

V&V Reference Report

L2 ASCDS Version : 10.4.3.1

Observation 18144 - L2 Version 1
Chandra X-Ray Center

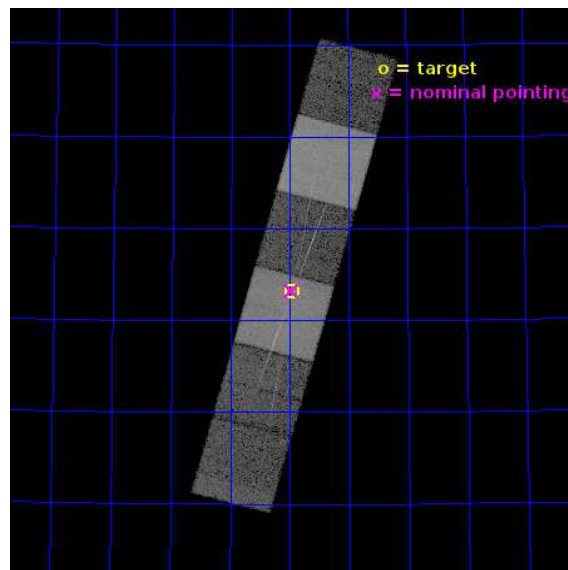
L2 Processing Date : Mar 18 2016

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1 Front

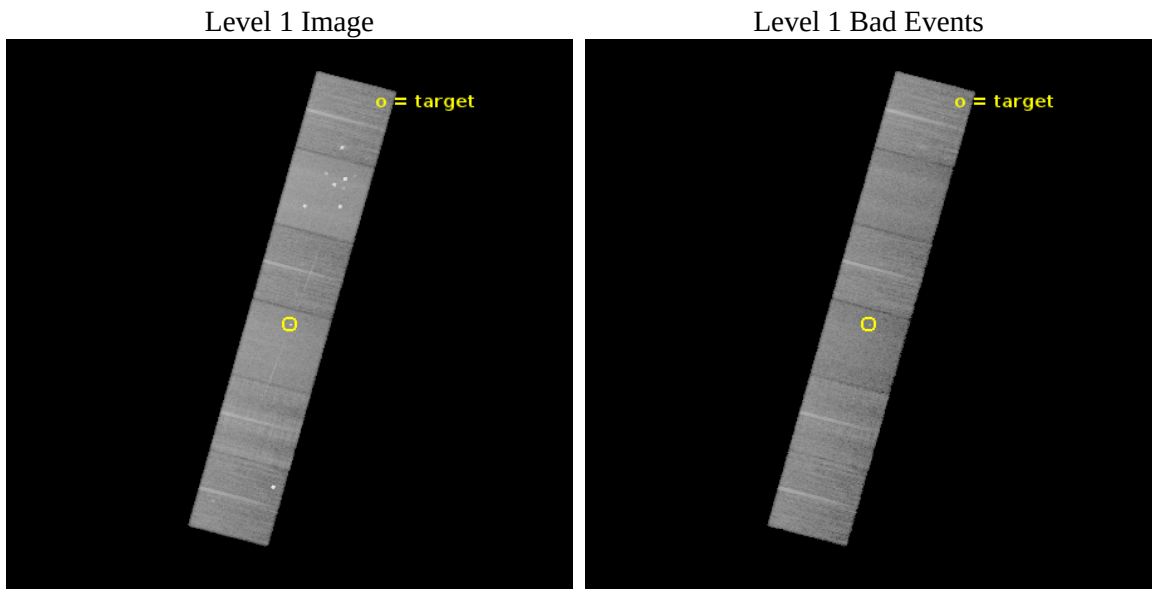
seq_num	703210	Sequence number
obs_id	18144	Observation id
title	Picturing Feedback in Action: from the innermost nuclear region to the Galaxy Scale	Proposal title
observer	Dr. Fabrizio Nicastro	Principal investigator
object	Mkn 876	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	243.488333	Observer's specified target RA [deg]
dec_targ	65.719444	Observer's specified target Dec [deg]
ra_nom	243.49343451933	Nominal RA [deg]
dec_nom	65.720873393621	Nominal Dec [deg]
roll_nom	105.15197175806	Nominal Roll [deg]
revision	1	Processing version of data
ontime	23920.000356436	Sum of GTIs [s]
livetime	23617.110909028	Livetime [s]
ontime4	23910.277275205	Sum of GTIs [s]
ontime5	23920.000356436	Sum of GTIs [s]
ontime6	23913.518315792	Sum of GTIs [s]
ontime7	23920.000356436	Sum of GTIs [s]
ontime8	23920.000356436	Sum of GTIs [s]
ontime9	23920.000356436	Sum of GTIs [s]
l2events	259168	Number of level 2 events



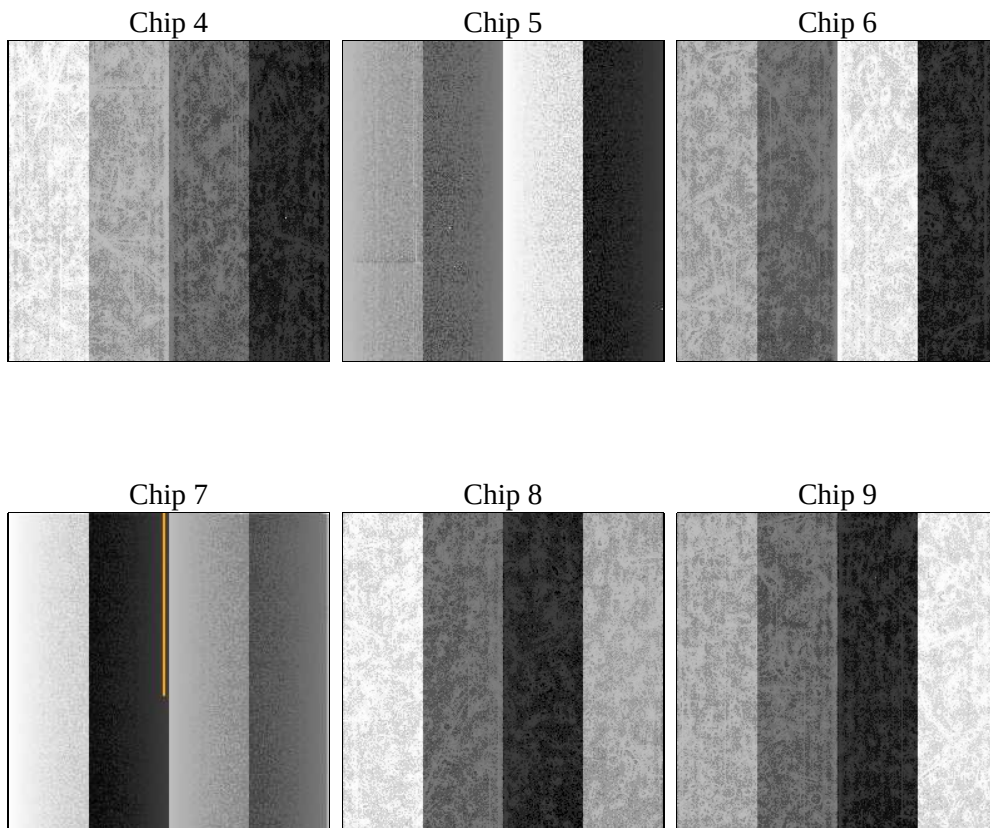
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	24000.000000	[s] Scheduled observation exposure time
ascdsver	10.4.3.1	Processing system revision	ontime	23920.000356436	Sum of GTIs [s]
caldsver	4.7.0	 	ontime4	23910.277275205	Sum of GTIs [s]
date	2016-03-19T02:04:47	Date and time of file creation	ontime5	23920.000356436	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	23913.518315792	Sum of GTIs [s]
			ontime7	23920.000356436	Sum of GTIs [s]
			ontime8	23920.000356436	Sum of GTIs [s]
			ontime9	23920.000356436	Sum of GTIs [s]
			l1events	1135570	Number of level 1 events
			tgmethod	TGDETECT	Method used to create src1a file
			src1a_pos	(4112.89, 4086.20)	src1a sky pixel position

2.1.4 Events

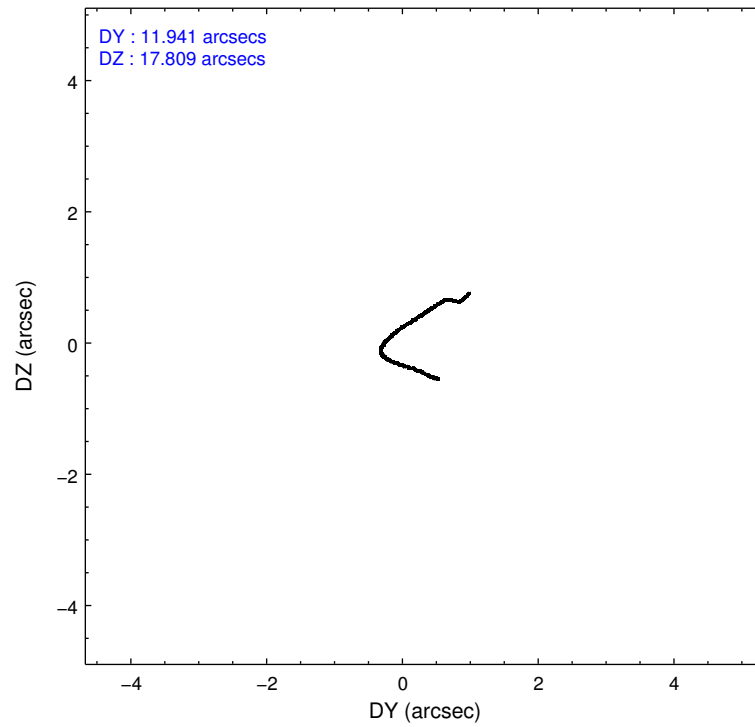
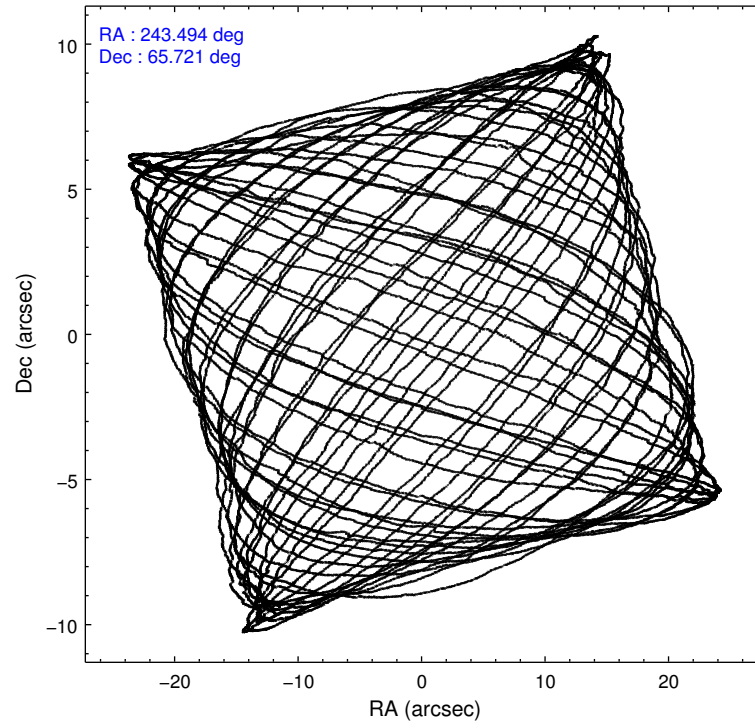
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	178543	253119	156400	195728	194179	157601	grade 0 events	9958	20826	7030	7835	14370	14238
rejected events	157106	124054	136732	108970	143951	130924		5%	8%	4%	4%	7%	9%
rejected %	87%	49%	87%	55%	74%	83%	grade 1 events	192	666	53	250	148	116
								0%	0%	0%	0%	0%	0%
							grade 2 events	4169	38466	4565	18440	12182	4276
								2%	15%	2%	9%	6%	2%
							grade 3 events	2068	3201	1735	6790	5060	1885
								1%	1%	1%	3%	2%	1%
							grade 4 events	1885	3171	1691	6707	4665	1900
								1%	1%	1%	3%	2%	1%
							grade 5 events	7248	15222	6670	18466	10336	7651
								4%	6%	4%	9%	5%	4%
							grade 6 events	3360	63441	4654	47013	13959	4388
								1%	25%	2%	24%	7%	2%
							grade 7 events	149663	108126	130002	90227	133459	123147
								83%	42%	83%	46%	68%	78%

