

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 7201 - L2 Version 3
Chandra X-Ray Center

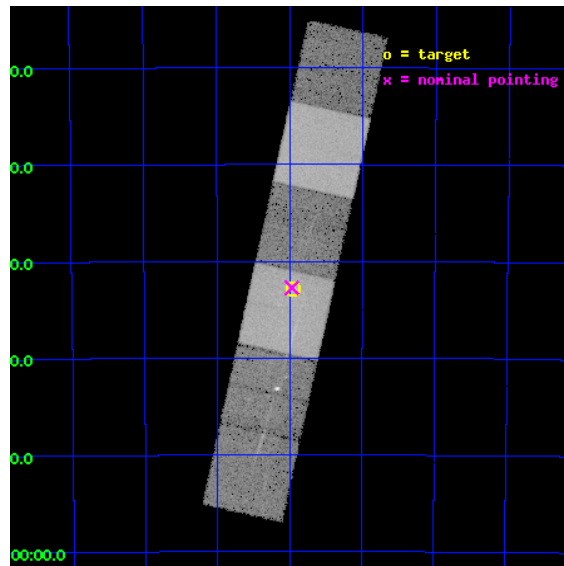
L2 Processing Date : Jan 2 2013

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1 Front

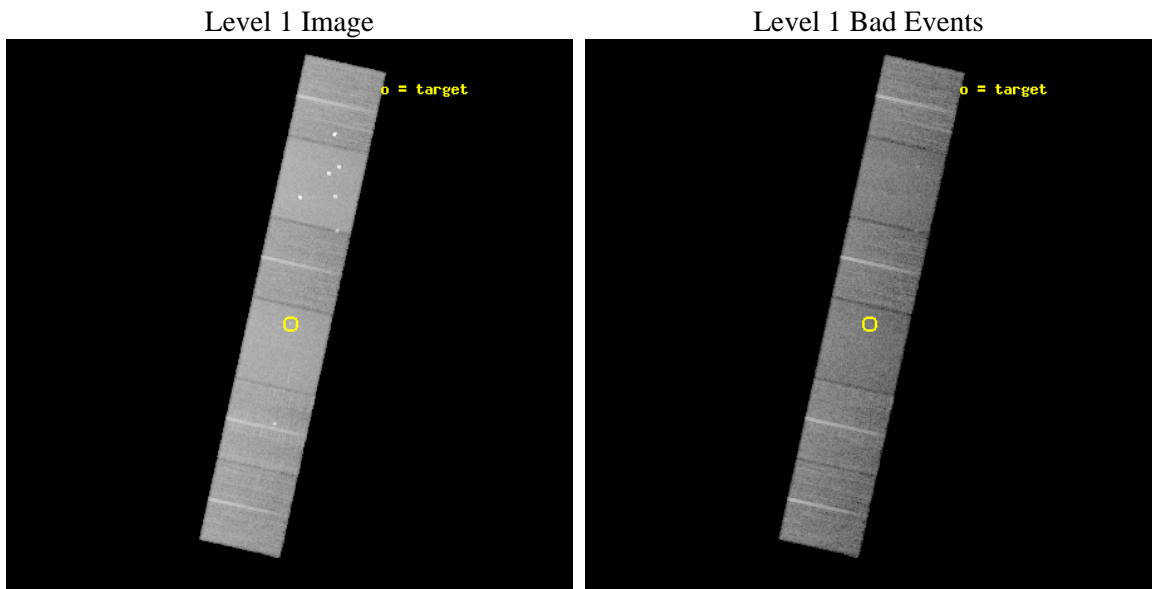
seq_num	200332	Sequence number
obs_id	7201	Observation id
title	A Chandra HETGS Survey of O-Stars	Proposal title
observer	Dr Wayne Waldron	Principal investigator
object	HD93129AB	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	160.989583	Observer's specified target RA [deg]
dec_targ	-59.5475	Observer's specified target Dec [deg]
ra_nom	160.99227811552	Nominal RA [deg]
dec_nom	-59.545927961657	Nominal Dec [deg]
roll_nom	102.45893847358	Nominal Roll [deg]
revision	3	Processing version of data
ontime	18438.399931312	Sum of GTIs [s]
livetime	18204.92180911	Livetime [s]
ontime4	18438.399931312	Sum of GTIs [s]
ontime5	18438.399931312	Sum of GTIs [s]
ontime6	18438.399931312	Sum of GTIs [s]
ontime7	18438.399931312	Sum of GTIs [s]
ontime8	18438.399931312	Sum of GTIs [s]
ontime9	18438.399931312	Sum of GTIs [s]
l2events	257166	Number of level 2 events



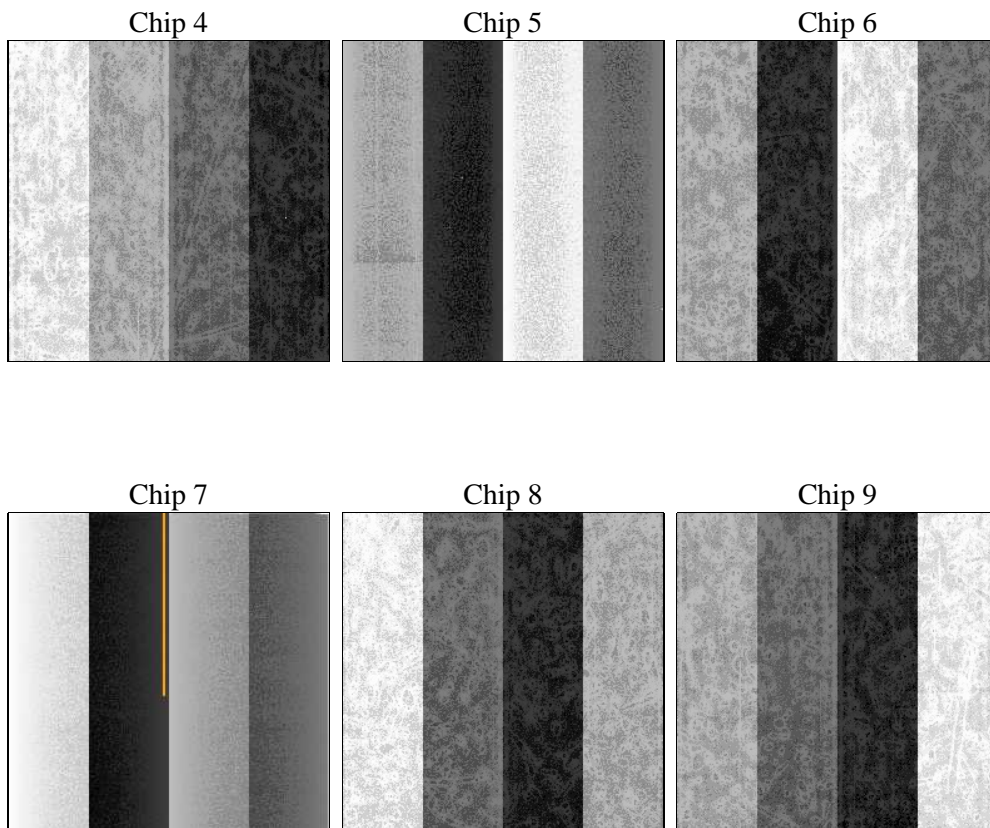
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	18300.000000	[s] Scheduled observation exposure time
ascdsver	8.5.1.1	Processing system revision	ontime	18438.399931312	Sum of GTIs [s]
caldsver	4.5.5	 	ontime4	18438.399931312	Sum of GTIs [s]
date	2012-12-31T11:48:17	Date and time of file creation	ontime5	18438.399931312	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	18438.399931312	Sum of GTIs [s]
			ontime7	18438.399931312	Sum of GTIs [s]
			ontime8	18438.399931312	Sum of GTIs [s]
			ontime9	18438.399931312	Sum of GTIs [s]
			l1events	1109962	Number of level 1 events

