

V&V Reference Report

L2 ASCDS Version : 7.6.10

Observation 660 - L2 Version 6
Chandra X-Ray Center

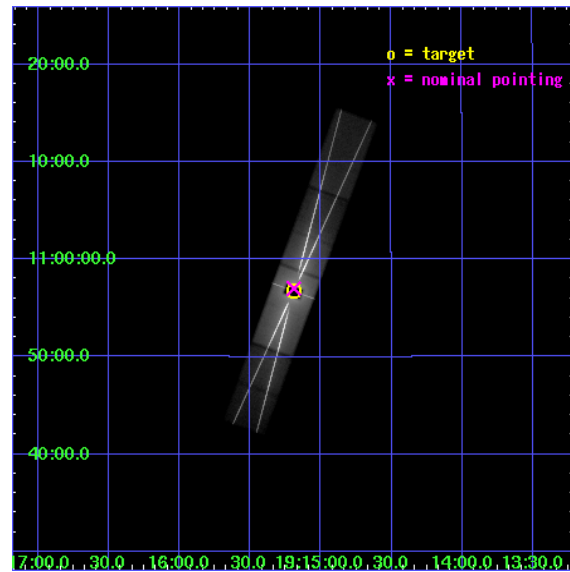
L2 Processing Date : Jul 19 2007

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1 Front

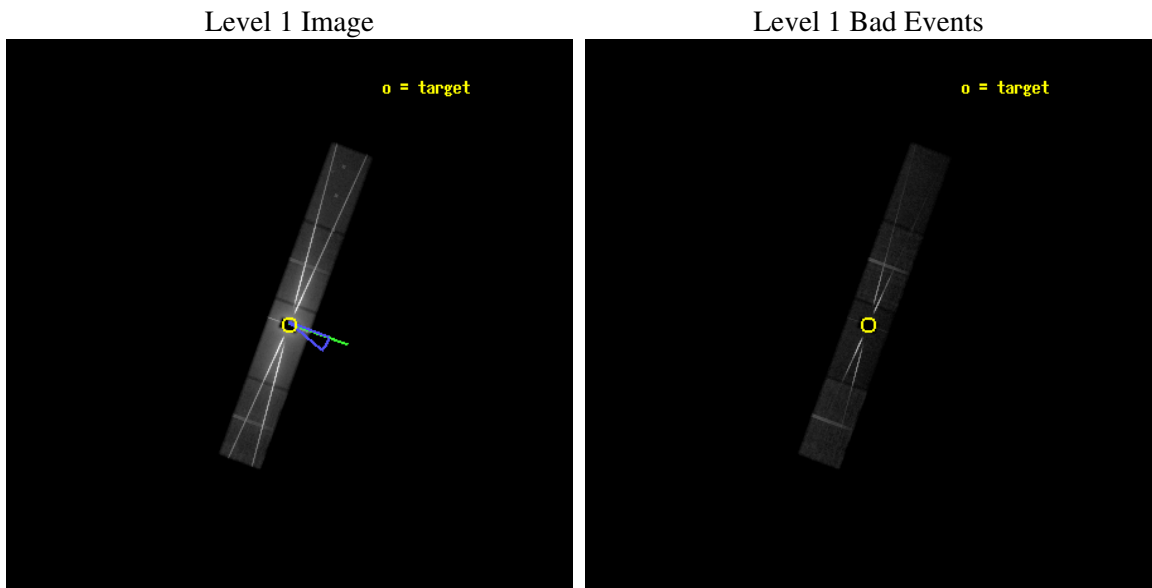
seq_num	400027
obs_id	660
title	ACIS-HETG OBSERVATIONS OF GRS1915+105: A MICRO BAL-QUASAR ?
observer	Prof Julia Lee
object	GRS 1915+105
dtcycle	0
cycle	P
ra_targ	288.7975
dec_targ	10.945556
ra_nom	288.79771978969
dec_nom	10.9502884731
roll_nom	110.15210170834
revision	6
ontime	30472.336033031
livetime	29754.038537973
ontime5	30479.300053433
ontime6	30477.559063271
ontime7	30472.336033031
ontime8	30477.559063286
l2events	3784253



2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Parameters

obi_num	0
ascdsver	7.6.10
caldbver	3.3.0
date	2007-05-12T01:20:08
revision	4

sched_exp_time	30000.000000
ontime	30472.336033031
ontime5	30479.300053433
ontime6	30477.559063271
ontime7	30472.336033031
ontime8	30477.559063286
l1events	4660044

2.1.3 Events

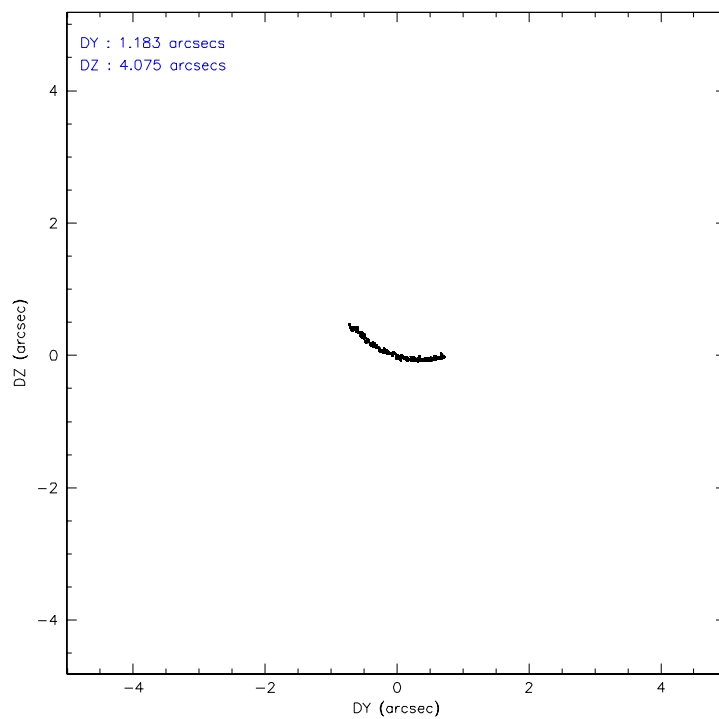
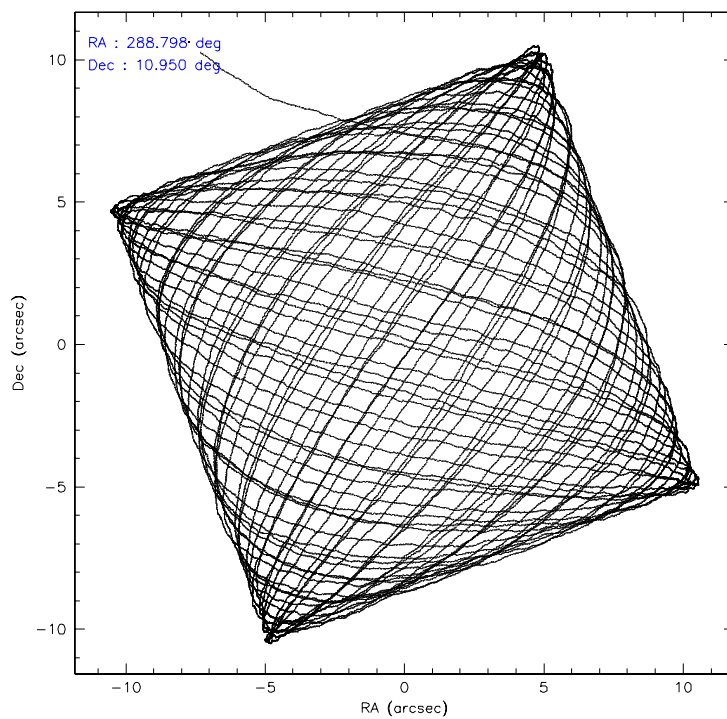
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	311324	1615942	2188723	544055
rejected events	108916	216551	236636	173338
rejected %	34%	13%	10%	31%

