

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 8488 - L2 Version 3
Chandra X-Ray Center

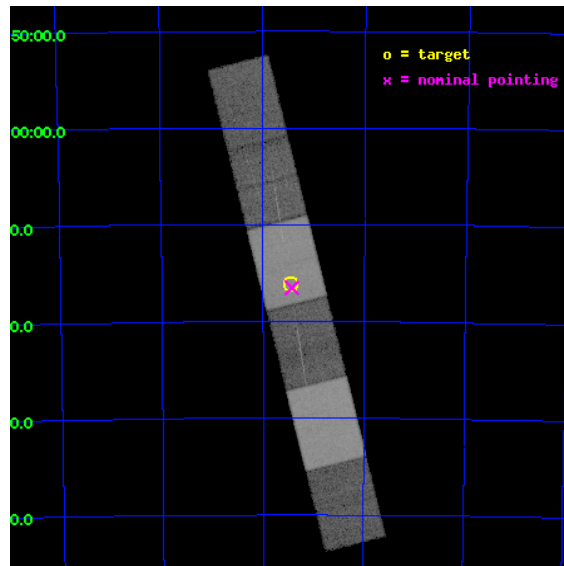
L2 Processing Date : Apr 22 2012

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1 Front

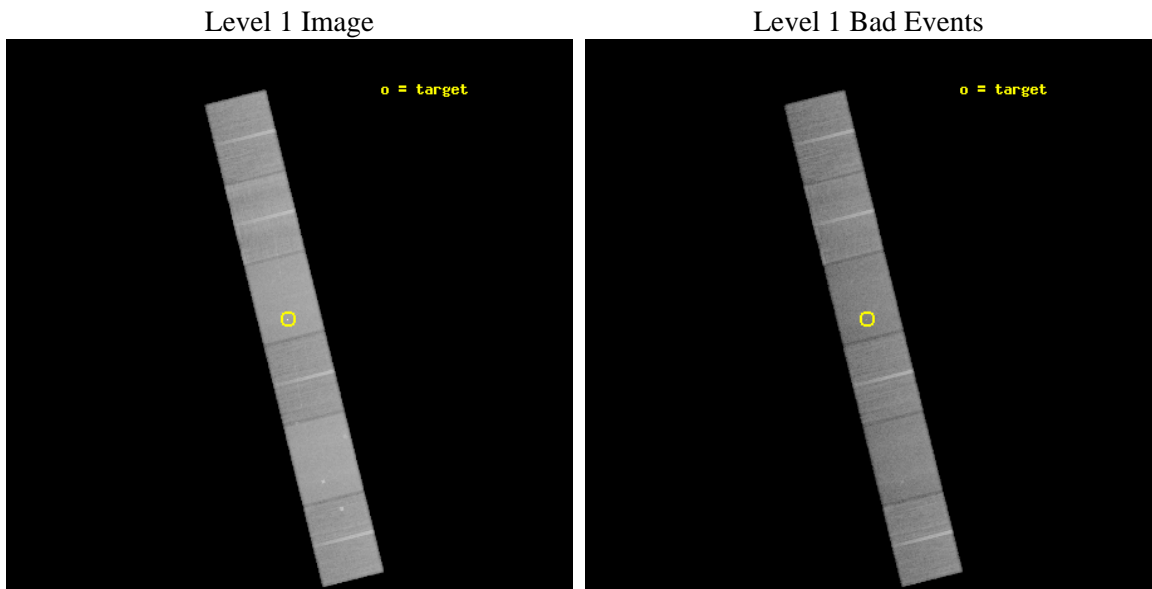
seq_num	500720	Sequence number
obs_id	8488	Observation id
title	High resolution spectral imaging of SN 1987A at 20 years: HETG observation	Proposal title
observer	Prof Claude Canizares	Principal investigator
object	Sn 1987A	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	83.866667	Observer's specified target RA [deg]
dec_targ	-69.269722	Observer's specified target Dec [deg]
ra_nom	83.857961008448	Nominal RA [deg]
dec_nom	-69.275416389487	Nominal Dec [deg]
roll_nom	256.04847859922	Nominal Roll [deg]
revision	3	Processing version of data
ontime	32180.0	Sum of GTIs [s]
livetime	31660.26508831	Livetime [s]
ontime4	32177.458979905	Sum of GTIs [s]
ontime5	32180.0	Sum of GTIs [s]
ontime6	32180.0	Sum of GTIs [s]
ontime7	32180.0	Sum of GTIs [s]
ontime8	32177.458999753	Sum of GTIs [s]
ontime9	32177.459009707	Sum of GTIs [s]
l2events	392870	Number of level 2 events



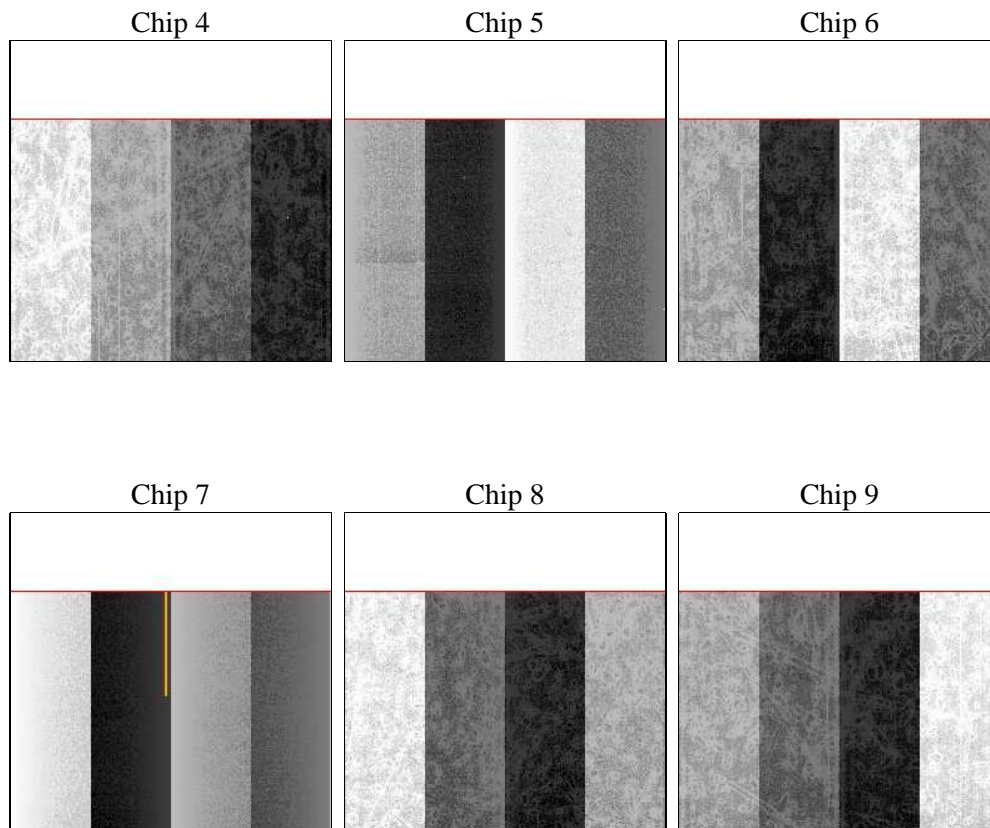
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	32000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	32180.0	Sum of GTIs [s]
caldbver	4.4.9	 	ontime4	32177.458979905	Sum of GTIs [s]
date	2012-04-22T06:46:36	Date and time of file creation	ontime5	32180.0	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	32180.0	Sum of GTIs [s]
			ontime7	32180.0	Sum of GTIs [s]
			ontime8	32177.458999753	Sum of GTIs [s]
			ontime9	32177.459009707	Sum of GTIs [s]
			l1events	1701386	Number of level 1 events

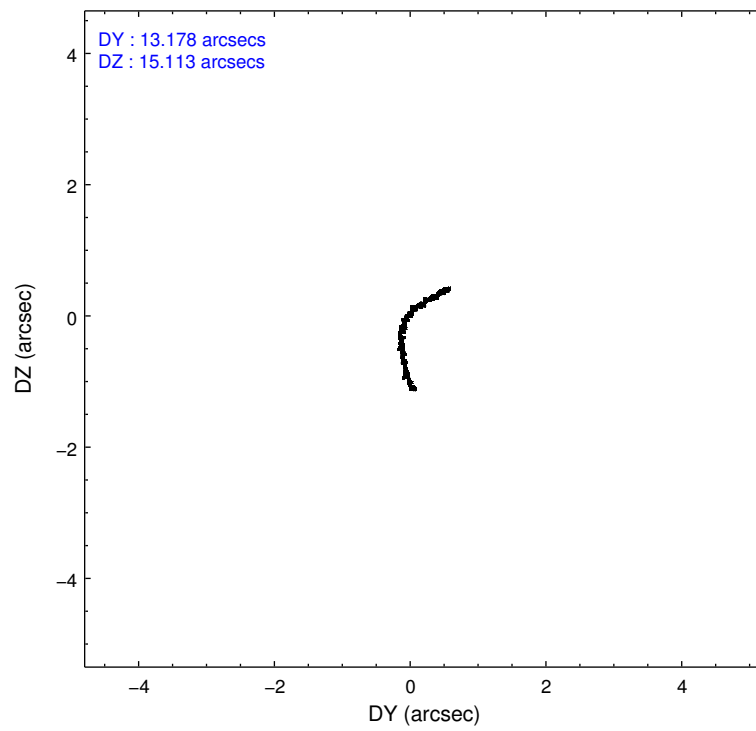
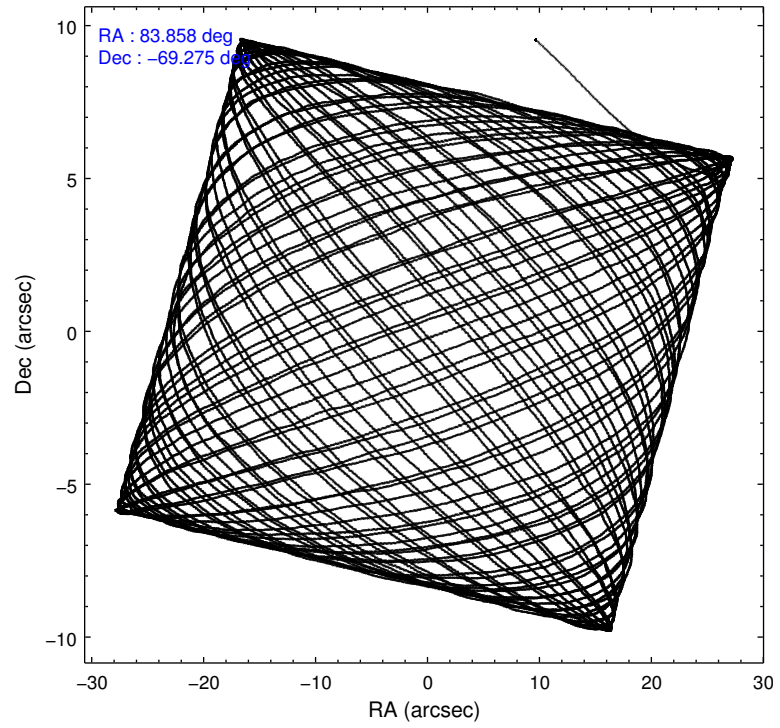
2.1.4 Events

