

V&V Reference Report

L2 ASCDS Version : 7.6.10

Observation 716 - L2 Version 7
Chandra X-Ray Center

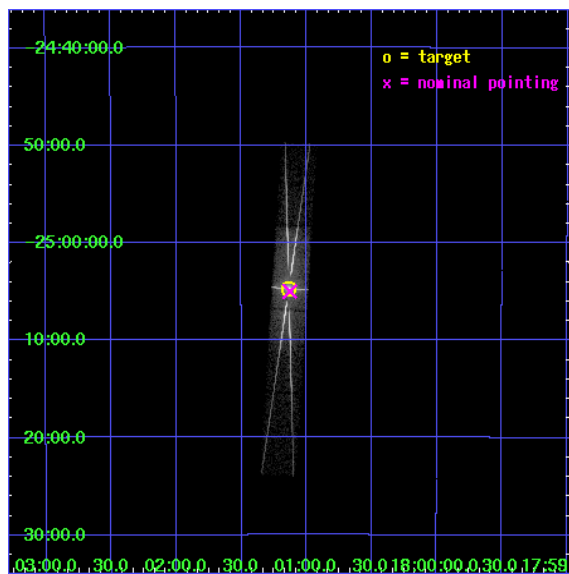
L2 Processing Date : Sep 19 2007

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1 Front

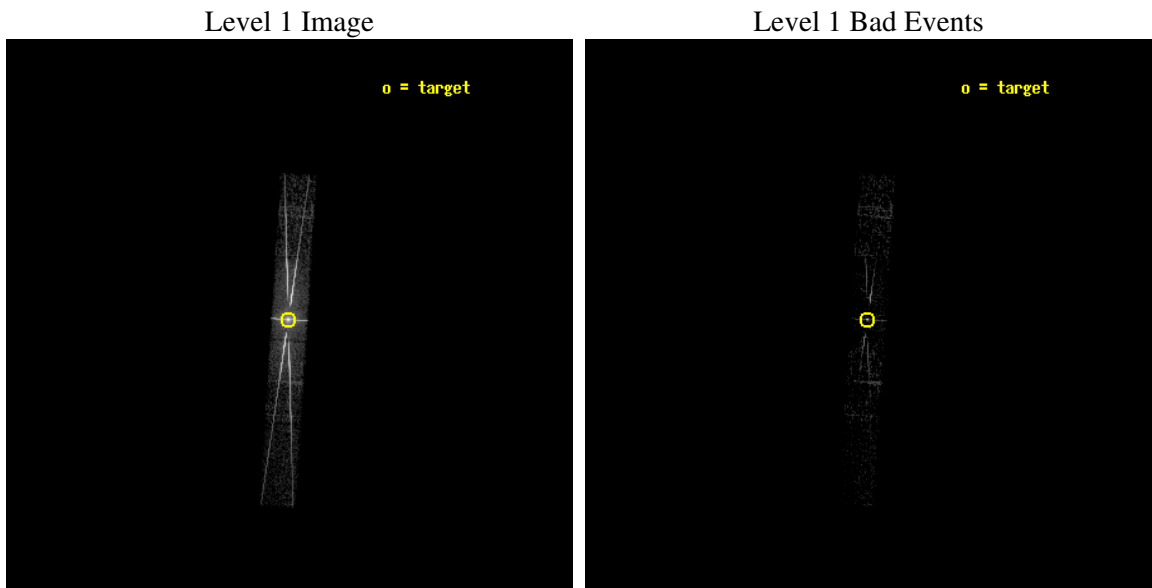
seq_num	400083
obs_id	716
title	AXAF GRATING SPECTRA AND PRECISE POSITIONS OF BRIGHT GALACTIC-CENTER X-RAY SOURCES
observer	Dr. Alan Levine
object	GX 5-1
dtcycle	0
cycle	P
ra_targ	270.28375
dec_targ	-25.079167
ra_nom	270.28212062084
dec_nom	-25.083561907991
roll_nom	273.73251388048
revision	7
ontime	1401.3686414808
livetime	237.92875472237
ontime5	1401.3713802546
ontime6	1401.3713802546
ontime7	1401.3686414808
ontime8	1401.3713802546
l2events	83609



2 OBI Primary

2.1 OBI

2.1.1 Images



2.1.2 Parameters

obi_num	1
ascdsver	7.6.10
caldsver	3.4.0
date	2007-05-30T21:14:53
revision	5

sched_exp_time	10000.000000
ontime	1401.3686414808
ontime5	1401.3713802546
ontime6	1401.3713802546
ontime7	1401.3686414808
ontime8	1401.3713802546
l1events	97064

2.1.3 Events

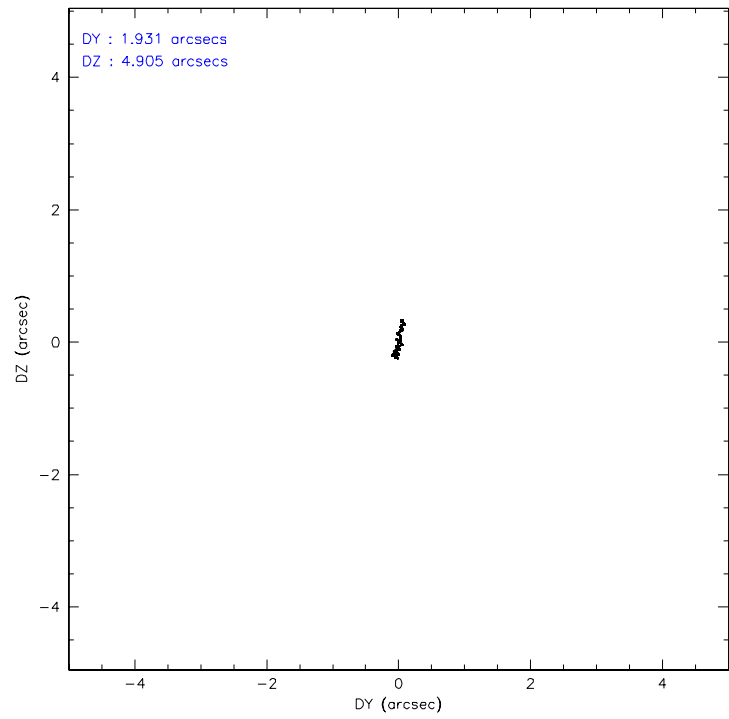
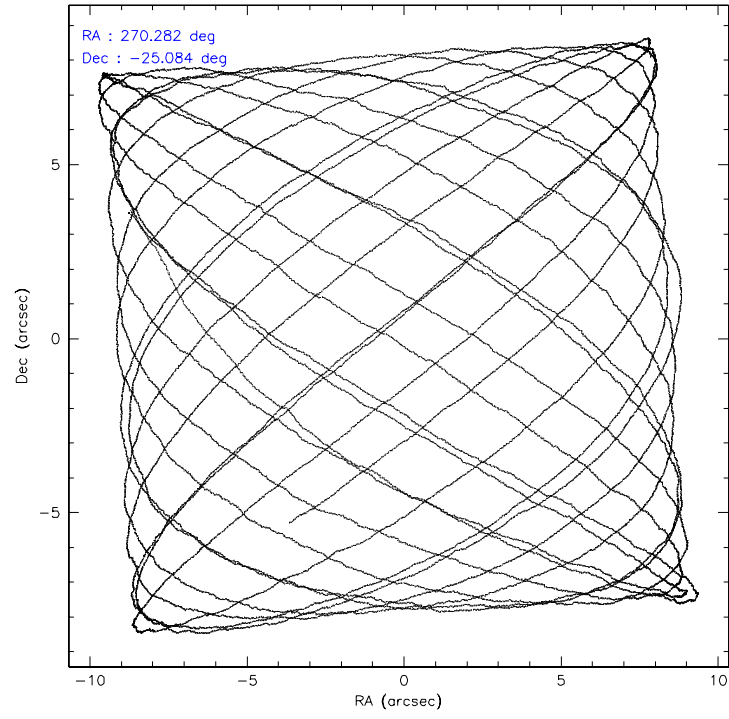
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	4267	30579	52441	9777
rejected events	1106	2785	3546	2791
rejected %	25%	9%	6%	28%

