

V&V Reference Report

L2 ASCDS Version : 7.6.10

Observation 2208 - L2 Version 001
Chandra X-Ray Center

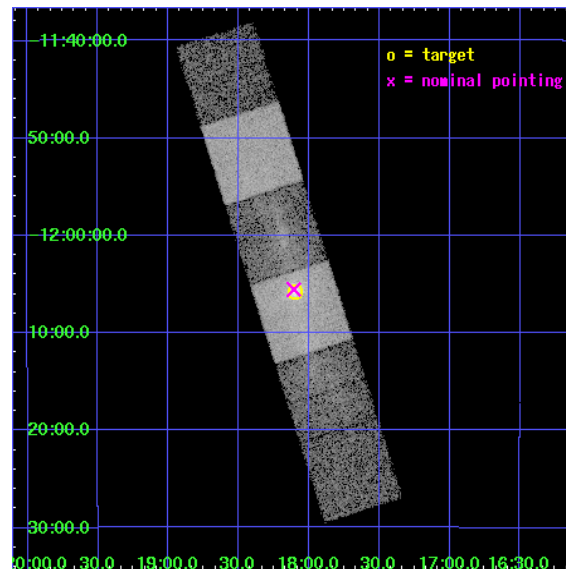
L2 Processing Date : Jun 16 2007

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1 Front

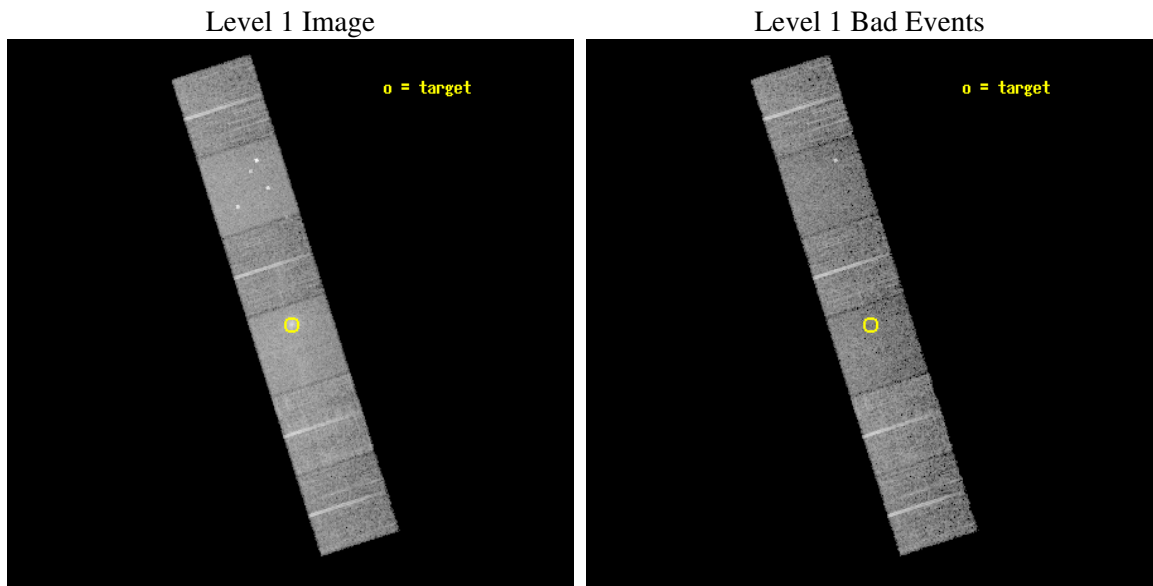
seq_num	800147
obs_id	2208
title	ACIS-S/HETG OBSERVATIONS OF THE CENTRAL REGION OF THE HYDRA A CLUSTER OF GALAXIES
observer	Dr. J. Jernigan
object	HYDRA A
dtcycle	0
cycle	P
ra_targ	139.52375
dec_targ	-12.095833
ra_nom	139.5267918093
dec_nom	-12.092421500257
roll_nom	72.320632820649
revision	2
ontime	9660.8000089973
livetime	9538.469142248
ontime4	9660.8000089973
ontime5	9660.8000089973
ontime6	9660.8000089973
ontime7	9660.8000089973
ontime8	9657.5590188205
ontime9	9660.8000089973
l2events	116616



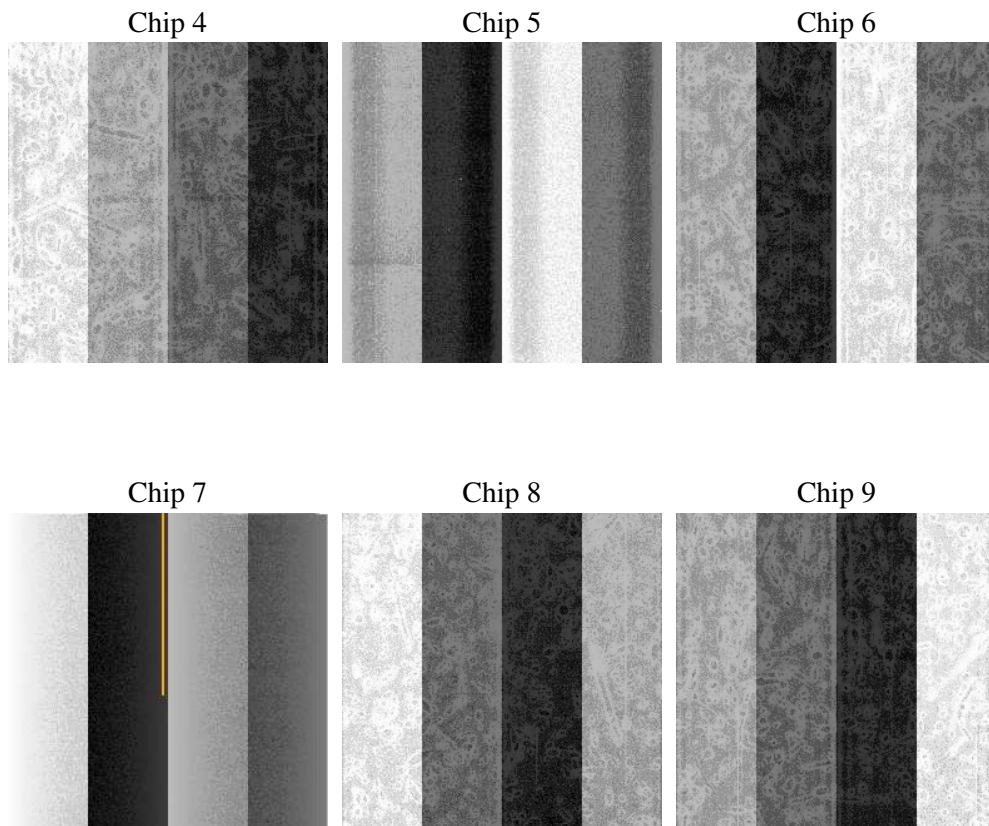
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0
ascdsver	7.6.10
caldsver	3.4.0
date	2007-06-16T12:45:17
revision	2

sched_exp_time	9550.000000
ontime	9660.8000089973
ontime4	9660.8000089973
ontime5	9660.8000089973
ontime6	9660.8000089973
ontime7	9660.8000089973
ontime8	9657.5590188205
ontime9	9660.8000089973
l1events	443688

2.1.4 Events

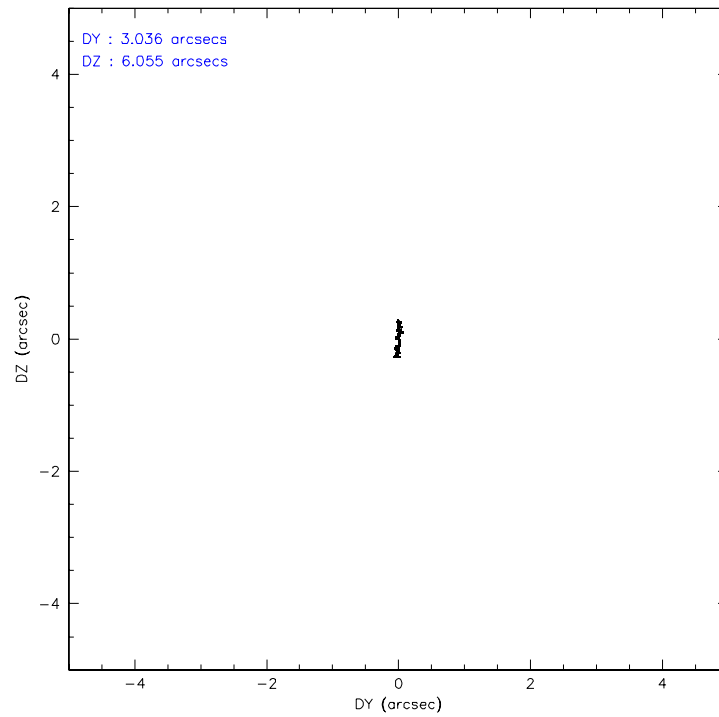
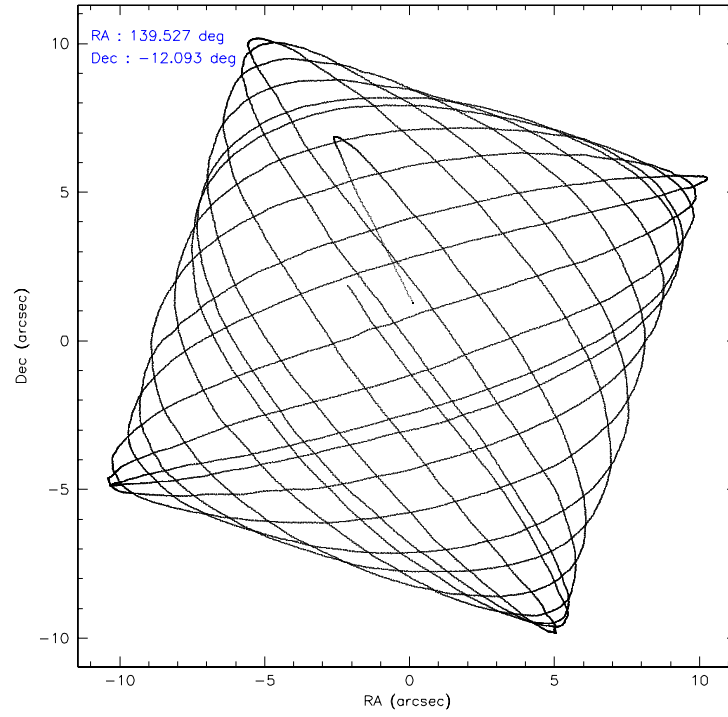
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	66598	85763	64592	87060	81933	57742
rejected events	58273	44314	52032	42423	61140	49590
rejected %	87%	51%	80%	48%	74%	85%

