

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 5397 - L2 Version 3
Chandra X-Ray Center

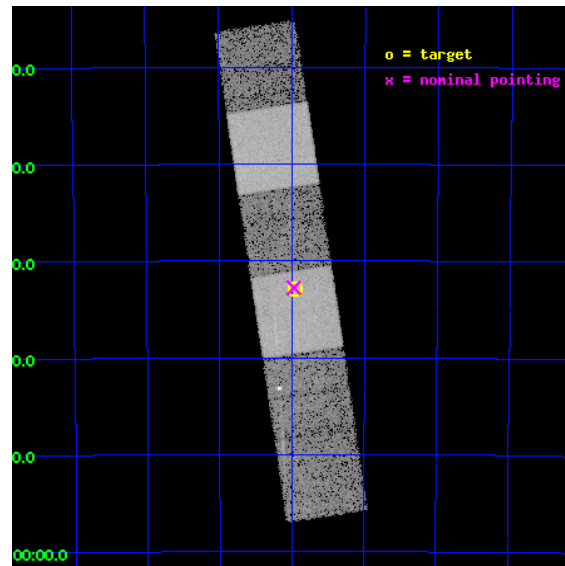
L2 Processing Date : Apr 12 2012

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

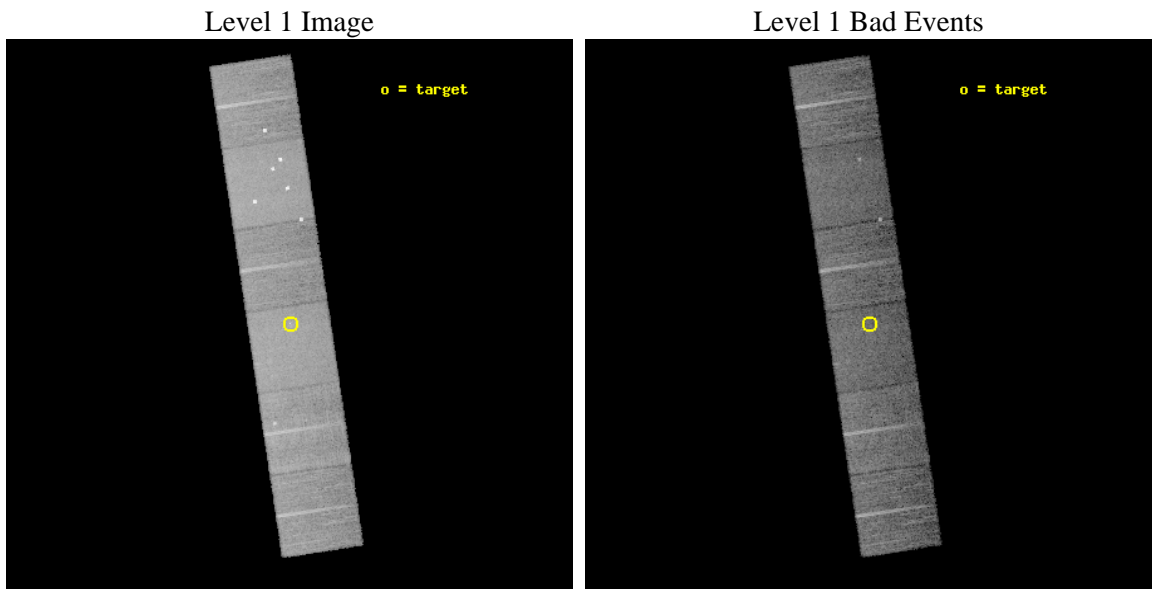
seq_num	200332	Sequence number
obs_id	5397	Observation id
title	A Chandra HETGS Survey of O-Stars	Proposal title
observer	DR. Wayne Waldron	Principal investigator
object	HD93129AB	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	160.989583	Observer's specified target RA [deg]
dec_targ	-59.5475	Observer's specified target Dec [deg]
ra_nom	160.99320057485	Nominal RA [deg]
dec_nom	-59.546514448924	Nominal Dec [deg]
roll_nom	81.459730703533	Nominal Roll [deg]
revision	3	Processing version of data
ontime	10377.59996134	Sum of GTIs [s]
livetime	10246.192541989	Livetime [s]
ontime4	10377.59996134	Sum of GTIs [s]
ontime5	10377.59996134	Sum of GTIs [s]
ontime6	10374.358991027	Sum of GTIs [s]
ontime7	10377.59996134	Sum of GTIs [s]
ontime8	10377.59996134	Sum of GTIs [s]
ontime9	10377.59996134	Sum of GTIs [s]
l2events	145392	Number of level 2 events



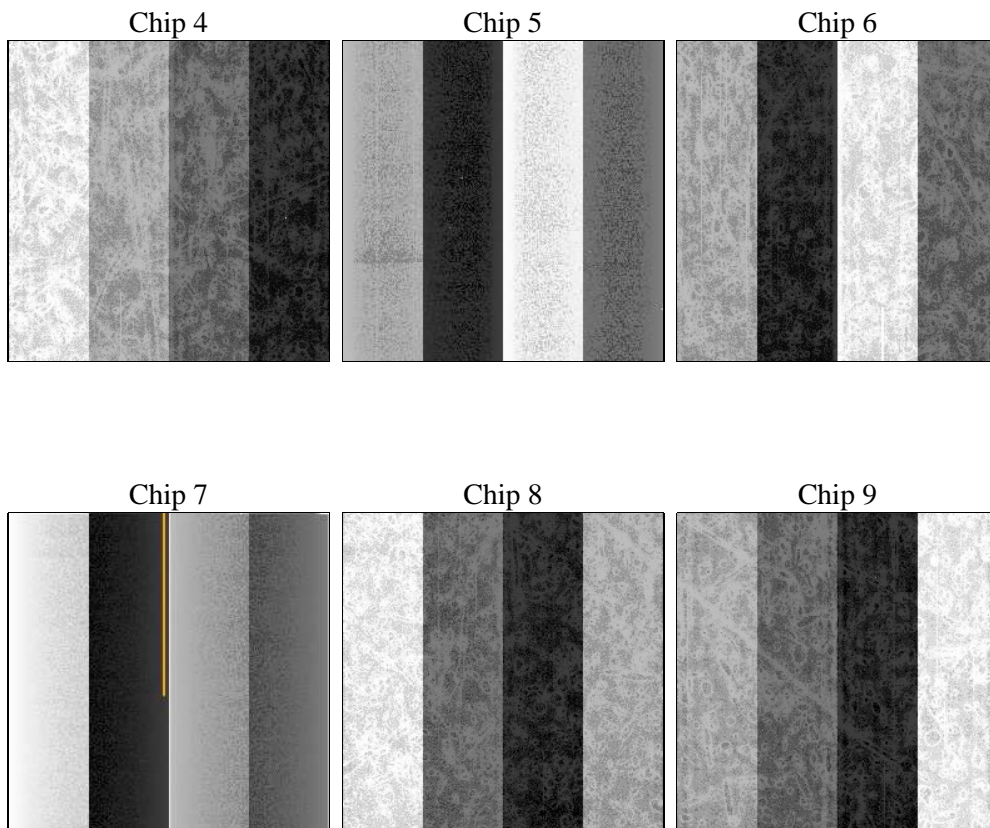
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10428.789000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	10377.59996134	Sum of GTIs [s]
caldsver	4.4.8	 	ontime4	10377.59996134	Sum of GTIs [s]
date	2012-03-17T16:35:47	Date and time of file creation	ontime5	10377.59996134	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	10374.358991027	Sum of GTIs [s]
			ontime7	10377.59996134	Sum of GTIs [s]
			ontime8	10377.59996134	Sum of GTIs [s]
			ontime9	10377.59996134	Sum of GTIs [s]
			l1events	628932	Number of level 1 events

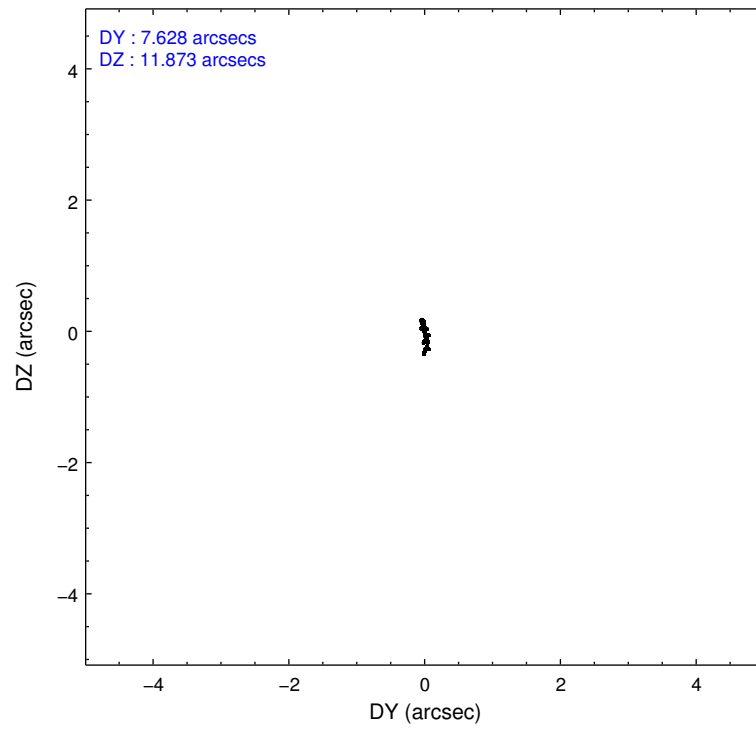
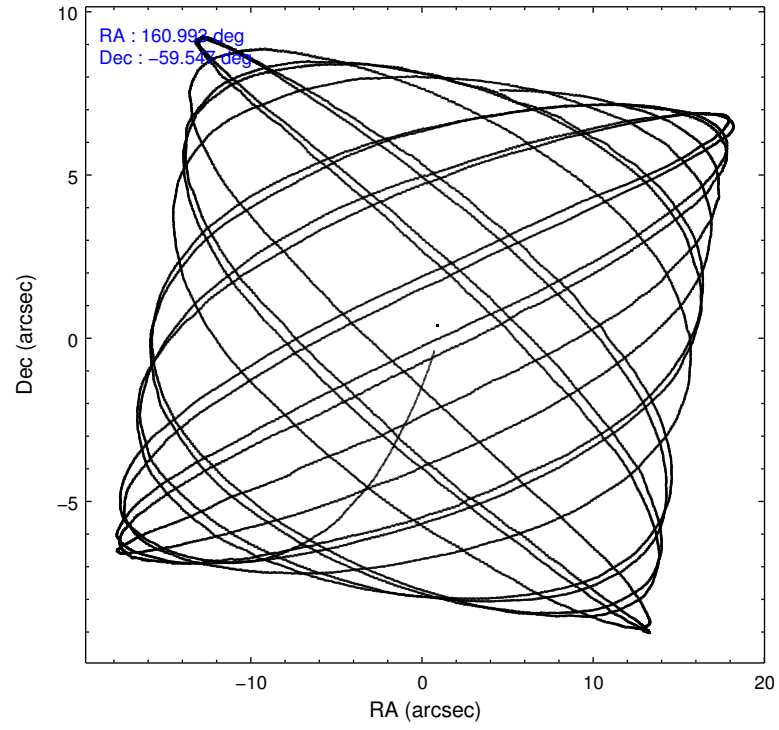
2.1.4 Events

