

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 13243 - L2 Version 3
Chandra X-Ray Center

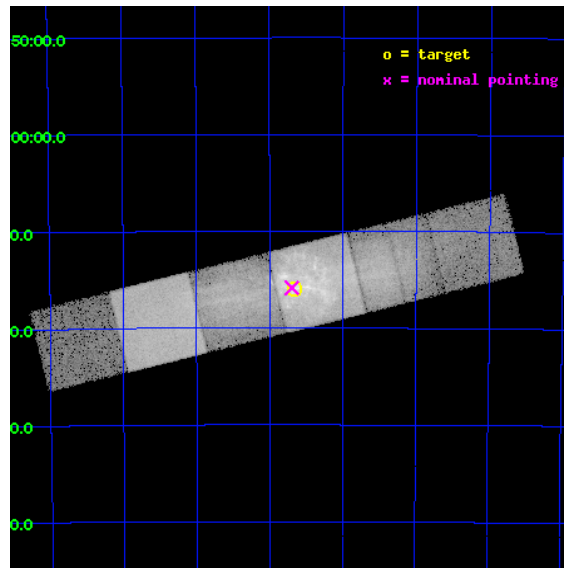
L2 Processing Date : Feb 17 2012

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

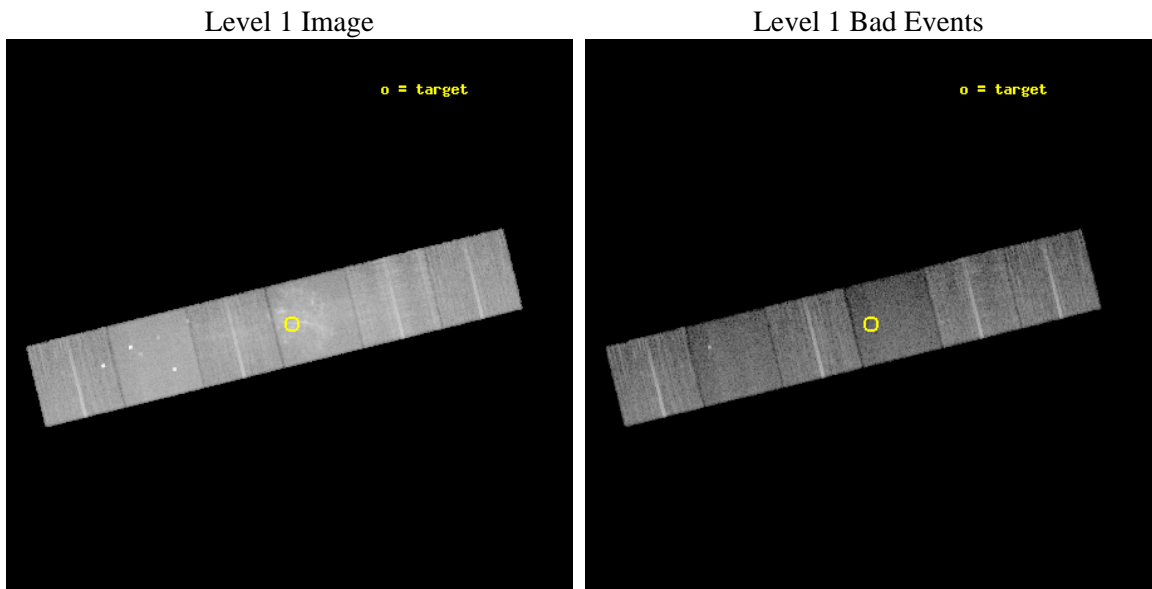
seq_num	501388	Sequence number
obs_id	13243	Observation id
title	Chandra HETGS Observation of the Oxygen-Rich Supernova Remnant G292.0+1.8	Proposal title
observer	Sangwook Park	Principal investigator
object	G292.0+1.8	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	171.164583	Observer's specified target RA [deg]
dec_targ	-59.265667	Observer's specified target Dec [deg]
ra_nom	171.1736090065	Nominal RA [deg]
dec_nom	-59.26417602143	Nominal Dec [deg]
roll_nom	346.16437321473	Nominal Roll [deg]
revision	3	Processing version of data
ontime	16377.599939048	Sum of GTIs [s]
livetime	16170.216907213	Livetime [s]
ontime4	16374.358908832	Sum of GTIs [s]
ontime5	16377.599939048	Sum of GTIs [s]
ontime6	16377.599939048	Sum of GTIs [s]
ontime7	16377.599939048	Sum of GTIs [s]
ontime8	16377.599939048	Sum of GTIs [s]
ontime9	16371.11788851	Sum of GTIs [s]
l2events	322829	Number of level 2 events



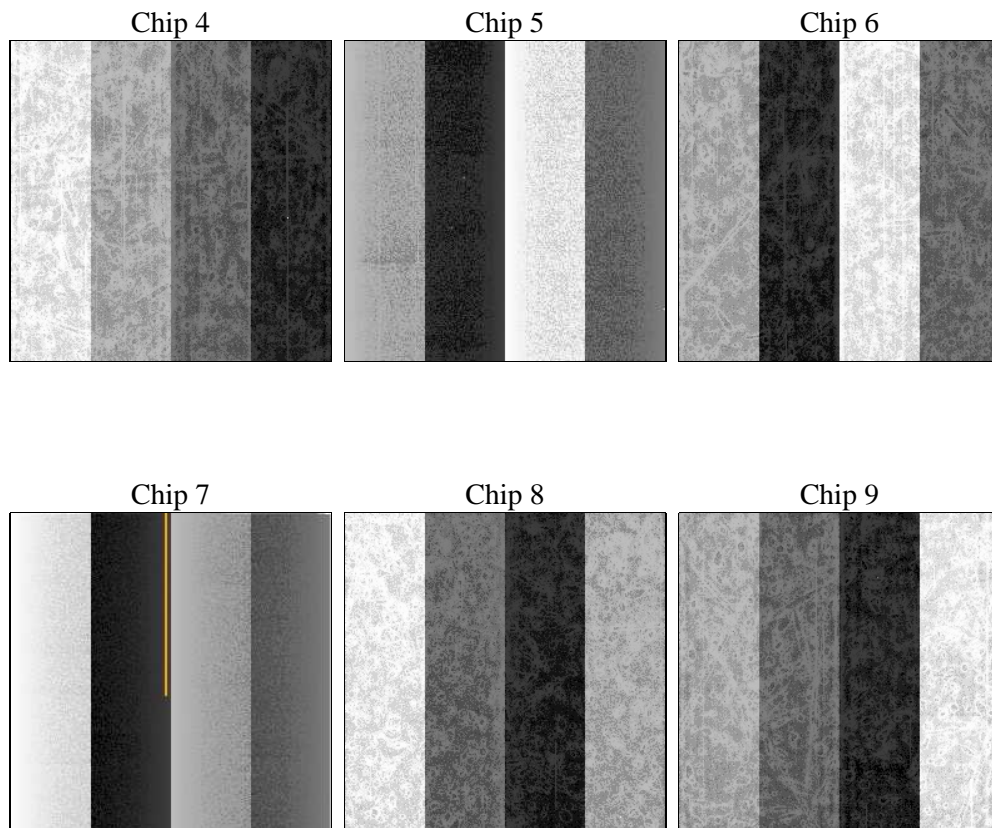
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	16329.533000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	16377.599939048	Sum of GTIs [s]
caldsver	4.4.7	 	ontime4	16374.358908832	Sum of GTIs [s]
date	2012-02-06T21:41:29	Date and time of file creation	ontime5	16377.599939048	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	16377.599939048	Sum of GTIs [s]
			ontime7	16377.599939048	Sum of GTIs [s]
			ontime8	16377.599939048	Sum of GTIs [s]
			ontime9	16371.11788851	Sum of GTIs [s]
			l1events	896978	Number of level 1 events

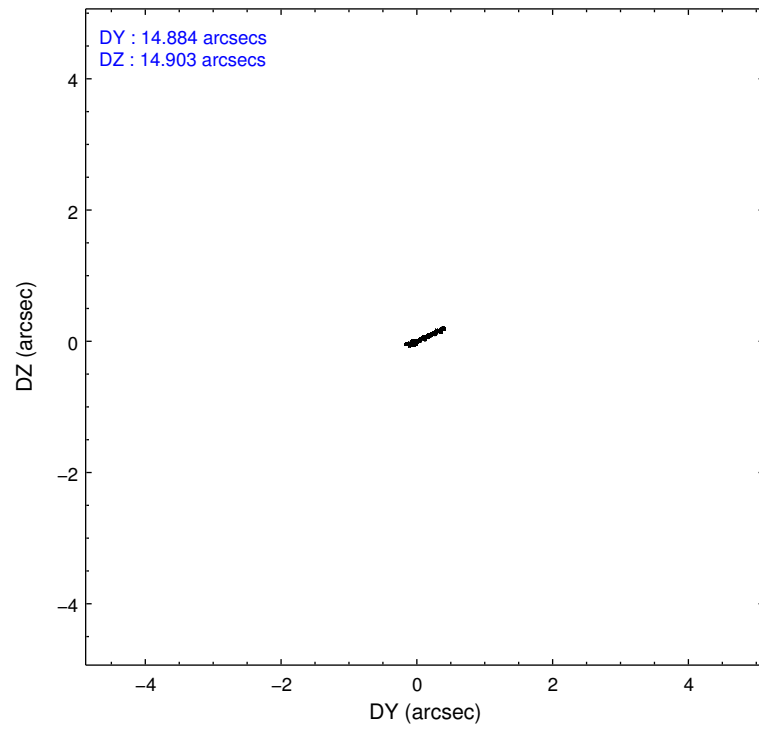
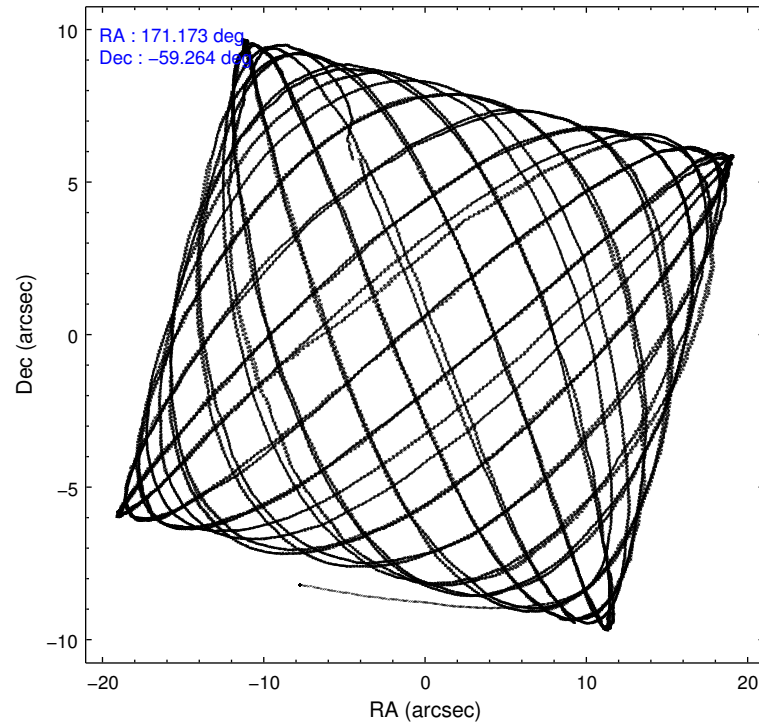
2.1.4 Events

