

V&V Reference Report

L2 ASCDS Version : 10.4

Observation 17679 - L2 Version 1
Chandra X-Ray Center

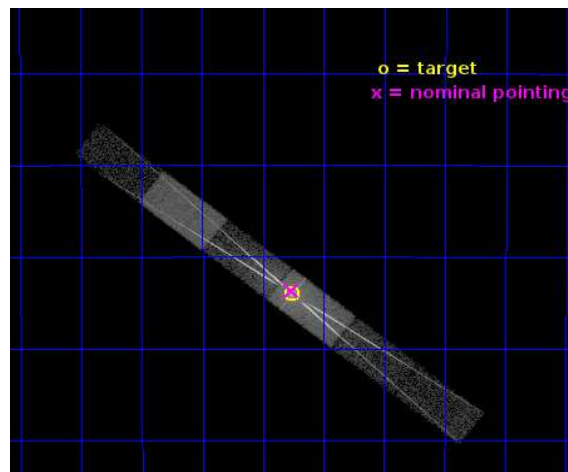
L2 Processing Date : Jun 12 2015

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1 Front

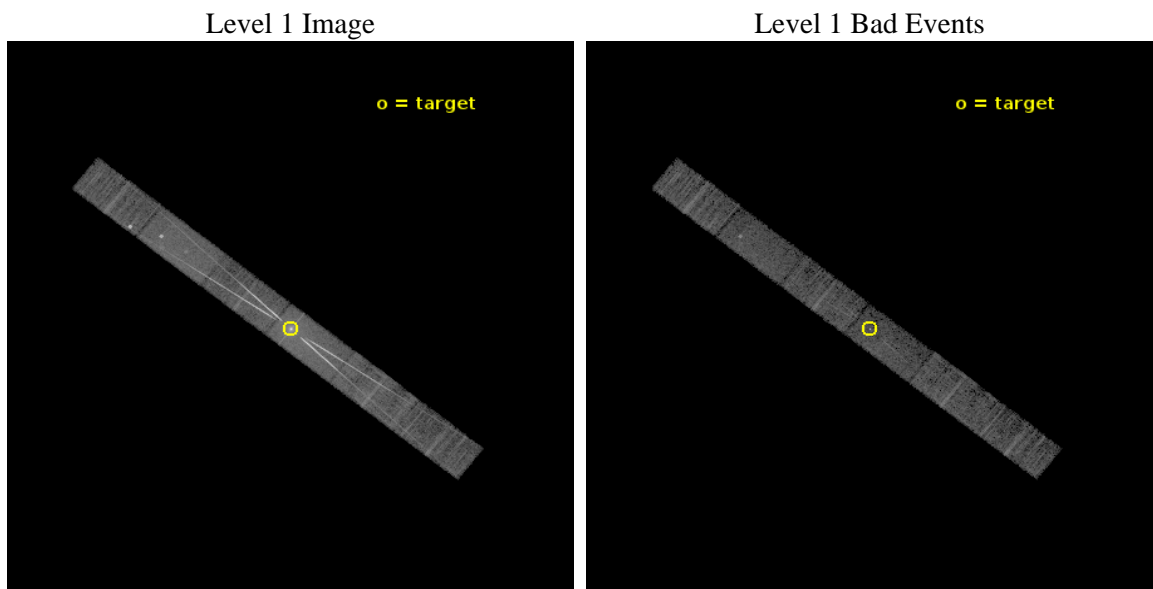
seq_num	401660	Sequence number
obs_id	17679	Observation id
title	An Integrated Approach to Winds, Jets, and State Transitions	Propo
observer	Dr. Joseph Neilsen	Principal investigator
object	H1743-322	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	266.565042	Observer's specified target RA [deg]
dec_targ	-32.2335	Observer's specified target Dec [deg]
ra_nom	266.56654338182	Nominal RA [deg]
dec_nom	-32.228168099447	Nominal Dec [deg]
roll_nom	38.15745778922	Nominal Roll [deg]
revision	1	Processing version of data
ontime	9445.2002649307	Sum of GTIs [s]
livetime	9222.5568915029	Livetime [s]
ontime4	9445.2002649307	Sum of GTIs [s]
ontime5	9445.2002649307	Sum of GTIs [s]
ontime6	9445.2002649307	Sum of GTIs [s]
ontime7	9445.2002649307	Sum of GTIs [s]
ontime8	9445.2002649307	Sum of GTIs [s]
ontime9	9445.2002649307	Sum of GTIs [s]
l2events	160195	Number of level 2 events



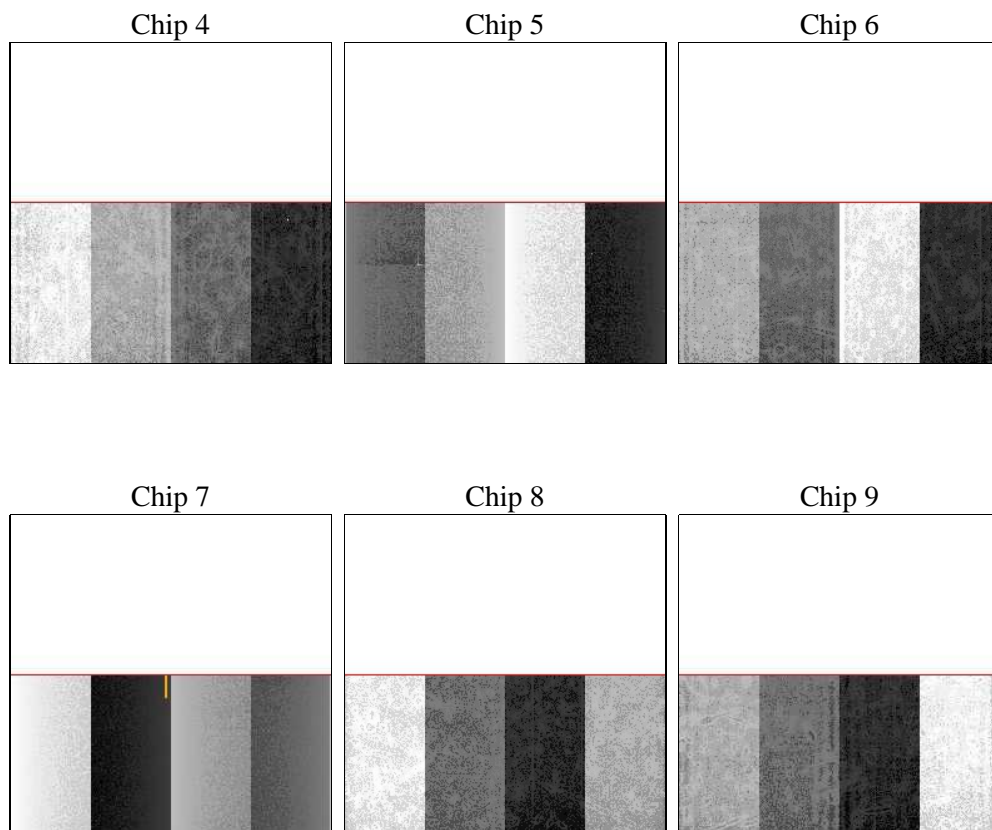
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	9400.000000	[s] Scheduled observation exposure time
ascdsver	10.4	Processing system revision	ontime	9445.2002649307	Sum of GTIs [s]
caldsver	4.6.7	 	ontime4	9445.2002649307	Sum of GTIs [s]
date	2015-06-13T00:09:14	Date and time of file creation	ontime5	9445.2002649307	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	9445.2002649307	Sum of GTIs [s]
			ontime7	9445.2002649307	Sum of GTIs [s]
			ontime8	9445.2002649307	Sum of GTIs [s]
			ontime9	9445.2002649307	Sum of GTIs [s]
			l1events	316498	Number of level 1 events
			tgmethod	FINDZO	Method used to create src1a file
			ra_pos	(4106.07, 4057.54)	src1a sky pixel position

2.1.4 Events

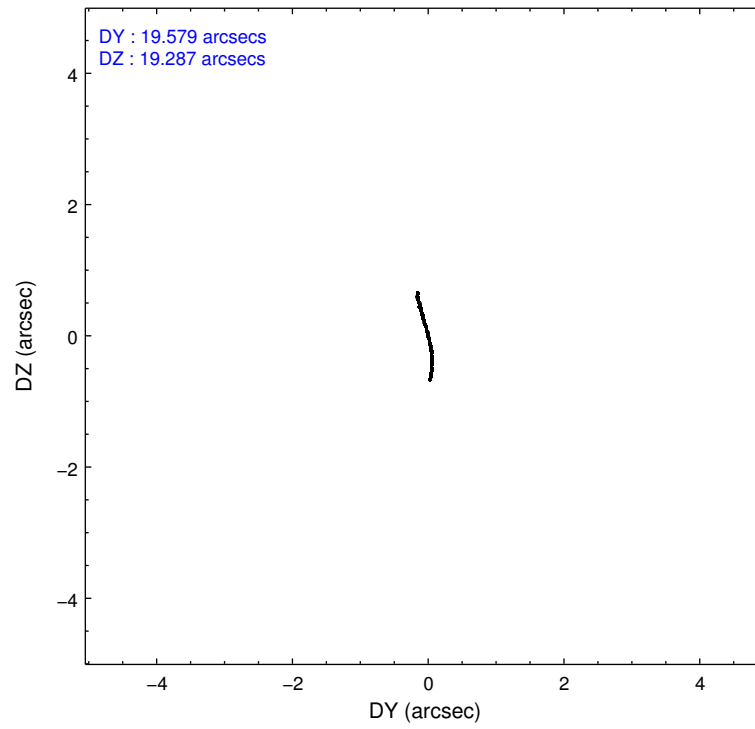
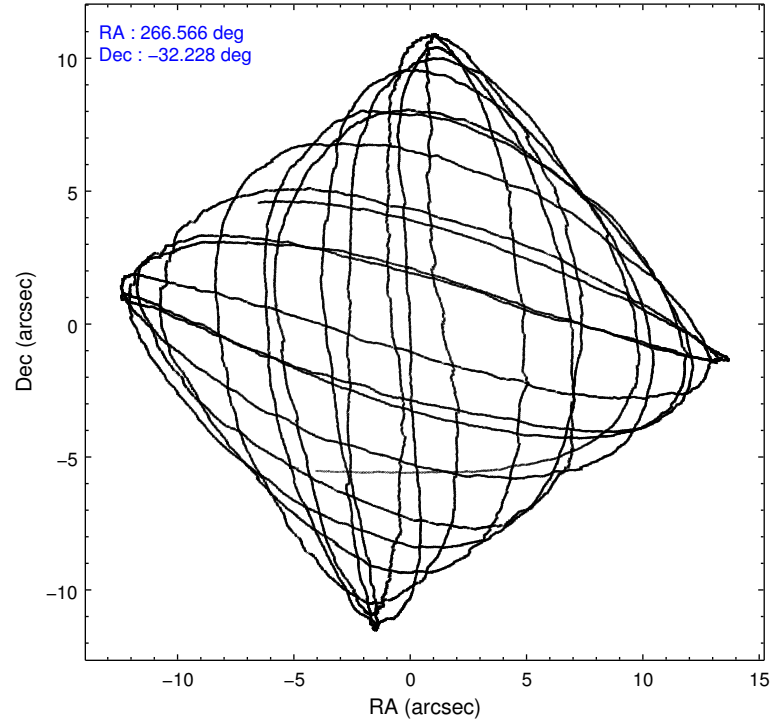
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	32770	47962	67771	96072	44787	27136
rejected events	25656	21441	23221	21142	25156	21774
rejected %	78%	44%	34%	22%	56%	80%

