

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 14616 - L2 Version 4
Chandra X-Ray Center

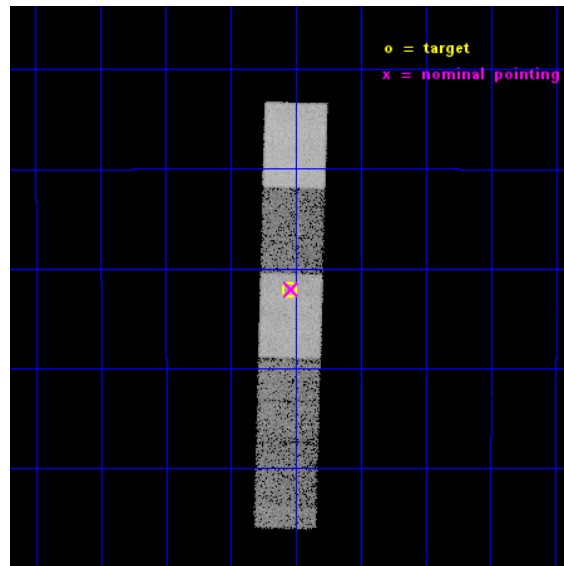
L2 Processing Date : Feb 12 2015

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1 Front

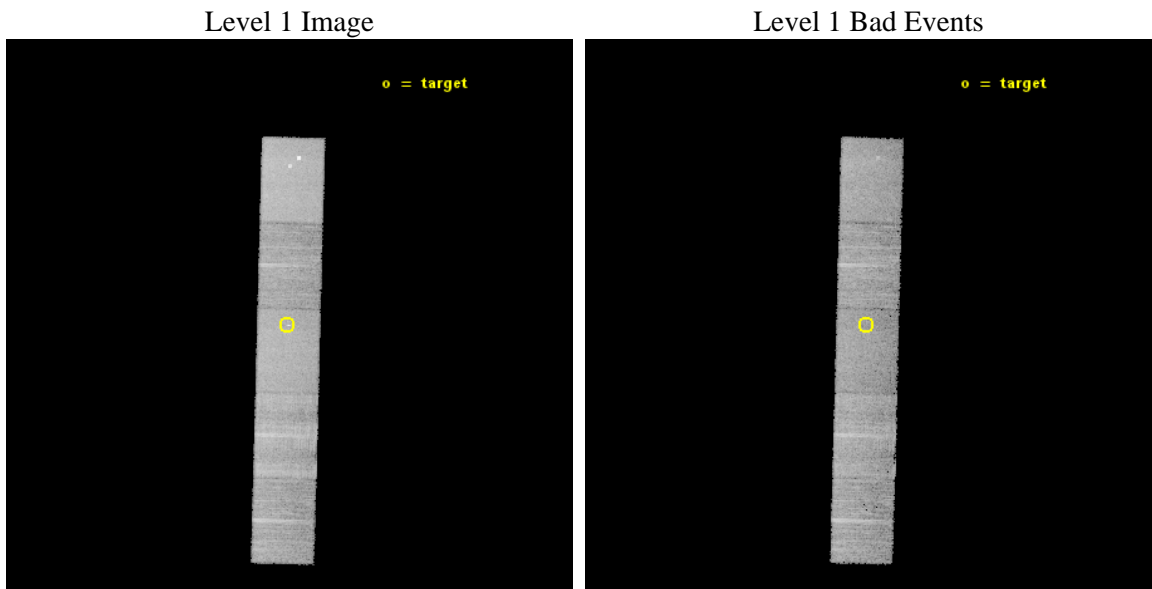
seq_num	401449	Sequence number
obs_id	14616	Observation id
title	Transient LMXBs in Globular Clusters	Proposal title
observer	Dr. David Pooley	Principal investigator
object	M 28	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	276.136708	Observer's specified target RA [deg]
dec_targ	-24.869778	Observer's specified target Dec [deg]
ra_nom	276.13383264622	Nominal RA [deg]
dec_nom	-24.868209620581	Nominal Dec [deg]
roll_nom	91.524803689632	Nominal Roll [deg]
revision	4	Processing version of data
ontime	15047.885641813	Sum of GTIs [s]
livetime	14794.892971992	Livetime [s]
ontime5	15047.84460181	Sum of GTIs [s]
ontime6	15047.803561807	Sum of GTIs [s]
ontime7	15047.885641813	Sum of GTIs [s]
ontime8	15047.762521803	Sum of GTIs [s]
ontime9	15047.7214818	Sum of GTIs [s]
l2events	106402	Number of level 2 events



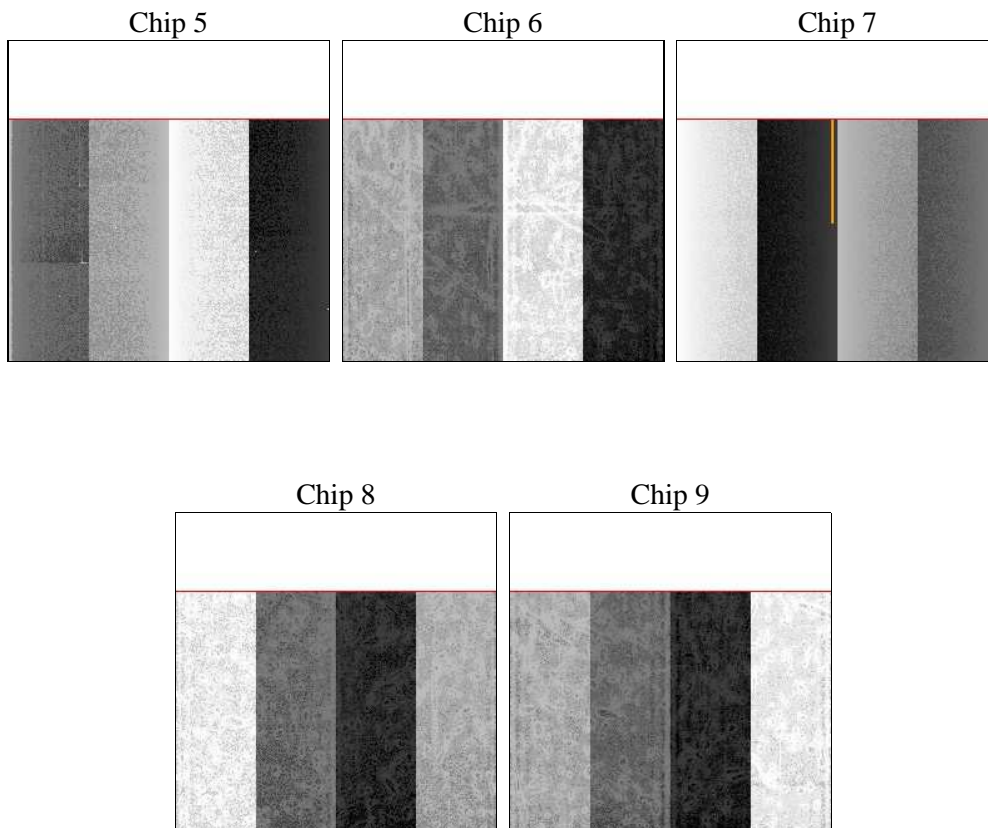
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	15000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	15047.885641813	Sum of GTIs [s]
caldbver	4.6.4	 	ontime5	15047.84460181	Sum of GTIs [s]
date	2014-12-03T05:52:27	Date and time of file creation	ontime6	15047.803561807	Sum of GTIs [s]
revision	2	Processing version of data	ontime7	15047.885641813	Sum of GTIs [s]
			ontime8	15047.762521803	Sum of GTIs [s]
			ontime9	15047.7214818	Sum of GTIs [s]
			l1events	400219	Number of level 1 events
			tgmethod	TGDETECT	Method used to create src1a file
			zo_pos	(4086.75, 4092.25)	src1a sky pixel position

2.1.4 Events

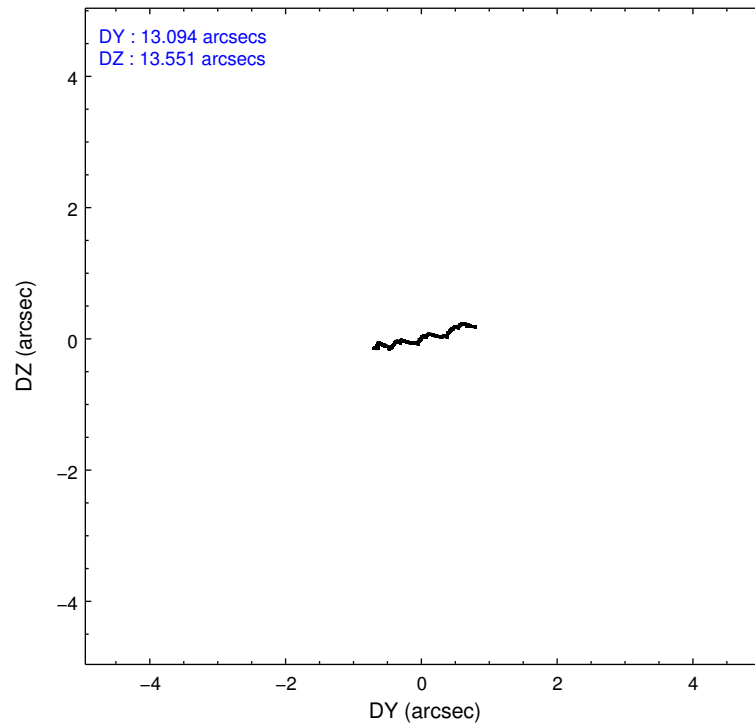
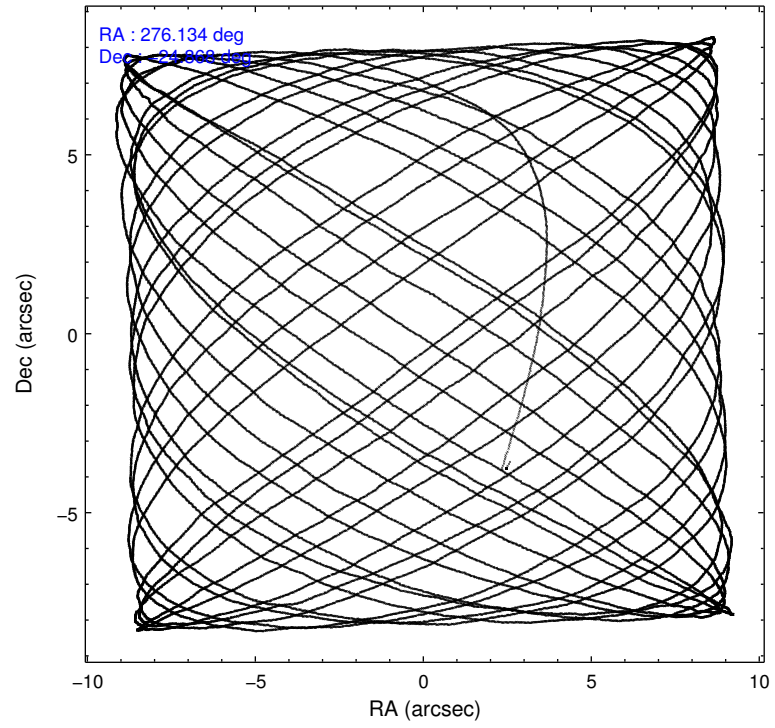
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	105526	61631	84273	87267	61522
rejected events	54145	53753	46464	63647	53359
rejected %	51%	87%	55%	72%	86%

