

V&V Reference Report

L2 ASCDS Version : 10.5

Observation 17790 - L2 Version 1
Chandra X-Ray Center

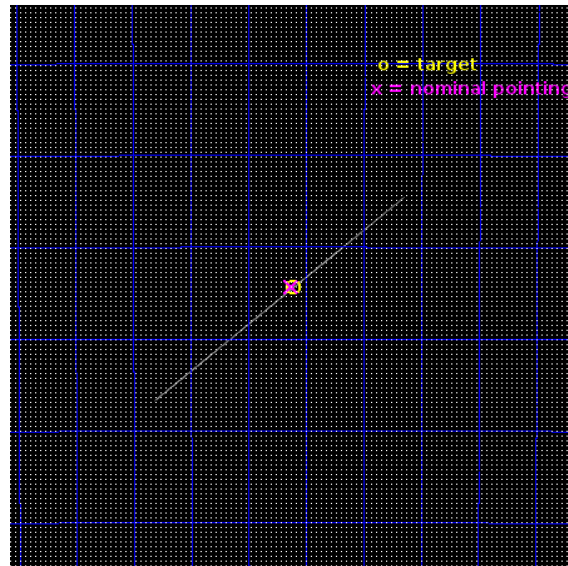
L2 Processing Date : Jun 24 2016

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

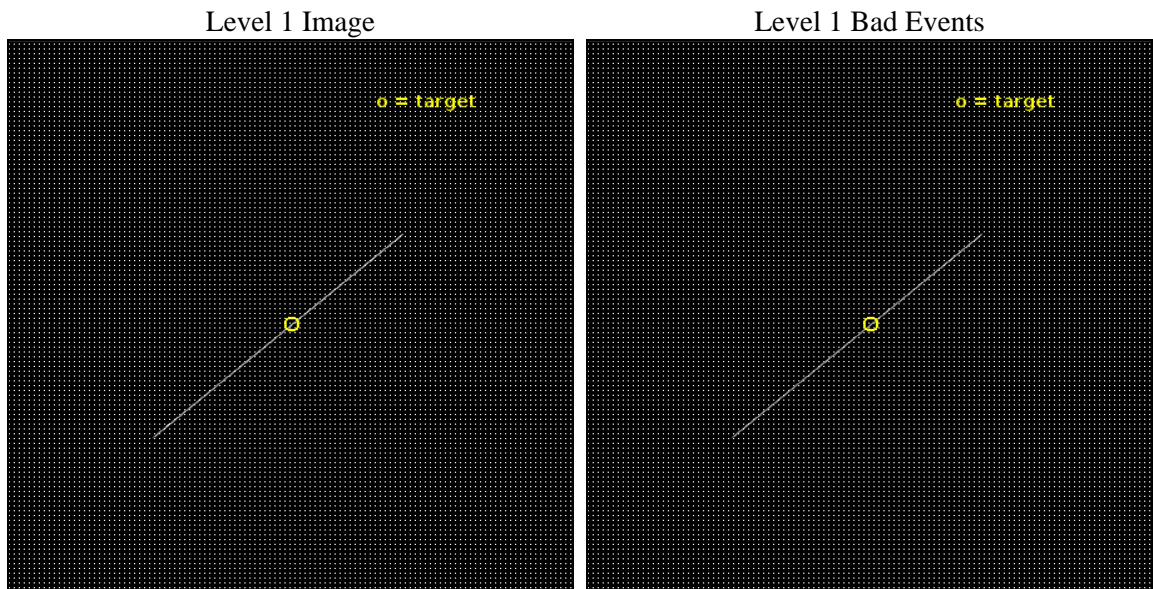
seq_num	401722	Sequence number
obs_id	17790	Observation id
title	FOLLOWING THE ULTRA-FAST WINDS IN STELLAR-MASS BLACK HOLE, IGR J17091-3624	Proposal title
observer	Dr. Ashley King	Principal investigator
object	IGR J17091-3624	Source name
ra_targ	257.279167	Observer's specified target RA [deg]
dec_targ	-36.406944	Observer's specified target Dec [deg]
ra_nom	257.28201906834	Nominal RA [deg]
dec_nom	-36.405630096772	Nominal Dec [deg]
roll_nom	319.6583570054	Nominal Roll [deg]
revision	1	Processing version of data
ontime	20047.25	Sum of GTIs [s]
livetime	19968.940429688	Livetime [s]
ontime5	20047.25	Sum of GTIs [s]
ontime6	20047.25	Sum of GTIs [s]
ontime7	20047.25	Sum of GTIs [s]
ontime8	20047.25	Sum of GTIs [s]
l2events	447135	Number of level 2 events



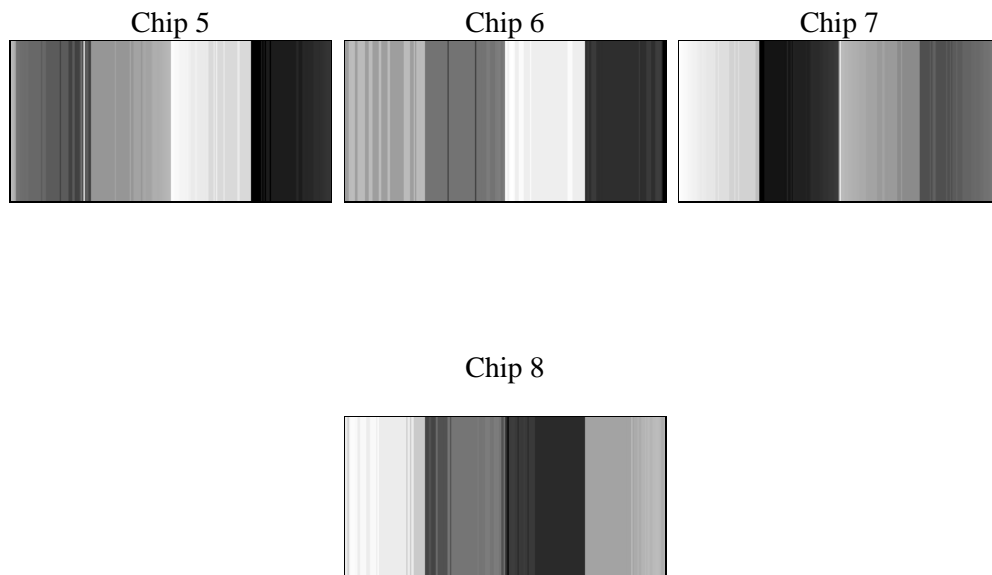
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	20000.000000	[s] Scheduled observation exposure time
ascdsver	10.5	Processing system revision	ontime	20047.25	Sum of GTIs [s]
caldsver	4.7.2	 	ontime5	20047.25	Sum of GTIs [s]
date	2016-06-24T14:28:19	Date and time of file creation	ontime6	20047.25	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	20047.25	Sum of GTIs [s]
			ontime8	20047.25	Sum of GTIs [s]
			l1events	1558916	Number of level 1 events
			tgmeth	TGDETECT	Method used to create src1a file
			zo_pos	(4103.15, 4078.28)	src1a sky pixel position

2.1.4 Events

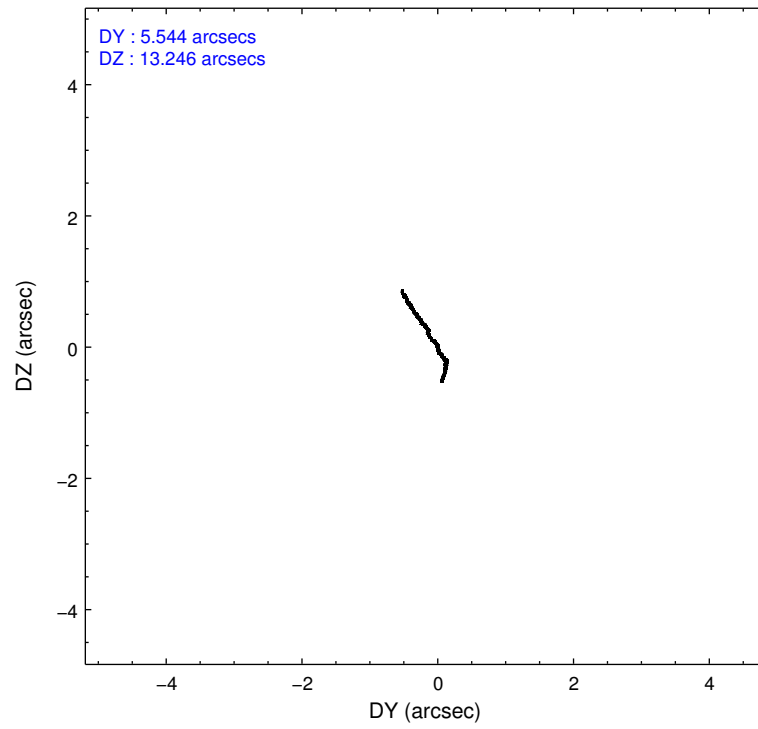
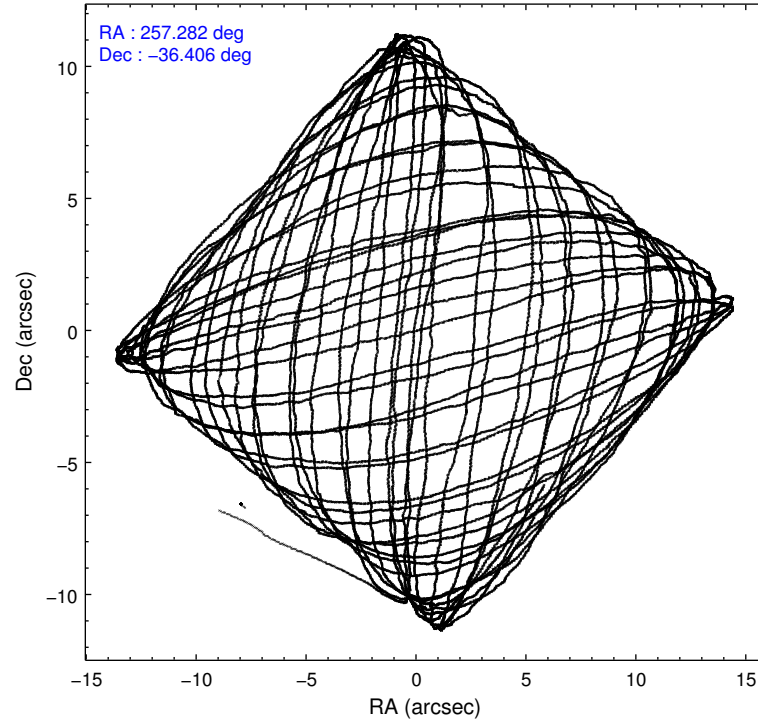
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	490754	277974	410391	379797
rejected events	190721	199541	177903	296963
rejected %	38%	71%	43%	78%