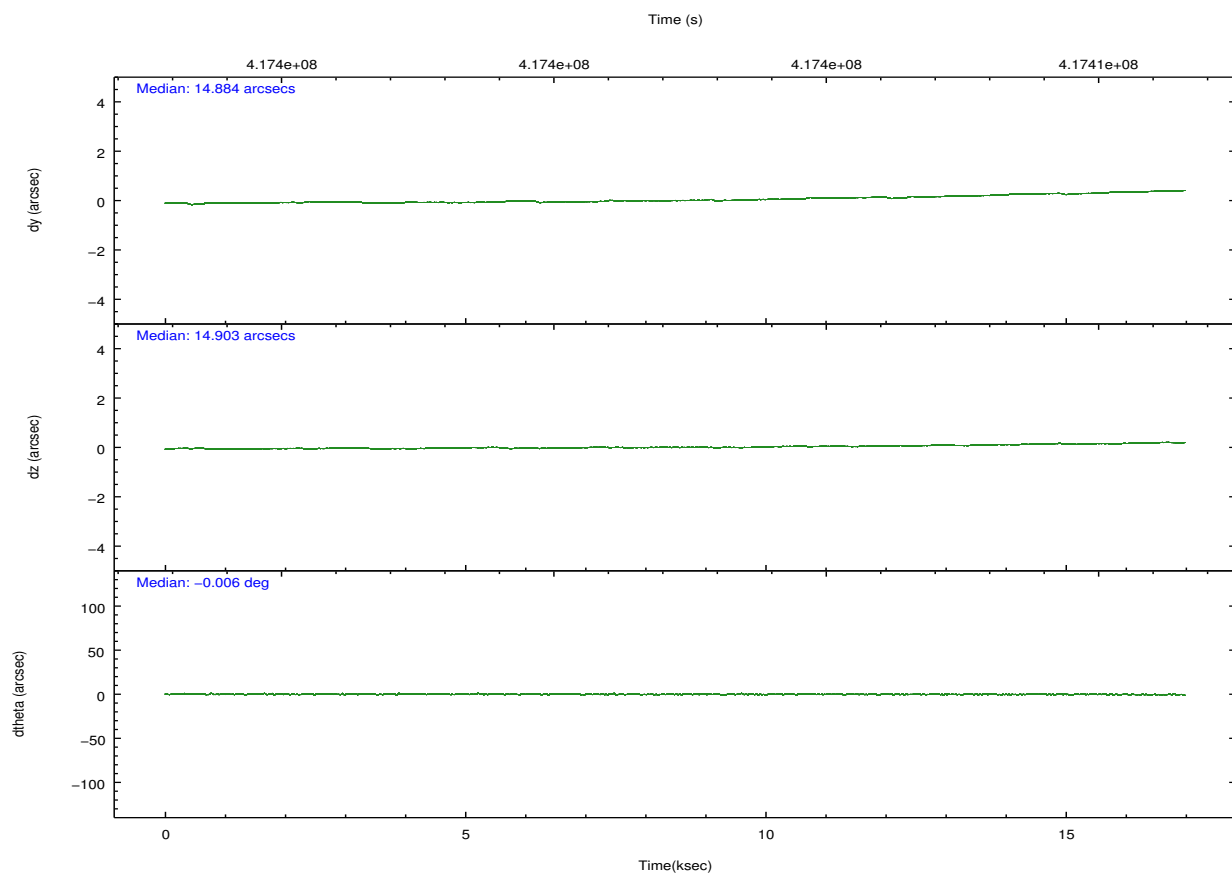
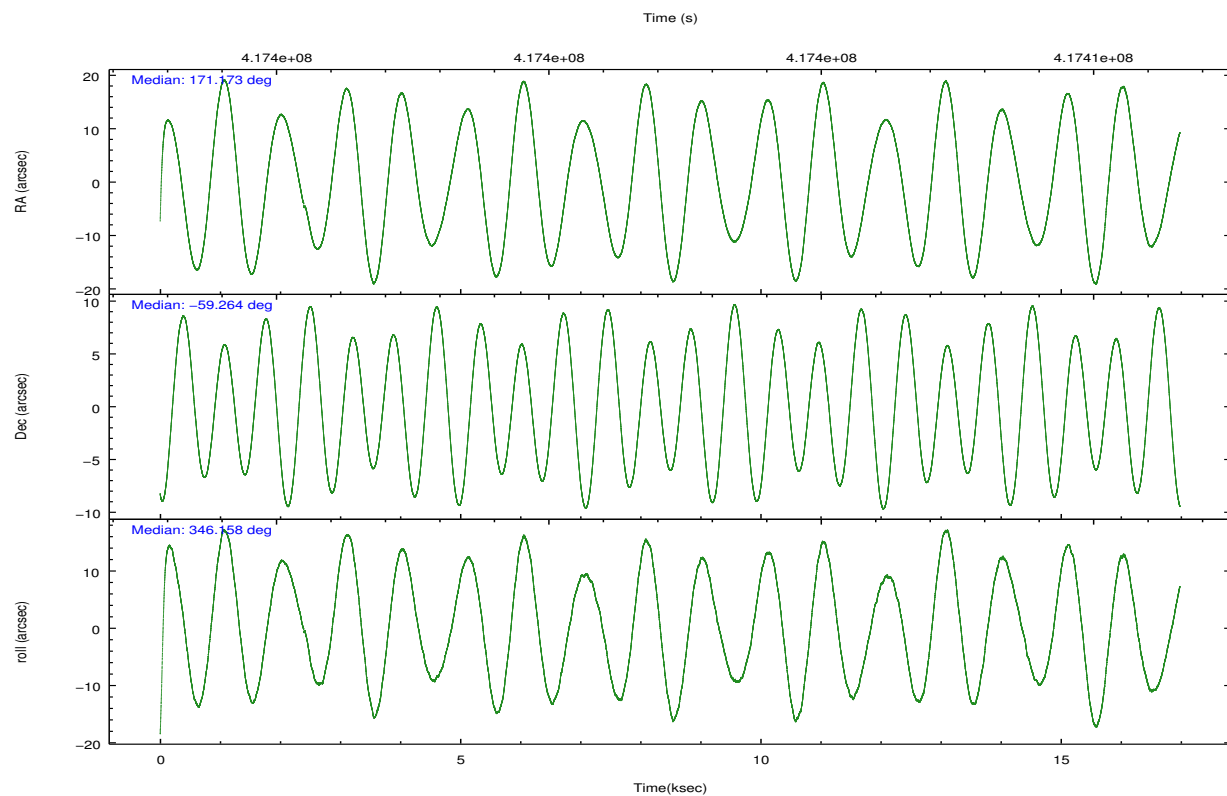
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	123828	167150	142863	188277	166697	108163	grade 0 events	10648	16212	34056	26571	36231	9539
rejected events	105080	71376	95488	59263	99225	90233		8%	9%	23%	14%	21%	8%
rejected %	84%	42%	66%	31%	59%	83%	grade 1 events	131	812	197	194	190	93
								0%	0%	0%	0%	0%	0%
							grade 2 events	3482	29807	6092	32060	11492	3084
								2%	17%	4%	17%	6%	2%
							grade 3 events	1326	4301	2148	13611	4918	1430
								1%	2%	1%	7%	2%	1%
							grade 4 events	1290	4225	2157	13824	4552	1394
								1%	2%	1%	7%	2%	1%
							grade 5 events	4182	11892	4319	12417	6577	4723
								3%	7%	3%	6%	3%	4%
							grade 6 events	2010	41272	2943	43008	10312	2487
								1%	24%	2%	22%	6%	2%
							grade 7 events	100759	58629	90951	46592	92425	85413
								81%	35%	63%	24%	55%	78%

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	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	171.122429	171.1736090064991	CCD I2 on	N	N
[deg] Pointing Dec	-59.272146	-59.26417602142969	CCD I3 on	N	N
[deg] Pointing Roll	345.963762	346.1643732147328	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)	417394375.184000	417392973.85588	CCD S5 on	Y	Y
Observation start date	2011-03-24T22:51:49	2011-03-24T22:29:33	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	417410705.184000	417410930.83181	On-chip summing requested	N	N
Observation end date	2011-03-25T03:23:59	2011-03-25T03:28:50	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



