

V&V Reference Report

L2 ASCDS Version : 10.4.3.1

Observation 18146 - L2 Version 1
Chandra X-Ray Center

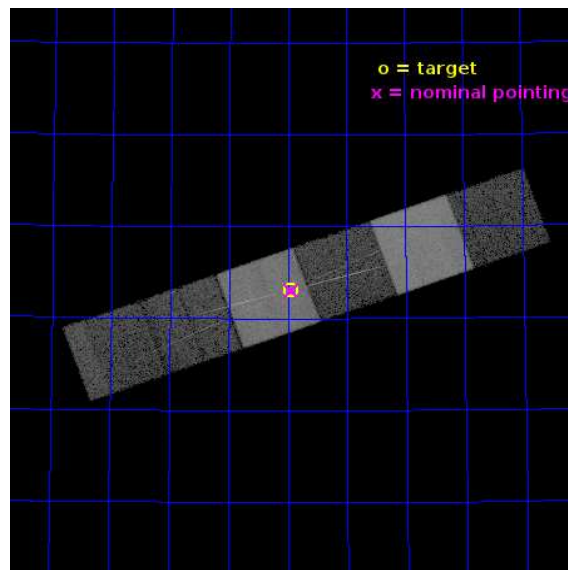
L2 Processing Date : May 6 2016

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1 Front

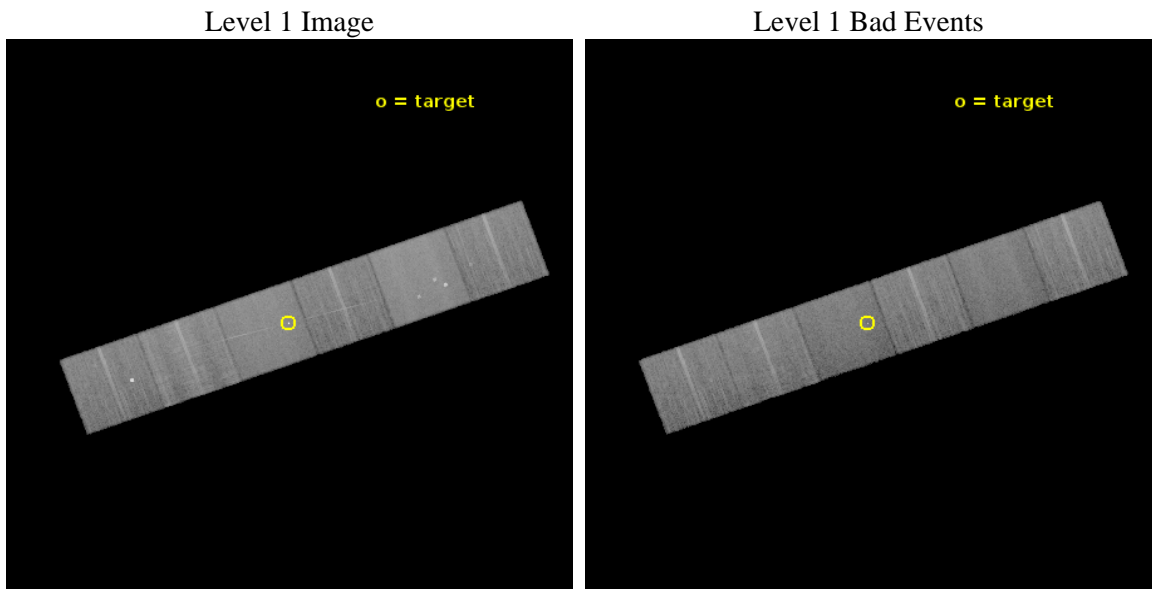
seq_num	703212	Sequence number
obs_id	18146	Observation id
title	Picturing Feedback in Action: from the innermost nuclear region to the Galaxy Scale	Proposal title
observer	Dr. Fabrizio Nicastro	Principal investigator
object	Mkn 876	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	243.488333	Observer's specified target RA [deg]
dec_targ	65.719444	Observer's specified target Dec [deg]
ra_nom	243.4846328777	Nominal RA [deg]
dec_nom	65.717382414474	Nominal Dec [deg]
roll_nom	160.16001483609	Nominal Roll [deg]
revision	1	Processing version of data
ontime	22952.9679811	Sum of GTIs [s]
livetime	22662.323679905	Livetime [s]
ontime4	22953.009021044	Sum of GTIs [s]
ontime5	22952.926941037	Sum of GTIs [s]
ontime6	22952.885901093	Sum of GTIs [s]
ontime7	22952.9679811	Sum of GTIs [s]
ontime8	22952.844861031	Sum of GTIs [s]
ontime9	22952.803821087	Sum of GTIs [s]
l2events	241165	Number of level 2 events



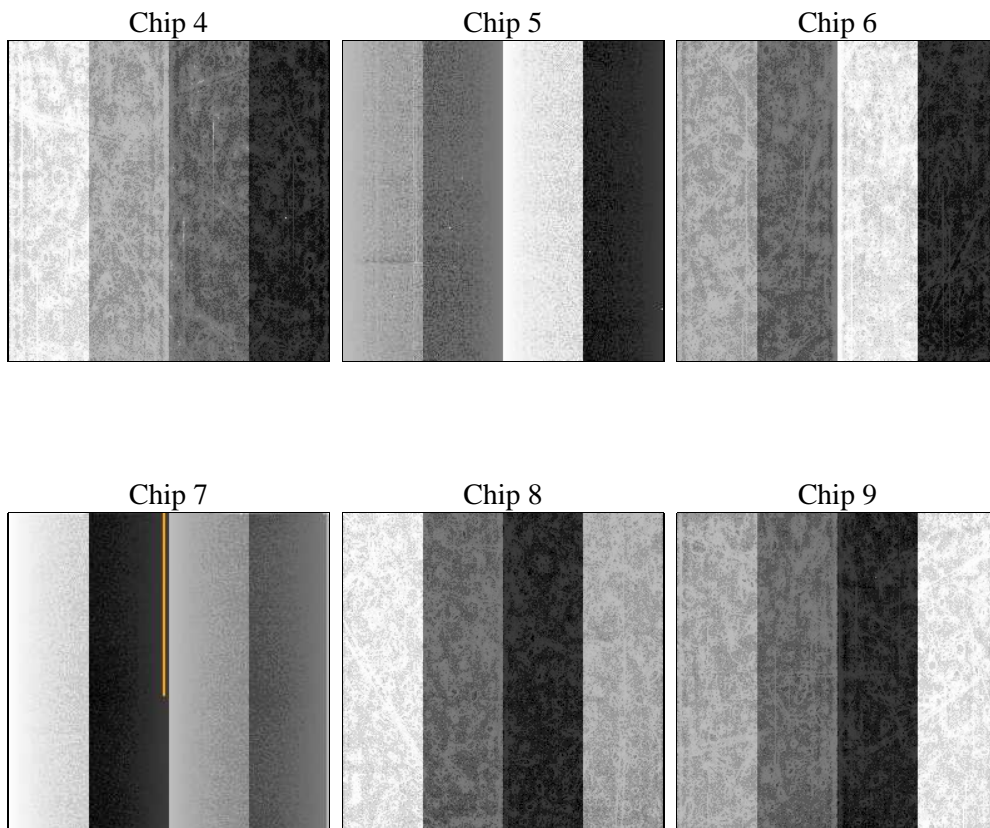
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	23000.000000	[s] Scheduled observation exposure time
ascdsver	10.4.3.1	Processing system revision	ontime	22952.9679811	Sum of GTIs [s]
caldsver	4.7.1	 	ontime4	22953.009021044	Sum of GTIs [s]
date	2016-05-07T00:53:16	Date and time of file creation	ontime5	22952.926941037	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	22952.885901093	Sum of GTIs [s]
			ontime7	22952.9679811	Sum of GTIs [s]
			ontime8	22952.844861031	Sum of GTIs [s]
			ontime9	22952.803821087	Sum of GTIs [s]
			l1events	1068591	Number of level 1 events
			tgmetho	TGDETECT	Method used to create src1a file
			ra_pos	(4086.16, 4111.11)	Grade 0 sky pixel position

2.1.4 Events

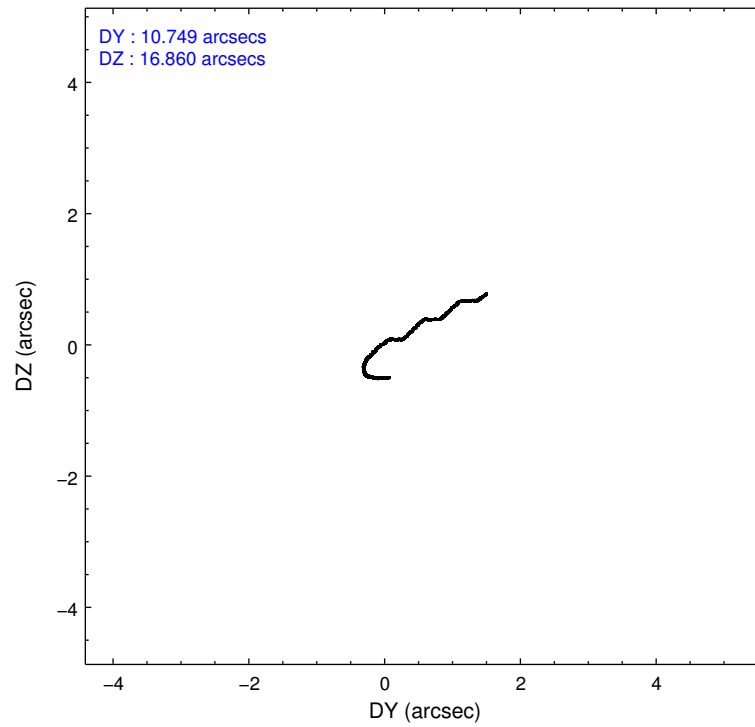
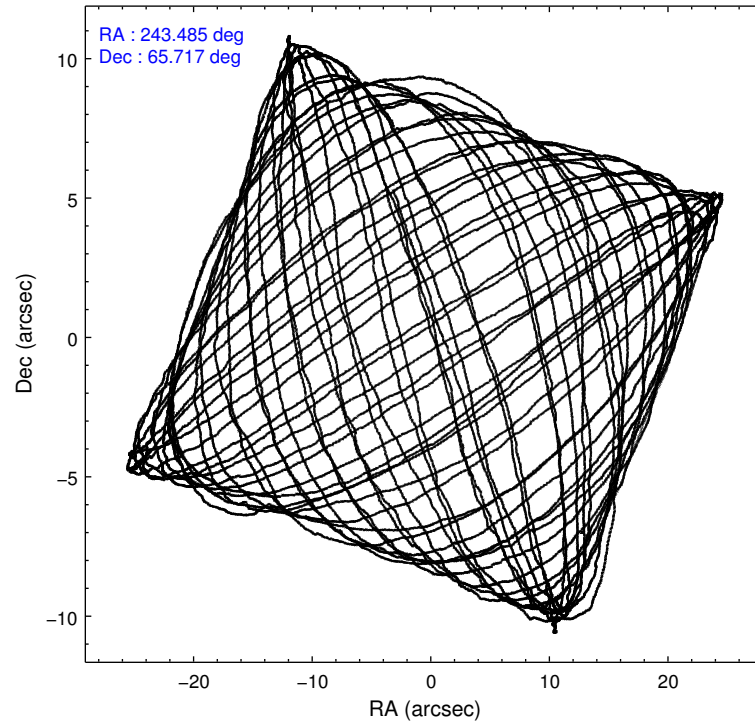
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	165538	227282	150508	188004	186850	150409	grade 0 events	6231	8784	6423	7228	14162	12653
rejected events	148786	118187	132633	105537	138333	126693		3%	3%	4%	3%	7%	8%
rejected %	89%	52%	88%	56%	74%	84%	grade 1 events	166	533	61	246	124	172
								0%	0%	0%	0%	0%	0%
							grade 2 events	3984	33760	4147	17592	11621	3814
								2%	14%	2%	9%	6%	2%
							grade 3 events	1813	3170	1574	6340	5004	1694
								1%	1%	1%	3%	2%	1%
							grade 4 events	1756	3023	1603	6252	4705	1698
								1%	1%	1%	3%	2%	1%
							grade 5 events	6962	14758	6500	17752	9976	7259
								4%	6%	4%	9%	5%	4%
							grade 6 events	2972	60370	4131	45068	13060	3861
								1%	26%	2%	23%	6%	2%
							grade 7 events	141654	102884	126069	87526	128198	119258
								85%	45%	83%	46%	68%	79%

