

V&V Reference Report

L2 ASCDS Version : 7.6.10

Observation 831 - L2 Version 001
Chandra X-Ray Center

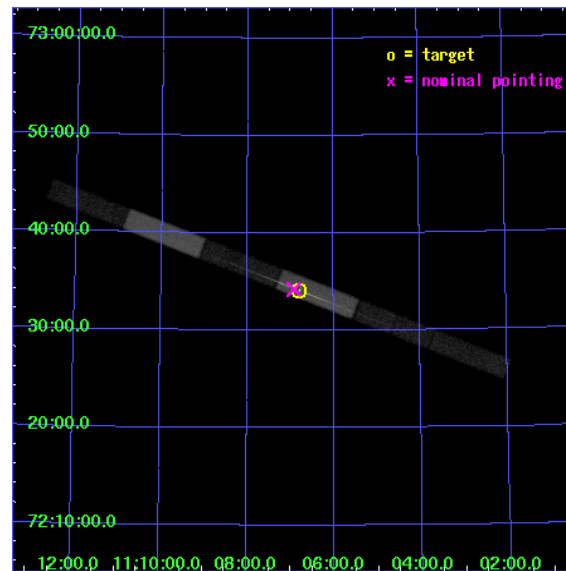
L2 Processing Date : Jun 9 2007

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1 Front

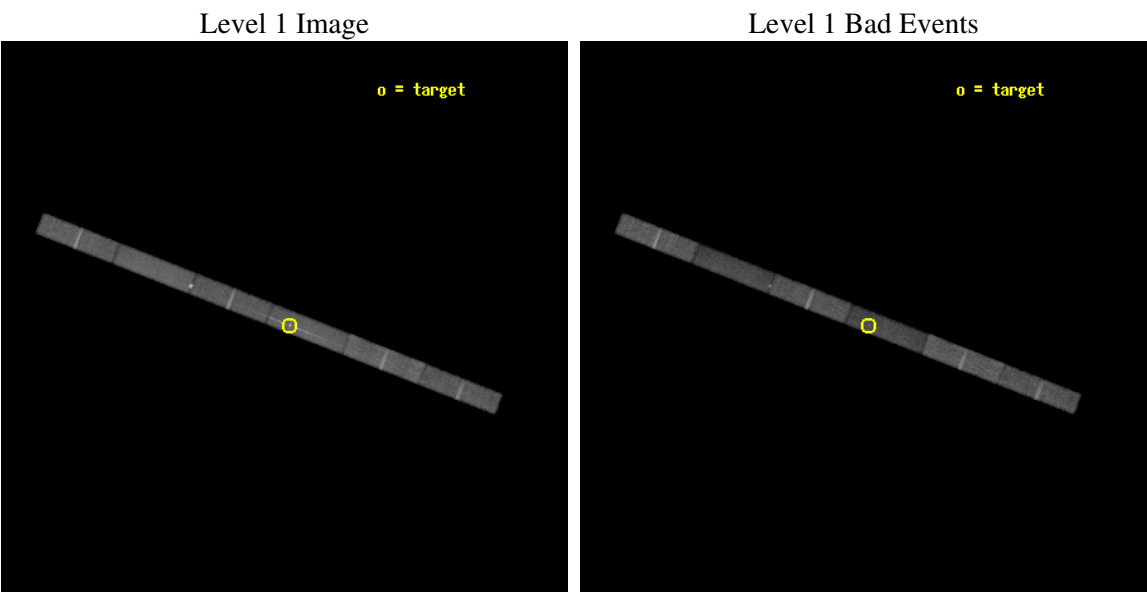
seq_num	700136
obs_id	831
title	EMISSION-LINE SPECTROSCOPY OF NGC 3516
observer	Dr. Hagai Netzer
object	NGC 3516
dtcycle	0
cycle	P
ra_targ	166.697876
dec_targ	72.568577
ra_nom	166.73039453597
dec_nom	72.570446160544
roll_nom	21.264395238467
revision	2
ontime	45272.617674679
livetime	43644.288931279
ontime4	45272.617674679
ontime5	45272.617674679
ontime6	45271.476654604
ontime7	45272.617674679
ontime8	45271.476654589
ontime9	45272.617674679
l2events	143806



2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias

Chip 4

Chip 5

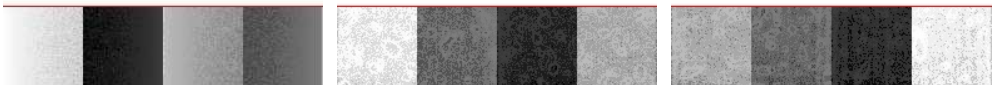
Chip 6



Chip 7

Chip 8

Chip 9



2.1.3 Parameters

obi_num	1
ascdsver	7.6.10
caldsver	3.4.0
date	2007-06-09T15:13:22
revision	2

sched_exp_time	45000.000000
ontime	45272.617674679
ontime4	45272.617674679
ontime5	45272.617674679
ontime6	45271.476654604
ontime7	45272.617674679
ontime8	45271.476654589
ontime9	45272.617674679
l1events	582998

2.1.4 Events

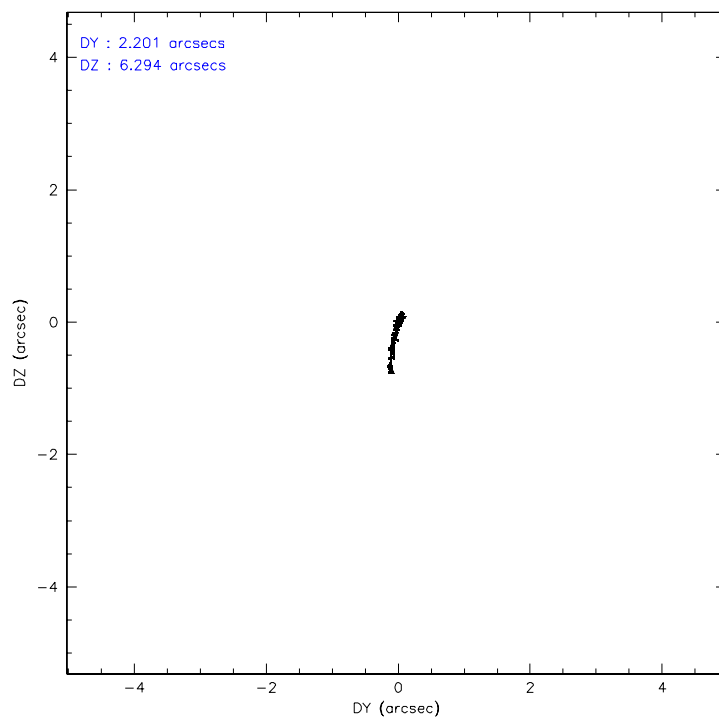
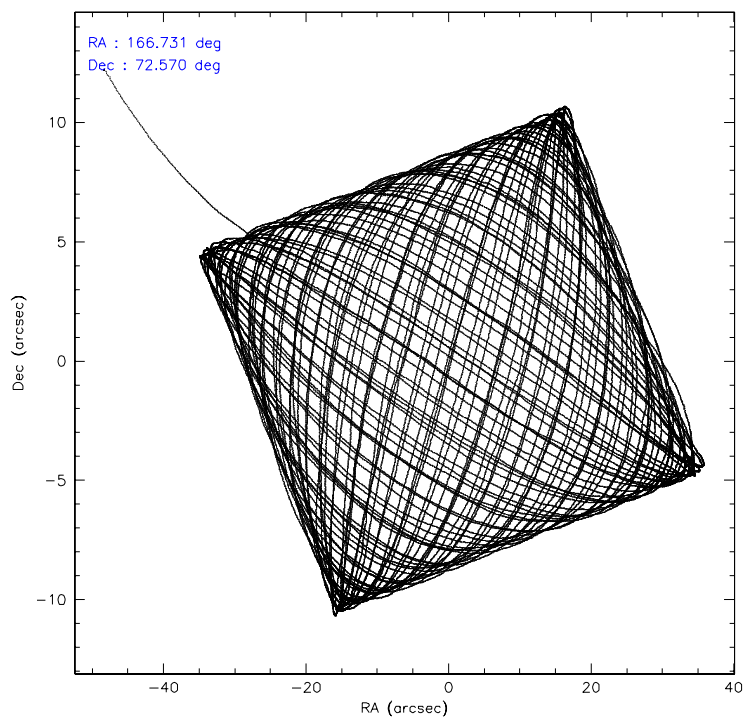
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	95877	104594	86297	109191	107074	79965
rejected events	85895	49173	75394	47520	87480	70086
rejected %	89%	47%	87%	43%	81%	87%

