

V&V Reference Report

L2 ASCDS Version : 10.6.4

Observation 21125 - L2 Version 1
Chandra X-Ray Center

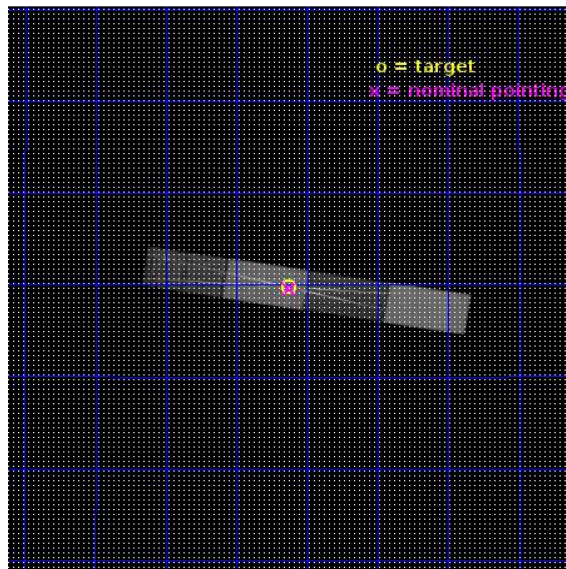
L2 Processing Date : Jul 14 2018

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1 Front

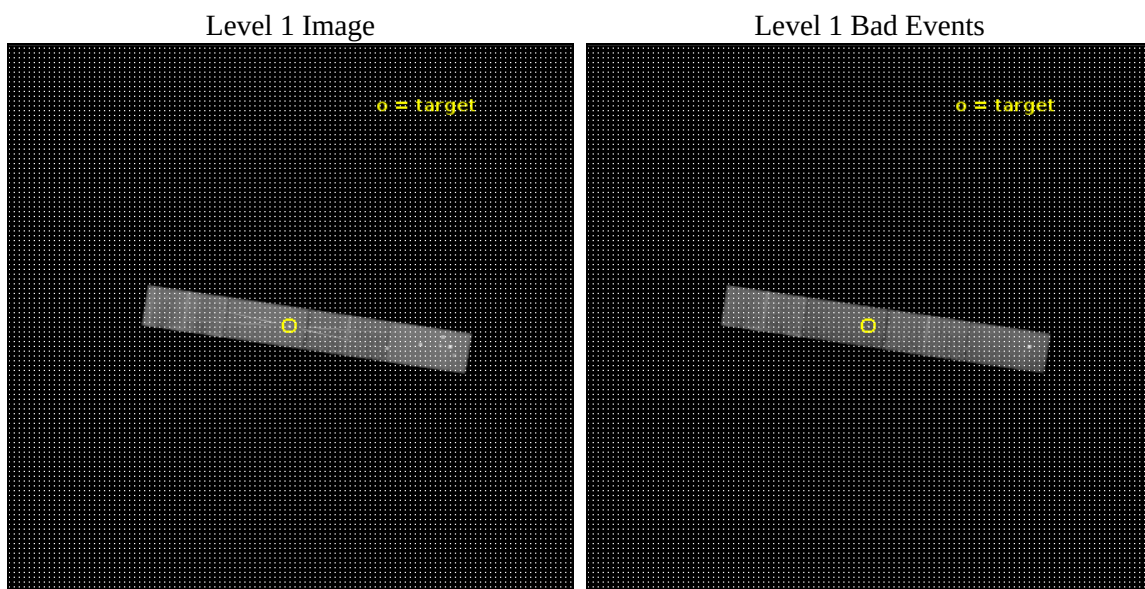
seq_num	402007	Sequence number
obs_id	21125	Observation id
title	Searching for Emission Lines in 4U 1907+09	Proposal title
observer	Claude Canizares	Principal investigator
object	4U 1907+09	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	287.407917	Observer's specified target RA [deg]
dec_targ	9.830278	Observer's specified target Dec [deg]
ra_nom	287.40637013768	Nominal RA [deg]
dec_nom	9.8264577454101	Nominal Dec [deg]
roll_nom	188.85688711575	Nominal Roll [deg]
revision	1	Processing version of data
ontime	34075.147992373	Sum of GTIs [s]
livetime	33222.978591501	Livetime [s]
ontime5	34075.106952429	Sum of GTIs [s]
ontime6	34073.424912214	Sum of GTIs [s]
ontime7	34075.147992373	Sum of GTIs [s]
ontime8	34075.024872422	Sum of GTIs [s]
l2events	262082	Number of level 2 events



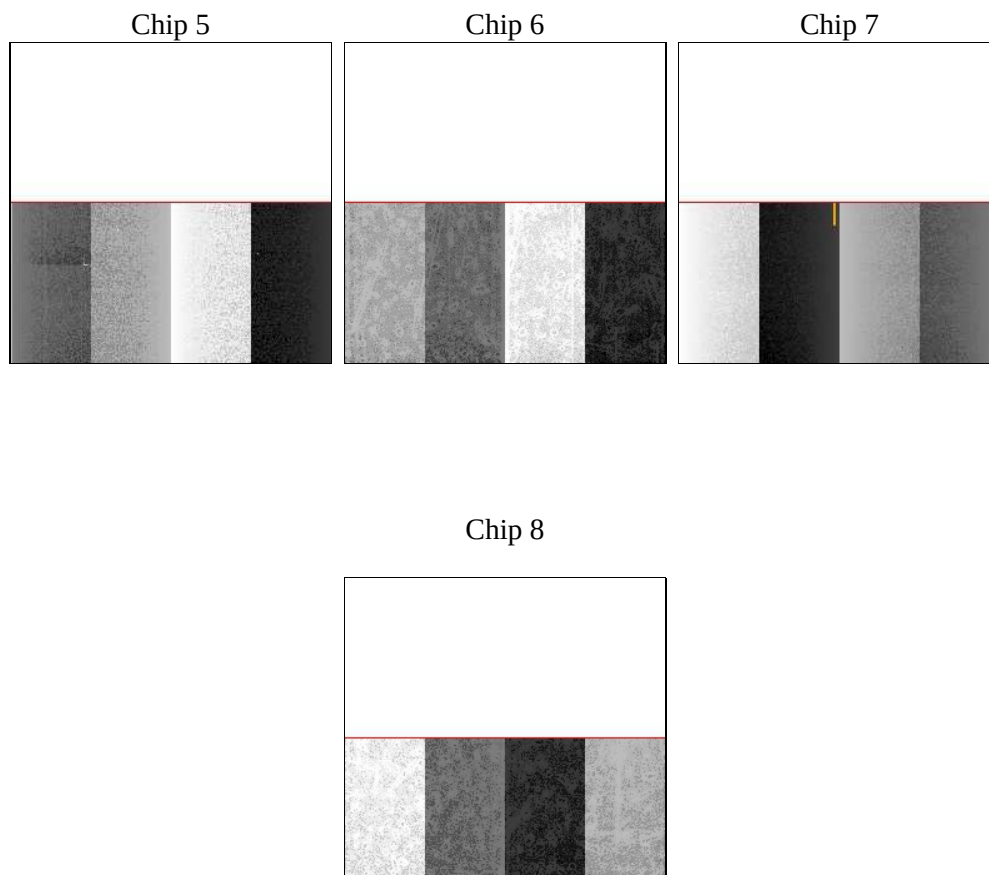
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	34017.134000	[s] Scheduled observation exposure time
ascdsver	10.6.4	Processing system revision	ontime	34075.147992373	Sum of GTIs [s]
caldsver	4.7.8	 	ontime5	34075.106952429	Sum of GTIs [s]
date	2018-07-14T23:23:06	Date and time of file creation	ontime6	34073.424912214	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	34075.147992373	Sum of GTIs [s]
			ontime8	34075.024872422	Sum of GTIs [s]
			l1events	810334	Number of level 1 events
			tgmethod	FINDZO	Method used to create src1a file
			zo_pos	(4081.95, 4120.43)	src1a sky pixel position
			zo_pos_tgd	(4081.81, 4120.52)	src1a sky pixel position via radetect

2.1.4 Events

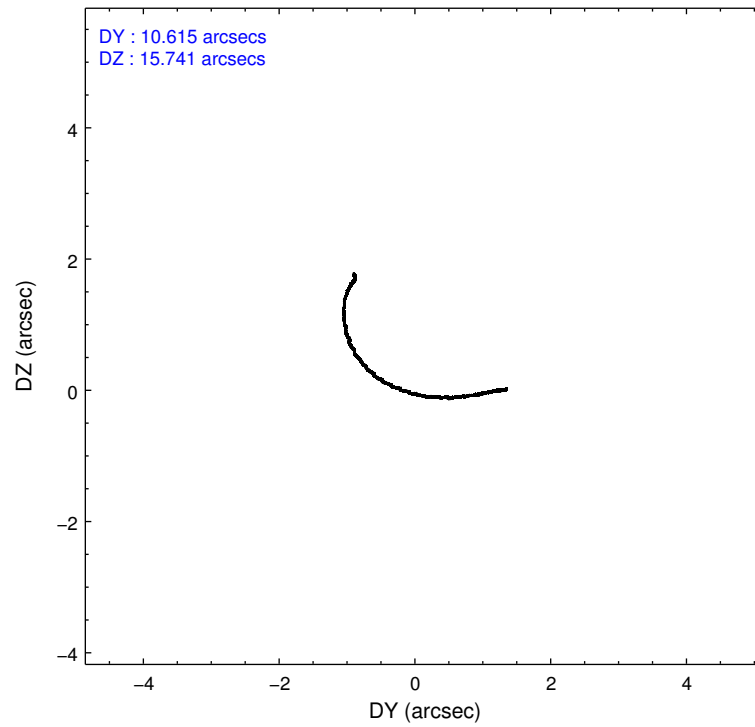
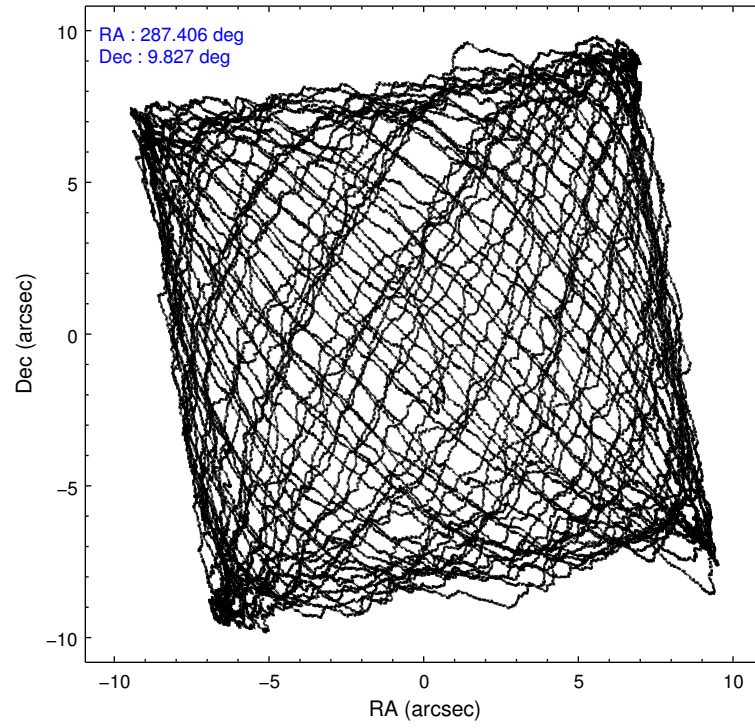
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	261457	154297	211504	183076
rejected events	126104	119613	97190	128643
rejected %	48%	77%	45%	70%

