

V&V Reference Report

L2 ASCDS Version : 10.4.3.1

Observation 18799 - L2 Version 1
Chandra X-Ray Center

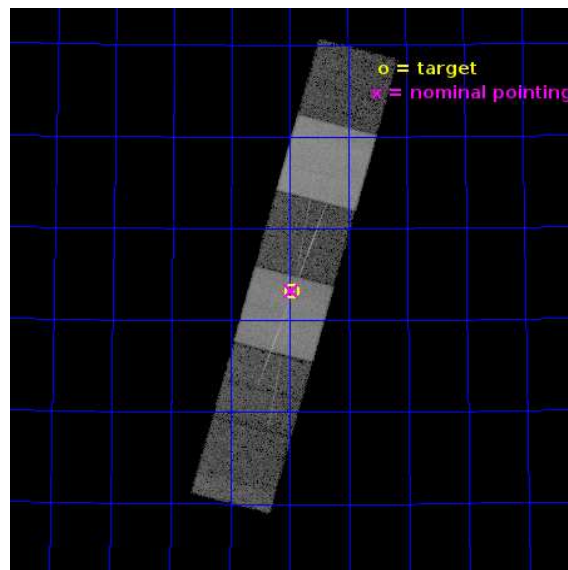
L2 Processing Date : Mar 21 2016

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1 Front

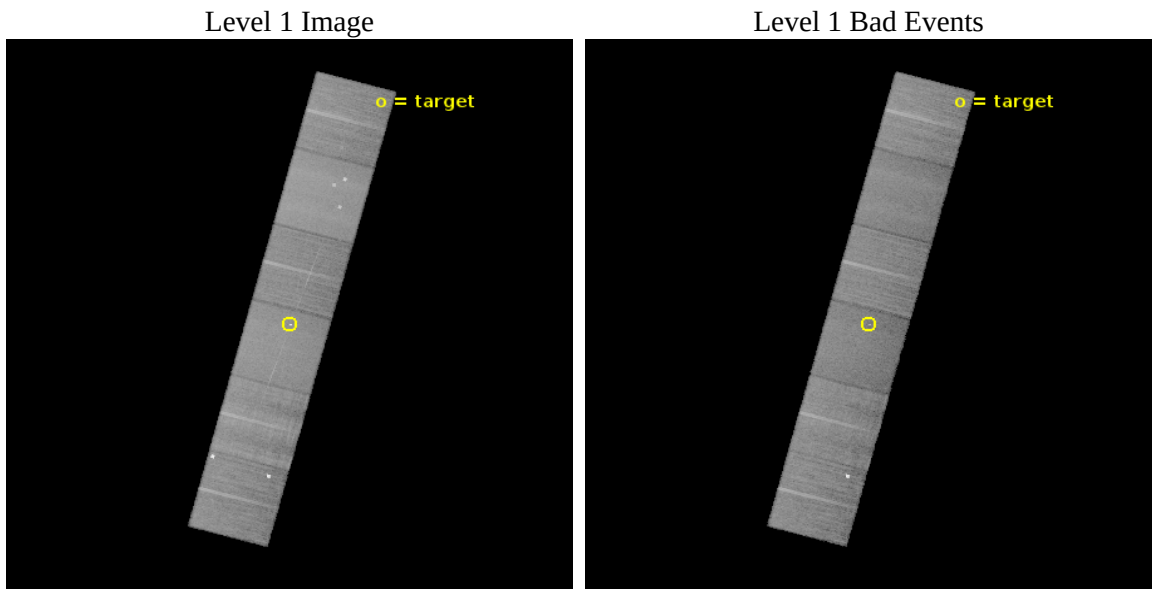
seq_num	703211	Sequence number
obs_id	18799	Observation id
title	Picturing Feedback in Action: from the innermost nuclear region to the Galaxy Scale	Proposal title
observer	Dr. Fabrizio Nicastro	Principal investigator
object	Mkn 876	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	243.488333	Observer's specified target RA [deg]
dec_targ	65.719444	Observer's specified target Dec [deg]
ra_nom	243.49344493356	Nominal RA [deg]
dec_nom	65.720881942857	Nominal Dec [deg]
roll_nom	105.15194638885	Nominal Roll [deg]
revision	1	Processing version of data
ontime	24947.200371742	Sum of GTIs [s]
livetime	24631.303899235	Livetime [s]
ontime4	24947.200371742	Sum of GTIs [s]
ontime5	24947.200371742	Sum of GTIs [s]
ontime6	24943.959280849	Sum of GTIs [s]
ontime7	24947.200371742	Sum of GTIs [s]
ontime8	24947.200371742	Sum of GTIs [s]
ontime9	24947.200371742	Sum of GTIs [s]
l2events	262741	Number of level 2 events



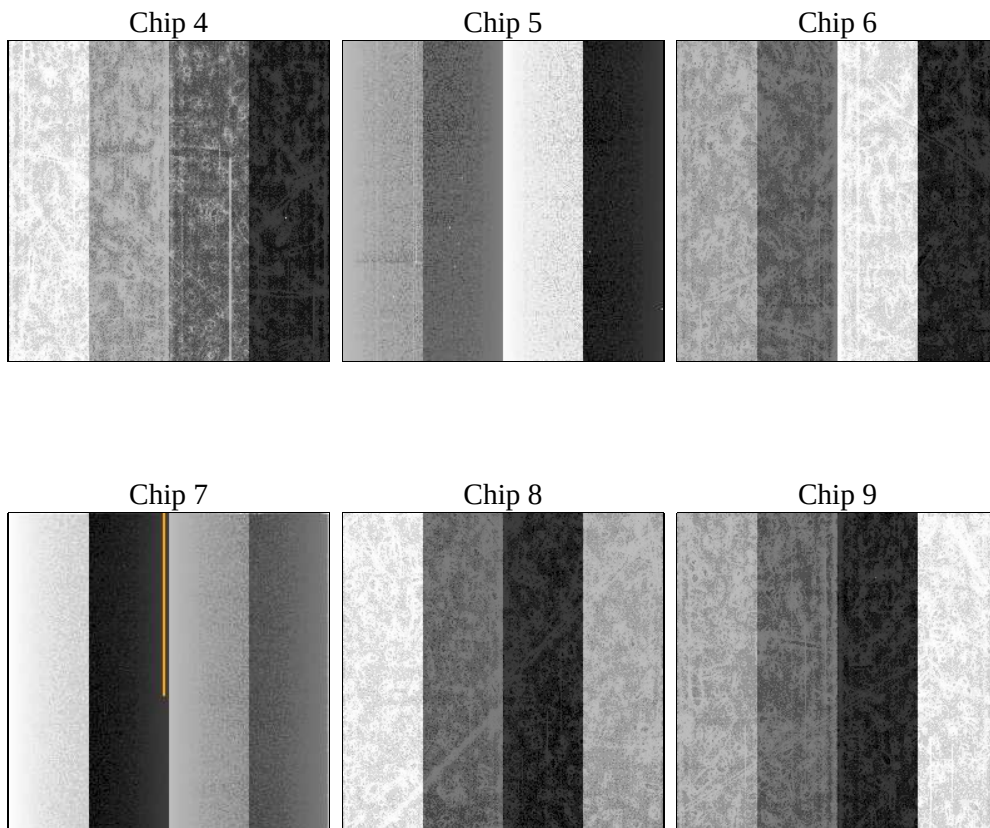
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	25000.000000	[s] Scheduled observation exposure time
ascdsver	10.4.3.1	Processing system revision	ontime	24947.200371742	Sum of GTIs [s]
caldsver	4.7.0	 	ontime4	24947.200371742	Sum of GTIs [s]
date	2016-03-22T02:56:49	Date and time of file creation	ontime5	24947.200371742	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	24943.959280849	Sum of GTIs [s]
			ontime7	24947.200371742	Sum of GTIs [s]
			ontime8	24947.200371742	Sum of GTIs [s]
			ontime9	24947.200371742	Sum of GTIs [s]
			l1events	1181886	Number of level 1 events
			tgmethod	TGDETECT	Method used to create src1a file
			ra_pos	(4112.70, 4086.06)	src1a sky pixel position

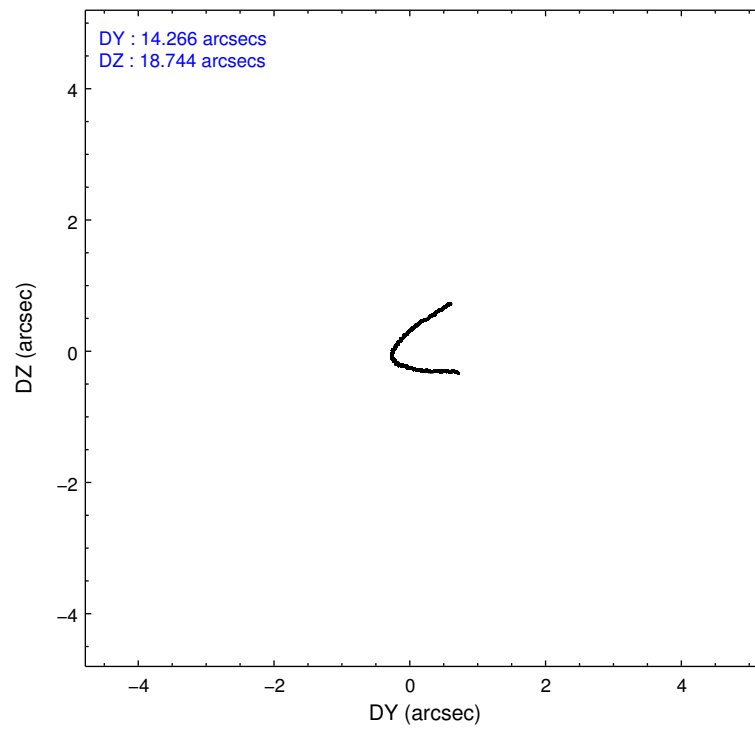
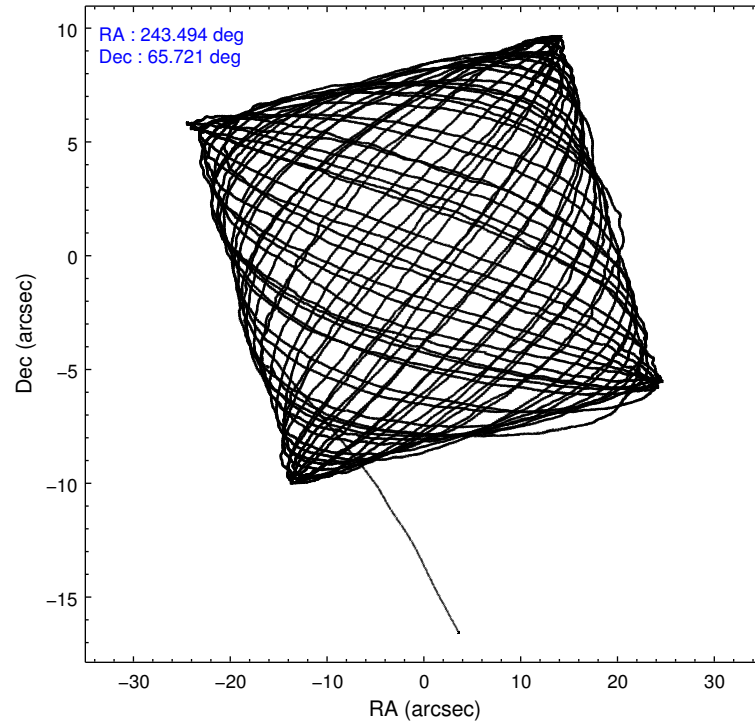
2.1.4 Events

