

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 7204 - L2 Version 3
Chandra X-Ray Center

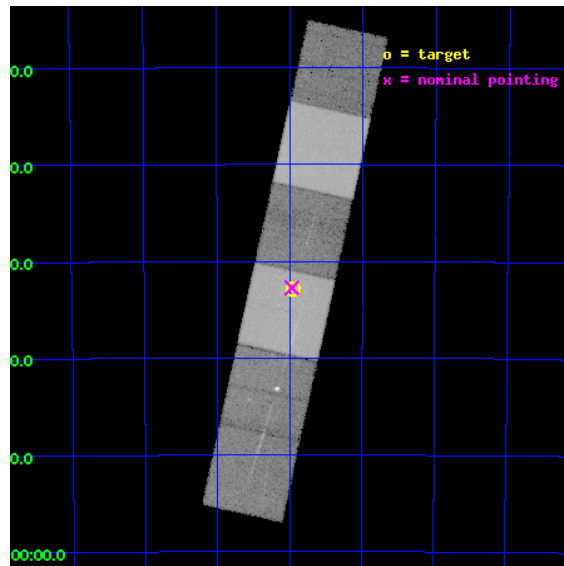
L2 Processing Date : Jan 2 2013

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1 Front

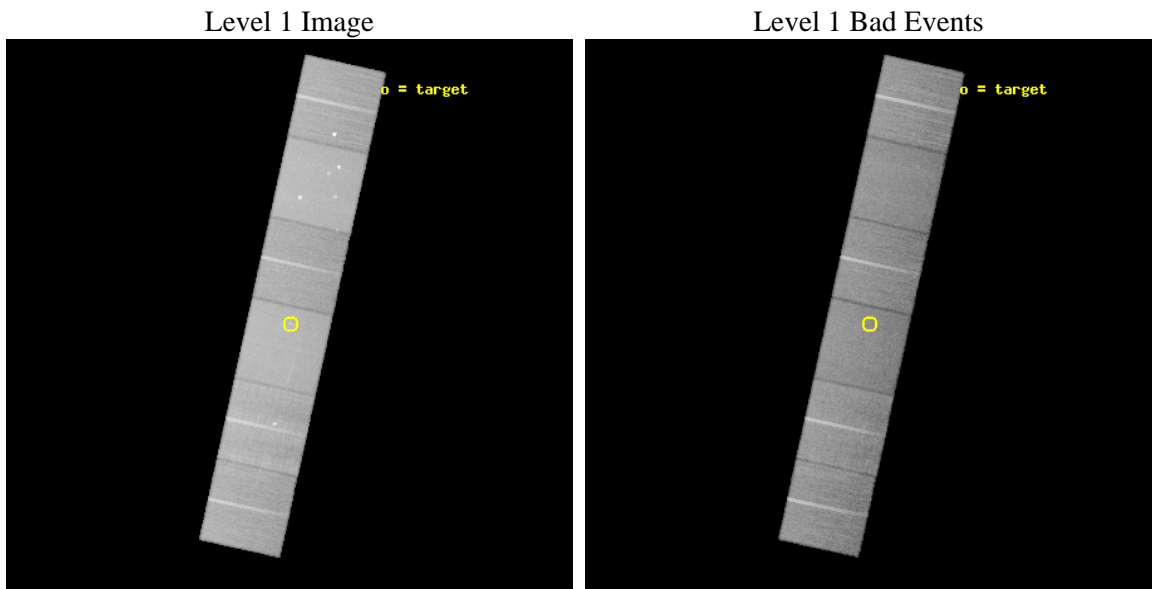
seq_num	200332	Sequence number
obs_id	7204	Observation id
title	A Chandra HETGS Survey of O-Stars	Proposal title
observer	Dr Wayne Waldron	Principal investigator
object	HD93129AB	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	160.989583	Observer's specified target RA [deg]
dec_targ	-59.5475	Observer's specified target Dec [deg]
ra_nom	160.9922718138	Nominal RA [deg]
dec_nom	-59.545903280886	Nominal Dec [deg]
roll_nom	102.4589392366	Nominal Roll [deg]
revision	3	Processing version of data
ontime	33628.799874723	Sum of GTIs [s]
livetime	33202.971761877	Livetime [s]
ontime4	33628.799874723	Sum of GTIs [s]
ontime5	33628.799874723	Sum of GTIs [s]
ontime6	33628.799874723	Sum of GTIs [s]
ontime7	33628.799874723	Sum of GTIs [s]
ontime8	33628.799874723	Sum of GTIs [s]
ontime9	33628.799874723	Sum of GTIs [s]
l2events	476212	Number of level 2 events



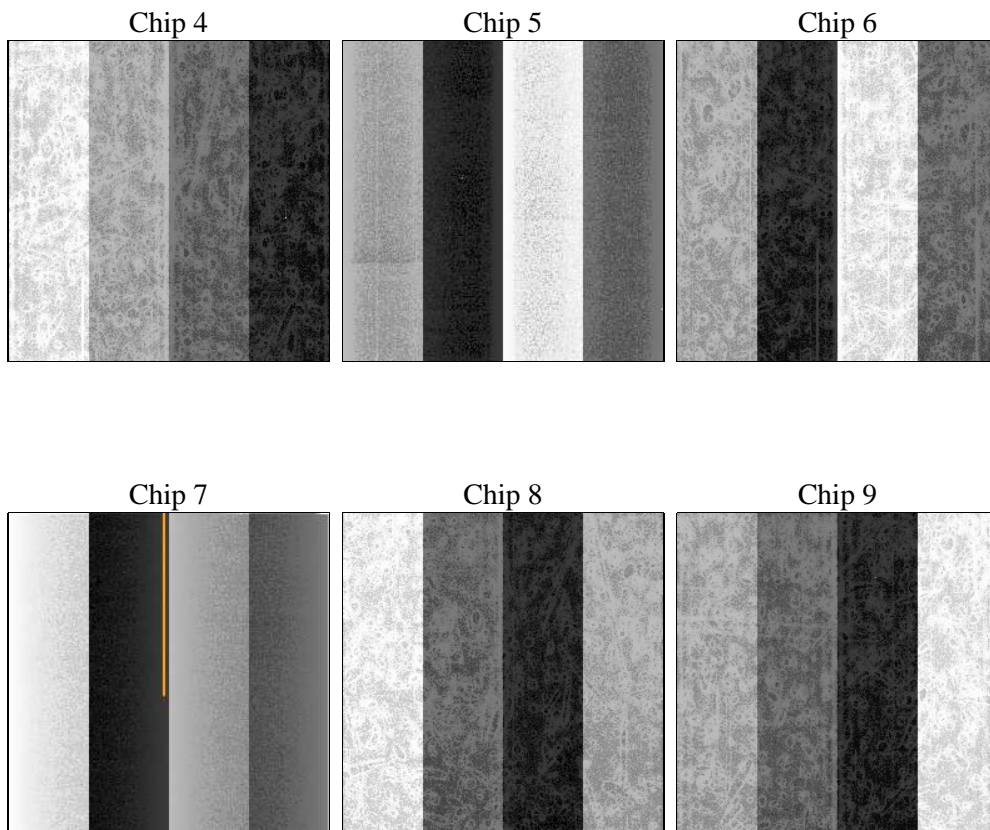
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	33500.000000	[s] Scheduled observation exposure time
ascdsver	8.5.1.1	Processing system revision	ontime	33628.799874723	Sum of GTIs [s]
caldbver	4.5.5	 	ontime4	33628.799874723	Sum of GTIs [s]
date	2012-12-31T12:32:47	Date and time of file creation	ontime5	33628.799874723	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	33628.799874723	Sum of GTIs [s]
			ontime7	33628.799874723	Sum of GTIs [s]
			ontime8	33628.799874723	Sum of GTIs [s]
			ontime9	33628.799874723	Sum of GTIs [s]
			l1events	2019873	Number of level 1 events