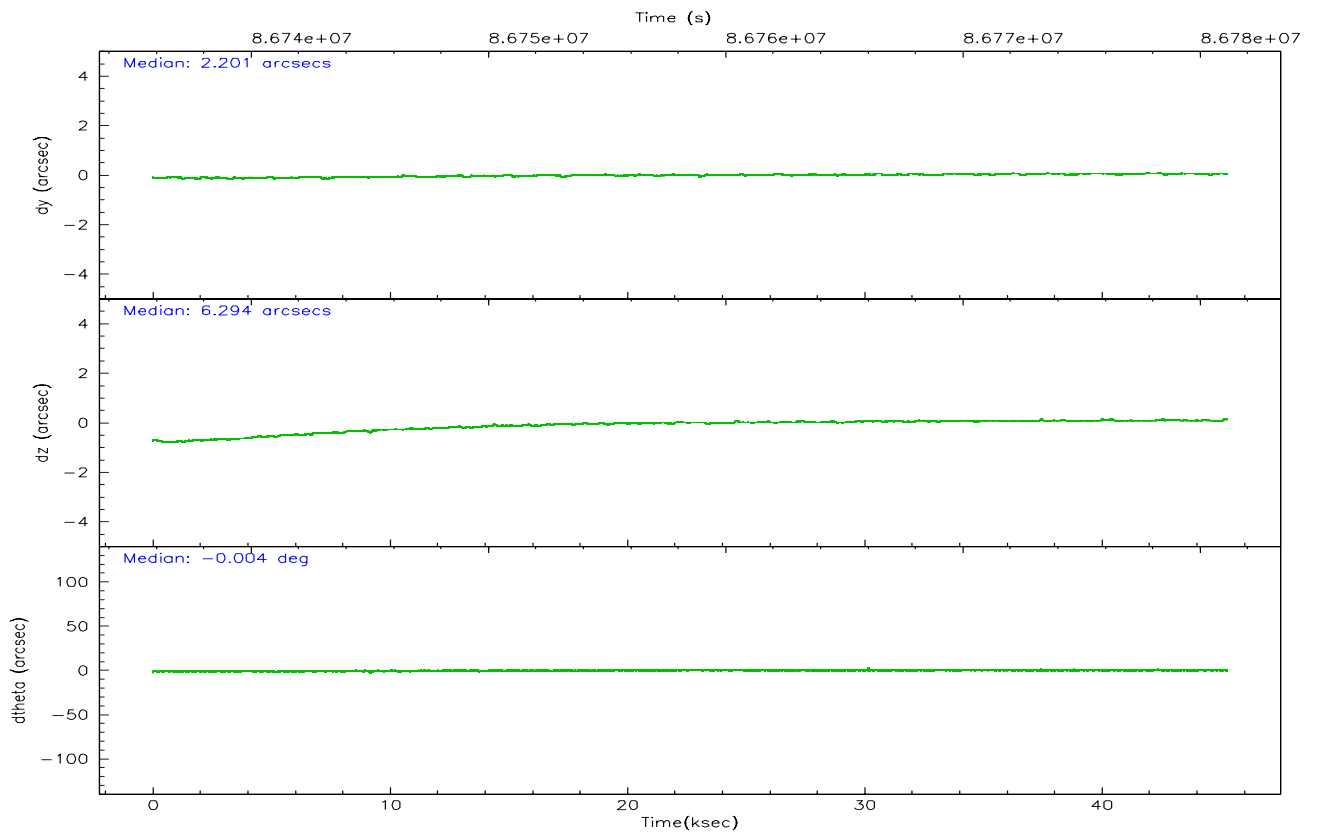
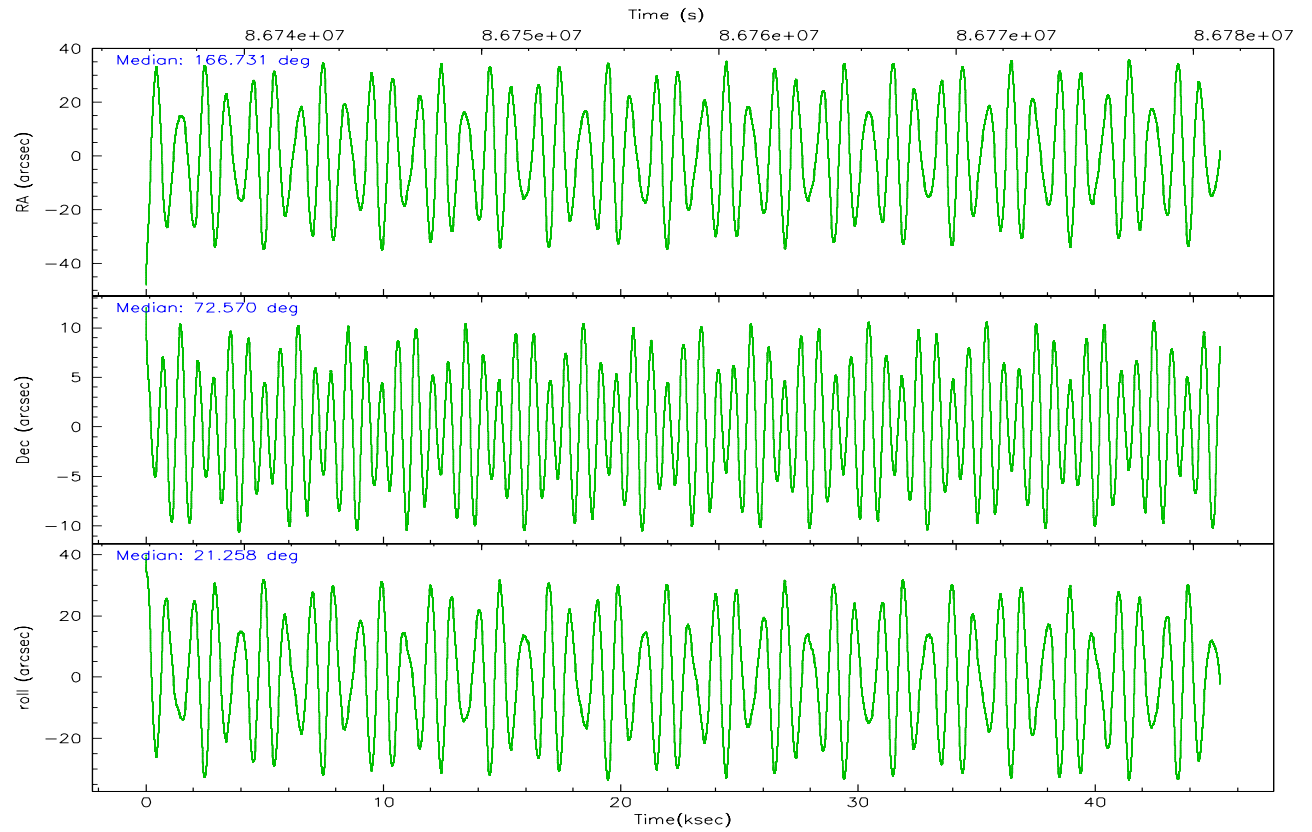
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	3836	8639	4832	8392	6069	4056
	4%	8%	5%	7%	5%	5%
grade 1 events	24	551	25	112	35	19
	0%	0%	0%	0%	0%	0%
grade 2 events	1969	14079	1774	12755	3781	1696
	2%	13%	2%	11%	3%	2%
grade 3 events	1377	3961	1386	6543	2390	1310
	1%	3%	1%	5%	2%	1%
grade 4 events	1310	4397	1361	6160	2284	1290
	1%	4%	1%	5%	2%	1%
grade 5 events	2182	8437	2490	7903	3321	2534
	2%	8%	2%	7%	3%	3%
grade 6 events	1546	24736	1600	28077	5200	1584
	1%	23%	1%	25%	4%	1%
grade 7 events	83633	39794	72829	39249	83994	67476
	87%	38%	84%	35%	78%	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	LETG	LETG	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	166.673700	166.7303945359684	Subarray requested	CUSTOM	1/4
Pointing Dec	72.548971	72.57044616054399	Subarray start row	1	1
Pointing Roll	21.161829	21.26439523846711	Subarray row count	256	256
SIM focus pos (mm)	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
SIM defocus (mm)	0	0.001444936568705701	Primary exposure time	0.000000	1.1
SIM translation stage pos (mm)	-182.132523	-182.1344861297048			
SIM translation stage offset (mm)	-8	-7.998036453302973			
Observation start time	86736138.184000	86735122.69867601			
Observation start date	2000-09-30T21:21:14	2000-09-30T21:05:22			
Observation end time	86781138.184000	86782136.375449			
Observation end date	2000-10-01T09:51:14	2000-10-01T10:08:56			
Read mode	TIMED	TIMED			

