

V&V Reference Report

L2 ASCDS Version : 7.6.11.10

Observation 4063 - L2 Version 5
Chandra X-Ray Center

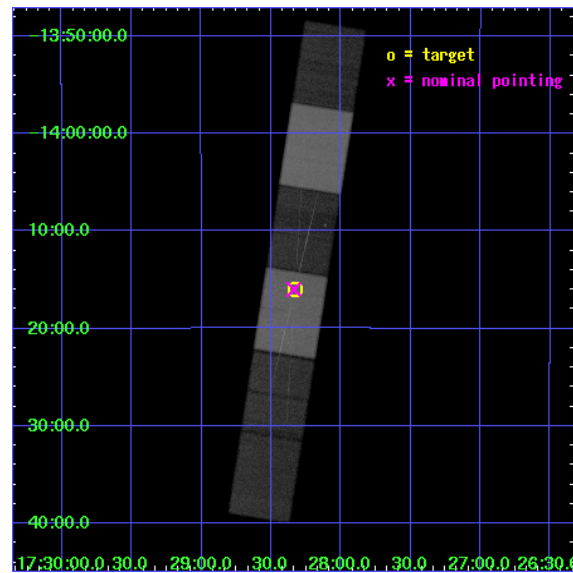
L2 Processing Date : Feb 5 2009

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1 Front

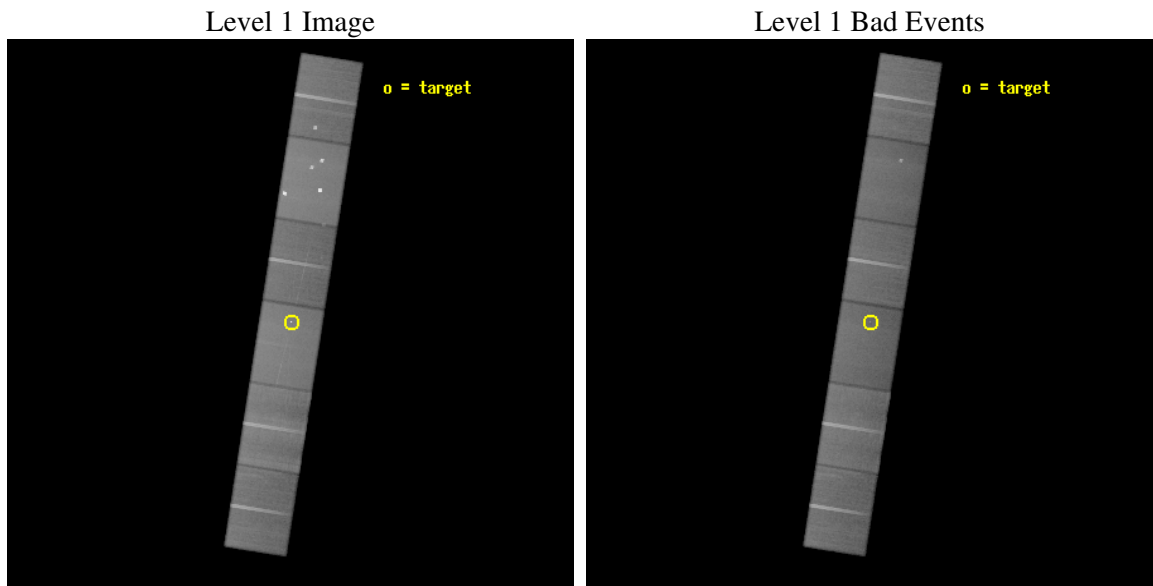
seq_num	700742
obs_id	4063
title	CHANDRA SPECTROSCOPY OF THE MOST LUMINOUS NEARBY QUASAR, PDS 456
observer	Dr James Reeves
object	PDS 456
dtcycle	0
cycle	P
ra_targ	262.0825
dec_targ	-14.265556
ra_nom	262.08443798289
dec_nom	-14.266777746091
roll_nom	98.959434910794
revision	5
ontime	145192.21309838
livetime	142847.23292272
ontime4	145149.01611528
ontime5	145202.37703931
ontime6	145182.04900804
ontime7	145192.21309838
ontime8	145159.18001637
ontime9	145174.42602751
l2events	1098822



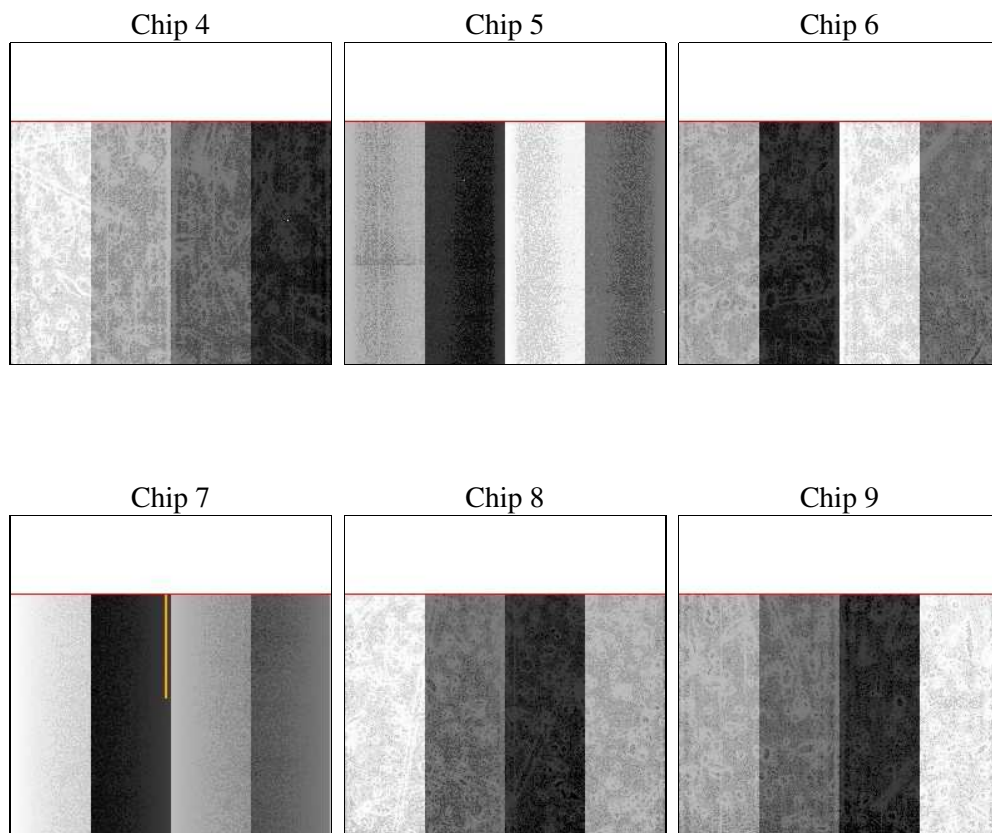
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0
ascdsver	7.6.11.10
caldbver	3.5.1
date	2009-02-05T02:49:57
revision	5

sched_exp_time	145500.000000
ontime	145192.21309838
ontime4	145149.01611528
ontime5	145202.37703931
ontime6	145182.04900804
ontime7	145192.21309838
ontime8	145159.18001637
ontime9	145174.42602751
l1events	4966864

2.1.4 Events

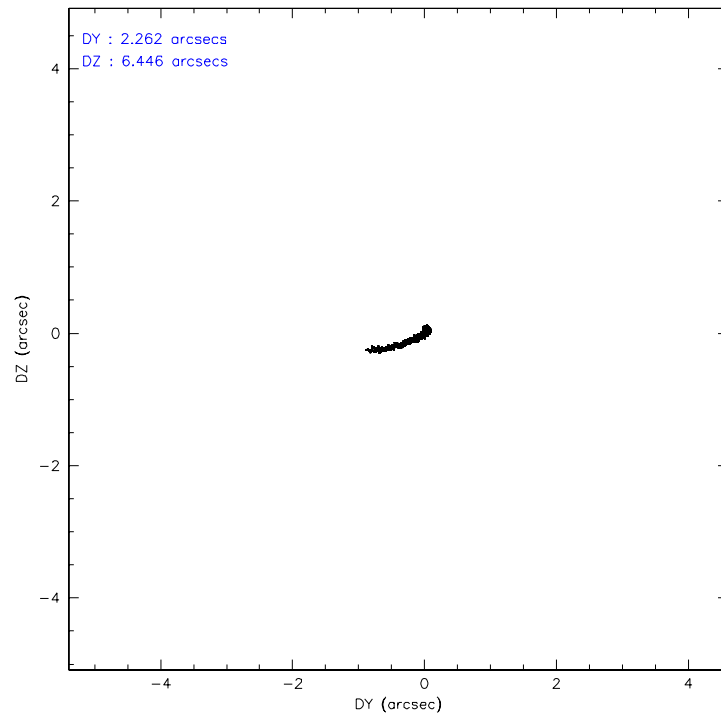
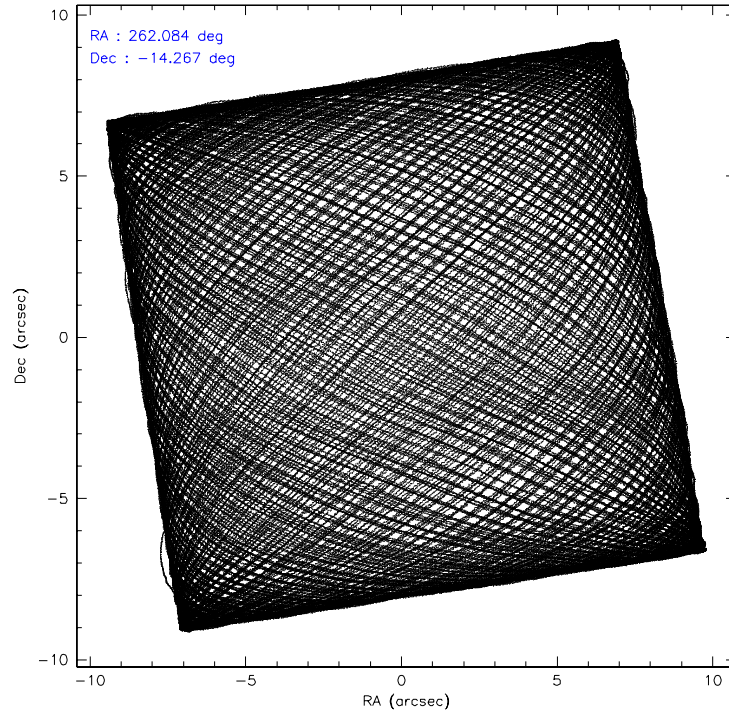
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	758767	1067397	696950	902517	871397	669836
rejected events	661063	537619	609044	521402	687266	583535
rejected %	87%	50%	87%	57%	78%	87%

