

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 8539 - L2 Version 4
Chandra X-Ray Center

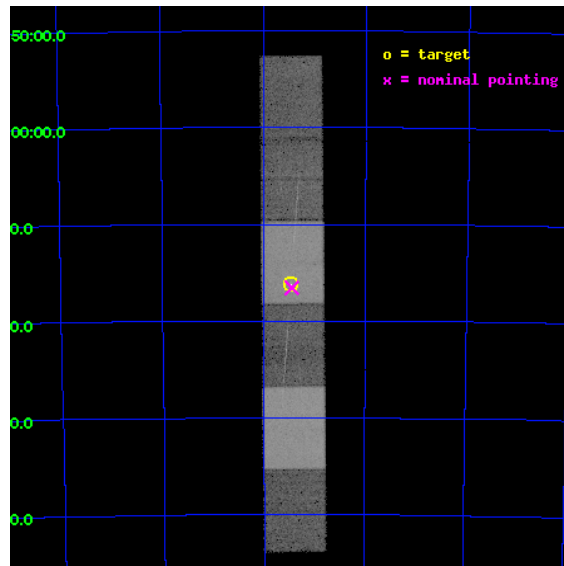
L2 Processing Date : Apr 23 2012

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1 Front

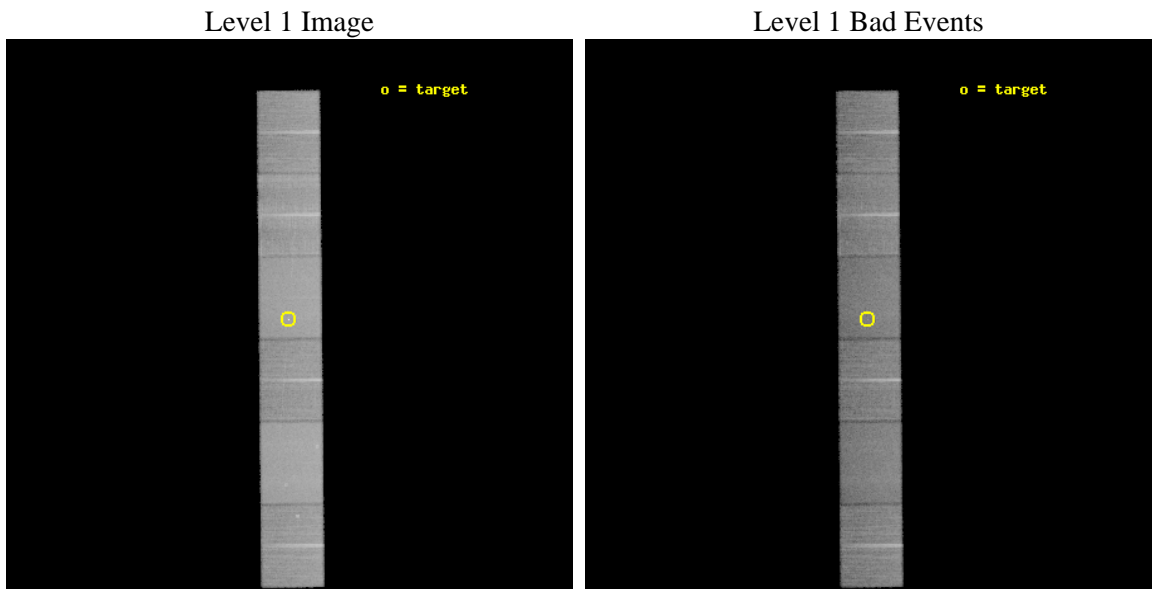
seq_num	500720	Sequence number
obs_id	8539	Observation id
title	High resolution spectral imaging of SN 1987A at 20 years: HETG observation	Proposal title
observer	Prof Claude Canizares	Principal investigator
object	Sn 1987A	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	83.866667	Observer's specified target RA [deg]
dec_targ	-69.269722	Observer's specified target Dec [deg]
ra_nom	83.861912289704	Nominal RA [deg]
dec_nom	-69.275997797957	Nominal Dec [deg]
roll_nom	269.45217545184	Nominal Roll [deg]
revision	4	Processing version of data
ontime	25182.5	Sum of GTIs [s]
livetime	24775.780782672	Livetime [s]
ontime4	25174.876999259	Sum of GTIs [s]
ontime5	25182.5	Sum of GTIs [s]
ontime6	25179.958989739	Sum of GTIs [s]
ontime7	25182.5	Sum of GTIs [s]
ontime8	25182.5	Sum of GTIs [s]
ontime9	25182.5	Sum of GTIs [s]
l2events	308102	Number of level 2 events



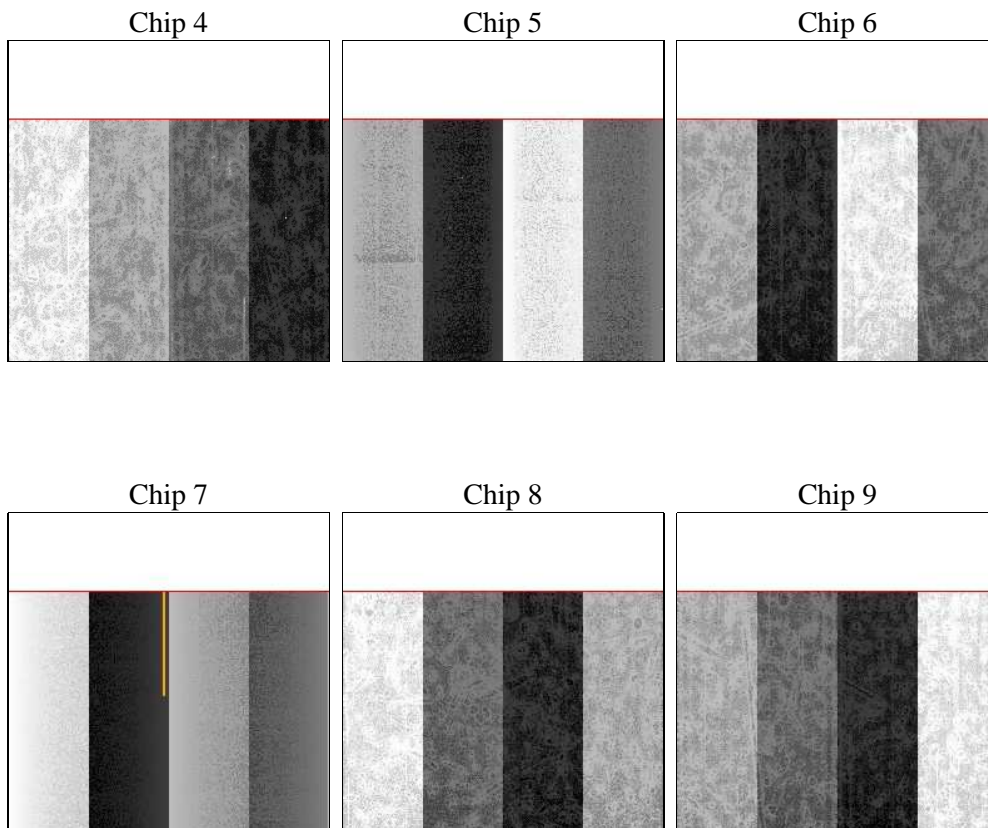
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	25000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	25182.5	Sum of GTIs [s]
caldbver	4.4.9	 	ontime4	25174.876999259	Sum of GTIs [s]
date	2012-04-23T13:28:45	Date and time of file creation	ontime5	25182.5	Sum of GTIs [s]
revision	4	Processing version of data	ontime6	25179.958989739	Sum of GTIs [s]
			ontime7	25182.5	Sum of GTIs [s]
			ontime8	25182.5	Sum of GTIs [s]
			ontime9	25182.5	Sum of GTIs [s]
			l1events	1385182	Number of level 1 events

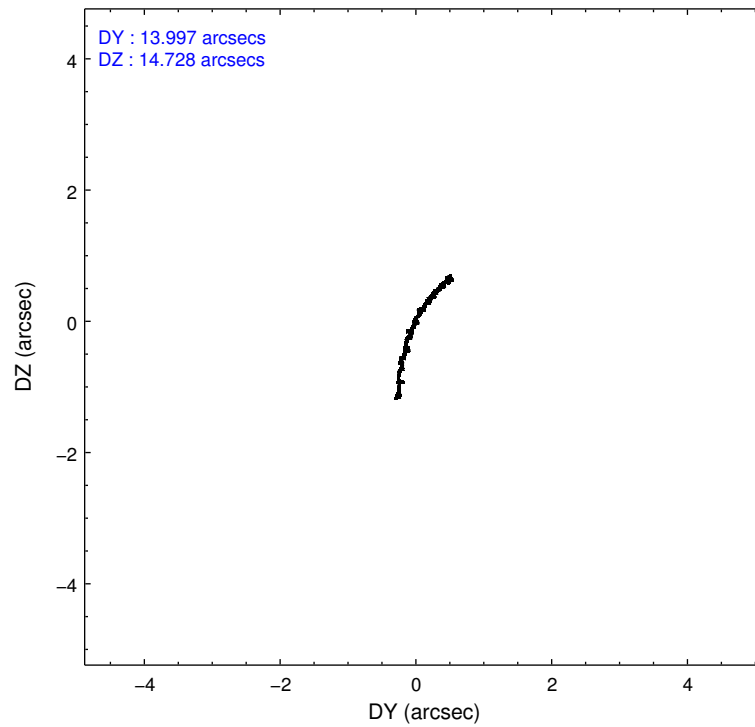
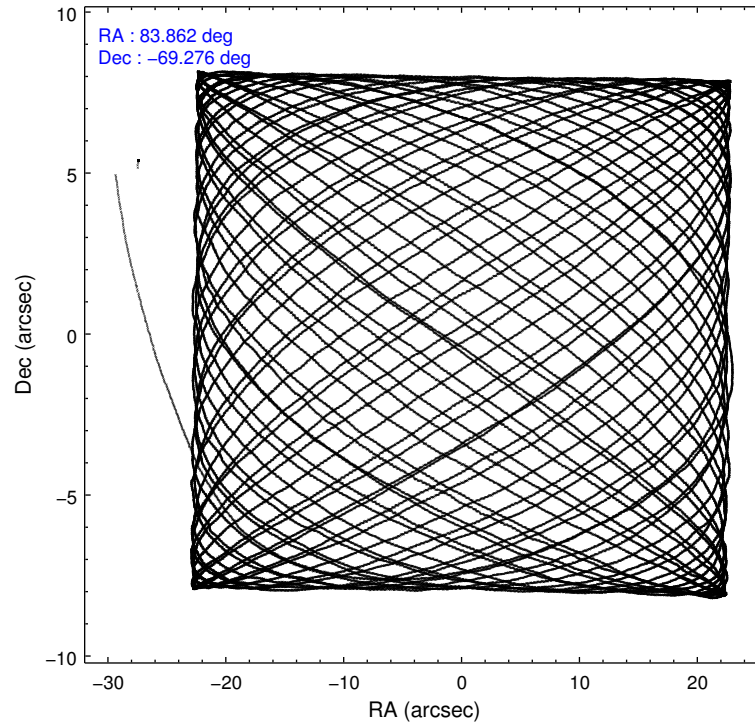
2.1.4 Events