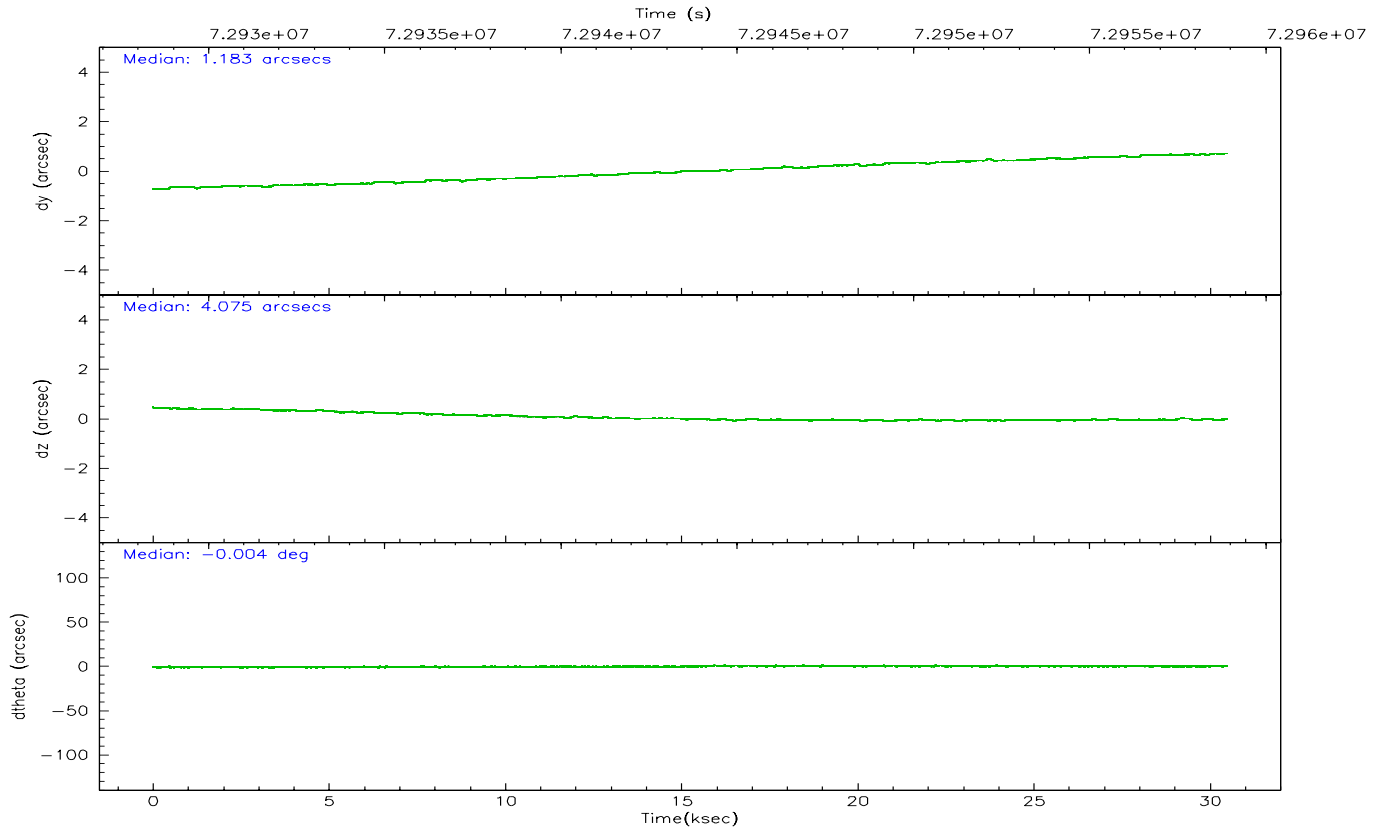
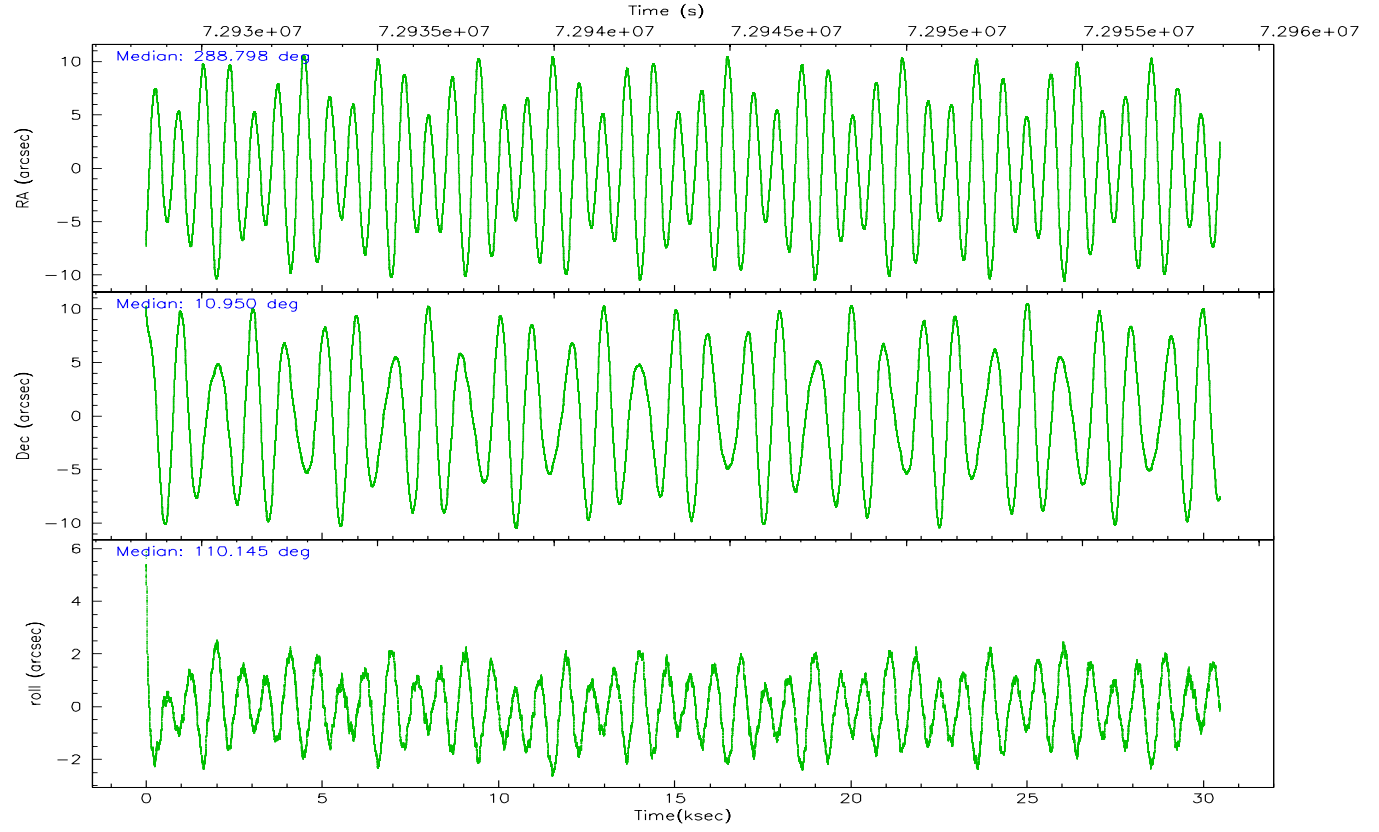
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	37472	986460	324658	281261
	12%	61%	14%	51%
grade 1 events	393	24617	7945	1921
	0%	1%	0%	0%
grade 2 events	76652	201516	512279	51363
	24%	12%	23%	9%
grade 3 events	13198	70909	189342	18576
	4%	4%	8%	3%
grade 4 events	13102	69557	188628	18255
	4%	4%	8%	3%
grade 5 events	10524	26606	55379	6791
	3%	1%	2%	1%
grade 6 events	78147	93142	764224	24108
	25%	5%	34%	4%
grade 7 events	81836	143135	146268	141780
	26%	8%	6%	26%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-5678	ACIS-5678	Obspar file type	PREDICTED	ACTUAL
Grating	HETG	HETG	Obspar update status	NONE	UPDATED
Data mode	GRADED	GRADED	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
Pointing RA	288.819226	288.7977197896946	Subarray requested	CUSTOM	CUSTOM
Pointing Dec	10.932744	10.95028847309993	Subarray start row	15	15
Pointing Roll	109.991397	110.1521017083423	Subarray row count	542	542
Roll angle	120.000000	120.000000	Alternating exposures requested	N	N
Roll tolerance	10.000000	10.000000	Primary exposure time	3.200000	1.7
Roll constraint allows 180D rotation	N	N			
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-184.532523	-184.52811429679			
SIM translation stage offset (mm)	-5.6	-5.604408286217847			
Observation start time	72928904.184000	72927349.74886499			
Observation start date	2000-04-24T02:00:40	2000-04-24T01:35:49			
Observation end time	72958904.184000	72959566.012547			
Observation end date	2000-04-24T10:20:40	2000-04-24T10:32:46			
Read mode	TIMED	TIMED			

