

V&V Reference Report

L2 ASCDS Version : 8.5

Observation 4568 - L2 Version 4
Chandra X-Ray Center

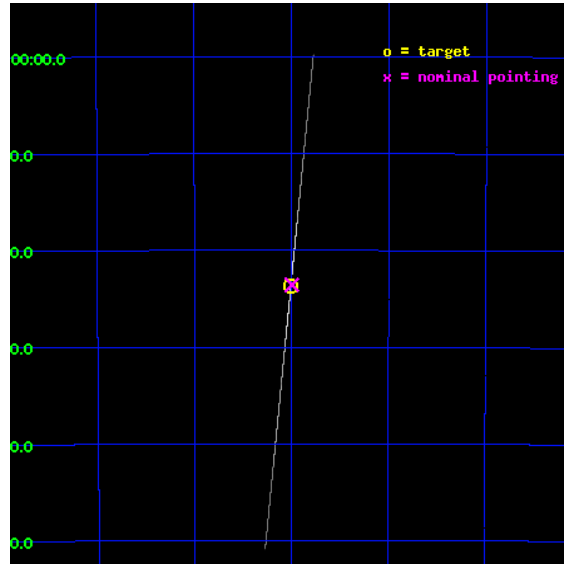
L2 Processing Date : Dec 7 2012

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1 Front

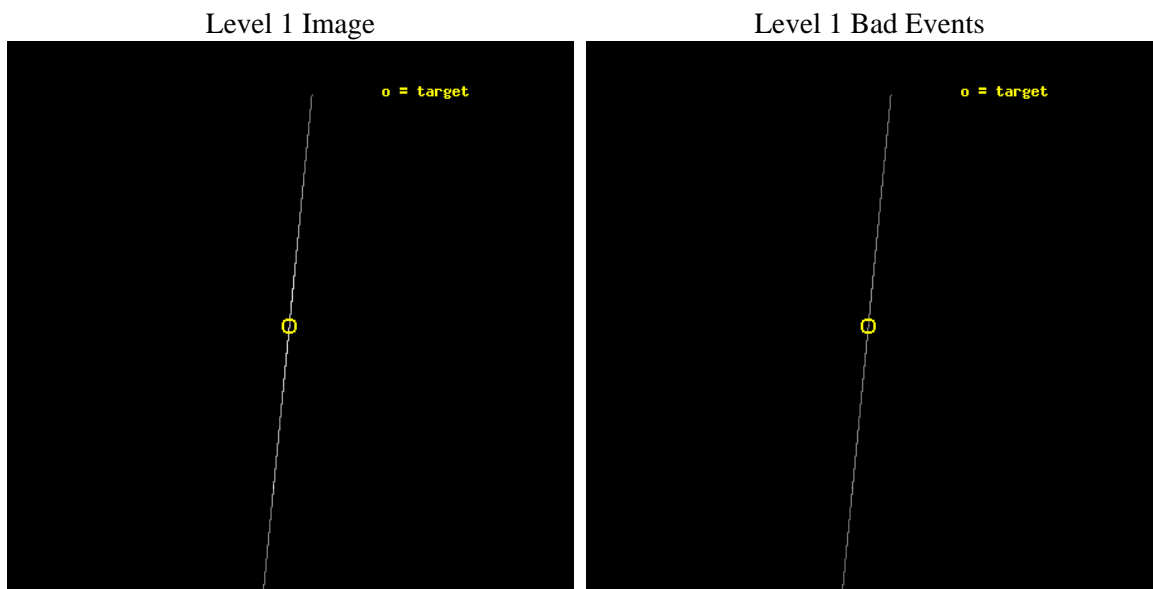
seq_num	400351	Sequence number
obs_id	4568	Observation id
title	Resolving Relativistic Effects and the Accretion Flow Geometry of a Black Hole in Outburst	Proposal title
observer	Dr Jon Miller	Principal investigator
object	4U 1630-472	Source name
ra_targ	248.501667	Observer's specified target RA [deg]
dec_targ	-47.394167	Observer's specified target Dec [deg]
ra_nom	248.49900891615	Nominal RA [deg]
dec_nom	-47.392873717073	Nominal Dec [deg]
roll_nom	275.61201797176	Nominal Roll [deg]
revision	4	Processing version of data
ontime	50181.75	Sum of GTIs [s]
livetime	49985.727539062	Livetime [s]
ontime4	50181.75	Sum of GTIs [s]
ontime5	50181.75	Sum of GTIs [s]
ontime6	50181.75	Sum of GTIs [s]
ontime7	50181.75	Sum of GTIs [s]
ontime8	50181.75	Sum of GTIs [s]
ontime9	50181.75	Sum of GTIs [s]
l2events	3880860	Number of level 2 events



2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Parameters

obi_num	2	Obi number	sched_exp_time	50000.000000	[s] Scheduled observation exposure time
ascdsver	8.5	Processing system revision	ontime	50181.75	Sum of GTIs [s]
caldsver	4.5.4	 	ontime4	50181.75	Sum of GTIs [s]
date	2012-12-07T01:28:35	Date and time of file creation	ontime5	50181.75	Sum of GTIs [s]
revision	4	Processing version of data	ontime6	50181.75	Sum of GTIs [s]
			ontime7	50181.75	Sum of GTIs [s]
			ontime8	50181.75	Sum of GTIs [s]
			ontime9	50181.75	Sum of GTIs [s]
			l1events	4417794	Number of level 1 events

2.1.3 Events

	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	91719	454330	1334398	2115852	321940	99555	grade 0 events	7165	105341	219622	286384	100036	9022
rejected events	14163	37203	27757	65329	26829	17990		7%	23%	16%	13%	31%	9%
rejected %	15%	8%	2%	3%	8%	18%	grade 1 events	221	398	1017	2355	736	256
								0%	0%	0%	0%	0%	0%
							grade 2 events	39999	128026	872657	596463	115528	40943
								43%	28%	65%	28%	35%	41%
							grade 3 events	7758	7475	21981	167915	18657	7284
								8%	1%	1%	7%	5%	7%
							grade 4 events	8329	7125	21528	167989	18378	8031
								9%	1%	1%	7%	5%	8%
							grade 5 events	12434	28731	22345	51142	20296	15075
								13%	6%	1%	2%	6%	15%
							grade 6 events	15813	177234	175248	843604	48309	18944
								17%	39%	13%	39%	15%	19%
							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	7	7
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
[deg] Pointing RA	248.475153	248.4990089161548	Subarray requested	NONE	NONE
[deg] Pointing Dec	-47.370943	-47.39287371707277	Alternating exposures requested	N	N
[deg] Pointing Roll	275.437835	275.6120179717589	[s] Primary exposure time	0.000000	0
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-182.632523	-182.6398635053184			
[mm] SIM translation stage offset	-7.5	-7.49265907768941			
[s] Observation start time (MET)	208014426.184000	208013137.43404			
Observation start date	2004-08-04T13:46:02	2004-08-04T13:25:37			
[s] Observation end time (MET)	208064426.184000	208066012.06139			
Observation end date	2004-08-05T03:39:22	2004-08-05T04:06:52			
Read mode	CONTINUOUS	CONTINUOUS			