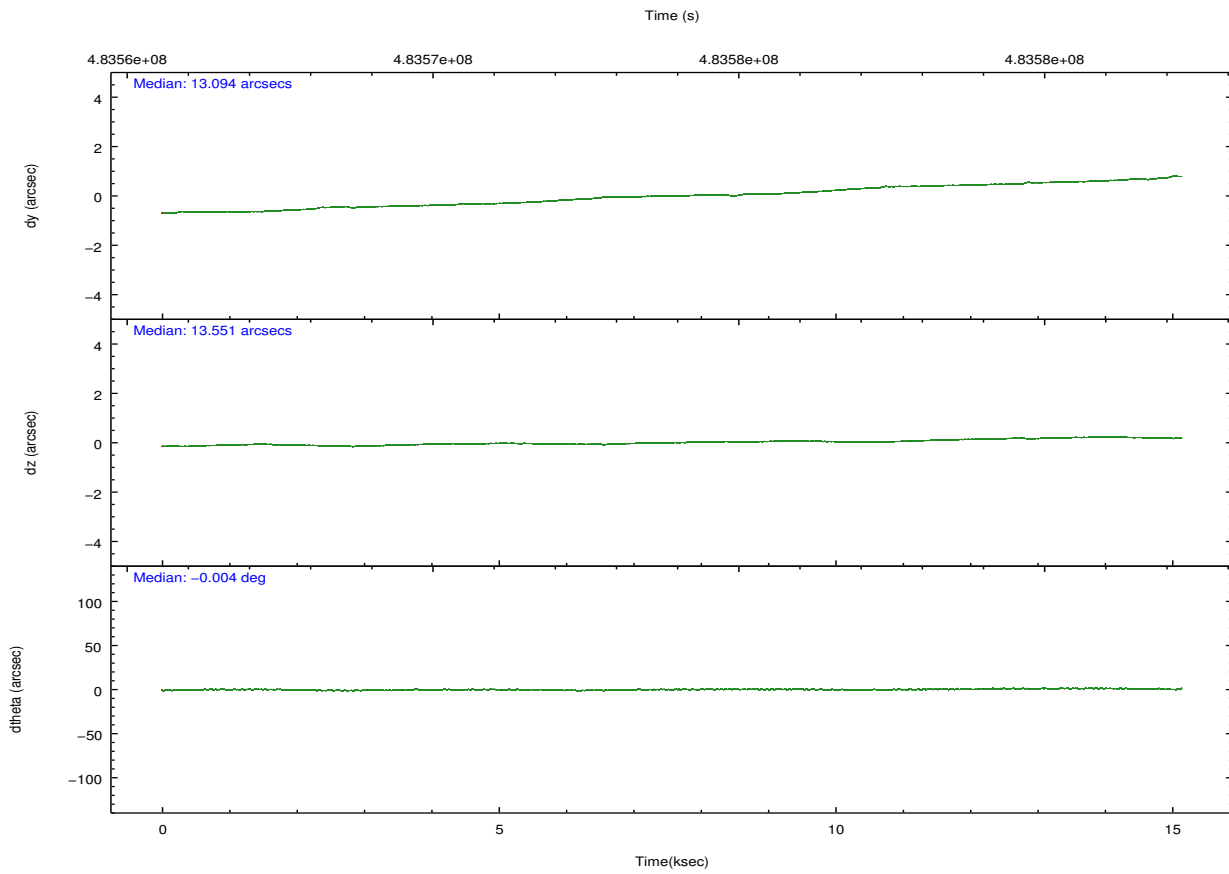
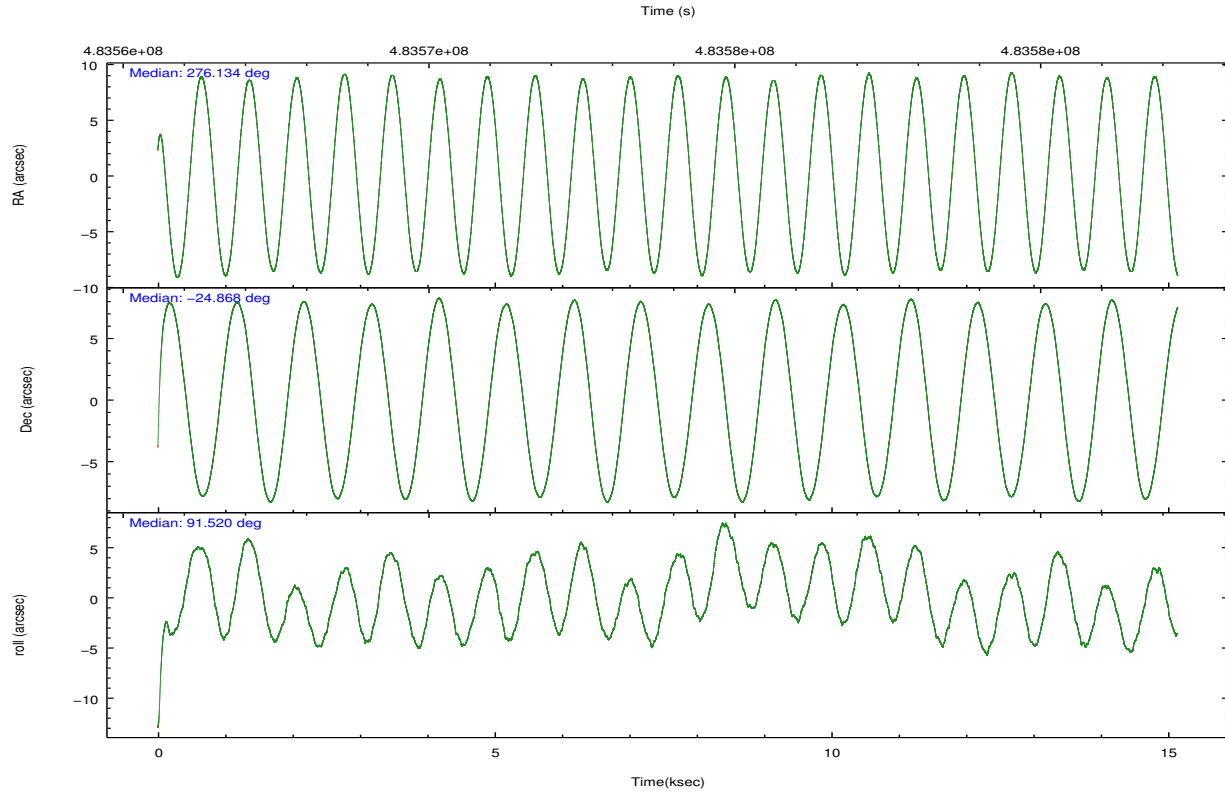
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	5724	2746	3498	6709	2954
	5%	4%	4%	7%	4%
grade 1 events	160	35	108	53	33
	0%	0%	0%	0%	0%
grade 2 events	14797	1790	7779	5459	1763
	14%	2%	9%	6%	2%
grade 3 events	2134	884	3371	2650	859
	2%	1%	4%	3%	1%
grade 4 events	1928	788	3324	2399	809
	1%	1%	3%	2%	1%
grade 5 events	7965	3056	8776	4577	3423
	7%	4%	10%	5%	5%
grade 6 events	26804	1672	19840	6406	1778
	25%	2%	23%	7%	2%
grade 7 events	46014	50660	37577	59014	49903
	43%	82%	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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	276.149954	276.1338326462159	Subarray requested	CUSTOM	CUSTOM
[deg] Pointing Dec	-24.891324	-24.86820962058124	Subarray start row	1	1
[deg] Pointing Roll	91.374969	91.52480368963211	Subarray row count	774	774
[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	2.4
[mm] SIM translation stage pos	-187.132523	-187.1254020033014			
[mm] SIM translation stage offset	-3	-3.007120579706367			
[s] Observation start time (MET)	483566469.184000	483565106.15397			
Observation start date	2013-04-28T20:00:02	2013-04-28T19:38:26			
[s] Observation end time (MET)	483581469.184000	483581701.92987			
Observation end date	2013-04-29T00:10:02	2013-04-29T00:15:01			
Read mode	TIMED	TIMED			