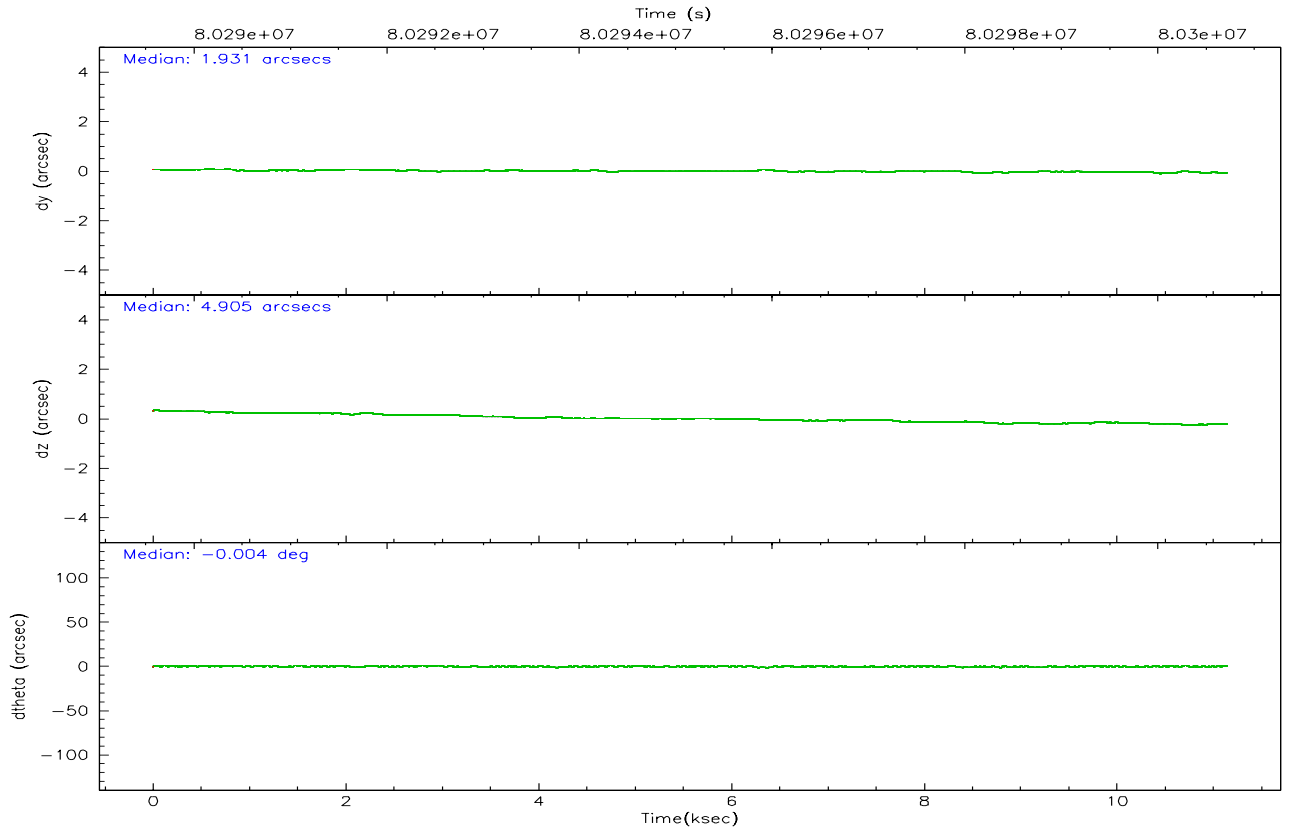
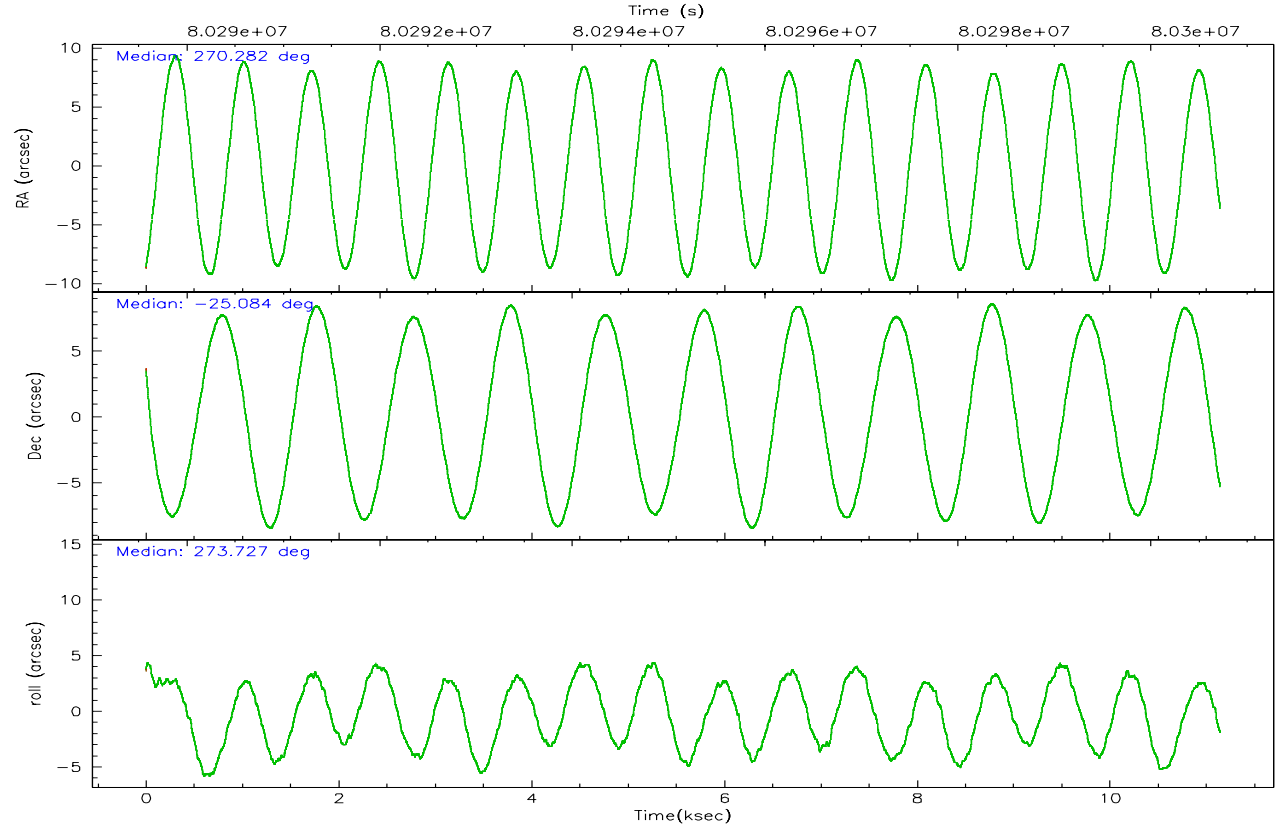
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	558	19713	8315	5040
	13%	64%	15%	51%
grade 1 events	3	231	155	17
	0%	0%	0%	0%
grade 2 events	1126	3807	12512	924
	26%	12%	23%	9%
grade 3 events	227	1253	4869	318
	5%	4%	9%	3%
grade 4 events	238	1272	4922	331
	5%	4%	9%	3%
grade 5 events	140	257	901	72
	3%	0%	1%	0%
grade 6 events	1015	1792	18405	382
	23%	5%	35%	3%
grade 7 events	960	2254	2362	2693
	22%	7%	4%	27%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-5678	ACIS-5678	Obspar file type	PREDICTED	ACTUAL
Grating	HETG	HETG	Obspar update status	NONE	UPDATED
Data mode	GRADED	GRADED	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
Pointing RA	270.265155	270.2821206208429	Subarray requested	CUSTOM	CUSTOM
Pointing Dec	-25.060847	-25.08356190799105	Subarray start row	15	15
Pointing Roll	273.568692	273.7325138804774	Subarray row count	440	440
SIM focus pos (mm)	-0.684267	-0.6828225247311905	Alternating exposures requested	Y	Y
SIM defocus (mm)	0	0.001444936568705701	Primary exposure time	0.300000	0.3
SIM translation stage pos (mm)	-183.332523	-183.3237572673427	Secondary exposure time	1.400000	1.4
SIM translation stage offset (mm)	-6.8	-6.808765315665084	Duty cycle	8	8
Observation start time	80290719.184000	80289195.732317			
Observation start date	2000-07-18T06:57:35	2000-07-18T06:33:15			
Observation end time	80300719.184000	80301654.60777999			
Observation end date	2000-07-18T09:44:15	2000-07-18T10:00:54			
Read mode	TIMED	TIMED			

