

V&V Reference Report

L2 ASCDS Version : 7.6.9

Observation 2415 - L2 Version 003
Chandra X-Ray Center

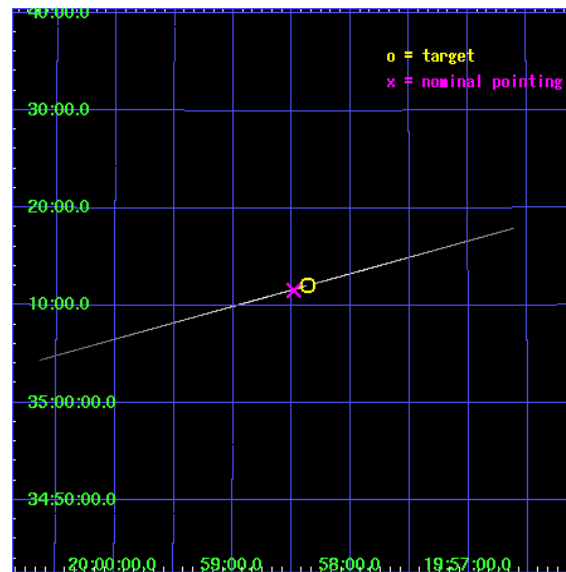
L2 Processing Date : Jan 30 2007

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1 Front

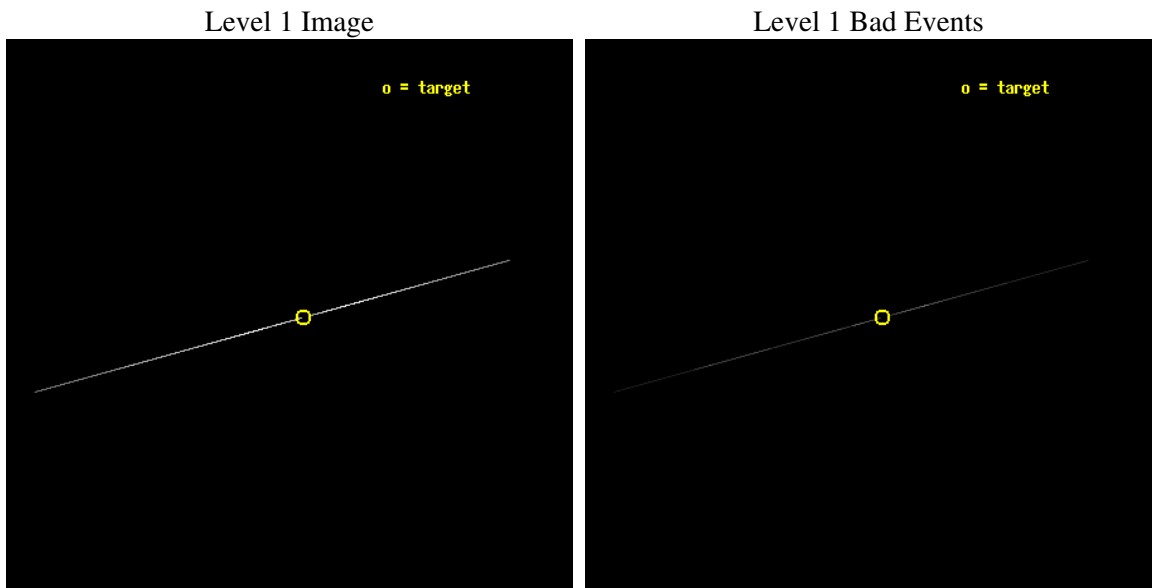
seq_num	400161
obs_id	2415
title	CHANDRA OBSERVATIONS OF CYGNUS X-1 IN A RARE, SUSTAINED HIGH/SOFT STATE
observer	Dr Jon Miller
object	CYGNUS X-1
ra_targ	299.590417
dec_targ	35.201611
ra_nom	299.62090557033
dec_nom	35.192901082404
roll_nom	344.64134310907
revision	5
ontime	30142.582960218
livetime	30024.83849553
ontime4	30144.04161787
ontime5	30144.041786537
ontime6	30144.041786477
ontime7	30142.582960218
ontime8	30144.041786373
ontime9	30145.5
l2events	7504068



2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Parameters

obi_num	0
ascdsver	7.6.9
caldsver	3.2.3
date	2006-11-02T13:33:44
revision	3

sched_exp_time	30000.000000
ontime	30142.582960218
ontime4	30144.04161787
ontime5	30144.041786537
ontime6	30144.041786477
ontime7	30142.582960218
ontime8	30144.041786373
ontime9	30145.5
l1events	8205956

2.1.3 Events

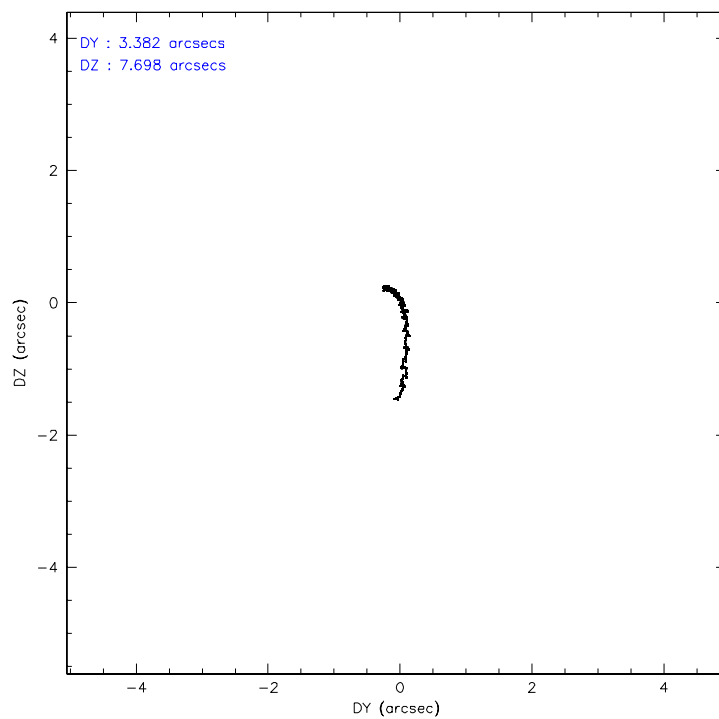
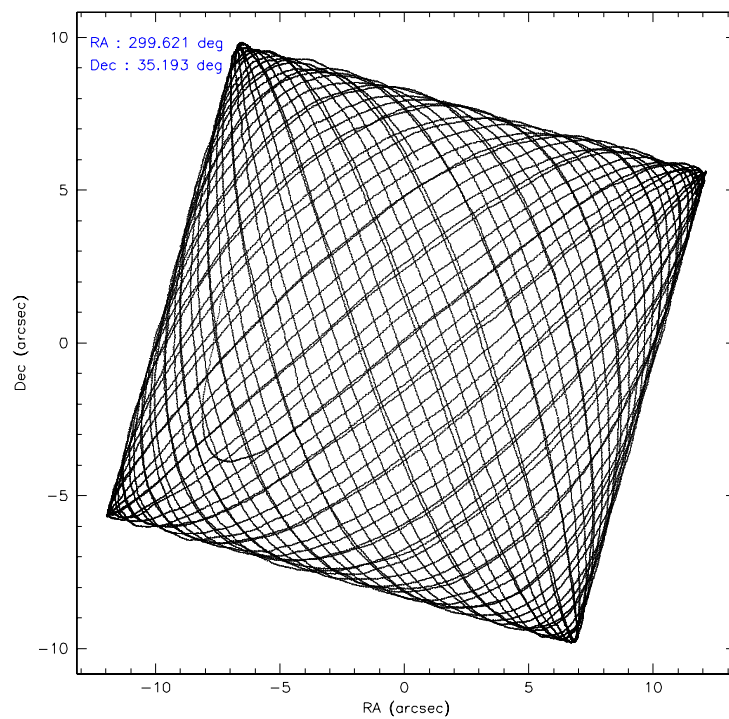
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	208838	754910	2654442	2047246	2140590	399930
rejected events	7950	31440	26744	51033	26516	10505
rejected %	3%	4%	1%	2%	1%	2%

