

V&V Reference Report

L2 ASCDS Version : 10

Observation 16370 - L2 Version 2
Chandra X-Ray Center

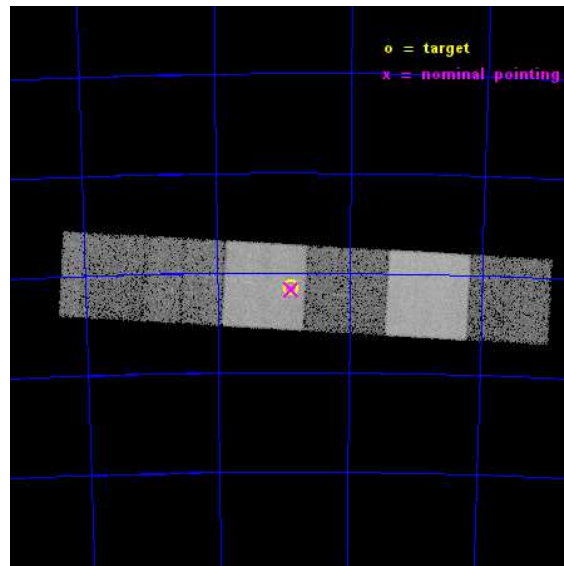
L2 Processing Date : Dec 6 2014

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1 Front

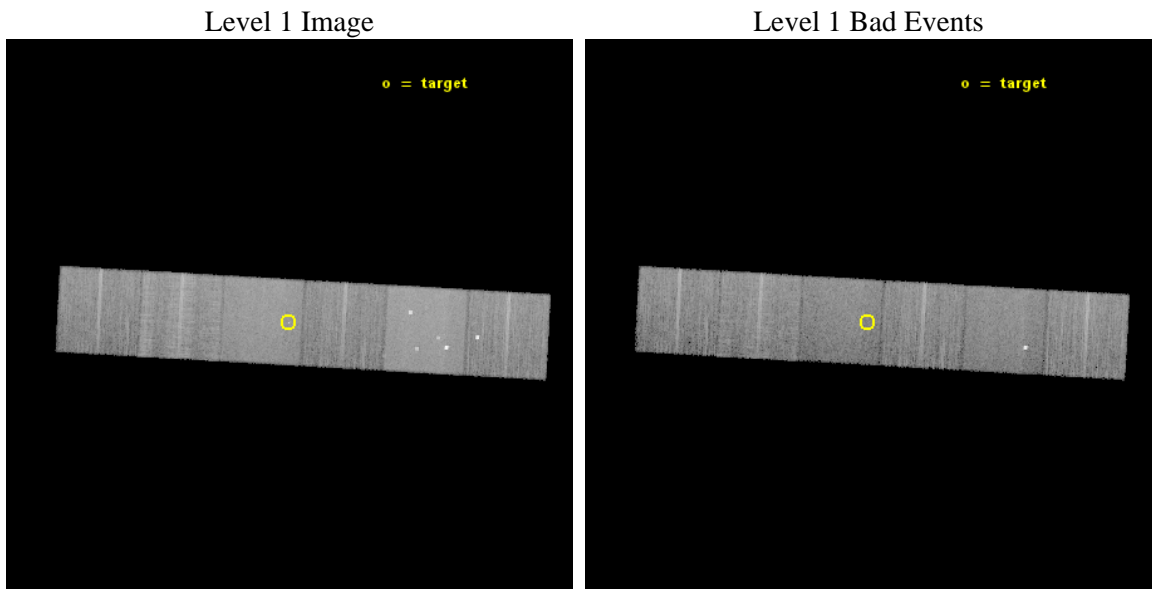
seq_num	200901	Sequence number
obs_id	16370	Observation id
title	Heating the Primordial Soup: X-raying the Circumstellar Disk of T Cha	Proposal title
observer	David Principe	Principal investigator
object	T Cha	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	179.30625	Observer's specified target RA [deg]
dec_targ	-79.35875	Observer's specified target Dec [deg]
ra_nom	179.29823010692	Nominal RA [deg]
dec_nom	-79.361390083059	Nominal Dec [deg]
roll_nom	183.14874354382	Nominal Roll [deg]
revision	2	Processing version of data
ontime	19855.99992609	Sum of GTIs [s]
livetime	19604.571299178	Livetime [s]
ontime4	19855.99992609	Sum of GTIs [s]
ontime5	19855.99992609	Sum of GTIs [s]
ontime6	19855.99992609	Sum of GTIs [s]
ontime7	19855.99992609	Sum of GTIs [s]
ontime8	19852.758935869	Sum of GTIs [s]
ontime9	19852.758955717	Sum of GTIs [s]
l2events	166970	Number of level 2 events



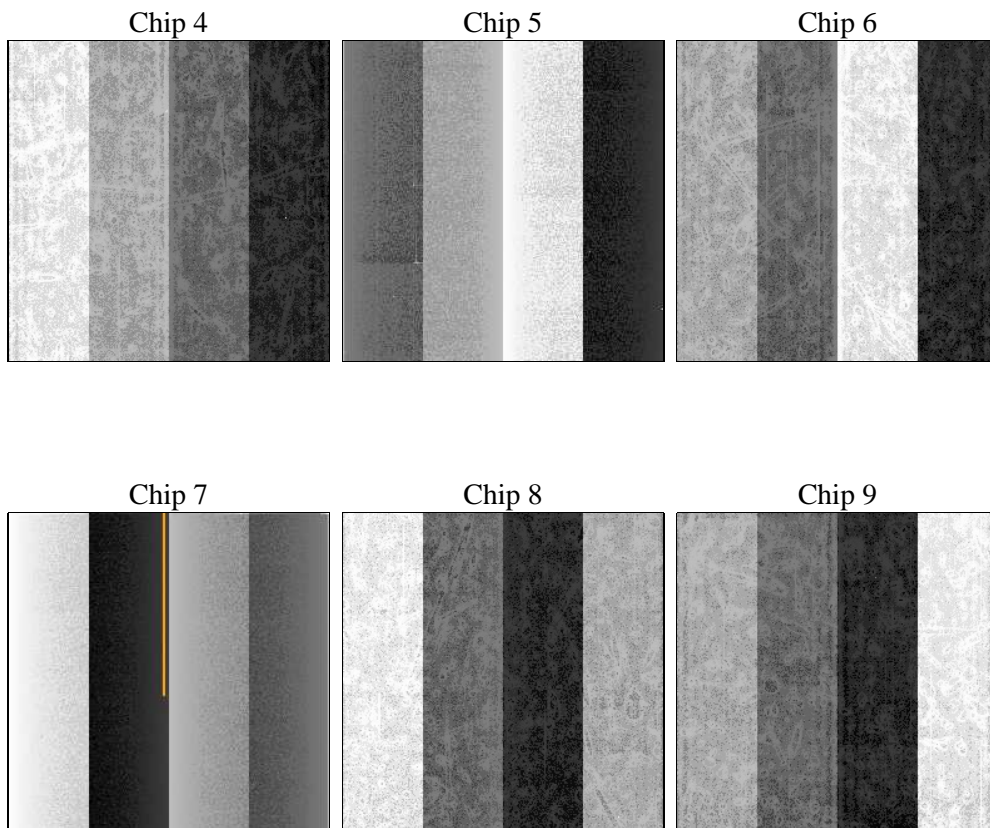
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	19893.064000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	19855.99992609	Sum of GTIs [s]
caldbver	4.6.4	 	ontime4	19855.99992609	Sum of GTIs [s]
date	2014-12-06T14:14:57	Date and time of file creation	ontime5	19855.99992609	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	19855.99992609	Sum of GTIs [s]
			ontime7	19855.99992609	Sum of GTIs [s]
			ontime8	19852.758935869	Sum of GTIs [s]
			ontime9	19852.758955717	Sum of GTIs [s]
			l1events	717242	Number of level 1 events
			tgmethod	TGDETECT	Method used to create src1a file
			zpc_pos	(4085.06, 4116.80)	src1a sky pixel position

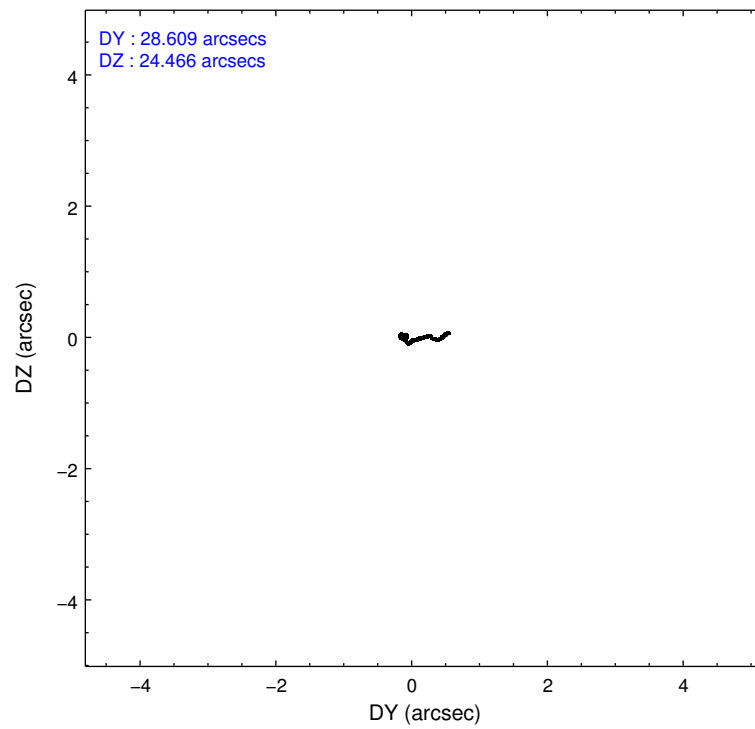
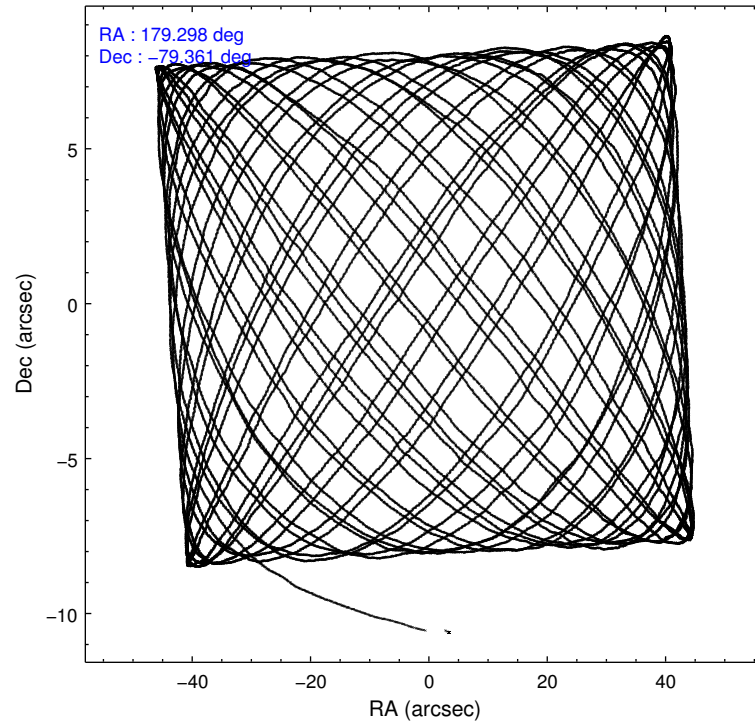
2.1.4 Events