2.3 Aspect



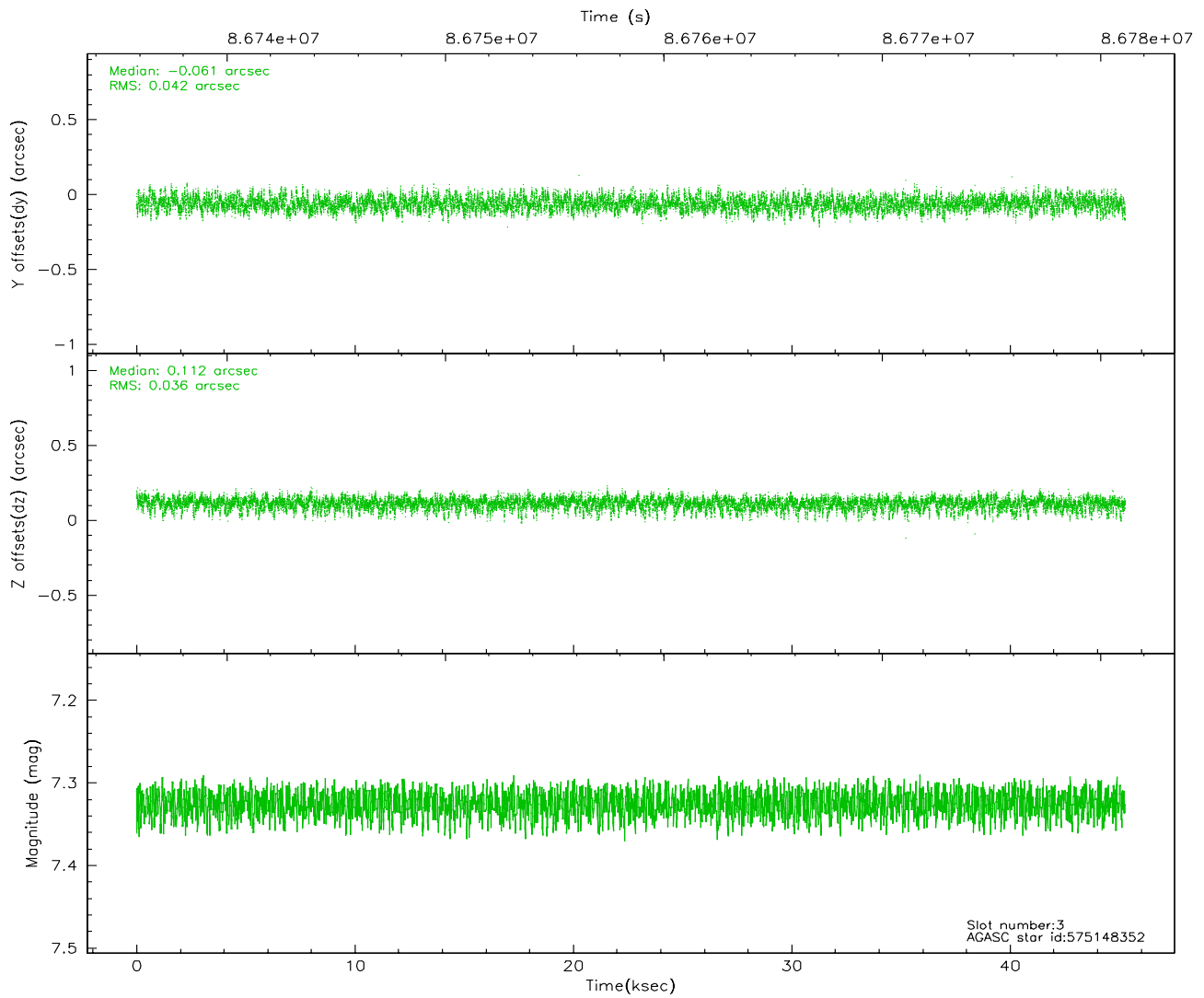
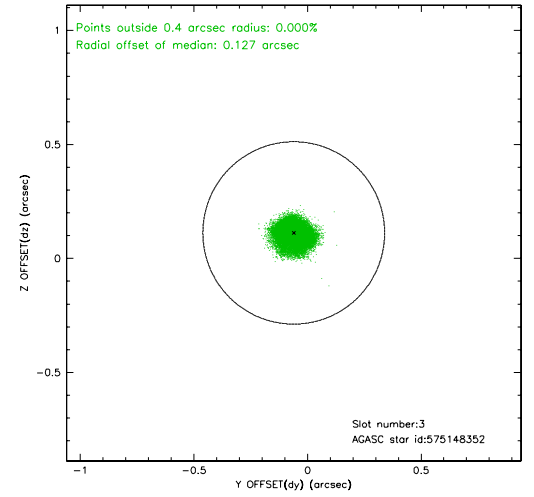
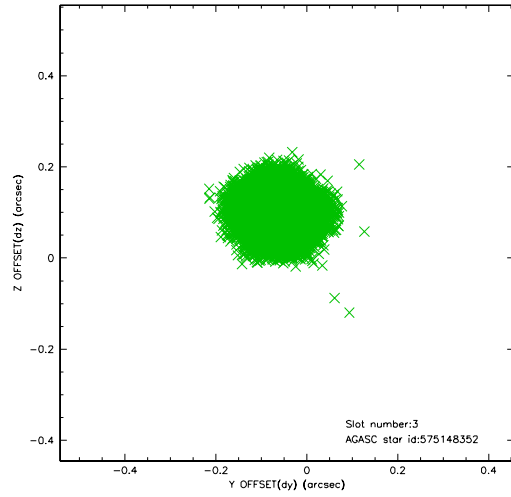