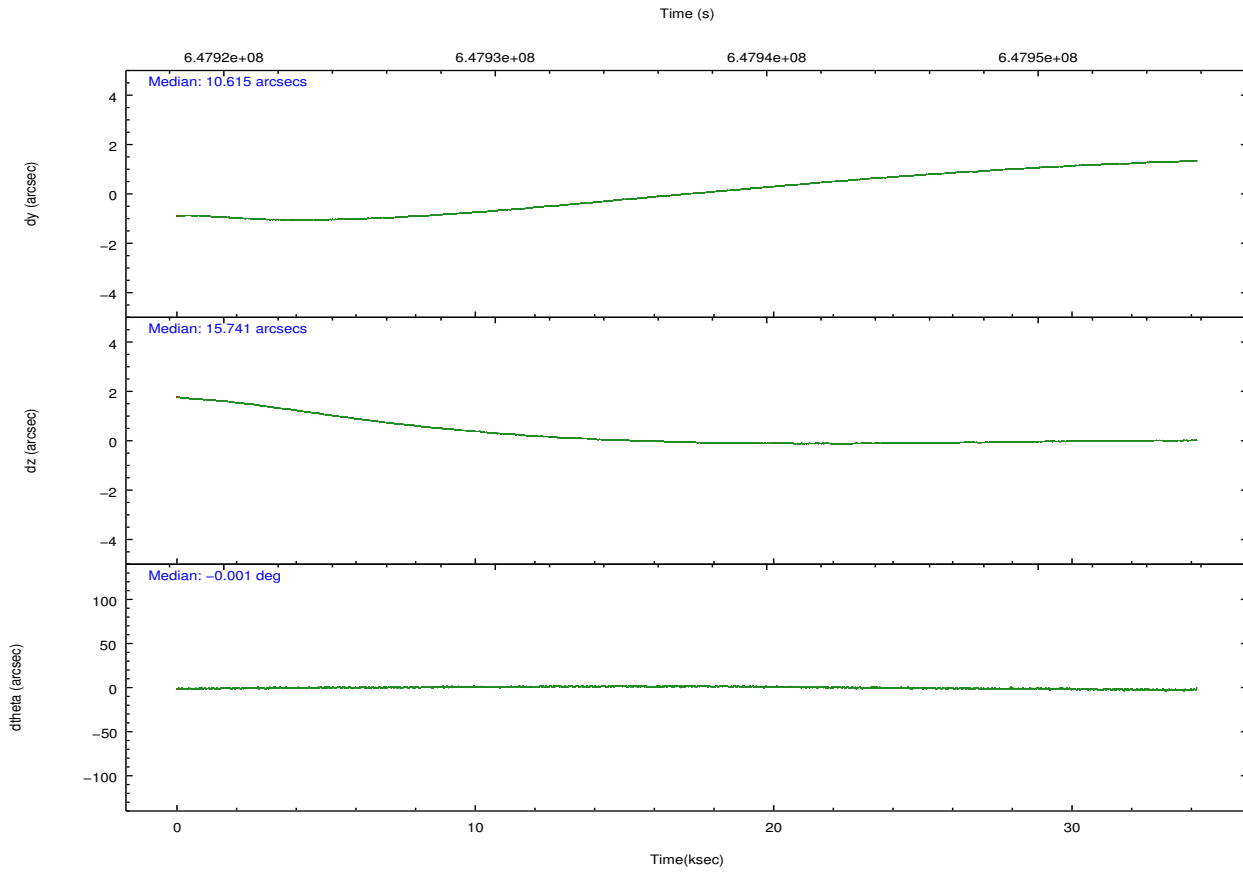
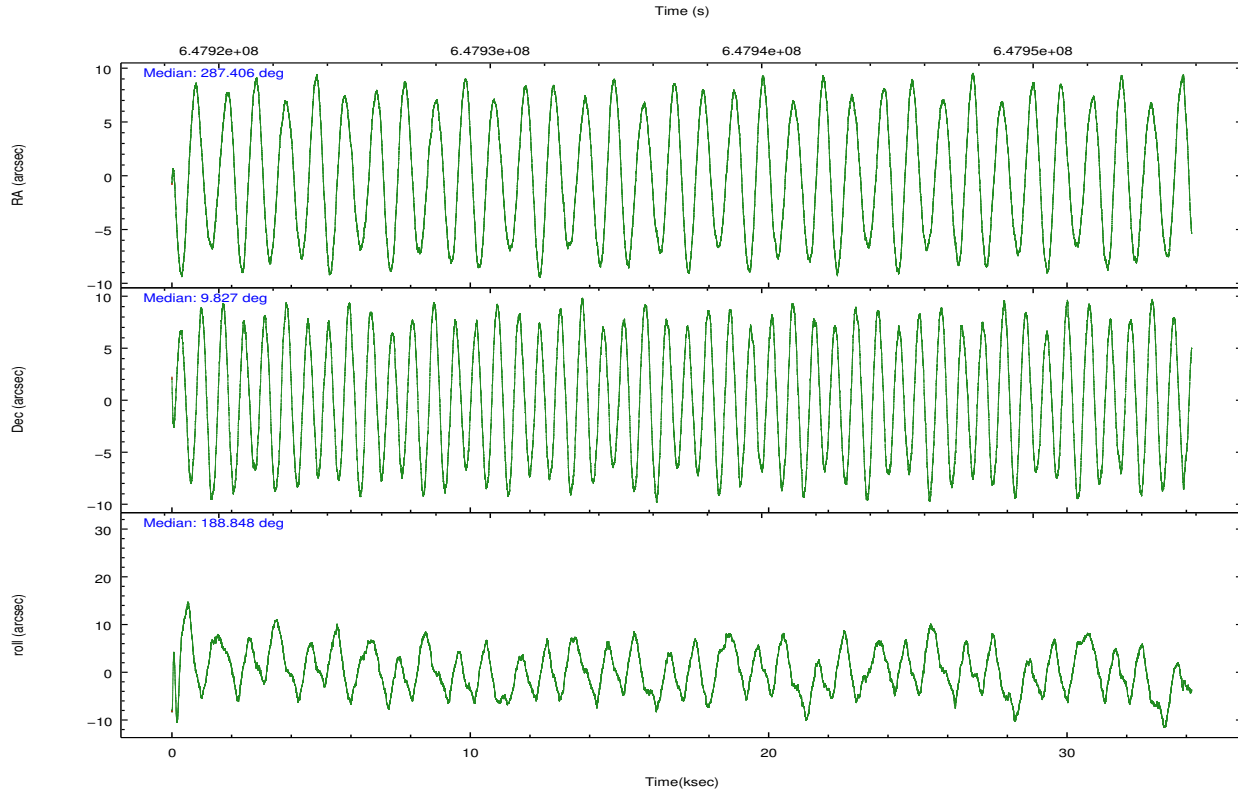
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	32855	18050	13731	16819
	12%	11%	6%	9%
grade 1 events	458	124	570	130
	0%	0%	0%	0%
grade 2 events	32463	6171	24558	12211
	12%	3%	11%	6%
grade 3 events	7360	2823	10852	5828
	2%	1%	5%	3%
grade 4 events	7932	2846	10767	5384
	3%	1%	5%	2%
grade 5 events	17226	6055	18827	8927
	6%	3%	8%	4%
grade 6 events	54763	4796	54411	14204
	20%	3%	25%	7%
grade 7 events	108400	113432	77788	119573
	41%	73%	36%	65%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-5678	ACIS-5678	Obspar file type	PREDICTED	ACTUAL
Grating	HETG	HETG	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	287.427831	287.4063701376836	CCD I2 on	N	N
[deg] Pointing Dec	9.843956	9.826457745410128	CCD I3 on	N	N
[deg] Pointing Roll	188.696596	188.8568871157492	CCD I3 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S0 on	O1	N
[mm] SIM defocus	0	0.001444936568705701	CCD S1 on	Y	Y
[mm] SIM translation stage pos	-183.992523	-183.9875365069546	CCD S2 on	Y	Y
[mm] SIM translation stage offset	-6.14	-6.144986076053243	CCD S3 on	Y	Y
[s] Observation start time (MET)	647920124.184000	647918820.12914	CCD S4 on	Y	Y
Observation start date	2018-07-14T01:47:35	2018-07-14T01:27:00	CCD S5 on	O2	N
[s] Observation end time (MET)	647954141.184000	647955151.76879	Number of optional ACIS chips dropped	2	2
Observation end date	2018-07-14T11:14:32	2018-07-14T11:32:31	On-chip summing requested	N	N
Read mode	TIMED	TIMED	Subarray requested	CUSTOM	1/2
			Subarray start row	1	1
			Subarray row count	512	512
			Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	1.6

