

V&V Reference Report

L2 ASCDS Version : 10.5.1.1

Observation 19786 - L2 Version 1
Chandra X-Ray Center

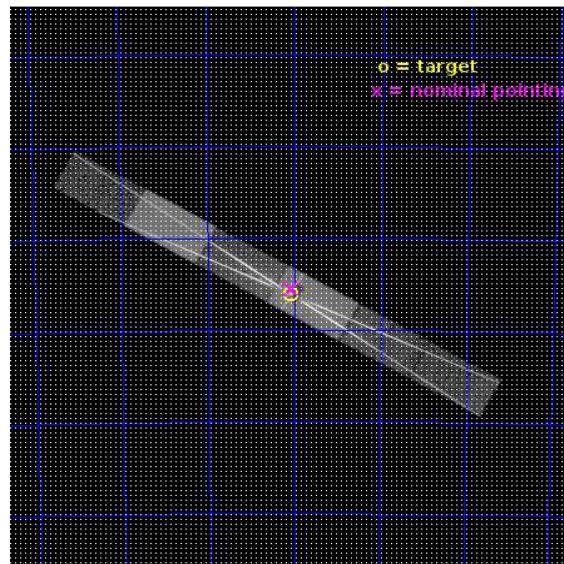
L2 Processing Date : Sep 7 2016

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1 Front

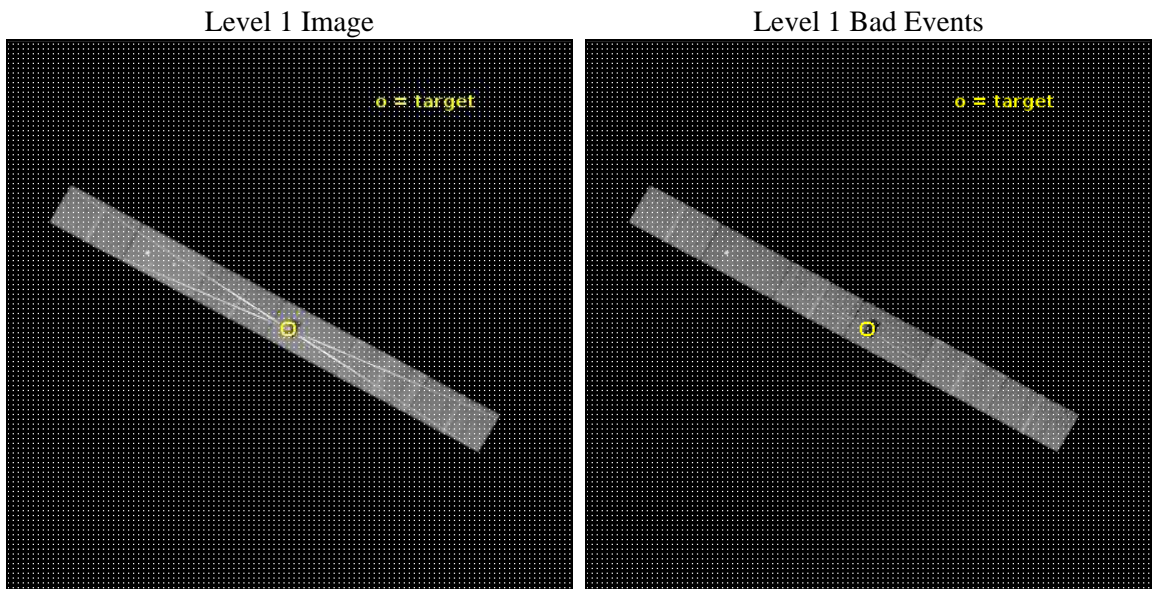
seq_num	401888	Sequence number
obs_id	19786	Observation id
title	Chandra Spectroscopy of SMC X-3 in Outburst	Proposal title
observer	Malcolm Coe	Principal investigator
object	SMC X-3	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	13.023333	Observer's specified target RA [deg]
dec_targ	-72.4345	Observer's specified target Dec [deg]
ra_nom	13.017950673663	Nominal RA [deg]
dec_nom	-72.425248866334	Nominal Dec [deg]
roll_nom	29.151516588249	Nominal Roll [deg]
revision	1	Processing version of data
ontime	24042.226792693	Sum of GTIs [s]
livetime	23506.283528249	Livetime [s]
ontime4	24042.267832637	Sum of GTIs [s]
ontime5	24042.18575263	Sum of GTIs [s]
ontime6	24042.144712687	Sum of GTIs [s]
ontime7	24042.226792693	Sum of GTIs [s]
ontime8	24042.103672624	Sum of GTIs [s]
ontime9	24042.06263268	Sum of GTIs [s]
l2events	561726	Number of level 2 events



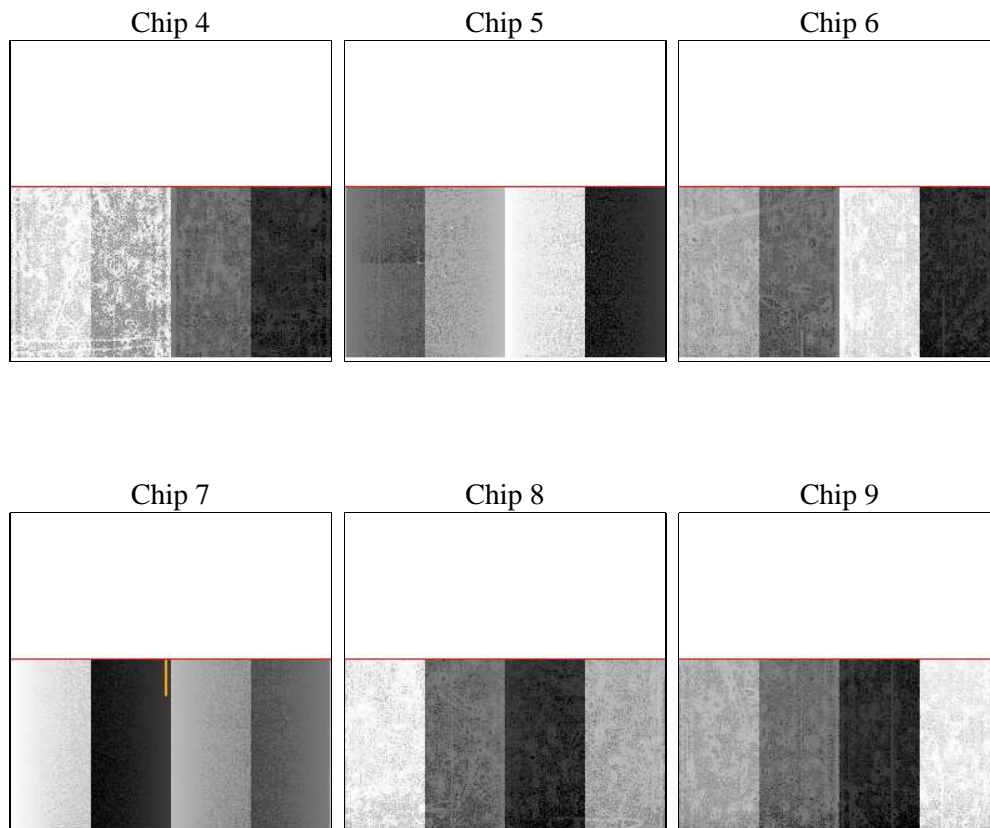
2 OBI

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	10.5.1.1	Processing system revision	ontime	24042.226792693	Sum of GTIs [s]
caldbver	4.7.2	 	ontime4	24042.267832637	Sum of GTIs [s]
date	2016-09-07T15:12:13	Date and time of file creation	ontime5	24042.18575263	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	24042.144712687	Sum of GTIs [s]
			ontime7	24042.226792693	Sum of GTIs [s]
			ontime8	24042.103672624	Sum of GTIs [s]
			ontime9	24042.06263268	Sum of GTIs [s]
			l1events	1054522	Number of level 1 events
			tgmethod	FINDZO	Method used to create src1a file
			zpc_pos	(4084.77 4028.02)	src1a sky pixel position

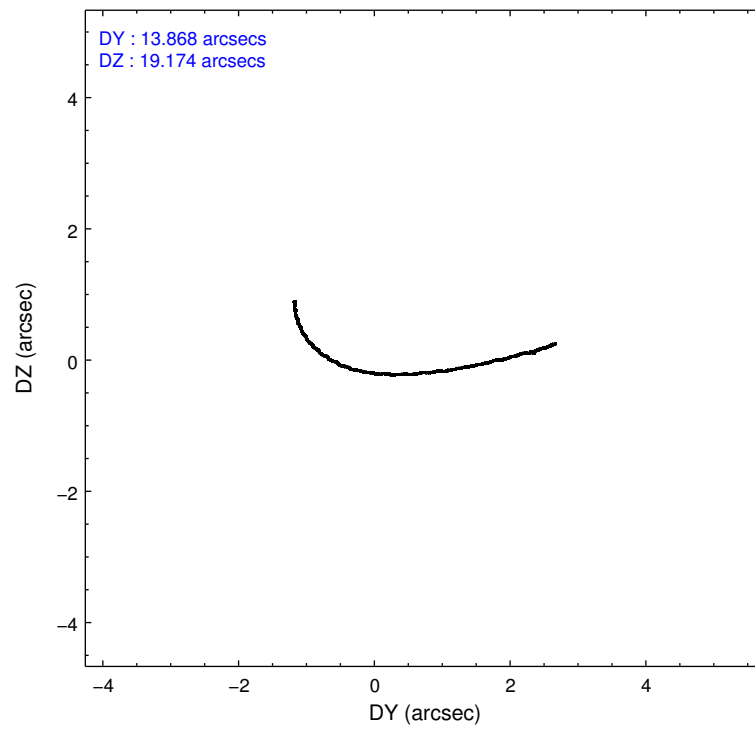
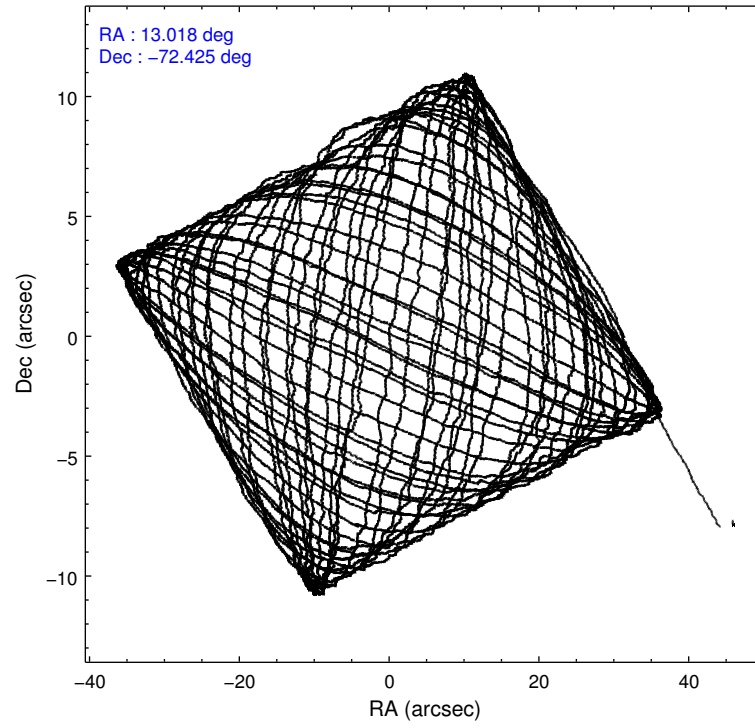
2.1.4 Events

