

V&V Reference Report

L2 ASCDS Version : 7.6.10

Observation 675 - L2 Version 3
Chandra X-Ray Center

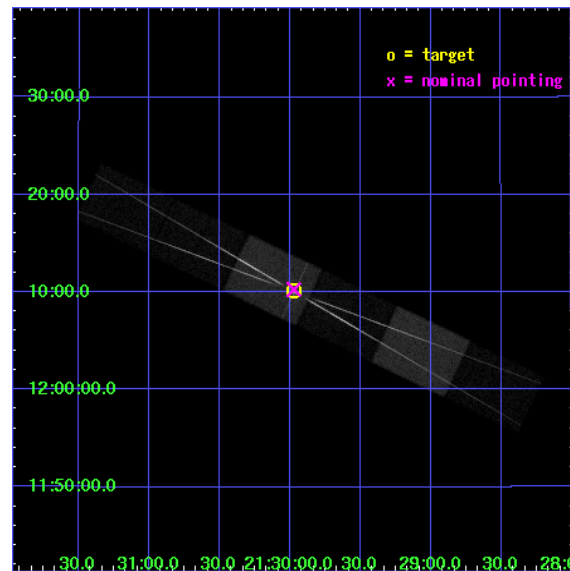
L2 Processing Date : Jul 27 2007

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1 Front

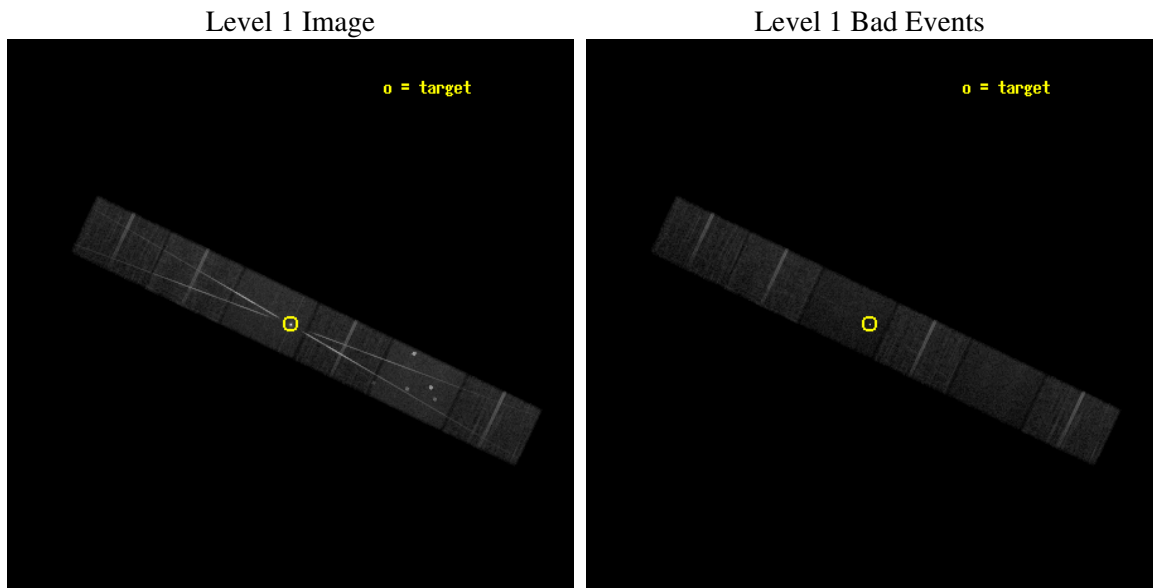
seq_num	400042
obs_id	675
title	SOFT X-RAY DIAGNOSTICS OF A POSSIBLE ADC IN X2127+119
observer	Dr Nicholas White
object	X2127+119
dtcycle	0
cycle	P
ra_targ	322.492917
dec_targ	12.169167
ra_nom	322.49330392246
dec_nom	12.171292113468
roll_nom	205.37226163368
revision	3
ontime	20130.0
livetime	19804.883040015
ontime4	20130.0
ontime5	20130.0
ontime6	20130.0
ontime7	20130.0
ontime8	20130.0
ontime9	20127.459009841
l2events	264876



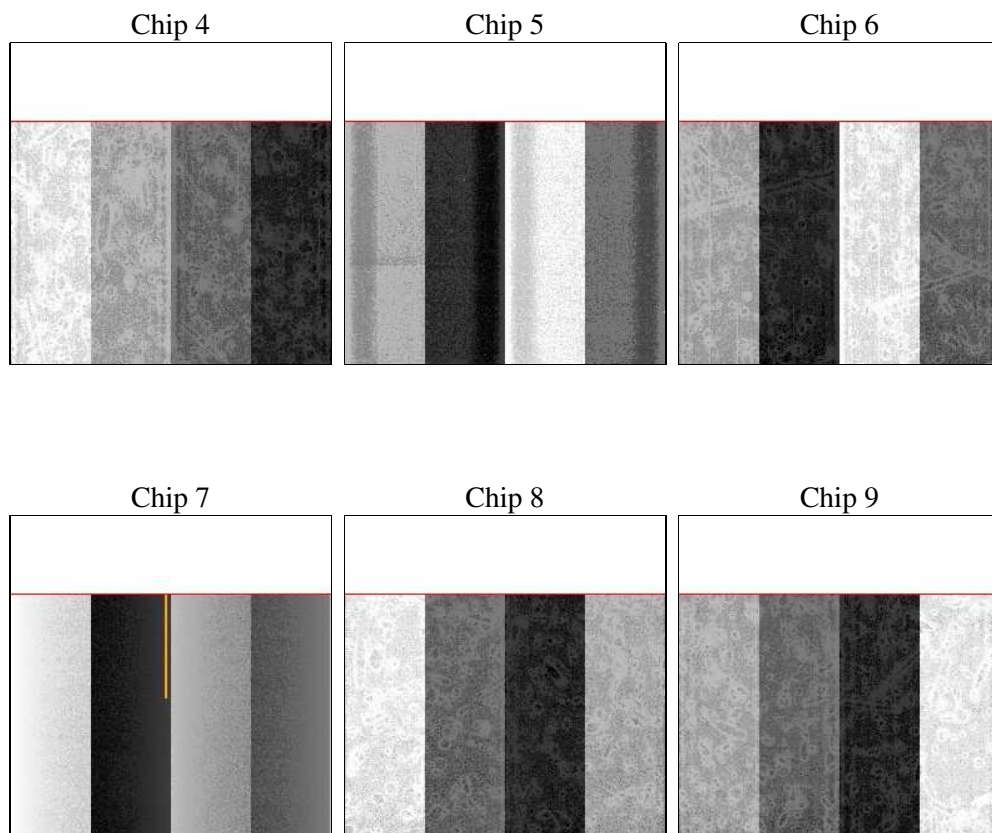
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0
ascdsver	7.6.10
caldbver	3.4.0
date	2007-06-05T08:20:40
revision	2

sched_exp_time	20000.000000
ontime	20130.0
ontime4	20130.0
ontime5	20130.0
ontime6	20130.0
ontime7	20130.0
ontime8	20130.0
ontime9	20127.459009841
l1events	832968

2.1.4 Events

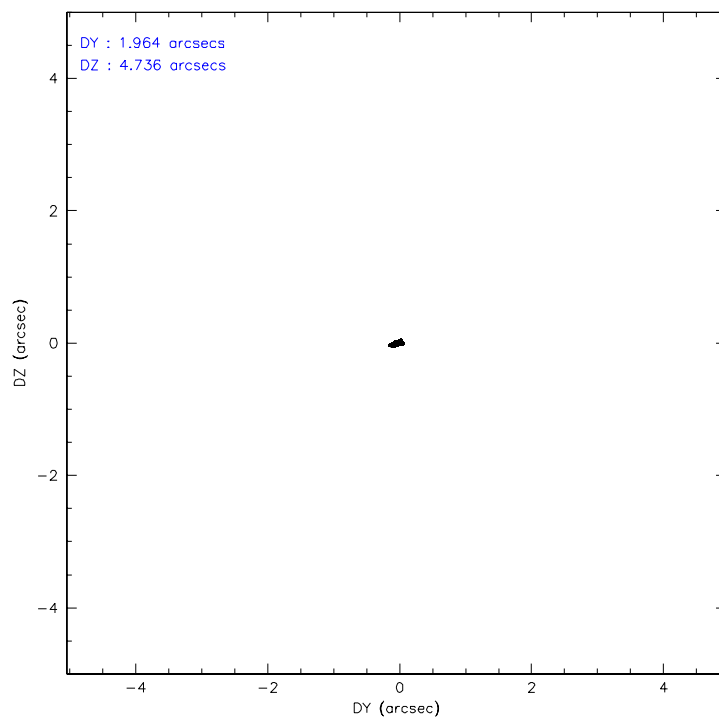
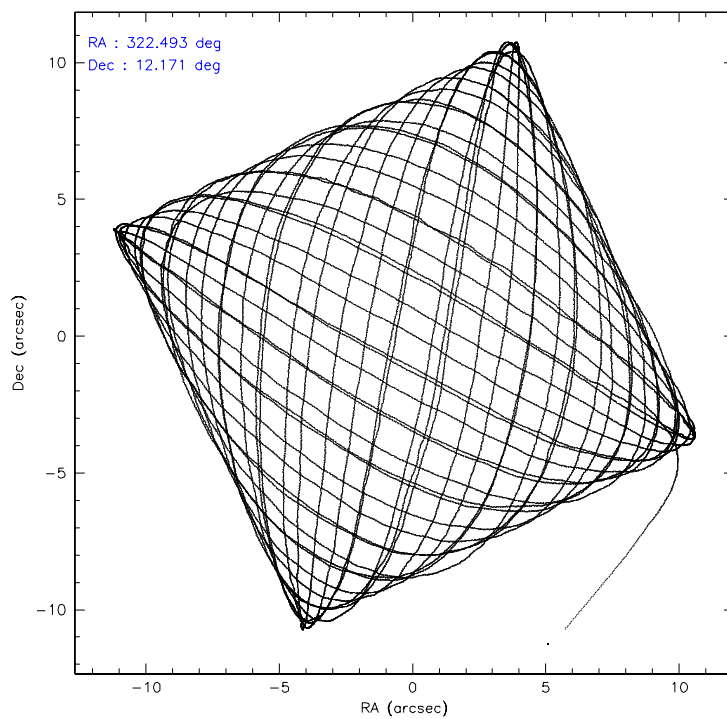
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	109655	156809	145018	178197	142482	100807
rejected events	95880	72026	91326	78918	101671	86194
rejected %	87%	45%	62%	44%	71%	85%