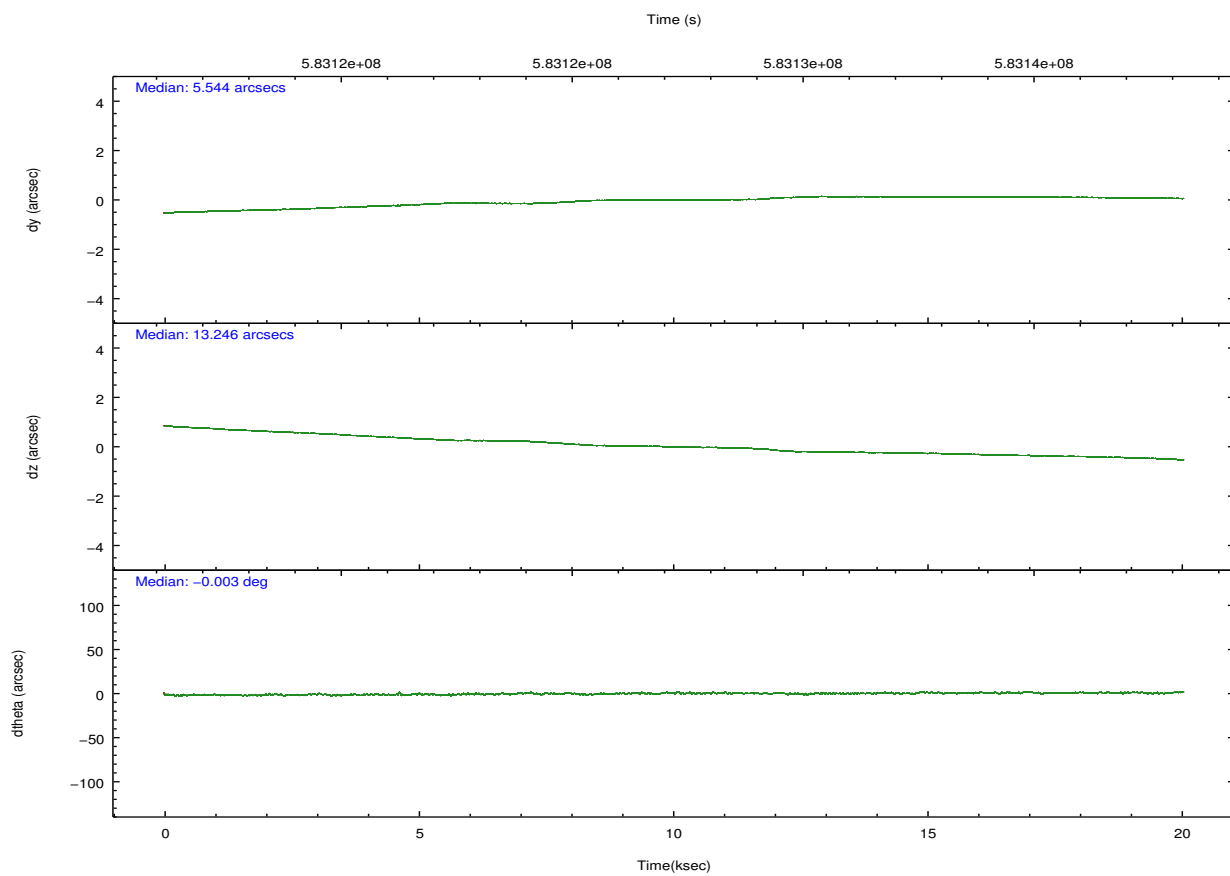
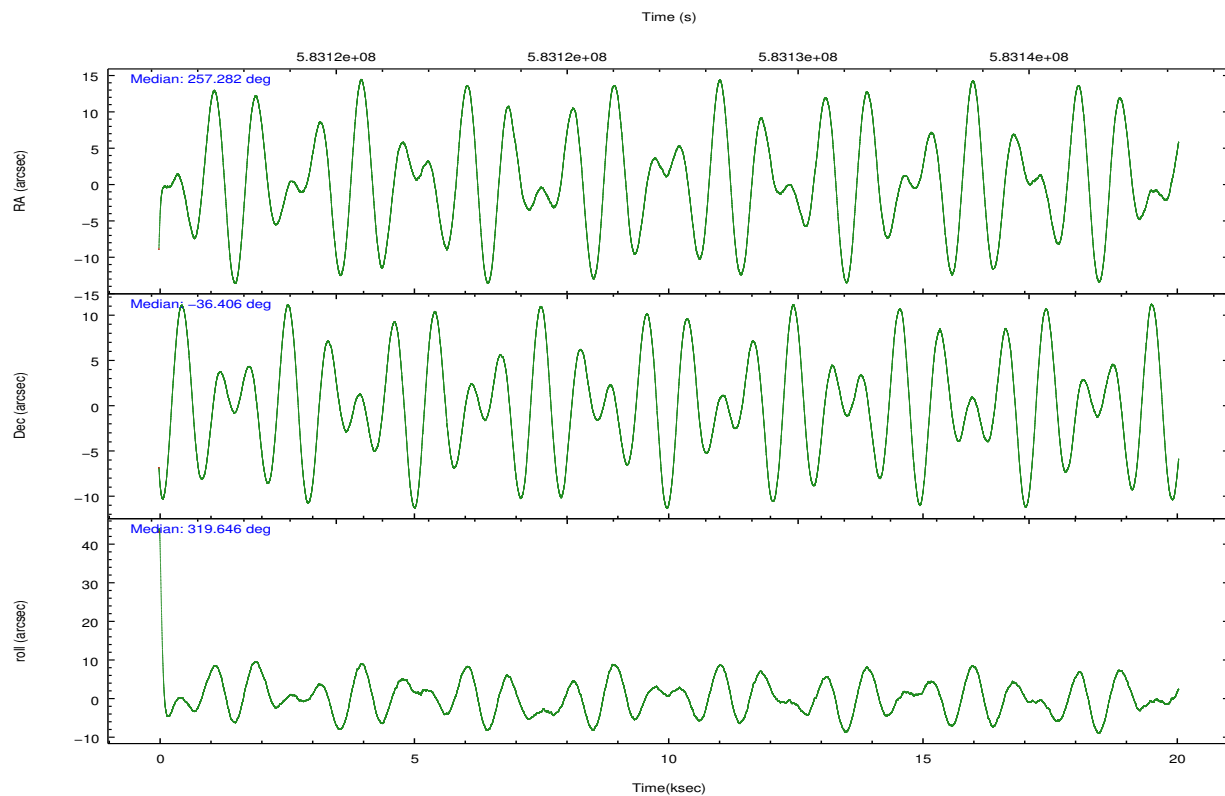
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	120987	4207	32909	20338
	24%	1%	8%	5%
grade 1 events	280	113	395	246
	0%	0%	0%	0%
grade 2 events	110949	57999	69835	31657
	22%	20%	17%	8%
grade 3 events	2580	2803	17533	6782
	0%	1%	4%	1%
grade 4 events	2505	2682	17286	6438
	0%	0%	4%	1%
grade 5 events	13856	6806	16895	9641
	2%	2%	4%	2%
grade 6 events	63679	11107	96010	17995
	12%	3%	23%	4%
grade 7 events	175918	192257	159528	286700
	35%	69%	38%	75%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-5678	ACIS-5678	Obspar file type	PREDICTED	ACTUAL
Grating	HETG	HETG	Obspar update status	NONE	UPDATED
Data mode	CC33_FAINT	CC33_FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	257.248410	257.2820190683397	Subarray requested	NONE	NONE
[deg] Pointing Dec	-36.401040	-36.40563009677238	Alternating exposures requested	N	N
[deg] Pointing Roll	319.481746	319.6583570053984	[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	-187.132523	-187.1228876879999			
[mm] SIM translation stage offset	-3	-3.009634895007935			
[s] Observation start time (MET)	583117212.184000	583115883.00068			
Observation start date	2016-06-24T00:59:04	2016-06-24T00:38:03			
[s] Observation end time (MET)	583137212.184000	583138303.33946			
Observation end date	2016-06-24T06:32:24	2016-06-24T06:51:43			
Read mode	CONTINUOUS	CONTINUOUS			