Slot Statistics

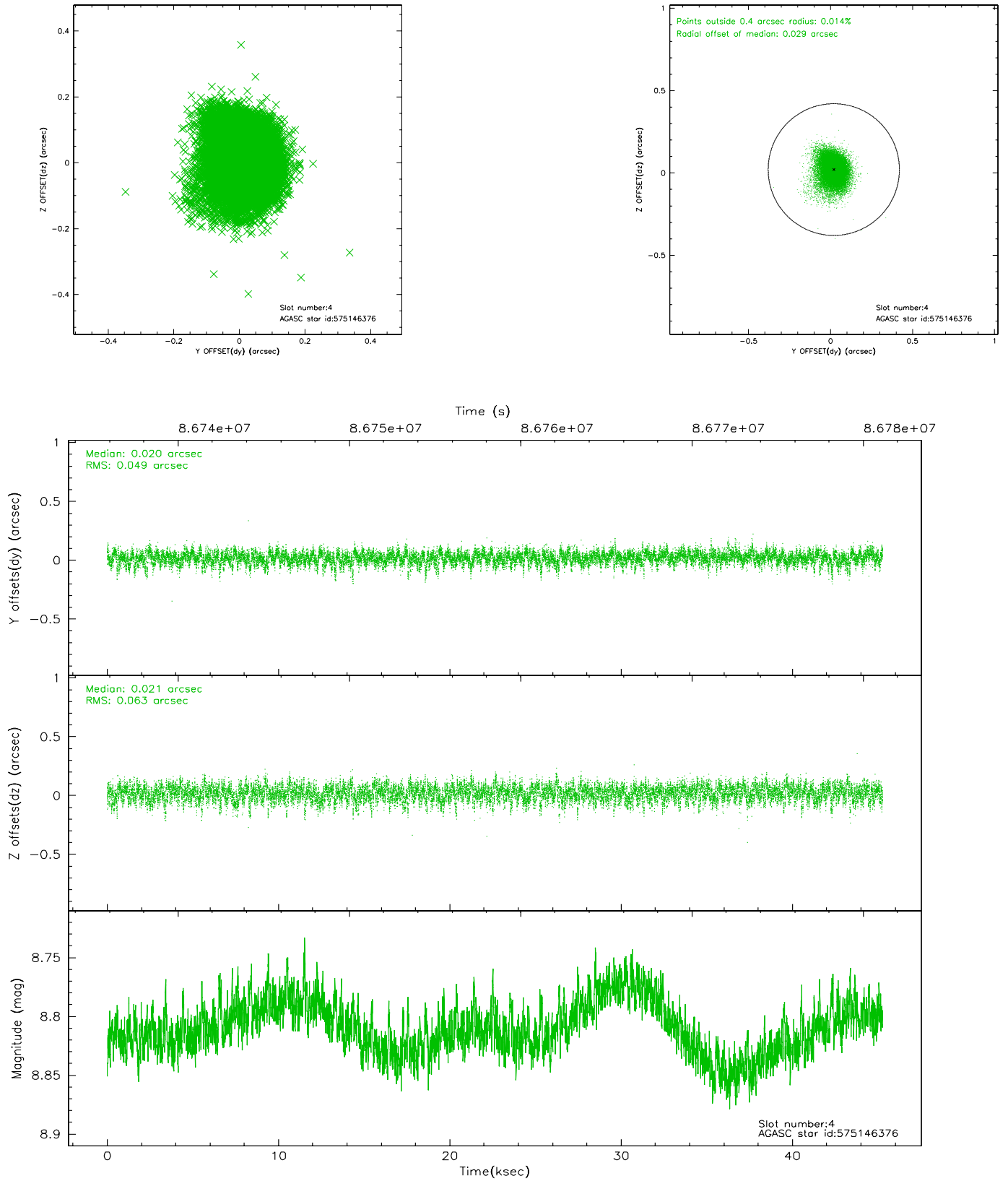
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.09	11041	-0.034	-0.073	0.011	0.023	0.000000	0.000000	-754.28	-1892.15
1	FID	ACIS-S-4	7.18	11041	-0.010	0.036	0.007	0.014	0.000000	0.000000	2159.04	16.39
2	FID	ACIS-S-5	7.23	11041	0.013	0.045	0.010	0.021	0.000000	0.000000	-1807.07	10.10
3	GUIDE	575148352	7.32	22080	-0.061	0.112	0.060	0.095	167.090916	71.958979	-332.37	-2146.71
4	GUIDE	575146376	8.81	21983	0.020	0.021	0.082	0.142	166.888472	72.124920	-329.60	-1508.65
5	GUIDE	575541080	8.93	22079	-0.155	0.024	0.066	0.108	167.870403	73.115273	1906.89	1461.75
6	GUIDE	575543720	9.35	22070	0.162	-0.080	0.084	0.137	164.695945	72.631615	-1861.70	1077.42
7	GUIDE	575541344	9.37	22073	0.036	-0.072	0.090	0.152	166.947366	72.953762	795.33	1255.79

