

V&V Reference Report

L2 ASCDS Version : 7.6.11.6

Observation 2306 - L2 Version 2
Chandra X-Ray Center

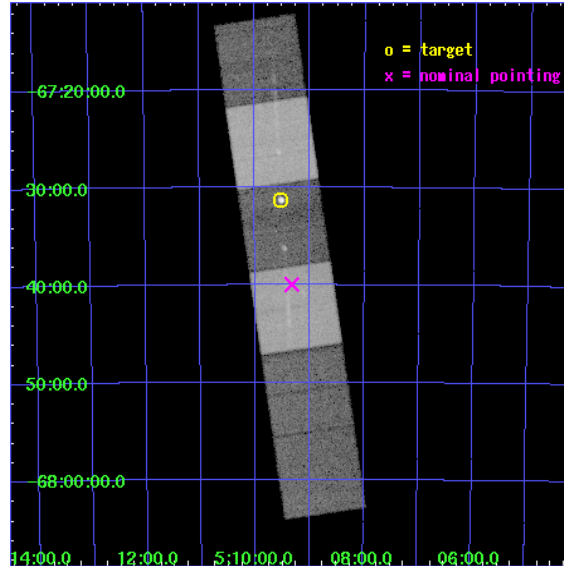
L2 Processing Date : Jul 11 2008

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1 Front

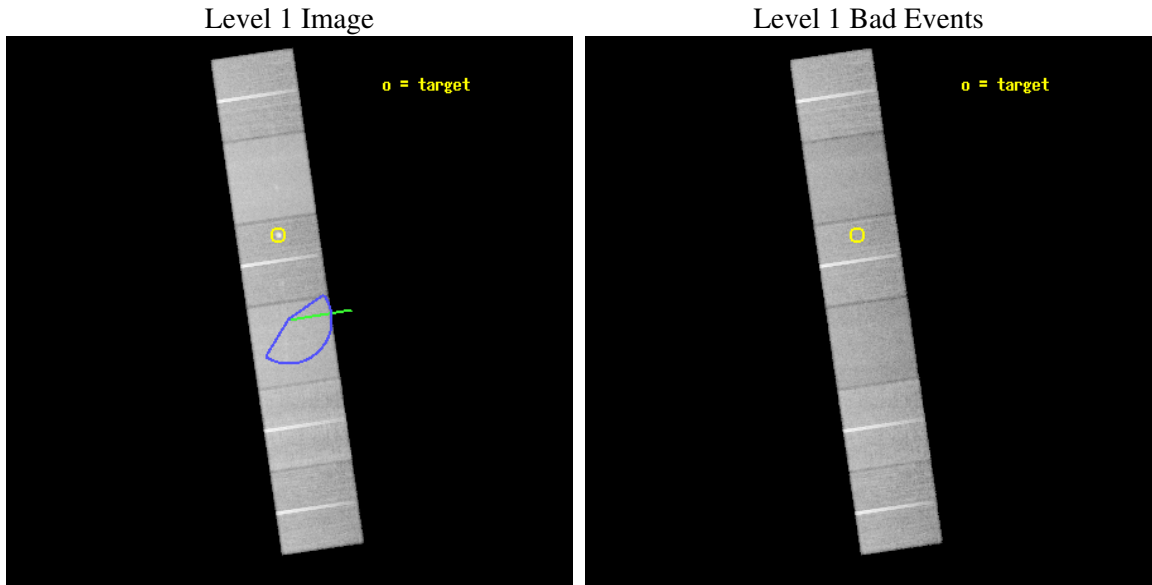
seq_num	500070
obs_id	2306
title	HIGH RESOLUTION LINE SPECTROSCOPY OF THREE YOUNG SUPERNOVA REMNANTS IN THE LARGE MAGELLANIC CLOUD
observer	PROF. STEVEN KAHN
object	0509-67.5
dtcycle	0
cycle	P
ra_targ	77.382917
dec_targ	-67.521417
ra_nom	77.331180303411
dec_nom	-67.665851816905
roll_nom	81.661801936625
revision	2
ontime	49396.069439903
livetime	48770.586665913
ontime4	49386.221434951
ontime5	49412.233330697
ontime6	49396.069439903
ontime7	49414.156644687
ontime8	49386.387658939
ontime9	49409.113745451
l2events	411838



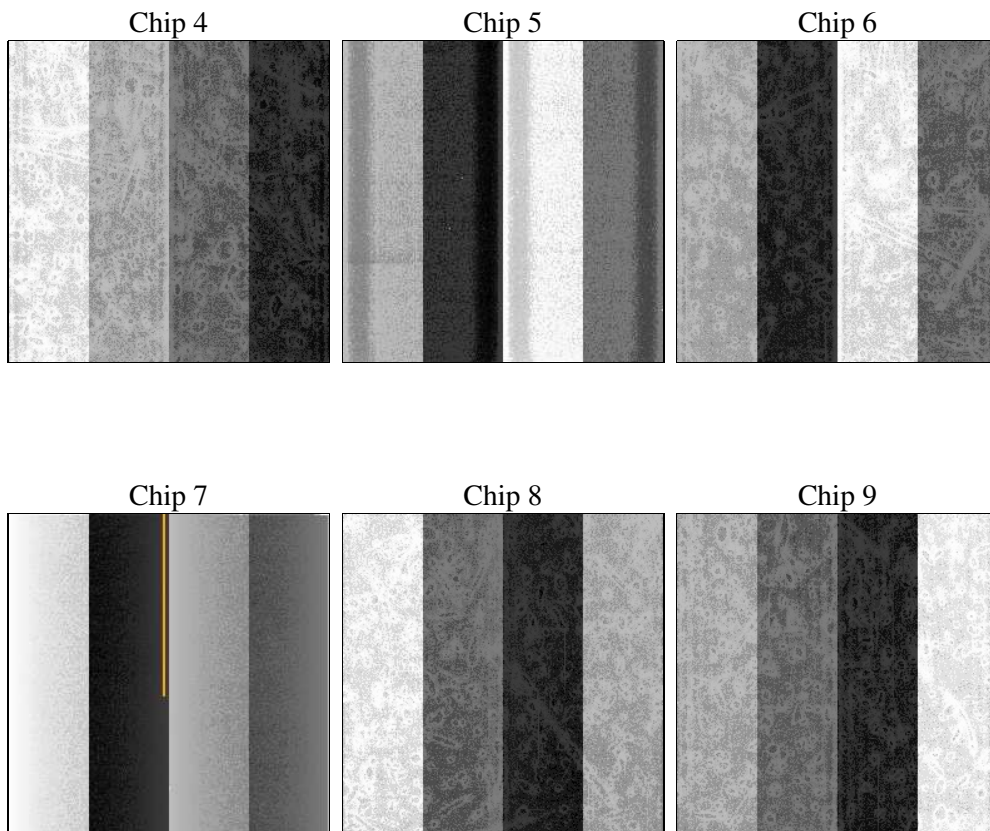
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0
ascdsver	7.6.11.6
caldsver	3.4.5
date	2008-07-11T13:47:11
revision	2

sched_exp_time	52000.000000
ontime	49396.069439903
ontime4	49386.221434951
ontime5	49412.233330697
ontime6	49396.069439903
ontime7	49414.156644687
ontime8	49386.387658939
ontime9	49409.113745451
l1events	1906539

2.1.4 Events

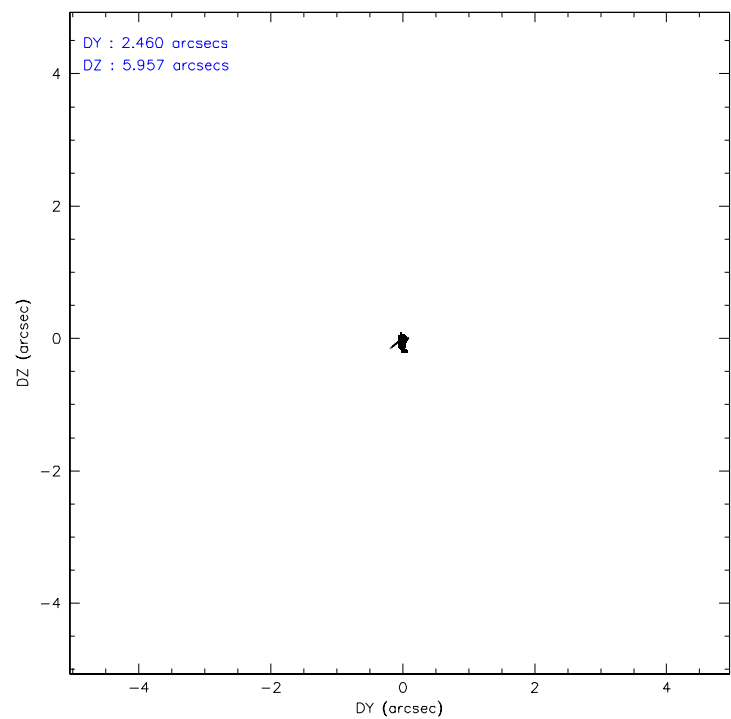
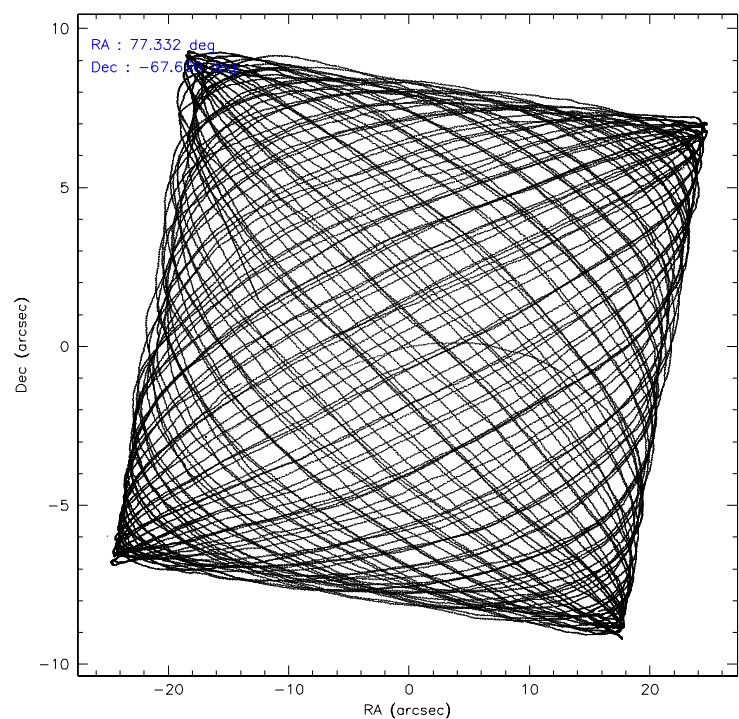
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	304412	362732	278425	337501	351505	271964
rejected events	271379	199767	244523	196689	282538	240203
rejected %	89%	55%	87%	58%	80%	88%