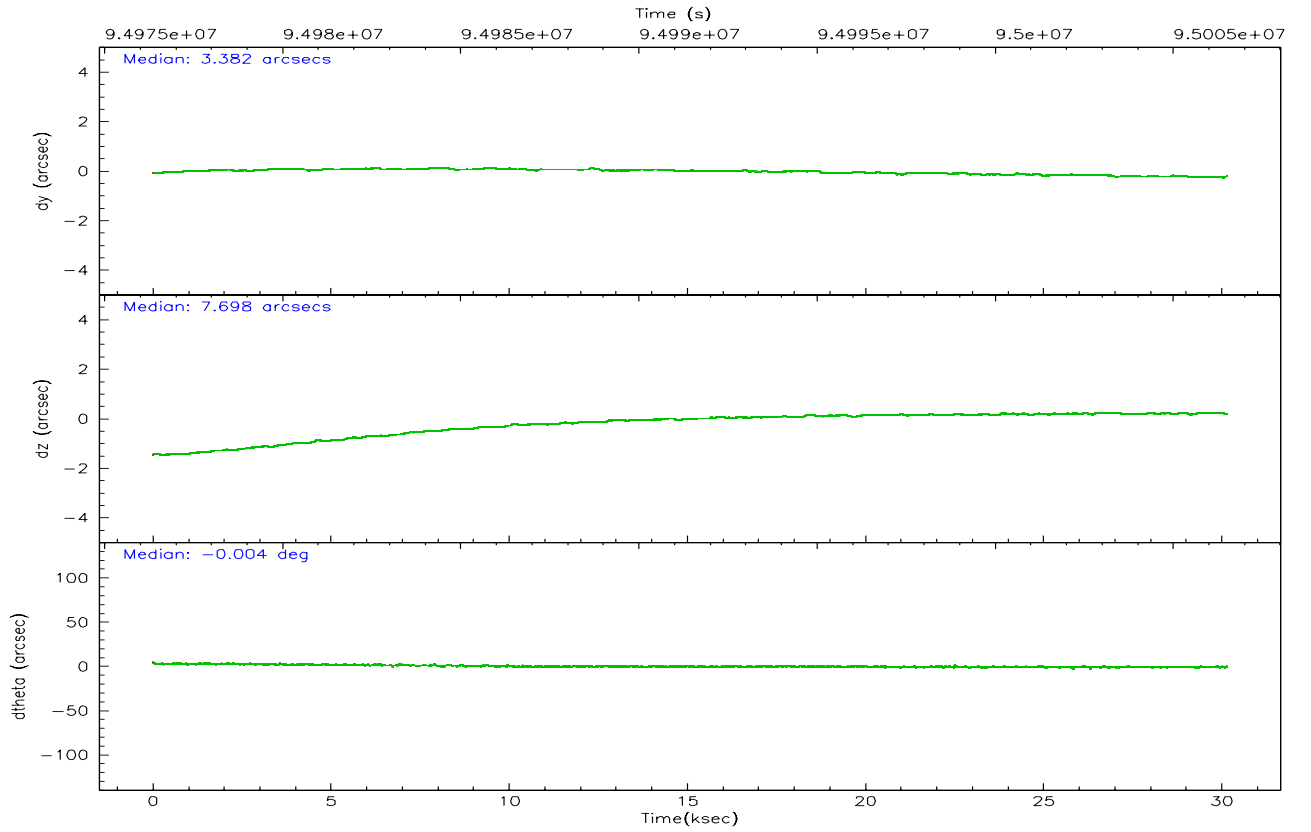
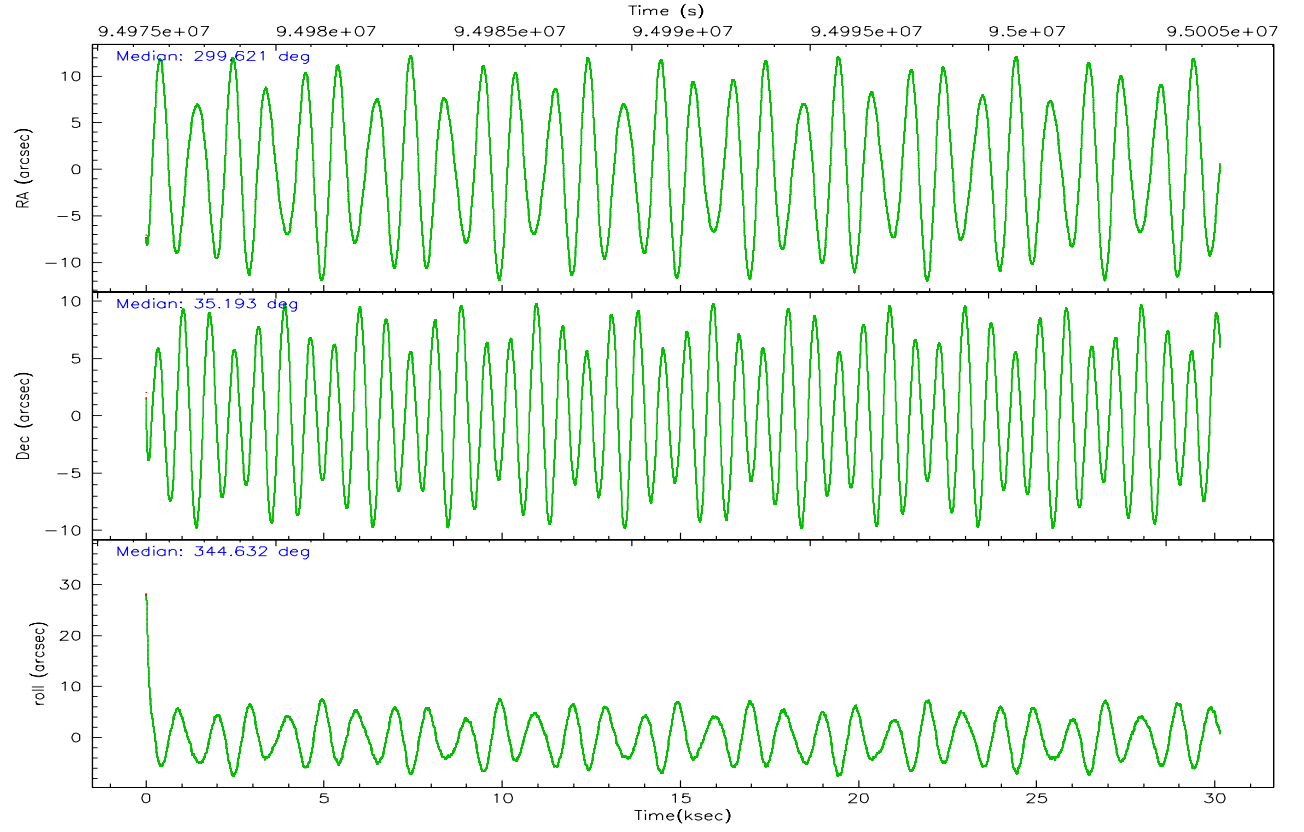
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	5110	102966	23415	248096	41824	12138
	2%	13%	0%	12%	1%	3%
grade 1 events	103	224	159	732	237	122
	0%	0%	0%	0%	0%	0%
grade 2 events	171947	363633	2410998	717926	1922977	342279
	82%	48%	90%	35%	89%	85%
grade 3 events	5102	22128	5252	132050	10111	4551
	2%	2%	0%	6%	0%	1%
grade 4 events	4951	21741	5292	130937	9856	4931
	2%	2%	0%	6%	0%	1%
grade 5 events	6417	22756	15866	39426	16764	8138
	3%	3%	0%	1%	0%	2%
grade 6 events	15208	221462	193460	778079	138821	27771
	7%	29%	7%	38%	6%	6%
grade 7 events	0	0	0	0	0	0
	0%	0%	0%	0%	0%	0%

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	CC33_GRADED	CC33_GRADED	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
Pointing RA	299.588630	299.6209055703254	Subarray requested	NONE	NONE
Pointing Dec	35.185753	35.1929010824036	Alternating exposures requested	N	N
Pointing Roll	344.503312	344.641343109065	Primary exposure time	0.000000	0
Window start time	93225664.184000	93225664.184000			
Window stop time	95904064.184000	95904064.184000			
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-194.132523	-194.1227414875429			
SIM translation stage offset (mm)	4	3.990218904535112			
Observation start time	94976512.184000	94975427.03704201			
Observation start date	2001-01-04T06:20:48	2001-01-04T06:03:47			
Observation end time	95006512.184000	95007560.275774			
Observation end date	2001-01-04T14:40:48	2001-01-04T14:59:20			
Read mode	CONTINUOUS	CONTINUOUS			