2.3 Aspect



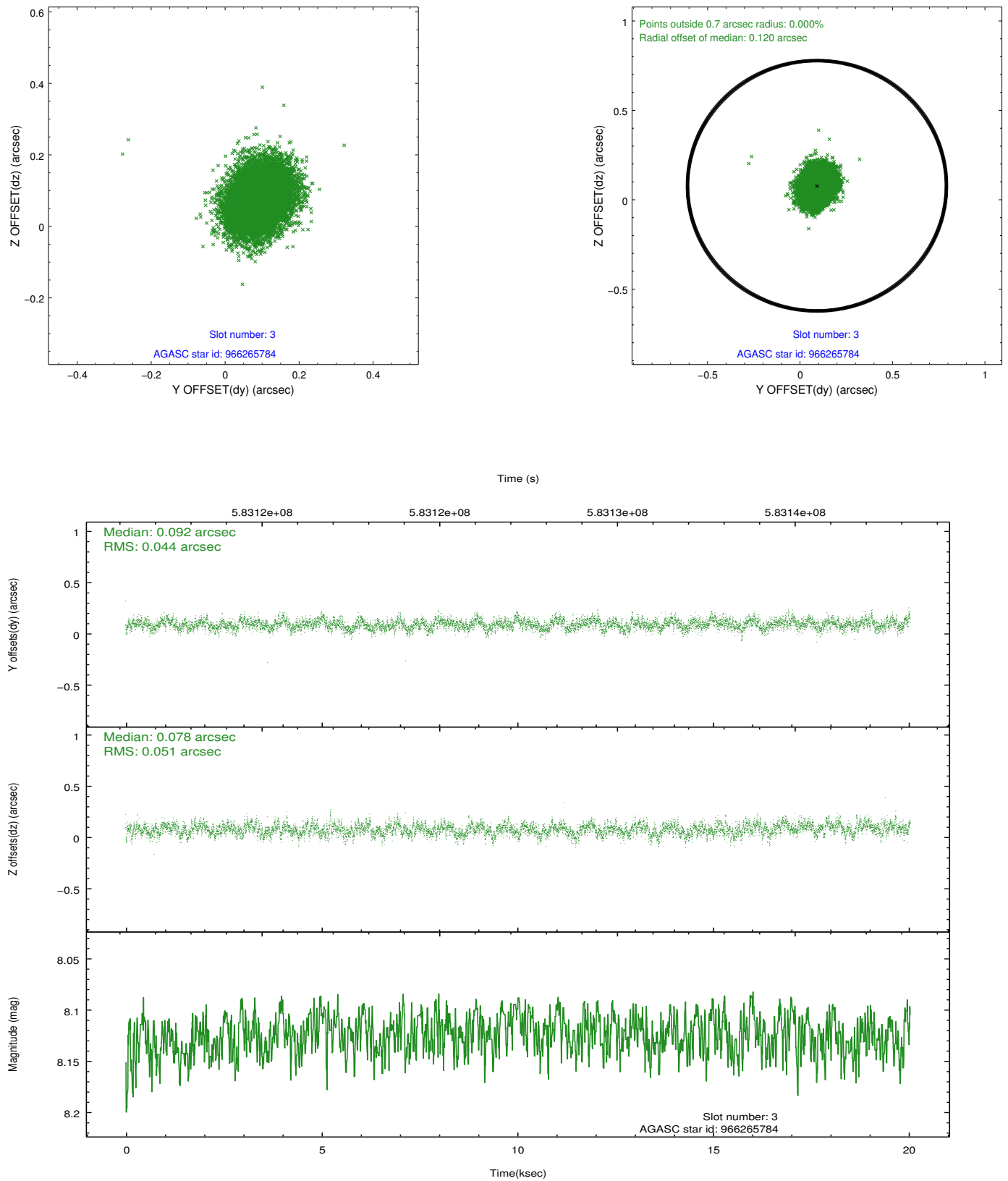


Slot Statistics

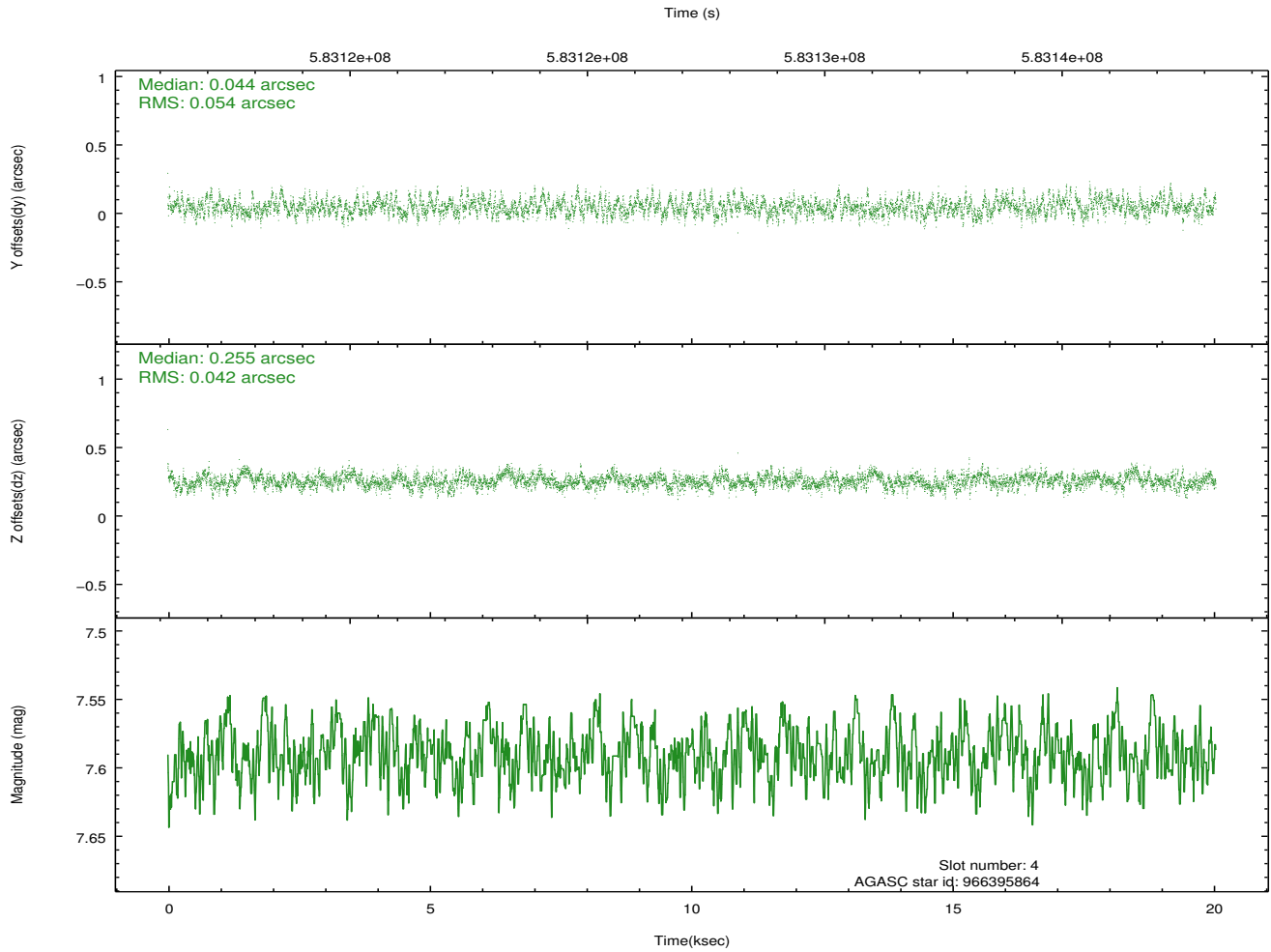
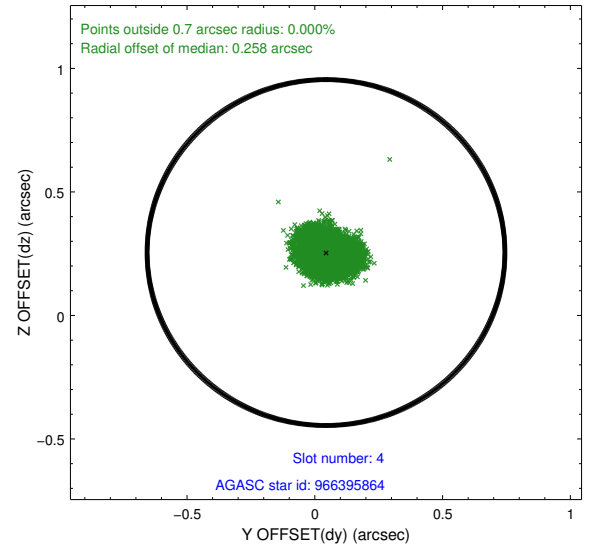
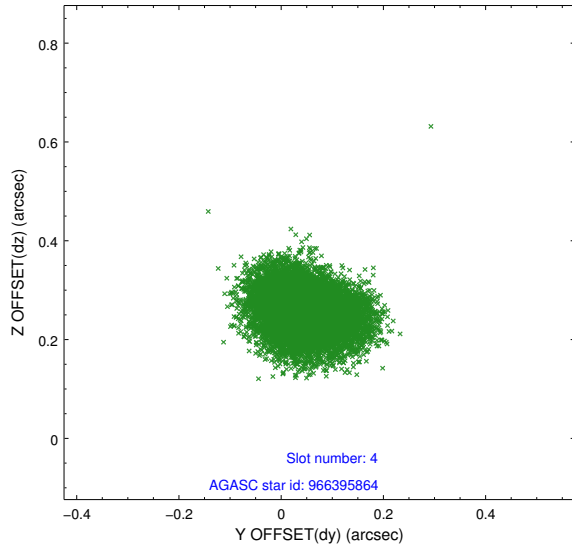
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-1	7.18	4891	0.143	0.015	0.010	0.023	0.000000	0.000000	938.13	-1792.41
1	FID		ACIS-S-2	7.09	4891	-0.190	-0.068	0.008	0.014	0.000000	0.000000	-758.00	-1797.19
2	FID		ACIS-S-6	7.39	4891	0.026	0.058	0.010	0.025	0.000000	0.000000	403.68	748.77
3	GUIDE	used	966265784	8.12	9779	0.092	0.078	0.072	0.117	256.470188	-36.588190	-1265.68	-1980.21
4	GUIDE	used	966395864	7.59	9778	0.044	0.255	0.074	0.119	256.670769	-36.077904	-2029.91	-211.23
5	GUIDE	used	966398520	8.29	9780	0.079	-0.016	0.092	0.158	256.842646	-35.892866	-2085.81	619.79
6	GUIDE	used	966402904	8.09	9779	-0.228	-0.350	0.140	0.197	257.709598	-36.005094	96.50	1954.06
7	GUIDE	used	966394144	8.61	9777	0.004	0.023	0.124	0.202	256.902901	-37.062041	793.30	-2455.03