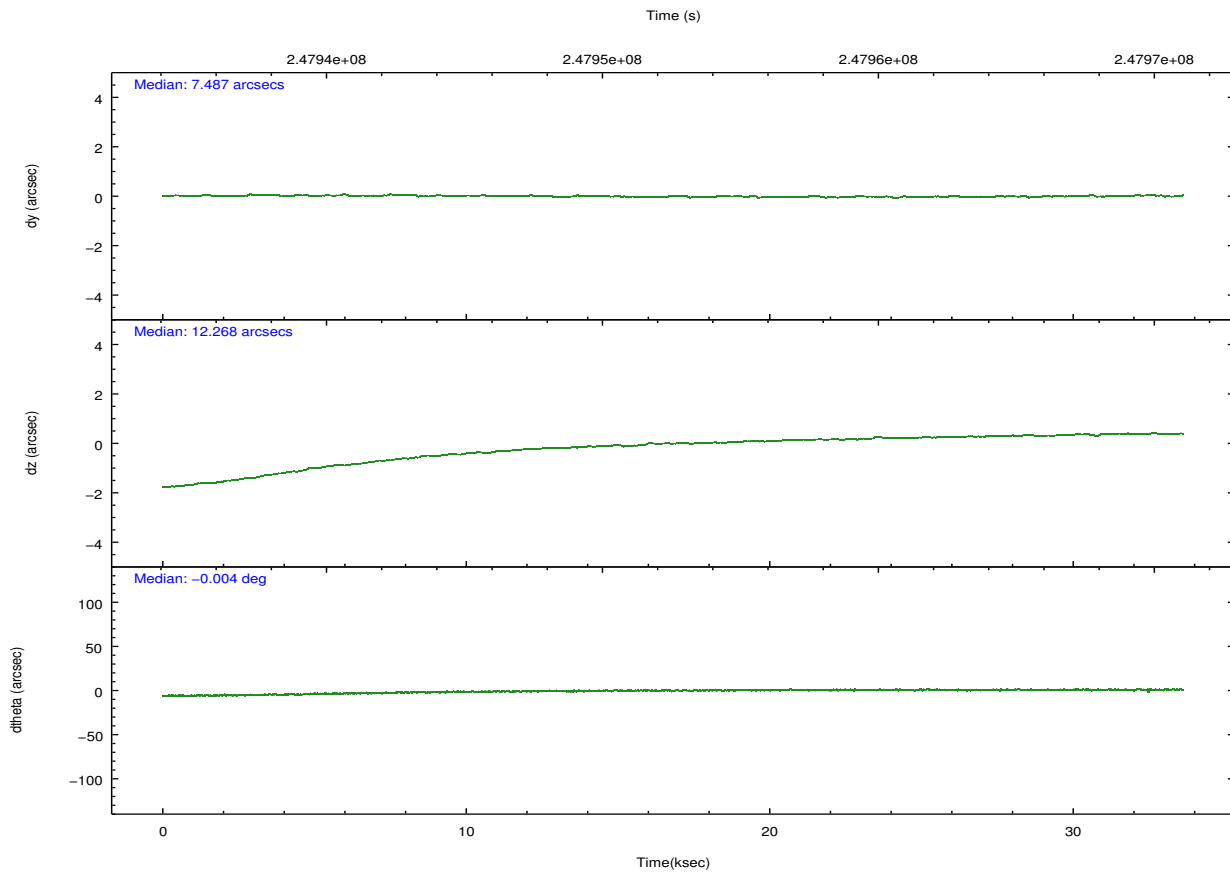
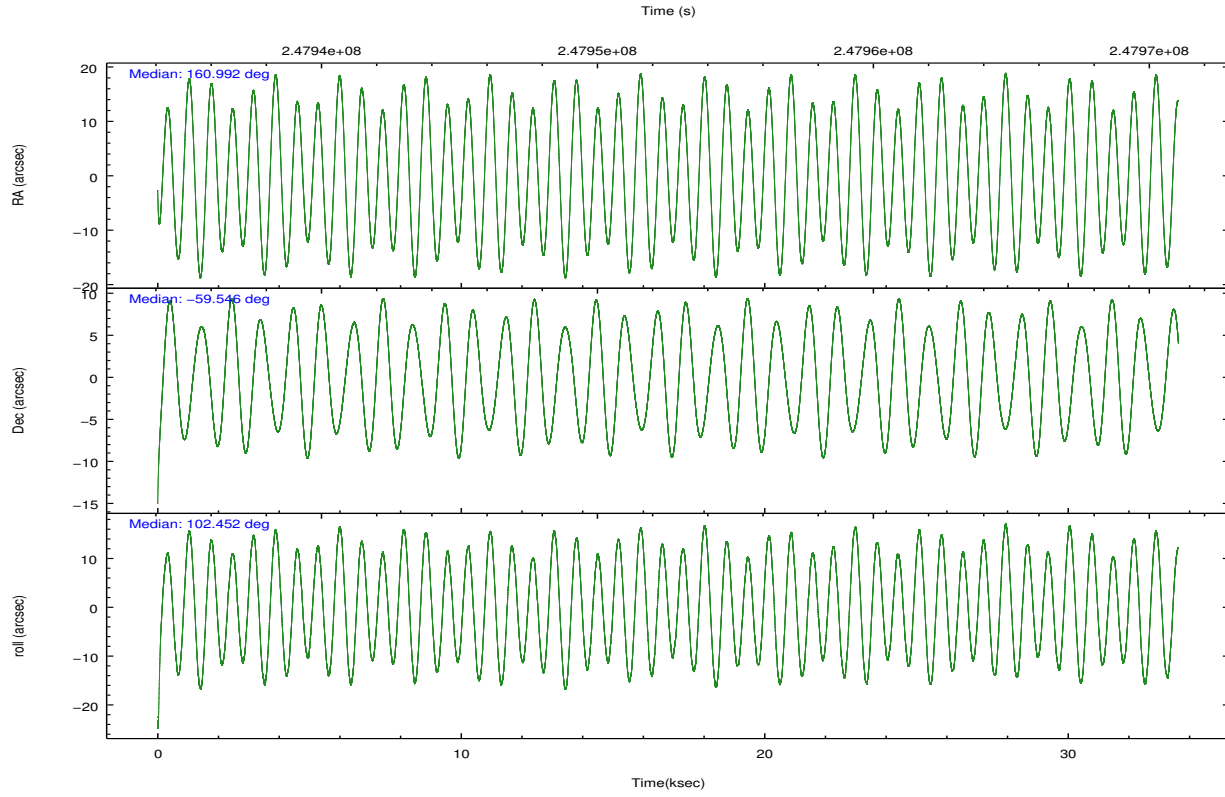
2.1.4 Events

	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	309879	412958	278672	381888	356095	280381	grade 0 events	21483	20720	16789	16863	32000	19524
rejected events	269203	223201	241482	216709	271778	240287		6%	5%	6%	4%	8%	6%
rejected %	86%	54%	86%	56%	76%	85%	grade 1 events	315	739	149	355	268	205
								0%	0%	0%	0%	0%	0%
							grade 2 events	7323	56354	7293	33916	17553	7260
								2%	13%	2%	8%	4%	2%
							grade 3 events	3455	7463	3224	14859	8164	3506
								1%	1%	1%	3%	2%	1%
							grade 4 events	3311	7248	3262	14817	7627	3341
								1%	1%	1%	3%	2%	1%
							grade 5 events	12116	29936	12755	35041	16743	13557
								3%	7%	4%	9%	4%	4%
							grade 6 events	5296	98957	6822	85532	19506	6660
								1%	23%	2%	22%	5%	2%
							grade 7 events	256580	191541	228378	180505	254234	226328
								82%	46%	81%	47%	71%	80%

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	161.029106	160.9922718138044	Subarray requested	NONE	NONE
[deg] Pointing Dec	-59.565754	-59.54590328088581	Alternating exposures requested	N	N
[deg] Pointing Roll	102.334079	102.4589392365951	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	247935878.184000	247934693.69419			
Observation start date	2005-11-09T15:03:34	2005-11-09T14:44:53			
[s] Observation end time (MET)	247969378.184000	247970318.08333			
Observation end date	2005-11-10T00:21:54	2005-11-10T00:38:38			
Read mode	TIMED	TIMED			

2.3 Aspect

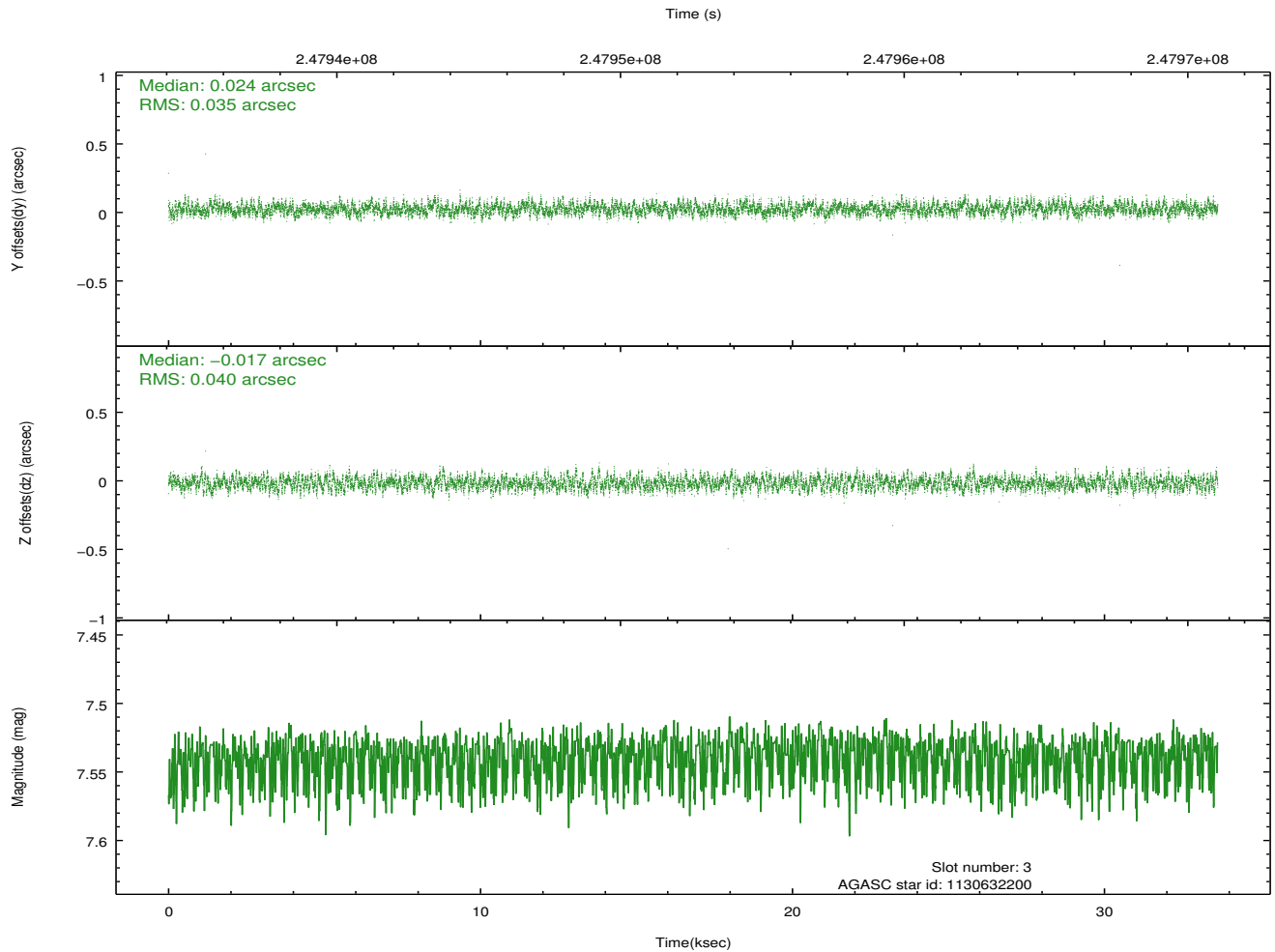
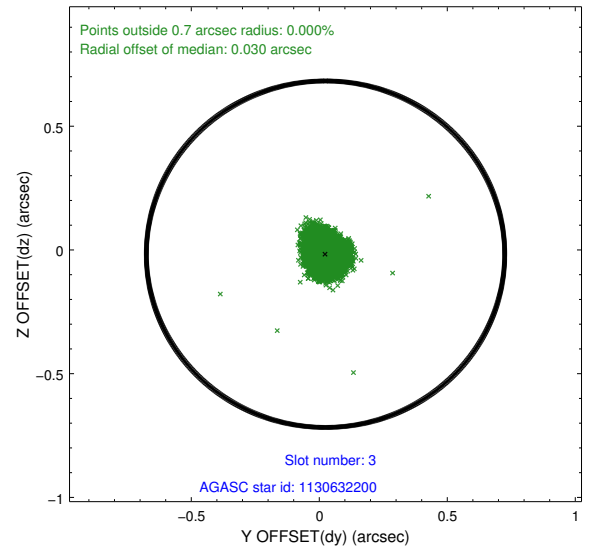
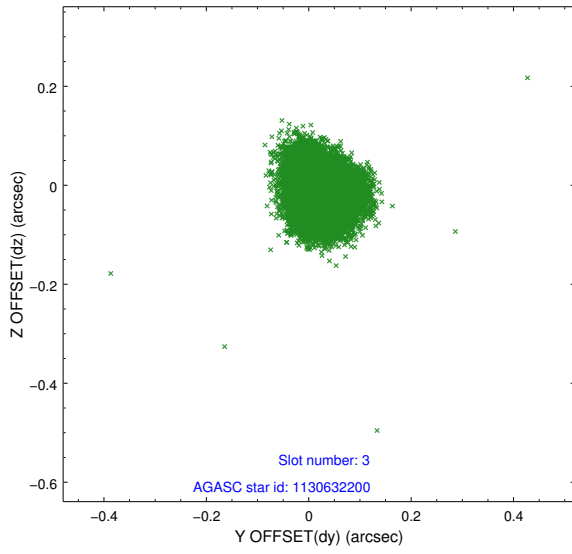


