

V&V Reference Report

L2 ASCDS Version : 7.6.9

Observation 1021 - L2 Version 001
Chandra X-Ray Center

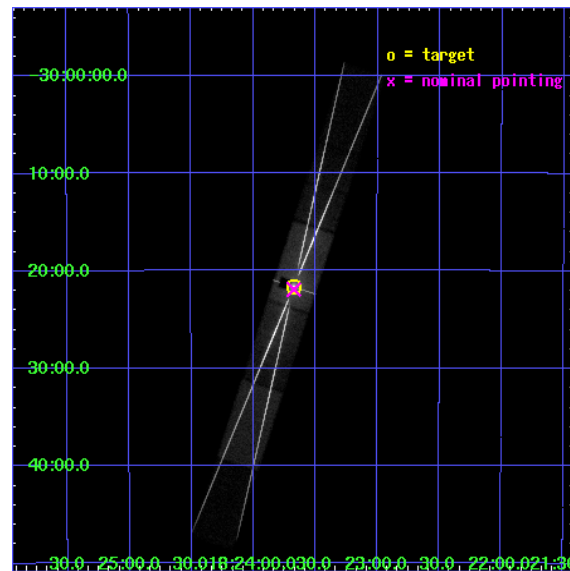
L2 Processing Date : Dec 27 2006

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Bias	3
2.1.3	Parameters	4
2.1.4	Events	4
2.2	Compared Parameters	5
2.3	Aspect	6
2.4	Star Slots	9
2.4.1	Slot 3	9
2.4.2	Slot 4	10
2.4.3	Slot 5	11
2.4.4	Slot 6	12
2.4.5	Slot 7	13
2.5	FID Slots	14
2.5.1	Slot 0	14
2.5.2	Slot 1	15
2.5.3	Slot 2	16
3	Gratings	17
3.1	HEG Arm	17
3.2	MEG Arm	19
A	Summary	21
A.1	Status	21
A.2	Comments	21

1 Front

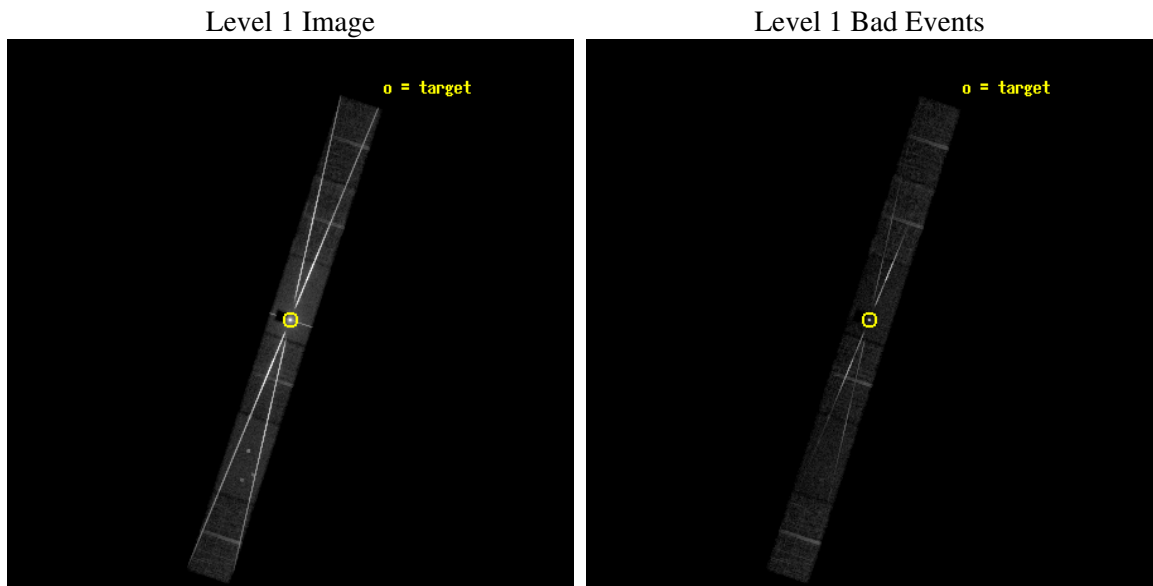
seq_num	400099
obs_id	1021
title	ACCRETION DISK LINES AND CONTINUUM IN 4U 1820-30
observer	Dr. Stephen Murray
object	NGC6624
dtcycle	0
cycle	P
ra_targ	275.91875
dec_targ	-30.361111
ra_nom	275.91838549778
dec_nom	-30.365584323431
roll_nom	288.10222173866
revision	3
ontime	9860.3999836743
livetime	9640.5944306554
ontime4	9860.3999836743
ontime5	9860.3999836743
ontime6	9860.3999836743
ontime7	9860.3999836743
ontime8	9860.3999836743
ontime9	9860.3999836743
l2events	1193874



2 OBI

2.1 OBI

2.1.1 Images

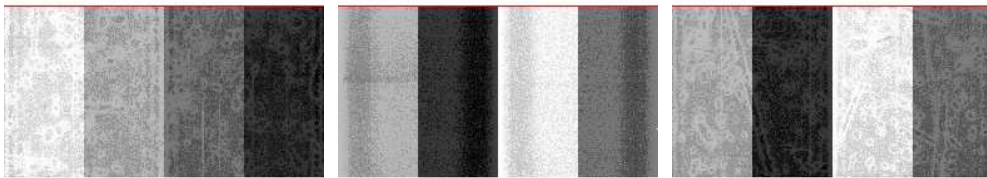


2.1.2 Bias

Chip 4

Chip 5

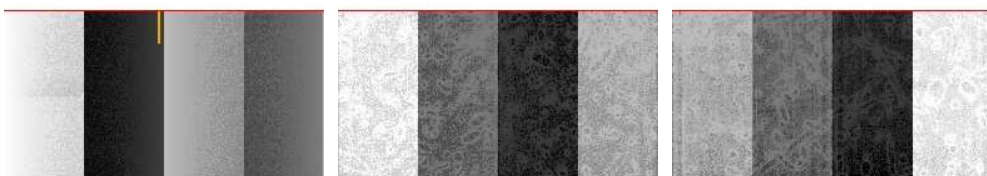
Chip 6



Chip 7

Chip 8

Chip 9



2.1.3 Parameters

obi_num	0
ascdsver	7.6.9
caldsver	3.2.4
date	2006-12-15T16:15:59
revision	3

sched_exp_time	9500.000000
ontime	9864.1884263903
ontime4	9864.1884064823
ontime5	9864.1884263903
ontime6	9864.1884064823
ontime7	9864.1884263903
ontime8	9864.1884064823
ontime9	9864.1884064823
l1events	1521820

2.1.4 Events

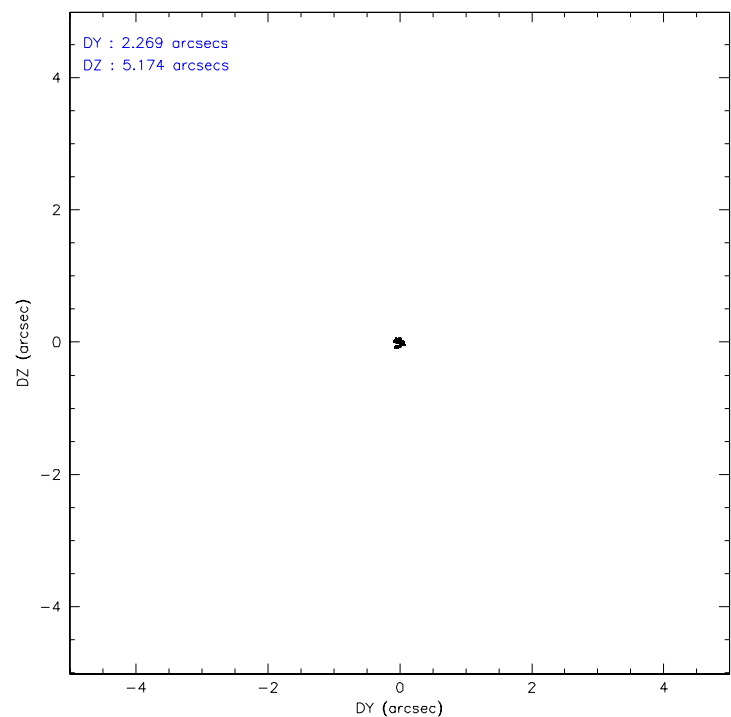
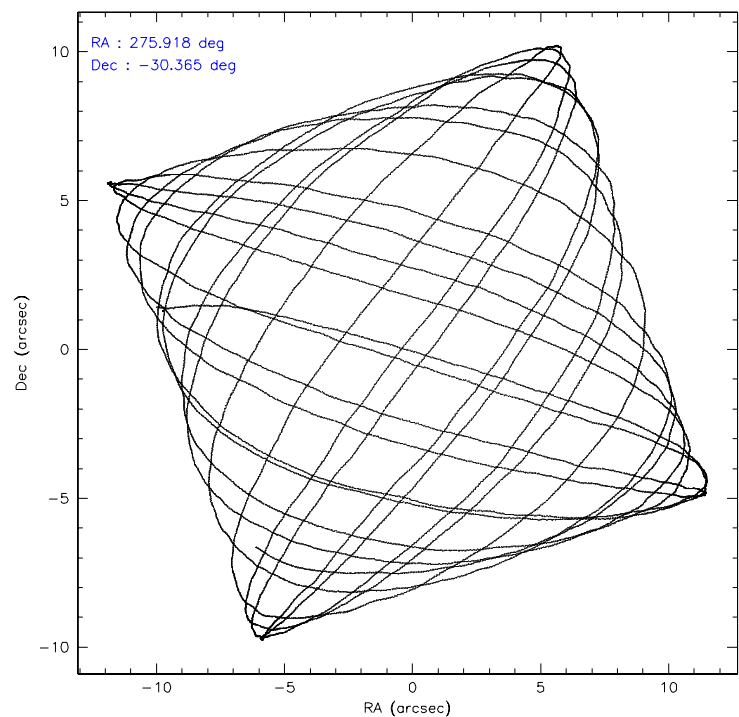
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	66858	171649	474288	462851	265787	80387
rejected events	38942	31295	53858	60463	43768	32746
rejected %	58%	18%	11%	13%	16%	40%