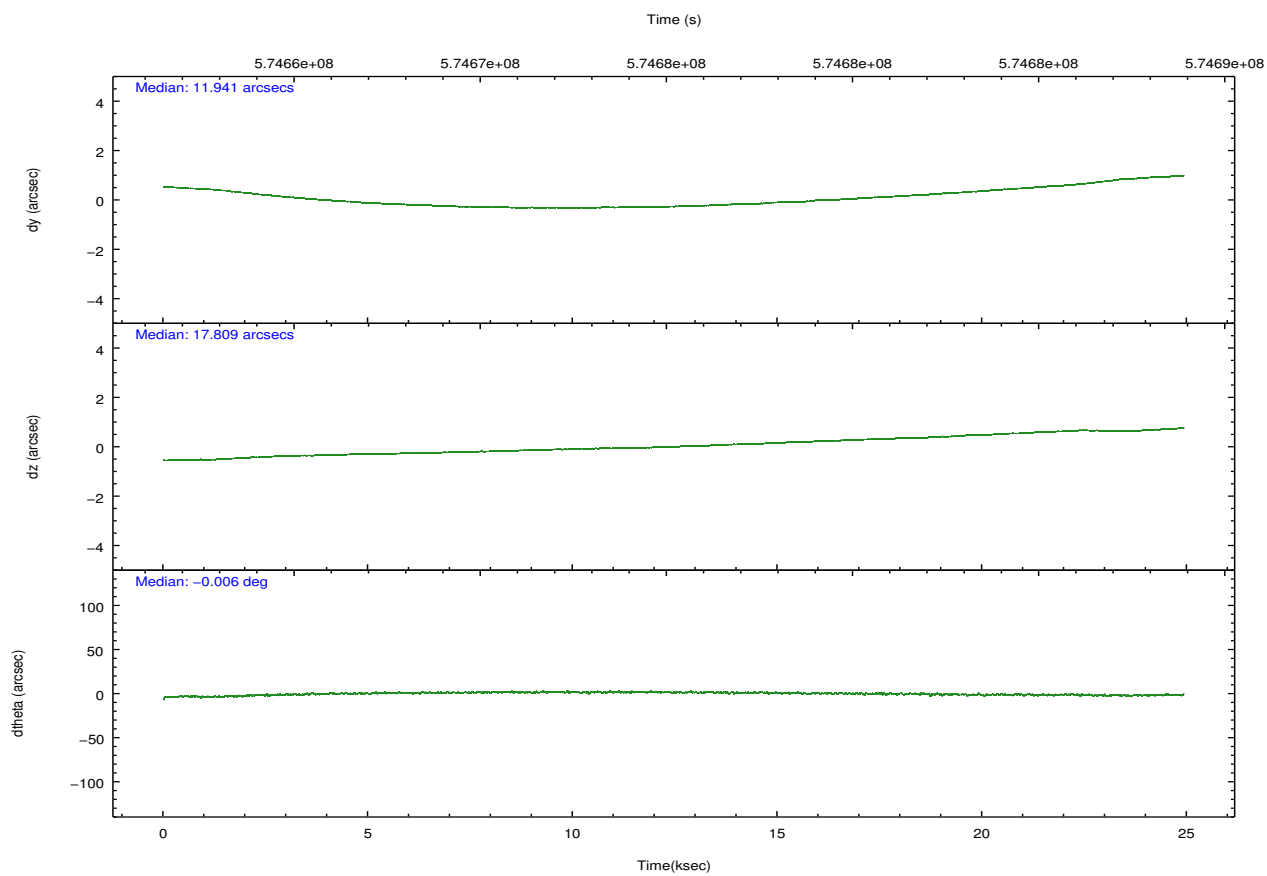
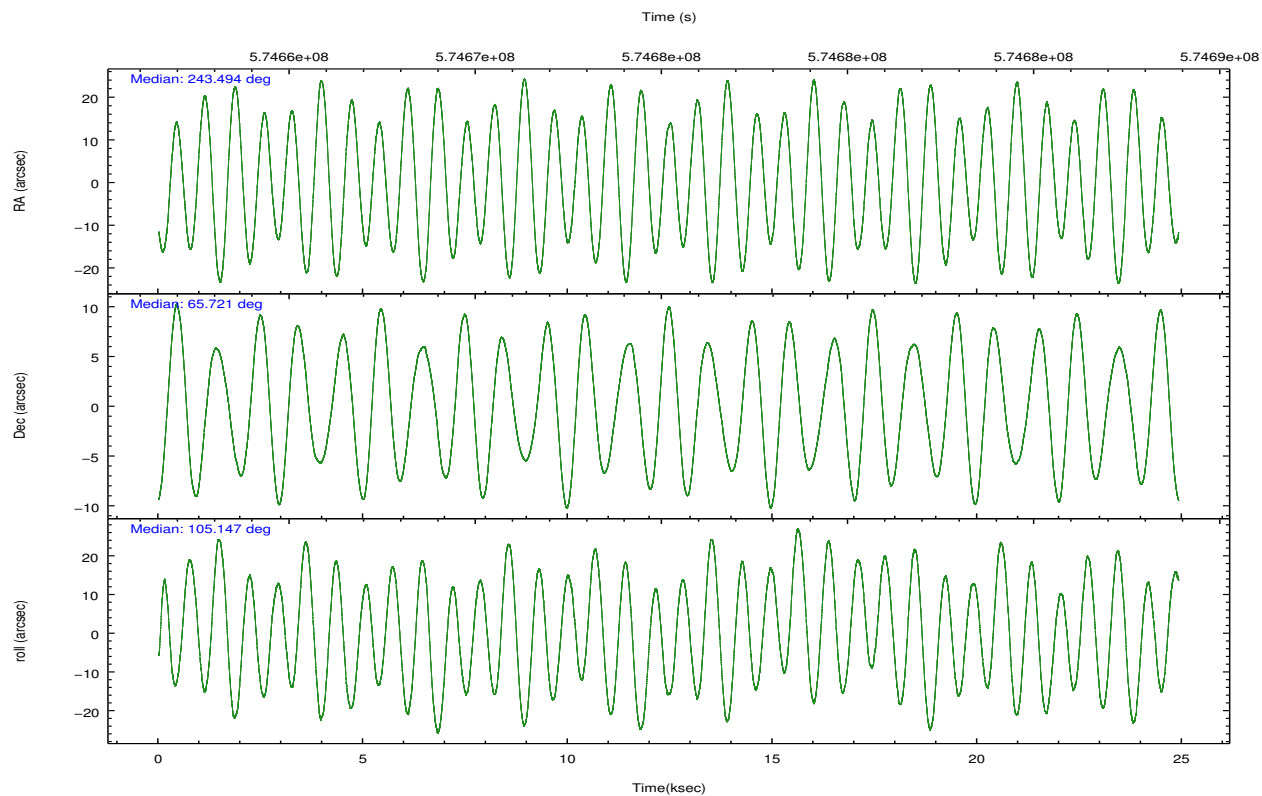
2.2 Compared Parameters

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	243.541367	243.4934345193295
[deg] Pointing Dec	65.701759	65.72087339362122
[deg] Pointing Roll	104.951658	105.1519717580604
[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)	574663654.184000	574661987.9672199
Observation start date	2016-03-18T04:46:26	2016-03-18T04:19:47
[s] Observation end time (MET)	574687654.184000	574688321.2437299
Observation end date	2016-03-18T11:26:26	2016-03-18T11:38:41
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



