

# V&V Reference Report

## L2 ASCDS Version : 7.6.11

Observation 974 - L2 Version 3  
Chandra X-Ray Center

L2 Processing Date : Jul 26 2007

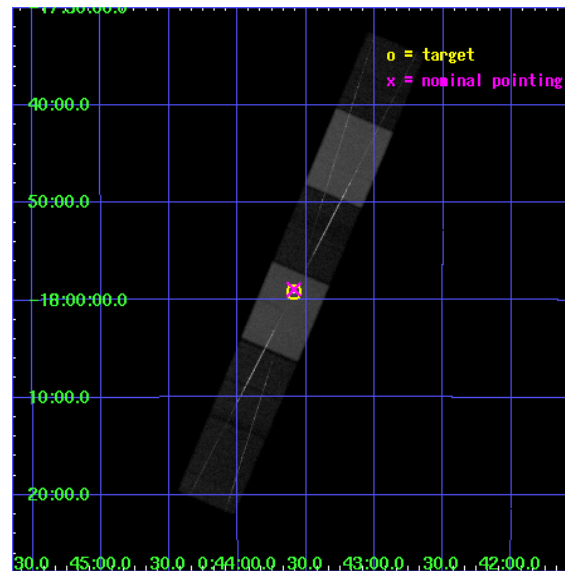
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# 1 Front

seq_num	200081
obs_id	974
title	HETG OBSERVATIONS OF THE K GIANT BETA CETI
observer	Dr. Jeffrey Linsky
object	BETA CETI
dtcycle	0
cycle	P
ra_targ	10.8975
dec_targ	-17.986611
ra_nom	10.897501310482
dec_nom	-17.982148428757
roll_nom	112.79919508242
revision	3
ontime	87992.5
livetime	86571.344803702
ontime4	87989.958989933
ontime5	87992.5
ontime6	87992.5
ontime7	87992.5
ontime8	87992.5
ontime9	87989.959009841
l2events	770101

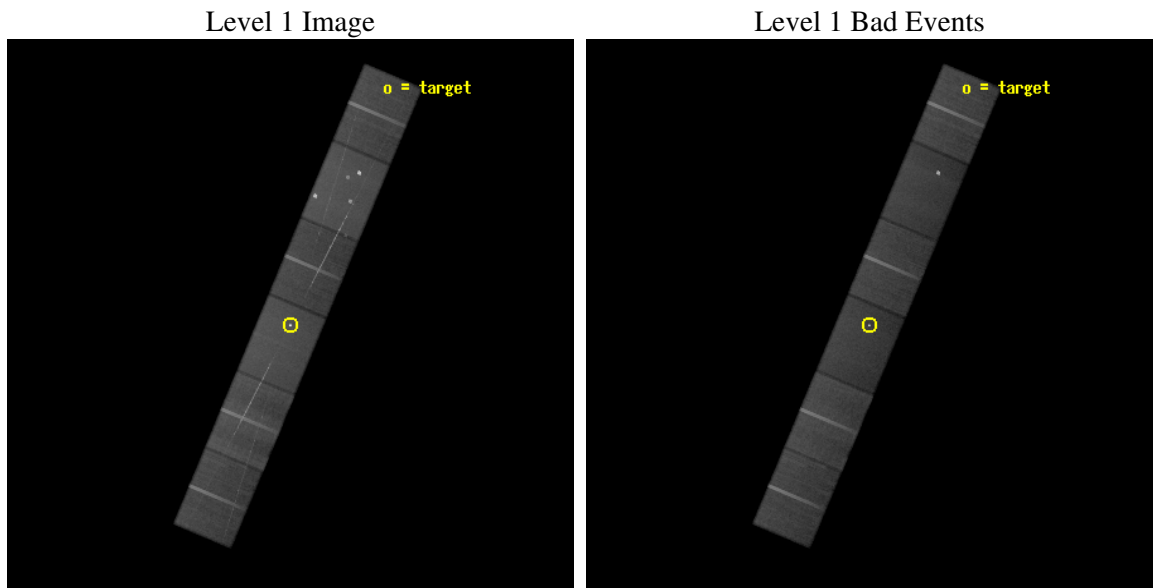




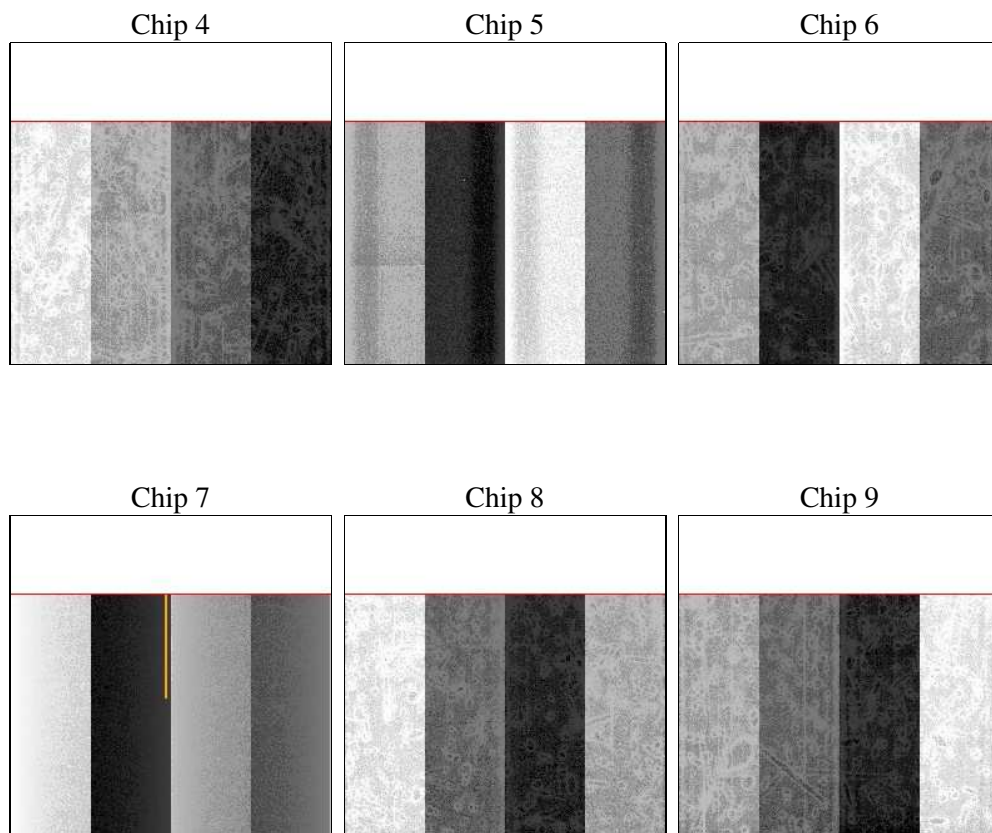
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias





### 2.1.3 Parameters

obi_num	0
ascdsver	7.6.11
caldsver	3.4.0
date	2007-07-26T15:37:03
revision	3

sched_exp_time	87970.000000
ontime	87992.5
ontime4	87989.958989933
ontime5	87992.5
ontime6	87992.5
ontime7	87992.5
ontime8	87992.5
ontime9	87989.959009841
l1events	3366386

### 2.1.4 Events

	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	516230	701441	483638	610429	599127	455521
rejected events	459140	357427	409822	344723	464109	398729
rejected %	88%	50%	84%	56%	77%	87%

	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	24907	81490	40055	28444	56093	25447
	4%	11%	8%	4%	9%	5%
grade 1 events	193	15255	242	1195	337	184
	0%	2%	0%	0%	0%	0%
grade 2 events	13182	88274	12139	55385	25852	10694
	2%	12%	2%	9%	4%	2%
grade 3 events	5478	15976	6088	25815	13168	5679
	1%	2%	1%	4%	2%	1%
grade 4 events	5222	15380	6247	25158	12167	5549
	1%	2%	1%	4%	2%	1%
grade 5 events	16144	49402	18341	58181	23703	19185
	3%	7%	3%	9%	3%	4%
grade 6 events	9274	148851	10237	134931	29677	10300
	1%	21%	2%	22%	4%	2%
grade 7 events	441830	286813	390289	281320	438130	378483
	85%	40%	80%	46%	73%	83%

