

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 5601 - L2 Version 3
Chandra X-Ray Center

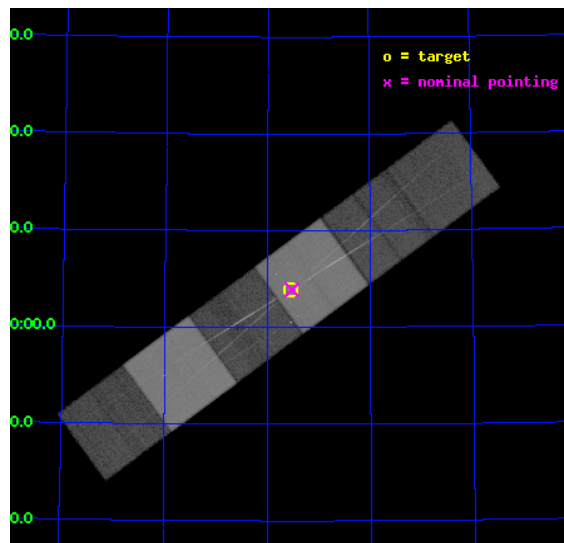
L2 Processing Date : Dec 28 2012

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

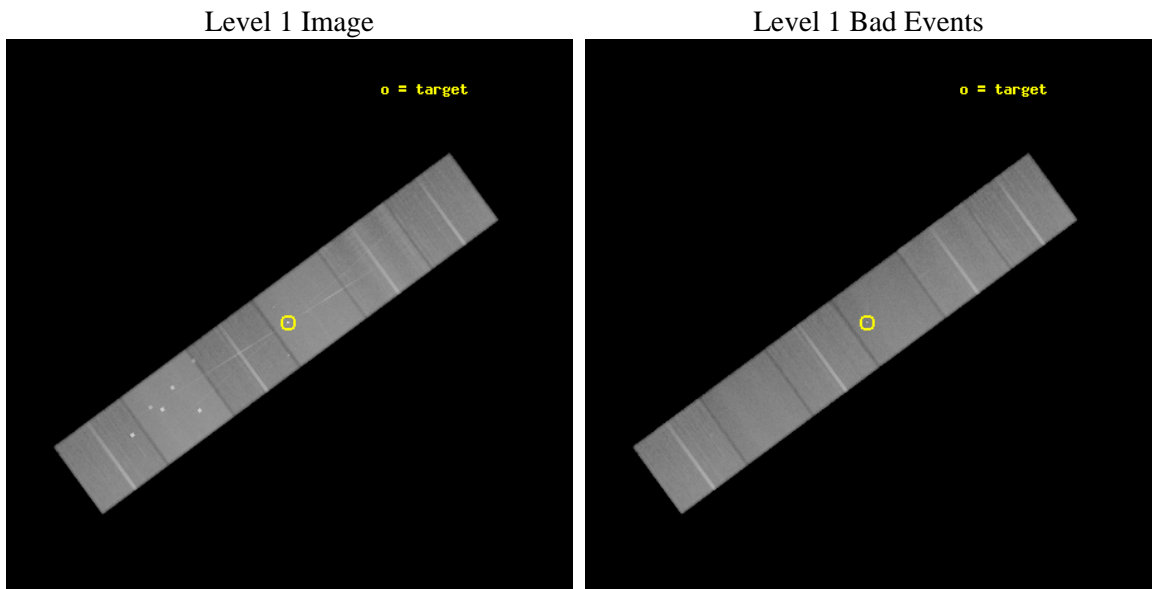
seq_num	701024	Sequence number
obs_id	5601	Observation id
title	Understanding the accretion process in a Low-Luminosity AGN: is M81* a starved black hole?	Proposal title
observer	Prof Claude Canizares	Principal investigator
object	M81*	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	148.888333	Observer's specified target RA [deg]
dec_targ	69.065306	Observer's specified target Dec [deg]
ra_nom	148.88225859842	Nominal RA [deg]
dec_nom	69.064837554375	Nominal Dec [deg]
roll_nom	323.65450679654	Nominal Roll [deg]
revision	3	Processing version of data
ontime	84134.399686575	Sum of GTIs [s]
livetime	83069.03925809	Livetime [s]
ontime4	84134.399686575	Sum of GTIs [s]
ontime5	84134.399686575	Sum of GTIs [s]
ontime6	84134.399686575	Sum of GTIs [s]
ontime7	84134.399686575	Sum of GTIs [s]
ontime8	84134.399686575	Sum of GTIs [s]
ontime9	84134.399686575	Sum of GTIs [s]
l2events	1057650	Number of level 2 events



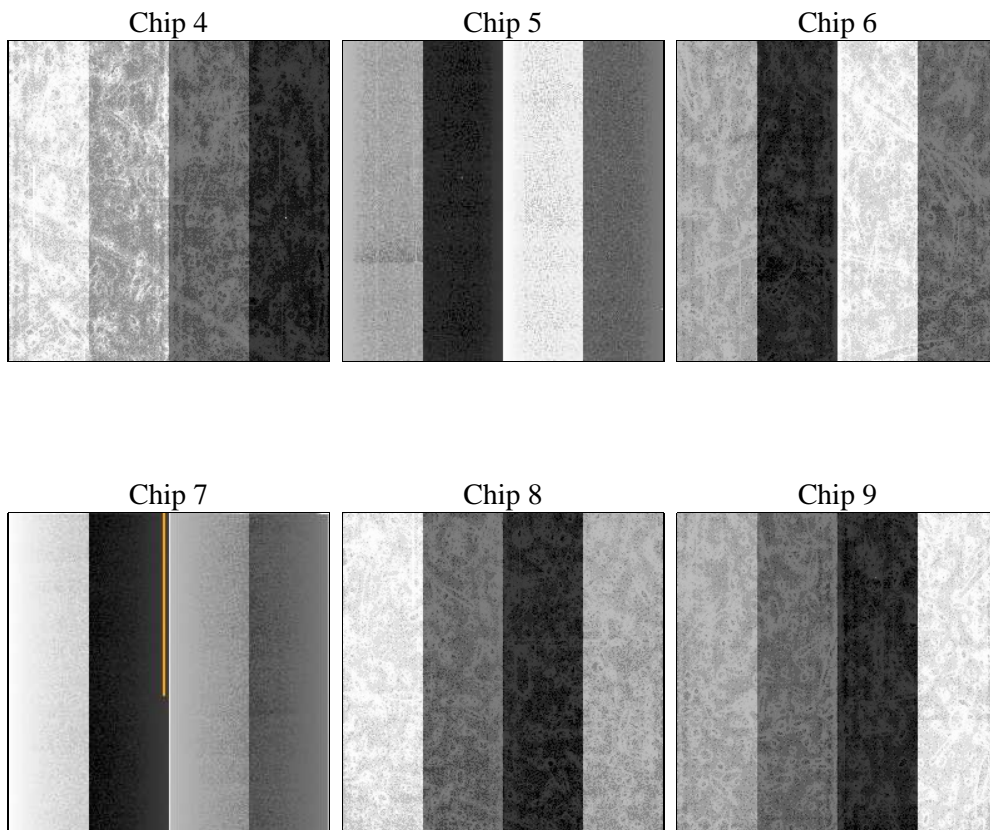
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	84000.000000	[s] Scheduled observation exposure time
ascdsver	8.5.1.1	Processing system revision	ontime	84134.399686575	Sum of GTIs [s]
caldbver	4.5.5	 	ontime4	84134.399686575	Sum of GTIs [s]
date	2012-12-26T17:41:22	Date and time of file creation	ontime5	84134.399686575	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	84134.399686575	Sum of GTIs [s]
			ontime7	84134.399686575	Sum of GTIs [s]
			ontime8	84134.399686575	Sum of GTIs [s]
			ontime9	84134.399686575	Sum of GTIs [s]
			l1events	4587511	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	703627	965503	639425	876734	788624	613598	grade 0 events	51158	69733	40673	36428	58986	32087
rejected events	608676	508604	550630	499793	609893	536330		7%	7%	6%	4%	7%	5%
rejected %	86%	52%	86%	57%	77%	87%	grade 1 events	683	1099	341	1009	519	365
								0%	0%	0%	0%	0%	0%
							grade 2 events	16613	128615	17347	76785	39001	15365
								2%	13%	2%	8%	4%	2%
							grade 3 events	7854	17496	7843	33935	18846	7723
								1%	1%	1%	3%	2%	1%
							grade 4 events	7456	16744	7532	33379	17421	7495
								1%	1%	1%	3%	2%	1%
							grade 5 events	28439	68842	28754	80964	37945	30947
								4%	7%	4%	9%	4%	5%
							grade 6 events	12204	226034	15705	197702	44985	14843
								1%	23%	2%	22%	5%	2%
							grade 7 events	579220	436940	521230	416532	570921	504773
								82%	45%	81%	47%	72%	82%

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	148.806388	148.8822585984212	Subarray requested	NONE	NONE
[deg] Pointing Dec	69.067477	69.0648375543753	Alternating exposures requested	N	N
[deg] Pointing Roll	323.568750	323.6545067965375	[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	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	238171705.184000	238170363.358			
Observation start date	2005-07-19T14:47:21	2005-07-19T14:26:03			
[s] Observation end time (MET)	238255705.184000	238256658.62445			
Observation end date	2005-07-20T14:07:21	2005-07-20T14:24:18			
Read mode	TIMED	TIMED			

