

V&V Reference Report

L2 ASCDS Version : 10.4

Observation 16738 - L2 Version 1
Chandra X-Ray Center

L2 Processing Date : Jun 12 2015

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1 Front

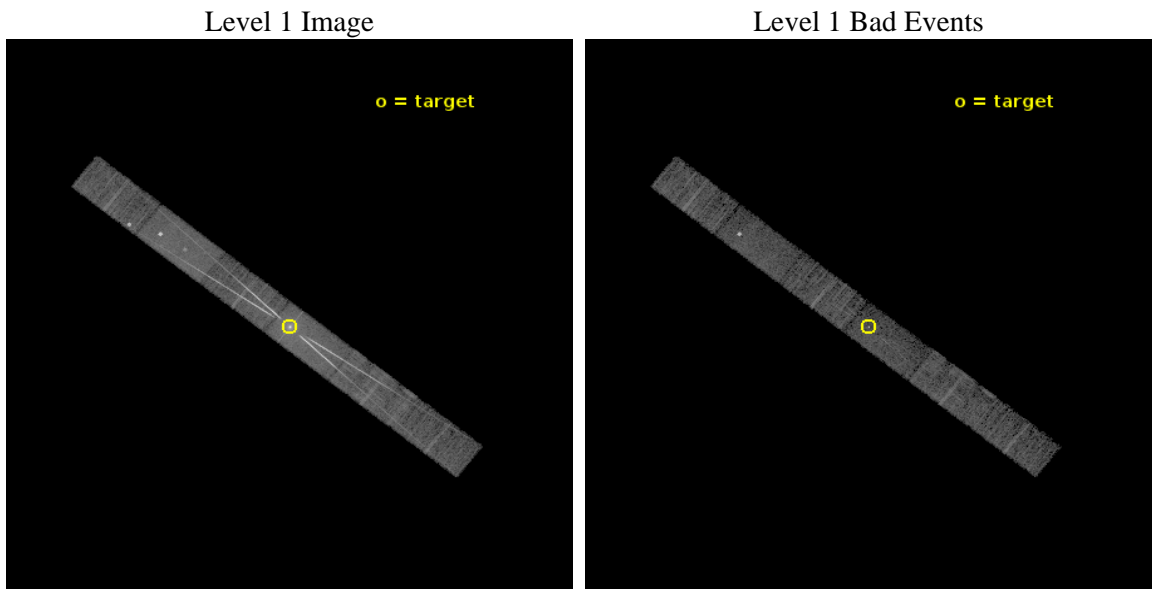
seq_num	401660	Sequence number
obs_id	16738	Observation id
title	An Integrated Approach to Winds, Jets, and State Transitions	Propo
observer	Dr. Joseph Neilsen	Principal investigator
object	H1743-322	Source name
dtycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	266.565042	Observer's specified target RA [deg]
dec_targ	-32.2335	Observer's specified target Dec [deg]
ra_nom	266.56647167615	Nominal RA [deg]
dec_nom	-32.228180440716	Nominal Dec [deg]
roll_nom	38.157424952717	Nominal Roll [deg]
revision	1	Processing version of data
ontime	9440.1002647877	Sum of GTIs [s]
livetime	9217.5771091641	Livetime [s]
ontime4	9440.1002647877	Sum of GTIs [s]
ontime5	9440.1002647877	Sum of GTIs [s]
ontime6	9440.0852395296	Sum of GTIs [s]
ontime7	9440.1002647877	Sum of GTIs [s]
ontime8	9440.0441994667	Sum of GTIs [s]
ontime9	9440.003159523	Sum of GTIs [s]
l2events	155311	Number of level 2 events



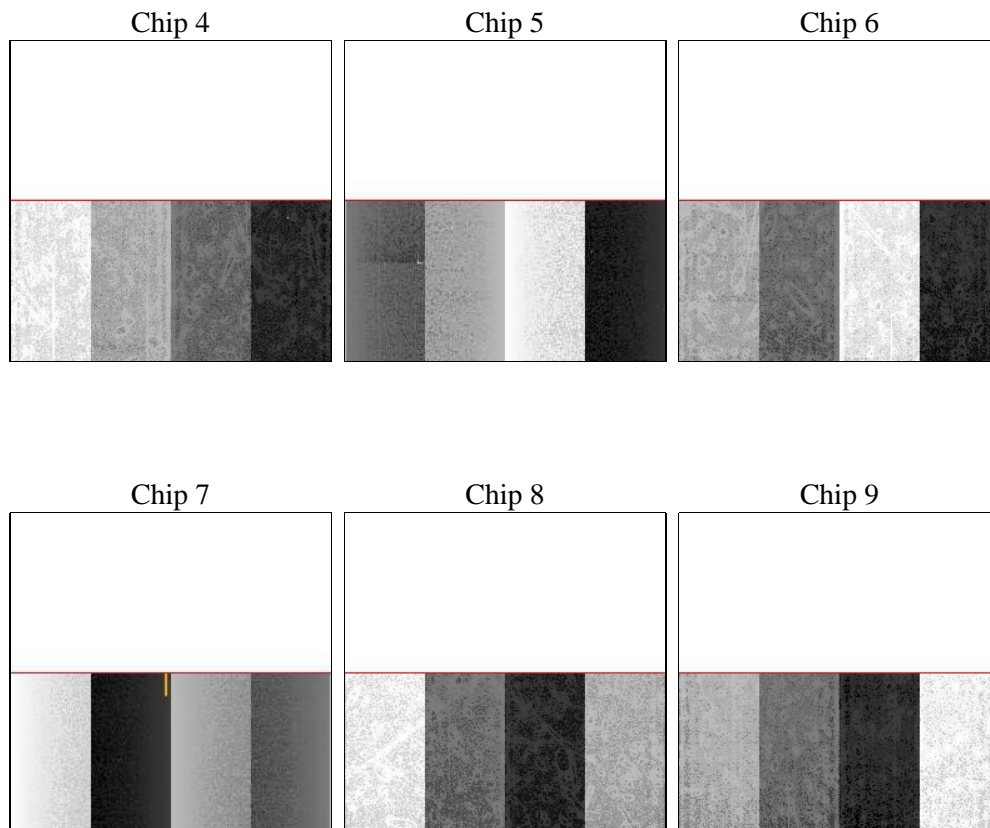
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	9400.000000	[s] Scheduled observation exposure time
ascdsver	10.4	Processing system revision	ontime	9440.1002647877	Sum of GTIs [s]
caldbver	4.6.7	 	ontime4	9440.1002647877	Sum of GTIs [s]
date	2015-06-12T04:44:50	Date and time of file creation	ontime5	9440.1002647877	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	9440.0852395296	Sum of GTIs [s]
			ontime7	9440.1002647877	Sum of GTIs [s]
			ontime8	9440.0441994667	Sum of GTIs [s]
			ontime9	9440.003159523	Sum of GTIs [s]
			l1events	312520	Number of level 1 events
			tgmetho	FINDZO	Method used to create src1a file
			ra_pos	(4105.67, 4057.52)	level 1 sky pixel position

2.1.4 Events

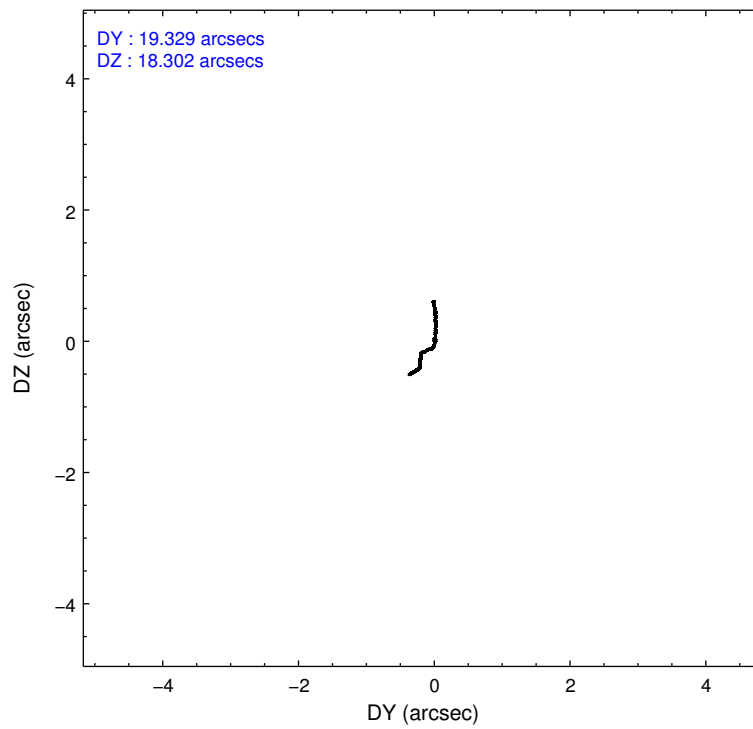
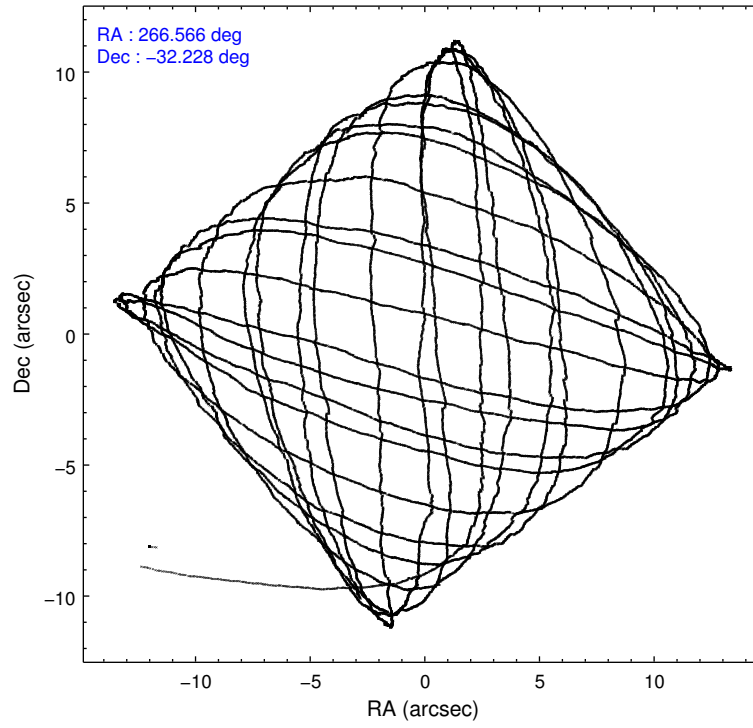
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	31686	50988	66401	92812	44286	26347
rejected events	24895	23878	23563	20506	25769	21013
rejected %	78%	46%	35%	22%	58%	79%