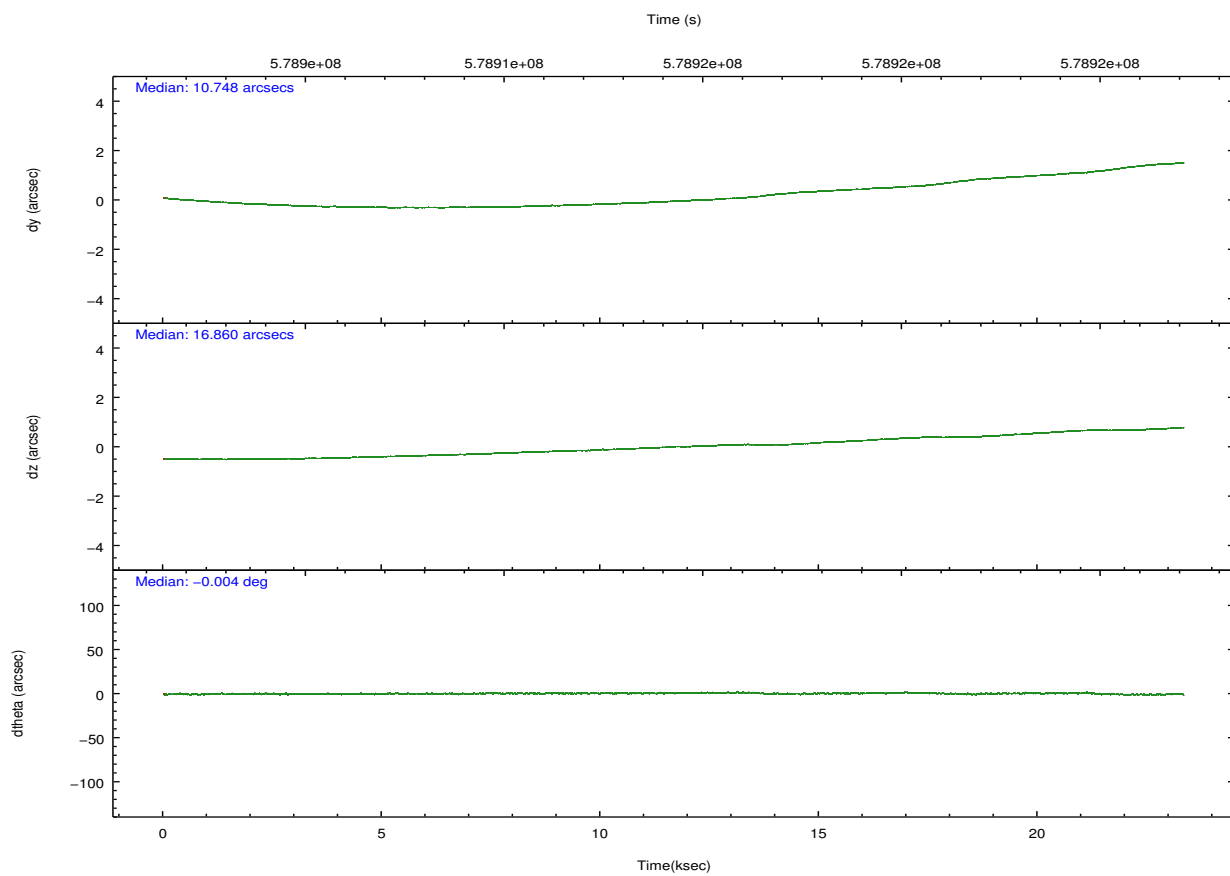
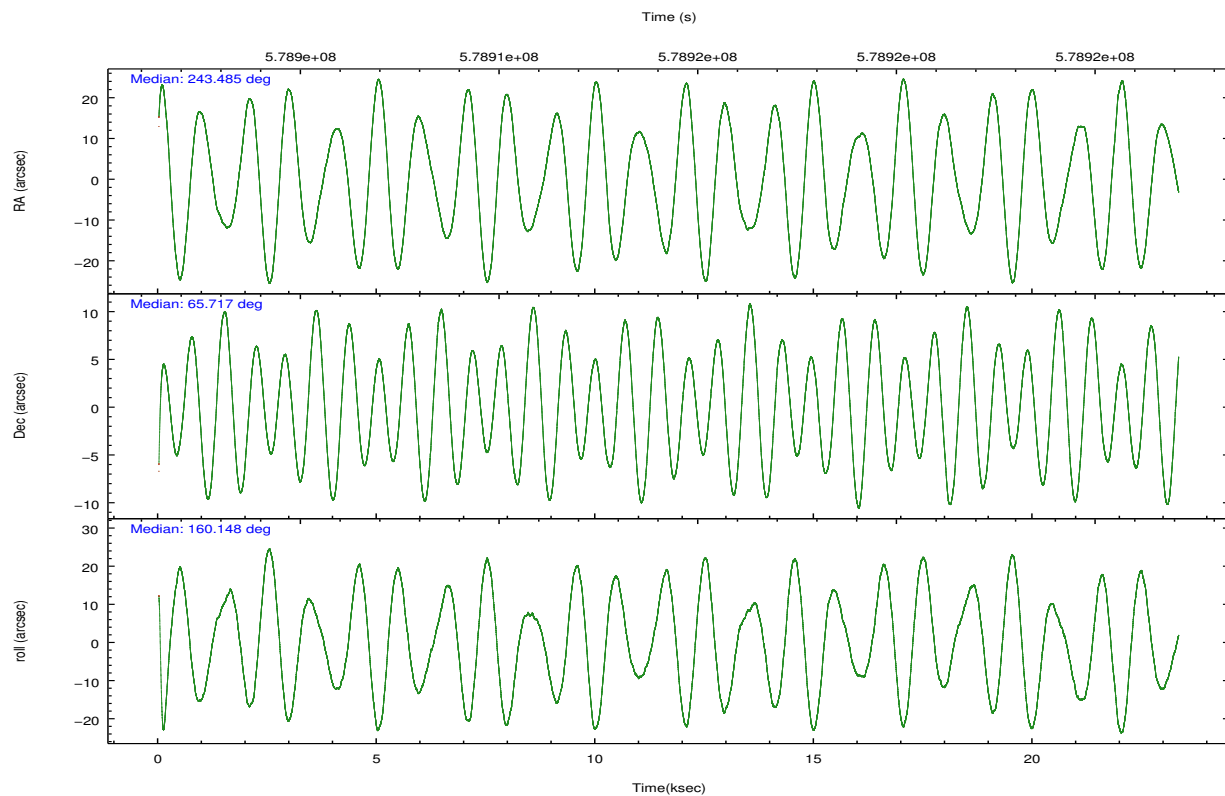
2.2 Compared Parameters

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	243.550147	243.4846328776953
[deg] Pointing Dec	65.722568	65.71738241447379
[deg] Pointing Roll	159.943654	160.1600148360894
[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)	578902949.184000	578901767.9719599
Observation start date	2016-05-06T06:21:21	2016-05-06T06:02:47
[s] Observation end time (MET)	578925949.184000	578926528.89838
Observation end date	2016-05-06T12:44:41	2016-05-06T12:55:28
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	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.2