2.3 Aspect



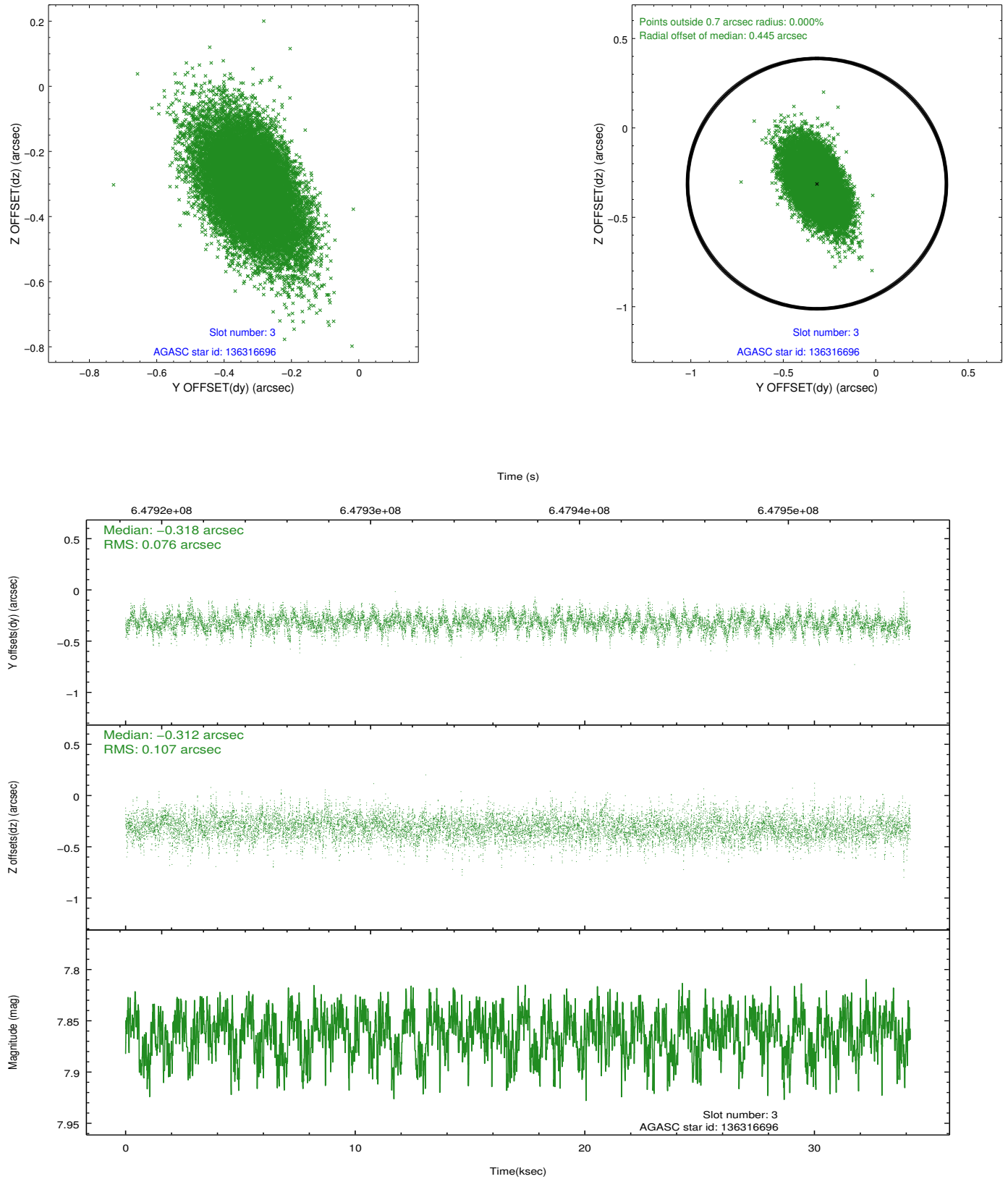


Slot Statistics

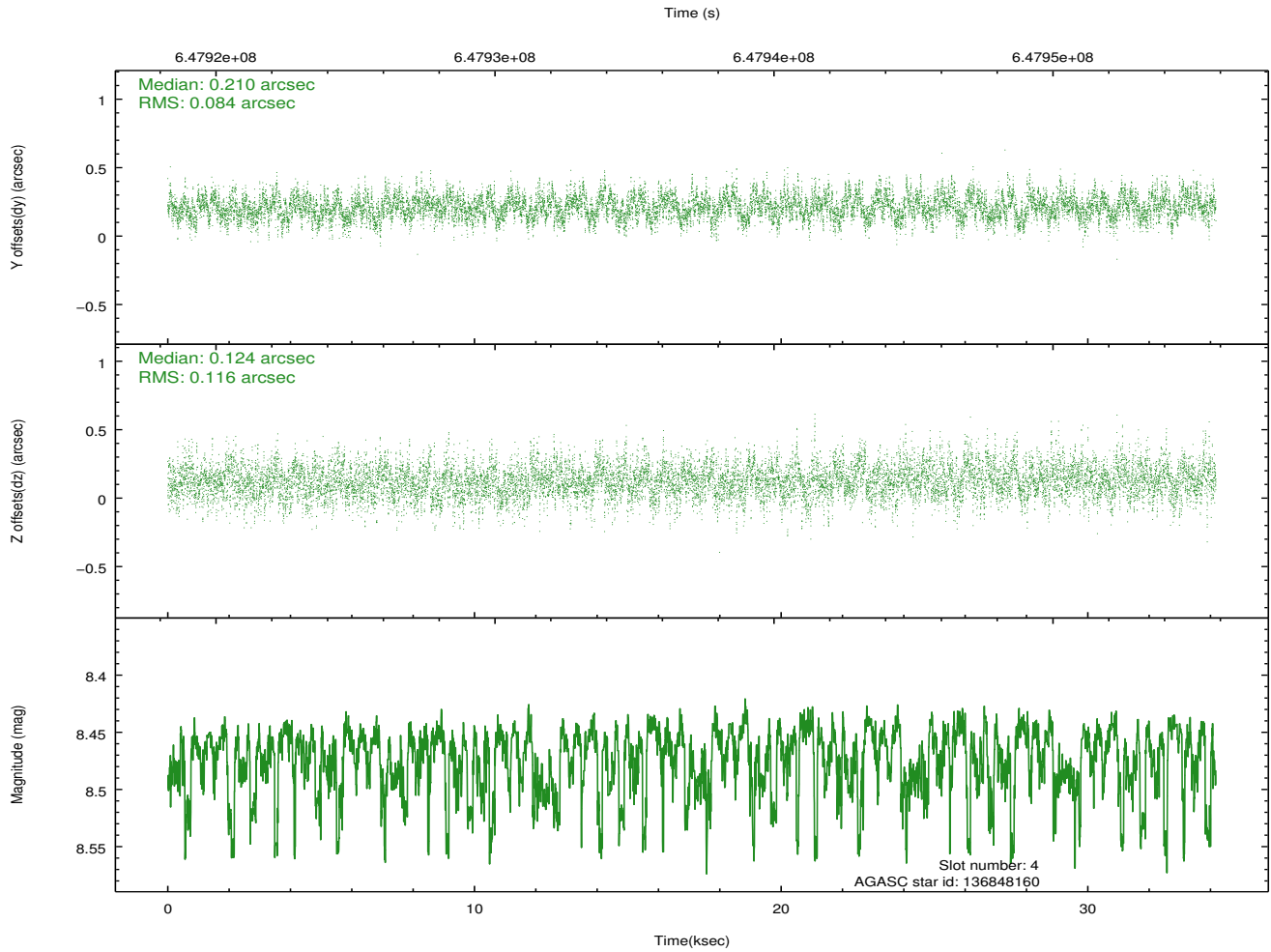
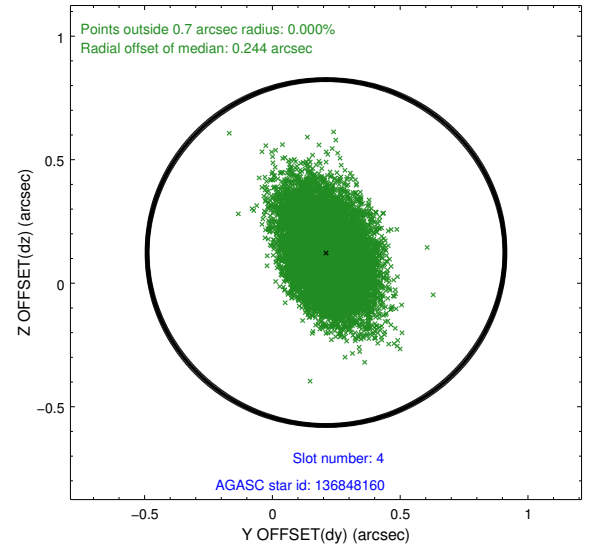
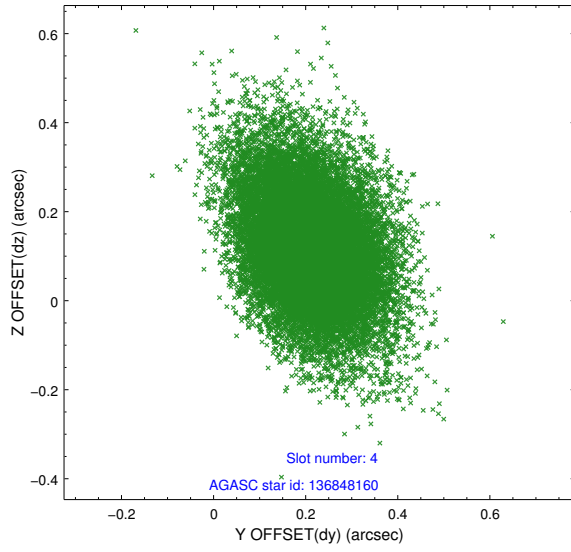
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	6.95	8336	1.000	-0.245	-0.164	0.014	0.031	0.000000	0.000000	-763.41	-1864
1	FID		ACIS-S-4	7.05	8337	1.000	0.254	0.145	0.008	0.013	0.000000	0.000000	2150.45	44
2	FID		ACIS-S-6	7.26	8337	1.000	-0.037	0.027	0.013	0.033	0.000000	0.000000	398.98	681
3	GUIDE	used	136316696	7.86	16671	1.000	-0.318	-0.312	0.134	0.241	287.190166	9.367792	1094.07	1566
4	GUIDE	used	136848160	8.47	16659	1.000	0.210	0.124	0.148	0.256	287.100689	10.380263	853.52	-2083
5	GUIDE	used	136973480	8.40	16664	1.000	0.063	0.320	0.129	0.231	287.924725	9.951688	-1800.06	-117
6	GUIDE	used	136974696	6.64	16673	1.000	0.176	0.198	0.127	0.229	287.707206	10.345780	-1250.65	-1636
7	GUIDE	used	136316960	9.12	16649	1.000	-0.137	-0.328	0.165	0.278	287.104881	9.133555	1521.09	2354

