

V&V Reference Report

L2 ASCDS Version : 7.6.7.1

Observation 5556 - L2 Version 003
Chandra X-Ray Center

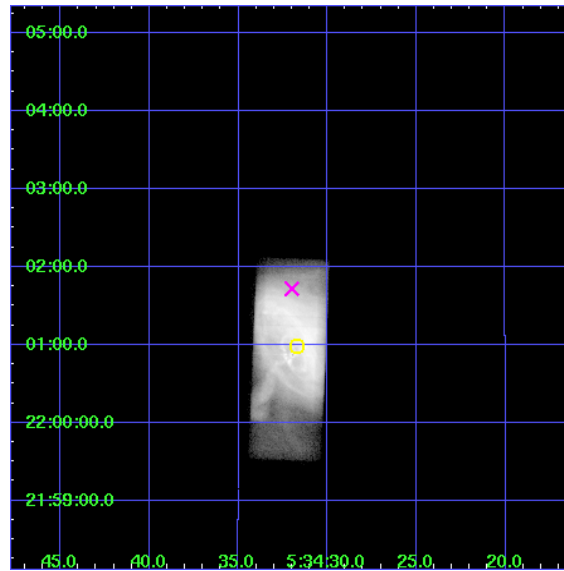
L2 Processing Date : Mar 25 2006

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1 Front

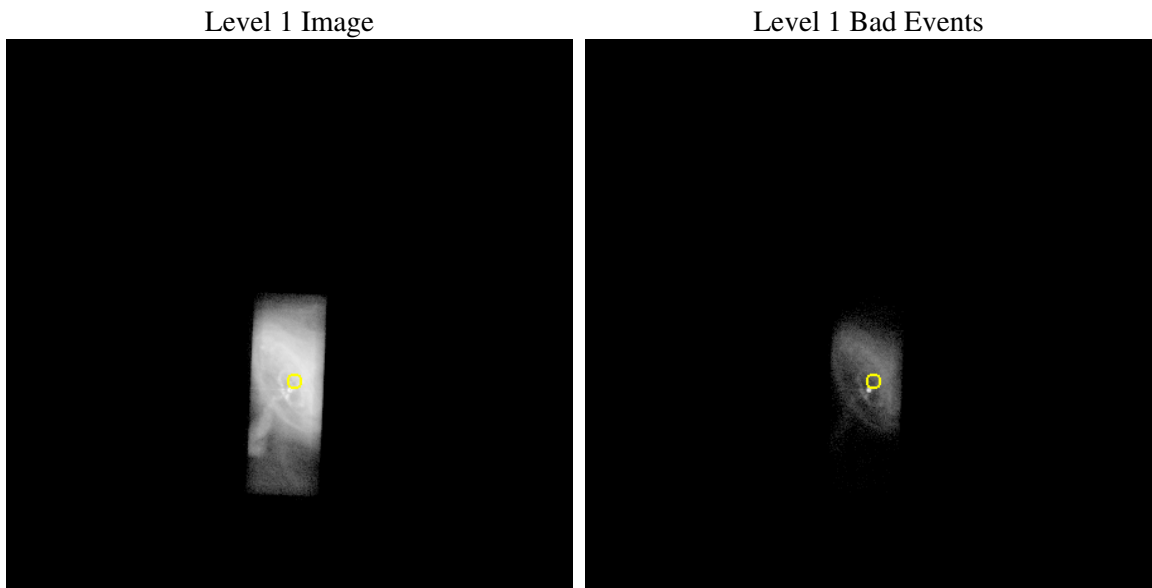
seq_num	500545
obs_id	5556
title	Monitoring of the Relativistic Magnetohydrodynamic Shock in the Crab Nebula
observer	Dr Koji Mori
object	The Crab Nebula
dtcycle	0
cycle	P
ra_targ	83.632083
dec_targ	22.016472
ra_nom	83.63337190202
dec_nom	22.0288566877
roll_nom	92.42162407232
revision	3
ontime	10156.200403571
livetime	8934.0256892779
ontime7	10156.200403571
l2events	2484871



2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Parameters

obi_num	0
ascdsver	7.6.7.1
caldbver	3.2.1
date	2006-03-26T01:17:48
revision	3

sched_exp_time	10000.000000
ontime	10607.958167523
ontime7	10607.958167523
l1events	2649810

2.1.3 Events

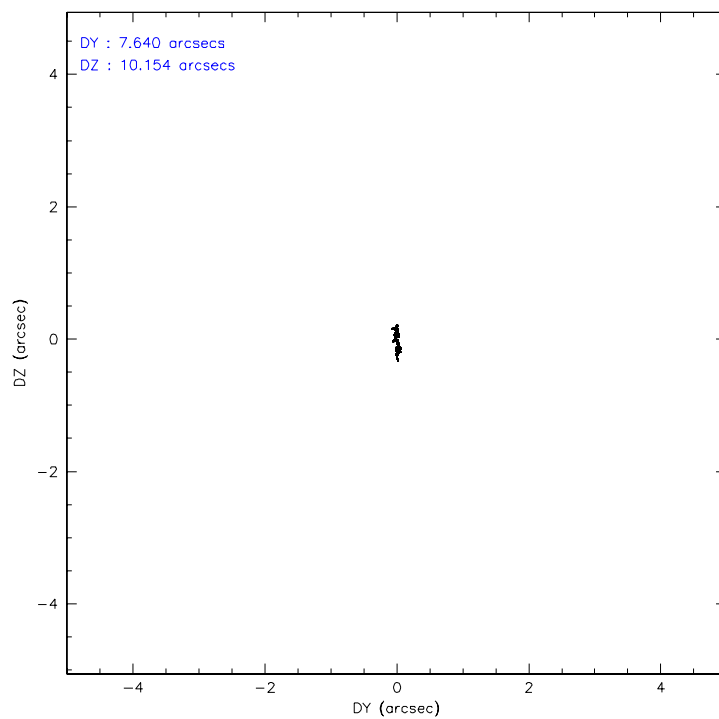
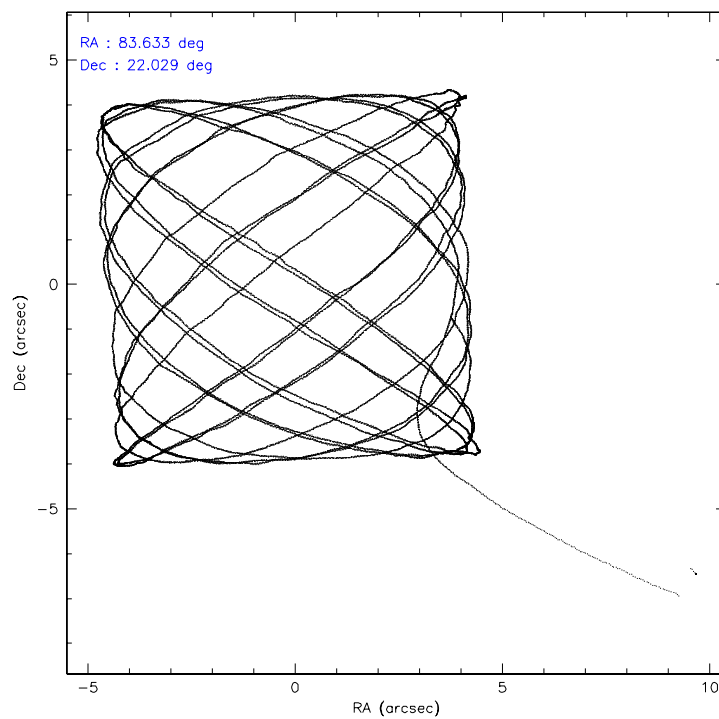
	ccd 7
level 1 events	2649810
rejected events	125583
rejected %	4%