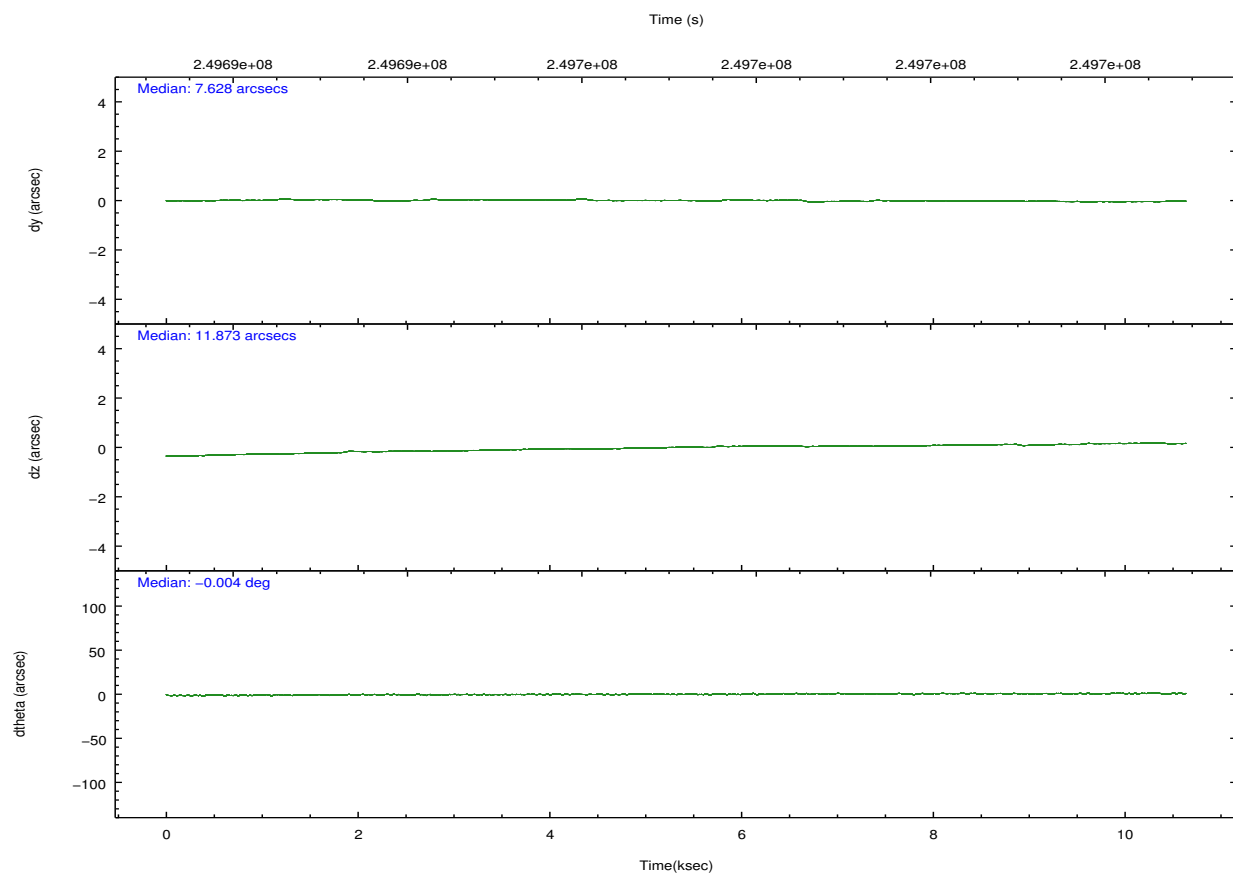
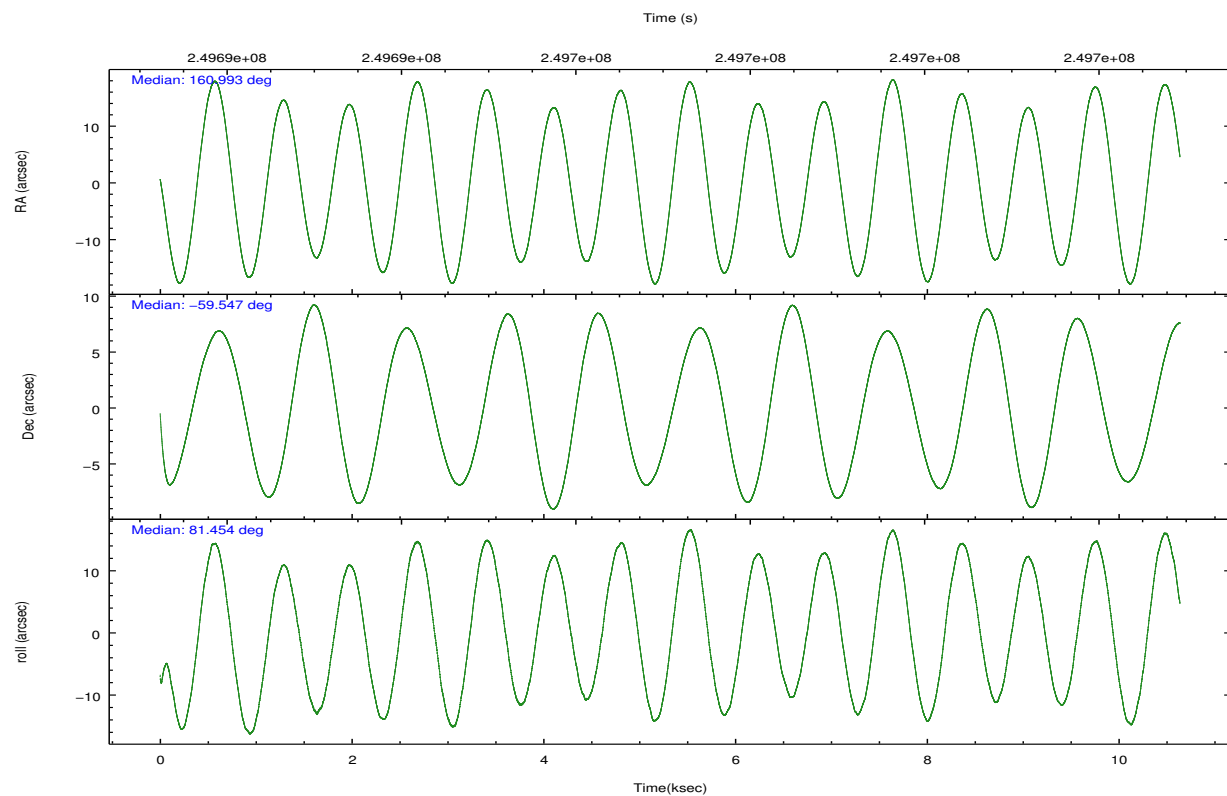
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	94905	136942	85214	118114	108438	85319	grade 0 events	7490	13253	5204	5156	9470	5644
rejected events	81668	68716	73669	67142	82849	73563		7%	9%	6%	4%	8%	6%
rejected %	86%	50%	86%	56%	76%	86%	grade 1 events	94	734	48	105	78	46
								0%	0%	0%	0%	0%	0%
							grade 2 events	2075	19481	2191	10507	5238	2075
								2%	14%	2%	8%	4%	2%
							grade 3 events	1040	2475	1076	4525	2428	1027
								1%	1%	1%	3%	2%	1%
							grade 4 events	989	2182	990	4316	2363	1026
								1%	1%	1%	3%	2%	1%
							grade 5 events	3648	9221	3884	10731	5155	4103
								3%	6%	4%	9%	4%	4%
							grade 6 events	1651	30866	2092	26513	6096	1990
								1%	22%	2%	22%	5%	2%
							grade 7 events	77918	58730	69729	56261	77610	69408
								82%	42%	81%	47%	71%	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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	161.013559	160.993200574848	Subarray requested	NONE	NONE
[deg] Pointing Dec	-59.571717	-59.54651444892392	Alternating exposures requested	N	N
[deg] Pointing Roll	81.320669	81.45973070353311	[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	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	249691967.184000	249690938.51279			
Observation start date	2005-11-29T22:51:43	2005-11-29T22:35:38			
[s] Observation end time (MET)	249702396.184000	249702620.43833			
Observation end date	2005-11-30T01:45:32	2005-11-30T01:50:20			
Read mode	TIMED	TIMED			