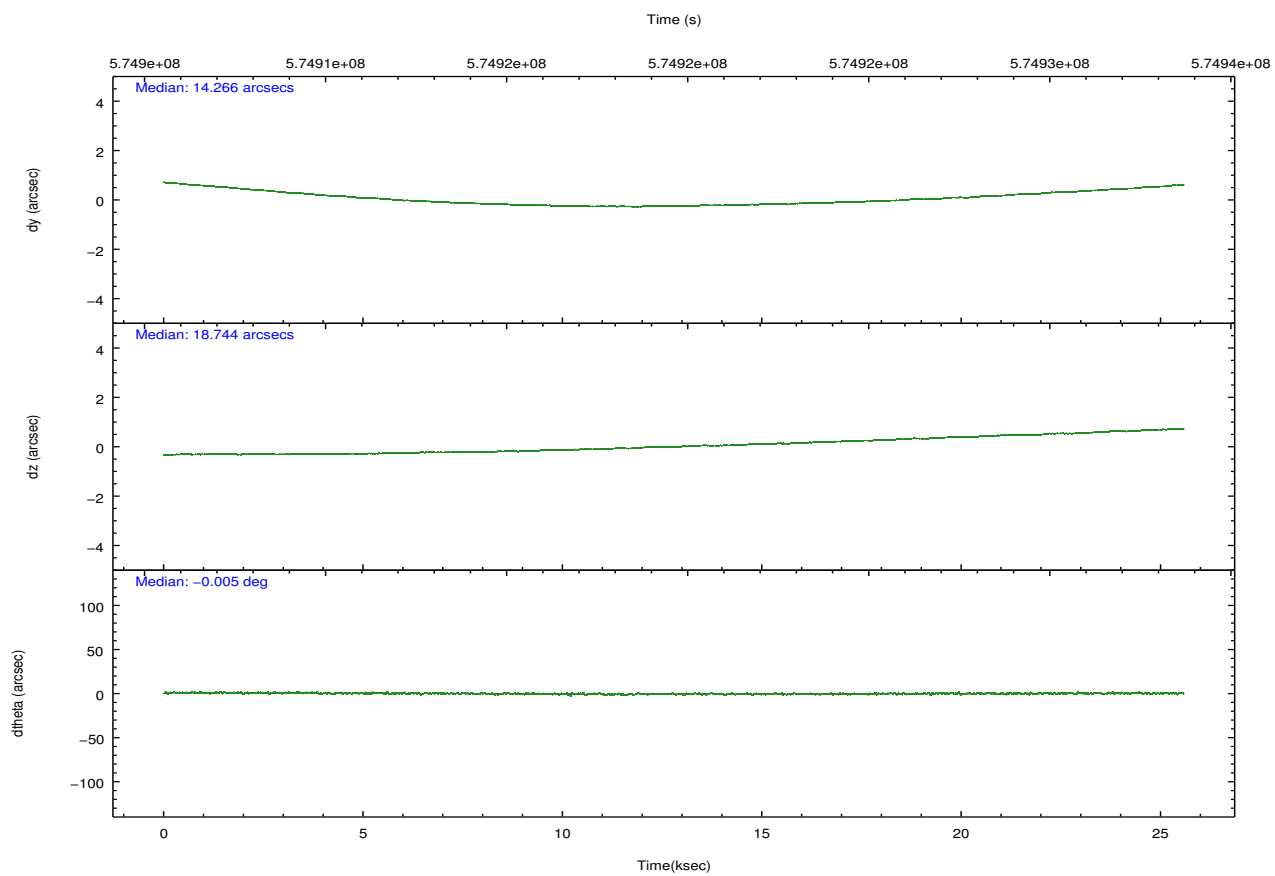
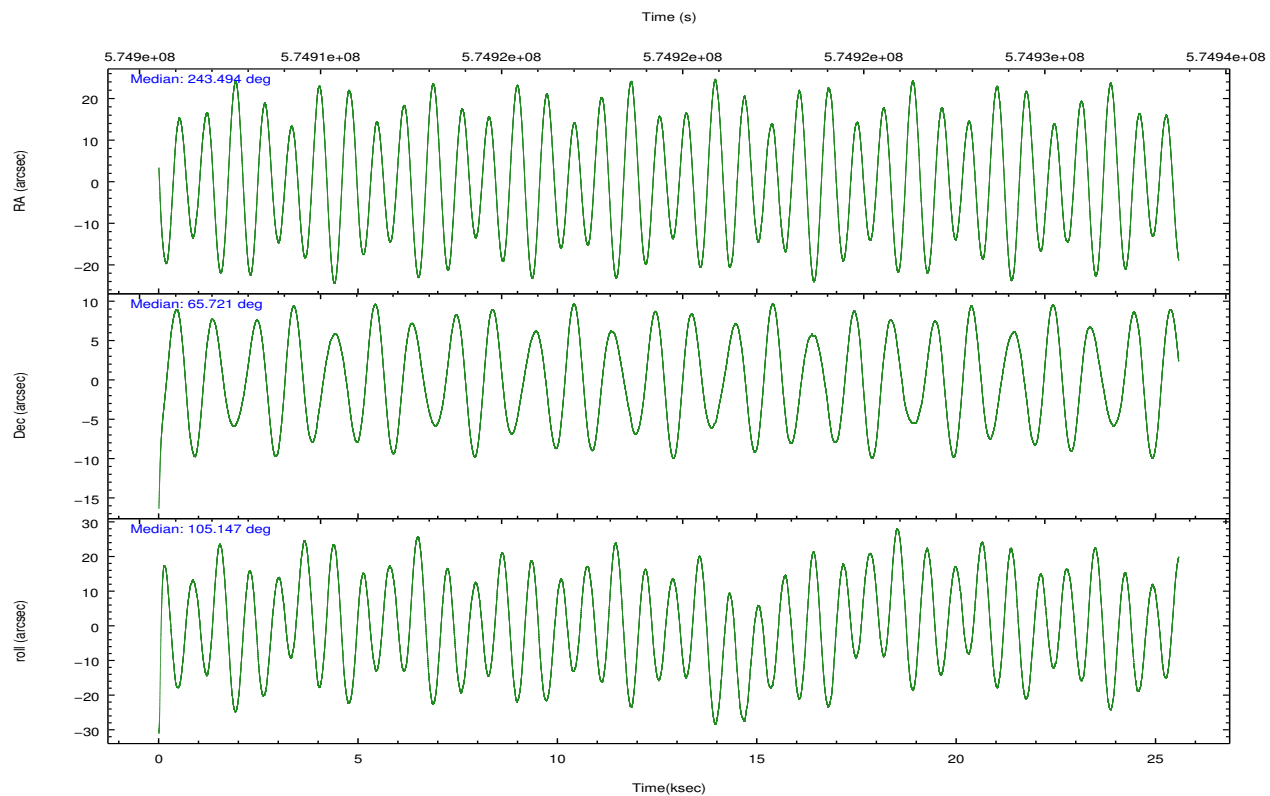
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	185156	249205	164903	204679	203477	174466	grade 0 events	6604	10190	6842	7796	14323	13848
rejected events	167279	129882	145514	115223	153219	148388		3%	4%	4%	3%	7%	7%
rejected %	90%	52%	88%	56%	75%	85%	grade 1 events	161	655	75	269	152	7536
								0%	0%	0%	0%	0%	4%
							grade 2 events	4151	36361	4480	19134	12464	4283
								2%	14%	2%	9%	6%	2%
							grade 3 events	1990	3582	1736	6621	4818	1854
								1%	1%	1%	3%	2%	1%
							grade 4 events	1937	3342	1703	6567	4569	1793
								1%	1%	1%	3%	2%	1%
							grade 5 events	7438	16247	6989	19000	10833	8133
								4%	6%	4%	9%	5%	4%
							grade 6 events	3198	65863	4639	49347	14090	4308
								1%	26%	2%	24%	6%	2%
							grade 7 events	159677	112965	138439	95945	142228	132711
								86%	45%	83%	46%	69%	76%

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	243.541367	243.4934449335641	CCD I2 on	N	N
[deg] Pointing Dec	65.701759	65.72088194285685	CCD I3 on	N	N
[deg] Pointing Roll	104.951658	105.1519463888501	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	-190.132523	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	Y	Y
[s] Observation start time (MET)	574907396.184000	574906091.73115	CCD S5 on	Y	Y
Observation start date	2016-03-21T00:28:48	2016-03-21T00:08:11	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	574932396.184000	574933040.52021	On-chip summing requested	N	N
Observation end date	2016-03-21T07:25:28	2016-03-21T07:37:20	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