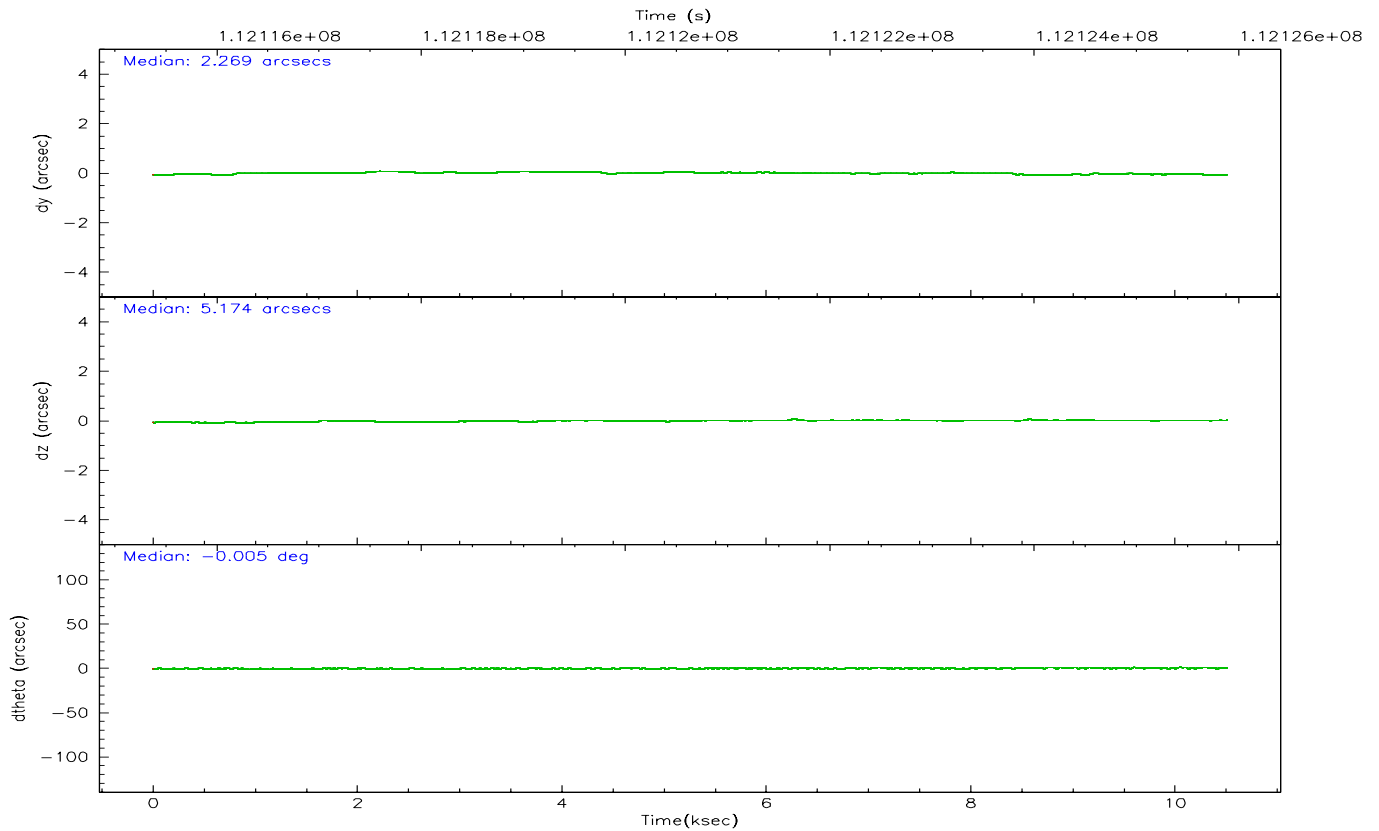
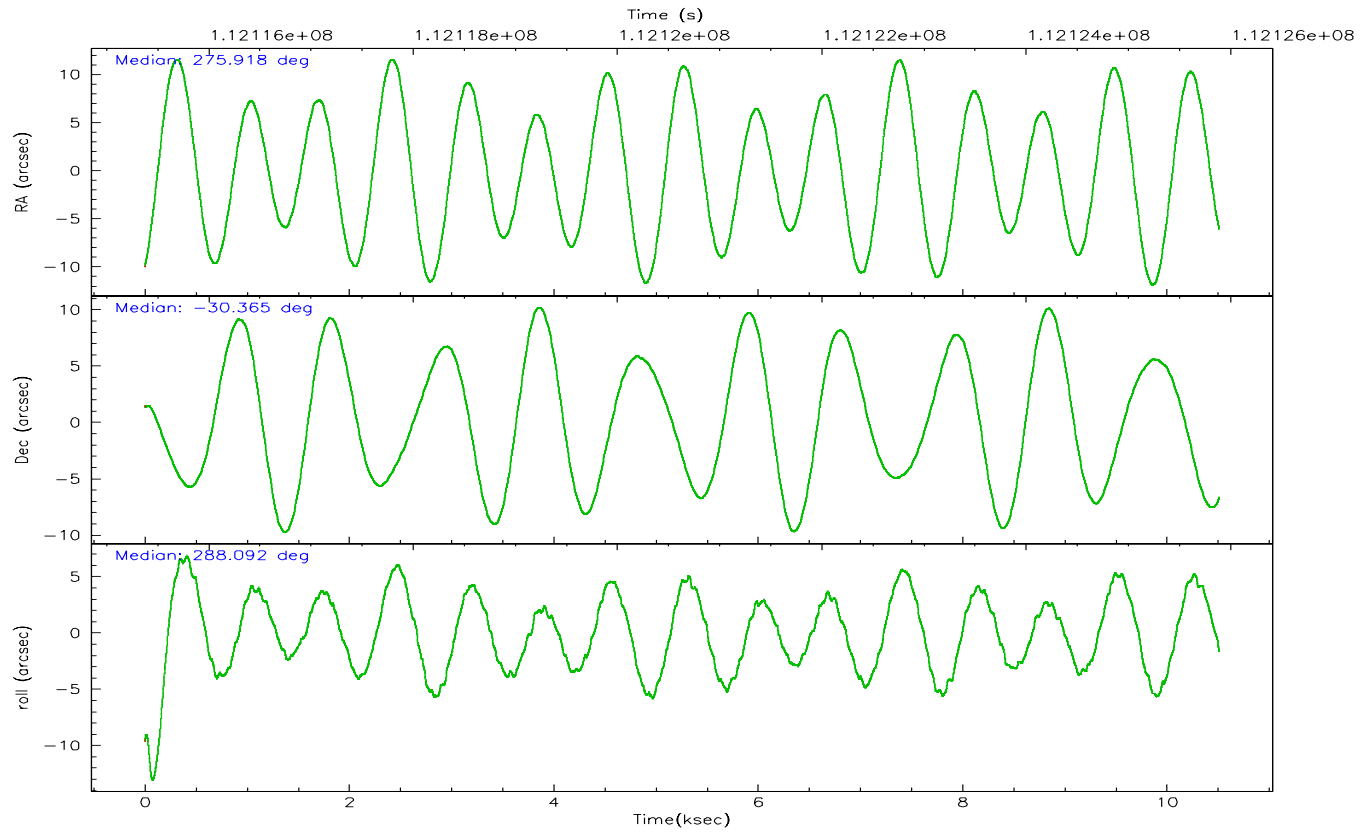
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	21006	42280	316281	75498	176462	37098
	31%	24%	66%	16%	66%	46%
grade 1 events	91	420	9600	2970	2679	141
	0%	0%	2%	0%	1%	0%
grade 2 events	3410	45437	51490	105775	23424	5263
	5%	26%	10%	22%	8%	6%
grade 3 events	1194	10778	18656	40415	8014	1827
	1%	6%	3%	8%	3%	2%
grade 4 events	1147	10886	18322	40642	8043	1771
	1%	6%	3%	8%	3%	2%
grade 5 events	1340	4166	7538	16015	3165	1537
	2%	2%	1%	3%	1%	1%
grade 6 events	1167	31018	15831	140211	6165	1698
	1%	18%	3%	30%	2%	2%
grade 7 events	37503	26664	36570	41325	37835	31052
	56%	15%	7%	8%	14%	38%