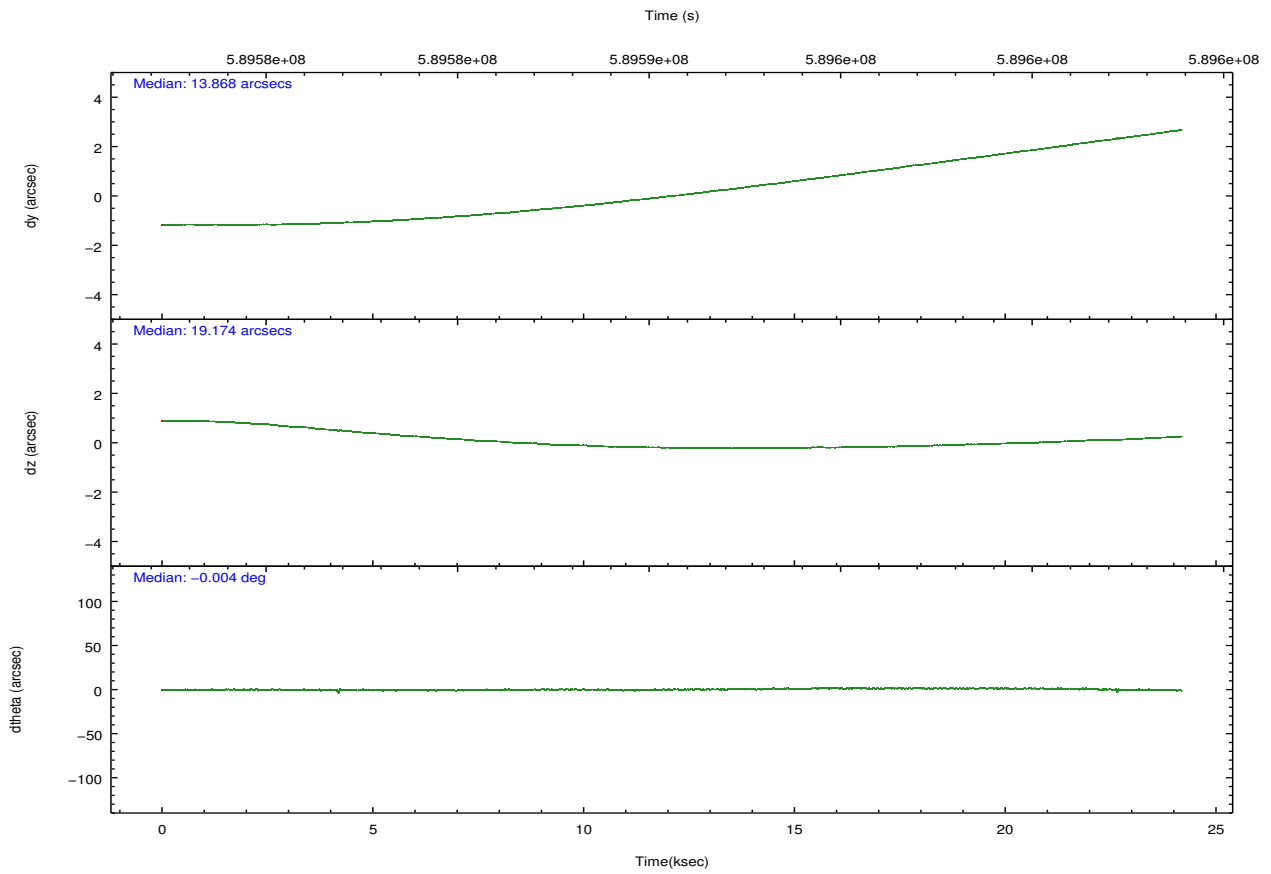
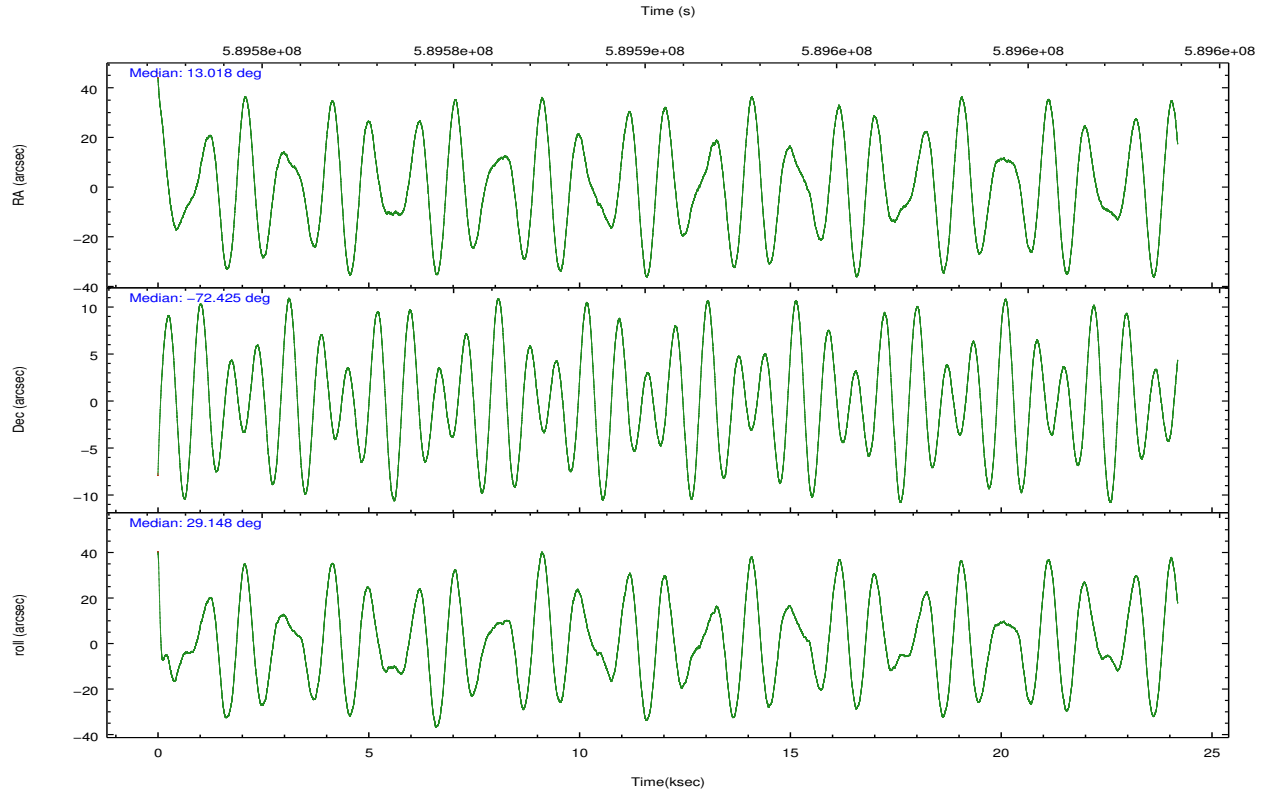
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	94973	173905	254521	267230	170424	93469	grade 0 events	7911	17913	127483	41991	57048	12408
rejected events	79158	73825	77410	57467	80937	72061		8%	10%	50%	15%	33%	13%
rejected %	83%	42%	30%	21%	47%	77%	grade 1 events	73	524	928	424	285	68
								0%	0%	0%	0%	0%	0%
							grade 2 events	3364	31779	23410	51094	12958	3504
								3%	18%	9%	19%	7%	3%
							grade 3 events	1337	6109	8010	21872	5280	1588
								1%	3%	3%	8%	3%	1%
							grade 4 events	1167	5755	7946	22057	5027	1528
								1%	3%	3%	8%	2%	1%
							grade 5 events	3927	15982	4676	12126	5865	4308
								4%	9%	1%	4%	3%	4%
							grade 6 events	2036	38540	10294	72790	9188	2383
								2%	22%	4%	27%	5%	2%
							grade 7 events	75158	57303	71774	44876	74773	67682
								79%	32%	28%	16%	43%	72%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-456789	ACIS-456789	Obspar file type	PREDICTED	ACTUAL
Grating	HETG	HETG	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	12.972247	13.01795067366298	Subarray requested	CUSTOM	CUSTOM
[deg] Pointing Dec	-72.448975	-72.42524886633416	Subarray start row	15	15
[deg] Pointing Roll	28.951297	29.1515165882494	Subarray row count	542	542
[mm] SIM focus pos	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
[mm] SIM defocus	0	0.001444936568705701	[s] Primary exposure time	0.000000	1.8
[mm] SIM translation stage pos	-184.532523	-184.5306286120915			
[mm] SIM translation stage offset	-5.6	-5.601893970916279			
[s] Observation start time (MET)	589578683.184000	589577739.10927			
Observation start date	2016-09-06T19:50:15	2016-09-06T19:35:39			
[s] Observation end time (MET)	589602683.184000	589603691.5982701			
Observation end date	2016-09-07T02:30:15	2016-09-07T02:48:11			
Read mode	TIMED	TIMED			