Slot Statistics

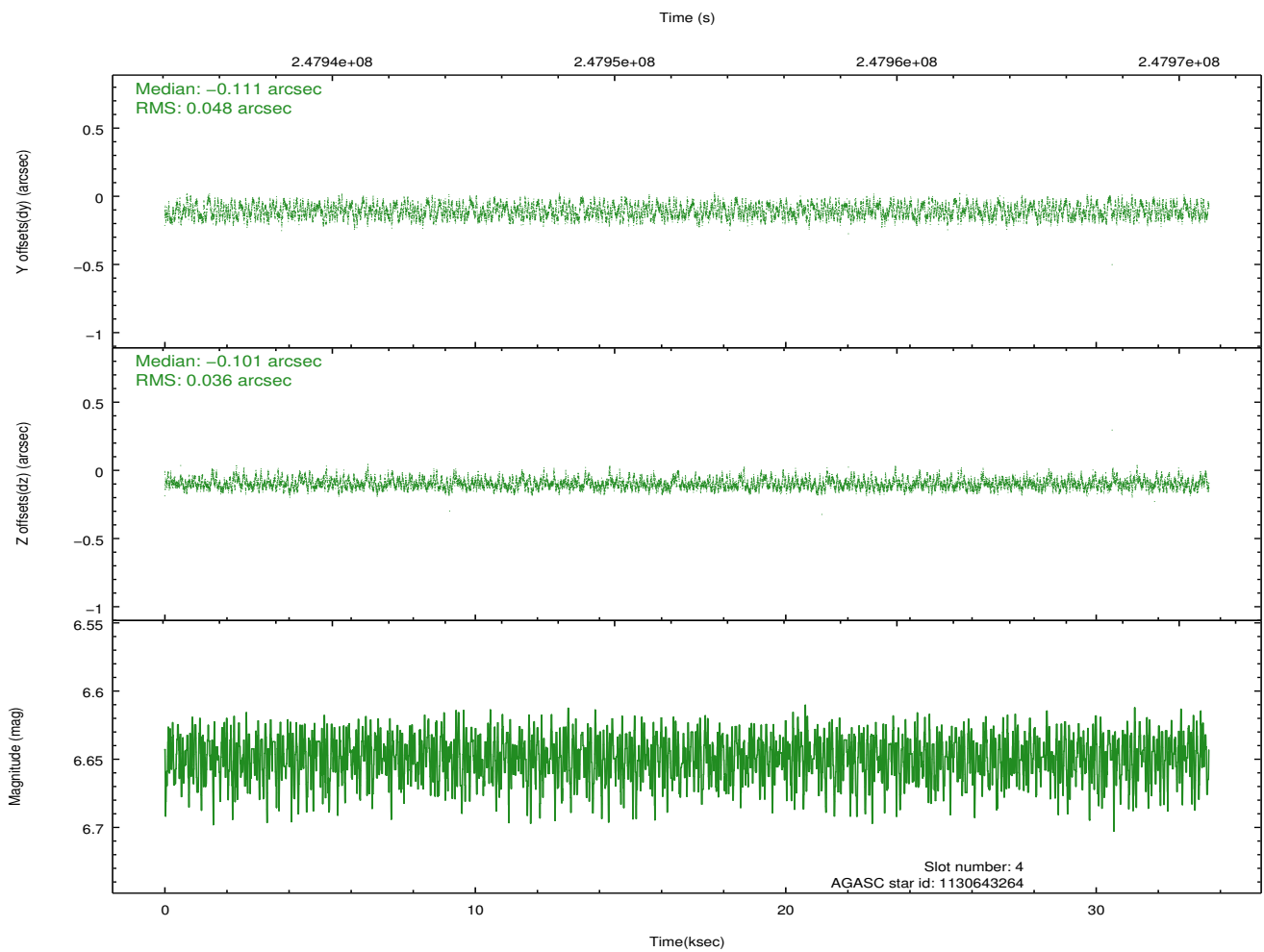
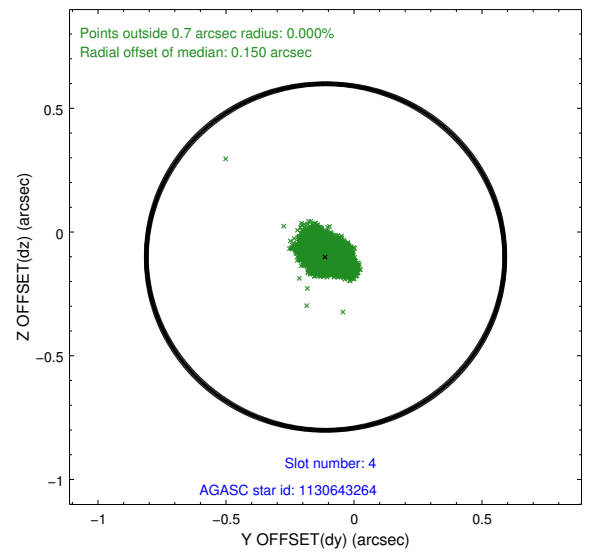
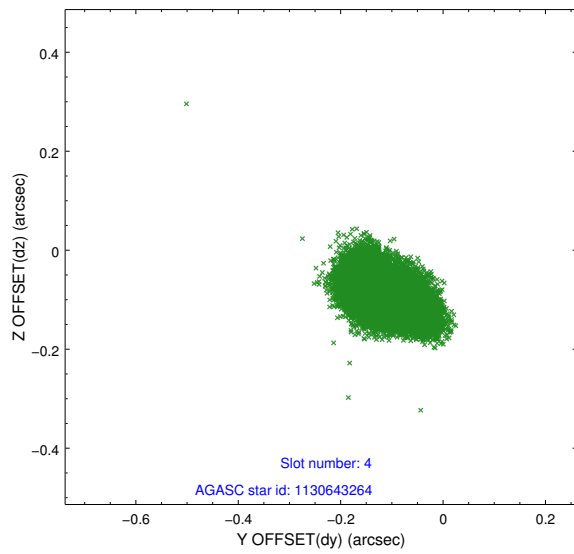
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	8202	-0.013	-0.027	0.015	0.034	0.000000	0.000000	-760.27	-1733.36
1	FID	ACIS-S-4	7.20	8205	0.071	0.015	0.011	0.029	0.000000	0.000000	2153.08	175.12
2	FID	ACIS-S-5	7.23	8204	-0.087	0.023	0.014	0.027	0.000000	0.000000	-1813.12	168.85
3	GUIDE	1130632200	7.54	16408	0.024	-0.017	0.057	0.089	161.433843	-59.407820	395.24	-845.25
4	GUIDE	1130643264	6.65	16409	-0.111	-0.101	0.065	0.100	160.322990	-59.676912	-123.43	1340.63
5	GUIDE	1130644984	8.76	16400	-0.058	0.033	0.069	0.109	162.123834	-59.745452	-1071.71	-1797.98
6	GUIDE	1128940640	8.36	16400	0.128	0.102	0.063	0.099	159.517239	-59.074495	2294.28	2361.86
7	GUIDE	1130640672	8.29	16403	0.013	-0.018	0.074	0.118	162.096044	-59.540805	-342.78	-1917.73

2.4 Star Slots

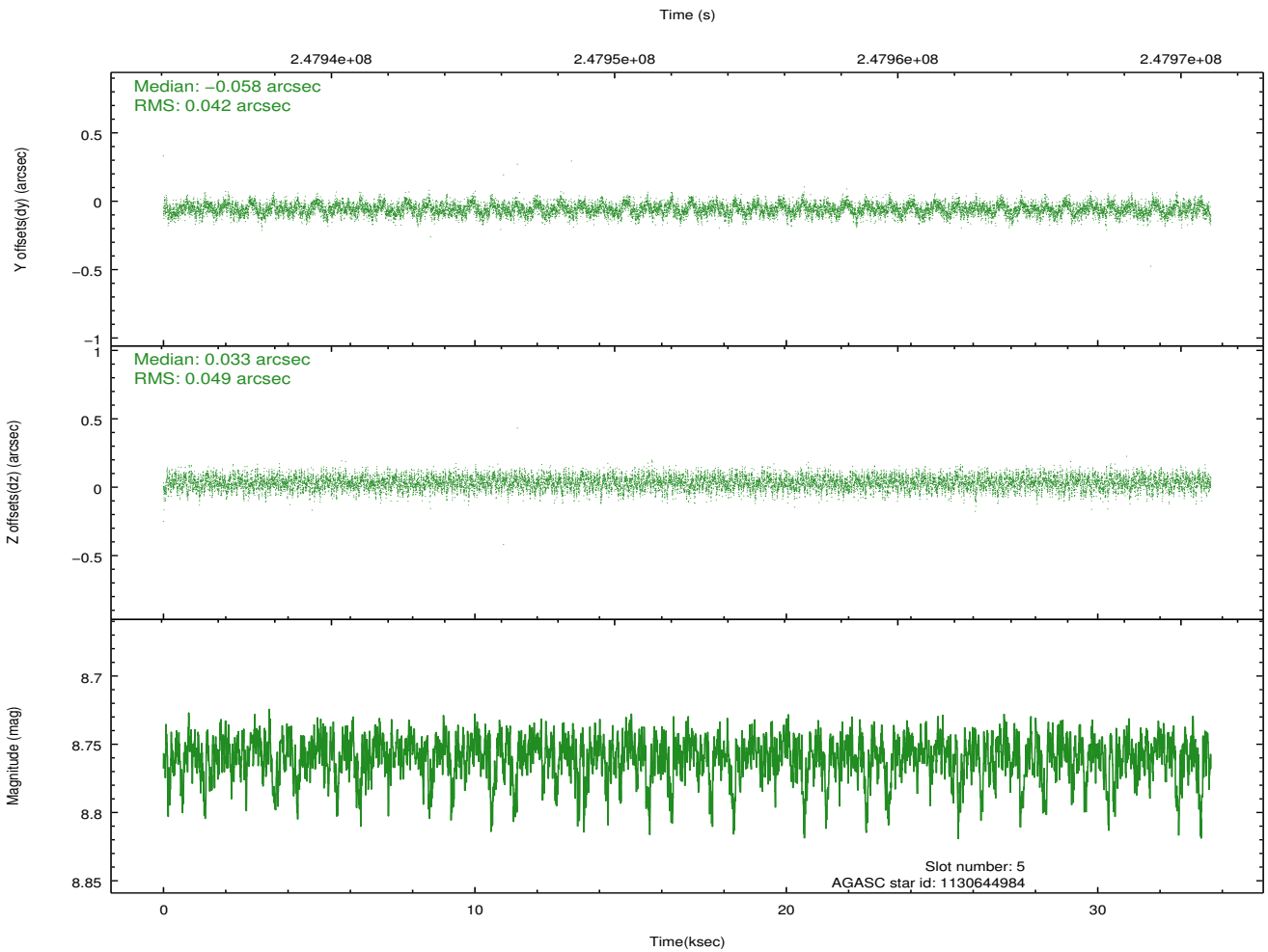
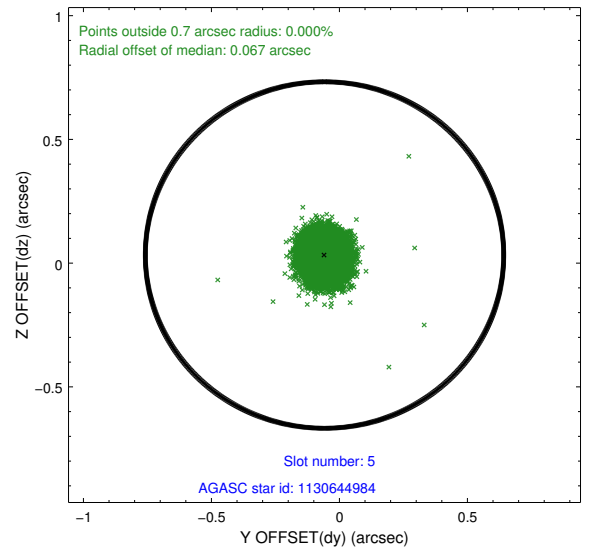
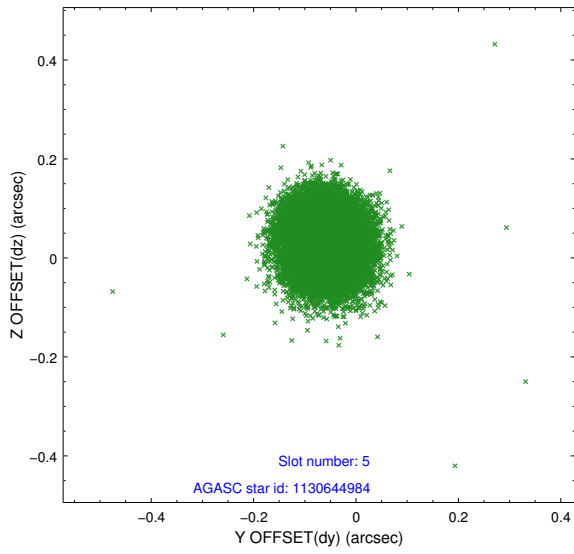
2.4.1 Slot 3