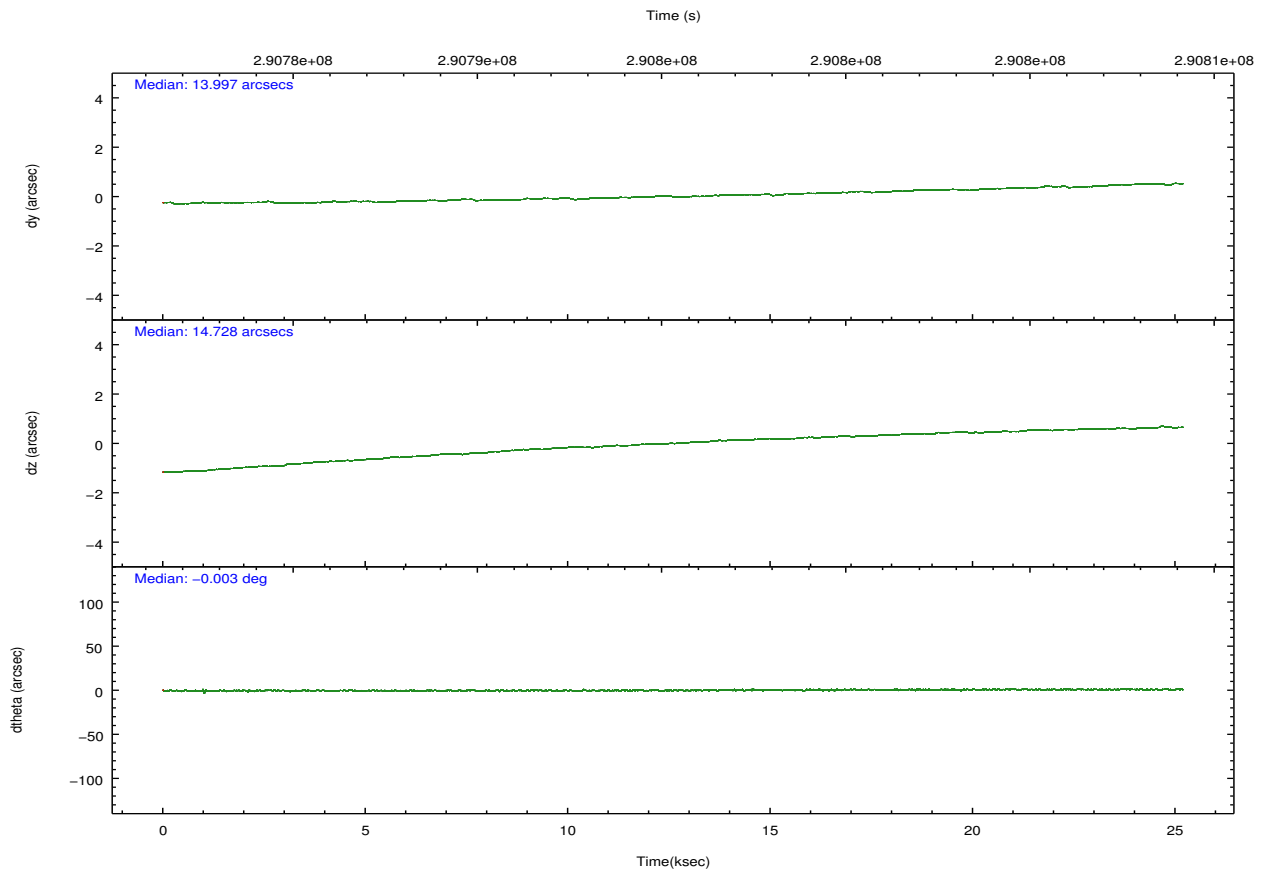
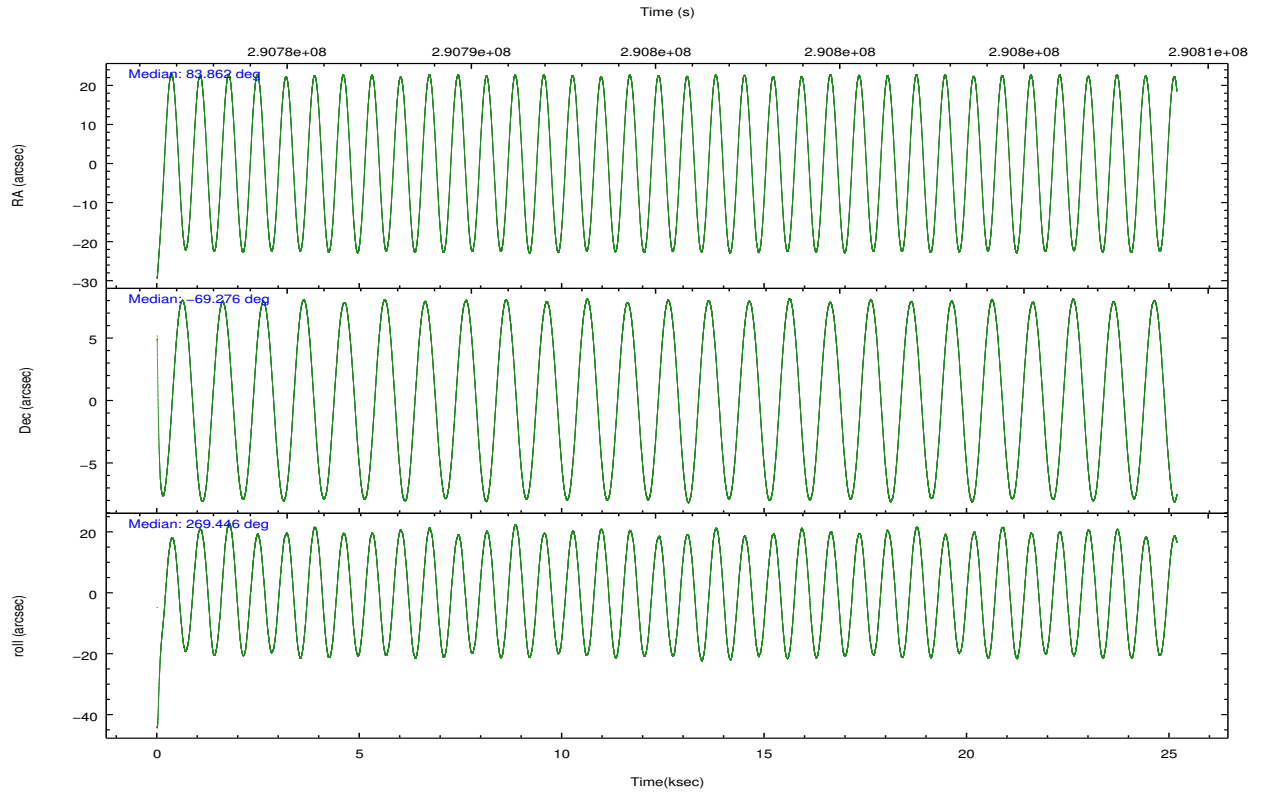
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	209925	283084	194954	260046	244432	192741	grade 0 events	11979	9680	10072	9888	17957	9916
rejected events	185175	159495	171589	153466	190458	169617		5%	3%	5%	3%	7%	5%
rejected %	88%	56%	88%	59%	77%	88%	grade 1 events	171	422	98	253	142	111
								0%	0%	0%	0%	0%	0%
							grade 2 events	5115	39121	4925	22618	11986	4625
								2%	13%	2%	8%	4%	2%
							grade 3 events	2547	5409	2363	9780	6164	2502
								1%	1%	1%	3%	2%	1%
							grade 4 events	2420	5385	2302	10005	5712	2361
								1%	1%	1%	3%	2%	1%
							grade 5 events	8392	20865	8705	24129	11620	9148
								3%	7%	4%	9%	4%	4%
							grade 6 events	3825	69397	4609	58406	14121	4626
								1%	24%	2%	22%	5%	2%
							grade 7 events	175476	132805	161880	124967	176730	159452
								83%	46%	83%	48%	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	83.86191228970404	Subarray requested	CUSTOM	CUSTOM
[deg] Pointing Dec	-69.252366	-69.27599779795656	Subarray start row	1	1
[deg] Pointing Roll	269.259203	269.4521754518368	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)	290782917.184000	290781293.16468			
Observation start date	2007-03-20T13:00:52	2007-03-20T12:34:53			
[s] Observation end time (MET)	290807917.184000	290808752.40348			
Observation end date	2007-03-20T19:57:32	2007-03-20T20:12:32			
Read mode	TIMED	TIMED			

