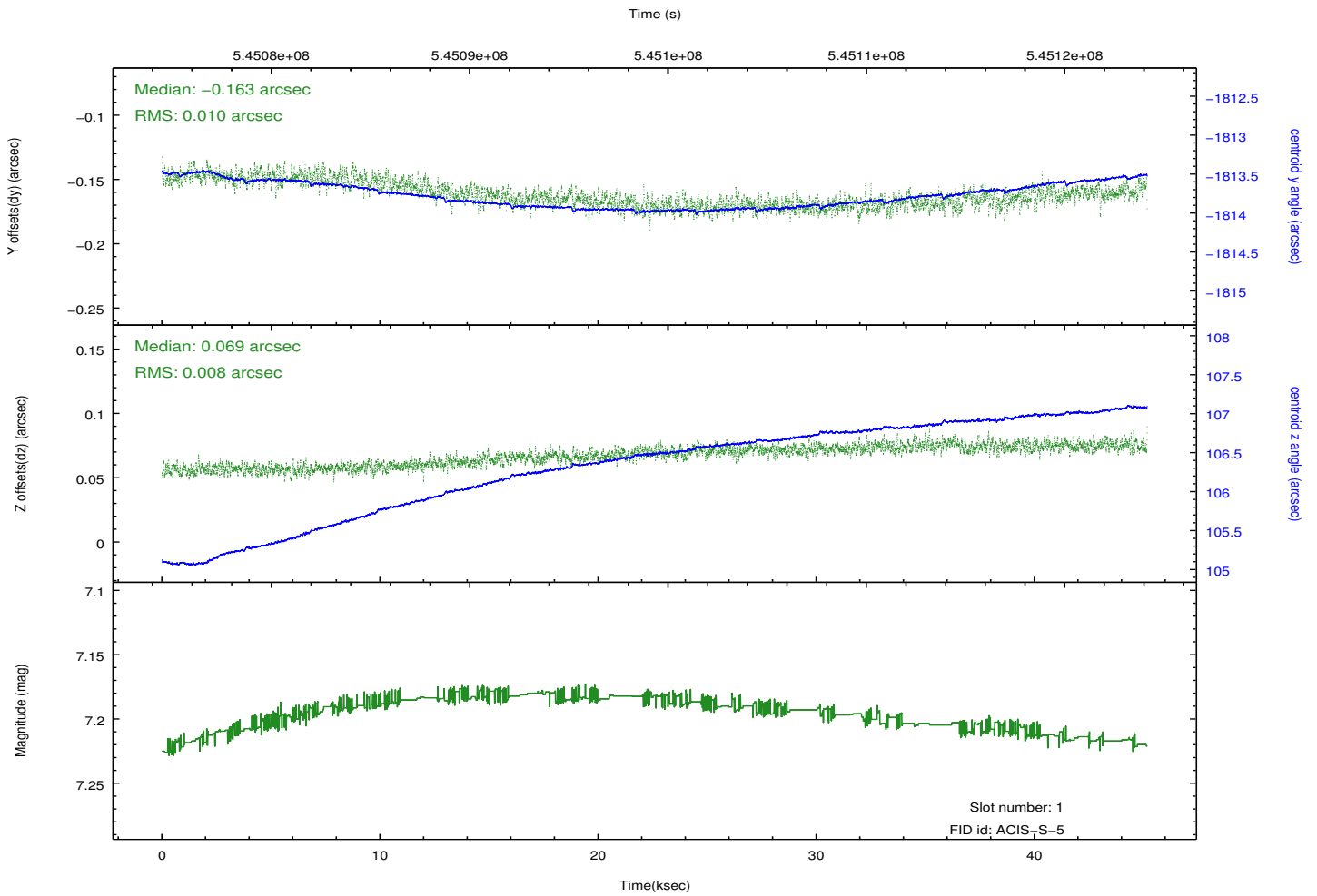
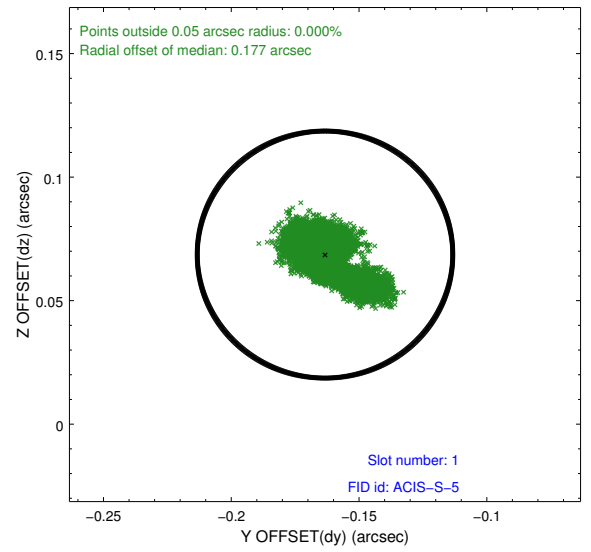
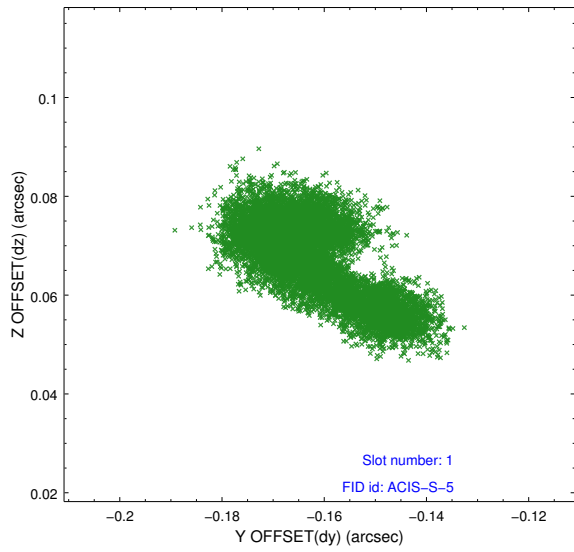