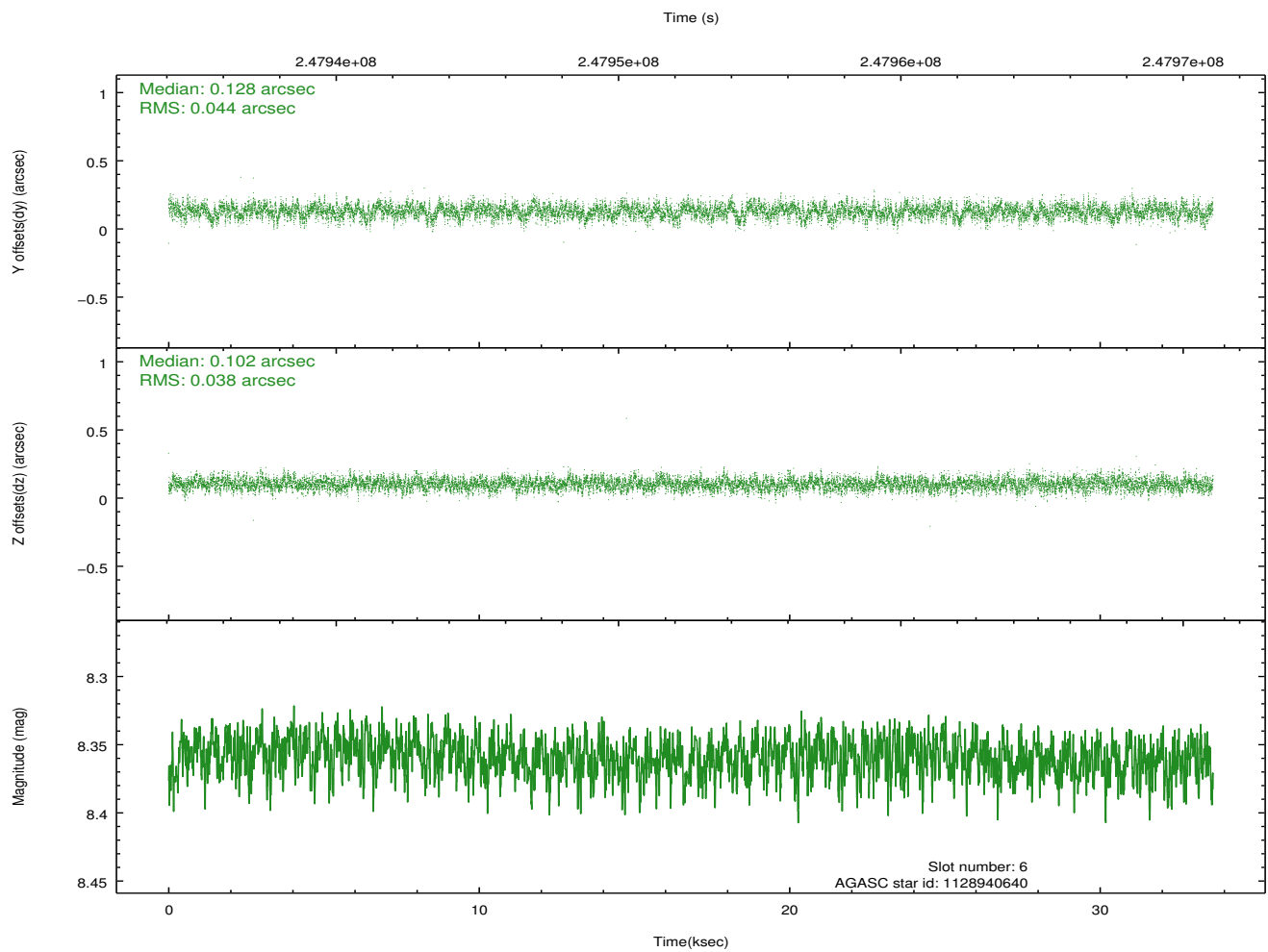
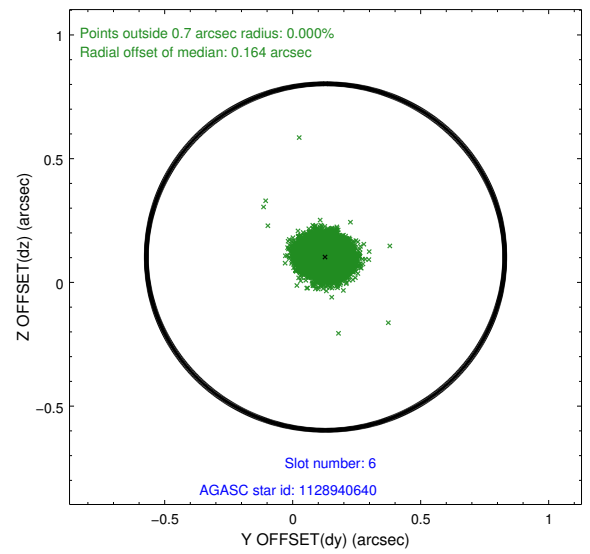
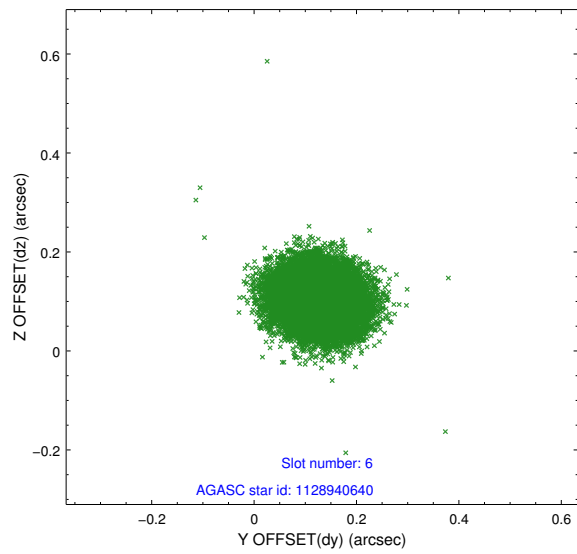
2.4.2 Slot 4