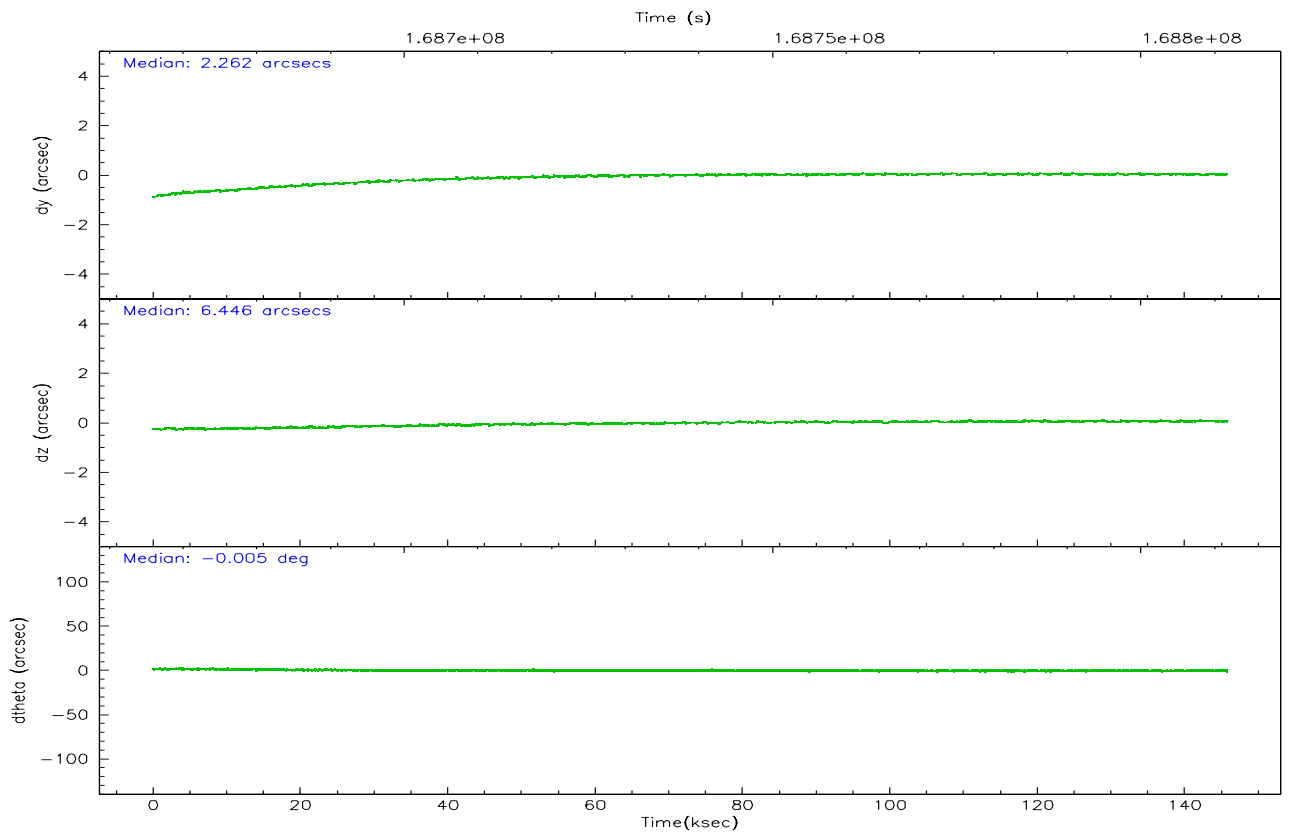
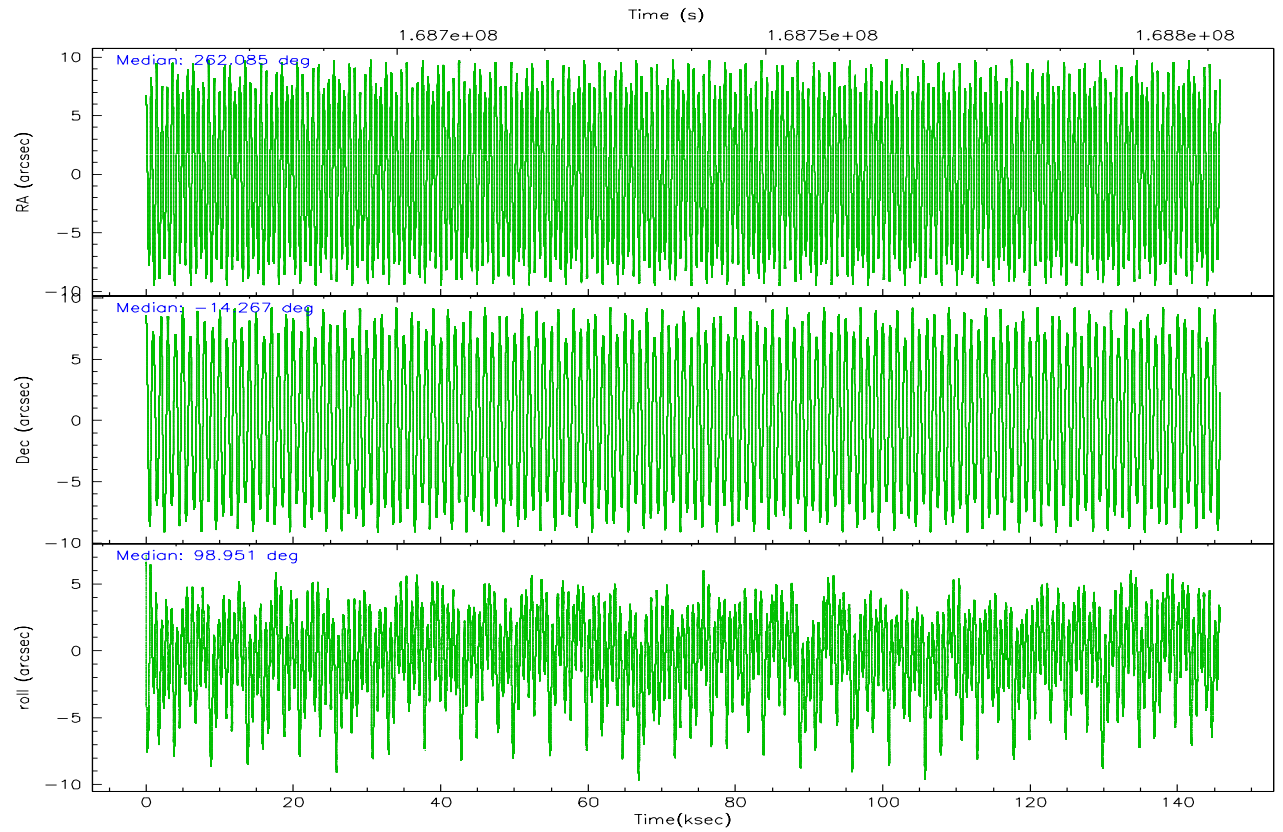
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	47516	120377	35839	35241	58389	35664
	6%	11%	5%	3%	6%	5%
grade 1 events	555	1035	297	826	517	329
	0%	0%	0%	0%	0%	0%
grade 2 events	18183	135355	17176	76392	38862	16375
	2%	12%	2%	8%	4%	2%
grade 3 events	9348	21535	9124	35110	19862	9146
	1%	2%	1%	3%	2%	1%
grade 4 events	8744	19388	8841	34685	18656	8703
	1%	1%	1%	3%	2%	1%
grade 5 events	28076	76857	29841	84805	39093	31472
	3%	7%	4%	9%	4%	4%
grade 6 events	14031	233416	17041	199922	48592	16492
	1%	21%	2%	22%	5%	2%
grade 7 events	632314	459434	578791	435536	647426	551655
	83%	43%	83%	48%	74%	82%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-456789	ACIS-456789	Obspar file type	PREDICTED	ACTUAL
Grating	HETG	HETG	Obspar update status	OVERRIDE	OVERRIDE
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
Pointing RA	262.0844379828922	262.0844379828922	Subarray requested	CUSTOM	CUSTOM
Pointing Dec	-14.26677774609108	-14.26677774609108	Subarray start row	1	1
Pointing Roll	98.95943491079368	98.95943491079368	Subarray row count	774	774
SIM focus pos (mm)	-0.68282252473119	-0.68282252473119	Alternating exposures requested	N	N
SIM defocus (mm)	0.001444942264670734	0.001444942264670734	Primary exposure time	2.5	2.5
SIM translation stage pos (mm)	-187.1254020033	-187.1254020033			
SIM translation stage offset (mm)	-3.007121100667206	-3.007121100667206			
Observation start time	168665396.26302	168665396.26302			
Observation start date	2003-05-07T03:49:05	2003-05-07T03:29:56			
Observation end time	168811713.9442	168811713.9442			
Observation end date	2003-05-08T20:14:05	2003-05-08T20:08:33			
Read mode	TIMED	TIMED			

