

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 428 - L2 Version 3
Chandra X-Ray Center

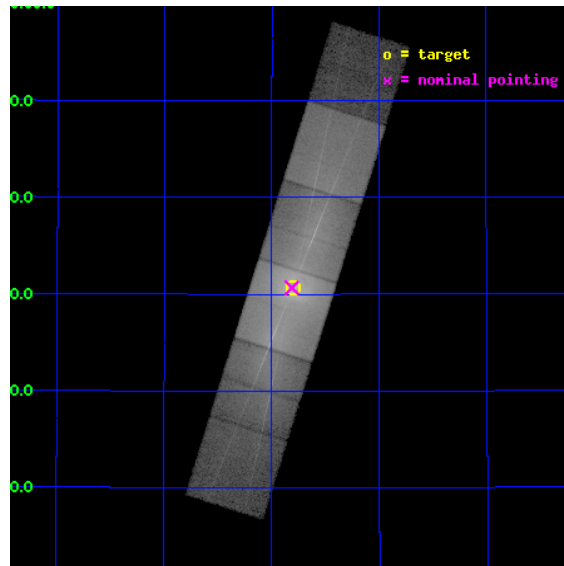
L2 Processing Date : Sep 1 2012

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Bias	3
2.1.3	Parameters	4
2.1.4	Events	4
2.2	Compared Parameters	5
2.3	Aspect	6
2.4	Star Slots	9
2.4.1	Slot 3	9
2.4.2	Slot 4	10
2.4.3	Slot 5	11
2.4.4	Slot 6	12
2.4.5	Slot 7	13
2.5	FID Slots	14
2.5.1	Slot 0	14
2.5.2	Slot 1	15
2.5.3	Slot 2	16
3	Gratings	17
3.1	HEG Arm	17
3.2	MEG Arm	19
A	Summary	21
A.1	Status	21
A.2	Comments	21

1 Front

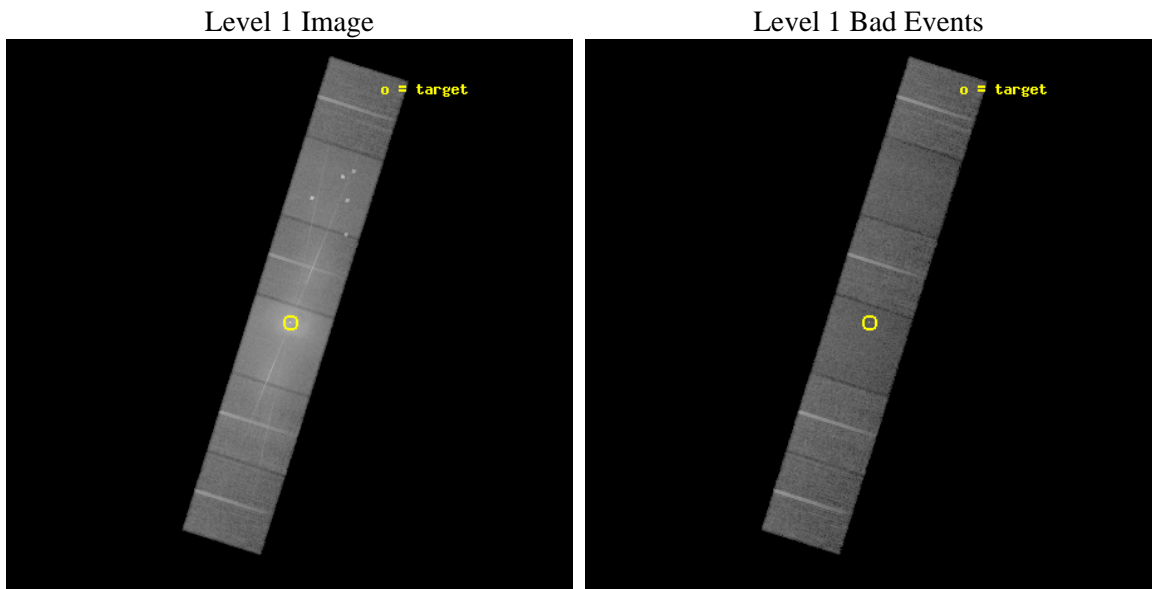
seq_num	700201	Sequence number
obs_id	428	Observation id
title	HETG OBSERVATIONS OF VARIOUS ACTIVE GALACTIC NUCLEI	Proposal title
observer	Prof Claude Canizares	Principal investigator
object	NGC 1275	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	49.950417	Observer's specified target RA [deg]
dec_targ	41.511667	Observer's specified target Dec [deg]
ra_nom	49.953146305965	Nominal RA [deg]
dec_nom	41.511023172262	Nominal Dec [deg]
roll_nom	107.50512820385	Nominal Roll [deg]
revision	3	Processing version of data
ontime	25027.200023293	Sum of GTIs [s]
livetime	24710.290547028	Livetime [s]
ontime4	25027.200023293	Sum of GTIs [s]
ontime5	25027.200023293	Sum of GTIs [s]
ontime6	25027.200023293	Sum of GTIs [s]
ontime7	25027.200023293	Sum of GTIs [s]
ontime8	25027.200023293	Sum of GTIs [s]
ontime9	25027.200023293	Sum of GTIs [s]
l2events	979996	Number of level 2 events



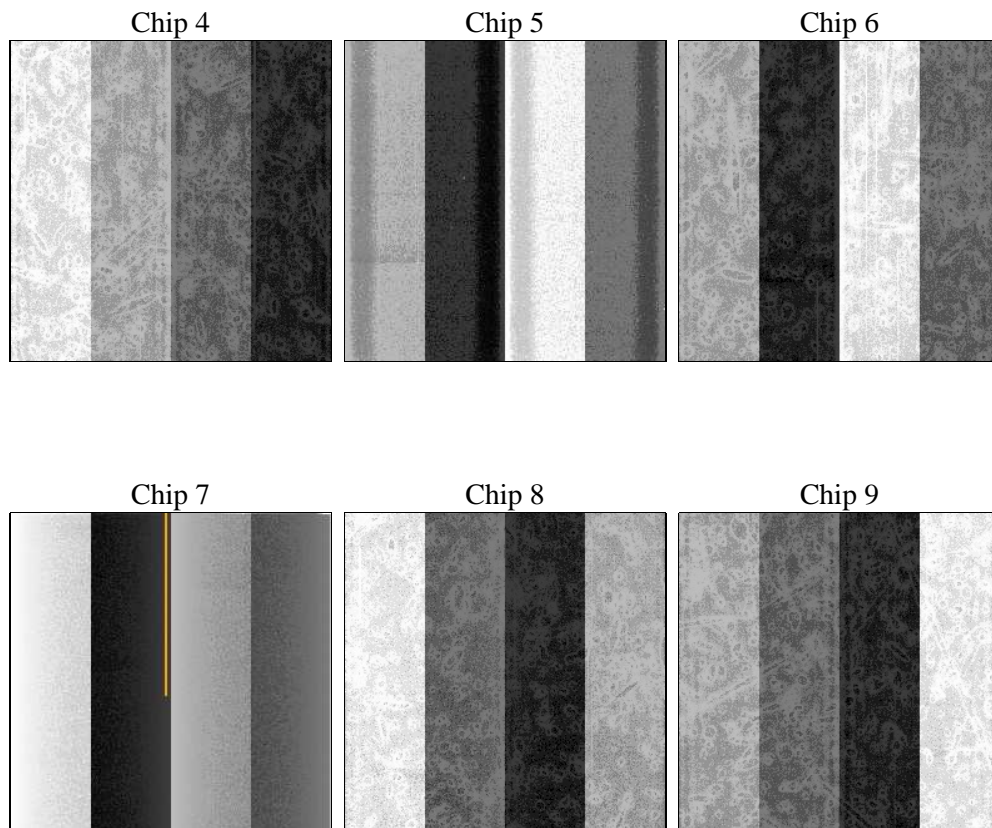
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	25000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	25027.200023293	Sum of GTIs [s]
caldsver	4.5.1.1	 	ontime4	25027.200023293	Sum of GTIs [s]
date	2012-09-01T03:08:04	Date and time of file creation	ontime5	25027.200023293	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	25027.200023293	Sum of GTIs [s]
			ontime7	25027.200023293	Sum of GTIs [s]
			ontime8	25027.200023293	Sum of GTIs [s]
			ontime9	25027.200023293	Sum of GTIs [s]
			l1events	1854132	Number of level 1 events

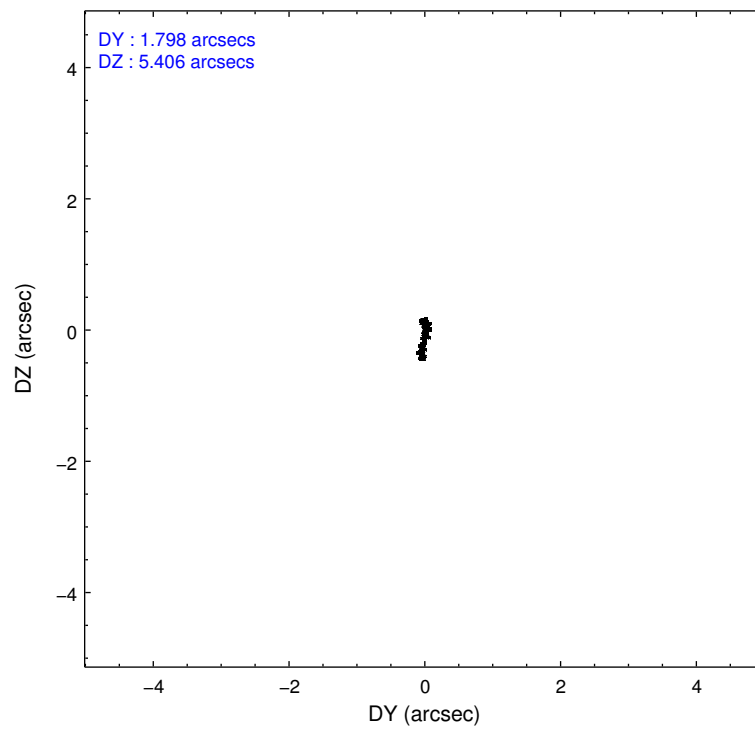
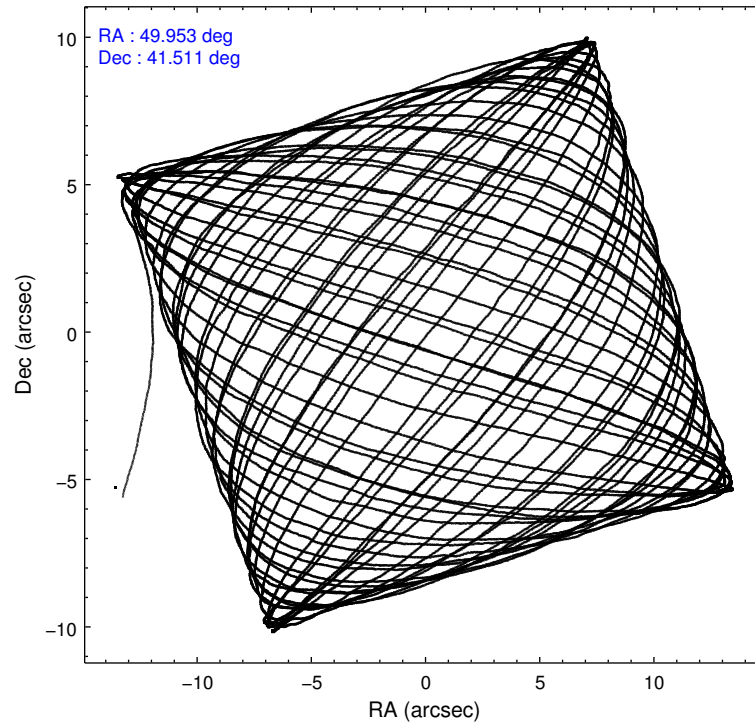
2.1.4 Events