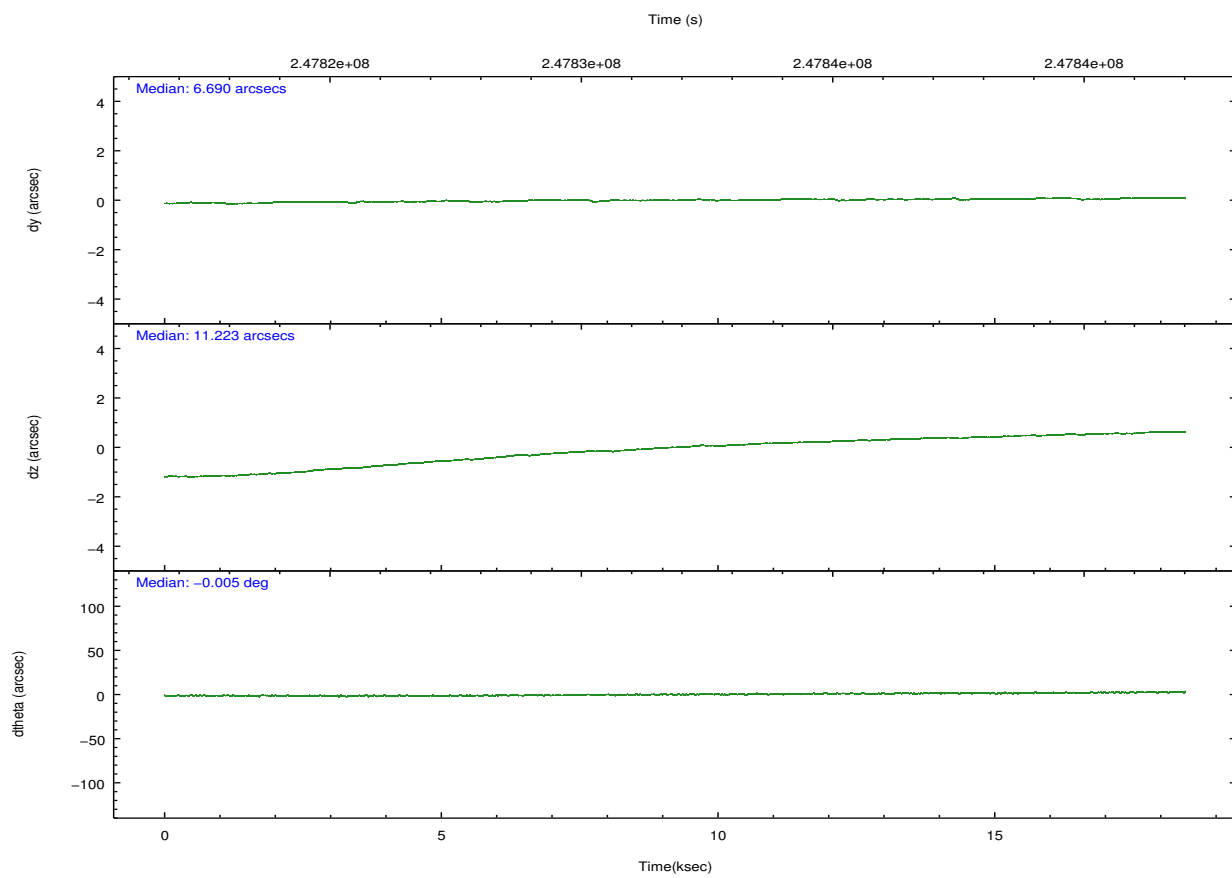
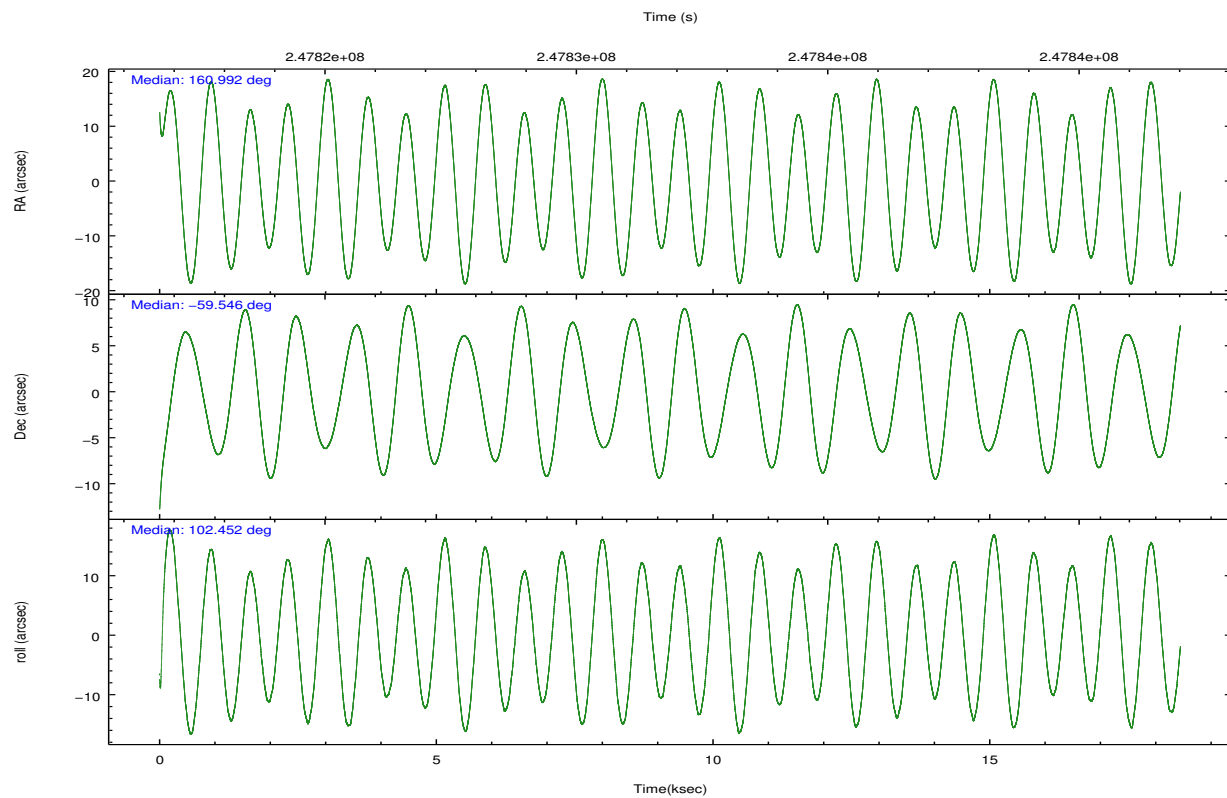
2.1.4 Events

	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	168928	234871	153449	208629	190963	153122	grade 0 events	13721	20087	9485	9328	17480	10597
rejected events	145045	122665	132999	118574	145443	131398		8%	8%	6%	4%	9%	6%
rejected %	85%	52%	86%	56%	76%	85%	grade 1 events	217	579	91	189	162	122
								0%	0%	0%	0%	0%	0%
							grade 2 events	3841	31509	4007	18678	9524	3923
								2%	13%	2%	8%	4%	2%
							grade 3 events	1844	3835	1839	8426	4312	1973
								1%	1%	1%	4%	2%	1%
							grade 4 events	1831	3701	1723	7962	3995	1840
								1%	1%	1%	3%	2%	1%
							grade 5 events	6650	16100	7076	19160	9186	7528
								3%	6%	4%	9%	4%	4%
							grade 6 events	2855	54076	3598	46489	10664	3617
								1%	23%	2%	22%	5%	2%
							grade 7 events	137969	104984	125630	98397	135640	123522
								81%	44%	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	160.9922781155175	Subarray requested	NONE	NONE
[deg] Pointing Dec	-59.565754	-59.54592796165675	Alternating exposures requested	N	N
[deg] Pointing Roll	102.334079	102.458938473584	[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)	247822786.184000	247821598.26397			
Observation start date	2005-11-08T07:38:42	2005-11-08T07:19:58			
[s] Observation end time (MET)	247841086.184000	247841973.21491			
Observation end date	2005-11-08T12:43:42	2005-11-08T12:59:33			
Read mode	TIMED	TIMED			

