

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 8537 - L2 Version 3
Chandra X-Ray Center

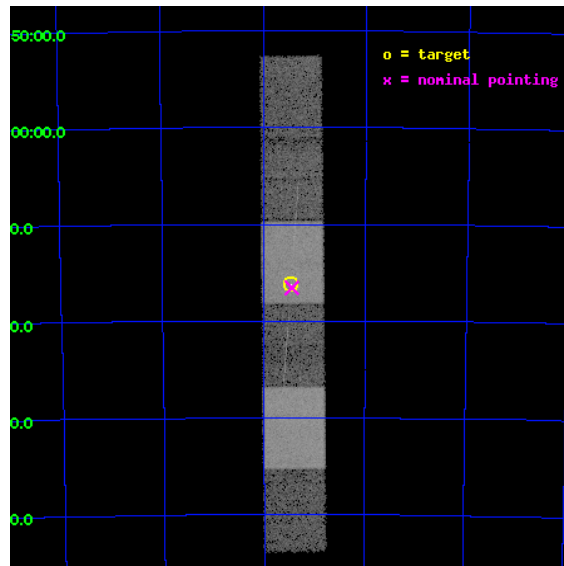
L2 Processing Date : Apr 21 2012

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1 Front

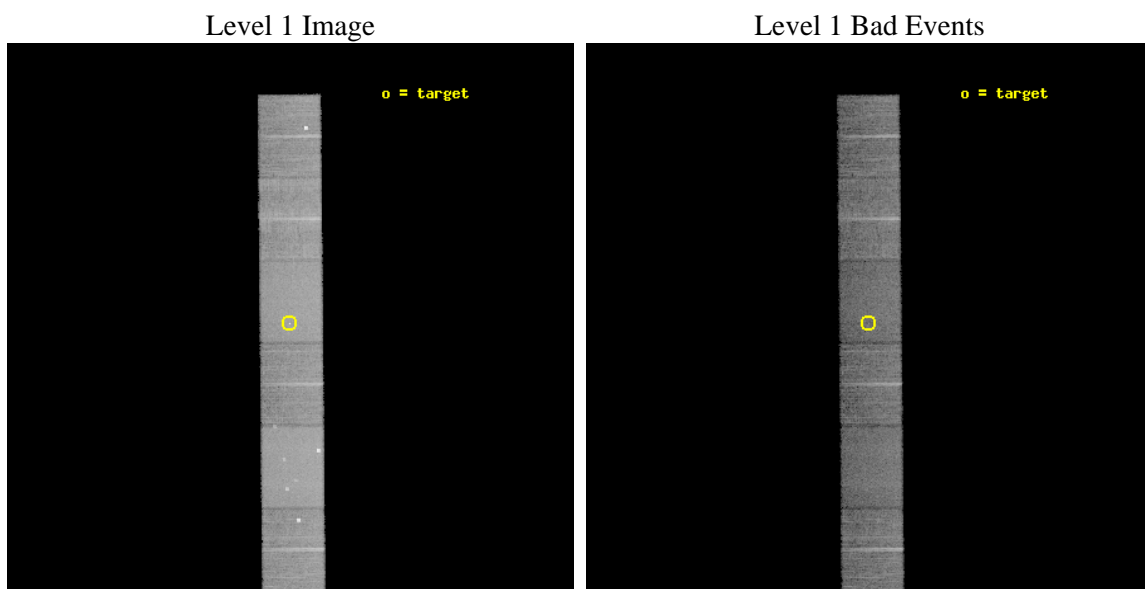
seq_num	500720	Sequence number
obs_id	8537	Observation id
title	High resolution spectral imaging of SN 1987A at 20 years: HETG observation	Proposal title
observer	Prof Claude Canizares	Principal investigator
object	Sn 1987A	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	83.866667	Observer's specified target RA [deg]
dec_targ	-69.269722	Observer's specified target Dec [deg]
ra_nom	83.861996427828	Nominal RA [deg]
dec_nom	-69.275991728812	Nominal Dec [deg]
roll_nom	269.45225368399	Nominal Roll [deg]
revision	3	Processing version of data
ontime	12940.0	Sum of GTIs [s]
livetime	12731.007776343	Livetime [s]
ontime4	12934.918089271	Sum of GTIs [s]
ontime5	12940.0	Sum of GTIs [s]
ontime6	12940.0	Sum of GTIs [s]
ontime7	12940.0	Sum of GTIs [s]
ontime8	12940.0	Sum of GTIs [s]
ontime9	12940.0	Sum of GTIs [s]
l2events	153473	Number of level 2 events



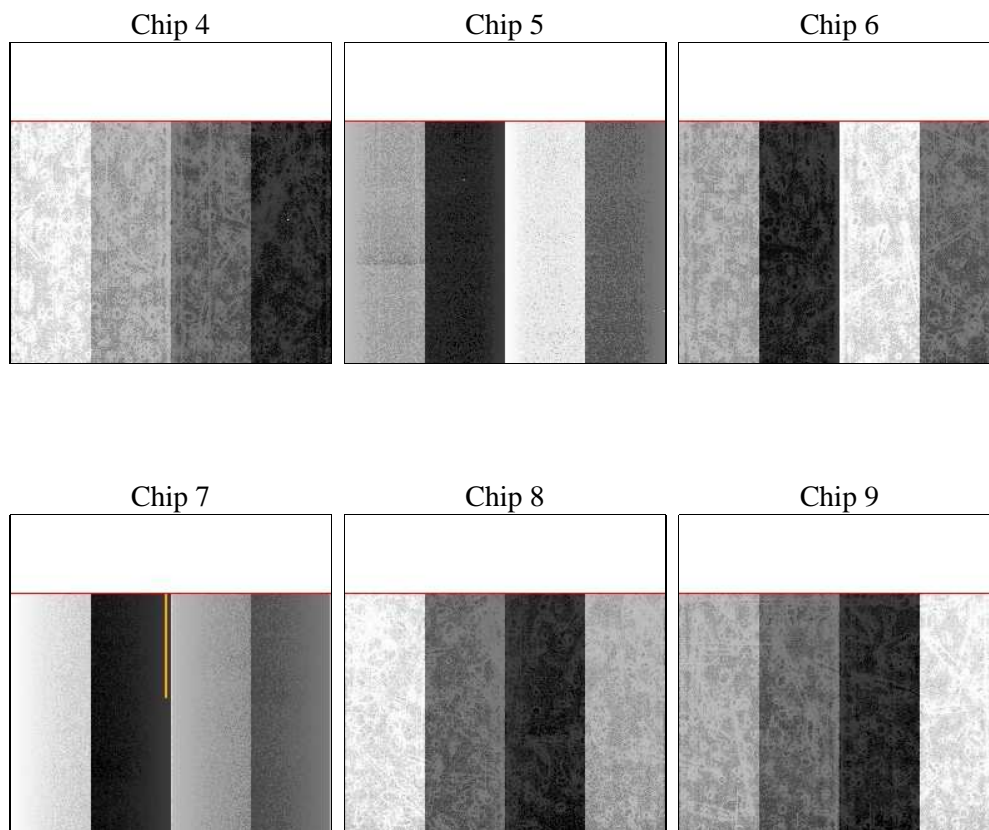
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	12800.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	12940.0	Sum of GTIs [s]
caldsver	4.4.9	 	ontime4	12934.918089271	Sum of GTIs [s]
date	2012-04-21T13:32:17	Date and time of file creation	ontime5	12940.0	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	12940.0	Sum of GTIs [s]
			ontime7	12940.0	Sum of GTIs [s]
			ontime8	12940.0	Sum of GTIs [s]
			ontime9	12940.0	Sum of GTIs [s]
			l1events	672314	Number of level 1 events

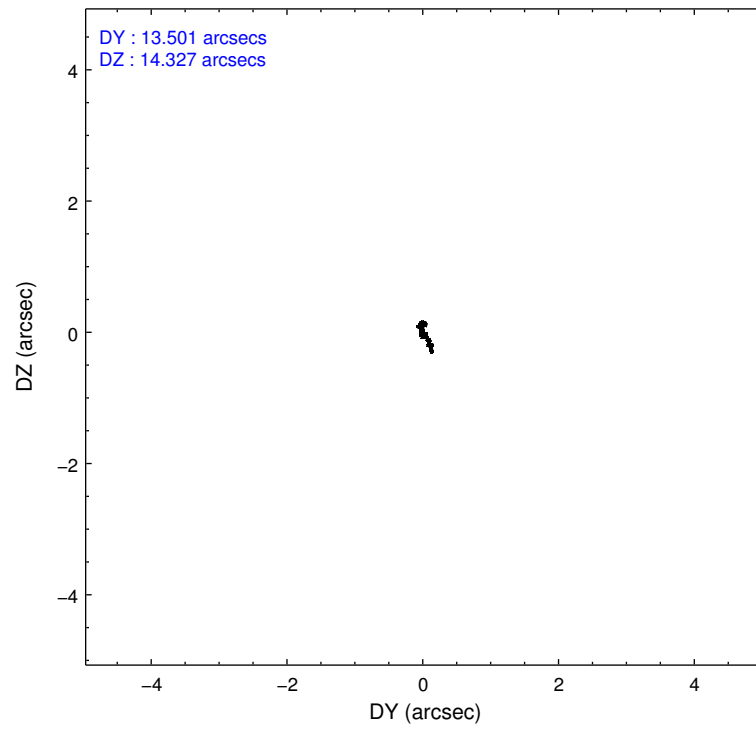
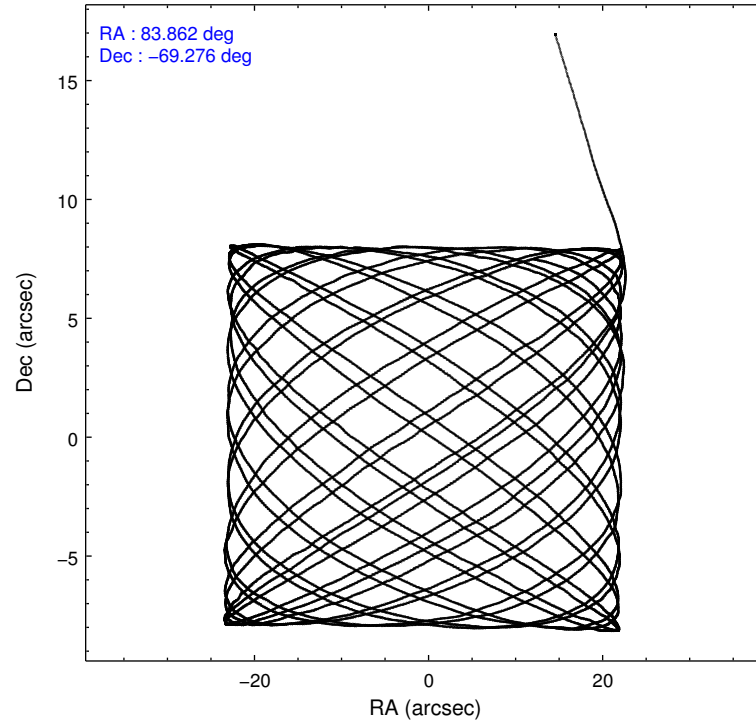
2.1.4 Events