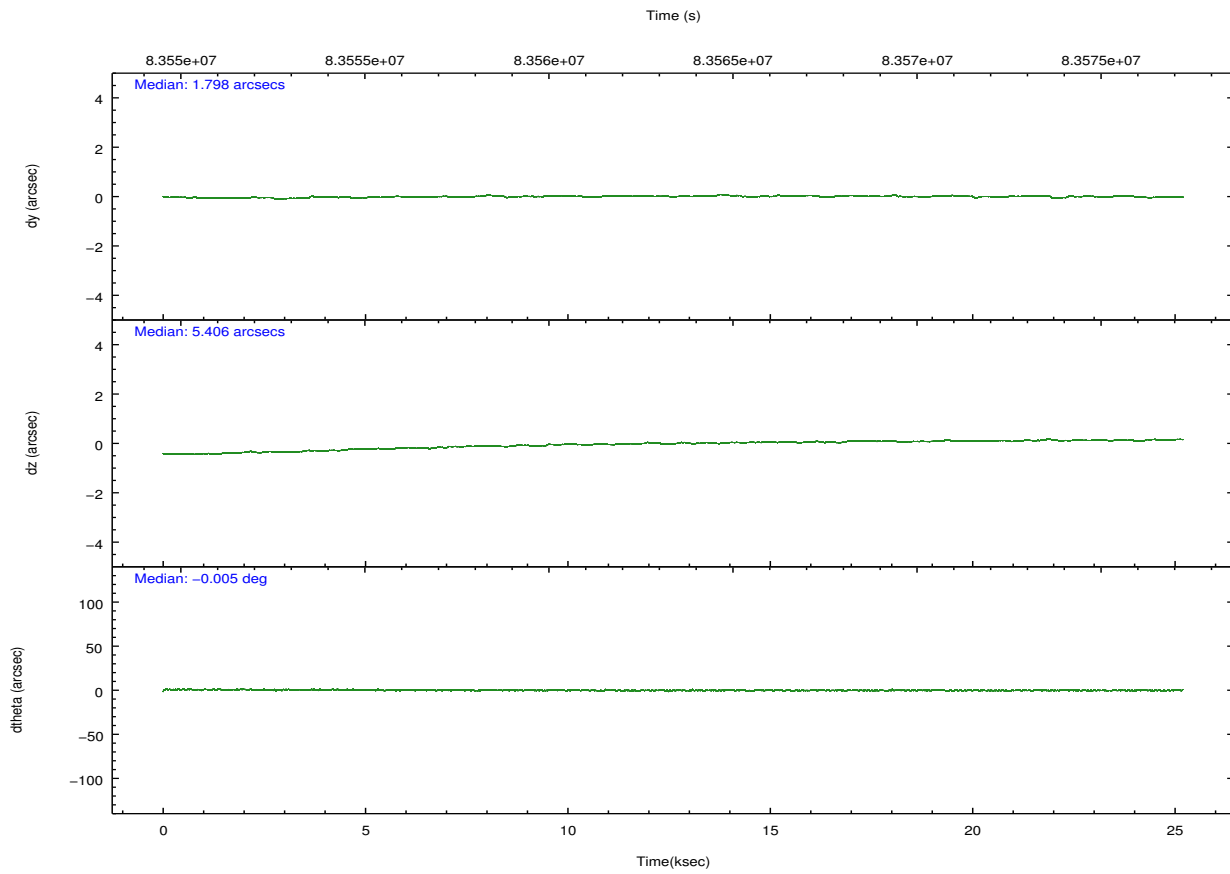
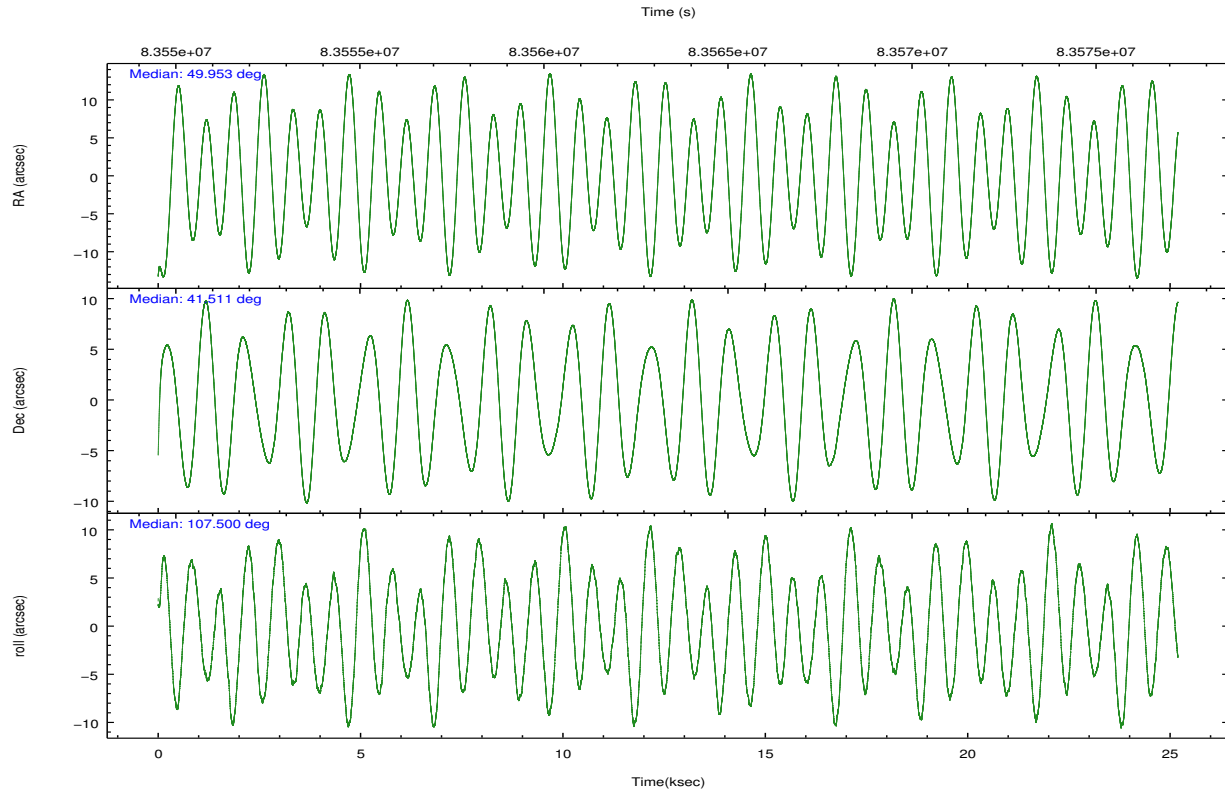
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	177923	285376	354173	563653	295331	177676	grade 0 events	20210	48488	162361	96527	95101	28996
rejected events	144794	111463	137931	114914	156488	133455		11%	16%	45%	17%	32%	16%
rejected %	81%	39%	38%	20%	52%	75%	grade 1 events	117	290	645	389	384	157
								0%	0%	0%	0%	0%	0%
							grade 2 events	5544	46061	25736	110136	18151	6277
								3%	16%	7%	19%	6%	3%
							grade 3 events	2080	10682	8796	49471	6867	2533
								1%	3%	2%	8%	2%	1%
							grade 4 events	1977	10807	8752	49470	6523	2503
								1%	3%	2%	8%	2%	1%
							grade 5 events	5032	16429	6727	20832	7982	6244
								2%	5%	1%	3%	2%	3%
							grade 6 events	3321	57913	10662	143242	12269	3928
								1%	20%	3%	25%	4%	2%
							grade 7 events	139642	94706	130494	93586	148054	127038
								78%	33%	36%	16%	50%	71%

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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	49.980269	49.95314630596535	Subarray requested	NONE	NONE
[deg] Pointing Dec	41.492634	41.51102317226179	Alternating exposures requested	N	N
[deg] Pointing Roll	107.330525	107.5051282038491	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	83550970.184000	83549970.953936			
Observation start date	2000-08-25T00:35:06	2000-08-25T00:19:30			
[s] Observation end time (MET)	83575970.184000	83576640.42993601			
Observation end date	2000-08-25T07:31:46	2000-08-25T07:44:00			
Read mode	TIMED	TIMED			