2.3 Aspect



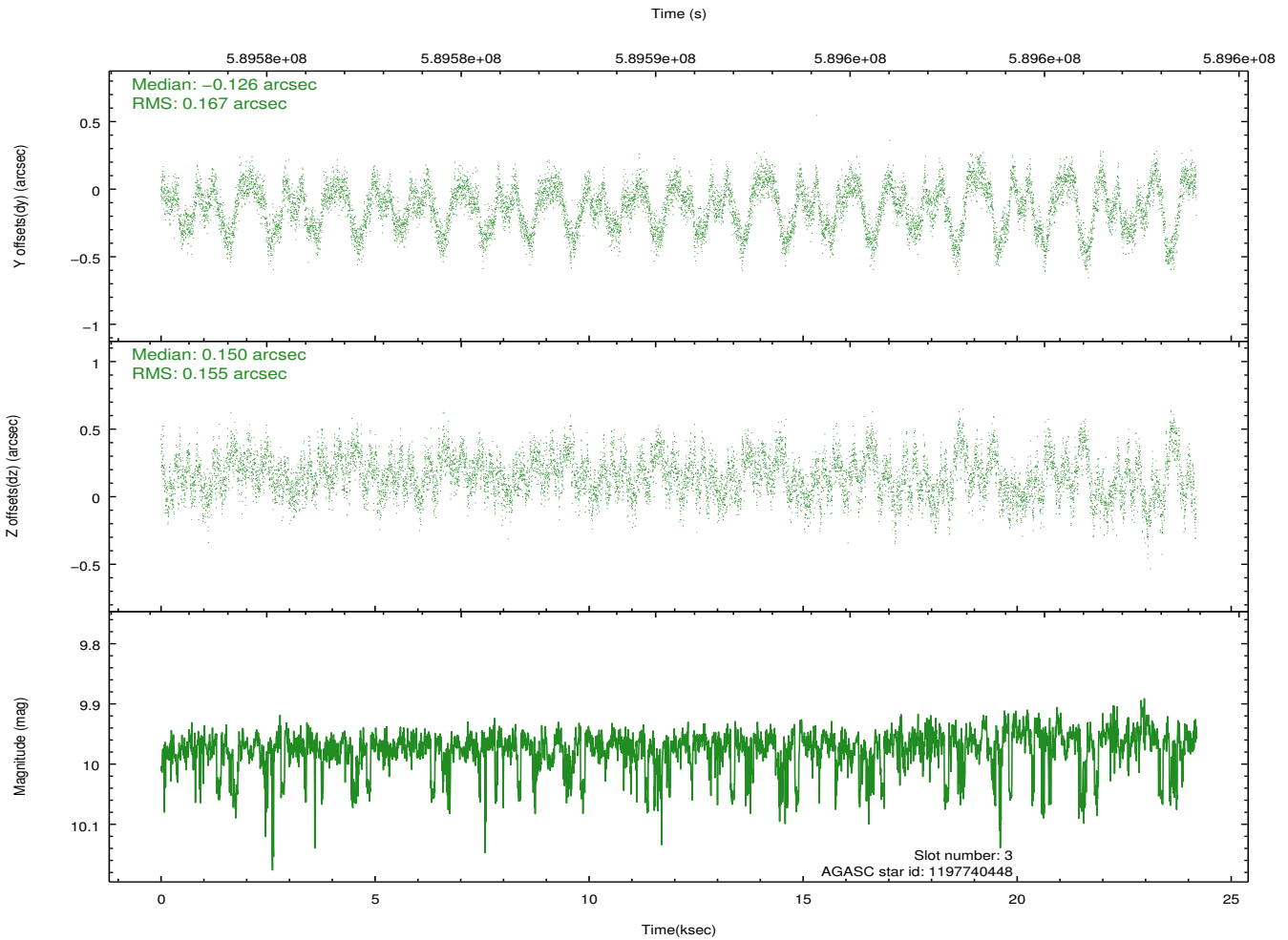
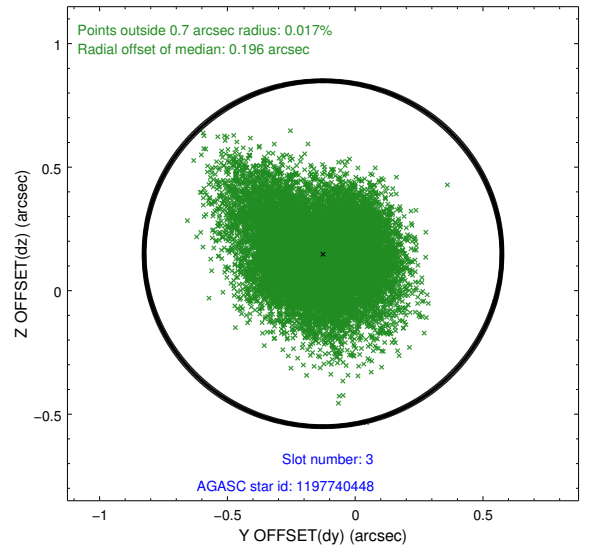
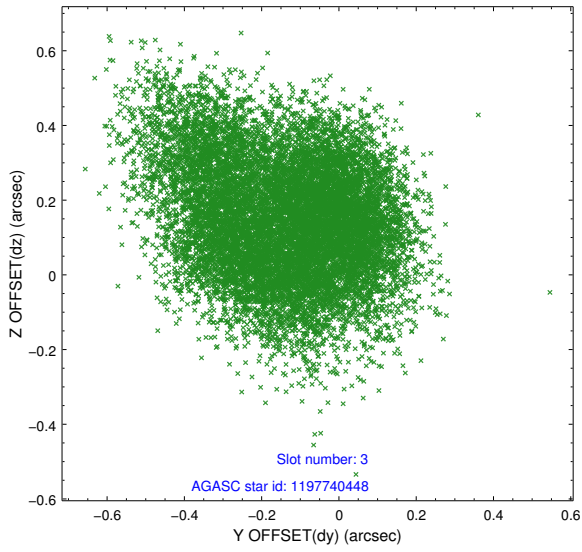


Slot Statistics

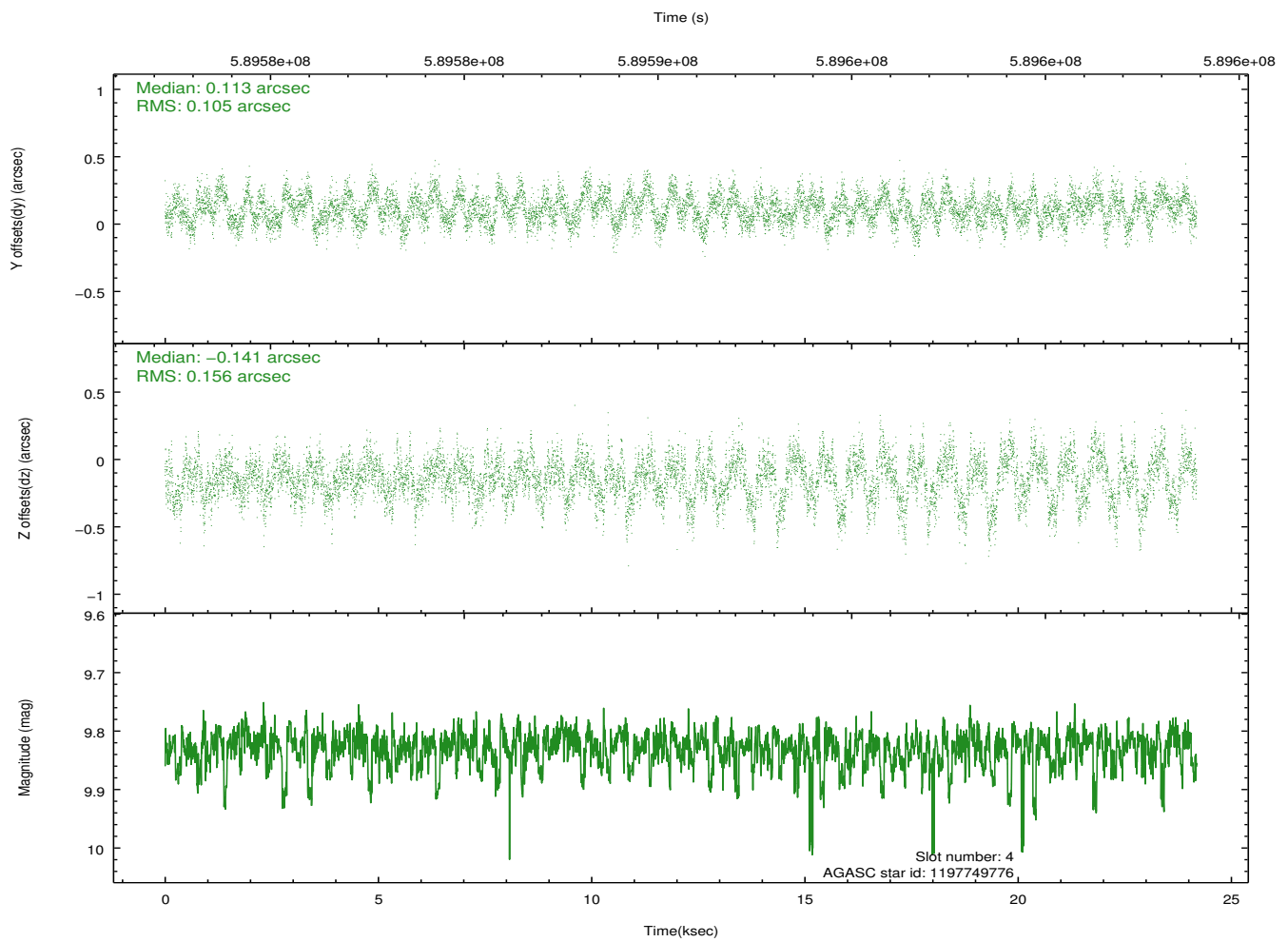
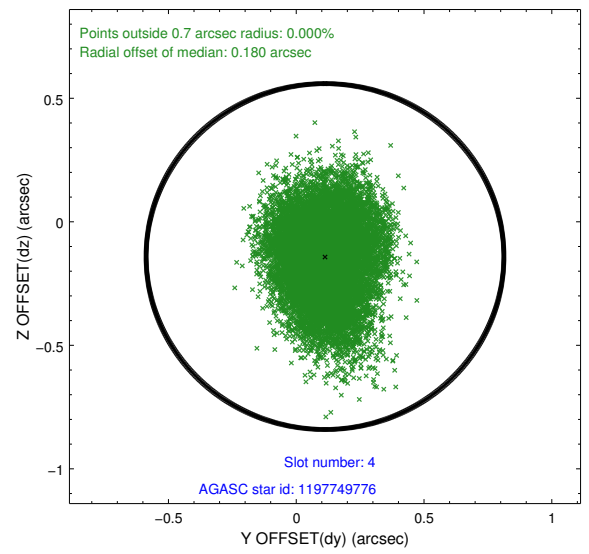
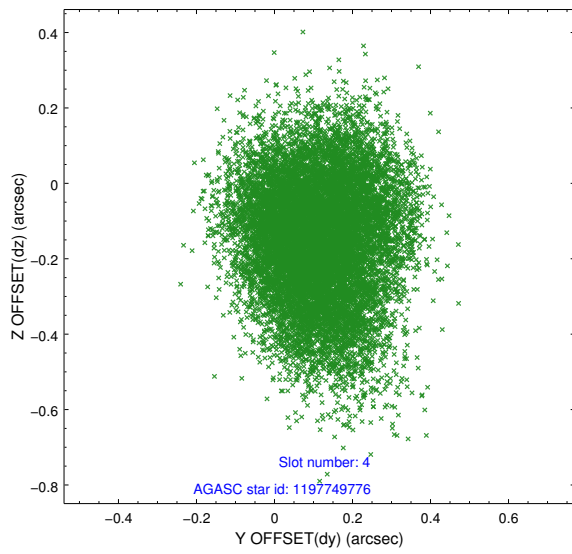
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.93	5900	-0.181	-0.052	0.028	0.046	0.000000	0.000000	-766.84	-1856.33
1	FID		ACIS-S-4	7.04	5900	0.389	0.101	0.038	0.057	0.000000	0.000000	2146.93	52.17
2	FID		ACIS-S-5	7.06	5900	-0.223	-0.045	0.025	0.034	0.000000	0.000000	-1819.57	45.81
3	GUIDE	used	1197740448	9.97	11786	-0.126	0.150	0.244	0.385	11.121728	-72.248718	-1443.13	1586.99
4	GUIDE	used	1197749776	9.83	11782	0.113	-0.141	0.199	0.326	12.674349	-72.322893	-65.77	554.35
5	GUIDE	used	1198189696	7.36	11798	-0.166	0.097	0.126	0.200	15.223750	-72.697522	1654.33	-1988.92
6	GUIDE	used	1198191400	8.36	11793	0.182	-0.209	0.137	0.206	11.617890	-72.595865	-1539.35	228.70
7	GUIDE	used	1198192408	9.38	11789	0.011	0.101	0.142	0.232	12.860639	-72.678863	-504.88	-666.21

