

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 5399 - L2 Version 3
Chandra X-Ray Center

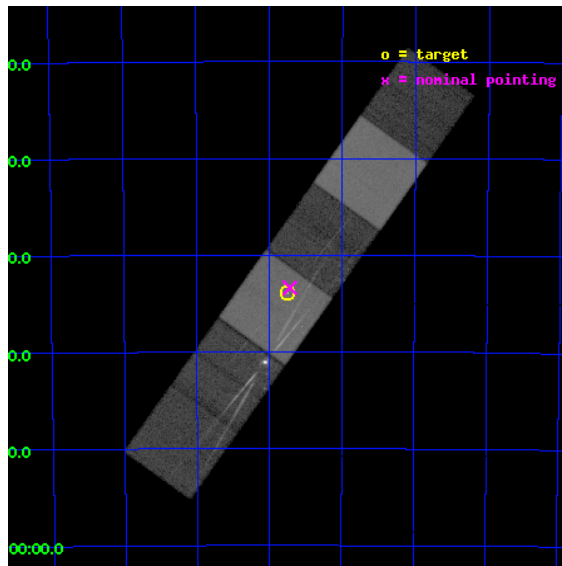
L2 Processing Date : Dec 31 2012

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

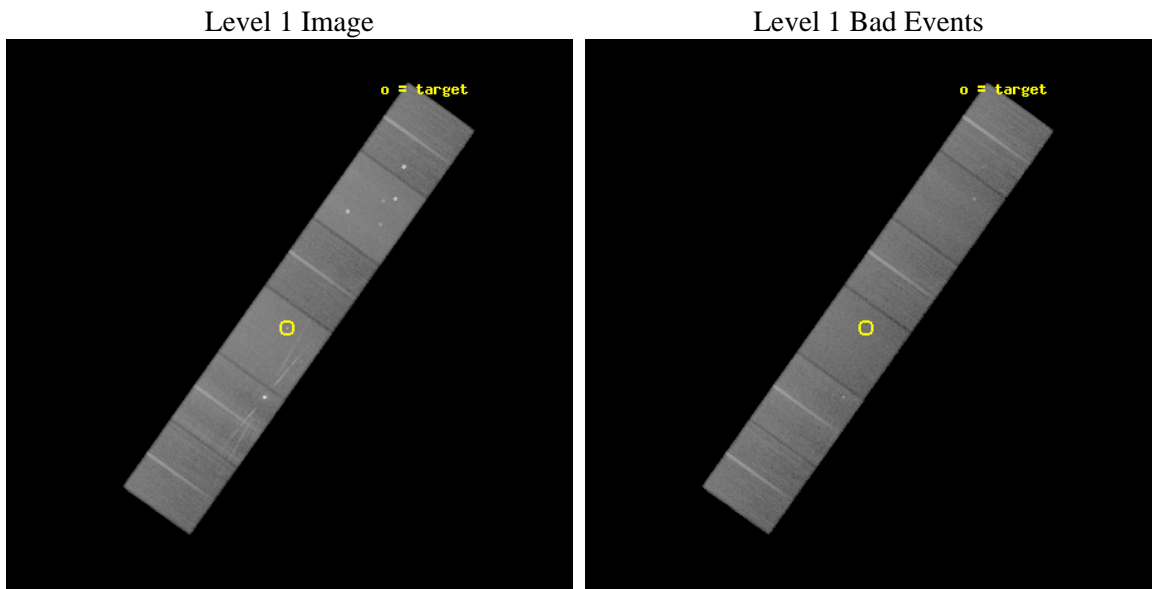
seq_num	200334	Sequence number
obs_id	5399	Observation id
title	A Chandra HETGS Survey of O-Stars	Proposal title
observer	Dr Wayne Waldron	Principal investigator
object	HD93250	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	161.1875	Observer's specified target RA [deg]
dec_targ	-59.565194	Observer's specified target Dec [deg]
ra_nom	161.17924867322	Nominal RA [deg]
dec_nom	-59.556412615143	Nominal Dec [deg]
roll_nom	125.44921507693	Nominal Roll [deg]
revision	3	Processing version of data
ontime	40179.199850321	Sum of GTIs [s]
livetime	39670.426628806	Livetime [s]
ontime4	40175.958889991	Sum of GTIs [s]
ontime5	40179.199850321	Sum of GTIs [s]
ontime6	40179.199850321	Sum of GTIs [s]
ontime7	40179.199850321	Sum of GTIs [s]
ontime8	40179.199850321	Sum of GTIs [s]
ontime9	40179.199850321	Sum of GTIs [s]
l2events	584472	Number of level 2 events



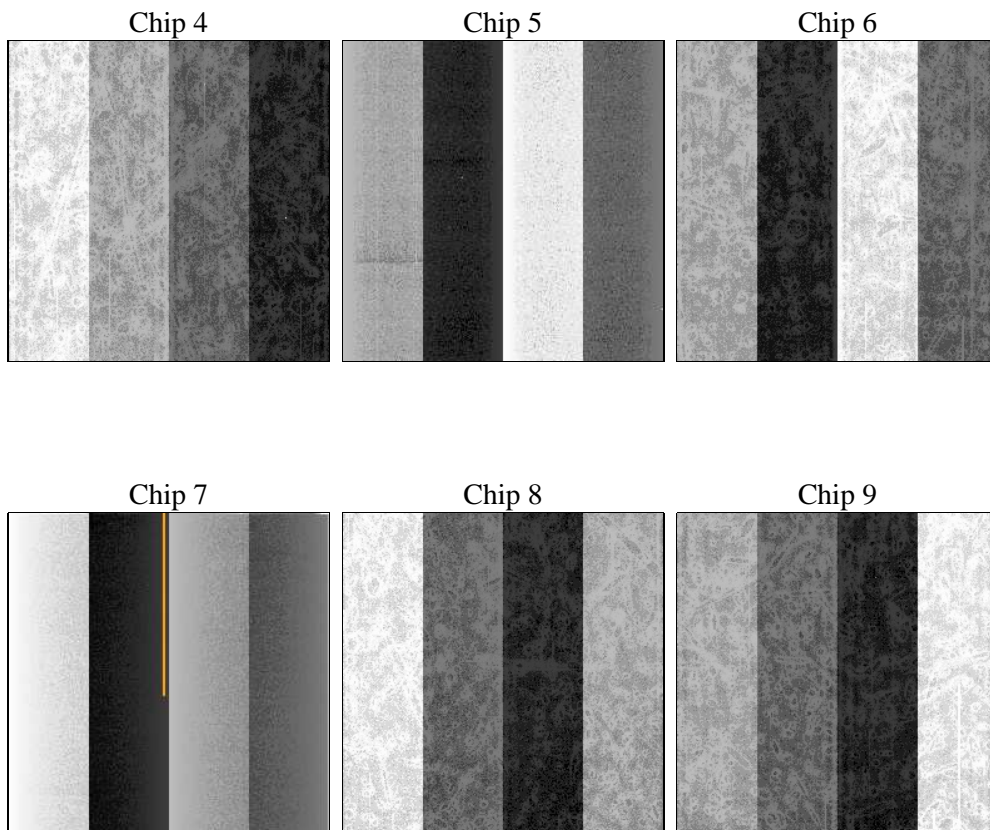
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	40000.000000	[s] Scheduled observation exposure time
ascdsver	8.5.1.1	Processing system revision	ontime	40179.199850321	Sum of GTIs [s]
caldbver	4.5.5	 	ontime4	40175.958889991	Sum of GTIs [s]
date	2012-12-30T23:56:36	Date and time of file creation	ontime5	40179.199850321	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	40179.199850321	Sum of GTIs [s]
			ontime7	40179.199850321	Sum of GTIs [s]
			ontime8	40179.199850321	Sum of GTIs [s]
			ontime9	40179.199850321	Sum of GTIs [s]
			l1events	2394067	Number of level 1 events

