

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 6347 - L2 Version 3
Chandra X-Ray Center

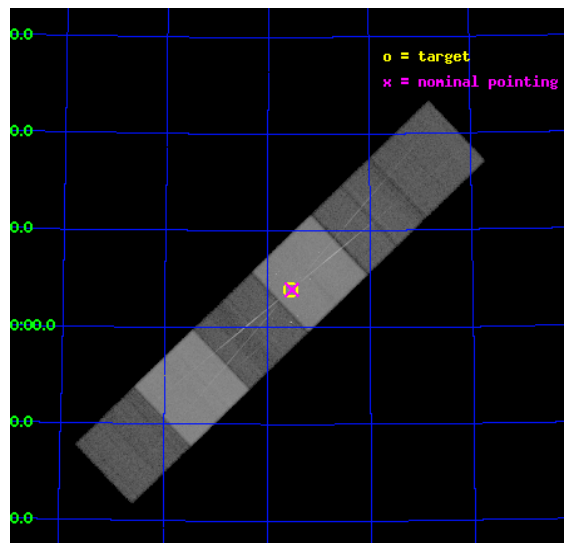
L2 Processing Date : Dec 28 2012

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

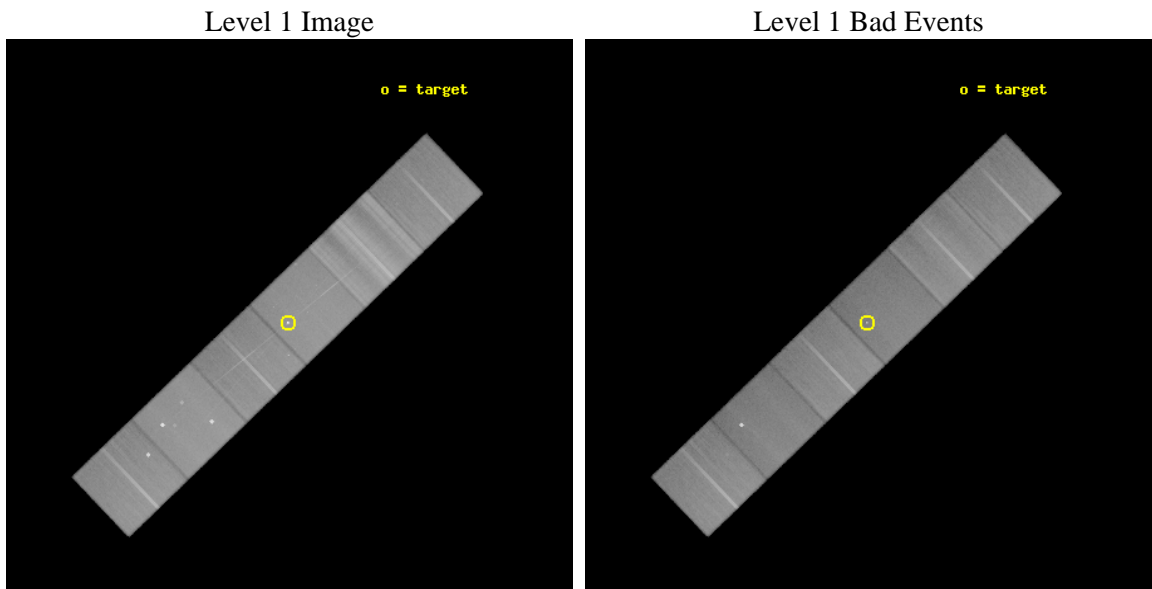
seq_num	701024	Sequence number
obs_id	6347	Observation id
title	Understanding the accretion process in a Low-Luminosity AGN: is M81* a starved black hole?	Proposal title
observer	Prof Claude Canizares	Principal investigator
object	M81*	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	148.888333	Observer's specified target RA [deg]
dec_targ	69.065306	Observer's specified target Dec [deg]
ra_nom	148.88214490253	Nominal RA [deg]
dec_nom	69.065121737149	Nominal Dec [deg]
roll_nom	316.16240920935	Nominal Roll [deg]
revision	3	Processing version of data
ontime	64690.978687227	Sum of GTIs [s]
livetime	63871.822562858	Livetime [s]
ontime4	64687.77876696	Sum of GTIs [s]
ontime5	64690.937647223	Sum of GTIs [s]
ontime6	64690.89660722	Sum of GTIs [s]
ontime7	64690.978687227	Sum of GTIs [s]
ontime8	64690.855567217	Sum of GTIs [s]
ontime9	64684.332586676	Sum of GTIs [s]
l2events	1019313	Number of level 2 events



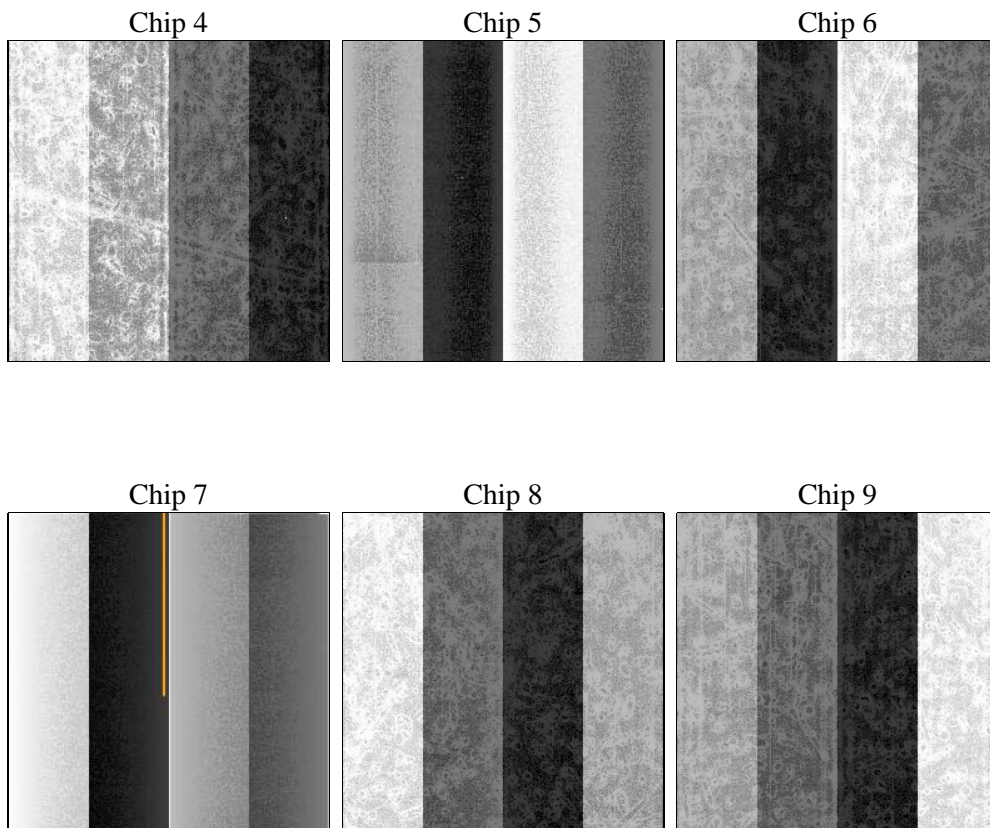
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	64733.558000	[s] Scheduled observation exposure time
ascdsver	8.5.1.1	Processing system revision	ontime	64690.978687227	Sum of GTIs [s]
caldbver	4.5.5	 	ontime4	64687.77876696	Sum of GTIs [s]
date	2012-12-26T16:35:00	Date and time of file creation	ontime5	64690.937647223	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	64690.89660722	Sum of GTIs [s]
			ontime7	64690.978687227	Sum of GTIs [s]
			ontime8	64690.855567217	Sum of GTIs [s]
			ontime9	64684.332586676	Sum of GTIs [s]
			l1events	4503468	Number of level 1 events

2.1.4 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	698506	818992	651167	743324	983263	608216	grade 0 events	61663	42583	49056	35762	121037	42011
rejected events	585496	427314	551392	398423	596271	519849		8%	5%	7%	4%	12%	6%
rejected %	83%	52%	84%	53%	60%	85%	grade 1 events	867	1094	412	840	943	386
								0%	0%	0%	0%	0%	0%
							grade 2 events	23152	123572	21058	71918	67780	17455
								3%	15%	3%	9%	6%	2%
							grade 3 events	7798	15783	7036	30787	54023	7195
								1%	1%	1%	4%	5%	1%
							grade 4 events	7509	15239	6960	30391	48227	6810
								1%	1%	1%	4%	4%	1%
							grade 5 events	22546	56890	22838	66251	34201	24398
								3%	6%	3%	8%	3%	4%
							grade 6 events	12902	194534	15673	176082	95988	14903
								1%	23%	2%	23%	9%	2%
							grade 7 events	562069	369297	528134	331293	561064	495058
								80%	45%	81%	44%	57%	81%

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	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	148.807850	148.8821449025347	Subarray requested	NONE	NONE
[deg] Pointing Dec	69.071276	69.06512173714884	Alternating exposures requested	N	N
[deg] Pointing Roll	316.075170	316.1624092093457	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	237757603.184000	237756368.91404			
Observation start date	2005-07-14T19:45:39	2005-07-14T19:26:08			
[s] Observation end time (MET)	237822336.184000	237822563.92957			
Observation end date	2005-07-15T13:44:32	2005-07-15T13:49:23			
Read mode	TIMED	TIMED			