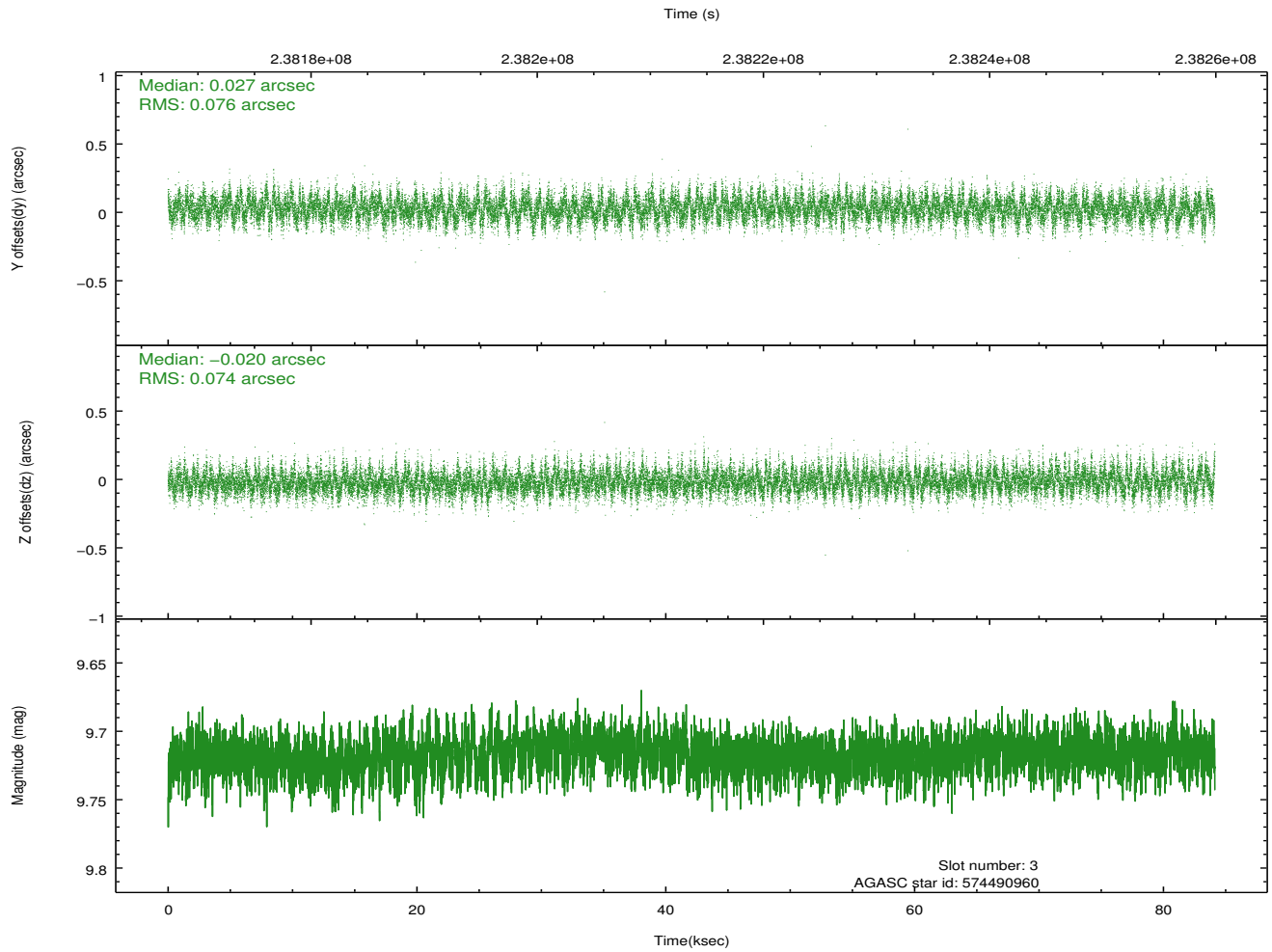
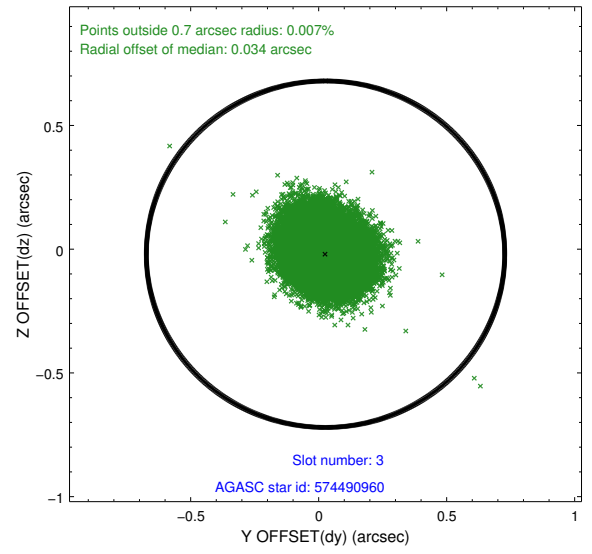
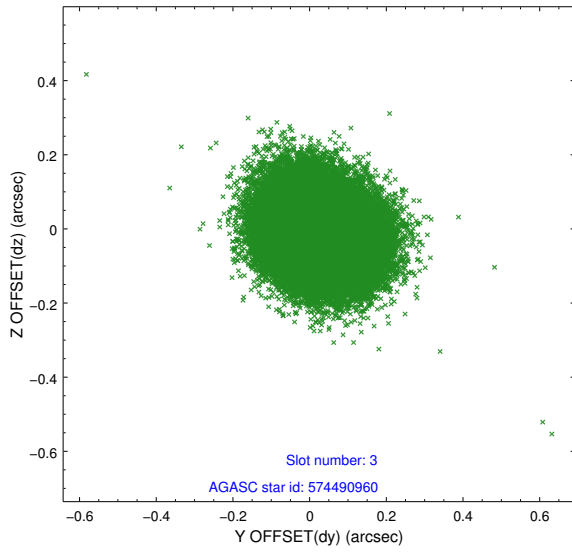
2.3 Aspect

Slot Statistics

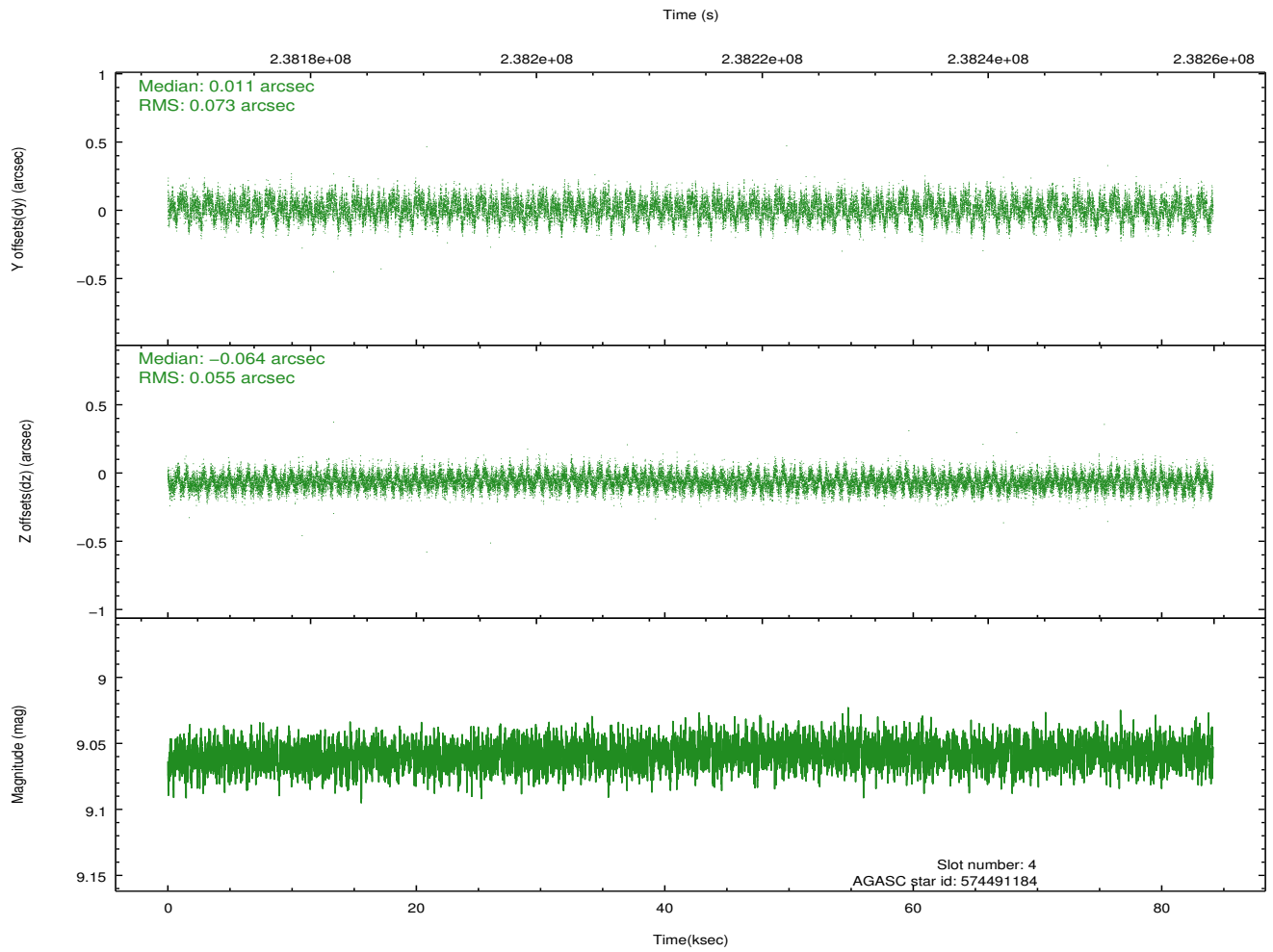
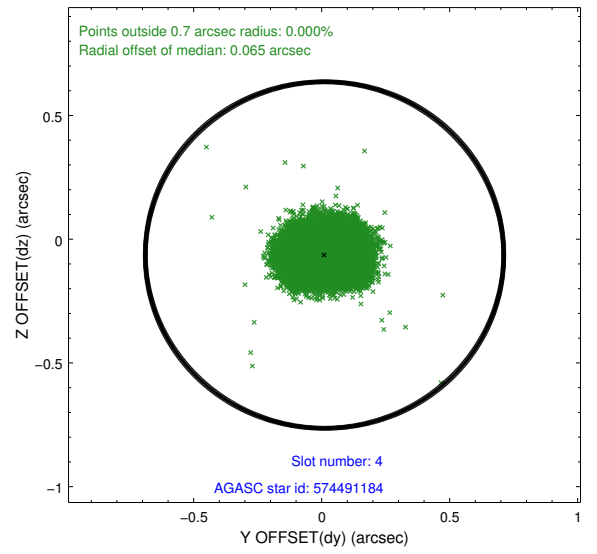
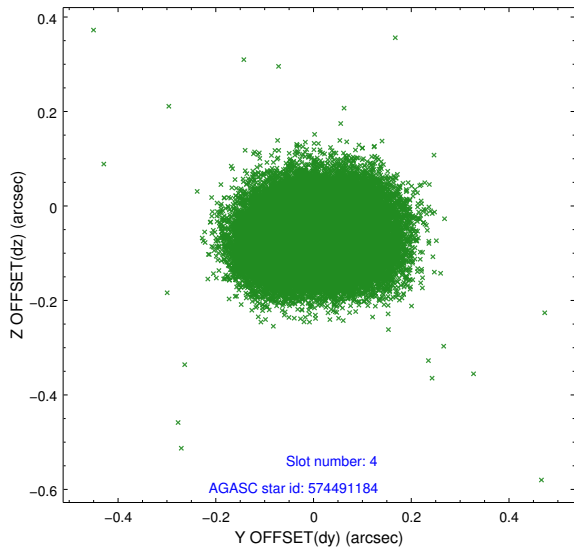
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	20522	-0.023	-0.024	0.008	0.012	0.000000	0.000000	-759.59	-1733.46
1	FID	ACIS-S-4	7.20	20521	0.054	0.018	0.006	0.010	0.000000	0.000000	2153.81	175.13
2	FID	ACIS-S-5	7.23	20520	-0.062	0.015	0.008	0.013	0.000000	0.000000	-1812.56	168.73
3	GUIDE	574490960	9.72	41006	0.027	-0.020	0.113	0.182	148.185918	69.658768	-1890.88	1254.76
4	GUIDE	574491184	9.06	41021	0.011	-0.064	0.098	0.157	148.582453	69.768699	-1723.60	1866.18
5	GUIDE	574491280	9.33	40946	-0.012	-0.047	0.120	0.192	148.611567	69.450135	-1016.39	961.92
6	GUIDE	574496312	10.30	40991	0.057	0.049	0.167	0.276	149.547505	68.718299	1522.59	-431.01
7	GUIDE	574500920	10.08	40999	-0.084	0.097	0.250	0.392	147.014605	68.742334	-1206.04	-2302.62

