

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 12357 - L2 Version 2
Chandra X-Ray Center

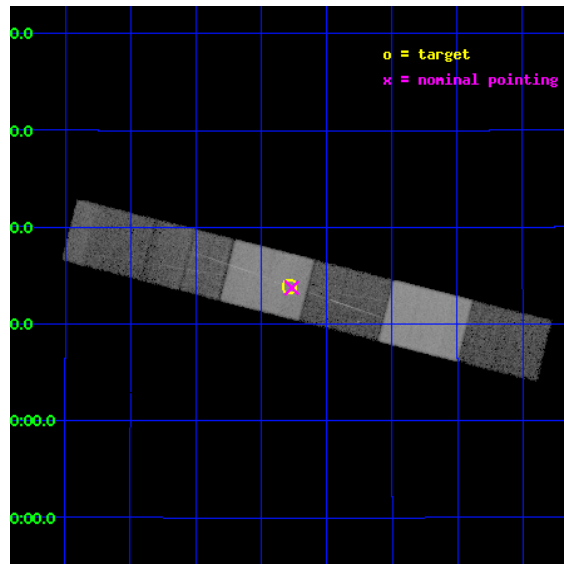
L2 Processing Date : Feb 8 2012

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
2.5	FID Slots	13
2.5.1	Slot 0	13
2.5.2	Slot 1	14
2.5.3	Slot 2	15
3	Gratings	16
3.1	HEG Arm	16
3.2	MEG Arm	18
A	Summary	20
A.1	Status	20
A.2	Comments	20

1 Front

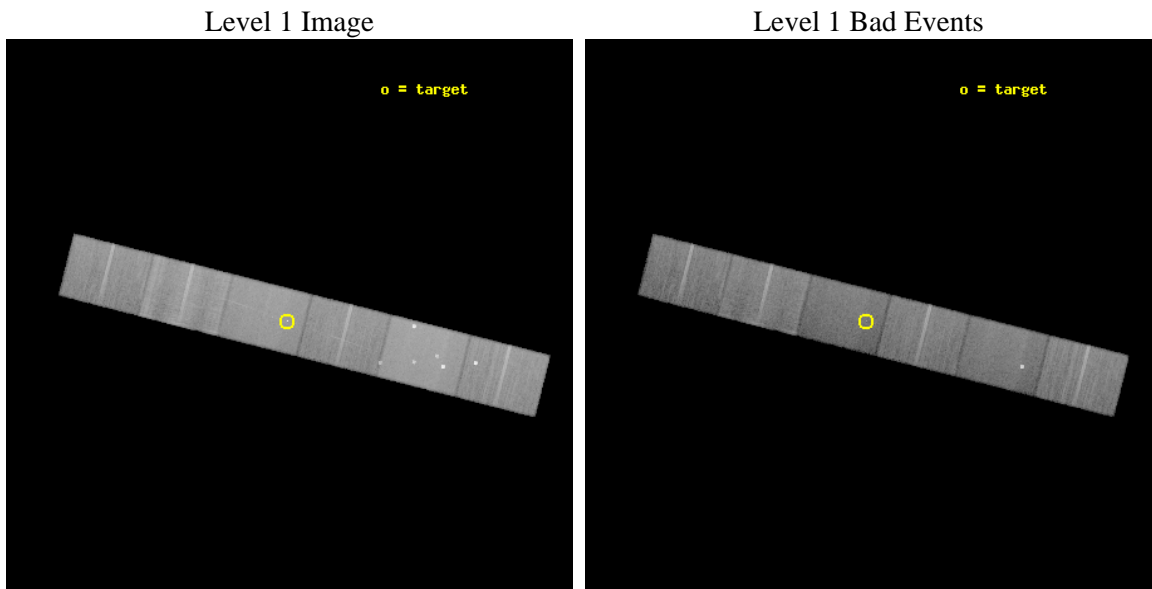
seq_num	200691	Sequence number
obs_id	12357	Observation id
title	SPINNING CORONA OF FK COM	Proposal title
observer	Dr. Vinay Kashyap	Principal investigator
object	FK Com	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	202.695	Observer's specified target RA [deg]
dec_targ	24.232694	Observer's specified target Dec [deg]
ra_nom	202.69128139235	Nominal RA [deg]
dec_nom	24.229214017059	Nominal Dec [deg]
roll_nom	194.15815641583	Nominal Roll [deg]
revision	2	Processing version of data
ontime	35330.0	Sum of GTIs [s]
livetime	34759.389856122	Livetime [s]
ontime4	35330.0	Sum of GTIs [s]
ontime5	35330.0	Sum of GTIs [s]
ontime6	35330.0	Sum of GTIs [s]
ontime7	35330.0	Sum of GTIs [s]
ontime8	35330.0	Sum of GTIs [s]
ontime9	35330.0	Sum of GTIs [s]
l2events	304288	Number of level 2 events



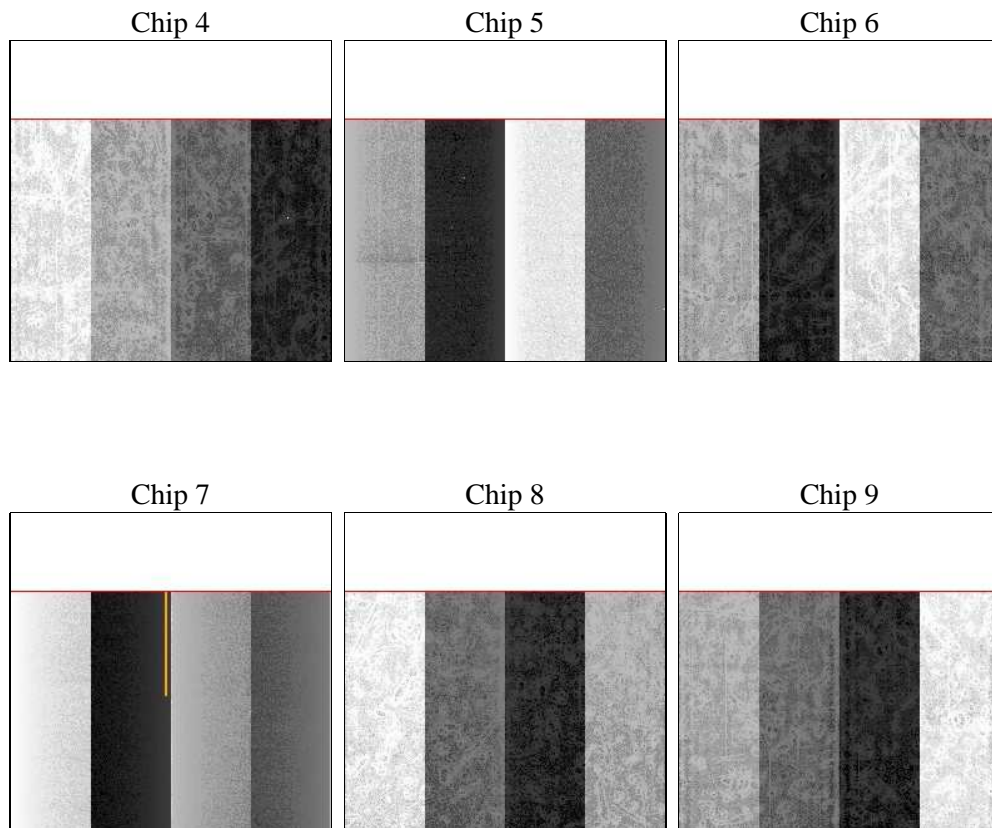
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	35300.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	35330.0	Sum of GTIs [s]
caldbver	4.4.7	 	ontime4	35330.0	Sum of GTIs [s]
date	2012-02-08T23:45:24	Date and time of file creation	ontime5	35330.0	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	35330.0	Sum of GTIs [s]
			ontime7	35330.0	Sum of GTIs [s]
			ontime8	35330.0	Sum of GTIs [s]
			ontime9	35330.0	Sum of GTIs [s]
			l1events	1319442	Number of level 1 events

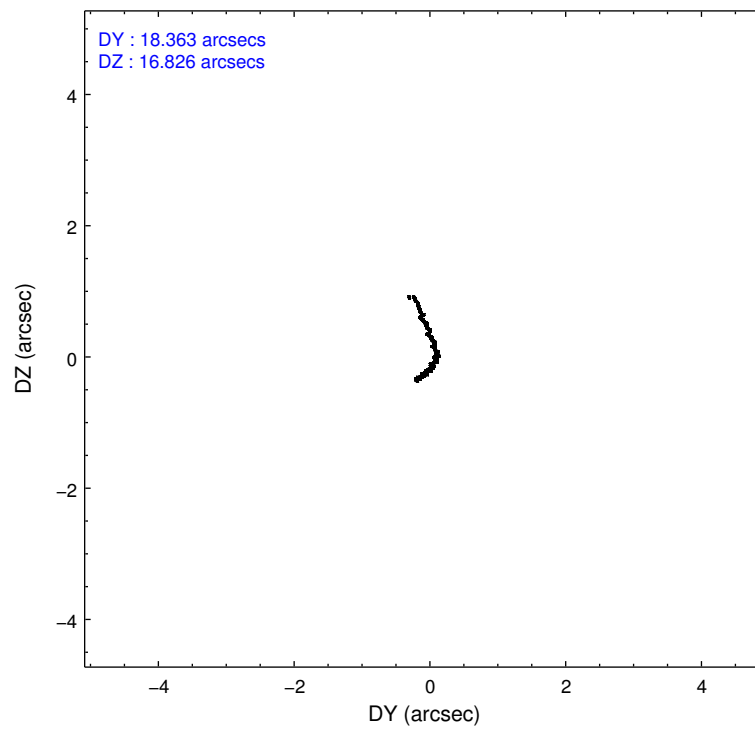
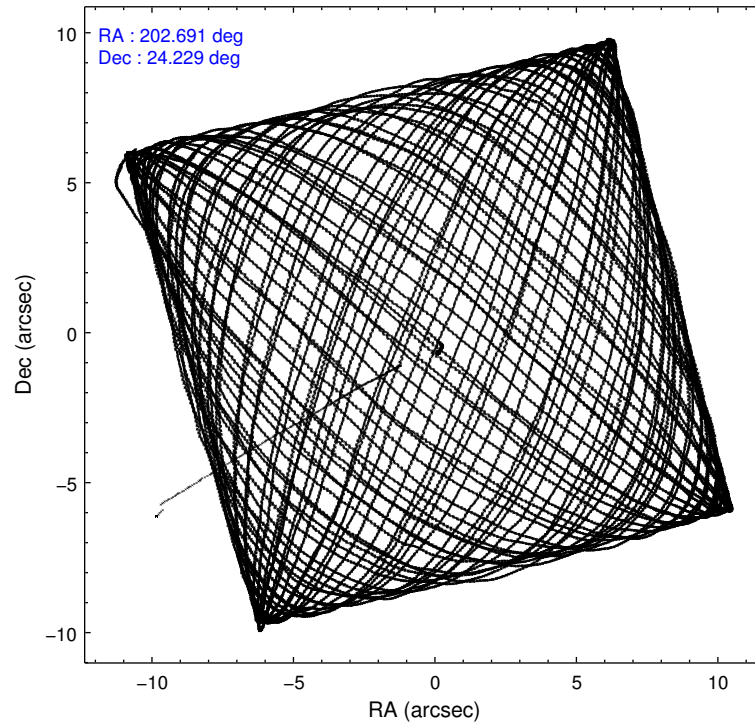
2.1.4 Events

