

V&V Reference Report

L2 ASCDS Version : 7.6.10

Observation 1828 - L2 Version 001
Chandra X-Ray Center

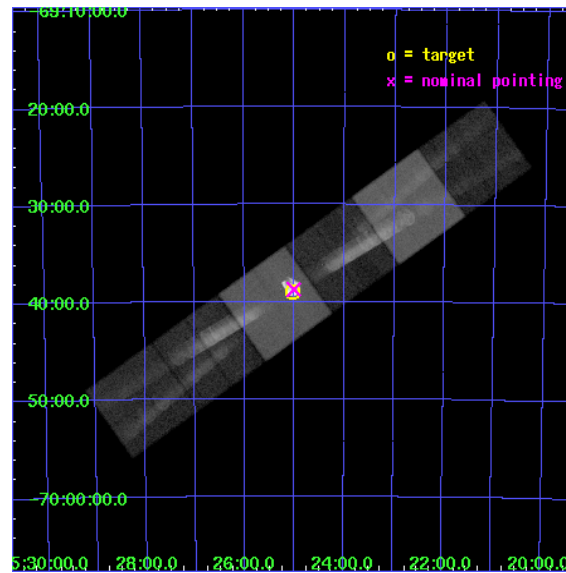
L2 Processing Date : May 31 2007

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1 Front

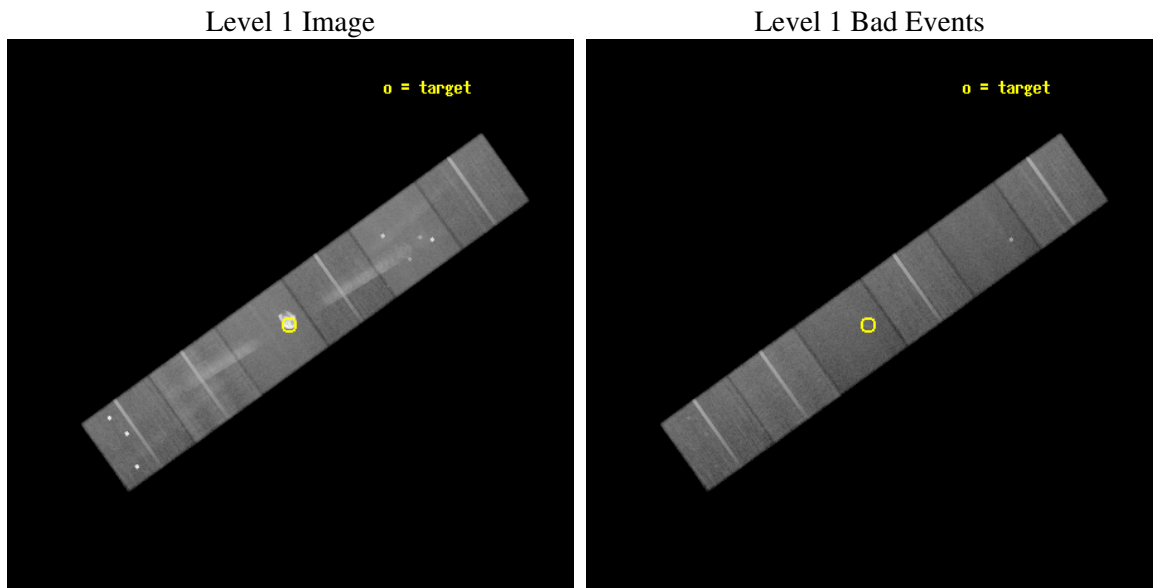
seq_num	500008
obs_id	1828
title	HIGH RESOLUTION SPECTRA OF EXTRAGALACTIC SUPERNOVA REMNANTS
observer	Prof. Claude Canizares
object	N132D
dtcycle	0
cycle	P
ra_targ	81.25875
dec_targ	-69.649722
ra_nom	81.251748552629
dec_nom	-69.645765093874
roll_nom	144.32406311544
revision	3
ontime	73926.400068849
livetime	72990.299478044
ontime4	73926.400068849
ontime5	73923.159108609
ontime6	73926.400068849
ontime7	73926.400068849
ontime8	73926.400068849
ontime9	73926.400068849
l2events	1073538



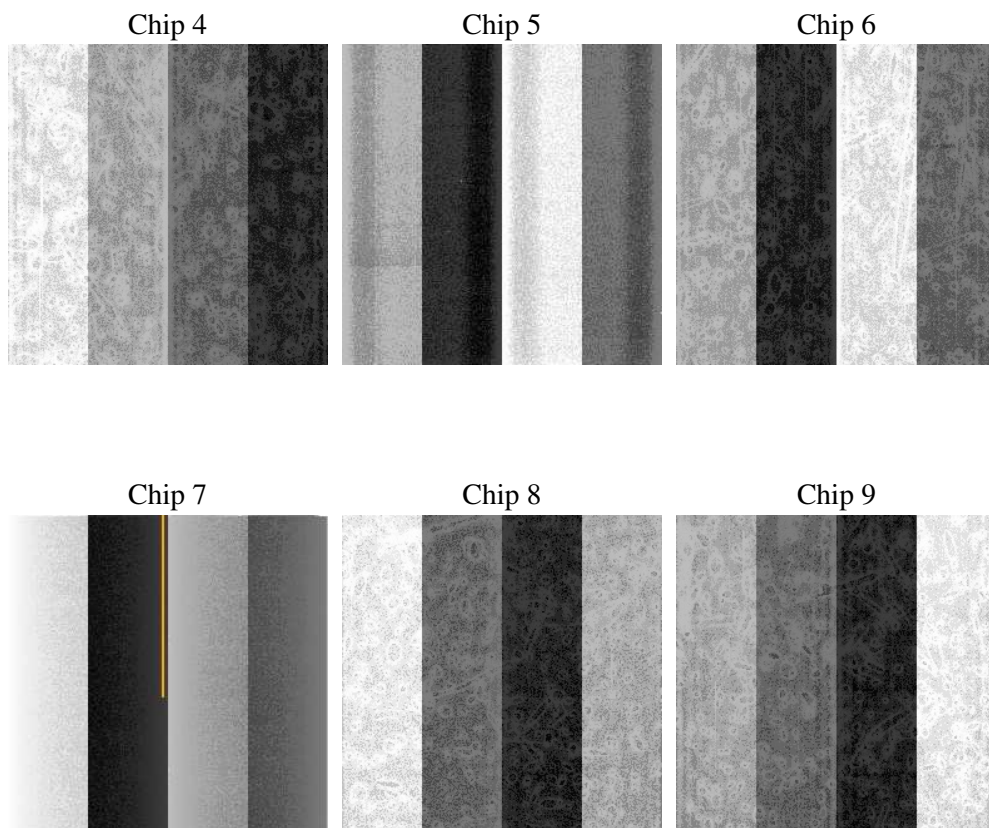
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1
ascdsver	7.6.10
caldsver	3.4.0
date	2007-05-31T20:21:32
revision	3

sched_exp_time	73972.000000
ontime	73926.400068849
ontime4	73926.400068849
ontime5	73923.159108609
ontime6	73926.400068849
ontime7	73926.400068849
ontime8	73926.400068849
ontime9	73926.400068849
l1events	3385836

2.1.4 Events

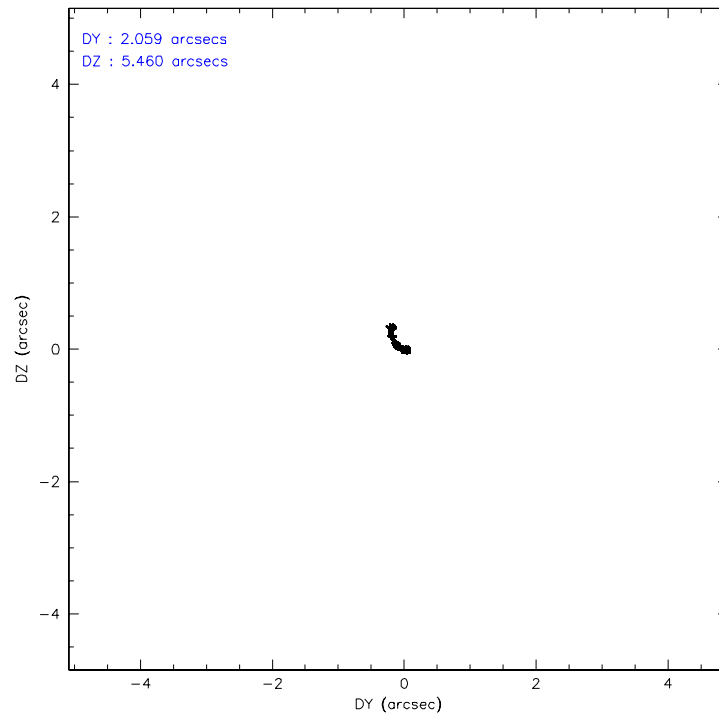
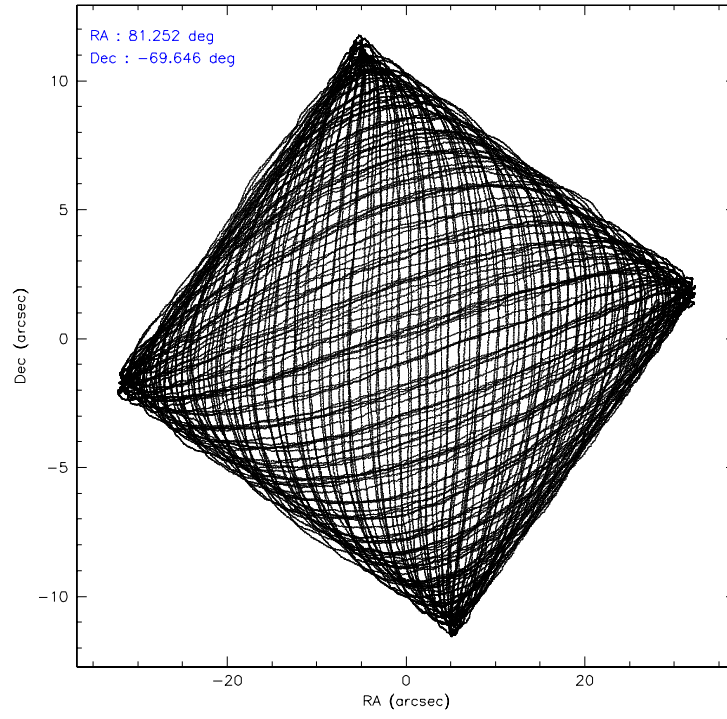
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	469215	612647	484526	735907	598727	484814
rejected events	404500	289315	363269	280906	408447	352131
rejected %	86%	47%	74%	38%	68%	72%