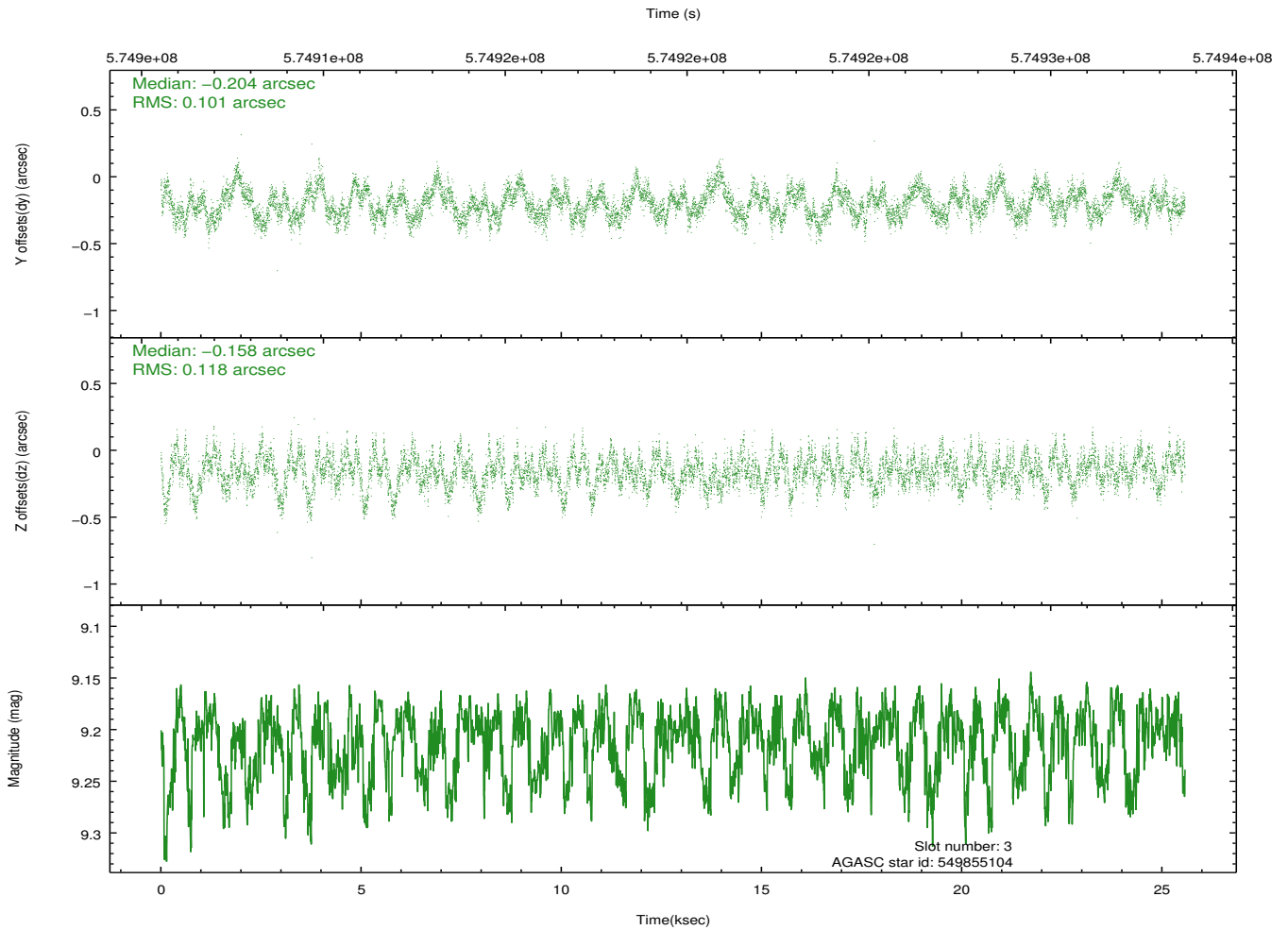
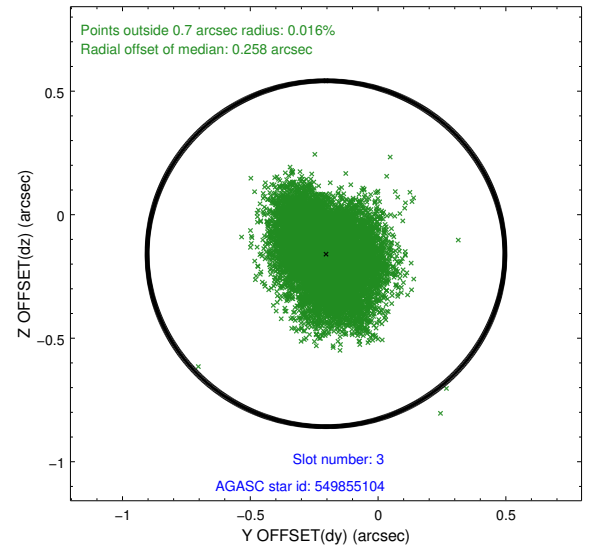
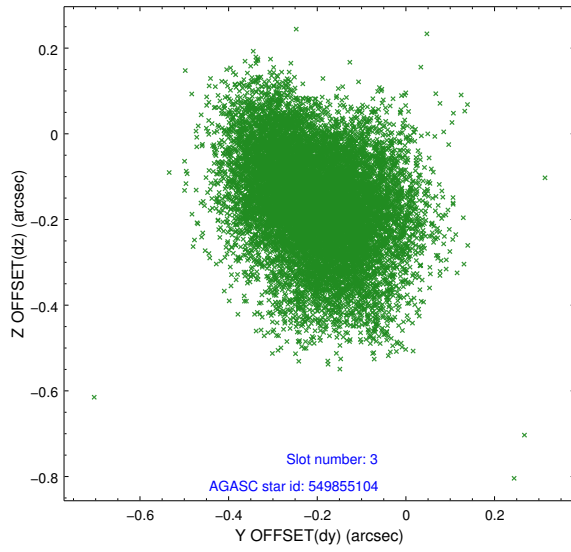


Slot Statistics

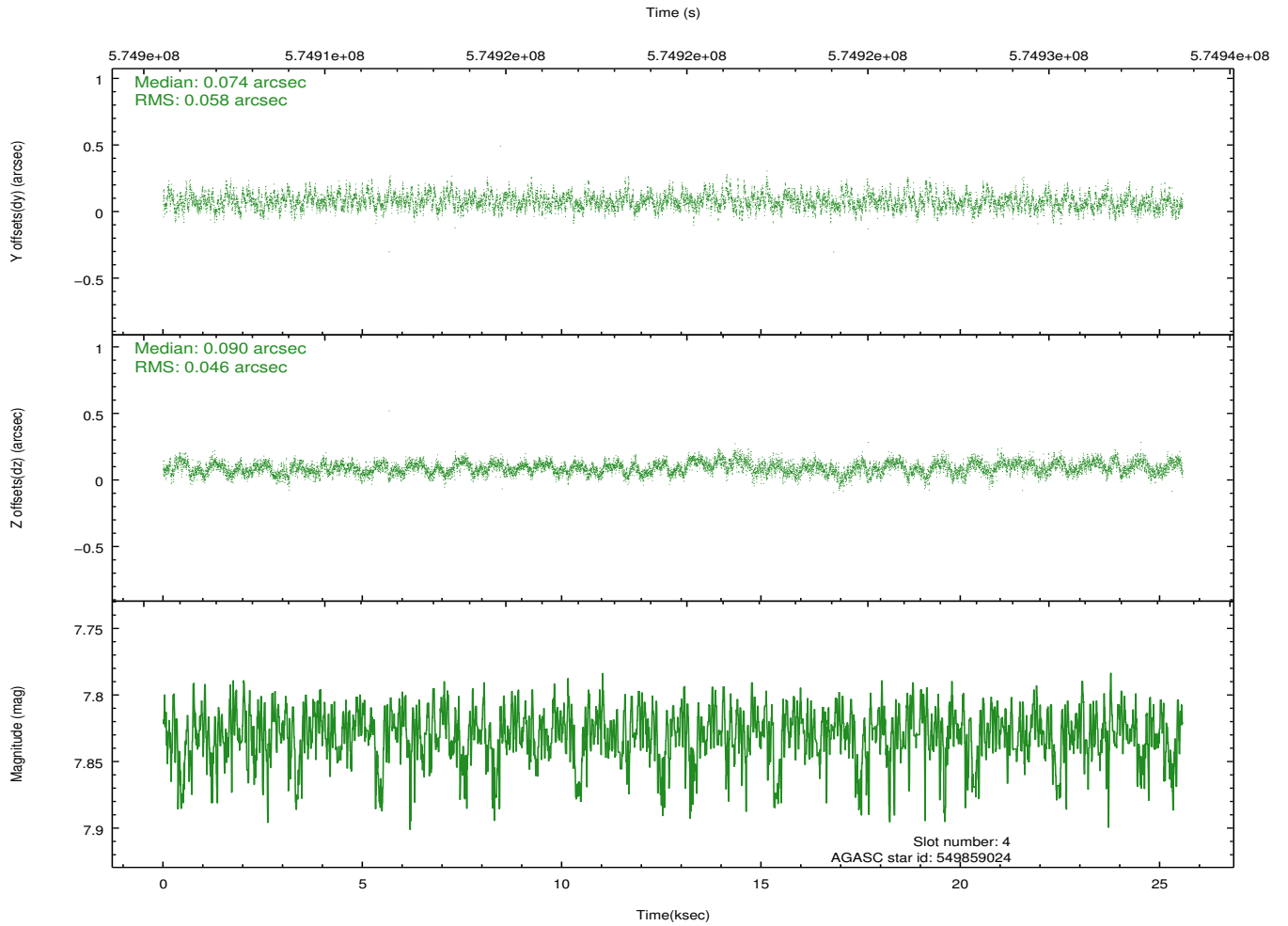
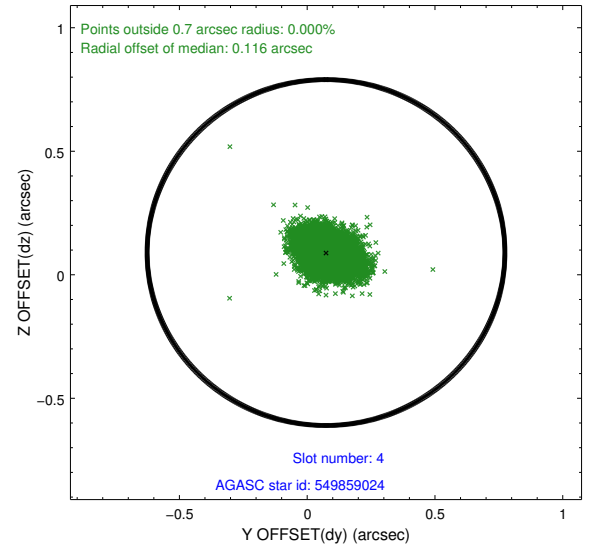
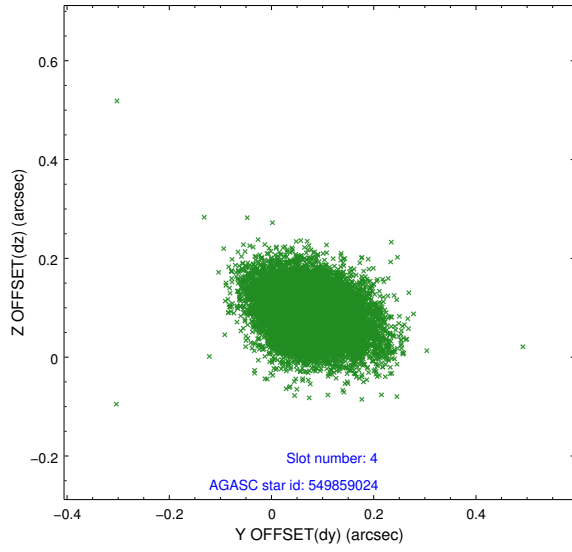
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-1	7.22	6238	-0.074	-0.018	0.013	0.037	0.000000	0.000000	928.66	-1735.90
1	FID		ACIS-S-4	7.22	6238	0.199	0.035	0.012	0.026	0.000000	0.000000	2146.41	168.20
2	FID		ACIS-S-6	7.36	6238	-0.147	-0.004	0.008	0.014	0.000000	0.000000	394.68	805.65
3	GUIDE	used	549855104	9.21	12462	-0.204	-0.158	0.165	0.269	242.414078	65.829144	881.70	1483.21
4	GUIDE	used	549859024	7.83	12473	0.074	0.090	0.077	0.129	243.777882	65.072262	-2280.15	238.48
5	GUIDE	used	549863464	7.53	12475	-0.219	-0.064	0.073	0.121	243.630740	66.376841	2314.68	-750.99
6	GUIDE	used	549864184	9.07	12465	0.069	0.010	0.146	0.229	243.727034	65.246202	-1655.96	153.05
7	GUIDE	used	549864952	8.92	12462	0.282	0.117	0.177	0.285	244.861755	65.614211	-790.36	-1819.49