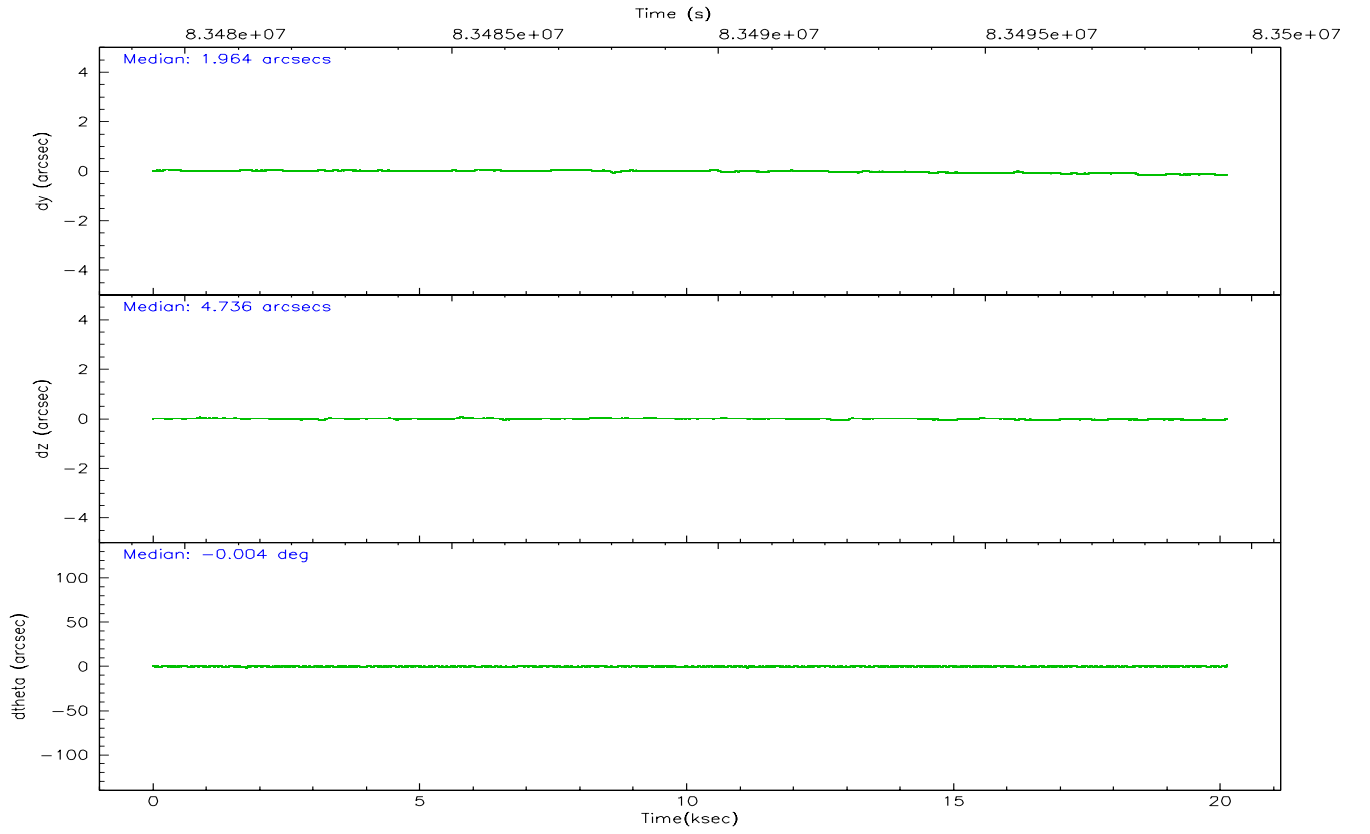
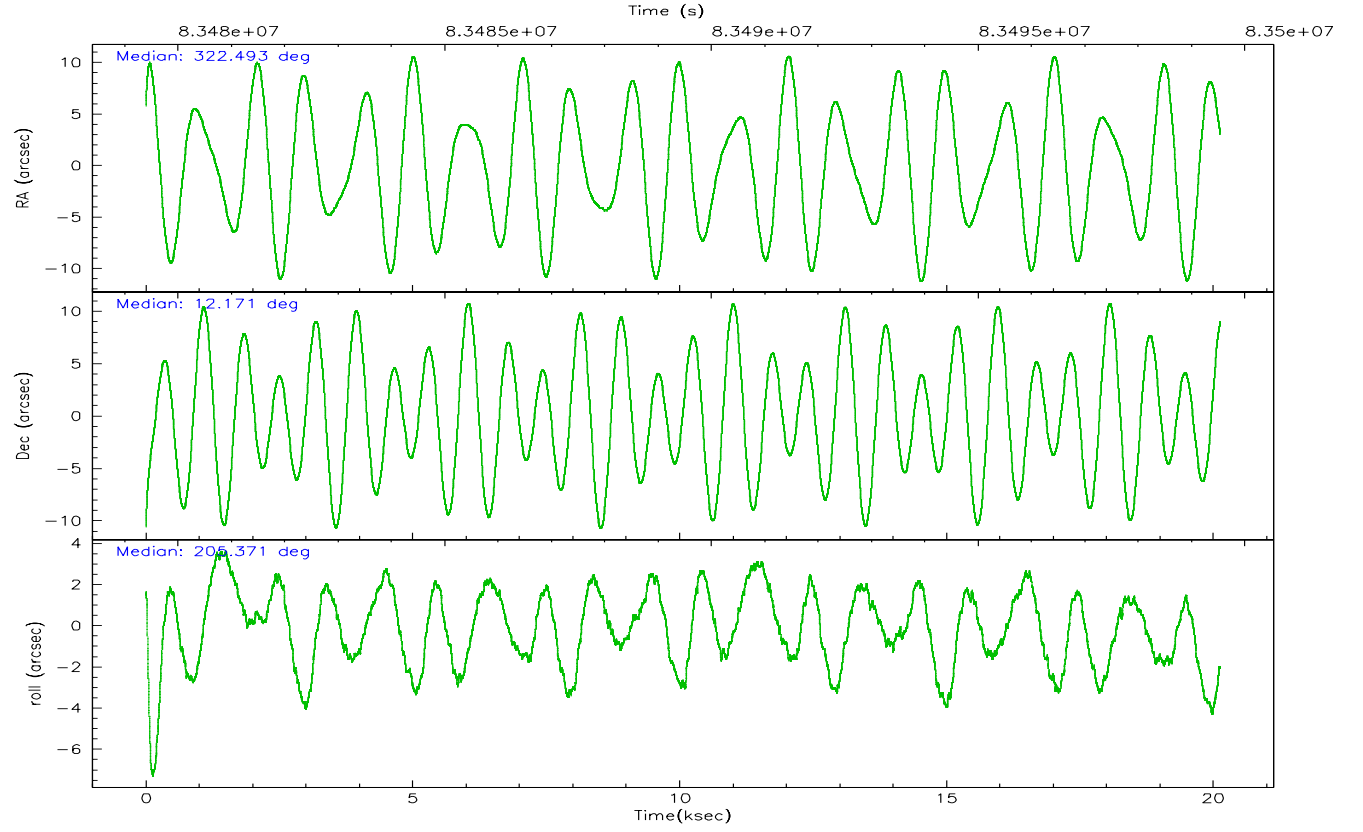
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	6870	27014	38335	15735	23008	7891
	6%	17%	26%	8%	16%	7%
grade 1 events	44	256	184	398	95	42
	0%	0%	0%	0%	0%	0%
grade 2 events	2909	19647	7115	22303	6782	2504
	2%	12%	4%	12%	4%	2%
grade 3 events	1191	4302	2848	10271	3222	1370
	1%	2%	1%	5%	2%	1%
grade 4 events	1229	4042	2736	10367	3014	1294
	1%	2%	1%	5%	2%	1%
grade 5 events	3168	10363	3884	13099	4773	3817
	2%	6%	2%	7%	3%	3%
grade 6 events	1977	32323	3453	42780	6301	2079
	1%	20%	2%	24%	4%	2%
grade 7 events	92267	58862	86463	63244	95287	81810
	84%	37%	59%	35%	66%	81%