2.3 Aspect



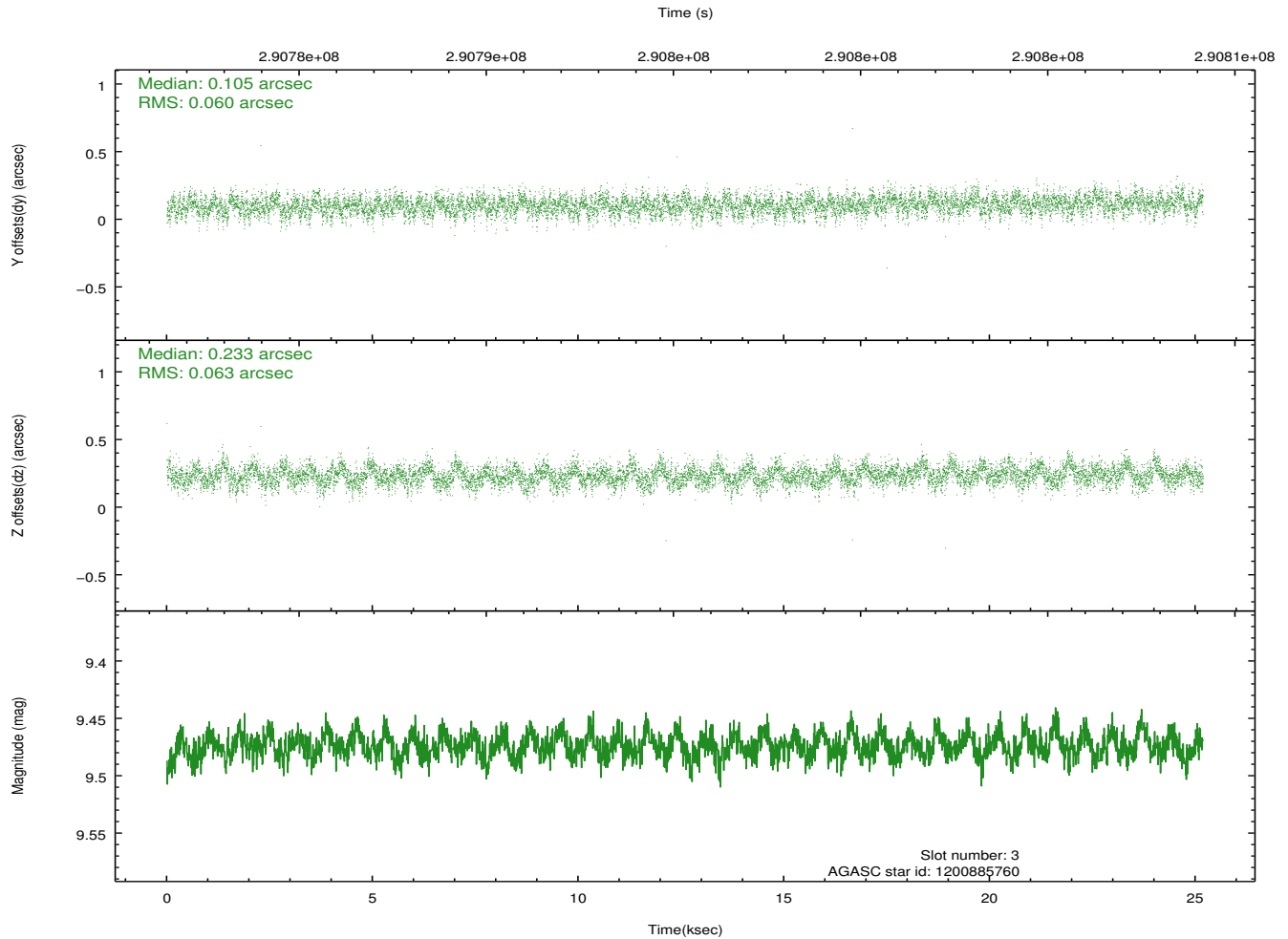
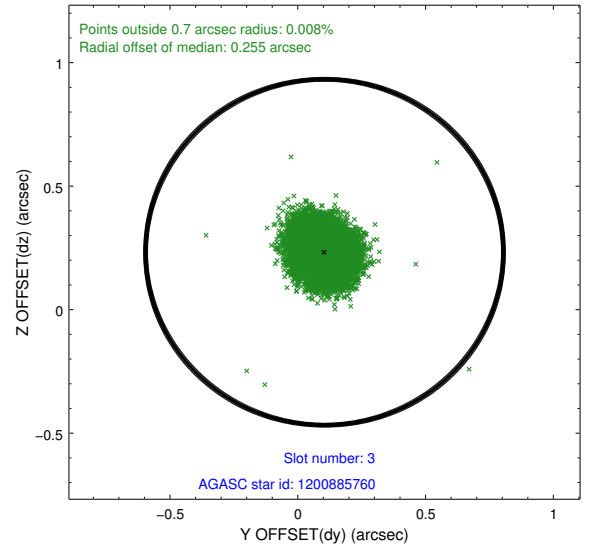
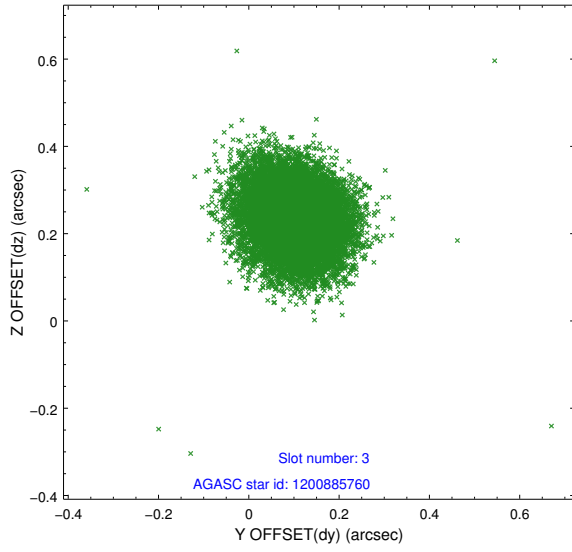


Slot Statistics

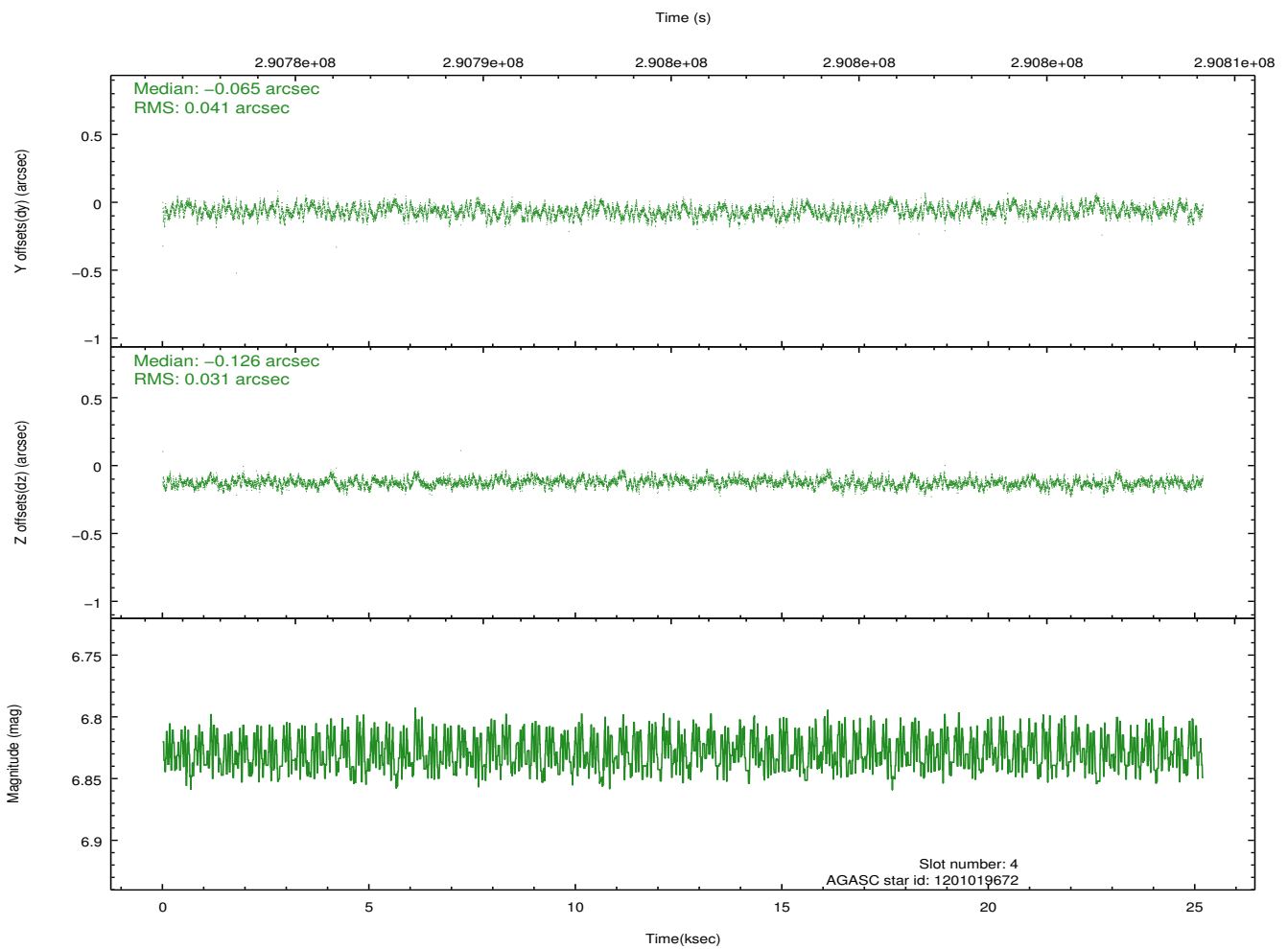
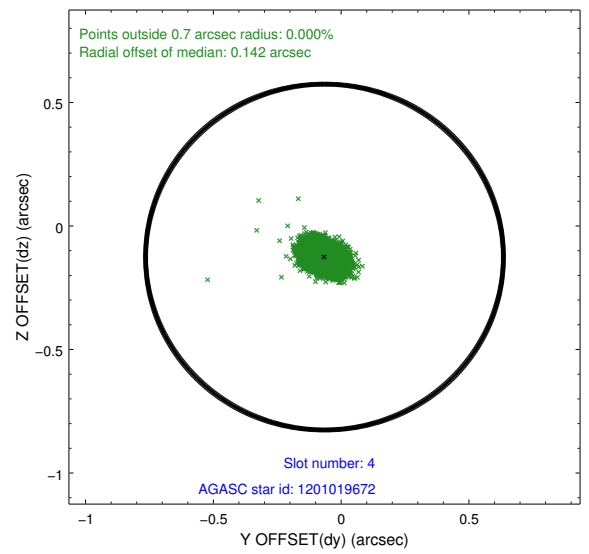
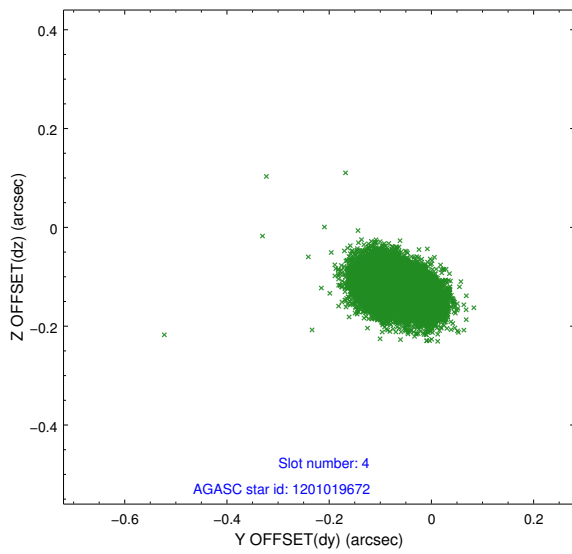
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.09	6144	-0.161	-0.126	0.008	0.014	0.000000	0.000000	-766.97	-1798.21
1	FID	ACIS-S-4	7.18	6143	0.159	0.081	0.008	0.014	0.000000	0.000000	2146.60	110.29
2	FID	ACIS-S-6	7.36	6144	-0.025	0.052	0.011	0.017	0.000000	0.000000	395.34	747.82
3	GUIDE	1200885760	9.47	12267	0.105	0.233	0.091	0.149	83.723637	-68.777667	-1706.67	-151.20
4	GUIDE	1201019672	6.83	12286	-0.065	-0.126	0.055	0.088	85.312192	-68.770187	-1737.57	1918.81
5	GUIDE	1201020040	8.59	12283	0.067	-0.162	0.077	0.122	85.379163	-68.879396	-1343.27	2001.38
6	GUIDE	1201540776	9.58	12278	-0.003	0.003	0.115	0.185	85.107945	-69.858480	2177.84	1621.74
7	GUIDE	1201410616	9.33	12267	-0.099	0.052	0.100	0.161	82.516808	-69.784406	1953.91	-1599.10