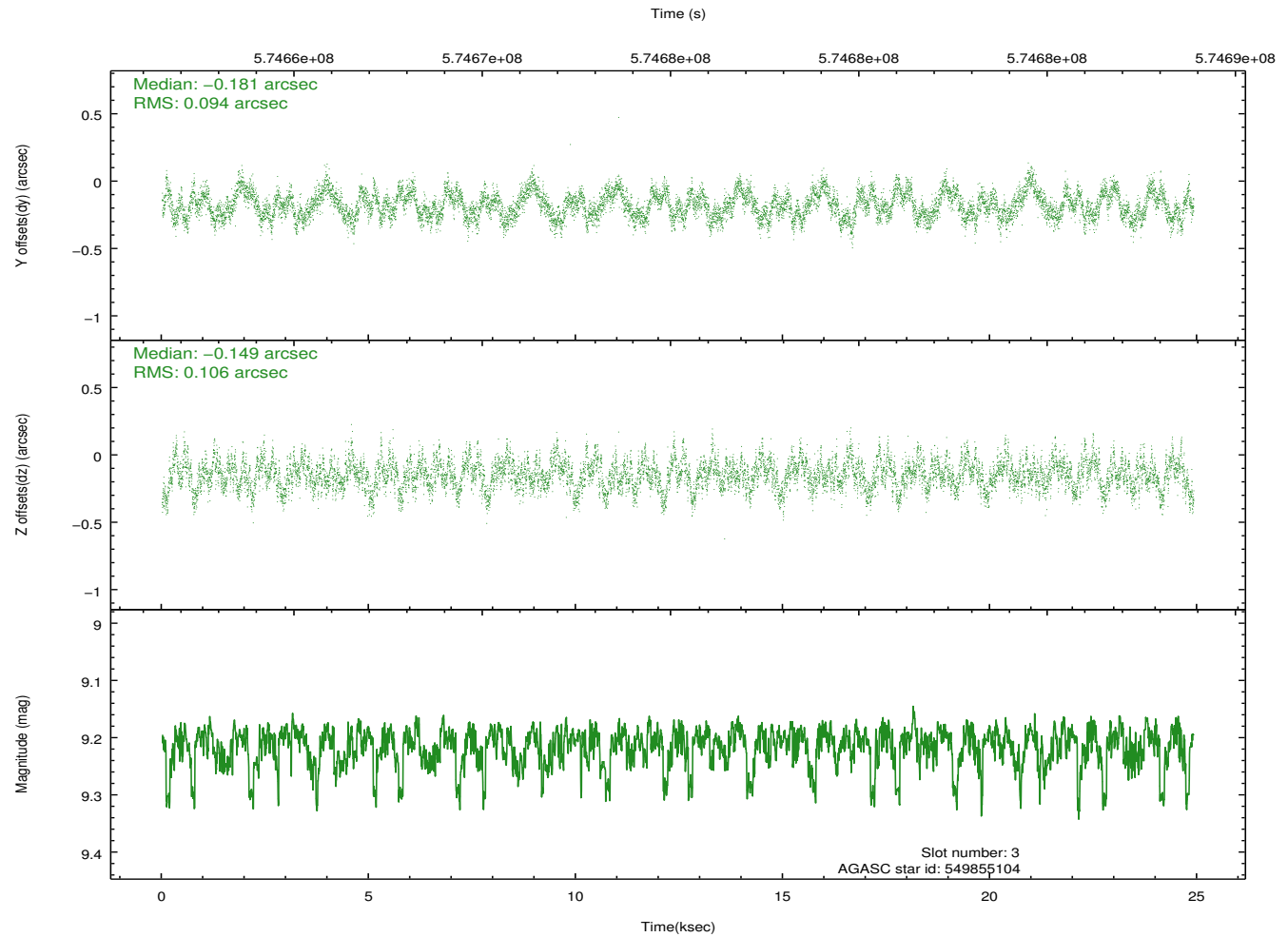
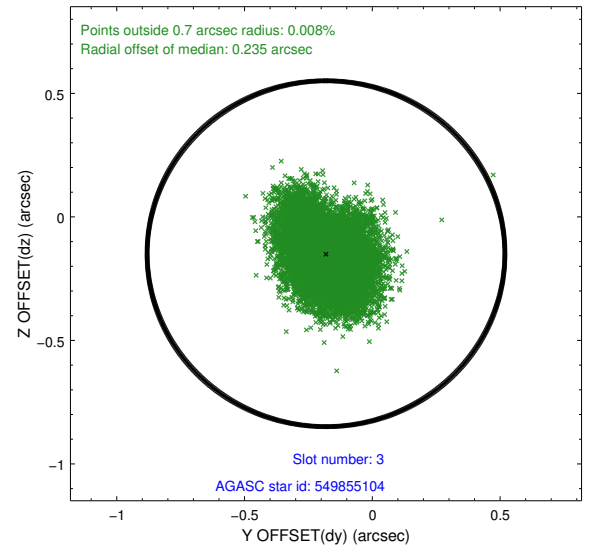
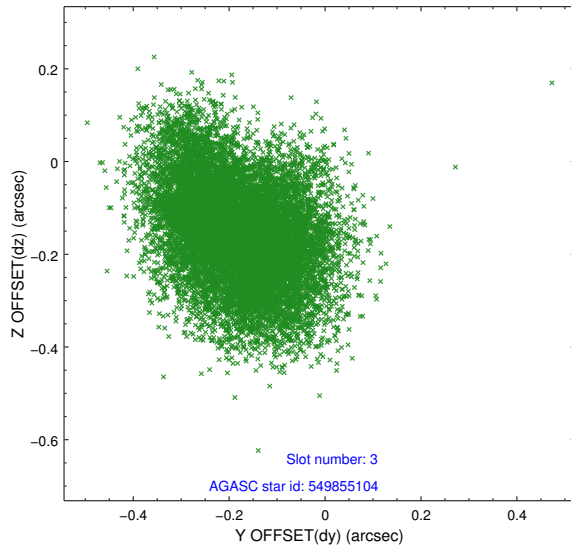


Slot Statistics

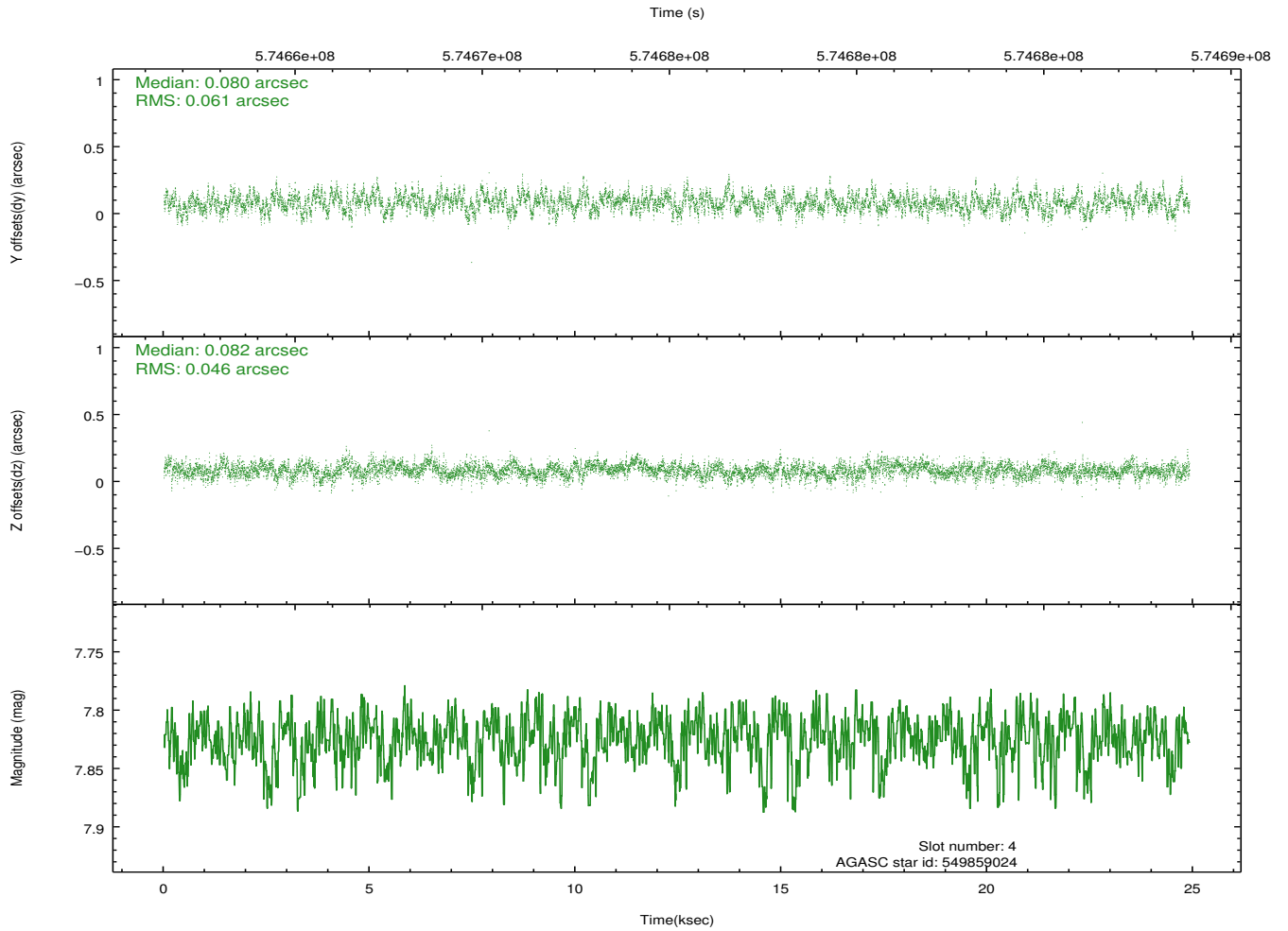
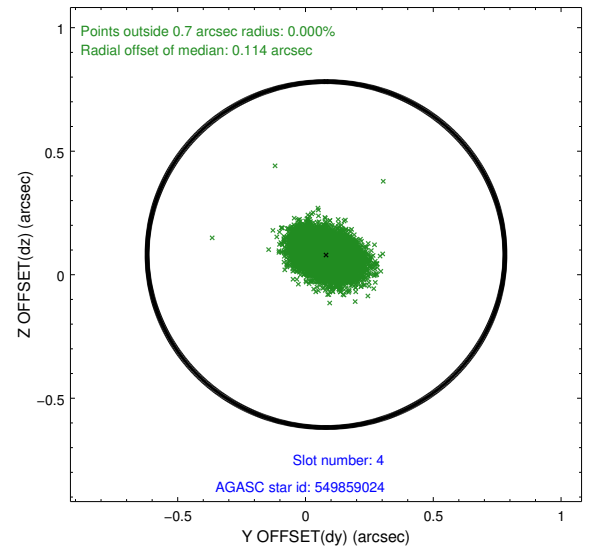
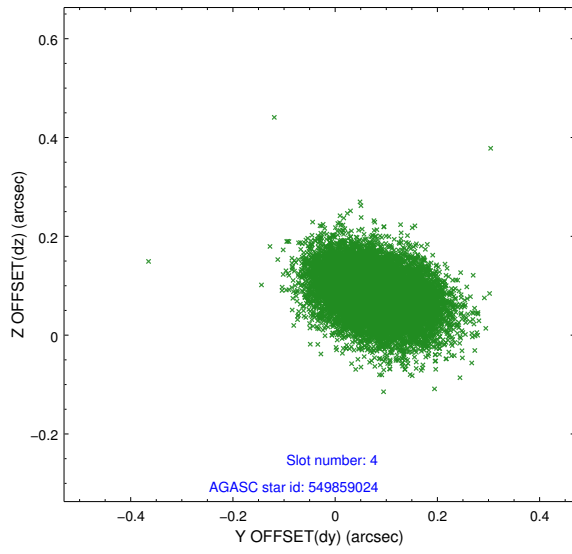
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-1	7.21	6076	-0.051	-0.013	0.016	0.039	0.000000	0.000000	931.07	-1734.97
1	FID		ACIS-S-4	7.22	6076	0.174	0.010	0.008	0.013	0.000000	0.000000	2148.74	169.10
2	FID		ACIS-S-6	7.36	6075	-0.147	0.016	0.013	0.033	0.000000	0.000000	397.04	806.59
3	GUIDE	used	549855104	9.21	12140	-0.181	-0.149	0.151	0.244	242.414078	65.829144	881.71	1483.22
4	GUIDE	used	549859024	7.82	12150	0.080	0.082	0.081	0.134	243.777882	65.072262	-2280.14	238.46
5	GUIDE	used	549863464	7.53	12148	-0.213	-0.050	0.076	0.125	243.630740	66.376841	2314.68	-750.97
6	GUIDE	used	549864184	9.07	12140	0.064	0.003	0.128	0.205	243.727034	65.246202	-1655.96	153.03
7	GUIDE	used	549864952	8.92	12141	0.251	0.112	0.164	0.262	244.861755	65.614211	-790.39	-1819.51