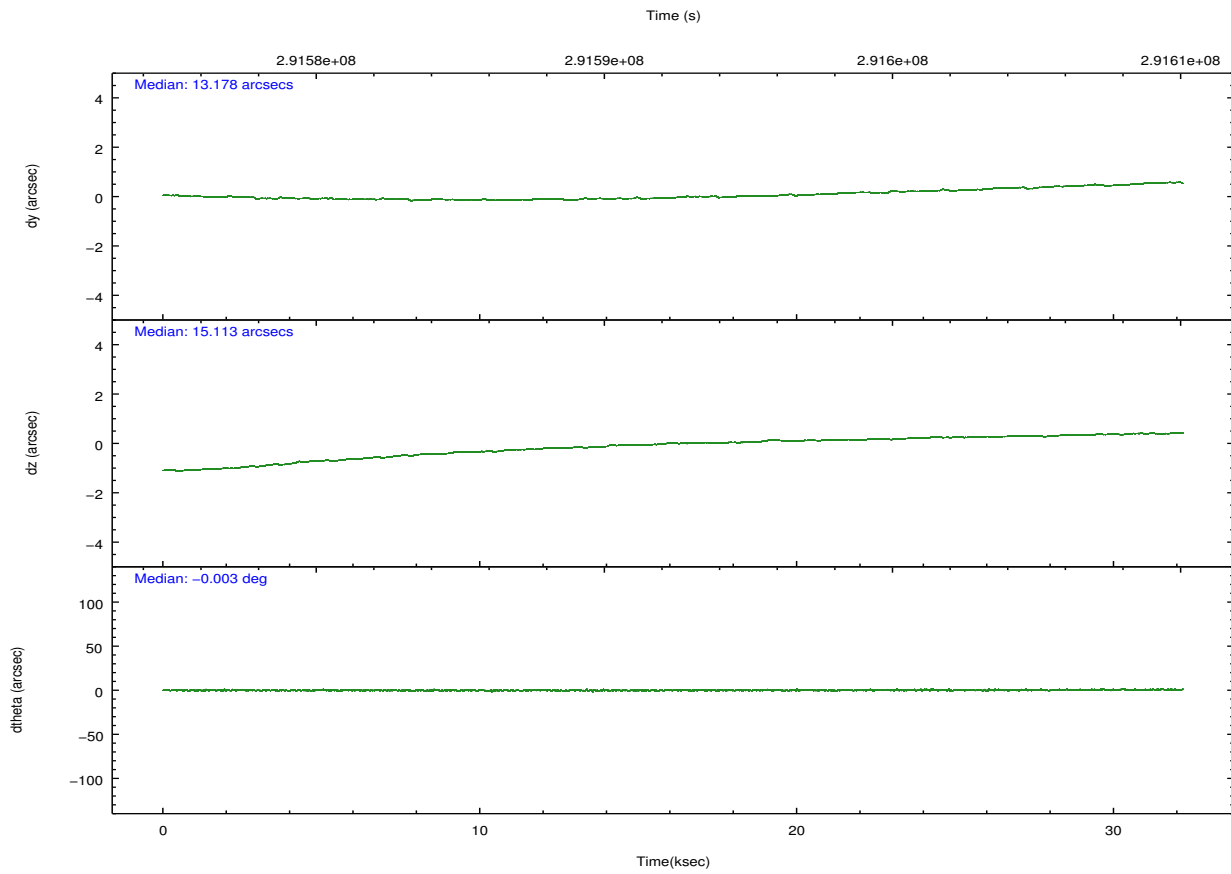
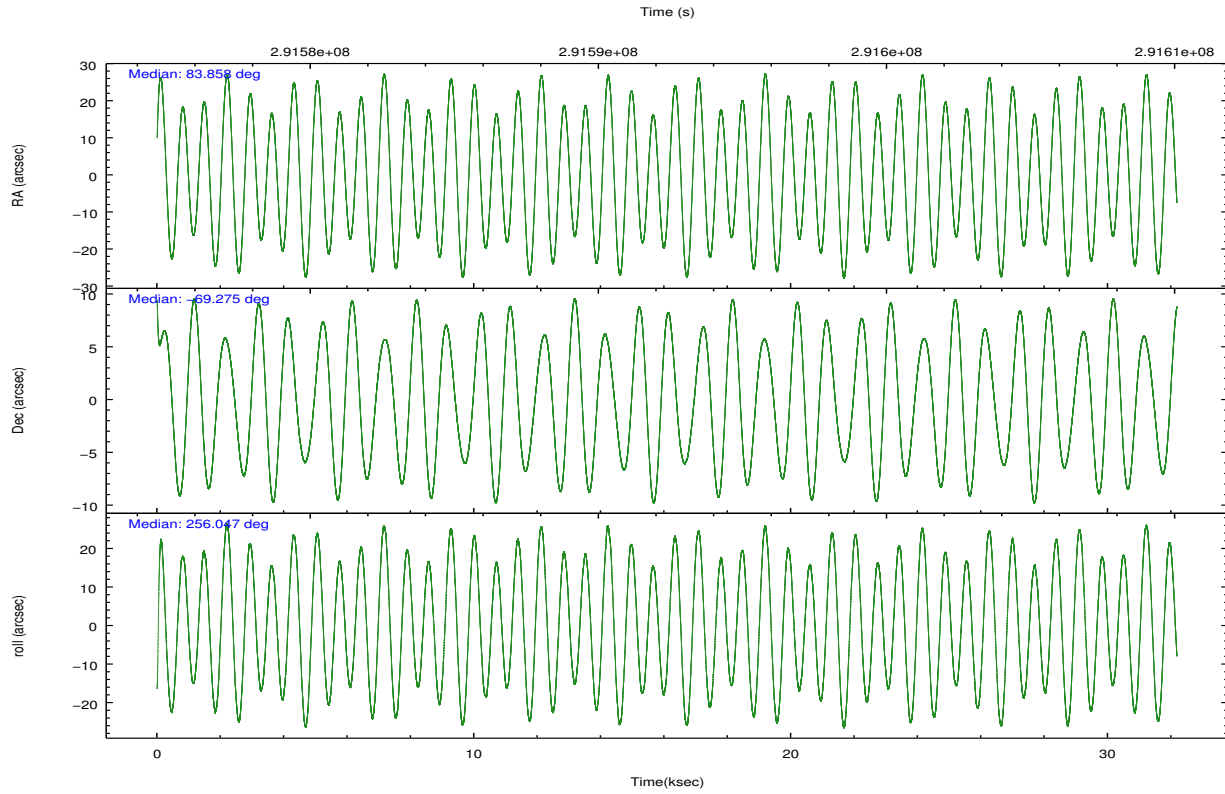
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	263668	348881	241842	319220	298251	229524	grade 0 events	15082	12712	12600	12640	22563	12238
rejected events	231736	189968	211908	182390	228380	200194		5%	3%	5%	3%	7%	5%
rejected %	87%	54%	87%	57%	76%	87%	grade 1 events	247	718	101	317	182	125
								0%	0%	0%	0%	0%	0%
							grade 2 events	6398	47943	6247	28652	15409	5822
								2%	13%	2%	8%	5%	2%
							grade 3 events	3087	7060	2984	12283	7373	3023
								1%	2%	1%	3%	2%	1%
							grade 4 events	2945	6796	2796	12382	6887	2903
								1%	1%	1%	3%	2%	1%
							grade 5 events	10026	26736	10850	29710	14265	11266
								3%	7%	4%	9%	4%	4%
							grade 6 events	4671	85614	5599	71848	18097	5560
								1%	24%	2%	22%	6%	2%
							grade 7 events	221212	161302	200665	151388	213475	188587
								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	83.85796100844773	Subarray requested	CUSTOM	CUSTOM
[deg] Pointing Dec	-69.249242	-69.27541638948658	Subarray start row	1	1
[deg] Pointing Roll	255.870938	256.048478599216	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)	291576481.184000	291575401.70247			
Observation start date	2007-03-29T17:26:56	2007-03-29T17:10:01			
[s] Observation end time (MET)	291608481.184000	291609231.31658			
Observation end date	2007-03-30T02:20:16	2007-03-30T02:33:51			
Read mode	TIMED	TIMED			

2.3 Aspect



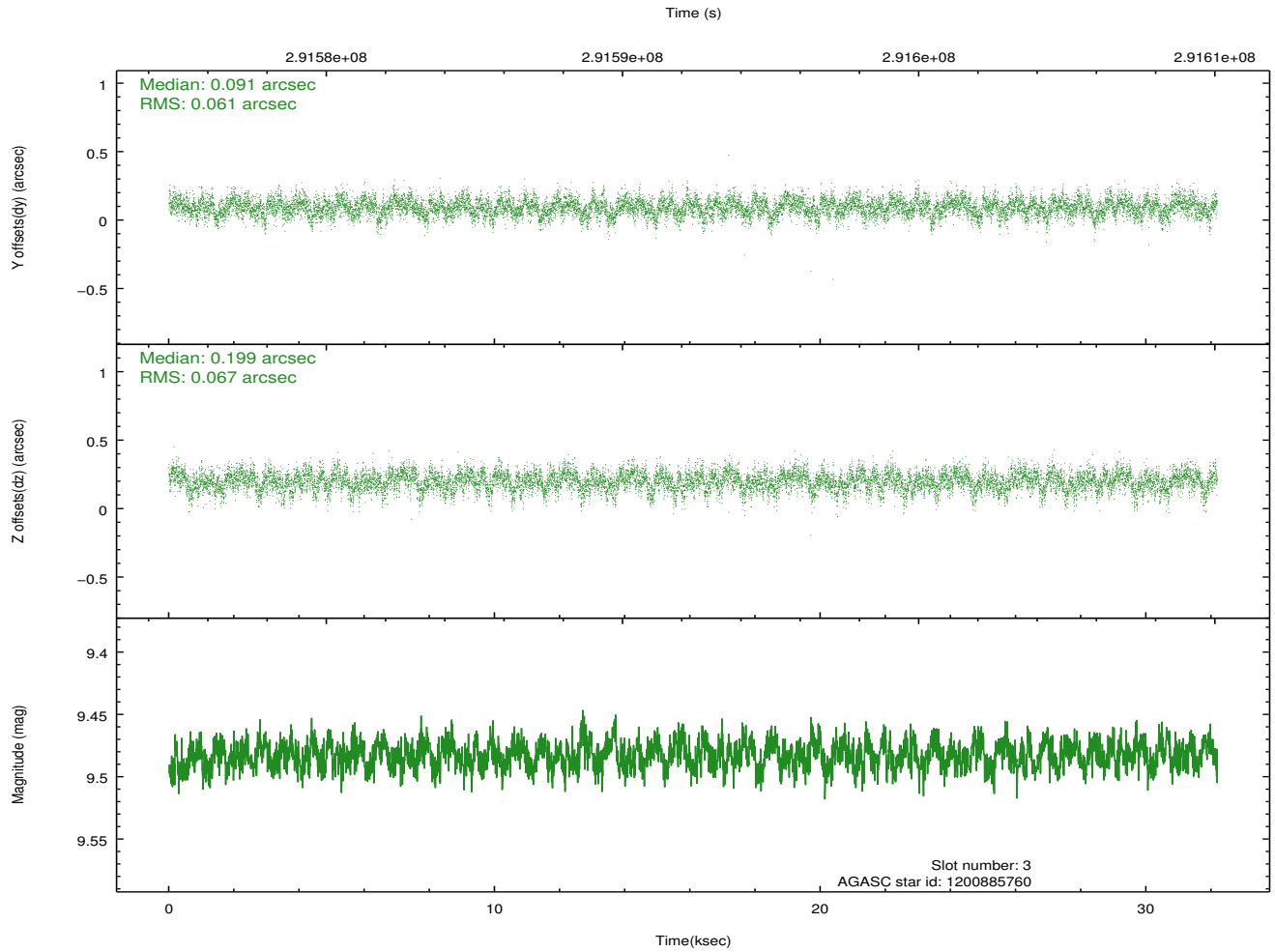
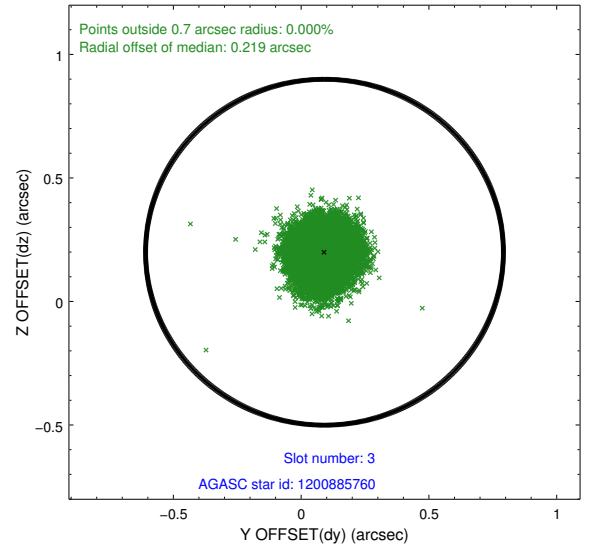
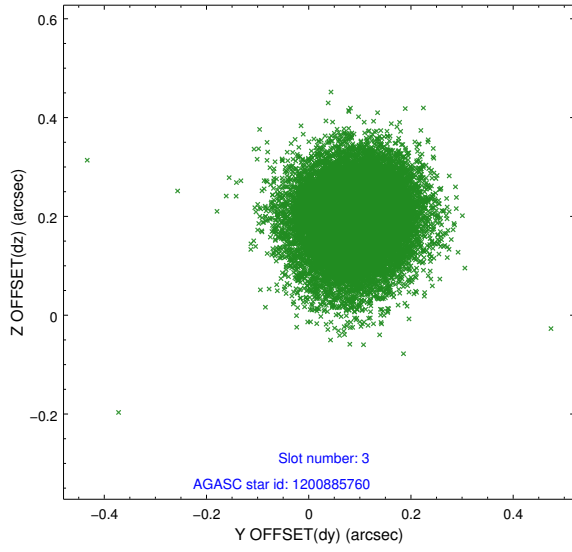


