

V&V Reference Report

L2 ASCDS Version : 7.6.11.10

Observation 49898 - L2 Version 4
Chandra X-Ray Center

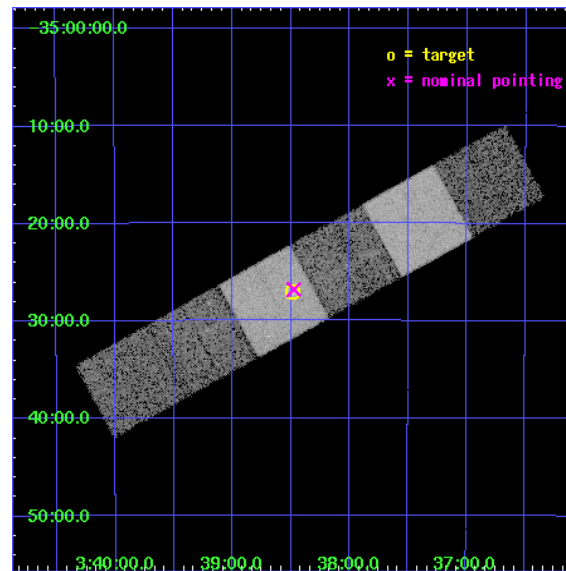
L2 Processing Date : Feb 5 2009

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1 Front

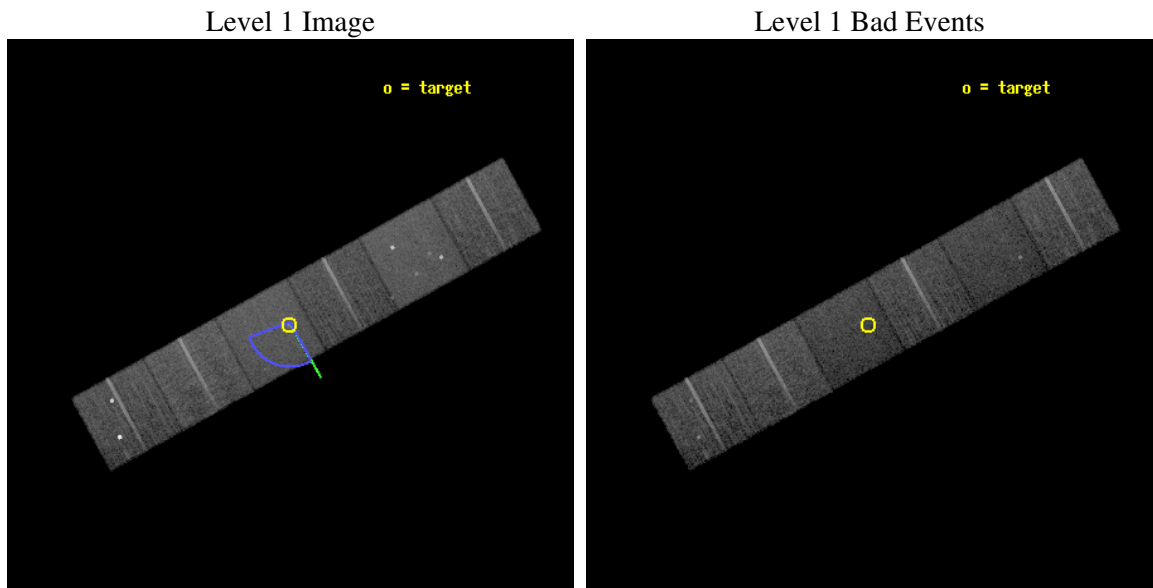
seq_num	600214
obs_id	49898
title	THE DETAILED X-RAY SPECTRA OF ELLIPTICAL GALAXIES
observer	DR. CLAUDE CANIZARES
object	NGC 1399
dtcycle	0
cycle	P
ra_targ	54.622083
dec_targ	-35.450278
ra_nom	54.618570726731
dec_nom	-35.446646787374
roll_nom	151.10458755018
revision	4
ontime	13251.200012341
livetime	13083.40533887
ontime4	13247.959082037
ontime5	13251.200012341
ontime6	13247.959062099
ontime7	13251.200012341
ontime8	13247.959082037
ontime9	13251.200012341
l2events	129007



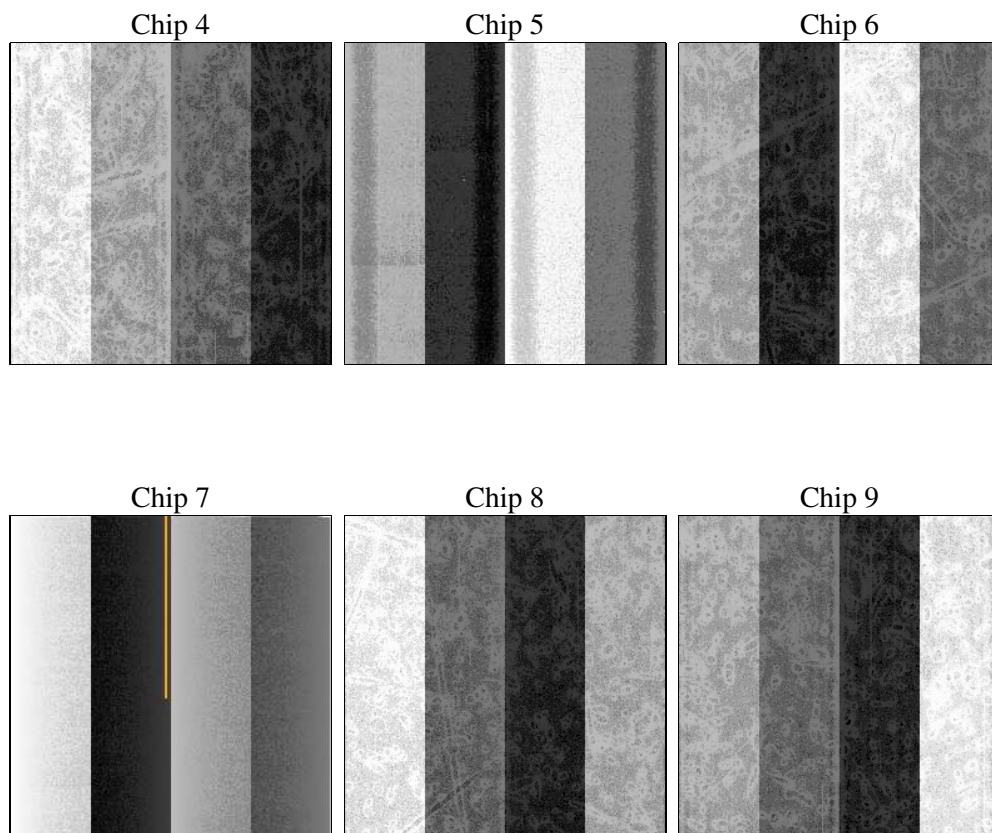
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0
ascdsver	7.6.11.10
caldbver	3.5.1
date	2009-02-05T06:47:06
revision	4

sched_exp_time	16298.286000
ontime	13251.200012341
ontime4	13247.959082037
ontime5	13251.200012341
ontime6	13247.959062099
ontime7	13251.200012341
ontime8	13247.959082037
ontime9	13251.200012341
l1events	602715

2.1.4 Events

	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	94025	112772	86708	102293	106752	100165
rejected events	84350	57975	75351	56903	84834	73752
rejected %	89%	51%	86%	55%	79%	73%