2.3 Aspect

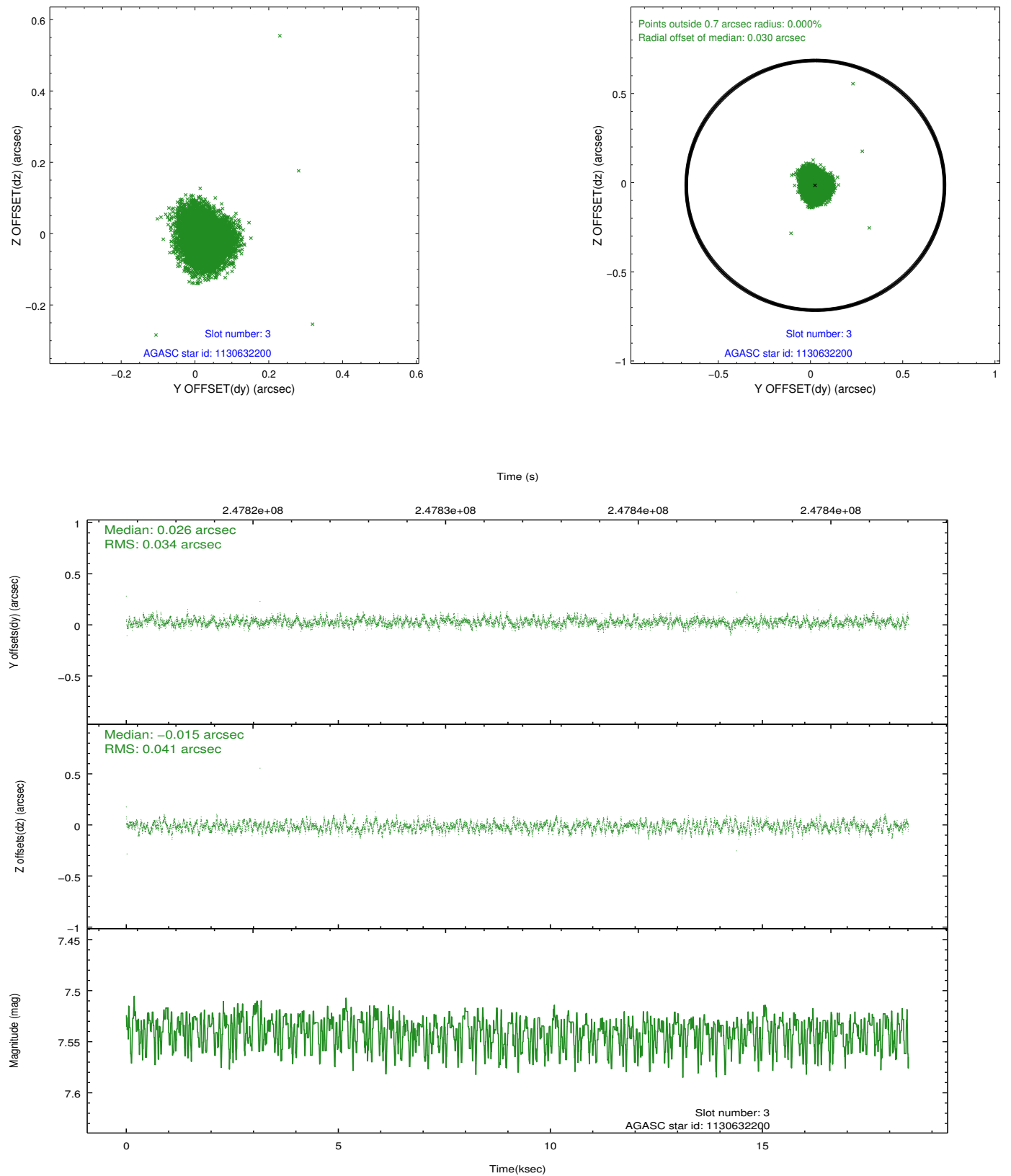


Slot Statistics

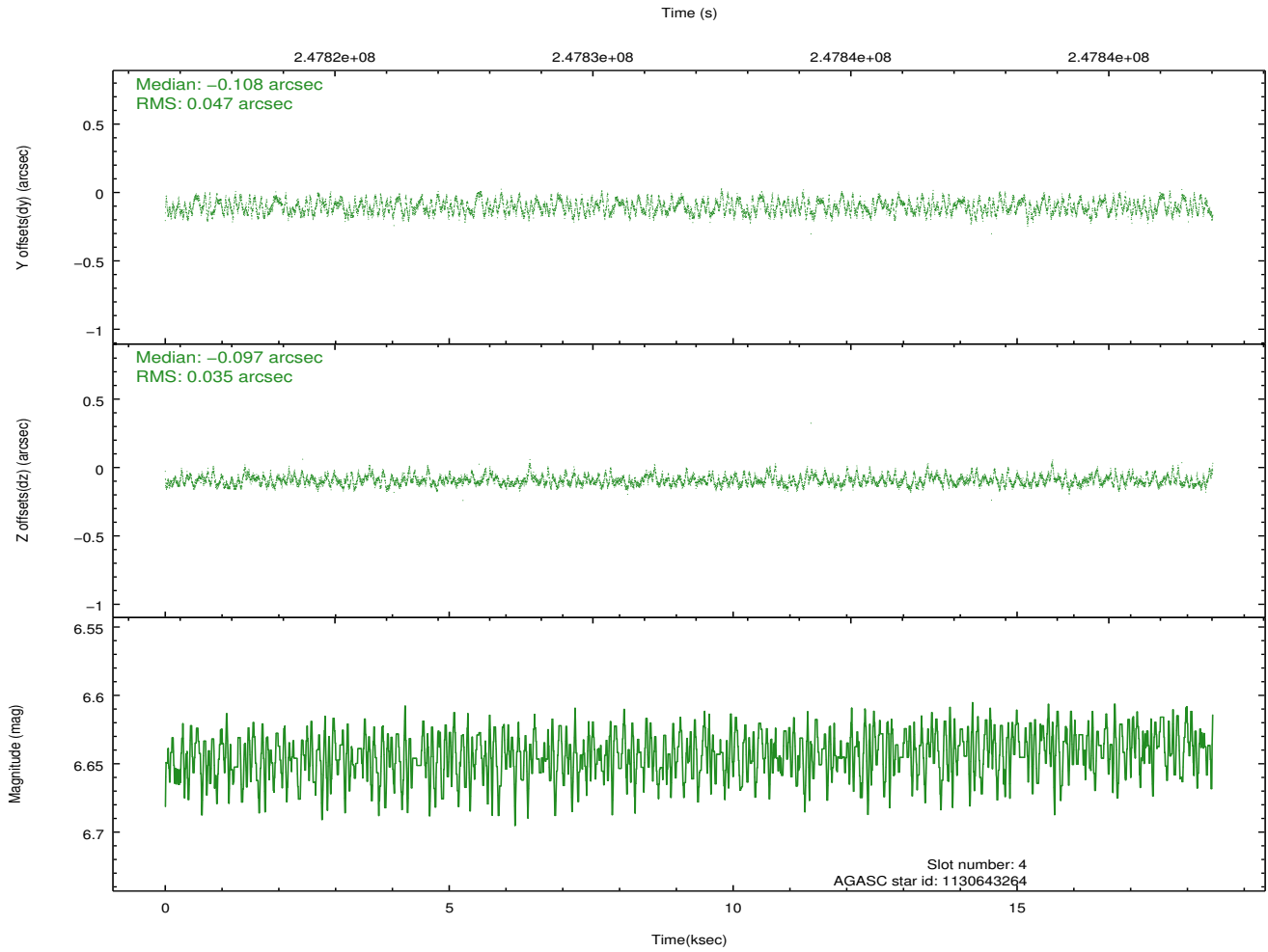
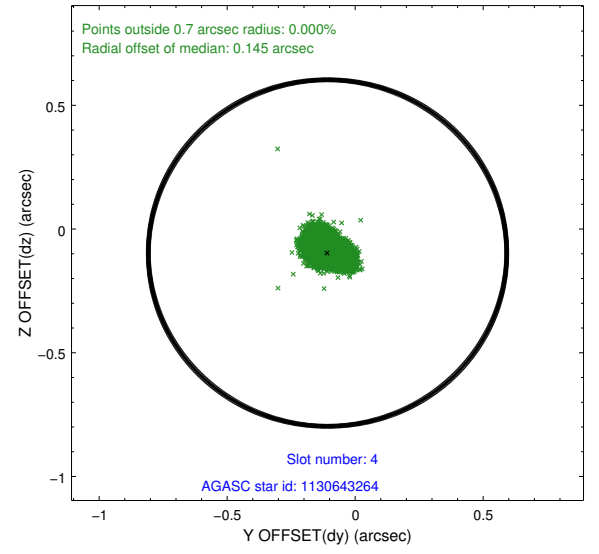
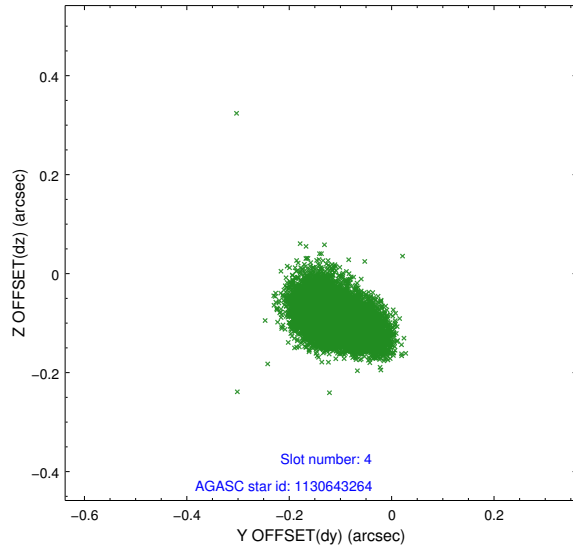
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	4500	-0.057	-0.032	0.012	0.018	0.000000	0.000000	-759.46	-1732.40
1	FID	ACIS-S-4	7.21	4499	0.094	0.036	0.009	0.017	0.000000	0.000000	2153.85	175.96
2	FID	ACIS-S-5	7.23	4500	-0.069	0.004	0.010	0.017	0.000000	0.000000	-1812.06	169.80
3	GUIDE	1130632200	7.54	8999	0.026	-0.015	0.057	0.088	161.433843	-59.407820	395.33	-845.26
4	GUIDE	1130643264	6.64	8999	-0.108	-0.097	0.063	0.099	160.322990	-59.676912	-123.32	1340.58
5	GUIDE	1130644984	8.76	8921	-0.060	0.030	0.067	0.109	162.123834	-59.745452	-1071.65	-1797.95
6	GUIDE	1128940640	8.36	8992	0.127	0.103	0.061	0.099	159.517239	-59.074495	2294.31	2361.75
7	GUIDE	1130640672	8.29	8996	0.011	-0.021	0.073	0.116	162.096044	-59.540805	-342.58	-1917.62

