

V&V Reference Report

L2 ASCDS Version : 10.4.3

Observation 18734 - L2 Version 1
Chandra X-Ray Center

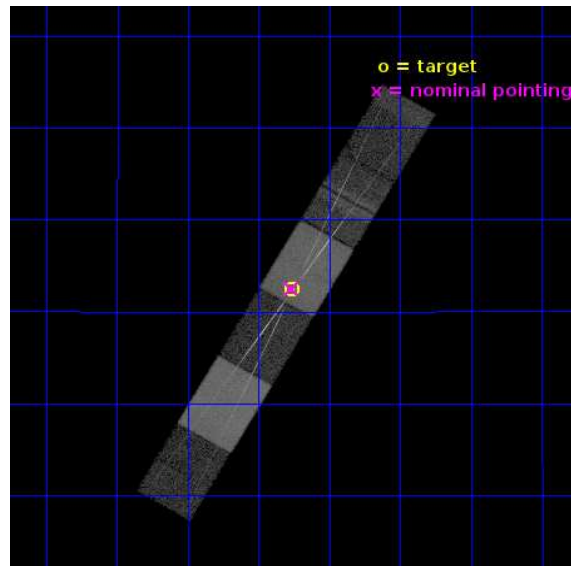
L2 Processing Date : Dec 30 2015

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1 Front

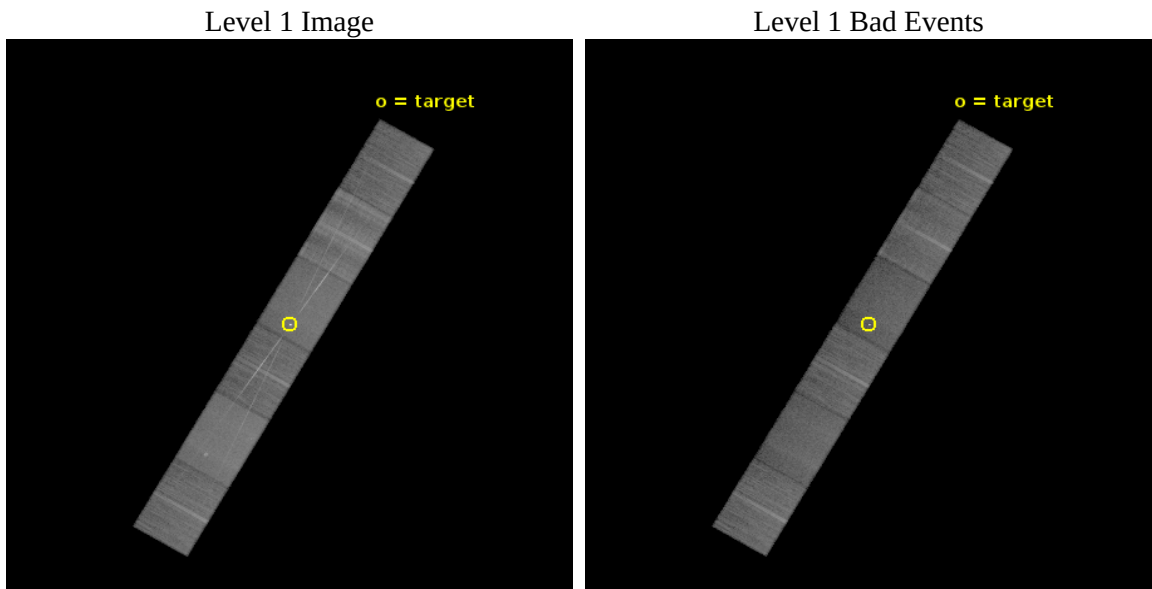
seq_num	703293	Sequence number
obs_id	18734	Observation id
title	Deciphering the ionised outflows in NGC 7469	Proposal title
observer	Prof Jelle Kaastra	Principal investigator
object	NGC 7469	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	345.815	Observer's specified target RA [deg]
dec_targ	8.873917	Observer's specified target Dec [deg]
ra_nom	345.81716614439	Nominal RA [deg]
dec_nom	8.8750129232861	Nominal Dec [deg]
roll_nom	300.15629539315	Nominal Roll [deg]
revision	1	Processing version of data
ontime	30014.88166225	Sum of GTIs [s]
livetime	29530.115289654	Livetime [s]
ontime4	30014.922702193	Sum of GTIs [s]
ontime5	30014.840622187	Sum of GTIs [s]
ontime6	30014.799582243	Sum of GTIs [s]
ontime7	30014.88166225	Sum of GTIs [s]
ontime8	30014.75854218	Sum of GTIs [s]
ontime9	30014.717502236	Sum of GTIs [s]
l2events	280297	Number of level 2 events



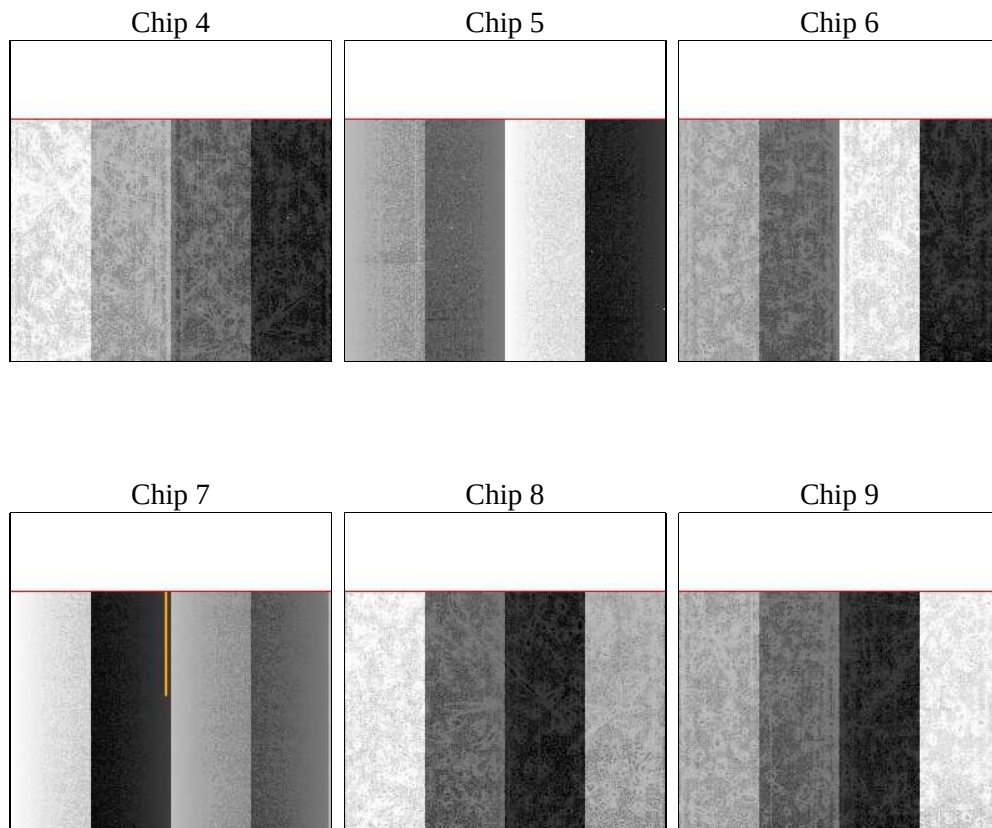
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	30000.000000	[s] Scheduled observation exposure time
ascdsver	10.4.3	Processing system revision	ontime	30014.88166225	Sum of GTIs [s]
caldsver	4.7.0	 	ontime4	30014.922702193	Sum of GTIs [s]
date	2015-12-30T19:55:21	Date and time of file creation	ontime5	30014.840622187	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	30014.799582243	Sum of GTIs [s]
			ontime7	30014.88166225	Sum of GTIs [s]
			ontime8	30014.75854218	Sum of GTIs [s]
			ontime9	30014.717502236	Sum of GTIs [s]
			l1events	1107475	Number of level 1 events
			tgmethod	FINDZO	Method used to create src1a file
			ra_pos	(4111.27, 4080.05)	src1a sky pixel position

2.1.4 Events

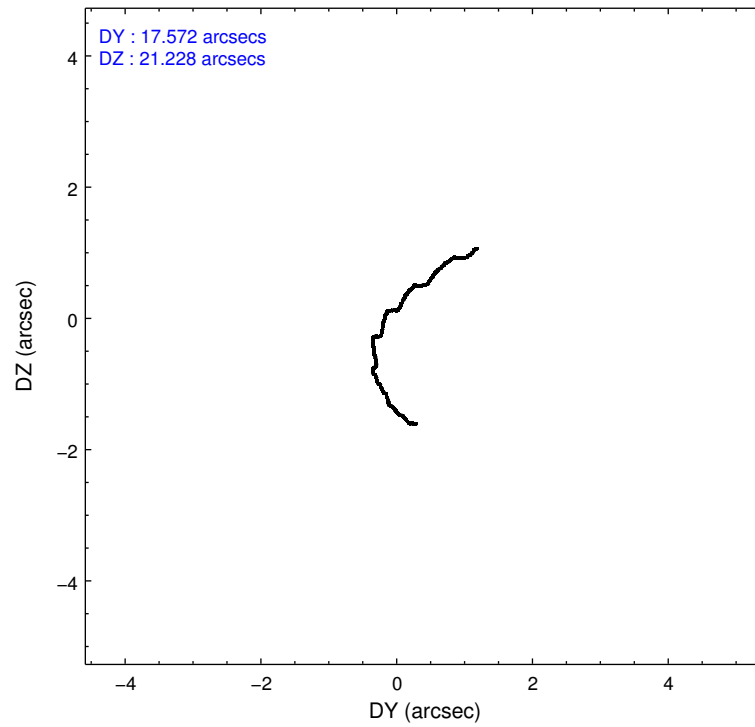
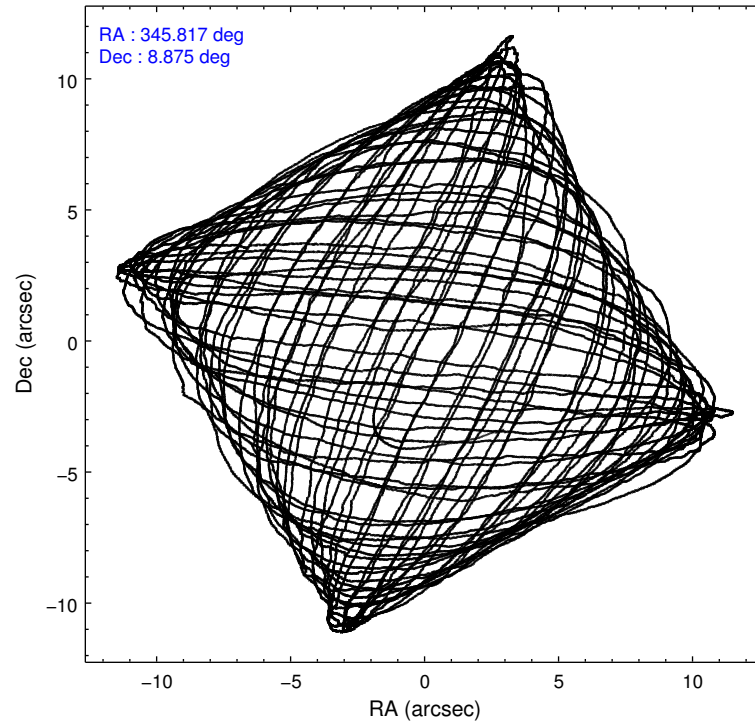
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	165233	221281	158665	201886	218916	141494	grade 0 events	7642	8438	14258	10833	27189	6806
rejected events	146099	113285	130894	103237	138597	123325		4%	3%	8%	5%	12%	4%
rejected %	88%	51%	82%	51%	63%	87%	grade 1 events	103	409	78	438	189	74
								0%	0%	0%	0%	0%	0%
							grade 2 events	4701	32725	5267	21524	14875	4011
								2%	14%	3%	10%	6%	2%
							grade 3 events	1928	4454	2111	8910	10863	1761
								1%	2%	1%	4%	4%	1%
							grade 4 events	1793	4283	2030	8605	10075	1796
								1%	1%	1%	4%	4%	1%
							grade 5 events	6522	16051	6455	19272	10001	7113
								3%	7%	4%	9%	4%	5%
							grade 6 events	3071	58114	4112	48793	17319	3796
								1%	26%	2%	24%	7%	2%
							grade 7 events	139473	96807	124354	83511	128405	116137
								84%	43%	78%	41%	58%	82%

