

V&V Reference Report

L2 ASCDS Version : 10.5.1.1

Observation 19885 - L2 Version 1
Chandra X-Ray Center

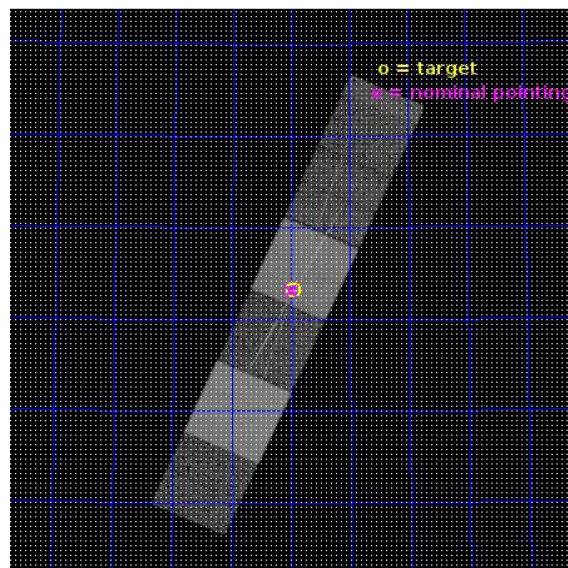
L2 Processing Date : Sep 21 2016

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1 Front

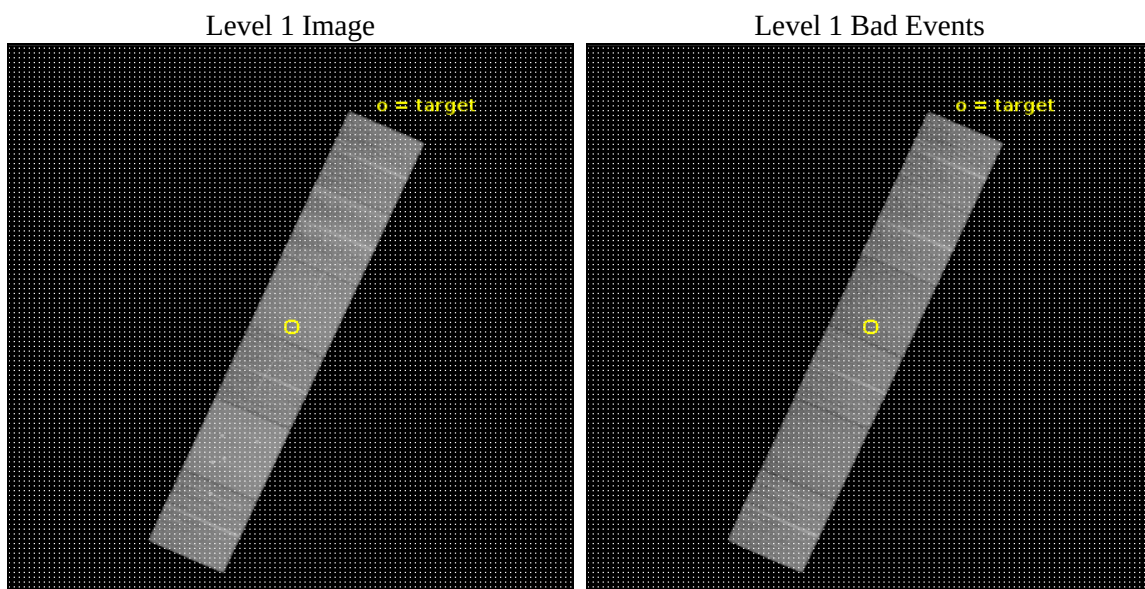
seq_num	703213	Sequence number
obs_id	19885	Observation id
title	Picturing Feedback in Action: from the innermost nuclear region to the Galaxy Scale	Proposal title
observer	Dr. Fabrizio Nicastro	Principal investigator
object	Mkn 876	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	243.488333	Observer's specified target RA [deg]
dec_targ	65.719444	Observer's specified target Dec [deg]
ra_nom	243.49805908242	Nominal RA [deg]
dec_nom	65.718576547066	Nominal Dec [deg]
roll_nom	294.14775831508	Nominal Roll [deg]
revision	1	Processing version of data
ontime	25664.000382423	Sum of GTIs [s]
livetime	25339.027356575	Livetime [s]
ontime4	25664.000382423	Sum of GTIs [s]
ontime5	25664.000382423	Sum of GTIs [s]
ontime6	25664.000382423	Sum of GTIs [s]
ontime7	25664.000382423	Sum of GTIs [s]
ontime8	25664.000382423	Sum of GTIs [s]
ontime9	25660.759362102	Sum of GTIs [s]
l2events	295112	Number of level 2 events



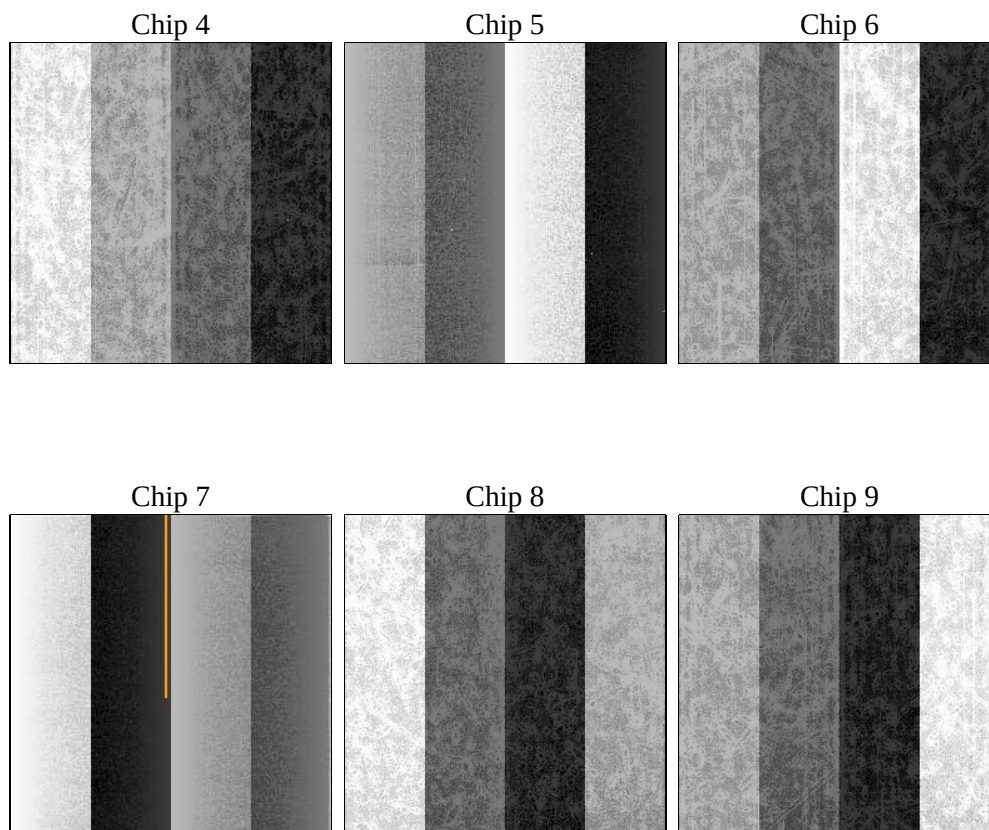
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	25724.278000	[s] Scheduled observation exposure time
ascdsver	10.5.1.1	Processing system revision	ontime	25664.000382423	Sum of GTIs [s]
caldsver	4.7.2	 	ontime4	25664.000382423	Sum of GTIs [s]
date	2016-09-21T21:20:46	Date and time of file creation	ontime5	25664.000382423	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	25664.000382423	Sum of GTIs [s]
			ontime7	25664.000382423	Sum of GTIs [s]
			ontime8	25664.000382423	Sum of GTIs [s]
			ontime9	25660.759362102	Sum of GTIs [s]
			l1events	1262958	Number of level 1 events
			tgmethod	TGDETECT	Method used to create src1a file
			src1a_pos	(4126.20, 4102.24)	src1a sky pixel position

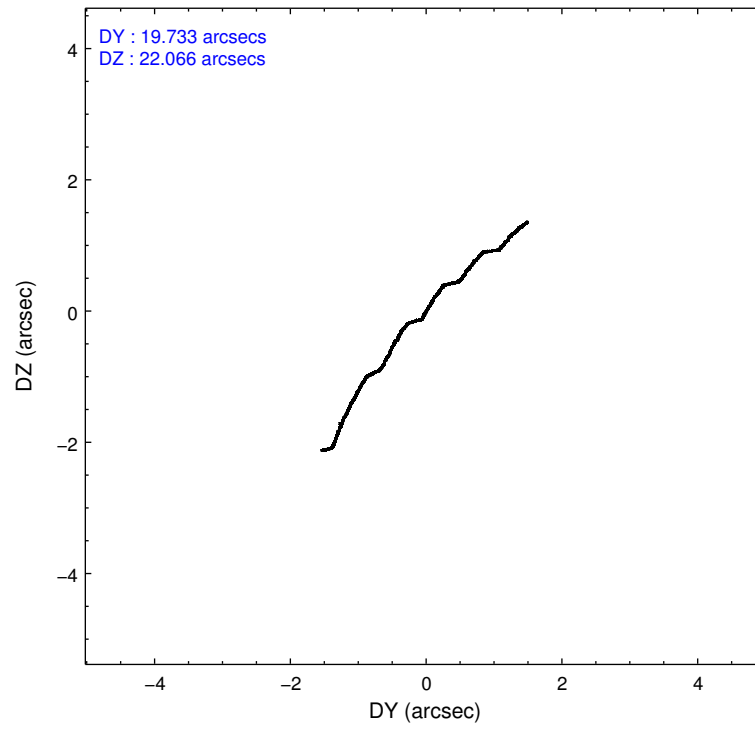
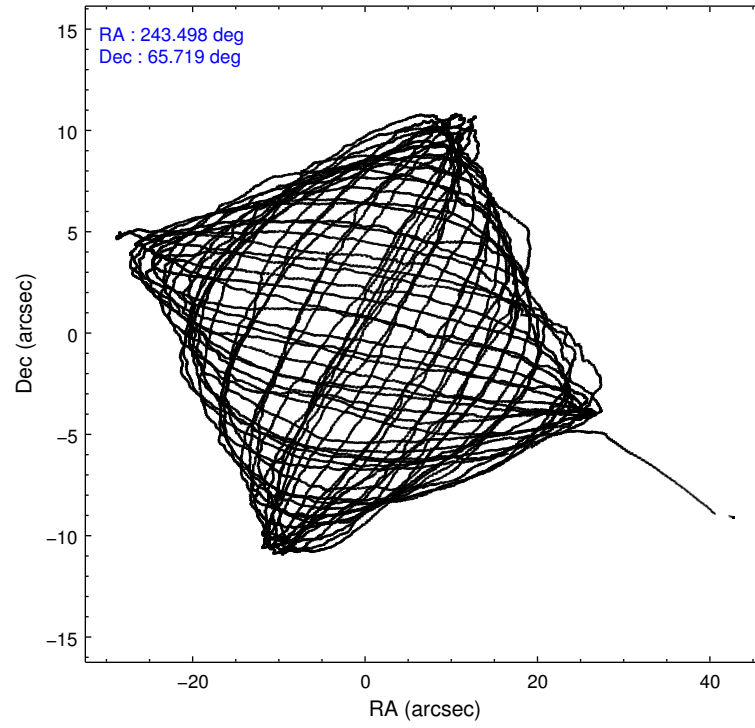
2.1.4 Events