2.4 Star Slots

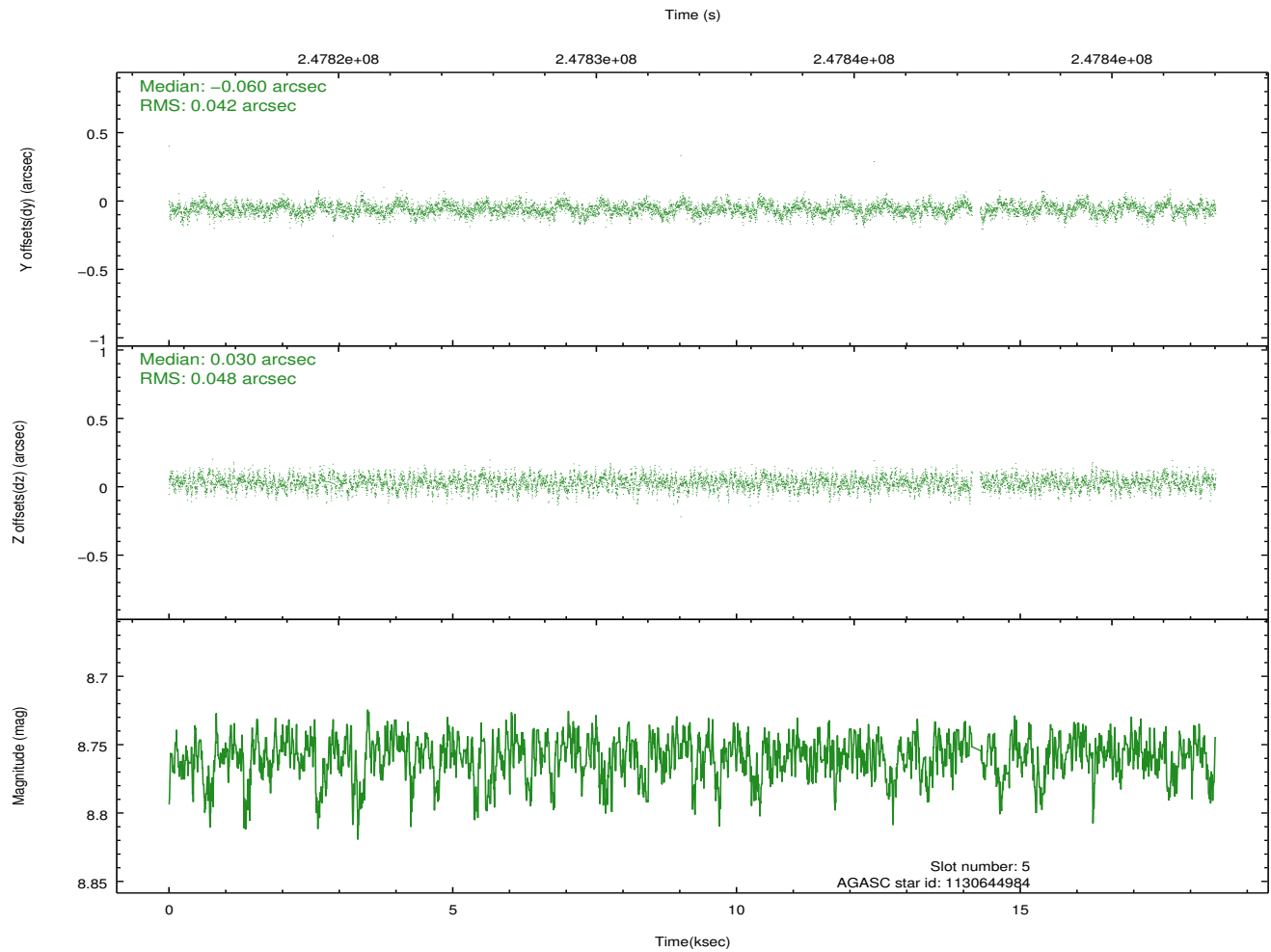
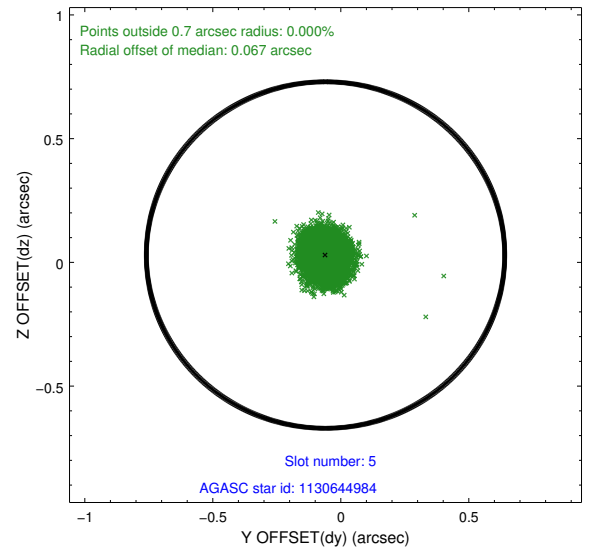
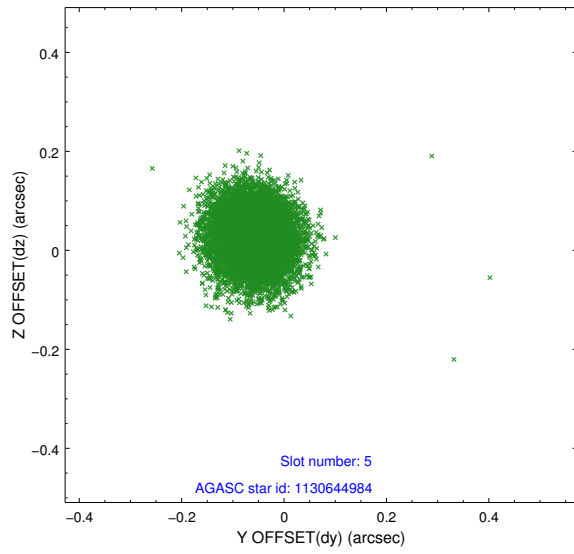
2.4.1 Slot 3



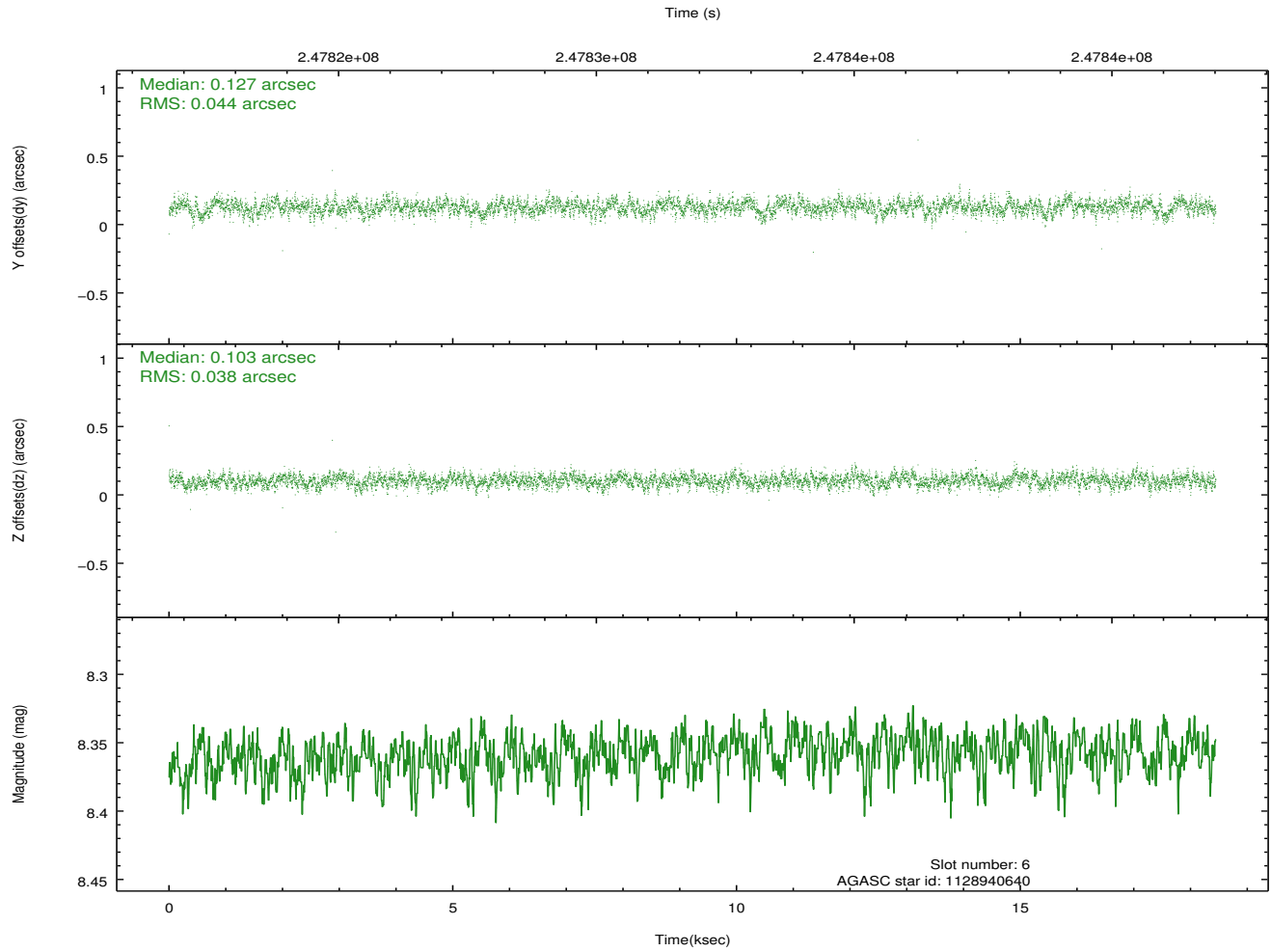
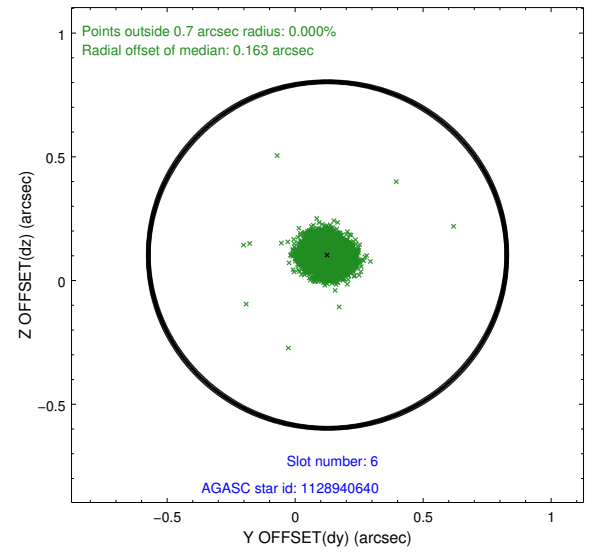
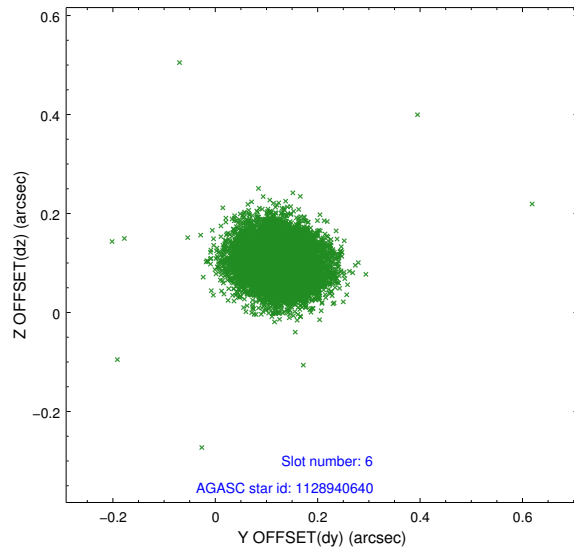
2.4.2 Slot 4