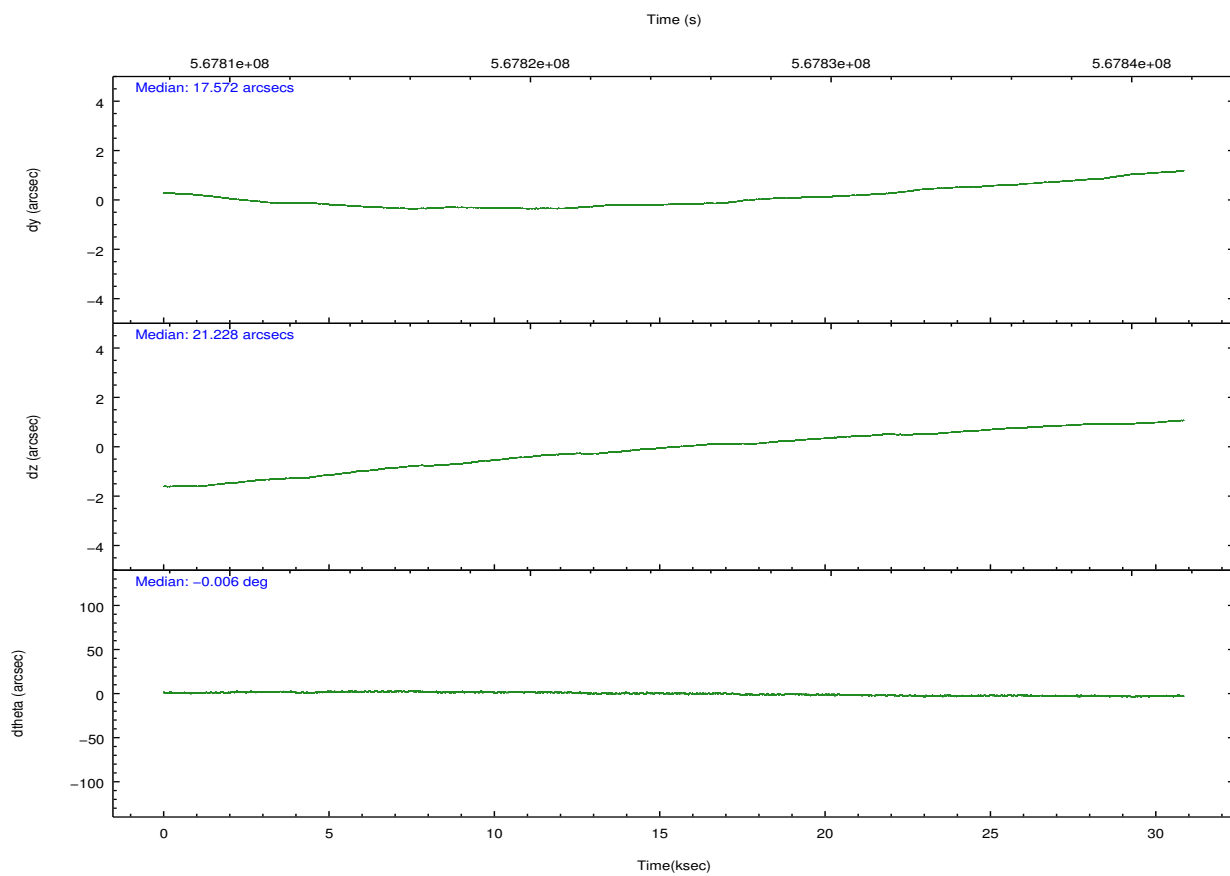
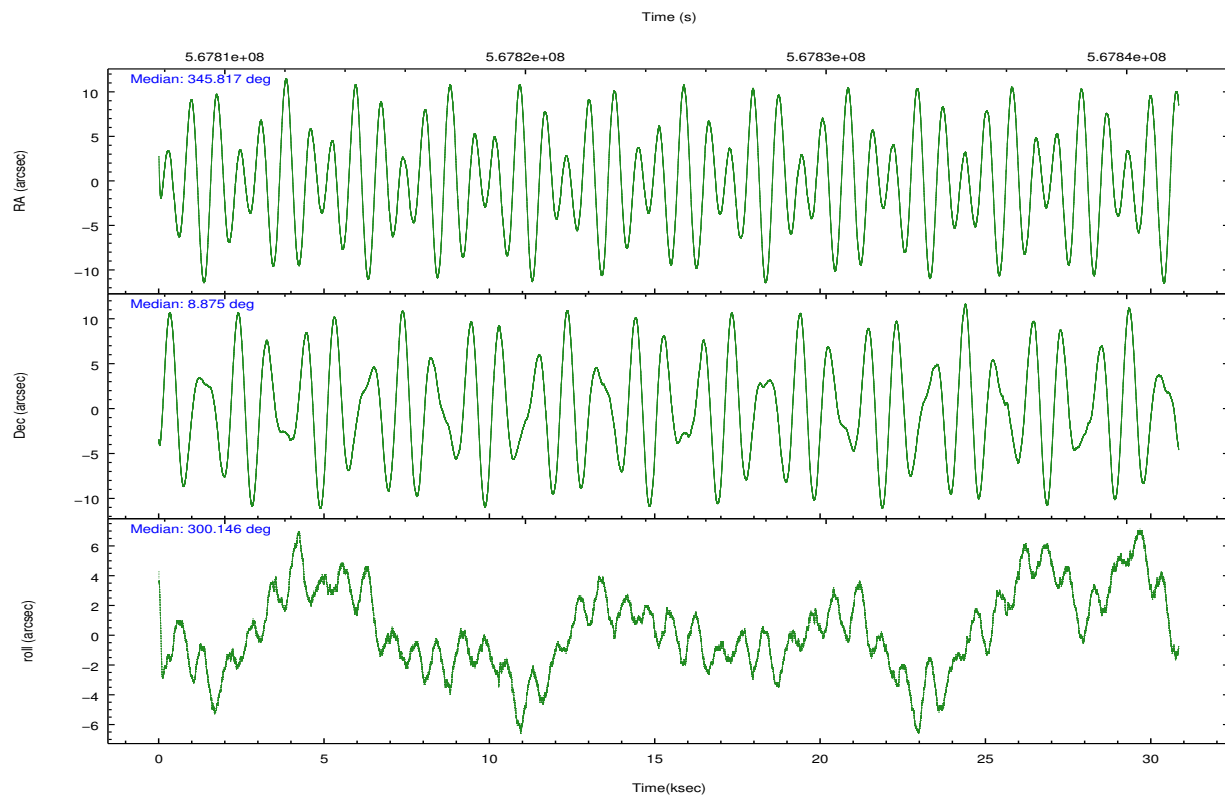
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-456789	ACIS-456789
Grating	HETG	HETG
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	345.792893	345.817166144388
[deg] Pointing Dec	8.888339	8.8750129232861
[deg] Pointing Roll	300.003412	300.1562953931503
[s] Window start time (MET)	567075668.184000	567075668.184000
[s] Window stop time (MET)	568000868.184000	568000868.184000
[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)	567810188.184000	567808276.96685
Observation start date	2015-12-29T21:02:00	2015-12-29T20:31:16
[s] Observation end time (MET)	567840188.184000	567841357.3062299
Observation end date	2015-12-30T05:22:00	2015-12-30T05:42:37
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
CCD I0 on	N	N
CCD I1 on	N	N
CCD I2 on	N	N
CCD I3 on	N	N
CCD S0 on	O1	Y
CCD S1 on	Y	Y
CCD S2 on	Y	Y
CCD S3 on	Y	Y
CCD S4 on	Y	Y
CCD S5 on	Y	Y
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	CUSTOM	CUSTOM
Subarray start row	1	1
Subarray row count	774	774
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	2.5

