

V&V Reference Report

L2 ASCDS Version : 7.6.10

Observation 717 - L2 Version 7
Chandra X-Ray Center

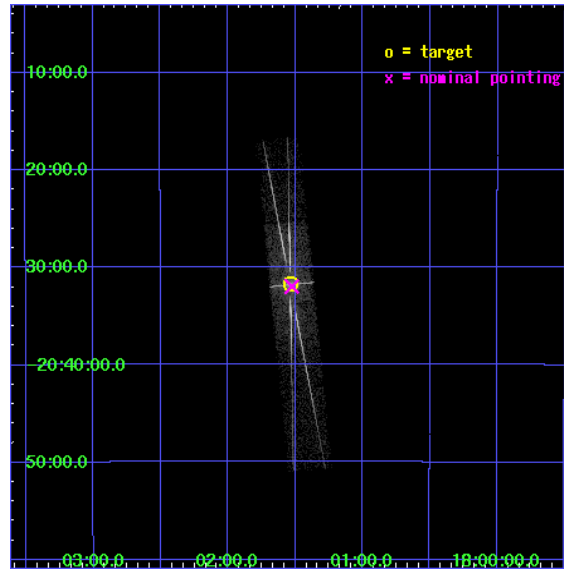
L2 Processing Date : Sep 18 2007

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1 Front

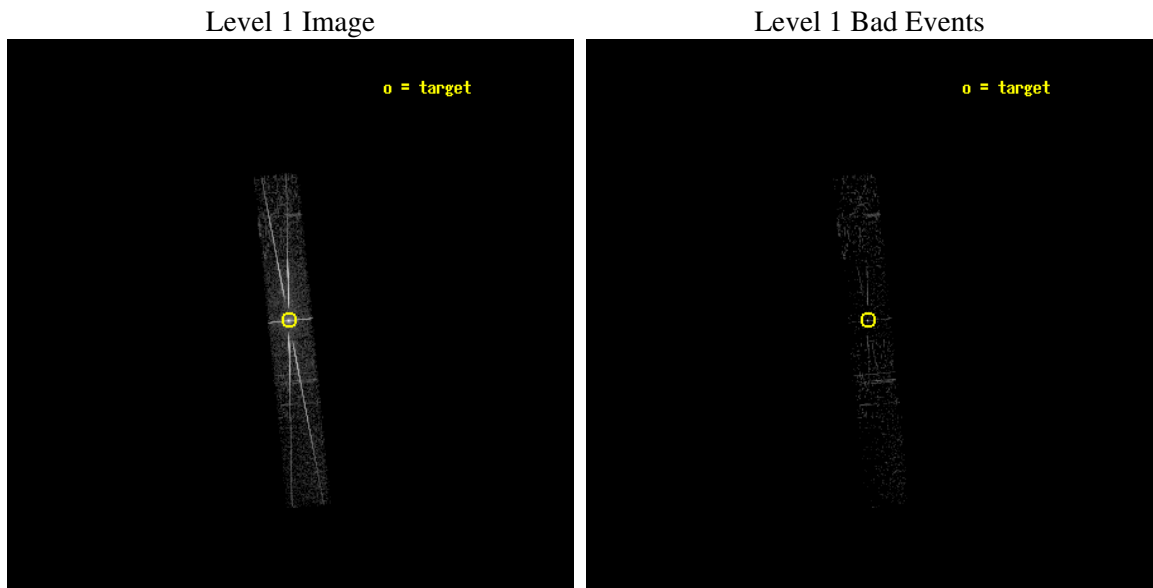
seq_num	400084
obs_id	717
title	AXAF GRATING SPECTRA AND PRECISE POSITIONS OF BRIGHT GALACTIC-CENTER X-RAY SOURCES
observer	Dr. Alan Levine
object	GX 9+1
dtcycle	0
cycle	P
ra_targ	270.38375
dec_targ	-20.52889
ra_nom	270.38134813353
dec_nom	-20.532996489838
roll_nom	264.26352194645
revision	7
ontime	1460.901705116
livetime	212.99462084835
ontime5	1460.8606651127
ontime6	1460.8196251094
ontime7	1460.901705116
ontime8	1460.778585121
l2events	43753



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	2007-05-30T21:10:42
revision	5

sched_exp_time	10000.000000
ontime	1460.901705116
ontime5	1460.8606651127
ontime6	1460.8196251094
ontime7	1460.901705116
ontime8	1460.778585121
l1events	56550

2.1.3 Events

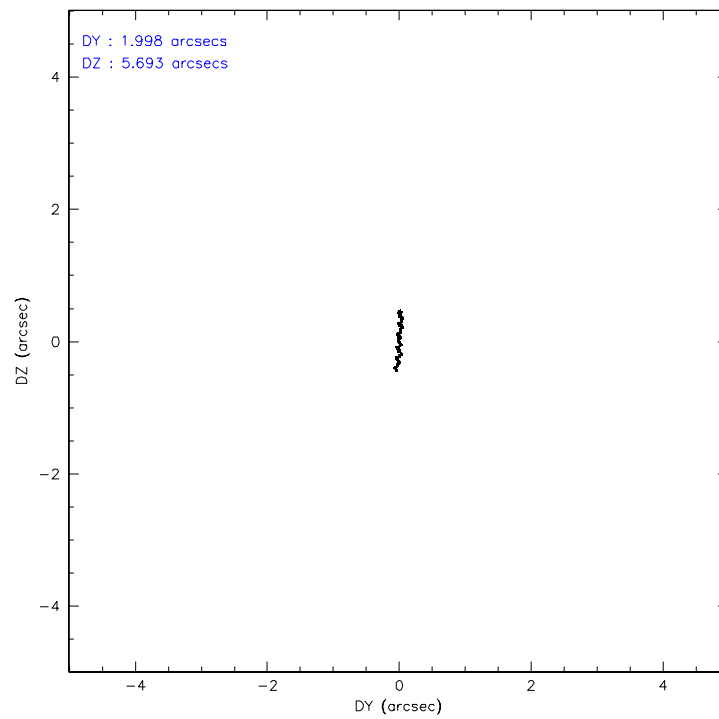
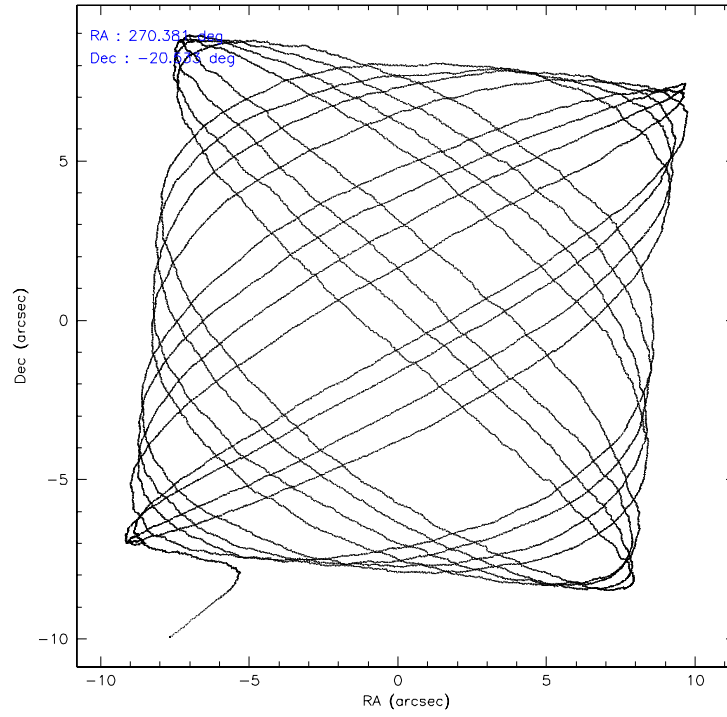
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	4172	18361	26173	7844
rejected events	1550	3274	2708	3099
rejected %	37%	17%	10%	39%