2.4 Star Slots

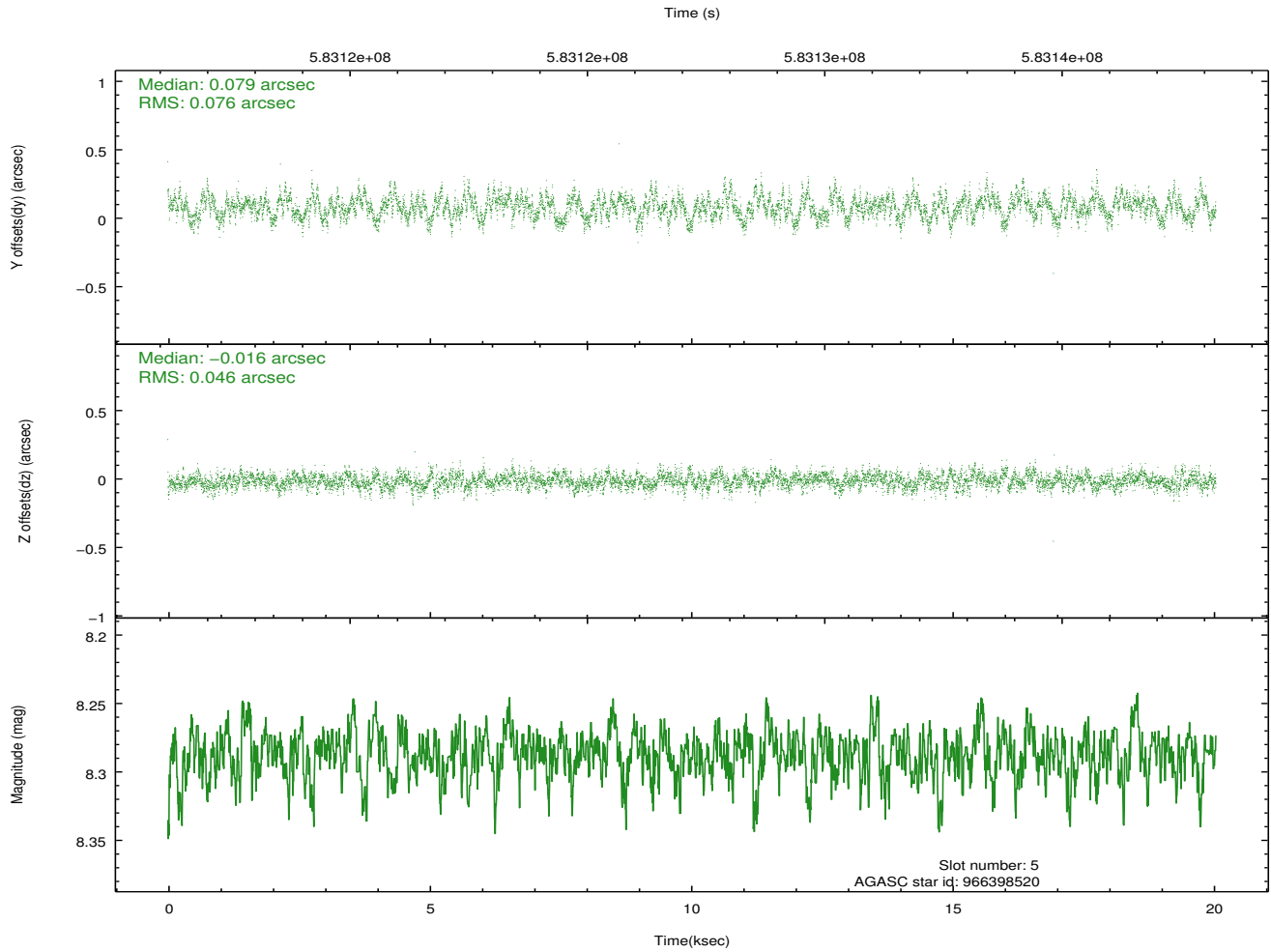
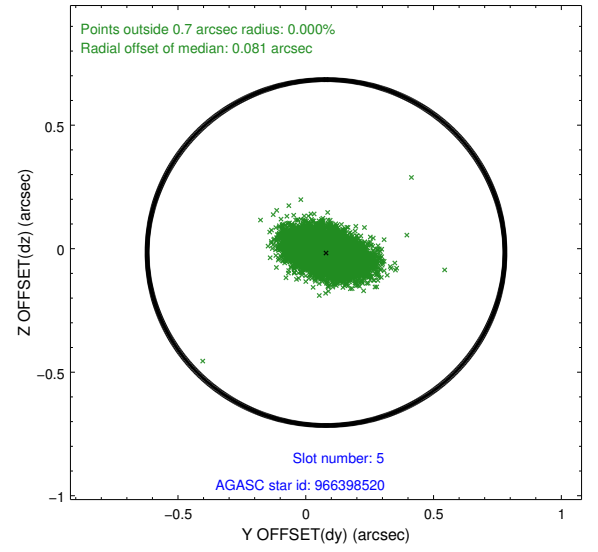
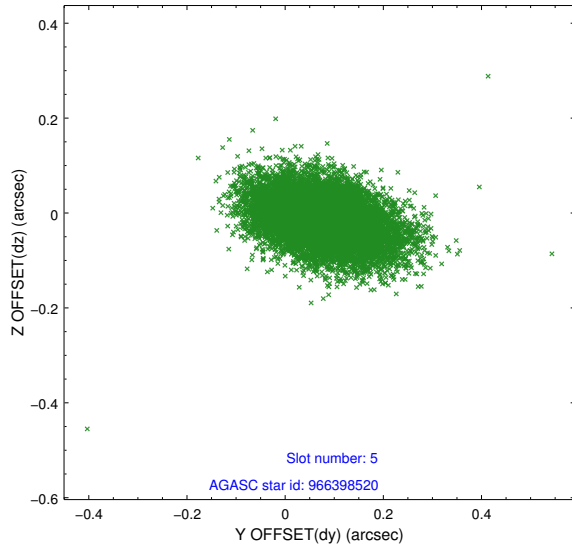
2.4.1 Slot 3



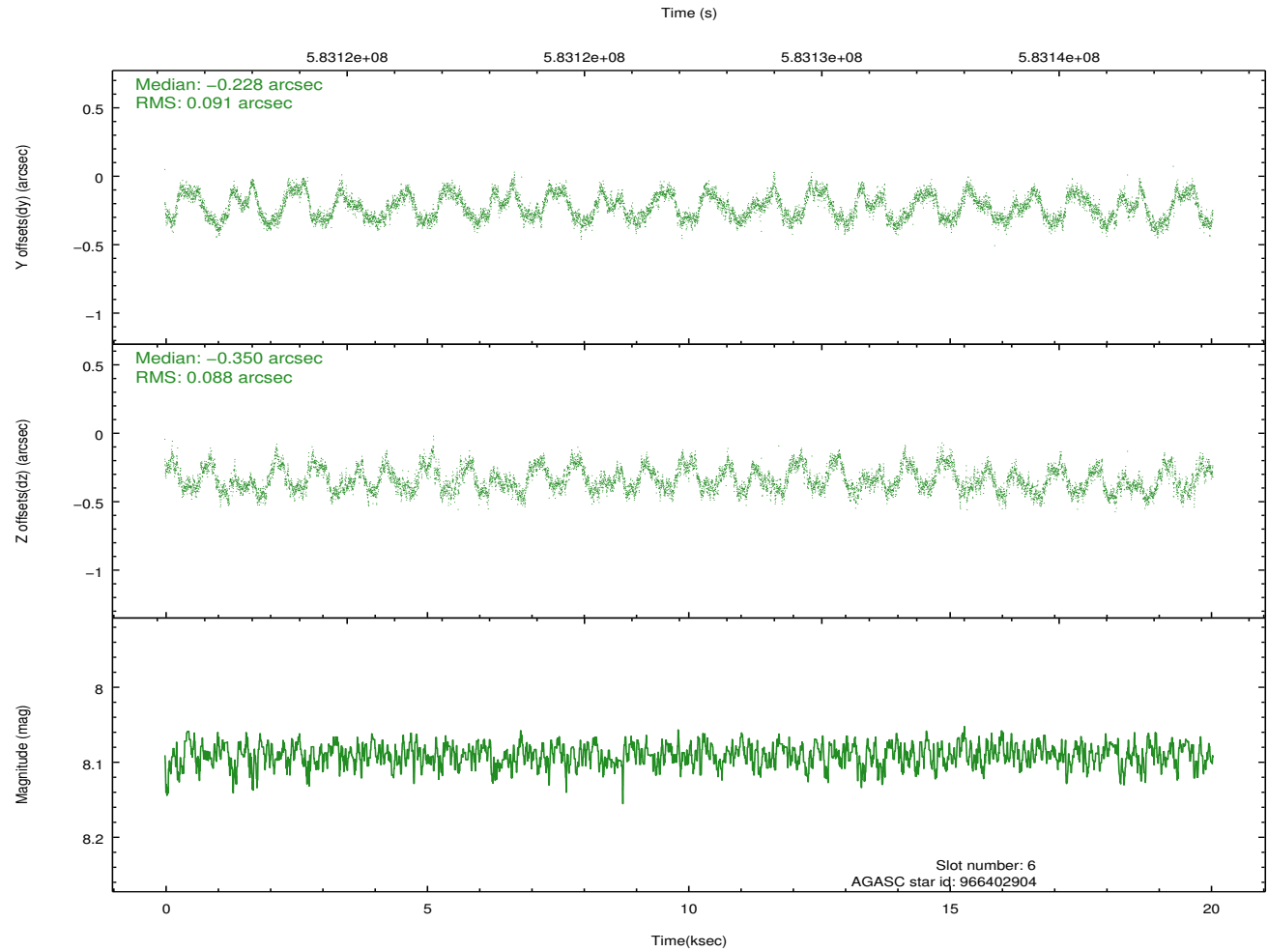
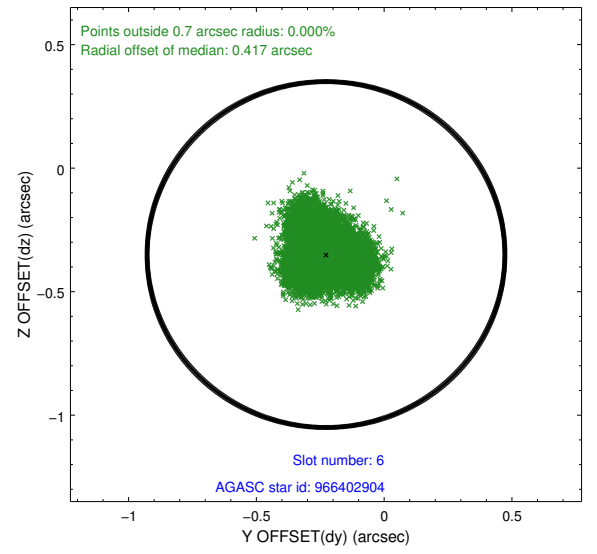
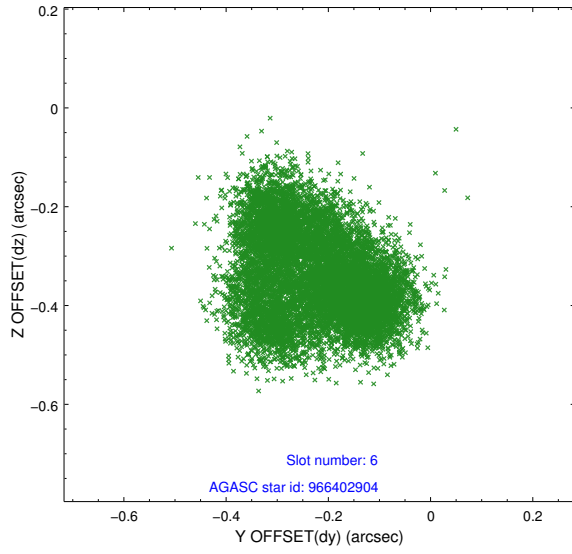
2.4.2 Slot 4