2.3 Aspect



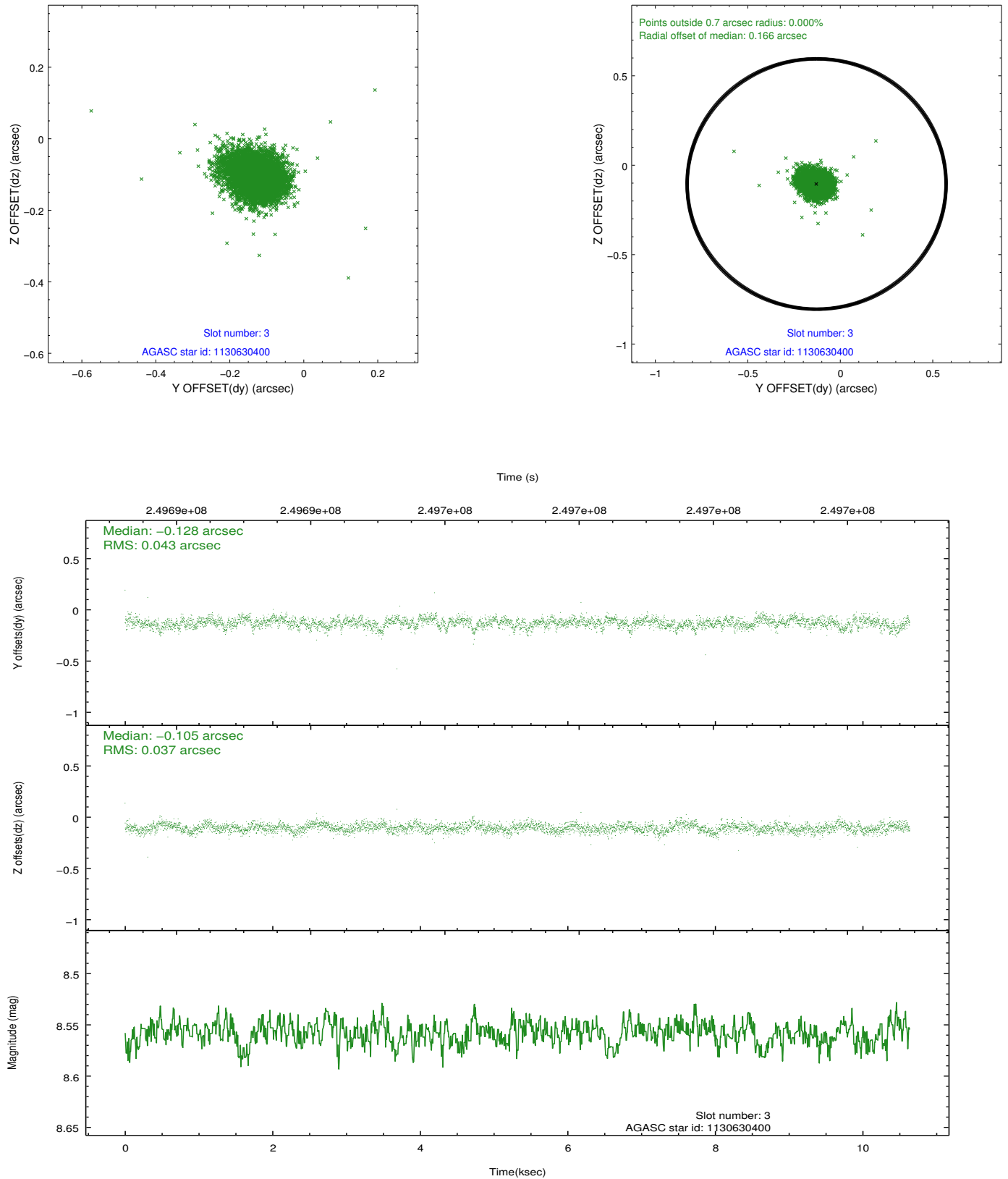


Slot Statistics

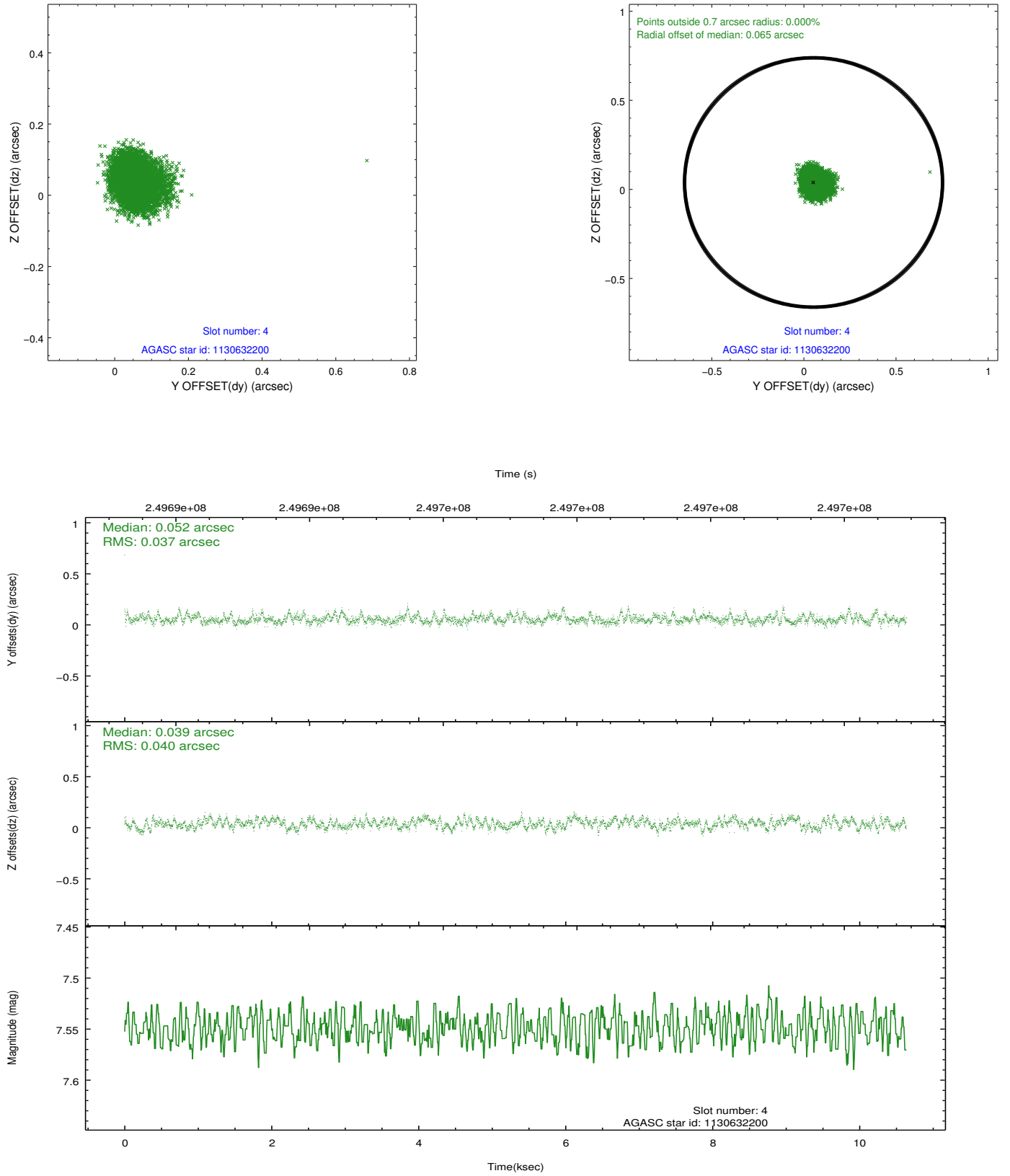
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	2595	-0.021	-0.019	0.009	0.013	0.000000	0.000000	-760.41	-1733.10
1	FID	ACIS-S-4	7.20	2595	0.079	0.015	0.006	0.011	0.000000	0.000000	2152.74	174.92
2	FID	ACIS-S-5	7.23	2595	-0.089	0.013	0.008	0.014	0.000000	0.000000	-1812.70	169.13
3	GUIDE	1130630400	8.56	5187	-0.128	-0.105	0.058	0.097	160.235909	-58.888840	2203.69	1800.07
4	GUIDE	1130632200	7.55	5187	0.052	0.039	0.058	0.092	161.433843	-59.407820	697.95	-671.95
5	GUIDE	1130643264	6.65	5190	0.011	-0.106	0.061	0.103	160.322990	-59.676912	-569.86	1182.45
6	GUIDE	1130640672	8.29	5189	-0.034	0.095	0.061	0.098	162.096044	-59.540805	392.59	-1937.90
7	GUIDE	1174033144	8.44	5188	0.090	0.078	0.064	0.102	161.168741	-60.059230	-1692.64	-540.89

