

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 8538 - L2 Version 3
Chandra X-Ray Center

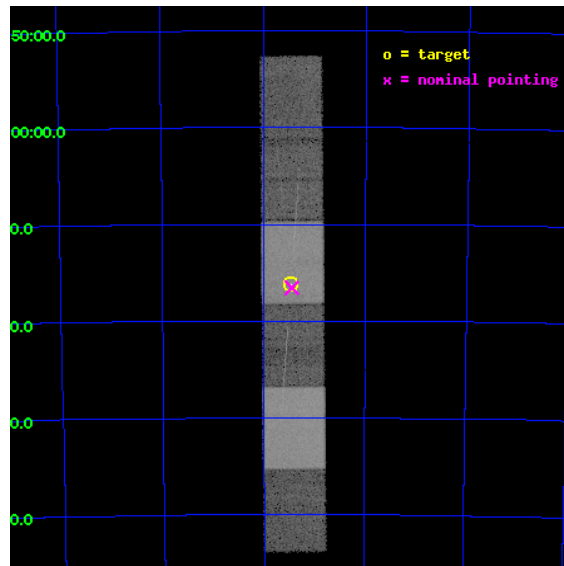
L2 Processing Date : Apr 21 2012

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1 Front

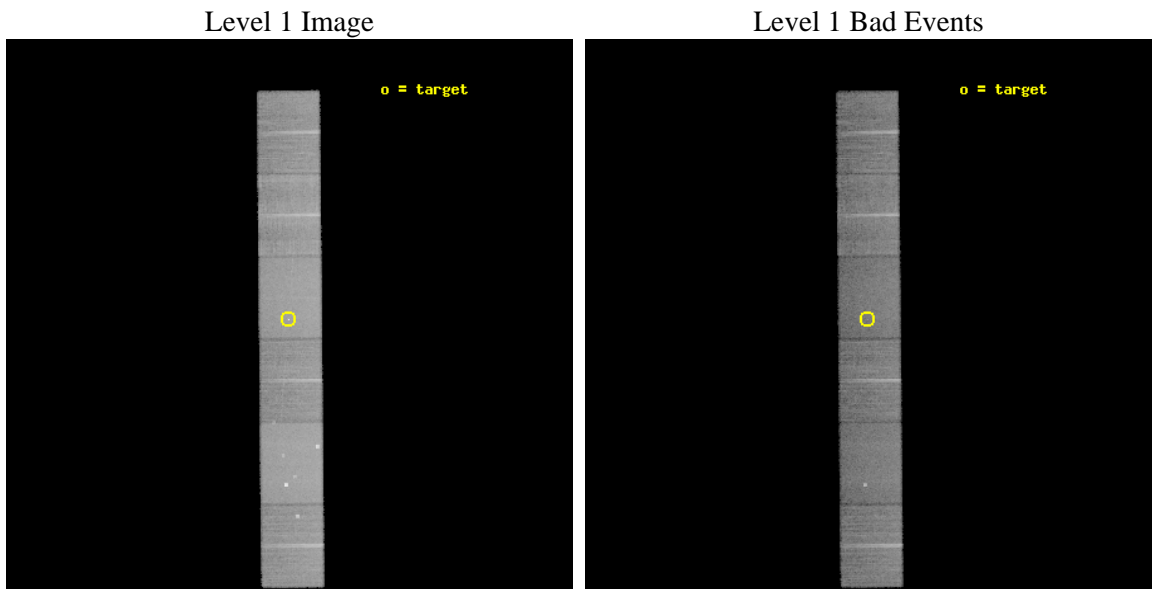
seq_num	500720	Sequence number
obs_id	8538	Observation id
title	High resolution spectral imaging of SN 1987A at 20 years: HETG observation	Proposal title
observer	Prof Claude Canizares	Principal investigator
object	Sn 1987A	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	83.866667	Observer's specified target RA [deg]
dec_targ	-69.269722	Observer's specified target Dec [deg]
ra_nom	83.861850276432	Nominal RA [deg]
dec_nom	-69.275984914272	Nominal Dec [deg]
roll_nom	269.45211900897	Nominal Roll [deg]
revision	3	Processing version of data
ontime	21032.5	Sum of GTIs [s]
livetime	20692.806882221	Livetime [s]
ontime4	21032.5	Sum of GTIs [s]
ontime5	21032.5	Sum of GTIs [s]
ontime6	21032.5	Sum of GTIs [s]
ontime7	21032.5	Sum of GTIs [s]
ontime8	21032.5	Sum of GTIs [s]
ontime9	21032.5	Sum of GTIs [s]
l2events	254123	Number of level 2 events



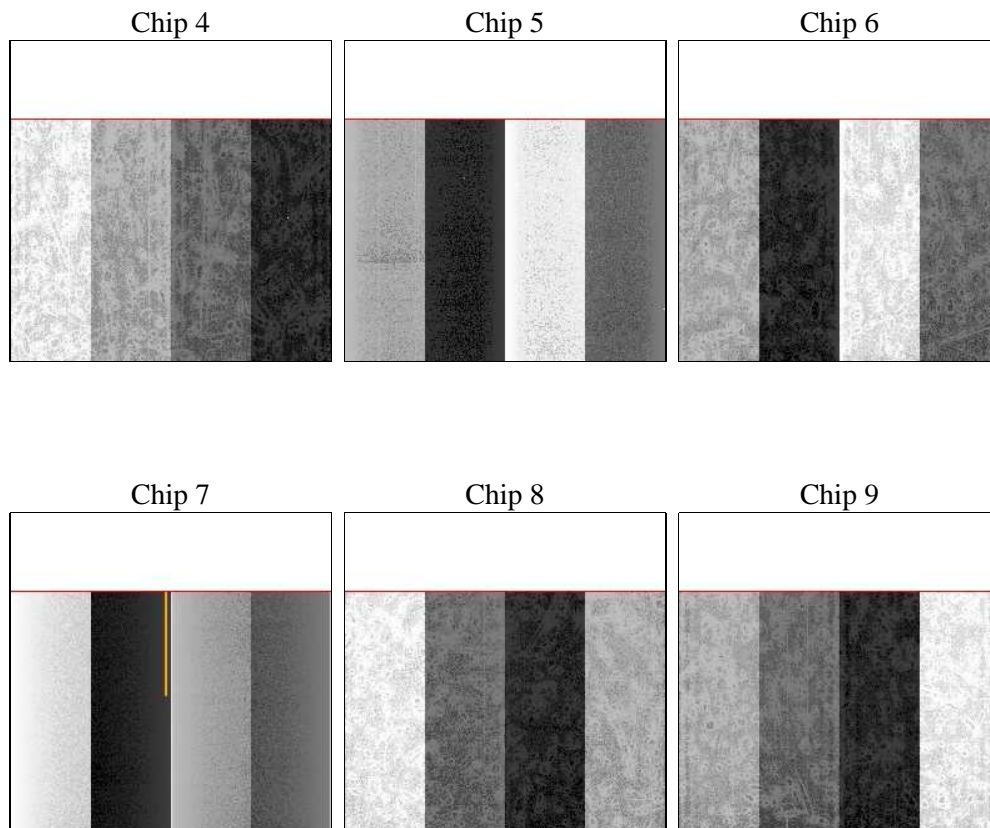
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	20848.020000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	21032.5	Sum of GTIs [s]
caldsver	4.4.9	 	ontime4	21032.5	Sum of GTIs [s]
date	2012-04-21T14:35:50	Date and time of file creation	ontime5	21032.5	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	21032.5	Sum of GTIs [s]
			ontime7	21032.5	Sum of GTIs [s]
			ontime8	21032.5	Sum of GTIs [s]
			ontime9	21032.5	Sum of GTIs [s]
			l1events	1109072	Number of level 1 events

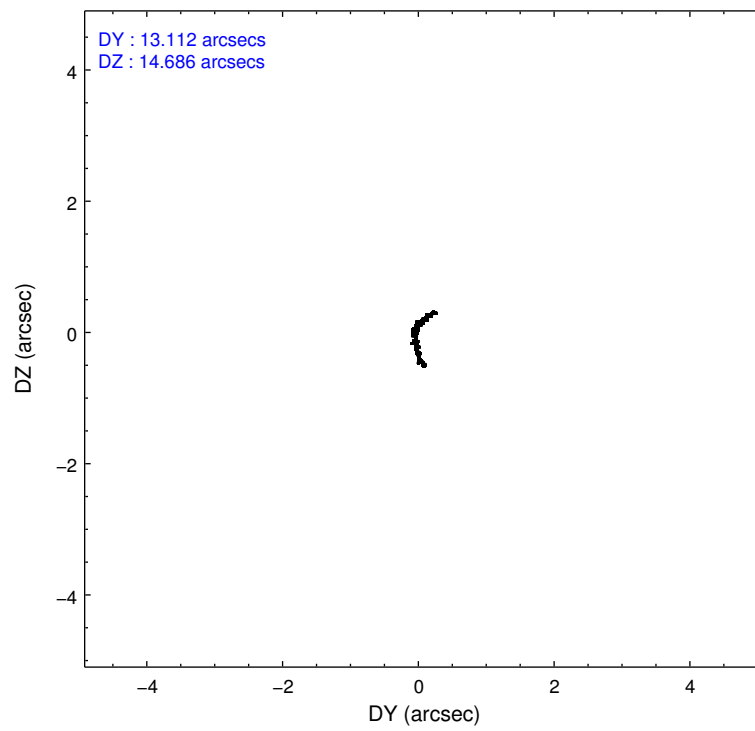
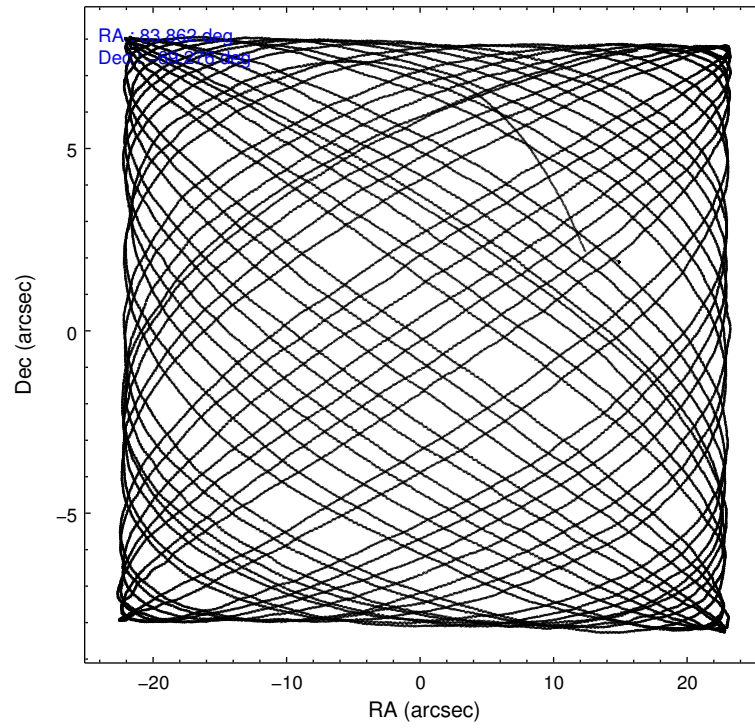
2.1.4 Events