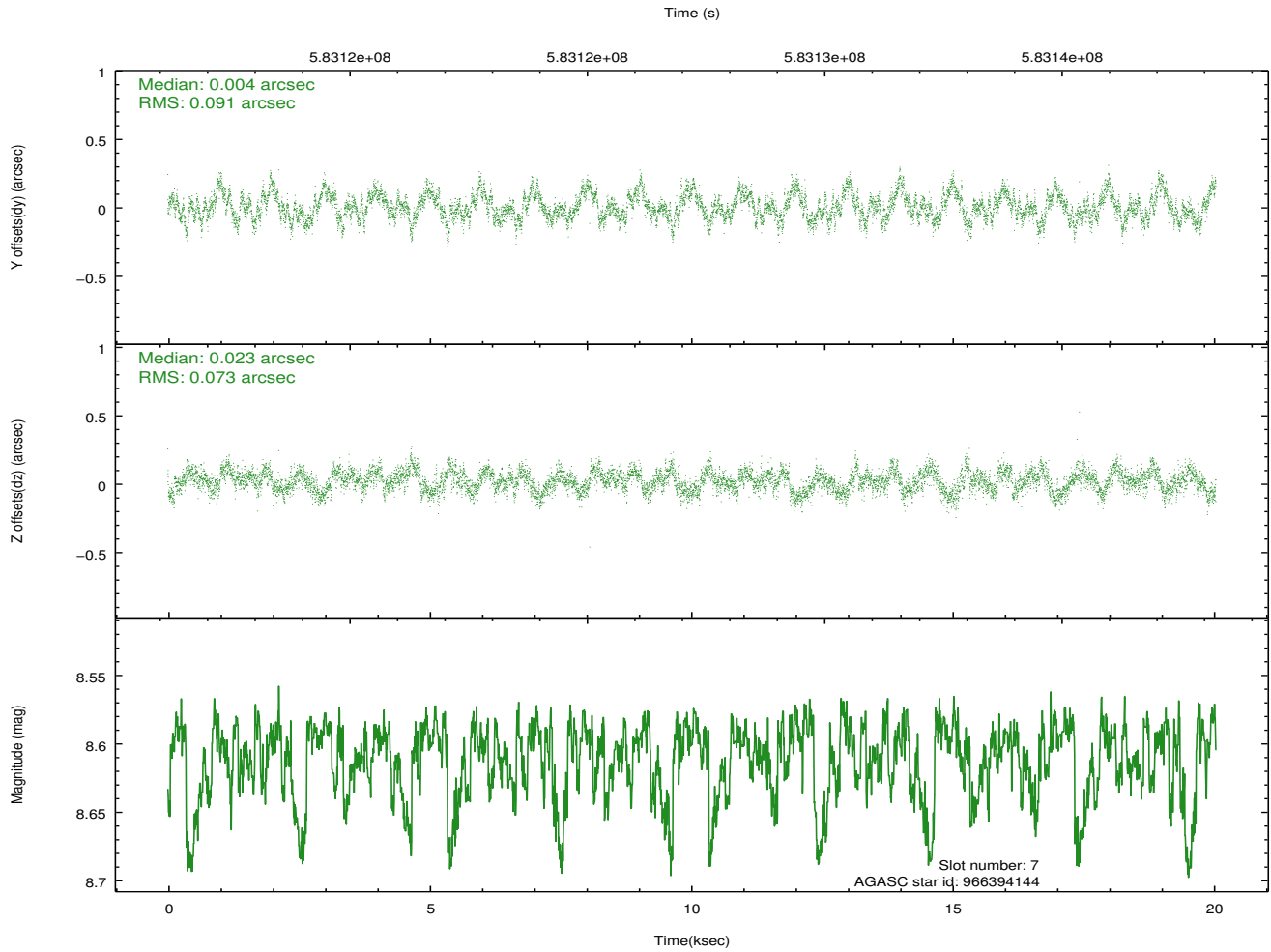
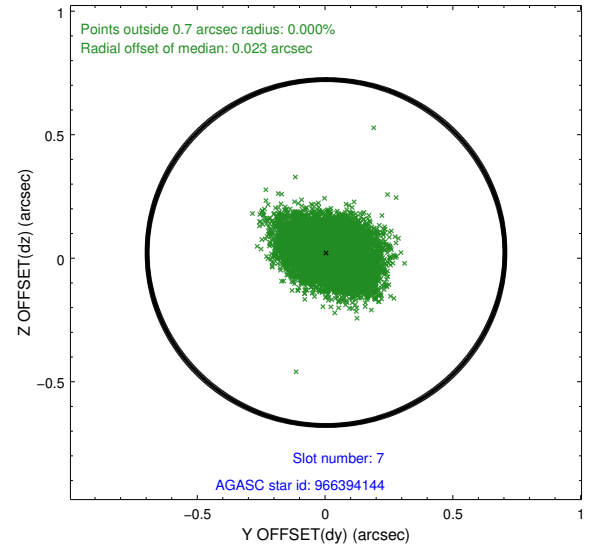
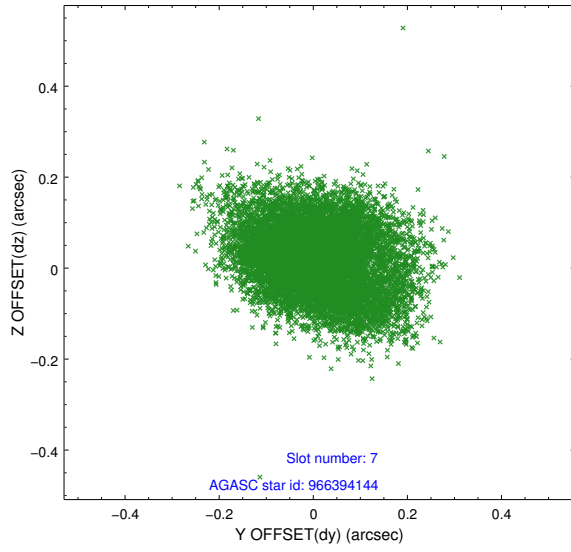
2.4.3 Slot 5