2.4 Star Slots

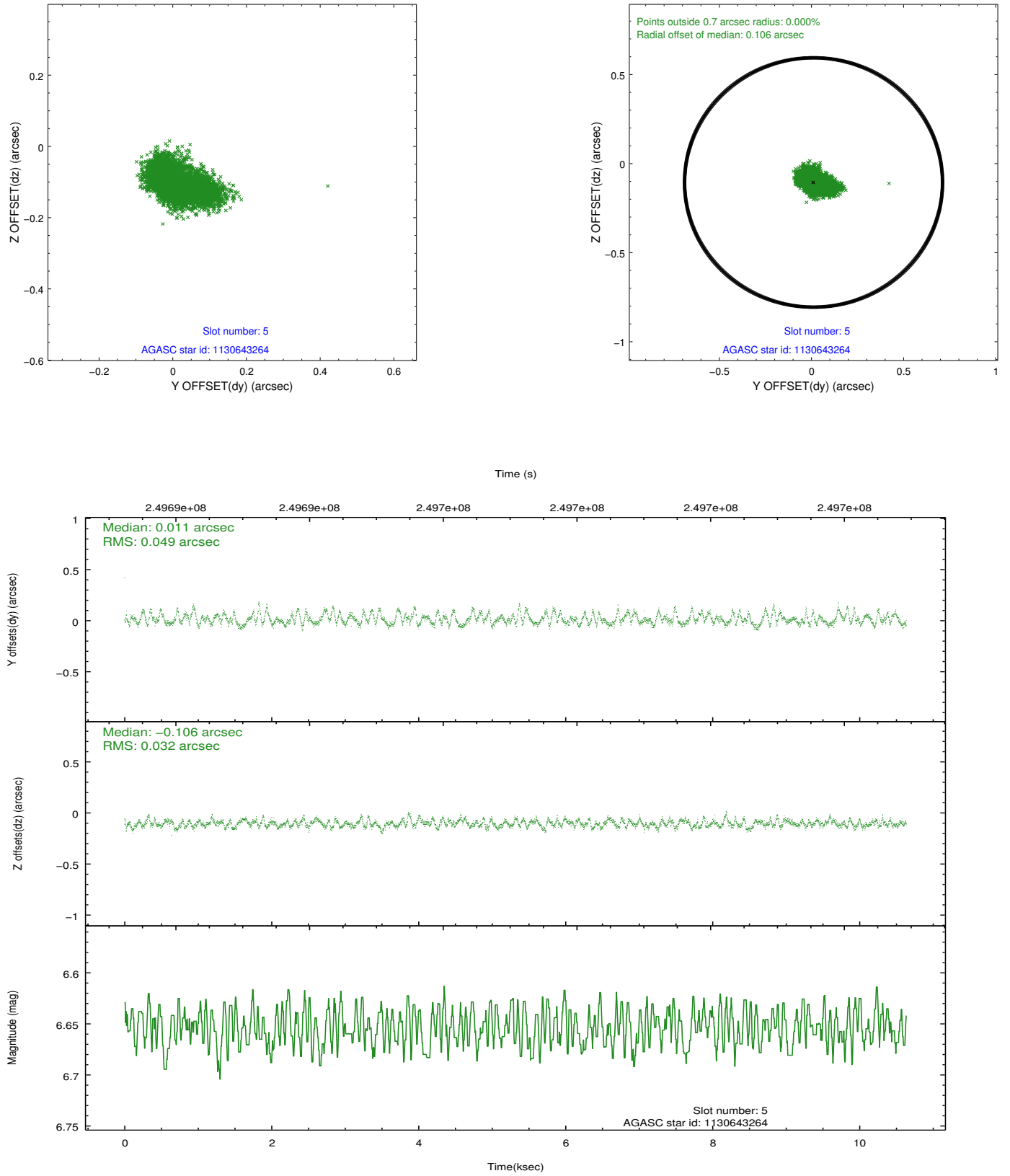
2.4.1 Slot 3



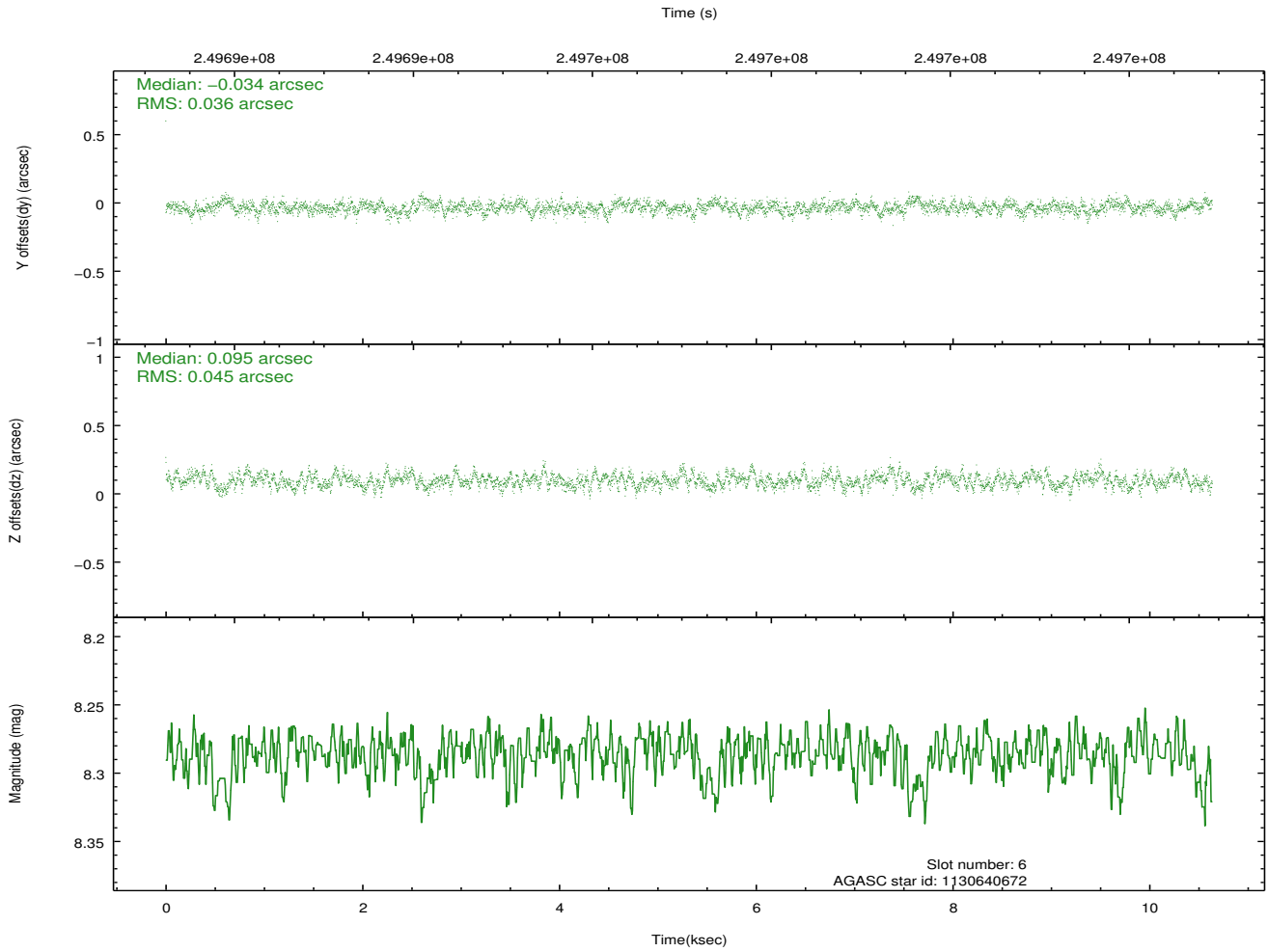
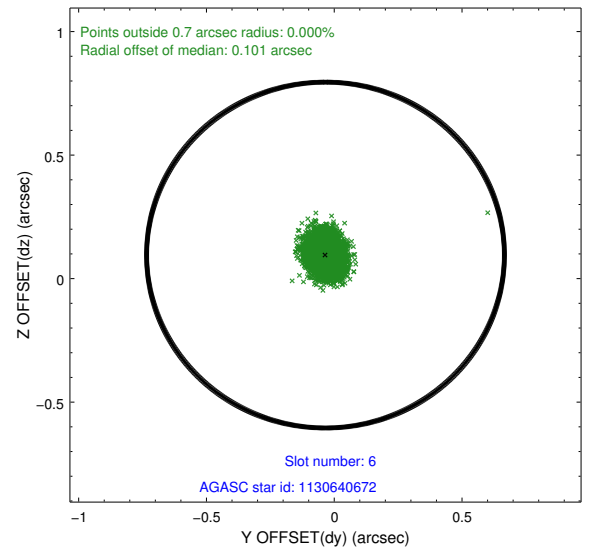
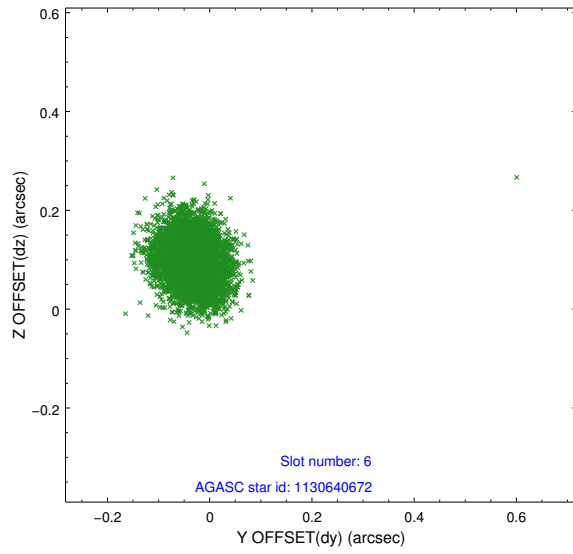
2.4.2 Slot 4