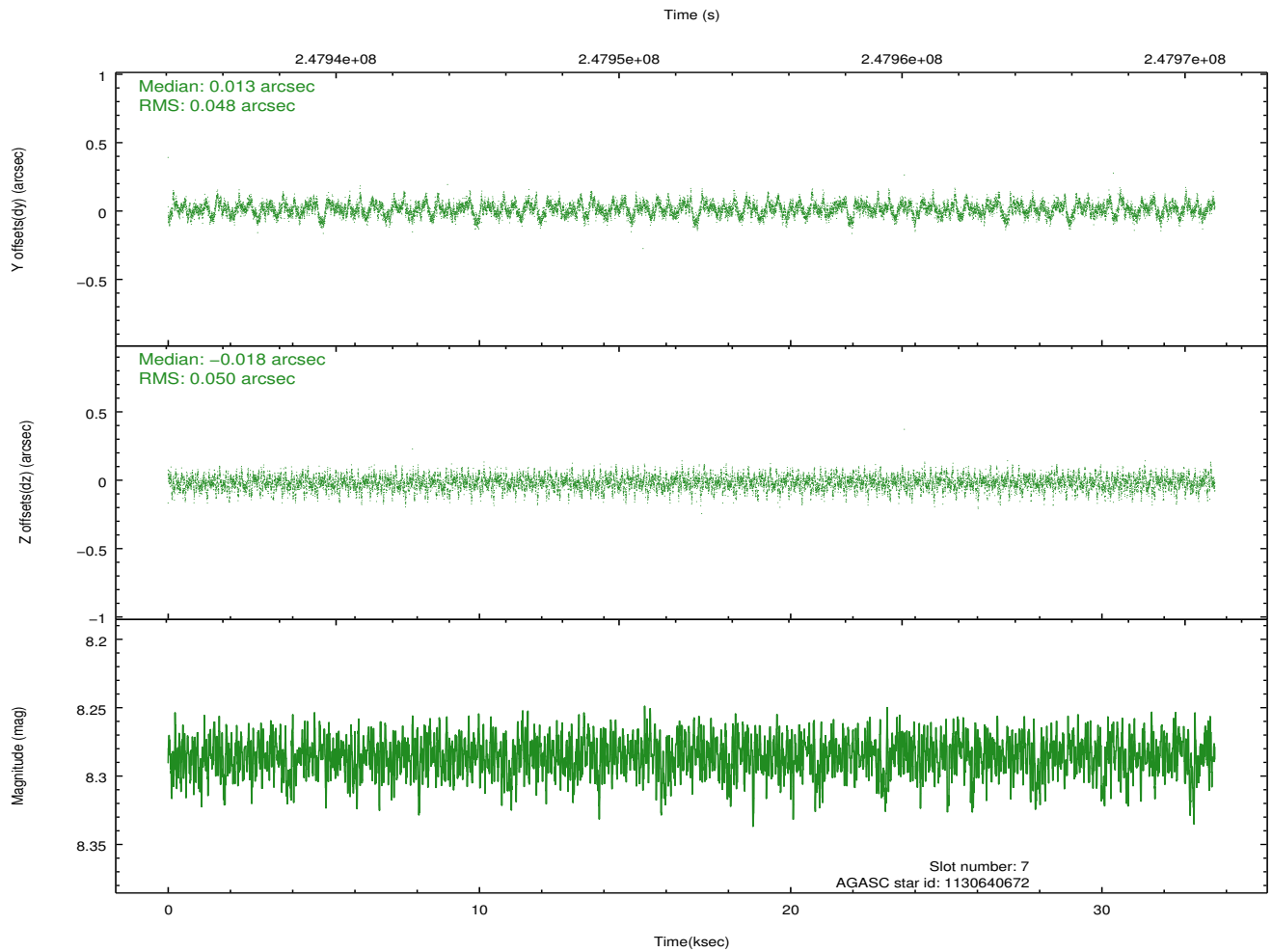
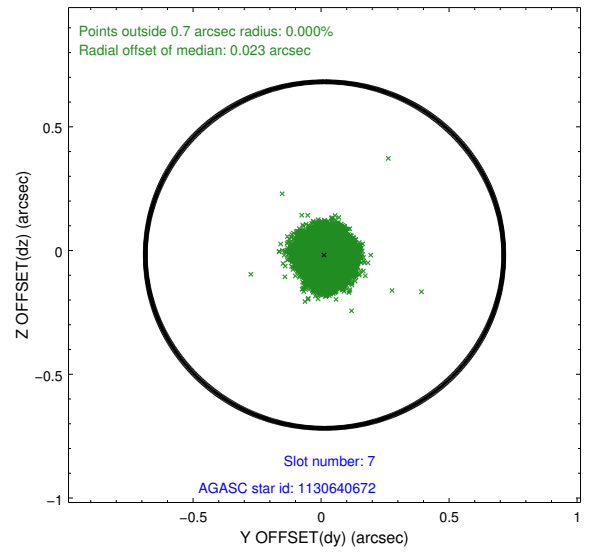
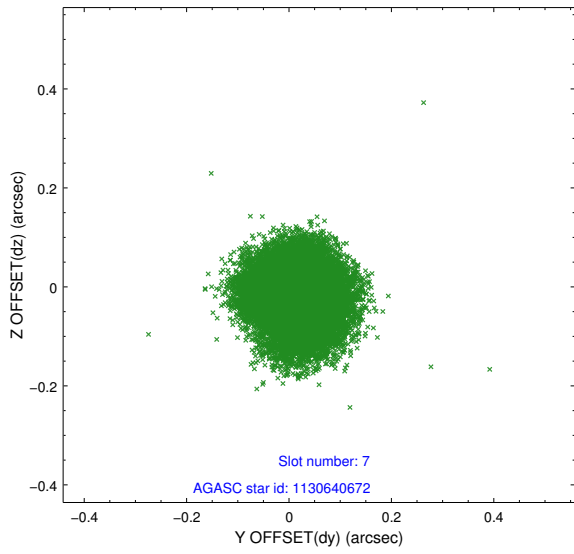
2.4.3 Slot 5



2.4.4 Slot 6

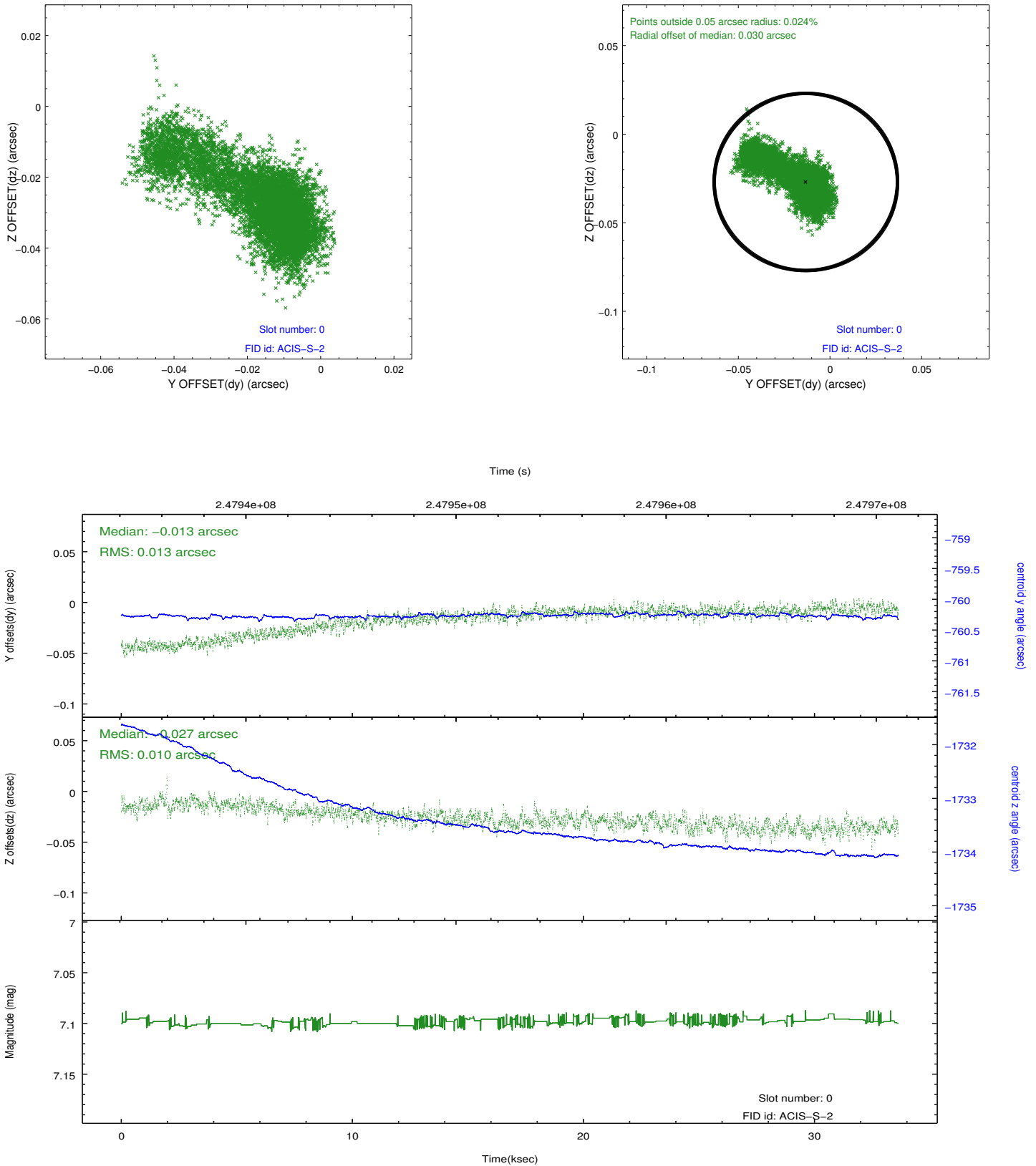


2.4.5 Slot 7

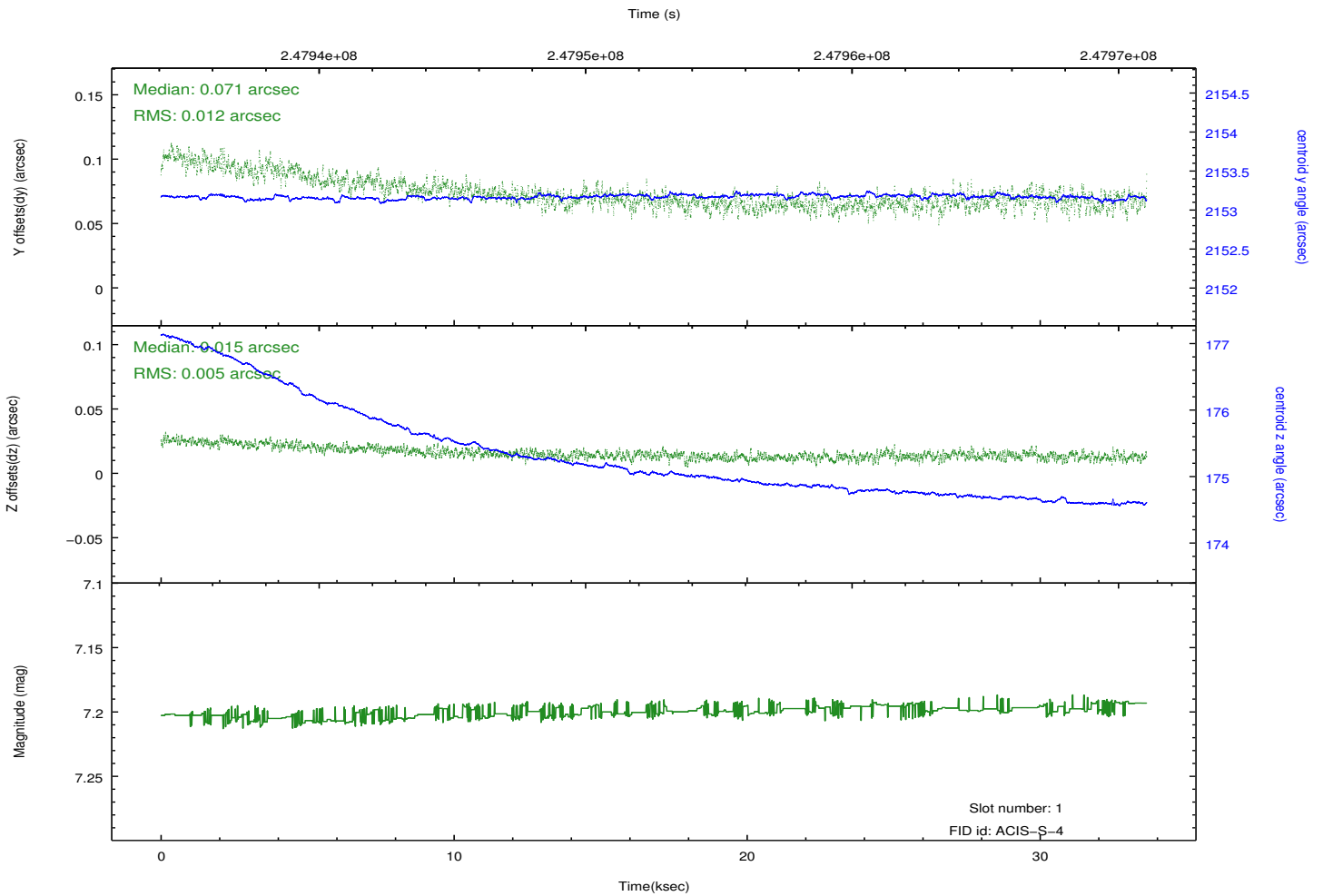
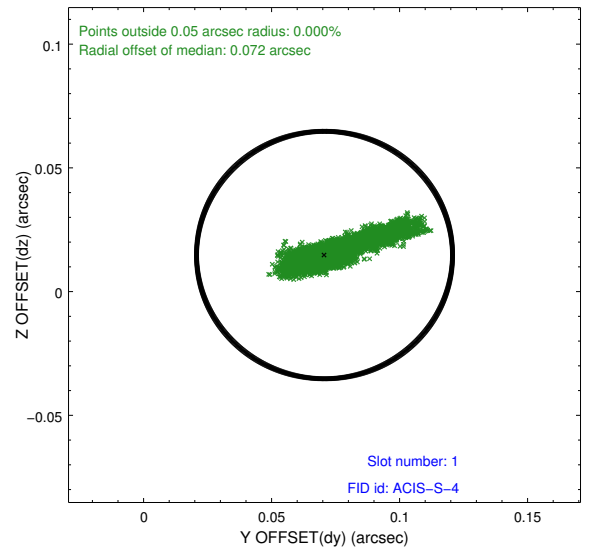
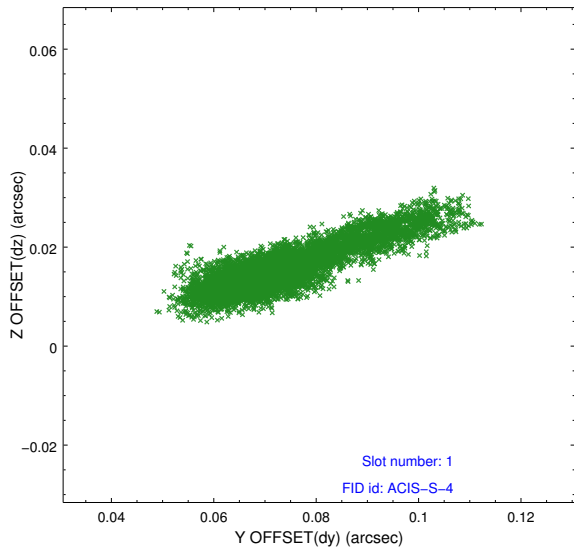