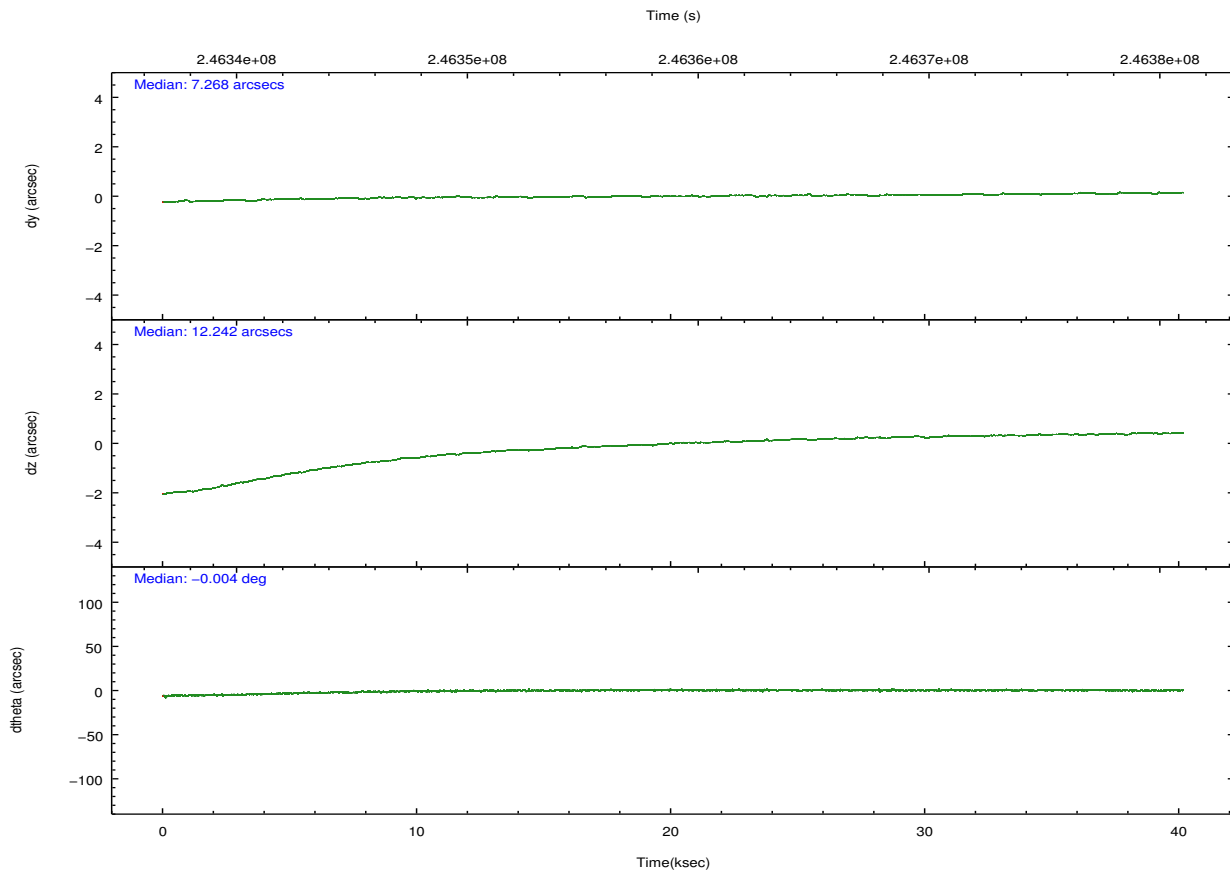
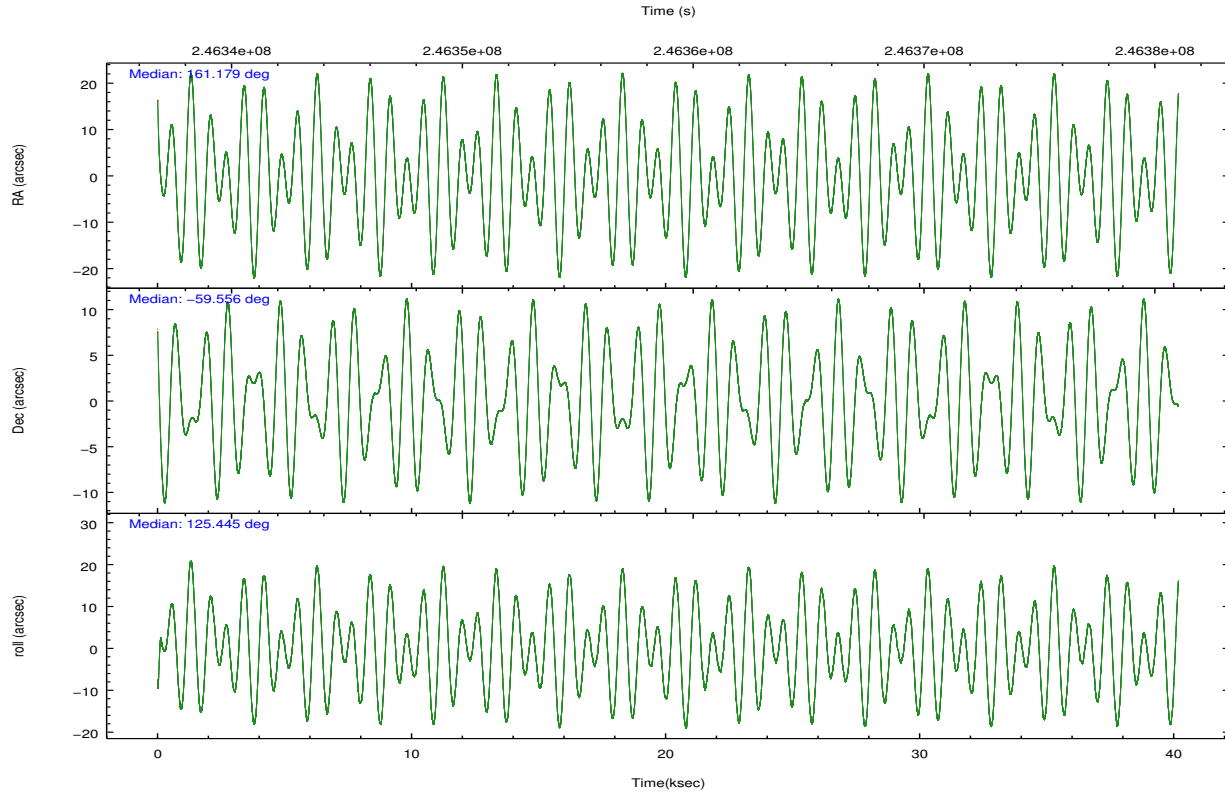
2.1.4 Events

	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	359014	489235	323078	452496	445946	324298	grade 0 events	28134	29878	19655	20563	55779	21414
rejected events	308857	261722	279362	253370	317645	279168		7%	6%	6%	4%	12%	6%
rejected %	86%	53%	86%	55%	71%	86%	grade 1 events	414	1377	181	423	512	243
								0%	0%	0%	0%	0%	0%
							grade 2 events	8257	65960	8821	41125	25074	8273
								2%	13%	2%	9%	5%	2%
							grade 3 events	4103	8745	3767	18087	11212	4072
								1%	1%	1%	3%	2%	1%
							grade 4 events	3809	8272	3769	18231	10446	3870
								1%	1%	1%	4%	2%	1%
							grade 5 events	14211	34588	14878	41261	19832	15610
								3%	7%	4%	9%	4%	4%
							grade 6 events	6047	115602	7887	101950	26210	7703
								1%	23%	2%	22%	5%	2%
							grade 7 events	294039	224813	264120	210856	296881	263113
								81%	45%	81%	46%	66%	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	161.228454	161.1792486732201	Subarray requested	NONE	NONE
[deg] Pointing Dec	-59.567385	-59.55641261514344	Alternating exposures requested	N	N
[deg] Pointing Roll	125.335021	125.4492150769319	[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)	246339006.184000	246337799.99556			
Observation start date	2005-10-22T03:29:02	2005-10-22T03:09:59			
[s] Observation end time (MET)	246379006.184000	246380718.28503			
Observation end date	2005-10-22T14:35:42	2005-10-22T15:05:18			
Read mode	TIMED	TIMED			

2.3 Aspect

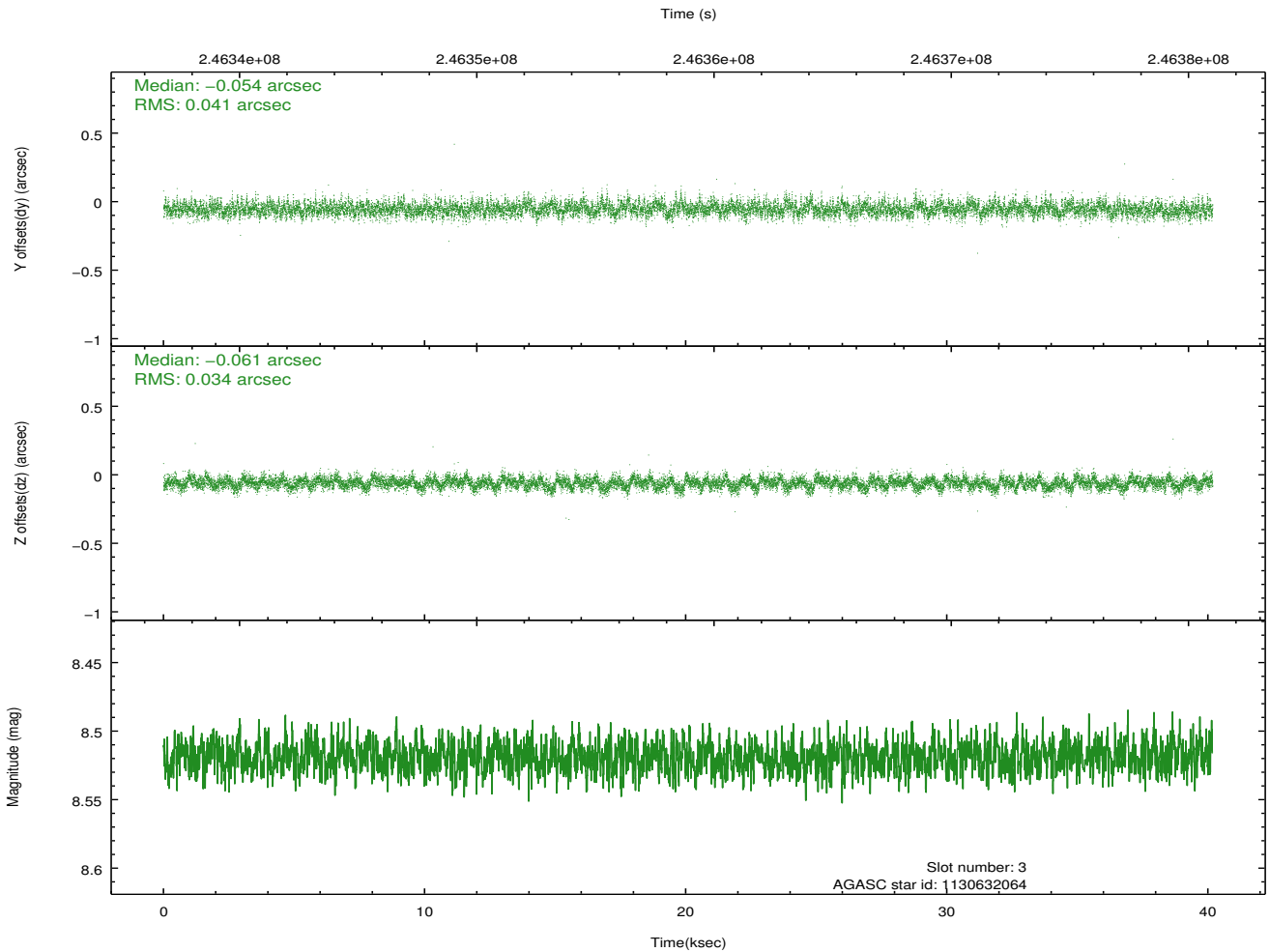
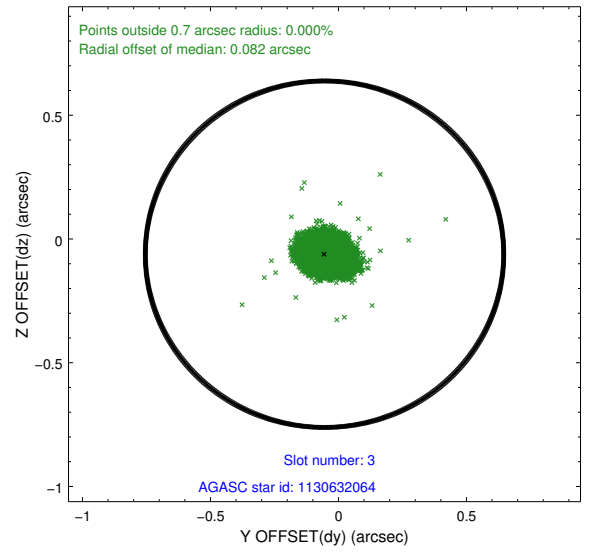
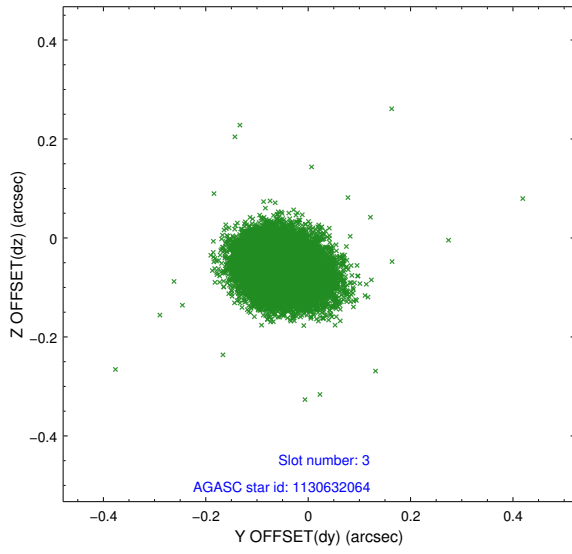