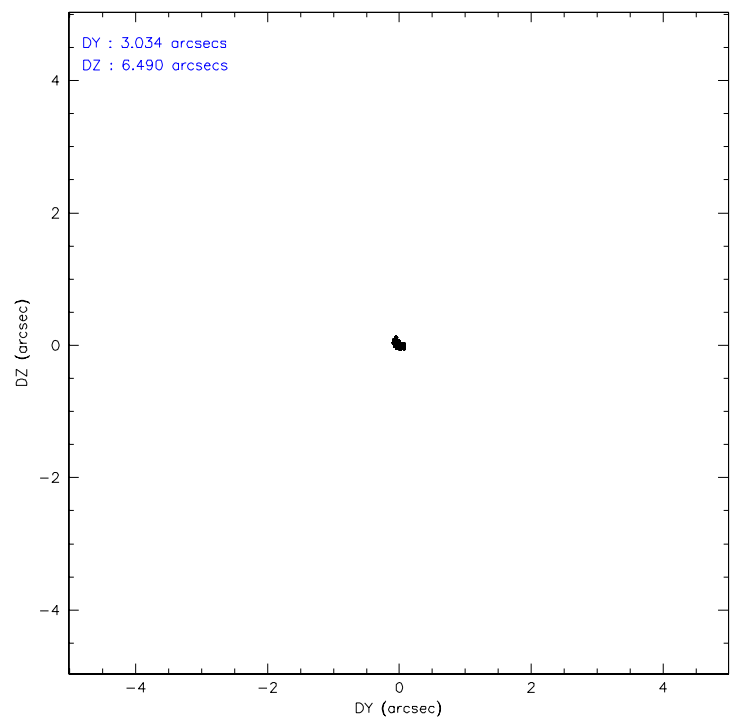
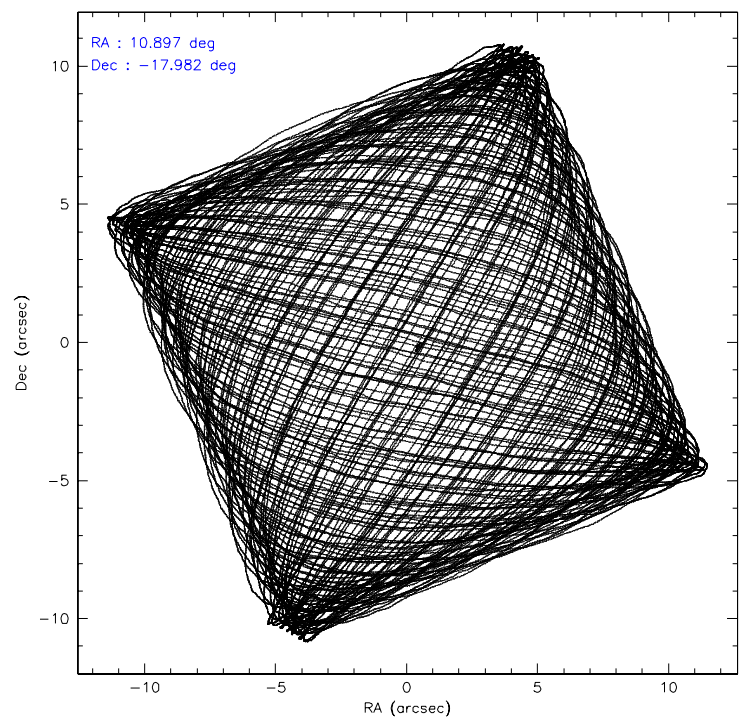


## 2.2 Compared Parameters

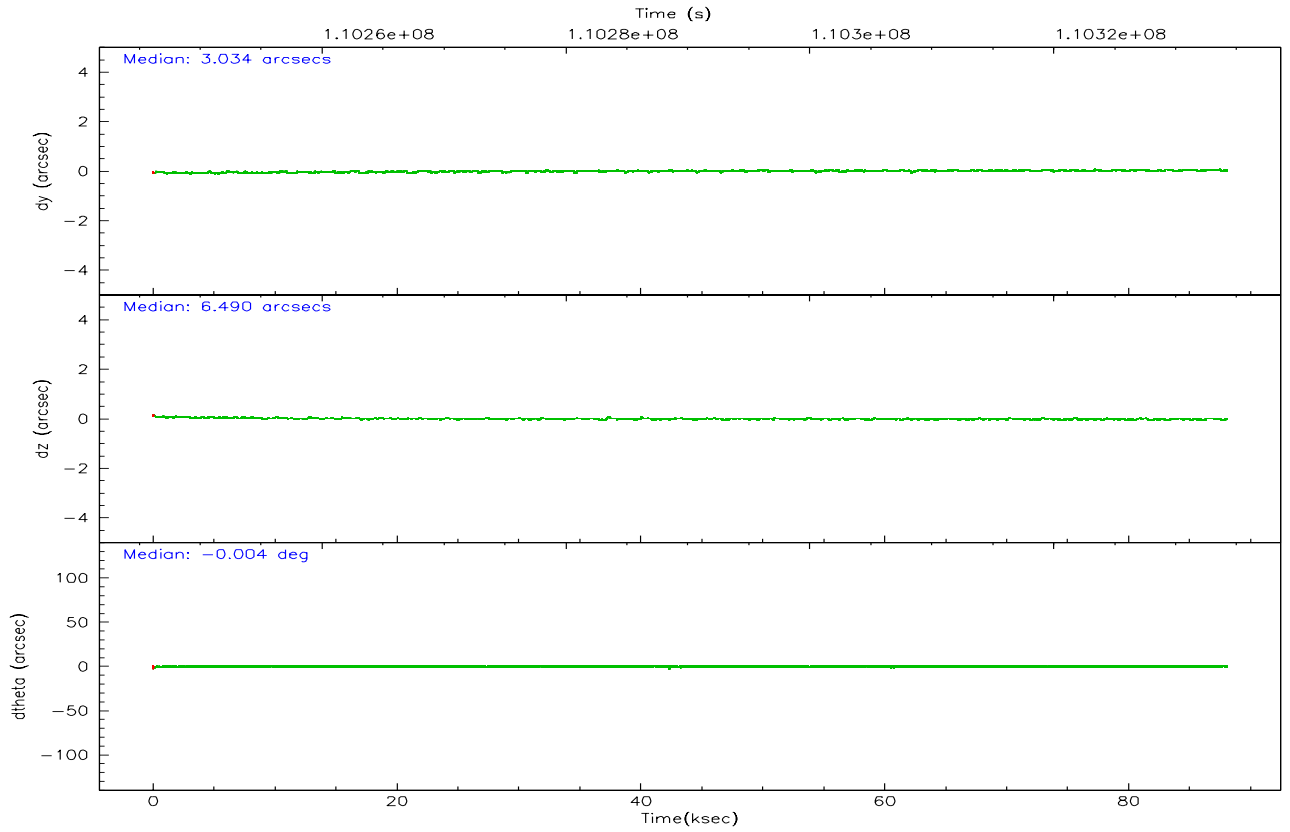
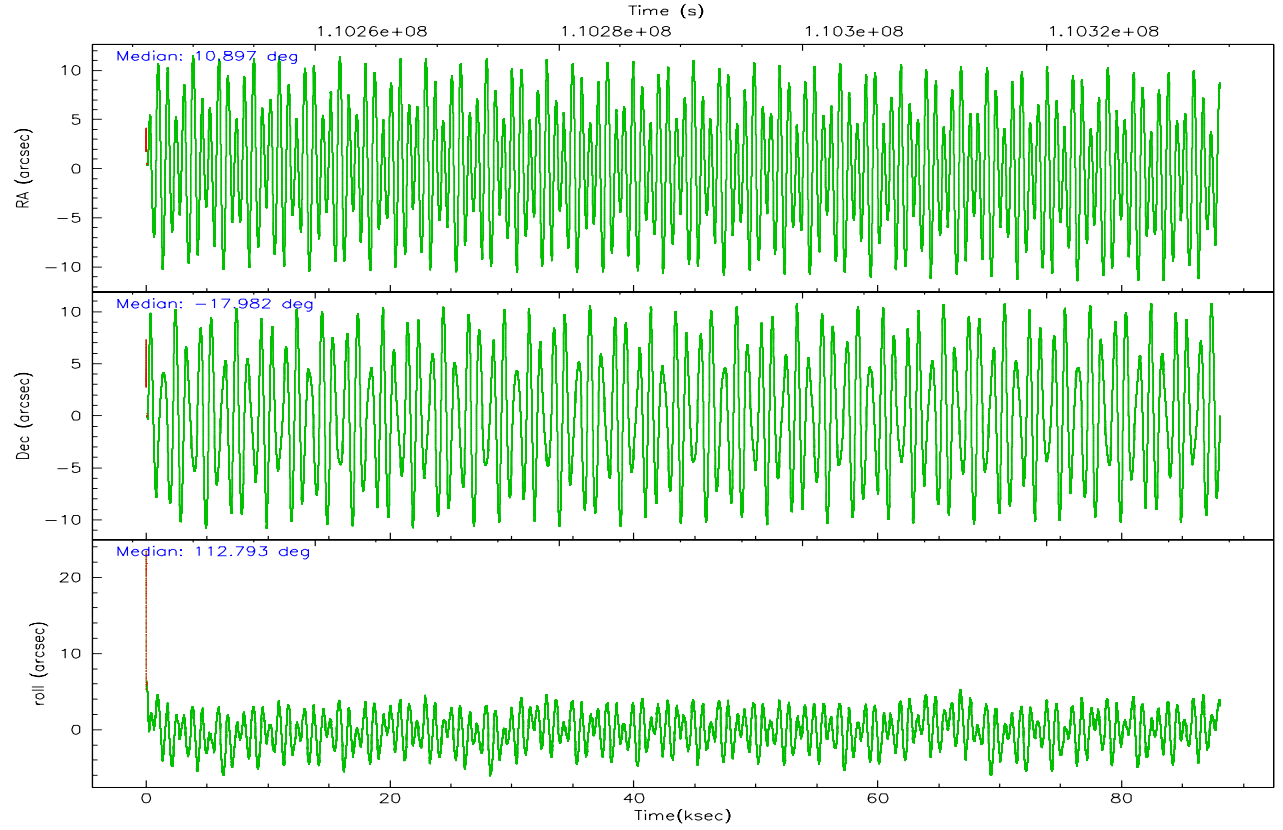
Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-456789	ACIS-456789	Obspar file type	PREDICTED	ACTUAL
Grating	HETG	HETG	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
Pointing RA	10.920526	10.89750131048213	Subarray requested	CUSTOM	CUSTOM
Pointing Dec	-17.998423	-17.98214842875728	Subarray start row	1	1
Pointing Roll	112.649674	112.7991950824211	Subarray row count	774	774
SIM focus pos (mm)	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
SIM defocus (mm)	0	0.001444936568705701	Primary exposure time	0.000000	2.5
SIM translation stage pos (mm)	-187.132523	-187.1228876879999			
SIM translation stage offset (mm)	-3	-3.009634895007935			
Observation start time	110246255.184000	110244615.34073			
Observation start date	2001-06-29T23:56:31	2001-06-29T23:30:15			
Observation end time	110334225.184000	110334540.13174			
Observation end date	2001-07-01T00:22:41	2001-07-01T00:29:00			
Read mode	TIMED	TIMED			