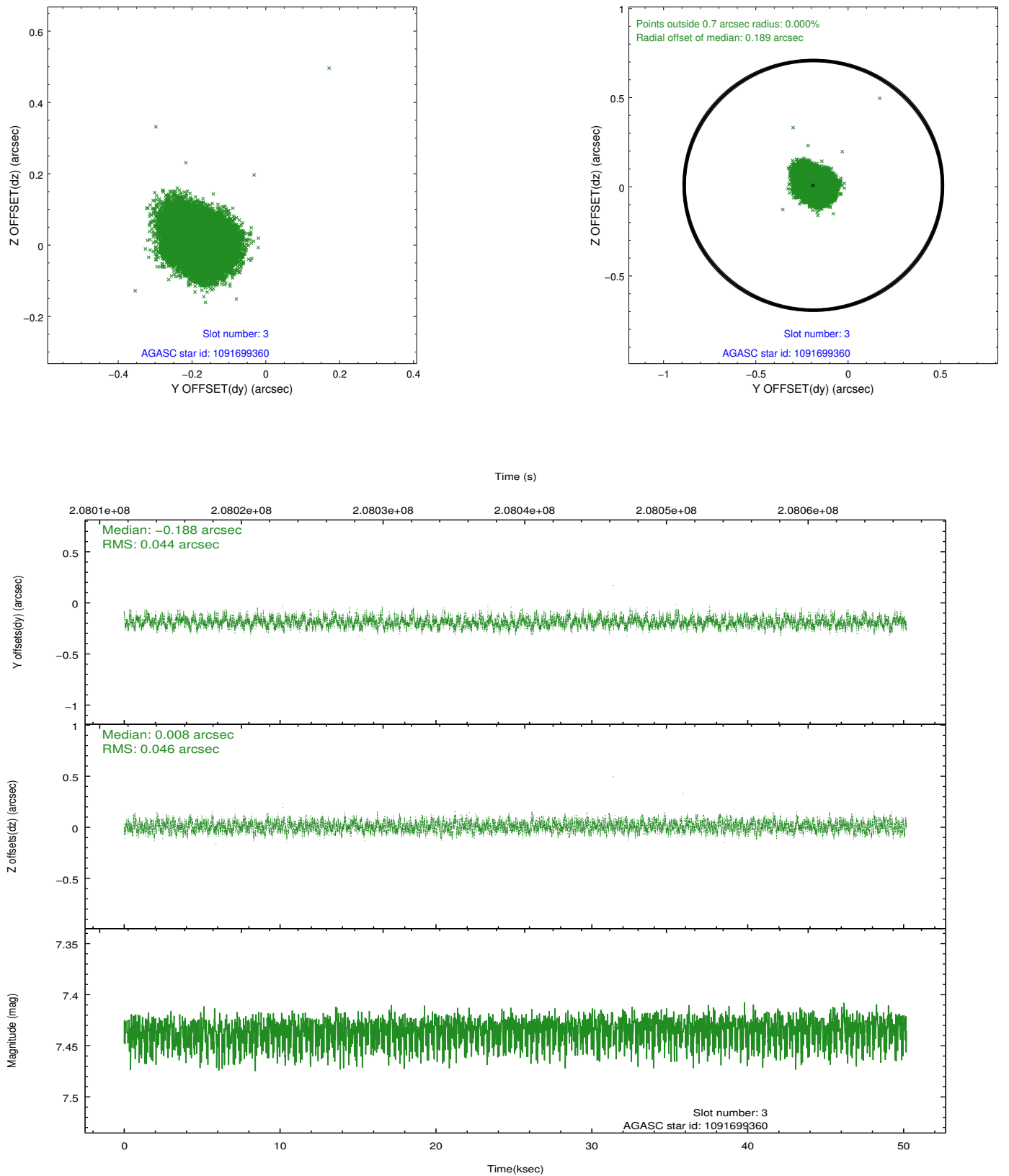
2.3 Aspect

Slot Statistics

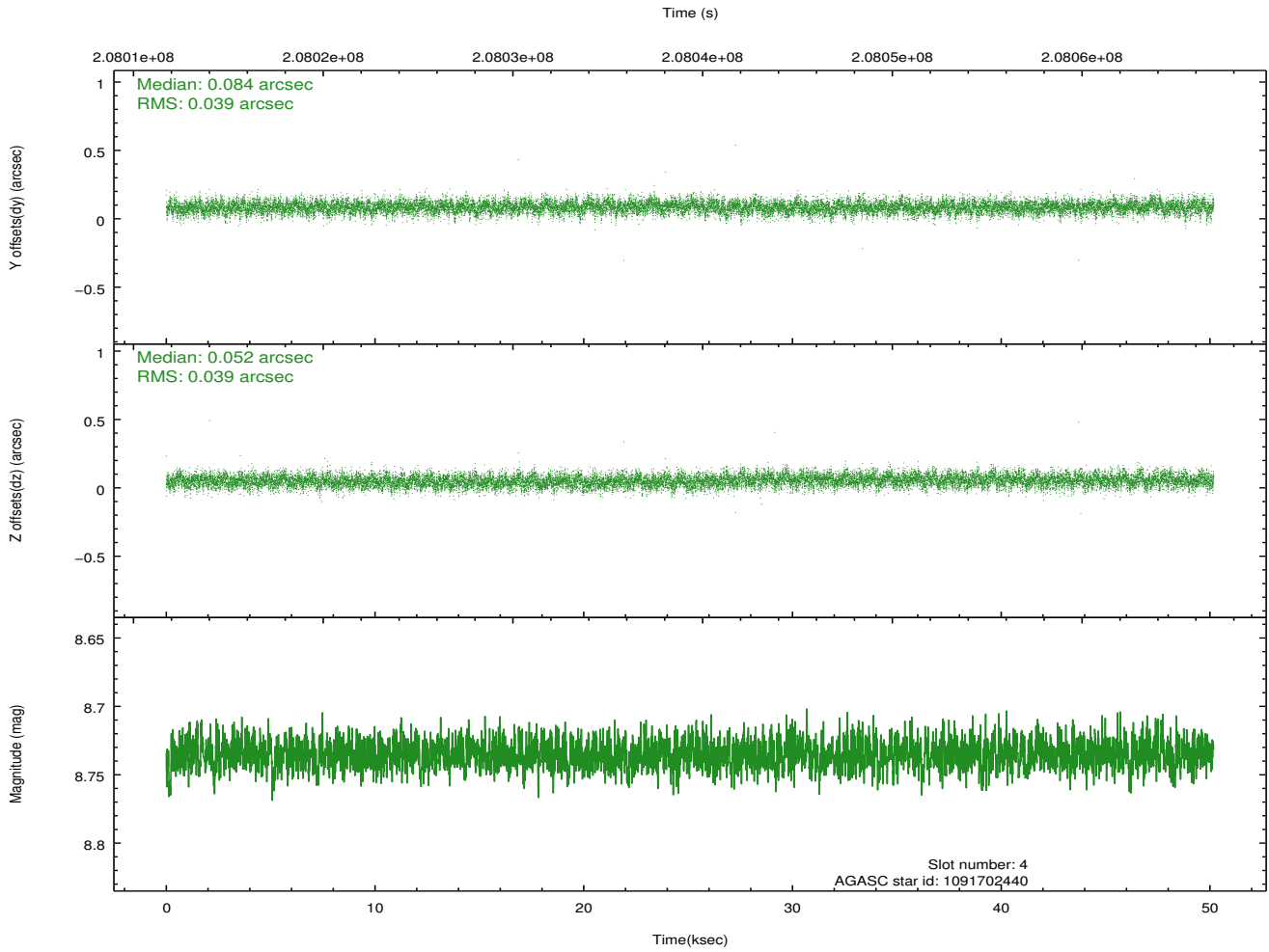
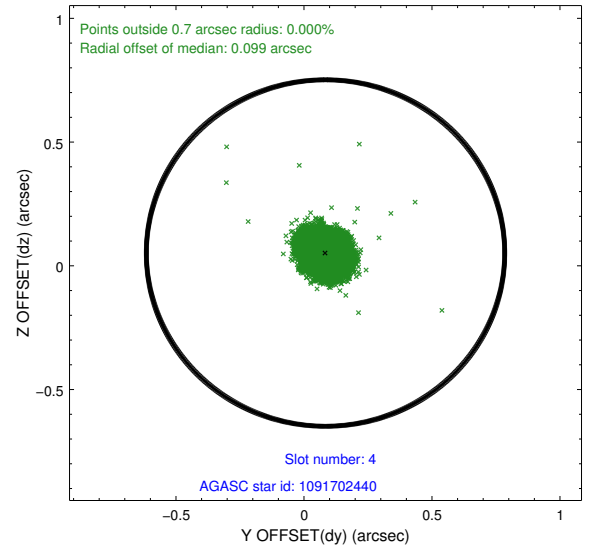
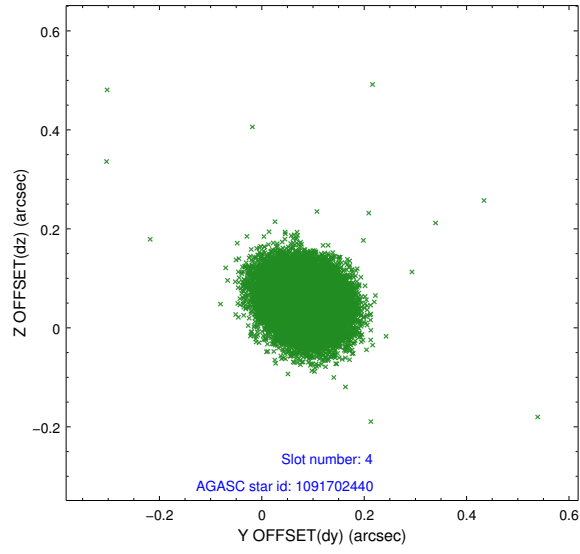
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.18	12241	0.009	0.119	0.013	0.019	0.000000	0.000000	937.14	-1879.97
1	FID	ACIS-S-5	7.23	12240	-0.076	0.030	0.023	0.030	0.000000	0.000000	-1811.95	17.49
2	FID	ACIS-S-6	7.41	12240	0.044	-0.138	0.016	0.024	0.000000	0.000000	402.75	661.26
3	GUIDE	1091699360	7.44	24479	-0.188	0.008	0.068	0.106	248.660725	-47.004364	-1270.06	578.43
4	GUIDE	1091702440	8.74	24475	0.084	0.052	0.057	0.094	248.295809	-47.683380	1079.50	-539.05
5	GUIDE	1091703168	8.93	24474	-0.093	0.071	0.094	0.154	249.174634	-47.078871	-876.68	1806.01
6	GUIDE	1091709408	9.23	24446	0.057	0.071	0.098	0.158	249.304466	-47.312562	-6.74	2034.18
7	GUIDE	1091706216	9.04	24464	0.133	-0.202	0.082	0.134	248.520013	-47.617493	894.33	24.39