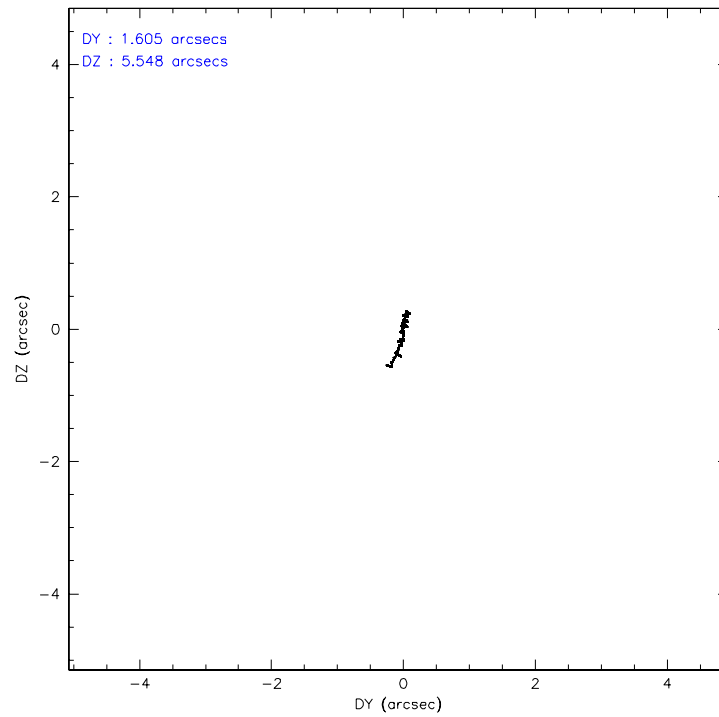
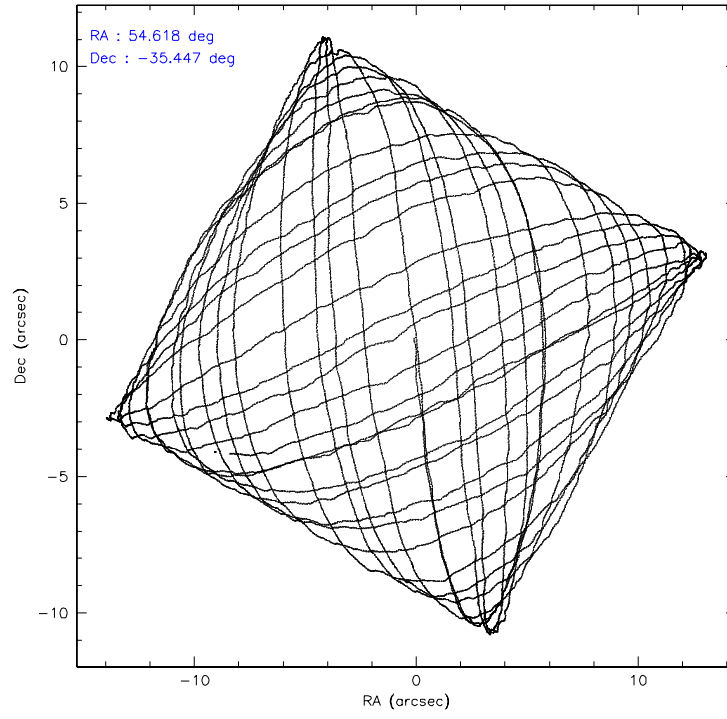
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	4111	9353	5718	5074	7786	8222
	4%	8%	6%	4%	7%	8%
grade 1 events	29	579	42	99	63	211
	0%	0%	0%	0%	0%	0%
grade 2 events	2239	14668	1954	9293	4496	14427
	2%	13%	2%	9%	4%	14%
grade 3 events	938	2432	931	4278	2317	991
	0%	2%	1%	4%	2%	0%
grade 4 events	853	2452	984	4397	2088	972
	0%	2%	1%	4%	1%	0%
grade 5 events	2656	8563	3187	9636	3964	3456
	2%	7%	3%	9%	3%	3%
grade 6 events	1548	25965	1789	22426	5262	1844
	1%	23%	2%	21%	4%	1%
grade 7 events	81651	48760	72103	47090	80776	70042
	86%	43%	83%	46%	75%	69%

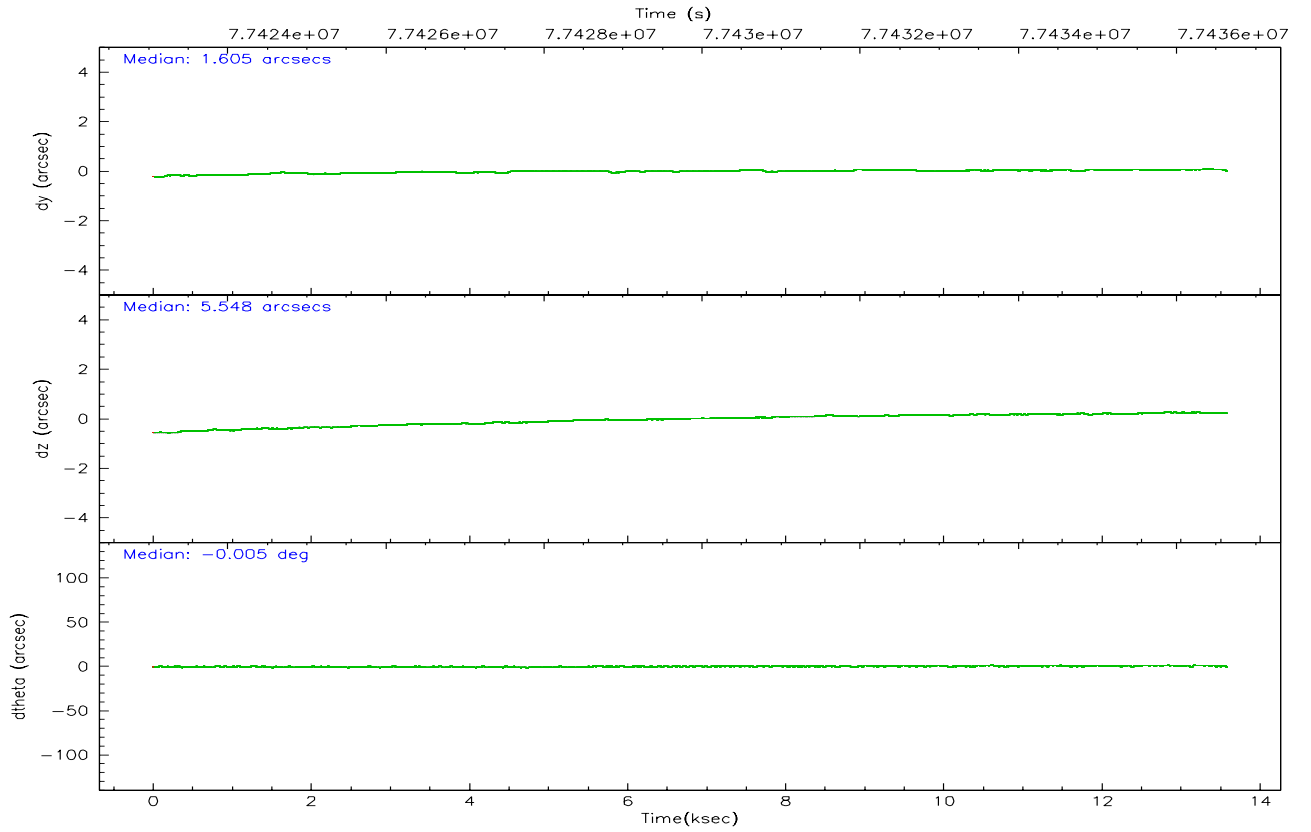
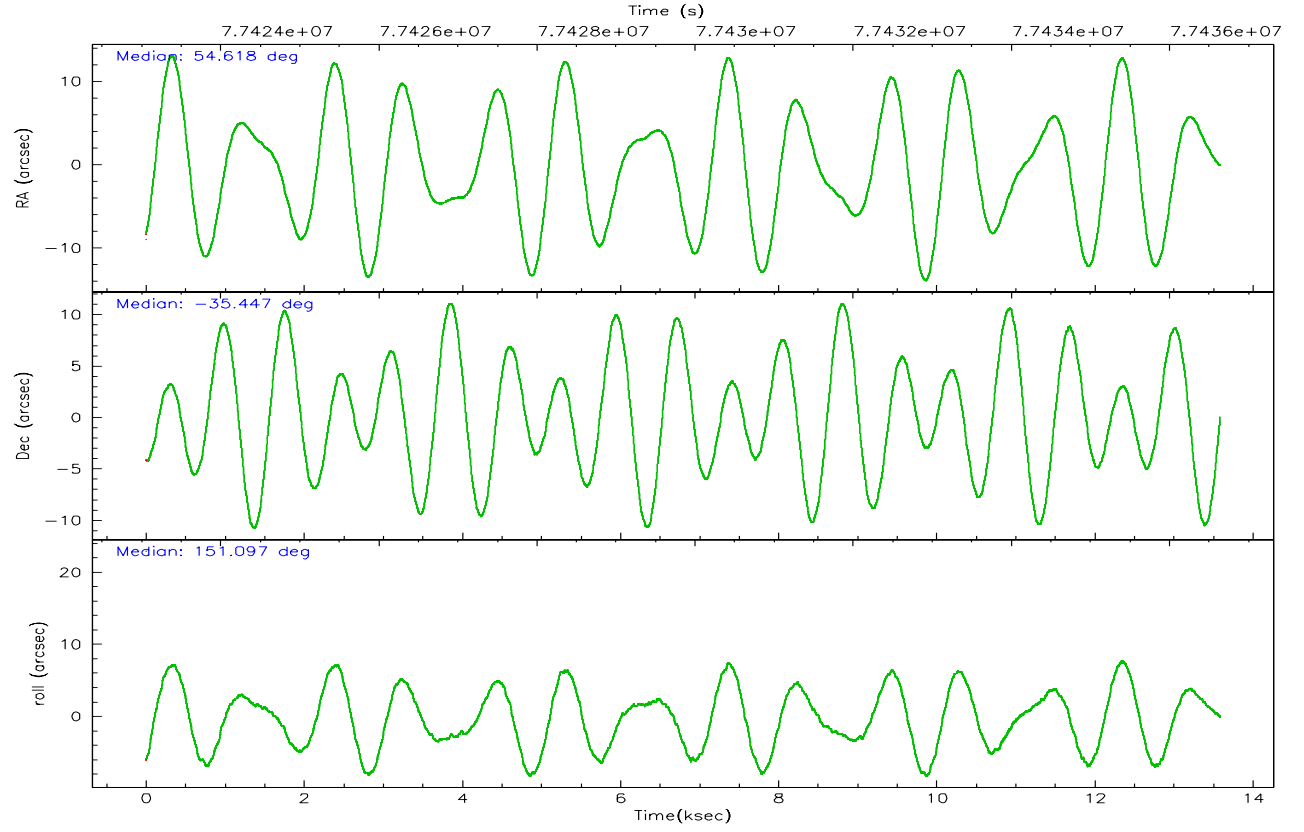
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-456789	ACIS-456789
Grating	HETG	HETG
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
Pointing RA	54.61857072673068	54.61857072673068
Pointing Dec	-35.44664678737438	-35.44664678737438
Pointing Roll	151.1045875501816	151.1045875501816
Roll angle	200	200
Roll tolerance	50.000000	50.000000
Roll constraint allows 180D rotation	N	N
SIM focus pos (mm)	-0.68282252473119	-0.68282252473119
SIM defocus (mm)	0.001444942264670734	0.001444942264670734
SIM translation stage pos (mm)	-190.1400660499	-190.1400660499
SIM translation stage offset (mm)	0.007542945932812017	0.007542945932812017
Observation start time	77423054.23882601	77423054.23882601
Observation start date	2000-06-15T01:38:02	2000-06-15T02:24:14
Observation end time	77436640.614326	77436640.614326
Observation end date	2000-06-15T06:09:40	2000-06-15T06:10:40
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	6	6
Obspar file type	PREDICTED	ACTUAL
Obspar update status	OVERRIDE	OVERRIDE
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
Primary exposure time	3.2	3.2

