

V&V Reference Report

L2 ASCDS Version : 10.7.1

Observation 22239 - L2 Version 1
Chandra X-Ray Center

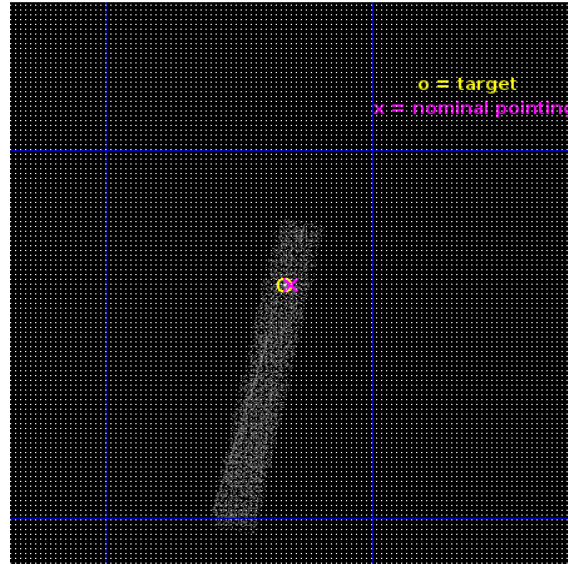
L2 Processing Date : Jun 16 2019

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

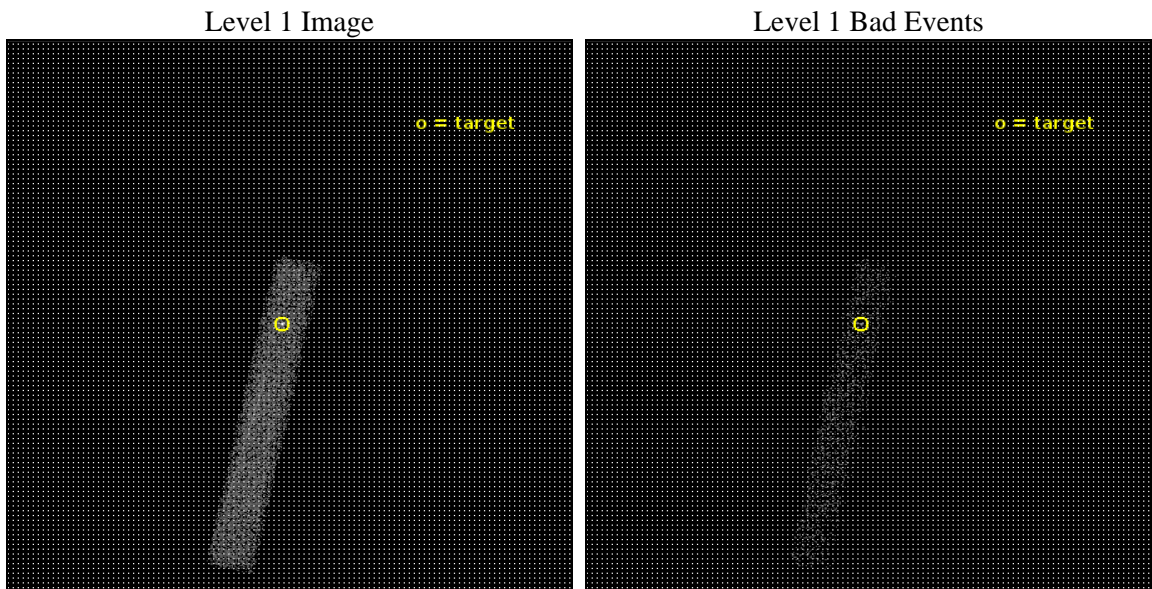
seq_num	703896	Sequence number
obs_id	22239	Observation id
title	Chandra observation of the gravitationally lensed balzar PKS 1830-211 during its brightest outburst	Proposal title
observer	Sara Buson	Principal investigator
object	PKS 1830-211	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	278.41625	Observer's specified target RA [deg]
dec_targ	-21.061194	Observer's specified target Dec [deg]
ra_nom	278.41286496423	Nominal RA [deg]
dec_nom	-21.061092299203	Nominal Dec [deg]
roll_nom	102.15291049723	Nominal Roll [deg]
revision	1	Processing version of data
ontime	10070.392864347	Sum of GTIs [s]
livetime	9133.3147690427	Livetime [s]
ontime7	10070.392864347	Sum of GTIs [s]
l2events	8728	Number of level 2 events



2 OBI

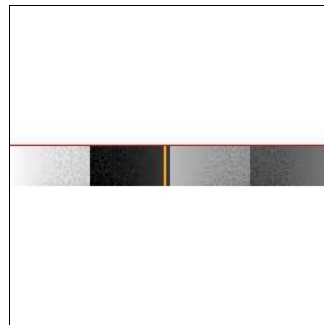
2.1 OBI

2.1.1 Images



2.1.2 Bias

Chip 7



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.7.1	Processing system revision	ontime	10070.392864347	Sum of GTIs [s]
caldsver	4.8.3	 	ontime7	10070.392864347	Sum of GTIs [s]
date	2019-06-16T17:03:15	Date and time of file creation	l1events	15902	Number of level 1 events
revision	1	Processing version of data	tgmetho	TGDETECT	Method used to create src1a file
			zo_pos	(4074.03, 4096.34)	src1a sky pixel position

2.1.4 Events

	ccd 7
level 1 events	15902
rejected events	6890
rejected %	43%

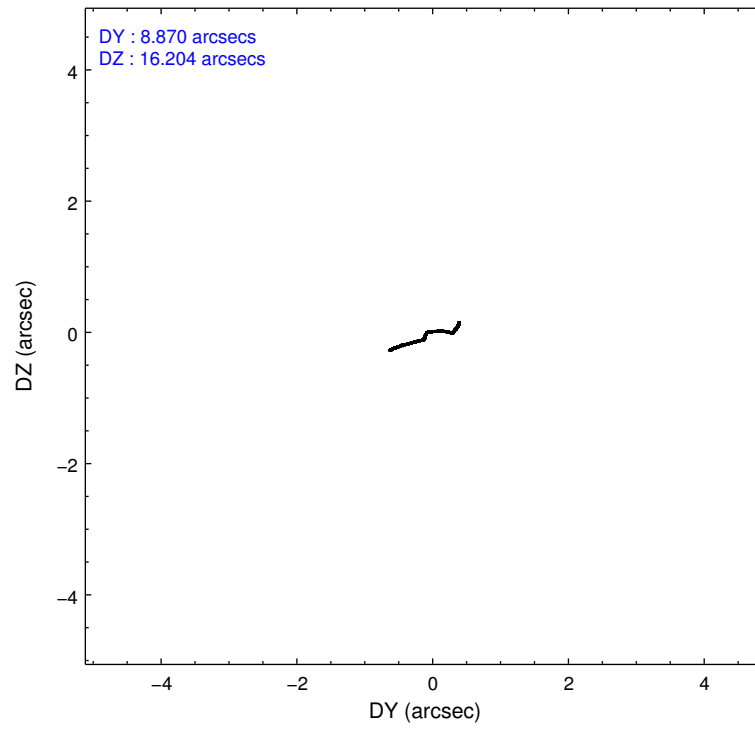
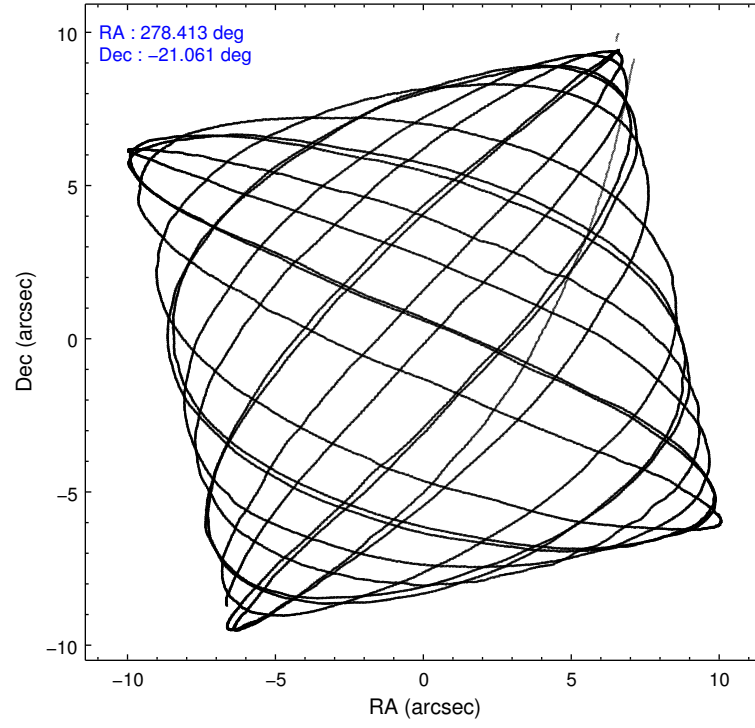
	ccd 7
grade 0 events	1227
	7%
grade 1 events	29
	0%
grade 2 events	1856
	11%
grade 3 events	1098
	6%
grade 4 events	1097
	6%
grade 5 events	1436
	9%
grade 6 events	3734
	23%
grade 7 events	5425
	34%