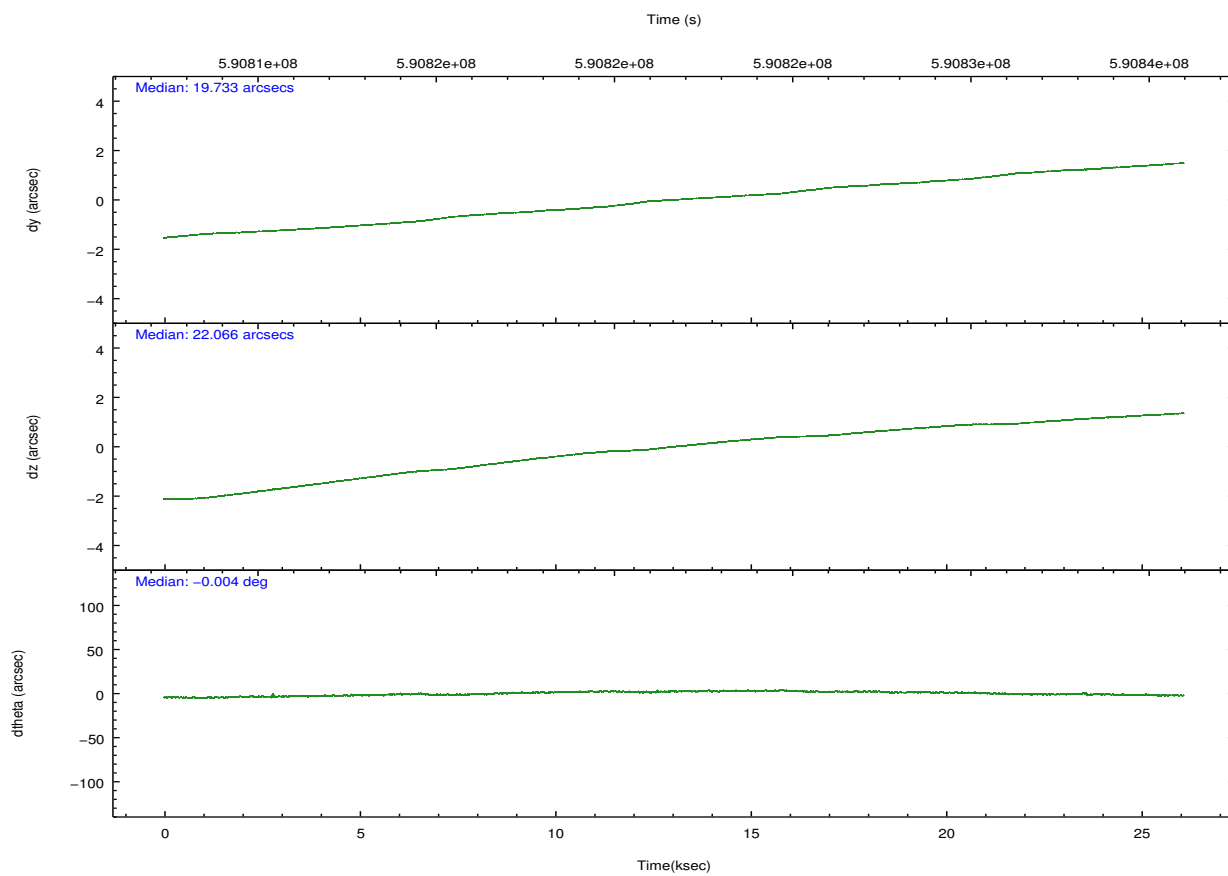
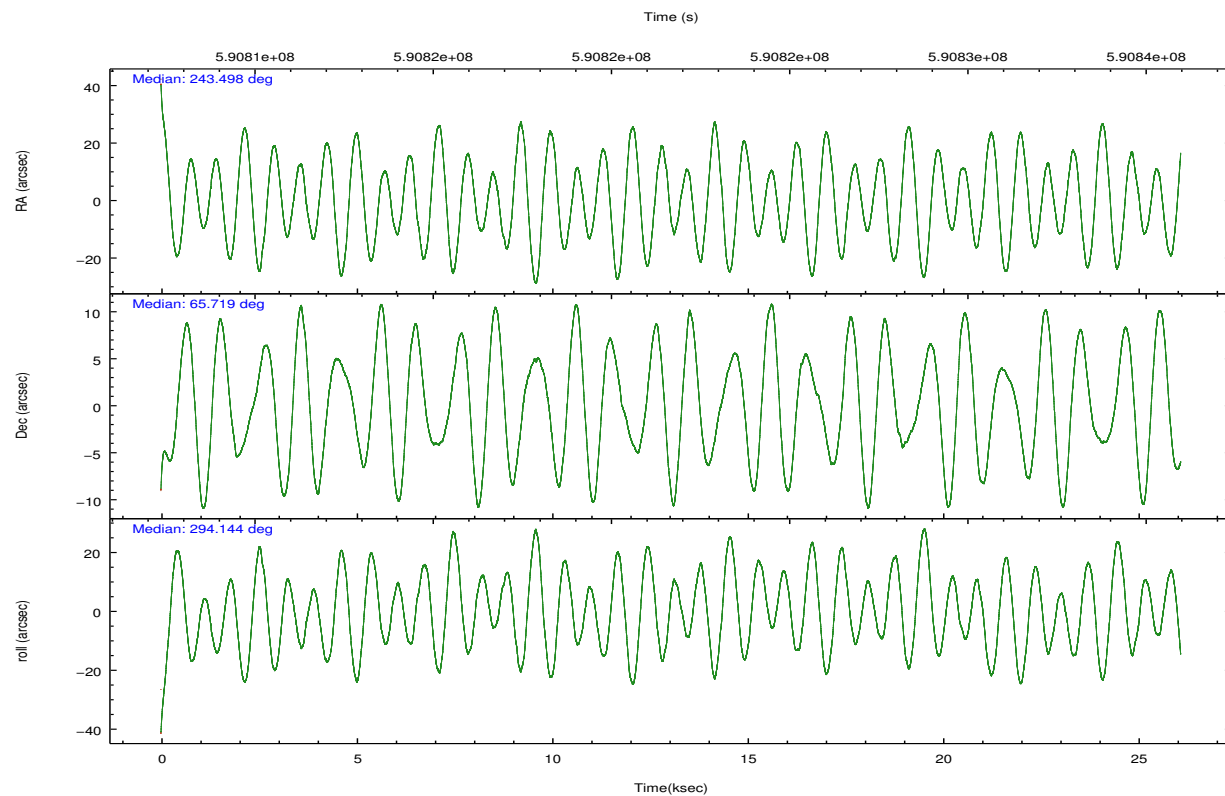
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	193235	268687	177529	224202	227621	171684	grade 0 events	9147	11497	8440	9511	18583	7446
rejected events	170883	137435	155650	123348	165330	150871		4%	4%	4%	4%	8%	4%
rejected %	88%	51%	87%	55%	72%	87%	grade 1 events	189	681	88	356	190	107
								0%	0%	0%	0%	0%	0%
							grade 2 events	5180	40641	4824	21556	14926	4533
								2%	15%	2%	9%	6%	2%
							grade 3 events	2233	4227	1998	8402	6400	2178
								1%	1%	1%	3%	2%	1%
							grade 4 events	2085	4120	2101	8214	6113	2083
								1%	1%	1%	3%	2%	1%
							grade 5 events	8336	19246	8141	22244	11996	9007
								4%	7%	4%	9%	5%	5%
							grade 6 events	3708	70783	4518	53178	16277	4576
								1%	26%	2%	23%	7%	2%
							grade 7 events	162357	117492	147419	100741	153136	141754
								84%	43%	83%	44%	67%	82%

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	243.443435	243.498059082416	CCD I2 on	N	N
[deg] Pointing Dec	65.734354	65.71857654706606	CCD I3 on	N	N
[deg] Pointing Roll	294.040929	294.1477583150818	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	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	Y	Y
[s] Observation start time (MET)	590808978.184000	590807855.51754	CCD S5 on	Y	Y
Observation start date	2016-09-21T01:35:10	2016-09-21T01:17:35	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	590834702.184000	590834922.6941	On-chip summing requested	N	N
Observation end date	2016-09-21T08:43:54	2016-09-21T08:48:42	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