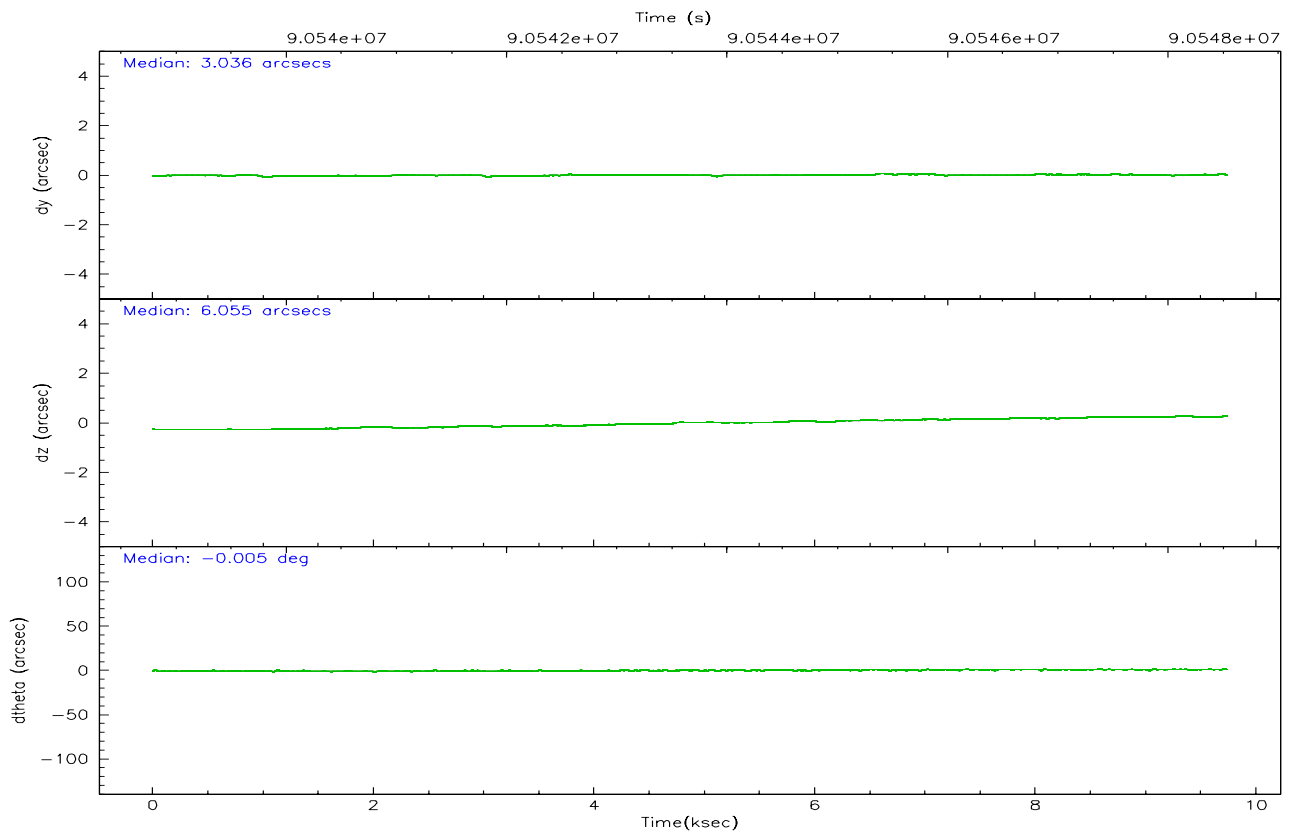
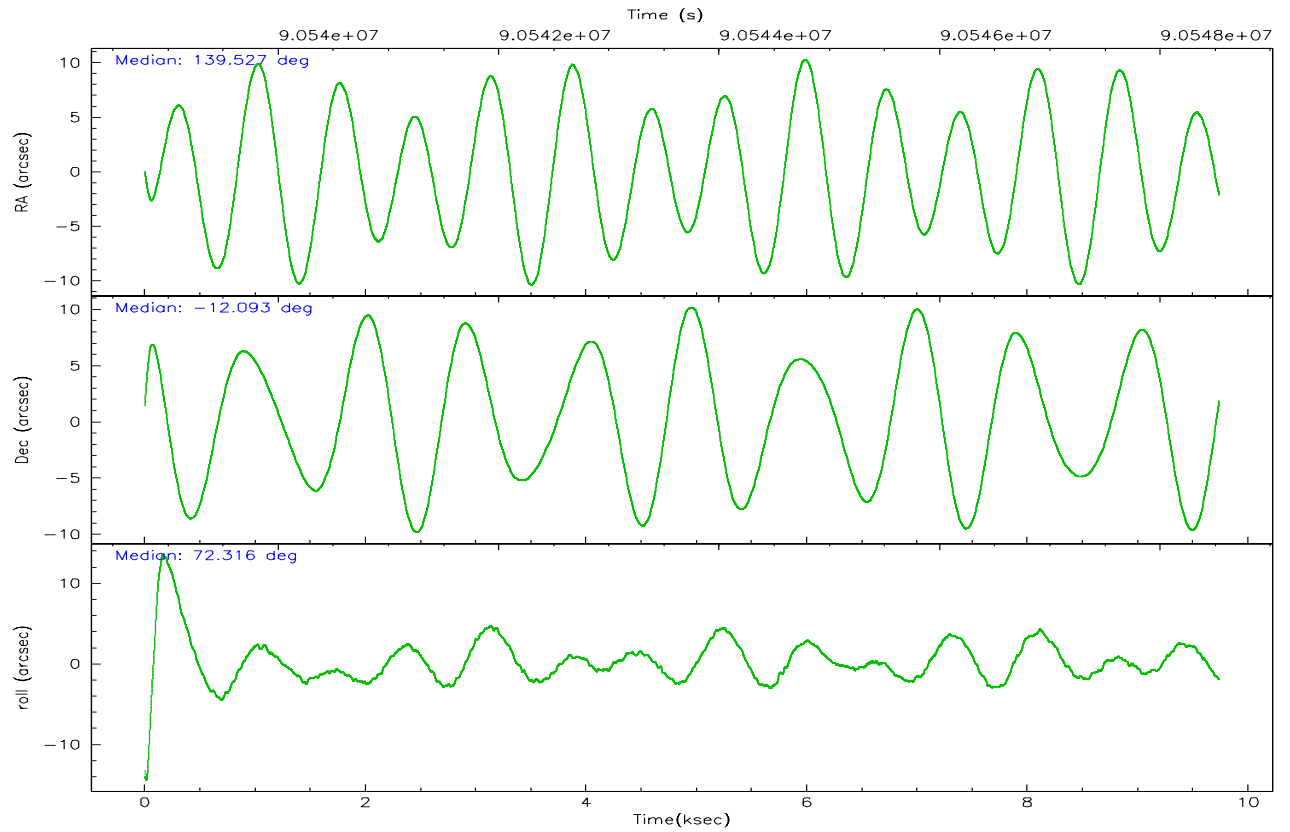
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	3726	6245	7226	6175	8471	3759
	5%	7%	11%	7%	10%	6%
grade 1 events	33	601	43	81	49	27
	0%	0%	0%	0%	0%	0%
grade 2 events	1882	11784	1983	9475	3779	1535
	2%	13%	3%	10%	4%	2%
grade 3 events	720	1910	888	4289	2177	721
	1%	2%	1%	4%	2%	1%
grade 4 events	654	1792	876	4336	1984	750
	0%	2%	1%	4%	2%	1%
grade 5 events	2069	6198	2332	6994	3086	2465
	3%	7%	3%	8%	3%	4%
grade 6 events	1345	19743	1593	20385	4388	1389
	2%	23%	2%	23%	5%	2%
grade 7 events	56169	37490	49651	35325	57999	47096
	84%	43%	76%	40%	70%	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	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
Pointing RA	139.532944	139.5267918093032	Subarray requested	NONE	NONE
Pointing Dec	-12.119041	-12.0924215002572	Alternating exposures requested	N	N
Pointing Roll	72.165326	72.32063282064942	Primary exposure time	0.000000	3.2
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-190.132523	-190.1400660498719			
SIM translation stage offset (mm)	0	0.00754346686406393			
Observation start time	90538983.184000	90537941.51741			
Observation start date	2000-11-13T21:41:59	2000-11-13T21:25:41			
Observation end time	90548533.184000	90548984.86783101			
Observation end date	2000-11-14T00:21:09	2000-11-14T00:29:44			
Read mode	TIMED	TIMED			