2.4 Star Slots

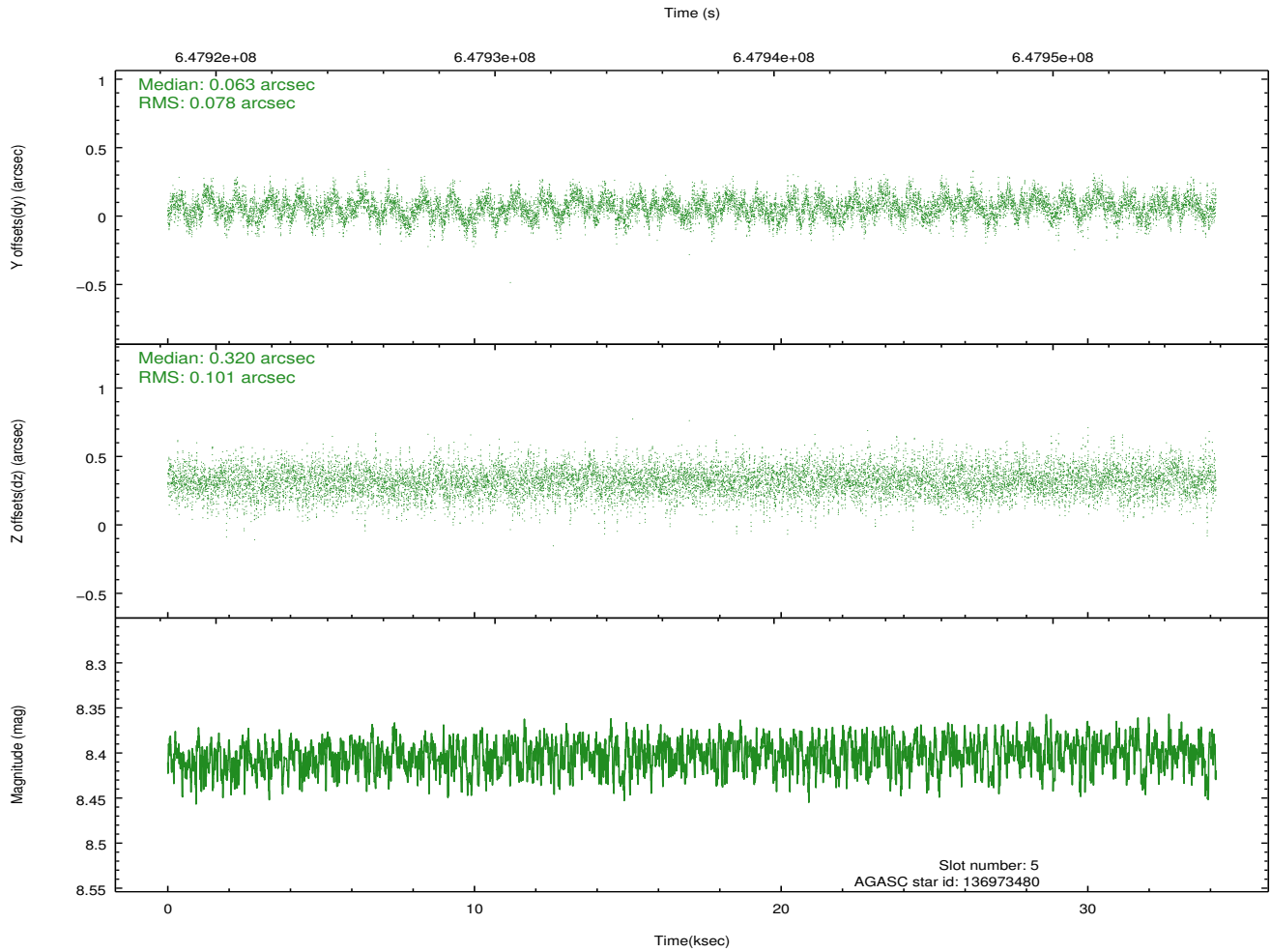
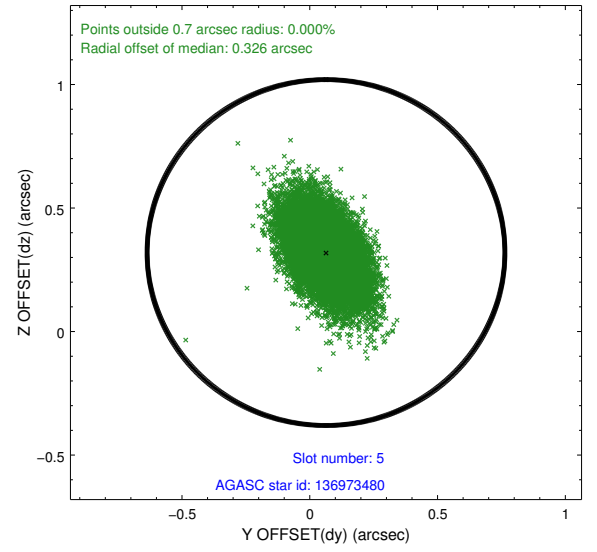
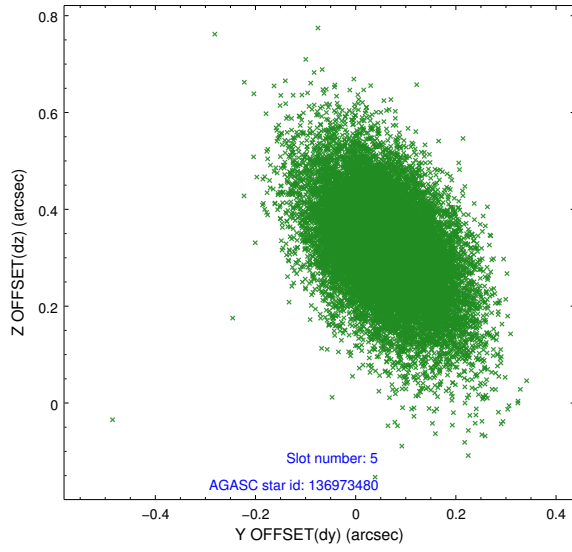
2.4.1 Slot 3



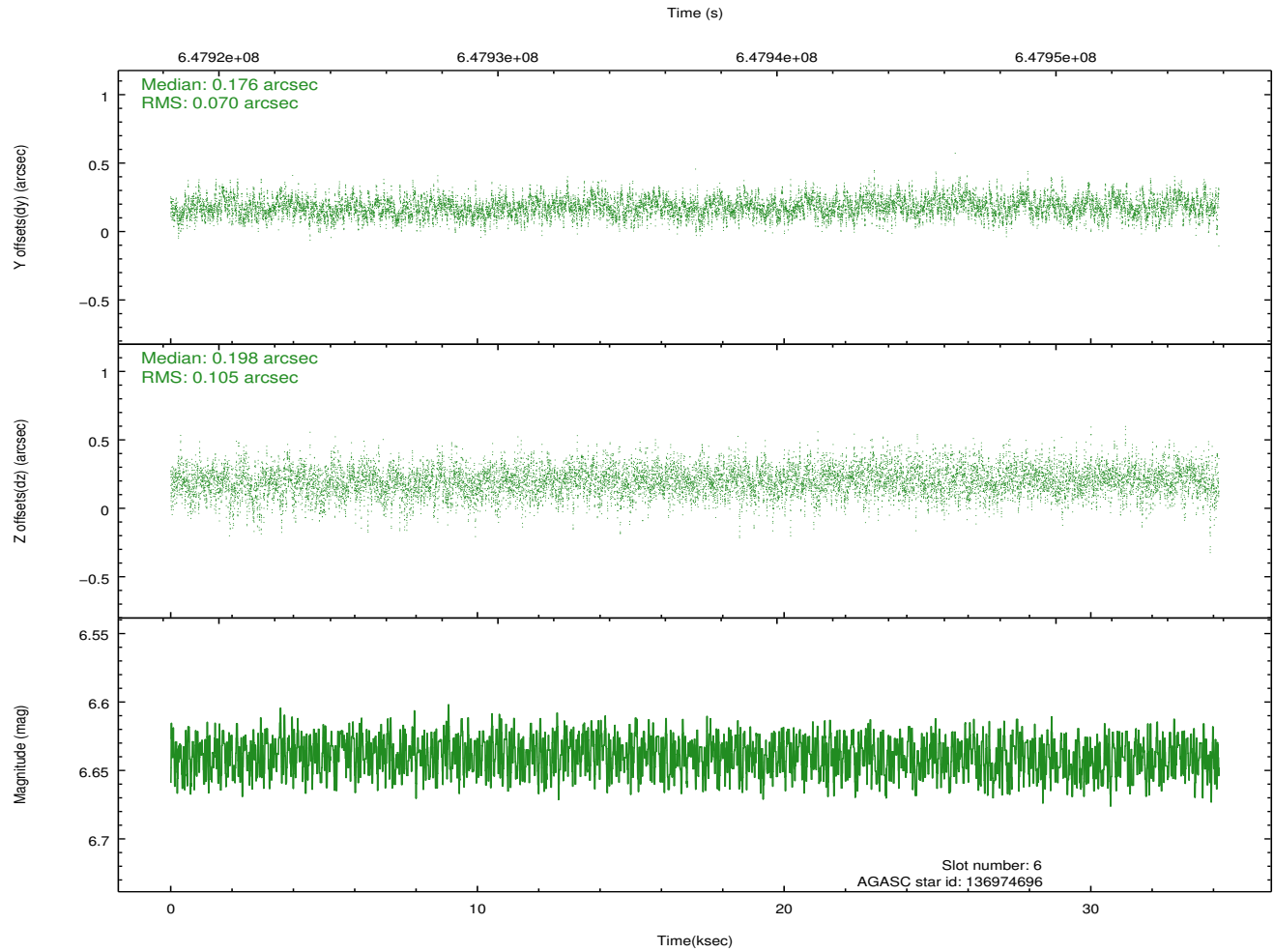
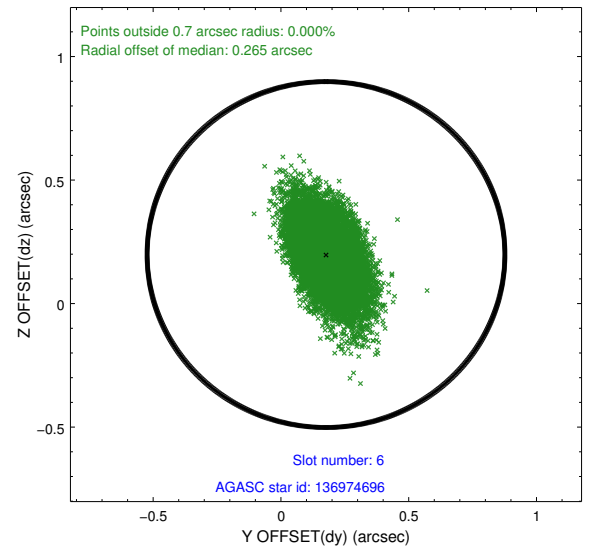
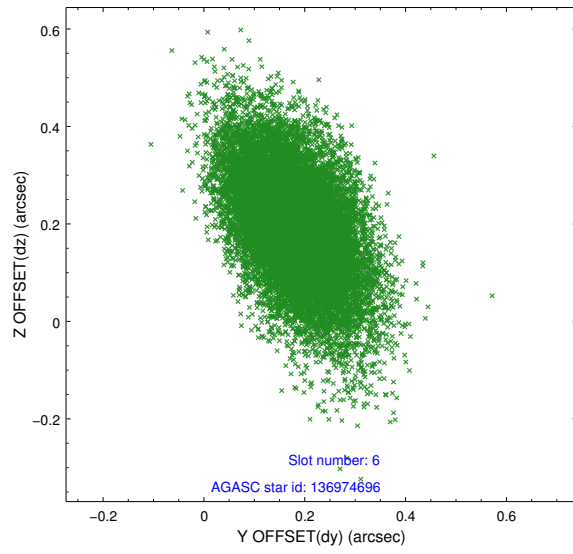
2.4.2 Slot 4