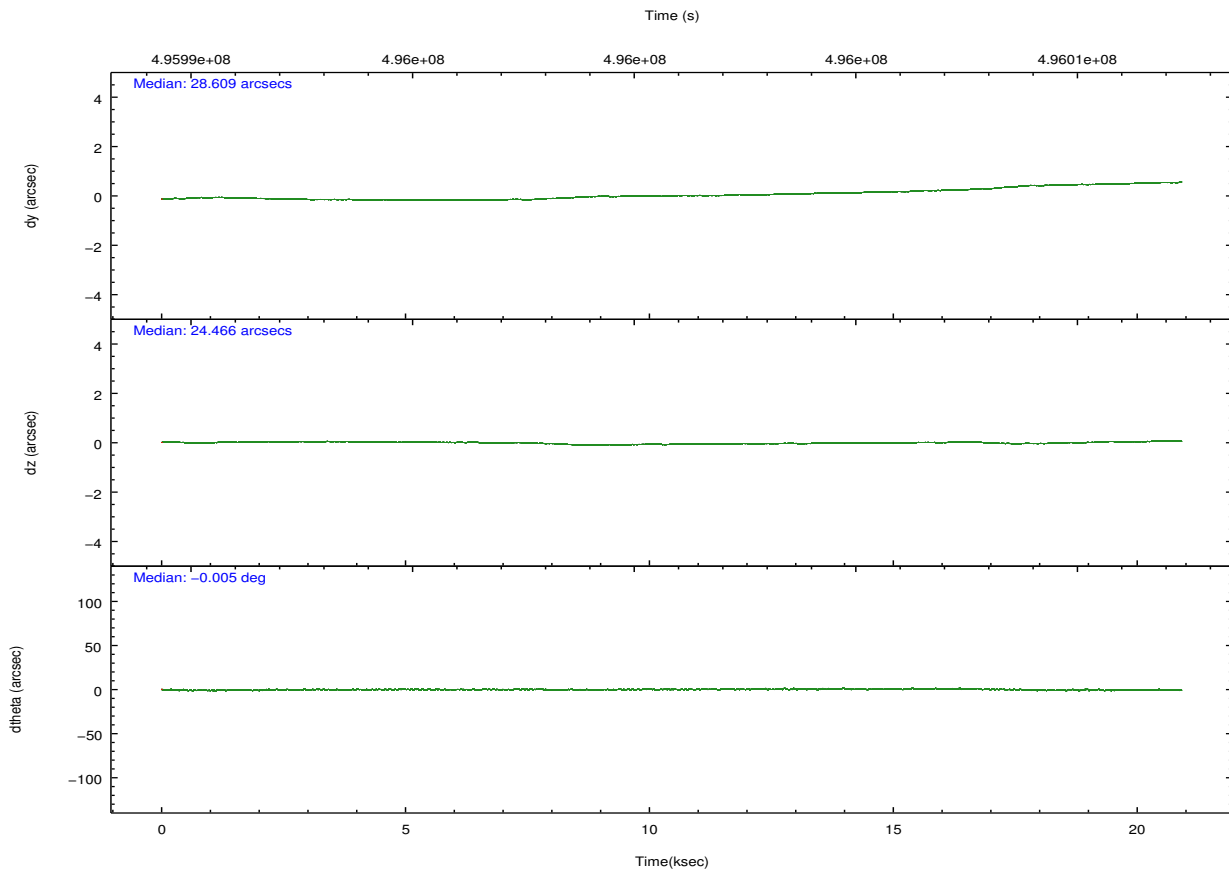
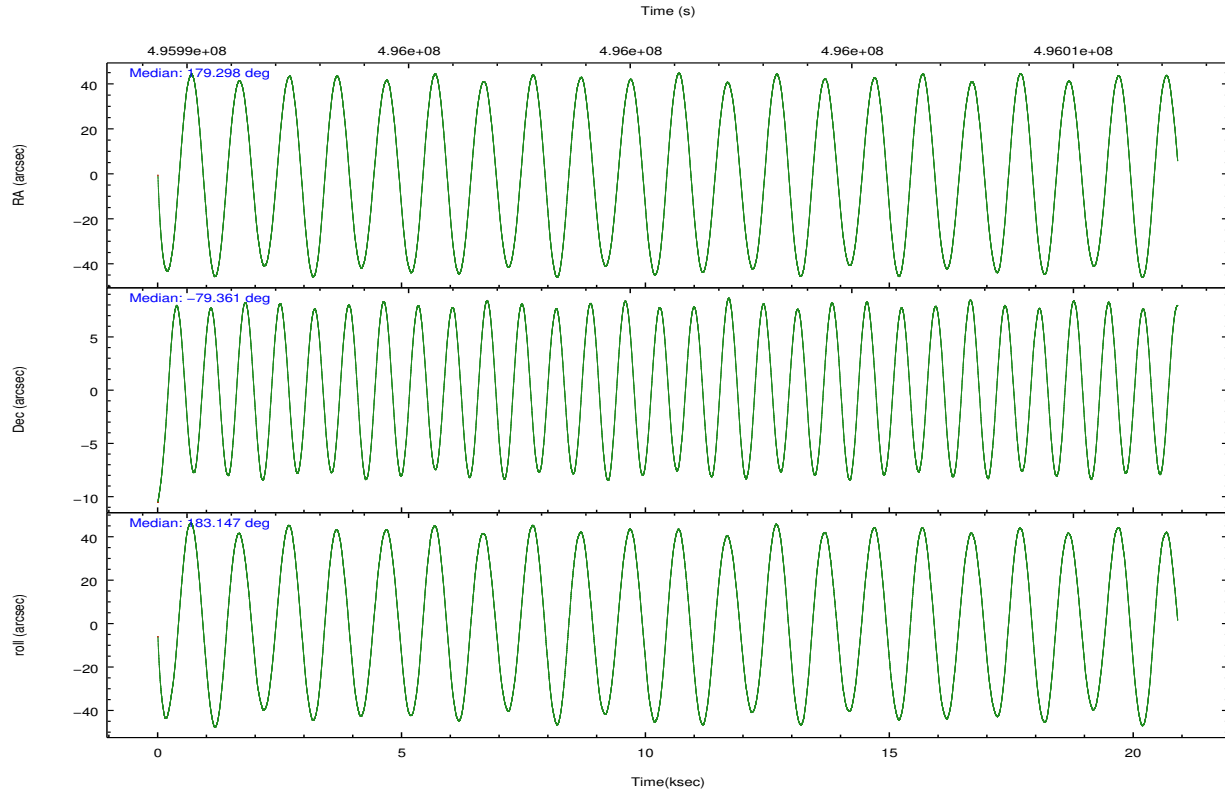
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	109731	162681	95640	127360	126716	95114	grade 0 events	9211	9315	3855	4823	9967	4164
rejected events	93066	84370	84258	71575	92630	83249		8%	5%	4%	3%	7%	4%
rejected %	84%	51%	88%	56%	73%	87%	grade 1 events	123	311	37	167	95	56
								0%	0%	0%	0%	0%	0%
							grade 2 events	2760	23078	2480	11307	7947	2639
								2%	14%	2%	8%	6%	2%
							grade 3 events	1283	3275	1140	4739	3711	1261
								1%	2%	1%	3%	2%	1%
							grade 4 events	1249	2459	1193	4855	3436	1184
								1%	1%	1%	3%	2%	1%
							grade 5 events	4944	14433	4817	12868	7007	5433
								4%	8%	5%	10%	5%	5%
							grade 6 events	2167	40195	2718	30072	9026	2621
								1%	24%	2%	23%	7%	2%
							grade 7 events	87994	69615	79400	58529	85527	77756
								80%	42%	83%	45%	67%	81%

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	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	179.420931	179.2982301069204	CCD I2 on	N	N
[deg] Pointing Dec	-79.346112	-79.36139008305931	CCD I3 on	N	N
[deg] Pointing Roll	183.112711	183.148743543822	CCD S0 on	O1	Y
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.145094680475	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01257209746719923	CCD S4 on	Y	Y
[s] Observation start time (MET)	495991419.184000	495989901.09223	CCD S5 on	Y	Y
Observation start date	2013-09-19T15:22:32	2013-09-19T14:58:21	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	496011312.184000	496011541.40591	On-chip summing requested	N	N
Observation end date	2013-09-19T20:54:05	2013-09-19T20:59:01	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect





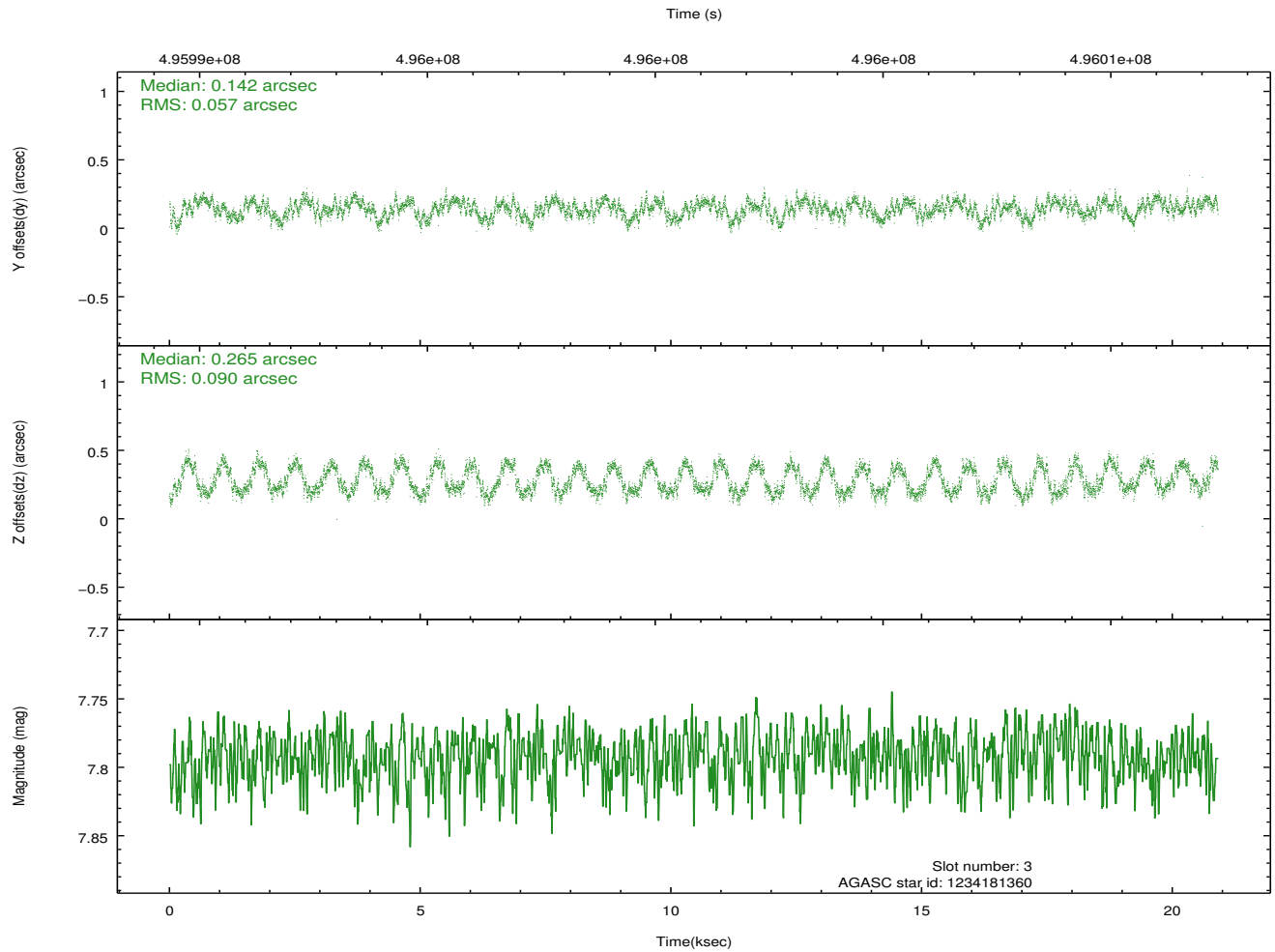
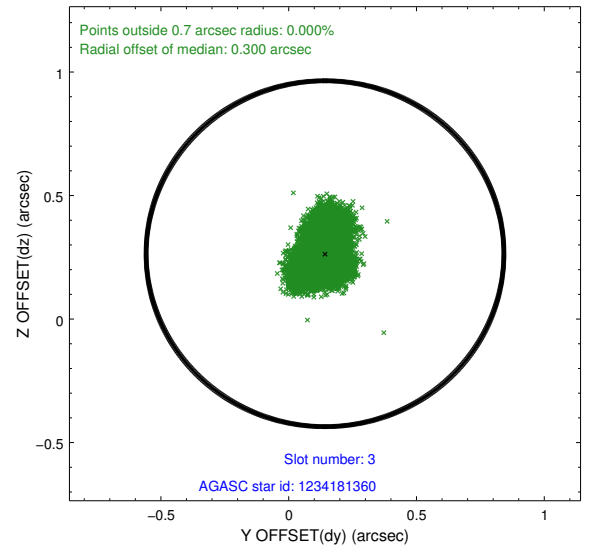
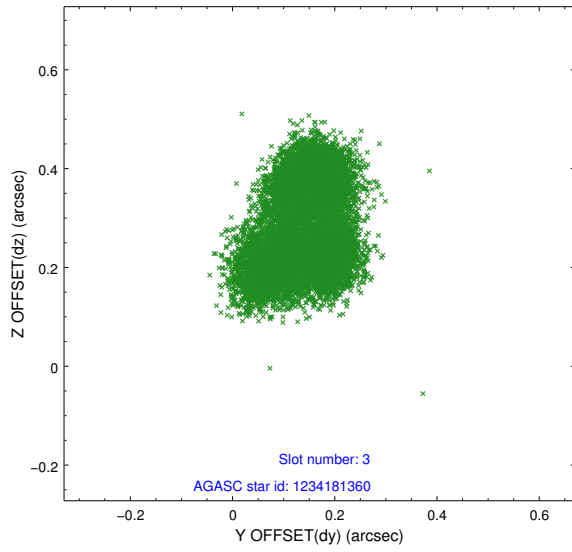
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.94	5100	-0.204	-0.012	0.011	0.027	0.000000	0.000000	-782.21	-1746.01
1	FID		ACIS-S-4	7.03	5100	0.395	0.102	0.009	0.015	0.000000	0.000000	2131.57	162.43
2	FID		ACIS-S-5	7.06	5100	-0.221	-0.081	0.009	0.027	0.000000	0.000000	-1834.86	156.08
3	GUIDE	used	1234181360	7.79	10199	0.142	0.265	0.118	0.169	181.773022	-78.741114	-1766.03	-2051.37
4	GUIDE	used	1234574672	9.38	10110	-0.138	-0.280	0.117	0.187	178.837076	-79.712695	446.73	1297.62
5	GUIDE	used	1234576024	7.86	10198	0.073	-0.013	0.084	0.142	176.299710	-78.821555	2075.08	-1945.41
6	GUIDE	used	1234704160	7.21	10198	0.020	0.160	0.097	0.143	182.282049	-78.781313	-2107.01	-1872.41
7	GUIDE	used	1234709656	8.92	10180	-0.093	-0.138	0.162	0.234	181.725314	-79.721103	-1402.98	1457.11

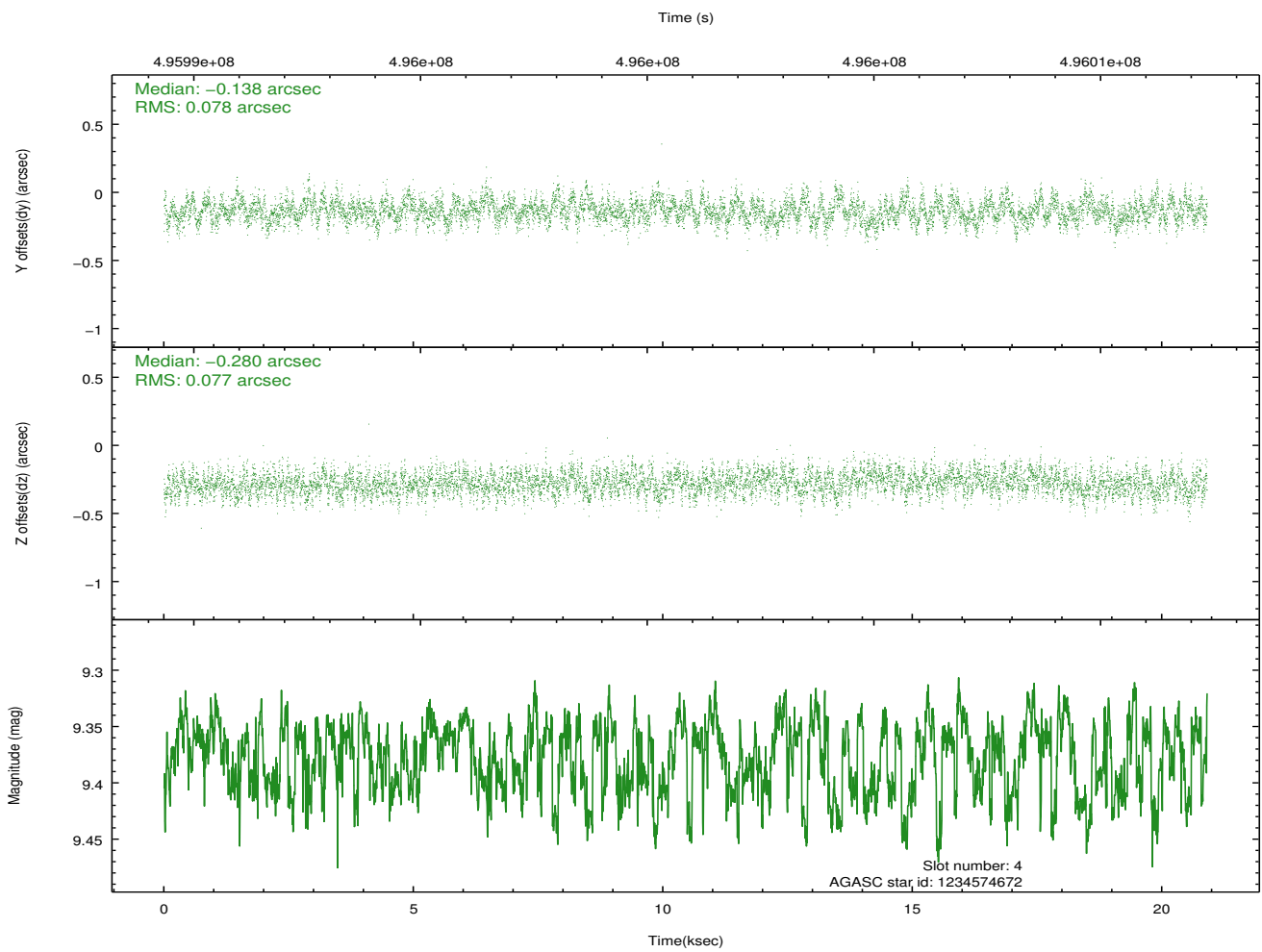
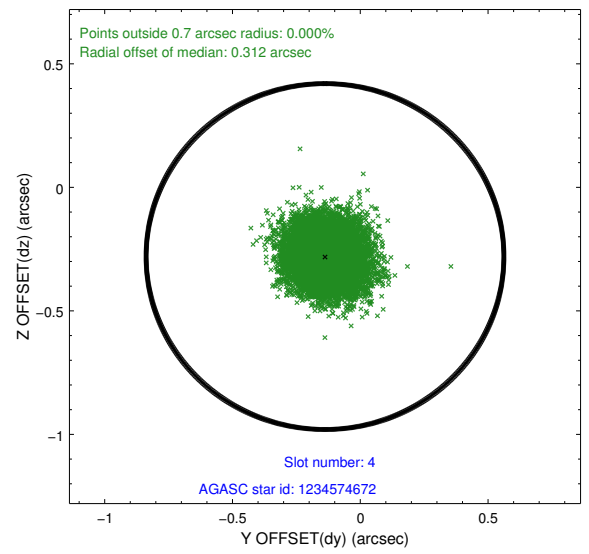
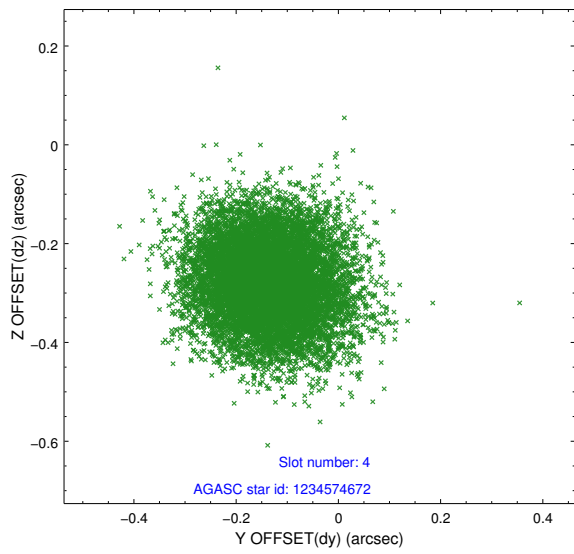
∞