2.5 FID Slots

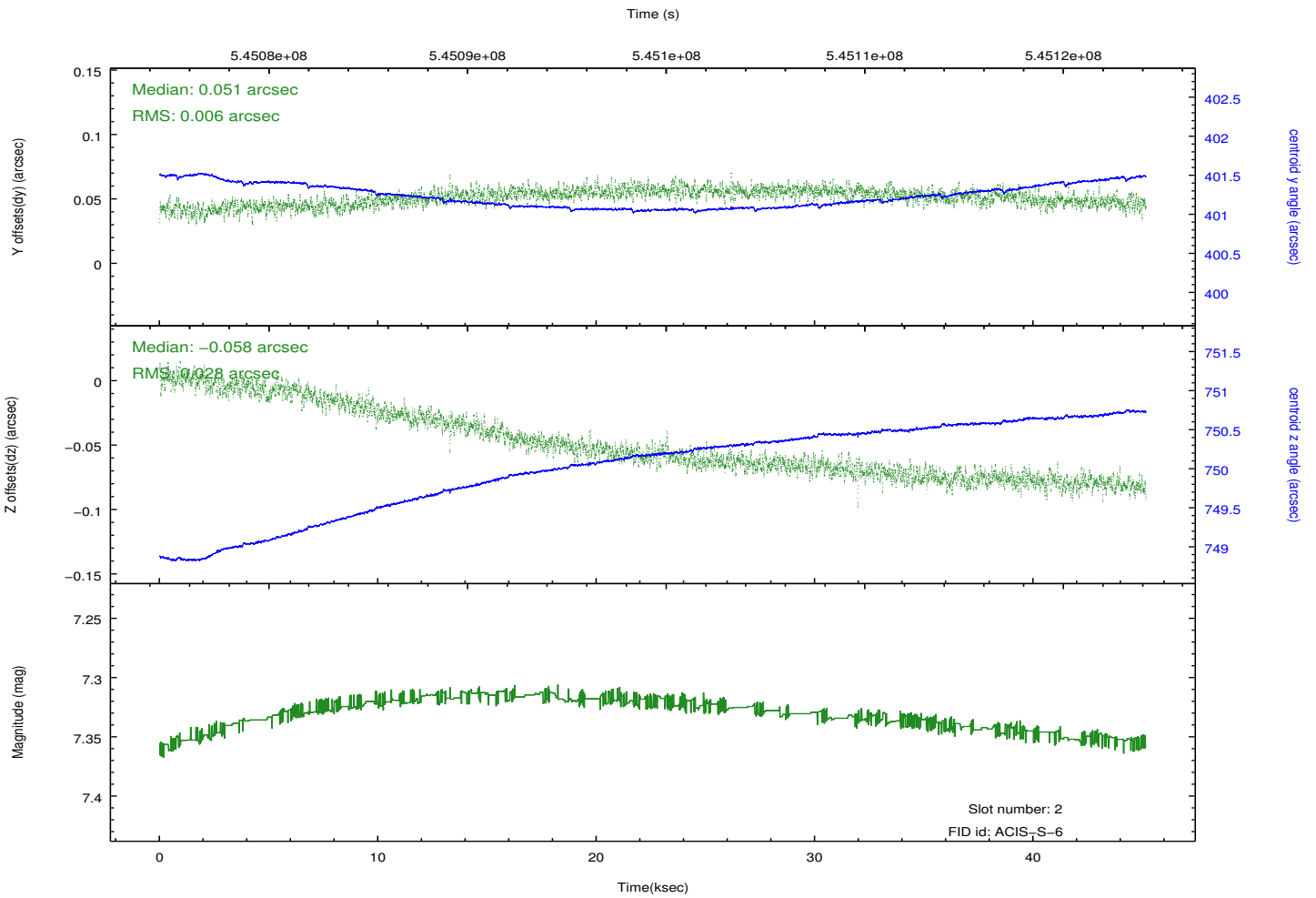
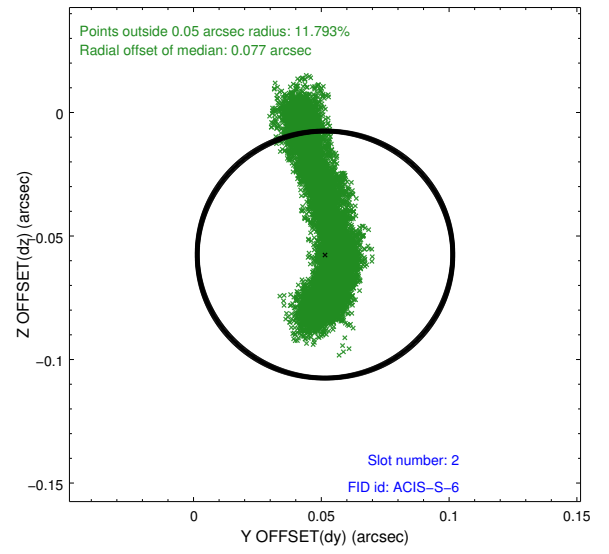
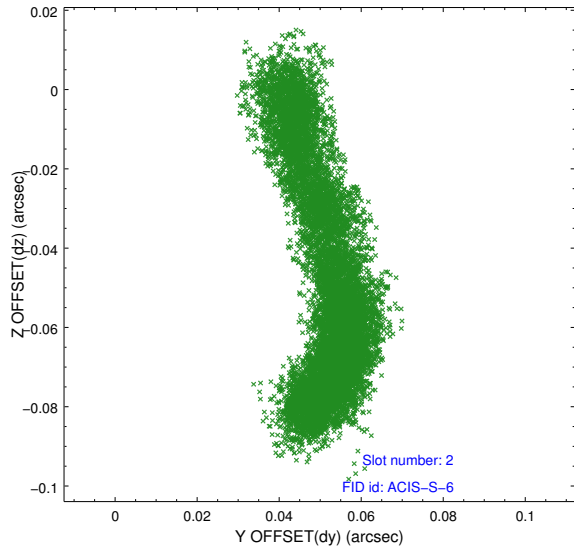
2.5.1 Slot 0