2.4 Star Slots

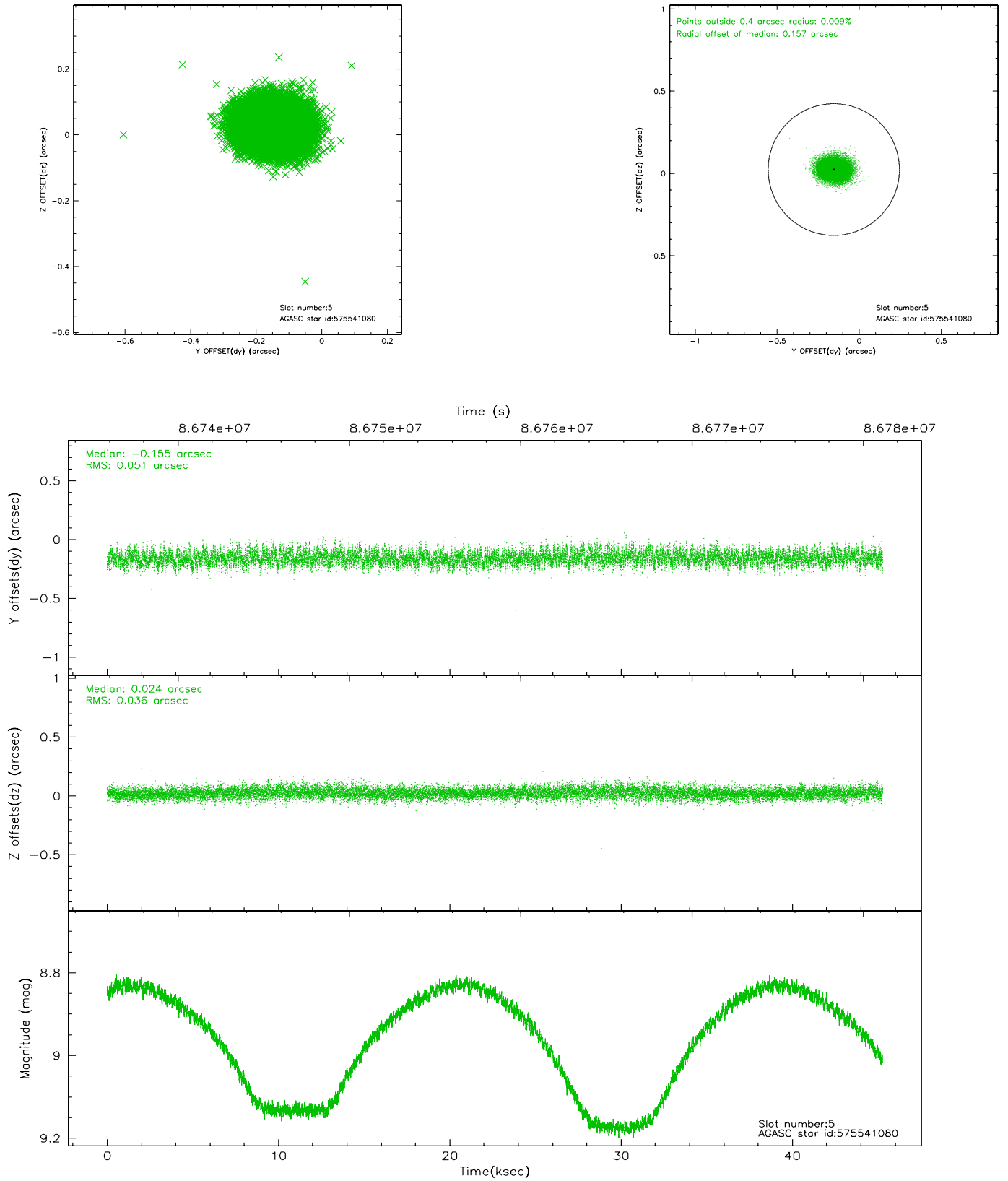
2.4.1 Slot 3



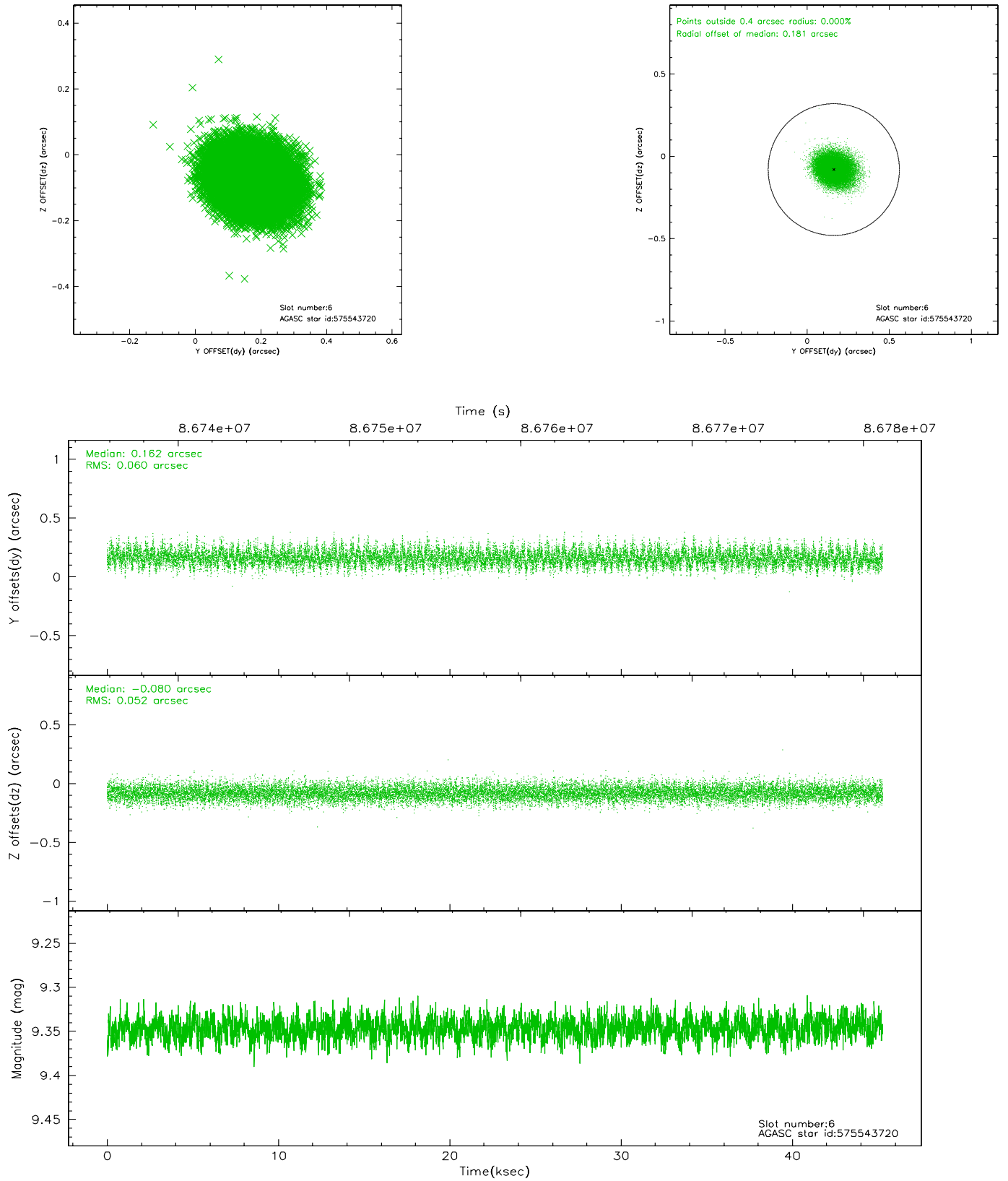
2.4.2 Slot 4



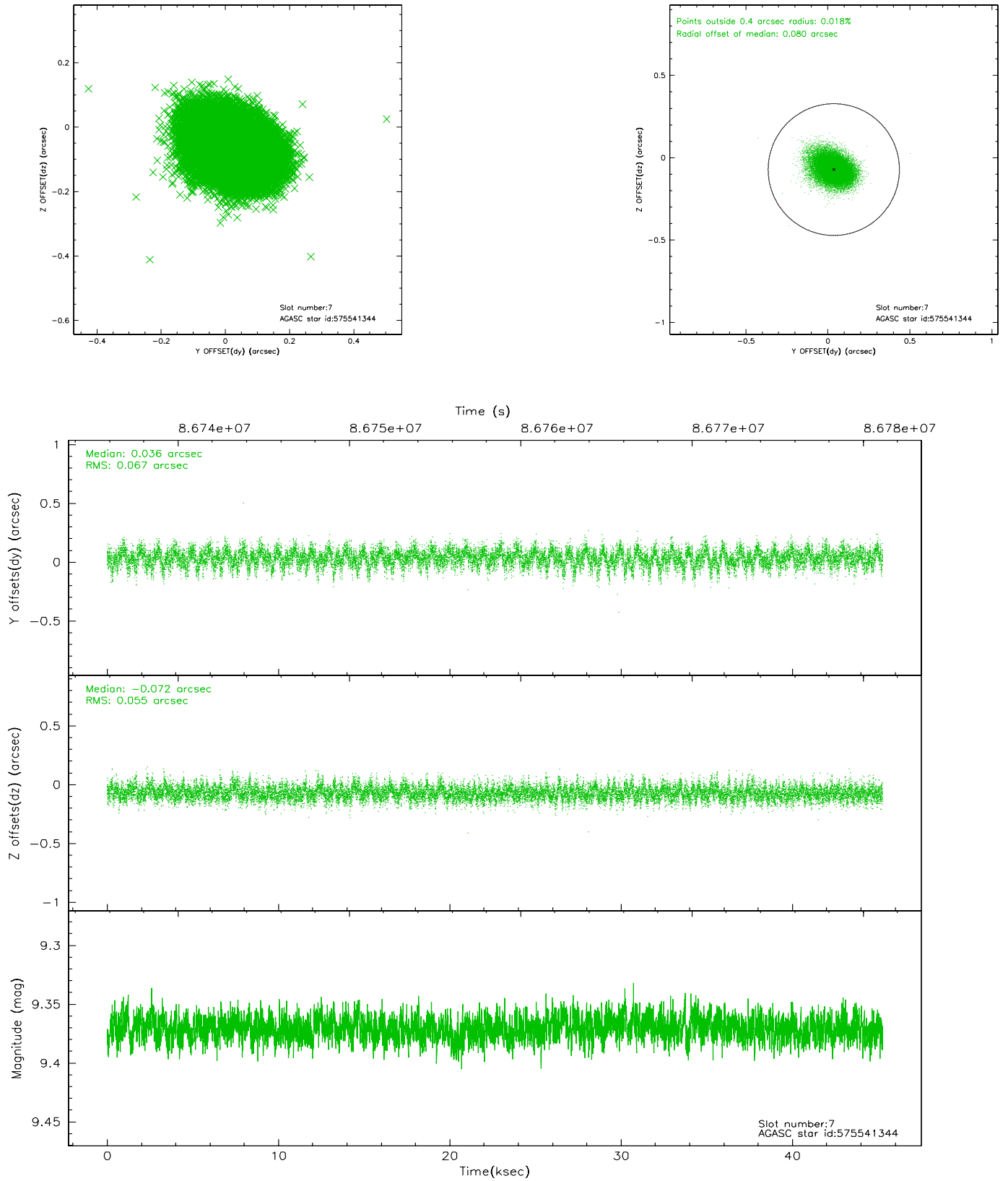
2.4.3 Slot 5