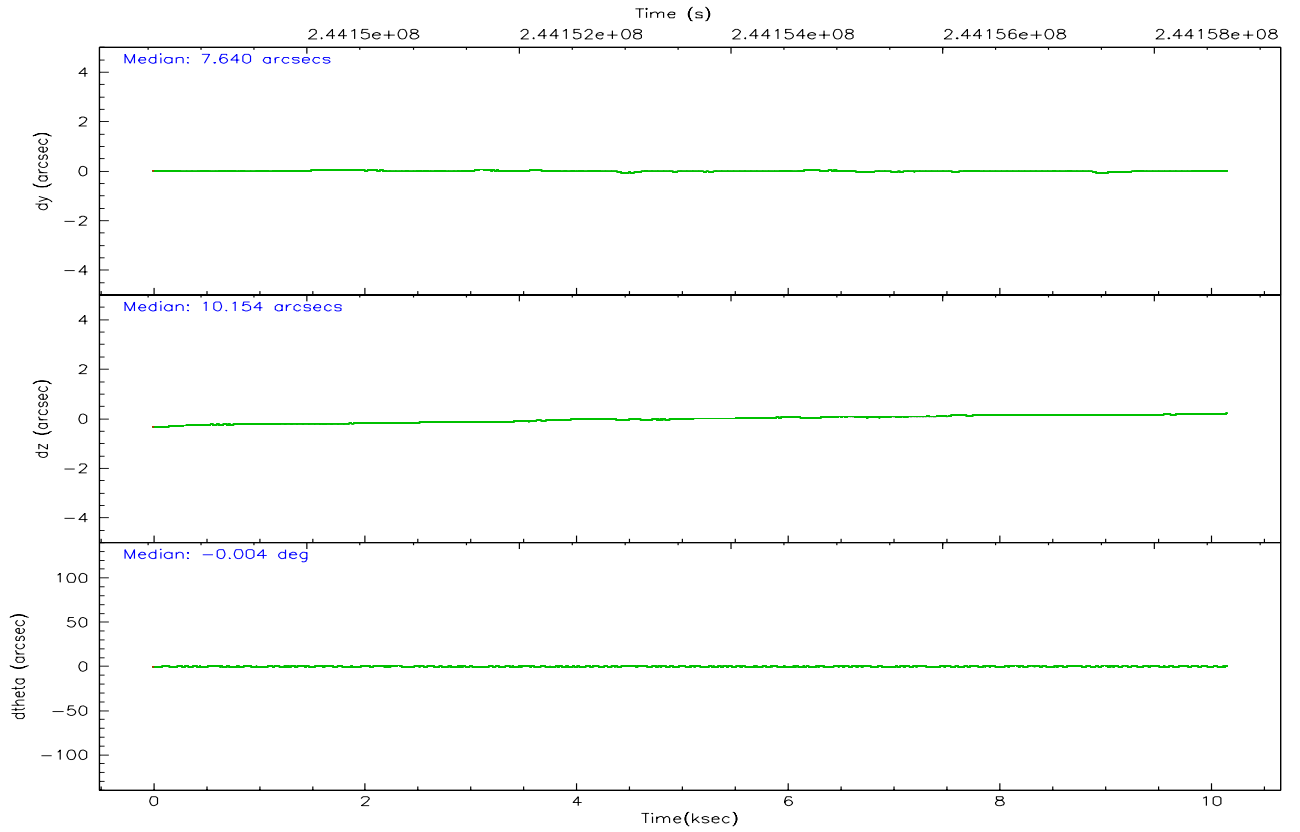
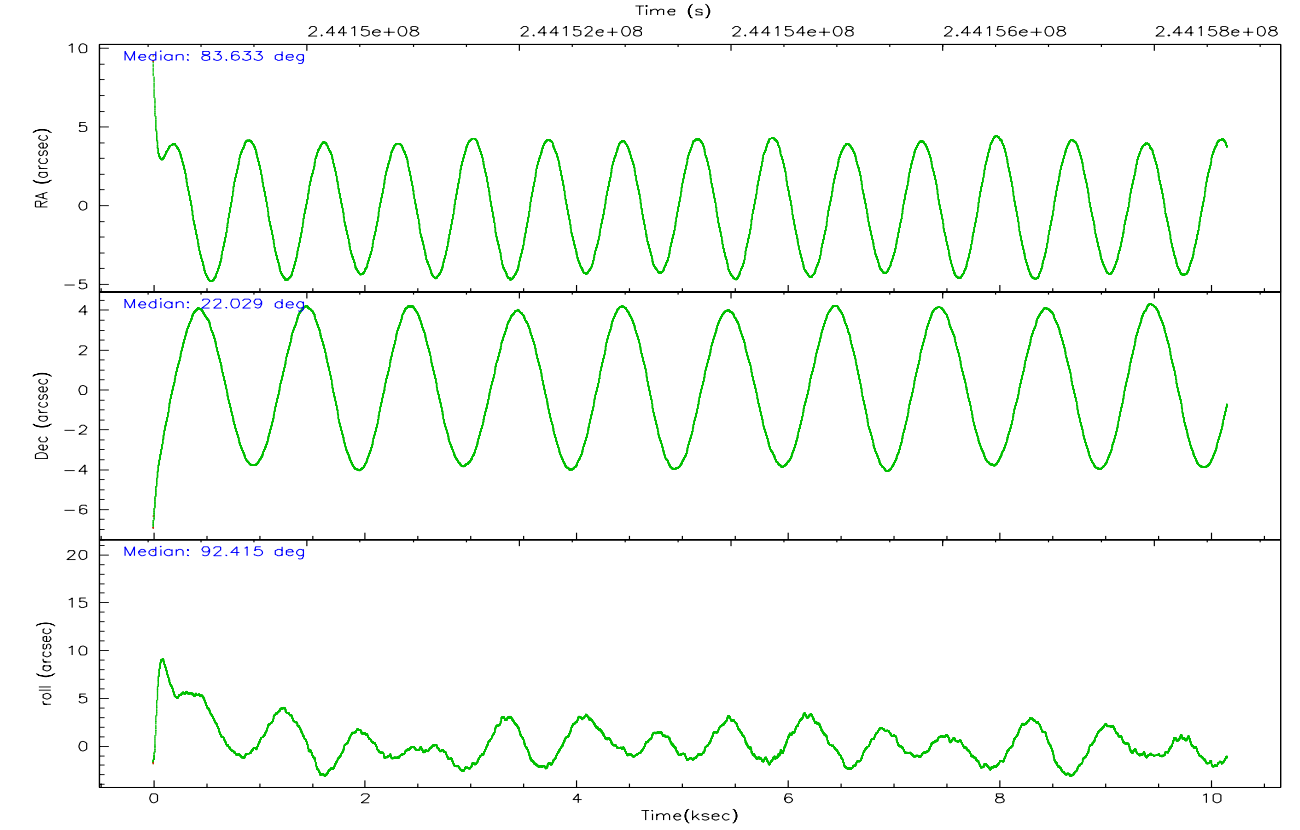
	ccd 7
grade 0 events	509230
	19%
grade 1 events	9600
	0%
grade 2 events	648668
	24%
grade 3 events	288975
	10%
grade 4 events	278517
	10%
grade 5 events	40328
	1%
grade 6 events	826882
	31%
grade 7 events	47610
	1%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-7	ACIS-7	Obspar file type	PREDICTED	ACTUAL
Grating	HETG	HETG	Obspar update status	NONE	UPDATED
Data mode	GRADED	GRADED	On-chip summing requested	N	N
Observation mode	POINTING	POINTING	Subarray requested	CUSTOM	CUSTOM
Pointing RA	83.649435	83.63337190202002	Subarray start row	127	127
Pointing Dec	22.006106	22.0288566876999	Subarray row count	101	101
Pointing Roll	92.258989	92.42162407231999	Alternating exposures requested	N	N
Window start time	244080064.184000	244080064.184000	Primary exposure time	0.000000	0.3
Window stop time	244684864.184000	244684864.184000			
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-182.132523	-182.139514760308			
SIM translation stage offset (mm)	-8	-7.993007822699838			
Observation start time	244148695.184000	244147716.21973			
Observation start date	2005-09-26T19:03:51	2005-09-26T18:48:36			
Observation end time	244158695.184000	244160320.64531			
Observation end date	2005-09-26T21:50:31	2005-09-26T22:18:40			
Read mode	TIMED	TIMED			