2.3 Aspect



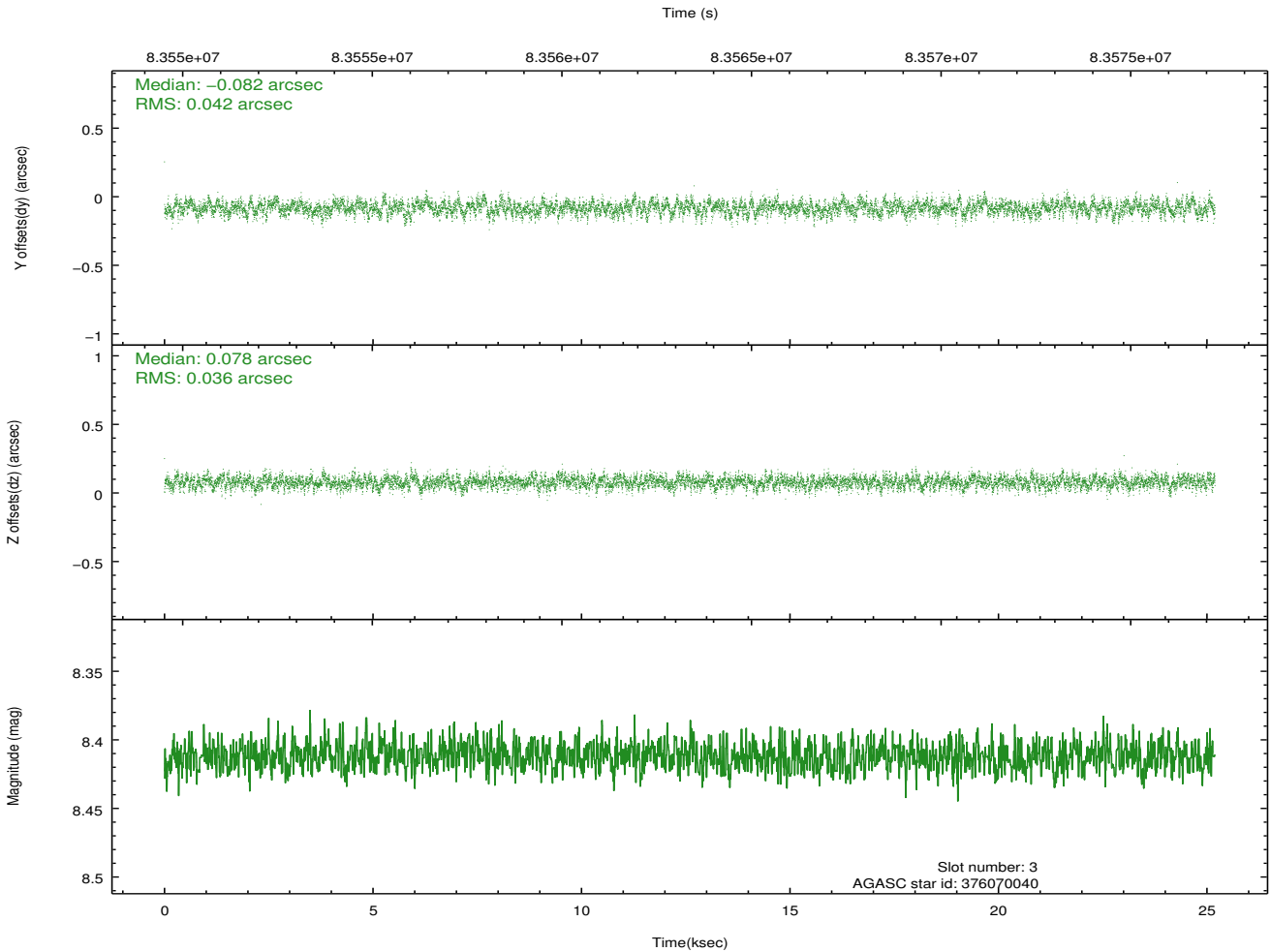
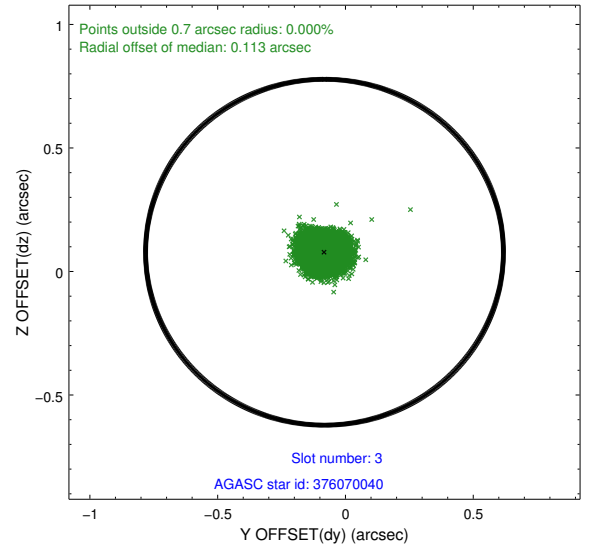
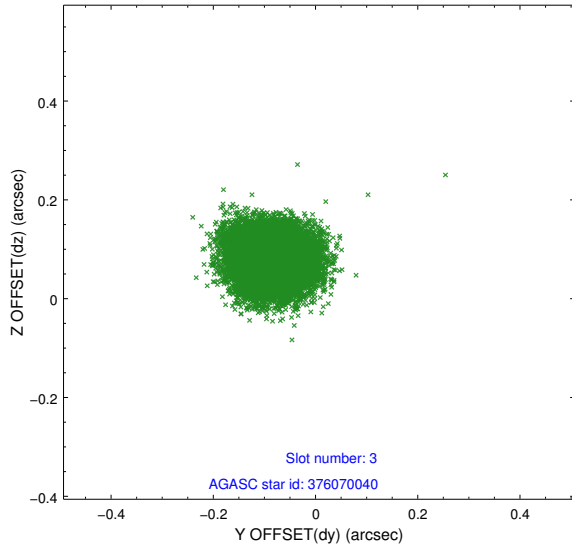


Slot Statistics

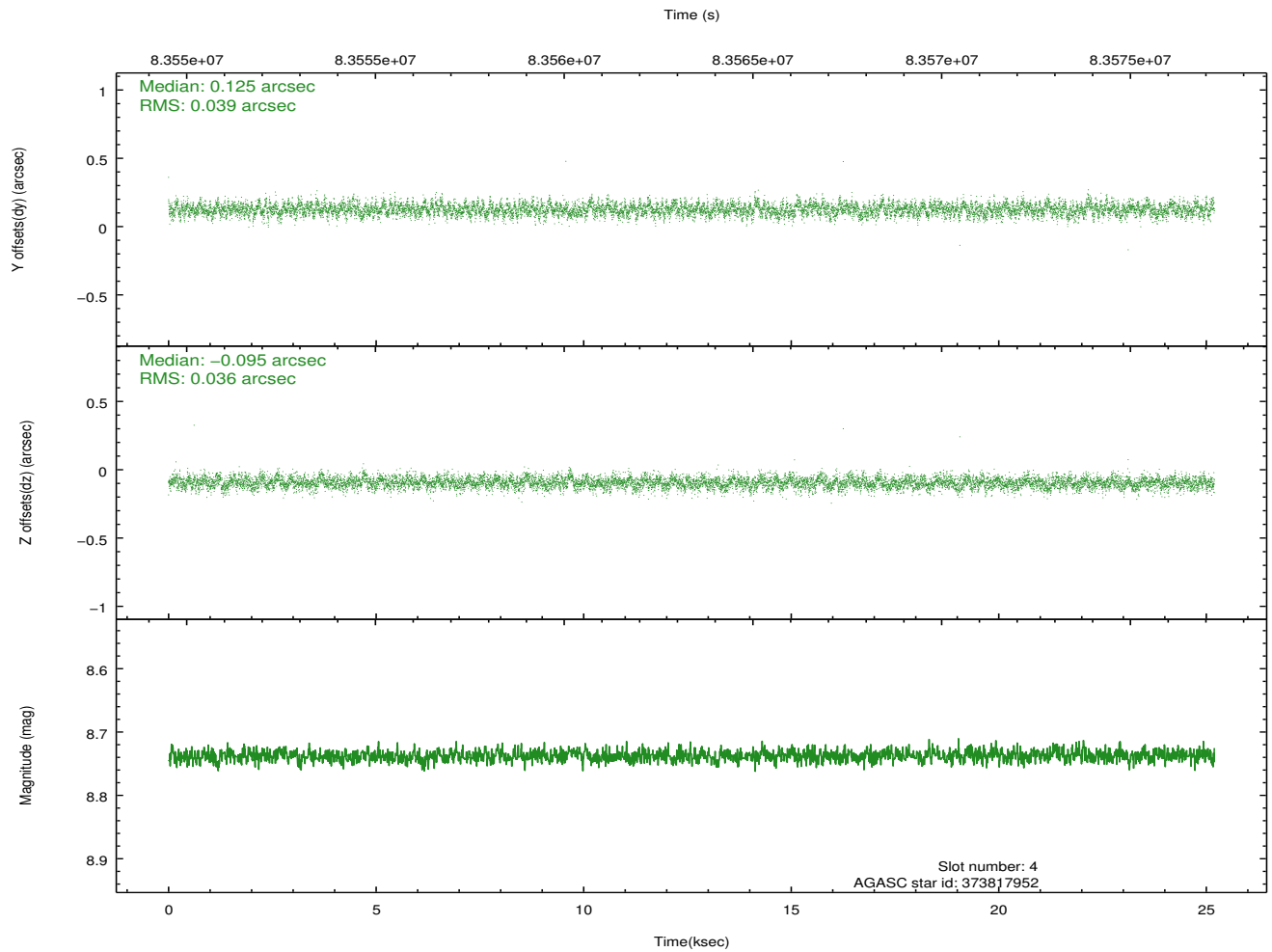
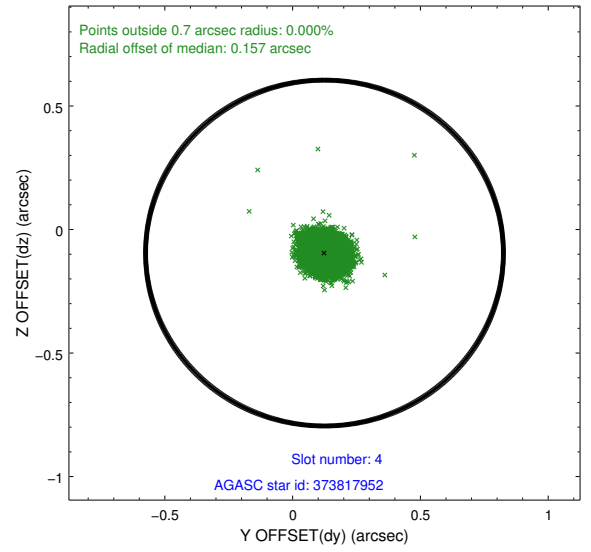
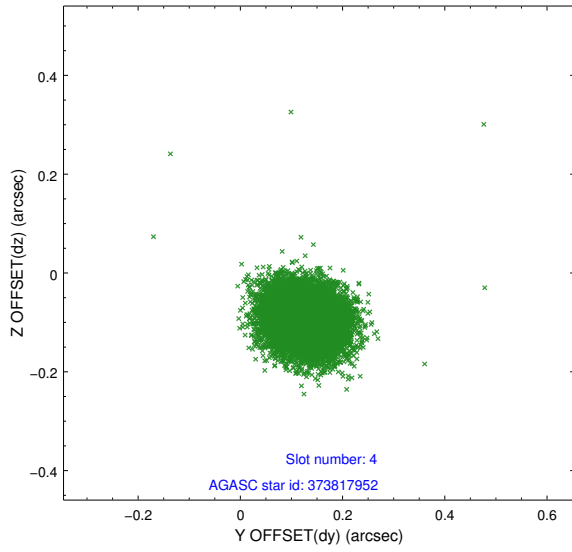
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	6144	-0.040	0.001	0.007	0.011	0.000000	0.000000	-754.43	-1726.48
1	FID	ACIS-S-4	7.21	6144	-0.008	0.019	0.005	0.010	0.000000	0.000000	2158.81	181.93
2	FID	ACIS-S-5	7.24	6145	0.017	-0.012	0.007	0.012	0.000000	0.000000	-1807.08	175.67
3	GUIDE	376070040	8.41	12287	-0.082	0.078	0.058	0.095	50.072031	41.897206	1316.68	-668.12
4	GUIDE	373817952	8.74	12287	0.125	-0.095	0.056	0.091	49.913424	40.978510	-1713.00	724.76
5	GUIDE	376068632	8.78	12287	-0.259	0.242	0.087	0.137	50.582093	42.167240	1844.71	-2257.33
6	GUIDE	373826120	8.91	12288	0.006	-0.055	0.071	0.116	49.738165	41.186341	-856.78	954.33
7	GUIDE	373828368	9.53	12284	0.207	-0.173	0.120	0.192	49.507374	40.699462	-2338.70	2081.73