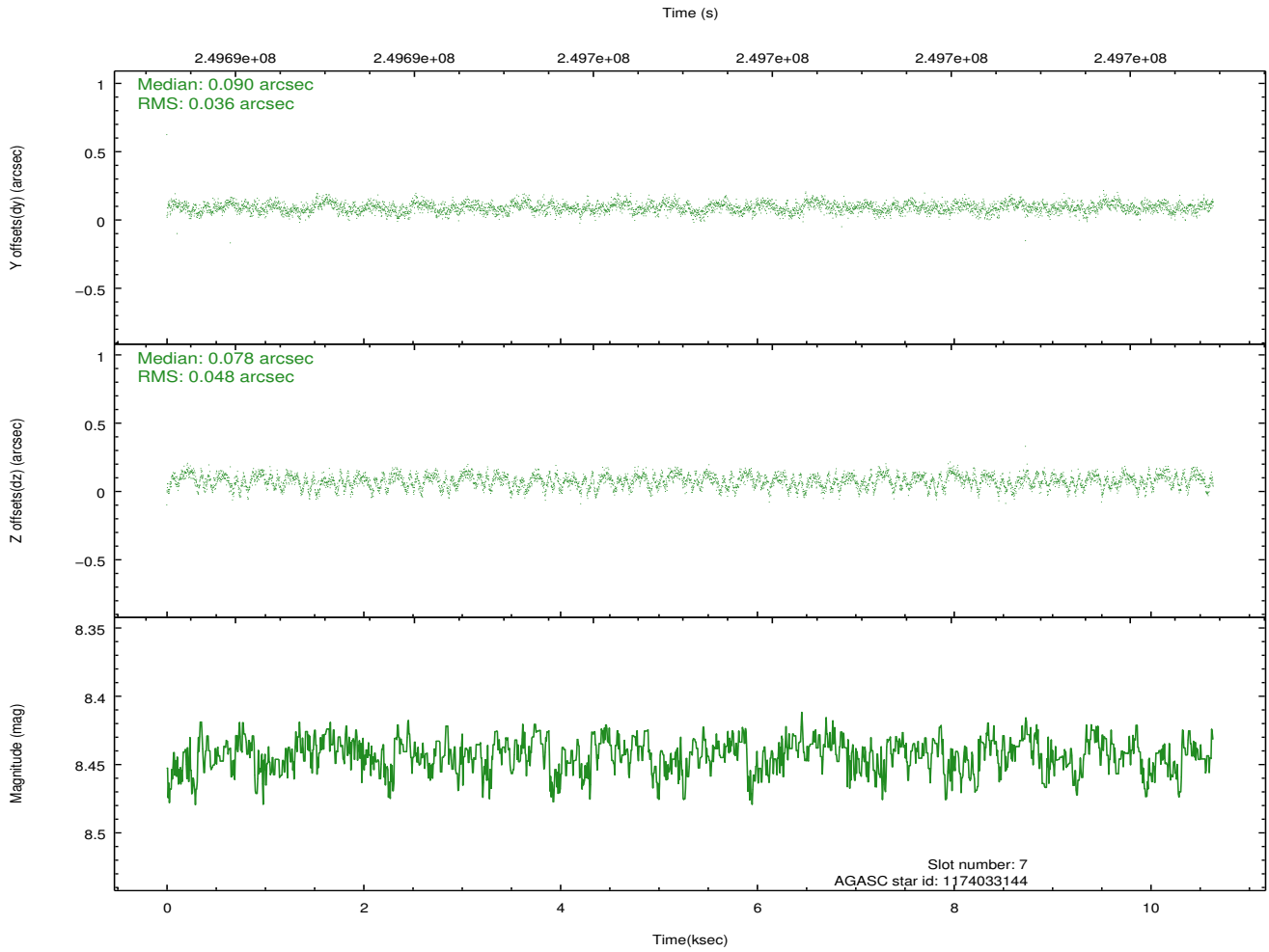
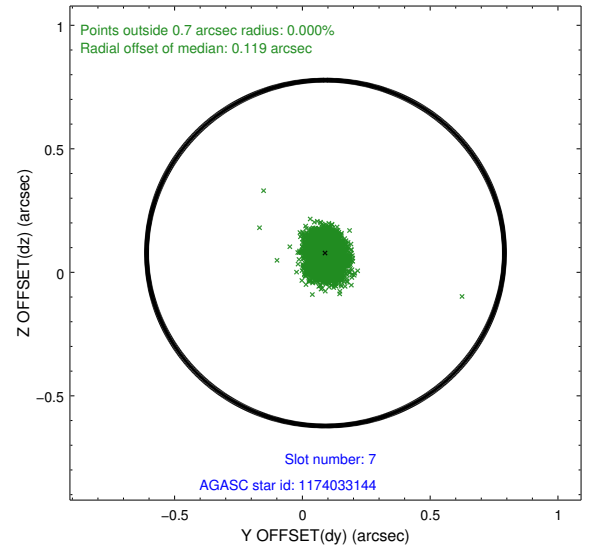
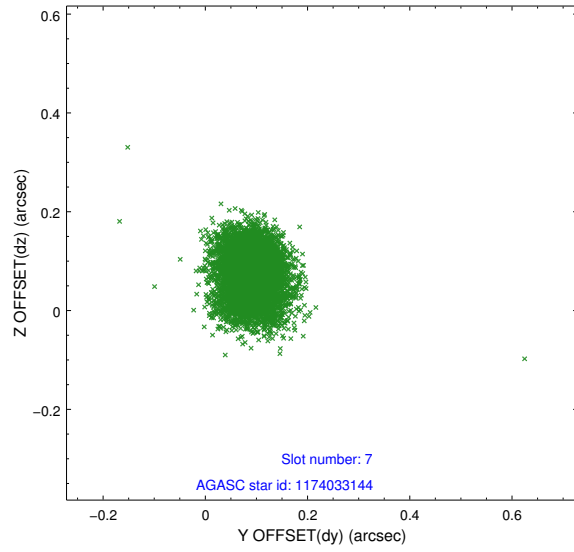
2.4.3 Slot 5