2.3 Aspect



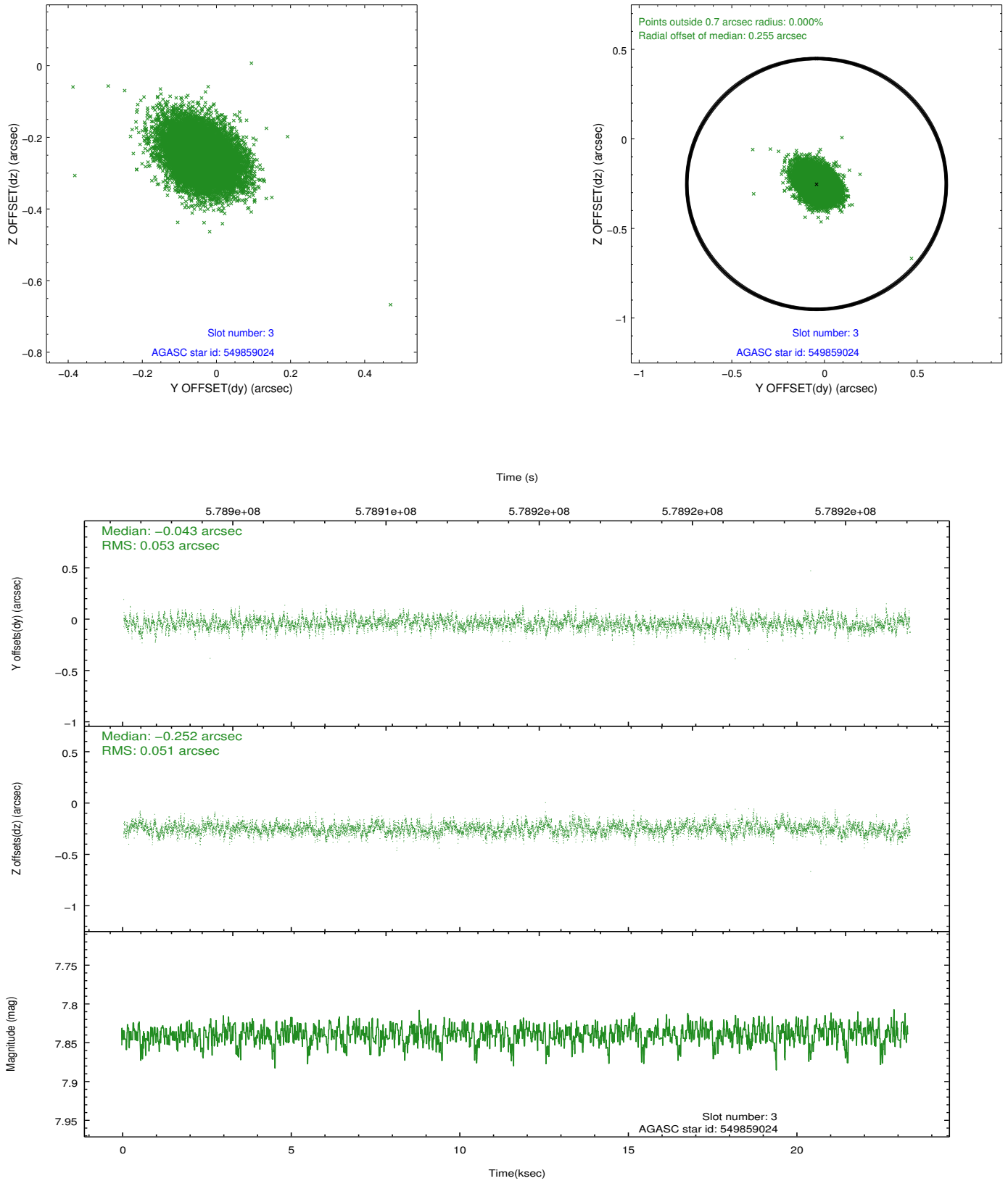


Slot Statistics

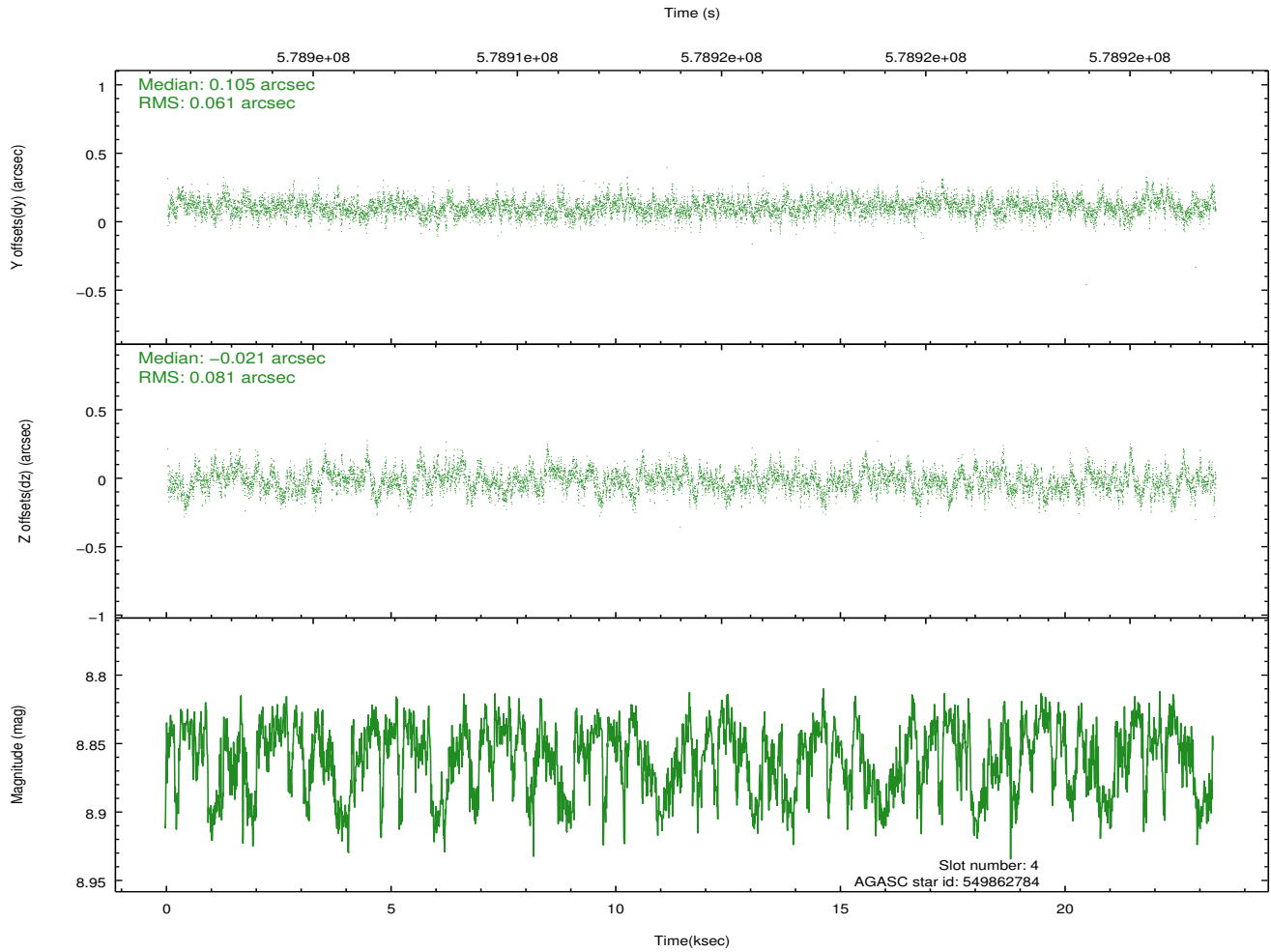
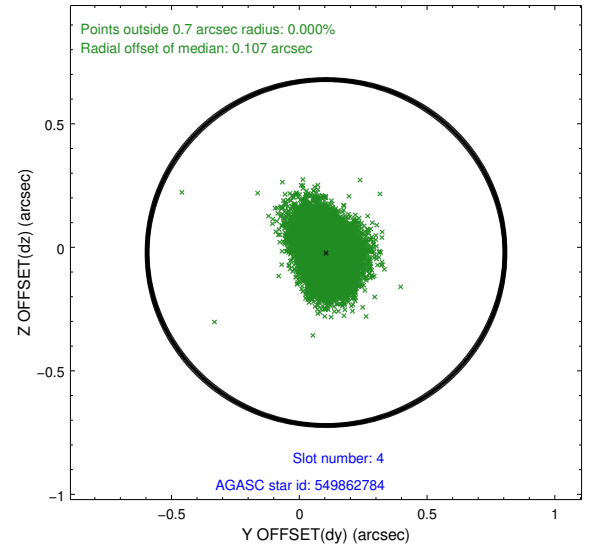
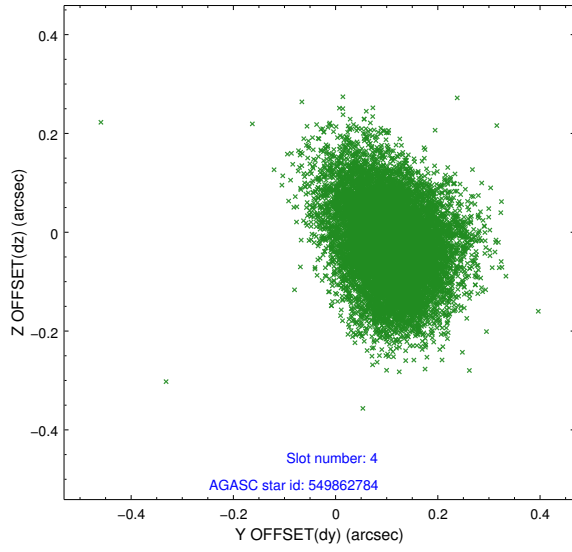
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.12	5690	-0.142	-0.081	0.023	0.040	0.000000	0.000000	-763.98	-1738.39
1	FID		ACIS-S-4	7.24	5690	0.373	0.090	0.008	0.014	0.000000	0.000000	2149.75	170.12
2	FID		ACIS-S-5	7.24	5690	-0.263	-0.001	0.021	0.042	0.000000	0.000000	-1816.77	163.86
3	GUIDE	used	549859024	7.84	11377	-0.043	-0.252	0.076	0.128	243.777882	65.072262	-1126.83	2079.35
4	GUIDE	used	549862784	8.86	11374	0.105	-0.021	0.107	0.177	243.335157	66.115006	780.02	-1218.98
5	GUIDE	used	549863464	7.50	11377	-0.117	0.156	0.112	0.175	243.630740	66.376841	699.27	-2251.82
6	GUIDE	used	549864184	9.06	11367	-0.011	-0.109	0.135	0.212	243.727034	65.246202	-838.46	1519.25
7	GUIDE	used	549864952	8.93	11366	0.066	0.238	0.102	0.165	244.861755	65.614211	-1957.67	-320.90