2.4 Star Slots

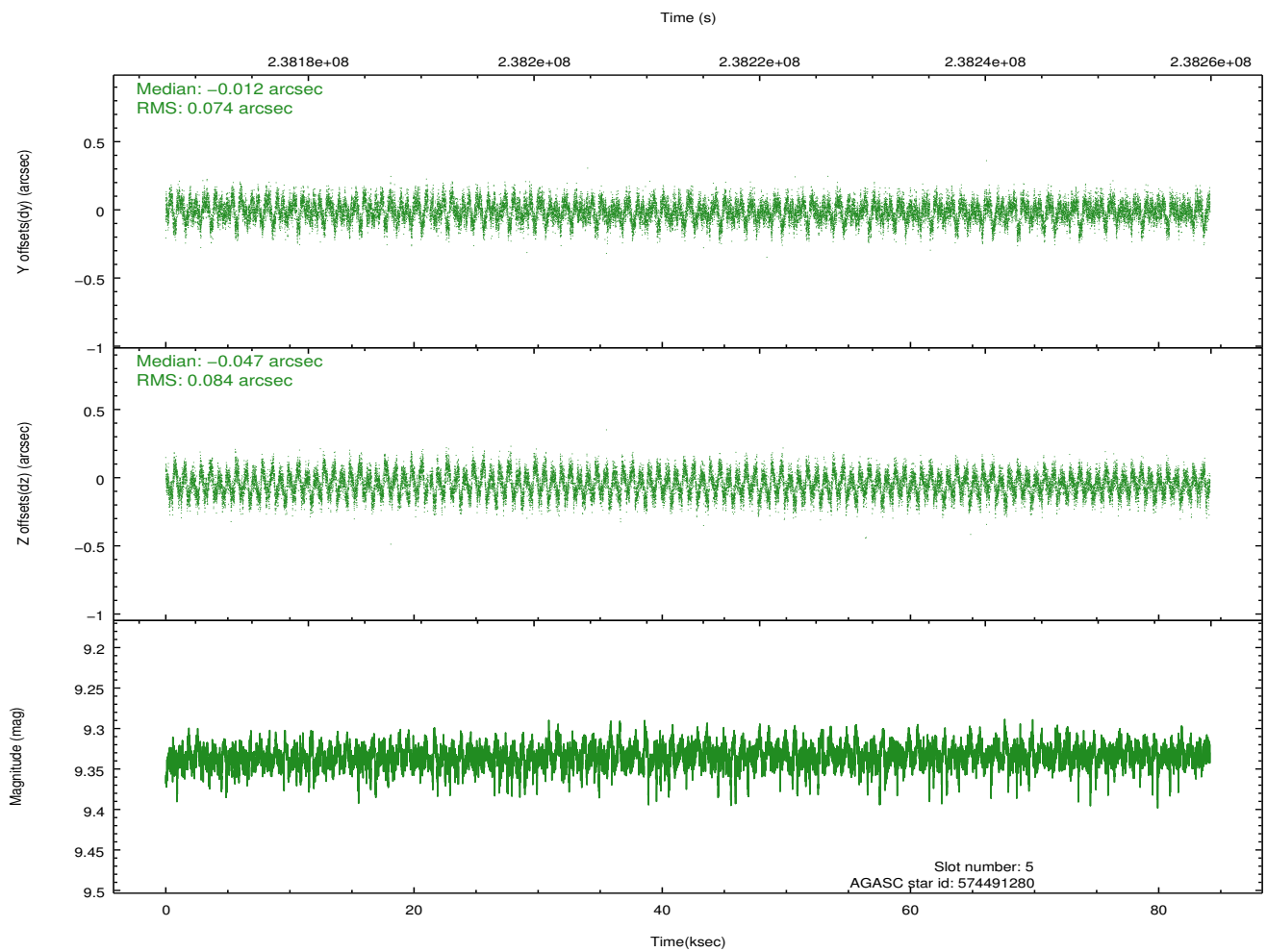
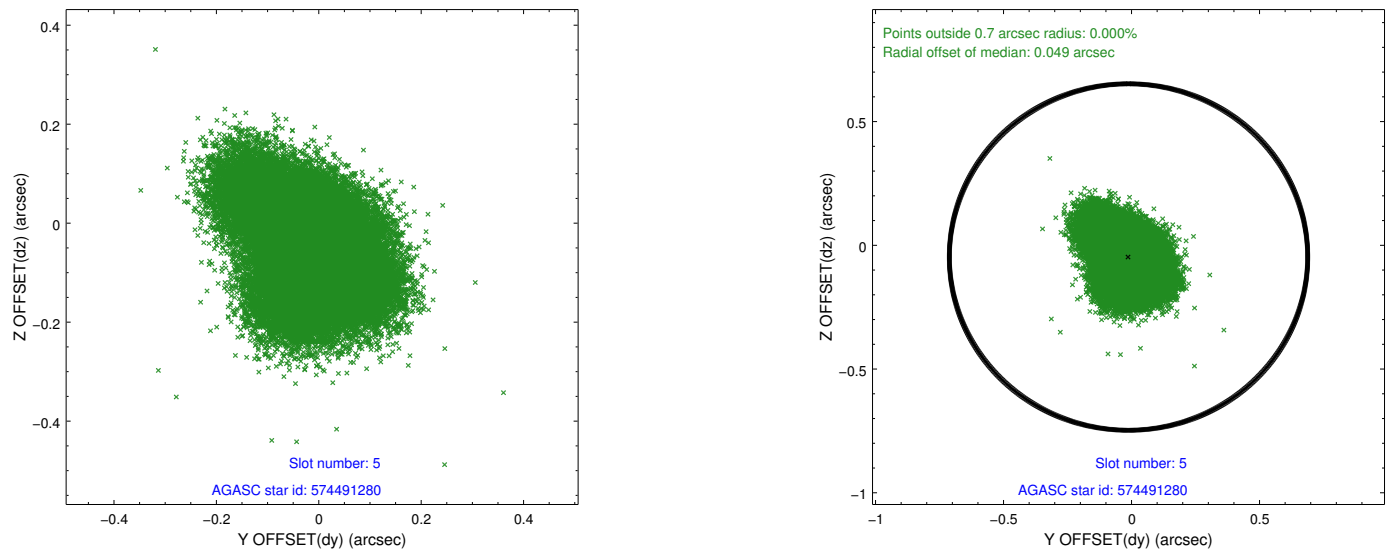
2.4.1 Slot 3