2.4 Star Slots

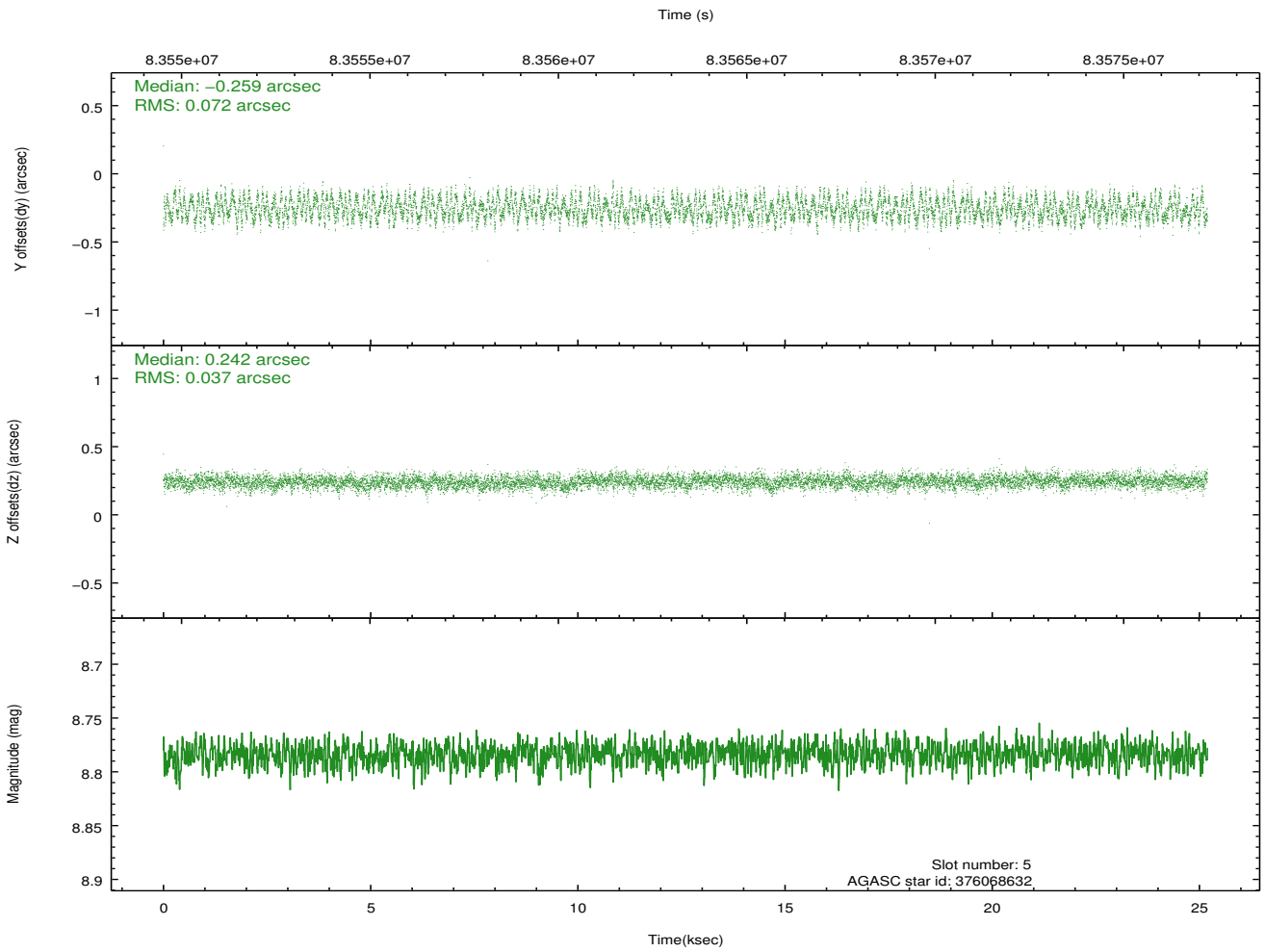
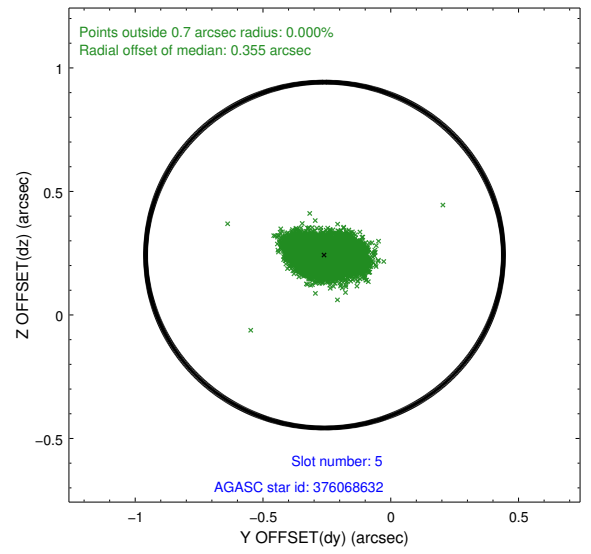
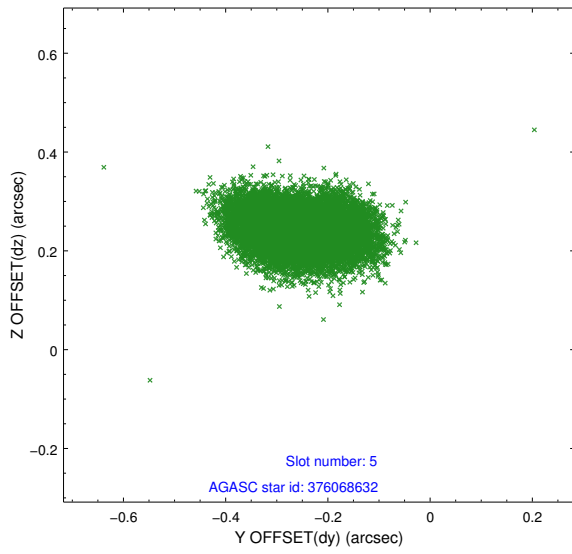
2.4.1 Slot 3