2.4 Star Slots

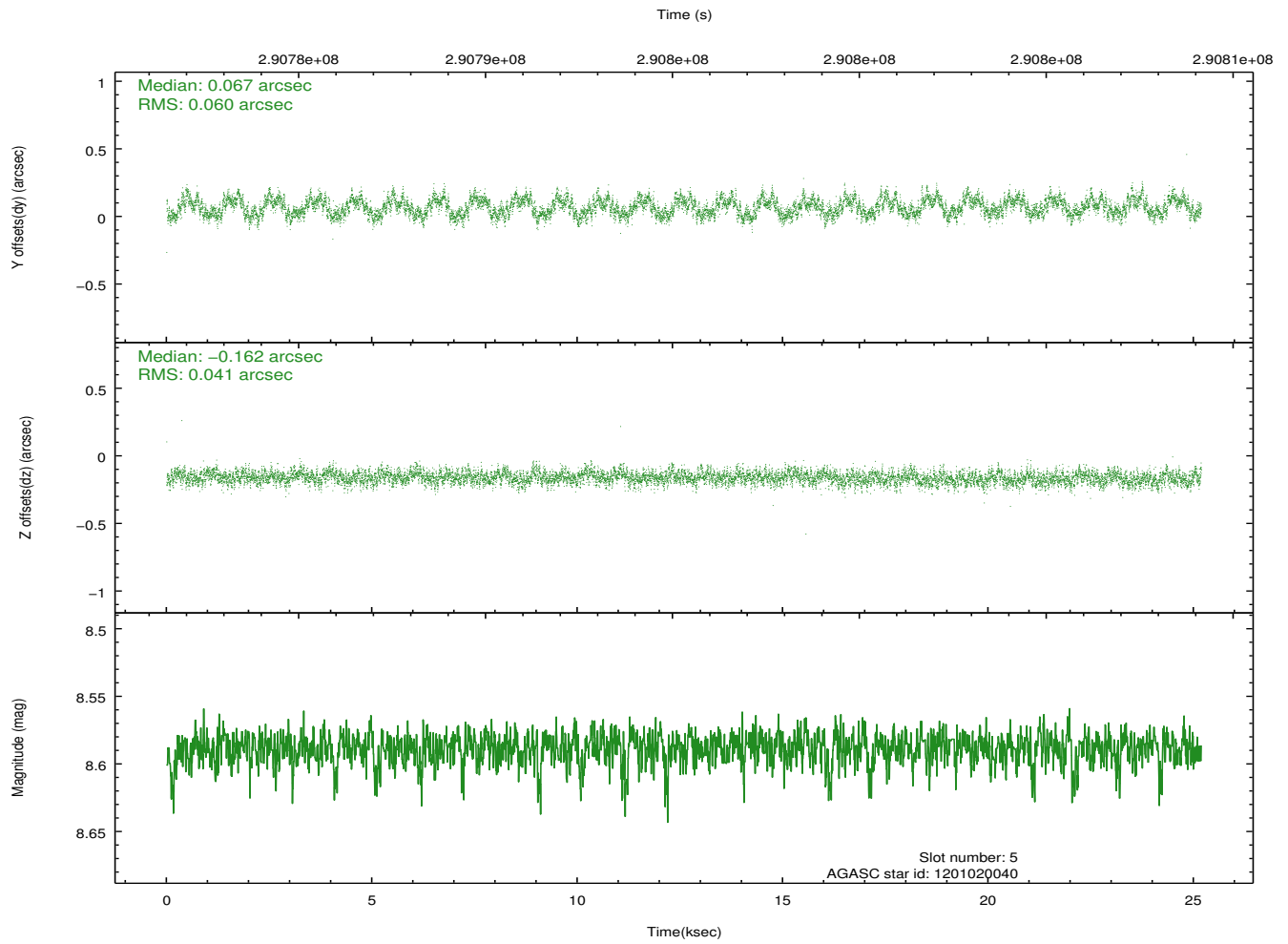
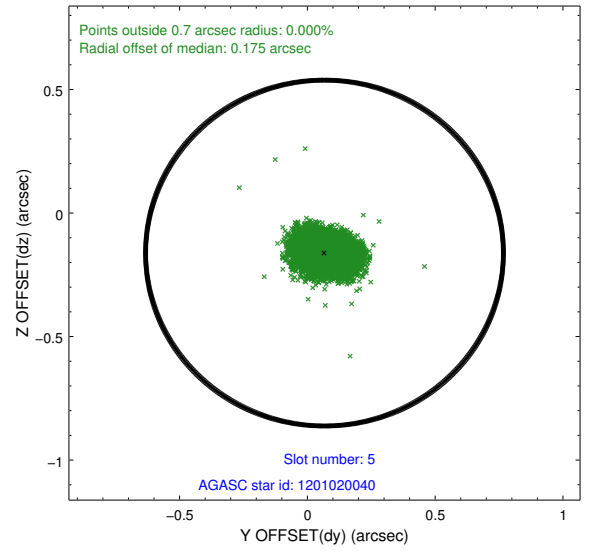
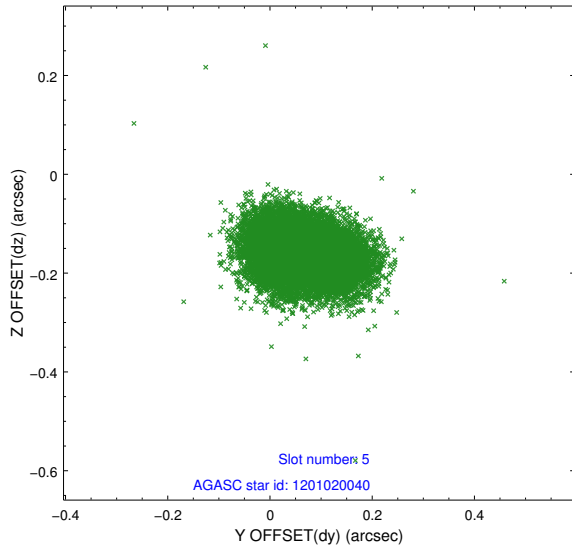
2.4.1 Slot 3



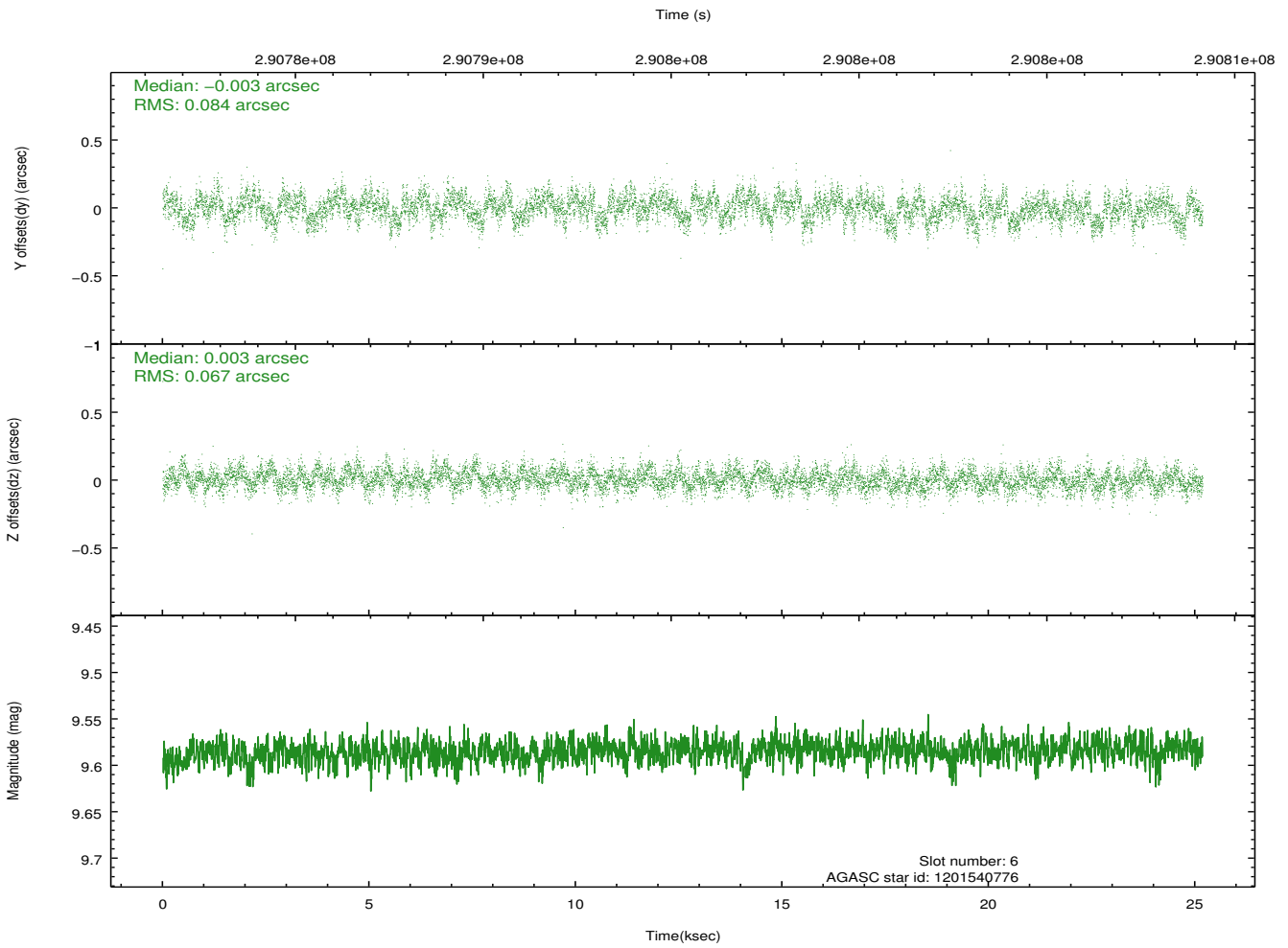
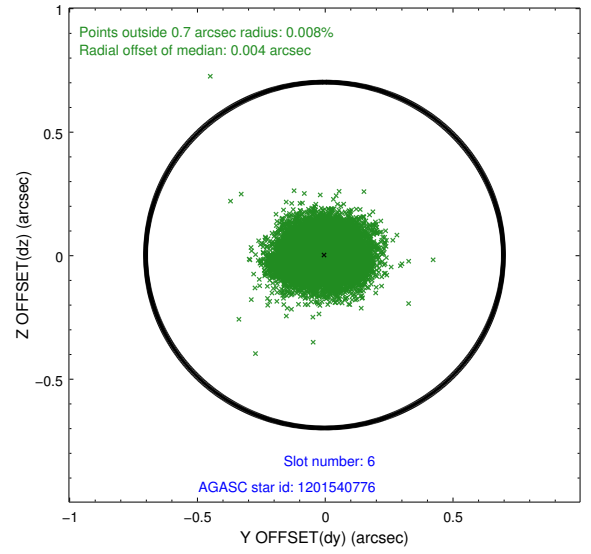
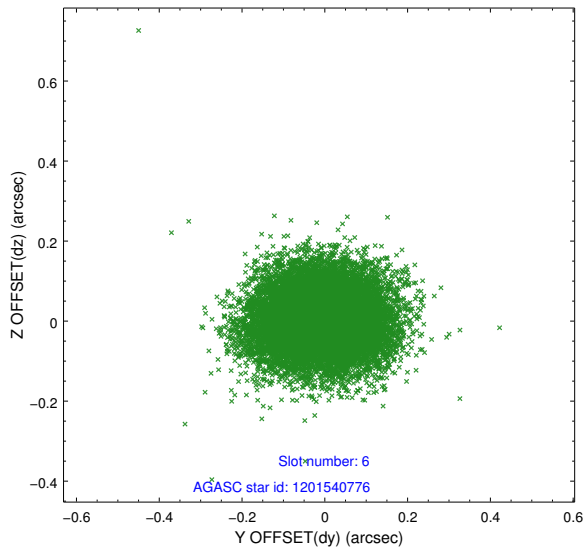
2.4.2 Slot 4