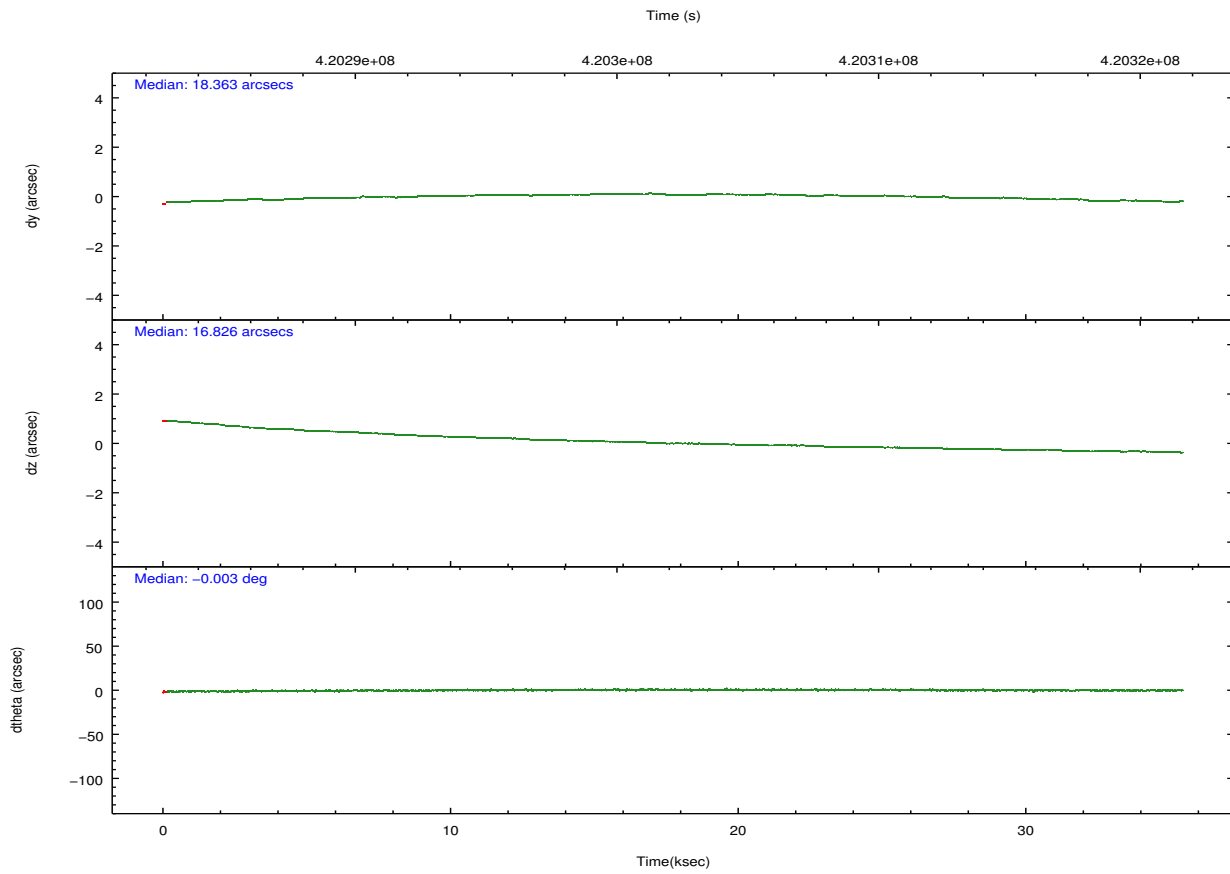
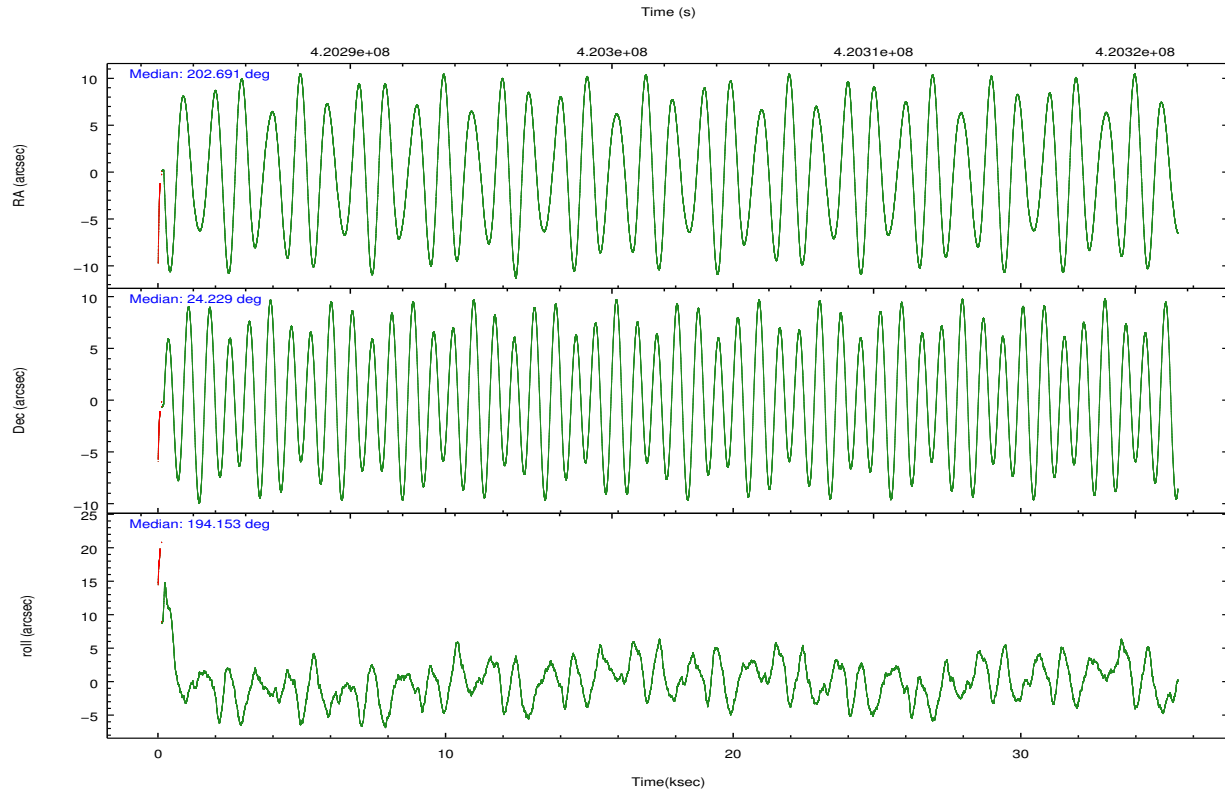
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	208185	294756	182090	225038	238132	171241	grade 0 events	16529	24224	7985	9839	17476	7751
rejected events	177773	144994	160009	121448	176151	149453		7%	8%	4%	4%	7%	4%
rejected %	85%	49%	87%	53%	73%	87%	grade 1 events	170	485	80	255	169	96
								0%	0%	0%	0%	0%	0%
							grade 2 events	5360	42384	4946	21566	14575	4823
								2%	14%	2%	9%	6%	2%
							grade 3 events	2377	6856	2301	9570	6589	2401
								1%	2%	1%	4%	2%	1%
							grade 4 events	2333	5415	2288	9342	6111	2290
								1%	1%	1%	4%	2%	1%
							grade 5 events	8091	25008	8261	23420	12015	8943
								3%	8%	4%	10%	5%	5%
							grade 6 events	3831	70973	4572	53327	17263	4532
								1%	24%	2%	23%	7%	2%
							grade 7 events	169494	119411	151657	97719	163934	140405
								81%	40%	83%	43%	68%	81%

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	202.712519	202.6912813923522	CCD I2 on	N	N
[deg] Pointing Dec	24.248523	24.22921401705909	CCD I3 on	N	N
[deg] Pointing Roll	193.992804	194.1581564158311	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	-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)	420284579.184000	420283184.44327	CCD S5 on	Y	Y
Observation start date	2011-04-27T09:41:53	2011-04-27T09:19:44	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	420319879.184000	420320710.72022	On-chip summing requested	N	N
Observation end date	2011-04-27T19:30:13	2011-04-27T19:45:10	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	2.5