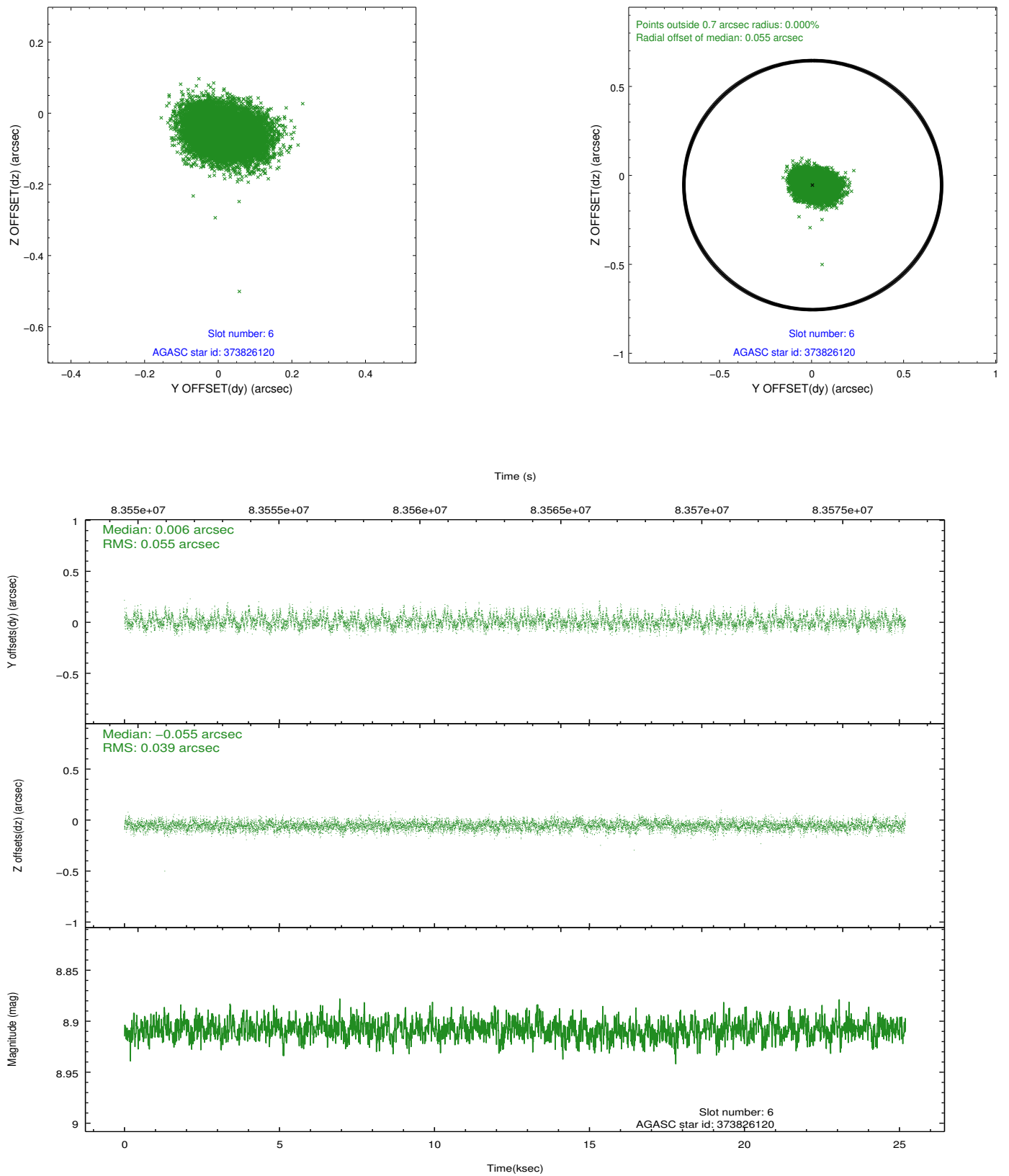
2.4.2 Slot 4



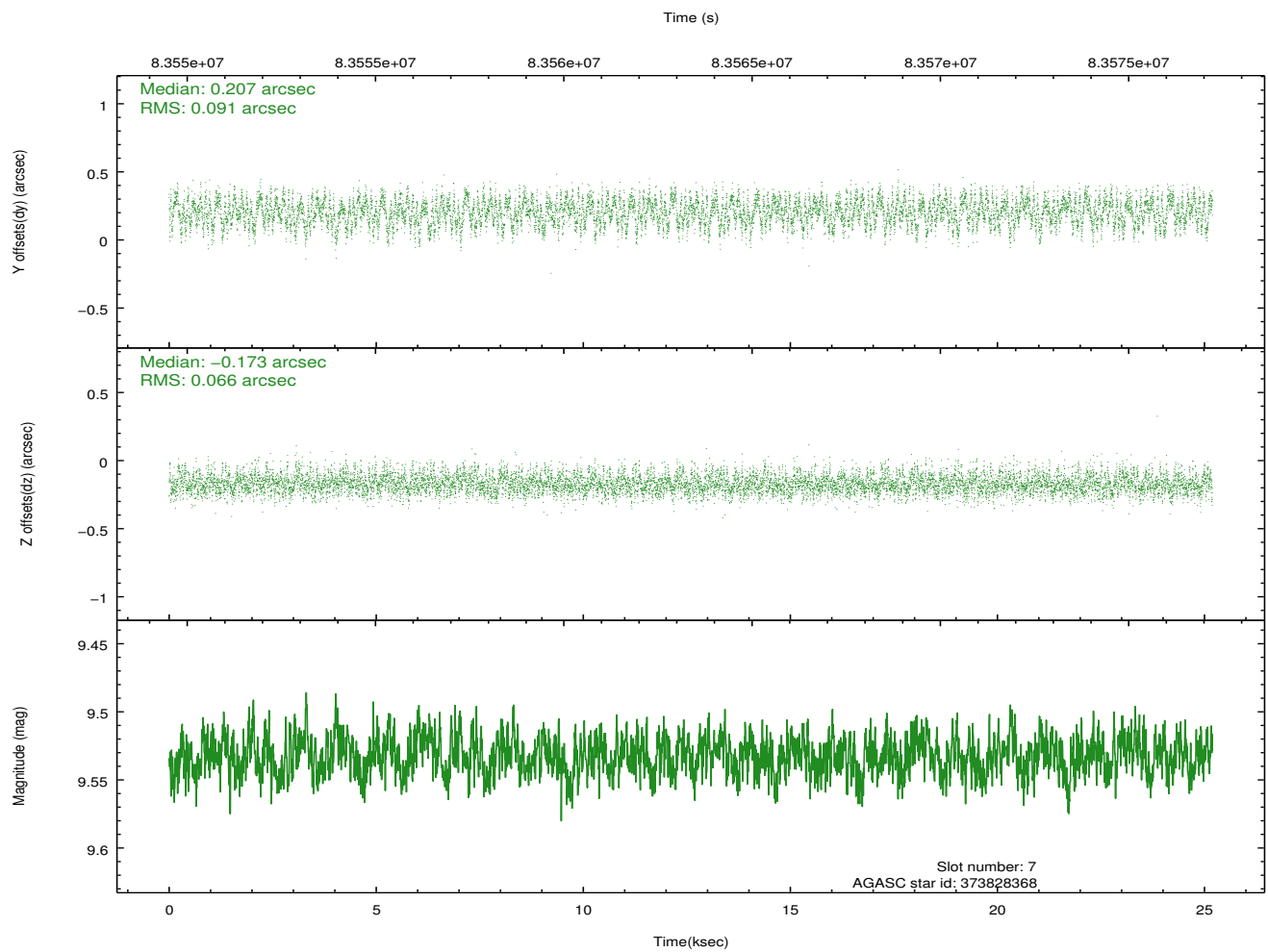
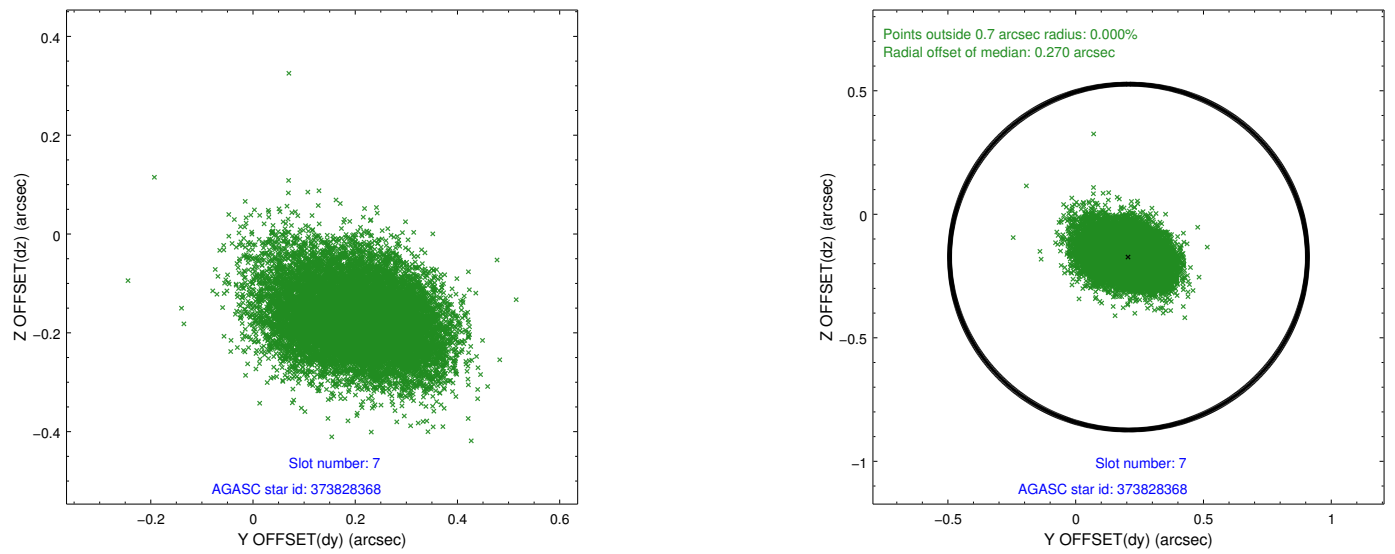
2.4.3 Slot 5