2.3 Aspect



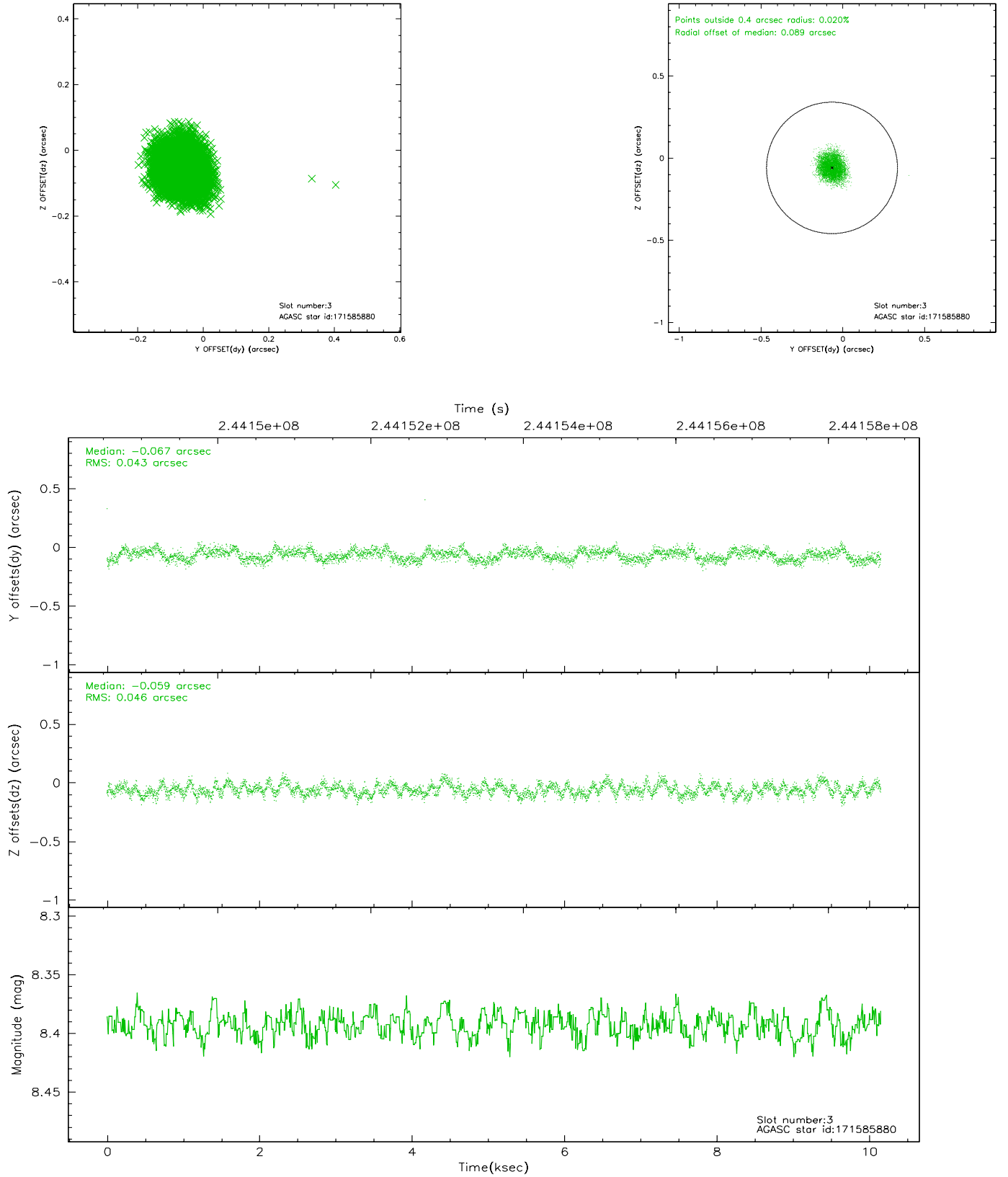


Slot Statistics

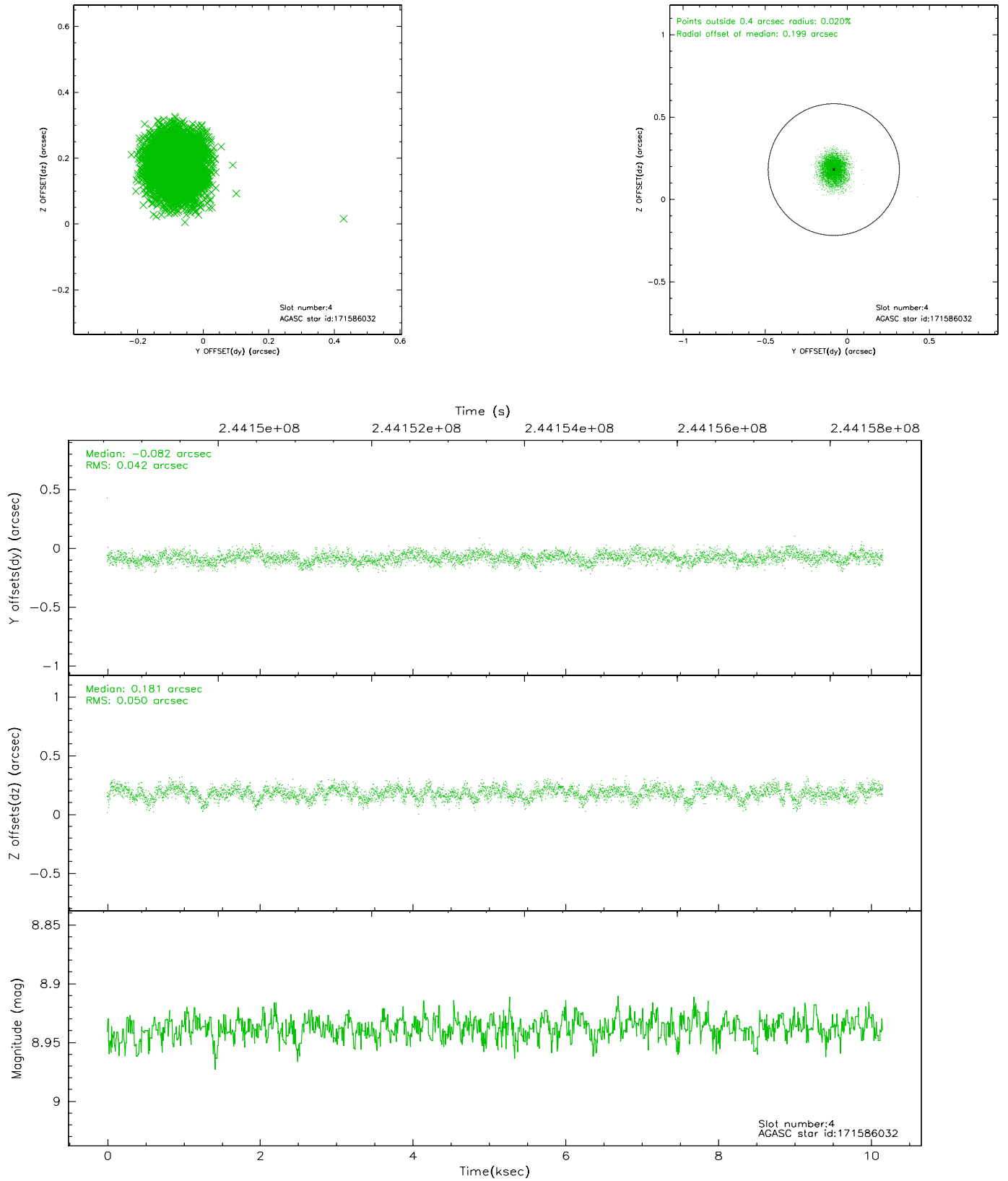
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.09	2478	-0.060	-0.070	0.006	0.011	0.000000	0.000000	-759.88	-1896.12
1	FID	ACIS-S-4	7.19	2478	0.073	0.048	0.005	0.008	0.000000	0.000000	2153.28	11.87
2	FID	ACIS-S-5	7.23	2478	-0.044	0.030	0.006	0.010	0.000000	0.000000	-1812.05	6.10
3	GUIDE	171585880	8.39	4952	-0.067	-0.059	0.067	0.104	83.676260	22.176319	609.05	-113.35
4	GUIDE	171586032	8.94	4953	-0.082	0.181	0.069	0.111	83.950197	22.083225	239.35	-1013.19
5	GUIDE	171721904	9.19	4955	-0.045	0.074	0.107	0.158	84.272676	22.116922	321.53	-2092.80
6	GUIDE	243941560	8.30	4956	-0.127	0.063	0.058	0.094	83.733264	22.568598	2012.71	-358.20
7	GUIDE	171597832	9.14	4949	0.317	-0.262	0.074	0.121	83.183230	21.366702	-2235.28	1652.04