2.4 Star Slots

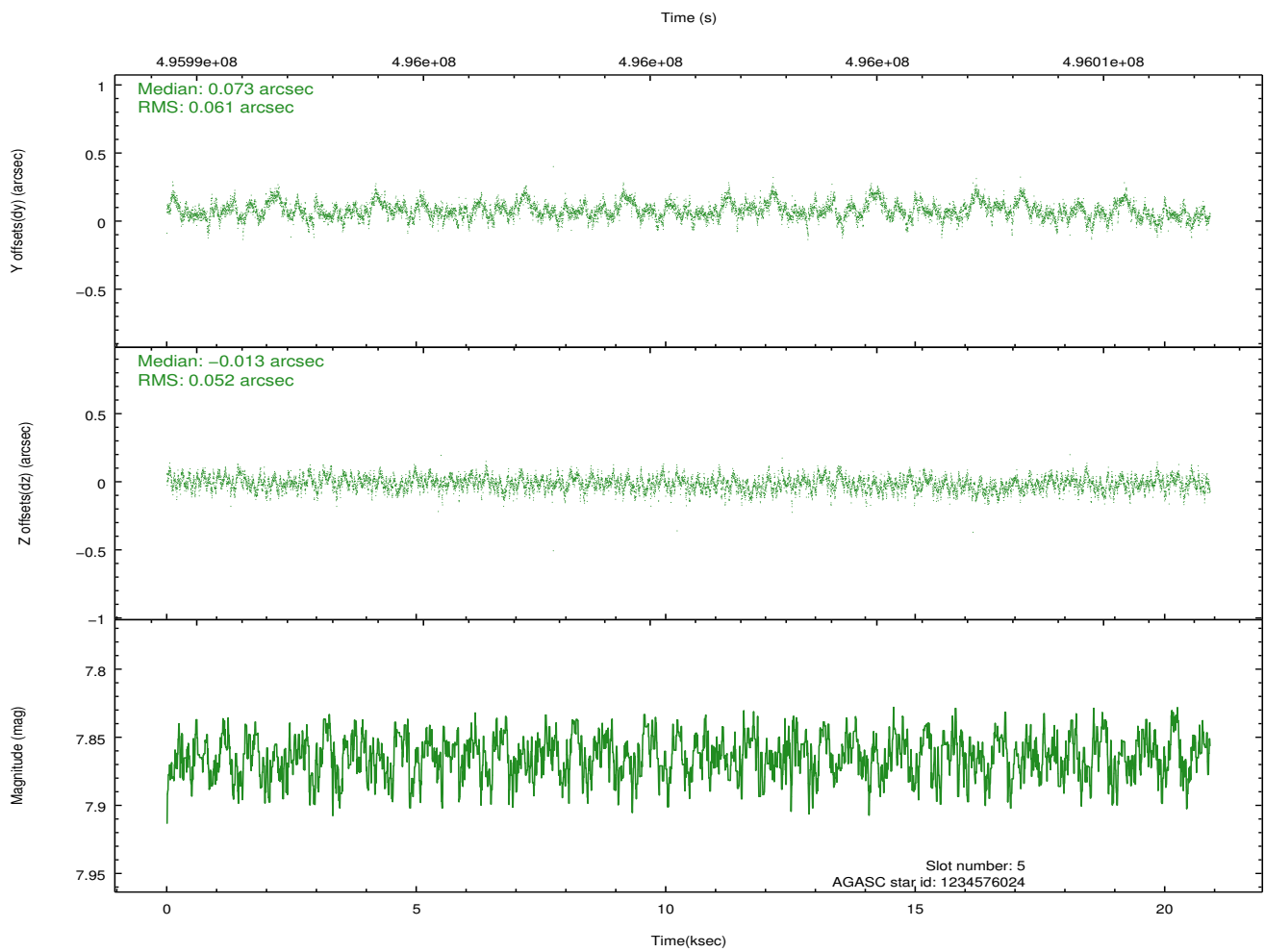
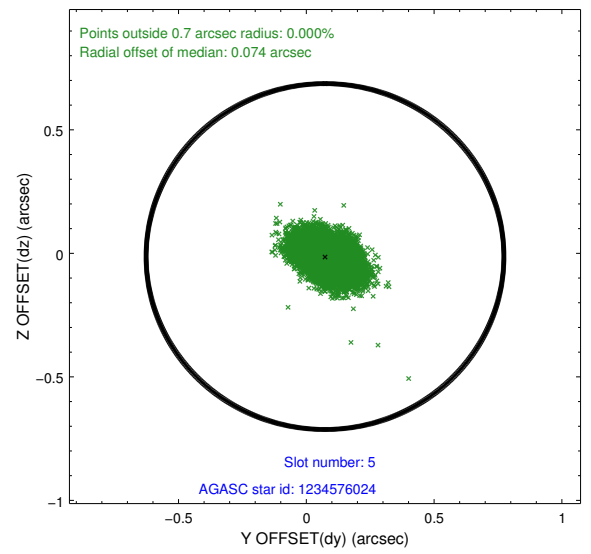
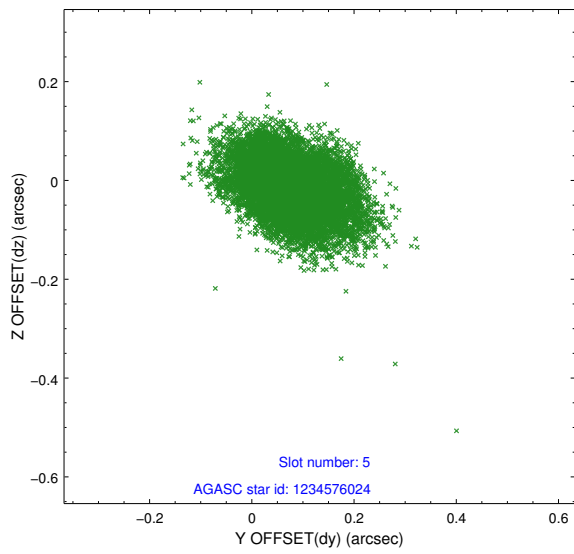
2.4.1 Slot 3



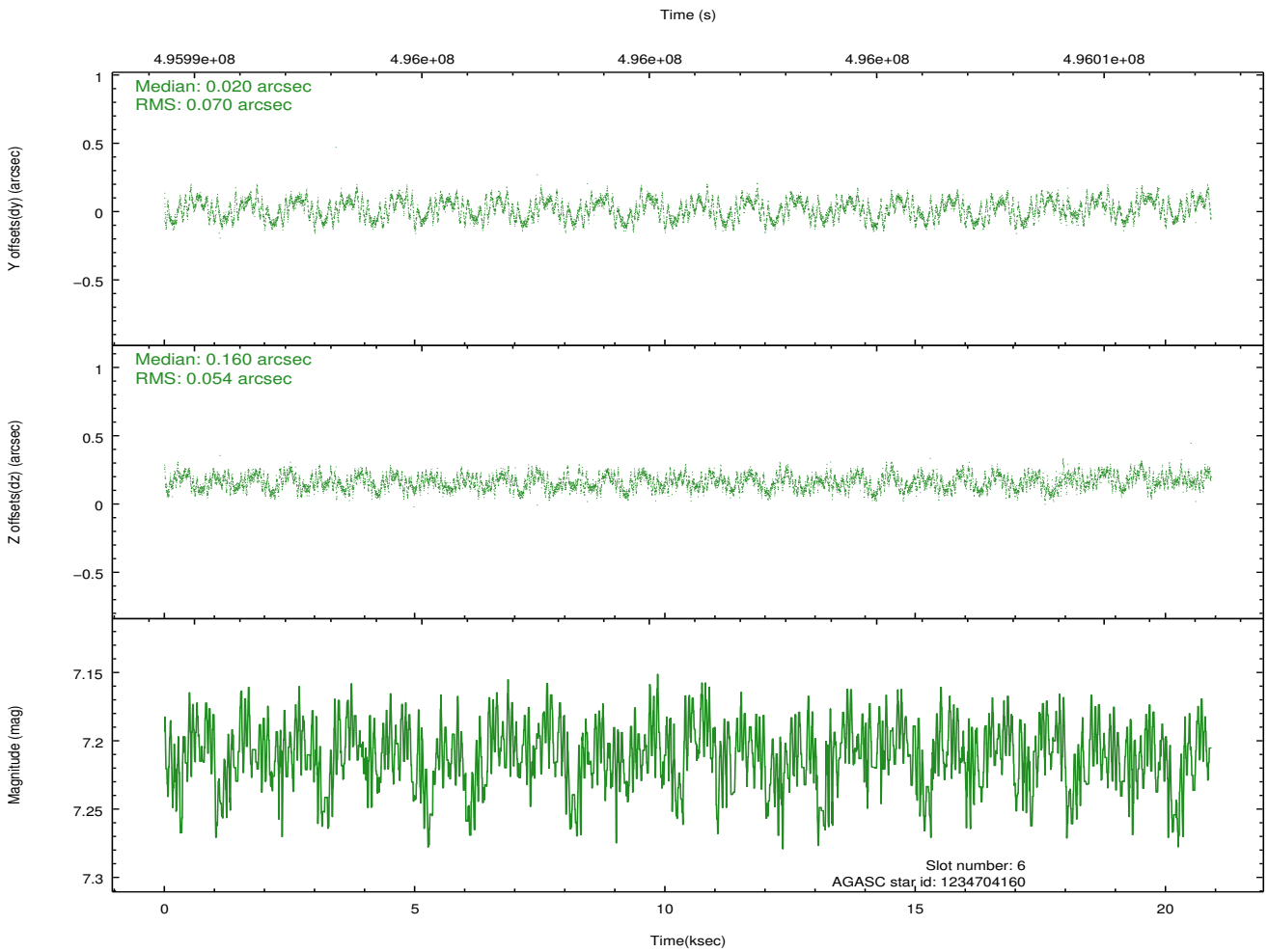
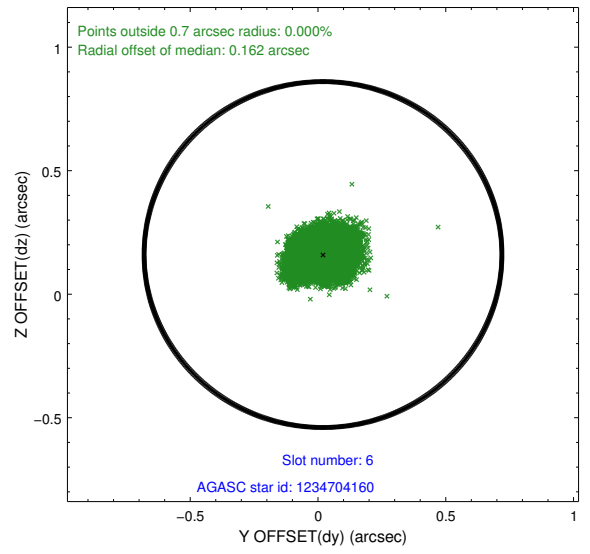
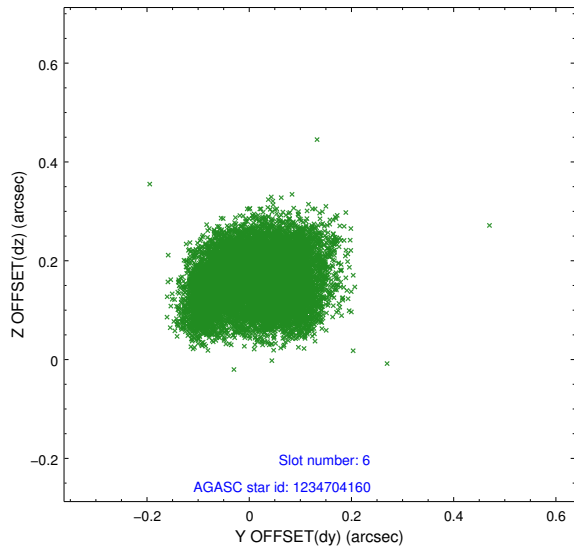
2.4.2 Slot 4