2.3 Aspect



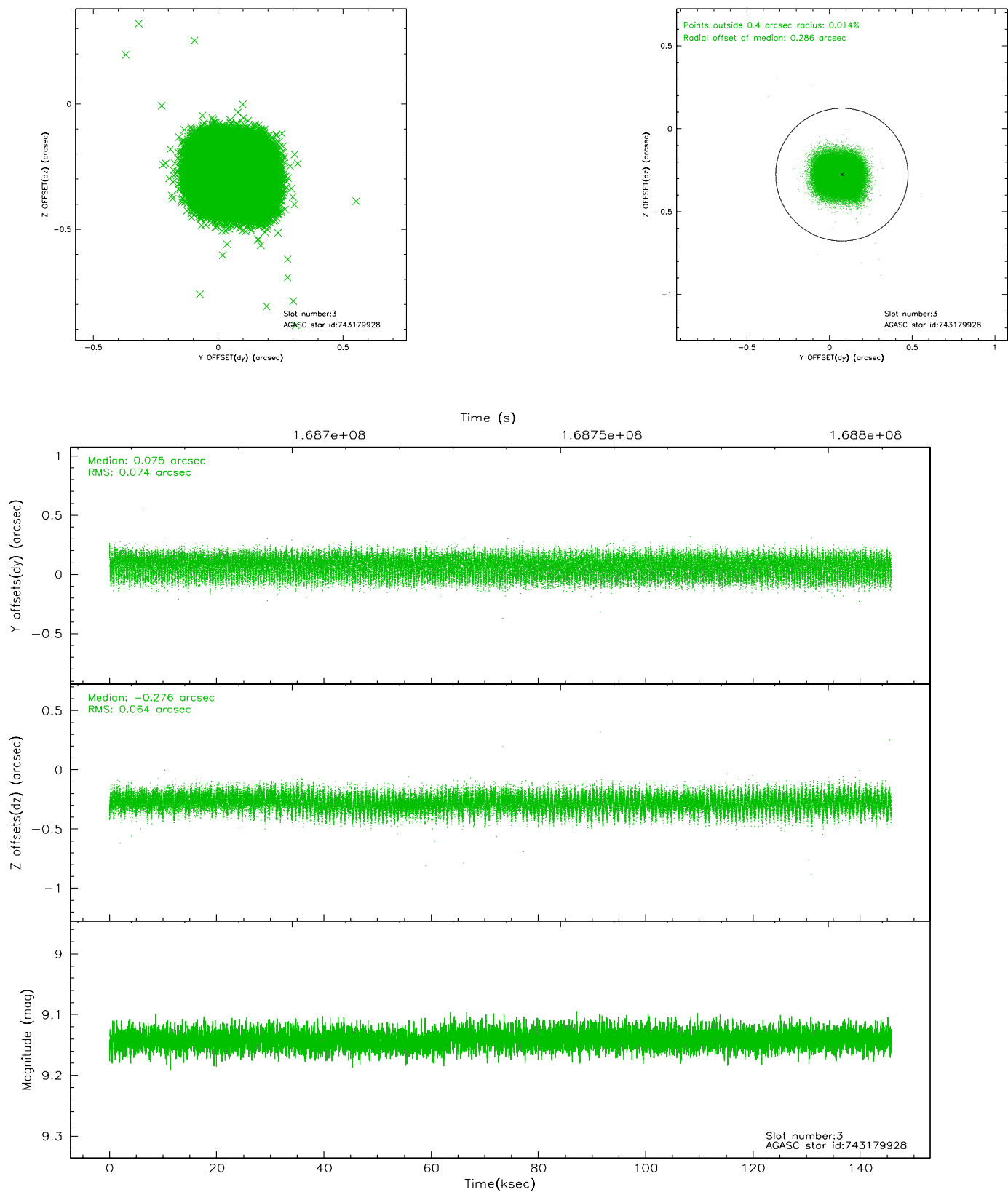


Slot Statistics

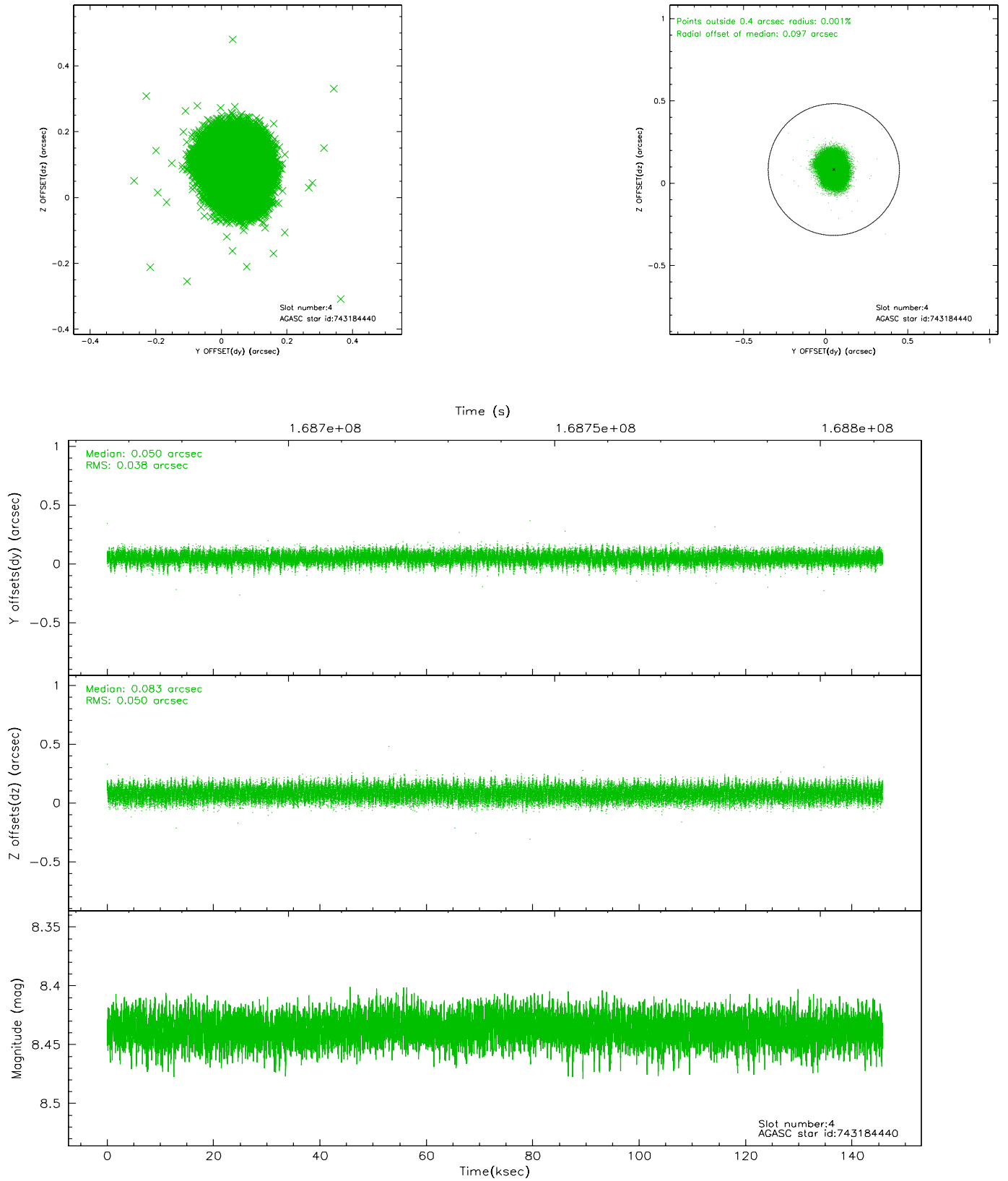
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.19	35536	0.019	0.048	0.010	0.022	0.000000	0.000000	941.47	-1785.24
1	FID	ACIS-S-4	7.20	35512	-0.014	-0.038	0.011	0.027	0.000000	0.000000	2158.80	118.93
2	FID	ACIS-S-5	7.23	35531	-0.032	0.003	0.011	0.022	0.000000	0.000000	-1807.57	112.47
3	GUIDE	743179928	9.14	71037	0.075	-0.276	0.106	0.165	261.557910	-14.696387	-1166.03	2099.15
4	GUIDE	743184440	8.44	71082	0.050	0.083	0.067	0.109	262.326597	-14.257885	-13.72	-789.11
5	GUIDE	743309640	9.49	71006	-0.045	0.141	0.128	0.203	262.780803	-14.360963	-625.86	-2296.89
6	GUIDE	743316064	8.83	71069	0.076	0.126	0.093	0.150	262.633937	-14.772567	-2009.90	-1560.97
7	GUIDE	743182256	9.91	70962	-0.145	-0.074	0.123	0.198	261.579432	-13.874512	1747.45	1579.33