2.3 Aspect



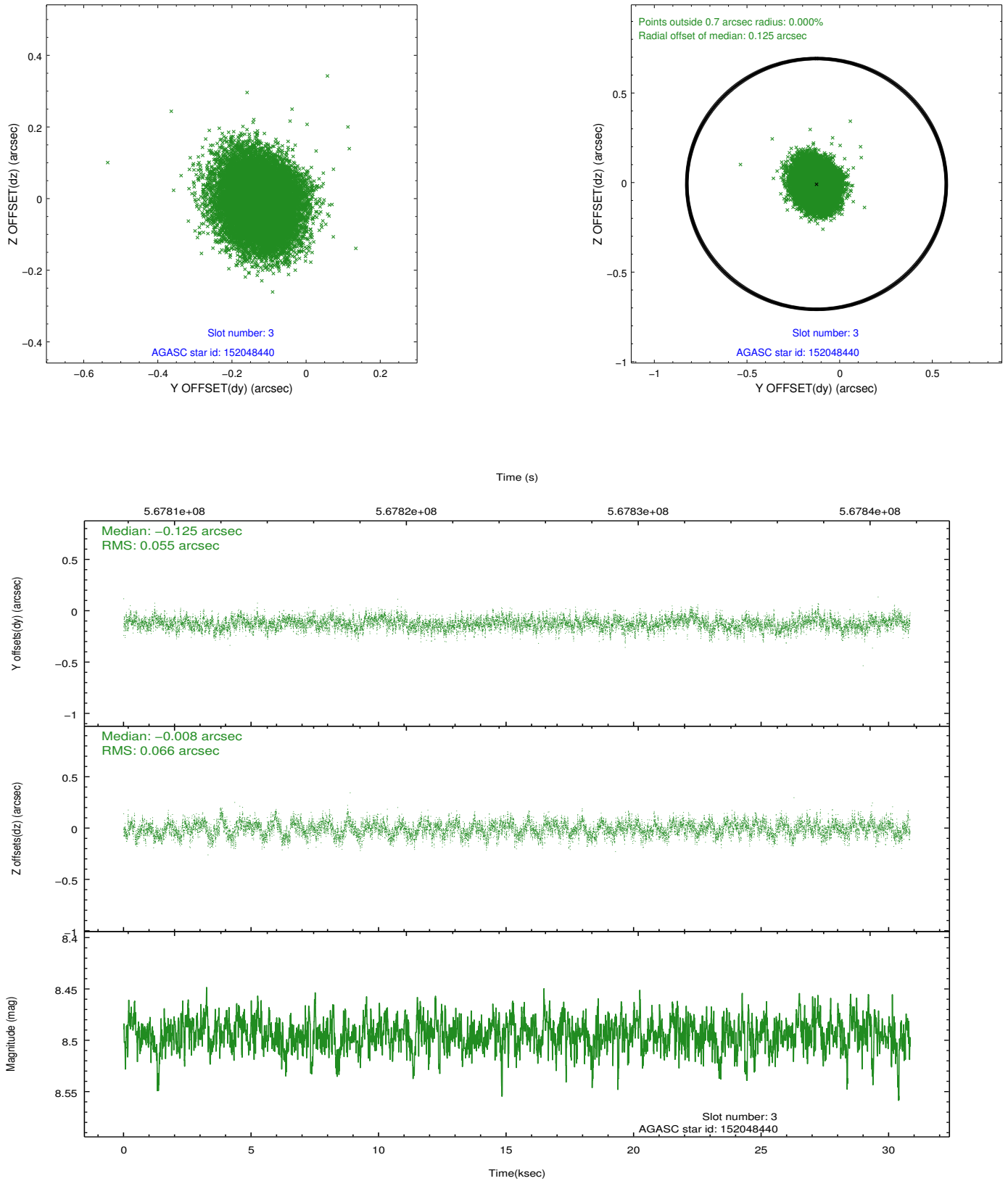


Slot Statistics

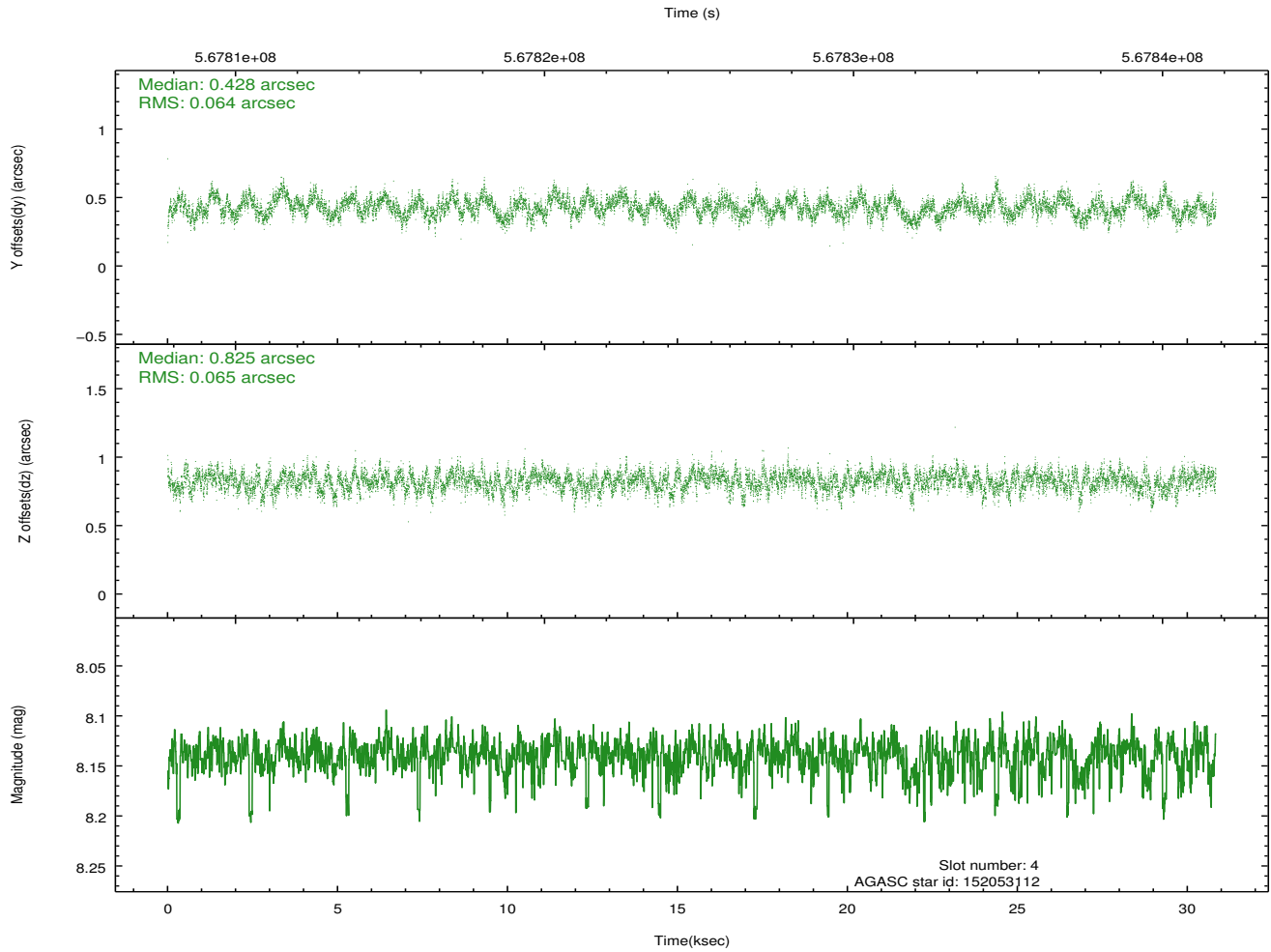
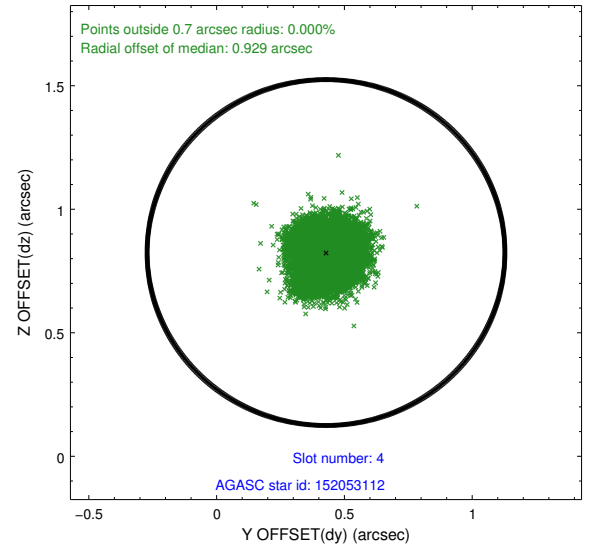
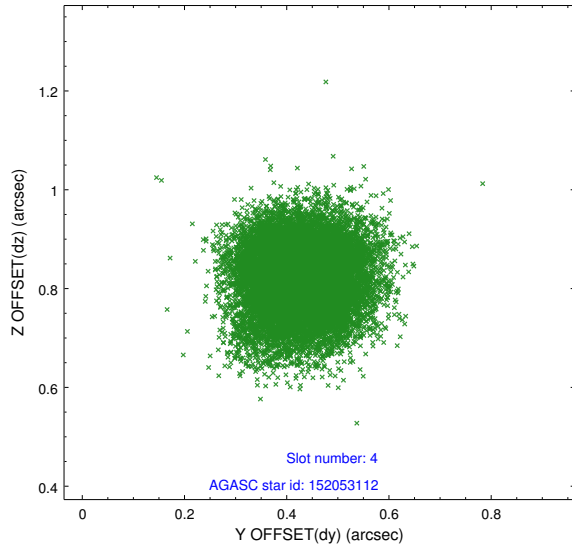
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.12	7521	-0.197	-0.093	0.033	0.044	0.000000	0.000000	-770.67	-1804.89
1	FID		ACIS-S-4	7.21	7517	0.430	0.121	0.020	0.043	0.000000	0.000000	2143.15	103.81
2	FID		ACIS-S-5	7.23	7522	-0.267	-0.019	0.030	0.043	0.000000	0.000000	-1823.55	97.30
3	GUIDE	used	152048440	8.49	15042	-0.125	-0.008	0.092	0.148	346.200519	9.070077	157.38	1582.80
4	GUIDE	used	152053112	8.14	15039	0.428	0.825	0.097	0.157	345.154715	8.750450	-706.01	-2212.58
5	GUIDE	used	152051576	8.84	15033	-0.081	-0.102	0.116	0.187	345.475827	8.657019	156.92	-1393.75
6	GUIDE	used	152052088	8.98	15032	-0.083	-0.210	0.128	0.206	345.509667	8.677615	153.19	-1252.00
7	GUIDE	used	152056136	6.64	15042	-0.137	-0.504	0.078	0.124	346.466795	8.896005	1172.66	2089.95