2.4 Star Slots

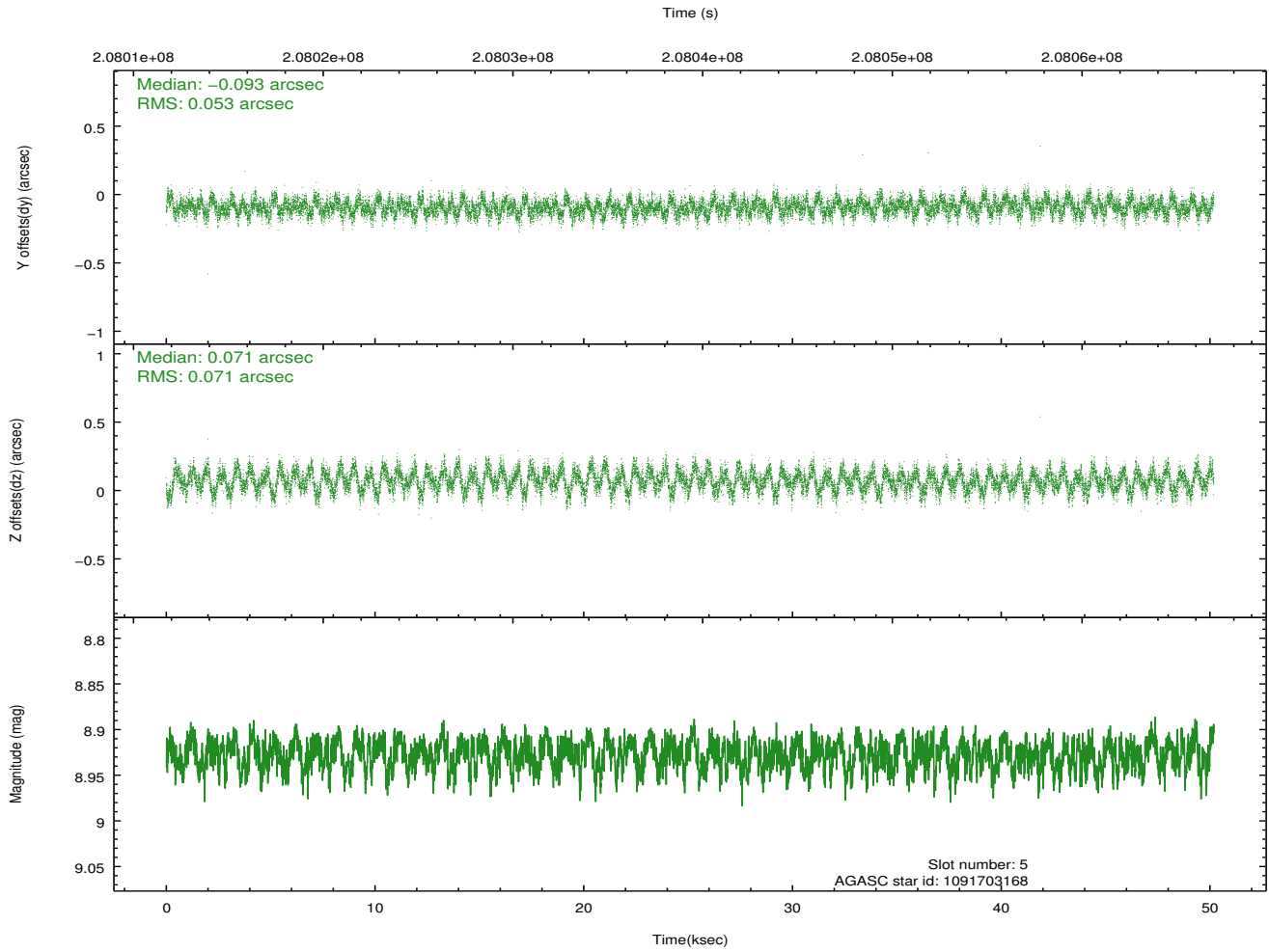
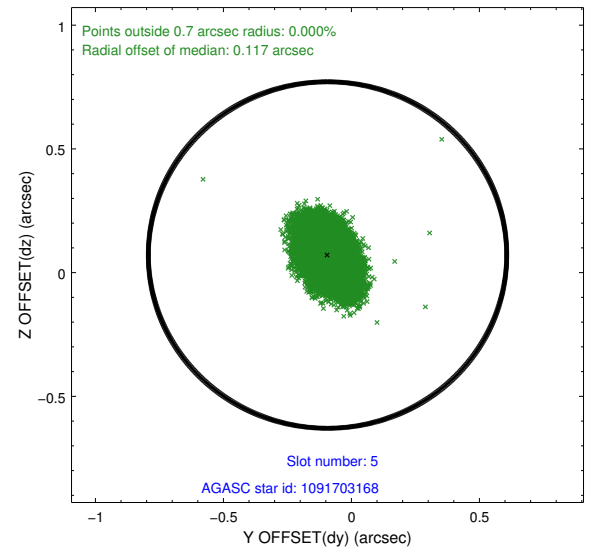
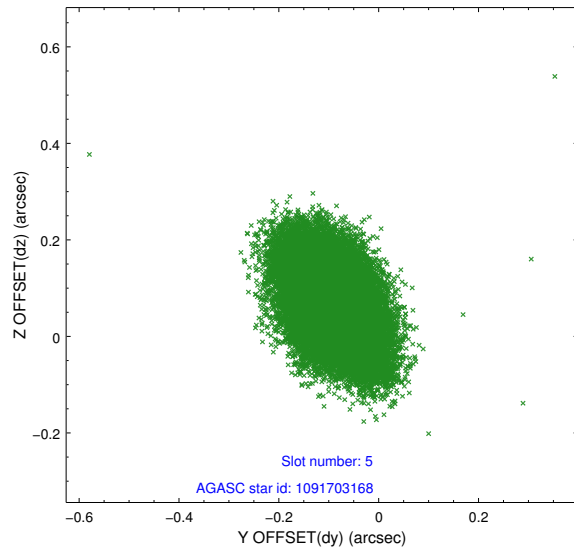
2.4.1 Slot 3