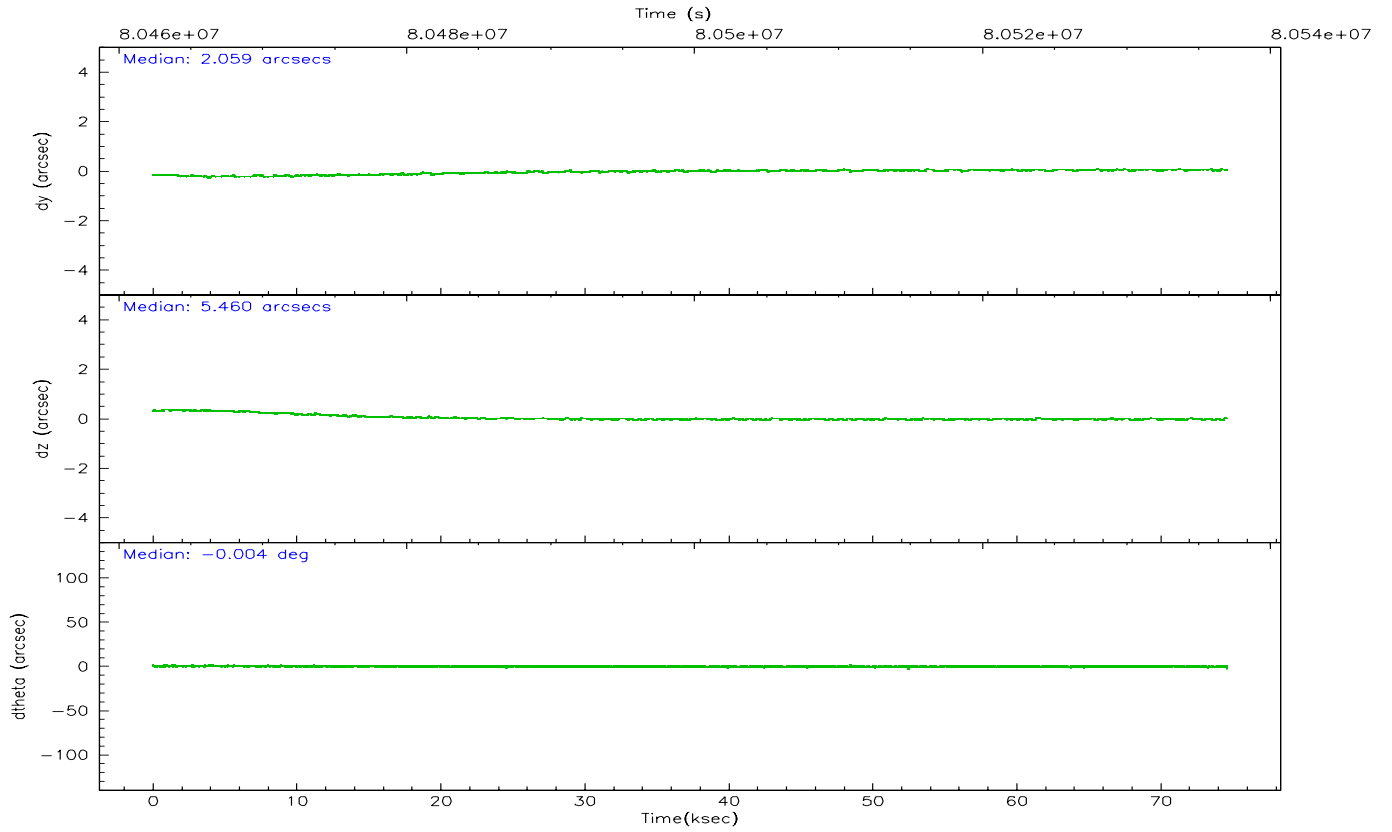
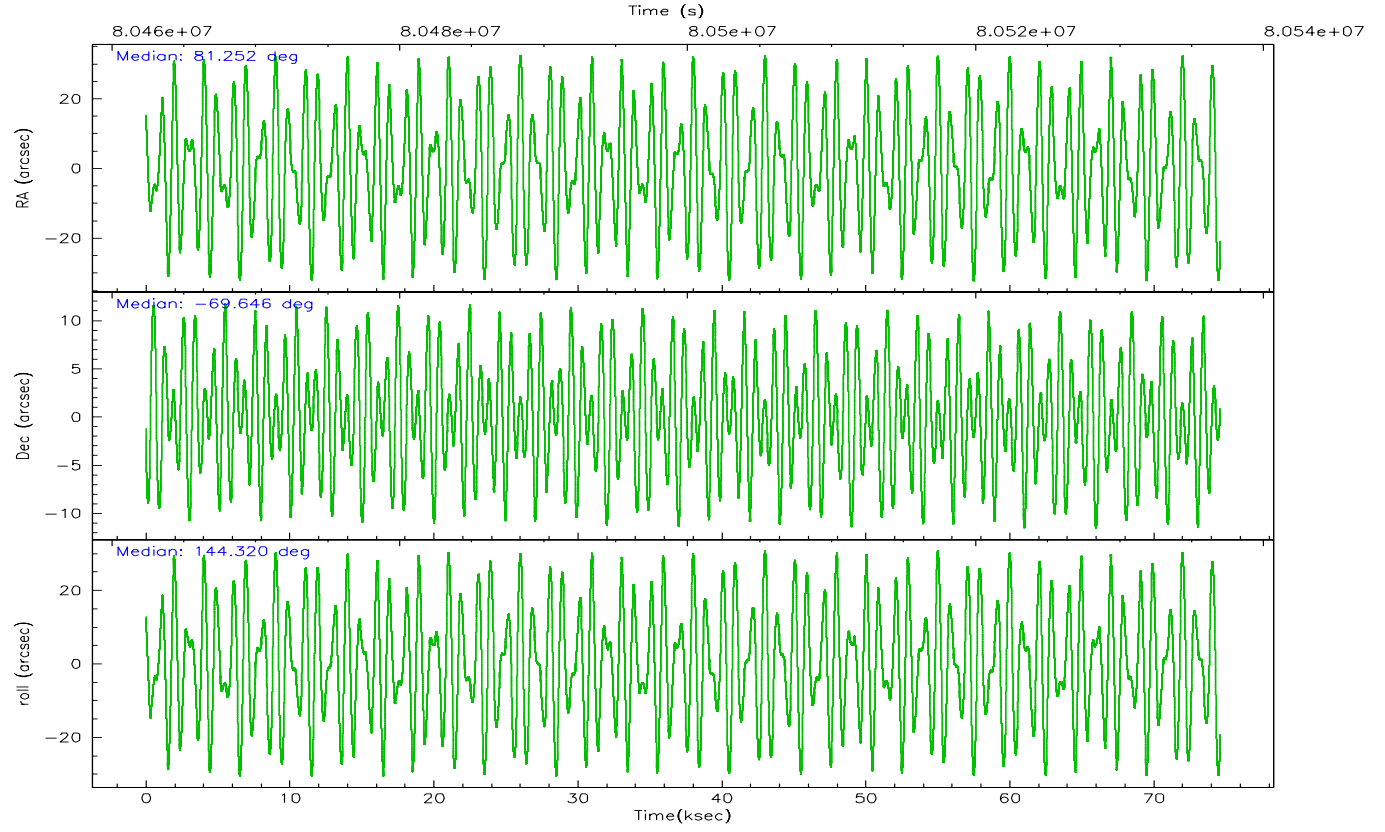
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	33329	58377	81958	98432	100591	101443
	7%	9%	16%	13%	16%	20%
grade 1 events	226	656	355	611	539	602
	0%	0%	0%	0%	0%	0%
grade 2 events	13185	97473	16332	107986	29729	11439
	2%	15%	3%	14%	4%	2%
grade 3 events	4836	16802	6411	49060	15459	5209
	1%	2%	1%	6%	2%	1%
grade 4 events	4726	16414	6469	48563	13973	4917
	1%	2%	1%	6%	2%	1%
grade 5 events	13456	41648	15937	48152	20478	16222
	2%	6%	3%	6%	3%	3%
grade 6 events	8651	134279	10091	150979	30532	9682
	1%	21%	2%	20%	5%	1%
grade 7 events	390806	246998	346973	232124	387426	335300
	83%	40%	71%	31%	64%	69%