2.4 Star Slots

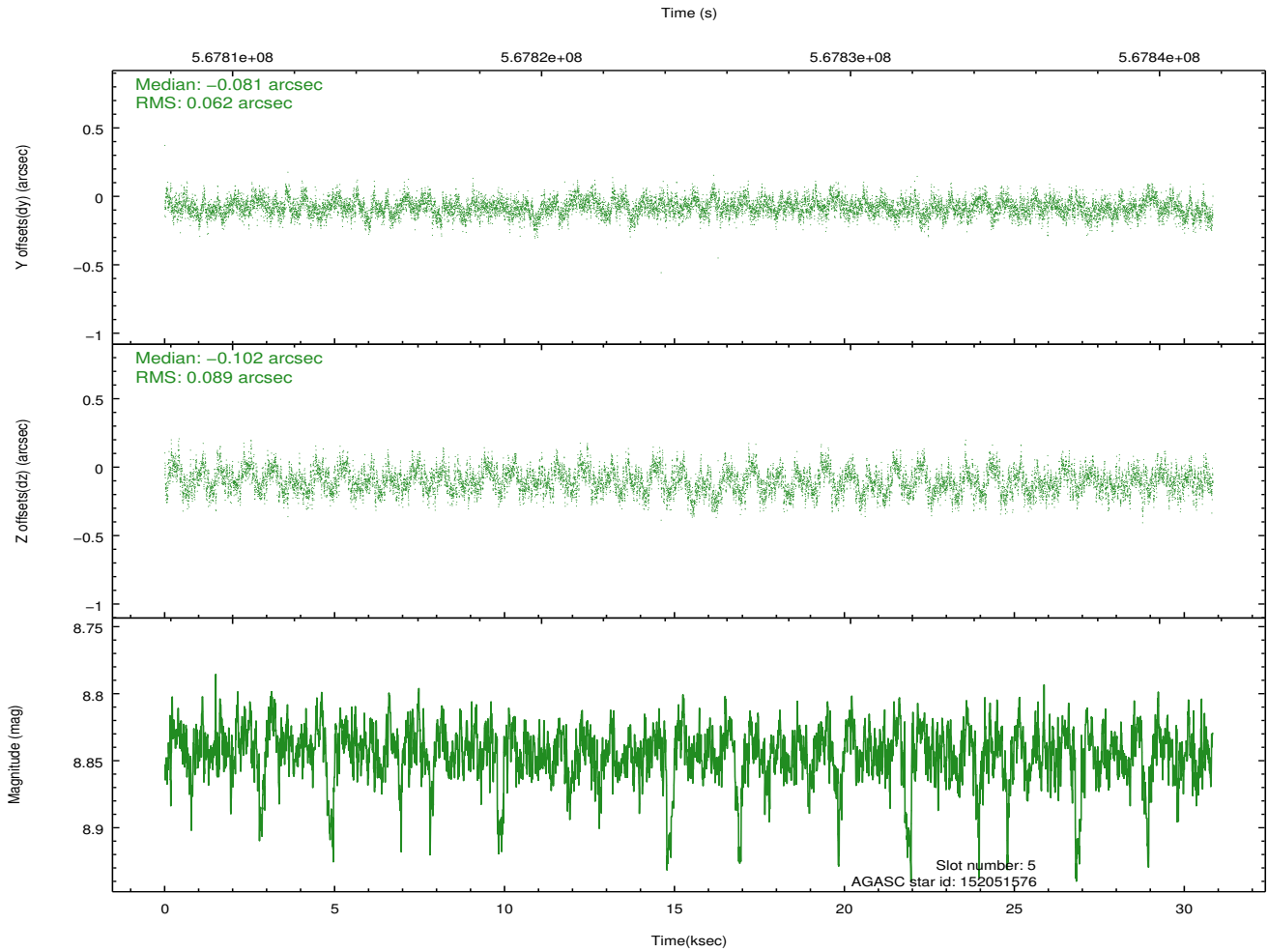
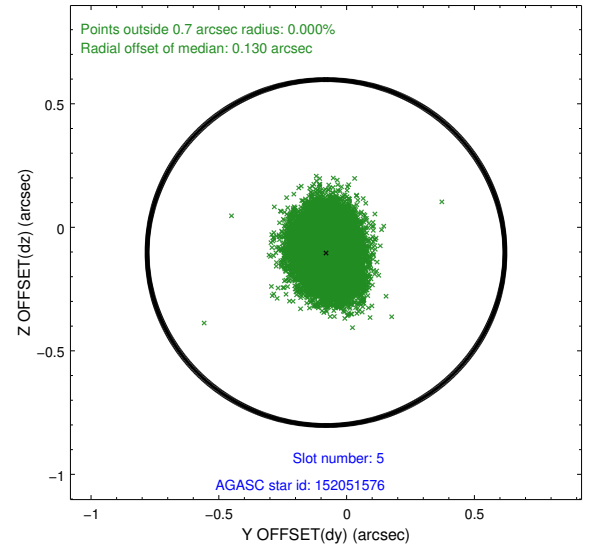
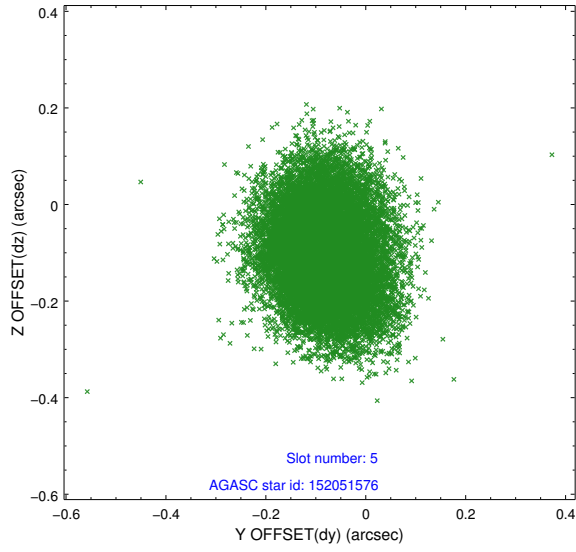
2.4.1 Slot 3



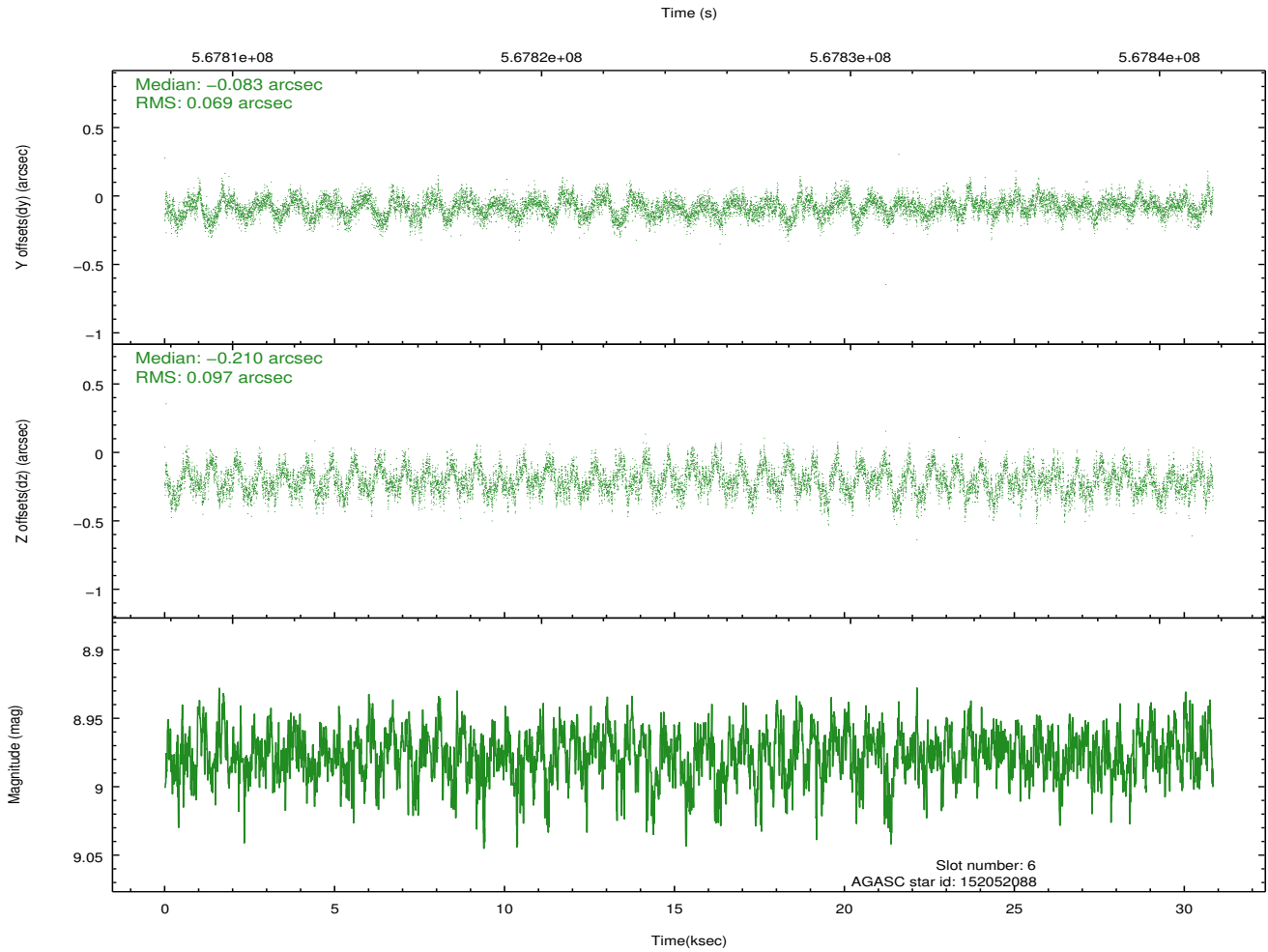
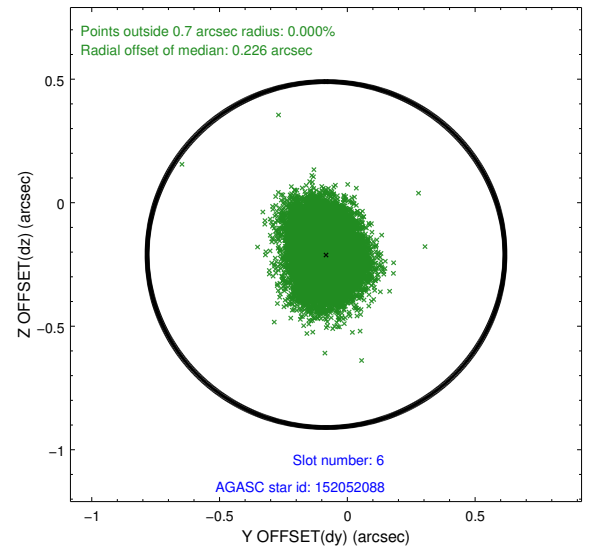
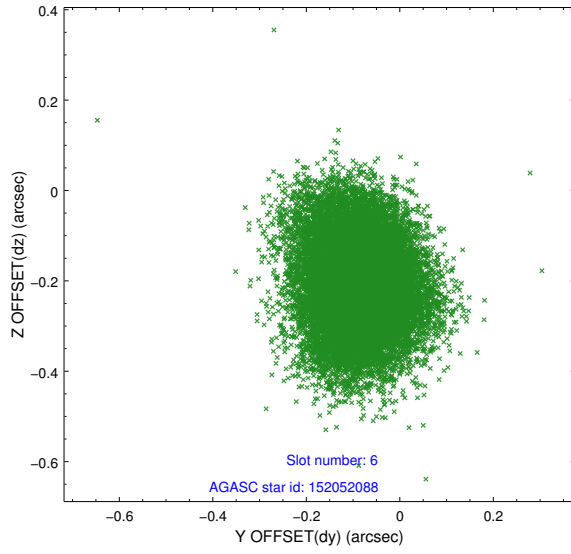
2.4.2 Slot 4



