

V&V Reference Report

L2 ASCDS Version : 10.5

Observation 18874 - L2 Version 1
Chandra X-Ray Center

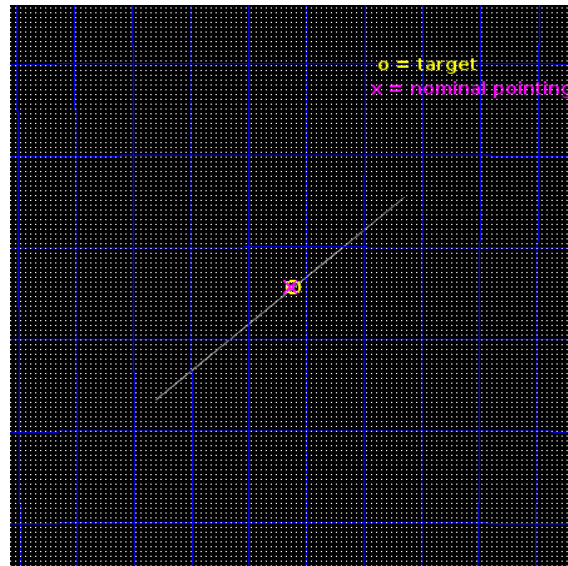
L2 Processing Date : Jun 25 2016

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

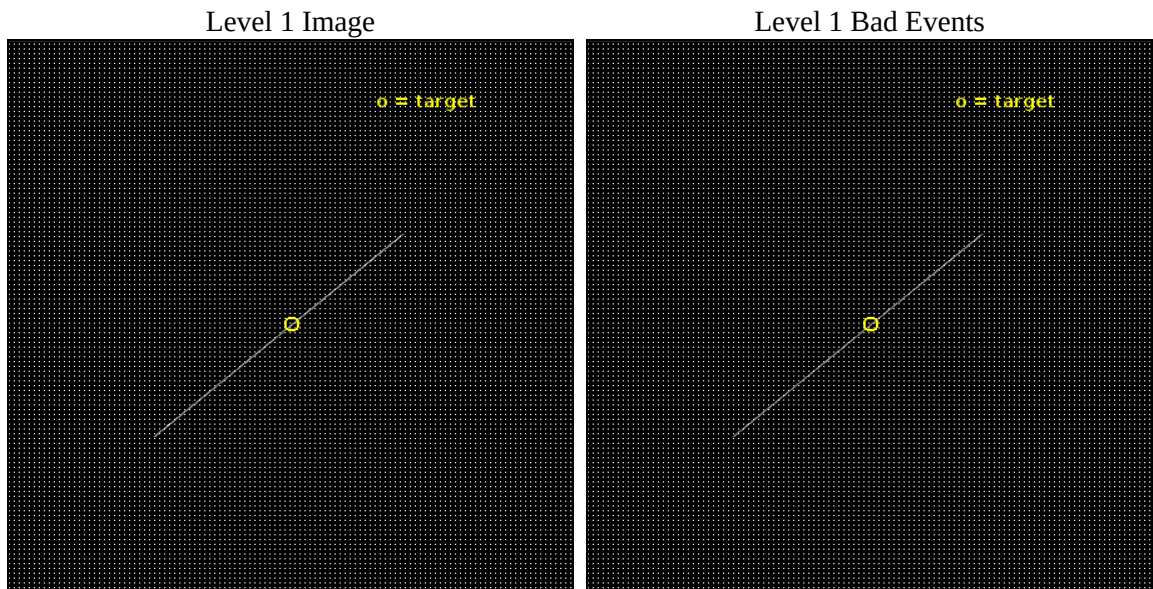
seq_num	401722	Sequence number
obs_id	18874	Observation id
title	FOLLOWING THE ULTRA-FAST WINDS IN STELLAR-MASS BLACK HOLE, IGR J17091-3624	Proposal title
observer	Dr. Ashley King	Principal investigator
object	IGR J17091-3624	Source name
ra_targ	257.279167	Observer's specified target RA [deg]
dec_targ	-36.406944	Observer's specified target Dec [deg]
ra_nom	257.28205796291	Nominal RA [deg]
dec_nom	-36.405605708649	Nominal Dec [deg]
roll_nom	319.6583780188	Nominal Roll [deg]
revision	1	Processing version of data
ontime	19941.75	Sum of GTIs [s]
livetime	19863.852539062	Livetime [s]
ontime5	19941.75	Sum of GTIs [s]
ontime6	19941.75	Sum of GTIs [s]
ontime7	19941.75	Sum of GTIs [s]
ontime8	19934.454155684	Sum of GTIs [s]
l2events	441348	Number of level 2 events



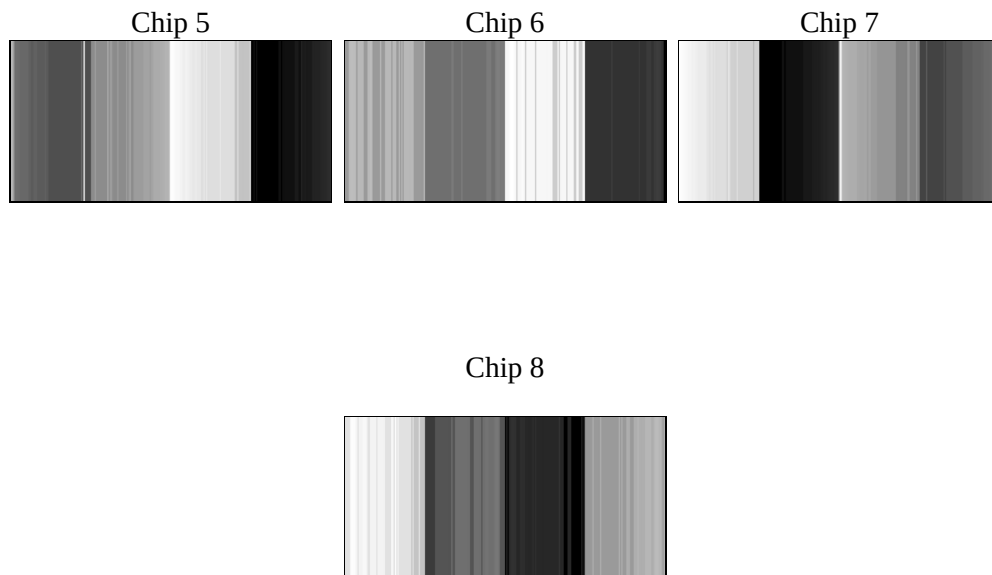
2 OBI

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	19941.75	Sum of GTIs [s]
caldsver	4.7.2	 	ontime5	19941.75	Sum of GTIs [s]
date	2016-06-25T15:58:29	Date and time of file creation	ontime6	19941.75	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	19941.75	Sum of GTIs [s]
			ontime8	19934.454155684	Sum of GTIs [s]
			l1events	1699119	Number of level 1 events
			tgmethod	TGDETECT	Method used to create src1a file
			zo_pos	(4103.57, 4078.29)	src1a sky pixel position

2.1.4 Events

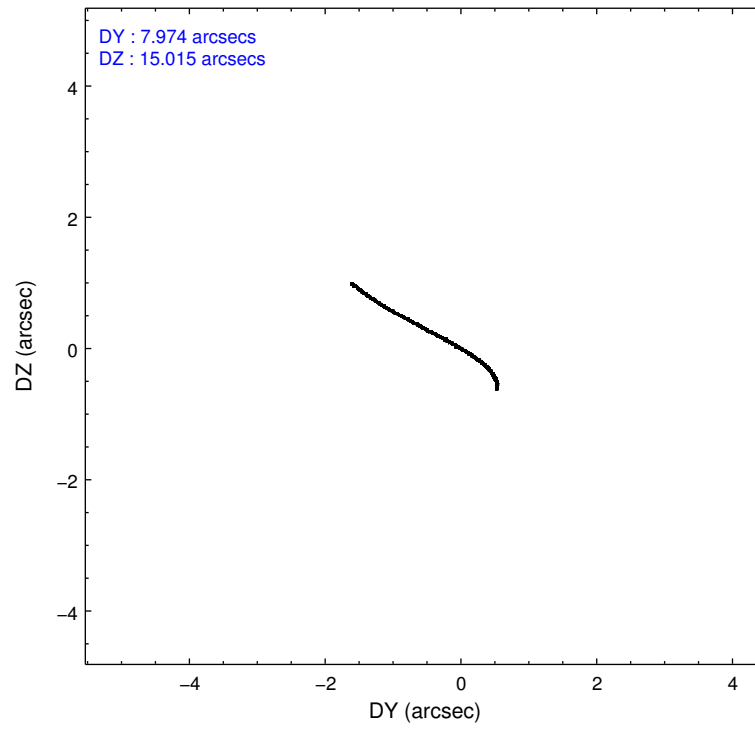
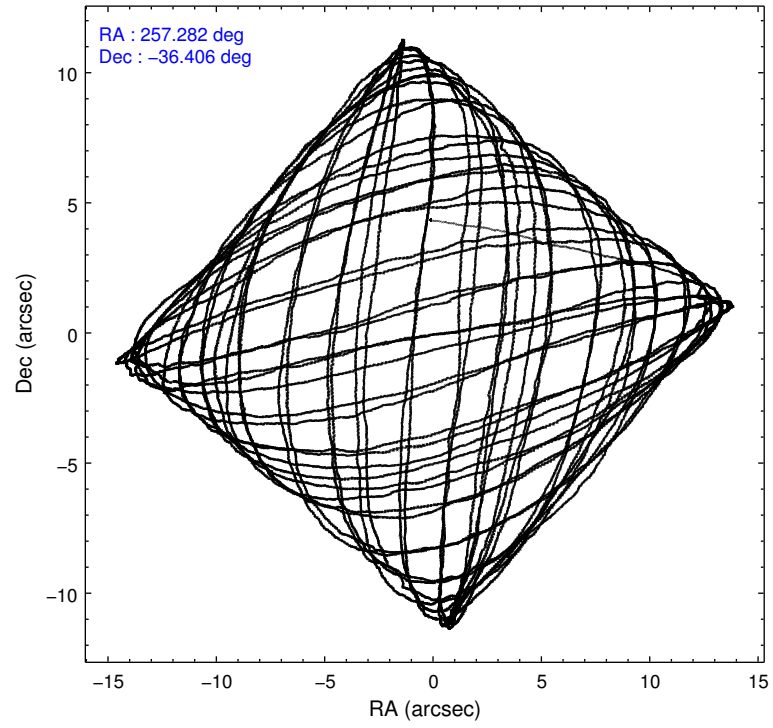
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	643020	276265	400750	379084
rejected events	221852	198716	172714	297581
rejected %	34%	71%	43%	78%