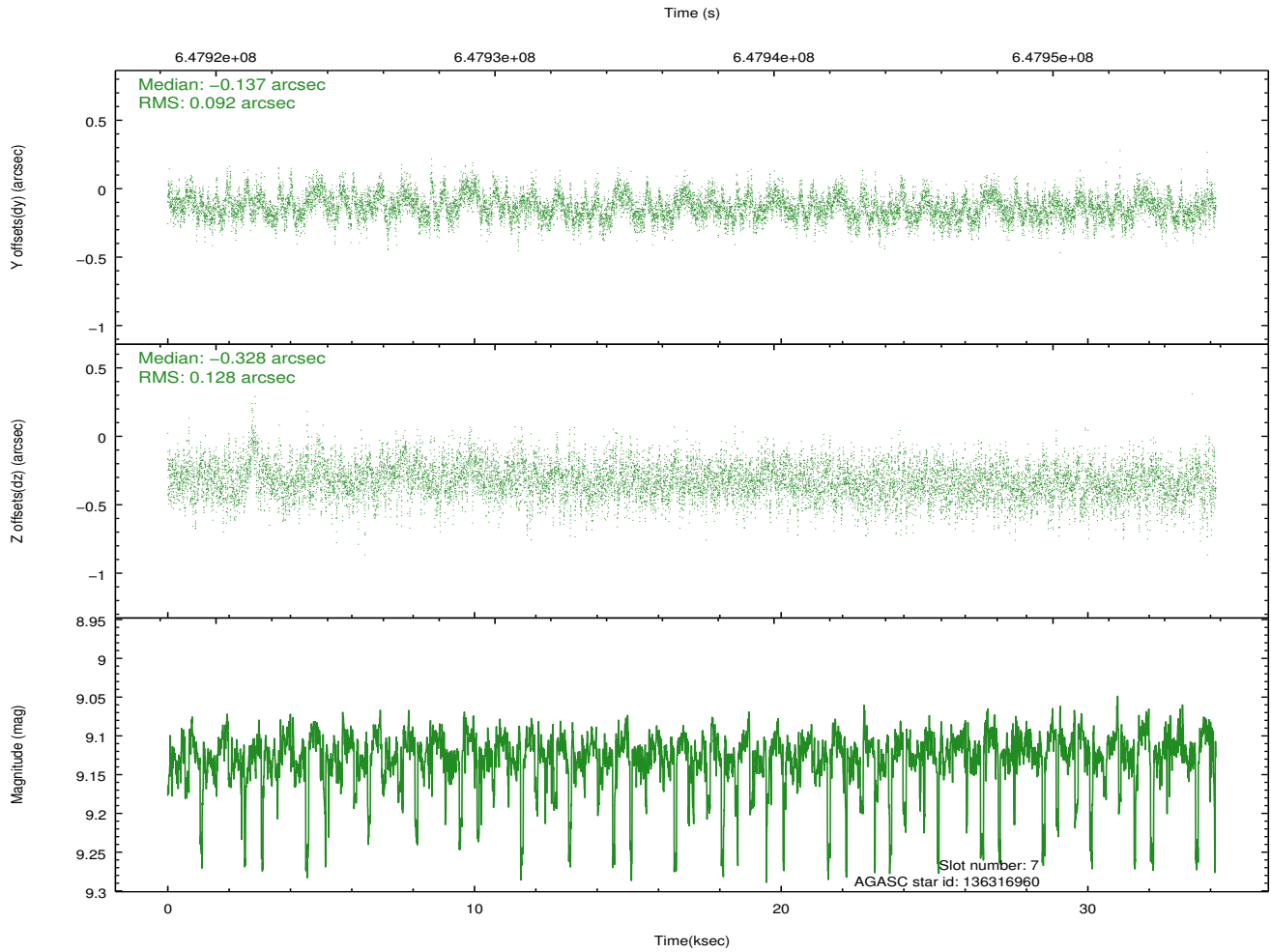
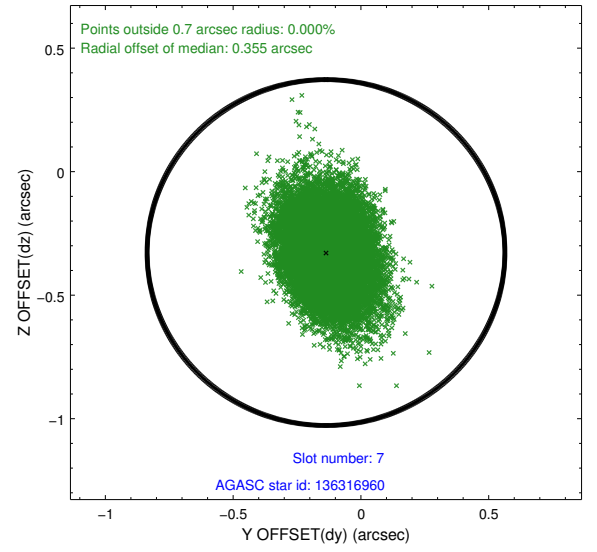
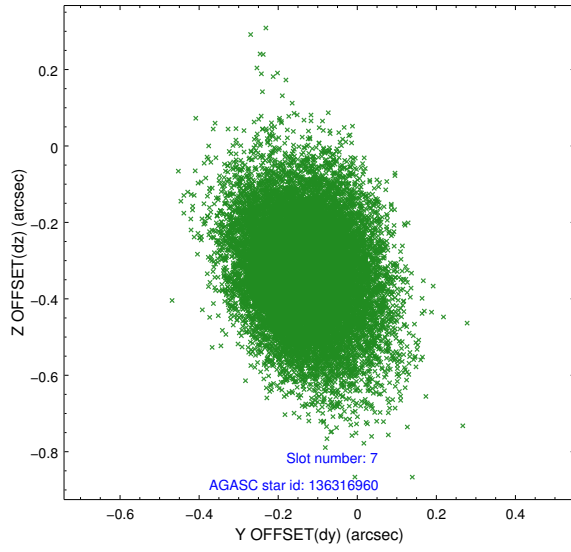
2.4.3 Slot 5