2.4 Star Slots

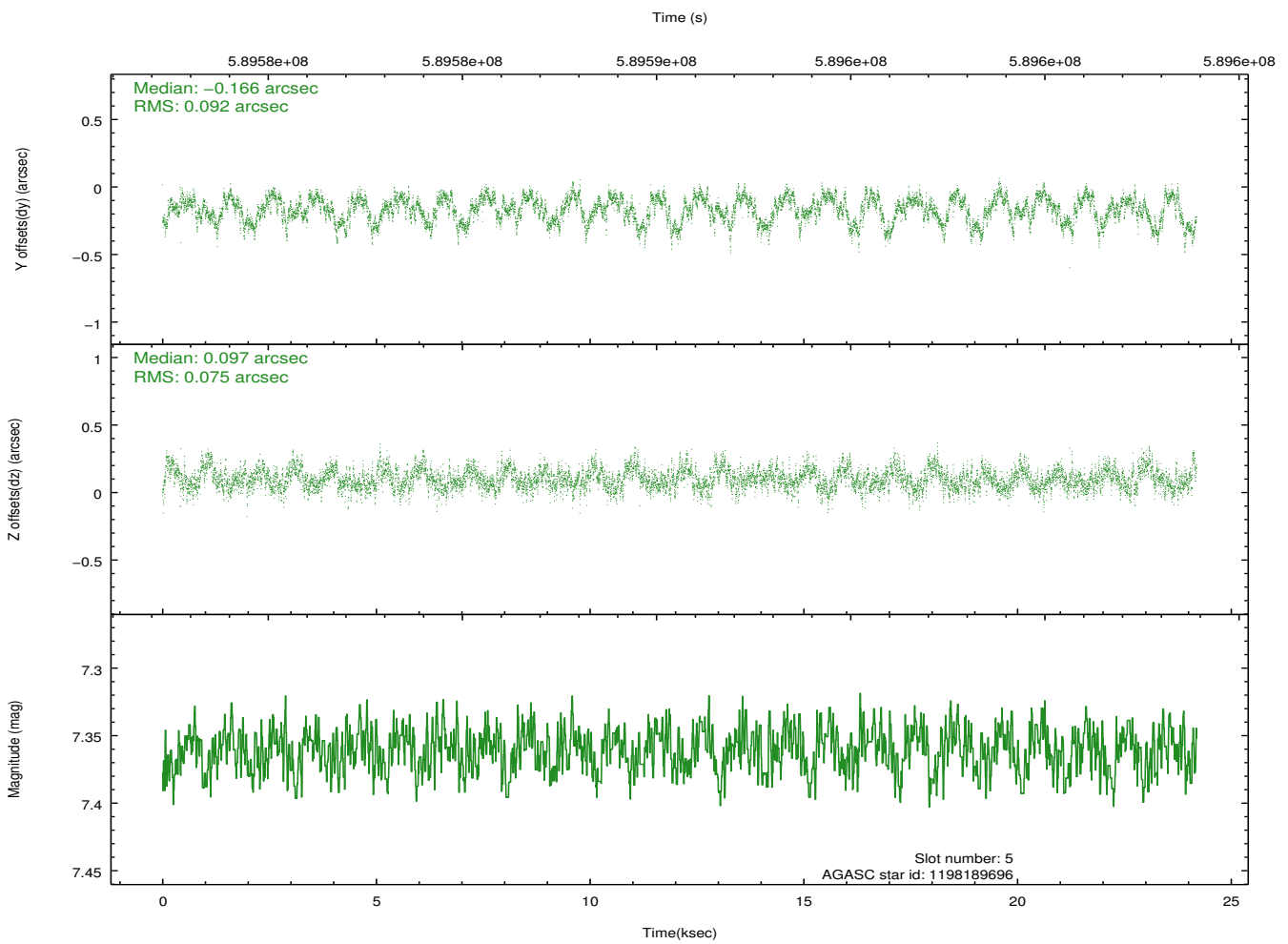
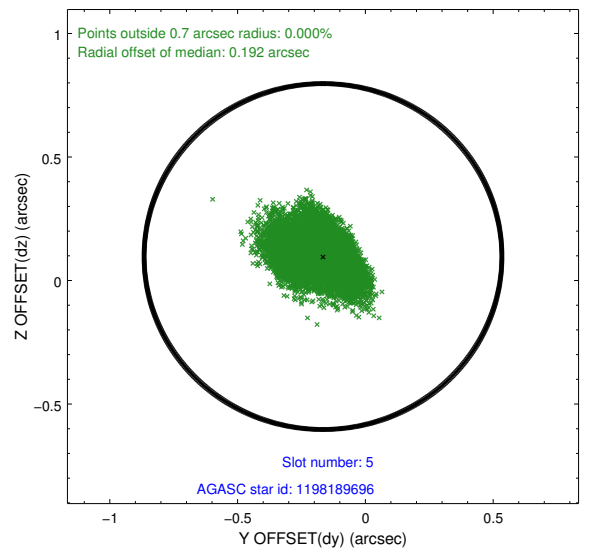
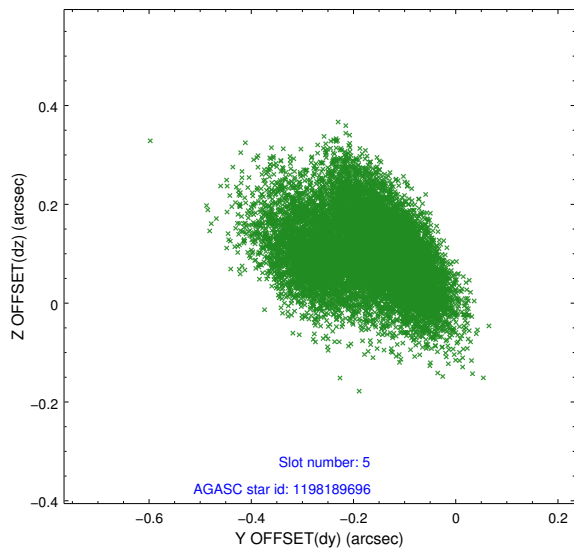
2.4.1 Slot 3



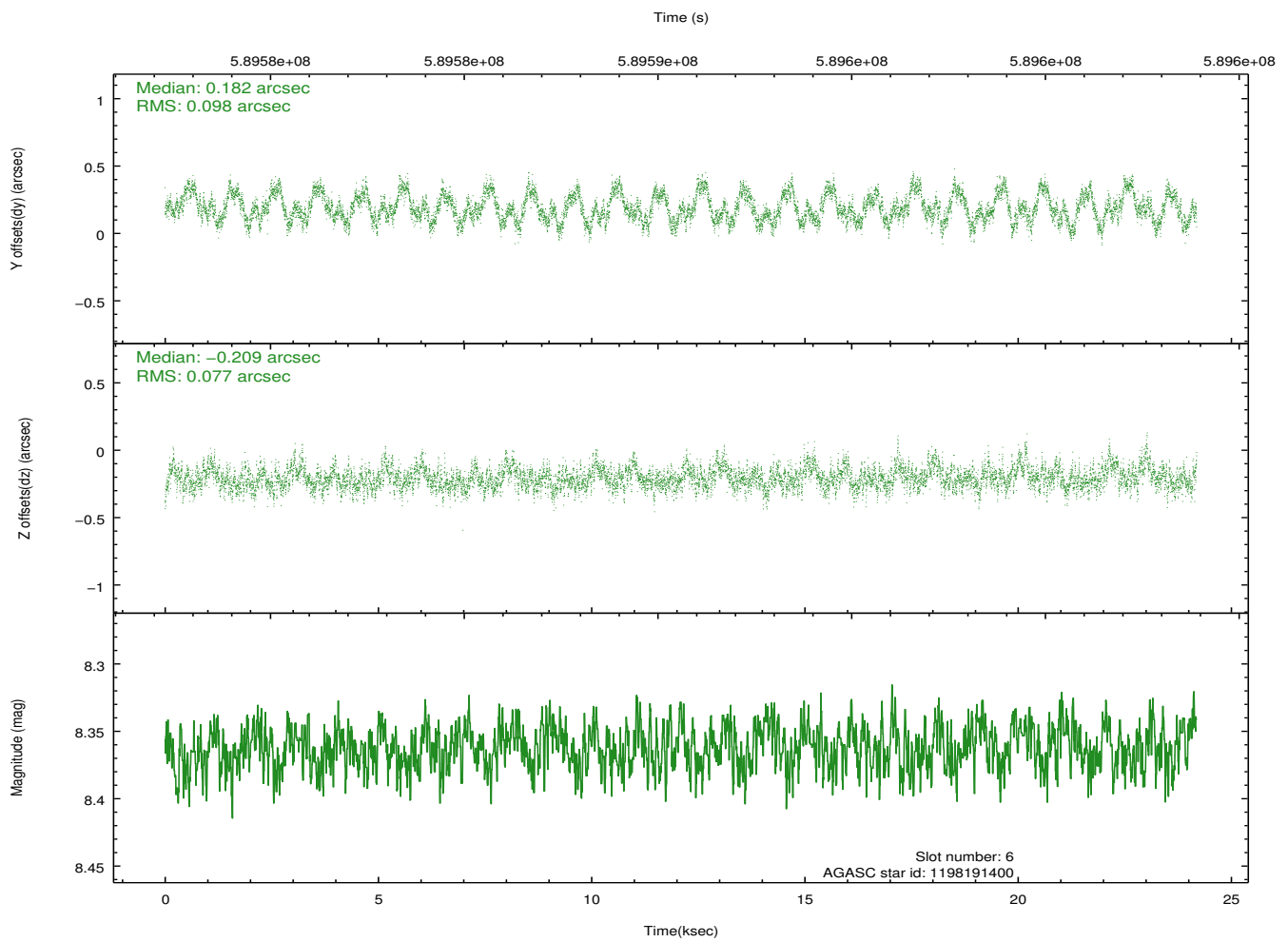
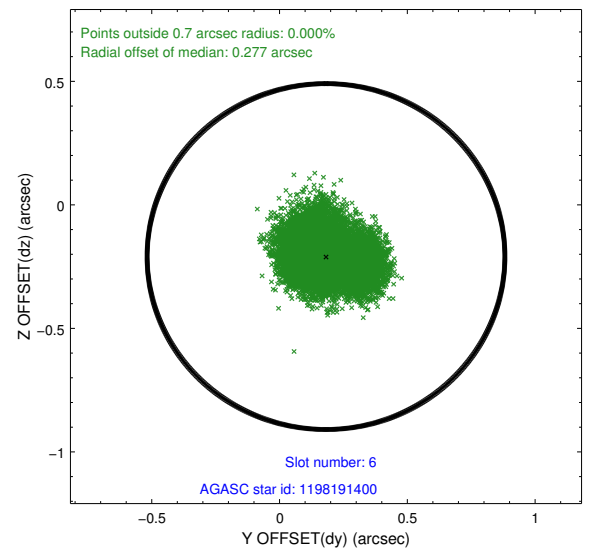
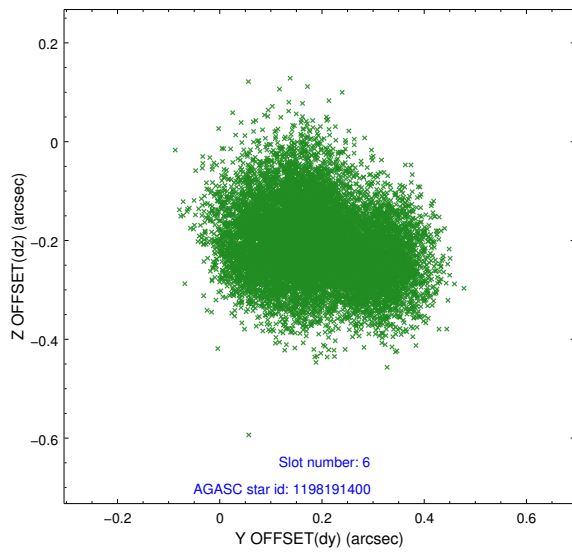
2.4.2 Slot 4