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	275.894571	275.9183854977767	Subarray requested	CUSTOM	CUSTOM
Pointing Dec	-30.347545	-30.3655843234315	Subarray start row	15	15
Pointing Roll	287.933558	288.1022217386575	Subarray row count	542	542
Window start time	111369664.184000	111369664.184000	Alternating exposures requested	N	N
Window stop time	112233664.184000	112233664.184000	Primary exposure time	0.000000	1.8
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-184.532523	-184.5331429273931			
SIM translation stage offset (mm)	-5.6	-5.599379655614712			
Observation start time	112116386.184000	112115019.52637			
Observation start date	2001-07-21T15:25:22	2001-07-21T15:03:39			
Observation end time	112125886.184000	112126246.35181			
Observation end date	2001-07-21T18:03:42	2001-07-21T18:10:46			
Read mode	TIMED	TIMED			

2.3 Aspect



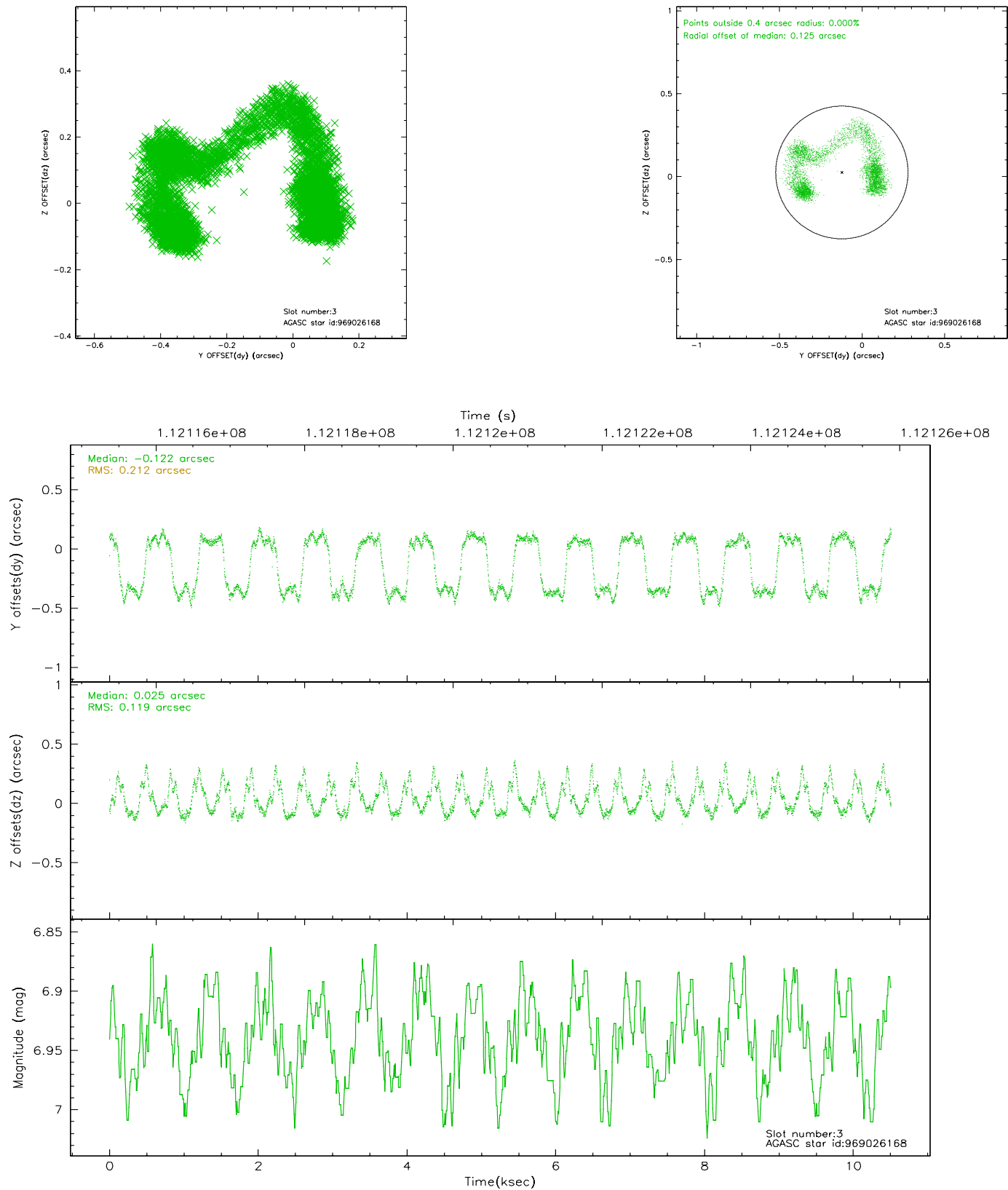


Slot Statistics

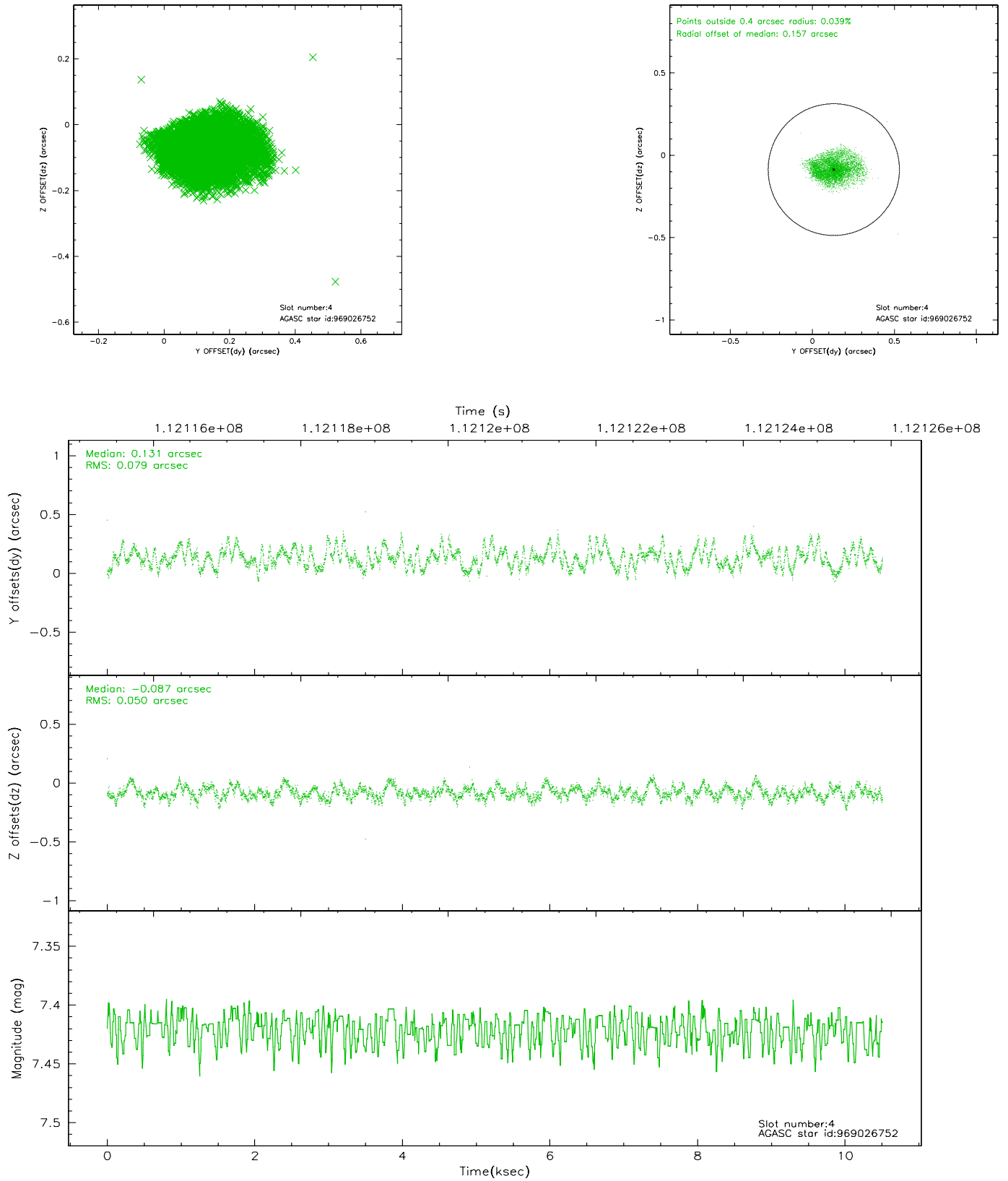
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.19	2564	0.003	0.054	0.007	0.013	0.000000	0.000000	941.54	-1837.29
1	FID	ACIS-S-4	7.19	2563	-0.063	-0.035	0.007	0.010	0.000000	0.000000	2159.16	66.21
2	FID	ACIS-S-5	7.23	2564	0.033	-0.007	0.005	0.010	0.000000	0.000000	-1806.66	60.39
3	GUIDE	969026168	6.94	5128	-0.122	0.025	0.263	0.315	276.670048	-30.393325	906.52	2238.05
4	GUIDE	969026752	7.42	5128	0.131	-0.087	0.102	0.158	275.318545	-30.941468	1492.50	-2351.31
5	GUIDE	969024352	7.12	5127	0.137	0.011	0.077	0.110	276.375278	-30.253432	141.93	1525.23
6	GUIDE	969019728	8.25	5127	-0.079	0.062	0.094	0.138	275.177360	-30.122339	-1451.26	-1877.15
7	GUIDE	969019560	8.09	5127	-0.048	-0.023	0.084	0.129	275.384365	-30.637201	509.72	-1826.00