2.4.4 Slot 6

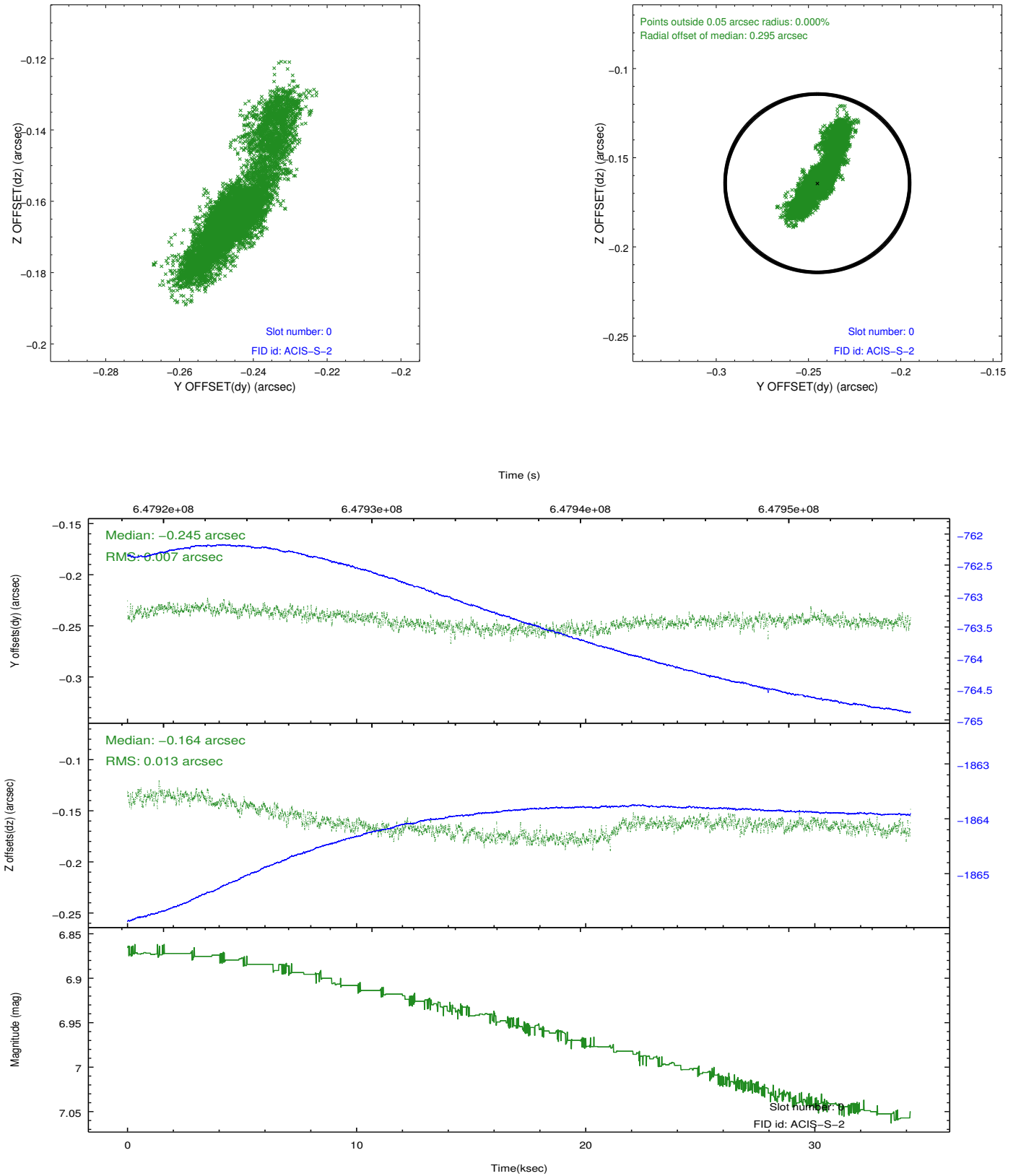


2.4.5 Slot 7

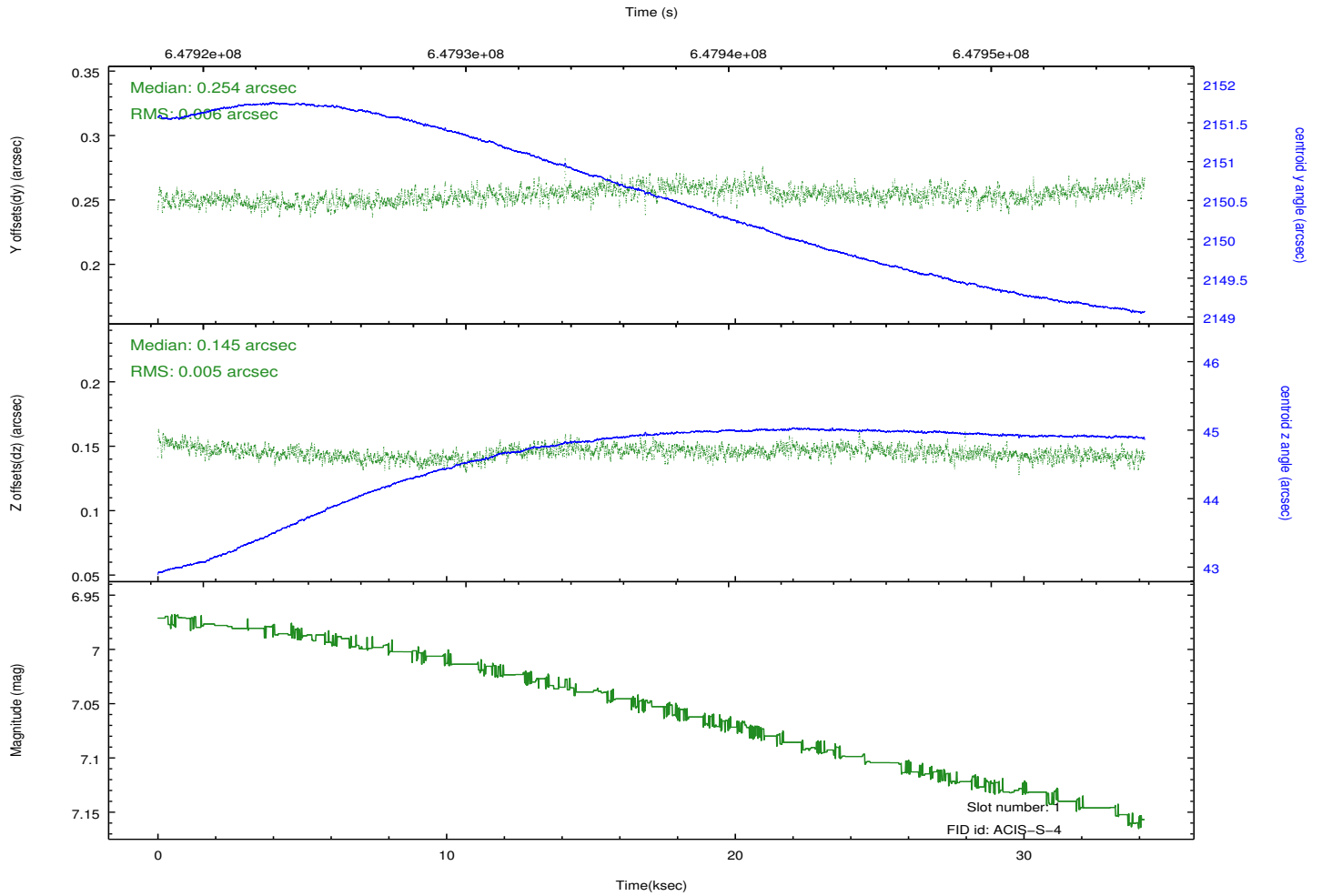
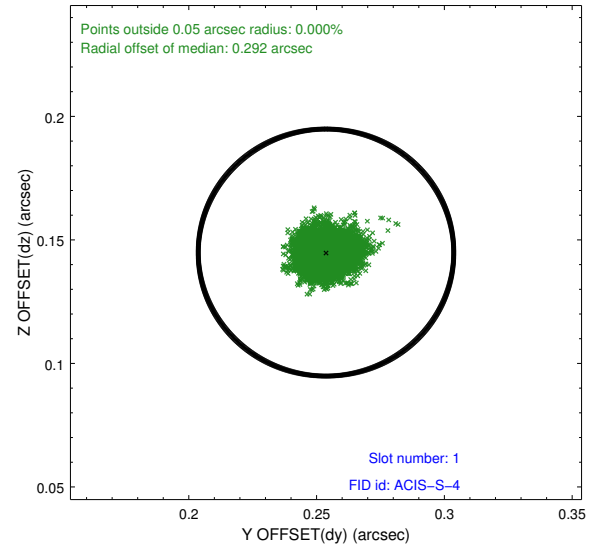
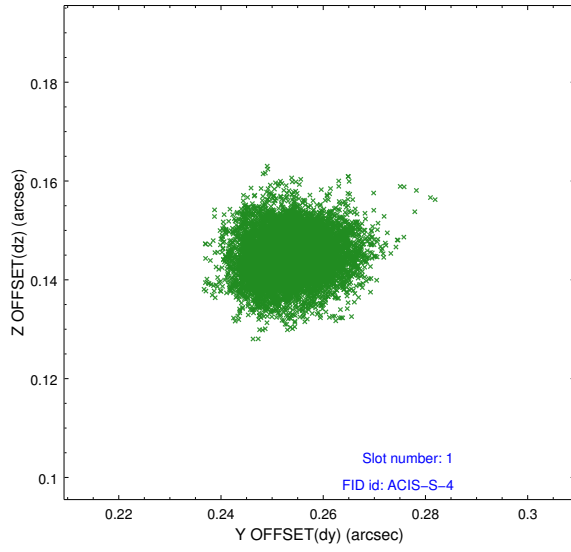