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	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
Pointing RA	81.330194	81.2517485526291	Subarray requested	NONE	NONE
Pointing Dec	-69.648322	-69.64576509387393	Alternating exposures requested	N	N
Pointing Roll	144.240981	144.3240631154379	Primary exposure time	3.200000	3.2
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	80463014.184000	80461739.113727			
Observation start date	2000-07-20T06:49:10	2000-07-20T06:28:59			
Observation end time	80536986.184000	80537414.354037			
Observation end date	2000-07-21T03:22:02	2000-07-21T03:30:14			
Read mode	TIMED	TIMED			

2.3 Aspect



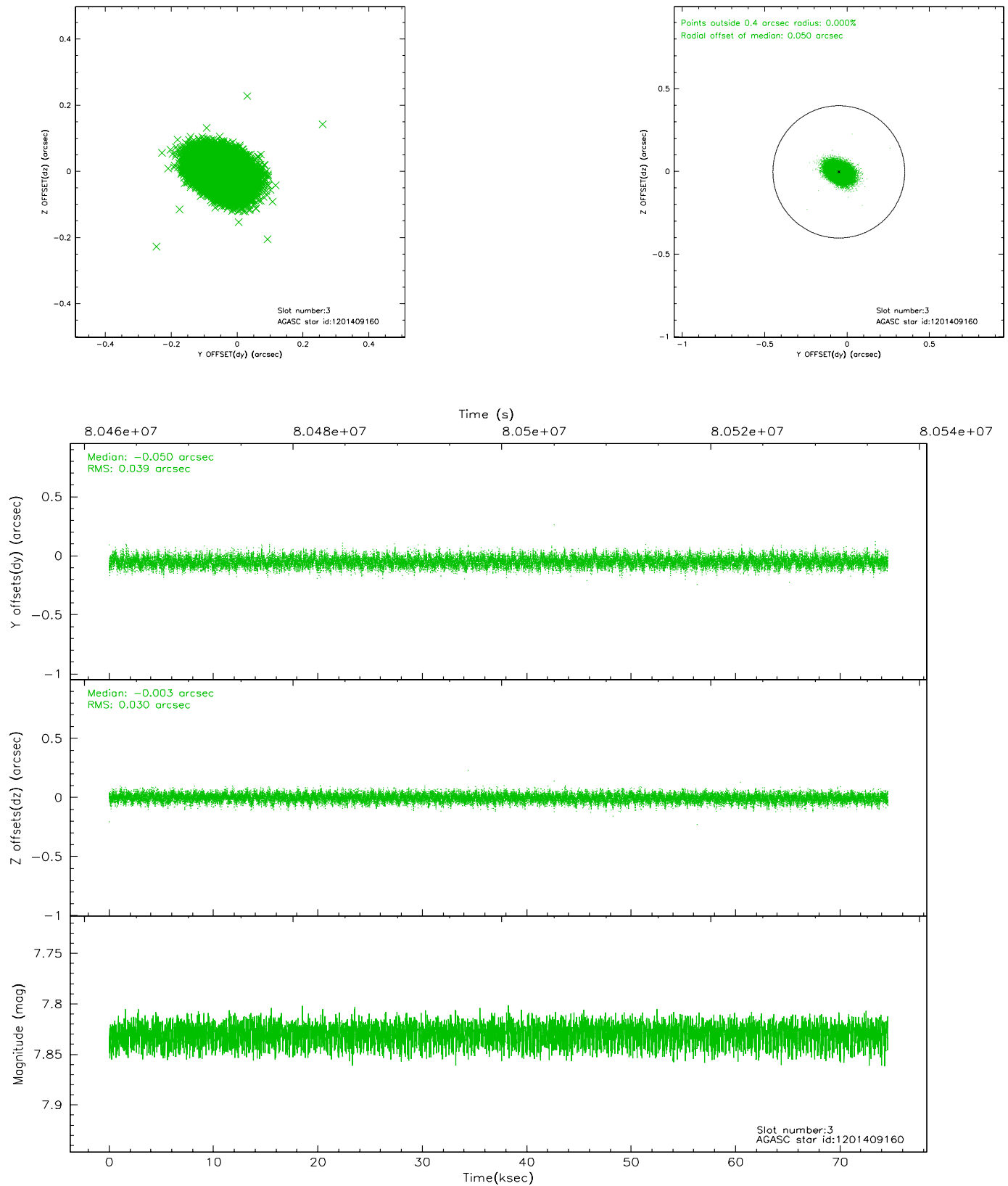


Slot Statistics

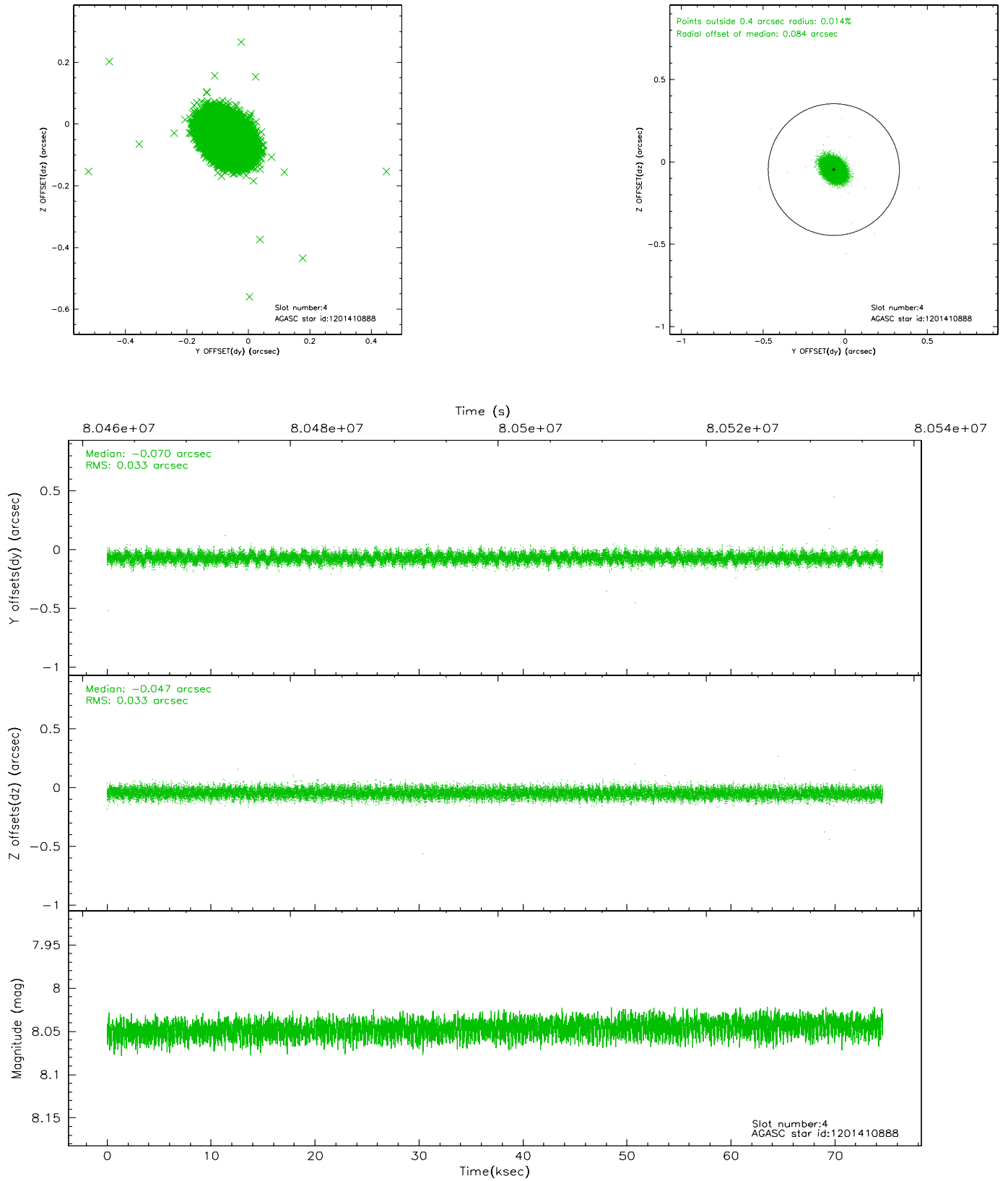
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	18195	0.004	-0.003	0.005	0.009	0.000000	0.000000	-754.62	-1726.64
1	FID	ACIS-S-4	7.21	18195	-0.021	-0.012	0.006	0.011	0.000000	0.000000	2158.64	181.92
2	FID	ACIS-S-6	7.36	18196	-0.010	0.022	0.007	0.011	0.000000	0.000000	407.24	819.26
3	GUIDE	1201409160	7.83	36392	-0.050	-0.003	0.052	0.086	81.660661	-70.063595	-1203.40	977.73
4	GUIDE	1201410888	8.05	36393	-0.070	-0.047	0.049	0.080	81.046858	-70.018210	-495.81	1285.70
5	GUIDE	1201410616	9.34	36373	0.020	0.035	0.079	0.129	82.516808	-69.784406	-1492.24	-452.60
6	GUIDE	1201411088	10.08	36296	0.134	0.043	0.126	0.207	79.219940	-69.586806	2252.66	1406.62
7	GUIDE	1201406992	9.27	36382	-0.033	-0.024	0.094	0.150	83.682859	-69.471866	-2071.40	-2203.68

