

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 8546 - L2 Version 3
Chandra X-Ray Center

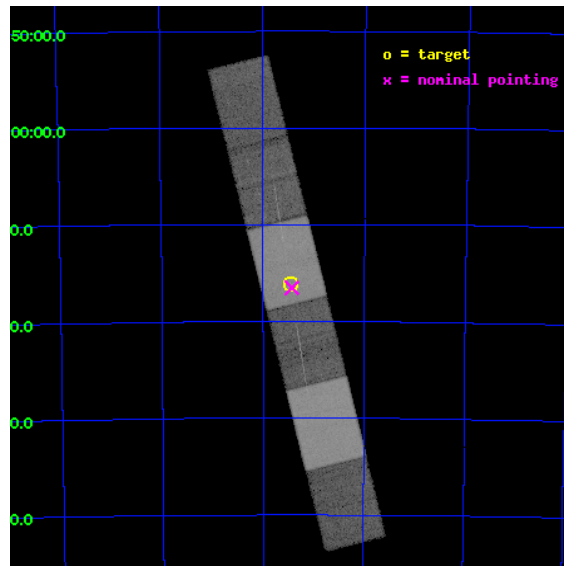
L2 Processing Date : Apr 22 2012

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1 Front

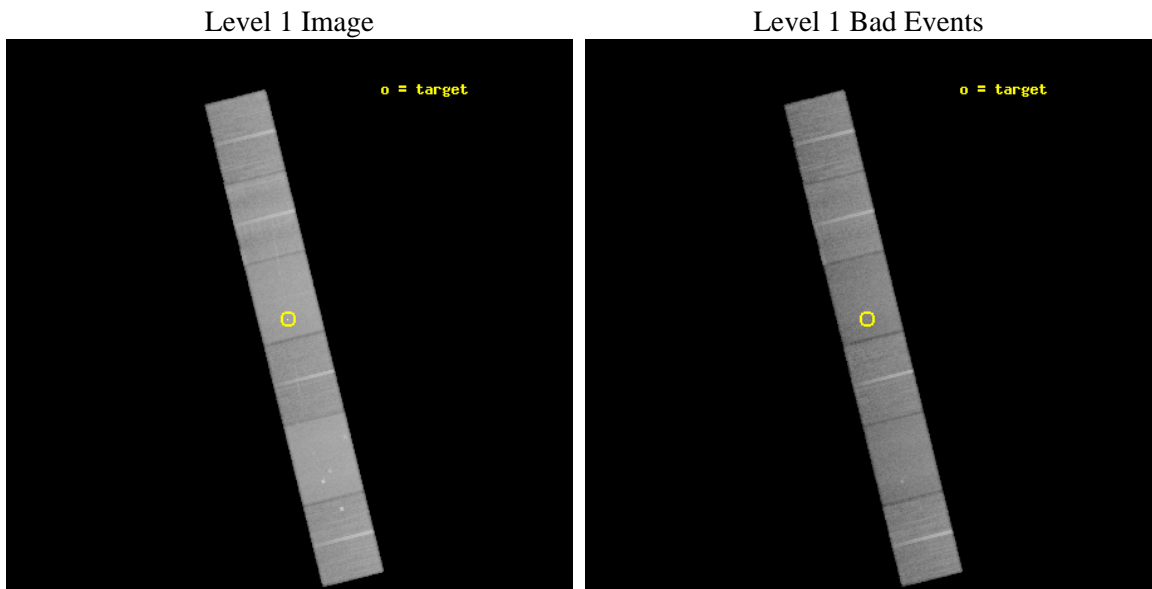
seq_num	500720	Sequence number
obs_id	8546	Observation id
title	High resolution spectral imaging of SN 1987A at 20 years: HETG observation	Proposal title
observer	Prof Claude Canizares	Principal investigator
object	Sn 1987A	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	83.866667	Observer's specified target RA [deg]
dec_targ	-69.269722	Observer's specified target Dec [deg]
ra_nom	83.857923672554	Nominal RA [deg]
dec_nom	-69.275432023355	Nominal Dec [deg]
roll_nom	256.04843993084	Nominal Roll [deg]
revision	3	Processing version of data
ontime	31145.0	Sum of GTIs [s]
livetime	30641.981236029	Livetime [s]
ontime4	31145.0	Sum of GTIs [s]
ontime5	31145.0	Sum of GTIs [s]
ontime6	31145.0	Sum of GTIs [s]
ontime7	31145.0	Sum of GTIs [s]
ontime8	31139.91795963	Sum of GTIs [s]
ontime9	31145.0	Sum of GTIs [s]
l2events	375270	Number of level 2 events



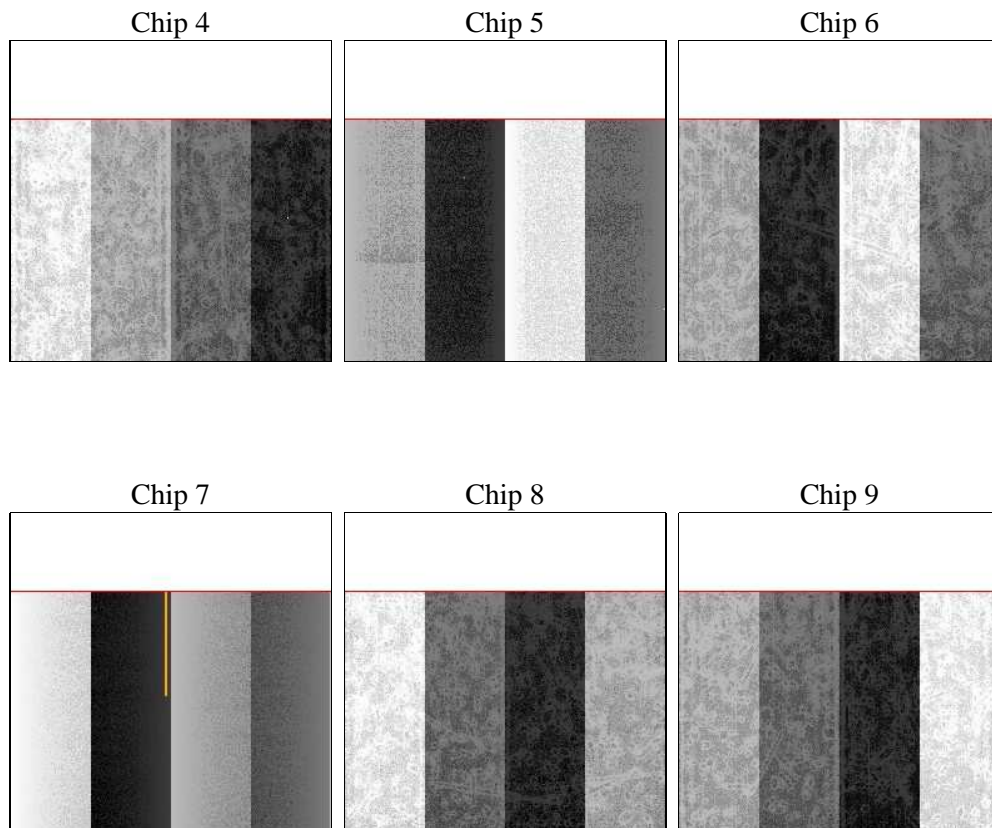
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	31000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	31145.0	Sum of GTIs [s]
caldbver	4.4.9	 	ontime4	31145.0	Sum of GTIs [s]
date	2012-04-22T20:33:07	Date and time of file creation	ontime5	31145.0	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	31145.0	Sum of GTIs [s]
			ontime7	31145.0	Sum of GTIs [s]
			ontime8	31139.91795963	Sum of GTIs [s]
			ontime9	31145.0	Sum of GTIs [s]
			l1events	1614320	Number of level 1 events

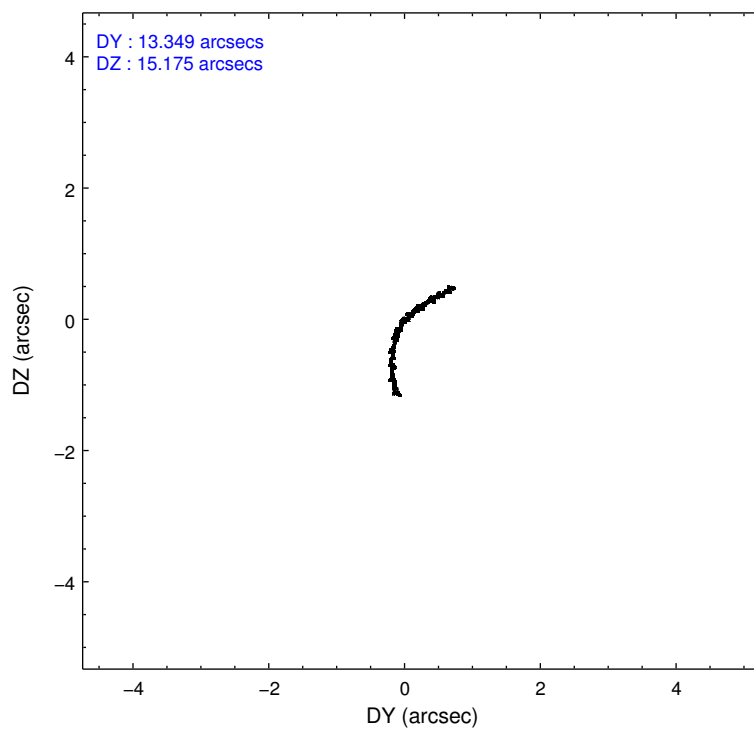
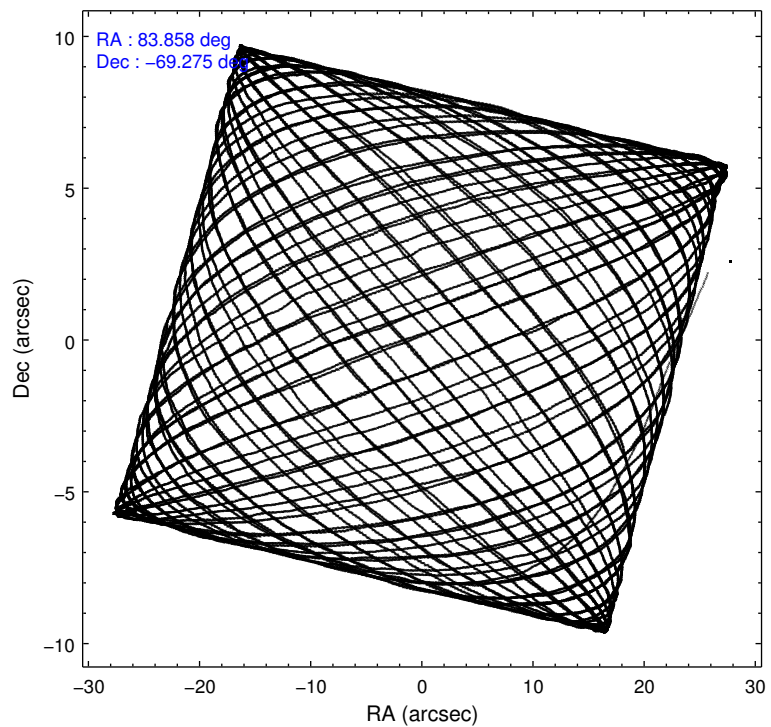
2.1.4 Events