2.3 Aspect



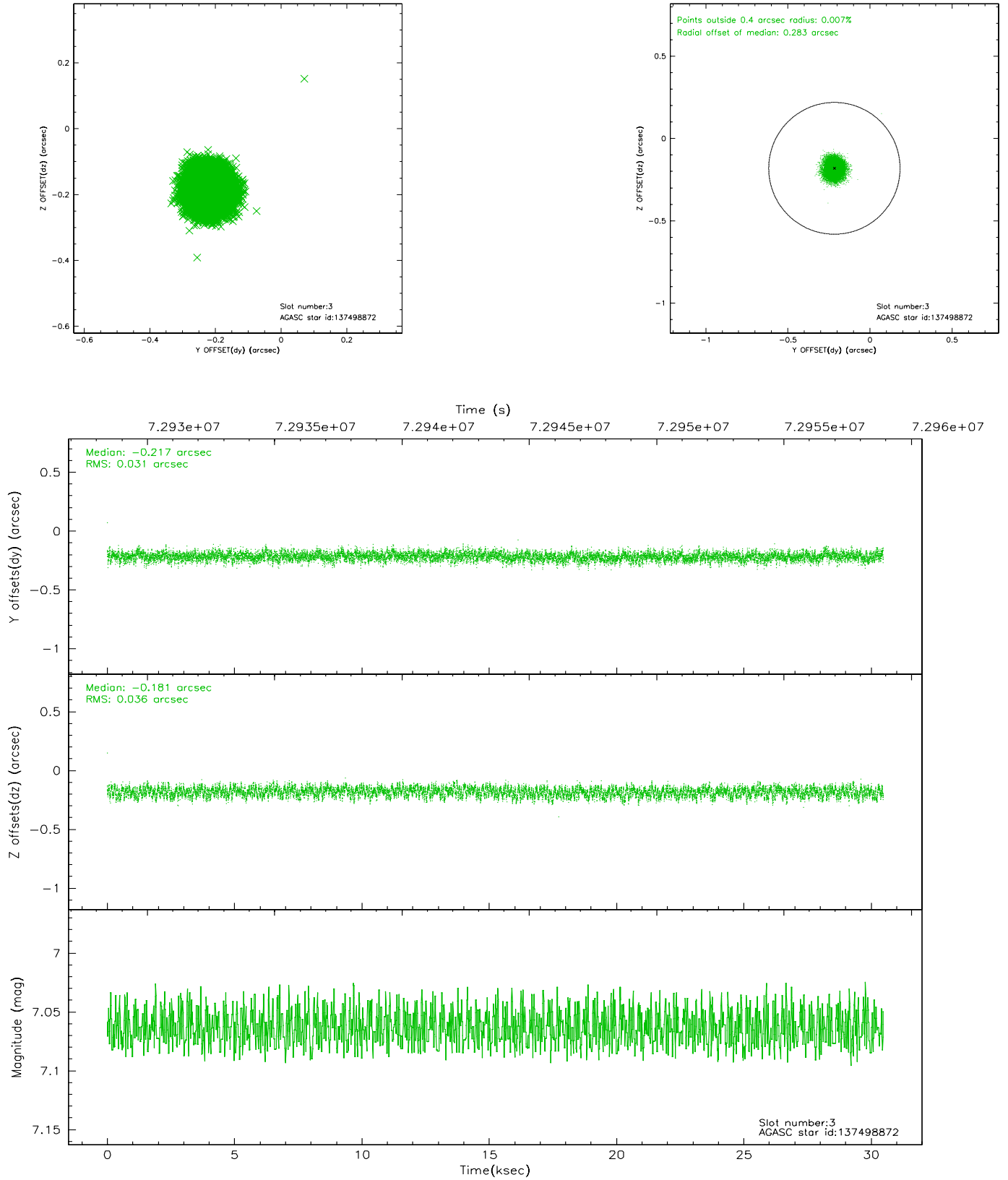


Slot Statistics

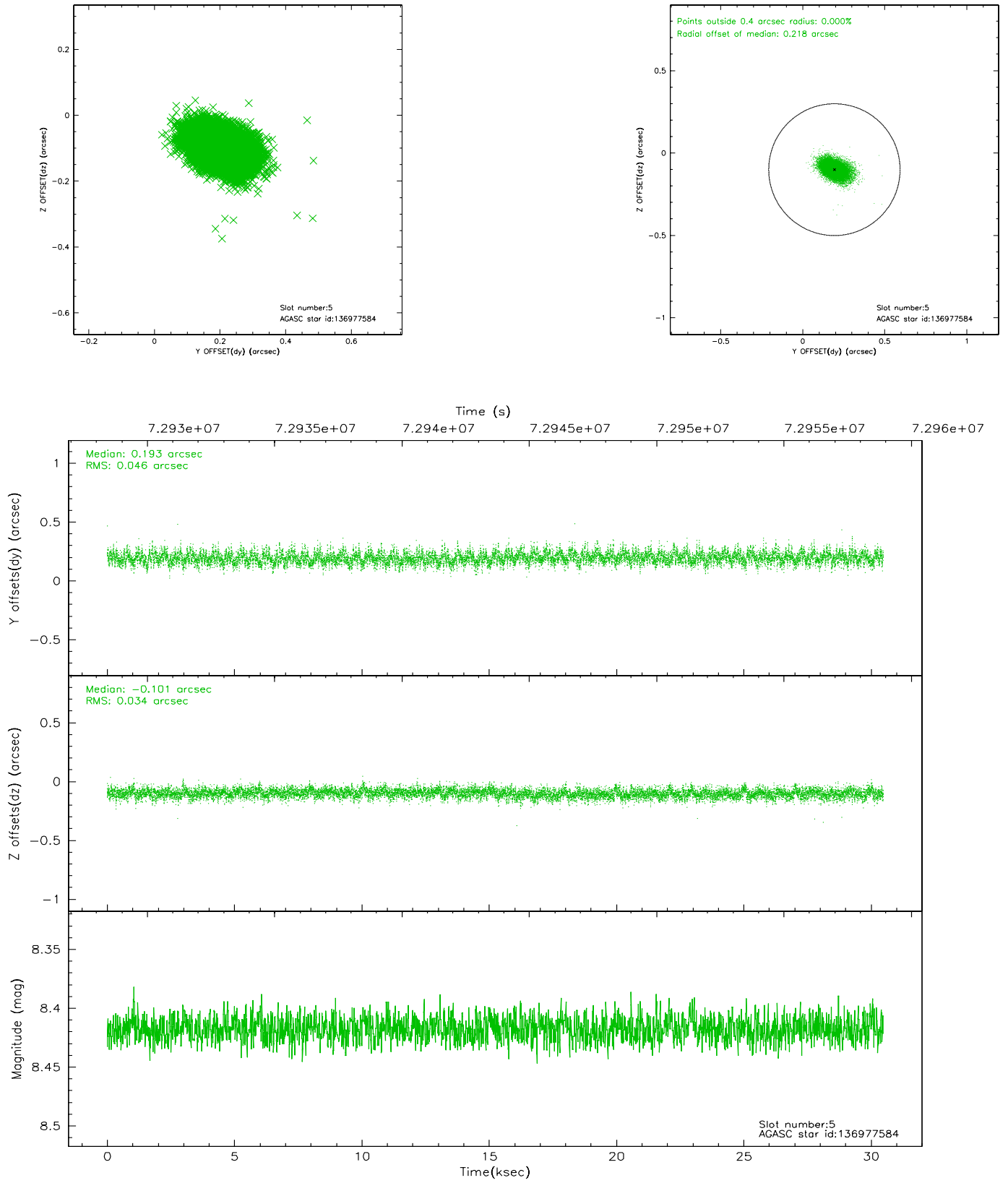
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.09	7432	-0.051	-0.040	0.011	0.015	0.000000	0.000000	-753.43	-1840.82
1	FID	ACIS-S-4	7.19	7432	0.016	0.035	0.028	0.036	0.000000	0.000000	2159.88	67.64
2	FID	ACIS-S-5	7.23	7434	0.009	0.013	0.018	0.026	0.000000	0.000000	-1806.11	61.37
3	GUIDE	137498872	7.06	14869	-0.217	-0.181	0.052	0.081	288.350862	11.344926	1960.92	1045.81
4	UNUSED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
5	GUIDE	136977584	8.42	14866	0.193	-0.101	0.059	0.103	288.635599	10.555283	-1054.03	1074.93
6	GUIDE	137628936	9.35	14860	-0.083	0.121	0.089	0.143	289.169859	11.656925	2028.59	-2053.06
7	GUIDE	137105808	9.74	14858	0.105	0.160	0.111	0.176	289.431212	11.030909	-404.20	-2153.87