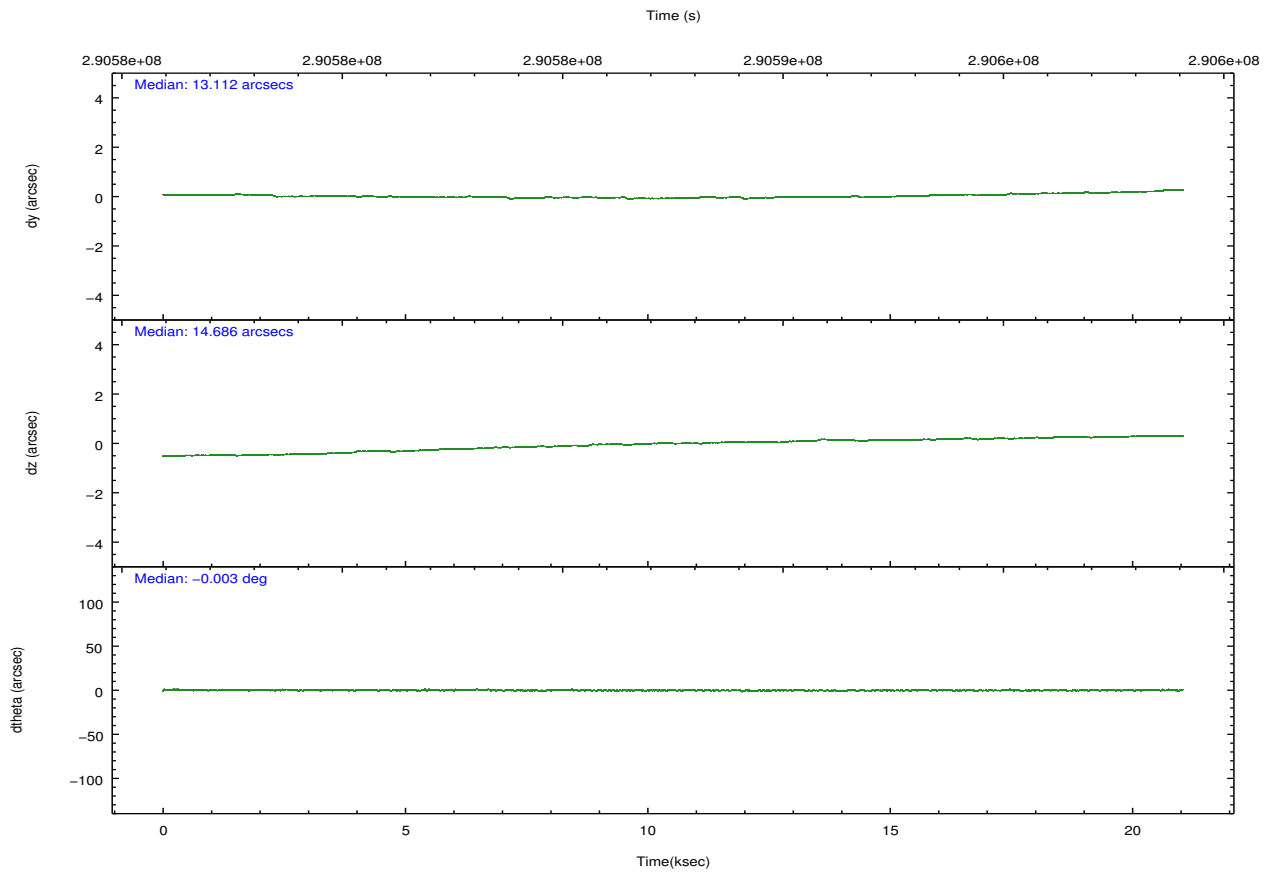
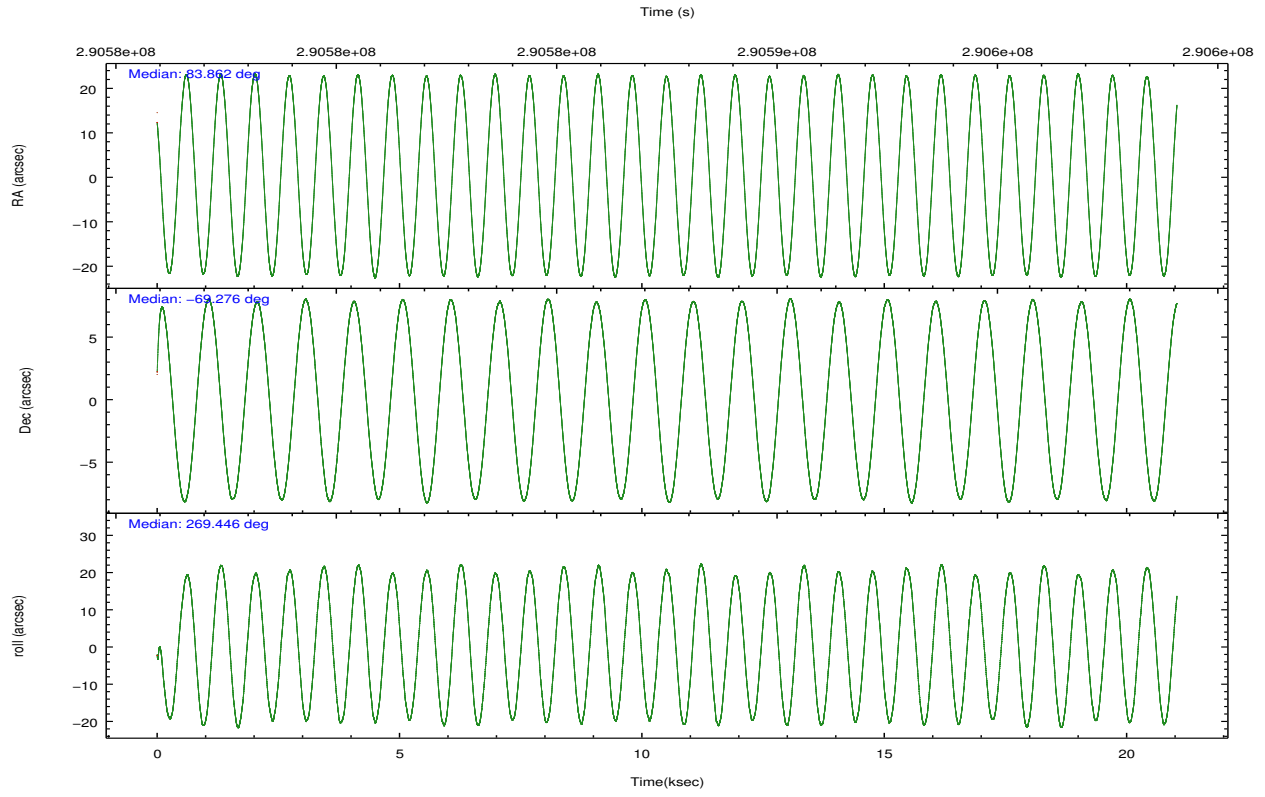
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	170336	237298	153701	208108	191917	147712	grade 0 events	10590	14730	8040	8253	14353	7947
rejected events	148597	126057	134246	119805	148149	128710		6%	6%	5%	3%	7%	5%
rejected %	87%	53%	87%	57%	77%	87%	grade 1 events	151	1582	68	211	130	87
								0%	0%	0%	0%	0%	0%
							grade 2 events	4355	32720	3999	18309	9522	3778
								2%	13%	2%	8%	4%	2%
							grade 3 events	2018	4717	1938	7929	4684	1954
								1%	1%	1%	3%	2%	1%
							grade 4 events	1906	4502	1856	7852	4426	1844
								1%	1%	1%	3%	2%	1%
							grade 5 events	6553	17357	6835	19325	9248	7177
								3%	7%	4%	9%	4%	4%
							grade 6 events	3048	55365	3773	46587	11105	3605
								1%	23%	2%	22%	5%	2%
							grade 7 events	141715	106325	127192	99642	138449	121320
								83%	44%	82%	47%	72%	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	83.823043	83.86185027643157	Subarray requested	CUSTOM	CUSTOM
[deg] Pointing Dec	-69.252366	-69.27598491427221	Subarray start row	1	1
[deg] Pointing Roll	269.259203	269.4521190089669	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)	290577183.184000	290576079.95491			
Observation start date	2007-03-18T03:51:58	2007-03-18T03:34:39			
[s] Observation end time (MET)	290598031.184000	290598260.95597			
Observation end date	2007-03-18T09:39:26	2007-03-18T09:44:20			
Read mode	TIMED	TIMED			

2.3 Aspect



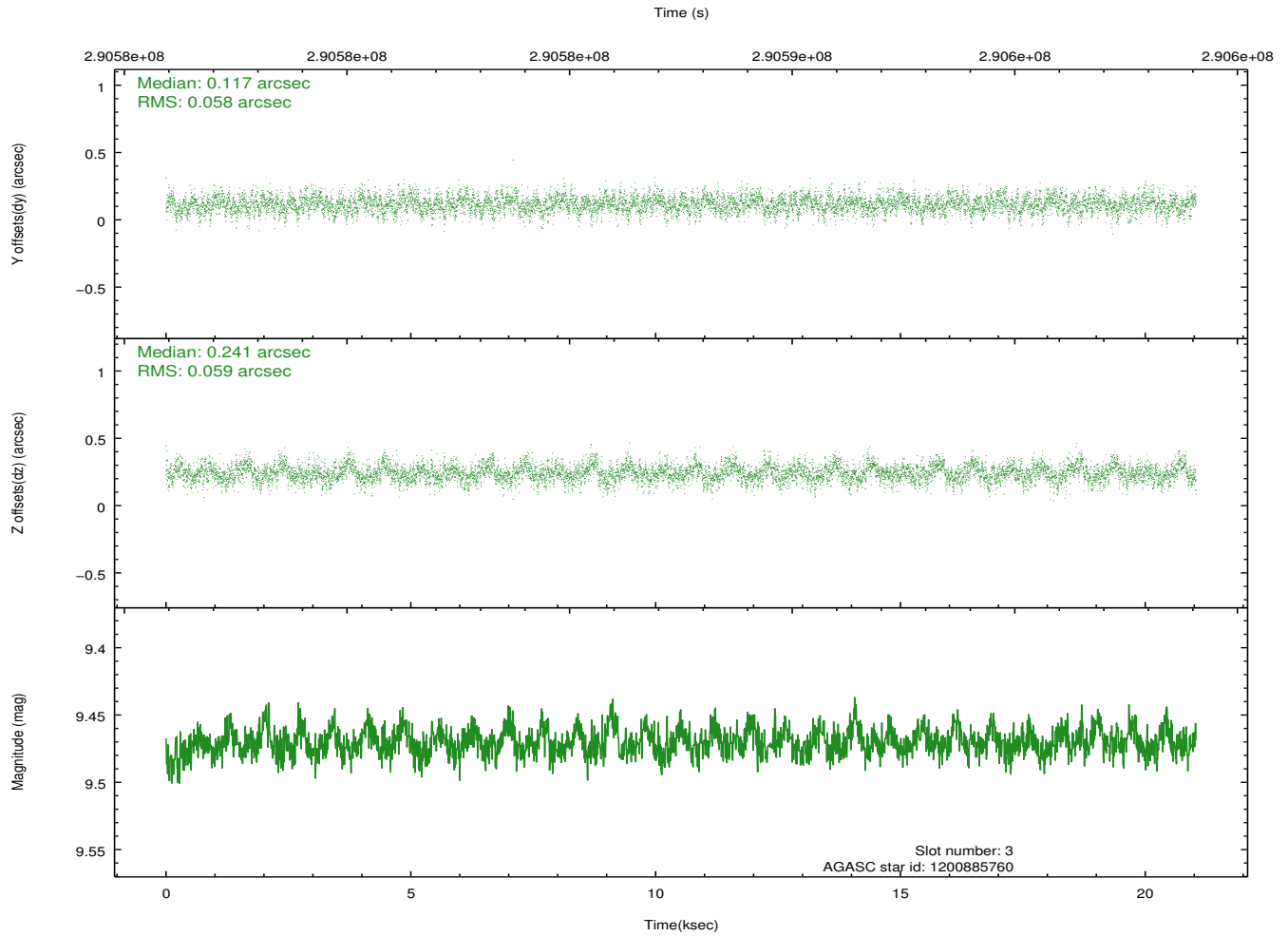
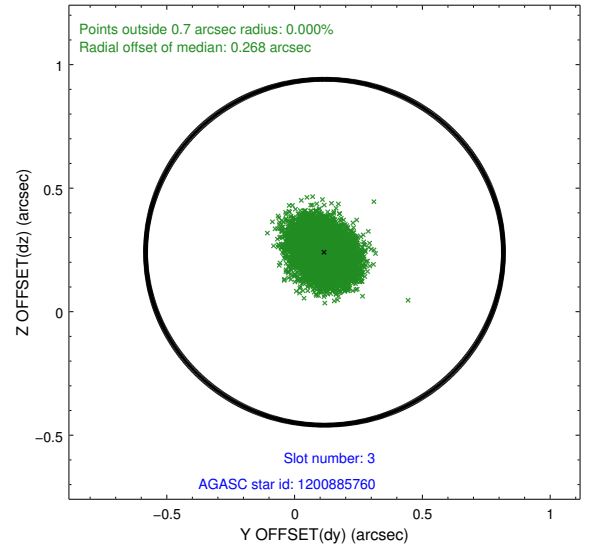
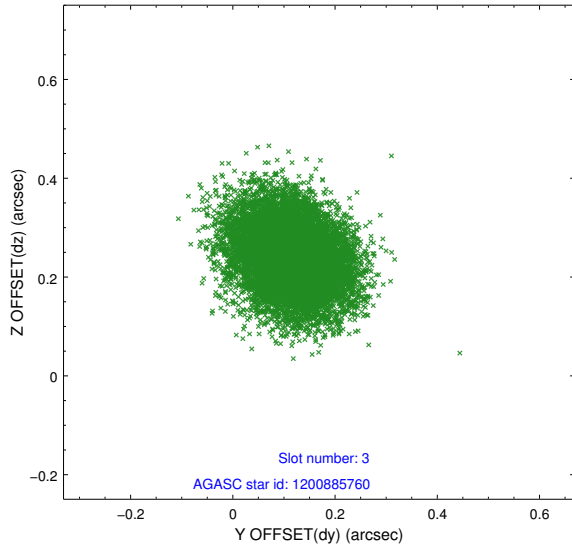