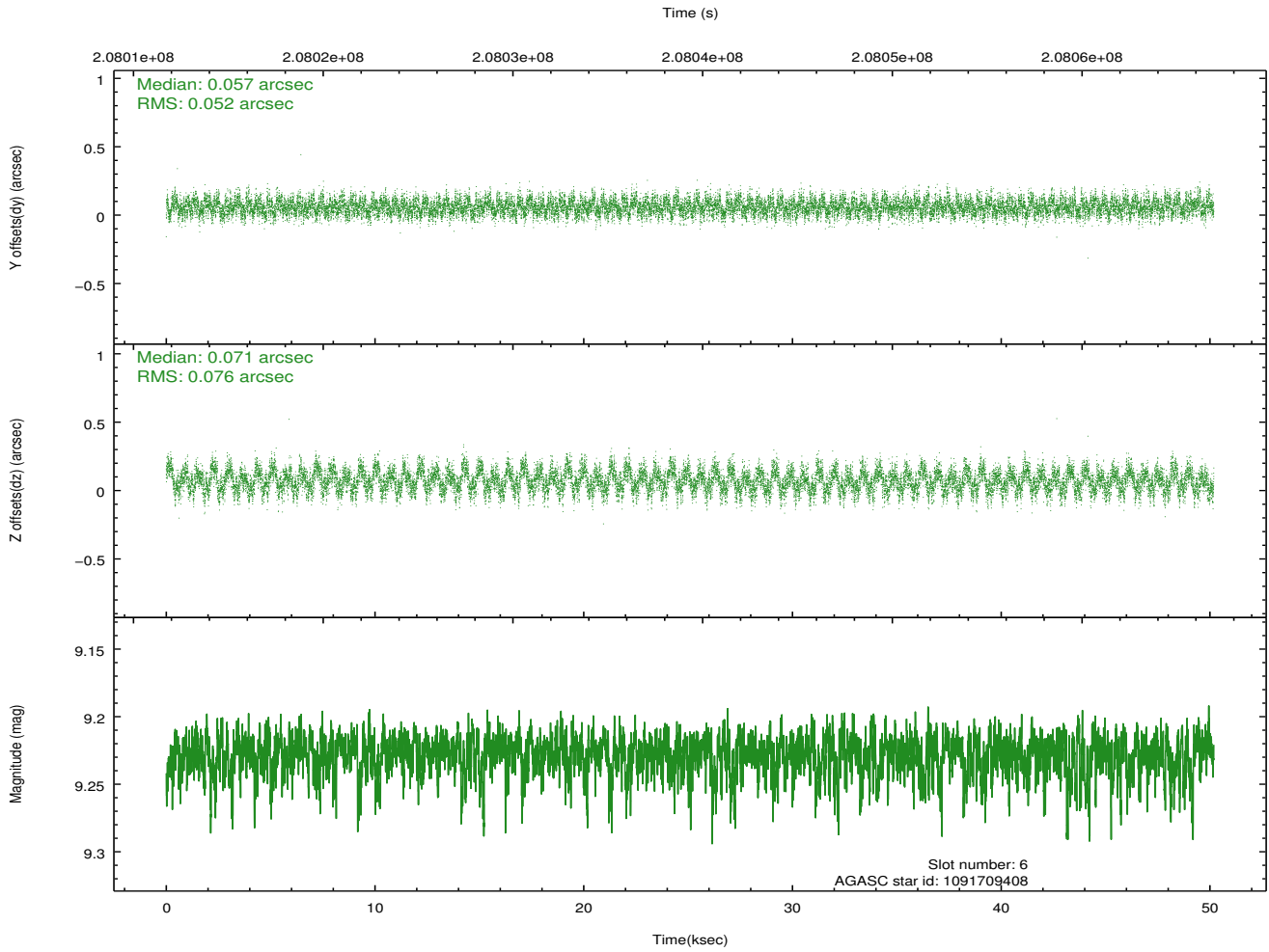
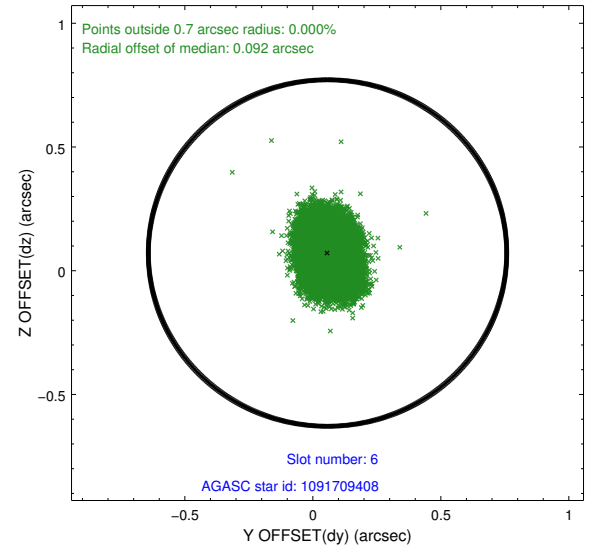
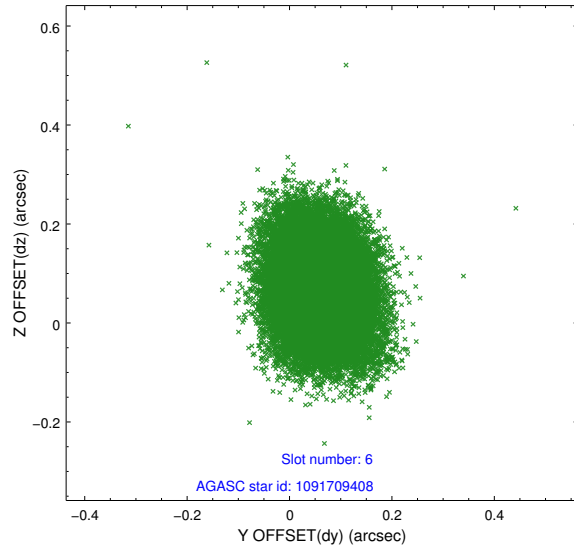
2.4.2 Slot 4