Slot Statistics

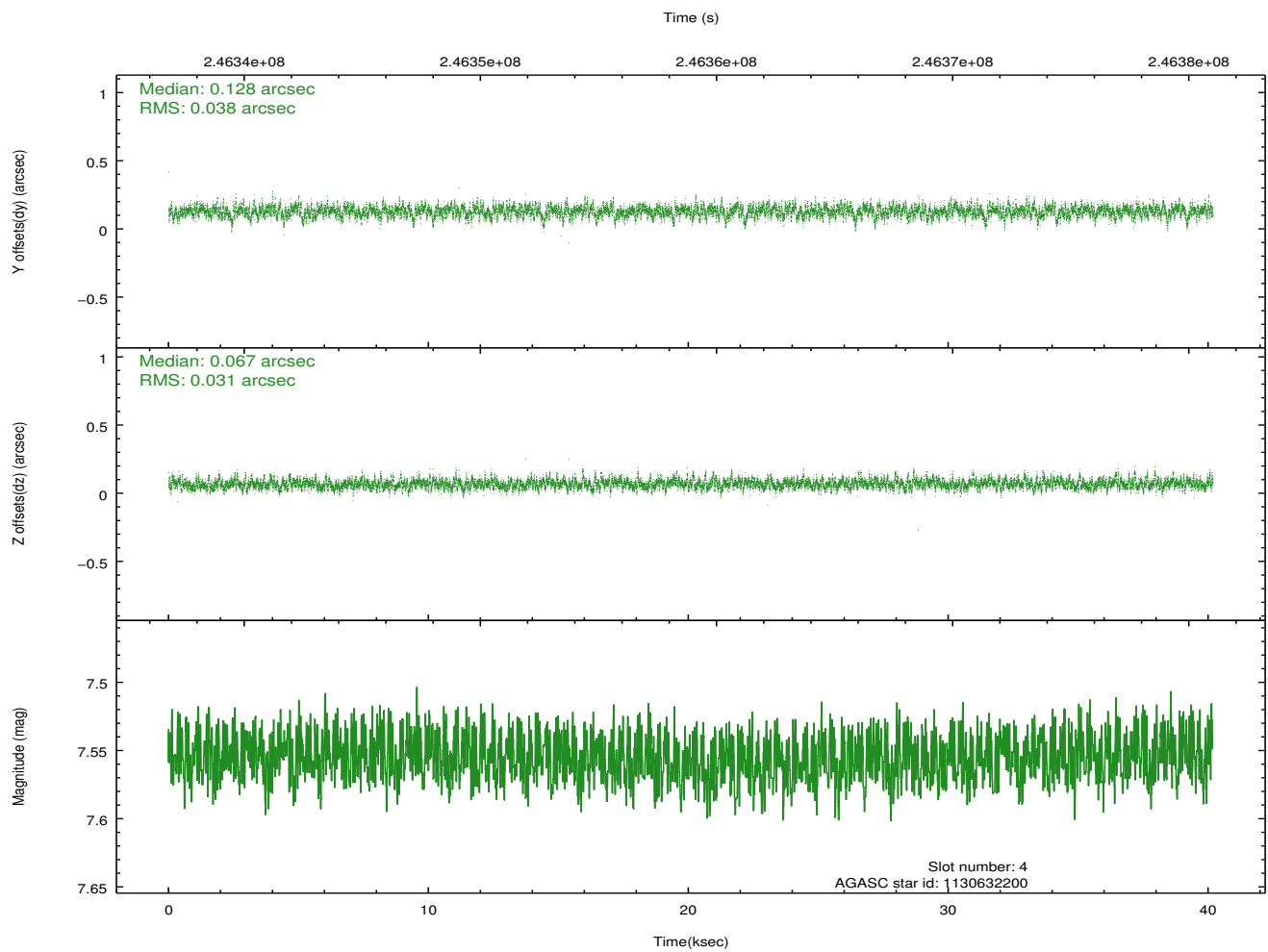
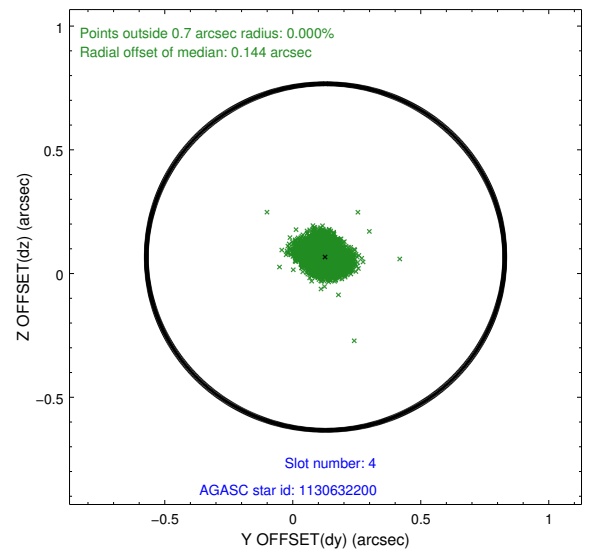
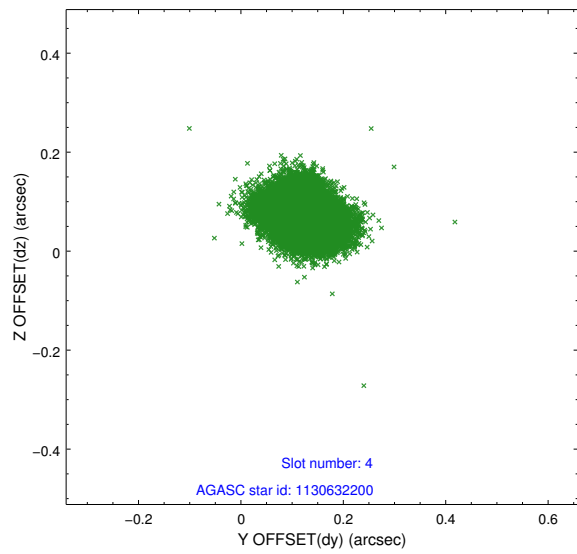
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.19	9801	0.076	-0.088	0.018	0.042	0.000000	0.000000	936.05	-1729.02
1	FID	ACIS-S-5	7.23	9800	-0.076	0.057	0.011	0.036	0.000000	0.000000	-1813.04	168.72
2	FID	ACIS-S-6	7.35	9800	-0.021	0.047	0.027	0.042	0.000000	0.000000	401.56	812.64
3	GUIDE	1130632064	8.52	19597	-0.054	-0.061	0.056	0.093	160.452382	-59.130948	2104.05	265.75
4	GUIDE	1130632200	7.55	19597	0.128	0.067	0.051	0.085	161.433843	-59.407820	250.95	-638.66
5	GUIDE	1130642000	7.94	19593	-0.039	0.063	0.060	0.095	162.836255	-59.743891	-2233.51	-1991.13
6	GUIDE	1130643264	6.65	19600	-0.035	0.020	0.059	0.096	160.322990	-59.676912	620.87	1577.14
7	GUIDE	1174012960	7.16	19594	-0.001	-0.087	0.085	0.126	160.855674	-60.332270	-1863.73	2135.55

2.4 Star Slots

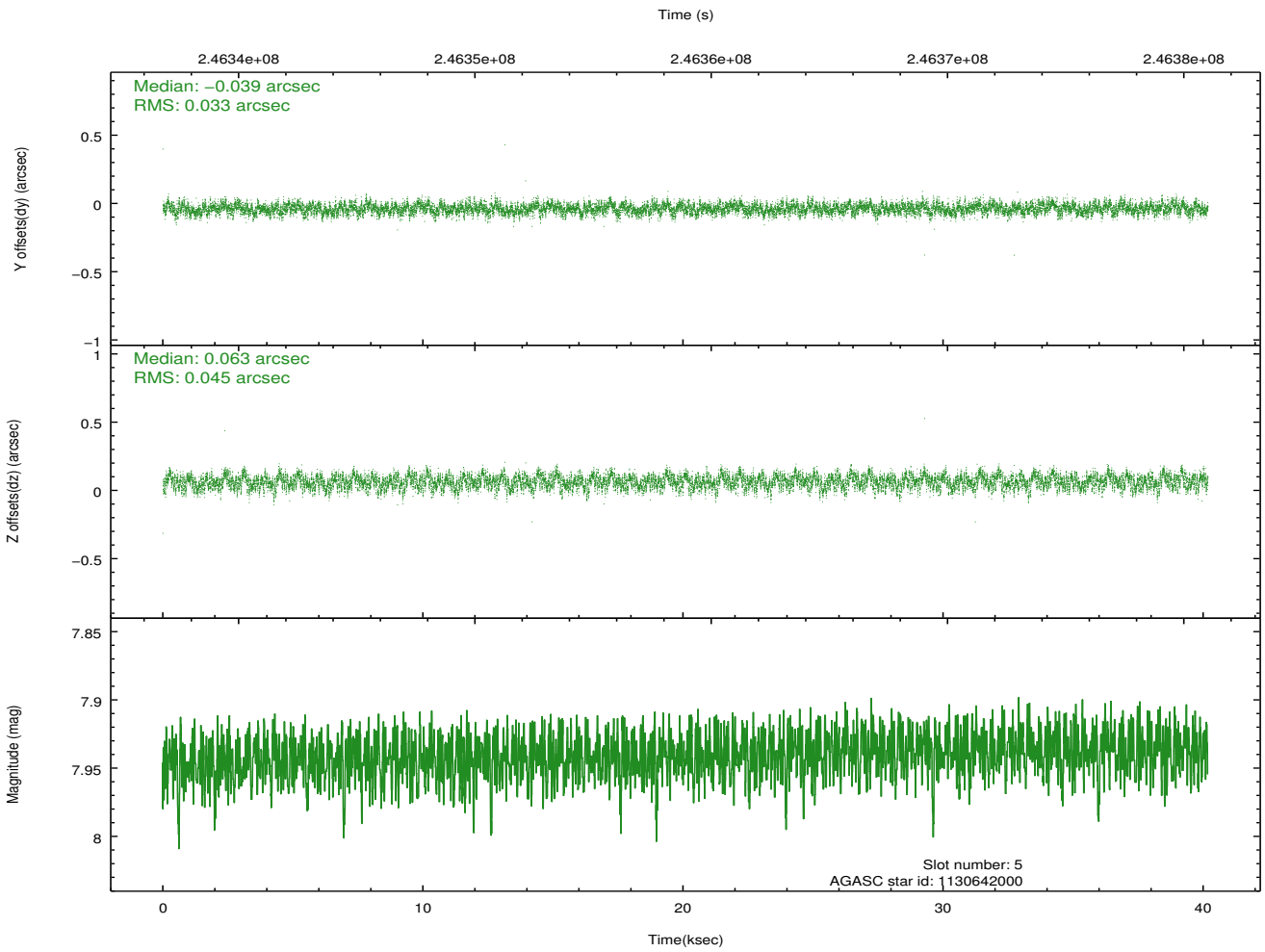
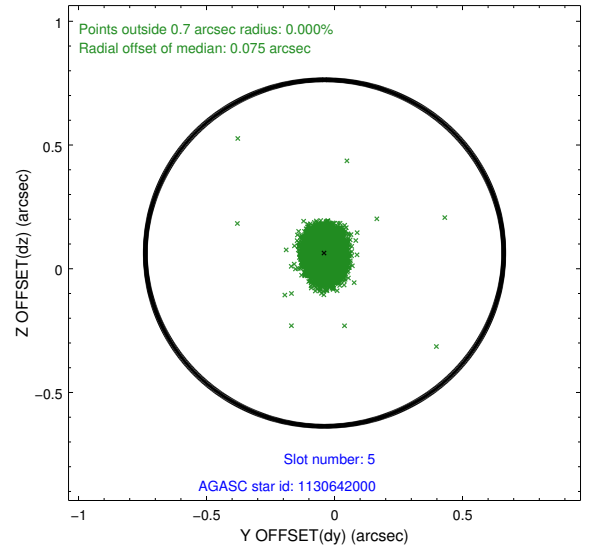
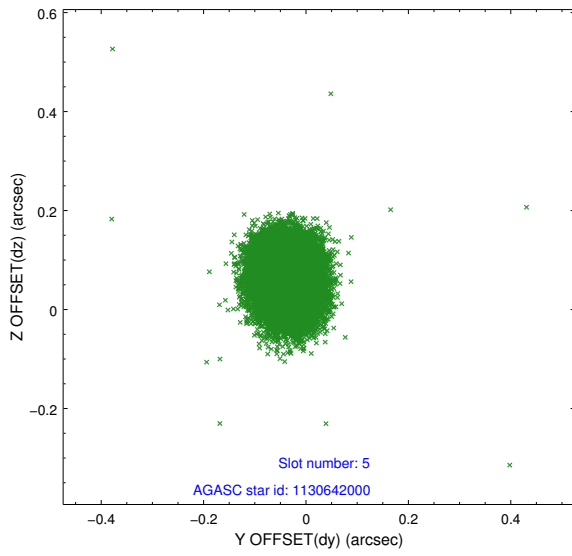
2.4.1 Slot 3