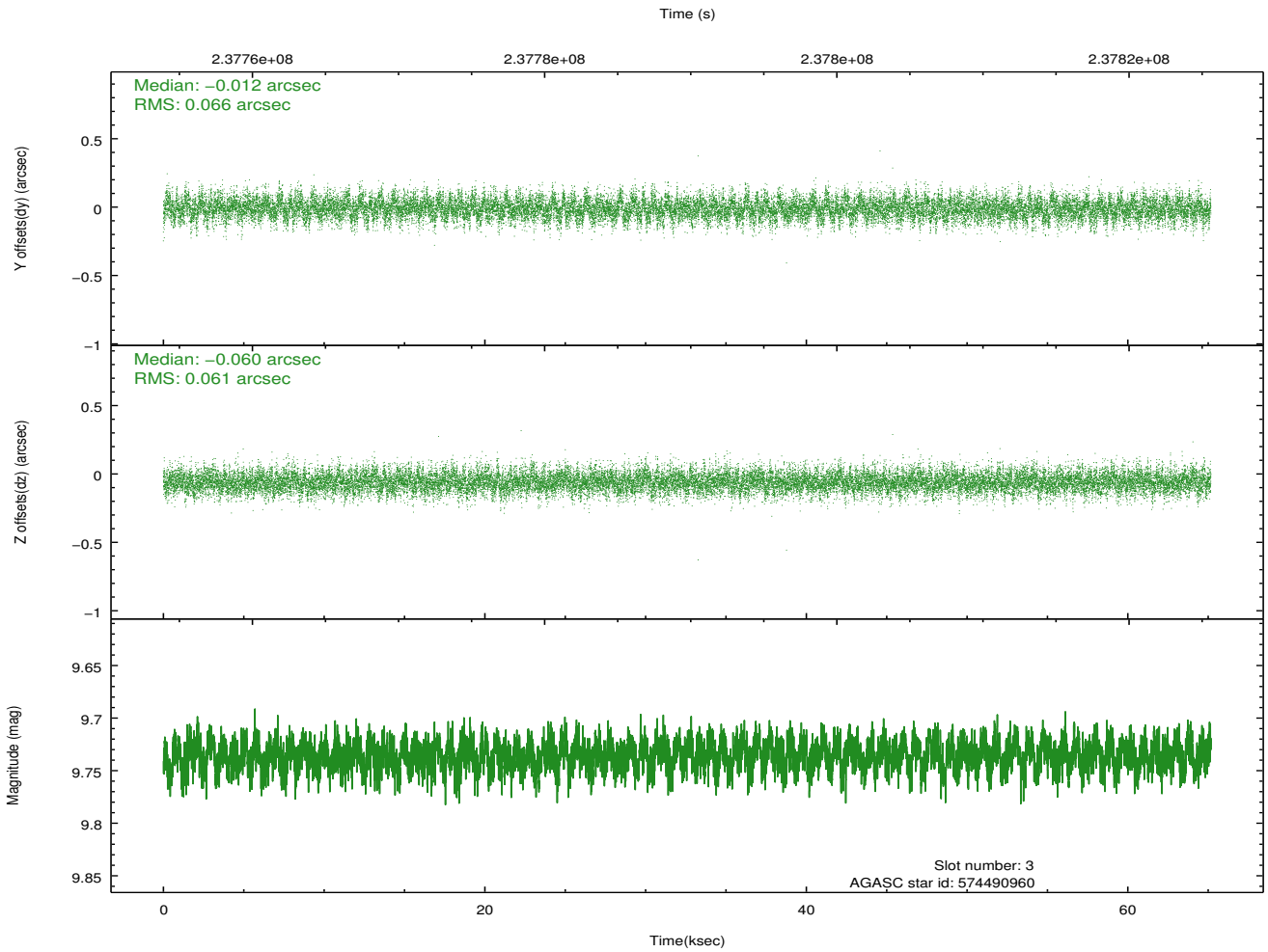
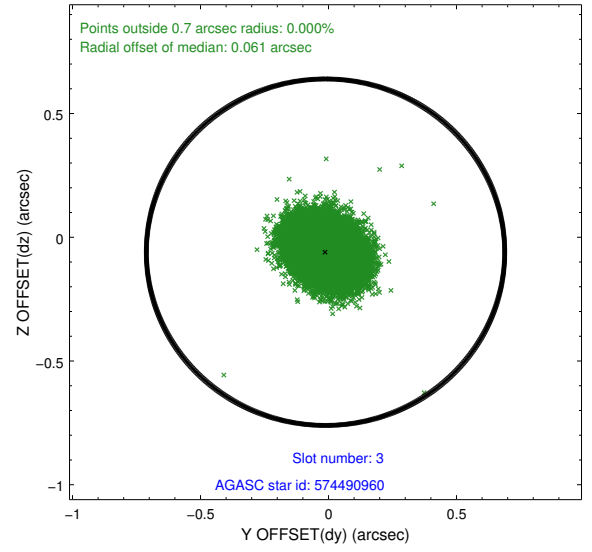
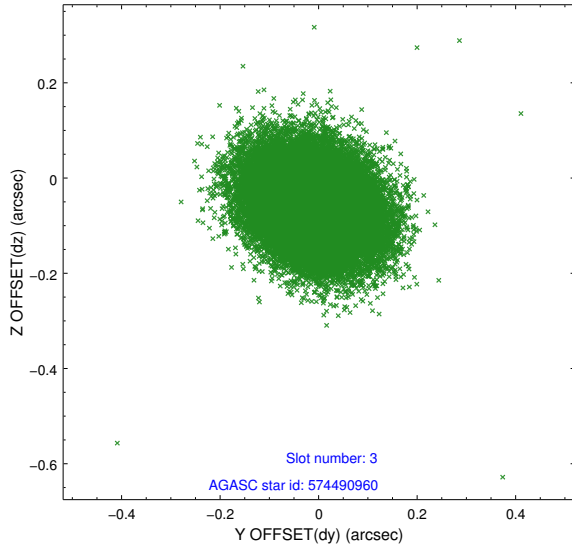
2.3 Aspect

Slot Statistics

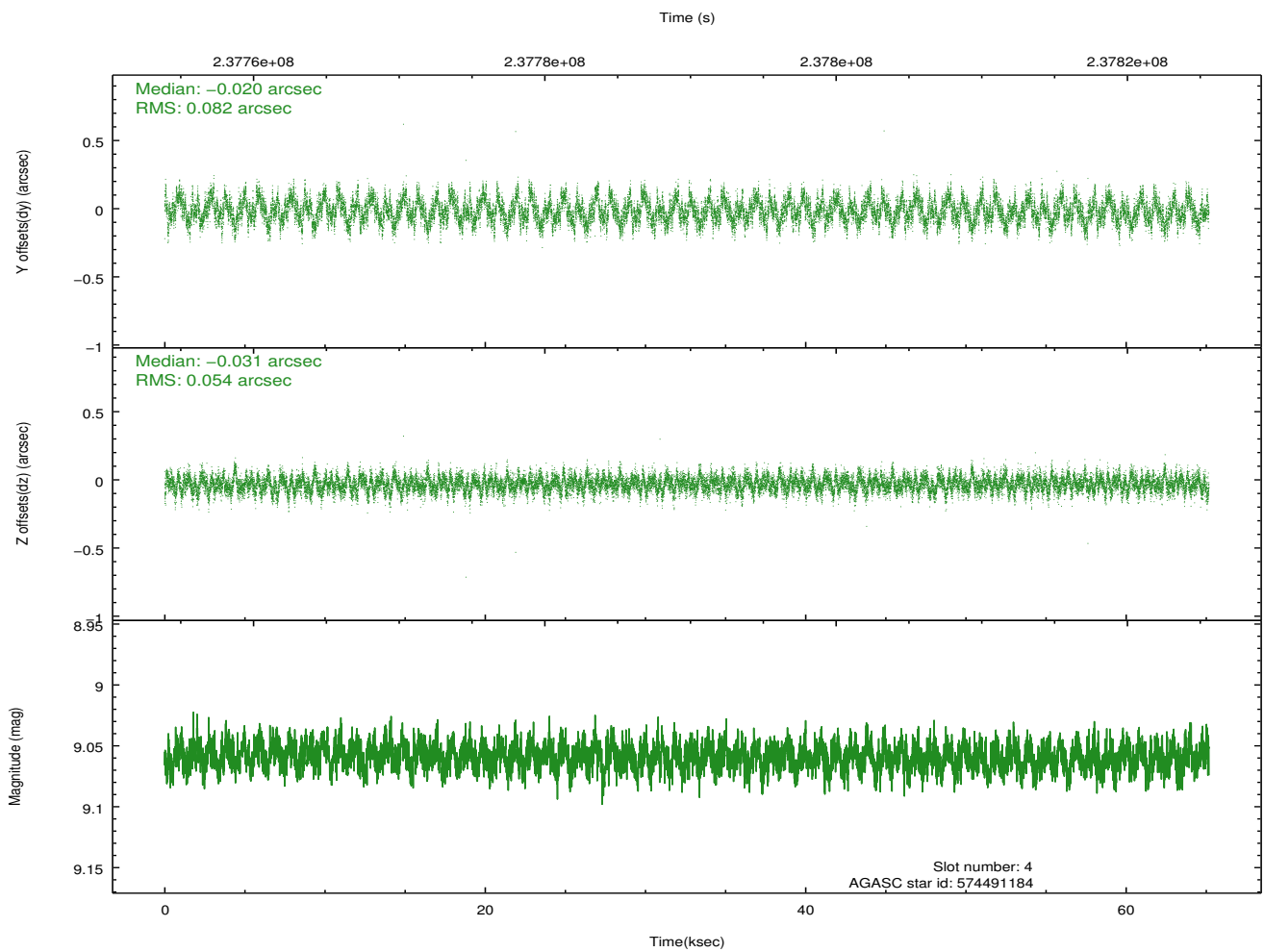
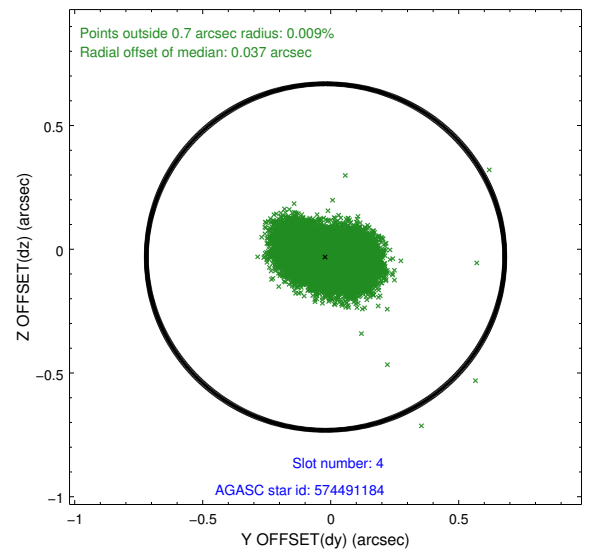
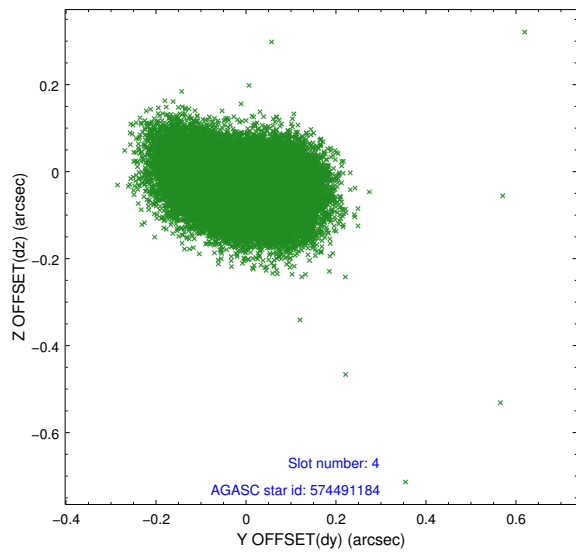
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	15896	-0.019	-0.030	0.008	0.014	0.000000	0.000000	-759.68	-1733.79
1	FID	ACIS-S-4	7.20	15895	0.055	0.017	0.006	0.010	0.000000	0.000000	2153.71	174.76
2	FID	ACIS-S-5	7.23	15895	-0.067	0.021	0.008	0.014	0.000000	0.000000	-1812.61	168.41
3	GUIDE	574490960	9.74	31771	-0.012	-0.060	0.096	0.156	148.185918	69.658768	-2030.24	986.26
4	GUIDE	574491184	9.06	31776	-0.020	-0.031	0.104	0.173	148.582453	69.768699	-1944.10	1614.35
5	GUIDE	574491280	9.33	31768	-0.033	-0.027	0.089	0.147	148.611567	69.450135	-1125.02	810.01
6	GUIDE	574496312	10.27	31528	0.033	-0.004	0.164	0.279	149.547505	68.718299	1573.83	-240.13
7	GUIDE	574489568	9.79	31752	0.033	0.124	0.116	0.189	147.223974	69.438157	-2376.02	-418.87