## 2.3 Aspect









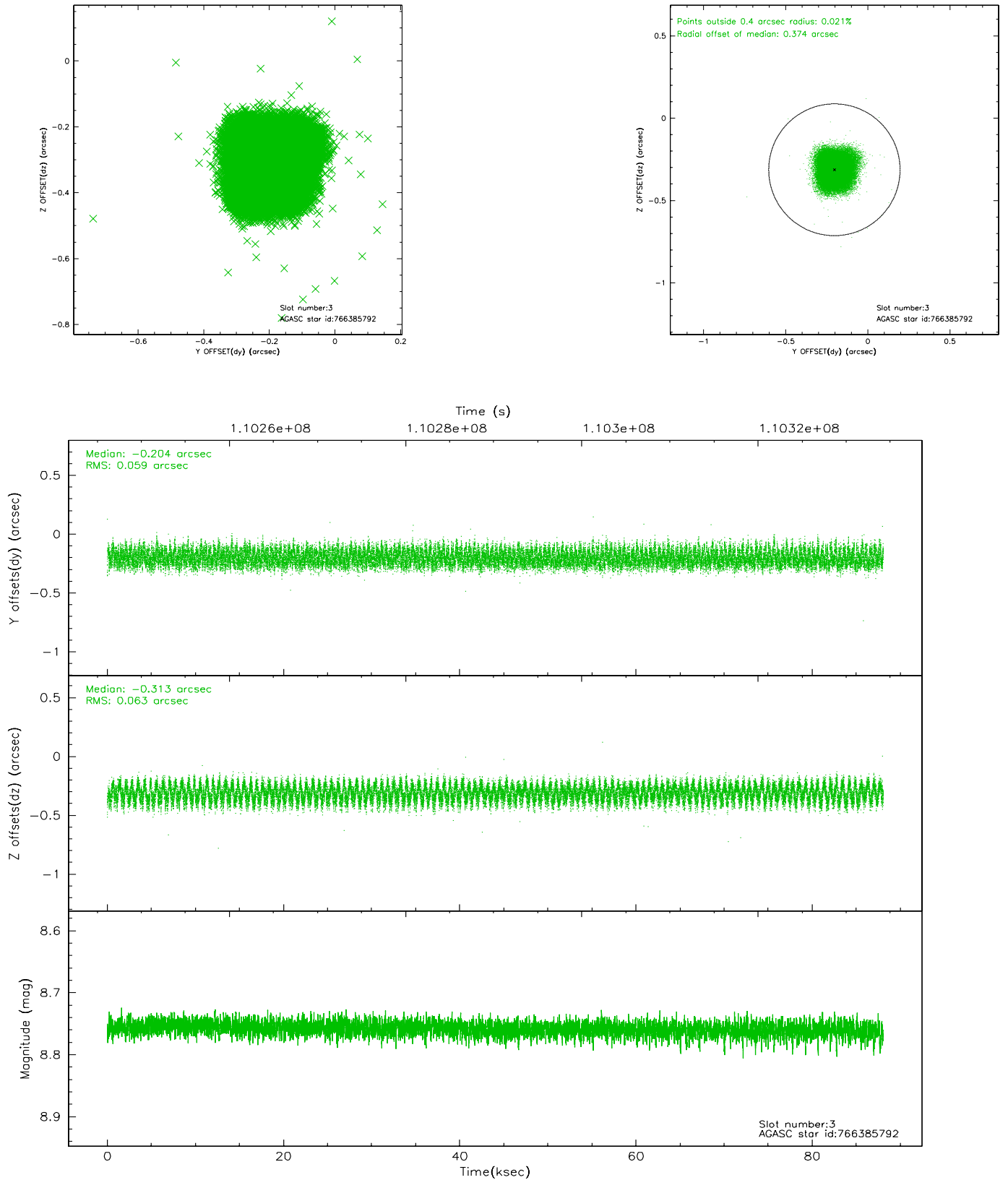
Slot Statistics

	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2
	FID	ACIS-S-2	7.10	21469	-0.015	-0.024	0.006	0.010
	FID	ACIS-S-4	7.19	21467	-0.059	0.014	0.005	0.009
	FID	ACIS-S-5	7.23	21468	0.043	0.019	0.006	0.010
	GUIDE	766385792	8.76	42921	-0.204	-0.313	0.095	0.142
	GUIDE	766382128	9.59	42912	0.089	0.225	0.100	0.163
	GUIDE	766386936	9.50	42908	0.146	0.183	0.102	0.160
	GUIDE	766381240	9.49	42914	-0.032	-0.095	0.081	0.131
0.000	0.000	0.000	0.000000	0.000000	0.00	0.00		