2.4 Star Slots

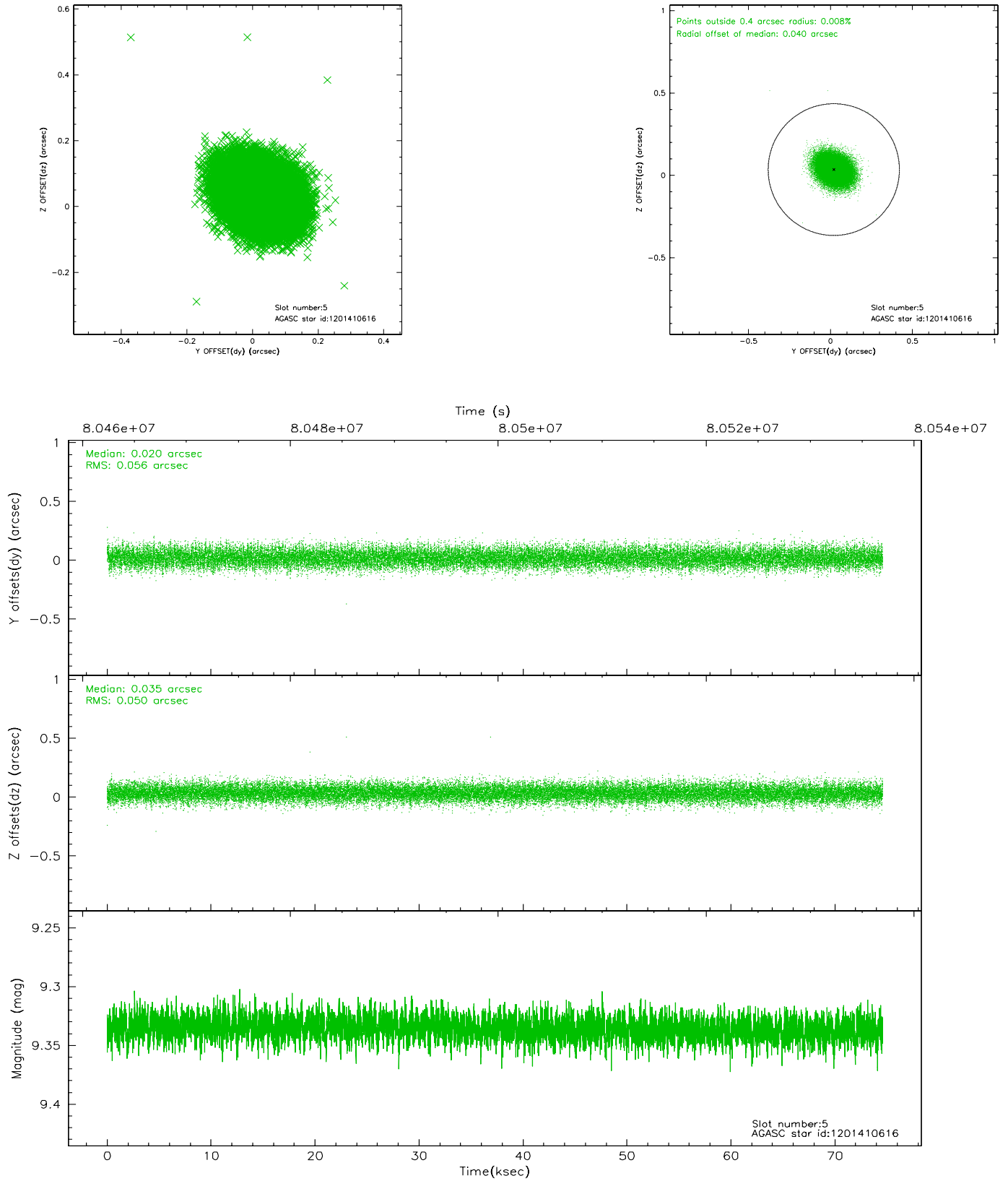
2.4.1 Slot 3



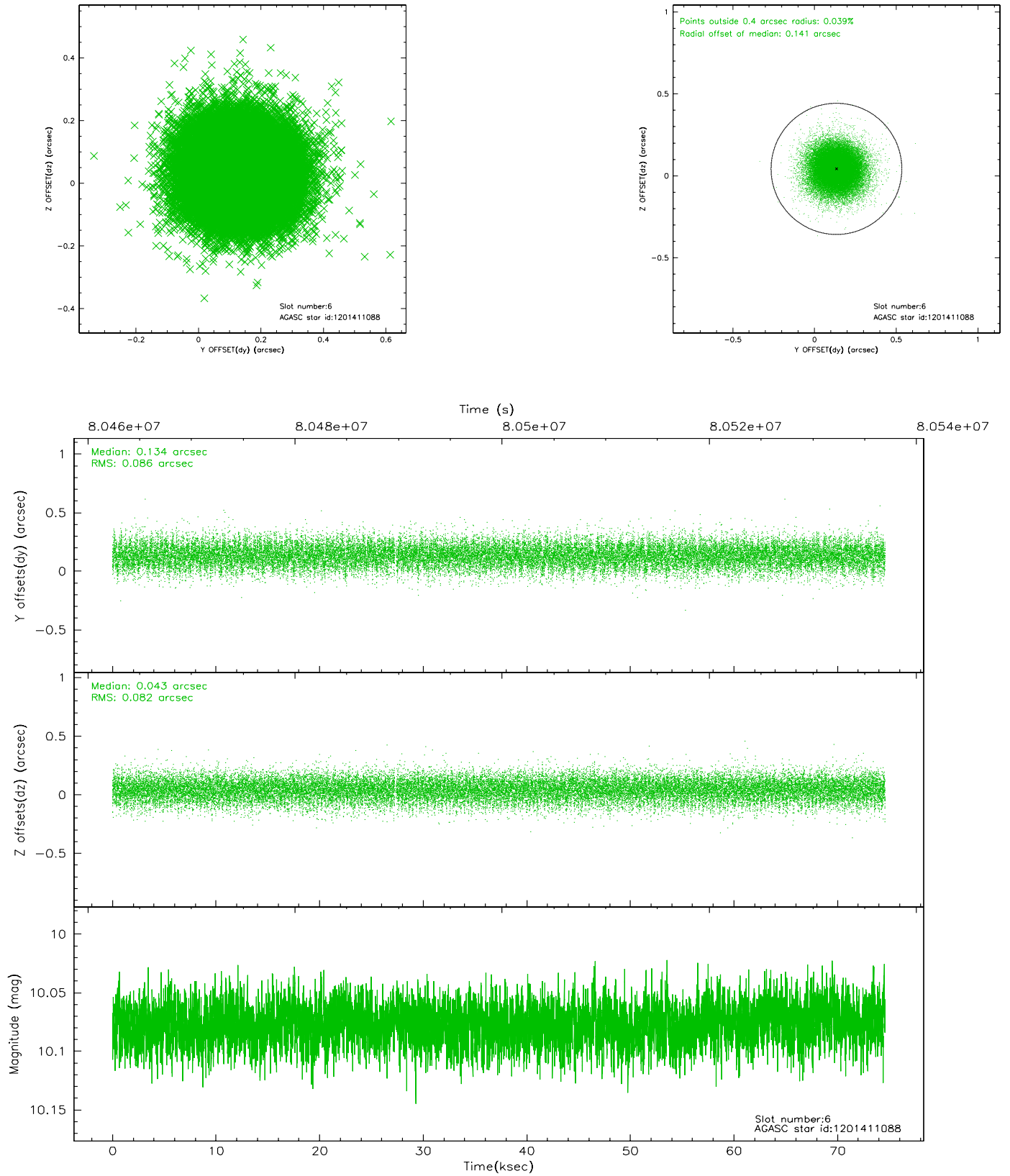
2.4.2 Slot 4



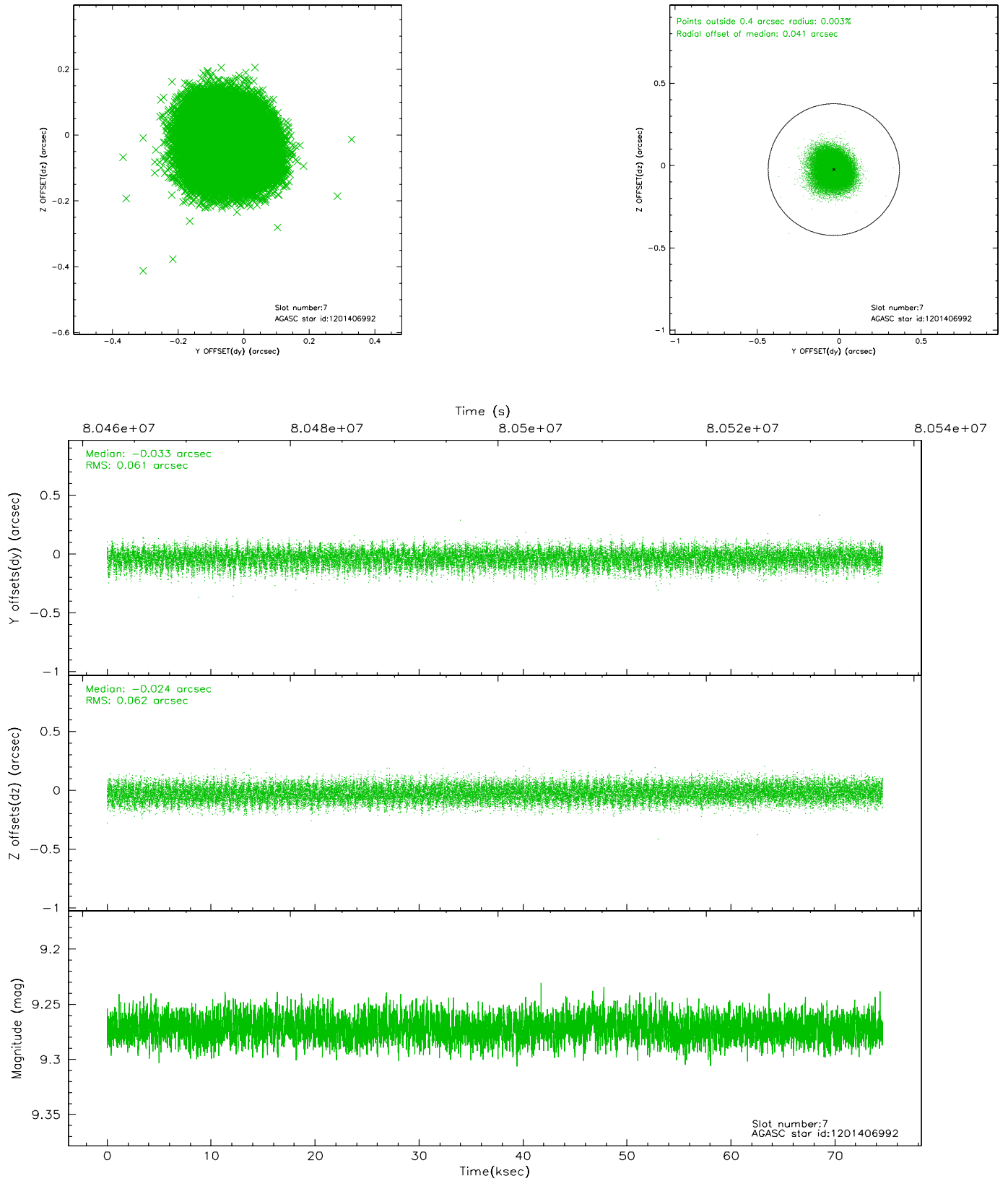