2.4.4 Slot 6

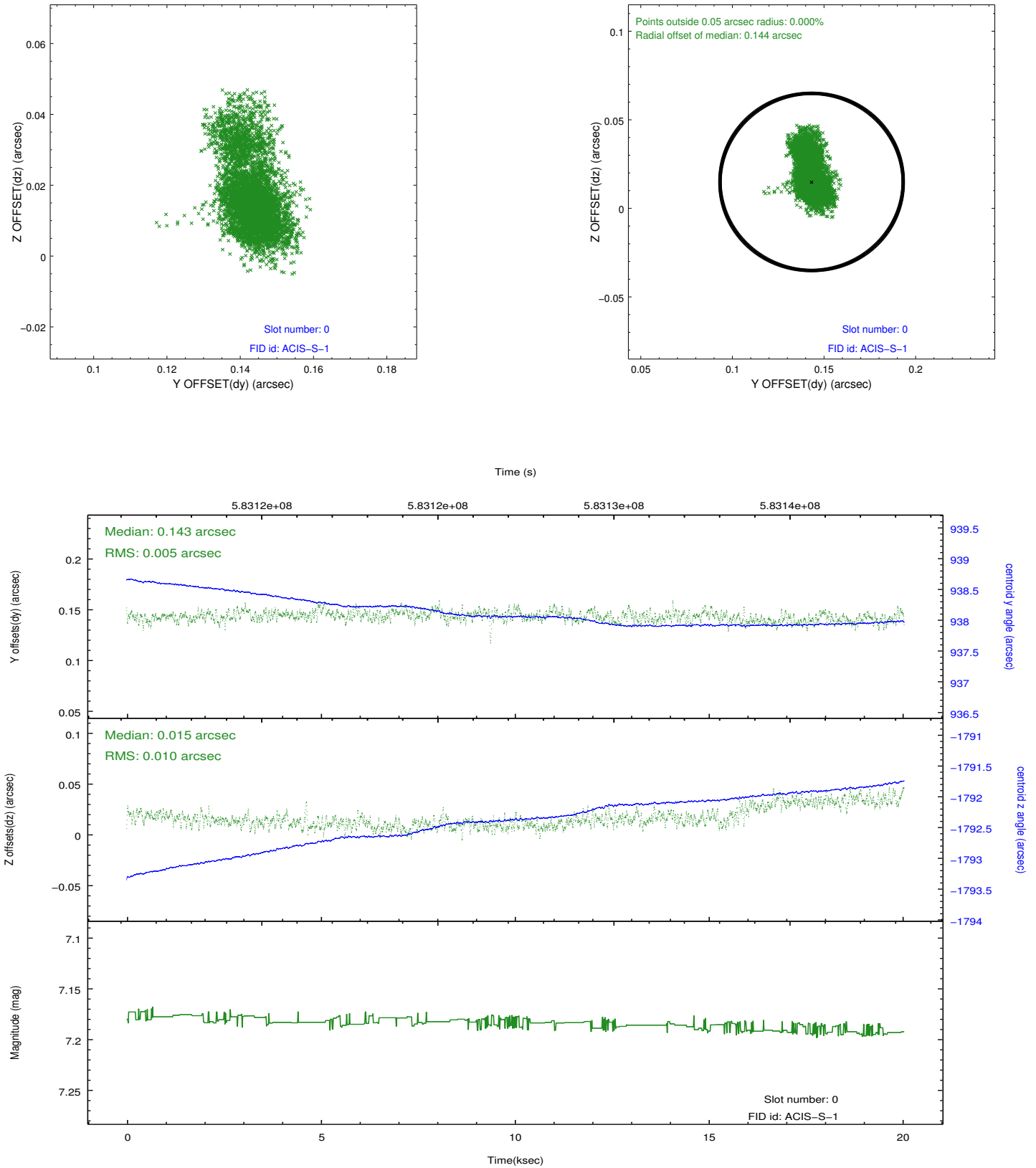


2.4.5 Slot 7

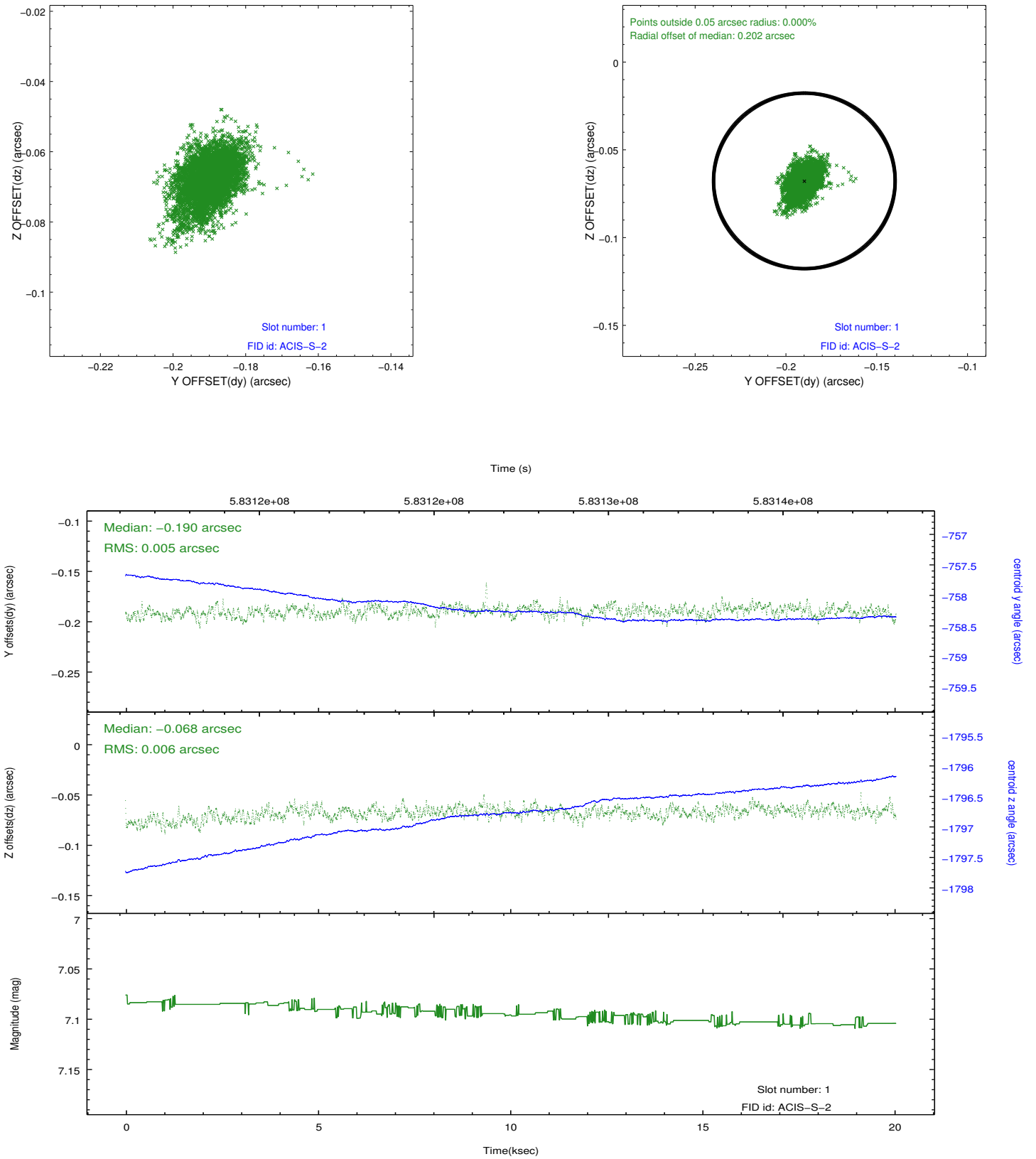


2.5 FID Slots

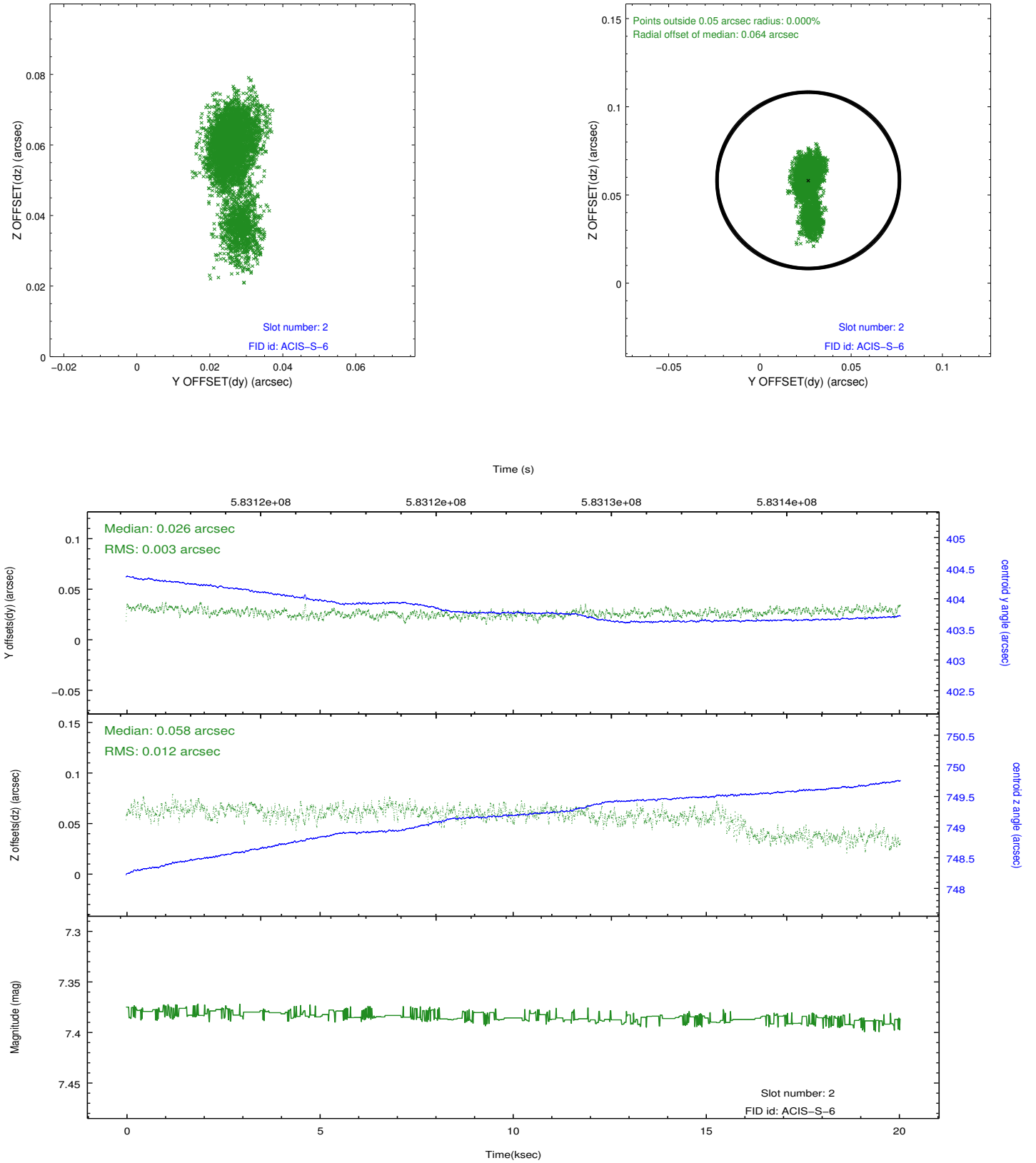
2.5.1 Slot 0



2.5.2 Slot 1

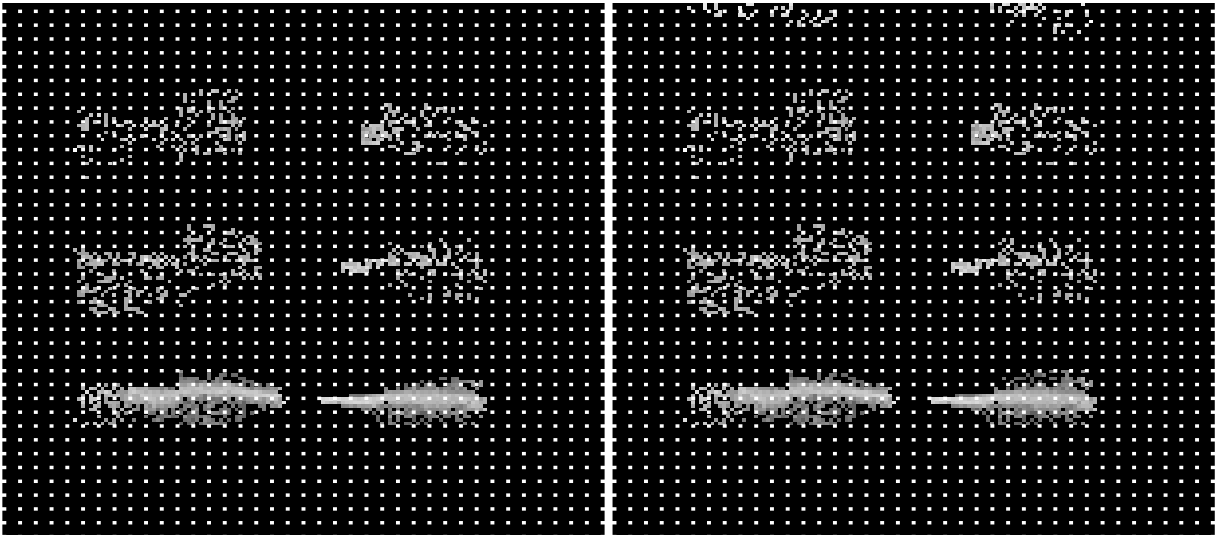


2.5.3 Slot 2



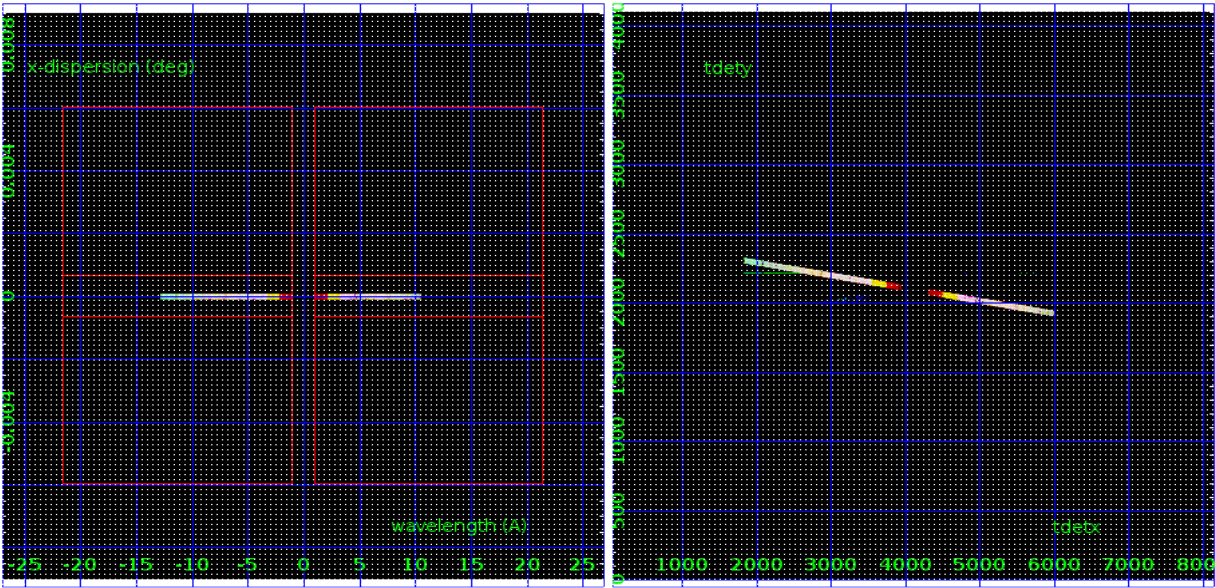
3 Gratings

3.1 HEG Arm