2.3 Aspect



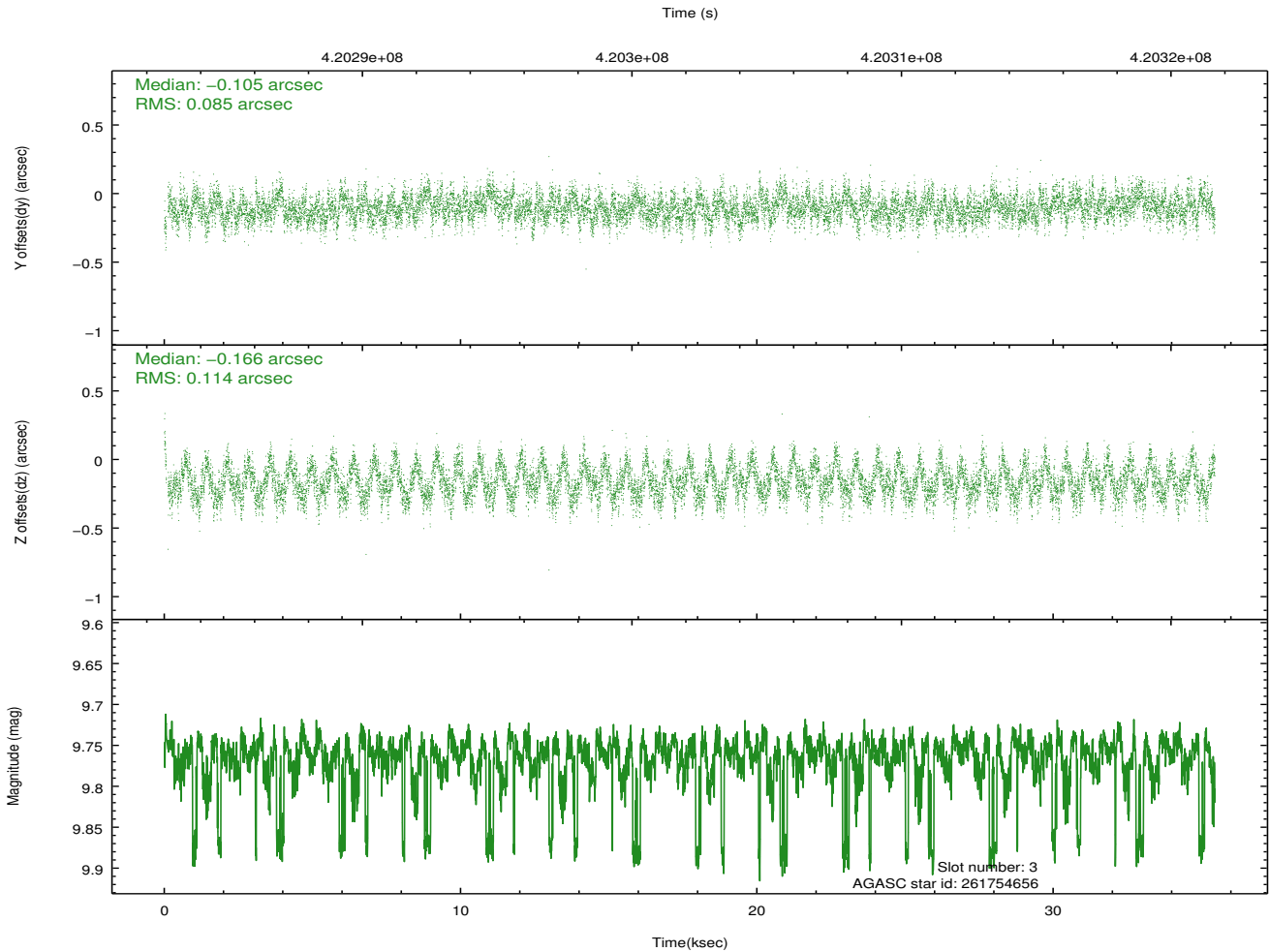
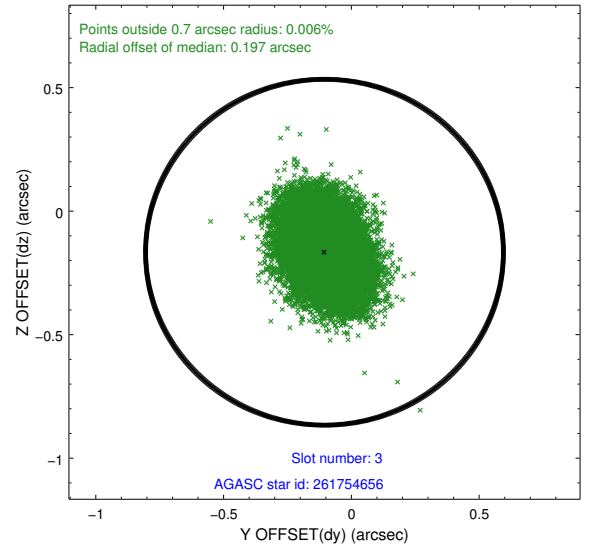
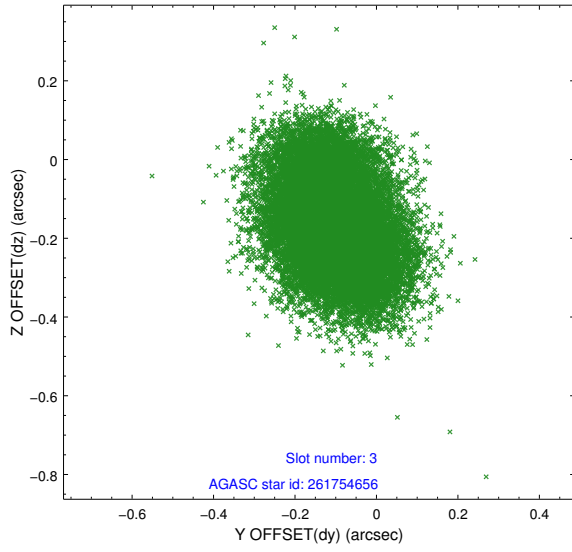


Slot Statistics

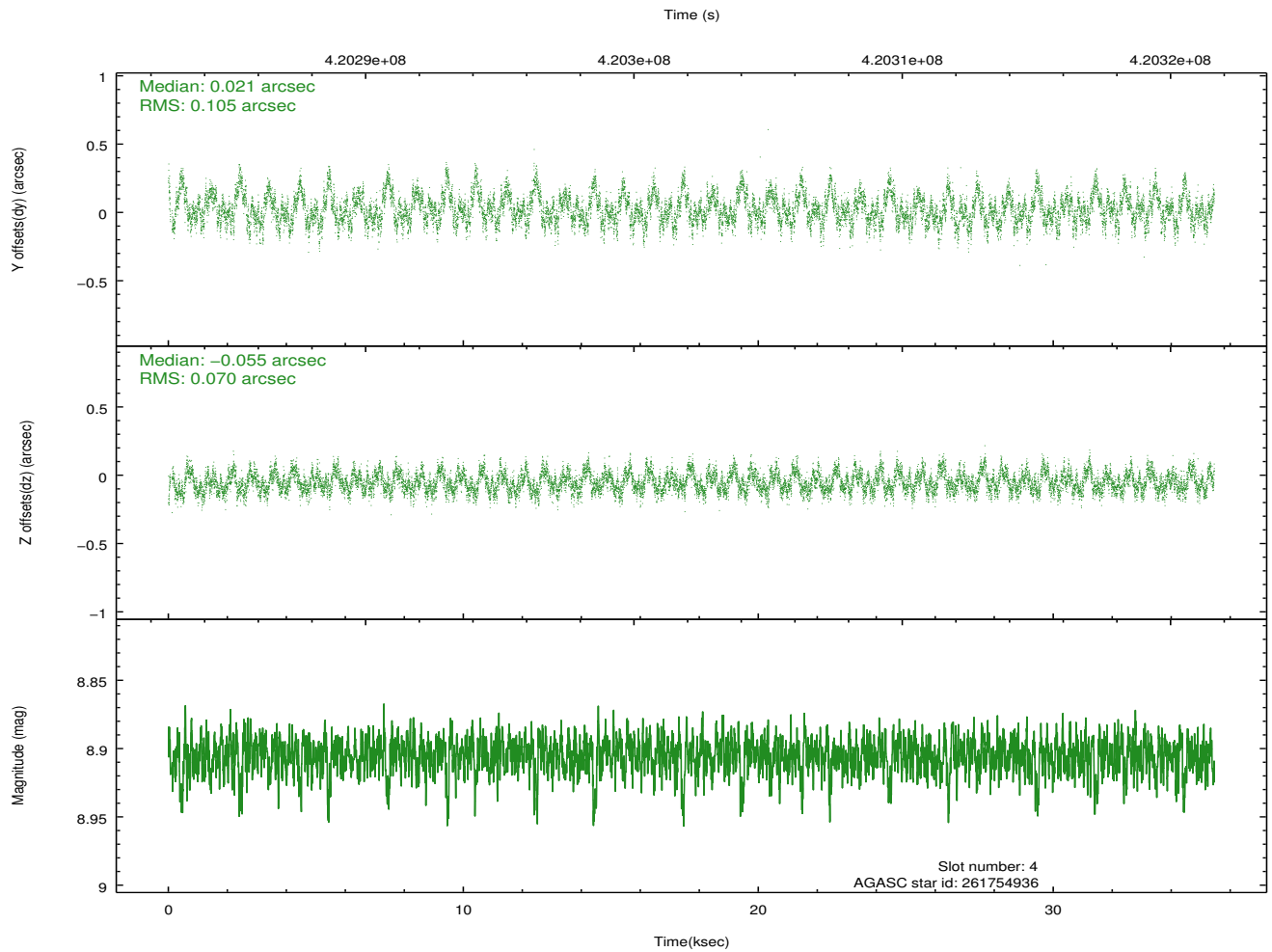
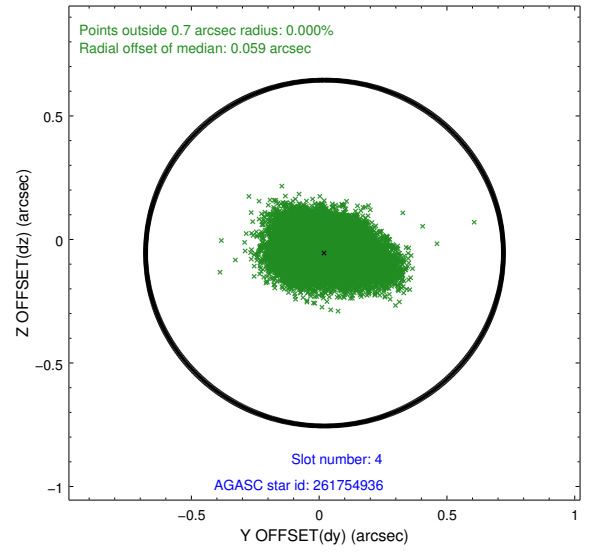
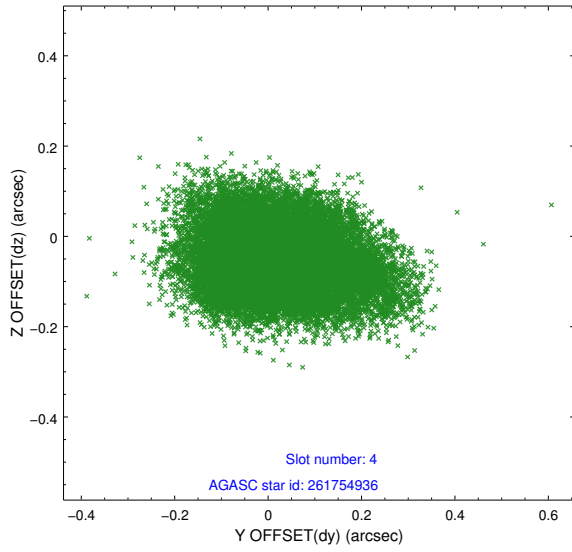
	status	id	mag	n_pts	med_dy	med_dz	dr1
	FID	ACIS-S-2	6.93	8636	-0.148	-0.083	0.008
	FID	ACIS-S-4	7.02	8636	0.156	0.092	0.008
	FID	ACIS-S-6	7.19	8635	-0.036	-0.002	0.007
	GUIDE	261754656	9.76	17164	-0.105	-0.166	0.153
	GUIDE	261754936	8.91	17256	0.021	-0.055	0.134
	GUIDE	261755088	10.30	17199	-0.214	0.147	0.185
	GUIDE	261756656	9.54	17250	0.306	0.060	0.189
0.000	0.000	0.000	0.000000	0.000000	0.00	0.00	