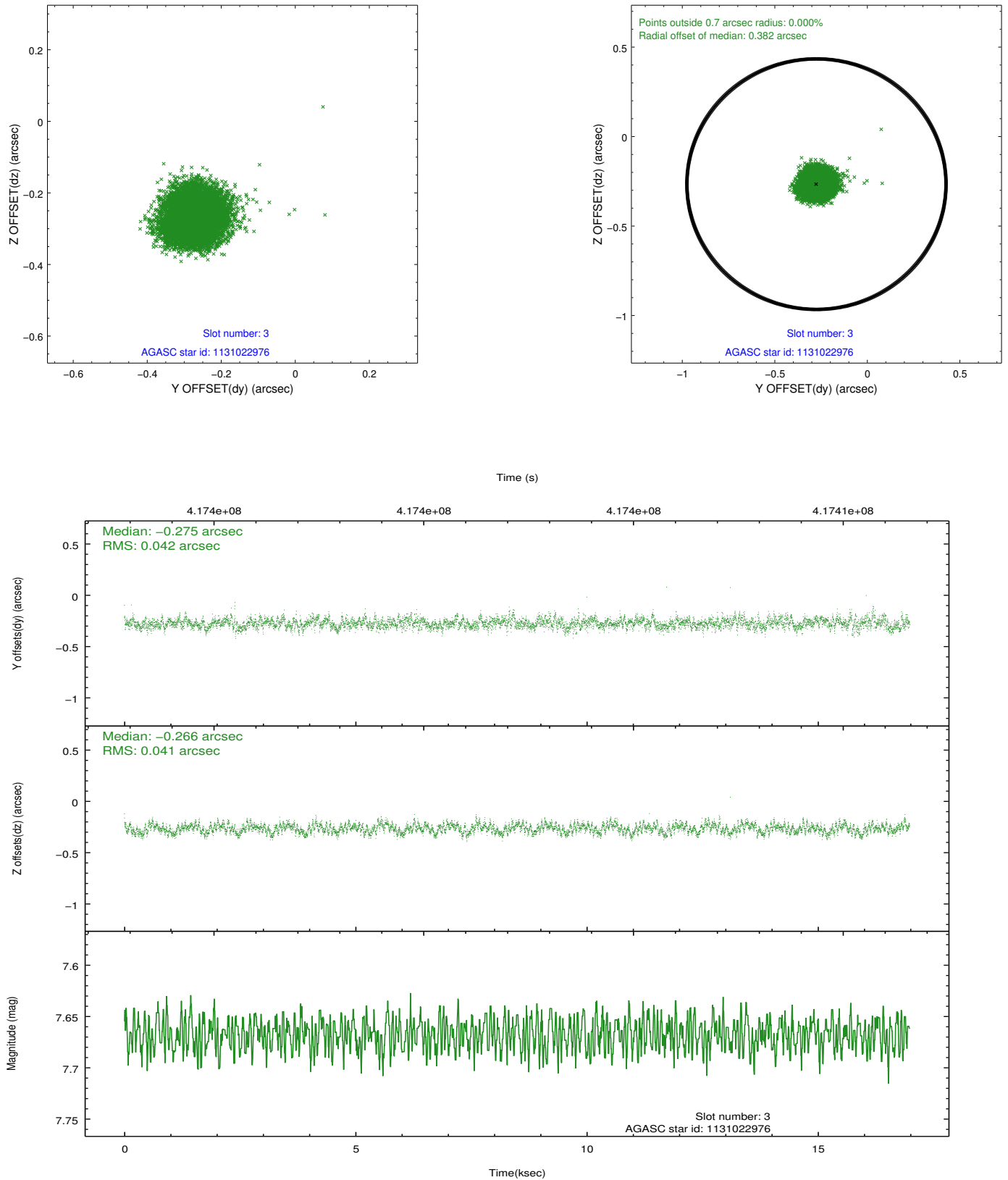


Slot Statistics

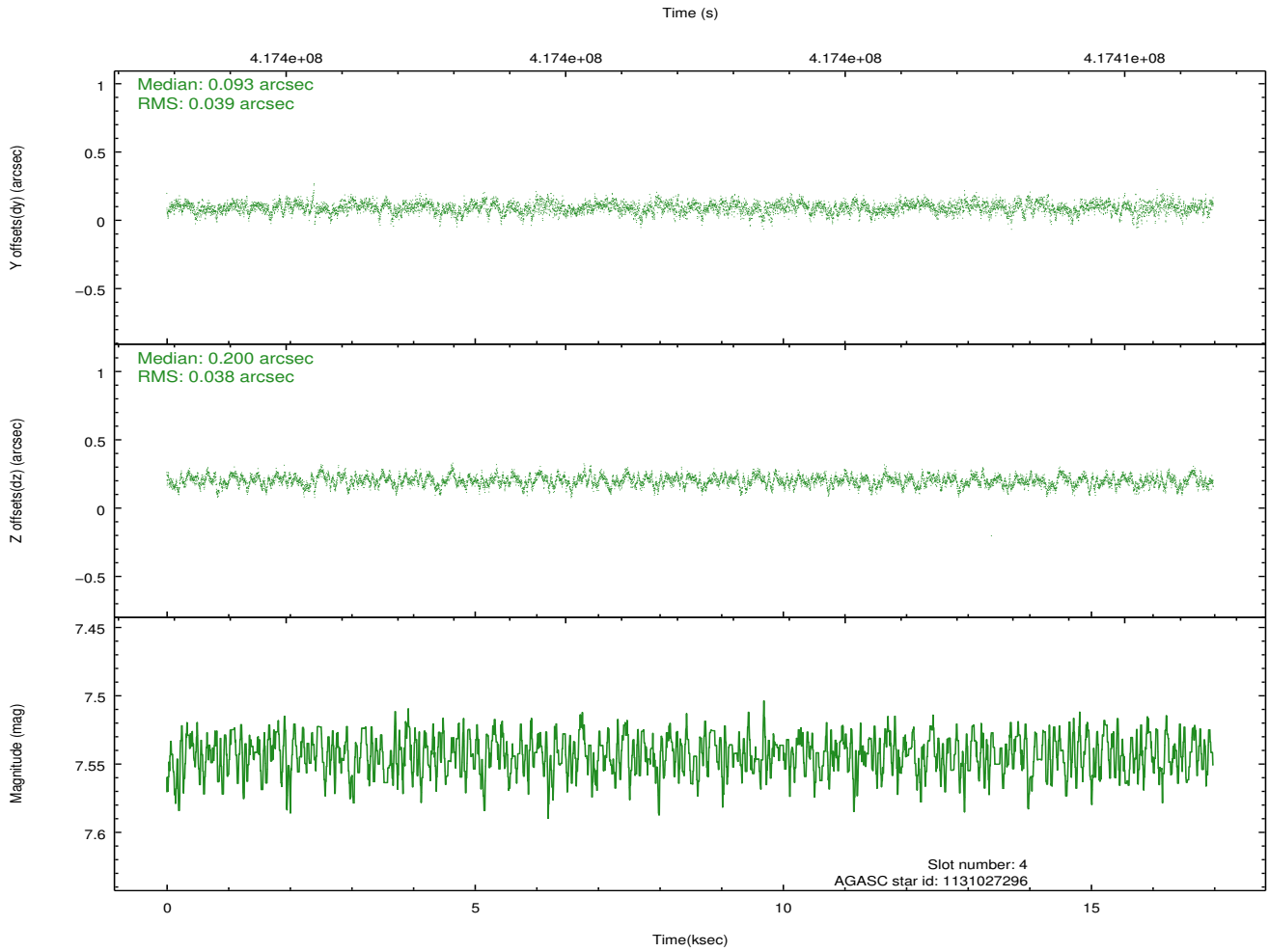
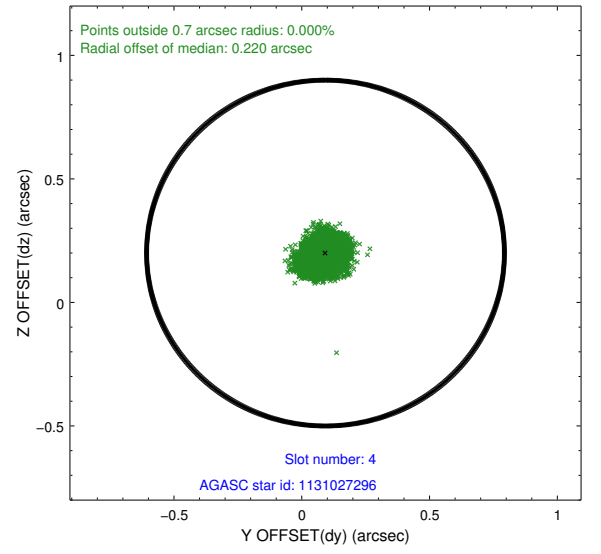
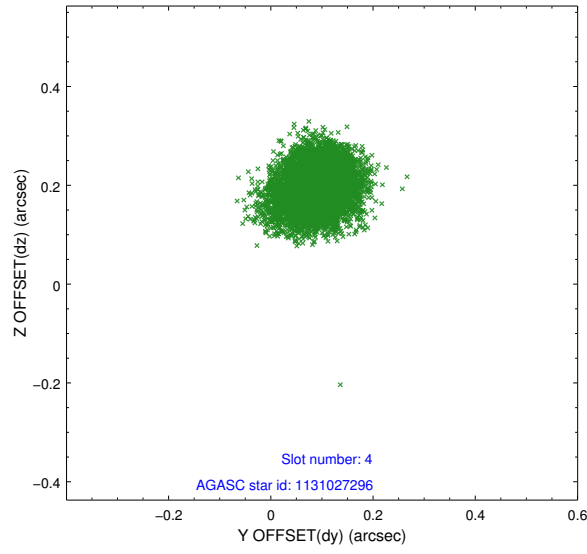
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.04	4142	0.026	-0.036	0.008	0.015	0.000000	0.000000	928.16	-1731.97
1	FID	ACIS-S-4	7.05	4142	0.178	0.017	0.007	0.012	0.000000	0.000000	2145.84	172.00
2	FID	ACIS-S-5	7.08	4143	-0.230	0.032	0.006	0.011	0.000000	0.000000	-1820.66	165.85
3	GUIDE	1131022976	7.67	8281	-0.275	-0.266	0.063	0.098	171.601311	-59.282289	863.86	175.21
4	GUIDE	1131027296	7.54	8282	0.093	0.200	0.059	0.095	170.725176	-59.738880	-290.56	-1806.47
5	GUIDE	1131026392	8.75	8277	0.191	0.200	0.099	0.152	170.009630	-59.570346	-1703.37	-1549.92
6	GUIDE	1131020360	8.24	8282	0.052	-0.026	0.079	0.136	170.215940	-58.486440	-2338.77	2318.87
7	GUIDE	1131025432	8.98	8275	-0.071	-0.111	0.125	0.215	171.164117	-58.617489	-496.16	2305.75