2.4 Star Slots

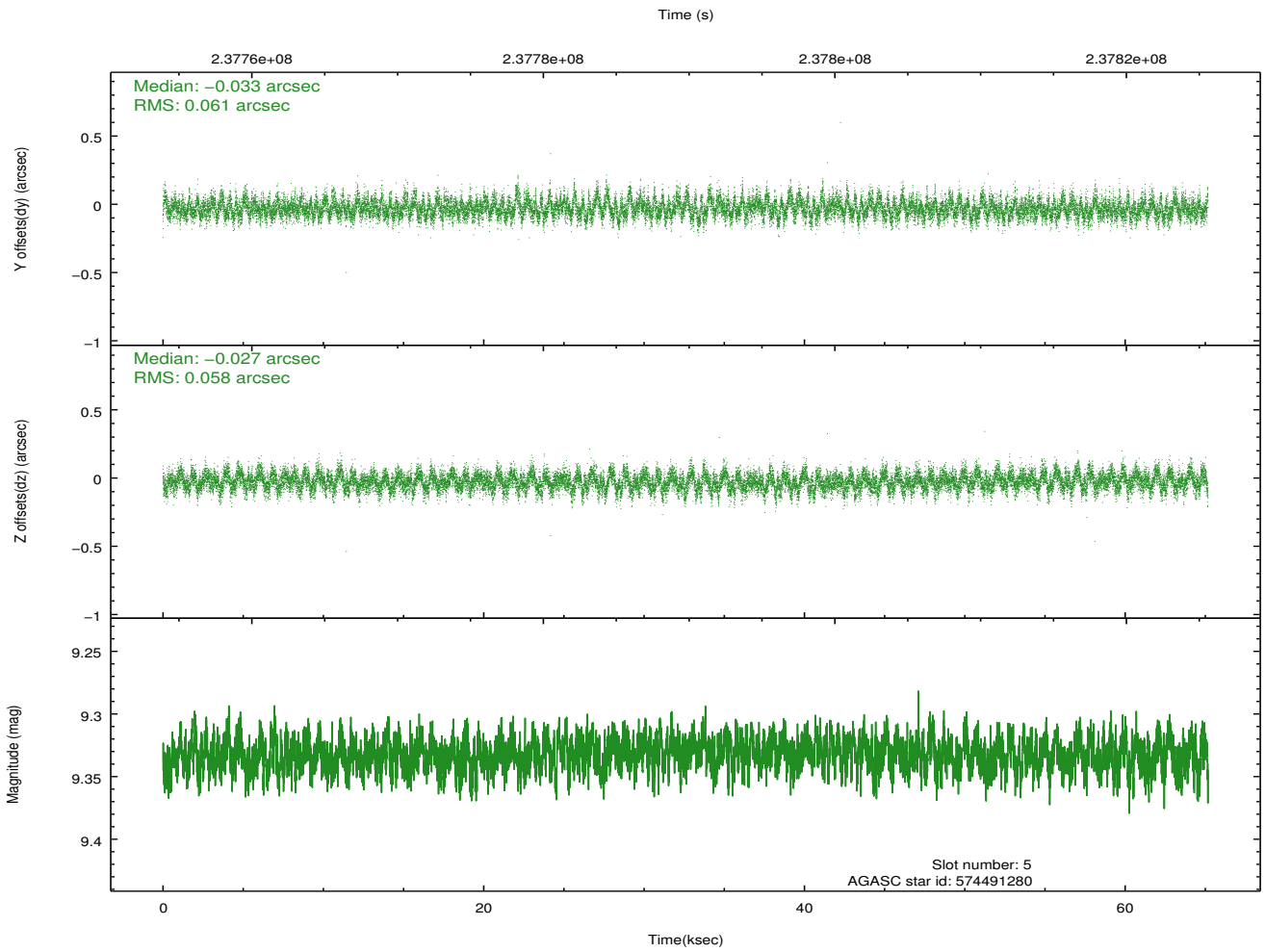
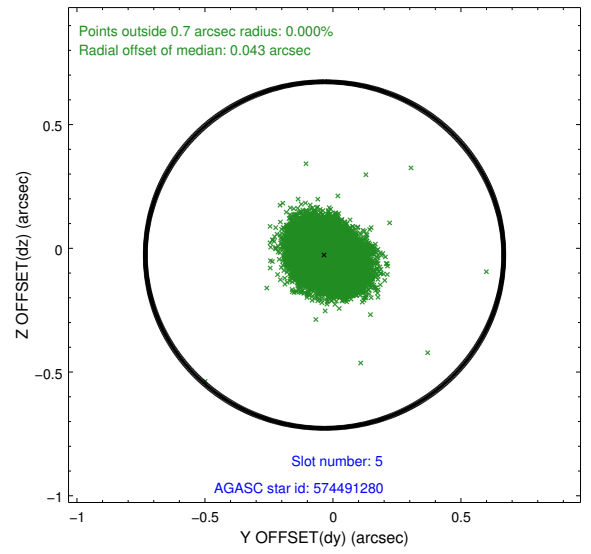
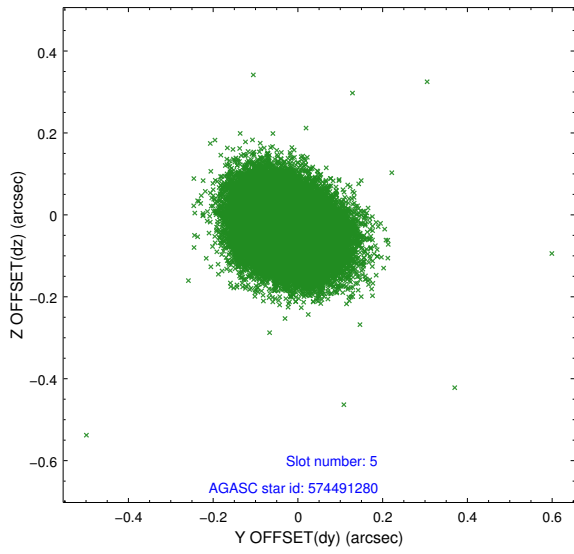
2.4.1 Slot 3