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	322.509072	322.4933039224599	Subarray requested	CUSTOM	CUSTOM
Pointing Dec	12.193915	12.171292113468	Subarray start row	1	1
Pointing Roll	205.212298	205.3722616336816	Subarray row count	774	774
SIM focus pos (mm)	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
SIM defocus (mm)	0	0.001444936568705701	Primary exposure time	3.200000	2.5
SIM translation stage pos (mm)	-187.132523	-187.1228876879999			
SIM translation stage offset (mm)	-3	-3.009634895007935			
Observation start time	83479533.184000	83478266.051247			
Observation start date	2000-08-24T04:44:29	2000-08-24T04:24:26			
Observation end time	83499533.184000	83500103.677066			
Observation end date	2000-08-24T10:17:49	2000-08-24T10:28:23			
Read mode	TIMED	TIMED			

2.3 Aspect



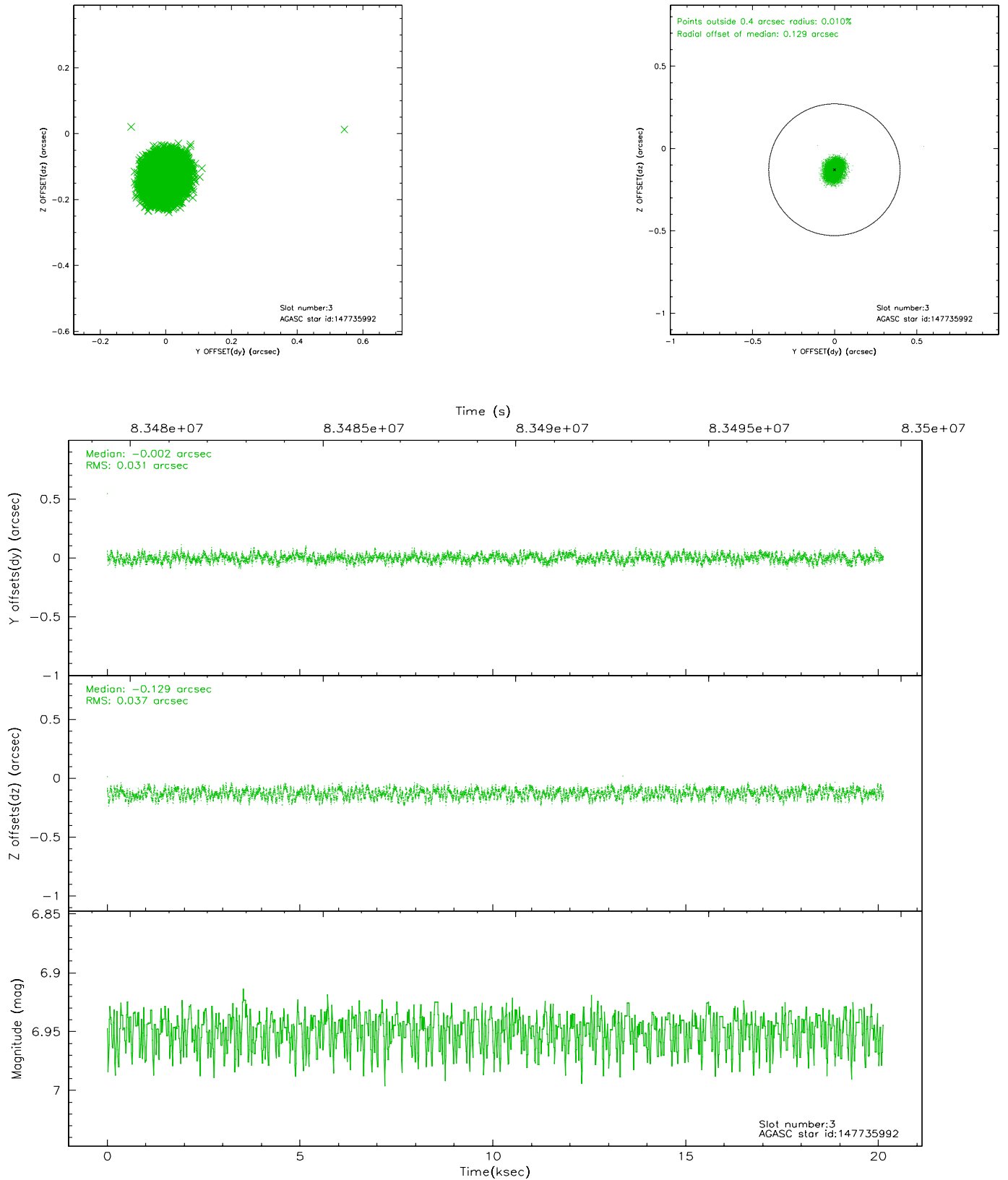


Slot Statistics

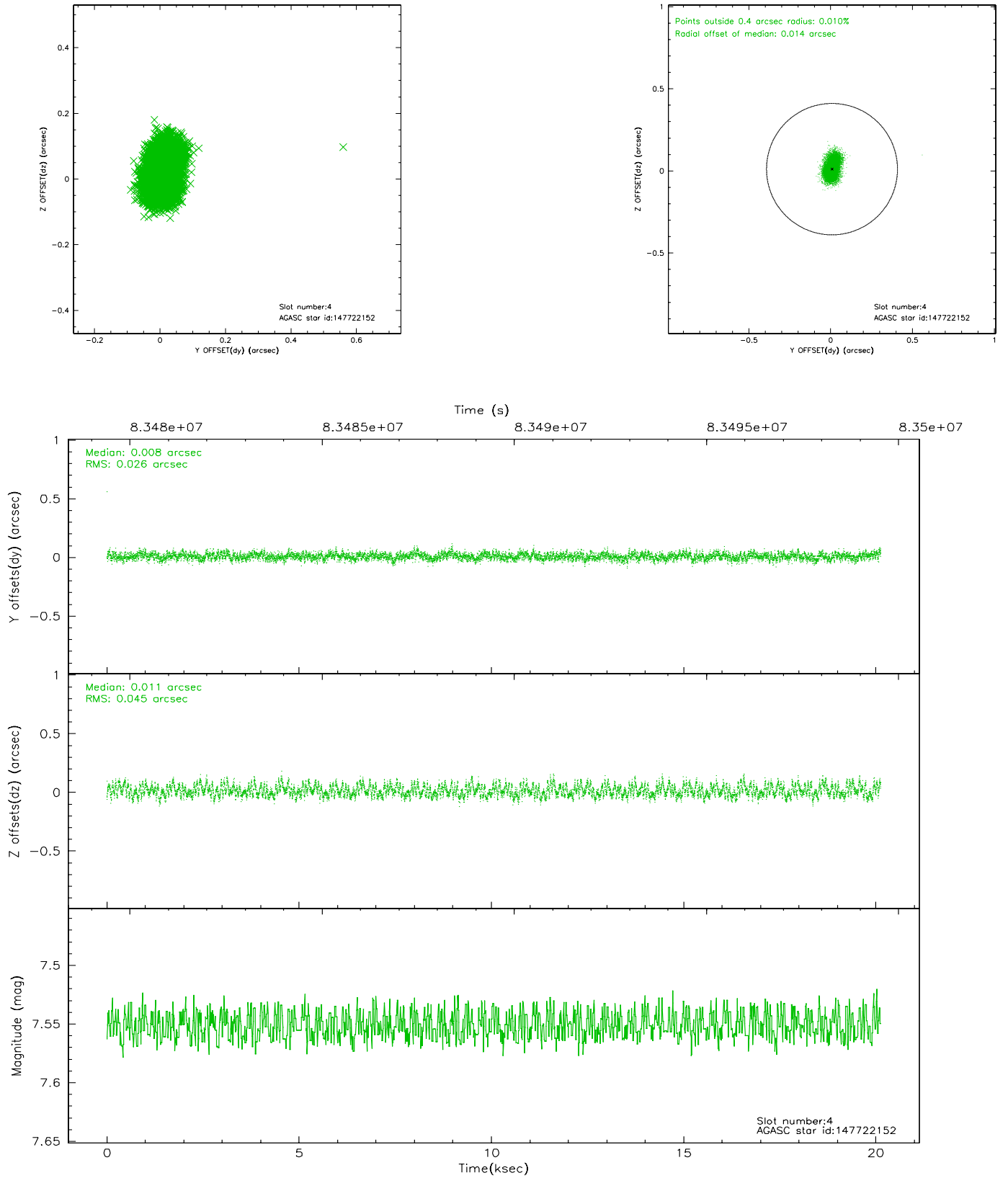
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	4911	-0.020	-0.011	0.007	0.011	0.000000	0.000000	-754.38	-1787.98
1	FID	ACIS-S-4	7.19	4911	-0.038	0.012	0.005	0.009	0.000000	0.000000	2158.80	120.30
2	FID	ACIS-S-5	7.23	4911	0.026	0.007	0.006	0.011	0.000000	0.000000	-1806.93	114.20
3	GUIDE	147735992	6.95	9823	-0.002	-0.129	0.052	0.078	322.299566	11.952911	1037.44	470.50
4	GUIDE	147722152	7.55	9819	0.008	0.011	0.054	0.091	322.735072	12.555367	-1272.37	-839.10
5	GUIDE	147719608	8.69	9821	0.018	0.007	0.063	0.102	322.898936	12.907459	-2332.10	-1742.23
6	GUIDE	147735328	8.67	9819	-0.038	0.077	0.070	0.109	321.823462	12.214663	2149.59	-1097.85
7	GUIDE	147736824	9.14	9813	0.016	0.034	0.079	0.125	322.394074	11.689801	1140.44	1469.30