2.4 Star Slots

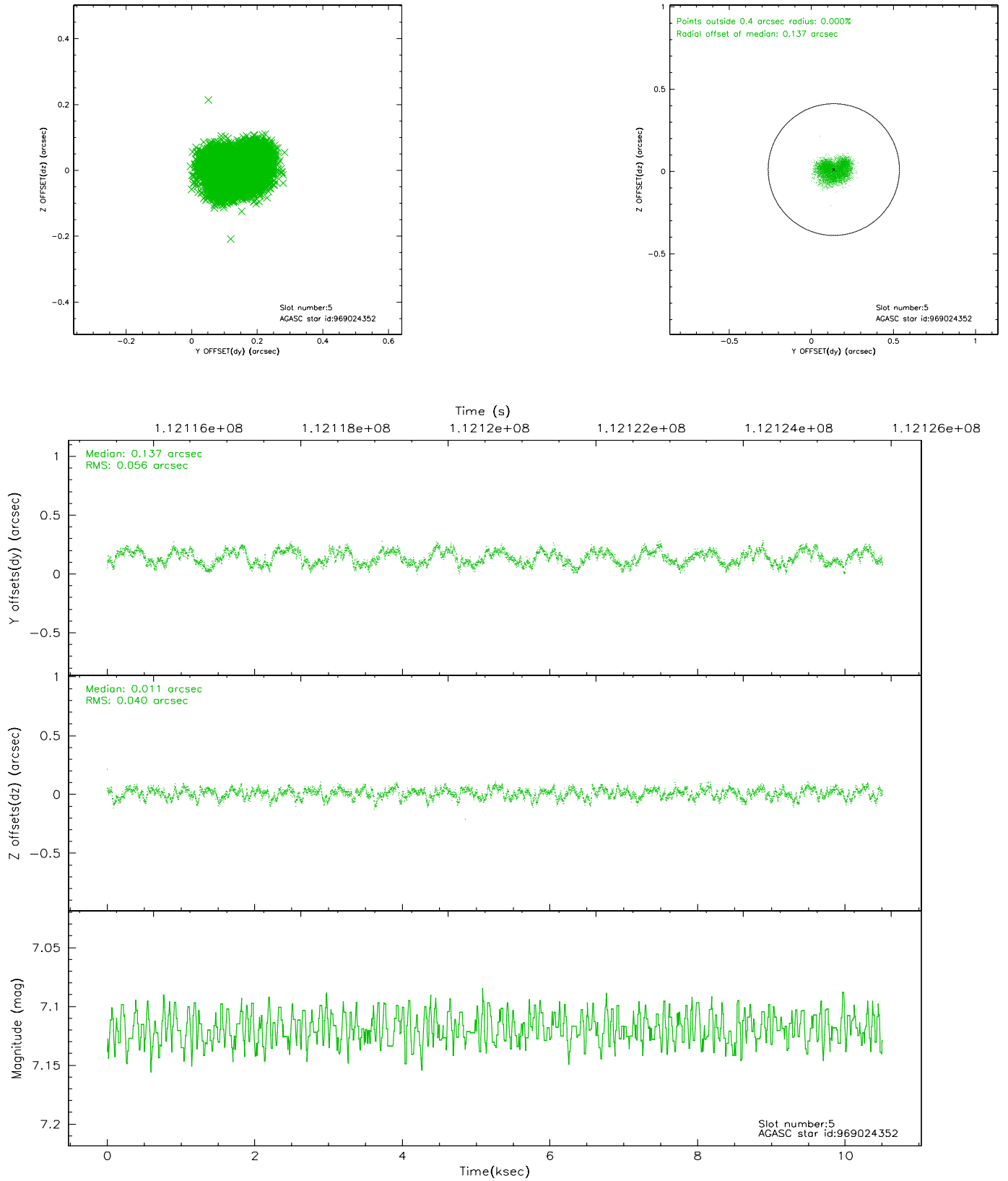
2.4.1 Slot 3



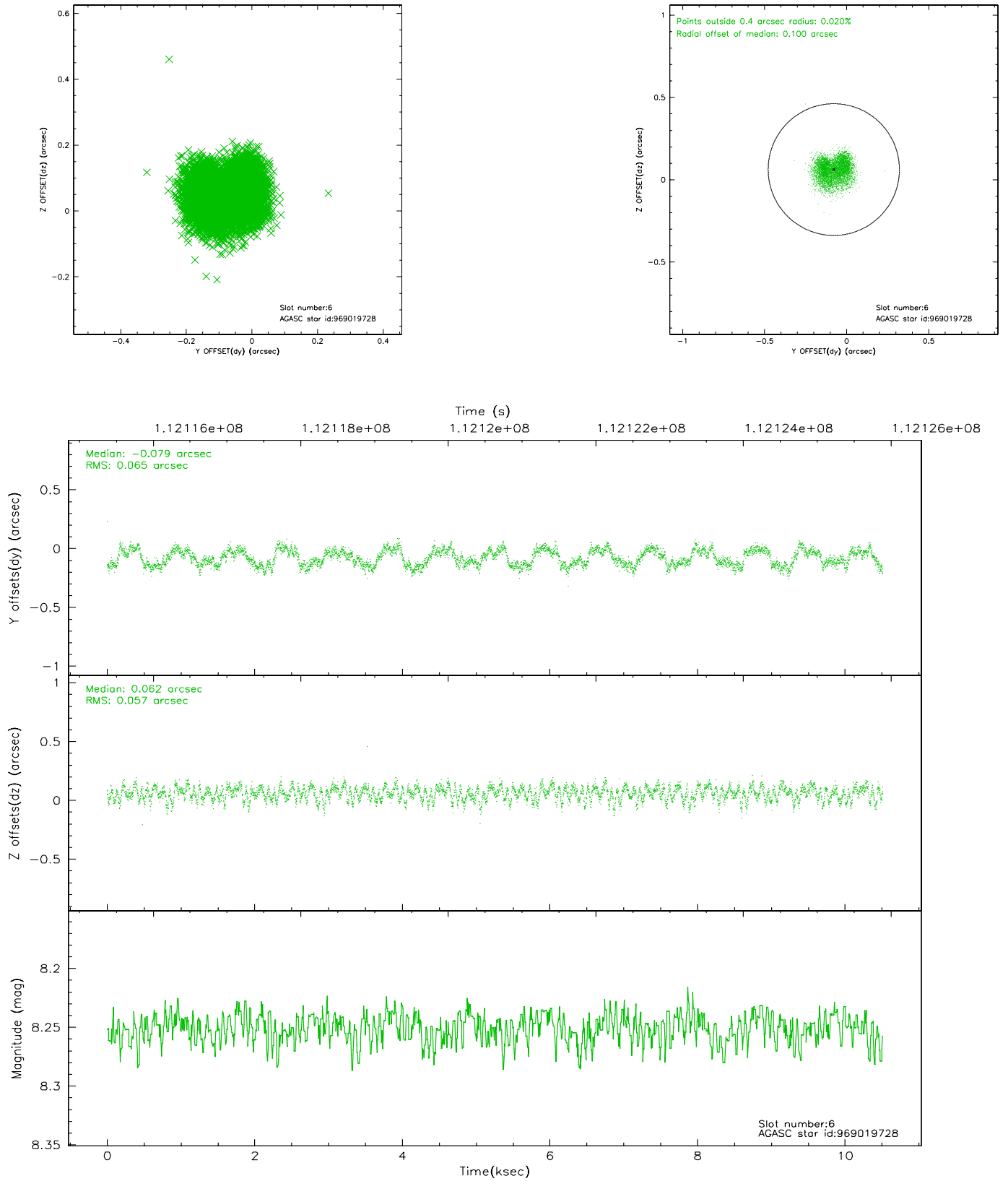
2.4.2 Slot 4



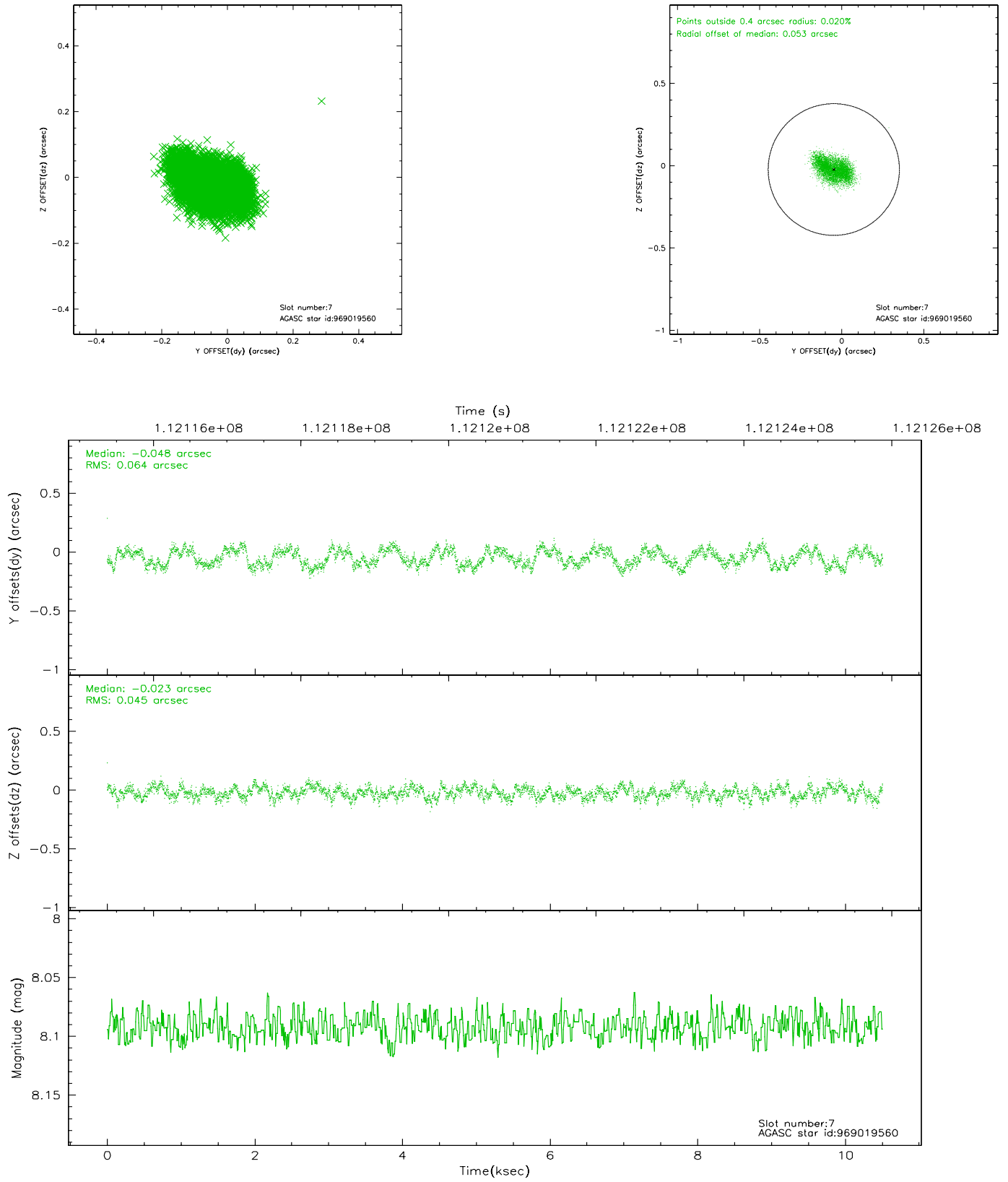
2.4.3 Slot 5



2.4.4 Slot 6

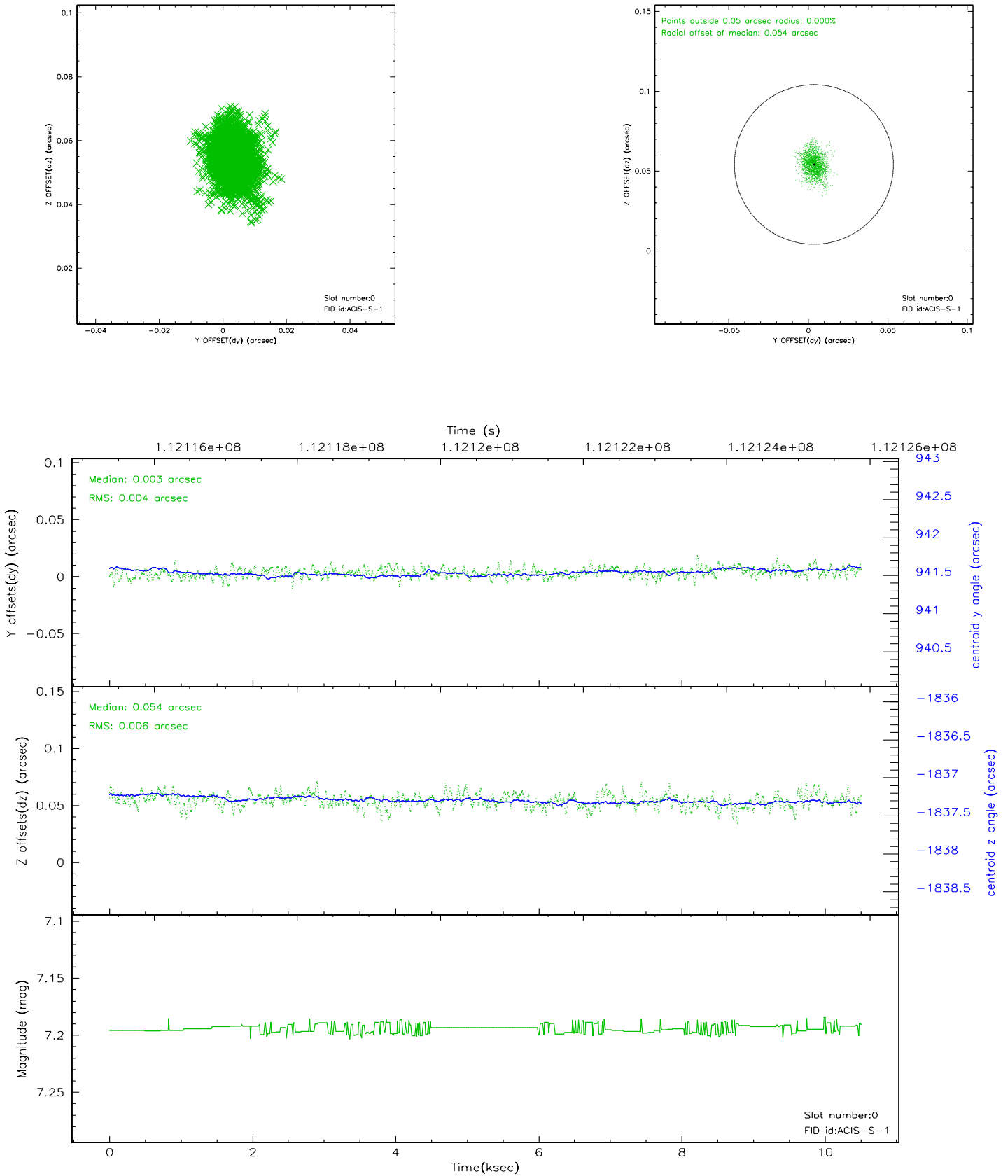