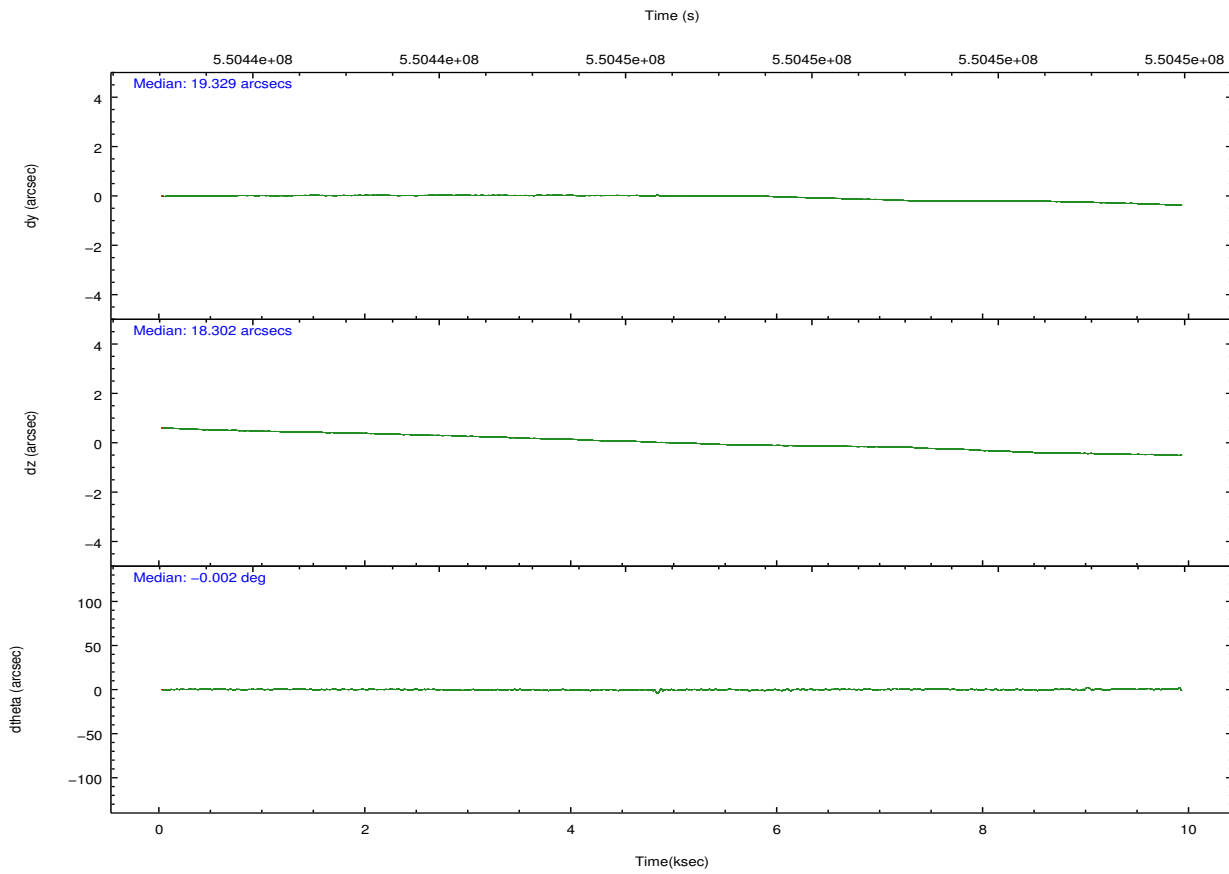
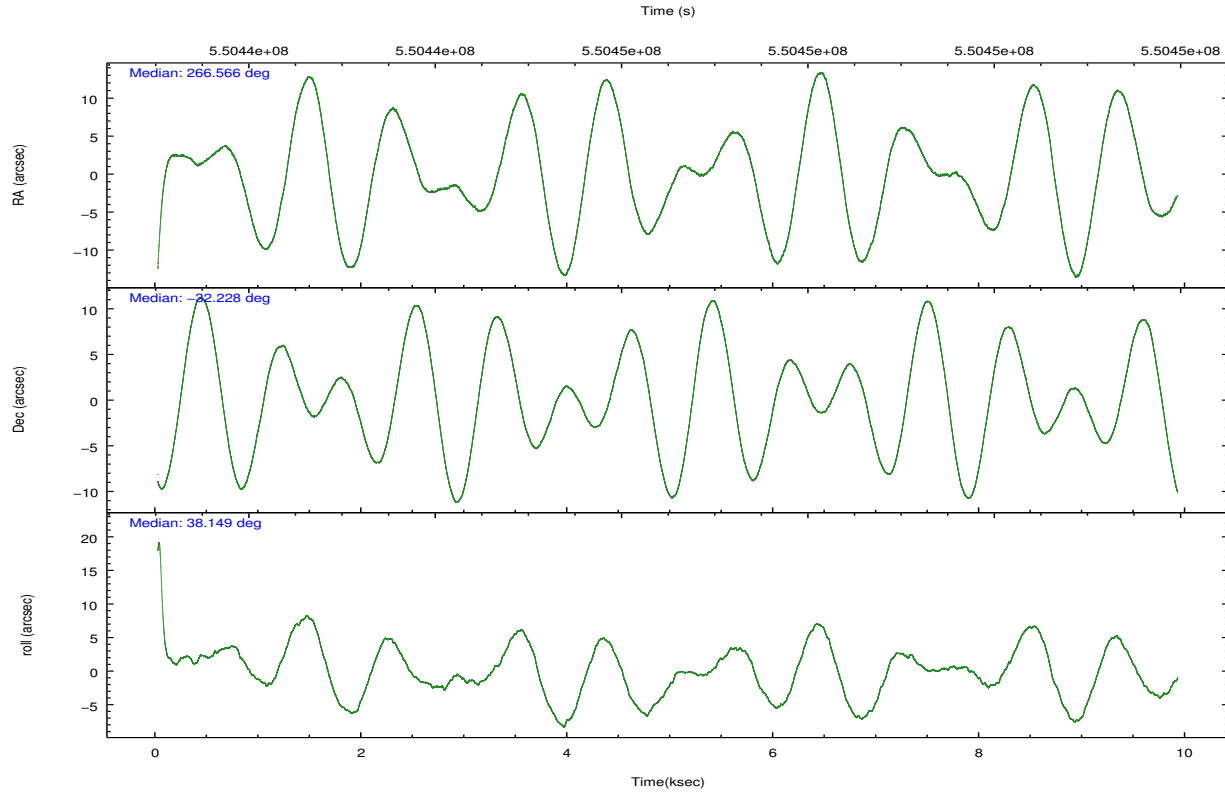
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	4352	3757	29660	13002	9827	2598
	13%	7%	44%	14%	22%	9%
grade 1 events	35	185	138	193	51	10
	0%	0%	0%	0%	0%	0%
grade 2 events	999	9167	5959	17119	3163	1034
	3%	17%	8%	18%	7%	3%
grade 3 events	435	1404	2106	7604	1405	457
	1%	2%	3%	8%	3%	1%
grade 4 events	383	1384	2039	7359	1281	430
	1%	2%	3%	7%	2%	1%
grade 5 events	1235	4620	1377	4293	1741	1315
	3%	9%	2%	4%	3%	4%
grade 6 events	625	11409	3093	27253	2849	817
	1%	22%	4%	29%	6%	3%
grade 7 events	23622	19062	22029	15989	23969	19686
	74%	37%	33%	17%	54%	74%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-456789	ACIS-456789	Obspar file type	PREDICTED	ACTUAL
Grating	HETG	HETG	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	266.554794	266.566471676149	CCD I2 on	N	N
[deg] Pointing Dec	-32.253799	-32.2281804407157	CCD I3 on	N	N
[deg] Pointing Roll	37.994533	38.15742495271734	CCD S0 on	O1	Y
[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	-183.992523	-183.985022191653	CCD S3 on	Y	Y
[mm] SIM translation stage offset	-6.14	-6.147500391354811	CCD S4 on	Y	Y
[s] Observation start time (MET)	550442069.184000	550440298.50956	CCD S5 on	O2	Y
Observation start date	2015-06-11T20:33:22	2015-06-11T20:04:58	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	550451469.184000	550452485.24774	On-chip summing requested	N	N
Observation end date	2015-06-11T23:10:02	2015-06-11T23:28:05	Subarray requested	CUSTOM	1/2
Read mode	TIMED	TIMED	Subarray start row	1	1
			Subarray row count	512	512
			Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	1.7

2.3 Aspect





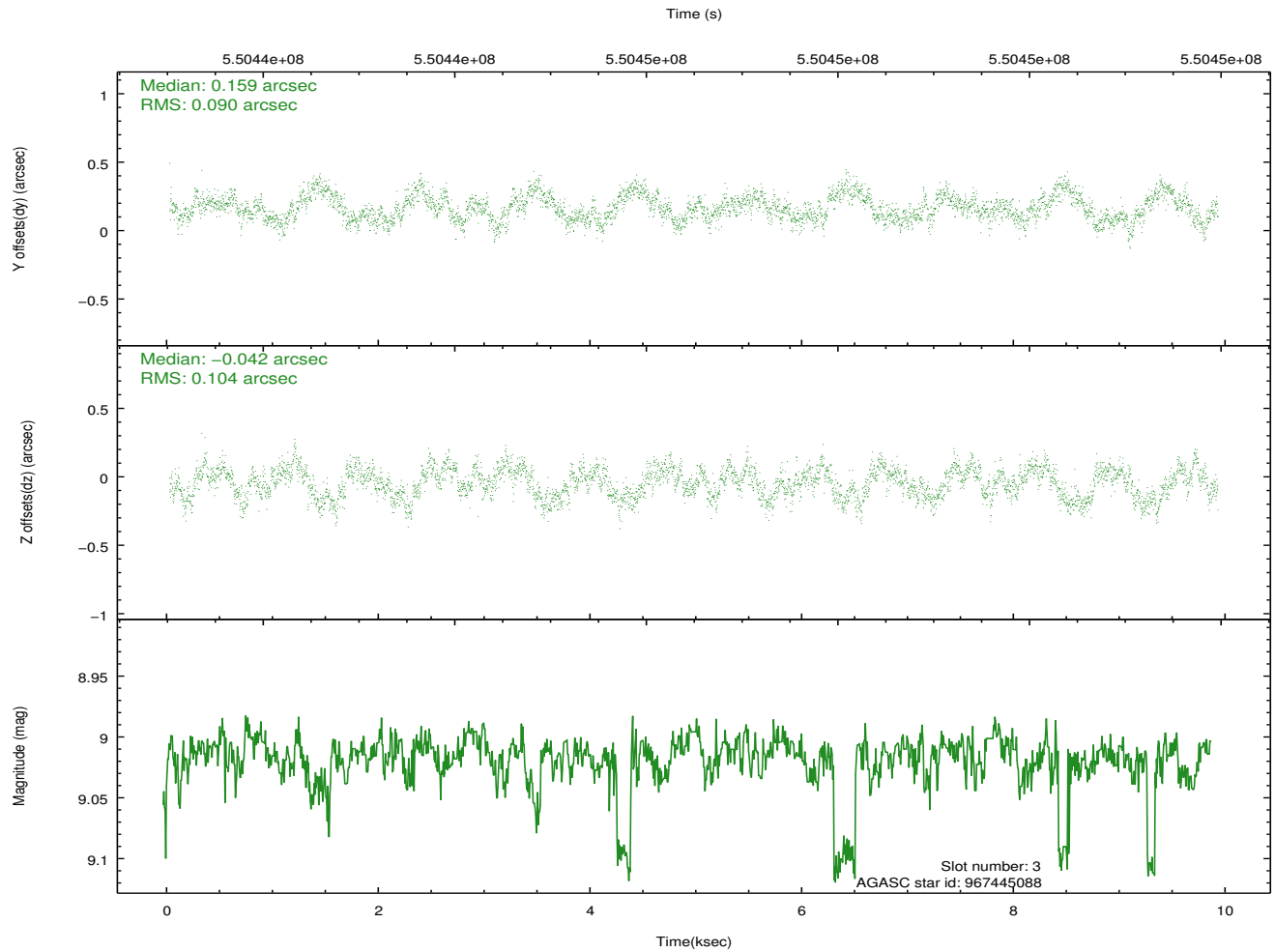
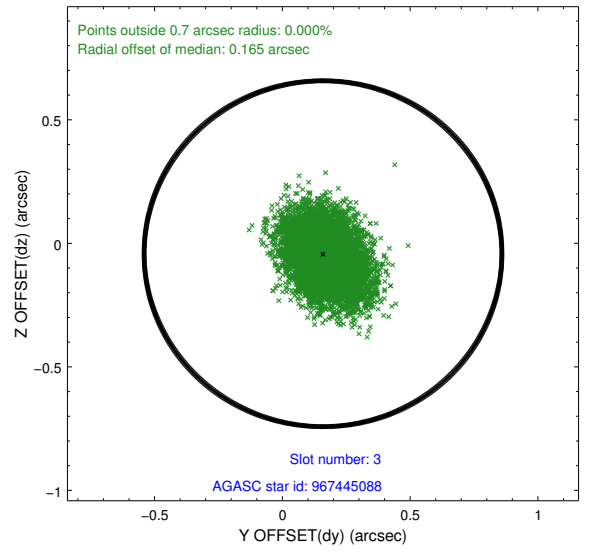
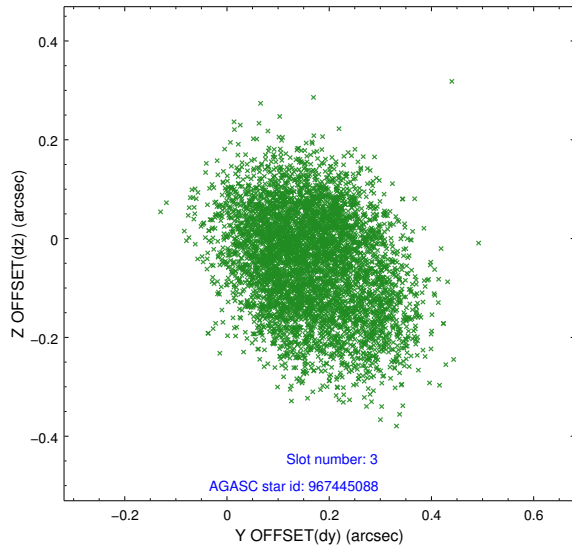
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.87	2416	-0.223	-0.124	0.011	0.020	0.000000	0.000000	-772.19	-1866.60
1	FID		ACIS-S-4	6.97	2416	0.220	0.150	0.007	0.012	0.000000	0.000000	2141.34	41.43
2	FID		ACIS-S-6	7.16	2416	-0.025	-0.020	0.013	0.022	0.000000	0.000000	390.76	679.33
3	GUIDE	used	967445088	9.02	4829	0.159	-0.042	0.148	0.233	265.761342	-32.072953	-1511.95	1995.68
4	GUIDE	used	967446352	7.75	4830	0.045	0.277	0.105	0.178	267.069988	-32.671157	302.76	-2147.48
5	GUIDE	used	967450832	9.10	4829	-0.017	0.000	0.162	0.242	266.078096	-31.879979	-321.95	1954.70
6	GUIDE	used	966926896	9.15	4828	-0.340	-0.444	0.126	0.203	266.197771	-31.663459	444.56	2346.98
7	GUIDE	used	967448136	8.80	4831	0.143	0.224	0.092	0.148	265.900071	-32.546602	-2217.95	388.13