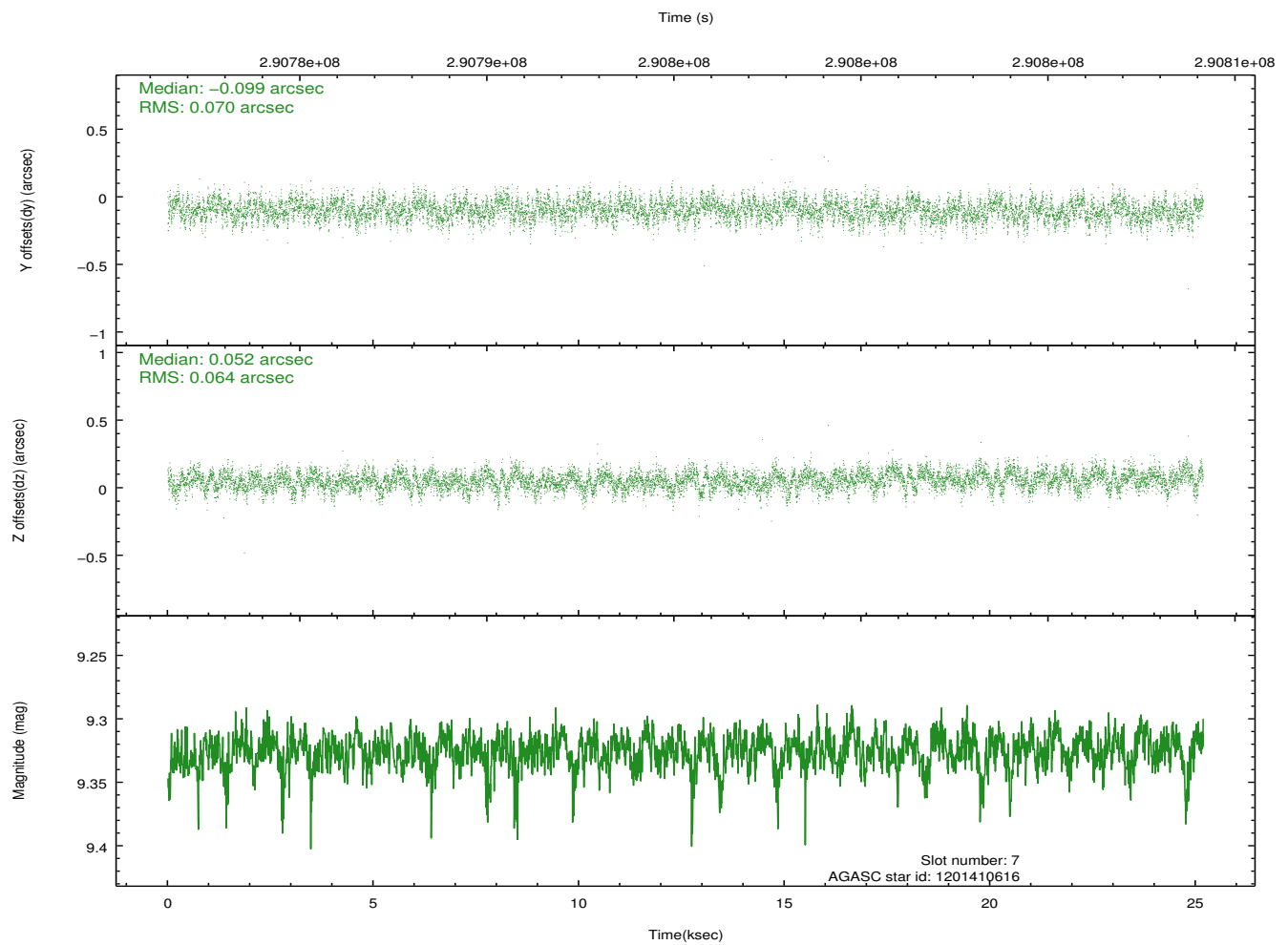
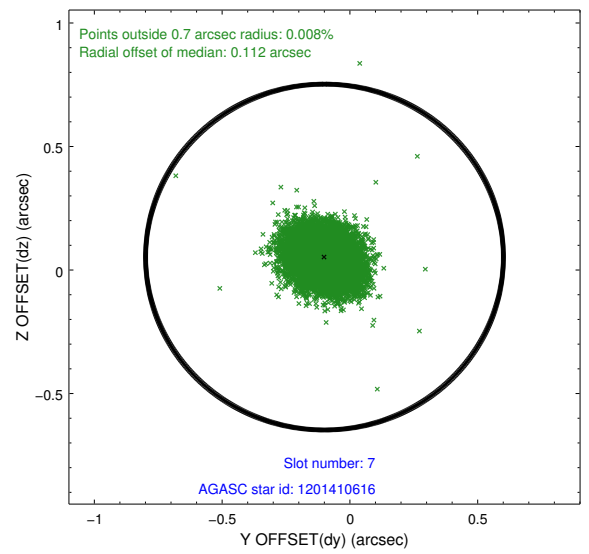
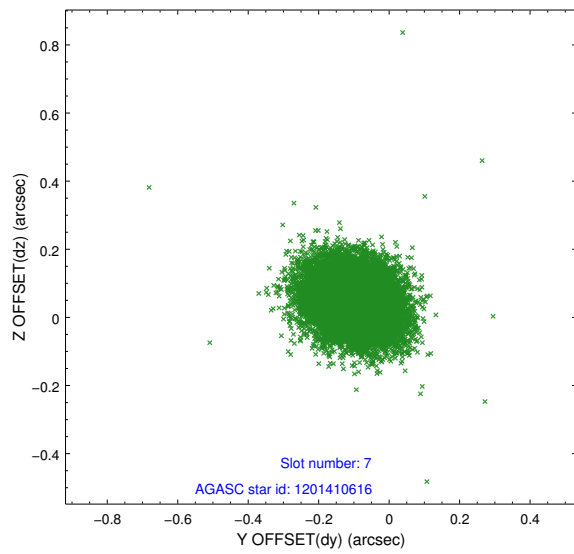
2.4.3 Slot 5



2.4.4 Slot 6

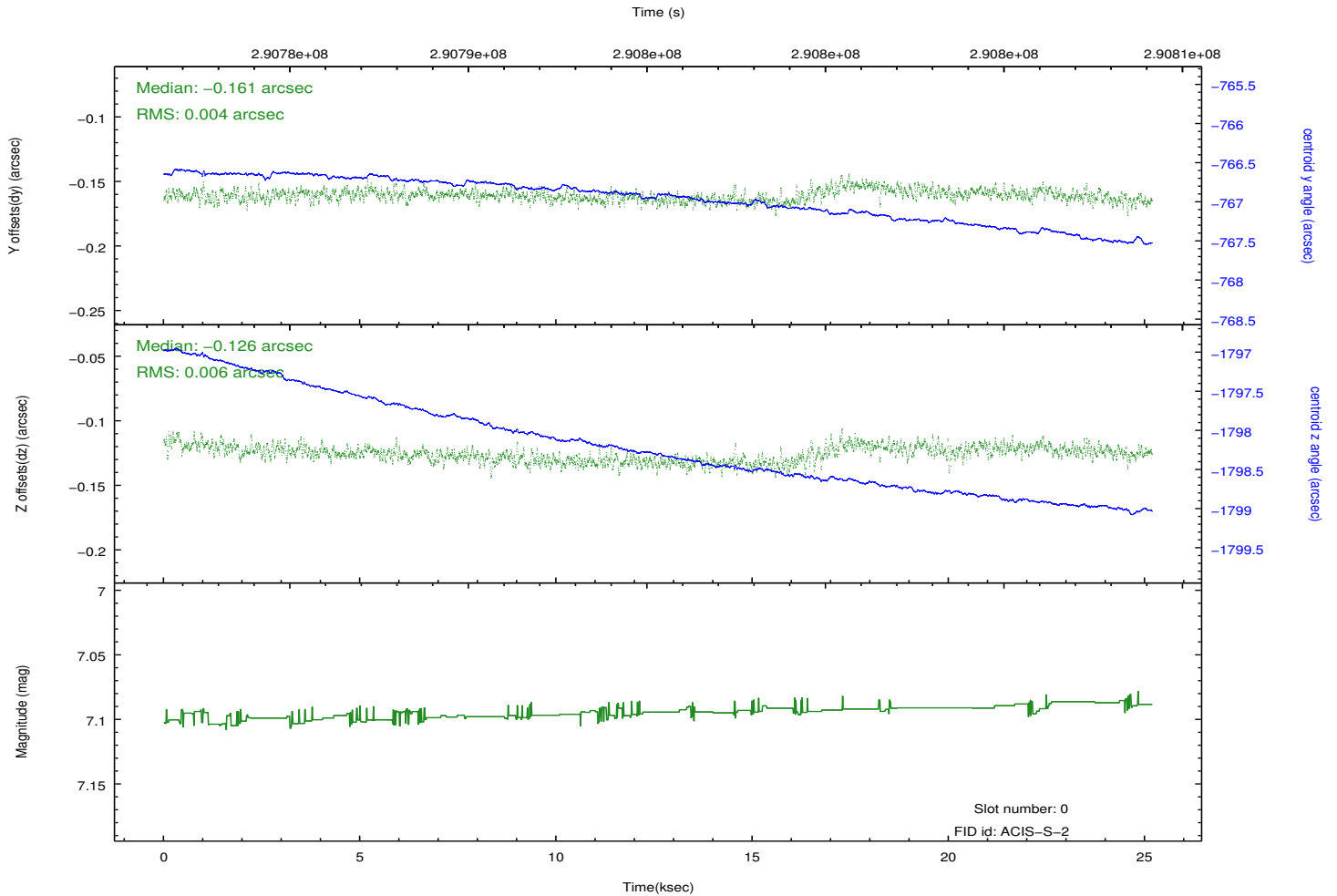
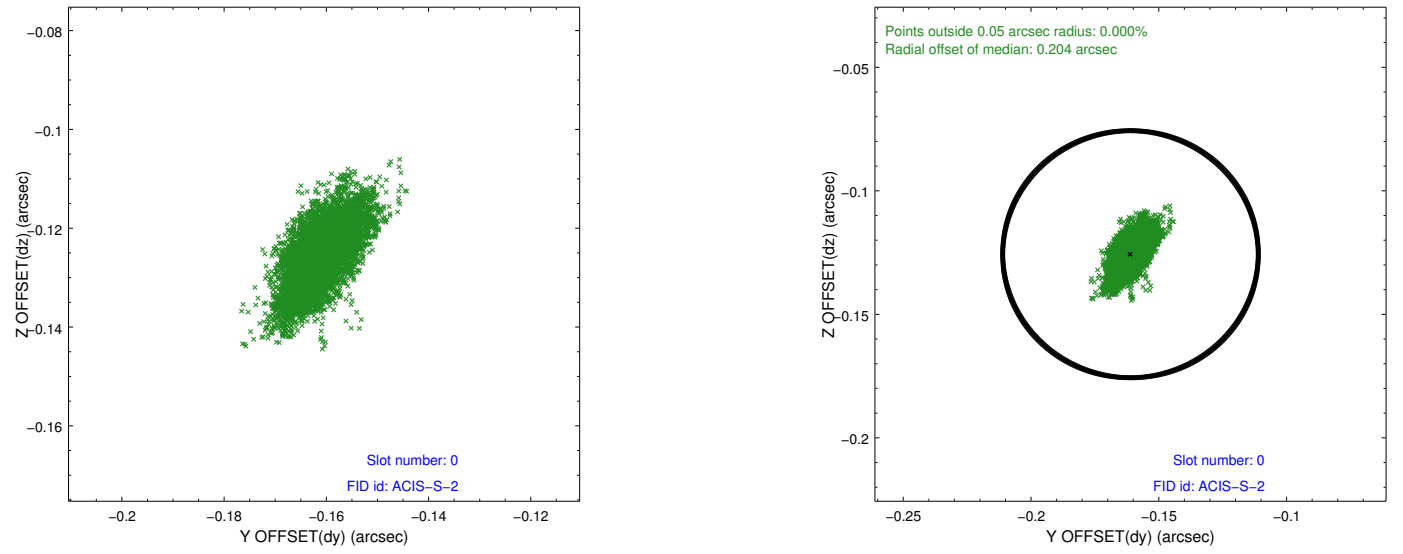