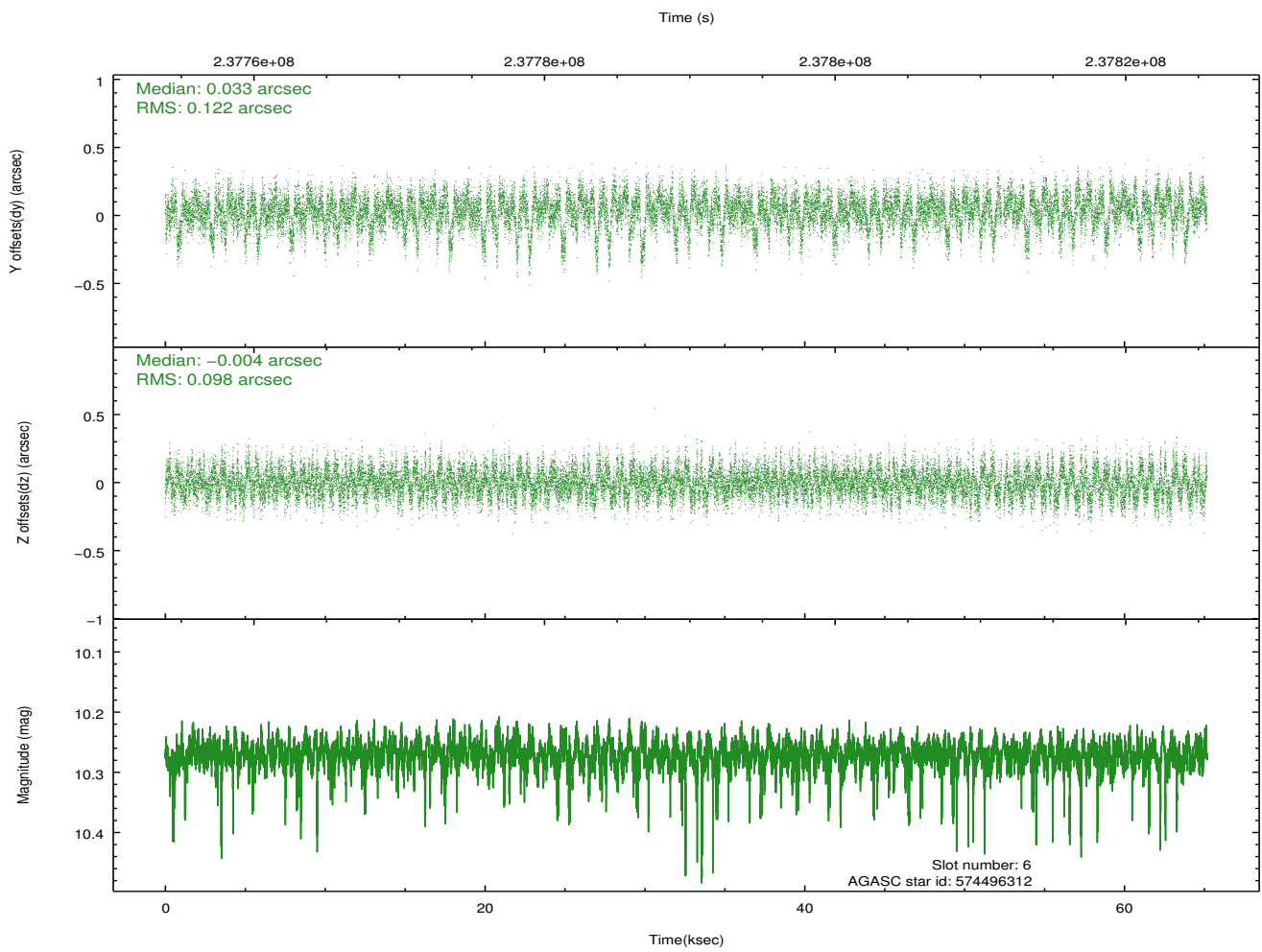
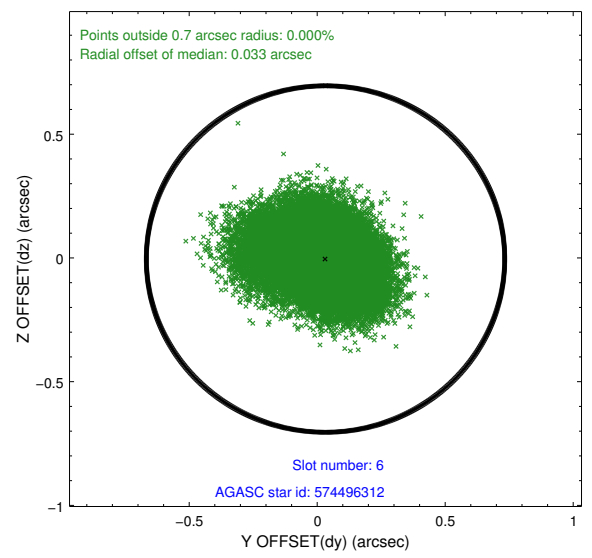
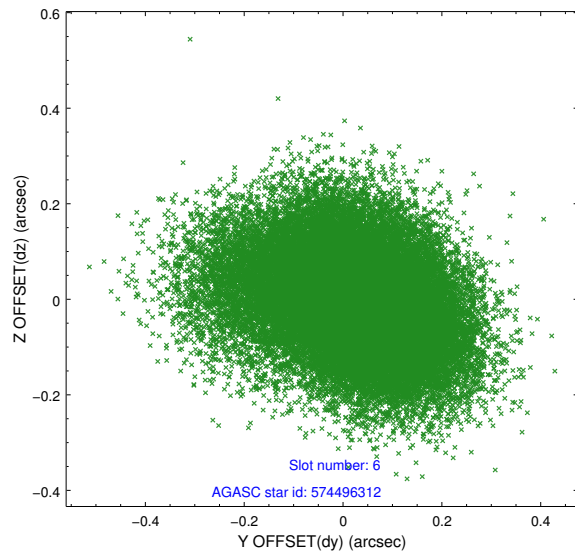
2.4.2 Slot 4



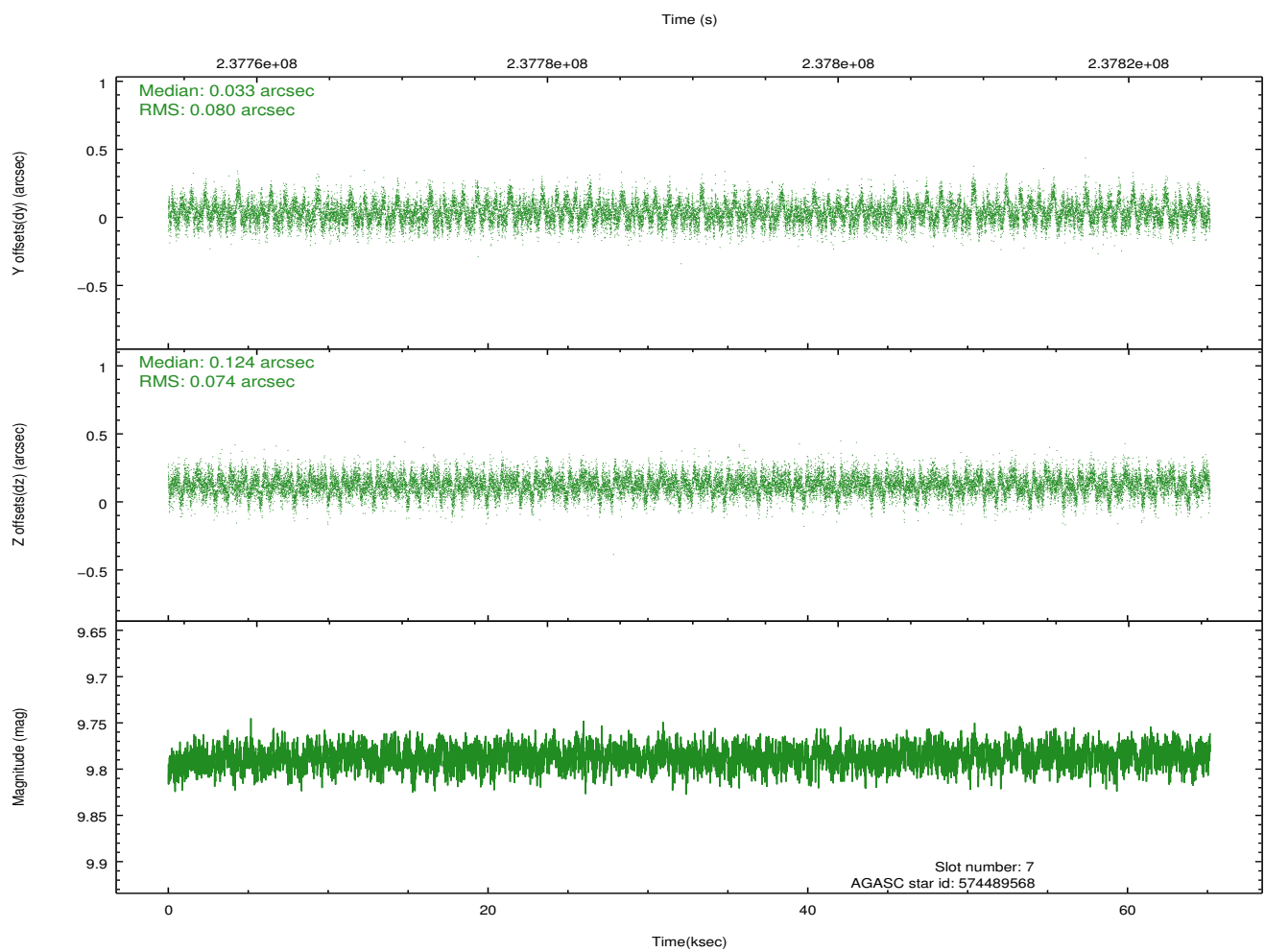
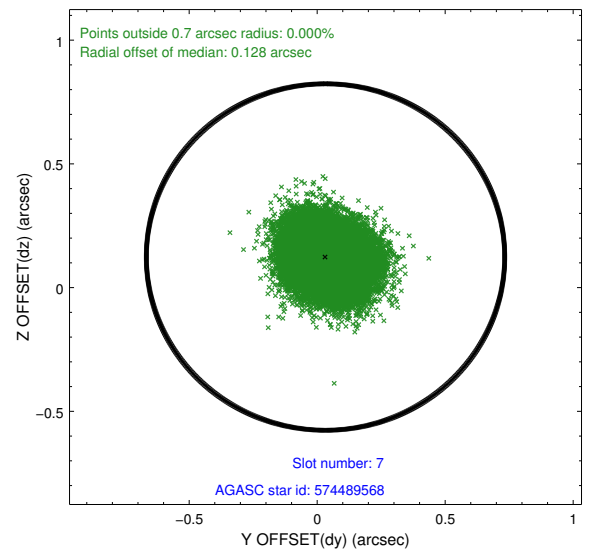
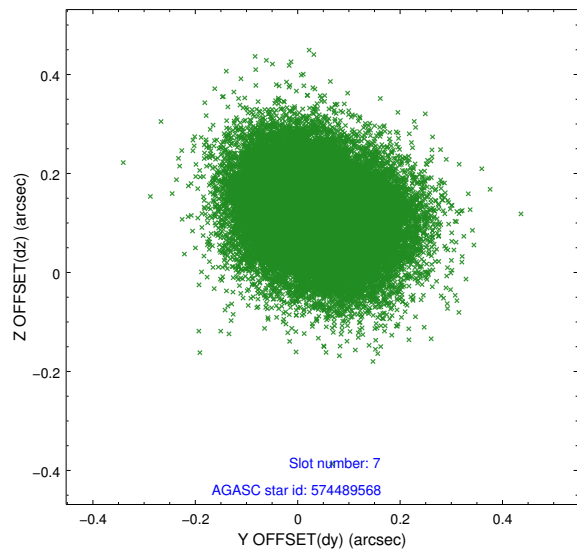
2.4.3 Slot 5