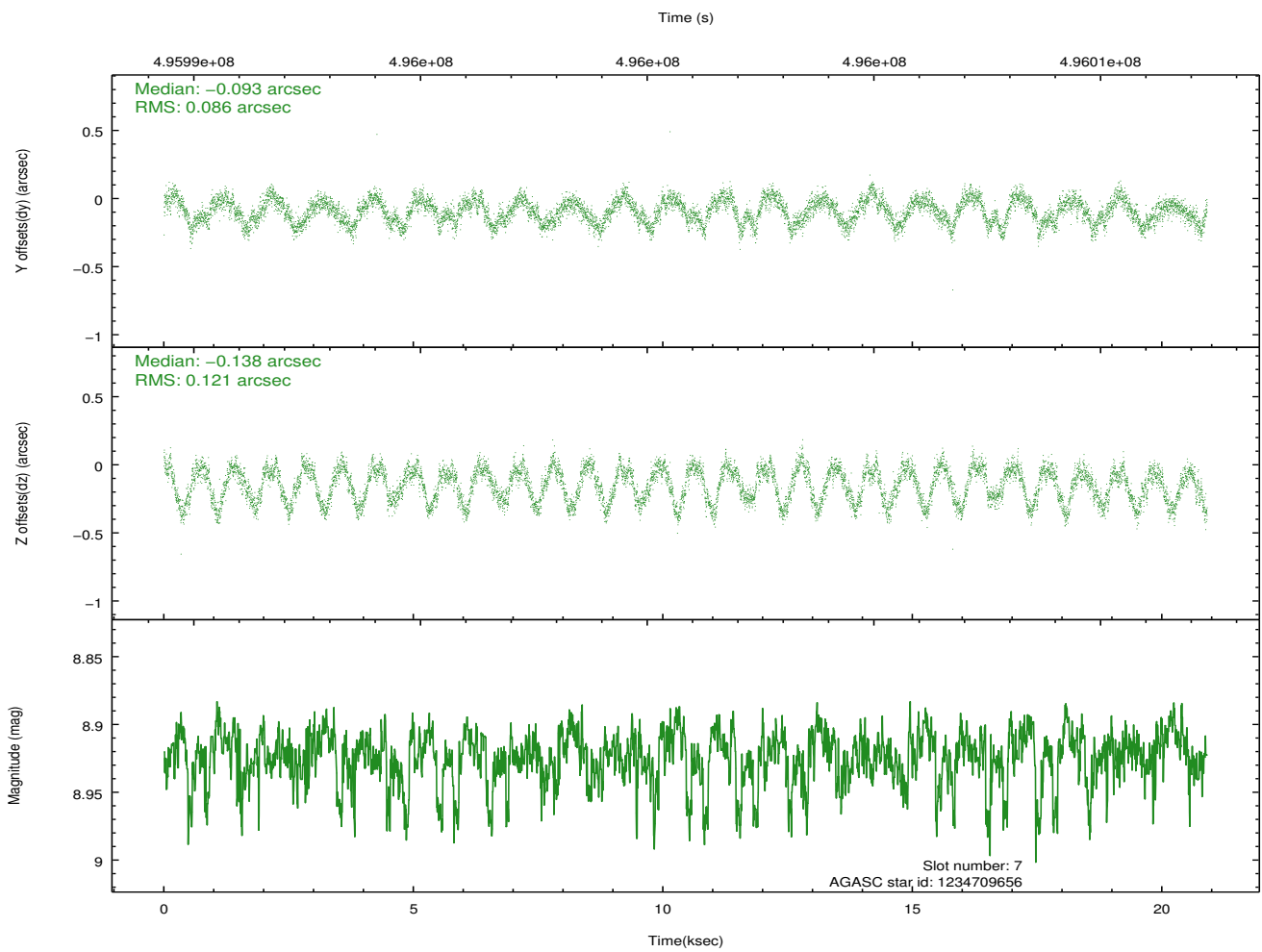
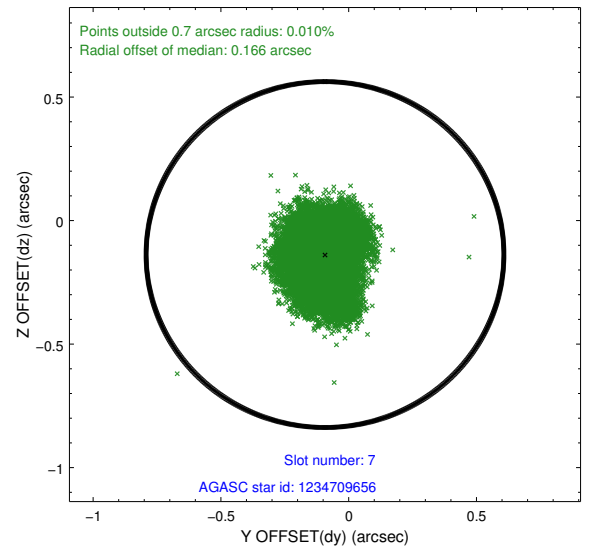
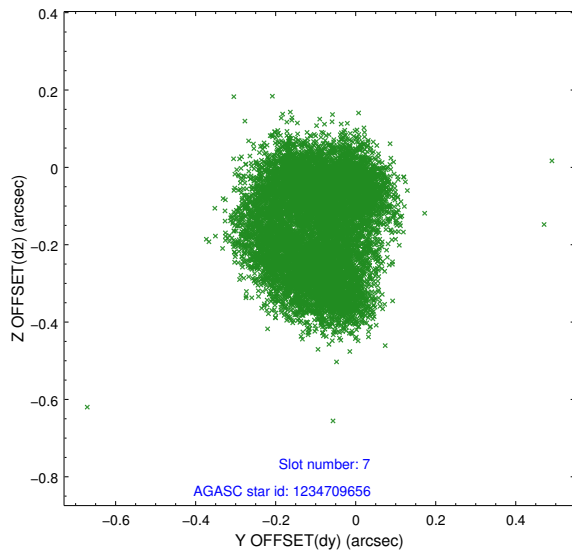
2.4.3 Slot 5



2.4.4 Slot 6

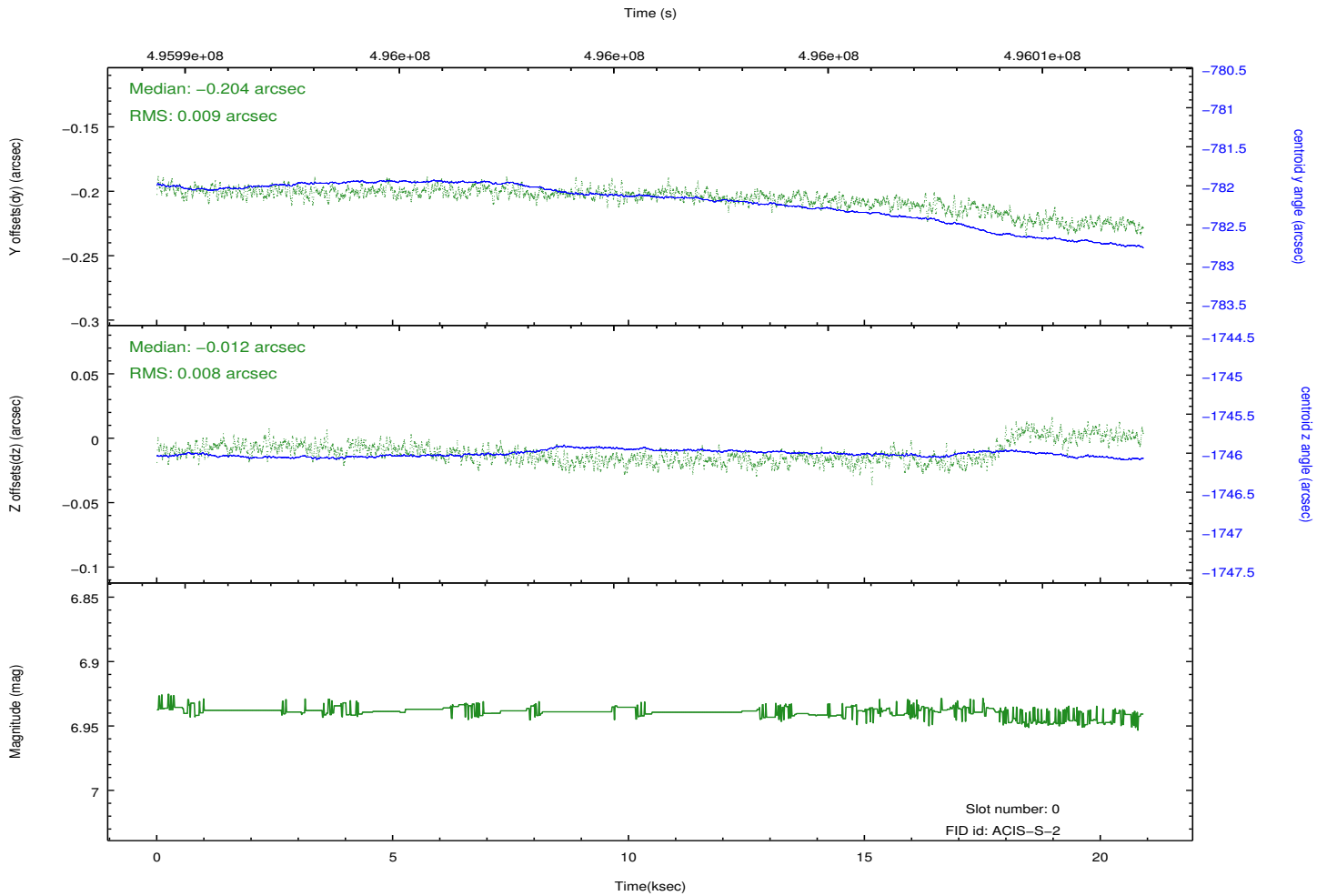
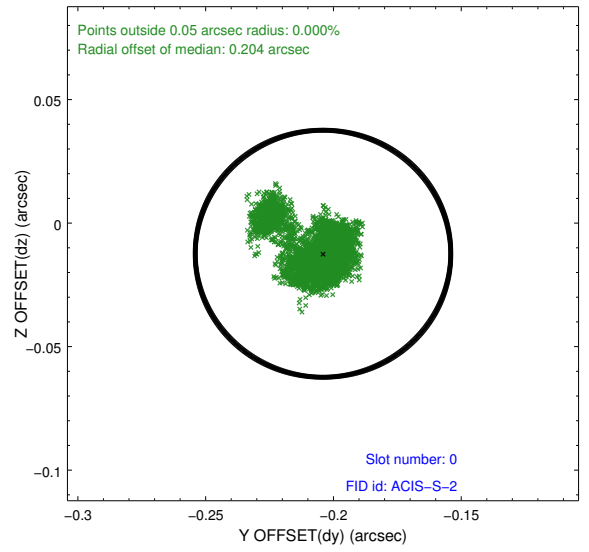
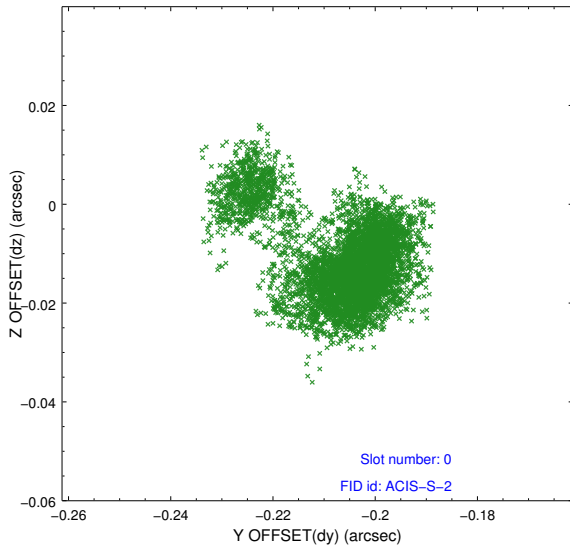