2.3 Aspect



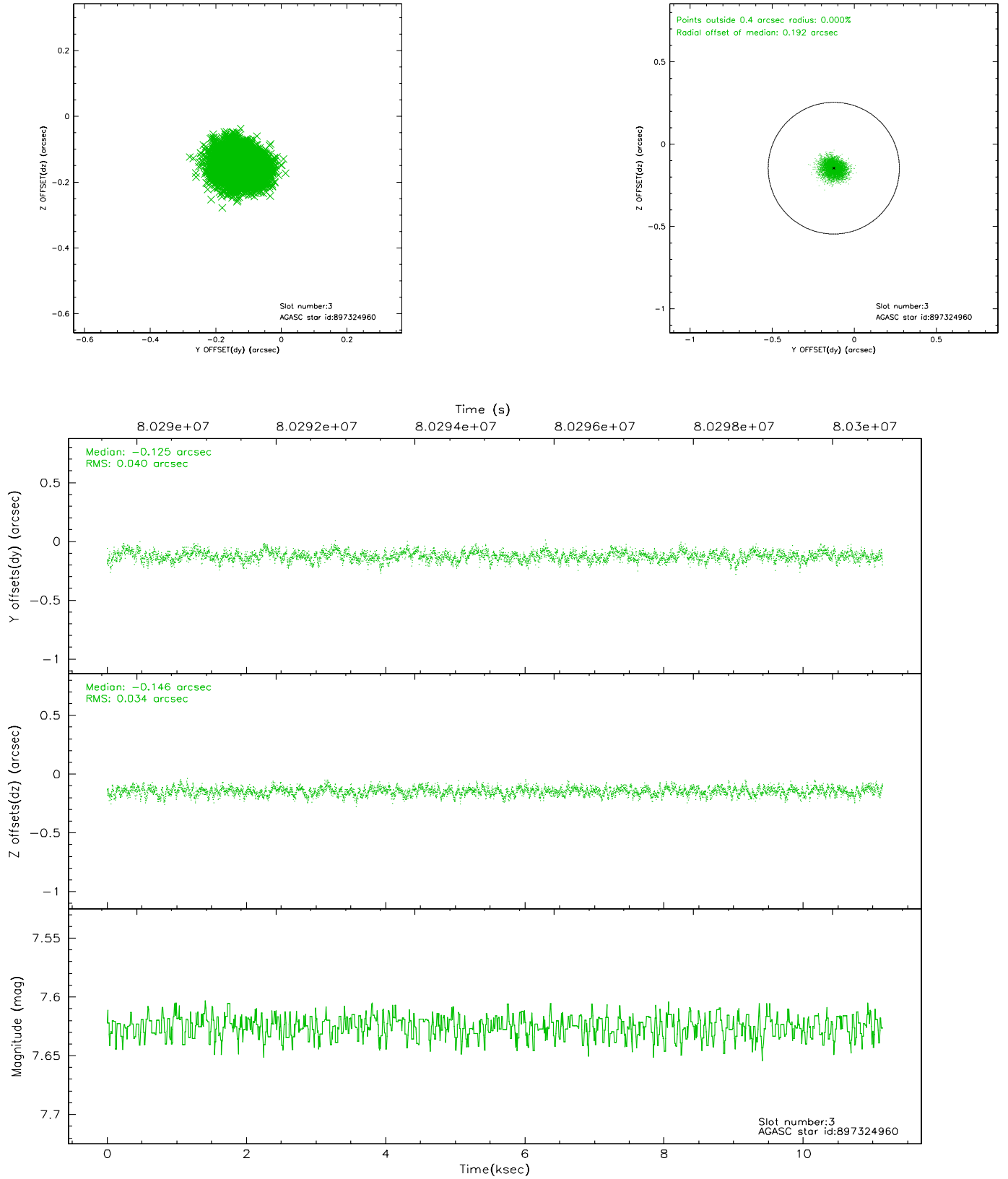


Slot Statistics

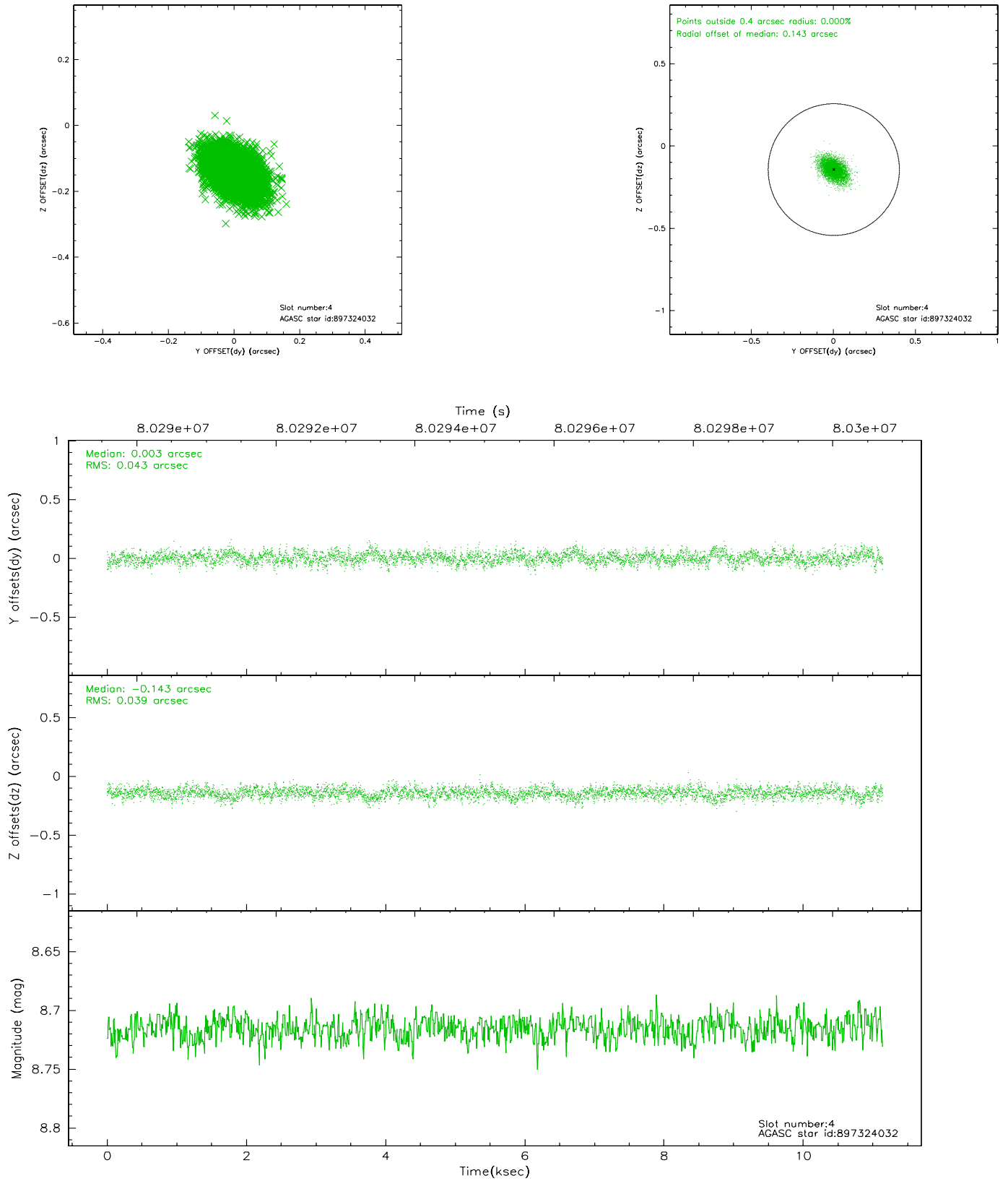
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.09	2719	-0.039	-0.028	0.007	0.015	0.000000	0.000000	-754.10	-1866.36
1	FID	ACIS-S-4	7.19	2719	-0.002	0.026	0.005	0.010	0.000000	0.000000	2159.01	41.64
2	FID	ACIS-S-5	7.23	2719	0.010	0.010	0.007	0.016	0.000000	0.000000	-1806.30	35.81
3	GUIDE	897324960	7.62	5437	-0.125	-0.146	0.055	0.090	270.333871	-24.632185	-1526.13	320.61
4	GUIDE	897324032	8.72	5437	0.003	-0.143	0.060	0.103	270.314237	-25.107248	176.57	149.64
5	GUIDE	897188632	8.63	5435	-0.017	0.043	0.069	0.115	269.725883	-25.281908	688.87	-1801.25
6	GUIDE	897321504	8.81	5435	-0.057	0.088	0.069	0.119	270.176705	-24.677132	-1396.36	-202.77
7	GUIDE	897321032	9.38	5434	0.195	0.160	0.090	0.146	270.974244	-25.549551	1905.31	2189.52