2.4 Star Slots

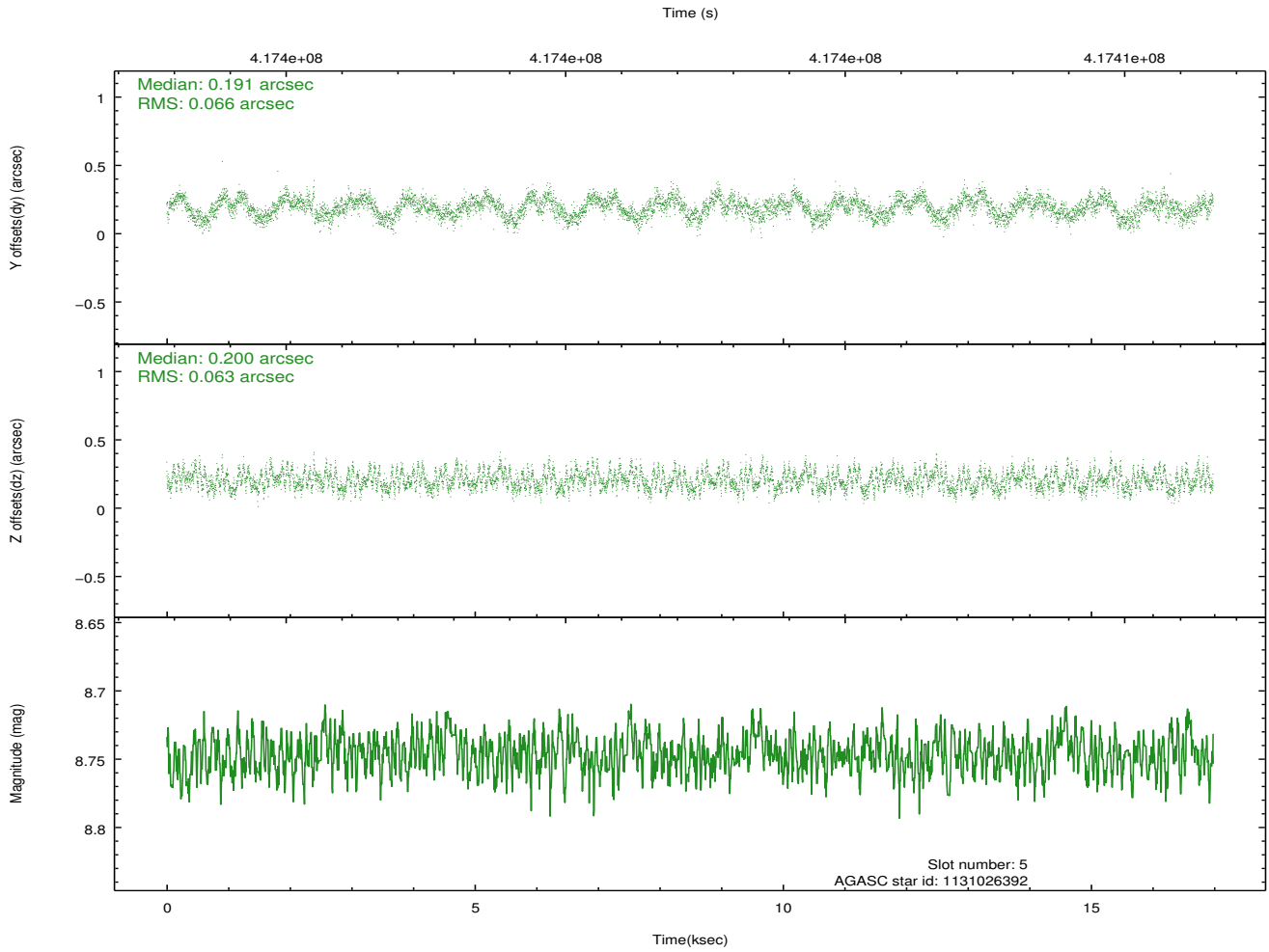
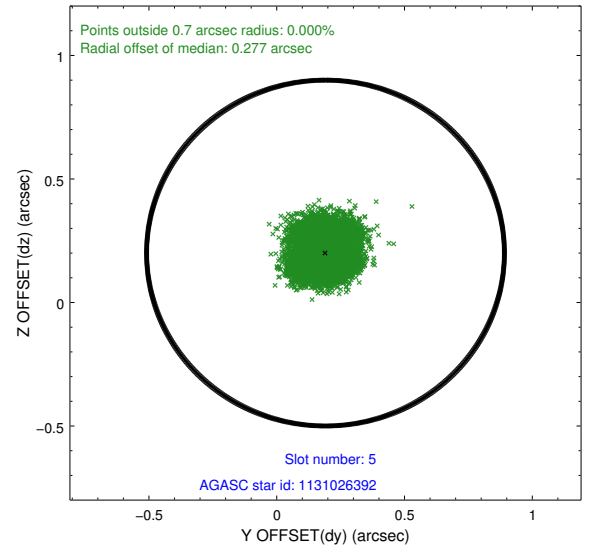
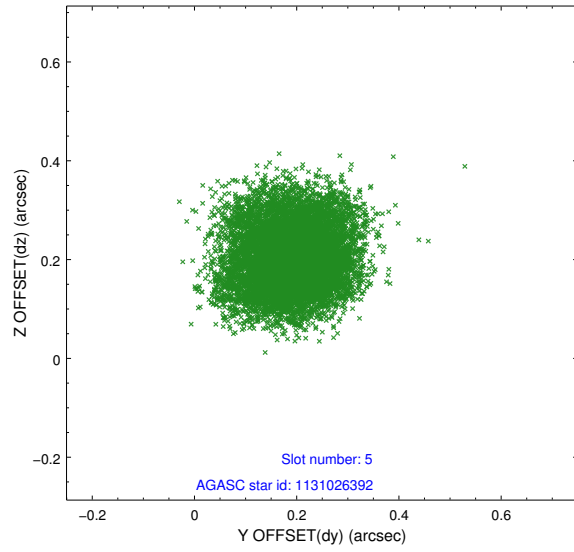
2.4.1 Slot 3



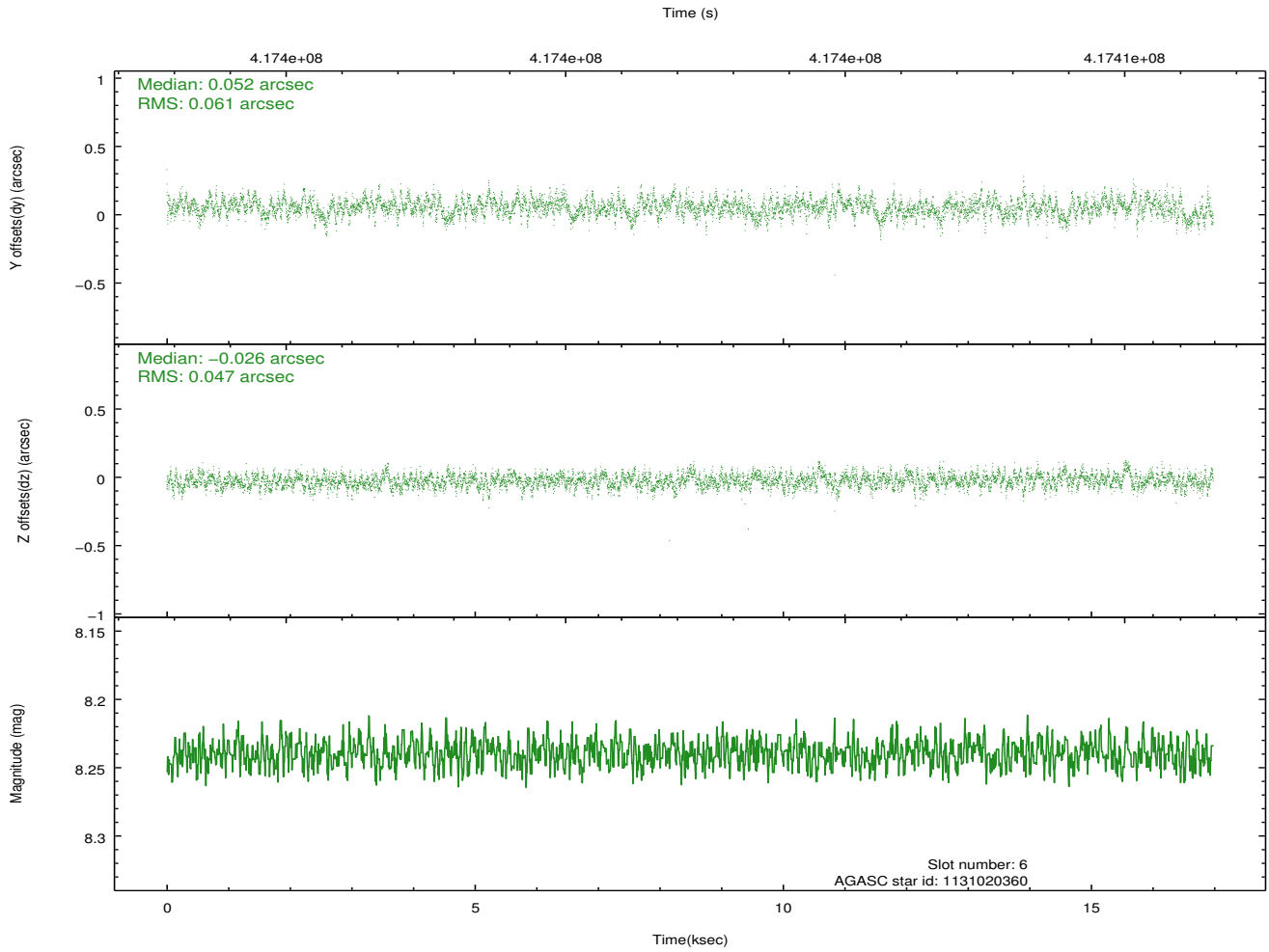
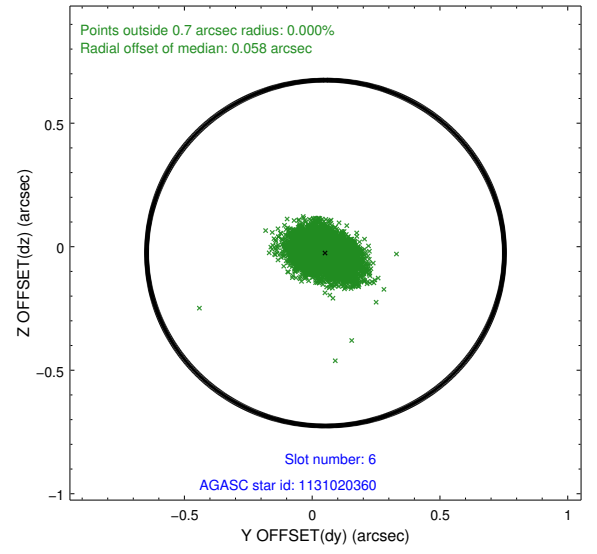
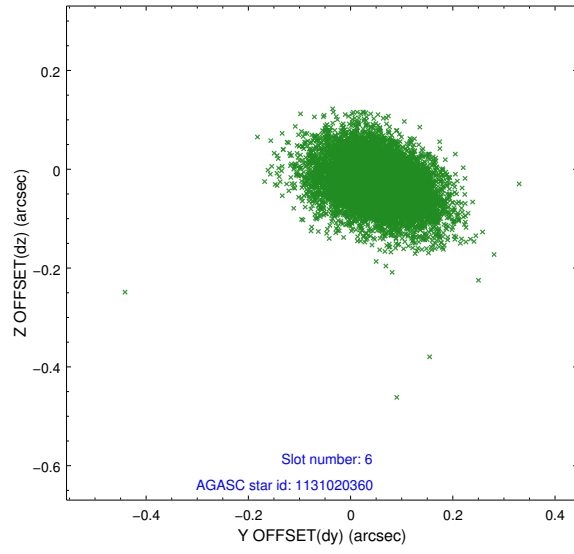
2.4.2 Slot 4