2.4.4 Slot 6

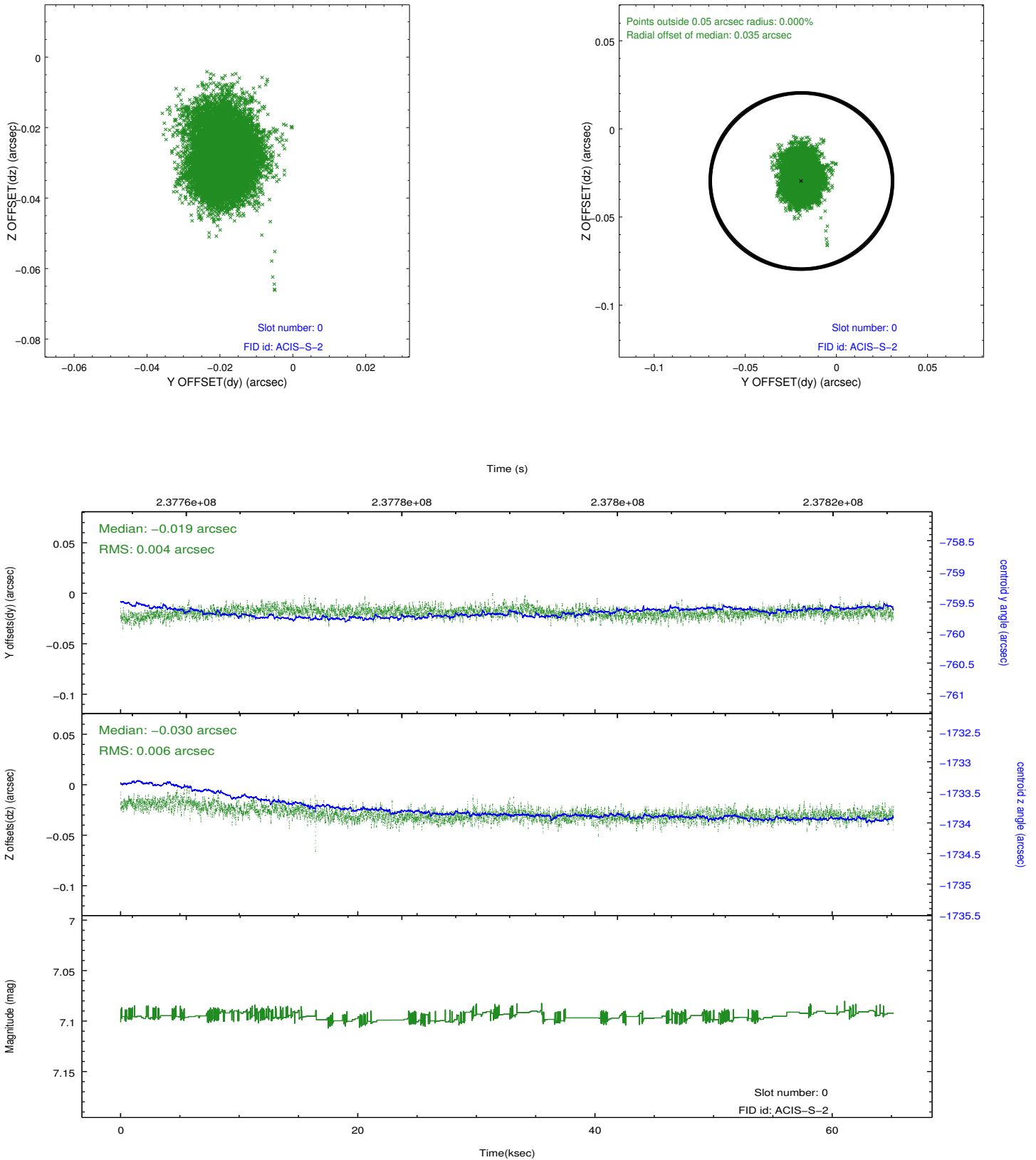


2.4.5 Slot 7

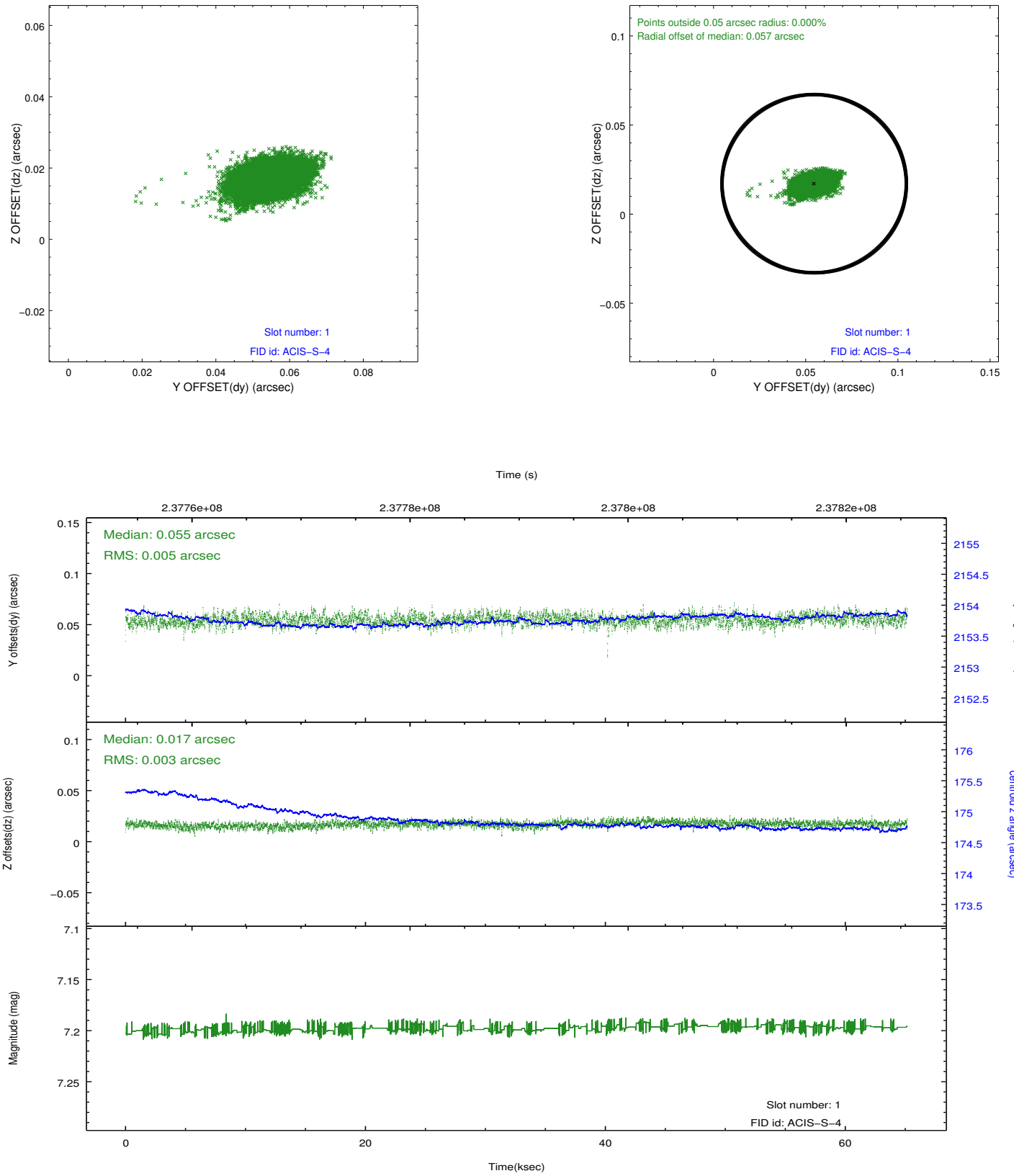


2.5 FID Slots

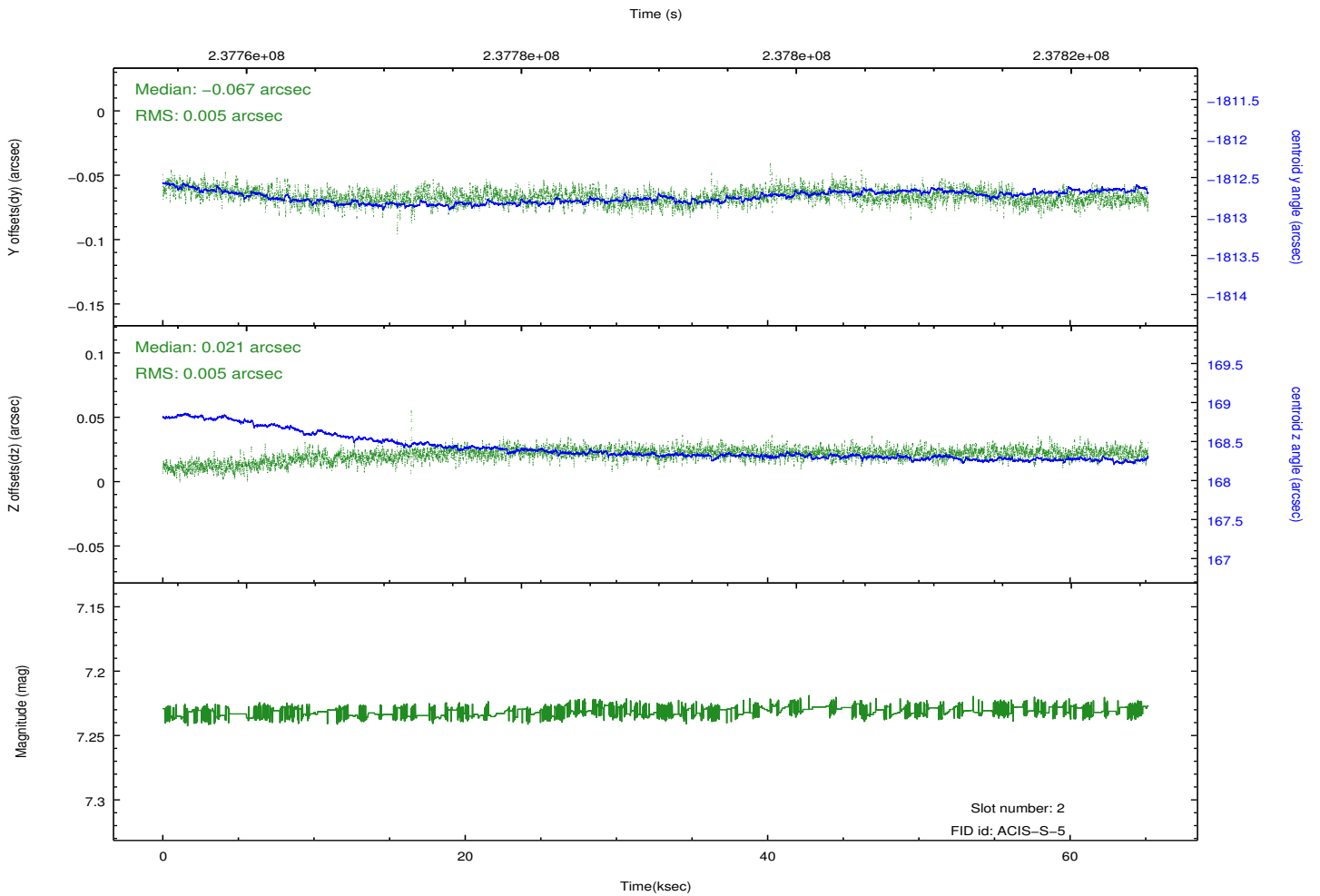