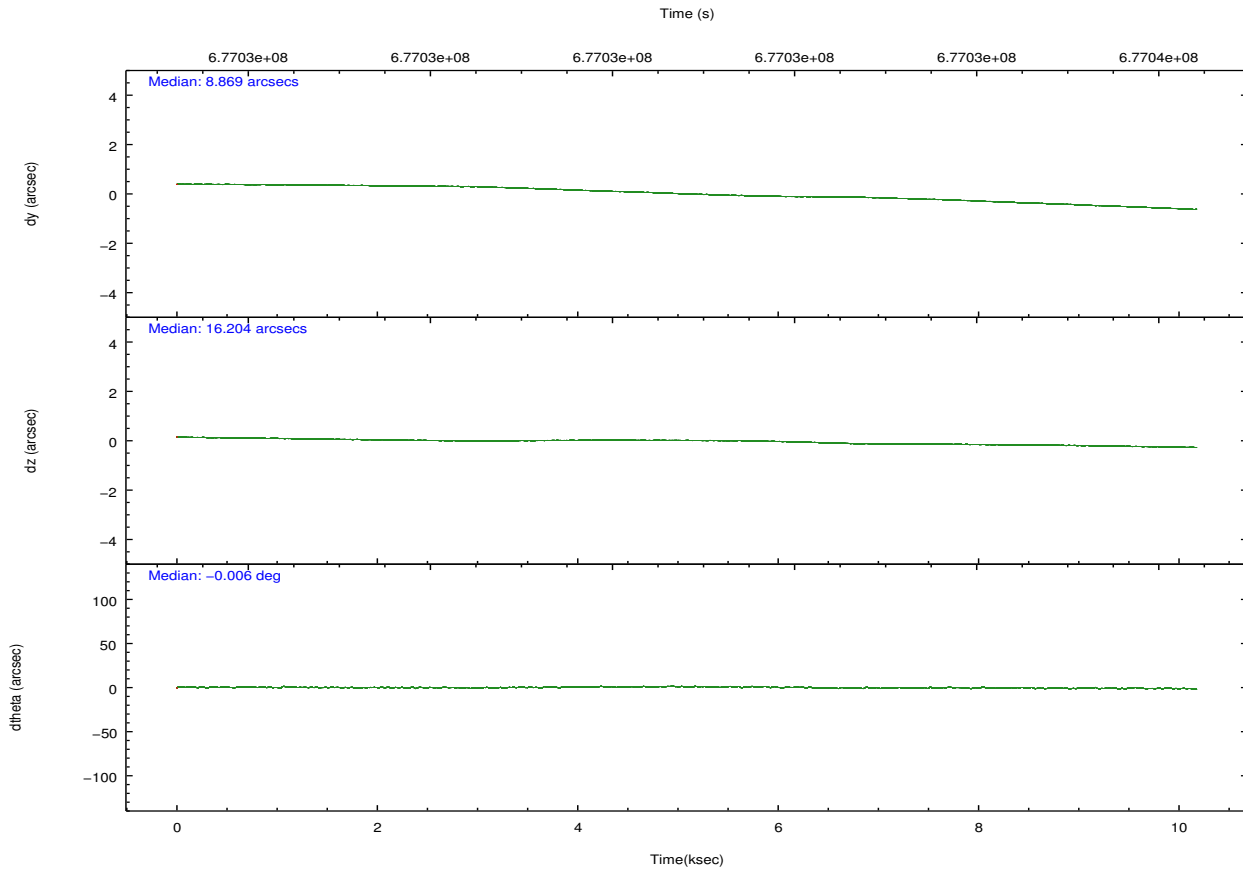
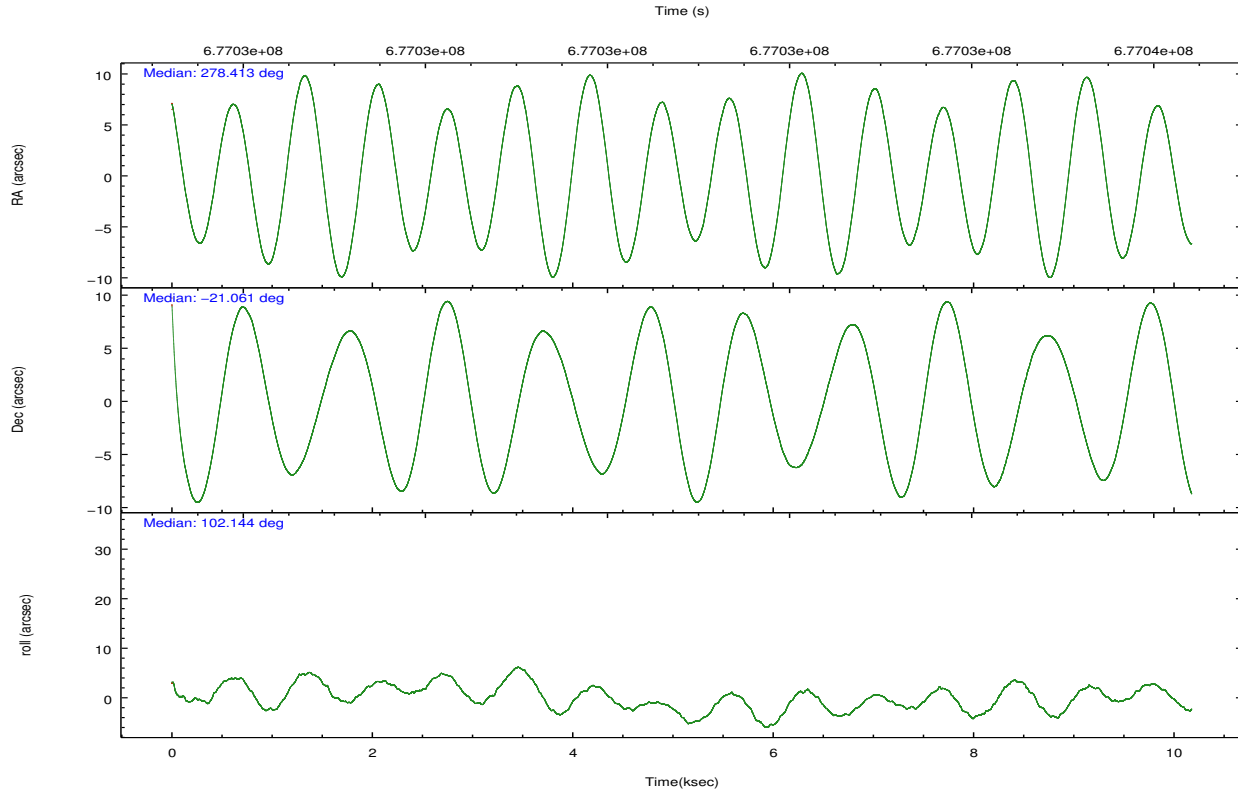
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-7	ACIS-7
Grating	HETG	HETG
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	278.432914	278.4128649642343
[deg] Pointing Dec	-21.081175	-21.06109229920343
[deg] Pointing Roll	102.003481	102.1529104972272
[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)	677025903.184000	677024659.41991
Observation start date	2019-06-15T22:43:54	2019-06-15T22:24:19
[s] Observation end time (MET)	677035903.184000	677036883.0581501
Observation end date	2019-06-16T01:30:34	2019-06-16T01:48:03
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	CUSTOM	1/8
Subarray start row	449	449
Subarray row count	128	128
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	0.4