2.4 Star Slots

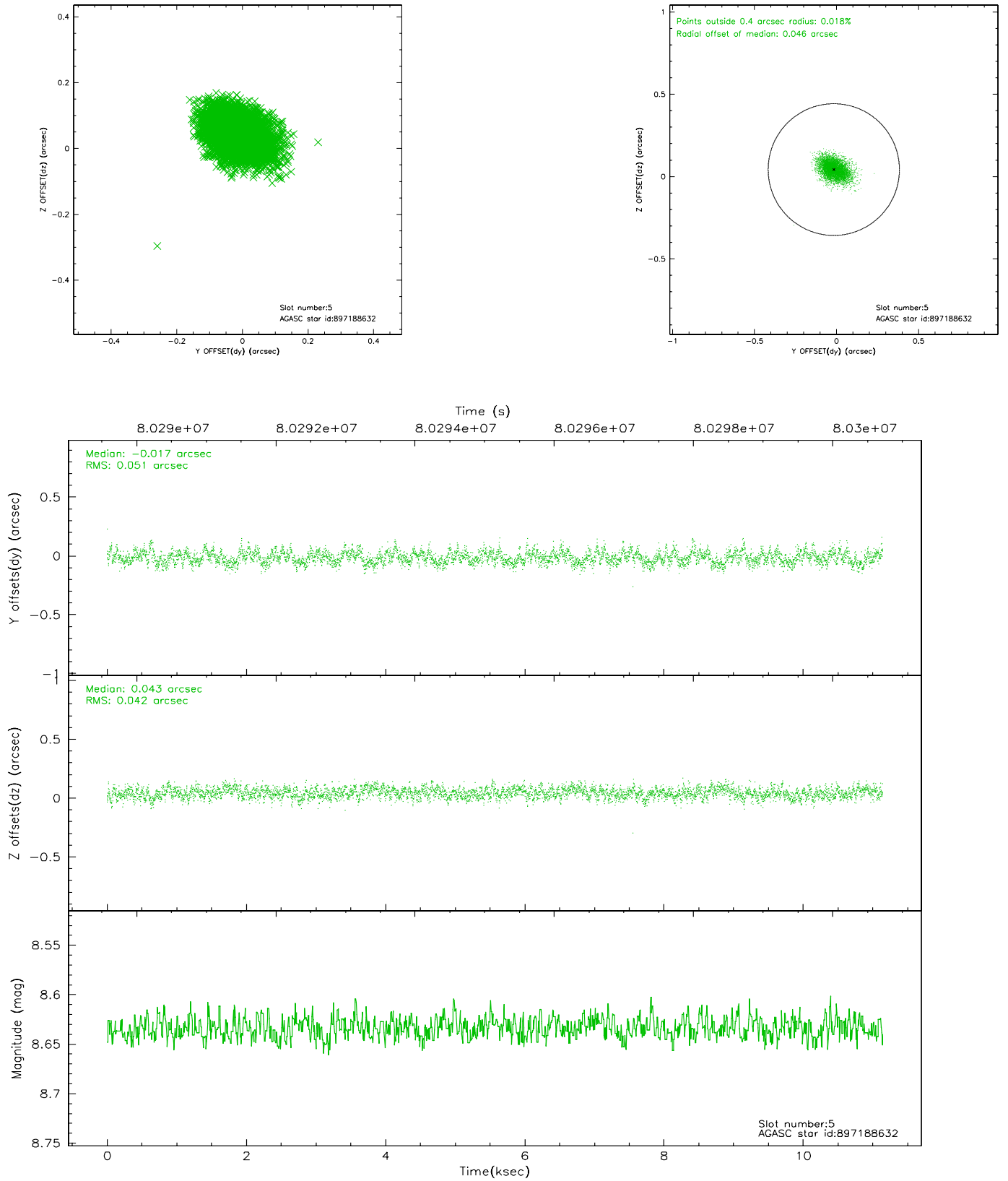
2.4.1 Slot 3



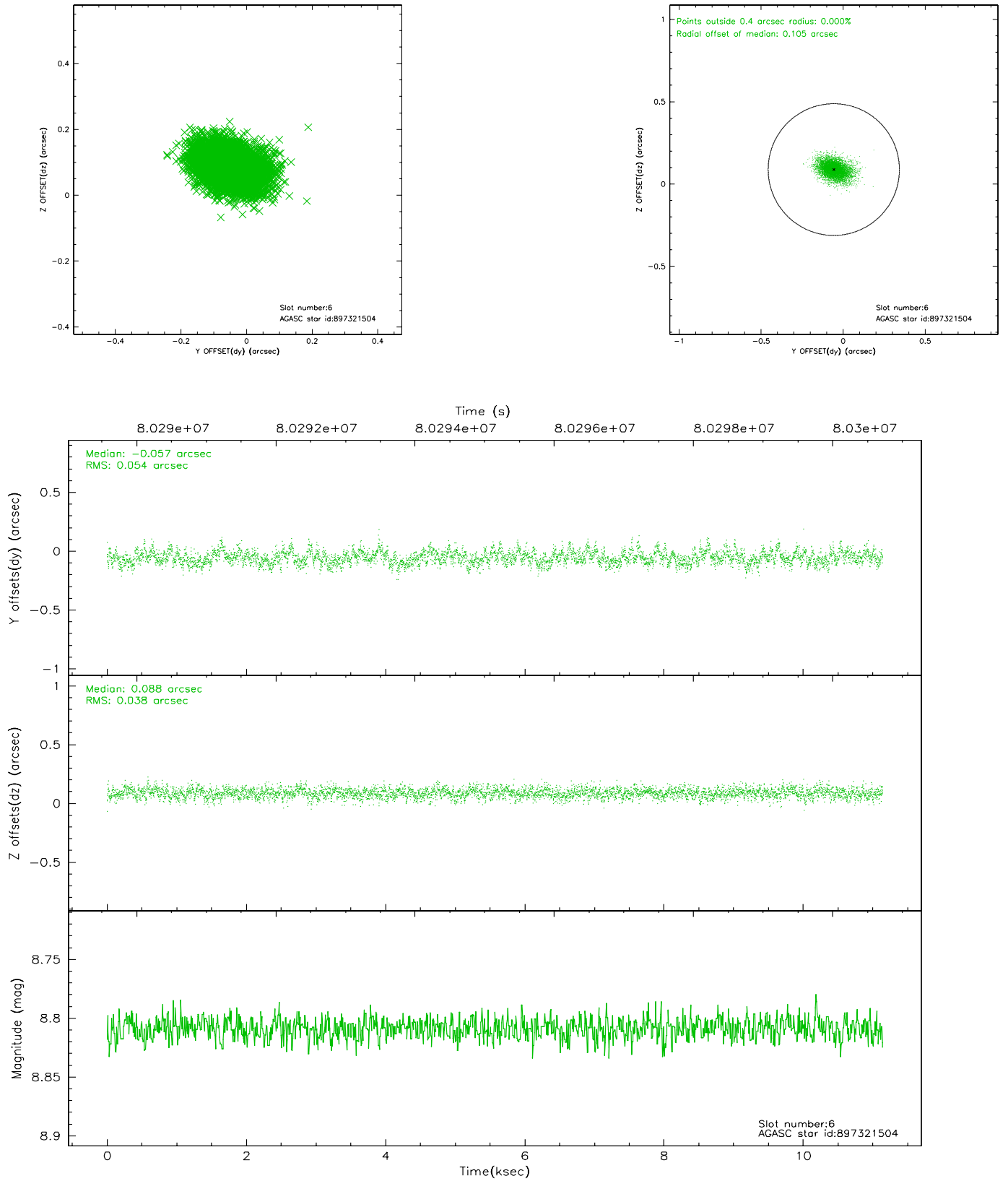
2.4.2 Slot 4



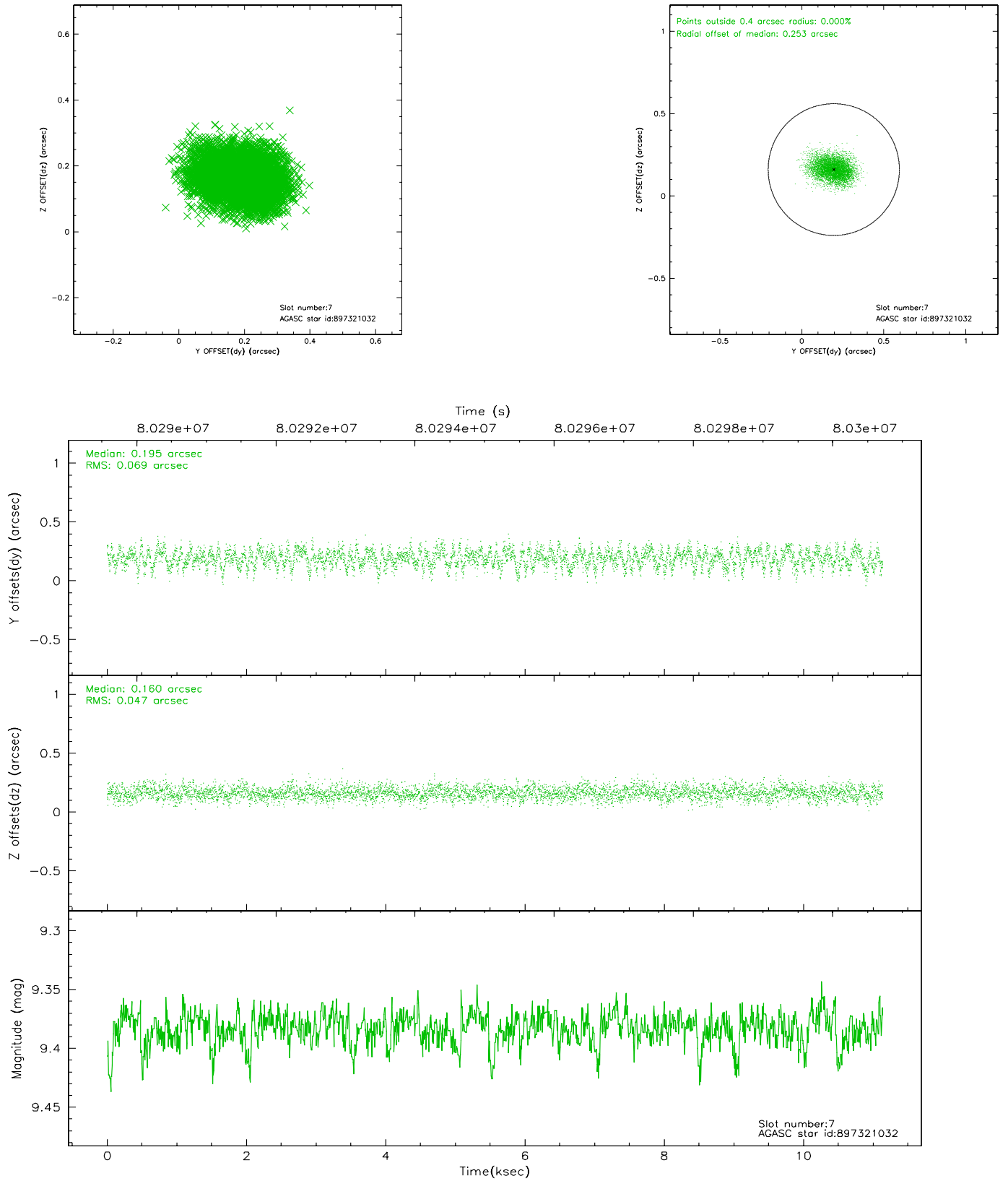
2.4.3 Slot 5



2.4.4 Slot 6

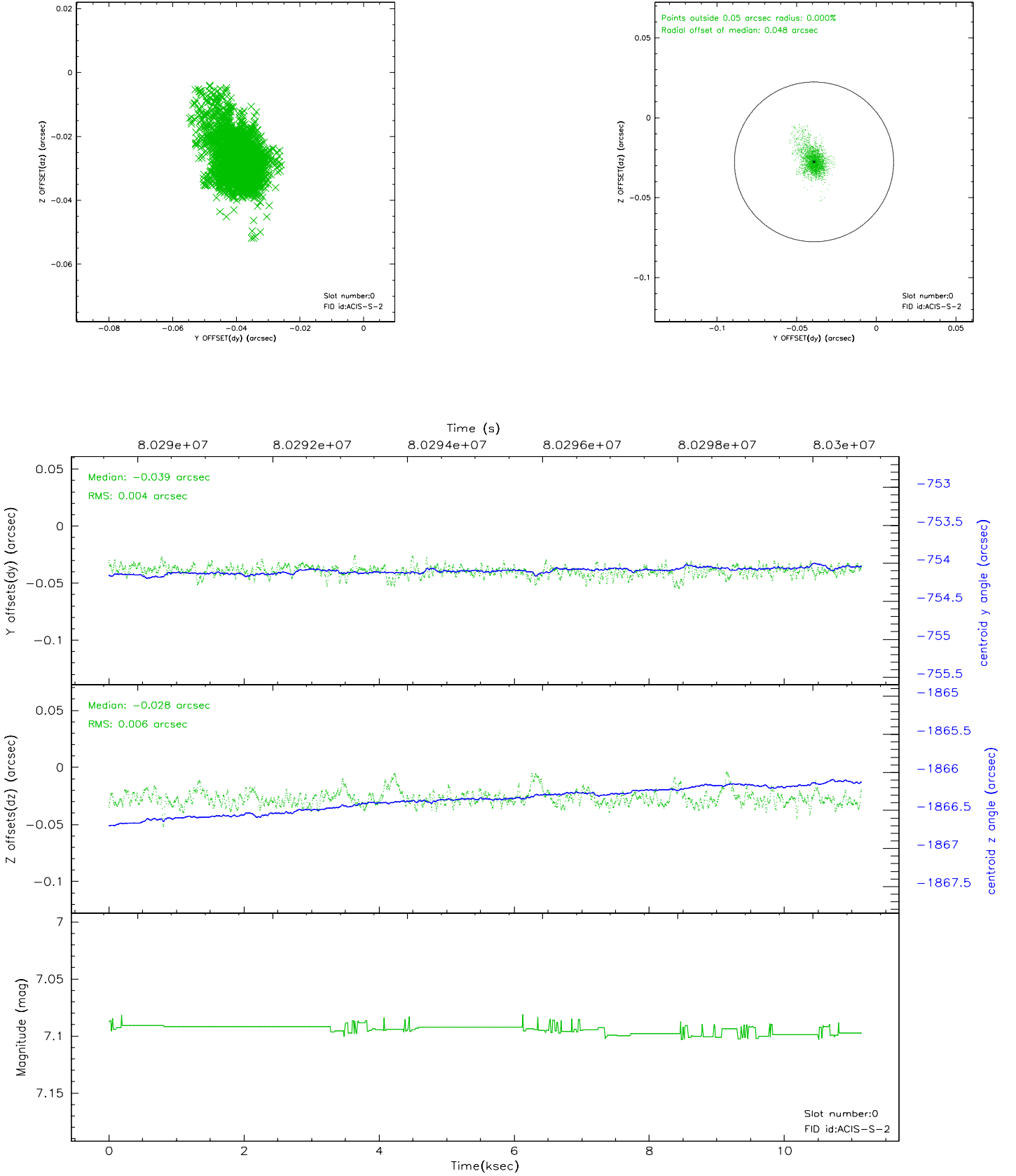


2.4.5 Slot 7

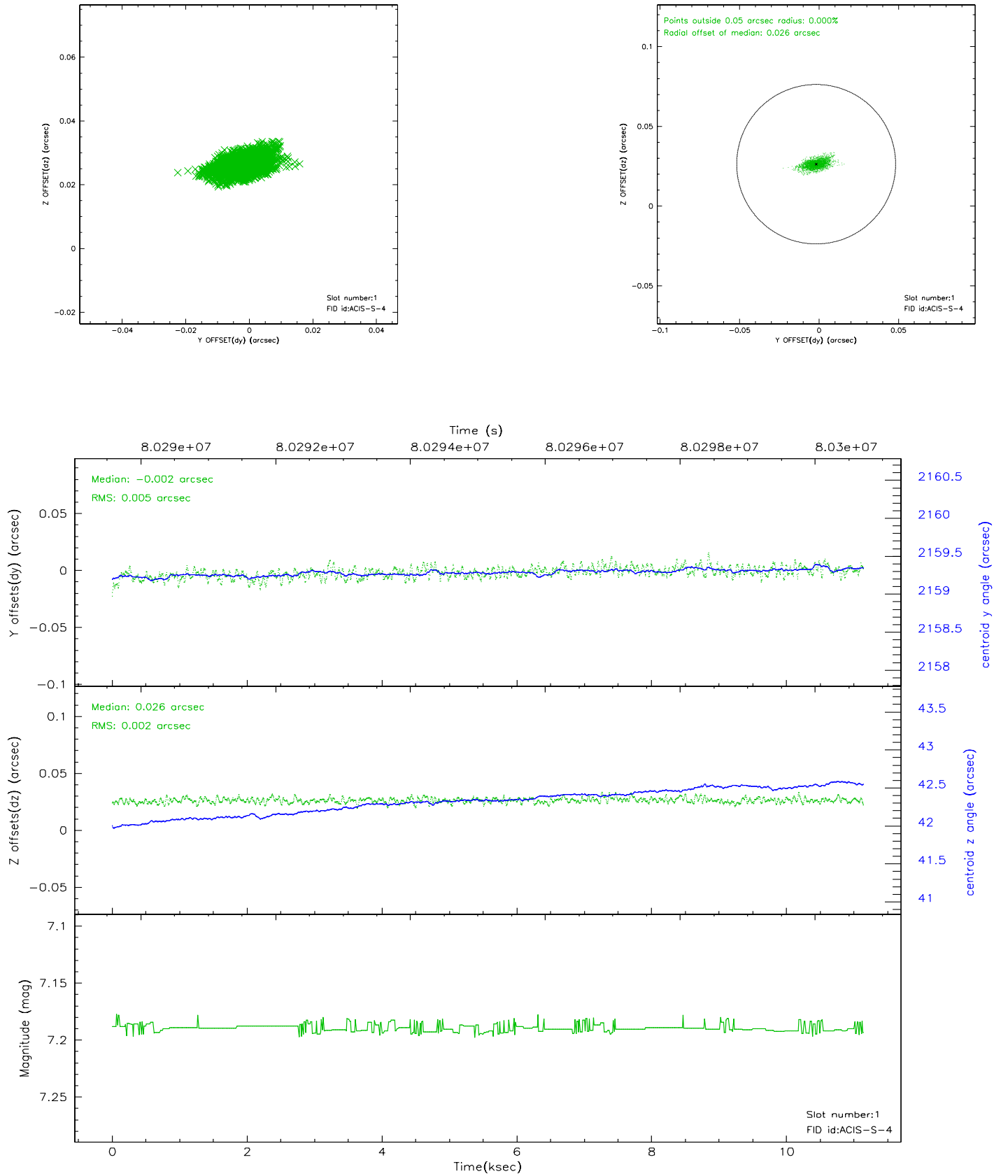


2.5 FID Slots

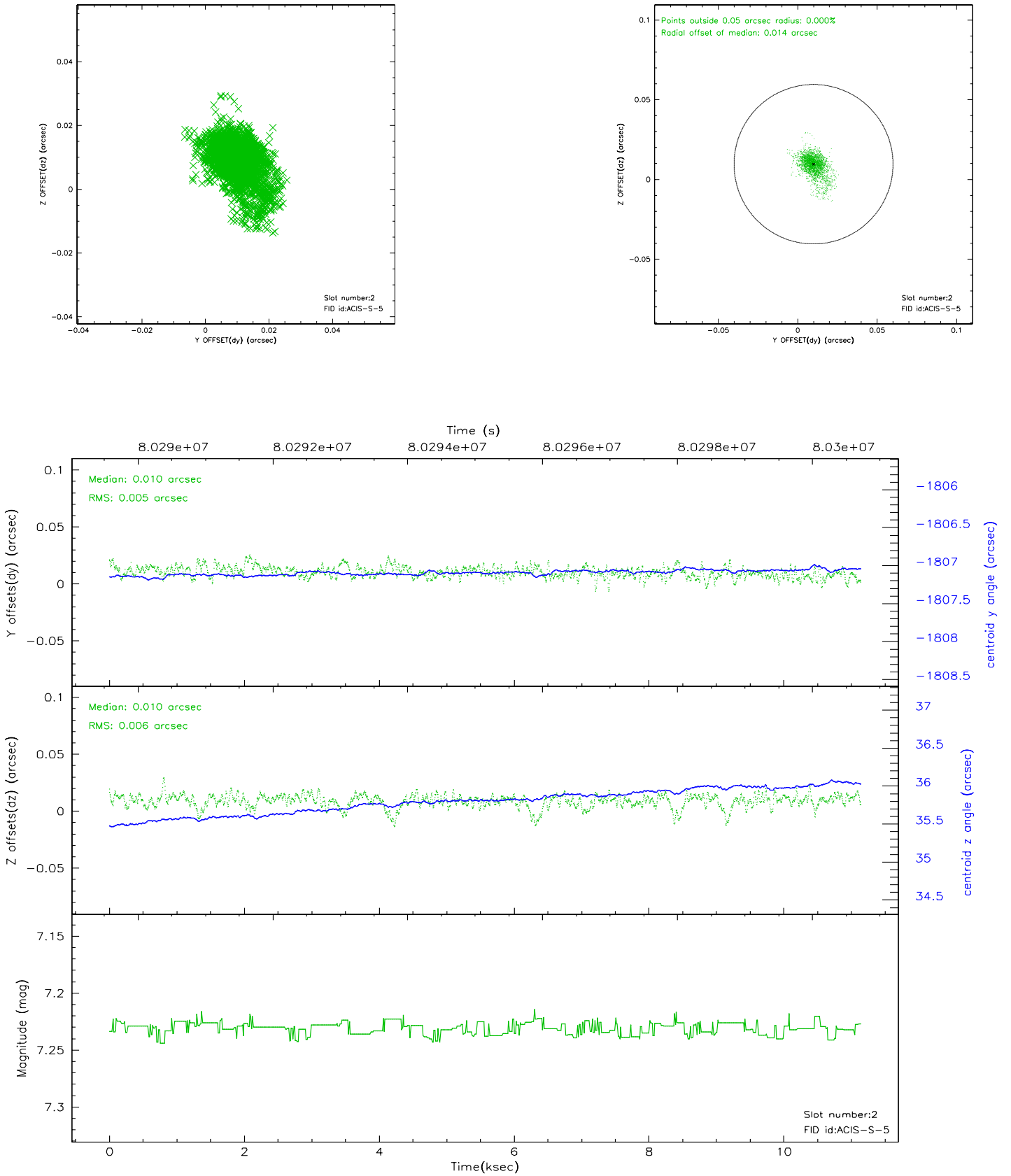
2.5.1 Slot 0



2.5.2 Slot 1



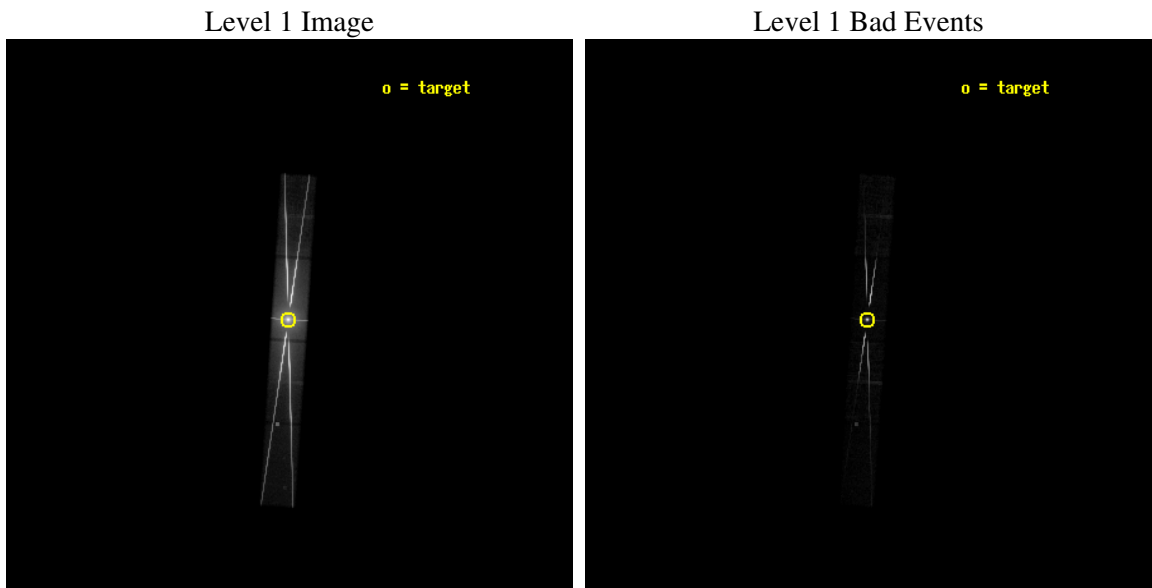
2.5.3 Slot 2



3 OBI Secondary

3.1 OBI

3.1.1 Images