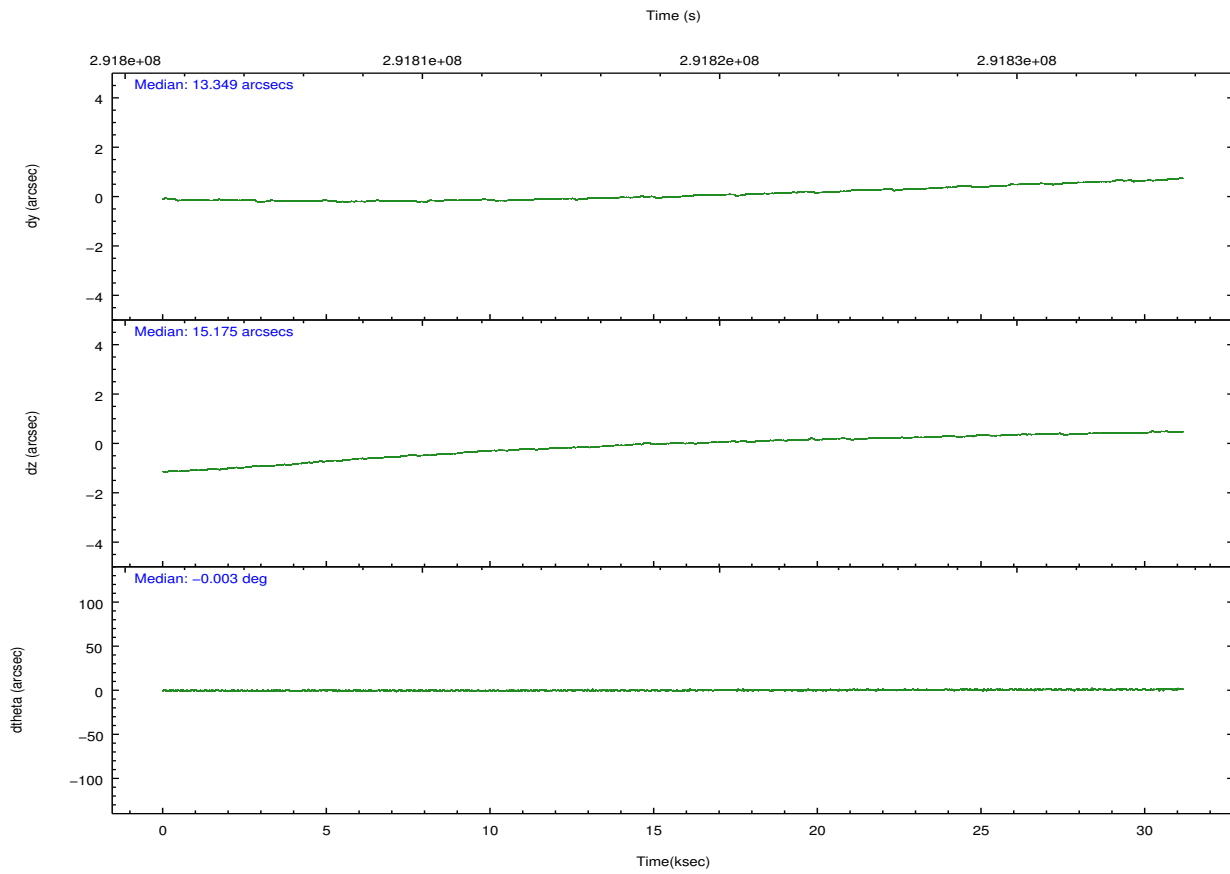
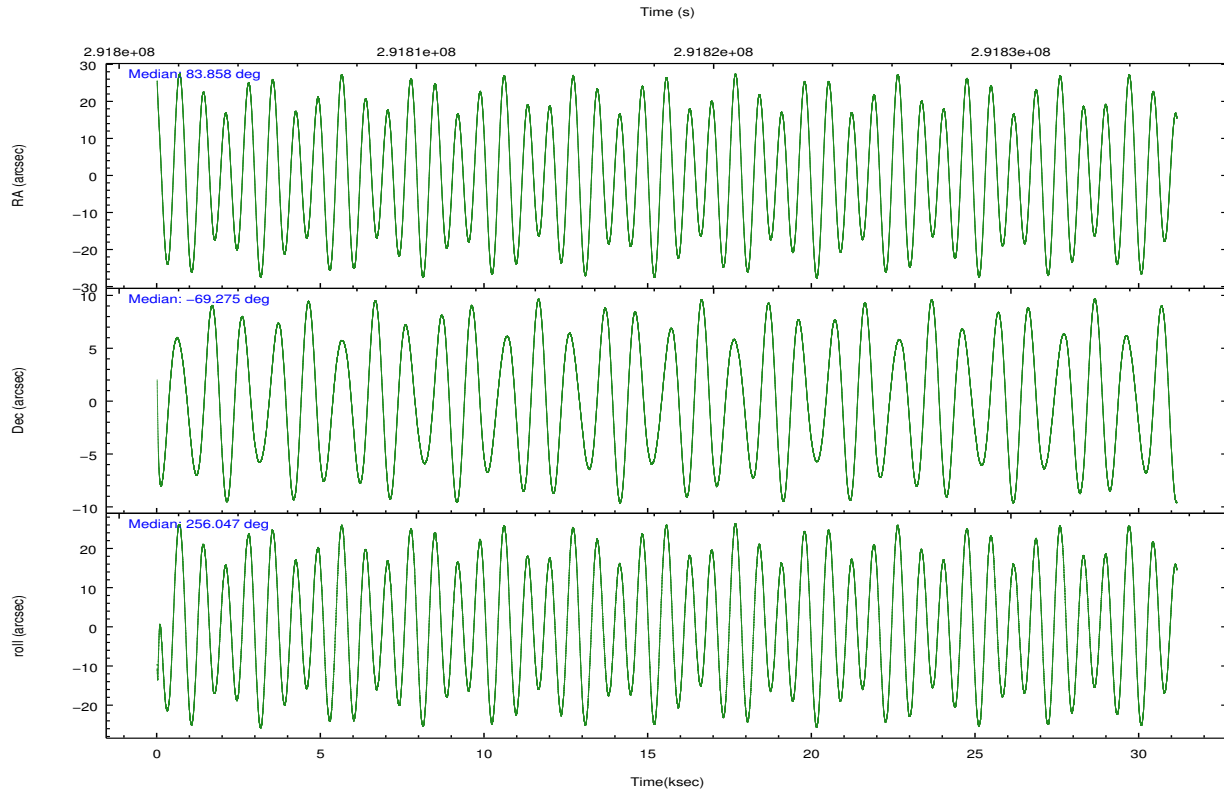
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	247365	333783	224491	304168	285117	219396	grade 0 events	14845	13455	12065	11995	21303	11448
rejected events	216216	180791	195724	173648	218993	191935		6%	4%	5%	3%	7%	5%
rejected %	87%	54%	87%	57%	76%	87%	grade 1 events	216	900	114	286	166	107
								0%	0%	0%	0%	0%	0%
							grade 2 events	6233	45657	5878	26821	14405	5373
								2%	13%	2%	8%	5%	2%
							grade 3 events	2892	6948	2817	11916	6936	2852
								1%	2%	1%	3%	2%	1%
							grade 4 events	2876	6761	2736	11723	6622	2706
								1%	2%	1%	3%	2%	1%
							grade 5 events	9838	25431	10180	28421	13538	10798
								3%	7%	4%	9%	4%	4%
							grade 6 events	4430	80804	5371	68529	17091	5178
								1%	24%	2%	22%	5%	2%
							grade 7 events	206035	153827	185330	144477	205056	180934
								83%	46%	82%	47%	71%	82%

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	83.835586	83.85792367255425	Subarray requested	CUSTOM	CUSTOM
[deg] Pointing Dec	-69.249242	-69.27543202335536	Subarray start row	1	1
[deg] Pointing Roll	255.870938	256.0484399308391	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	-187.1228876879999			
[mm] SIM translation stage offset	-3	-3.009634895007935			
[s] Observation start time (MET)	291803016.184000	291802008.71326			
Observation start date	2007-04-01T08:22:31	2007-04-01T08:06:48			
[s] Observation end time (MET)	291834016.184000	291834627.28982			
Observation end date	2007-04-01T16:59:11	2007-04-01T17:10:27			
Read mode	TIMED	TIMED			