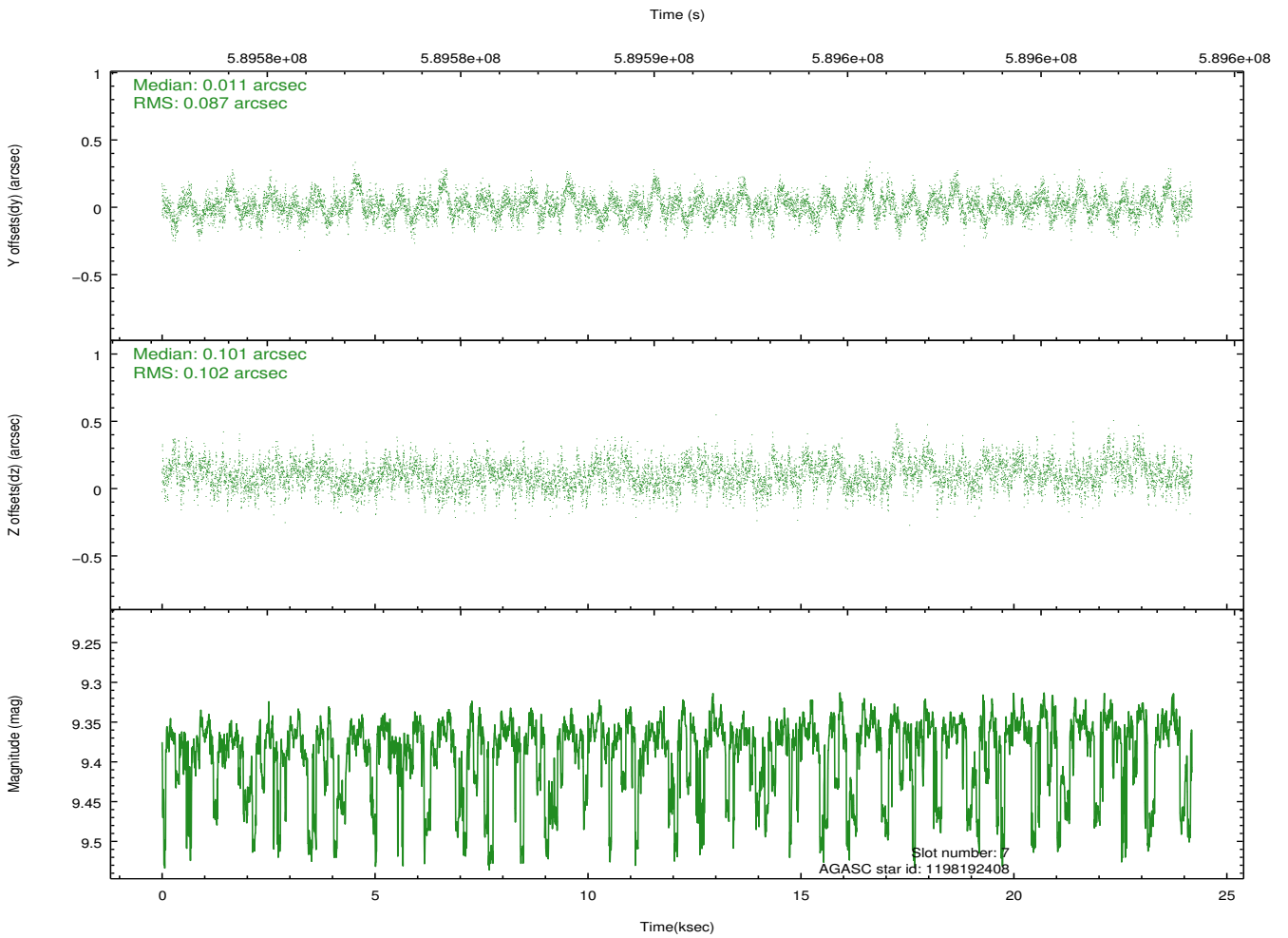
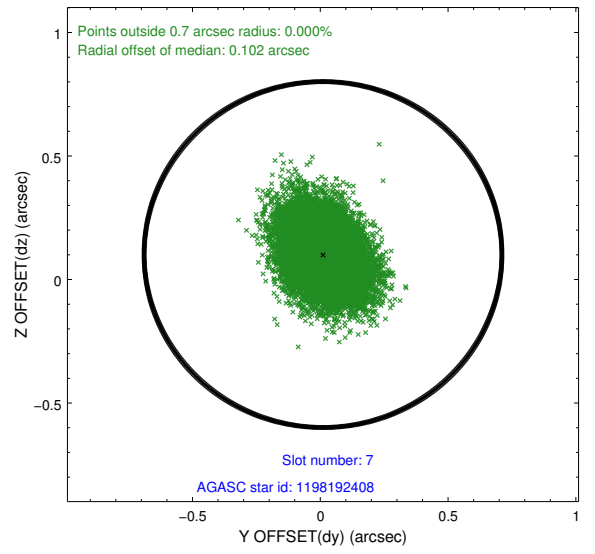
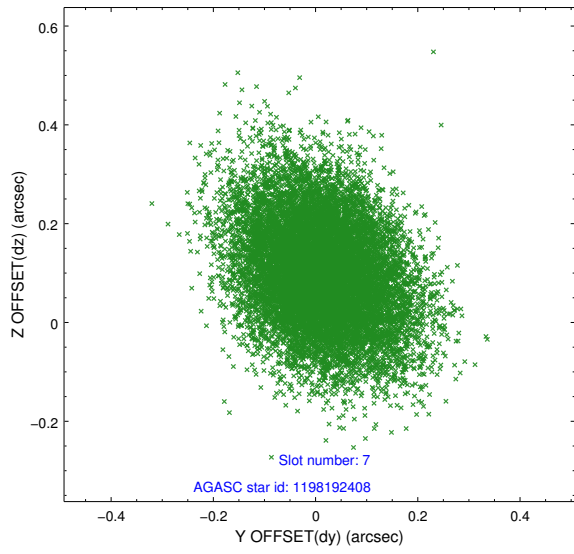
2.4.3 Slot 5