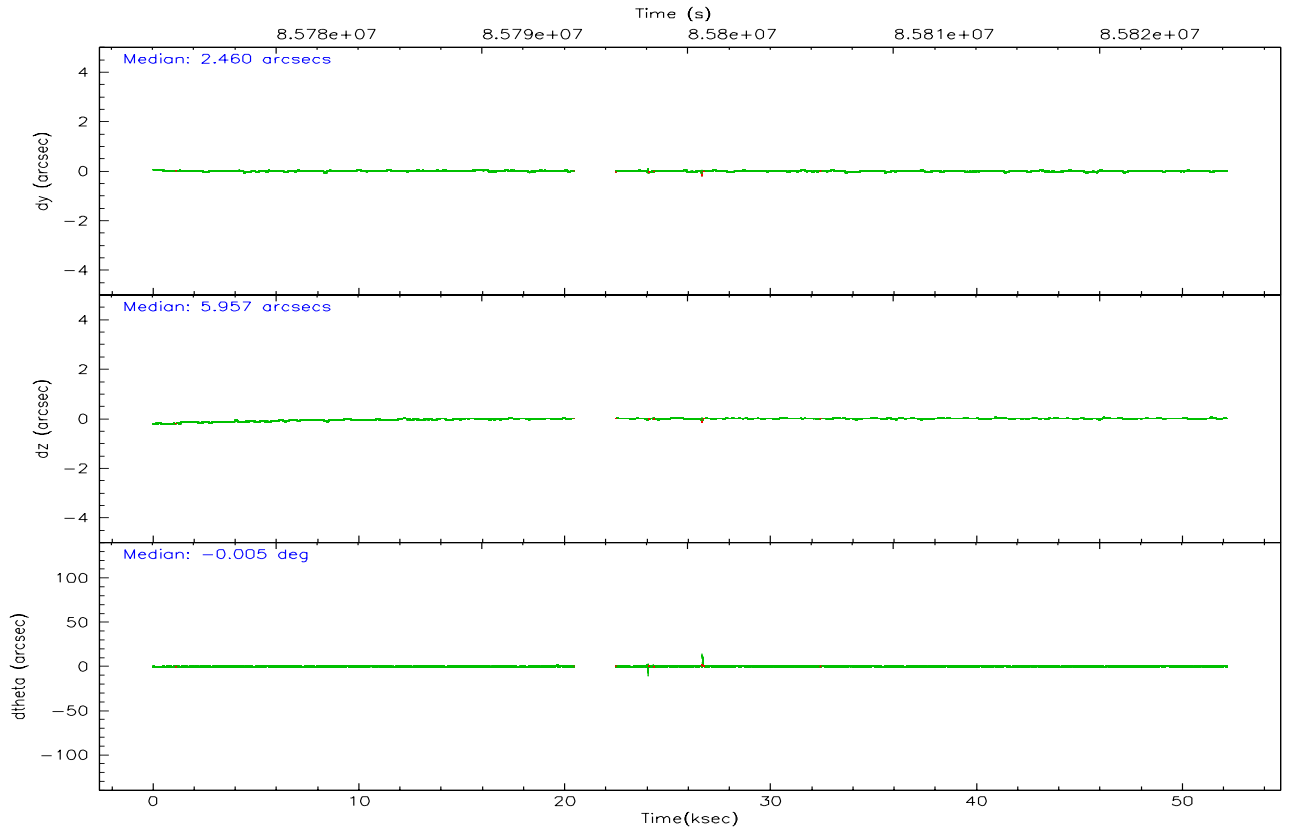
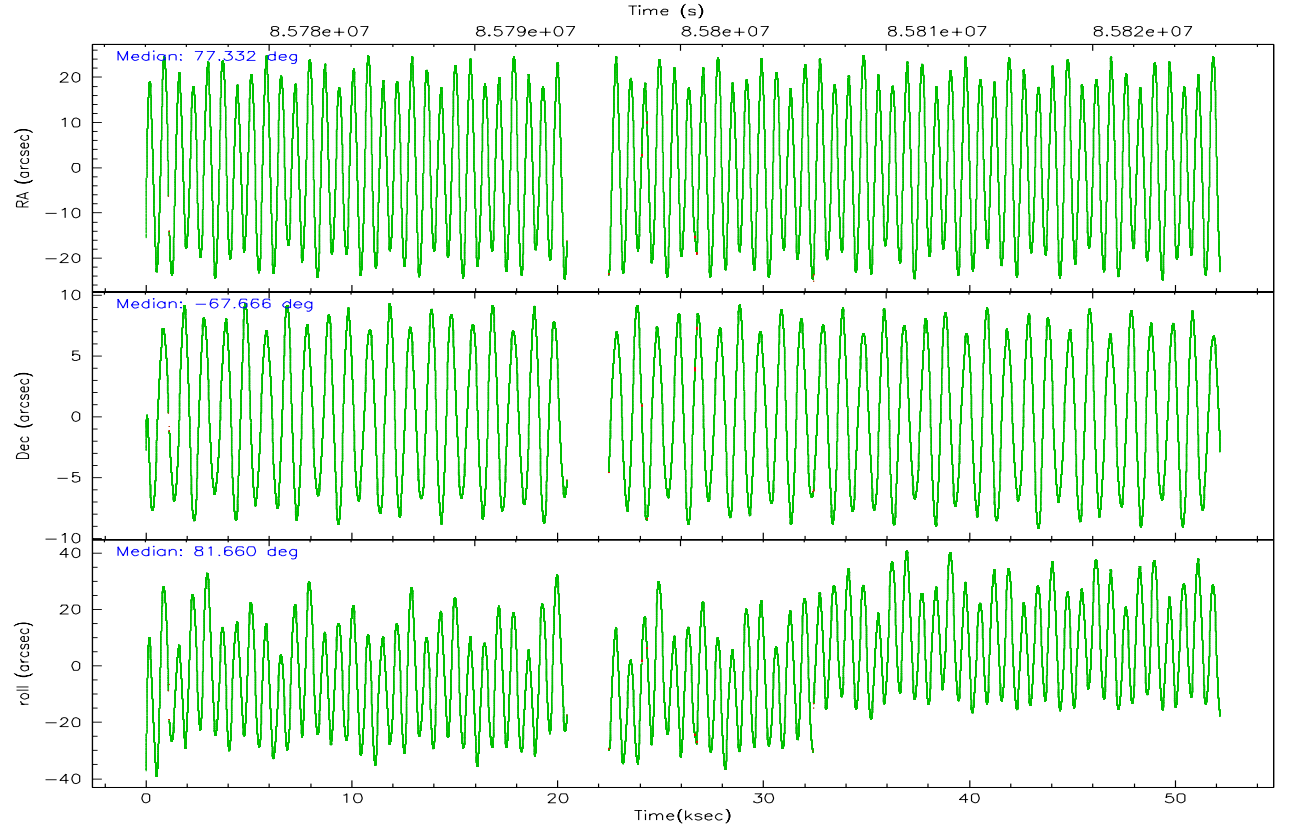
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	13909	11169	15408	13333	21369	13064
	4%	3%	5%	3%	6%	4%
grade 1 events	147	419	135	319	202	103
	0%	0%	0%	0%	0%	0%
grade 2 events	7719	48130	6314	27873	14802	6237
	2%	13%	2%	8%	4%	2%
grade 3 events	2978	7820	3161	13082	7875	3281
	0%	2%	1%	3%	2%	1%
grade 4 events	2921	7470	3059	13008	7076	3021
	0%	2%	1%	3%	2%	1%
grade 5 events	9378	28372	11287	32569	14397	11269
	3%	7%	4%	9%	4%	4%
grade 6 events	5571	88700	6025	73762	17971	6210
	1%	24%	2%	21%	5%	2%
grade 7 events	261789	170652	233036	163555	267813	228779
	85%	47%	83%	48%	76%	84%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
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
Pointing RA	77.358213	77.33118030341114	Subarray requested	NONE	NONE
Pointing Dec	-67.691203	-67.66585181690468	Alternating exposures requested	N	N
Pointing Roll	81.530182	81.66180193662527	Primary exposure time	0.000000	3.2
Roll angle	133.000000	133.000000			
Roll tolerance	78.000000	78.000000			
Roll constraint allows 180D rotation	N	N			
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-190.132523	-190.1400660498719			
SIM translation stage offset (mm)	0	0.00754346686406393			
Observation start time	85774206.184000	85773065.862444			
Observation start date	2000-09-19T18:09:02	2000-09-19T17:51:05			
Observation end time	85826206.184000	85827105.401977			
Observation end date	2000-09-20T08:35:42	2000-09-20T08:51:45			
Read mode	TIMED	TIMED			