2.4 Star Slots

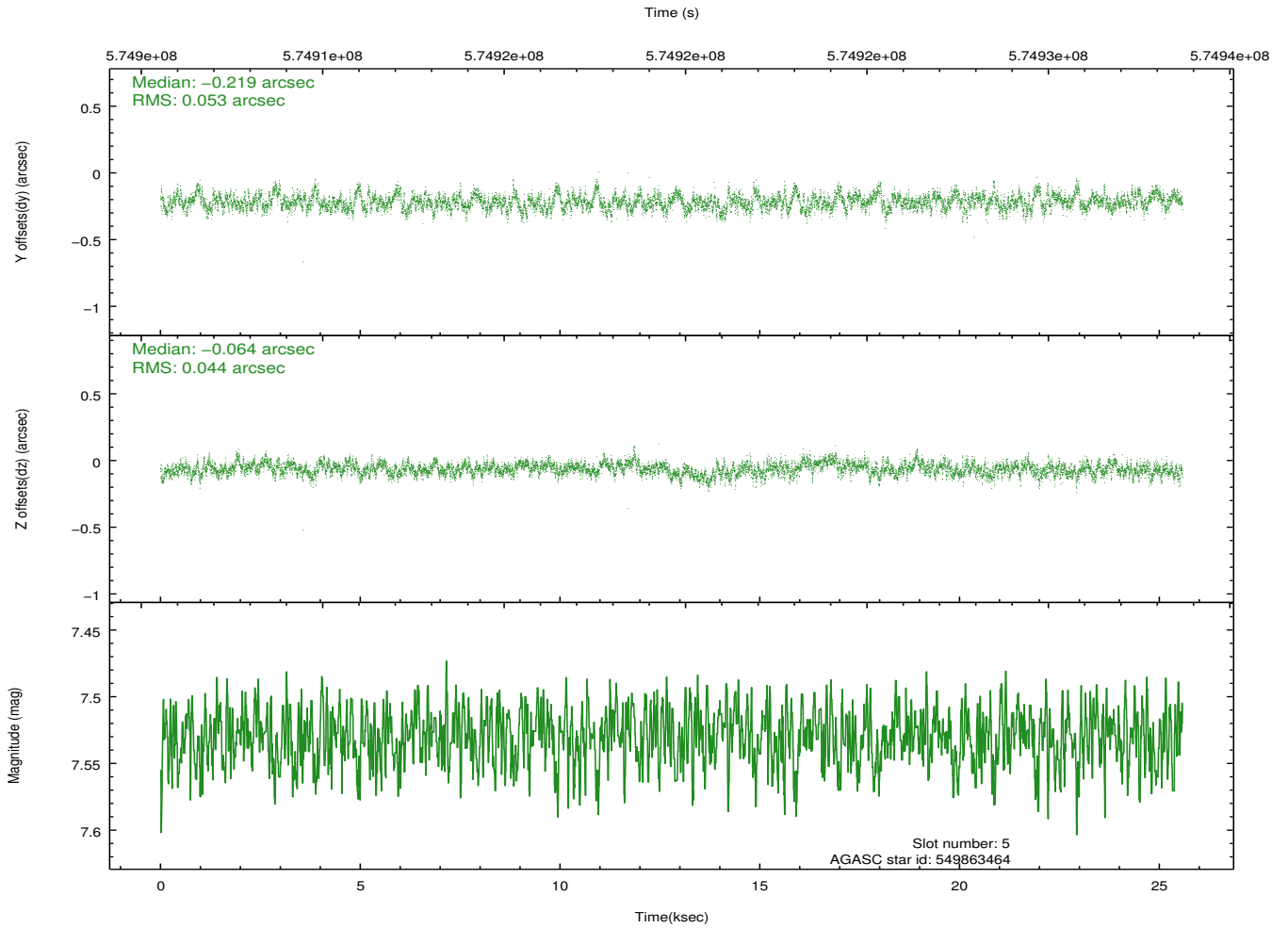
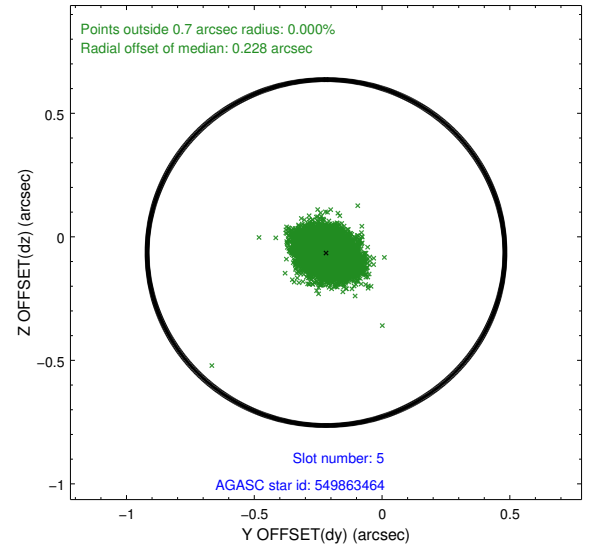
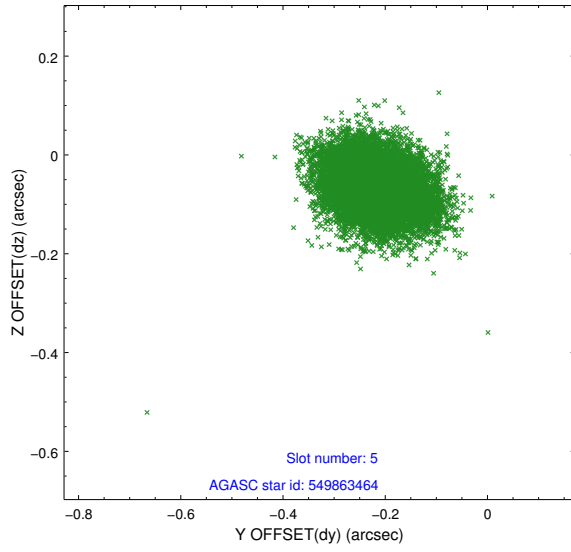
2.4.1 Slot 3



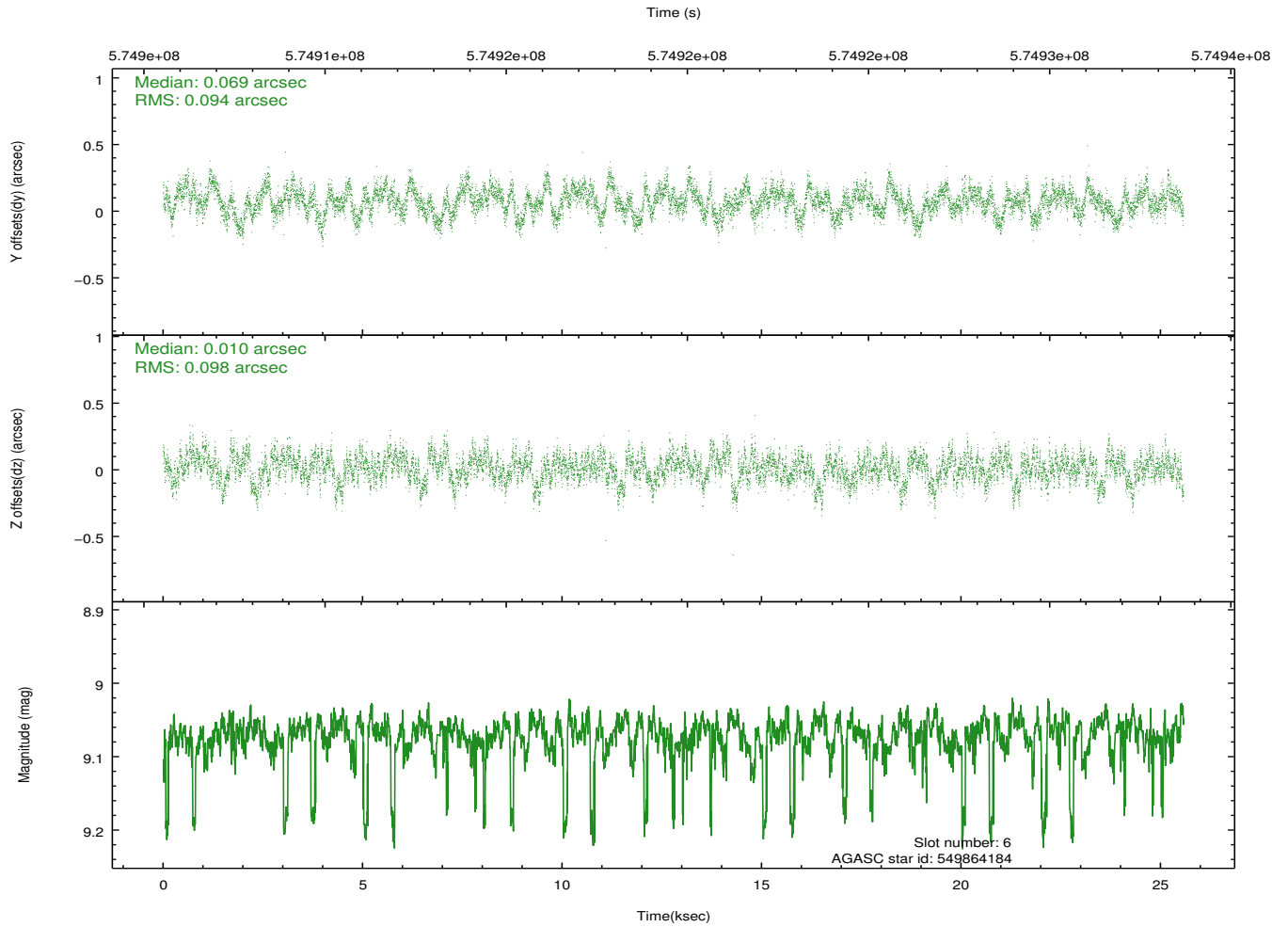
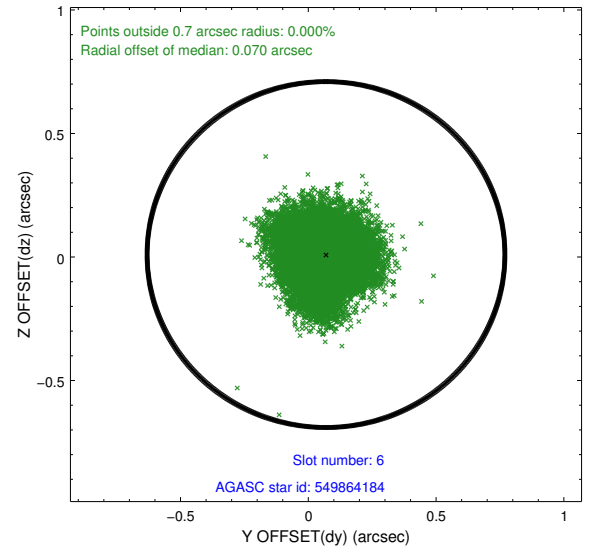
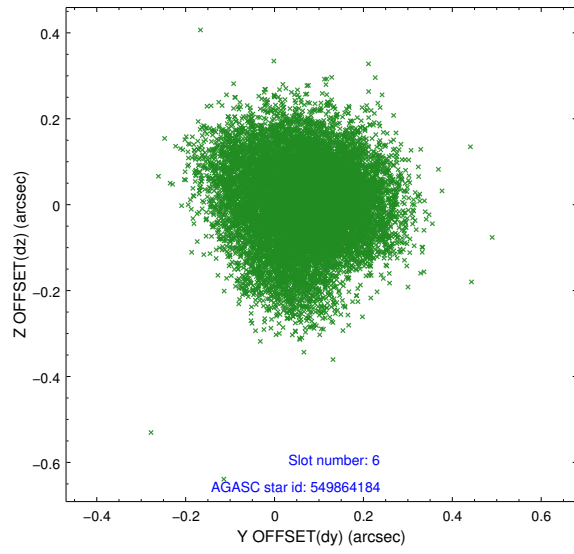
2.4.2 Slot 4