2.4.4 Slot 6

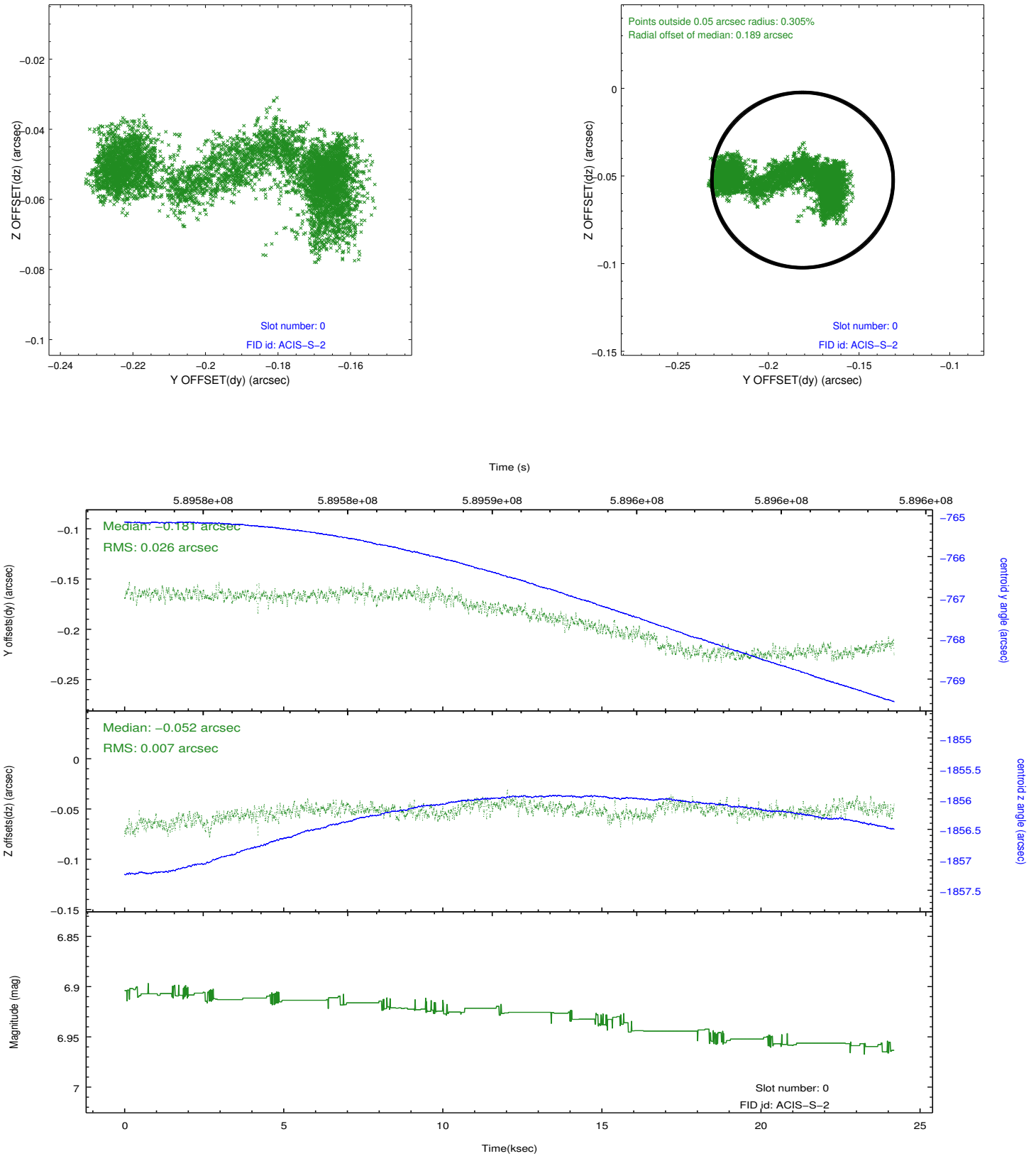


2.4.5 Slot 7

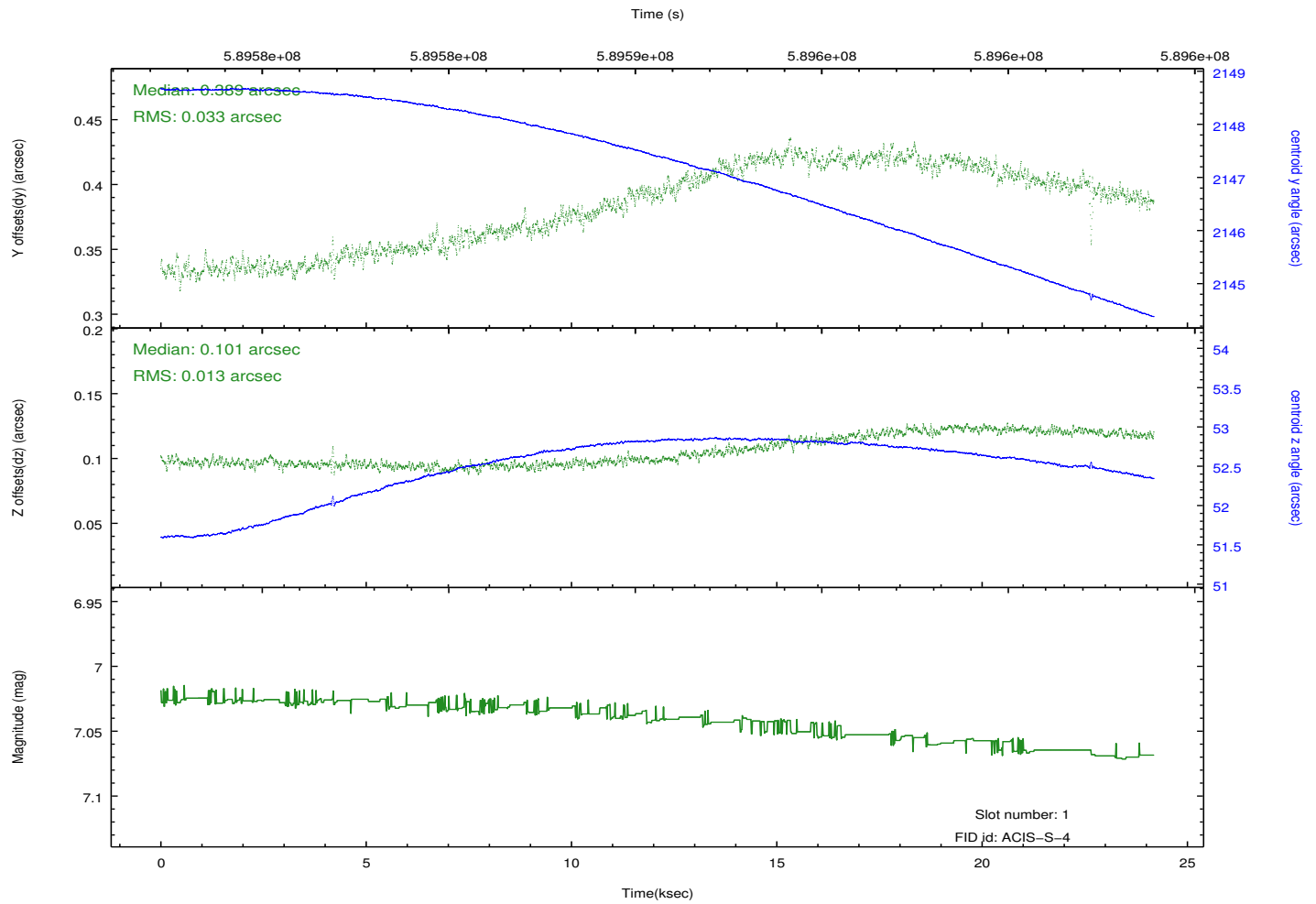
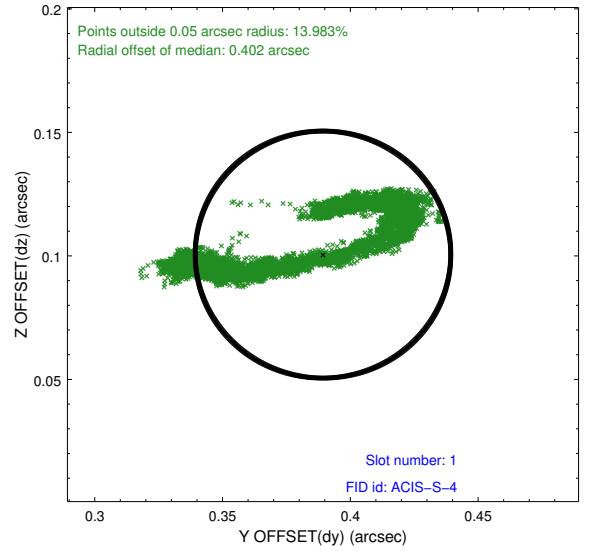
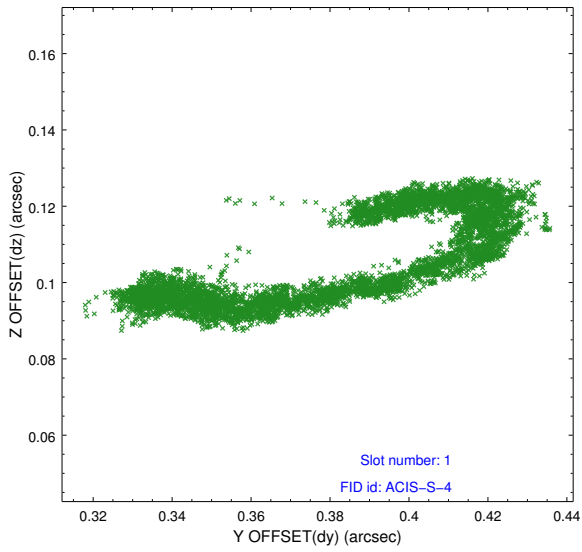


2.5 FID Slots

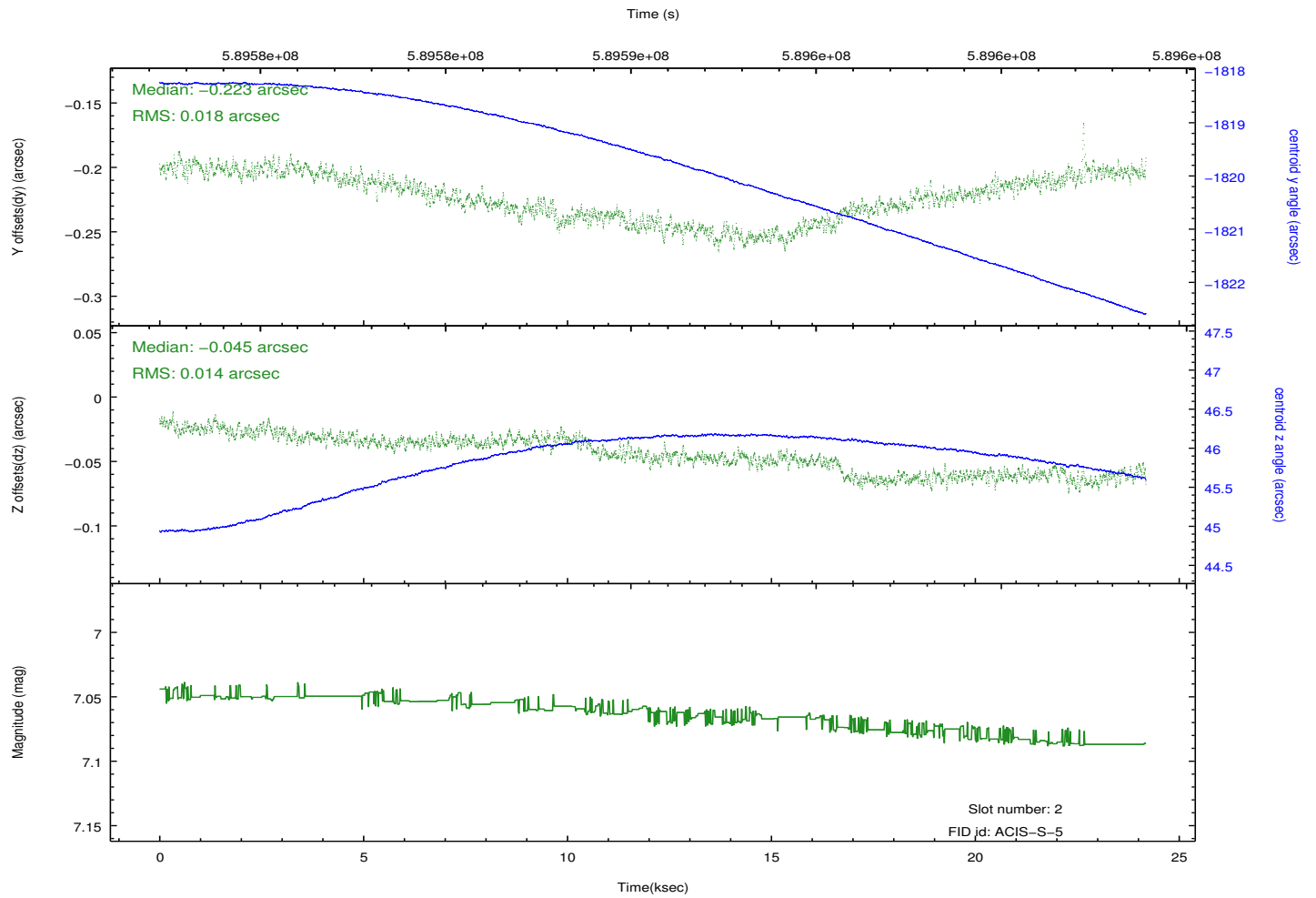
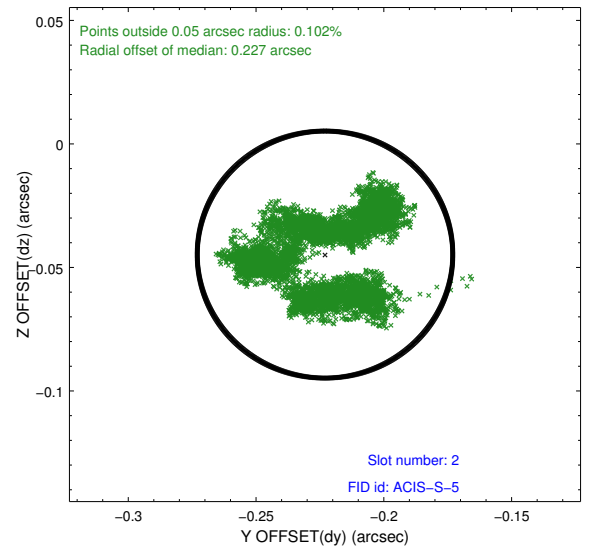
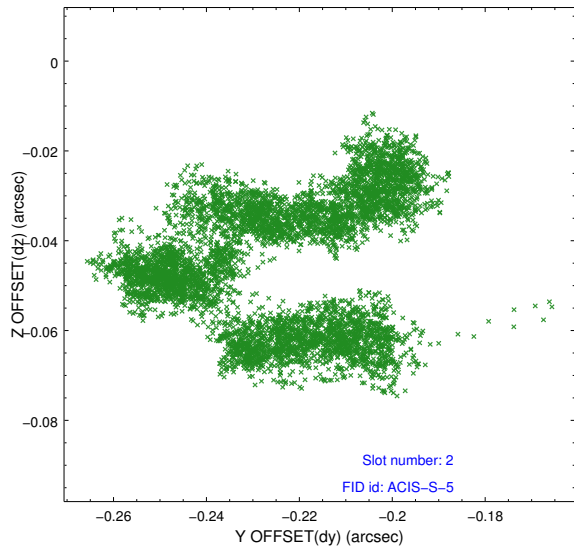
2.5.1 Slot 0