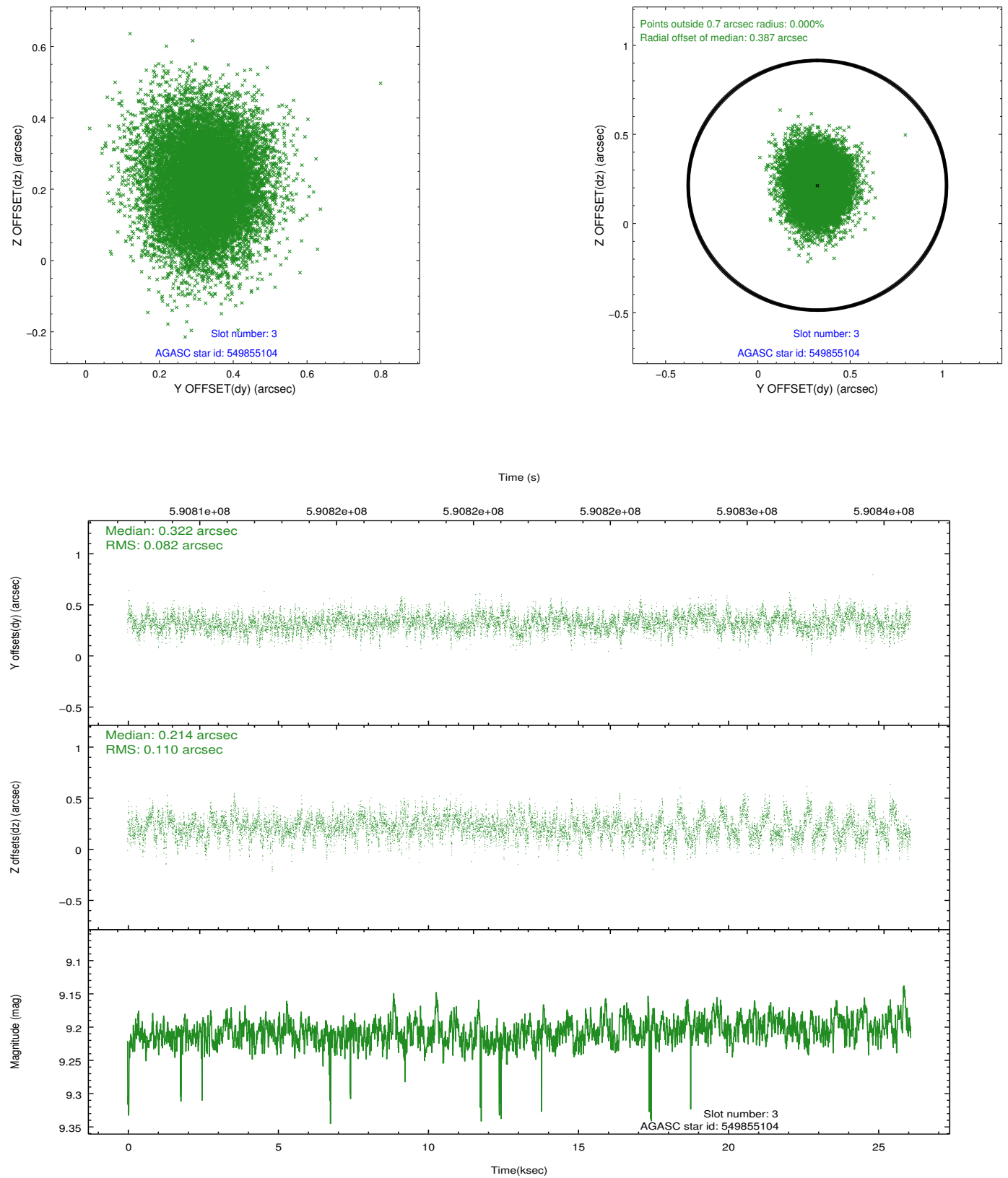


Slot Statistics

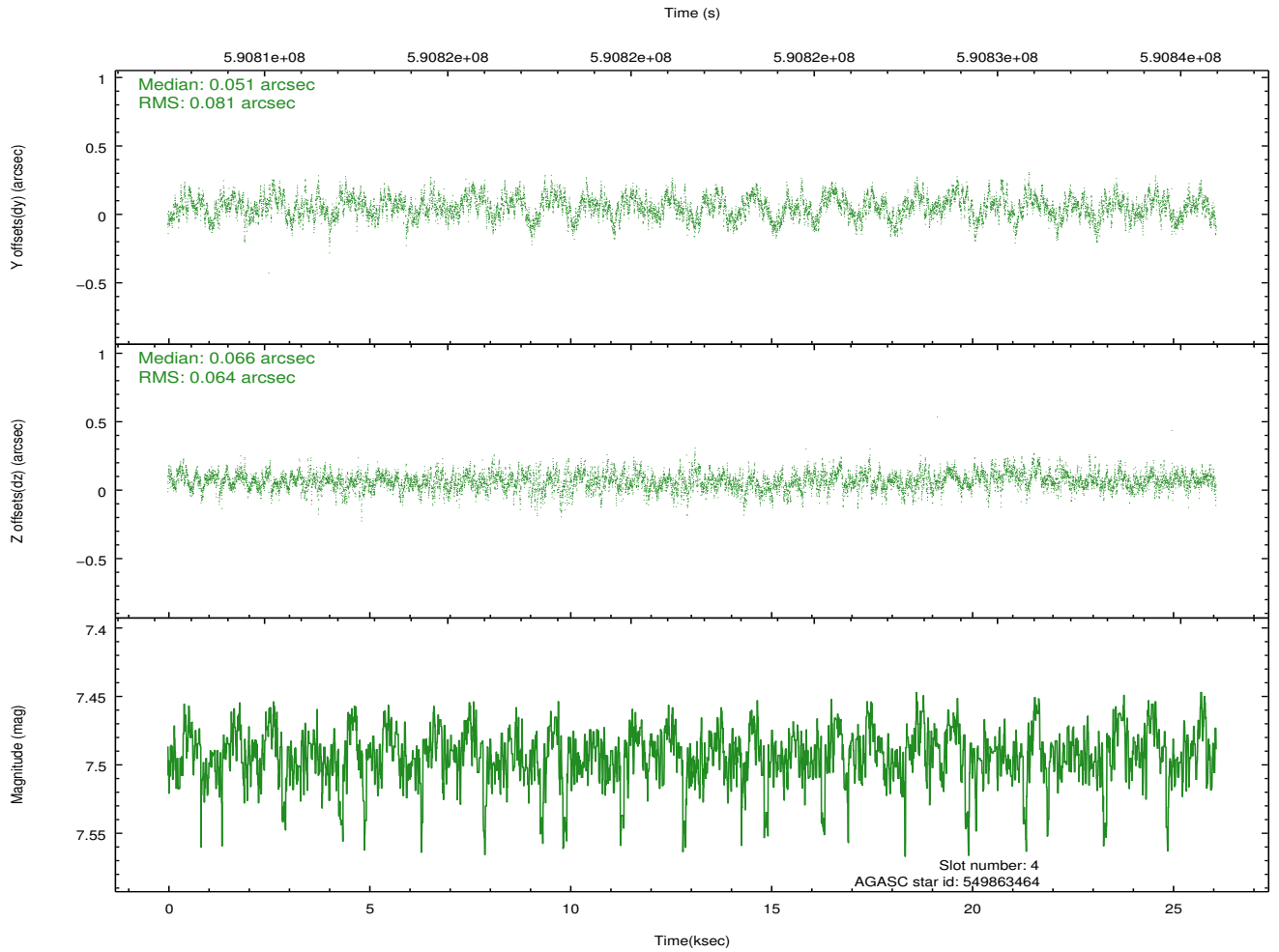
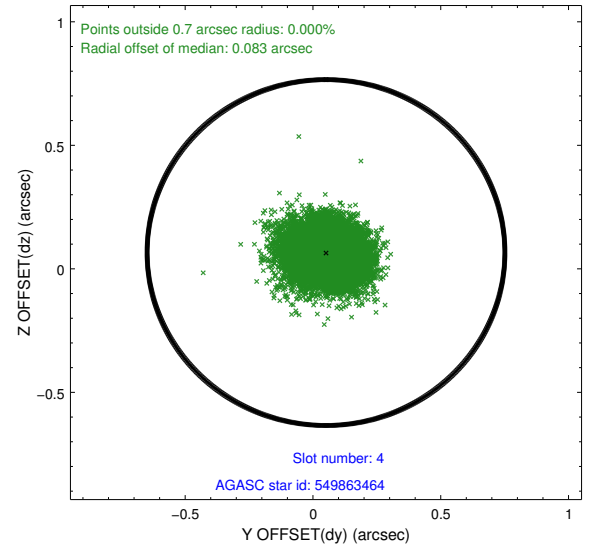
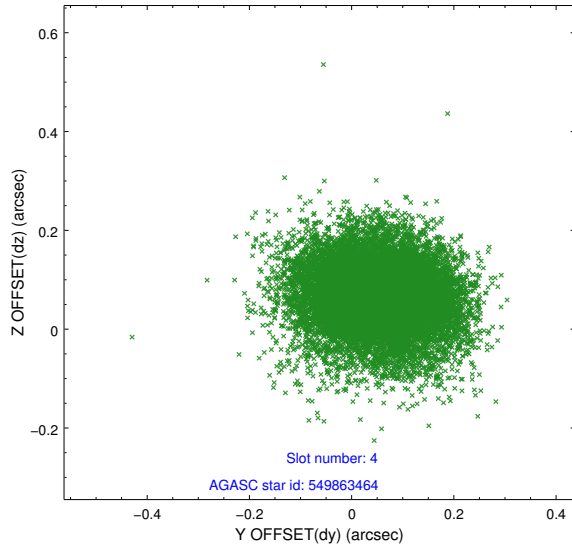
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.01	6364	-0.231	-0.160	0.022	0.047	0.000000	0.000000	-773.03	-1743.63
1	FID		ACIS-S-4	7.12	6364	0.510	0.155	0.014	0.021	0.000000	0.000000	2140.93	165.05
2	FID		ACIS-S-5	7.13	6363	-0.311	0.013	0.020	0.031	0.000000	0.000000	-1825.82	158.69
3	GUIDE	used	549855104	9.21	12717	0.322	0.214	0.146	0.240	242.414078	65.829144	-935.93	-1241.65
4	GUIDE	used	549863464	7.49	12726	0.051	0.066	0.110	0.177	243.630740	66.376841	-2002.41	1189.13
5	GUIDE	used	549864184	9.08	12714	0.056	-0.024	0.141	0.230	243.727034	65.246202	1778.48	-325.00
6	GUIDE	used	549864952	8.92	12721	-0.287	-0.167	0.130	0.219	244.861755	65.614211	1232.02	1758.66
7	GUIDE	used	549859024	7.85	12725	-0.140	-0.092	0.101	0.168	243.777882	65.072262	2381.59	-506.79