2.4 Star Slots

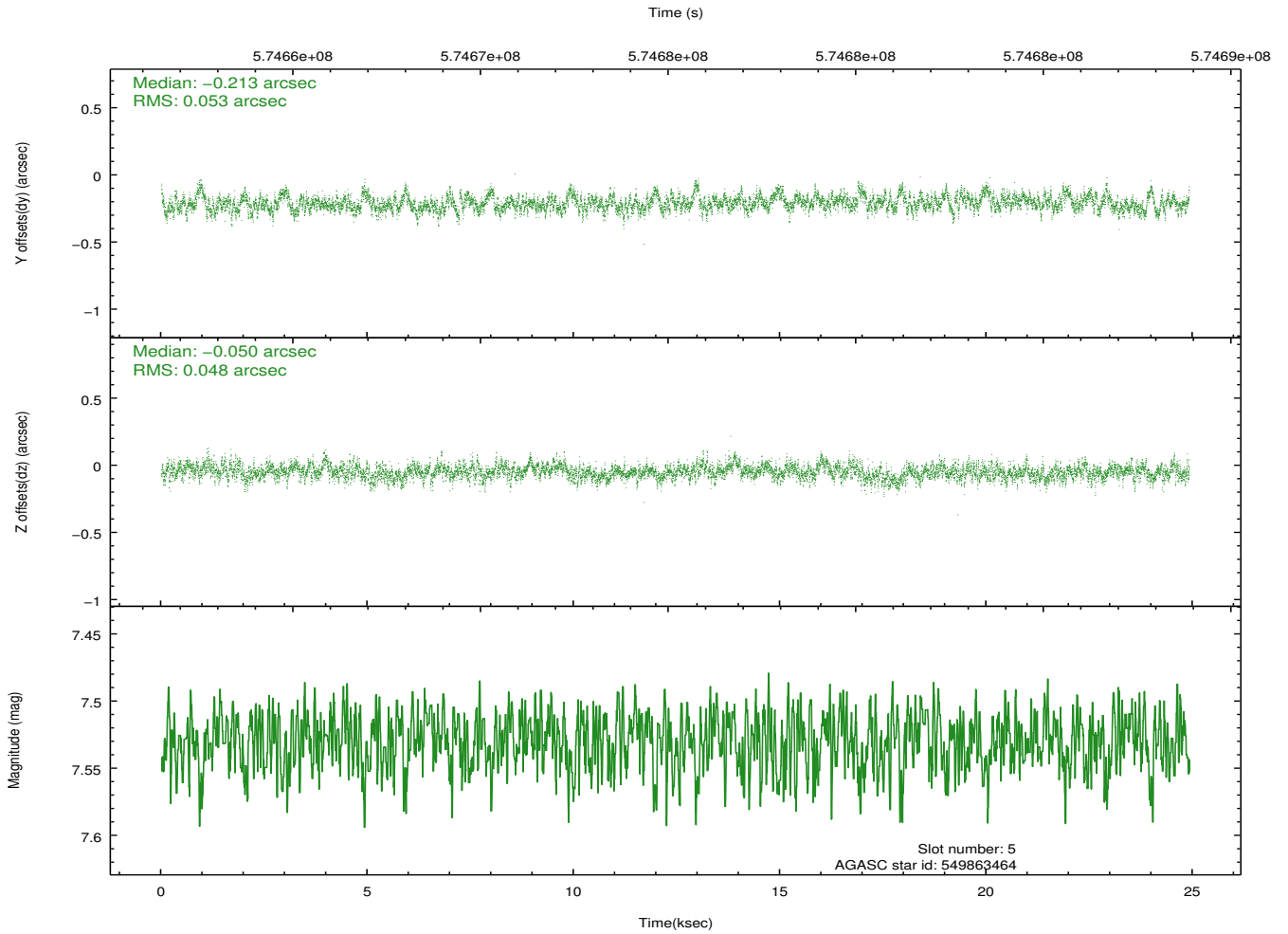
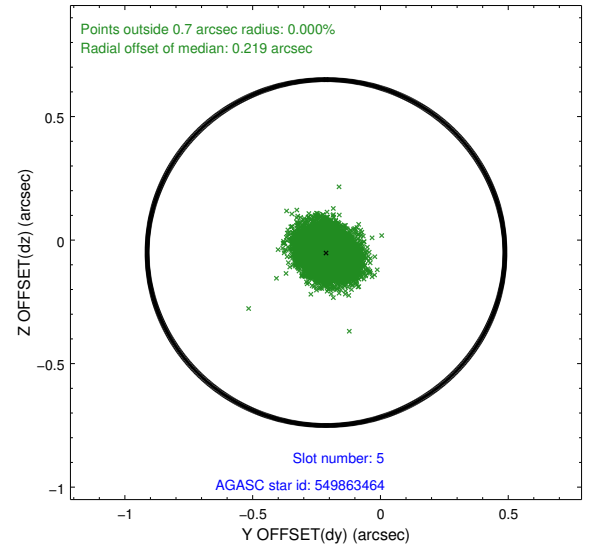
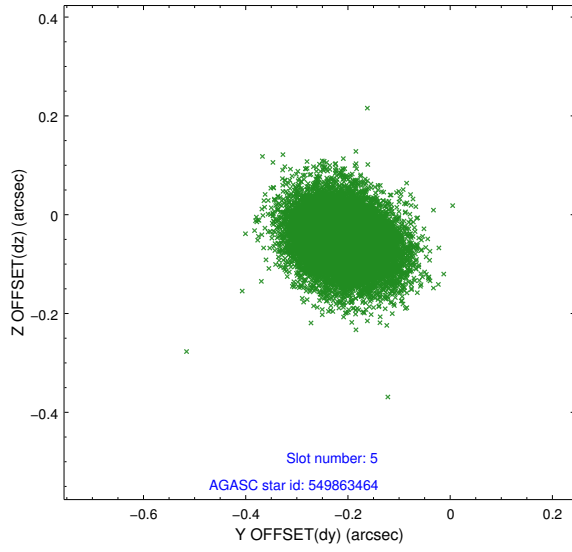
2.4.1 Slot 3



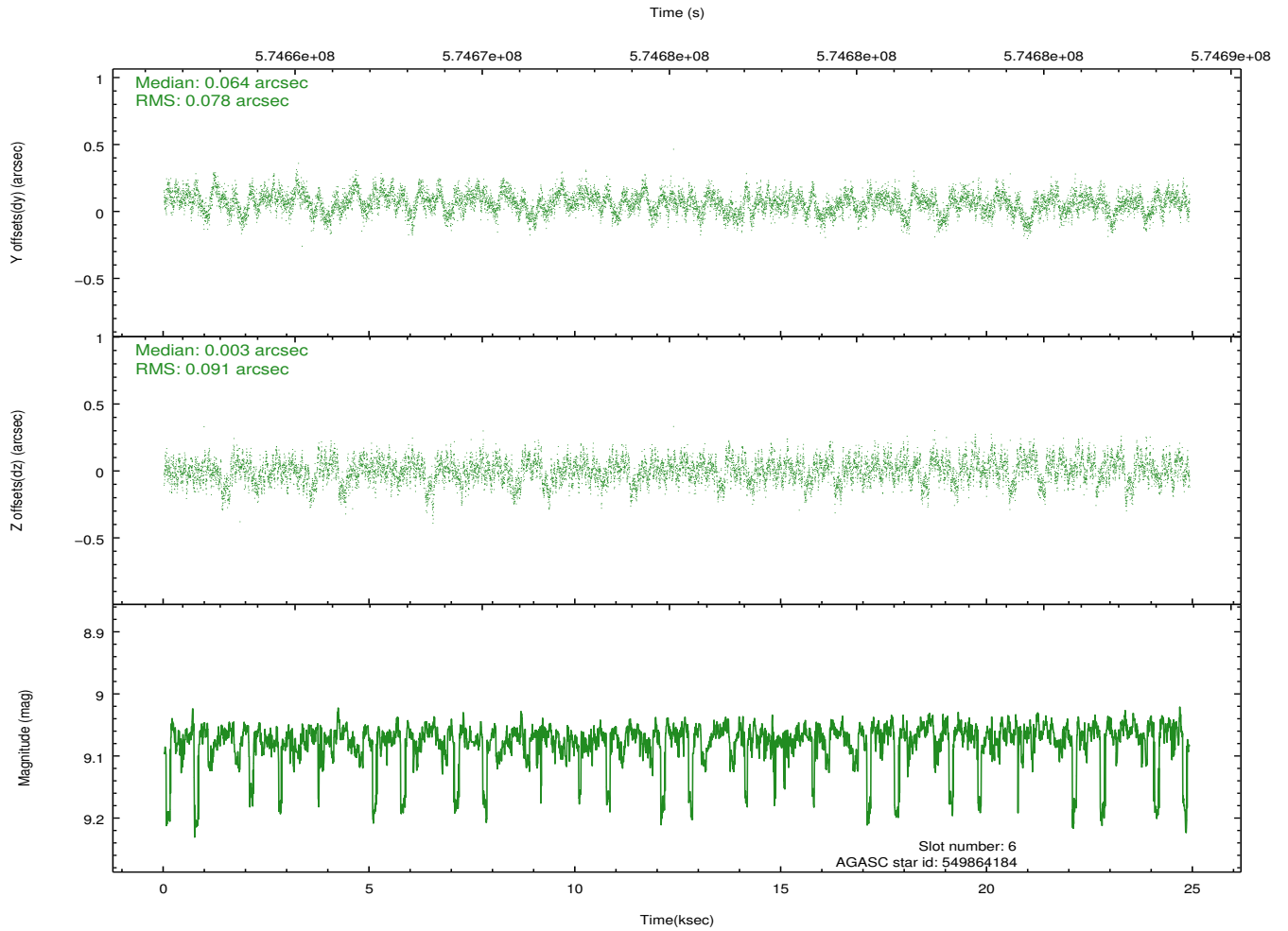
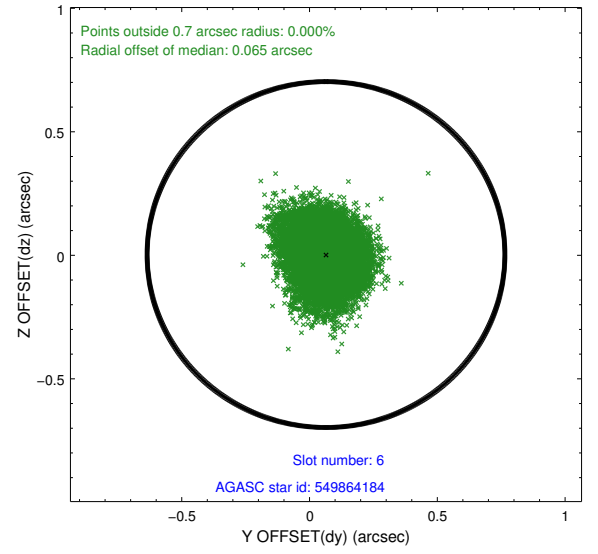
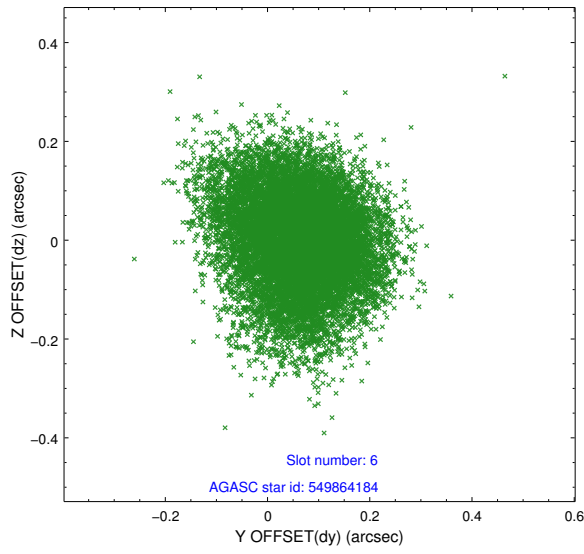
2.4.2 Slot 4