2.3 Aspect



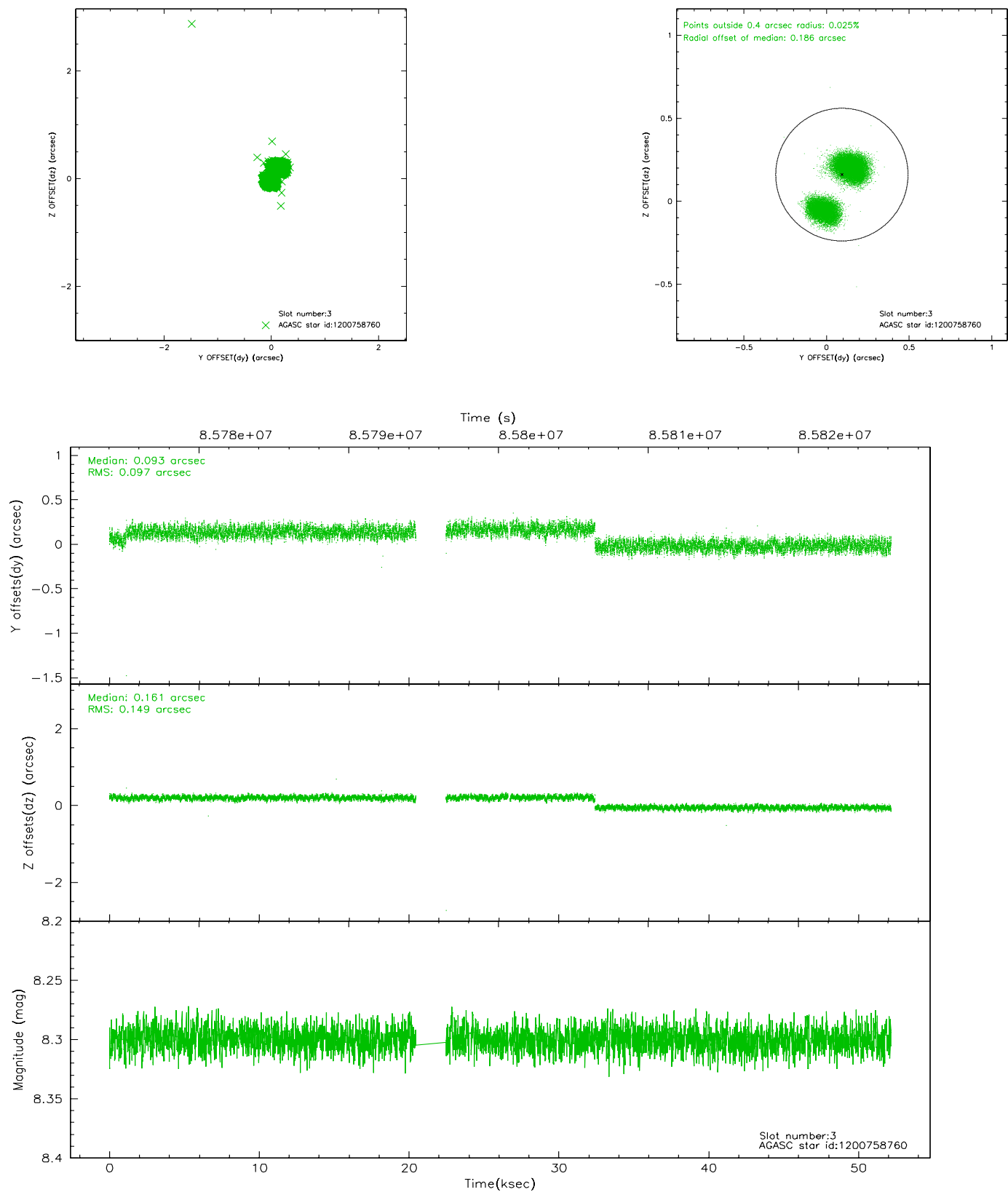


Slot Statistics

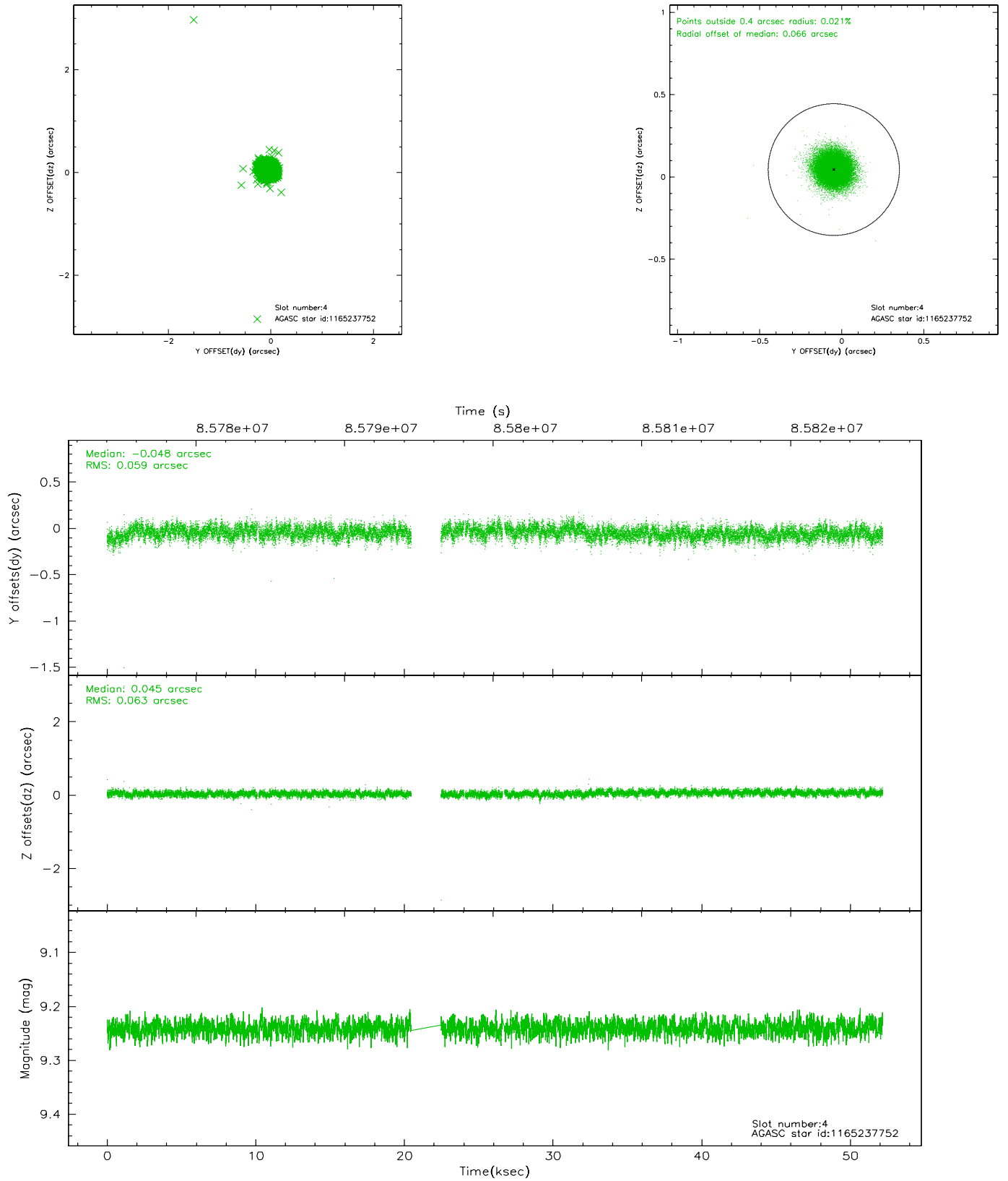
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	12152	-0.046	-0.007	0.007	0.012	0.000000	0.000000	-755.10	-1727.10
1	FID	ACIS-S-4	7.20	12148	0.009	0.024	0.006	0.011	0.000000	0.000000	2158.21	181.48
2	FID	ACIS-S-5	7.24	12151	0.006	-0.008	0.006	0.011	0.000000	0.000000	-1807.95	175.04
3	GUIDE	1200758760	8.30	24286	0.093	0.161	0.218	0.293	76.277764	-68.086435	-1633.39	1225.06
4	GUIDE	1165237752	9.24	24232	-0.048	0.045	0.087	0.140	78.075114	-67.094879	2265.73	-677.34
5	GUIDE	1200883632	9.13	24280	-0.121	0.056	0.112	0.189	79.186141	-67.543567	859.55	-2412.31
6	GUIDE	1165101864	10.36	24194	0.214	0.040	0.173	0.274	76.577750	-67.383636	929.78	1231.42
7	GUIDE	1200759696	10.34	23301	0.124	0.172	0.250	0.381	76.376940	-68.256077	-2214.26	994.37