2.5 FID Slots

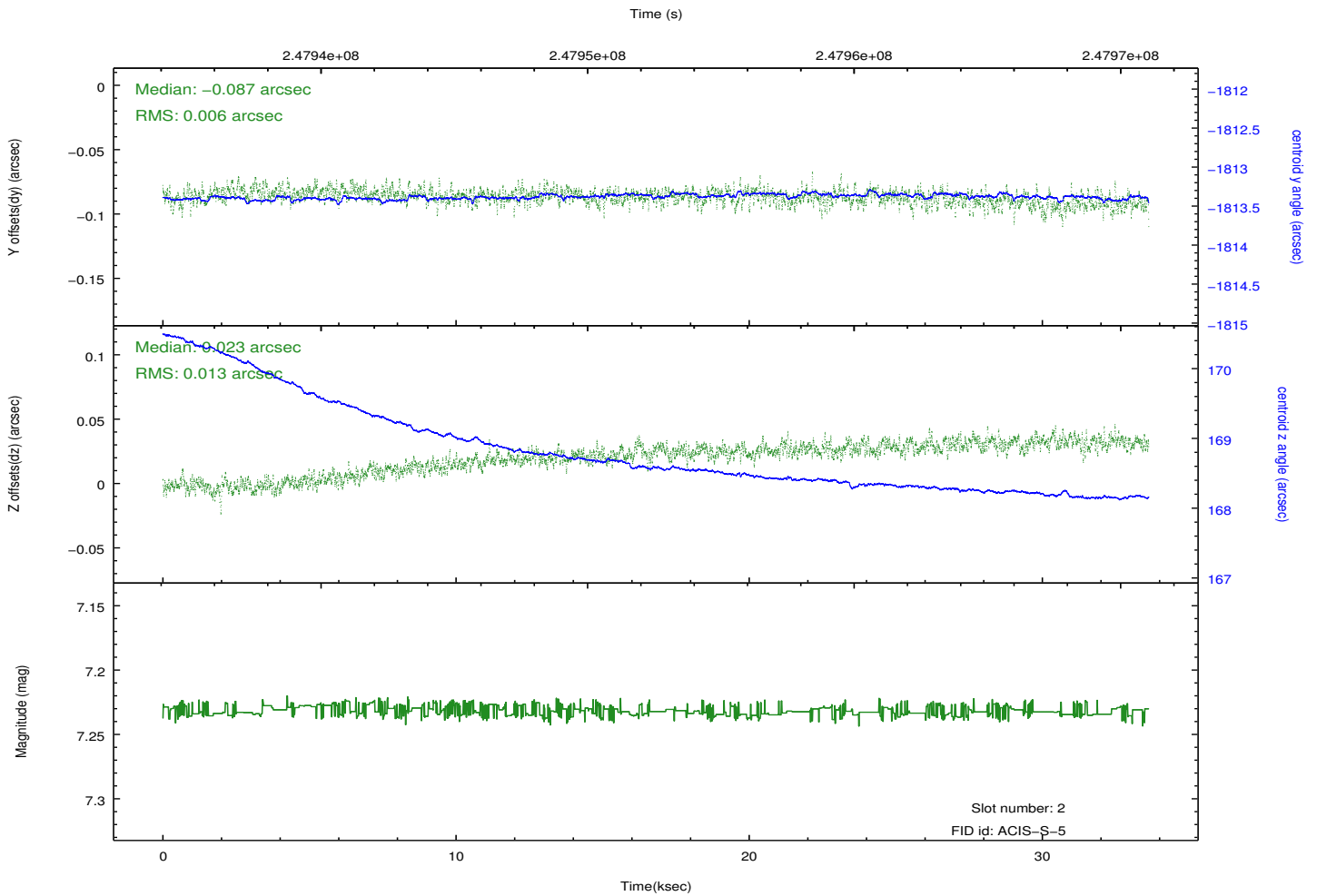
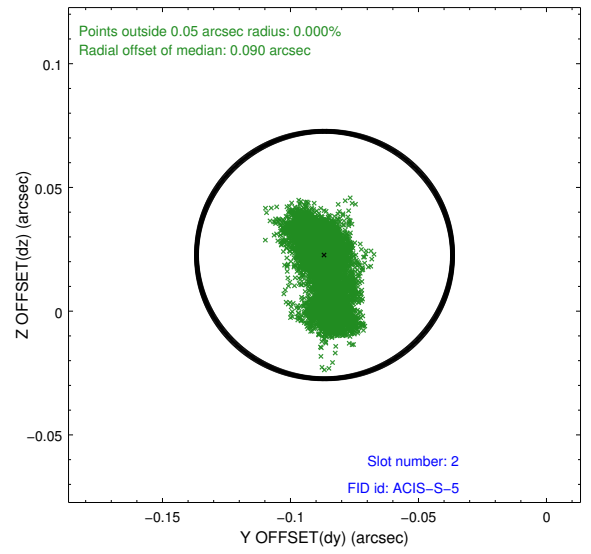
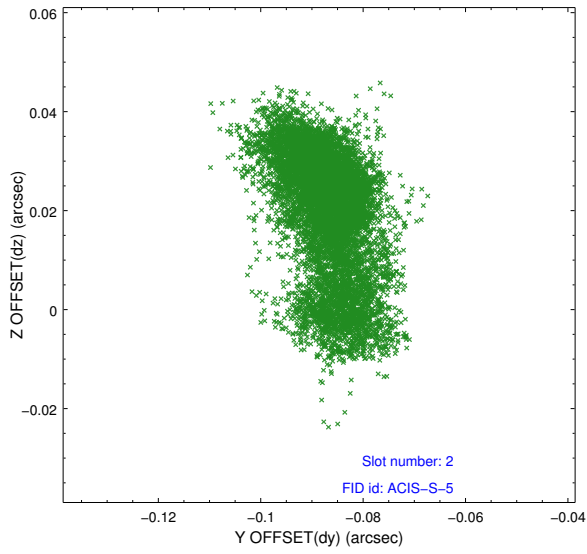
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

