

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 8545 - L2 Version 3
Chandra X-Ray Center

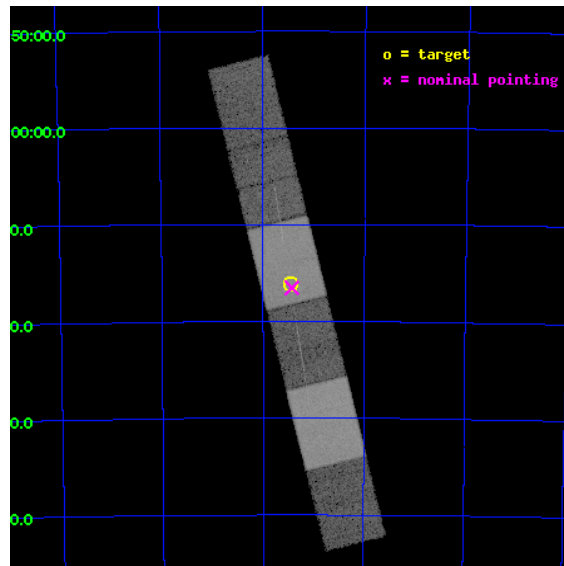
L2 Processing Date : Apr 22 2012

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1 Front

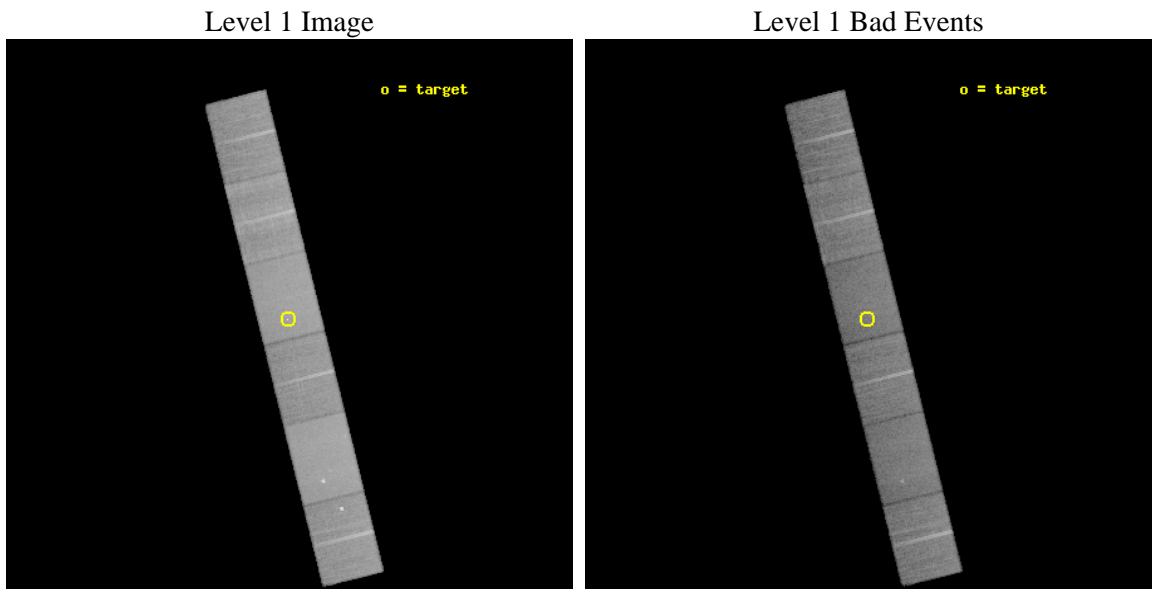
seq_num	500720	Sequence number
obs_id	8545	Observation id
title	High resolution spectral imaging of SN 1987A at 20 years: HETG observation	Proposal title
observer	Prof Claude Canizares	Principal investigator
object	Sn 1987A	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	83.866667	Observer's specified target RA [deg]
dec_targ	-69.269722	Observer's specified target Dec [deg]
ra_nom	83.857926740024	Nominal RA [deg]
dec_nom	-69.275438213151	Nominal Dec [deg]
roll_nom	256.04844866483	Nominal Roll [deg]
revision	3	Processing version of data
ontime	20797.268495619	Sum of GTIs [s]
livetime	20461.374570667	Livetime [s]
ontime4	20797.309535623	Sum of GTIs [s]
ontime5	20797.227455616	Sum of GTIs [s]
ontime6	20794.645445228	Sum of GTIs [s]
ontime7	20797.268495619	Sum of GTIs [s]
ontime8	20797.145375609	Sum of GTIs [s]
ontime9	20797.104335606	Sum of GTIs [s]
l2events	254418	Number of level 2 events



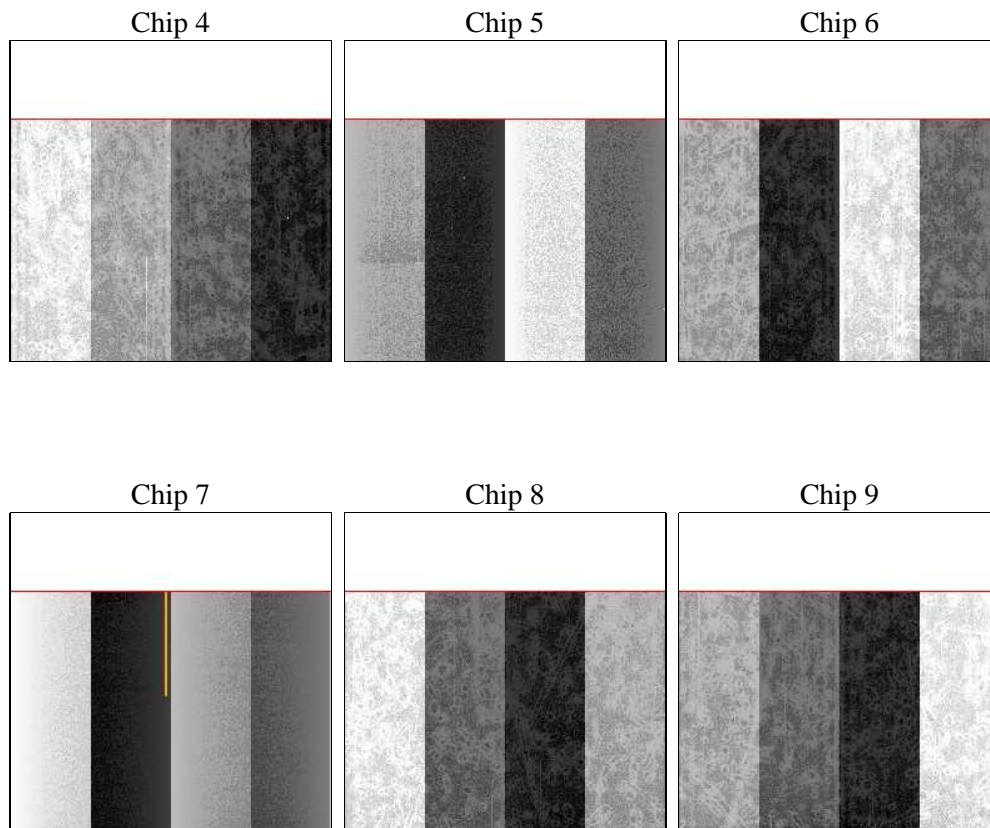
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	20755.239000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	20797.268495619	Sum of GTIs [s]
caldsver	4.4.9	 	ontime4	20797.309535623	Sum of GTIs [s]
date	2012-04-22T06:10:44	Date and time of file creation	ontime5	20797.227455616	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	20794.645445228	Sum of GTIs [s]
			ontime7	20797.268495619	Sum of GTIs [s]
			ontime8	20797.145375609	Sum of GTIs [s]
			ontime9	20797.104335606	Sum of GTIs [s]
			l1events	1088169	Number of level 1 events

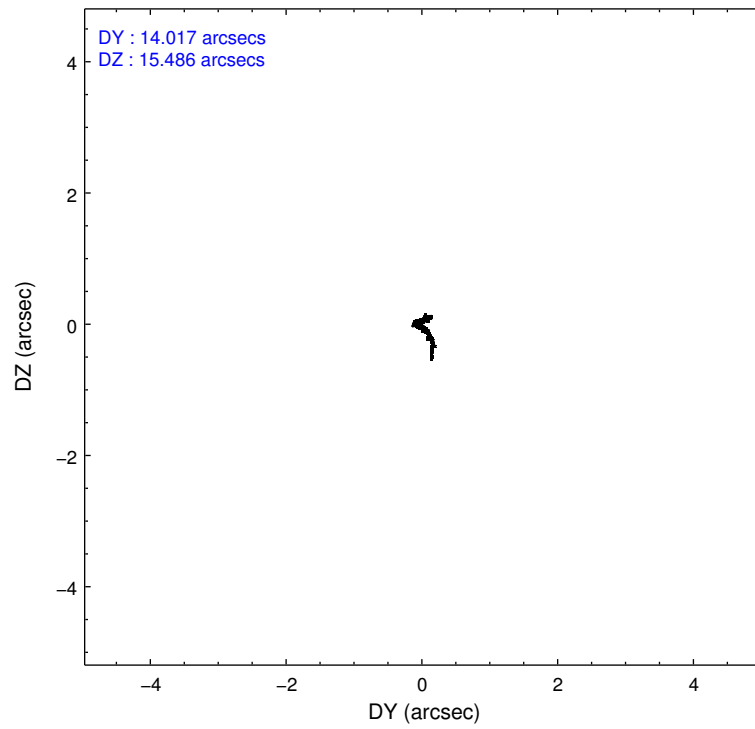
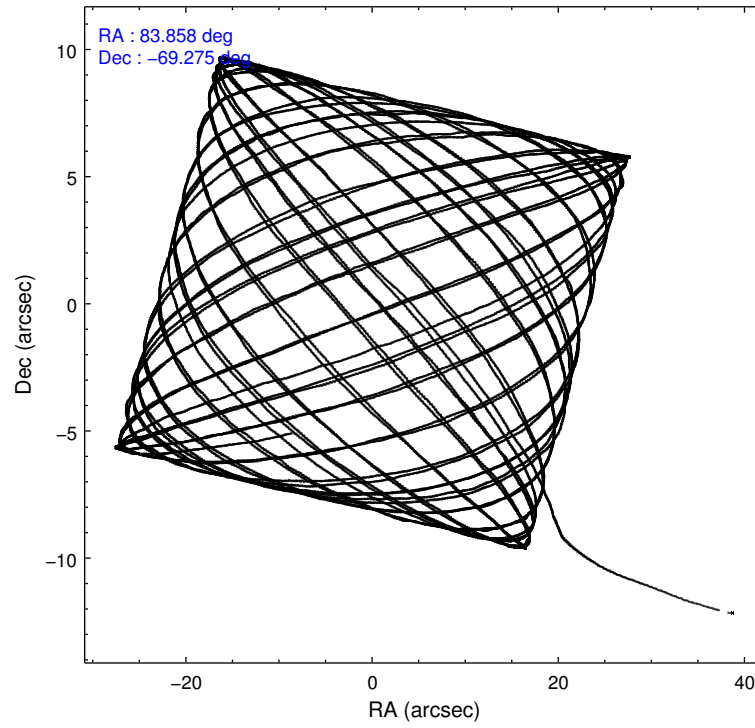
2.1.4 Events