3.1.2 Parameters

obi_num	1
ascdsver	7.6.10
caldbver	3.4.0
date	2007-05-30T21:37:10
revision	5

sched_exp_time	10000.000000
ontime	9170.8979477733
ontime5	9170.8972301632
ontime6	9170.8973298967
ontime7	9170.8979477733
ontime8	9170.8980280012
l1events	2902631

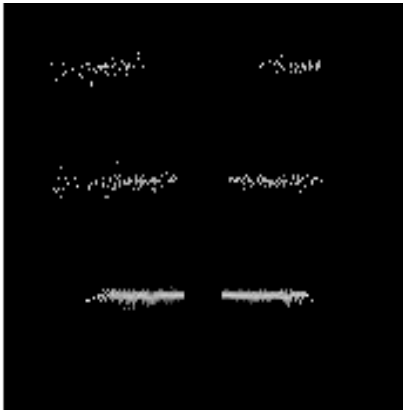
3.1.3 Events

	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	128965	940255	1563383	270028
rejected events	20572	87985	189638	31155
rejected %	15%	9%	12%	11%

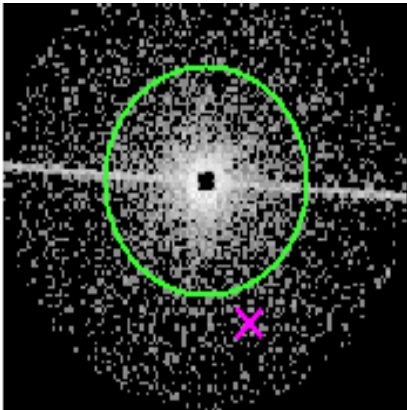
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	22695	579420	222824	175783
	17%	61%	14%	65%
grade 1 events	519	26138	10301	1786
	0%	2%	0%	0%
grade 2 events	37691	123028	340266	29511
	29%	13%	21%	10%
grade 3 events	8417	46563	132879	11056
	6%	4%	8%	4%
grade 4 events	8039	45027	131210	10891
	6%	4%	8%	4%
grade 5 events	3501	24231	52771	2268
	2%	2%	3%	0%
grade 6 events	31565	58368	546796	11691
	24%	6%	34%	4%
grade 7 events	16538	37480	126336	27042
	12%	3%	8%	10%