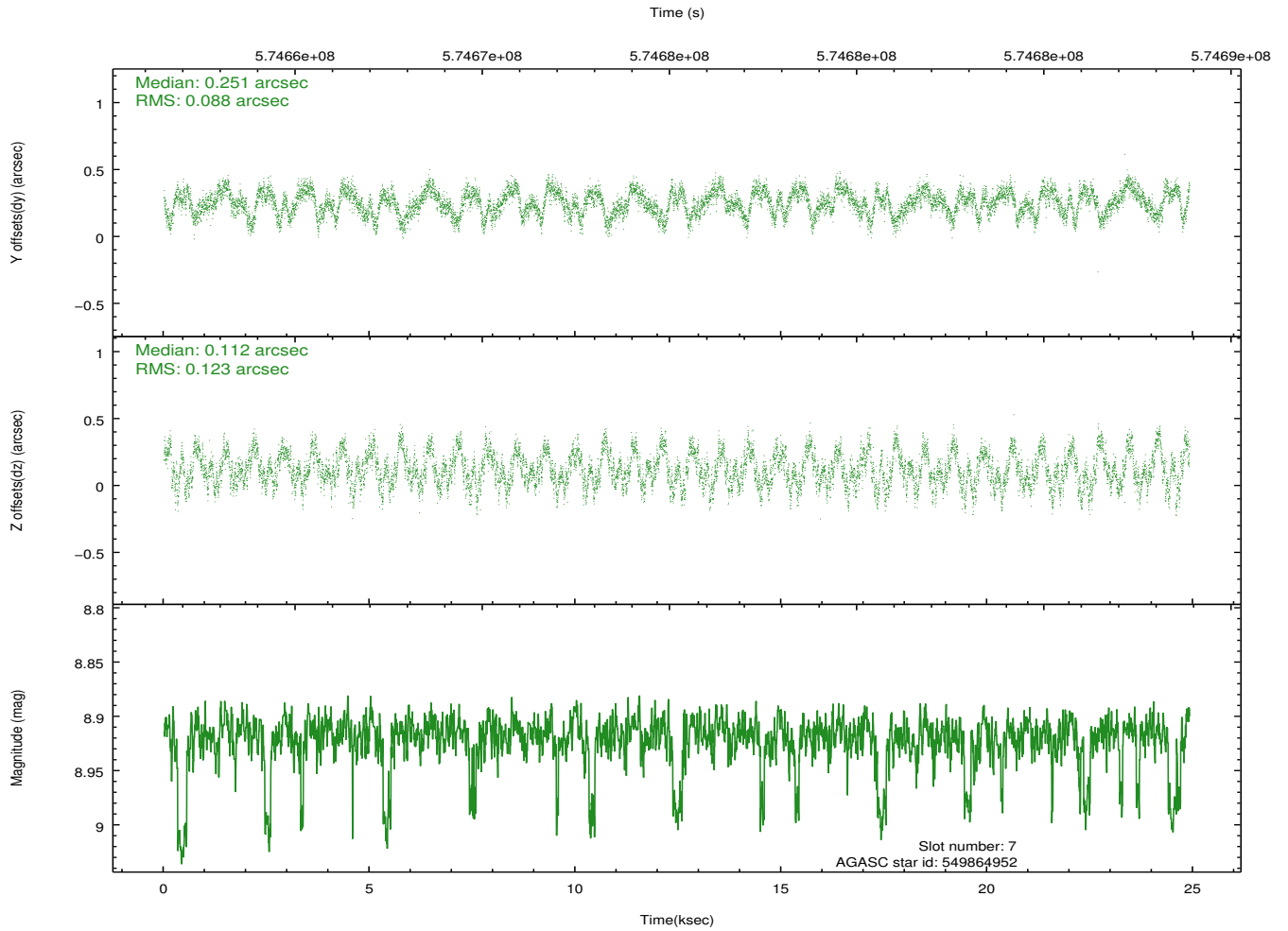
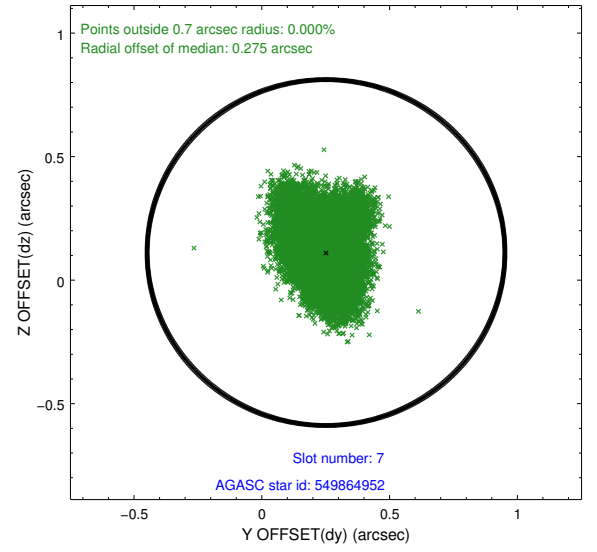
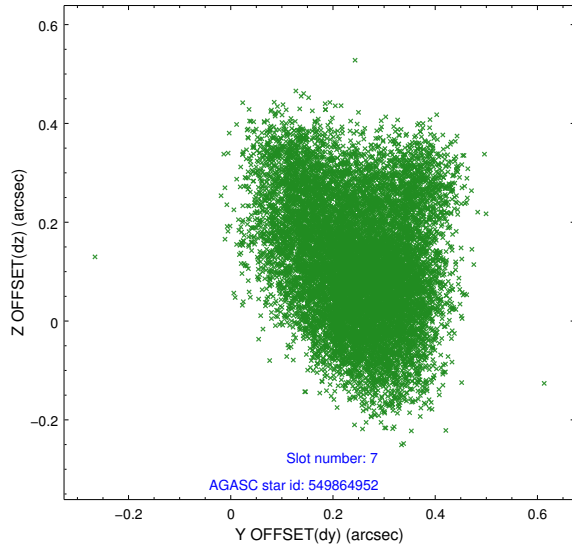
2.4.3 Slot 5