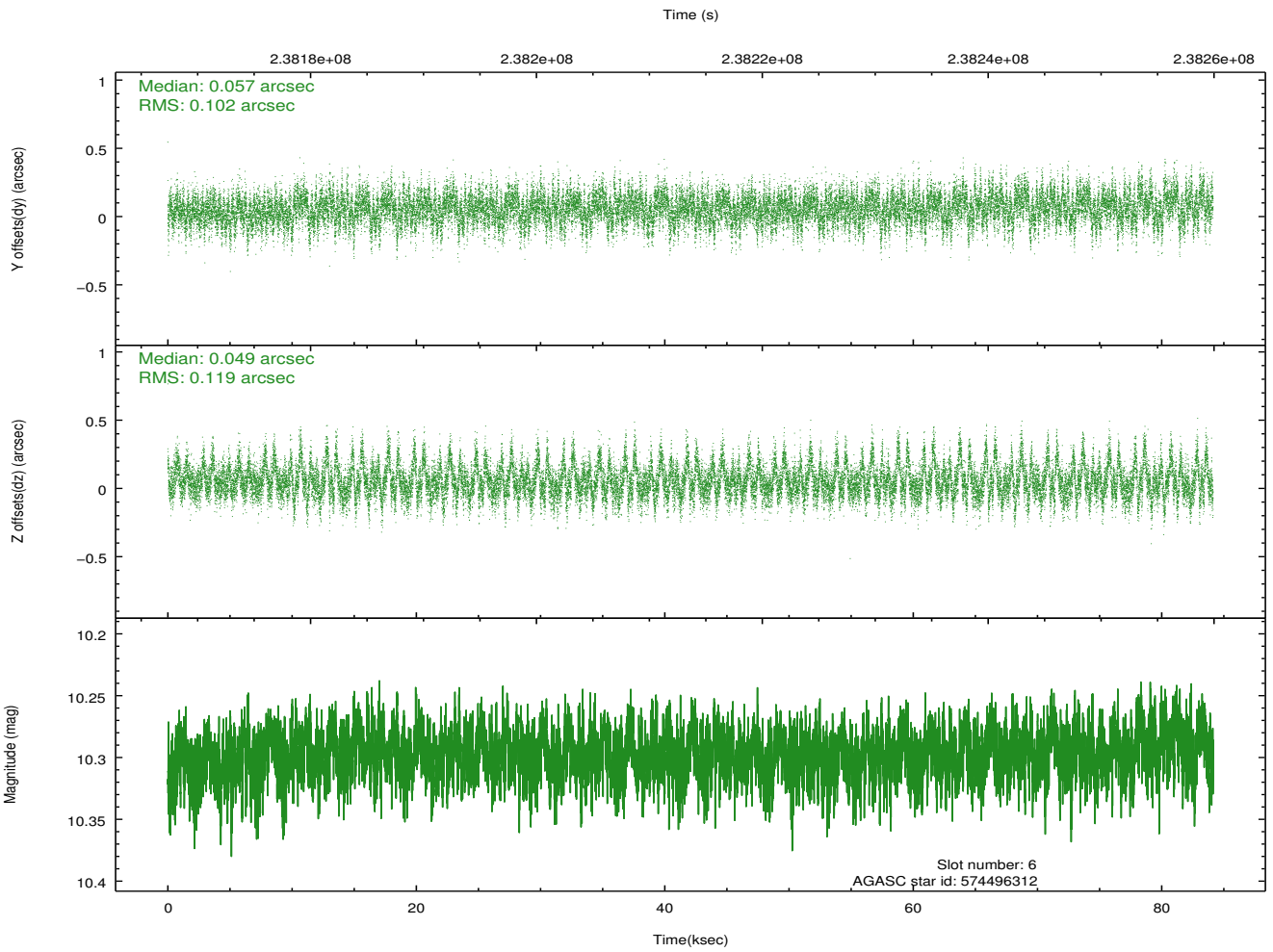
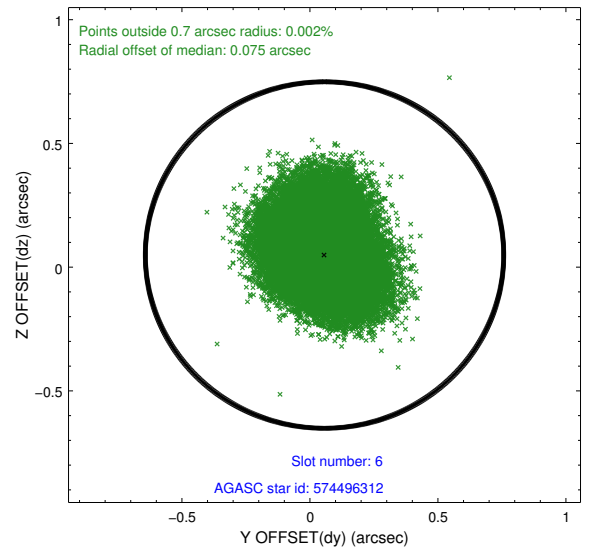
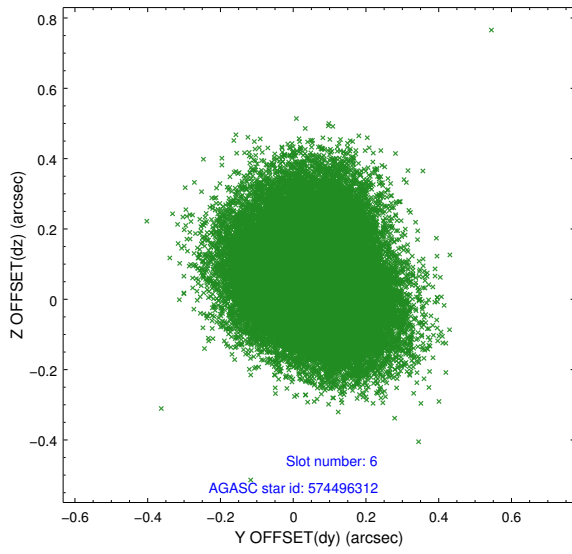
2.4.2 Slot 4



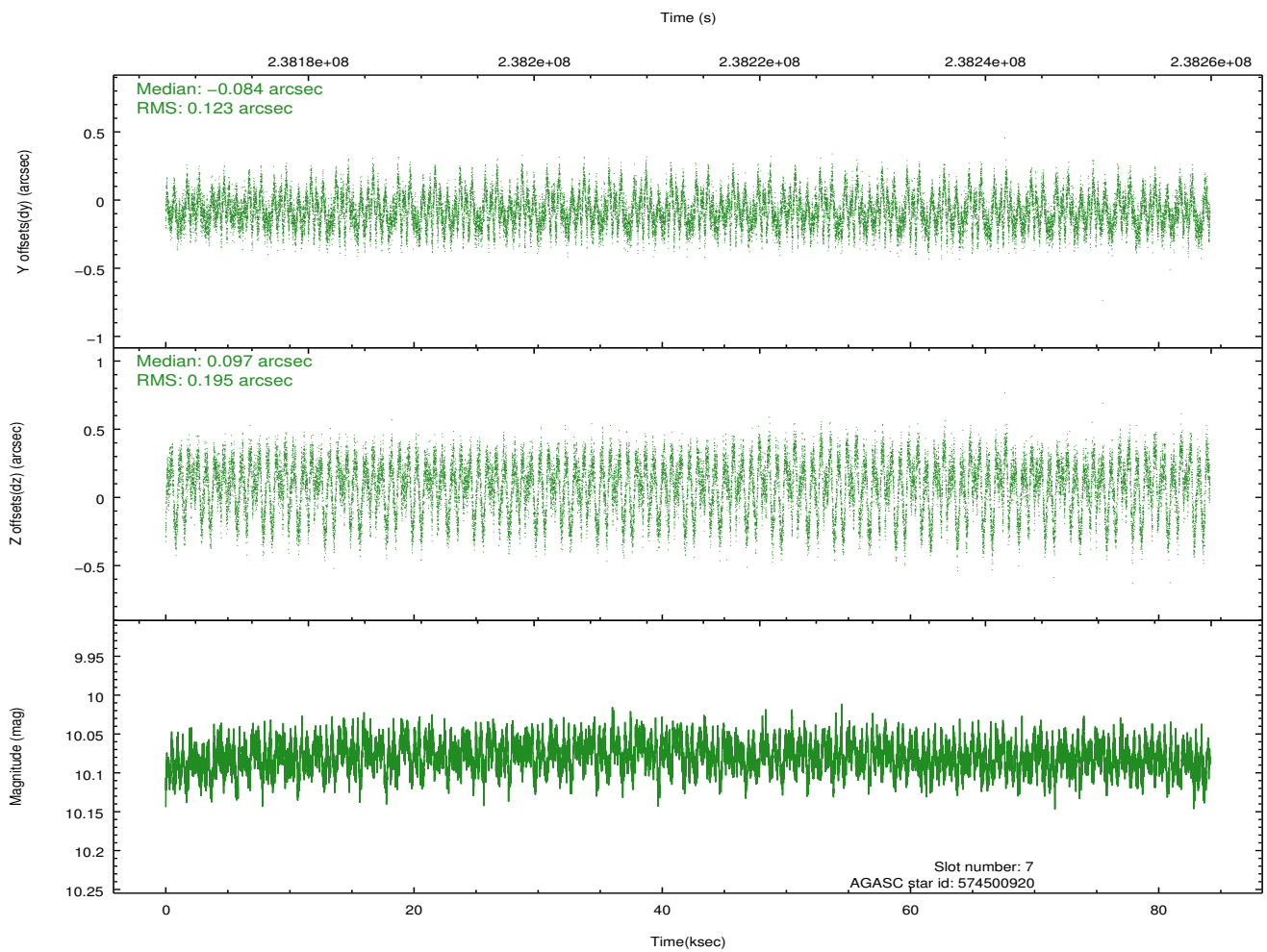
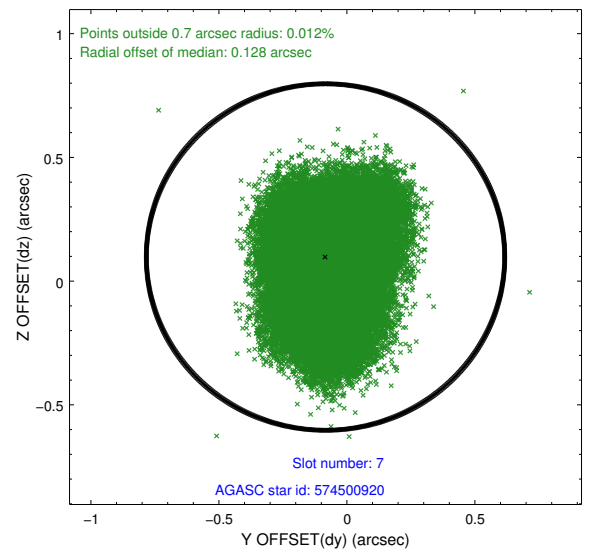
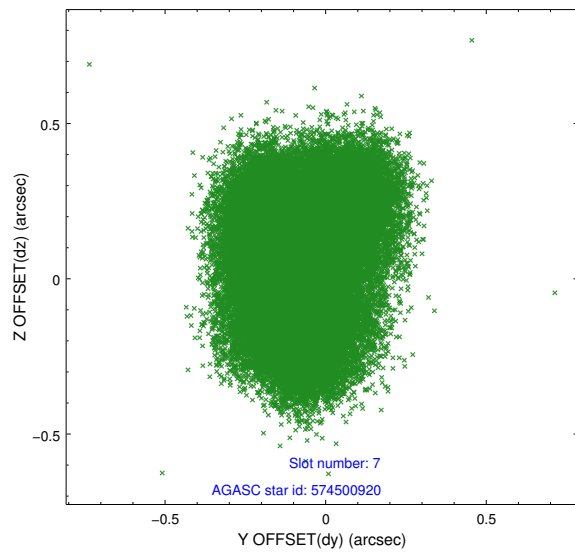
2.4.3 Slot 5