2.4 Star Slots

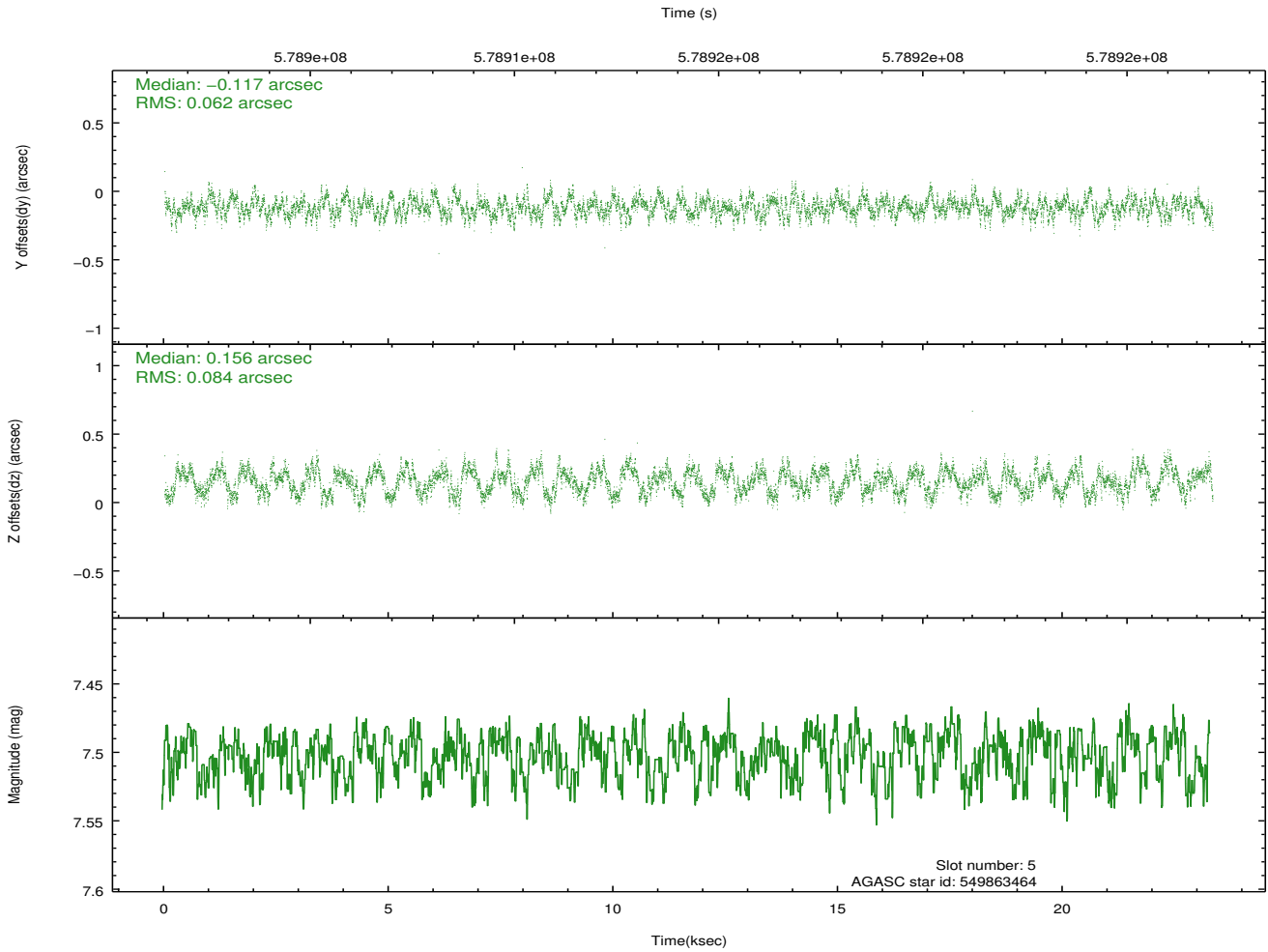
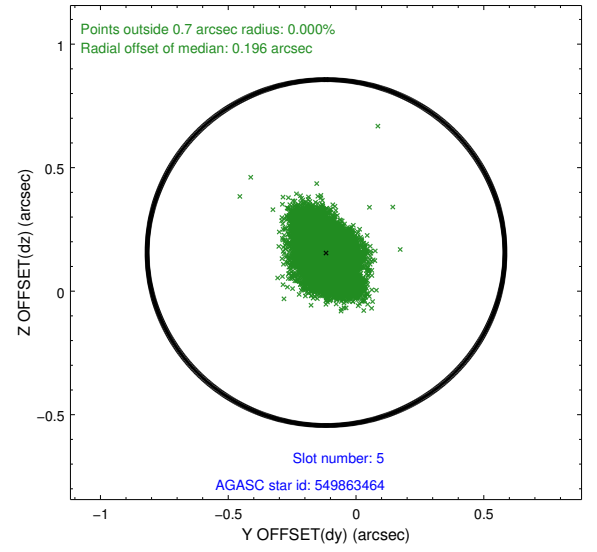
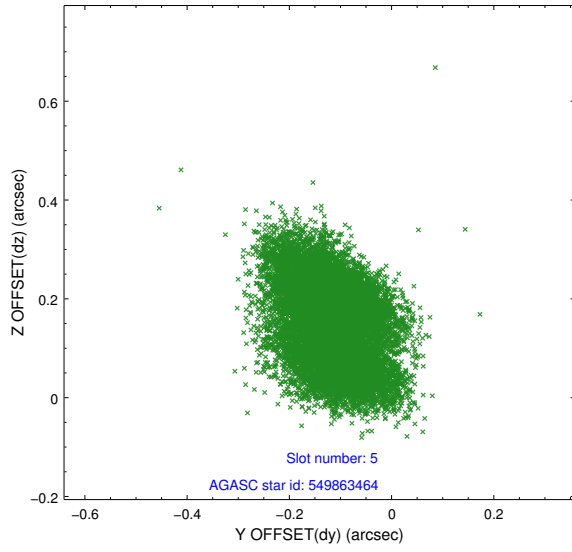
2.4.1 Slot 3



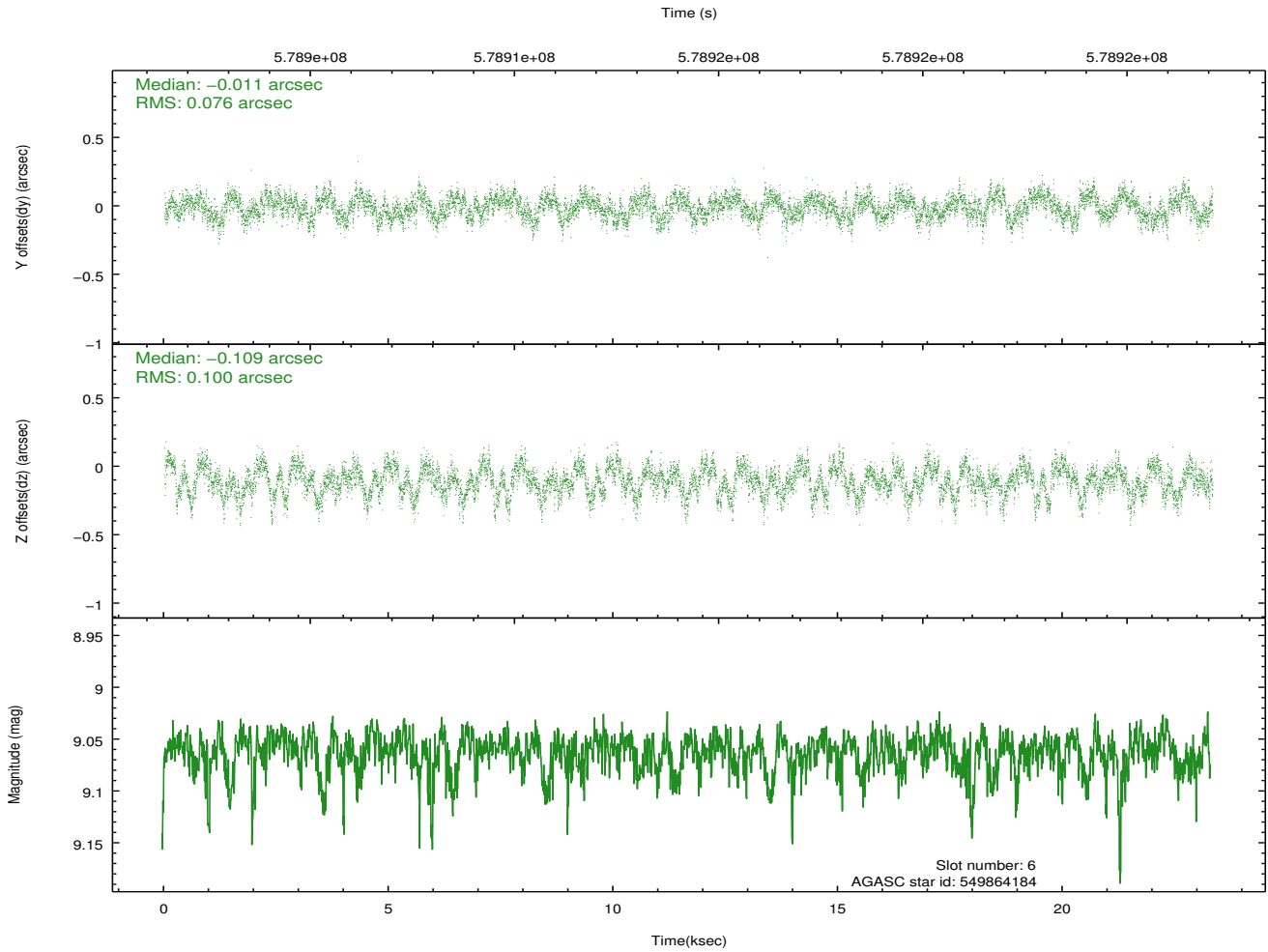
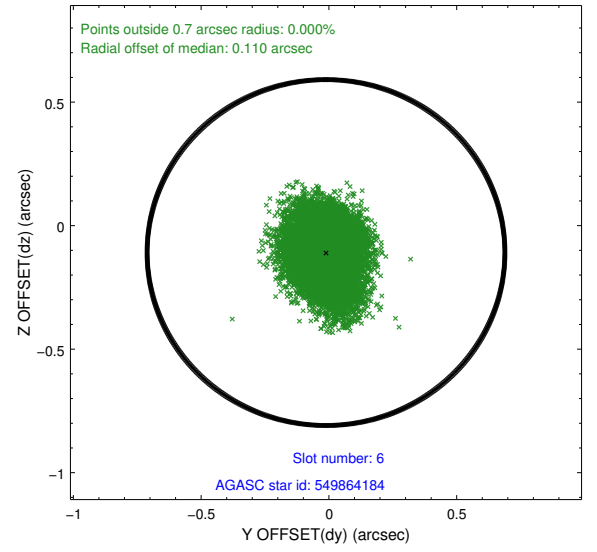
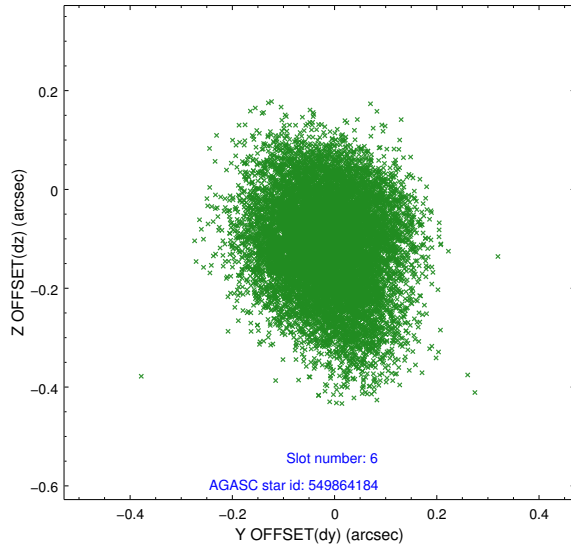
2.4.2 Slot 4