2.4.5 Slot 7

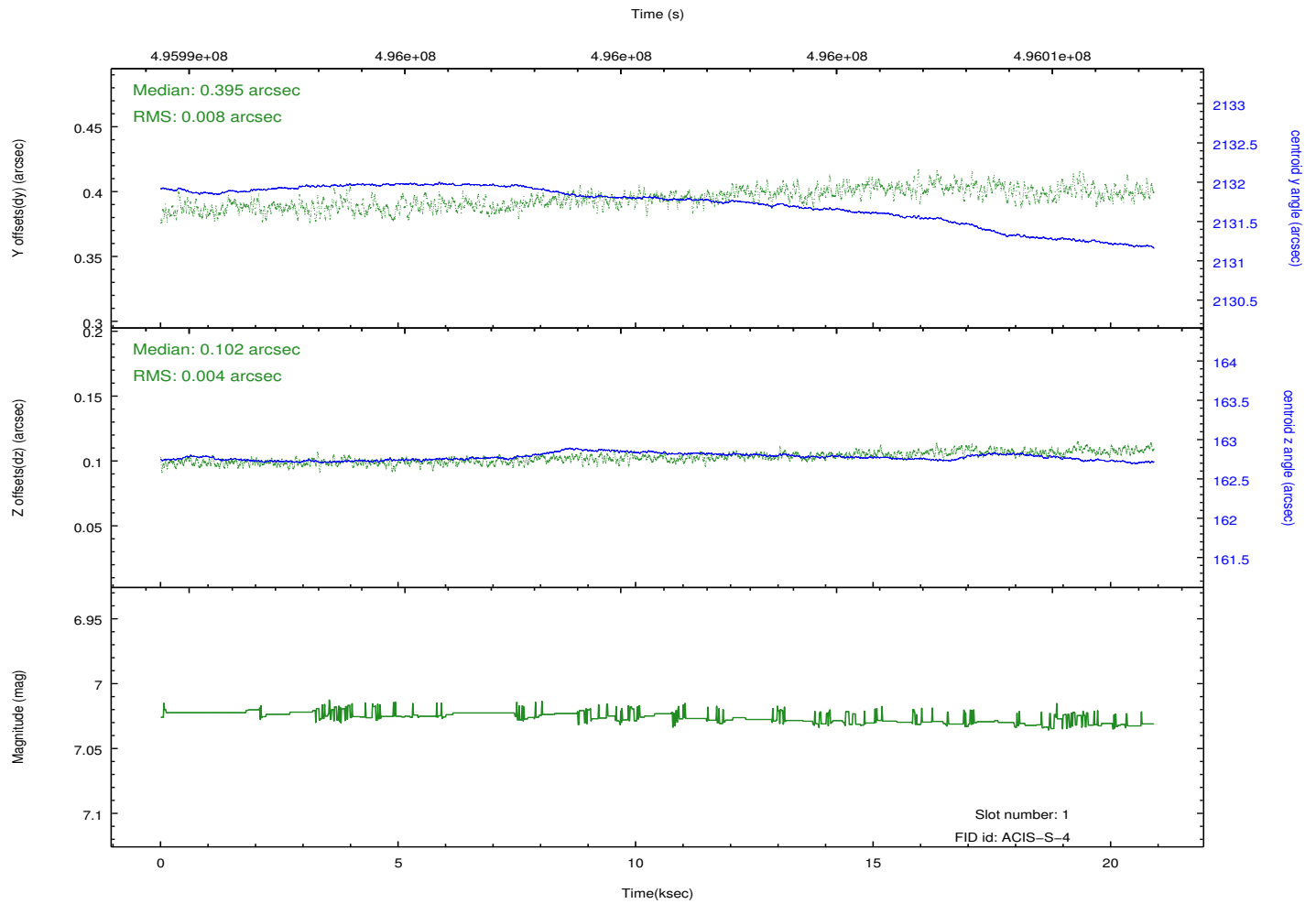
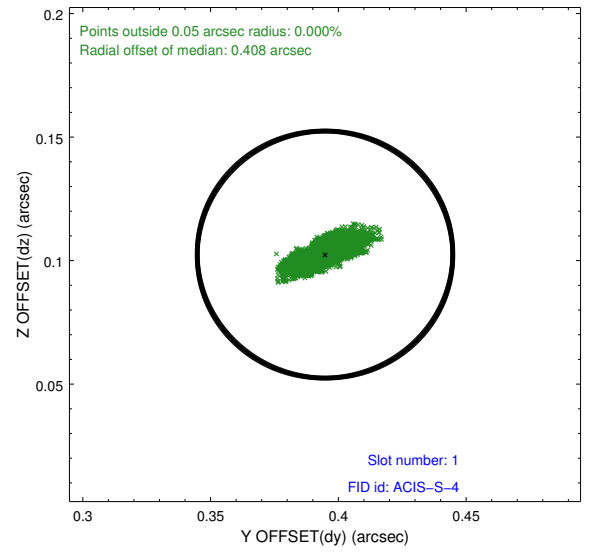
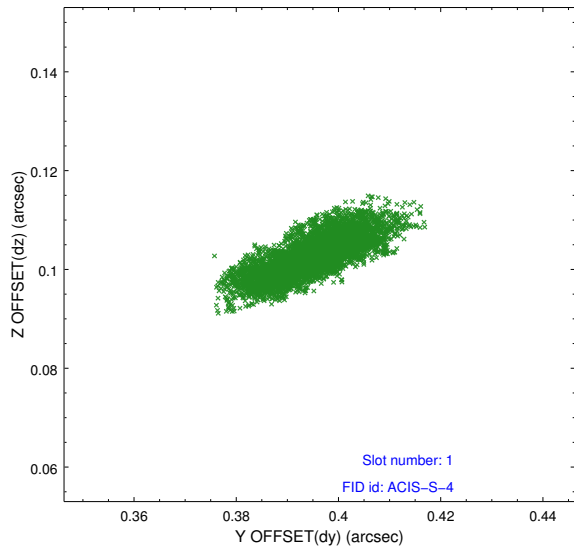


2.5 FID Slots

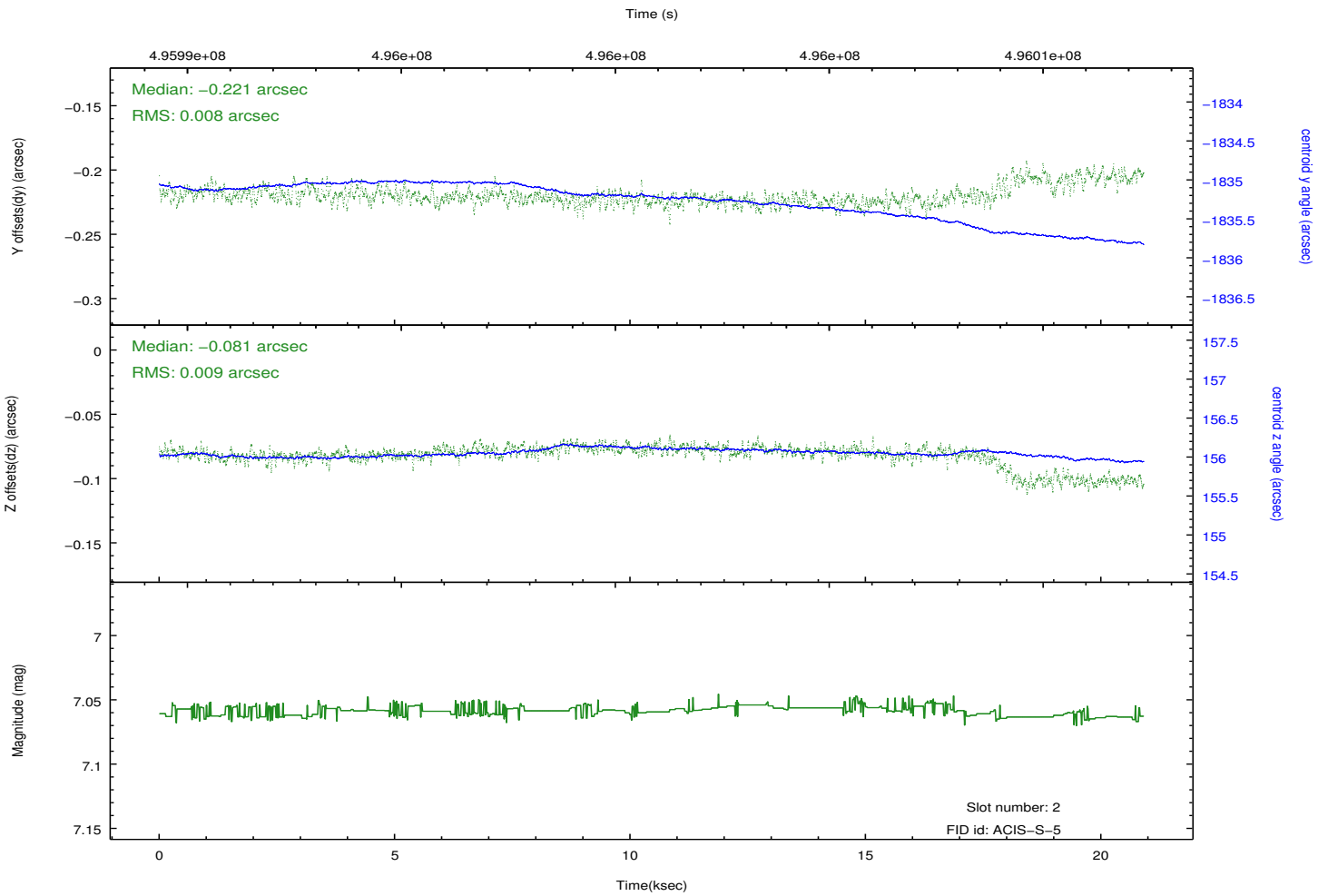
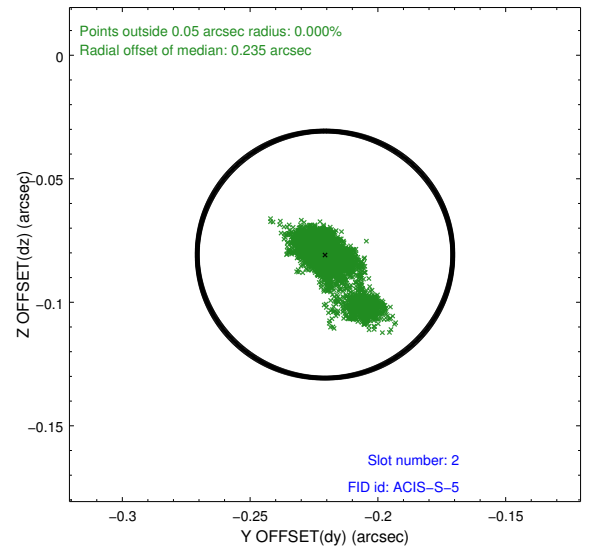
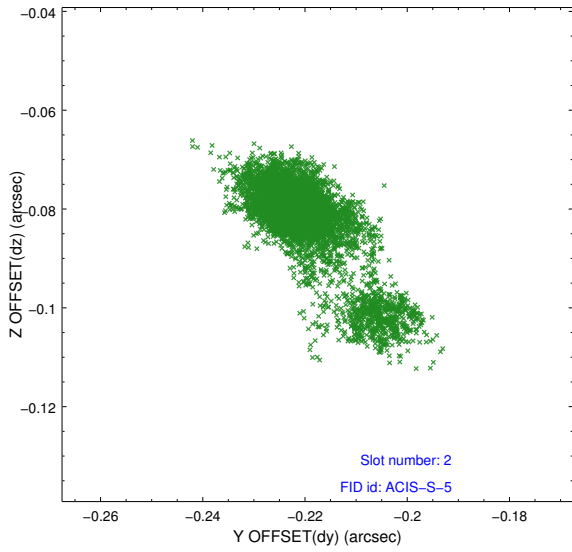
2.5.1 Slot 0