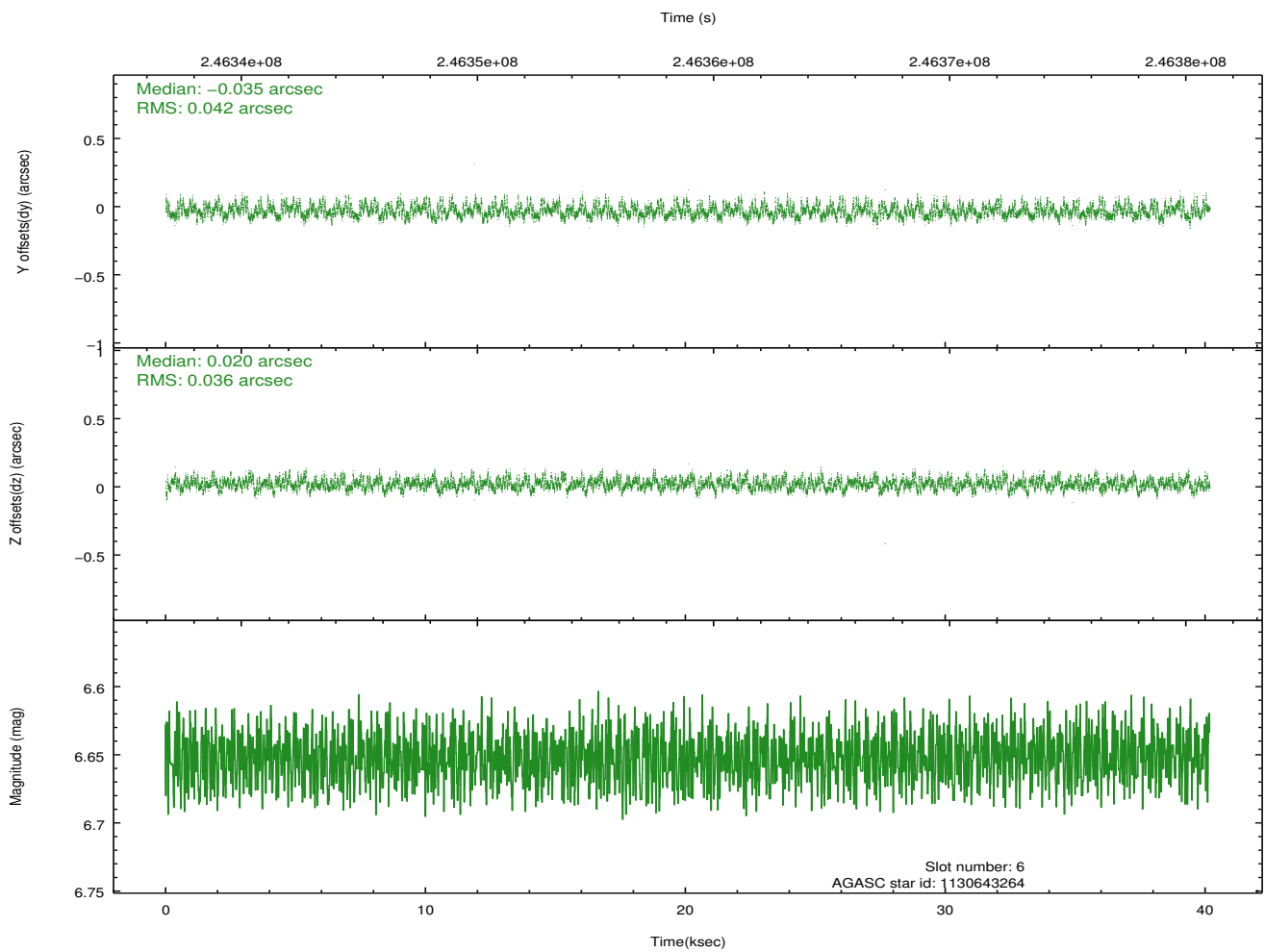
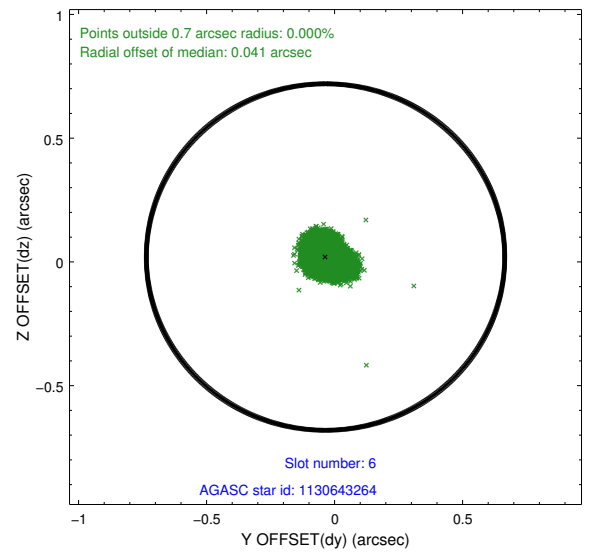
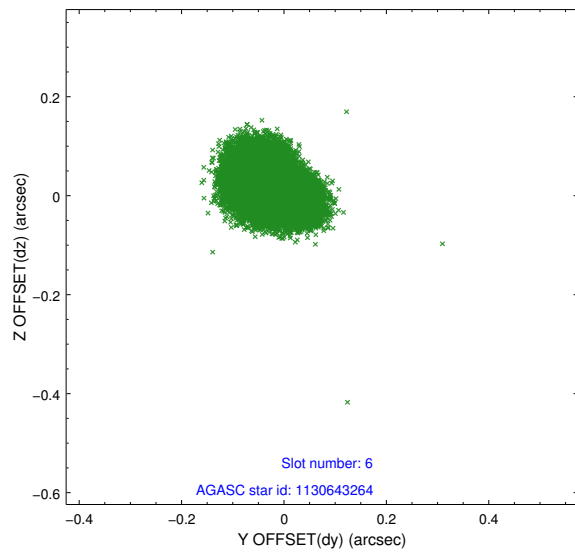
2.4.2 Slot 4