2.4.4 Slot 6

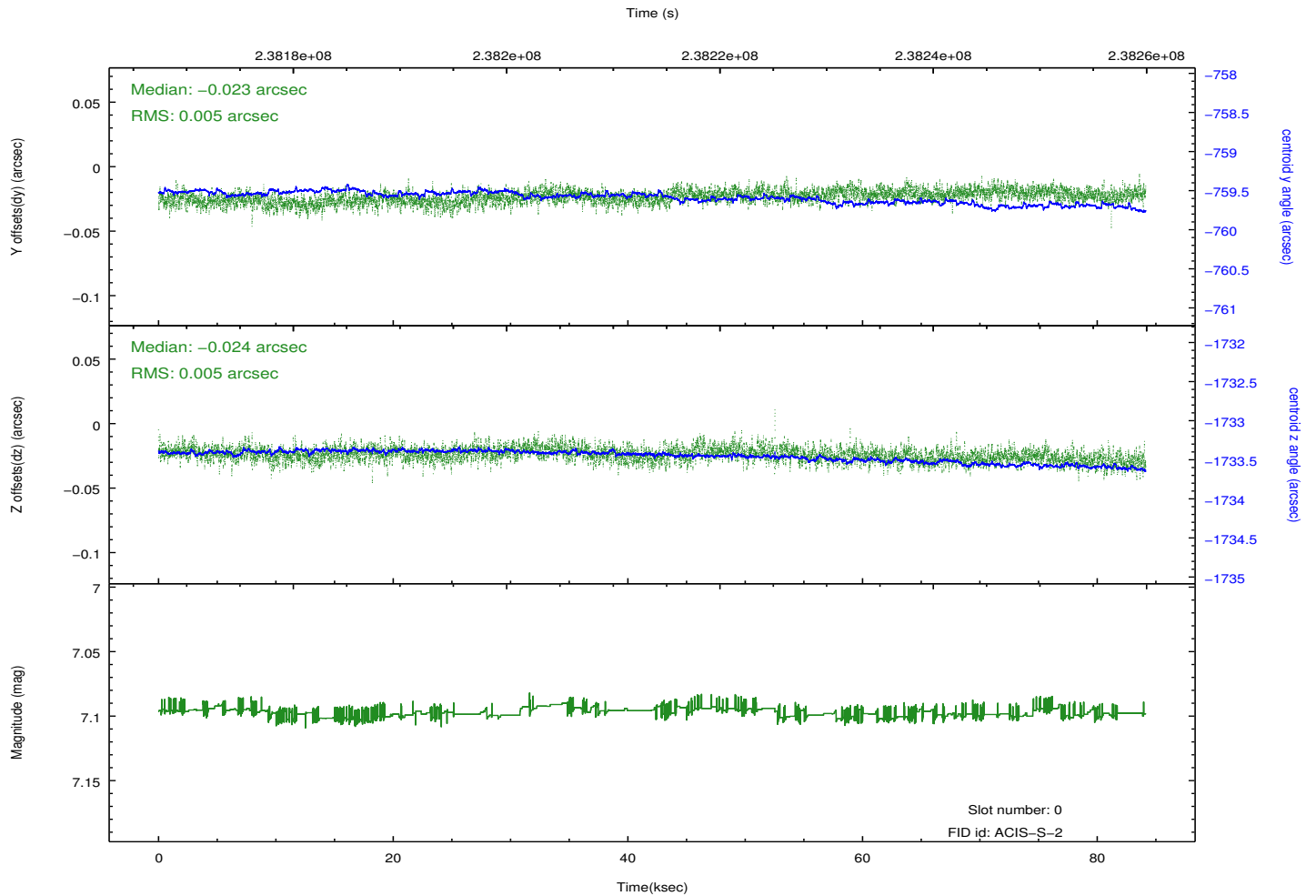
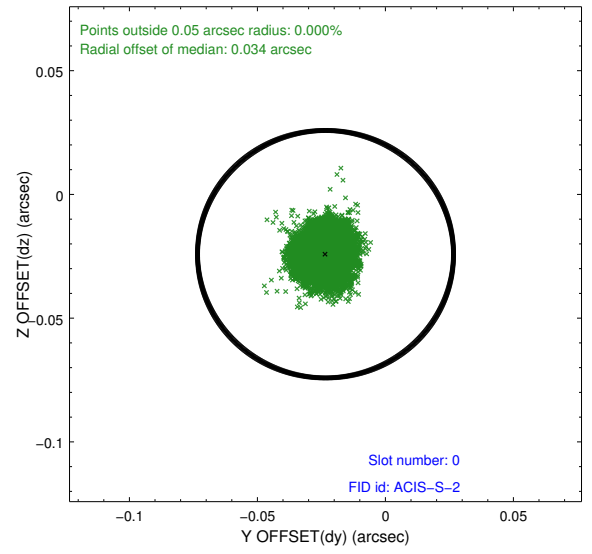
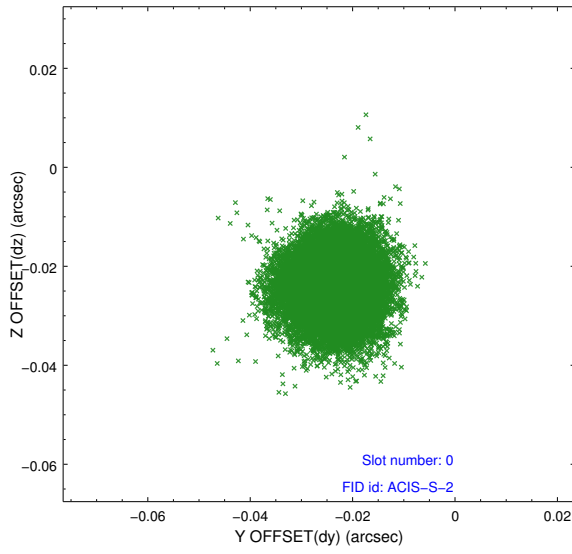