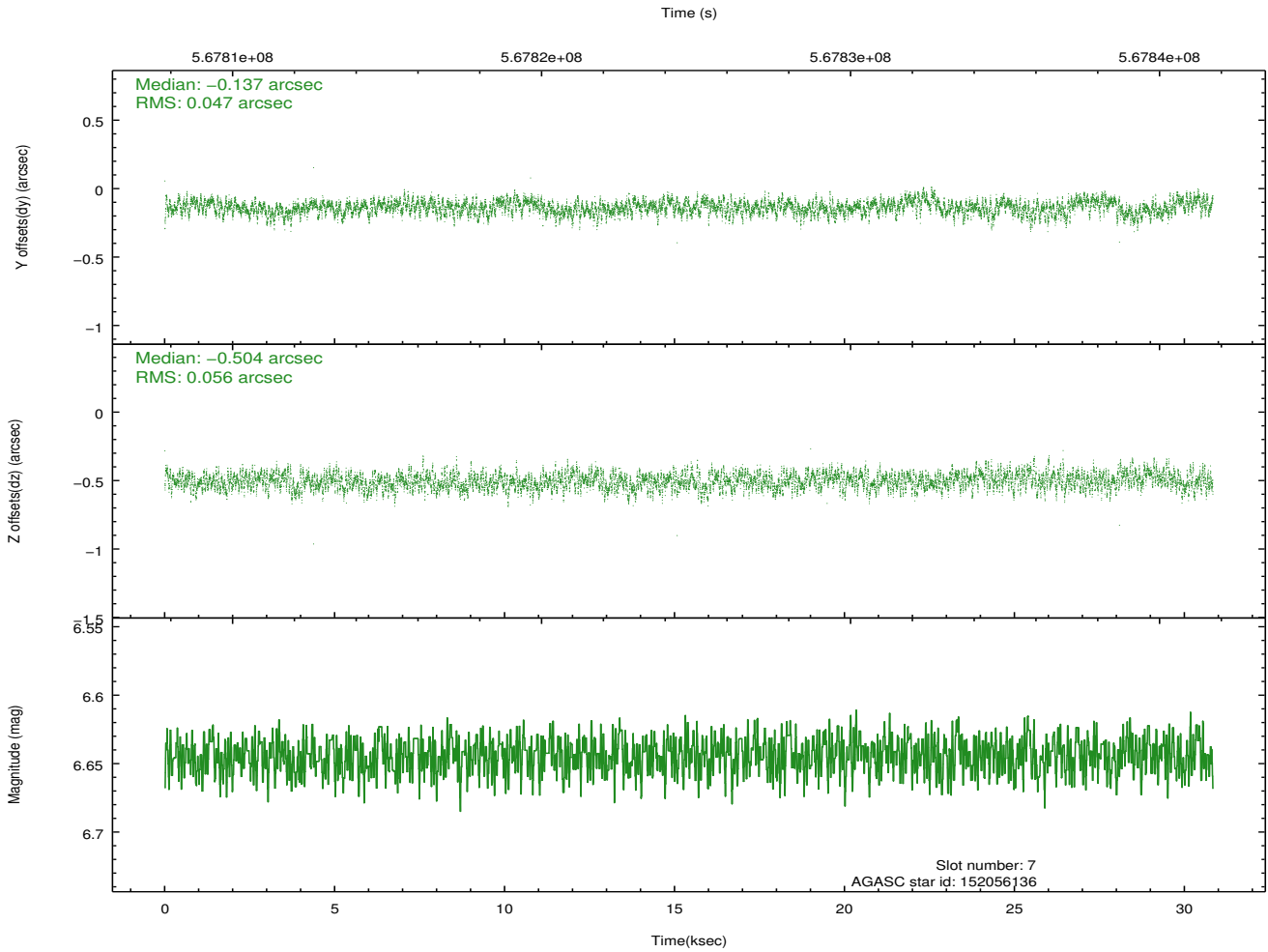
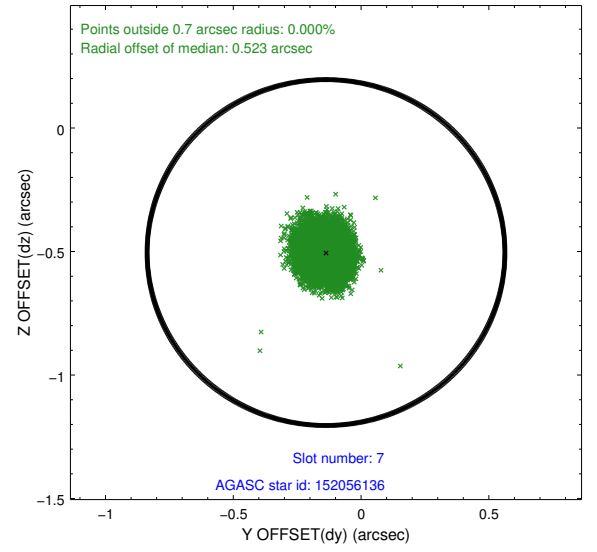
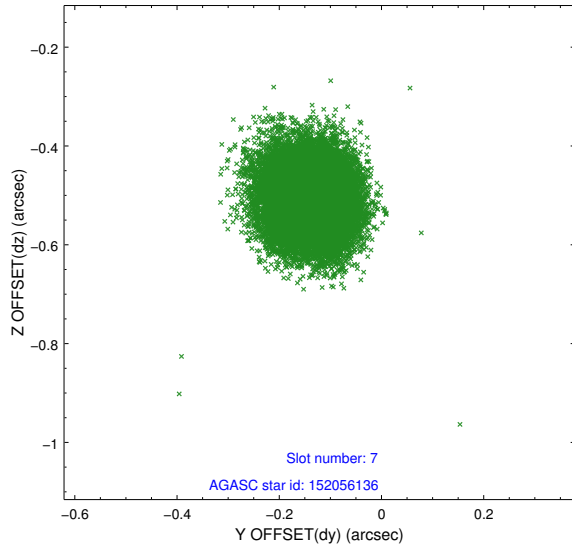
2.4.3 Slot 5