2.4 Star Slots

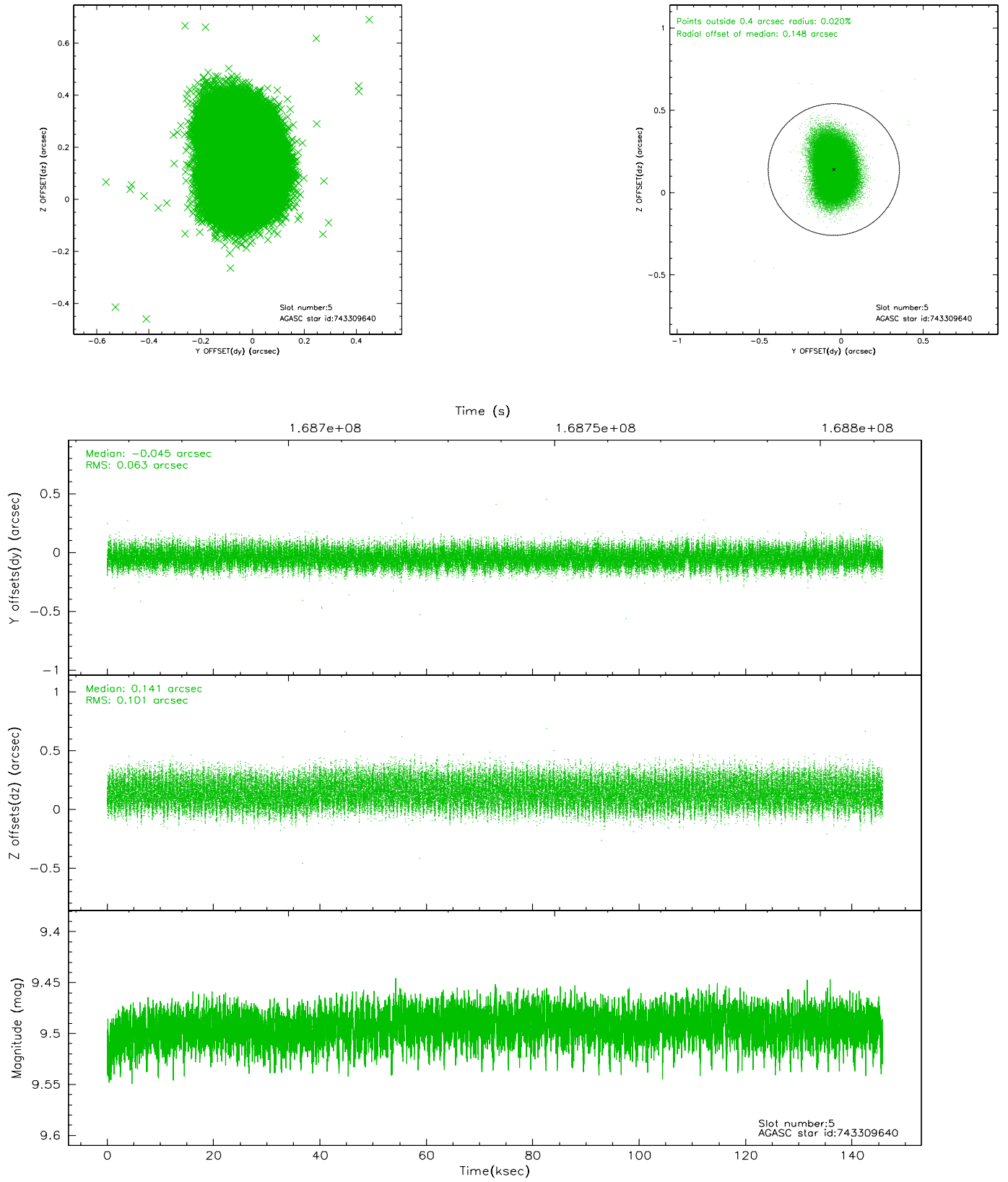
2.4.1 Slot 3



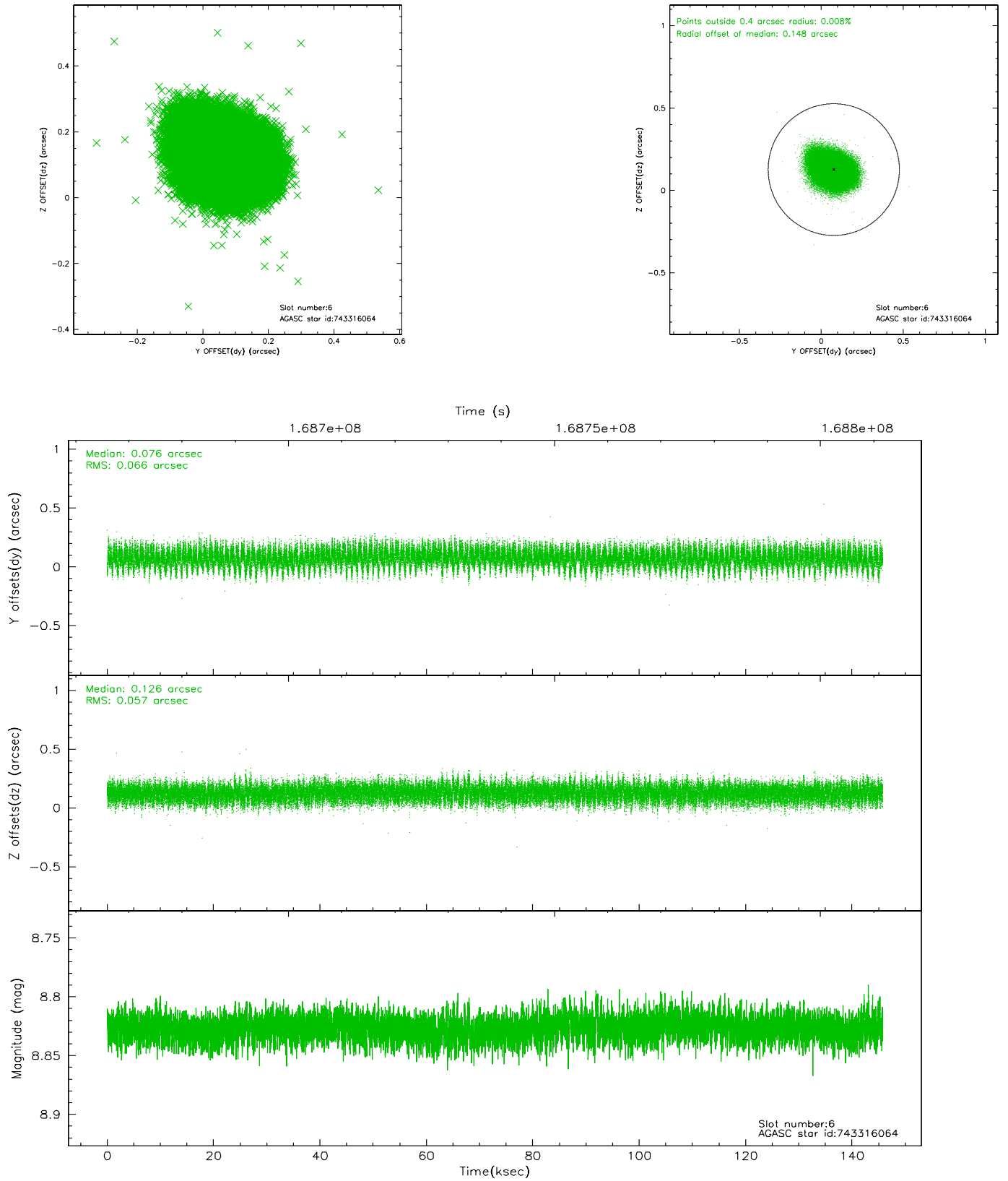
2.4.2 Slot 4



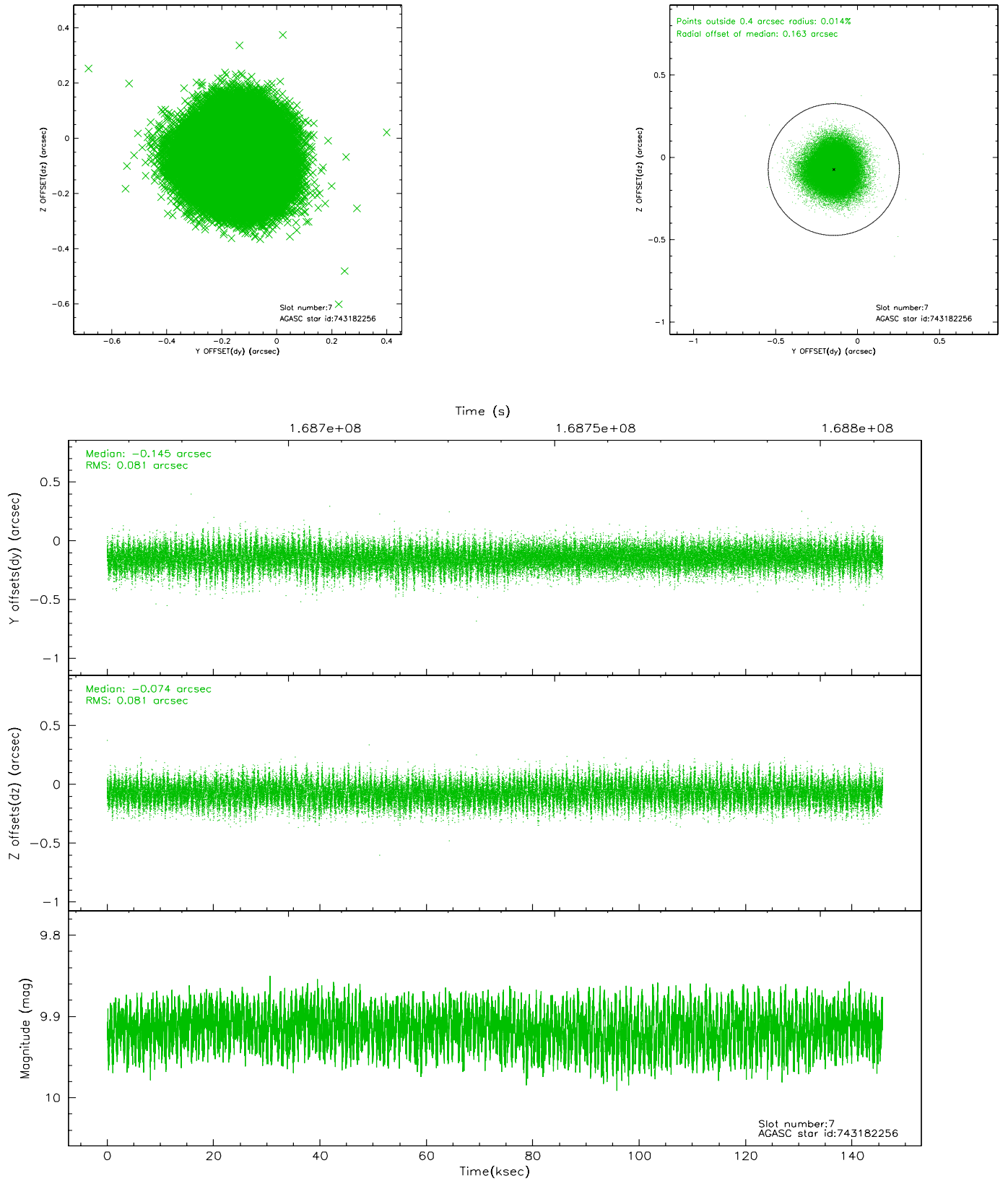