2.4.4 Slot 6

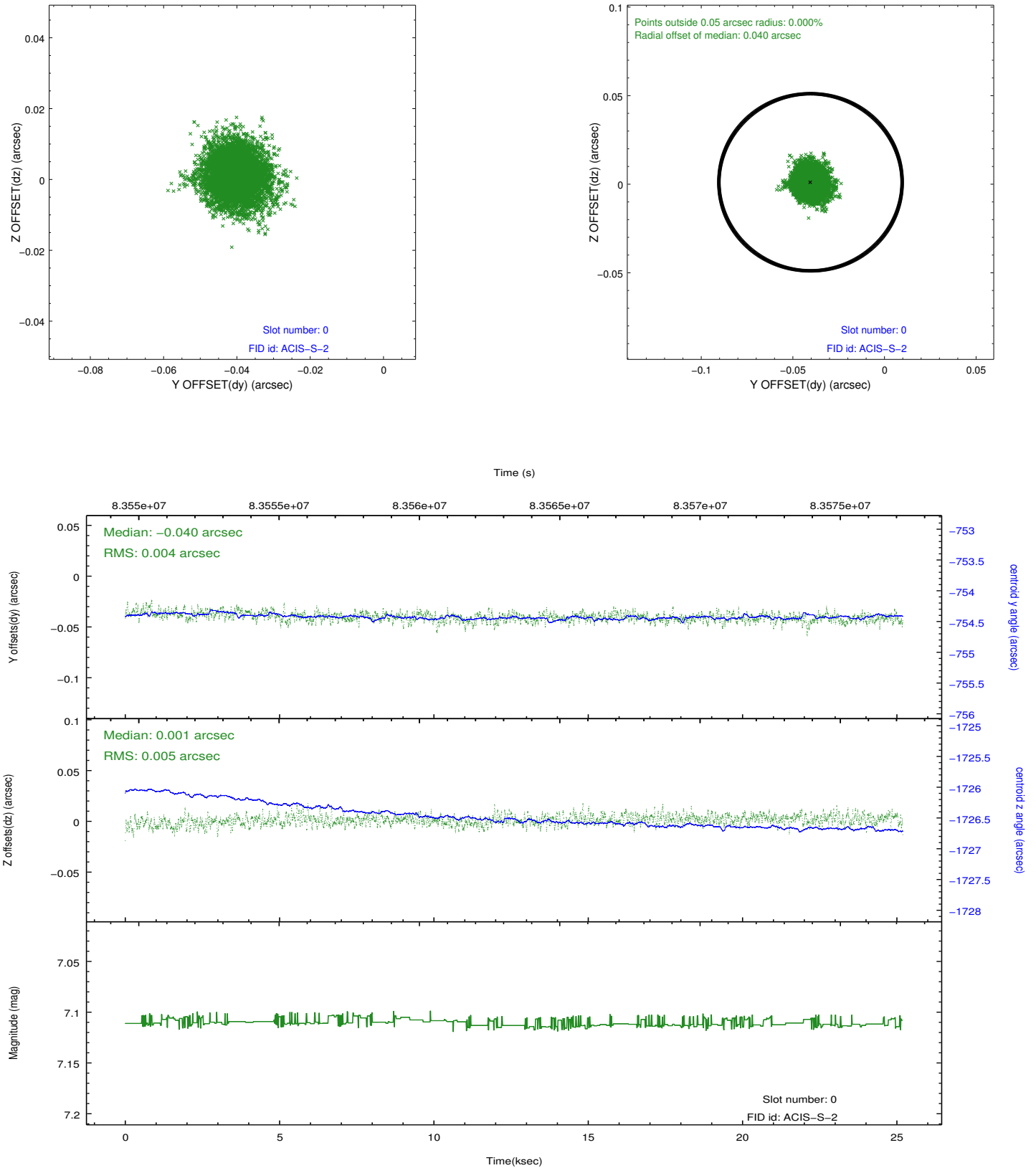


2.4.5 Slot 7

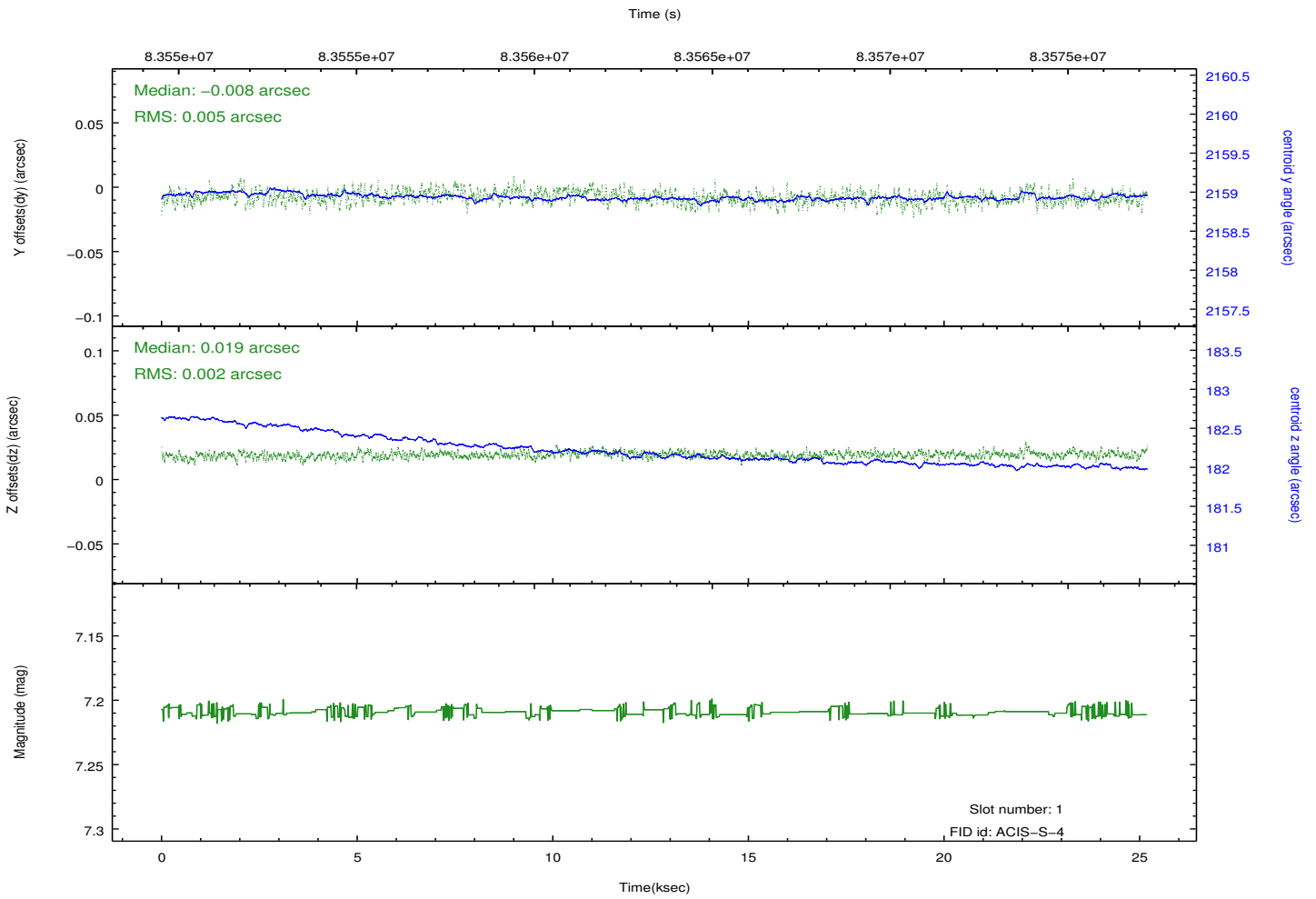
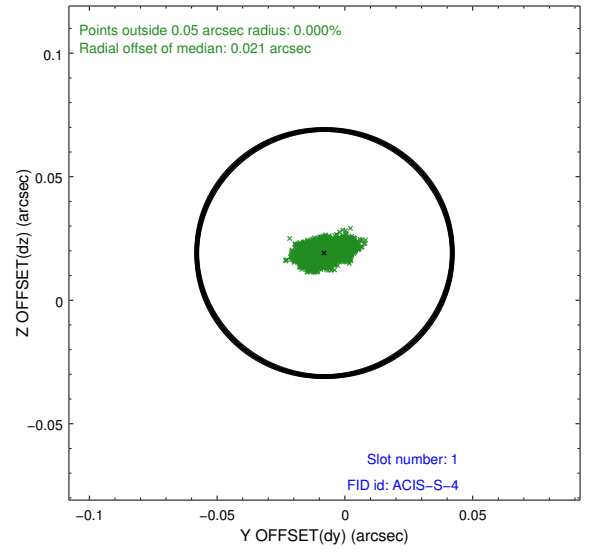
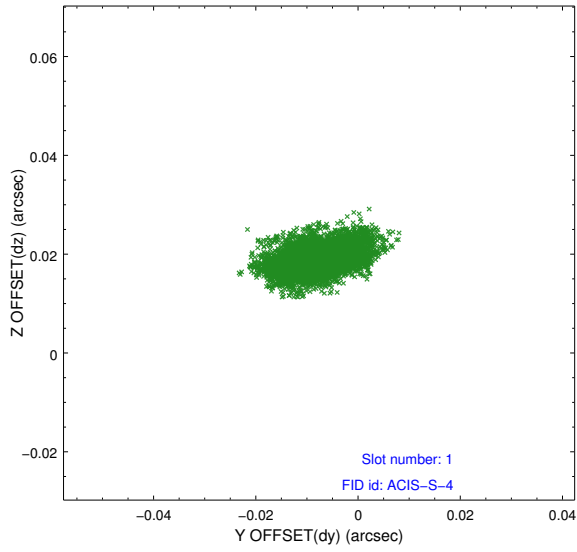


2.5 FID Slots

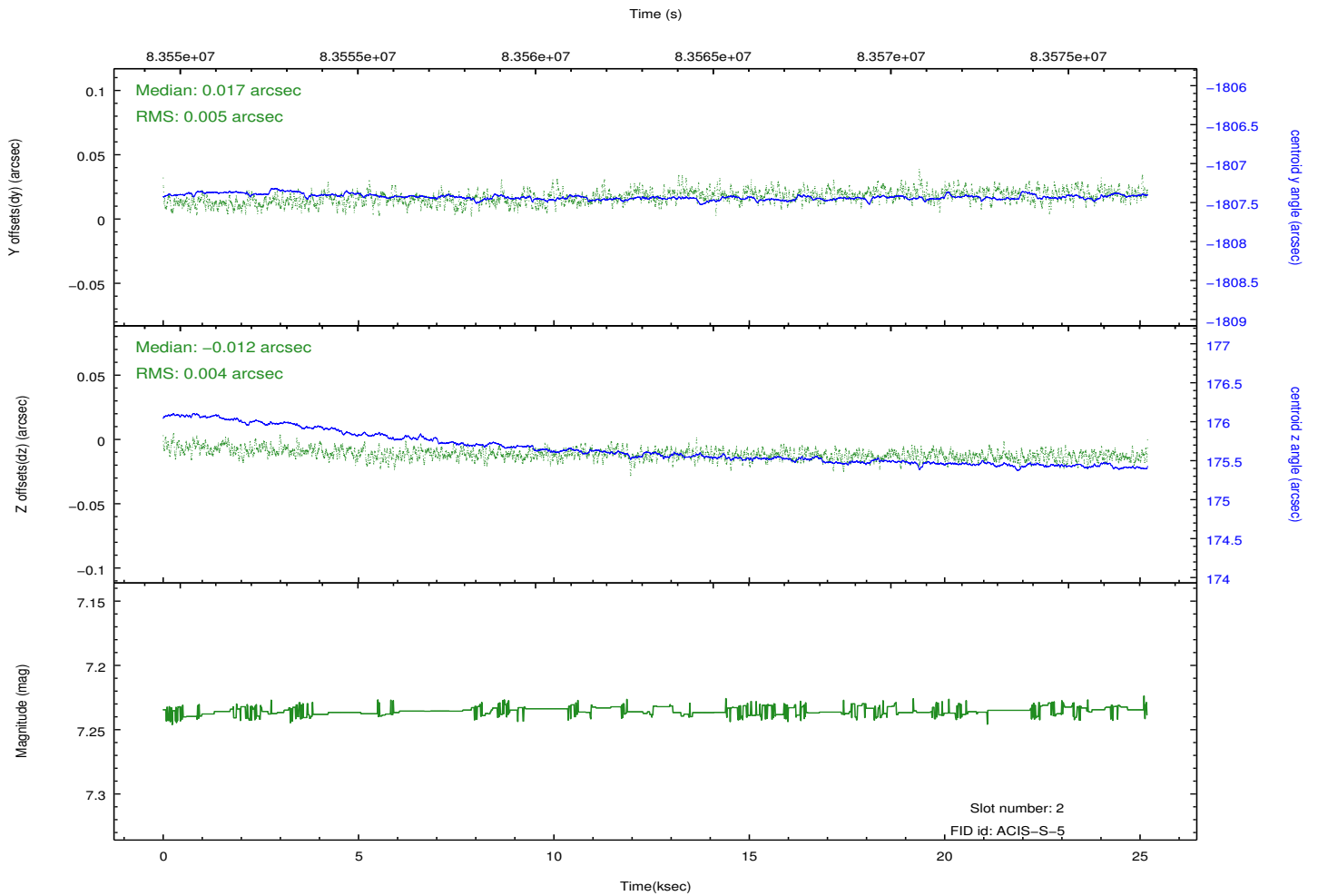
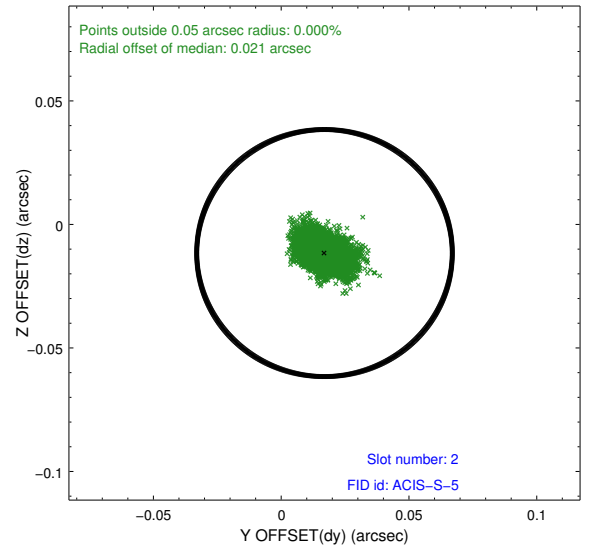
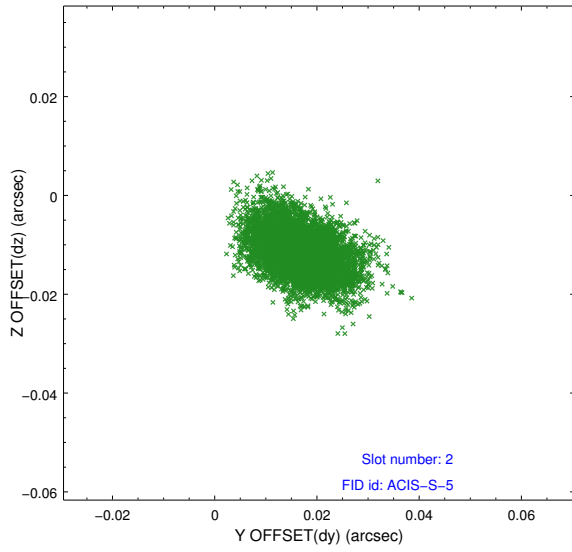
2.5.1 Slot 0