2.3 Aspect





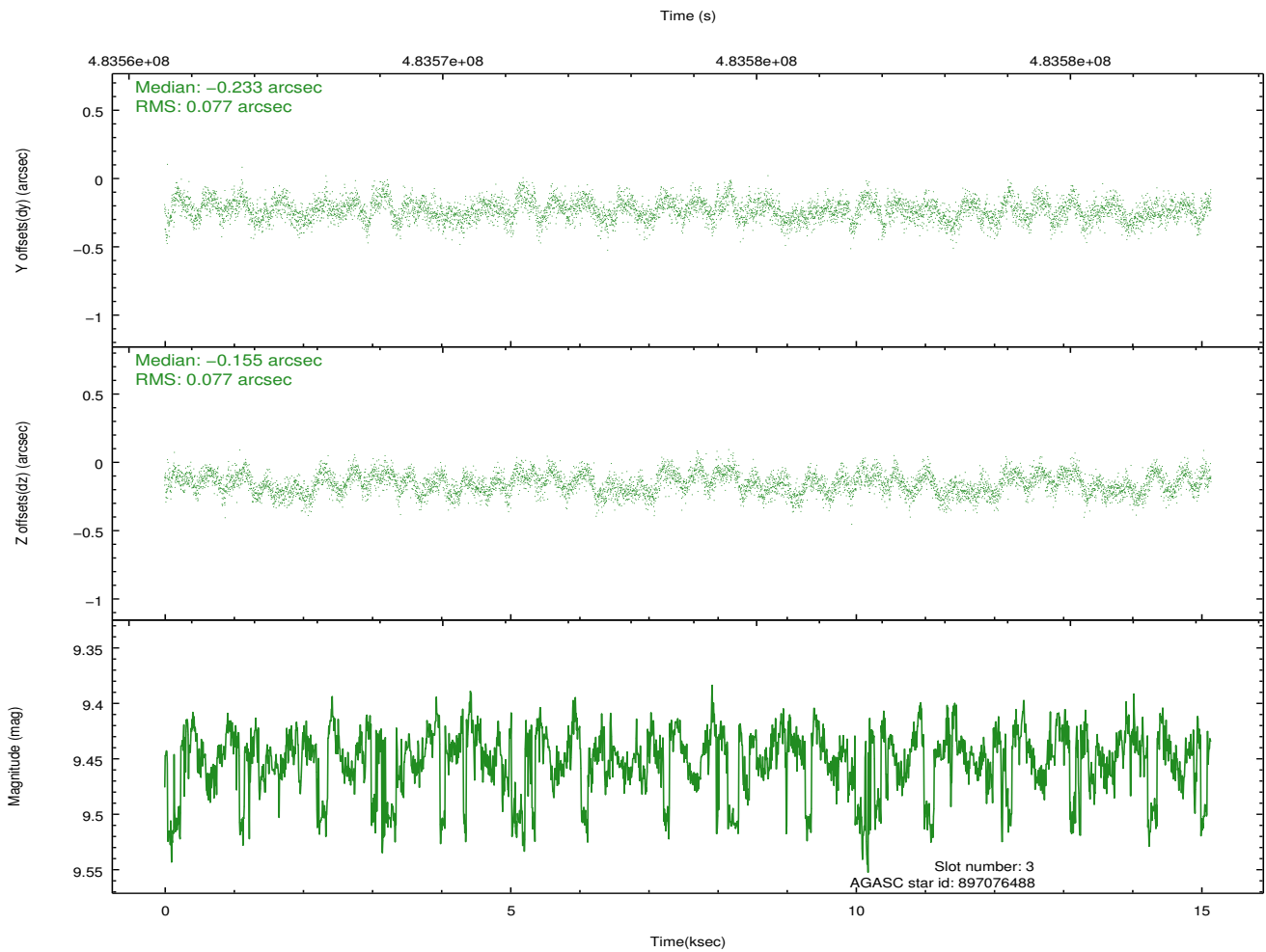
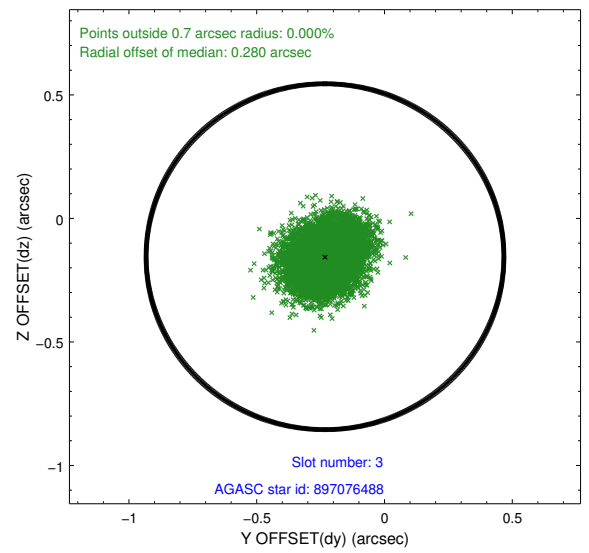
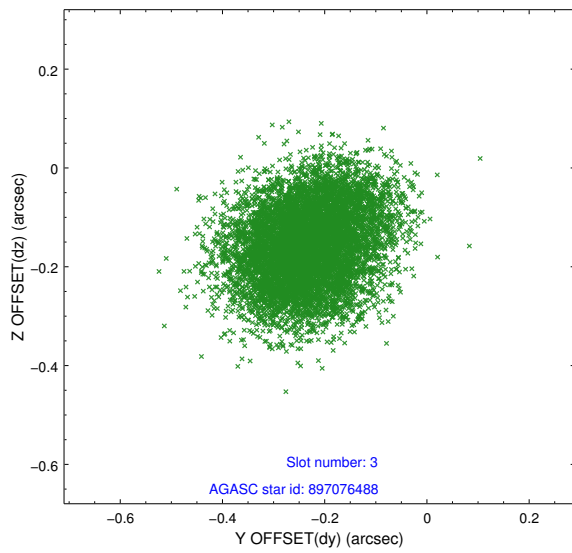
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.01	3694	-0.091	-0.050	0.008	0.013	0.000000	0.000000	-765.89	-1797.04
1	FID		ACIS-S-4	7.10	3694	0.231	0.058	0.017	0.030	0.000000	0.000000	2147.57	111.21
2	FID		ACIS-S-5	7.13	3694	-0.172	0.001	0.016	0.029	0.000000	0.000000	-1818.43	105.17
3	GUIDE	used	897076488	9.45	7348	-0.233	-0.155	0.117	0.185	275.884089	-24.287832	2191.74	820.26
4	GUIDE	used	897581536	8.77	7380	-0.090	0.177	0.079	0.131	276.270189	-24.414428	1707.18	-434.79
5	GUIDE	used	897585408	8.93	7367	-0.114	-0.047	0.087	0.141	276.128475	-24.385394	1822.52	26.49
6	GUIDE	used	897607632	9.03	7384	0.126	-0.337	0.113	0.181	275.528210	-25.239953	-1210.56	2054.09
7	GUIDE	used	899295912	9.15	7366	0.312	0.358	0.094	0.151	276.702891	-25.456161	-2079.13	-1747.53

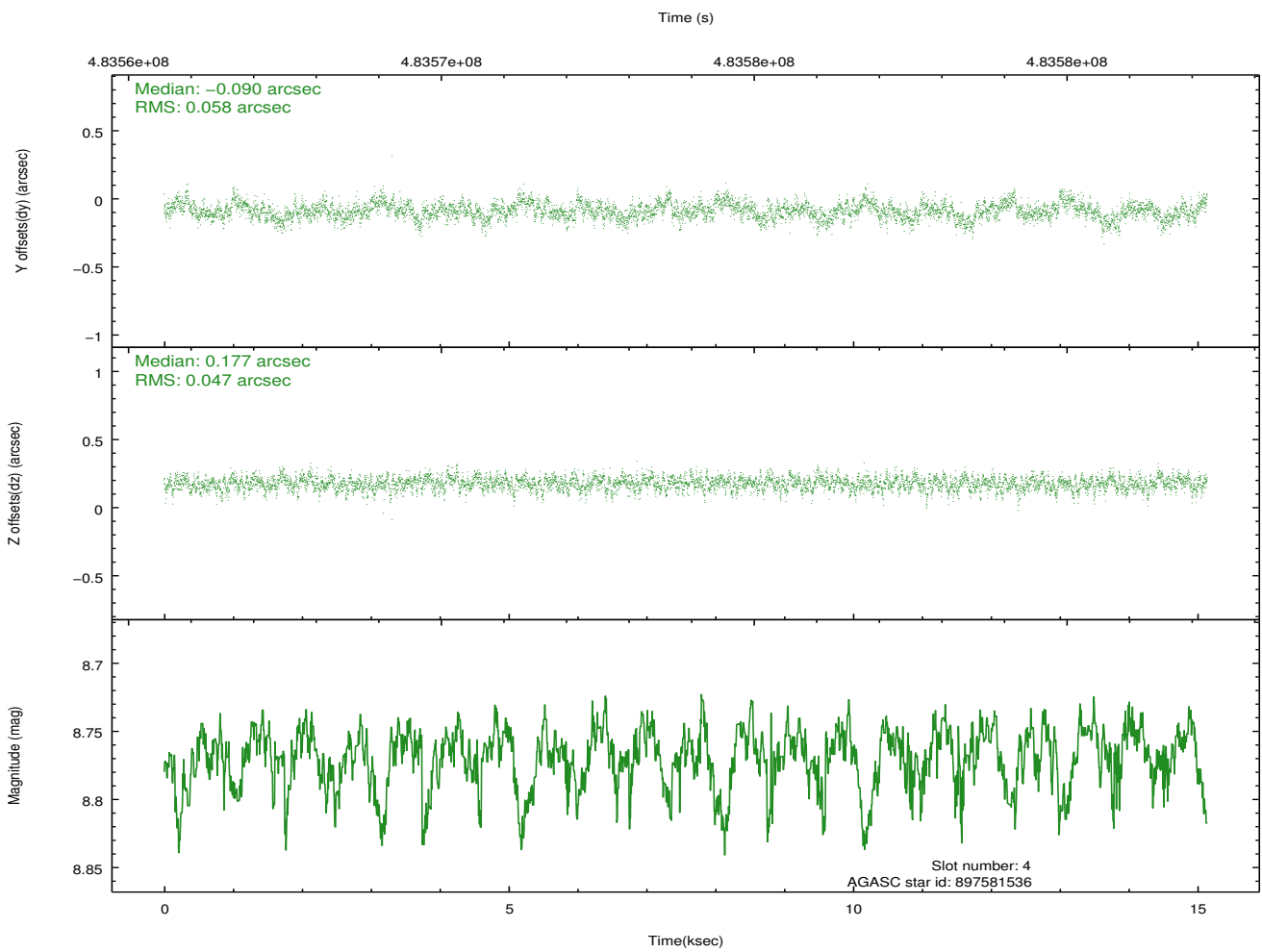
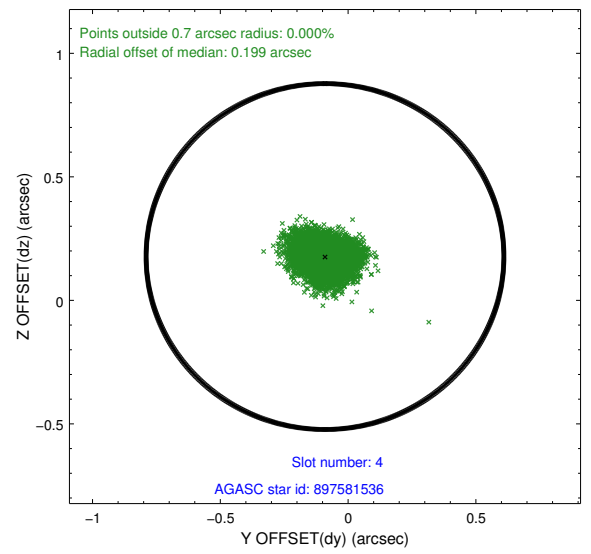
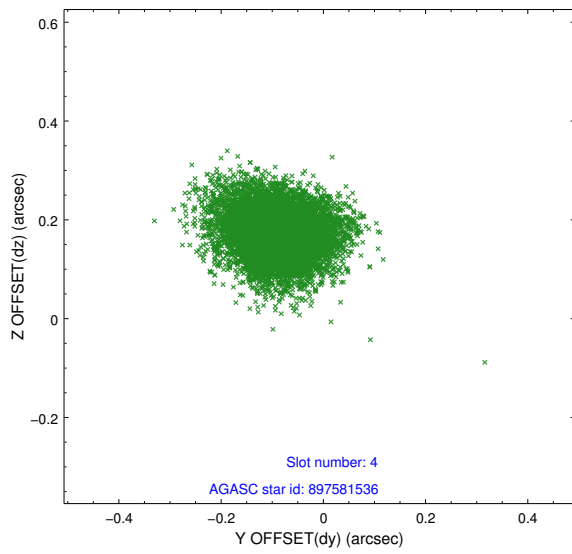
∞