2.4.5 Slot 7

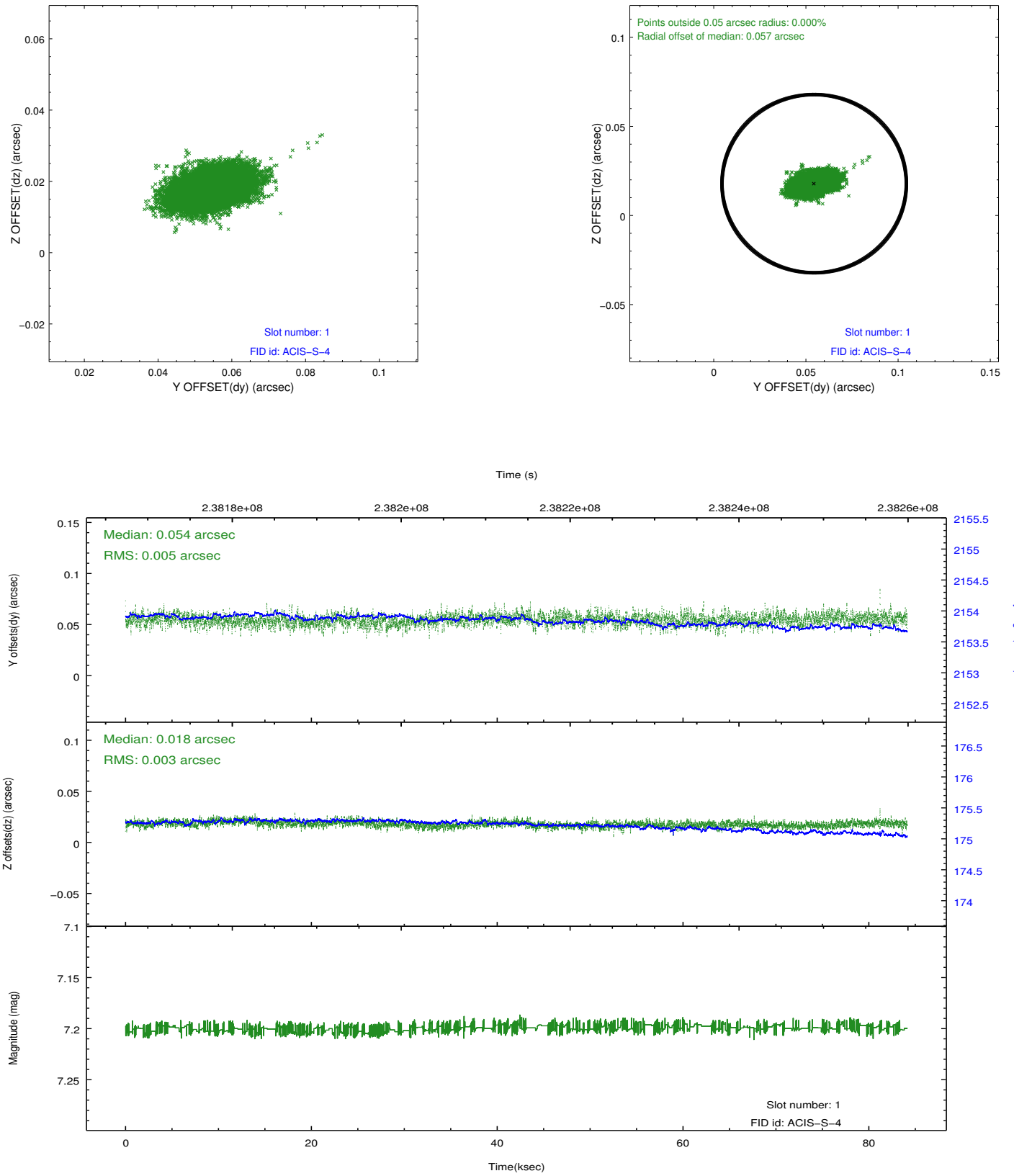


2.5 FID Slots

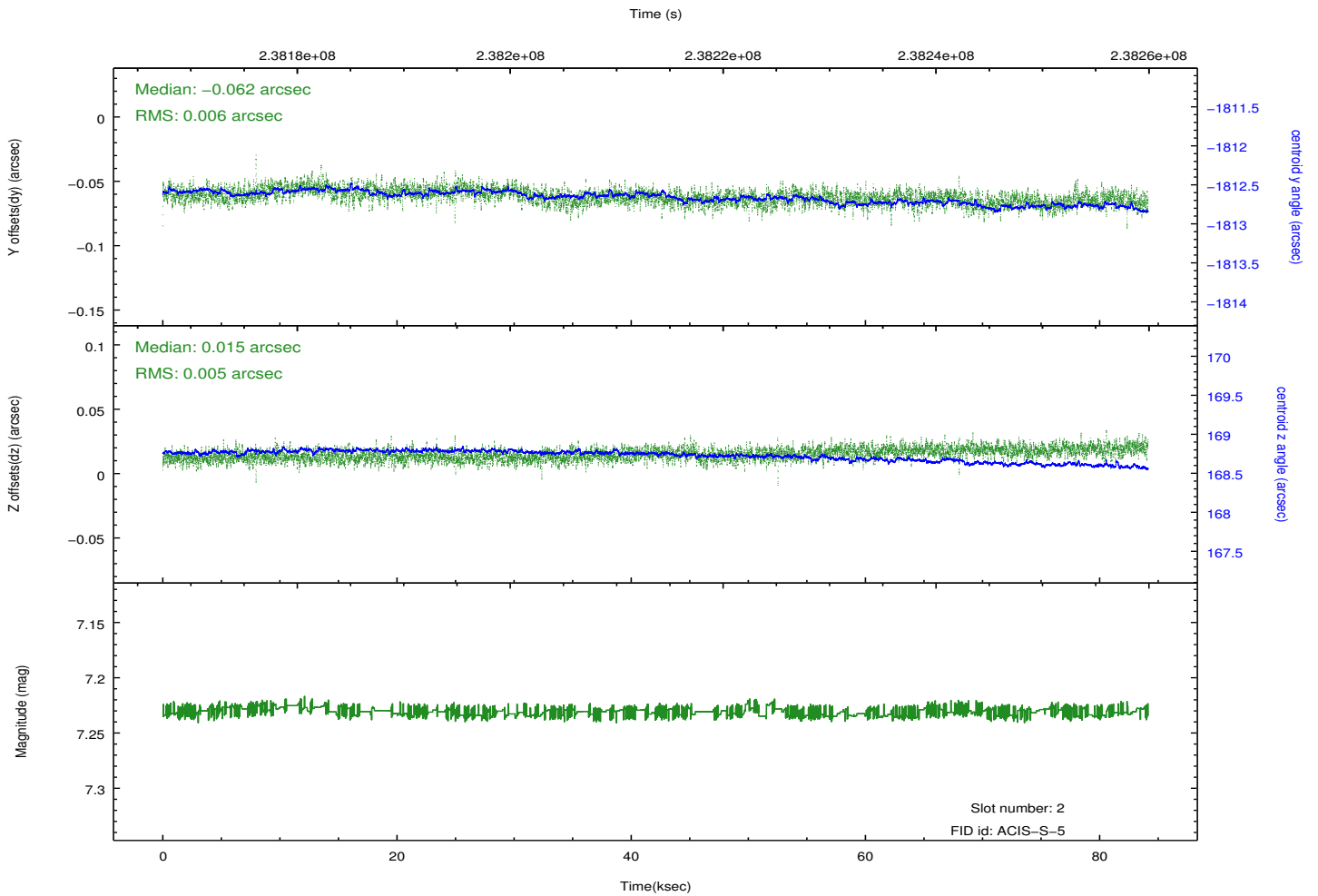
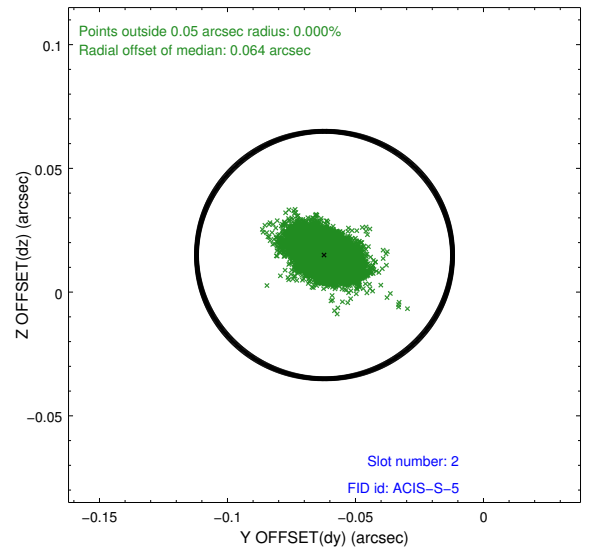
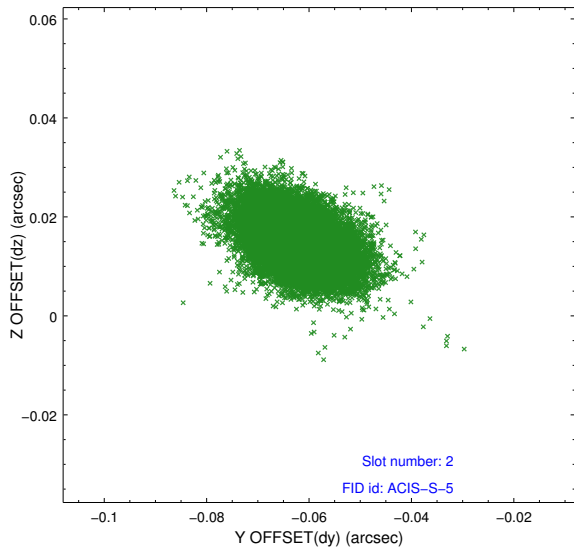
2.5.1 Slot 0