Slot Statistics

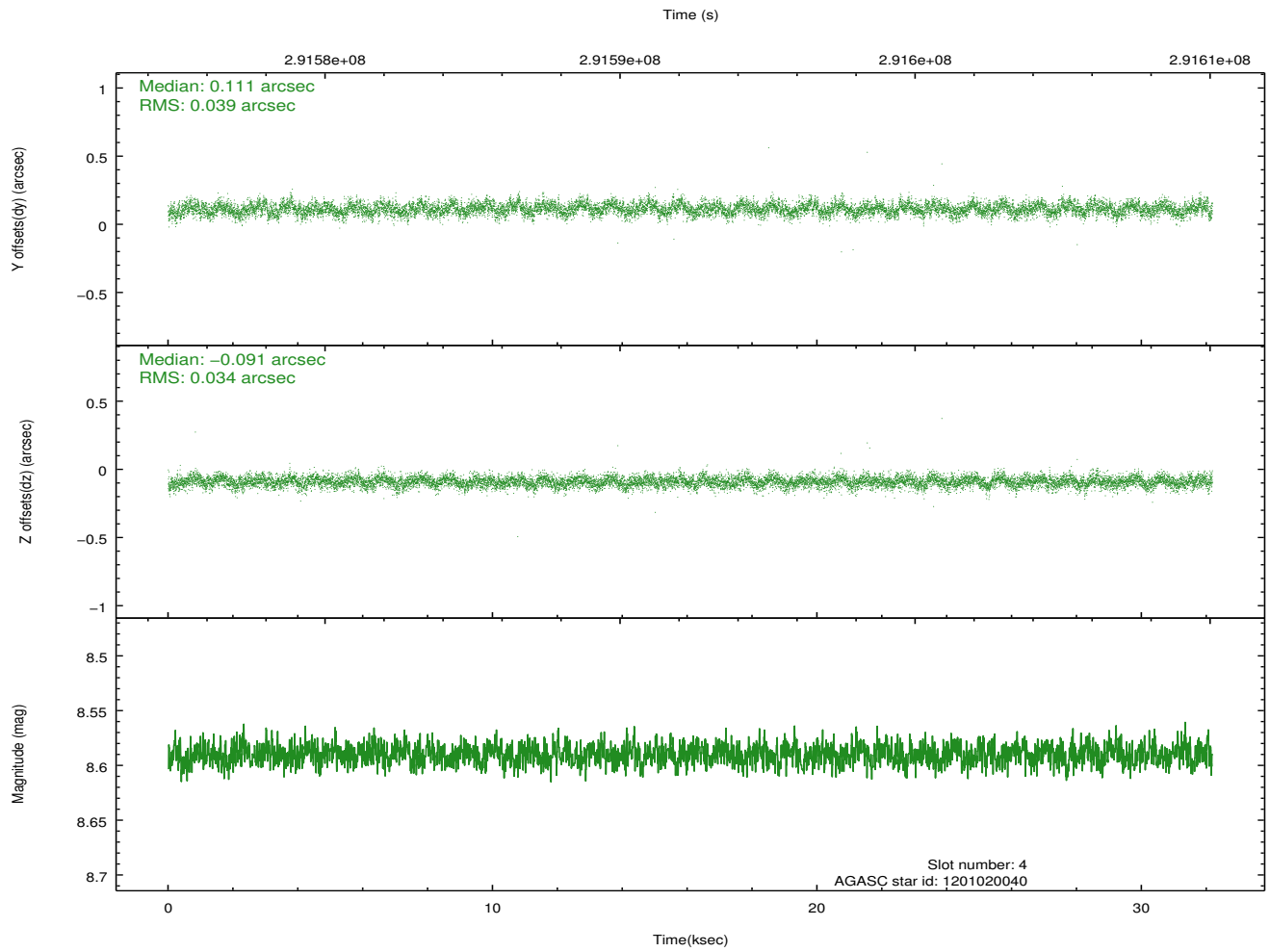
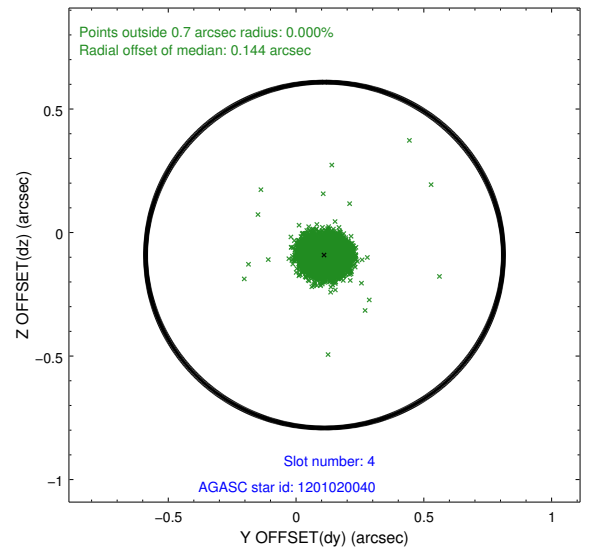
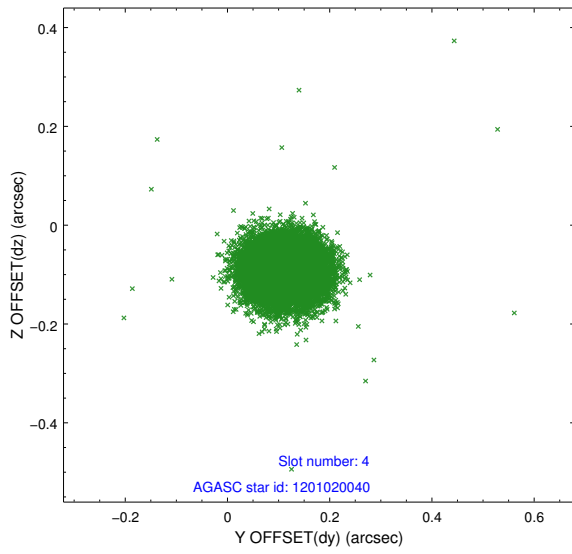
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.09	7850	-0.139	-0.112	0.009	0.017	0.000000	0.000000	-766.13	-1798.58
1	FID	ACIS-S-4	7.18	7849	0.143	0.065	0.008	0.013	0.000000	0.000000	2147.42	109.97
2	FID	ACIS-S-6	7.36	7850	-0.031	0.054	0.008	0.014	0.000000	0.000000	396.06	747.44
3	GUIDE	1200885760	9.48	15683	0.091	0.199	0.096	0.155	83.723637	-68.777667	-1610.28	-555.43
4	GUIDE	1201020040	8.59	15691	0.111	-0.091	0.054	0.088	85.379163	-68.879396	-1755.42	1622.76
5	GUIDE	1201410616	9.33	15683	-0.037	0.030	0.104	0.169	82.516808	-69.784406	2285.91	-1115.87
6	GUIDE	1201542672	8.20	15697	-0.072	-0.063	0.052	0.085	84.492488	-69.957531	2277.99	1409.73
7	GUIDE	1201019672	6.81	15696	-0.093	-0.074	0.058	0.093	85.312192	-68.770187	-2119.71	1451.39

2.4 Star Slots

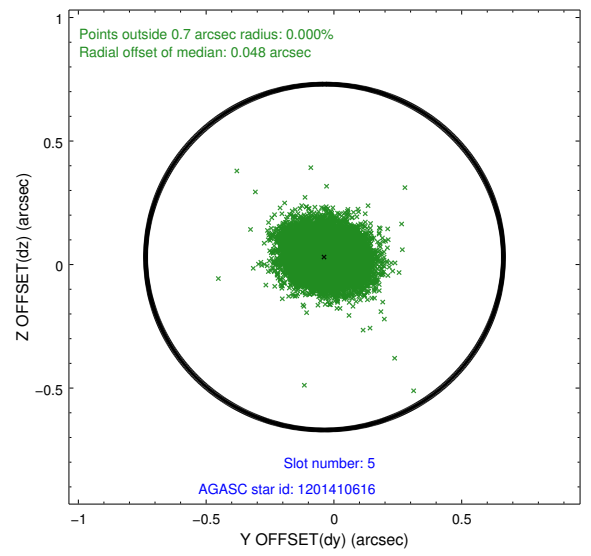
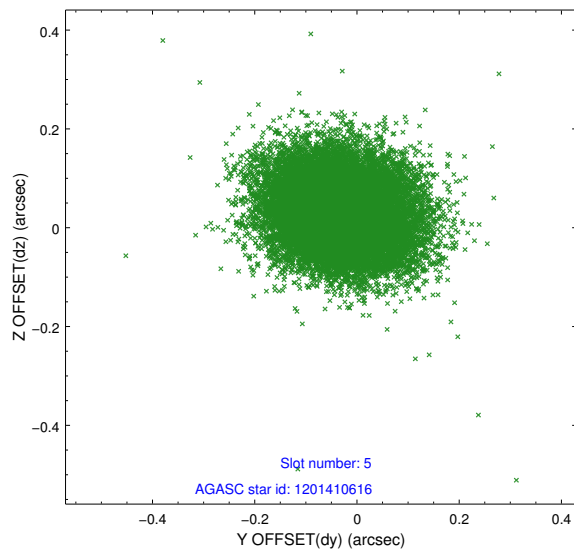
2.4.1 Slot 3