Slot Statistics

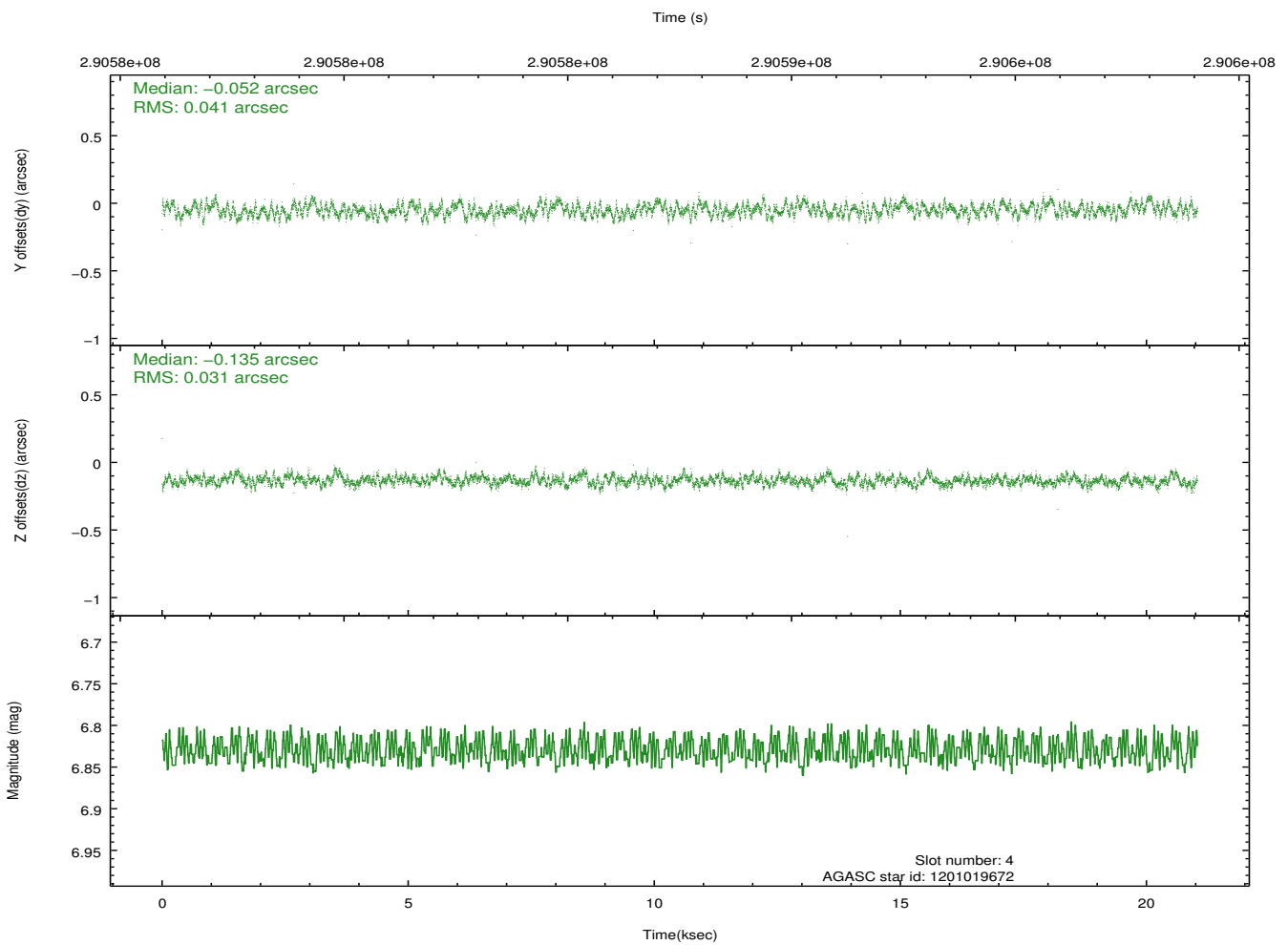
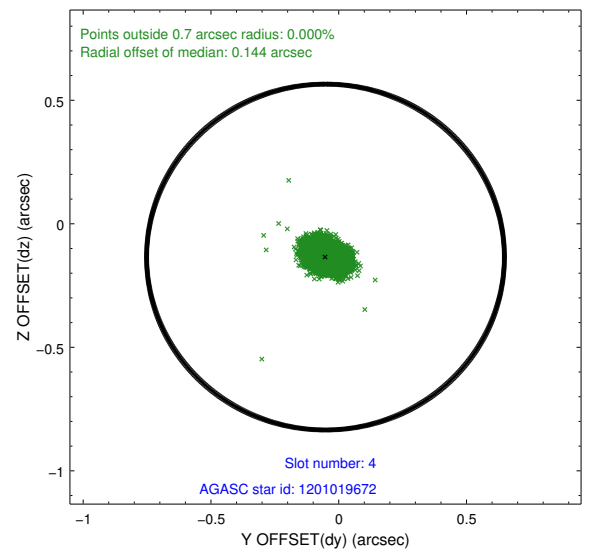
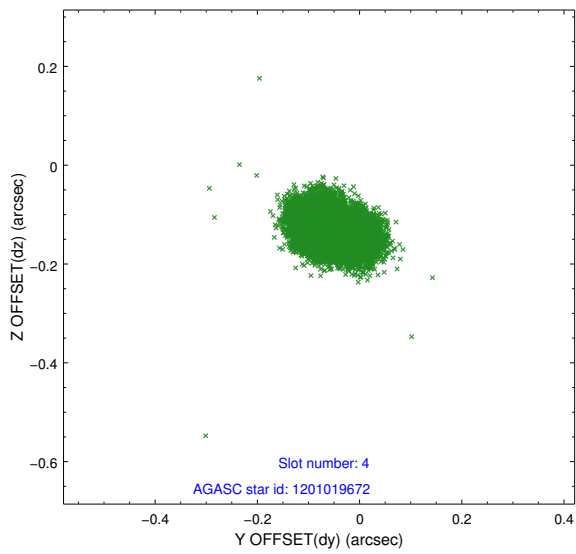
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.09	5132	-0.133	-0.107	0.007	0.012	0.000000	0.000000	-766.00	-1798.18
1	FID	ACIS-S-4	7.18	5132	0.139	0.061	0.007	0.011	0.000000	0.000000	2147.49	110.24
2	FID	ACIS-S-6	7.36	5132	-0.034	0.054	0.008	0.013	0.000000	0.000000	396.33	747.84
3	GUIDE	1200885760	9.47	10253	0.117	0.241	0.088	0.145	83.723637	-68.777667	-1706.62	-151.13
4	GUIDE	1201019672	6.83	10263	-0.052	-0.135	0.055	0.087	85.312192	-68.770187	-1737.54	1918.86
5	GUIDE	1201020040	8.58	10258	0.072	-0.173	0.077	0.122	85.379163	-68.879396	-1343.25	2001.46
6	GUIDE	1201540776	9.58	10249	-0.018	-0.005	0.111	0.177	85.107945	-69.858480	2177.84	1621.83
7	GUIDE	1201410616	9.33	10251	-0.117	0.071	0.097	0.157	82.516808	-69.784406	1953.98	-1598.99