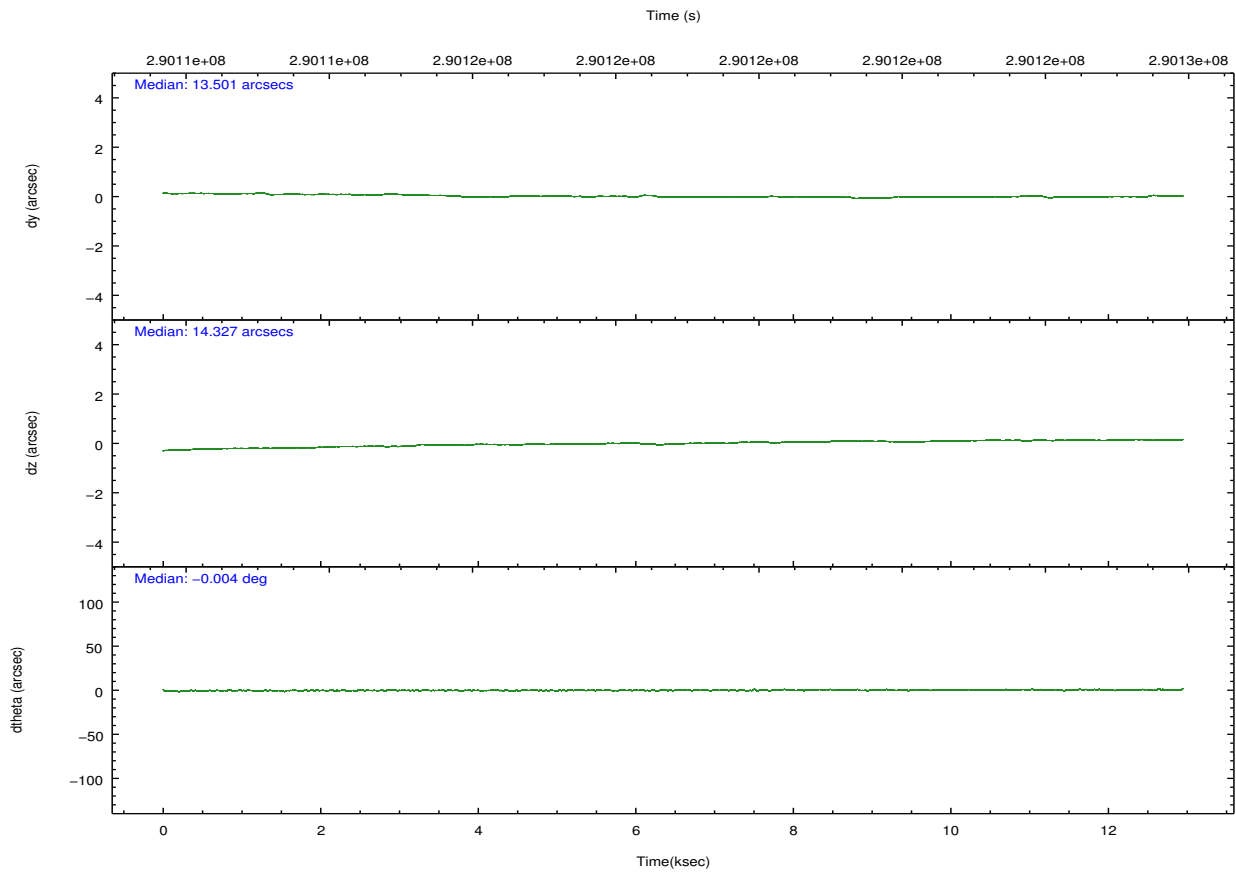
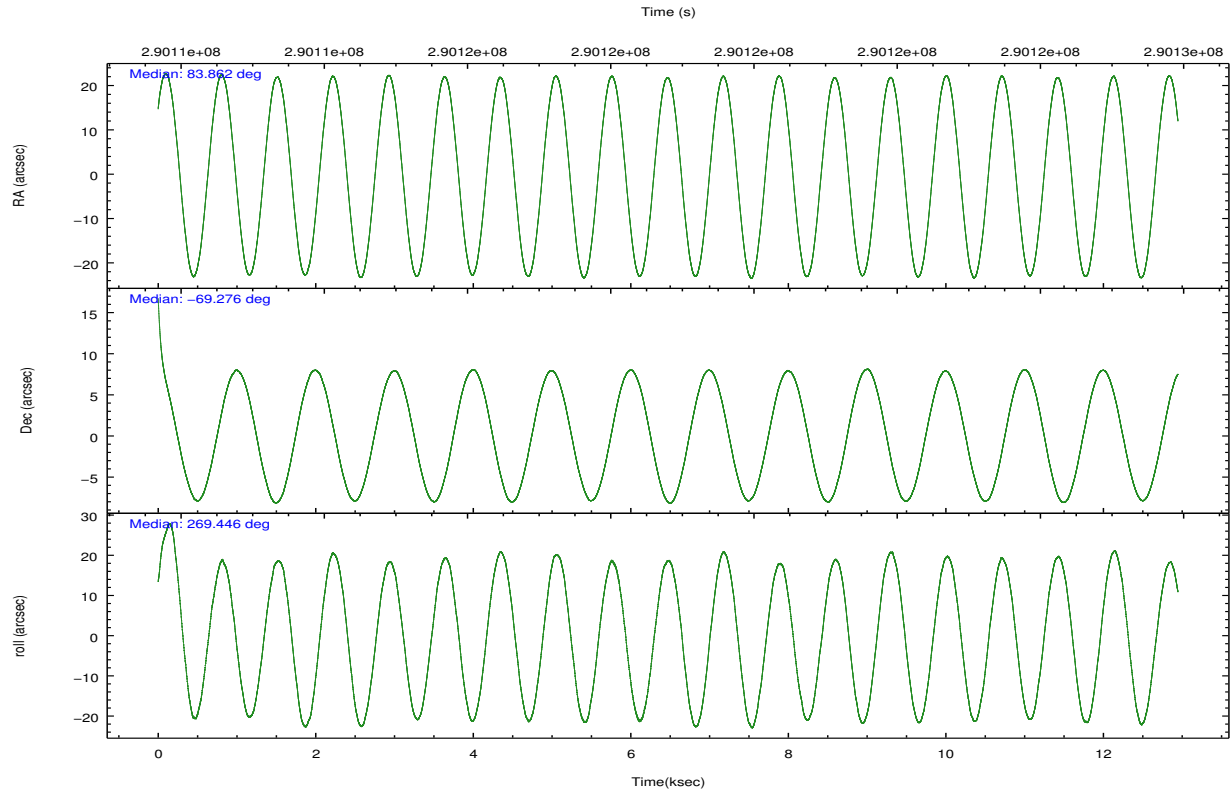
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	103559	140832	90598	125144	116098	96083	grade 0 events	8666	9350	4881	5004	8696	9616
rejected events	88395	73935	78865	71509	89494	79662		8%	6%	5%	3%	7%	10%
rejected %	85%	52%	87%	57%	77%	82%	grade 1 events	83	276	43	113	71	78
								0%	0%	0%	0%	0%	0%
							grade 2 events	2434	18948	2465	11149	5826	2300
								2%	13%	2%	8%	5%	2%
							grade 3 events	1189	2742	1105	4879	2731	1175
								1%	1%	1%	3%	2%	1%
							grade 4 events	1123	2830	1124	4780	2513	1118
								1%	2%	1%	3%	2%	1%
							grade 5 events	3930	10429	4052	11684	5481	4450
								3%	7%	4%	9%	4%	4%
							grade 6 events	1826	33416	2213	28154	6950	2295
								1%	23%	2%	22%	5%	2%
							grade 7 events	84308	62841	74715	59381	83830	75051
								81%	44%	82%	47%	72%	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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	83.823043	83.8619964278281	Subarray requested	CUSTOM	CUSTOM
[deg] Pointing Dec	-69.252366	-69.27599172881193	Subarray start row	1	1
[deg] Pointing Roll	269.259203	269.4522536839881	Subarray row count	774	774
[mm] SIM focus pos	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
[mm] SIM defocus	0	0.001444936568705701	[s] Primary exposure time	0.000000	2.5
[mm] SIM translation stage pos	-187.132523	-187.1254020033014			
[mm] SIM translation stage offset	-3	-3.007120579706367			
[s] Observation start time (MET)	290112466.184000	290111334.1703			
Observation start date	2007-03-12T18:46:41	2007-03-12T18:28:54			
[s] Observation end time (MET)	290125266.184000	290125807.17099			
Observation end date	2007-03-12T22:20:01	2007-03-12T22:30:07			
Read mode	TIMED	TIMED			