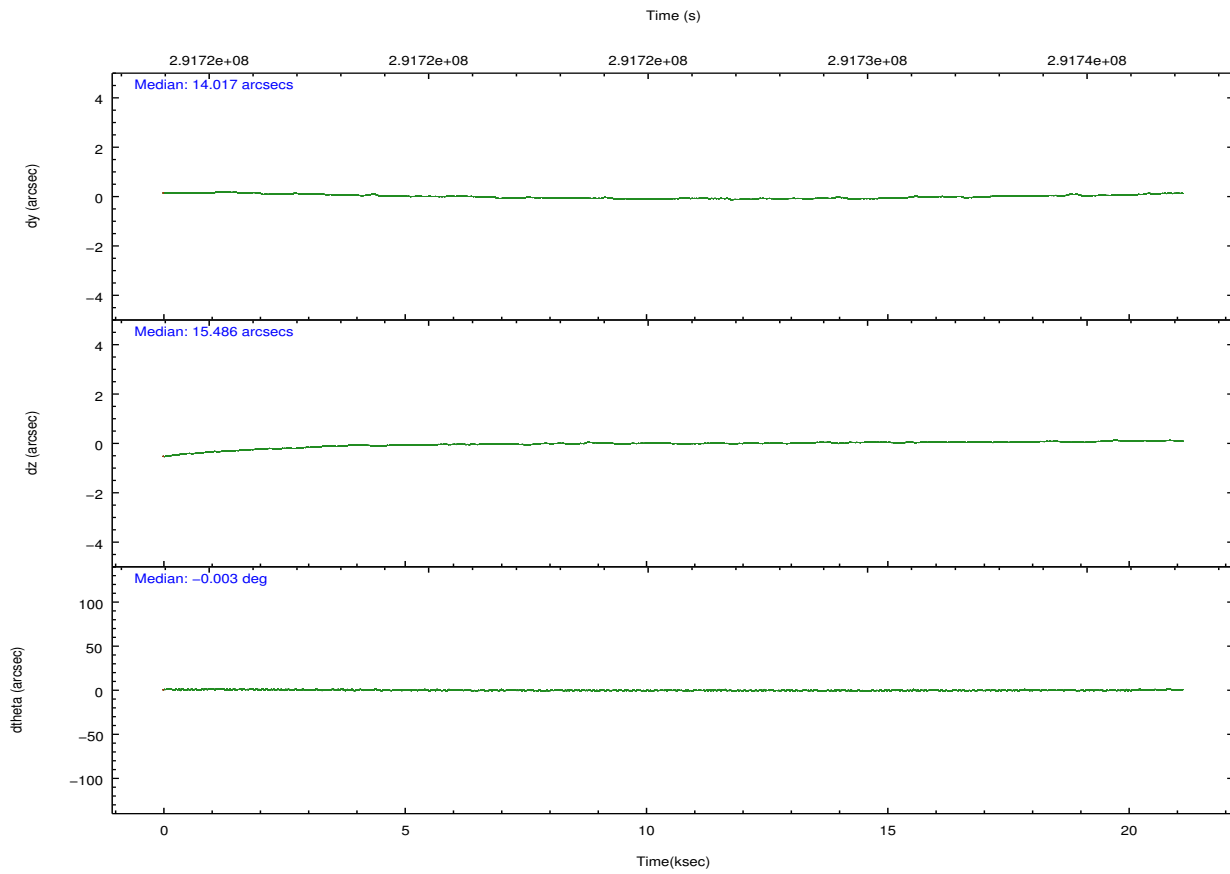
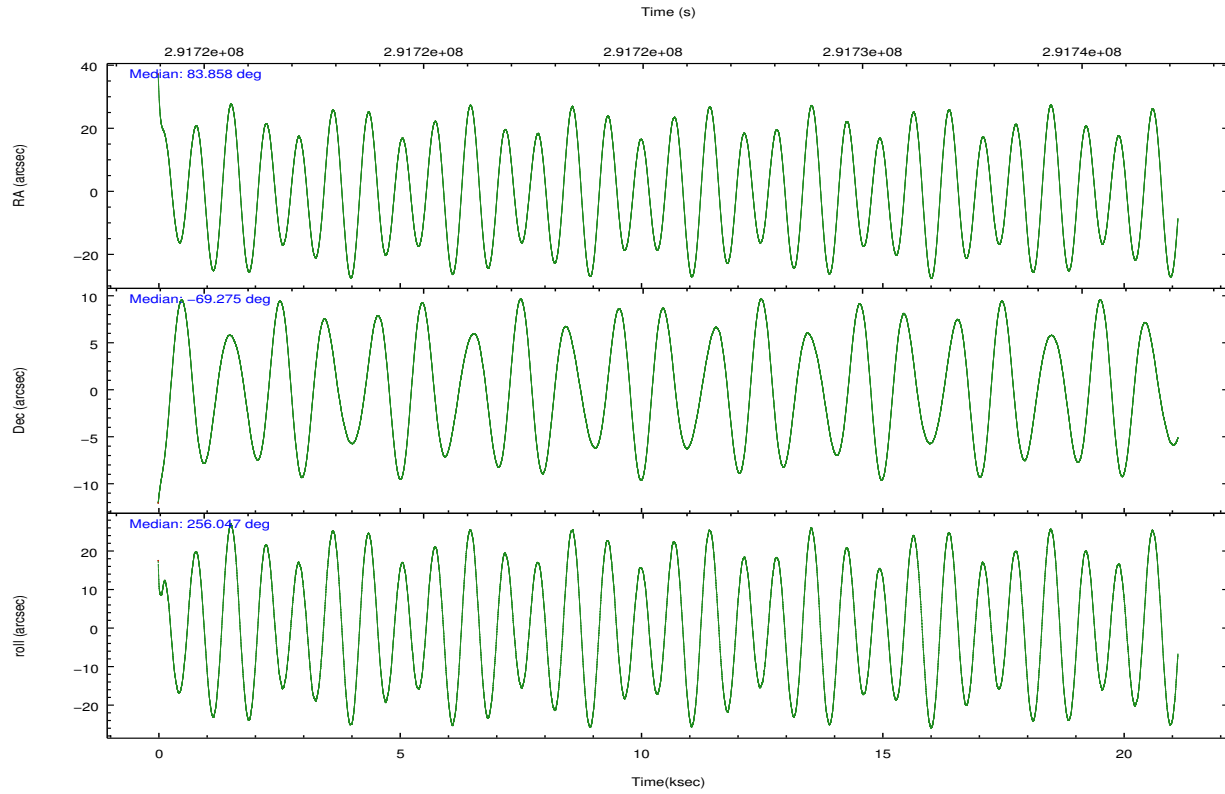
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	167793	224167	151911	205593	193477	145228	grade 0 events	11662	9536	8017	8463	14729	7874
rejected events	145232	120086	132452	116374	148292	126310		6%	4%	5%	4%	7%	5%
rejected %	86%	53%	87%	56%	76%	86%	grade 1 events	146	780	65	201	123	77
								0%	0%	0%	0%	0%	0%
							grade 2 events	4046	30744	4011	18528	9860	3675
								2%	13%	2%	9%	5%	2%
							grade 3 events	1920	4581	1937	7994	4876	2008
								1%	2%	1%	3%	2%	1%
							grade 4 events	1873	4611	1886	7887	4460	1817
								1%	2%	1%	3%	2%	1%
							grade 5 events	6563	17196	6937	19093	9135	7179
								3%	7%	4%	9%	4%	4%
							grade 6 events	3063	54617	3609	46352	11262	3544
								1%	24%	2%	22%	5%	2%
							grade 7 events	138520	102102	125449	97075	139032	119054
								82%	45%	82%	47%	71%	81%

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	83.85792674002408	Subarray requested	CUSTOM	CUSTOM
[deg] Pointing Dec	-69.249242	-69.2754382131514	Subarray start row	1	1
[deg] Pointing Roll	255.870938	256.0484486648286	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)	291715368.184000	291714222.07158			
Observation start date	2007-03-31T08:01:43	2007-03-31T07:43:42			
[s] Observation end time (MET)	291736123.184000	291736336.96014			
Observation end date	2007-03-31T13:47:38	2007-03-31T13:52:16			
Read mode	TIMED	TIMED			