2.4.4 Slot 6

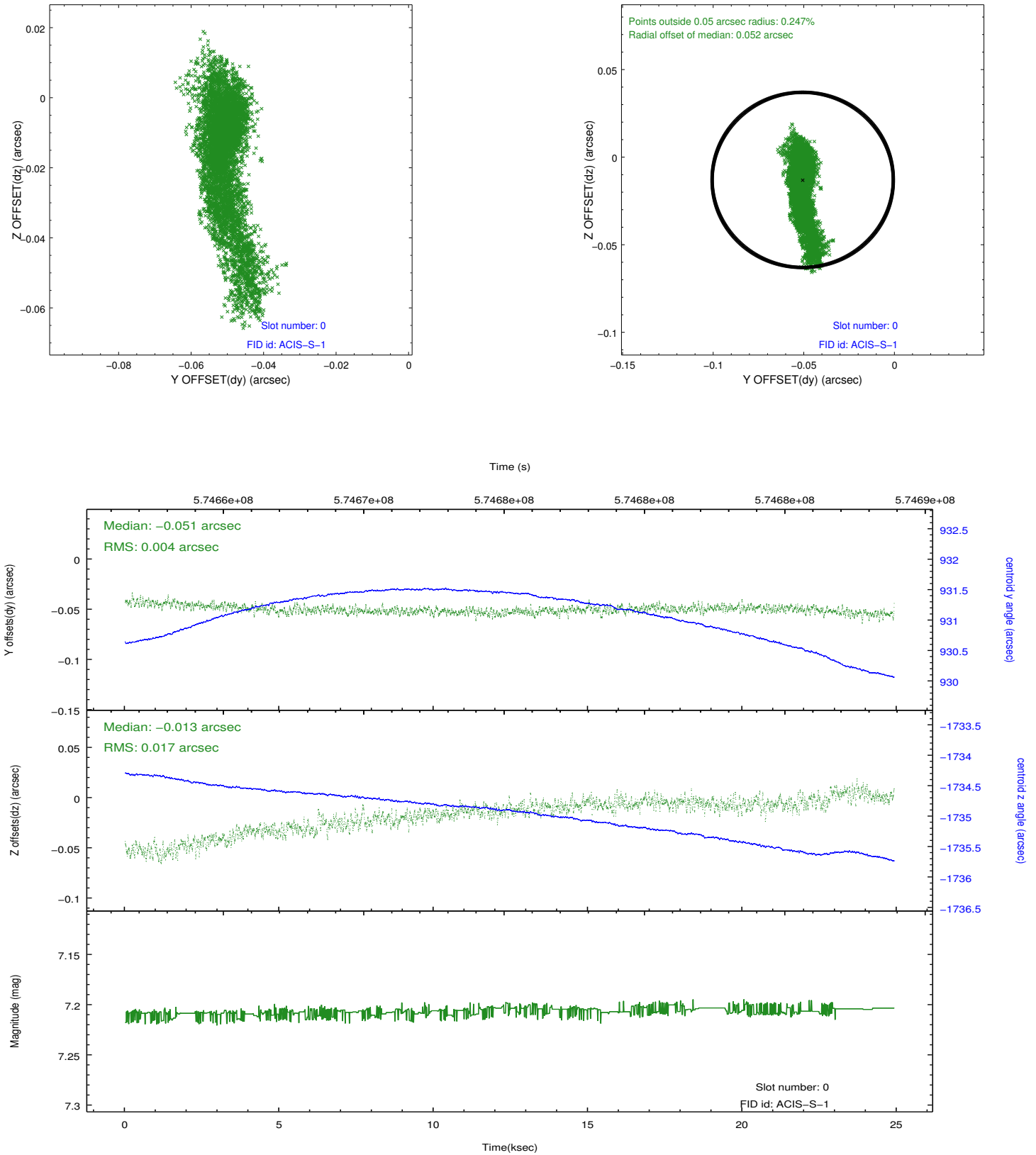


2.4.5 Slot 7

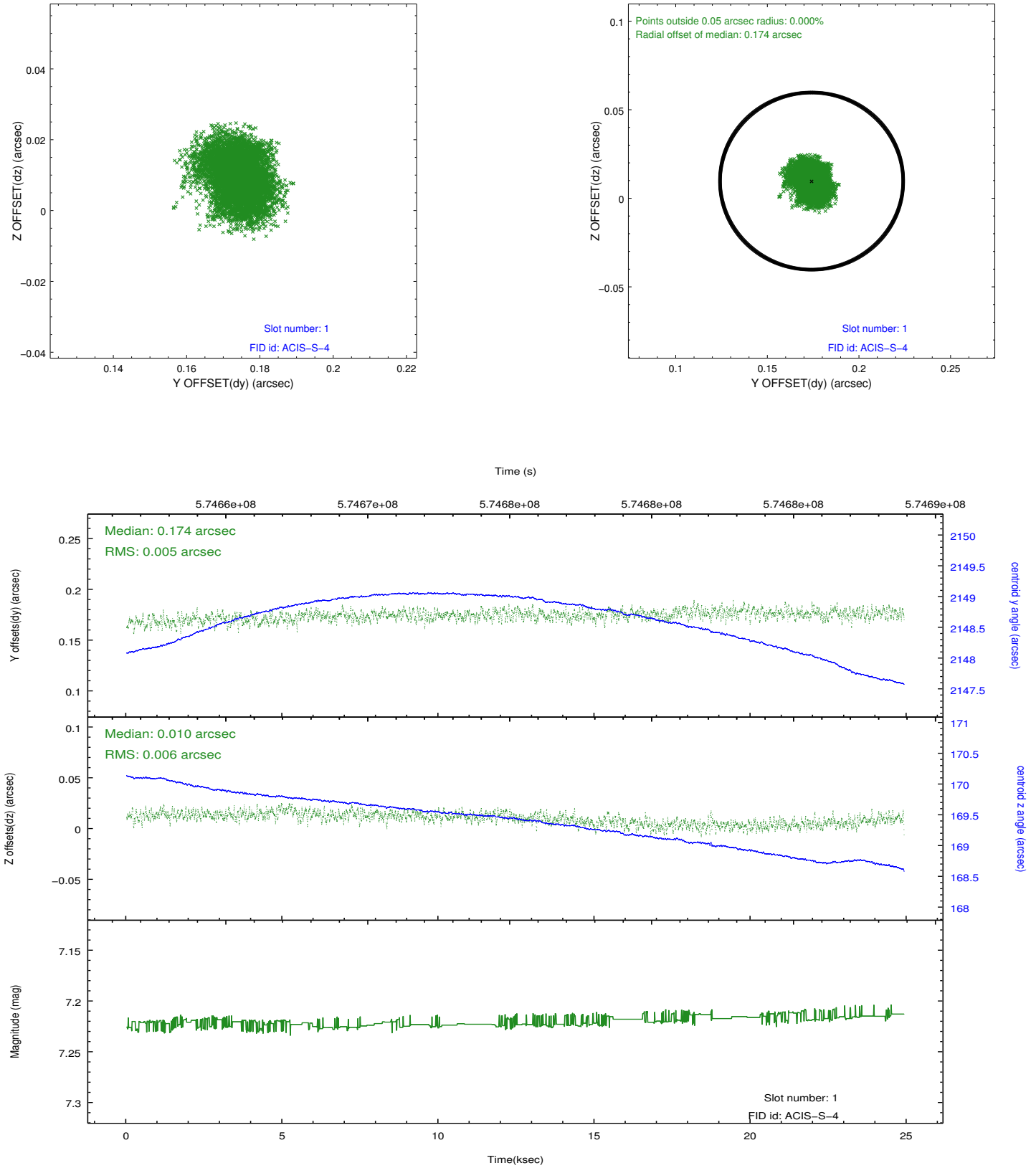


2.5 FID Slots

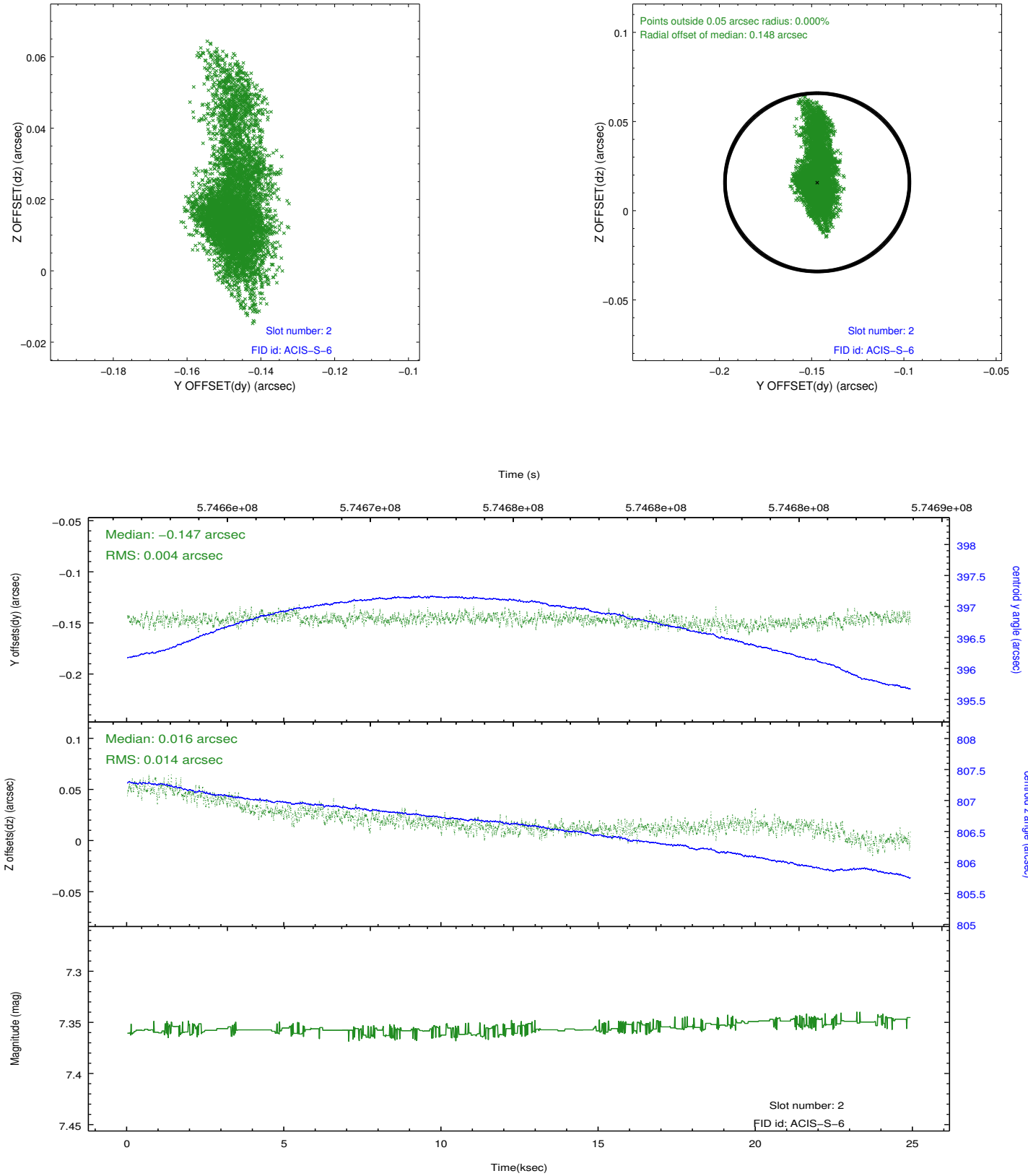
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

