

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 15612 - L2 Version 2
Chandra X-Ray Center

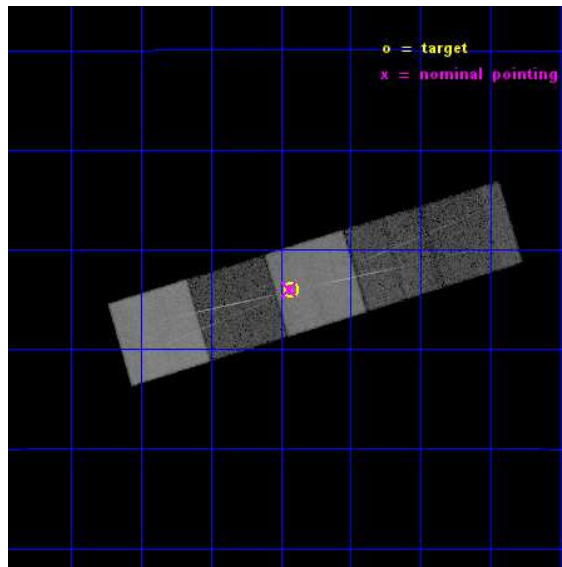
L2 Processing Date : Dec 1 2014

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1 Front

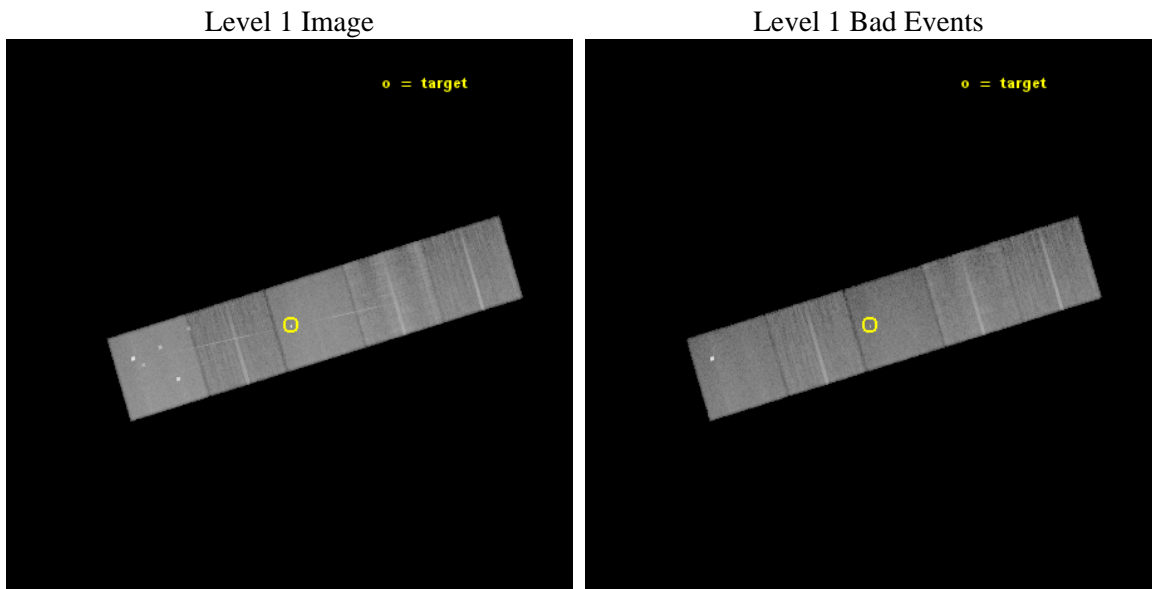
seq_num	200906	Sequence number
obs_id	15612	Observation id
title	How Active is HD 79826? Characterizing a new short-period binary.	
observer	Prof Claude Canizares	Principal investigator
object	HD 79826	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	138.982083	Observer's specified target RA [deg]
dec_targ	-12.235583	Observer's specified target Dec [deg]
ra_nom	138.98443014683	Nominal RA [deg]
dec_nom	-12.233604654017	Nominal Dec [deg]
roll_nom	343.15712721406	Nominal Roll [deg]
revision	2	Processing version of data
ontime	31762.600244284	Sum of GTIs [s]
livetime	31347.598488806	Livetime [s]
ontime5	31762.600244284	Sum of GTIs [s]
ontime6	31759.45923394	Sum of GTIs [s]
ontime7	31762.600244284	Sum of GTIs [s]
ontime8	31762.600244284	Sum of GTIs [s]
ontime9	31762.600244284	Sum of GTIs [s]
l2events	303160	Number of level 2 events



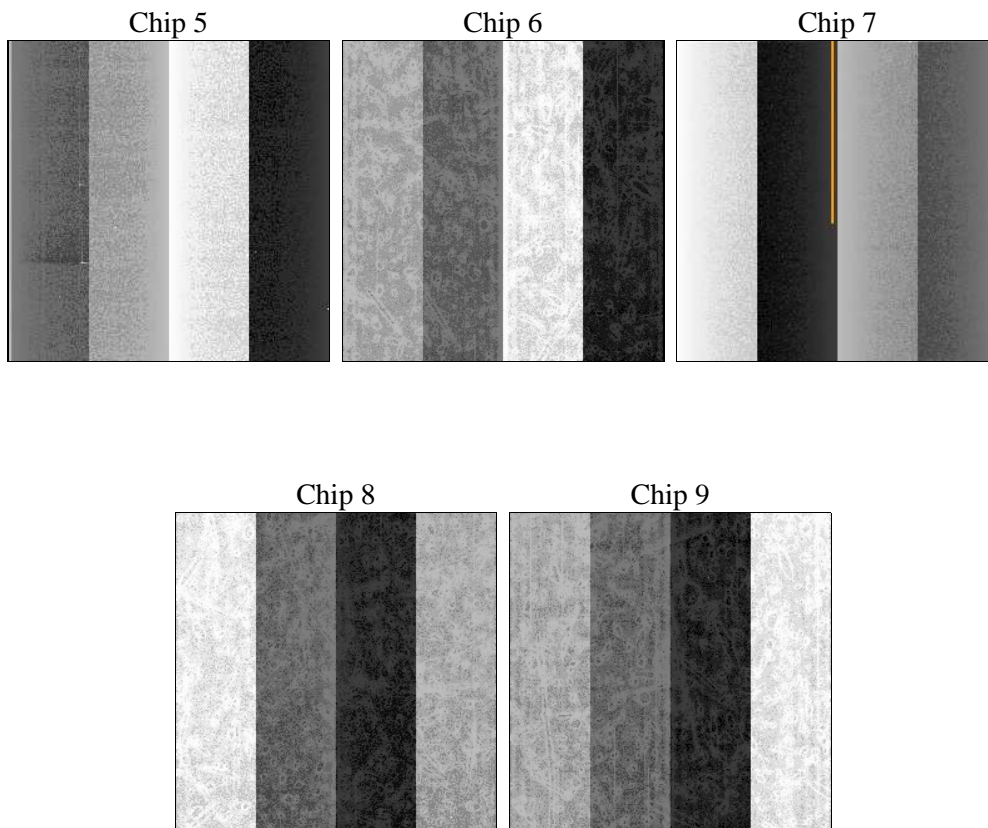
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	31700.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	31762.600244284	Sum of GTIs [s]
caldsver	4.6.4	 	ontime5	31762.600244284	Sum of GTIs [s]
date	2014-12-01T16:36:52	Date and time of file creation	ontime6	31759.45923394	Sum of GTIs [s]
revision	2	Processing version of data	ontime7	31762.600244284	Sum of GTIs [s]
			ontime8	31762.600244284	Sum of GTIs [s]
			ontime9	31762.600244284	Sum of GTIs [s]
			l1events	1146687	Number of level 1 events
			tgmethod	TGDETECT	Method used to create src1a file
			zo_pos	(4115.10, 4080.09)	src1a sky pixel position

2.1.4 Events

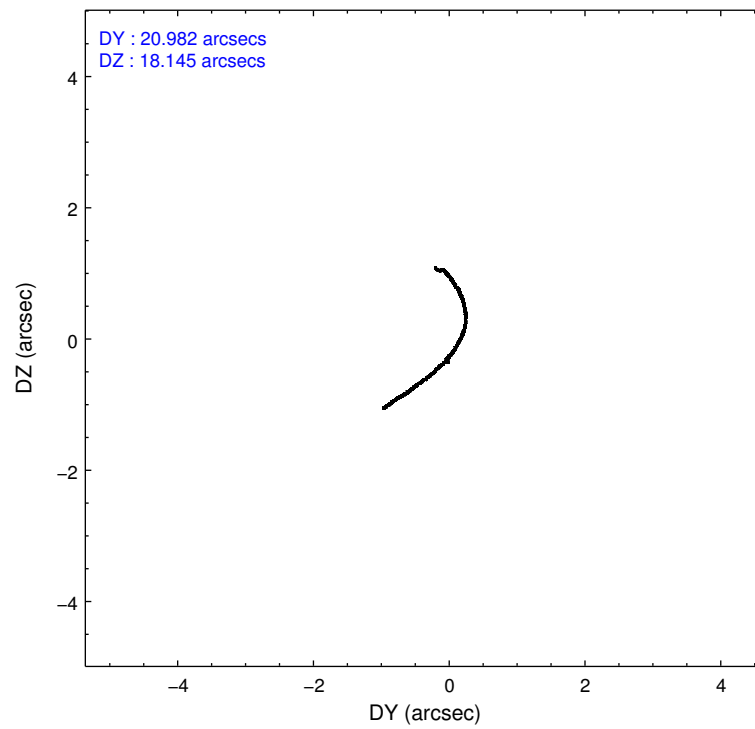
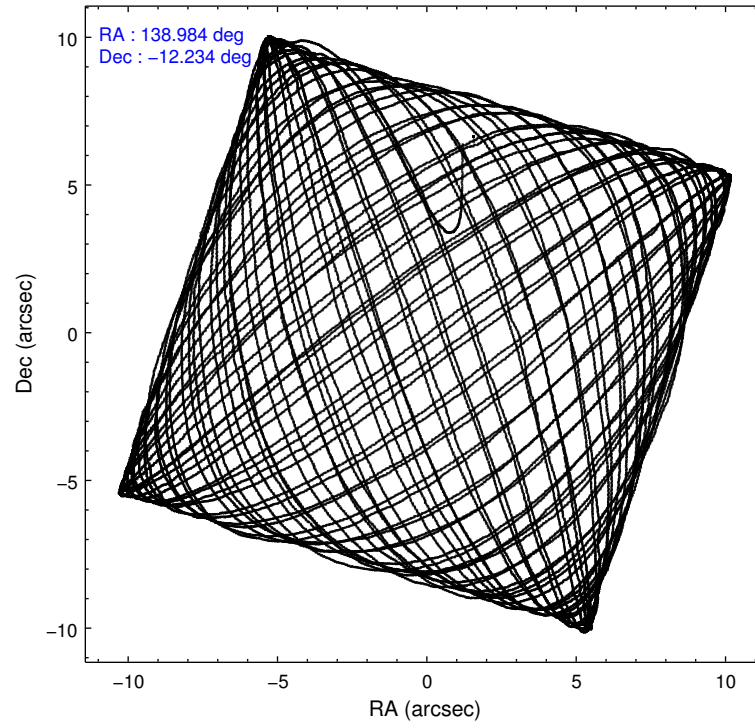
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	307329	184402	243104	235592	176260
rejected events	160105	160282	133595	173237	153684
rejected %	52%	86%	54%	73%	87%