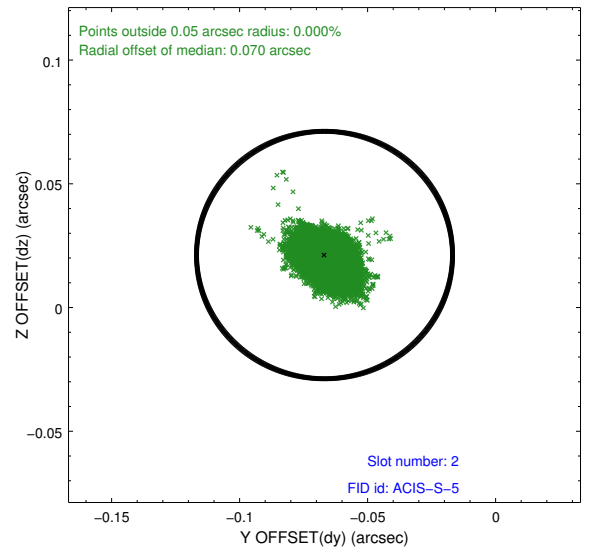
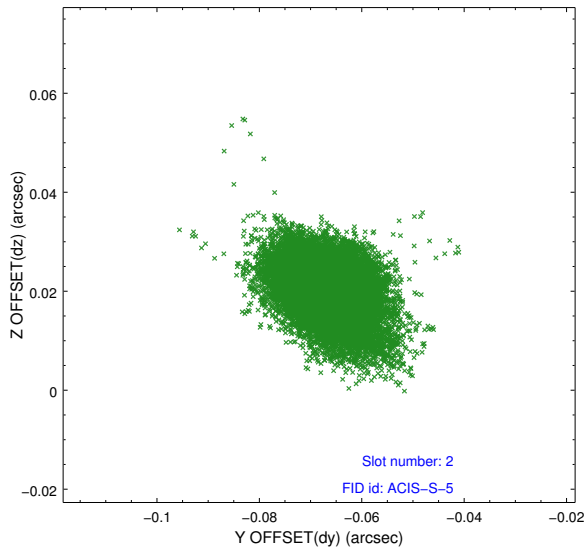
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