2.4 Star Slots

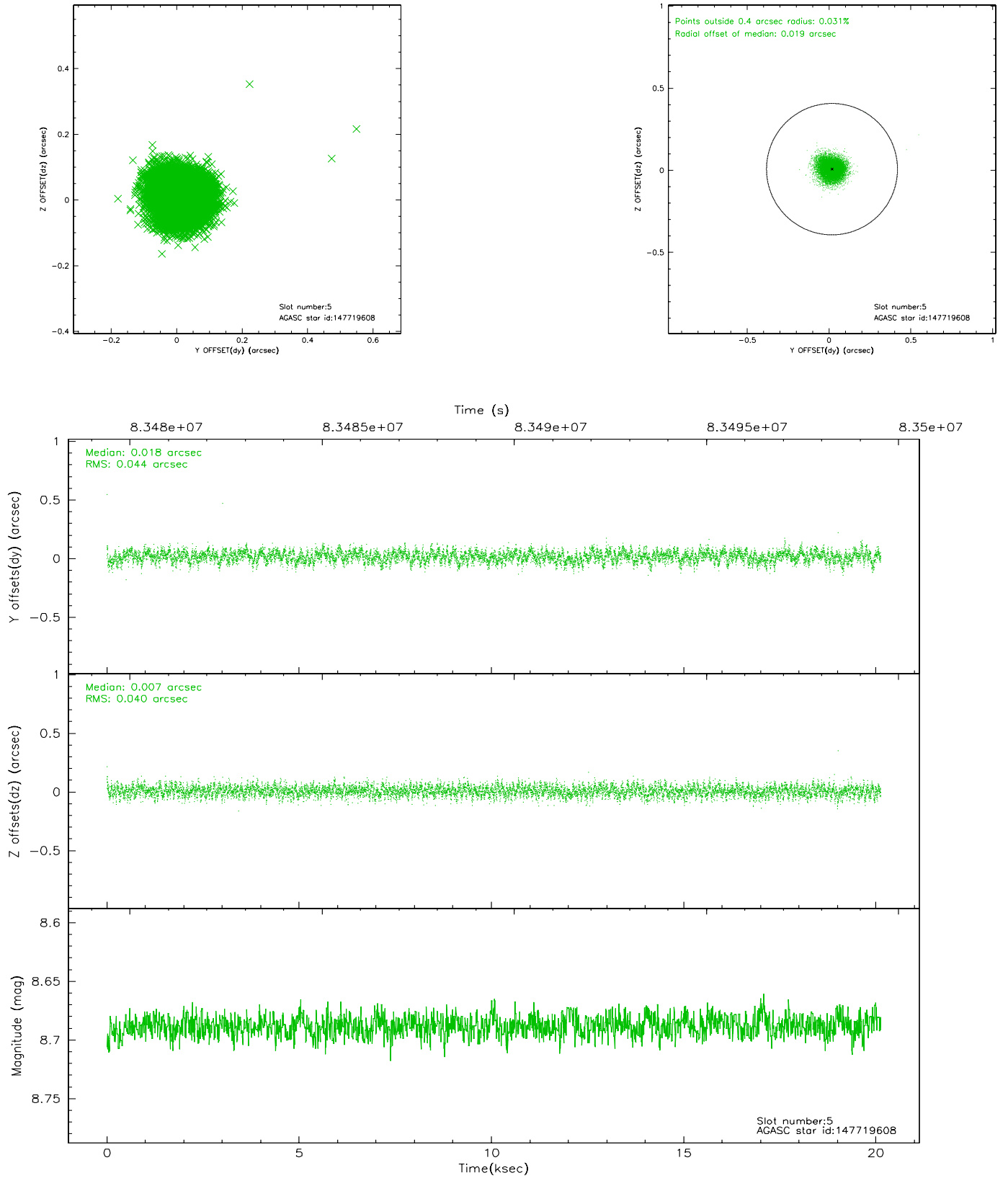
2.4.1 Slot 3



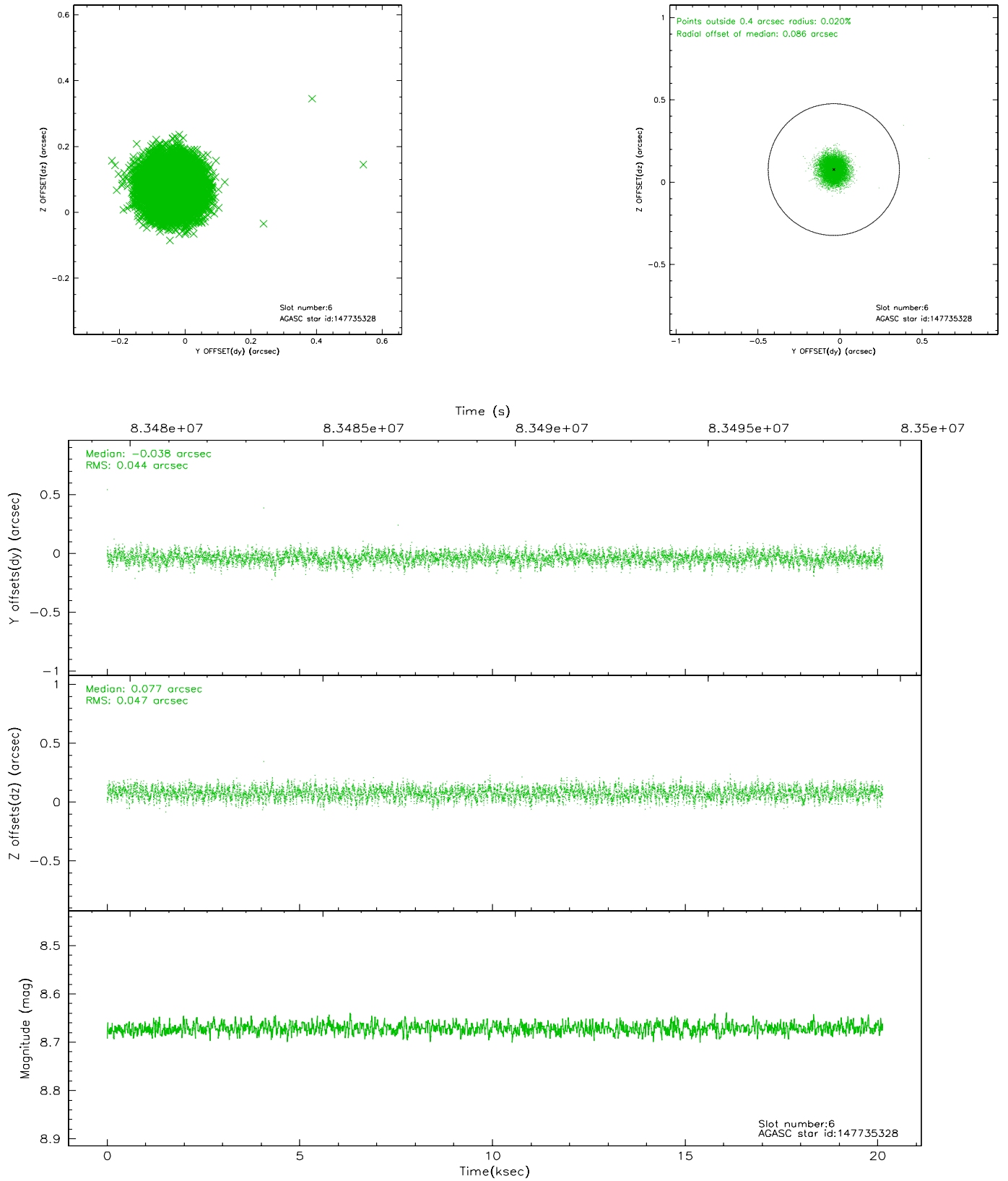
2.4.2 Slot 4



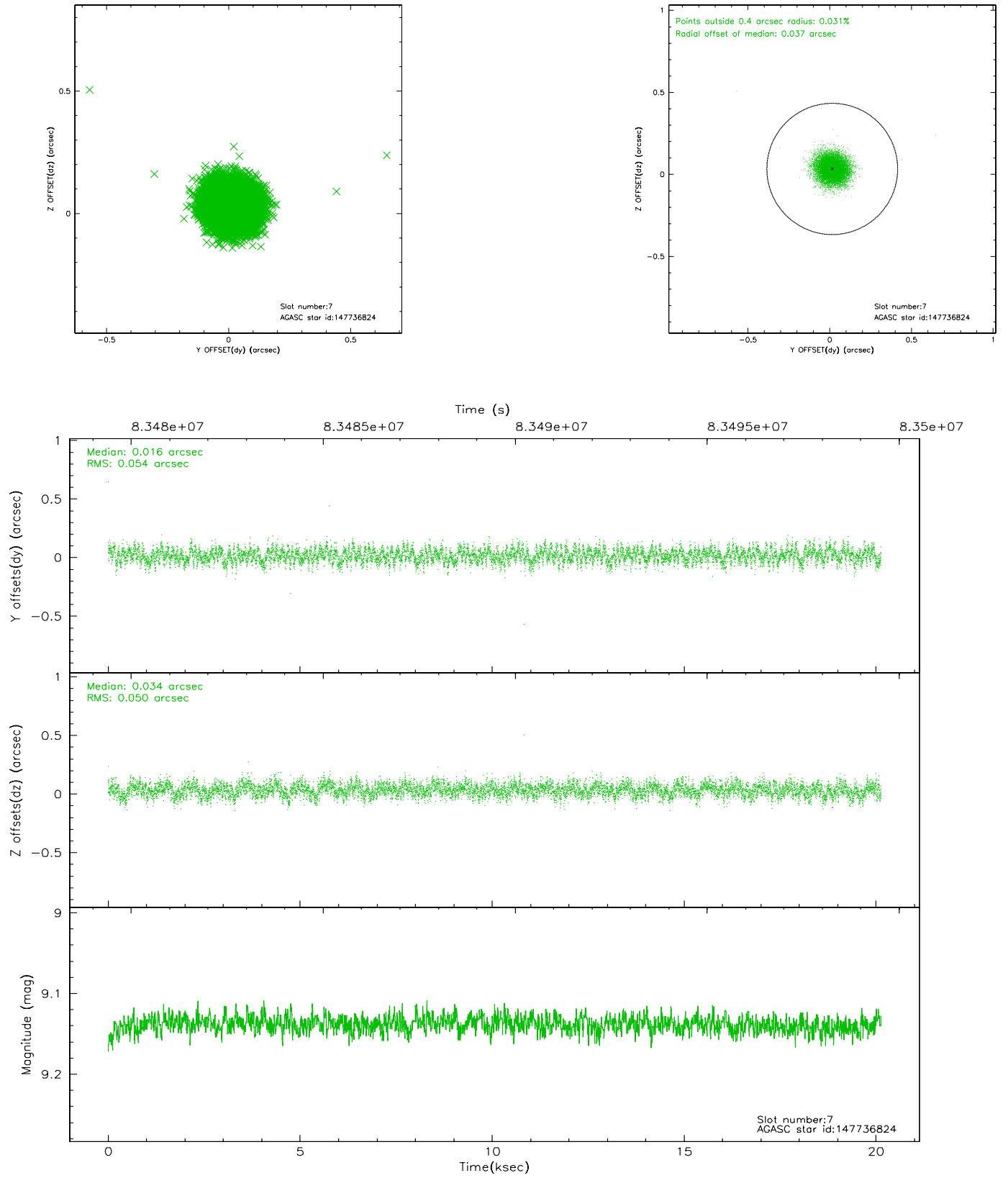
2.4.3 Slot 5



2.4.4 Slot 6

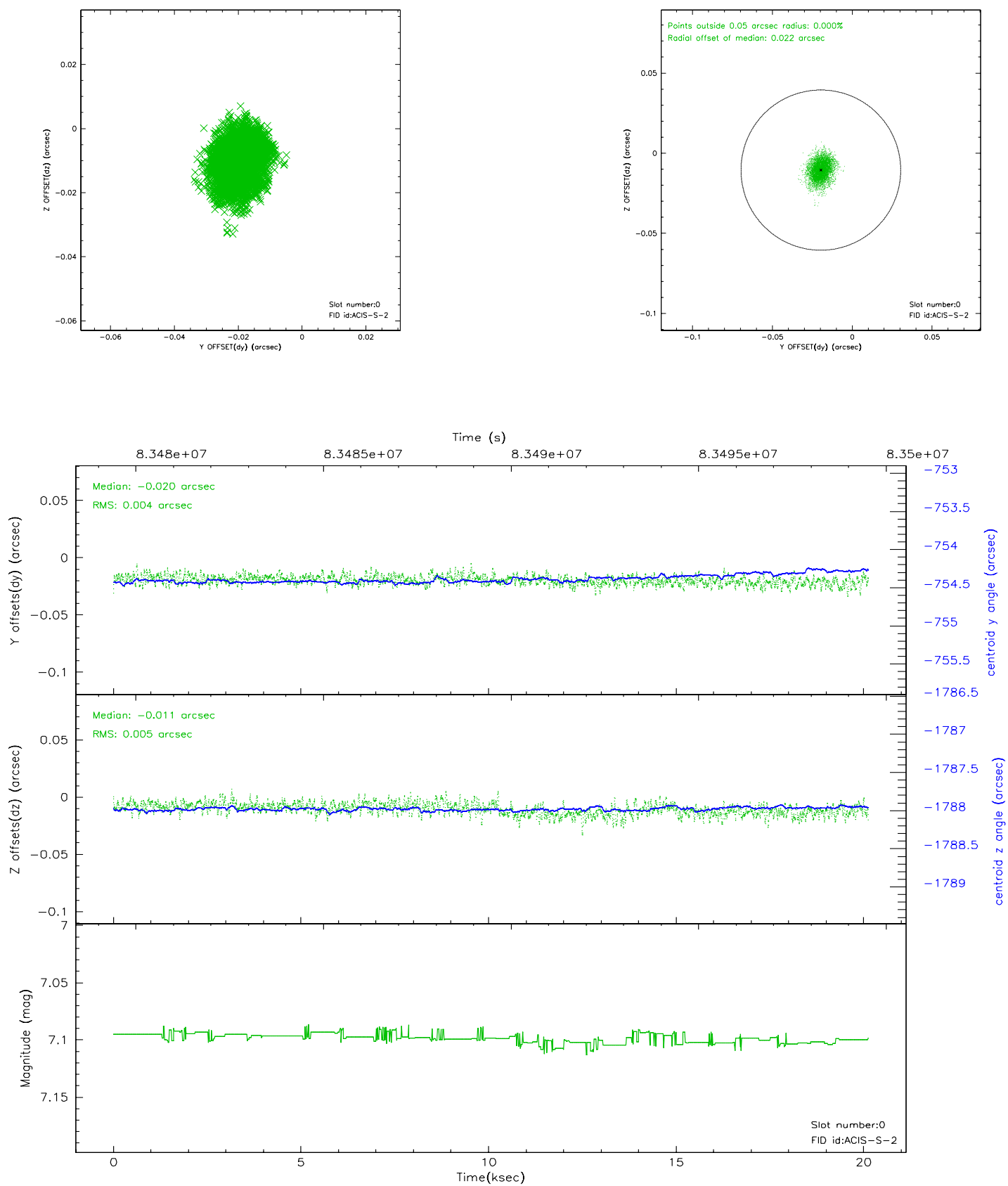