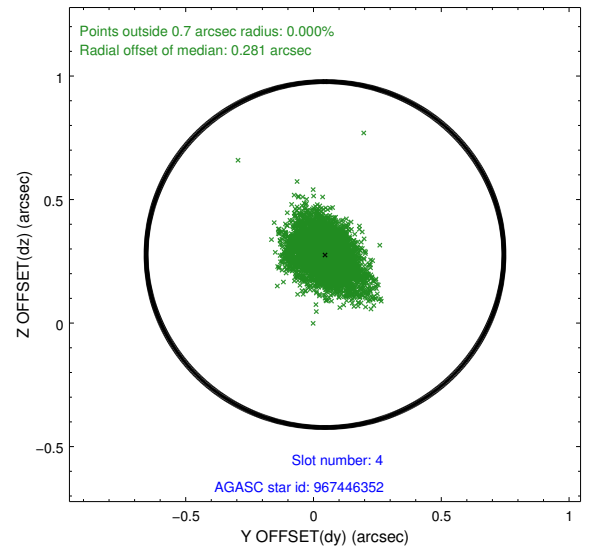
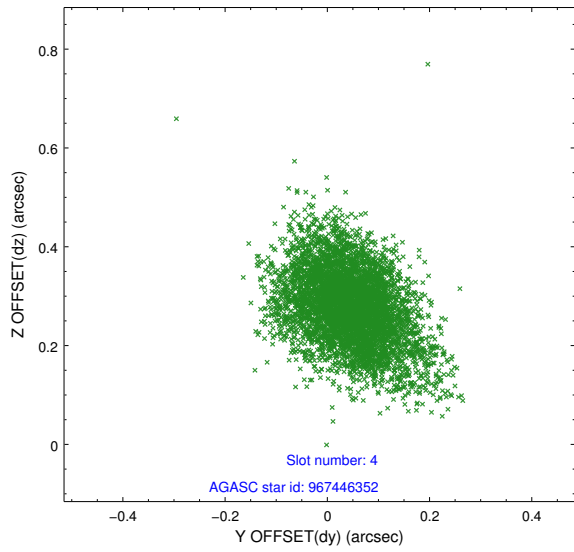
∞