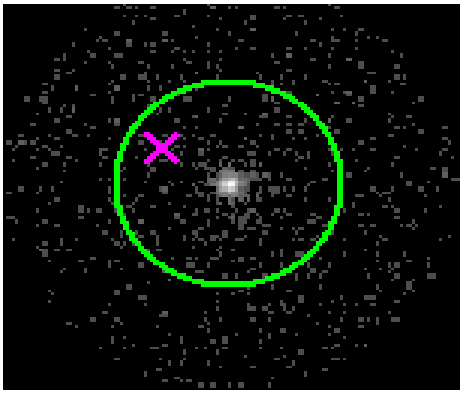


3 Gratings

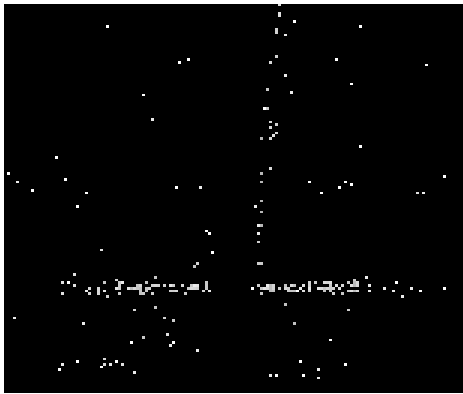
3.1 HEG Arm



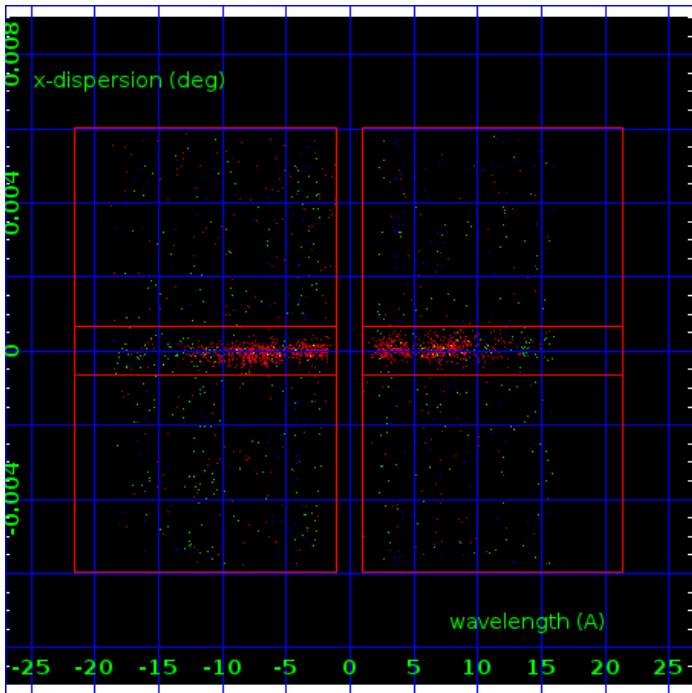
HEG Order Sort 123



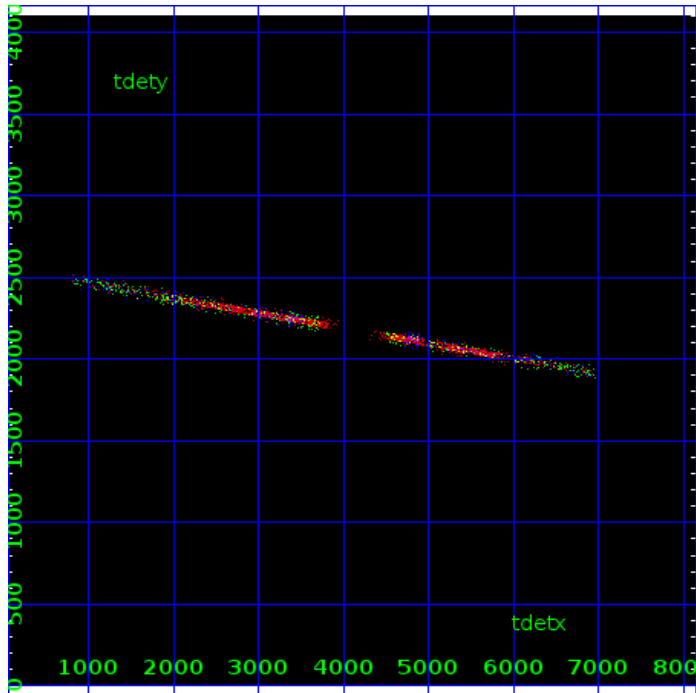
HEG Zero Order



HEG Order Sort ALL

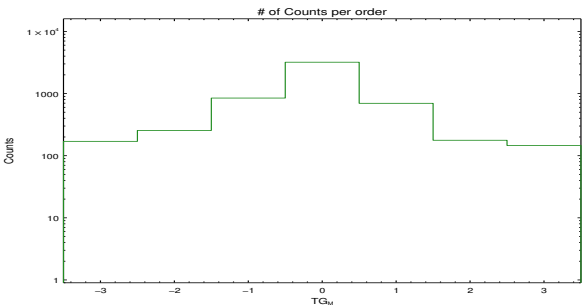


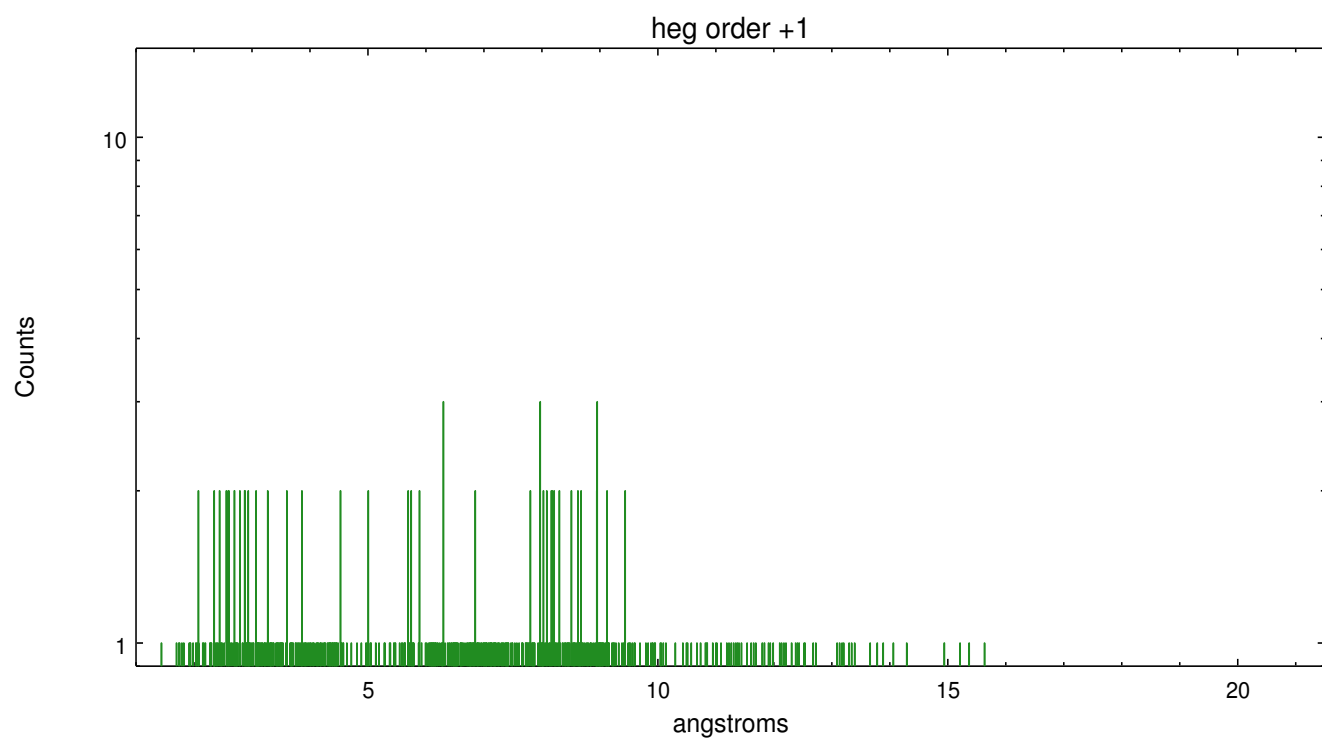
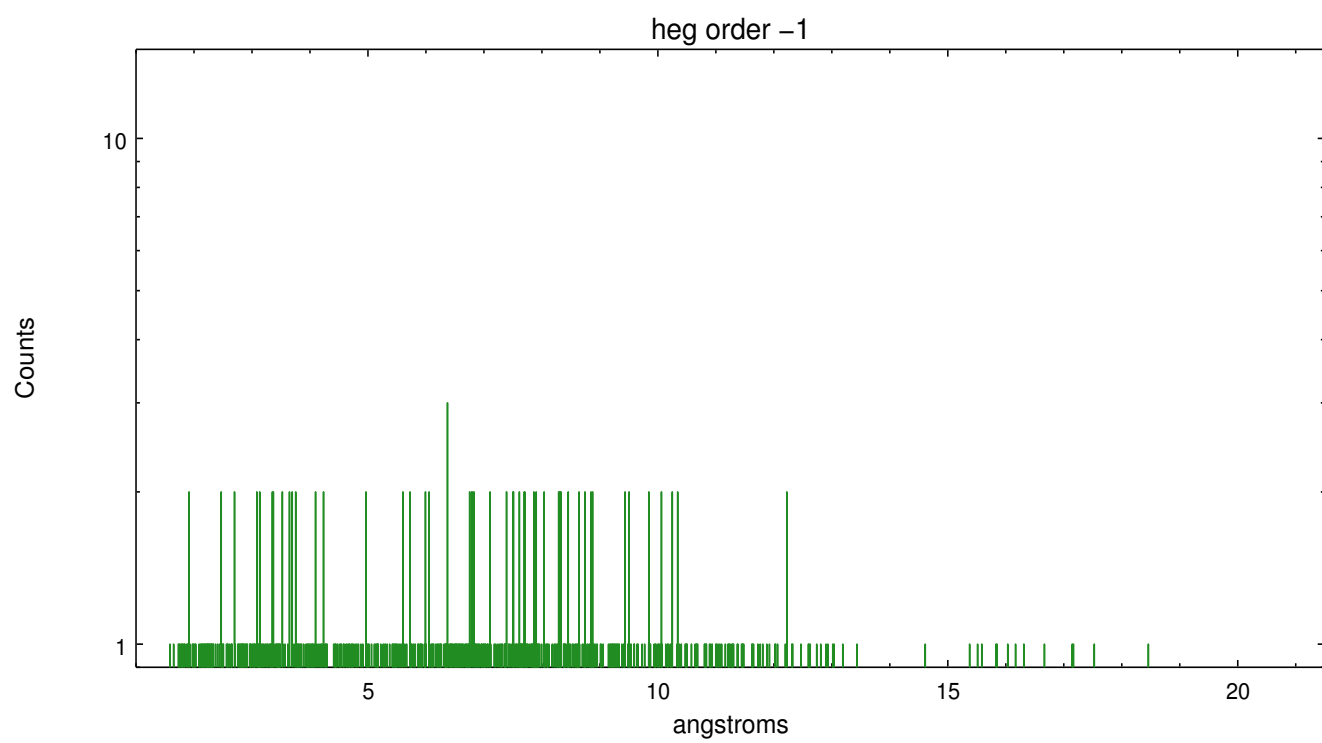
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	170	255	846	3194	696	177	146