2.4 Star Slots

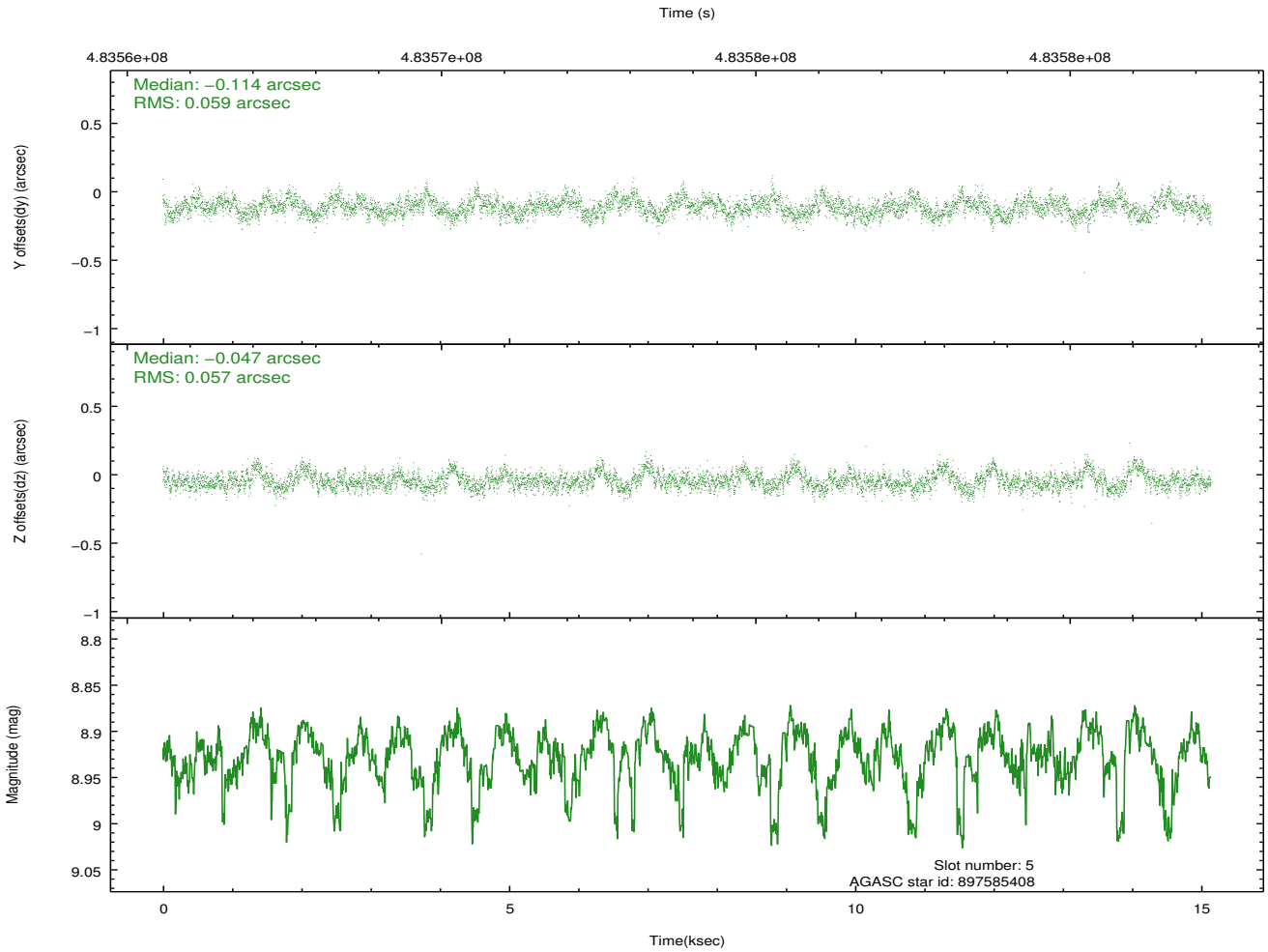
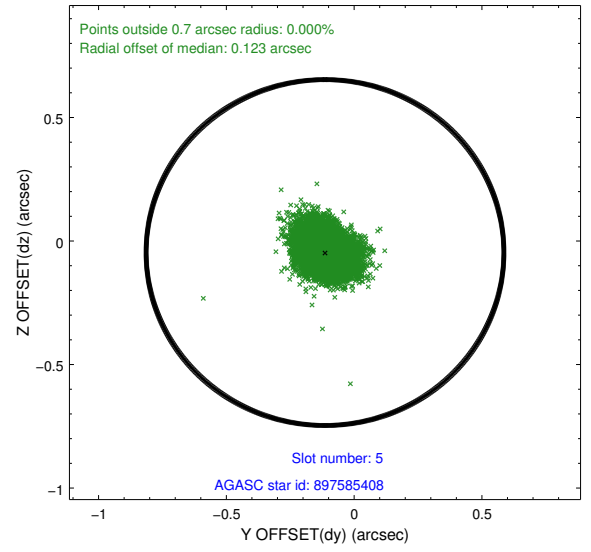
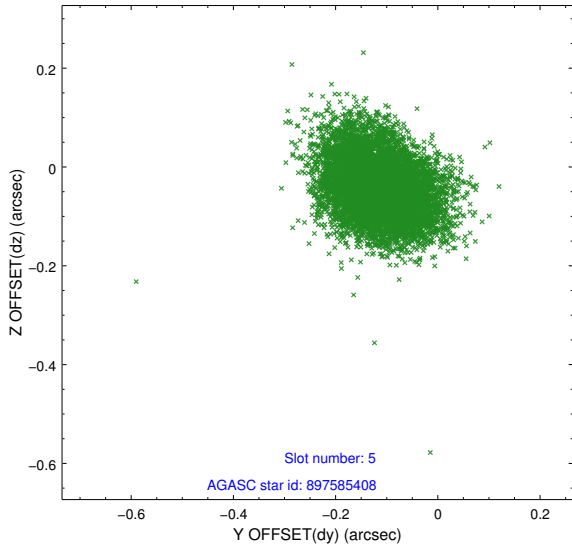
2.4.1 Slot 3



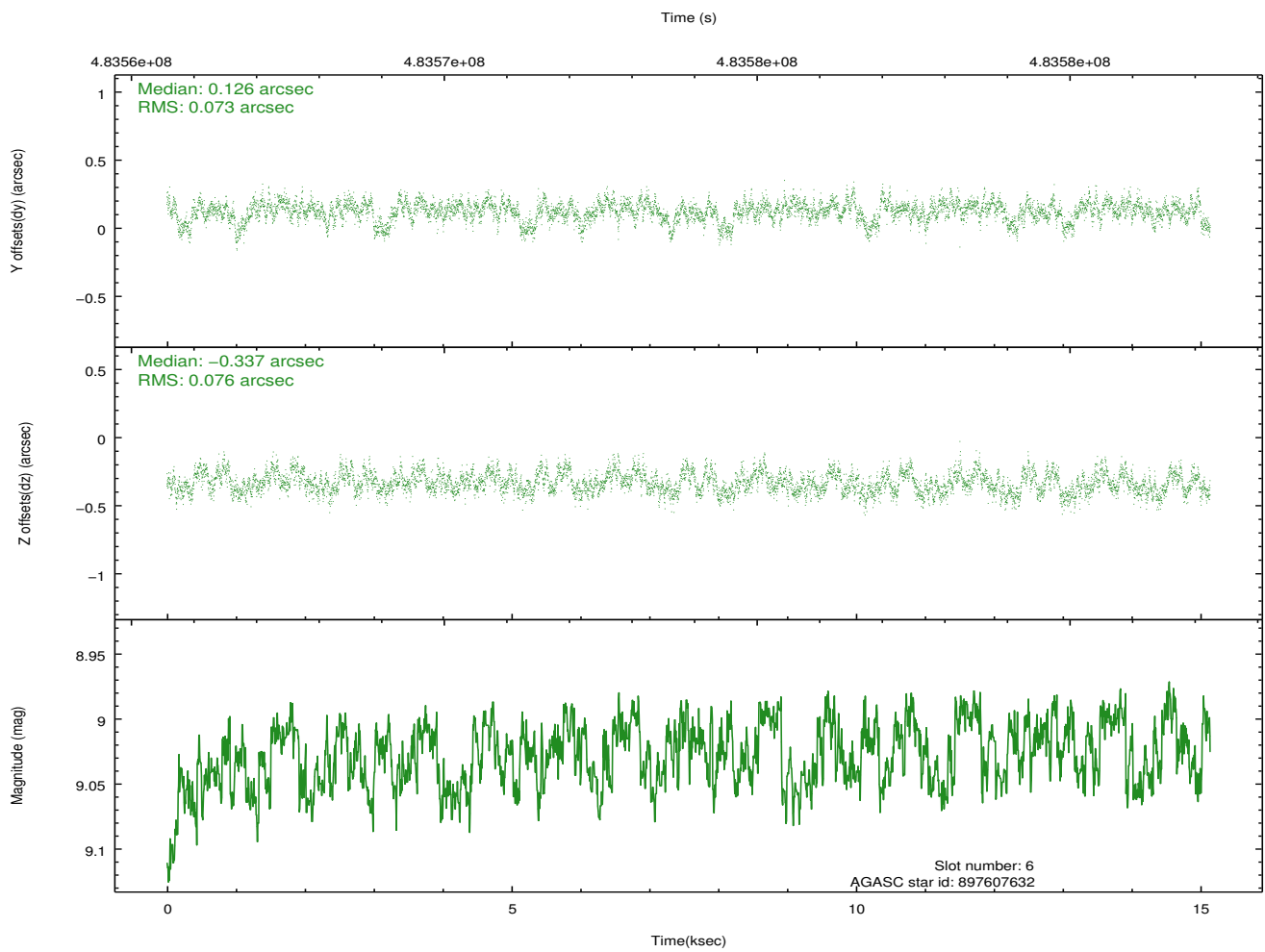
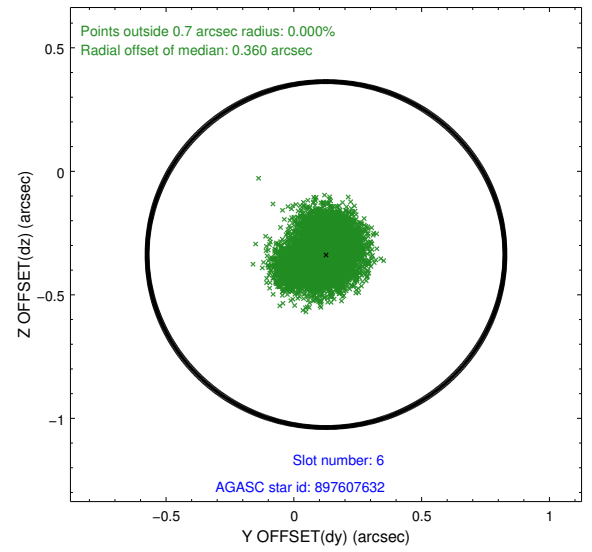
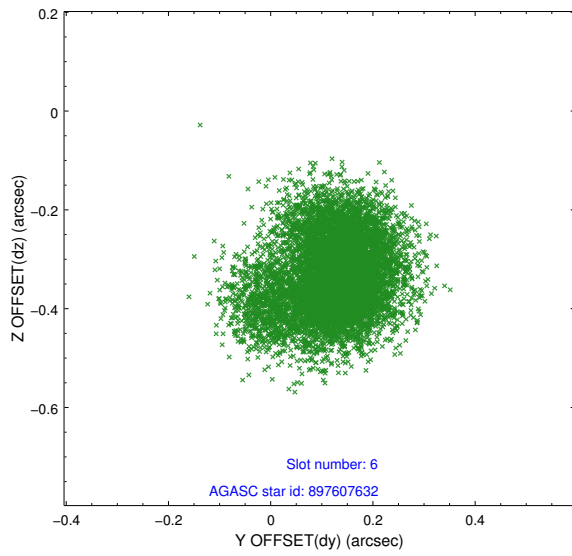
2.4.2 Slot 4