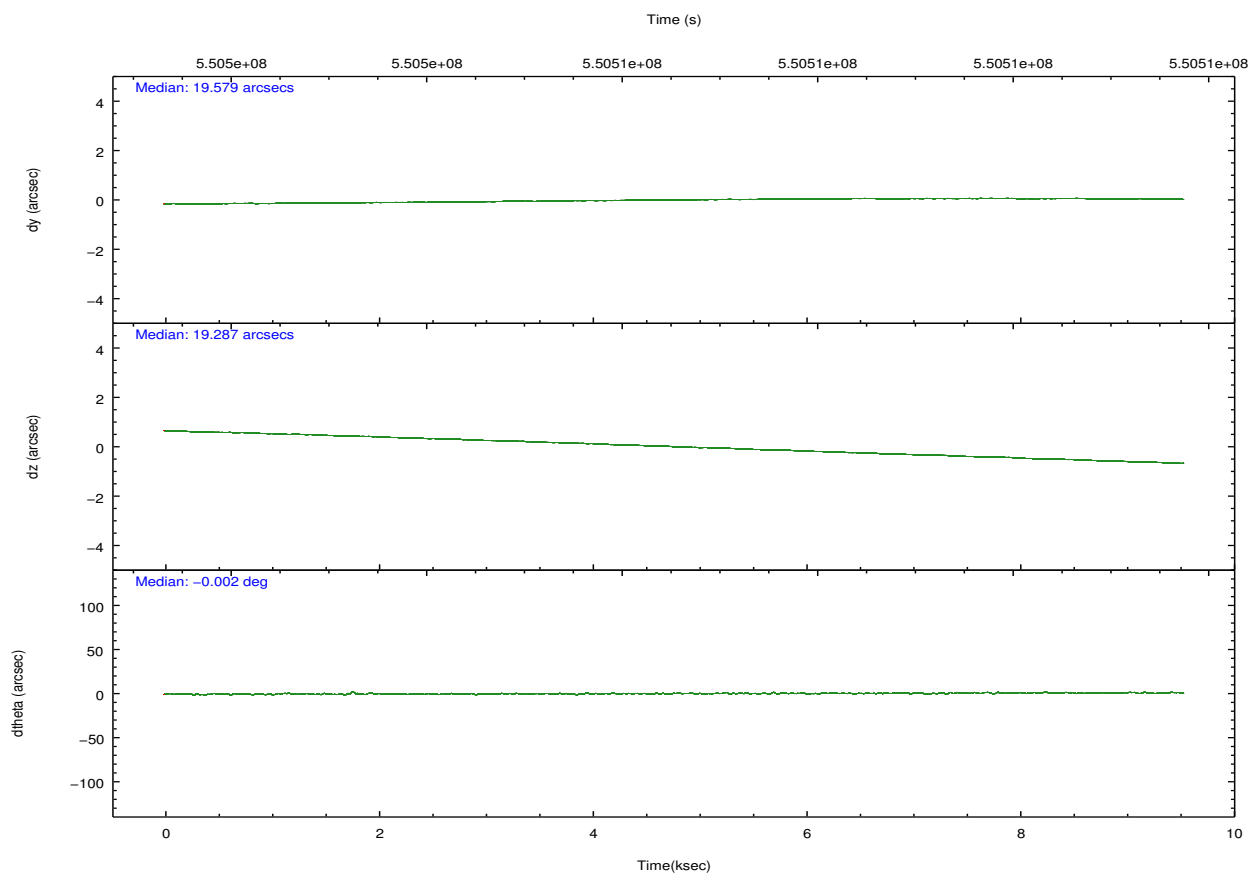
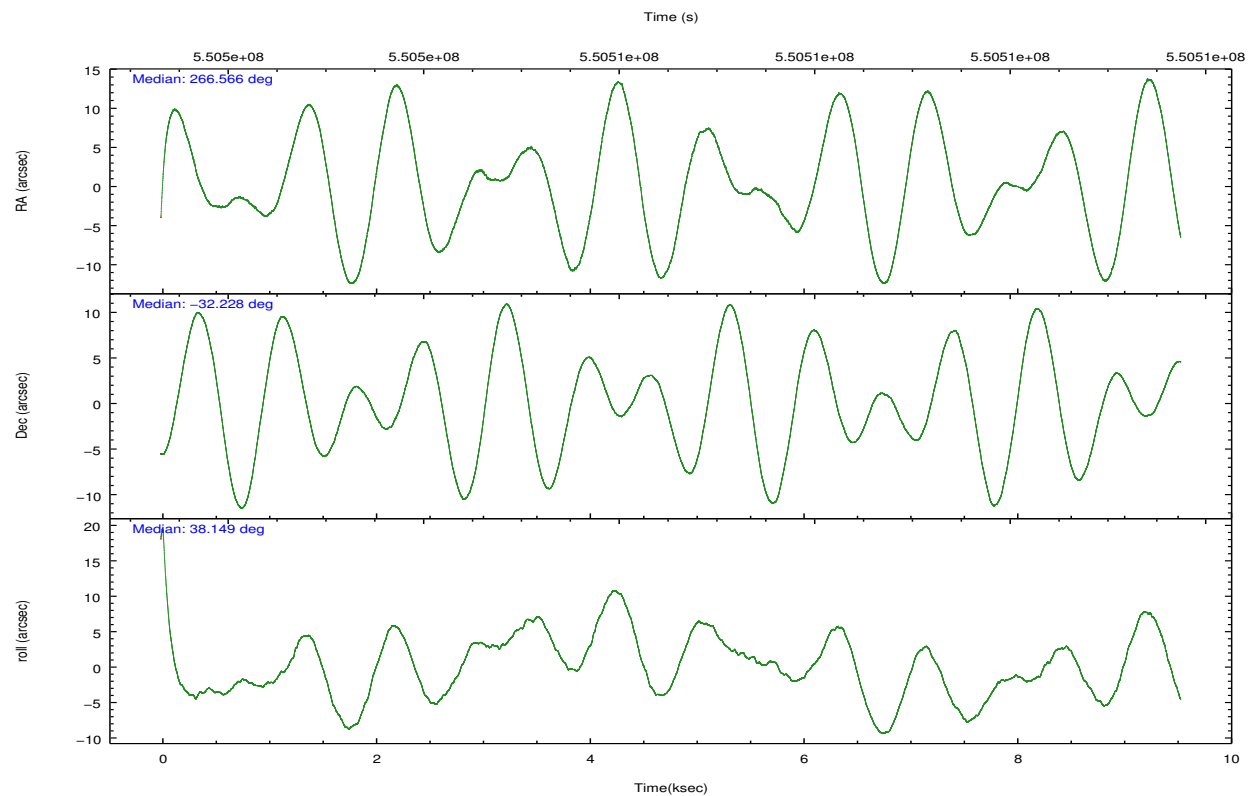
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	4603	3403	30764	13238	10367	2673
	14%	7%	45%	13%	23%	9%
grade 1 events	30	49	156	221	52	12
	0%	0%	0%	0%	0%	0%
grade 2 events	1020	8762	6230	17821	3263	1006
	3%	18%	9%	18%	7%	3%
grade 3 events	410	1489	2213	7761	1549	457
	1%	3%	3%	8%	3%	1%
grade 4 events	429	1398	2176	8014	1469	453
	1%	2%	3%	8%	3%	1%
grade 5 events	1151	3687	1359	4459	1823	1366
	3%	7%	2%	4%	4%	5%
grade 6 events	655	11474	3173	28130	2986	776
	1%	23%	4%	29%	6%	2%
grade 7 events	24472	17700	21700	16428	23278	20393
	74%	36%	32%	17%	51%	75%

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	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	266.554794	266.5665433818245	CCD I2 on	N	N
[deg] Pointing Dec	-32.253799	-32.22816809944722	CCD I3 on	N	N
[deg] Pointing Roll	37.994533	38.15745778921961	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	-183.992523	-183.9875365069546	CCD S3 on	Y	Y
[mm] SIM translation stage offset	-6.14	-6.144986076053243	CCD S4 on	Y	Y
[s] Observation start time (MET)	550501884.184000	550500649.48794	CCD S5 on	O2	Y
Observation start date	2015-06-12T13:10:17	2015-06-12T12:50:49	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	550511284.184000	550512160.23859	On-chip summing requested	N	N
Observation end date	2015-06-12T15:46:57	2015-06-12T16:02:40	Subarray requested	CUSTOM	1/2
Read mode	TIMED	TIMED	Subarray start row	1	1
			Subarray row count	512	512
			Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	1.7