2.3 Aspect



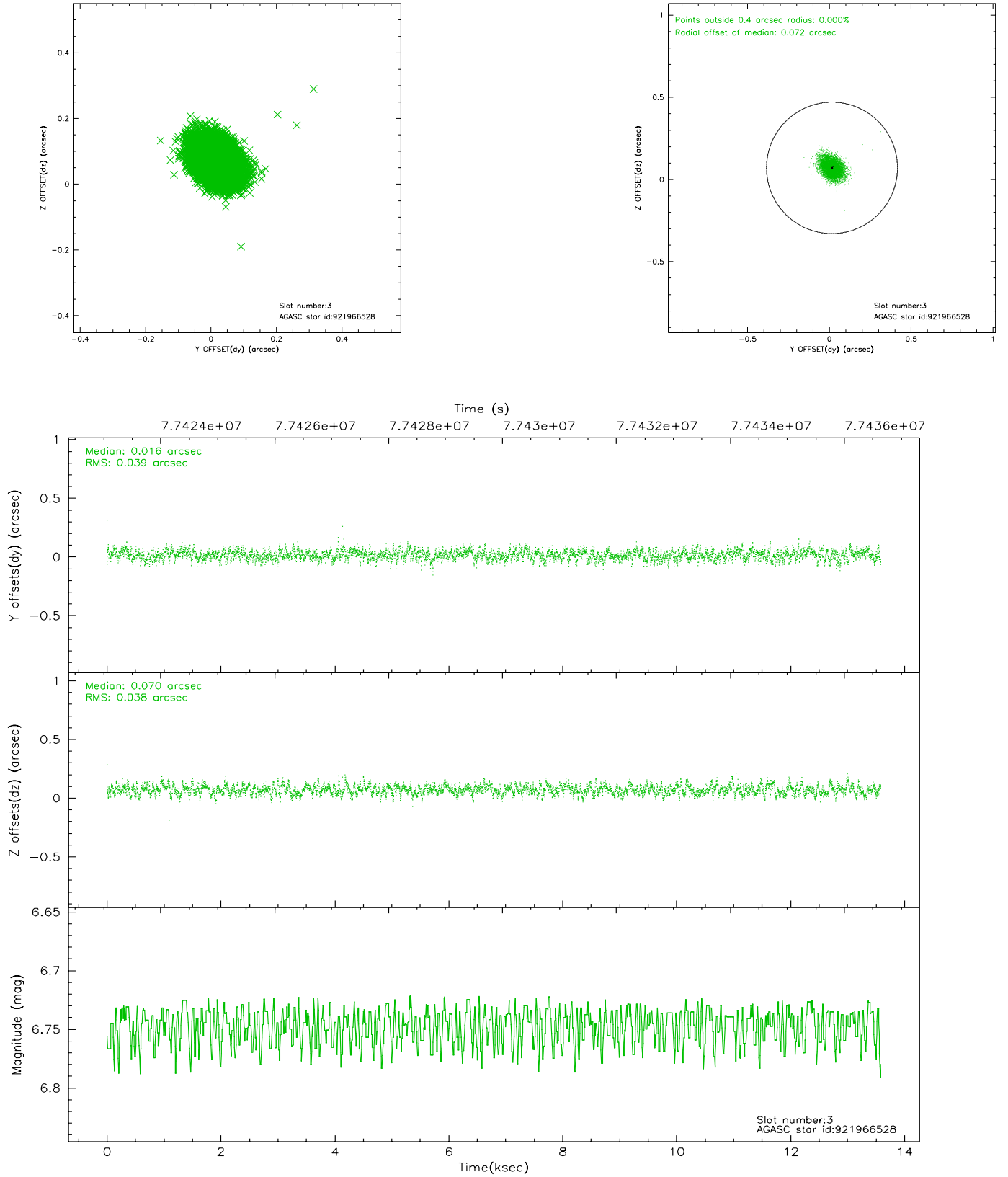


Slot Statistics

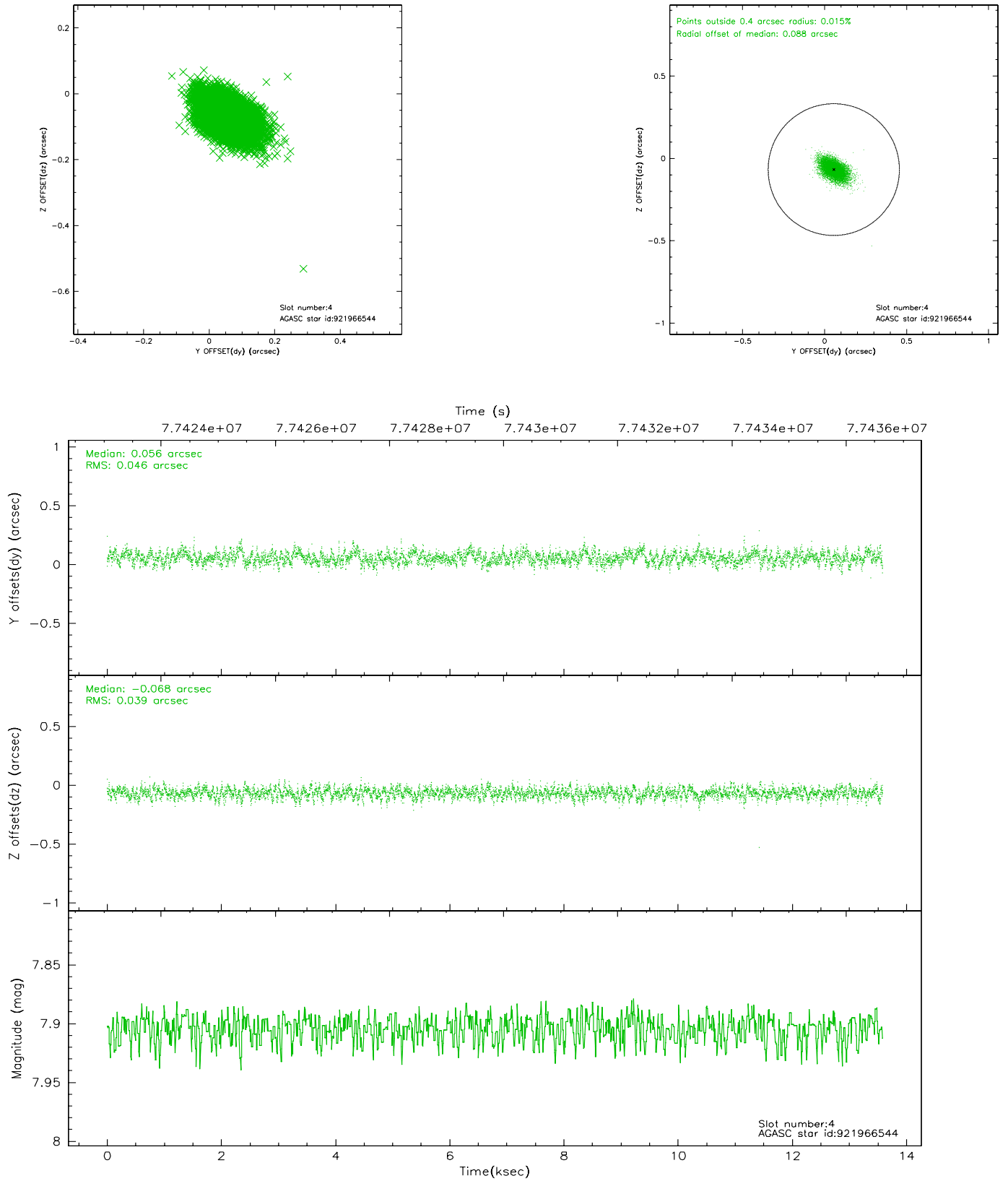
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.18	3314	-0.020	-0.006	0.015	0.026	0.000000	0.000000	941.83	-1722.26
1	FID	ACIS-S-5	7.24	3314	0.009	-0.008	0.006	0.011	0.000000	0.000000	-1806.94	174.94
2	FID	ACIS-S-6	7.36	3313	-0.010	0.026	0.015	0.029	0.000000	0.000000	407.02	819.32
3	GUIDE	921966528	6.75	6627	0.016	0.070	0.058	0.094	54.675841	-35.204254	361.21	-794.72
4	GUIDE	921966544	7.90	6626	0.056	-0.068	0.063	0.105	54.743508	-35.636012	-566.03	468.14
5	GUIDE	921575736	8.54	6626	-0.116	0.218	0.068	0.119	54.586331	-34.827401	1250.54	-1852.33
6	GUIDE	921965624	8.63	6626	0.105	-0.047	0.074	0.122	54.900706	-35.940077	-1497.31	1203.78
7	GUIDE	921048648	9.06	6623	-0.067	-0.176	0.103	0.161	53.884610	-35.870023	1211.79	2429.04