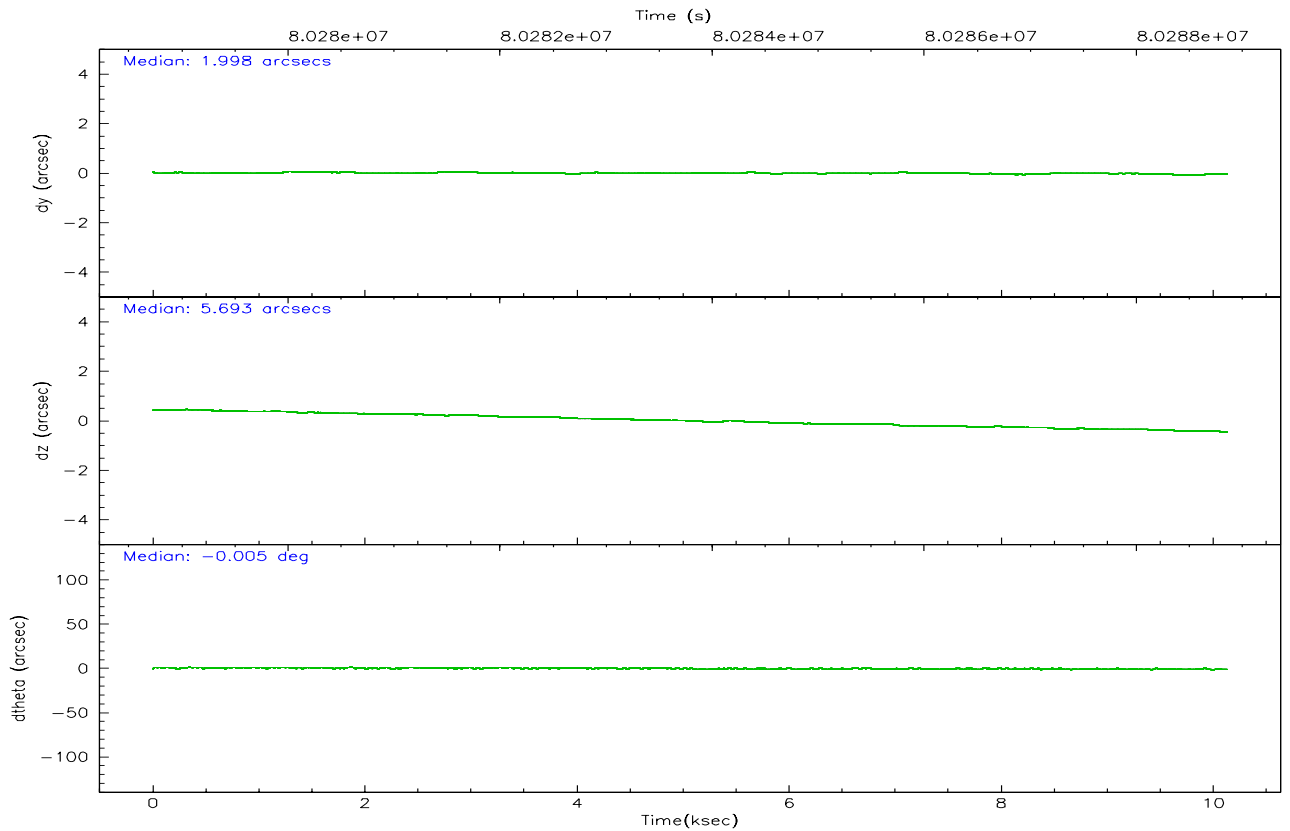
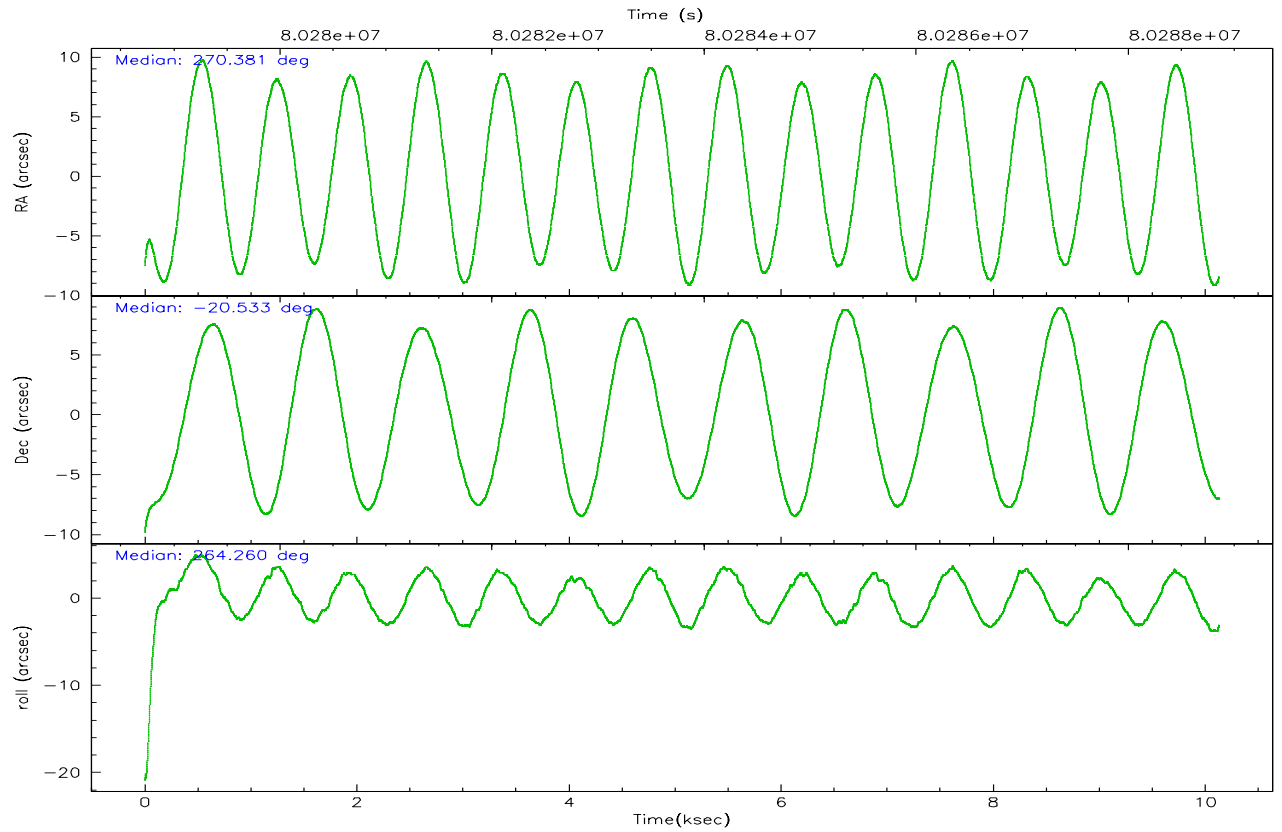
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	520	11196	4297	3459
	12%	60%	16%	44%
grade 1 events	2	61	50	8
	0%	0%	0%	0%
grade 2 events	893	1992	6195	645
	21%	10%	23%	8%
grade 3 events	205	709	2316	233
	4%	3%	8%	2%
grade 4 events	186	696	2380	229
	4%	3%	9%	2%
grade 5 events	142	158	422	84
	3%	0%	1%	1%
grade 6 events	907	797	8794	299
	21%	4%	33%	3%
grade 7 events	1317	2752	1719	2887
	31%	14%	6%	36%

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	270.369227	270.3813481335313	Subarray requested	CUSTOM	CUSTOM
Pointing Dec	-20.508055	-20.53299648983772	Subarray start row	15	15
Pointing Roll	264.102664	264.2635219464474	Subarray row count	542	542
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)	-184.532523	-184.5306286120915	Secondary exposure time	1.700000	1.7
SIM translation stage offset (mm)	-5.6	-5.601893970916279	Duty cycle	7	7
Observation start time	80278859.184000	80277688.569391			
Observation start date	2000-07-18T03:39:55	2000-07-18T03:21:28			
Observation end time	80288859.184000	80289195.732317			
Observation end date	2000-07-18T06:26:35	2000-07-18T06:33:15			
Read mode	TIMED	TIMED			