2.4 Star Slots

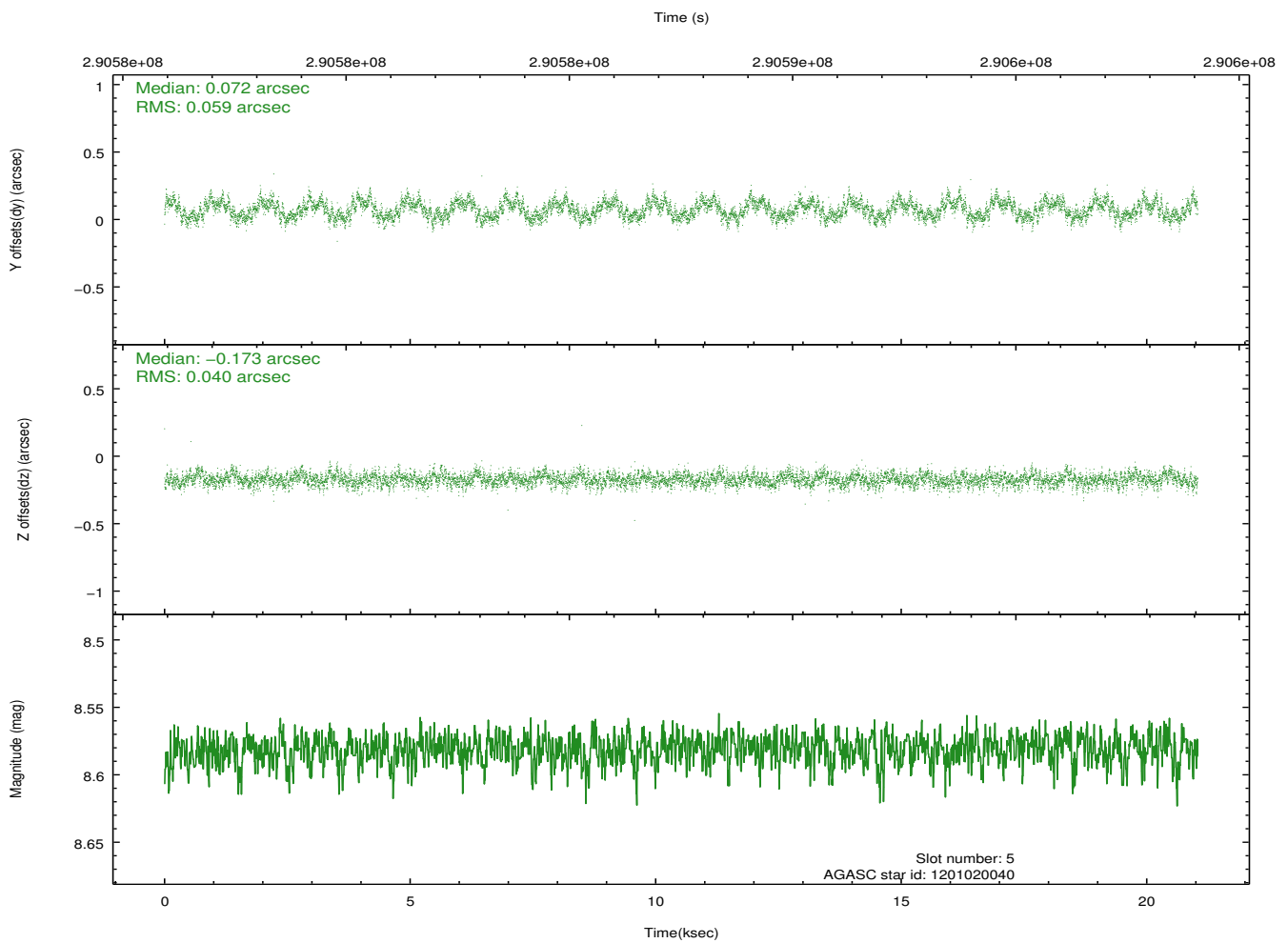
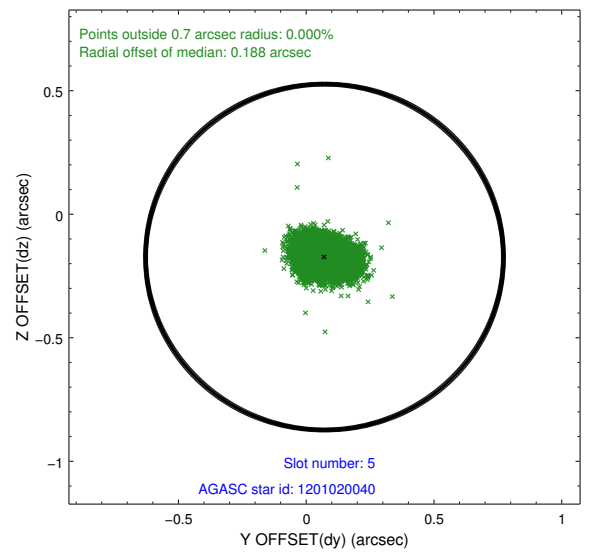
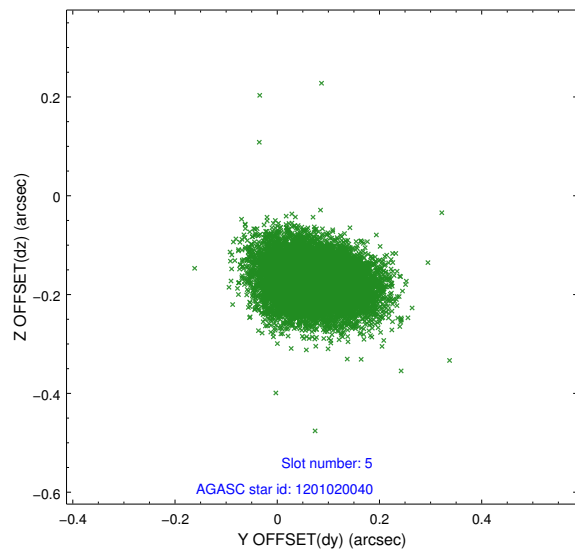
2.4.1 Slot 3



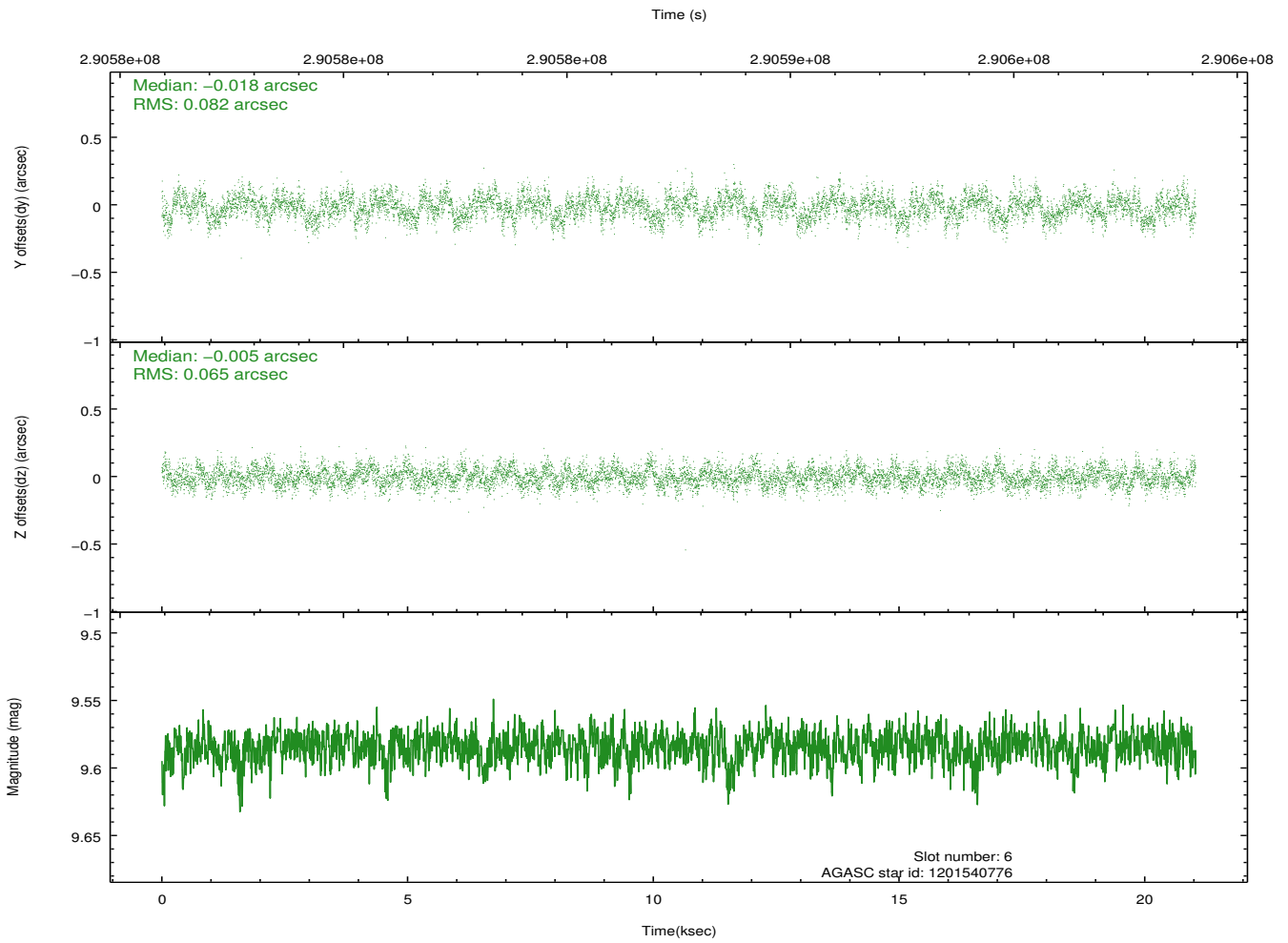
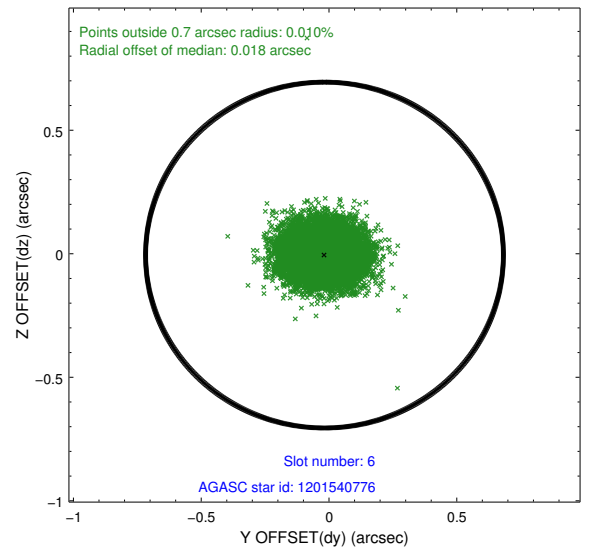
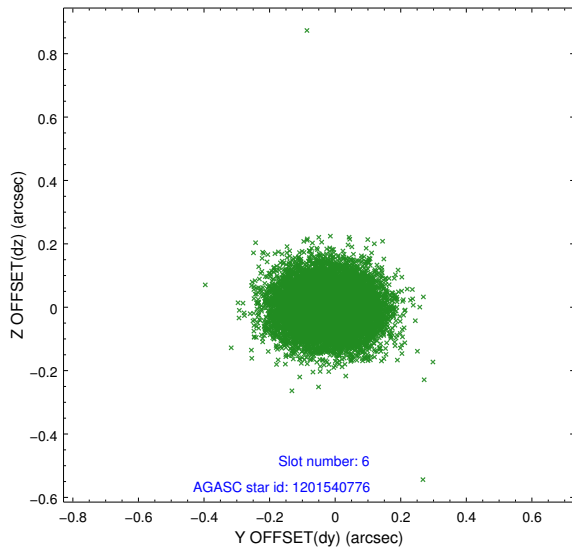
2.4.2 Slot 4