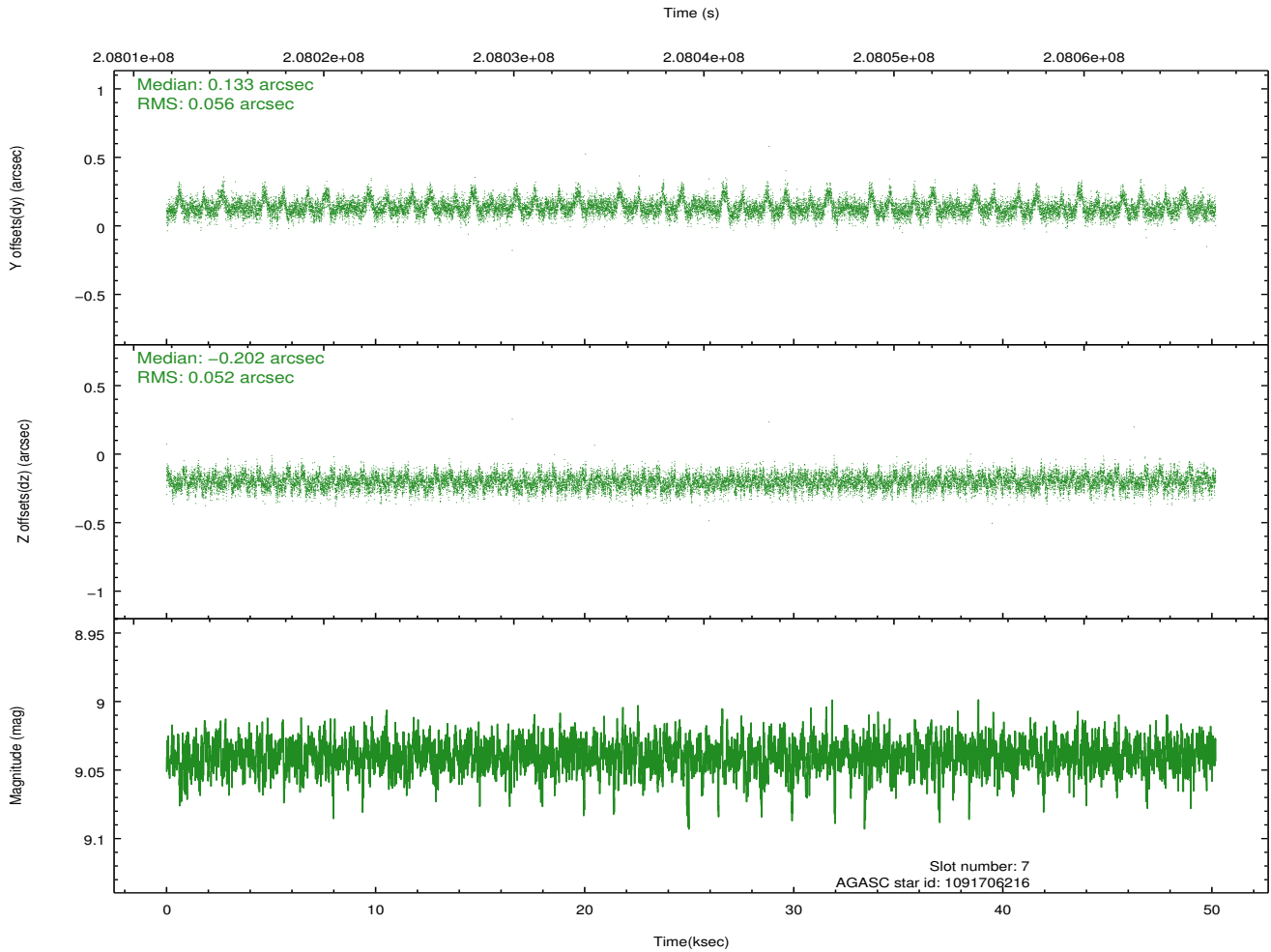
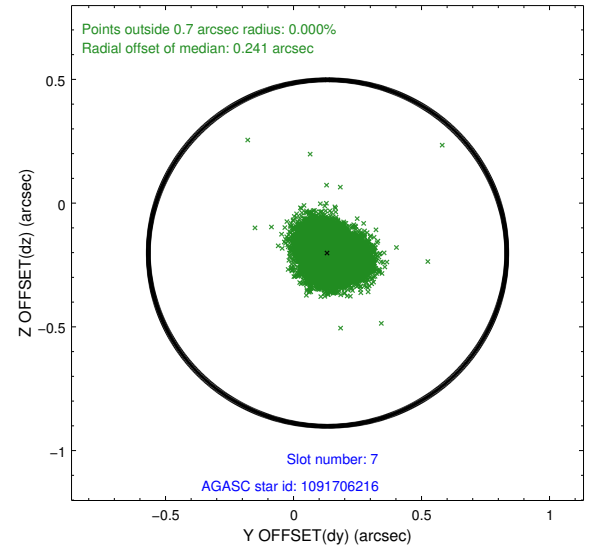
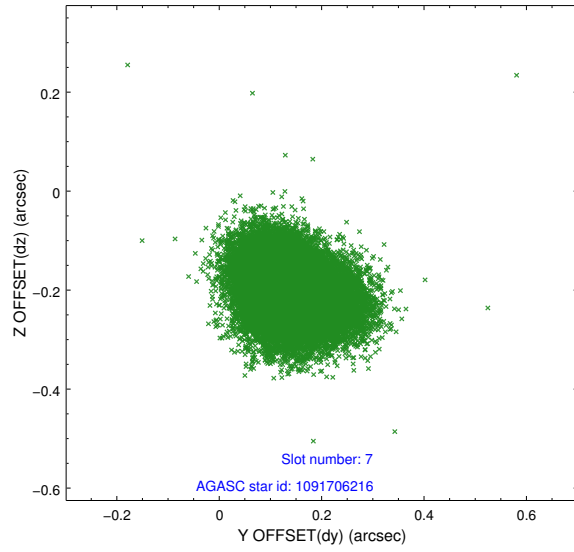
2.4.3 Slot 5