4 Gratings

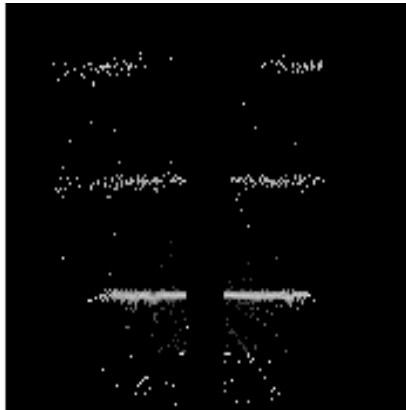
4.1 HEG Arm



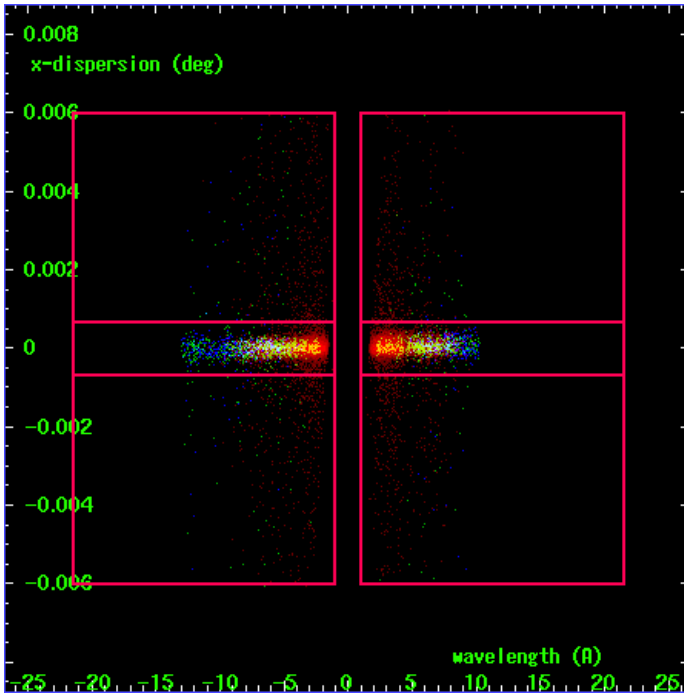
HEG Order Sort 123



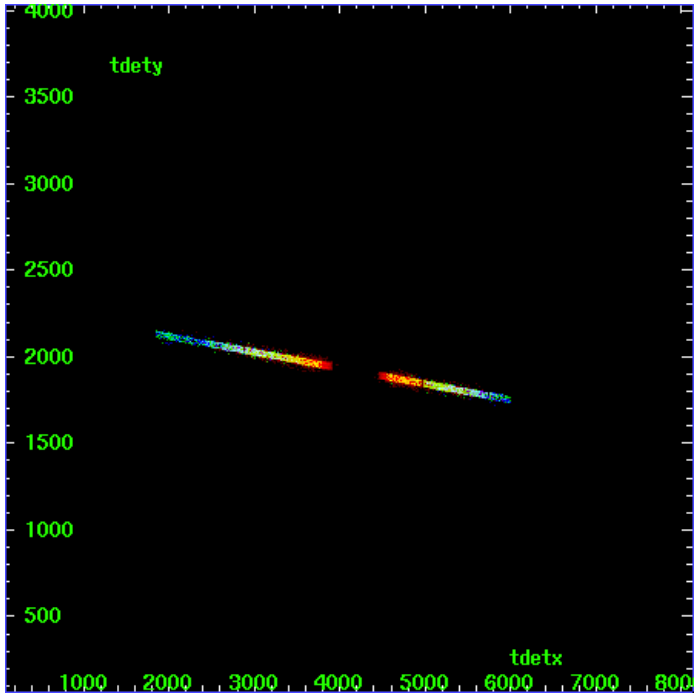
HEG Zero Order



HEG Order Sort ALL

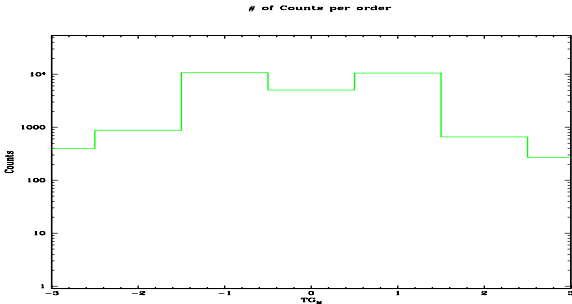


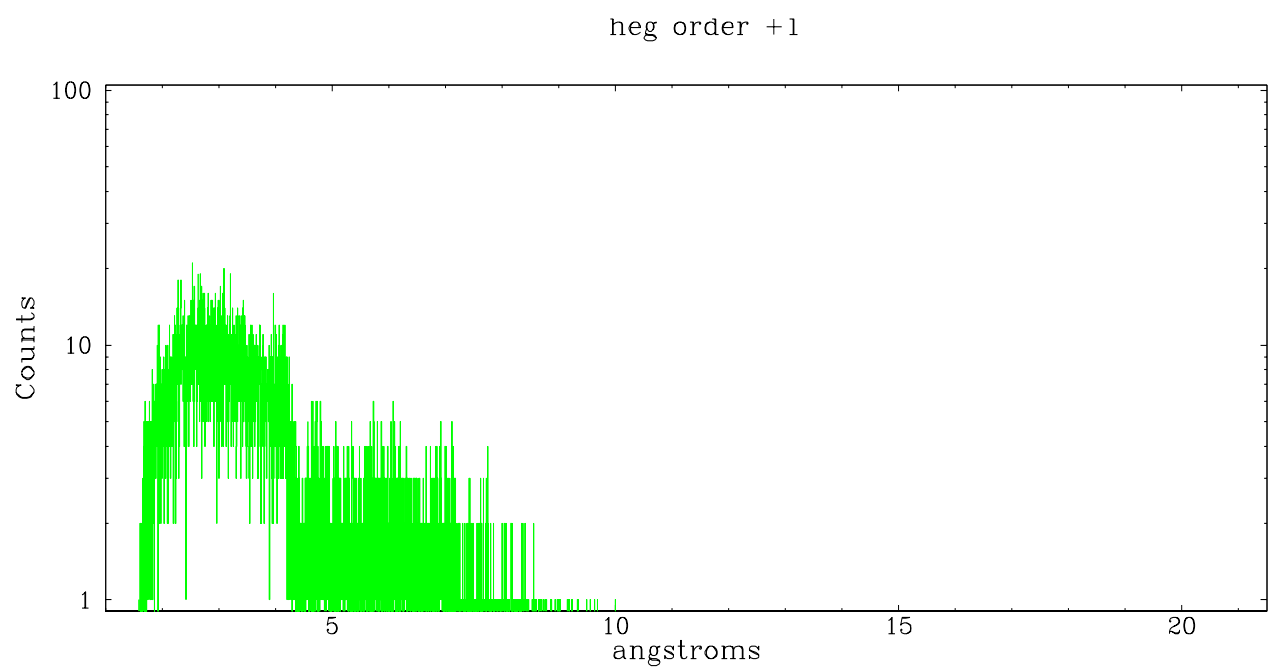
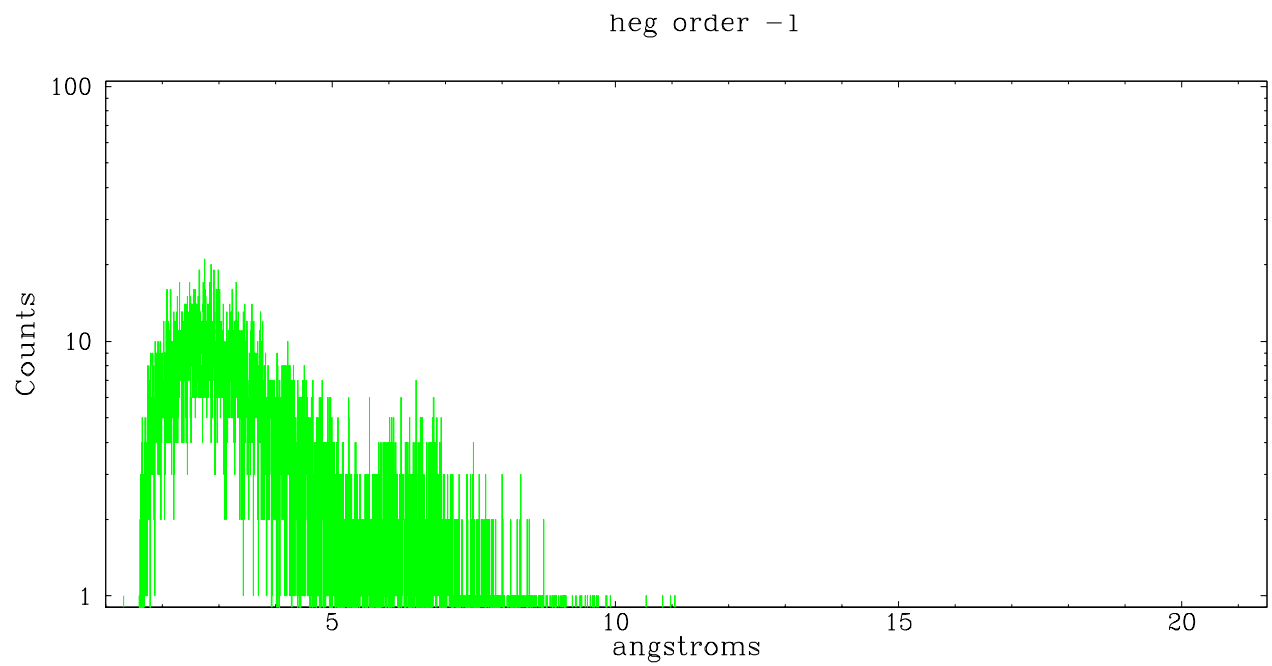
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	399	878	10709	5035	10555	655	268