2.4 Star Slots

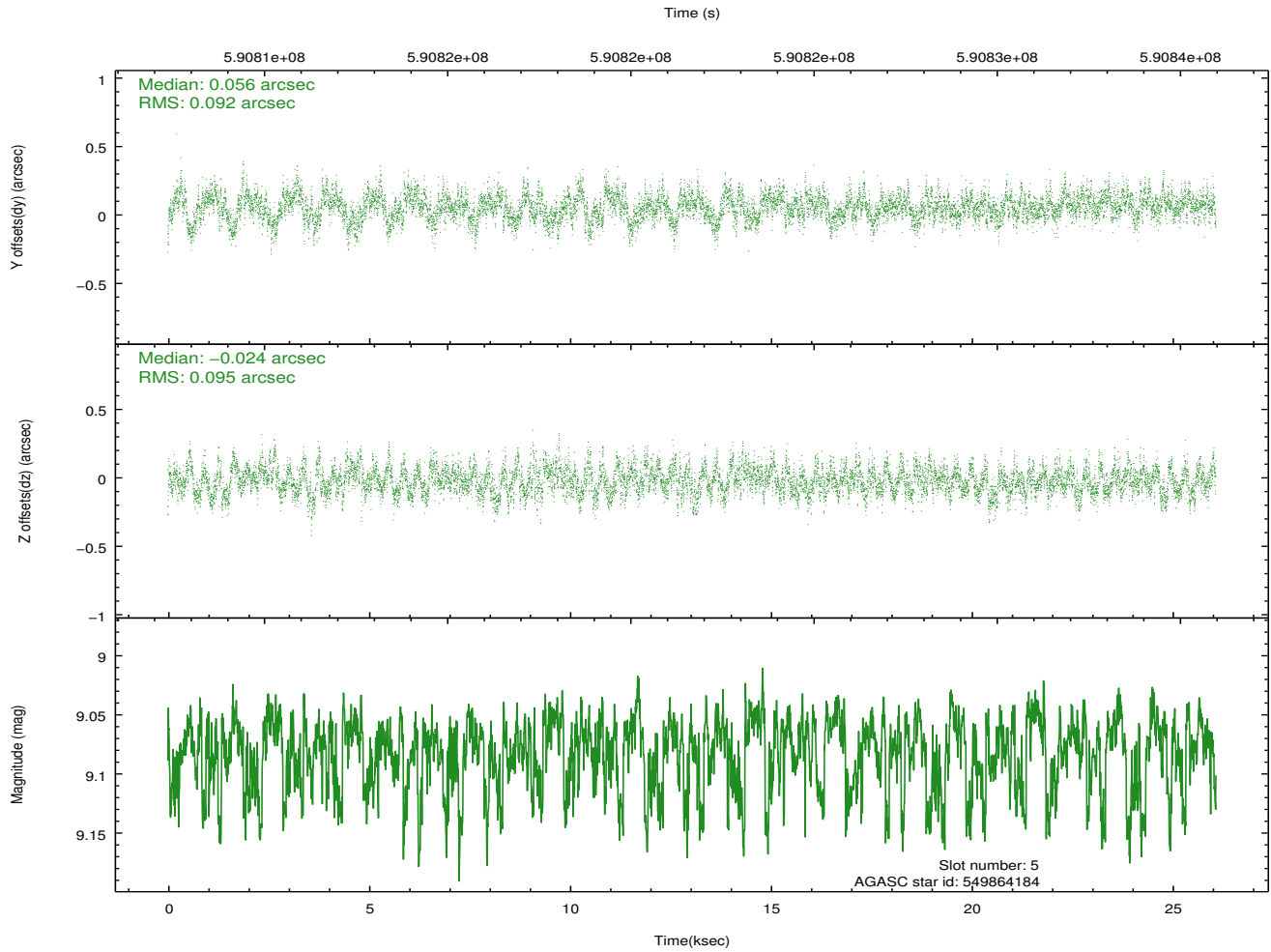
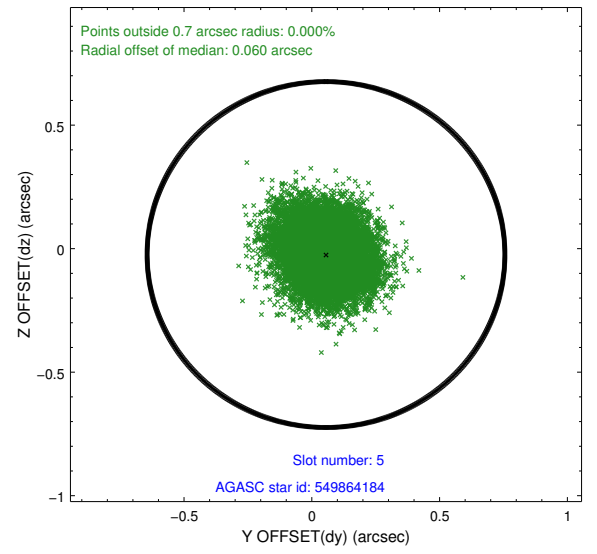
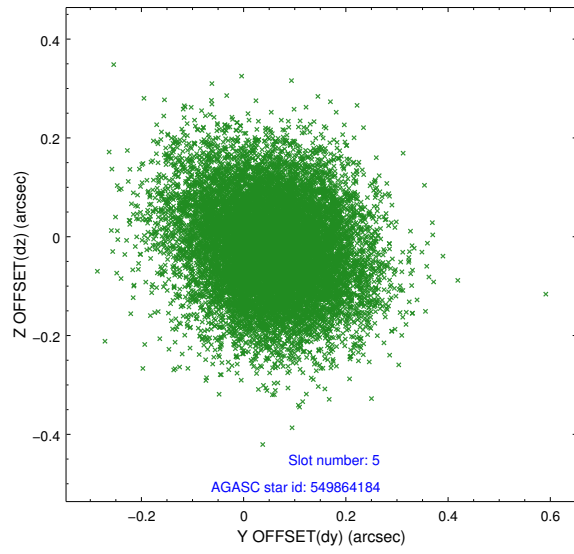
2.4.1 Slot 3



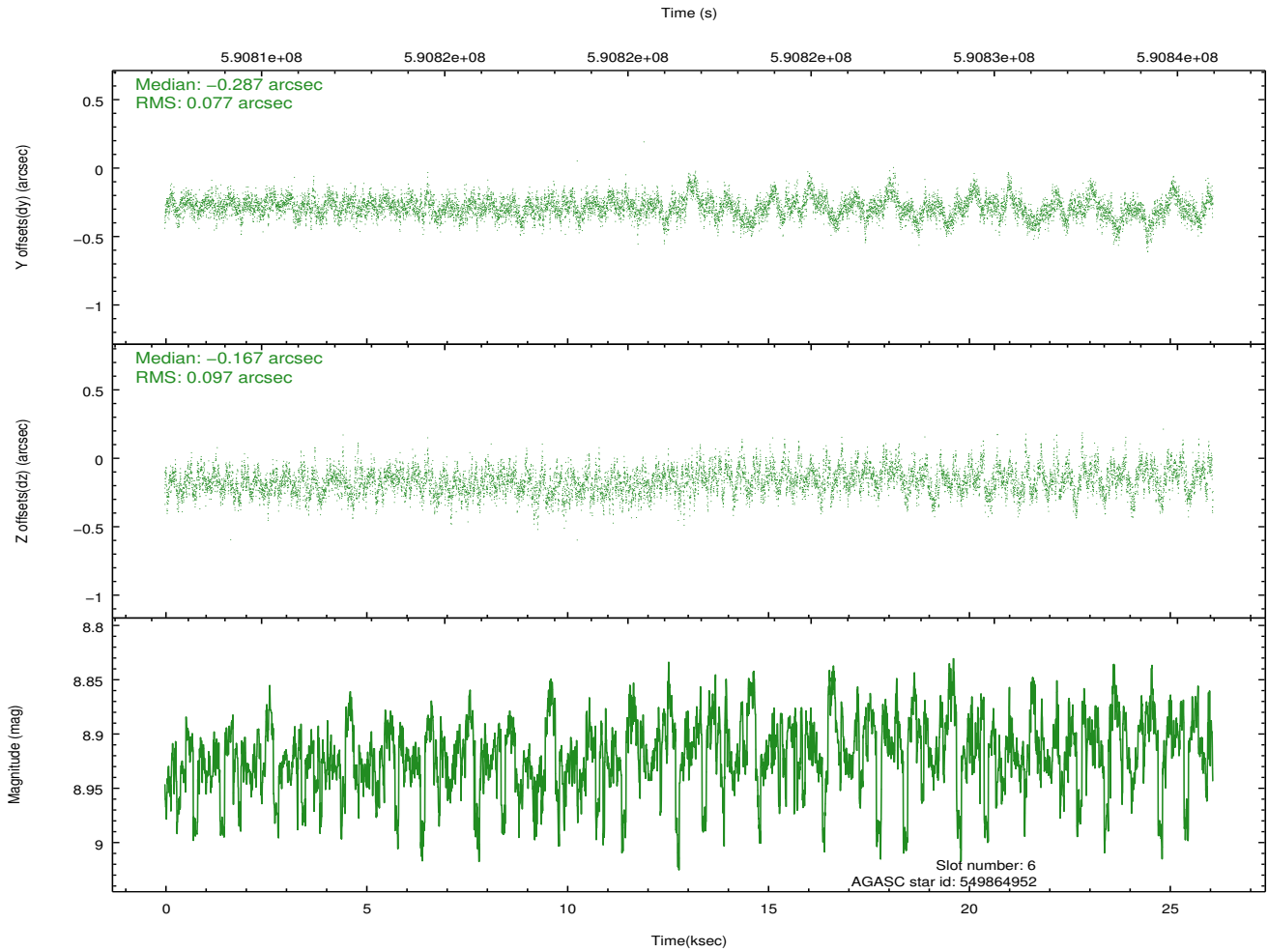
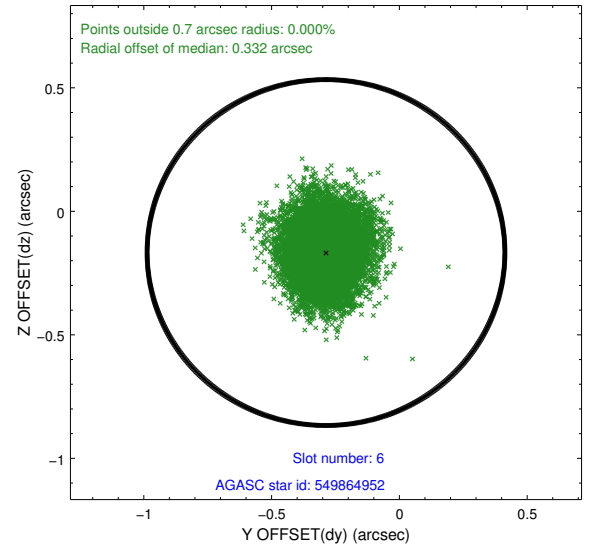
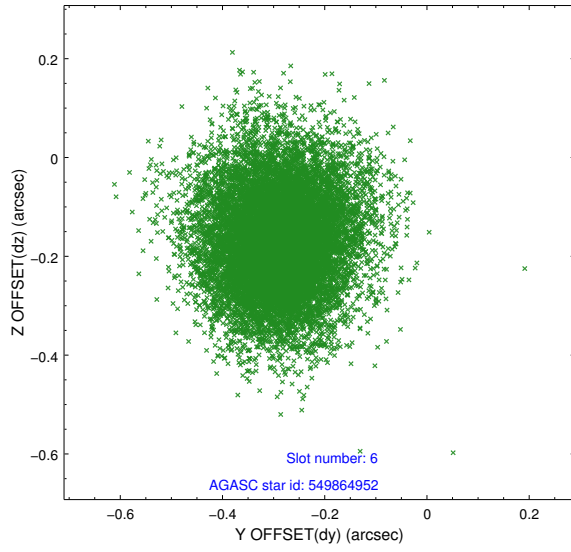
2.4.2 Slot 4