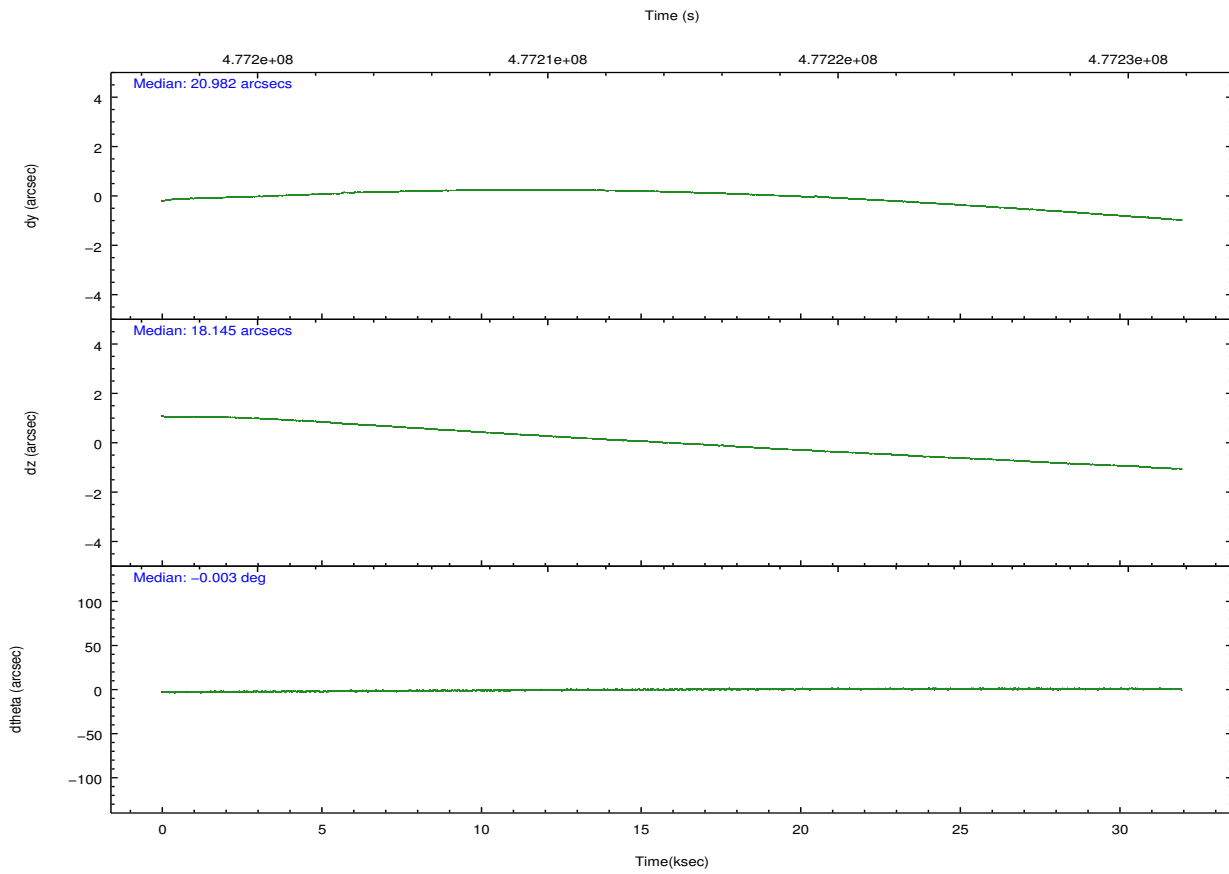
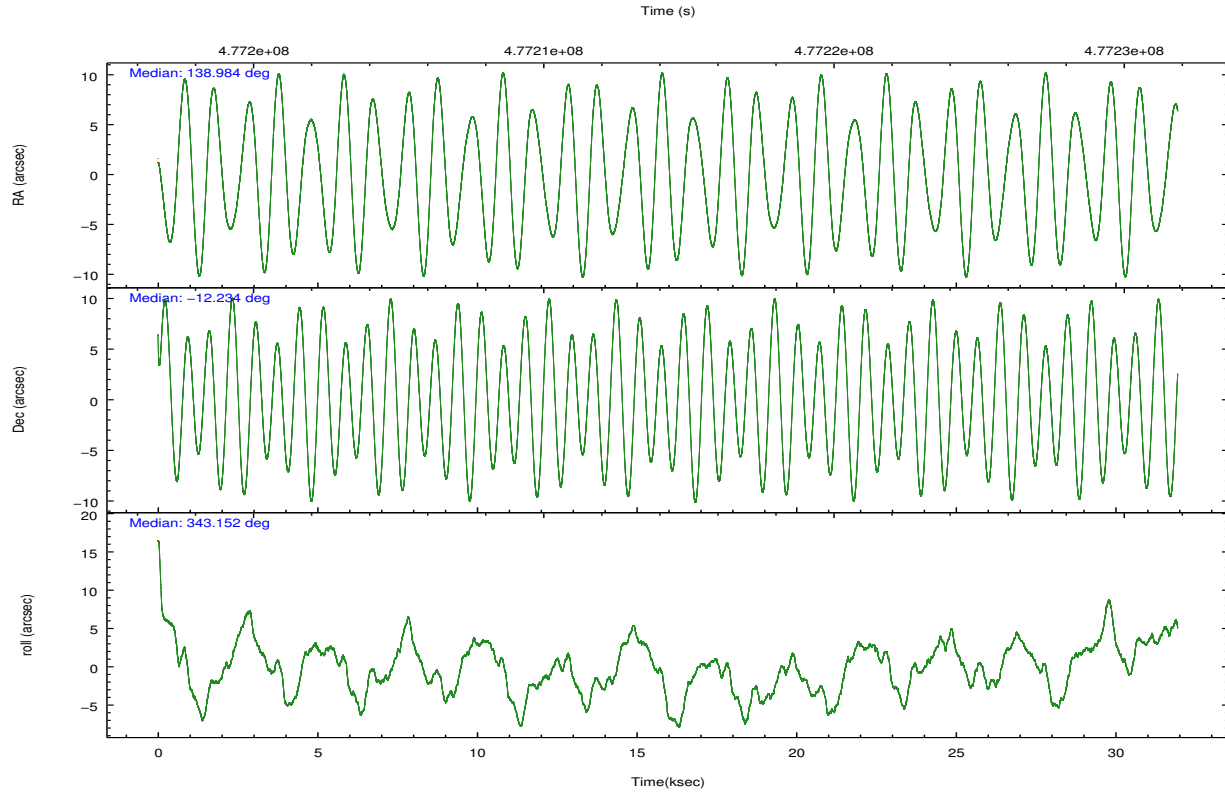
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	19292	9500	10539	18502	8217
	6%	5%	4%	7%	4%
grade 1 events	508	107	312	184	100
	0%	0%	0%	0%	0%
grade 2 events	43067	5152	22909	14343	4818
	14%	2%	9%	6%	2%
grade 3 events	4933	2264	9580	6752	2354
	1%	1%	3%	2%	1%
grade 4 events	4671	2271	9272	6299	2206
	1%	1%	3%	2%	1%
grade 5 events	24917	9165	24819	12875	10129
	8%	4%	10%	5%	5%
grade 6 events	75288	4934	57234	16470	4984
	24%	2%	23%	6%	2%
grade 7 events	134653	151009	108439	160167	143452
	43%	81%	44%	67%	81%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-56789	ACIS-56789	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	138.957282	138.9844301468331	CCD I2 on	N	N
[deg] Pointing Dec	-12.240195	-12.23360465401743	CCD I3 on	N	N
[deg] Pointing Roll	342.994742	343.1571272140596	CCD S0 on	O1	N
[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	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	Y	Y
[s] Observation start time (MET)	477198538.184000	477197411.18445	CCD S5 on	Y	Y
Observation start date	2013-02-14T03:07:51	2013-02-14T02:50:11	Number of optional ACIS chips dropped	1	1
[s] Observation end time (MET)	477230238.184000	477231127.02377	On-chip summing requested	N	N
Observation end date	2013-02-14T11:56:11	2013-02-14T12:12:07	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