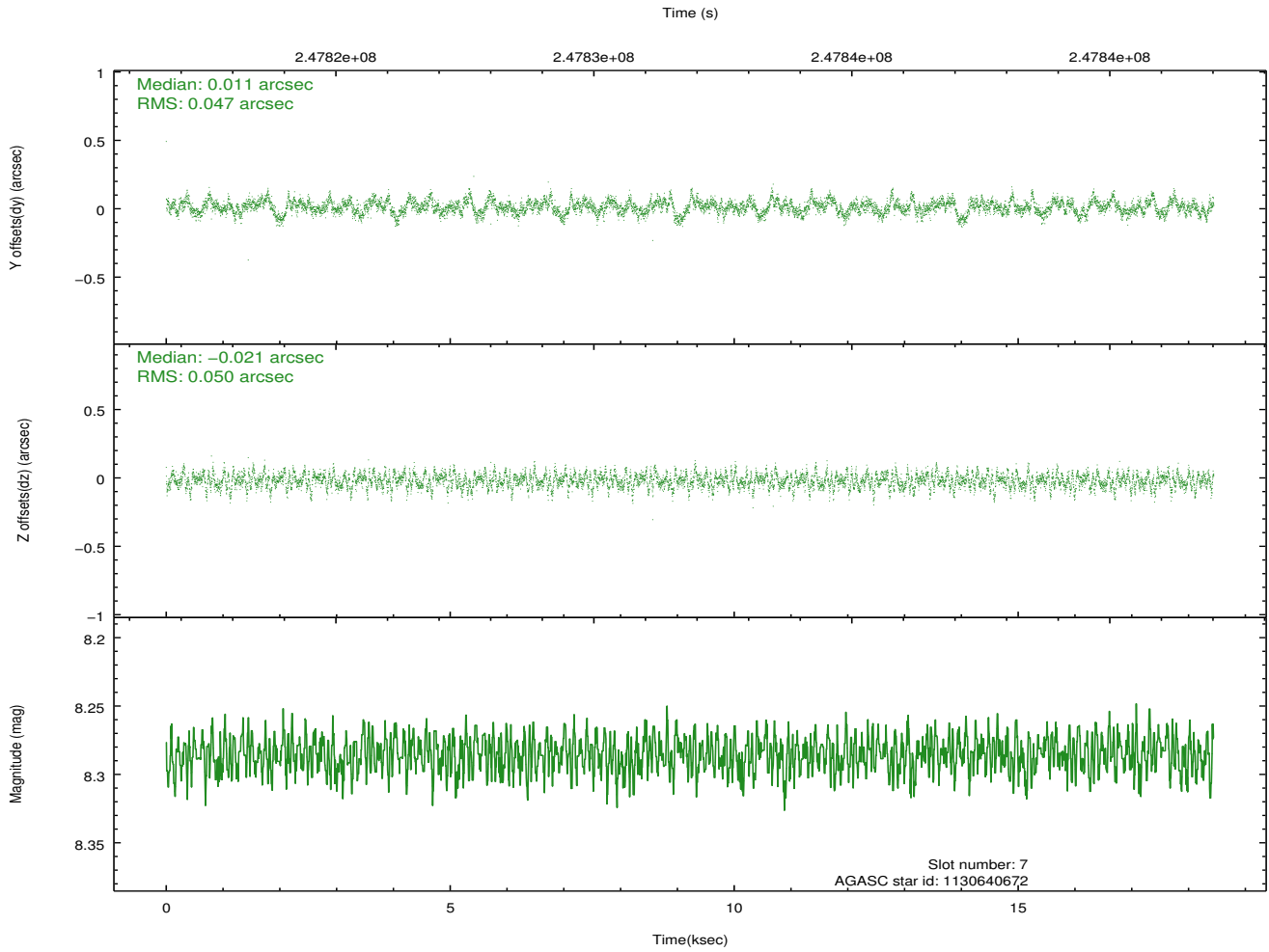
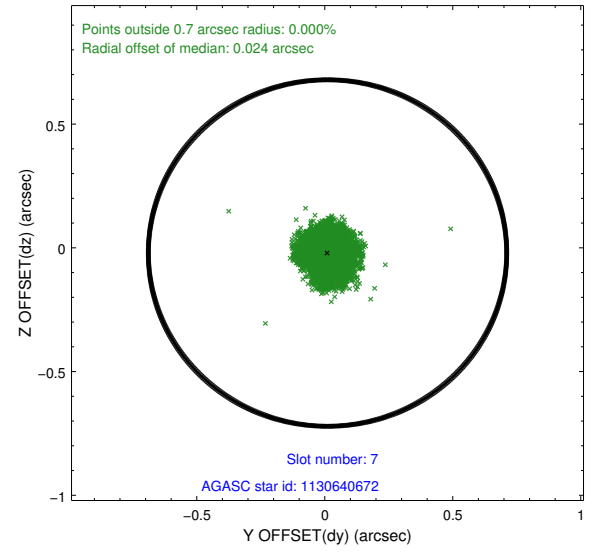
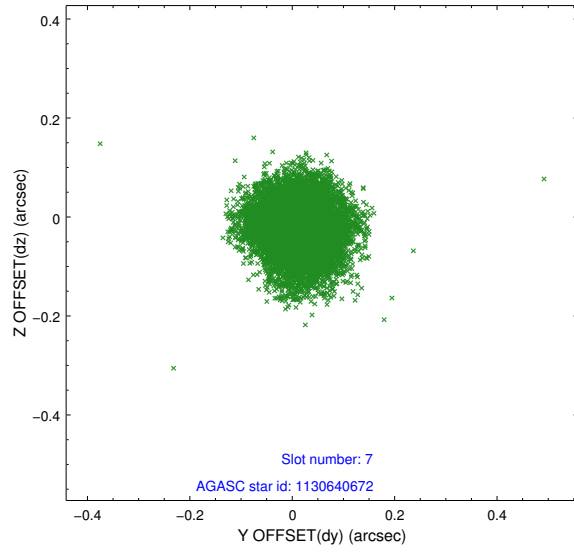
2.4.3 Slot 5