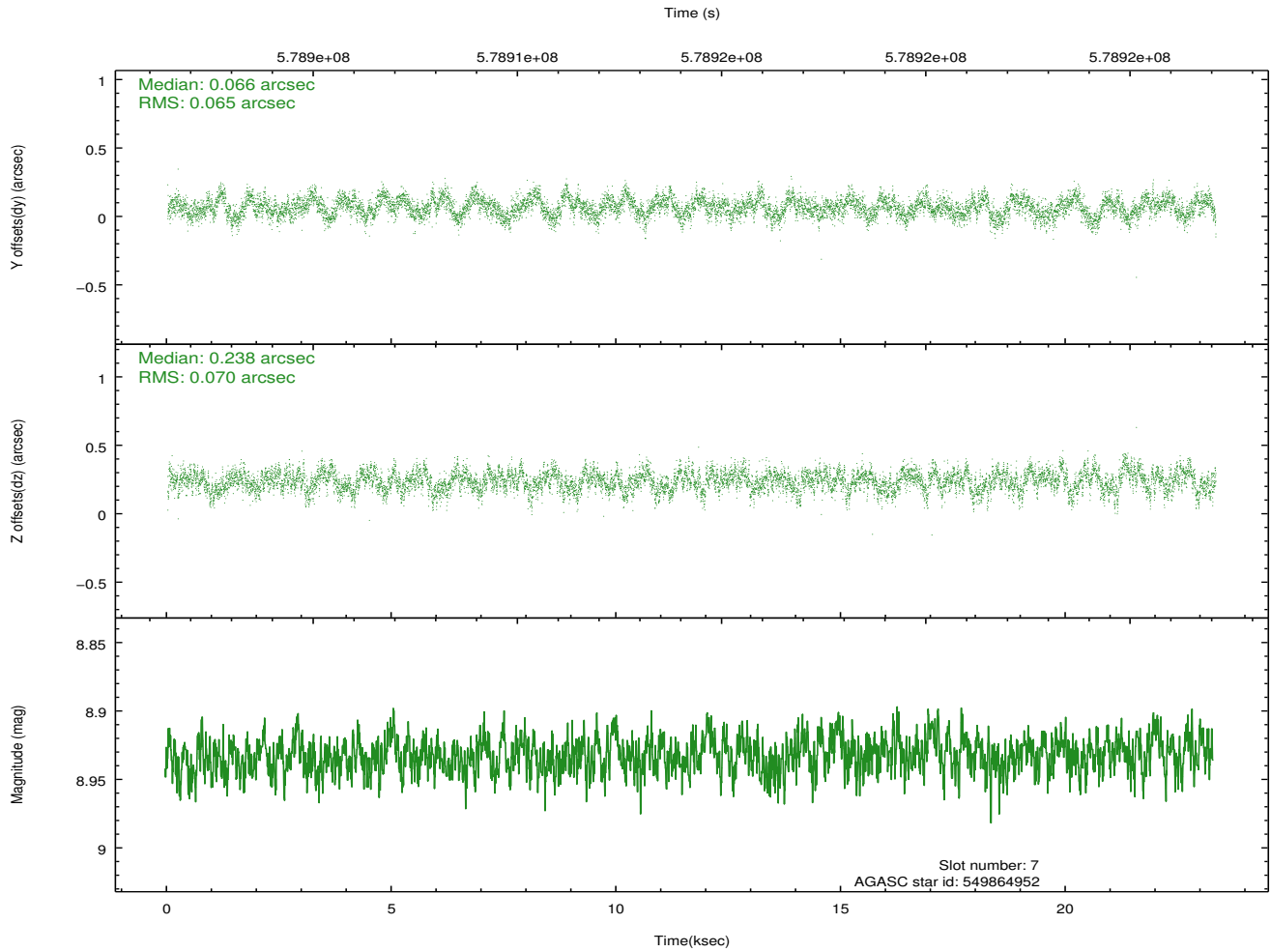
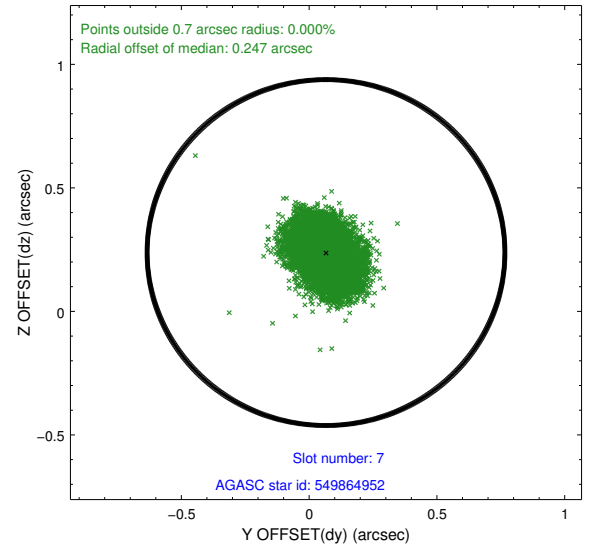
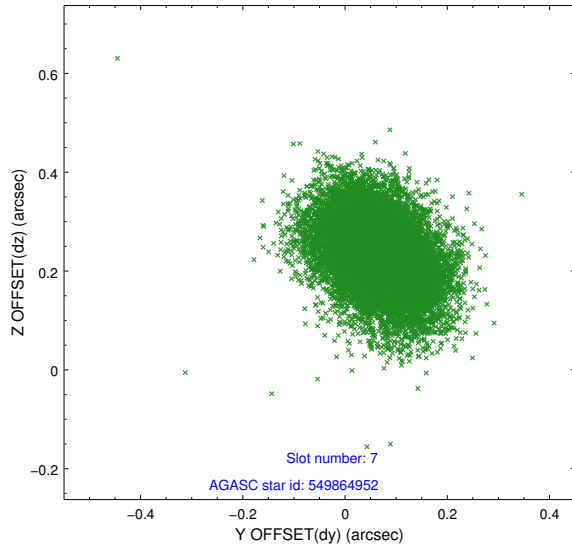
2.4.3 Slot 5