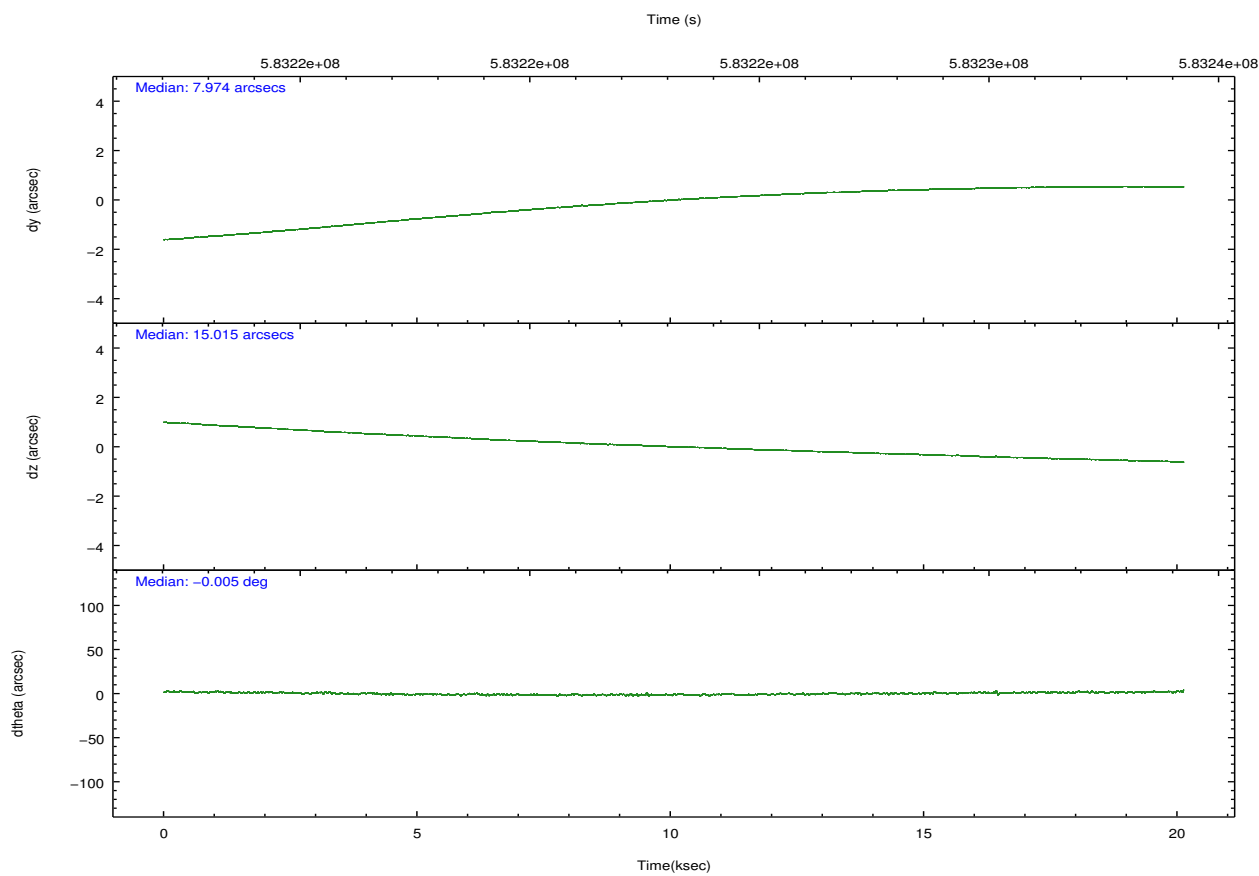
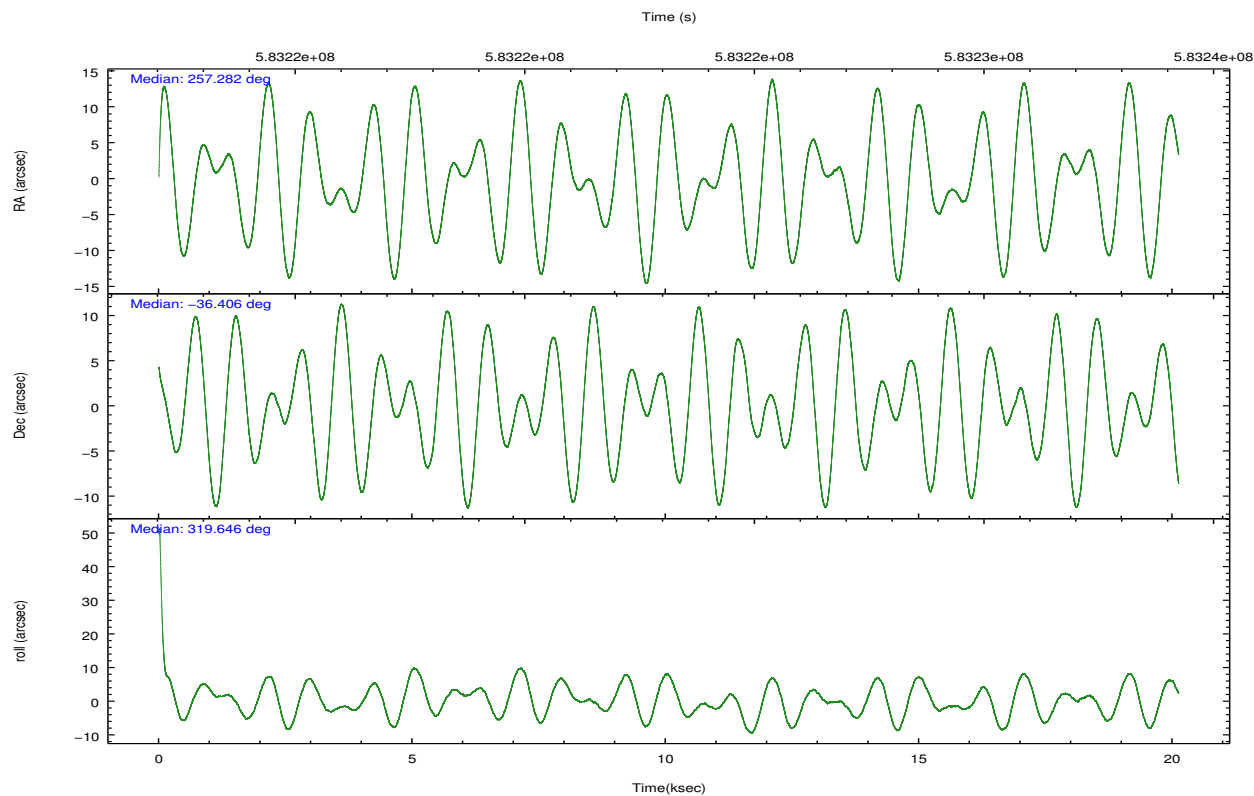
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	167582	4175	30498	19833
	26%	1%	7%	5%
grade 1 events	257	107	389	263
	0%	0%	0%	0%
grade 2 events	185208	56981	68586	31046
	28%	20%	17%	8%
grade 3 events	2541	2846	16696	6560
	0%	1%	4%	1%
grade 4 events	2482	2693	16369	6205
	0%	0%	4%	1%
grade 5 events	13838	6595	16227	9621
	2%	2%	4%	2%
grade 6 events	63519	10887	95994	17880
	9%	3%	23%	4%
grade 7 events	207593	191981	155991	287676
	32%	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	257.2820579629063	Subarray requested	NONE	NONE
[deg] Pointing Dec	-36.401040	-36.40560570864946	Alternating exposures requested	N	N
[deg] Pointing Roll	319.481746	319.6583780188024	[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	-187.1254020033014			
[mm] SIM translation stage offset	-3	-3.007120579706367			
[s] Observation start time (MET)	583213194.184000	583211859.39368			
Observation start date	2016-06-25T03:38:46	2016-06-25T03:17:39			
[s] Observation end time (MET)	583233194.184000	583233607.84492			
Observation end date	2016-06-25T09:12:06	2016-06-25T09:20:07			
Read mode	CONTINUOUS	CONTINUOUS			