2.3 Aspect



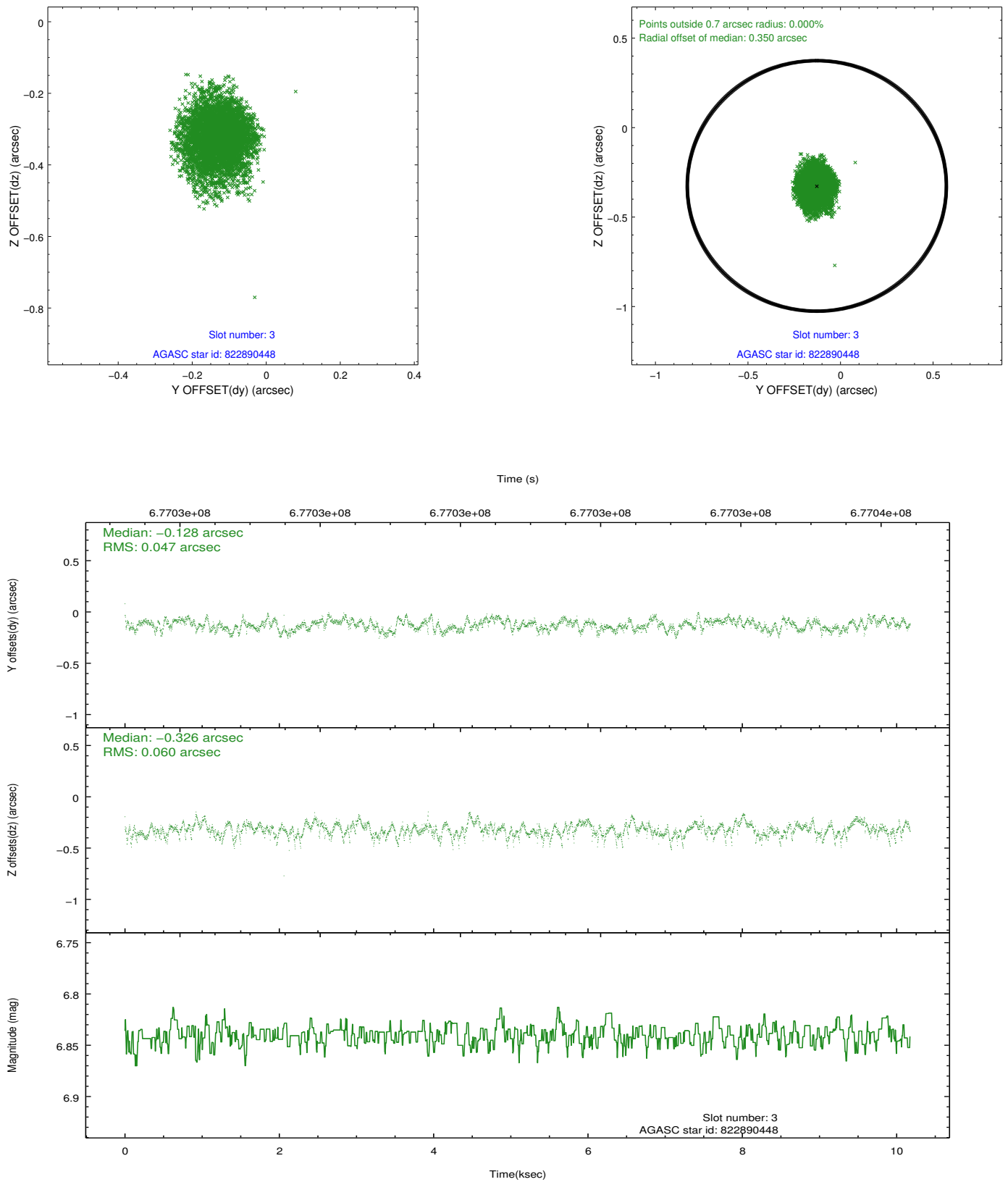


Slot Statistics

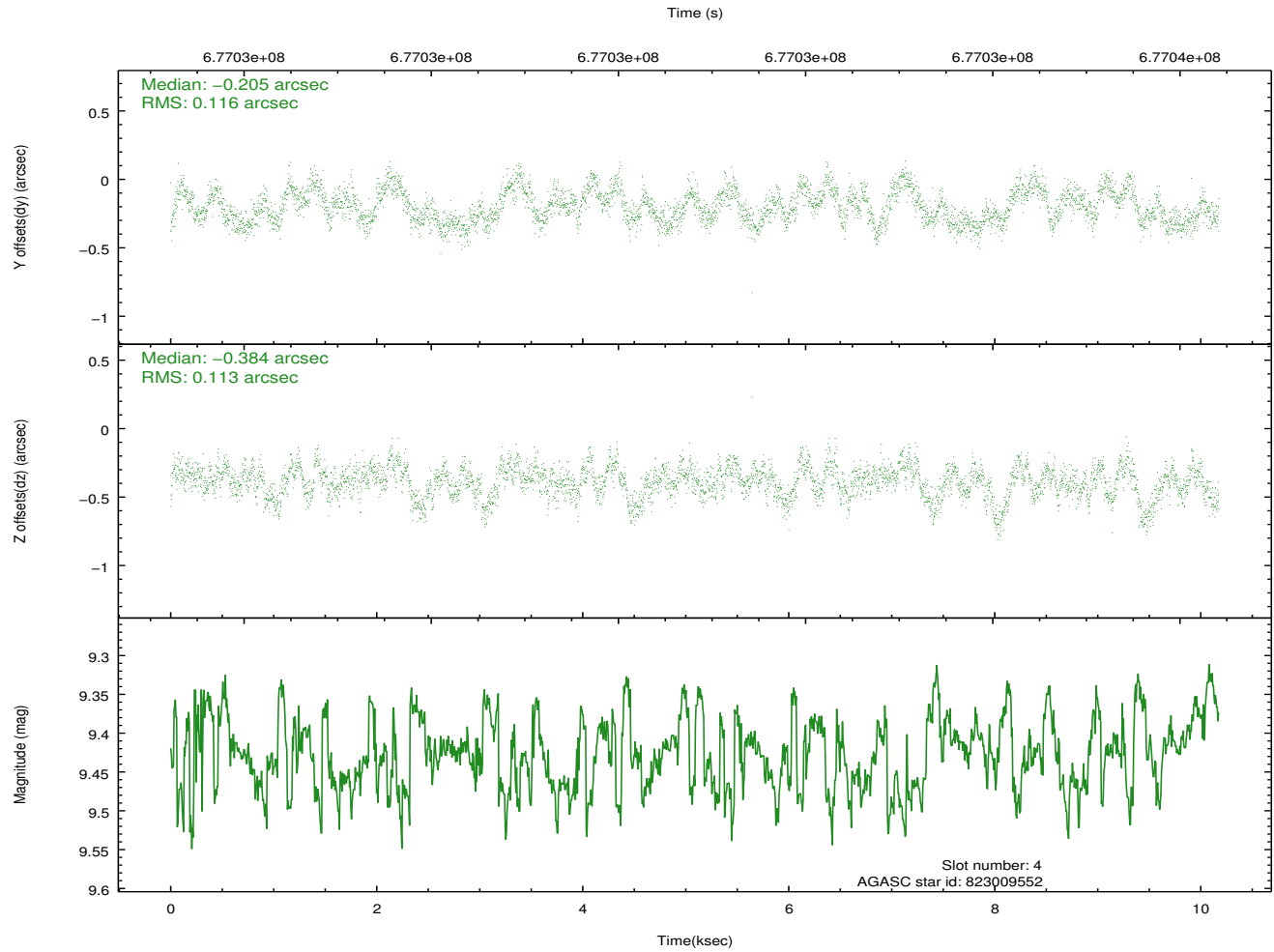
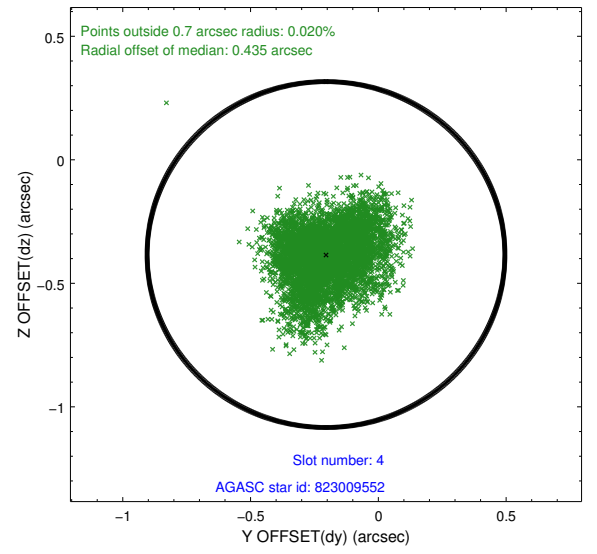
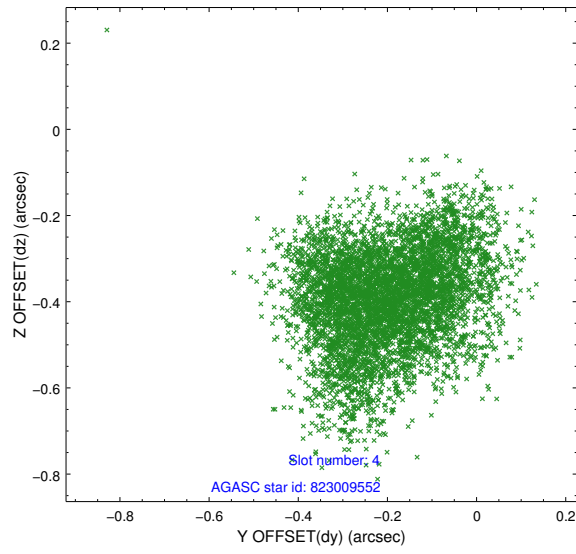
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	6.96	2483	1.000	-0.250	-0.088	0.012	0.022	0.000000	0.000000	-761.85	-1737
1	FID		ACIS-S-4	7.09	2483	1.000	0.619	0.144	0.016	0.030	0.000000	0.000000	2151.98	170
2	FID		ACIS-S-5	7.05	2483	1.000	-0.400	-0.048	0.013	0.032	0.000000	0.000000	-1814.25	164
3	GUIDE	used	822890448	6.84	4964	1.000	-0.128	-0.326	0.081	0.130	277.870792	-21.249416	-203.55	1971
4	GUIDE	used	823009552	9.43	4956	1.000	-0.205	-0.384	0.174	0.275	278.196588	-20.839906	1014.39	597
5	GUIDE	used	823010120	8.33	4960	1.000	0.163	0.511	0.080	0.131	278.797500	-21.355824	-1221.84	-989
6	GUIDE	used	823010144	8.03	4964	1.000	0.008	-0.069	0.074	0.131	278.155693	-21.242957	-377.31	1031
7	GUIDE	used	823012712	6.79	4964	1.000	0.163	0.283	0.095	0.162	278.838881	-20.840446	562.49	-1515

2.4 Star Slots

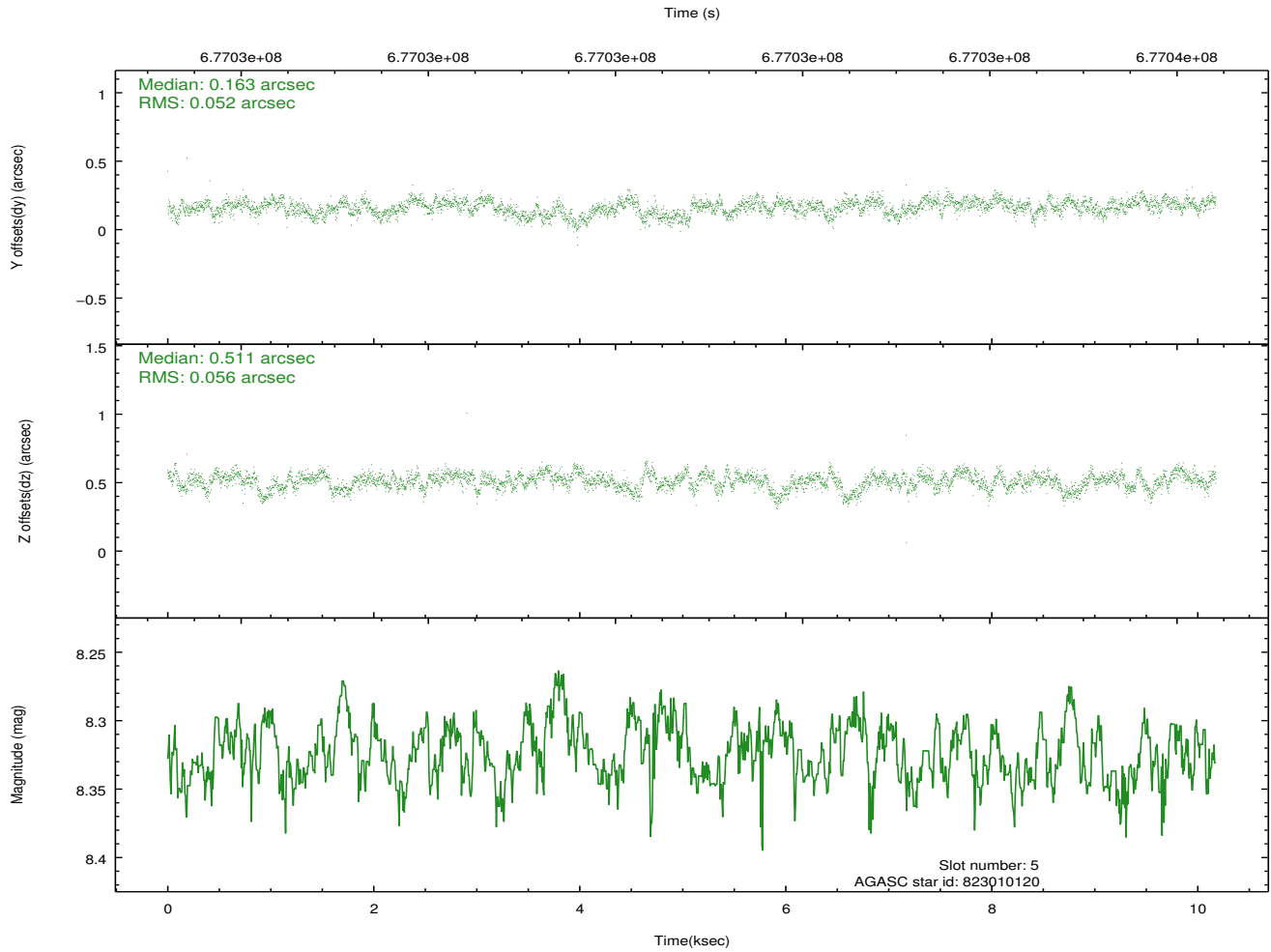
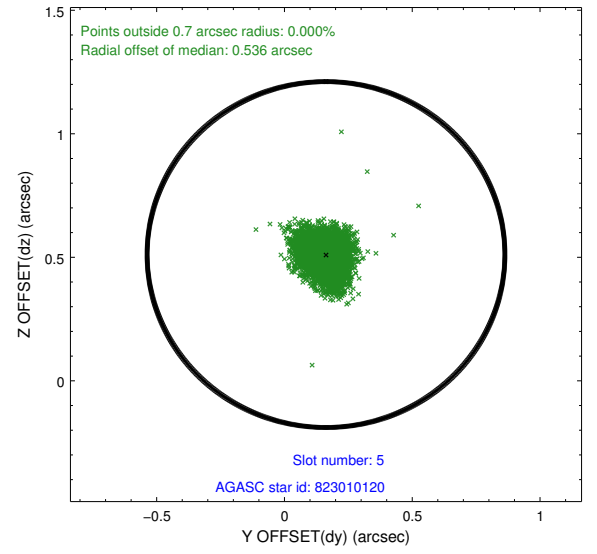
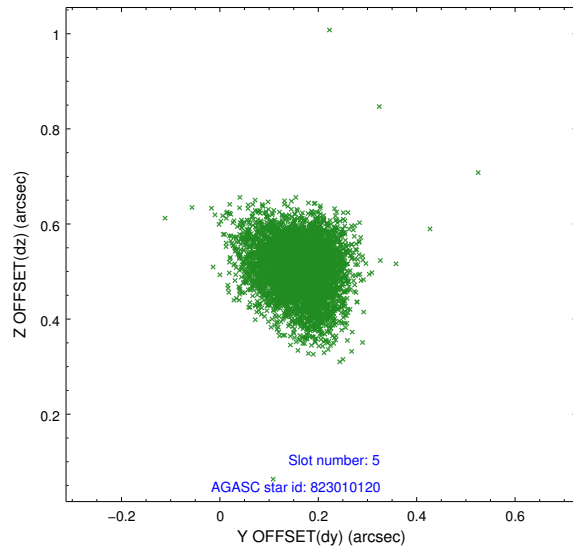
2.4.1 Slot 3