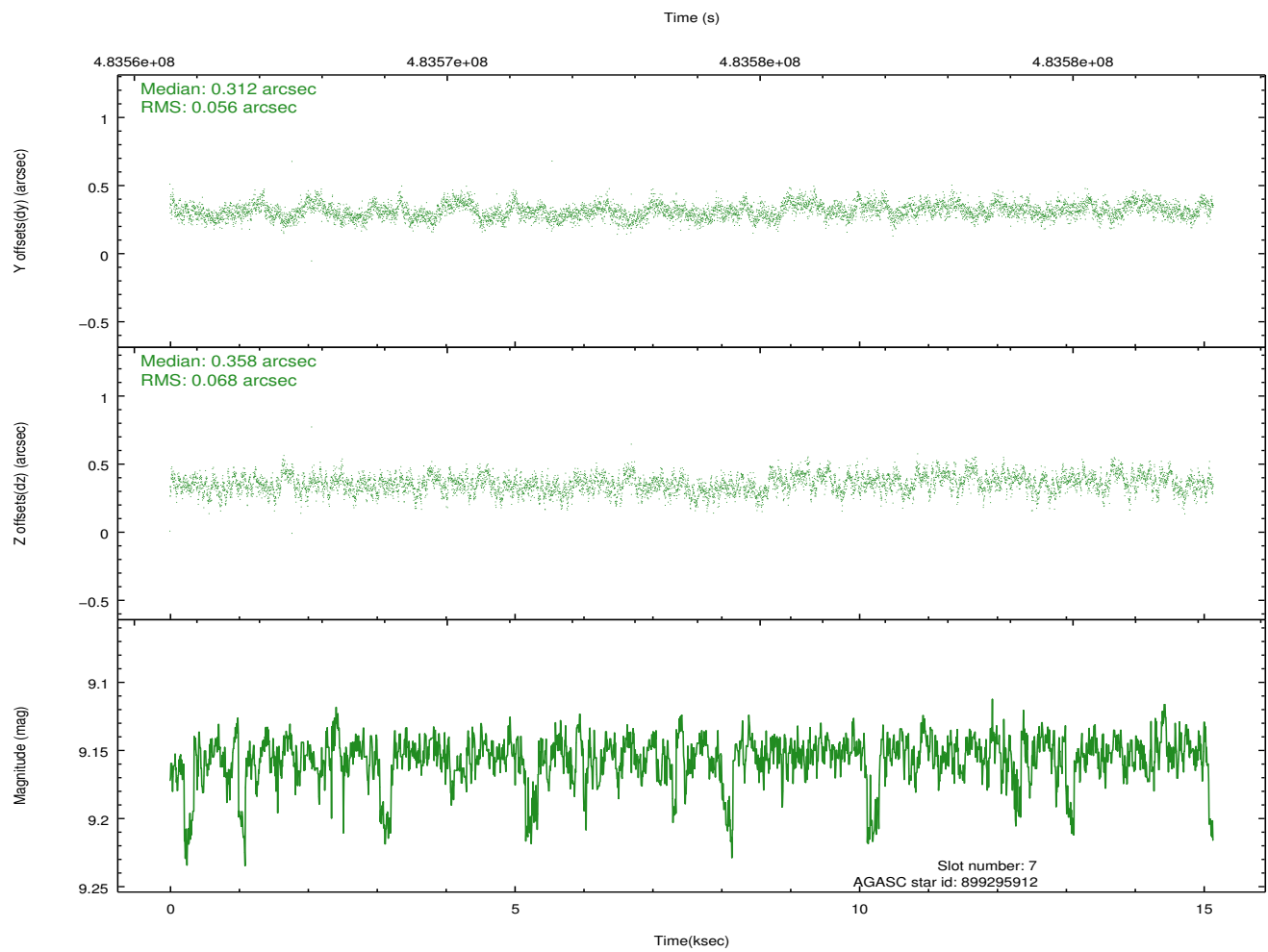
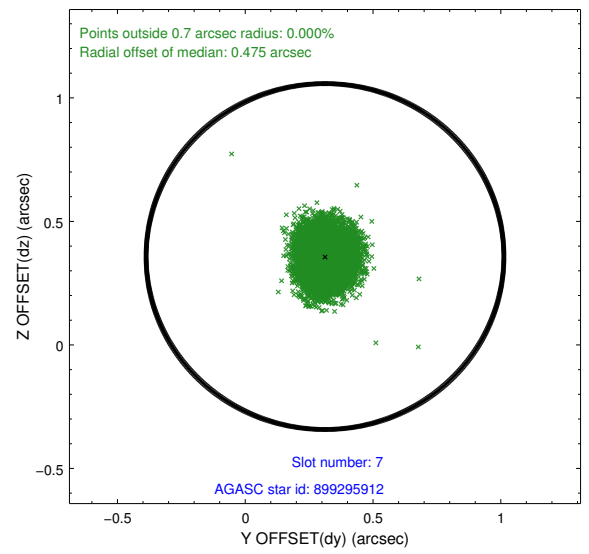
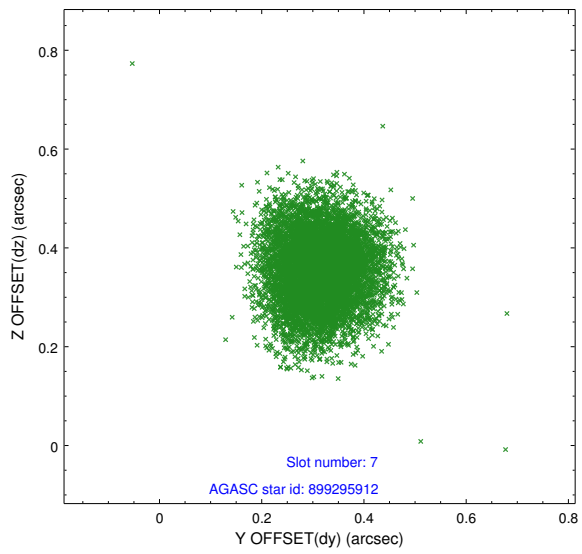
2.4.3 Slot 5