HEG Order Sort 123

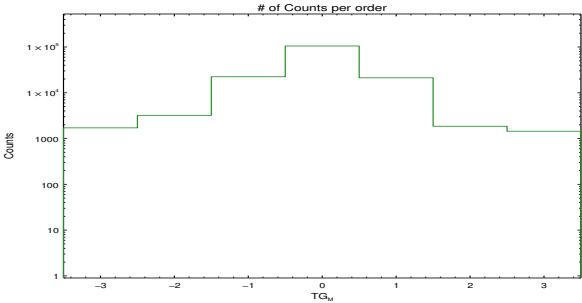
HEG Order Sort ALL

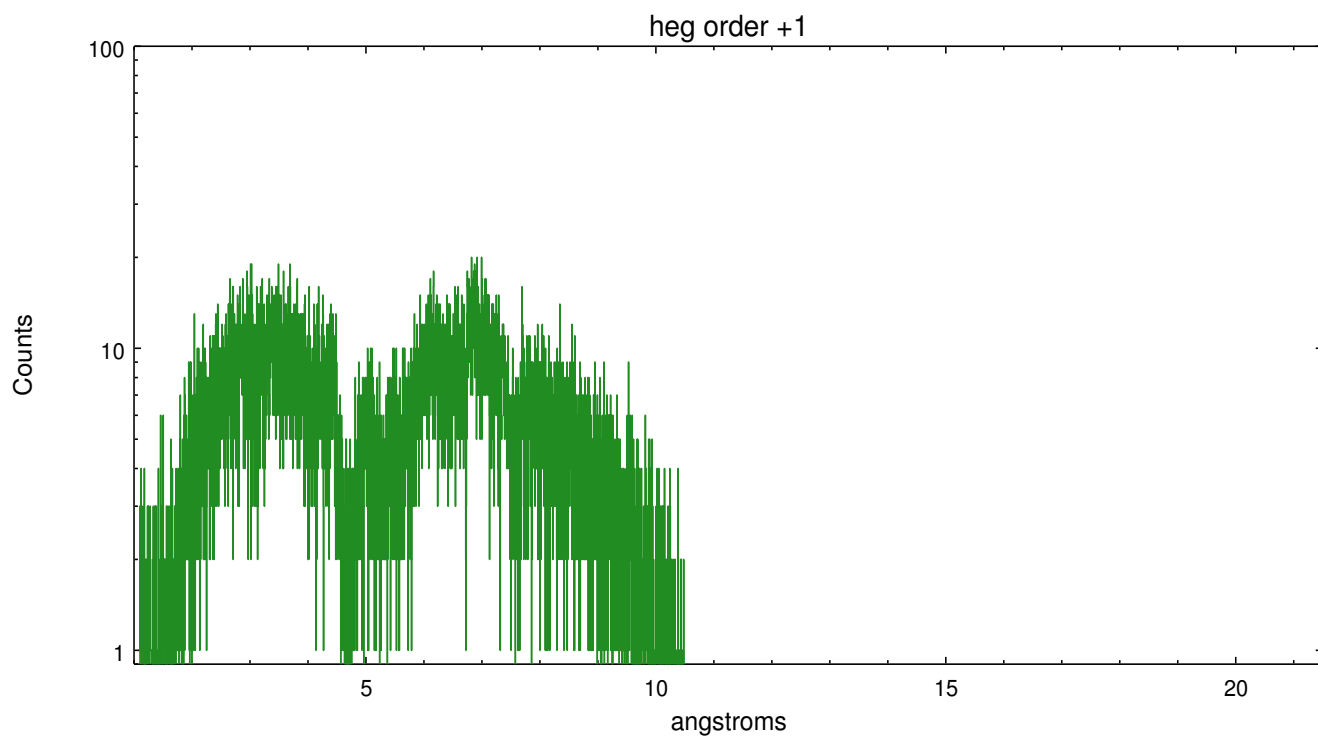
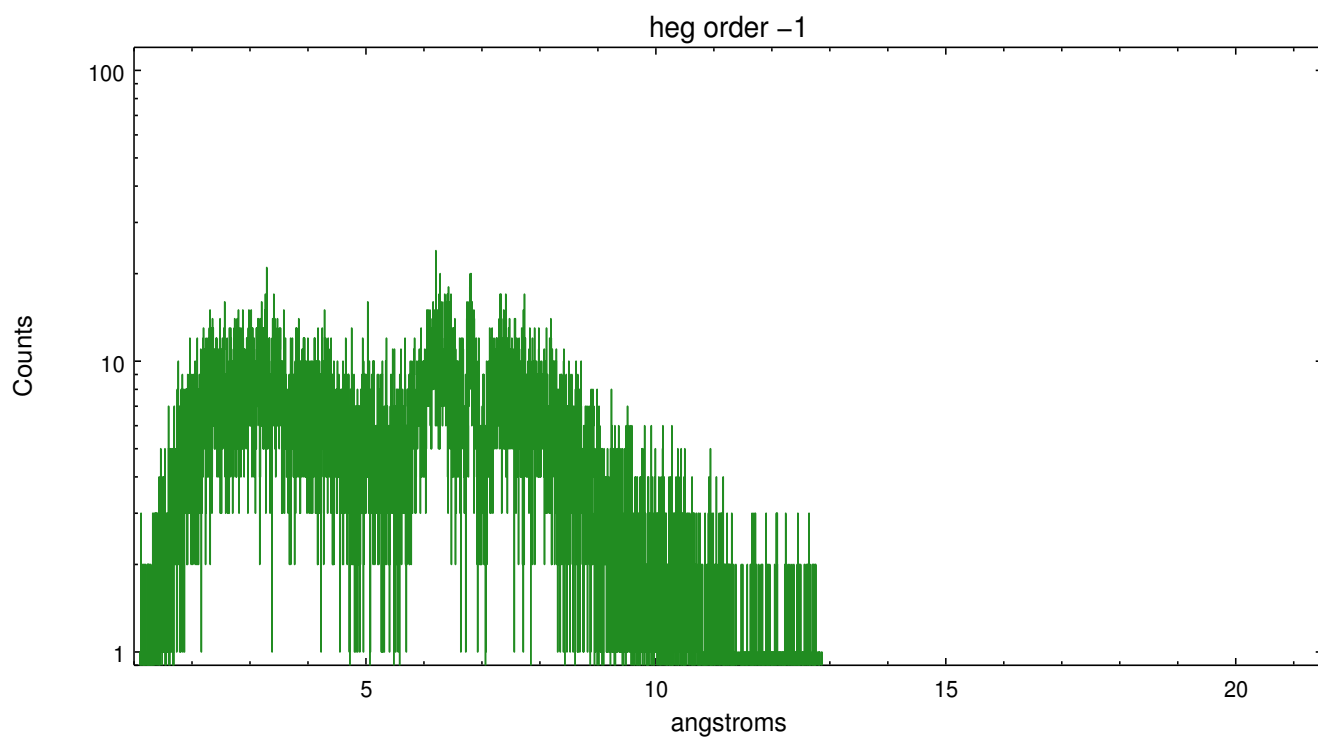


Spot Image HEG

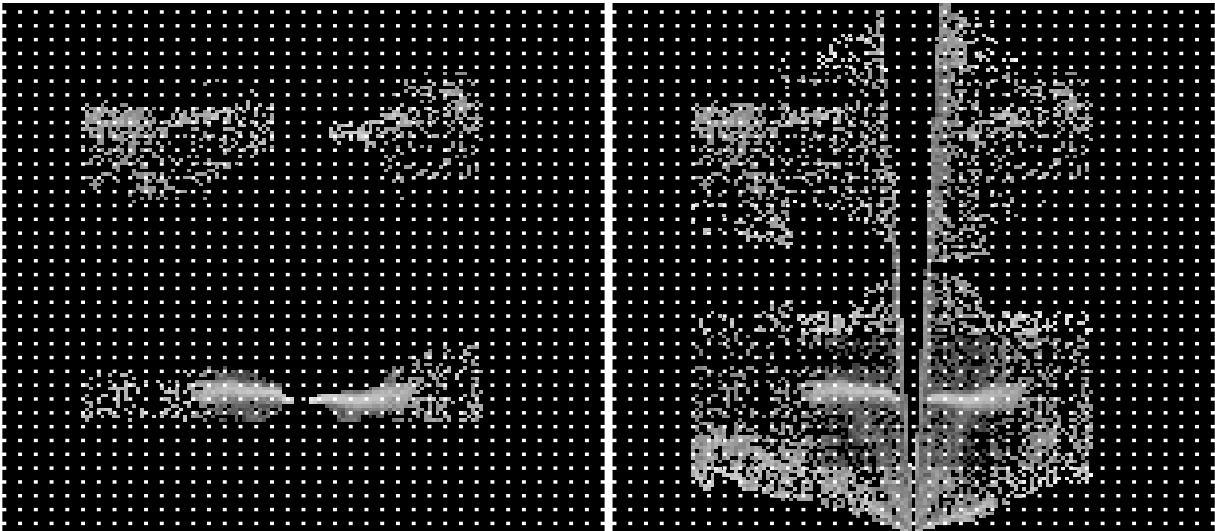
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1713	3213	22410	105223	21257	1856	1445