2.3 Aspect



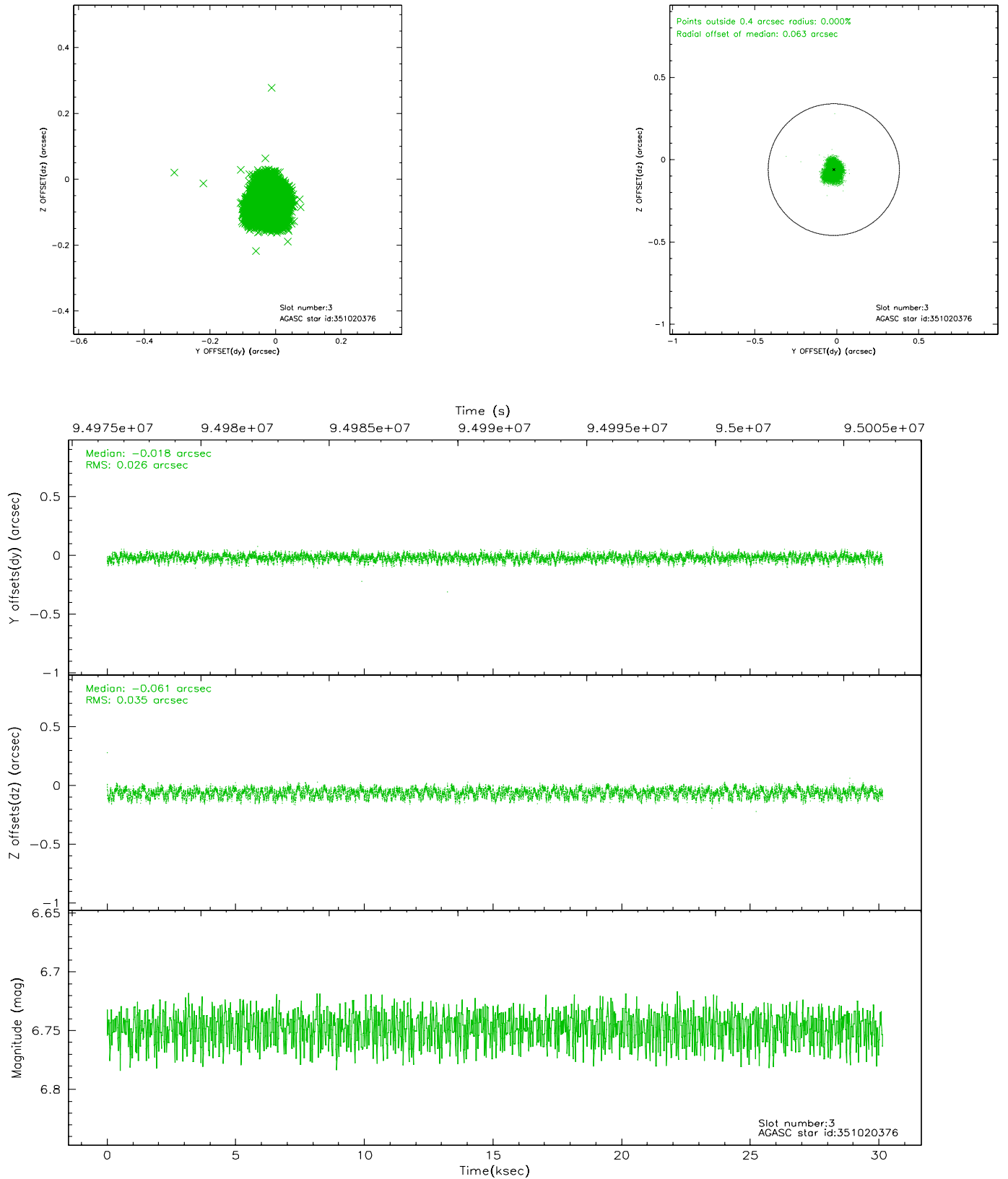


Slot Statistics

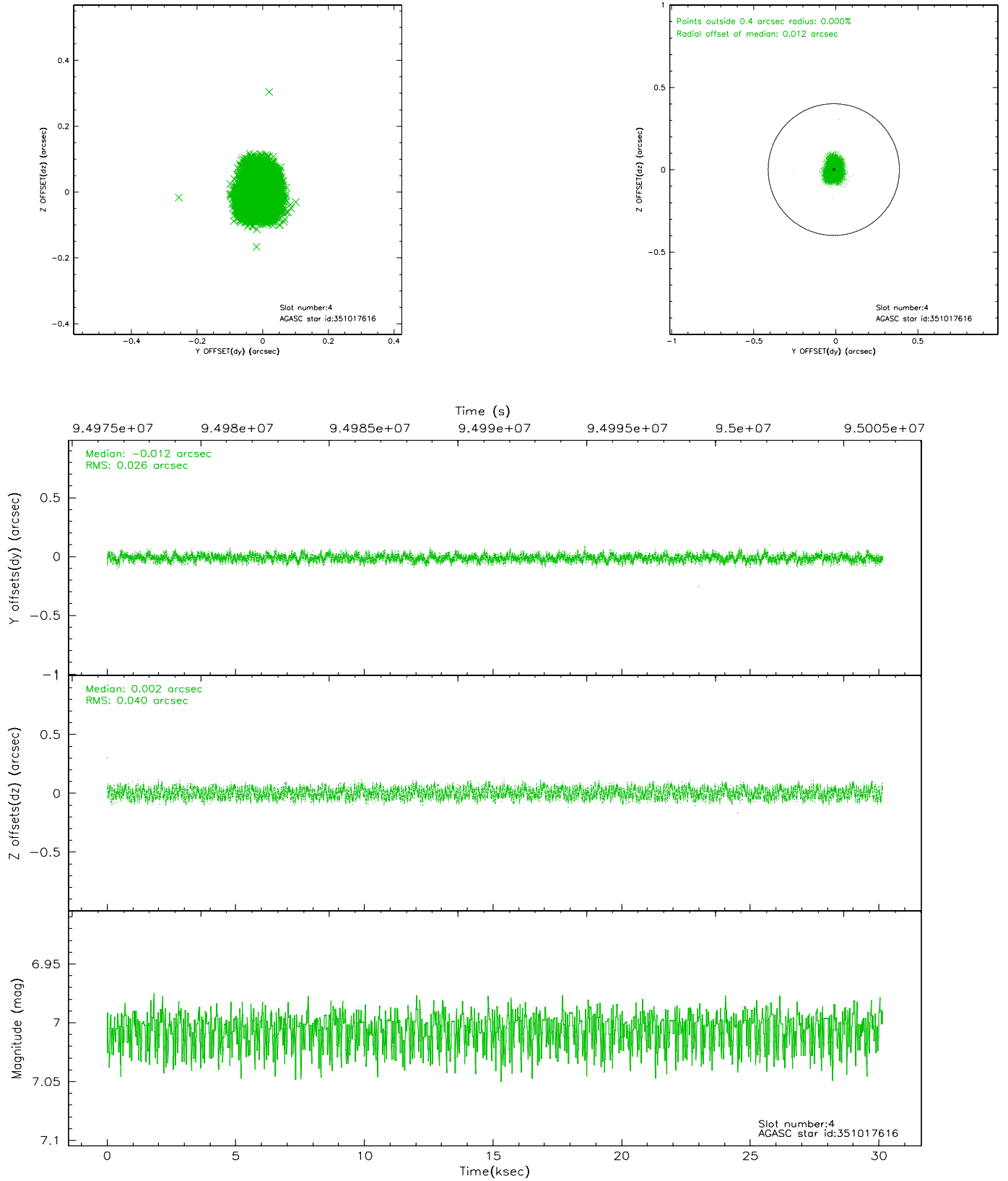
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.12	7353	0.043	0.044	0.009	0.032	0.000000	0.000000	-756.23	-1646.50
1	FID	ACIS-S-4	7.21	7353	-0.019	-0.038	0.007	0.012	0.000000	0.000000	2156.96	261.82
2	FID	ACIS-S-6	7.34	7352	-0.052	0.000	0.011	0.029	0.000000	0.000000	405.76	899.35
3	GUIDE	351020376	6.75	14702	-0.018	-0.061	0.046	0.074	299.982490	35.296494	1008.77	695.61
4	GUIDE	351017616	7.00	14708	-0.012	0.002	0.052	0.078	300.079295	35.358356	1221.99	987.29
5	GUIDE	351407808	7.58	14707	0.029	-0.010	0.065	0.107	299.102647	35.790086	-1949.17	1720.41
6	GUIDE	351018080	8.34	14700	0.009	0.023	0.066	0.100	299.327312	34.581247	-164.14	-2303.04
7	GUIDE	351023656	8.18	14638	-0.003	0.049	0.045	0.073	299.727900	34.661972	902.26	-1706.63