2.3 Aspect



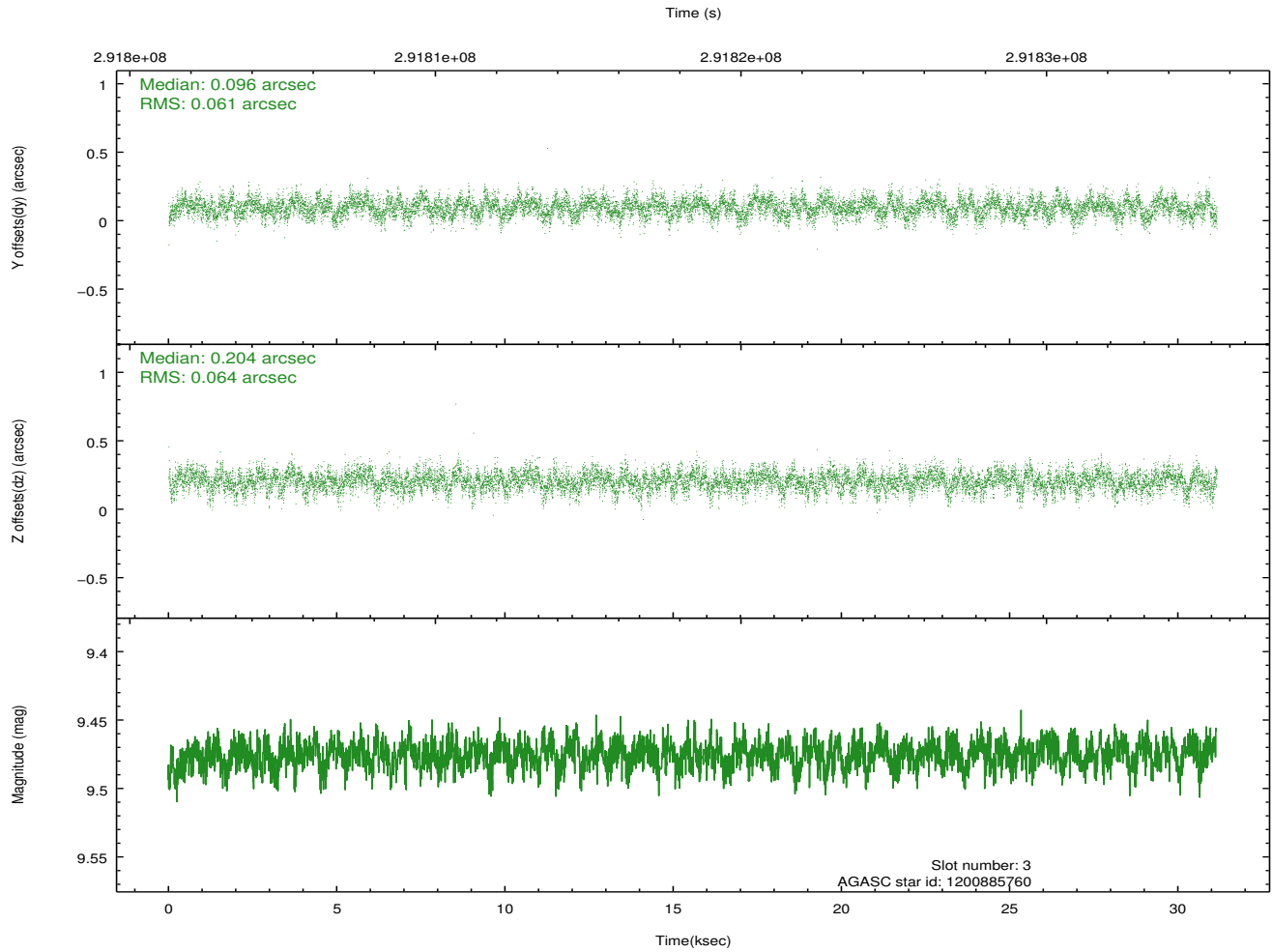
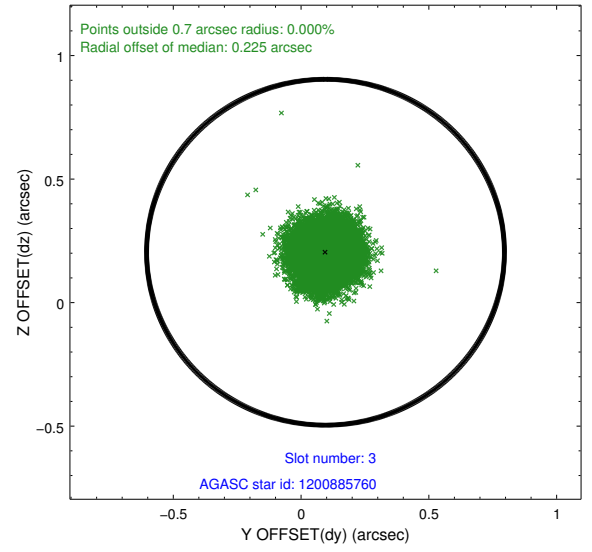
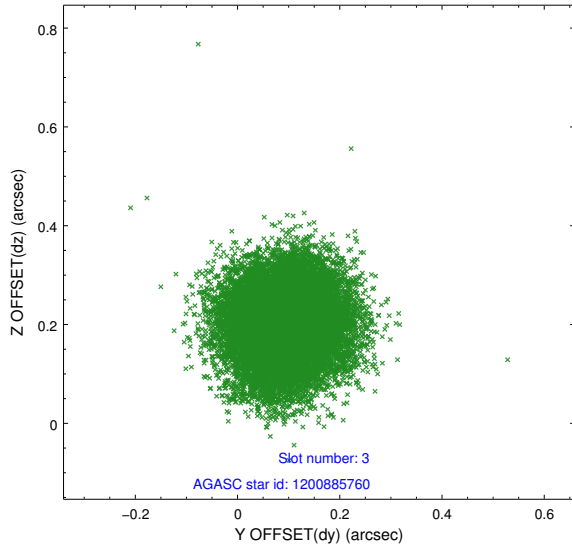


Slot Statistics

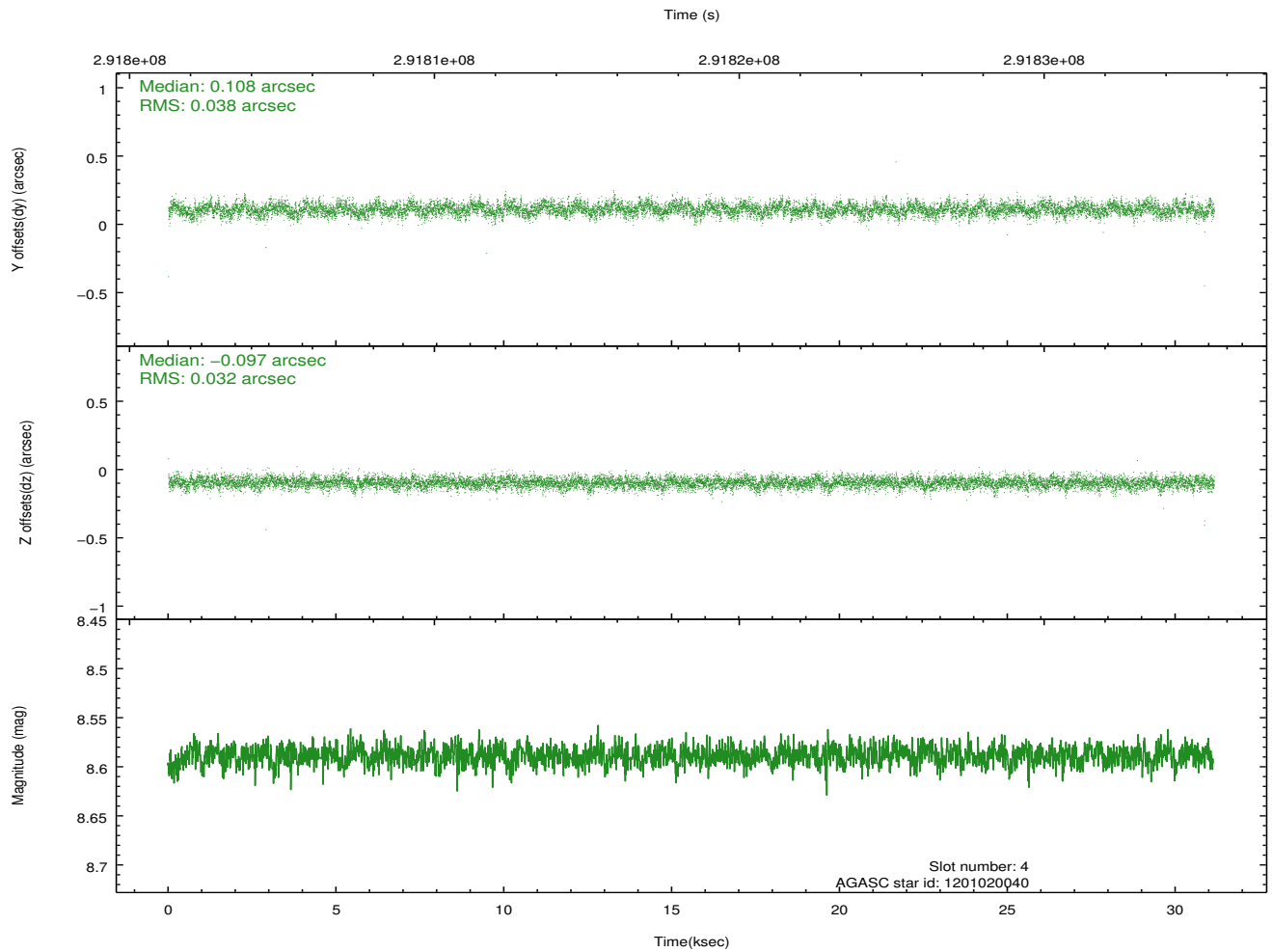
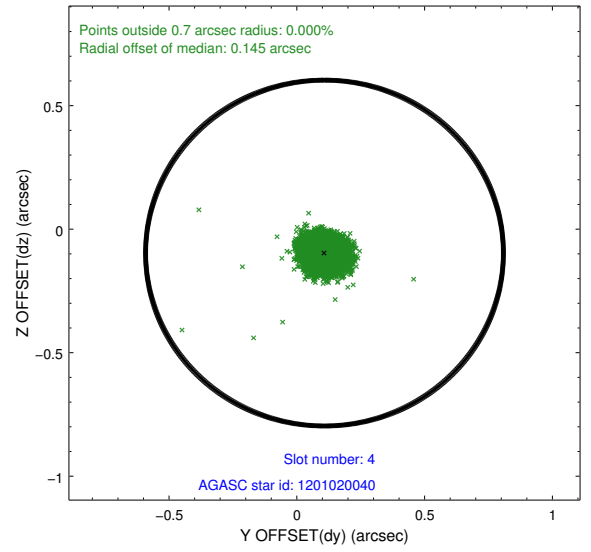
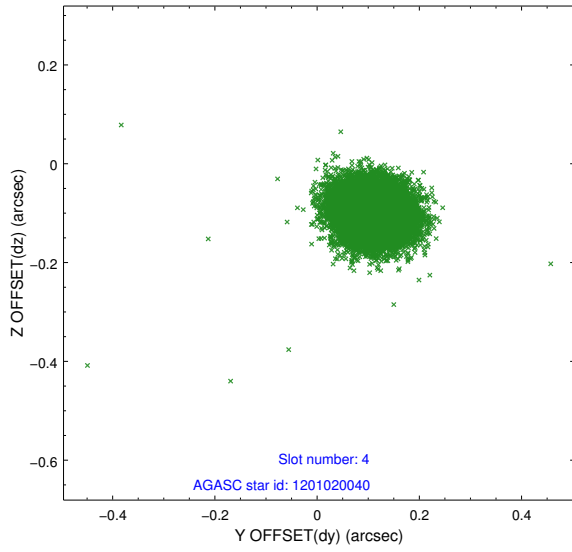
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.09	7599	-0.143	-0.116	0.012	0.023	0.000000	0.000000	-766.34	-1798.66
1	FID	ACIS-S-4	7.18	7598	0.146	0.068	0.010	0.019	0.000000	0.000000	2147.22	109.89
2	FID	ACIS-S-6	7.36	7599	-0.029	0.054	0.008	0.014	0.000000	0.000000	395.87	747.36
3	GUIDE	1200885760	9.48	15177	0.096	0.204	0.094	0.151	83.723637	-68.777667	-1610.34	-555.38
4	GUIDE	1201020040	8.59	15190	0.108	-0.097	0.052	0.086	85.379163	-68.879396	-1755.48	1622.79
5	GUIDE	1201410616	9.33	15190	-0.028	0.025	0.103	0.165	82.516808	-69.784406	2285.85	-1115.83
6	GUIDE	1201542672	8.20	15191	-0.070	-0.064	0.053	0.085	84.492488	-69.957531	2277.93	1409.76
7	GUIDE	1201019672	6.81	15197	-0.103	-0.068	0.056	0.091	85.312192	-68.770187	-2119.78	1451.43