2.5.2 Slot 1

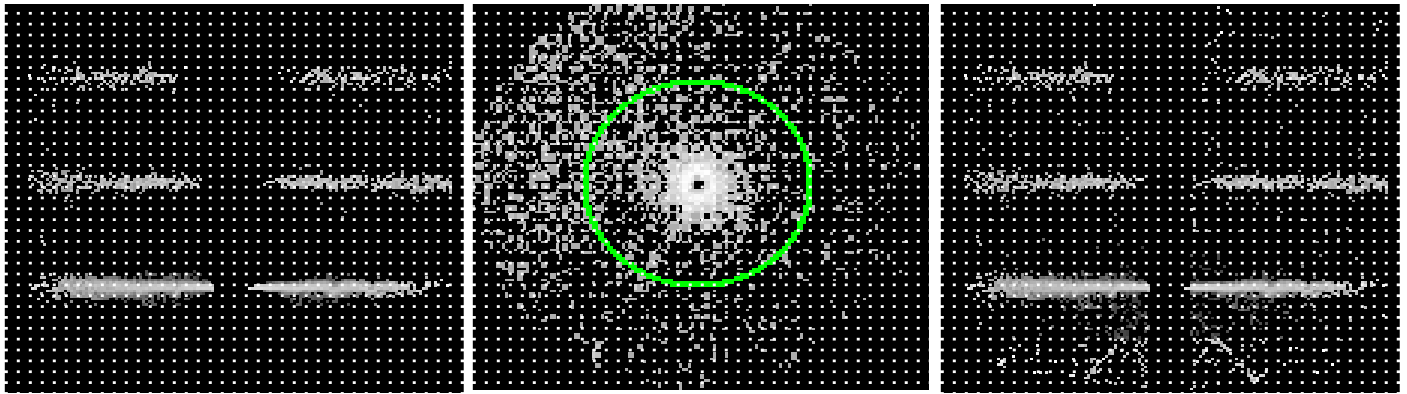


2.5.3 Slot 2



3 Gratings

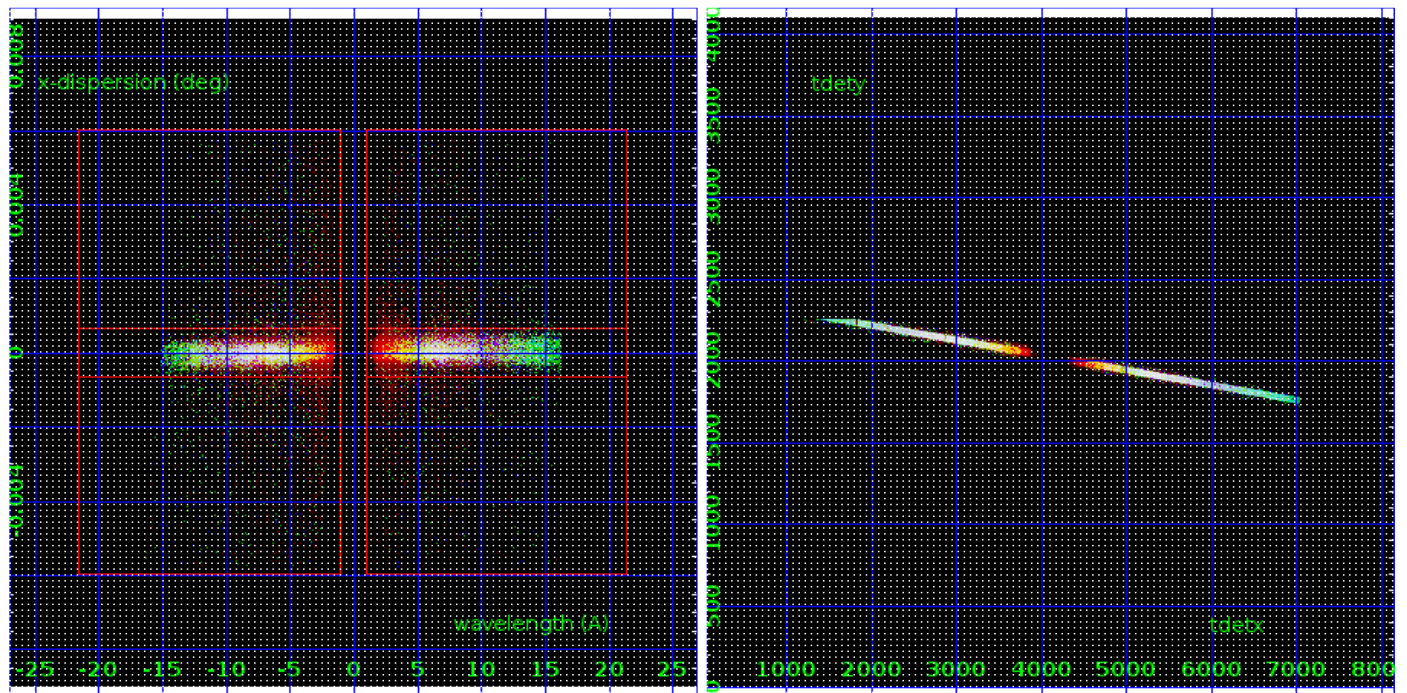
3.1 HEG Arm



HEG Order Sort 123

HEG Zero Order

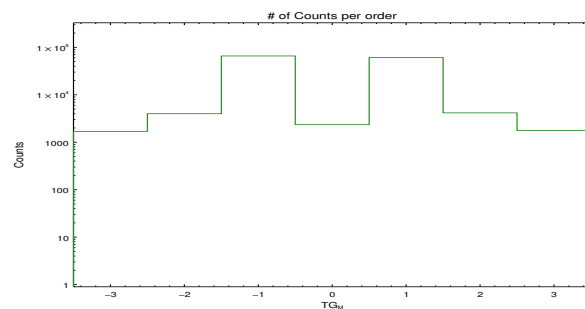
HEG Order Sort ALL

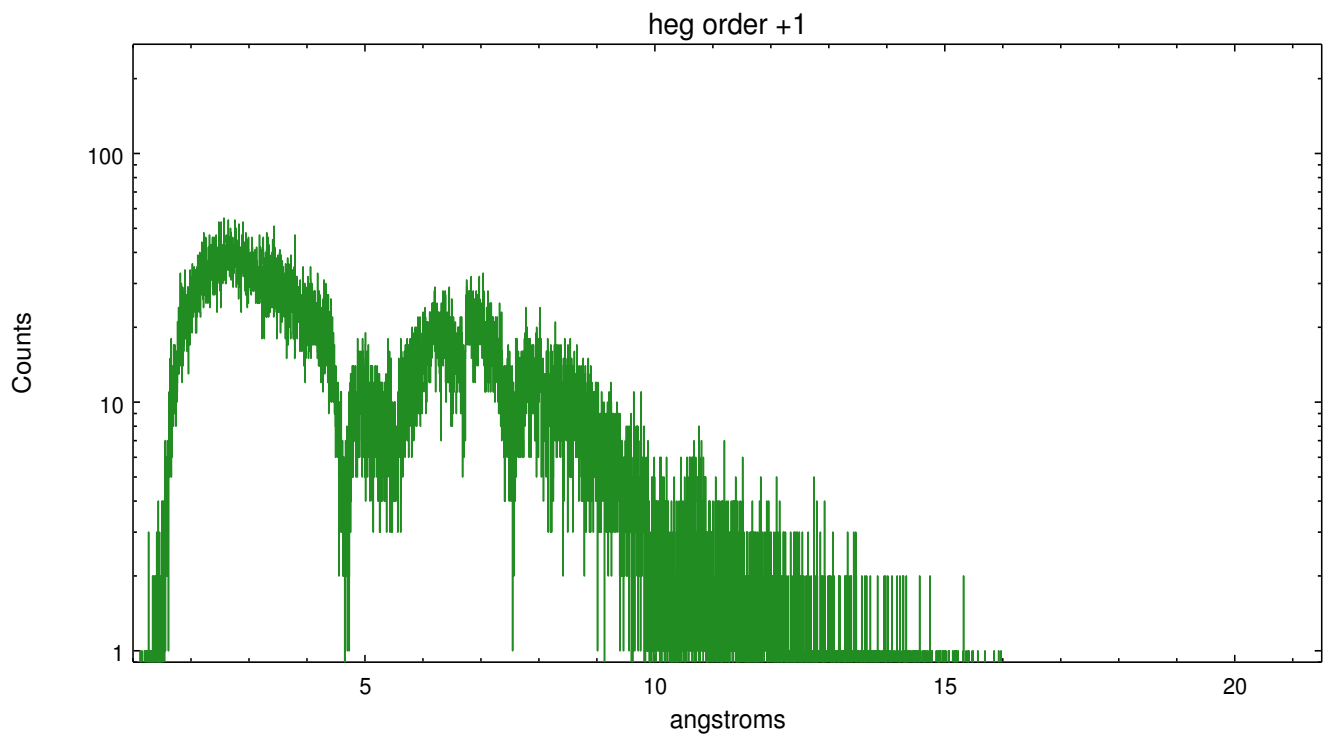
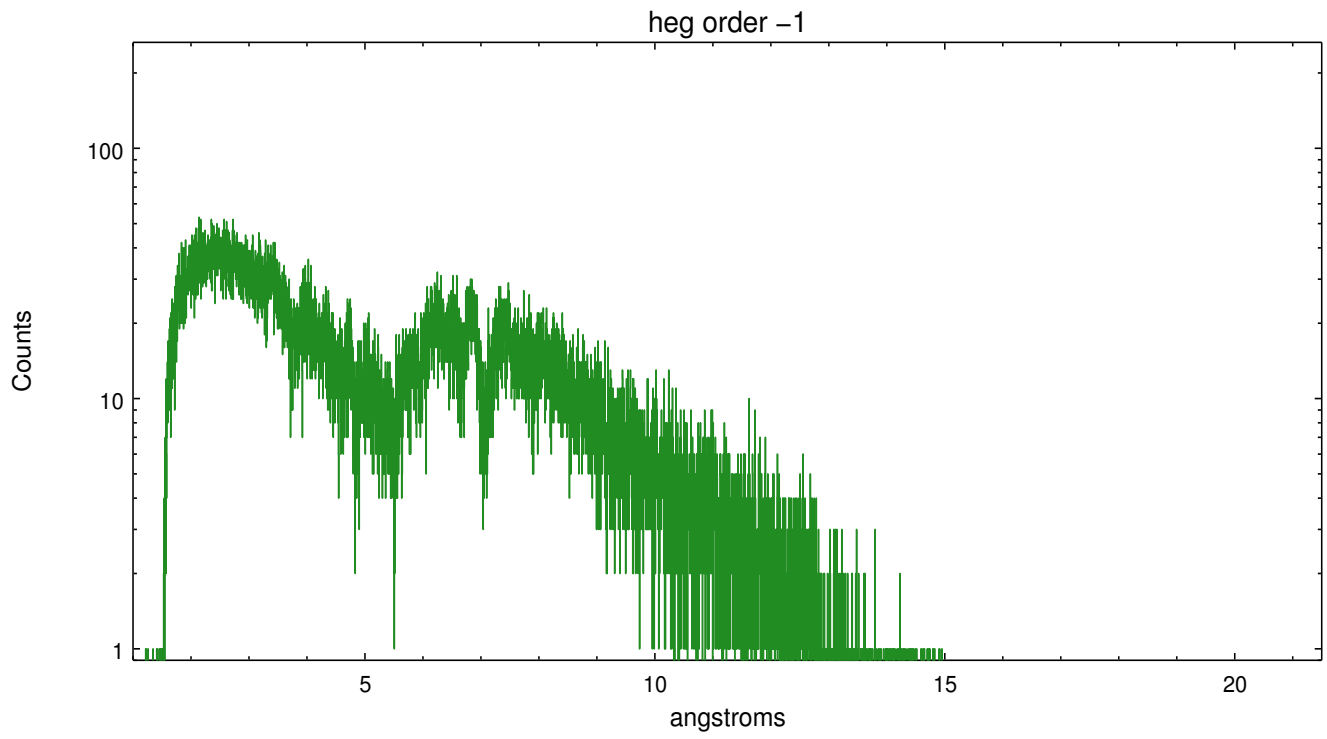