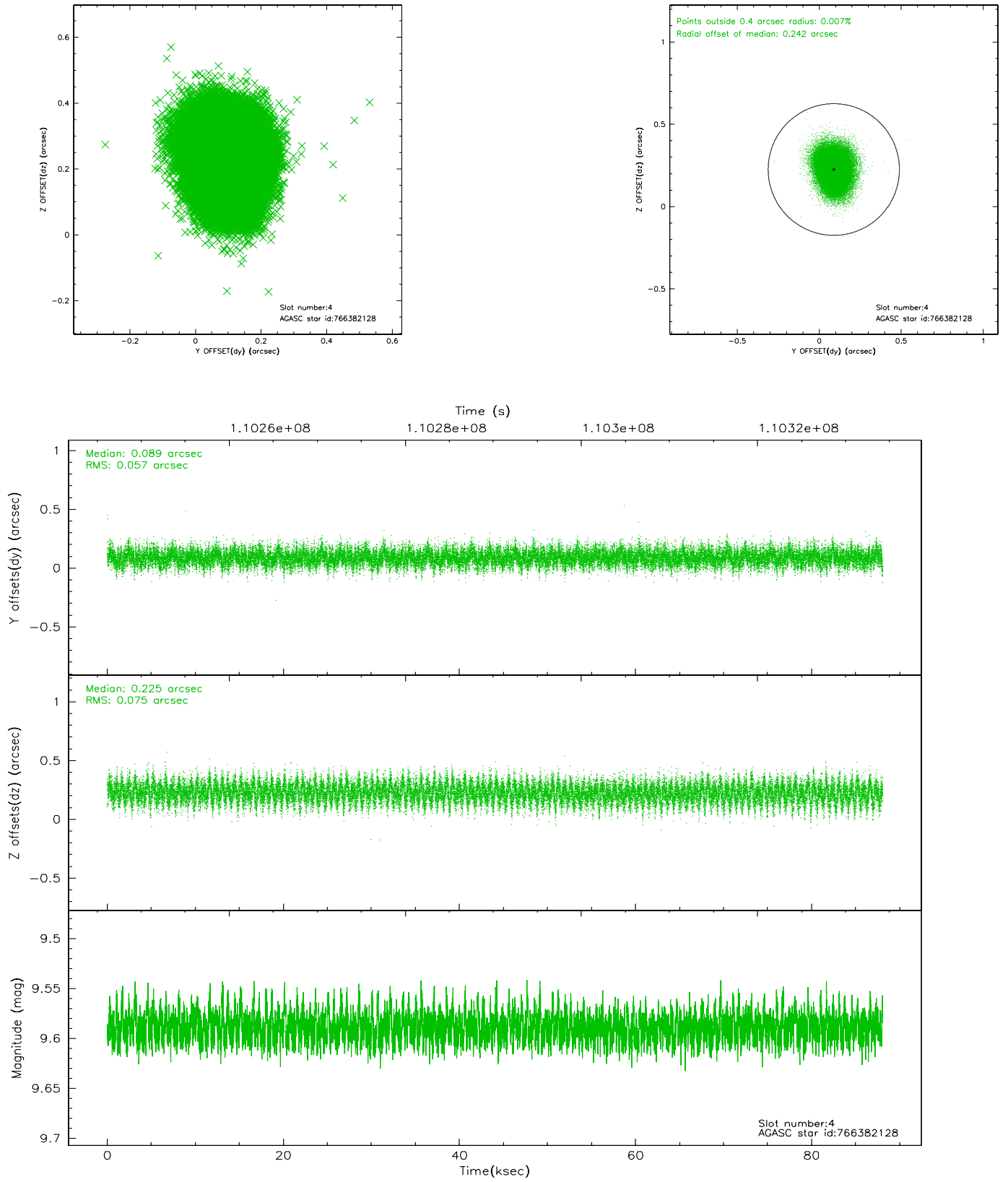
## 2.4 Star Slots

### 2.4.1 Slot 3



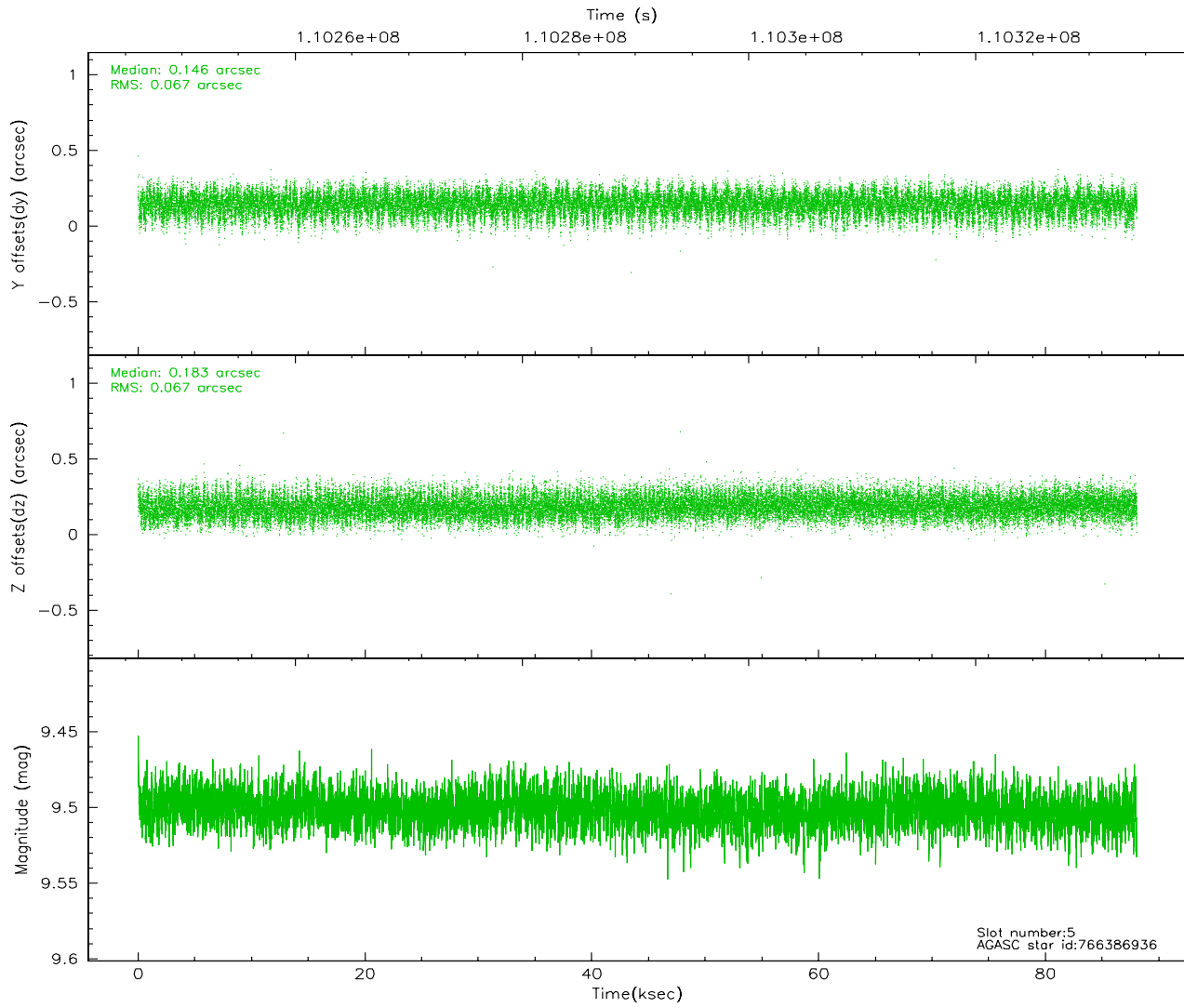
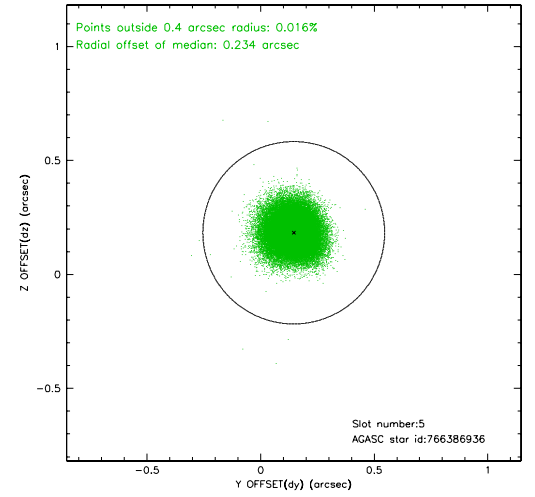
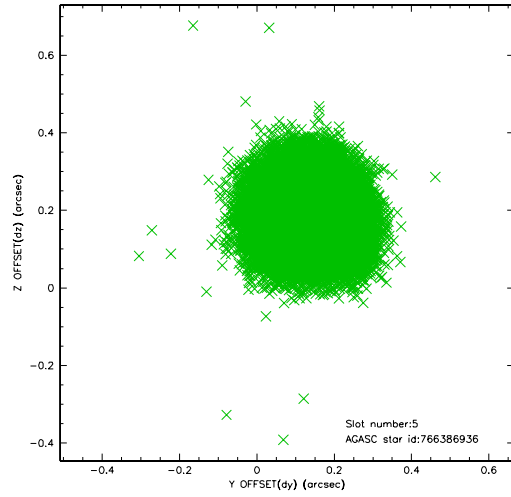