2.5.2 Slot 1

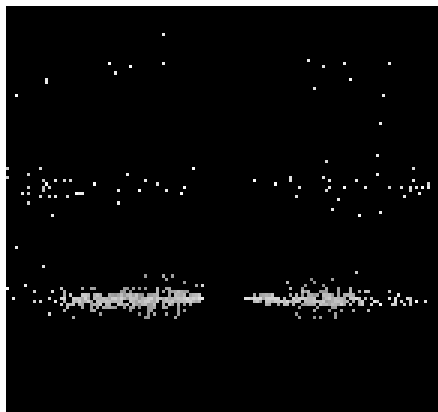


2.5.3 Slot 2

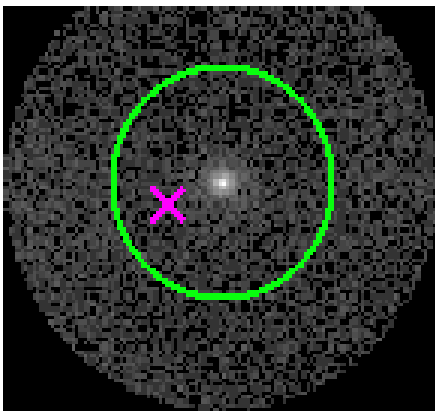


3 Gratings

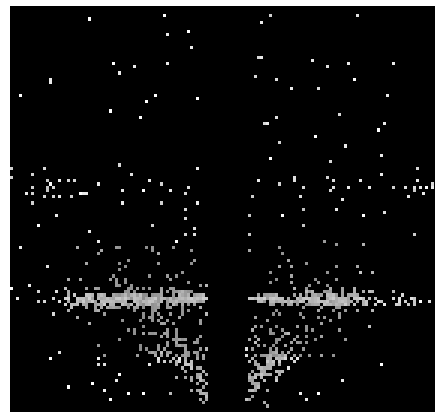
3.1 HEG Arm



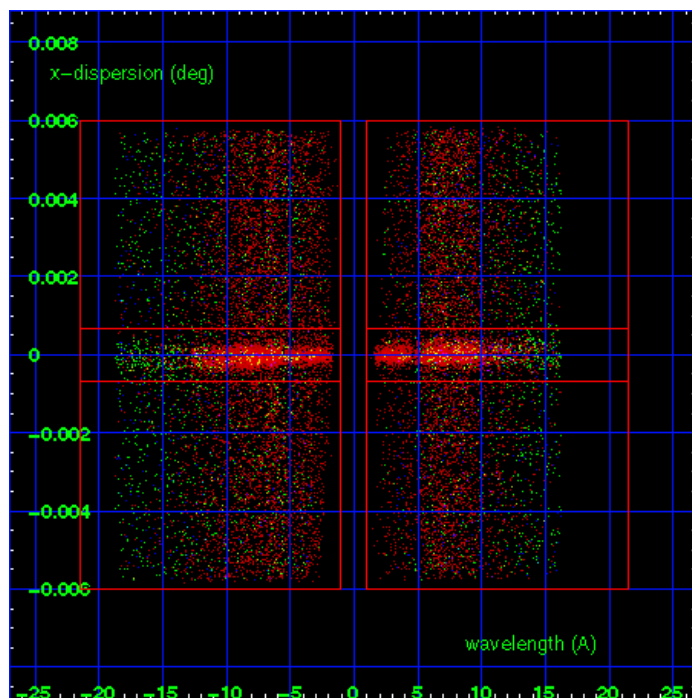
HEG Order Sort 123



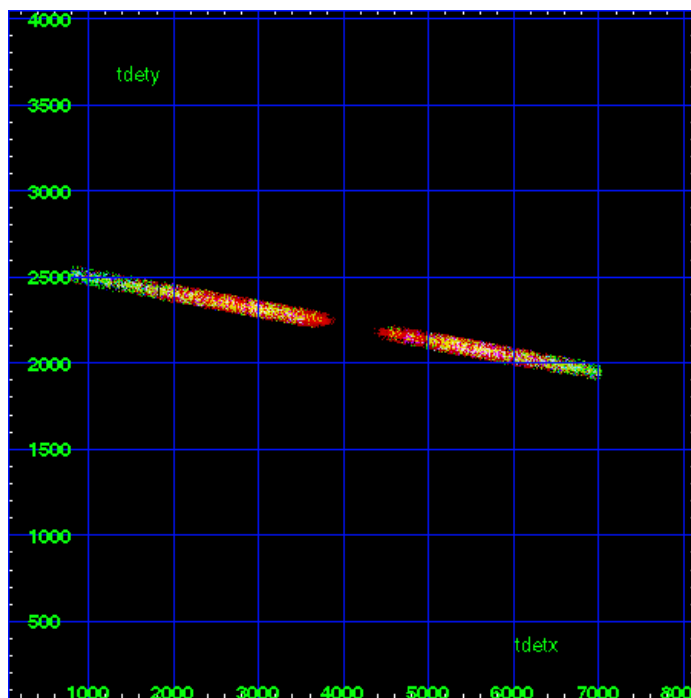
HEG Zero Order



HEG Order Sort ALL

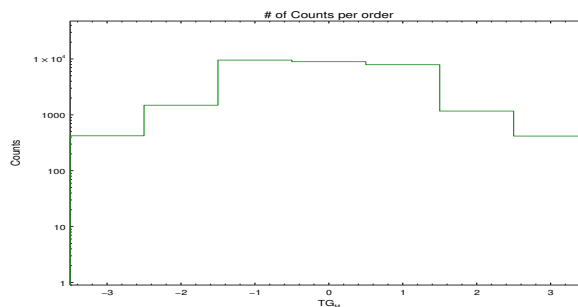


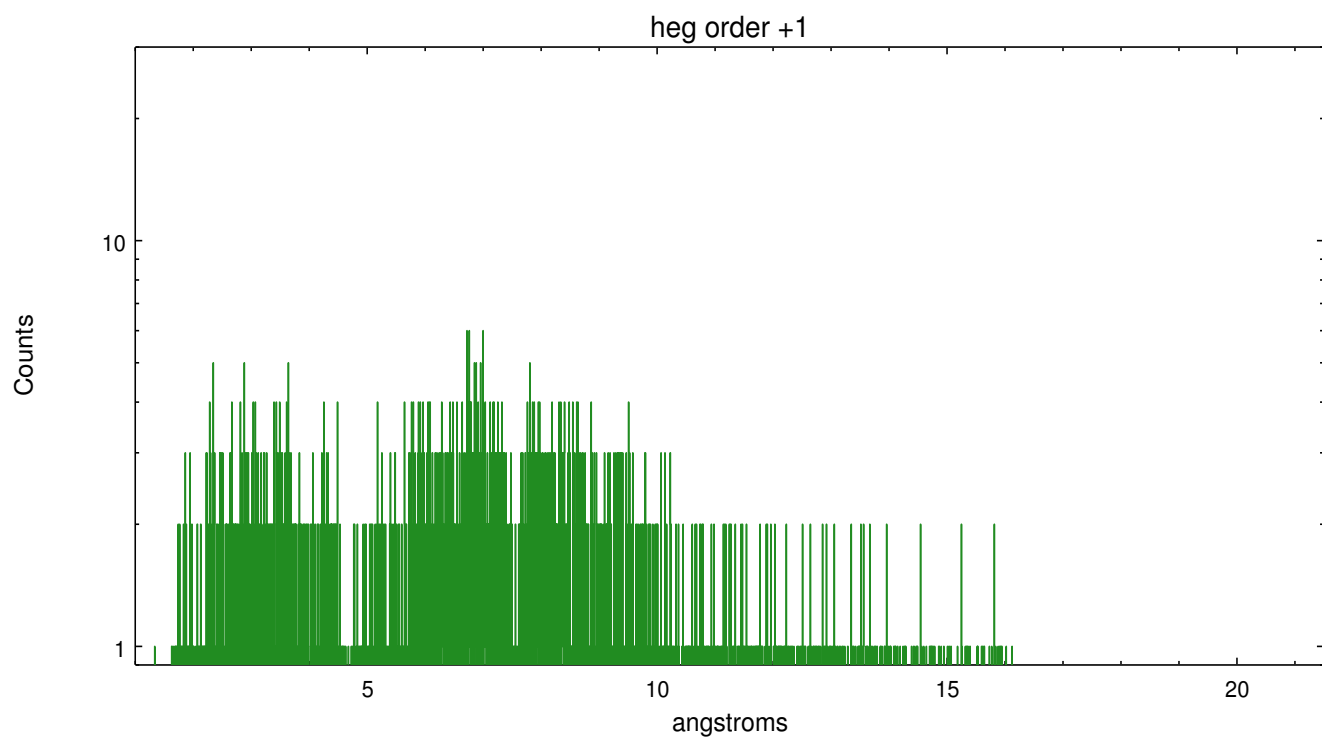
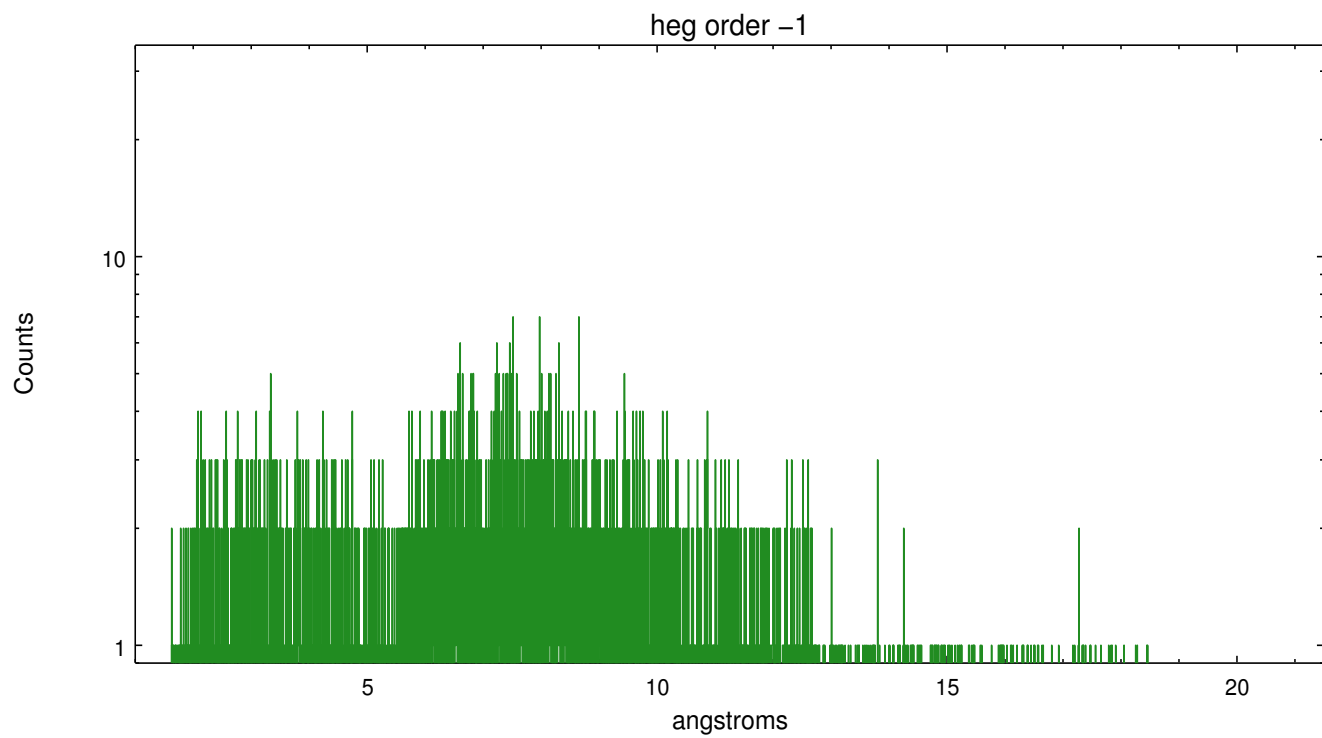
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	422	1487	9541	8933	7892	1168	417