2.3 Aspect



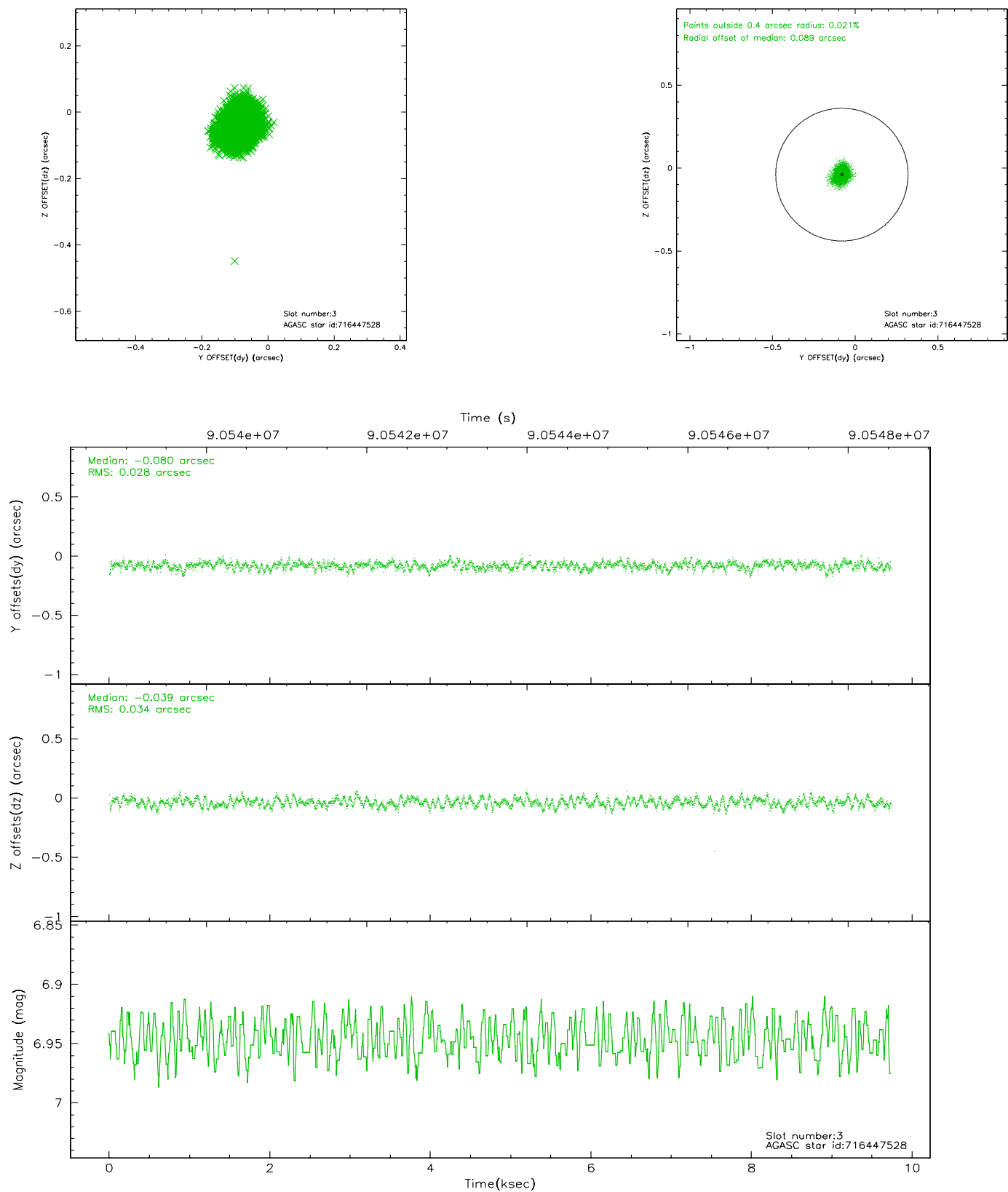


Slot Statistics

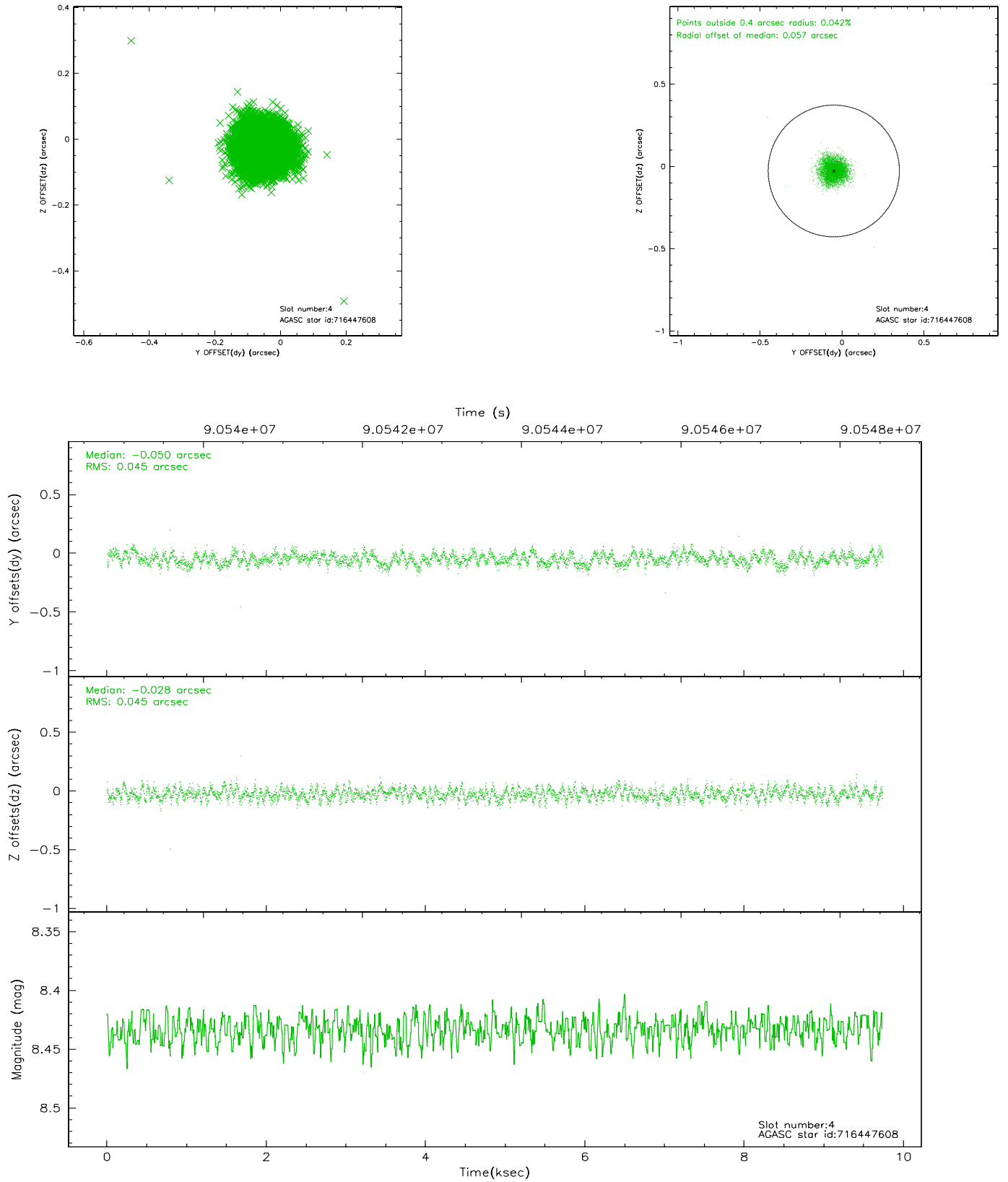
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.12	2375	-0.015	0.037	0.007	0.011	0.000000	0.000000	-755.67	-1727.15
1	FID	ACIS-S-4	7.21	2374	-0.056	-0.003	0.005	0.009	0.000000	0.000000	2157.29	180.76
2	FID	ACIS-S-5	7.24	2374	0.041	-0.025	0.006	0.010	0.000000	0.000000	-1807.77	174.99
3	GUIDE	716447528	6.95	4750	-0.080	-0.039	0.047	0.074	139.371683	-11.961966	364.64	713.48
4	GUIDE	716447608	8.43	4751	-0.050	-0.028	0.068	0.104	139.107687	-11.923612	210.39	1640.89
5	GUIDE	716578888	9.26	4750	-0.335	0.170	0.084	0.136	139.858876	-11.605741	2110.85	-528.03
6	GUIDE	716454552	9.02	4746	0.236	-0.139	0.069	0.113	139.524204	-12.319370	-694.63	-192.23
7	GUIDE	716452328	8.82	4749	0.234	0.039	0.072	0.117	138.982178	-12.235590	-994.28	1715.18