2.3 Aspect



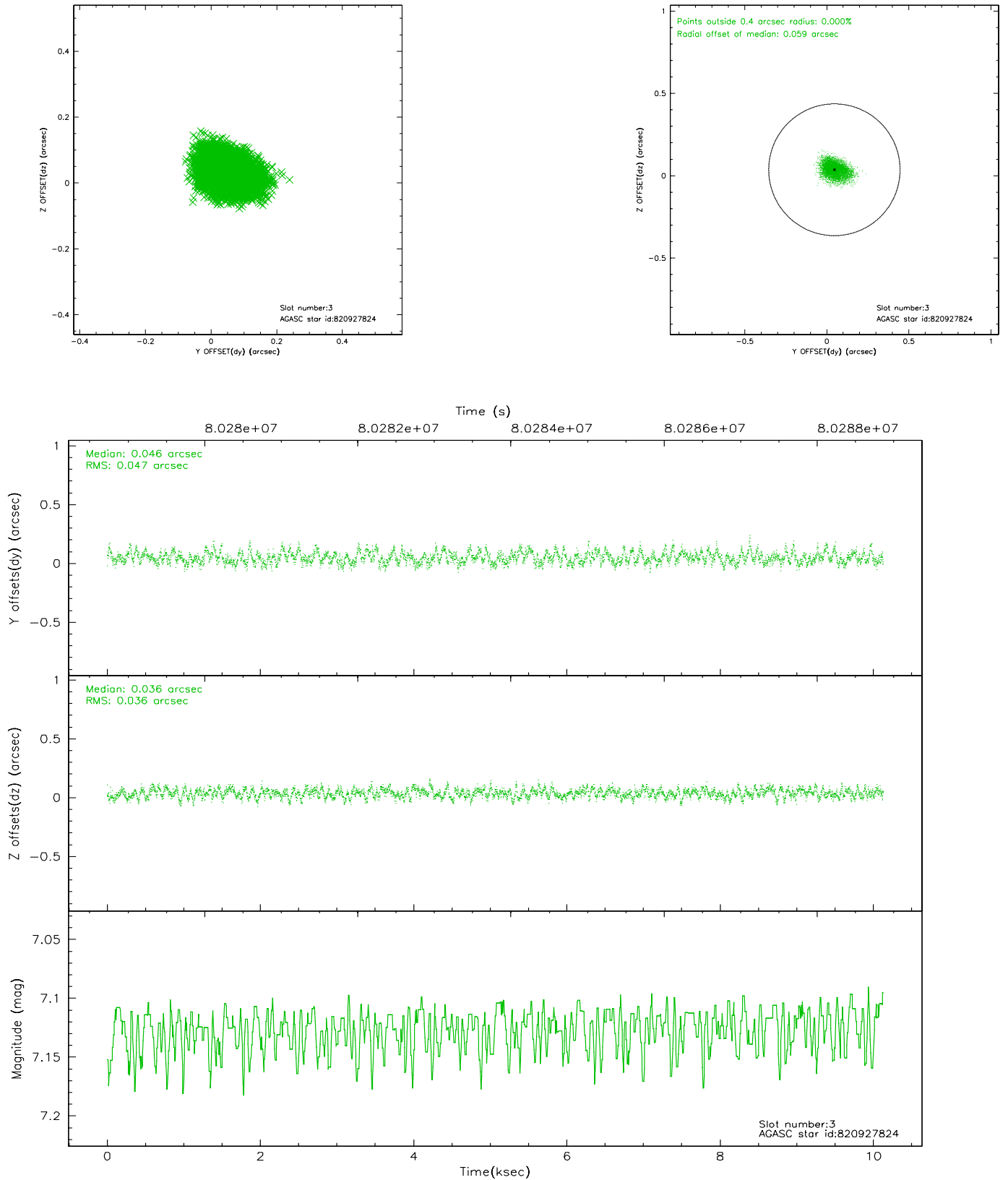


Slot Statistics

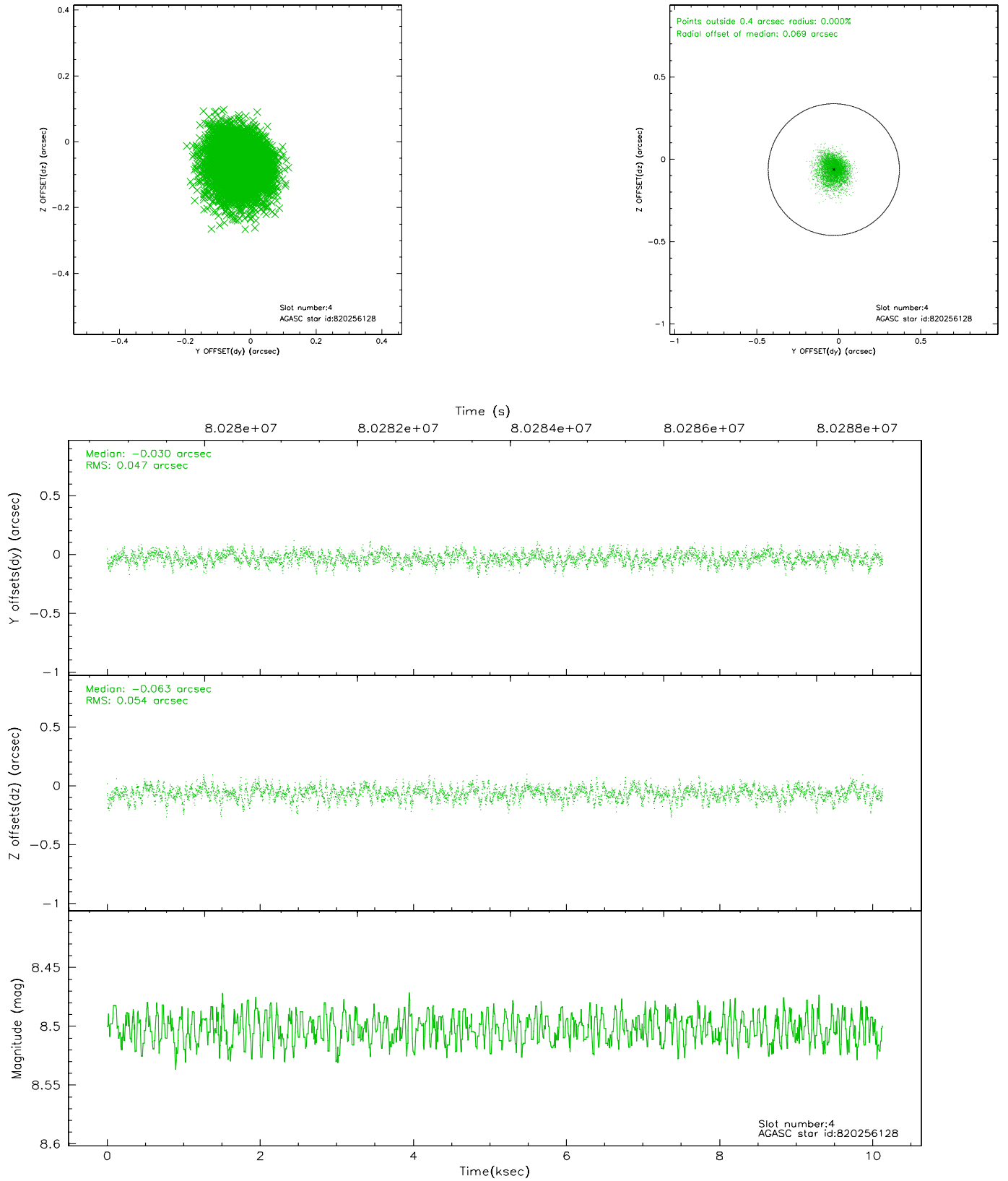
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.20	2469	-0.008	0.050	0.007	0.012	0.000000	0.000000	941.79	-1837.91
1	FID	ACIS-S-5	7.23	2468	0.020	0.022	0.008	0.011	0.000000	0.000000	-1806.86	59.06
2	FID	ACIS-S-6	7.40	2468	-0.034	-0.060	0.011	0.019	0.000000	0.000000	406.79	703.50
3	GUIDE	820927824	7.13	4938	0.046	0.036	0.064	0.103	270.655496	-20.737630	723.81	1044.50
4	GUIDE	820256128	8.50	4936	-0.030	-0.063	0.075	0.125	269.765287	-20.062383	-1382.26	-2195.19
5	GUIDE	820927832	9.24	4939	0.037	-0.066	0.076	0.126	270.396289	-20.662149	542.10	147.90
6	GUIDE	820921296	9.19	4937	0.000	0.091	0.079	0.130	270.875103	-20.917893	1295.40	1844.93
7	GUIDE	820380512	8.90	4936	-0.053	0.004	0.062	0.101	270.034486	-20.047074	-1533.11	-1295.50