2.3 Aspect



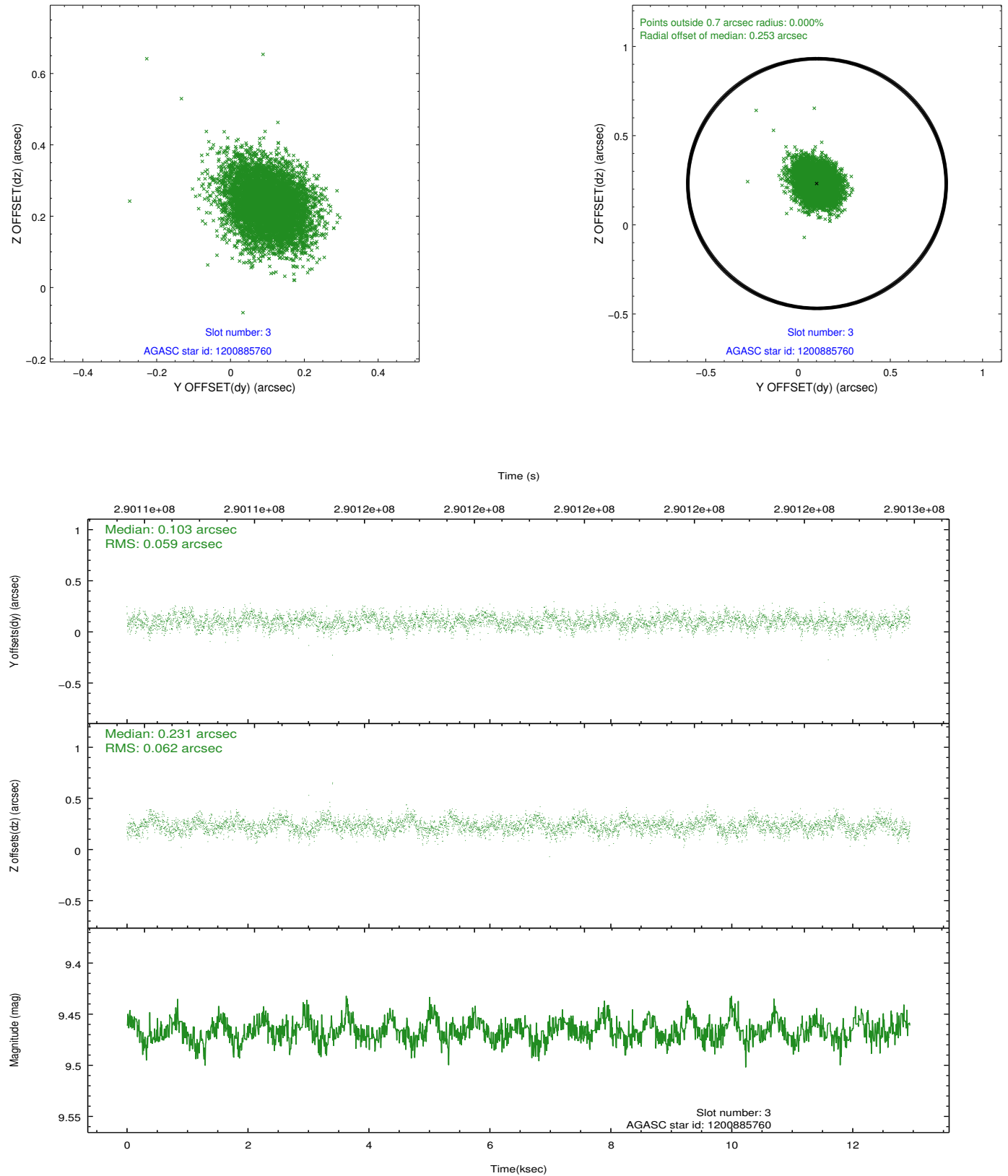


Slot Statistics

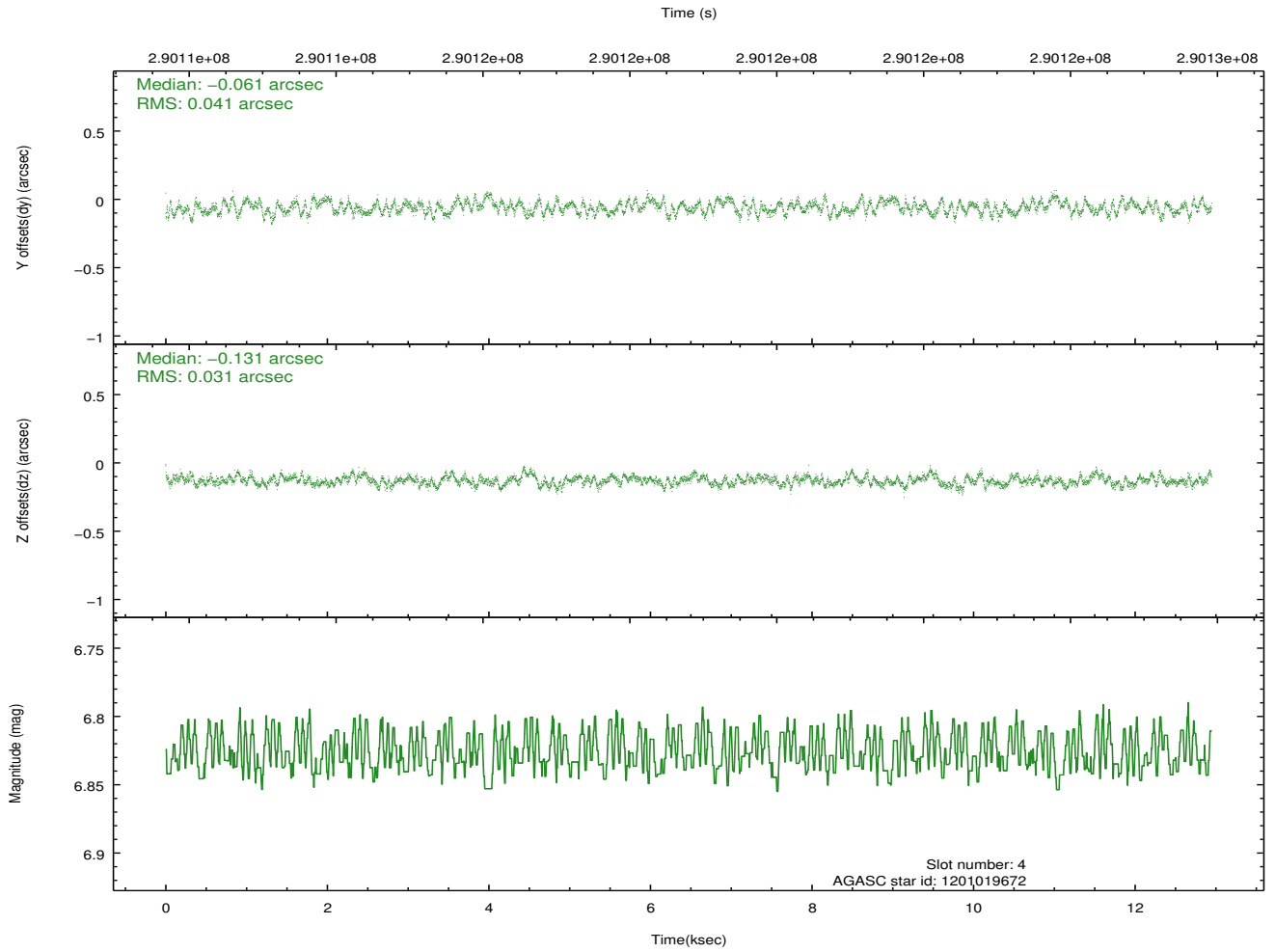
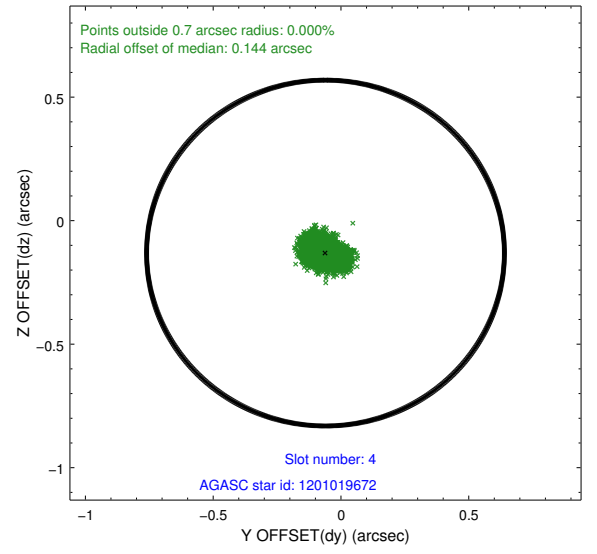
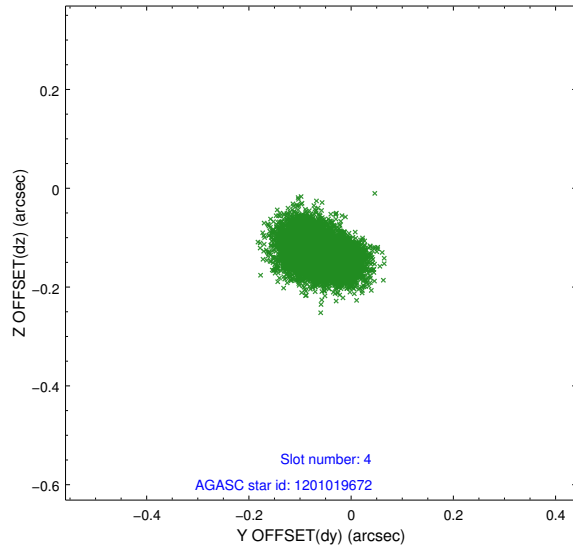
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.09	3158	-0.088	-0.098	0.009	0.014	0.000000	0.000000	-766.35	-1797.85
1	FID	ACIS-S-4	7.18	3158	0.221	0.069	0.007	0.012	0.000000	0.000000	2147.08	110.36
2	FID	ACIS-S-5	7.23	3157	-0.164	0.038	0.008	0.013	0.000000	0.000000	-1818.77	104.46
3	GUIDE	1200885760	9.47	6309	0.103	0.231	0.092	0.148	83.723637	-68.777667	-1706.65	-151.31
4	GUIDE	1201019672	6.83	6317	-0.061	-0.131	0.056	0.088	85.312192	-68.770187	-1737.67	1918.69
5	GUIDE	1201020040	8.61	6313	0.073	-0.165	0.077	0.120	85.379163	-68.879396	-1343.38	2001.42
6	GUIDE	1201540776	9.58	6310	-0.003	0.008	0.116	0.186	85.107945	-69.858480	2177.75	1621.81
7	GUIDE	1201410616	9.32	6306	-0.109	0.056	0.100	0.165	82.516808	-69.784406	1954.11	-1599.07