2.4 Star Slots

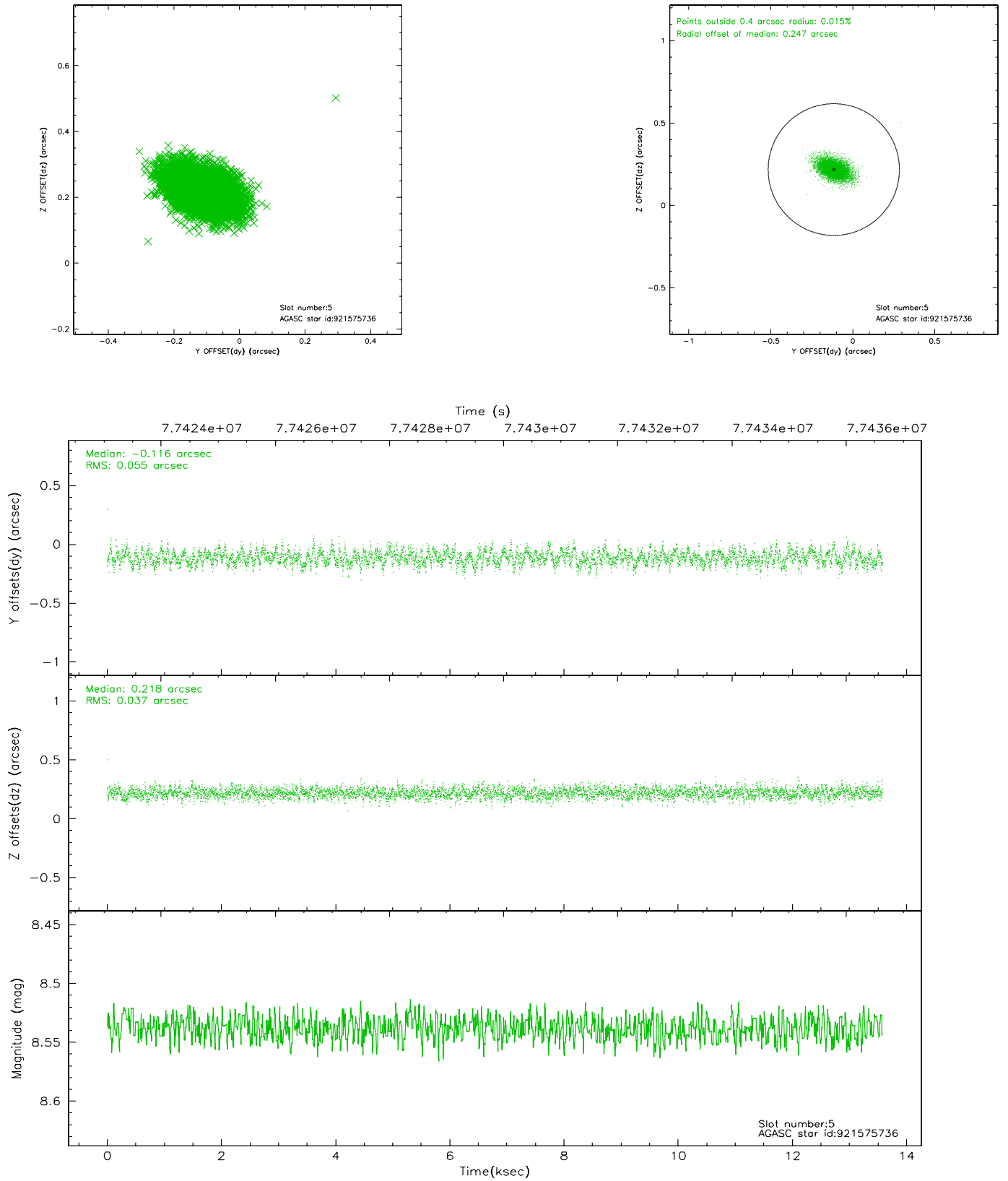
2.4.1 Slot 3



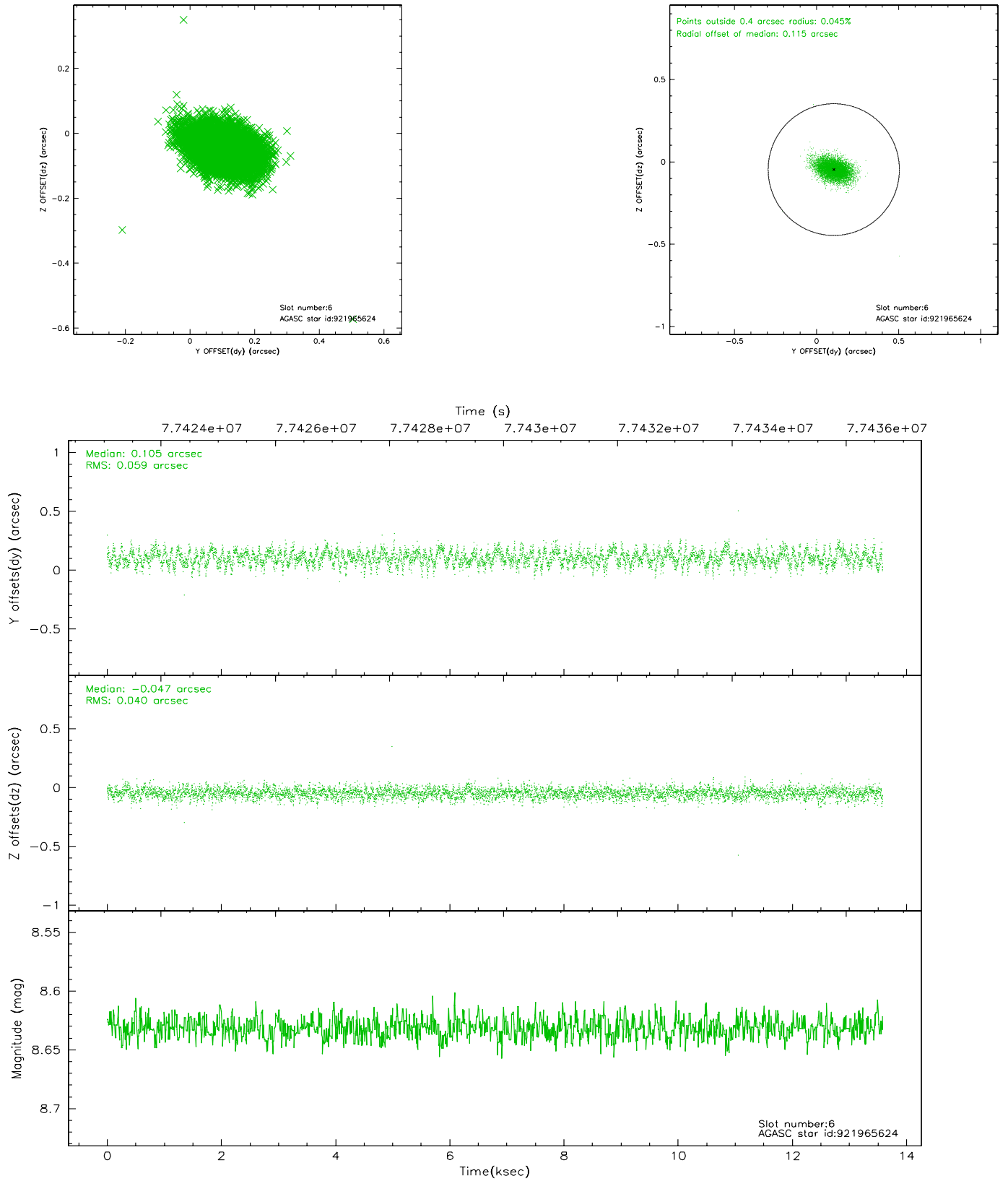
2.4.2 Slot 4