2.4.4 Slot 6

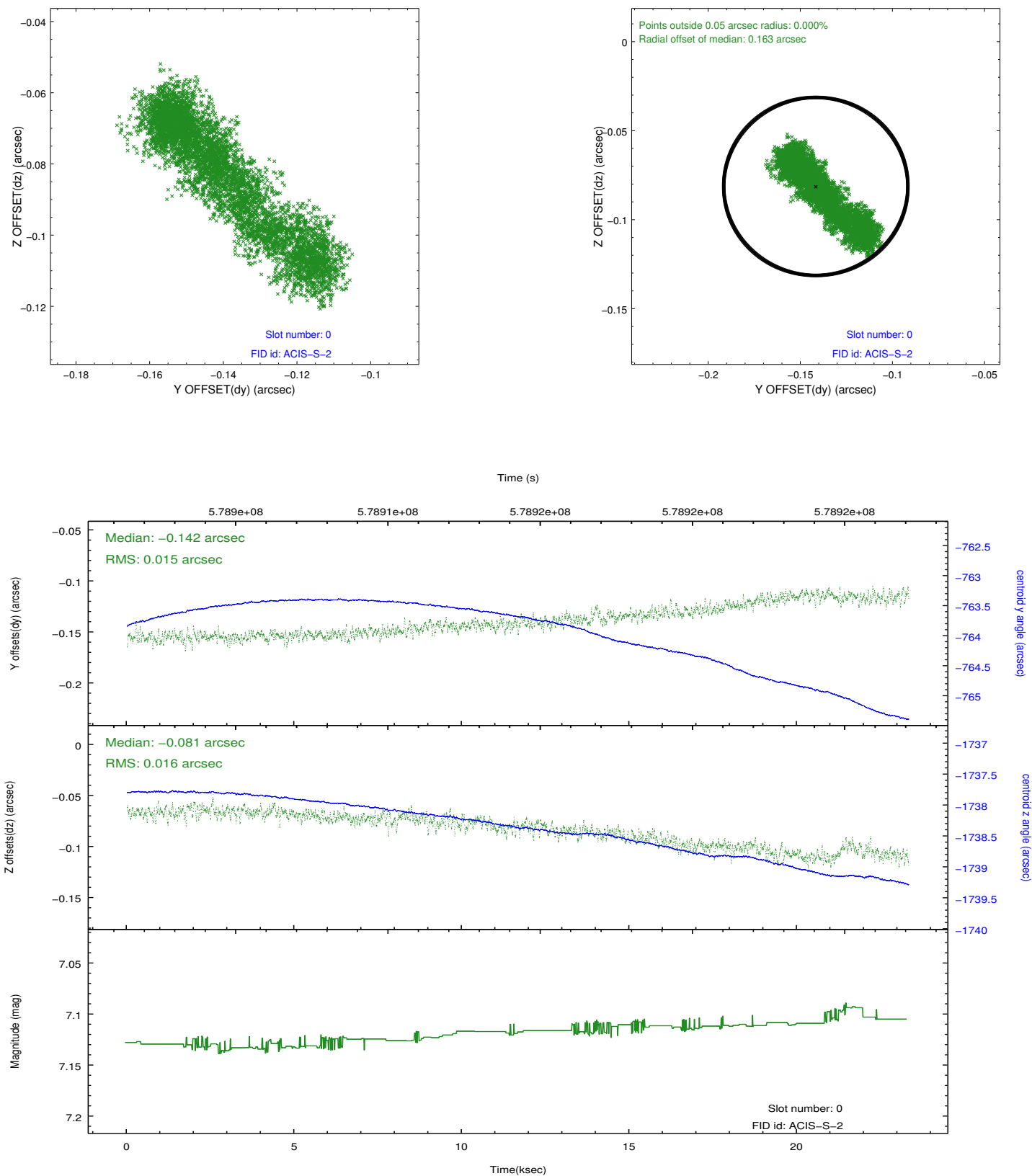


2.4.5 Slot 7

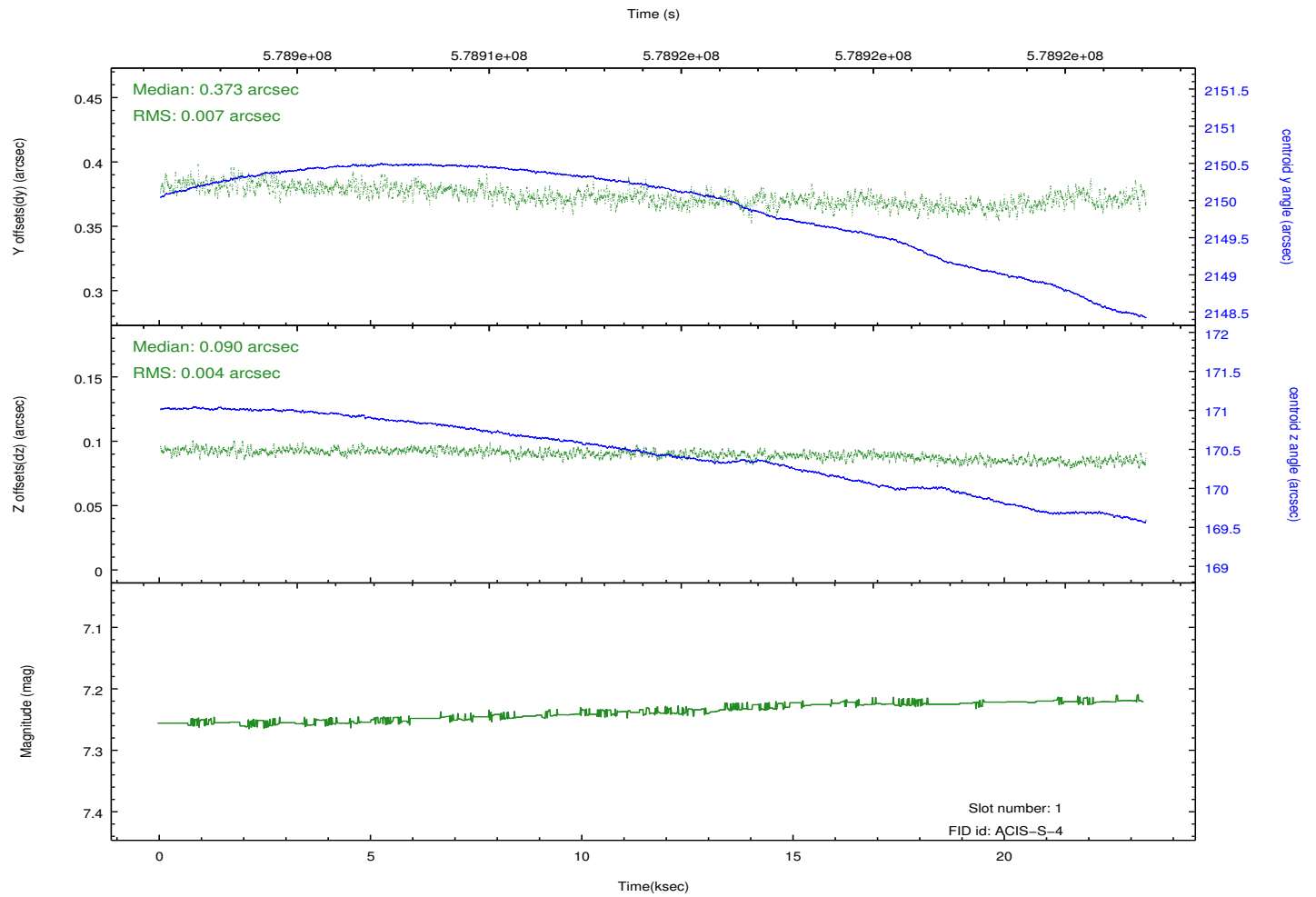
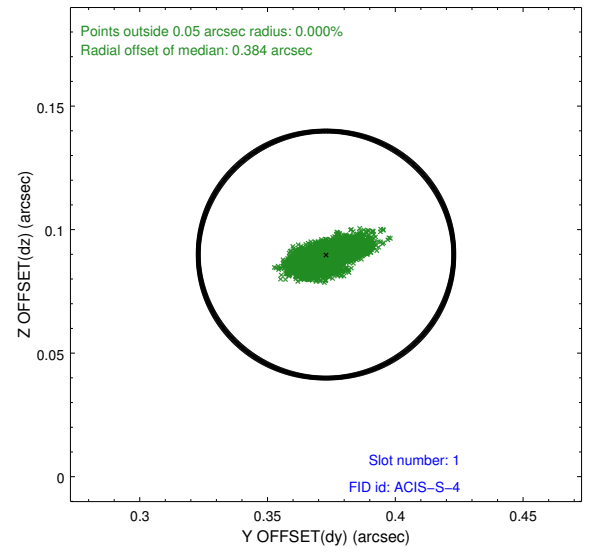
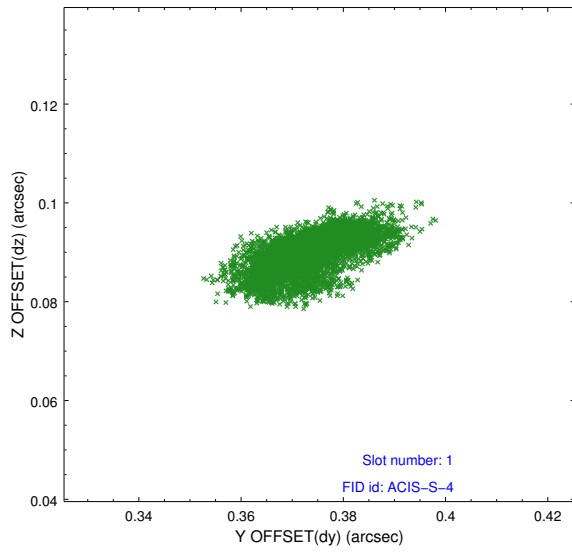


2.5 FID Slots

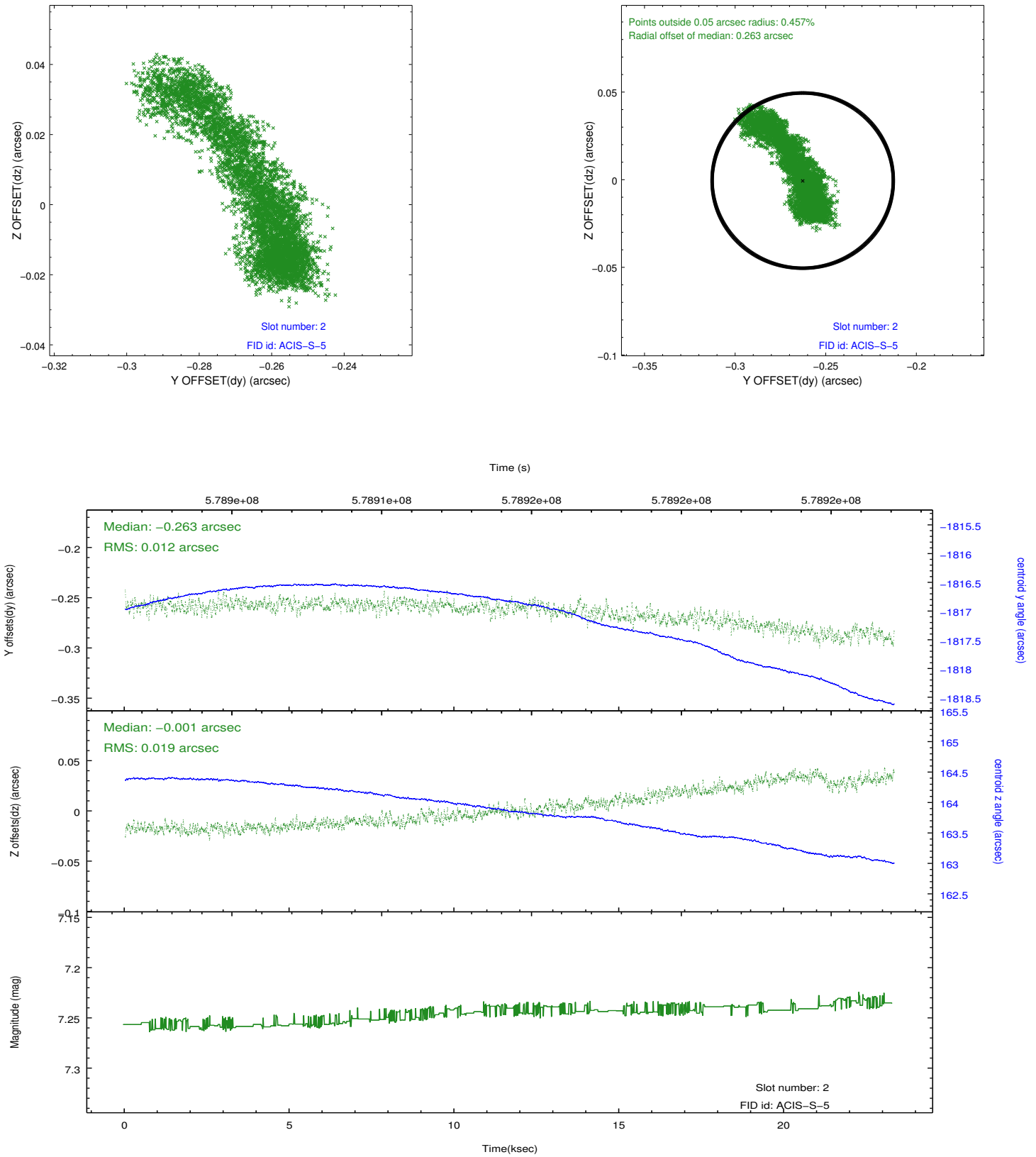
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