2.4.4 Slot 6

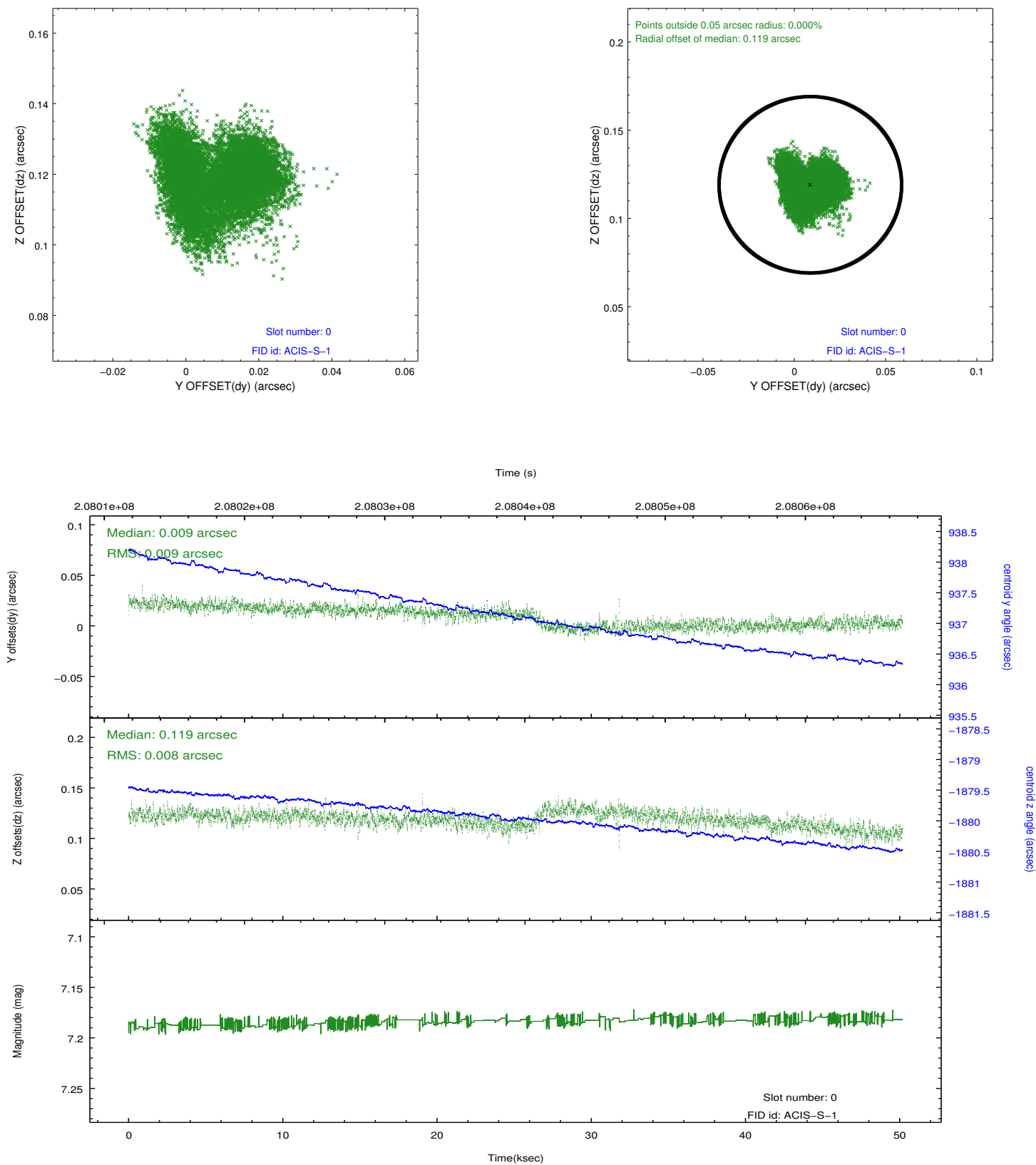


2.4.5 Slot 7

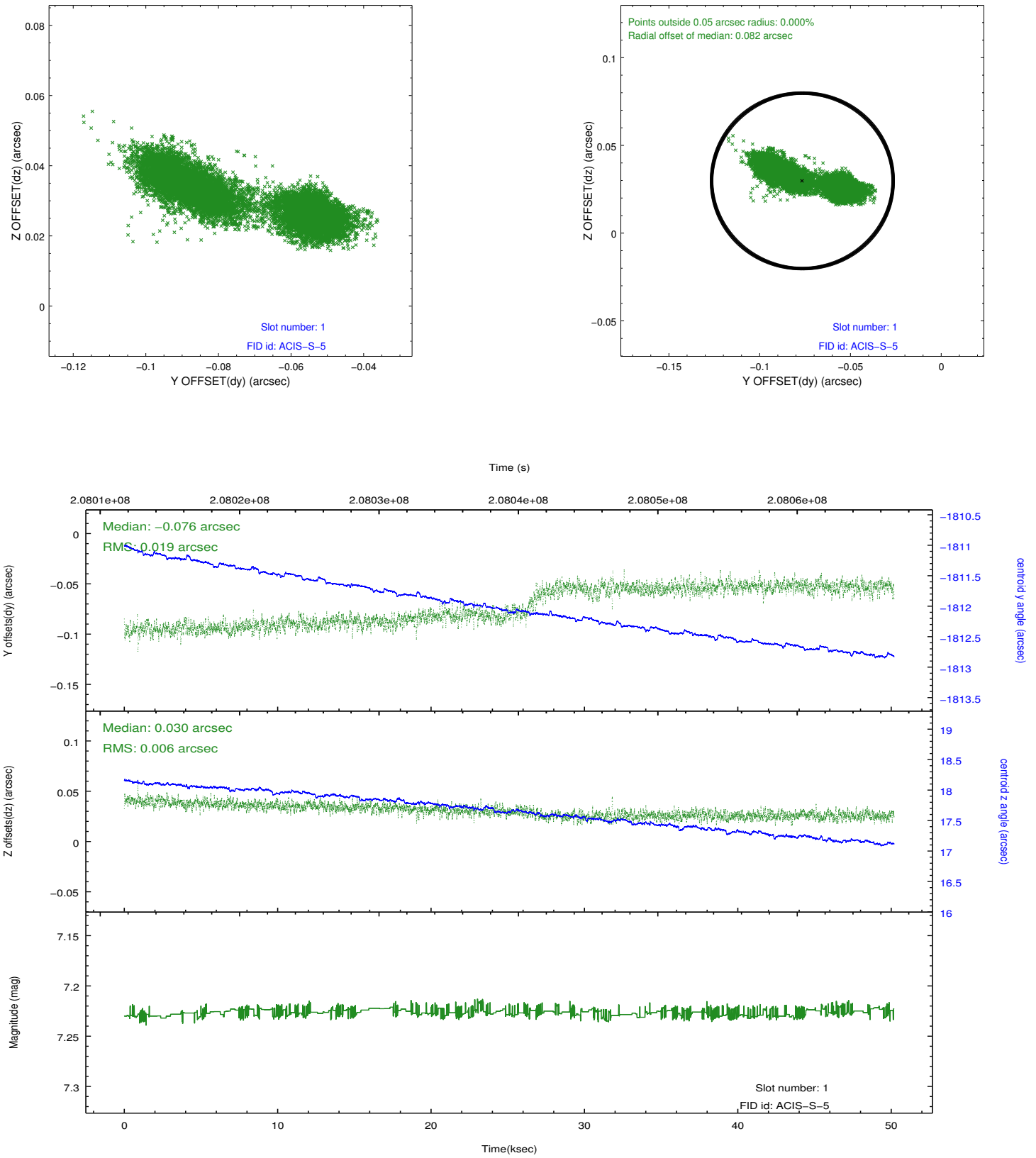


2.5 FID Slots

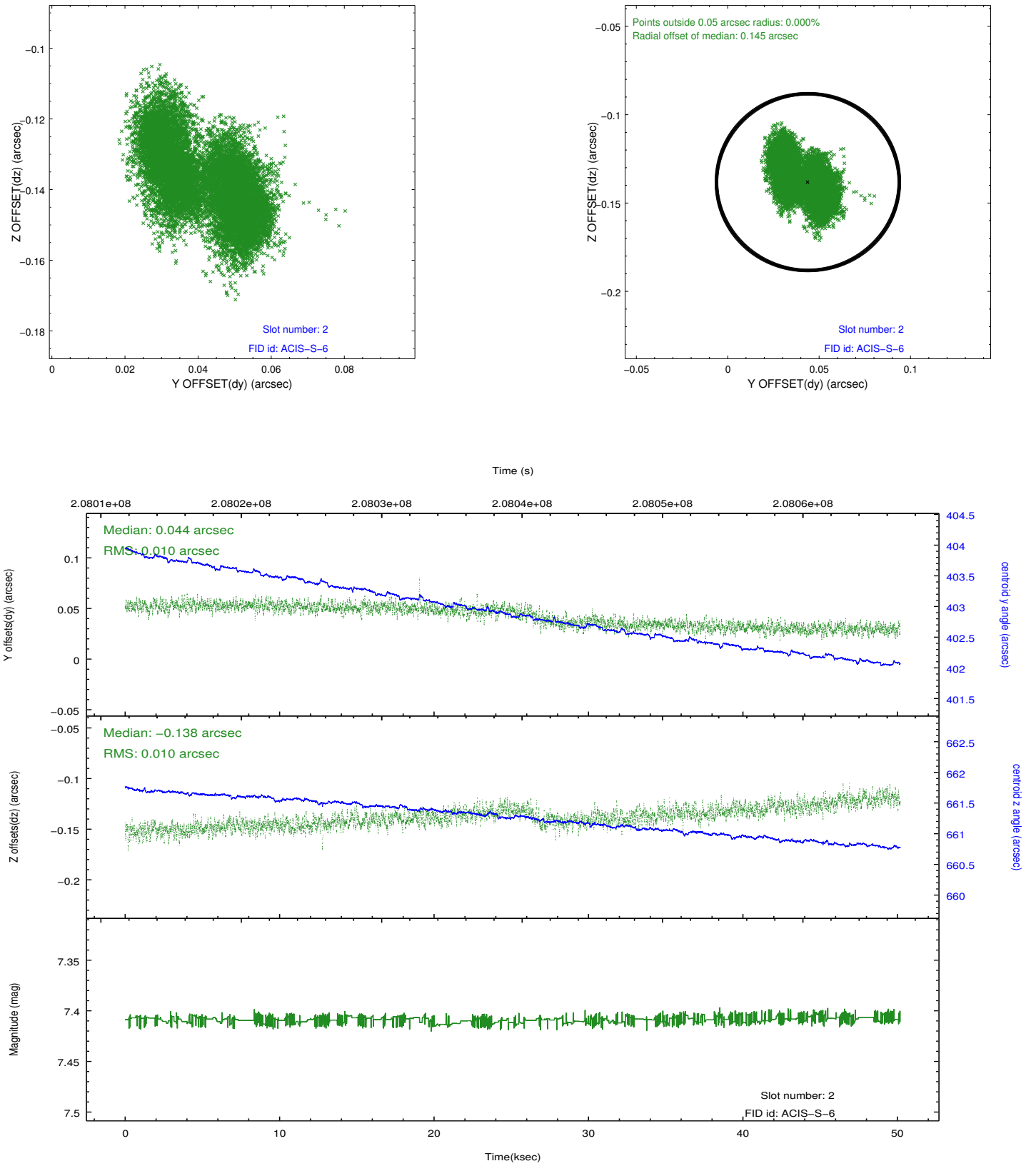
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