2.4.3 Slot 5



2.4.4 Slot 6

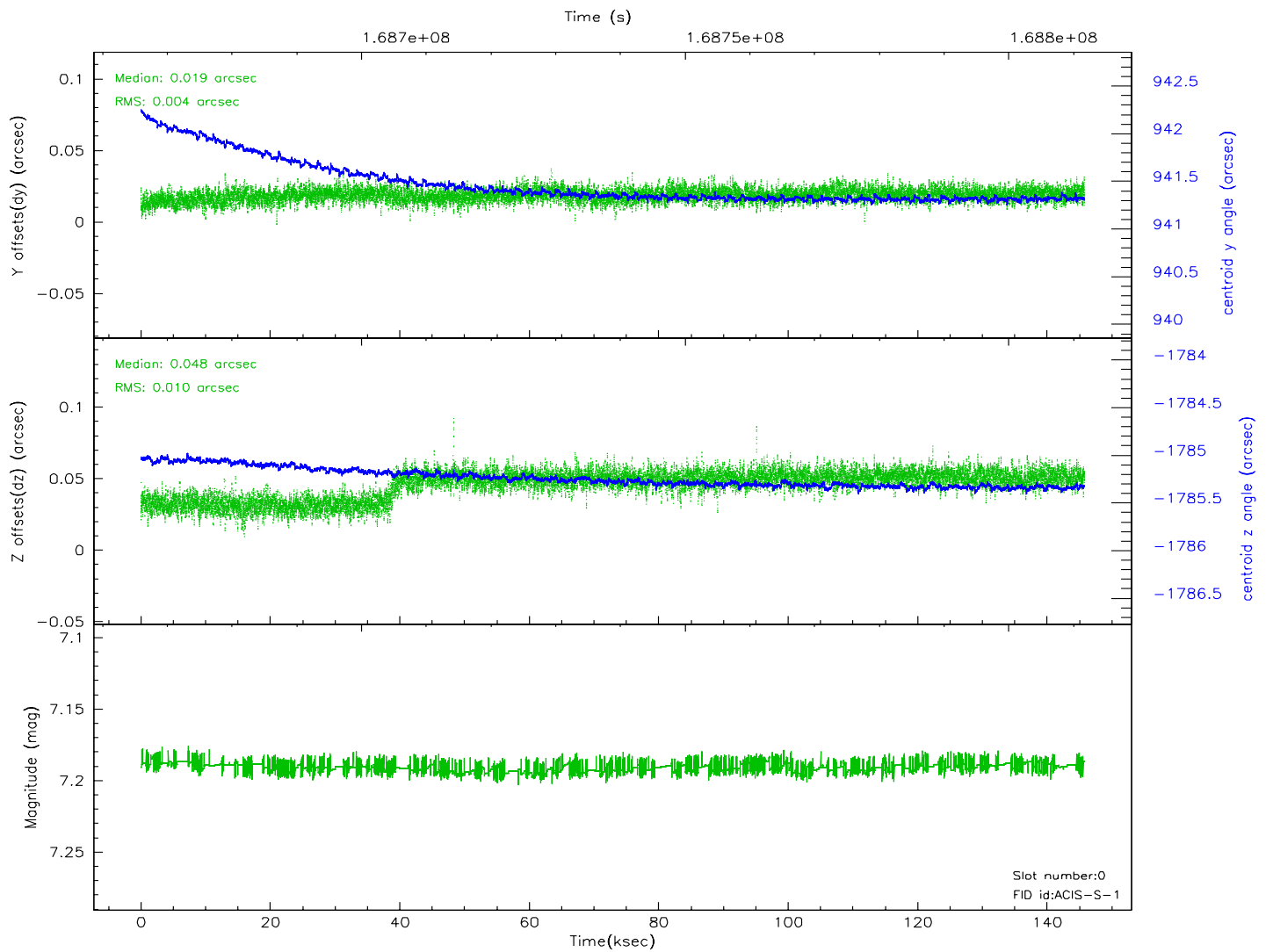
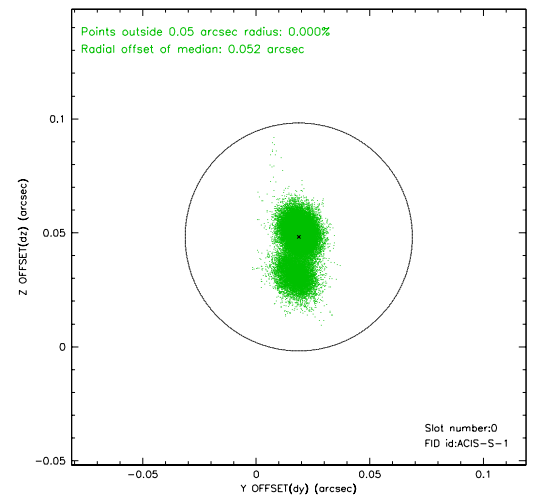
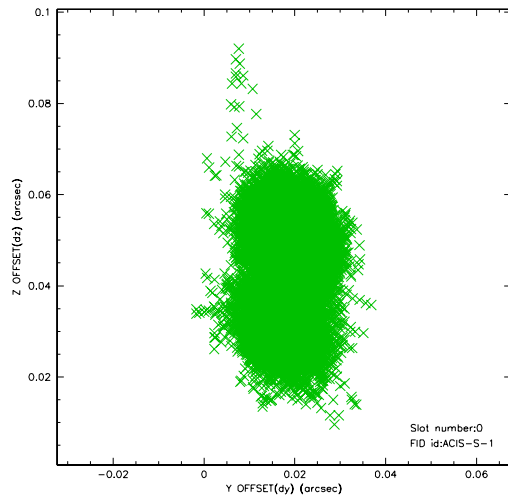