2.4.3 Slot 5



2.4.4 Slot 6

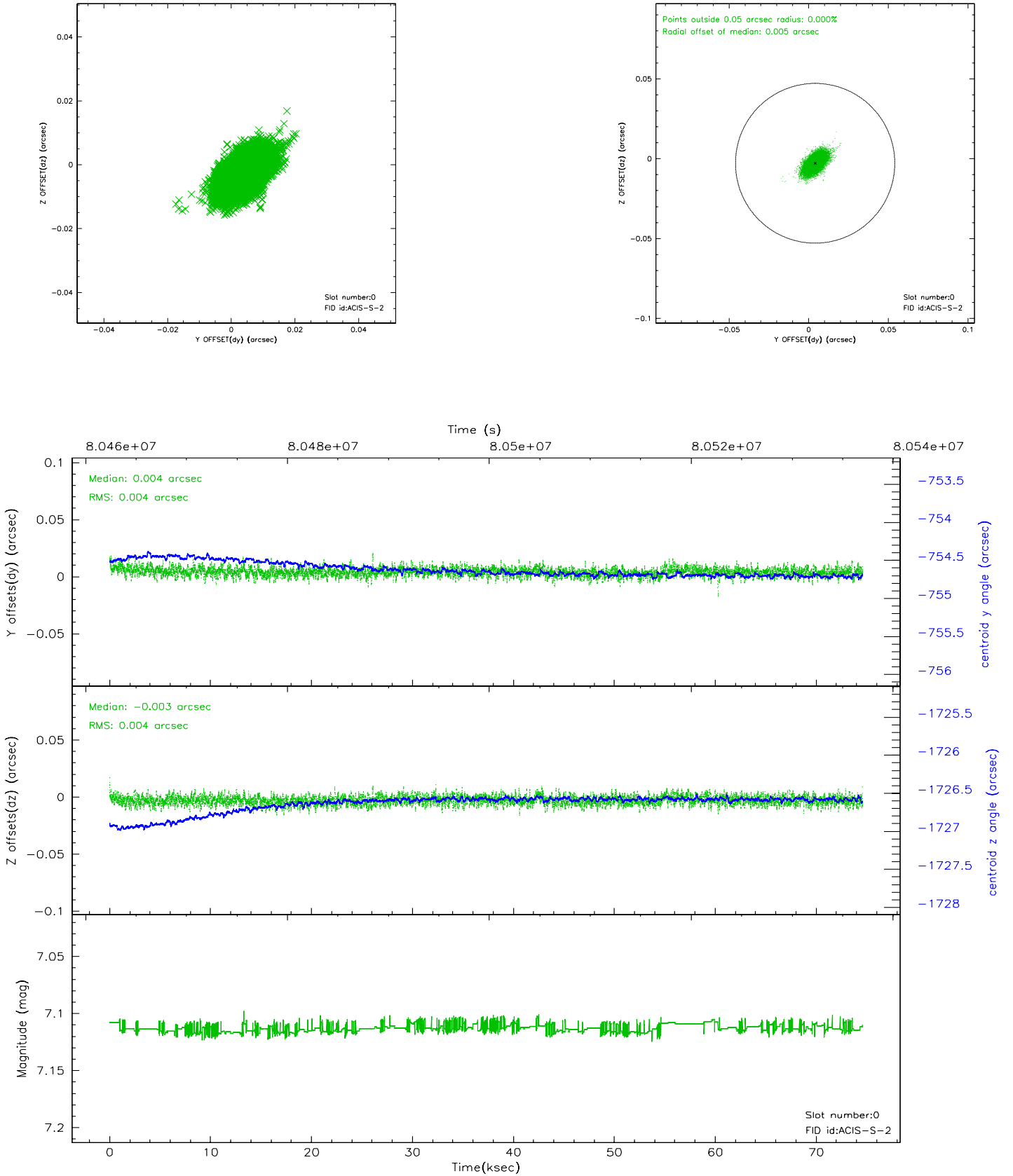


2.4.5 Slot 7

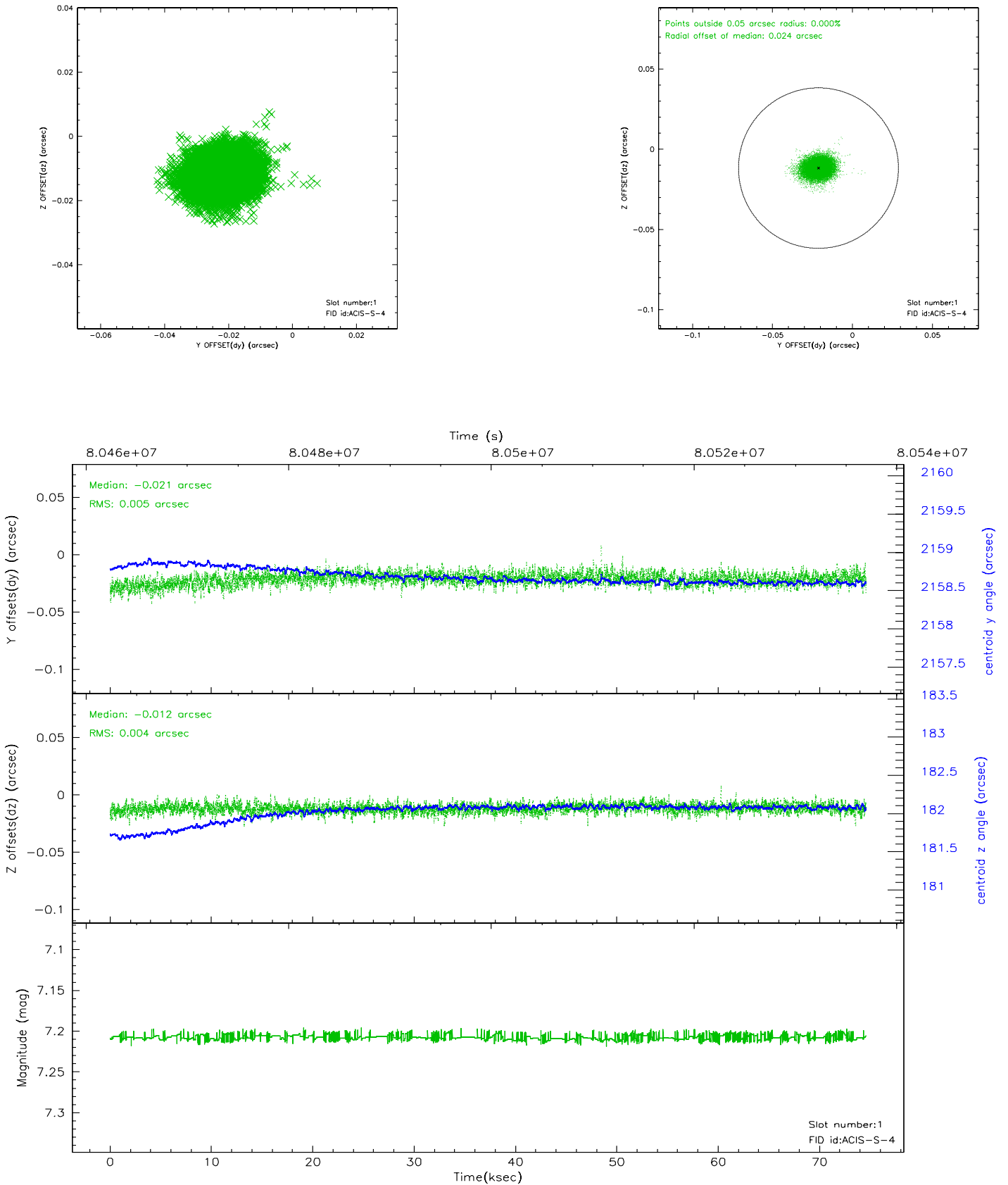