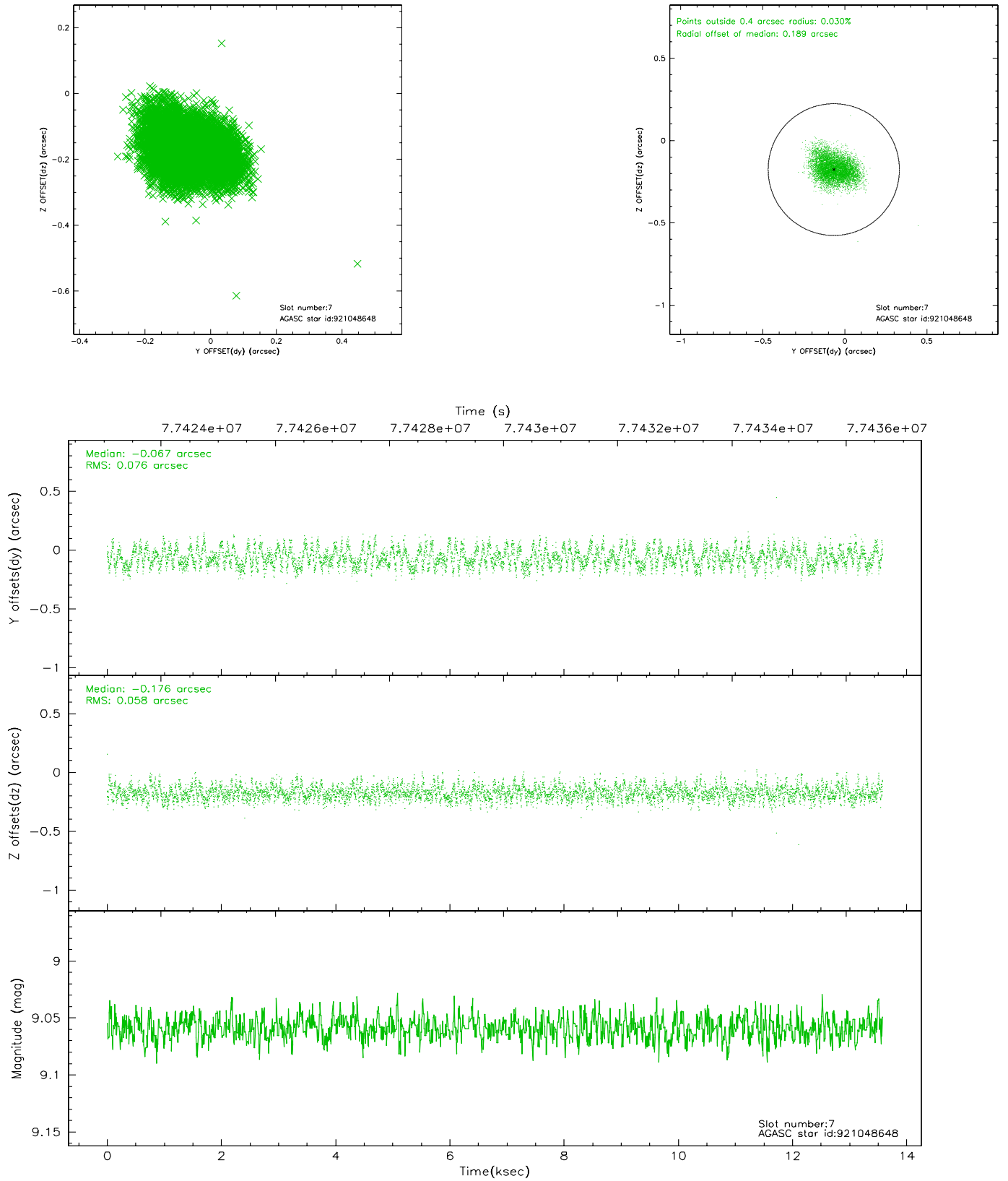
2.4.3 Slot 5



2.4.4 Slot 6

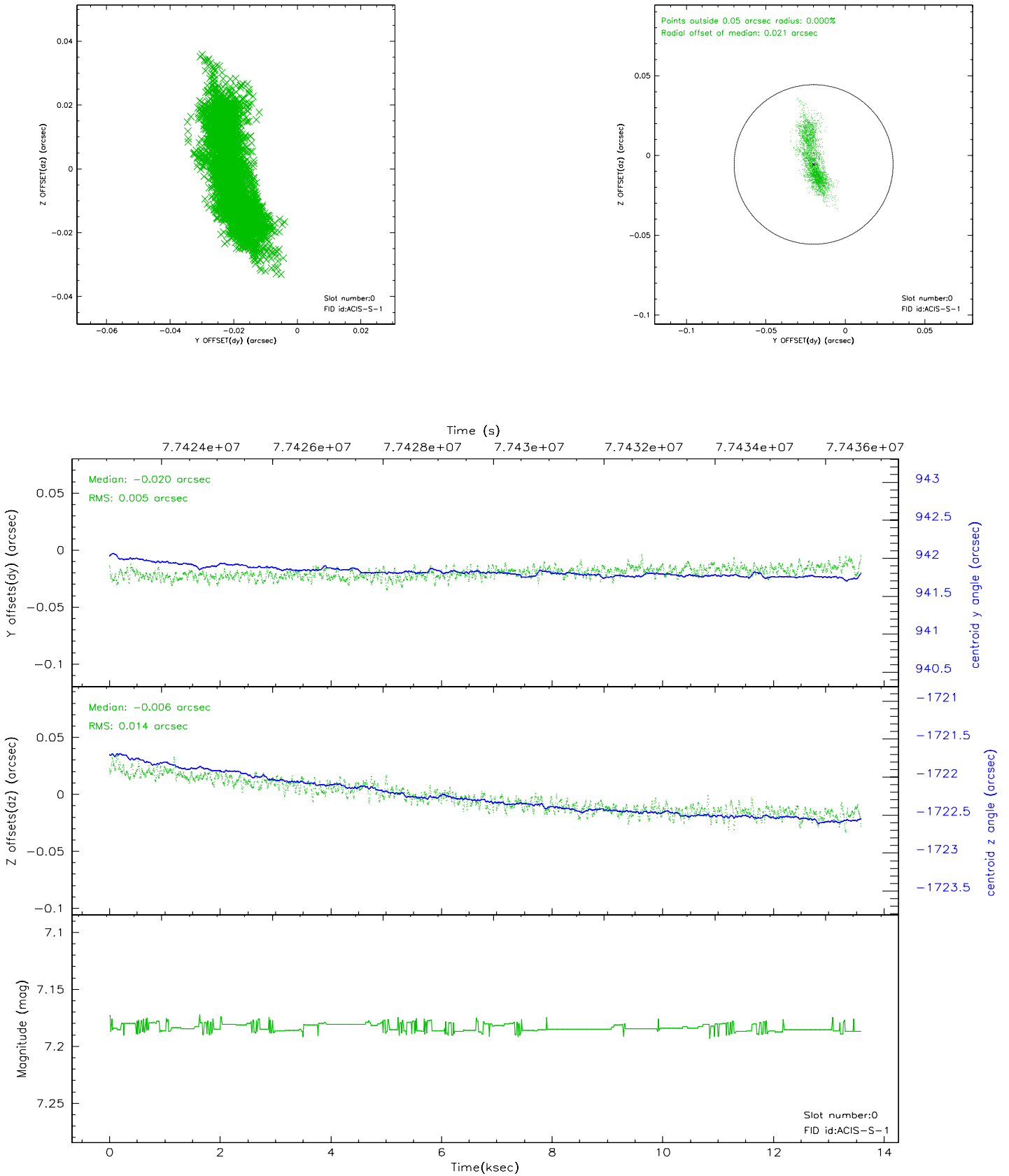


2.4.5 Slot 7