2.4 Star Slots

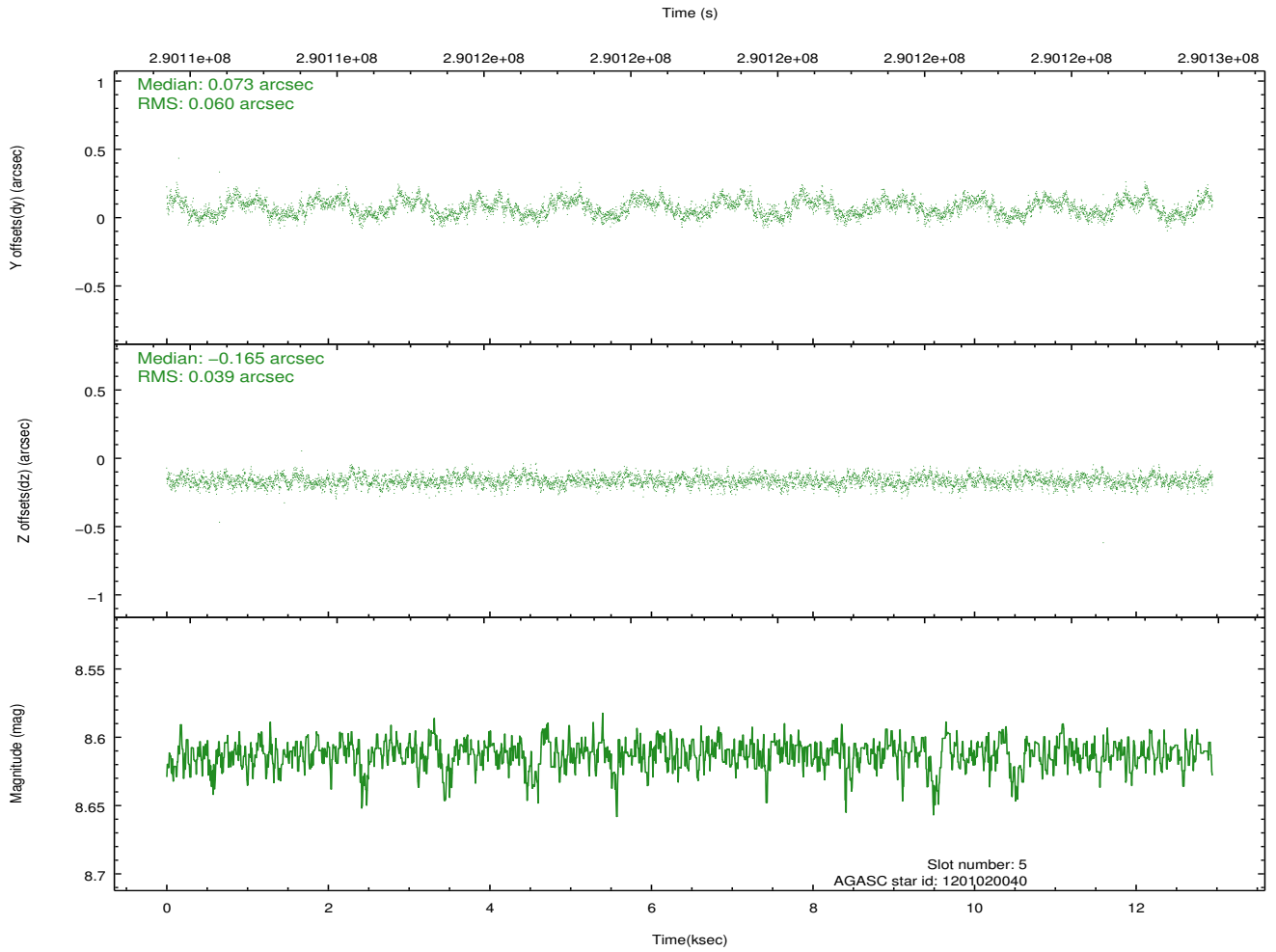
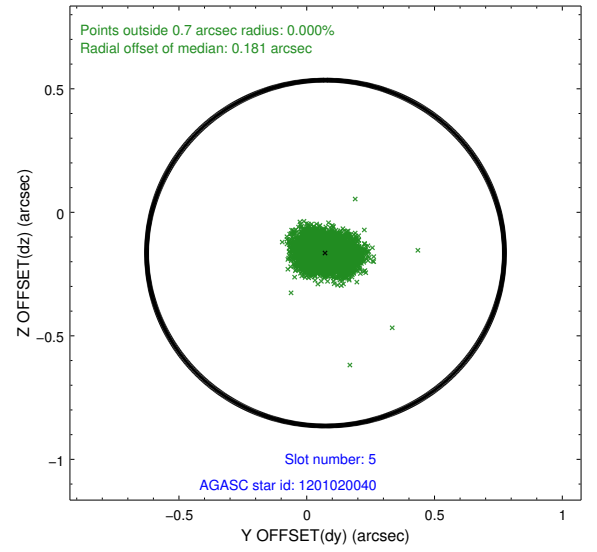
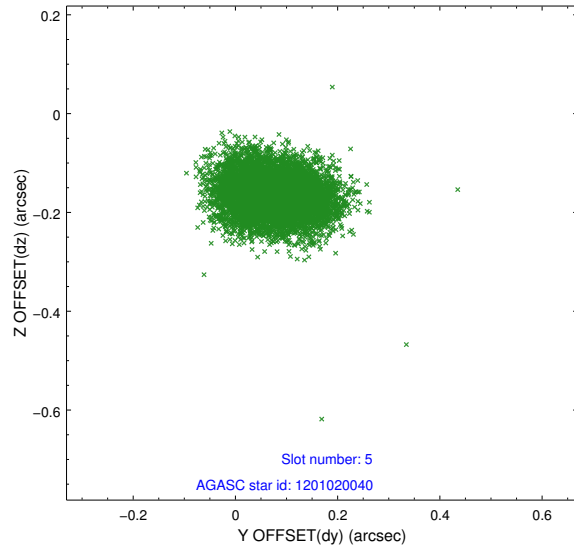
2.4.1 Slot 3



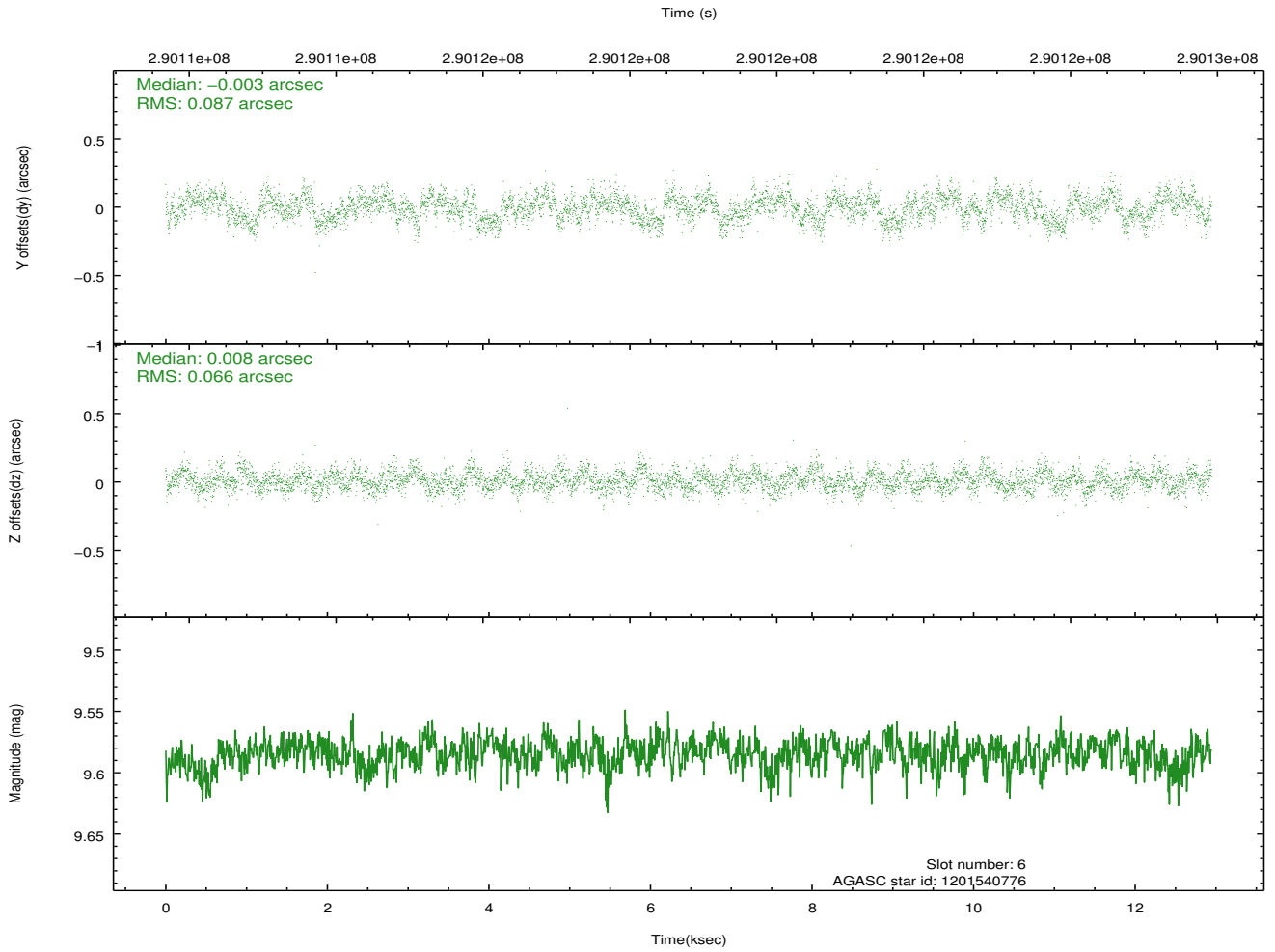
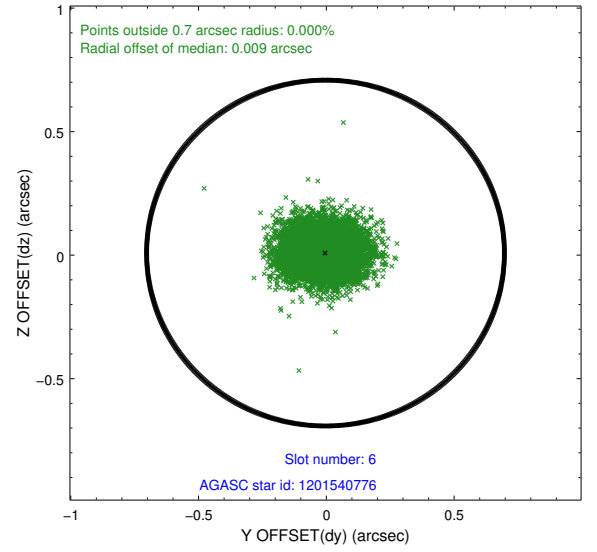
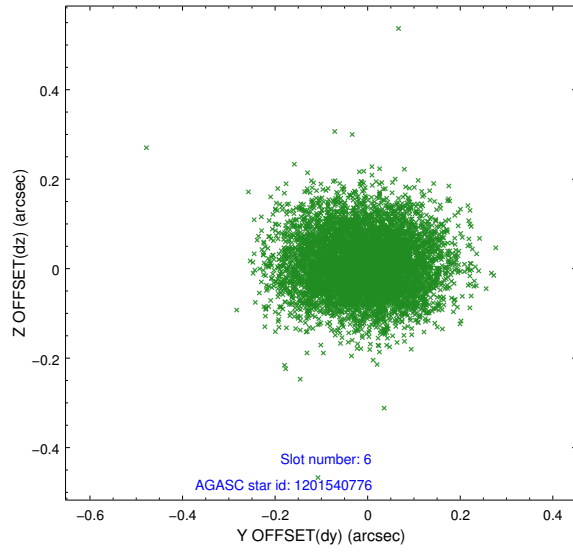
2.4.2 Slot 4