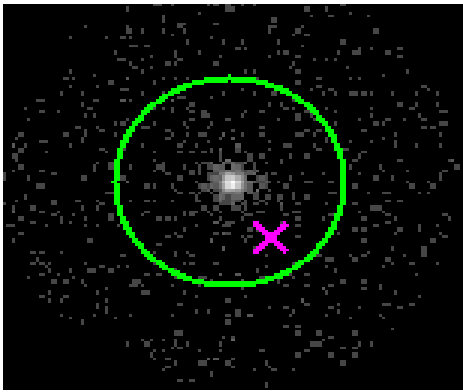


3 Gratings

3.1 HEG Arm



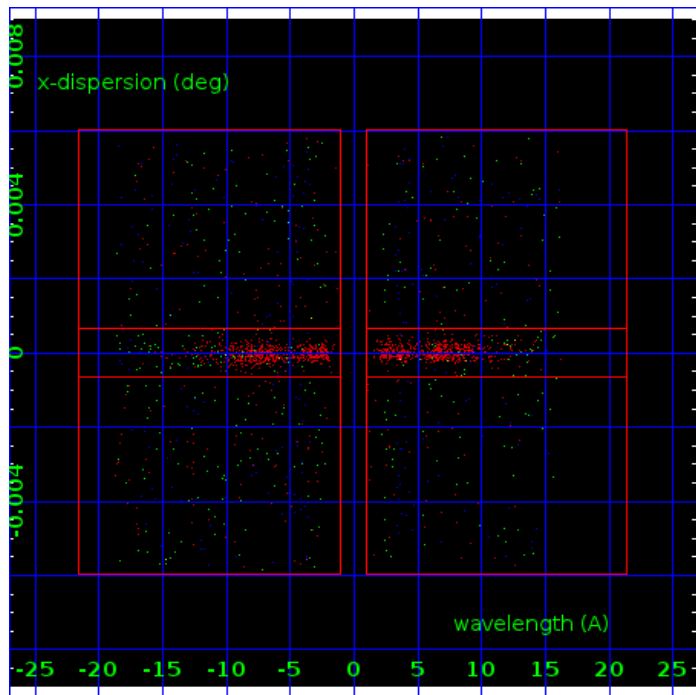
HEG Order Sort 123



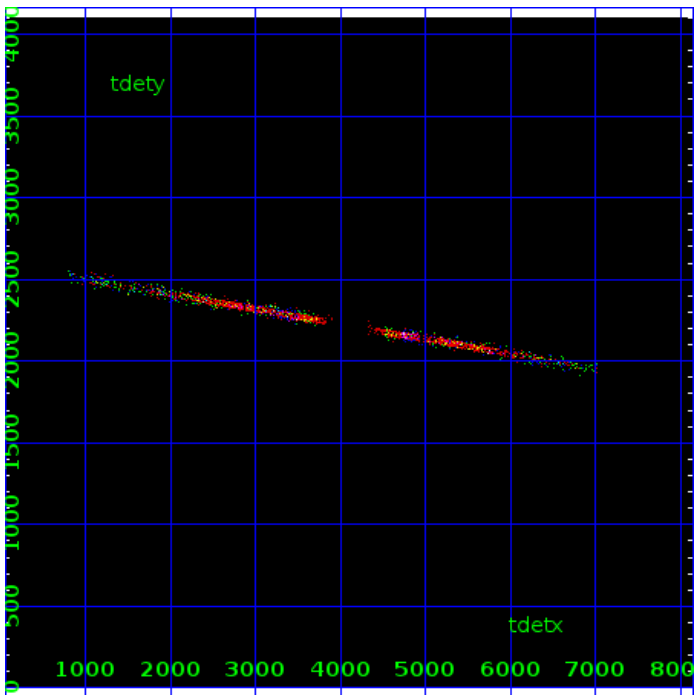
HEG Zero Order



HEG Order Sort ALL

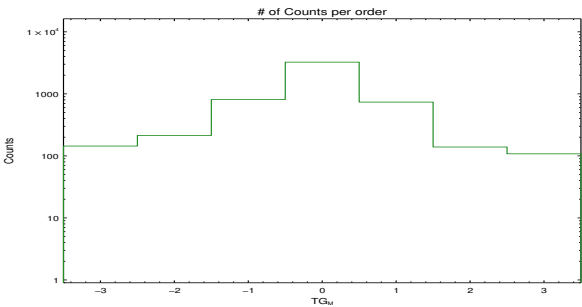


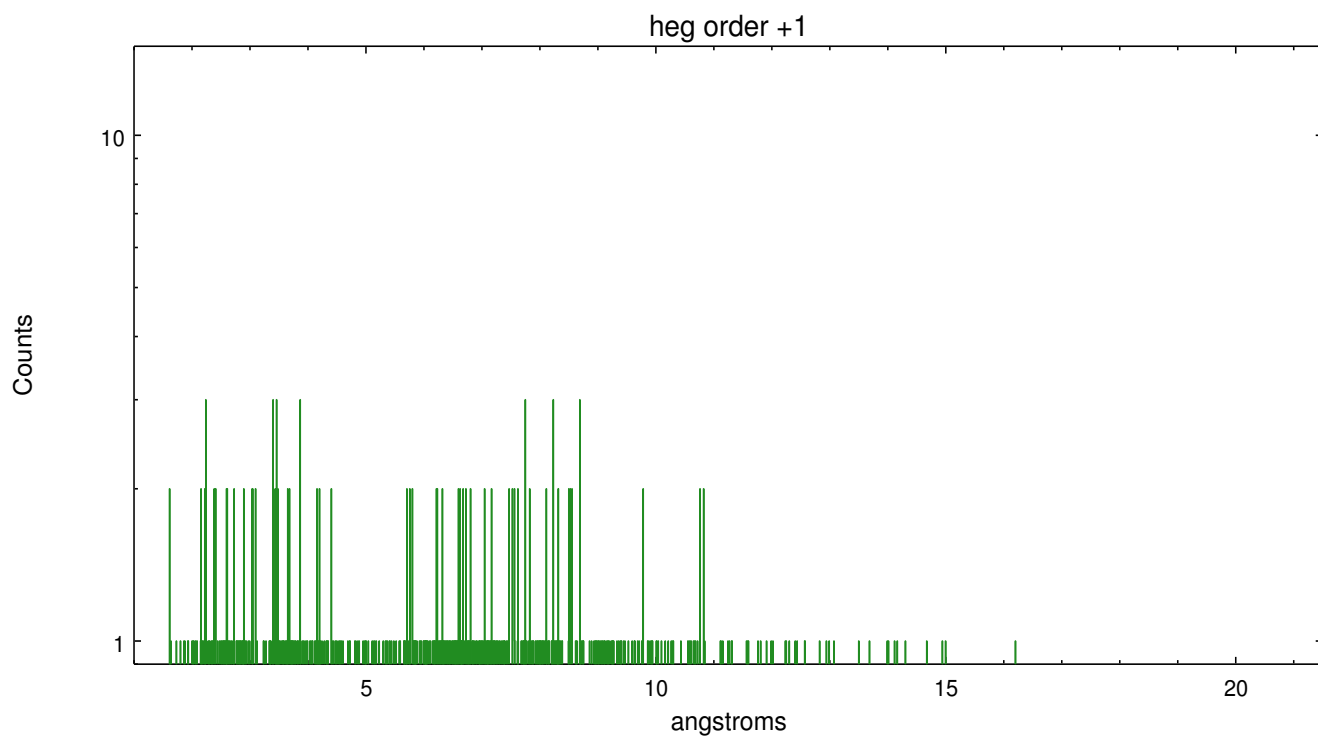
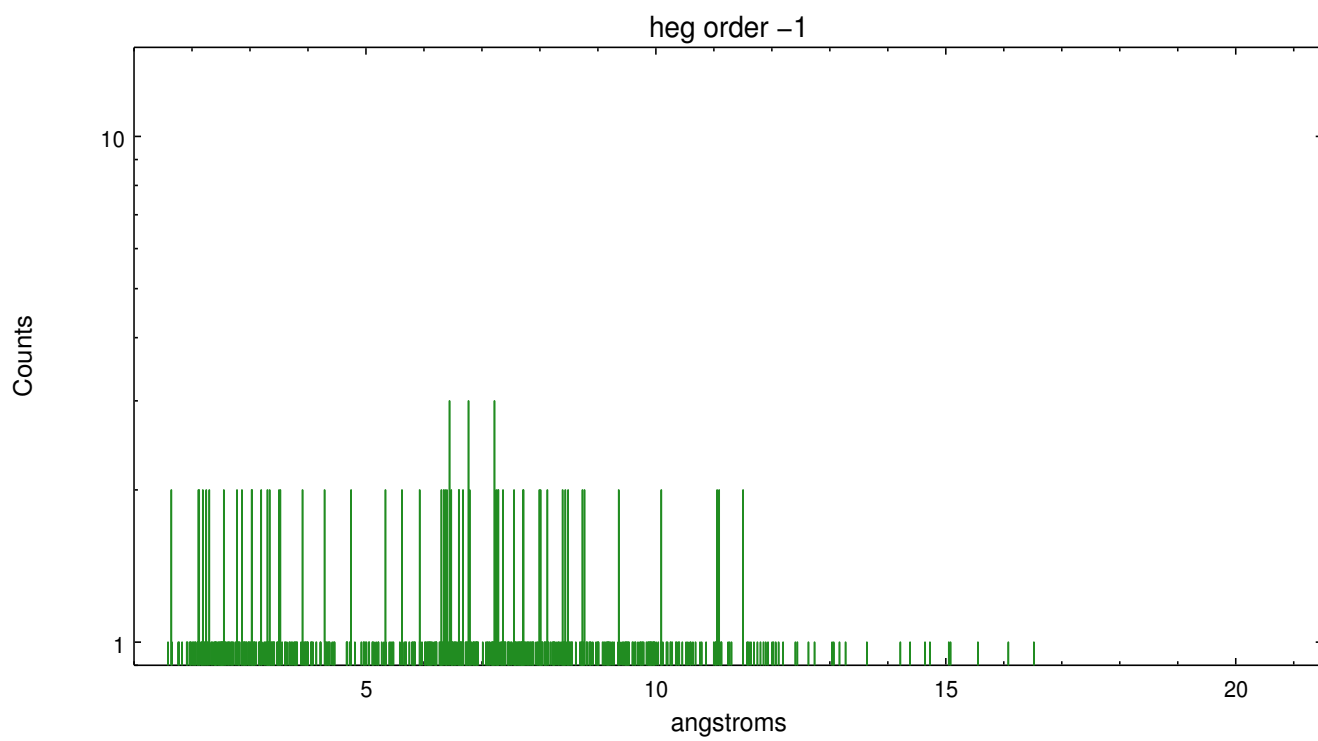
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	144	213	810	3244	736	139	108