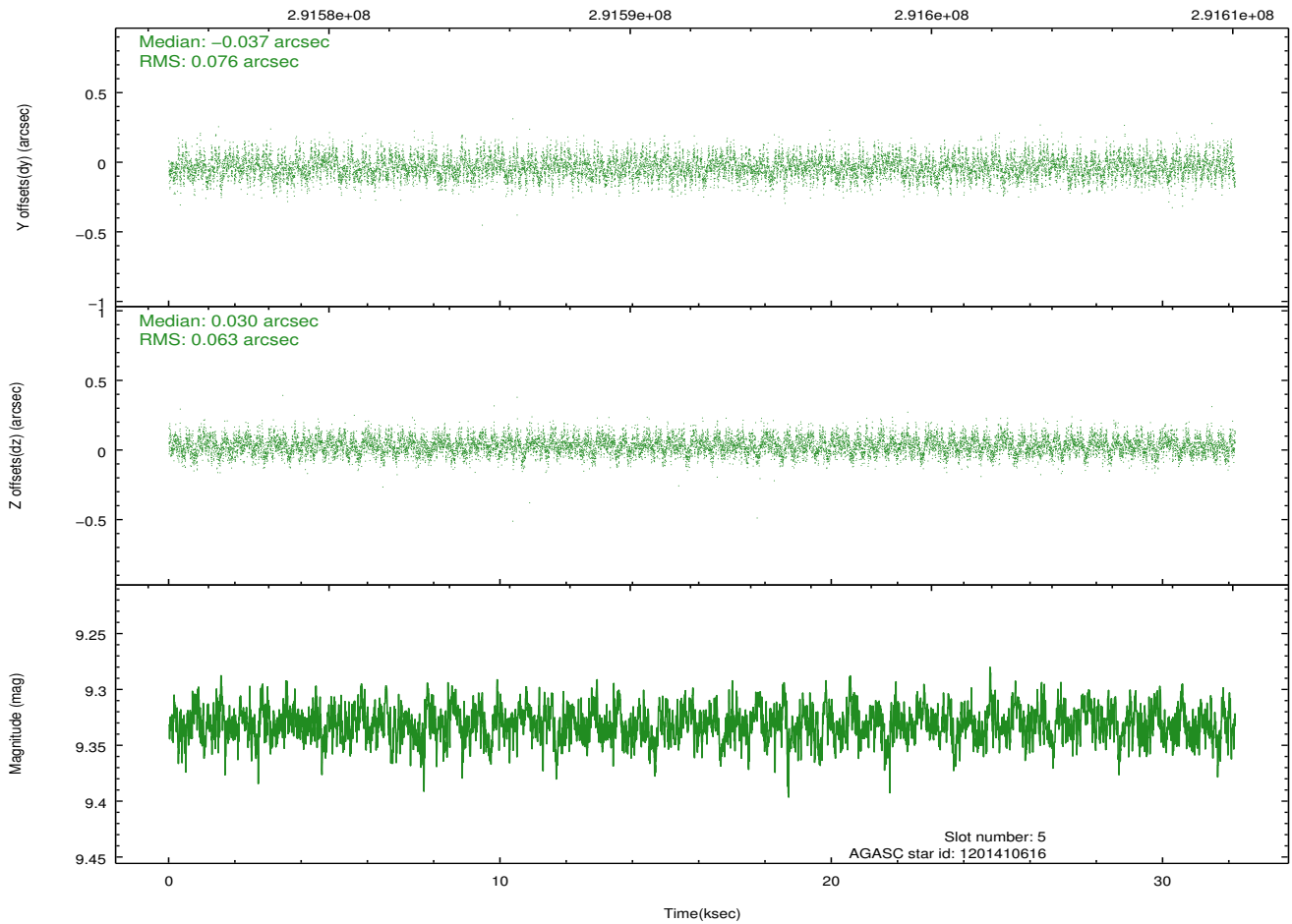
2.4.2 Slot 4



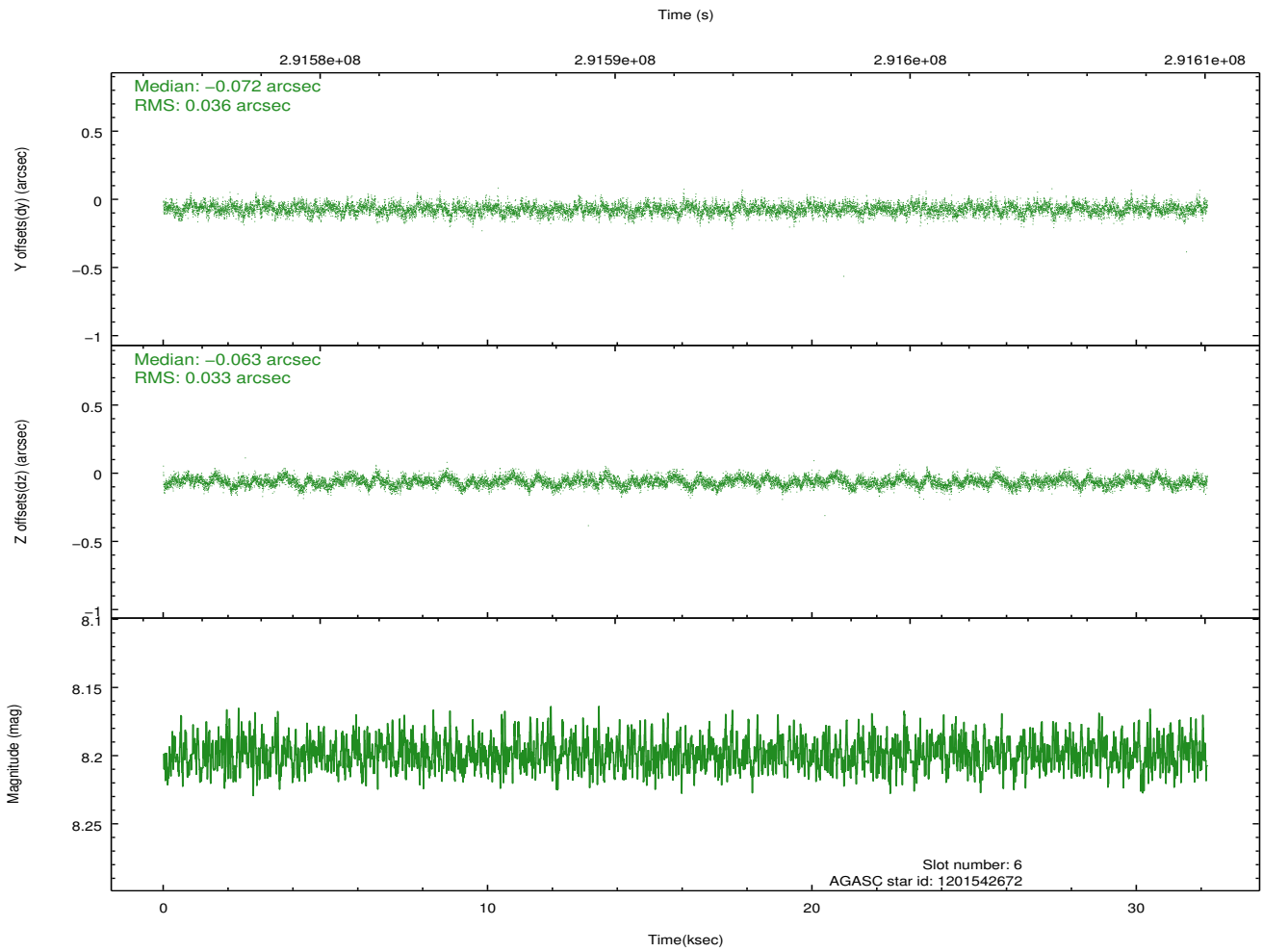
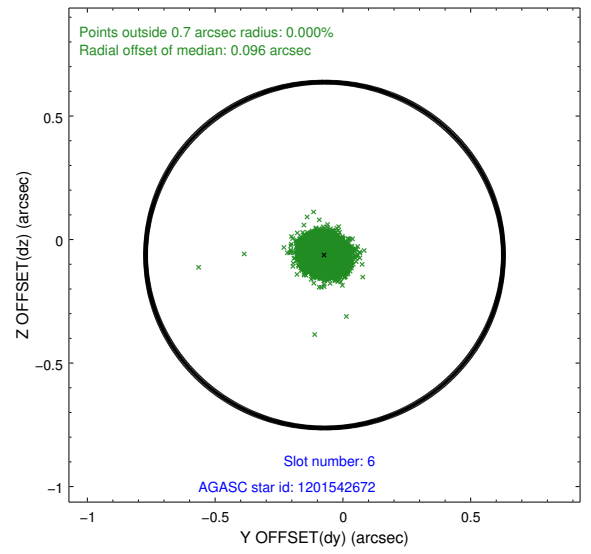
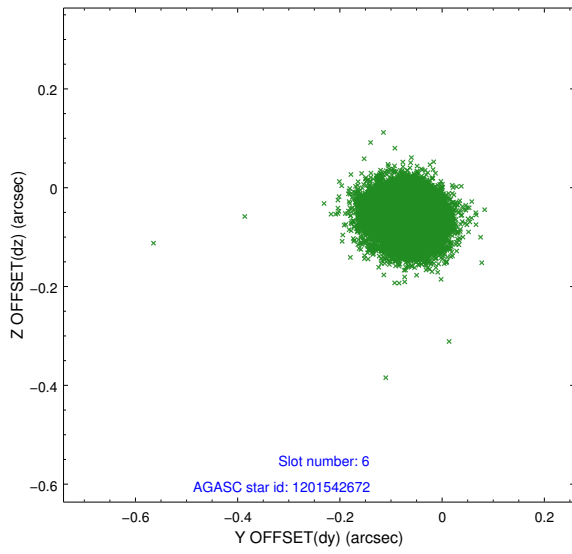
2.4.3 Slot 5