2.4 Star Slots

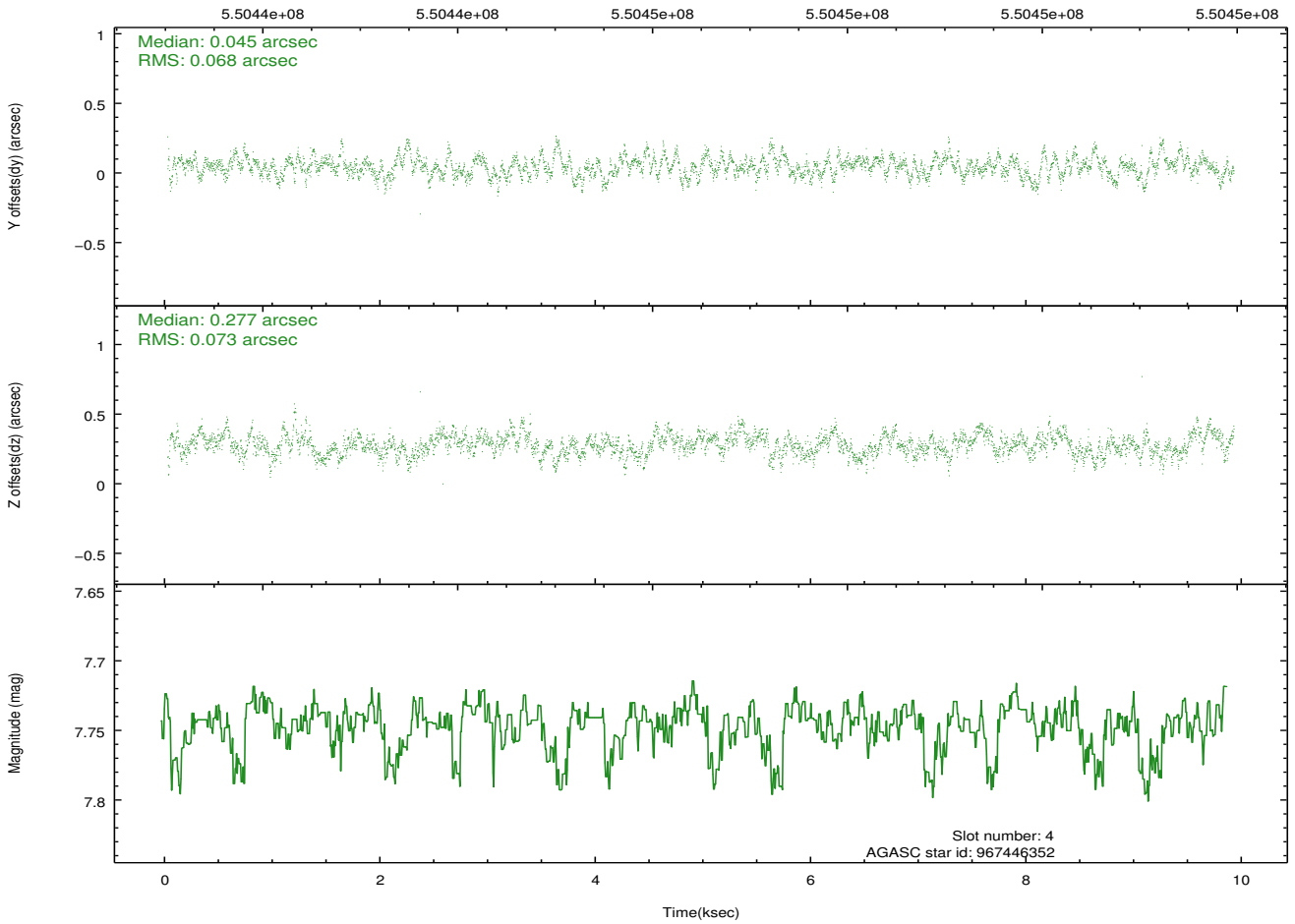
2.4.1 Slot 3



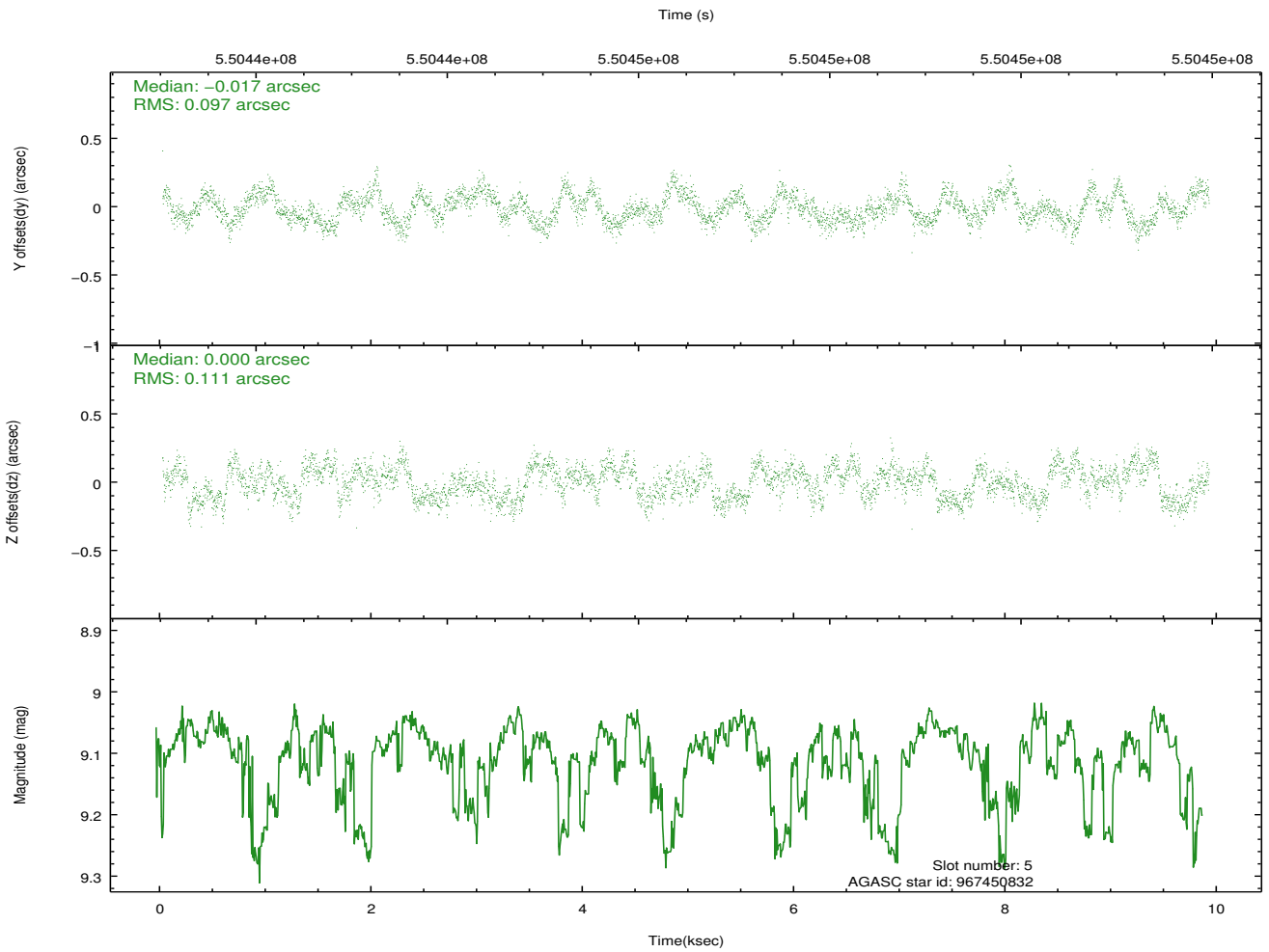
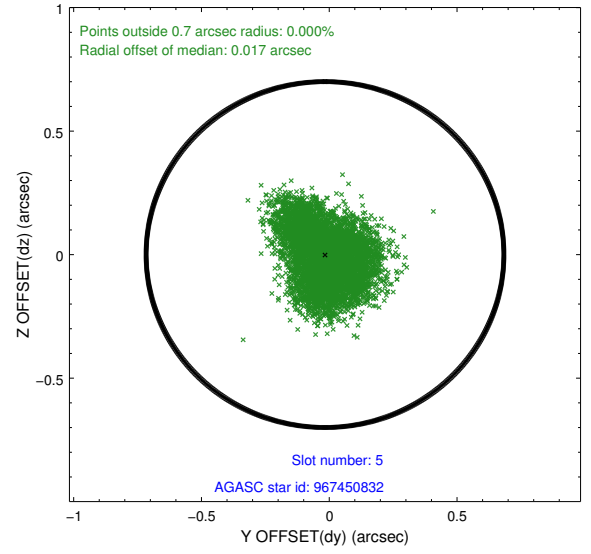
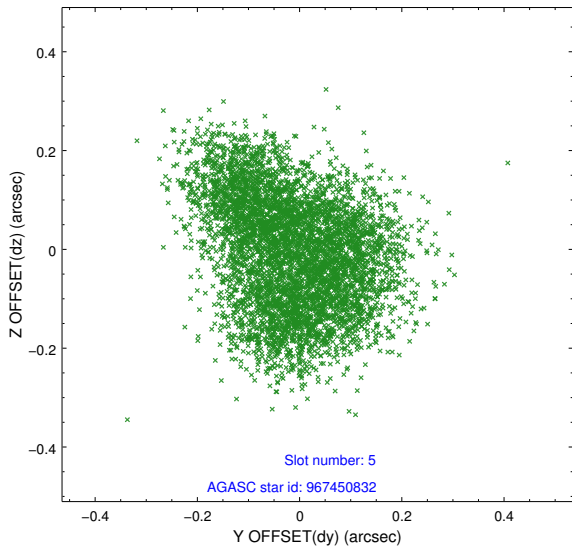
2.4.2 Slot 4



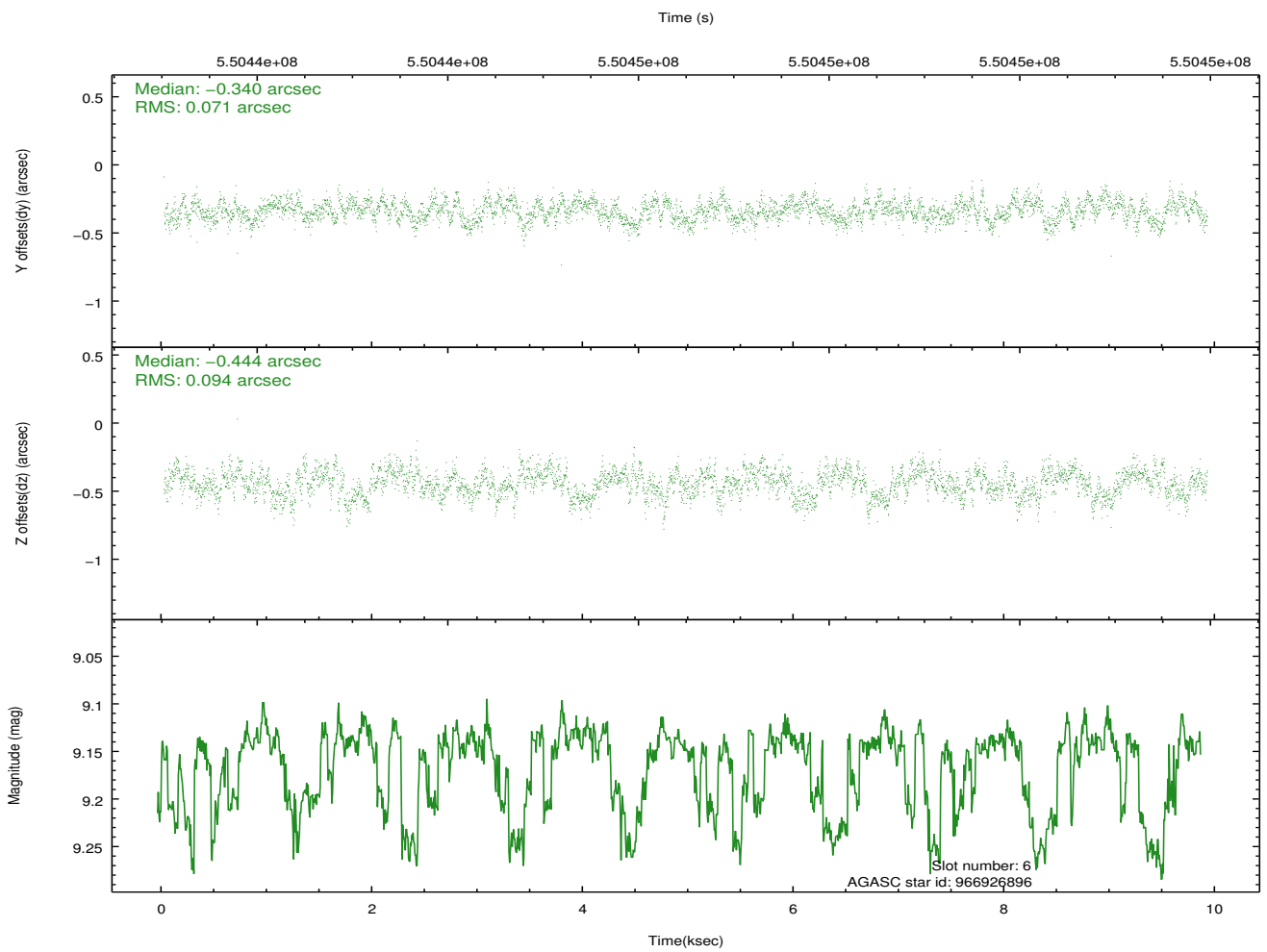
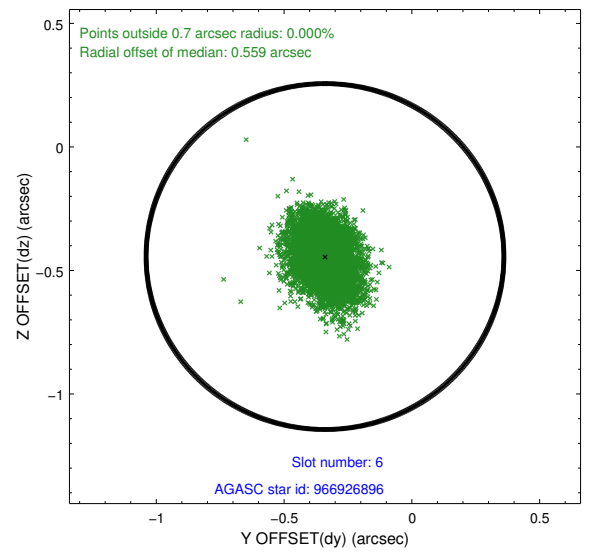
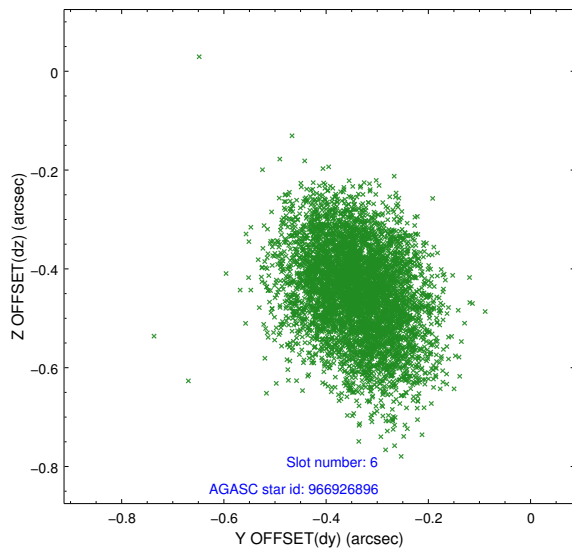
Time (s)