2.4.5 Slot 7

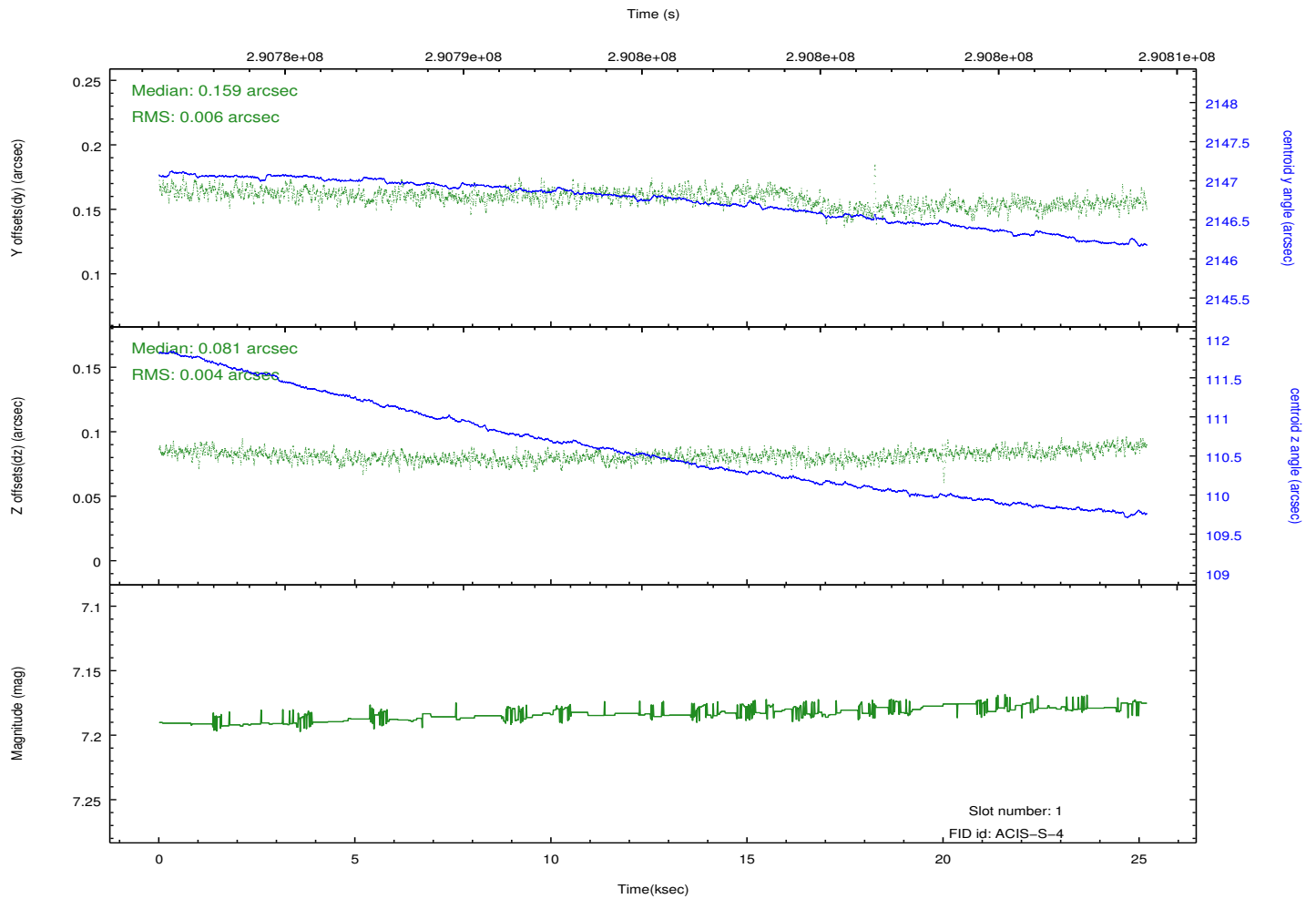
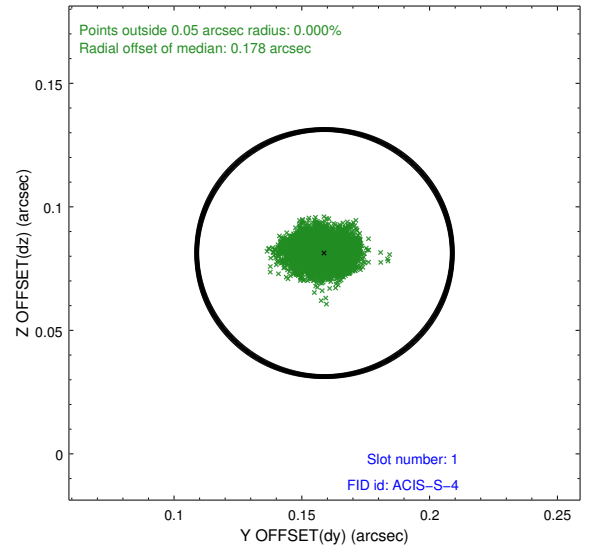
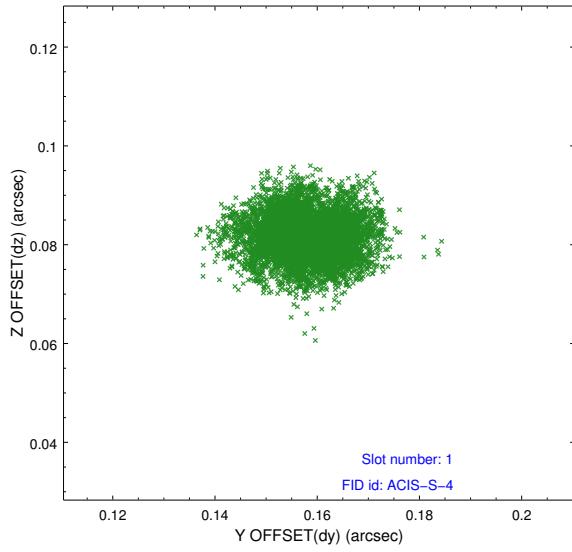


2.5 FID Slots

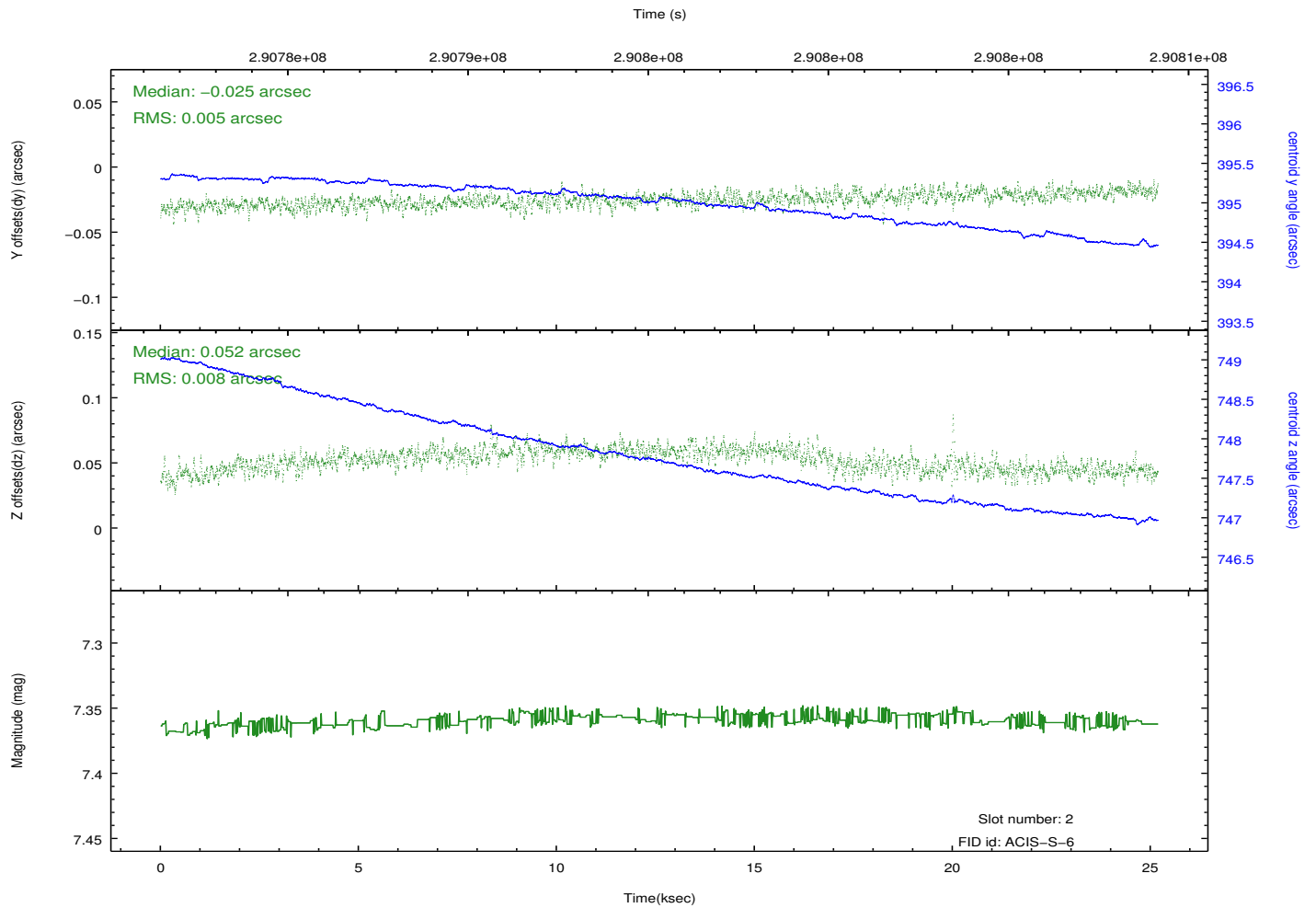
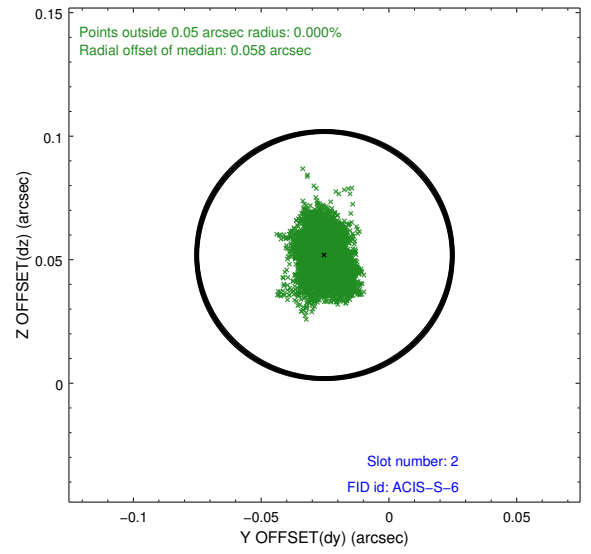
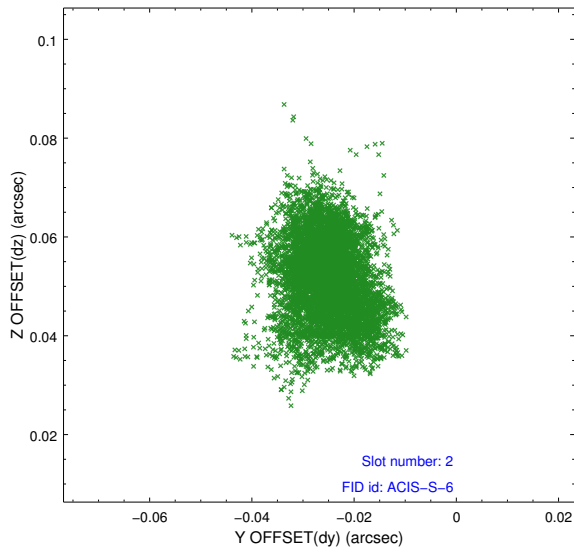
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