2.4 Star Slots

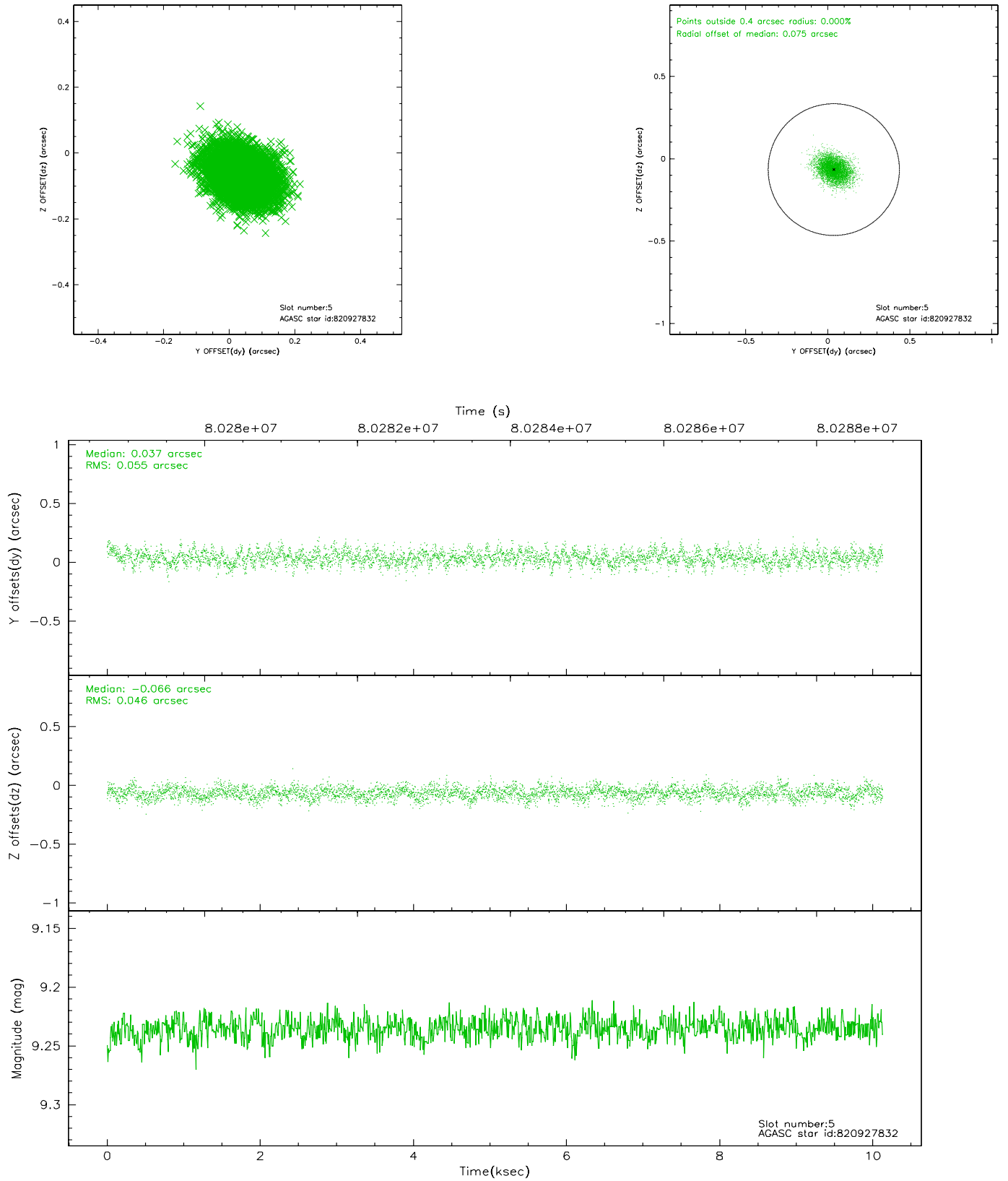
2.4.1 Slot 3



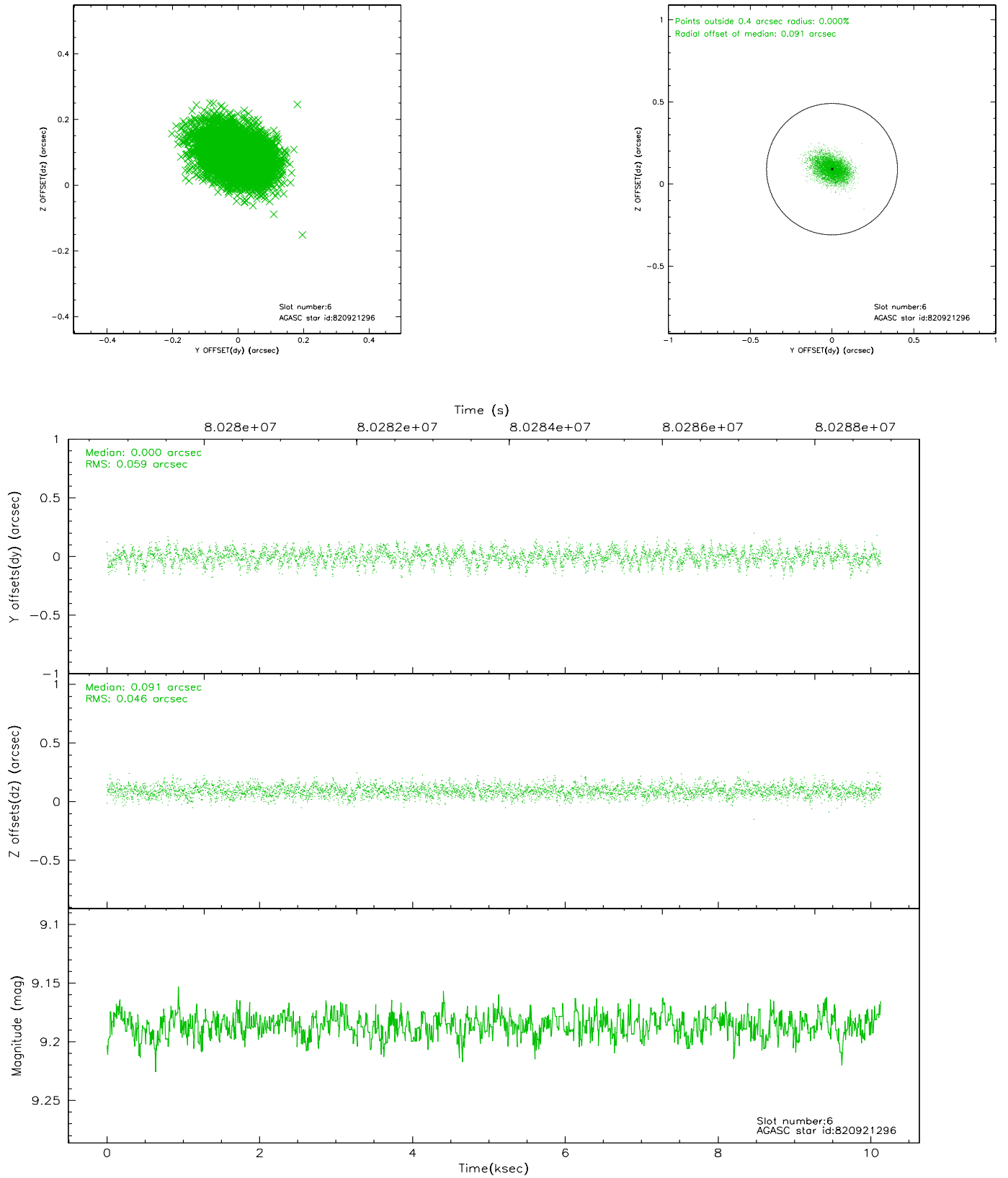
2.4.2 Slot 4



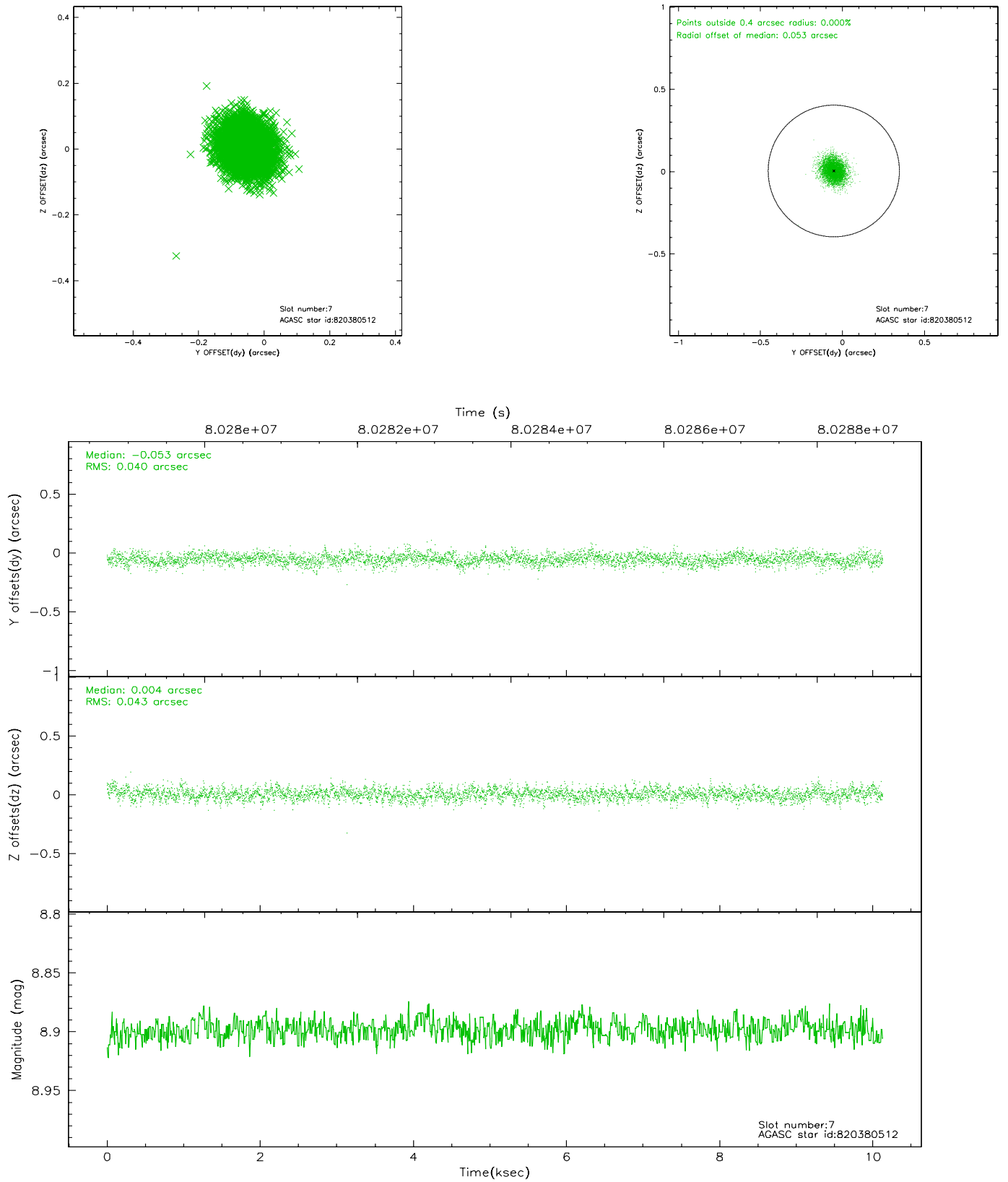
2.4.3 Slot 5