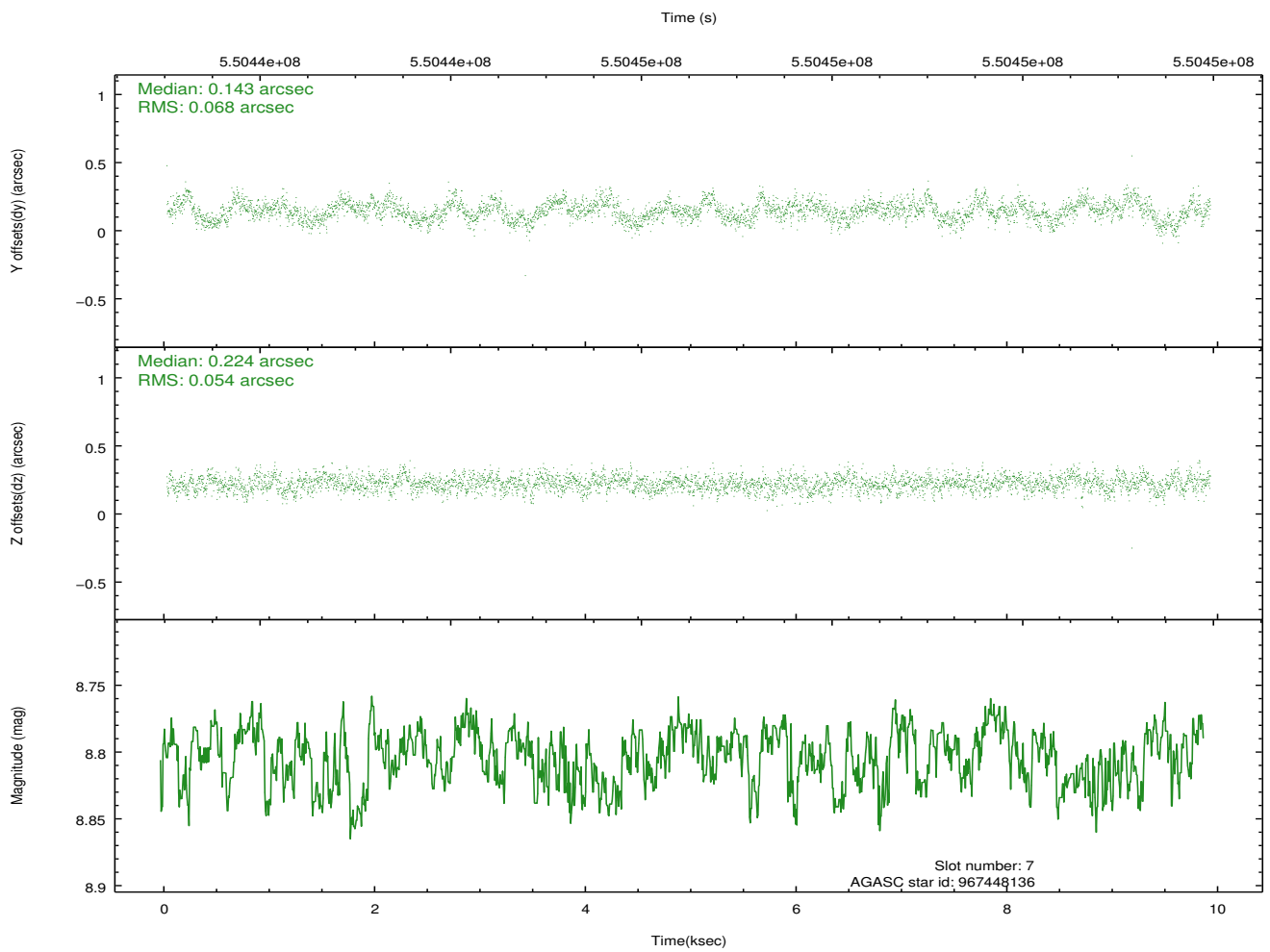
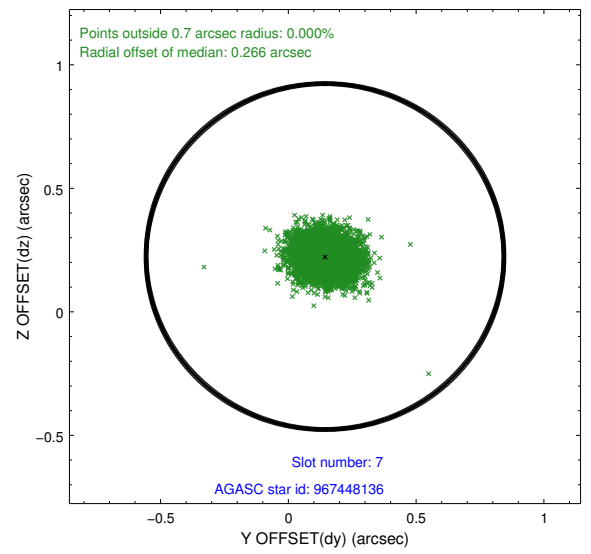
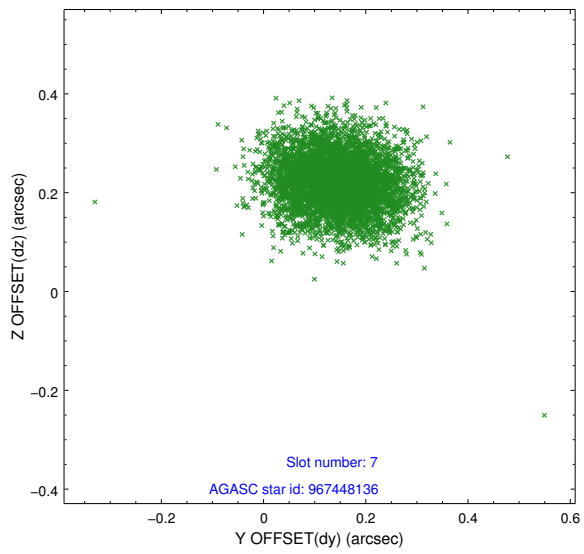
2.4.3 Slot 5



2.4.4 Slot 6

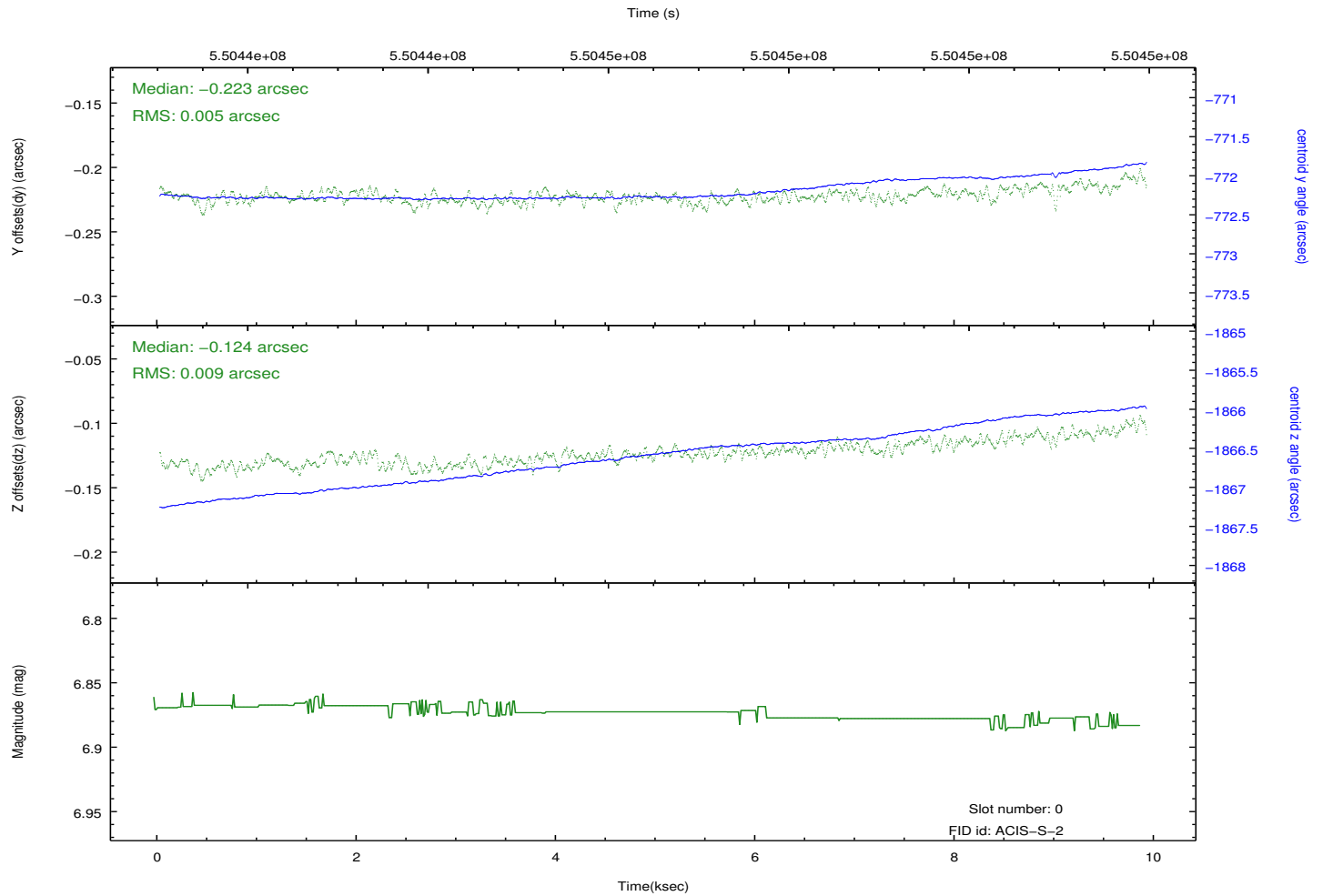
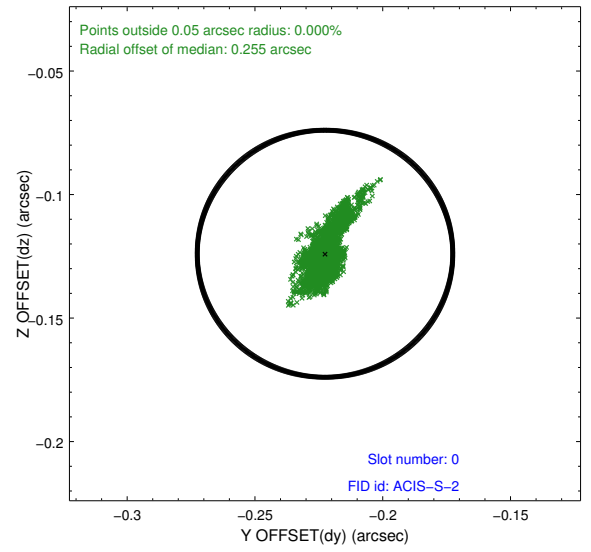
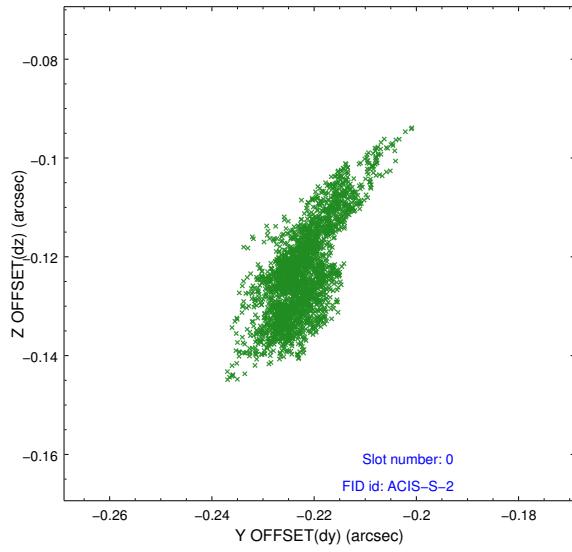