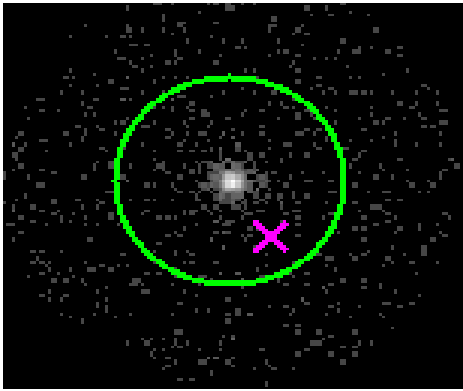




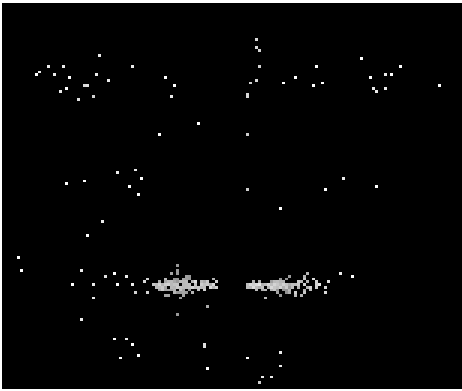
3.2 MEG Arm



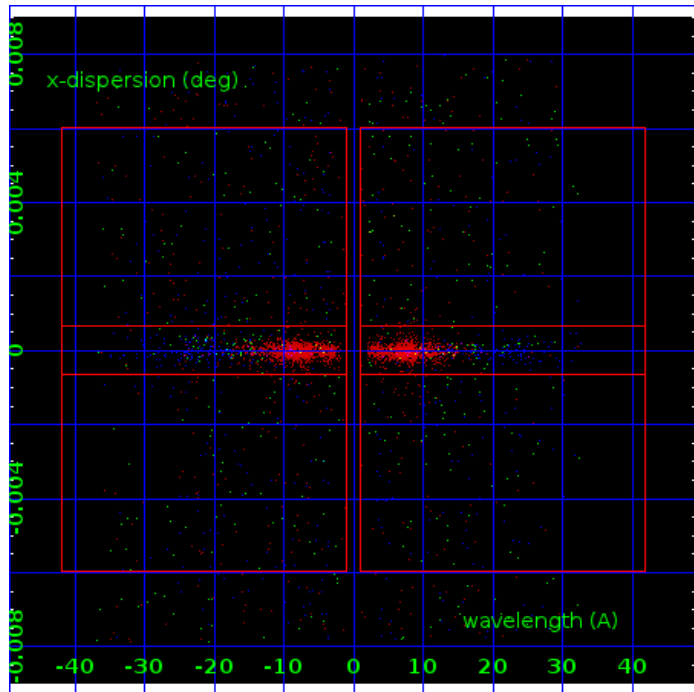
MEG Order Sort 123



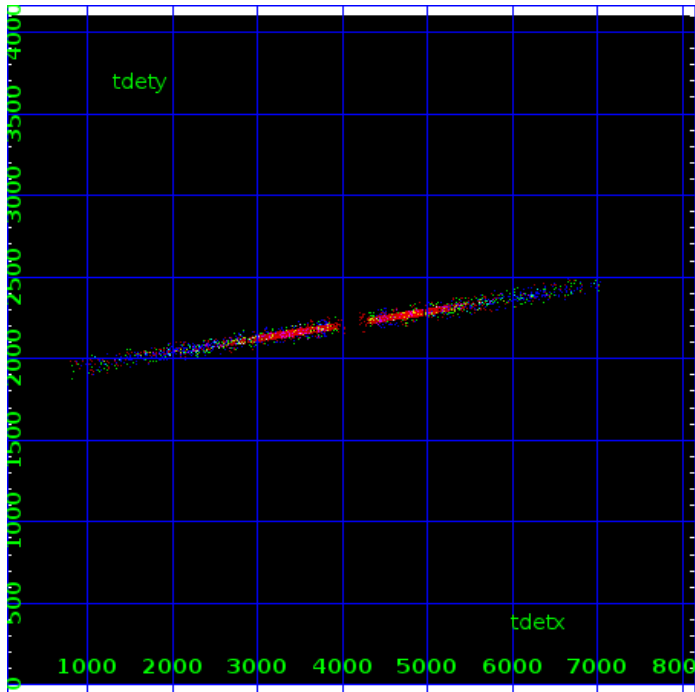
MEG Zero Order



MEG Order Sort ALL

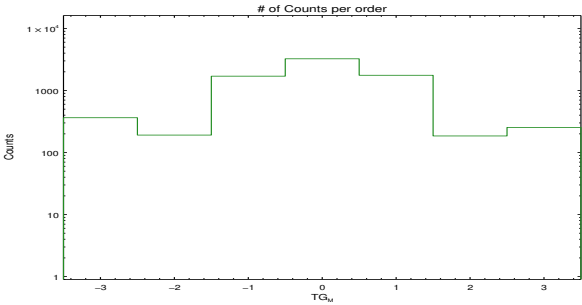


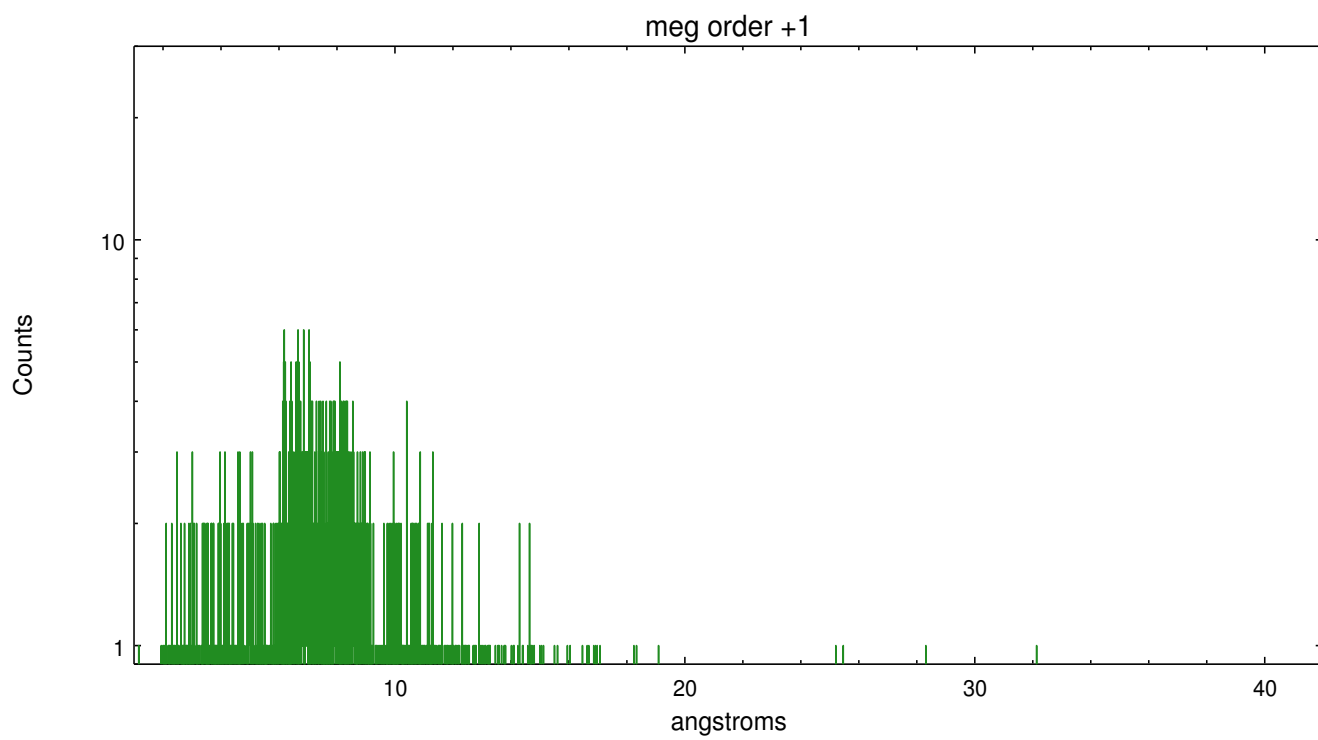
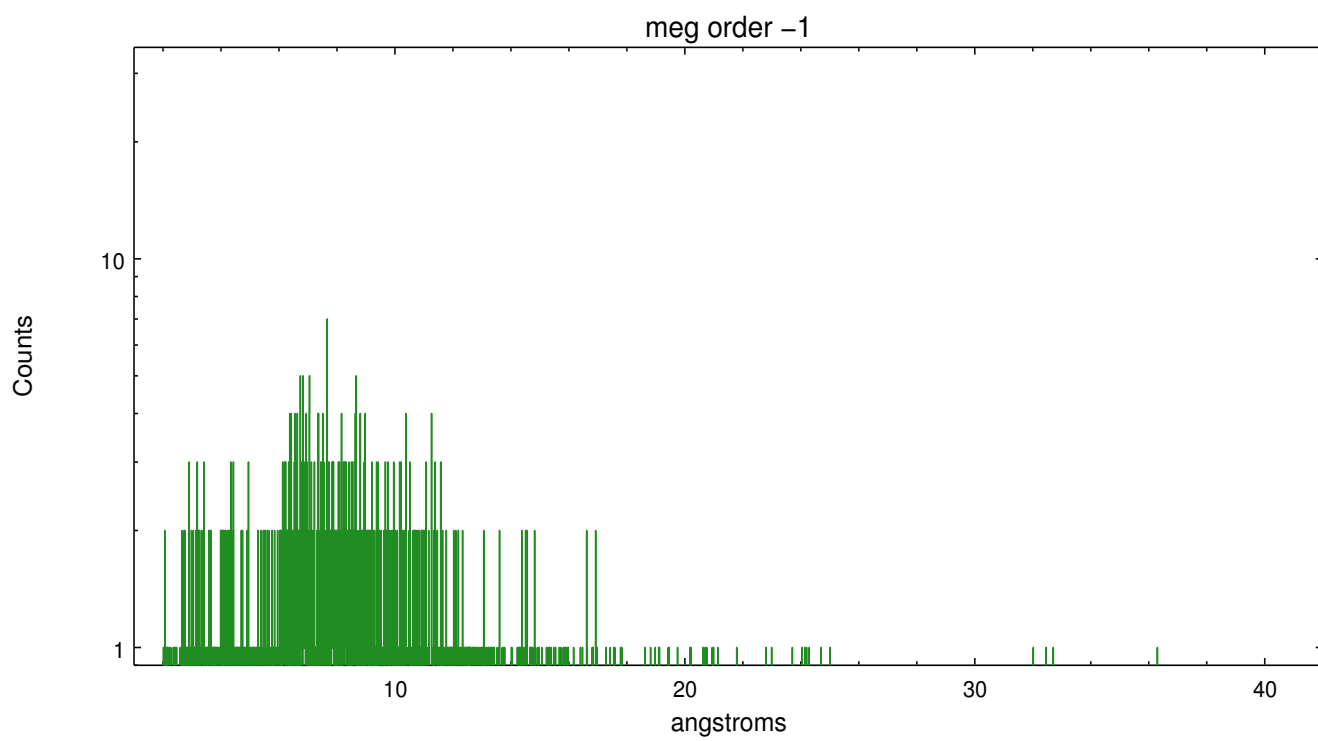
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	364	191	1701	3244	1758	185	254





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2016.05.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	22.9529679811

A.2 Comments