2.4.5 Slot 7

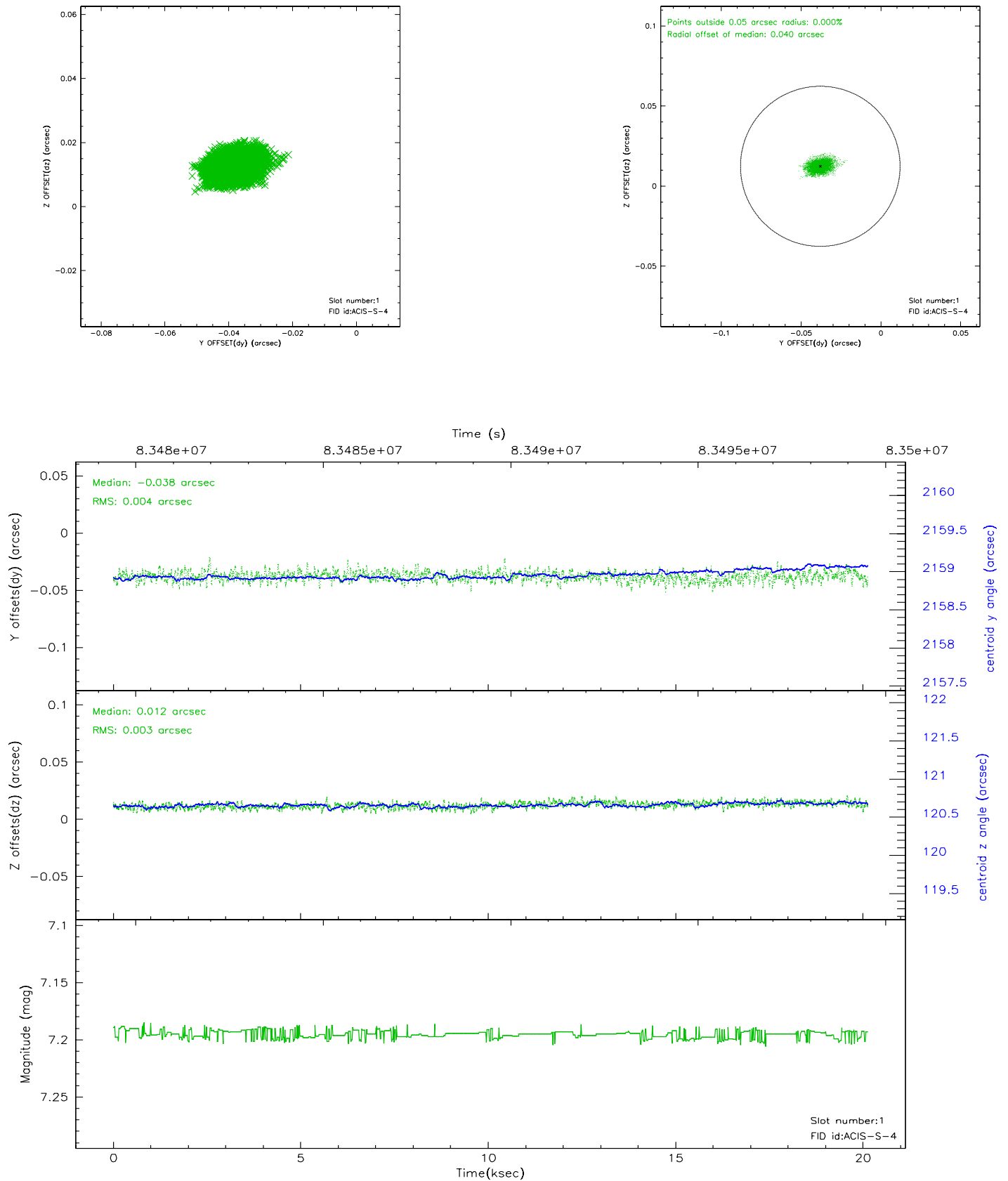


2.5 FID Slots

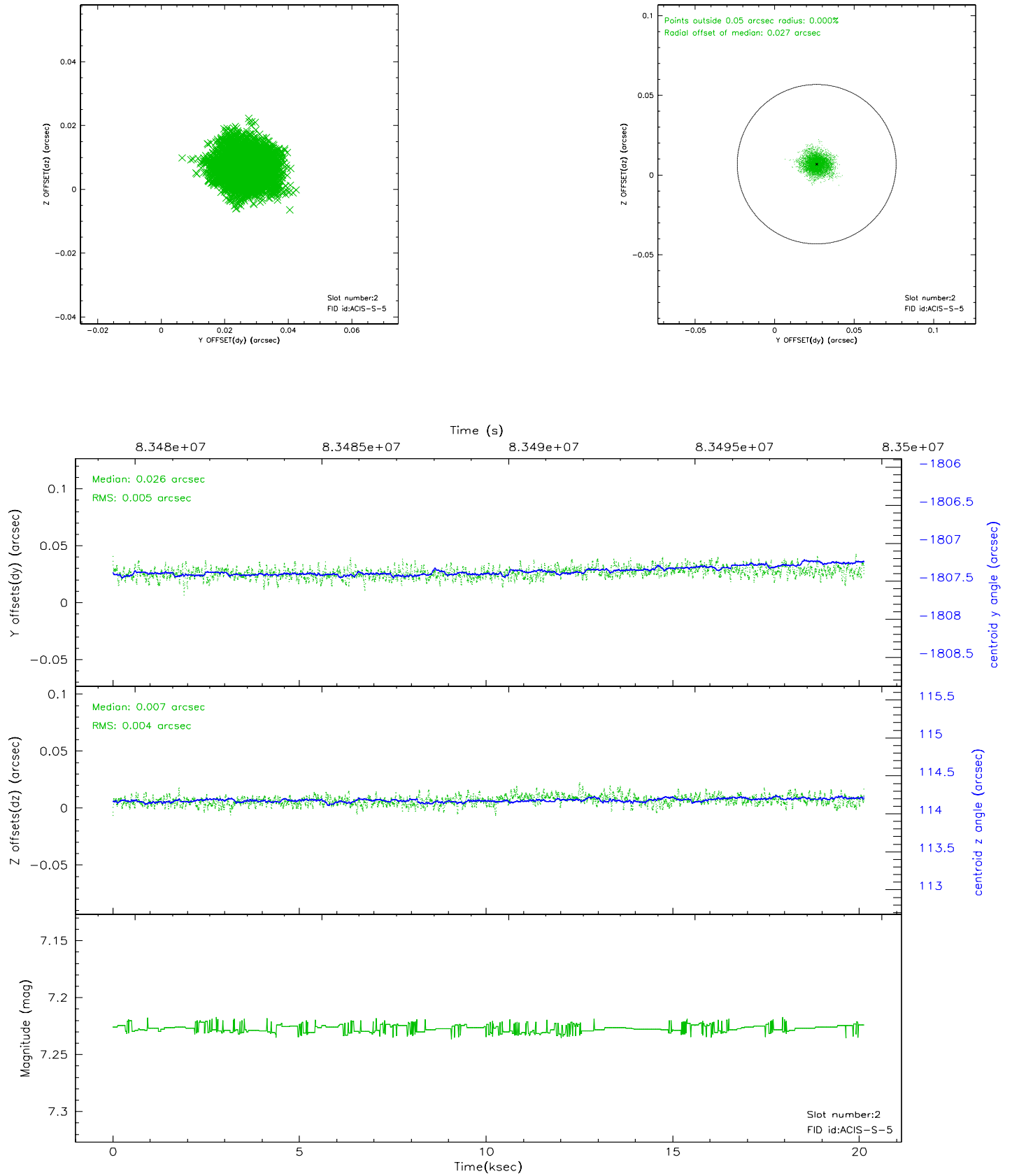
2.5.1 Slot 0



2.5.2 Slot 1

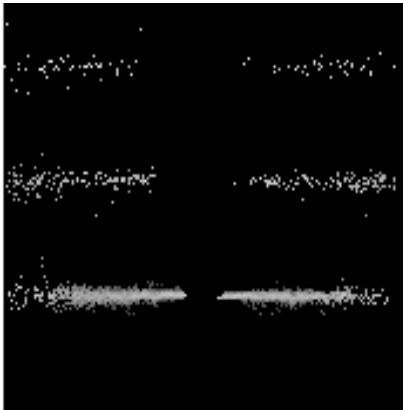


2.5.3 Slot 2

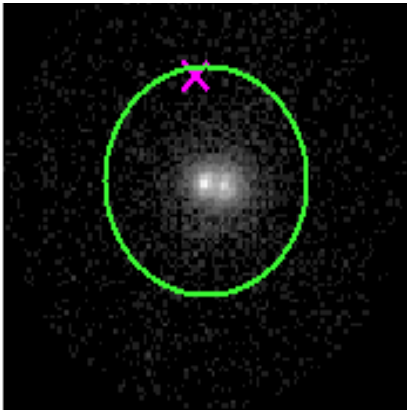