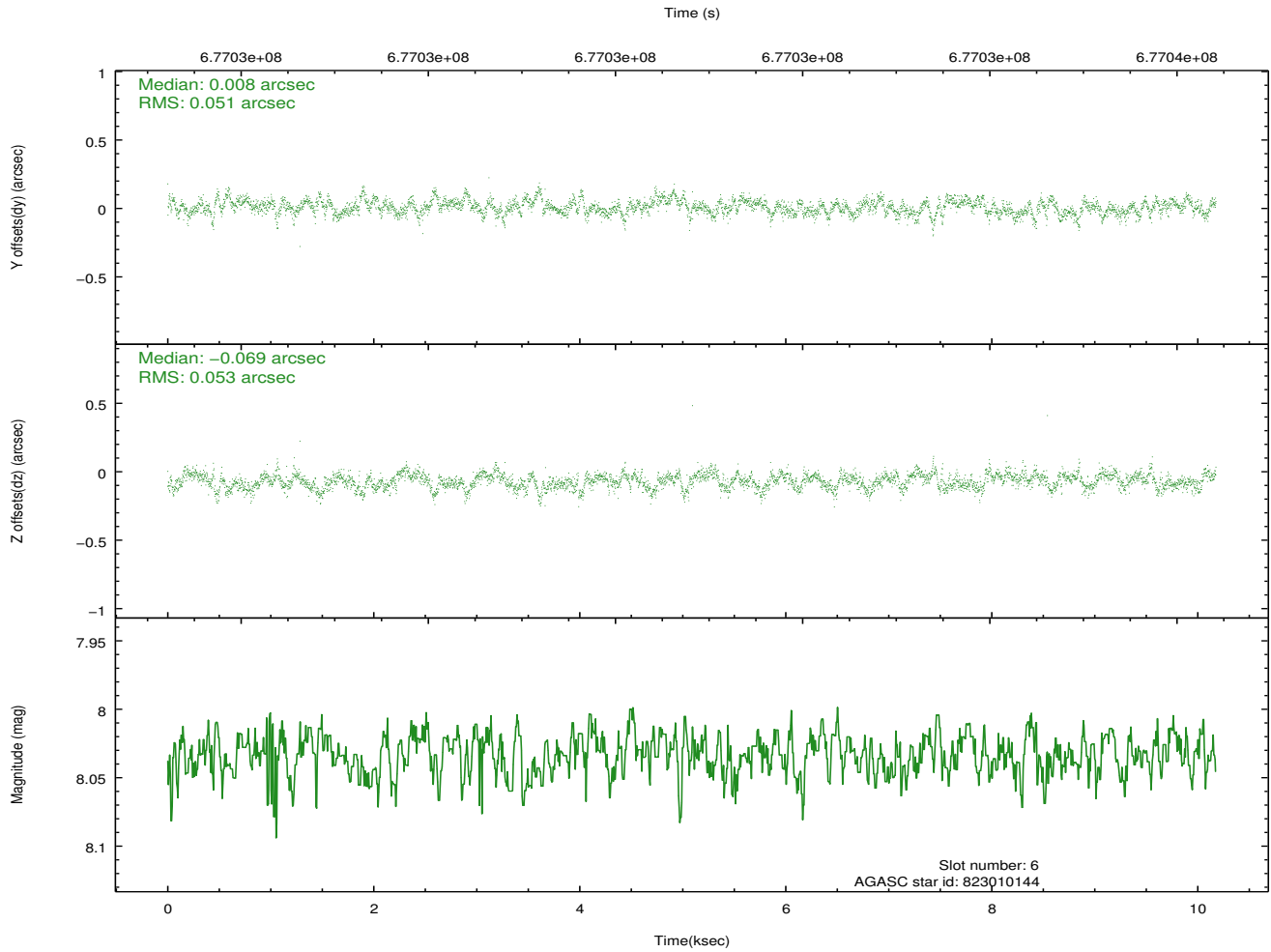
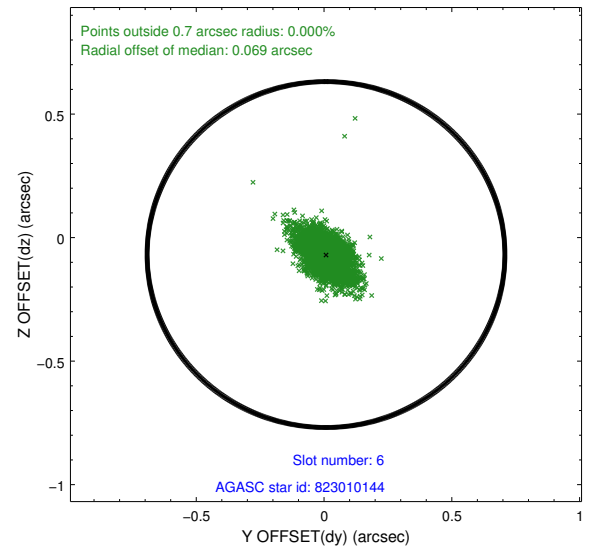
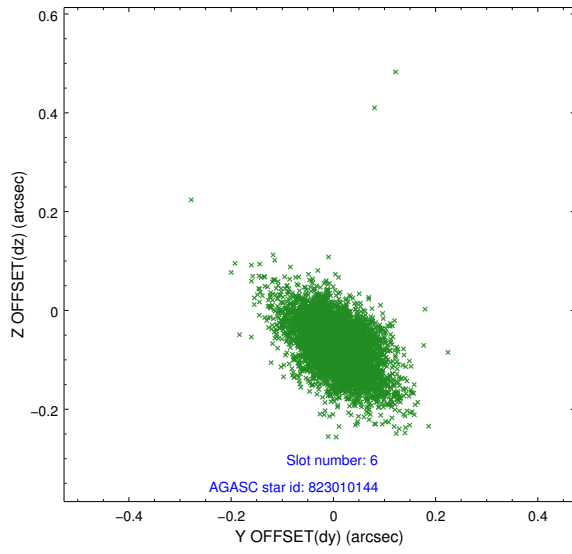
2.4.2 Slot 4



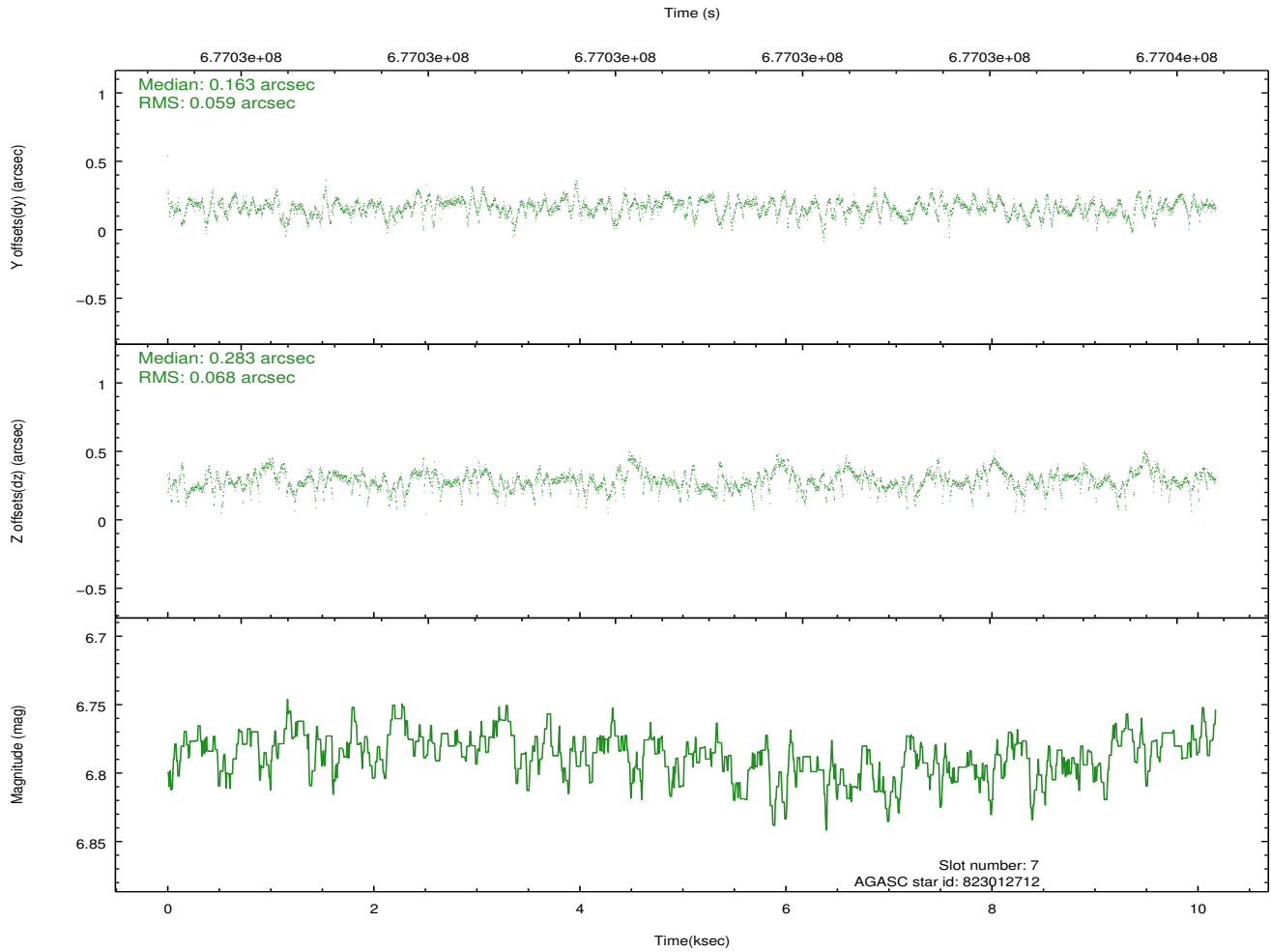
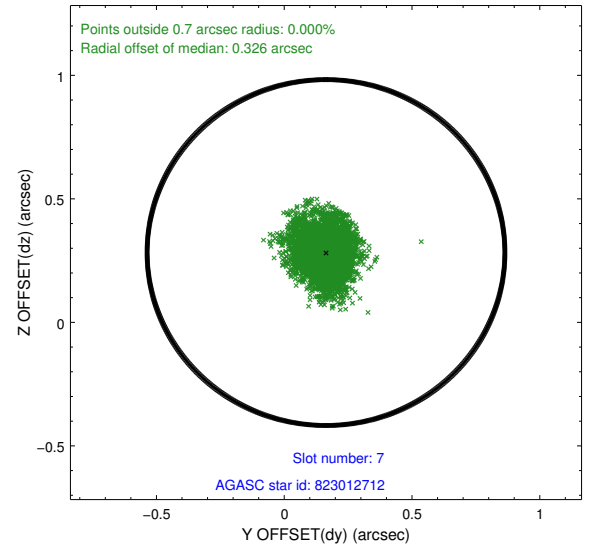
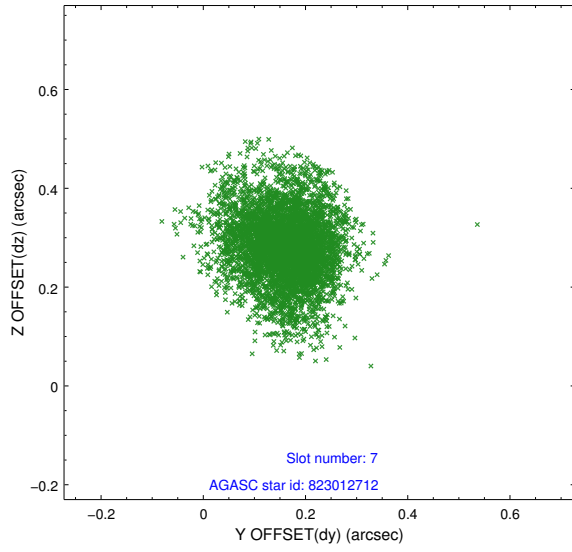
2.4.3 Slot 5