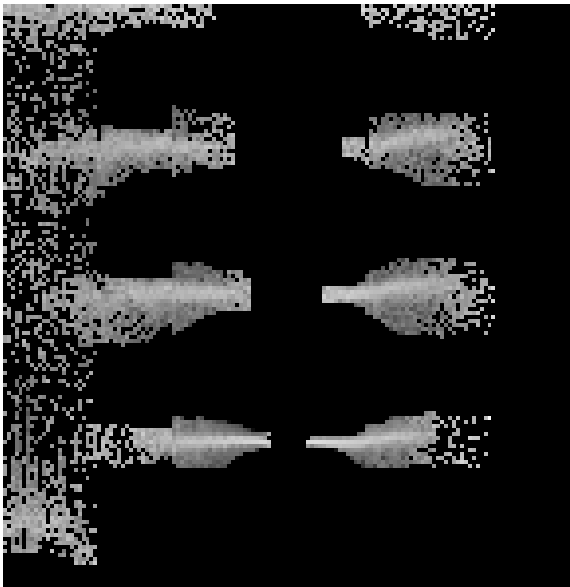


3 Gratings

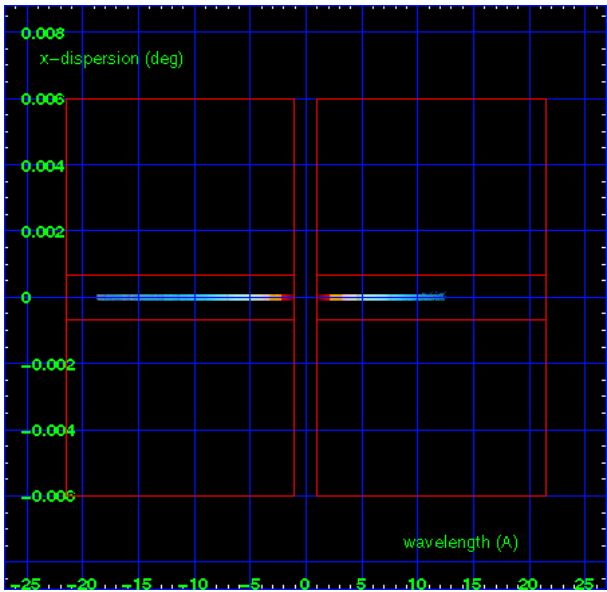
3.1 HEG Arm



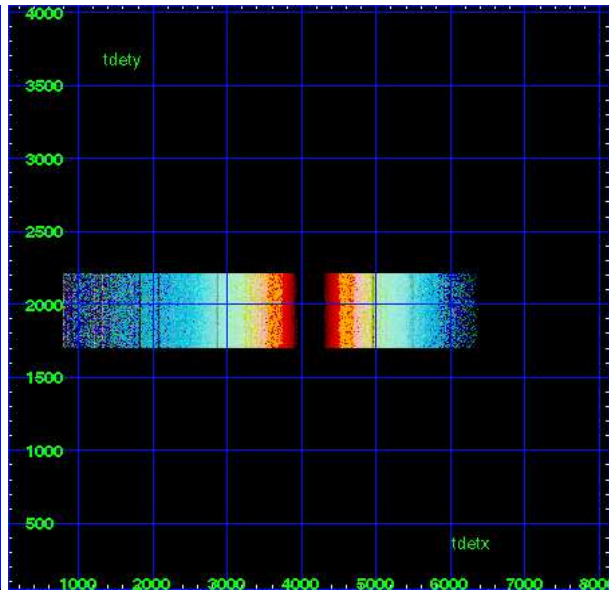
HEG Order Sort 123



HEG Order Sort ALL

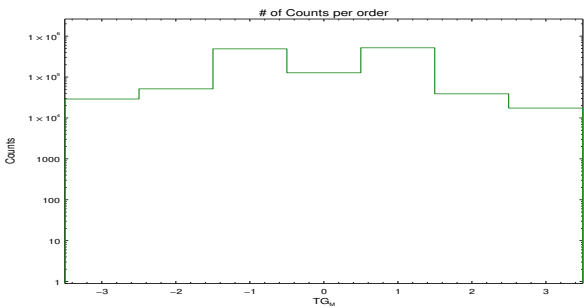


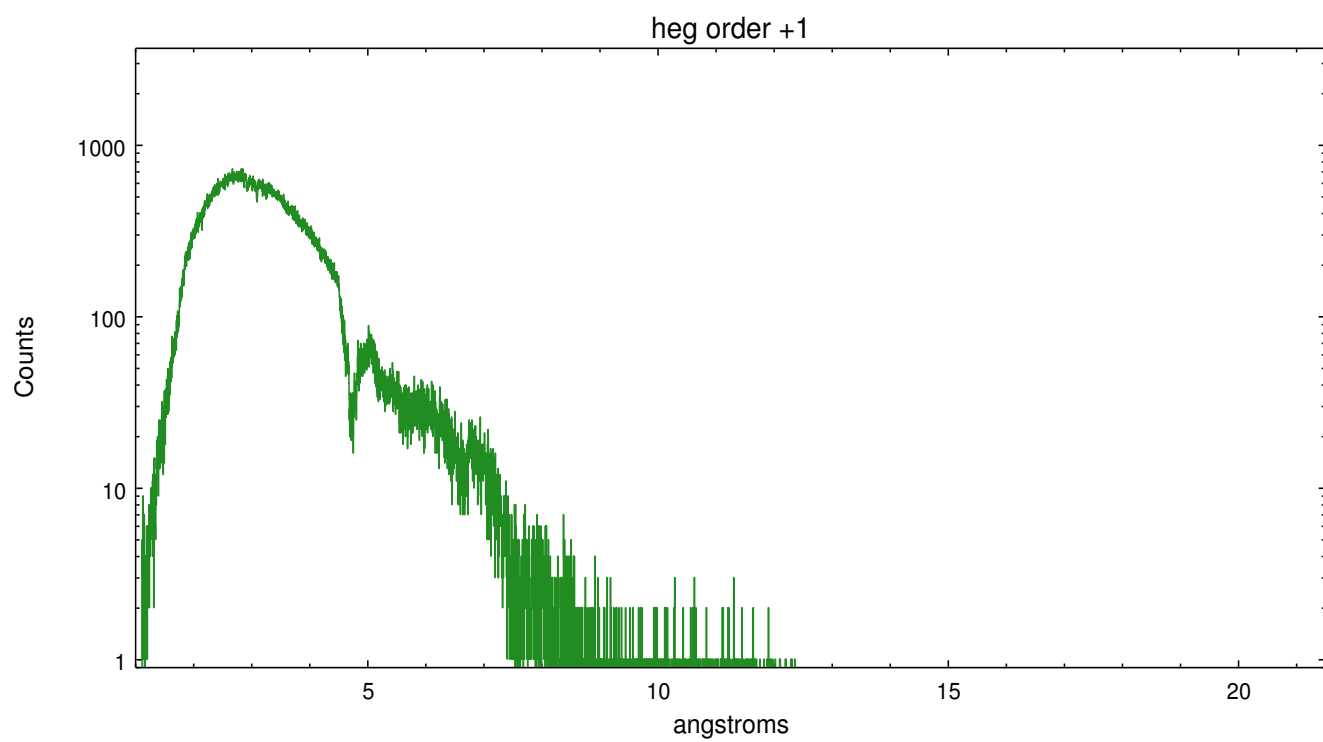
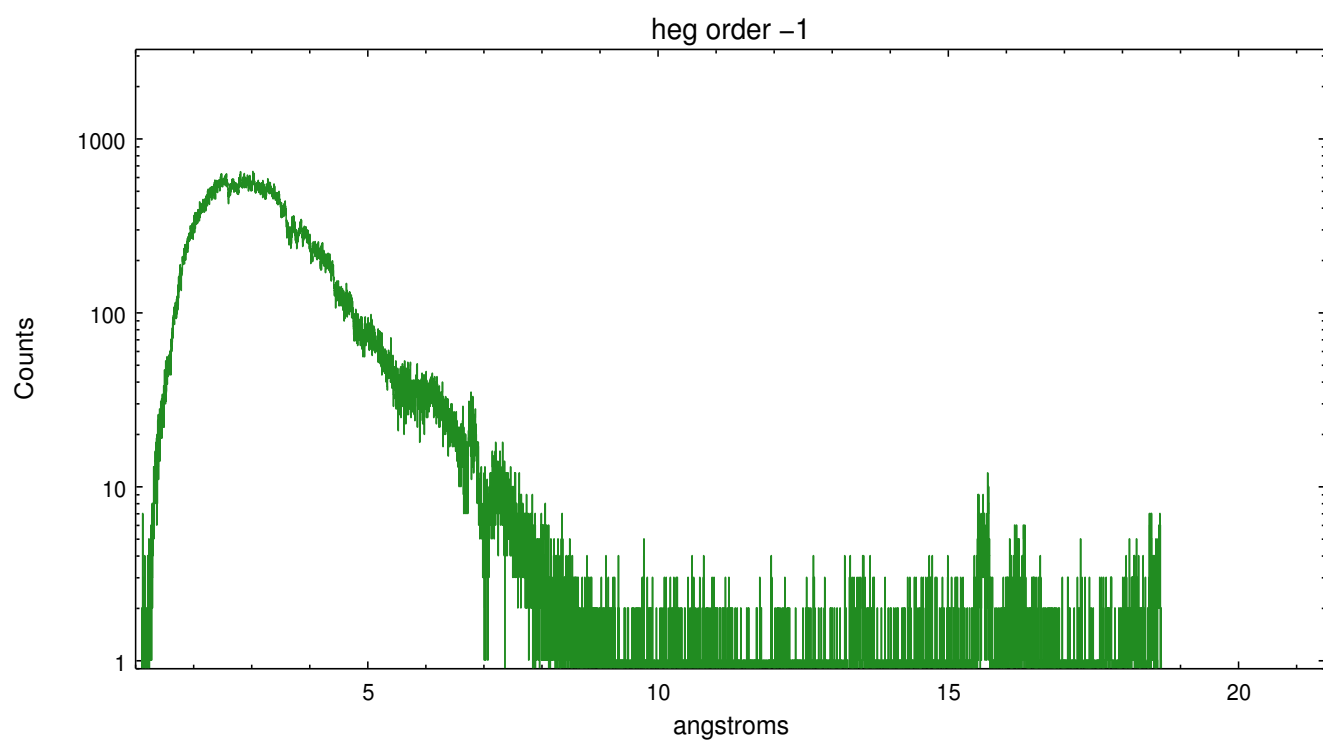
Spot Image HEG



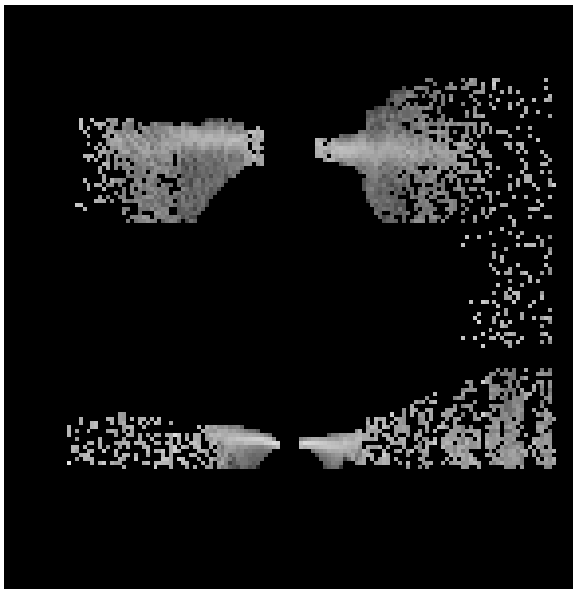
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	29194	51821	494037	128202	524502	39134	17515