2.4.4 Slot 6

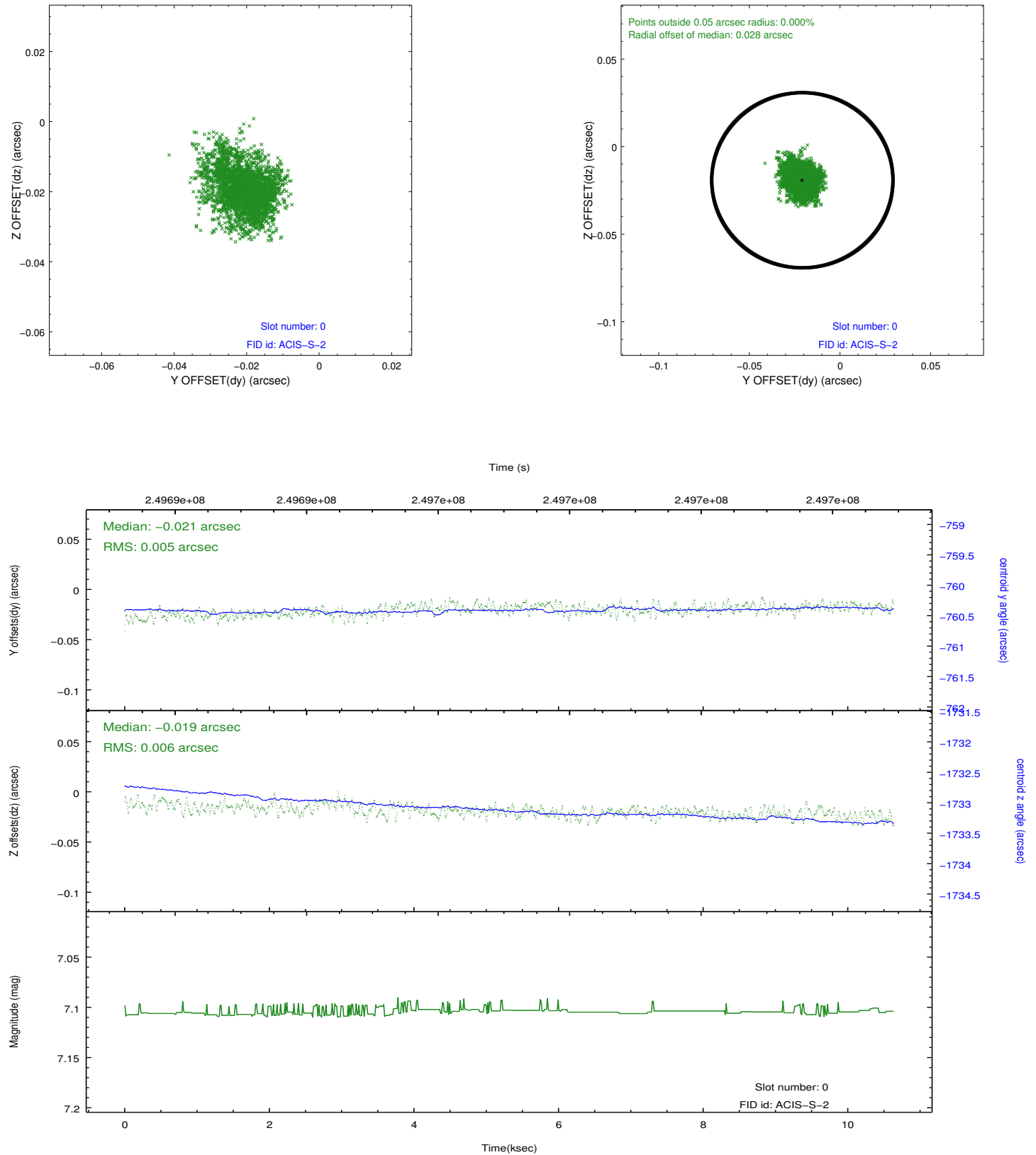


2.4.5 Slot 7

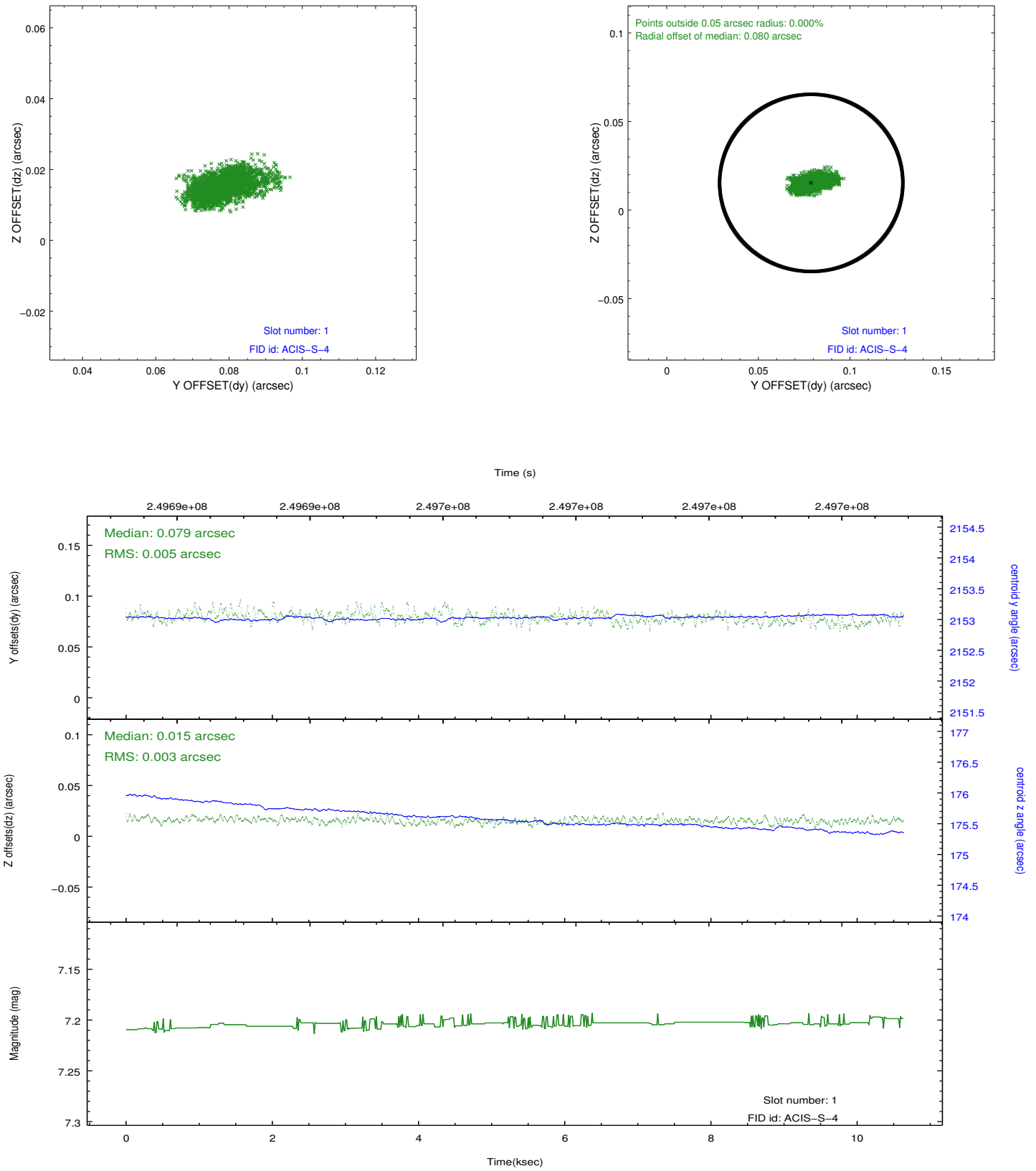


2.5 FID Slots

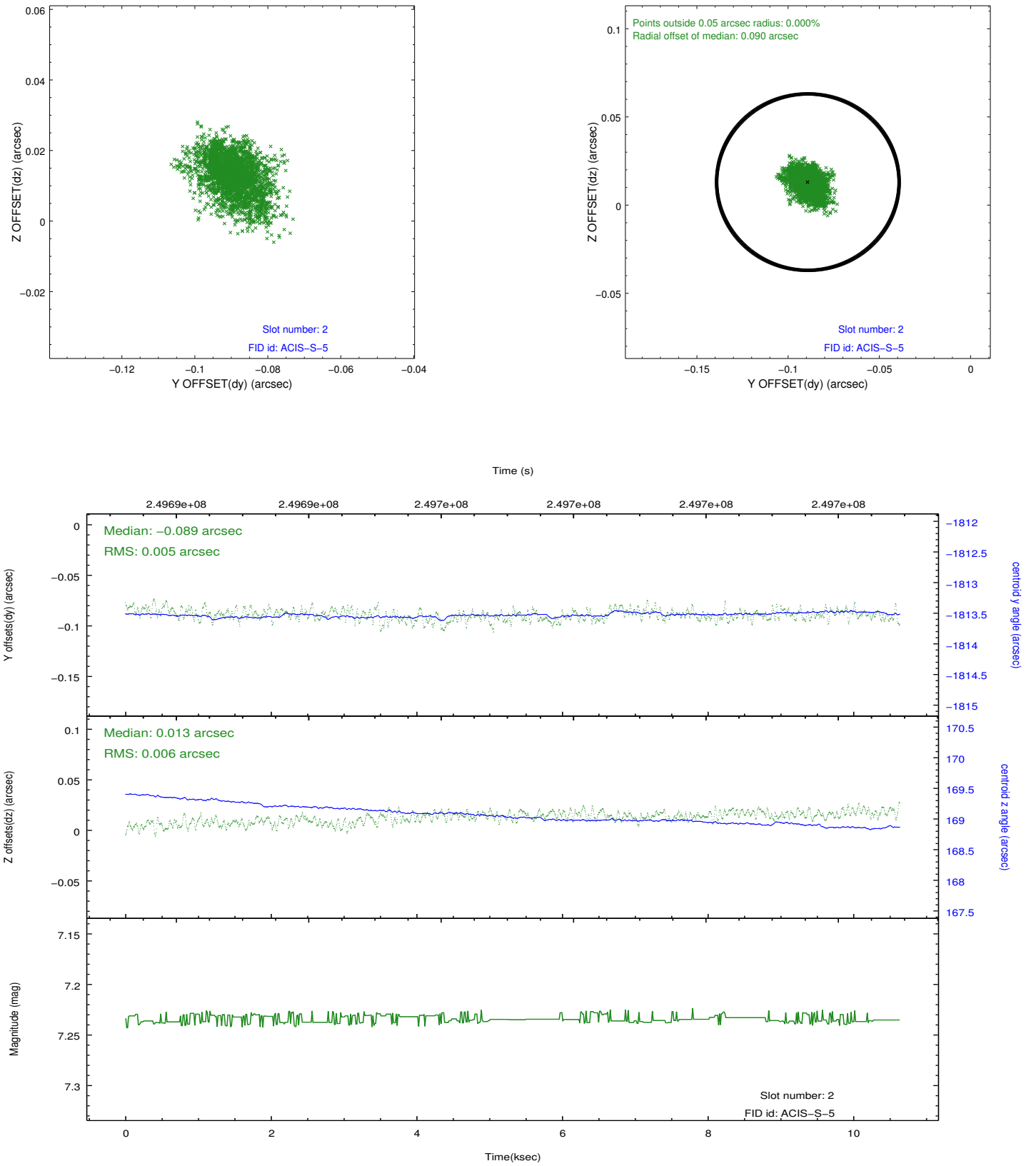
2.5.1 Slot 0



2.5.2 Slot 1

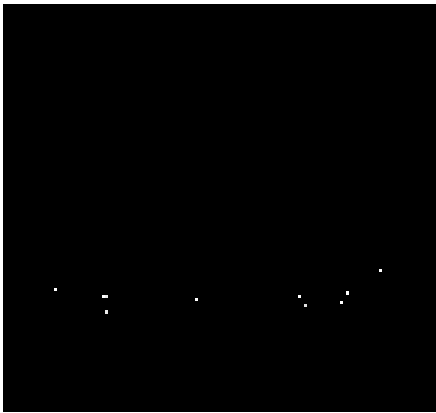


2.5.3 Slot 2

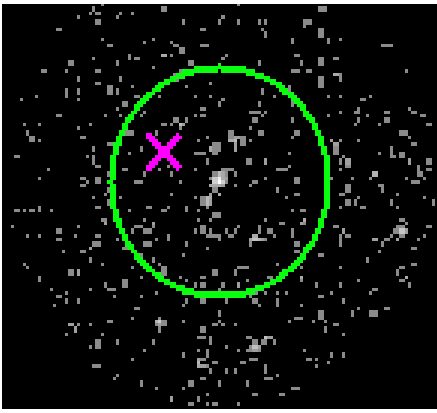


3 Gratings

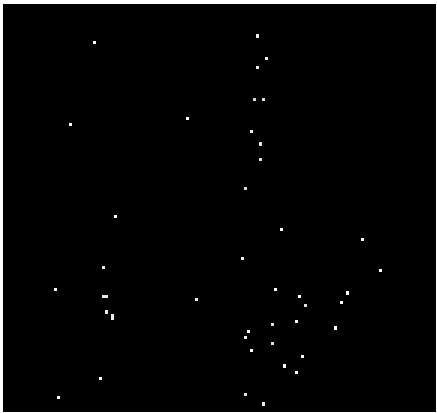