2.3 Aspect



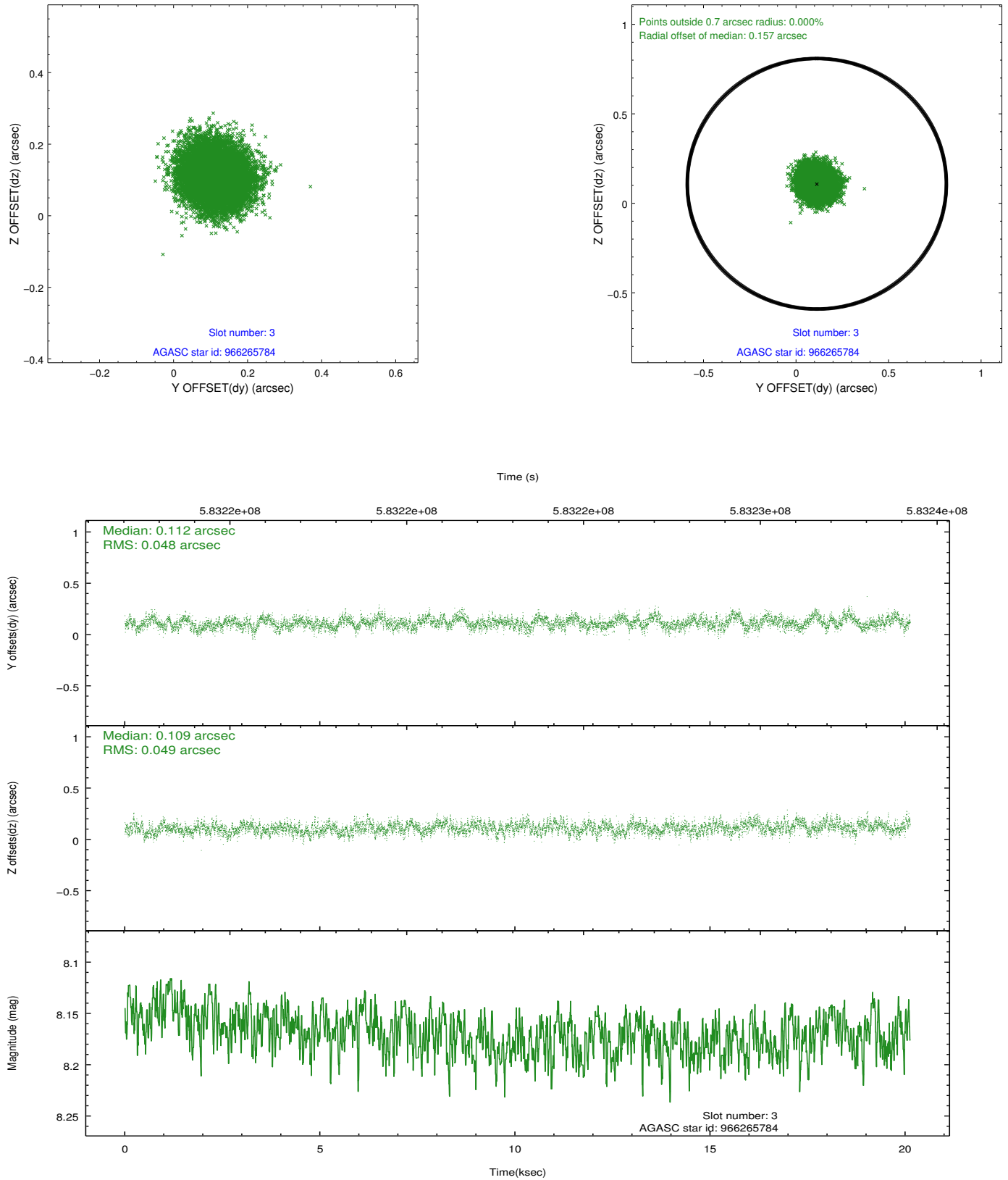


Slot Statistics

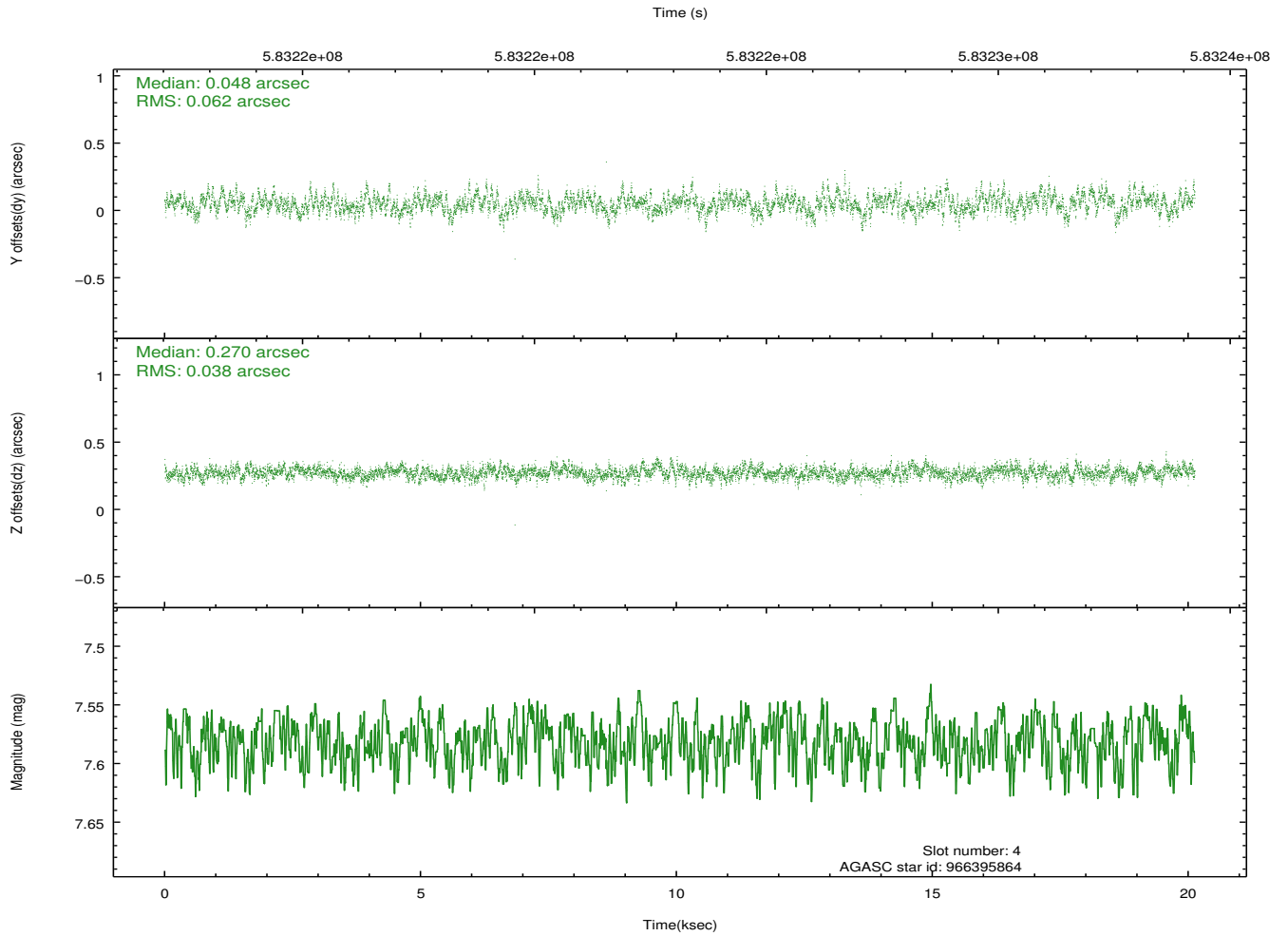
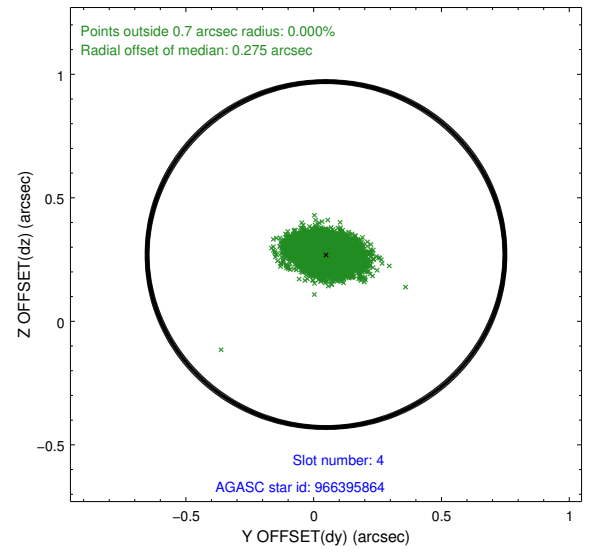
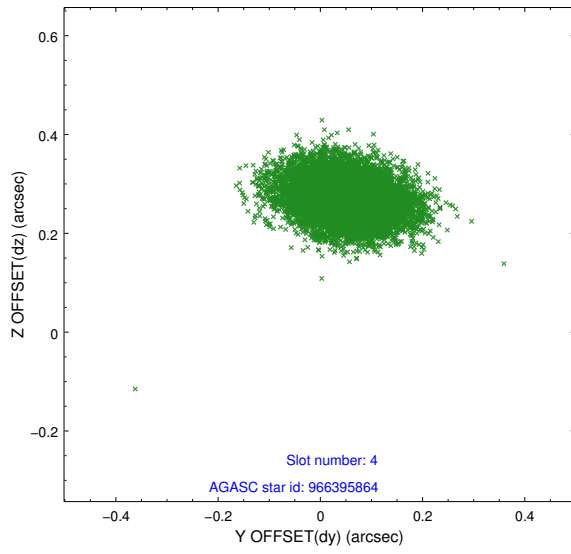
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-1	7.19	4908	0.102	0.068	0.028	0.057	0.000000	0.000000	935.80	-1794.10
1	FID		ACIS-S-2	7.10	4908	-0.168	-0.091	0.017	0.024	0.000000	0.000000	-760.27	-1799.02
2	FID		ACIS-S-6	7.39	4908	0.047	0.026	0.017	0.038	0.000000	0.000000	401.33	746.97
3	GUIDE	used	966265784	8.17	9814	0.112	0.109	0.073	0.116	256.470188	-36.588190	-1265.67	-1980.32
4	GUIDE	used	966395864	7.58	9817	0.048	0.270	0.075	0.130	256.670769	-36.077904	-2029.93	-211.35
5	GUIDE	used	966398520	8.29	9816	0.085	-0.020	0.096	0.164	256.842646	-35.892866	-2085.81	619.65
6	GUIDE	used	966402904	8.07	9816	-0.250	-0.376	0.078	0.125	257.709598	-36.005094	96.47	1953.89
7	GUIDE	used	966394144	8.60	9815	0.008	0.019	0.119	0.198	256.902901	-37.062041	793.28	-2455.18