2.4.5 Slot 7

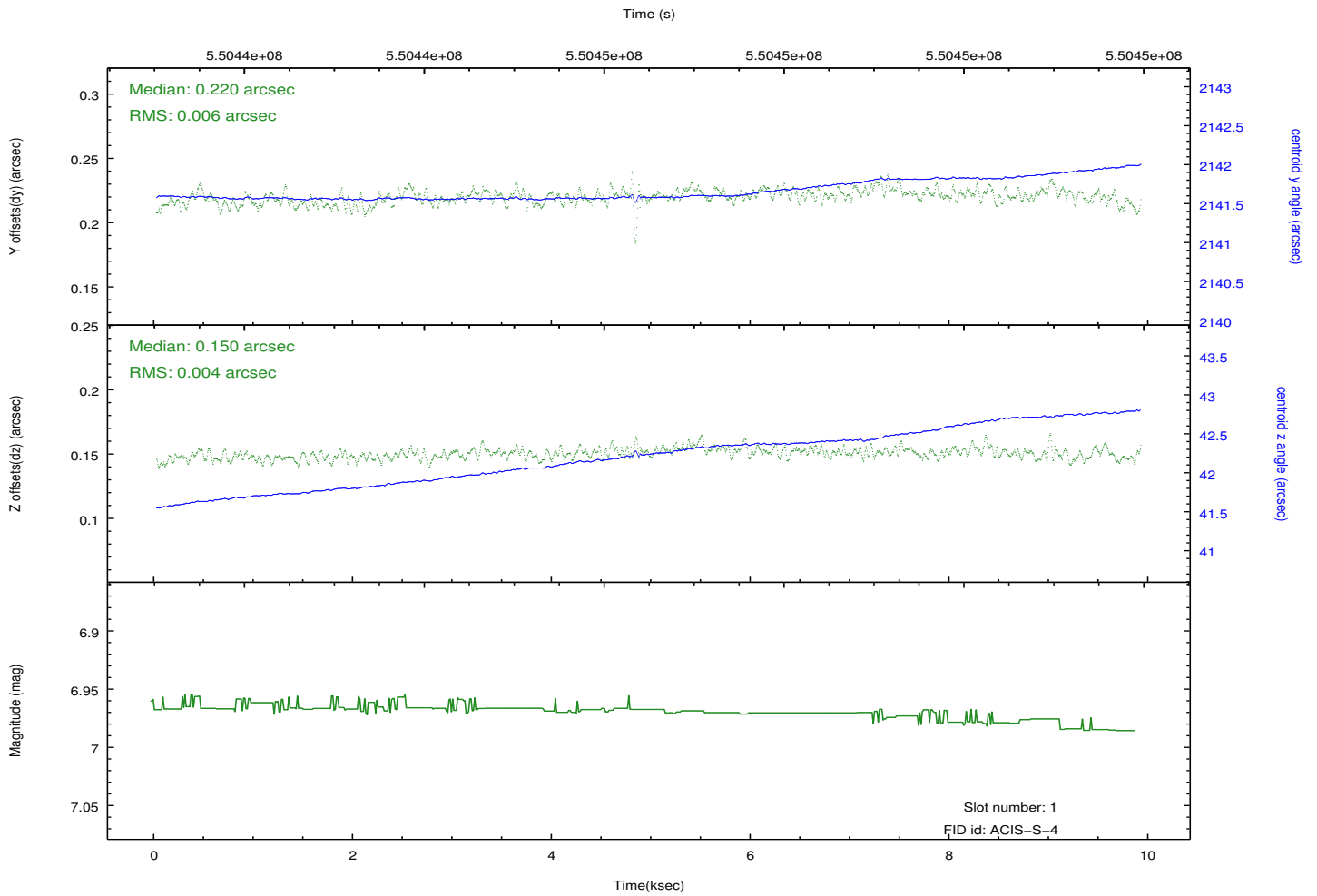
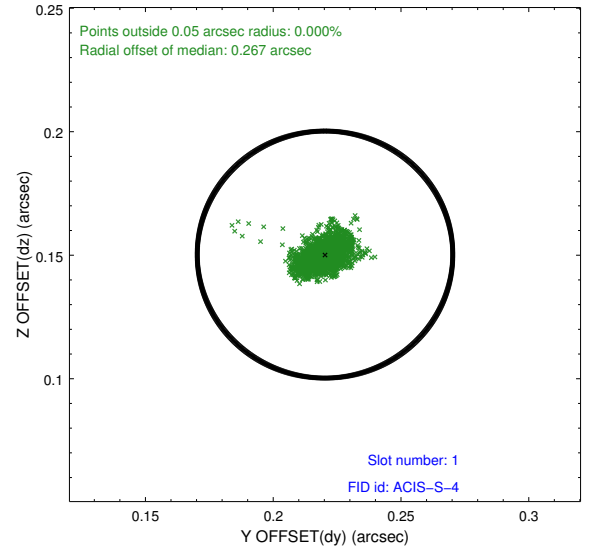
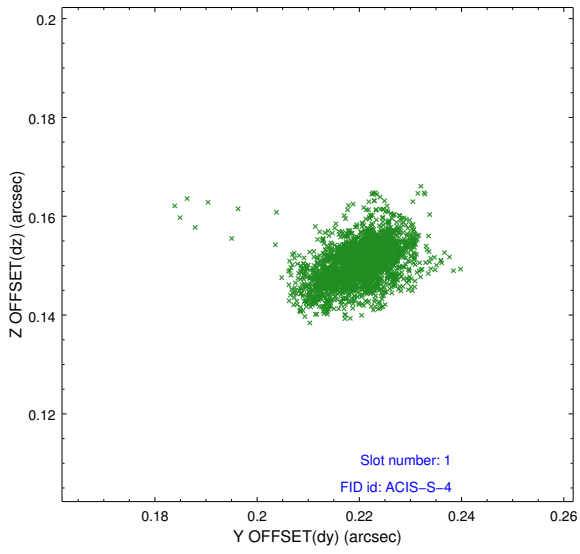


2.5 FID Slots

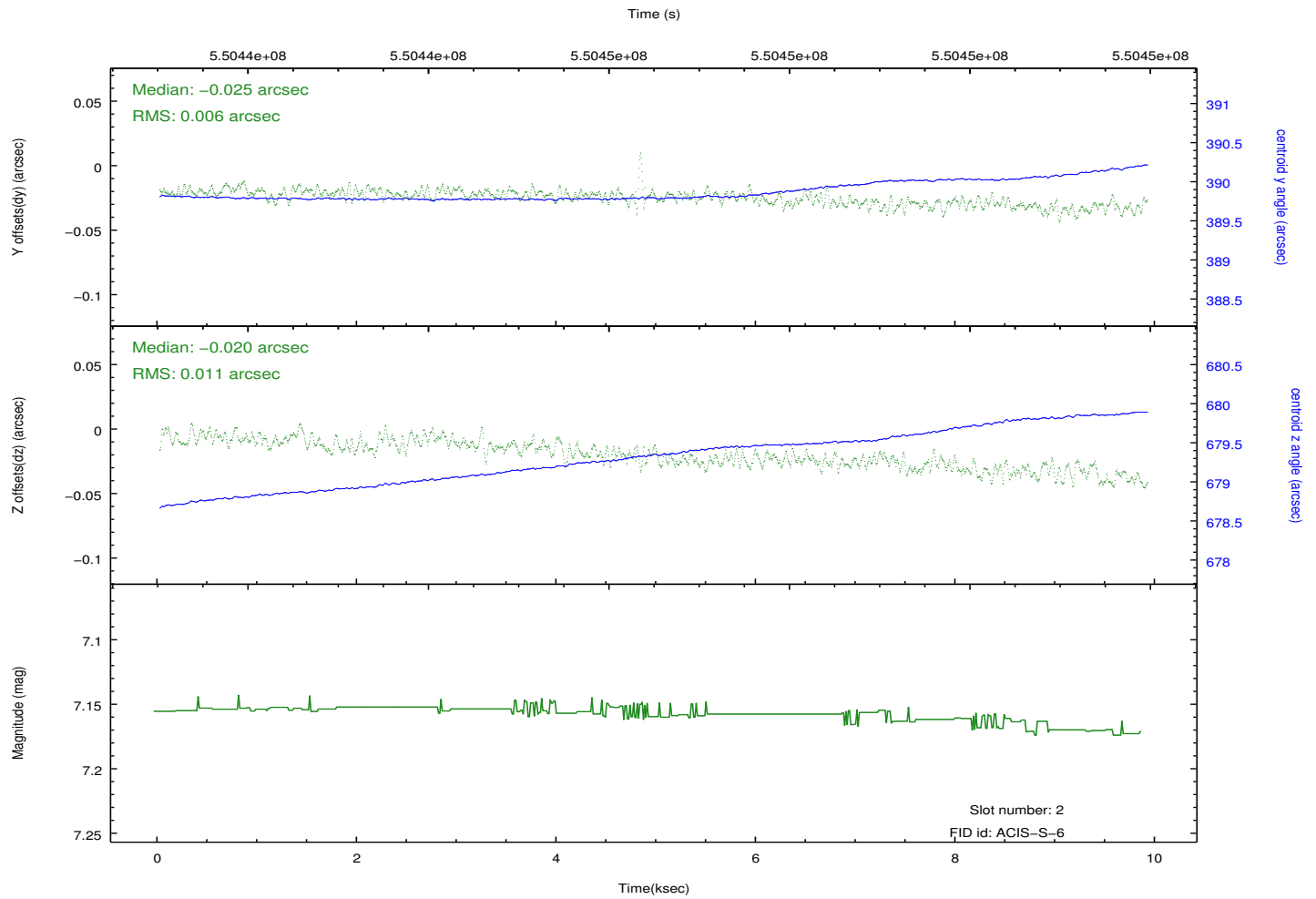
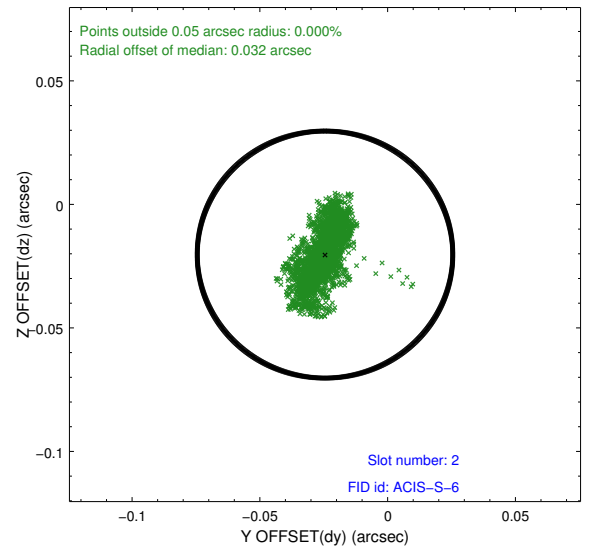
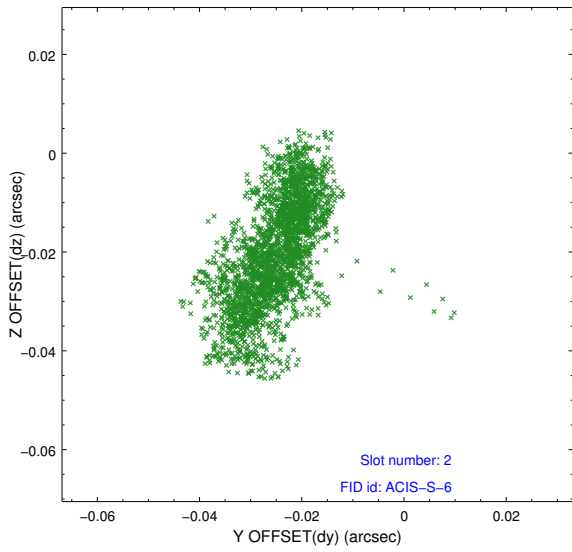
2.5.1 Slot 0