2.4 Star Slots

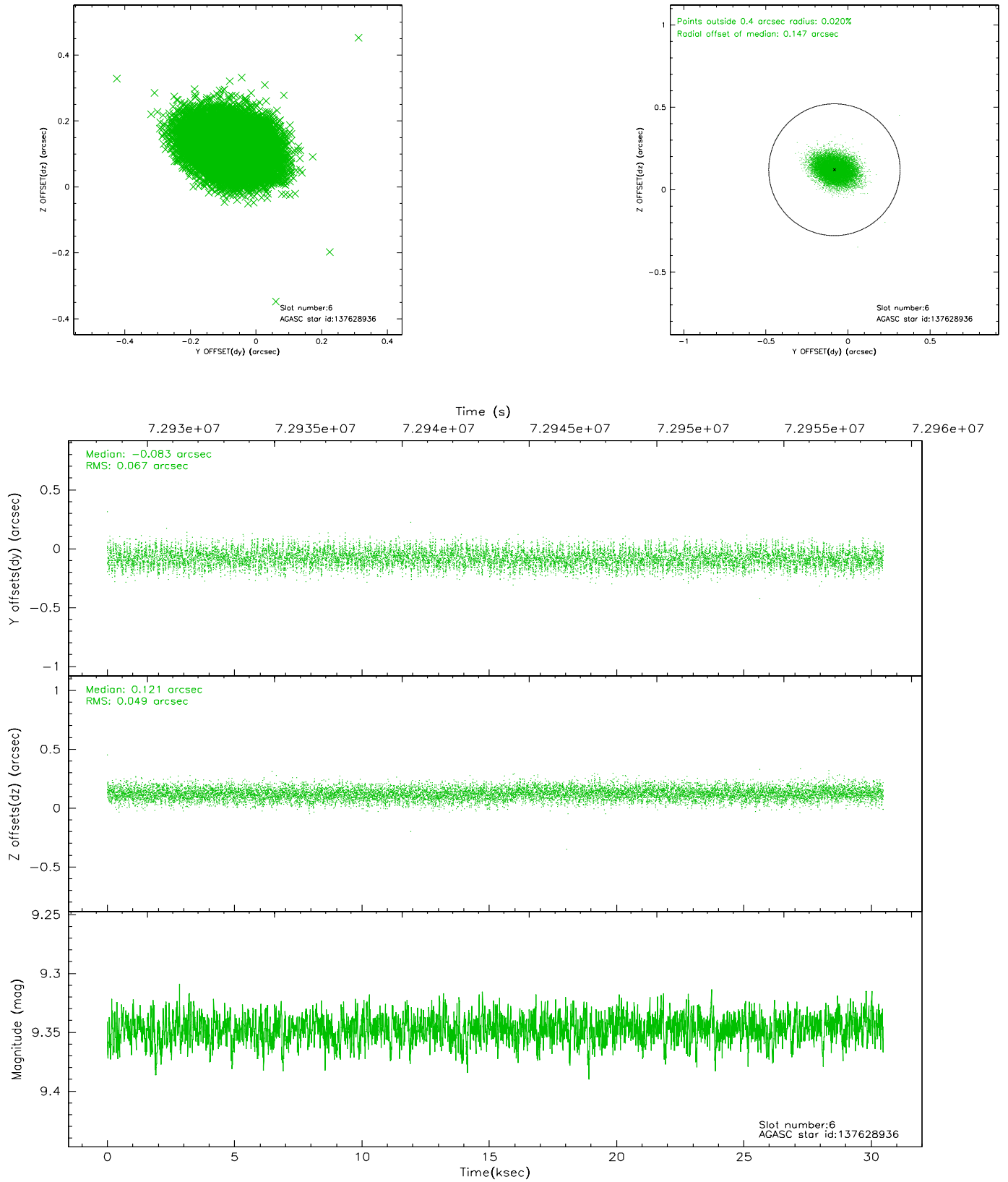
2.4.1 Slot 3



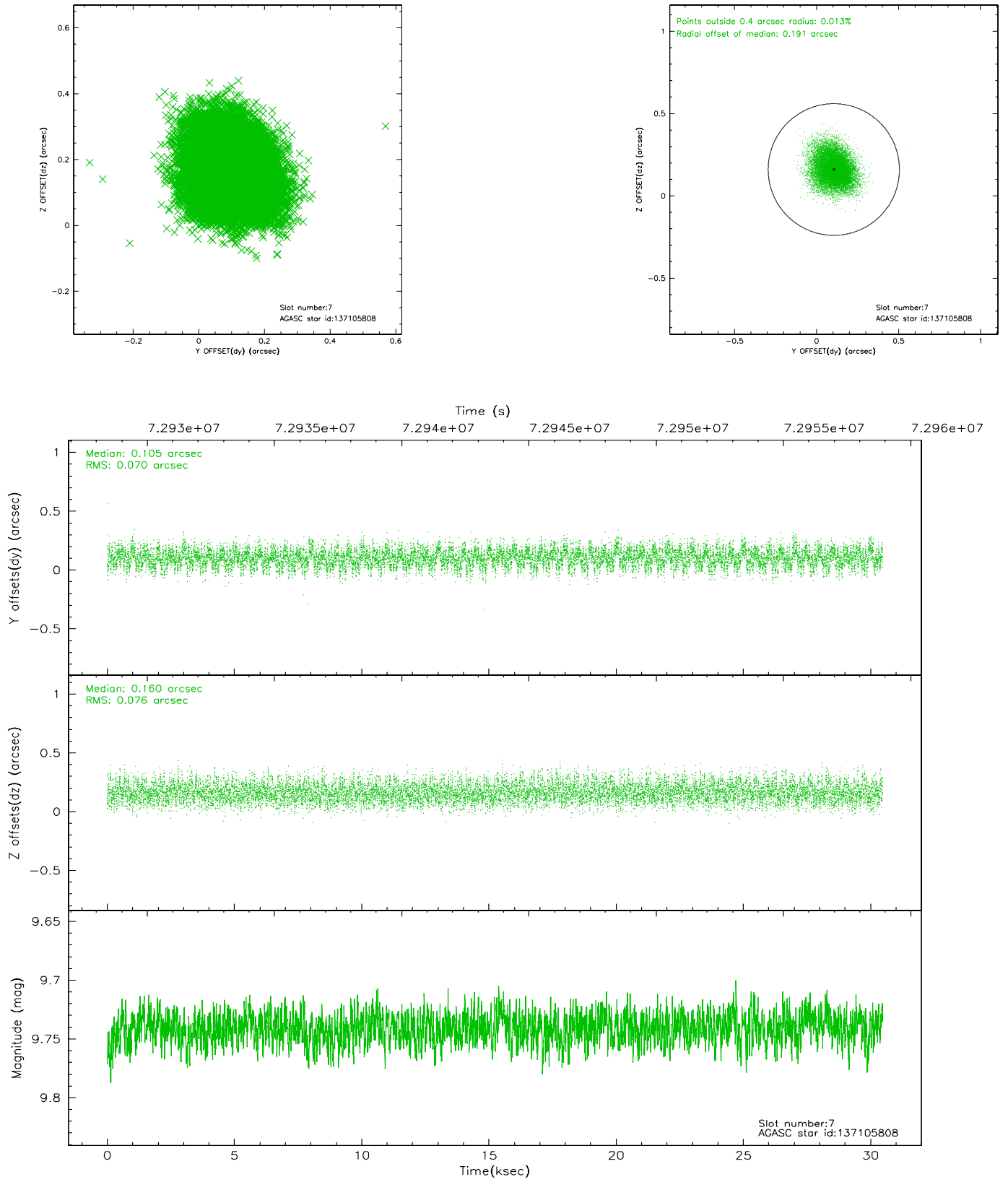
2.4.2 Slot 5



2.4.3 Slot 6