2.4 Star Slots

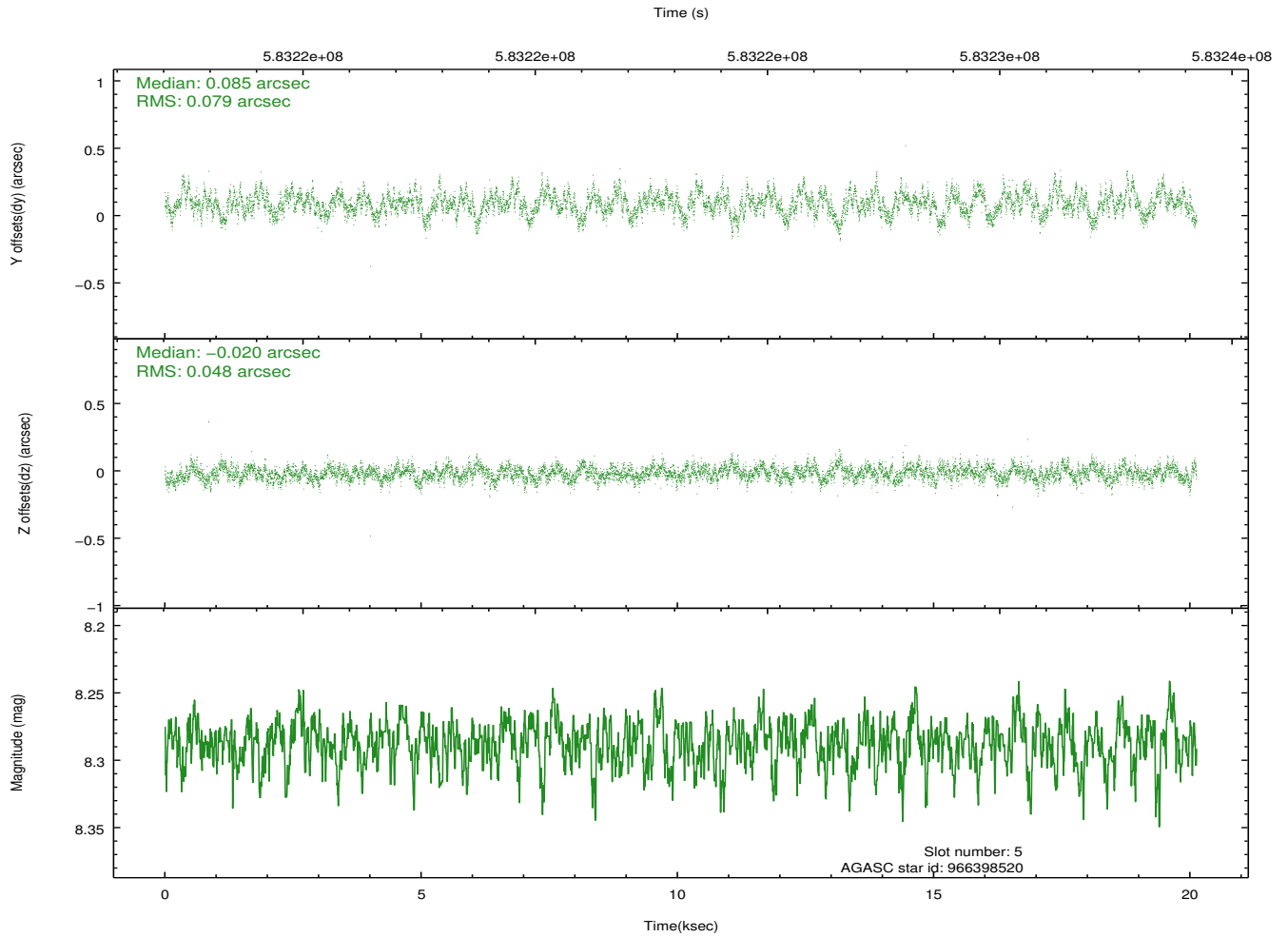
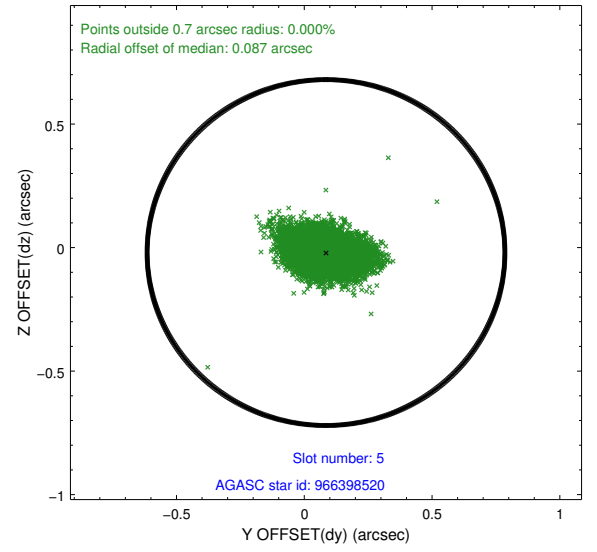
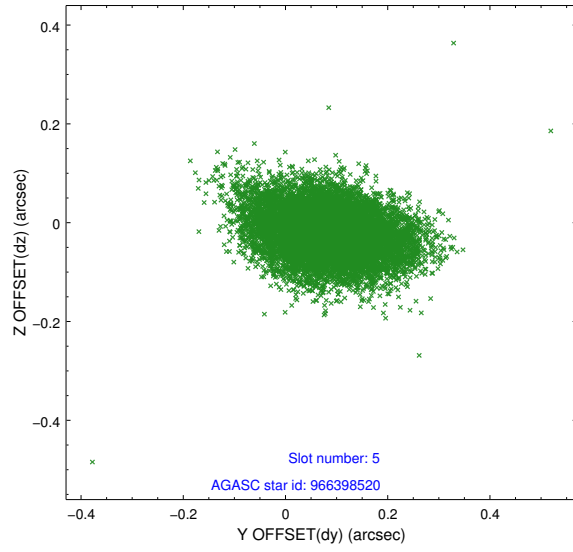
2.4.1 Slot 3



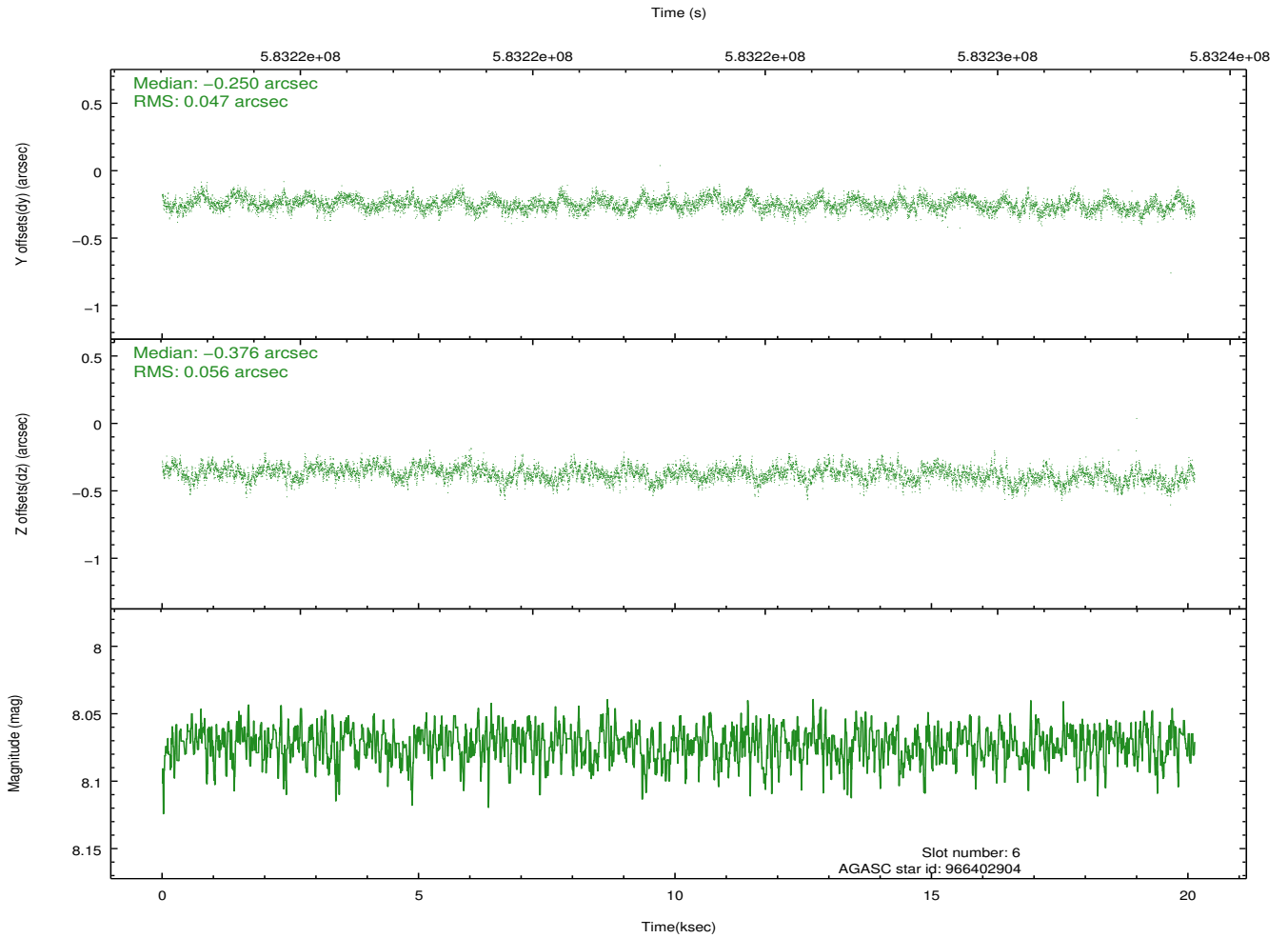
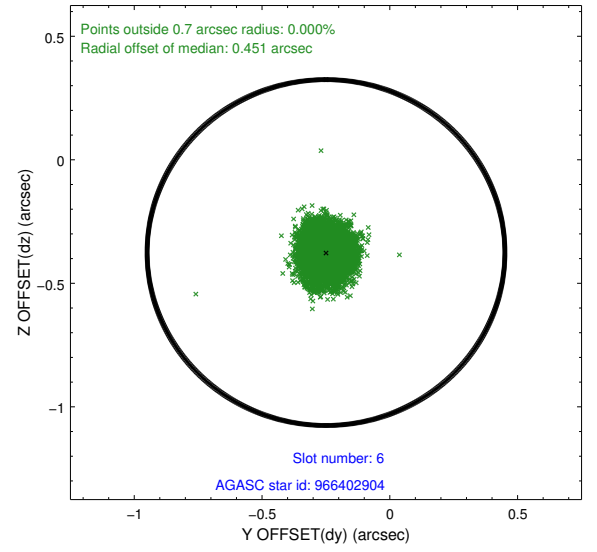
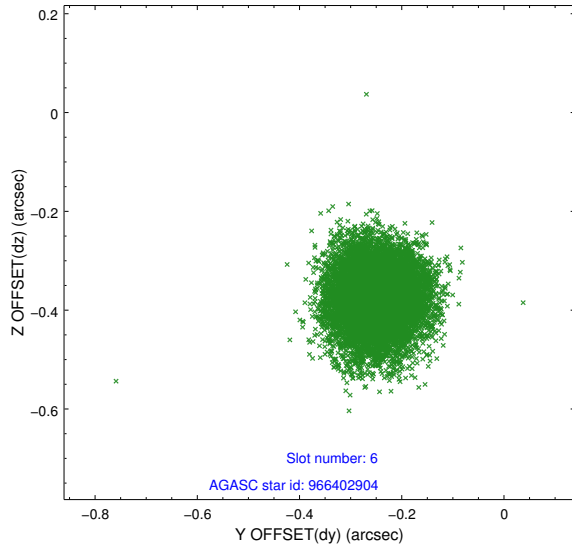
2.4.2 Slot 4