2.5.2 Slot 1

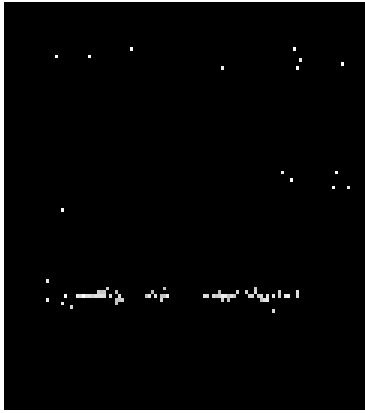


2.5.3 Slot 2

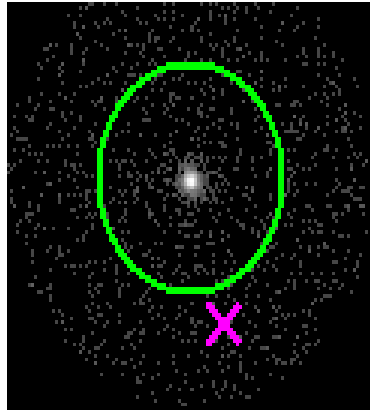


3 Gratings

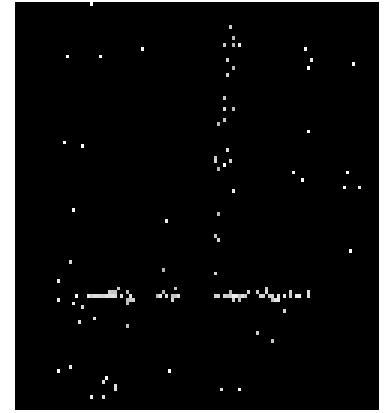
3.1 HEG Arm