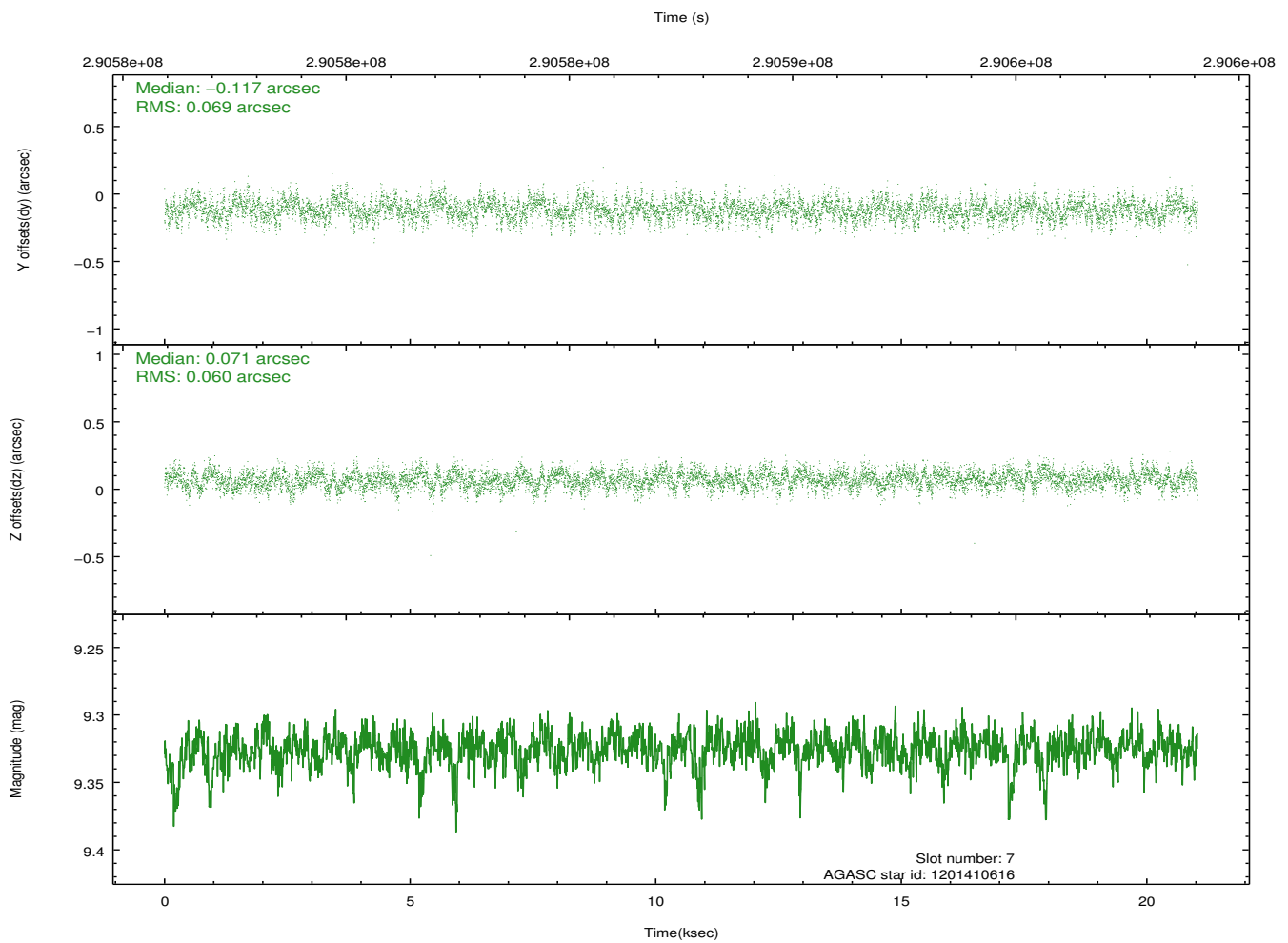
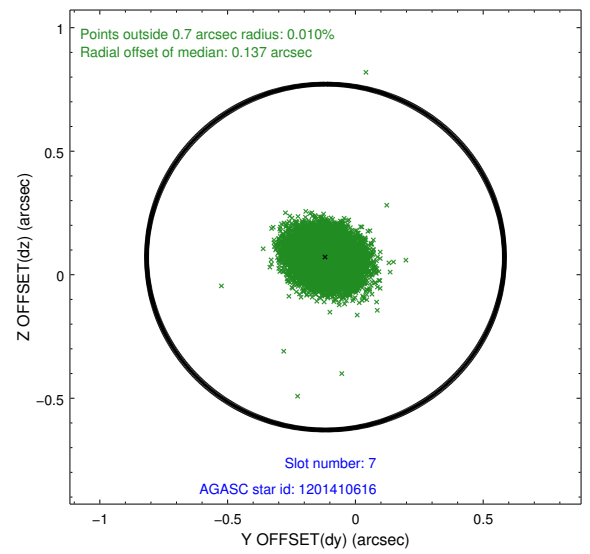
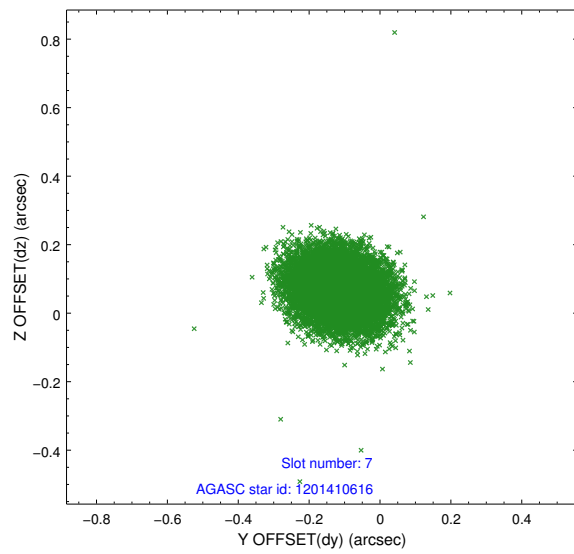
2.4.3 Slot 5



2.4.4 Slot 6

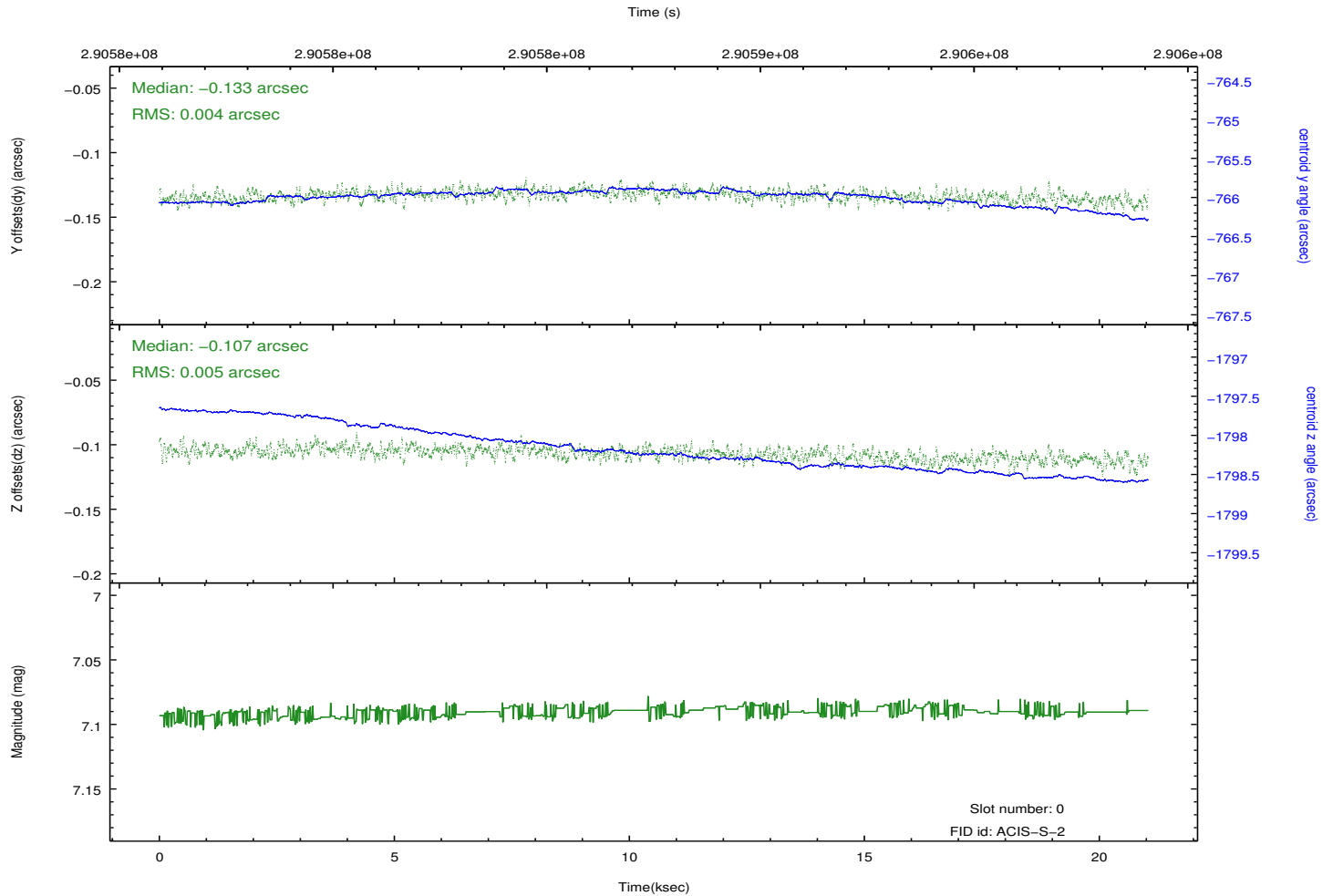
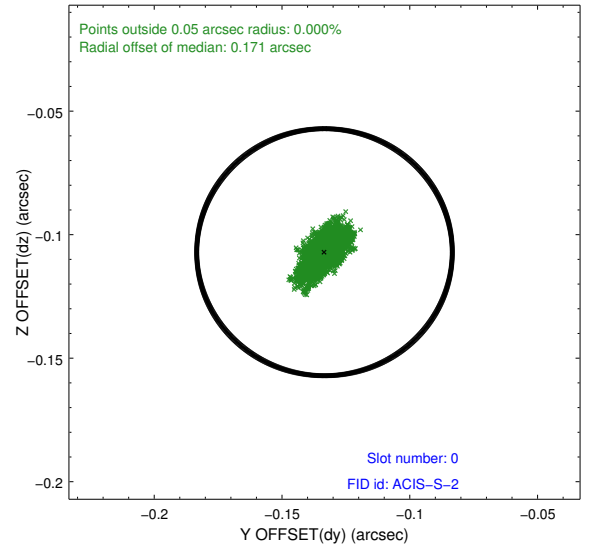
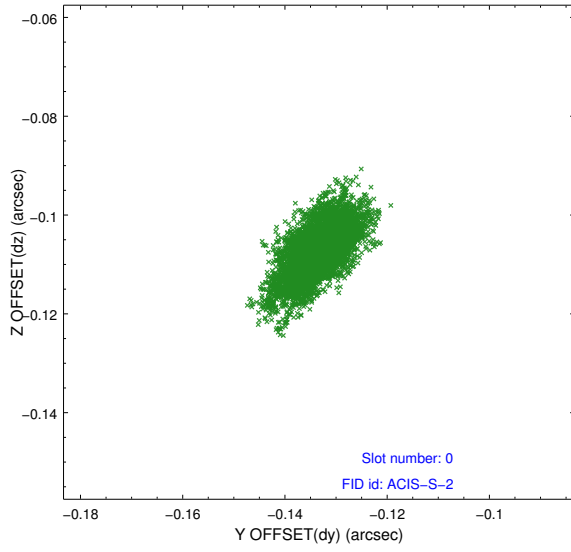