2.5.2 Slot 1

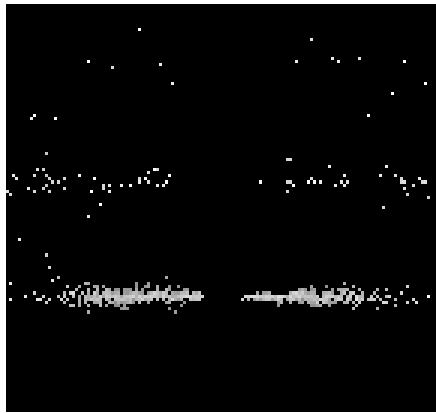


2.5.3 Slot 2

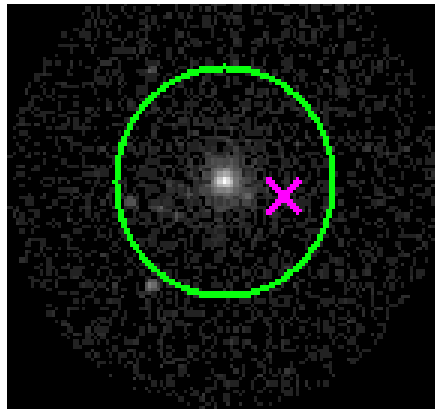


3 Gratings

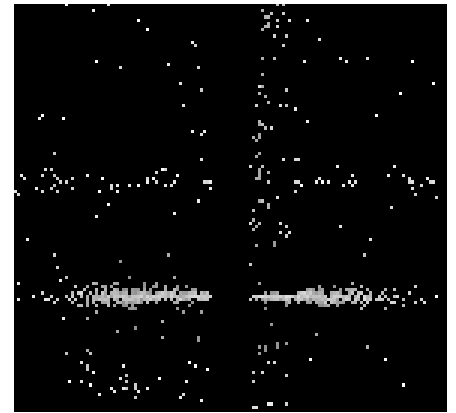
3.1 HEG Arm



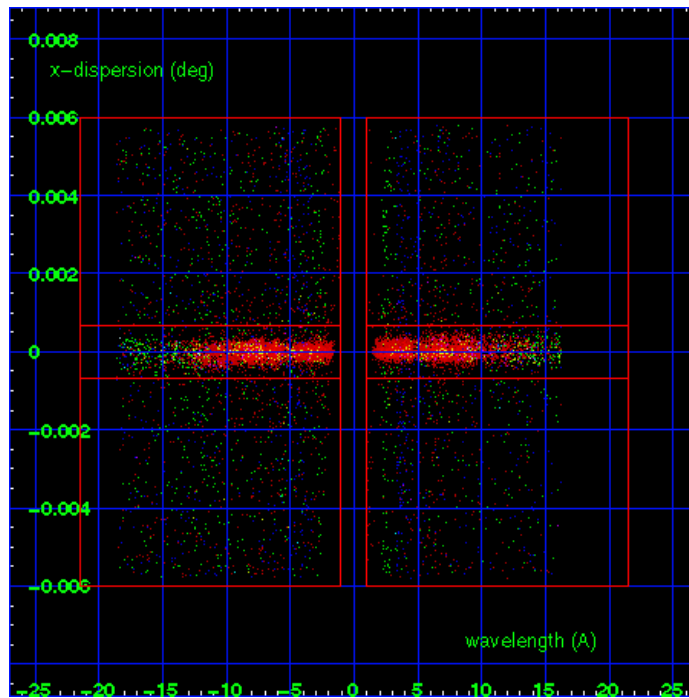
HEG Order Sort 123



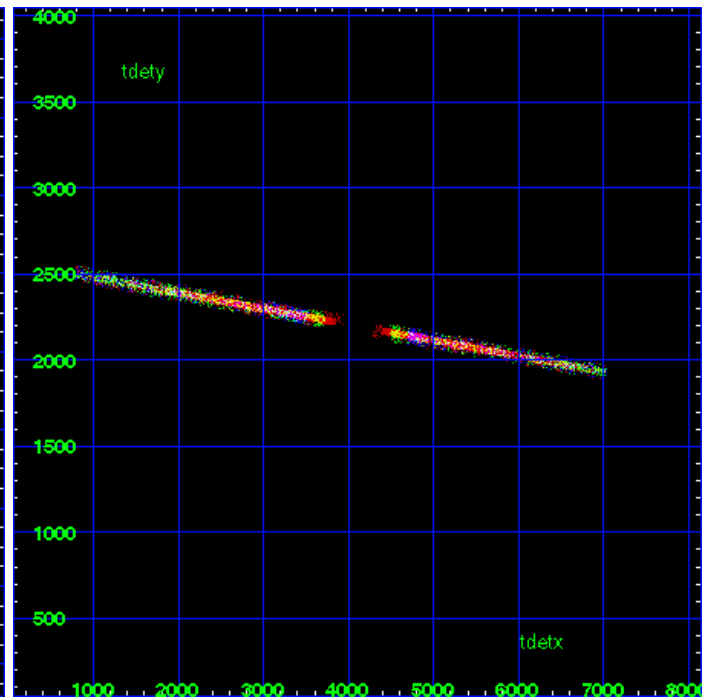
HEG Zero Order



HEG Order Sort ALL

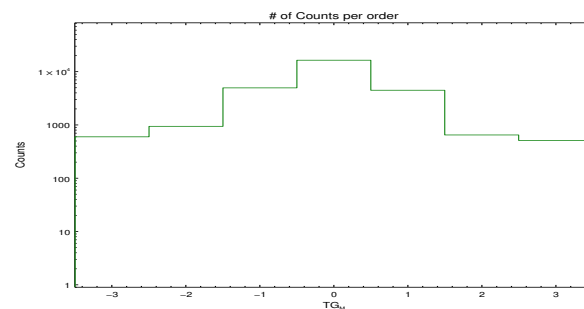


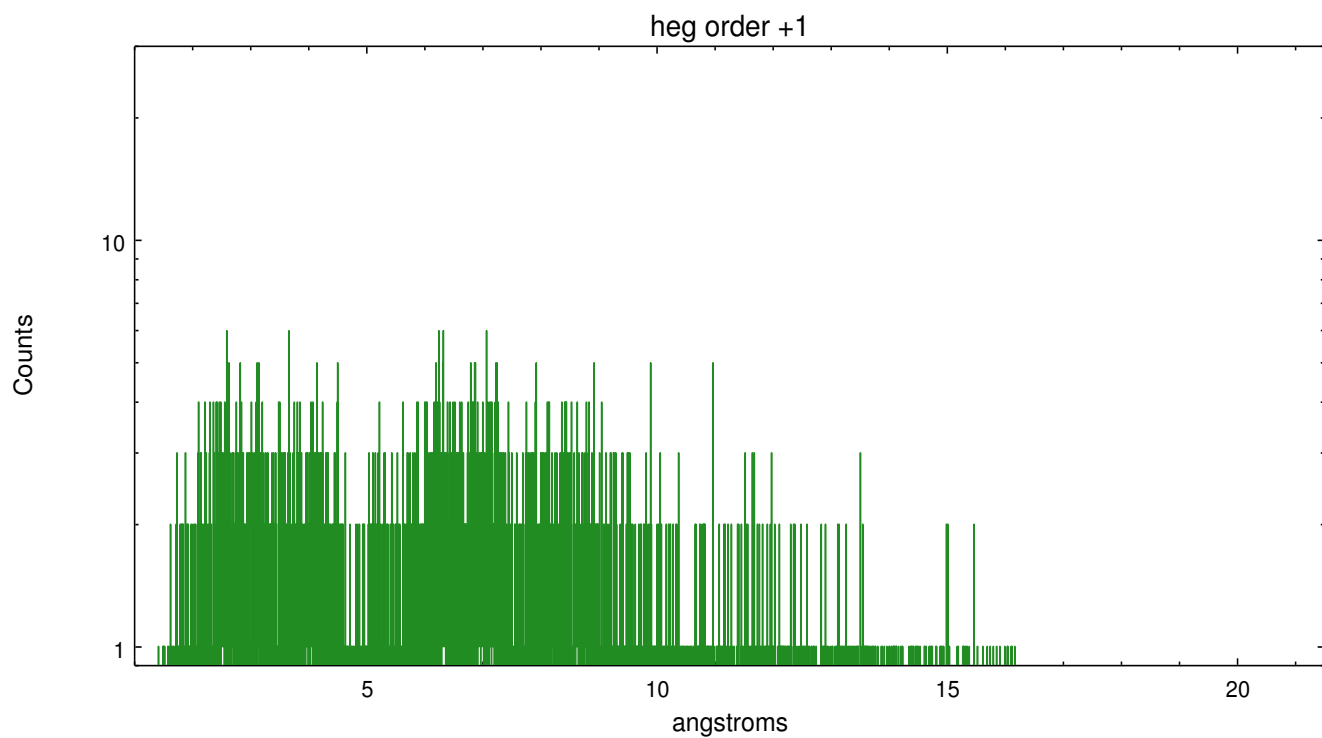
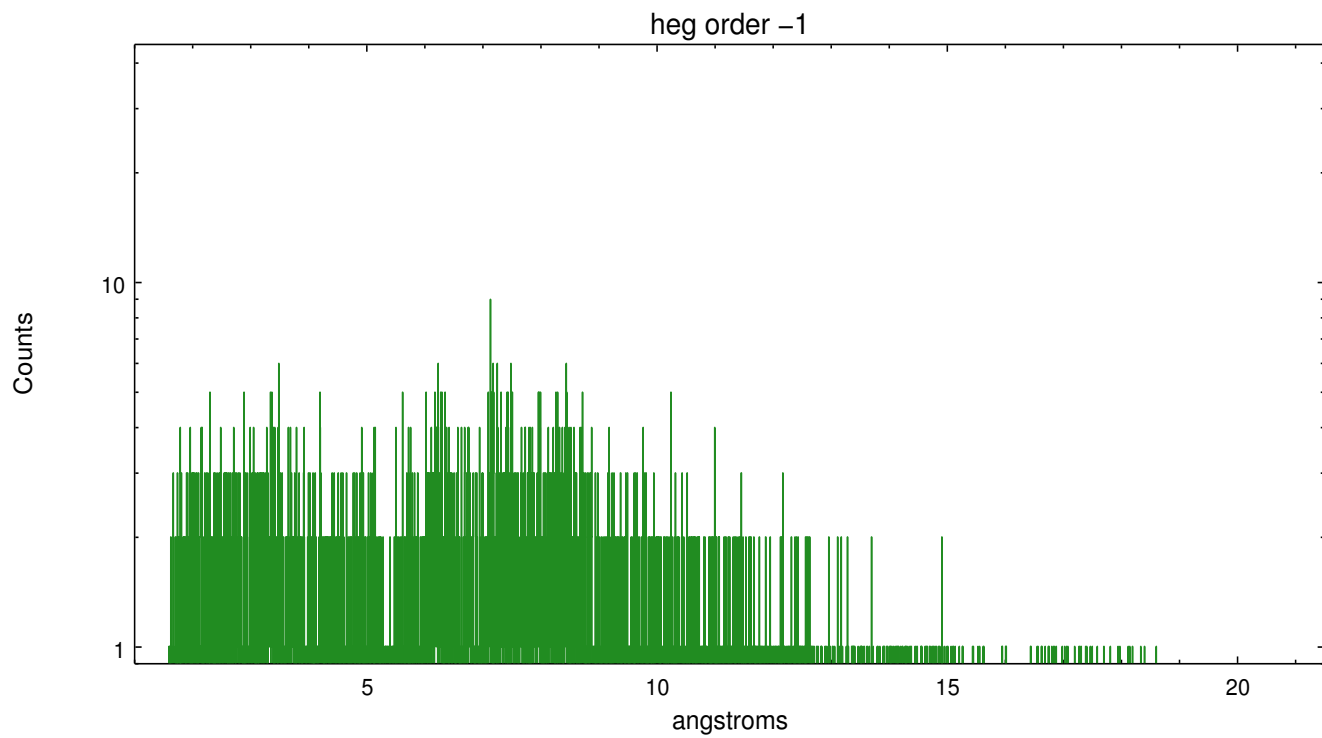
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	600	943	4990	16495	4497	650	513