2.4 Star Slots

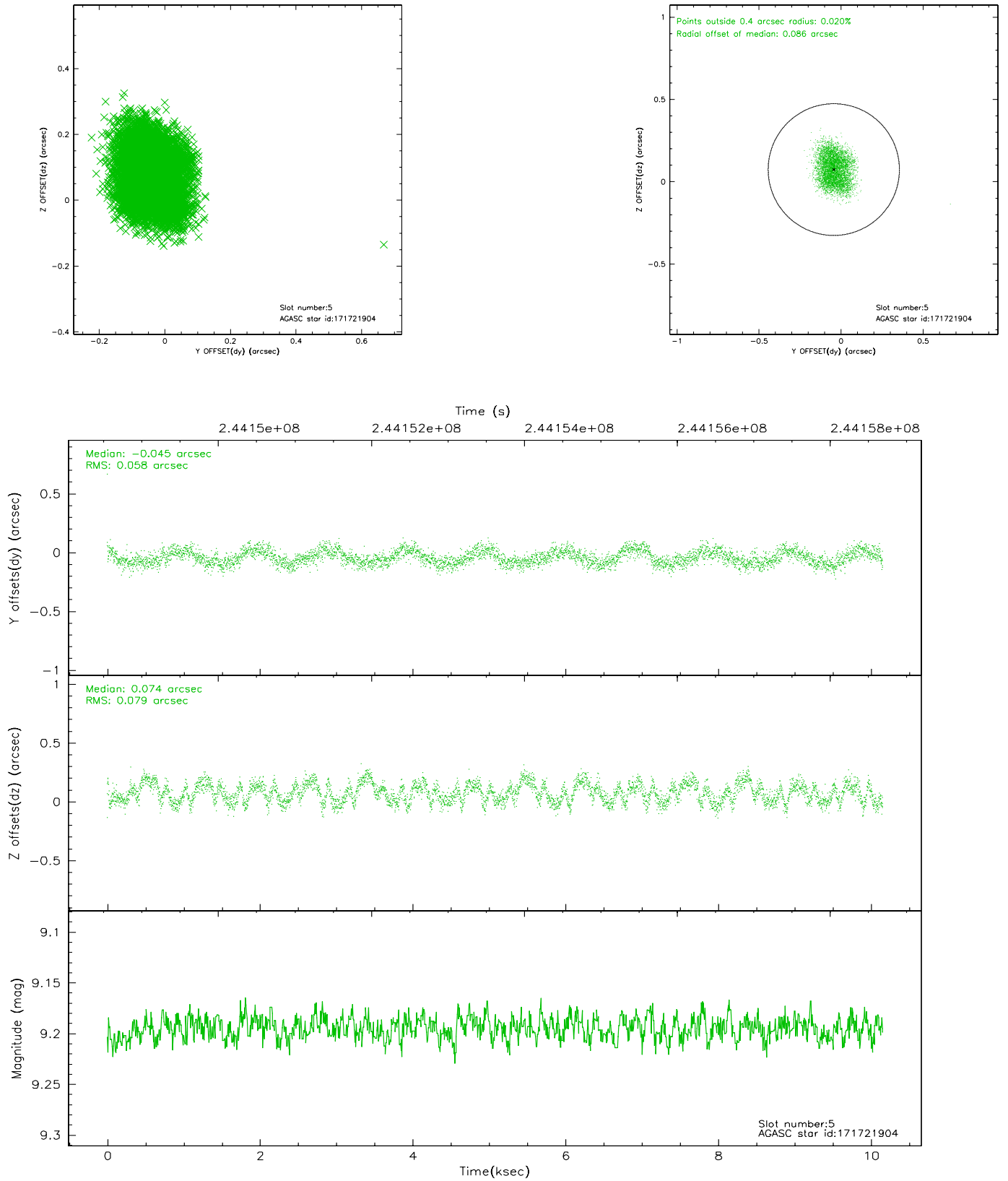
2.4.1 Slot 3



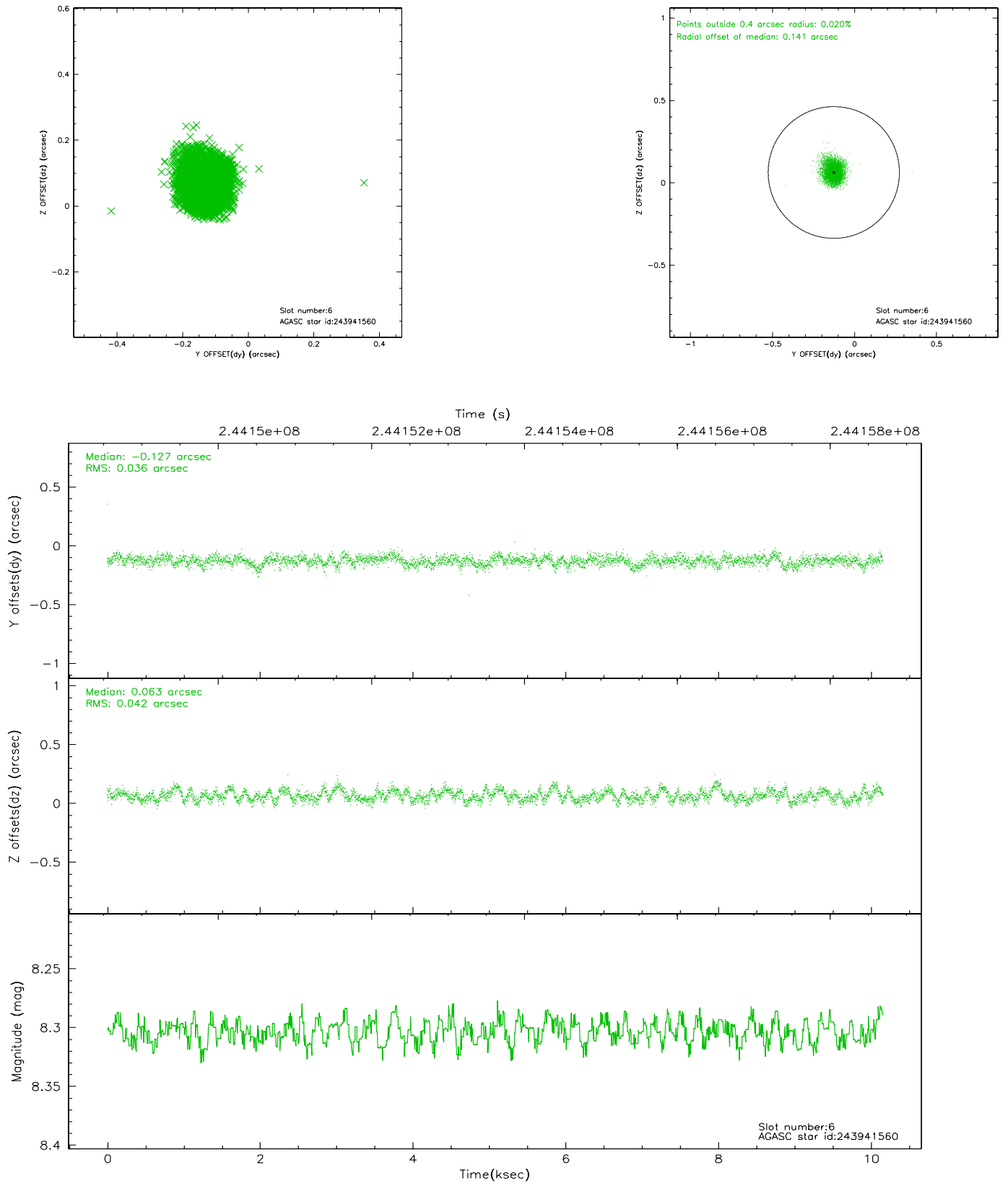
2.4.2 Slot 4



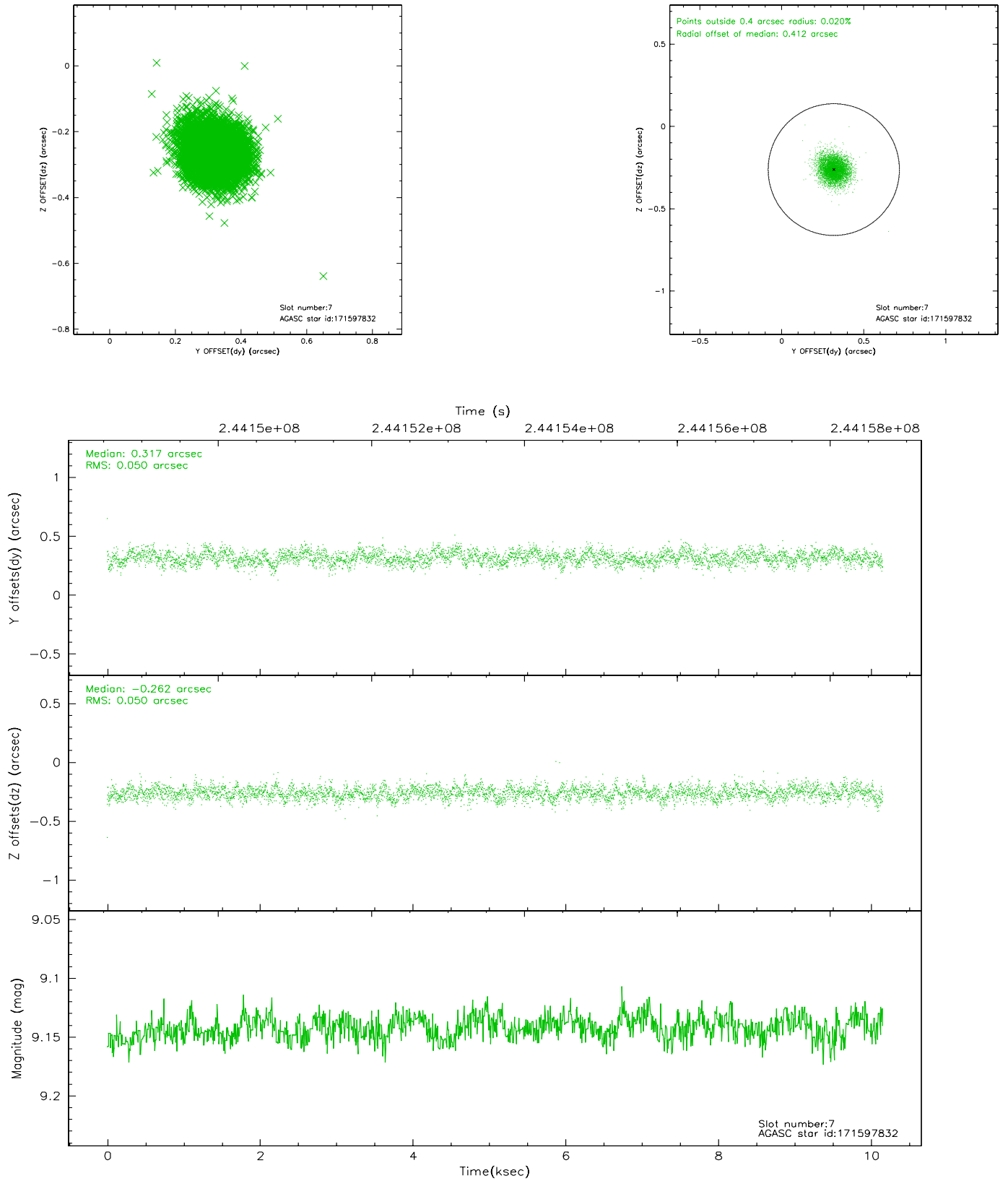