2.4.5 Slot 7

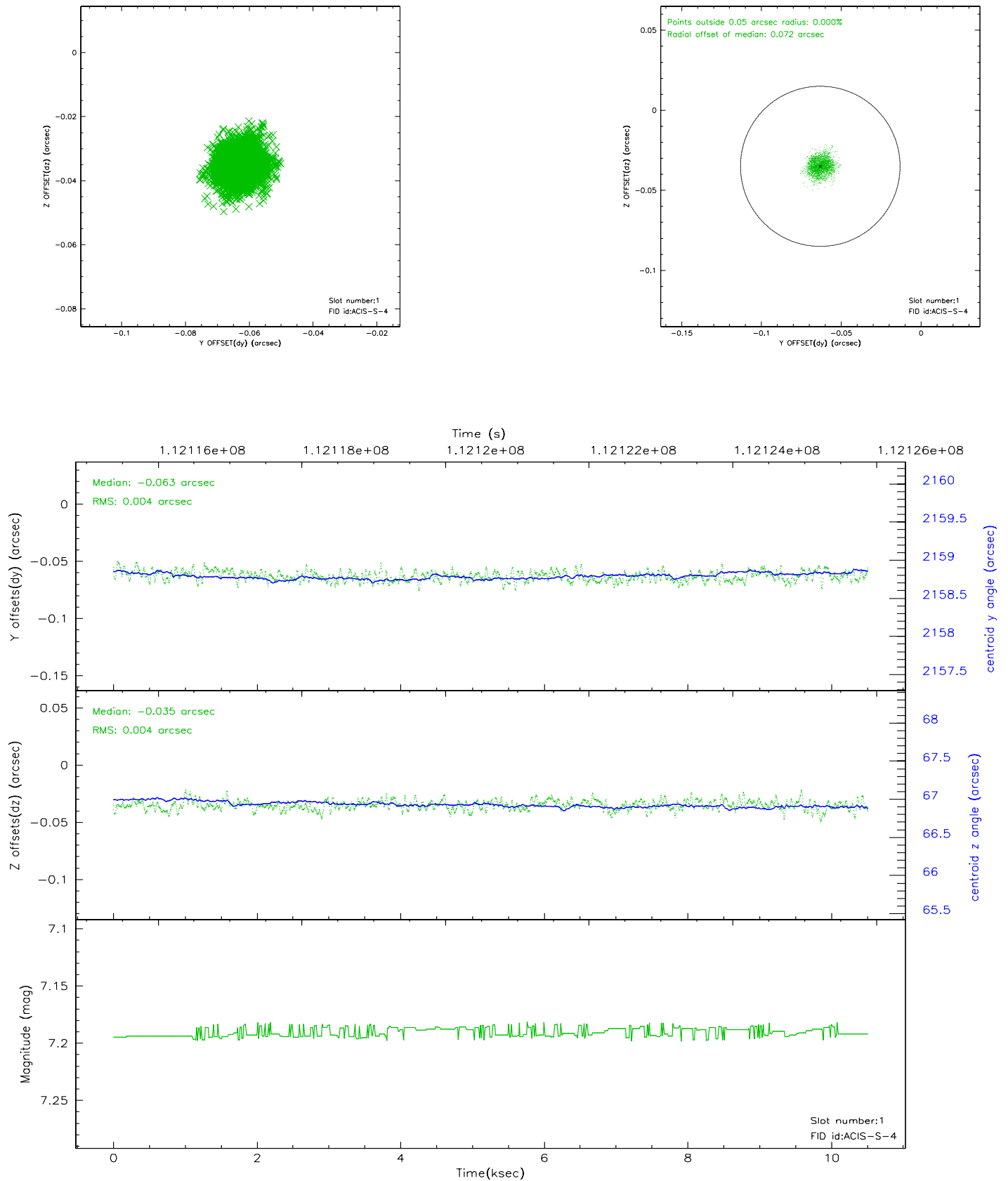


2.5 FID Slots

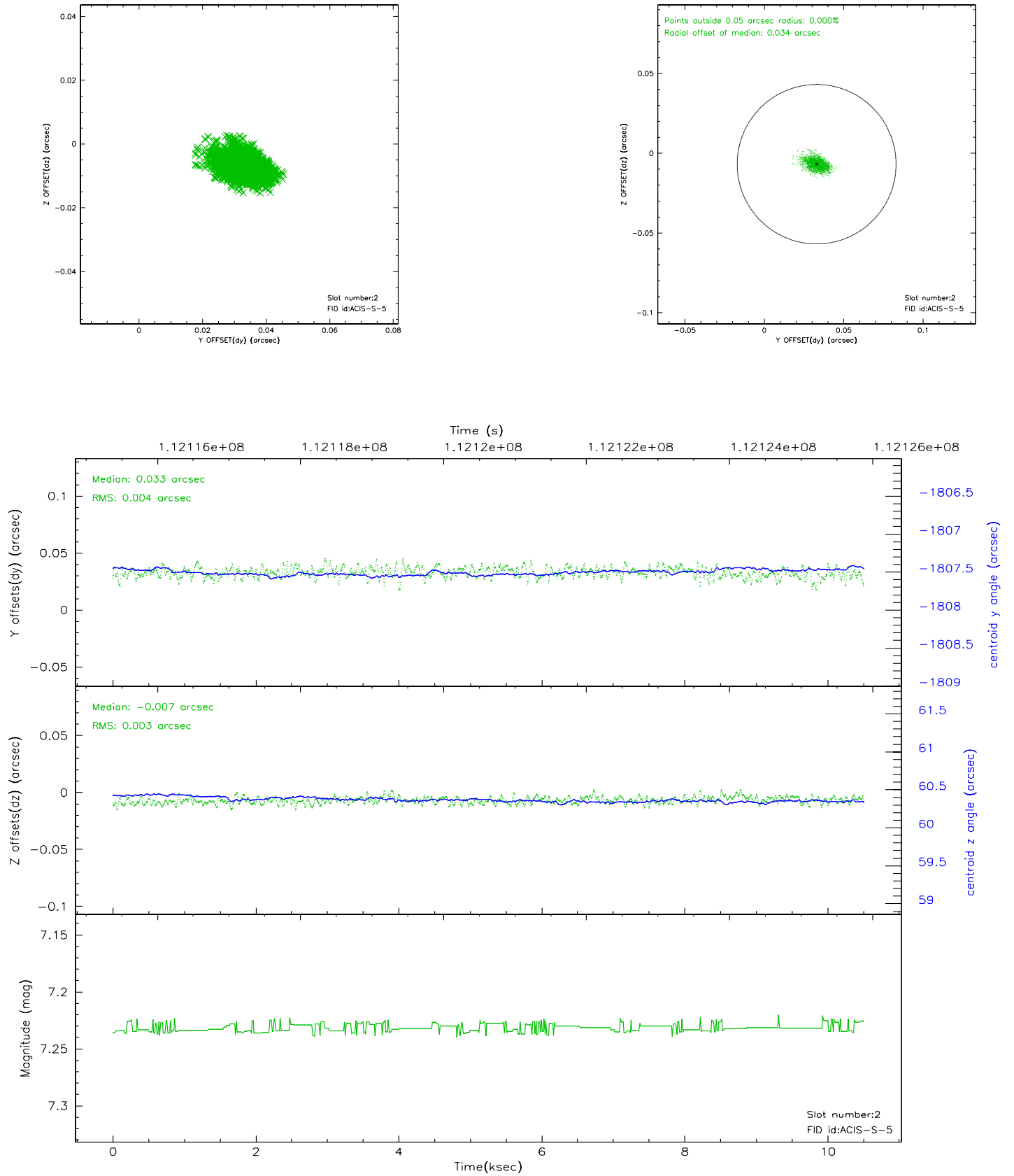
2.5.1 Slot 0



2.5.2 Slot 1

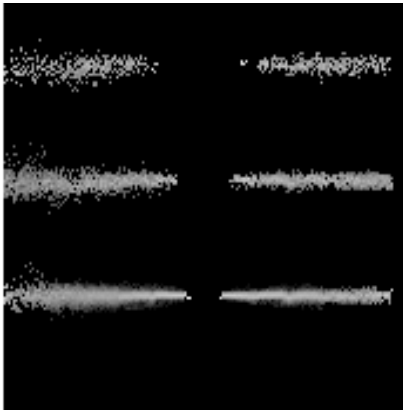


2.5.3 Slot 2

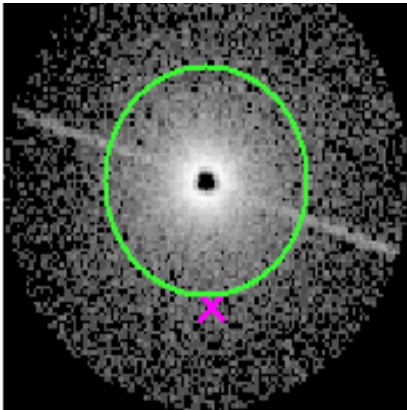