2.4.4 Slot 6

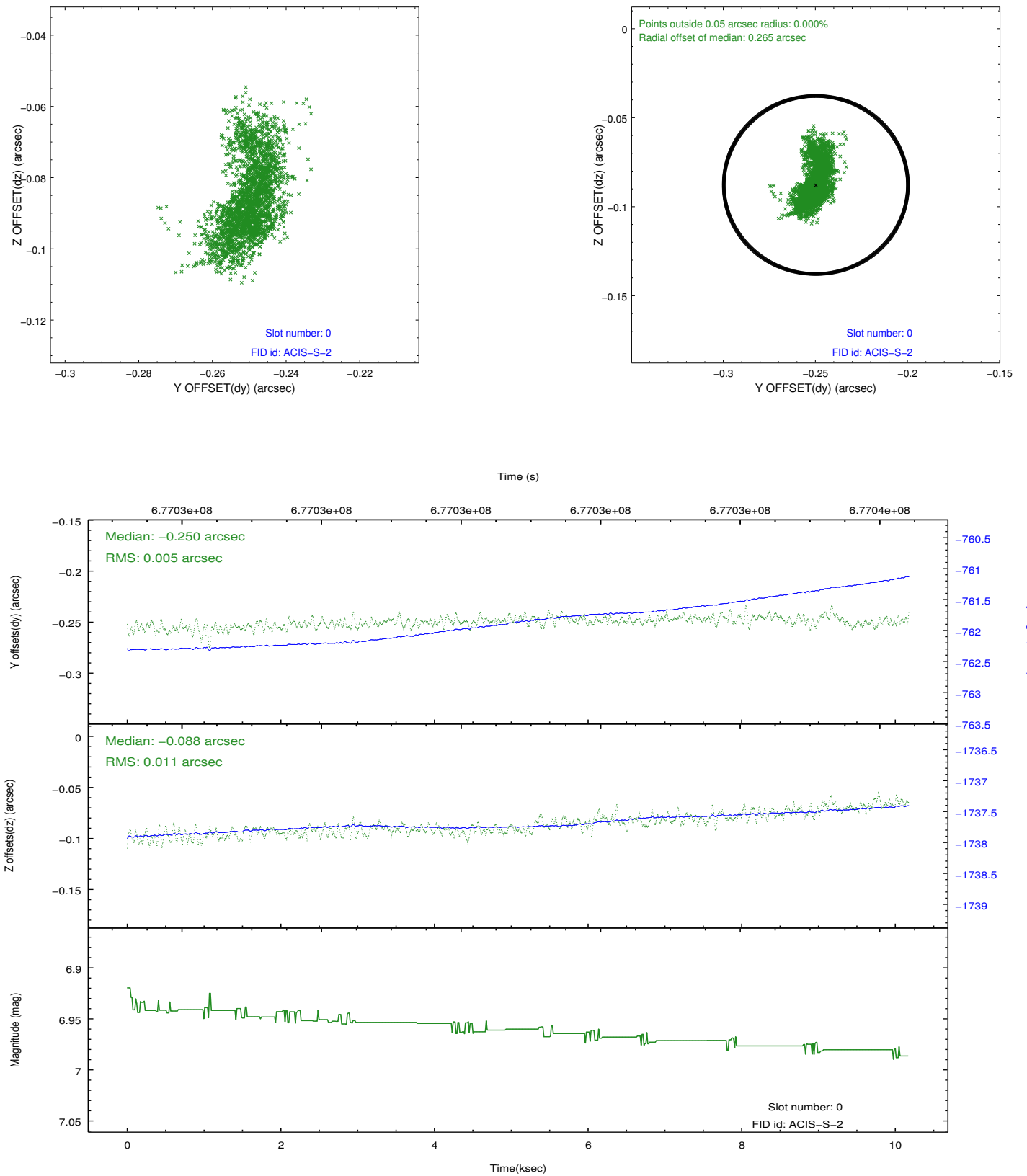


2.4.5 Slot 7

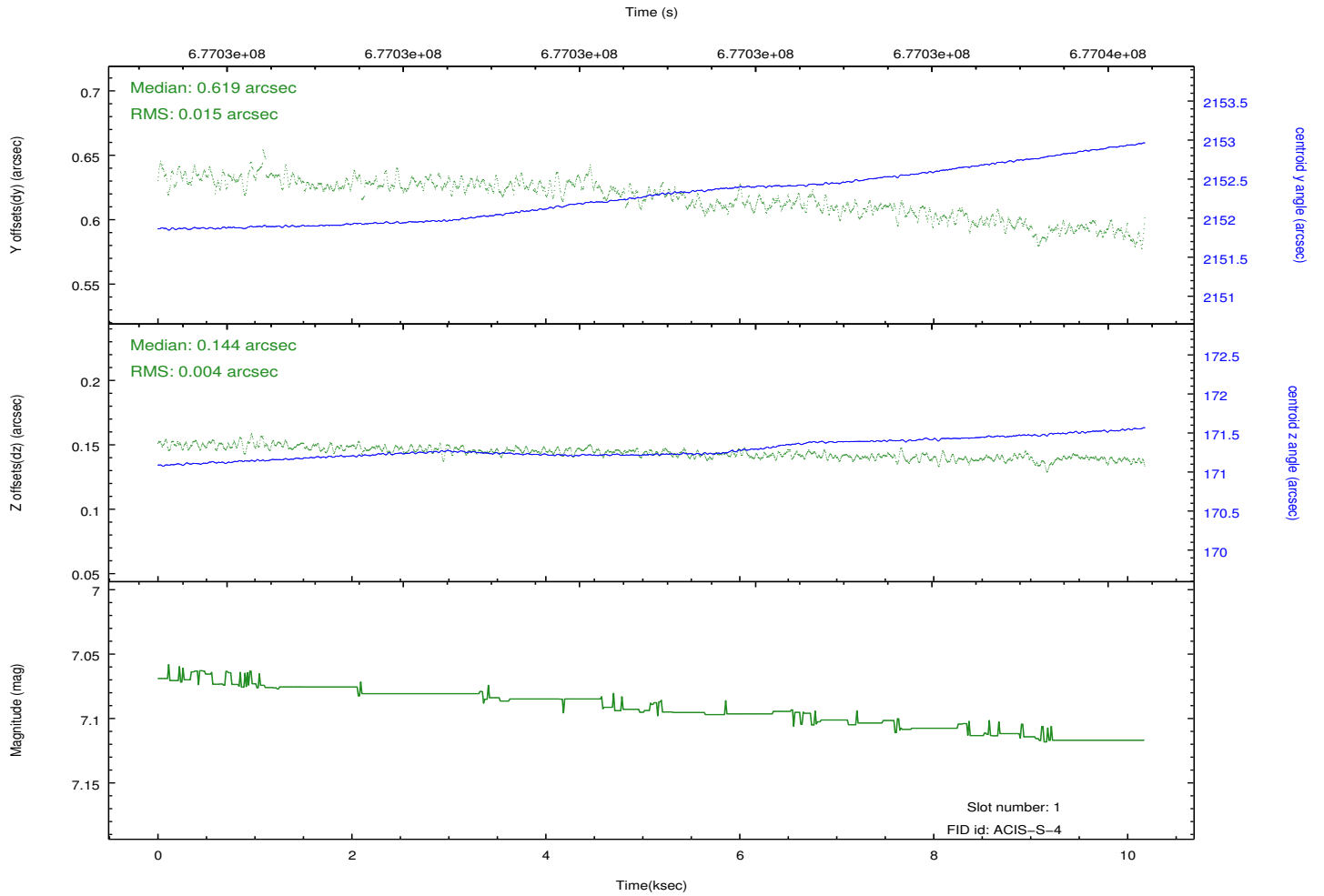
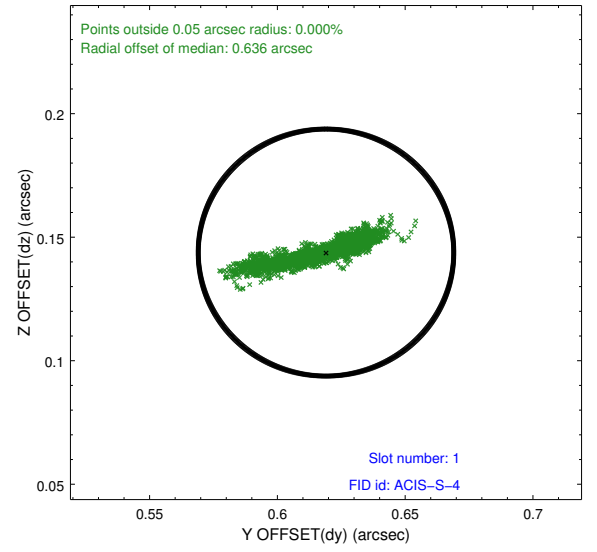
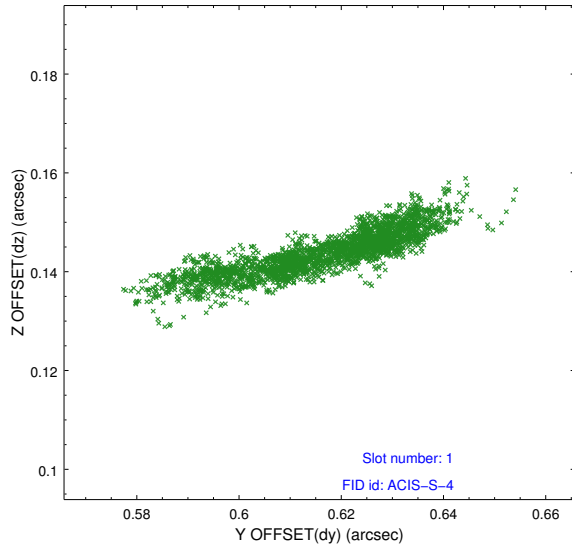