2.4.5 Slot 7

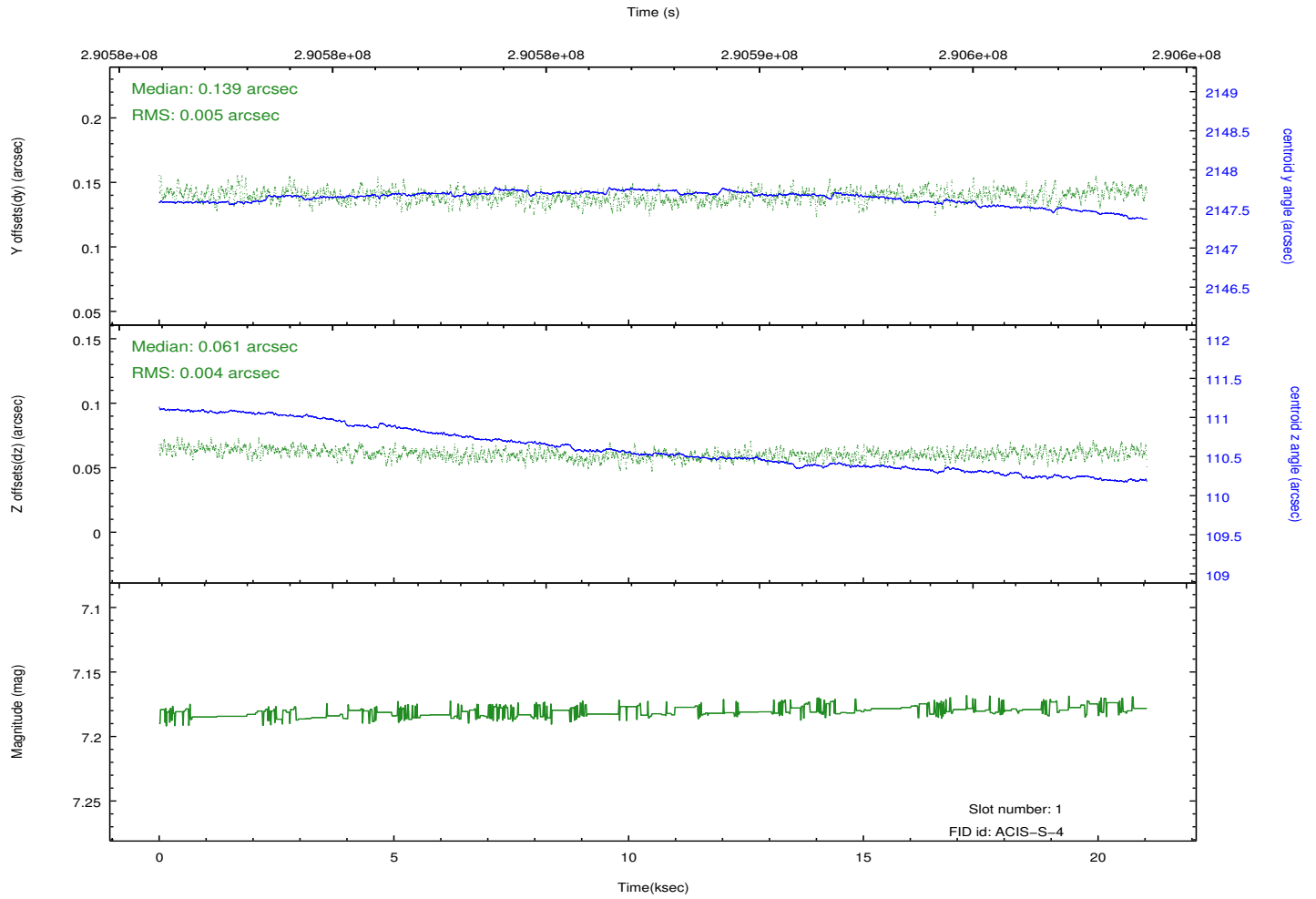
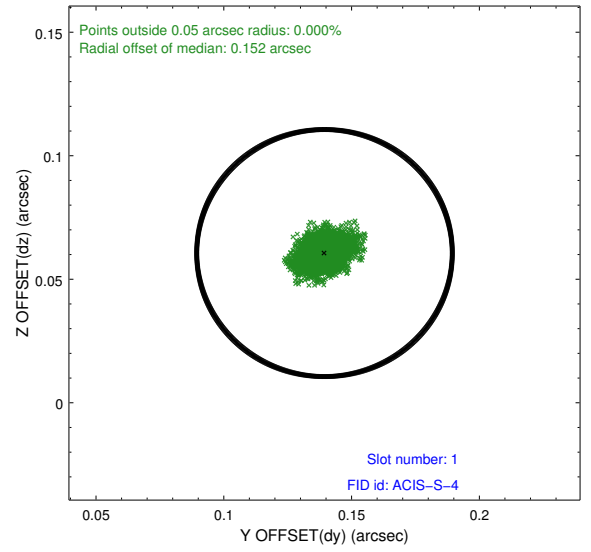
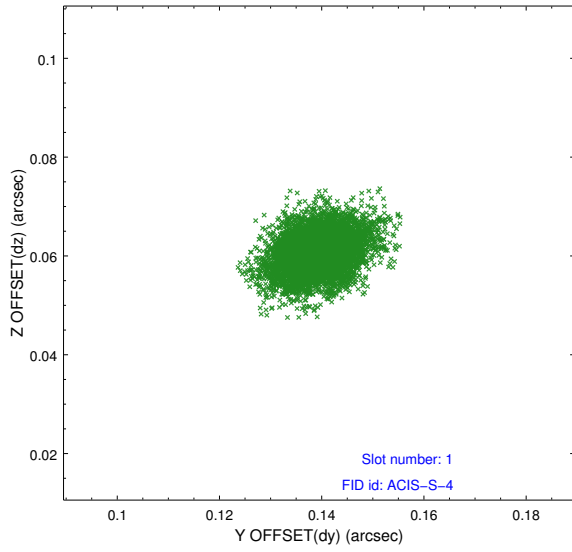


2.5 FID Slots

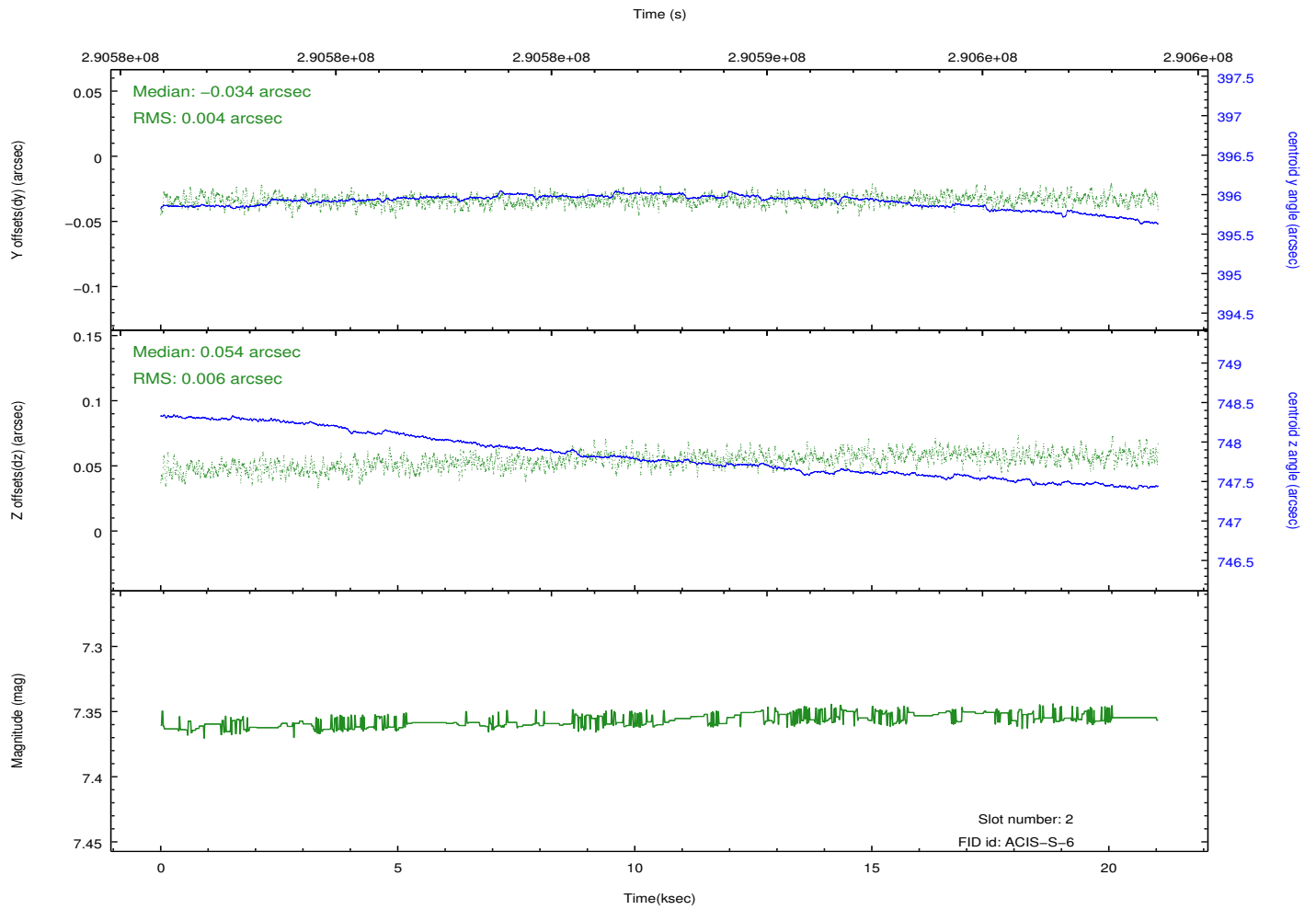
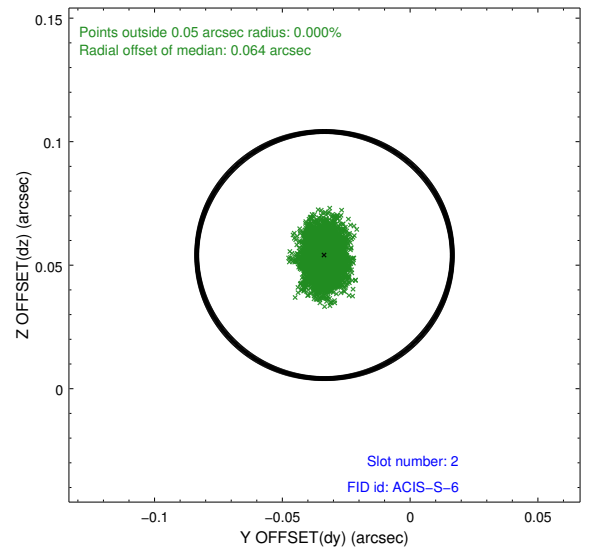
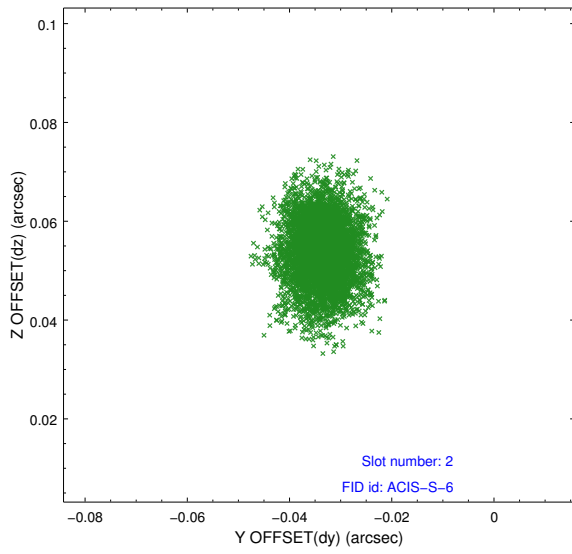
2.5.1 Slot 0