2.4 Star Slots

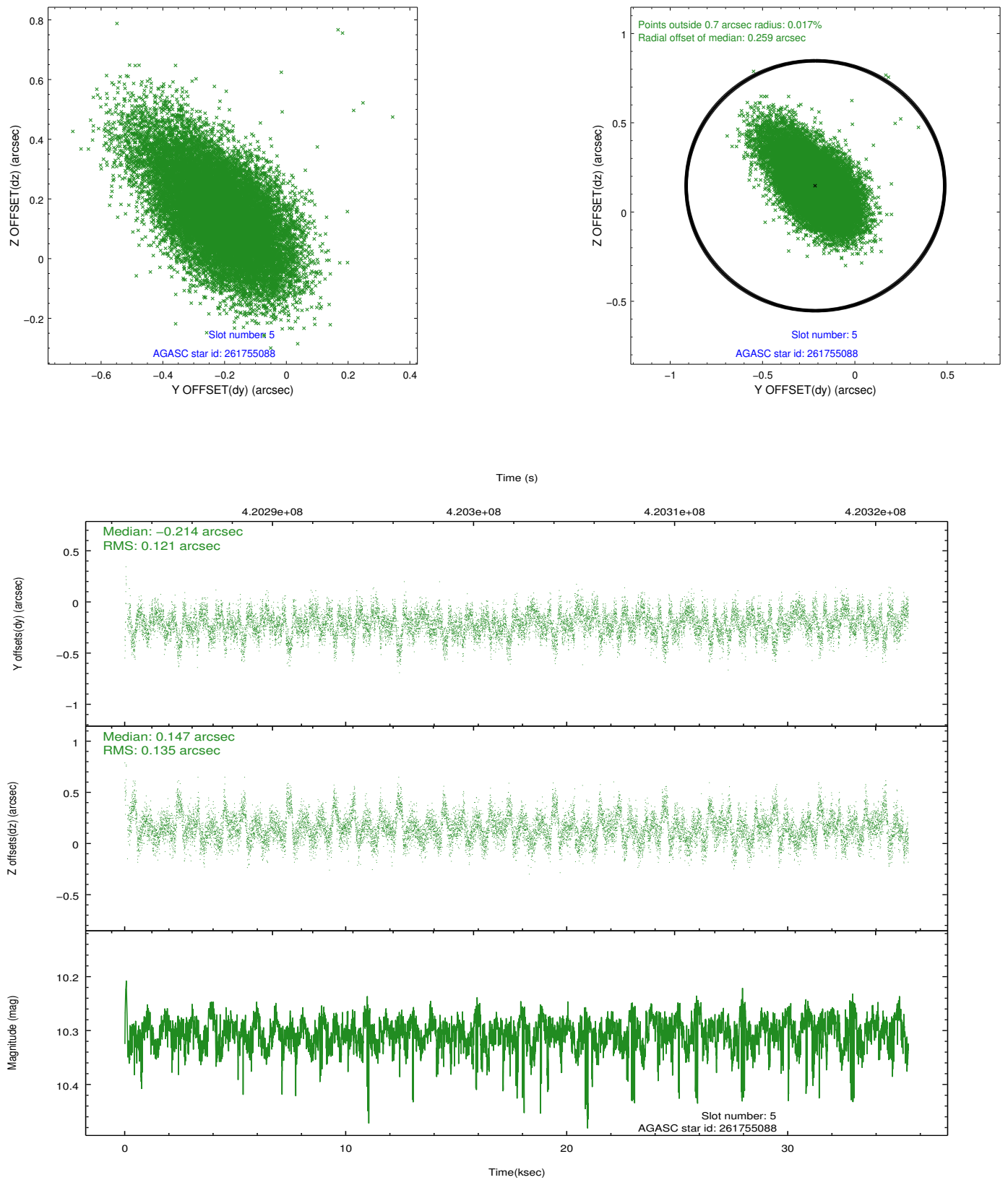
2.4.1 Slot 3



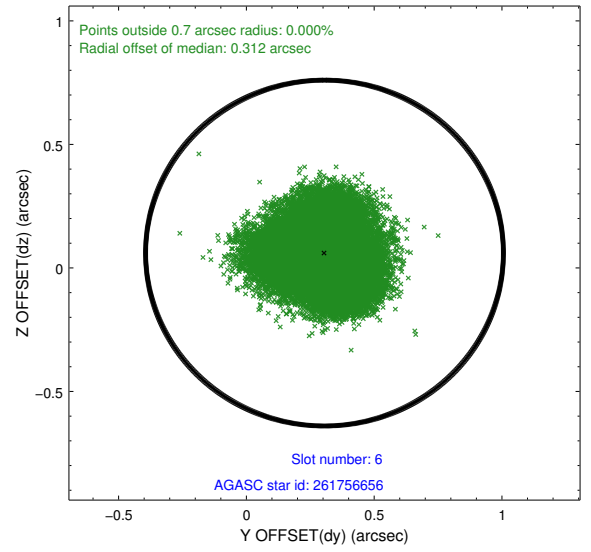
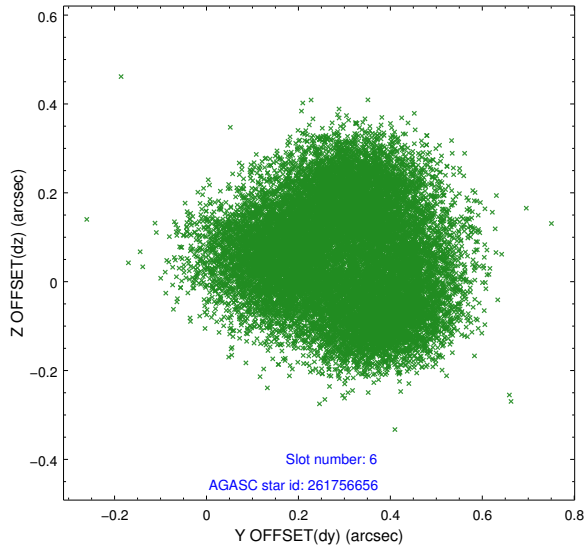
2.4.2 Slot 4