2.4.4 Slot 6

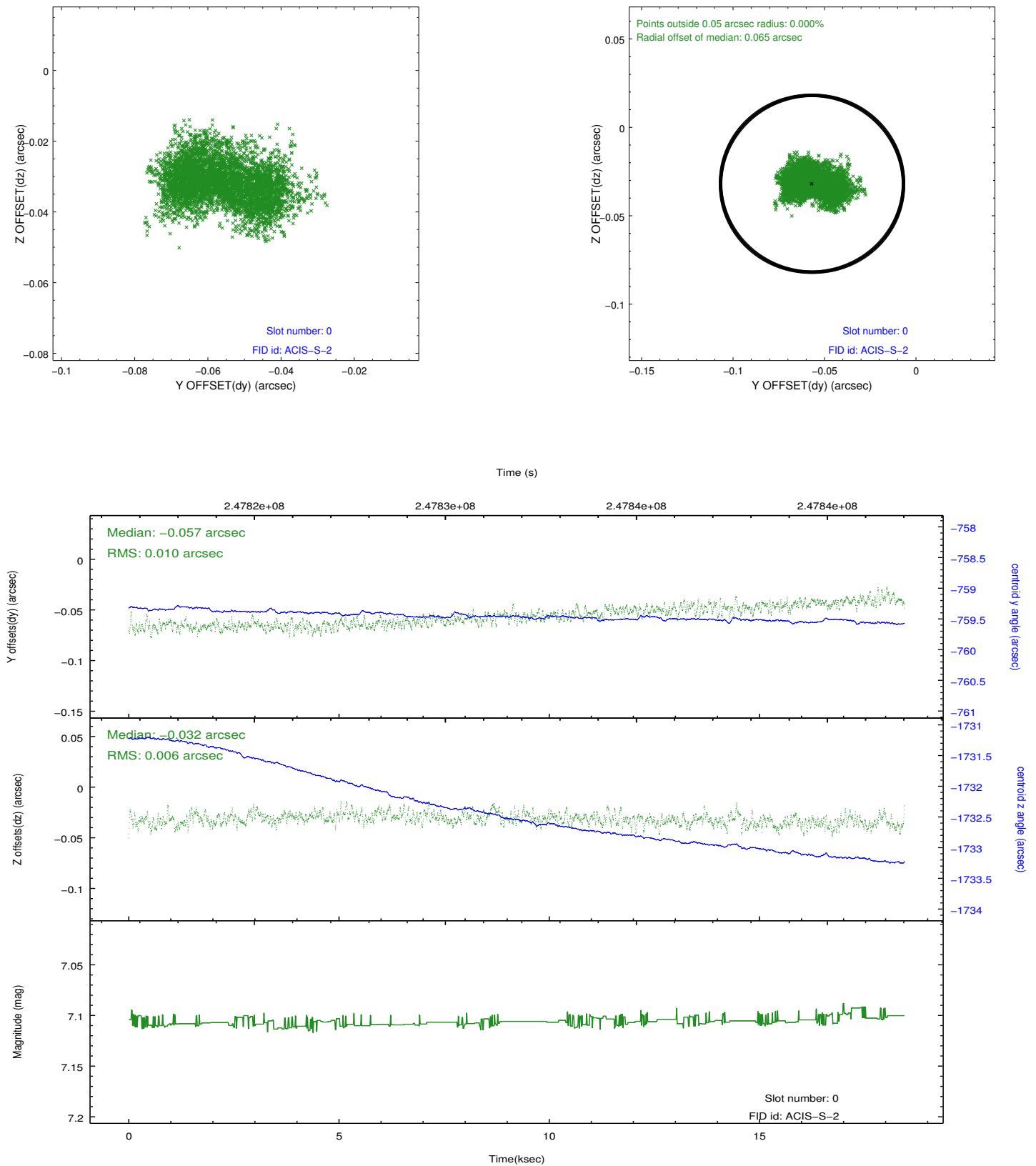


2.4.5 Slot 7

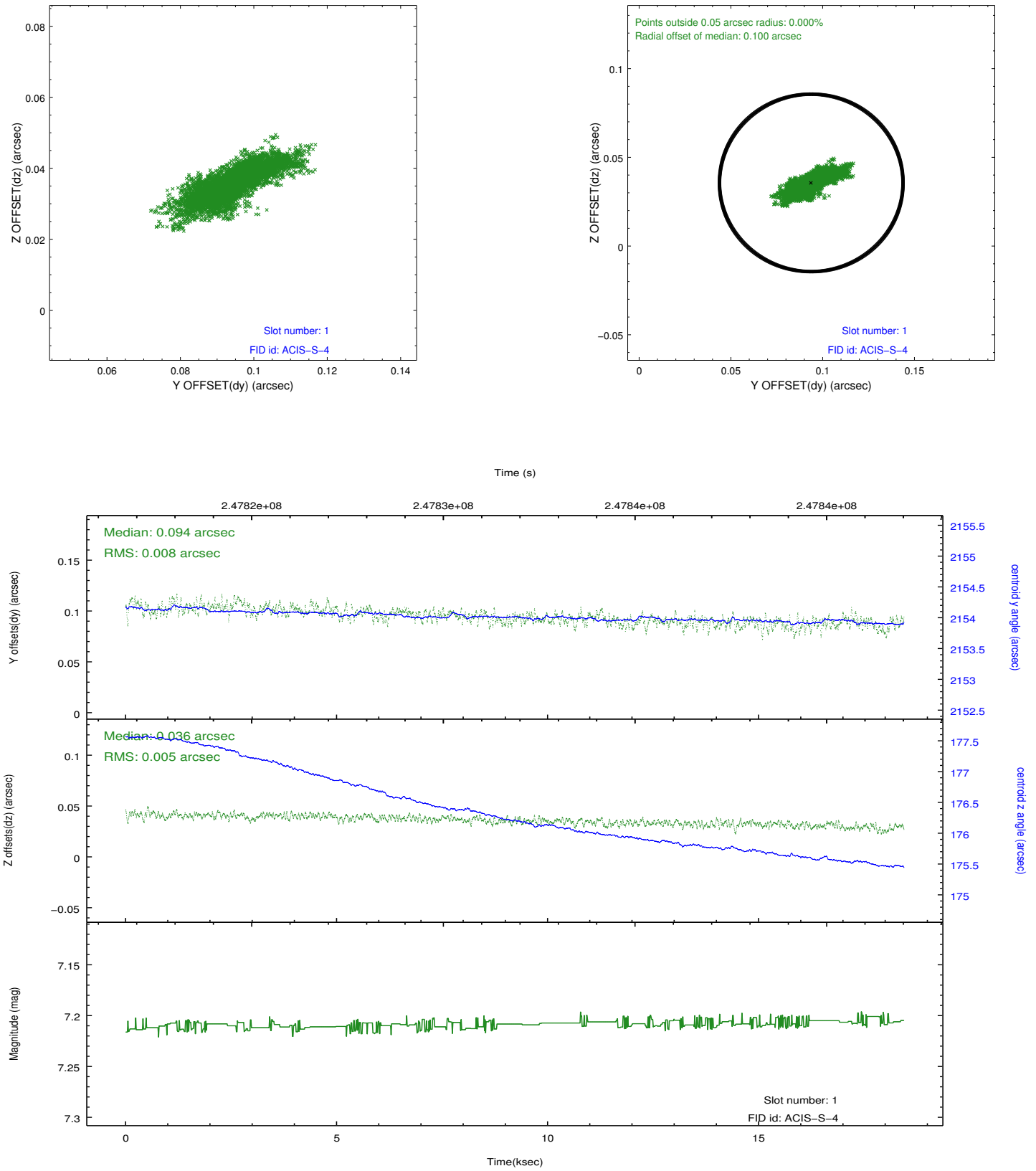


2.5 FID Slots

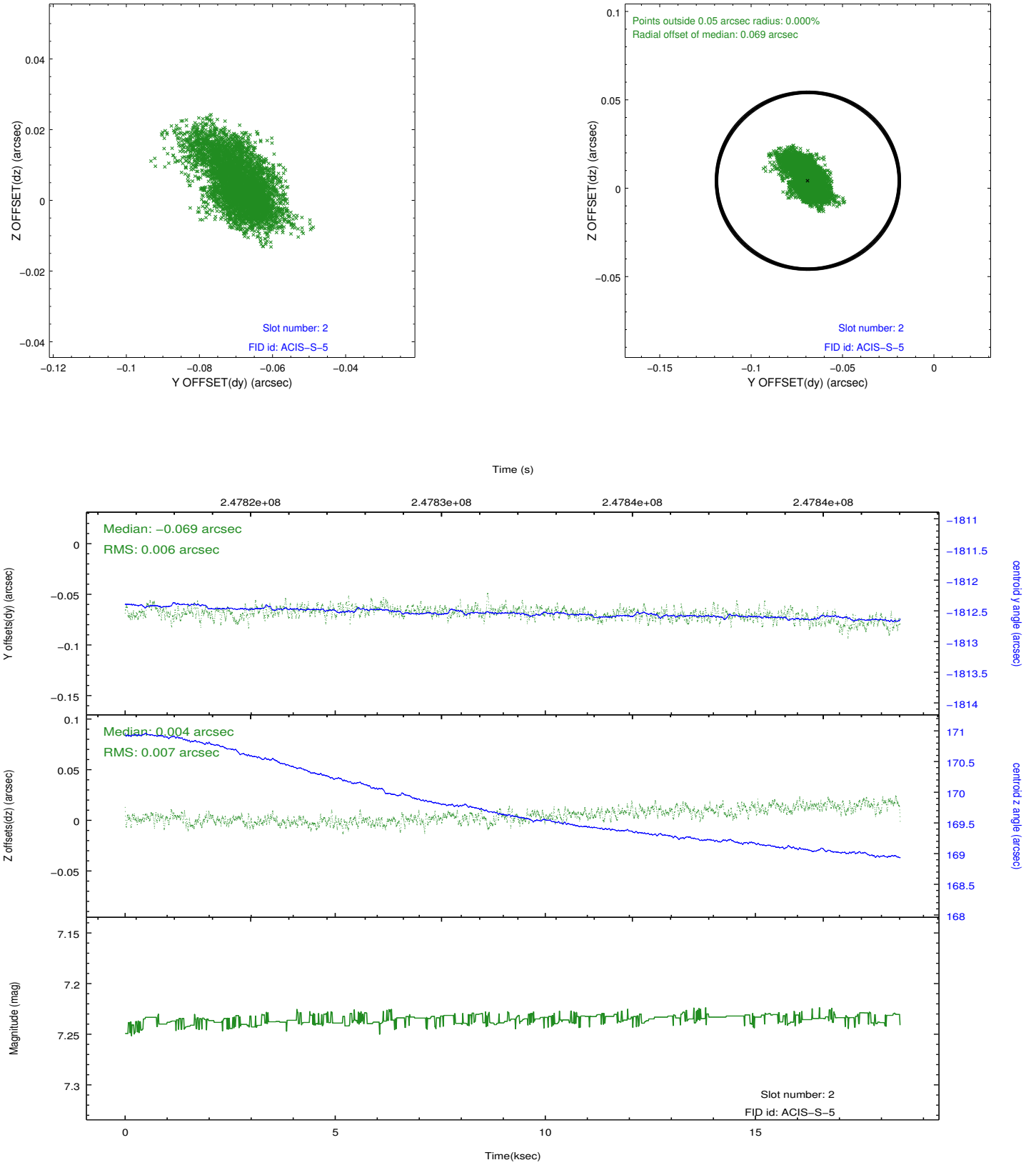
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