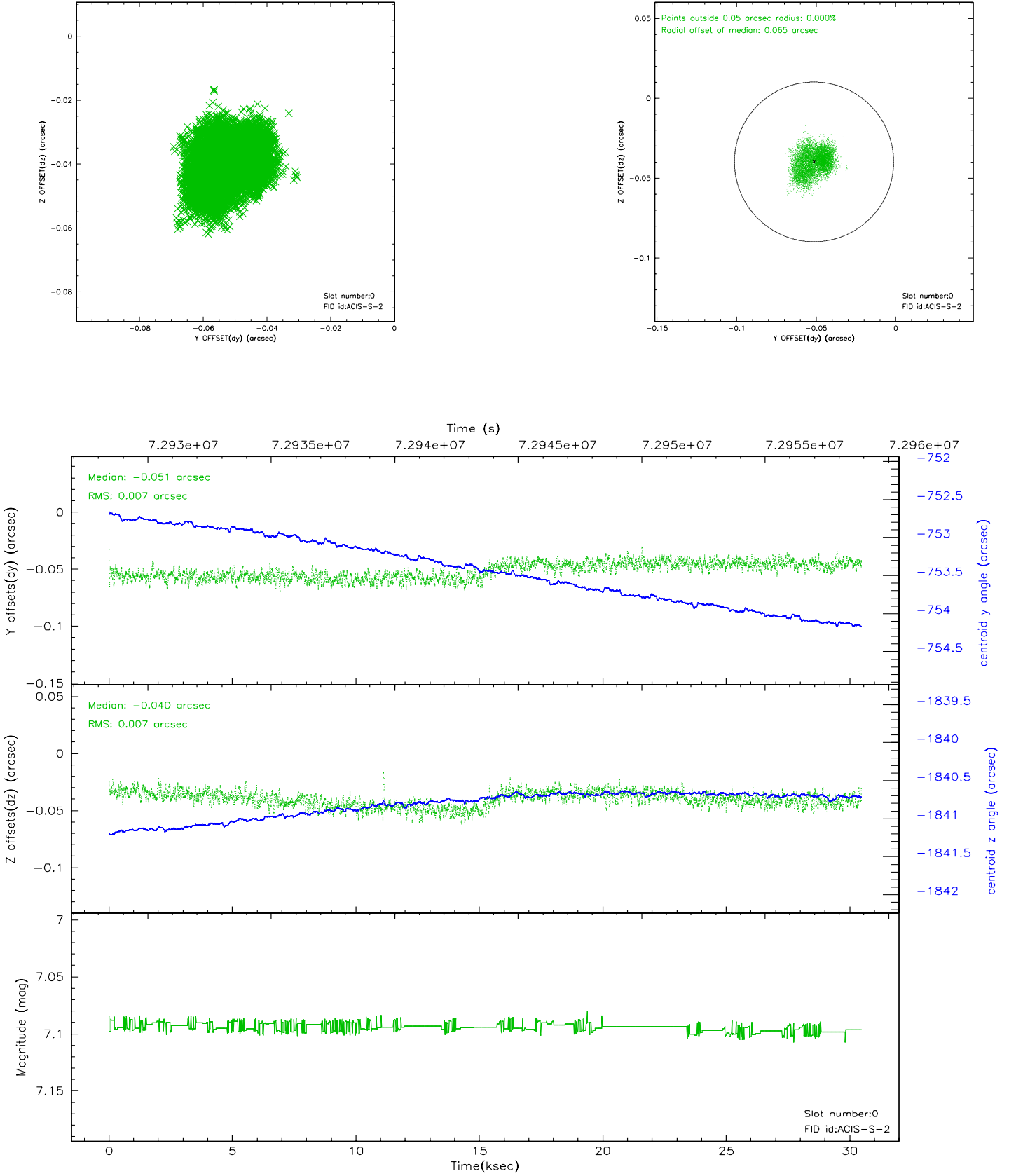


2.4.4 Slot 7

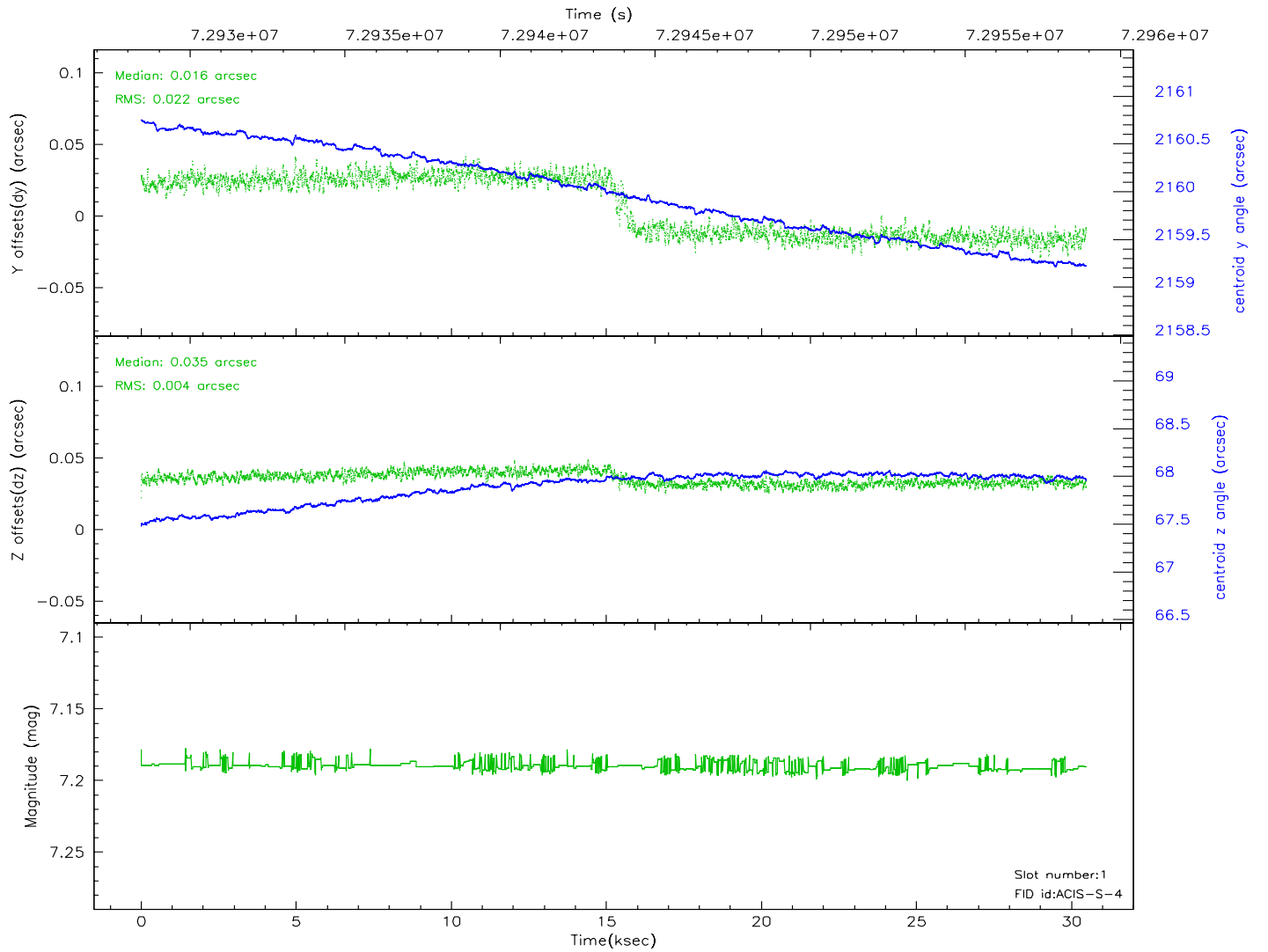
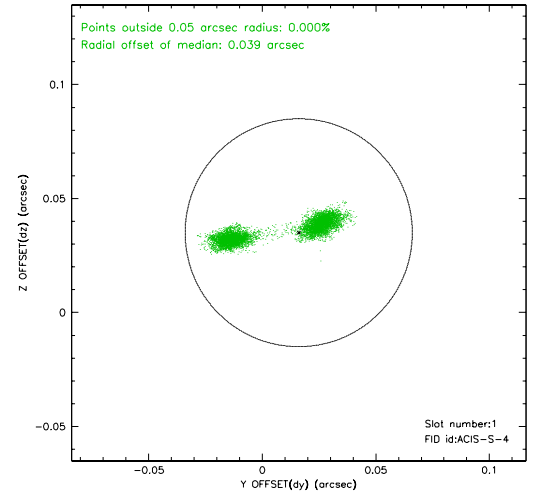
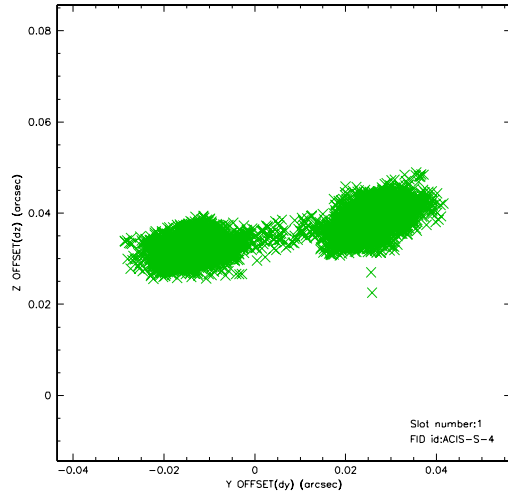