2.4 Star Slots

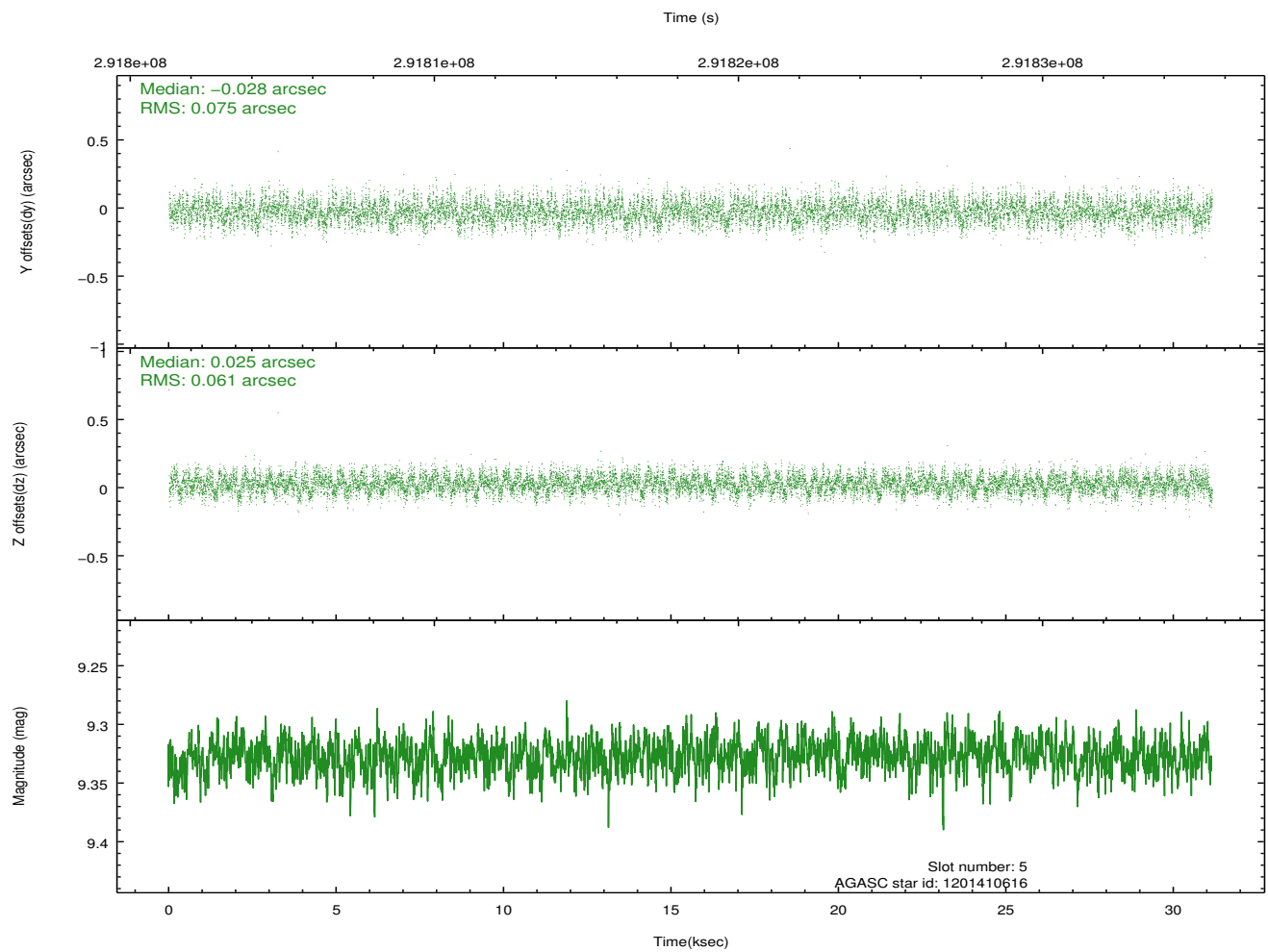
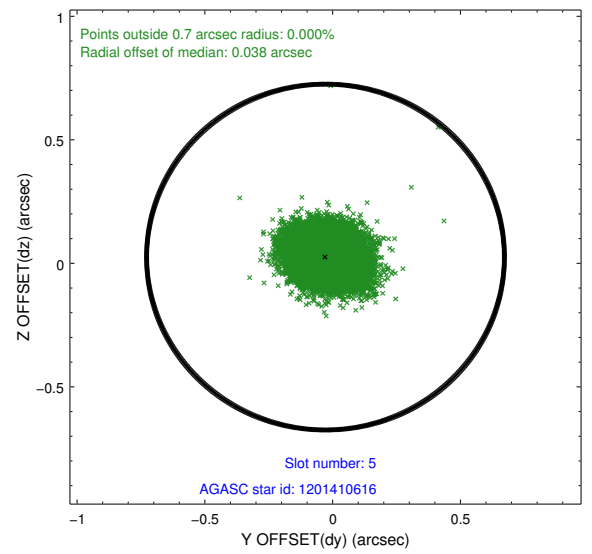
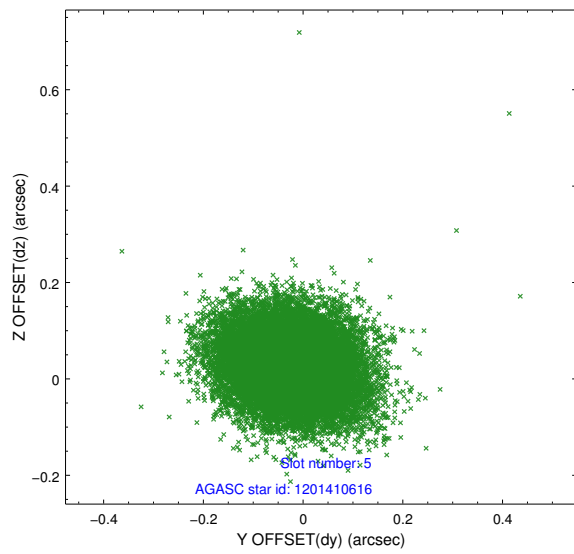
2.4.1 Slot 3



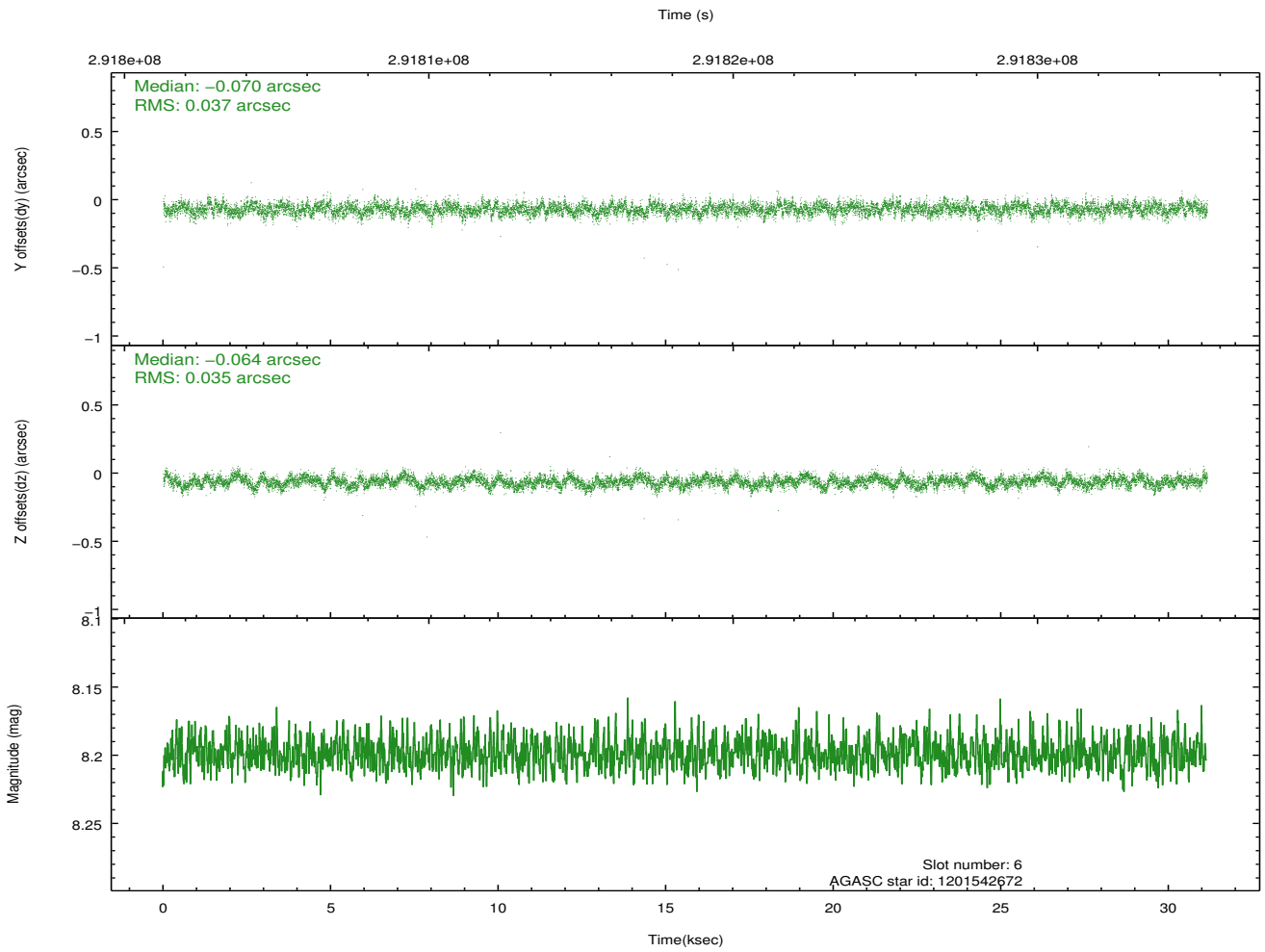
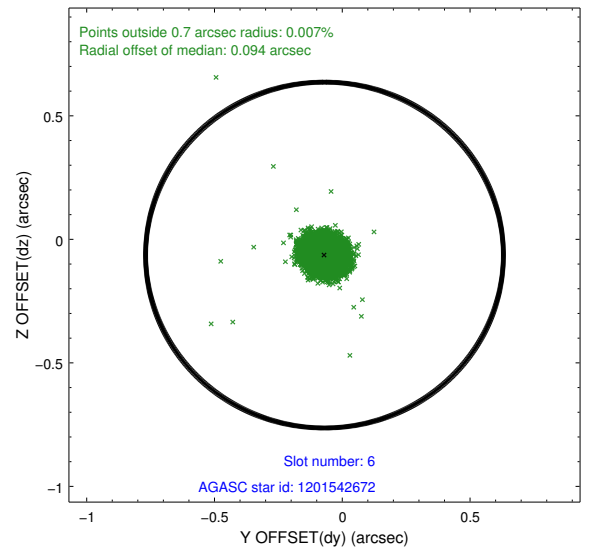
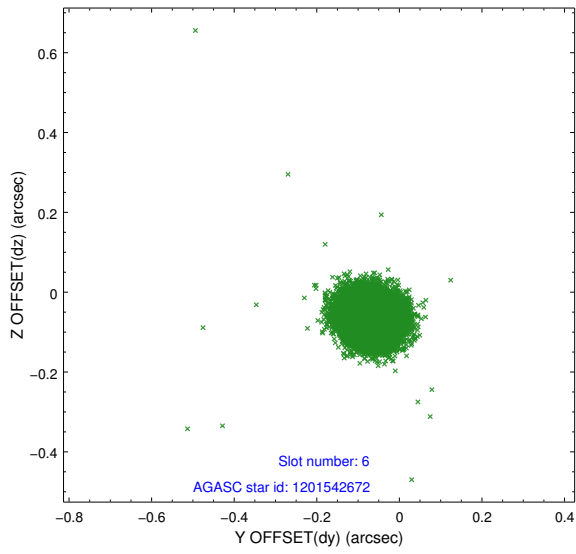
2.4.2 Slot 4