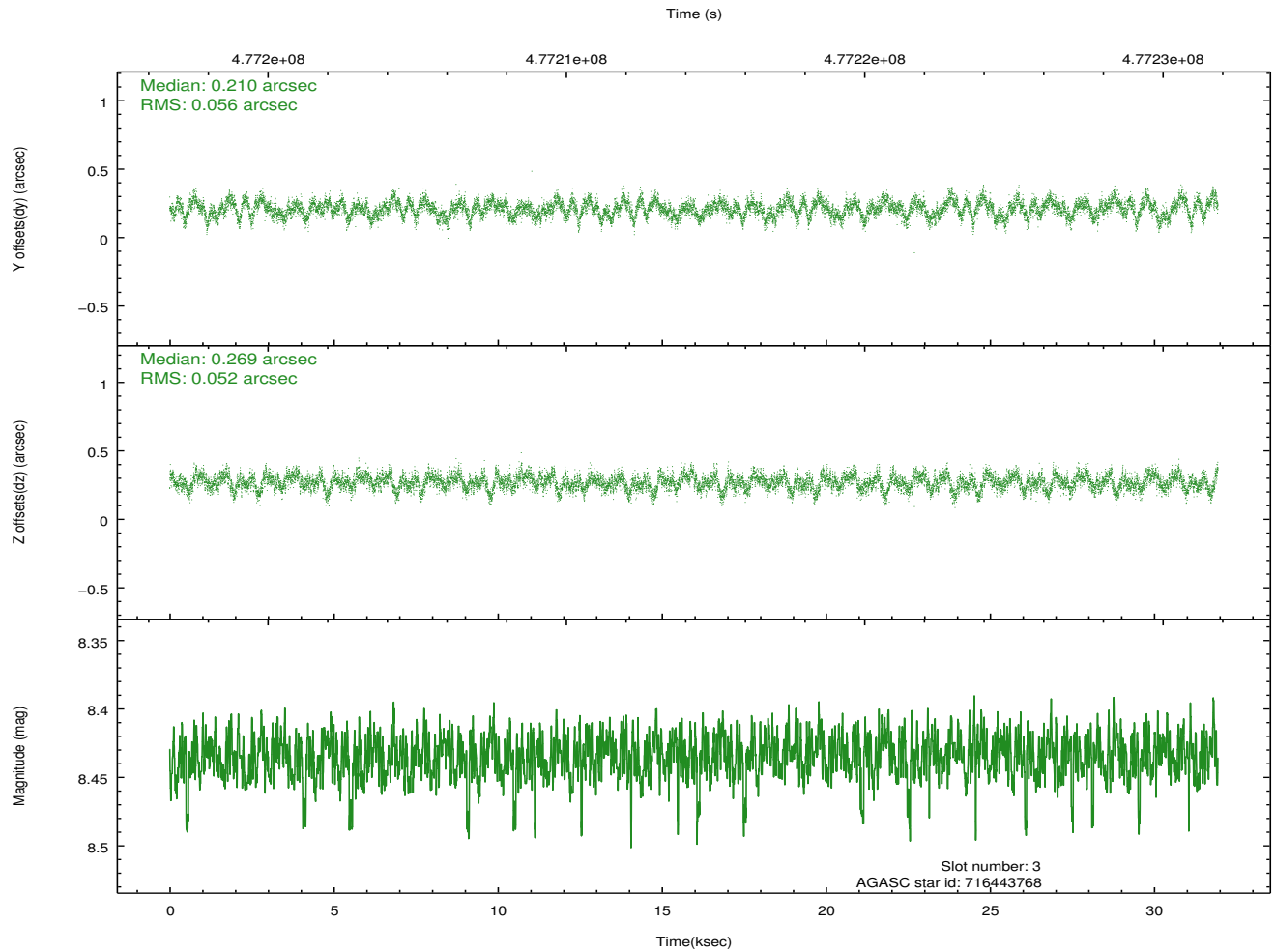
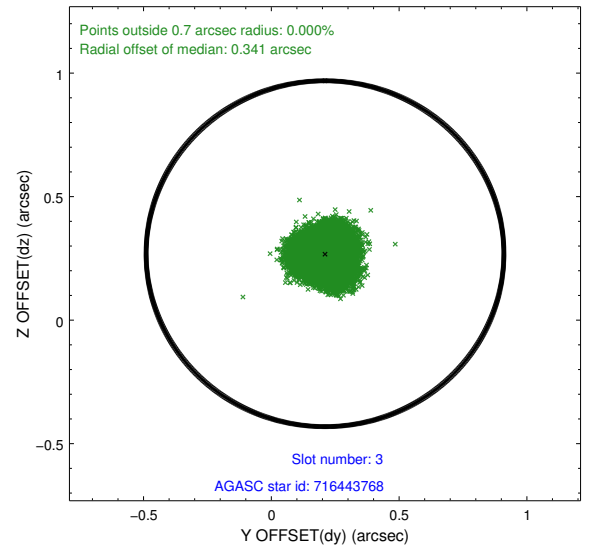
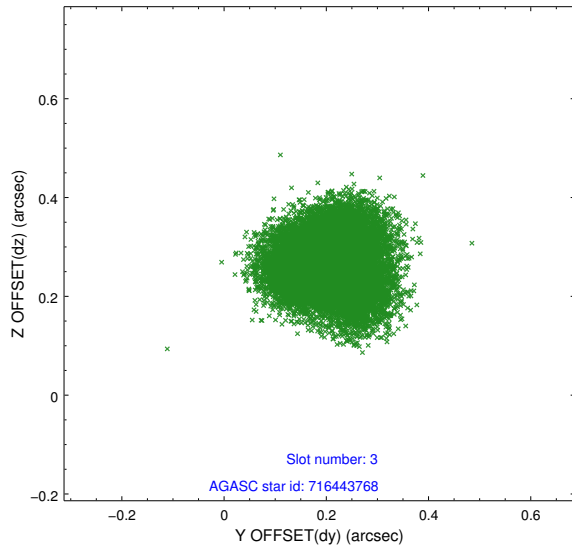
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.97	7792	-0.116	-0.060	0.013	0.023	0.000000	0.000000	-774.16	-1739.62
1	FID		ACIS-S-4	7.06	7792	0.262	0.072	0.006	0.011	0.000000	0.000000	2139.50	168.88
2	FID		ACIS-S-5	7.09	7792	-0.176	-0.004	0.013	0.021	0.000000	0.000000	-1826.95	162.61
3	GUIDE	used	716443768	8.43	15573	0.210	0.269	0.083	0.130	138.409907	-12.378258	-1694.19	-1039.99
4	GUIDE	used	716447528	6.95	15583	-0.257	-0.246	0.077	0.123	139.371683	-11.961966	1102.73	1382.93
5	GUIDE	used	716452568	9.30	15507	-0.016	-0.129	0.123	0.194	139.317316	-12.008019	967.90	1169.48
6	GUIDE	used	716443464	9.31	15422	0.113	0.178	0.111	0.181	138.792581	-12.863962	104.82	-2316.17
7	GUIDE	used	716452328	8.83	7782	-0.112	-0.127	0.091	0.146	138.982178	-12.235590	78.31	39.98

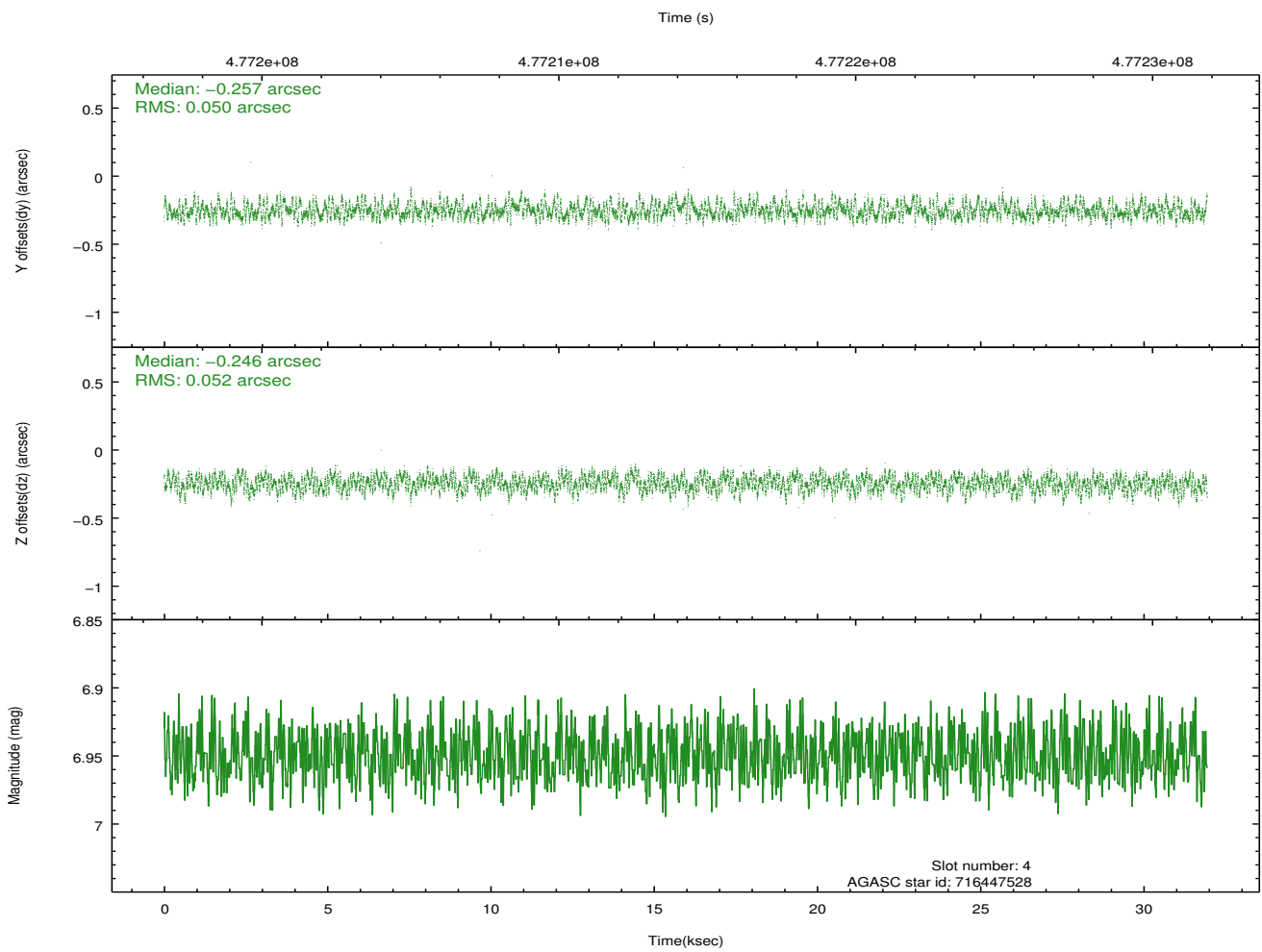
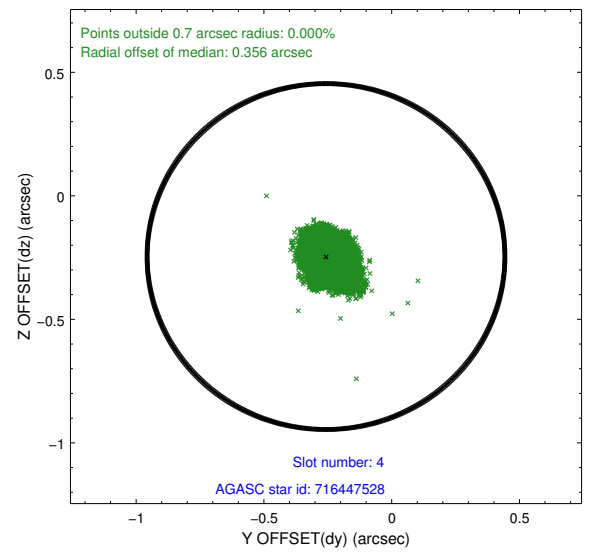
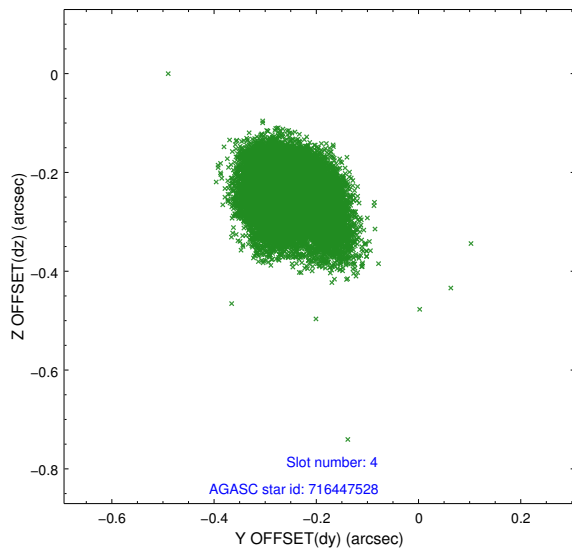
∞