2.3 Aspect



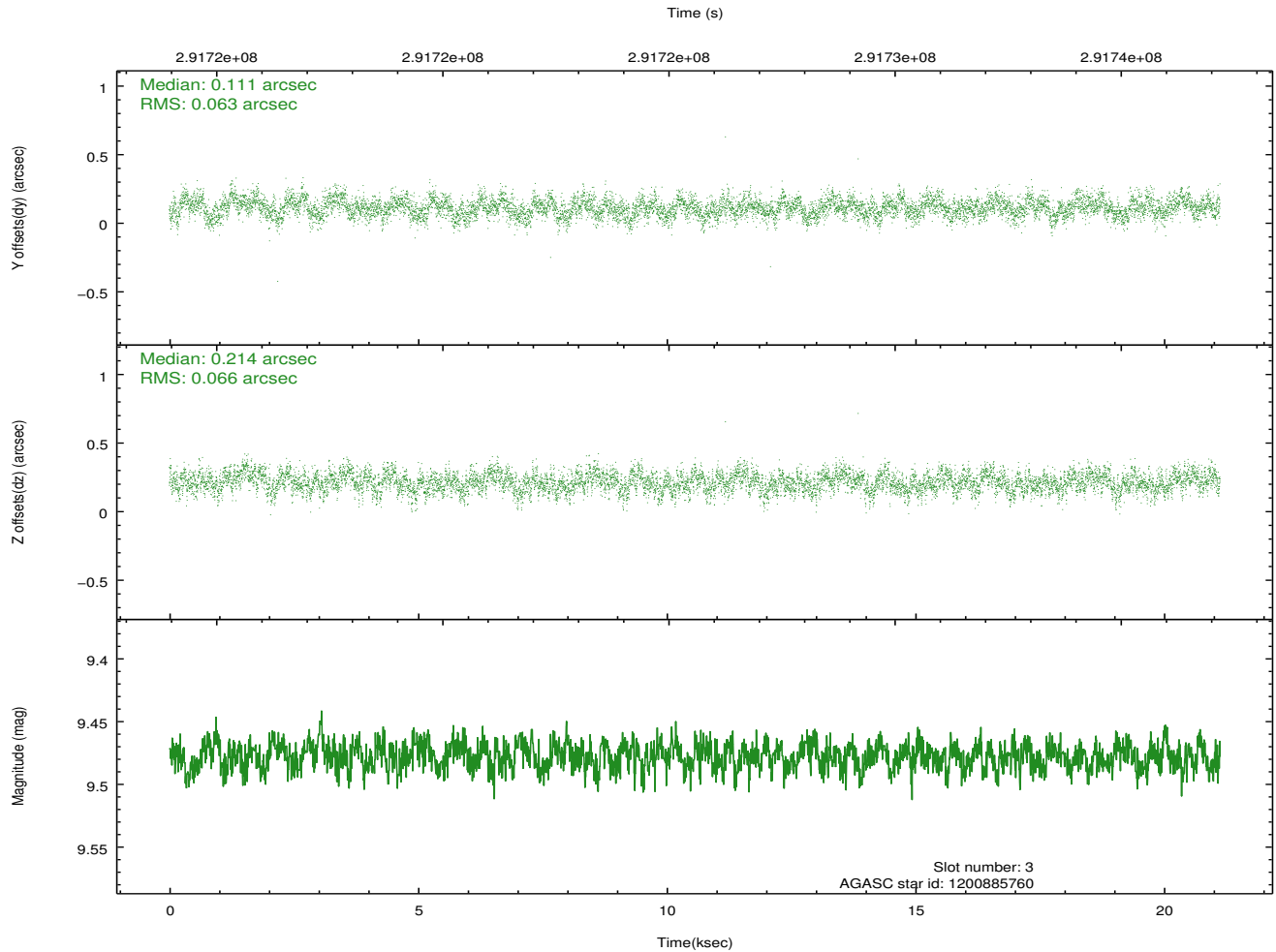
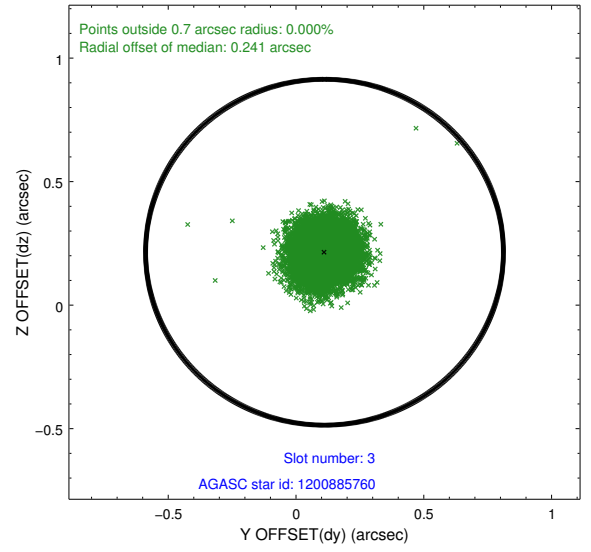
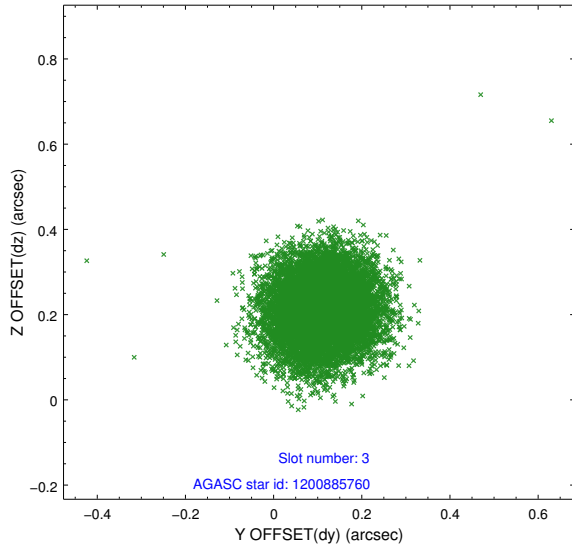


Slot Statistics

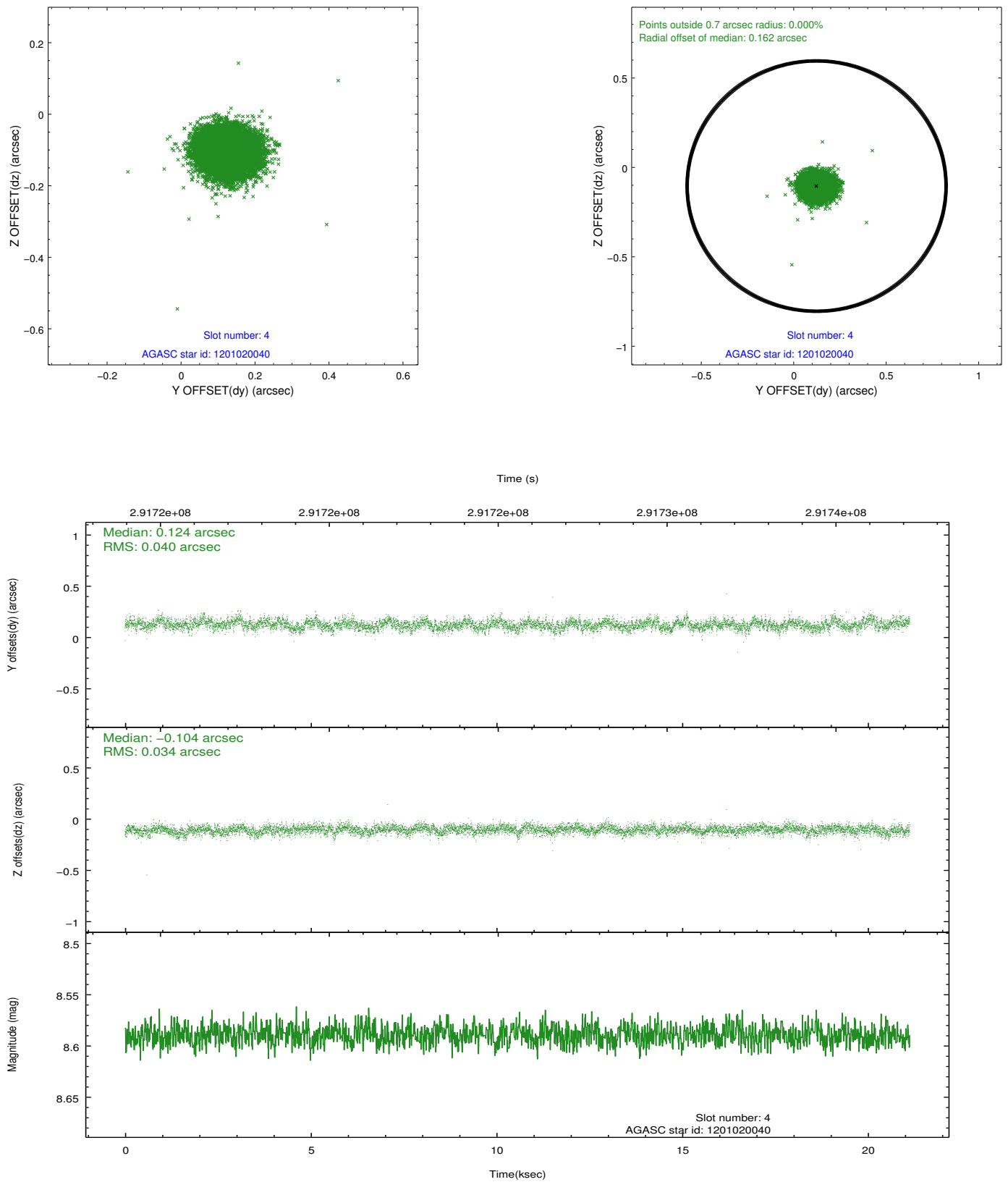
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.09	5154	-0.161	-0.128	0.009	0.020	0.000000	0.000000	-766.95	-1799.04
1	FID	ACIS-S-4	7.18	5153	0.155	0.082	0.008	0.016	0.000000	0.000000	2146.60	109.41
2	FID	ACIS-S-6	7.36	5153	-0.022	0.053	0.009	0.017	0.000000	0.000000	395.43	747.00
3	GUIDE	1200885760	9.48	10303	0.111	0.214	0.098	0.156	83.723637	-68.777667	-1610.35	-555.38
4	GUIDE	1201020040	8.59	10302	0.124	-0.104	0.055	0.091	85.379163	-68.879396	-1755.55	1622.76
5	GUIDE	1201410616	9.33	10298	-0.060	0.046	0.106	0.172	82.516808	-69.784406	2285.74	-1115.78
6	GUIDE	1201542672	8.20	10304	-0.092	-0.074	0.054	0.088	84.492488	-69.957531	2277.95	1409.70
7	GUIDE	1201019672	6.81	10307	-0.083	-0.081	0.060	0.098	85.312192	-68.770187	-2119.71	1451.45