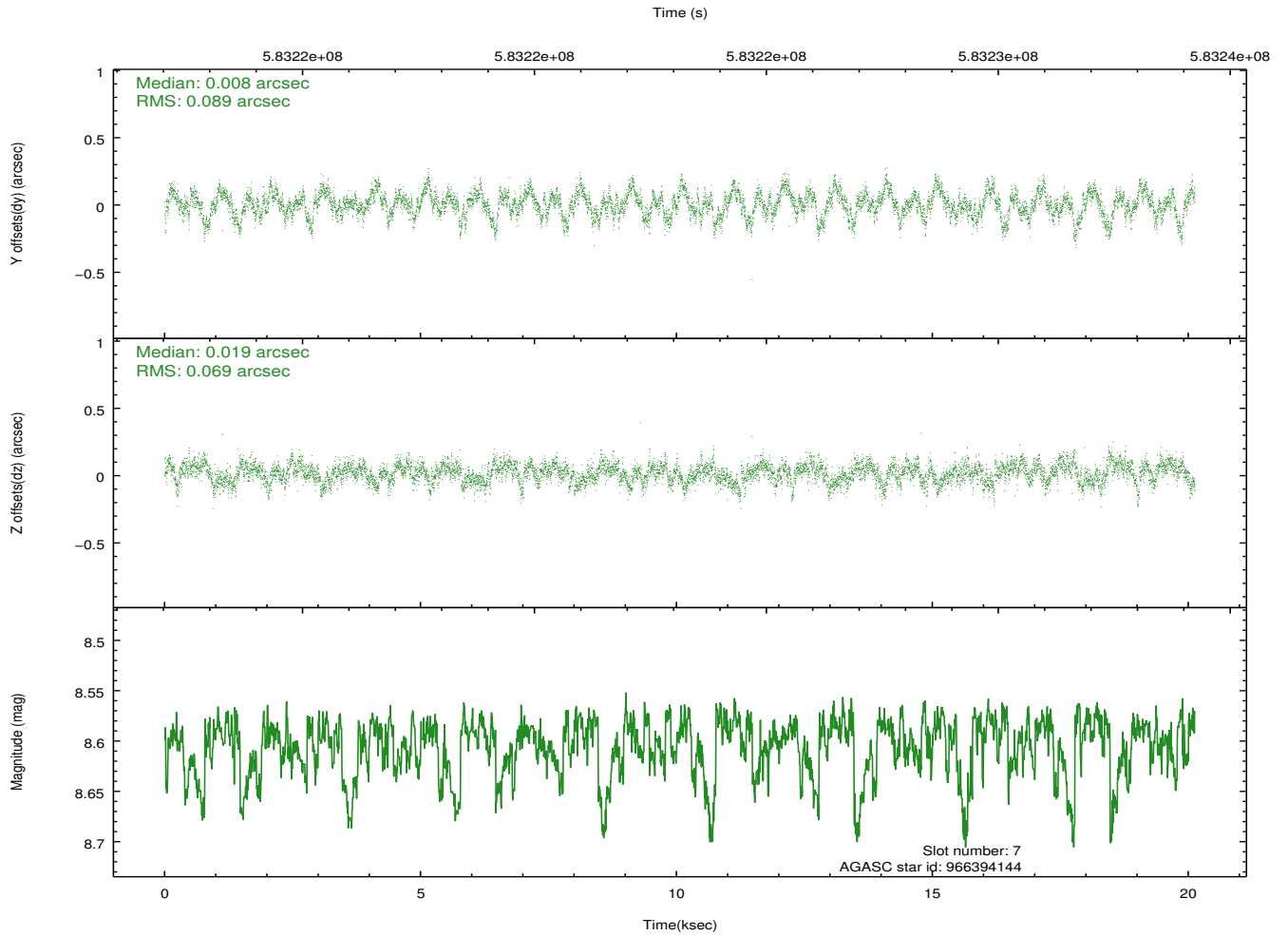
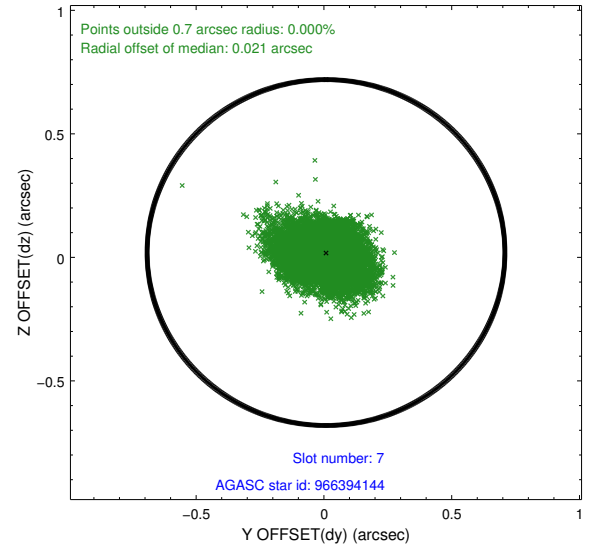
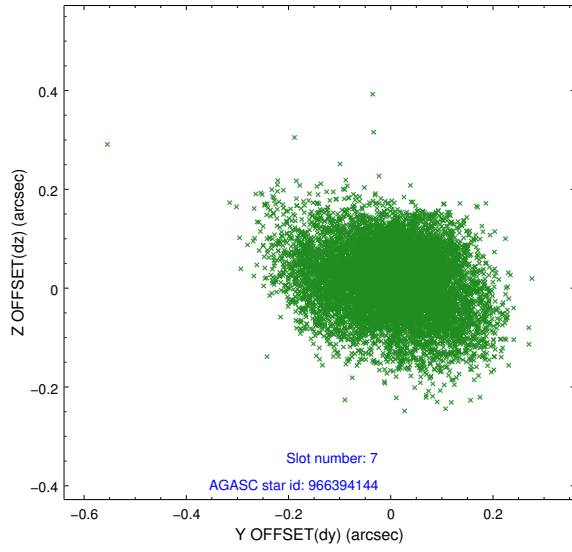
2.4.3 Slot 5