2.4.4 Slot 6

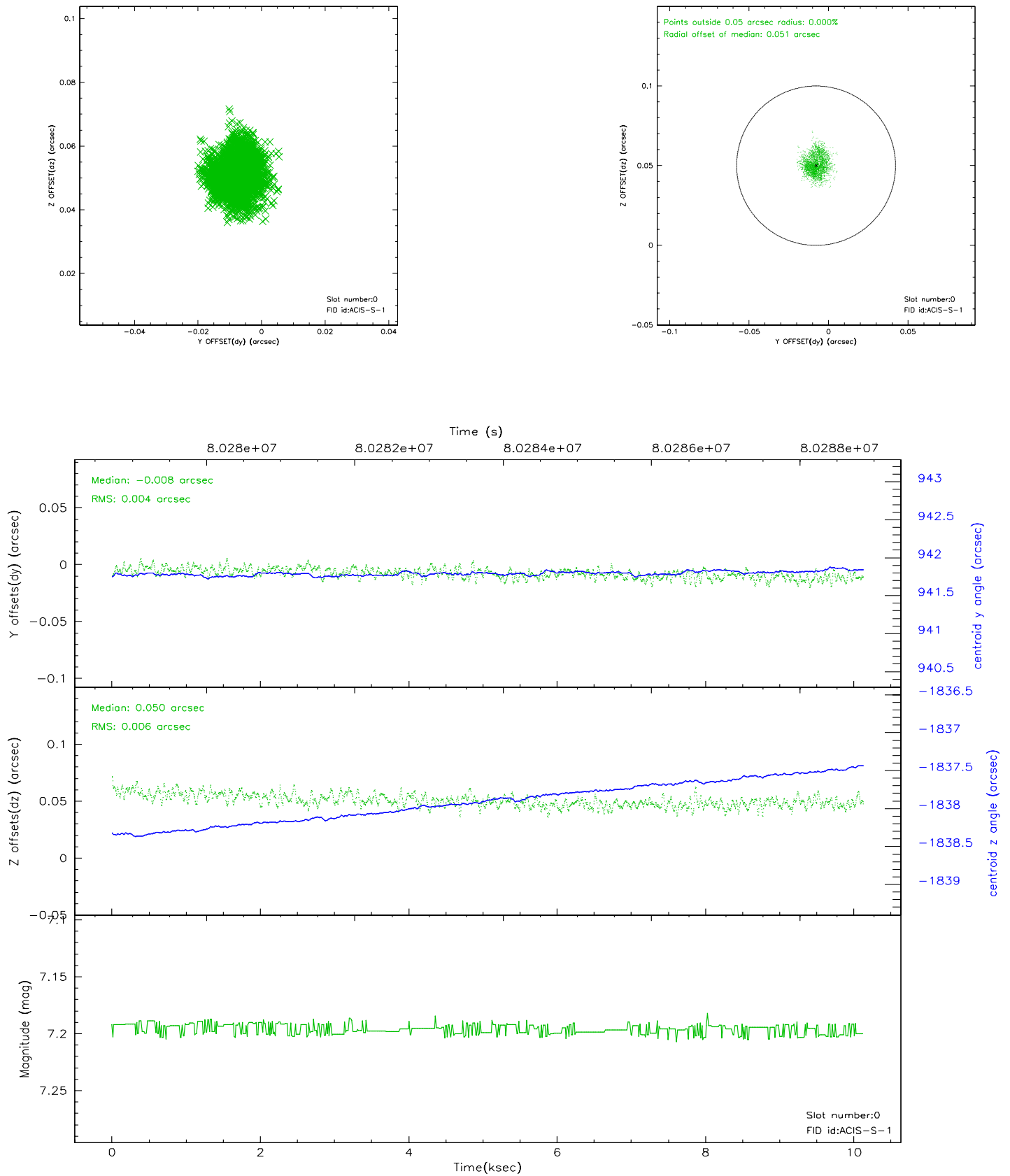


2.4.5 Slot 7

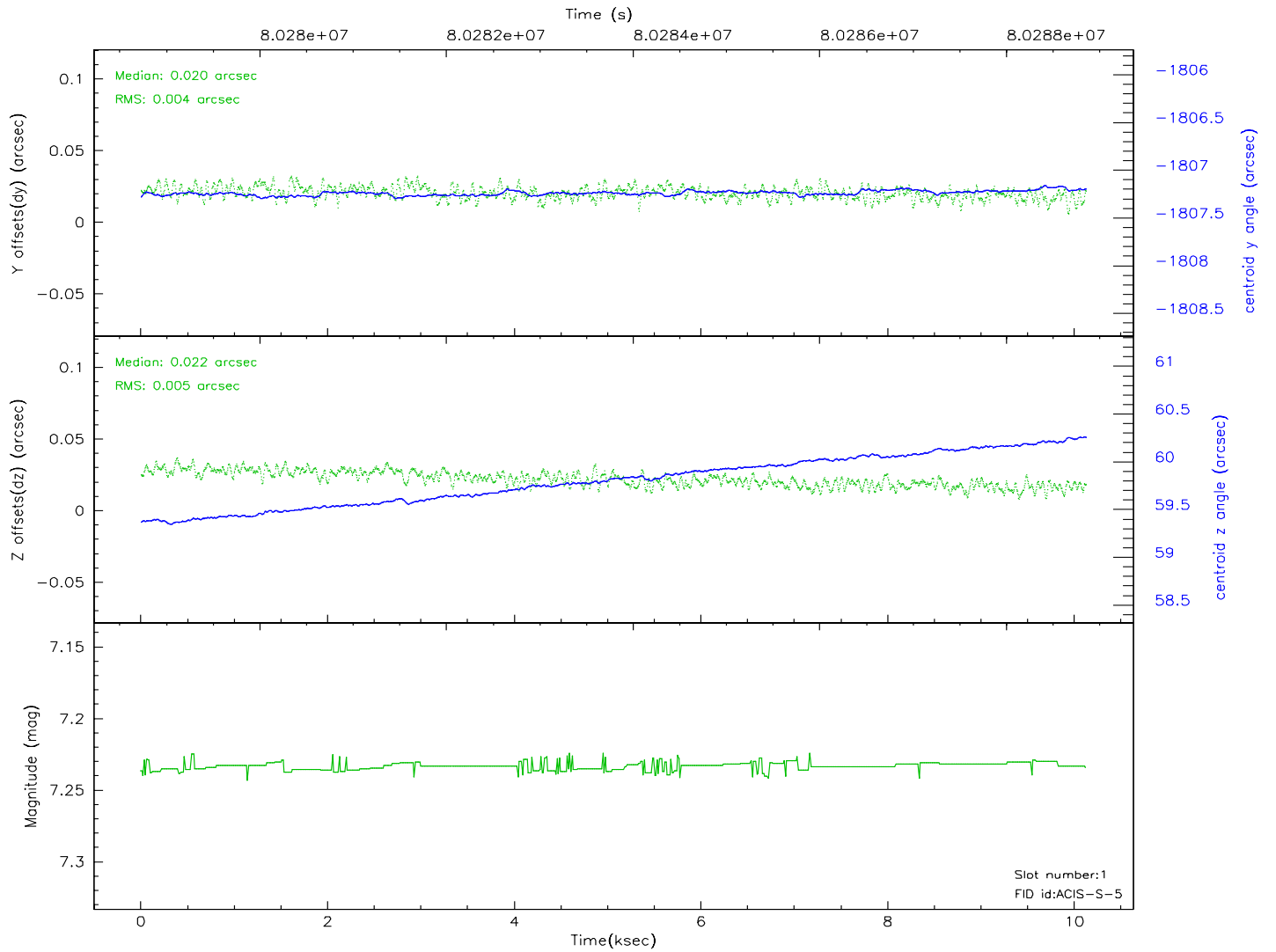
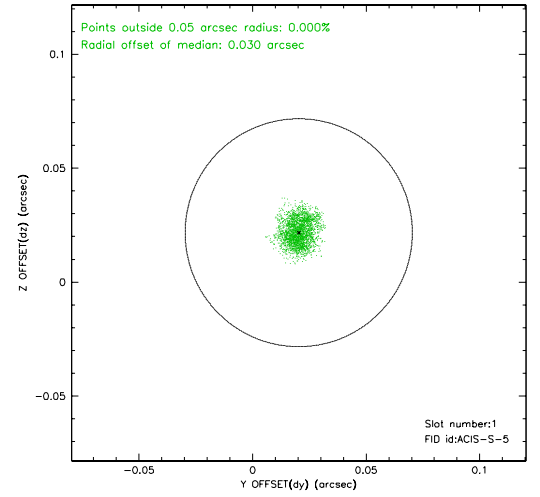
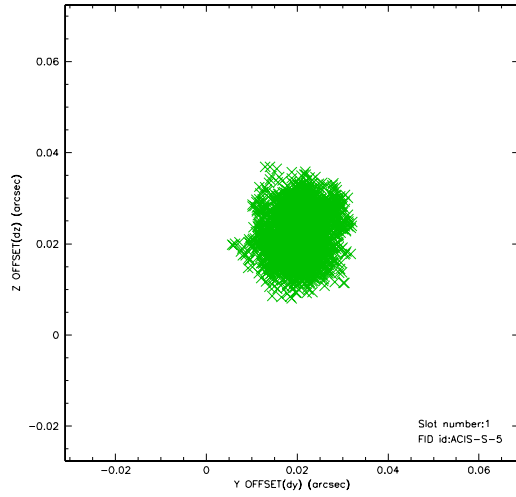