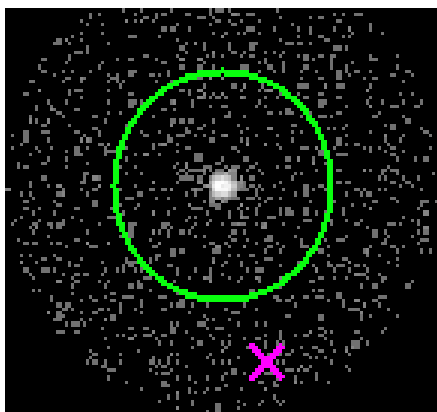


3 Gratings

3.1 HEG Arm



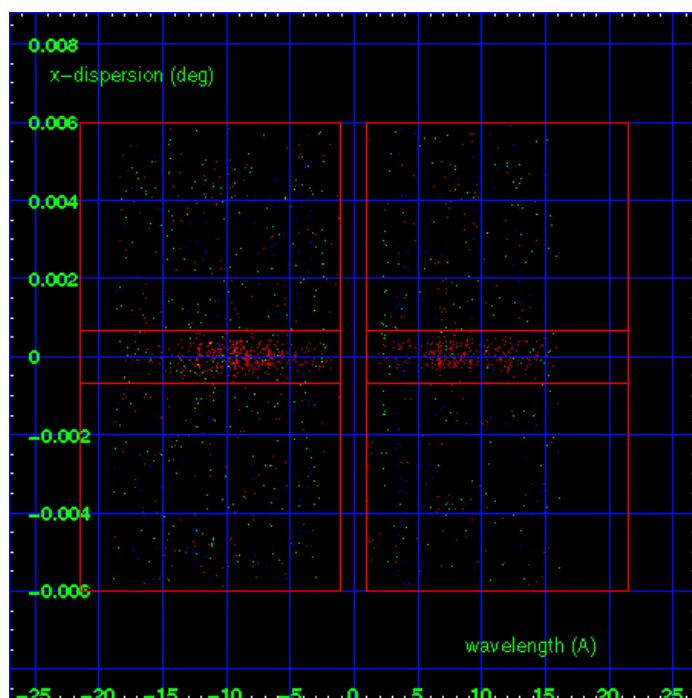
HEG Order Sort 123



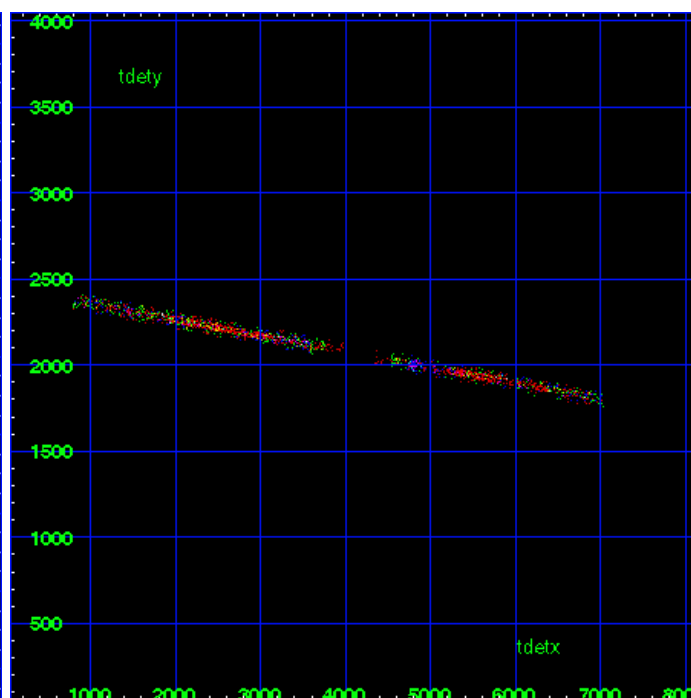
HEG Zero Order



HEG Order Sort ALL

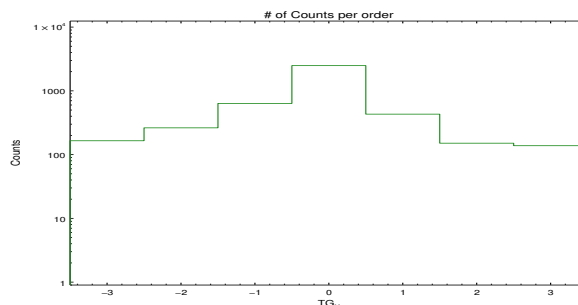


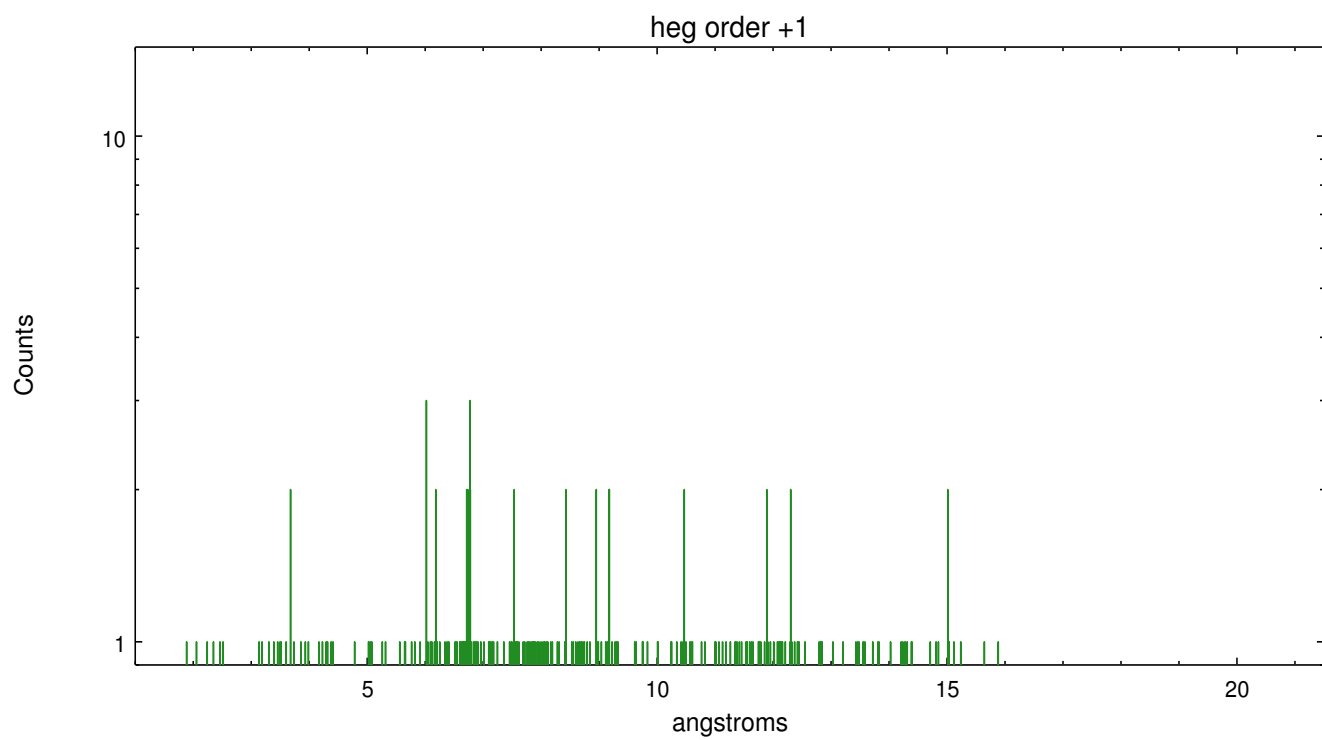
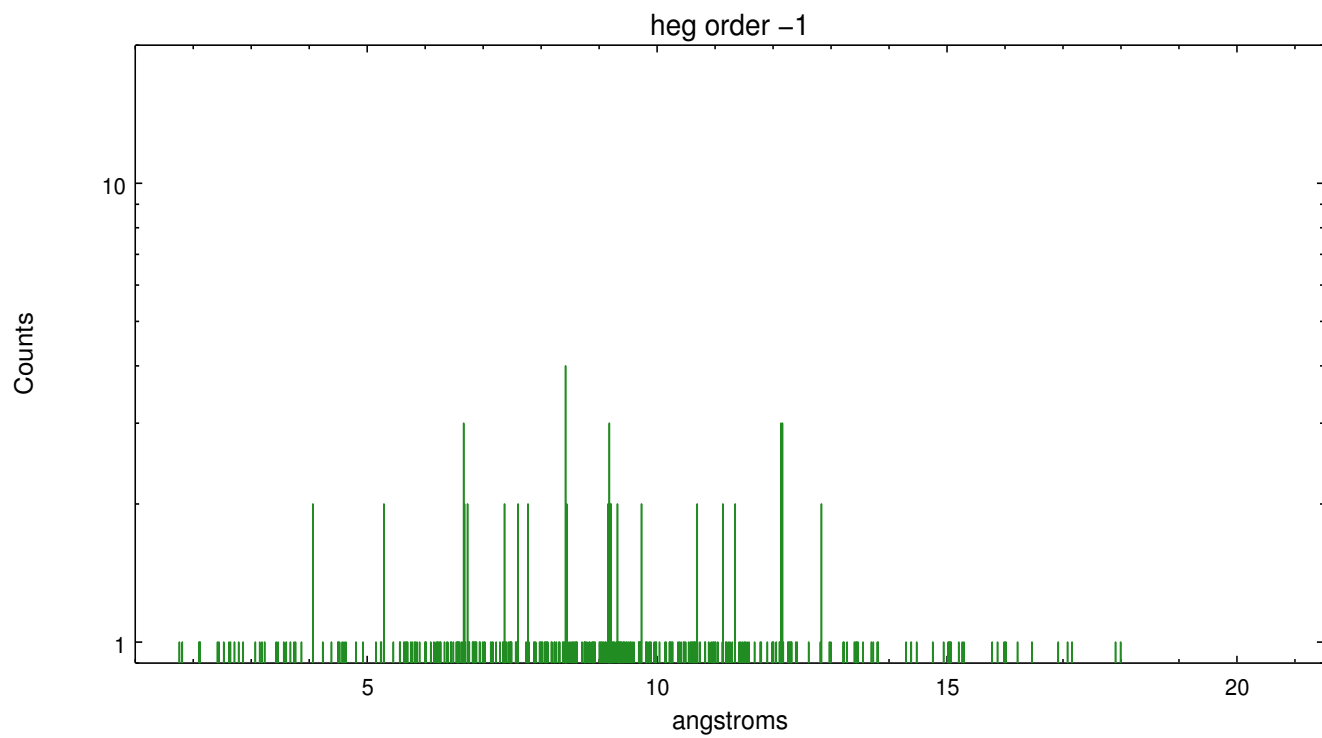
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	165	263	635	2488	431	151	138