2.4 Star Slots

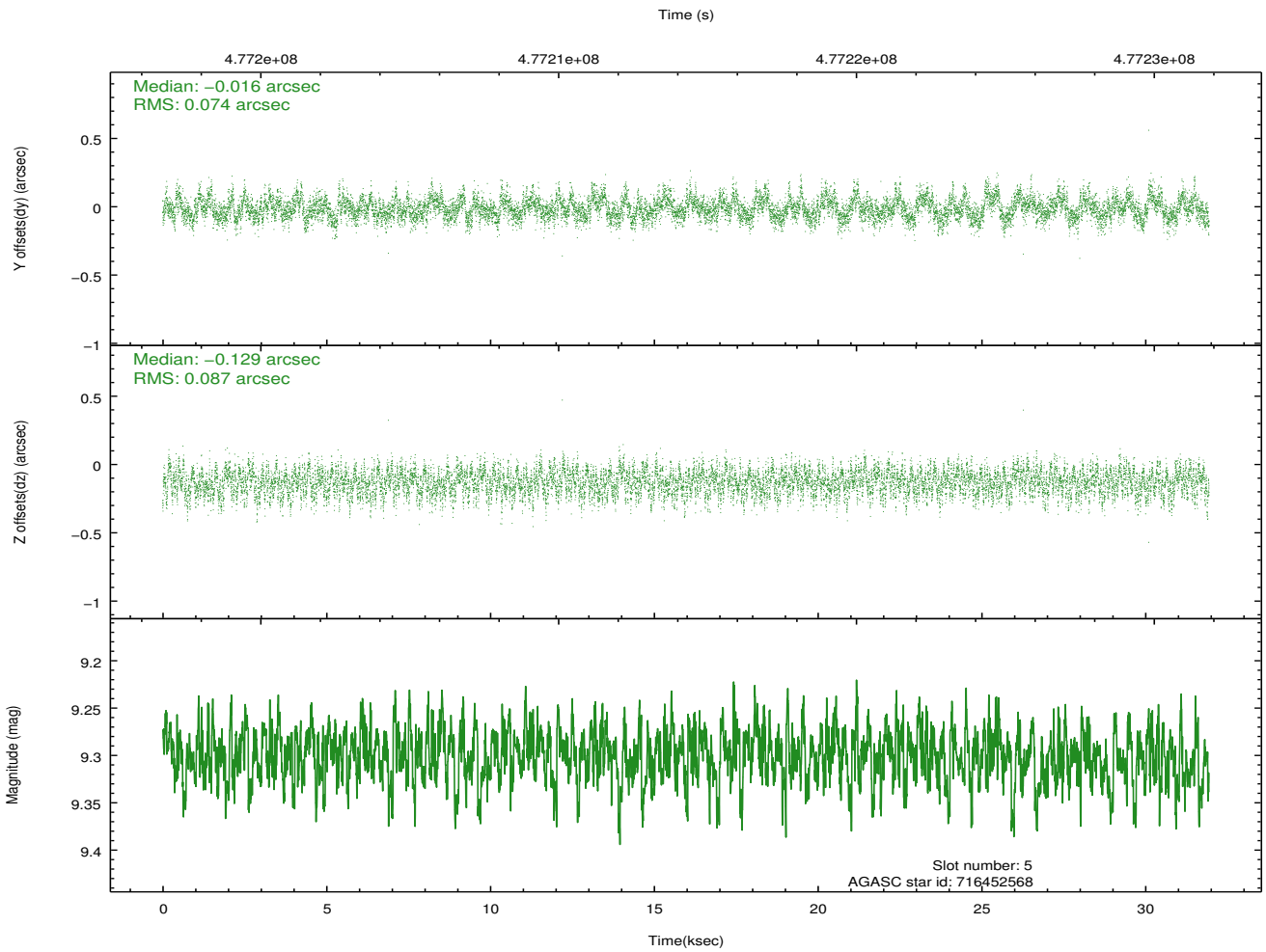
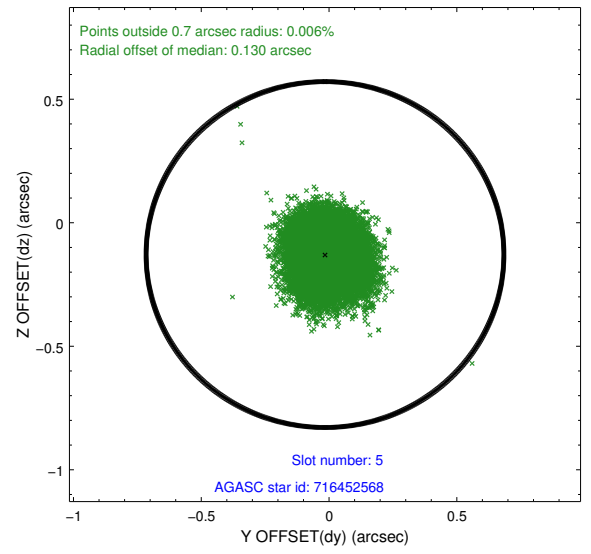
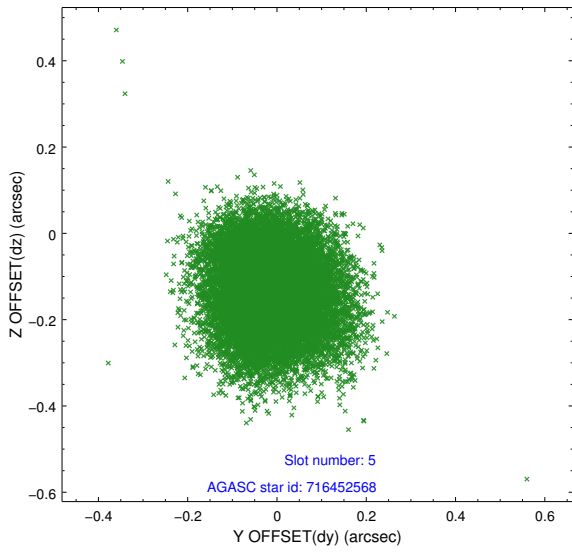
2.4.1 Slot 3



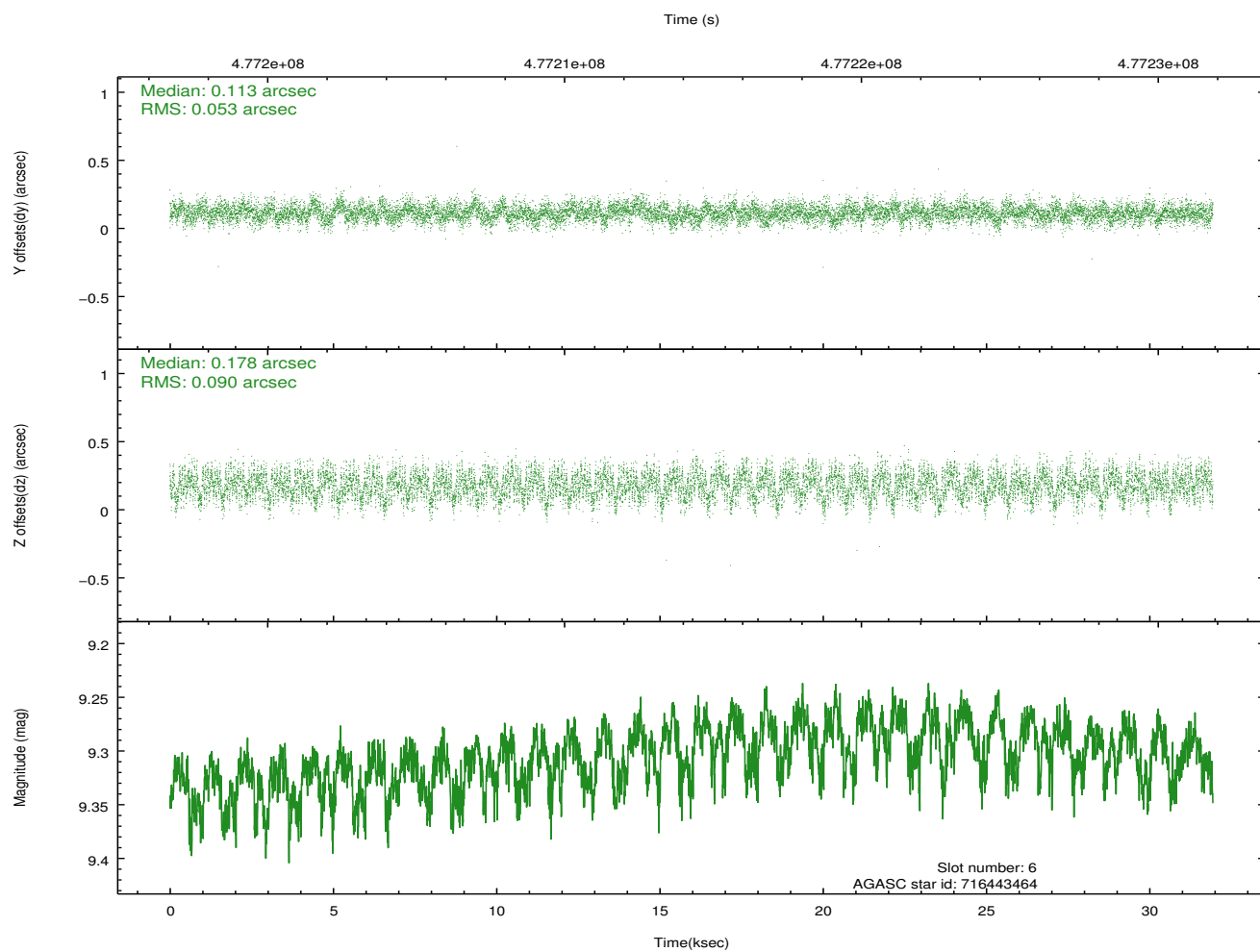
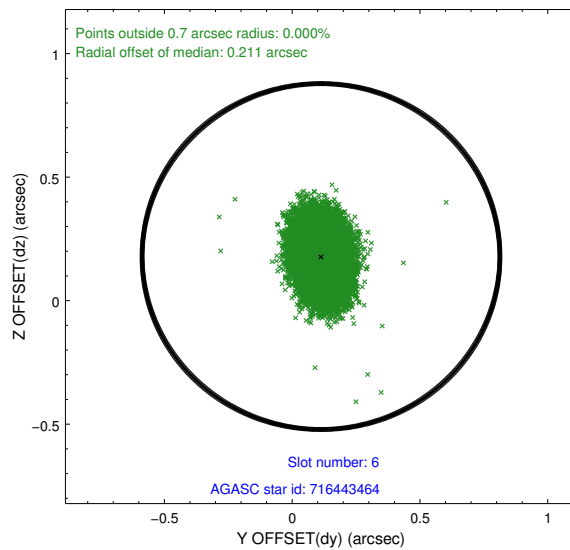
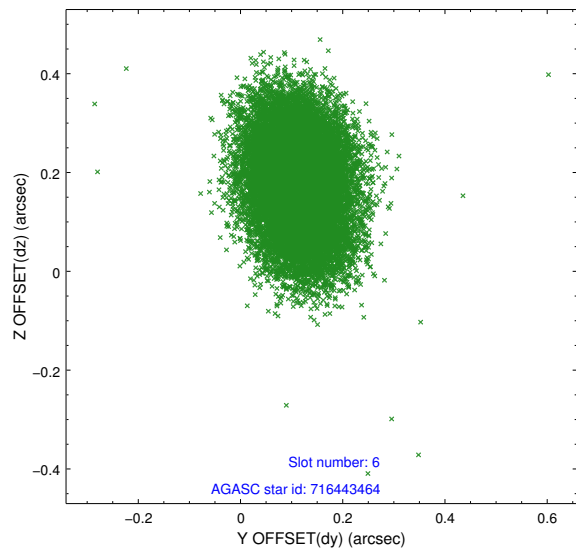
2.4.2 Slot 4