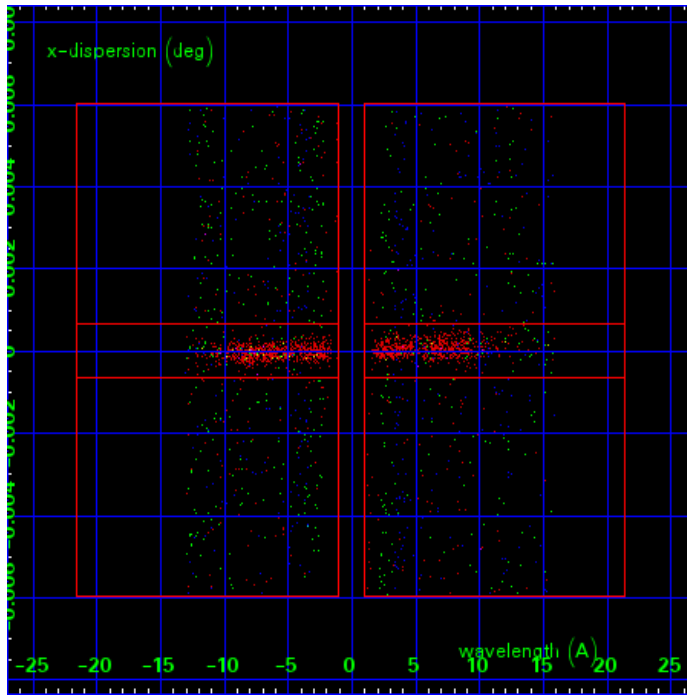
HEG Order Sort 123



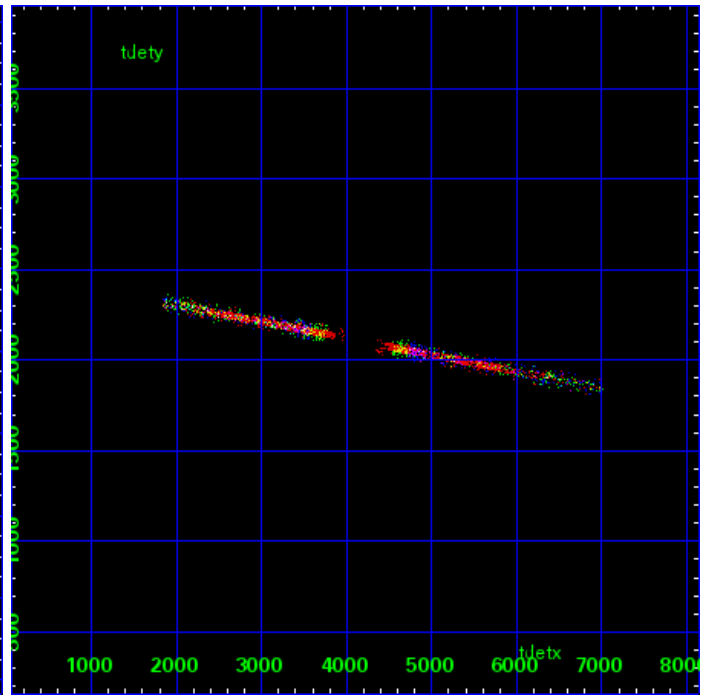
HEG Zero Order



HEG Order Sort ALL

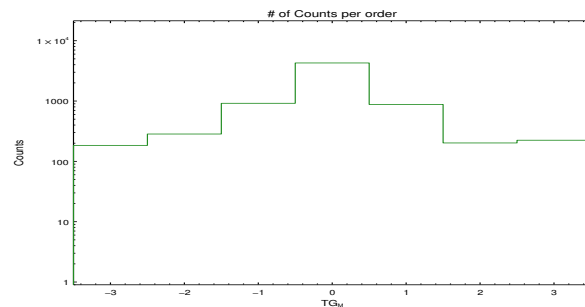