2.4 Star Slots

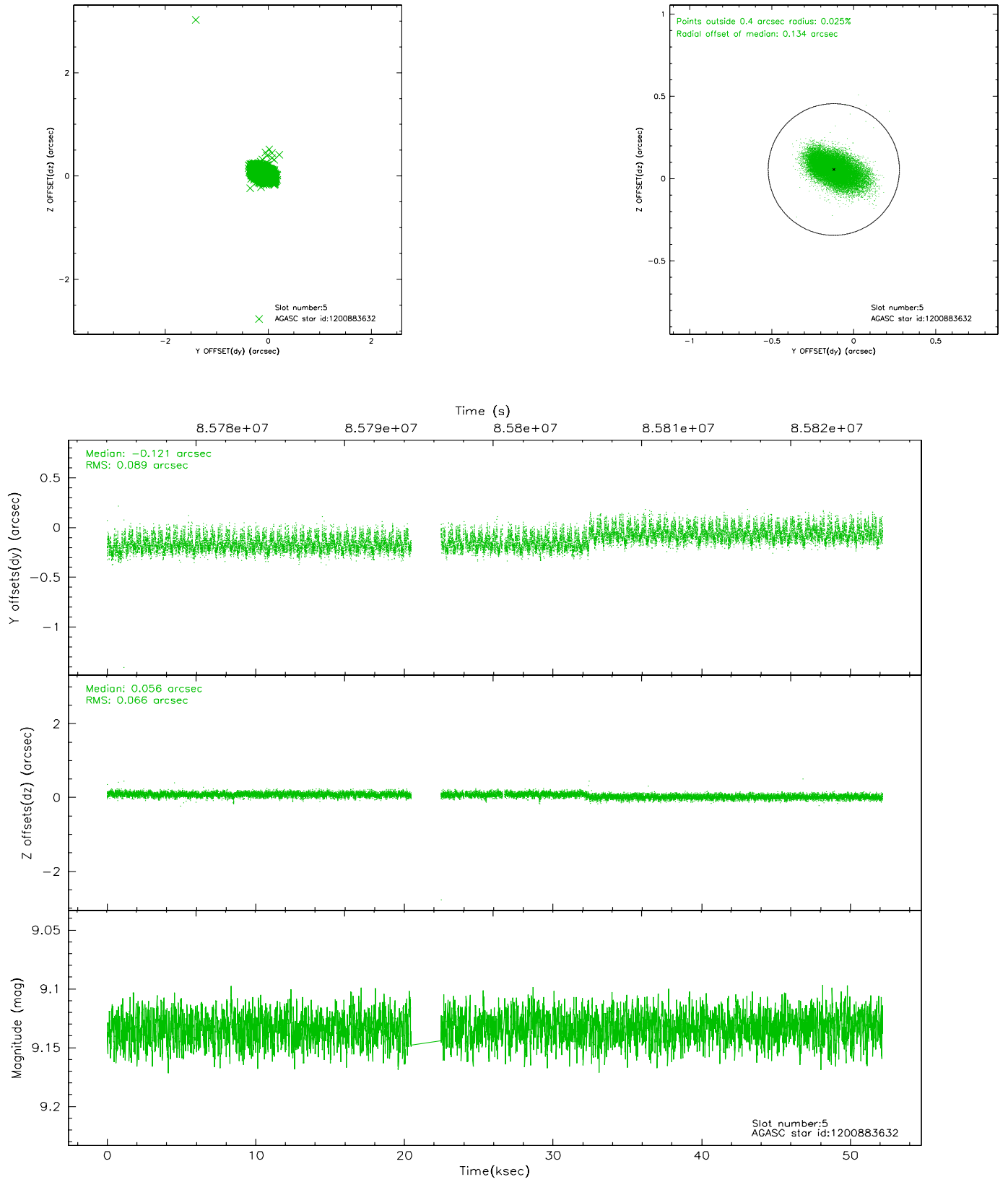
2.4.1 Slot 3



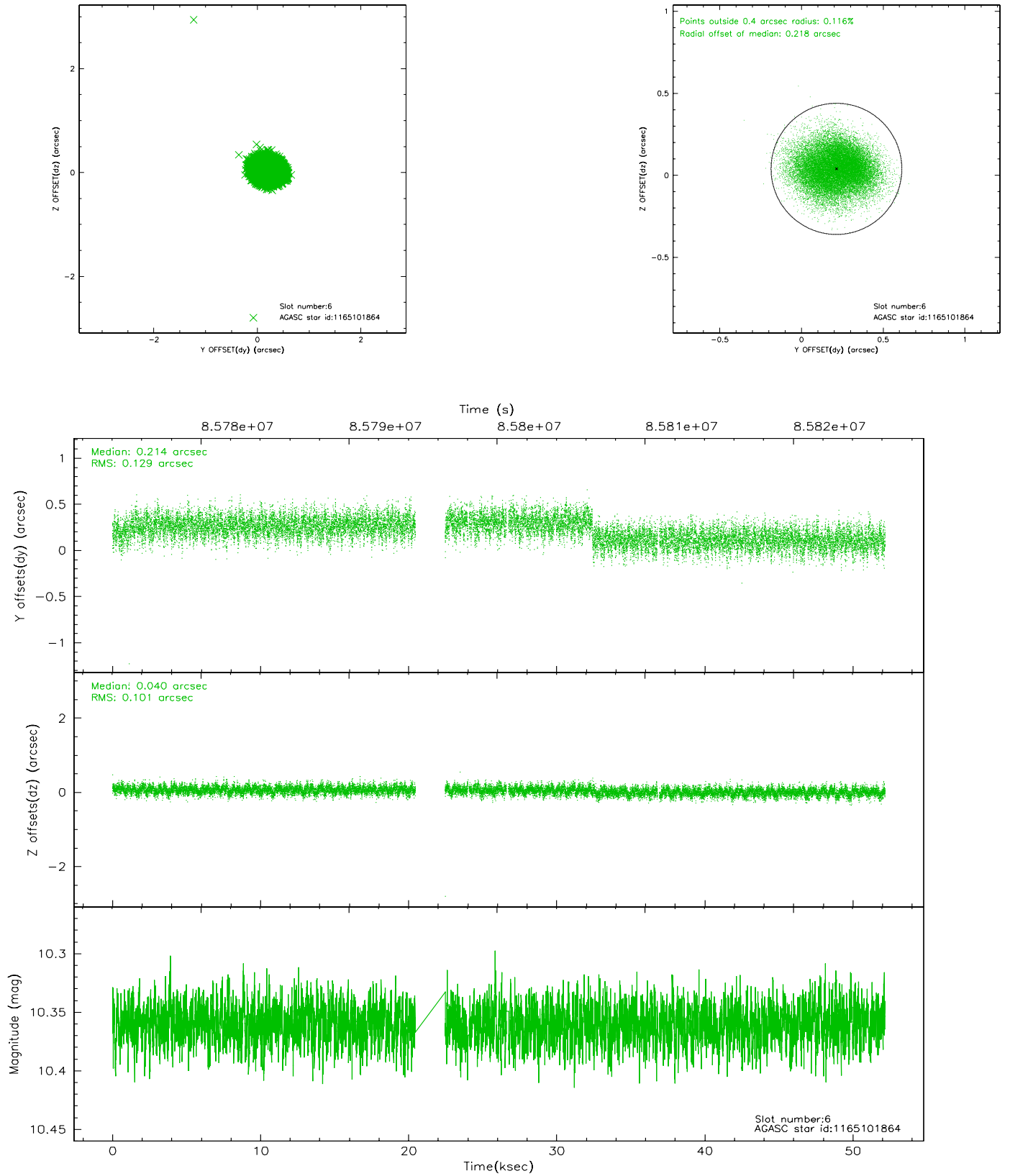
2.4.2 Slot 4



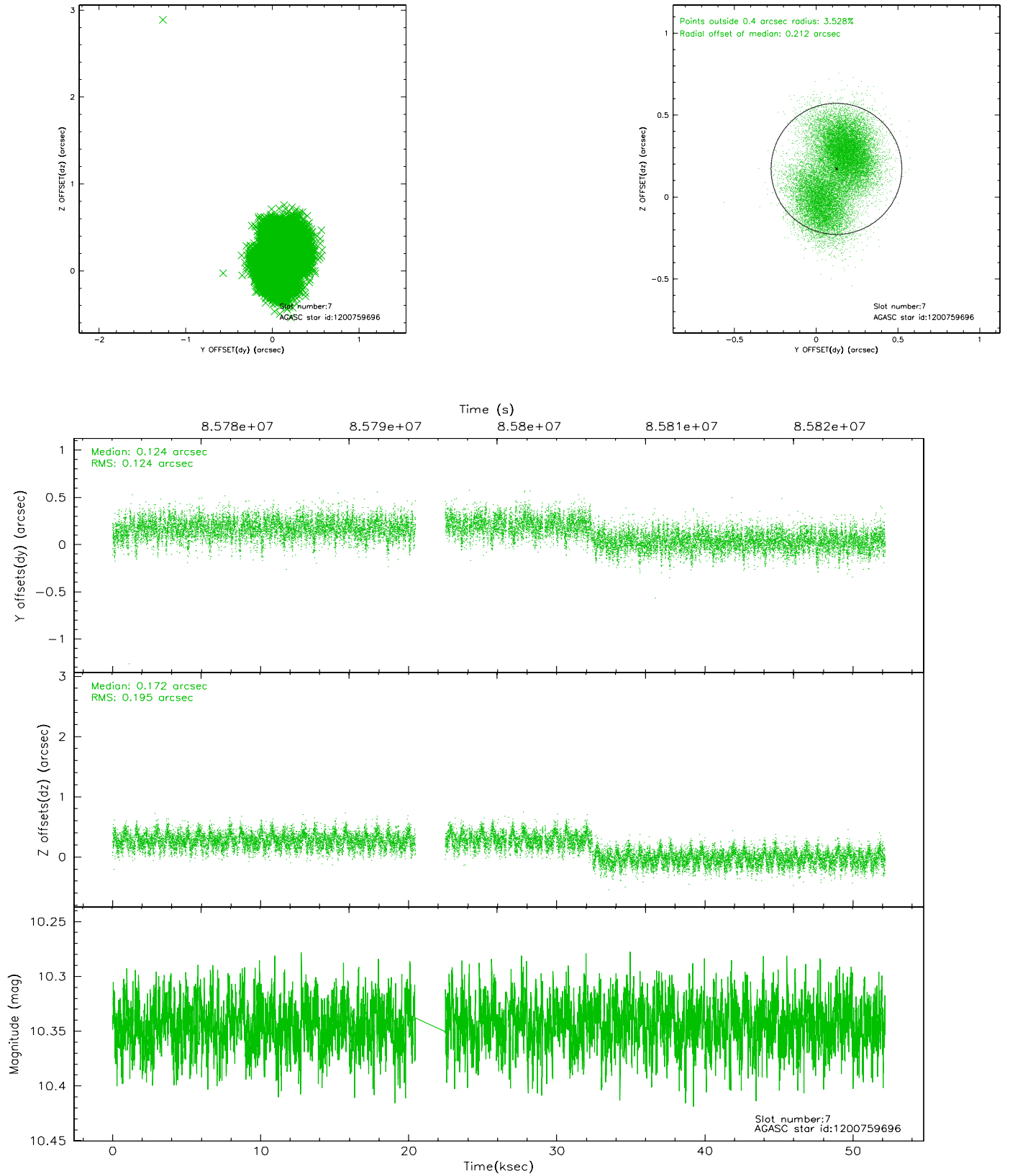