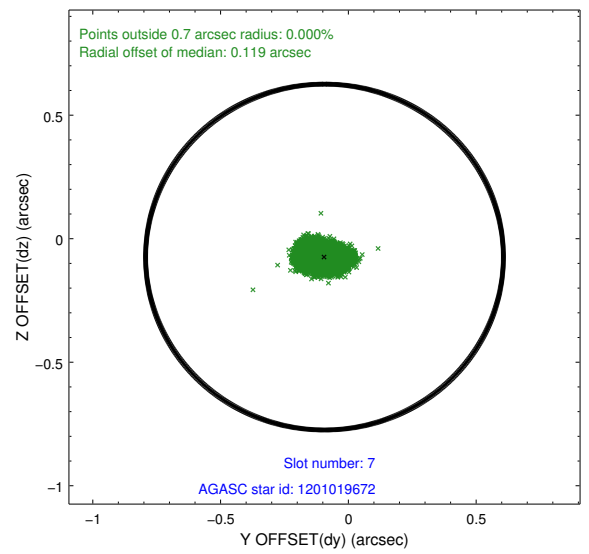
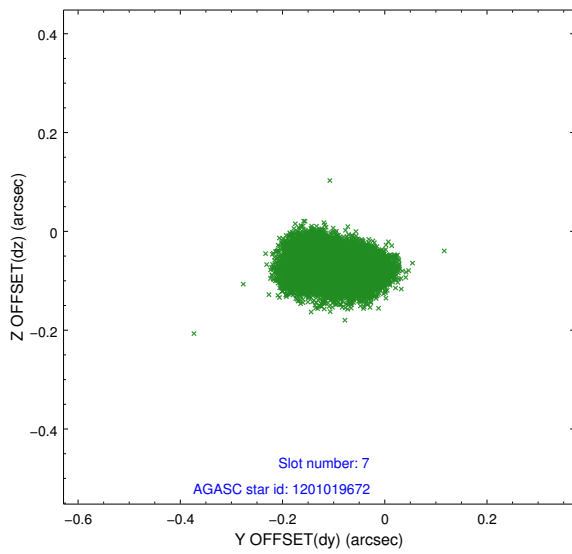
Time (s)



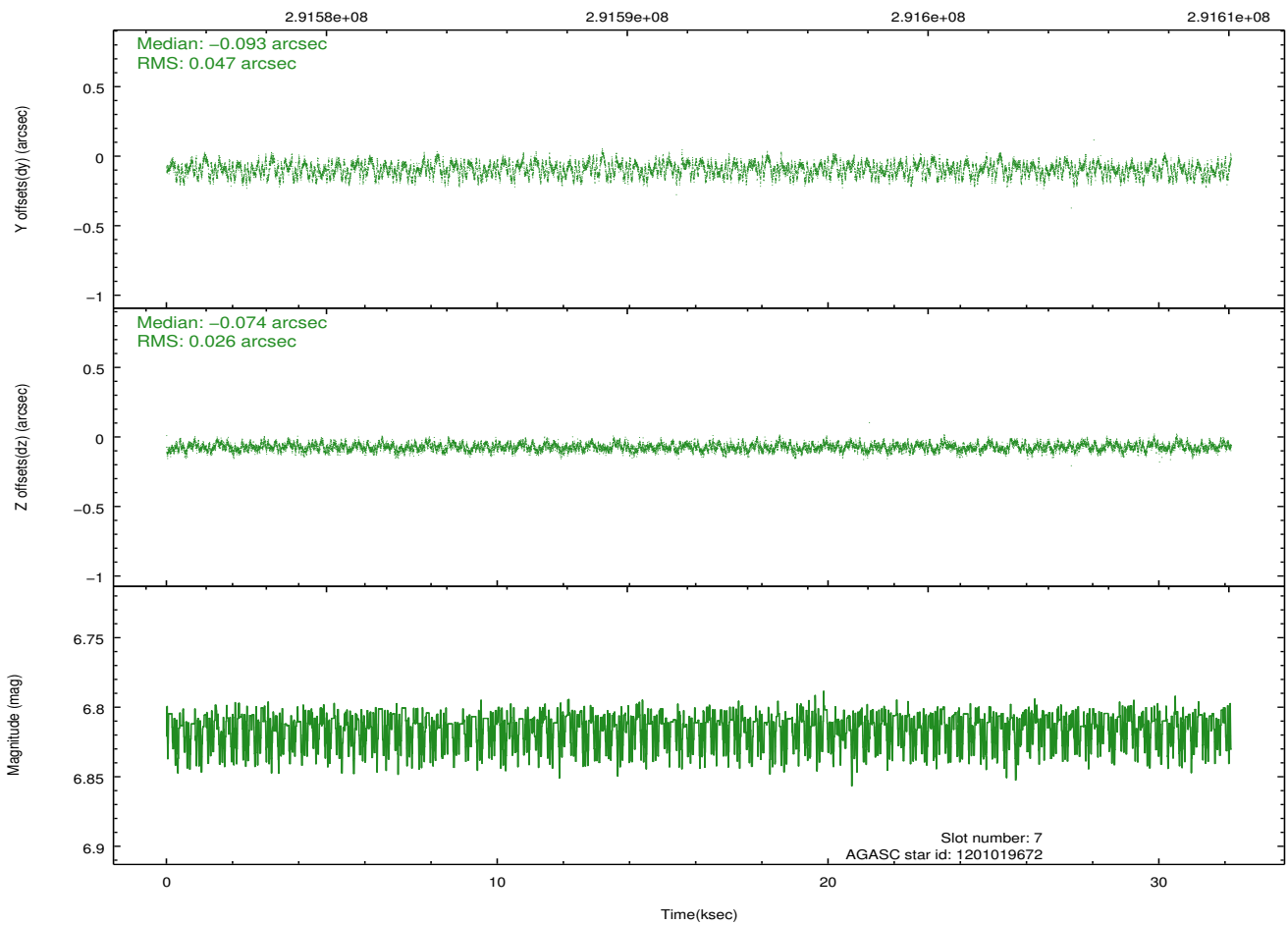
2.4.4 Slot 6



2.4.5 Slot 7

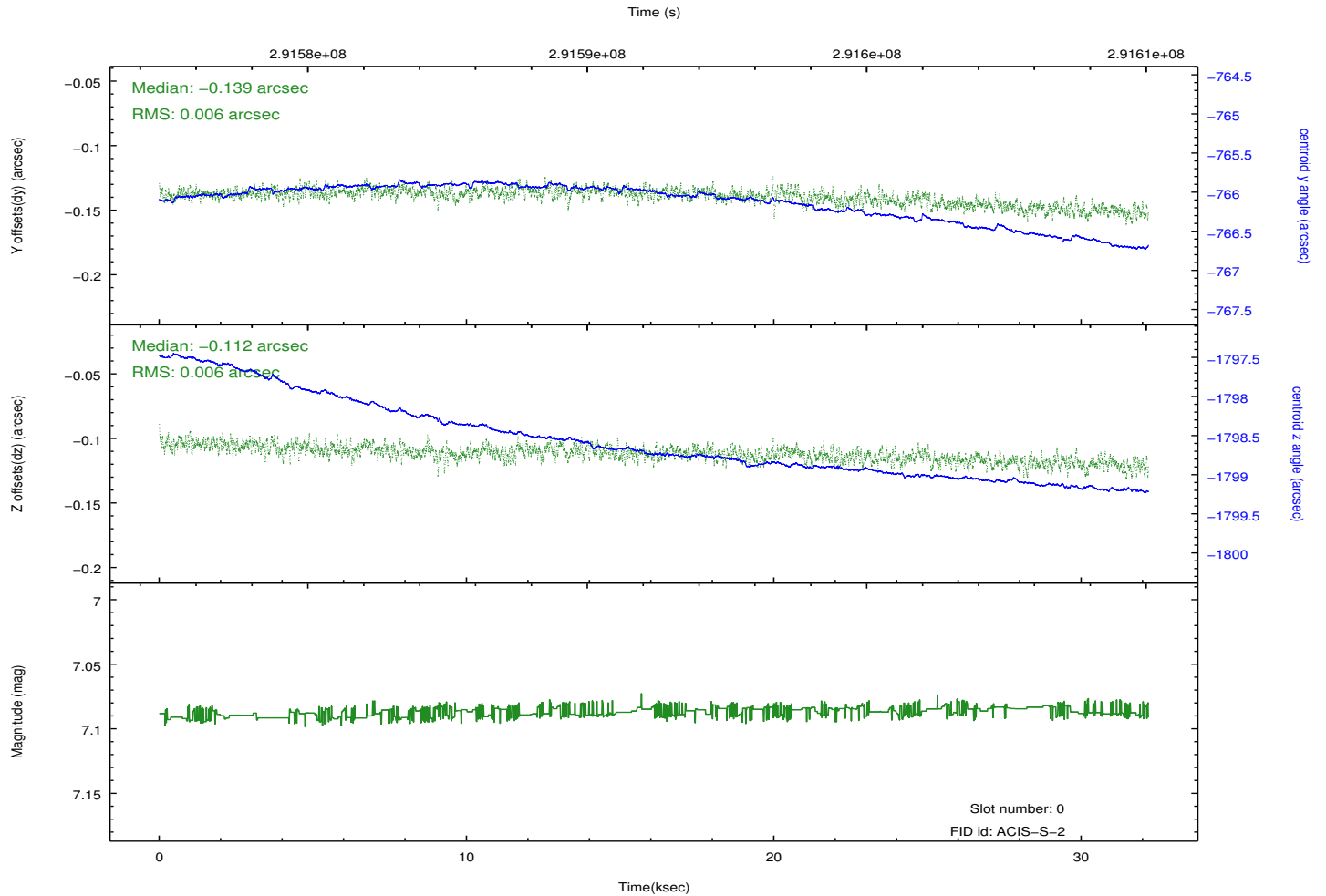
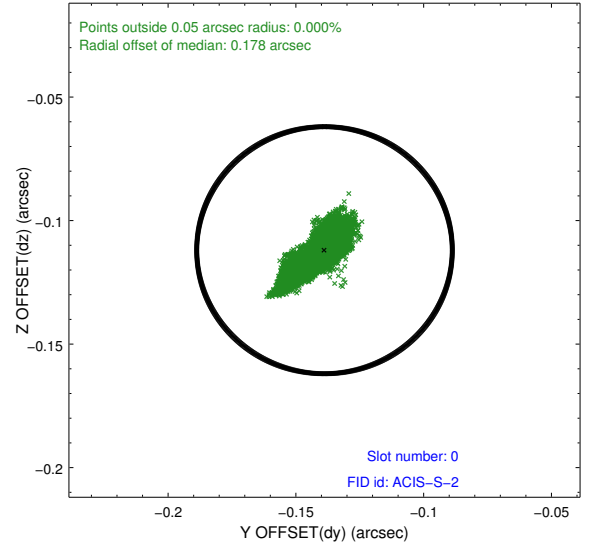
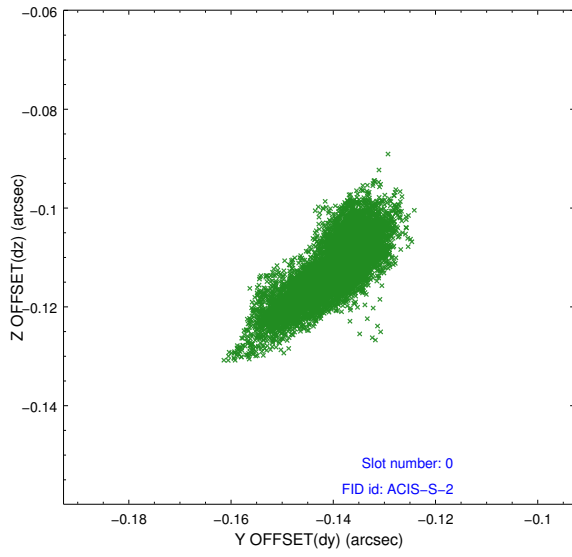


Time (s)