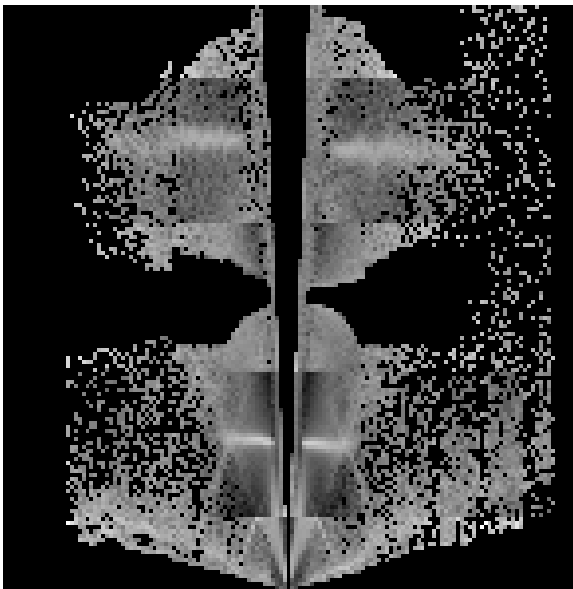




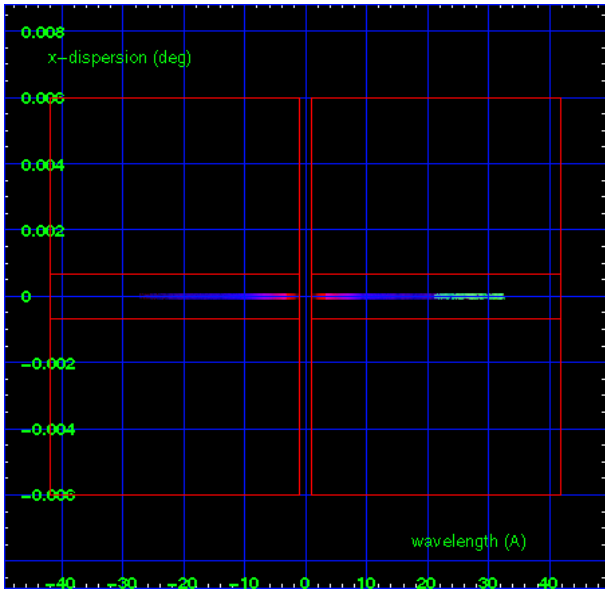
3.2 MEG Arm



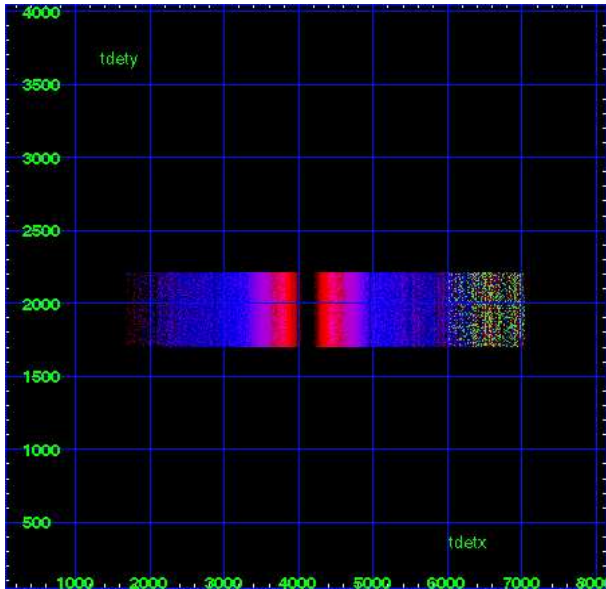
MEG Order Sort 123



MEG Order Sort ALL

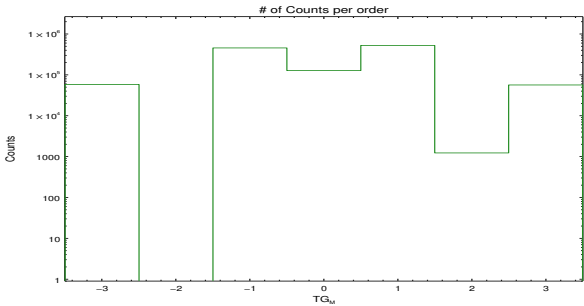


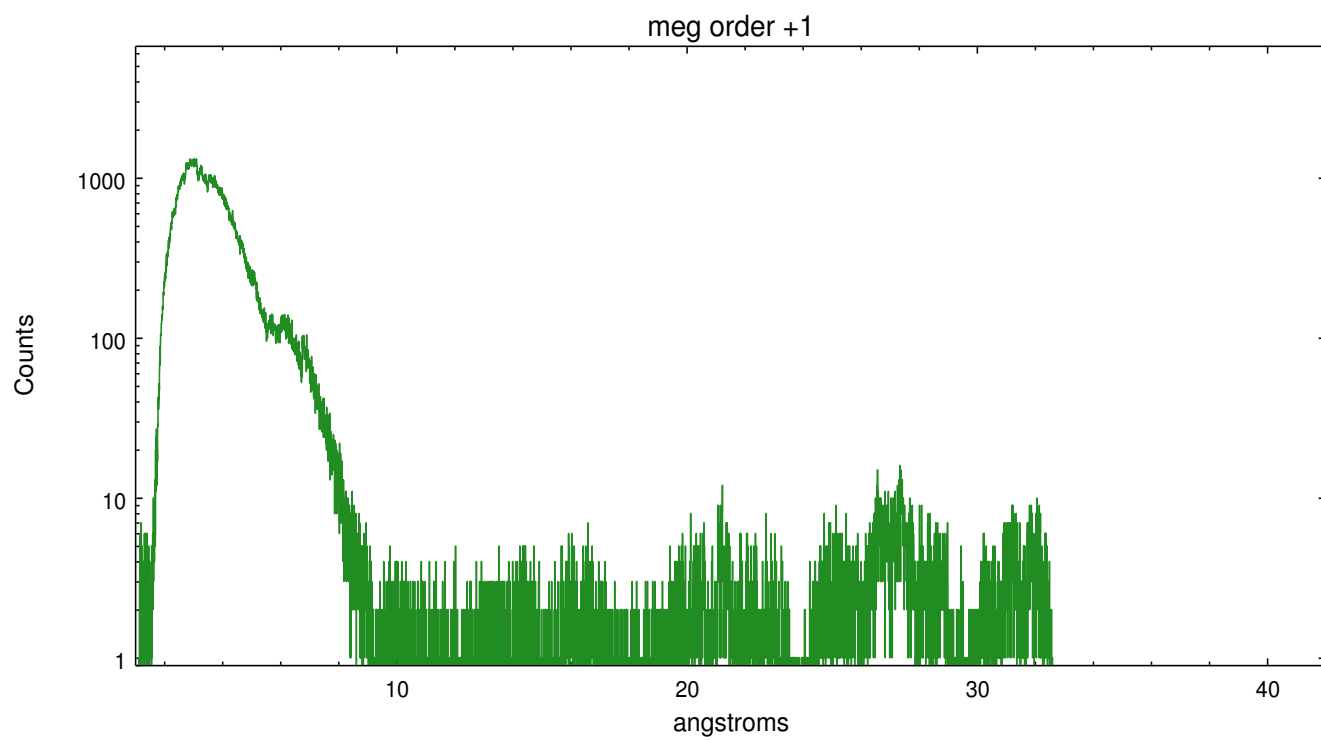
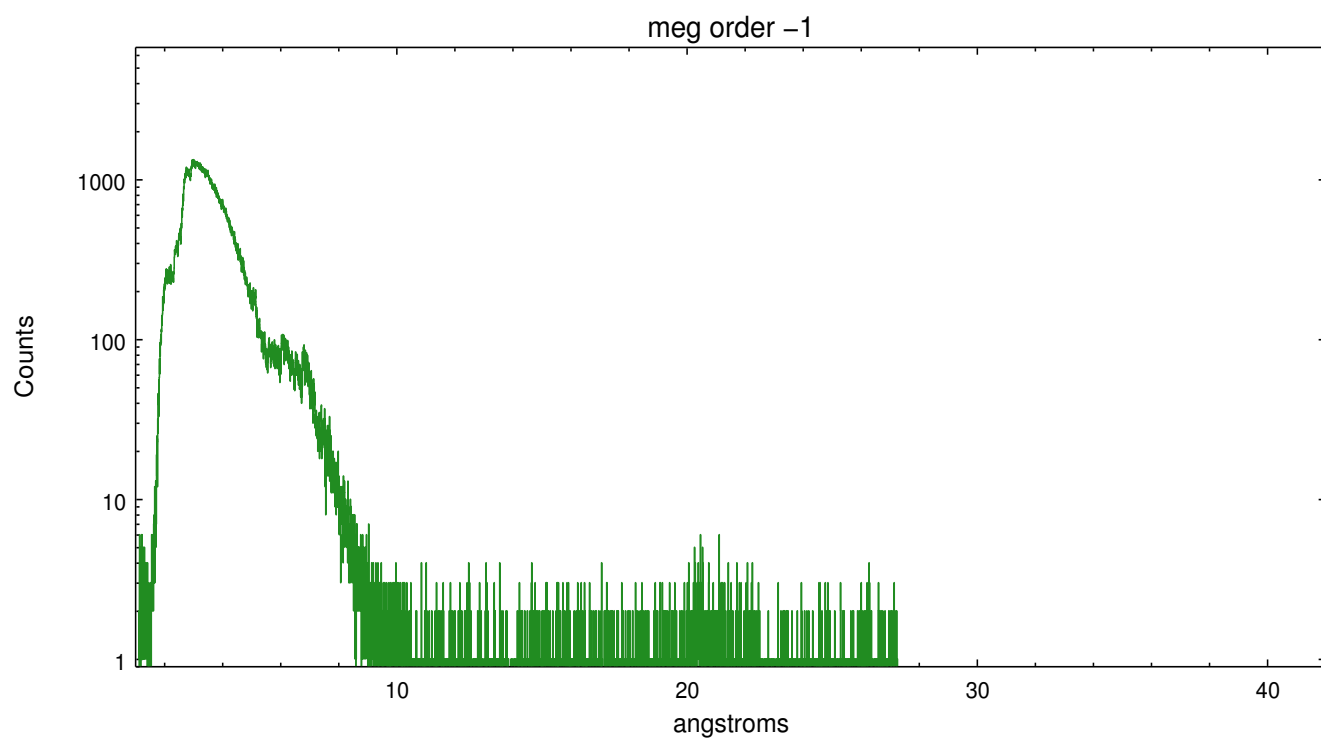
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	58715	0	460872	128202	531237	1231	56998





A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2013.01.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	50.184

A.2 Comments