2.5 FID Slots

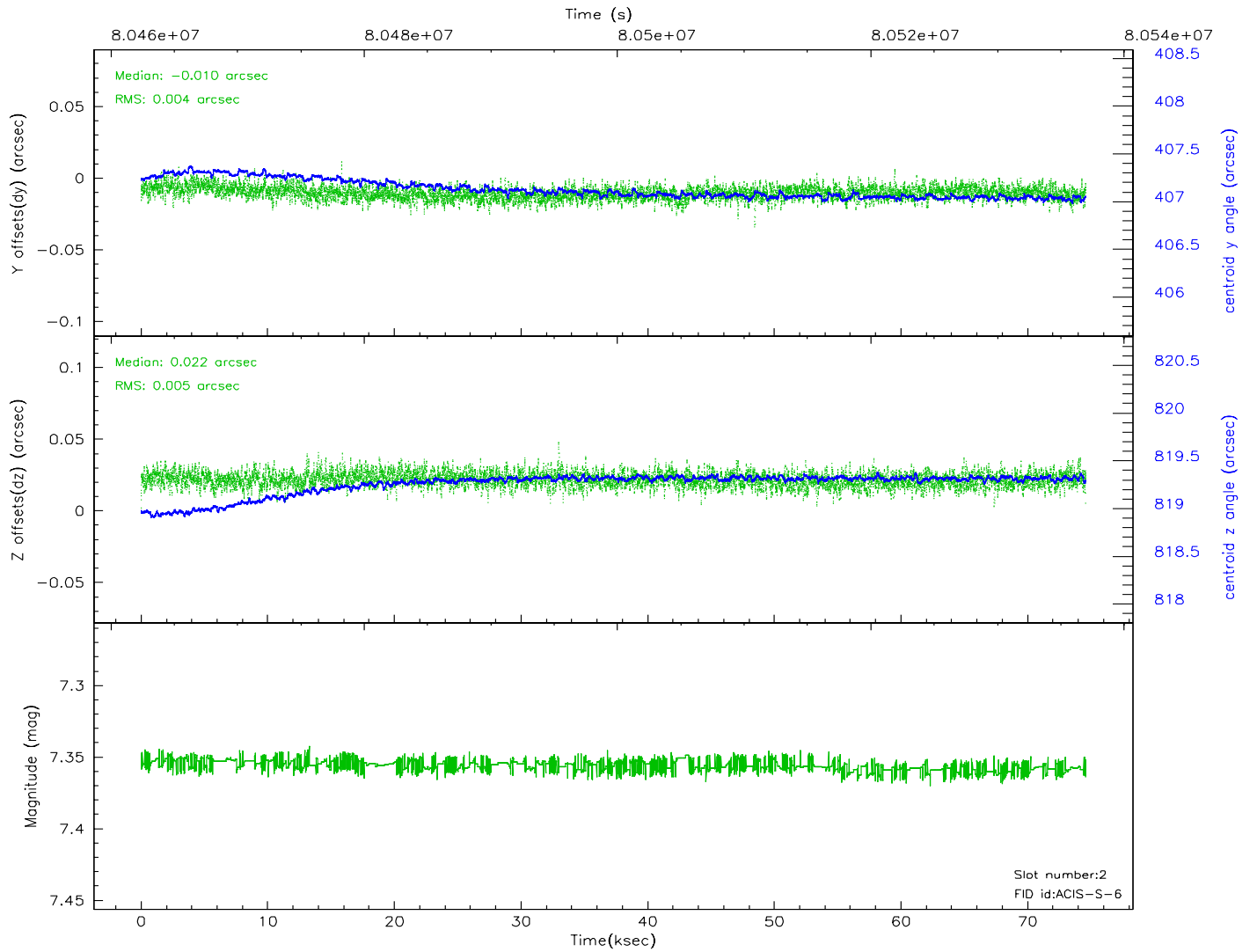
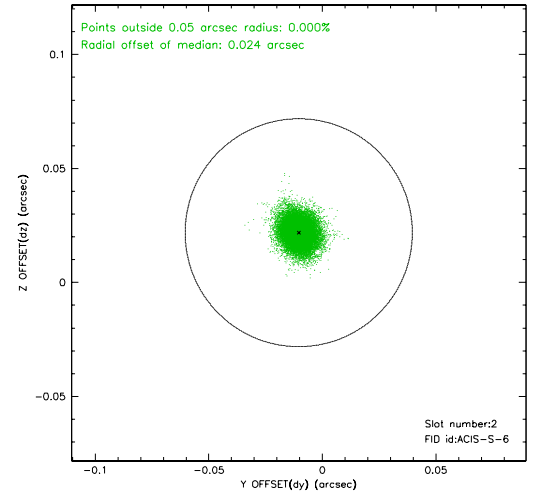
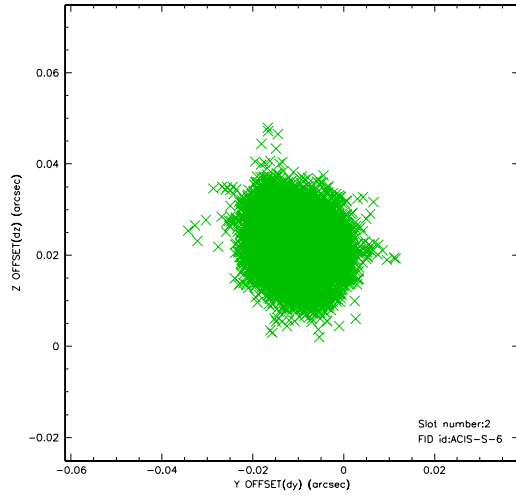
2.5.1 Slot 0