2.5.2 Slot 1

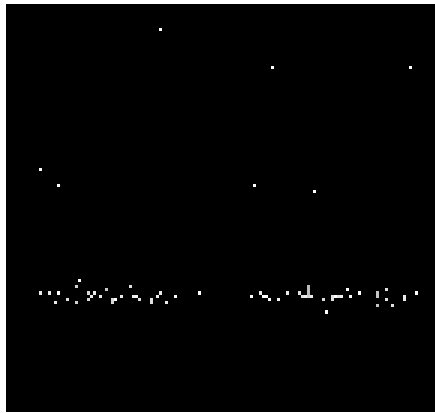


2.5.3 Slot 2

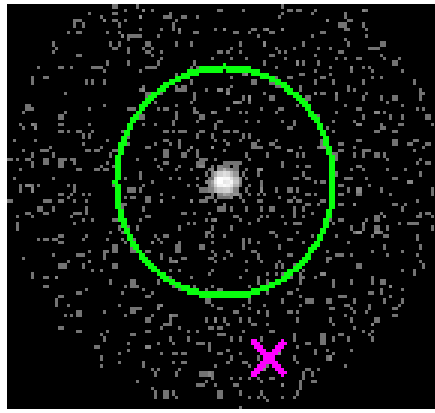


3 Gratings

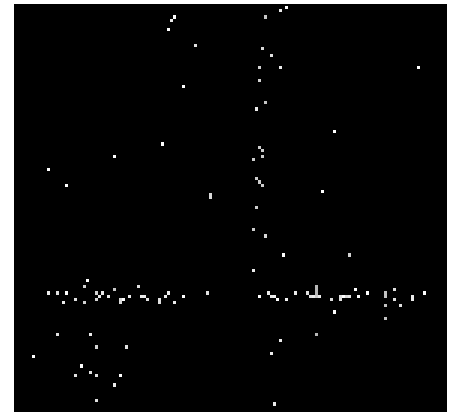
3.1 HEG Arm



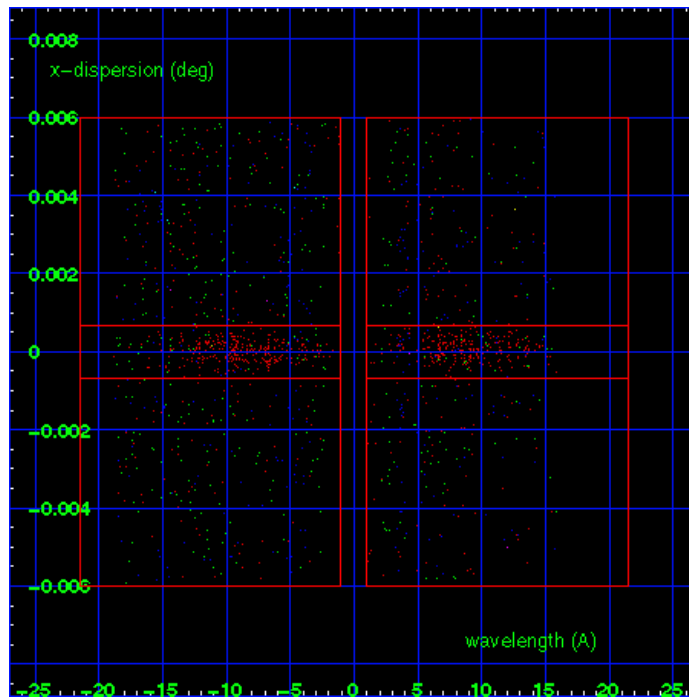
HEG Order Sort 123



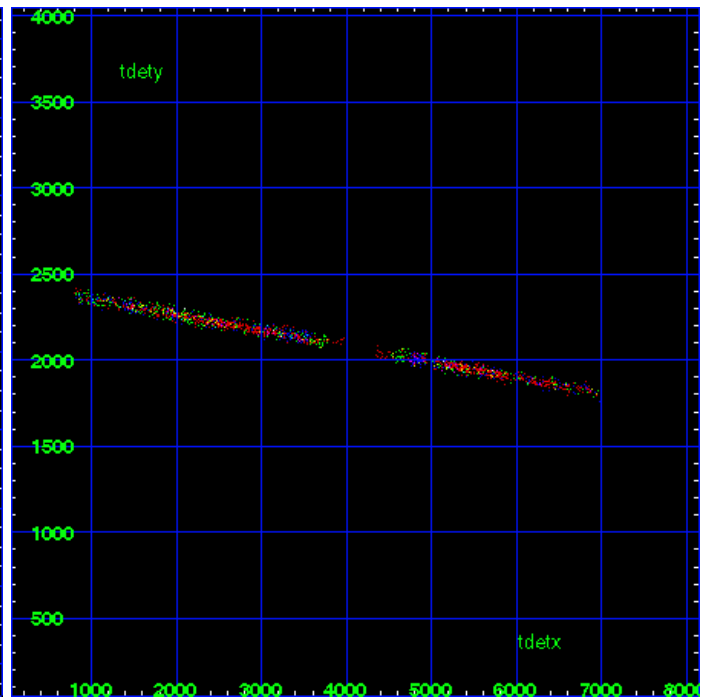
HEG Zero Order



HEG Order Sort ALL

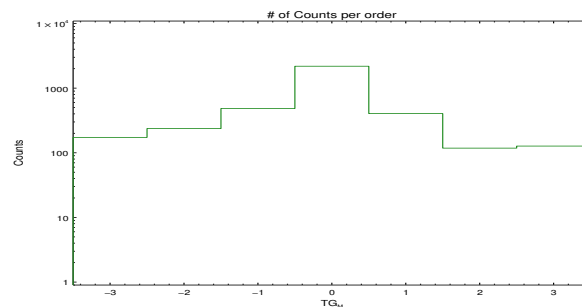


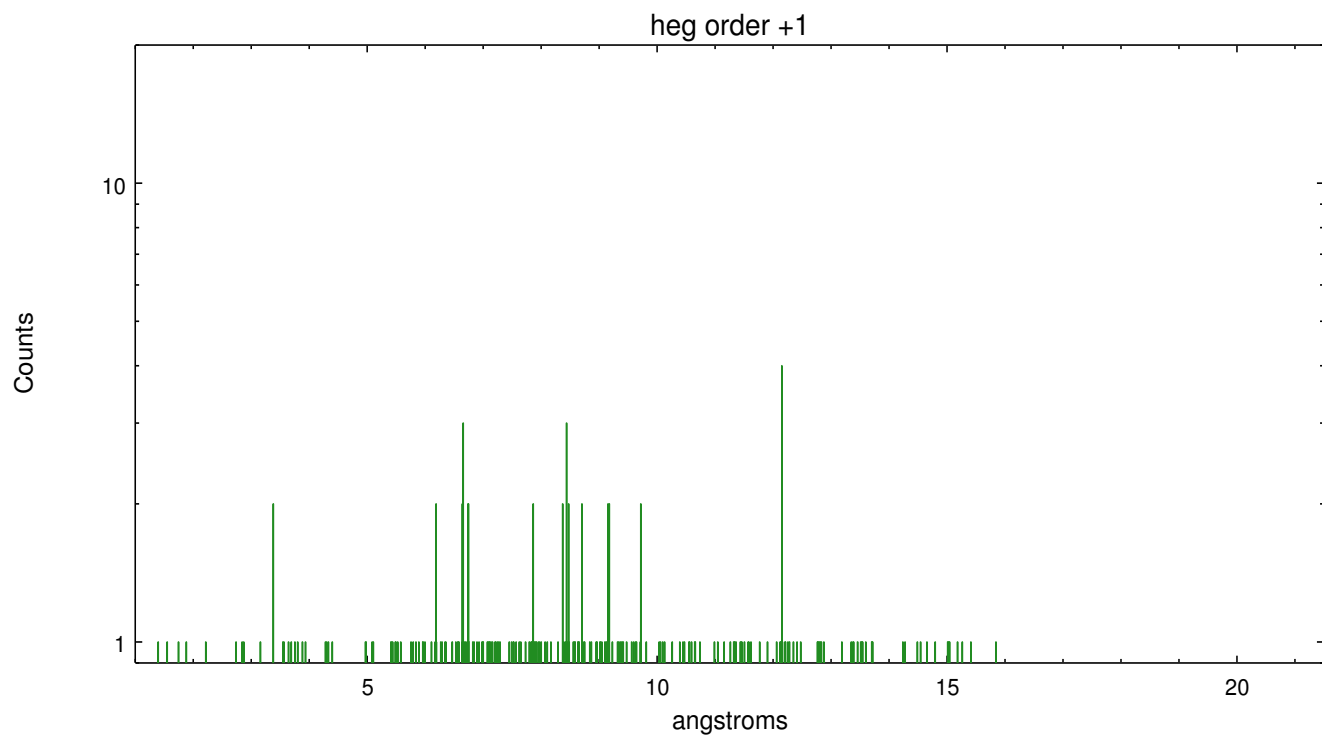
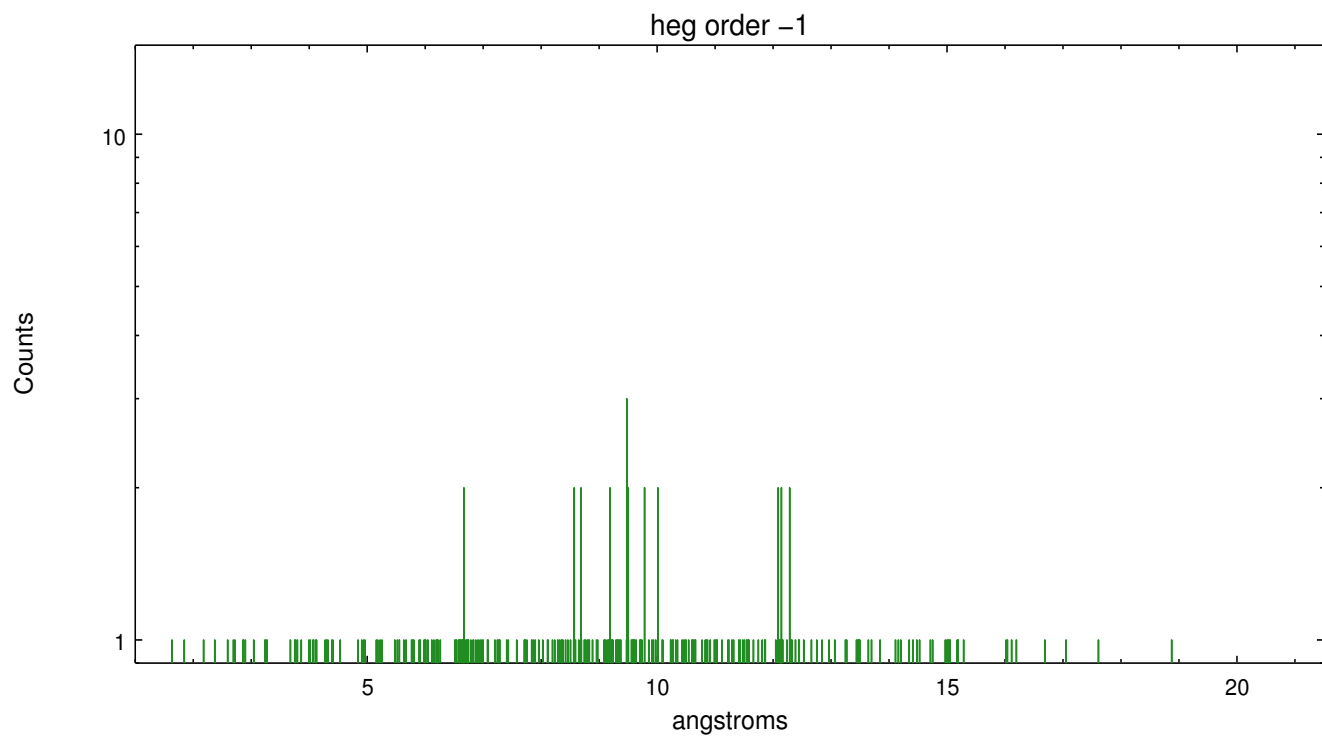
Spot Image HEG



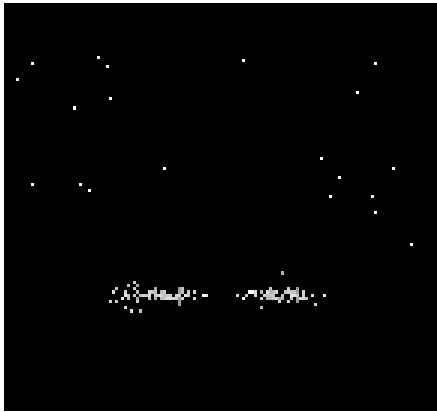
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	173	237	484	2182	404	118	127