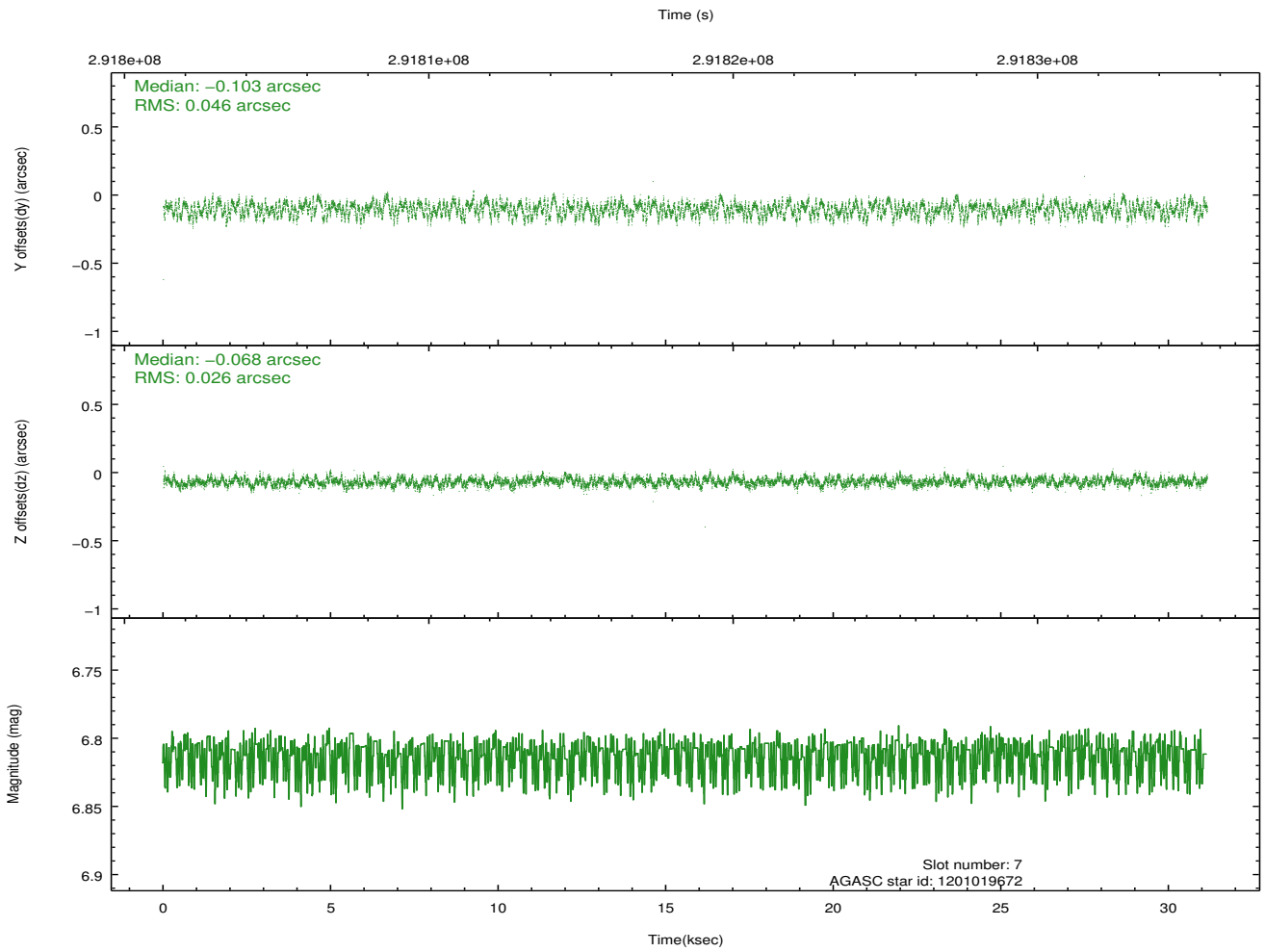
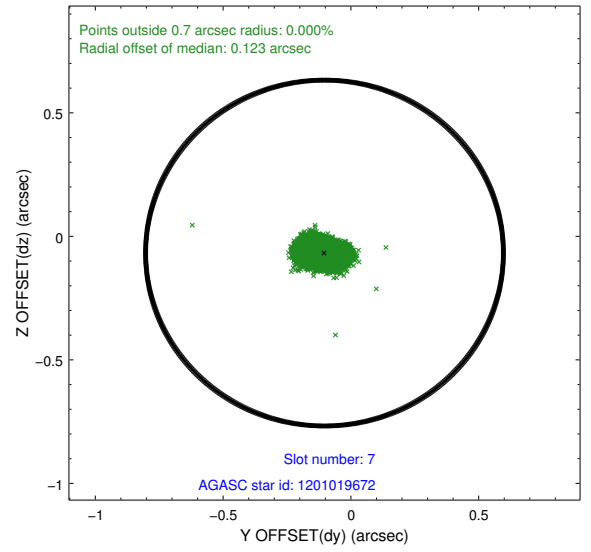
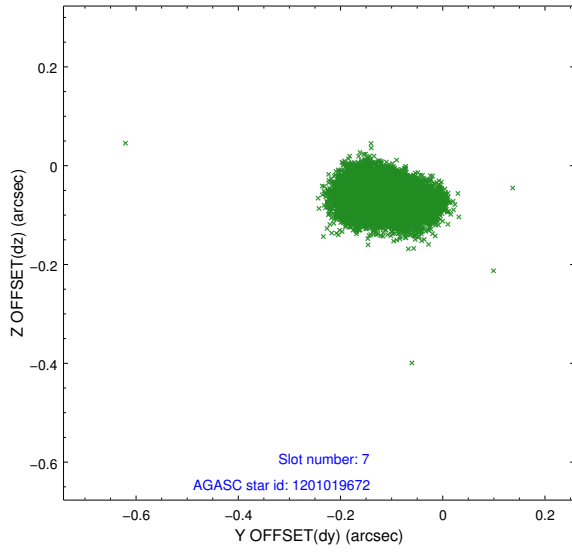
2.4.3 Slot 5



2.4.4 Slot 6

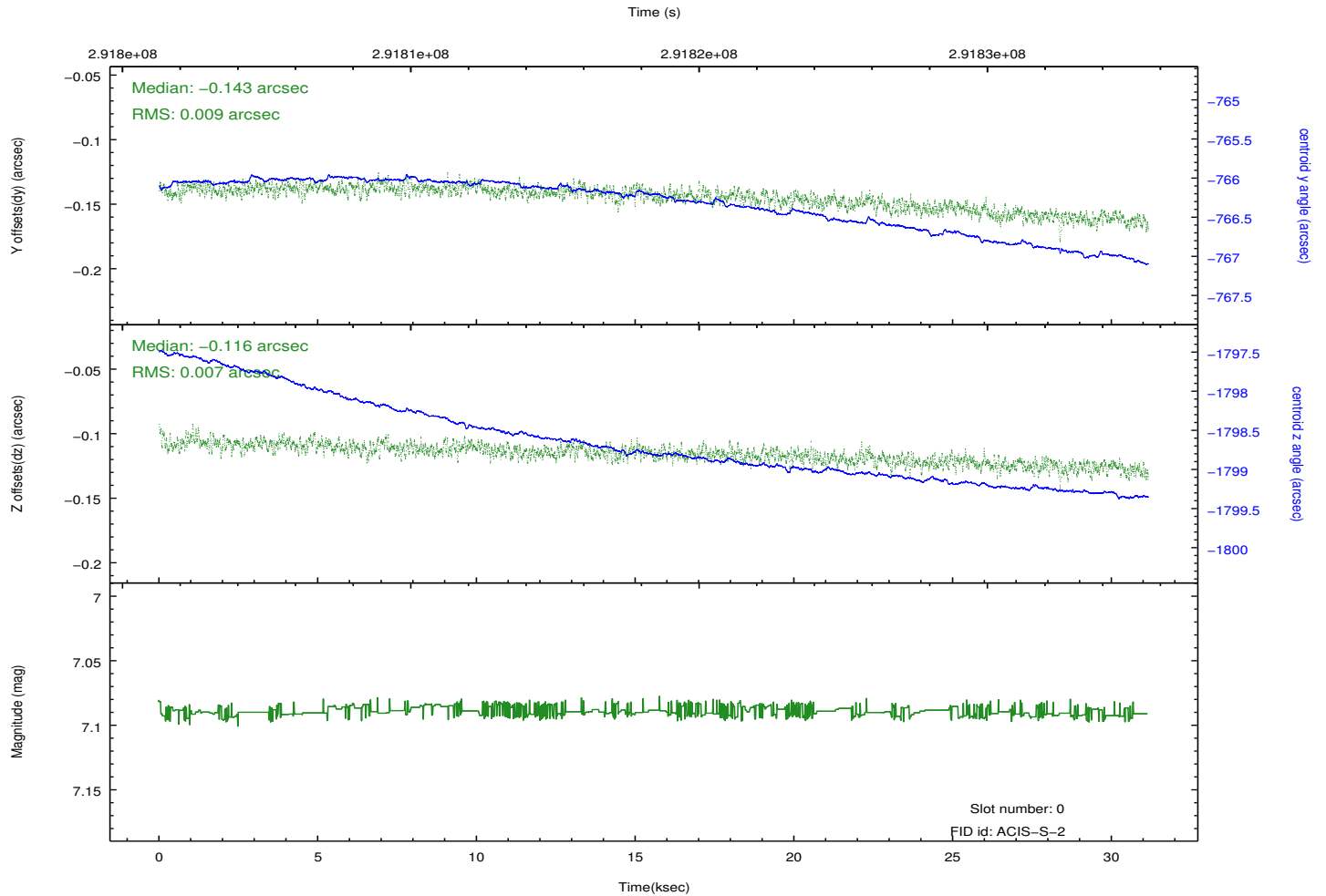
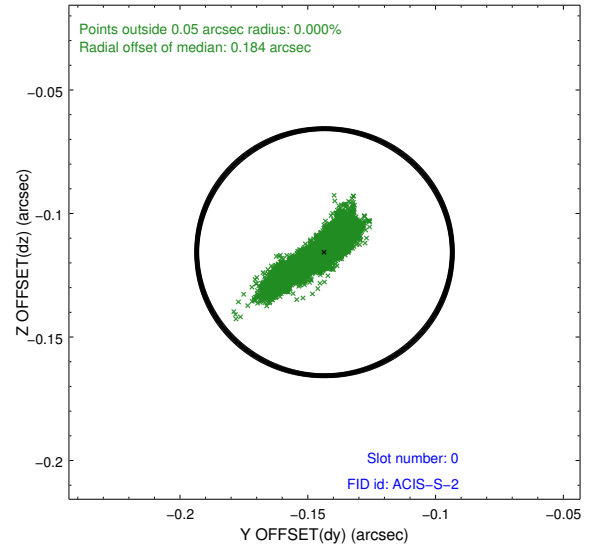
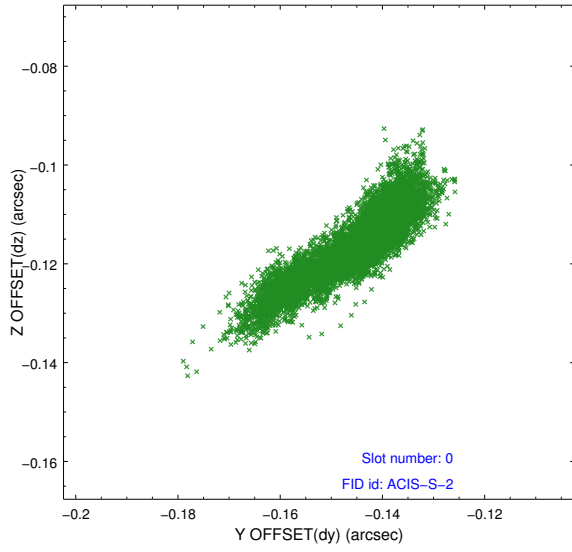