2.4.3 Slot 5



2.4.4 Slot 6

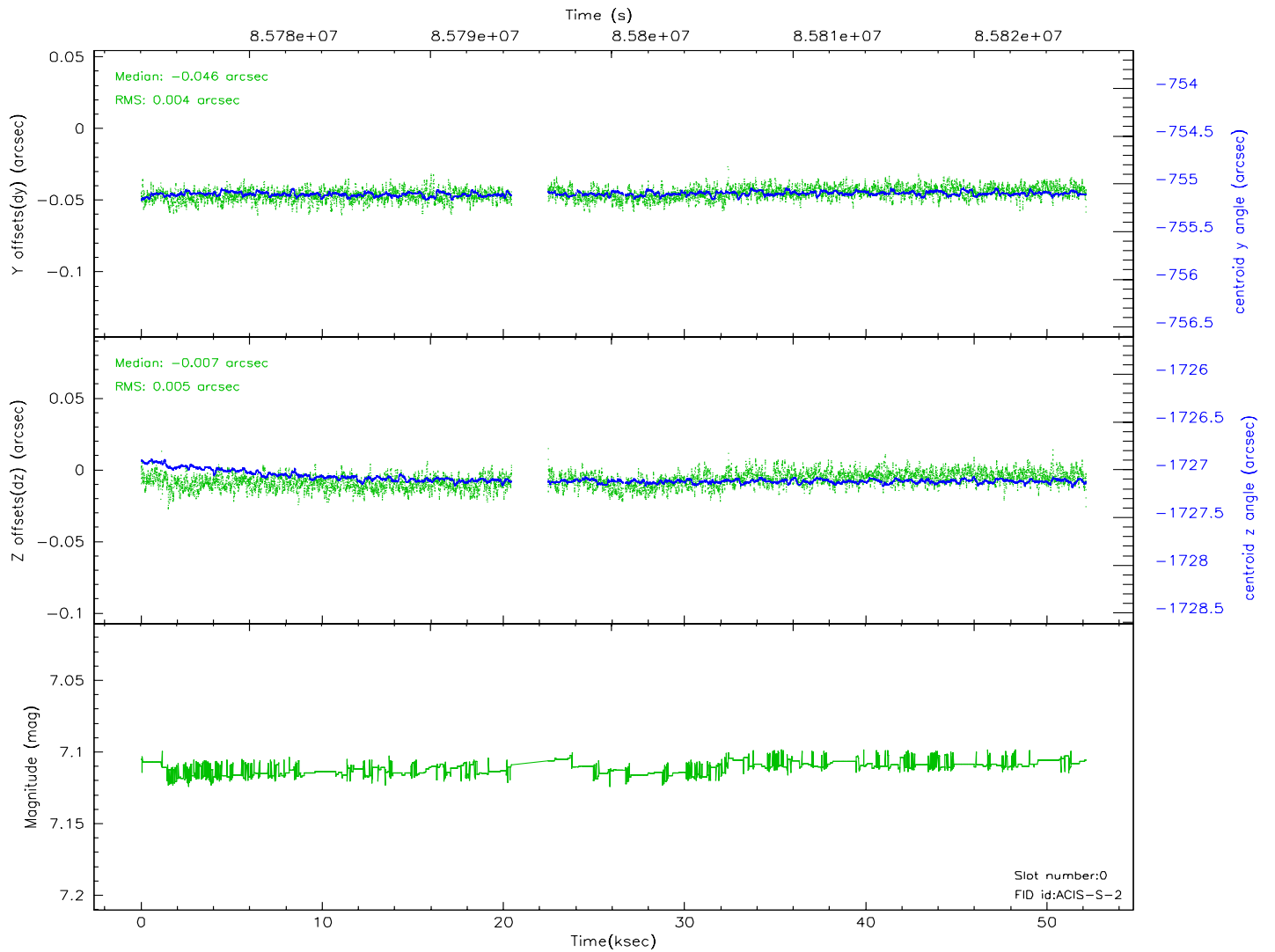
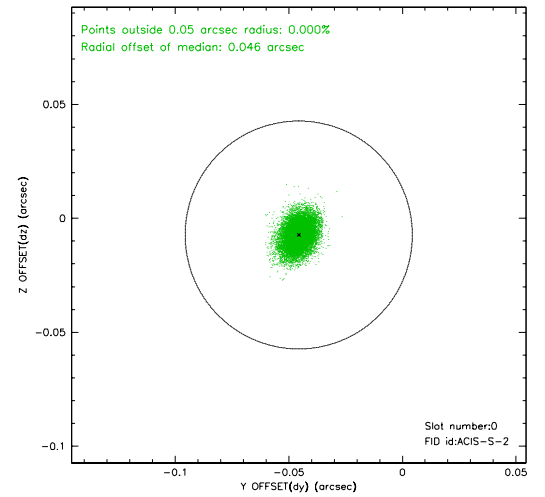
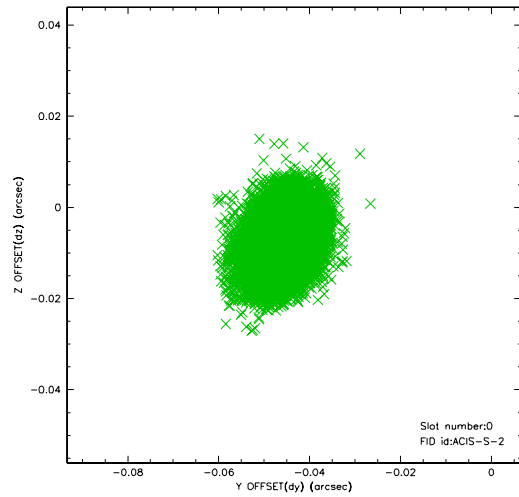