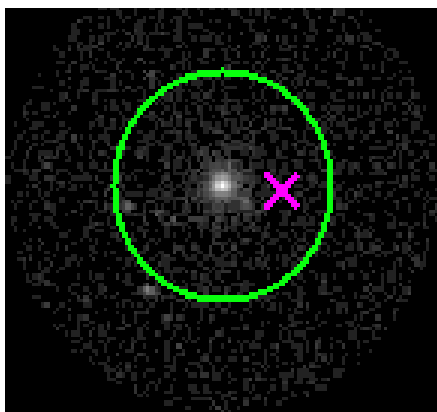


3 Gratings

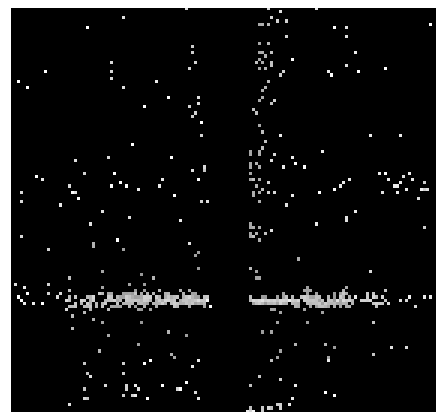
3.1 HEG Arm



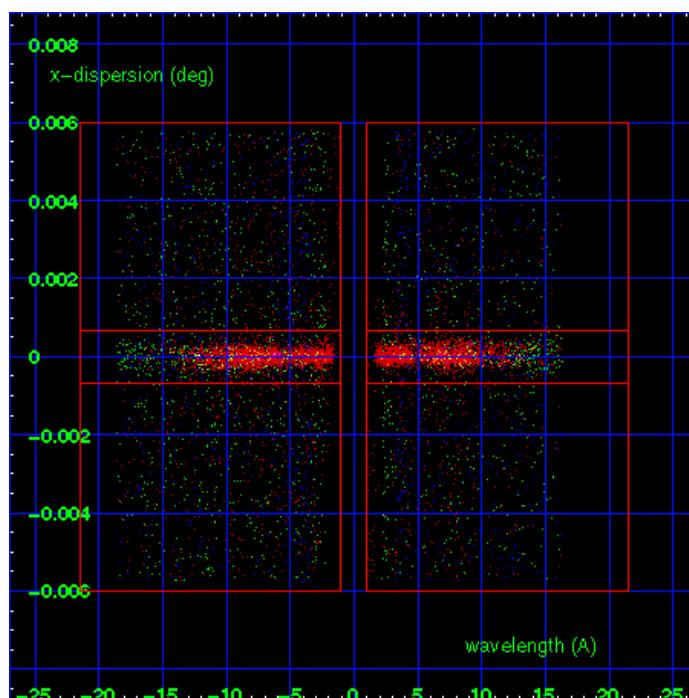
HEG Order Sort 123



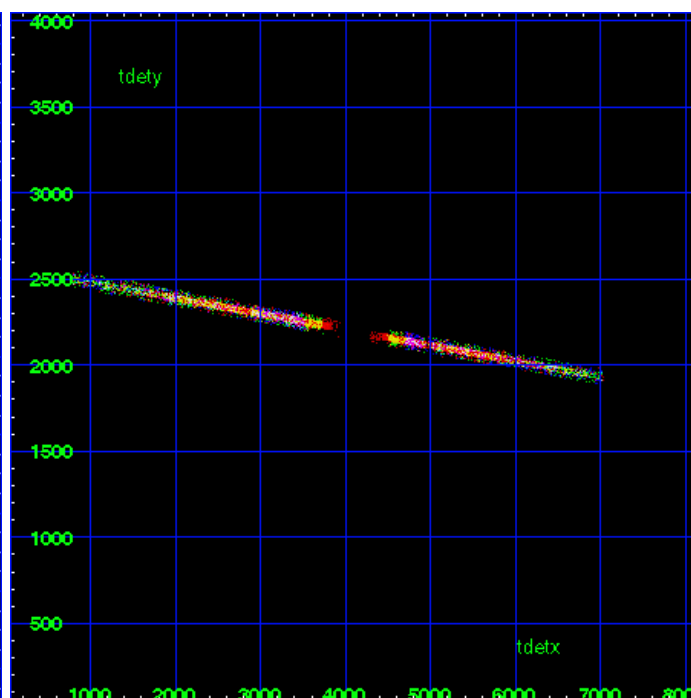
HEG Zero Order



HEG Order Sort ALL

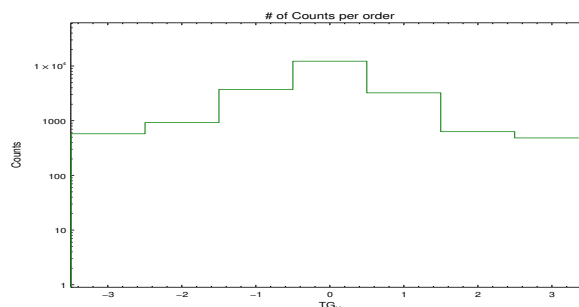


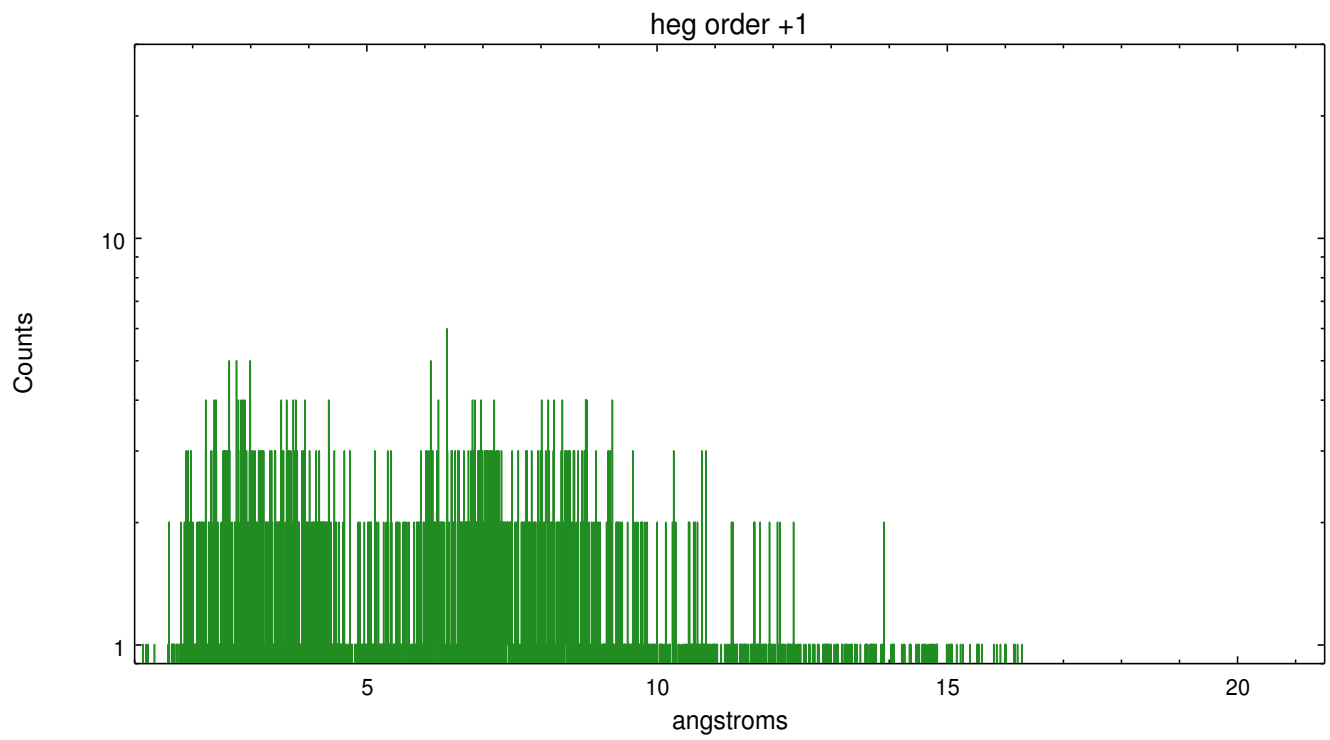
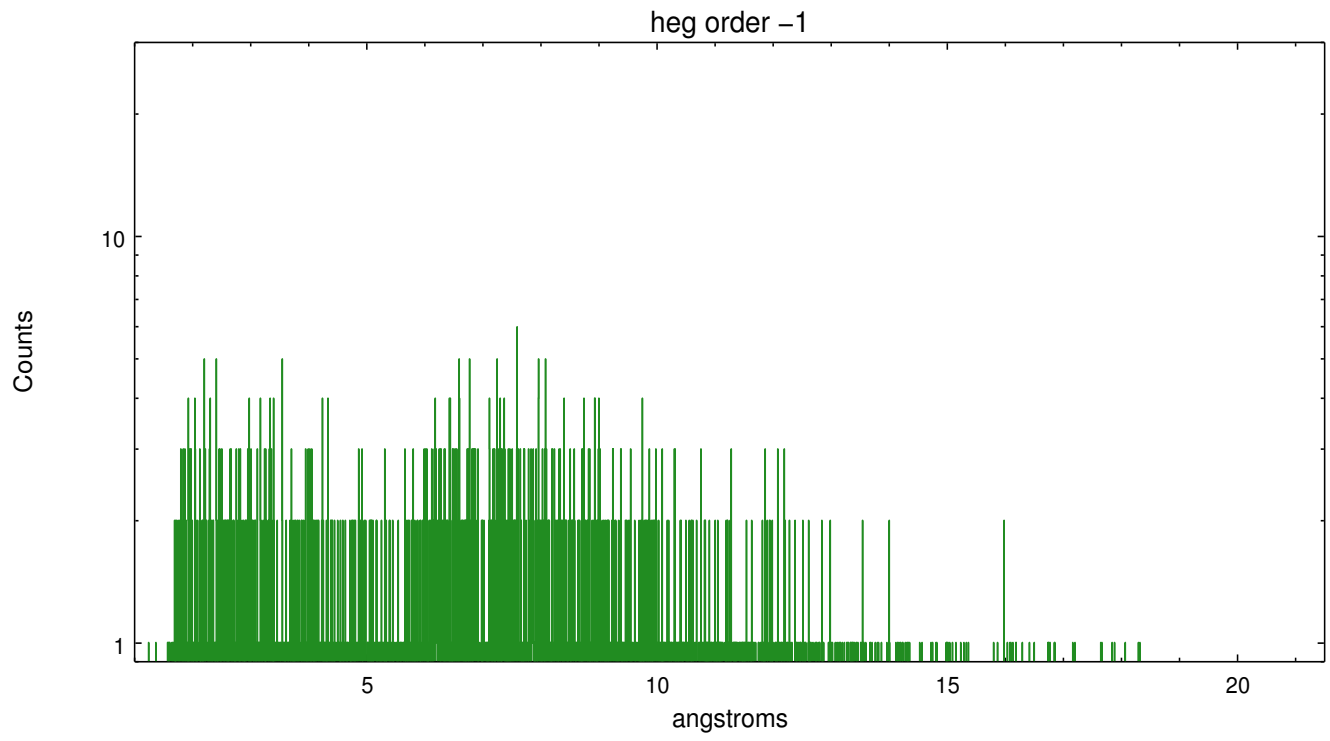
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	578	926	3742	12331	3250	632	485