2.4 Star Slots

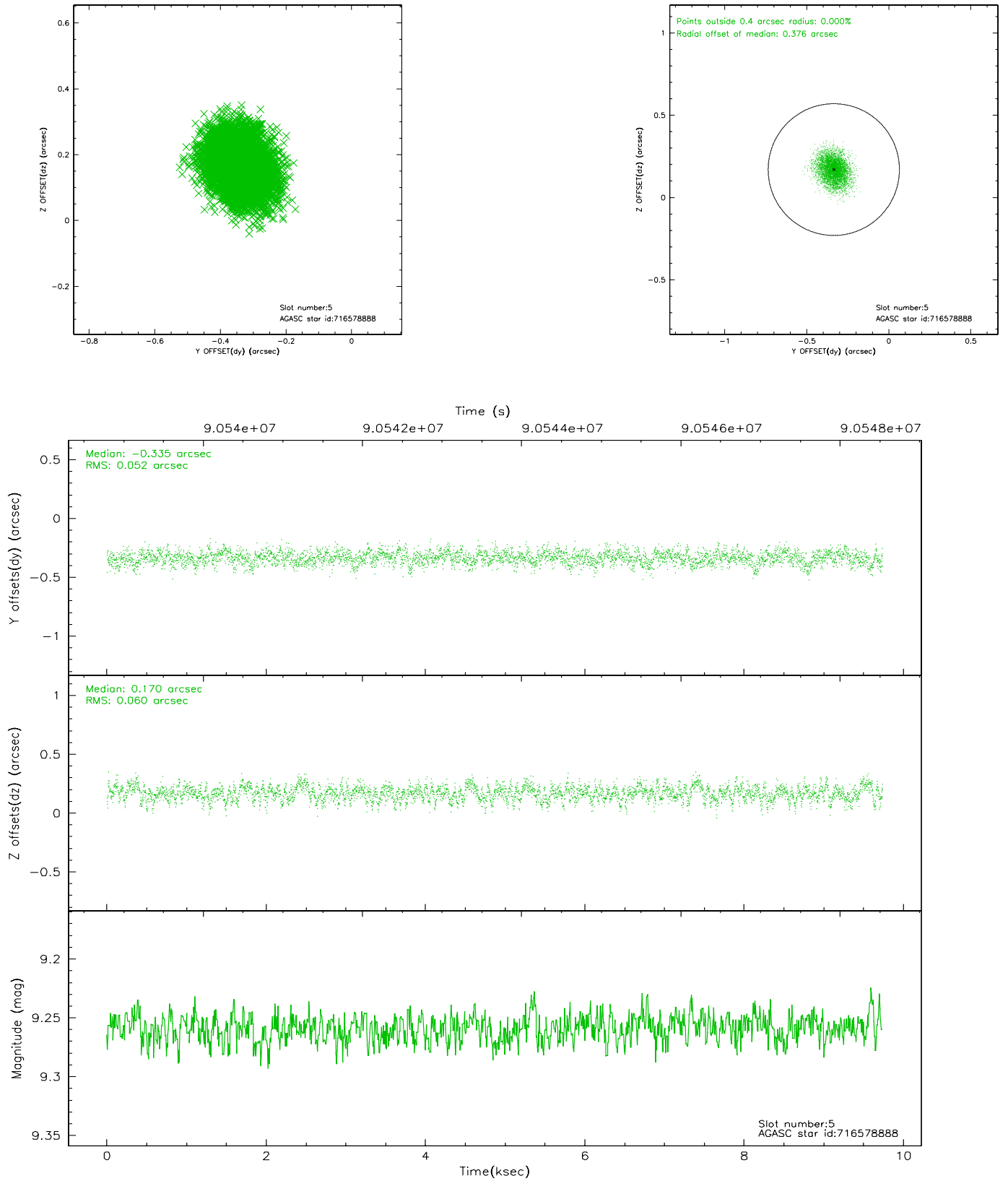
2.4.1 Slot 3



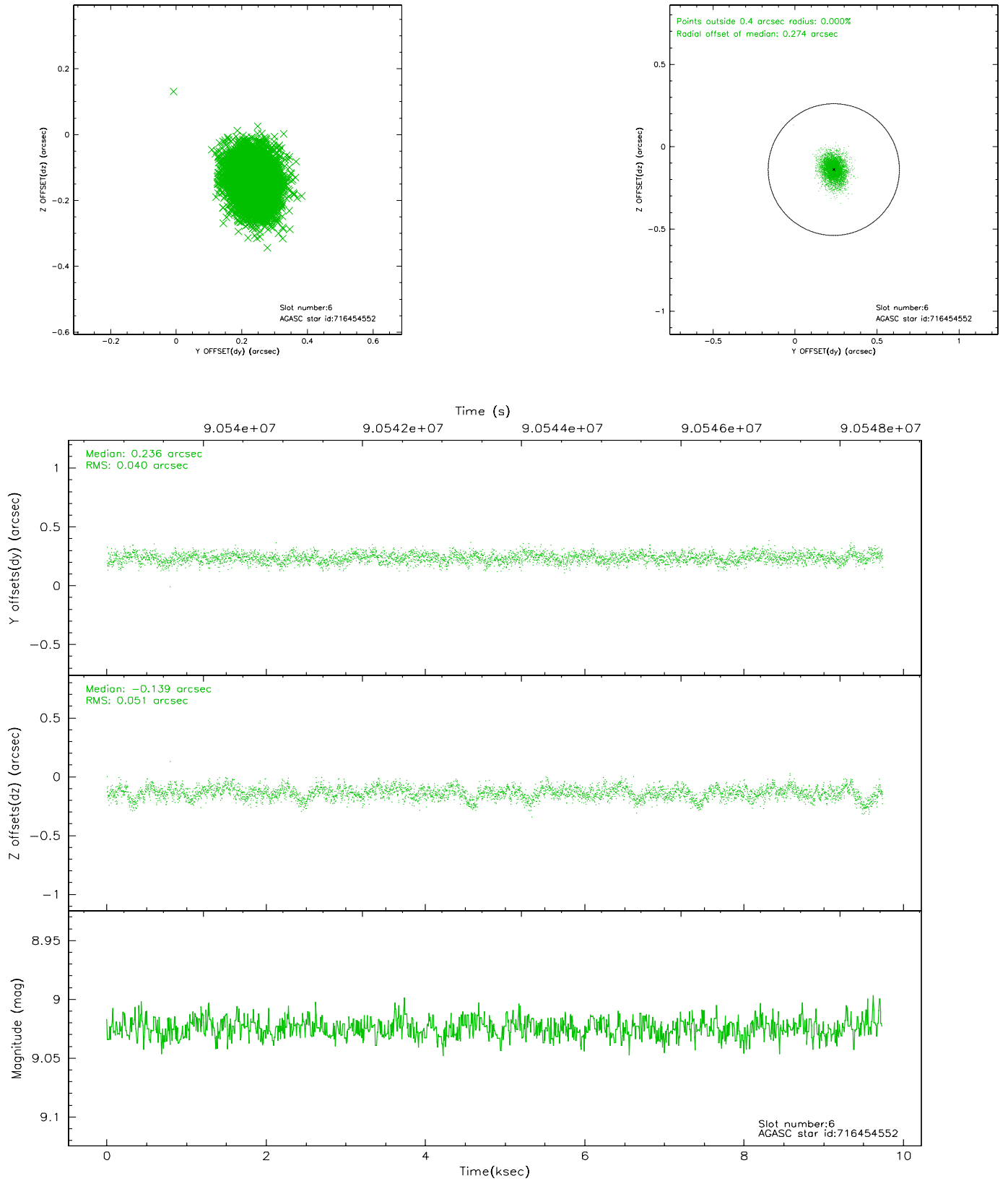
2.4.2 Slot 4



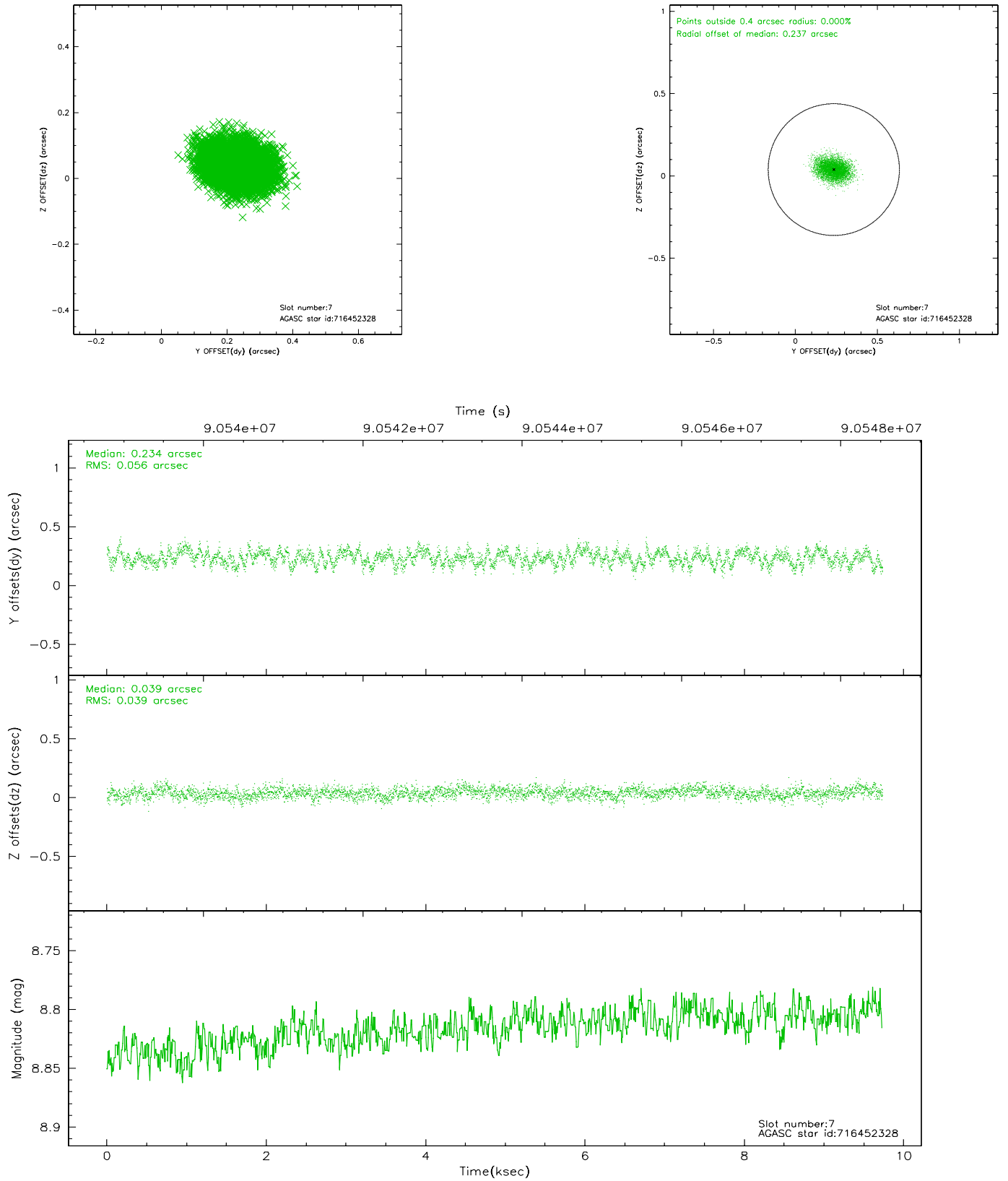