2.4.5 Slot 7

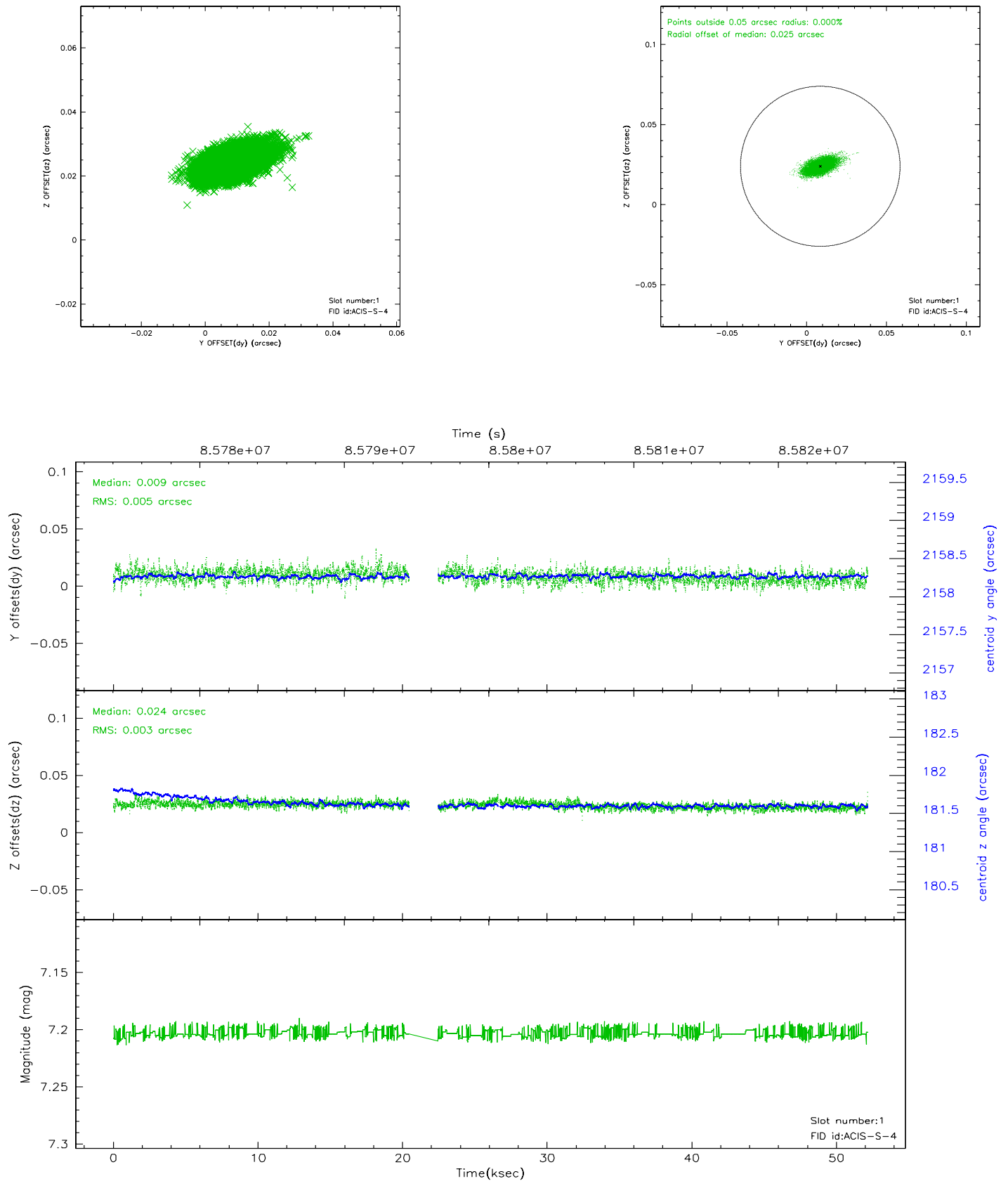


2.5 FID Slots

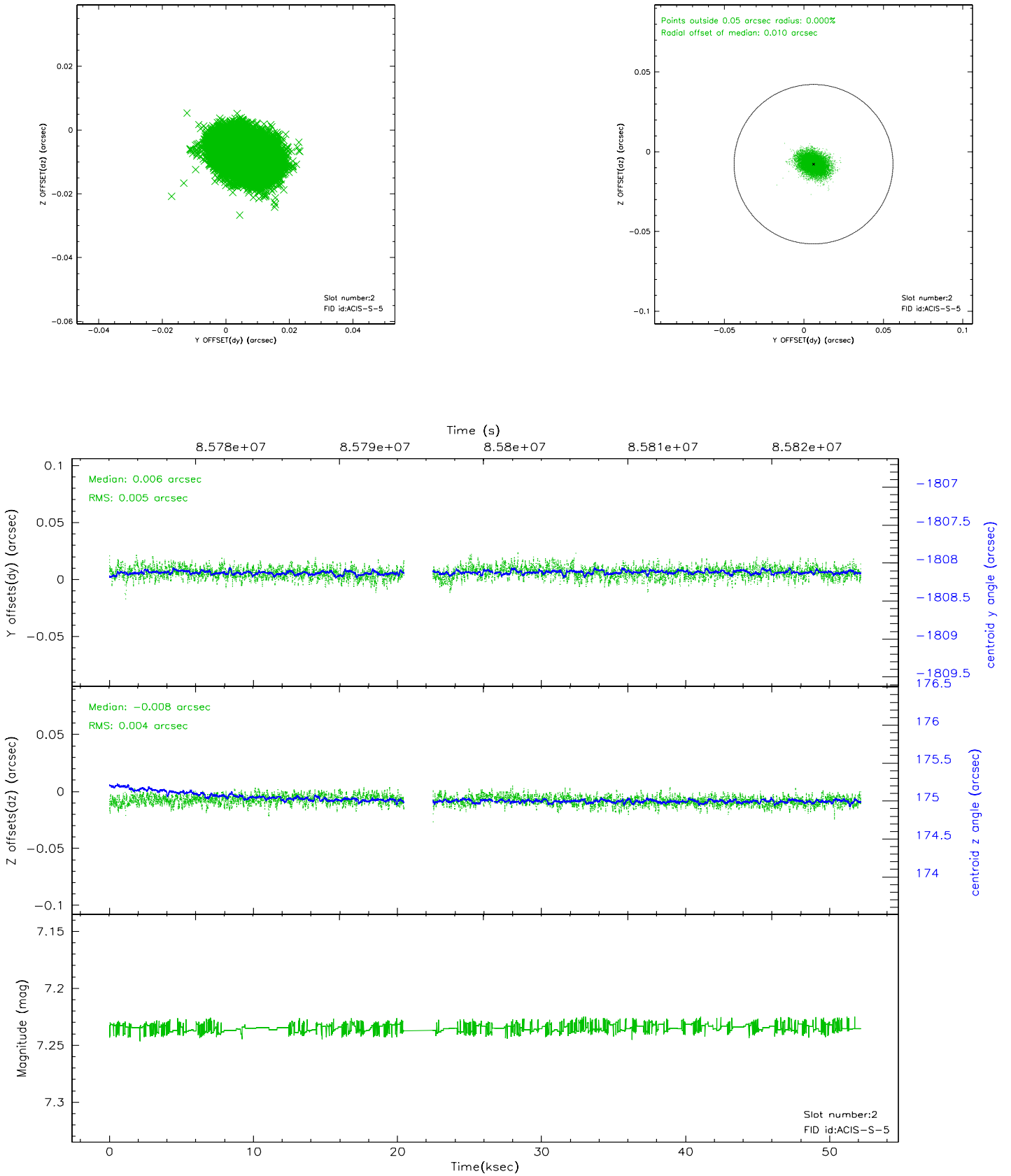
2.5.1 Slot 0



2.5.2 Slot 1

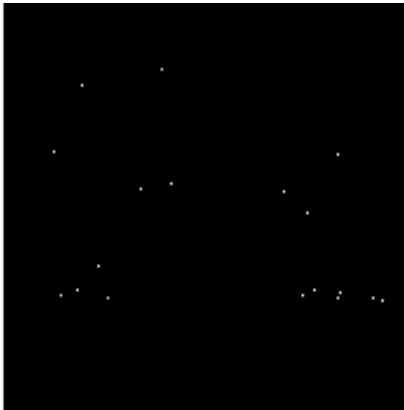


2.5.3 Slot 2

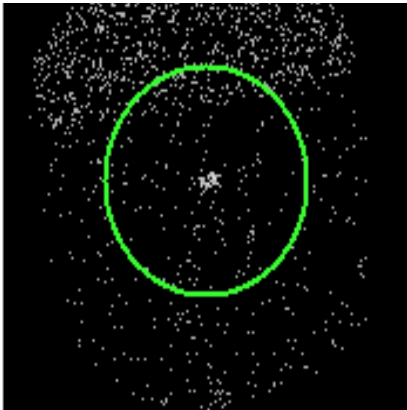


3 Gratings

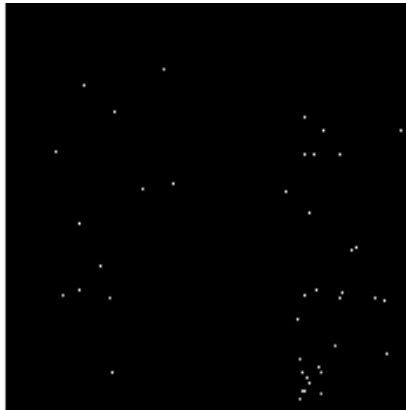
3.1 HEG Arm



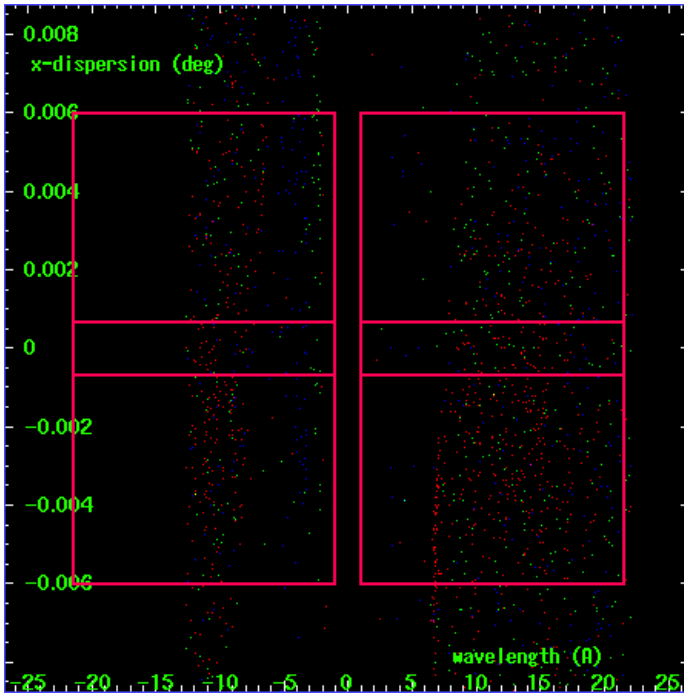