2.5 FID Slots

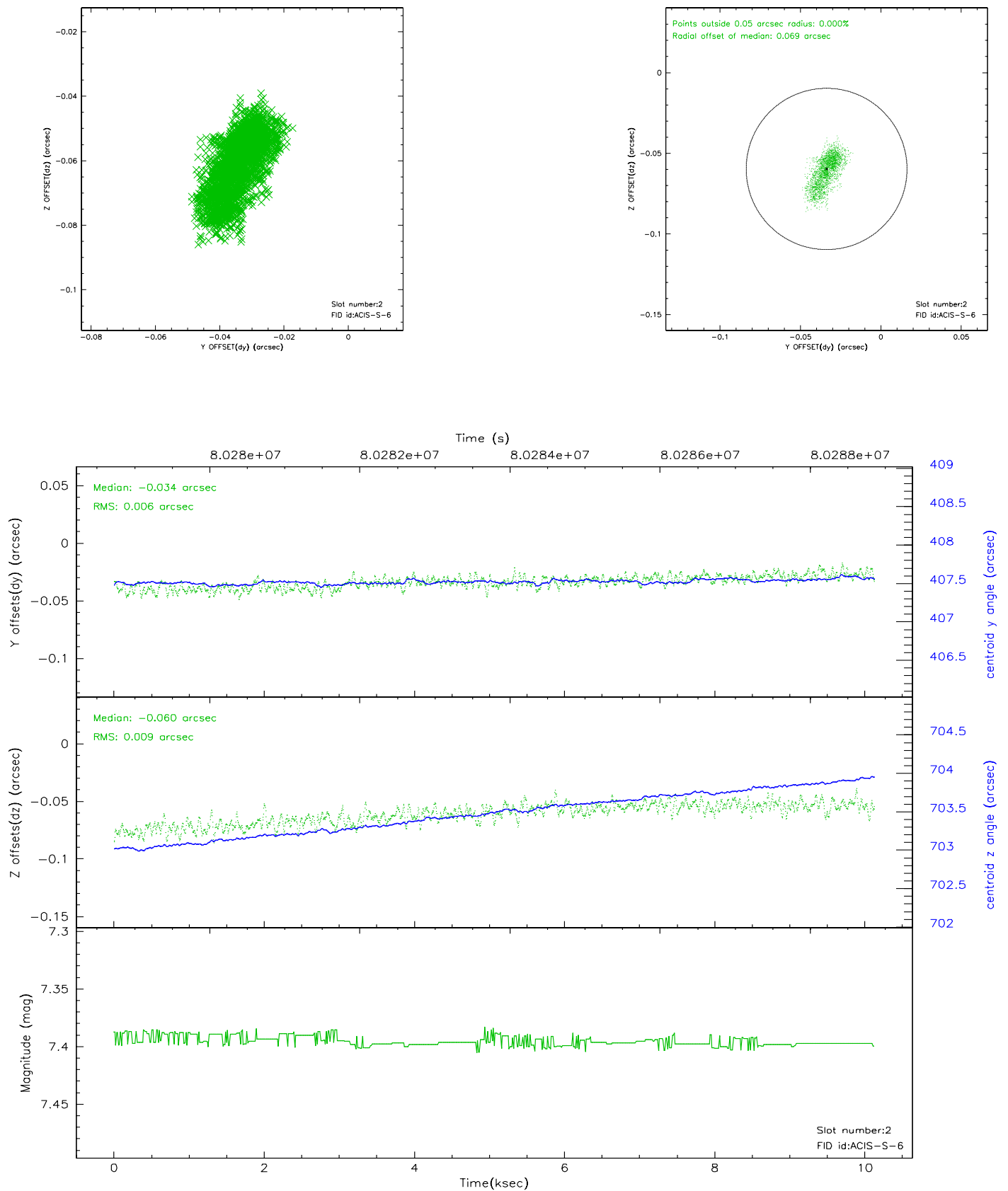
2.5.1 Slot 0



2.5.2 Slot 1



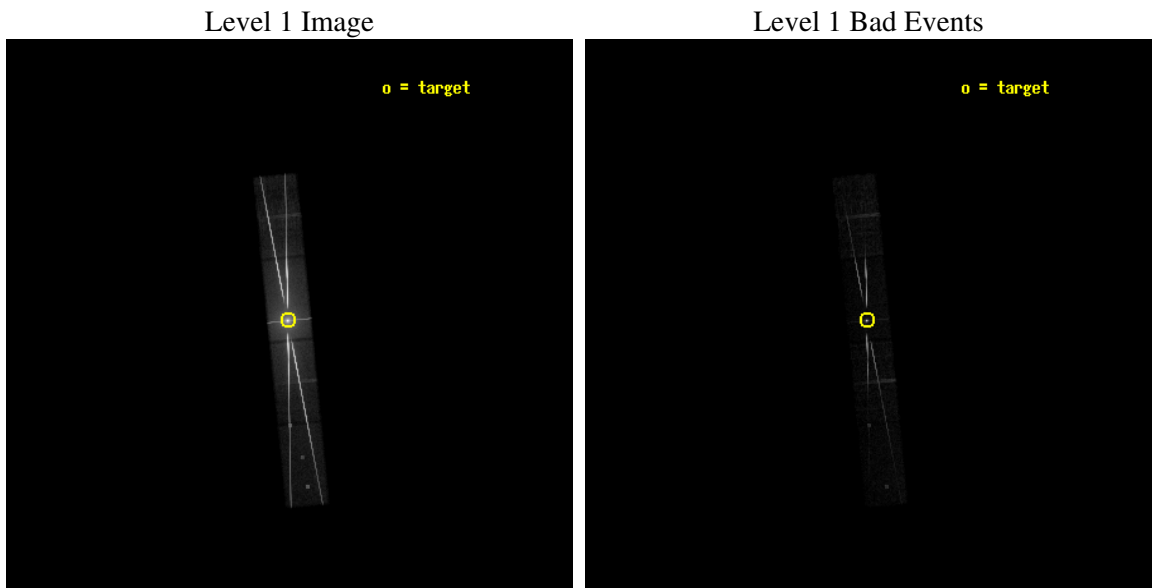
2.5.3 Slot 2



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	2007-05-30T21:16:54
revision	5

sched_exp_time	10000.000000
ontime	8656.8743125349
ontime5	8655.1328737736
ontime6	8655.1333124489
ontime7	8656.8743125349
ontime8	8655.1330631822
l1events	1689280

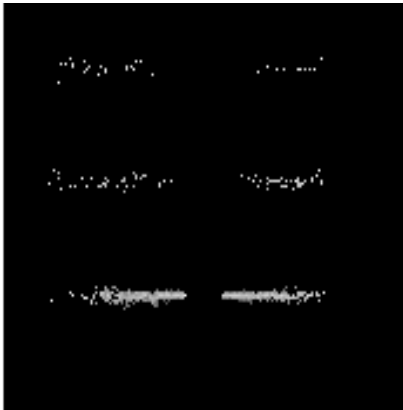
3.1.3 Events

	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	115912	568867	799486	205015
rejected events	25643	63348	98351	39532
rejected %	22%	11%	12%	19%

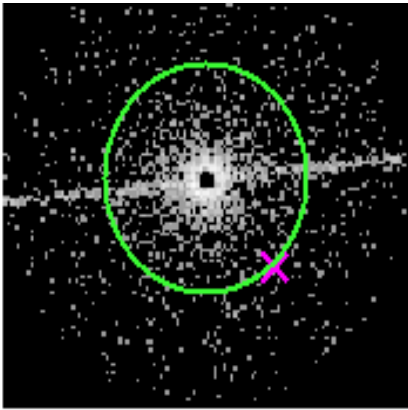
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	22688	361534	122049	123932
	19%	63%	15%	60%
grade 1 events	901	11769	4188	1149
	0%	2%	0%	0%
grade 2 events	31447	71786	182502	20569
	27%	12%	22%	10%
grade 3 events	6518	25806	69483	8232
	5%	4%	8%	4%
grade 4 events	6381	25038	69575	8071
	5%	4%	8%	3%
grade 5 events	3062	10572	24006	2073
	2%	1%	3%	1%
grade 6 events	25914	30076	271492	8951
	22%	5%	33%	4%
grade 7 events	19001	32286	56191	32038
	16%	5%	7%	15%