2.3 Aspect



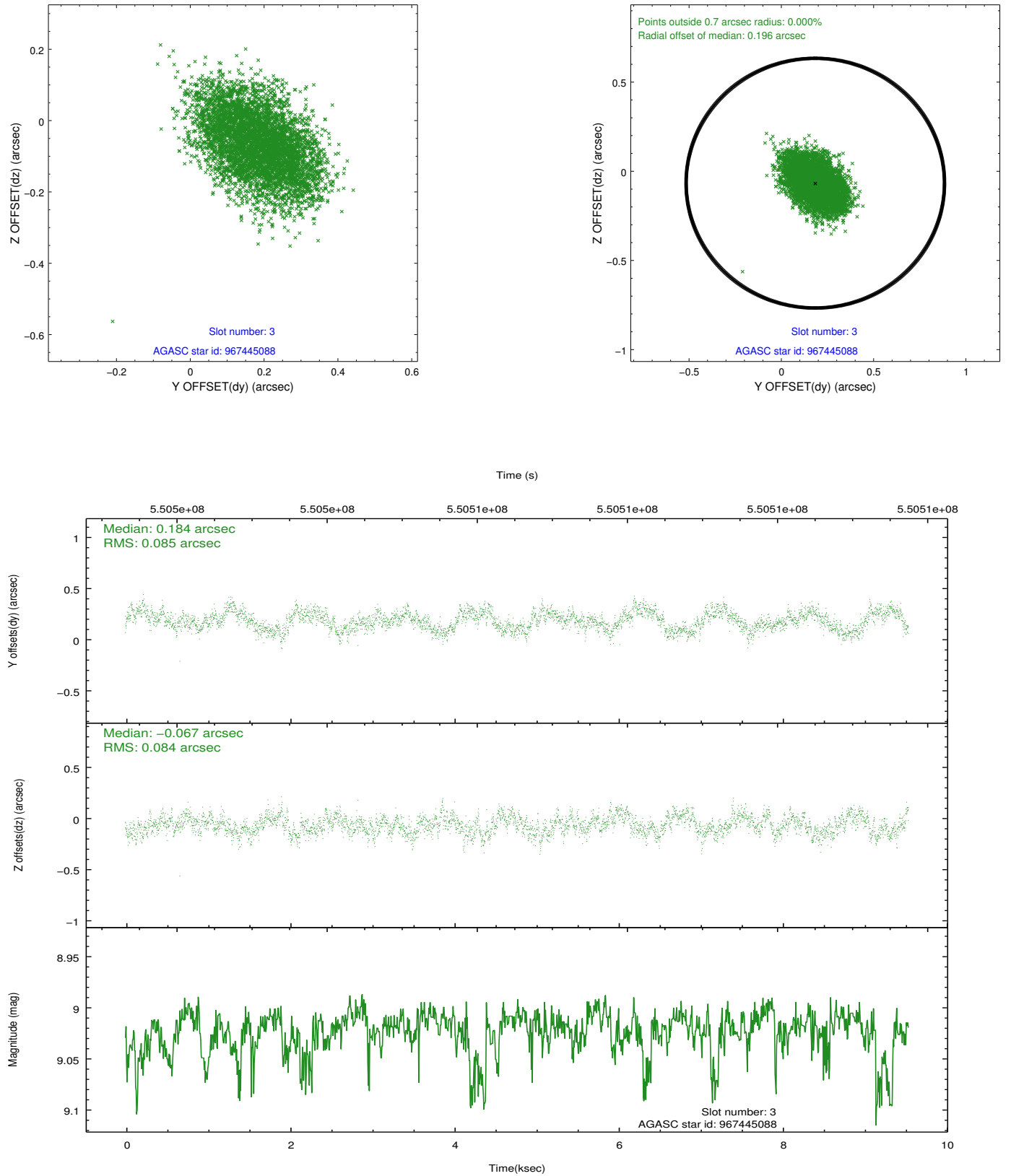


Slot Statistics

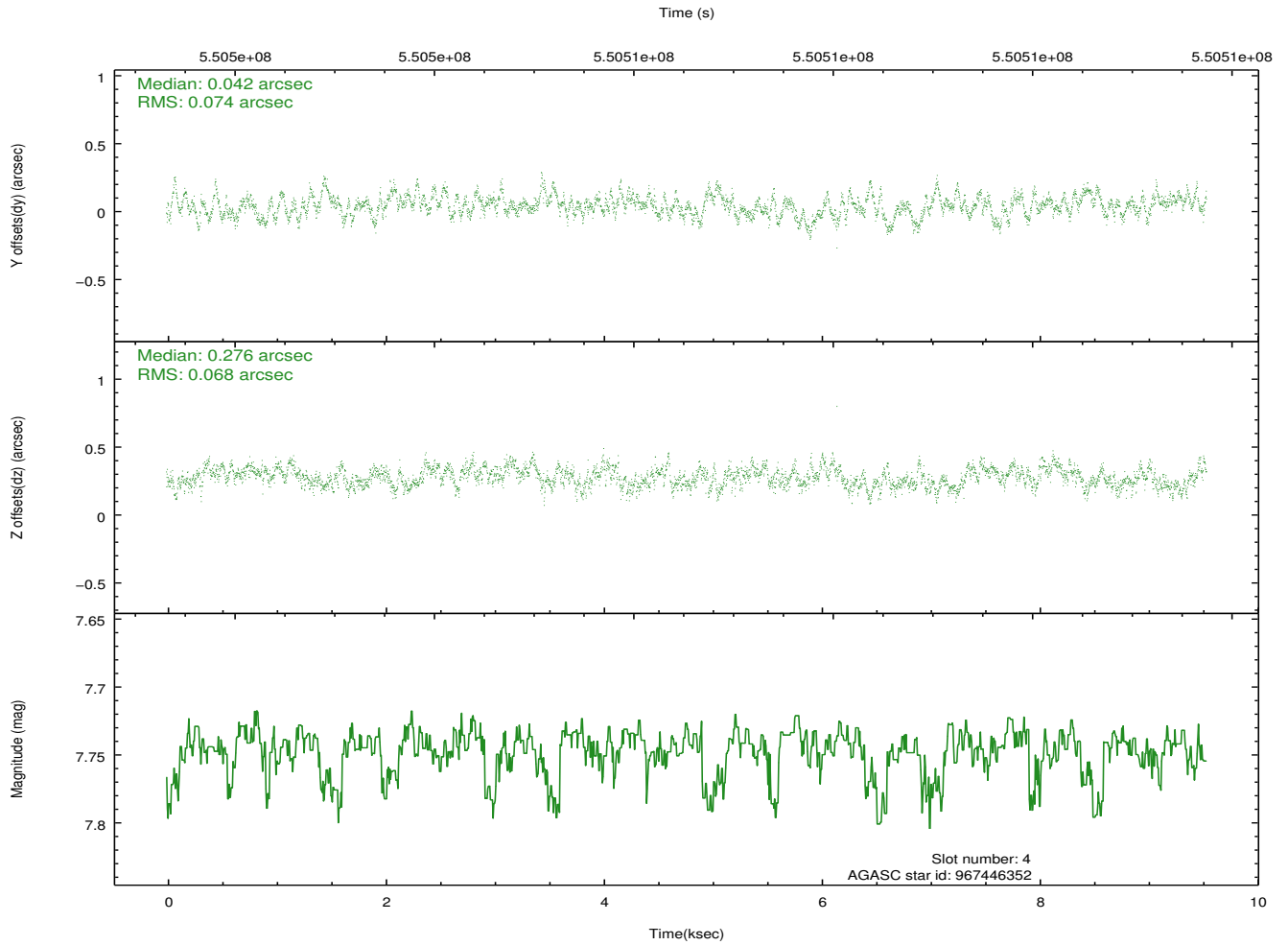
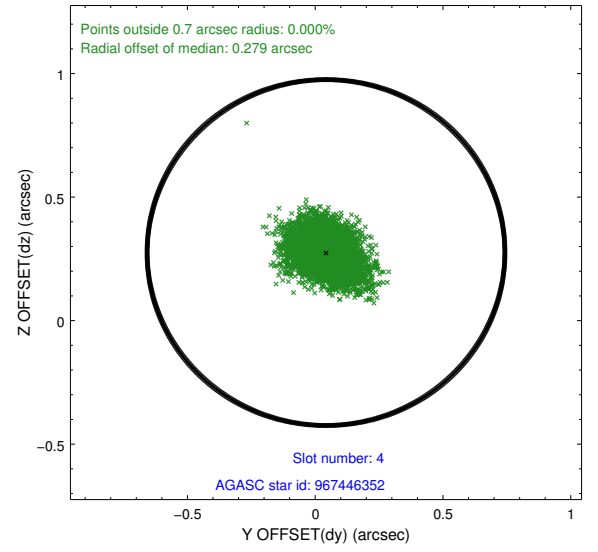
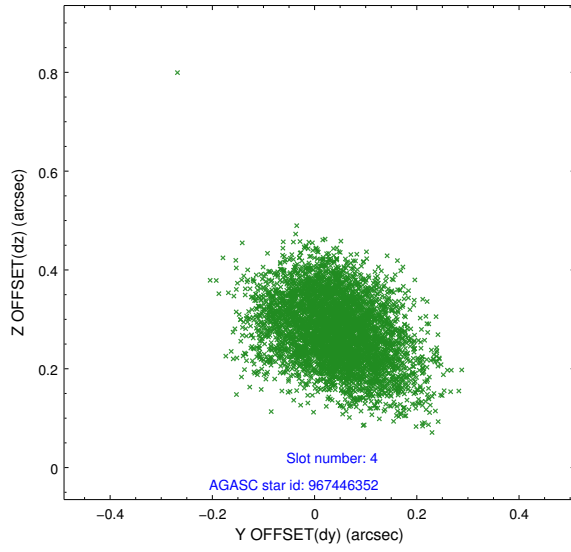
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.91	2328	-0.220	-0.139	0.010	0.017	0.000000	0.000000	-772.50	-1867.55
1	FID		ACIS-S-4	7.01	2328	0.206	0.143	0.009	0.014	0.000000	0.000000	2141.01	40.46
2	FID		ACIS-S-6	7.21	2328	-0.013	0.004	0.015	0.027	0.000000	0.000000	390.50	678.42
3	GUIDE	used	967445088	9.02	4656	0.184	-0.067	0.128	0.205	265.761342	-32.072953	-1512.16	1995.74
4	GUIDE	used	967446352	7.75	4655	0.042	0.276	0.108	0.174	267.069988	-32.671157	302.57	-2147.36
5	GUIDE	used	967450832	9.09	4652	-0.053	0.003	0.124	0.196	266.078096	-31.879979	-322.20	1954.79
6	GUIDE	used	966926896	9.15	4654	-0.325	-0.443	0.130	0.206	266.197771	-31.663459	444.35	2347.11
7	GUIDE	used	967448136	8.81	4651	0.149	0.230	0.091	0.150	265.900071	-32.546602	-2218.14	388.23