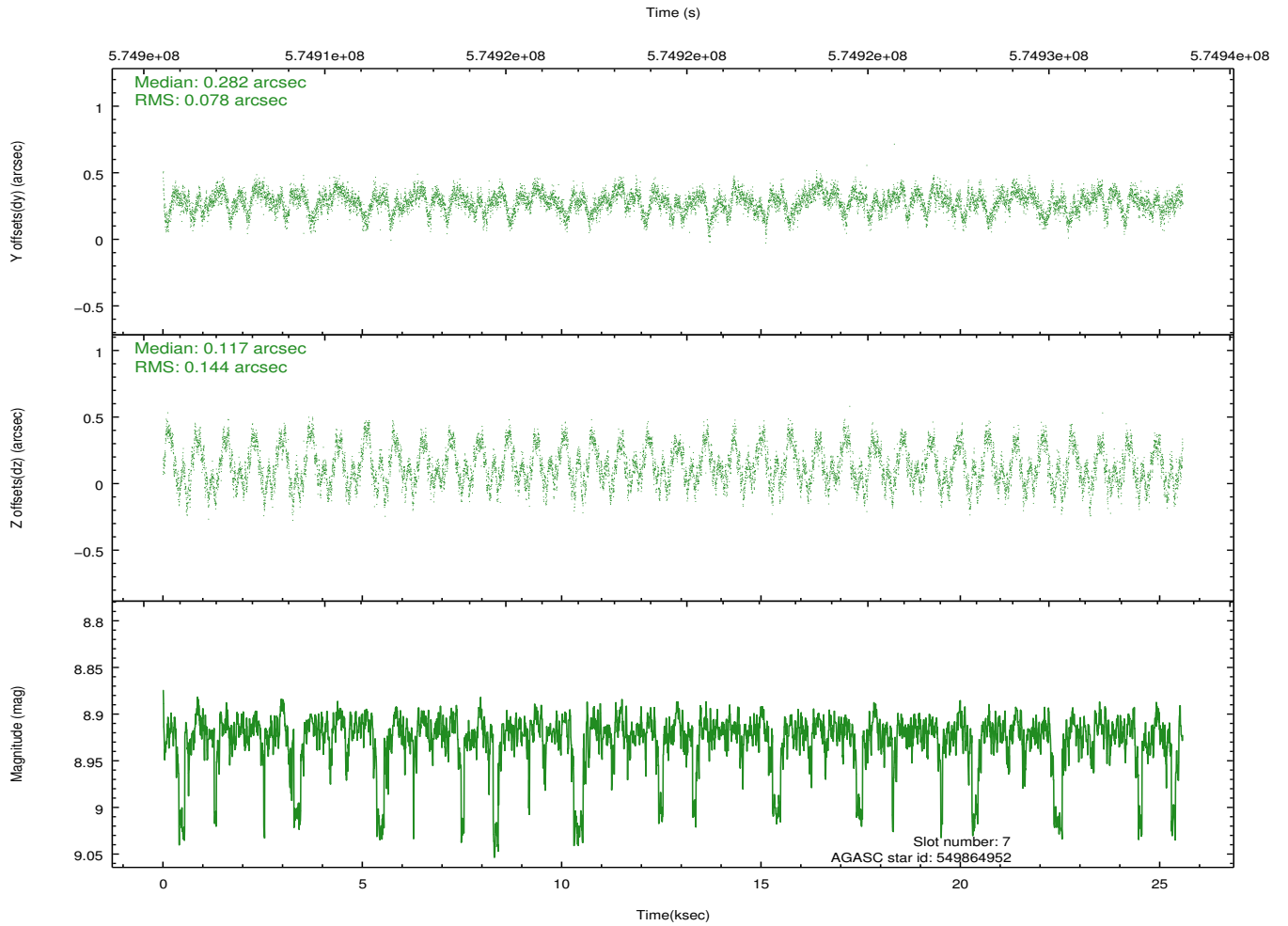
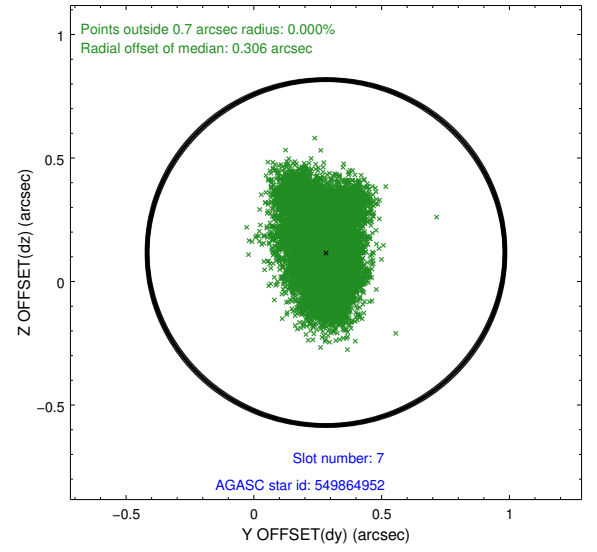
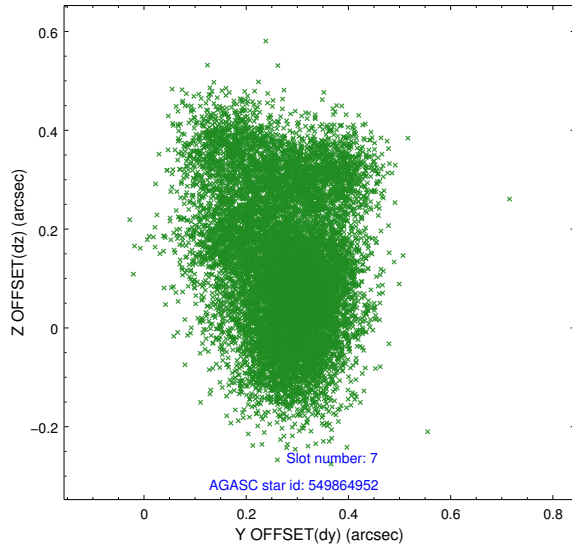
2.4.3 Slot 5