4 Gratings

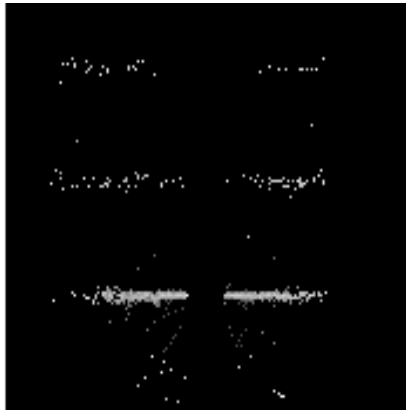
4.1 HEG Arm



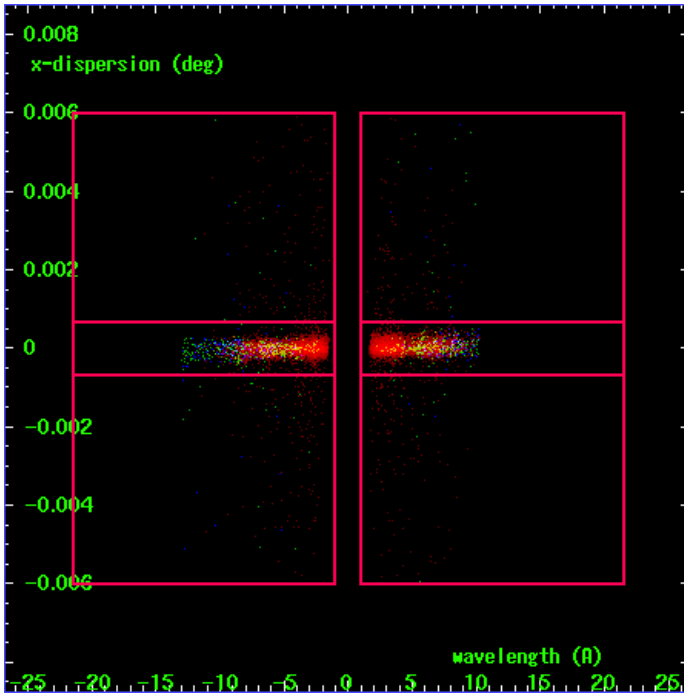
HEG Order Sort 123



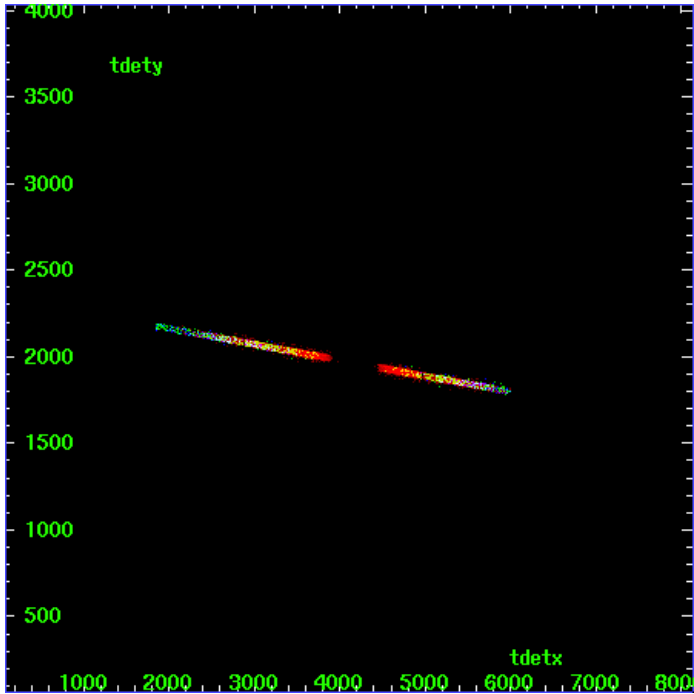
HEG Zero Order



HEG Order Sort ALL

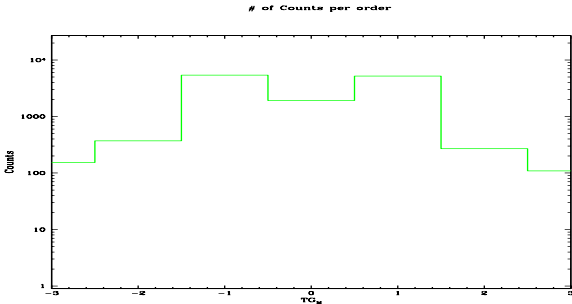


Spot Image HEG

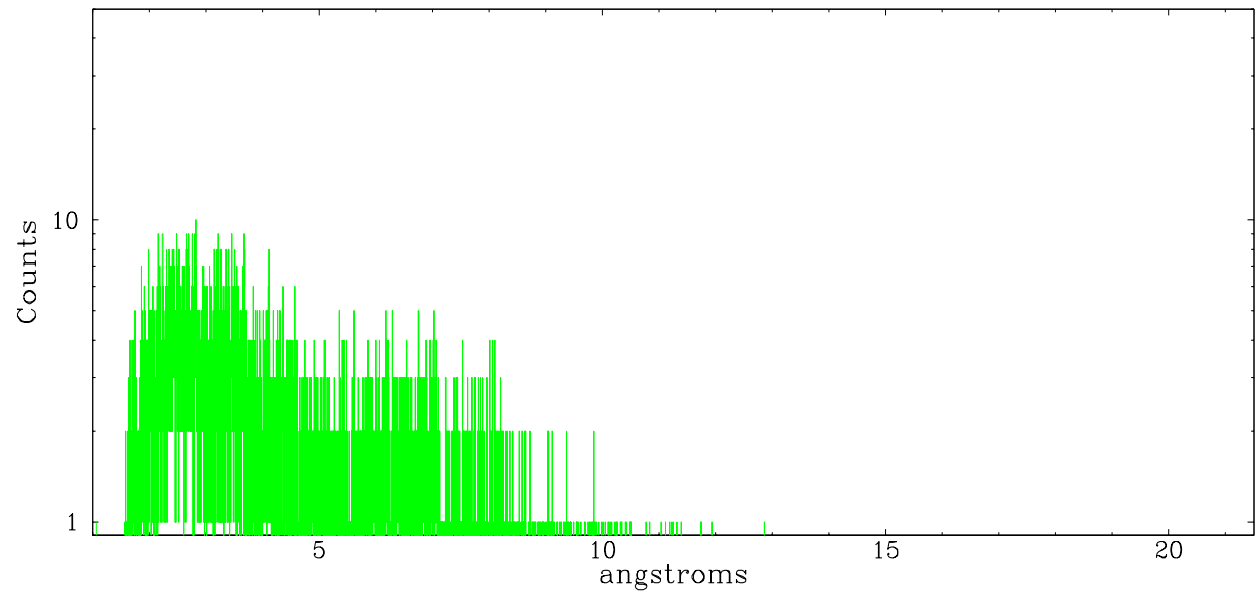


Full Detector HEG

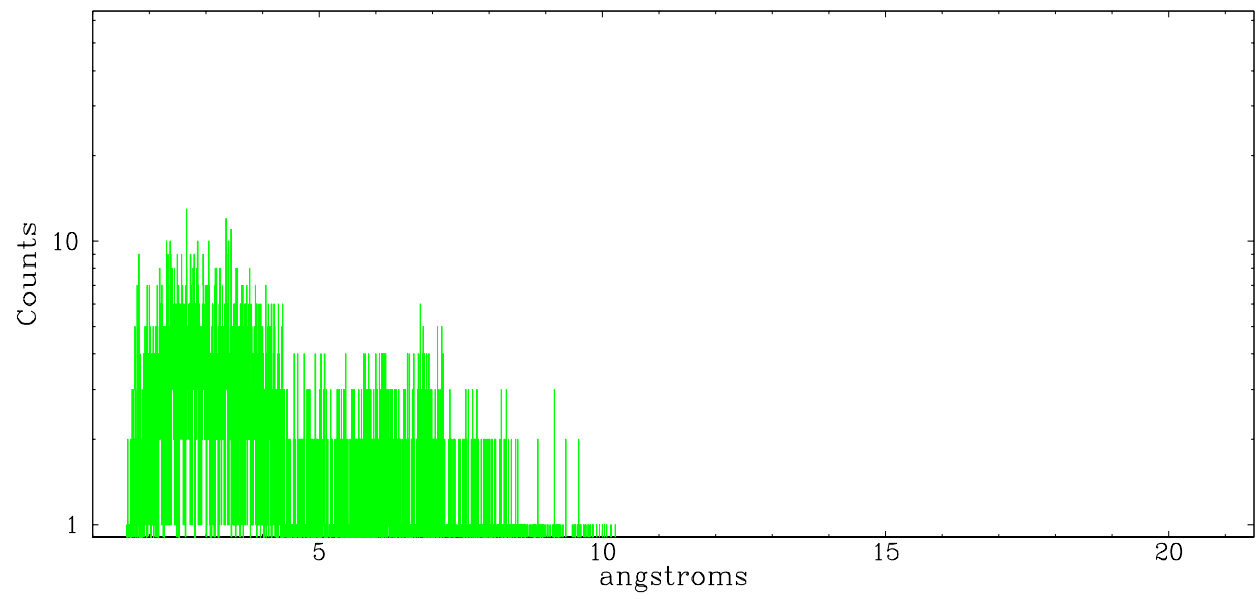
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	154	370	5396	1913	5196	270	109