2.4.5 Slot 7

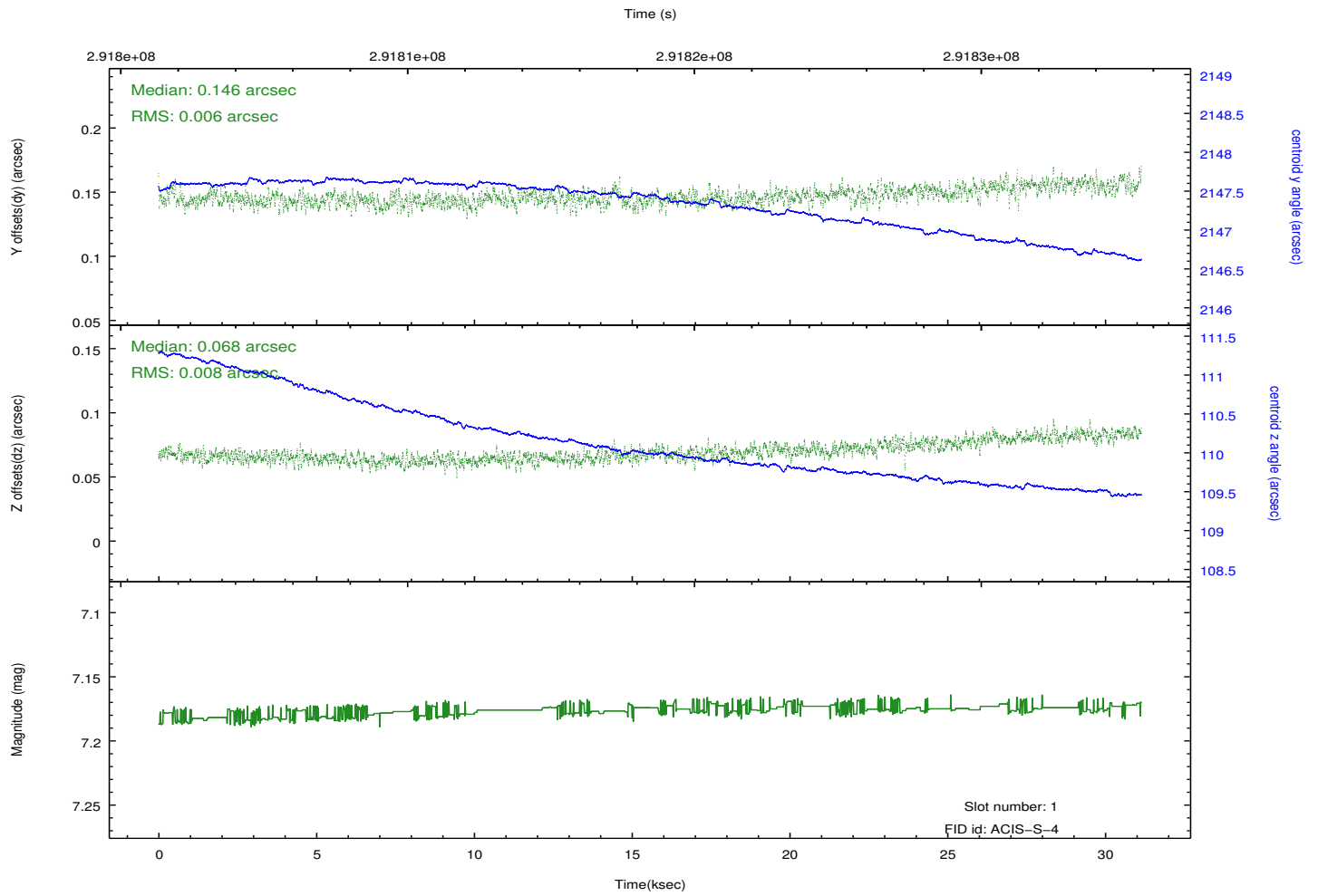
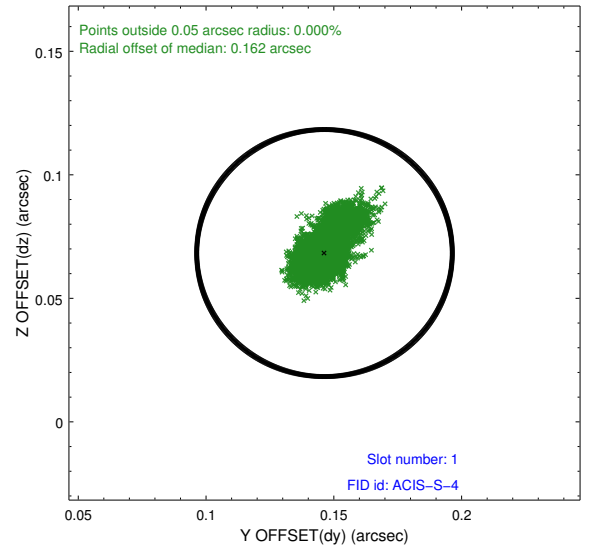
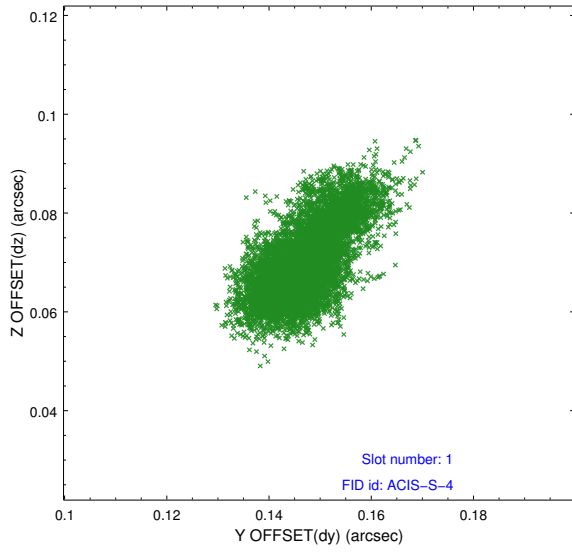


2.5 FID Slots

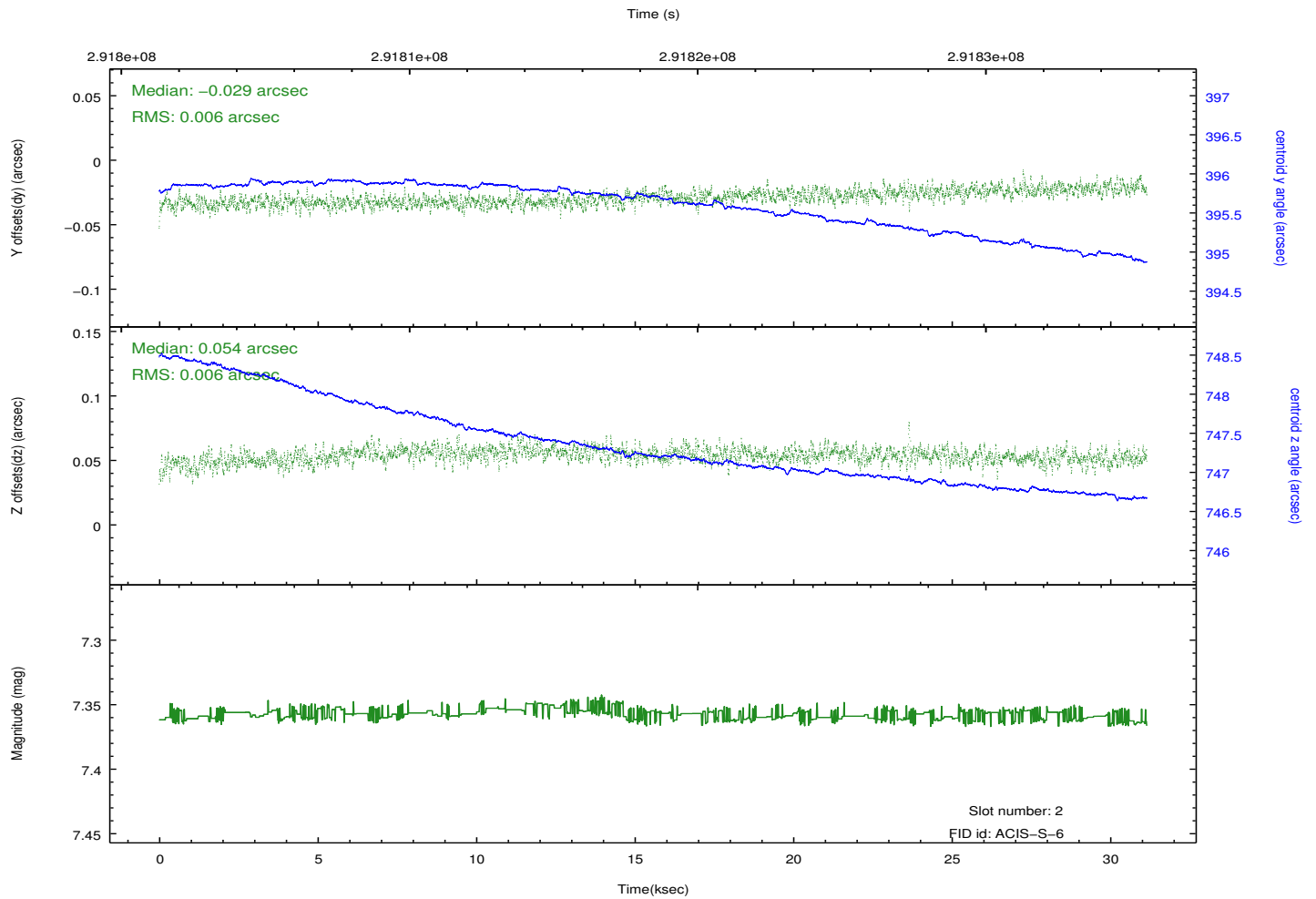
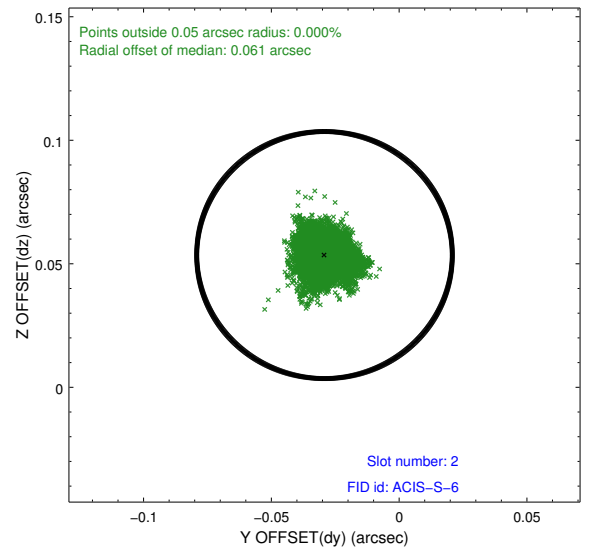
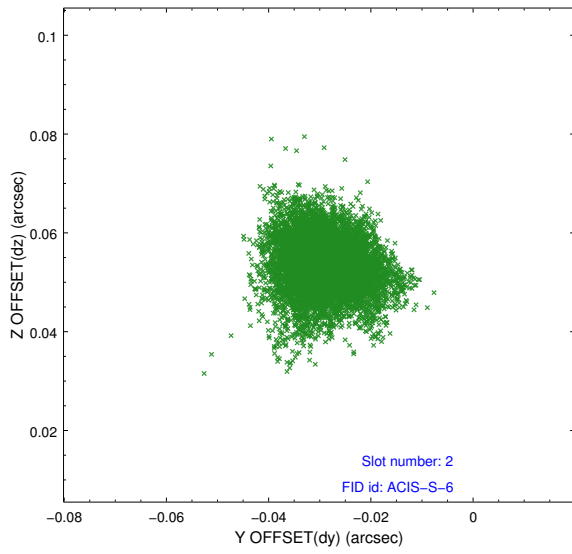
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