2.4.3 Slot 5



2.4.4 Slot 6

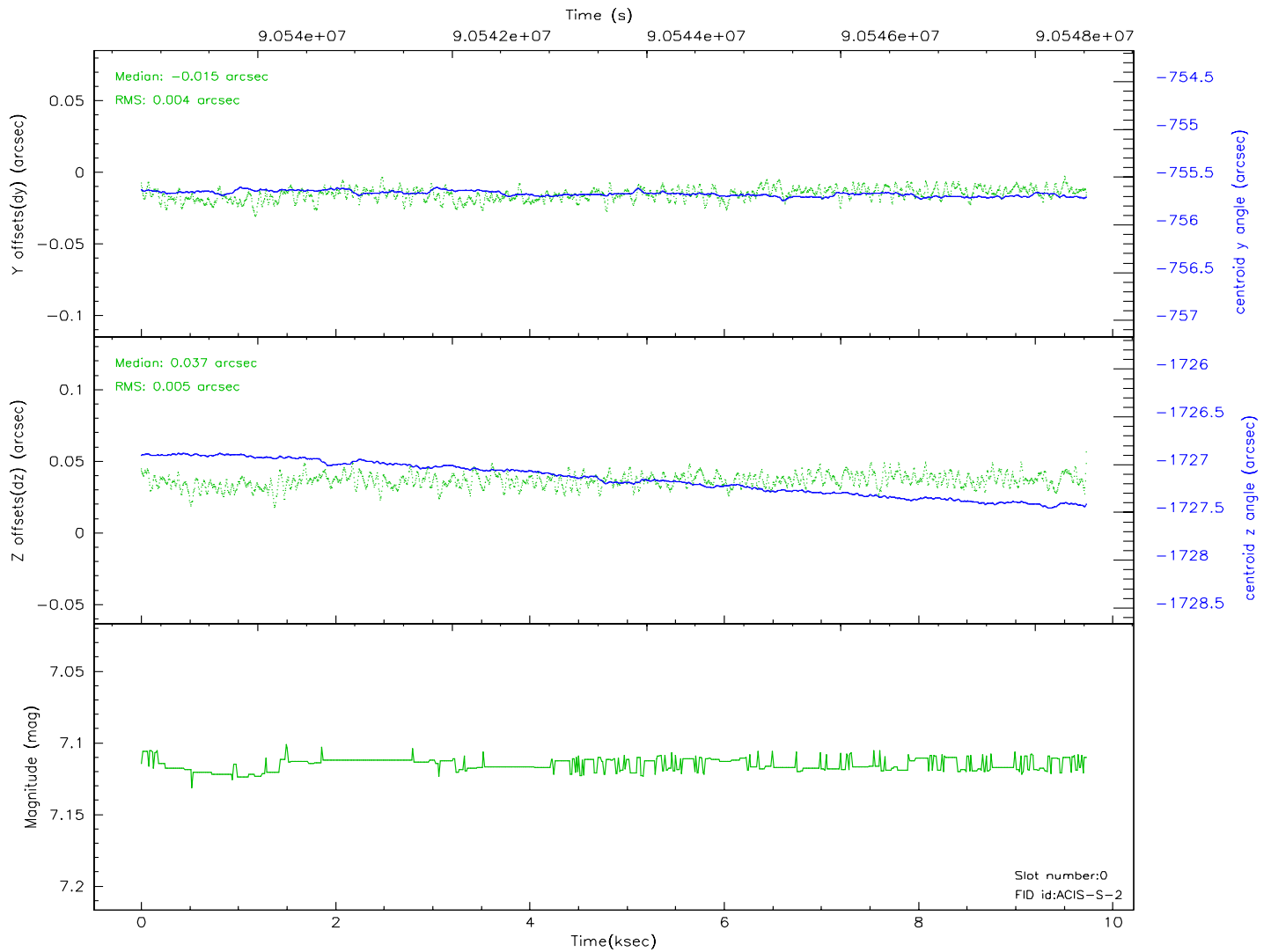
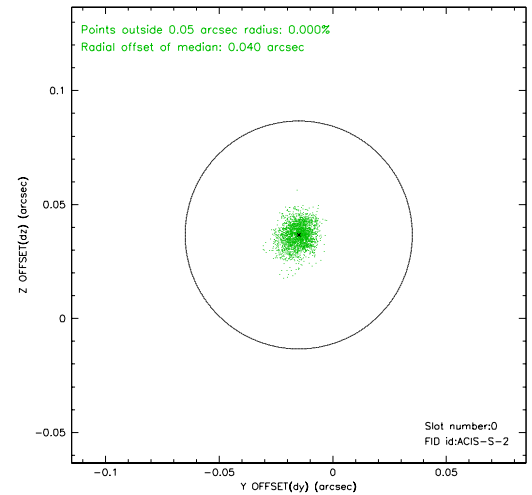
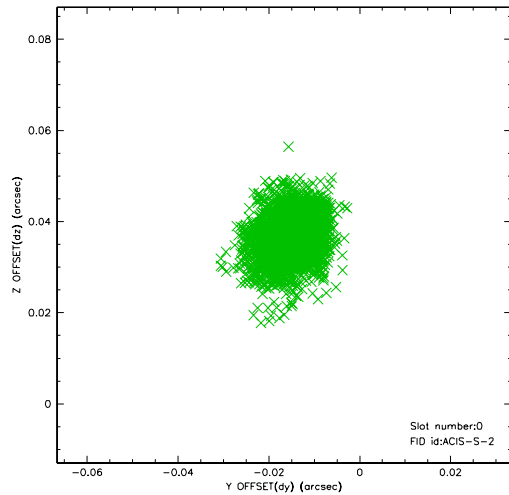