HEG Order Sort 123



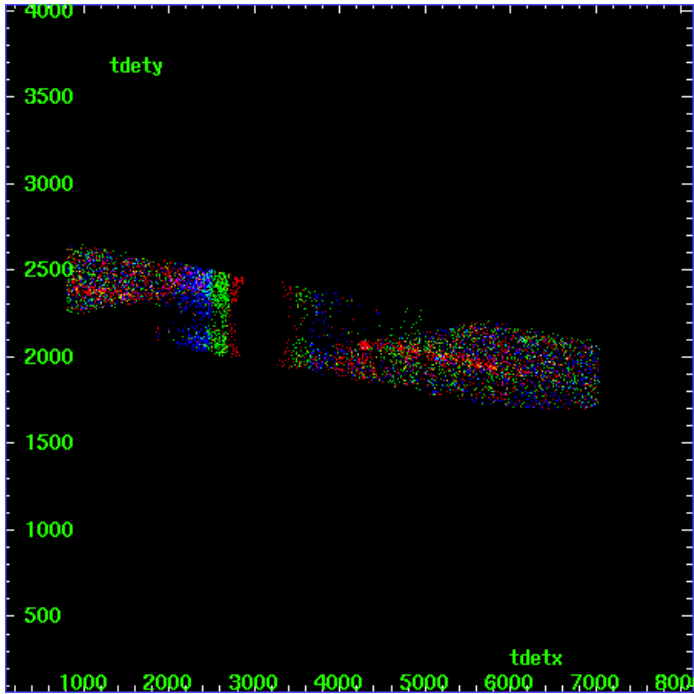
HEG Zero Order



HEG Order Sort ALL

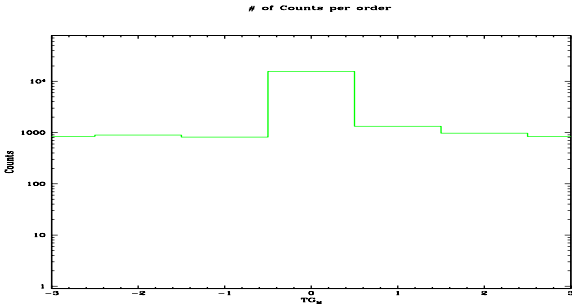


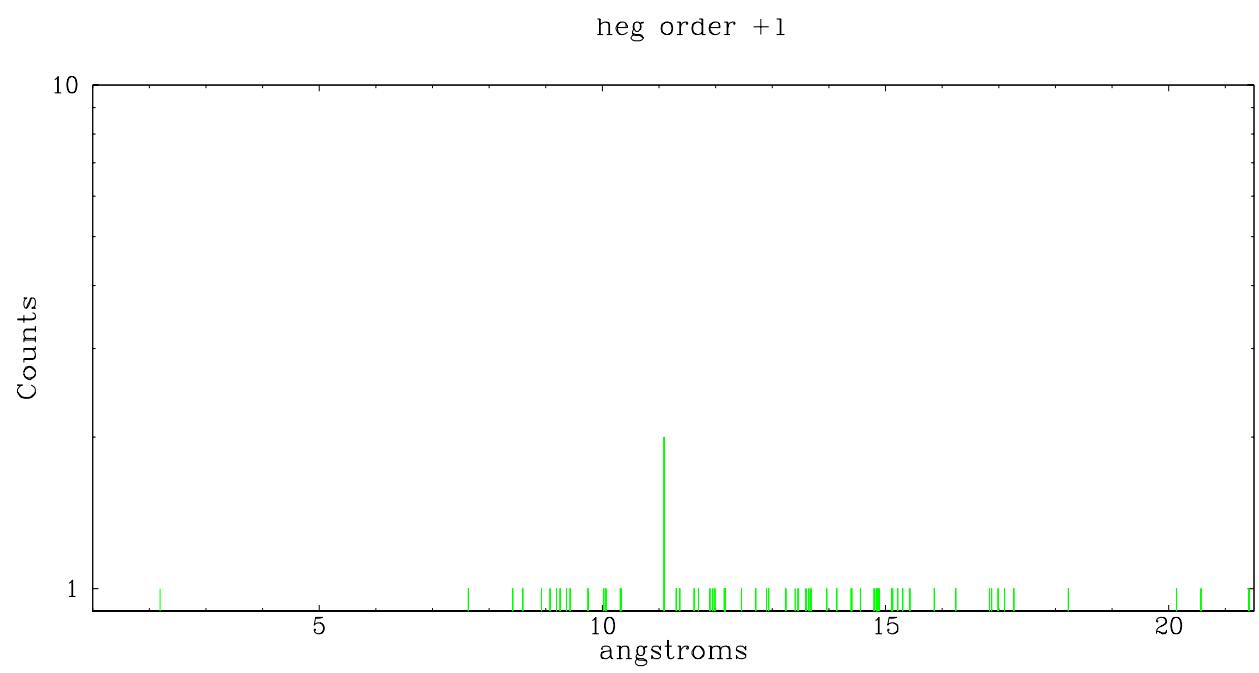
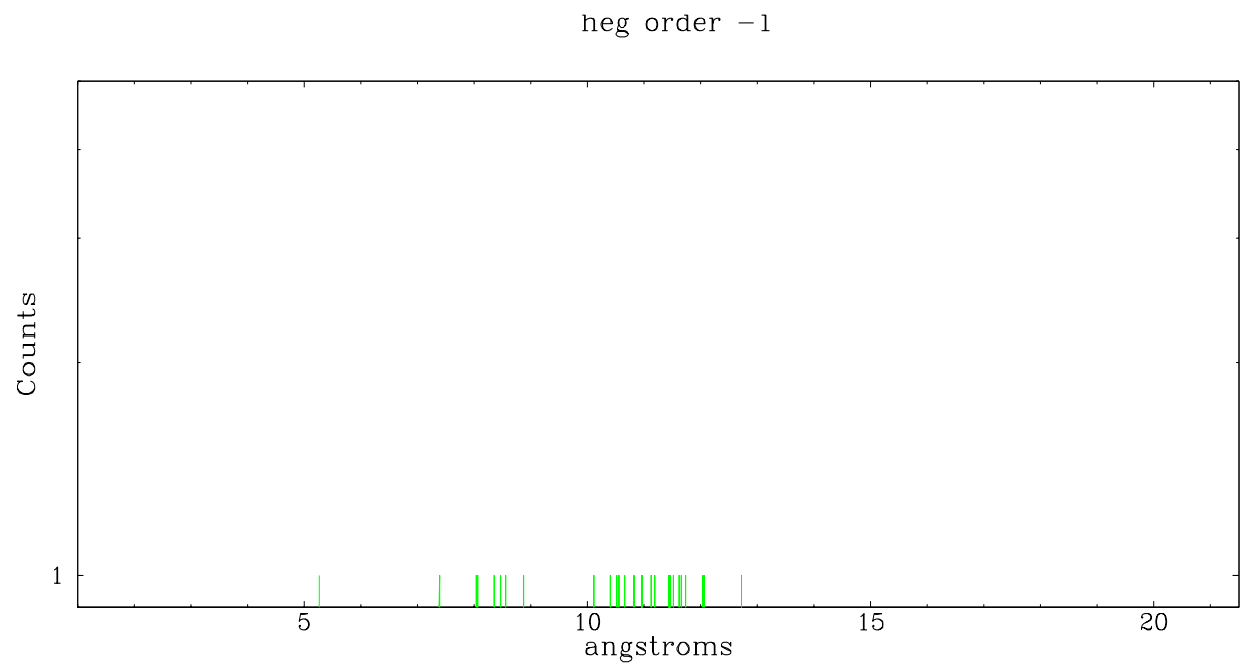
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	845	893	815	15587	1324	970	837