2.4.4 Slot 6

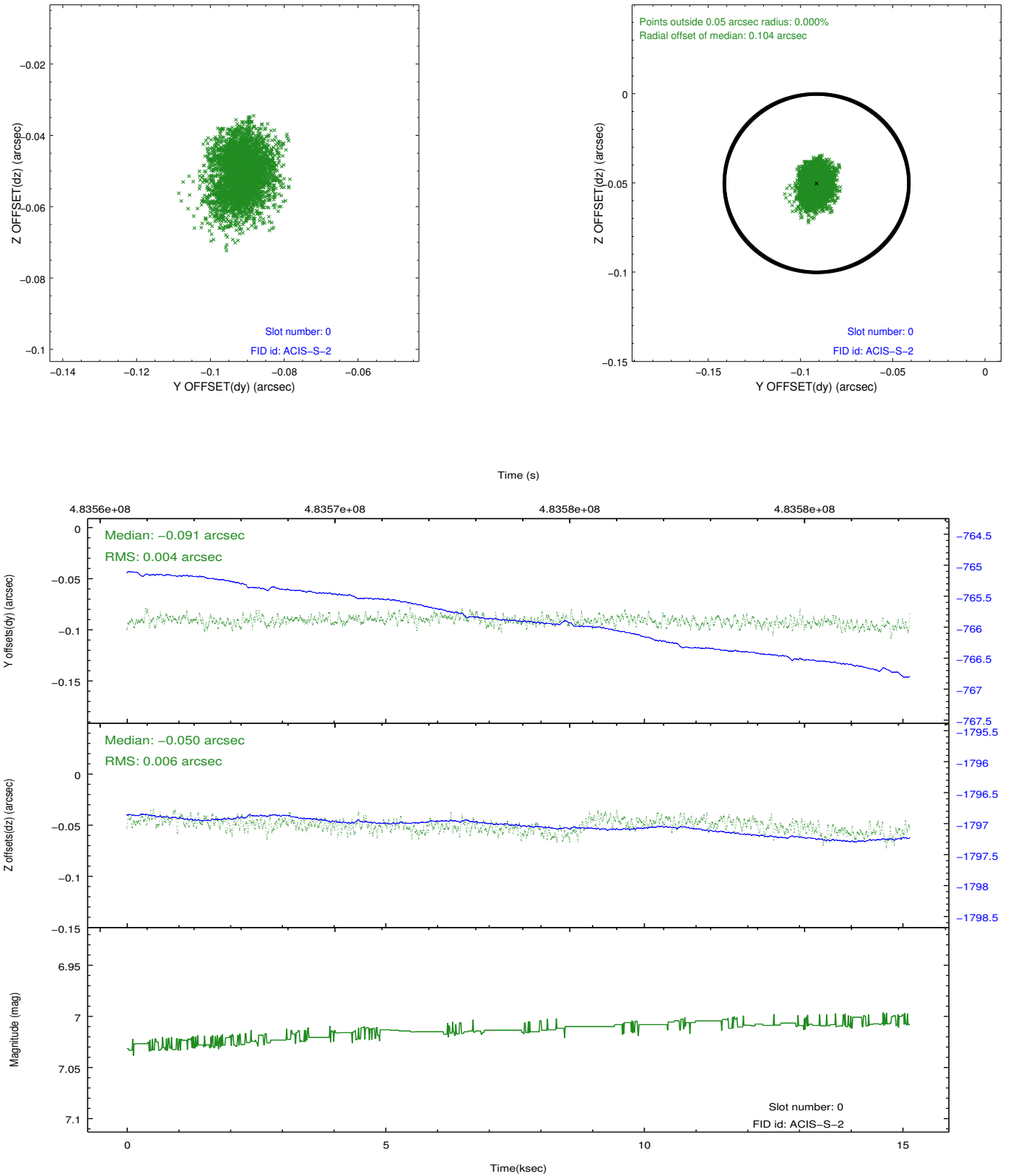


2.4.5 Slot 7

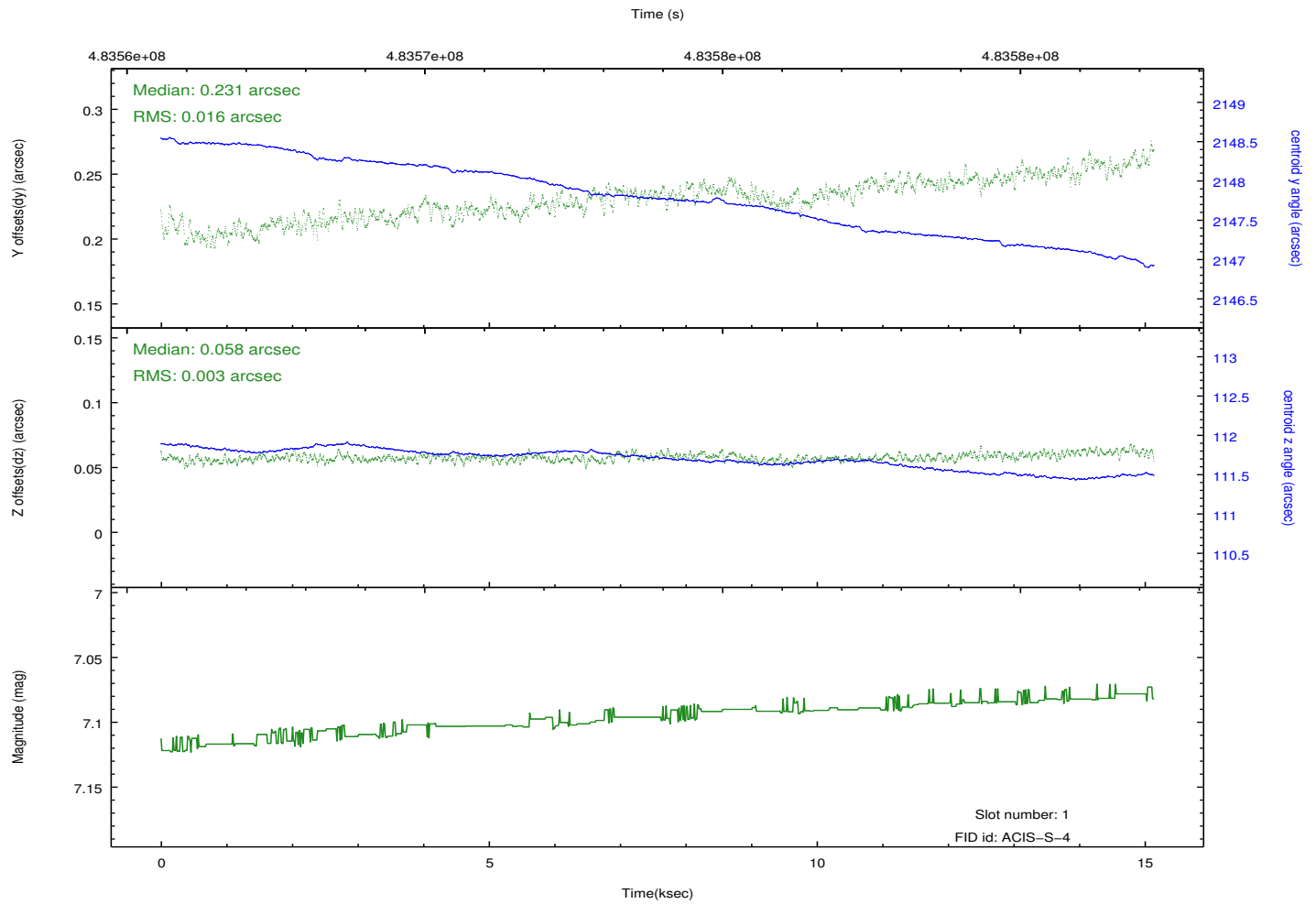
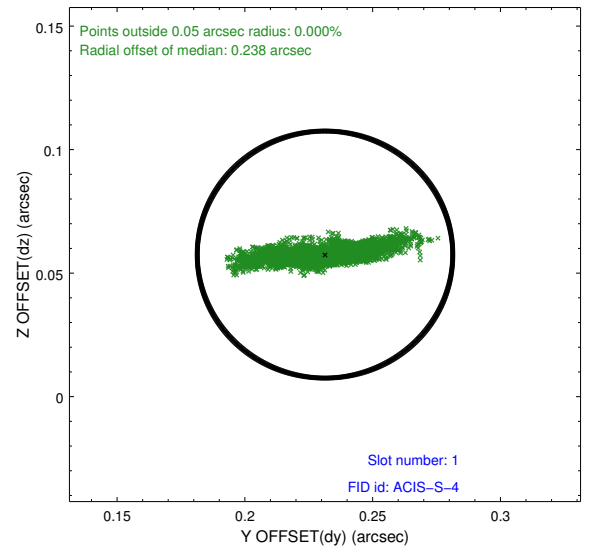
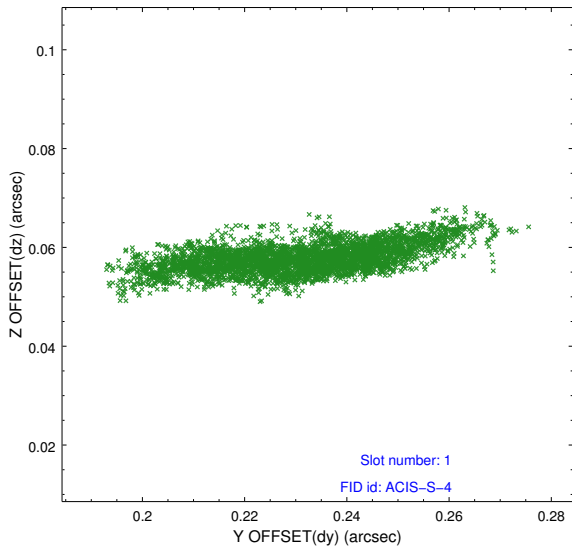


2.5 FID Slots

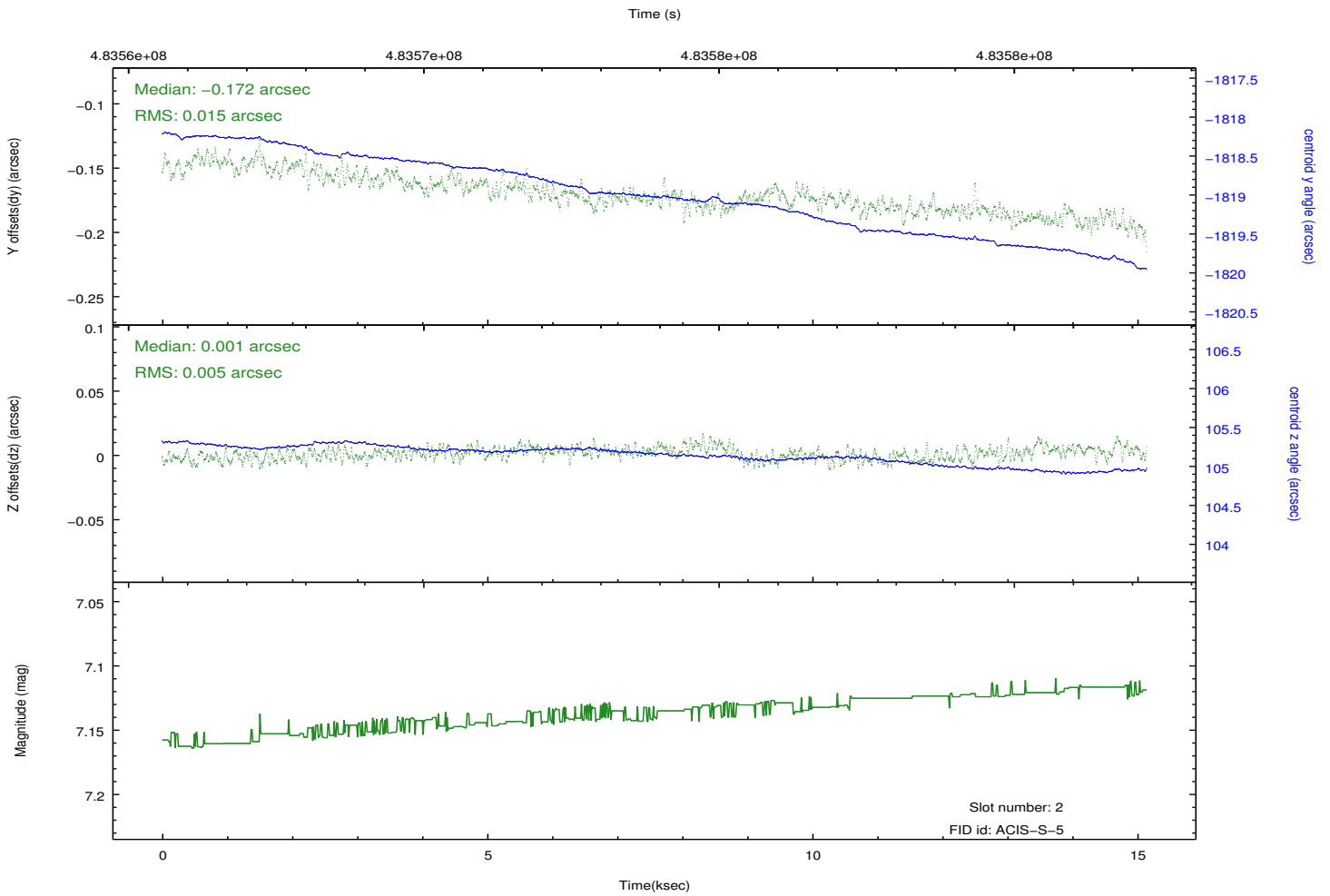
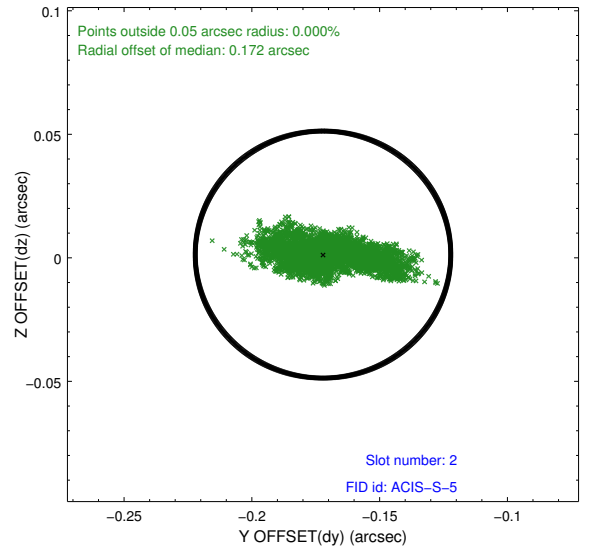
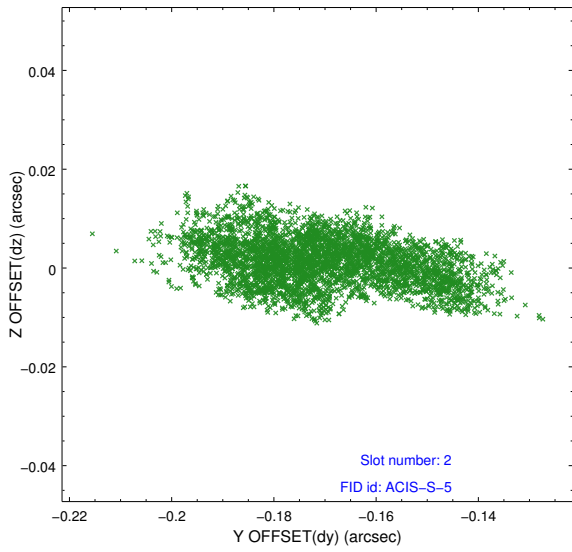
2.5.1 Slot 0