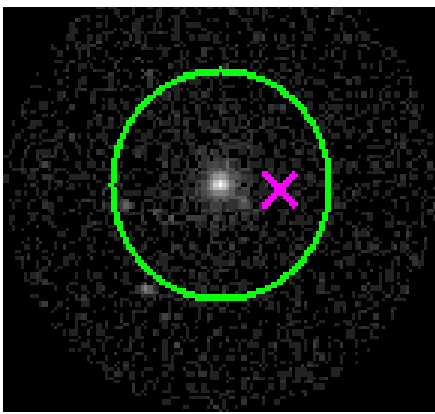




3.2 MEG Arm



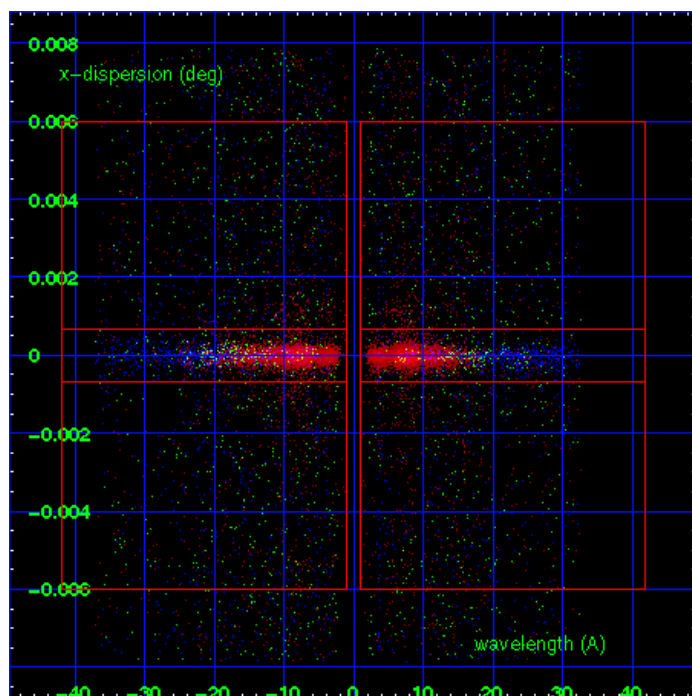
MEG Order Sort 123



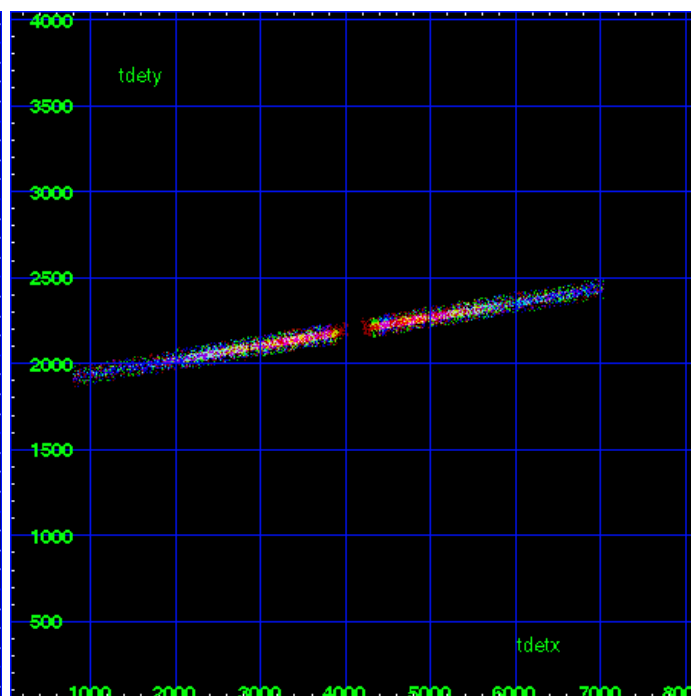
MEG Zero Order



MEG Order Sort ALL

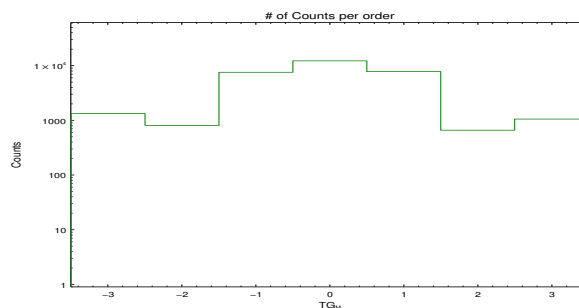


Spot Image MEG

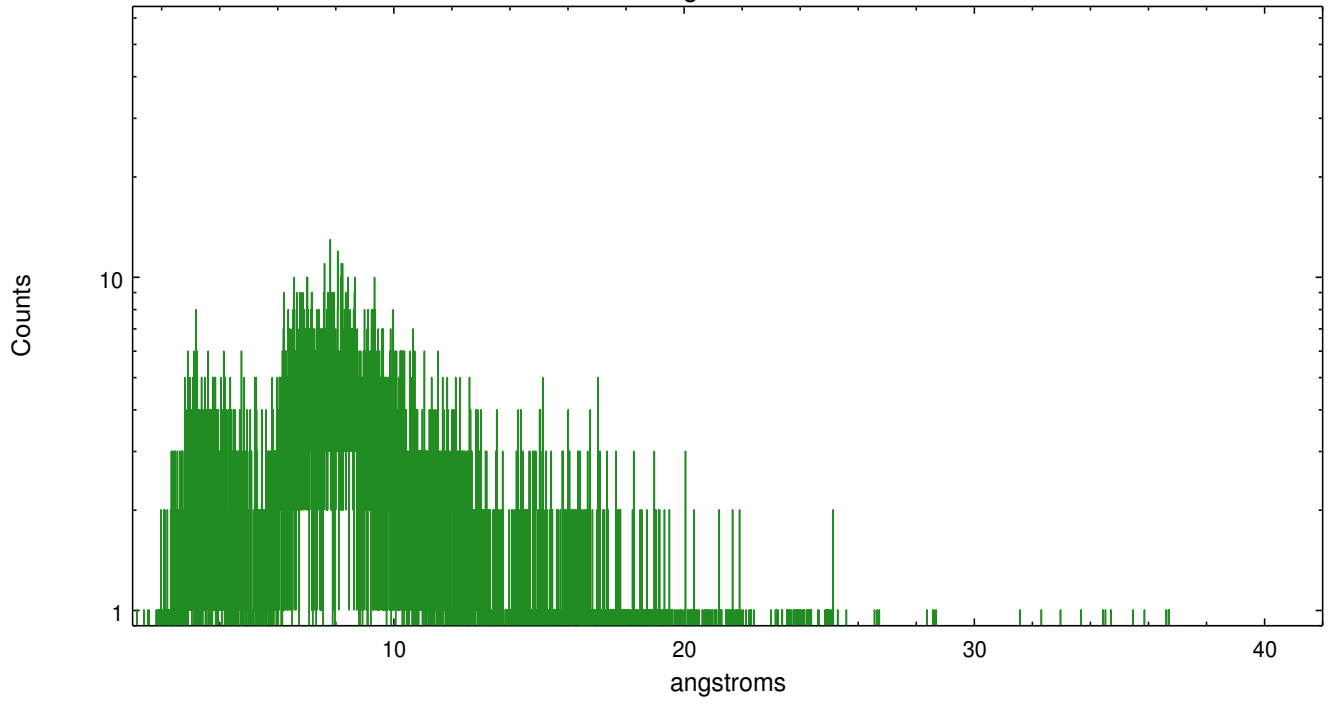


Full Detector MEG

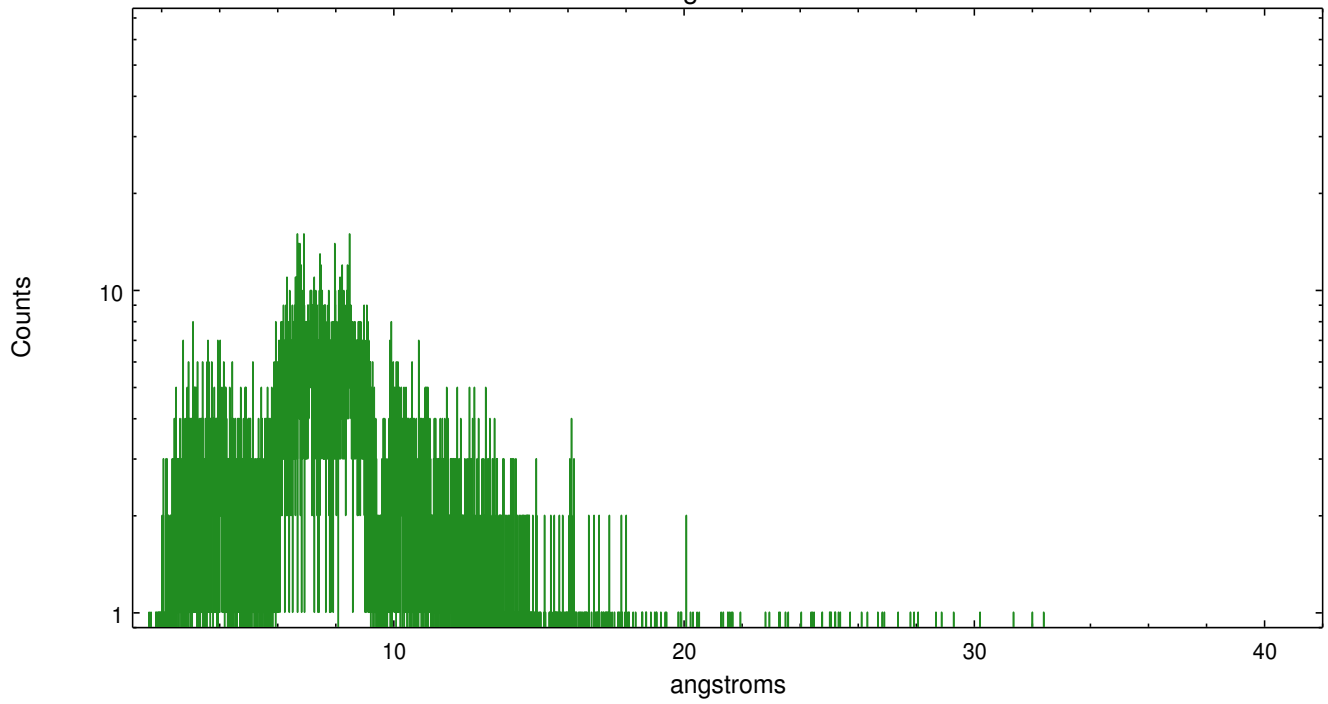
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1337	810	7604	12331	7838	661	1058



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2013.01.23
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	64.69119

A.2 Comments

Multiple sources as well as at least one dispersed spectrum from these sources. This extraction is of M81*, the brightest source.