3.1 HEG Arm



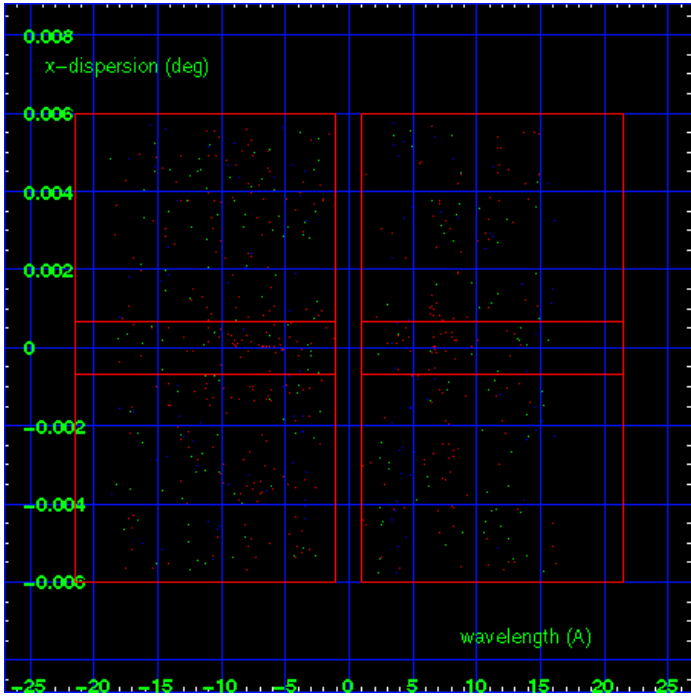
HEG Order Sort 123



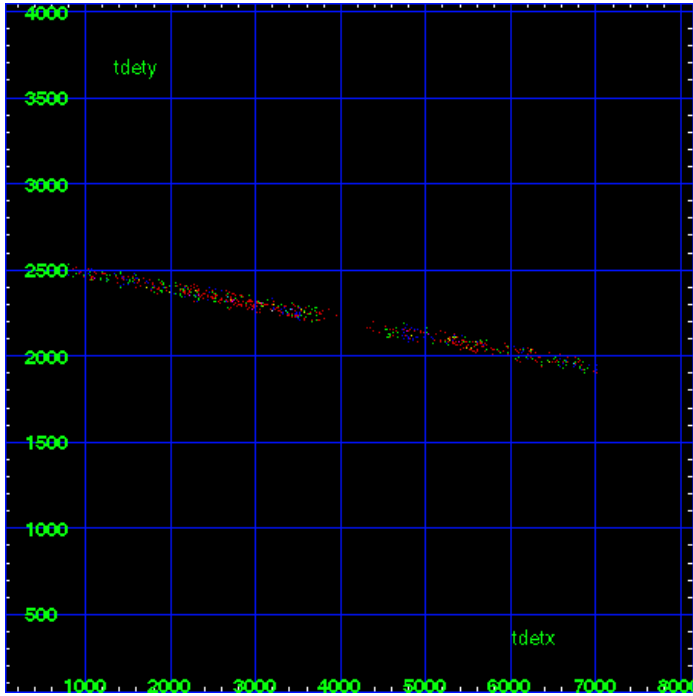
HEG Zero Order



HEG Order Sort ALL

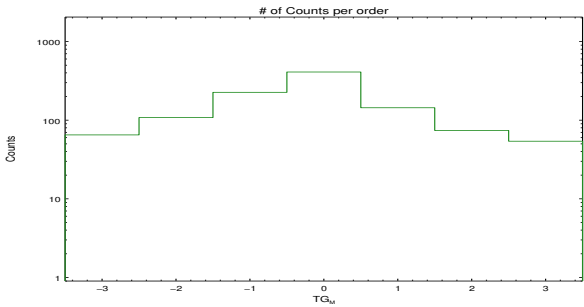


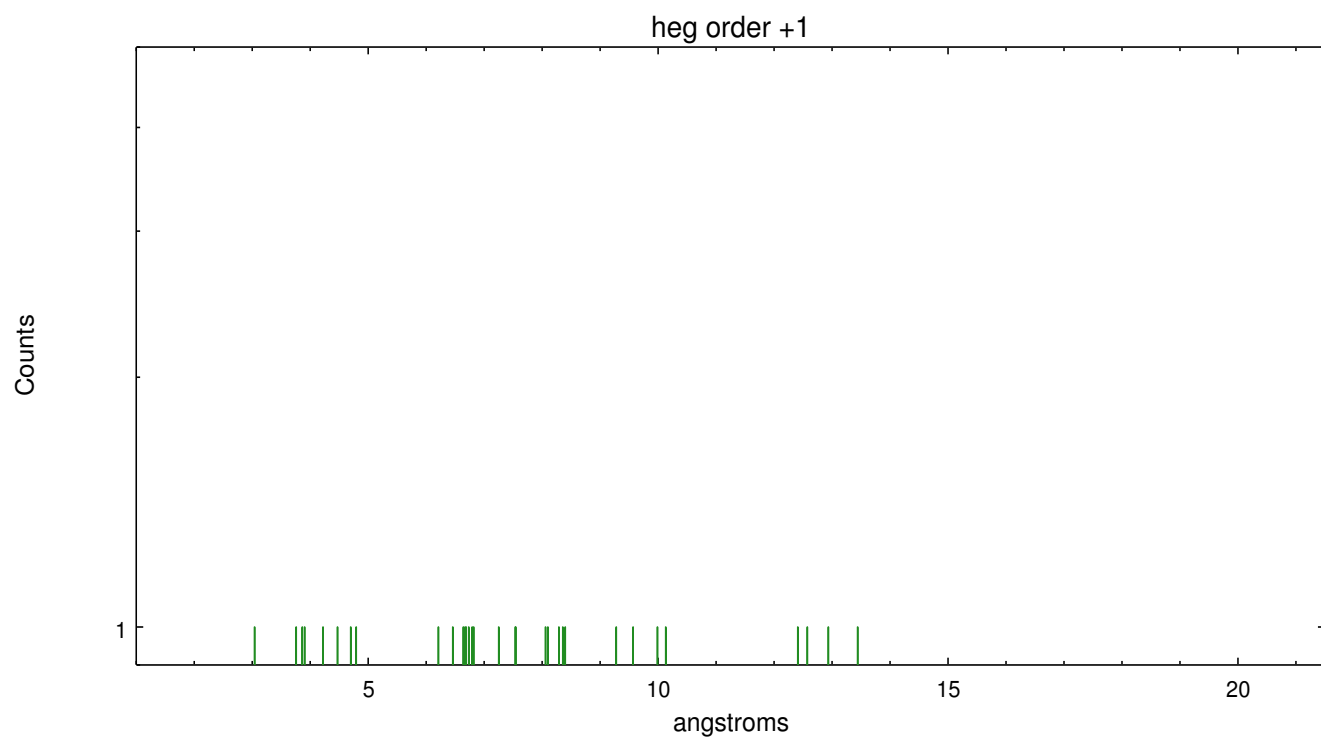
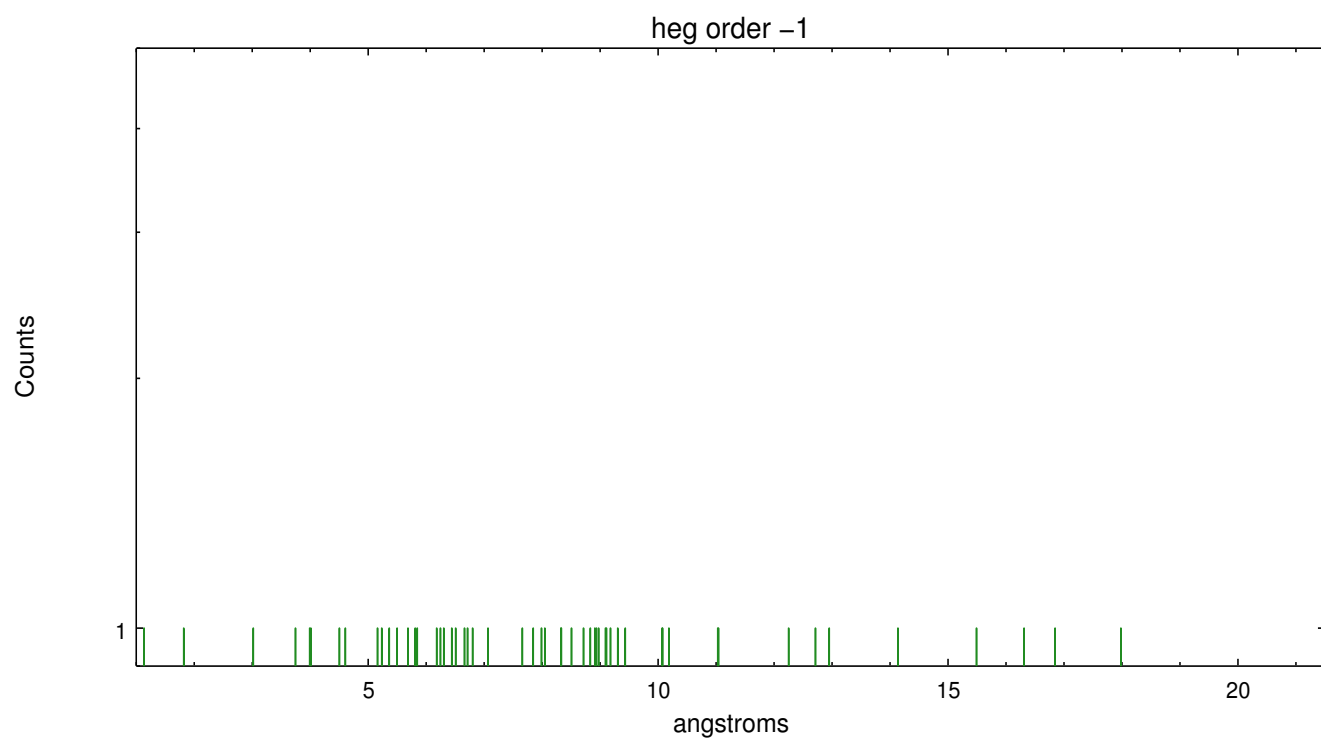
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	65	108	226	410	144	74	54