2.5.2 Slot 1

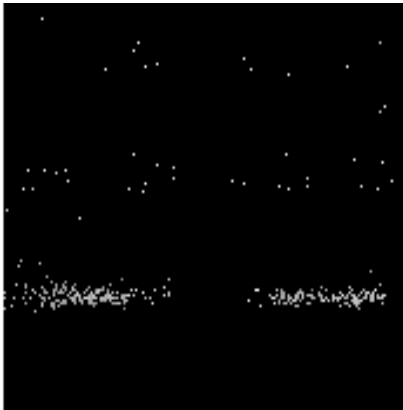


2.5.3 Slot 2

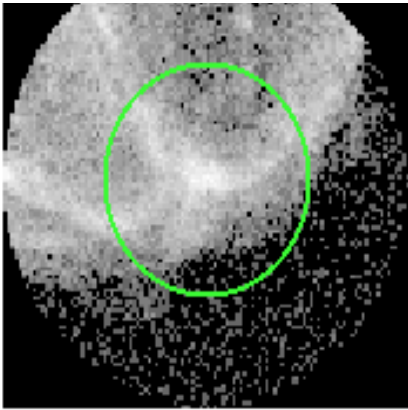


3 Gratings

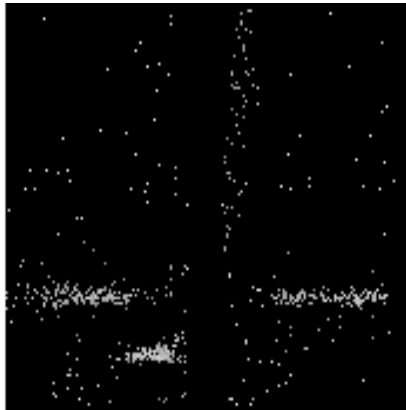
3.1 HEG Arm



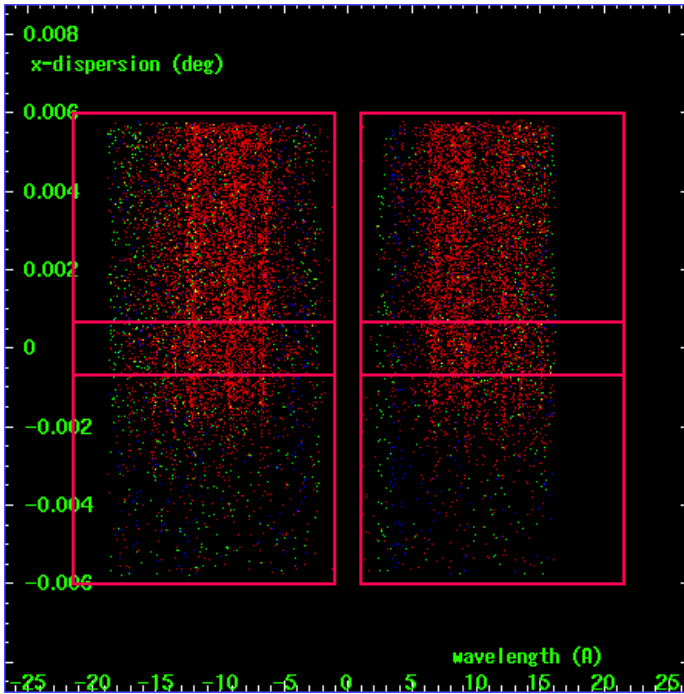
HEG Order Sort 123



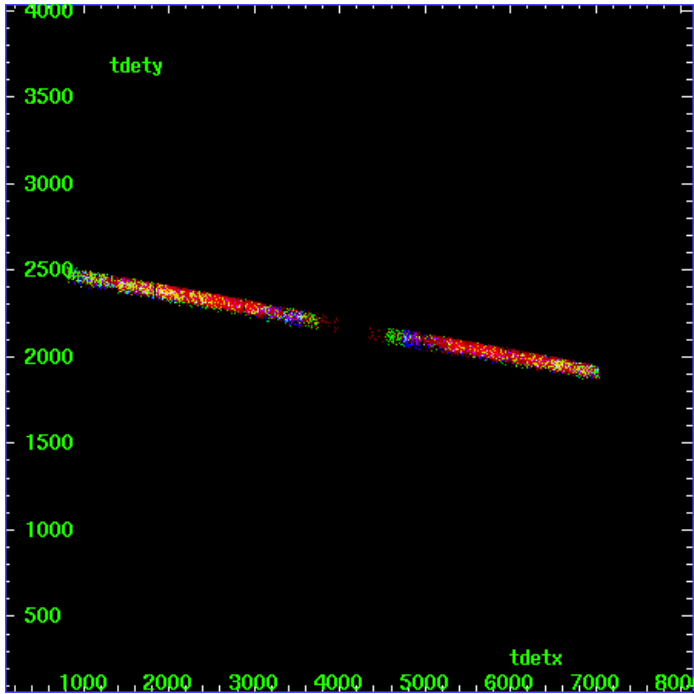
HEG Zero Order



HEG Order Sort ALL

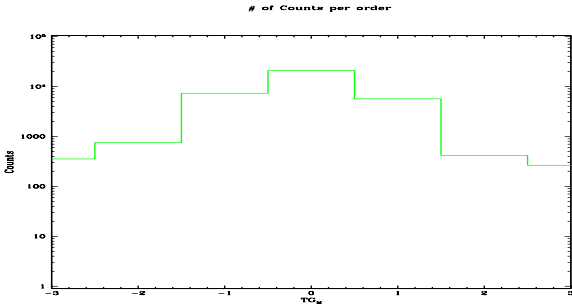


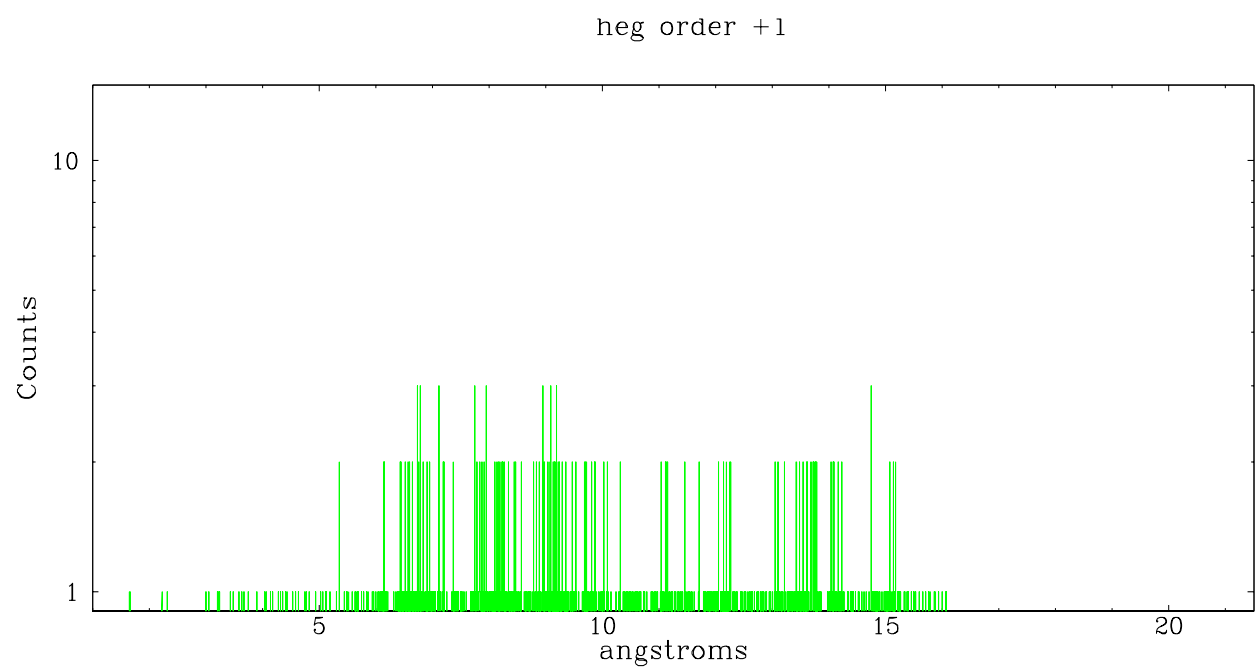
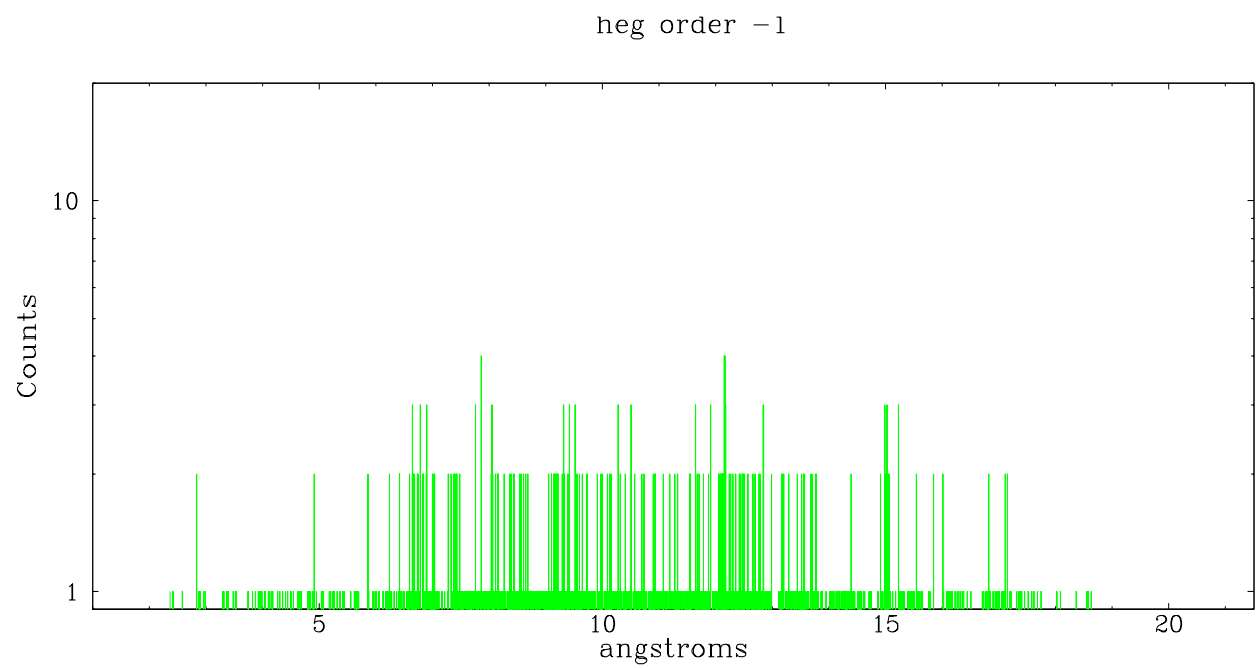
Spot Image HEG



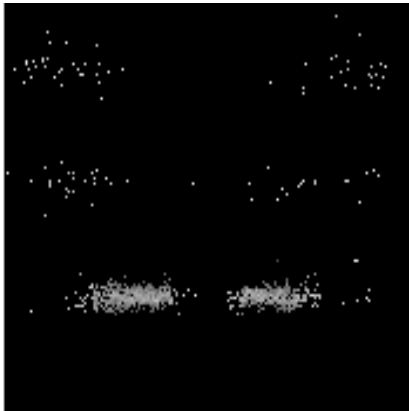
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	354	749	7332	20778	5625	417	264