2.4 Star Slots

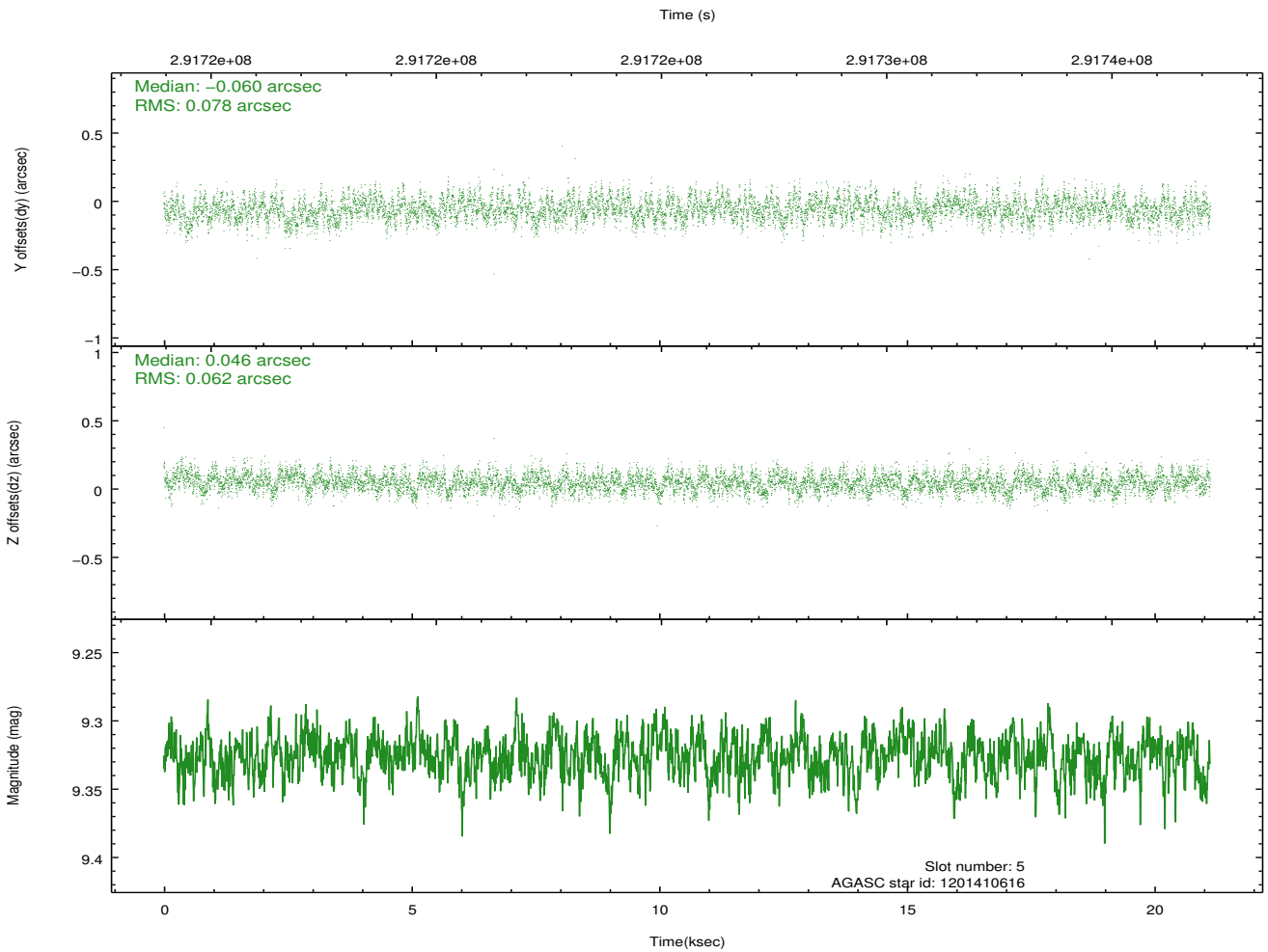
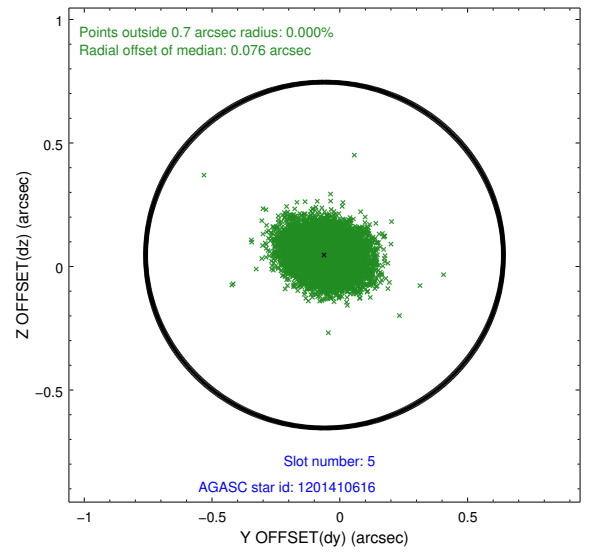
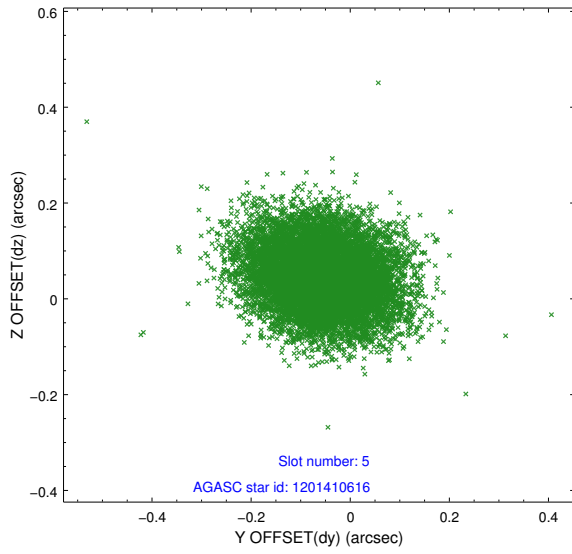
2.4.1 Slot 3



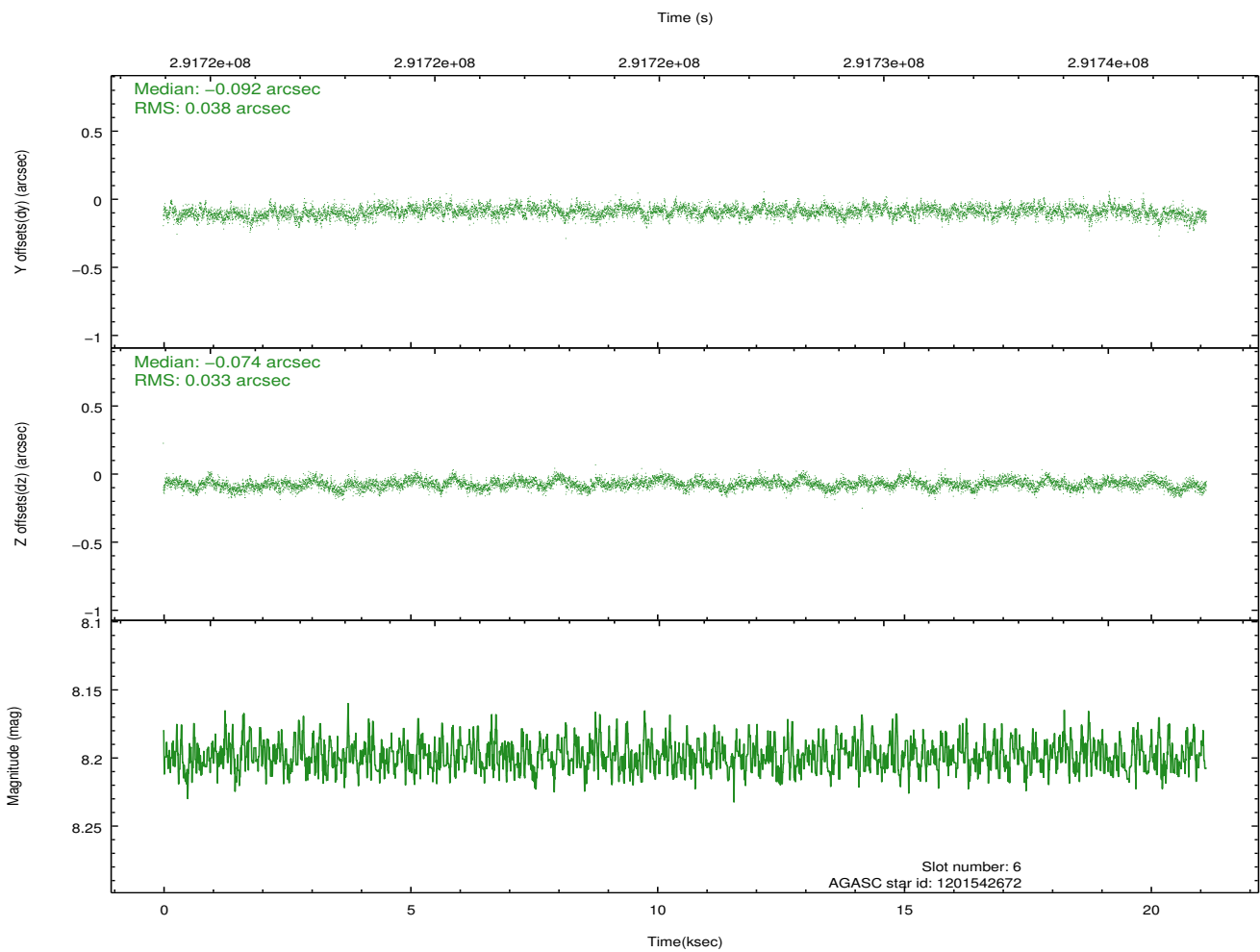
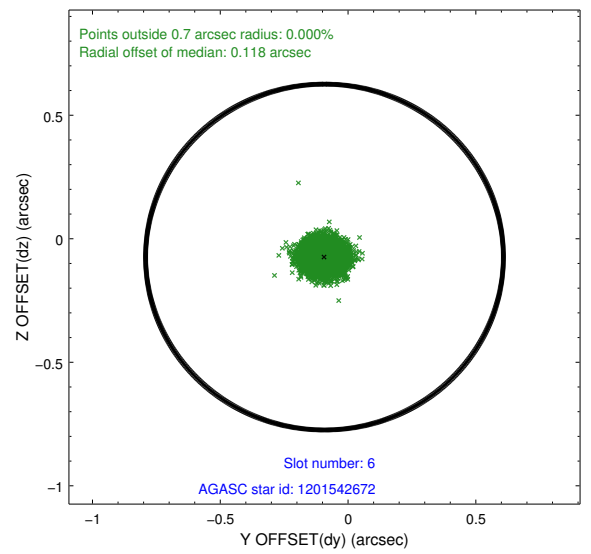
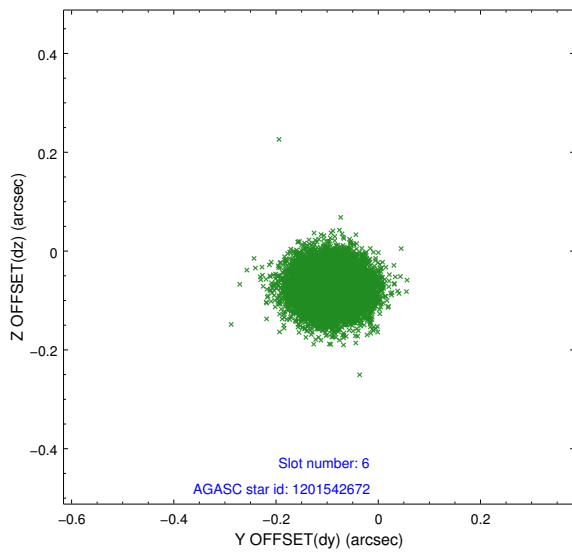
2.4.2 Slot 4