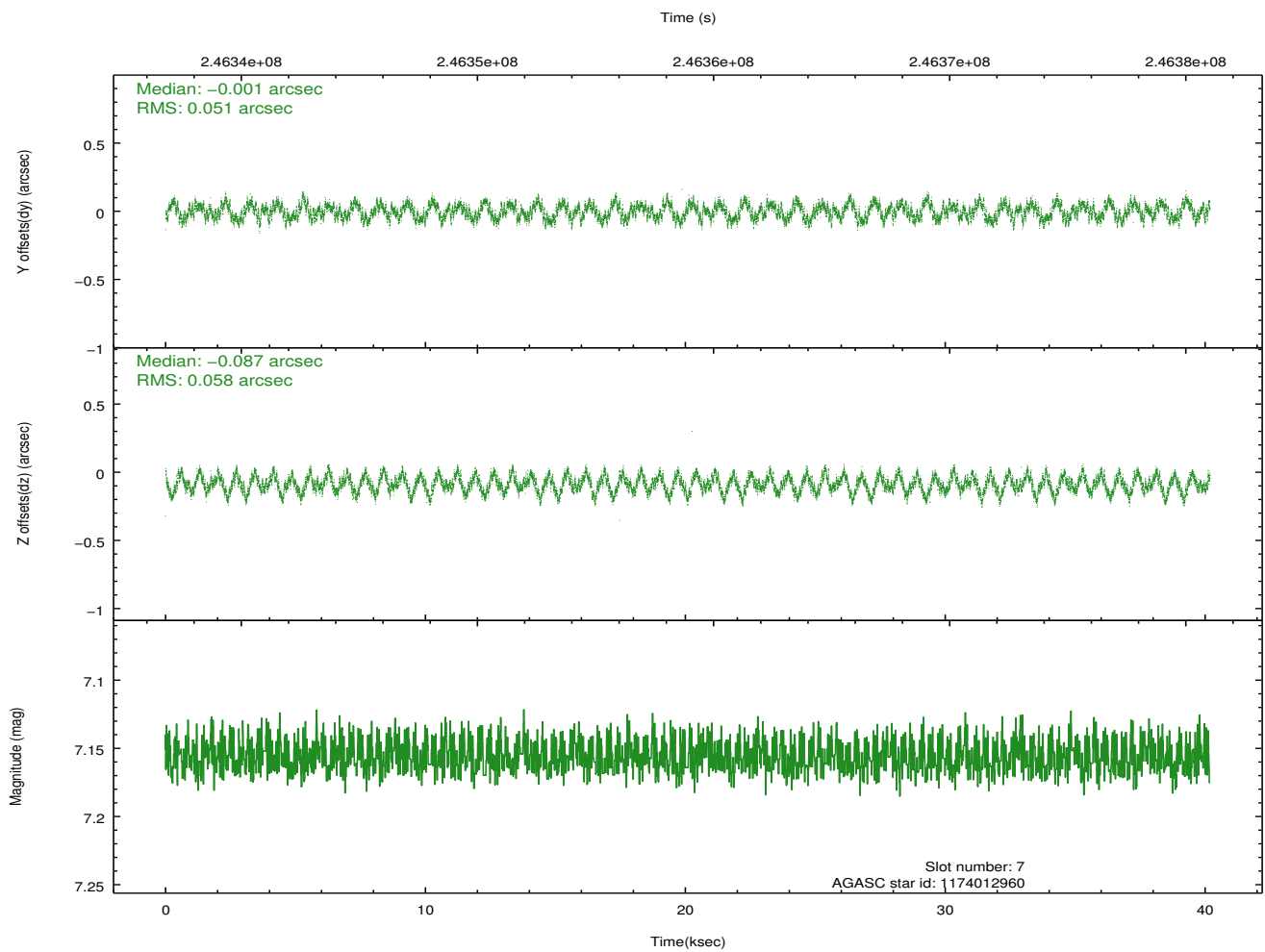
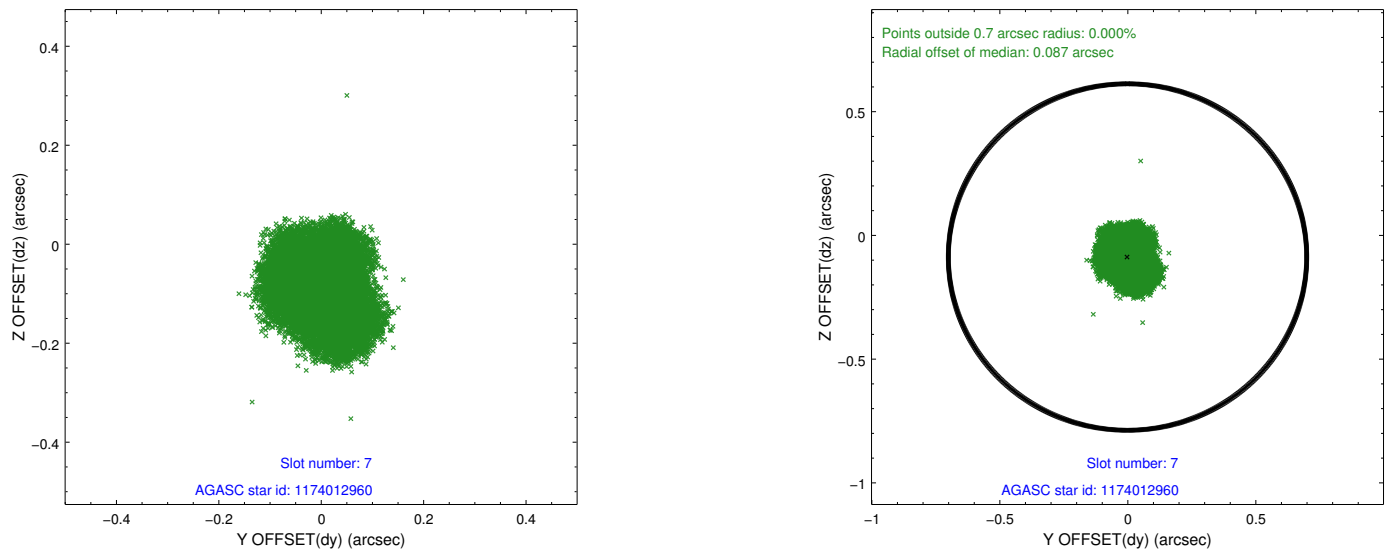
2.4.3 Slot 5