2.4 Star Slots

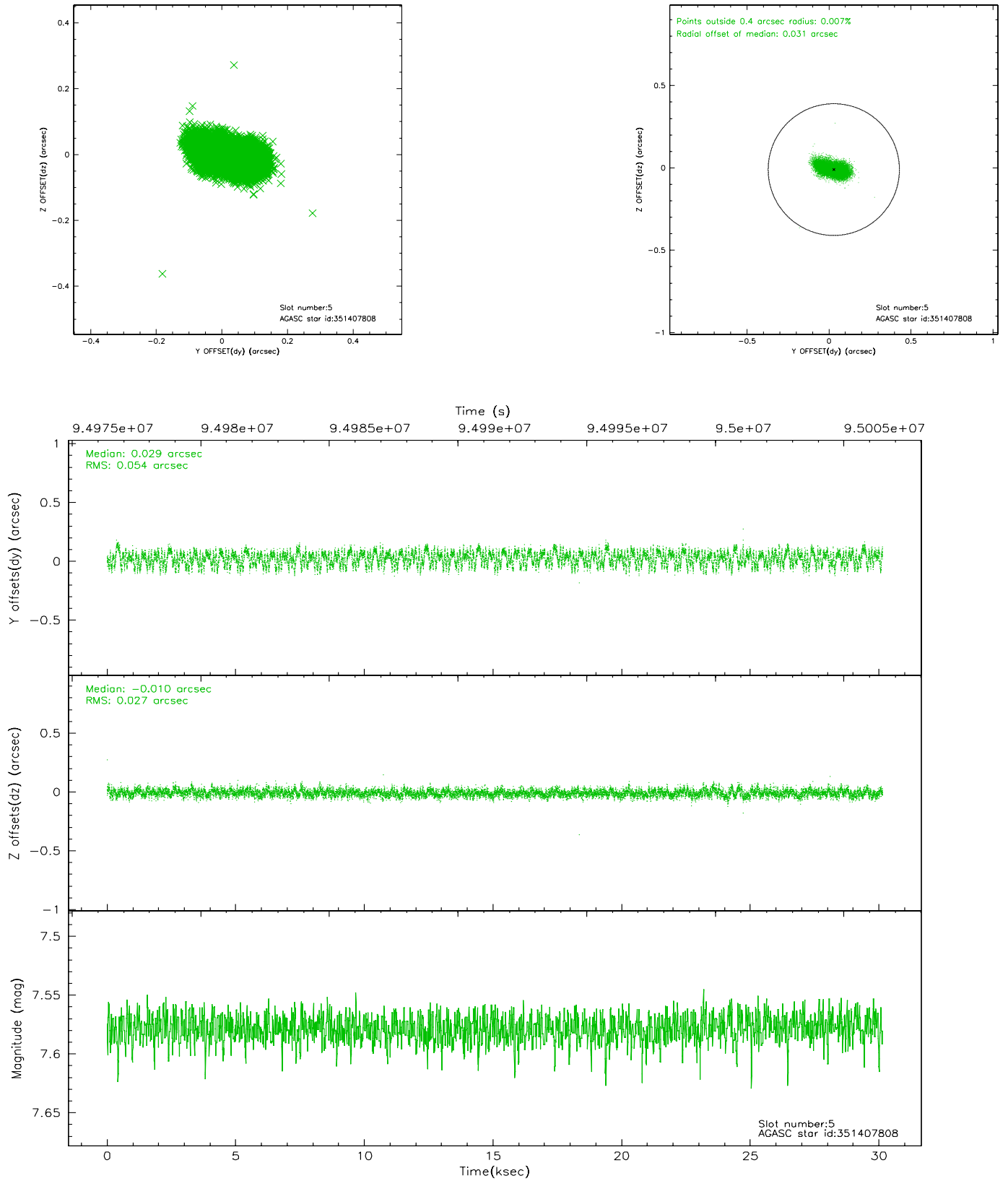
2.4.1 Slot 3



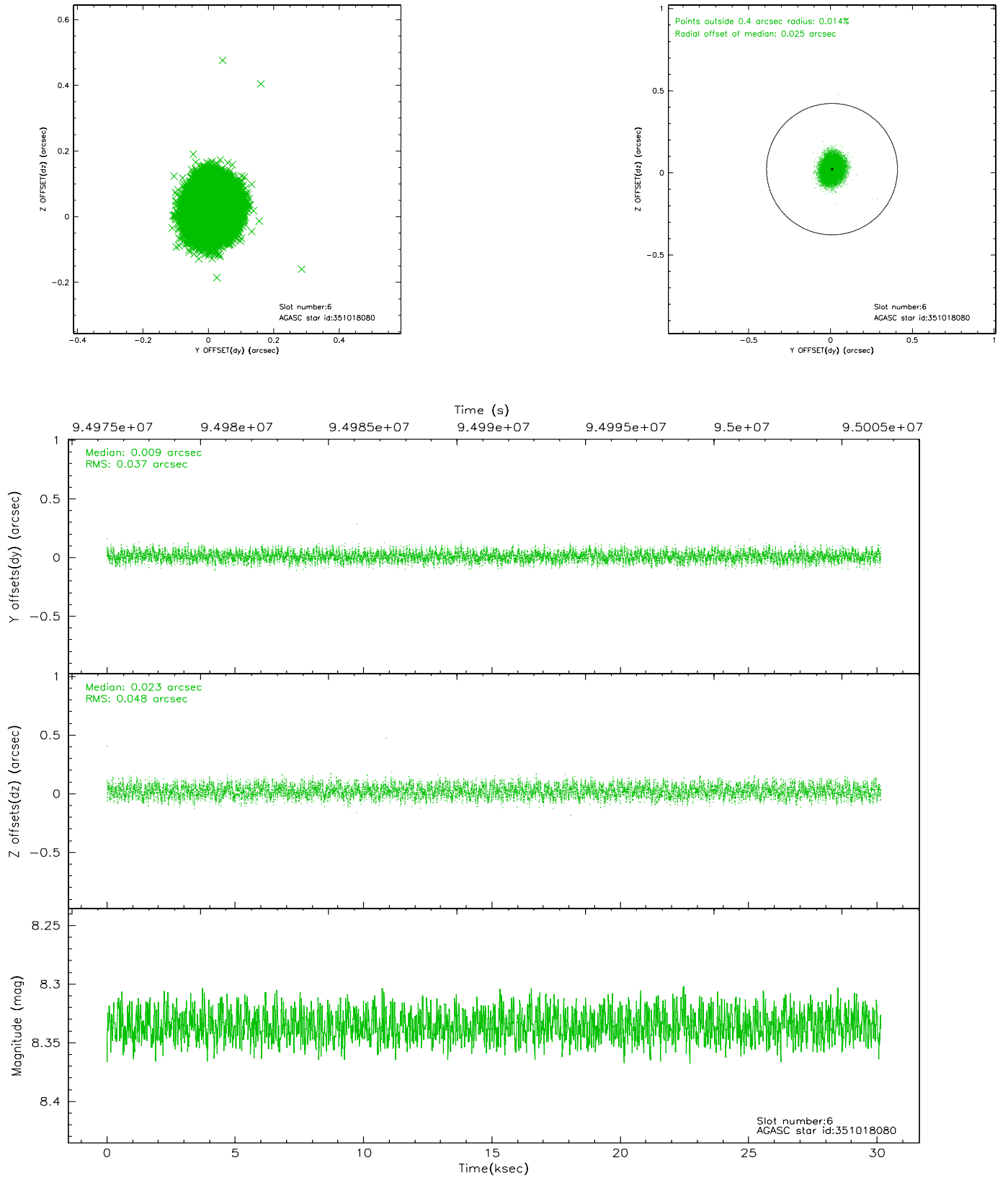
2.4.2 Slot 4



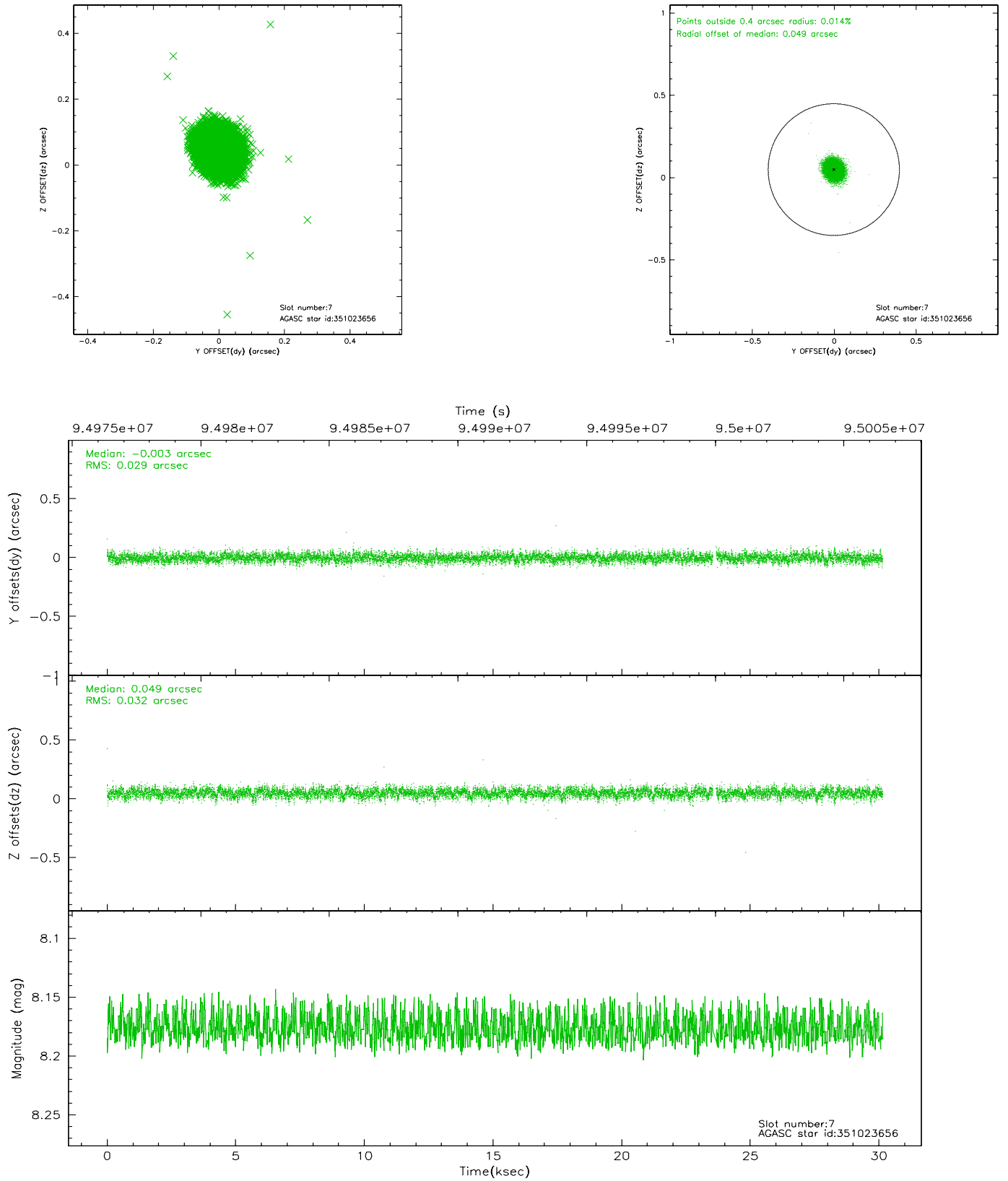