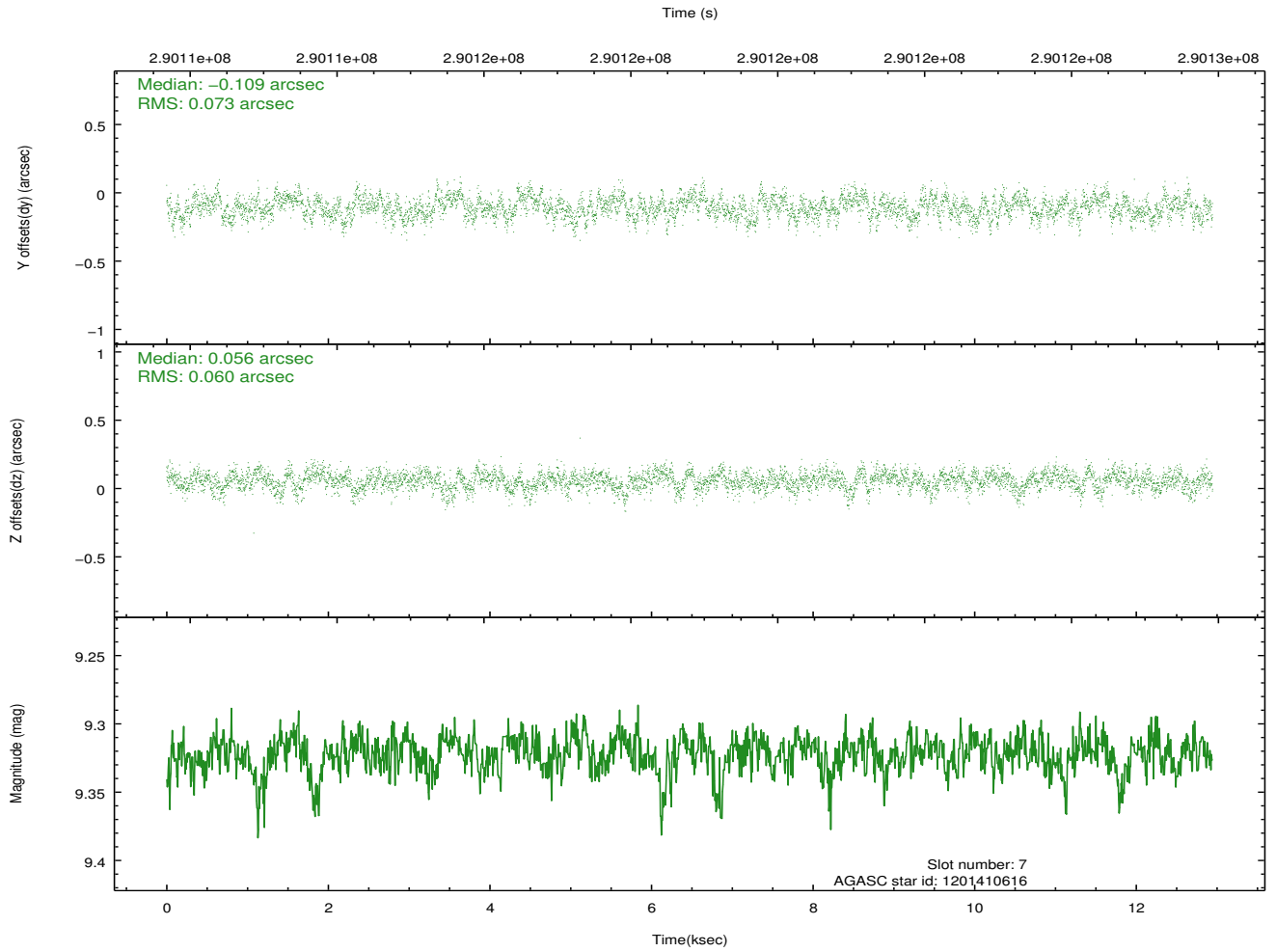
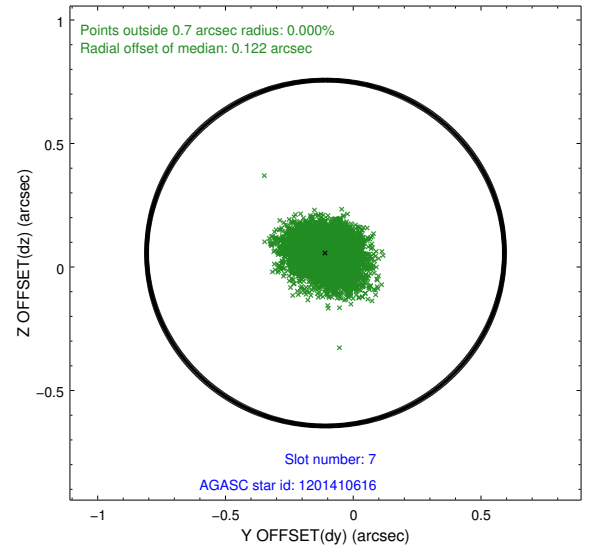
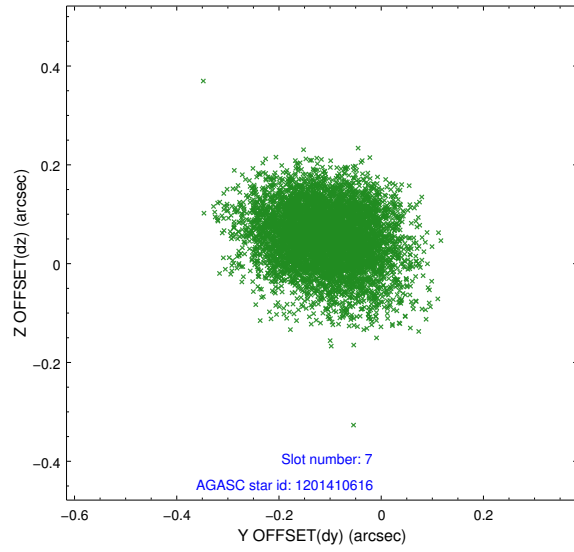
2.4.3 Slot 5