2.4.3 Slot 5



2.4.4 Slot 6

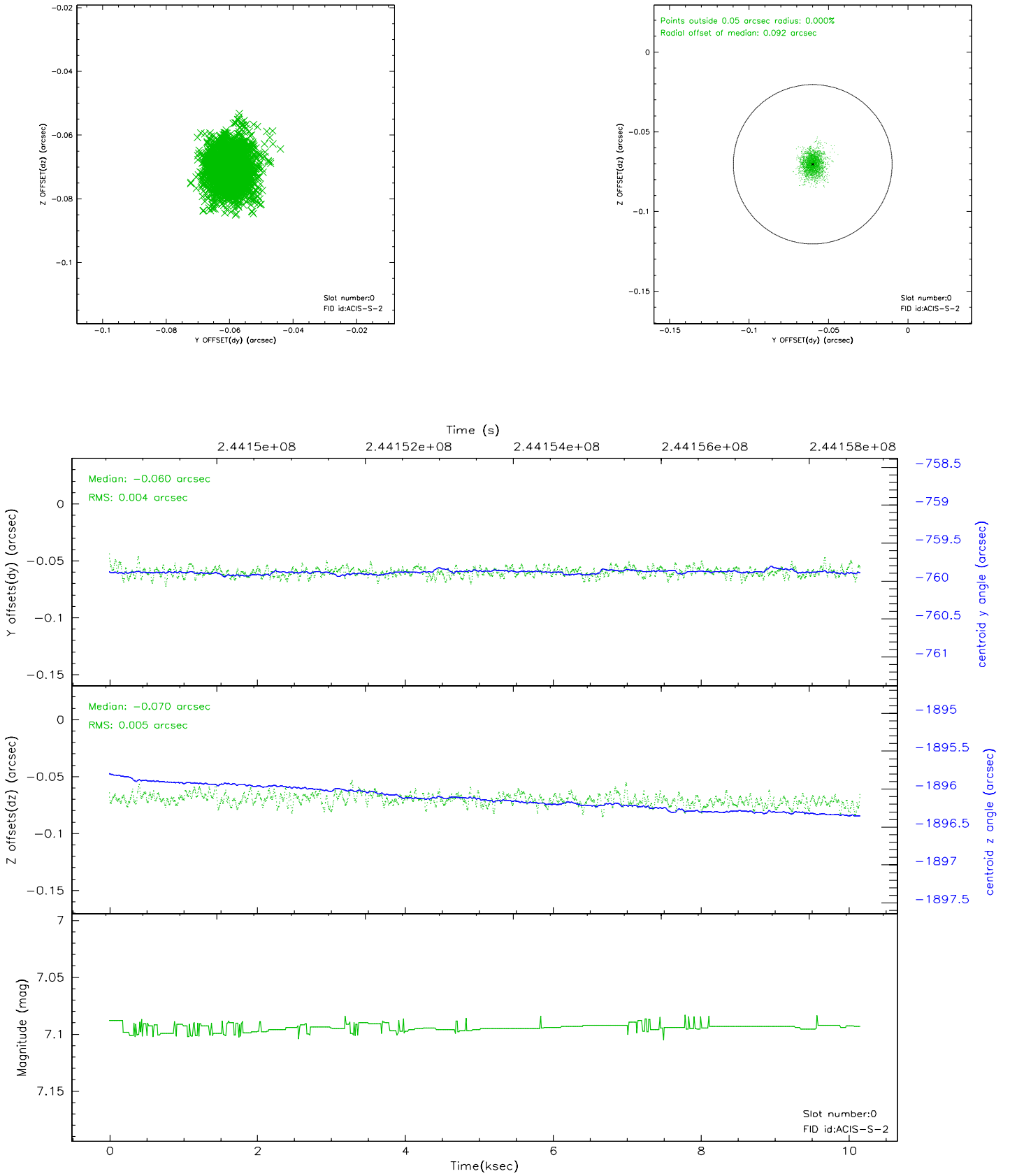


2.4.5 Slot 7

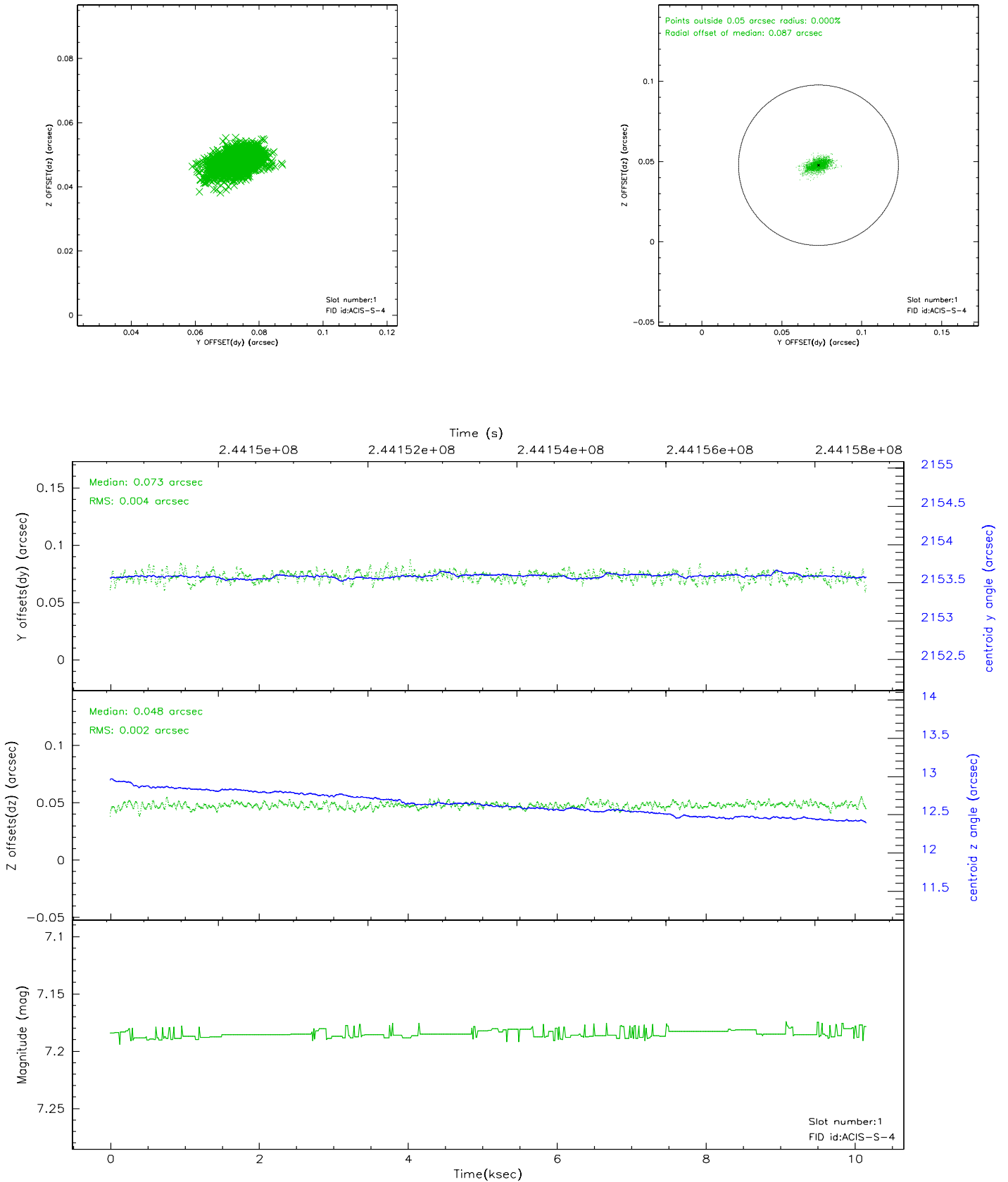


2.5 FID Slots