2.4.4 Slot 6

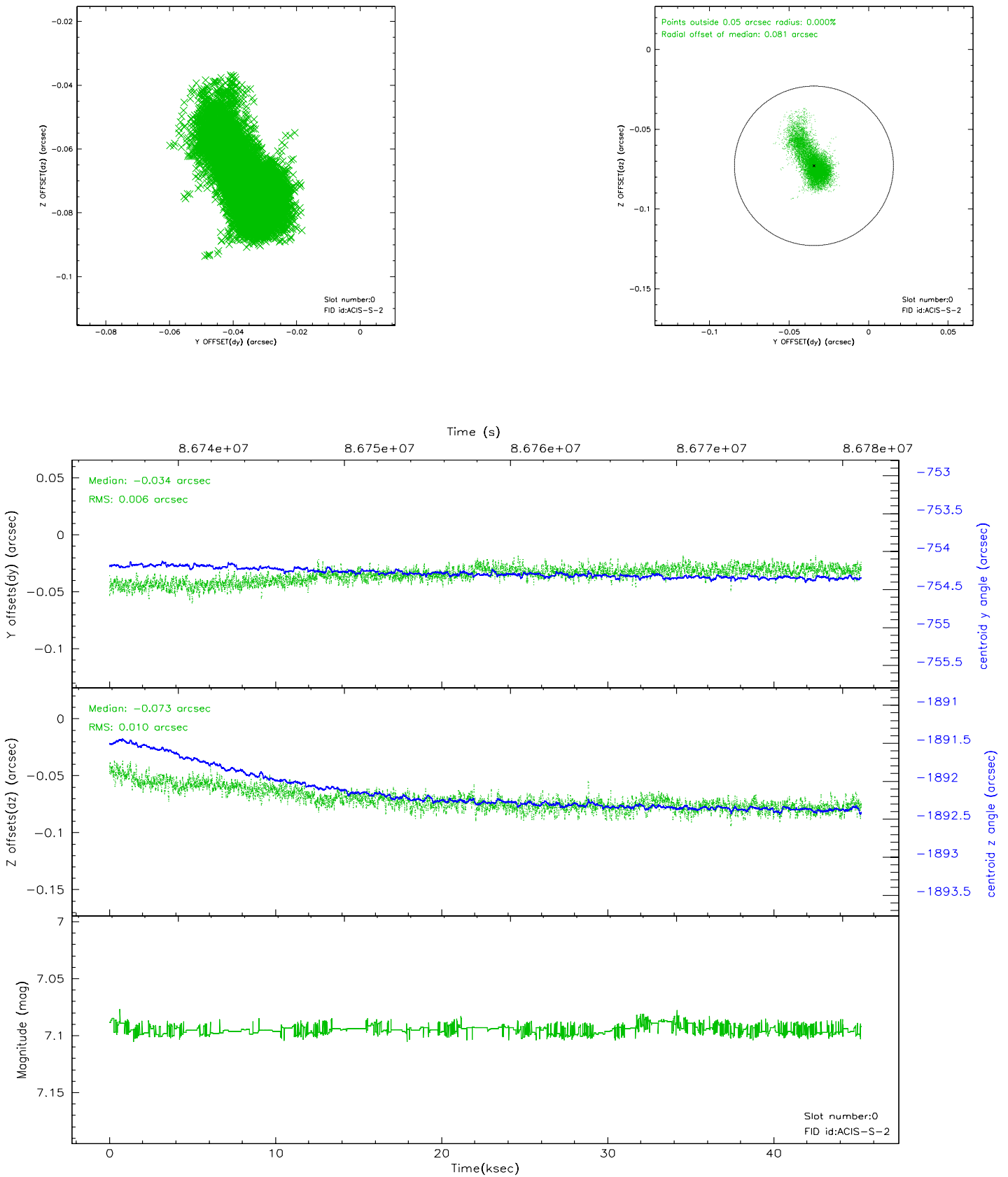


2.4.5 Slot 7

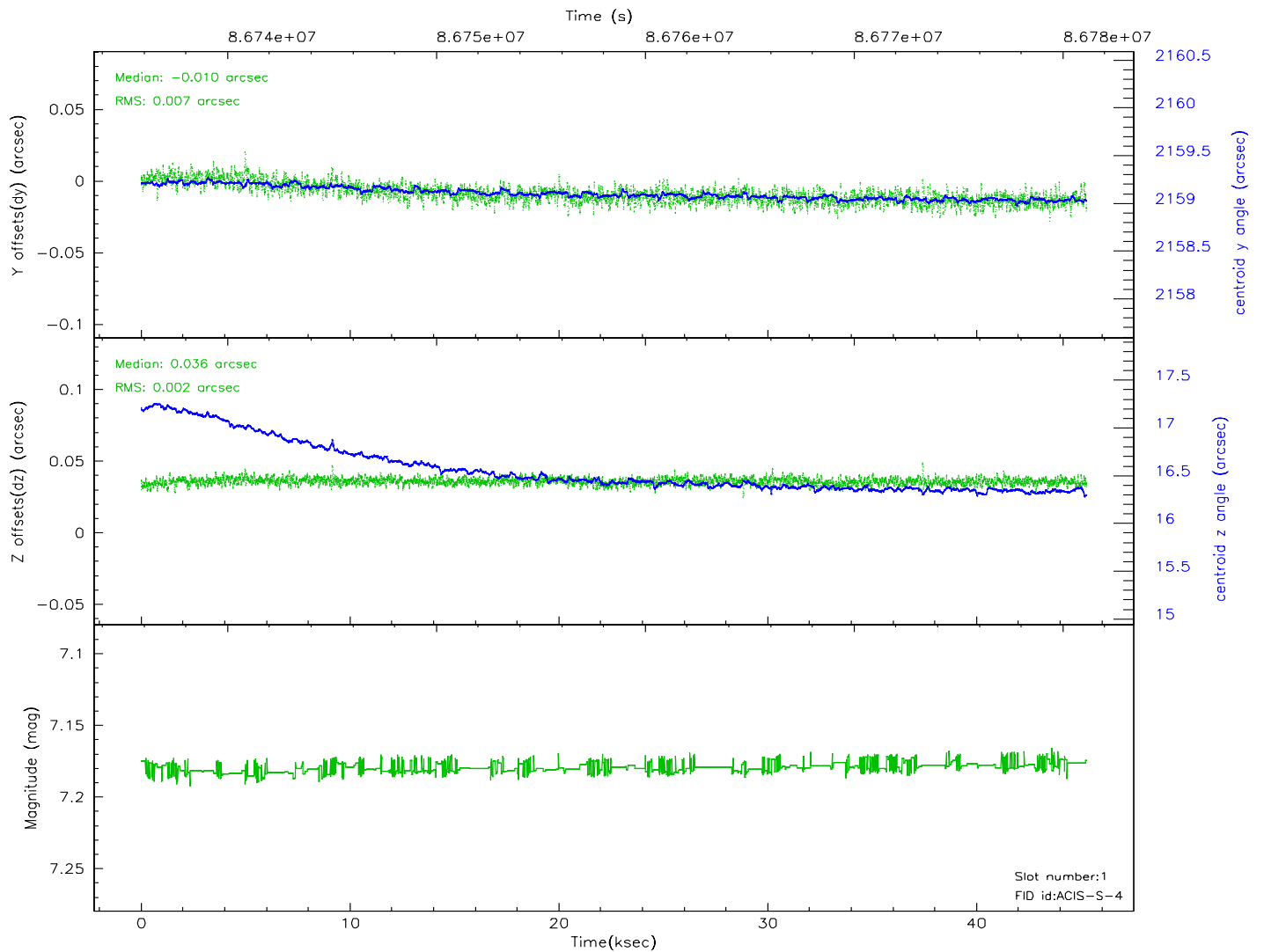
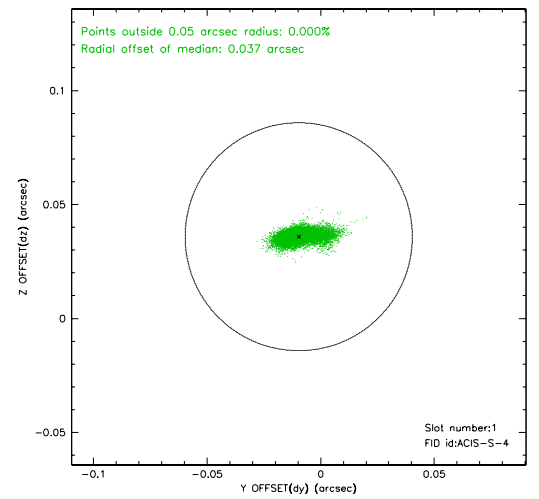
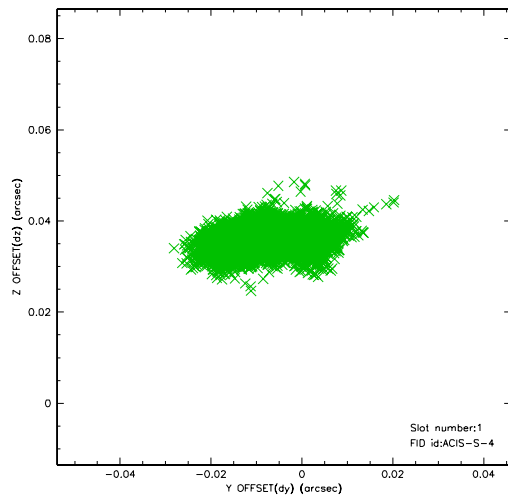