2.5 FID Slots

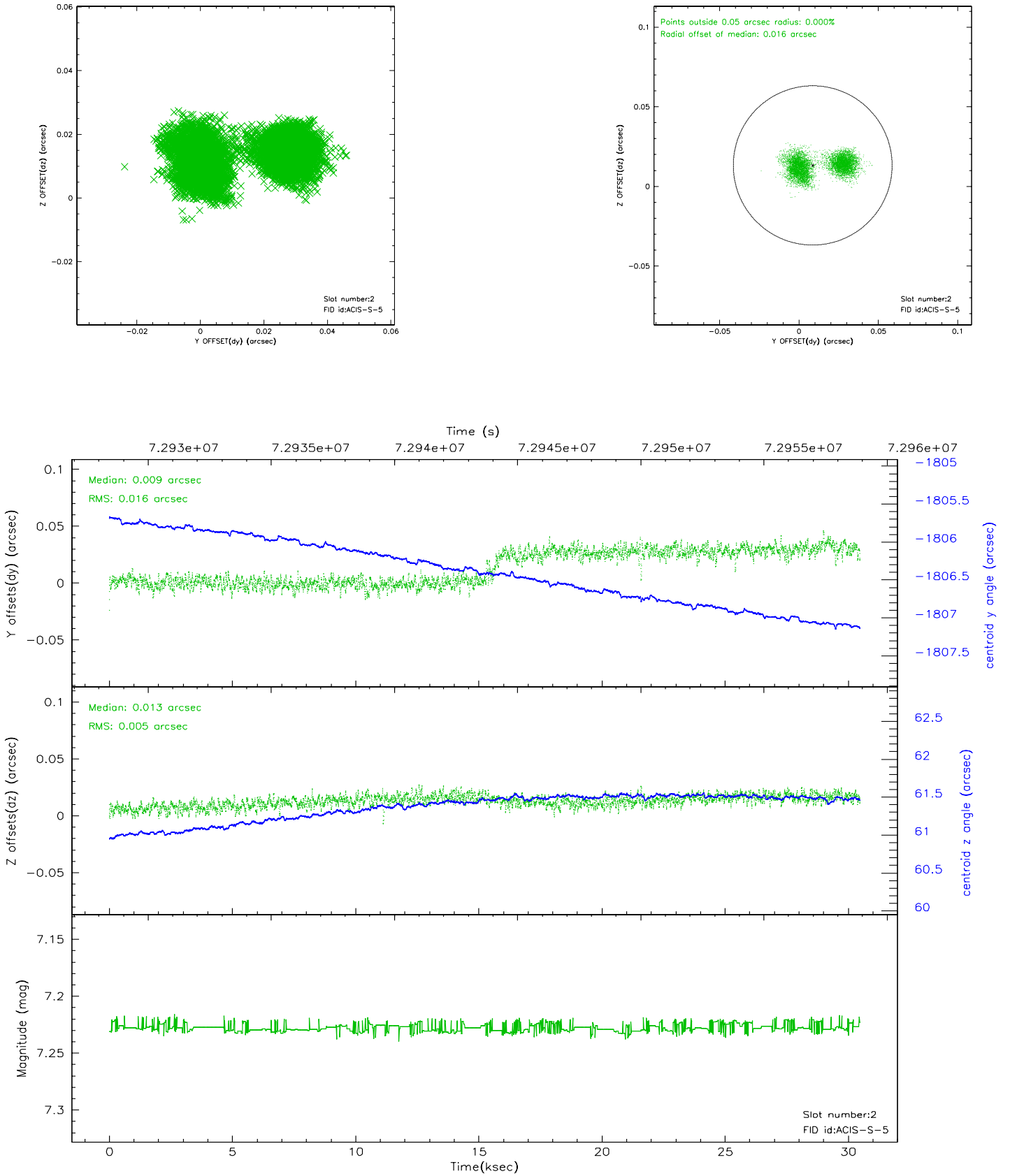
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