2.4.4 Slot 6

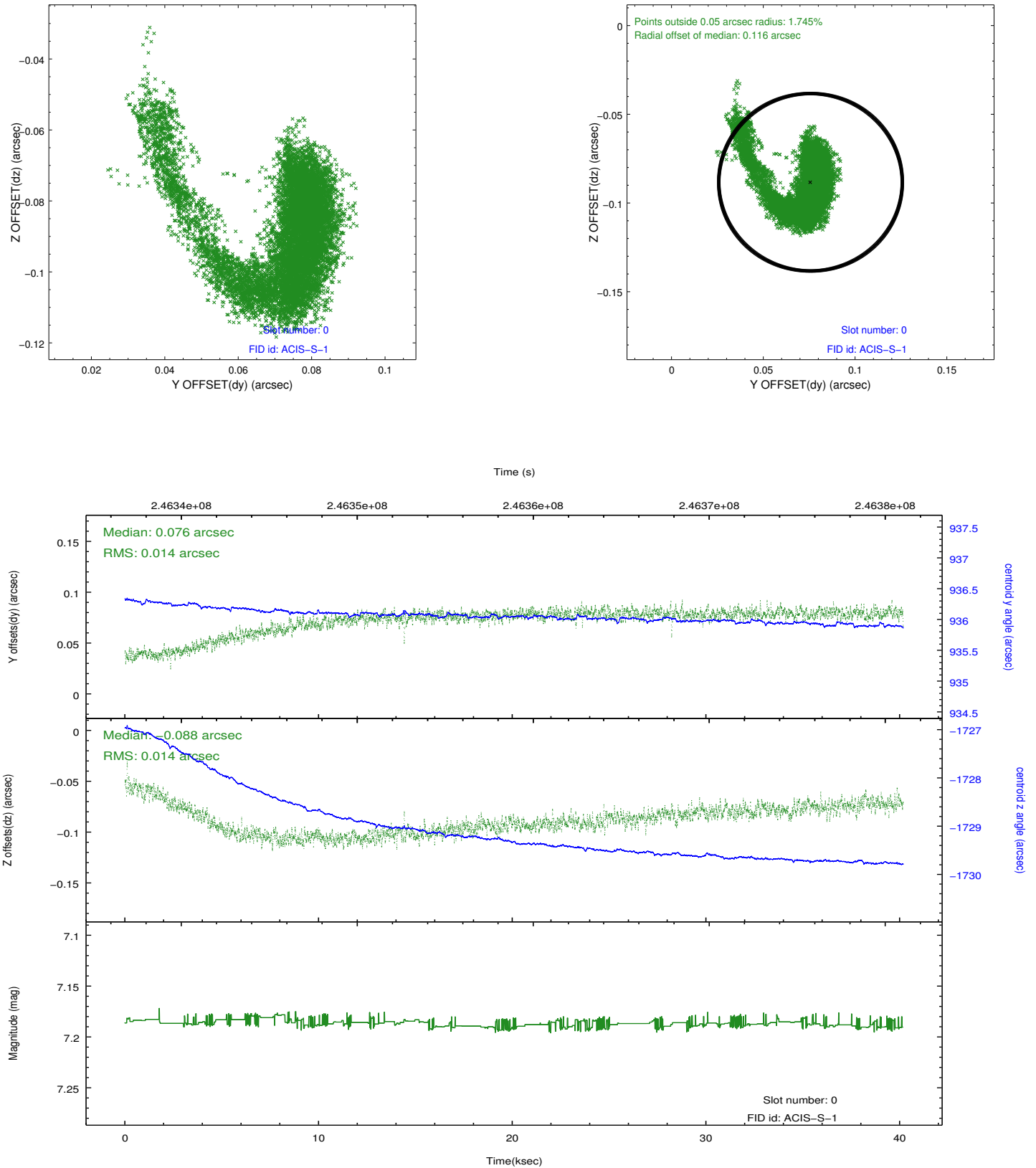


2.4.5 Slot 7

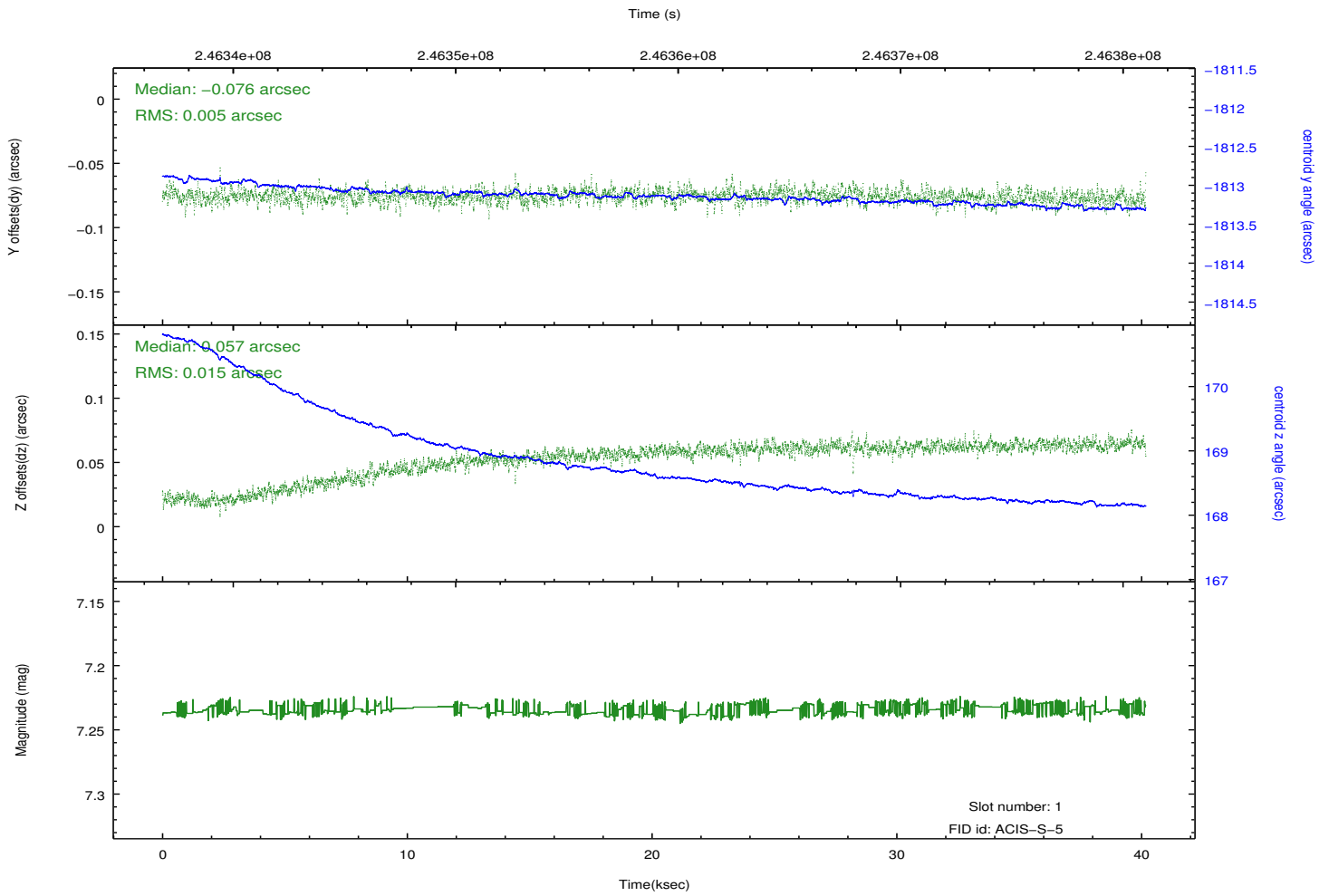
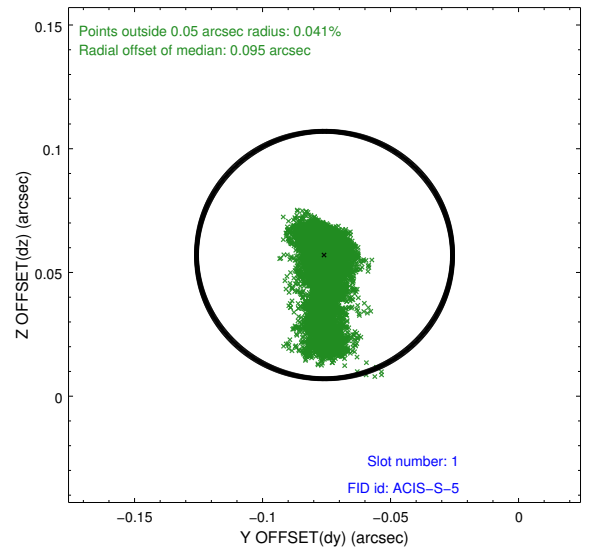
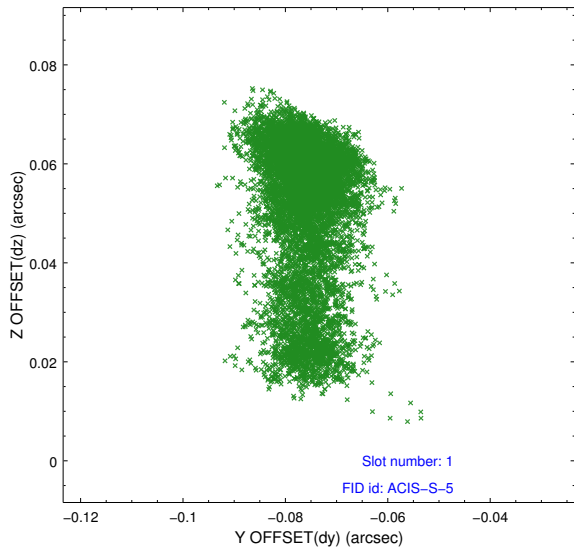


2.5 FID Slots

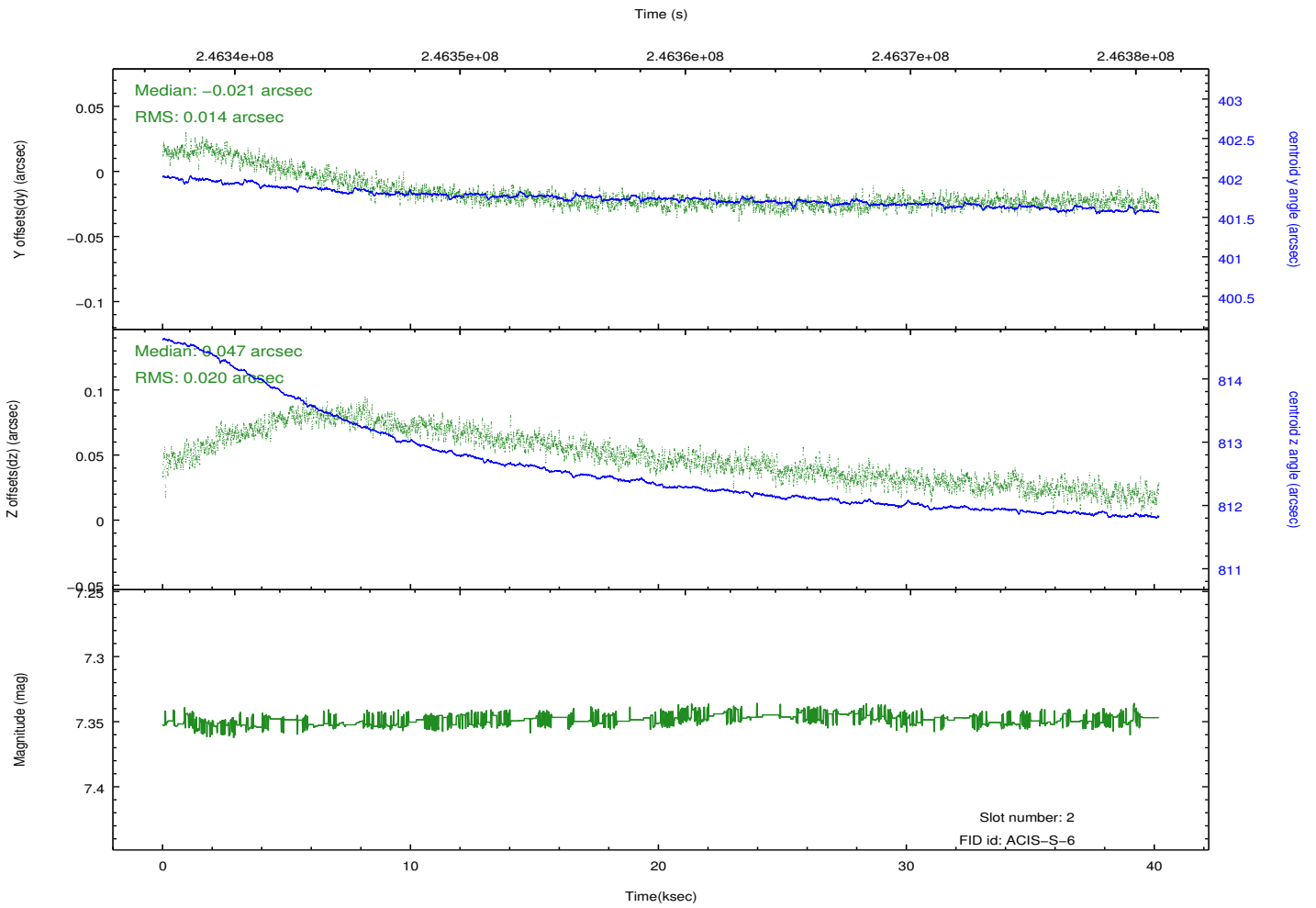
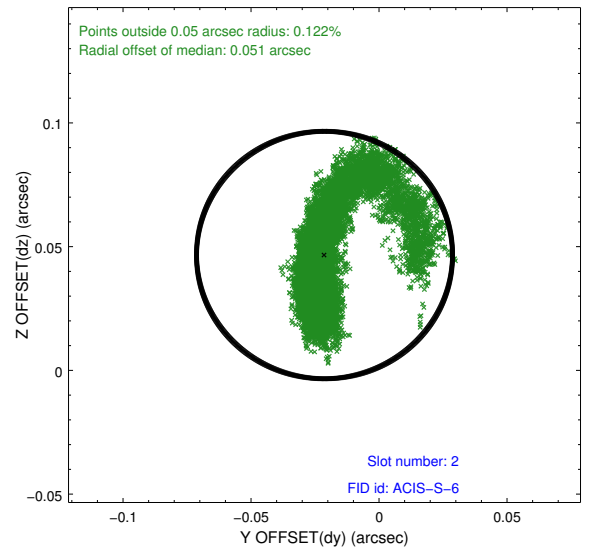
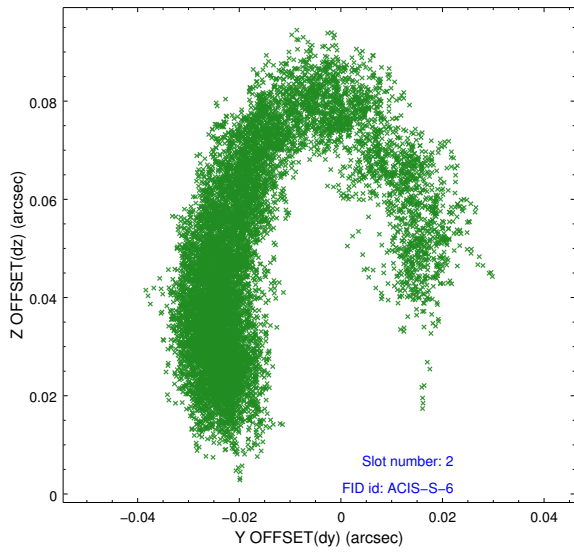
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