2.4.3 Slot 5



2.4.4 Slot 6

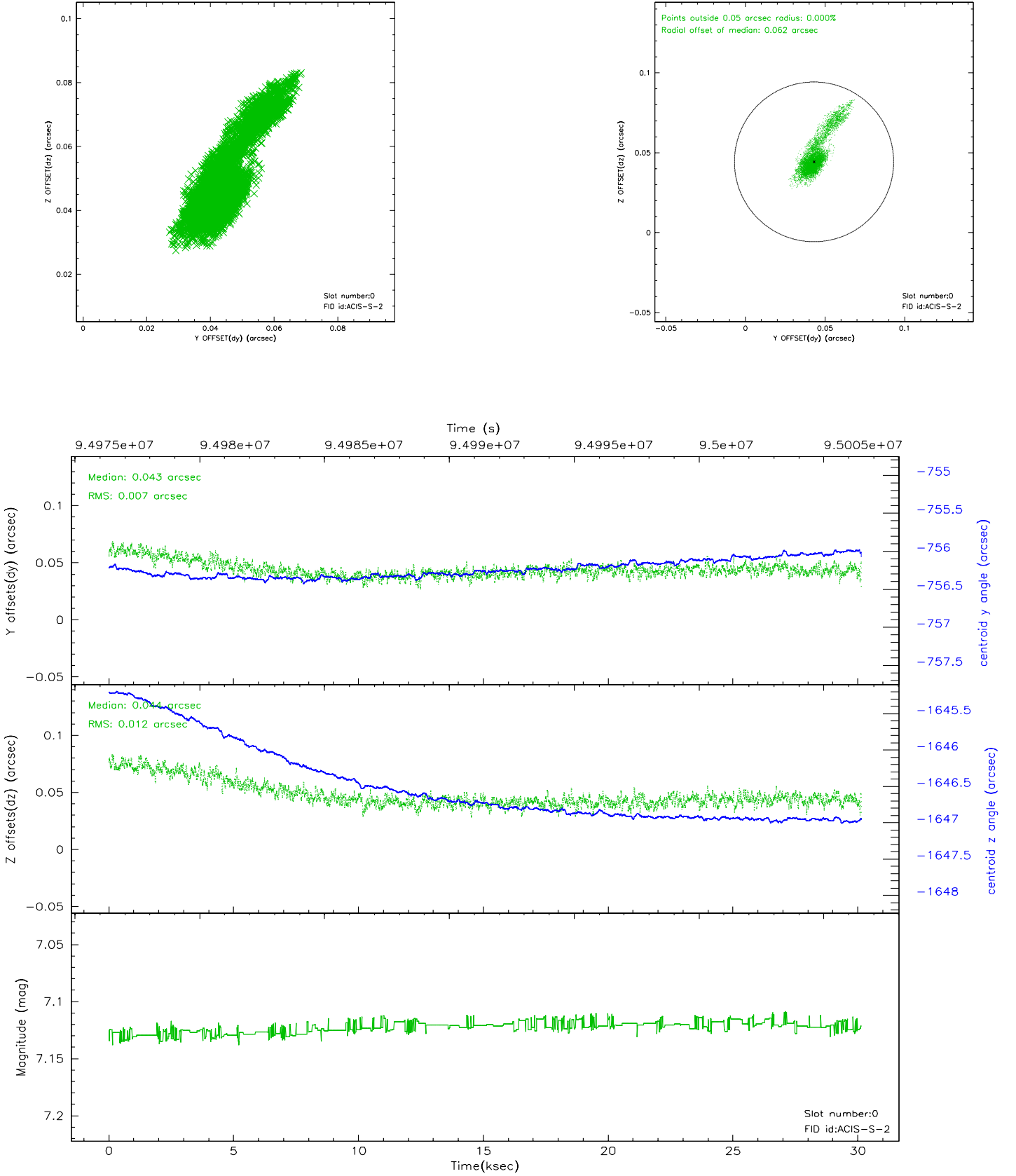


2.4.5 Slot 7

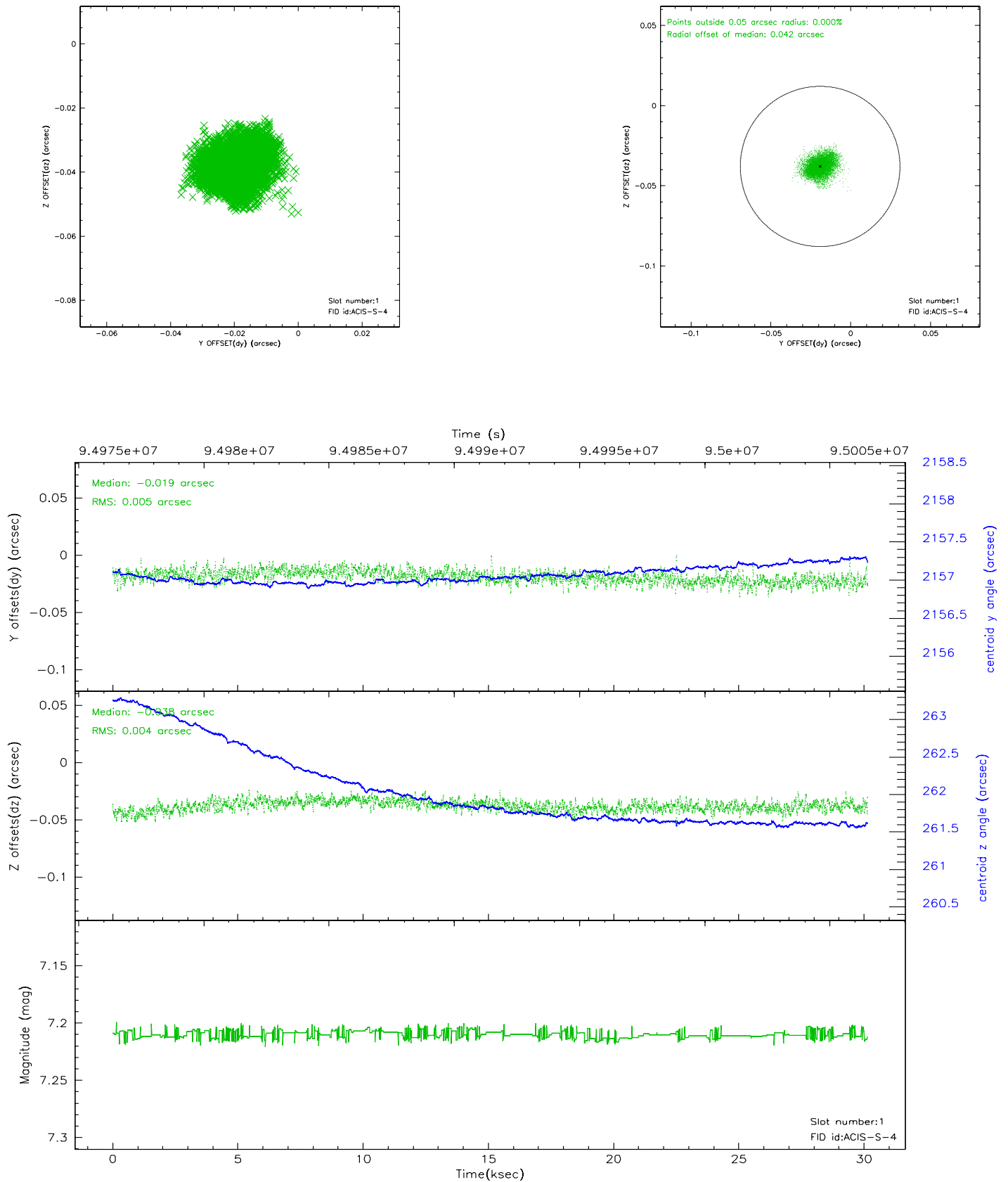