2.4.4 Slot 6

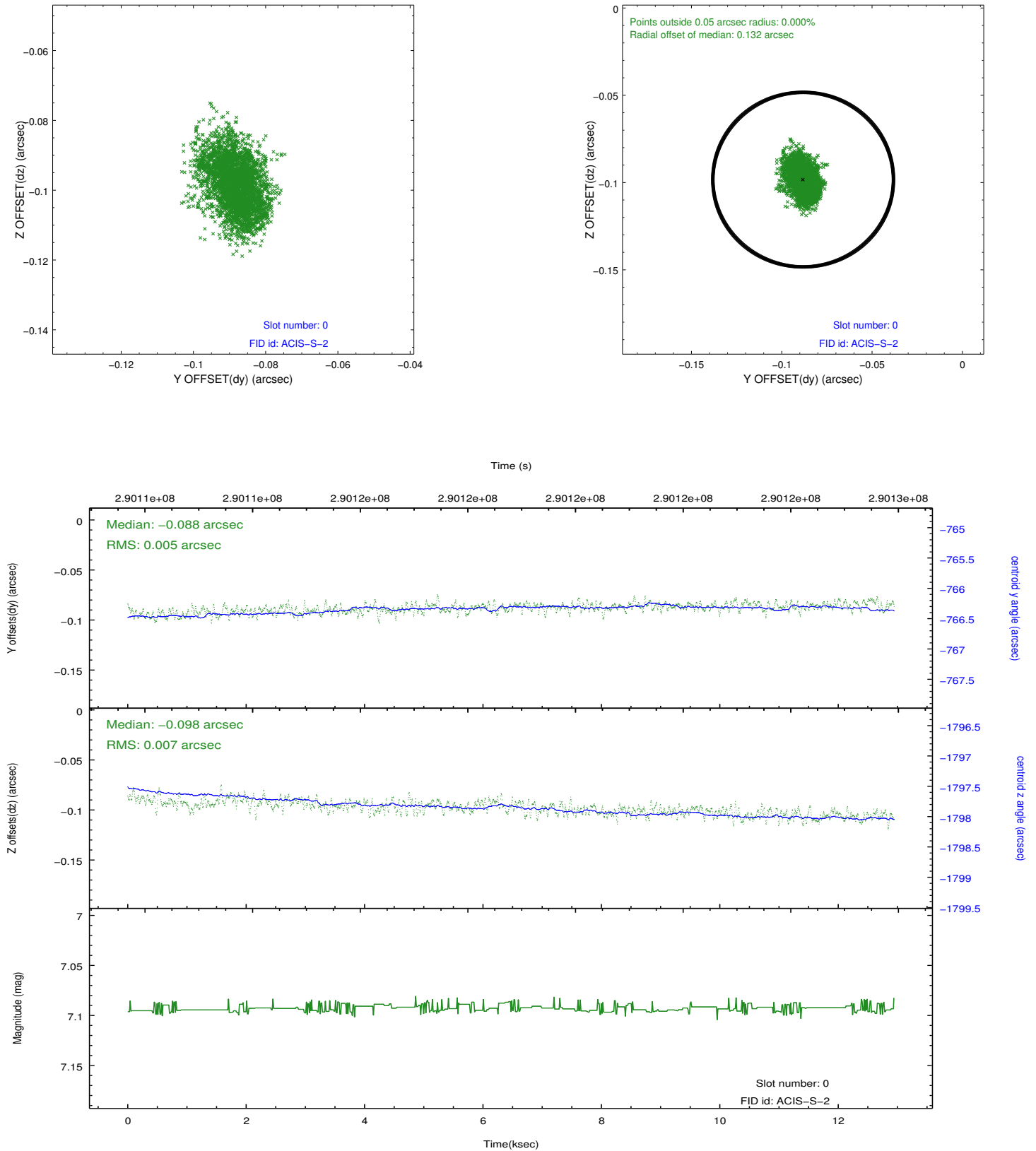


2.4.5 Slot 7

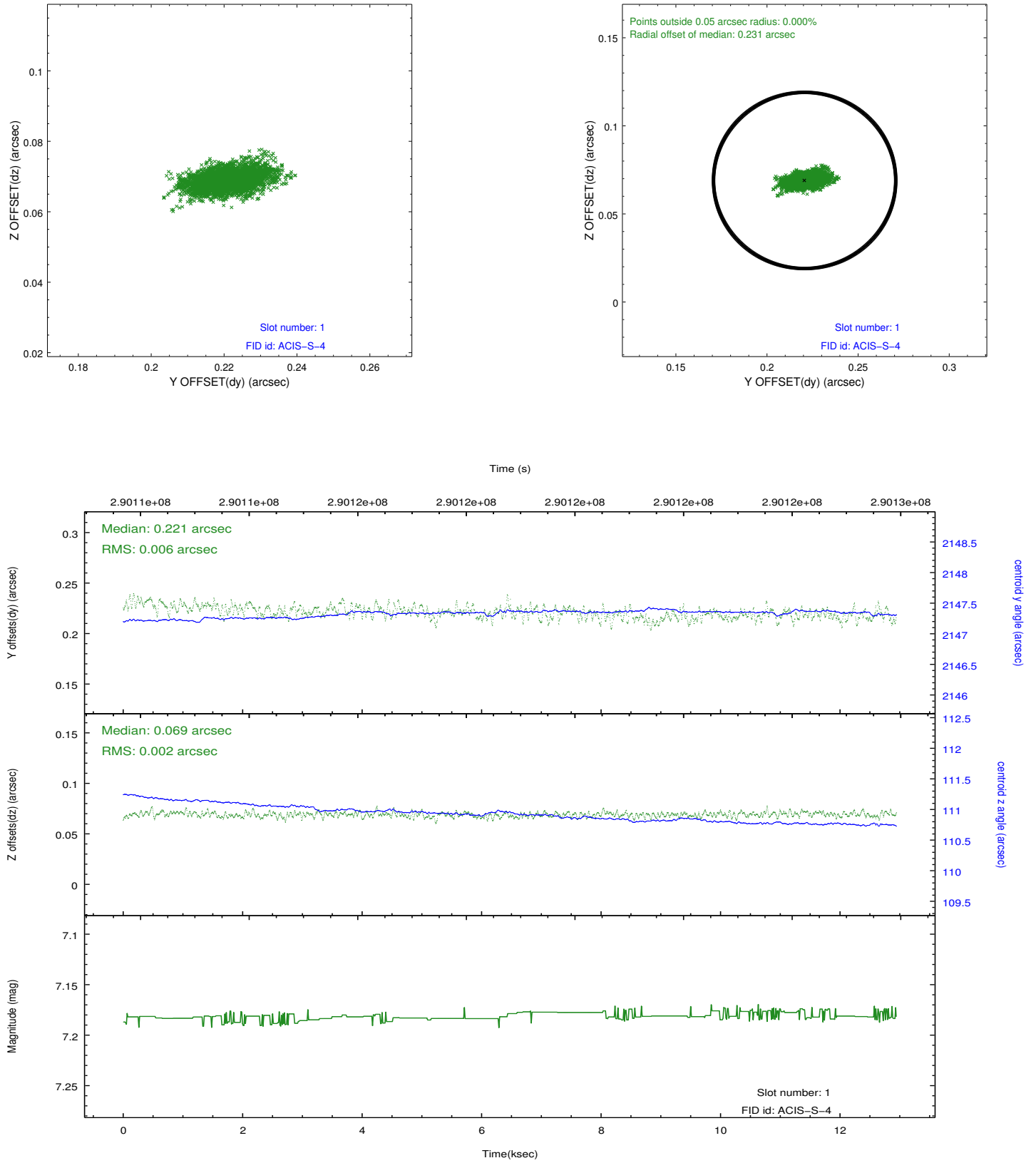


2.5 FID Slots

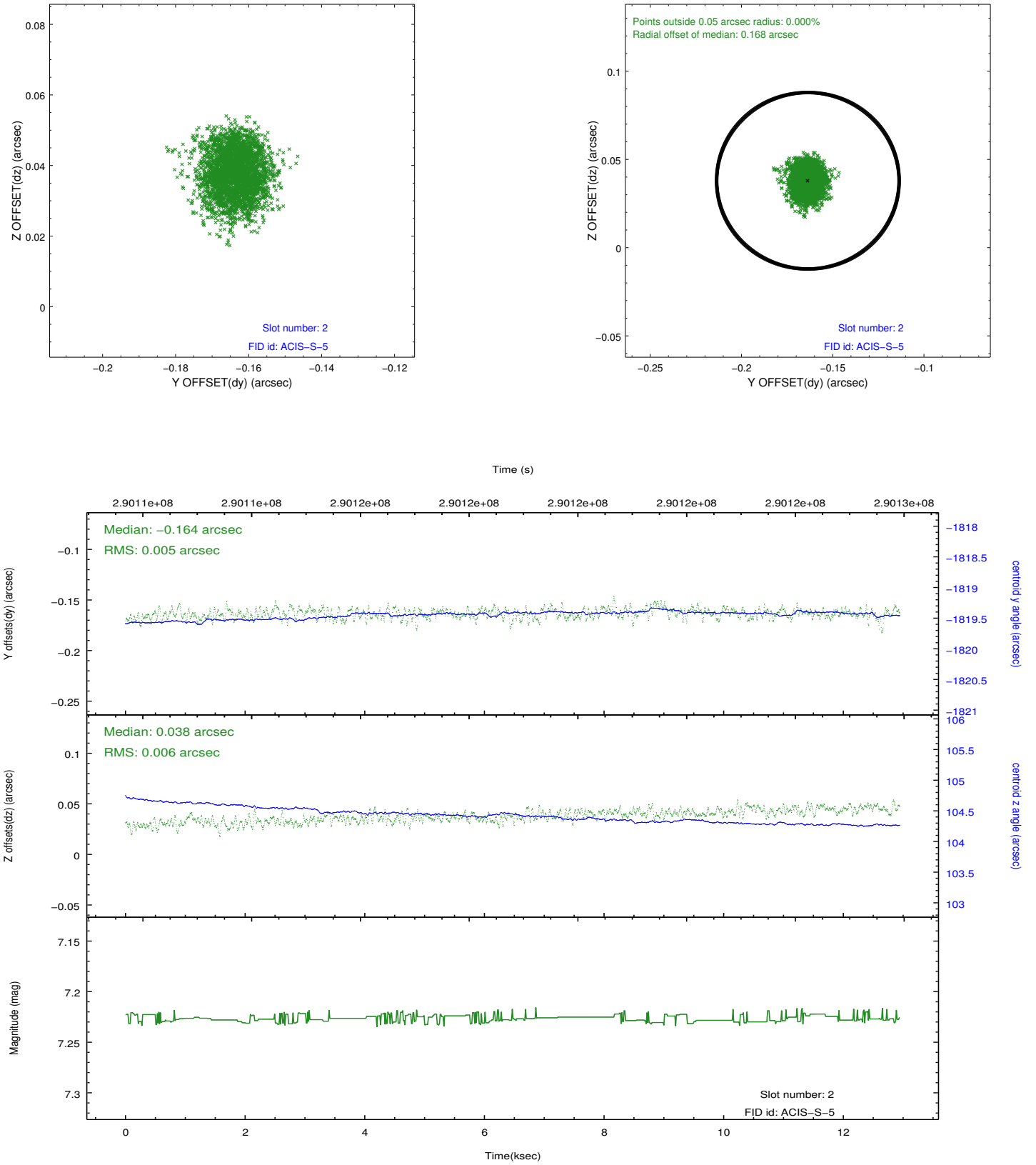
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