2.4.5 Slot 7

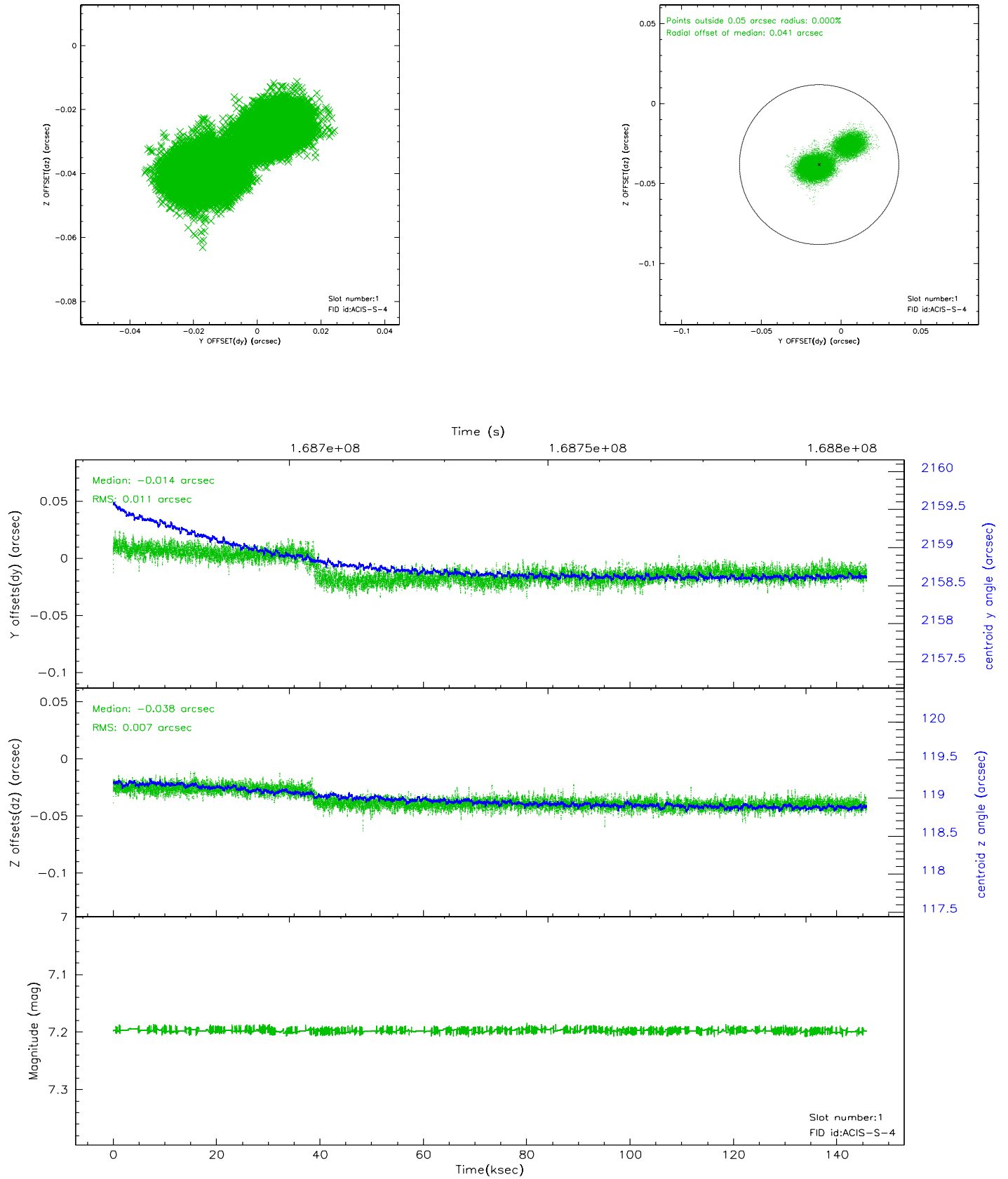


2.5 FID Slots

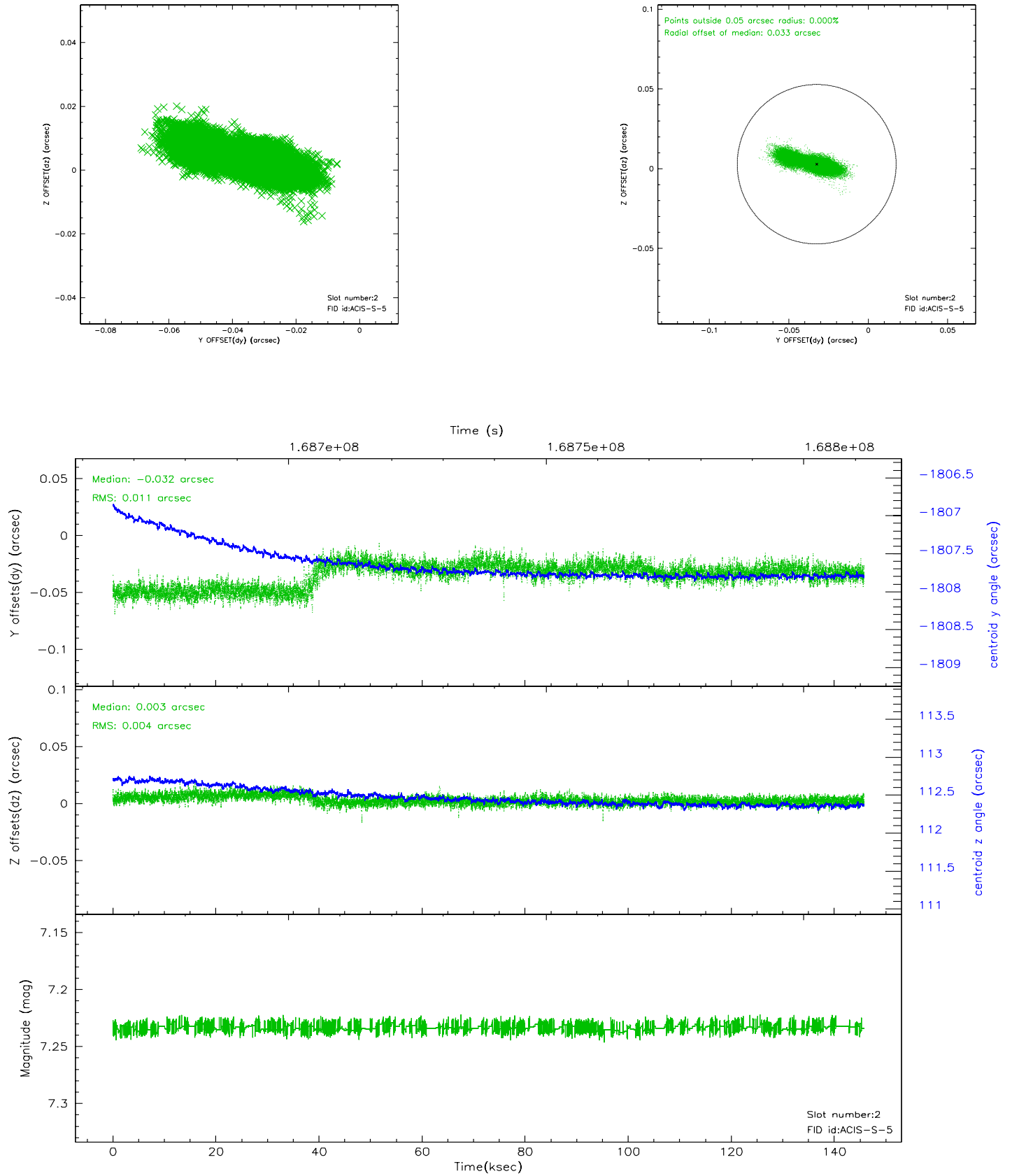
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