2.5 FID Slots

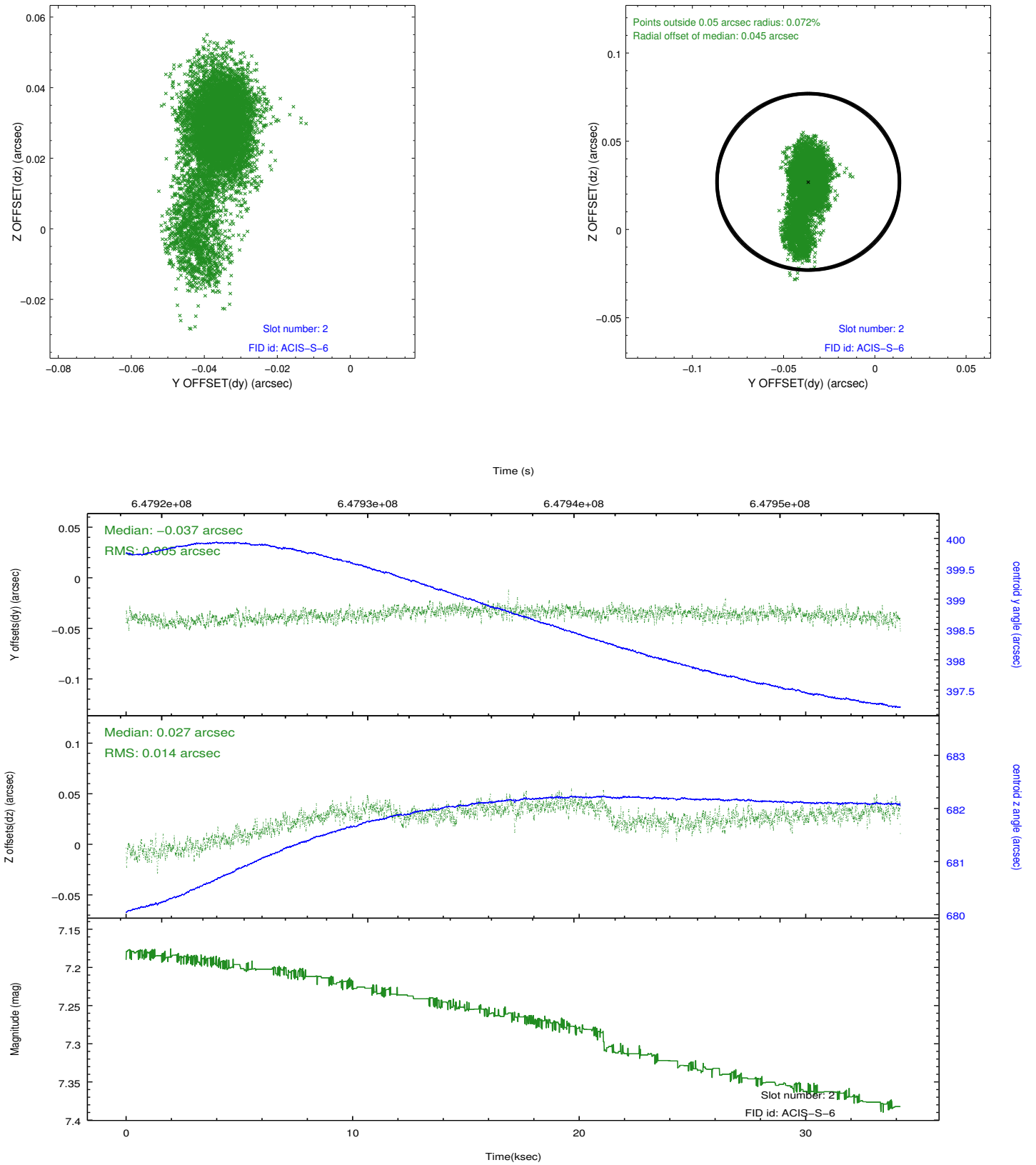
2.5.1 Slot 0



2.5.2 Slot 1

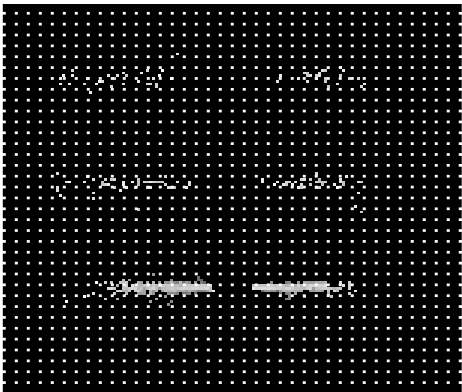


2.5.3 Slot 2

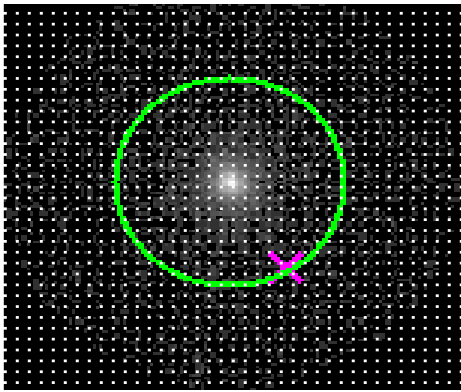


3 Gratings

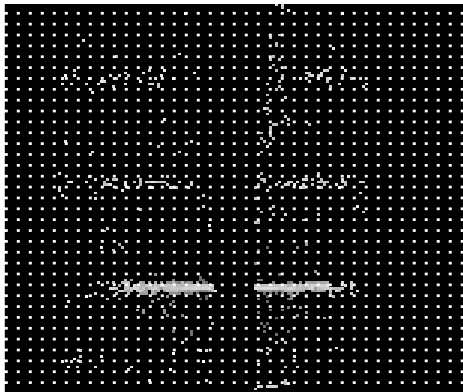
3.1 HEG Arm



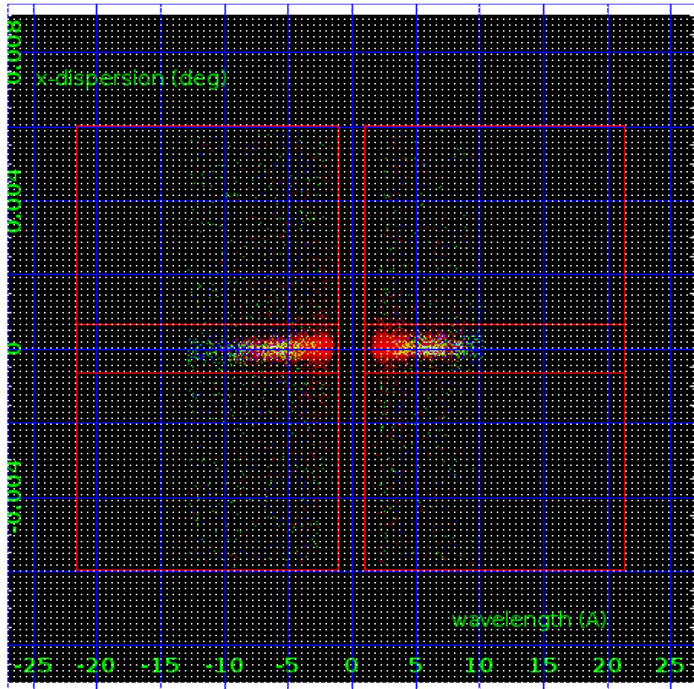
HEG Order Sort 123



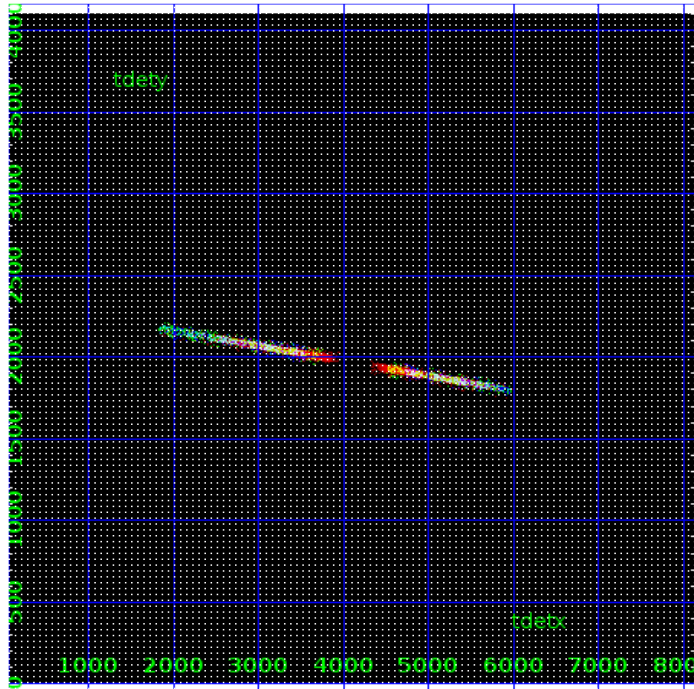
HEG Zero Order



HEG Order Sort ALL

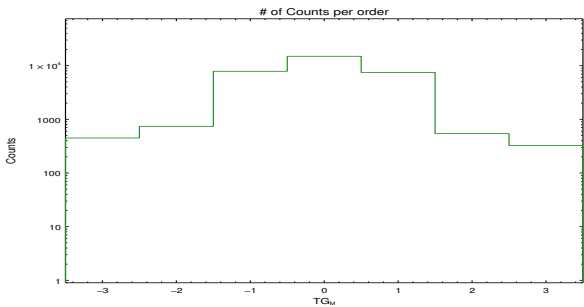


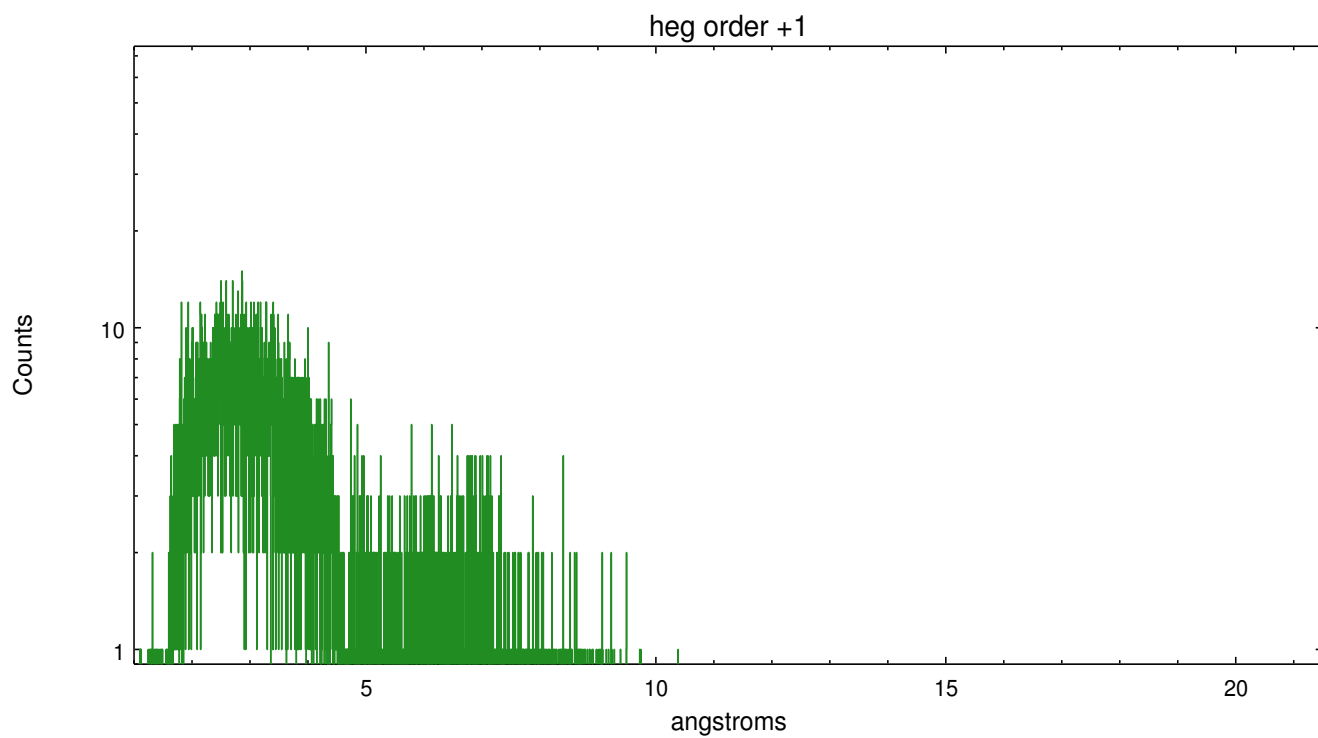
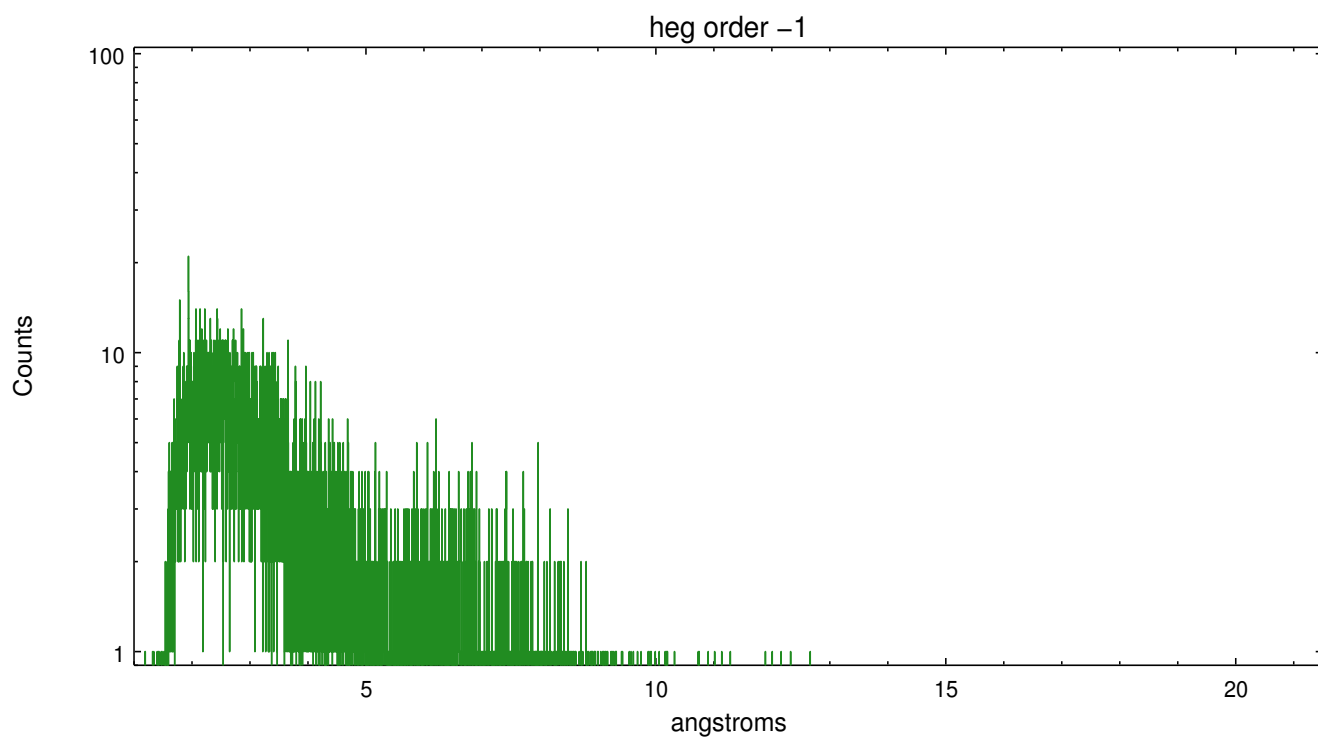
Spot Image HEG



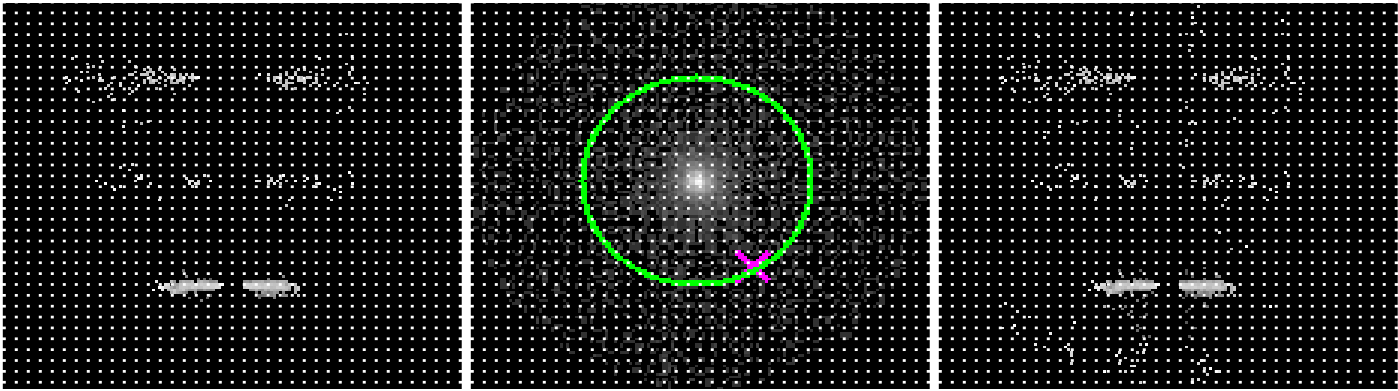
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	449	739	7851	14936	7463	542	324