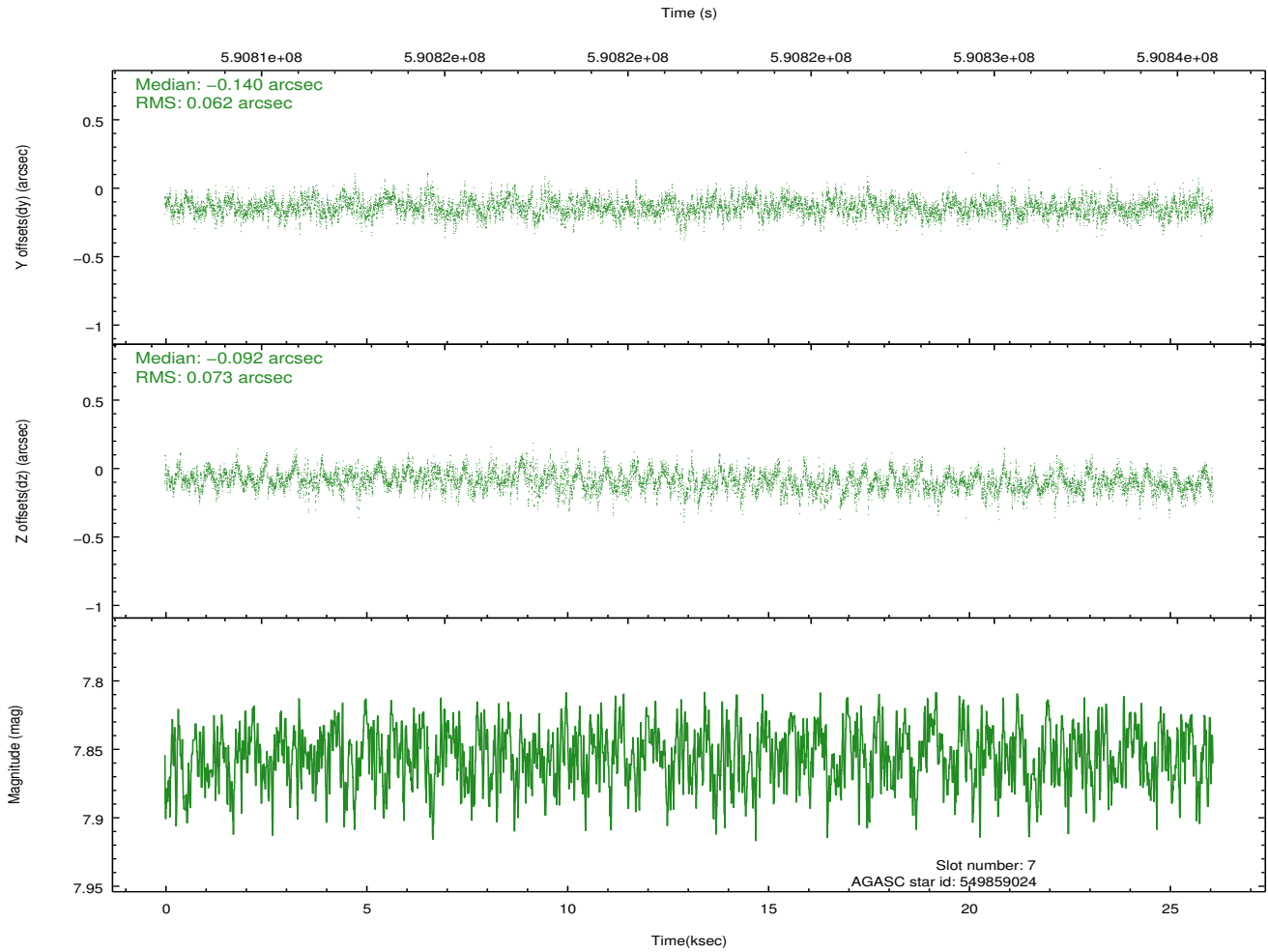
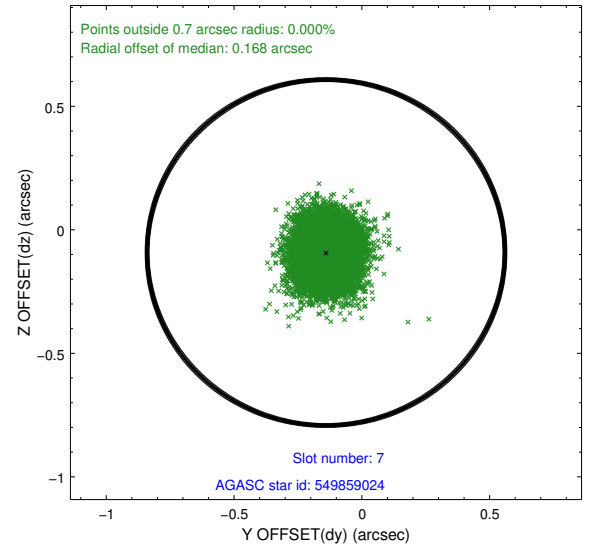
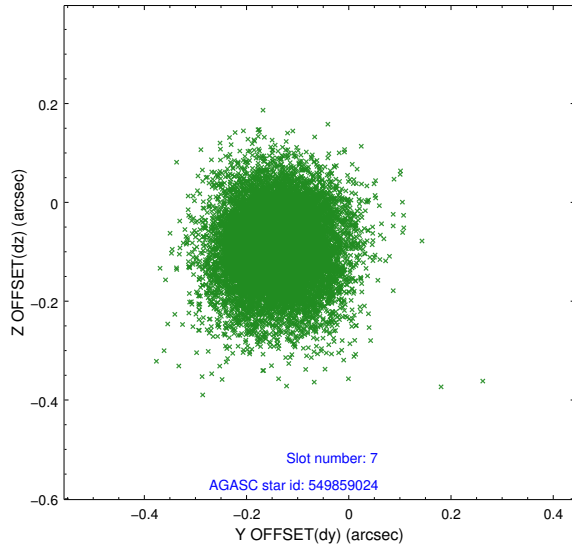
2.4.3 Slot 5