## 2.4.2 Slot 4



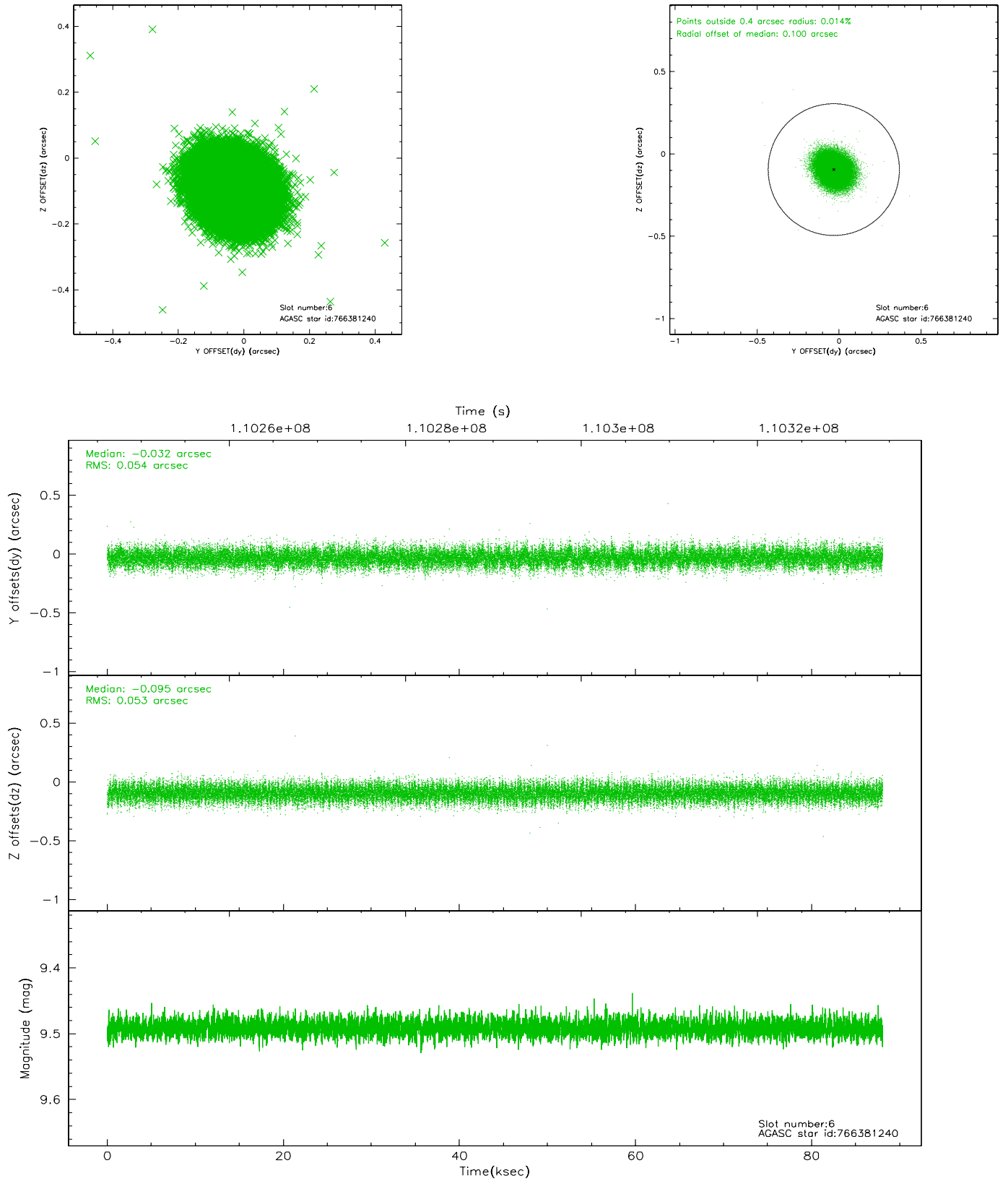


### 2.4.3 Slot 5





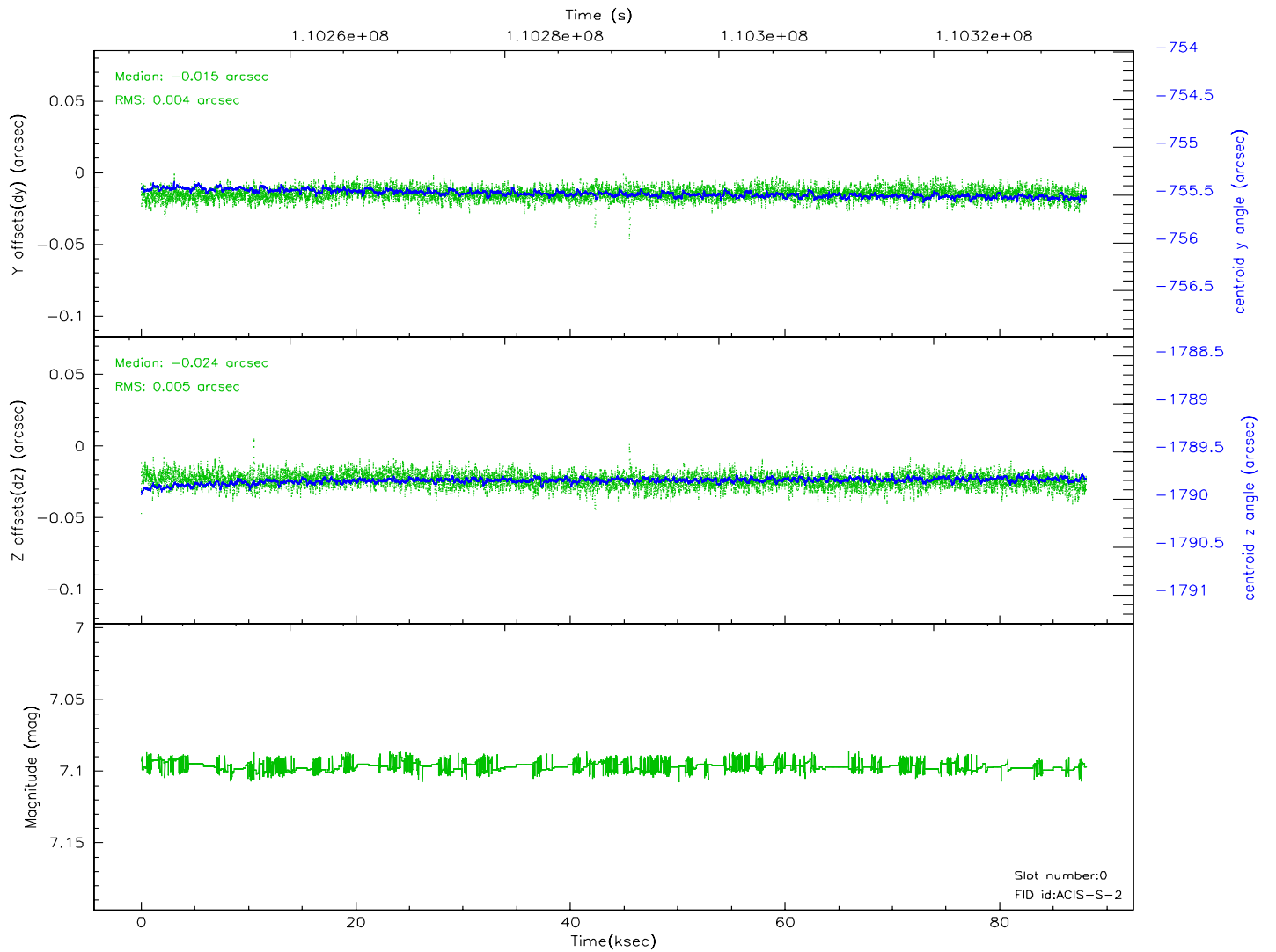
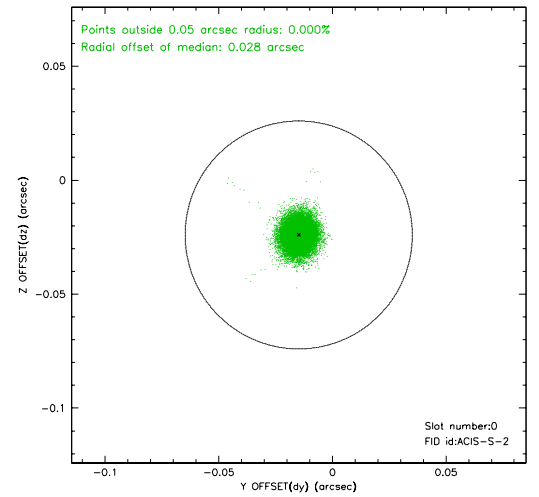
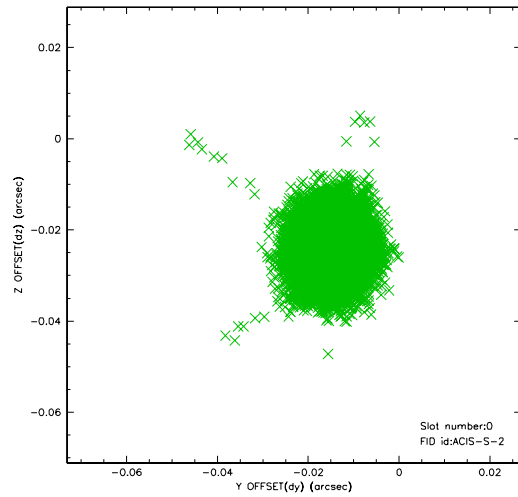
## 2.4.4 Slot 6