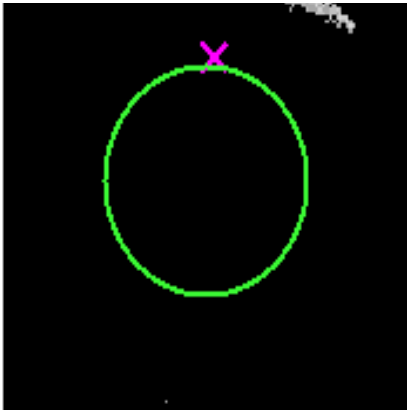


3 Gratings

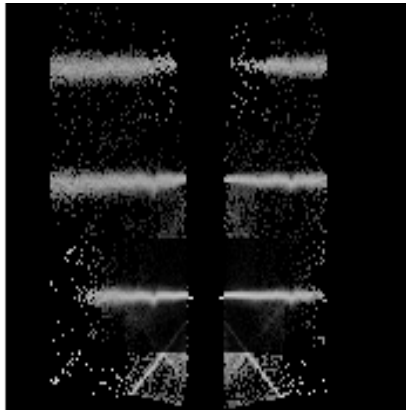
3.1 HEG Arm



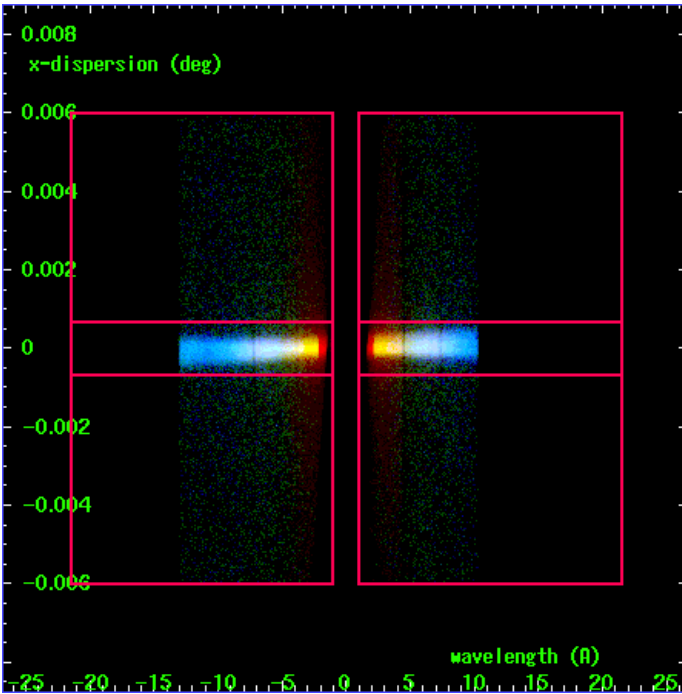
HEG Order Sort 123



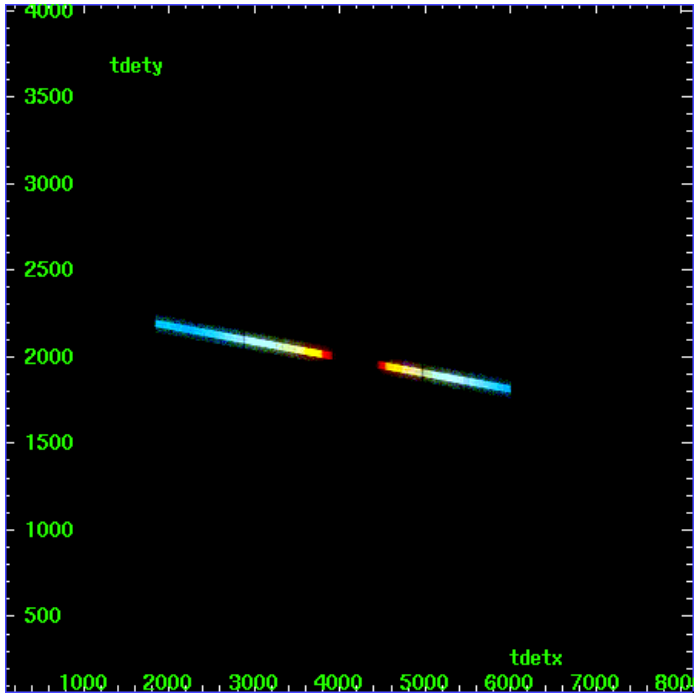
HEG Zero Order



HEG Order Sort ALL

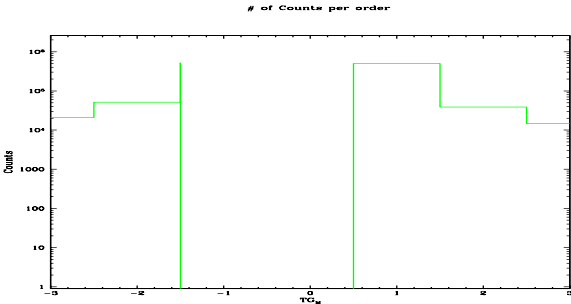


Spot Image HEG

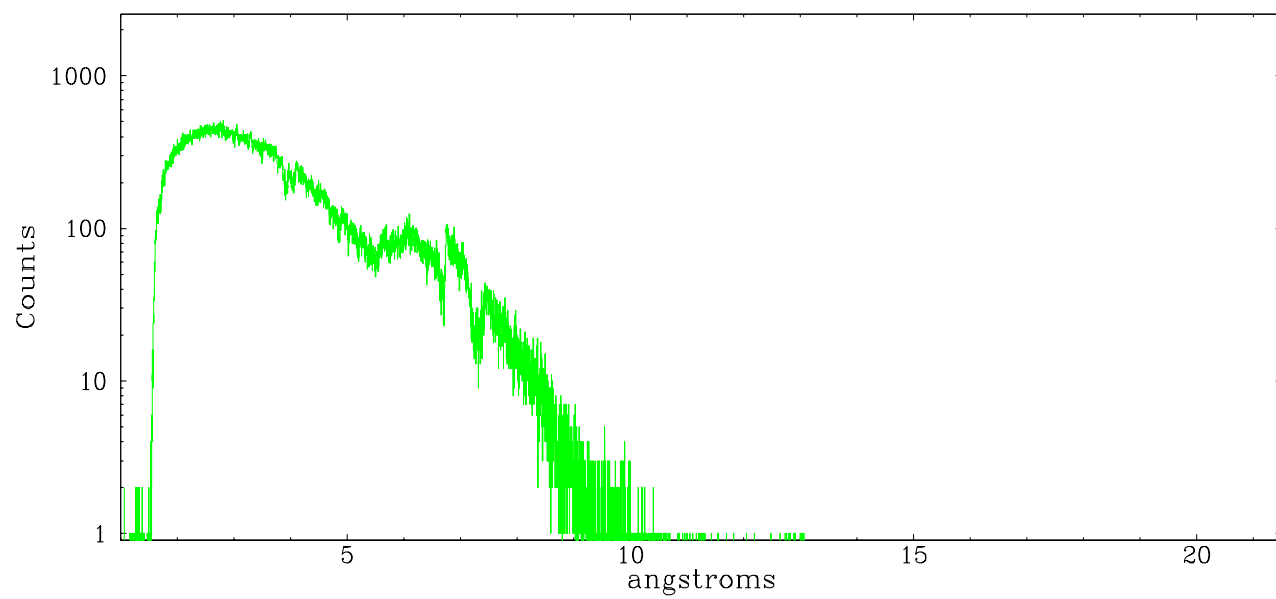


Full Detector HEG

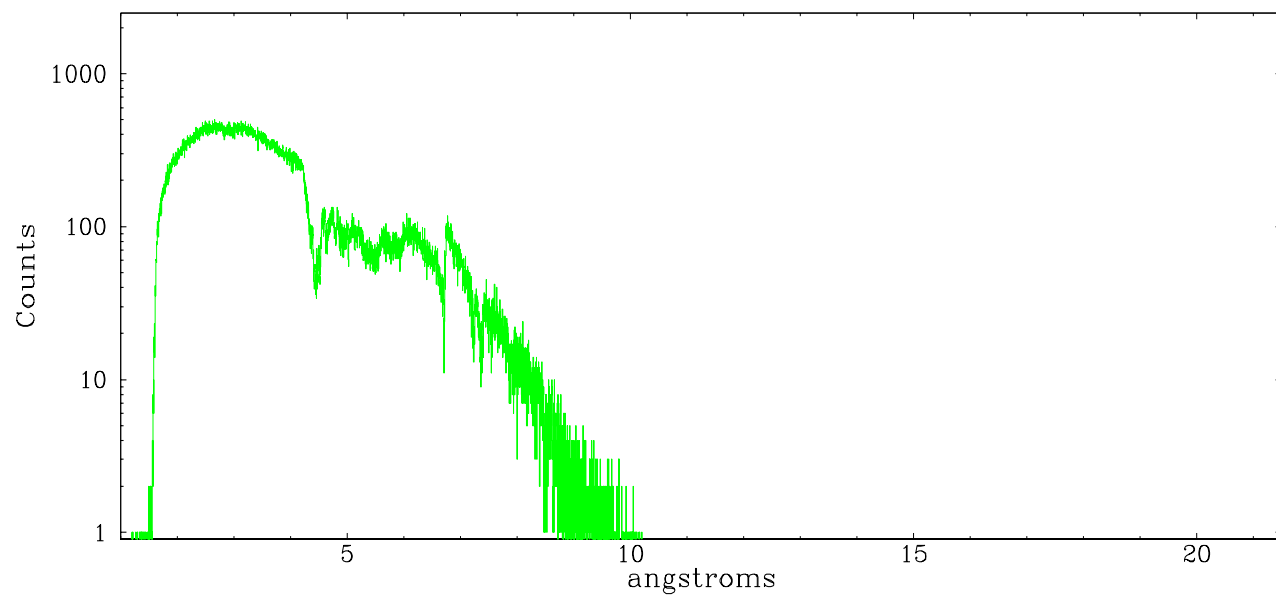
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	21026	51683	514370	0	500930	38695	14648