3 Gratings

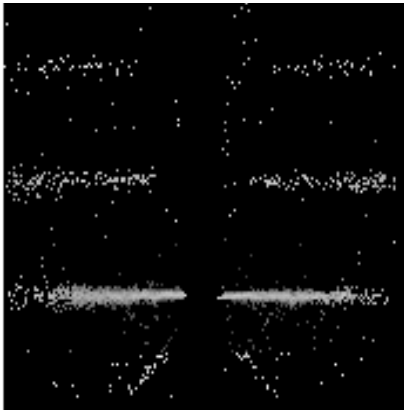
3.1 HEG Arm



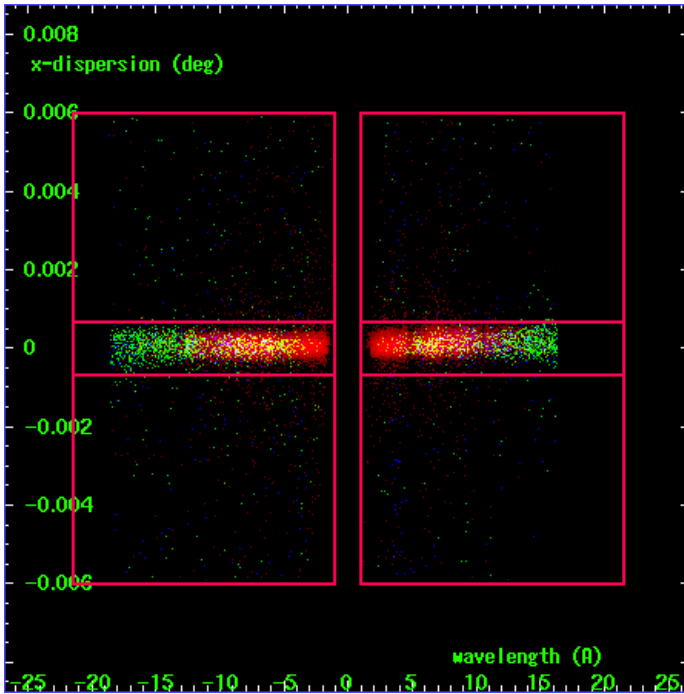
HEG Order Sort 123



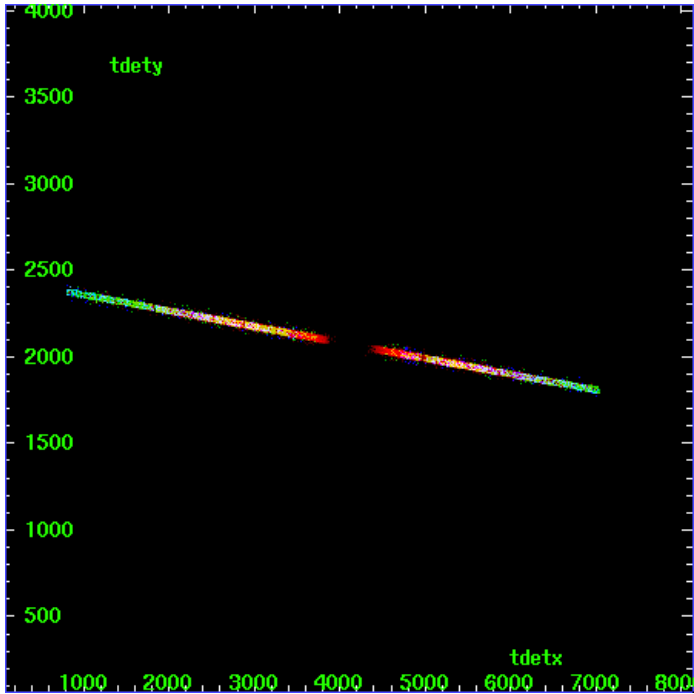
HEG Zero Order



HEG Order Sort ALL