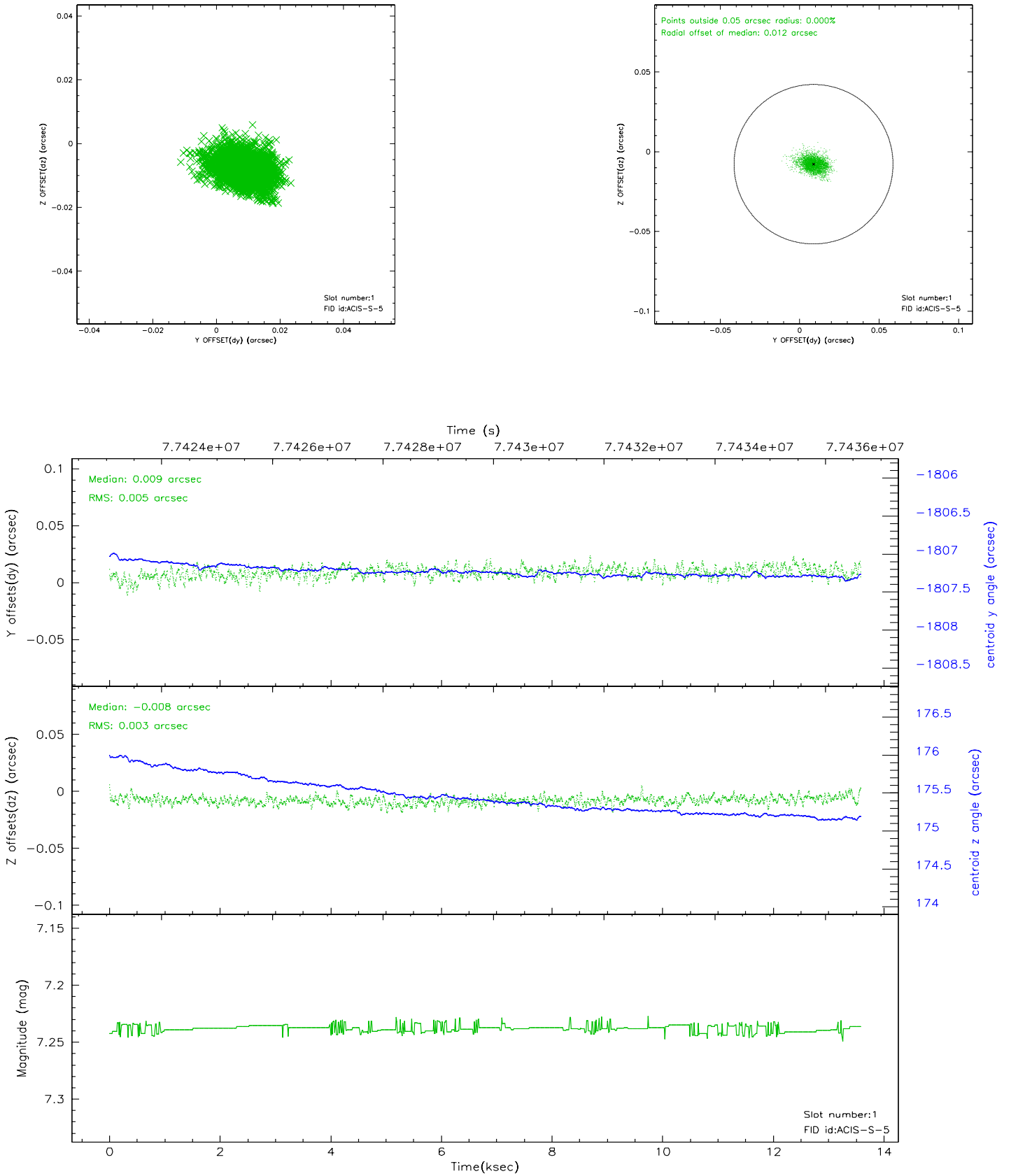


2.5 FID Slots

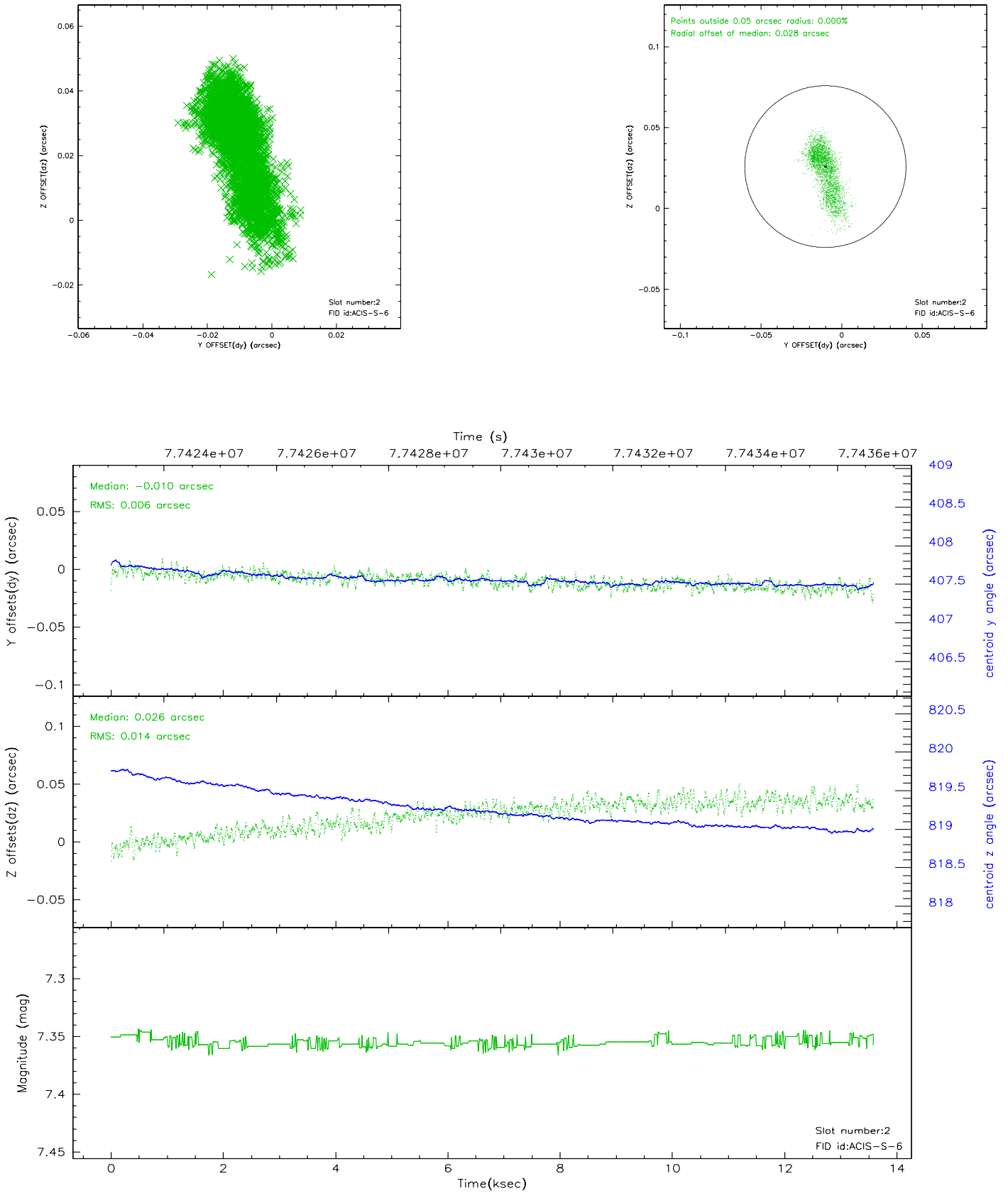
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