2.4.5 Slot 7

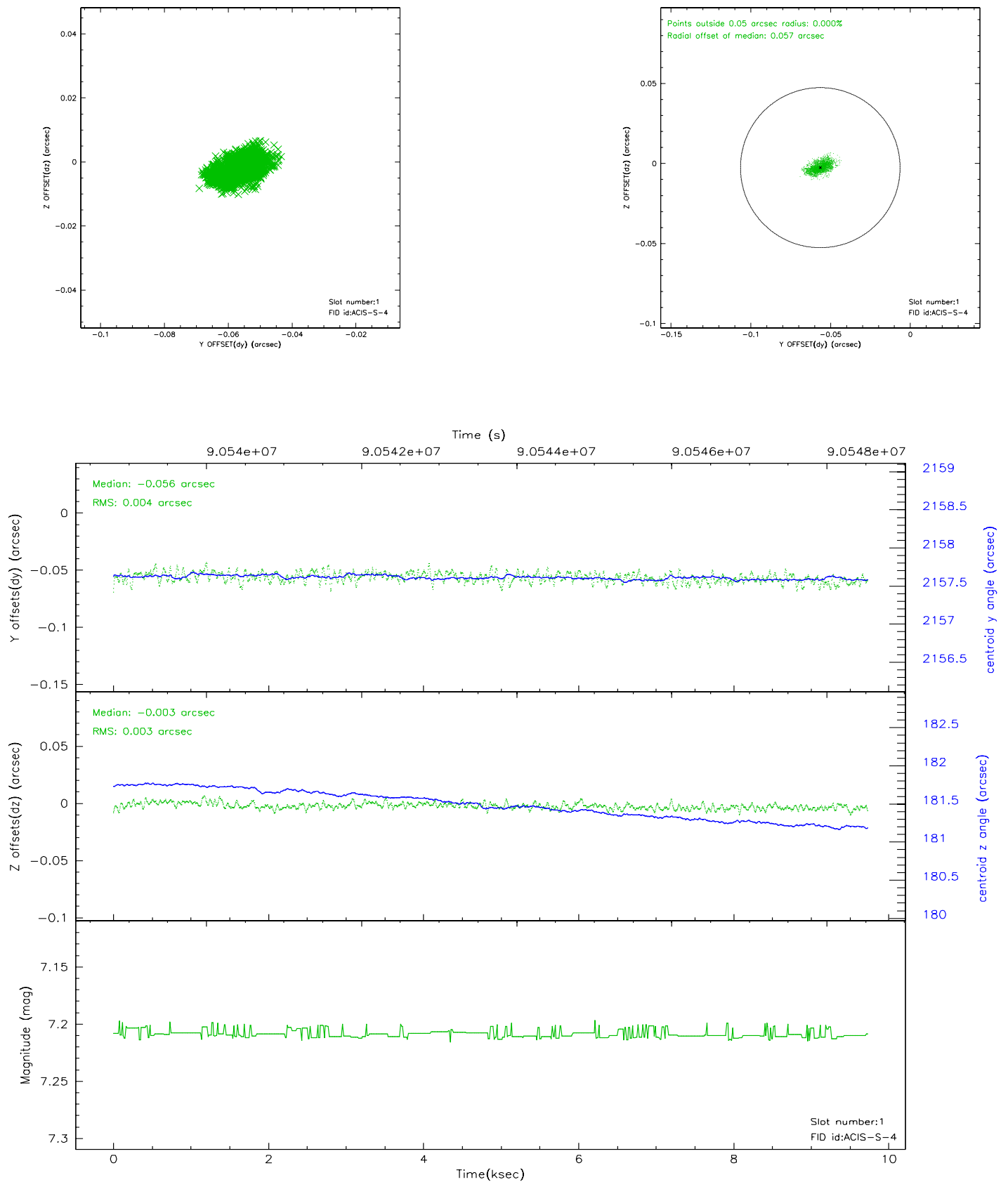


2.5 FID Slots

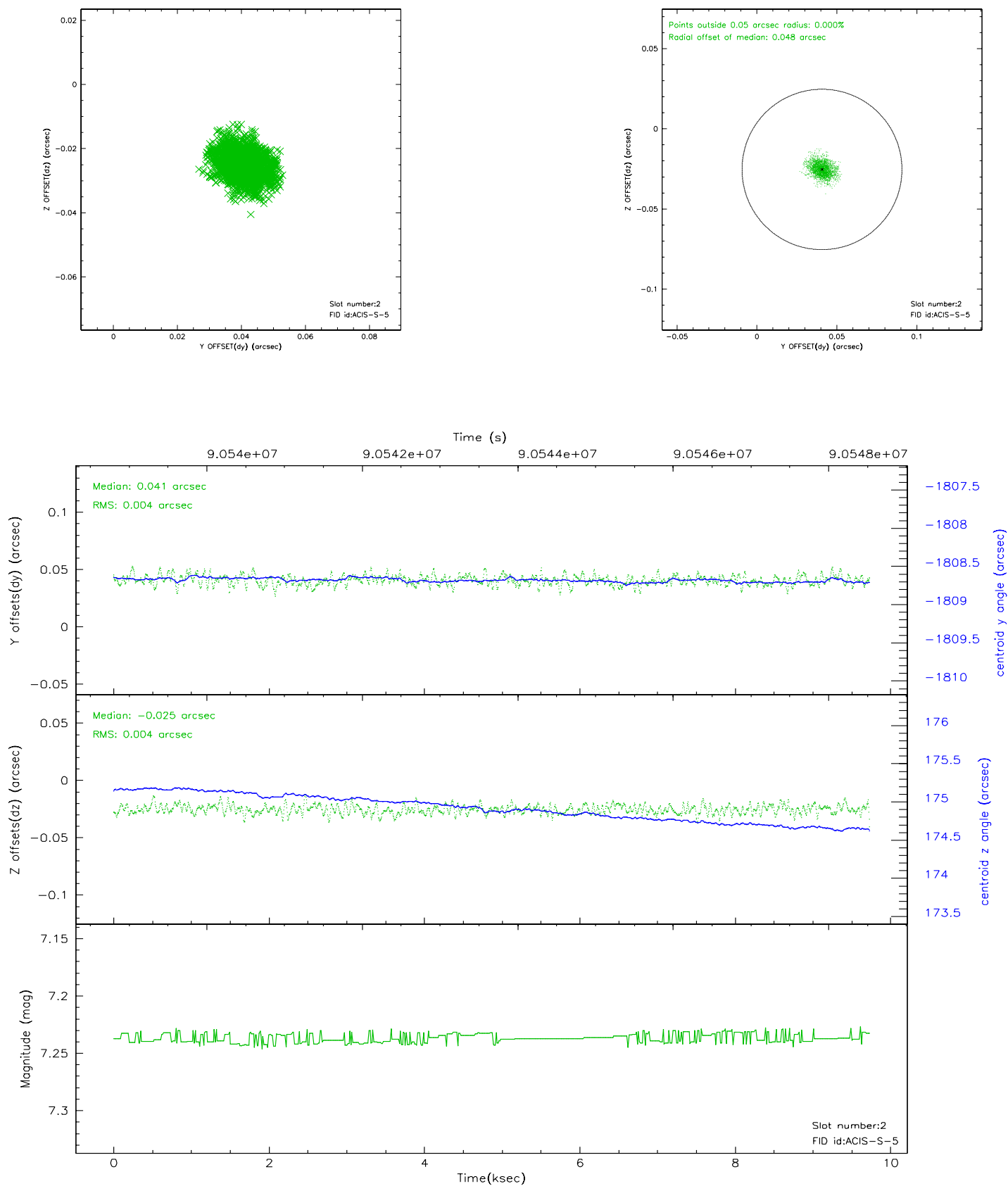
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