Spot Image HEG

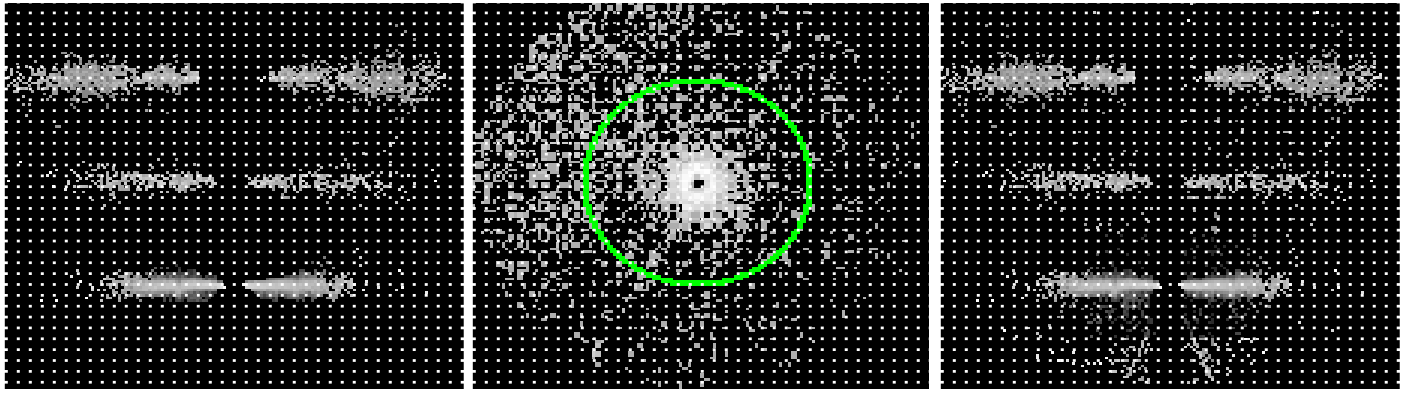
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1693	3998	65777	2350	60898	4159	1769





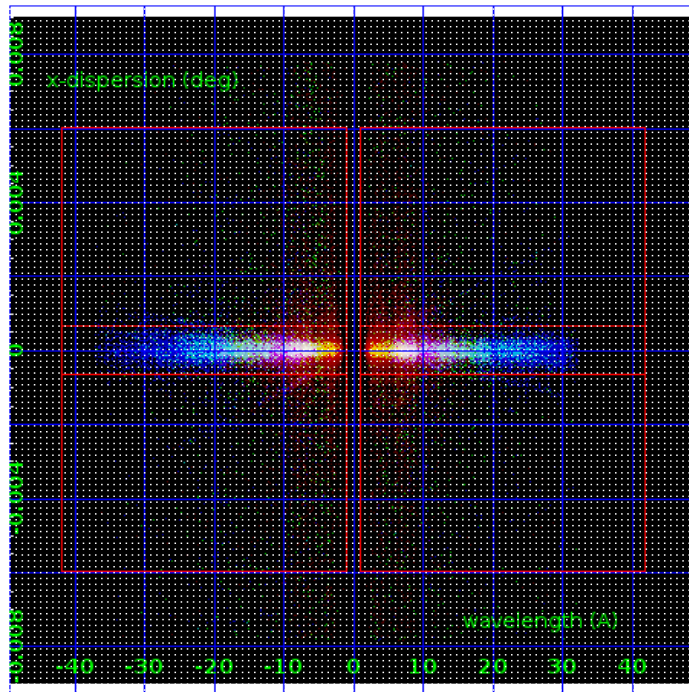
3.2 MEG Arm



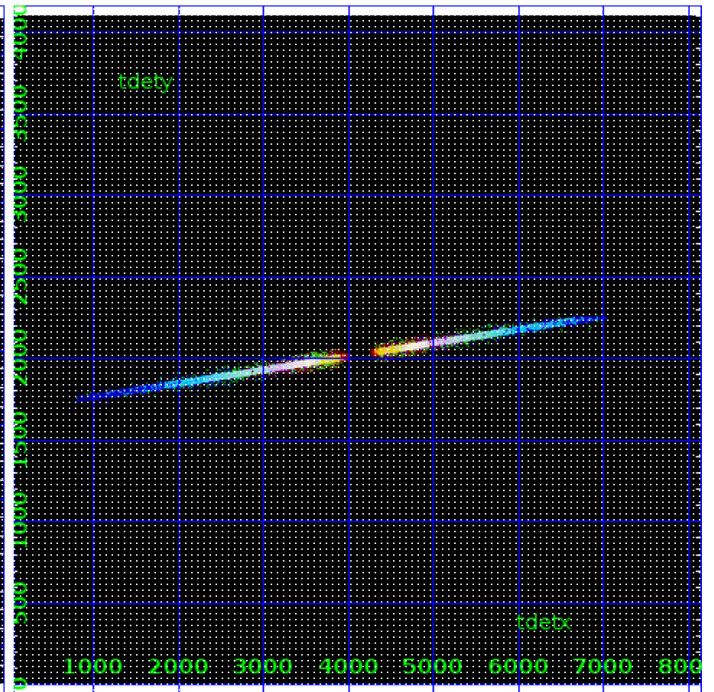
MEG Order Sort 123

MEG Zero Order

MEG Order Sort ALL

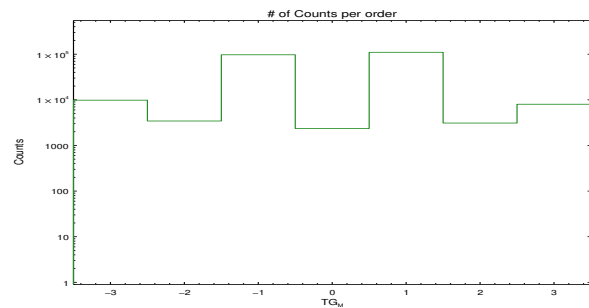


Spot Image MEG

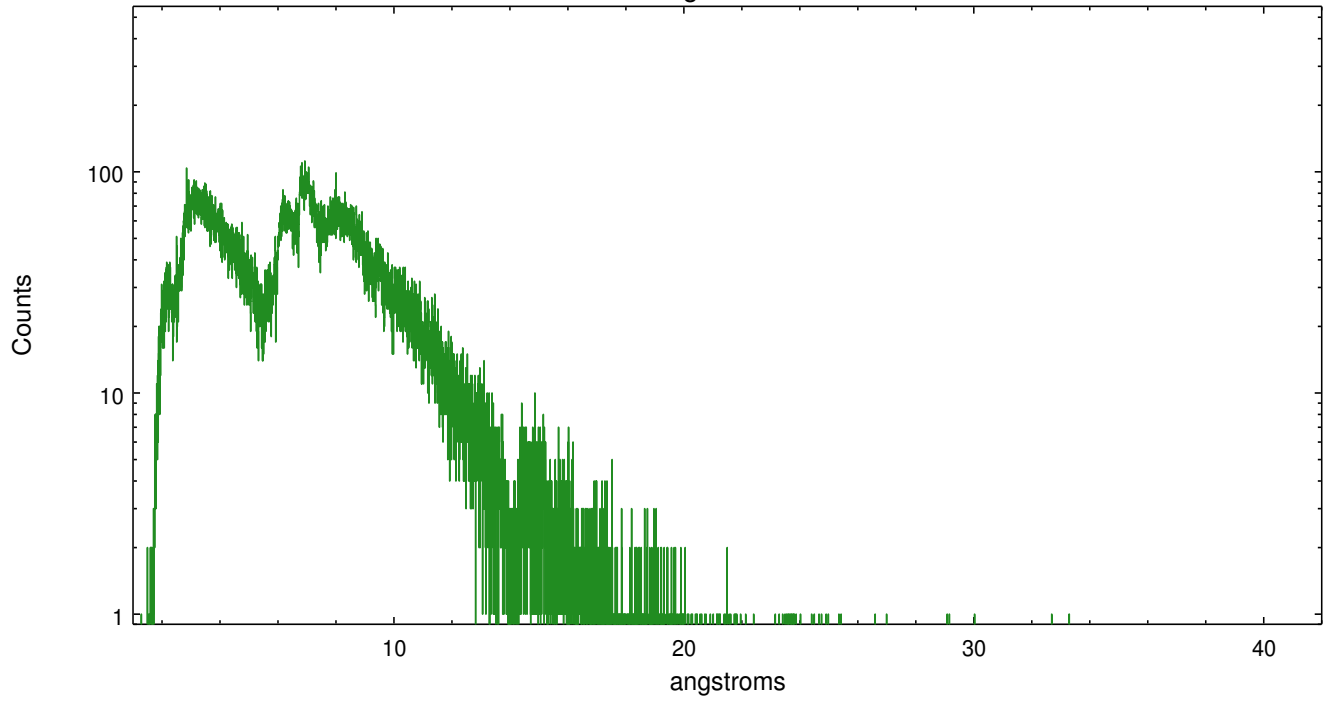


Full Detector MEG

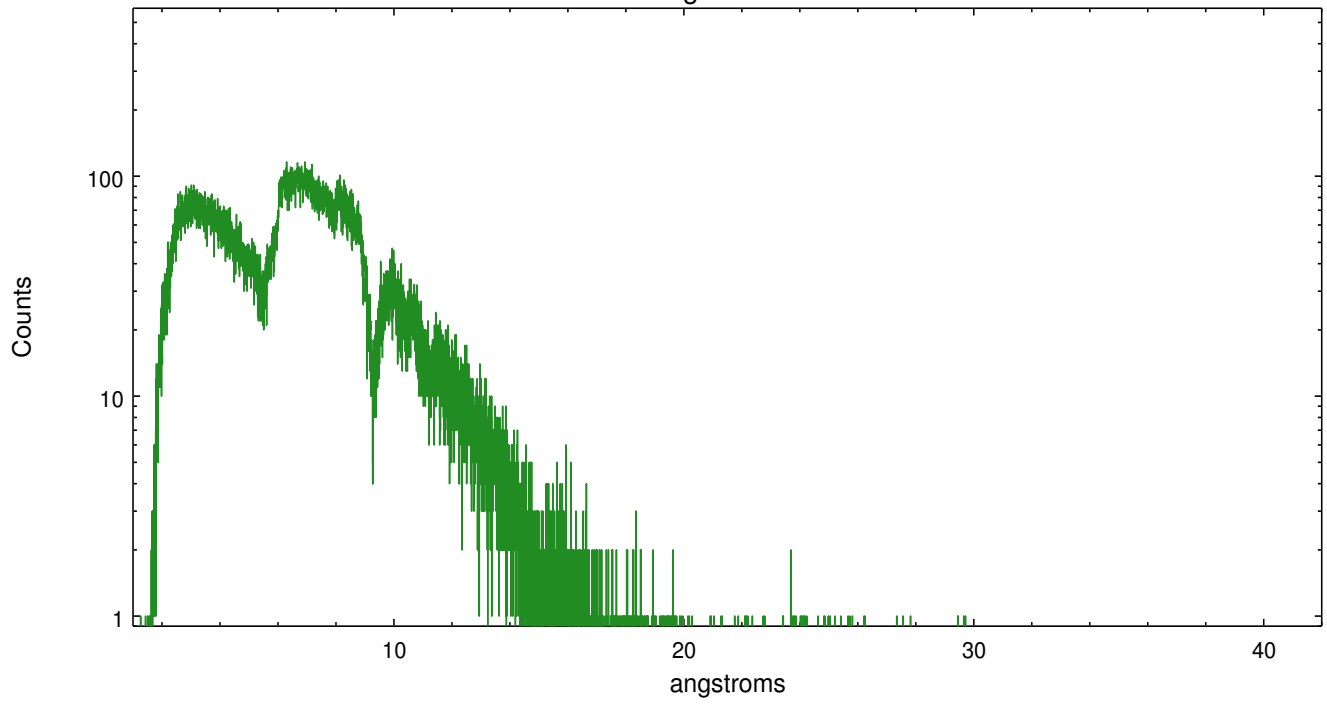
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	9825	3435	97115	2350	109945	3098	7998



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2016.09.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	24.042226792693

A.2 Comments