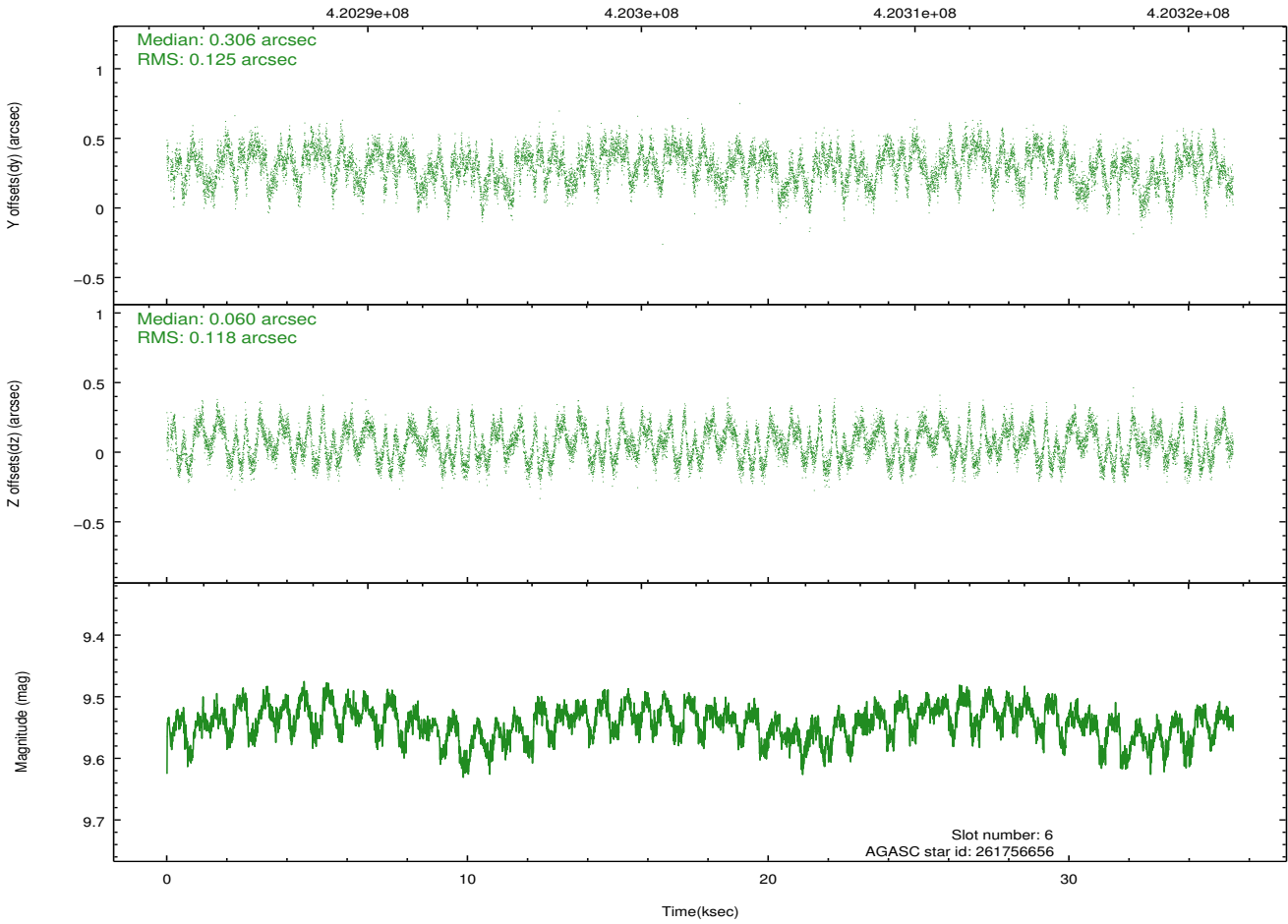
2.4.3 Slot 5



2.4.4 Slot 6

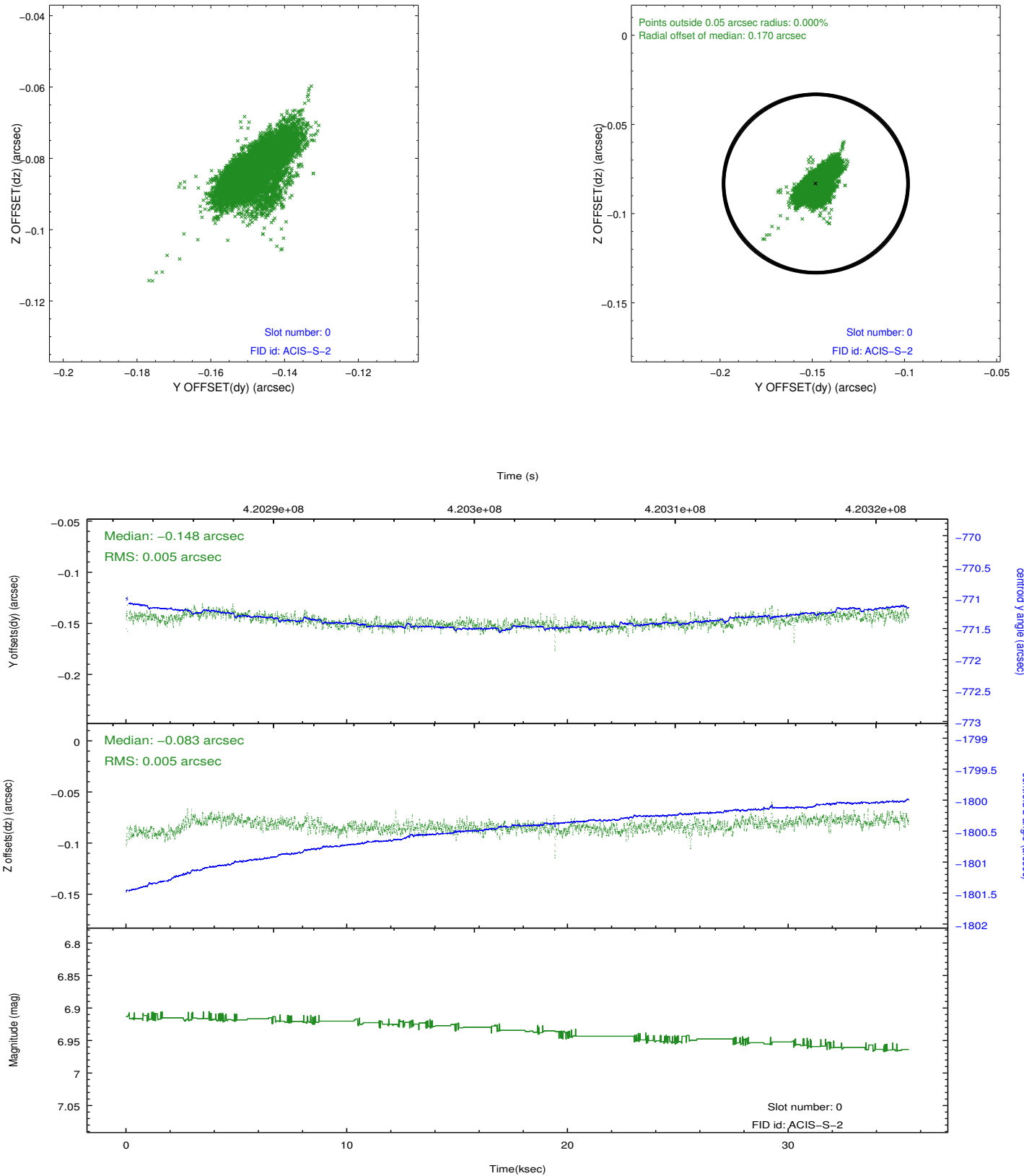


Time (s)

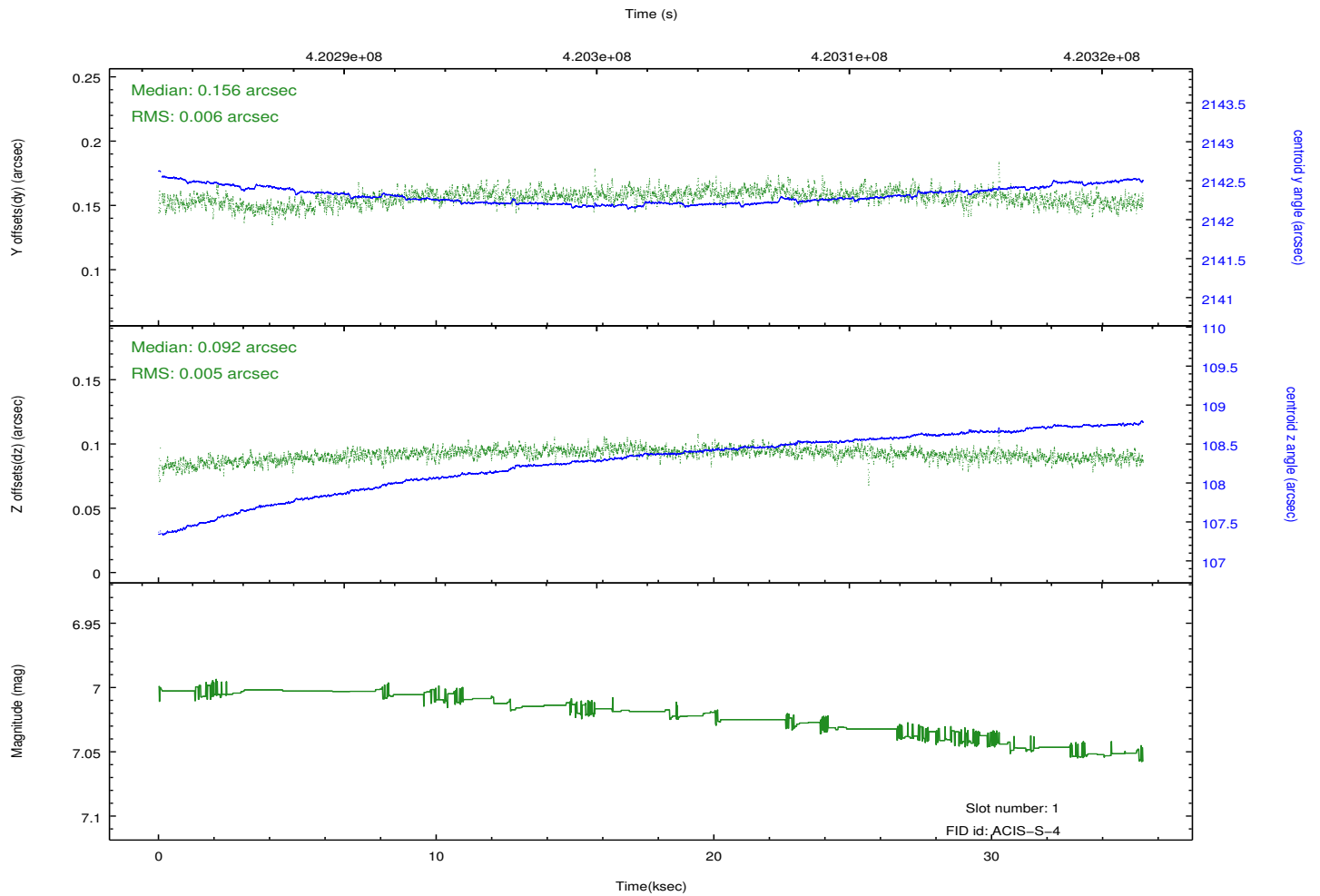
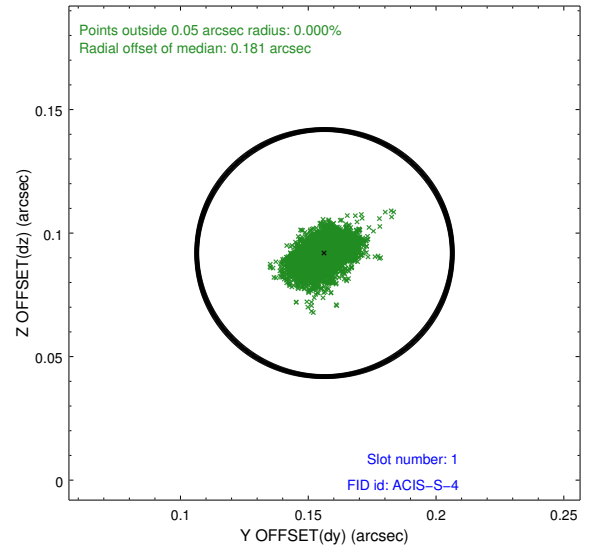
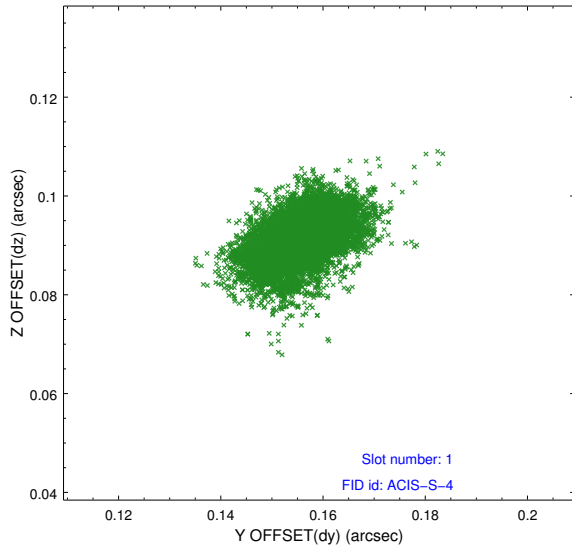