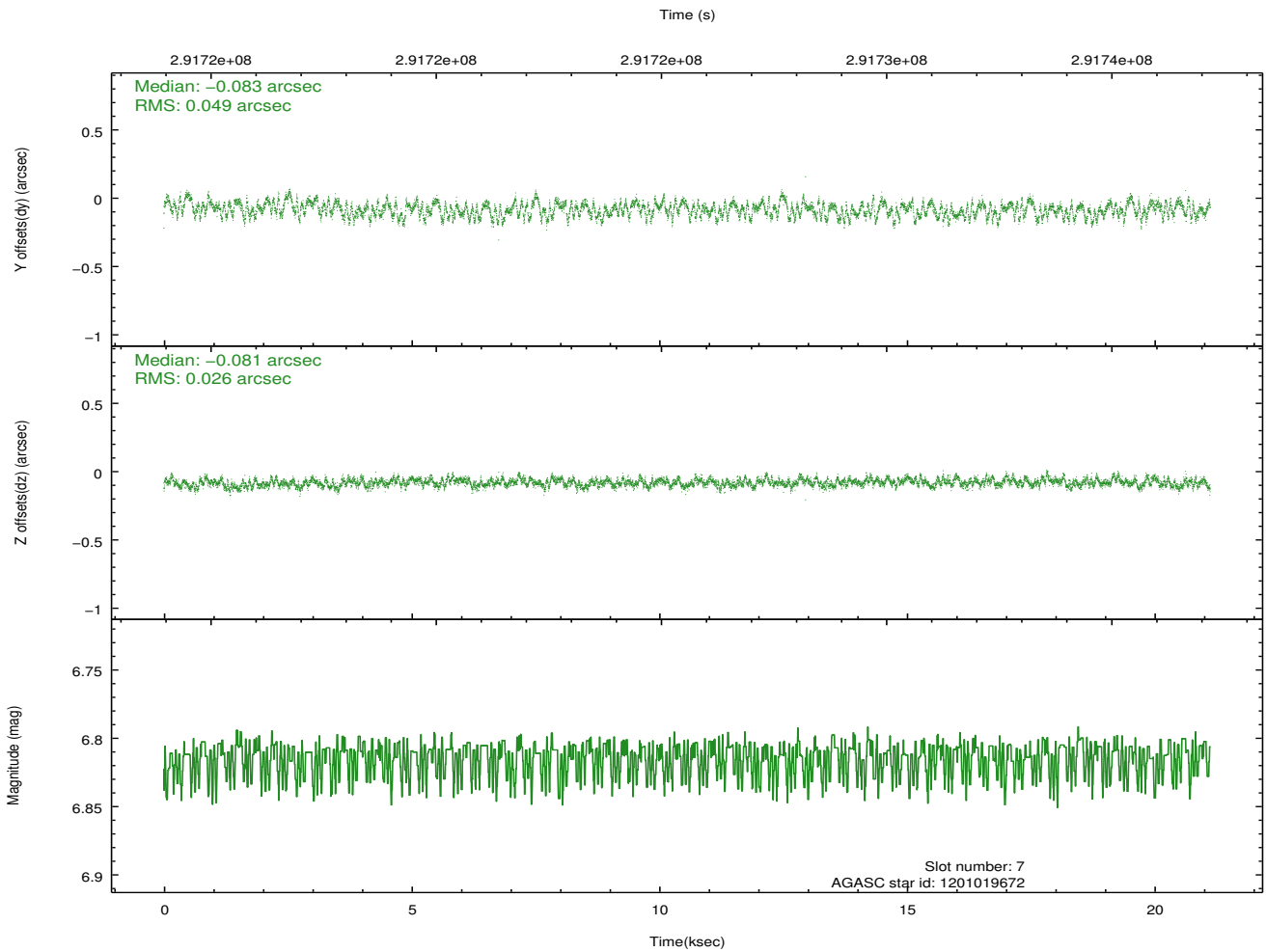
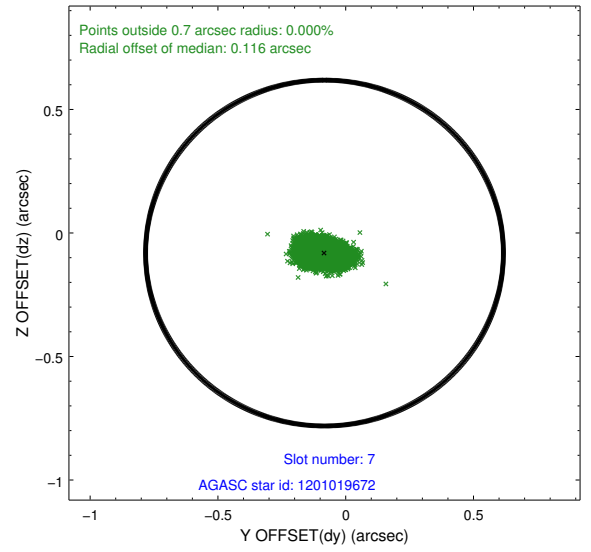
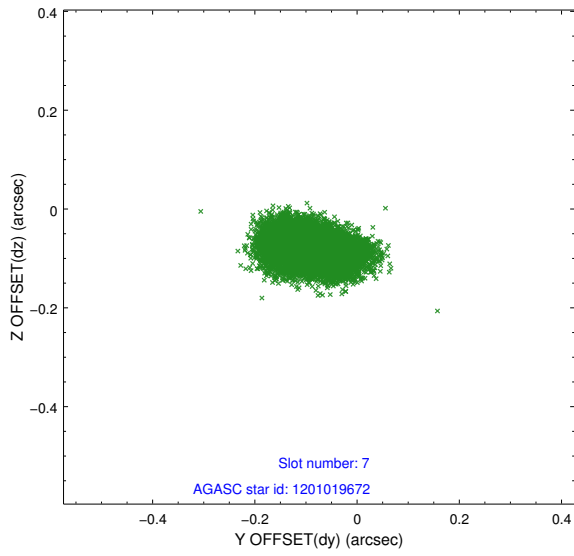
2.4.3 Slot 5