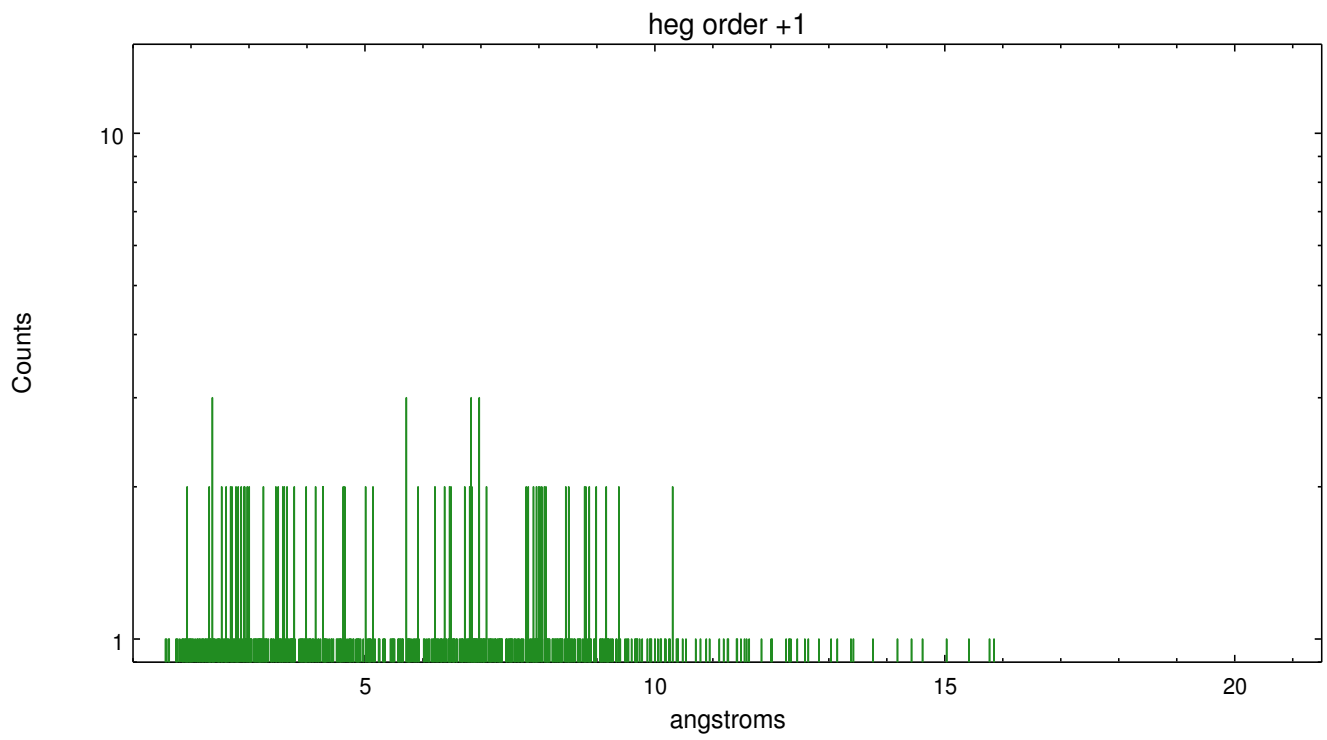
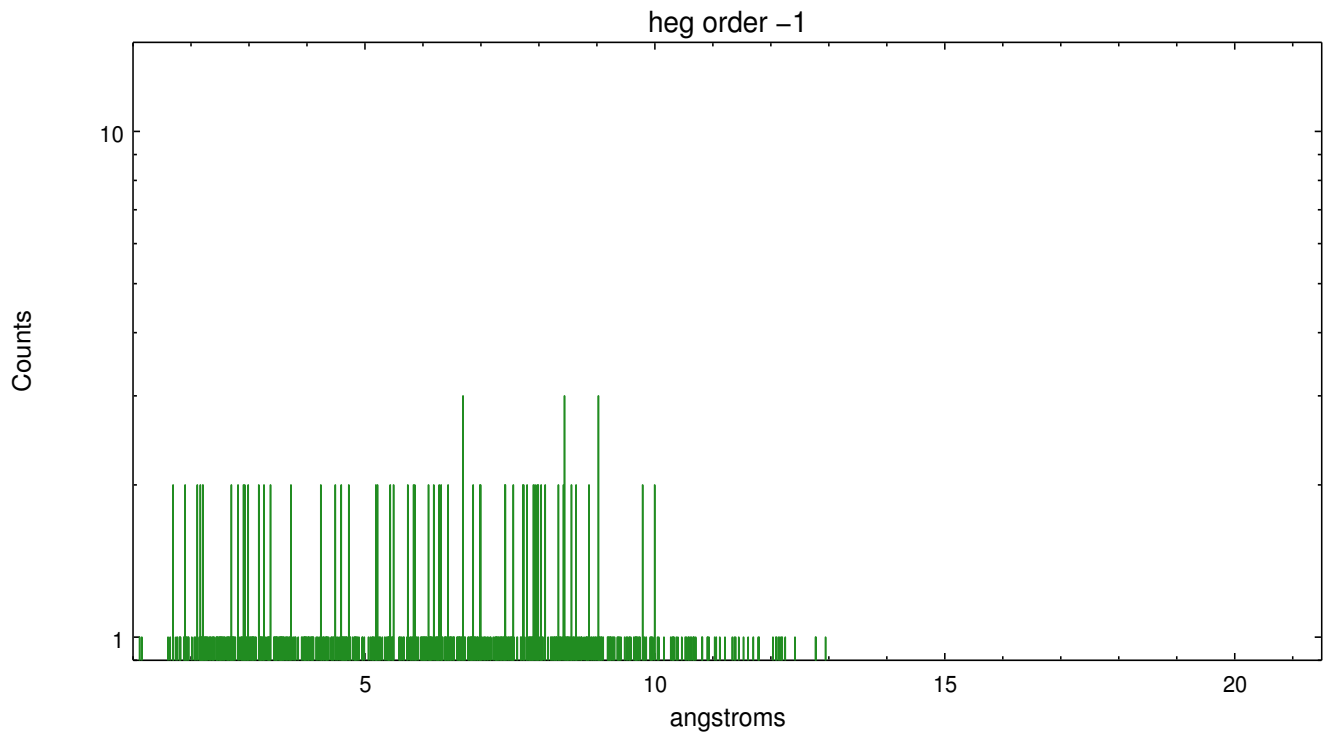
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	184	284	917	4278	878	202	224