2.4.4 Slot 6

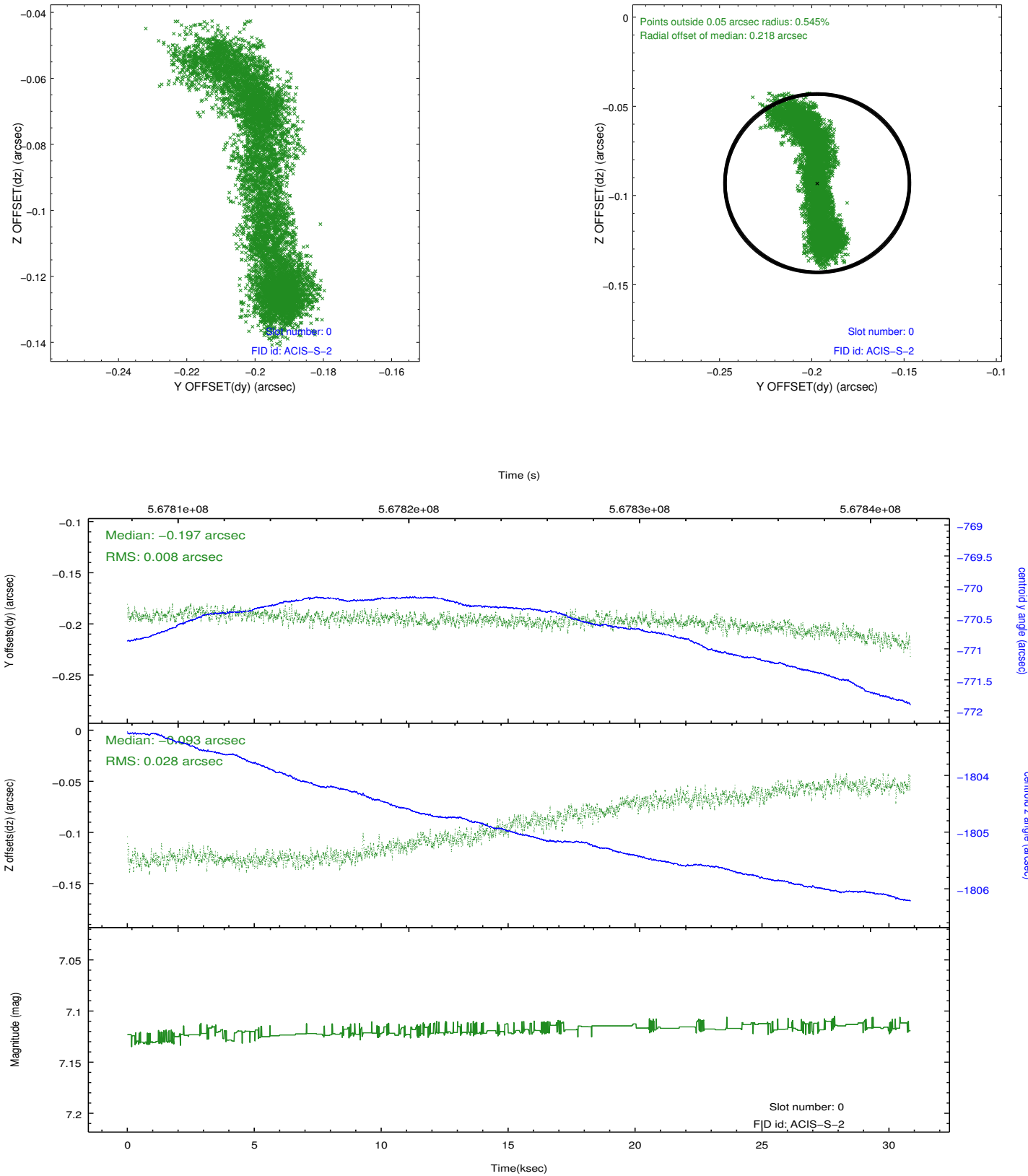


2.4.5 Slot 7

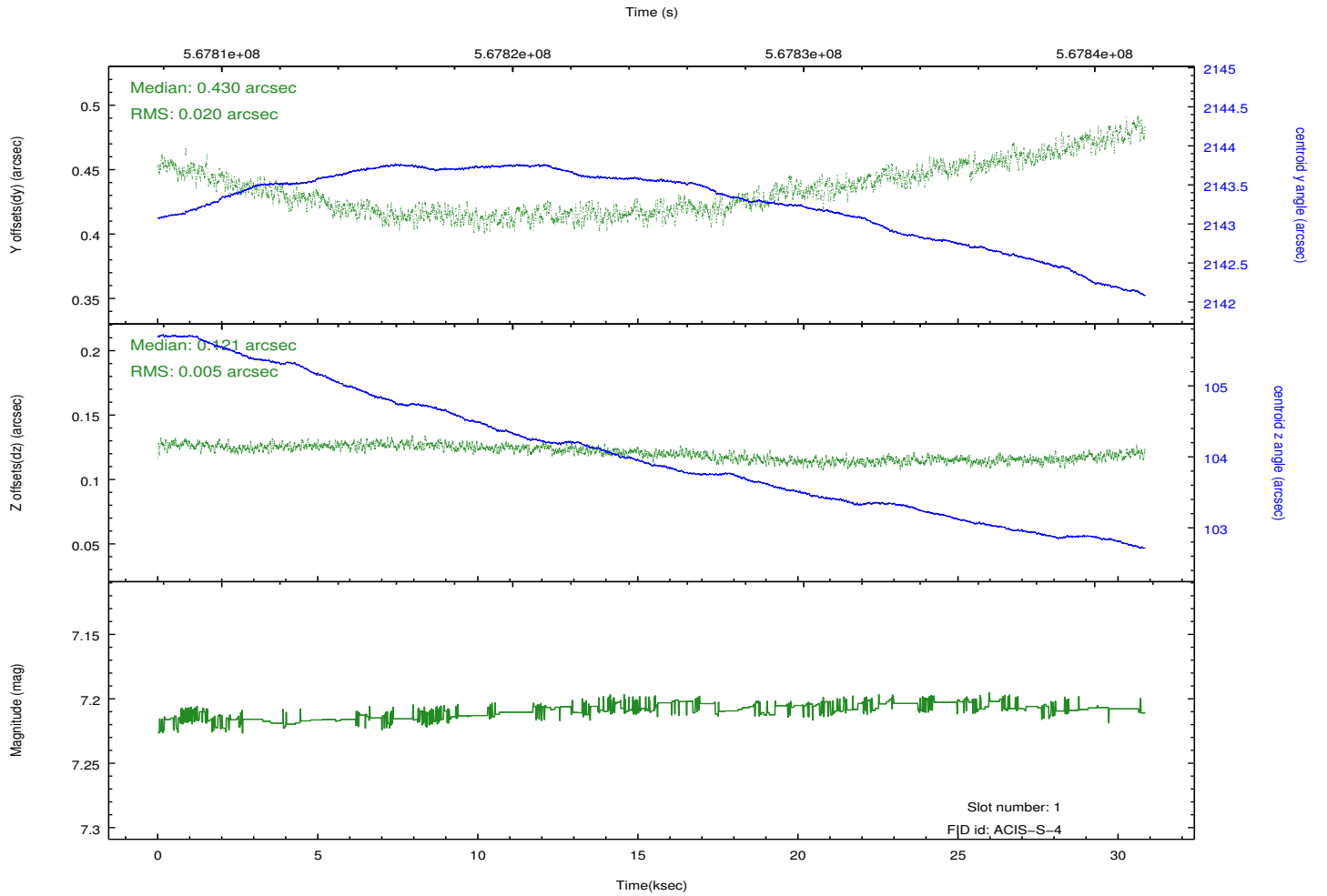
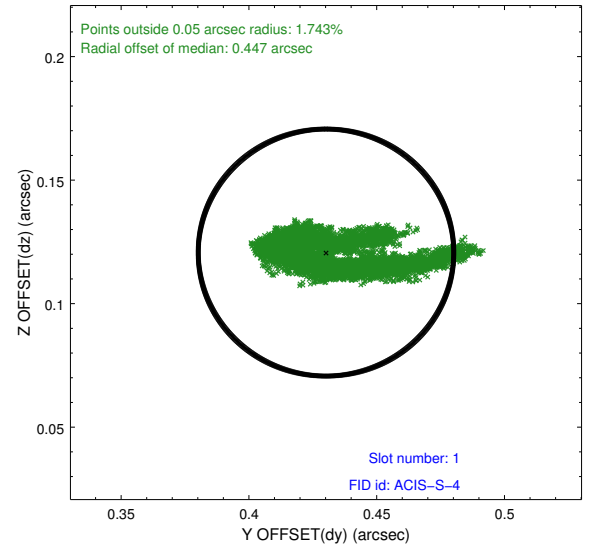
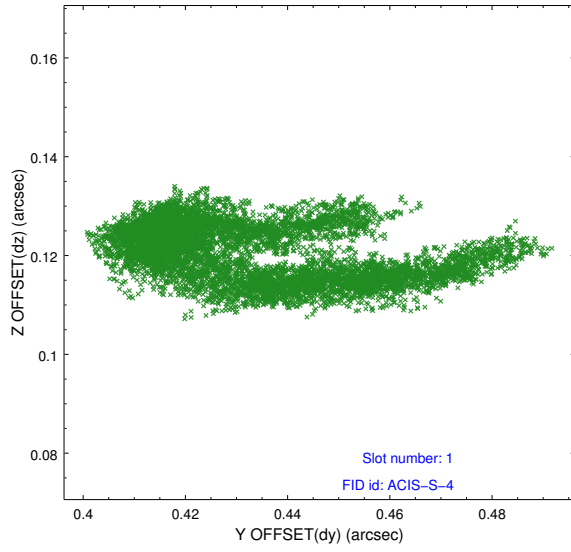


2.5 FID Slots

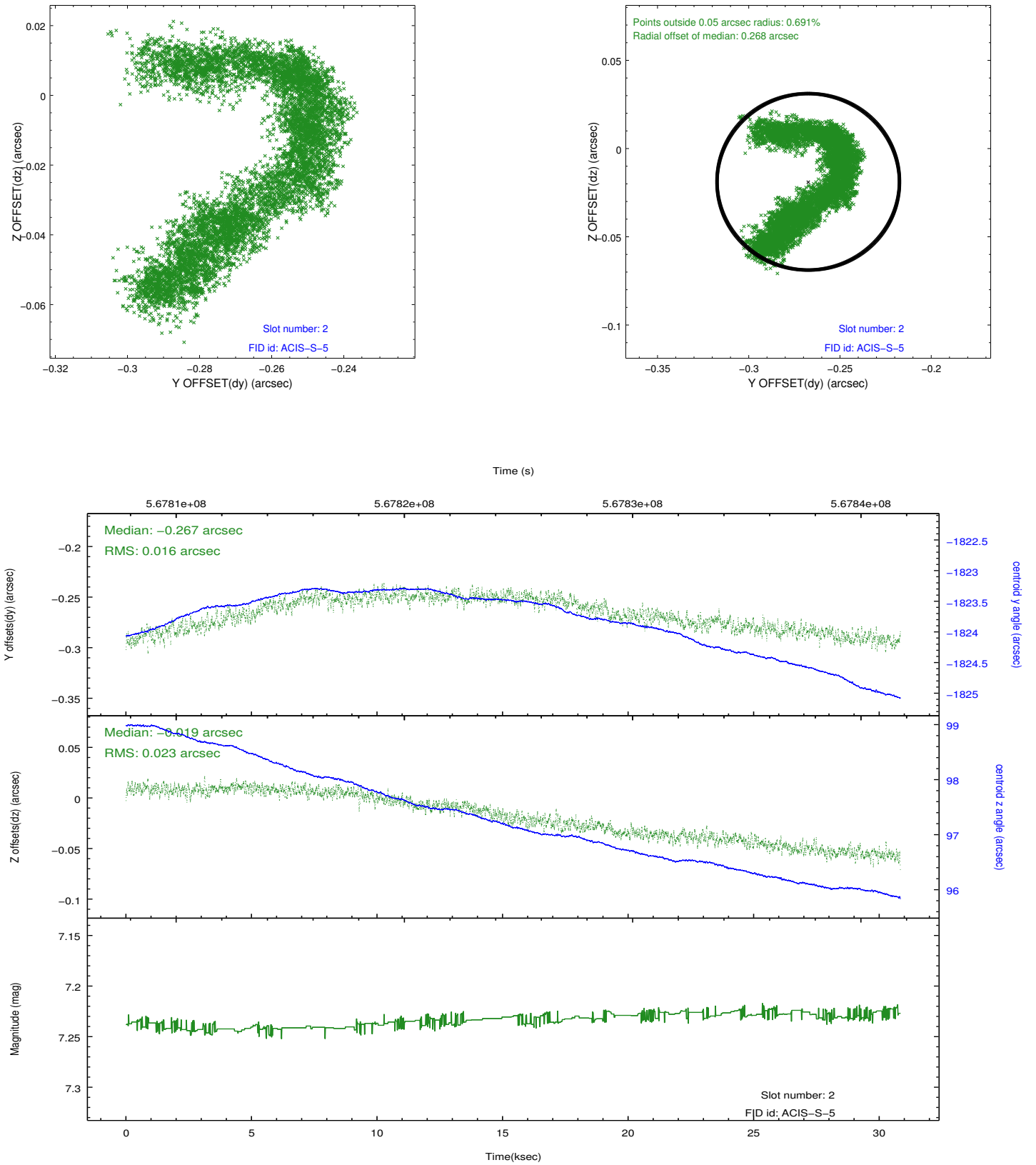
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