2.5 FID Slots

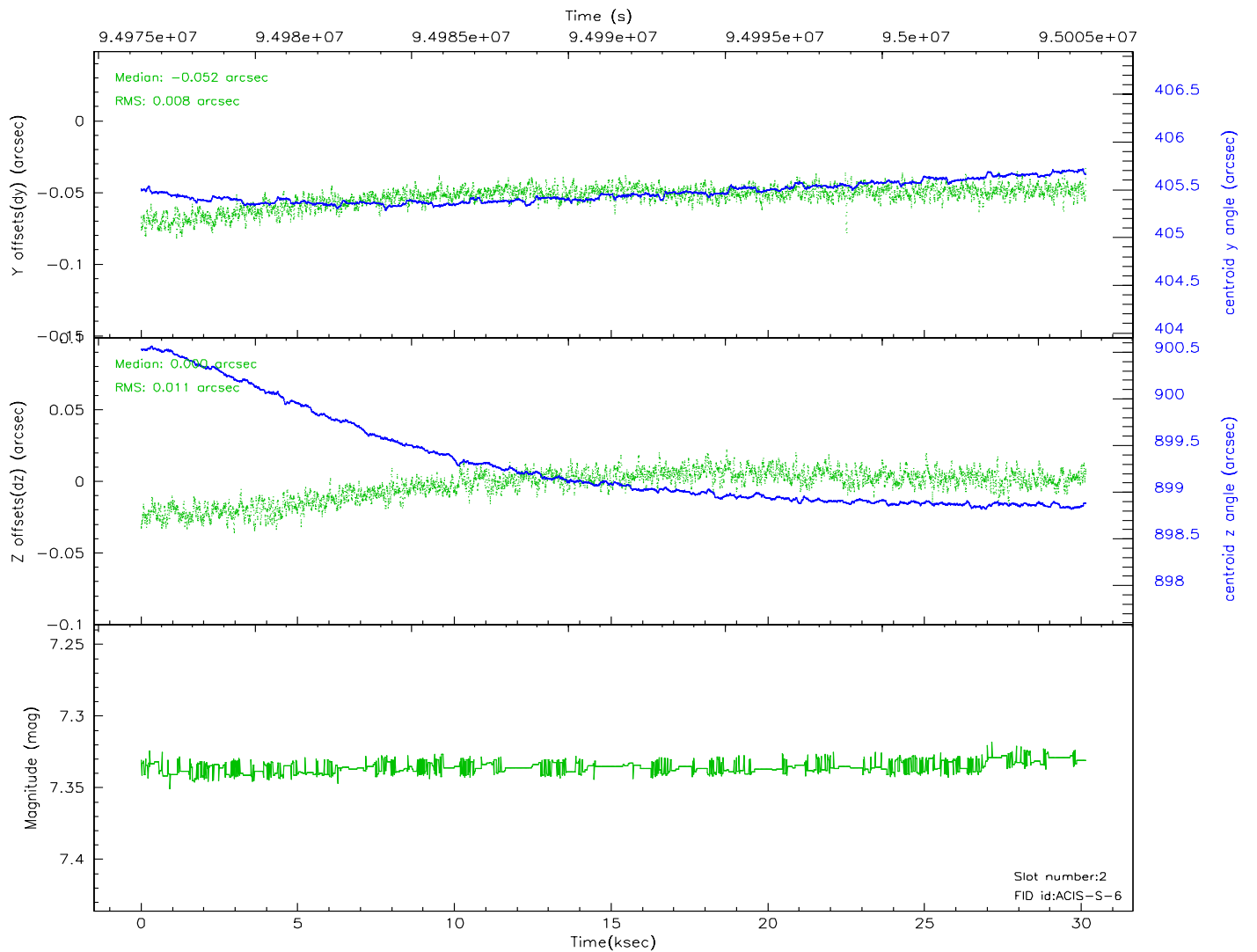
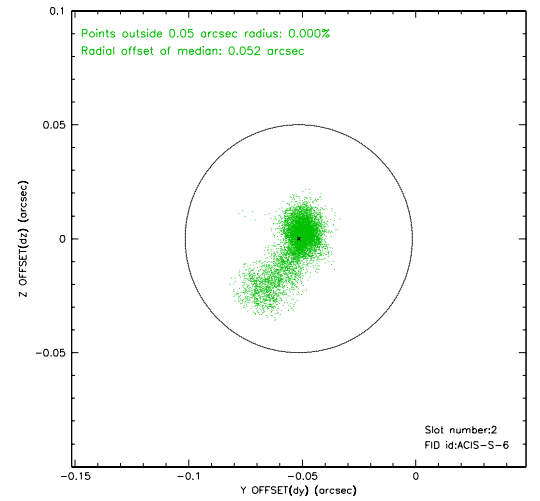
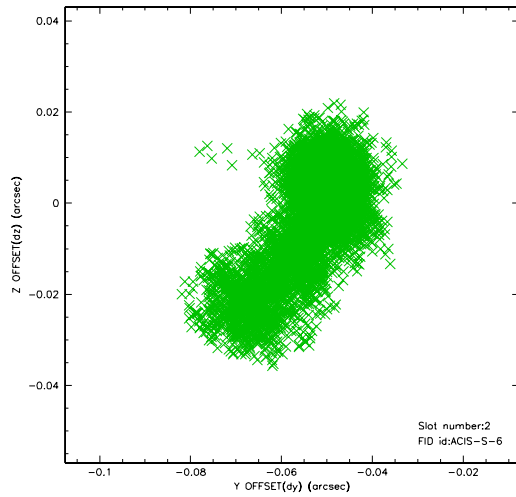
2.5.1 Slot 0