2.5.2 Slot 1

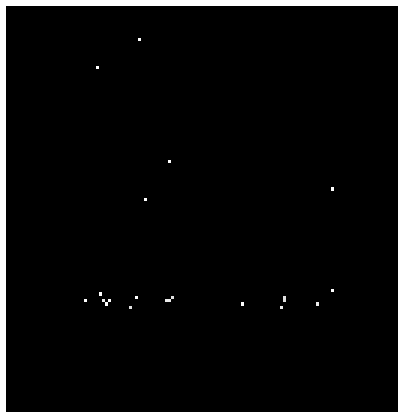


2.5.3 Slot 2

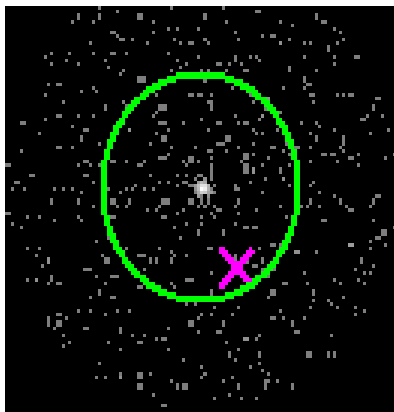


3 Gratings

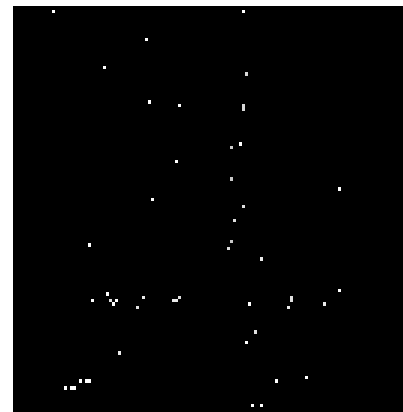
3.1 HEG Arm



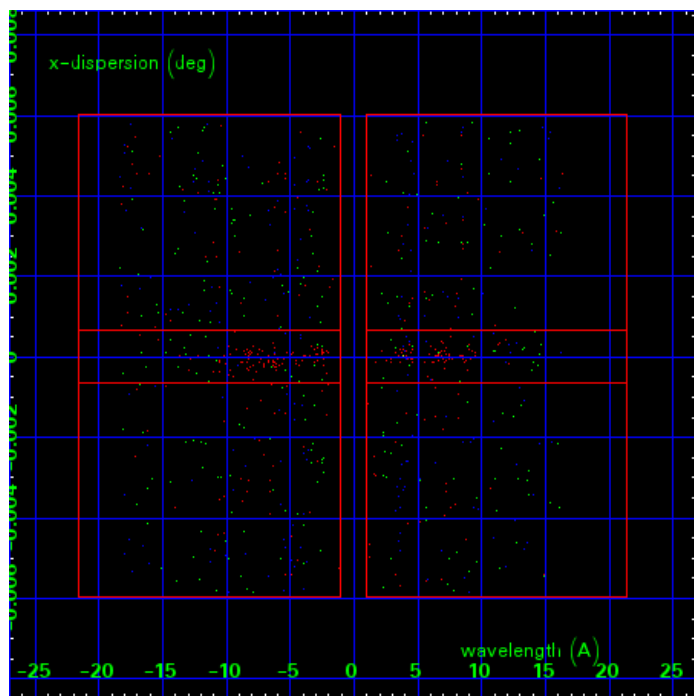
HEG Order Sort 123



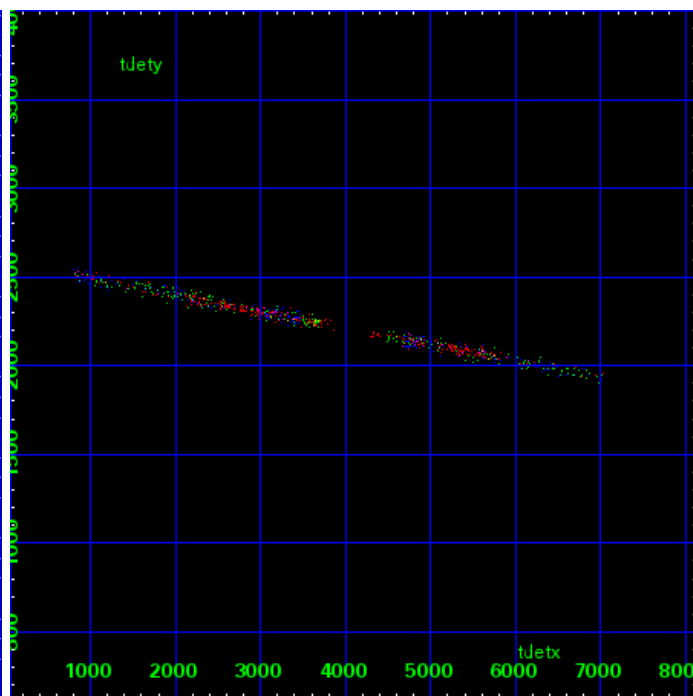
HEG Zero Order



HEG Order Sort ALL

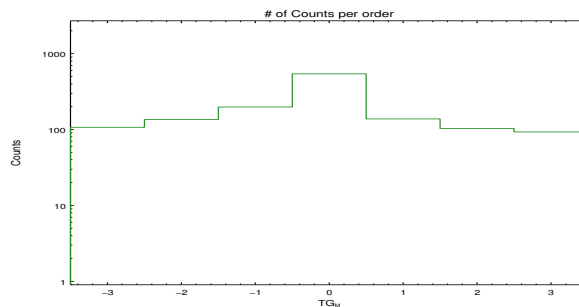


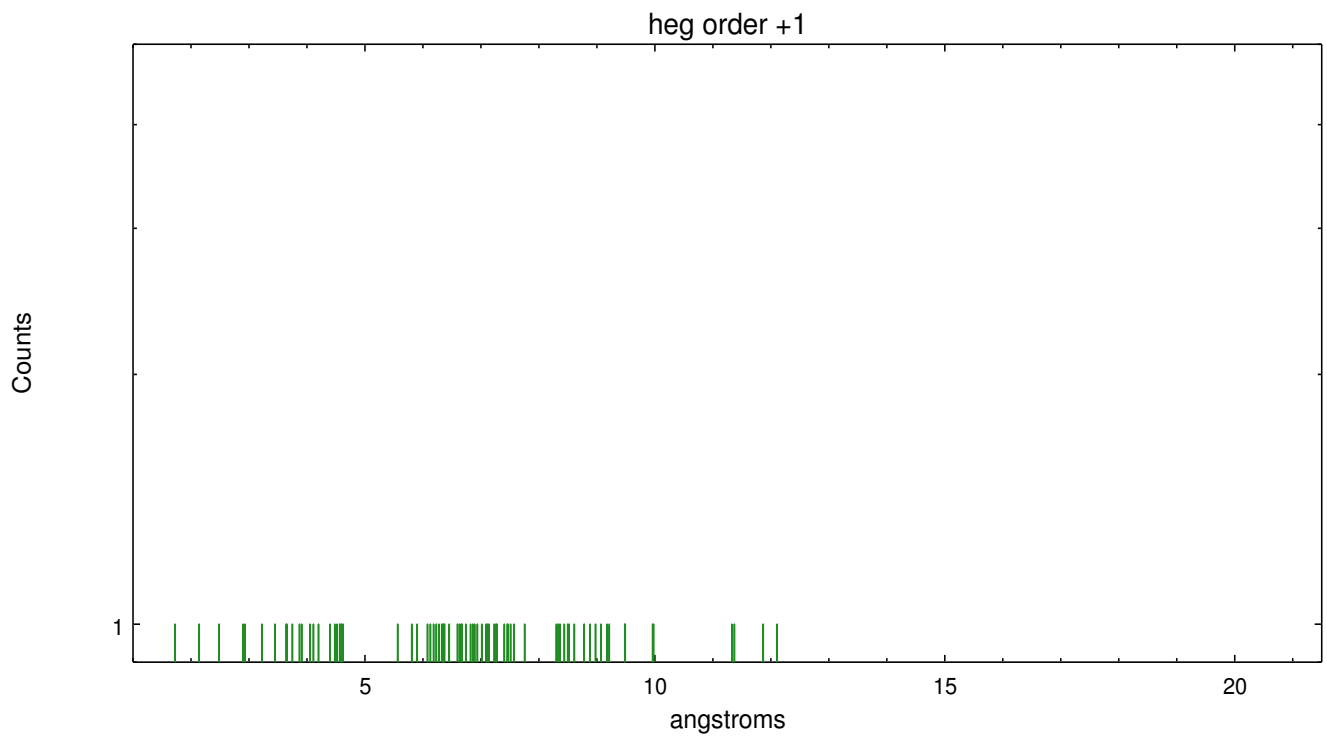
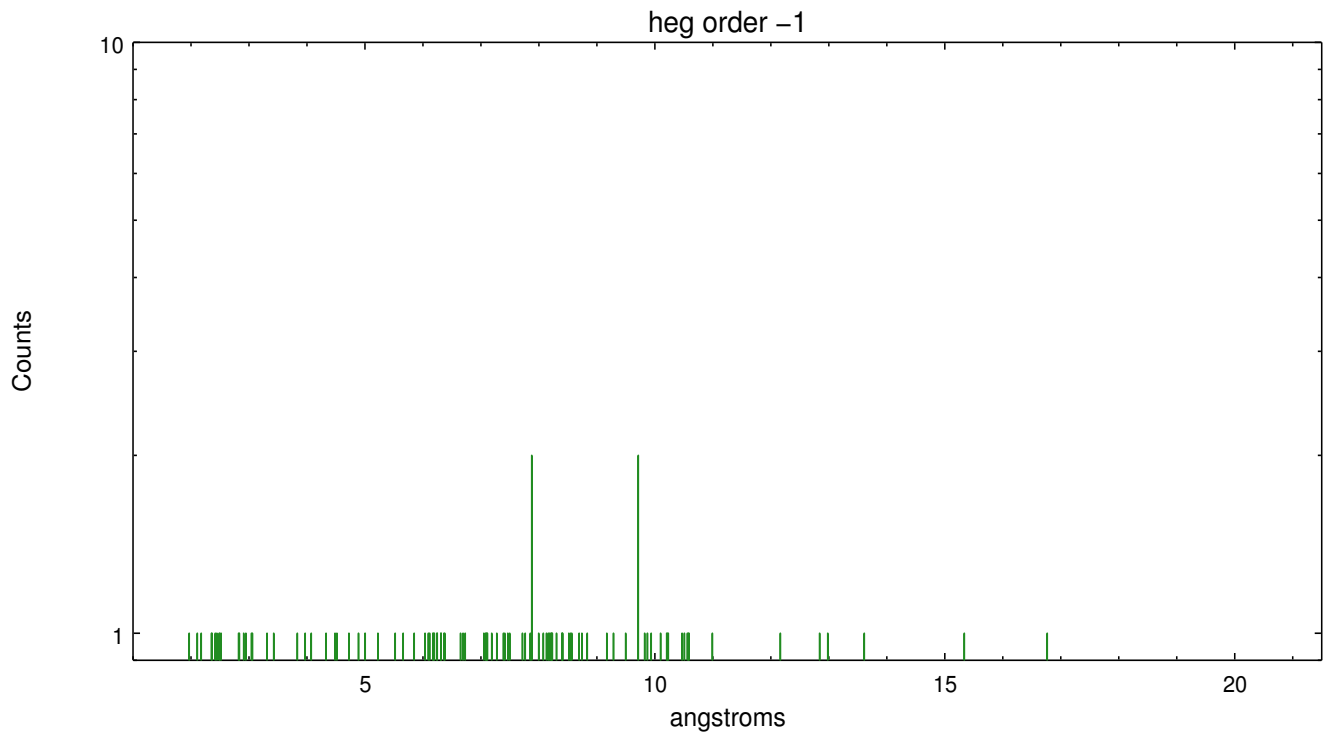
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	107	136	198	542	138	103	93