2.4 Star Slots

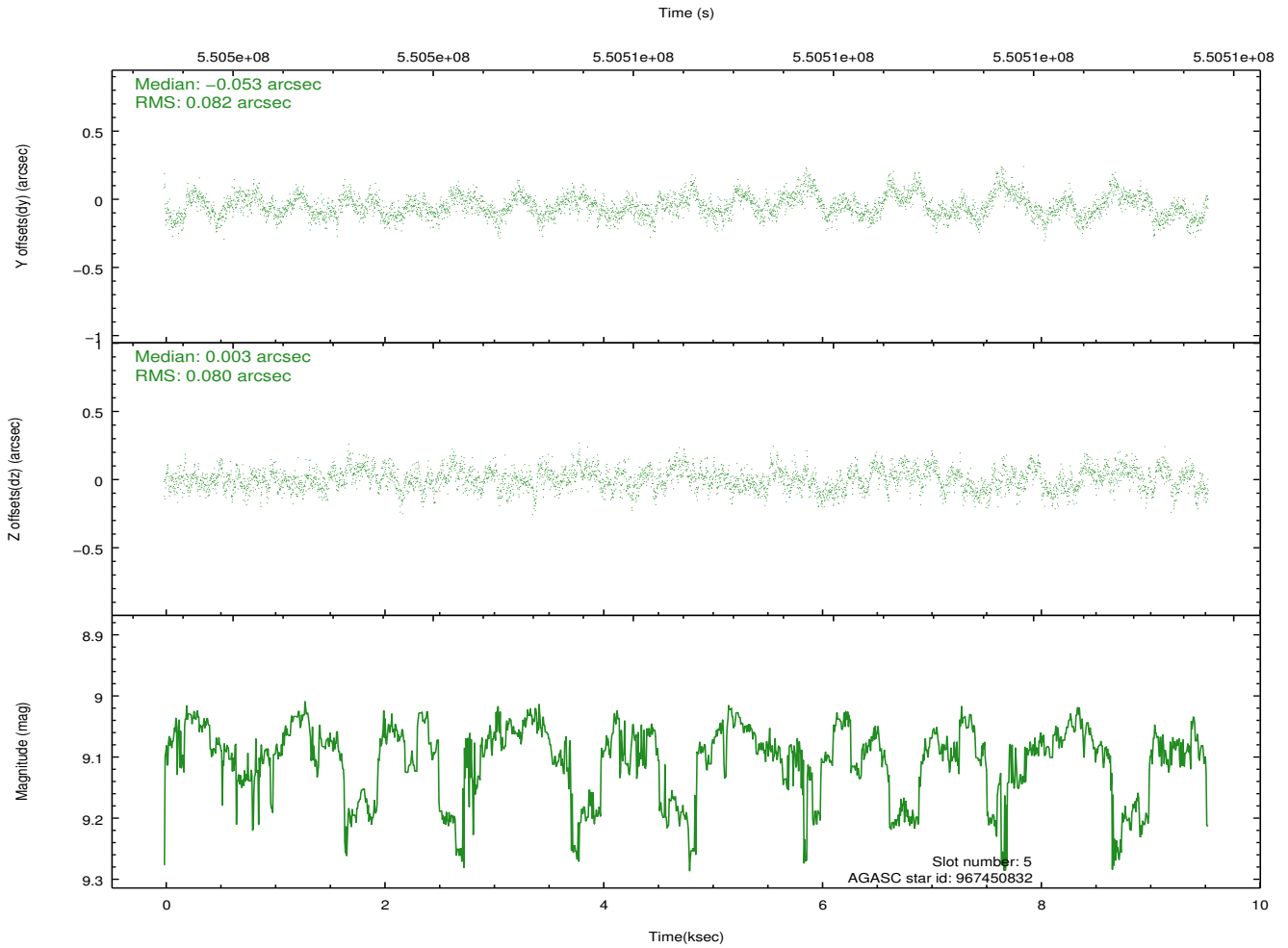
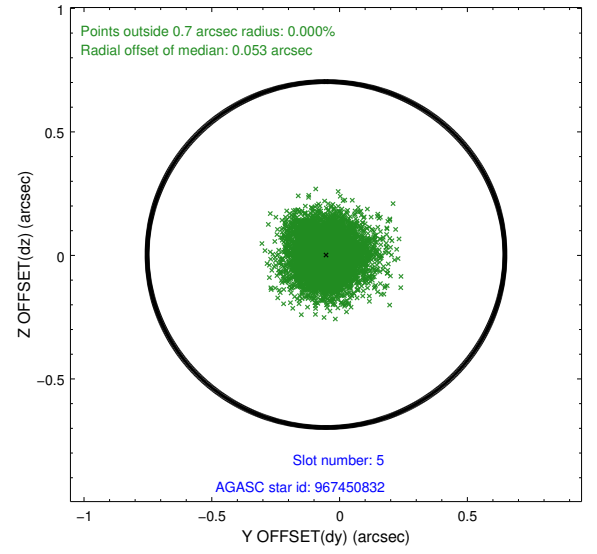
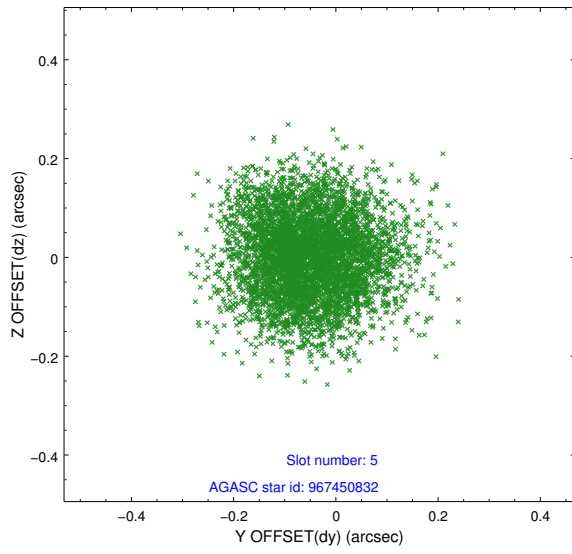
2.4.1 Slot 3



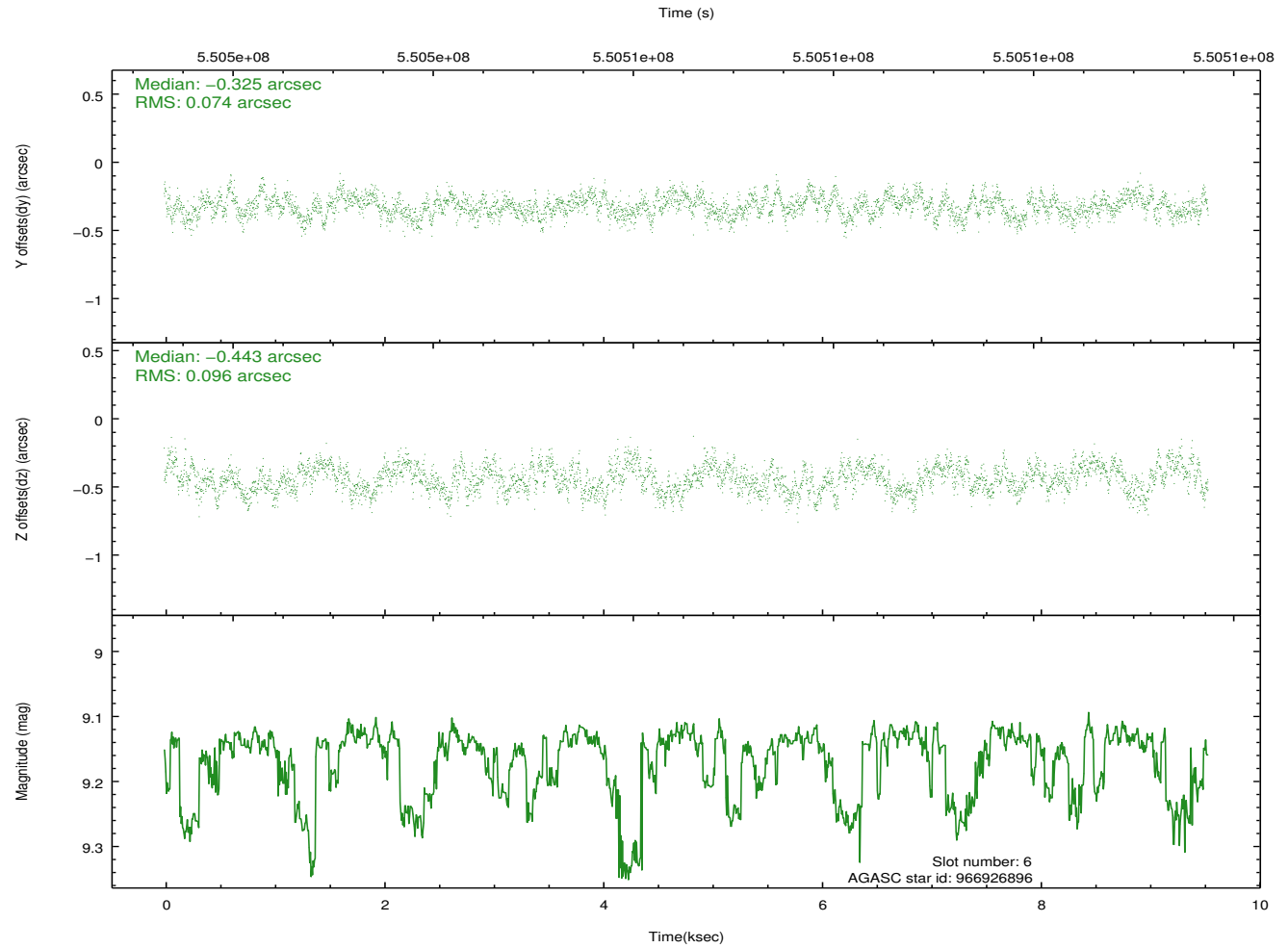
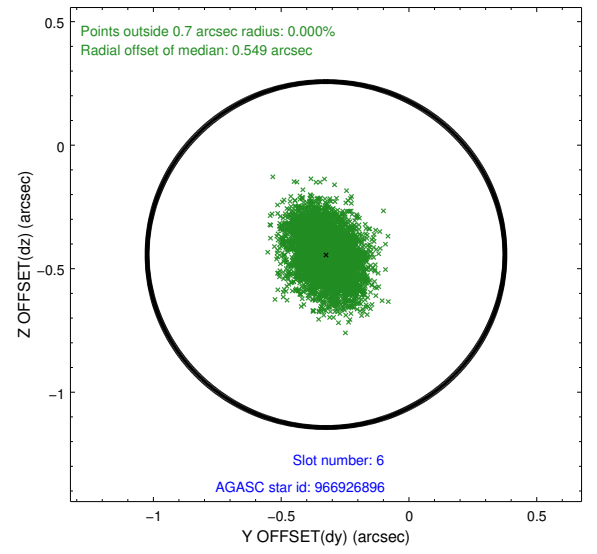
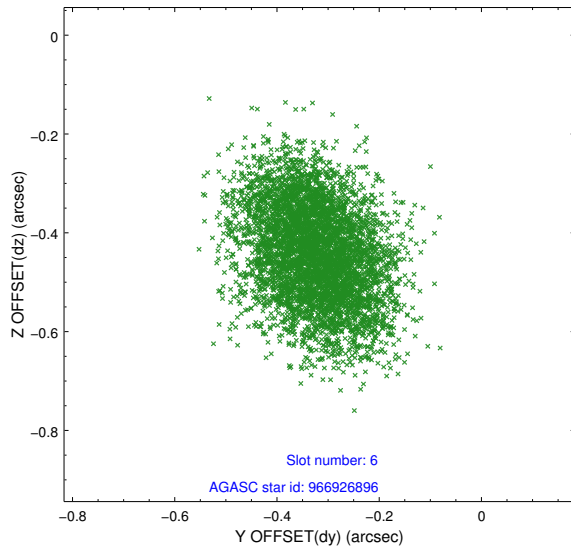
2.4.2 Slot 4