2.4.4 Slot 6

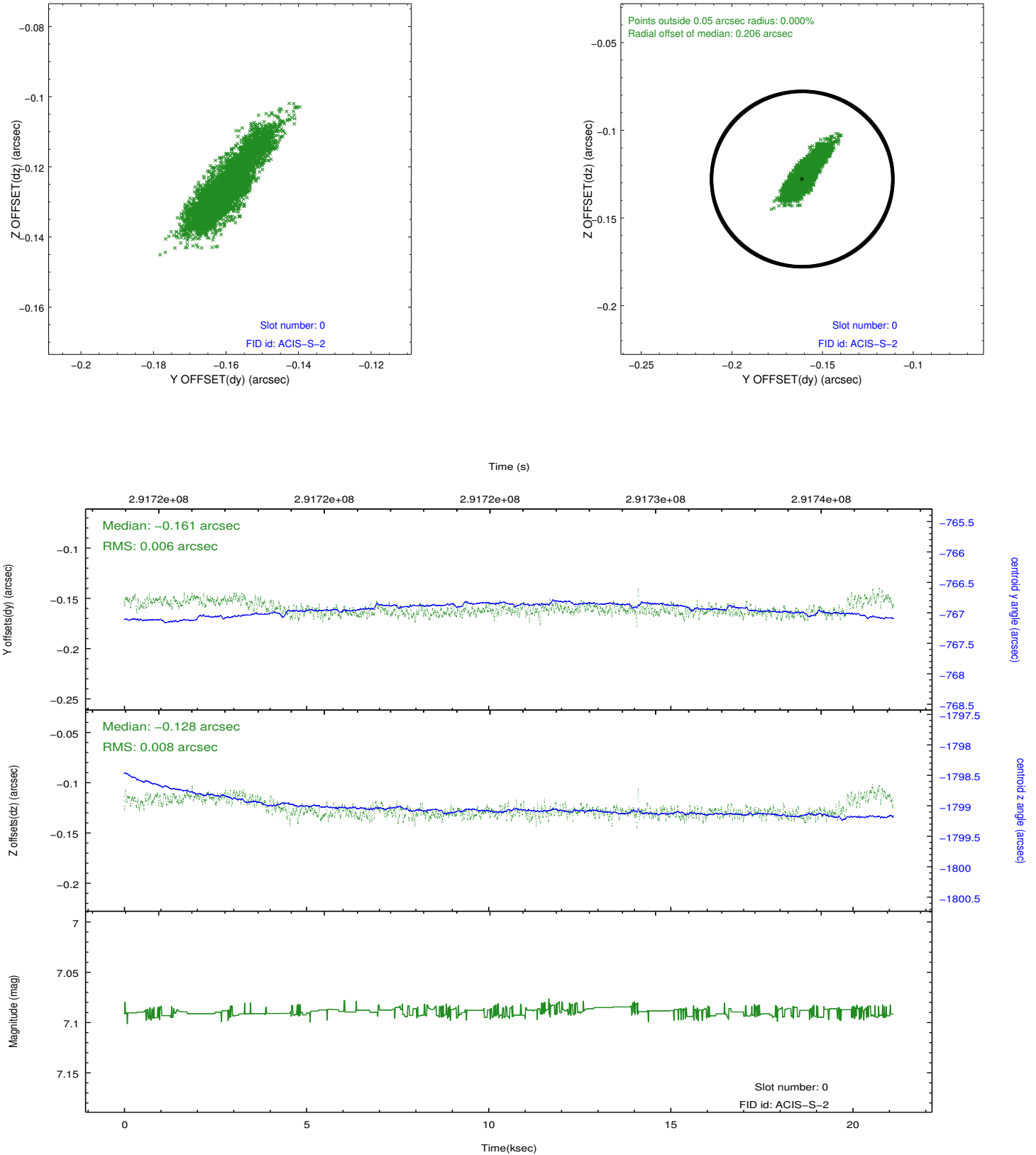


2.4.5 Slot 7

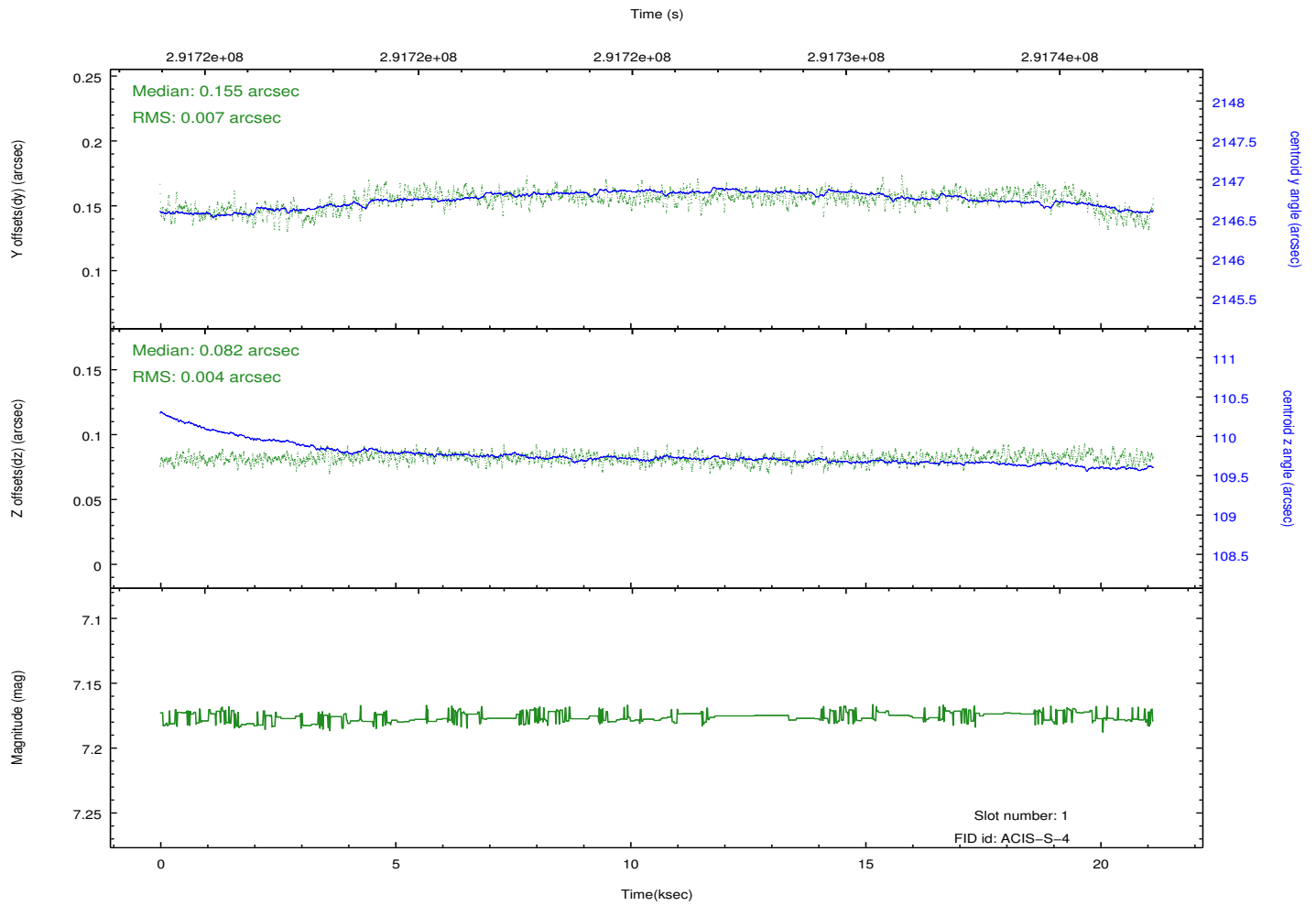
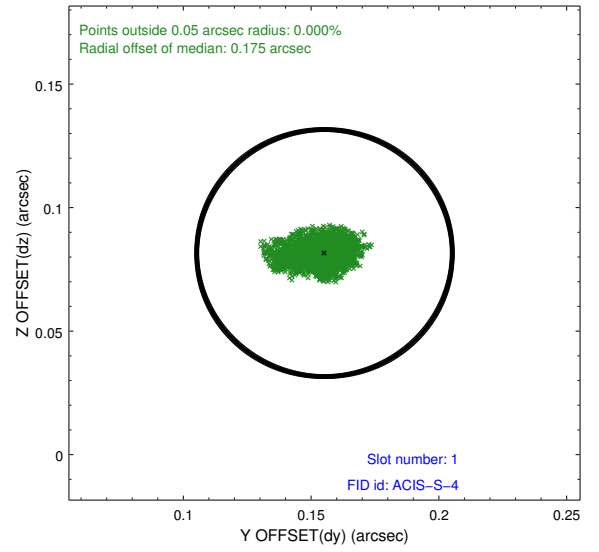
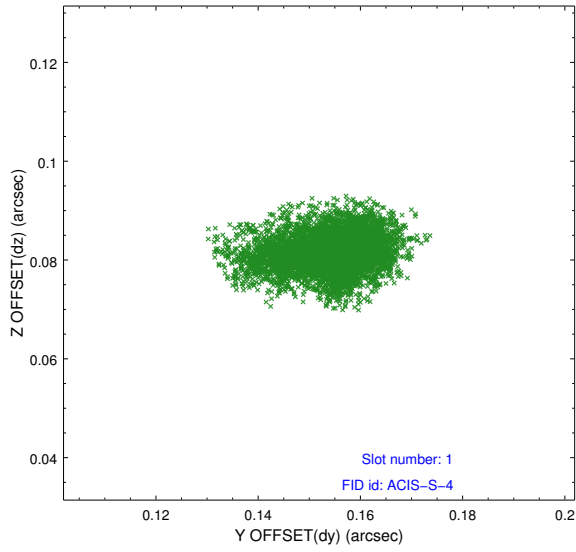


2.5 FID Slots

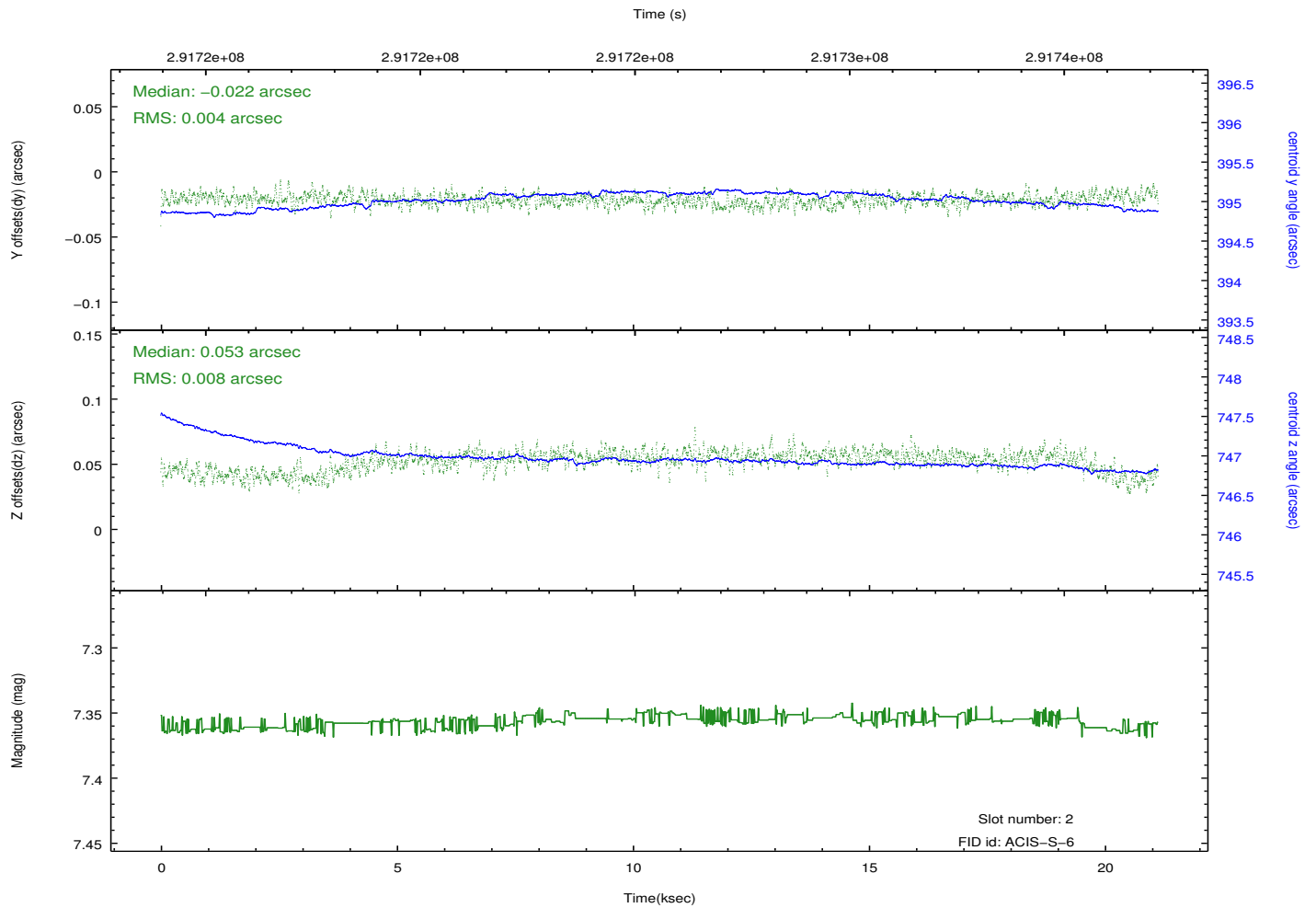
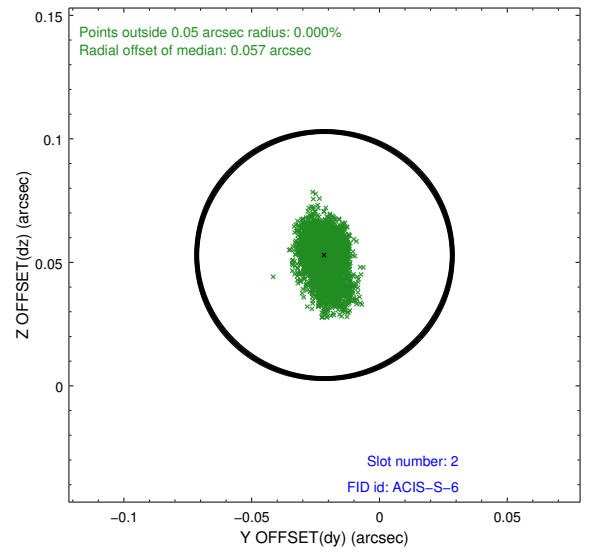
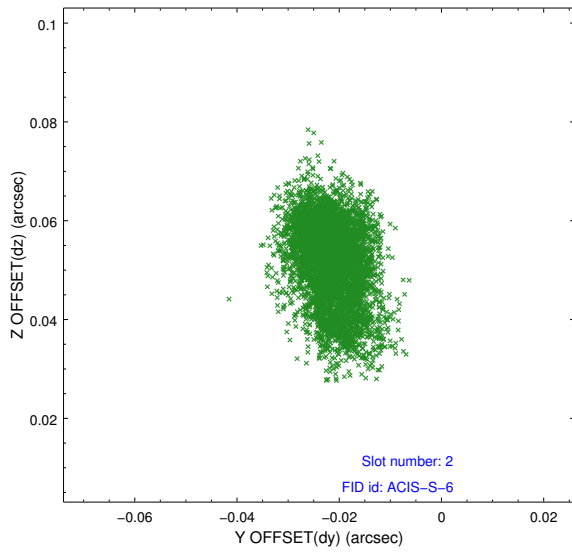
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