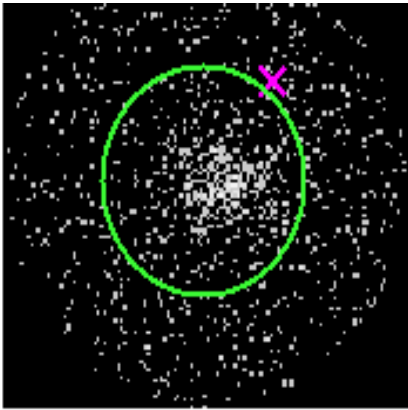


3 Gratings

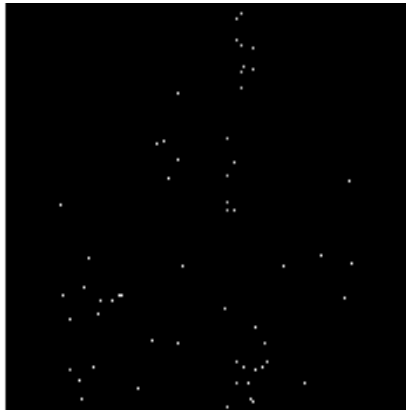
3.1 HEG Arm



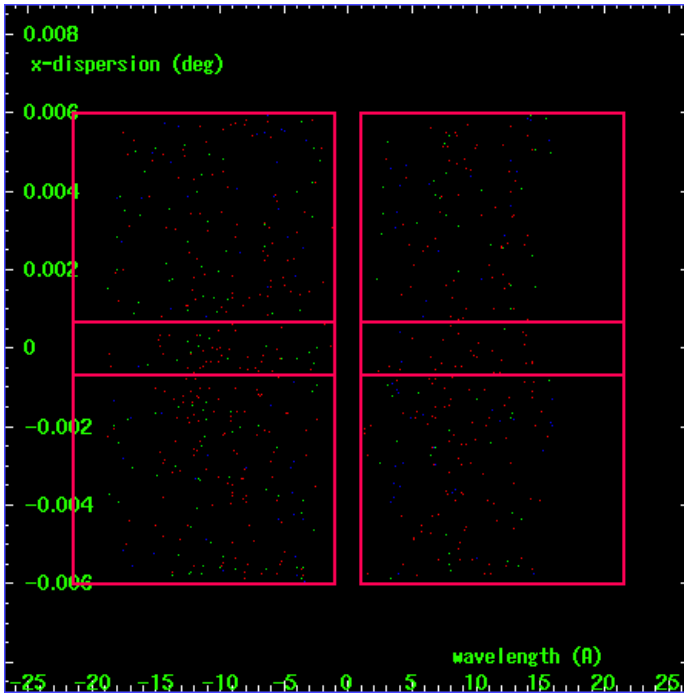
HEG Order Sort 123



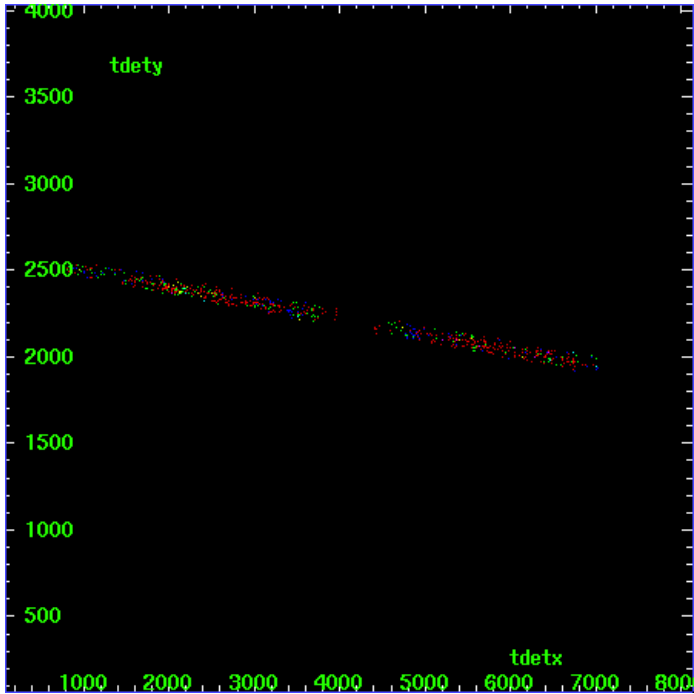
HEG Zero Order



HEG Order Sort ALL

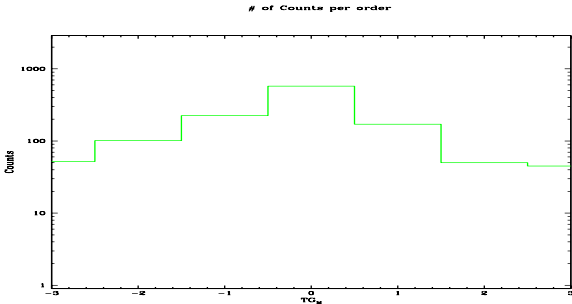


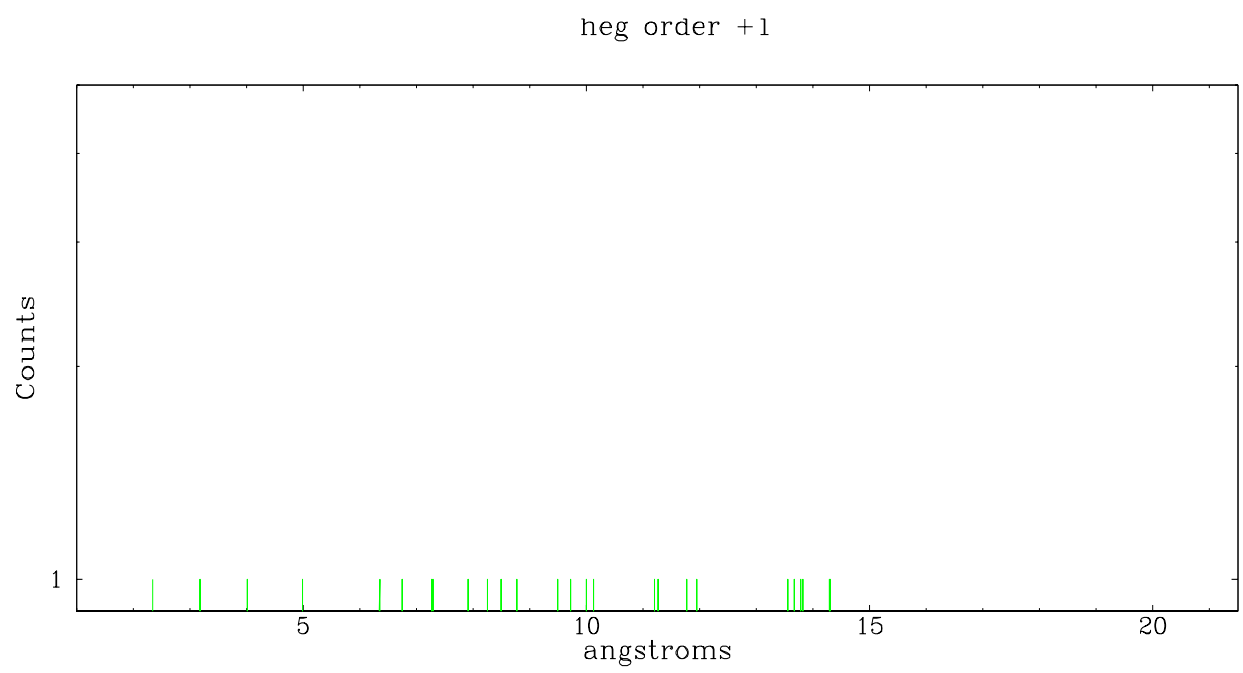
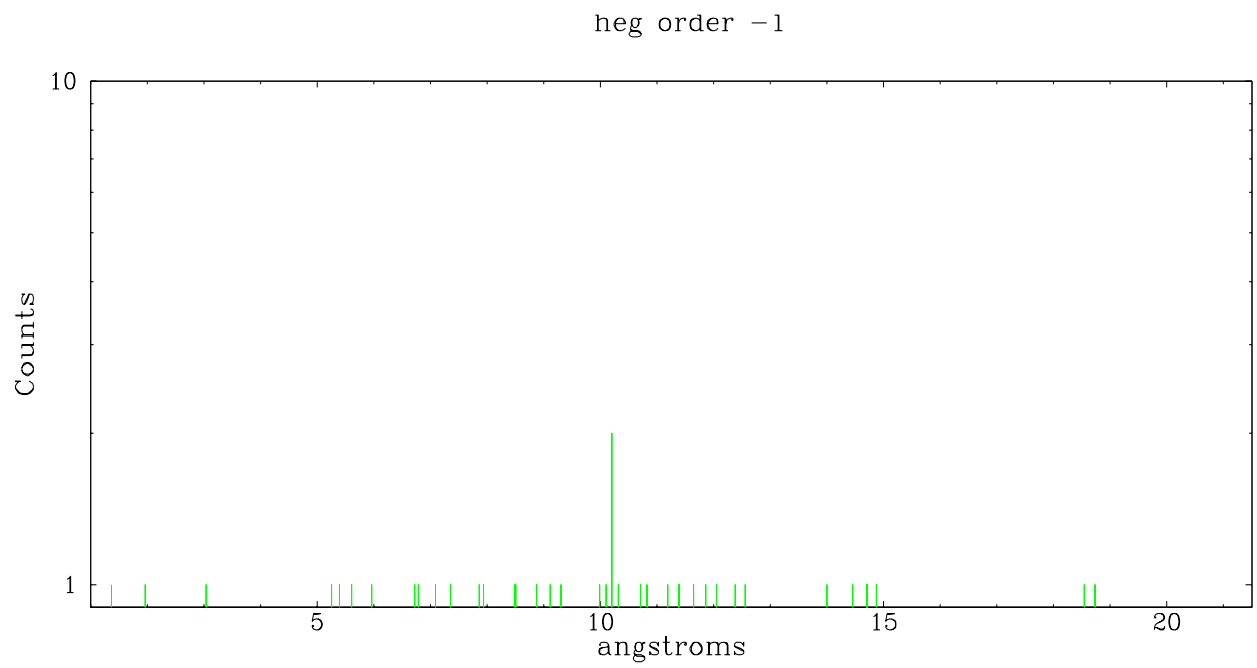
Spot Image HEG



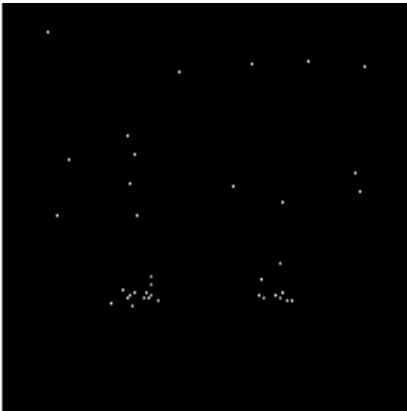
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	52	101	224	576	171	50	45