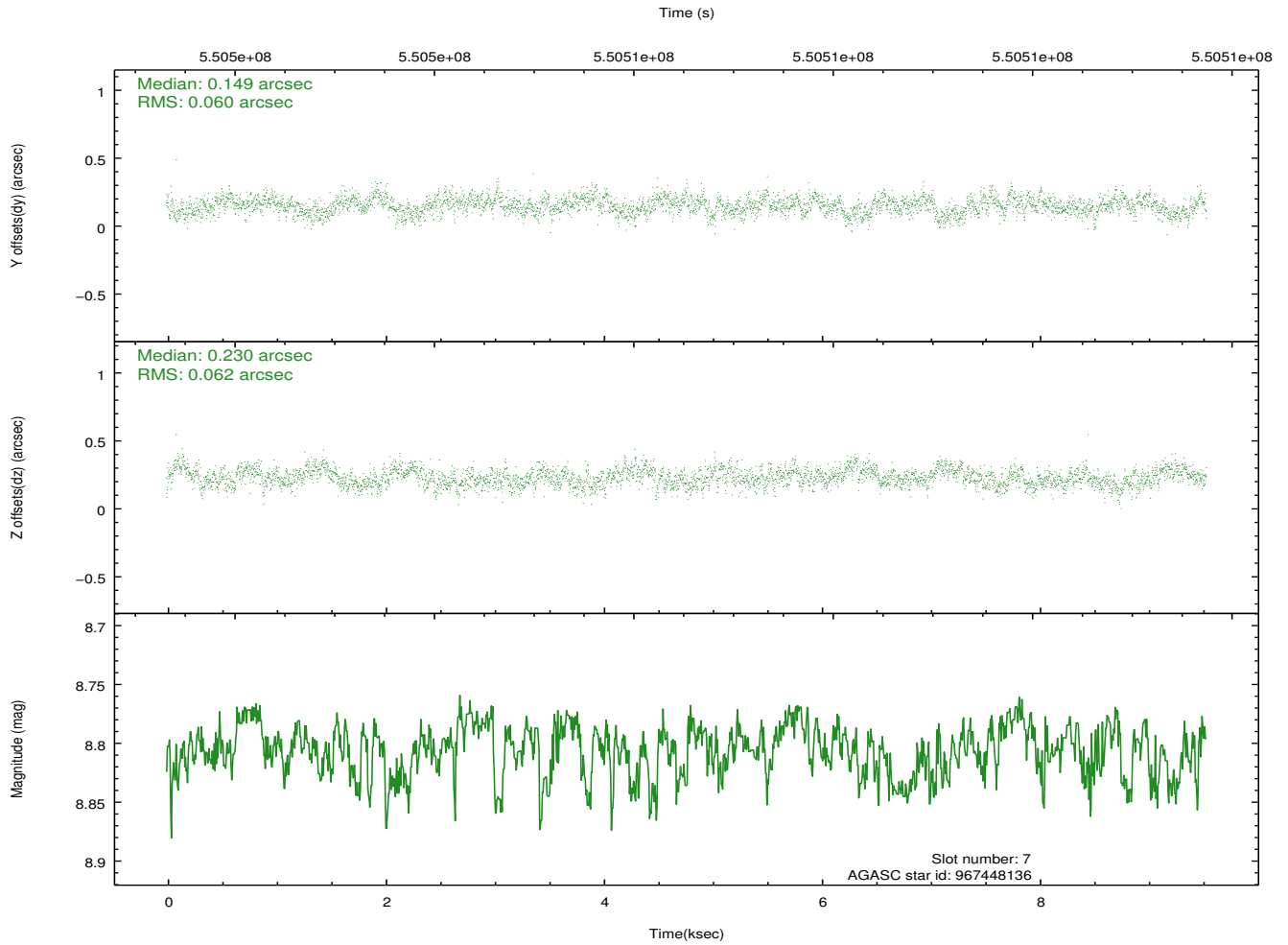
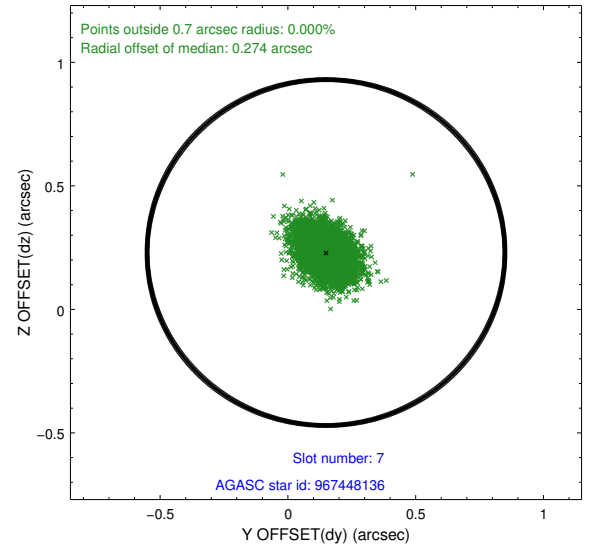
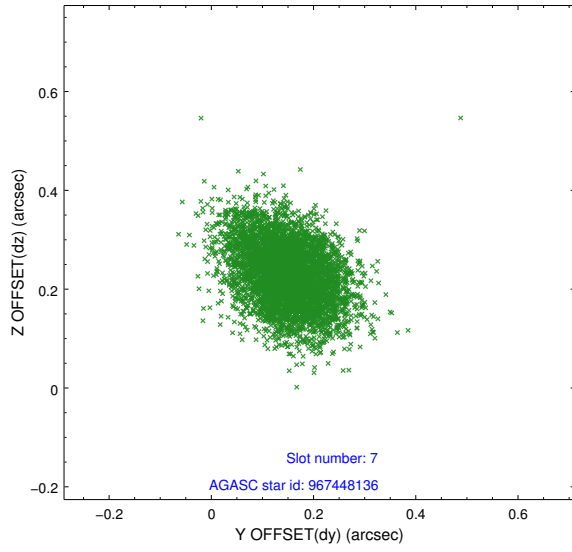
2.4.3 Slot 5