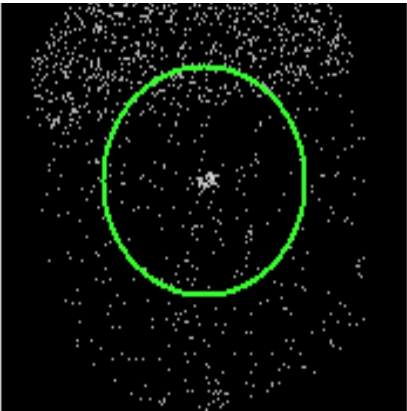




3.2 MEG Arm



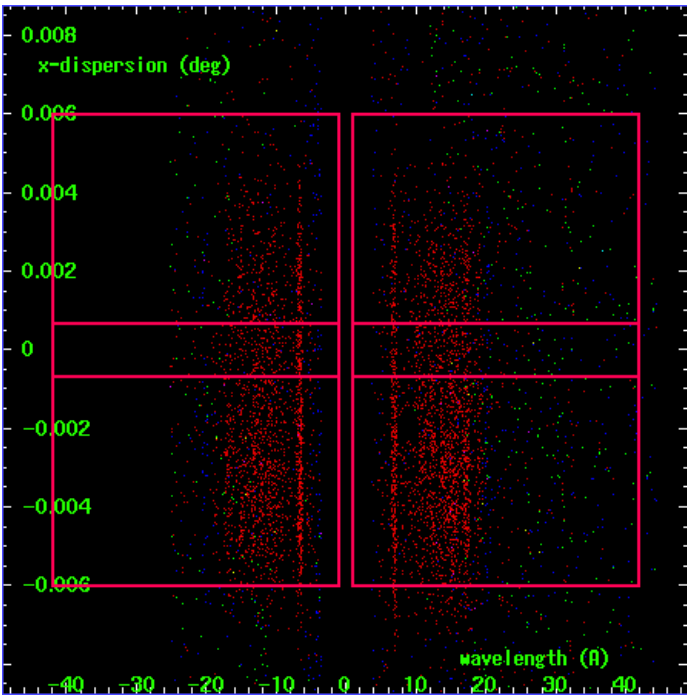
MEG Order Sort 123



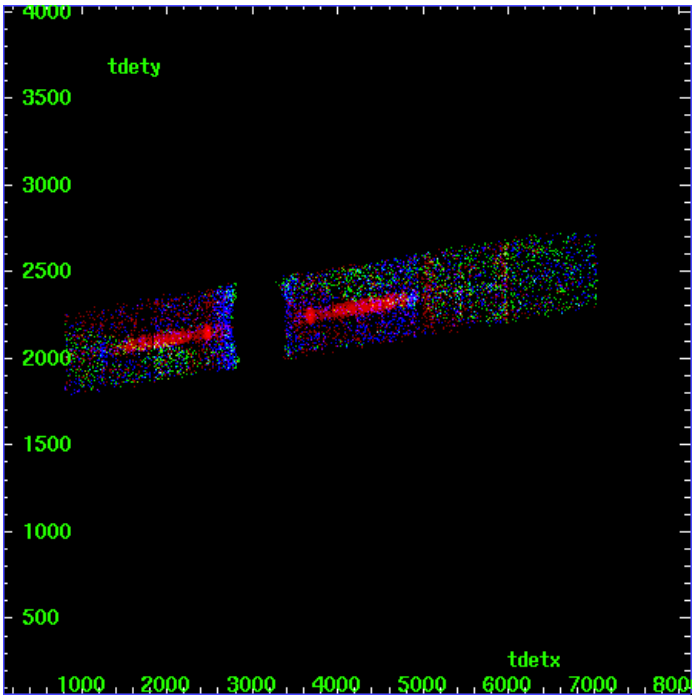
MEG Zero Order



MEG Order Sort ALL

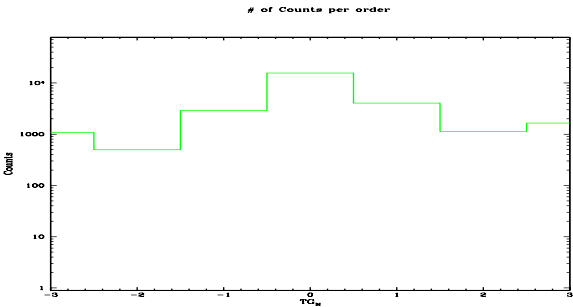


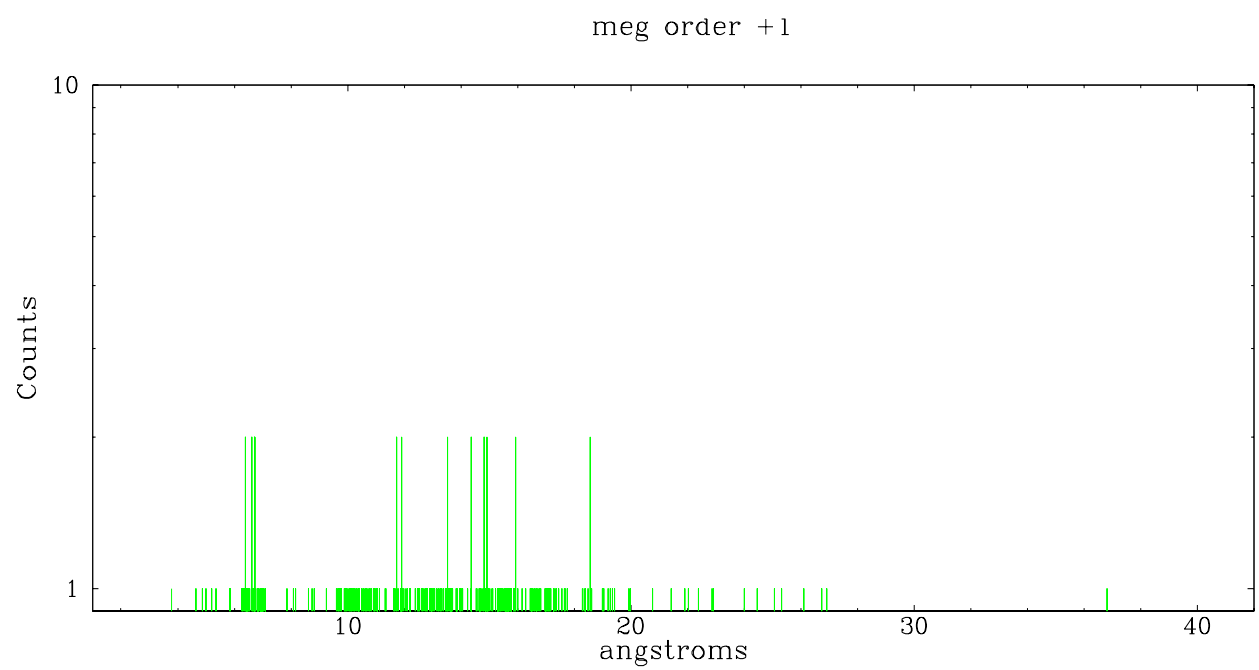
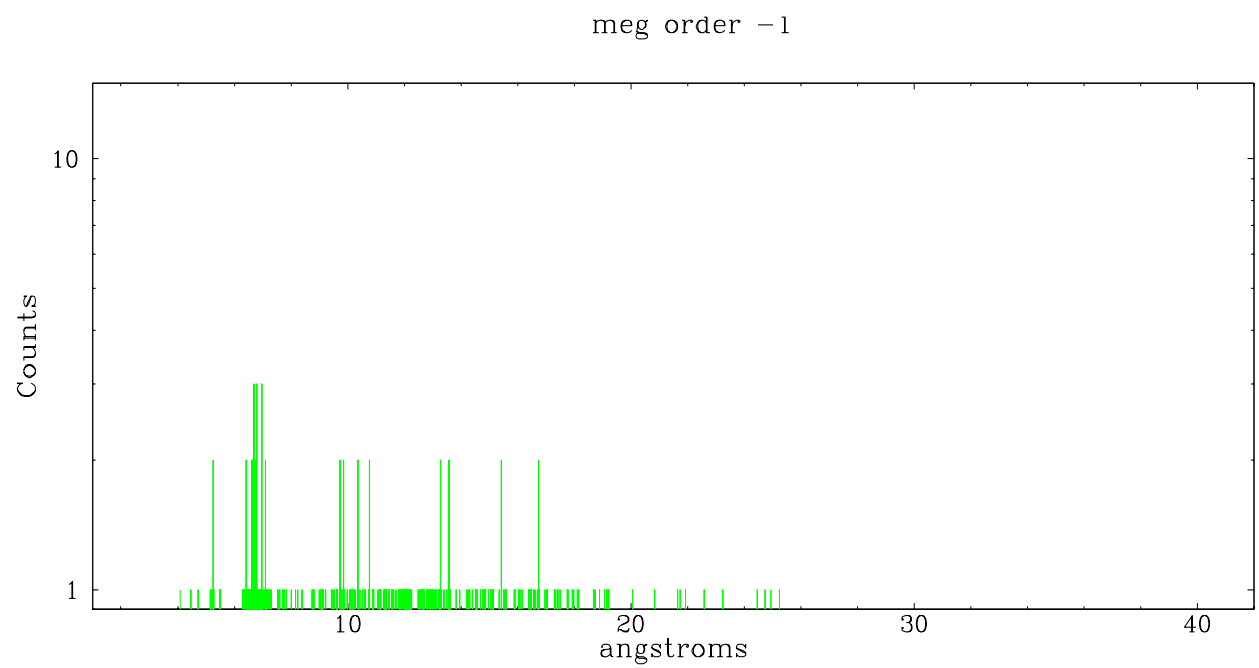
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1081	496	2887	15587	4056	1129	1647





A Summary

A.1 Status

V&V Scientist	Craig Anderson
V&V Date (YYYY-MM-DD)	2008.07.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	49.403

A.2 Comments

Off-axis pointing.

=====

Standard software processing technique using the tool tgdetect failed to determine an accurate position for the zeroth order for this observation. The source is extended and asymmetric. The processing software defaulted to the coordinates supplied by the user for the position of

the zeroth order for the grating spectral extraction. For grating analysis of localized X-ray emission within the extended emission, the investigator

will need to extract one or more dispersed spectra using user-defined zeroth order positions for all positions of interest.

=====

Processing version=2 using ascds release DS7.6.11.6 removes bad aspect quality time interval from 85794487.850 to 85796488.651 seconds MET during Level 1 processing. Spacecraft raw telemetry was gap filled using realtime raw telemetry adding 116 VCDUs (29.7sec) of data. Minor 15sec increase in ontime between version 1,2 products.