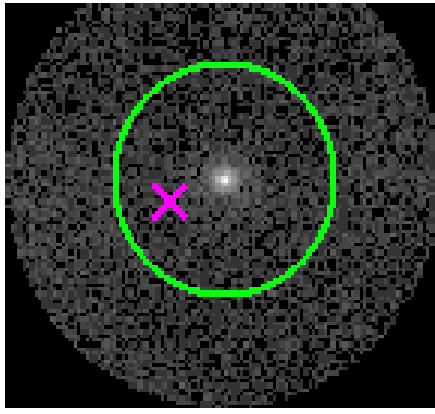




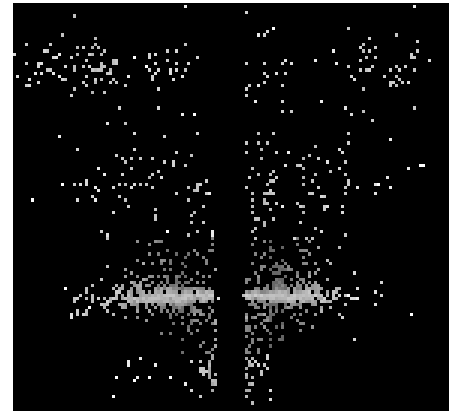
3.2 MEG Arm



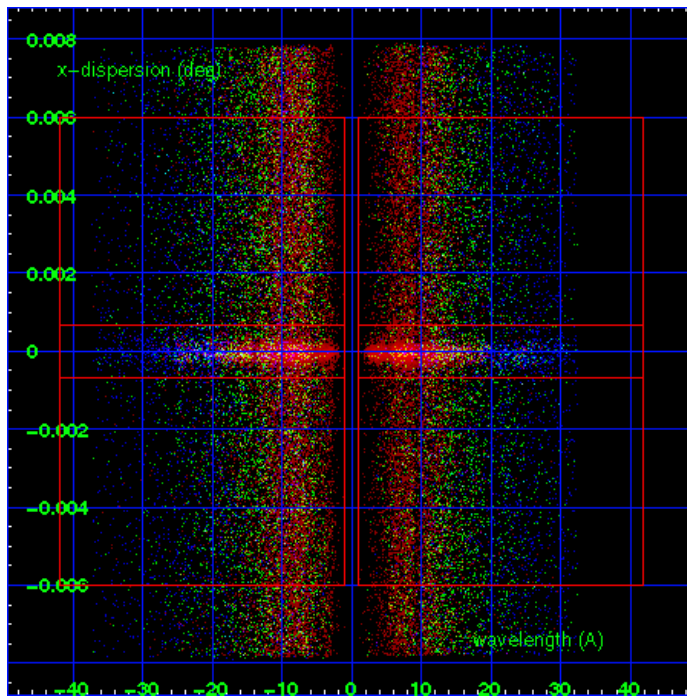
MEG Order Sort 123



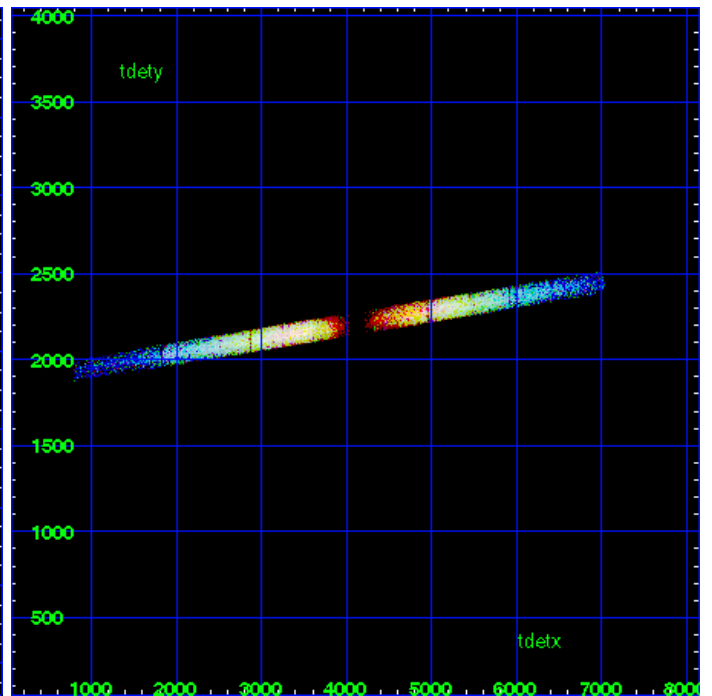
MEG Zero Order



MEG Order Sort ALL

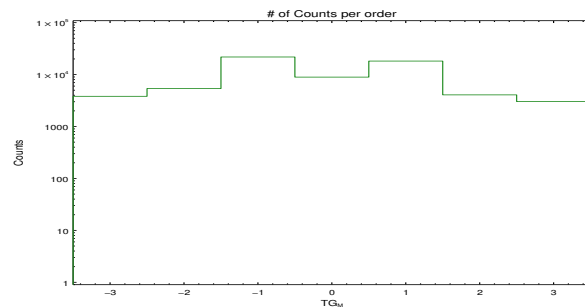


Spot Image MEG

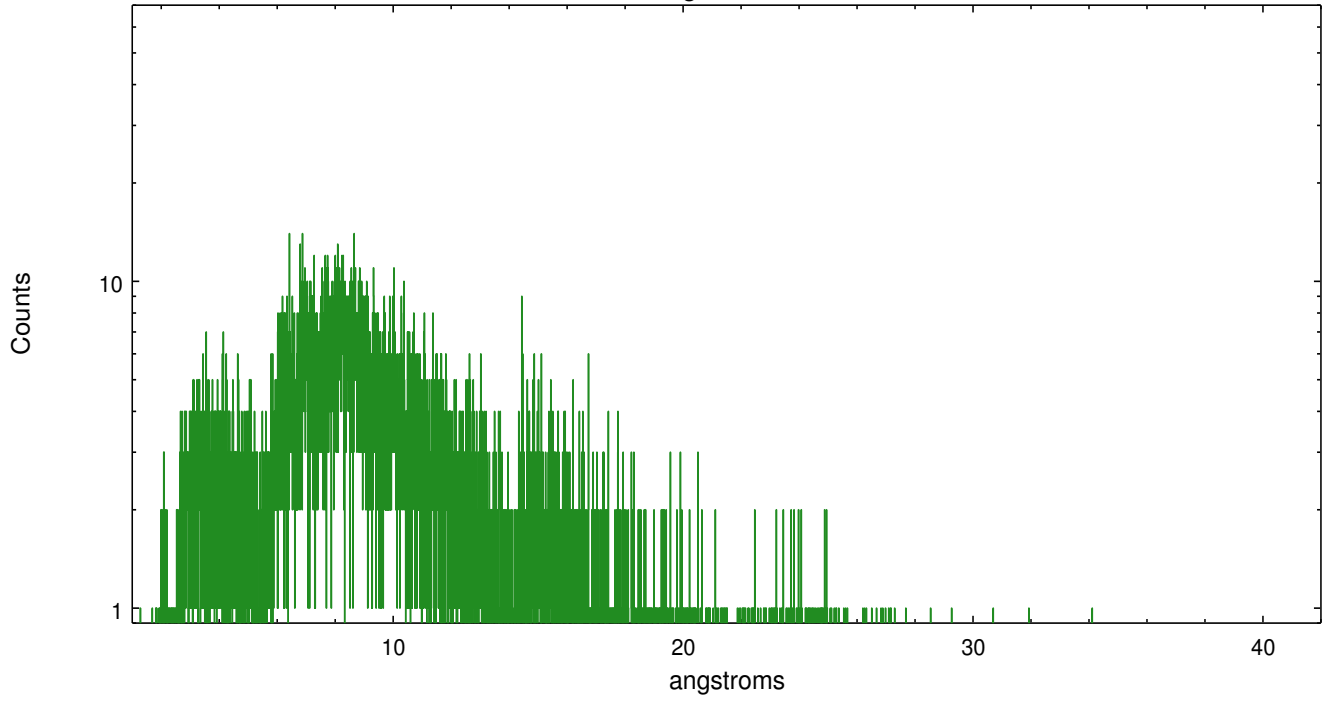


Full Detector MEG

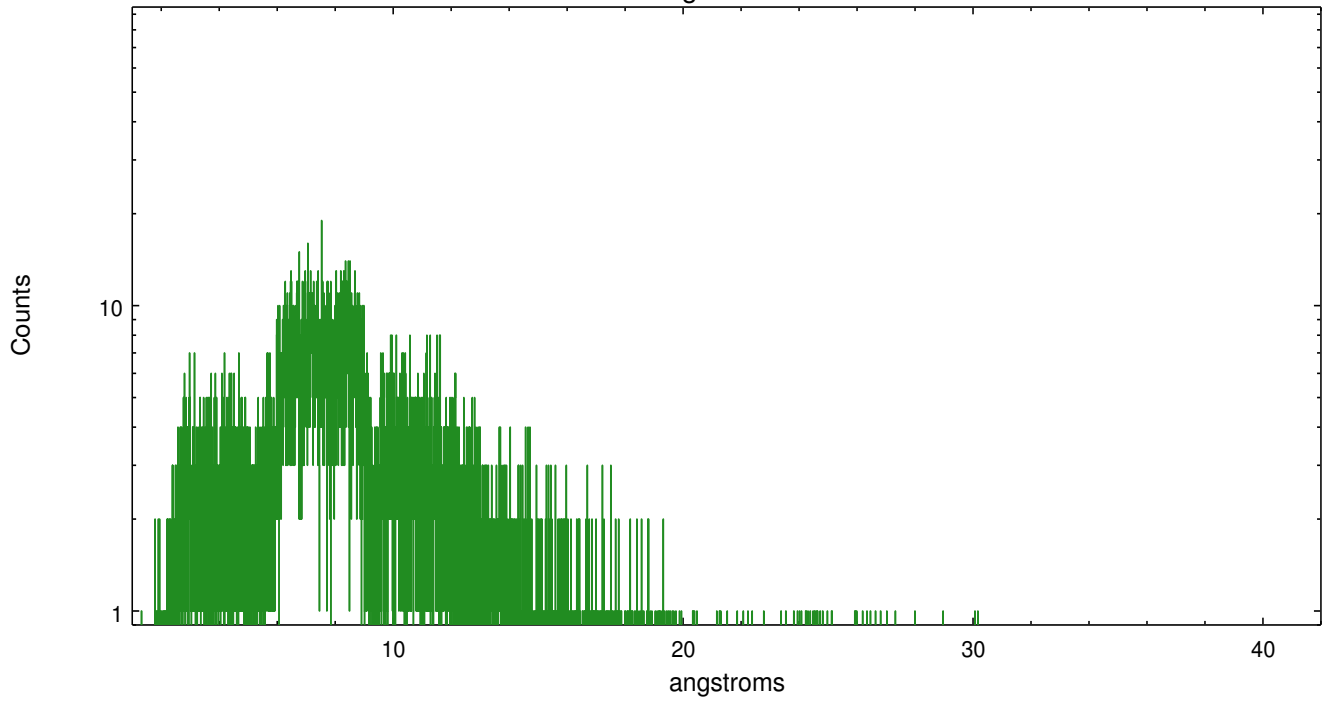
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	3813	5383	21816	8933	18193	4068	3021



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.09.05
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	25.03

A.2 Comments

Warning: Complex source: point nucleus + non-uniform diffuse with dia ~ 150 arc sec. Spectra are of nucleus; background could be reduced with narrower extraction slit.