2.4.4 Slot 6

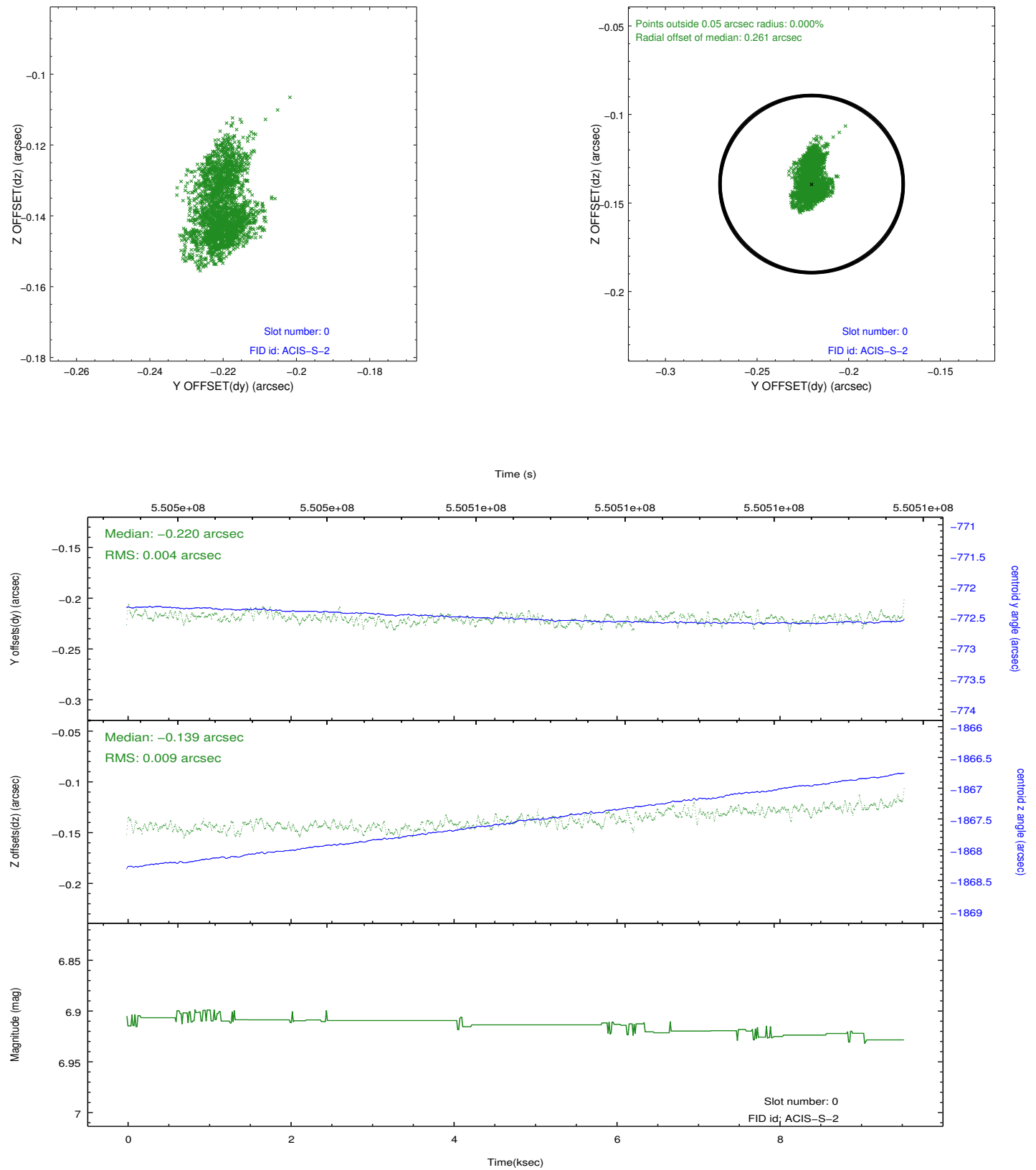


2.4.5 Slot 7

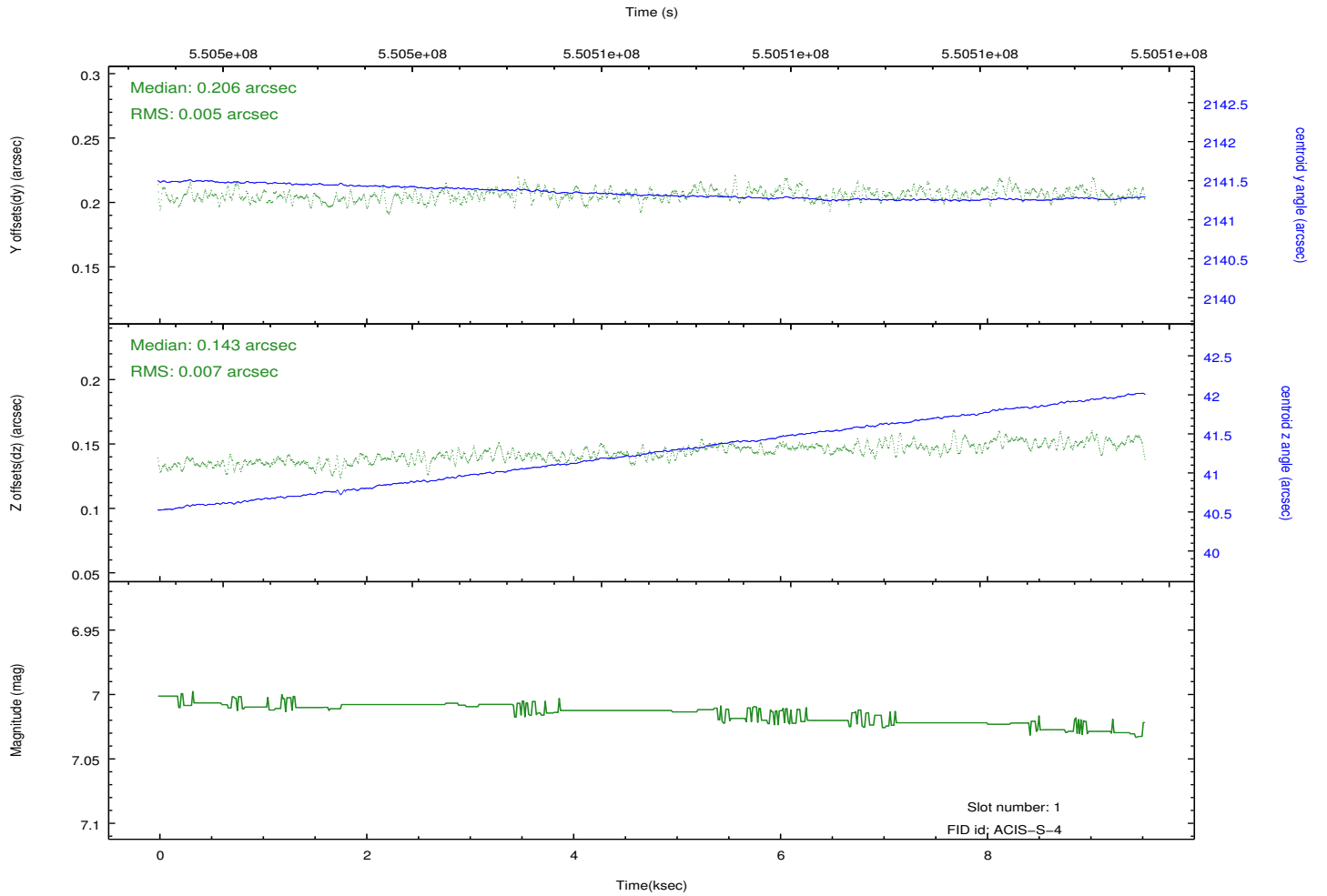
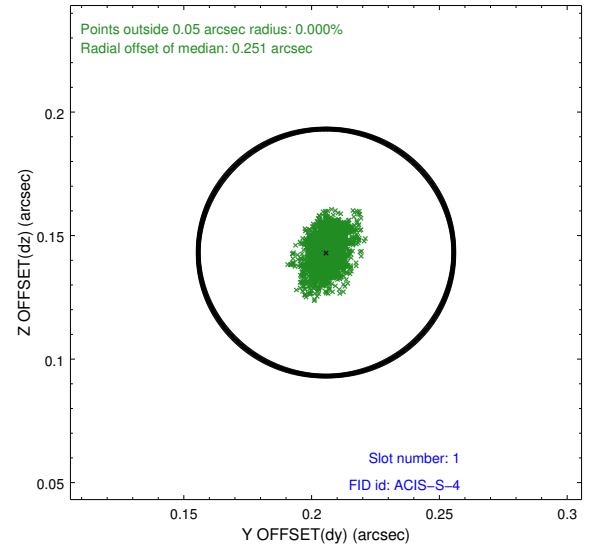
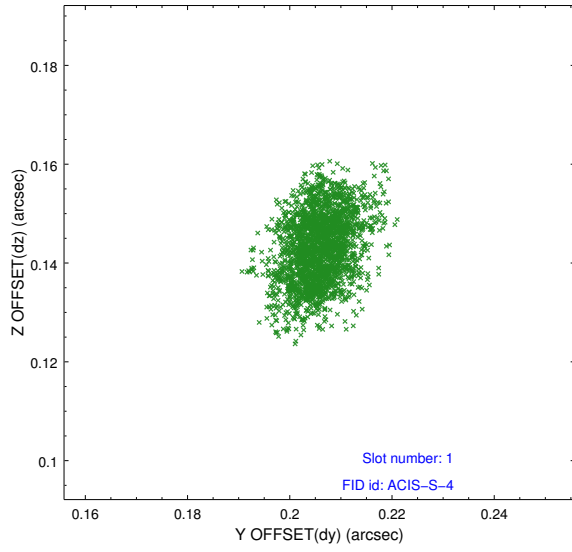