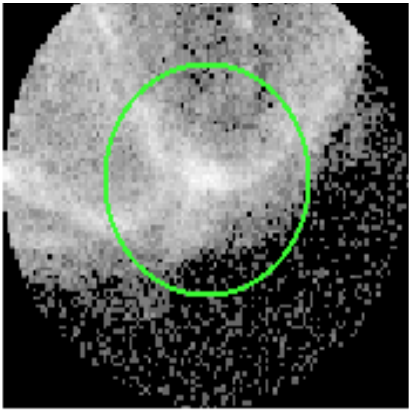




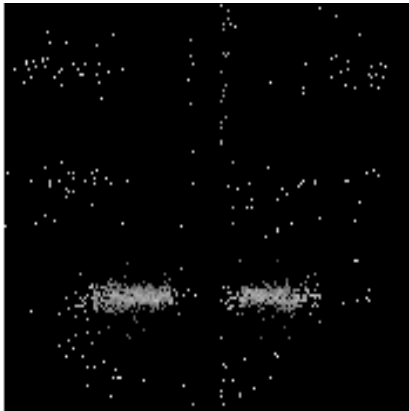
3.2 MEG Arm



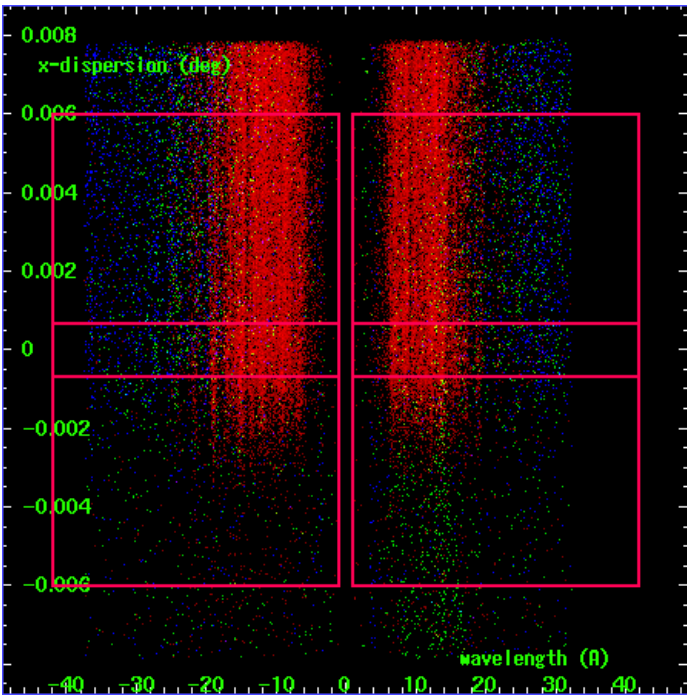
MEG Order Sort 123



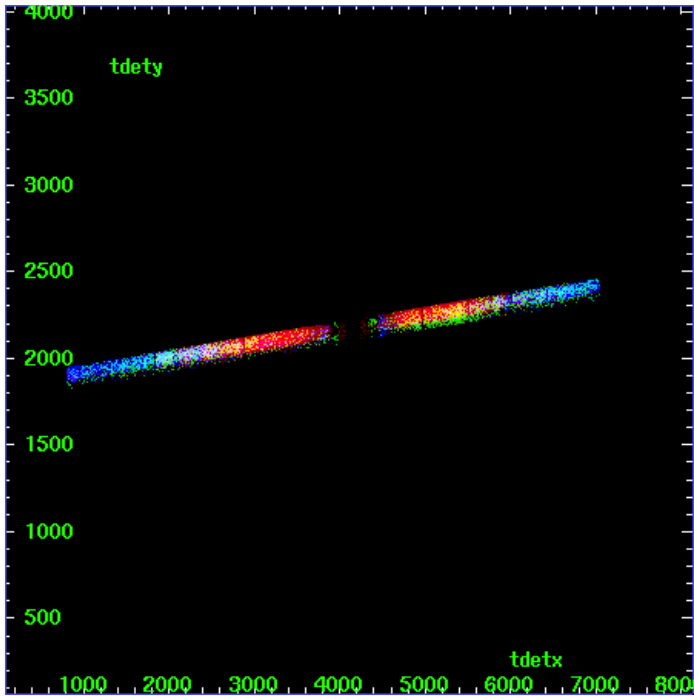
MEG Zero Order



MEG Order Sort ALL

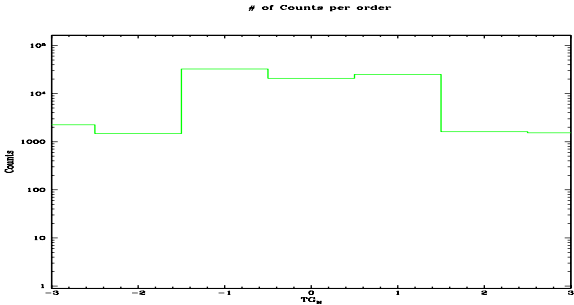


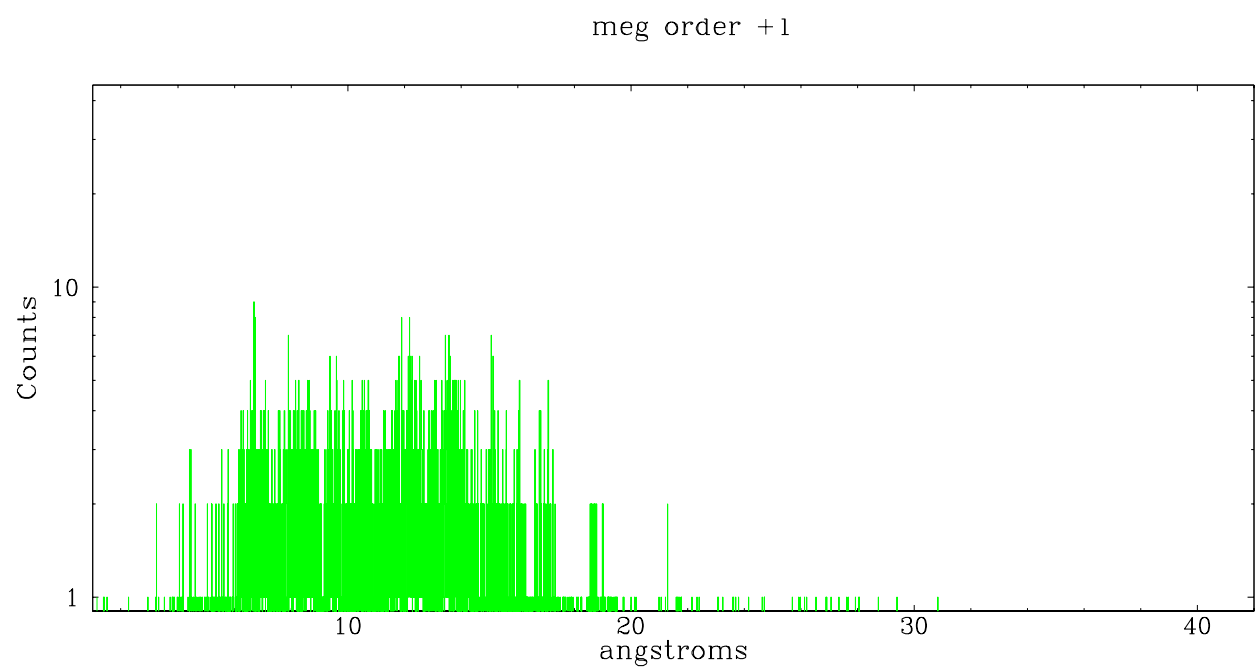
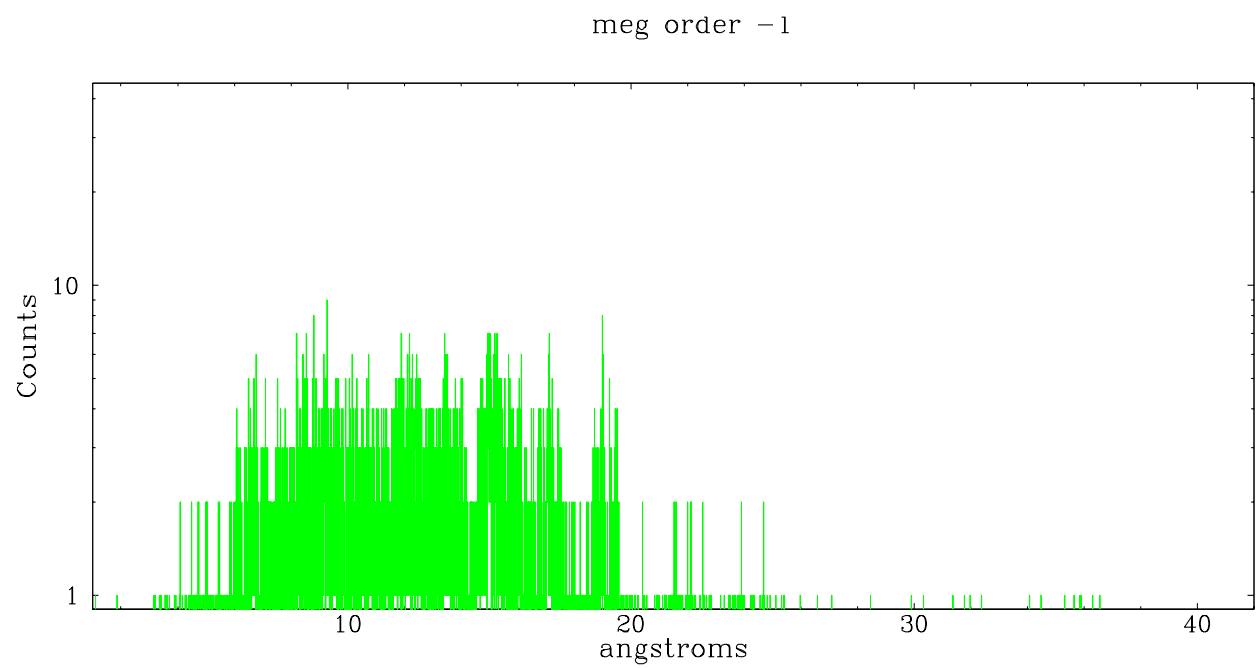
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	2249	1479	32548	20778	25112	1617	1523





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2007.06.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	73.926

A.2 Comments

Roll angle constraint of 150 +/- 15 degrees met.

Extended source gratings observation.

WARNING: there are no standard ciao tools for analysis of grating spectra from extended sources. The shape of an emission 'line' will be the shape of the zero order spatial structure convolved with the instrumental LSF. Grating extractions can be used, but need to be combined with custom spatial-spectral analysis, since wavelength is multi-valued at any particular diffraction angle. WARNING::Zeroth order selected by pipeline tools is on a bright outer filament southwest of the center of the supernova remnant. The user will need to select a region or source of interest, then use software tools such as CIAO to specify the coordinates of the zeroth order source of interest before running the tools to resolve the dispersed events. The spectral data supplied in this processing are only energy-calibrated for the particular emission knot selected. However, it should be noted that the emission knot that has been selected as the zeroth order source is filamentary and curved, so the energy assignments to the events should take the spatial information into account. The zeroth order used for extracting the spectral data in this processing is not located at the position of the brightest X-ray emission in the filament.