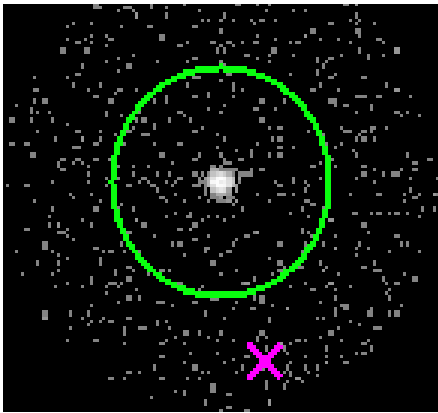


3 Gratings

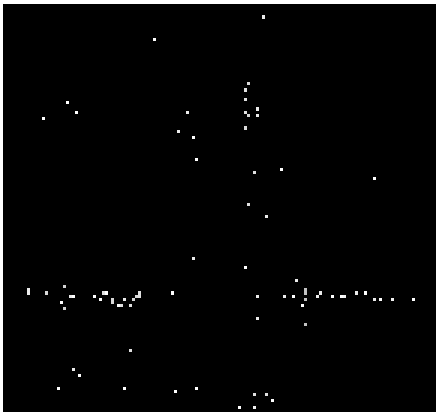
3.1 HEG Arm



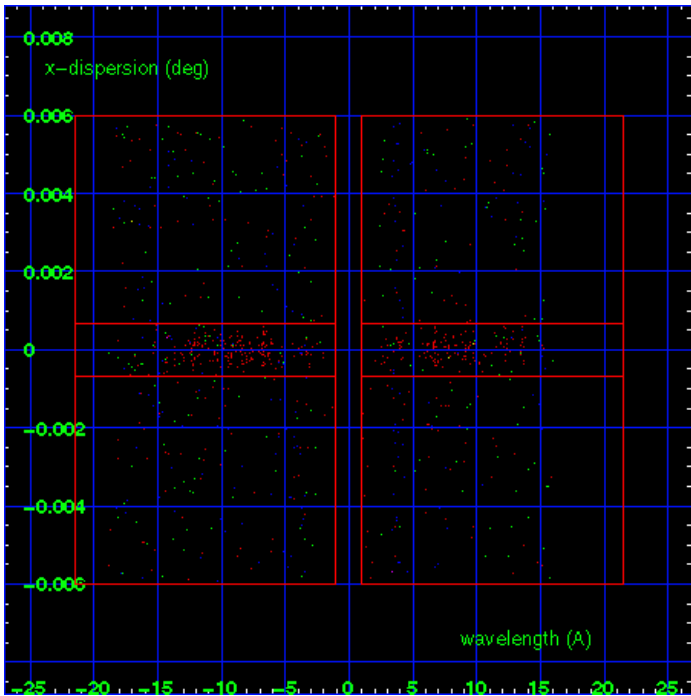
HEG Order Sort 123



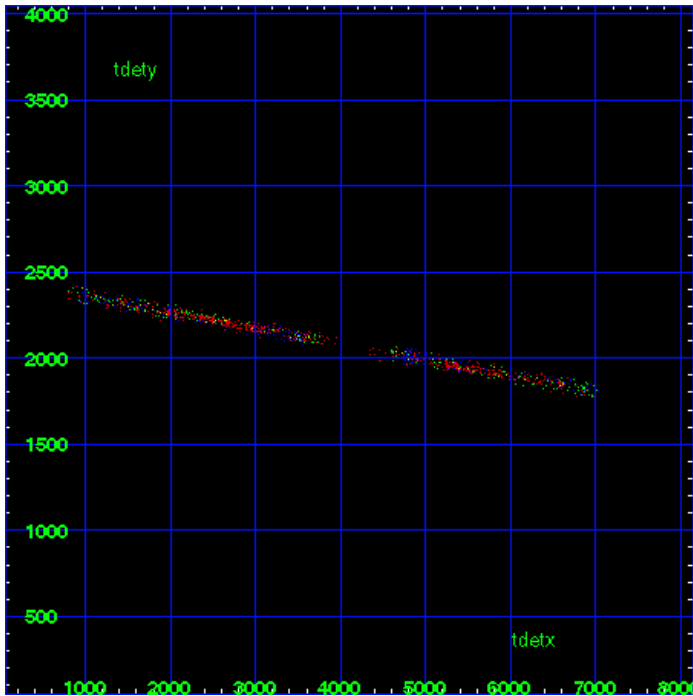
HEG Zero Order



HEG Order Sort ALL

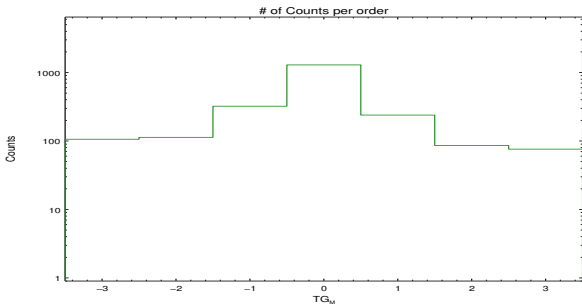


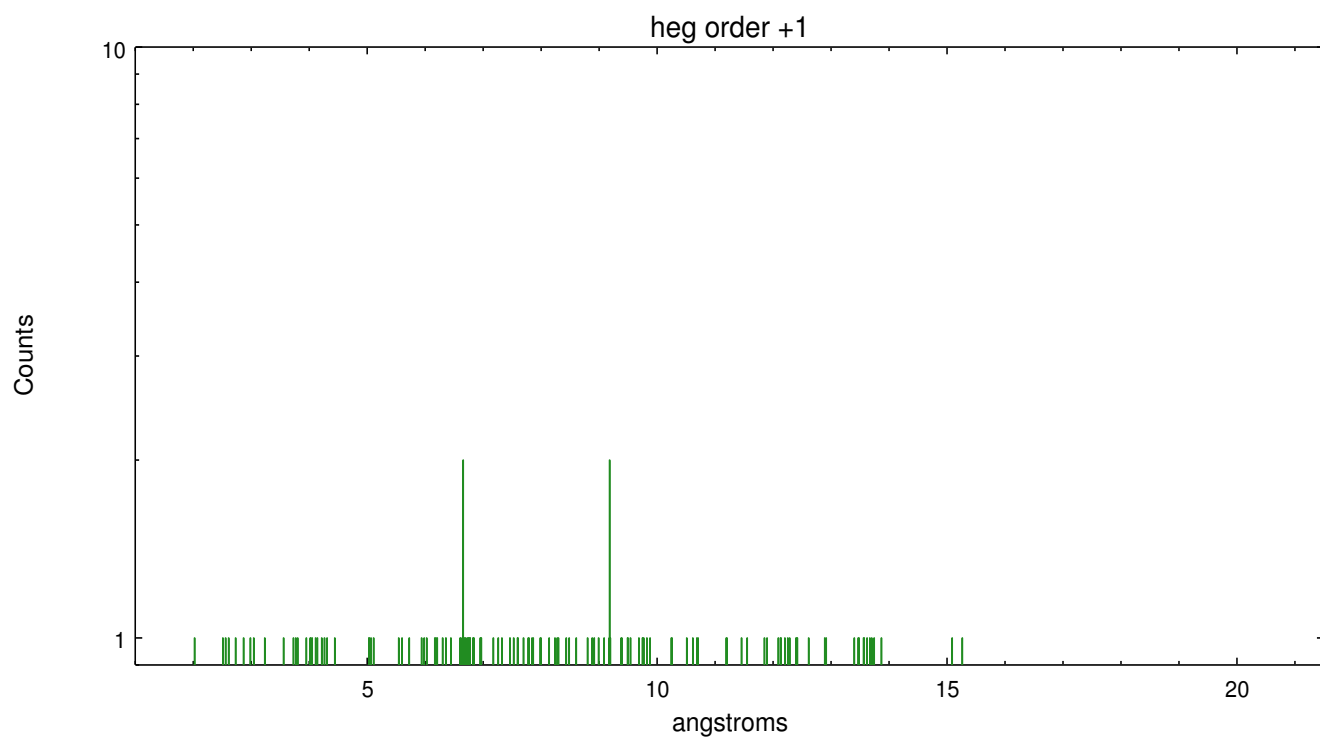
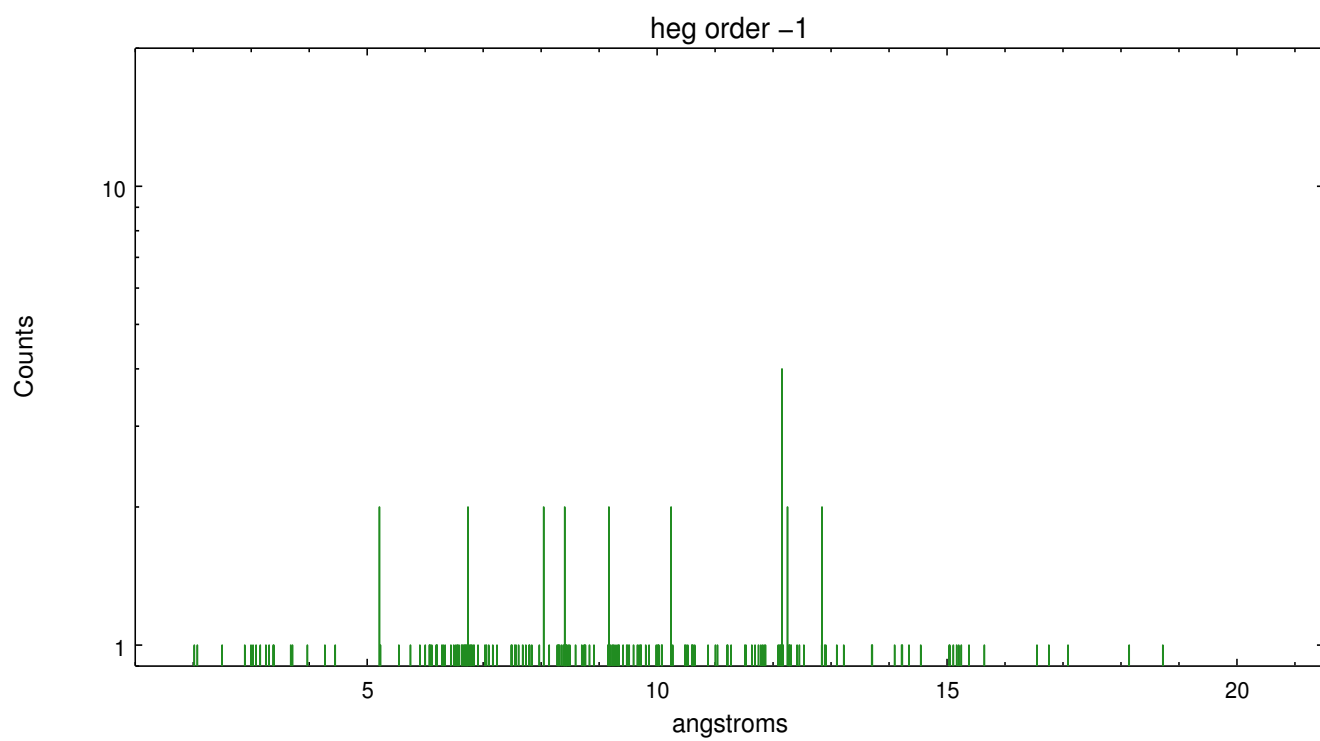
Spot Image HEG



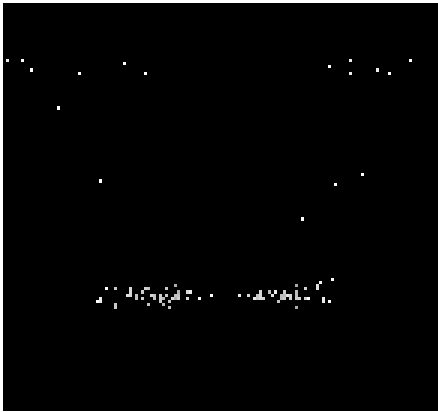
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	106	113	322	1292	239	86	76