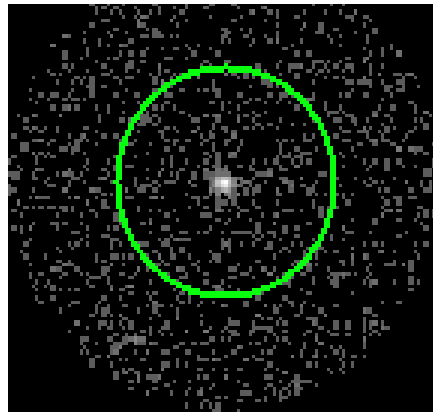


3 Gratings

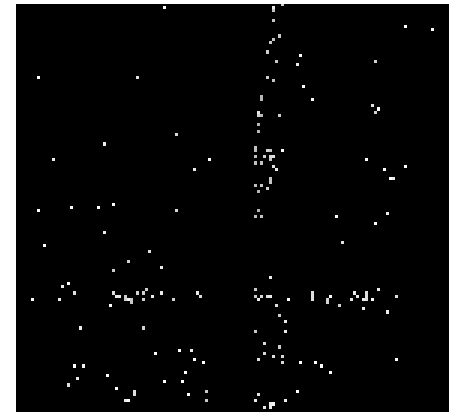
3.1 HEG Arm



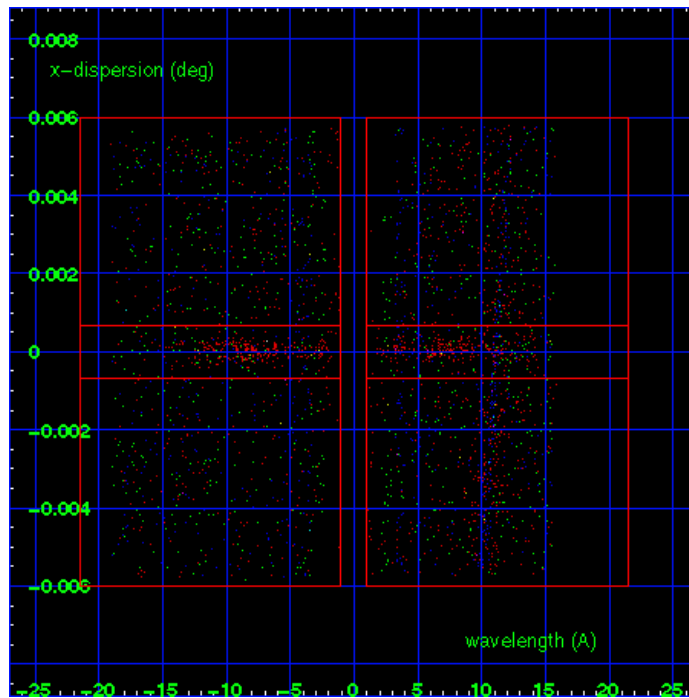
HEG Order Sort 123



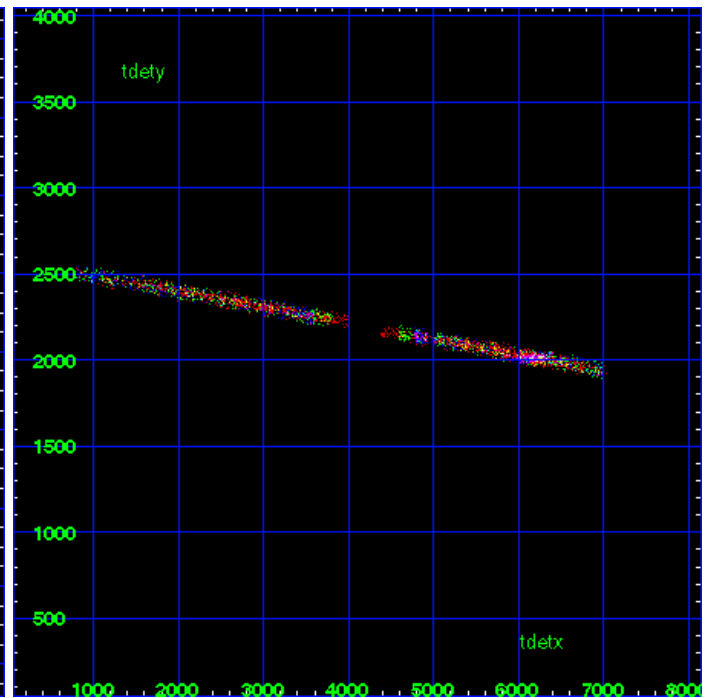
HEG Zero Order



HEG Order Sort ALL

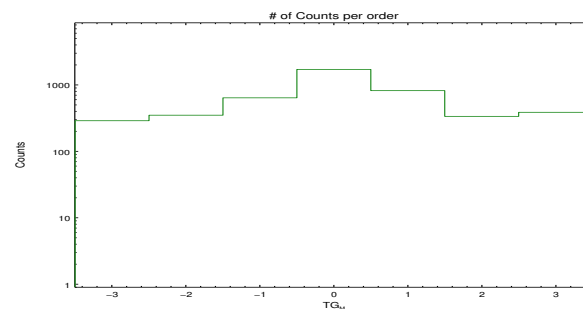


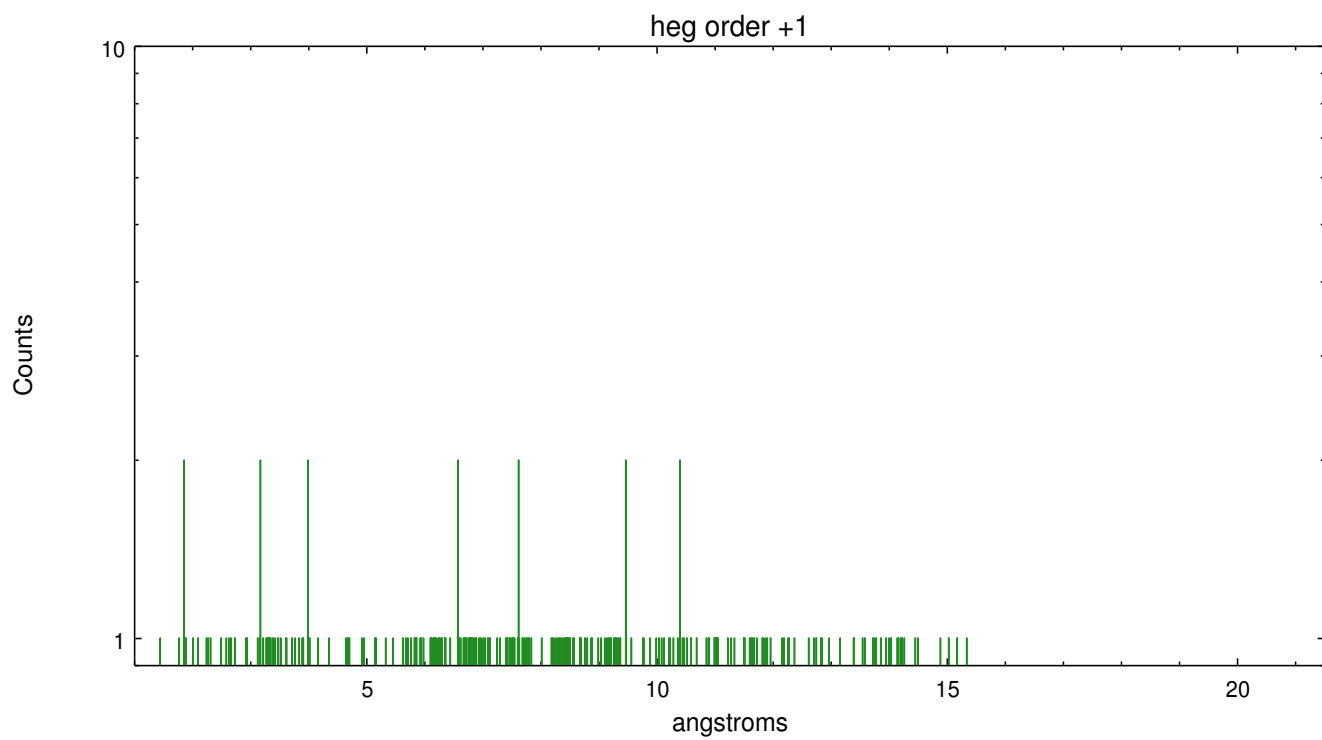
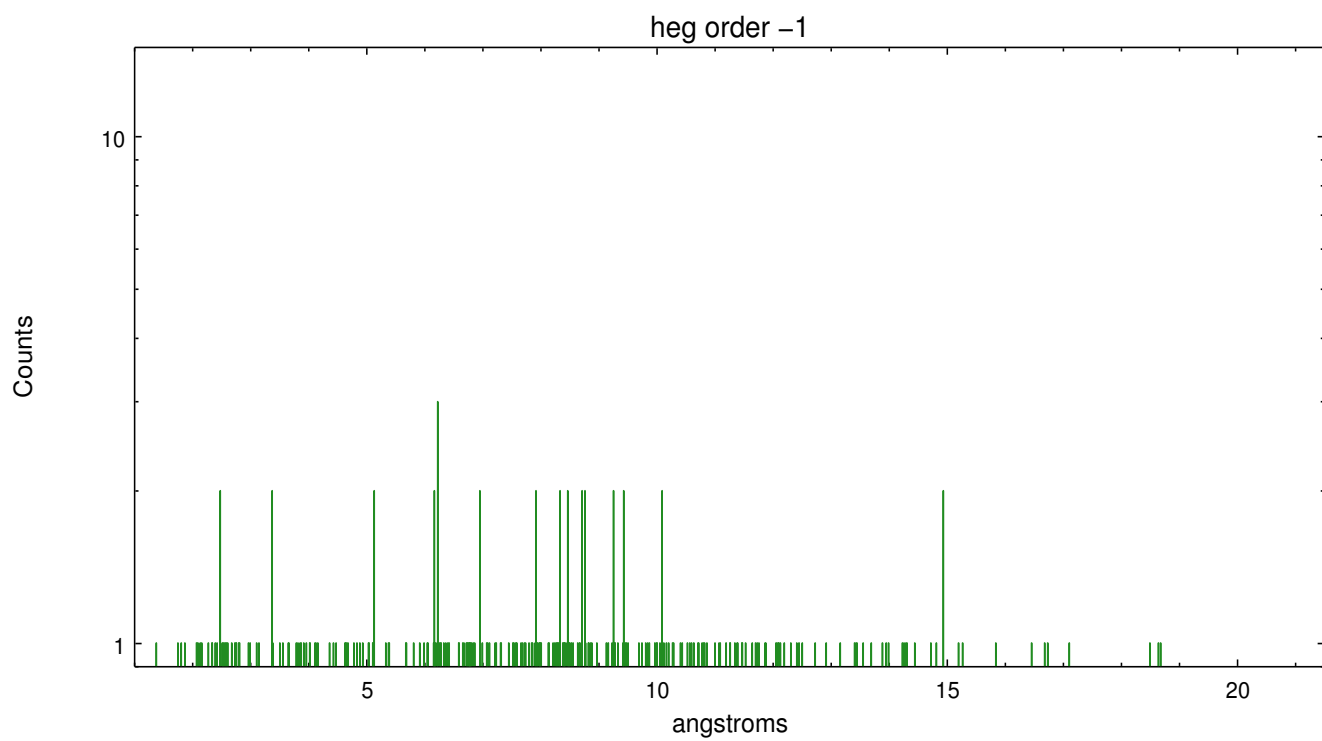
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	290	351	642	1722	824	337	388