2.4.4 Slot 6

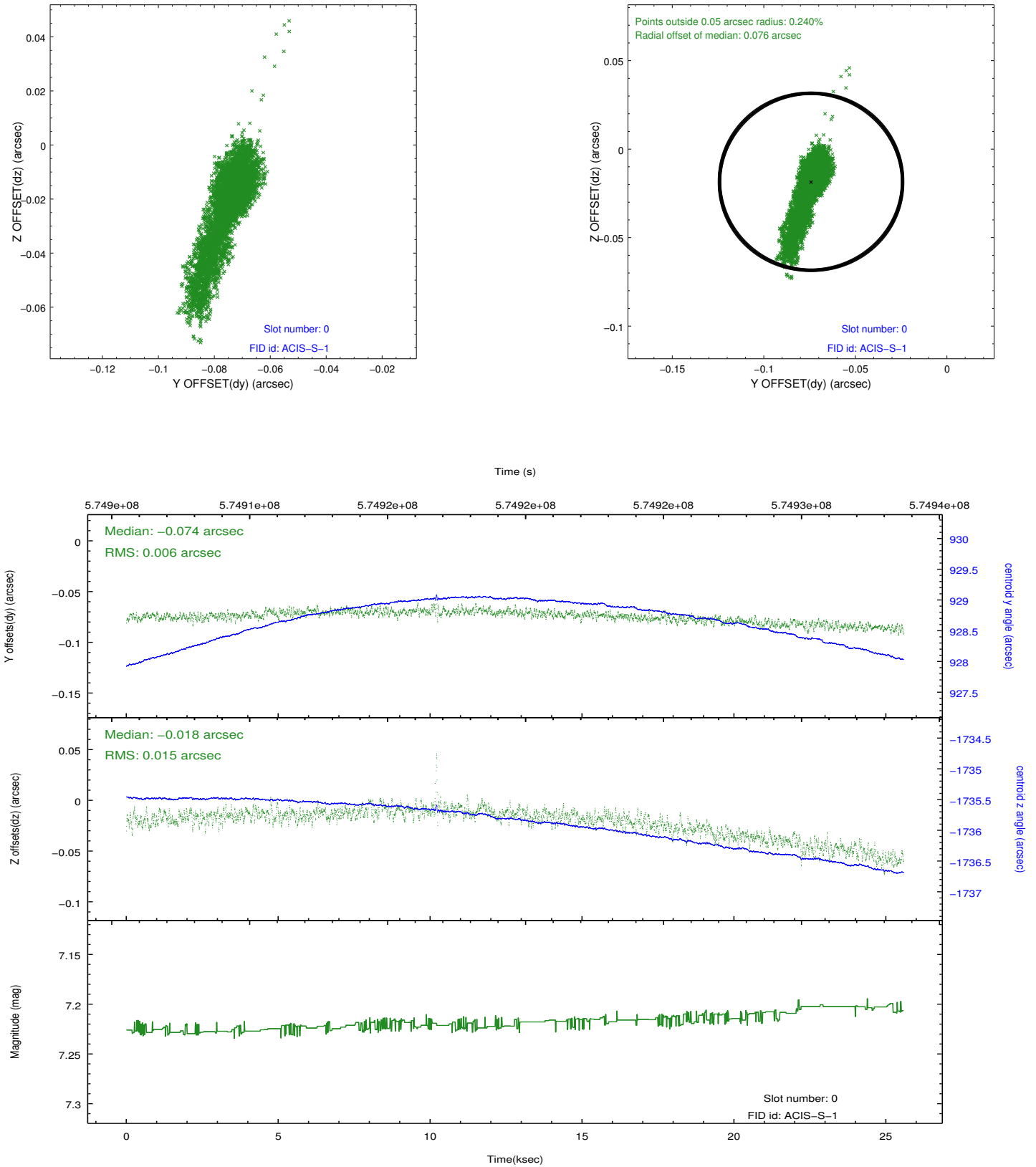


2.4.5 Slot 7

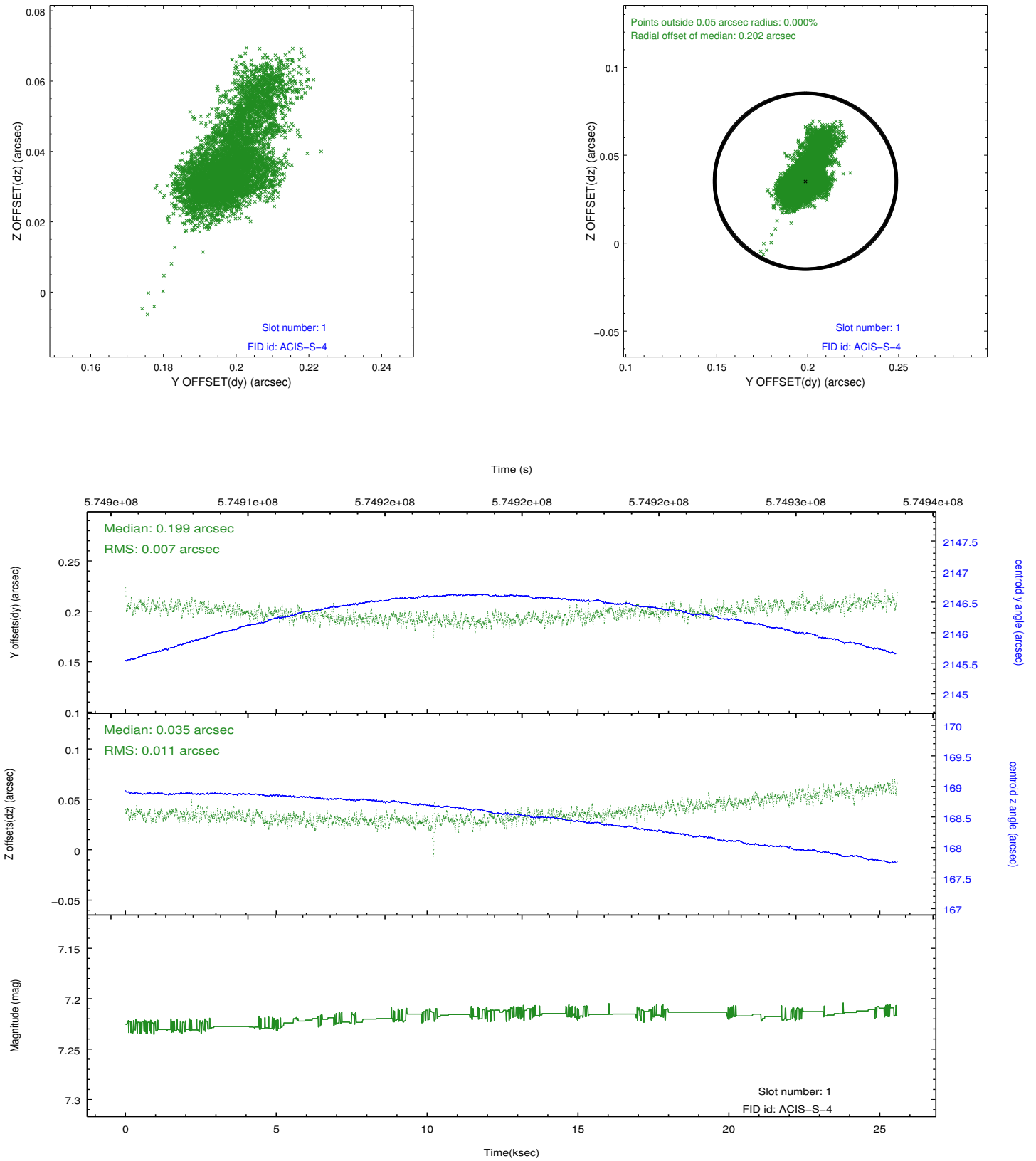


2.5 FID Slots

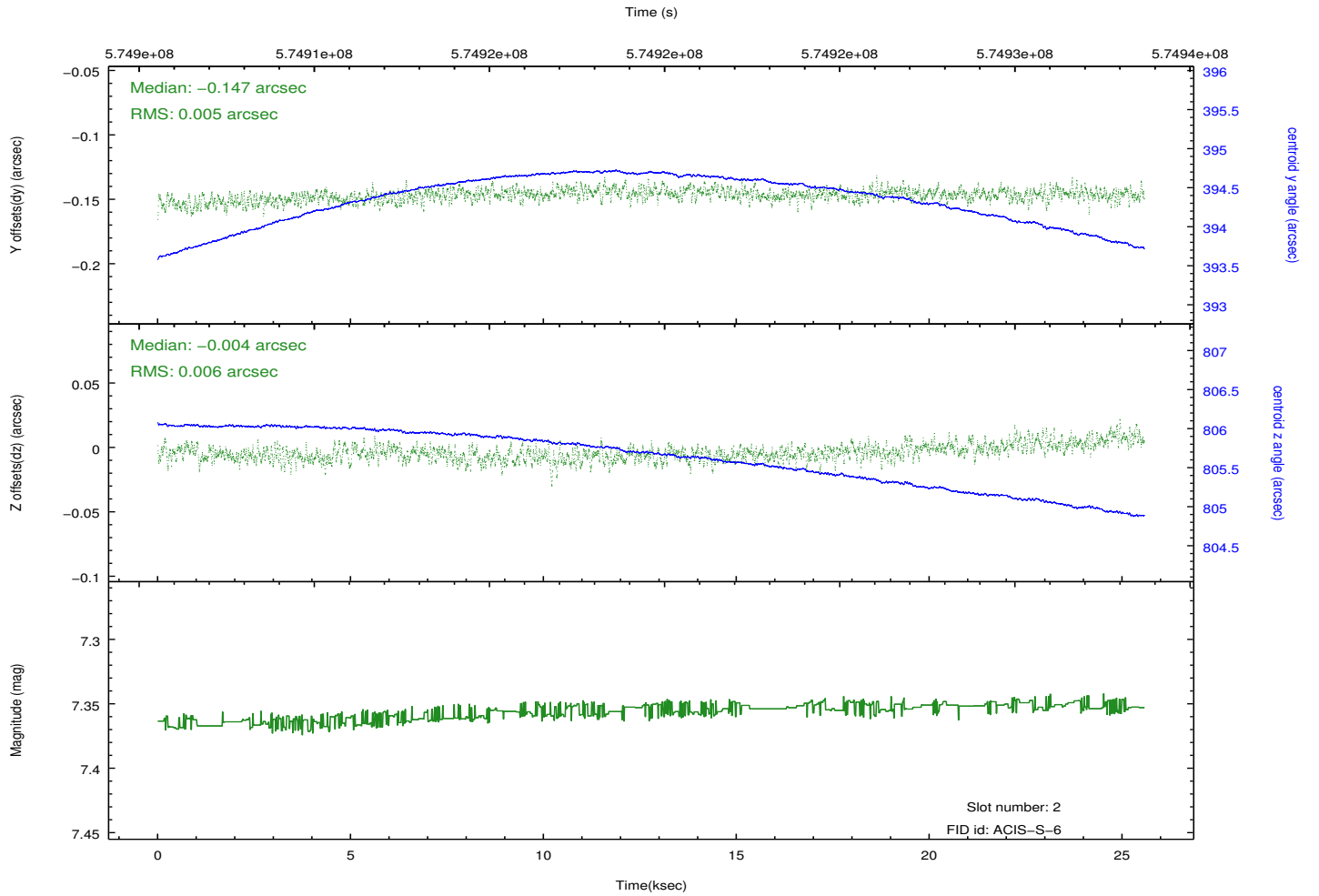
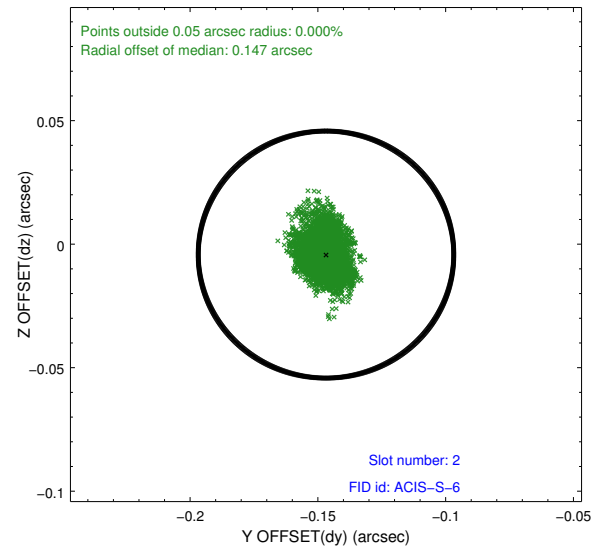
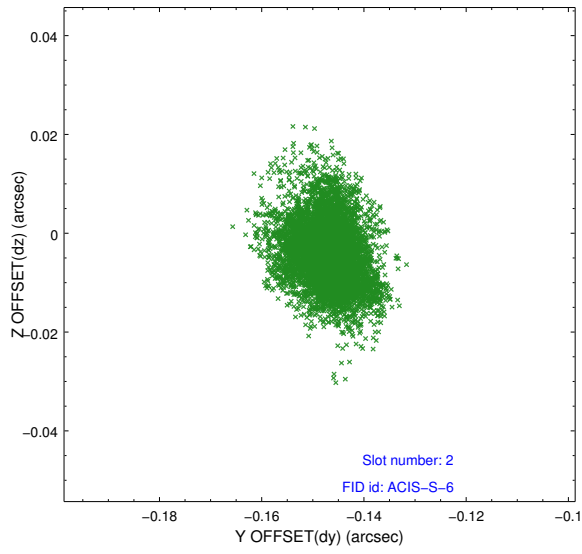
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