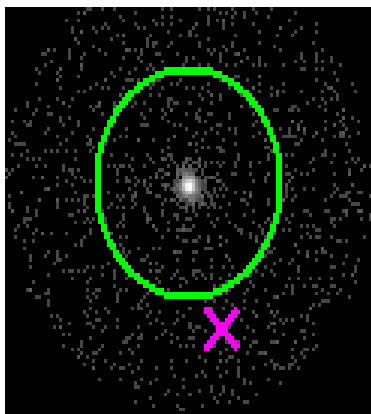




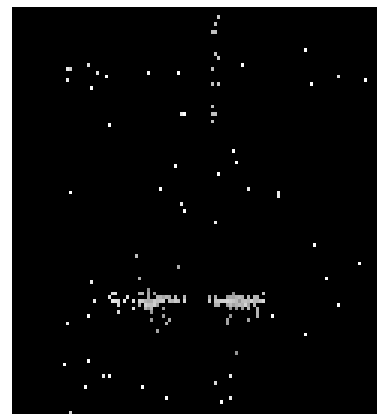
3.2 MEG Arm



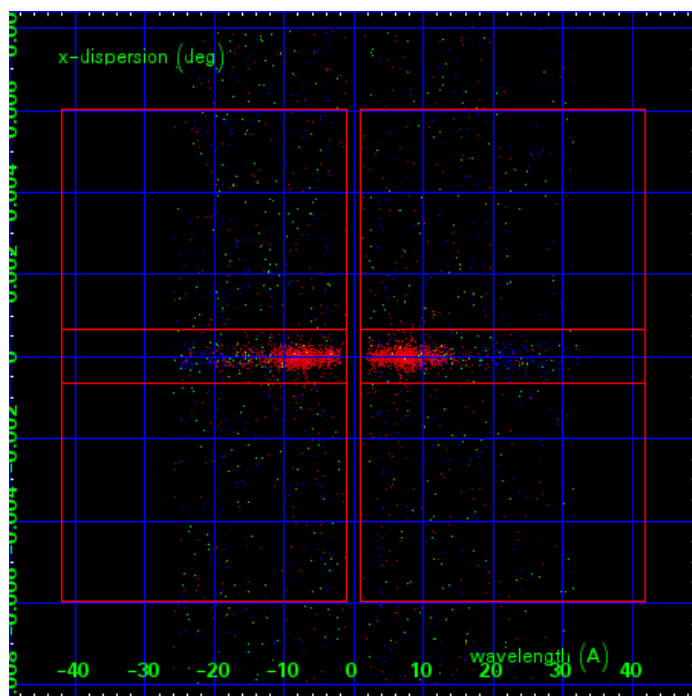
MEG Order Sort 123



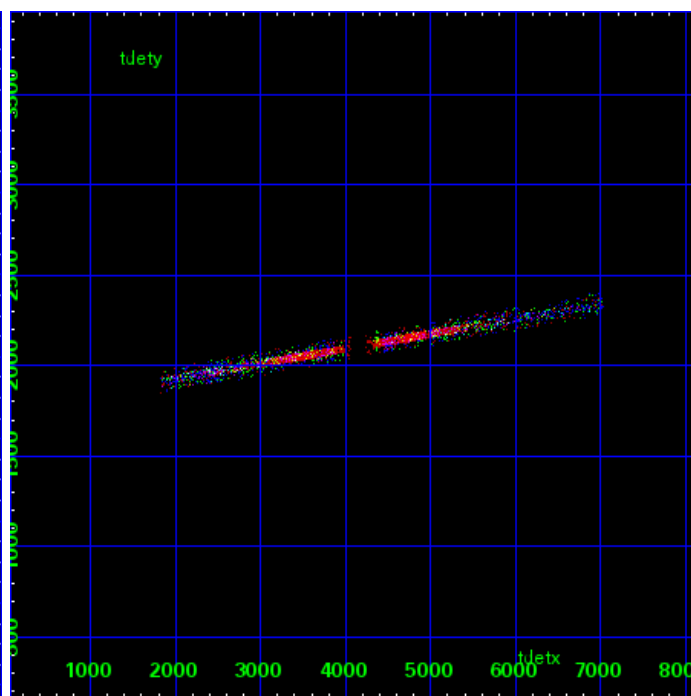