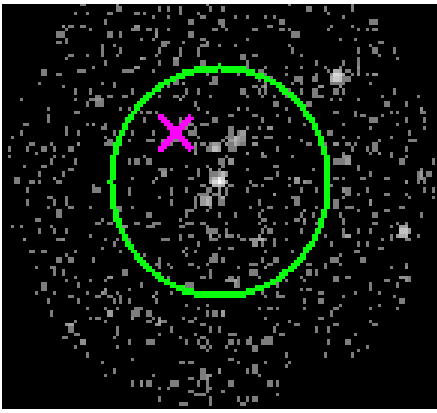


3 Gratings

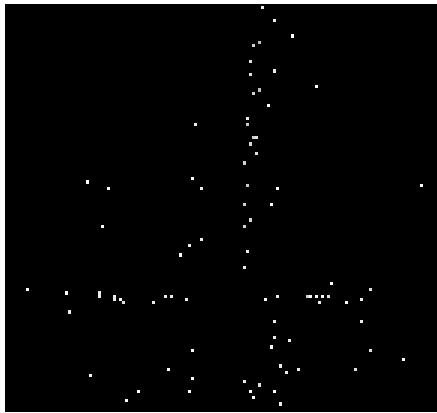
3.1 HEG Arm



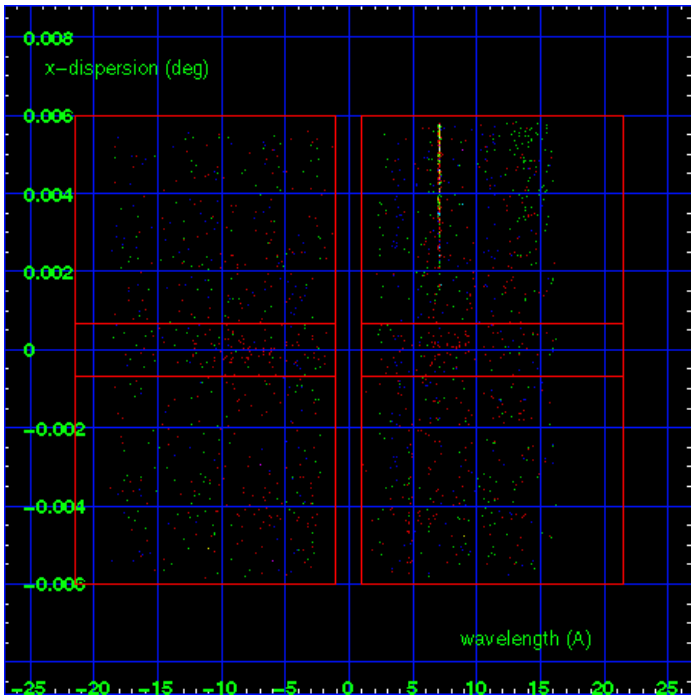
HEG Order Sort 123



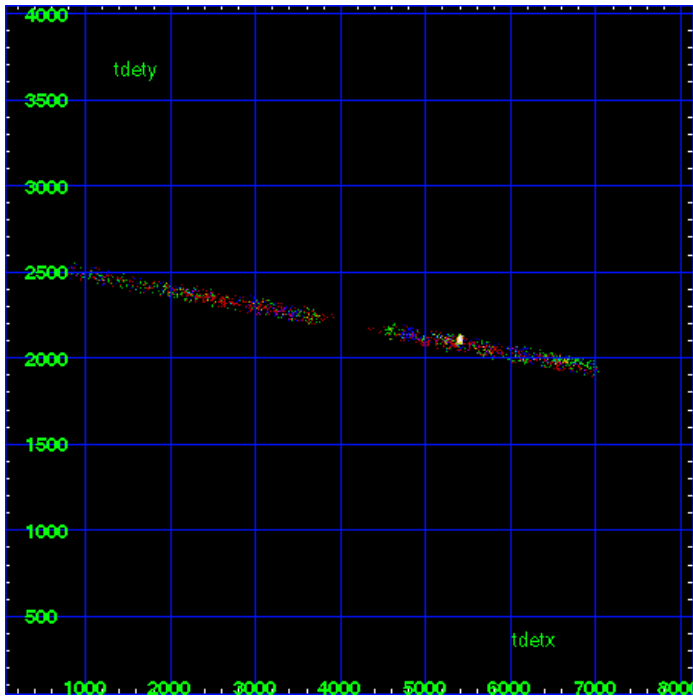
HEG Zero Order



HEG Order Sort ALL

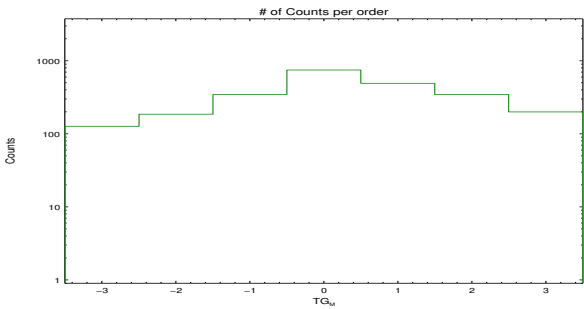


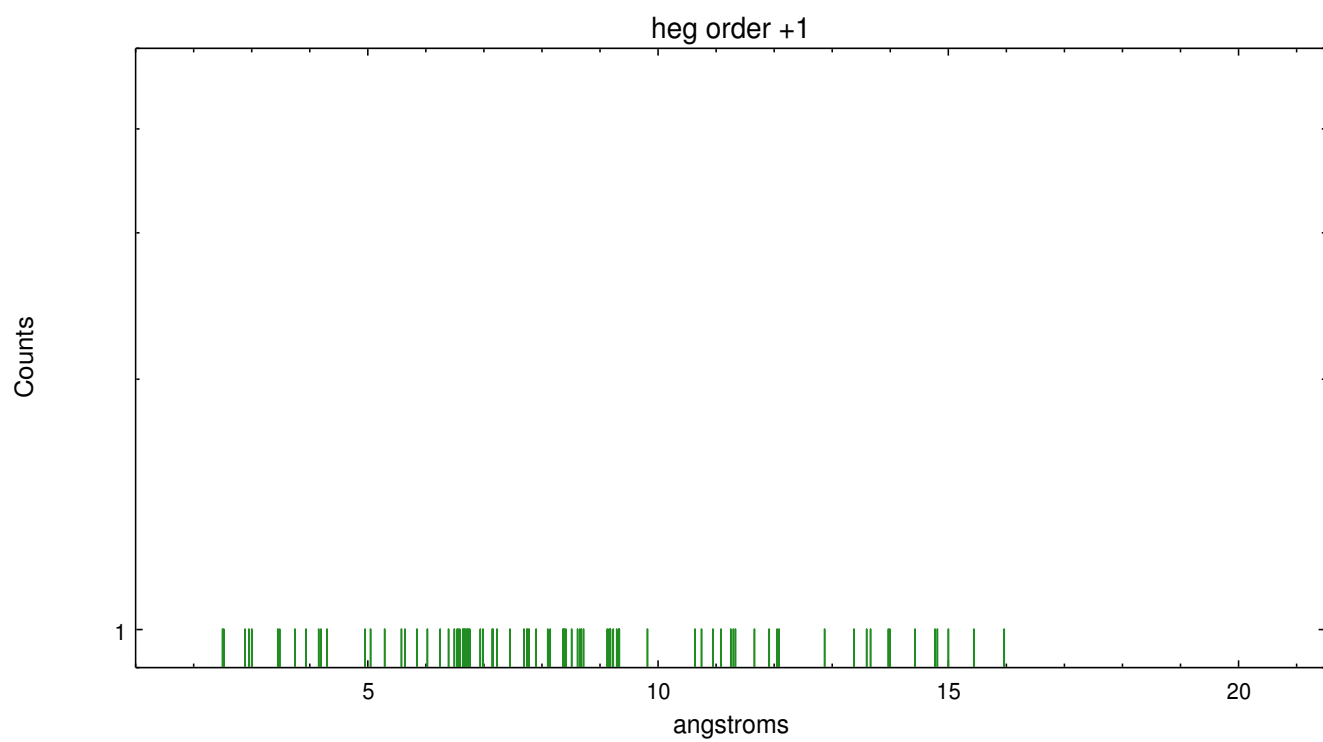
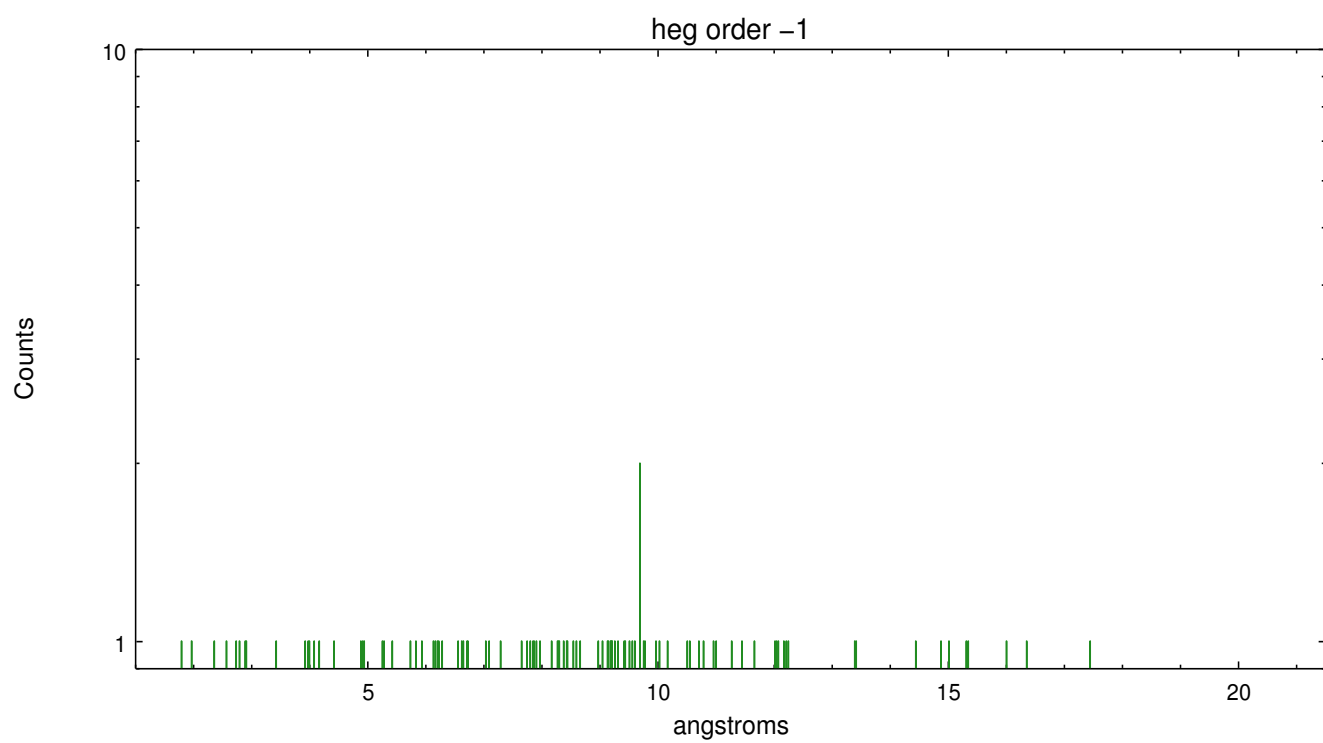
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	127	186	346	751	493	347	200