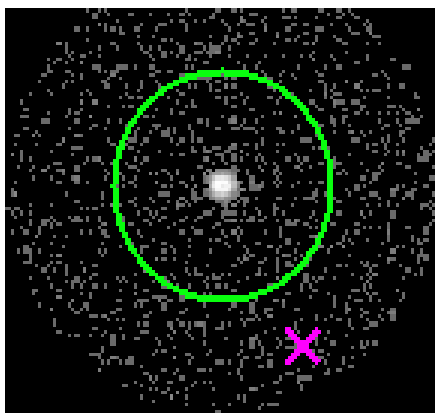


3 Gratings

3.1 HEG Arm



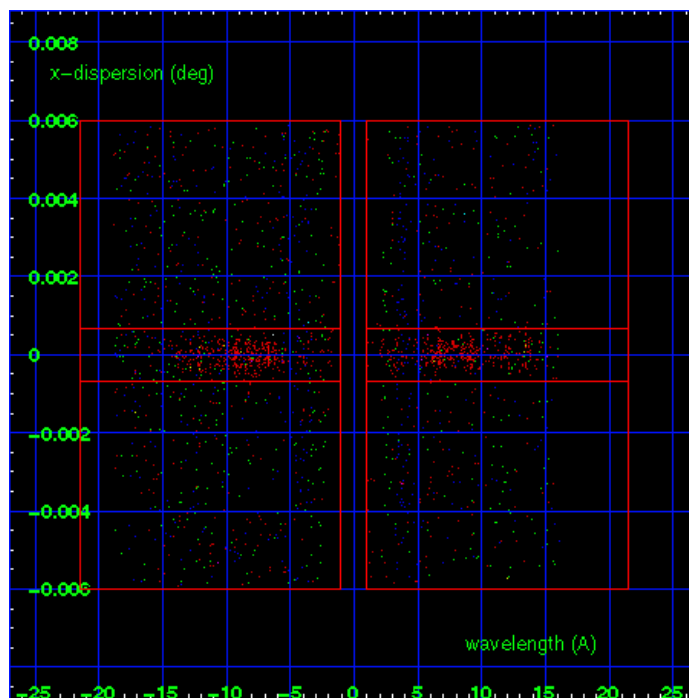
HEG Order Sort 123



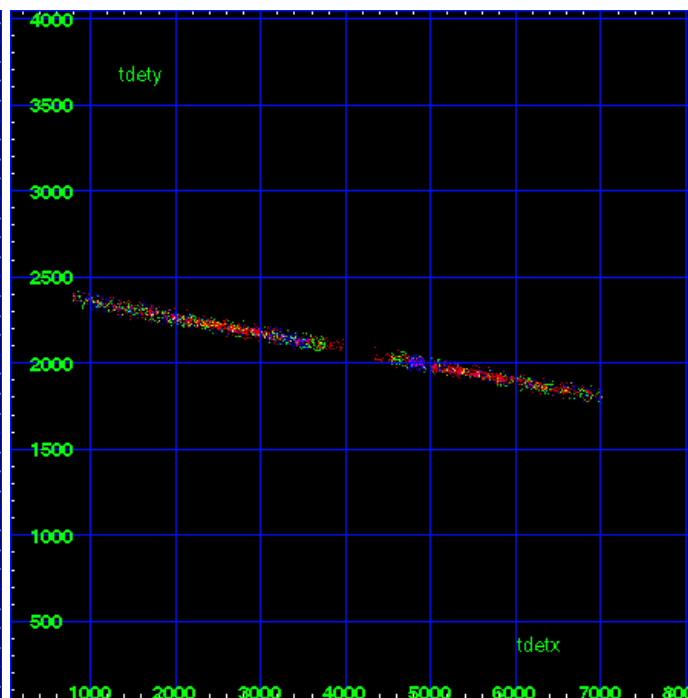
HEG Zero Order



HEG Order Sort ALL

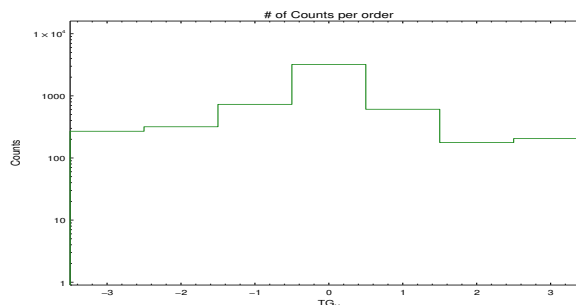


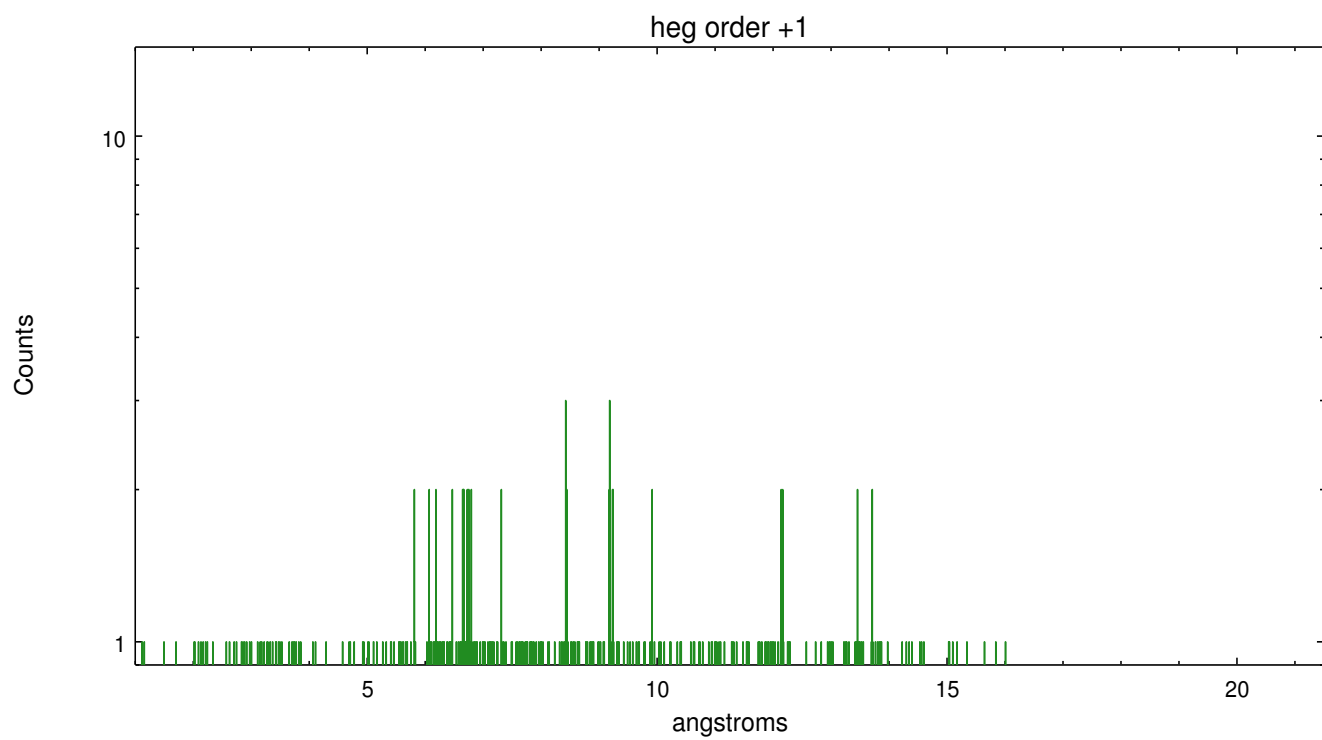
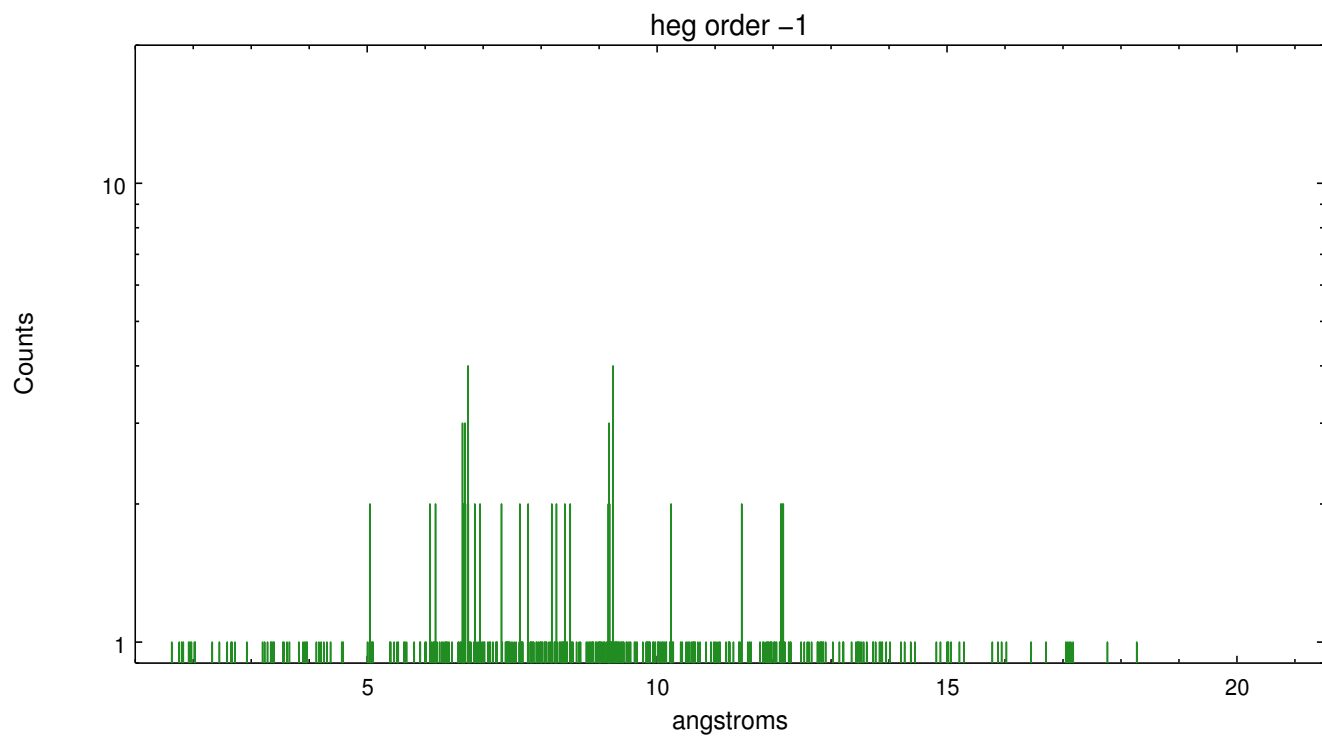
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	269	318	729	3201	608	177	205