2.5 FID Slots

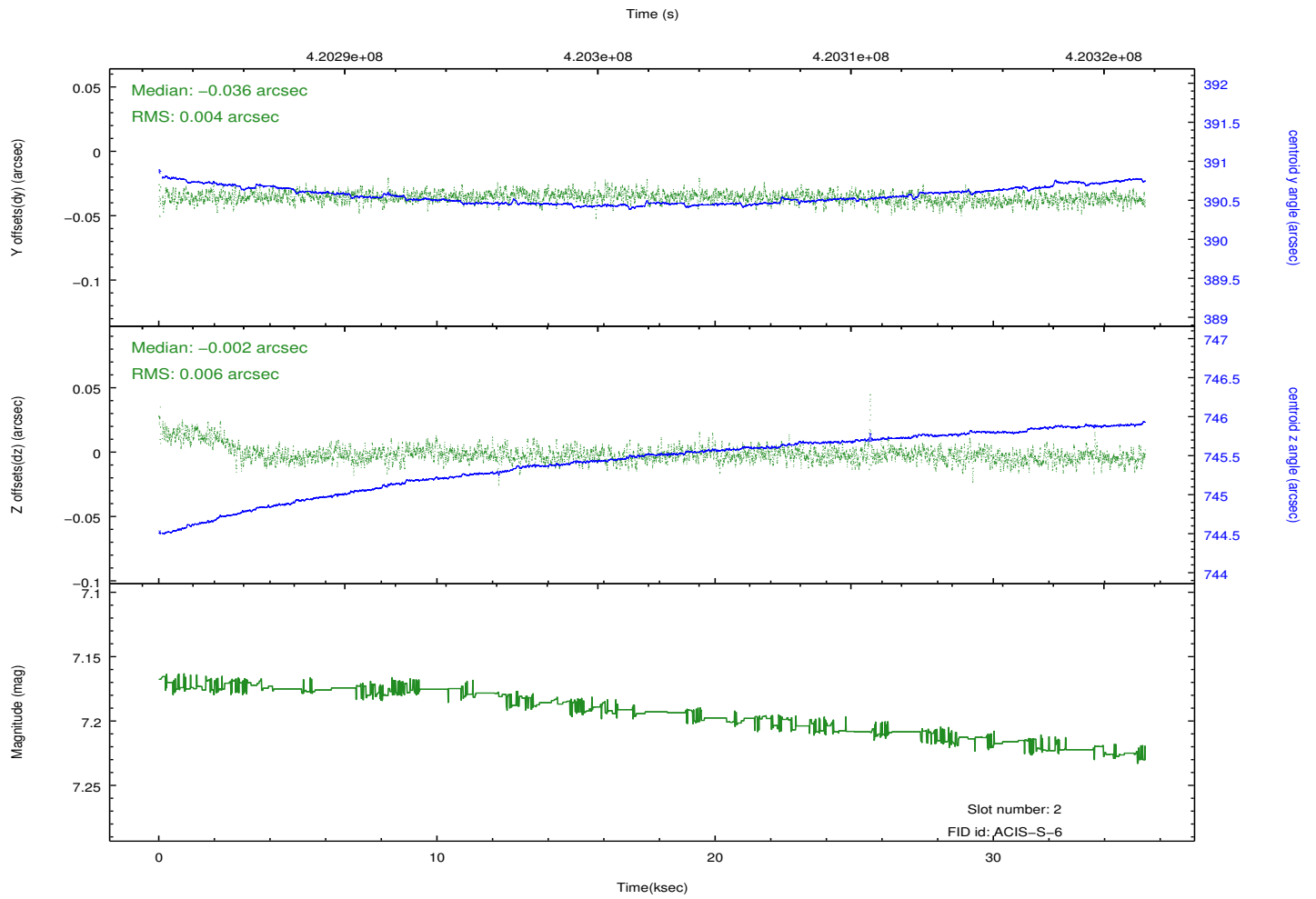
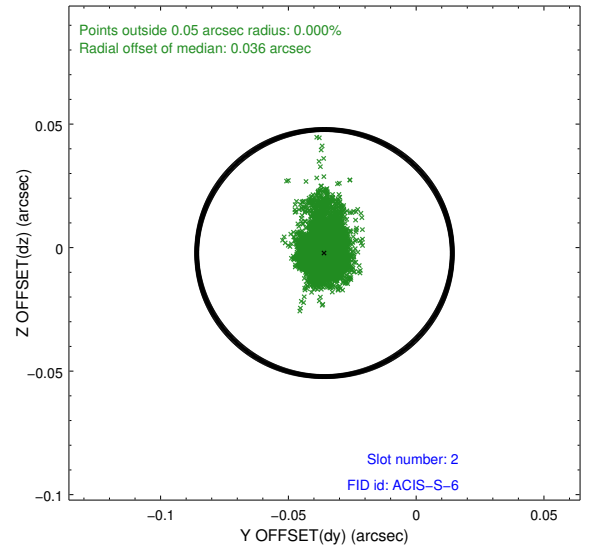
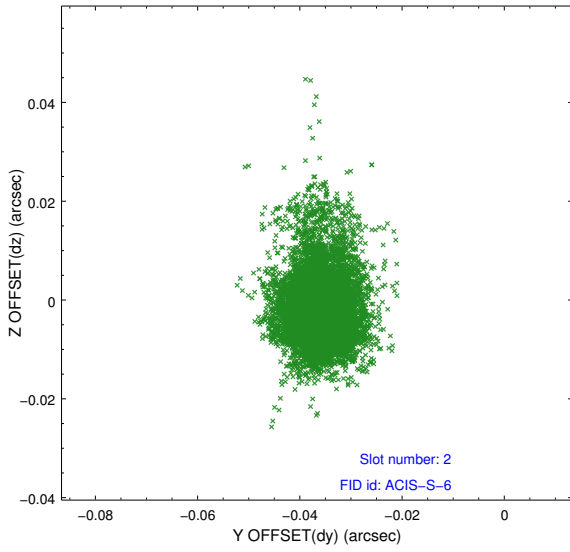
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