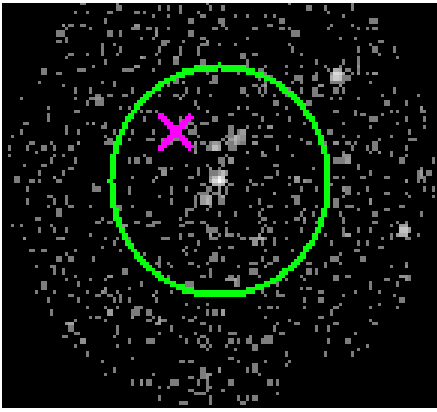




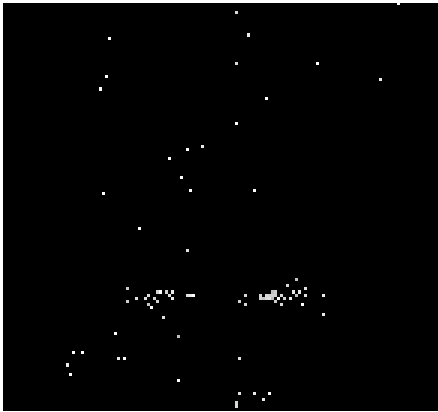
3.2 MEG Arm



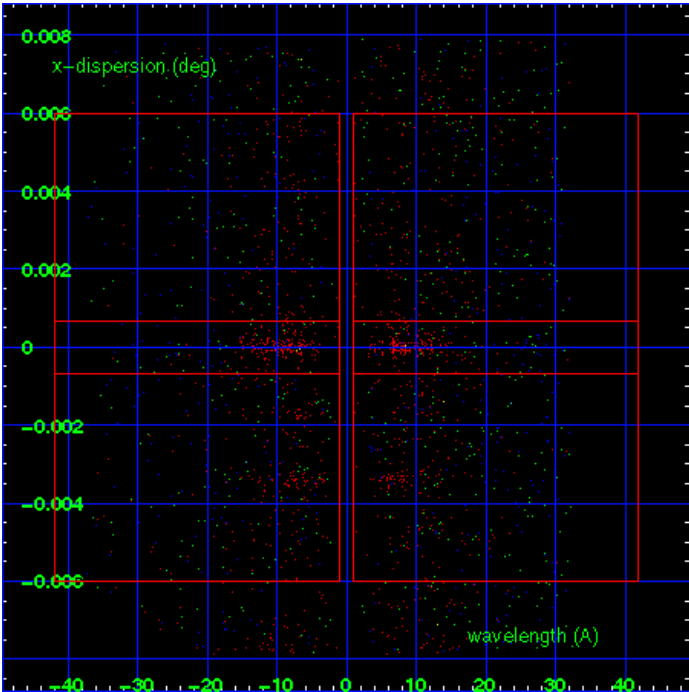
MEG Order Sort 123



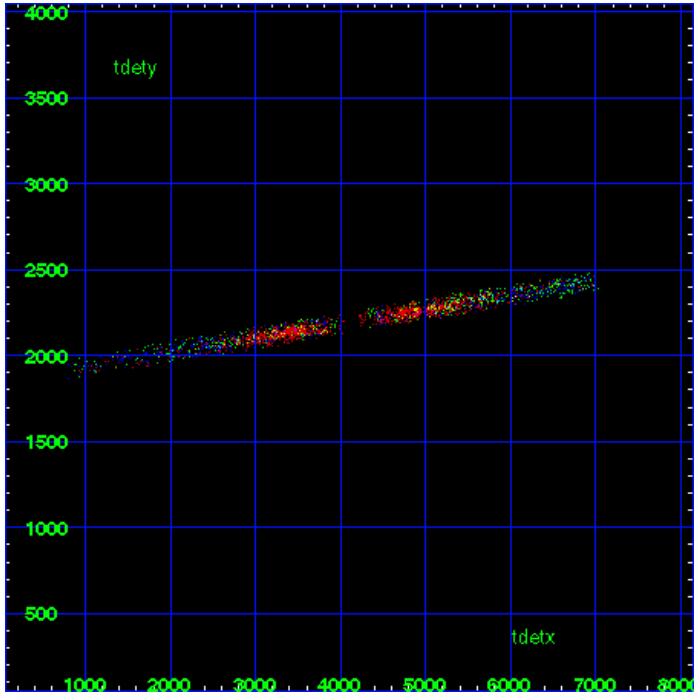
MEG Zero Order



MEG Order Sort ALL

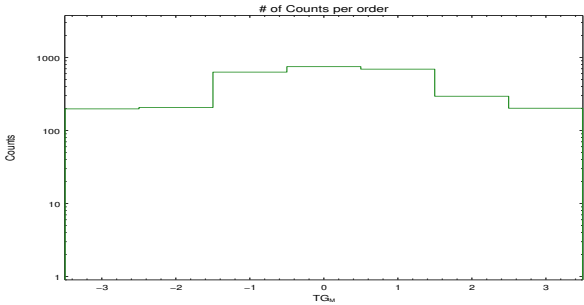


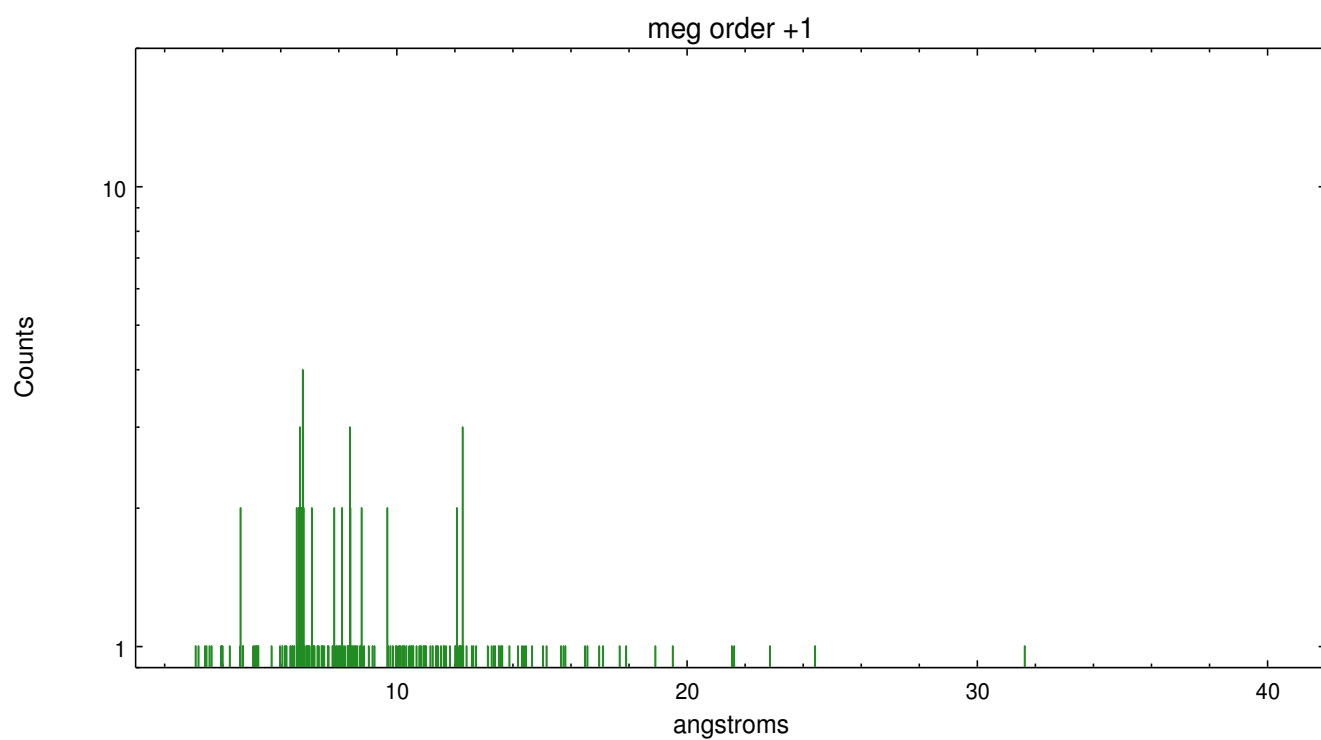
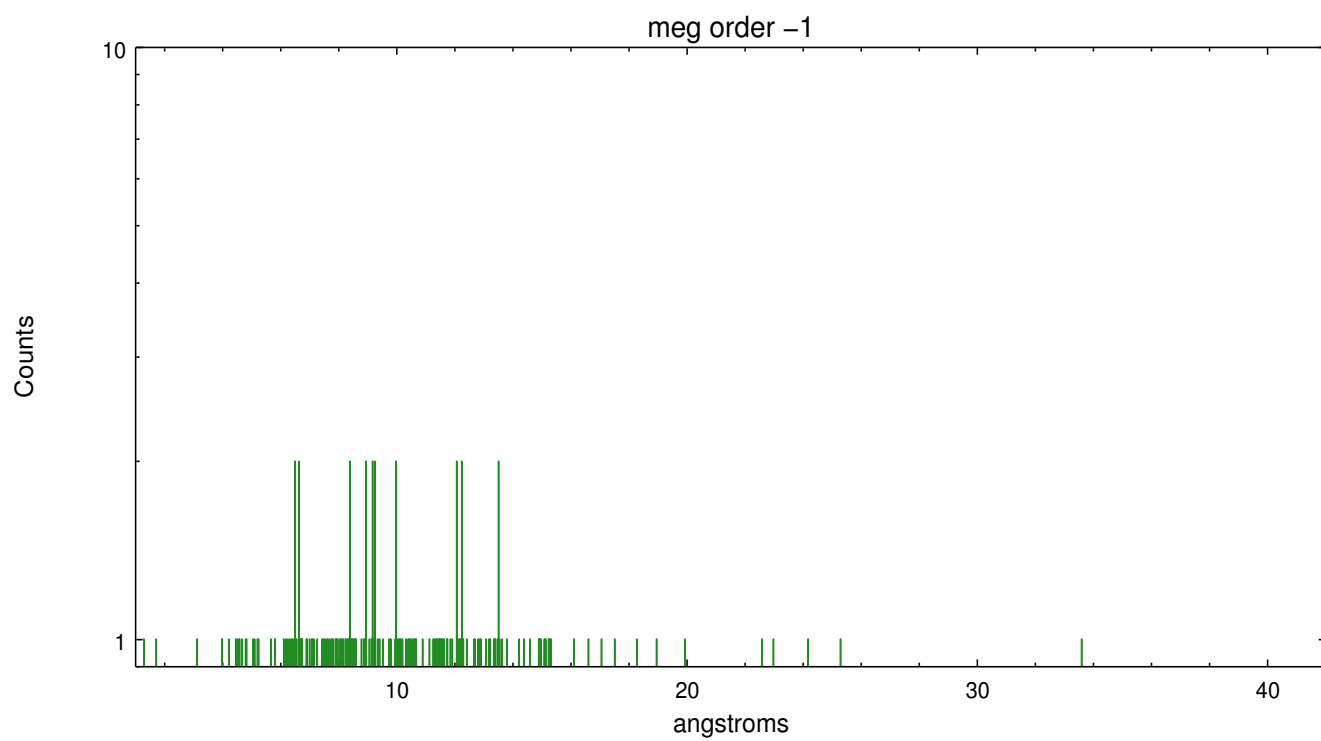
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	198	207	632	751	694	295	202





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	18.43839

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 position 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.

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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.

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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.