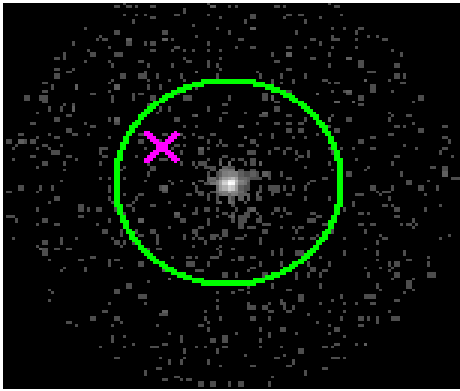




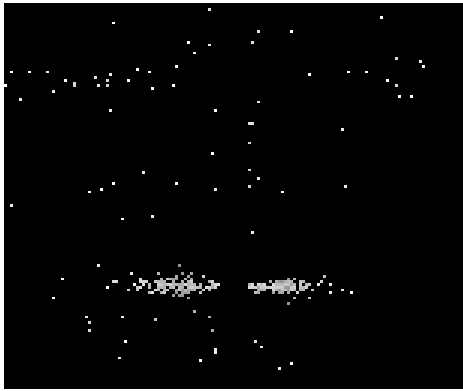
3.2 MEG Arm



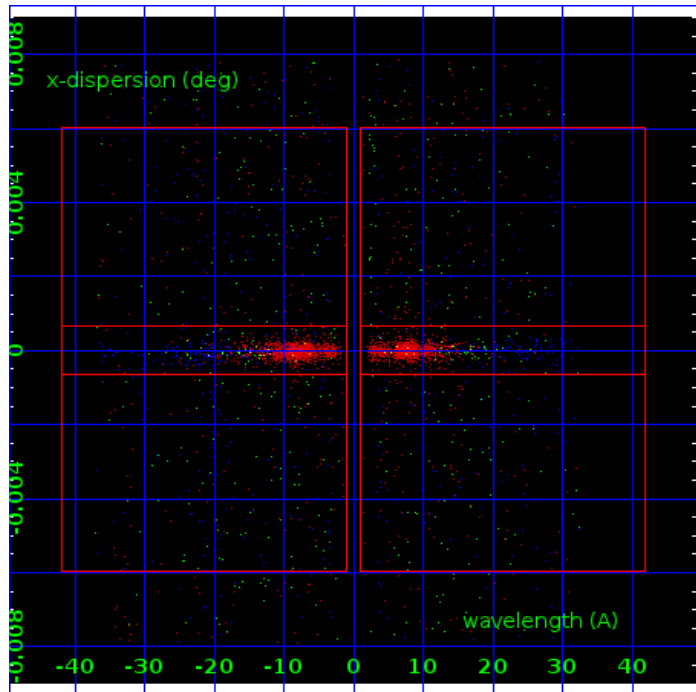
MEG Order Sort 123



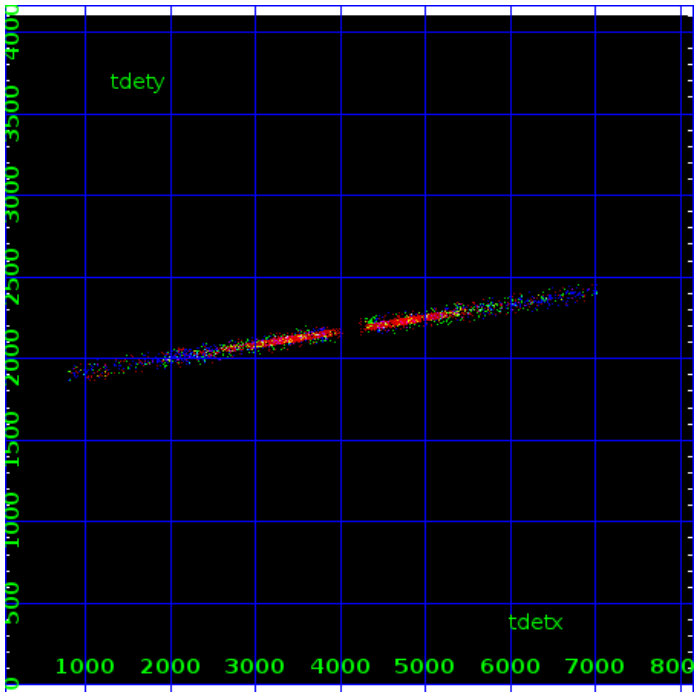
MEG Zero Order



MEG Order Sort ALL

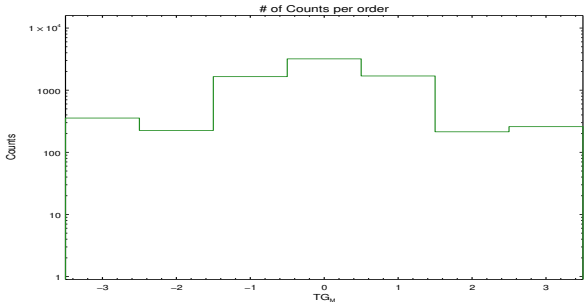


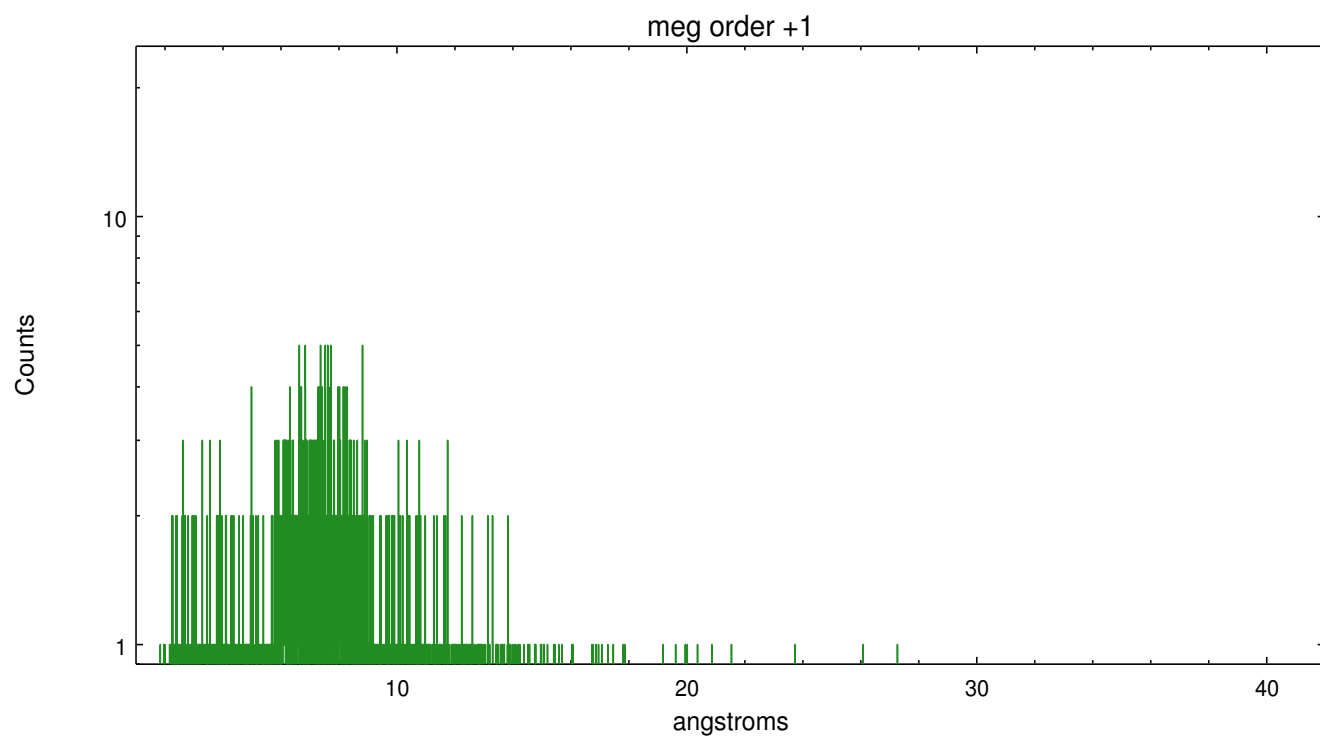
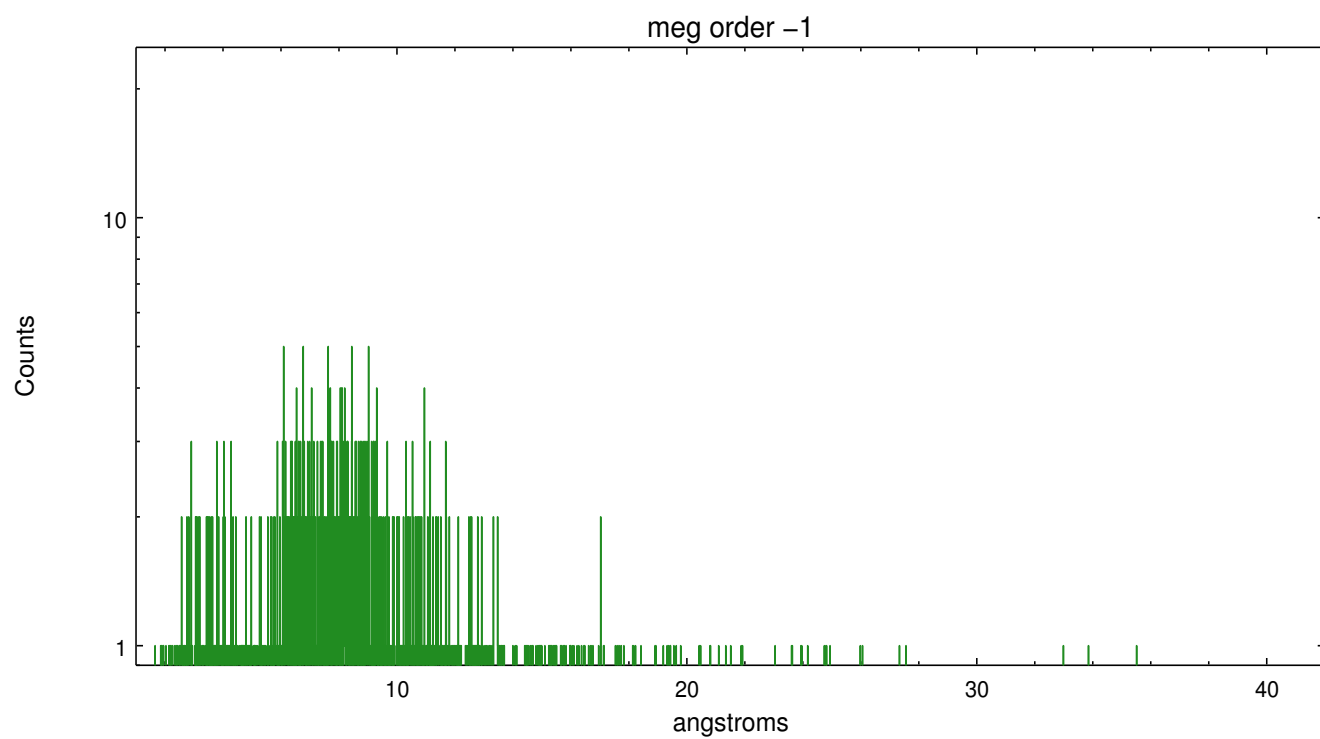
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	356	225	1653	3194	1694	214	259





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2016.03.21
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	23.920000356436

A.2 Comments