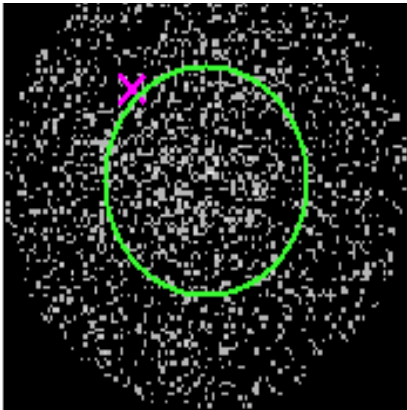


3 Gratings

3.1 HEG Arm



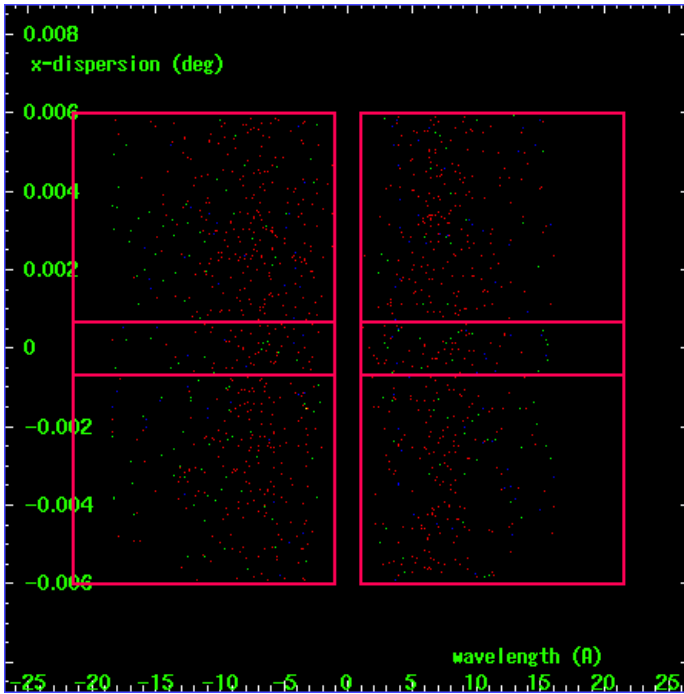
HEG Order Sort 123



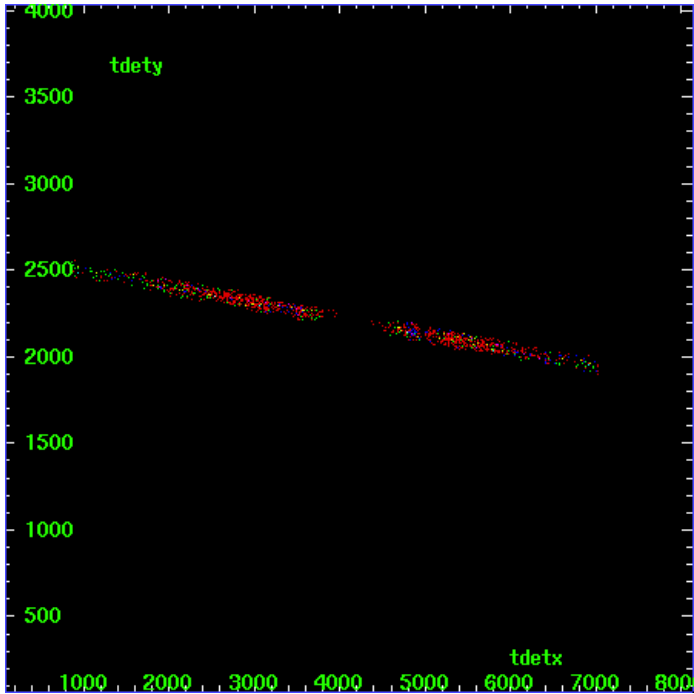
HEG Zero Order



HEG Order Sort ALL

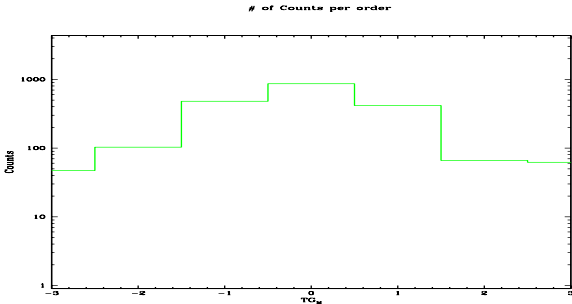


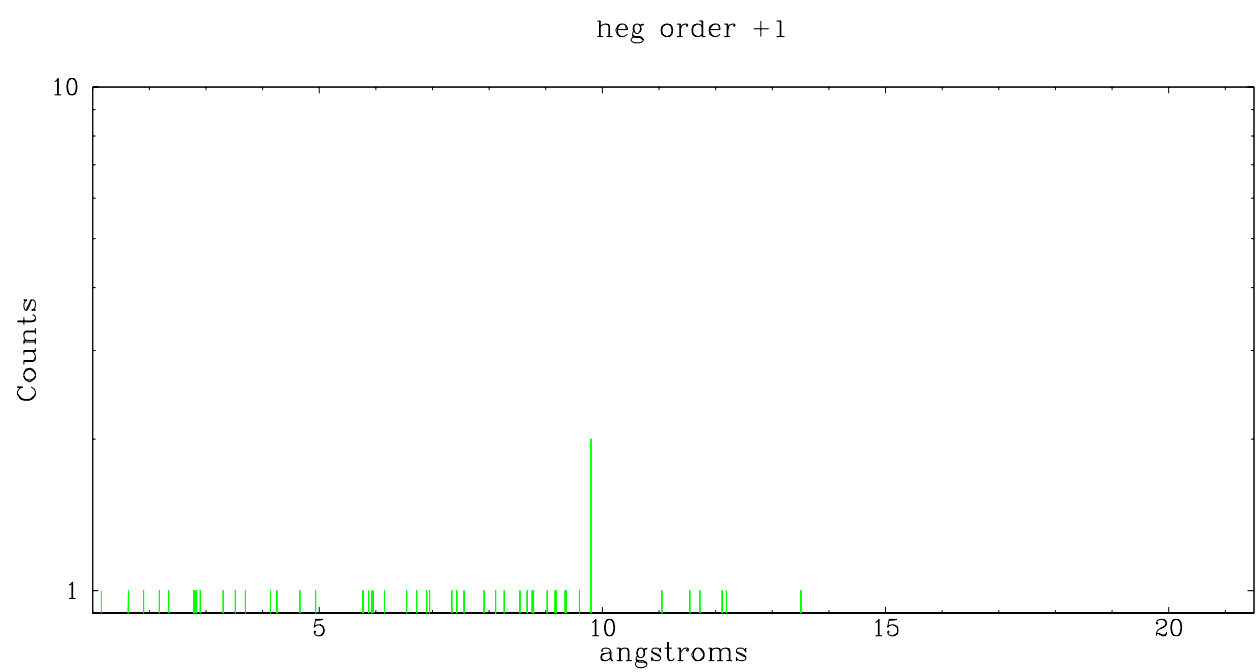
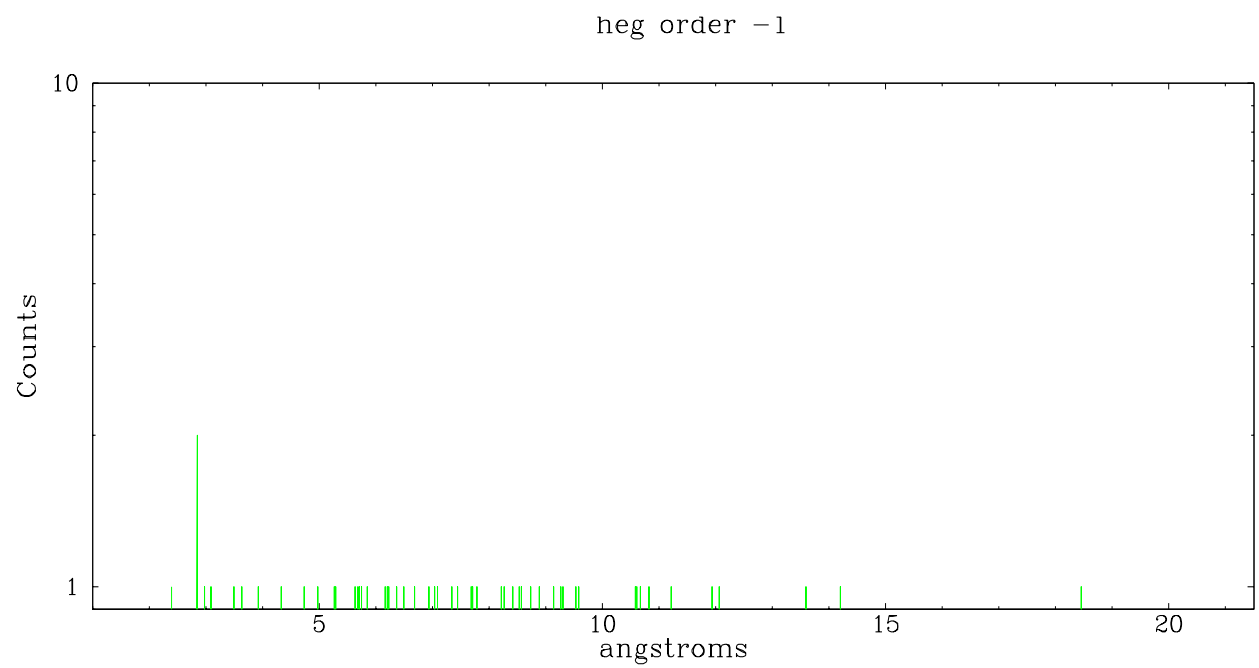
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	47	103	480	866	416	66	62