2.4.4 Slot 6

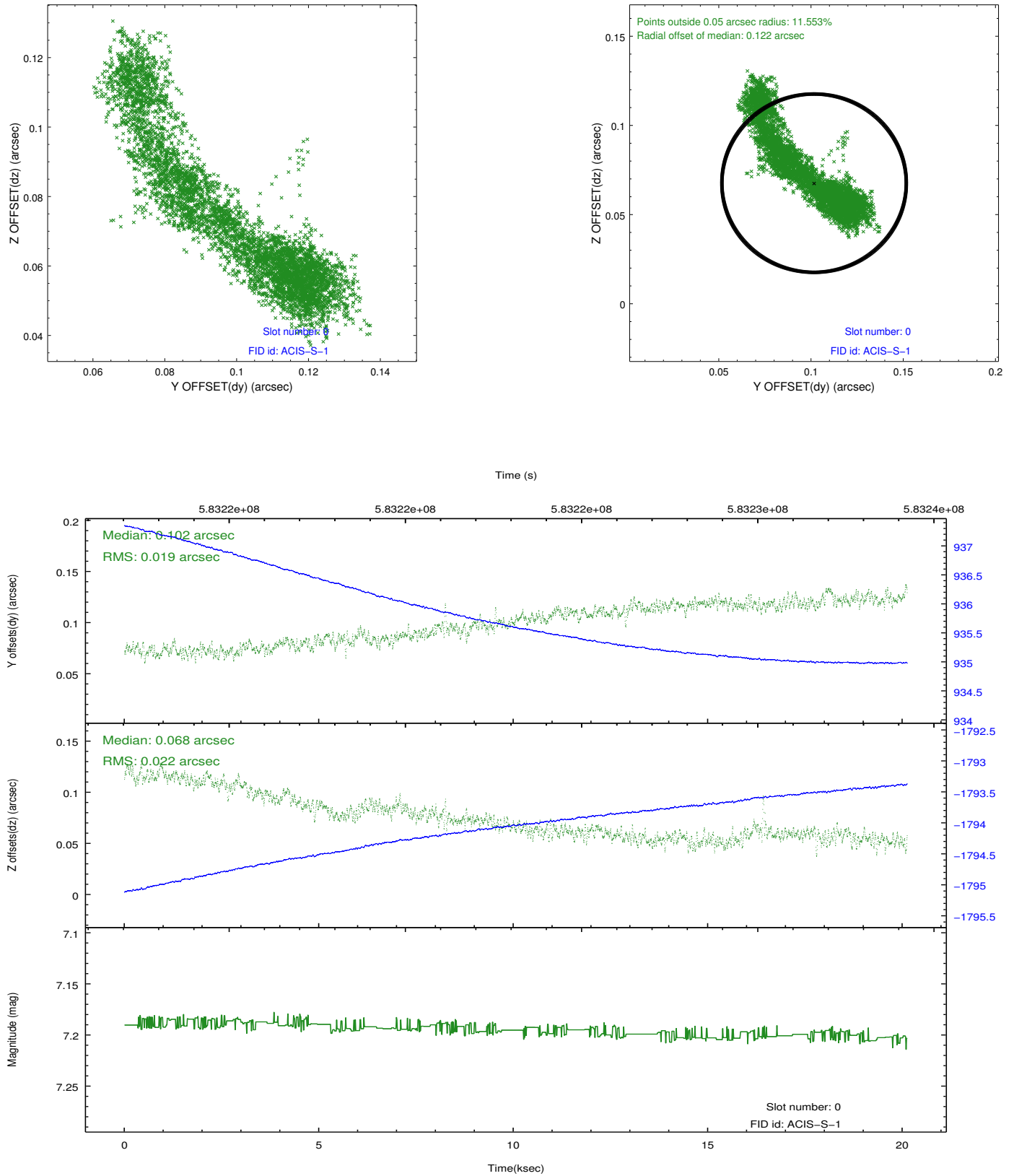


2.4.5 Slot 7

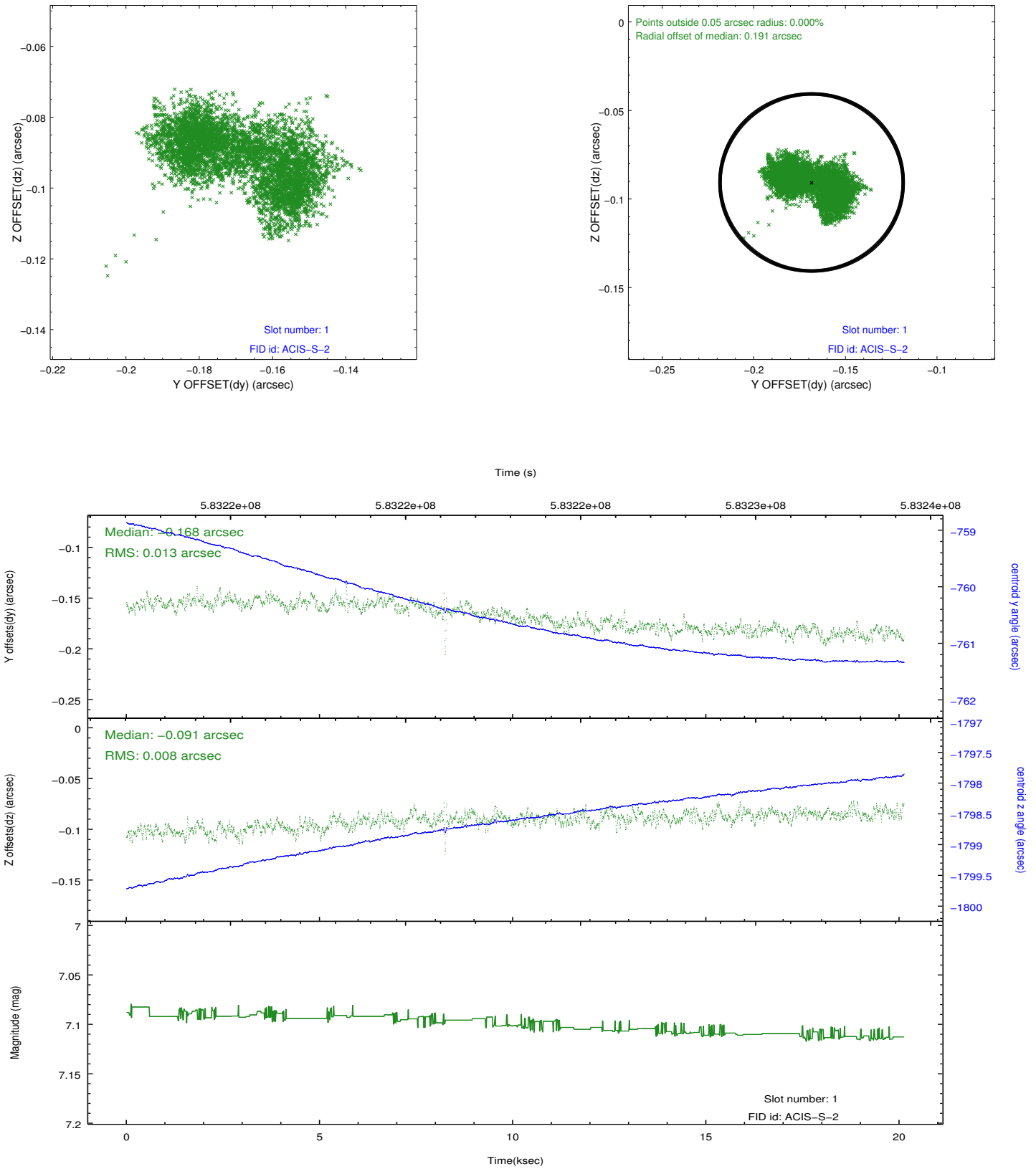


2.5 FID Slots

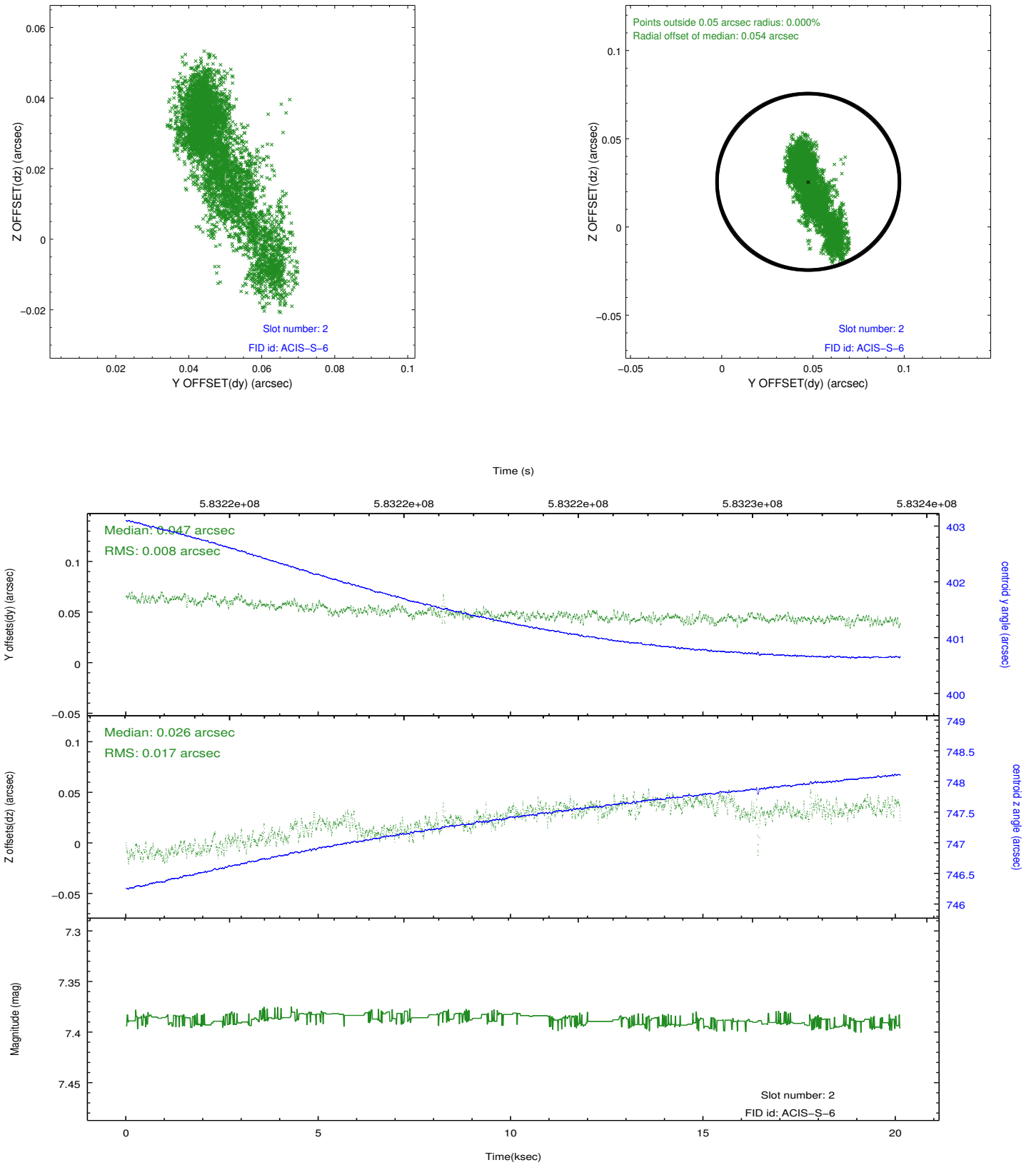
2.5.1 Slot 0



2.5.2 Slot 1

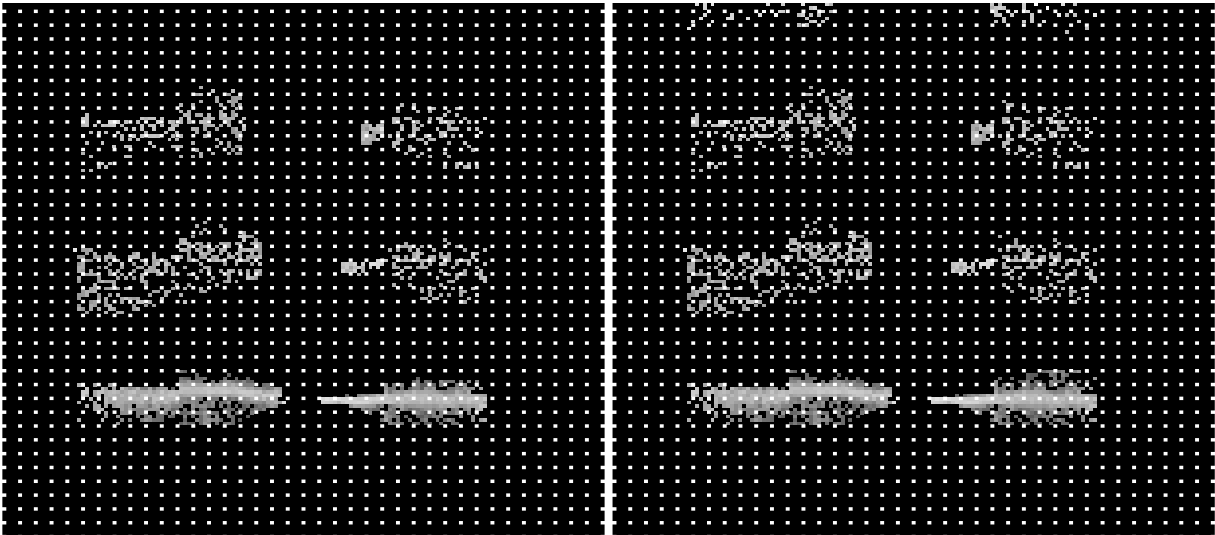


2.5.3 Slot 2



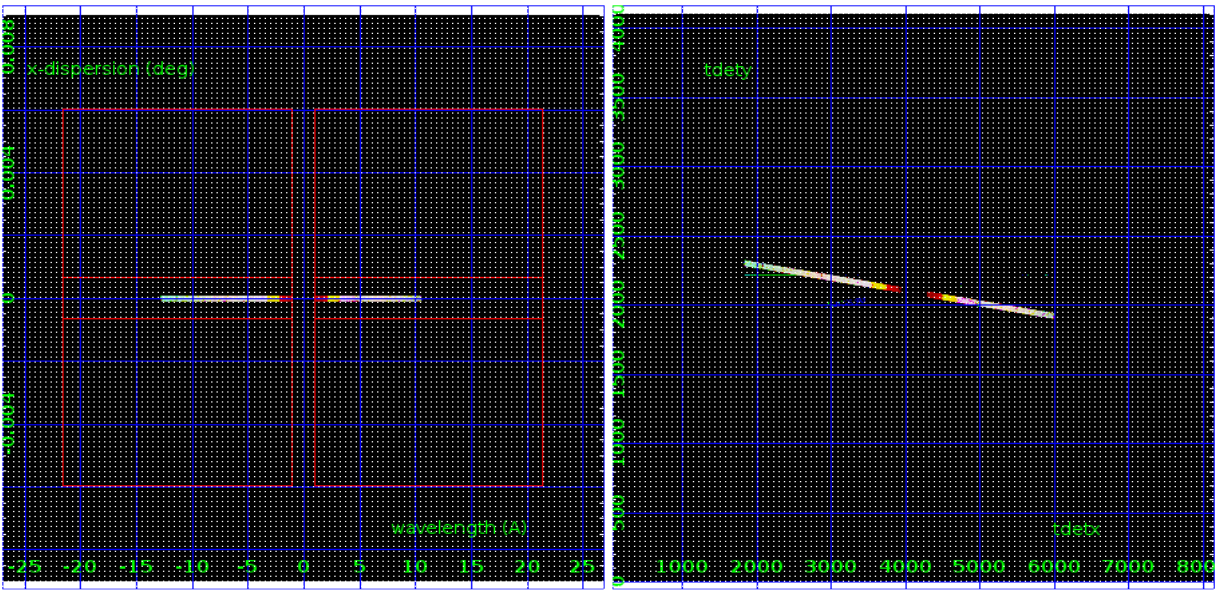
3 Gratings

3.1 HEG Arm