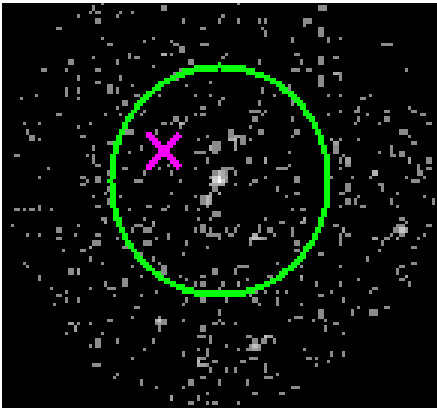




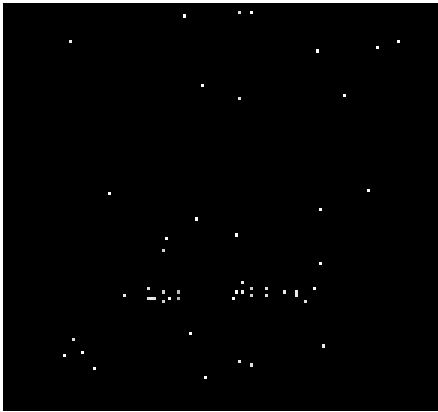
3.2 MEG Arm



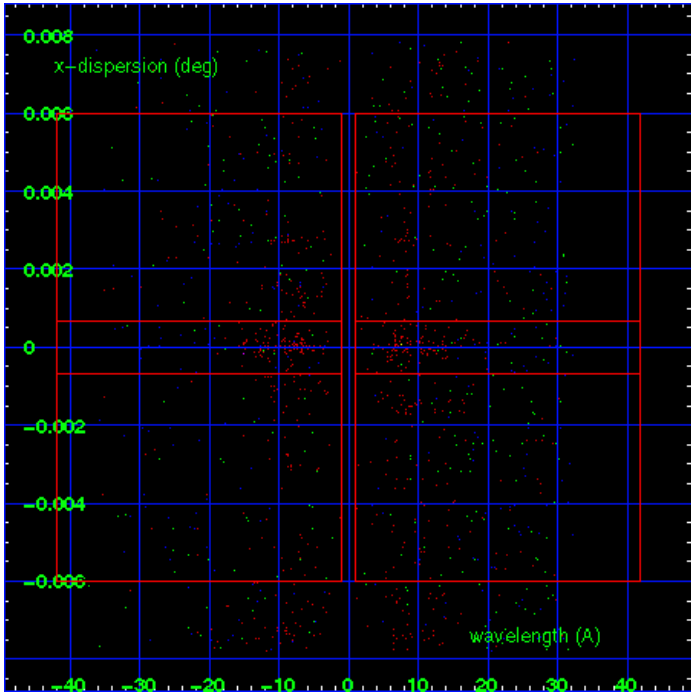
MEG Order Sort 123



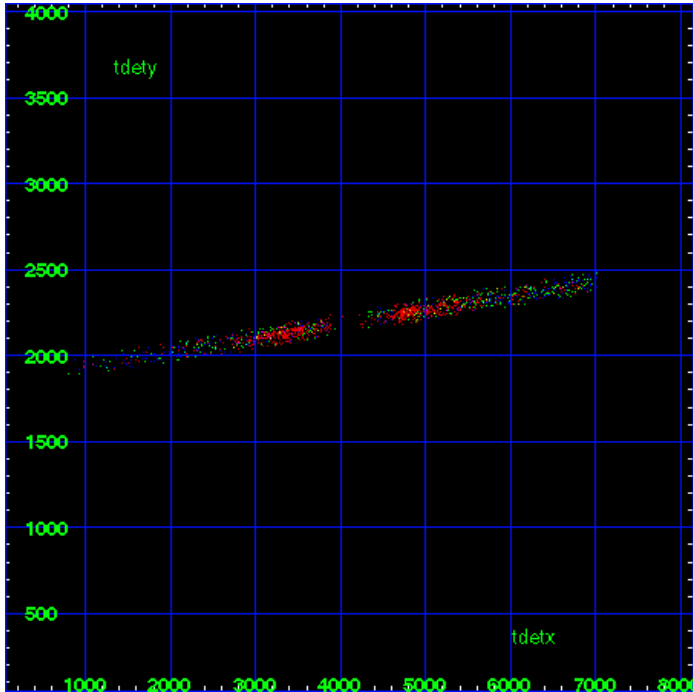
MEG Zero Order



MEG Order Sort ALL

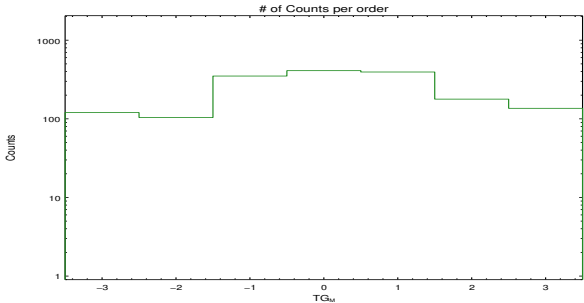


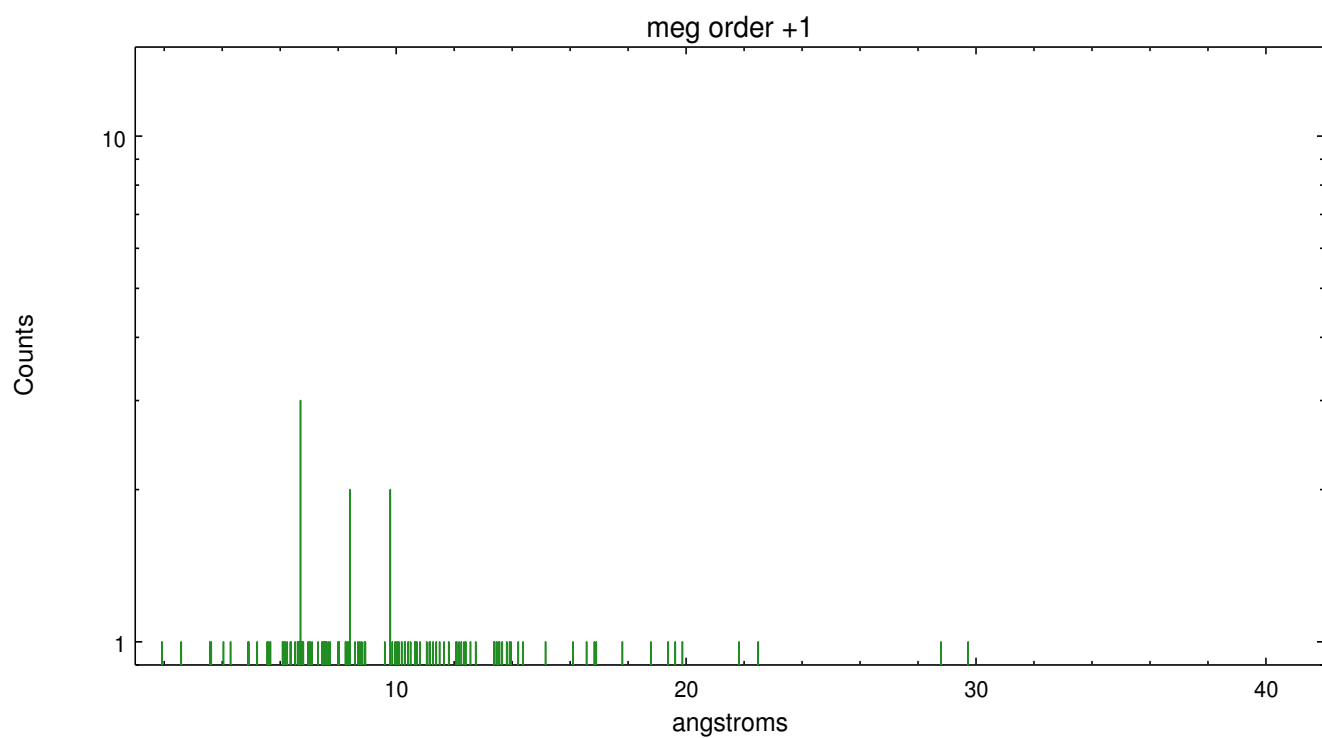
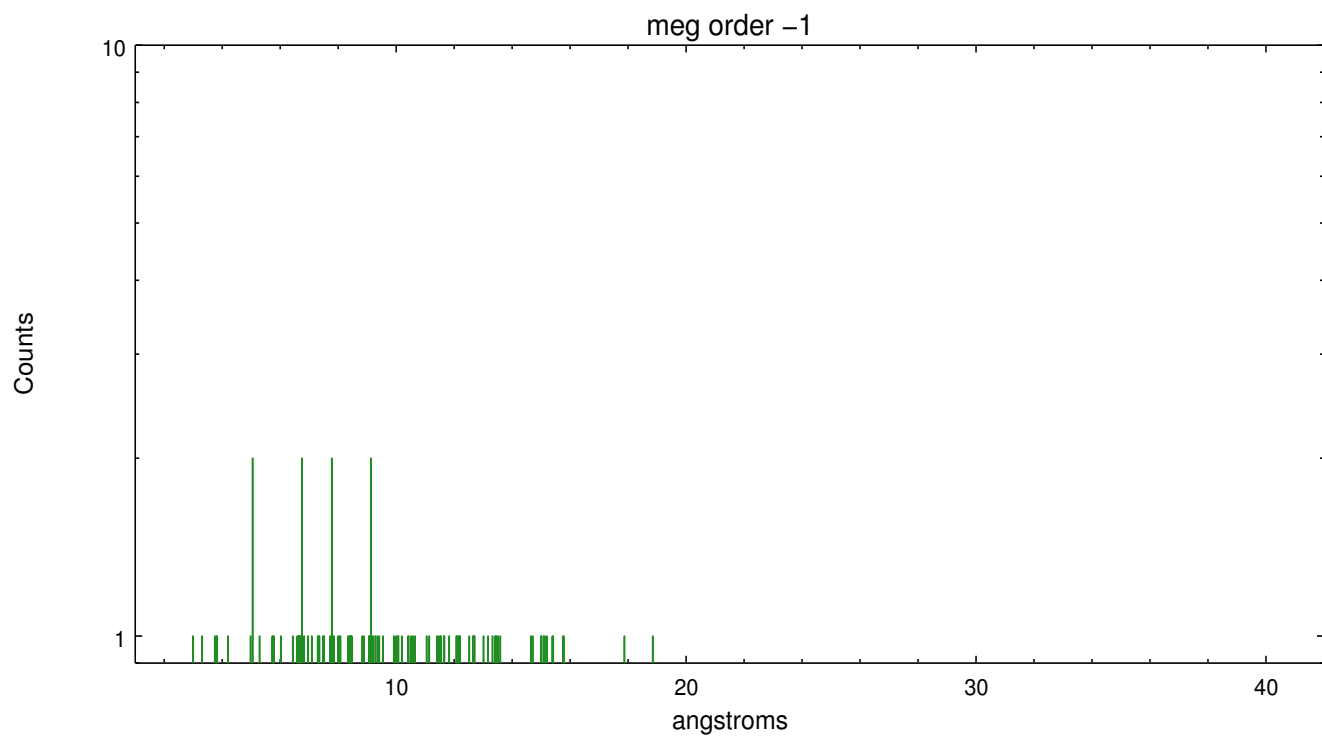
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	120	104	350	410	394	178	136





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.04.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.37759

A.2 Comments

This is one of 7 obsids of this target. The zeroth order has been set to

x=4110.56, y=4088.65 for this obsid. The zeroth order positions are based on ra=10:43:57.457, dec=-59:32:51.32 for all of these obsids, which is the mean position of the peak of the X-ray source. tgdetect does not give a good

position for the zeroth order because of flaring nearby sources that influence the source finding software.

===

Multiple sources in the field may cause contamination of the primary extraction at some wavelengths. Extraction is of HD 93129A. Comment: Complex source: [ESW2004] is within 2 arcsec of the target in the dispersion direction. Extraction probably includes both sources with offset in wavelength. These two spectra cannot be extracted separately.