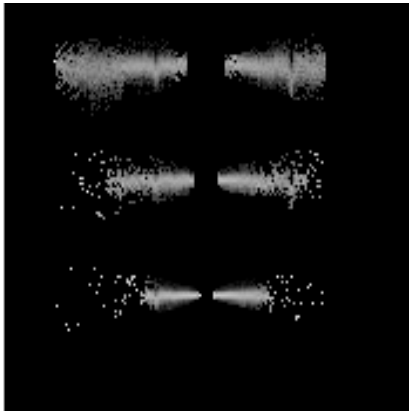
heg order -1



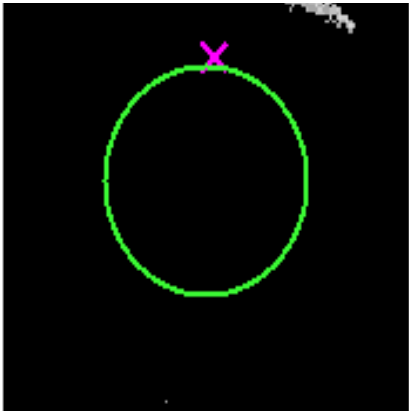
heg order +1



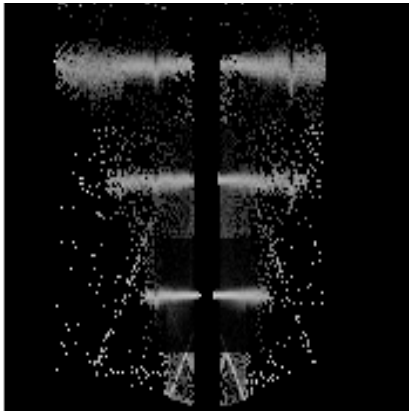
3.2 MEG Arm



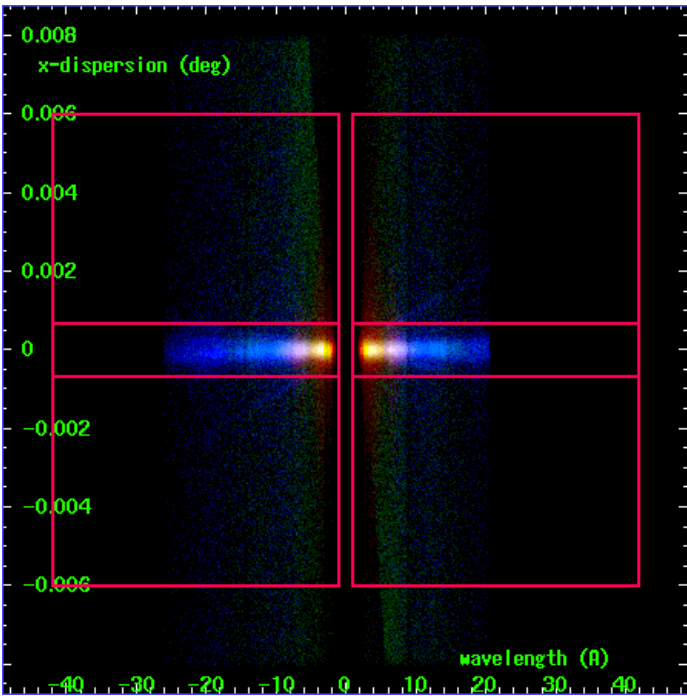
MEG Order Sort 123



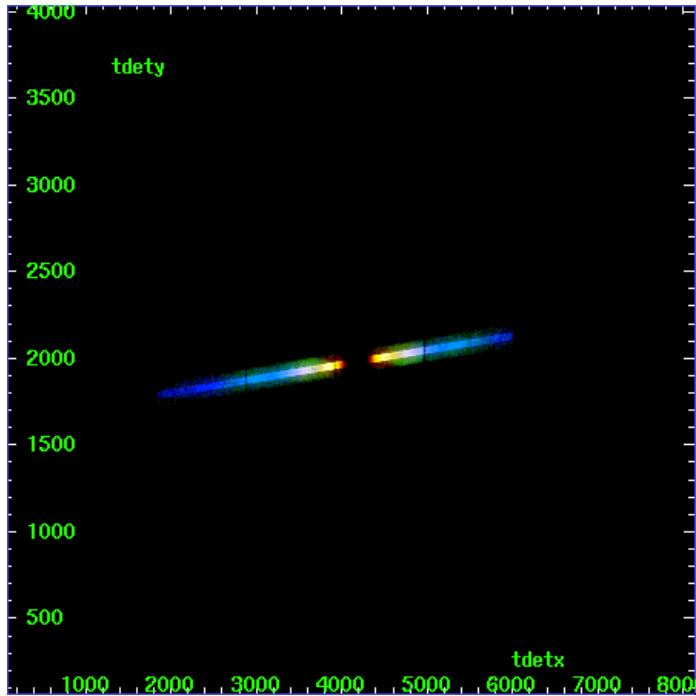
MEG Zero Order



MEG Order Sort ALL

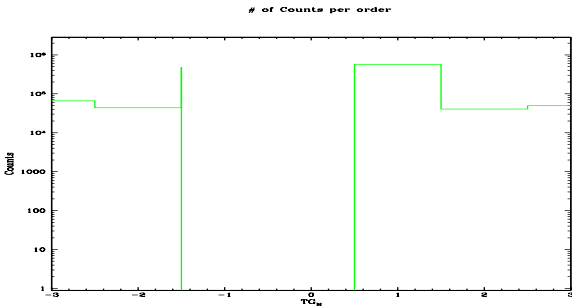


Spot Image MEG

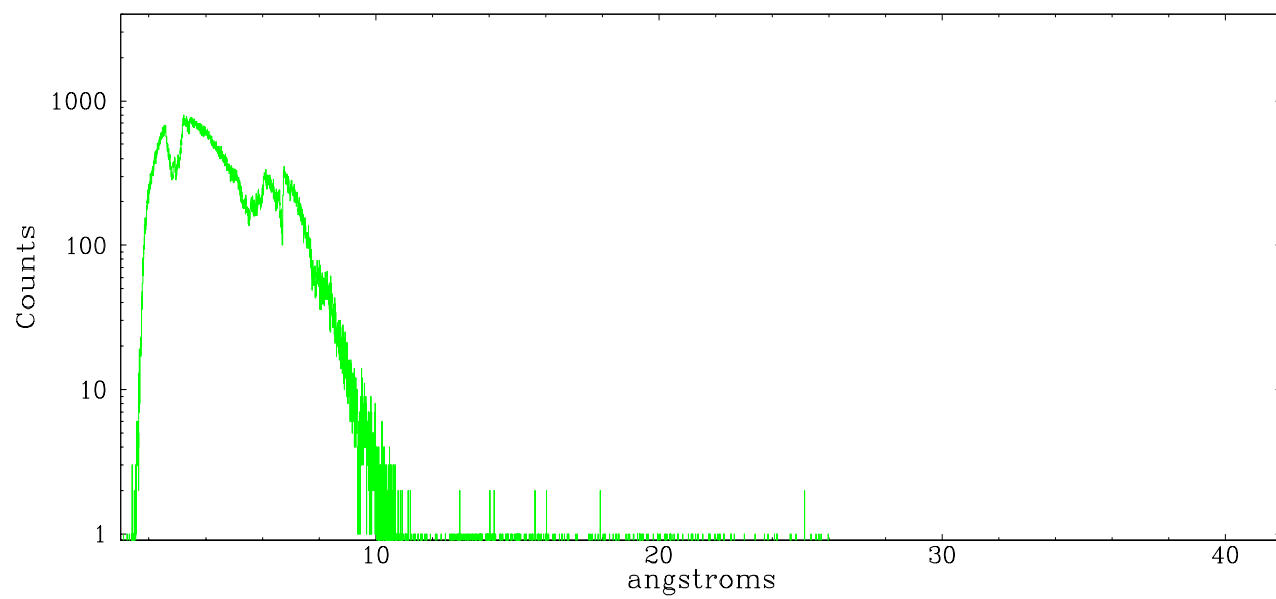


Full Detector MEG

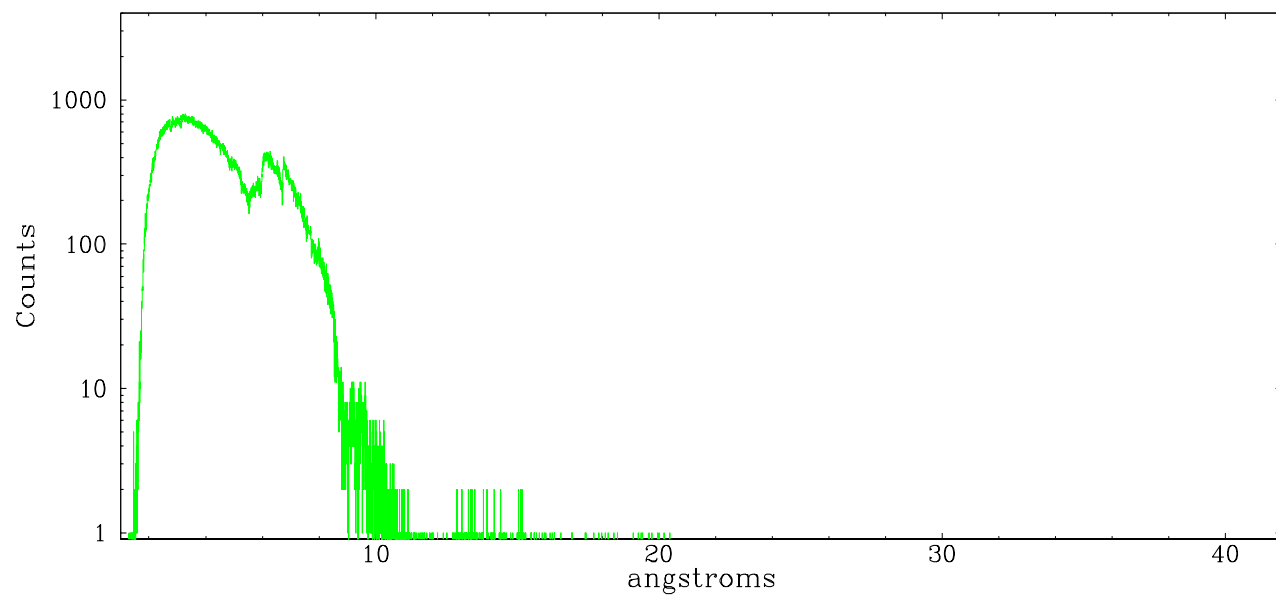
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	65550	43897	479292	0	564868	40610	49668



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2007.08.01
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.372

A.2 Comments

Standard software processing technique using the tool
tgdetect did not give an accurate position for the zeroth order for
this
observation because a spatial exclusion window was used to block the
zeroth order image. Zeroth order position for this observation has been
determined using the known angle between the readout streak and the meg
spectral arm. The procedure used for this determination is called
findzero and is available in ISIS. The newly determined zeroth order
coordinates have been placed in the *src1a.fits file,
replacing the coordinates determined by tgdetect.
=====Both meg and heg spectral arms are piled up.
=====

Charge time for this ObsId remains at original value of 30.372 ks,
although
with the current processing the charge time would have been 30.472
ksec.
=====

Roll constraint of 120 +/- 10 degrees used in order to align jet axis.
Coordinated with XTE.