2.5.2 Slot 1

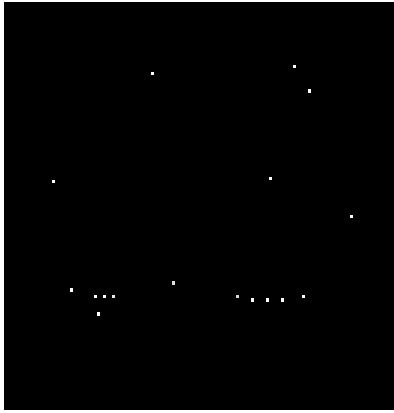


2.5.3 Slot 2

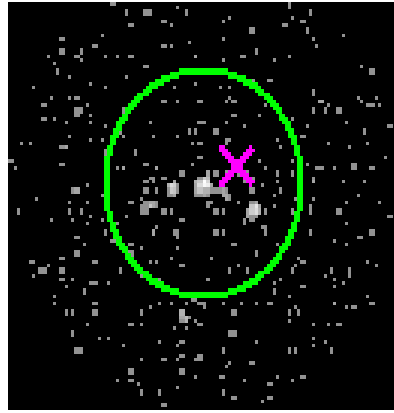


3 Gratings

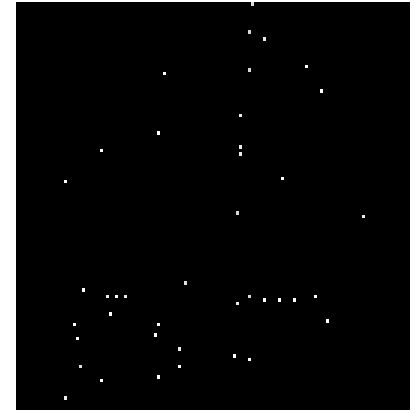
3.1 HEG Arm



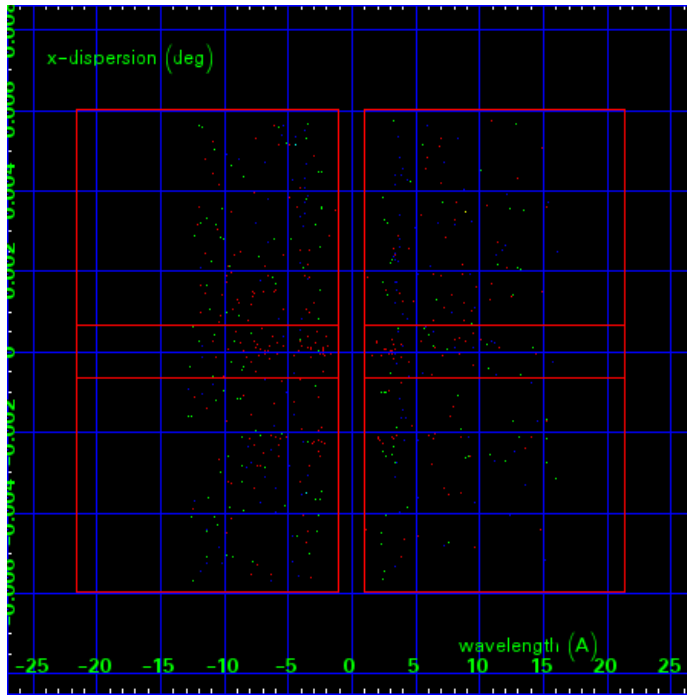
HEG Order Sort 123



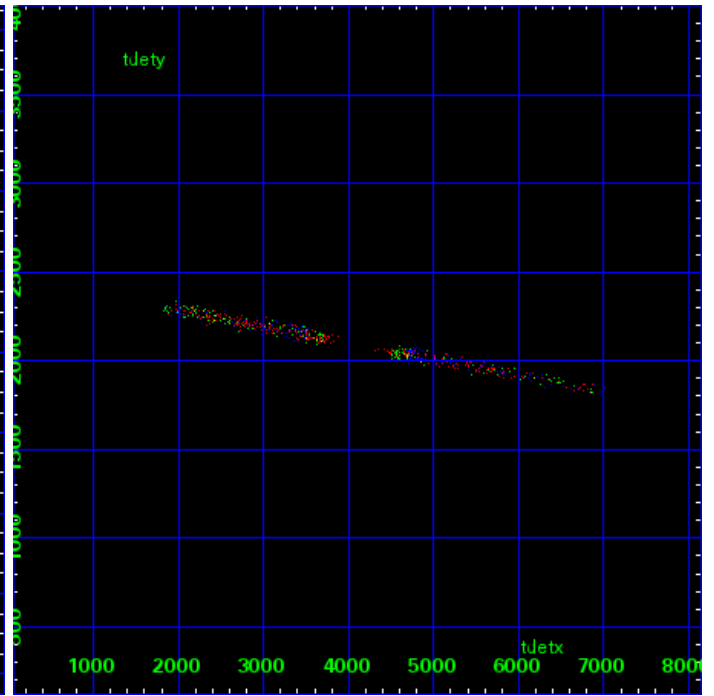
HEG Zero Order



HEG Order Sort ALL

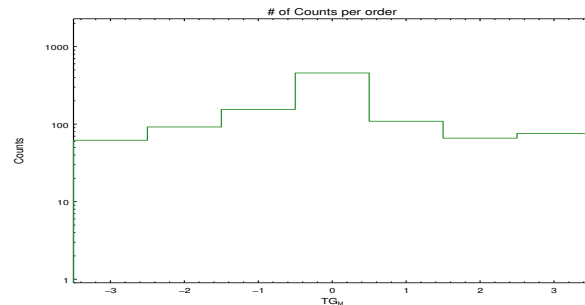


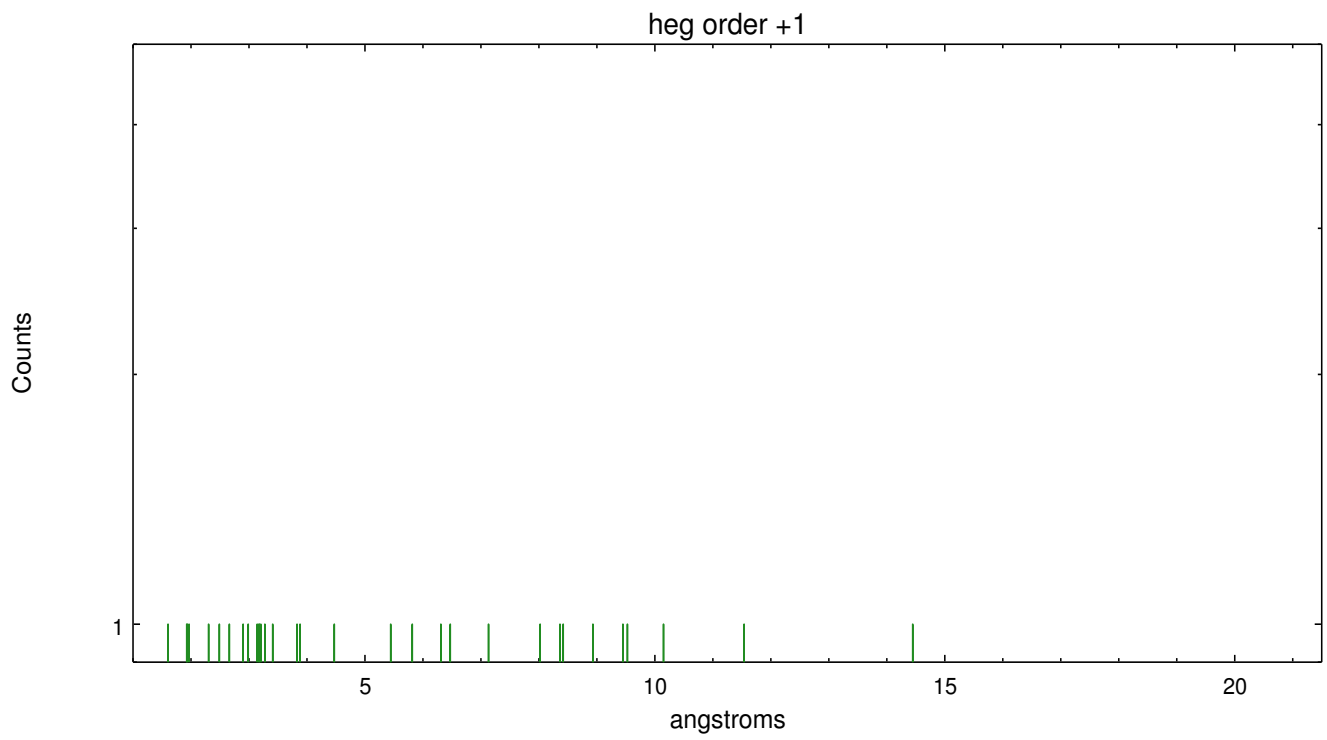
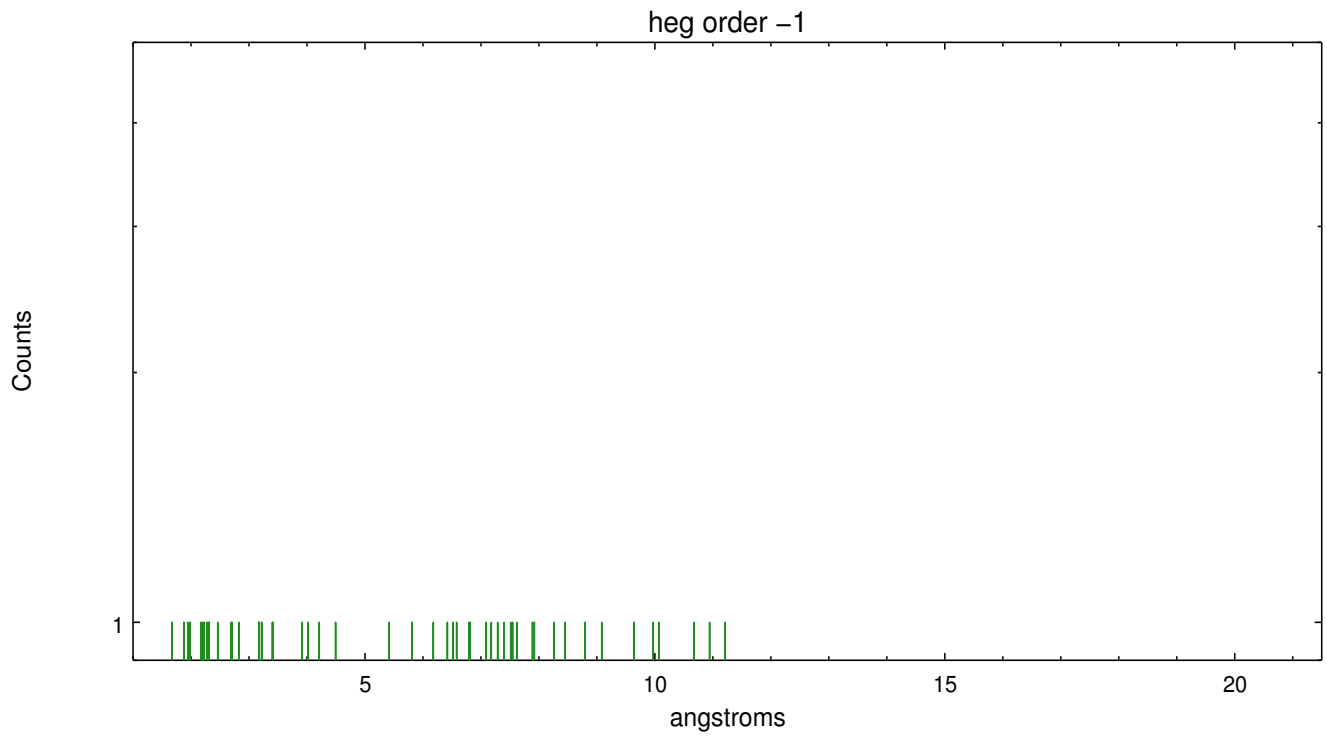
Spot Image HEG



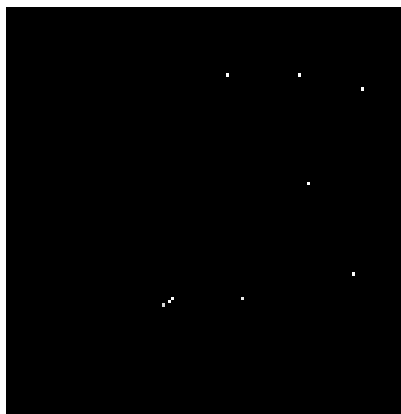
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	62	92	155	457	109	66	76