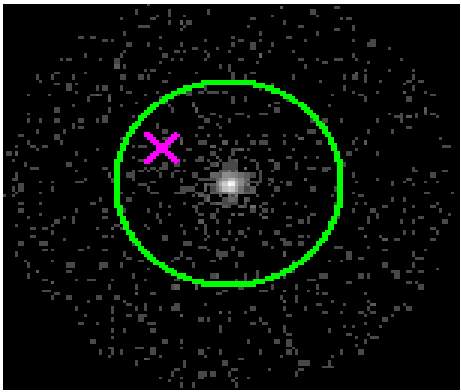


3 Gratings

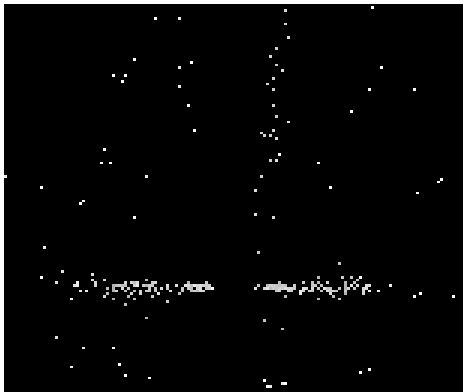
3.1 HEG Arm



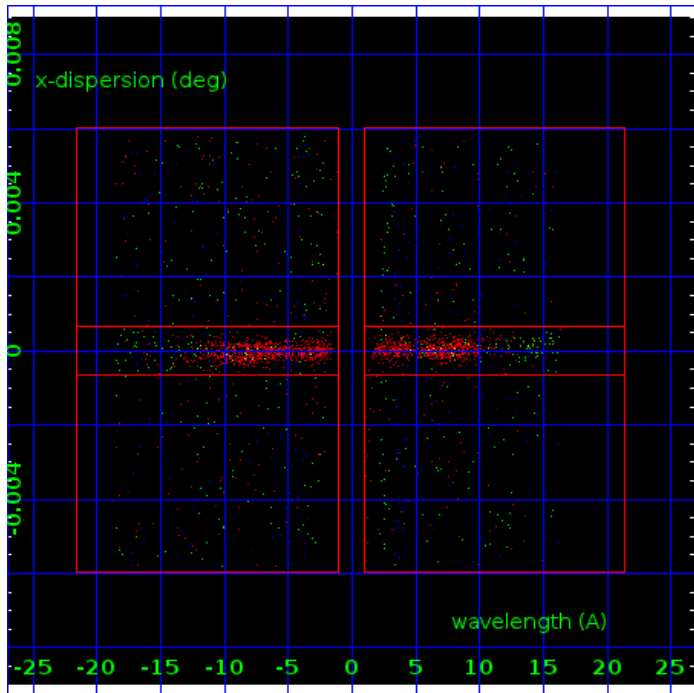
HEG Order Sort 123



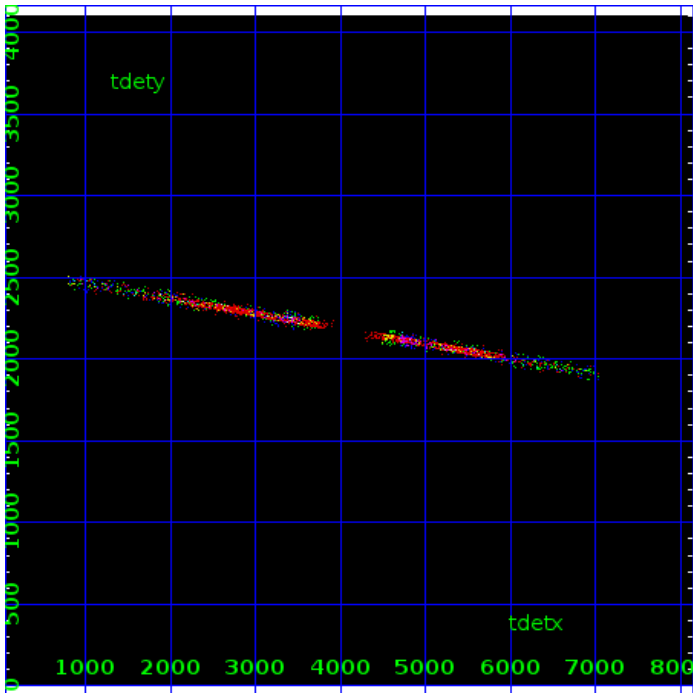
HEG Zero Order



HEG Order Sort ALL

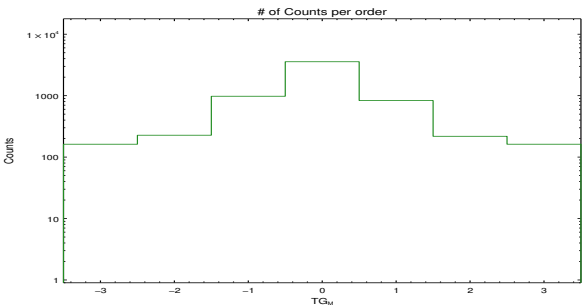


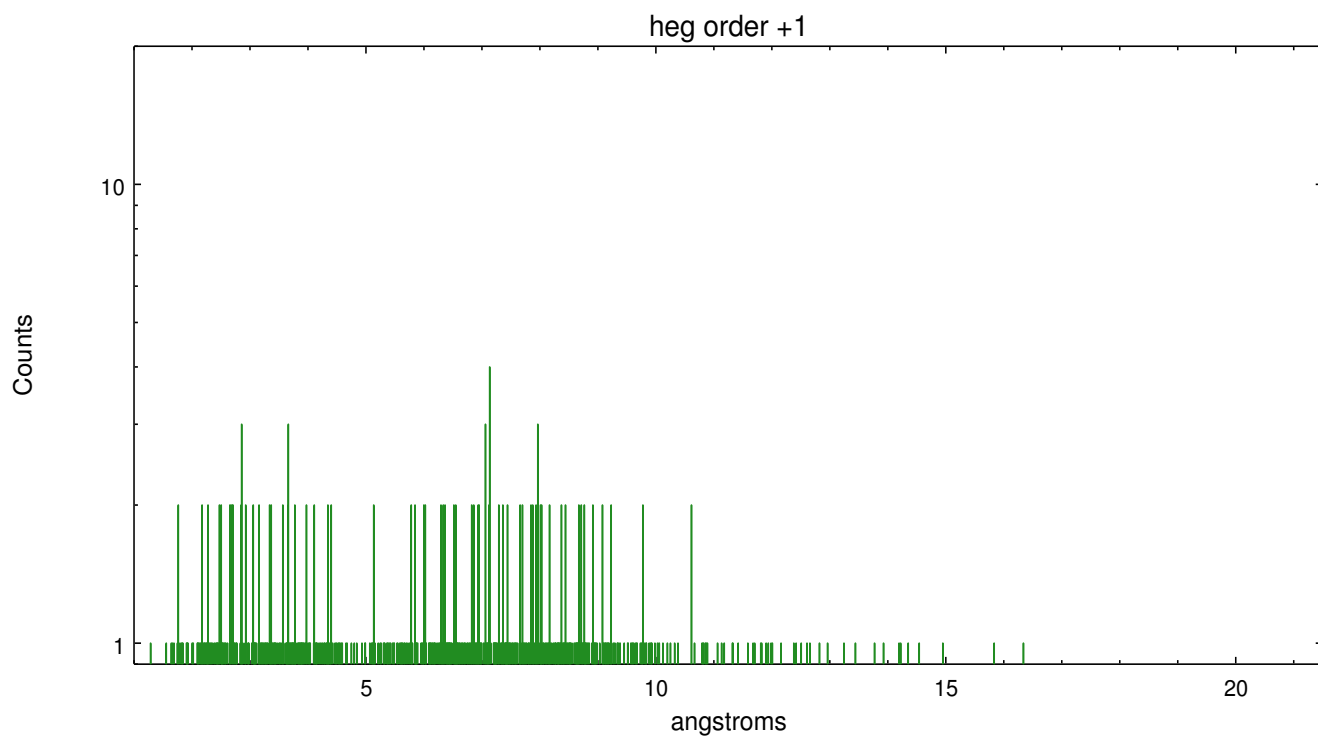
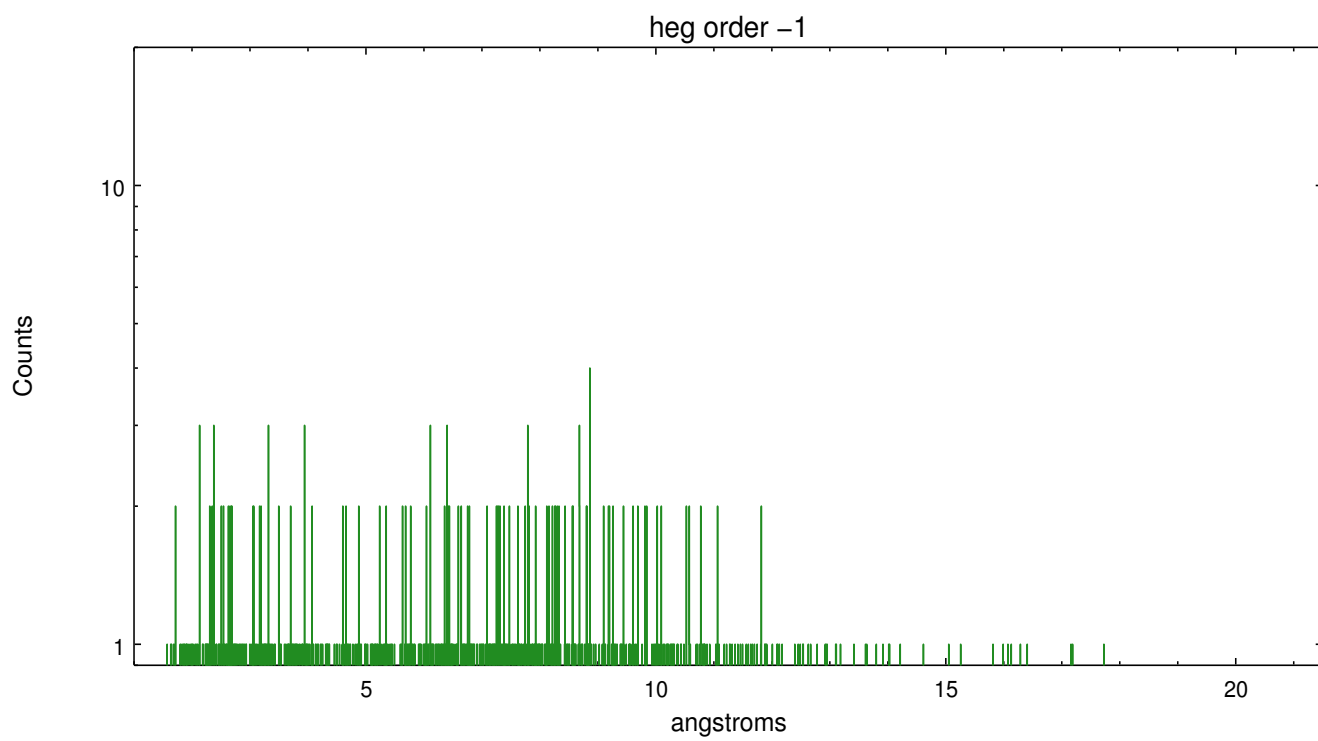
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	162	227	978	3567	833	218	162