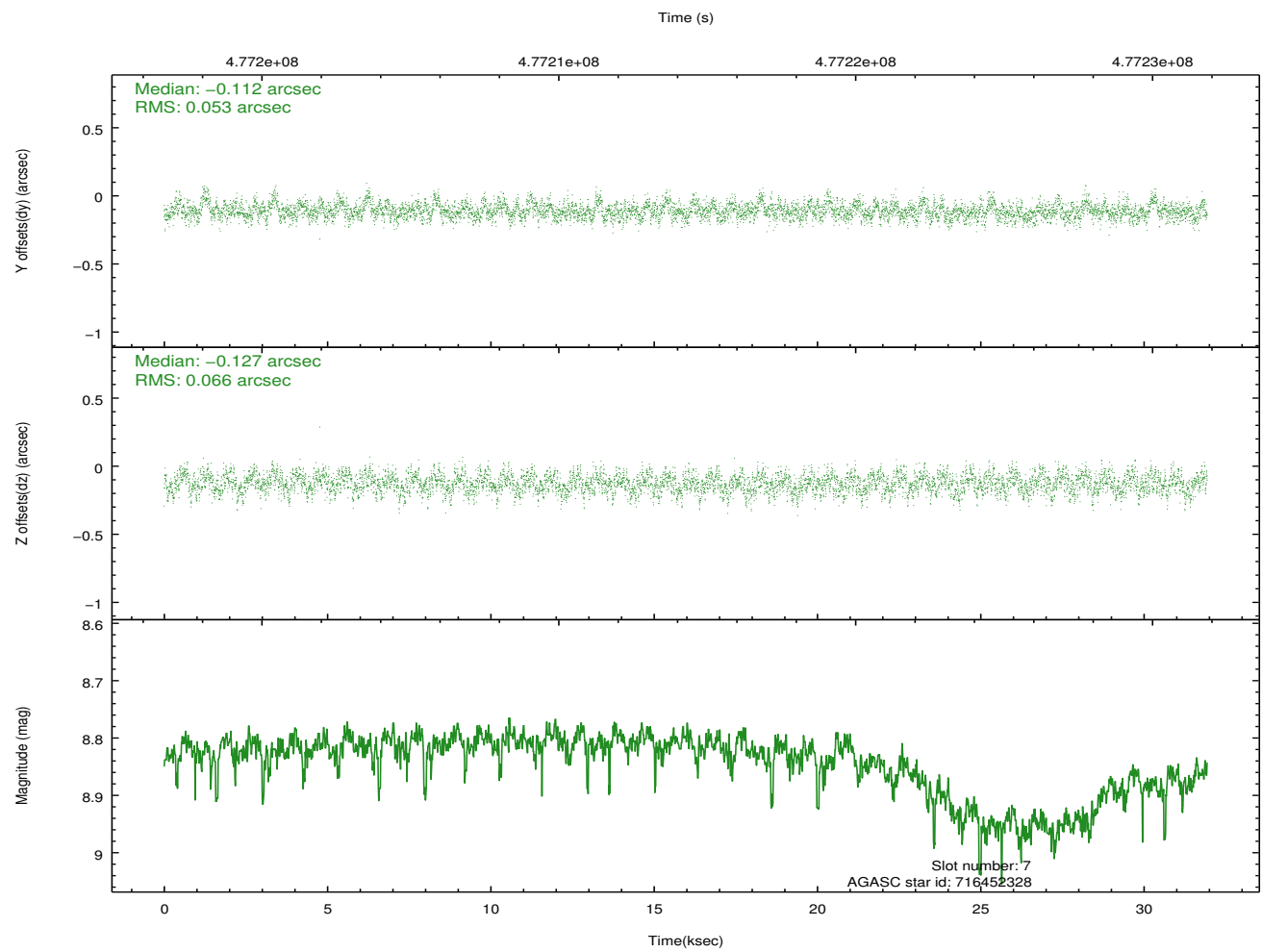
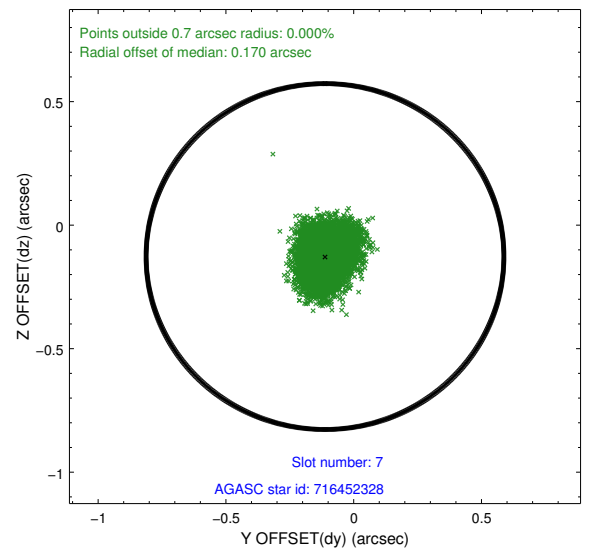
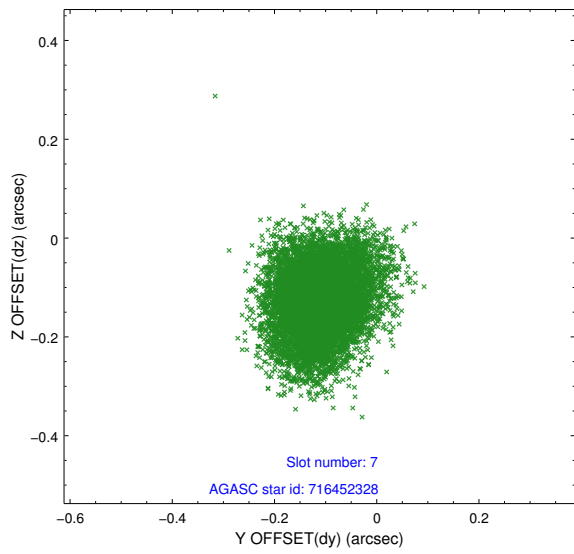
2.4.3 Slot 5



2.4.4 Slot 6

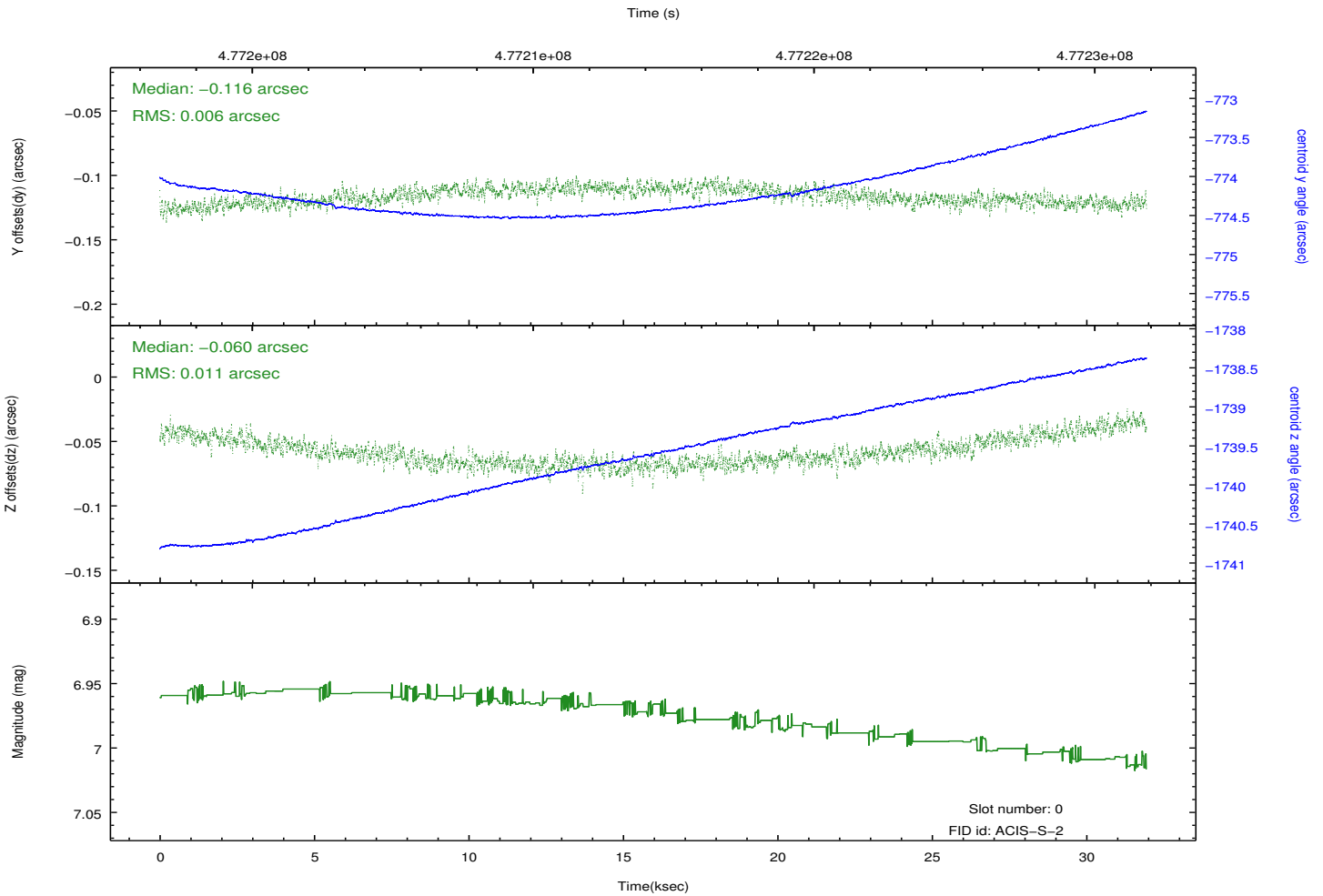
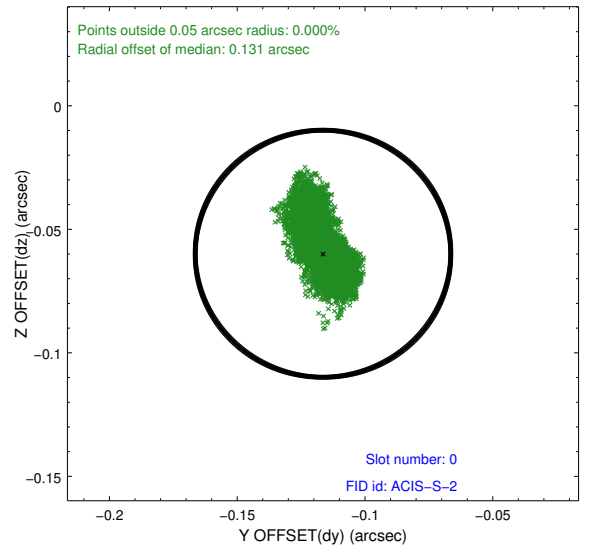
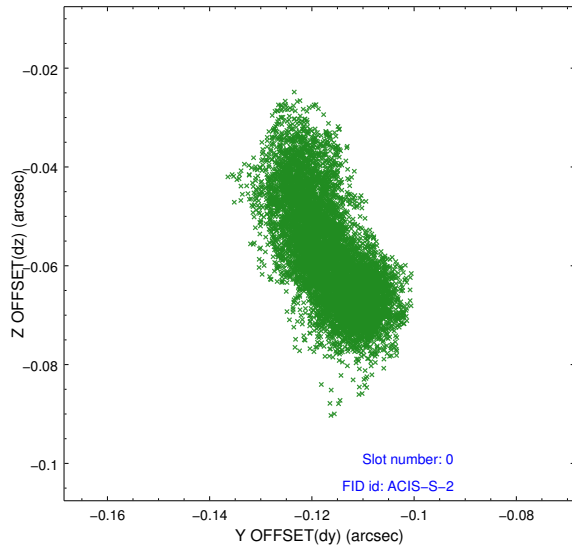