heg order -1



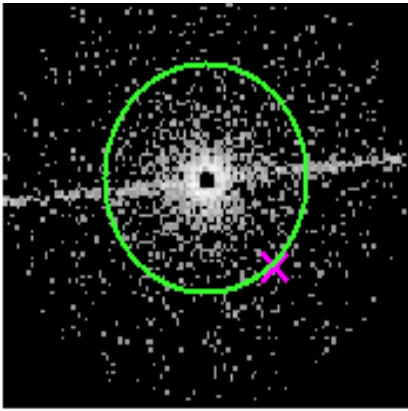
heg order +1



4.2 MEG Arm



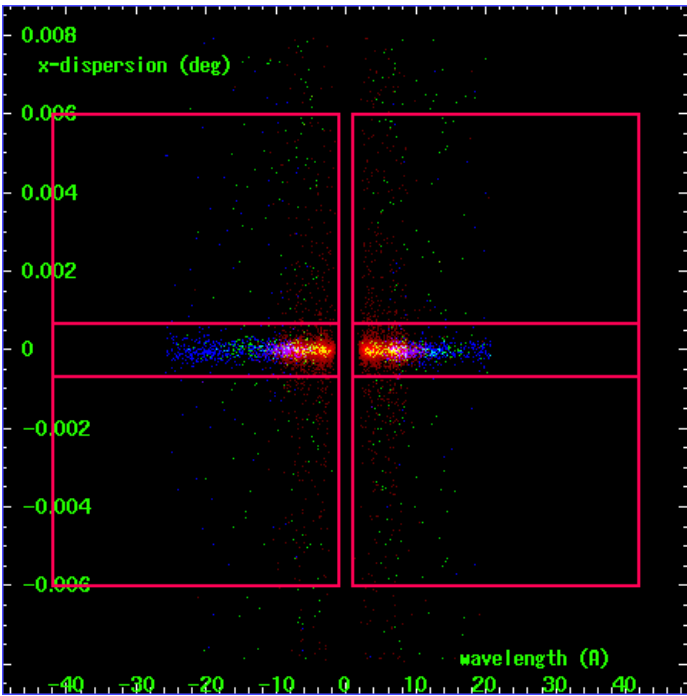
MEG Order Sort 123



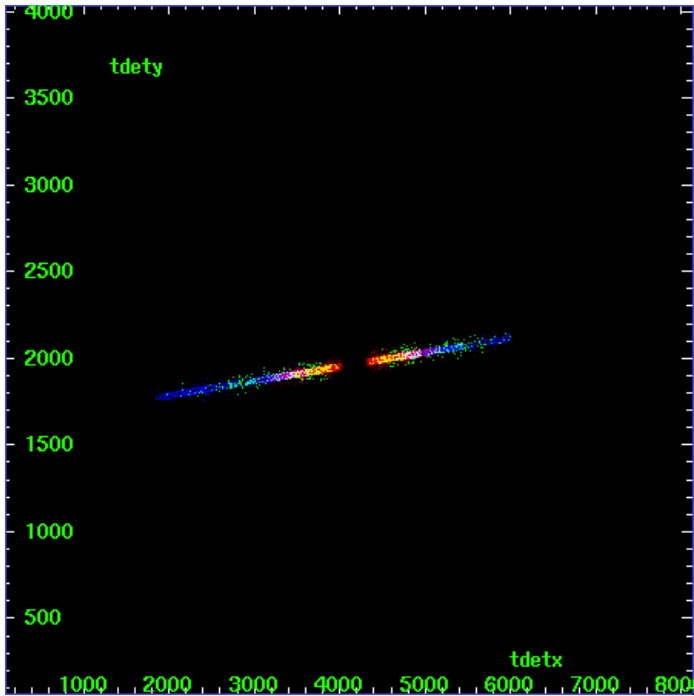
MEG Zero Order



MEG Order Sort ALL

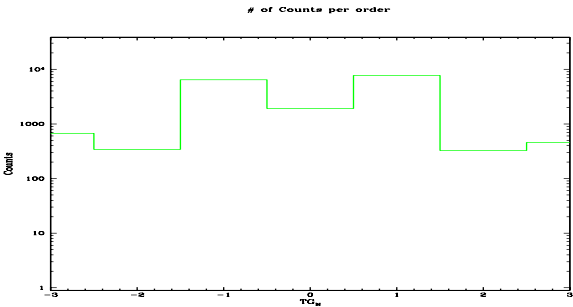


Spot Image MEG

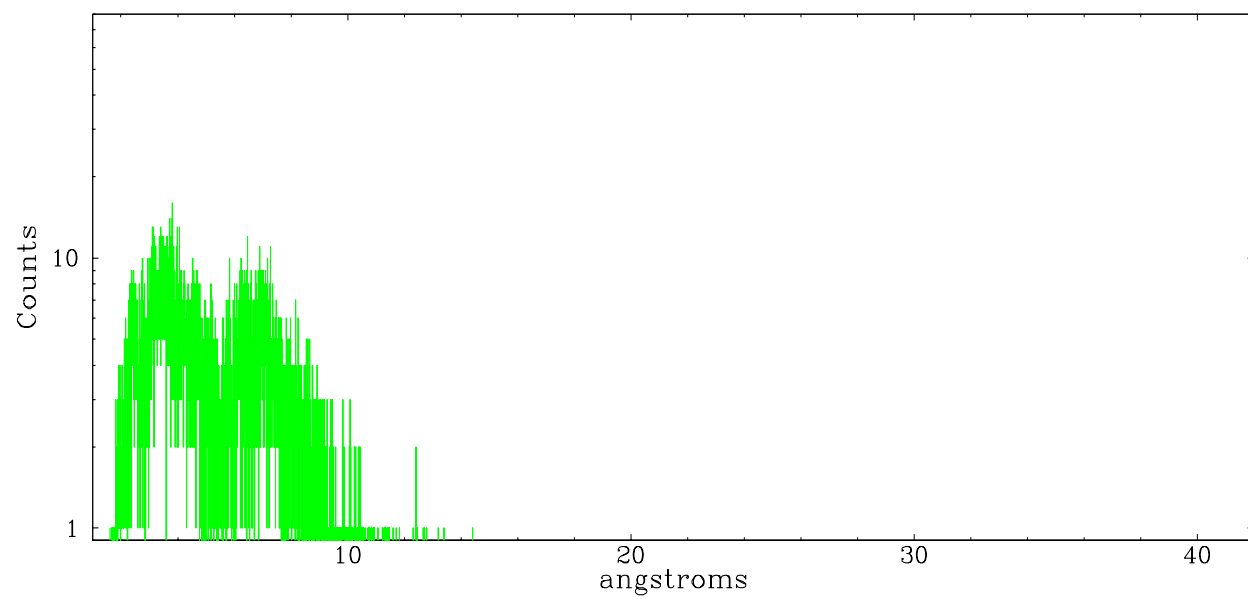


Full Detector MEG

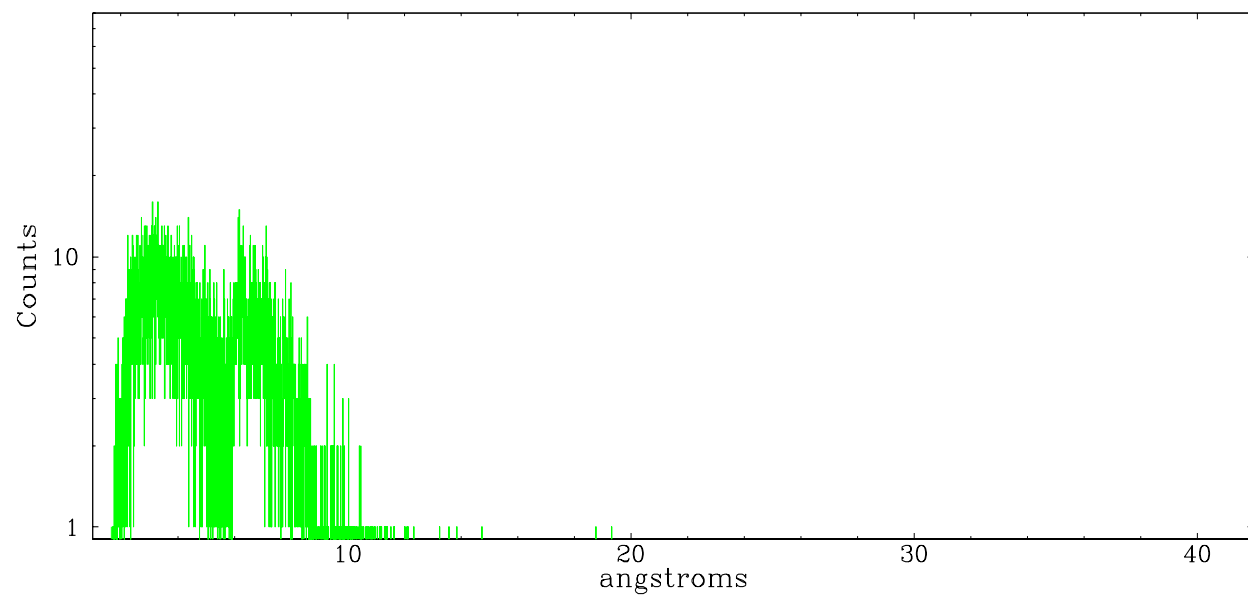
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	672	342	6443	1913	7713	326	458



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2007.09.19
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.093

A.2 Comments

Charge time:

Charge time for this ObsId remains at previous value of 10.093 ks.

Used source position from 'findzo' x=4075.46; y=4118.61 (intersection of MEG with streak), since zero order is cratered.

Note: the grating arms show in an image of bad events, which means that the grating spectrum is piled.