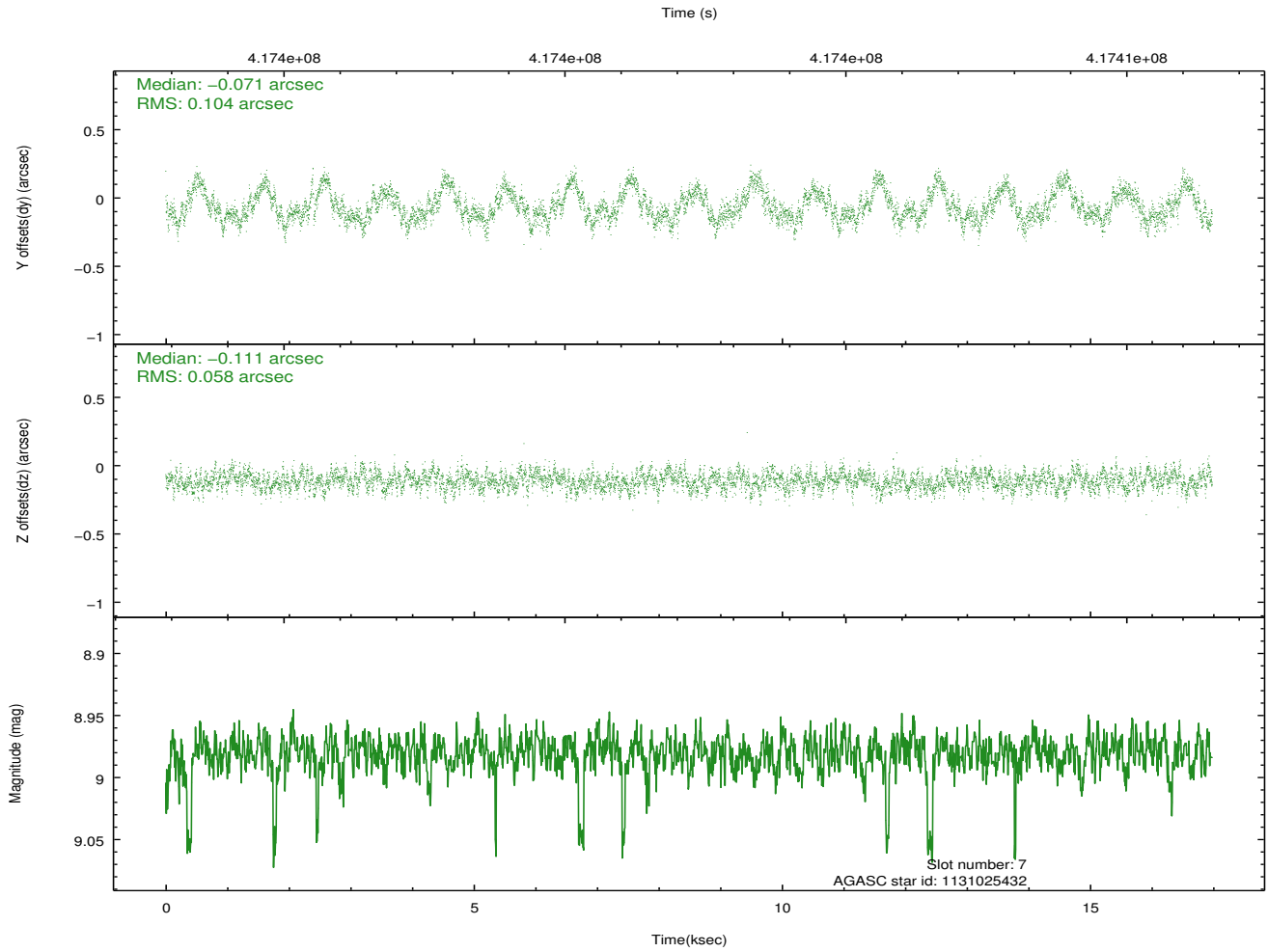
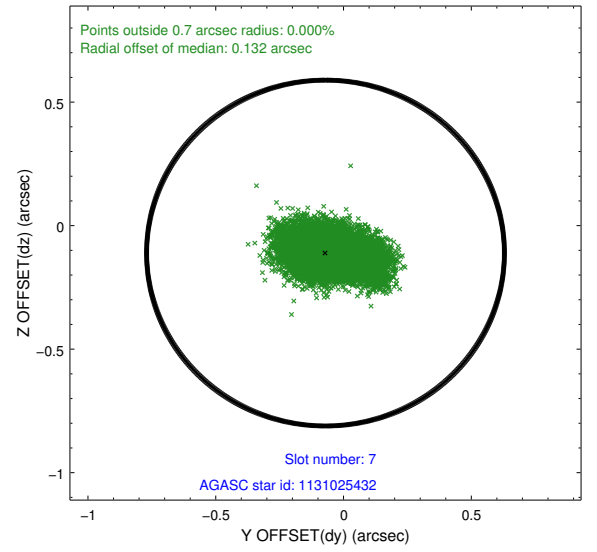
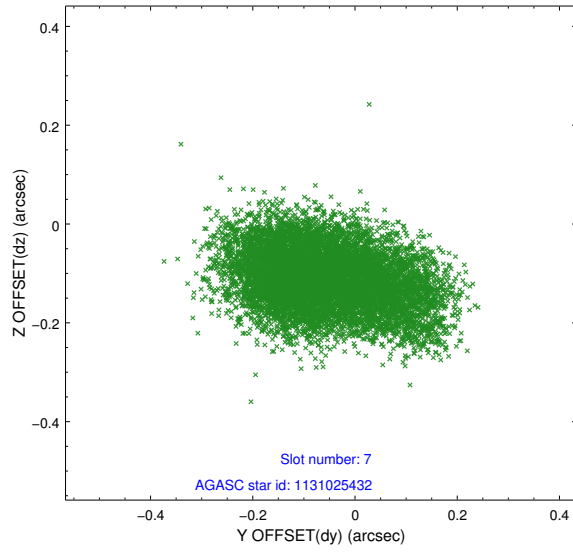
2.4.3 Slot 5