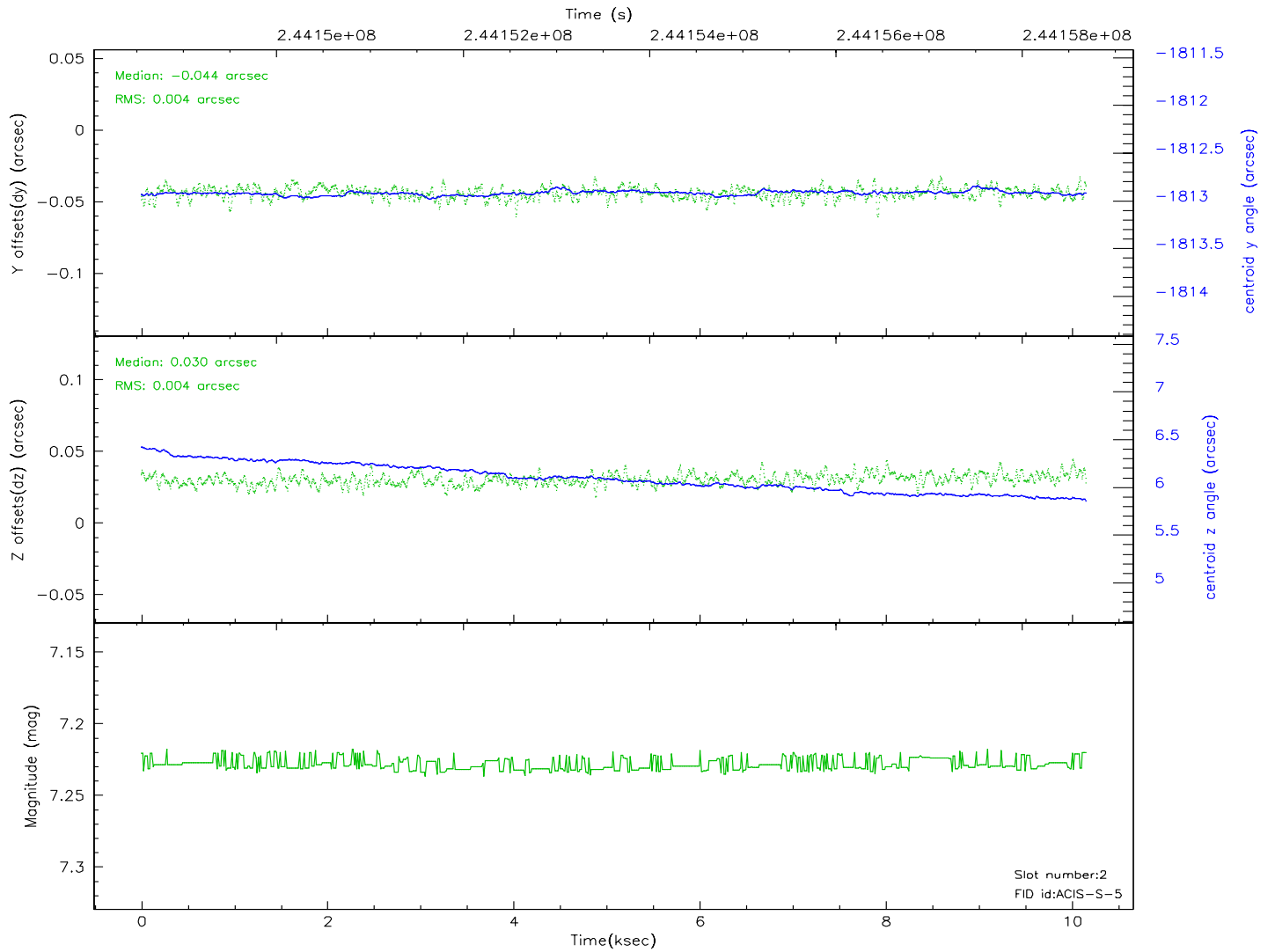
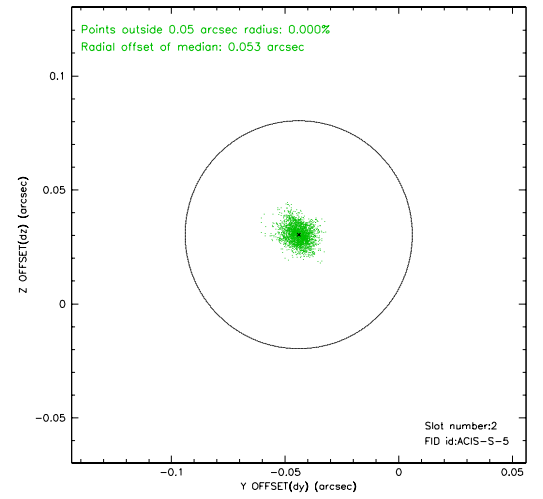
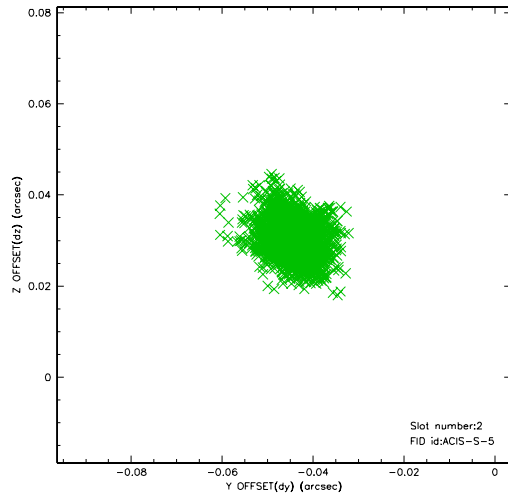
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