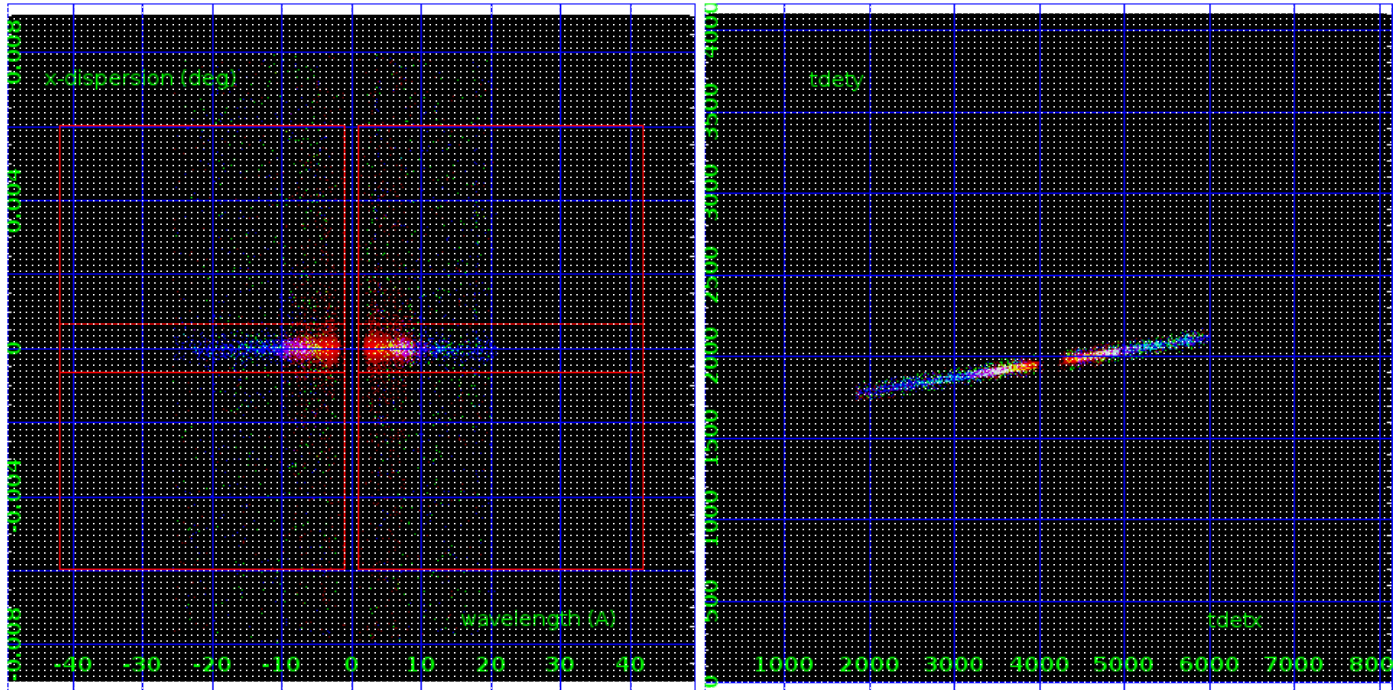
3.2 MEG Arm



MEG Order Sort 123

MEG Zero Order

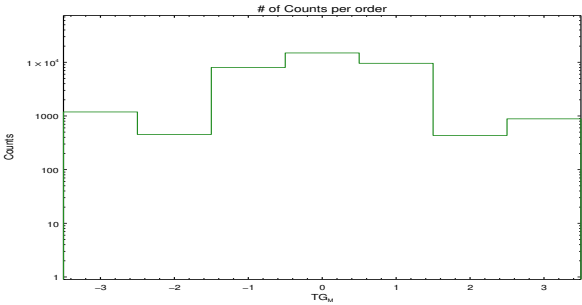
MEG Order Sort ALL

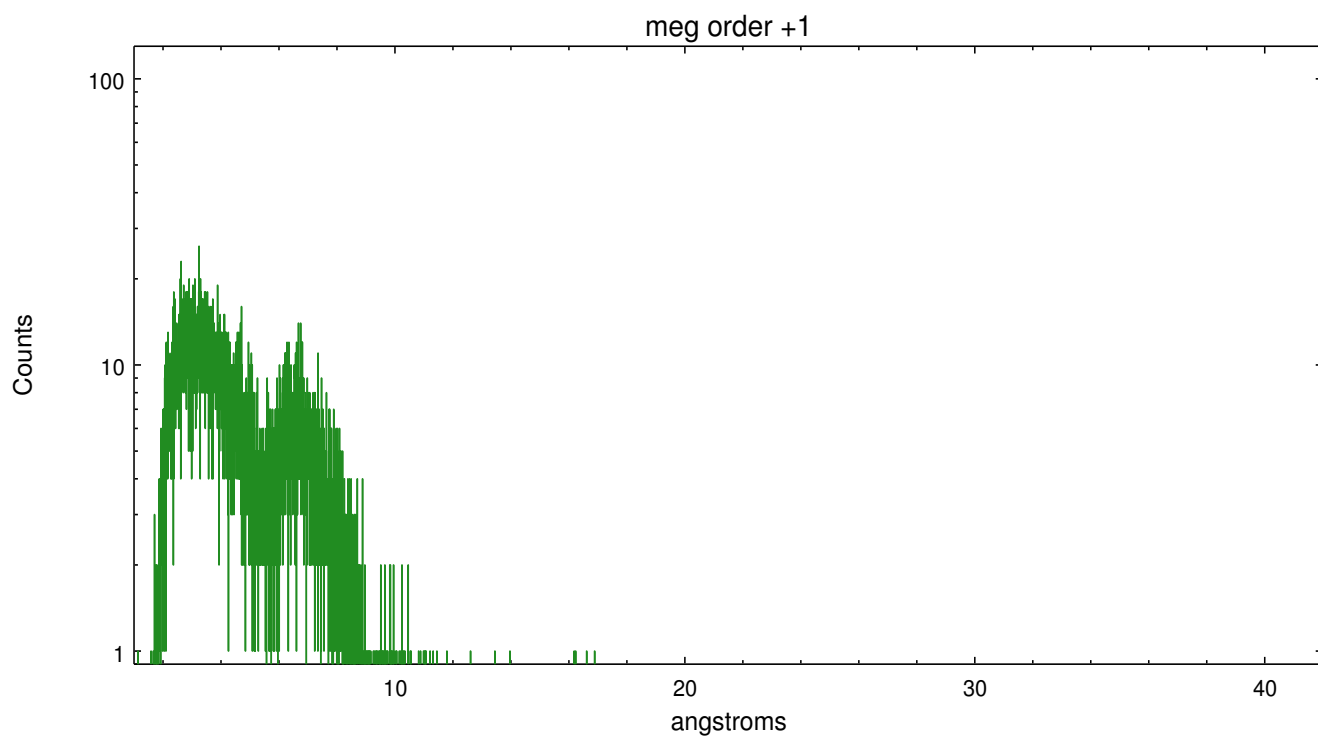
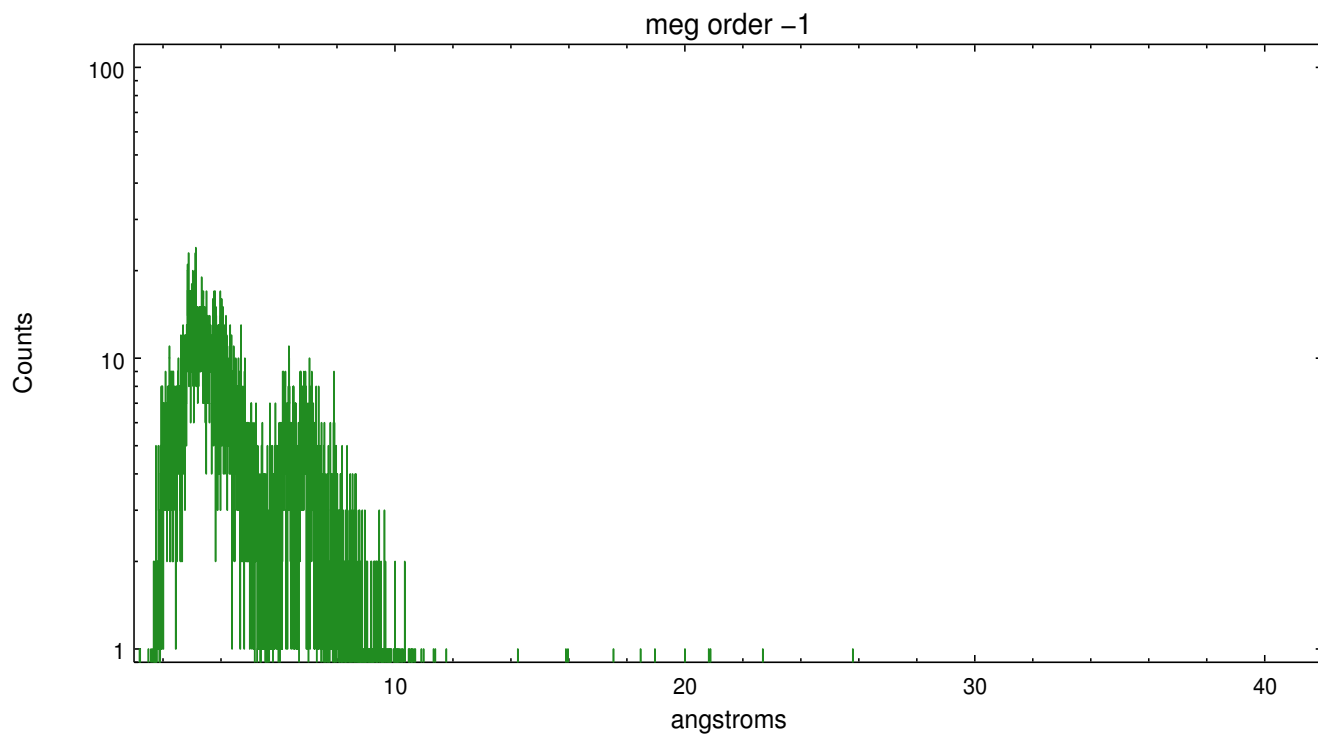


Spot Image MEG

Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1188	453	8008	14936	9566	434	884





A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2018.07.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	34.075147992373

A.2 Comments