MEG Zero Order



MEG Order Sort ALL

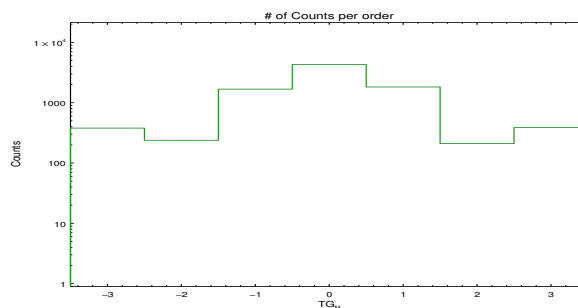


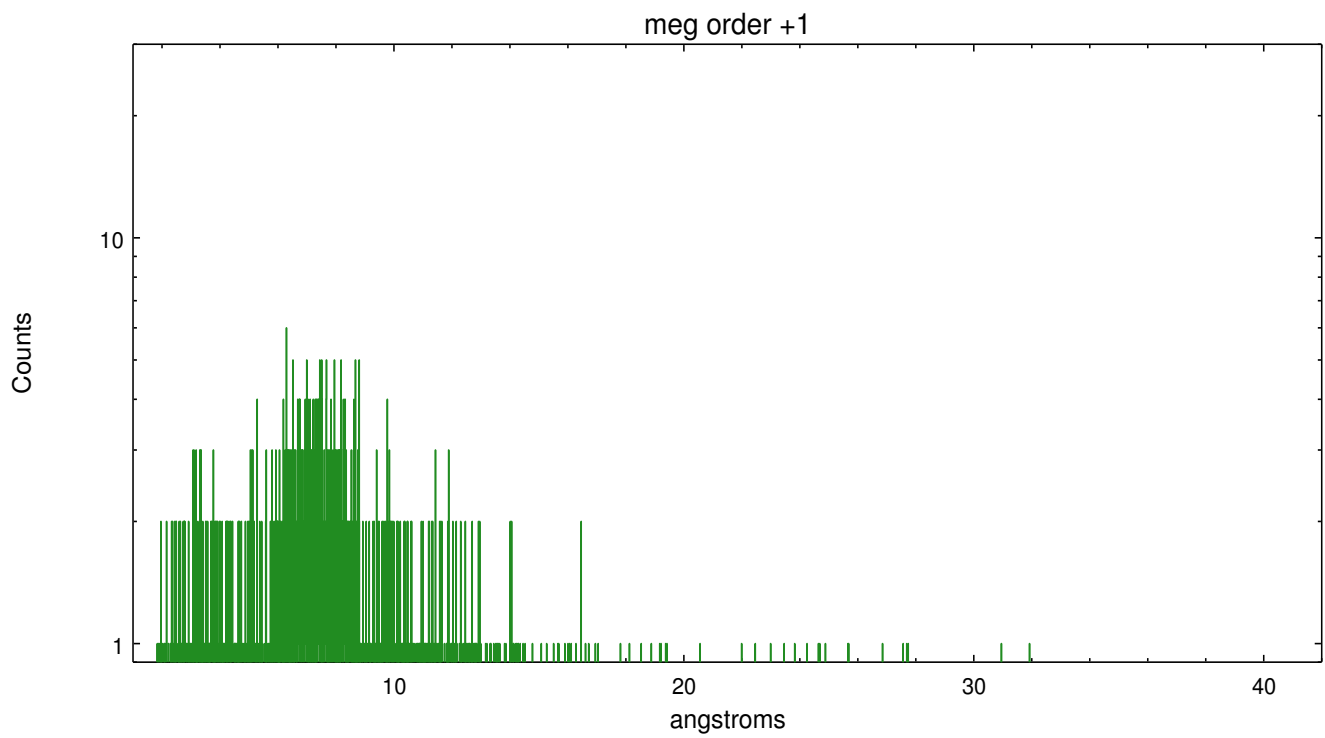
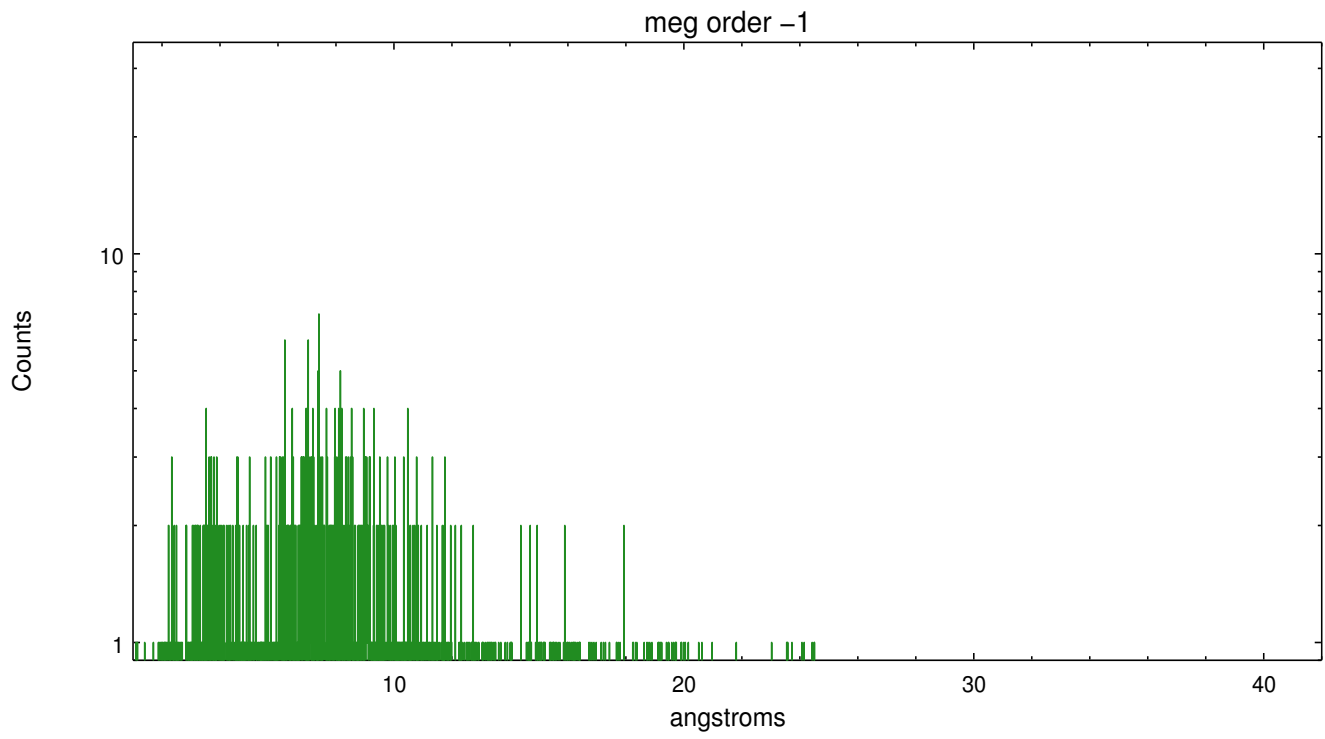
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	379	238	1676	4278	1820	210	388





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2015.04.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	45.086399551988

A.2 Comments