2.4.4 Slot 6

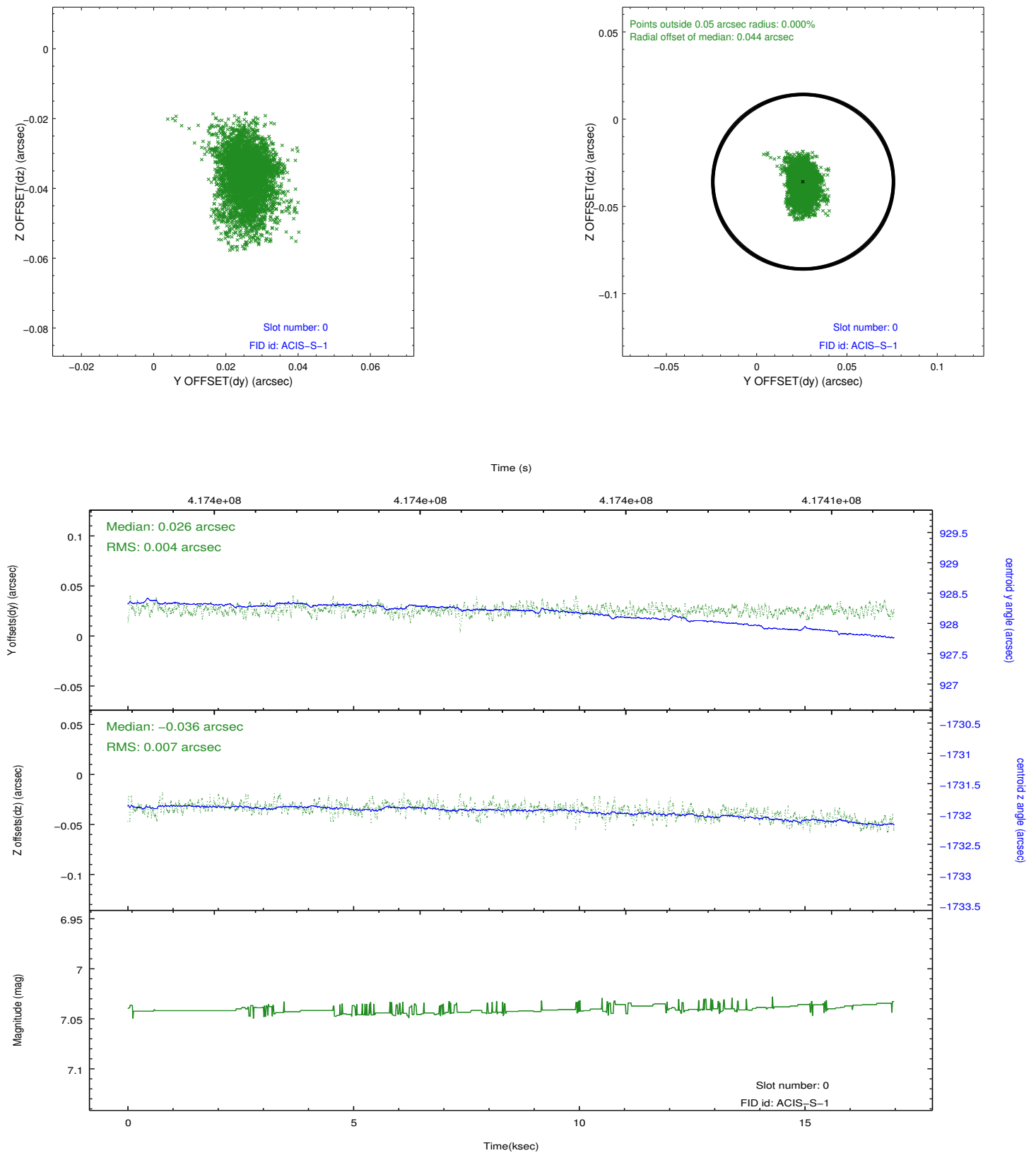


2.4.5 Slot 7

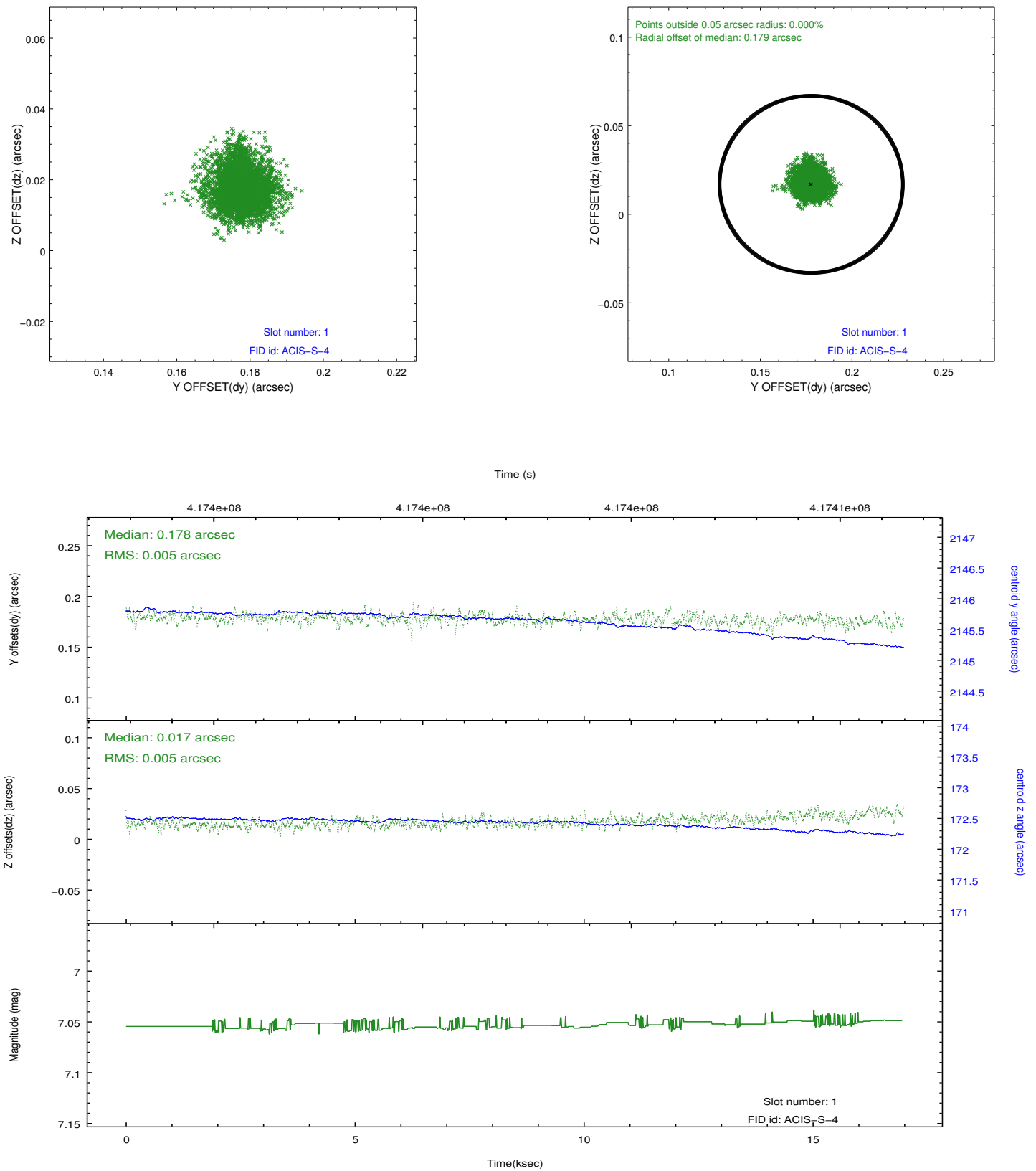


2.5 FID Slots

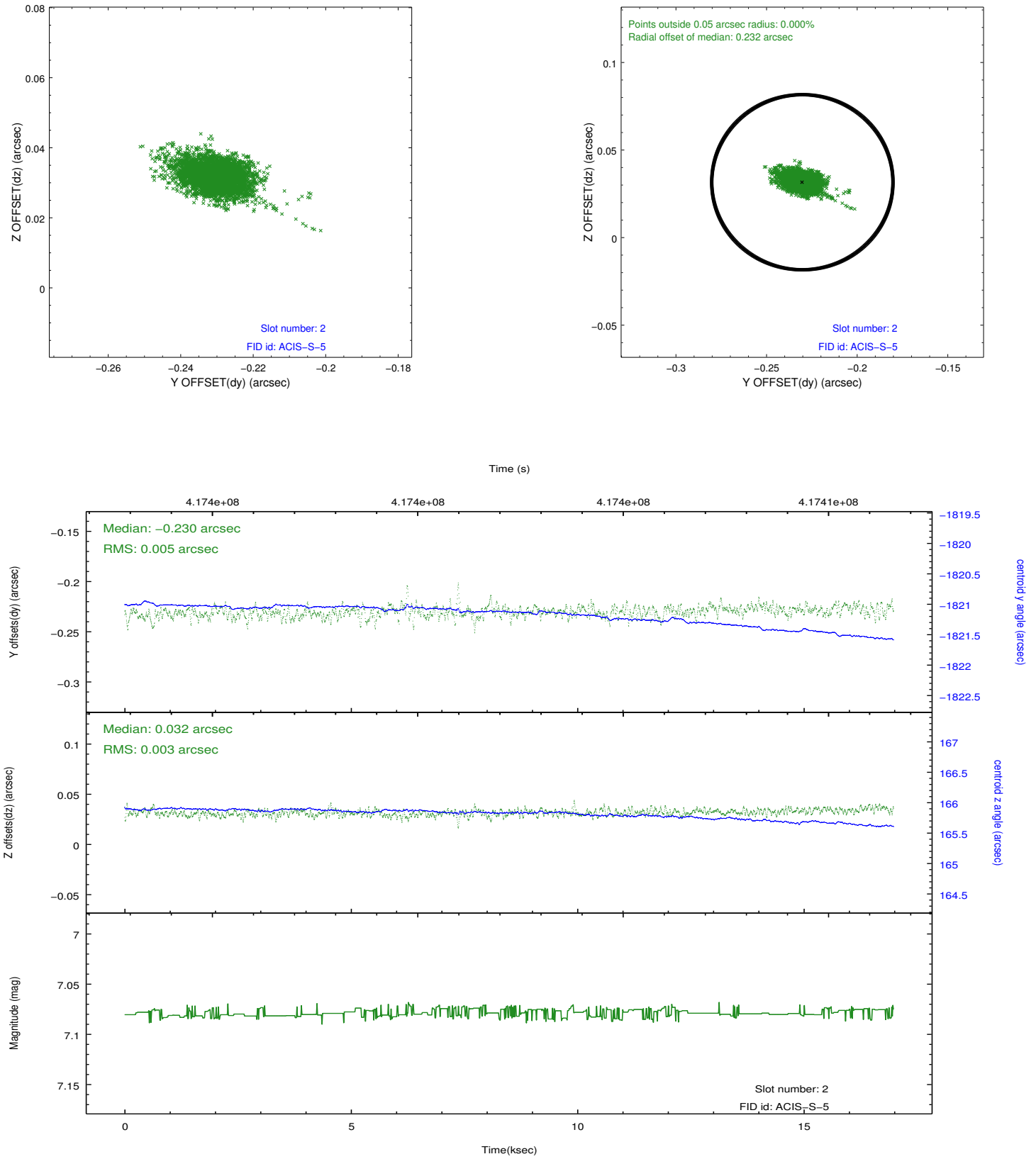
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