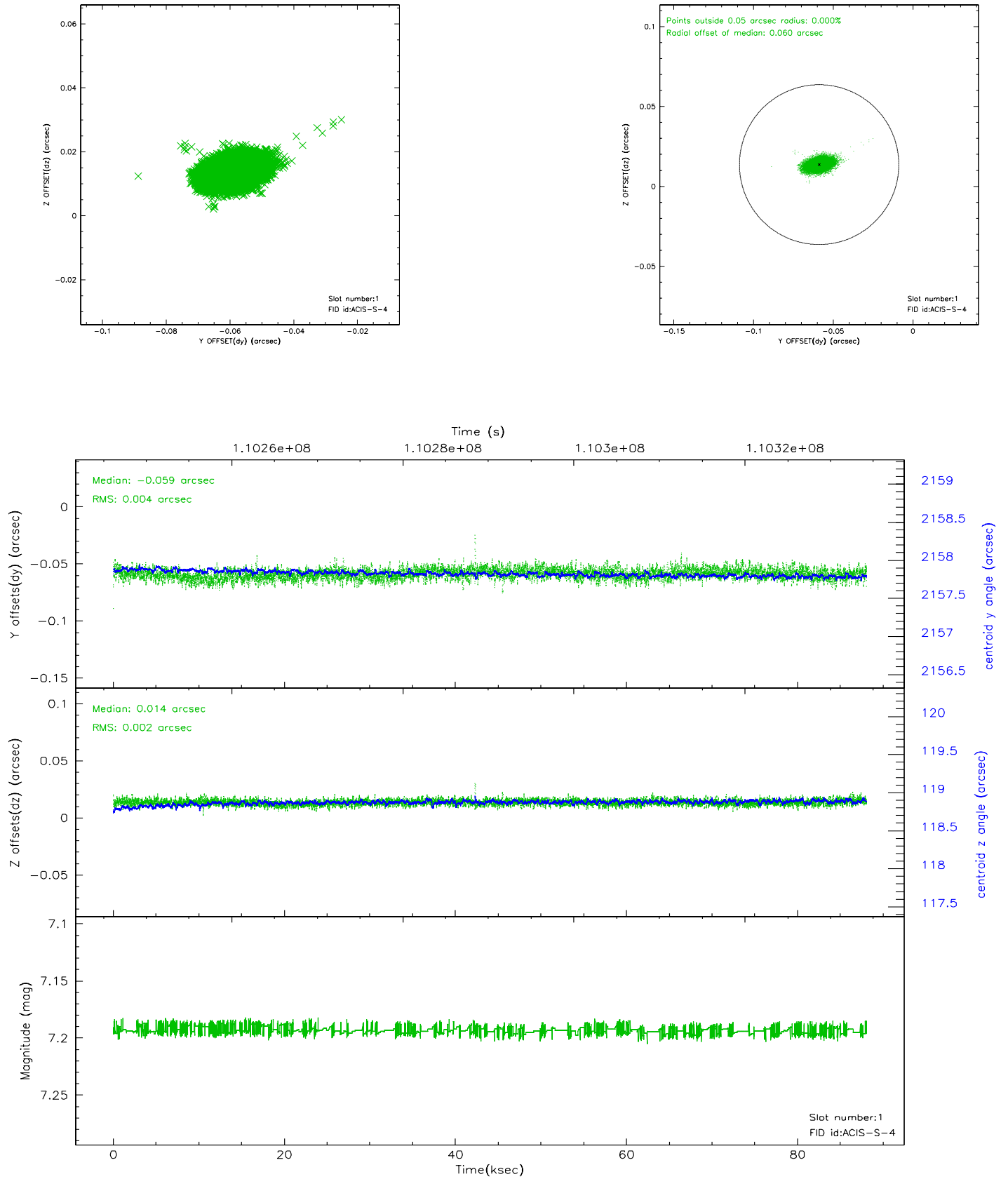
## 2.5 FID Slots

### 2.5.1 Slot 0



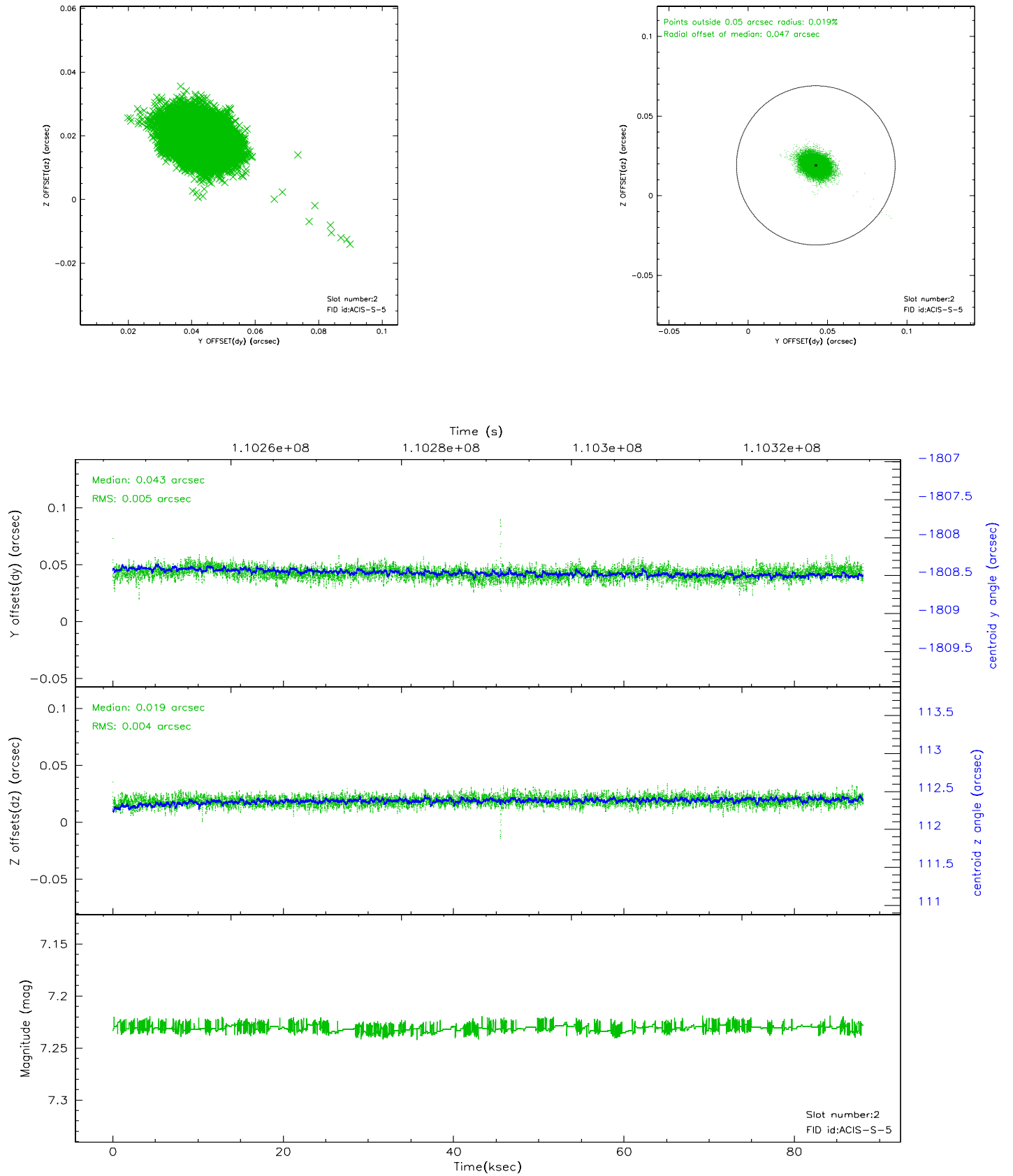


## 2.5.2 Slot 1





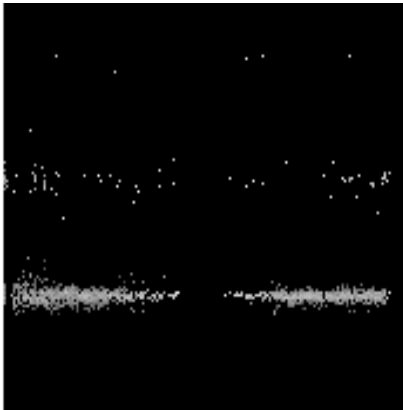
### 2.5.3 Slot 2



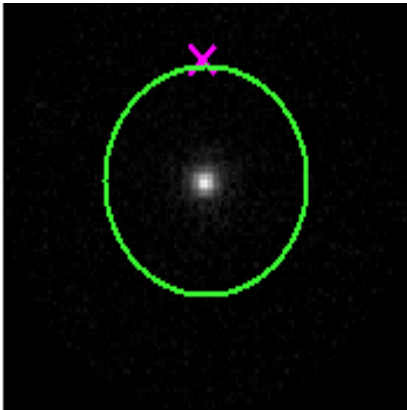


# 3 Gratings

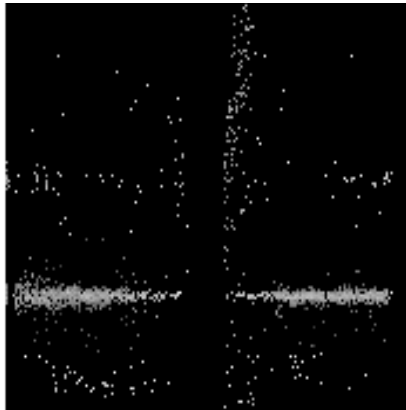