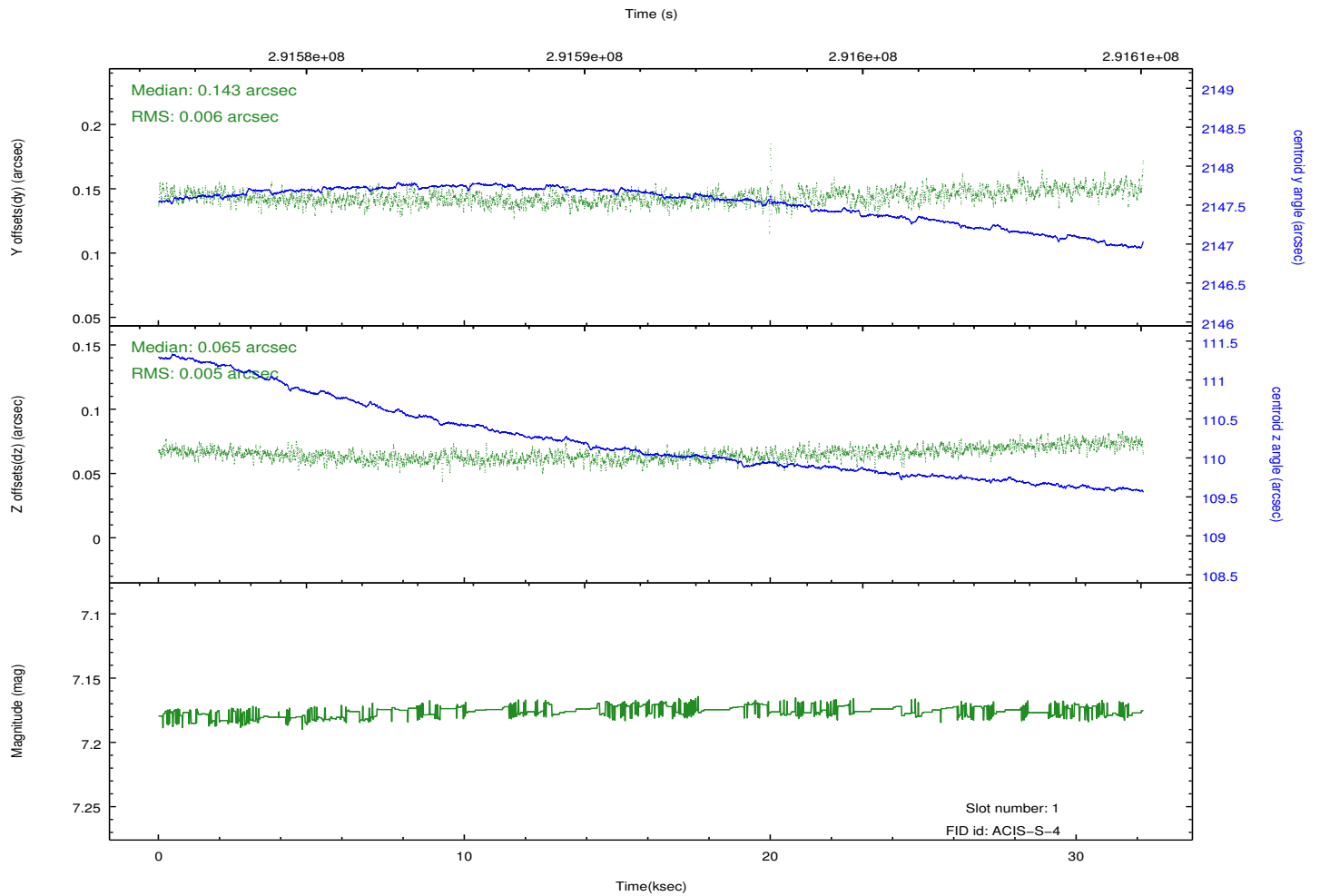
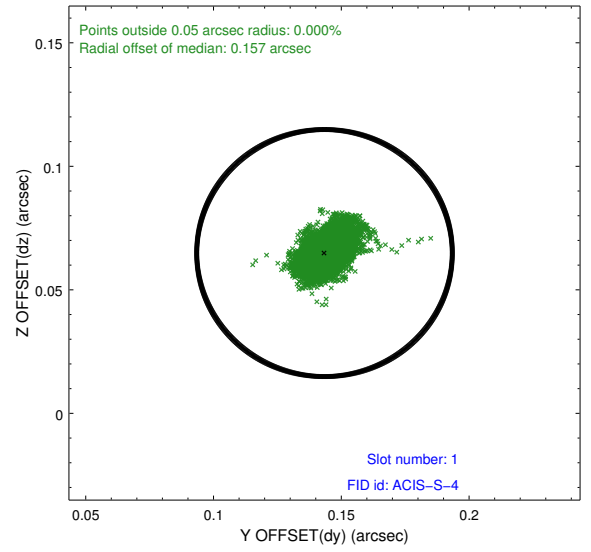
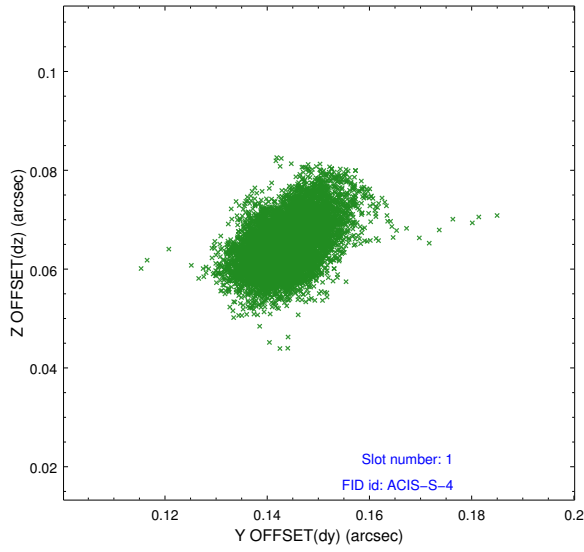


2.5 FID Slots

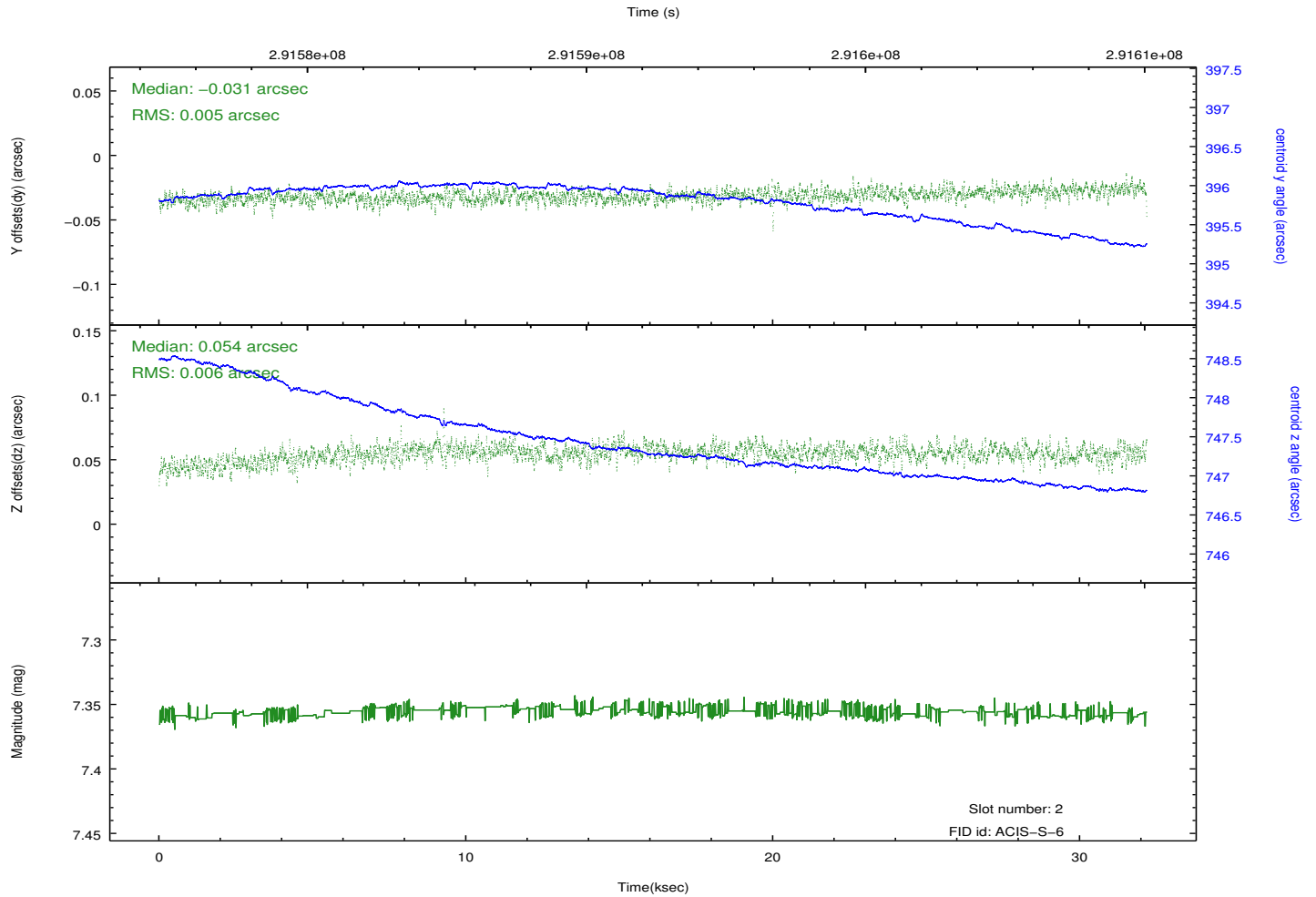
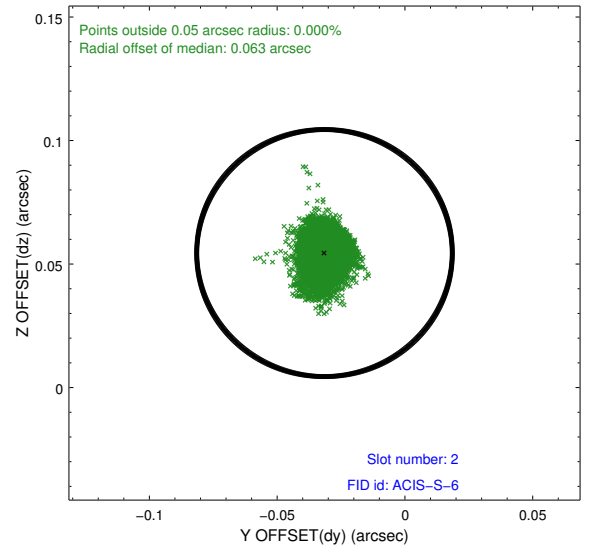
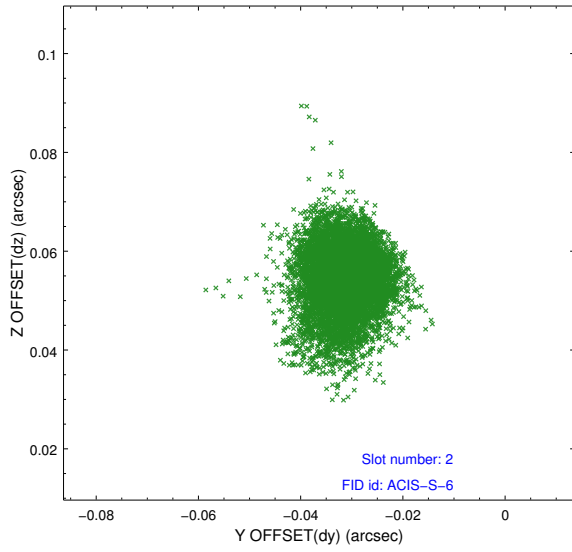
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