2.4.4 Slot 6

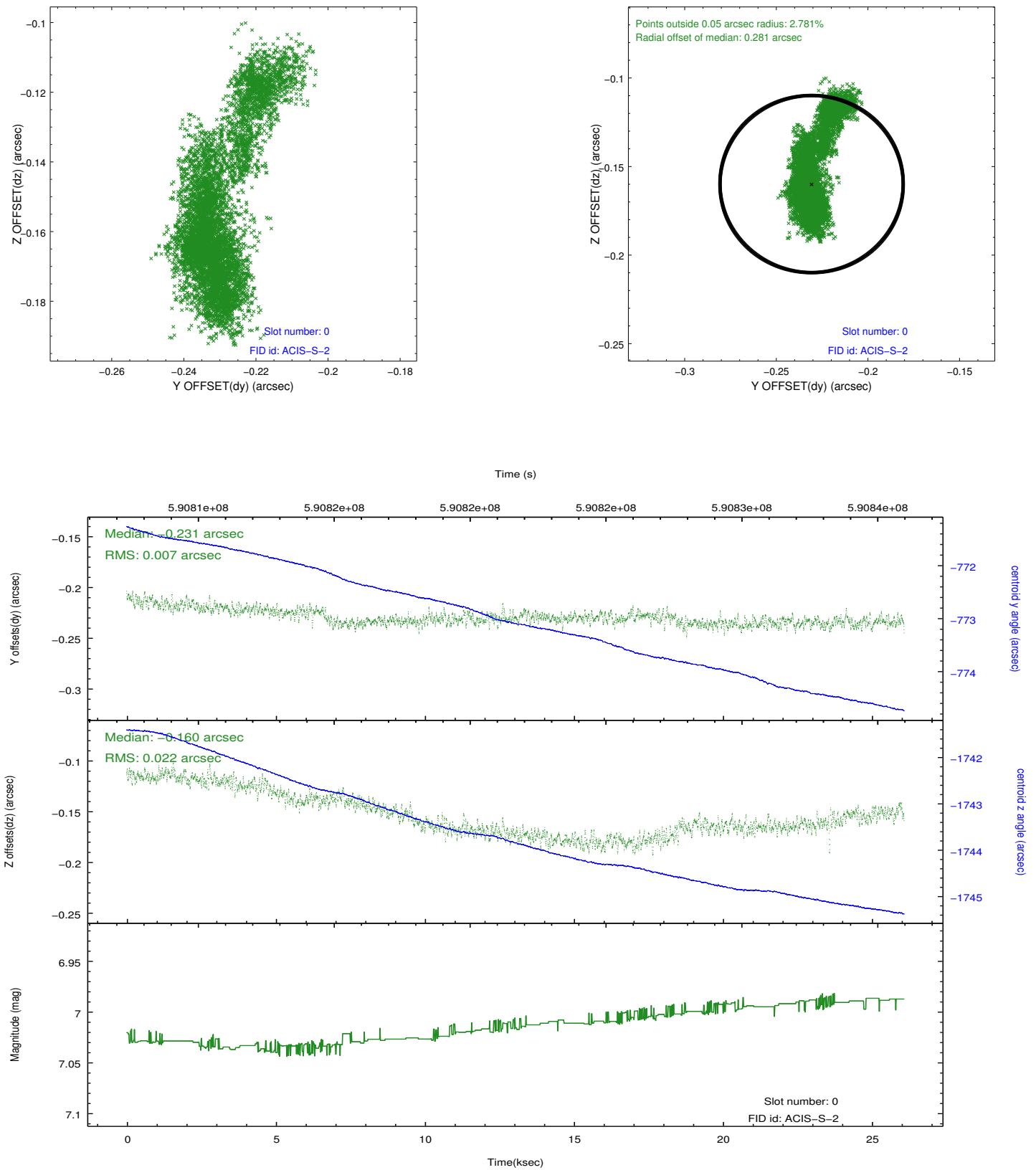


2.4.5 Slot 7

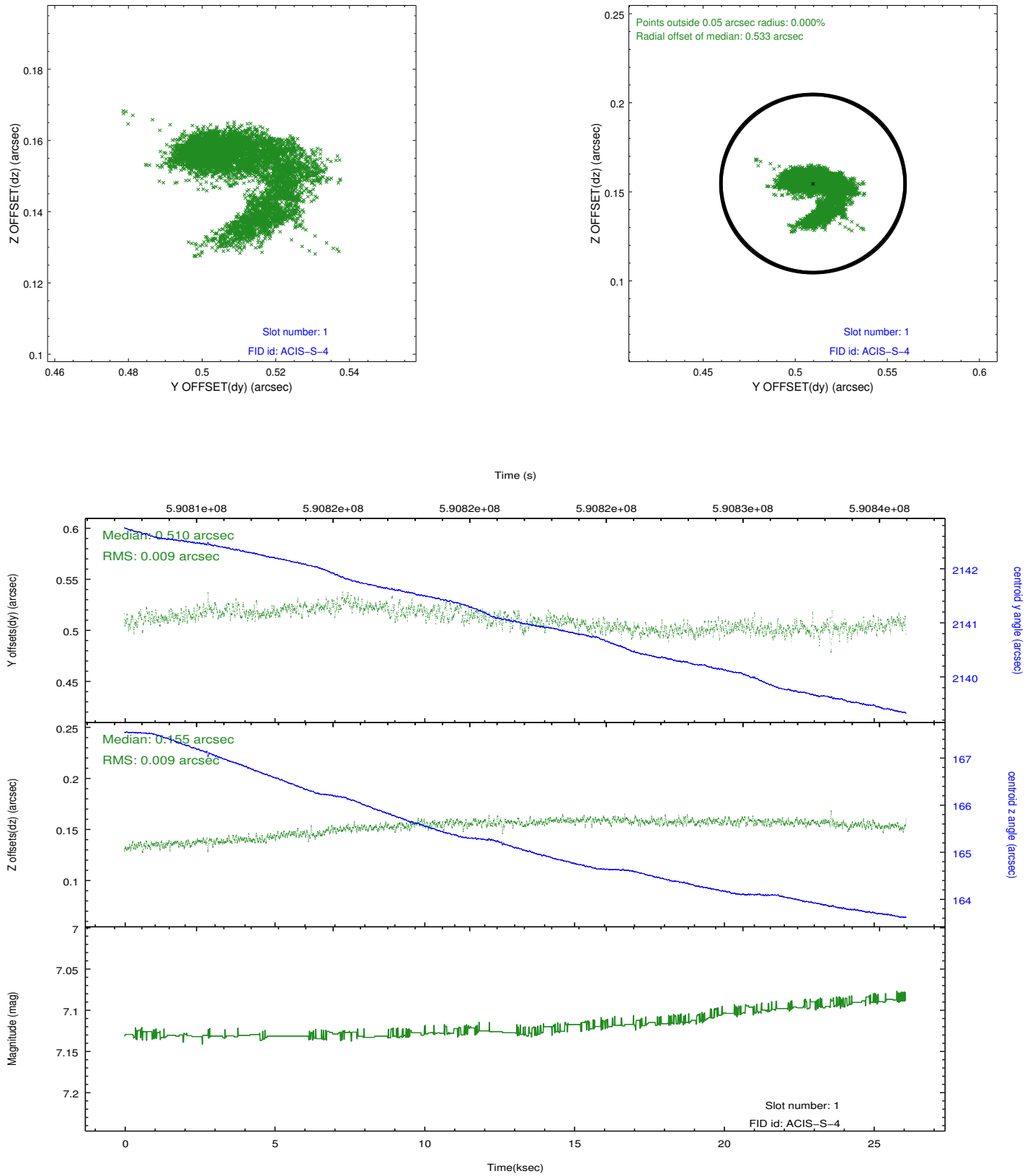


2.5 FID Slots

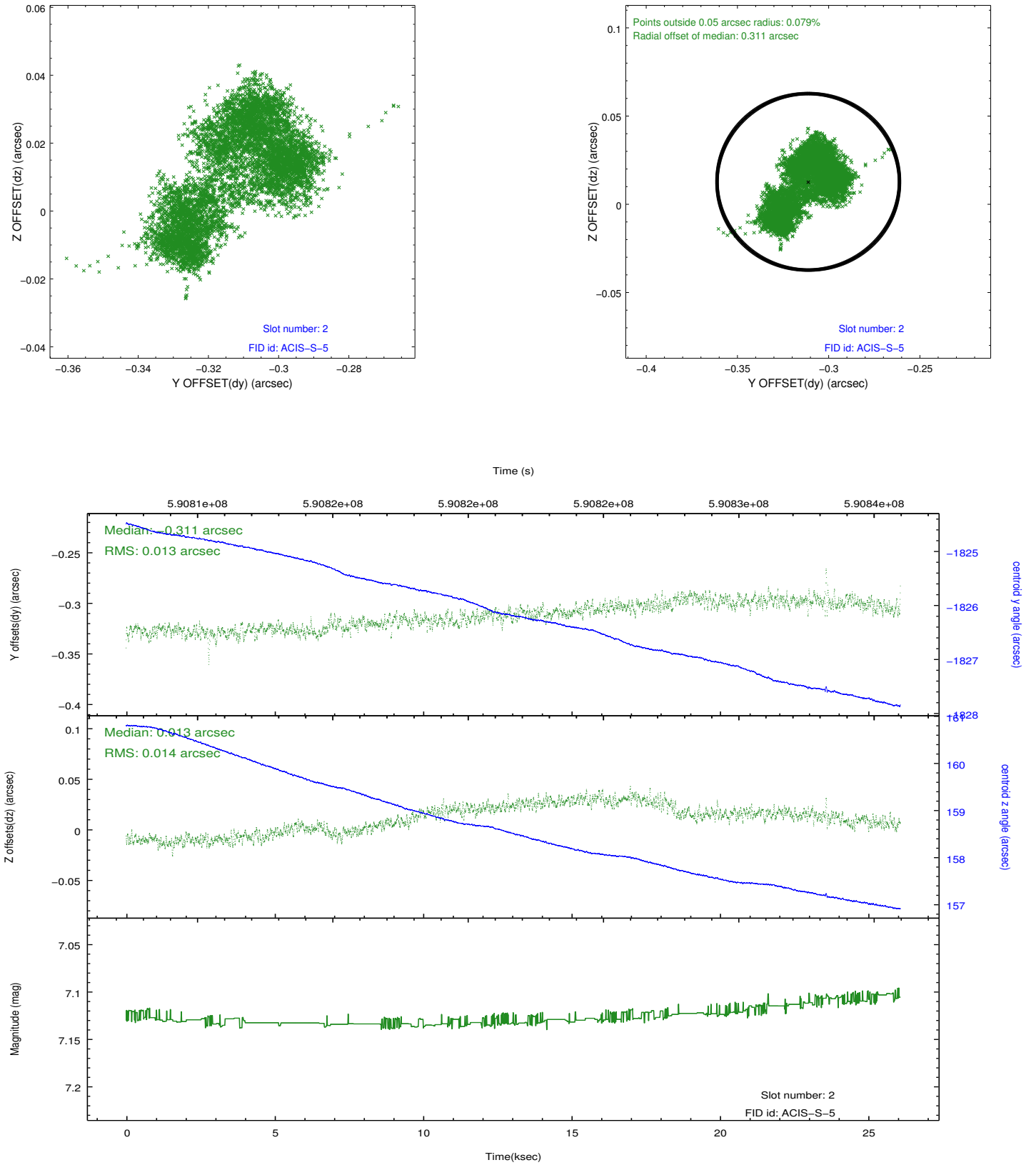
2.5.1 Slot 0



2.5.2 Slot 1

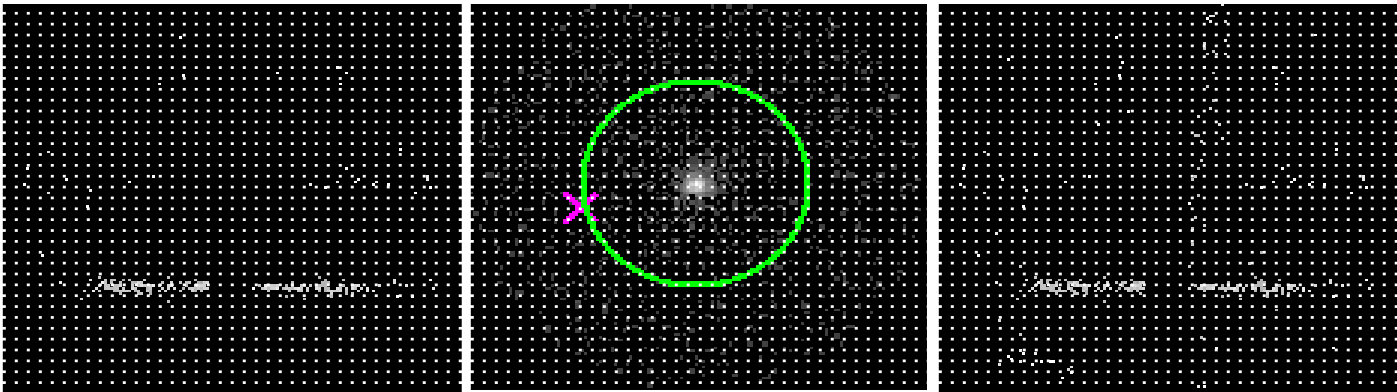


2.5.3 Slot 2



3 Gratings

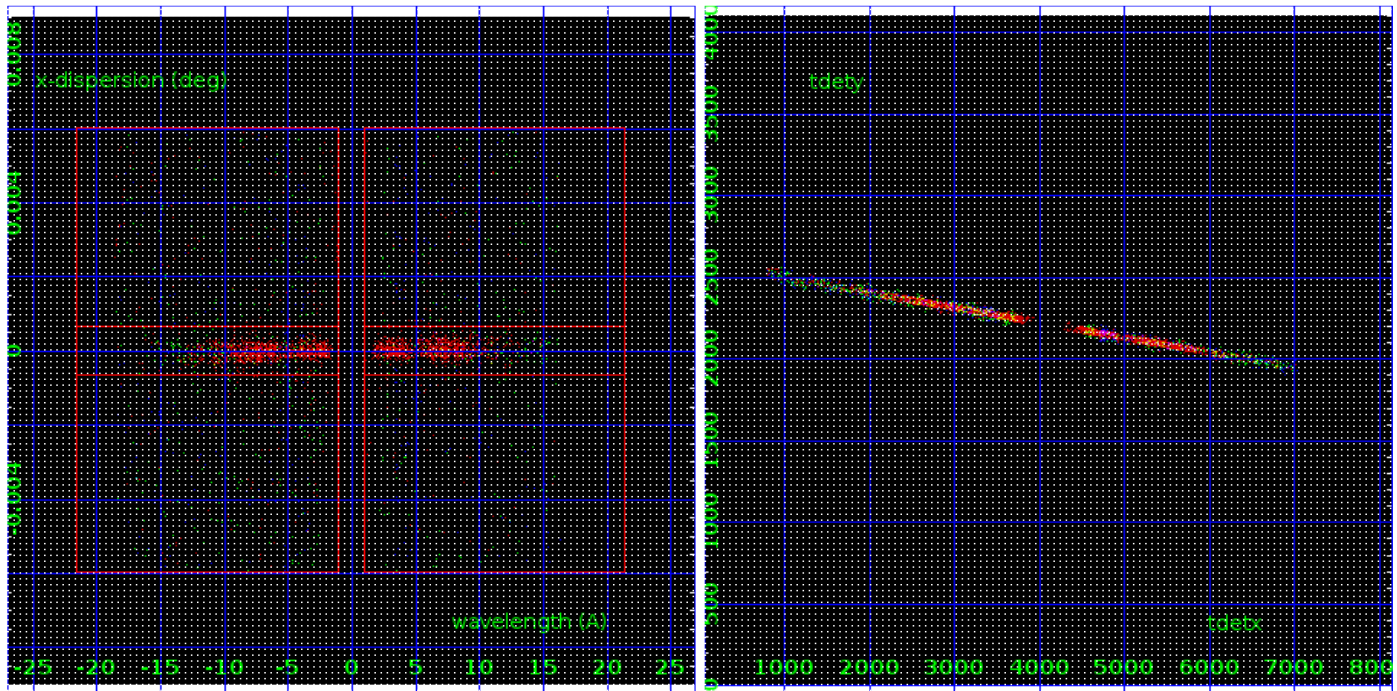
3.1 HEG Arm