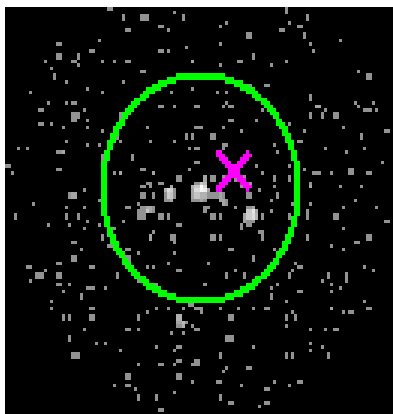




3.2 MEG Arm



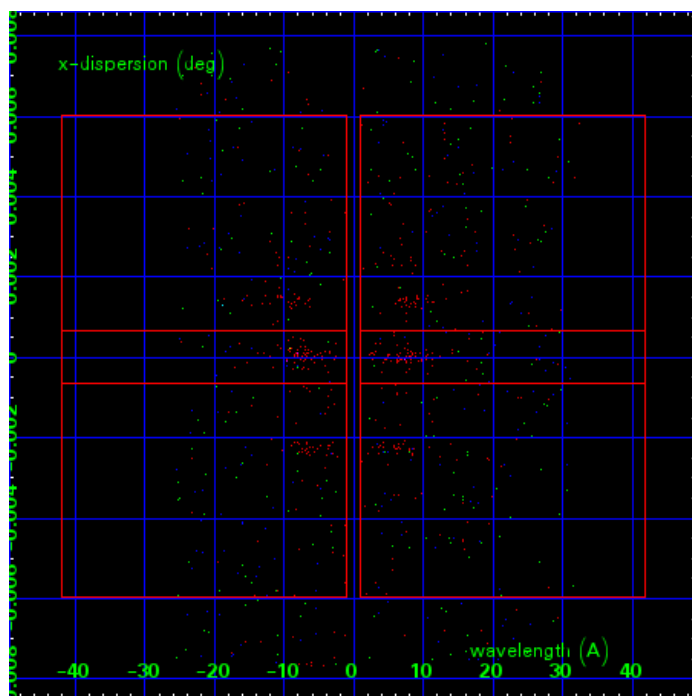
MEG Order Sort 123



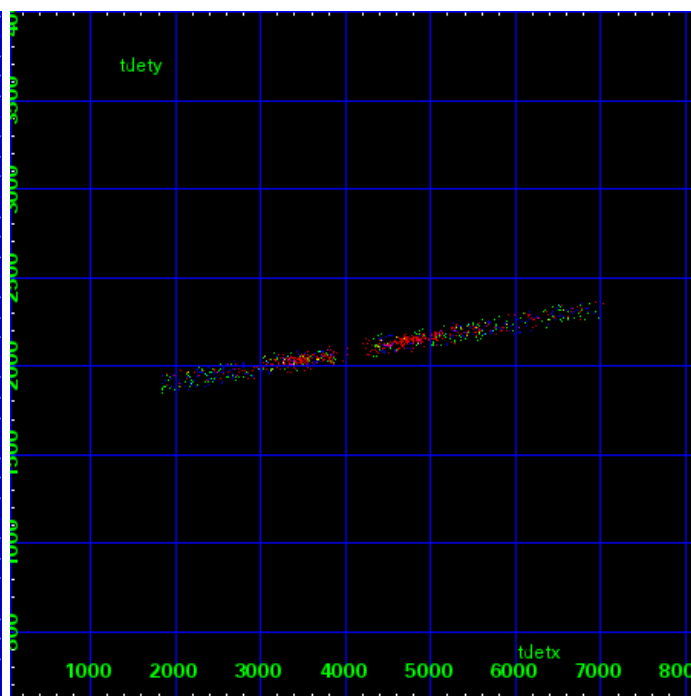
MEG Zero Order



MEG Order Sort ALL

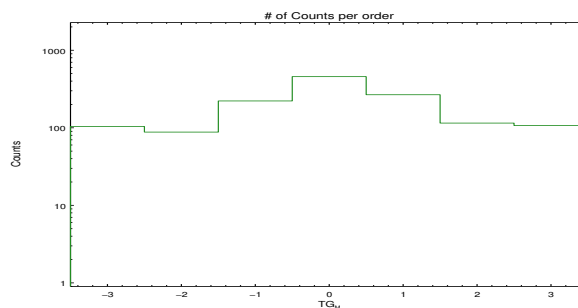


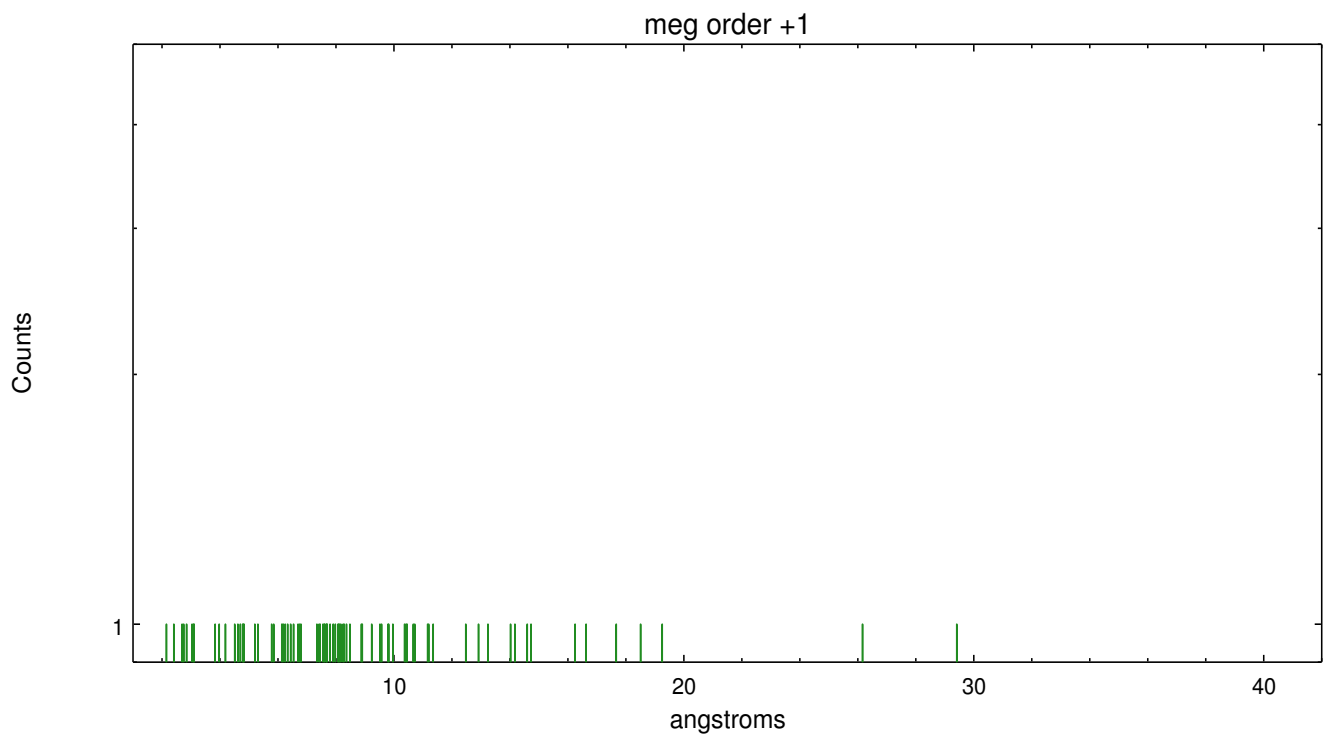
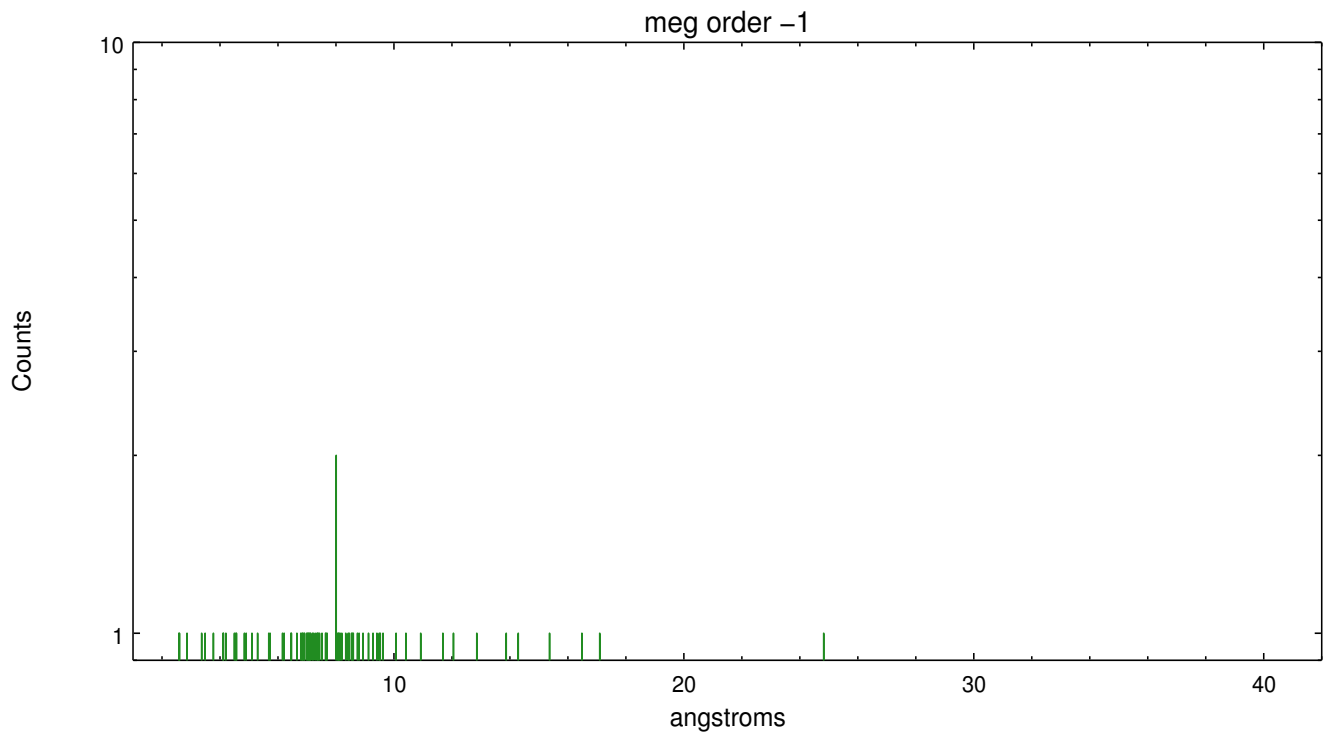
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	104	88	222	457	267	115	107





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2015.02.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	15.047885641813

A.2 Comments

There are several X-ray sources near the requested position. The brightest of these sources was manually selected to use as the zeroth order for the spectral extraction. The source selected for spectral extraction is at sky coordinates $x=4086.75$, $y=4092.25$, $ra=18:24:32.469$, $dec=-24:52:07.65$. If spectral extraction of a different source is needed, CIAO tools can be used to extract with a different zeroth order position. The automatic source selection software, `tgdetect`, failed because it found a position midway between several sources.