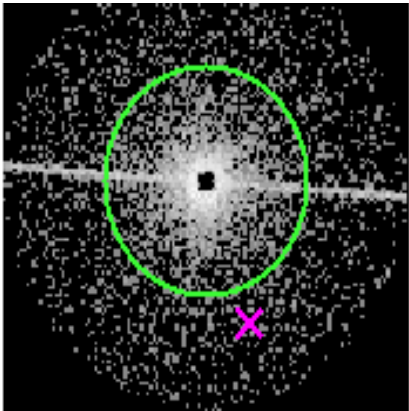




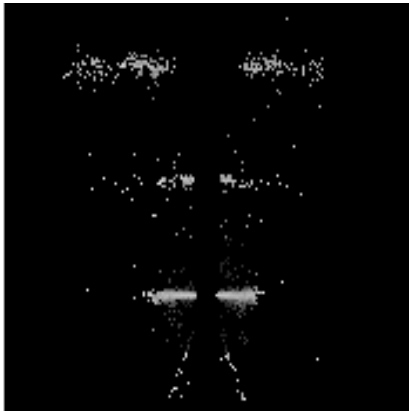
4.2 MEG Arm



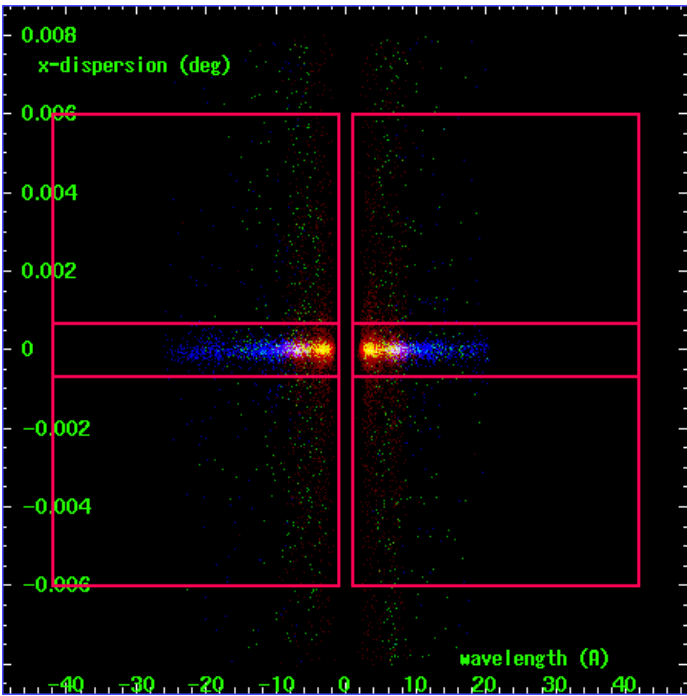
MEG Order Sort 123



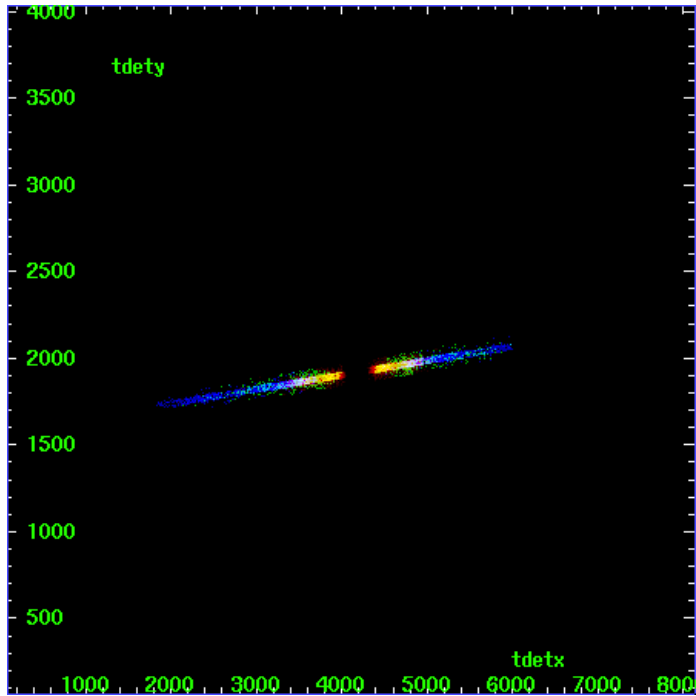
MEG Zero Order



MEG Order Sort ALL

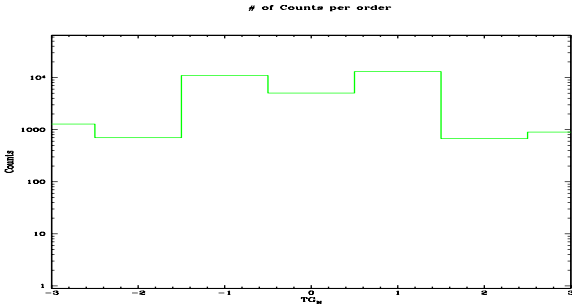


Spot Image MEG

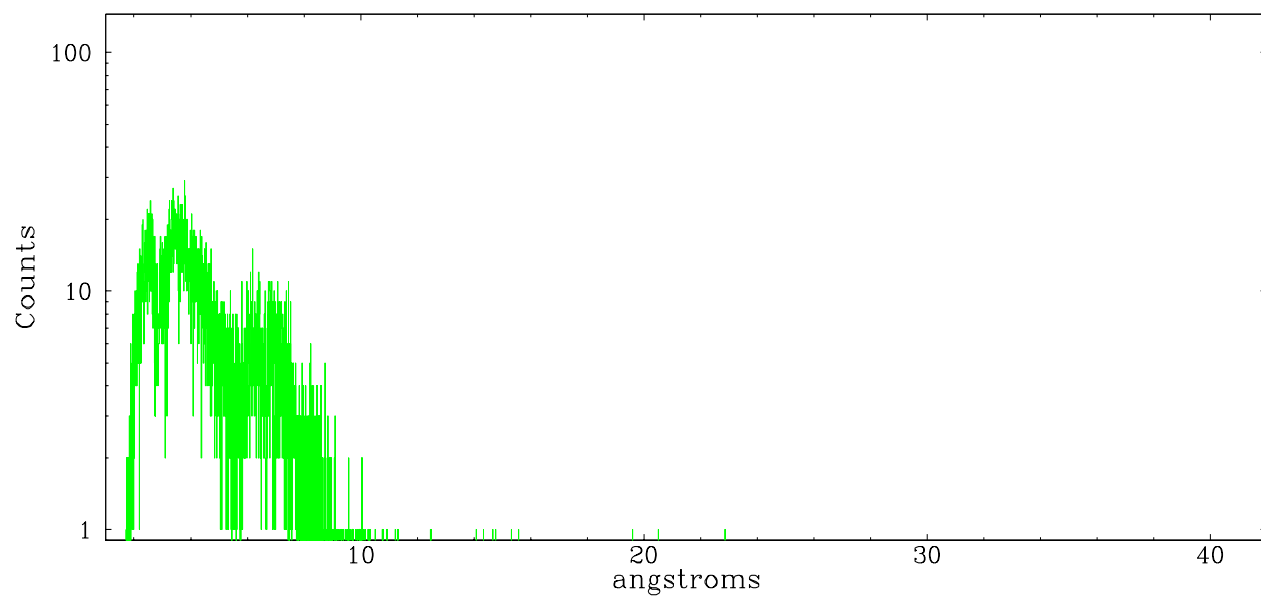


Full Detector MEG

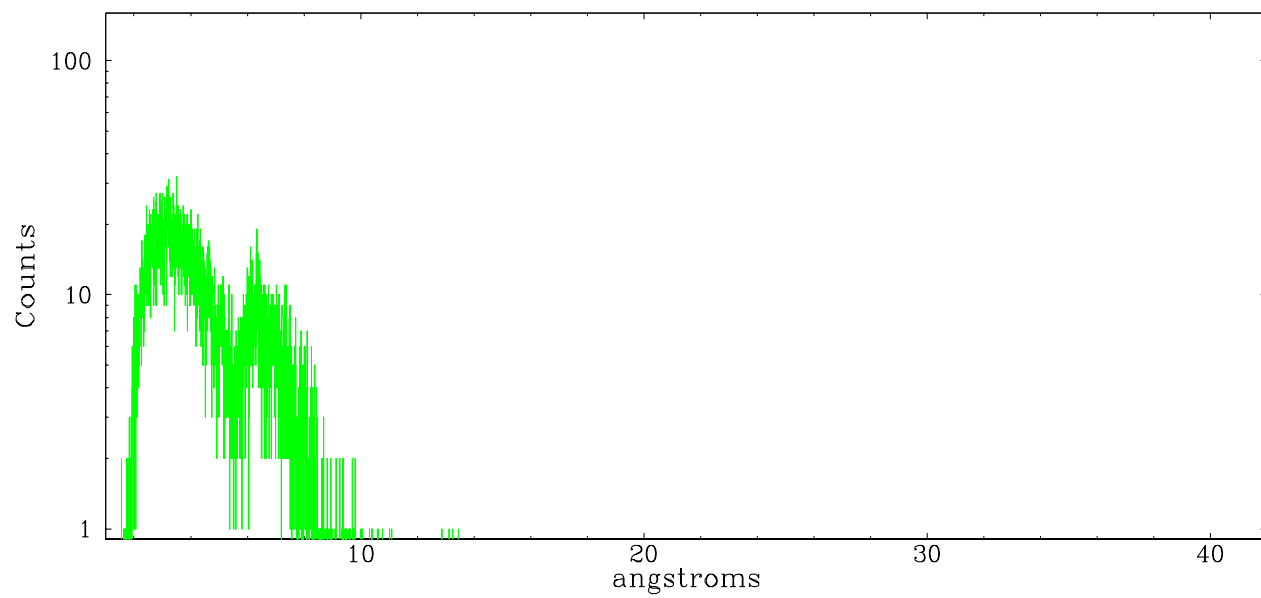
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1279	705	11017	5035	13009	676	903



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2007.09.20
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.573

A.2 Comments

Used custom source detection (findzo) since zero order is severely piled.

NOTE: image of bad events shows grating arms, meaning the grating spectrum is piled.