2.4.5 Slot 7

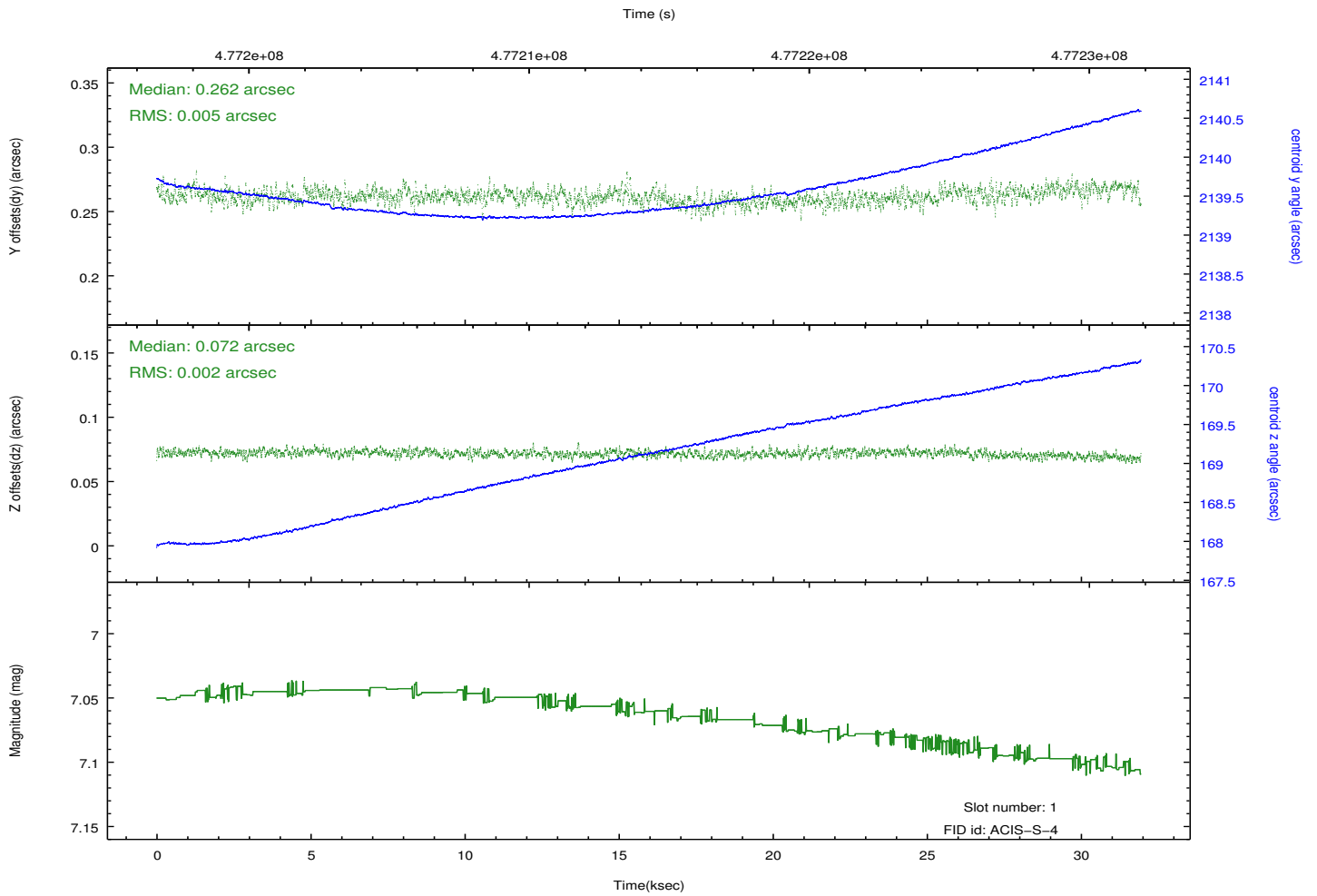
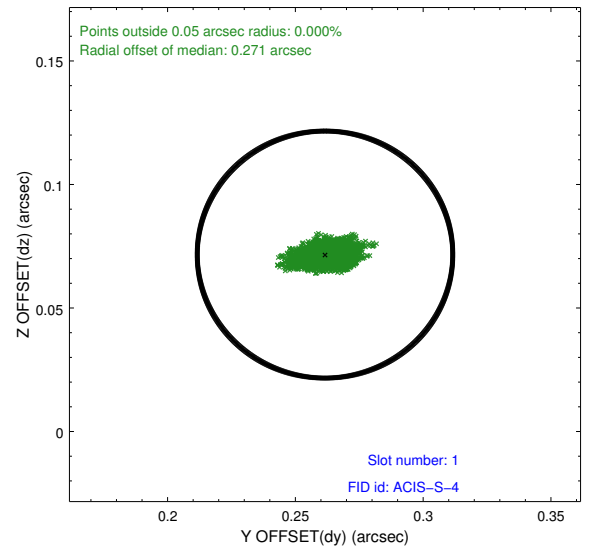
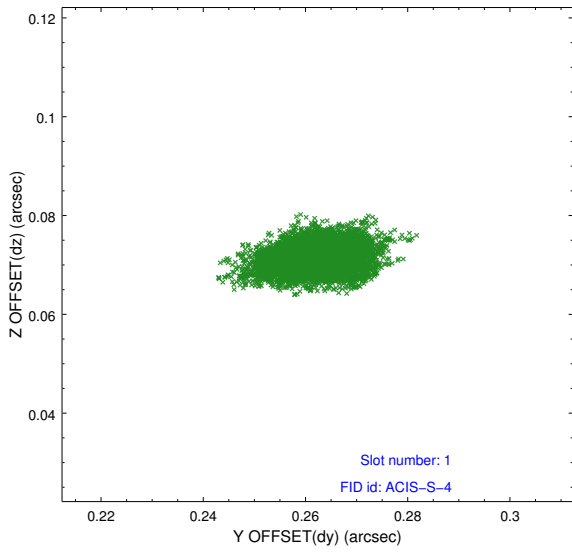


2.5 FID Slots

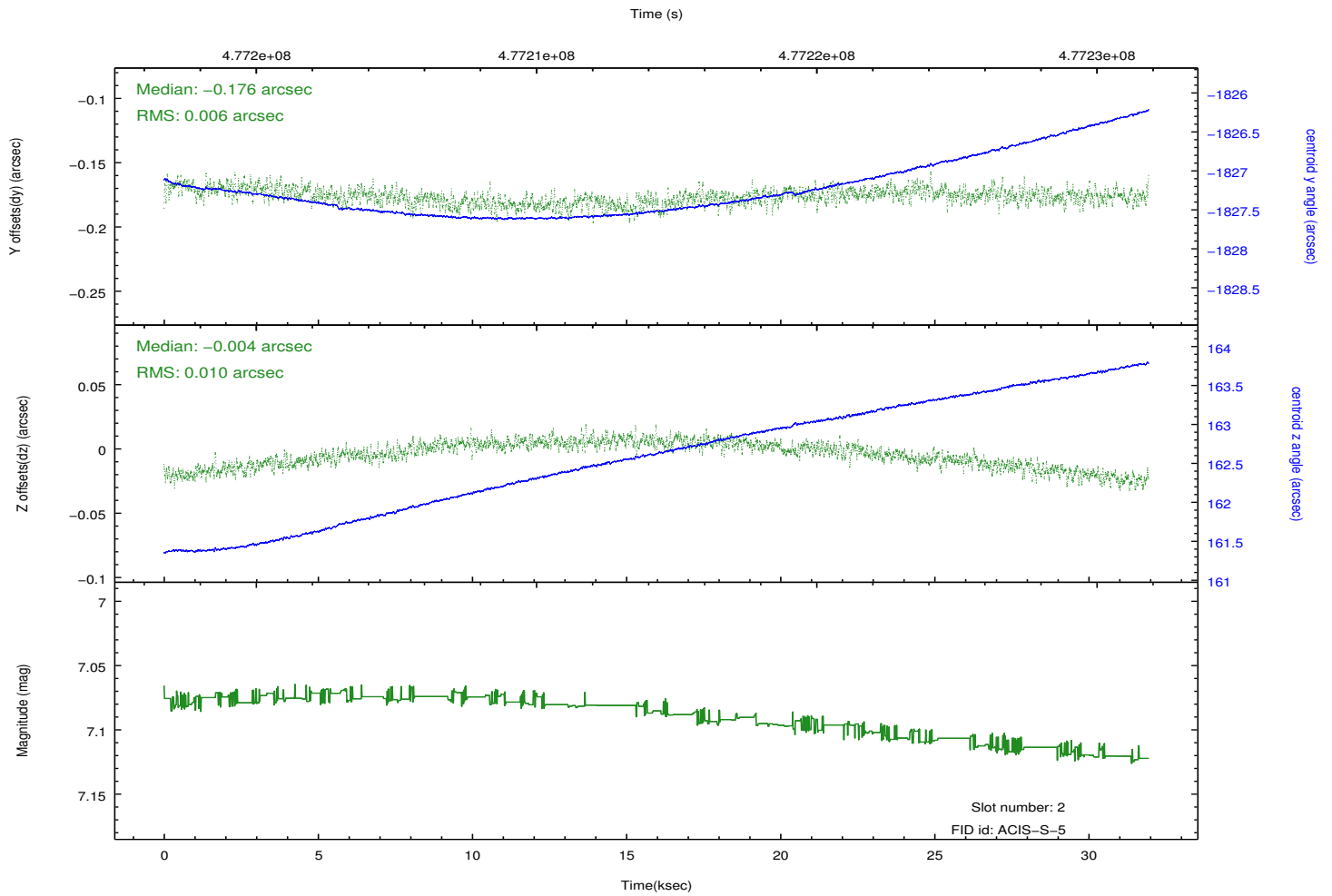
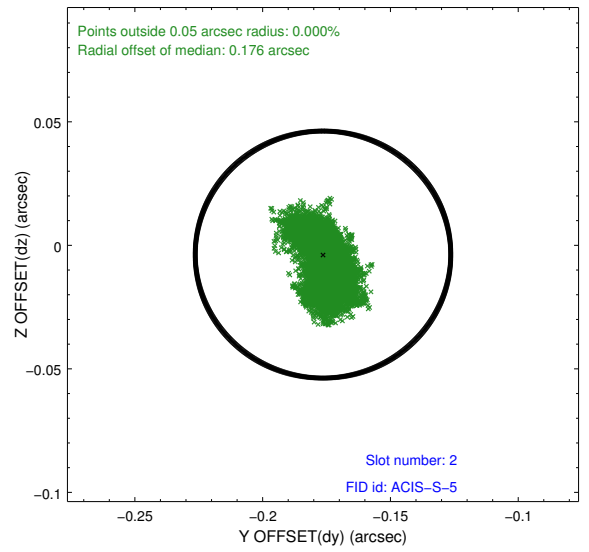
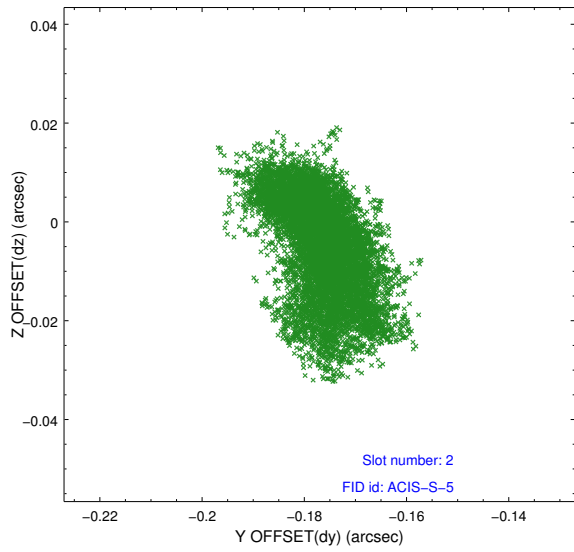
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