HEG Order Sort 123

HEG Zero Order

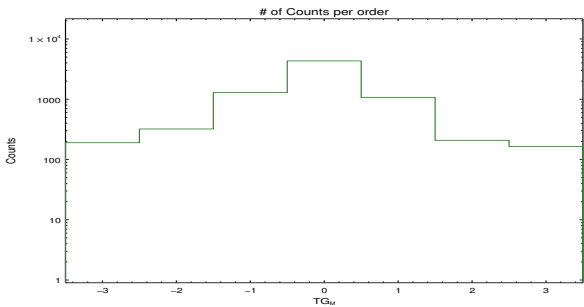
HEG Order Sort ALL

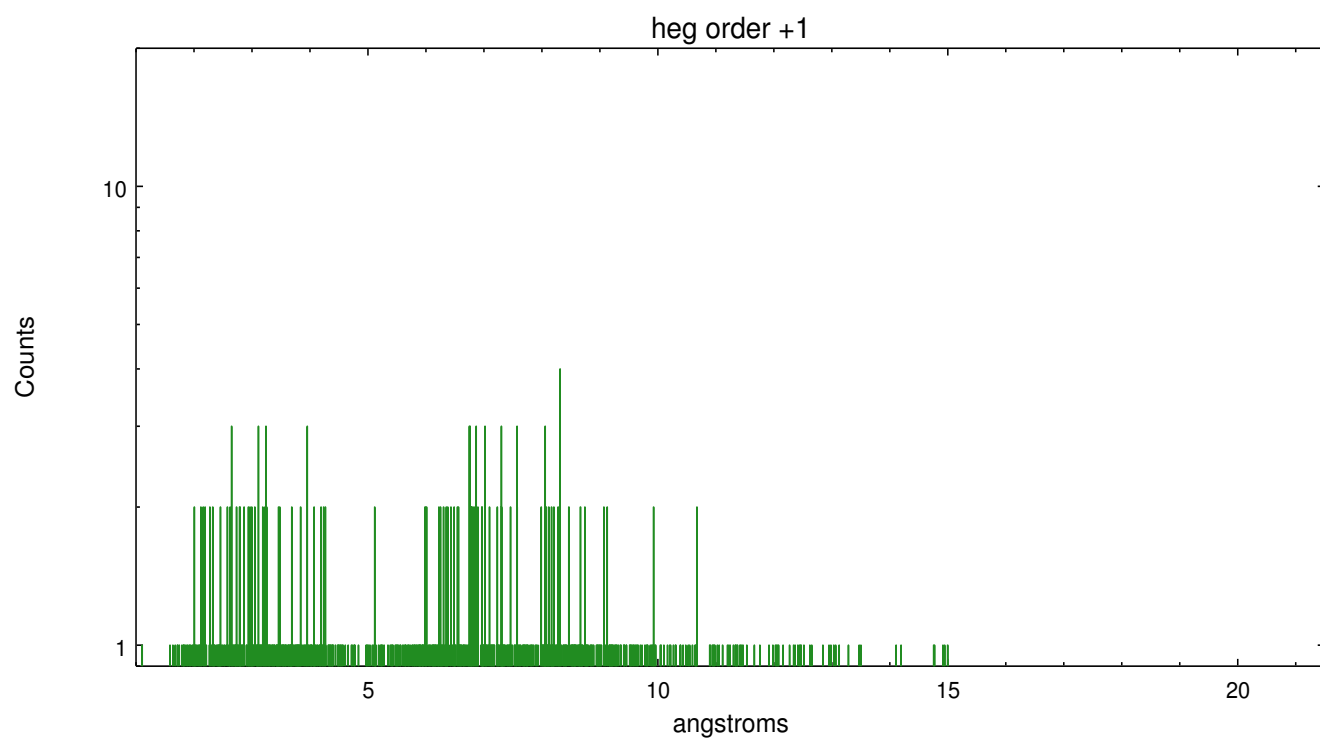
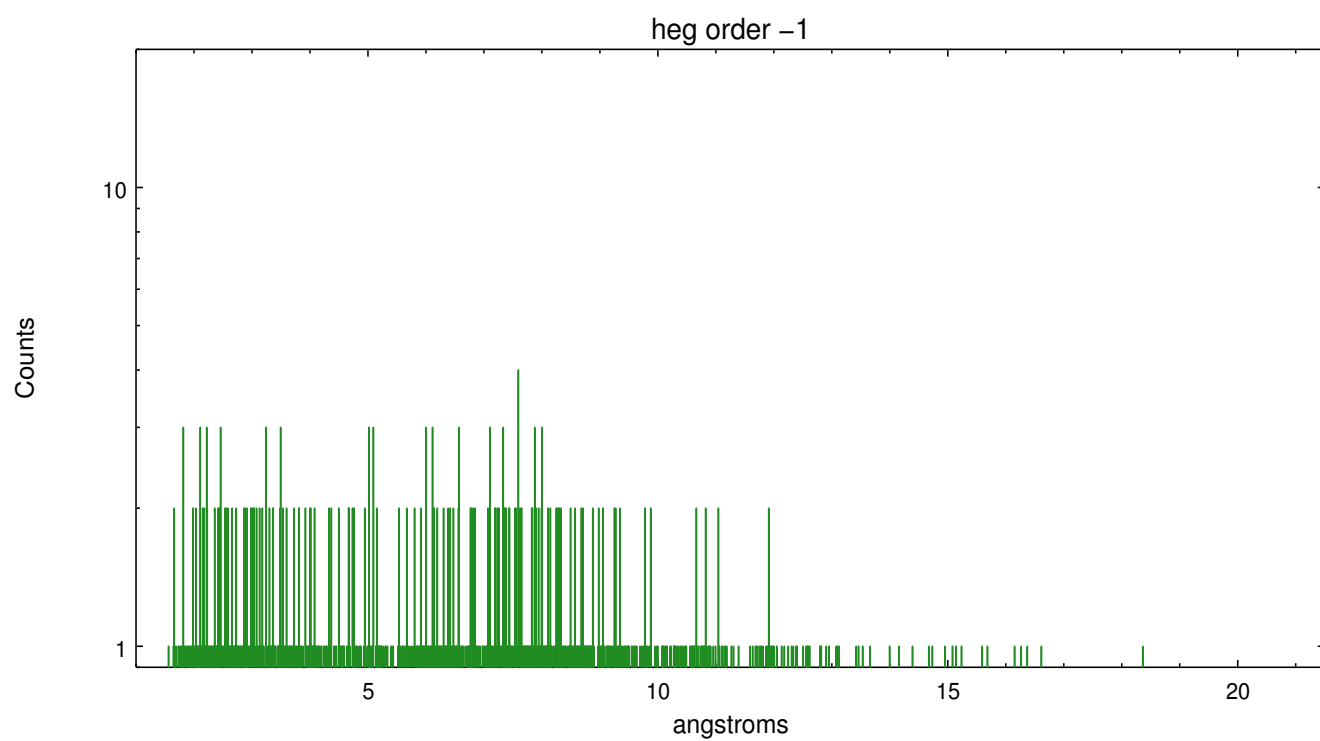


Spot Image HEG

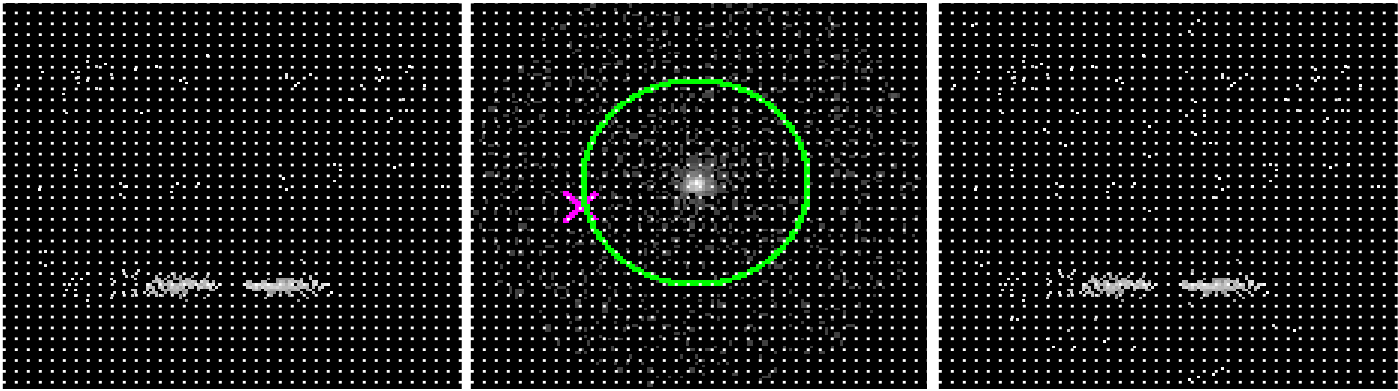
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	190	321	1288	4325	1068	208	164