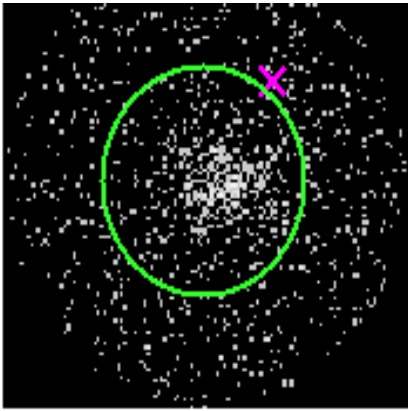




3.2 MEG Arm



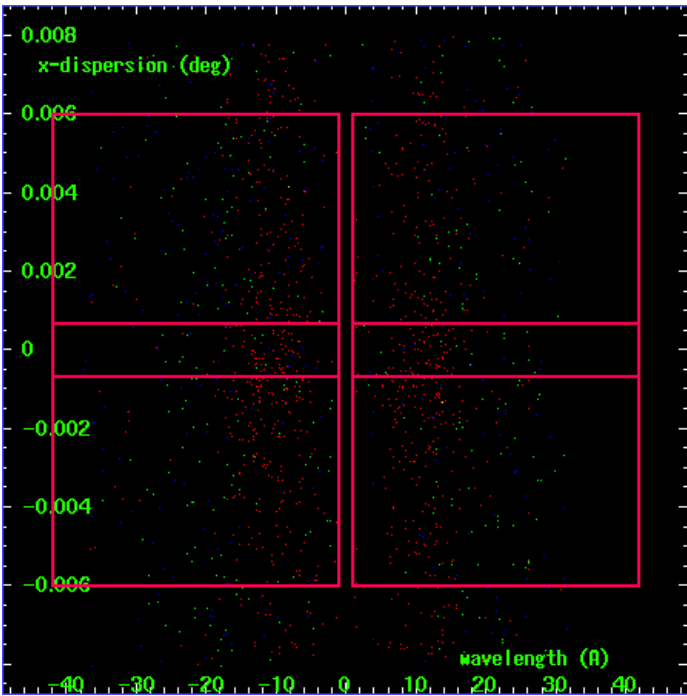
MEG Order Sort 123



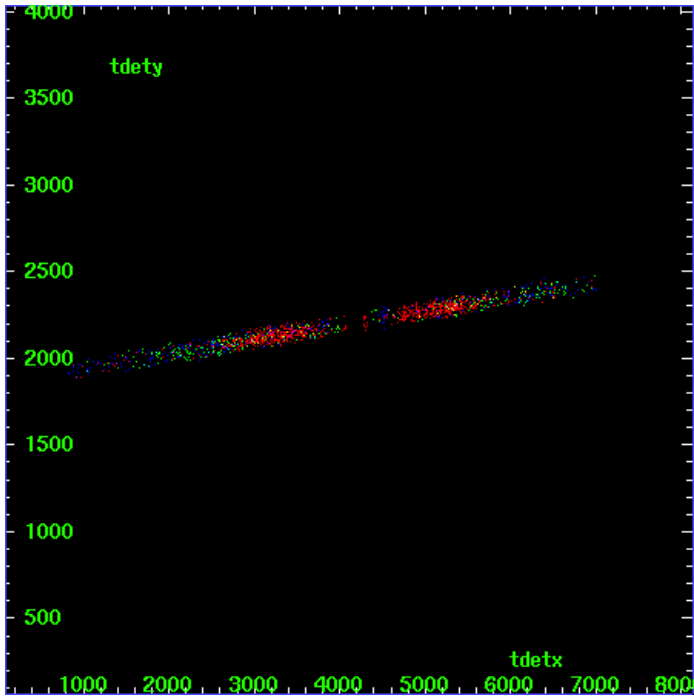
MEG Zero Order



MEG Order Sort ALL

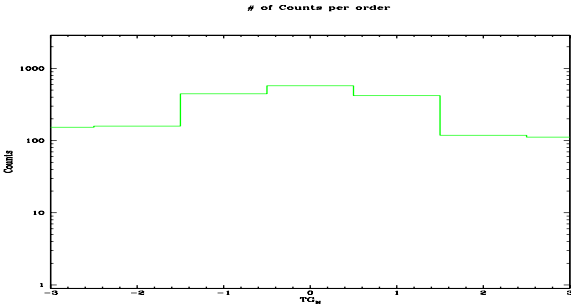


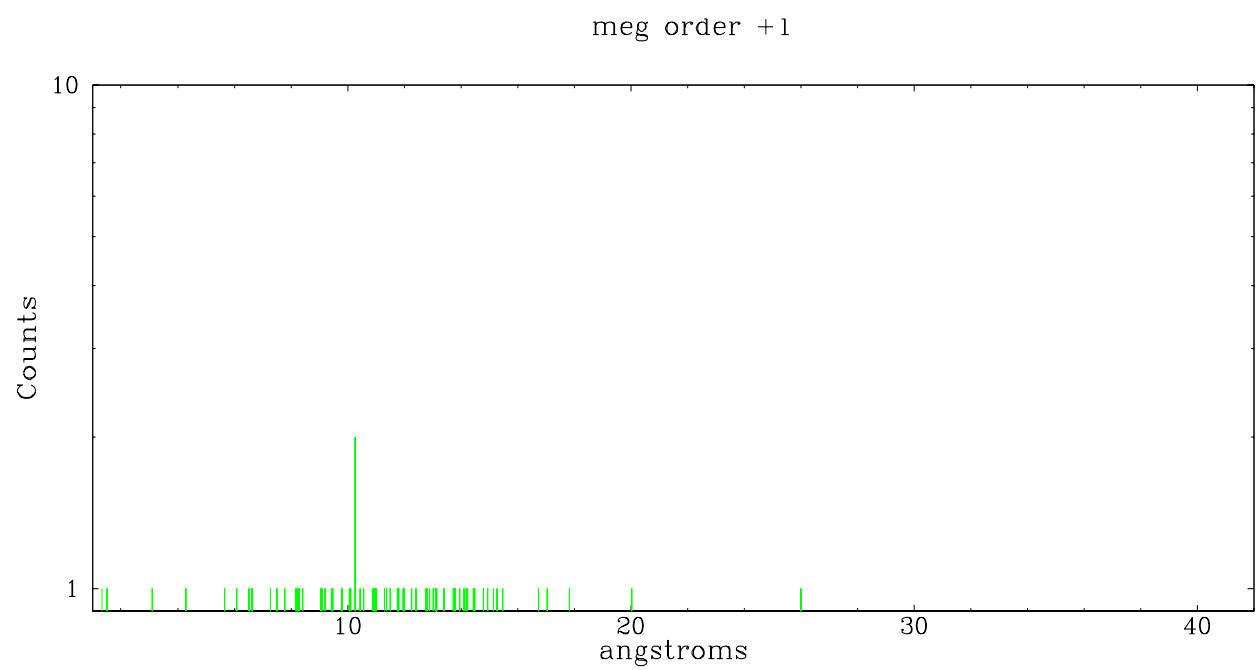
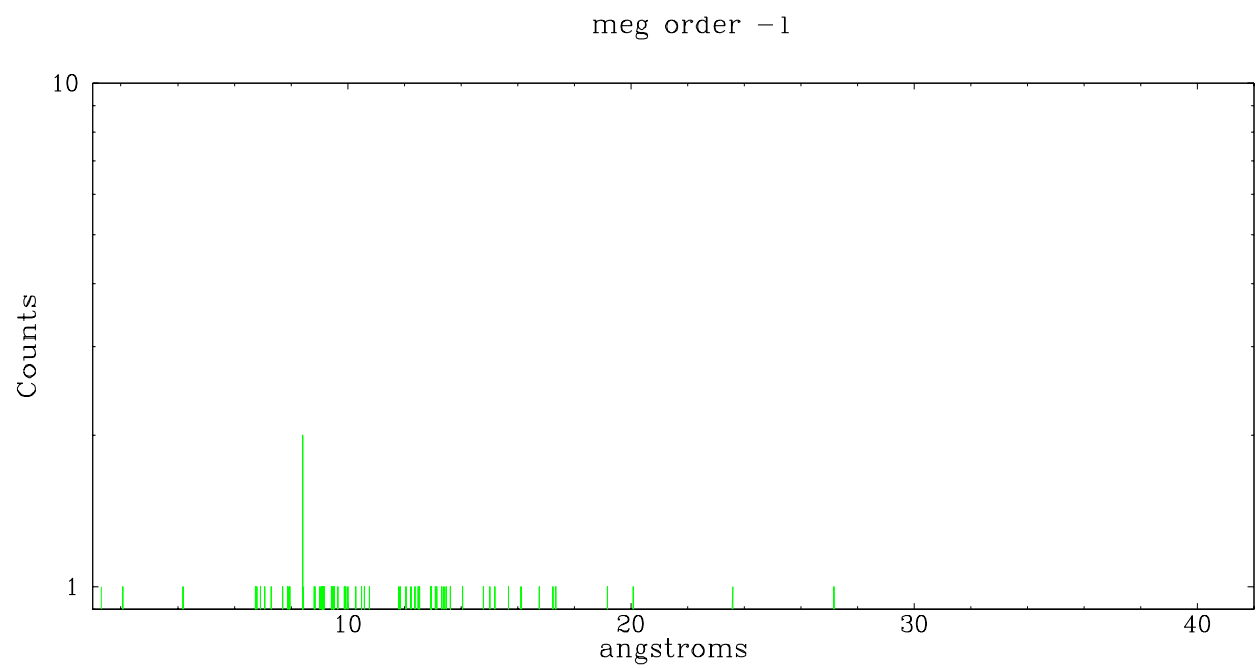
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	153	159	445	576	419	119	112





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2009.02.05
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	13.247

A.2 Comments

Due to an operational problem onboard the spacecraft, the HETG grating was not inserted at the beginning of this observation. There is a short period of exposure with no grating, followed by the grating observation. The initial observation with no grating is filtered out of the processing in the level 1 and level 2 data by manually setting the time interval to be processed. However, it is possible for the user to recover all the data, both with and without the grating inserted. 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.

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This obsid was reprocessed to correct minor errors in parameters used in processing. Some of these parameters cannot be determined automatically for this observation and were derived from spacecraft telemetry.