2.5 FID Slots

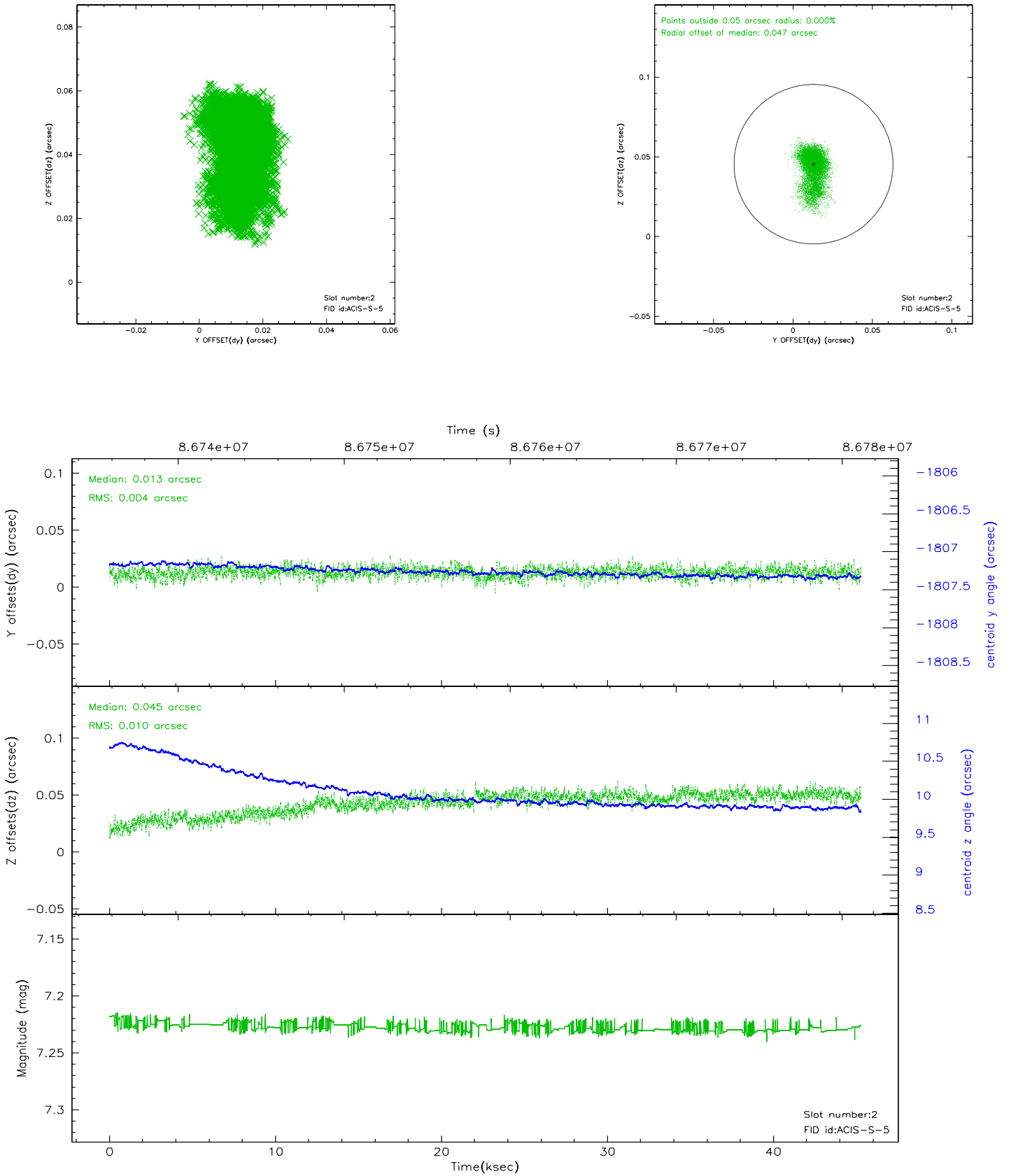
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