2.5 FID Slots

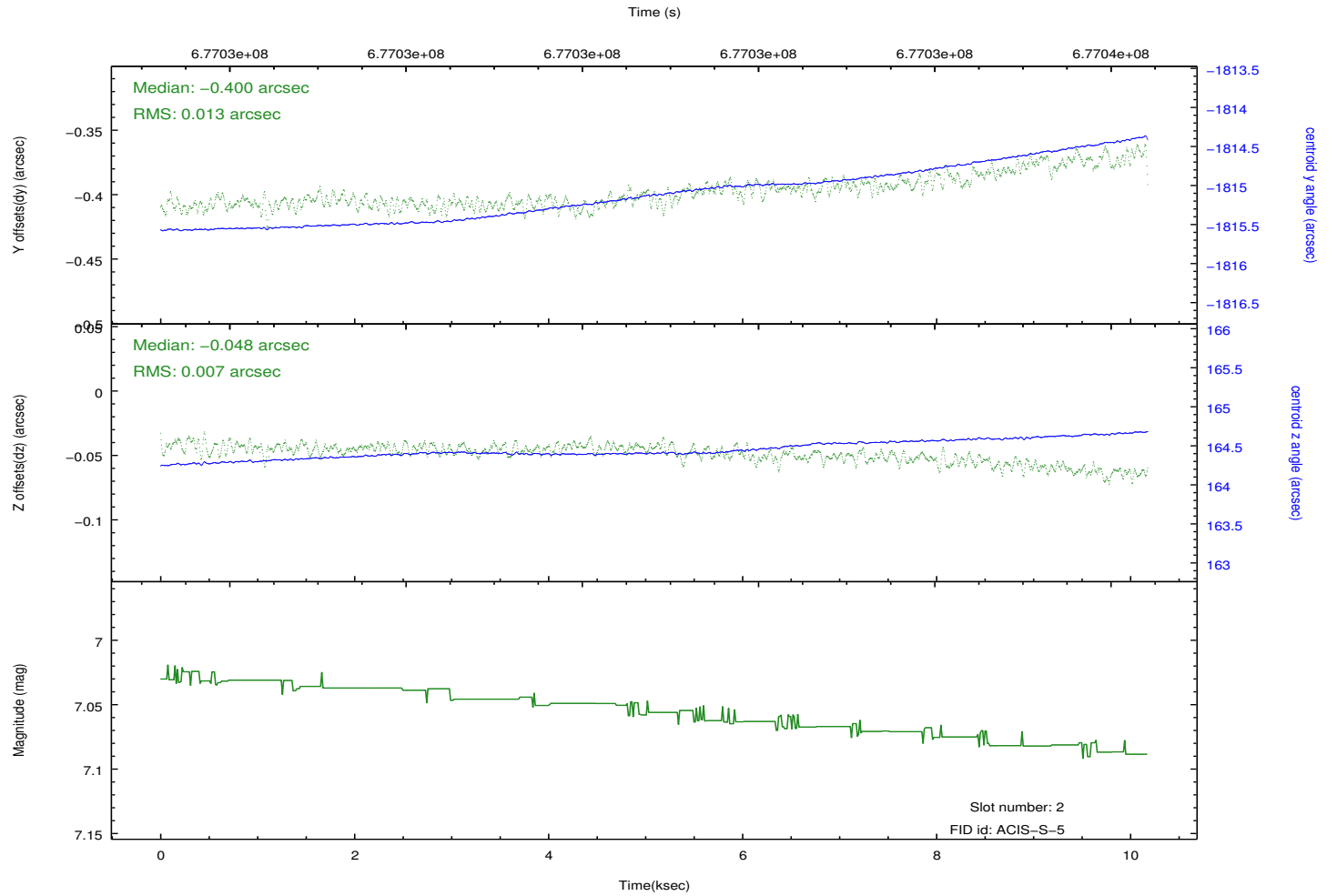
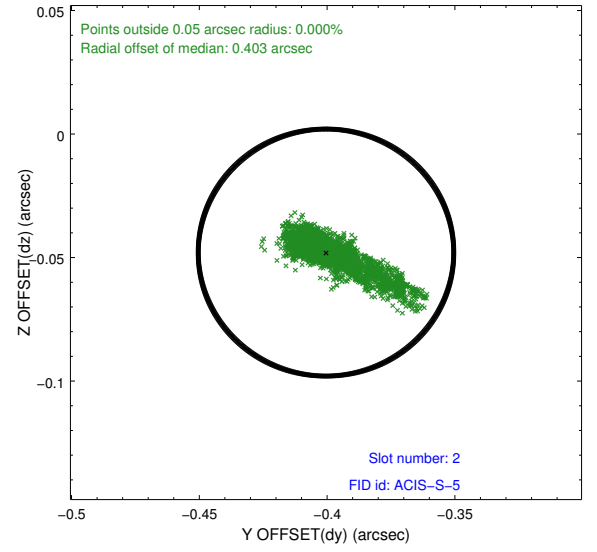
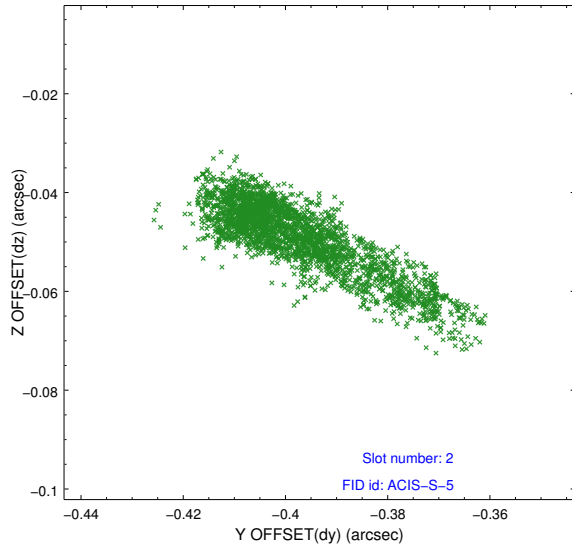
2.5.1 Slot 0