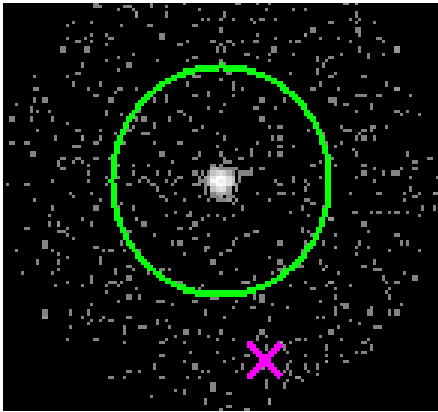




3.2 MEG Arm



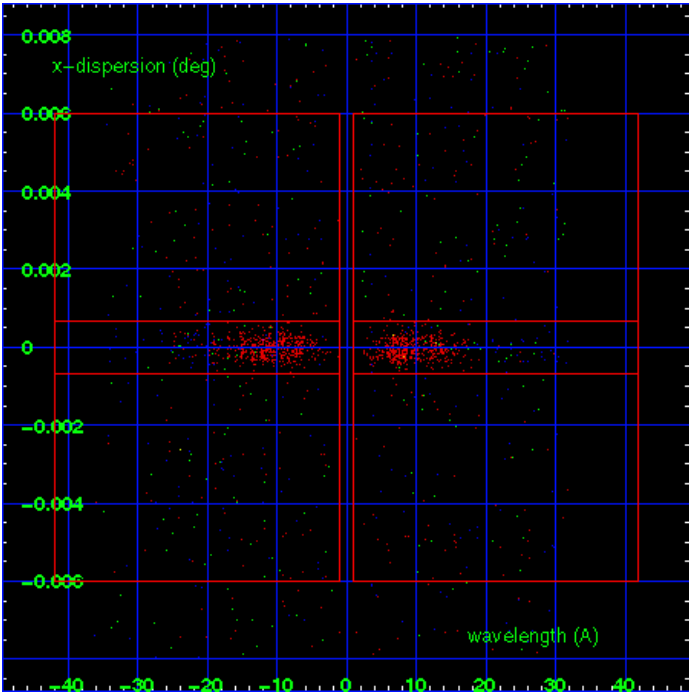
MEG Order Sort 123



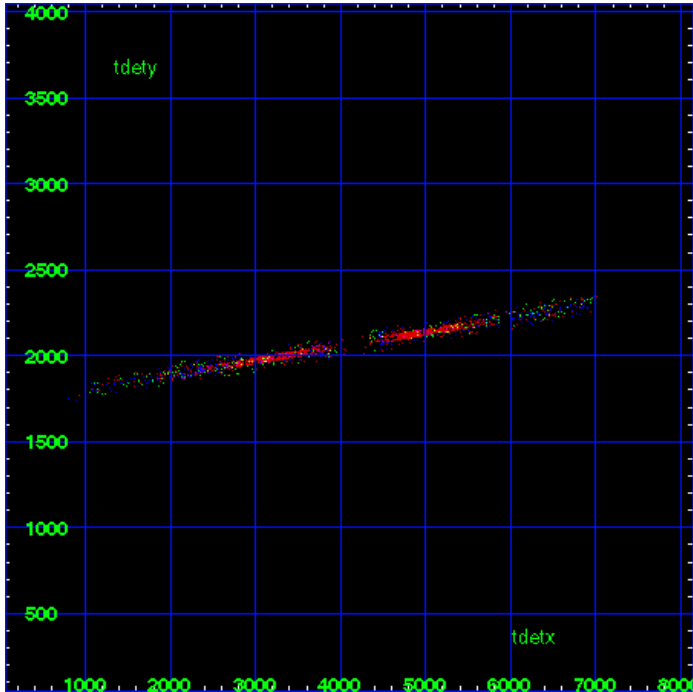
MEG Zero Order



MEG Order Sort ALL

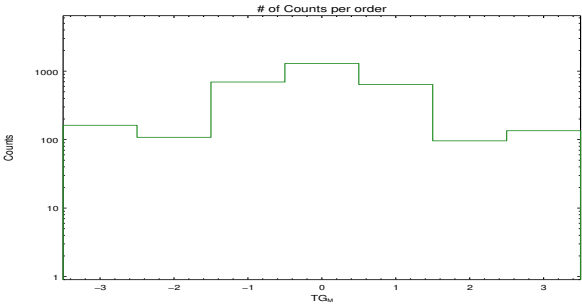


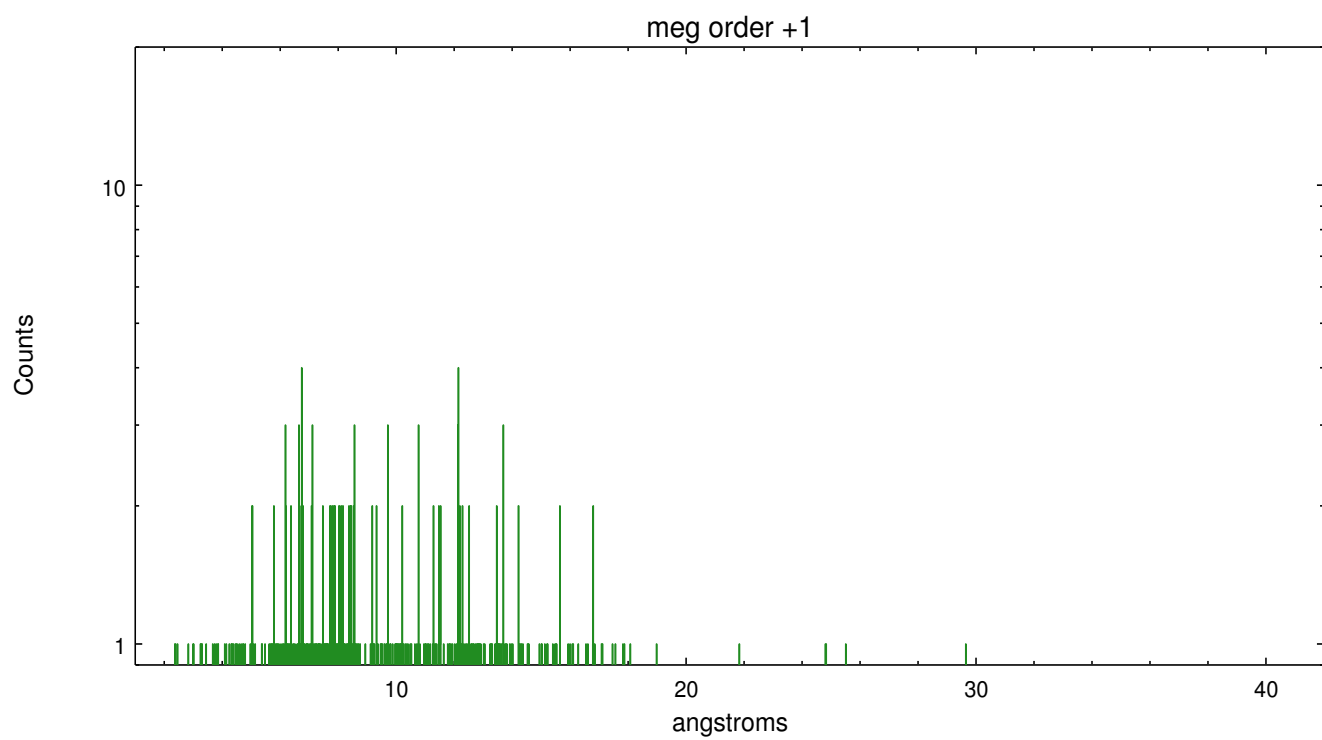
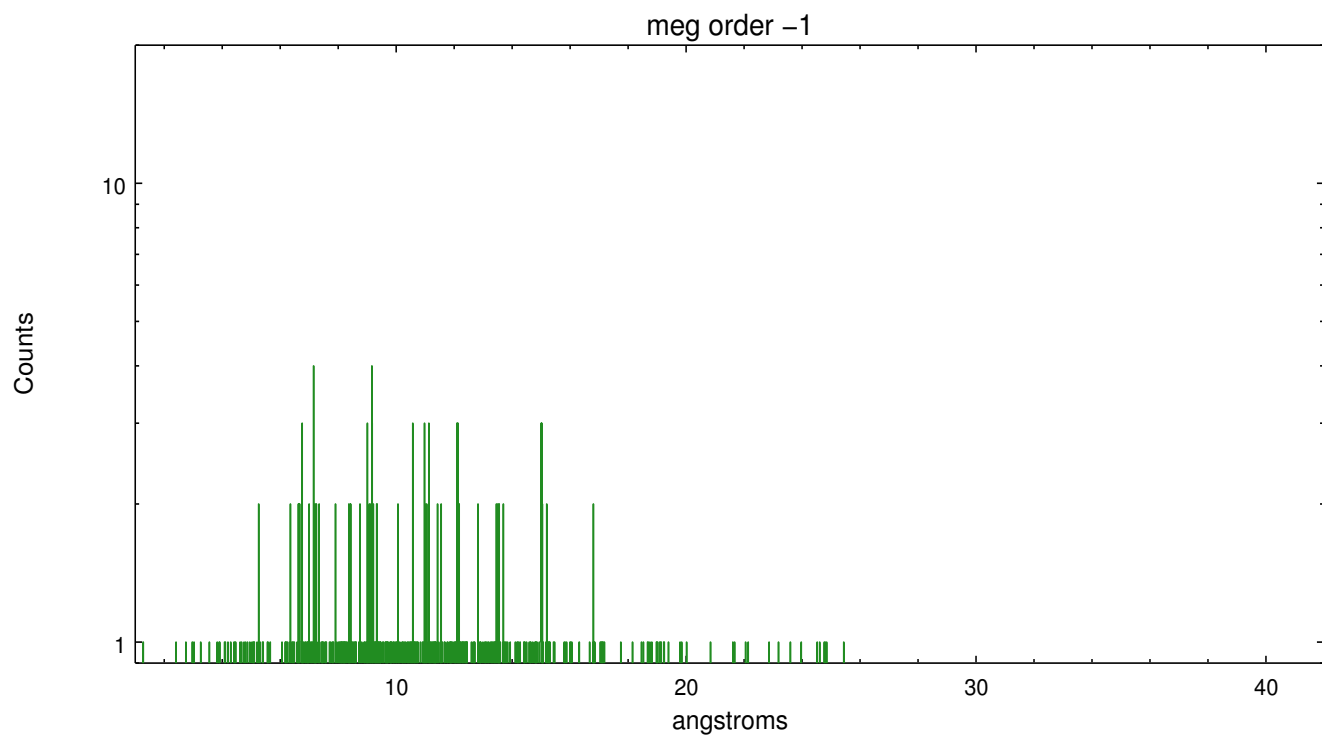
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	162	108	694	1292	637	96	135





A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2012.04.30
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	12.94

A.2 Comments