HEG Order Sort 123

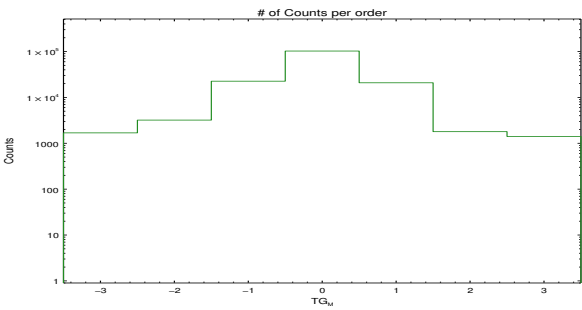
HEG Order Sort ALL

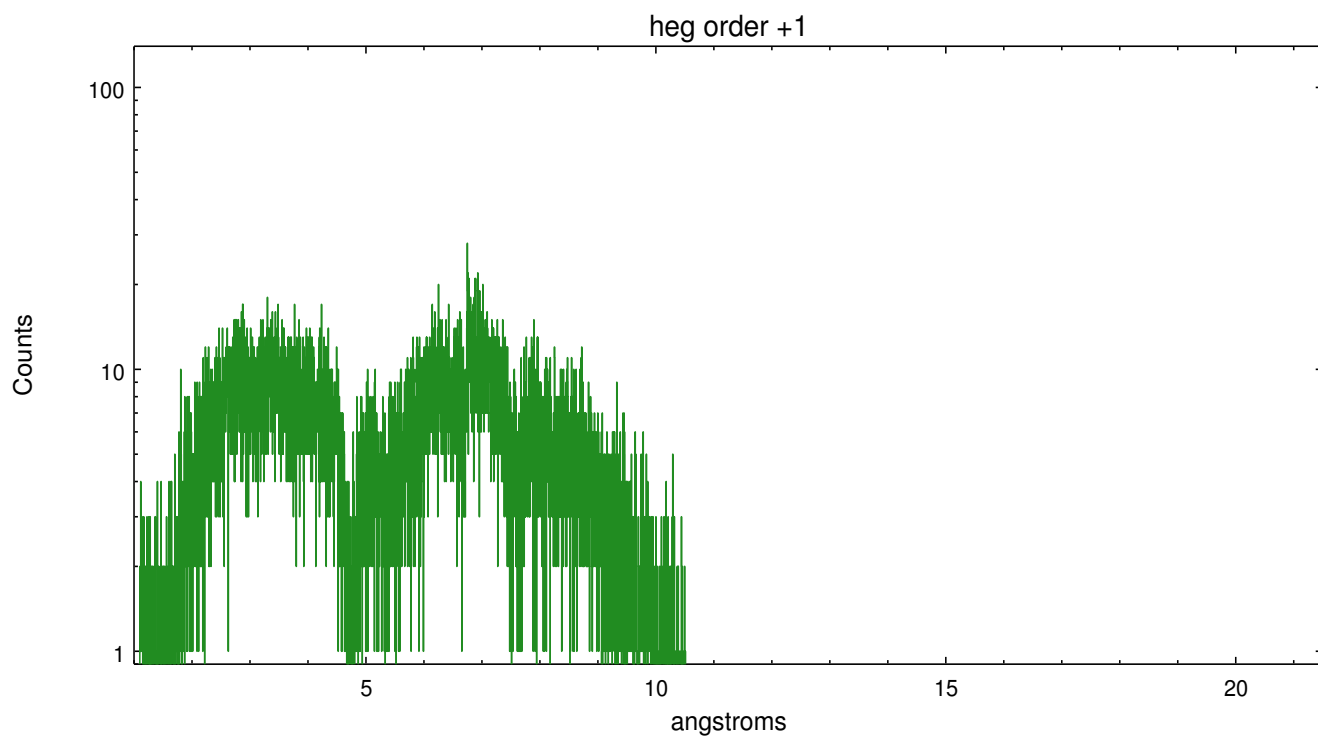
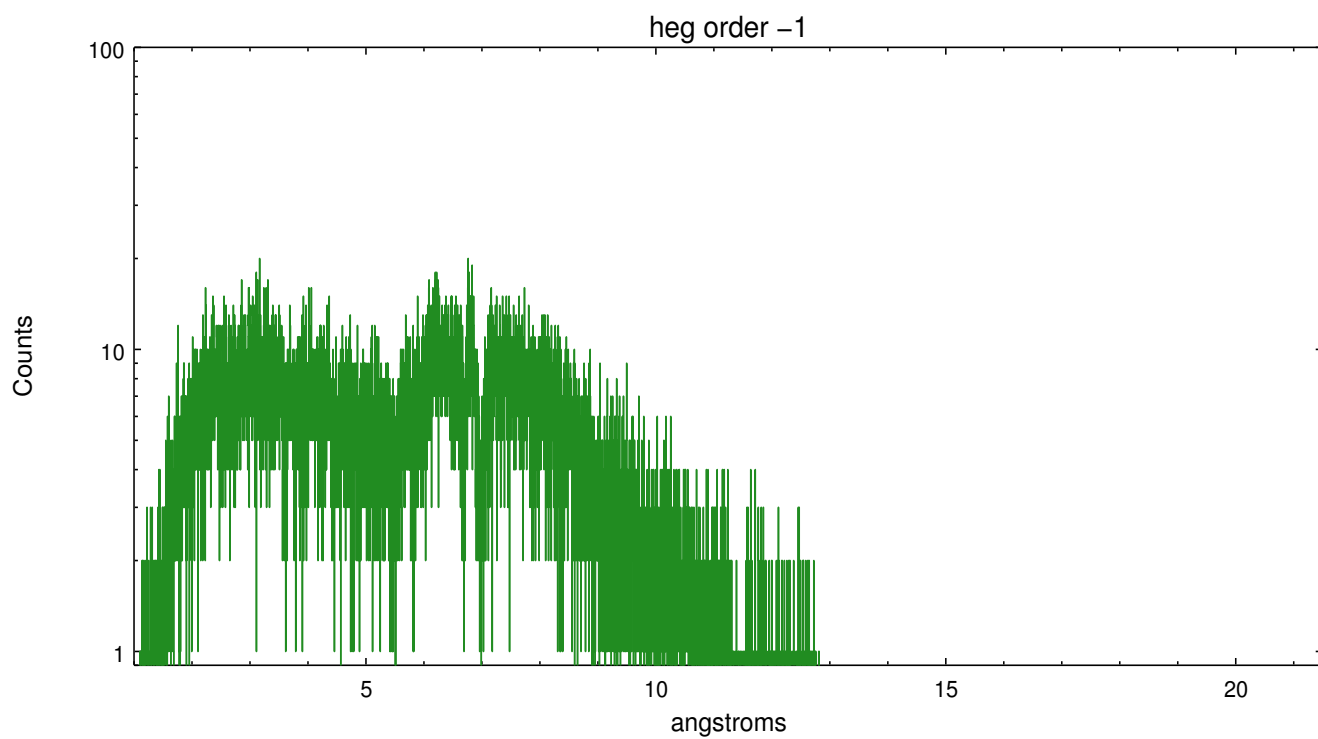


Spot Image HEG

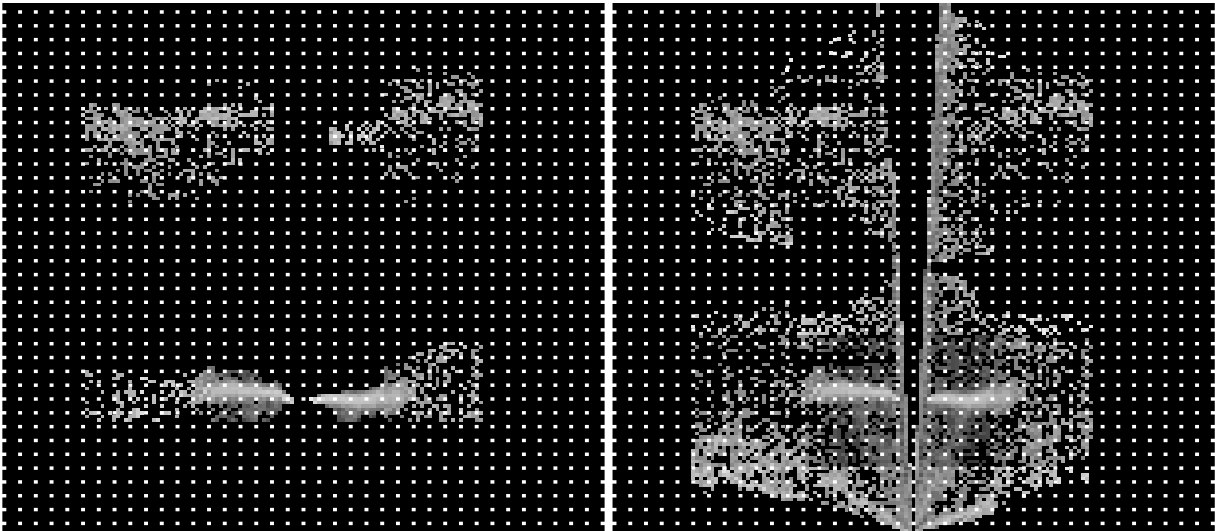
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1688	3204	22582	102626	20866	1794	1409