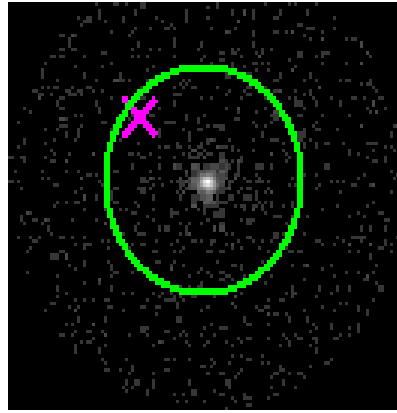


3 Gratings

3.1 HEG Arm



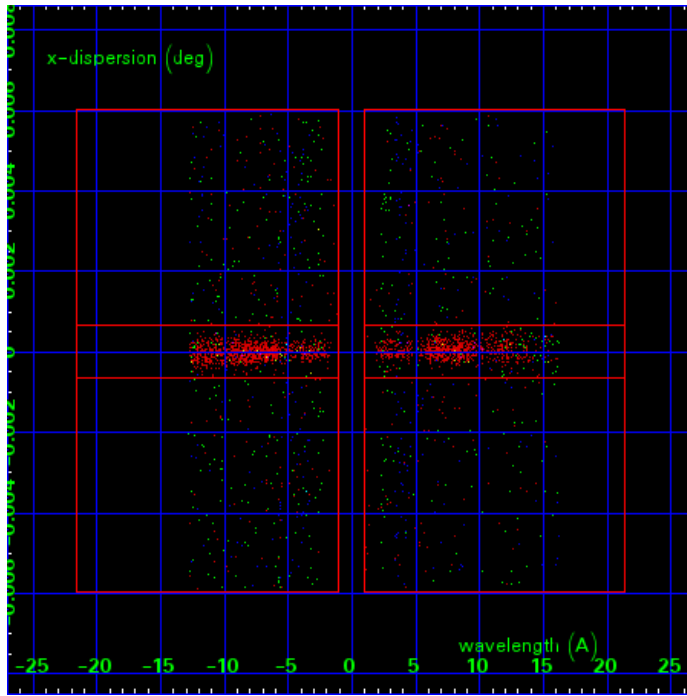
HEG Order Sort 123



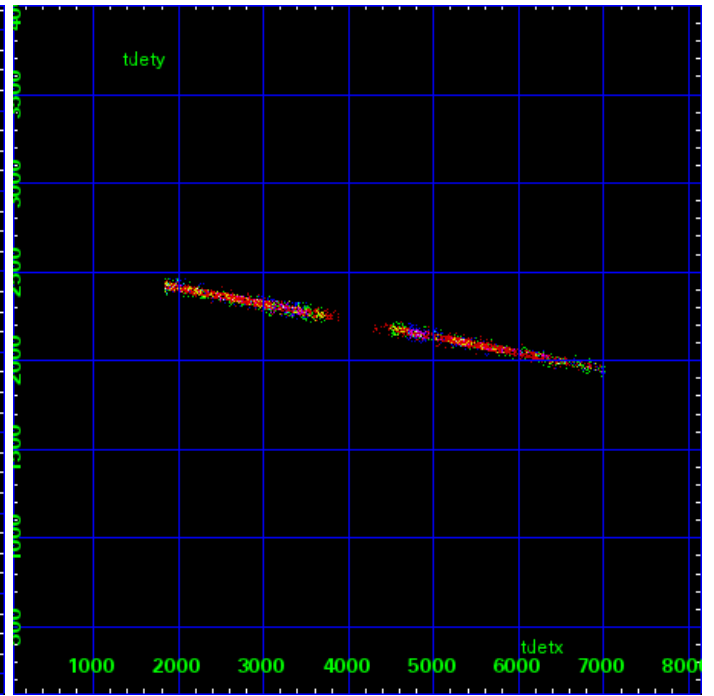
HEG Zero Order



HEG Order Sort ALL

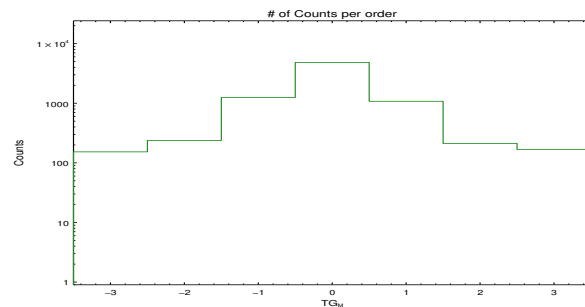


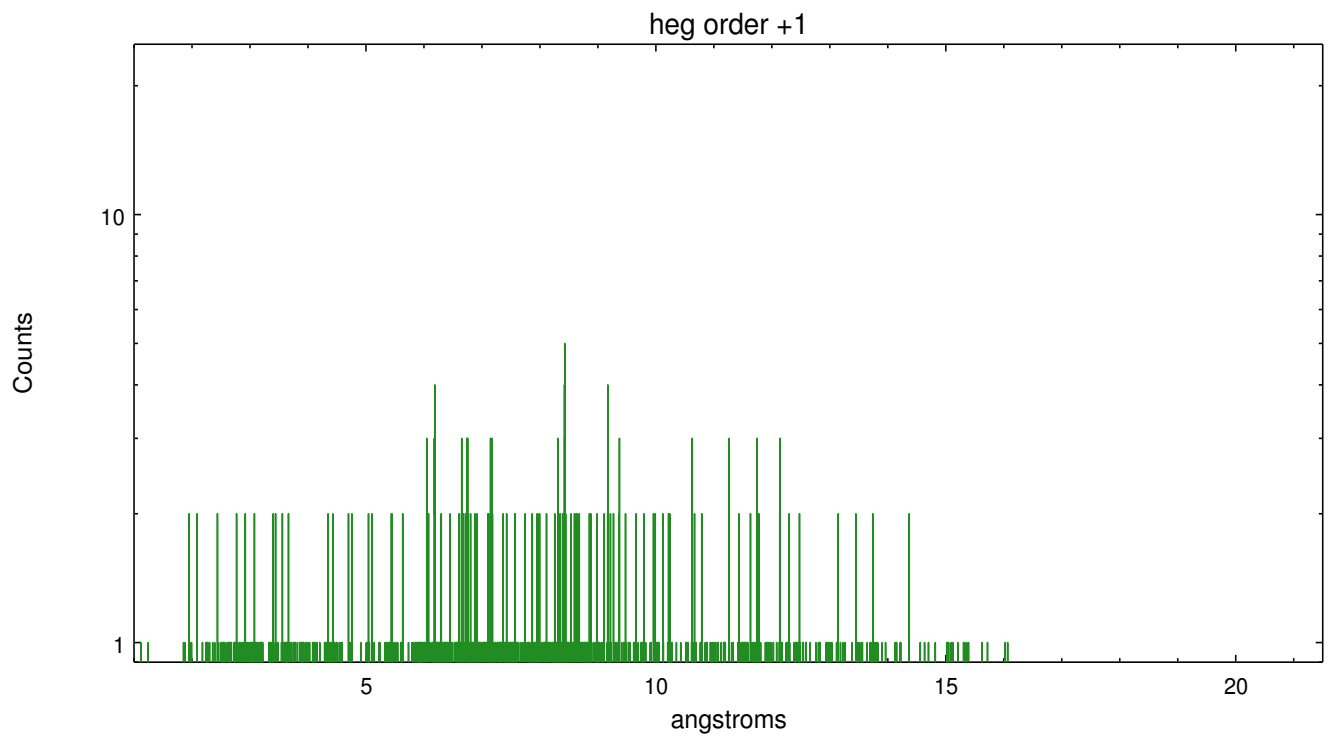
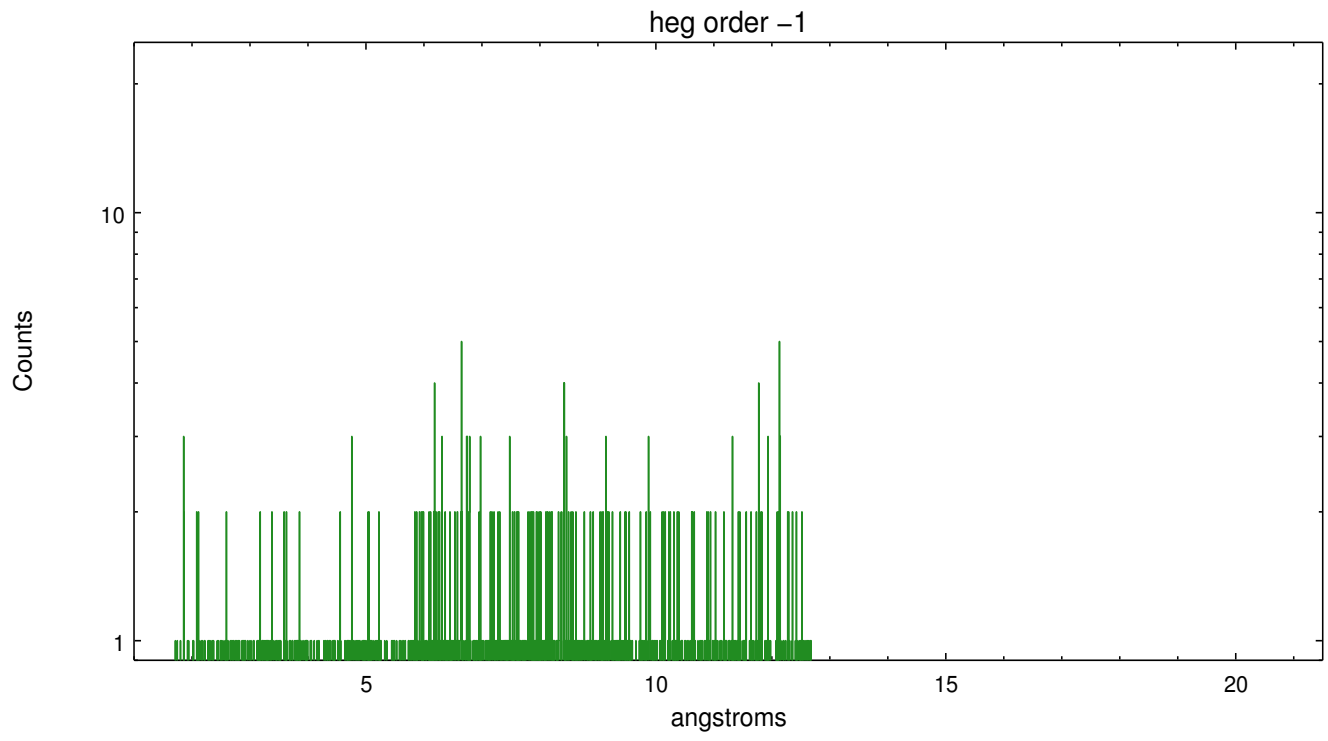
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	153	238	1252	4839	1078	212	168