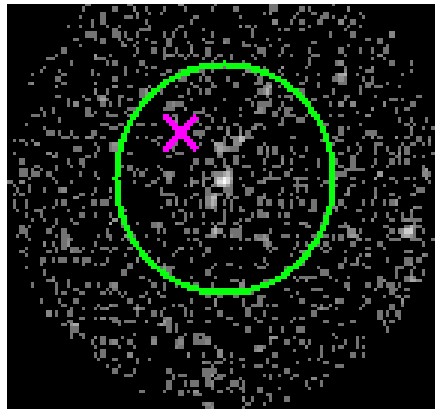


3 Gratings

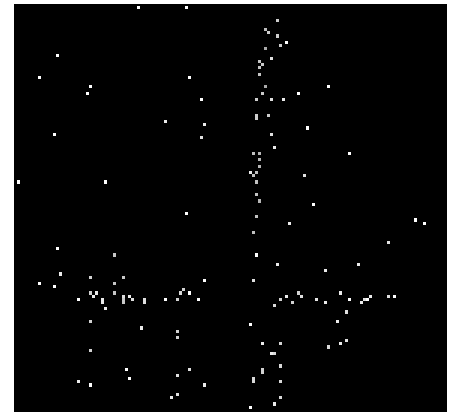
3.1 HEG Arm



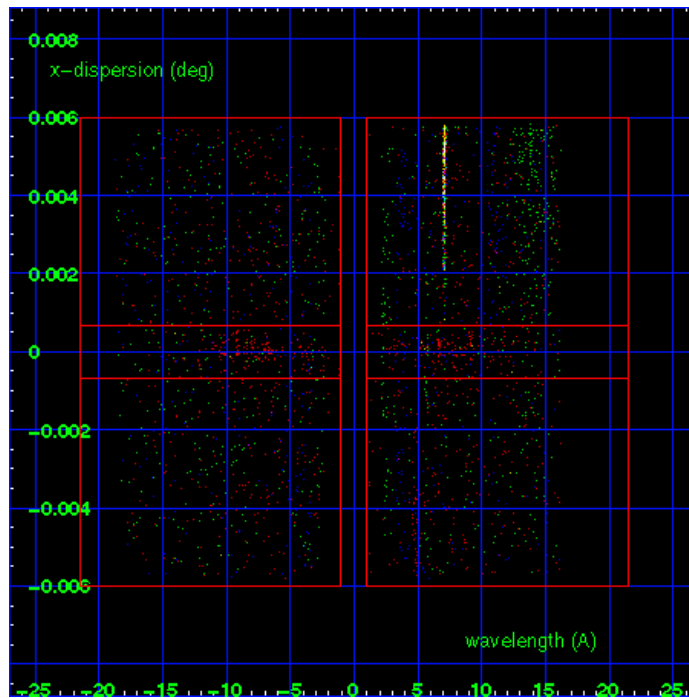
HEG Order Sort 123



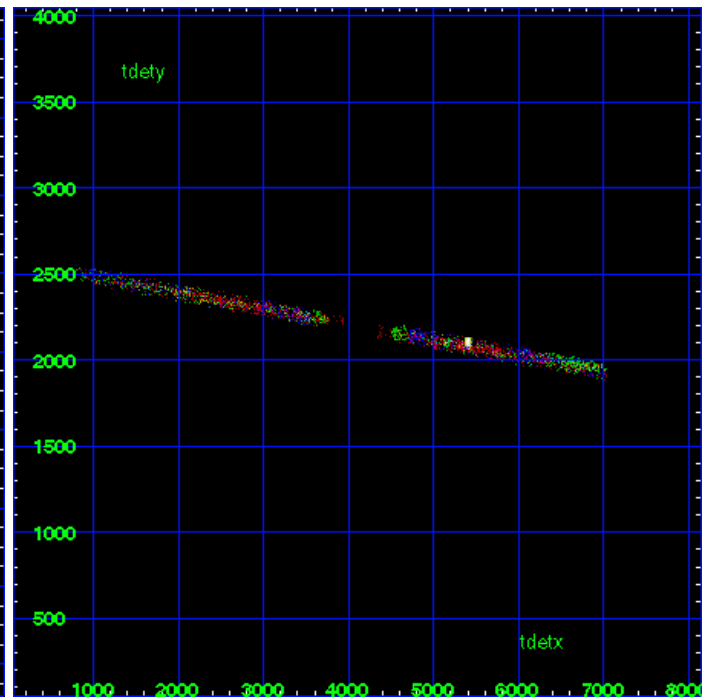
HEG Zero Order



HEG Order Sort ALL

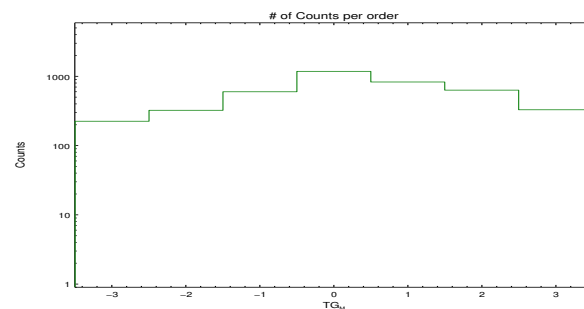


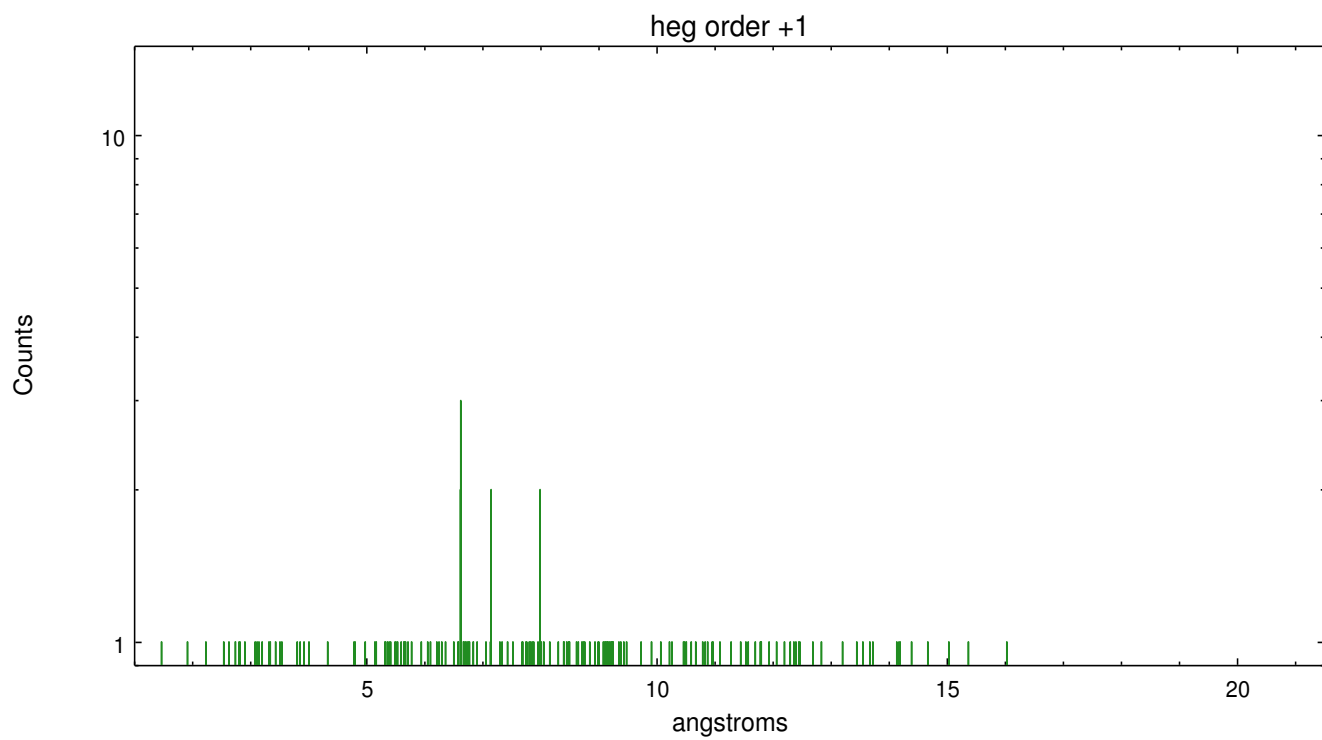
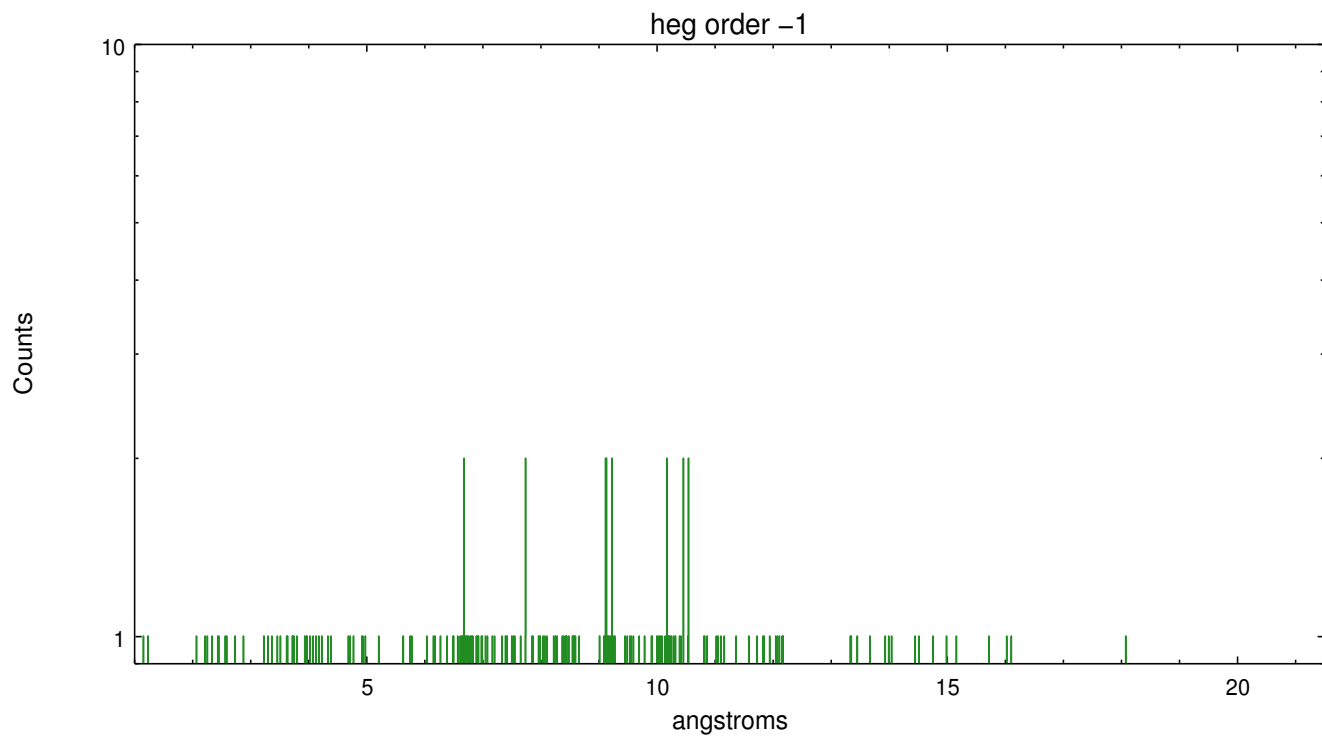
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	225	324	601	1185	832	634	330