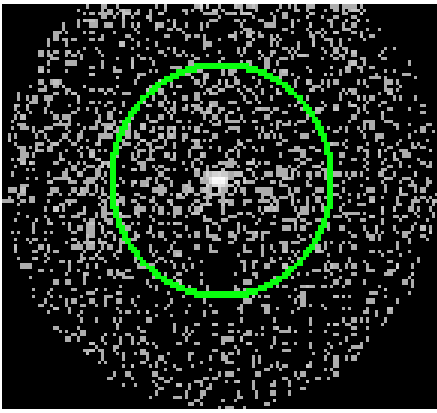


3 Gratings

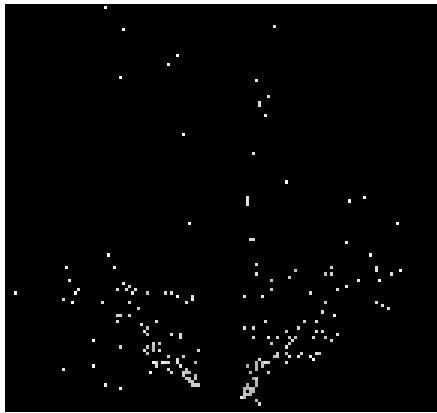
3.1 HEG Arm



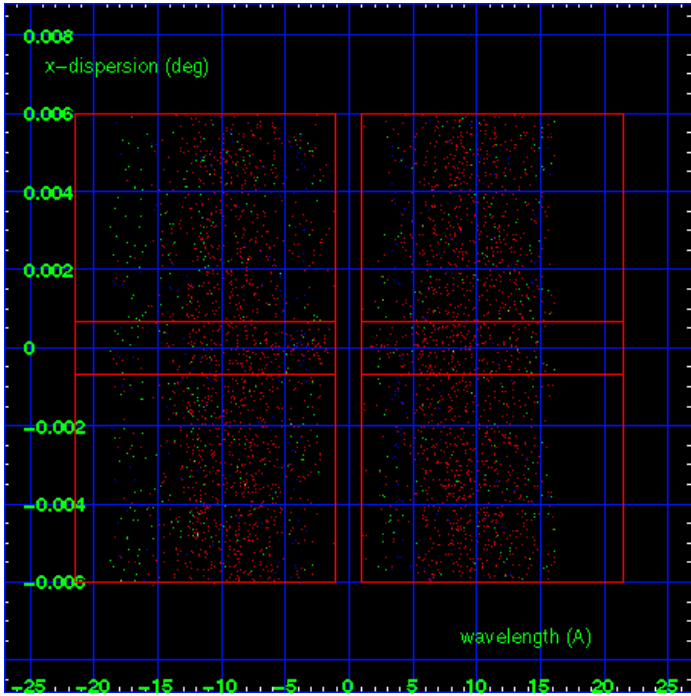
HEG Order Sort 123



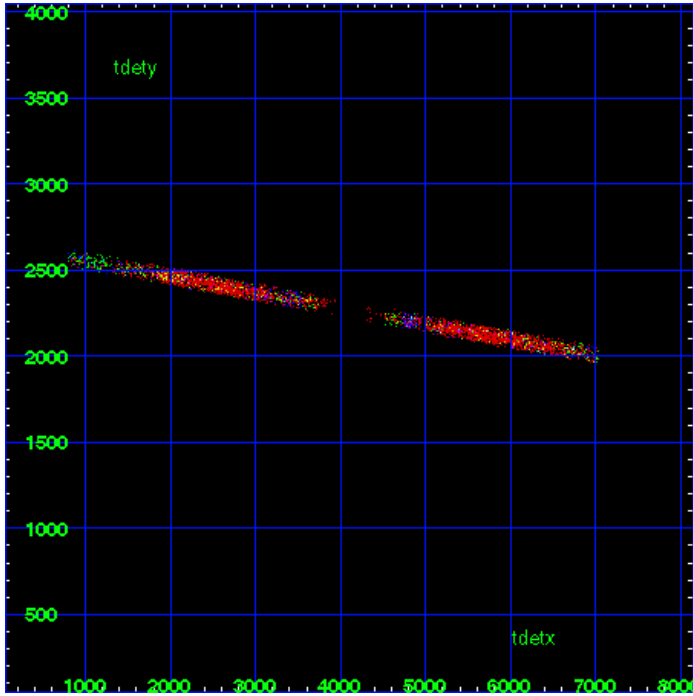
HEG Zero Order



HEG Order Sort ALL

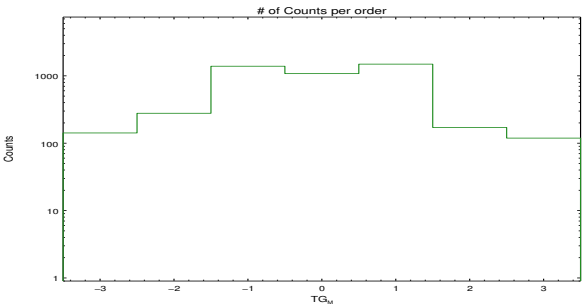


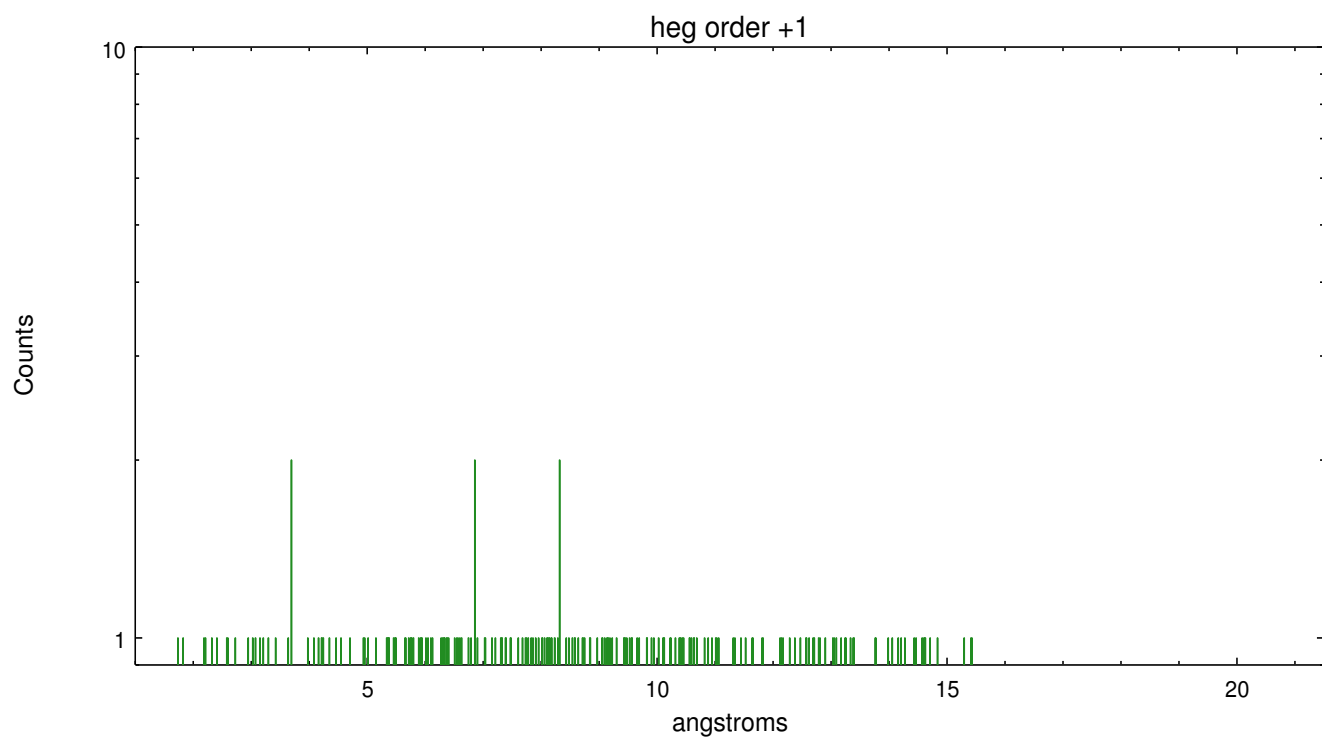
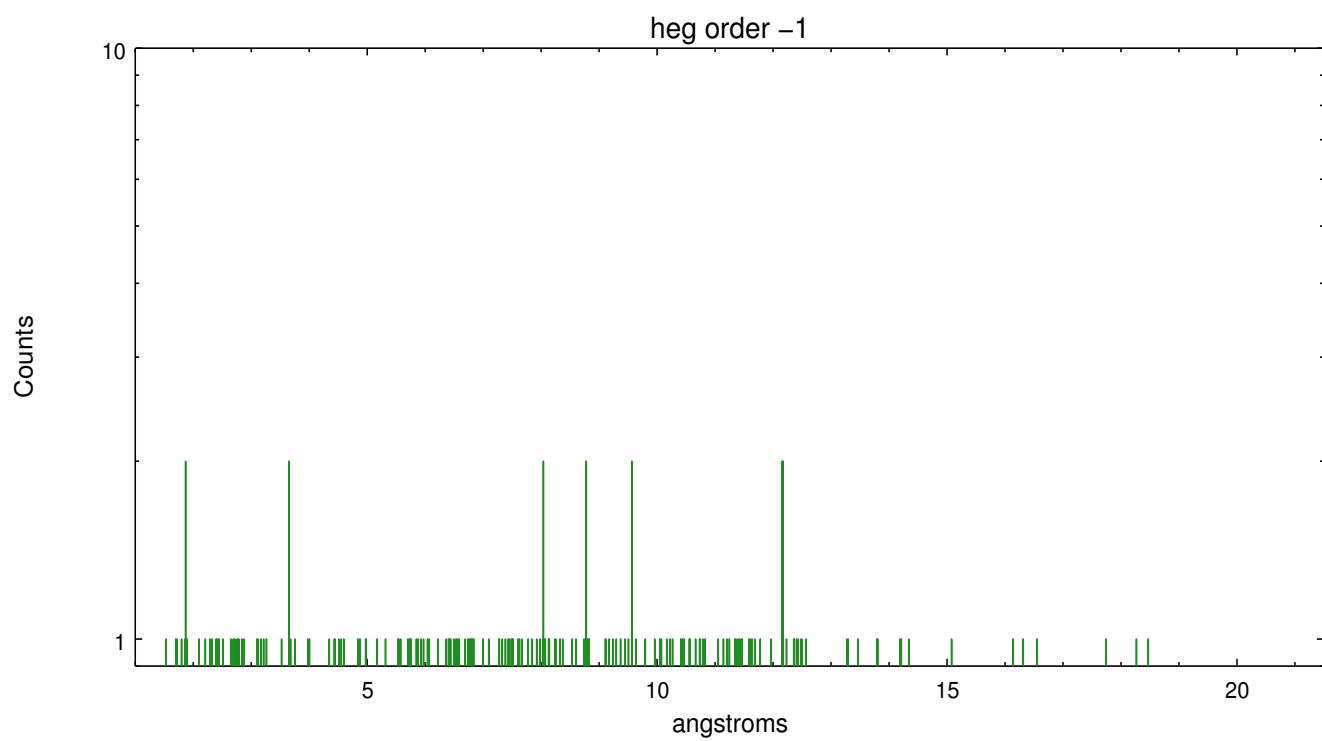
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	142	278	1388	1079	1491	171	119