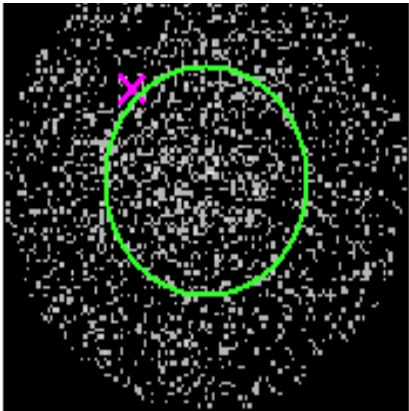




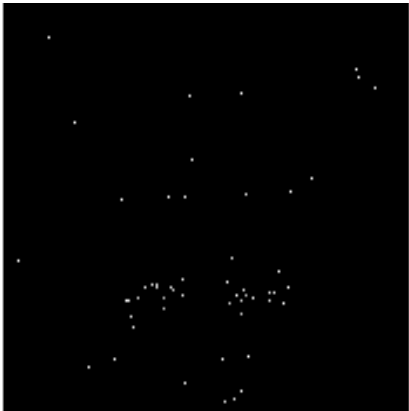
3.2 MEG Arm



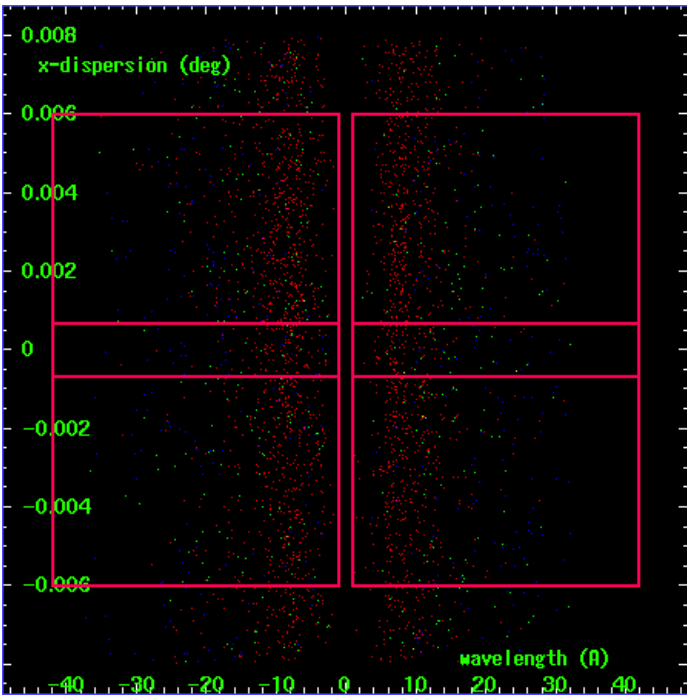
MEG Order Sort 123



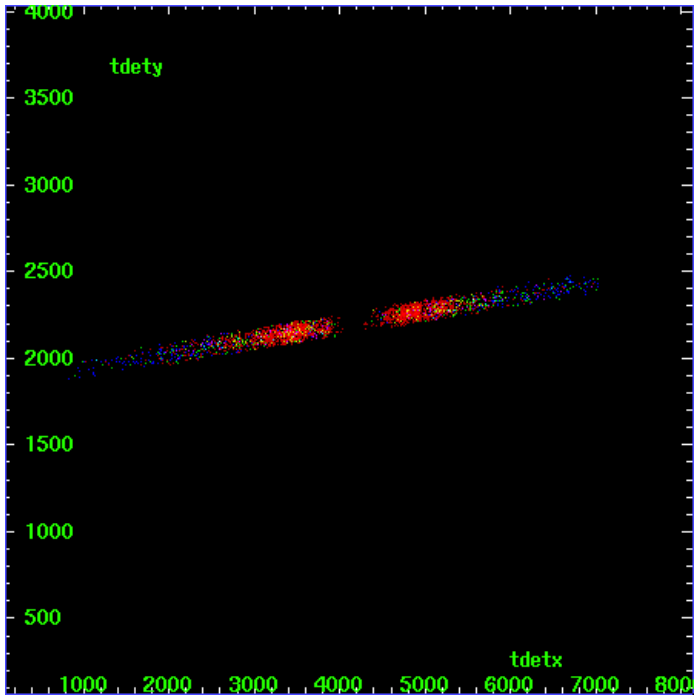
MEG Zero Order



MEG Order Sort ALL

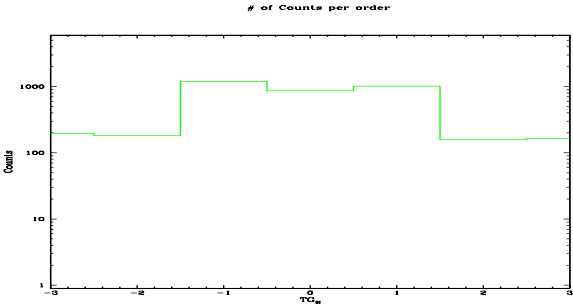


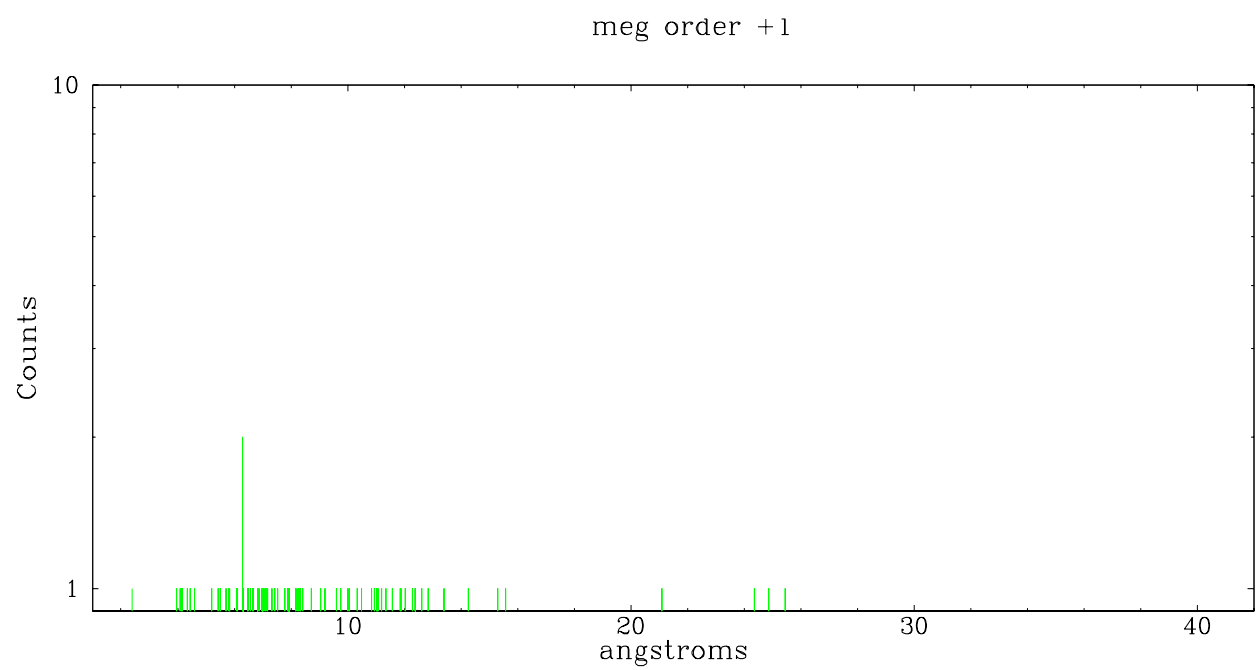
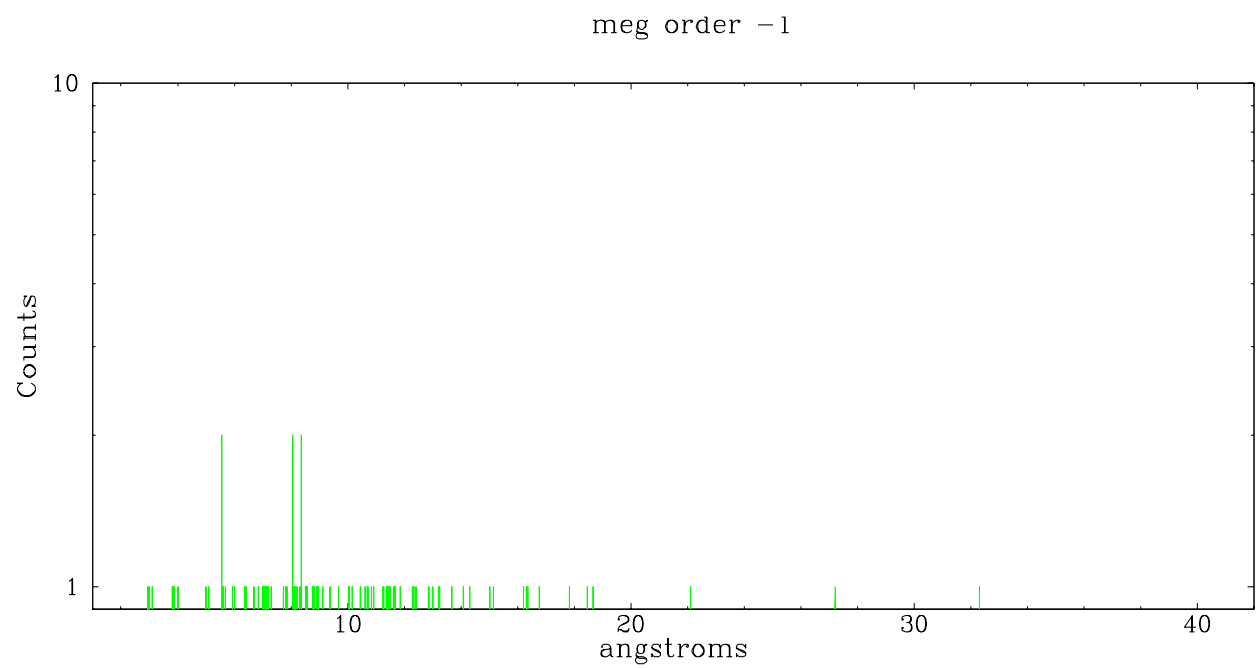
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	197	182	1191	866	1018	158	165





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2007.06.29
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.558

A.2 Comments

Charge time for this ObsId remains at original value of 9.558 ks, although with the current processing the charge time would have been 9.66 ksec. Standard software processing technique using the tool tgdetect failed to determine an accurate position for the zeroth order for this observation. The source is extended and assymetric. The processing software defaulted to the coordinates supplied by the user as the position of the zeroth order for the grating spectral extraction. For grating analysis of localized X-ray emission withing the extended emission, the investigator will need to extract one or more dispersed spectra using user-defined zeroth order positions for all positions of interest. Coordinates used as zeroth order position for extracting dispersed spectra in this processing: ra=09:18:05.700, dec=-12:05:45.00