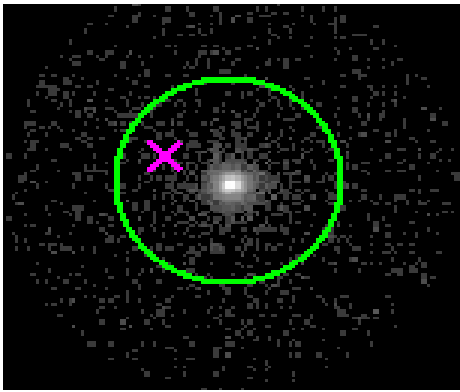


3 Gratings

3.1 HEG Arm



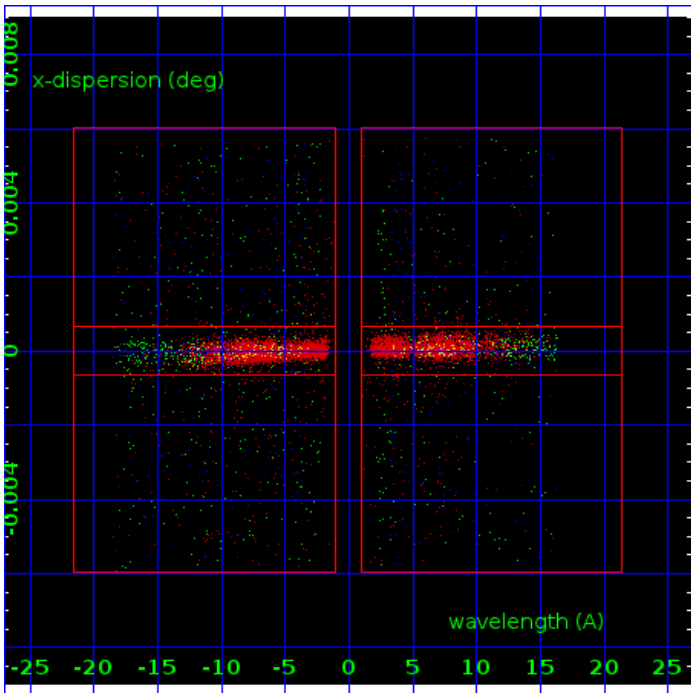
HEG Order Sort 123



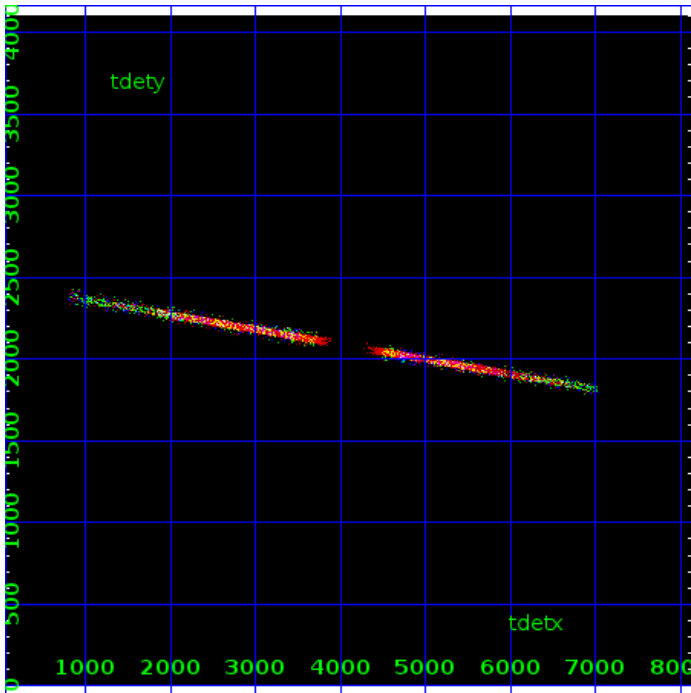
HEG Zero Order



HEG Order Sort ALL

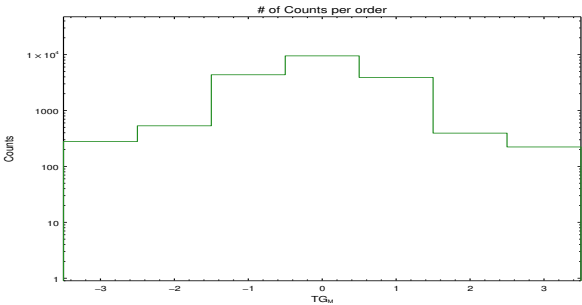


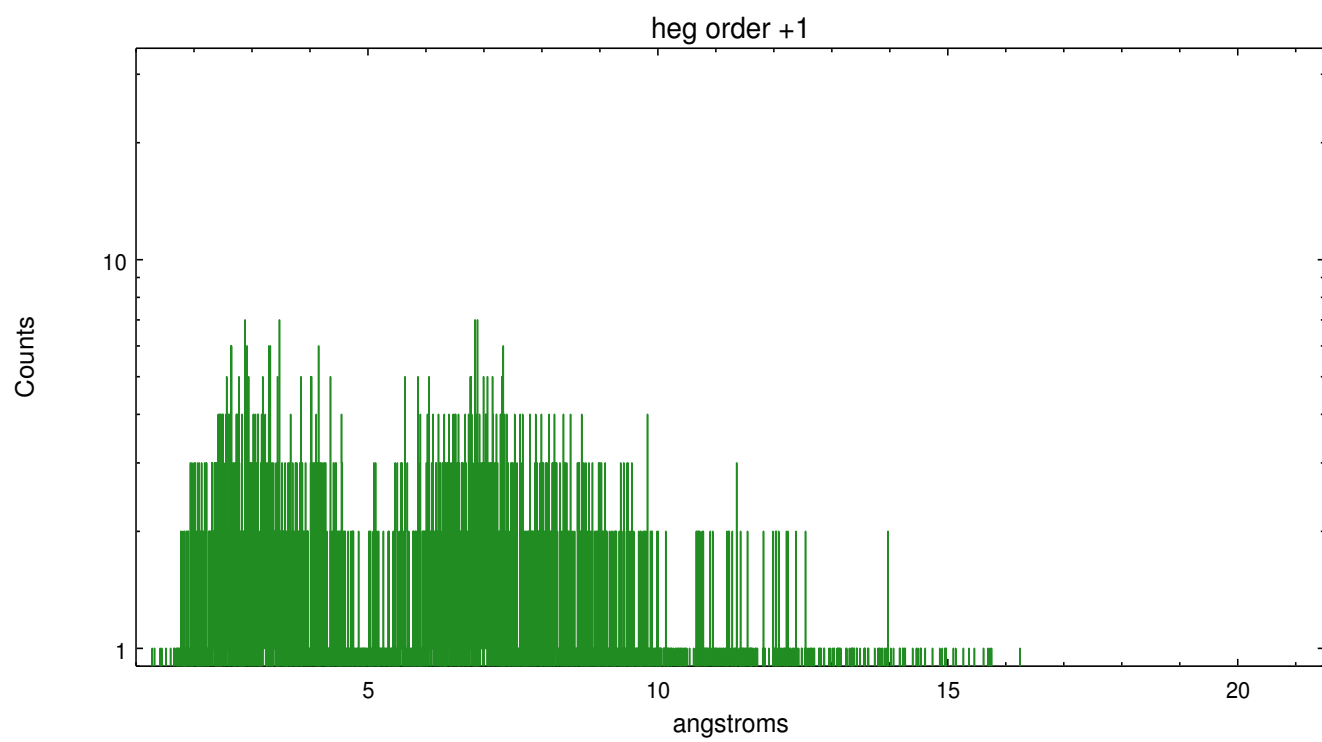
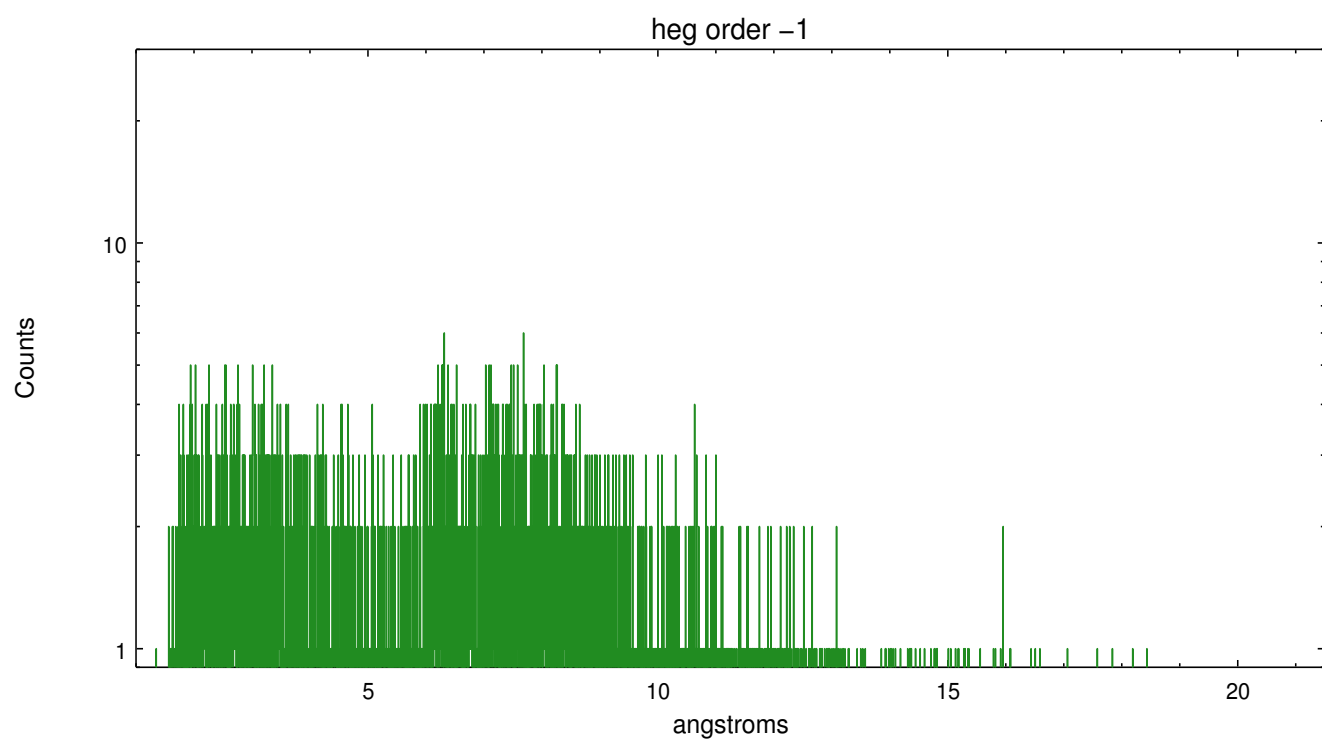
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	279	533	4364	9503	3909	394	223