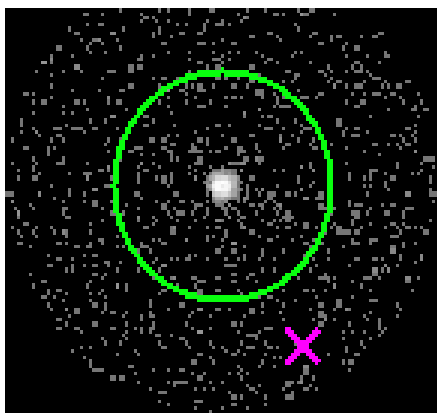


3 Gratings

3.1 HEG Arm



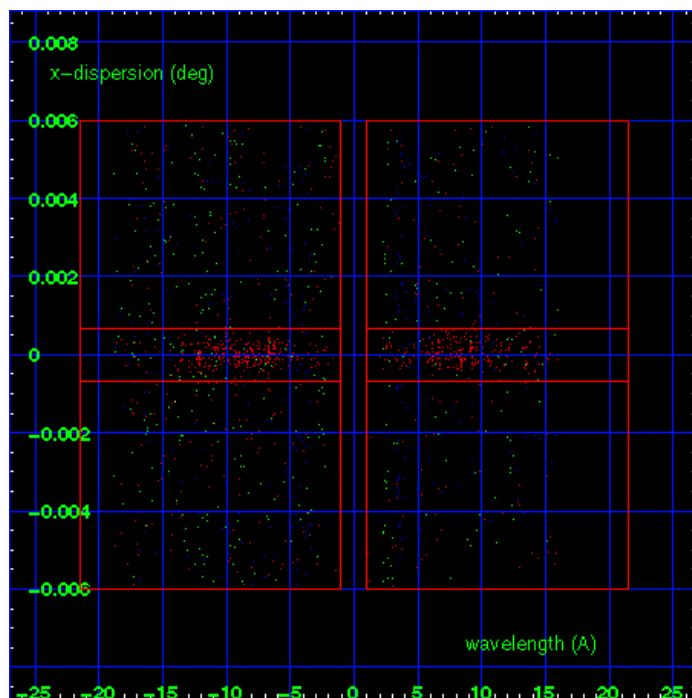
HEG Order Sort 123



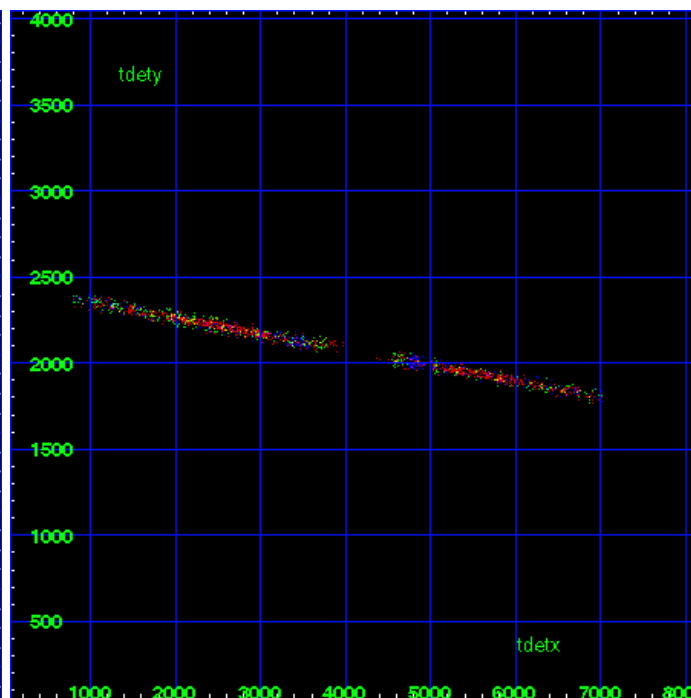
HEG Zero Order



HEG Order Sort ALL

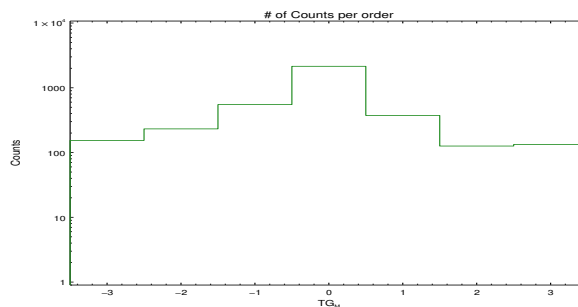


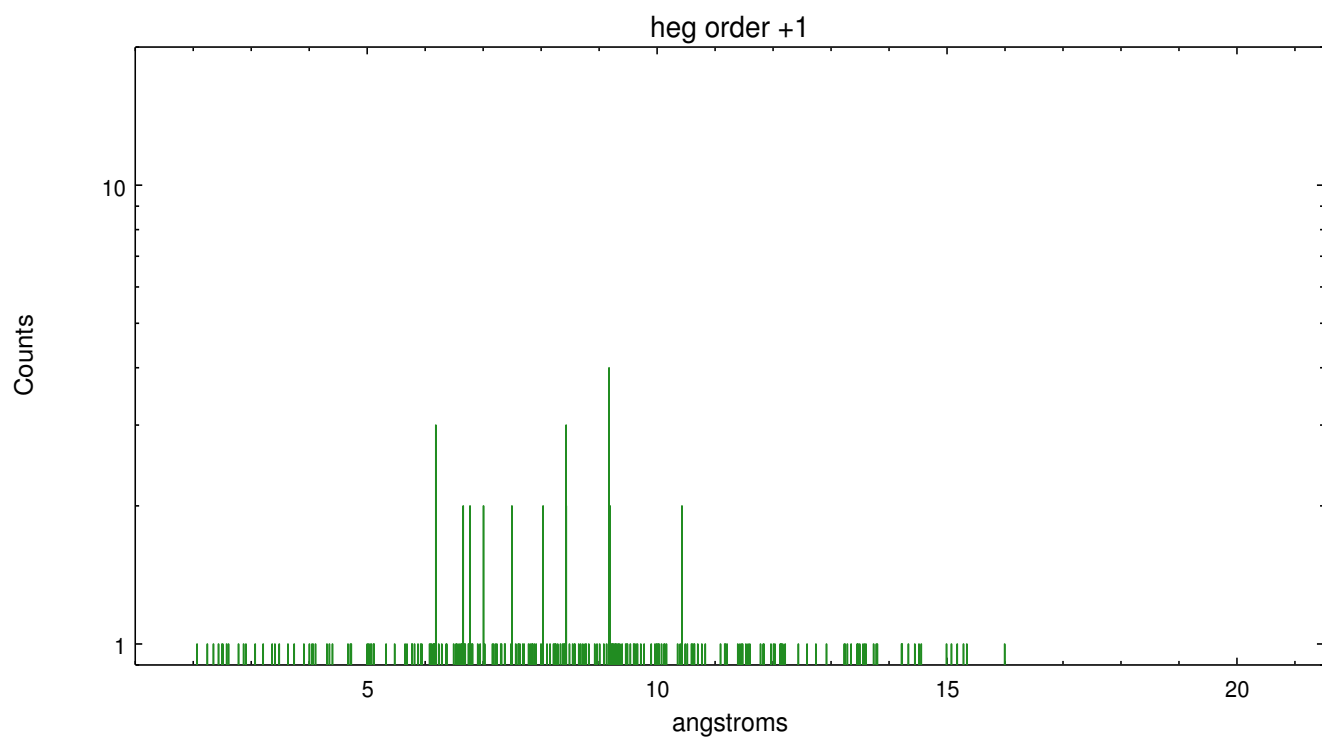
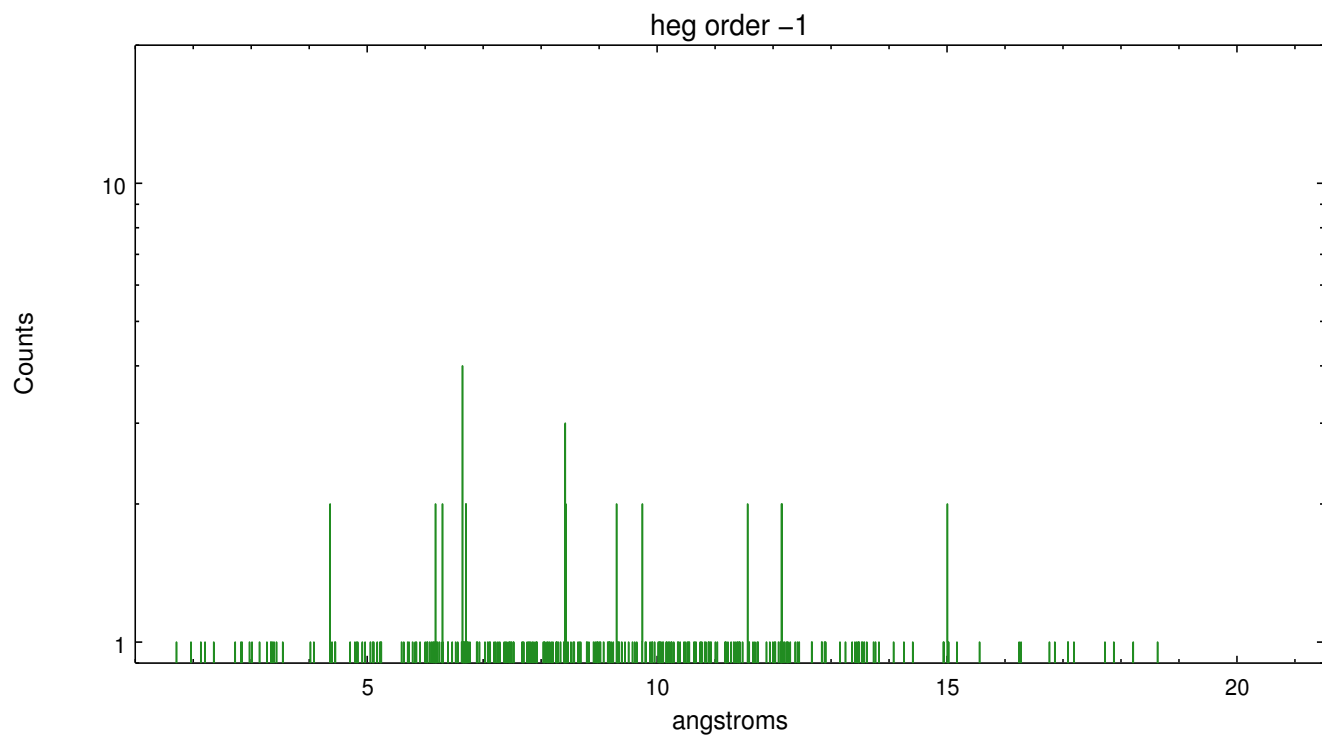
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	154	232	550	2145	374	126	133