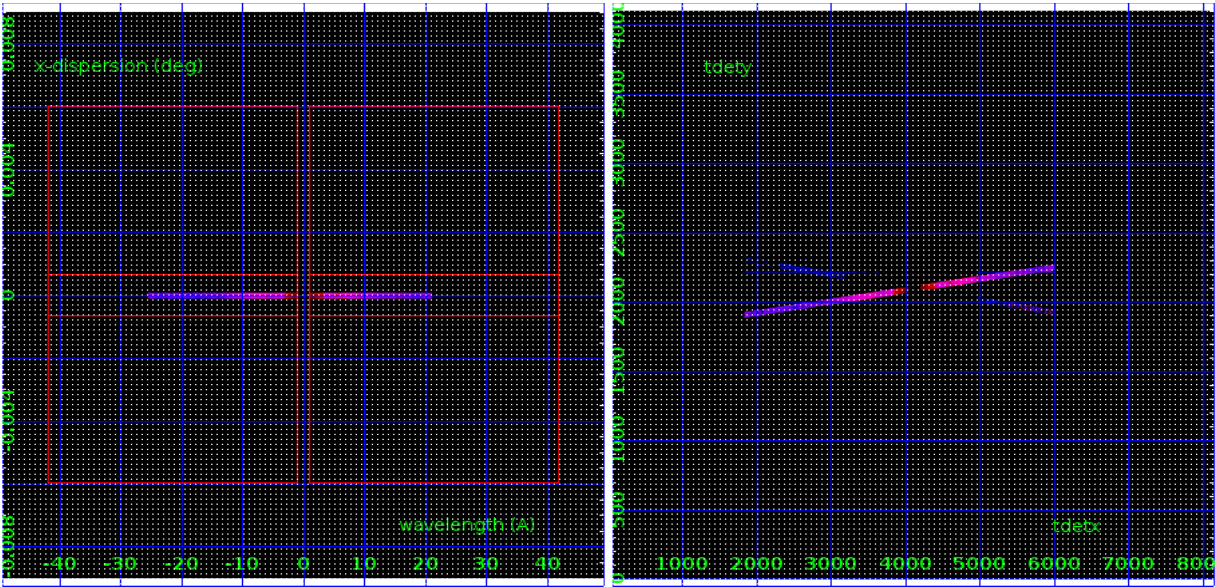


3.2 MEG Arm



MEG Order Sort 123

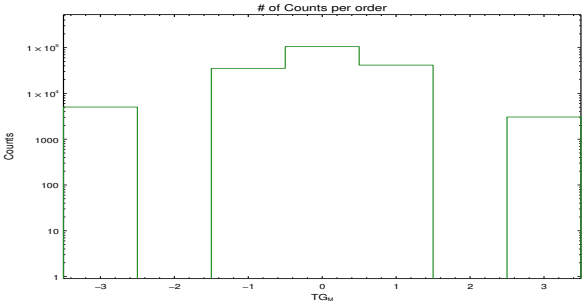
MEG Order Sort ALL

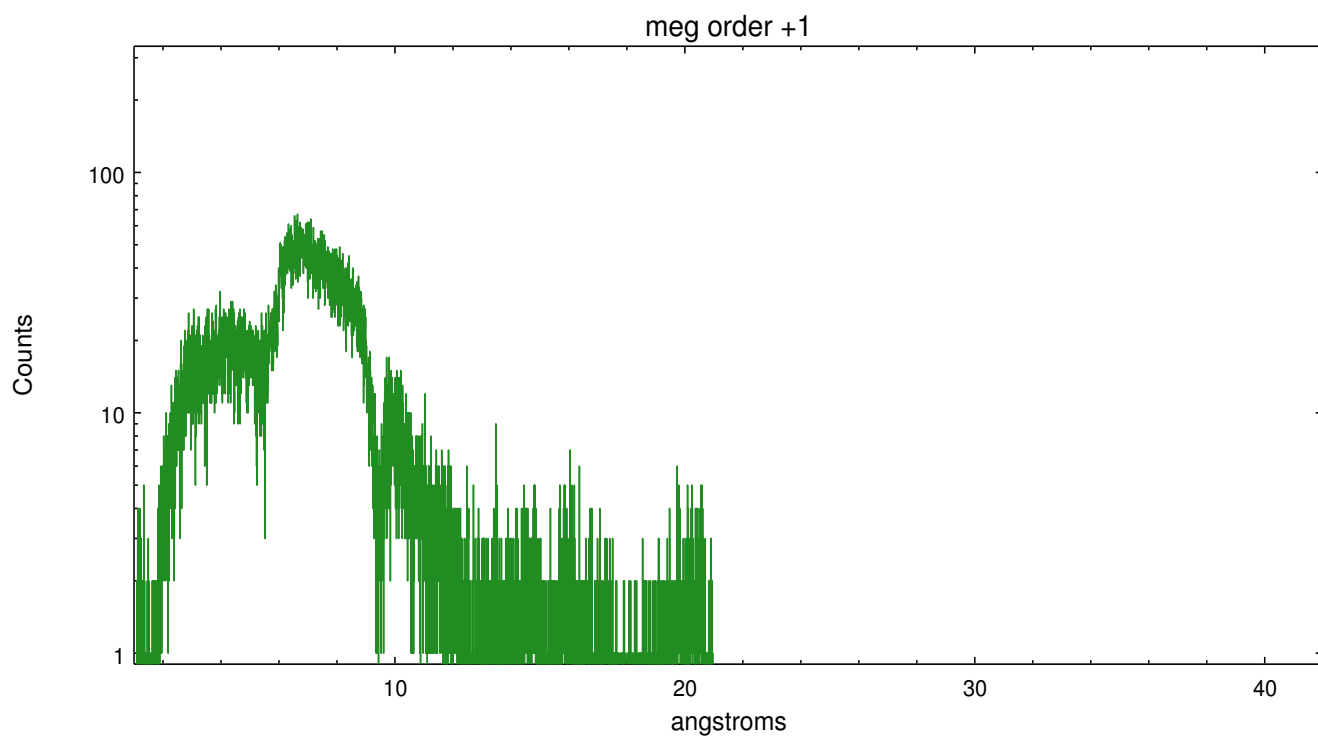
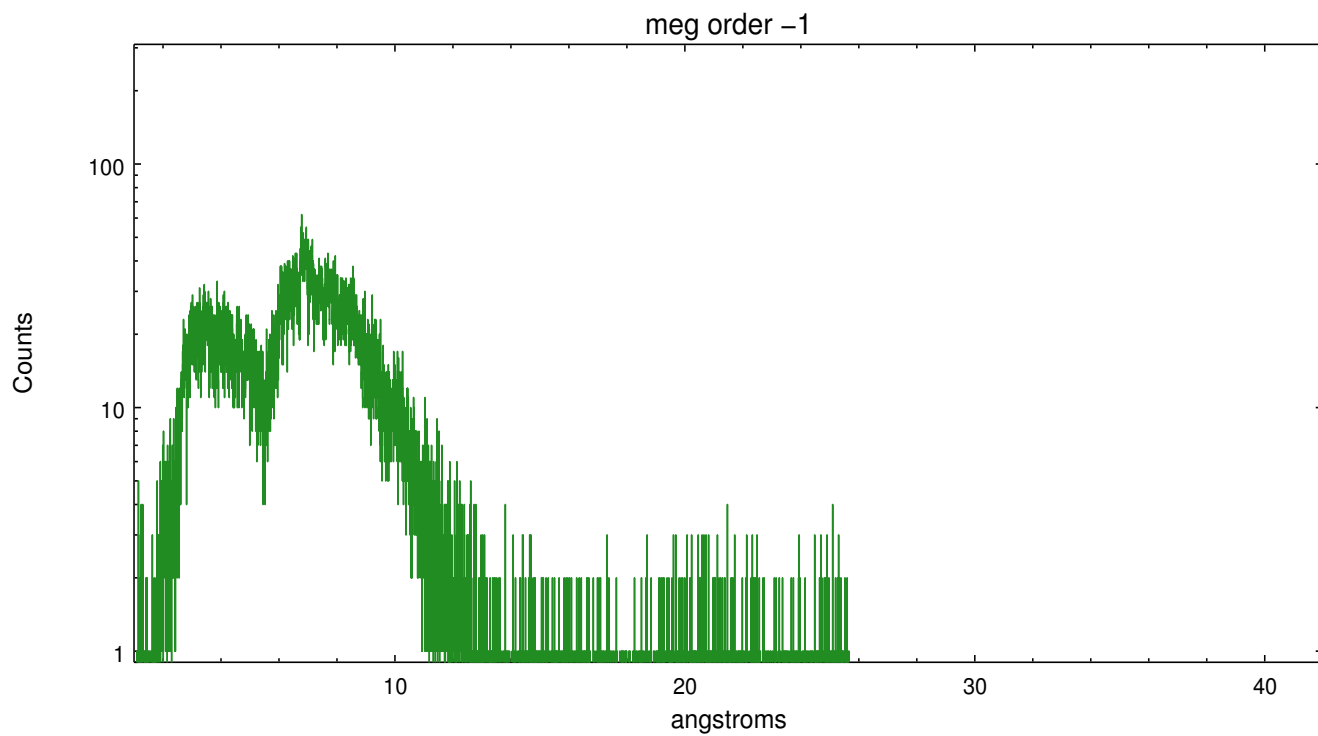


Spot Image MEG

Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	5038	0	35238	105223	41532	0	3052





A Summary

A.1 Status

V&V Scientist	Glenn Allen
V&V Date (YYYY-MM-DD)	2016.06.24
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.04725

A.2 Comments