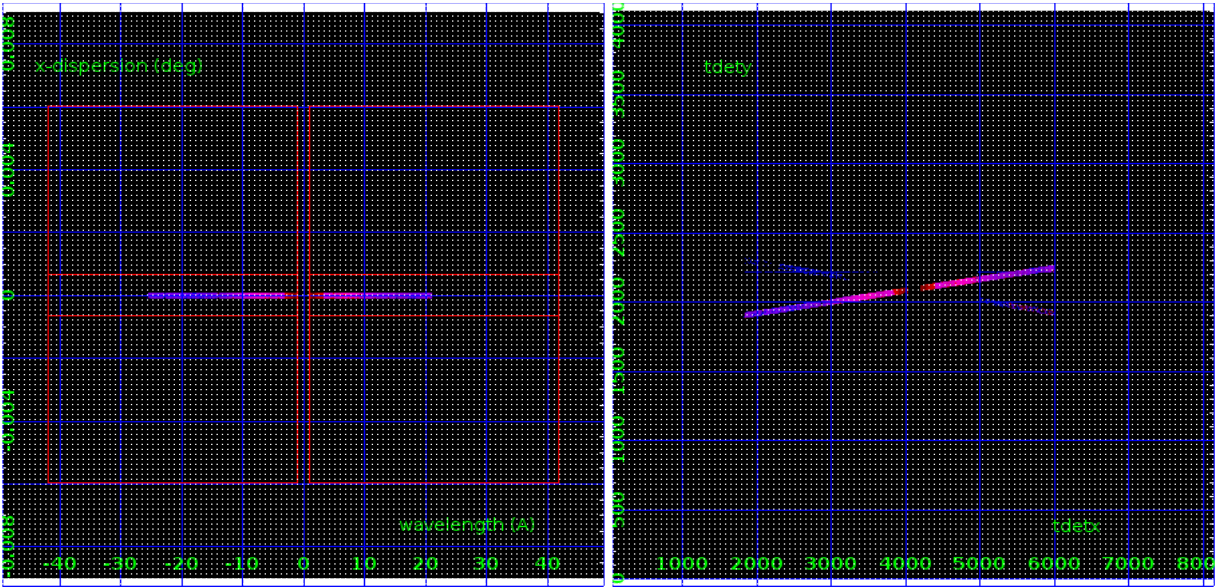


3.2 MEG Arm



MEG Order Sort 123

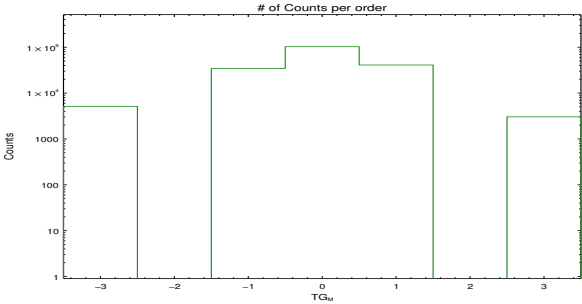
MEG Order Sort ALL

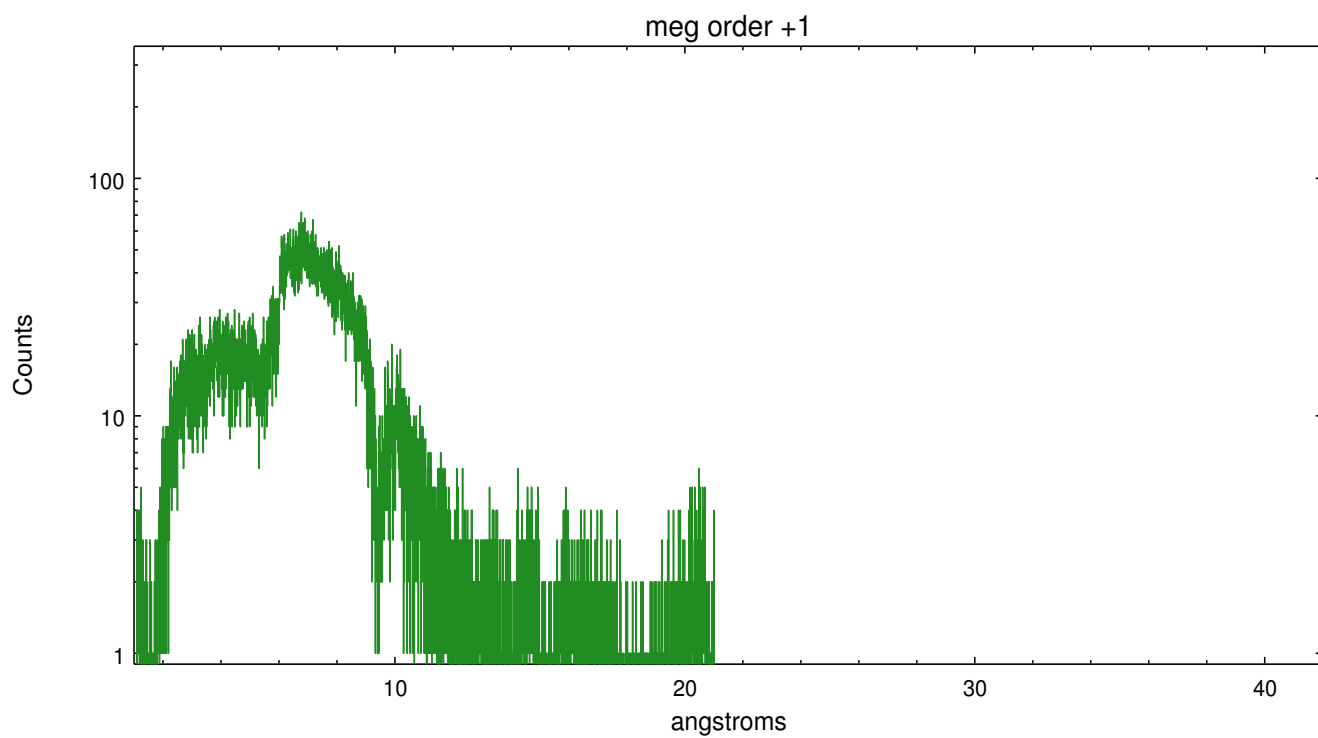
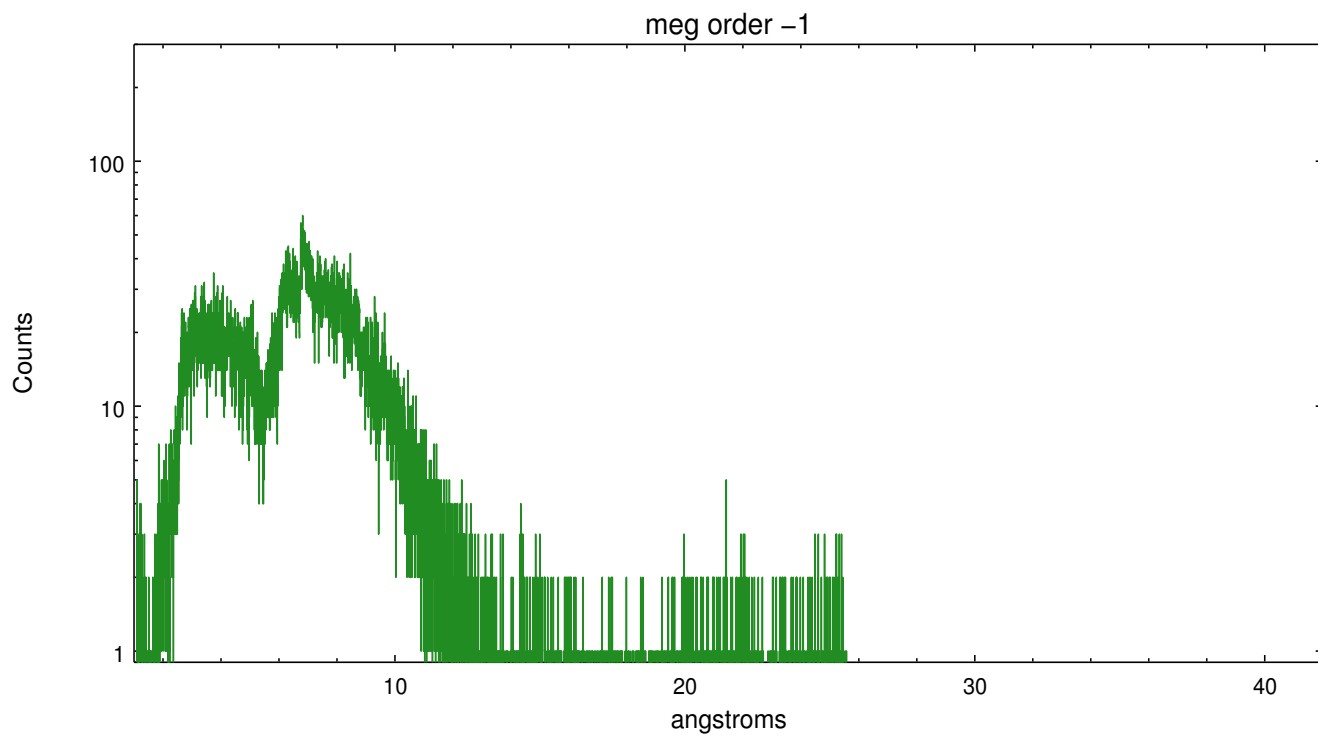


Spot Image MEG

Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	5135	0	34379	102626	40903	0	3030





A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2016.06.26
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	19.94175

A.2 Comments