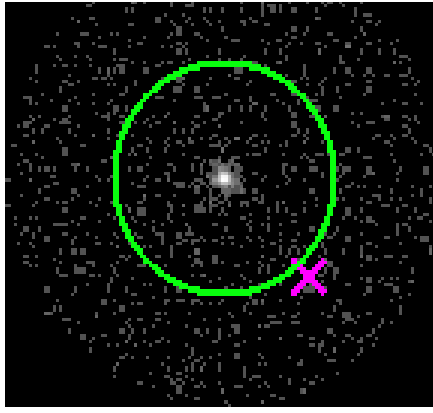


3 Gratings

3.1 HEG Arm



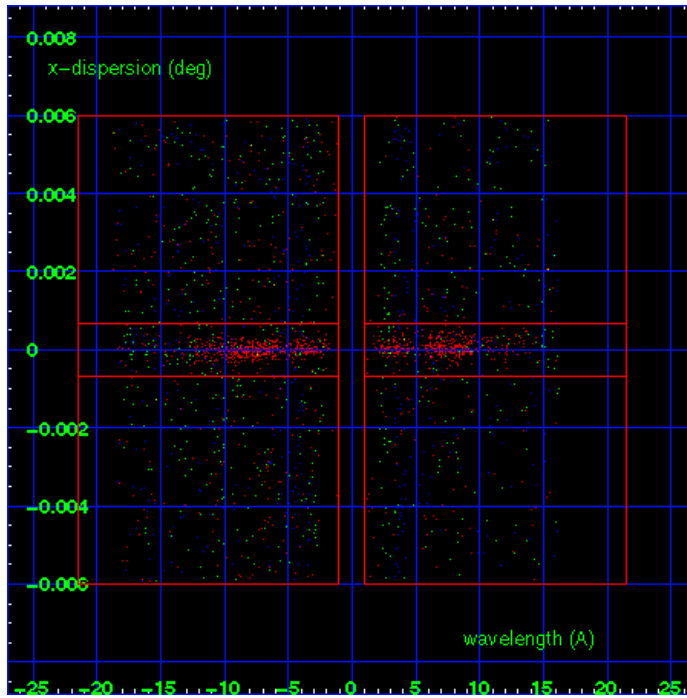
HEG Order Sort 123



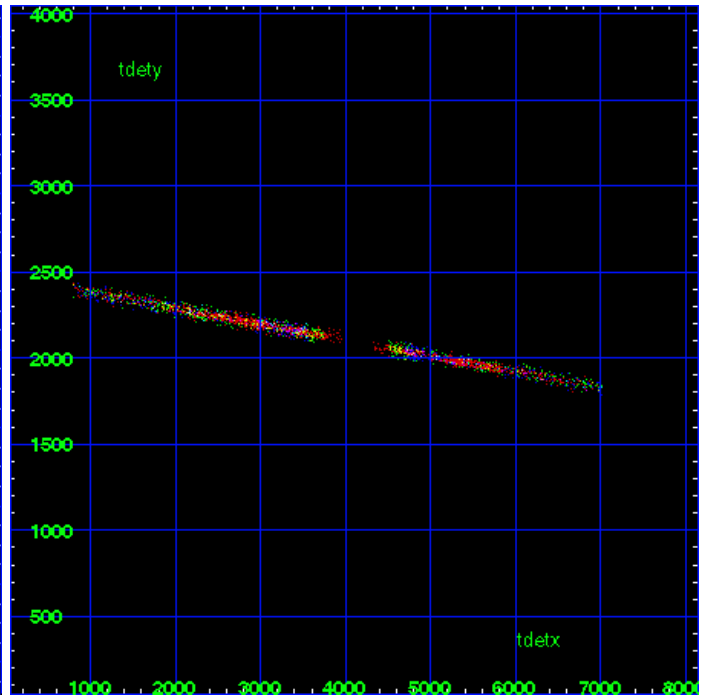
HEG Zero Order



HEG Order Sort ALL

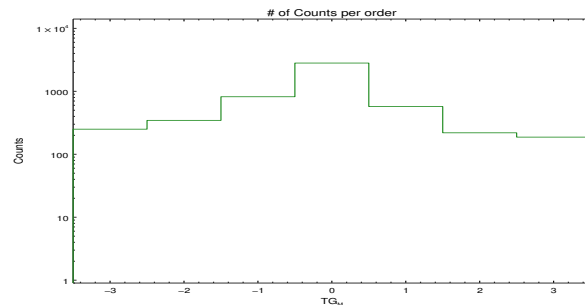


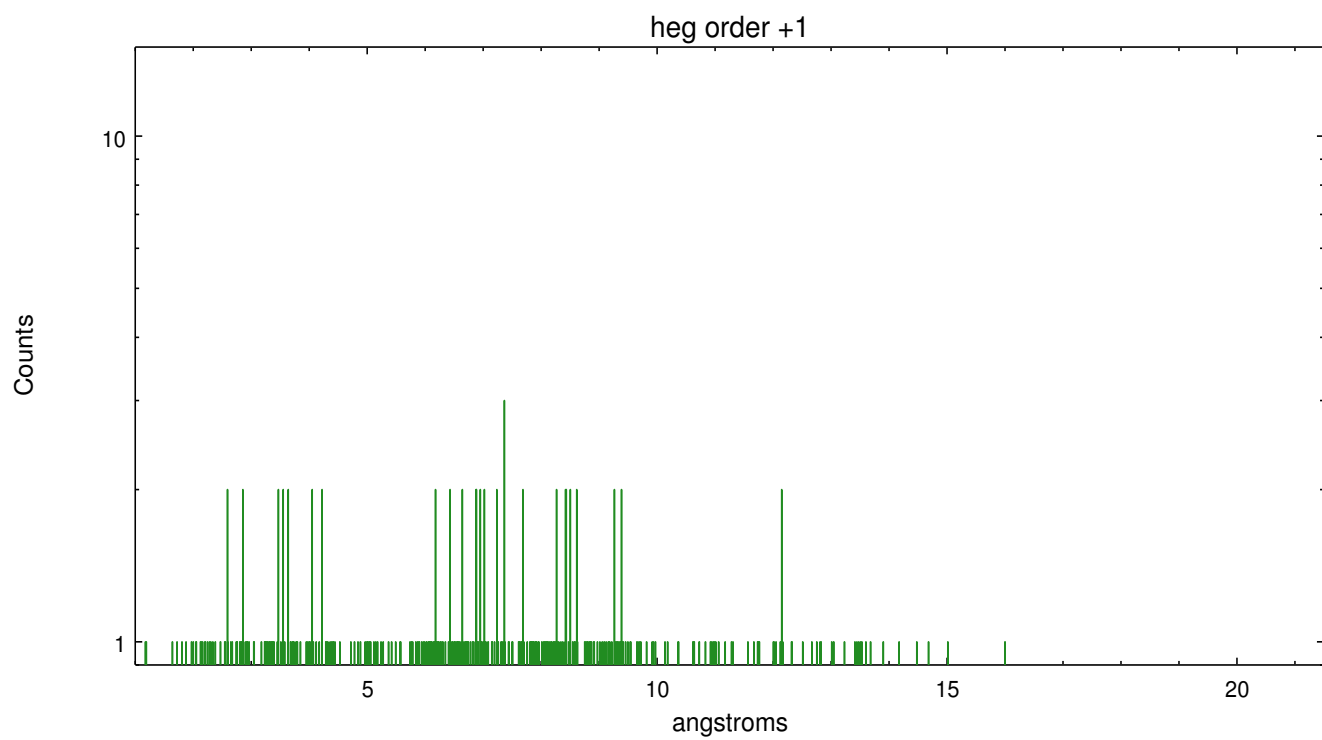
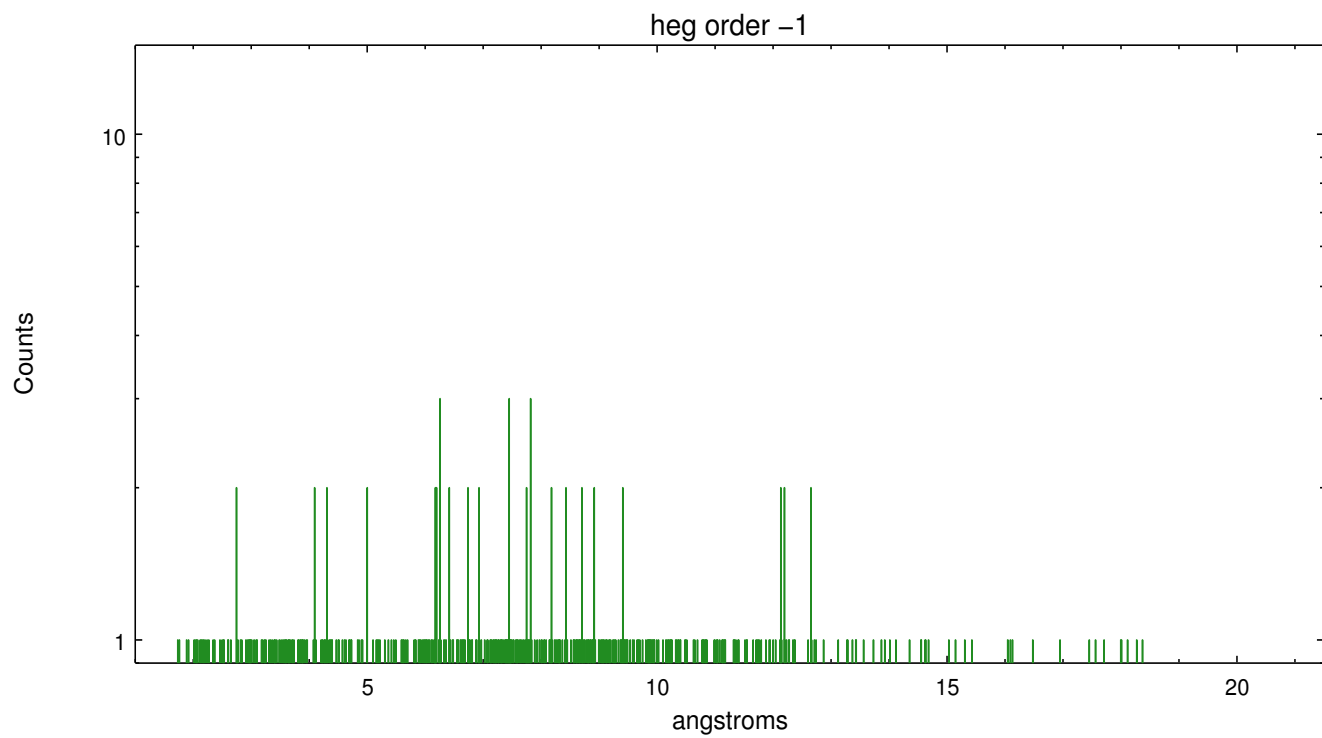
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	250	345	819	2807	572	219	187