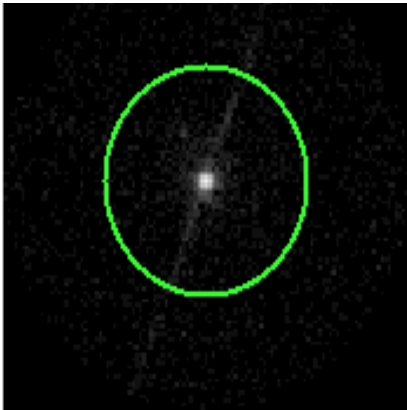


3 Gratings

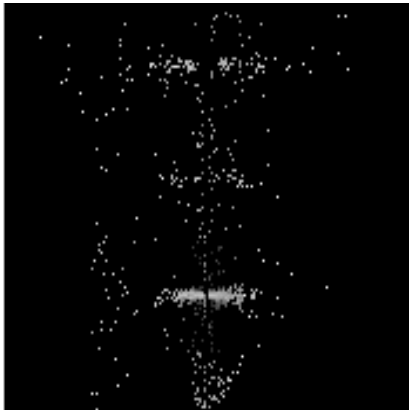
3.1 LETG Arm



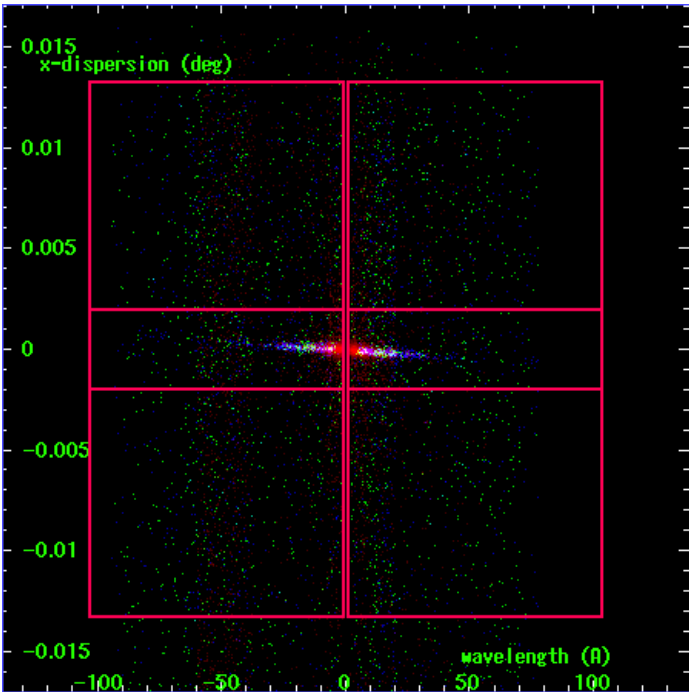
LETG Order Sort 123



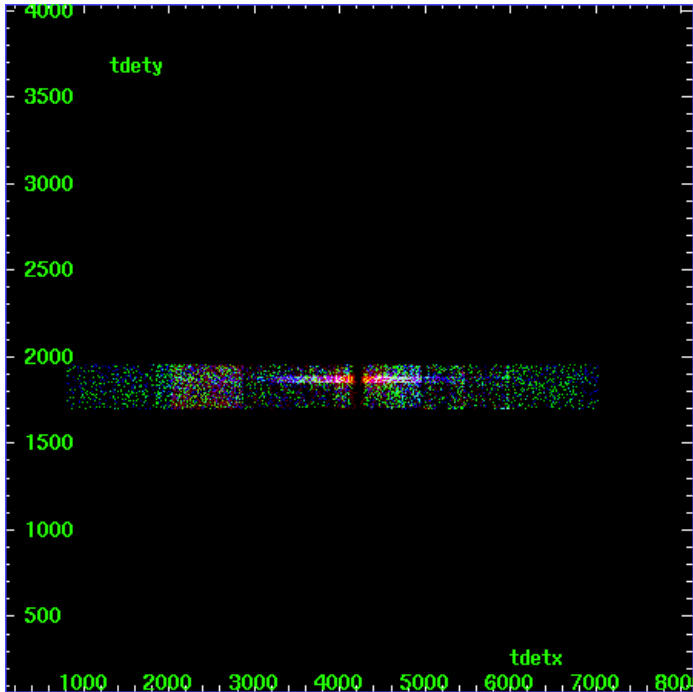
LETG Zero Order



LETG Order Sort ALL

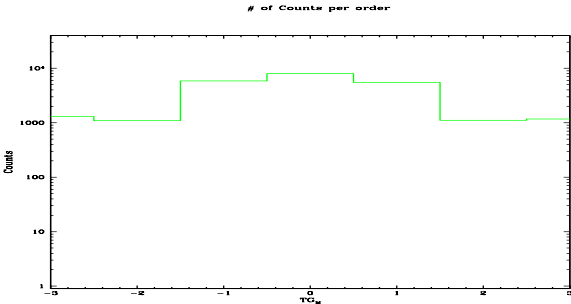


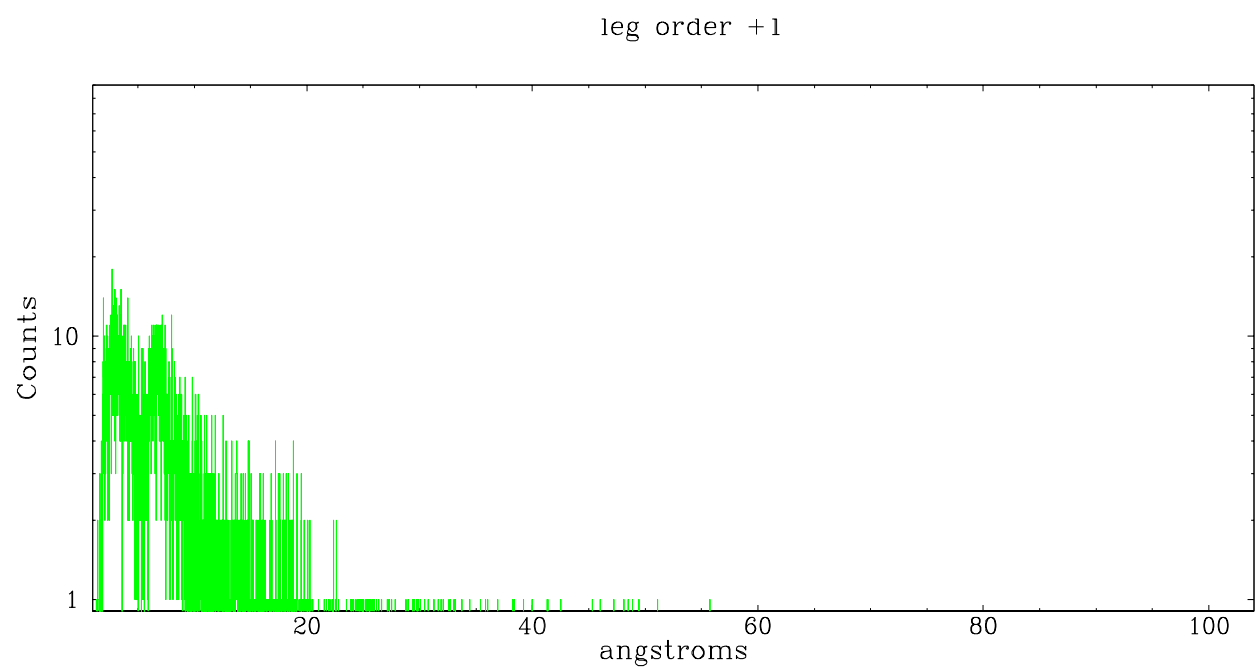
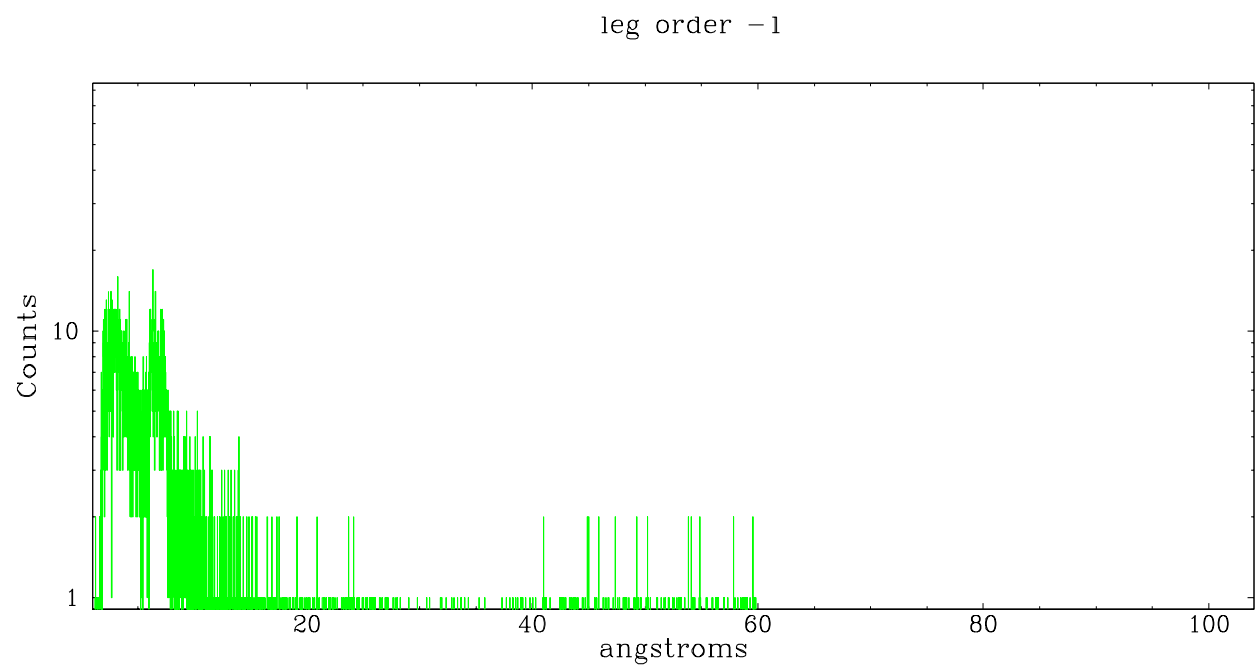
Spot Image LETG



Full Detector LETG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1300	1090	5870	7947	5485	1112	1168





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2007.06.14
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	45.272

A.2 Comments

The zeroth order of the source is significantly off-center in the ACIS subarray detector in the cross-dispersion direction. This placement probably does not affect the quality of spectral extraction of the source data, although it is advisable to re-extract the spectrum with a slightly narrower region in the cross-dispersion direction. However, the background spectrum in this standard processing is the combination of the background on either side of the source spectrum. The effective area is not identical in the background region above and below the spectral extraction region, because one of these background regions includes significant area that is off the detector. The user is advised to use exposure-corrected data for analysis, and narrower extraction regions for at least the background, as well as possibly for the source extraction region.