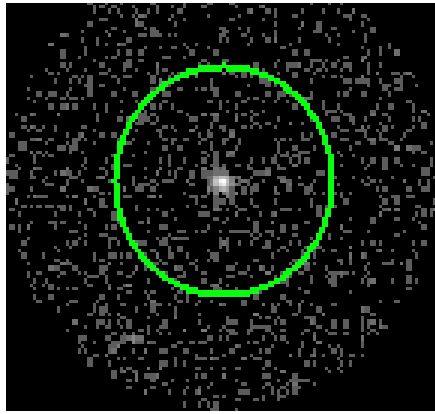




3.2 MEG Arm



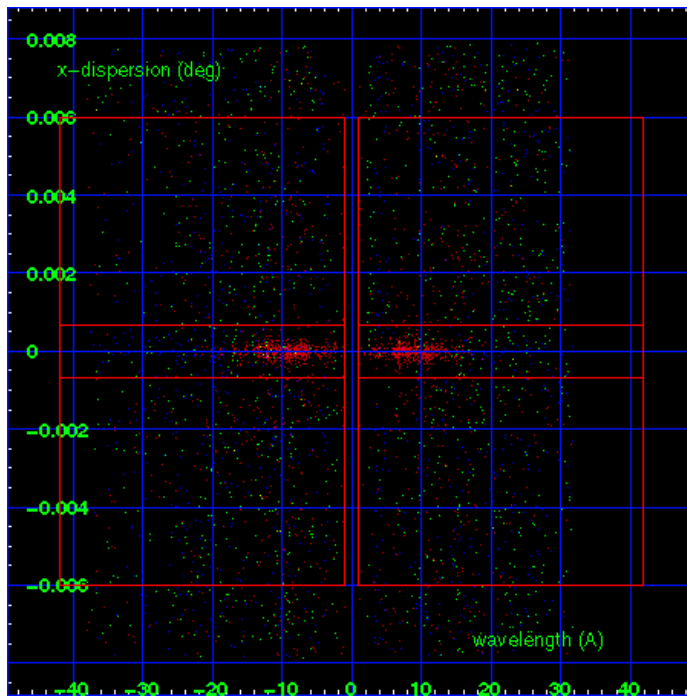
MEG Order Sort 123



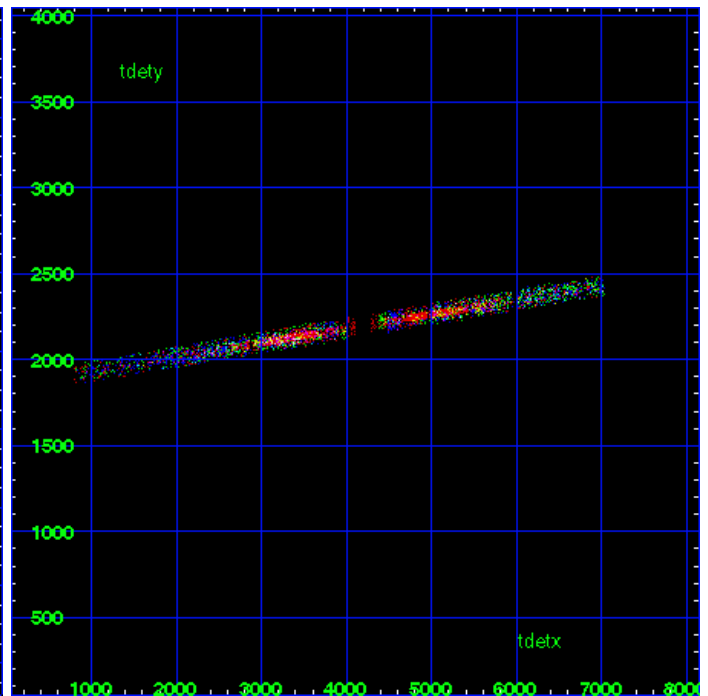
MEG Zero Order



MEG Order Sort ALL

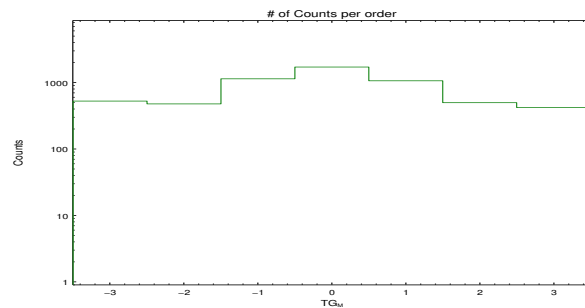


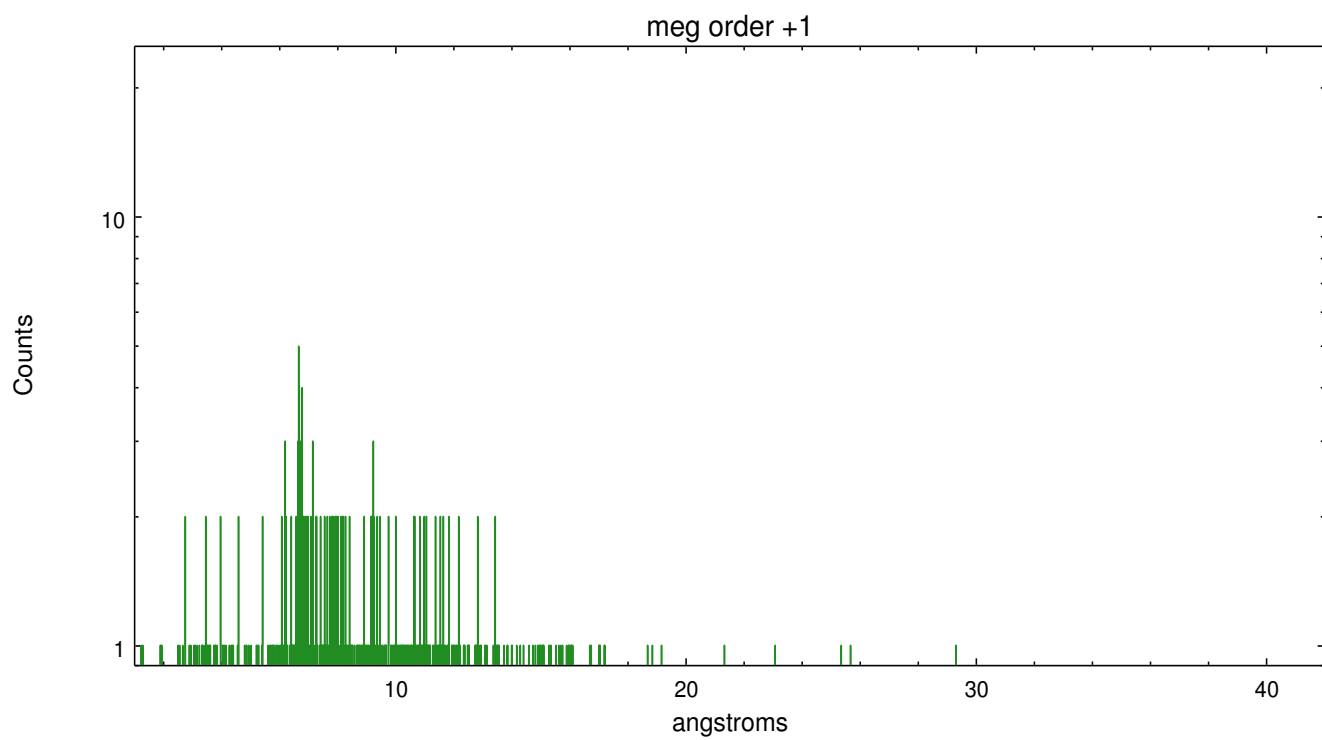
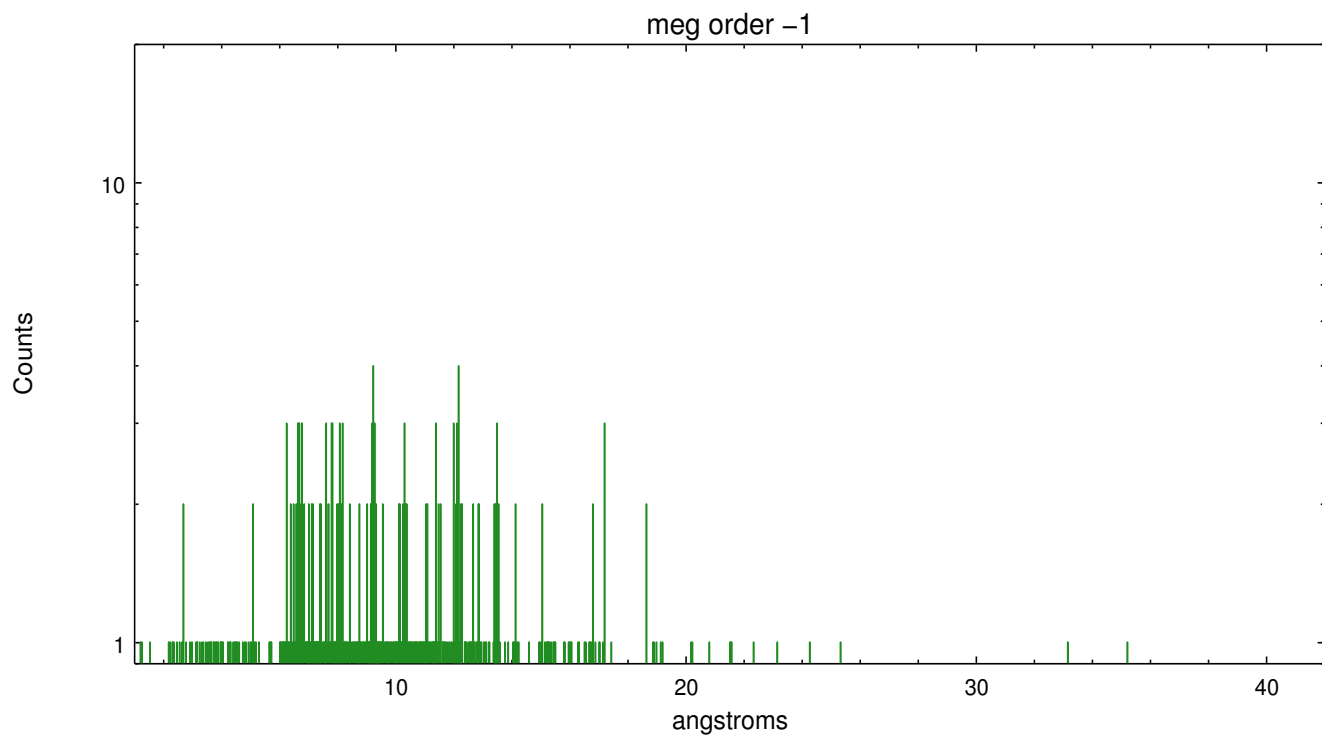
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	528	479	1145	1722	1069	500	422





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2013.01.17
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	40.17919

A.2 Comments

Warning: Multiple sources in the field may cause contamination of the primary extraction at some wavelengths. Extraction is of HD 93250.
Warning: eta Car is approximately 7 arcsec away from HD 93250. It is off-axis and the spectral arms are broad. MEG plus arm and HEG minus arm both intersect the spectral arms of the target spectrum and may affect background or possibly spectral data of the primary target.