3 Gratings

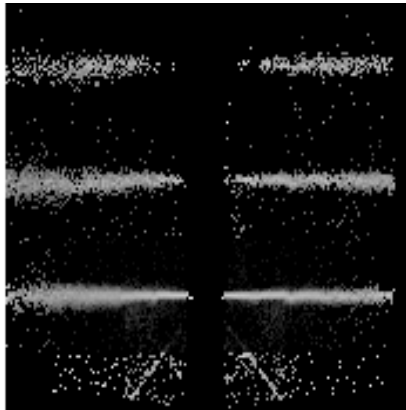
3.1 HEG Arm



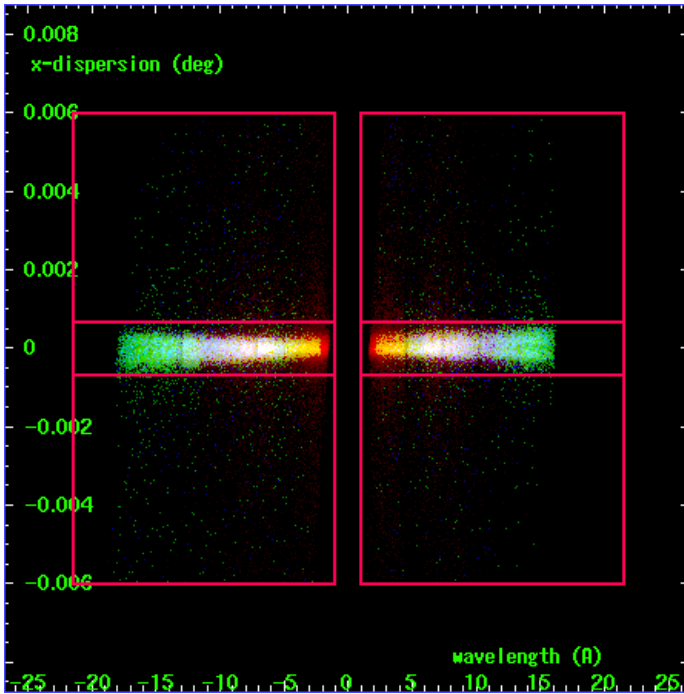
HEG Order Sort 123



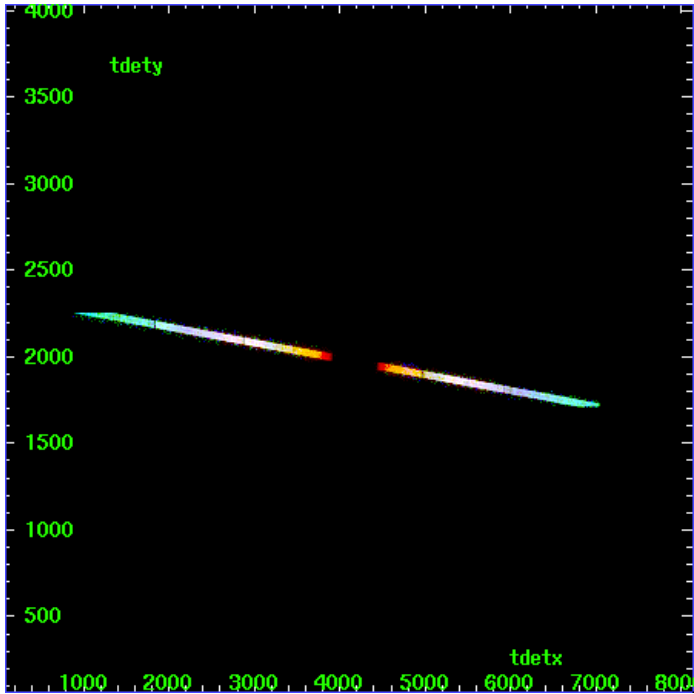
HEG Zero Order



HEG Order Sort ALL