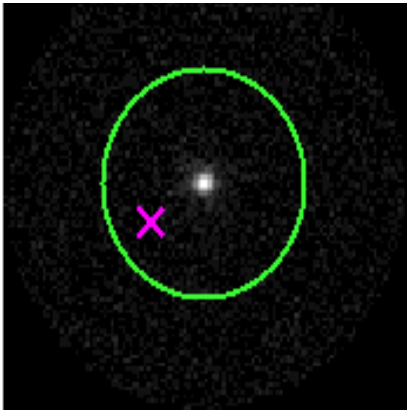


3 Gratings

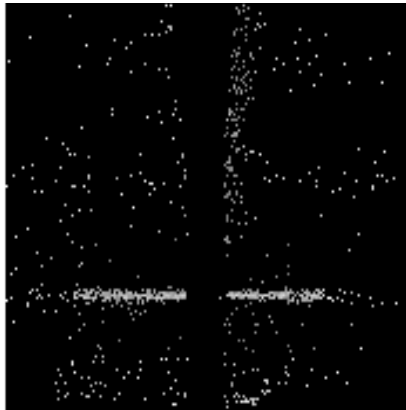
3.1 HEG Arm



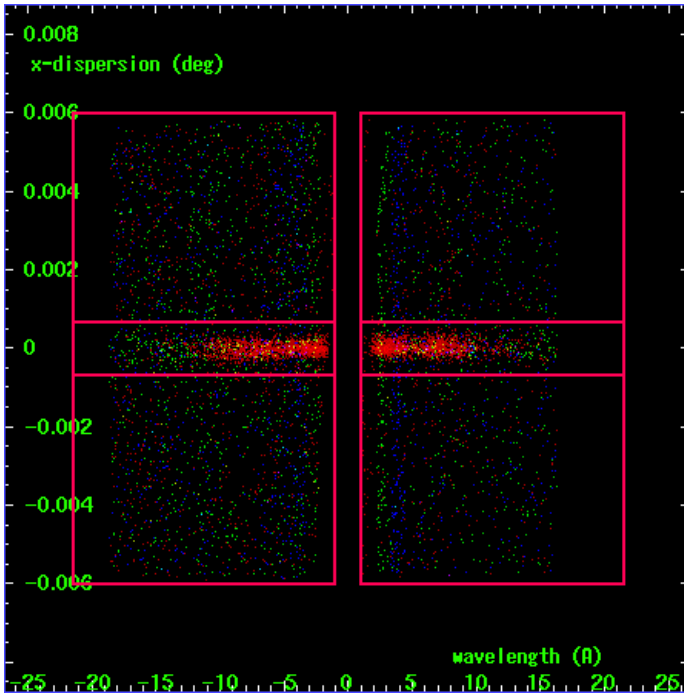
HEG Order Sort 123



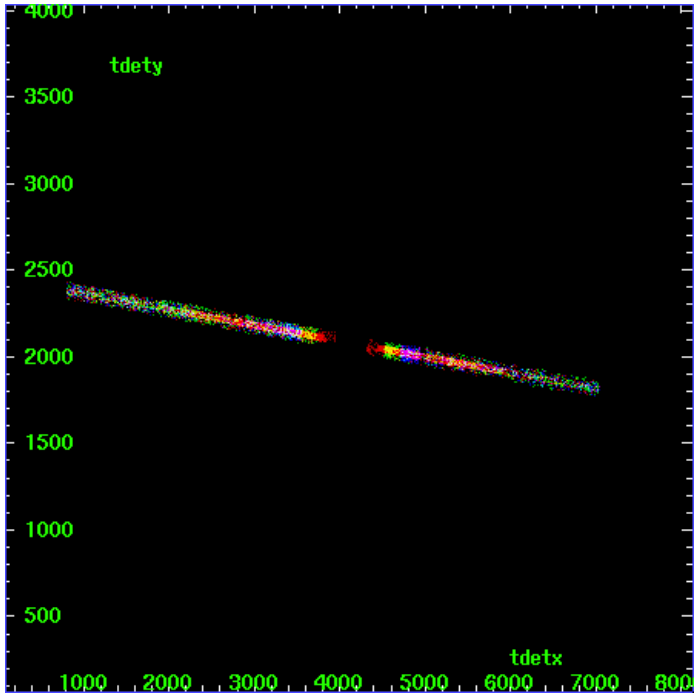
HEG Zero Order



HEG Order Sort ALL

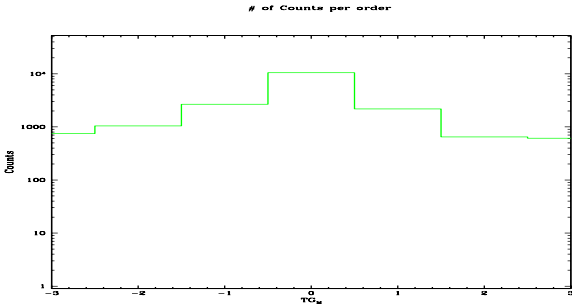


Spot Image HEG

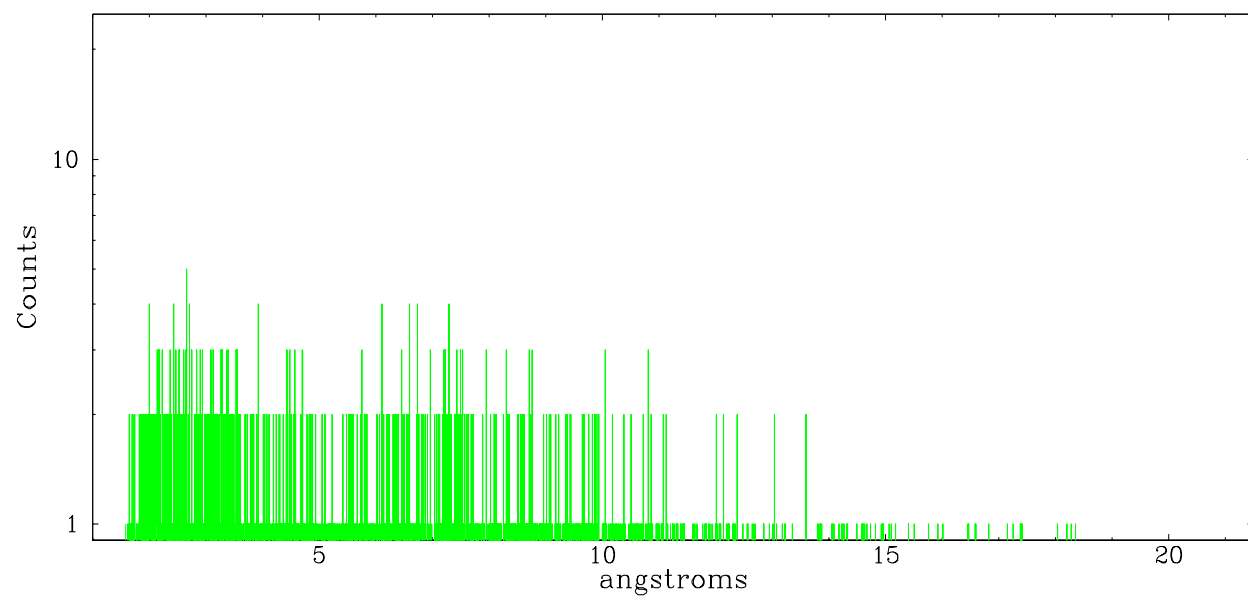


Full Detector HEG

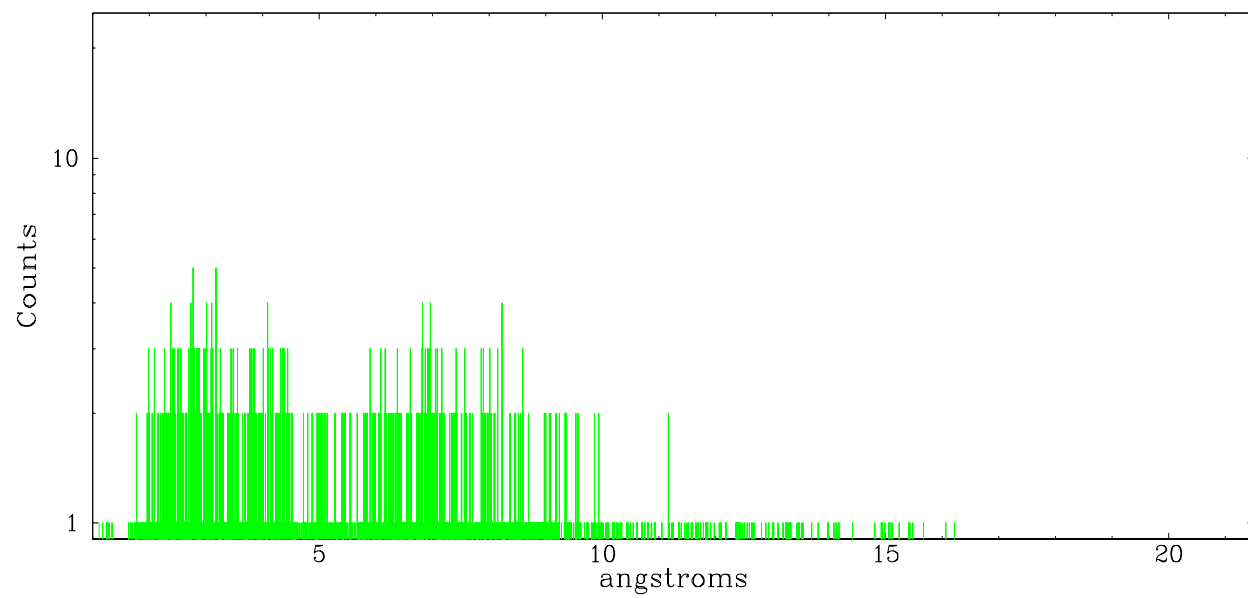
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	752	1047	2675	10464	2176	646	612