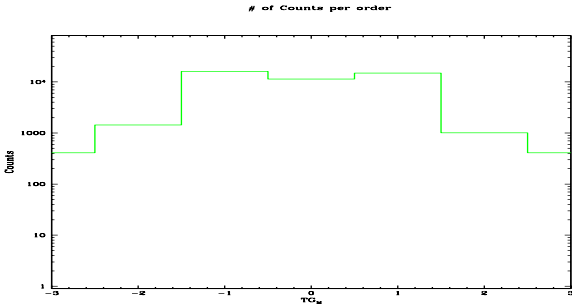


Spot Image HEG

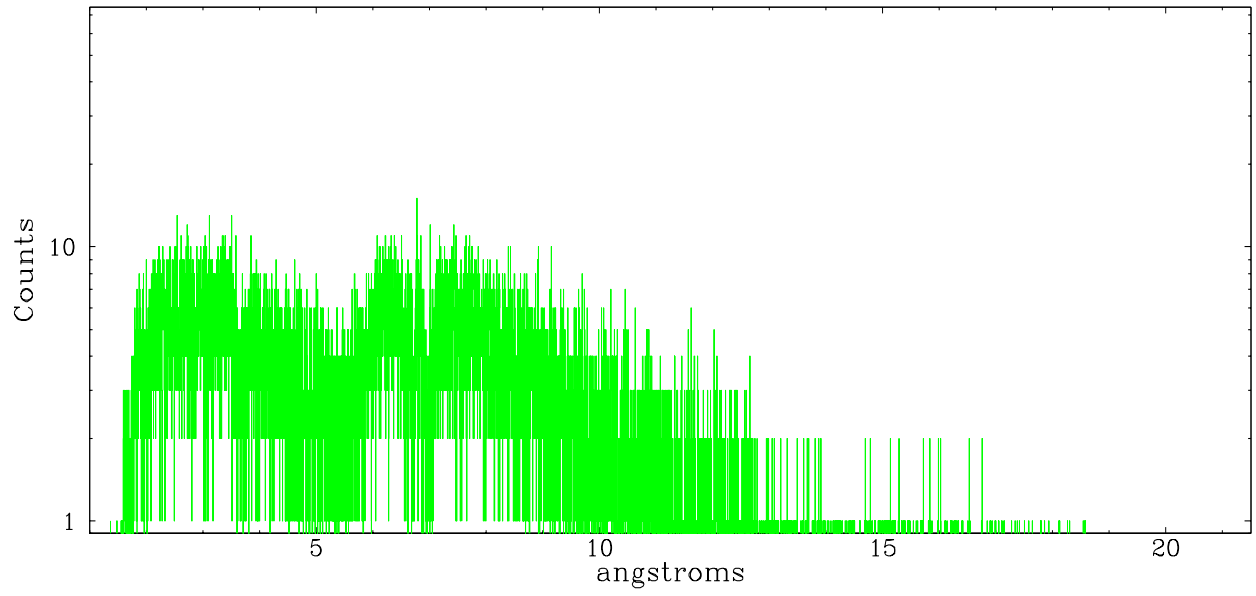


Full Detector HEG

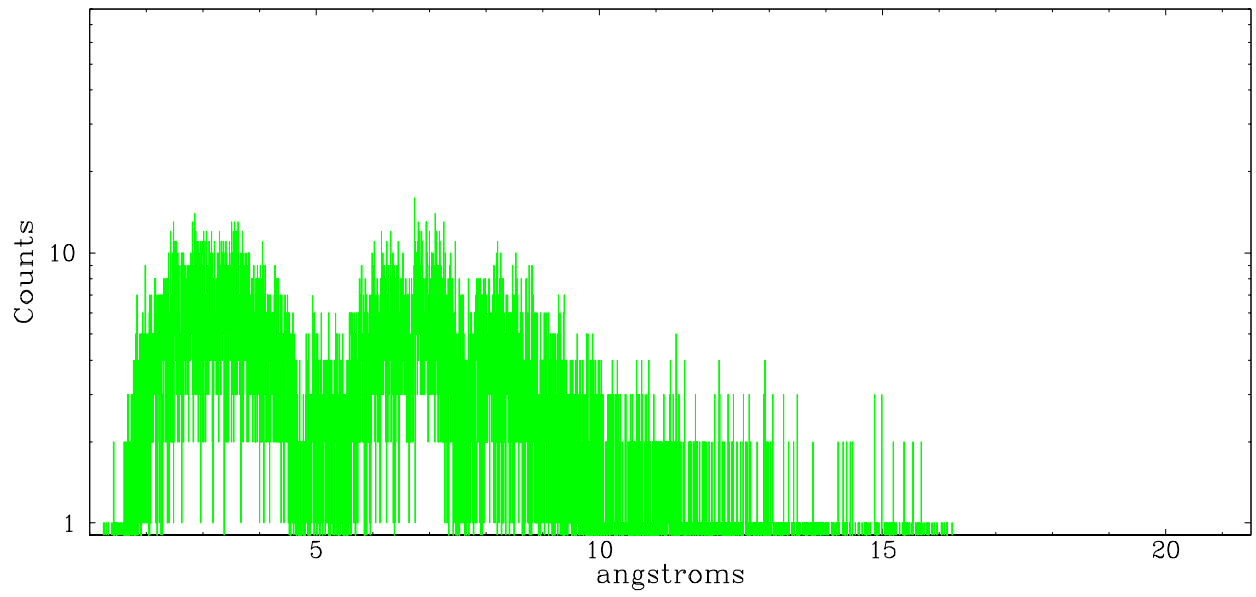
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	410	1443	16104	11351	14949	1008	411