2.5 FID Slots

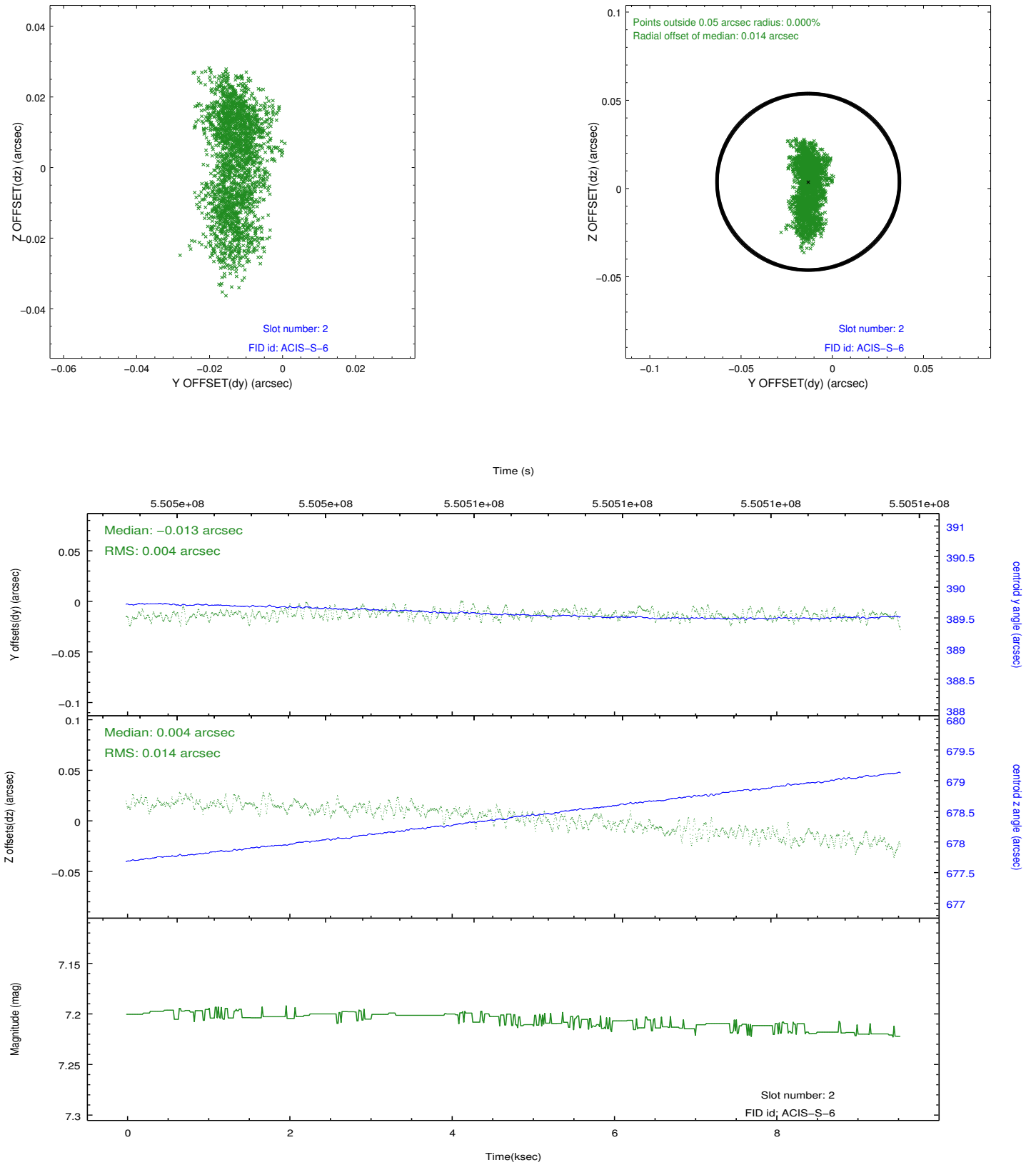
2.5.1 Slot 0



2.5.2 Slot 1

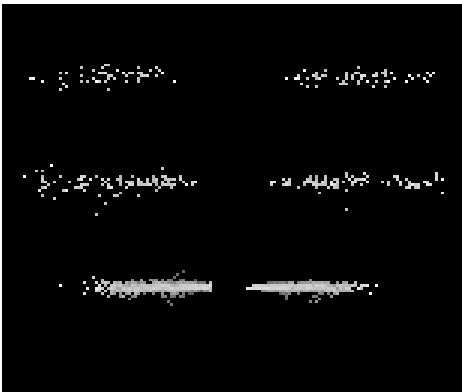


2.5.3 Slot 2

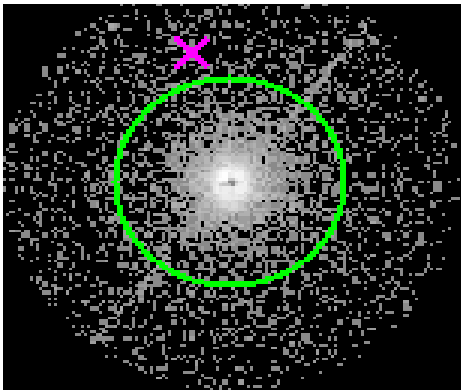


3 Gratings

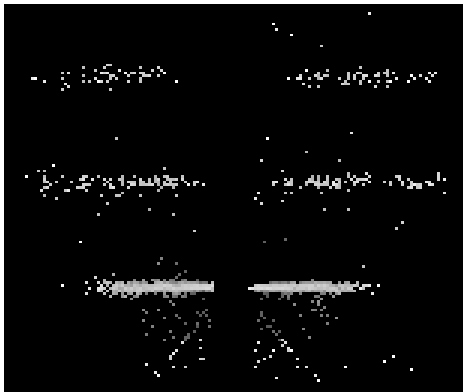
3.1 HEG Arm



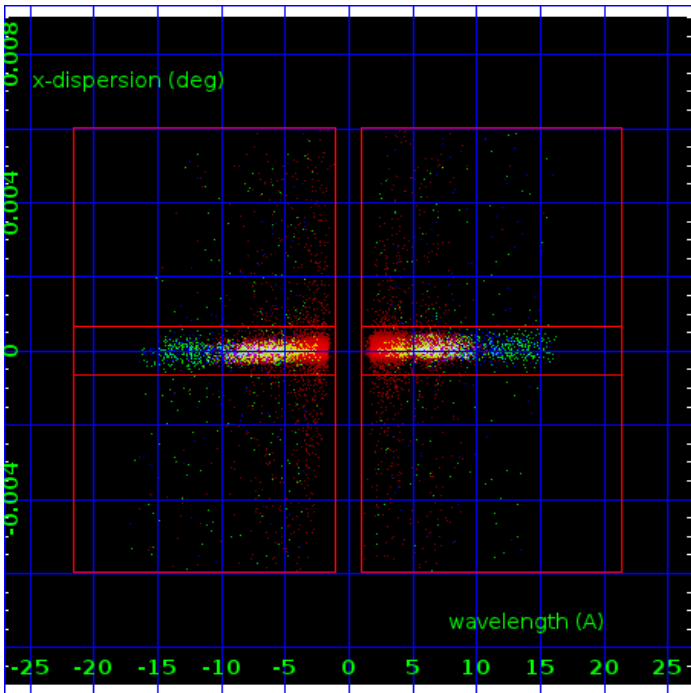
HEG Order Sort 123



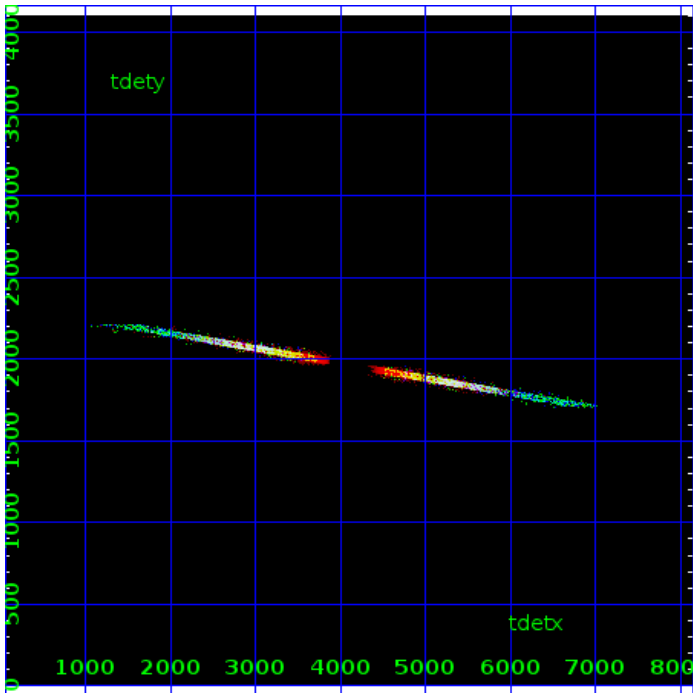
HEG Zero Order



HEG Order Sort ALL

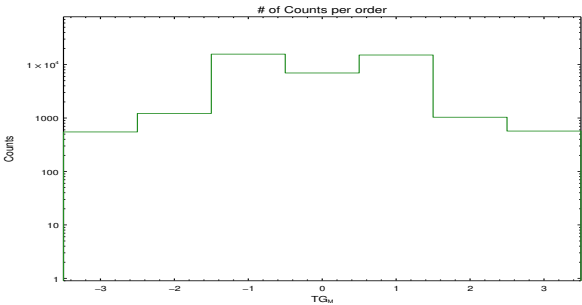


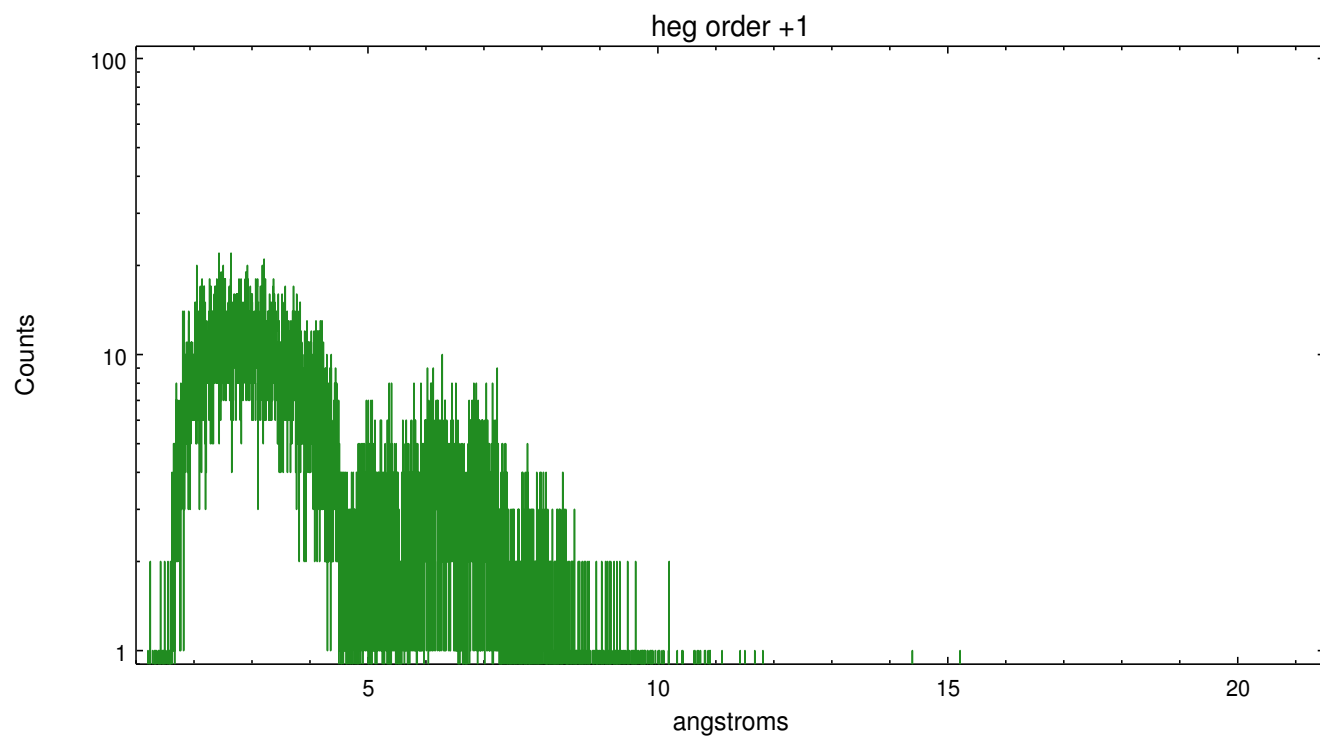
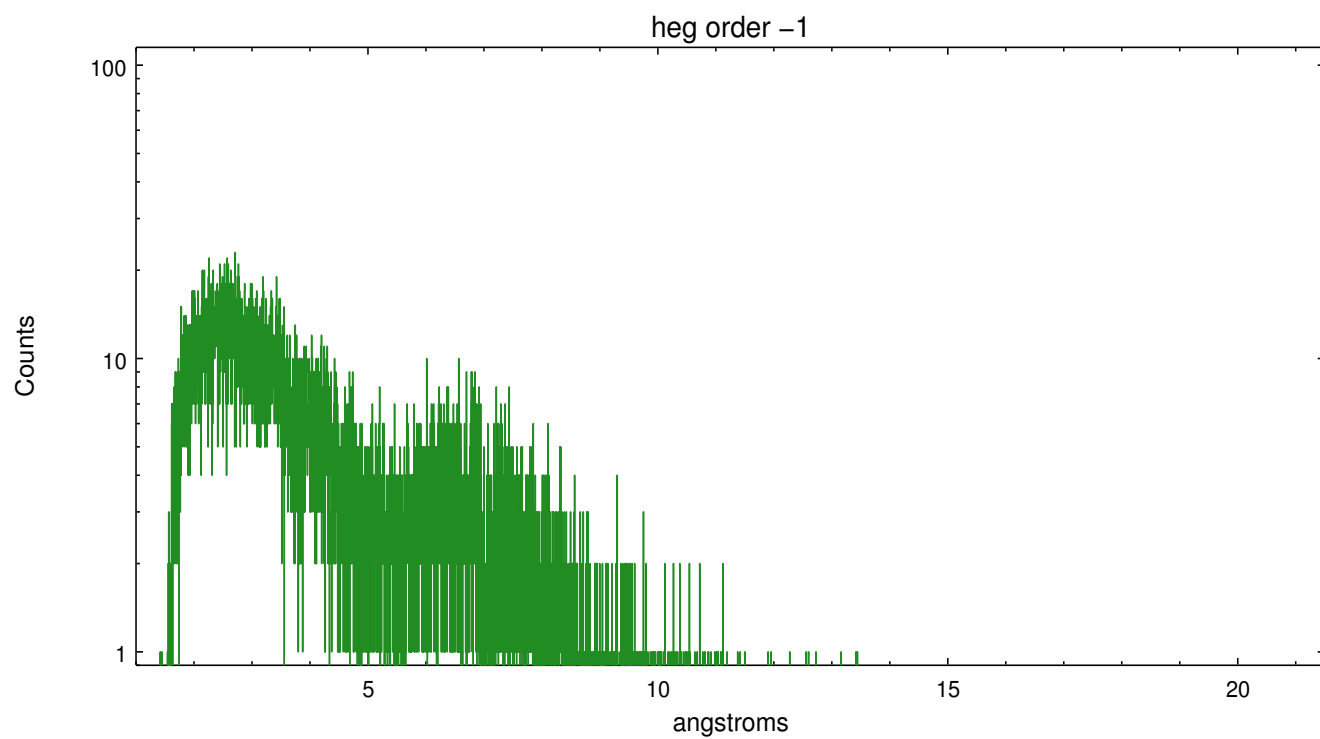
Spot Image HEG



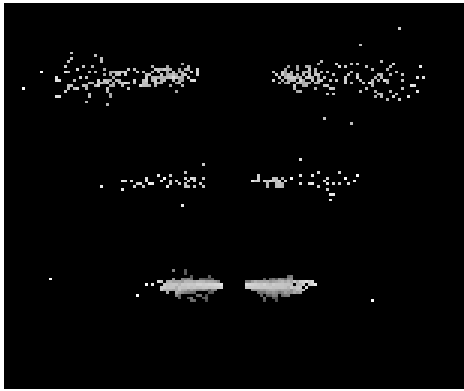
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	549	1219	15682	6964	15106	1034	570