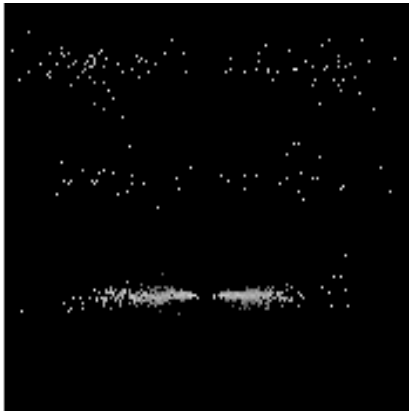
heg order -1



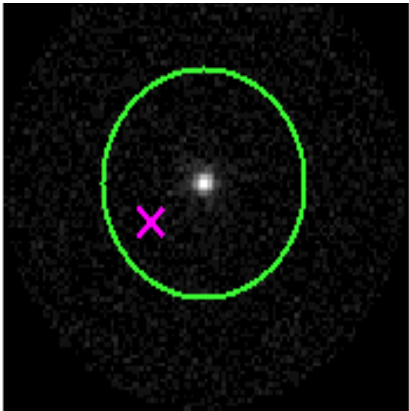
heg order +1



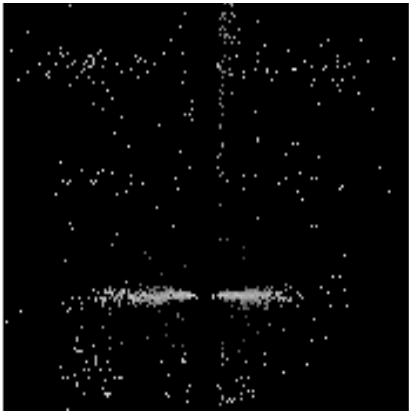
3.2 MEG Arm



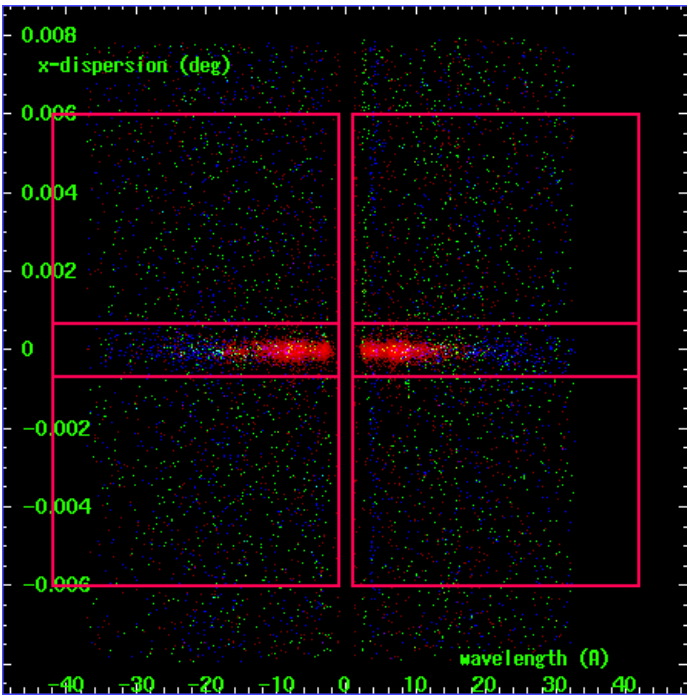
MEG Order Sort 123



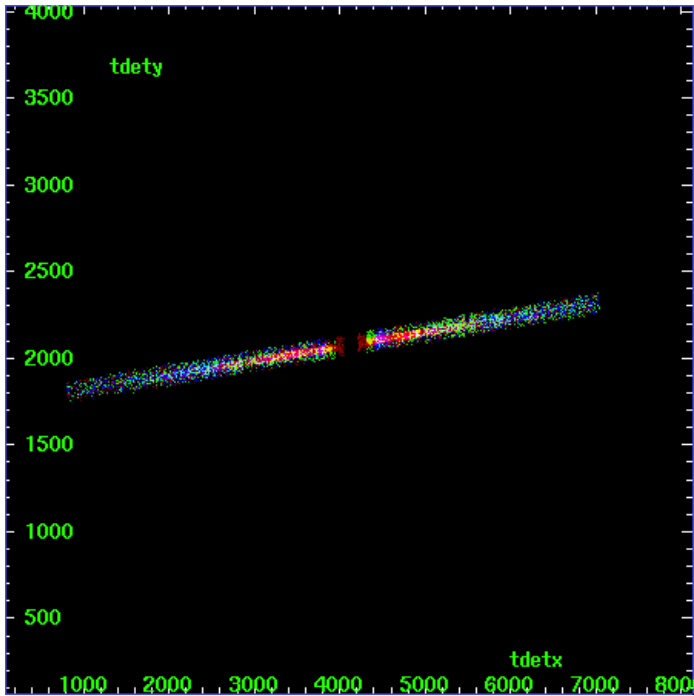
MEG Zero Order



MEG Order Sort ALL

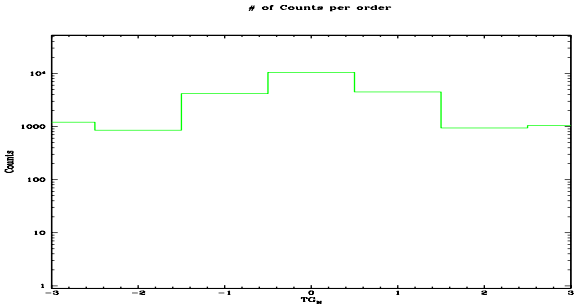


Spot Image MEG

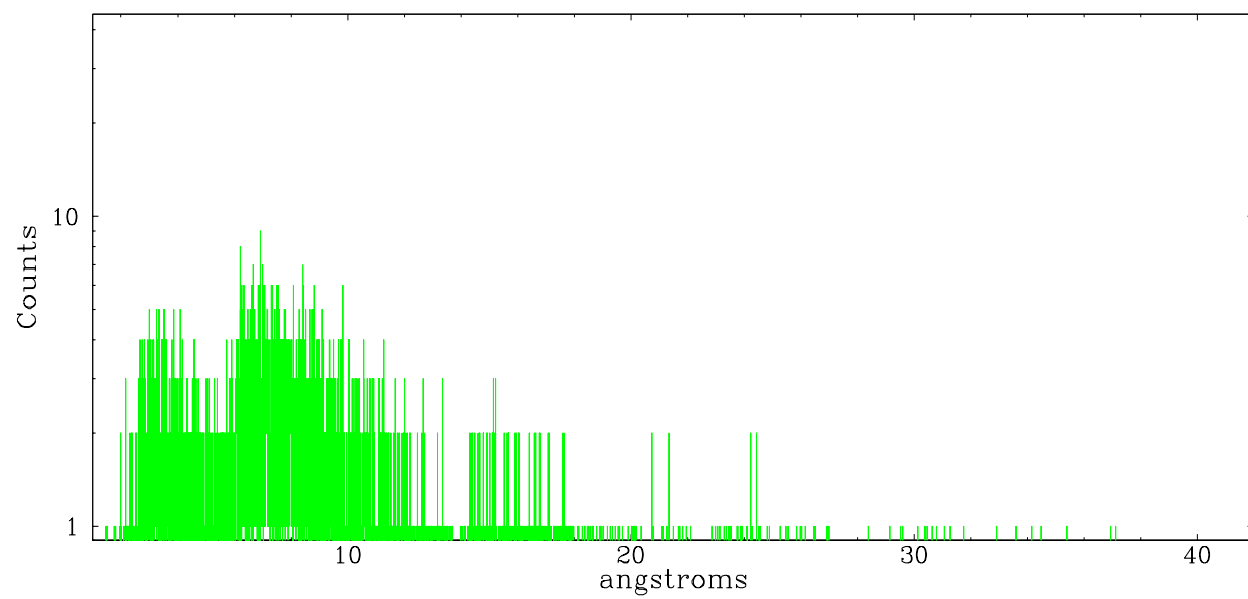


Full Detector MEG

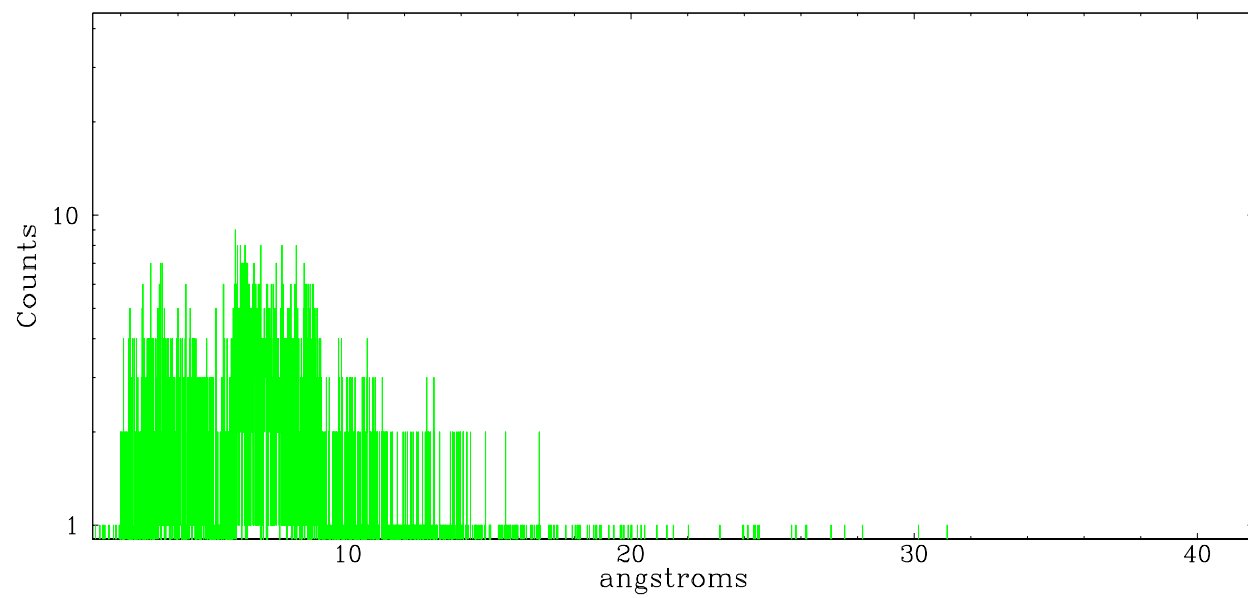
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1212	852	4164	10464	4500	940	1040



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2009.02.05
V&V Edition	2
V&V Disposition and Status	OK
V&V Charge Time	145.192

A.2 Comments

The observation was terminated early due to high radiation, at 2003:128:20:08. When the safing occurred, the delay in telemetry (32 sec e.g., sim motion) may caused some bad data to be included in L2. For this version of the processing, the bad sim data have been eliminated from the end of the observation.=====

This obsid was reprocessed to correct minor errors in parameters used in processing. Some of these parameters cannot be determined automatically for this observation and were derived from spacecraft telemetry.