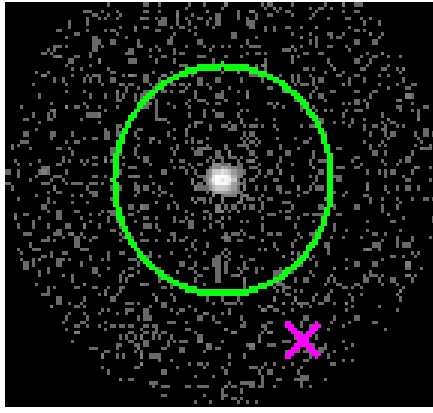


3 Gratings

3.1 HEG Arm



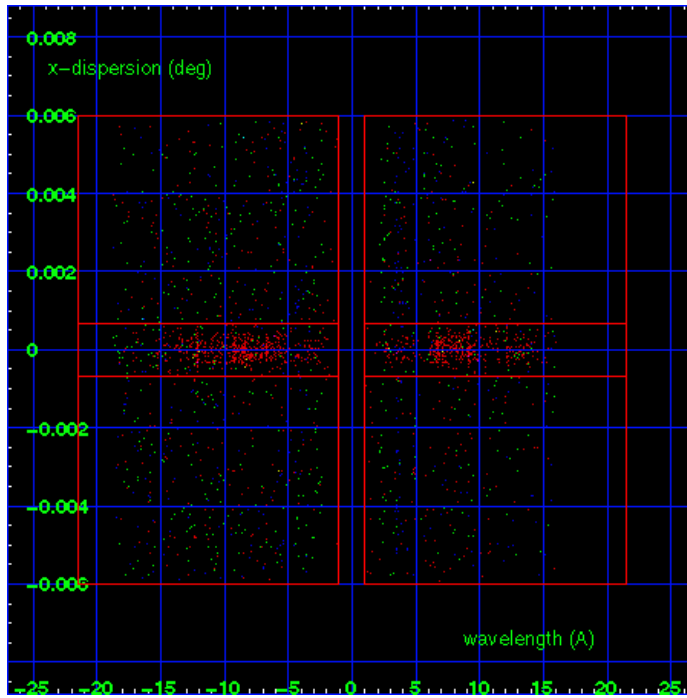
HEG Order Sort 123



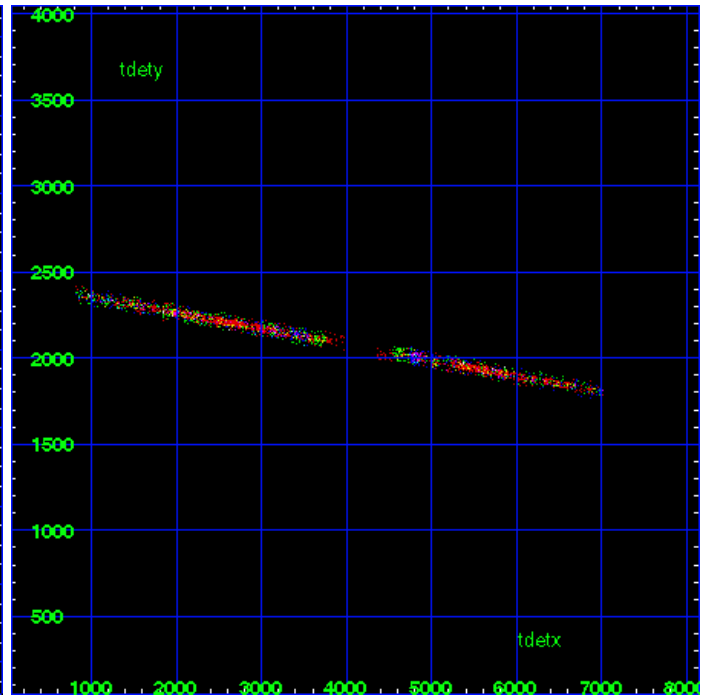
HEG Zero Order



HEG Order Sort ALL

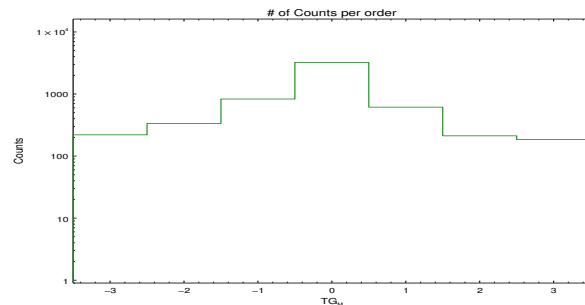


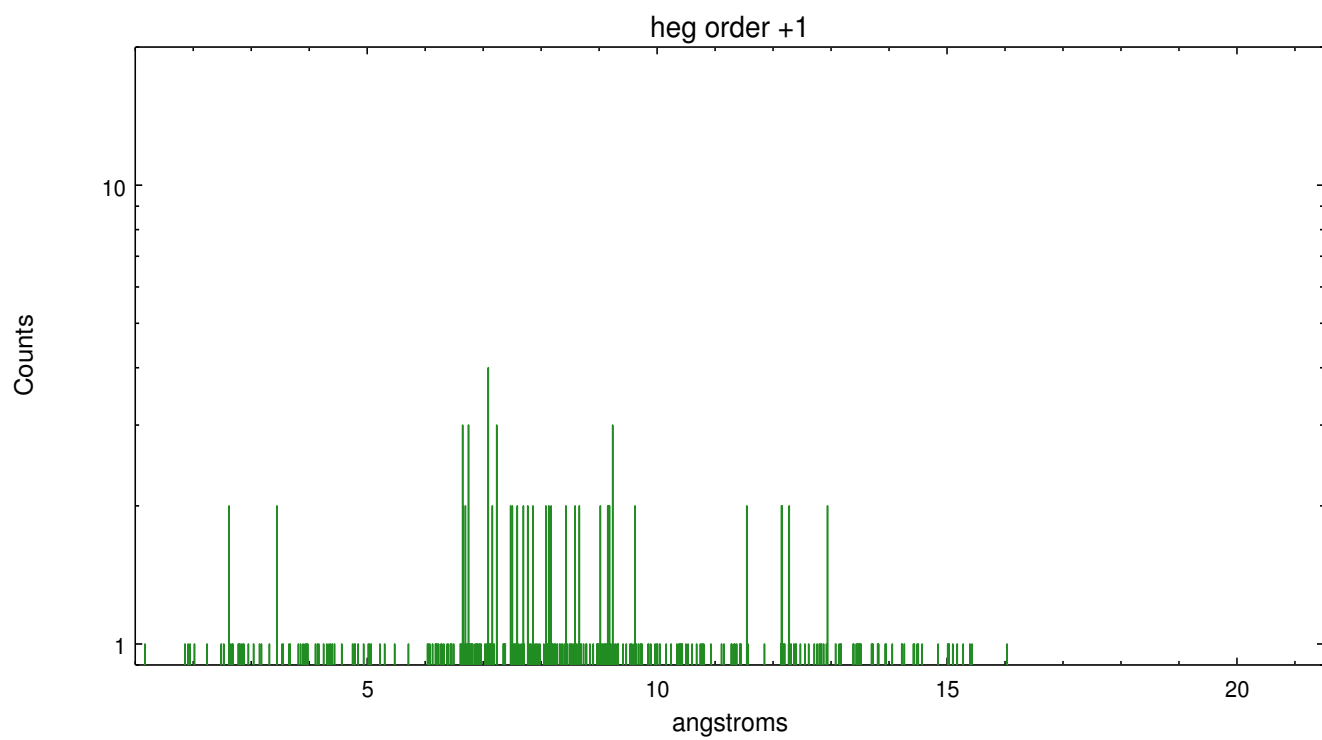
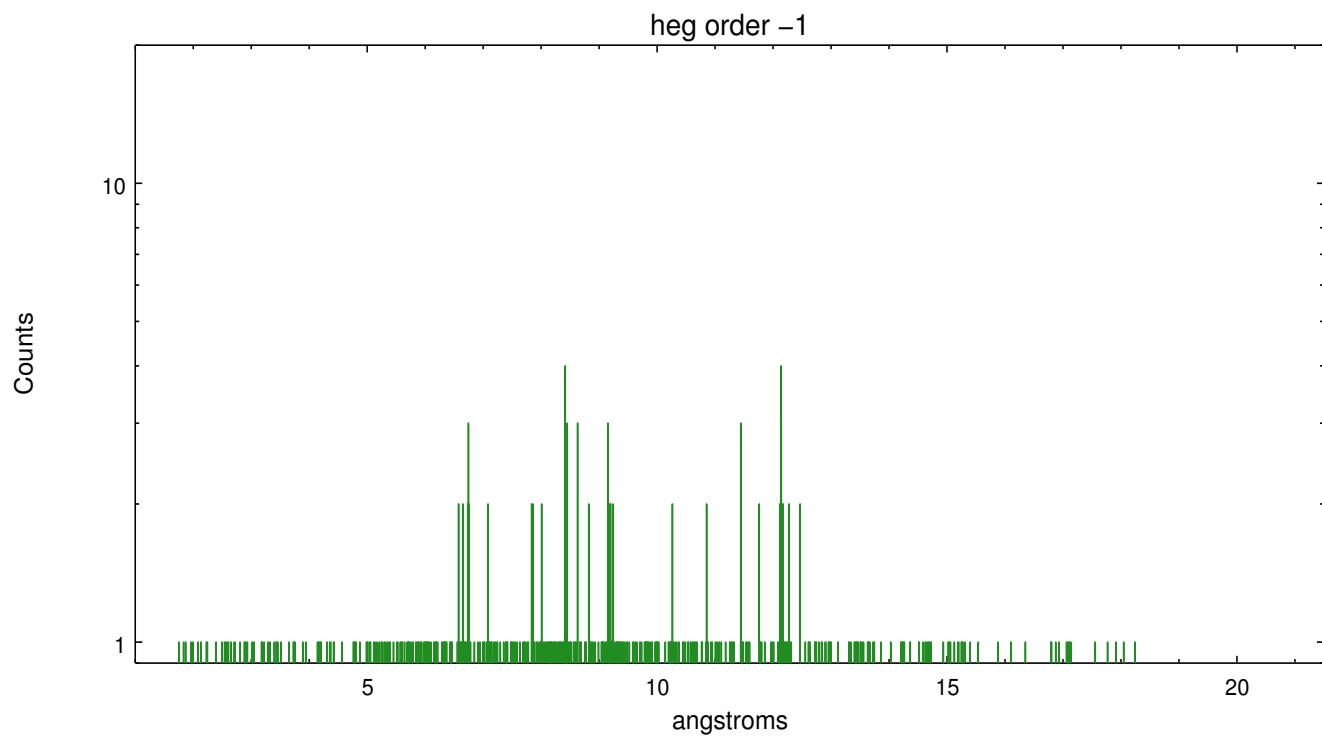
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	220	335	830	3228	614	212	185