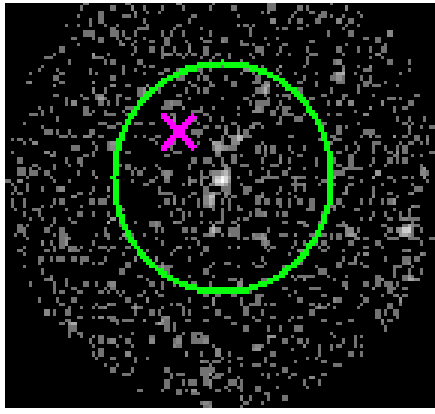




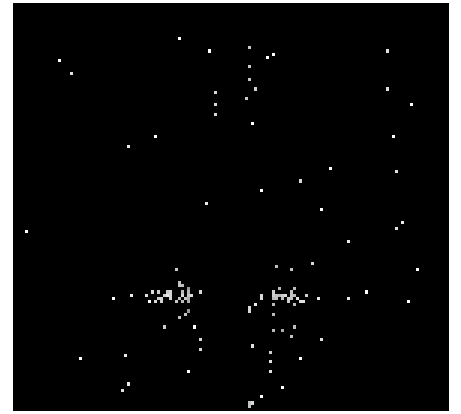
3.2 MEG Arm



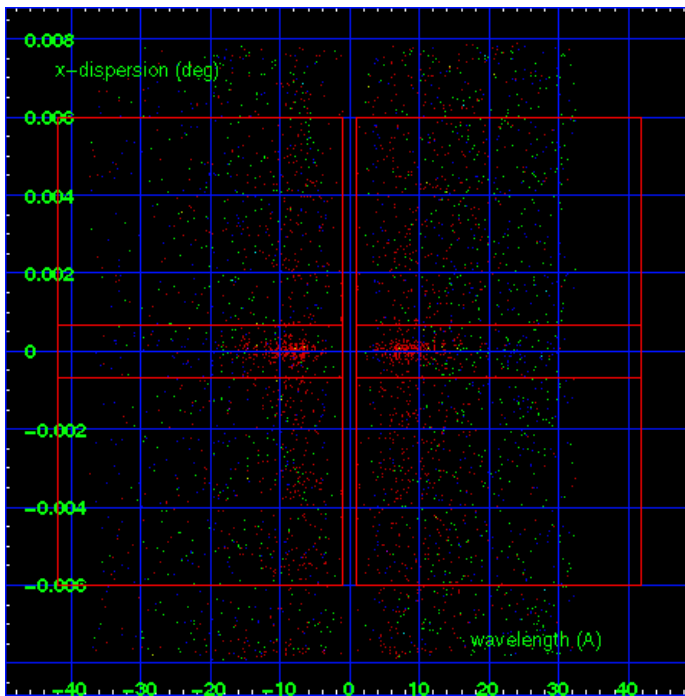
MEG Order Sort 123



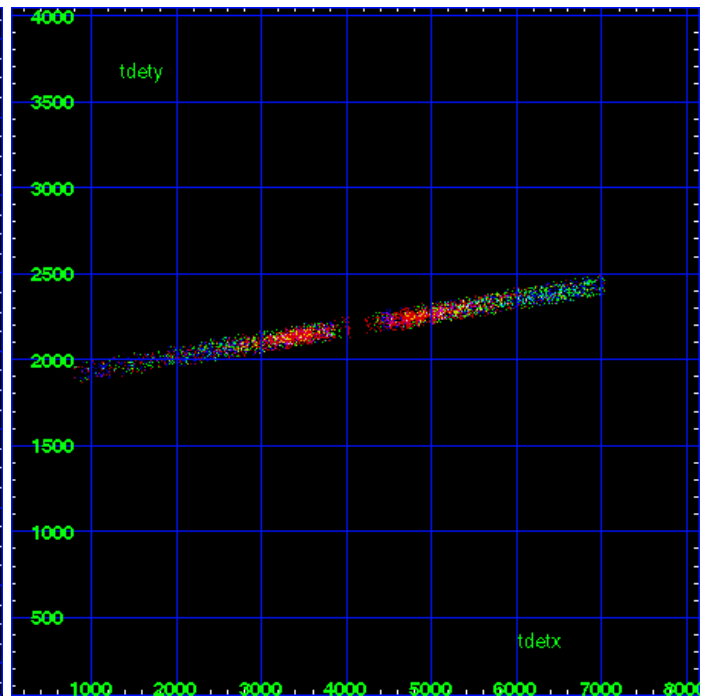
MEG Zero Order



MEG Order Sort ALL

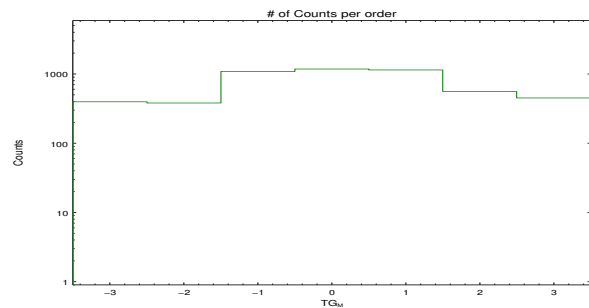


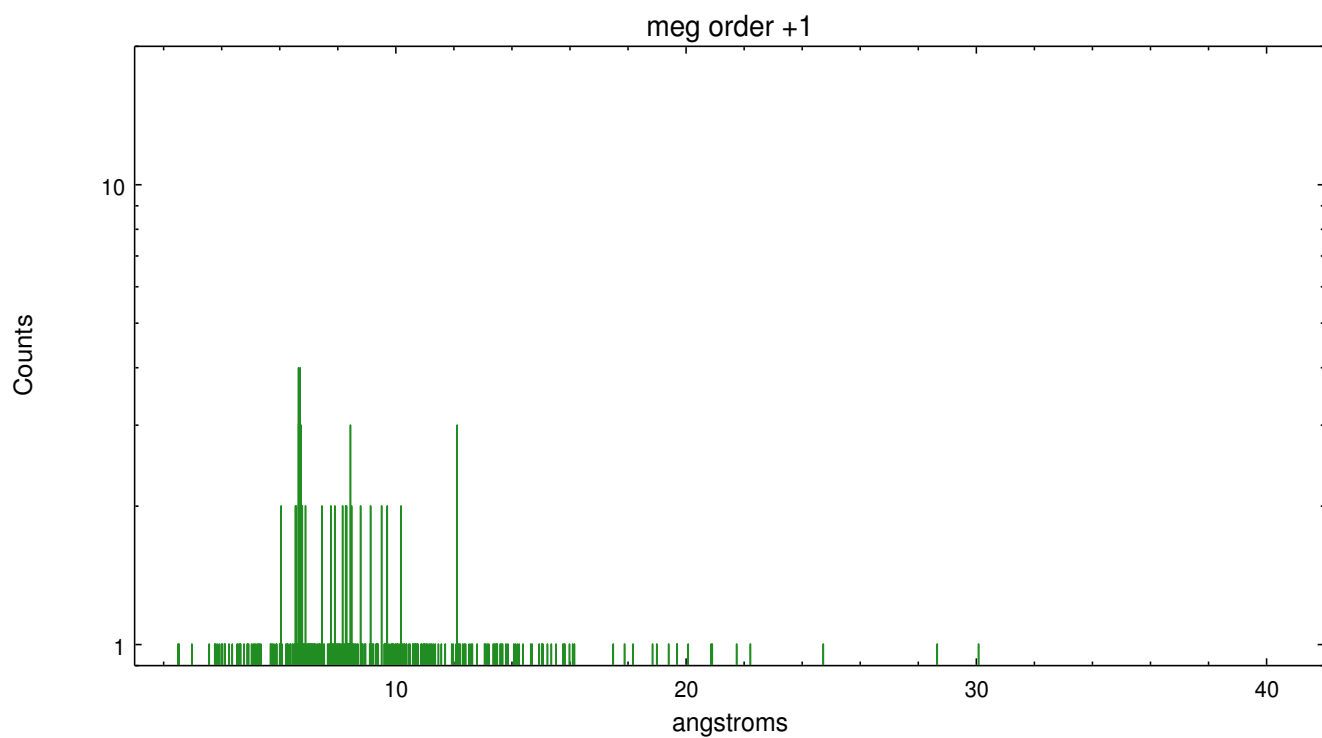
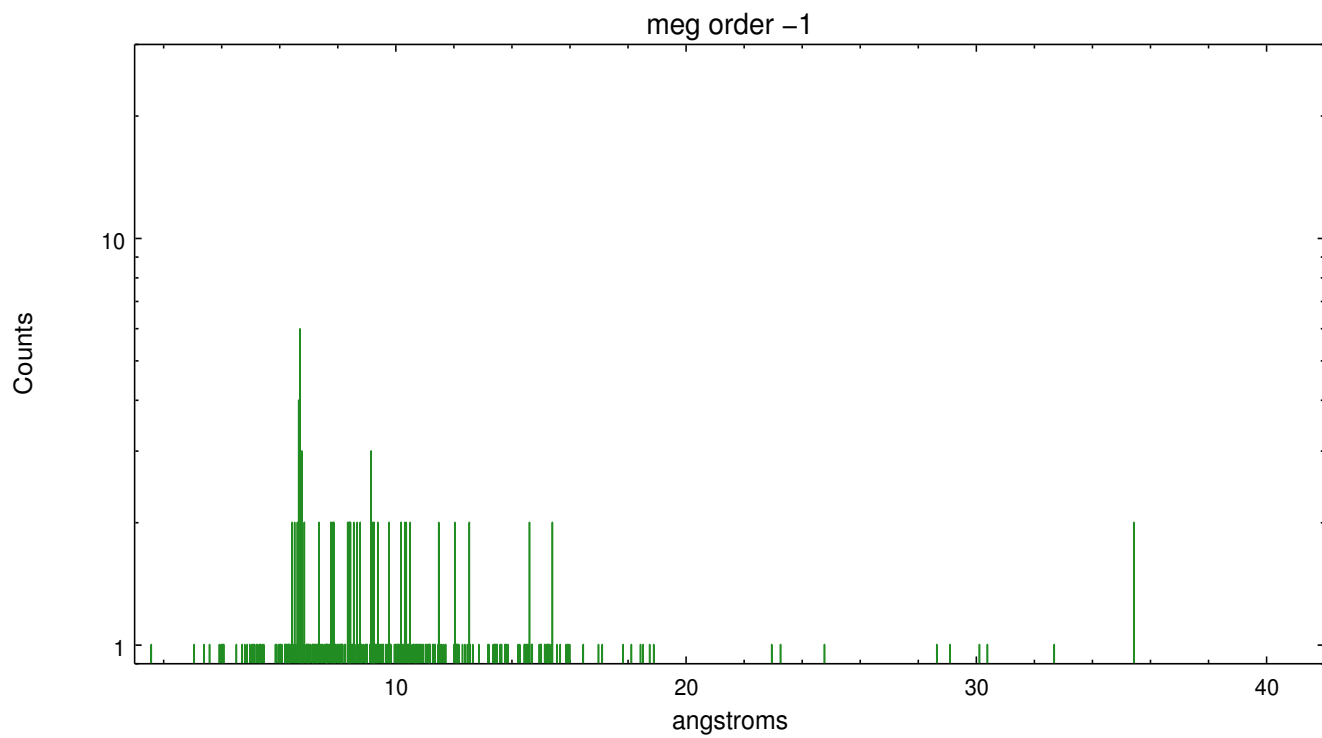
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	398	382	1091	1185	1149	560	452





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2013.01.24
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	33.62879

A.2 Comments

Very crowded field. Zeroth order position selected was
ra=10:43:57.457, dec=-59:32:51.32. This position is the mean of the the
brightest

X-ray positions for all 7 obsids of this source (5398, 7201, 7202, 7203,
7204, 7228, 7229). This zeroth order position was entered manually into
the processing. The output of the automatic source detection tool
tgdetect was not used for this processing.

===

Warning: Multiple sources in the field may cause contamination of the
primary extraction at some wavelengths. Extraction is of HD 93129AB.
Warning: Background important for HEG at about 7 A, plus arm. HD 93162
falls in background region. Comment: Complex source: [ESW2004] is within
2 arcsec of the target in the dispersion direction. Extraction probably
includes both sources with offset in wavelength. These two objects
cannot be extracted separately.

====

Several x-ray sources are included in the region defining the zeroth
order and in the dispersed spectrum. Spectrum may need to be
re-extracted in CIAO to separate the sources. Serendipitous zeroth order
image and dispersed spectrum of HD 93162 present; zeroth order of
HD93162 has a bad CCD row and off-axis PSF. The zeroth order and the
dispersed spectrum of HD93162 lie on top of the spectral arm of the
dispersed spectrum of the primary target. User could possibly exploit
asymmetry in plus and minus orders.