## 3.1 HEG Arm



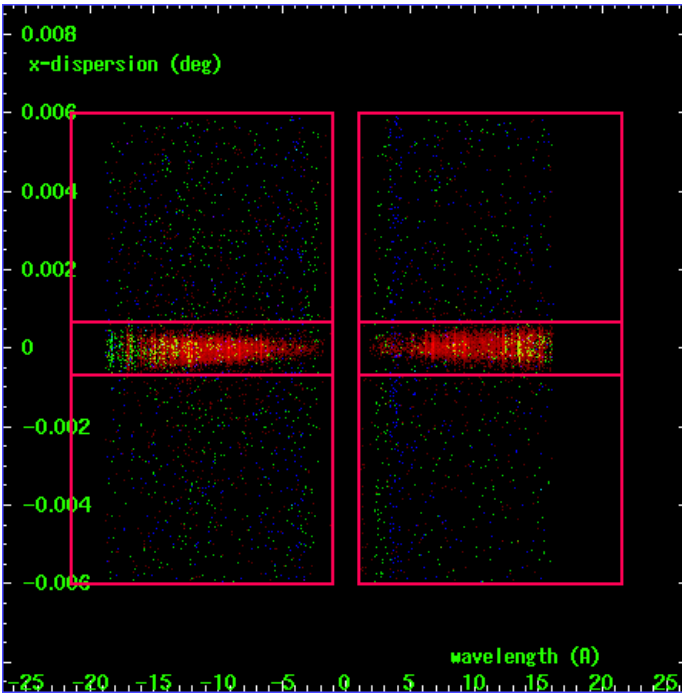
HEG Order Sort 123



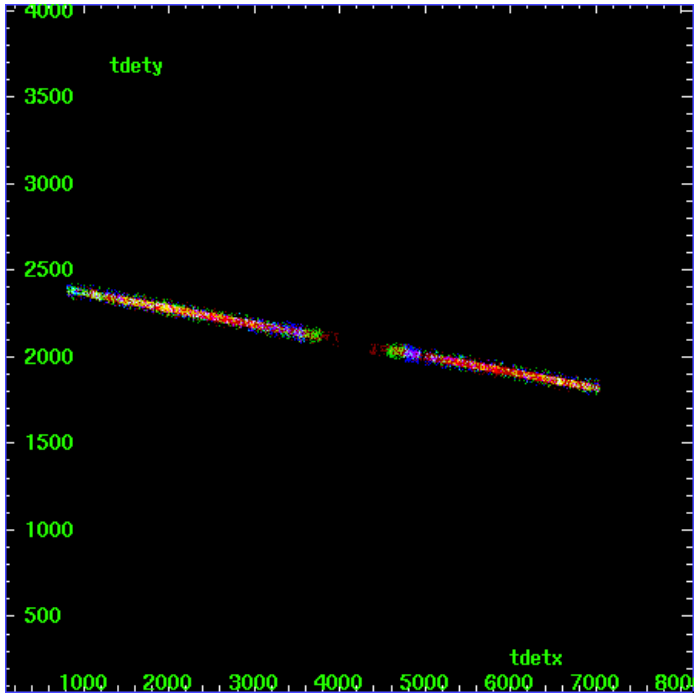
HEG Zero Order



HEG Order Sort ALL

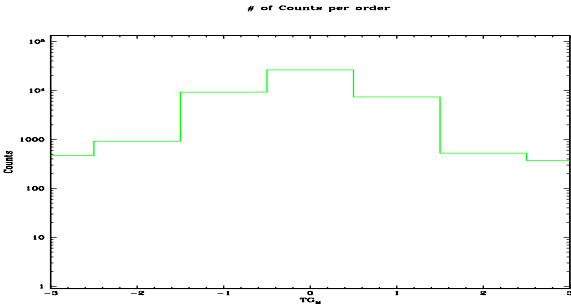


Spot Image HEG



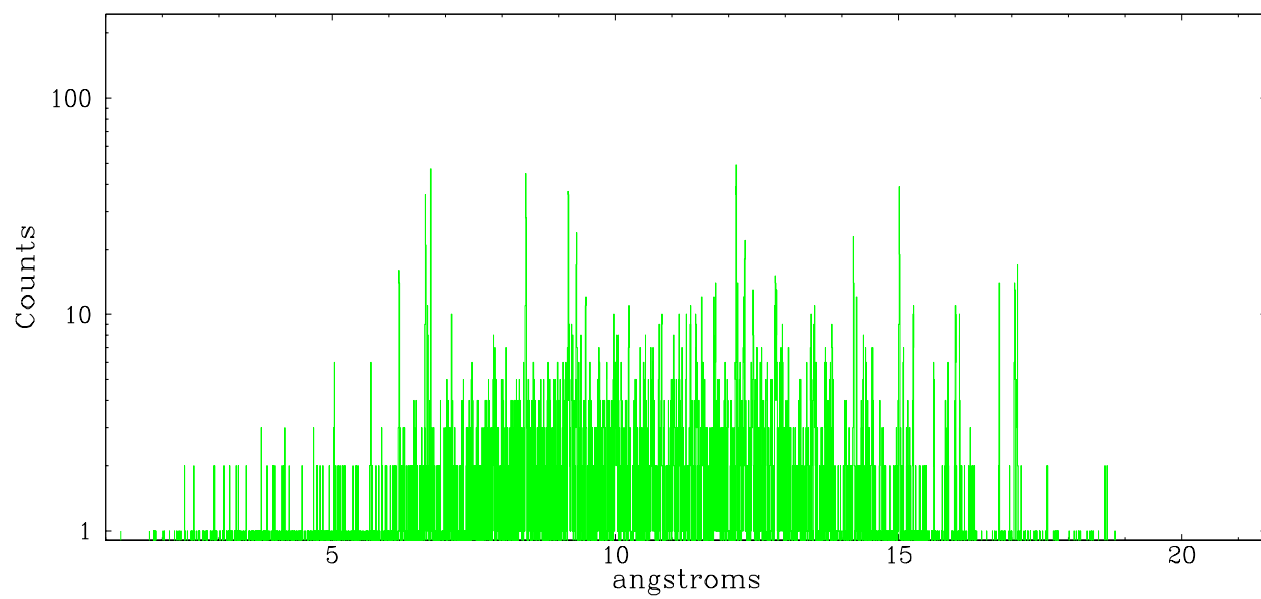