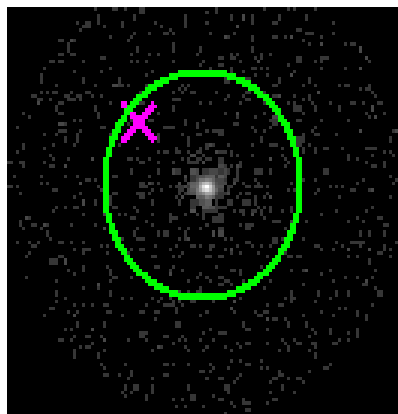




3.2 MEG Arm



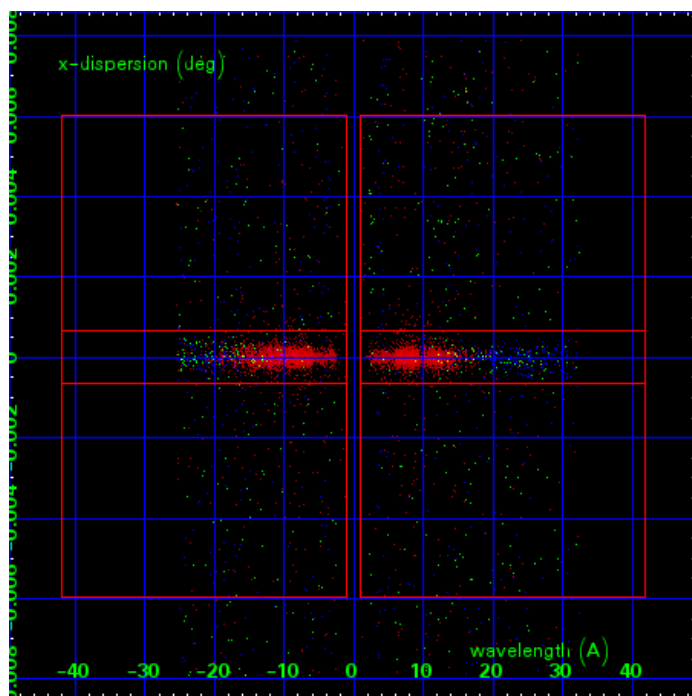
MEG Order Sort 123



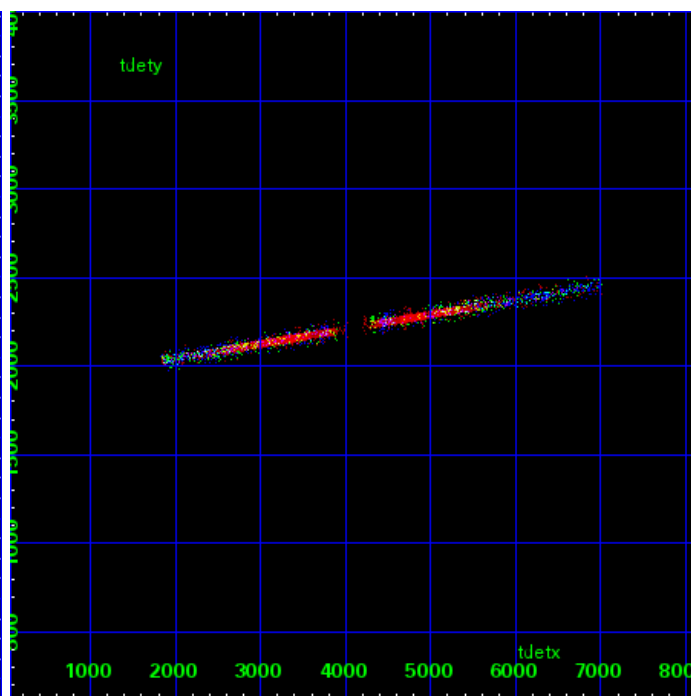
MEG Zero Order



MEG Order Sort ALL

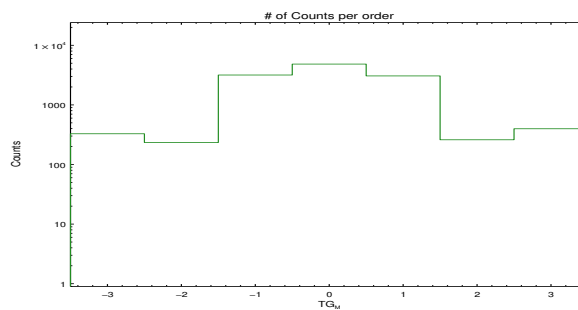


Spot Image MEG

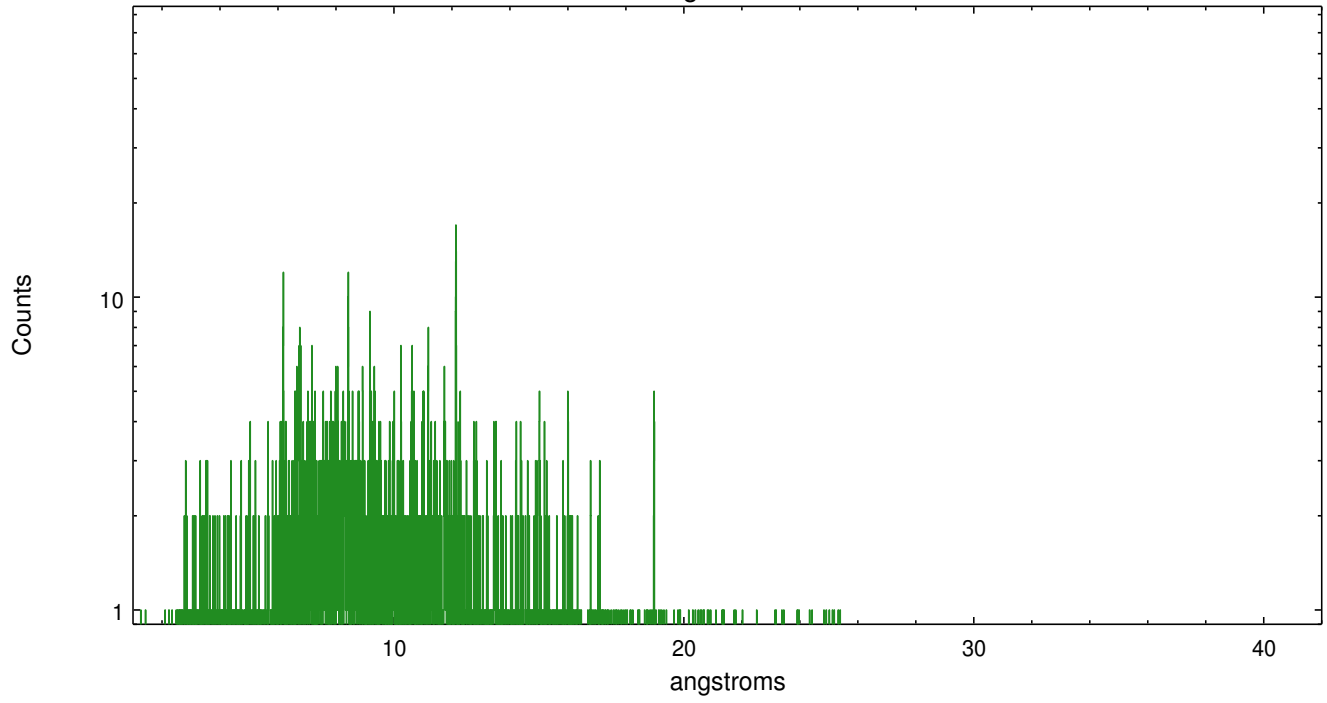


Full Detector MEG

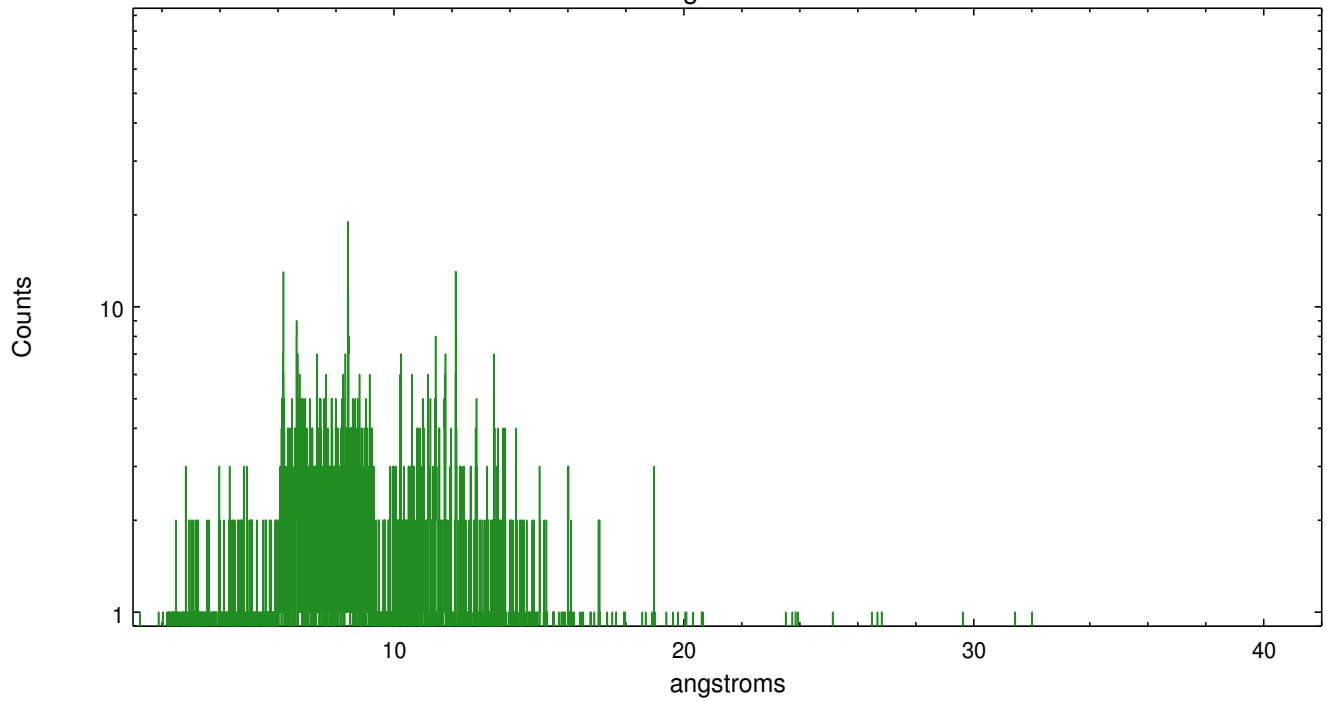
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	328	234	3172	4839	3064	260	398



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2014.12.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	31.762600244284

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.

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Target was monitored at optical wavelengths in slot 7 of the Aspect Camera during the observation.