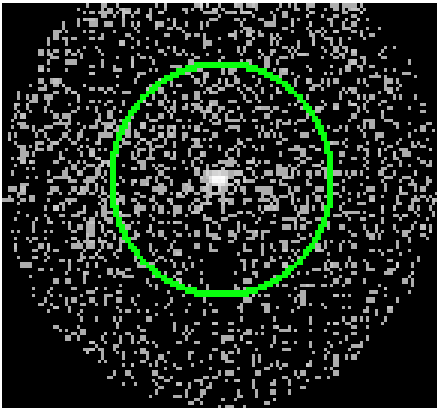




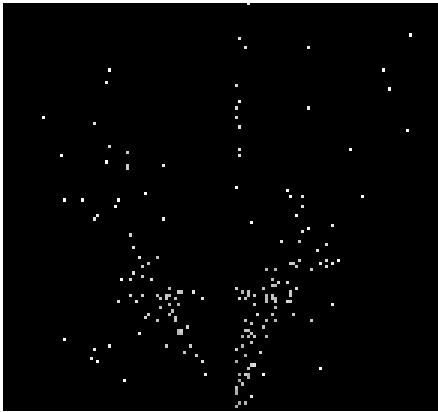
3.2 MEG Arm



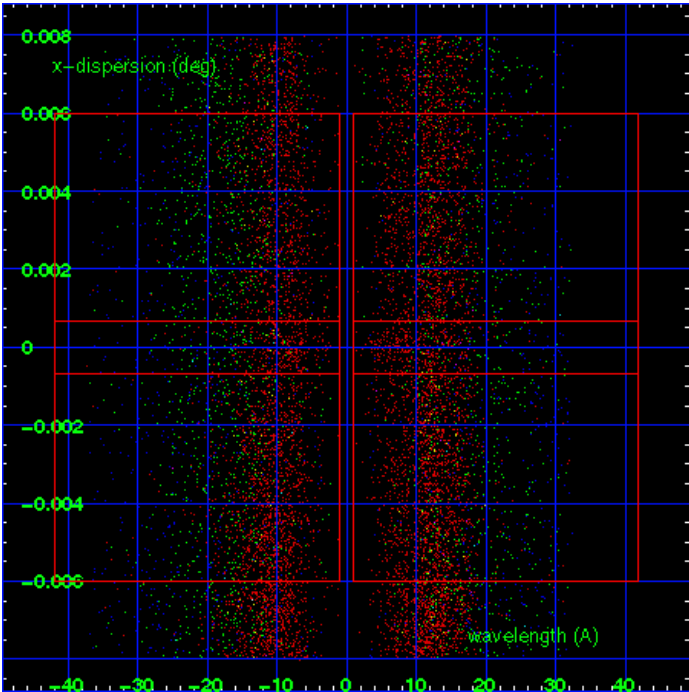
MEG Order Sort 123



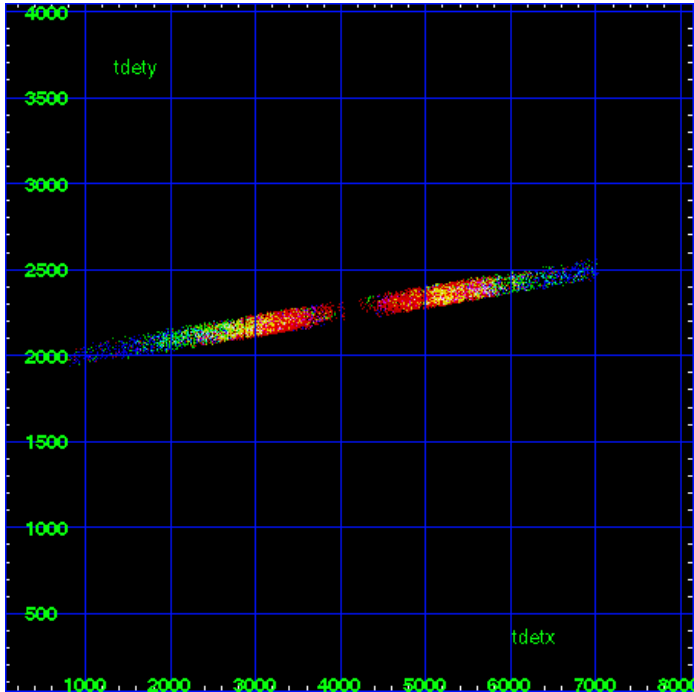
MEG Zero Order



MEG Order Sort ALL

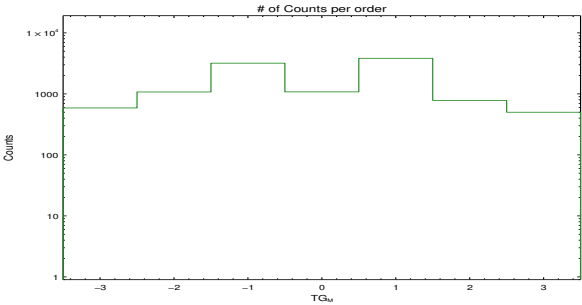


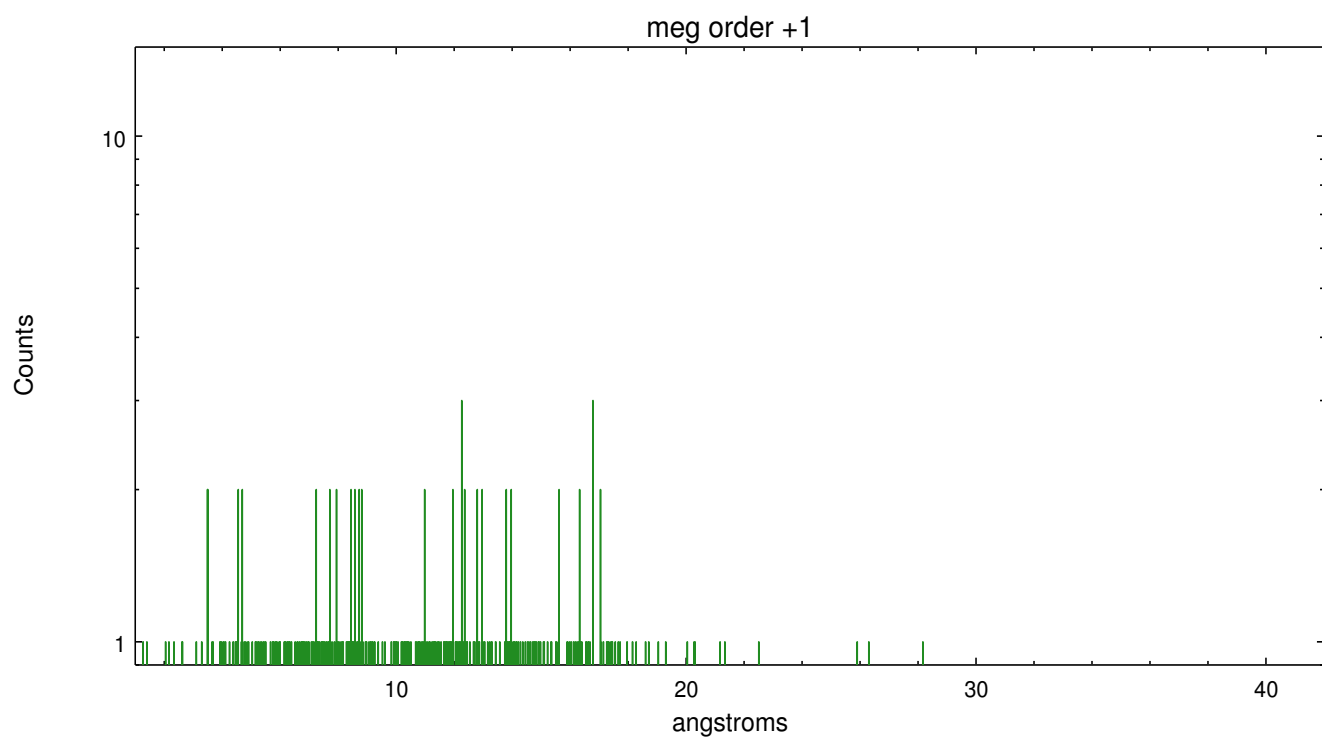
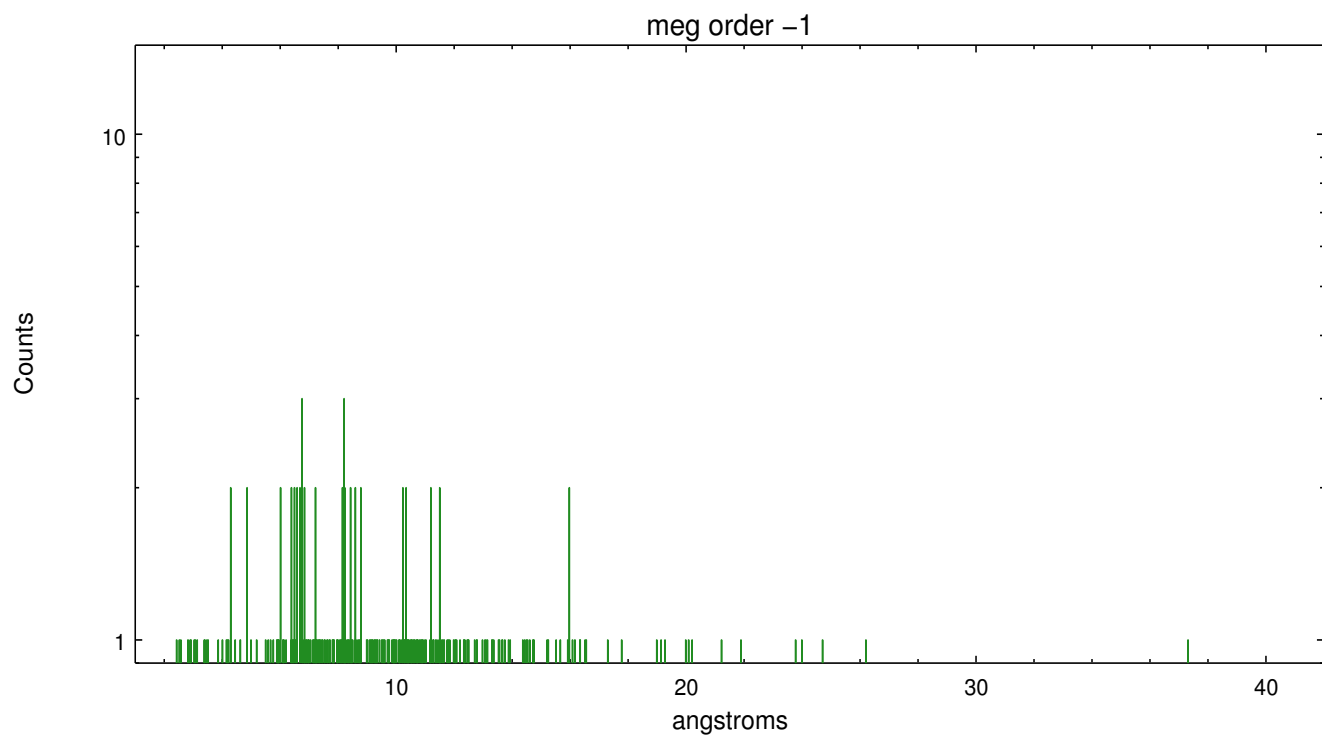
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	588	1075	3187	1079	3827	782	500





A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2012.02.22
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	16.377599939048

A.2 Comments

Warning: this is a large extended source and will require custom spectral extractions. This extraction was centered on a small, bright knot near the center of the field and was extracted as if a point source.

WARNING: there are no standard ciao tools for analysis of grating spectra from extended sources. The shape of an emission 'line' will be the shape of the zero order spatial structure convolved with the instrumental LSF. Grating extractions can be used, but need to be combined with custom spatial-spectral analysis, since wavelength is multi-valued at any particular diffraction angle.