2.5.2 Slot 1

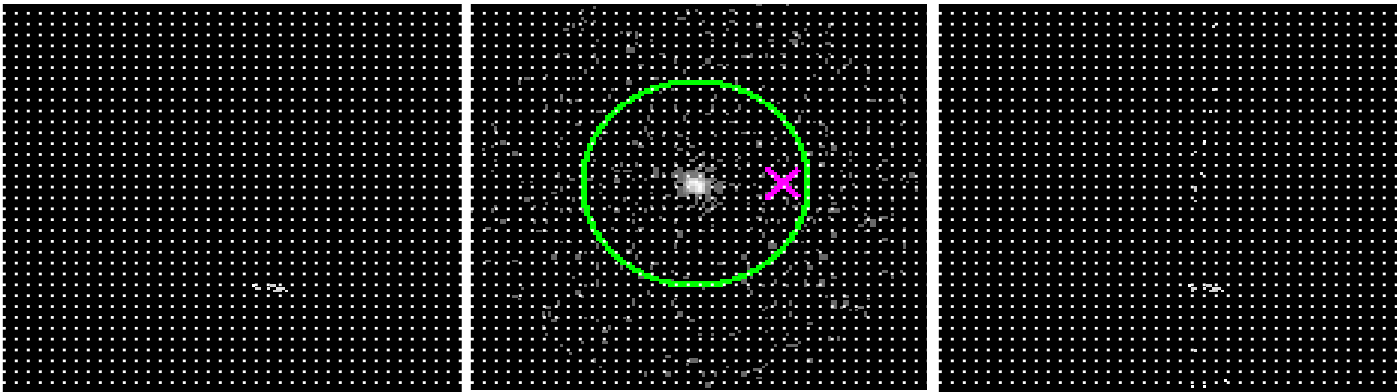


2.5.3 Slot 2



3 Gratings

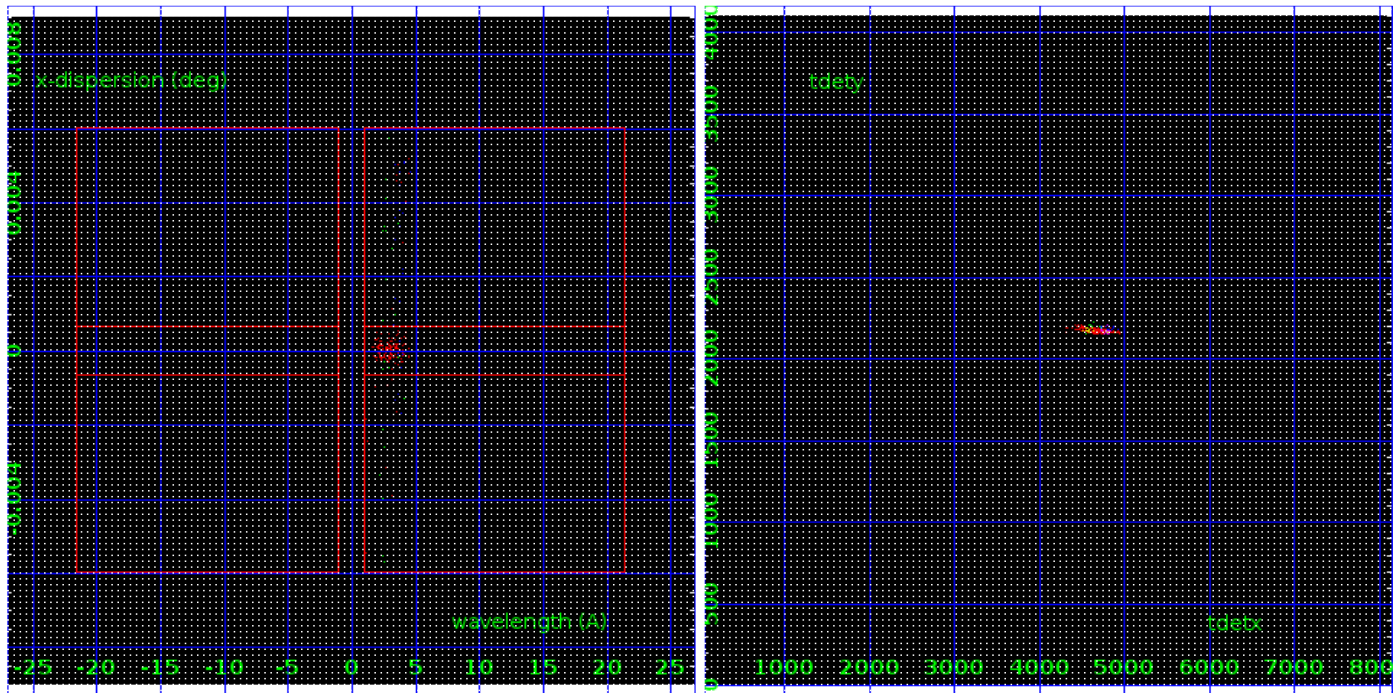
3.1 HEG Arm



HEG Order Sort 123

HEG Zero Order

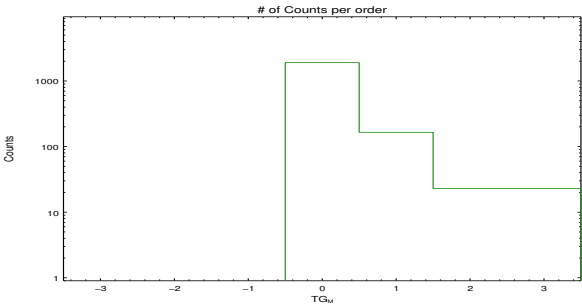
HEG Order Sort ALL

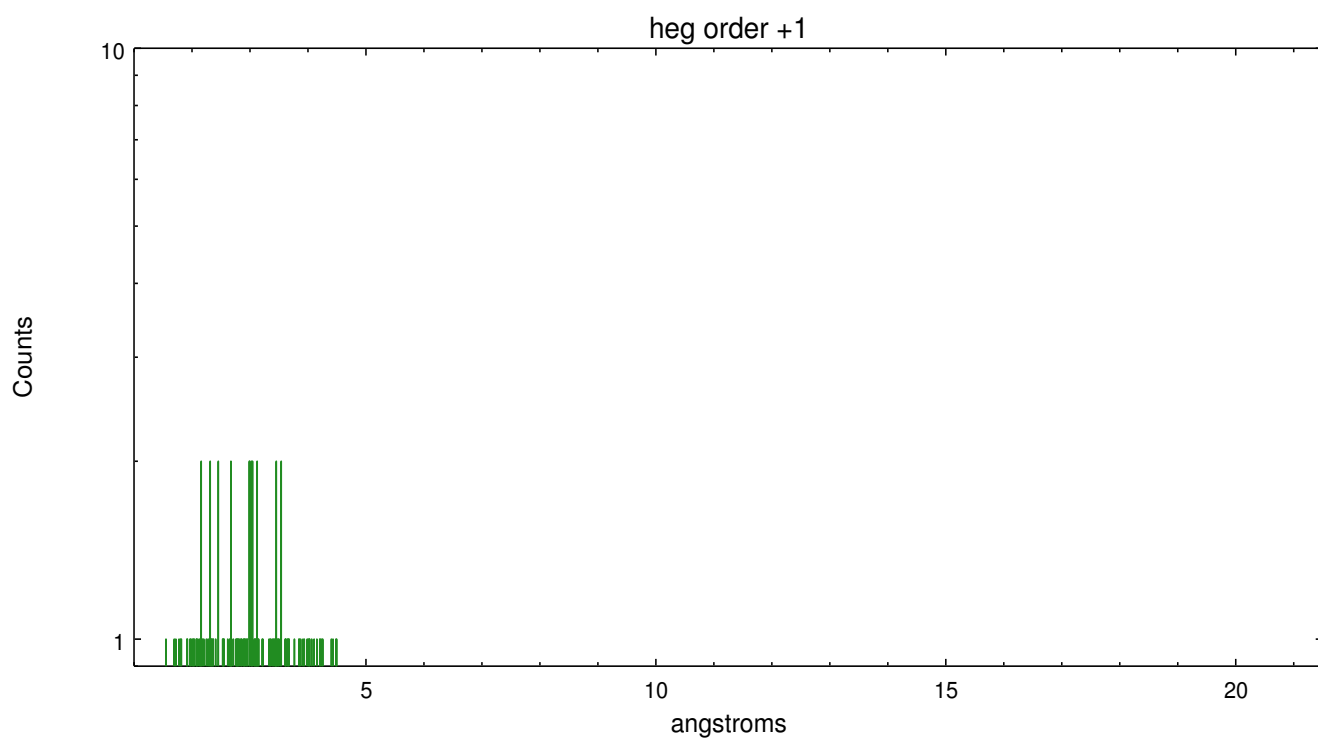
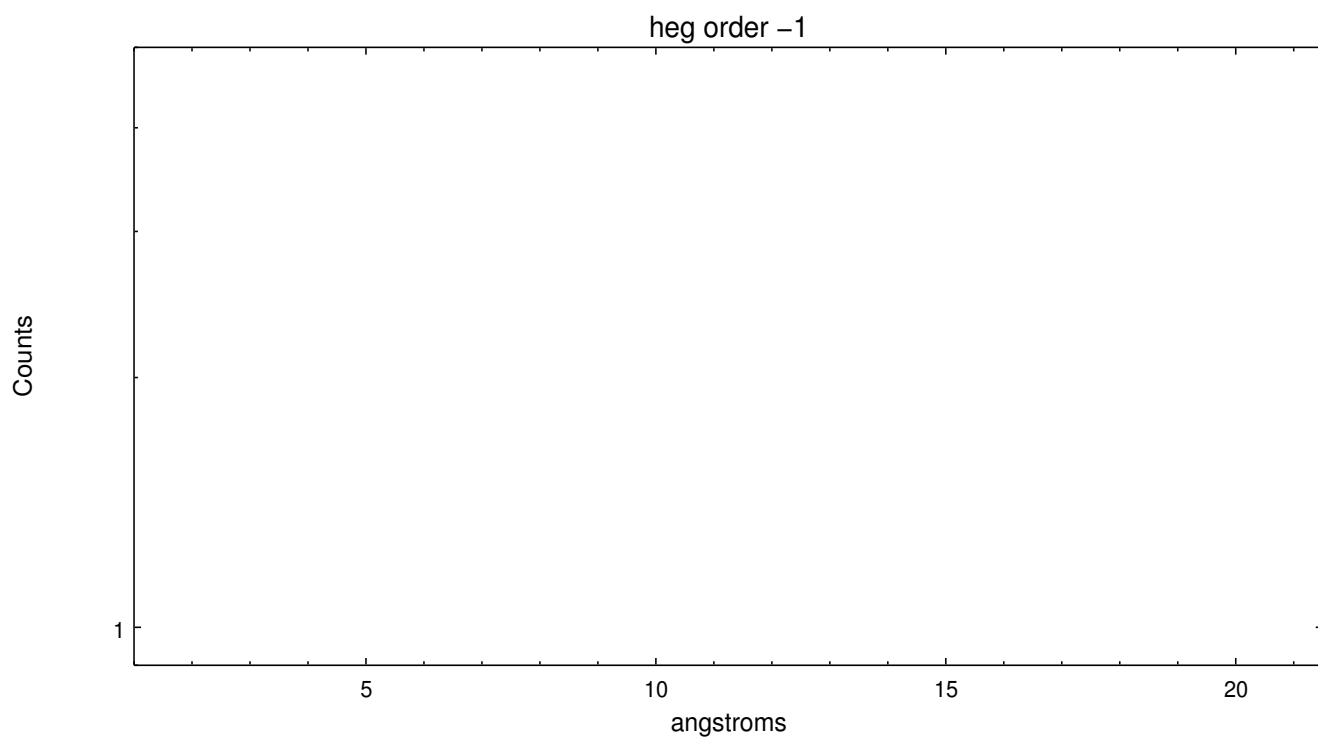


Spot Image HEG

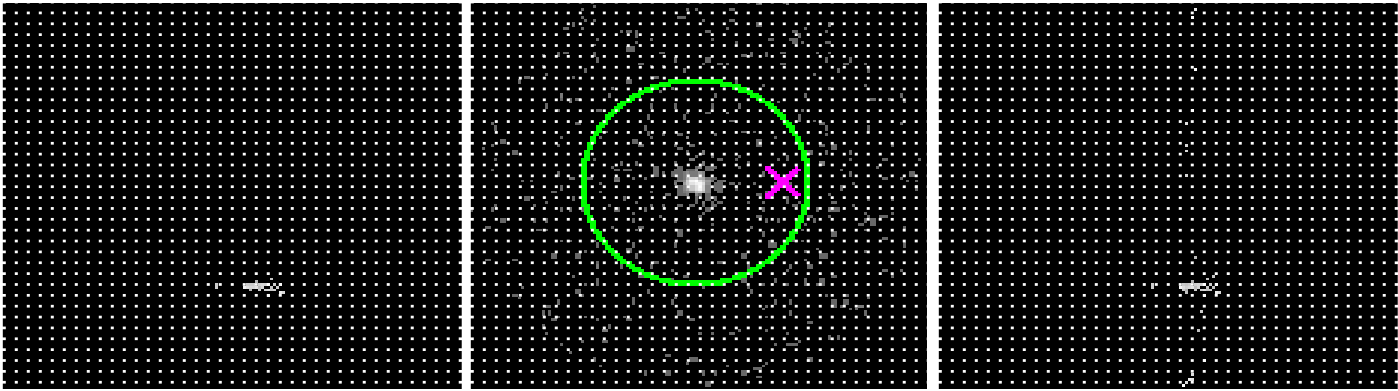
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	0	0	0	1903	165	23	23