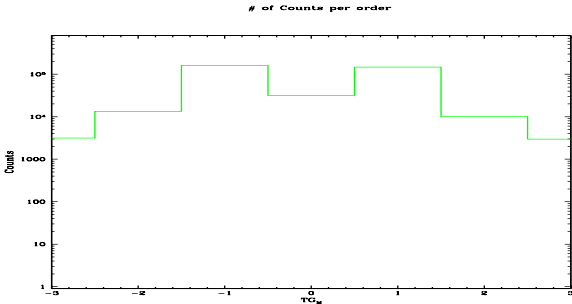


Spot Image HEG

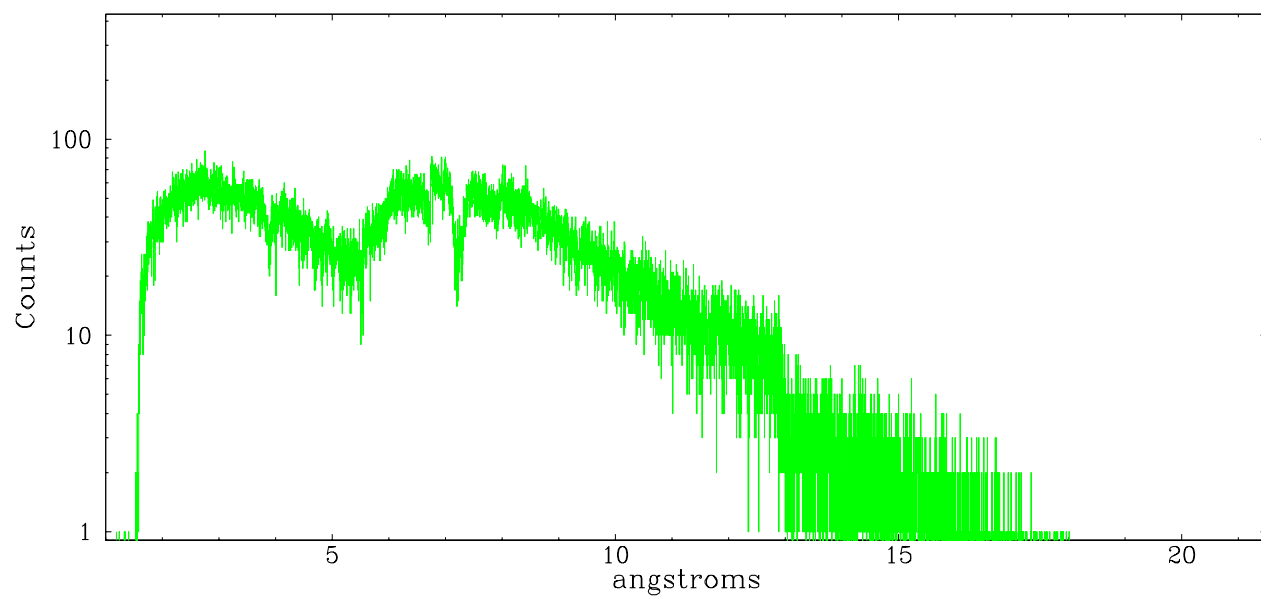


Full Detector HEG

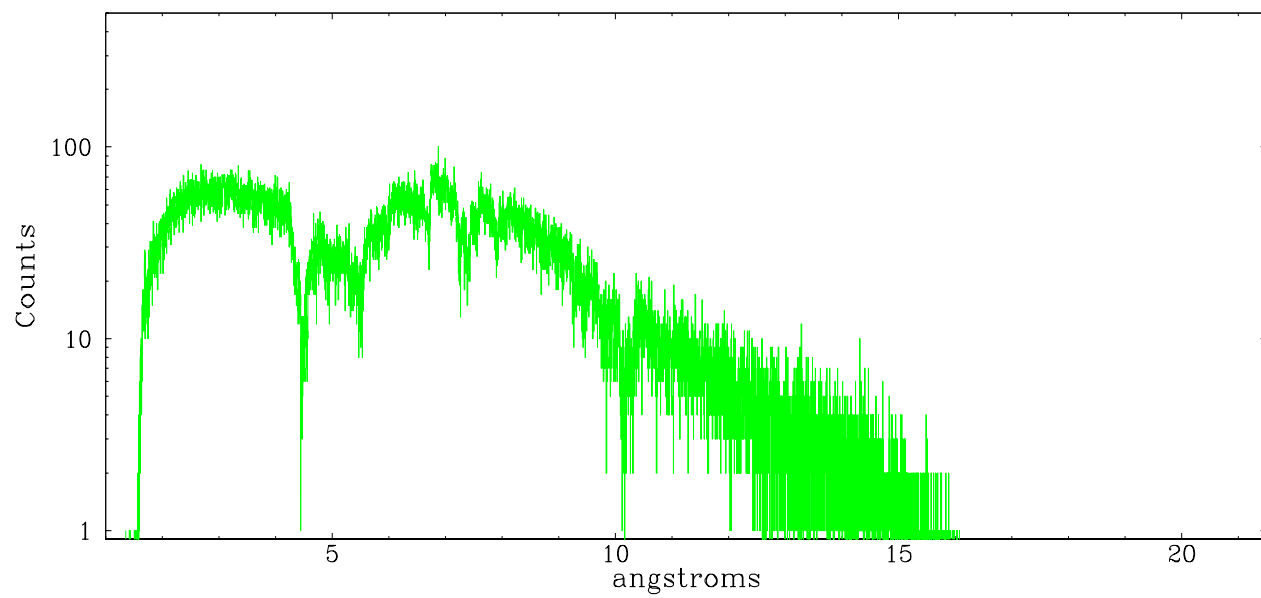
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	3140	13342	161904	31520	146548	10119	2972