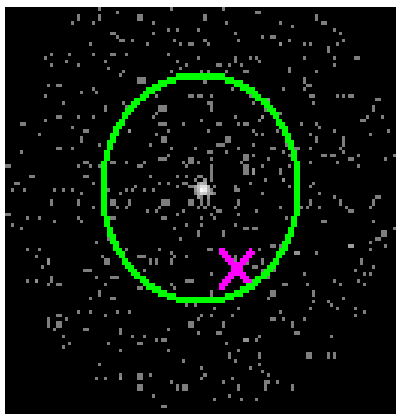




3.2 MEG Arm



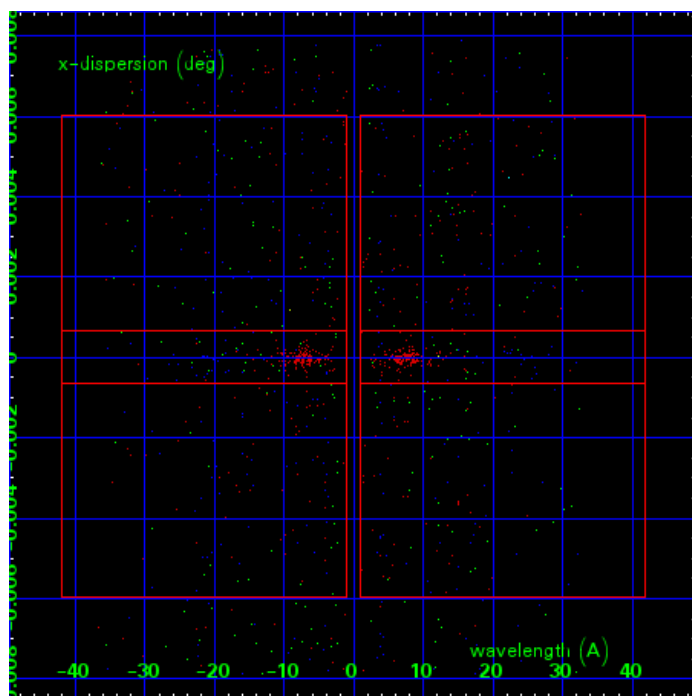
MEG Order Sort 123



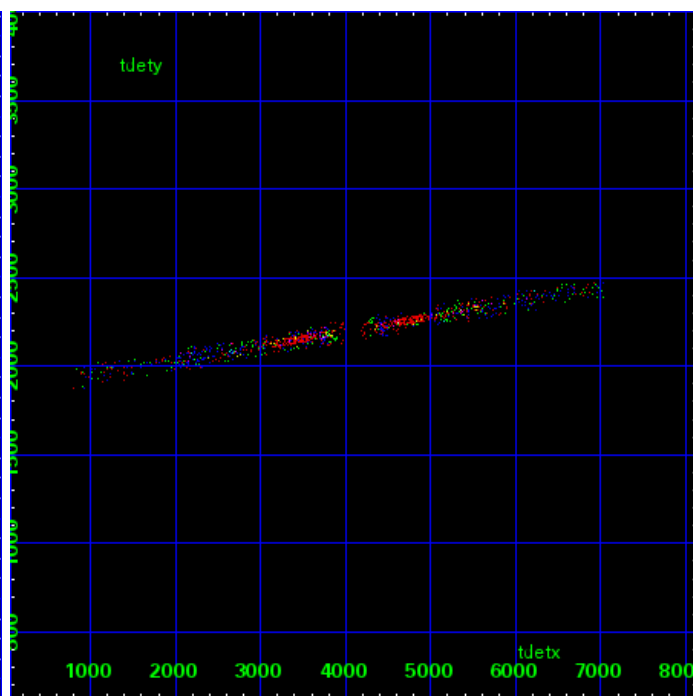
MEG Zero Order



MEG Order Sort ALL

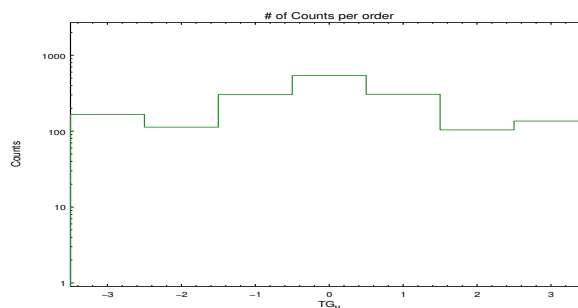


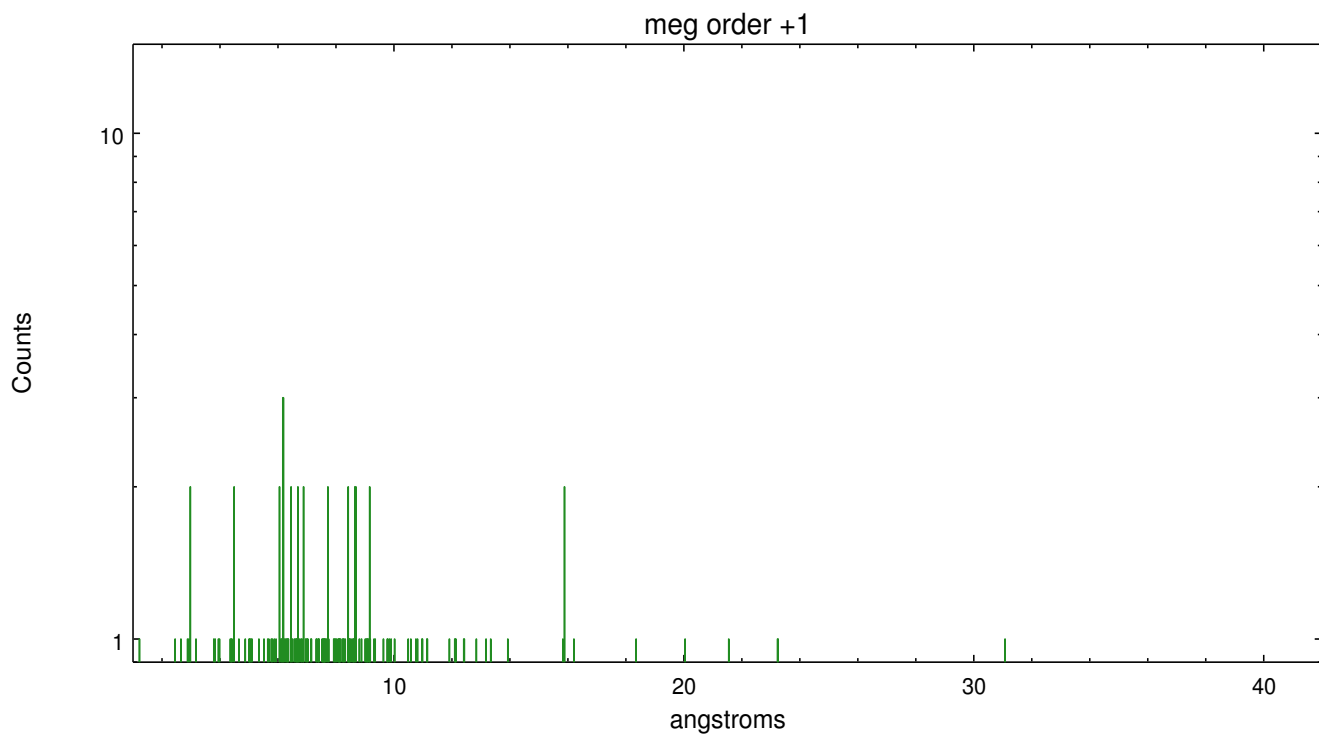
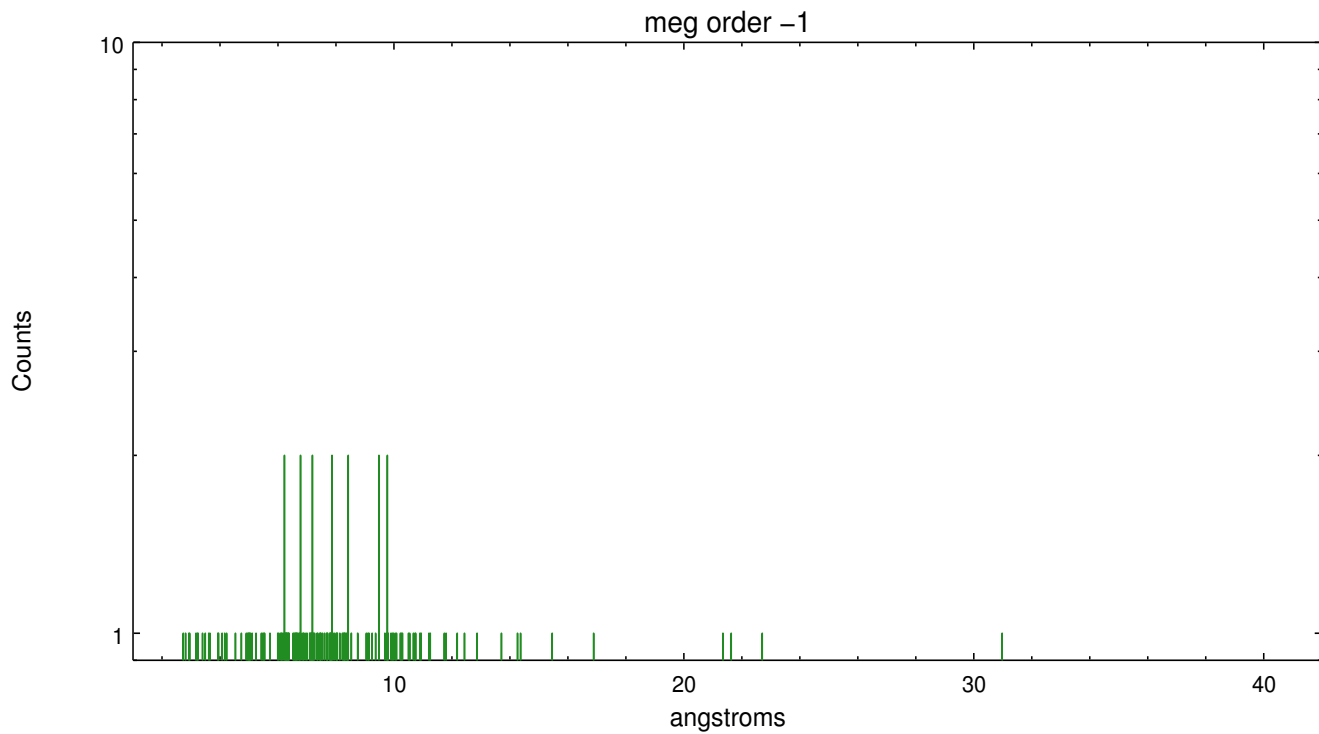
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	166	113	303	542	306	104	136





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2015.10.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	19.85599992609

A.2 Comments

These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.