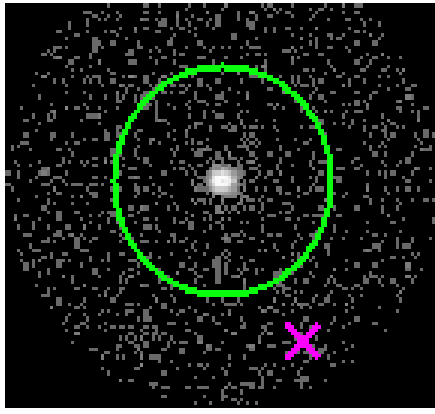




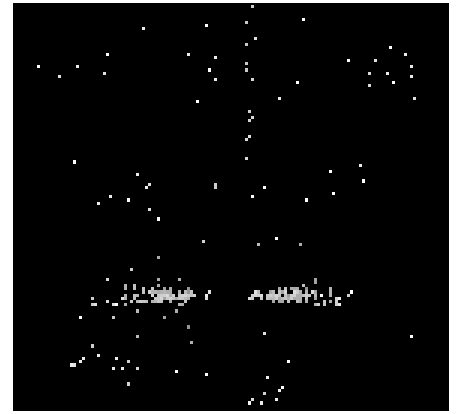
3.2 MEG Arm



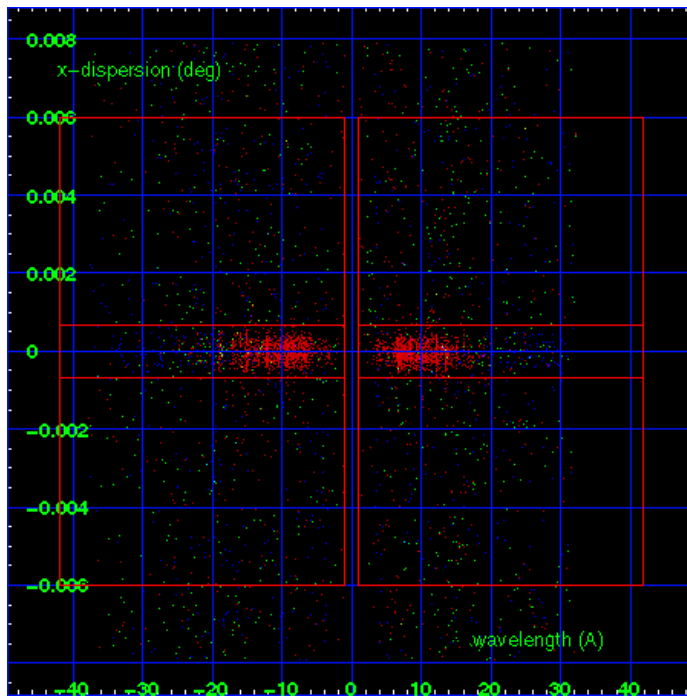
MEG Order Sort 123



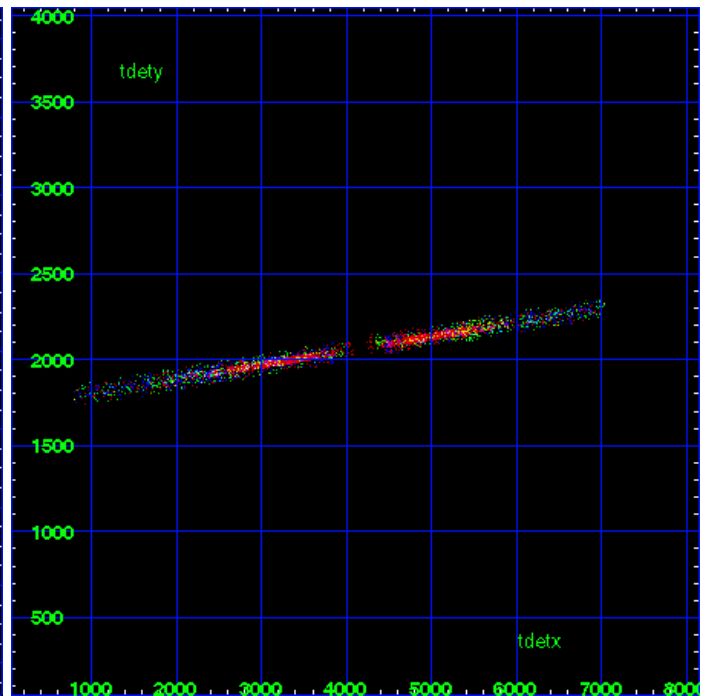
MEG Zero Order



MEG Order Sort ALL

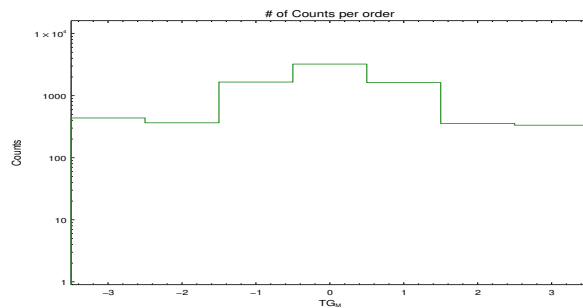


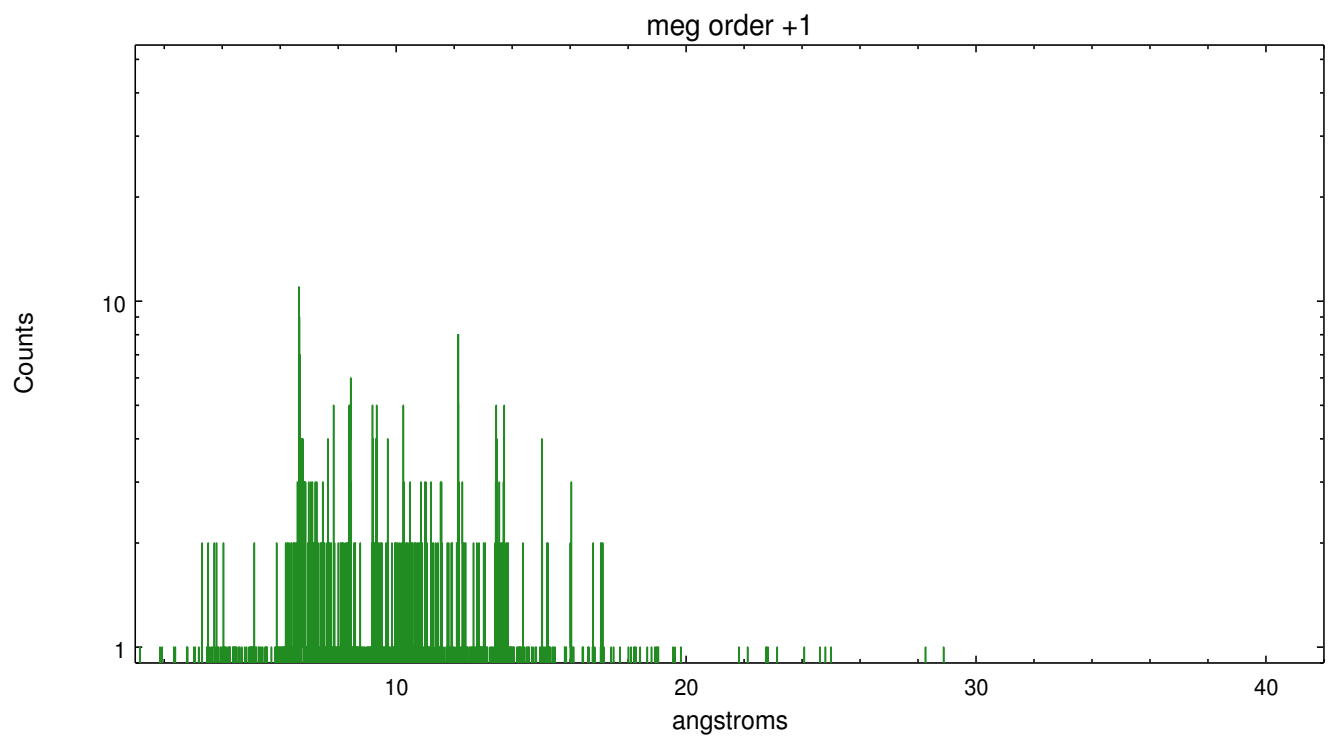
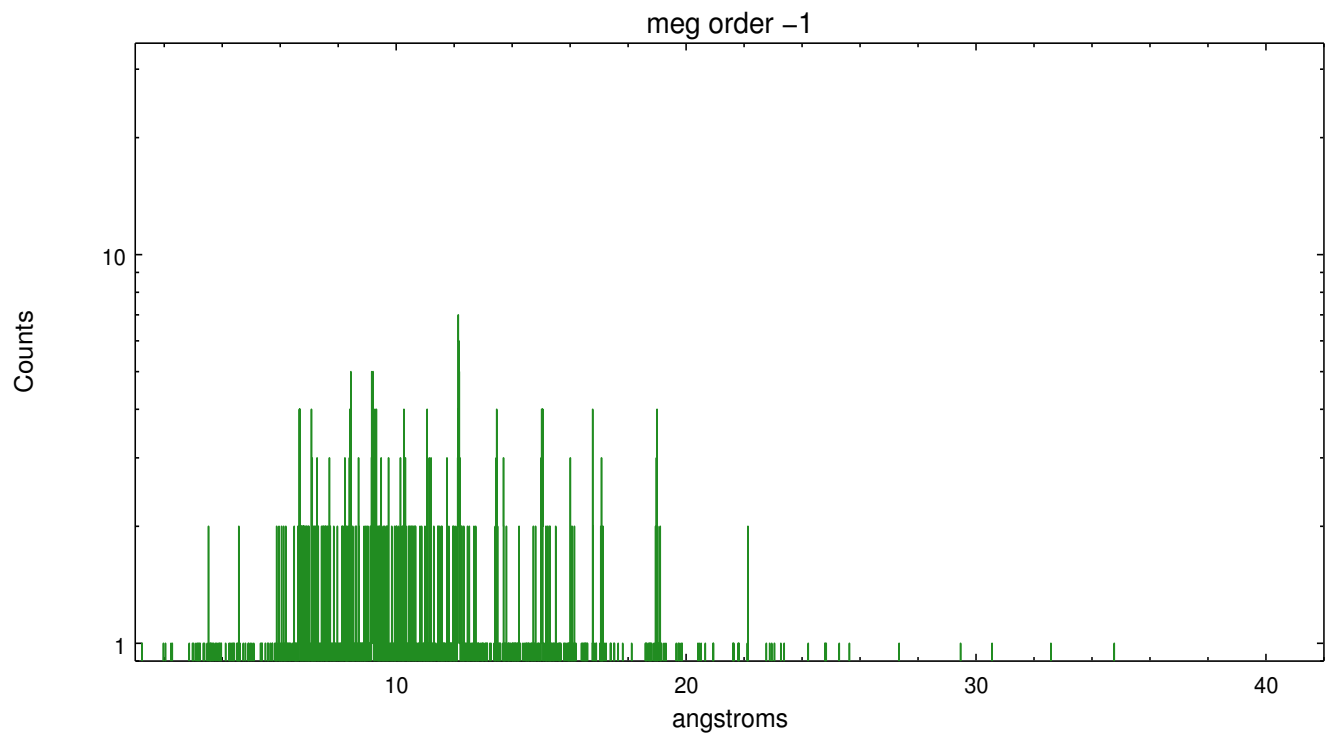
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	437	365	1656	3228	1622	356	334





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	32.18

A.2 Comments