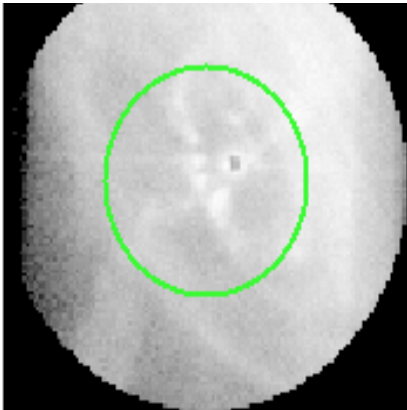


3 Gratings

3.1 HEG Arm



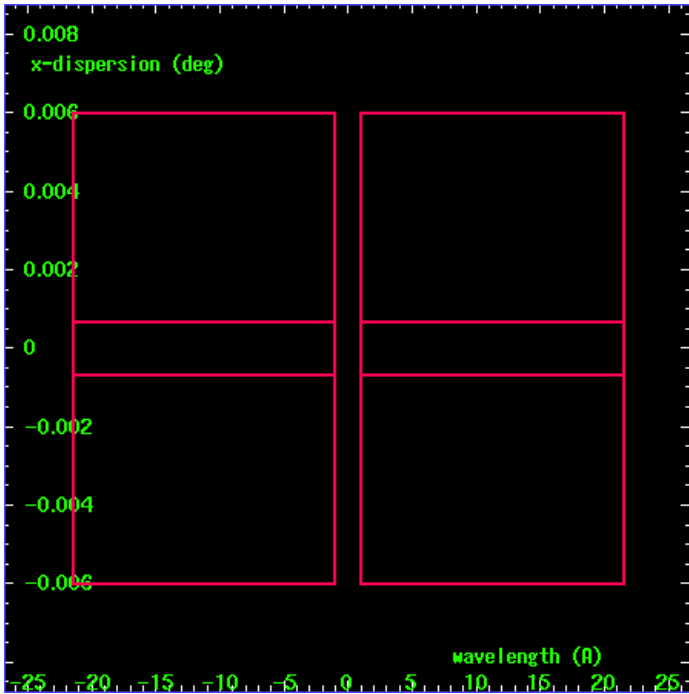
HEG Order Sort 123



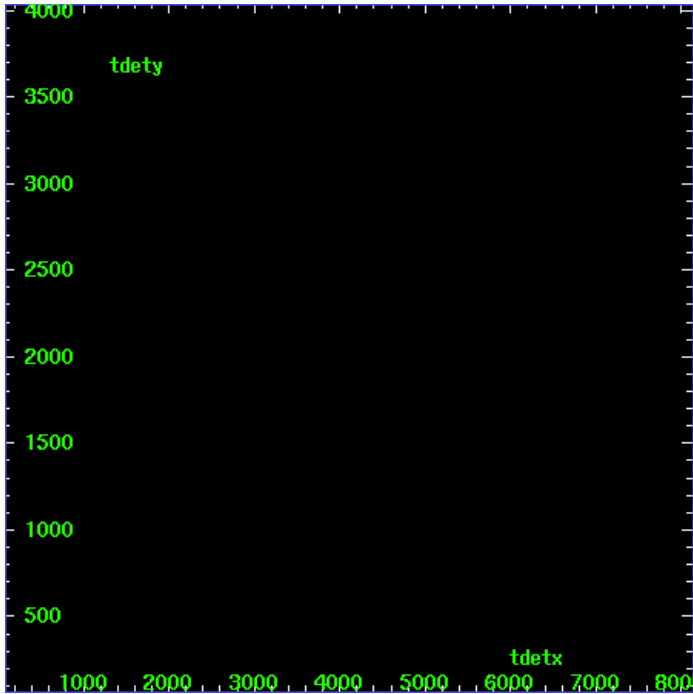
HEG Zero Order



HEG Order Sort ALL

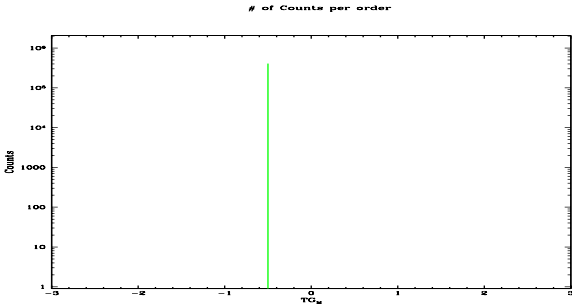


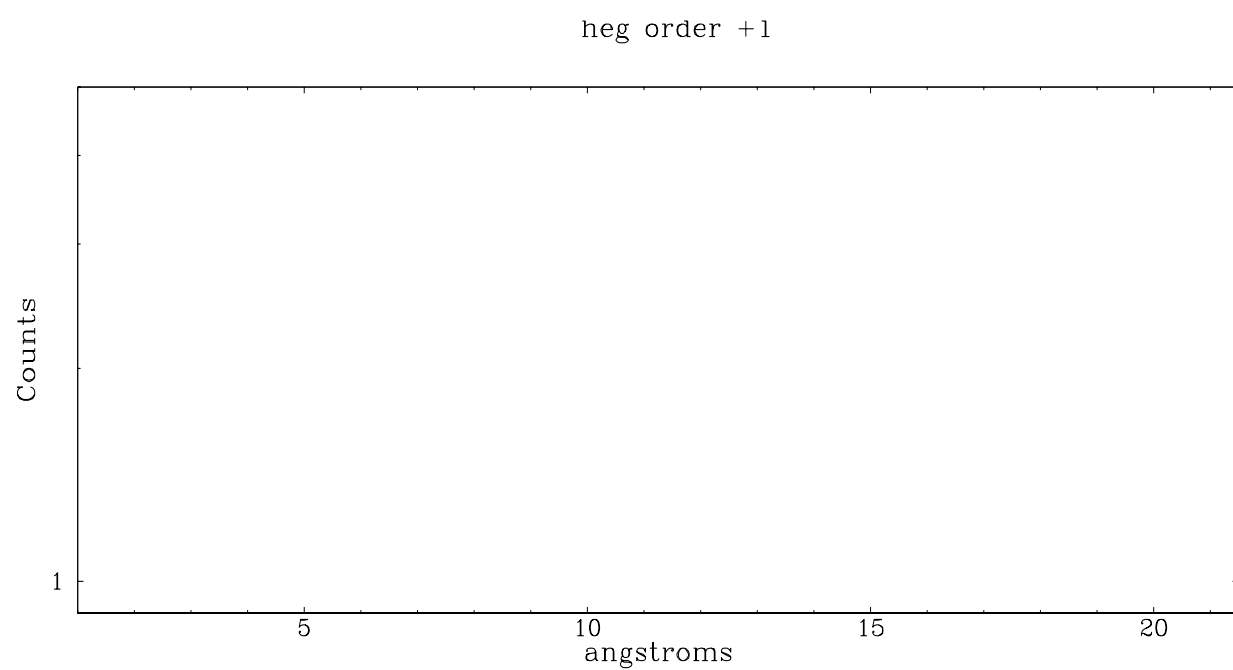
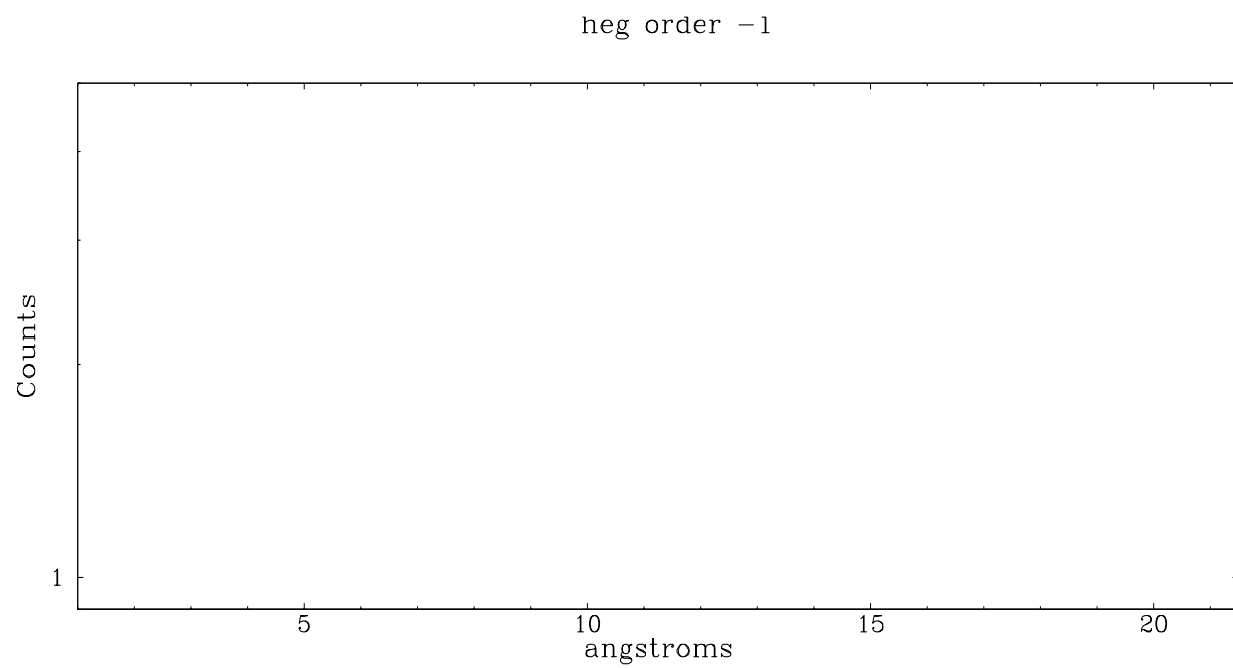
Spot Image HEG



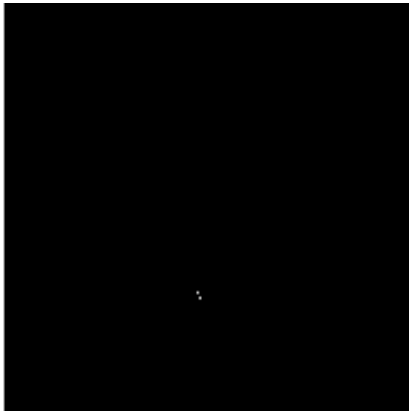
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	0	0	0	409044	0	0	0