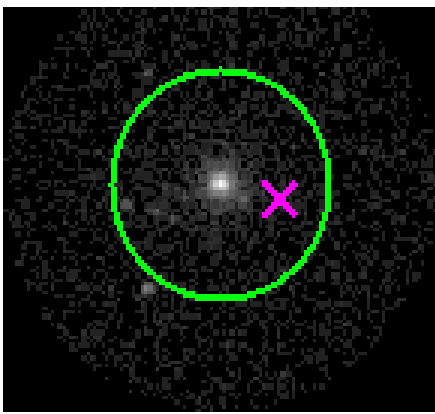




3.2 MEG Arm



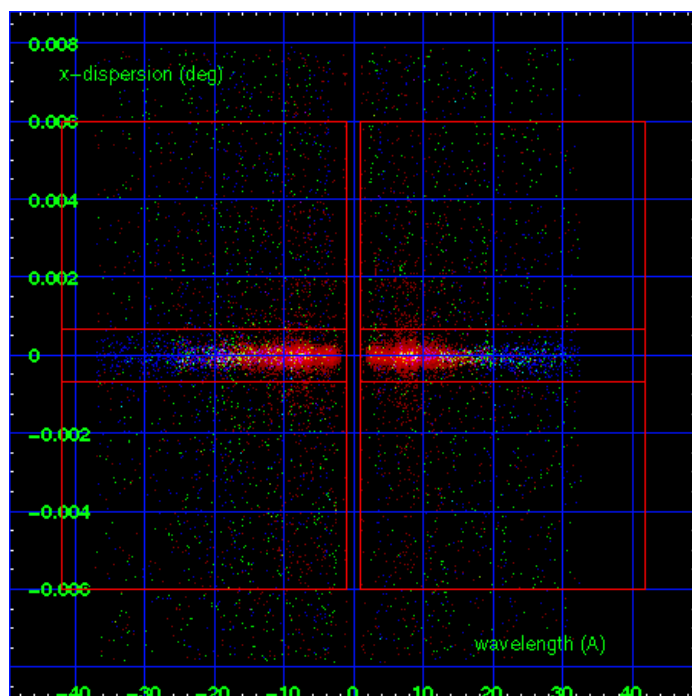
MEG Order Sort 123



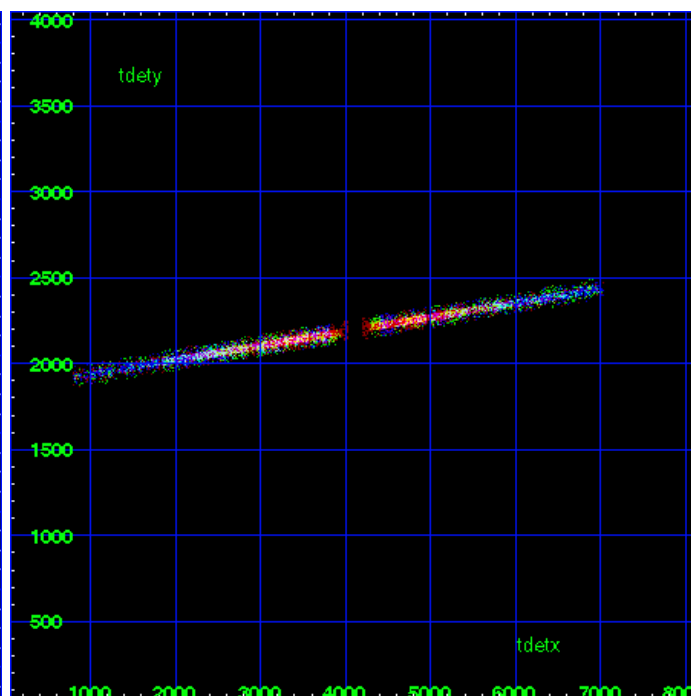
MEG Zero Order



MEG Order Sort ALL

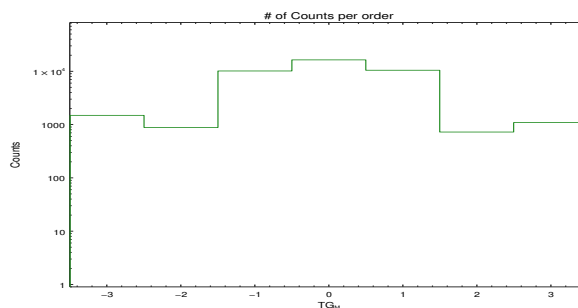


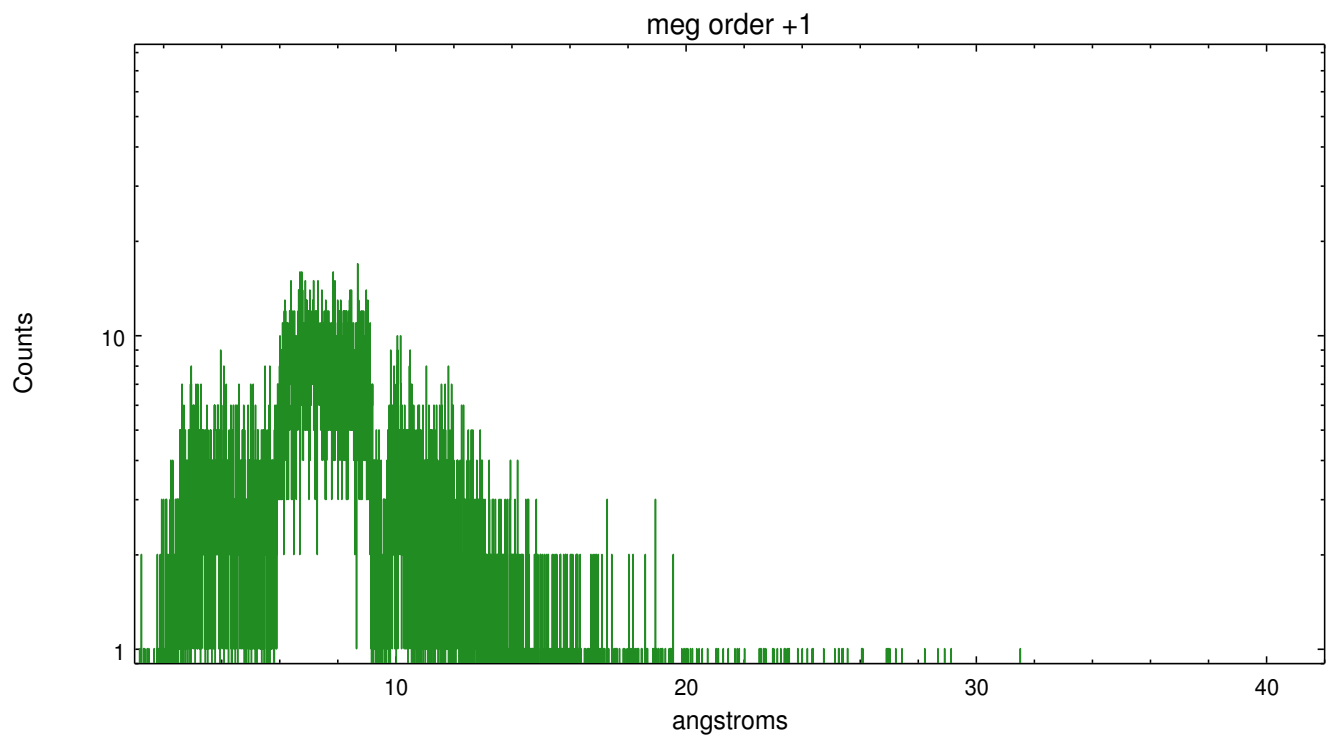
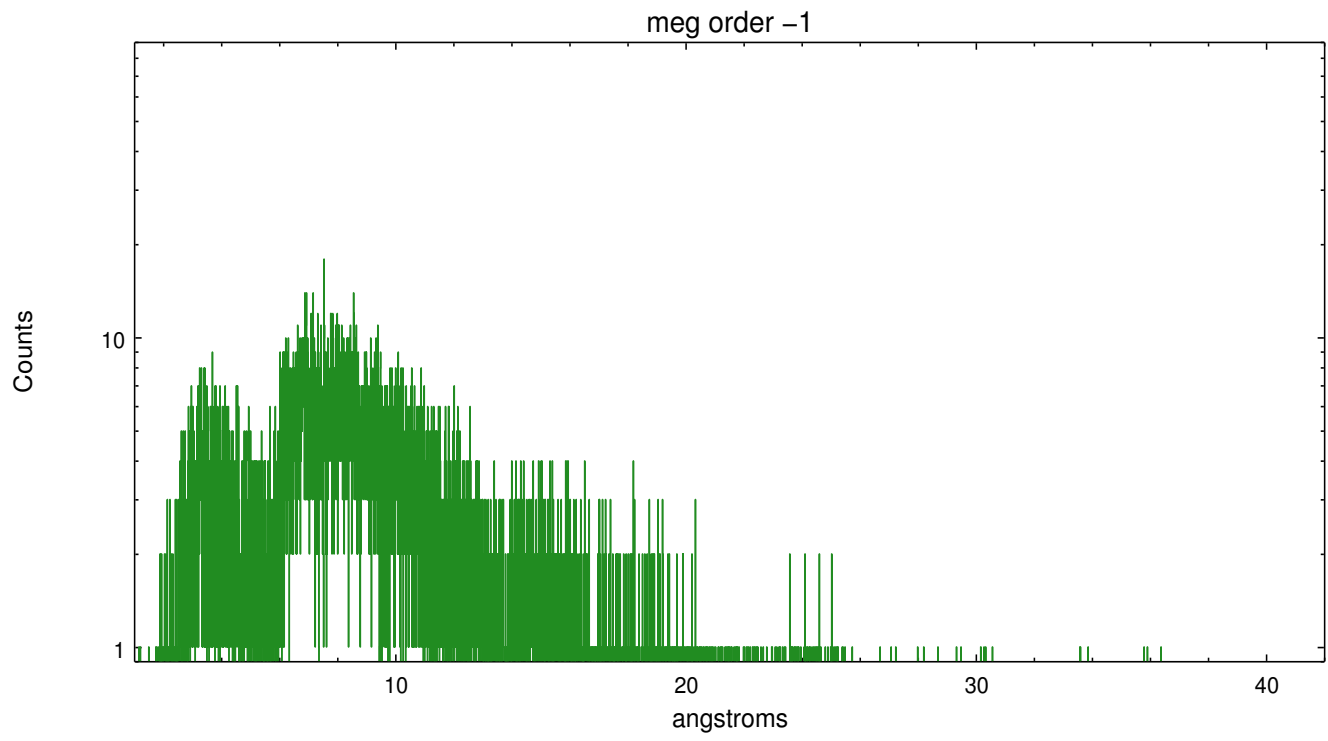
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1494	884	10205	16495	10524	726	1093





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	84.13439

A.2 Comments

Comment: Multiple sources as well as a few dispersed spectra from these sources. This extraction is of M81*, the brightest source. No contamination among the spectra is apparent.