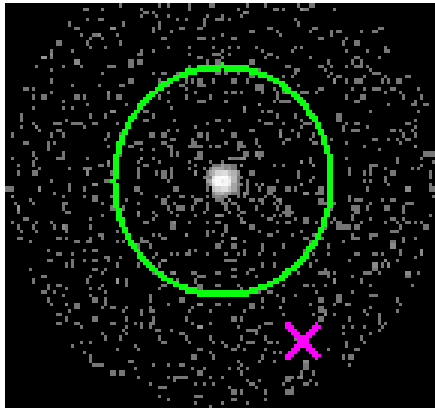




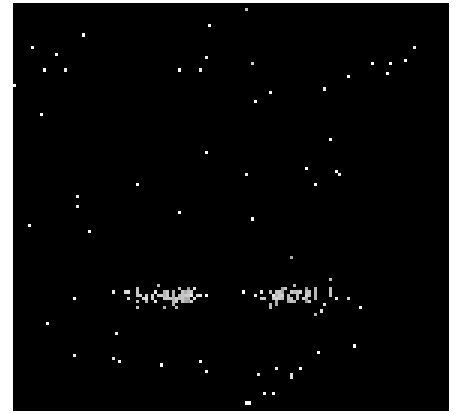
3.2 MEG Arm



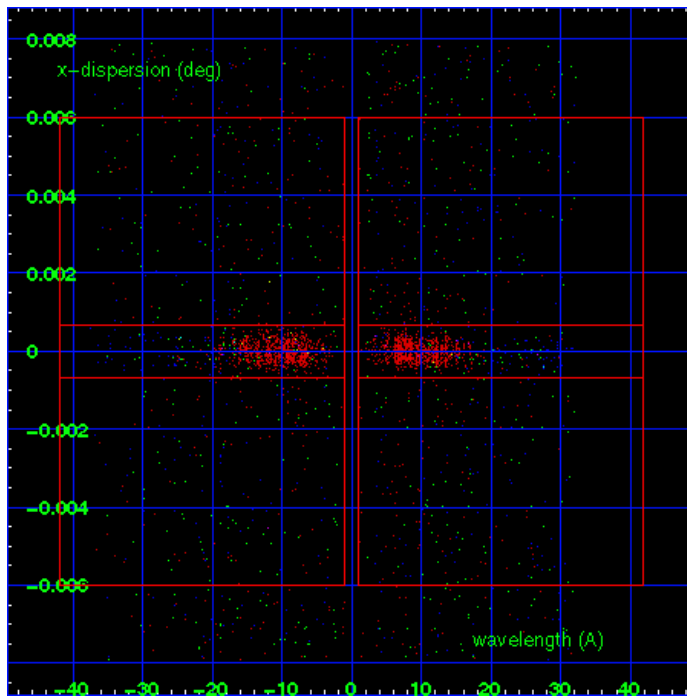
MEG Order Sort 123



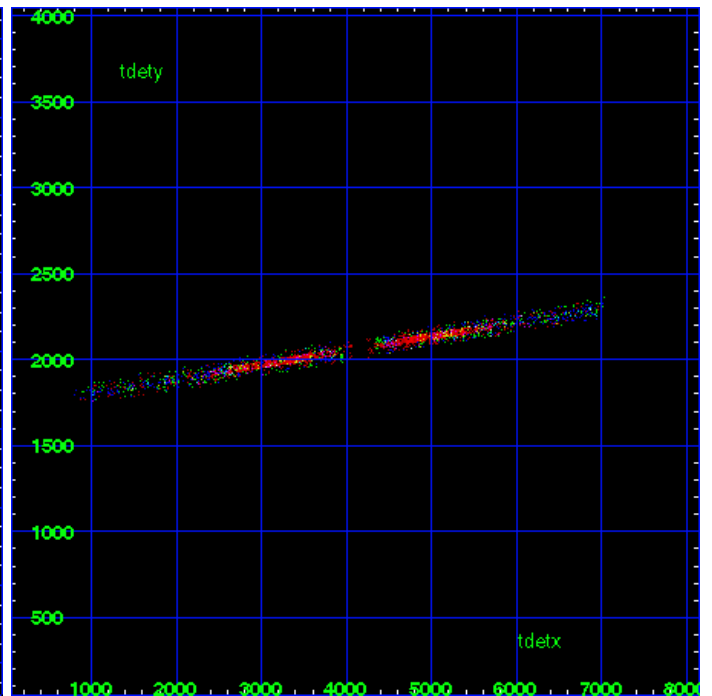
MEG Zero Order



MEG Order Sort ALL

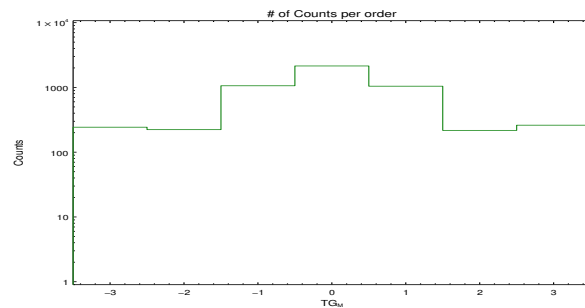


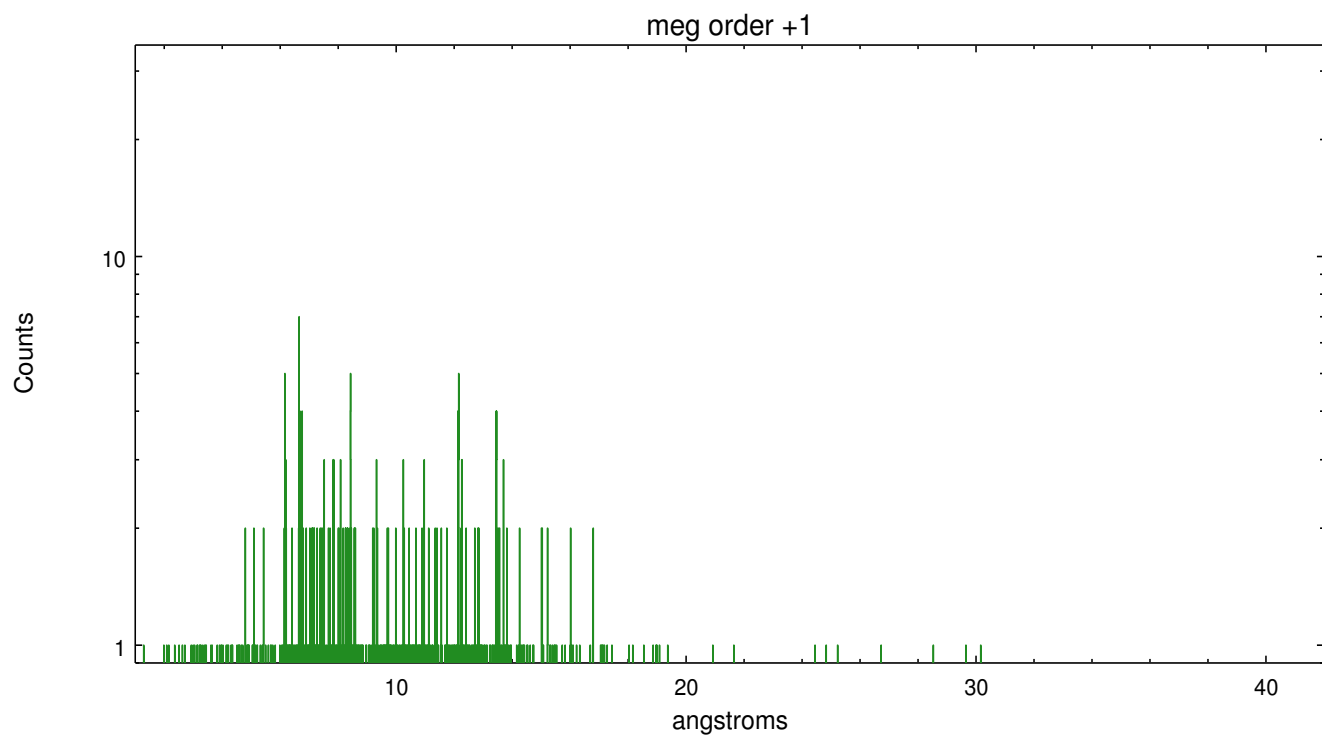
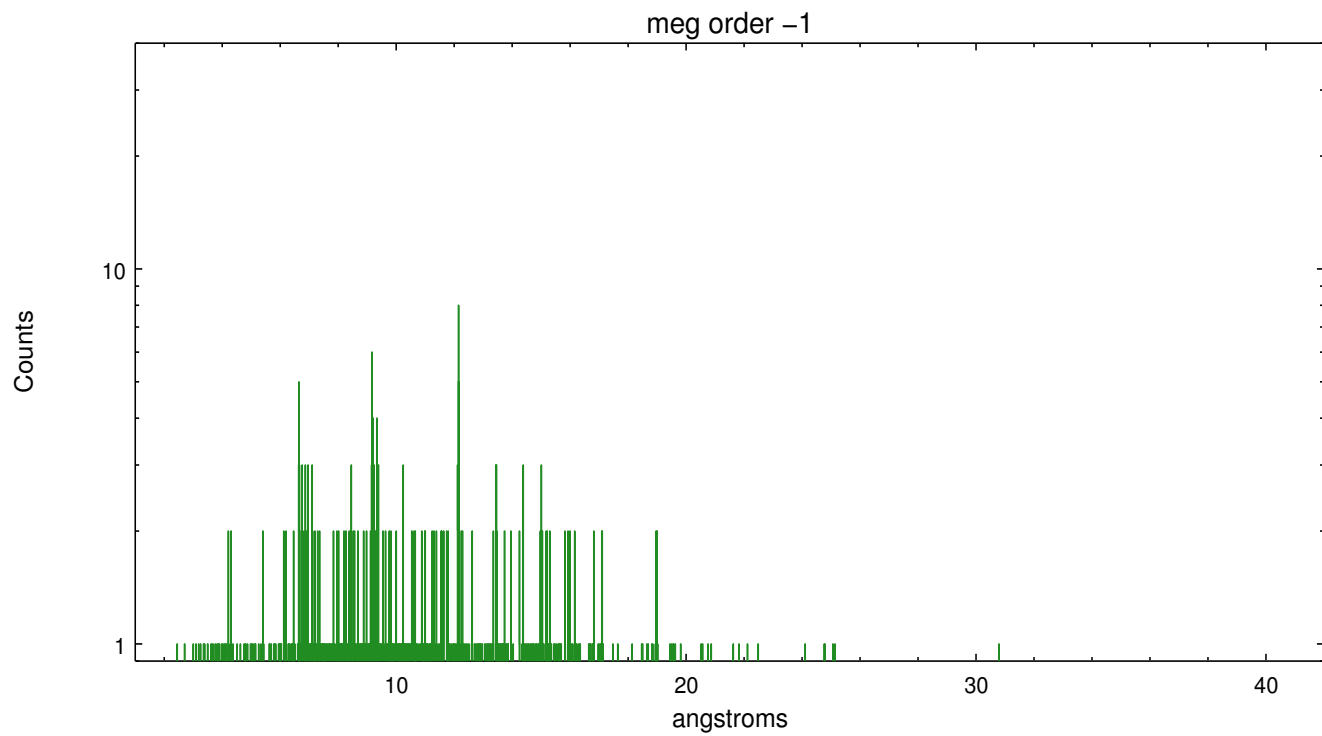
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	243	223	1061	2145	1044	217	261





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	20.7975

A.2 Comments