2.5.2 Slot 1

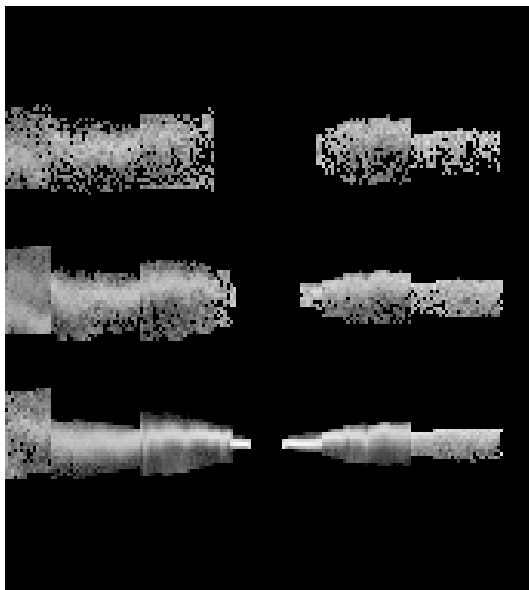


2.5.3 Slot 2

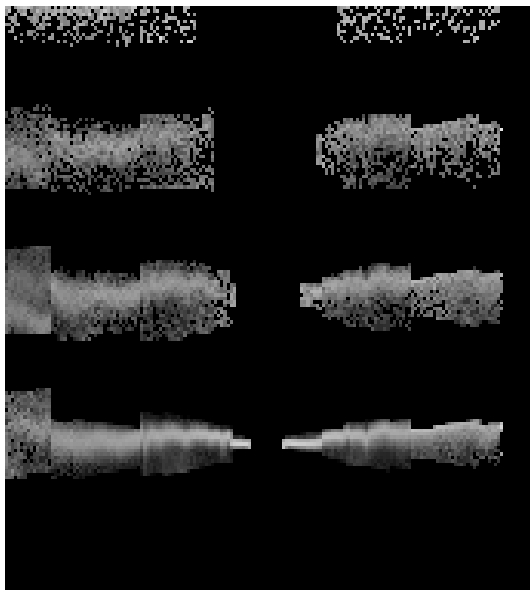


3 Gratings

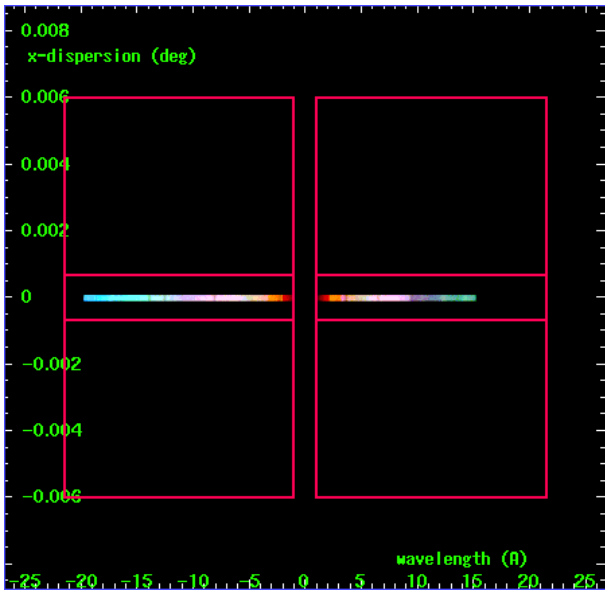
3.1 HEG Arm



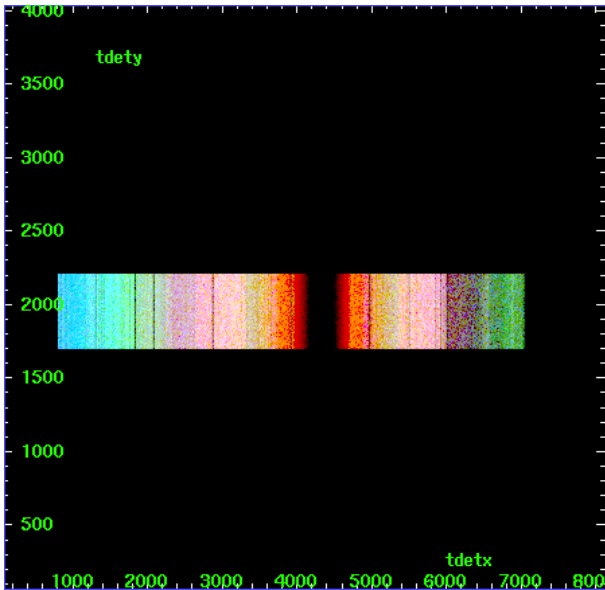
HEG Order Sort 123



HEG Order Sort ALL

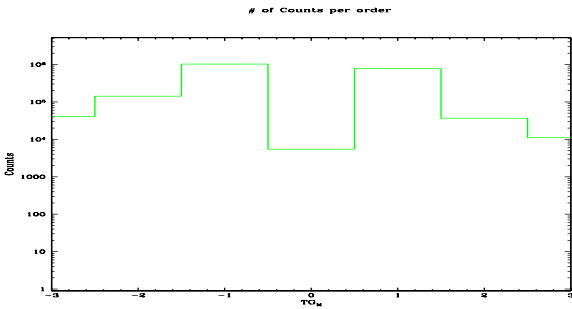


Spot Image HEG

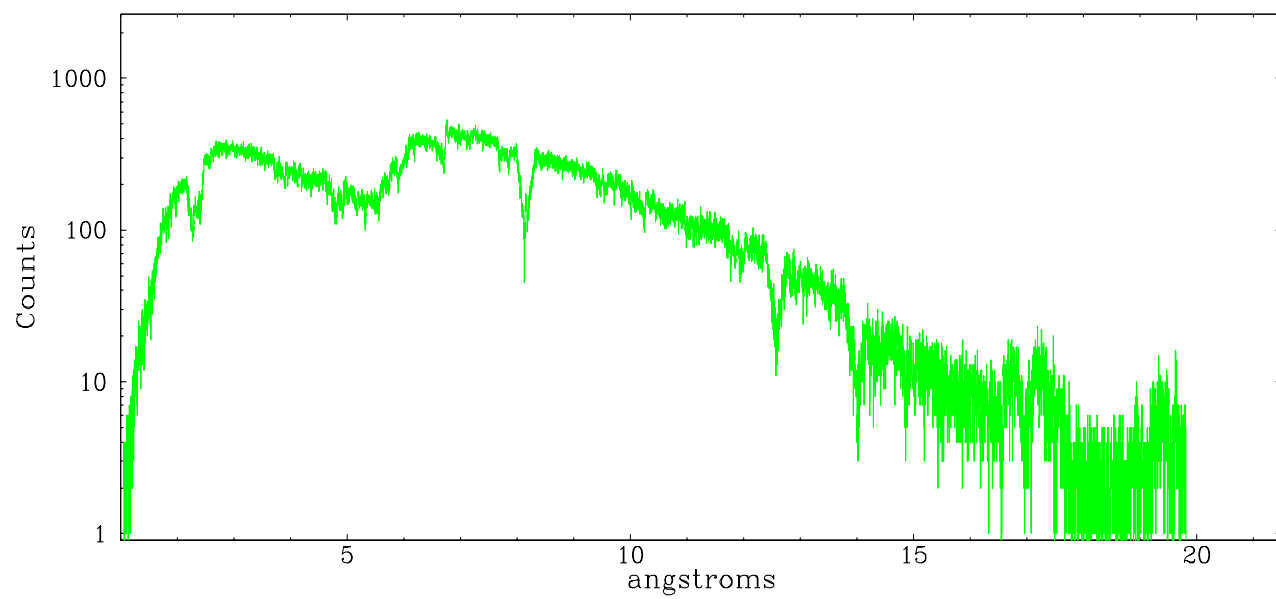


Full Detector HEG

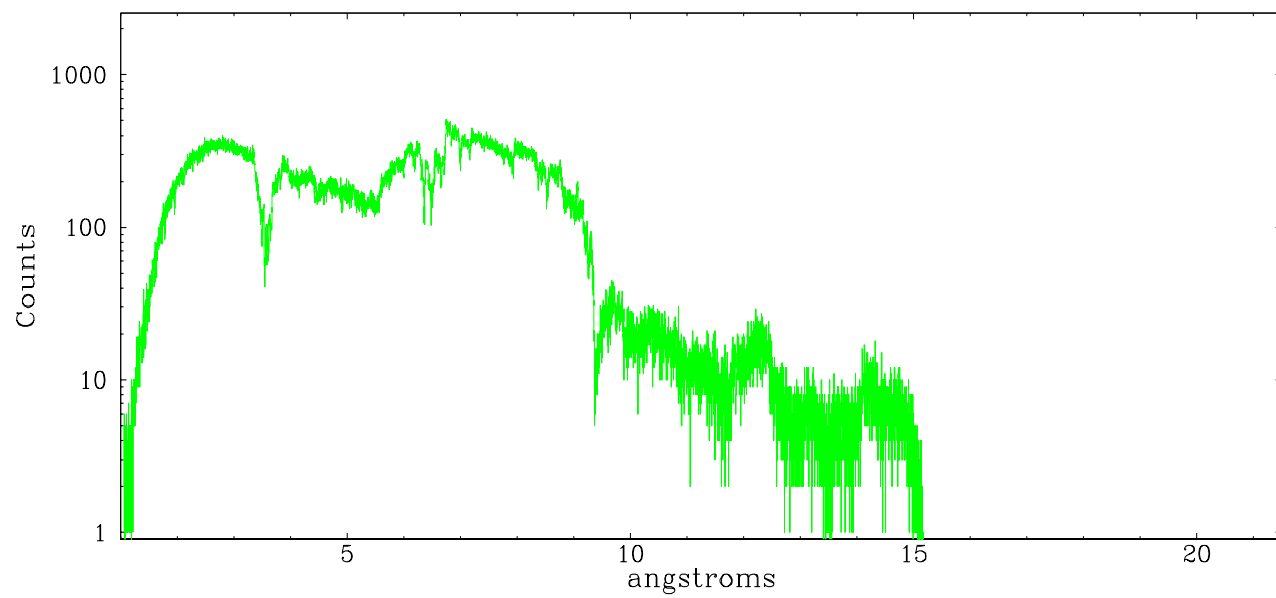
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	41164	141984	1029451	5491	779484	36528	11093