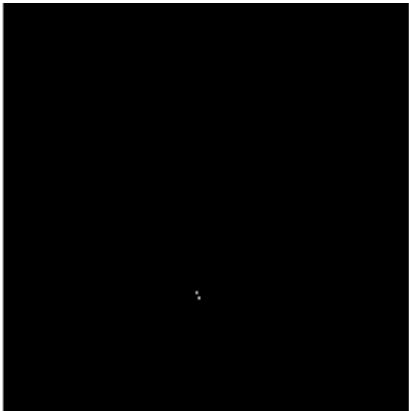
3.2 MEG Arm



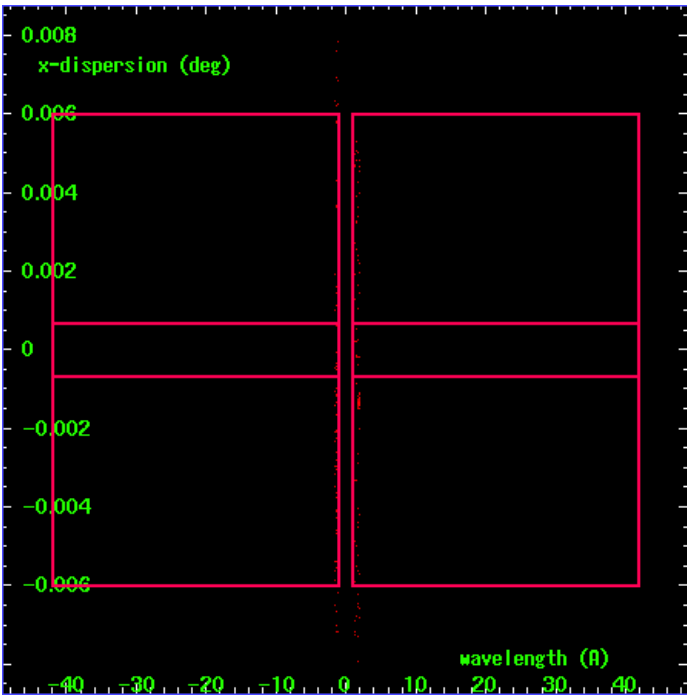
MEG Order Sort 123



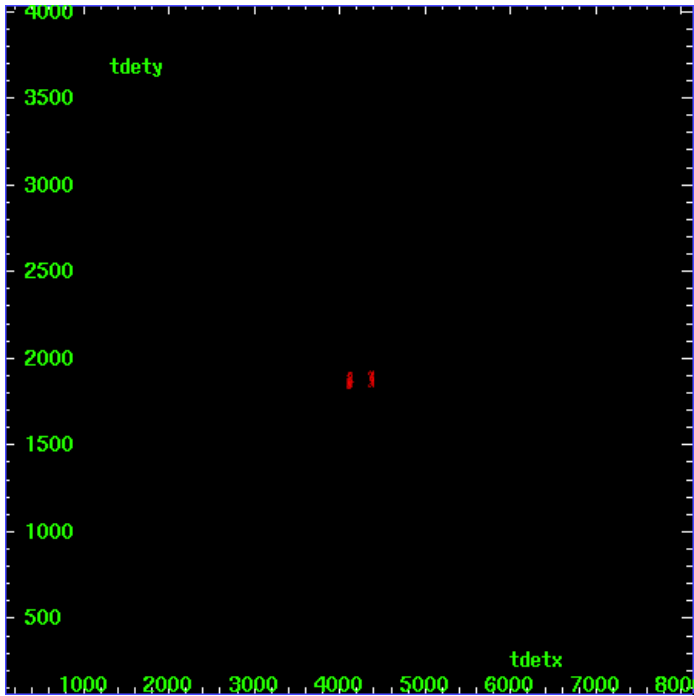
MEG Zero Order



MEG Order Sort ALL

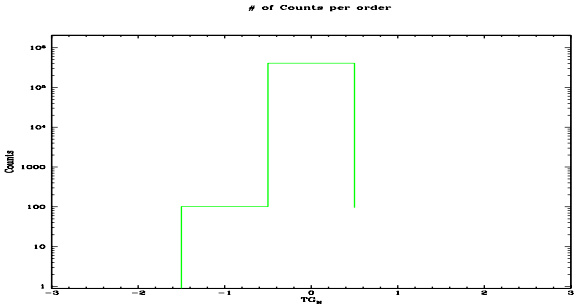


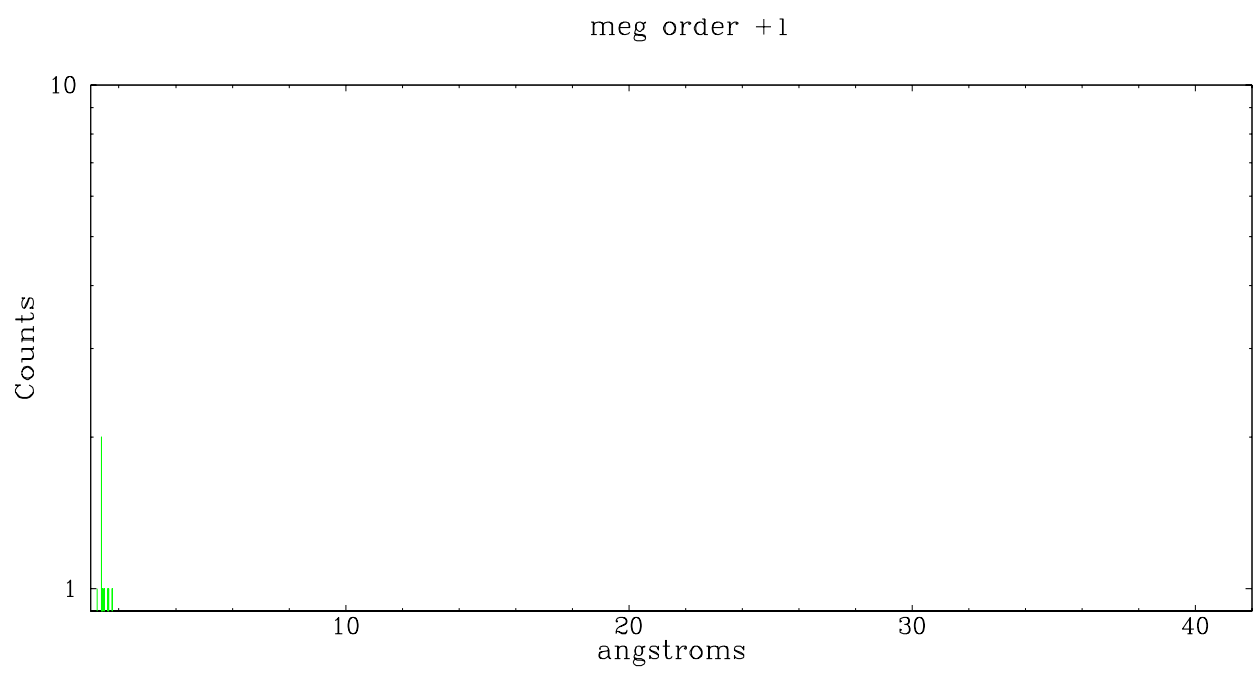
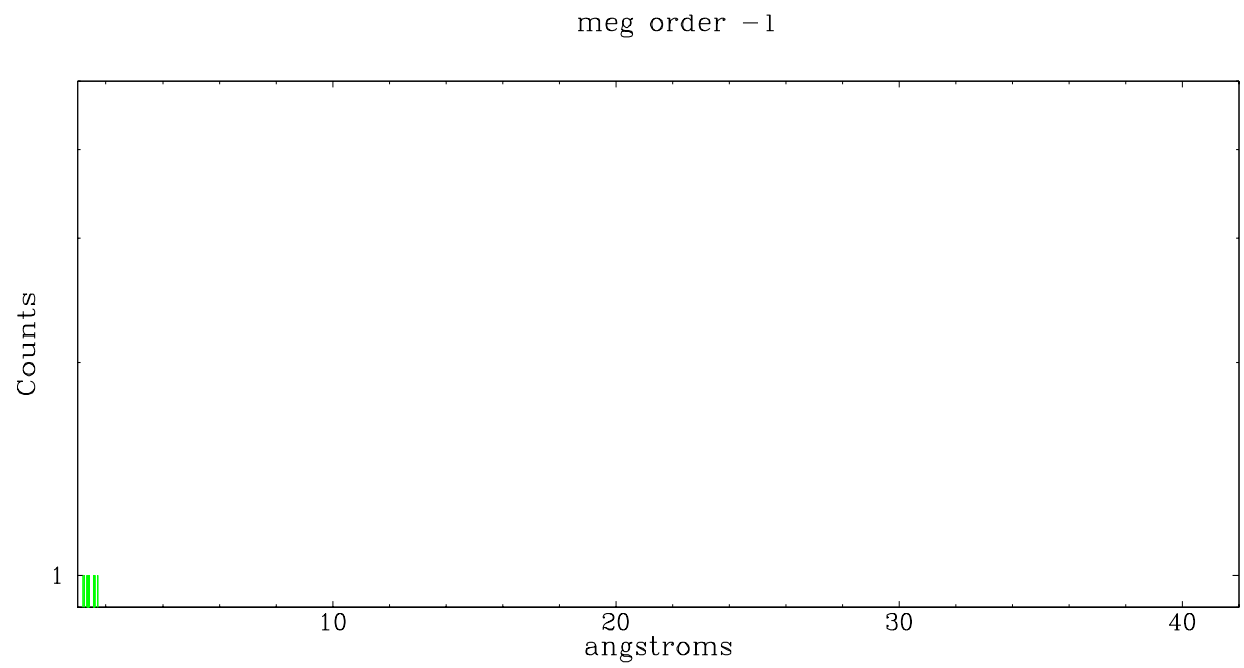
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	0	0	102	409044	95	0	0





A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2006.03.26
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.1562

A.2 Comments

Window constraint met. Grating inserted as a filter, little if any spectral information available.

As a consequence of the DEA-A shutdown anomaly on Sep 15th (DOY258), the the reported value of the ACIS FP temperature was ~1.3 degrees warmer than the actual temperature. GOs should subtract 1.3 degrees from the reported temperature to determine the true temperature. In addition the FP temperature was not regulating during this period. The FP temperature fluctuated between -121.3 C and -118.8 C during this time. For analysis of line-dominated spectra from the FI CCDs, GOs might notice a systematic gain shift by up to 0.5%, either towards higher/lower energies depending on if the FP temperature was colder/warmer than -119.7 C. Analysis of line-dominated spectra on S3 are mostly unaffected (where mostly unaffected means that the changes are smaller than the current uncertainties in the calibration). Analysis of continuum-dominated spectra on both the FI and BI CCDs are mostly unaffected. Imaging analysis on both the FI and BI CCDs are mostly unaffected. Window constraint met.