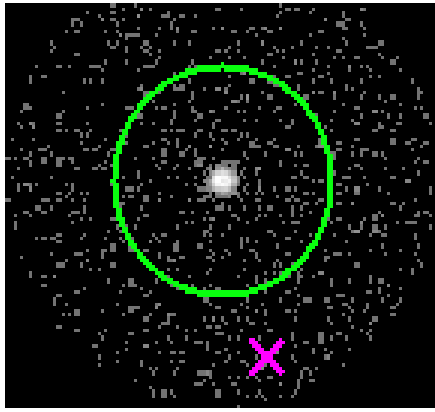




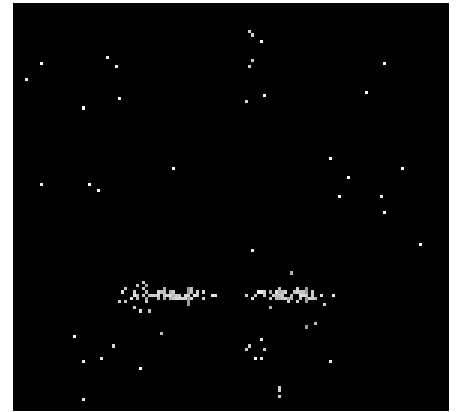
3.2 MEG Arm



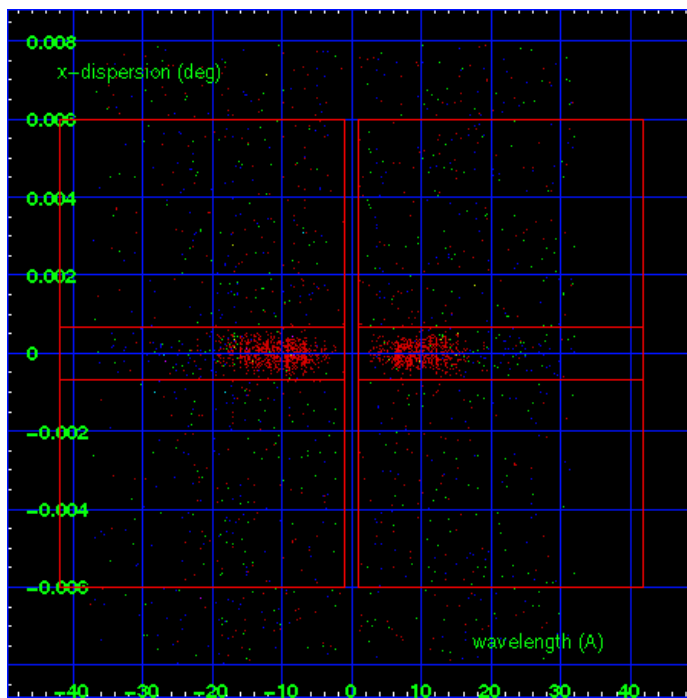
MEG Order Sort 123



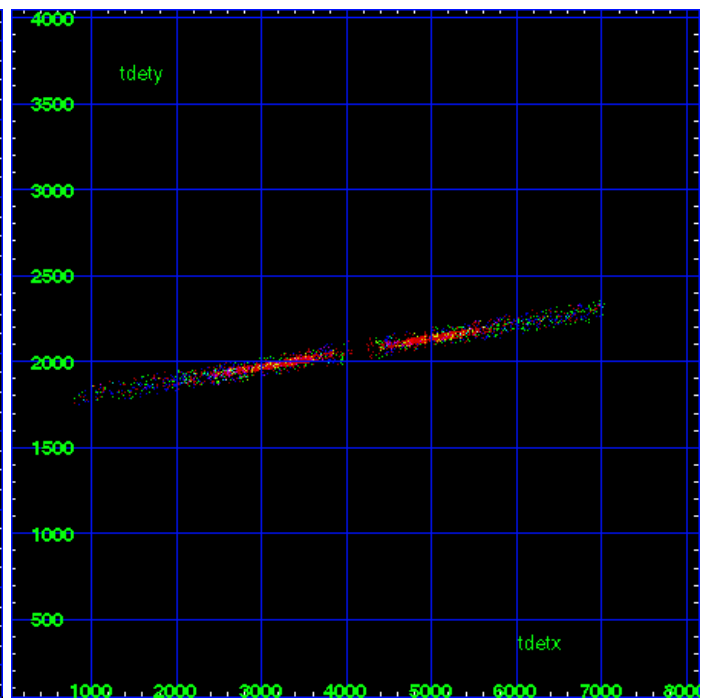
MEG Zero Order



MEG Order Sort ALL

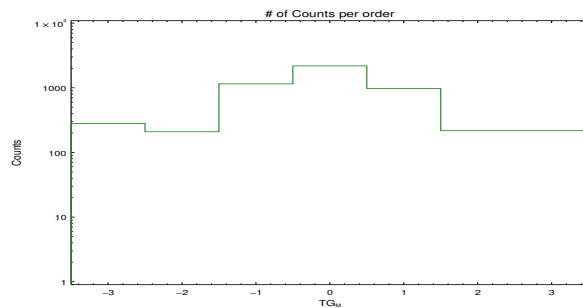


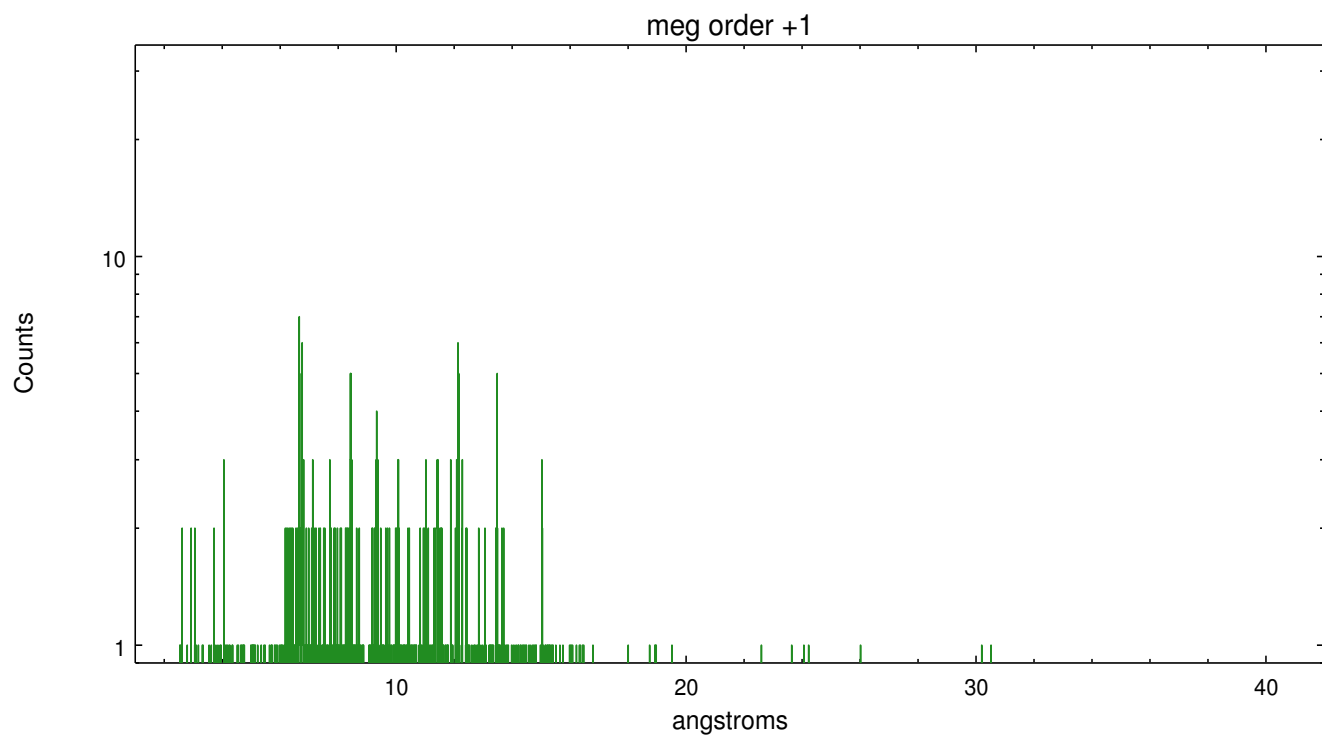
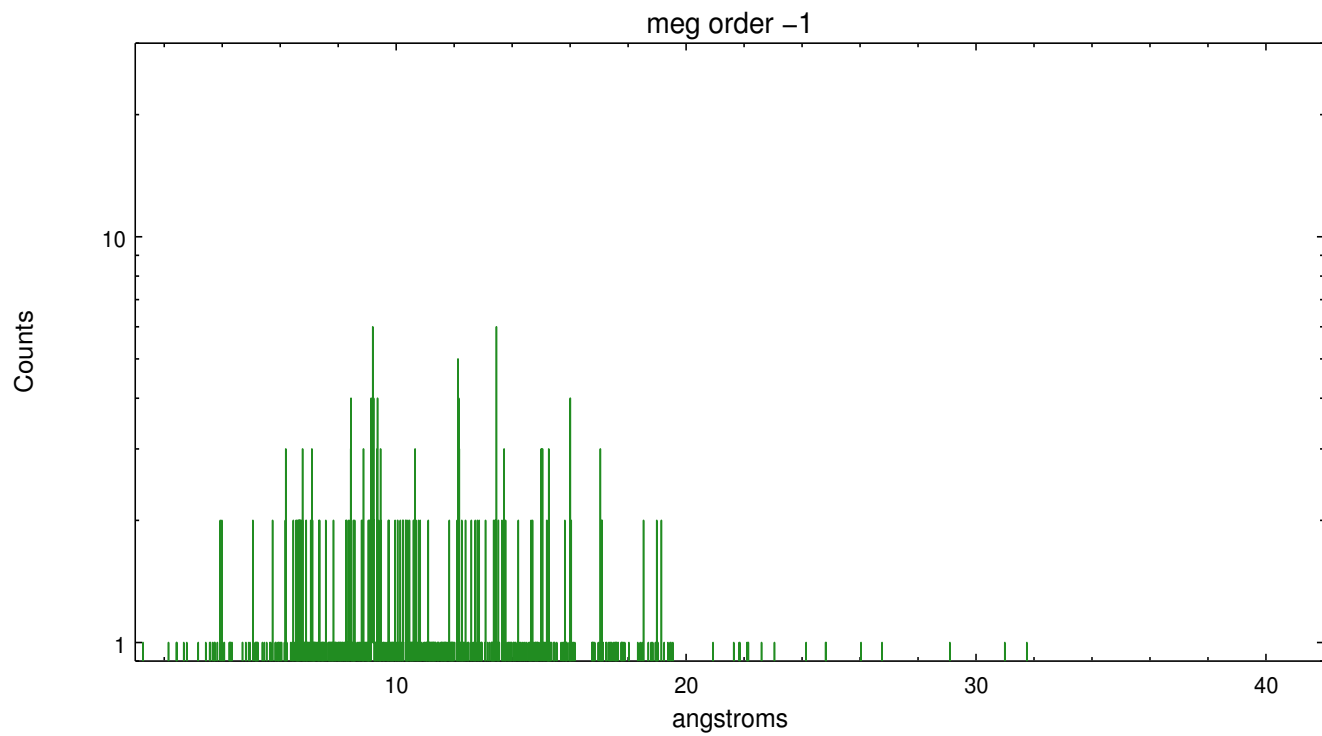
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	280	209	1150	2182	976	217	217





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	21.0325

A.2 Comments