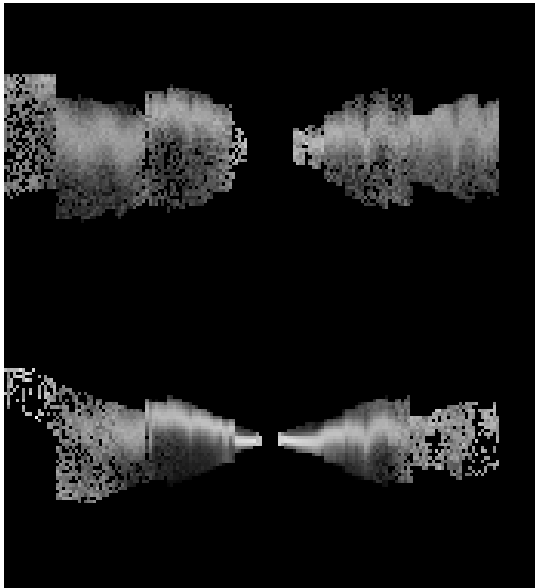
heg order -1



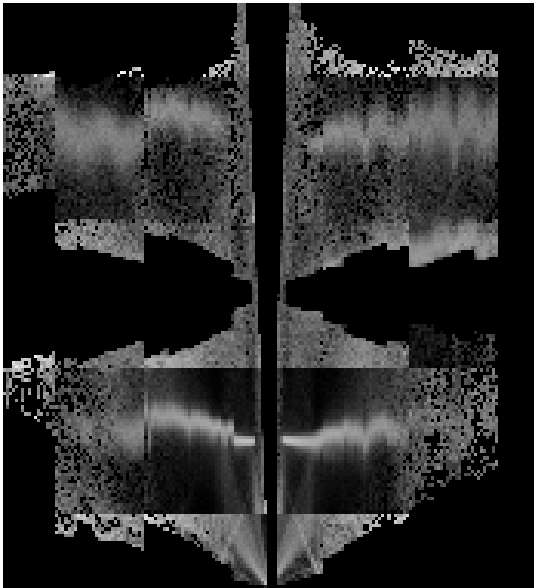
heg order +1



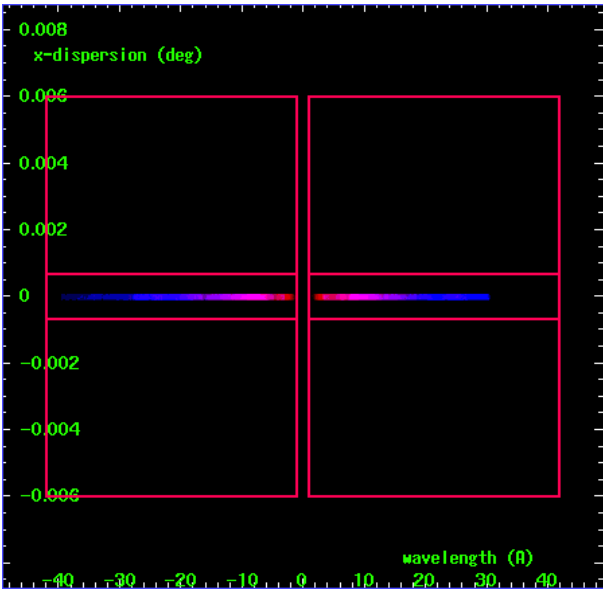
3.2 MEG Arm



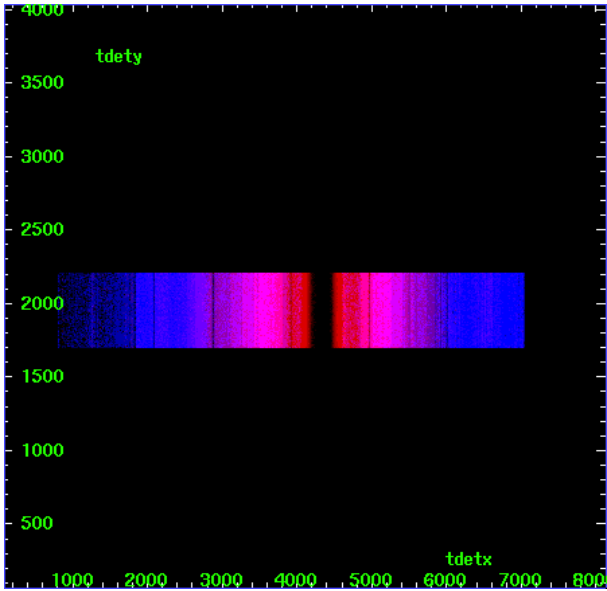
MEG Order Sort 123



MEG Order Sort ALL

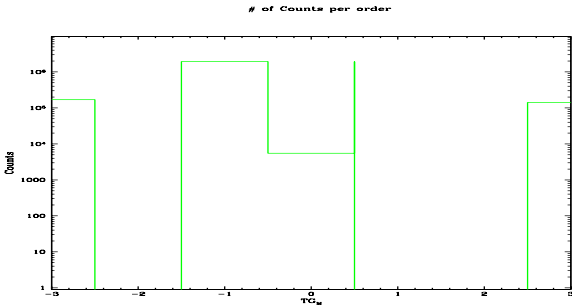


Spot Image MEG

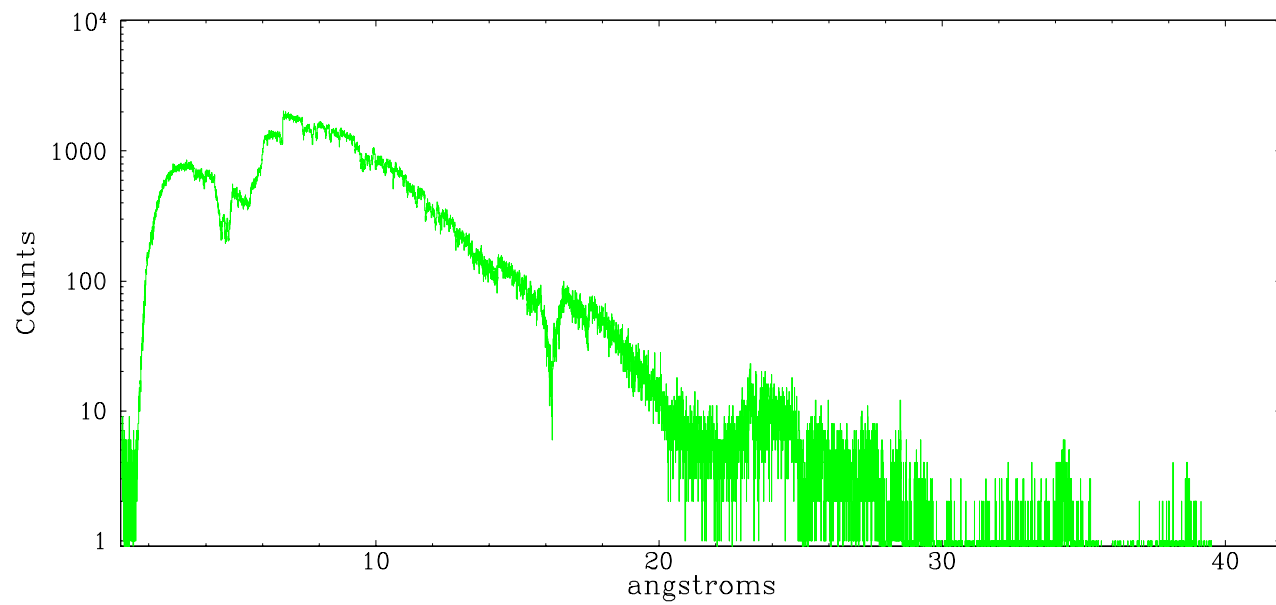


Full Detector MEG

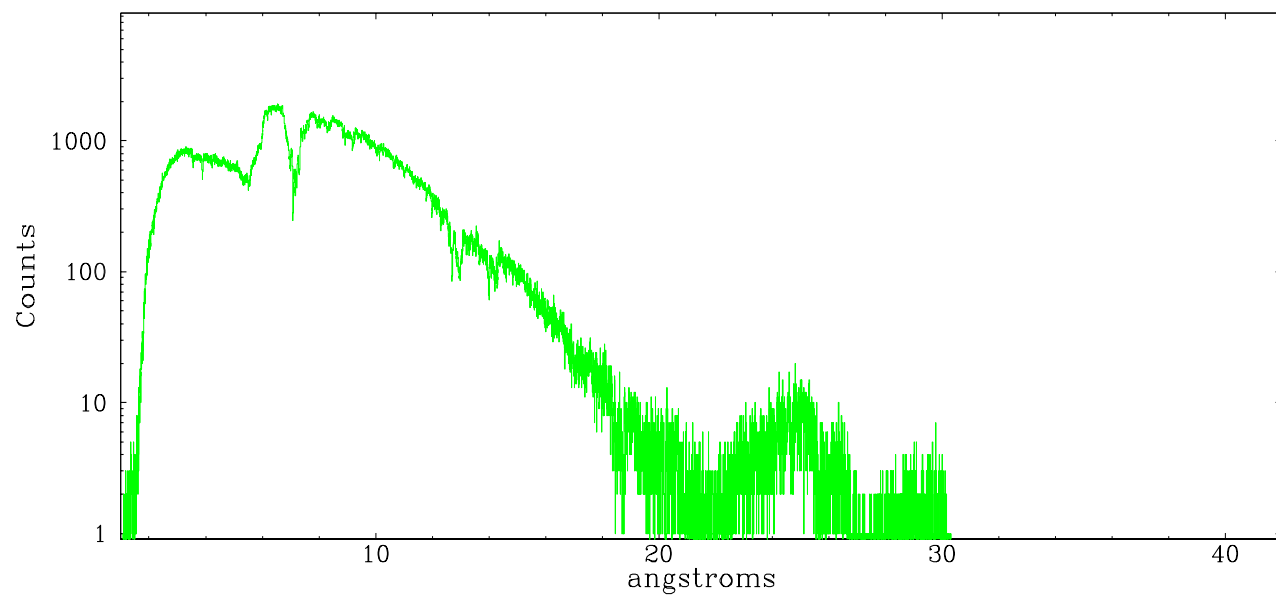
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	169700	0	1934966	5491	1905352	0	141823



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2007.01.30
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.146

A.2 Comments