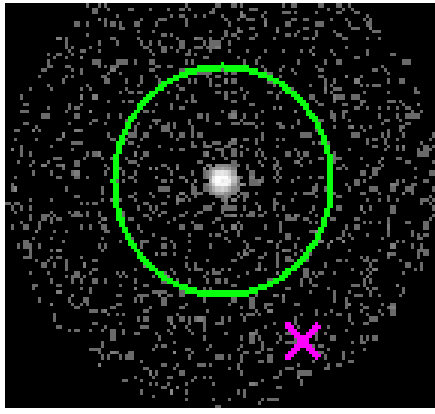




3.2 MEG Arm



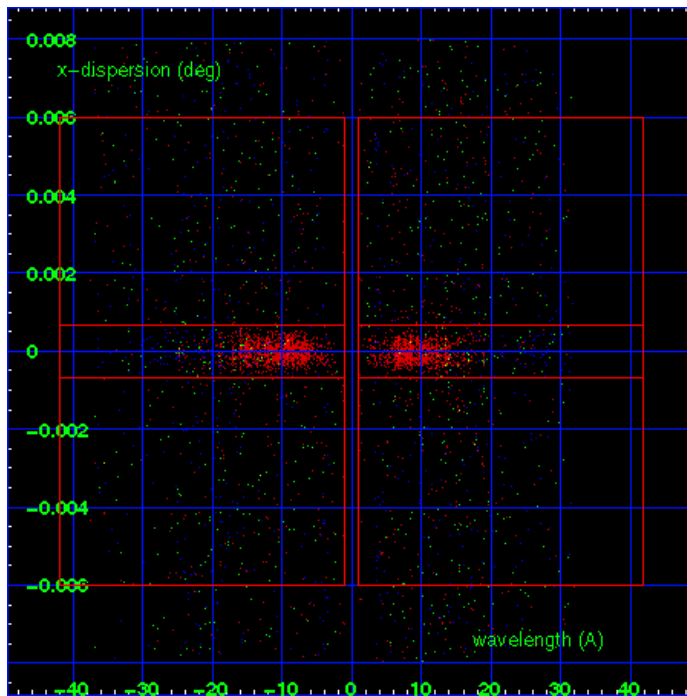
MEG Order Sort 123



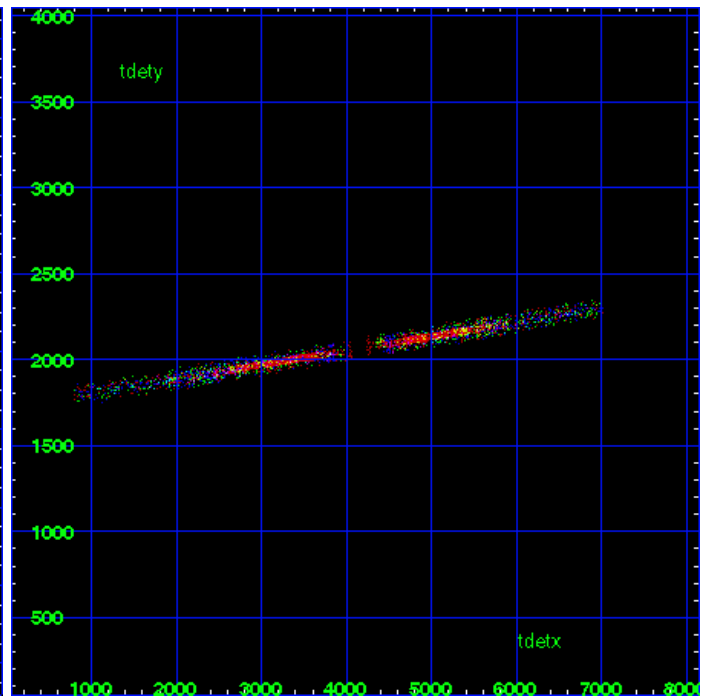
MEG Zero Order



MEG Order Sort ALL

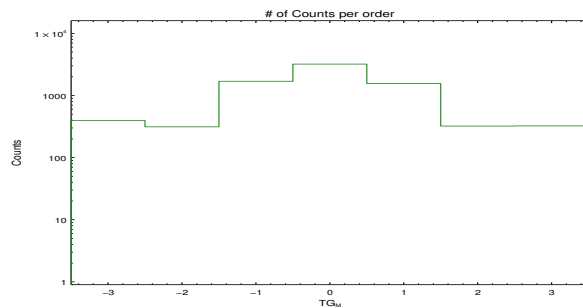


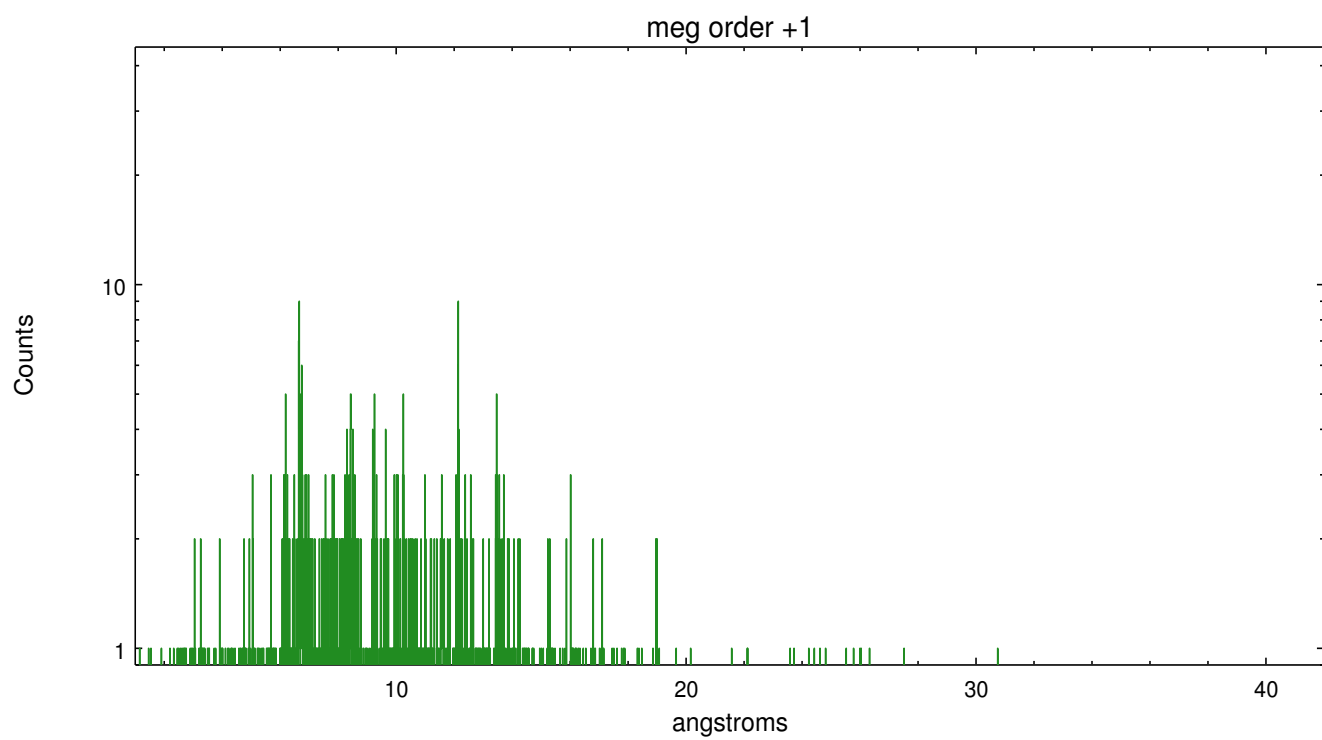
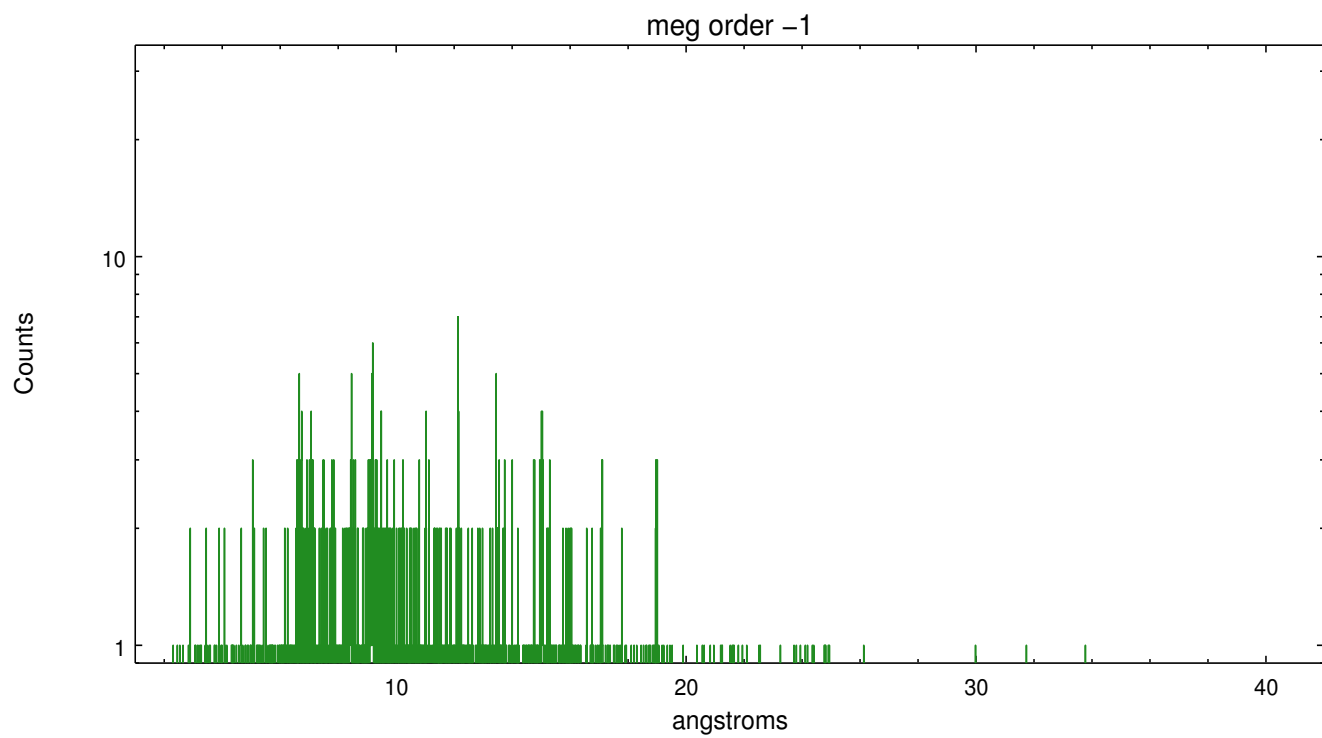
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	394	313	1693	3201	1558	322	324





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	31.145

A.2 Comments