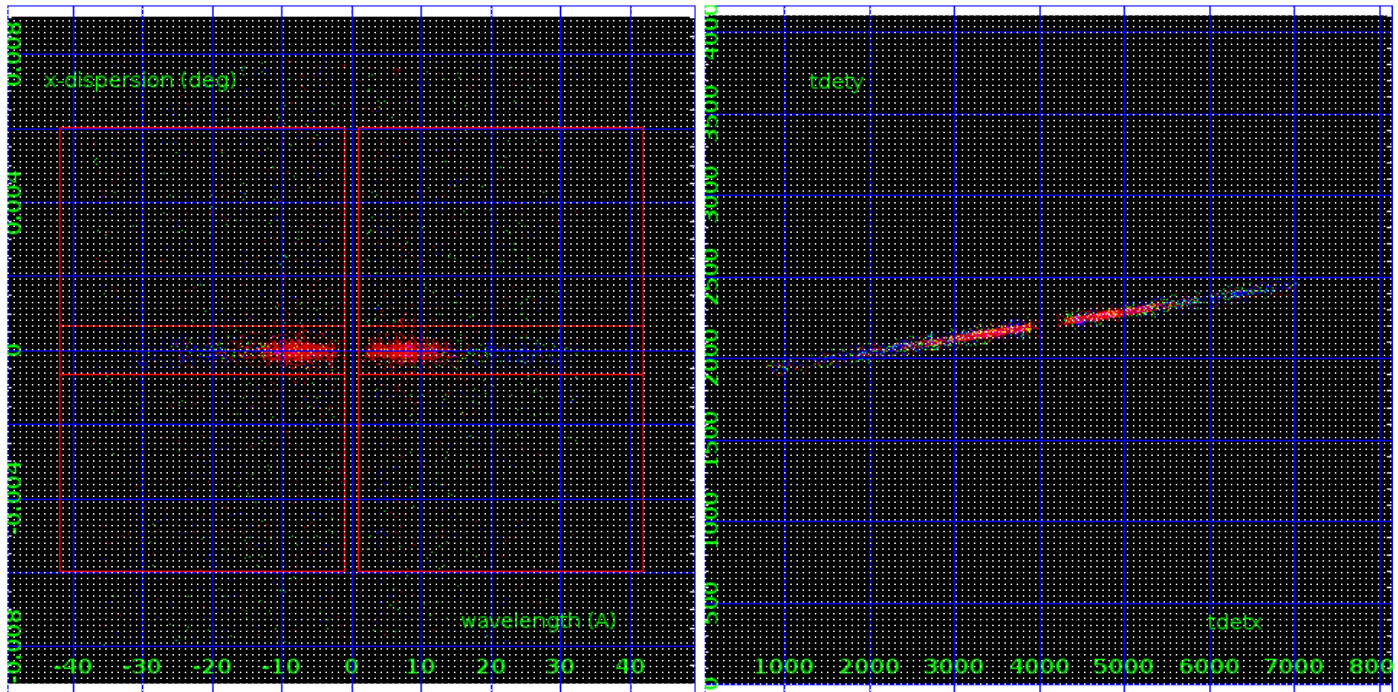
3.2 MEG Arm



MEG Order Sort 123

MEG Zero Order

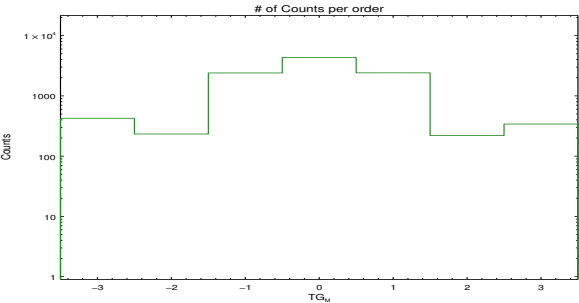
MEG Order Sort ALL

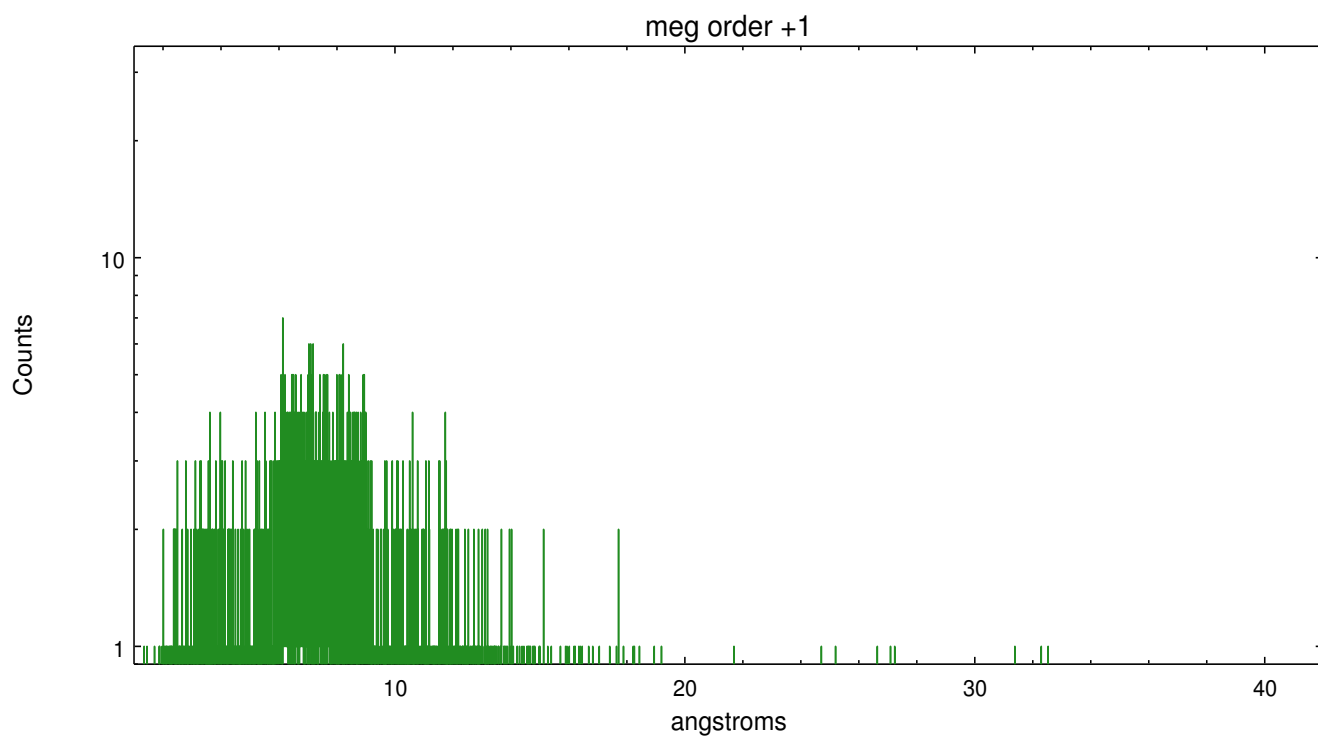
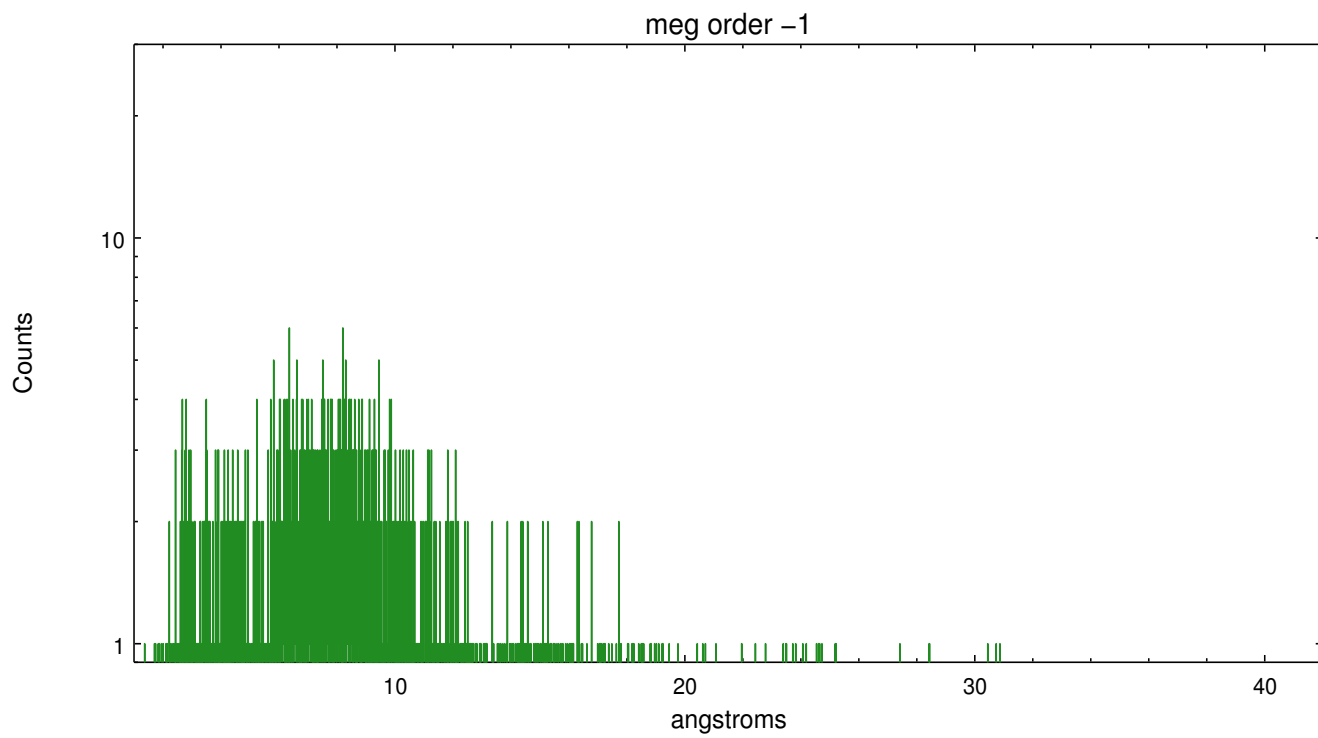


Spot Image MEG

Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	425	233	2400	4325	2411	220	341





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2016.09.22
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	25.664000382423

A.2 Comments