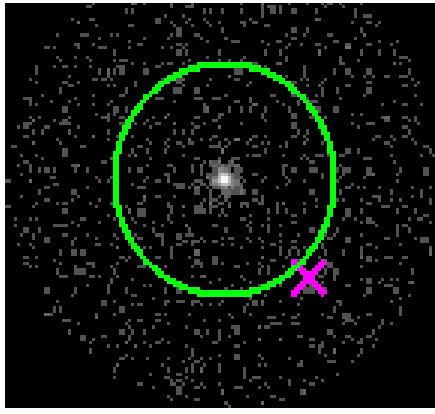




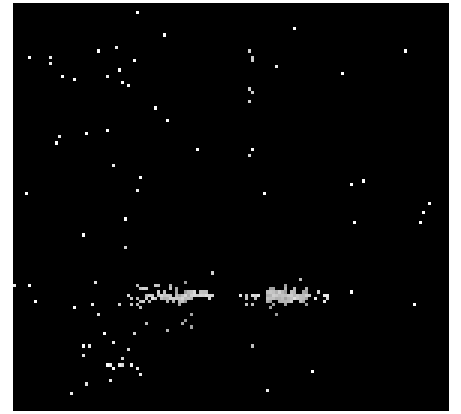
3.2 MEG Arm



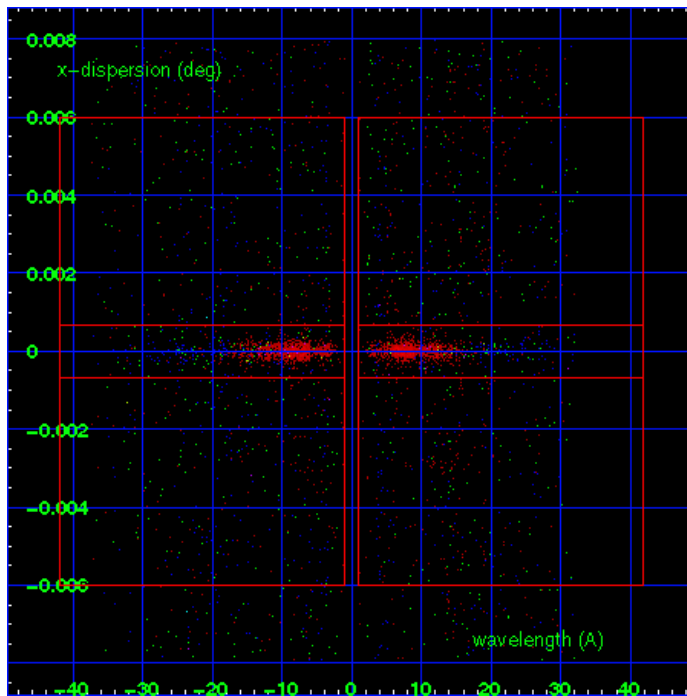
MEG Order Sort 123



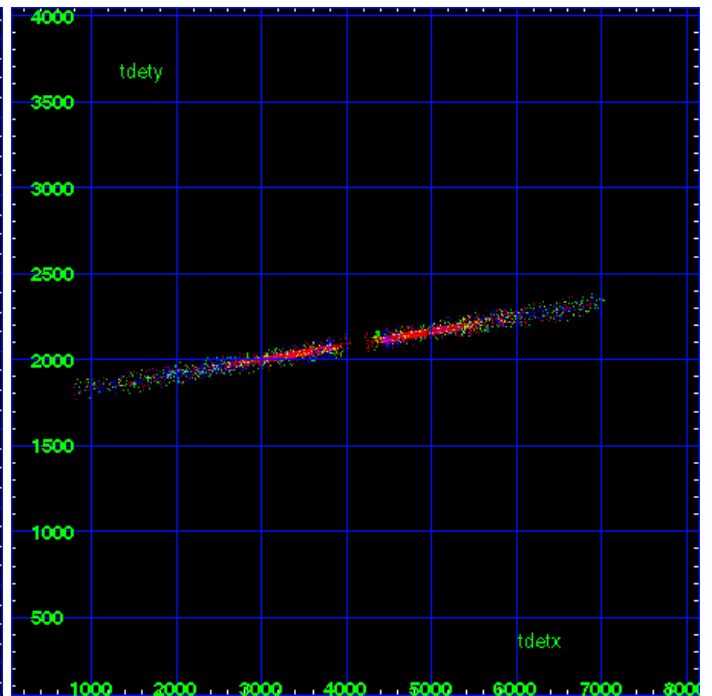
MEG Zero Order



MEG Order Sort ALL

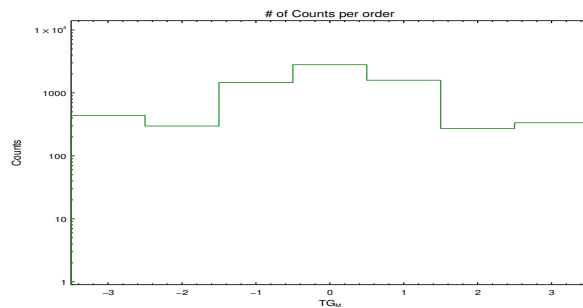


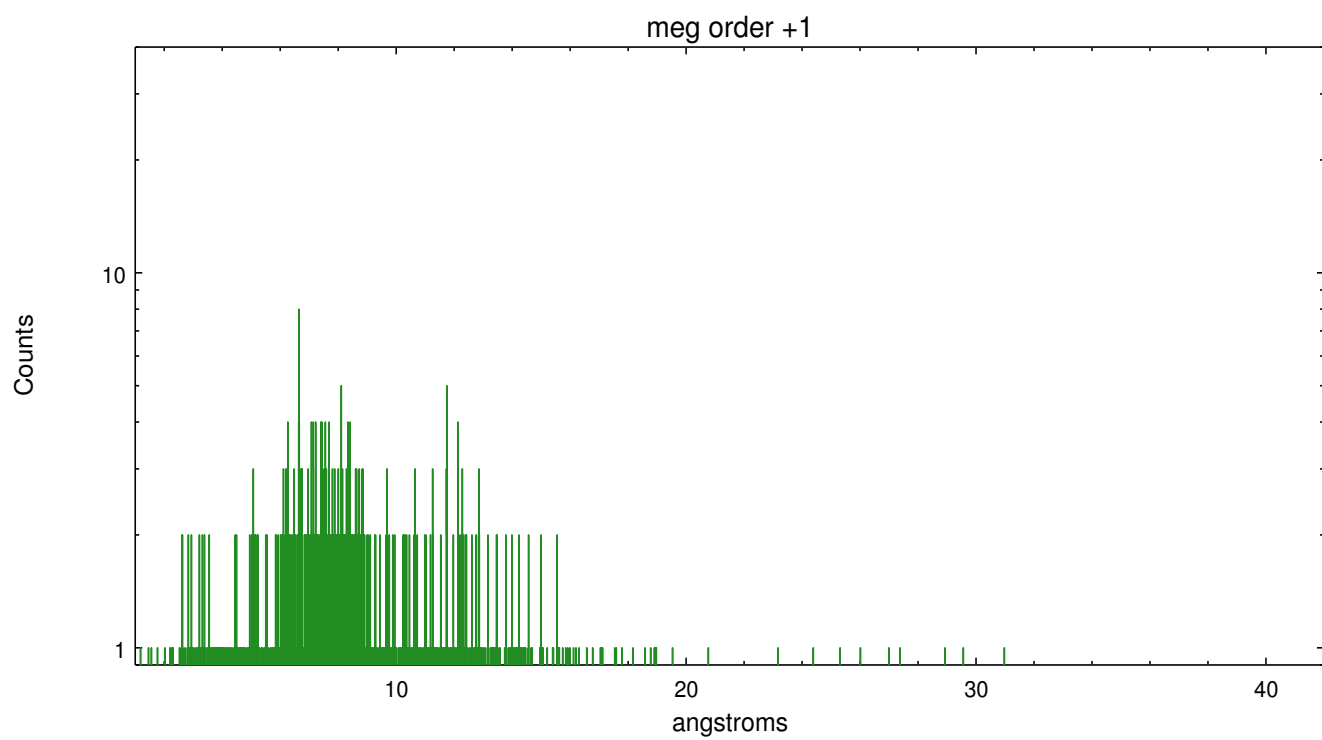
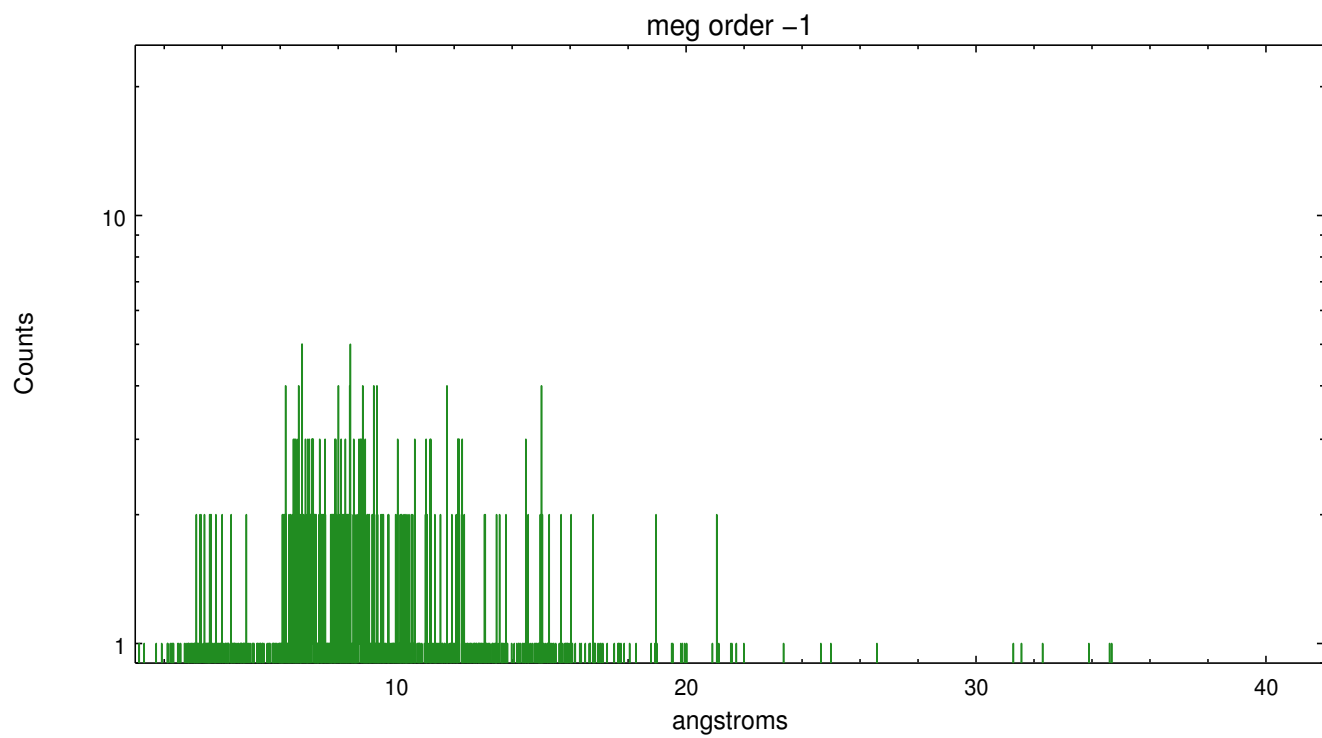
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	440	298	1463	2807	1591	273	336





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.02.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	35.33

A.2 Comments

Guide star slot 7 was used for optical monitoring of the target.

===

The data for this observation have been processed using the 'EDSER' sub-pixel event-repositioning algorithm of Li et al. (2004, ApJ, 610, 1204). Small-scale features should become sharper for sources near the aim point. The improvement will be less noticeable for off-axis sources where the size of the point-spread function is comparable to or larger than the size of an ACIS pixel. To take full advantage of the improvement, images should be binned on spatial scales smaller than the size of an ACIS pixel. Note that, at present, the point-spread function has not been calibrated for data to which the EDSER algorithm has been applied. If dither was disabled for the observation, then the algorithm can introduce artificial aliasing effects on spatial scales smaller than a pixel. If you would prefer to use no sub-pixel adjustment or to apply a coordinate randomization, then use `acis_process_events` to reprocess the data with the parameter `pix_adj=NONE` or `RANDOMIZE`, respectively.