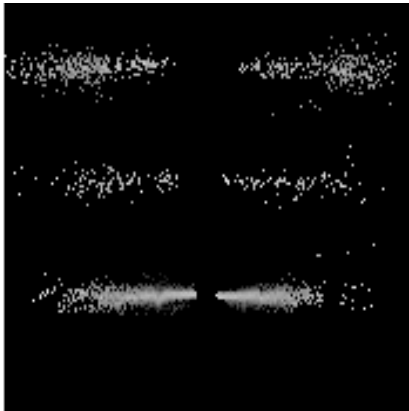
heg order -1



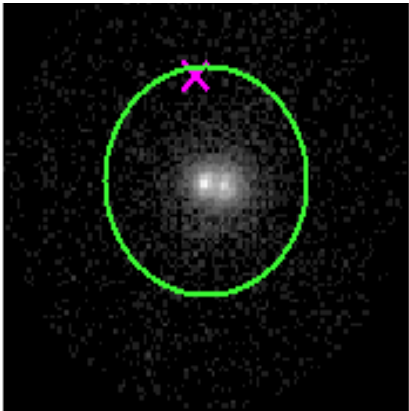
heg order +1



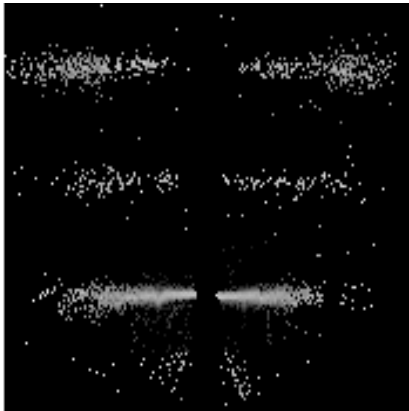
3.2 MEG Arm



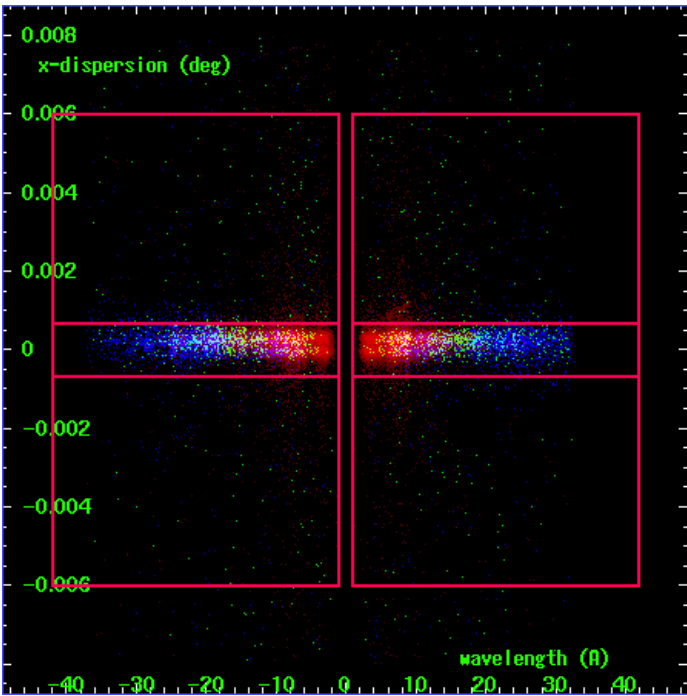
MEG Order Sort 123



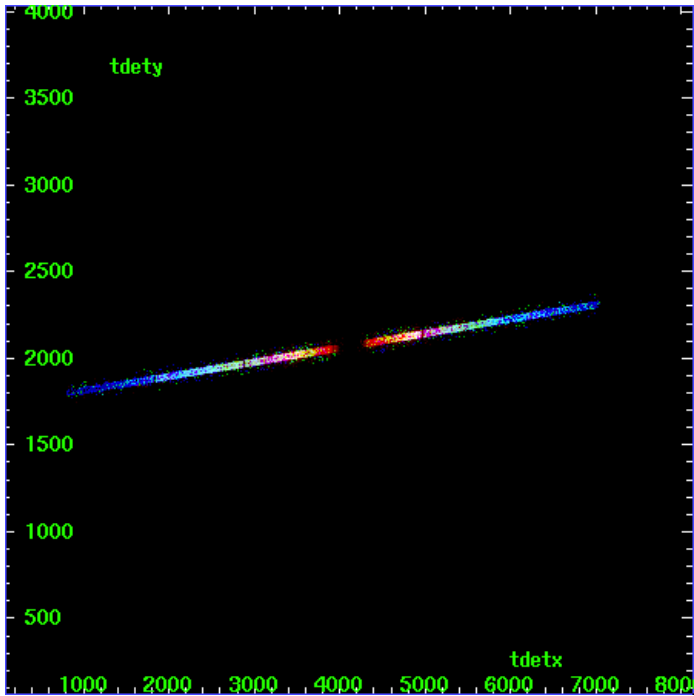
MEG Zero Order



MEG Order Sort ALL

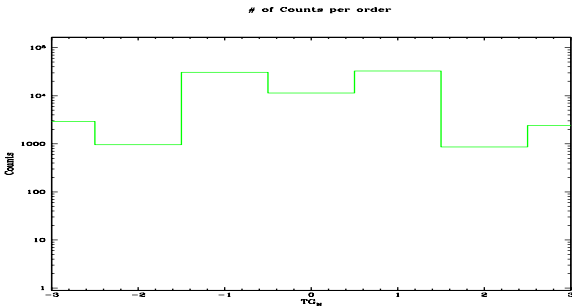


Spot Image MEG

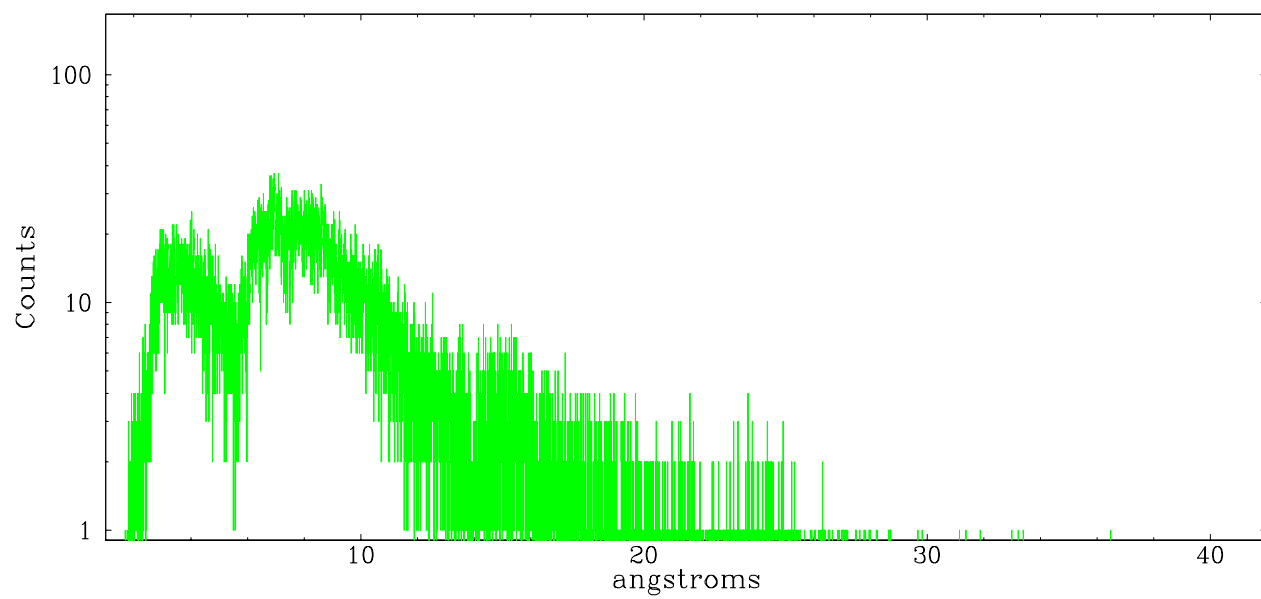


Full Detector MEG

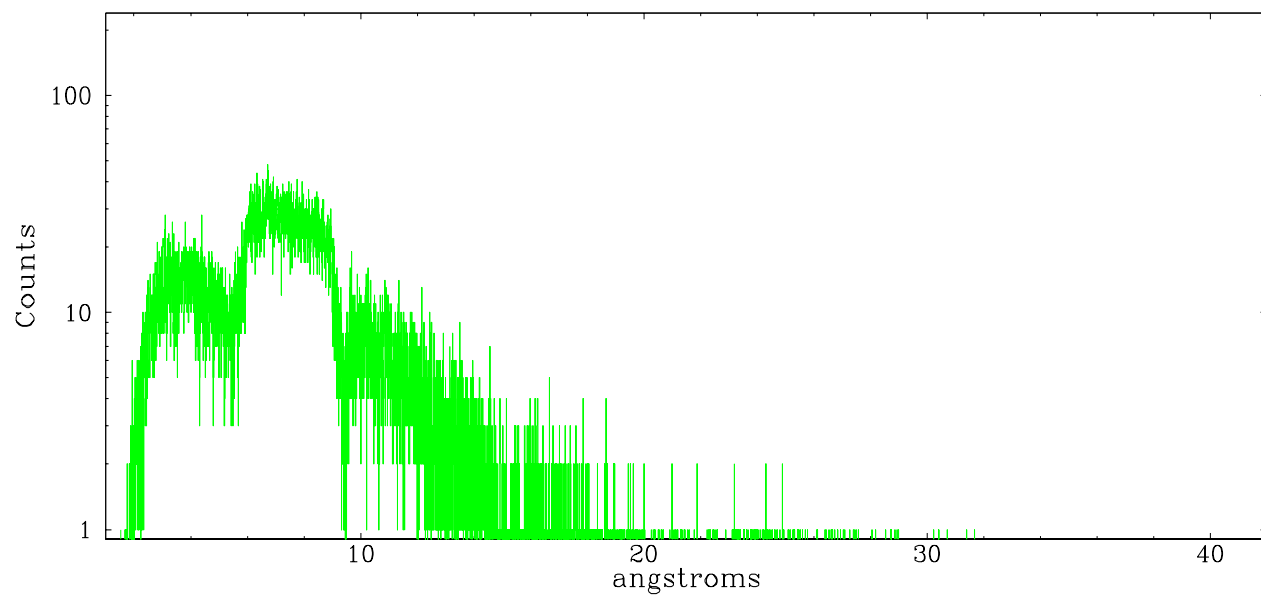
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	2934	956	30683	11351	32834	859	2400



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2007.08.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.03

A.2 Comments

Charge time for this ObsId remains at original value of 20.03 ks, although with the current processing the charge time would have been 20.13 ksec.=====

Two sources approximately 2 arcsec apart. Standard data processing software did not correctly locate the zeroth order for either source, but found something halfway between the two sources. Findzero also did not work because there are 2 readout streaks, one for each source, so the solution was not unique. The position of the star with the greater number of counts in the Level 2 data (ra=21:29:58.30, dec=+12:10:02.75) was selected as the zeroth order position. Both sources are piled up, so the selected star may not be brighter in actual x-ray flux. Manual intervention was used to input the determined sky coordinates (x=4098.88, y=4068.4) into the *src1a.fits file table. Note that these corrected coordinates of the zeroth order cannot be reproduced by running tgdetect on the data.=====The extracted spectral data in this processing have wavelength assignments appropriate for the star selected as the position of the zeroth order. However, the two stars are too close together for ACIS to differentiate between the energies of the events for these two objects. The two stars are also aligned close to the dispersion direction. The spectral data extracted is the combined counts of the two sources and the user should take particular care in the analysis.