2.5.2 Slot 1

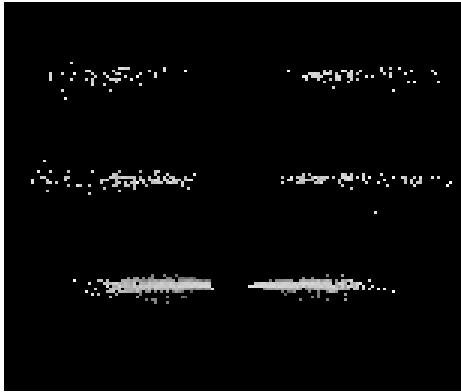


2.5.3 Slot 2

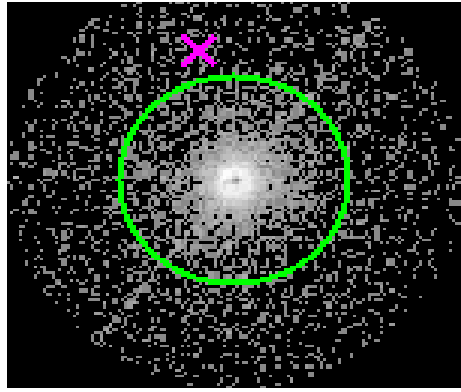


3 Gratings

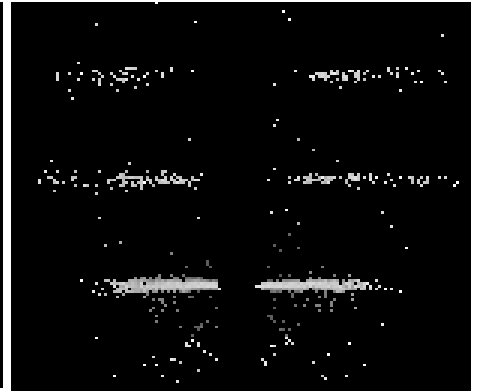
3.1 HEG Arm



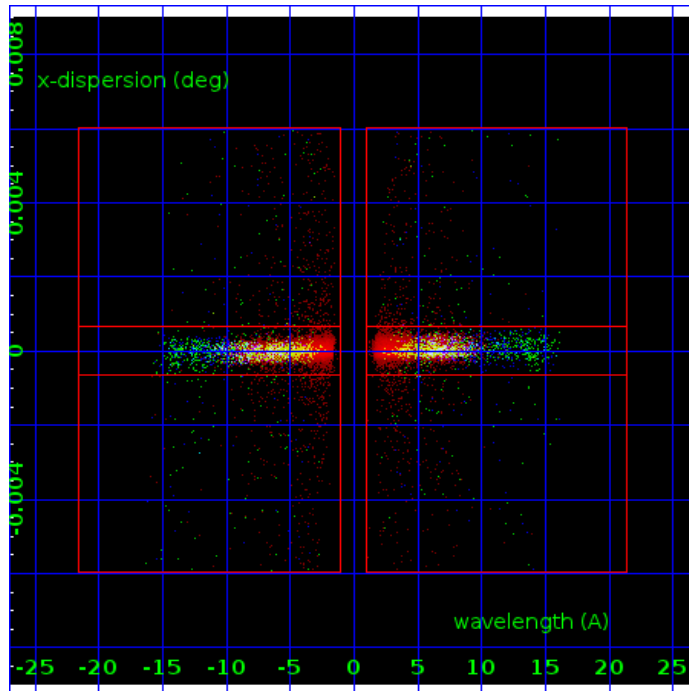
HEG Order Sort 123



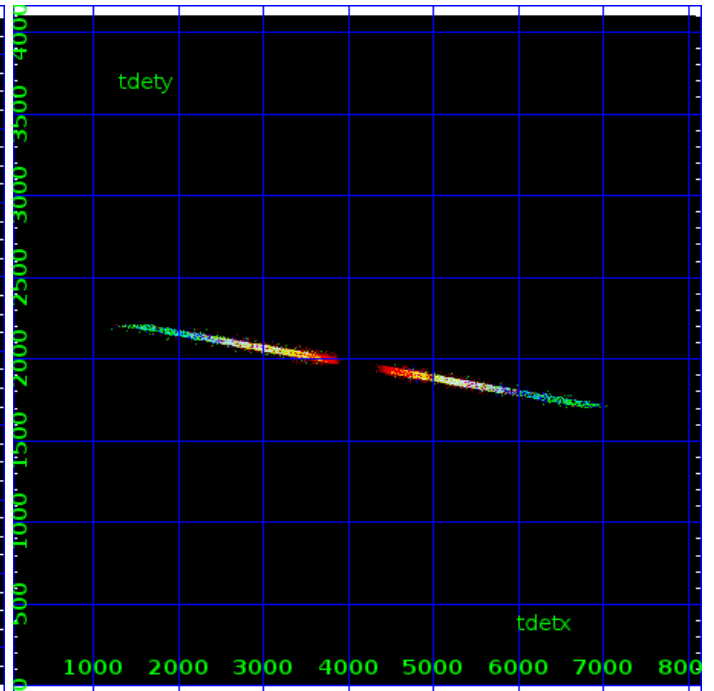
HEG Zero Order



HEG Order Sort ALL

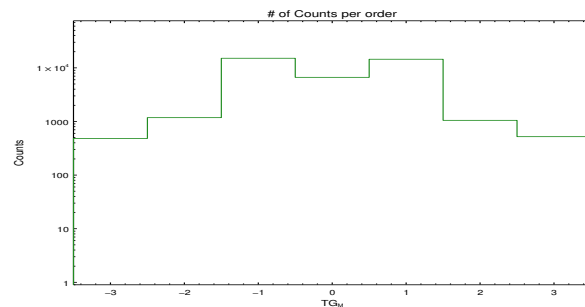


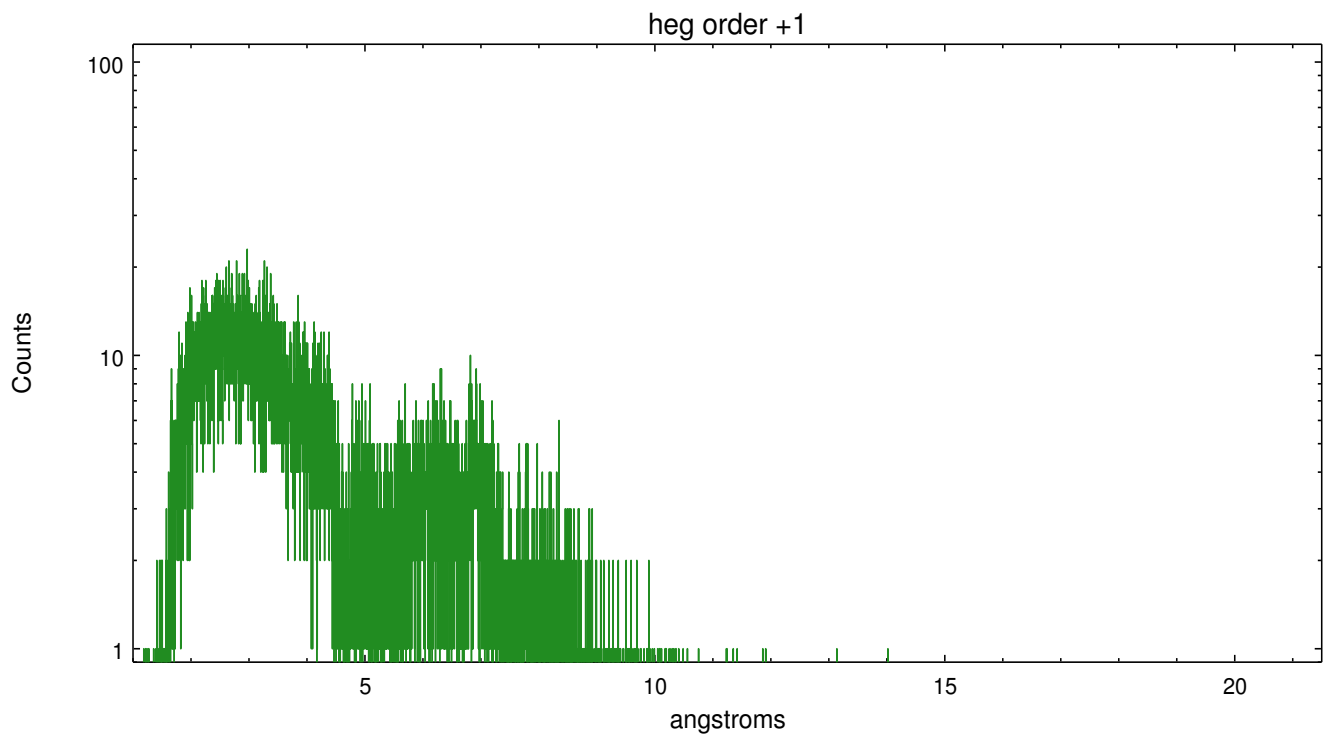
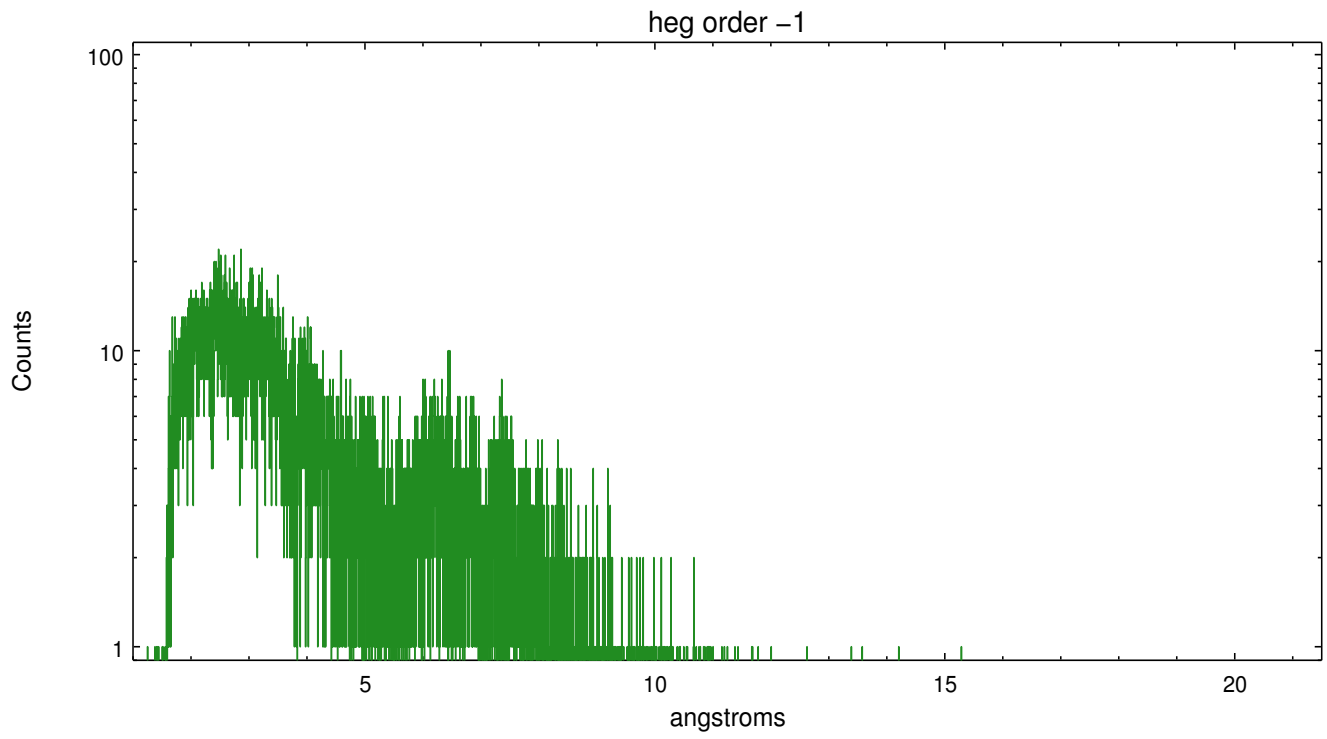
Spot Image HEG



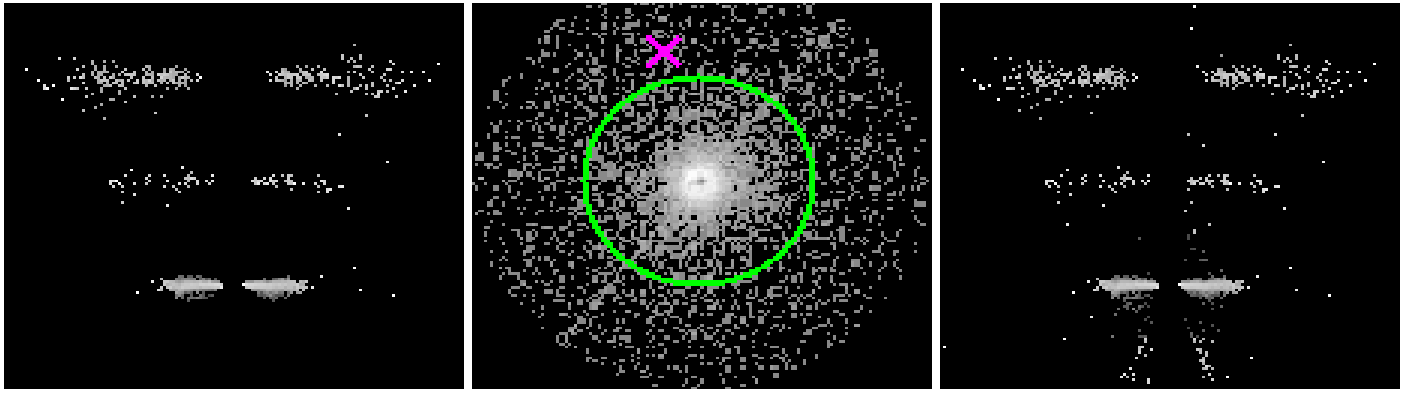
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	483	1179	15091	6648	14466	1049	521