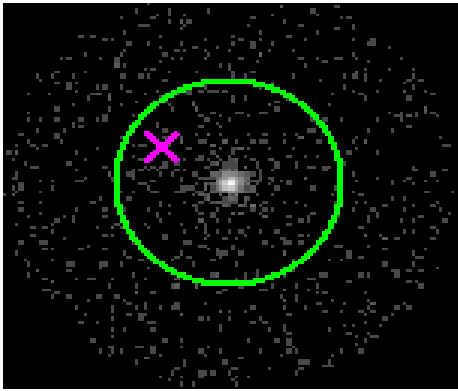




3.2 MEG Arm



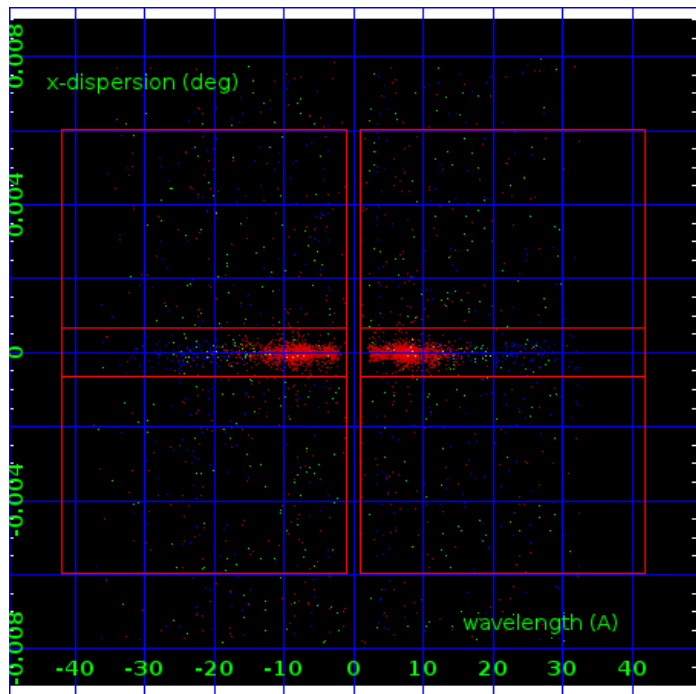
MEG Order Sort 123



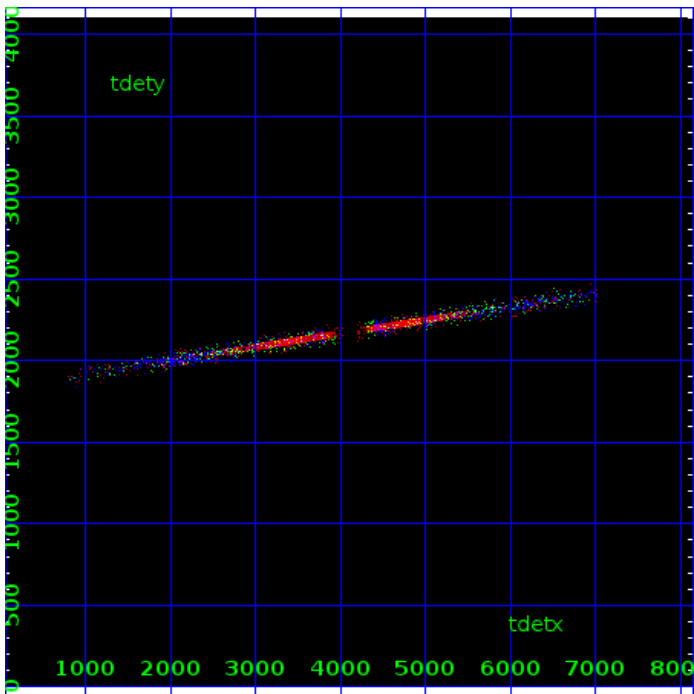
MEG Zero Order



MEG Order Sort ALL

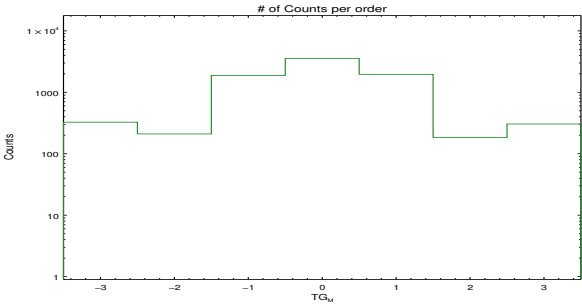


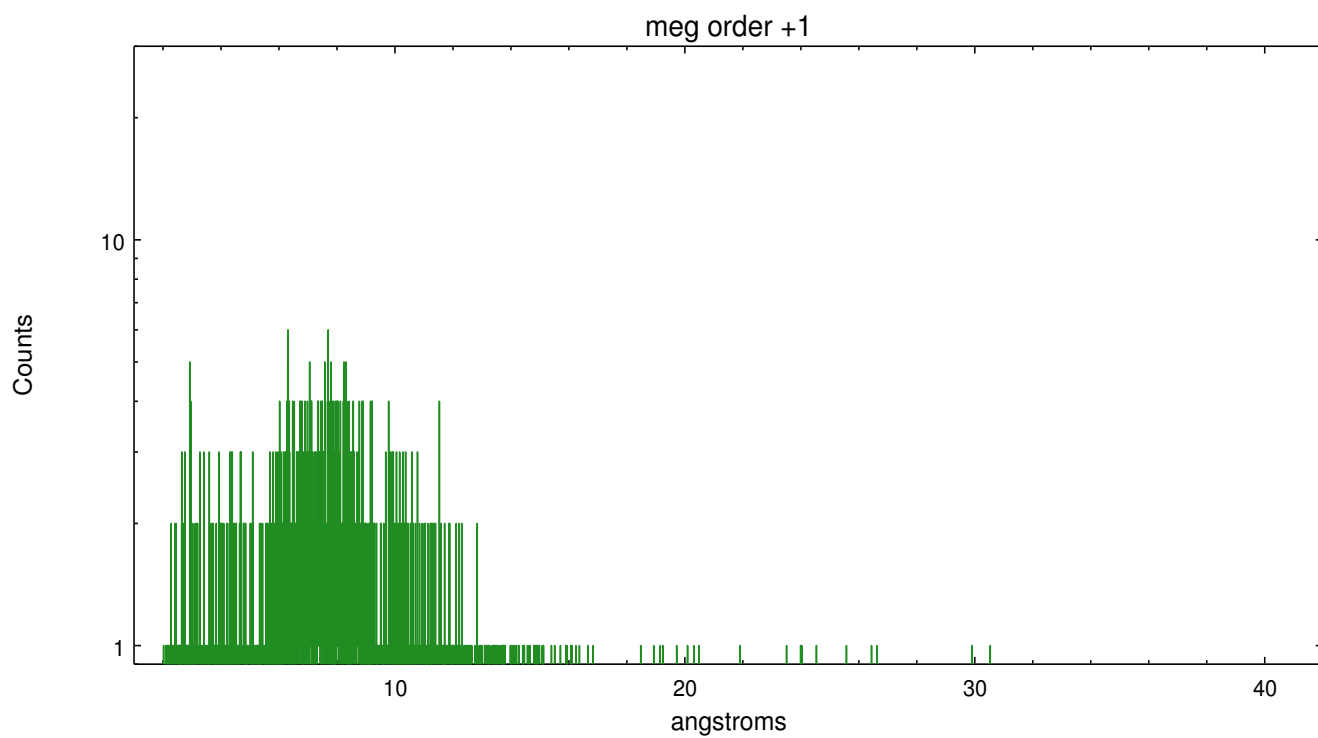
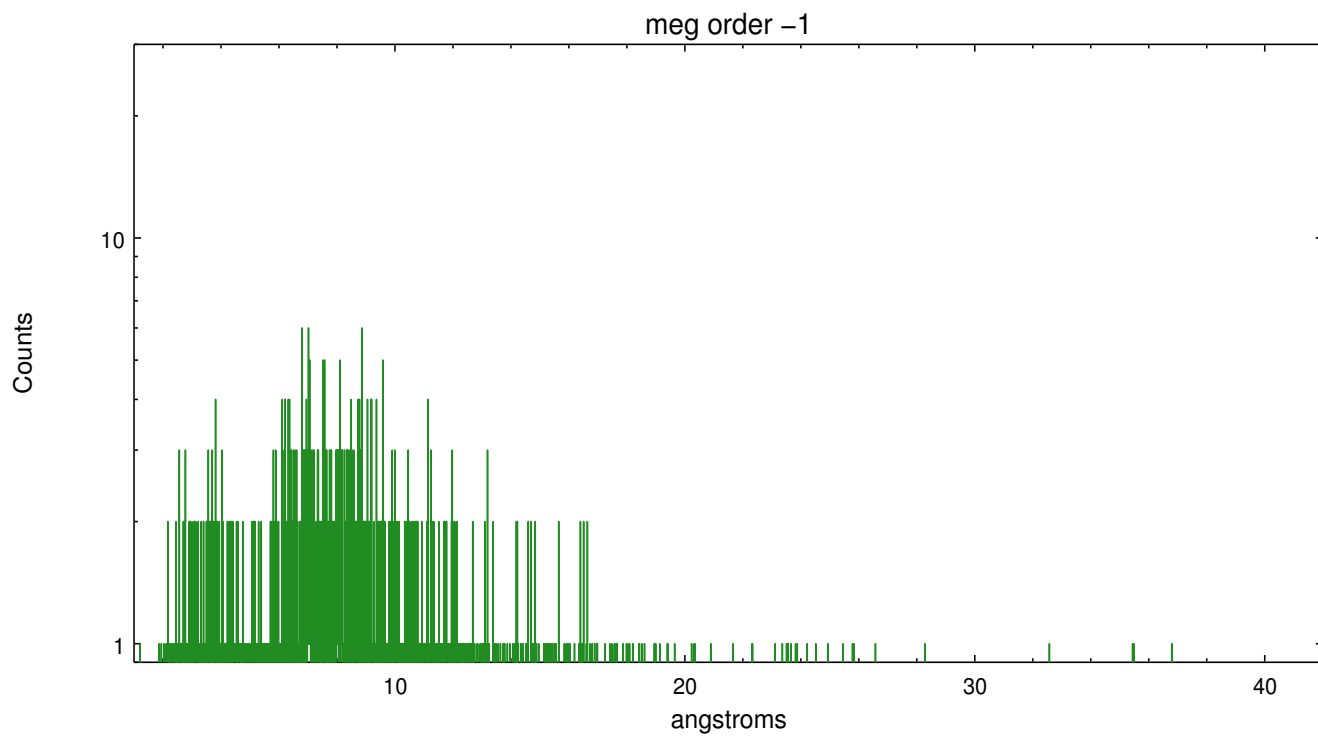
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	326	210	1878	3567	1961	184	305





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2016.03.22
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	24.947200371742

A.2 Comments