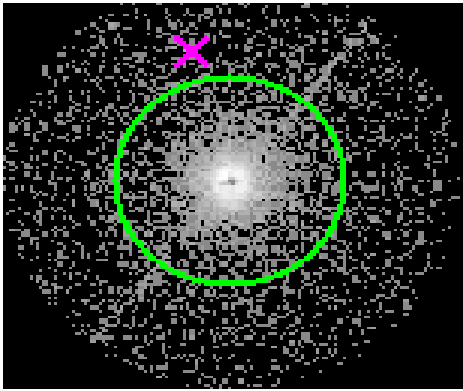




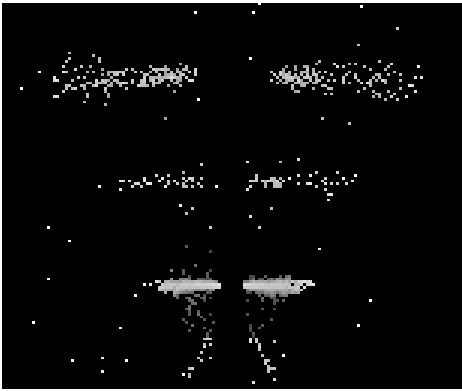
3.2 MEG Arm



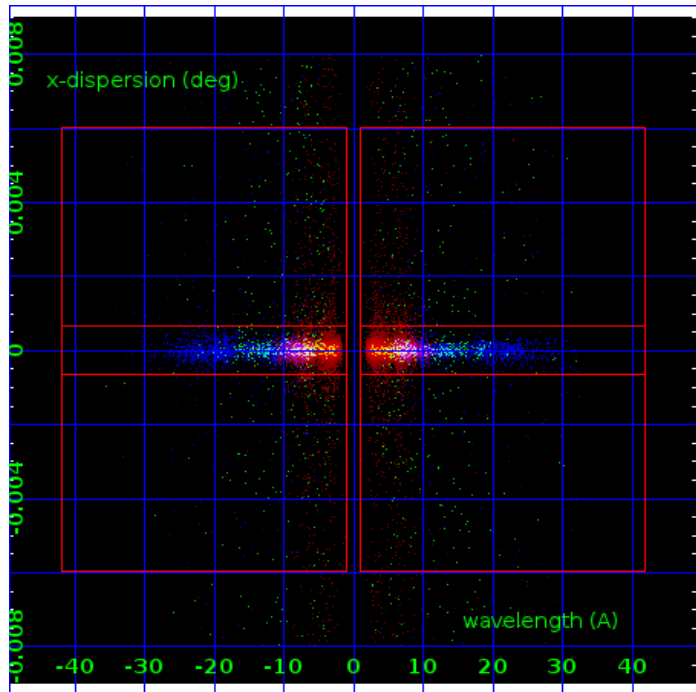
MEG Order Sort 123



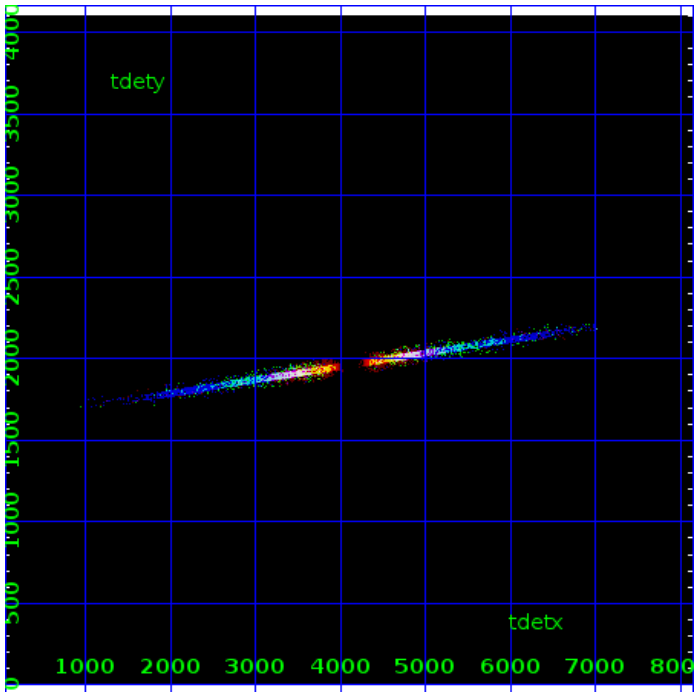
MEG Zero Order



MEG Order Sort ALL

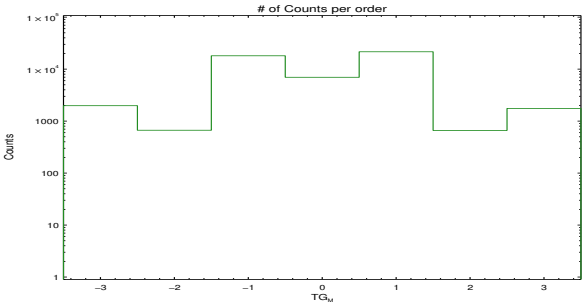


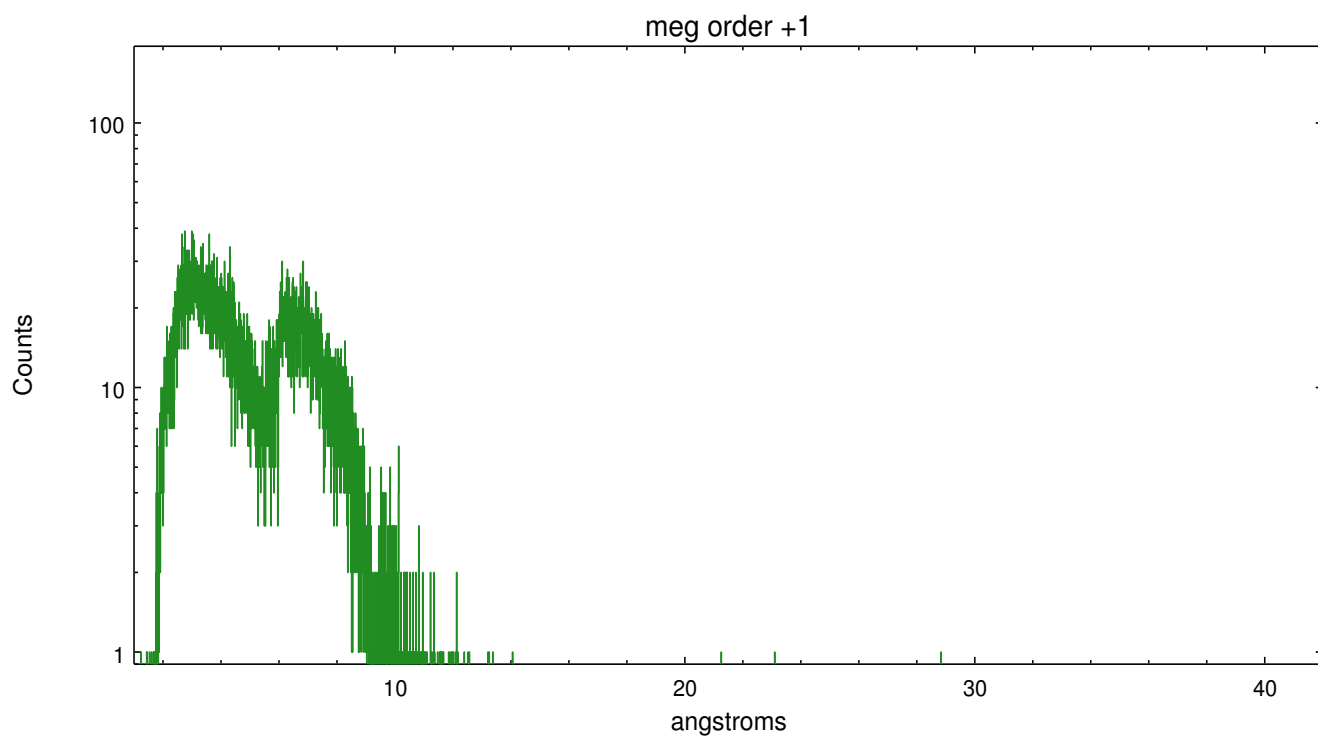
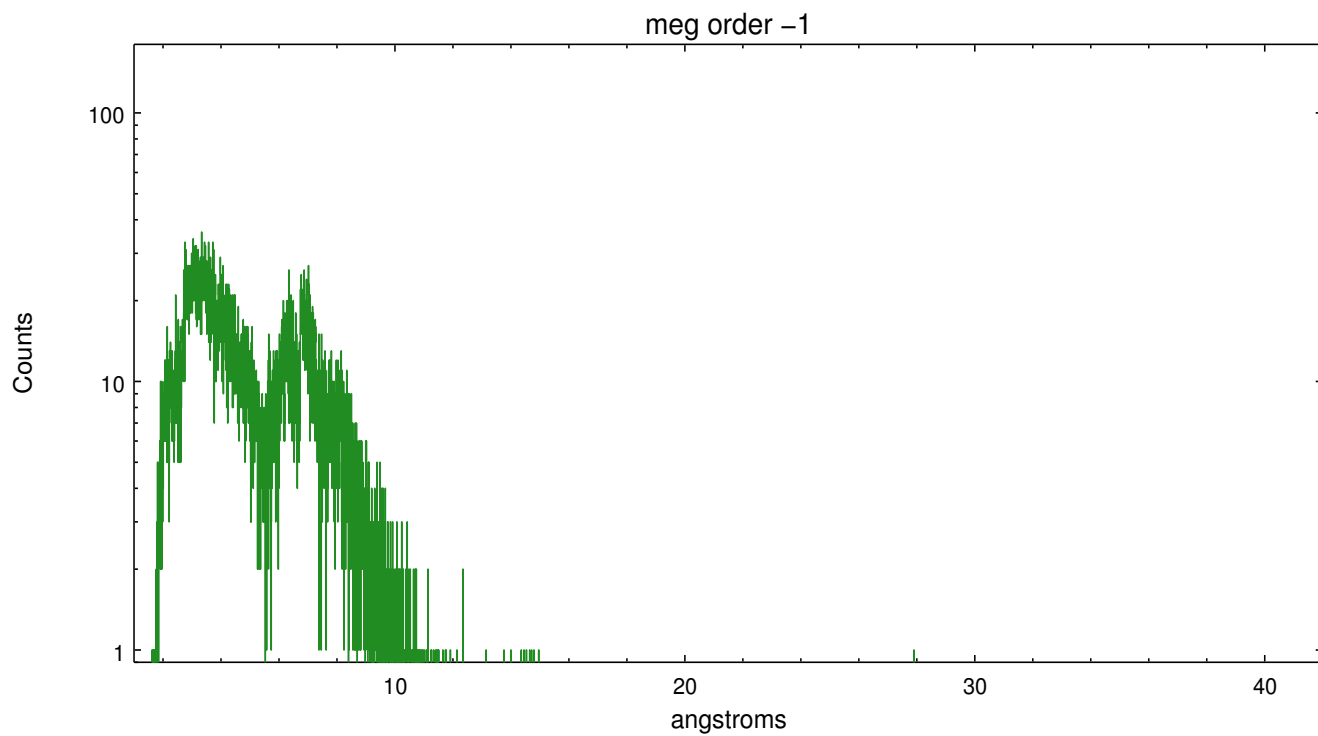
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1981	667	18074	6964	21587	662	1752





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2015.06.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.4452002649307

A.2 Comments

Zeroth order piled up. The zeroth order sky position was determined using a software tool developed by CXC called findzero, which is available in CIAO as part of the tgdetect2 tool. The tool calculates the point of intersection of the readout streak on the ACIS CCD and the meg dispersed spectral arm, rather than using a centroid position of the source. The findzero results are more accurate than source centroid in this case.