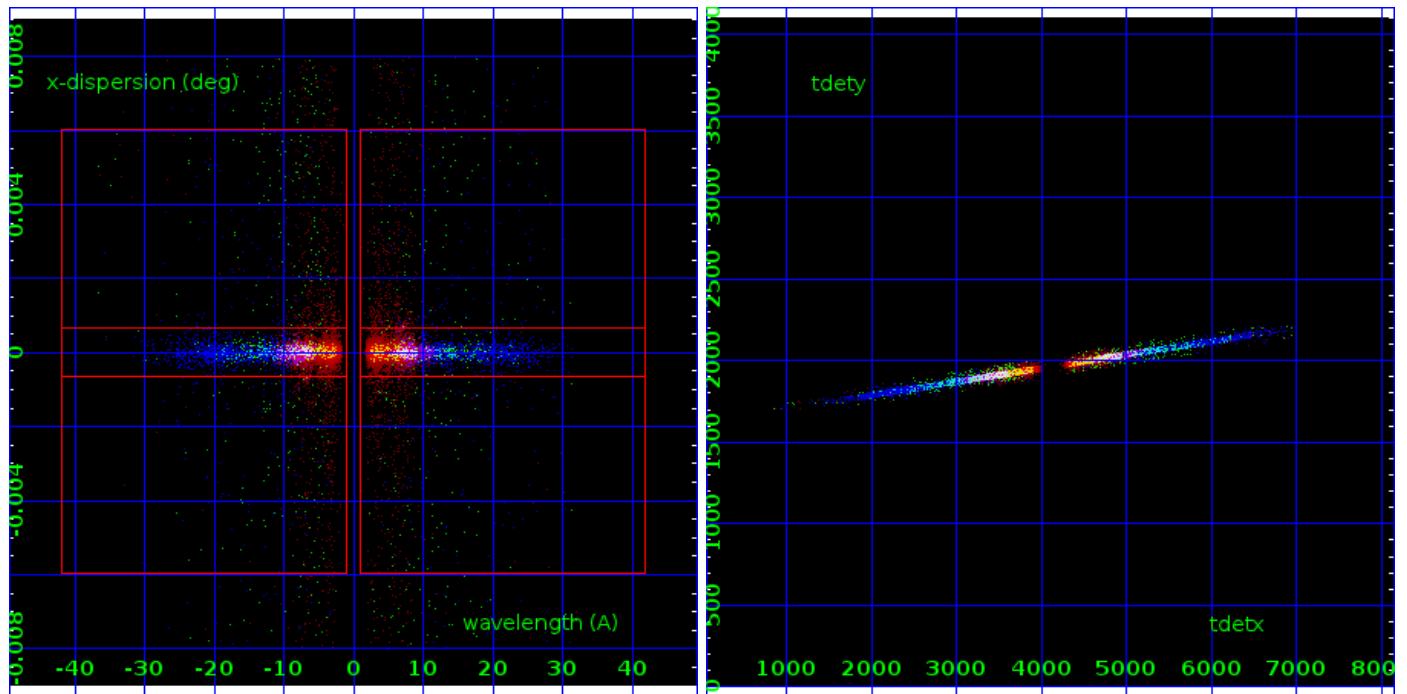
3.2 MEG Arm



MEG Order Sort 123

MEG Zero Order

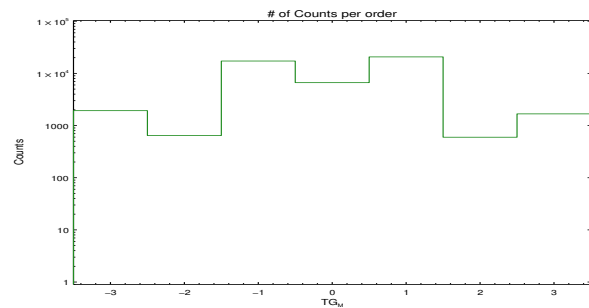
MEG Order Sort ALL

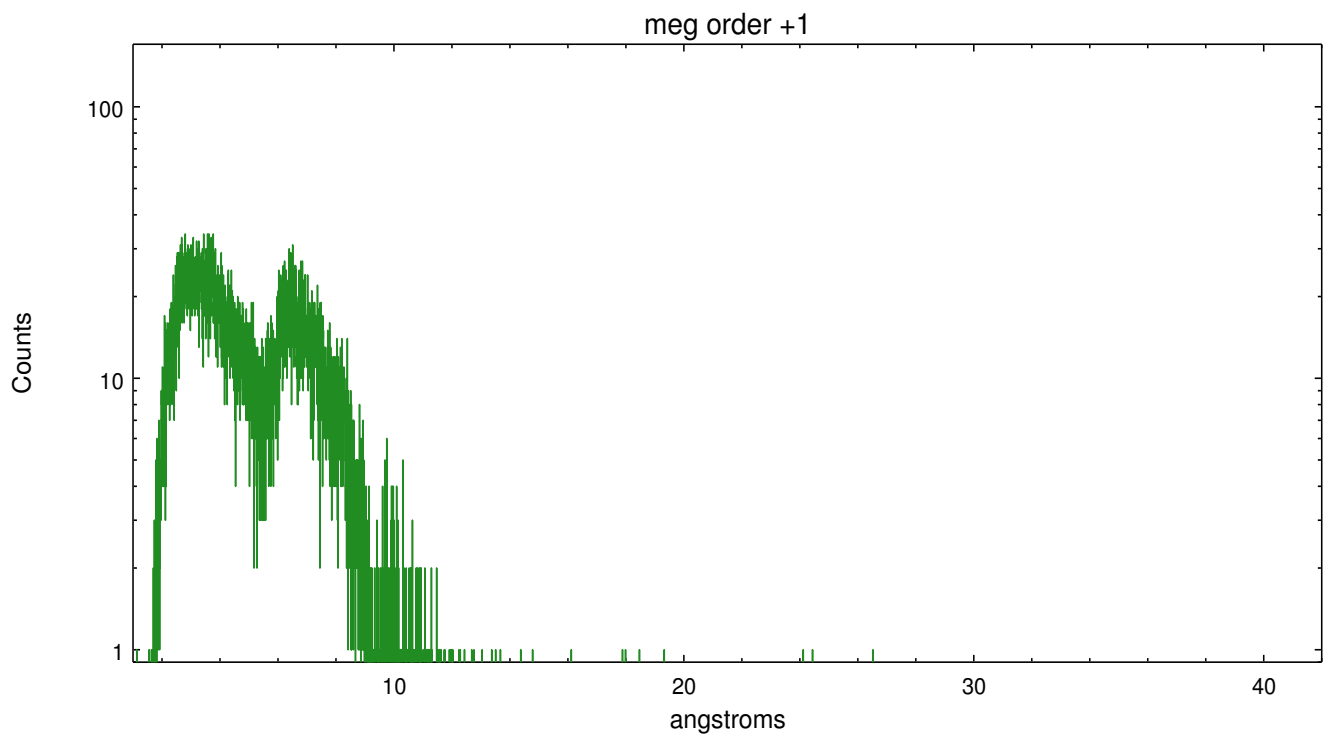
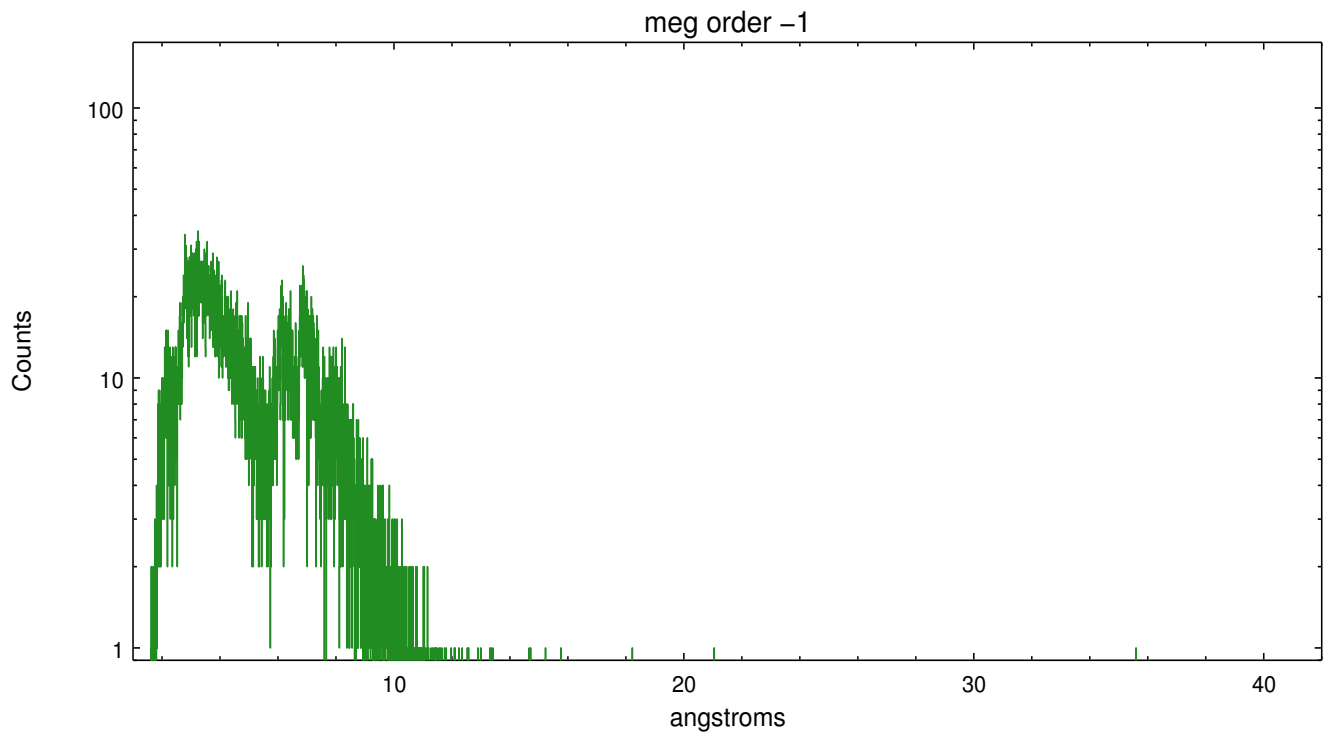


Spot Image MEG

Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1931	644	17258	6648	20718	597	1675





A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2015.06.12
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.4401002647877

A.2 Comments

Zeroth order piled up. The zeroth order sky position was determined using a software tool developed by CXC called findzero, which is available in CIAO as part of the tgdetect2 tool. The tool calculates the point of intersection of the readout streak on the ACIS CCD and the meg dispersed spectral arm, rather than using a centroid position of the source. The findzero results are more accurate than source centroid in this case.