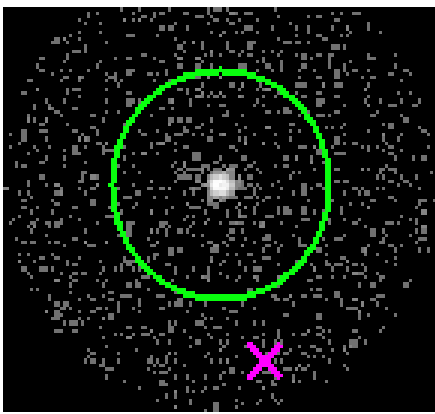




3.2 MEG Arm



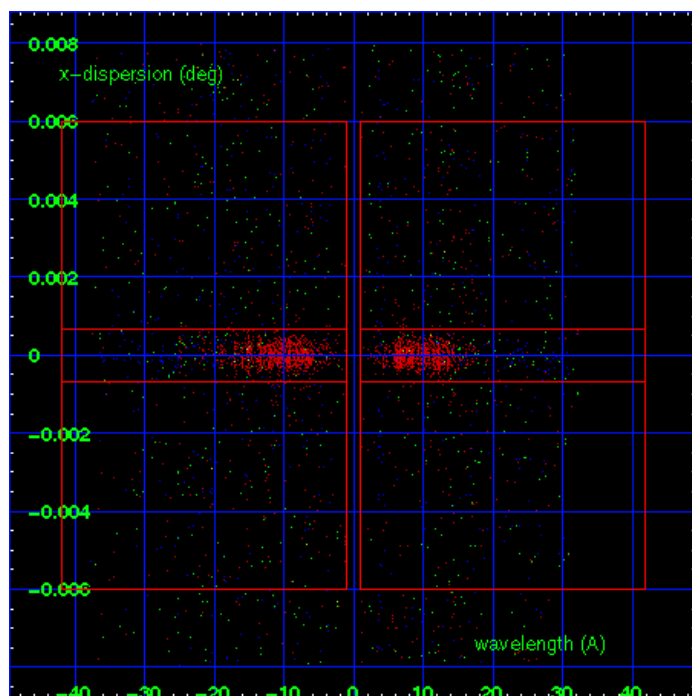
MEG Order Sort 123



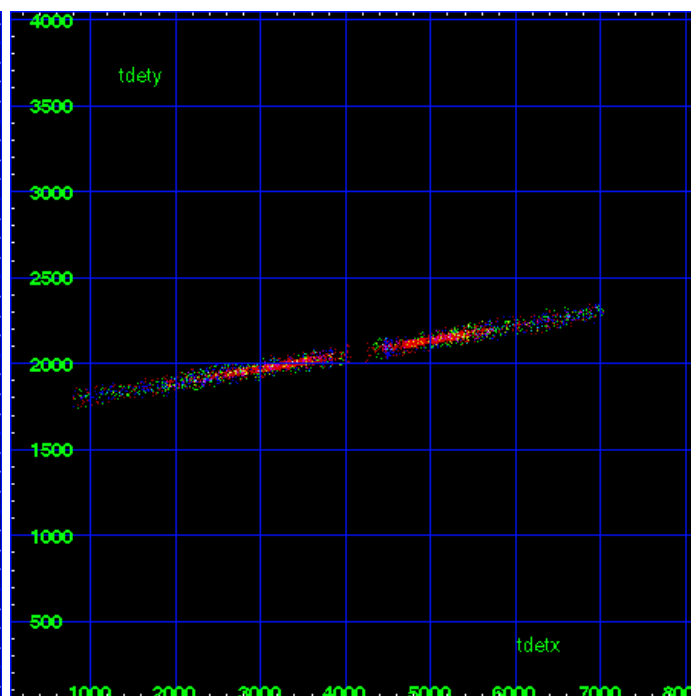
MEG Zero Order



MEG Order Sort ALL

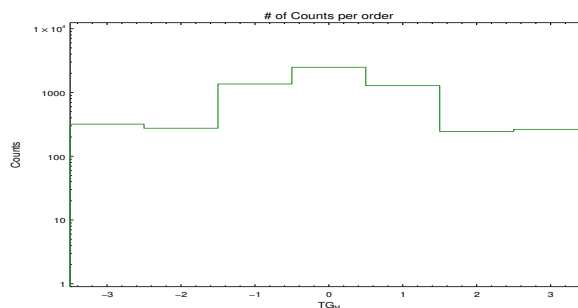


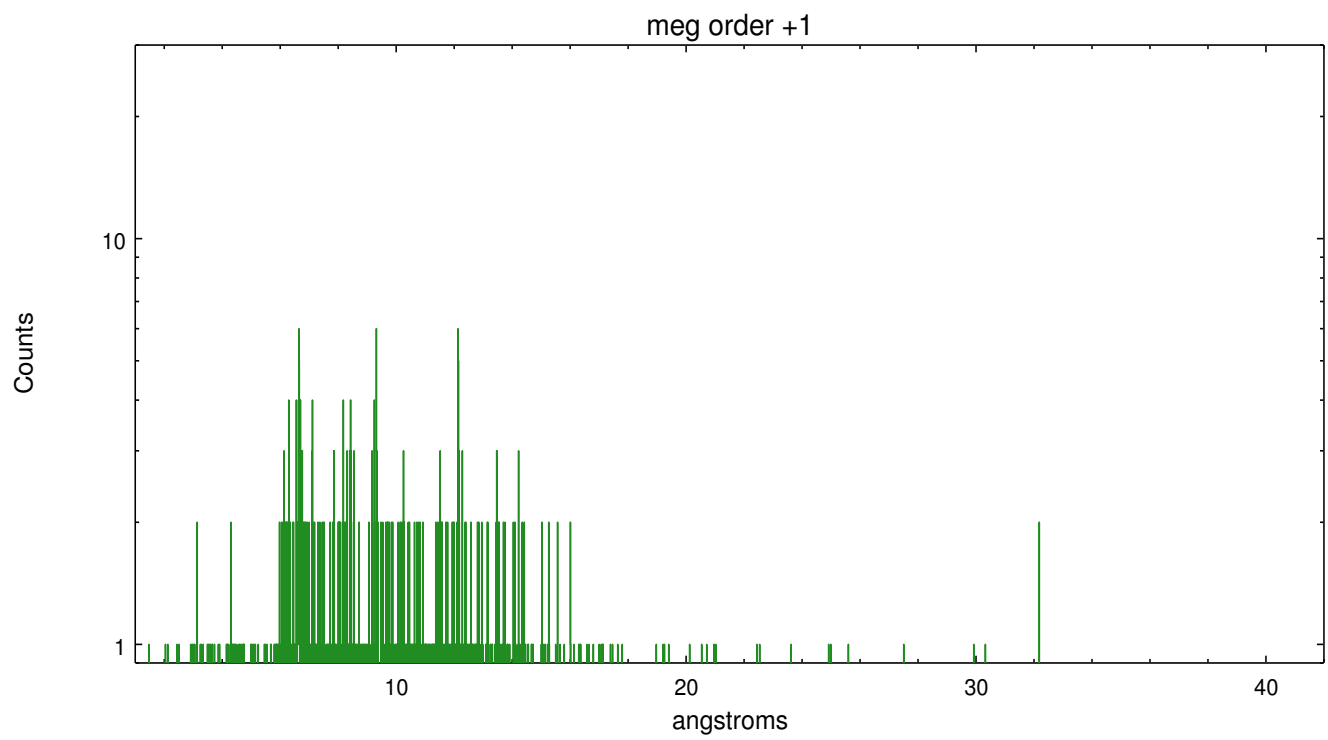
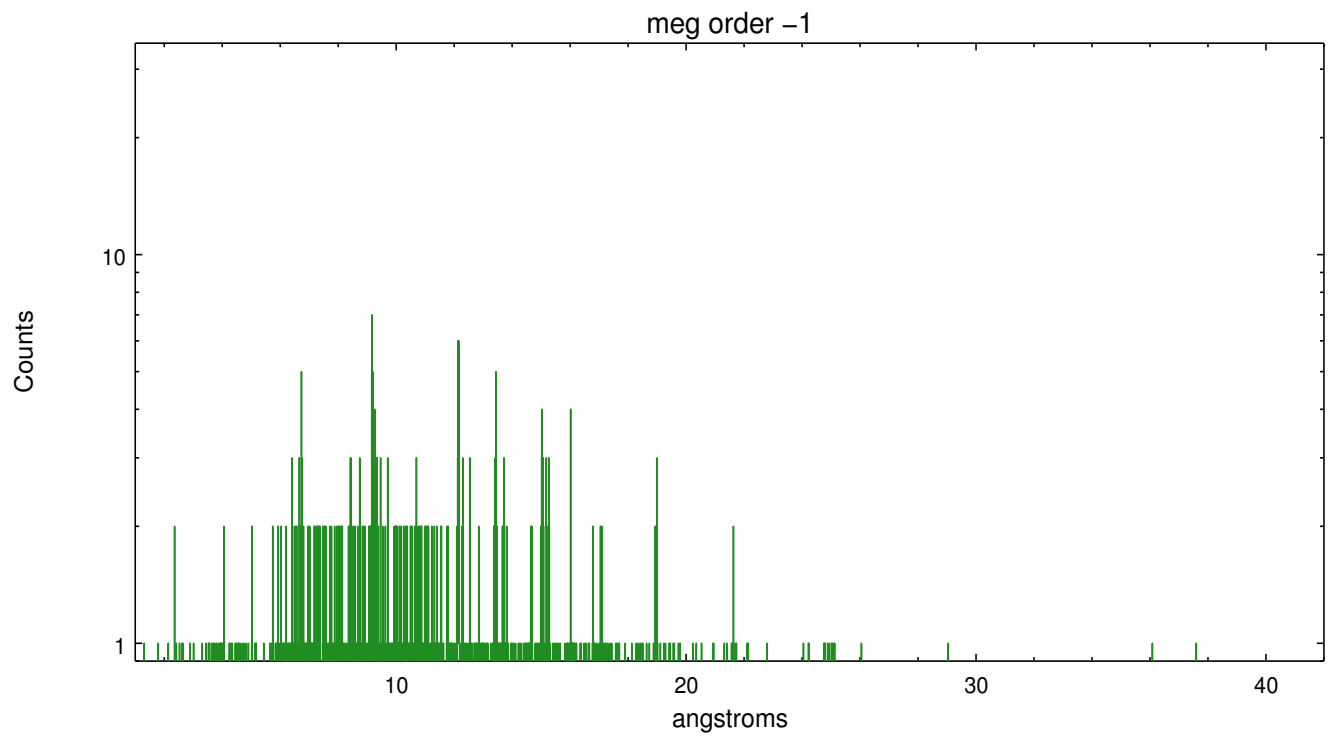
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	319	275	1360	2488	1281	245	264





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	25.1825

A.2 Comments