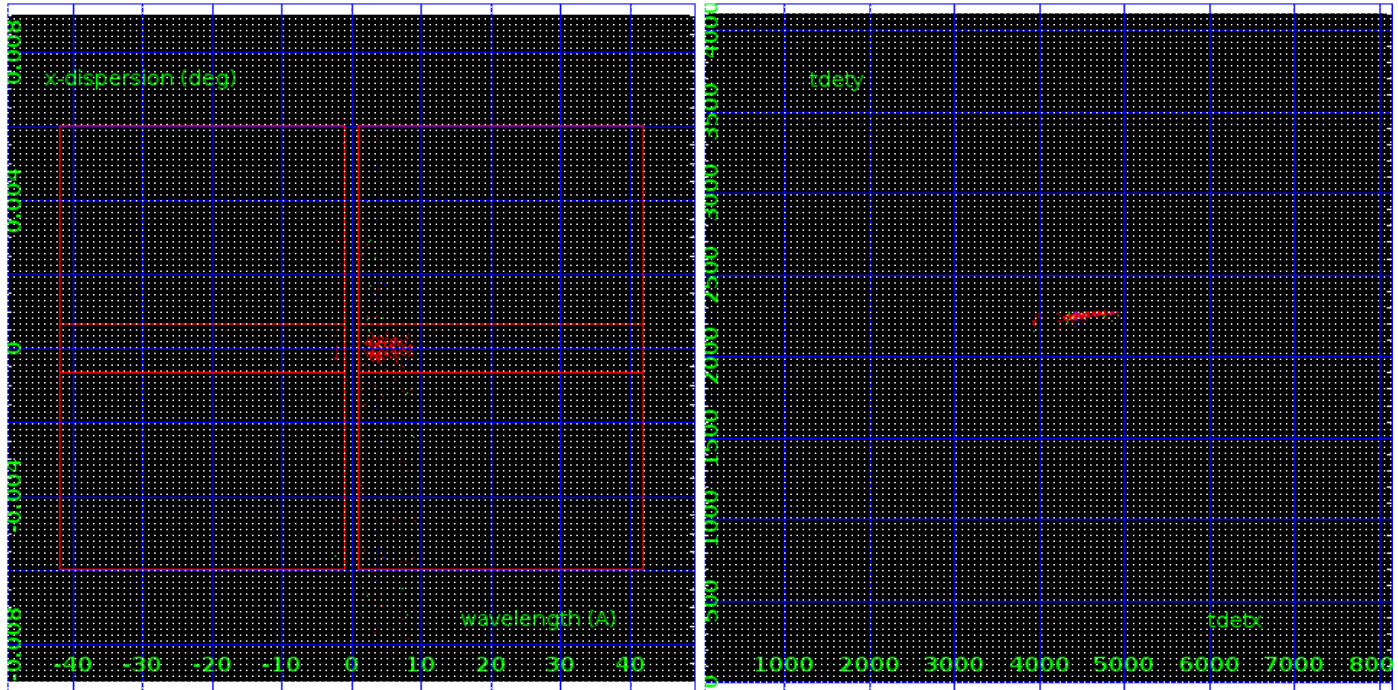
3.2 MEG Arm



MEG Order Sort 123

MEG Zero Order

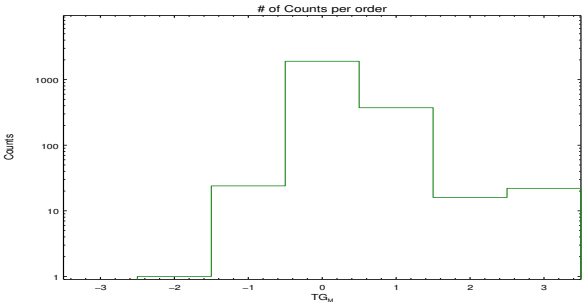
MEG Order Sort ALL

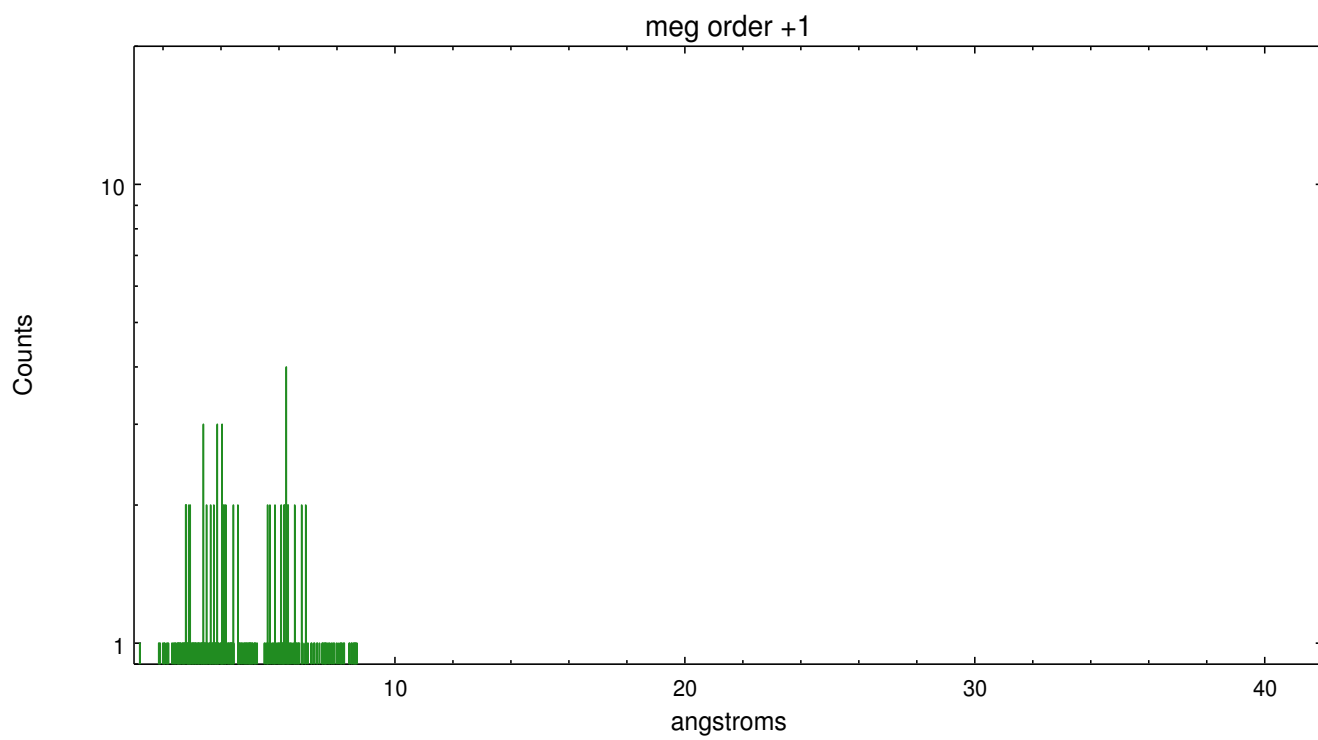
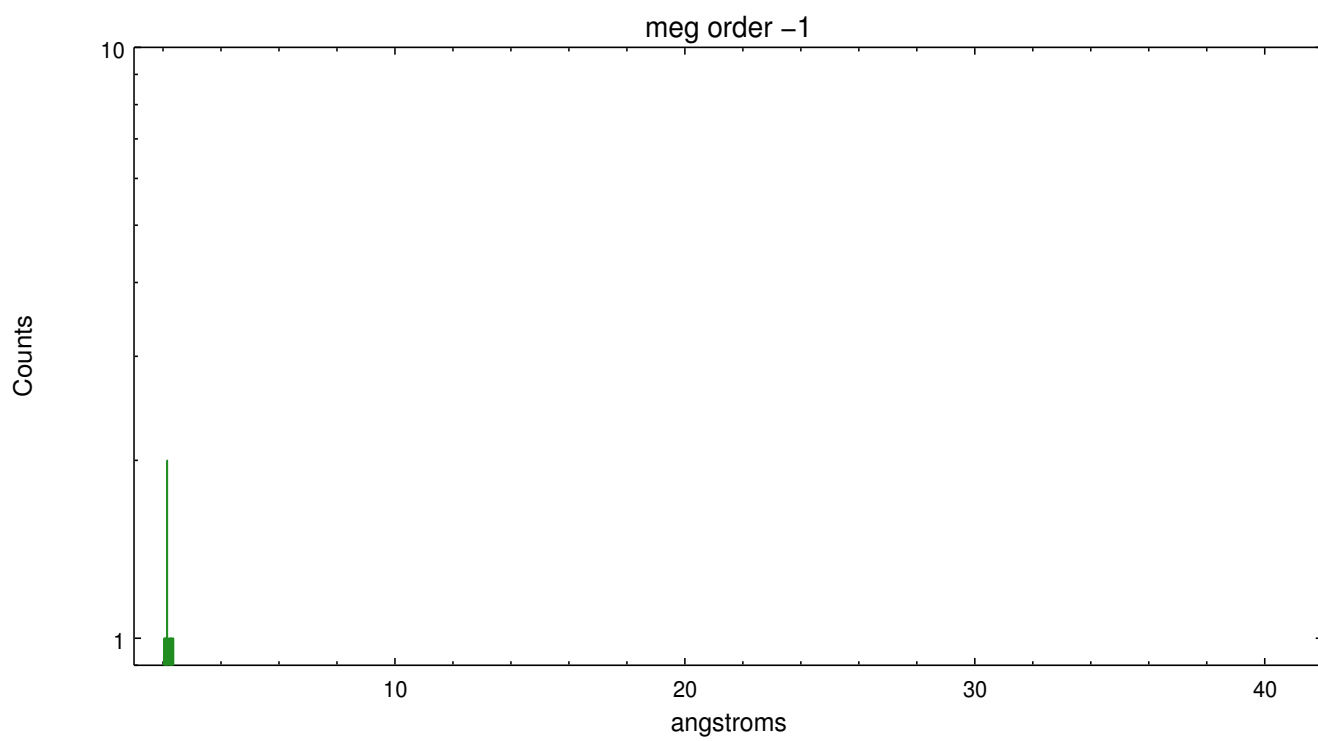


Spot Image MEG

Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	0	1	24	1903	373	16	22





A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2019.06.17
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.070392864347

A.2 Comments