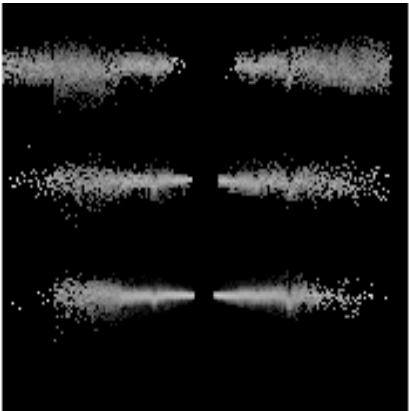
heg order -1



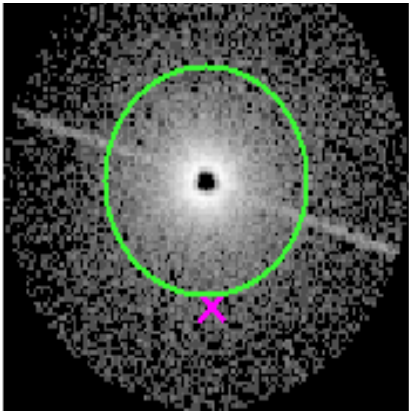
heg order +1



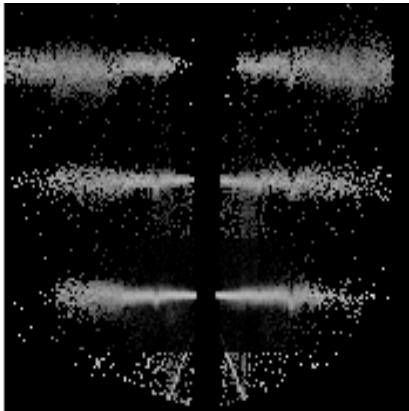
3.2 MEG Arm



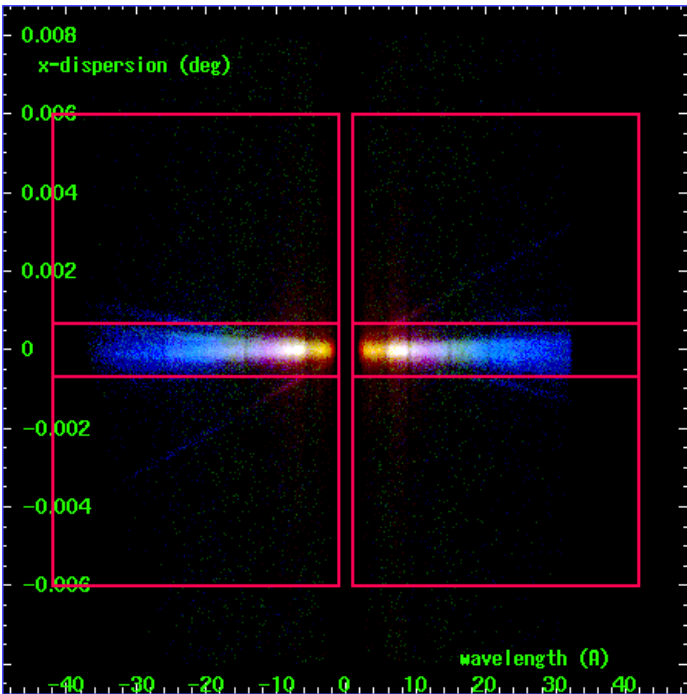
MEG Order Sort 123



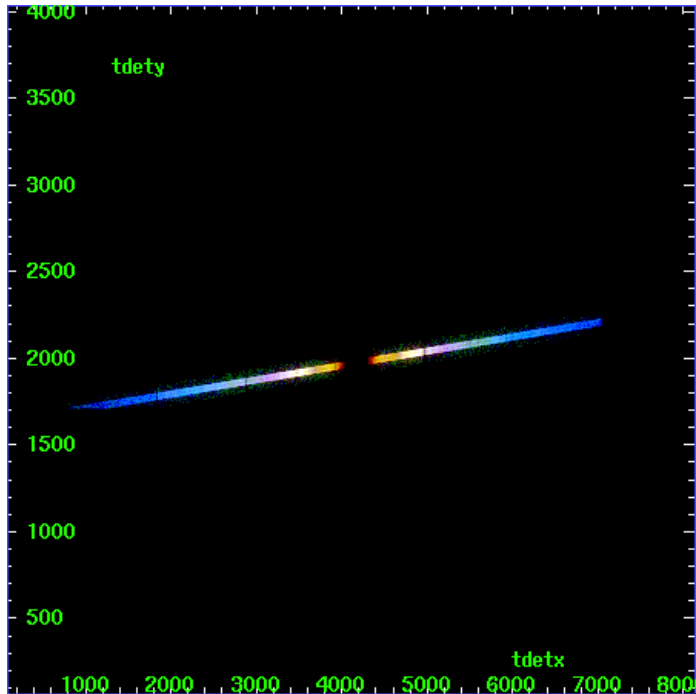
MEG Zero Order



MEG Order Sort ALL

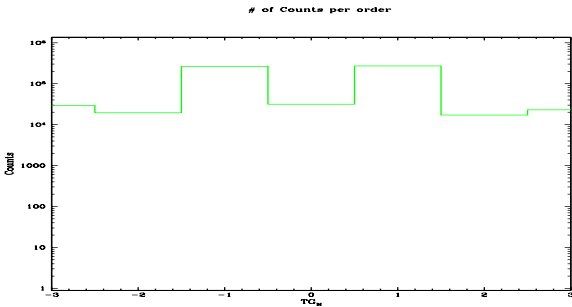


Spot Image MEG

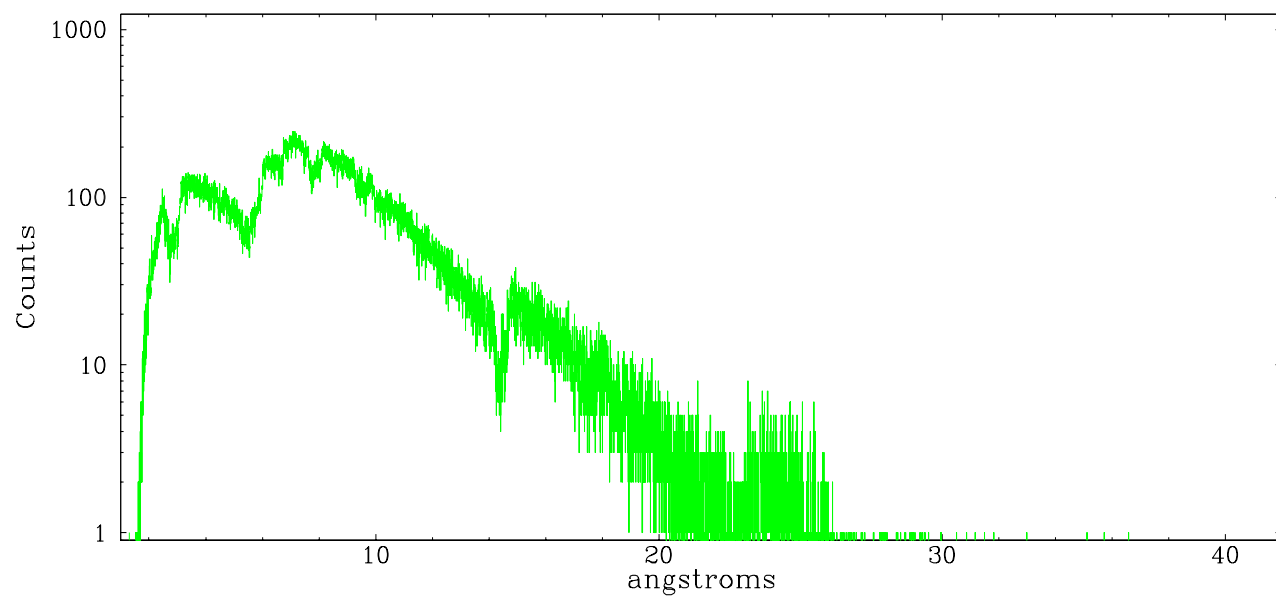


Full Detector MEG

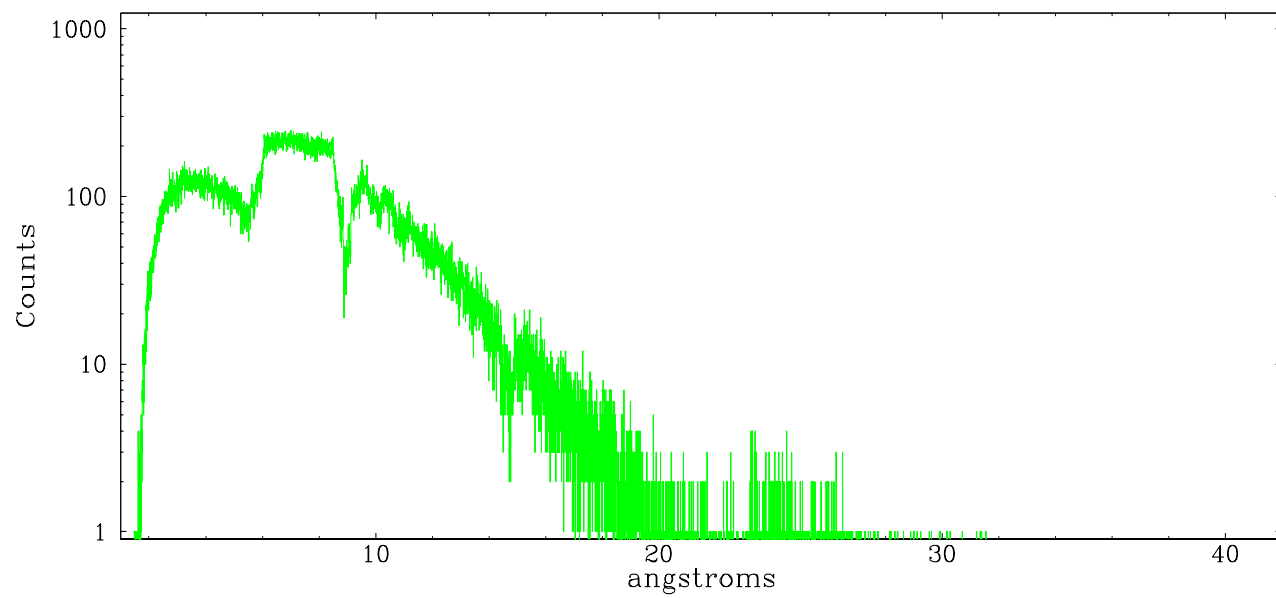
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	29142	19460	264803	31520	271431	17056	22885



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2006.12.29
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.7

A.2 Comments

Due to pileup of the zeroth order, tgdetect did not appear to give the correct position. Findzero results for meg of x0=4093.79; y0=4129.14 were used as the zeroth order position.

The dispersed spectra are also probably piled, since they show in an image of bad events.

Comments for Obi 0
Star in slot 3 has an RMS deviation > 0.200000 arcsec

Charge time:
Charge time for this ObsId remains at previous value of 9.7 ks.