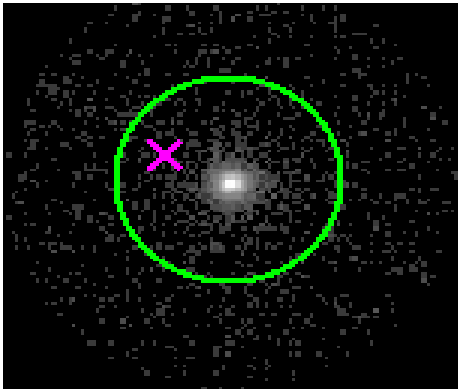




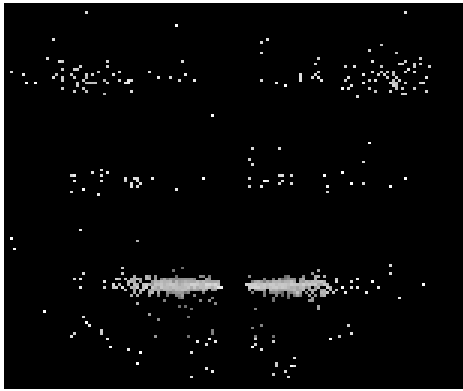
3.2 MEG Arm



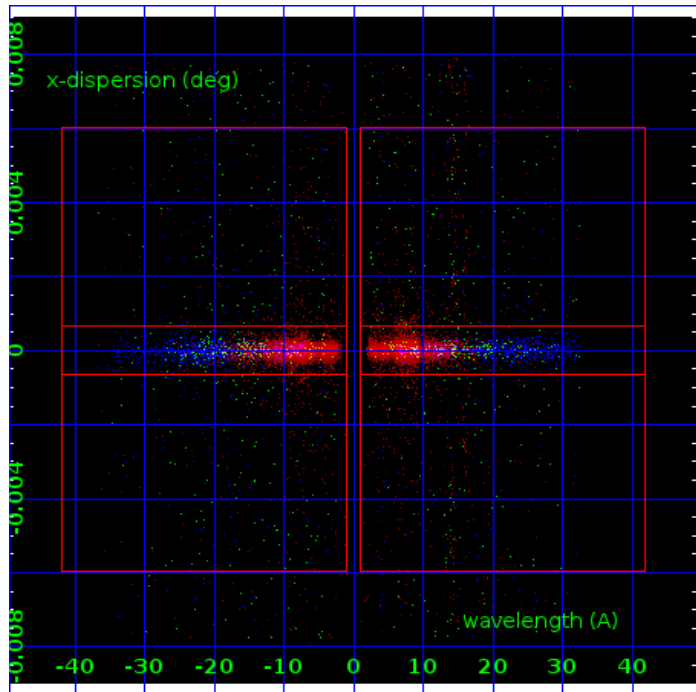
MEG Order Sort 123



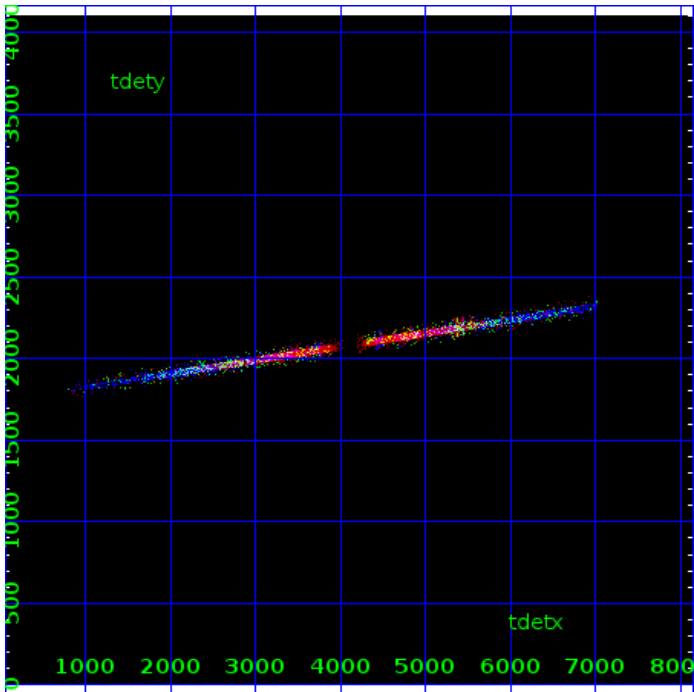
MEG Zero Order



MEG Order Sort ALL

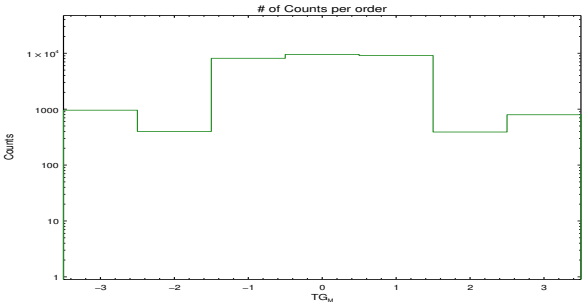


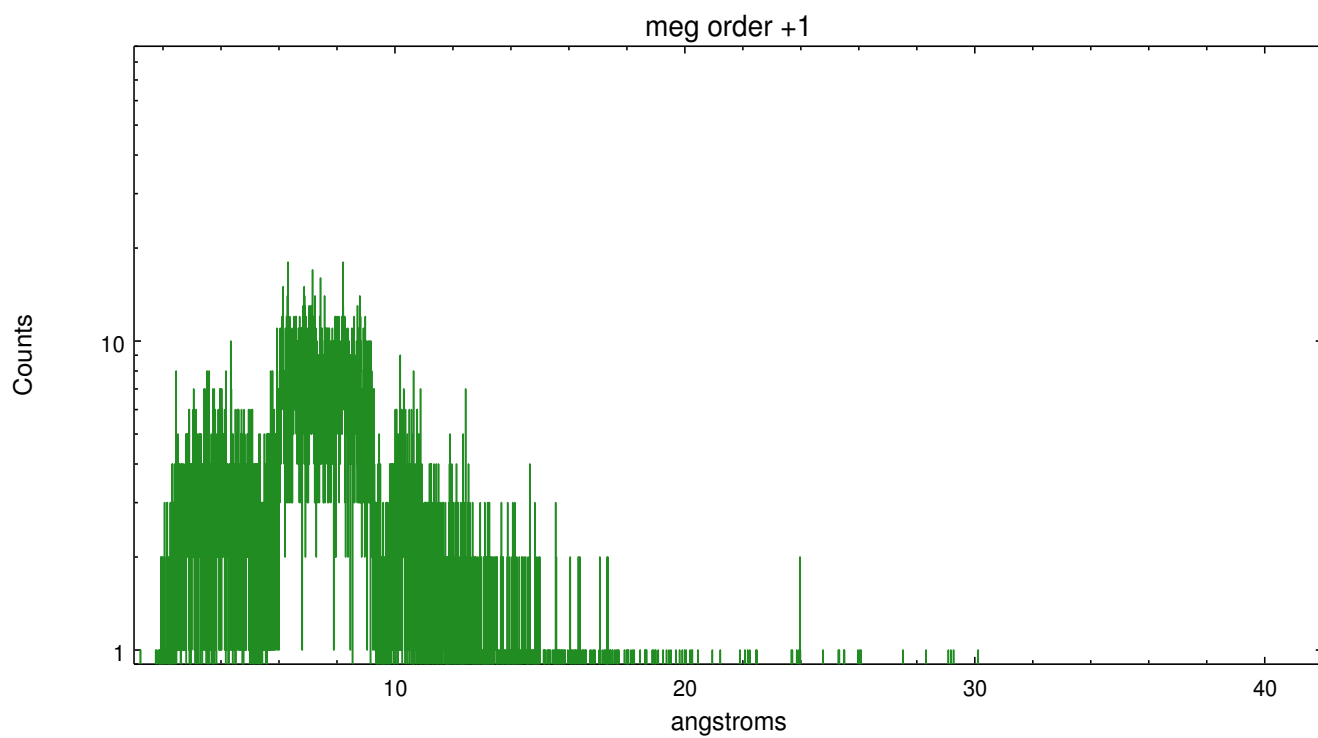
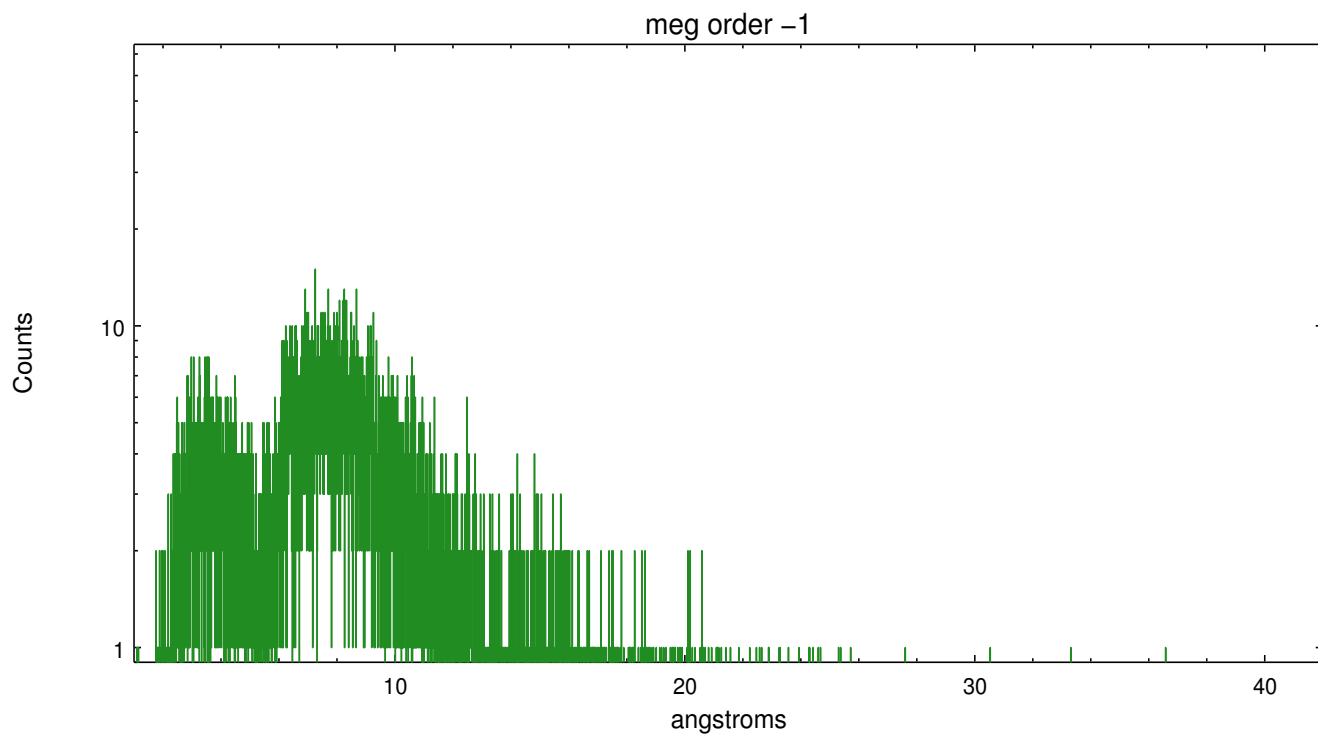
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	958	400	8126	9503	9095	390	795





A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2015.12.31
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.01488166225

A.2 Comments