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	469	923	9258	26349	7377	527	373

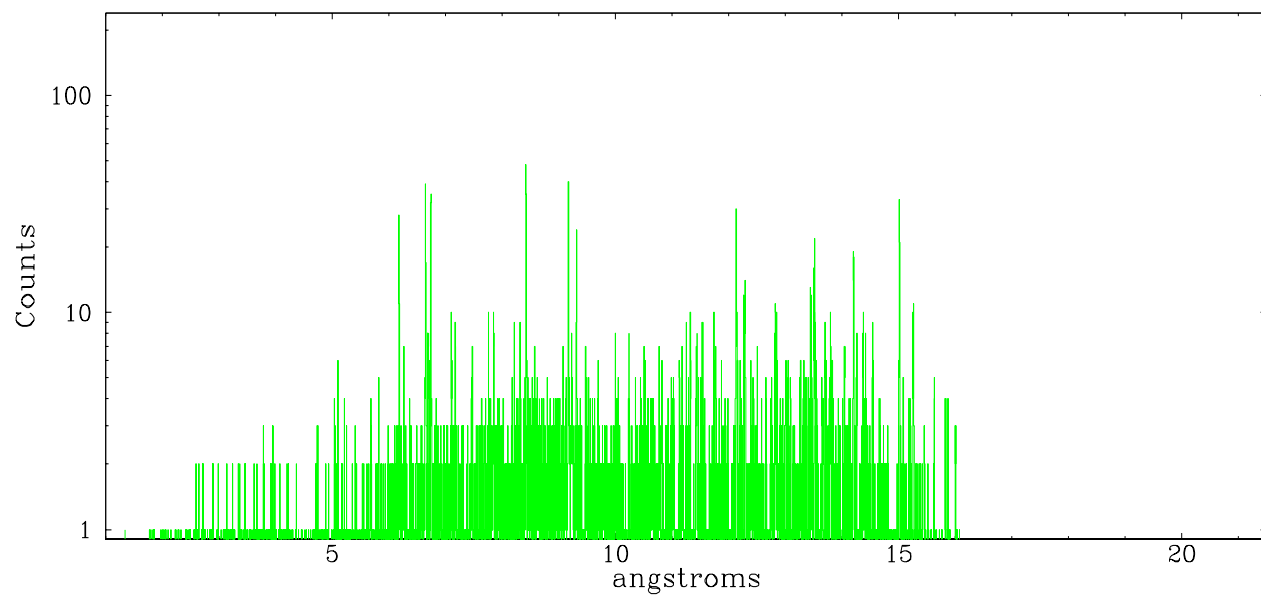




heg order -1

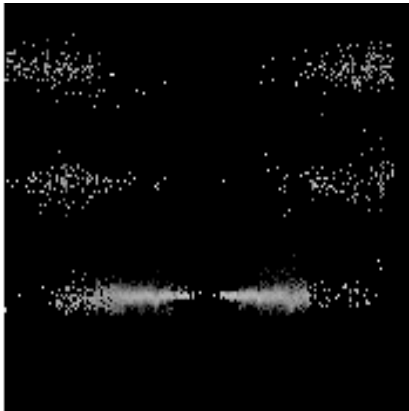


heg order +1

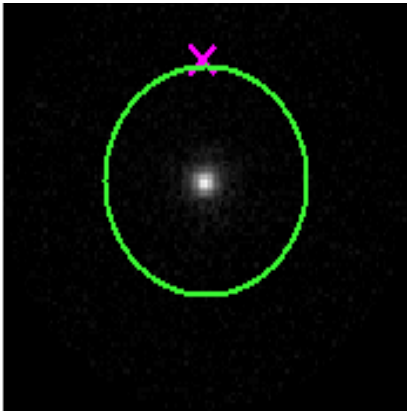




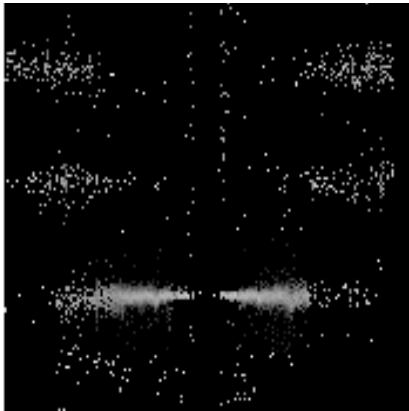
### 3.2 MEG Arm



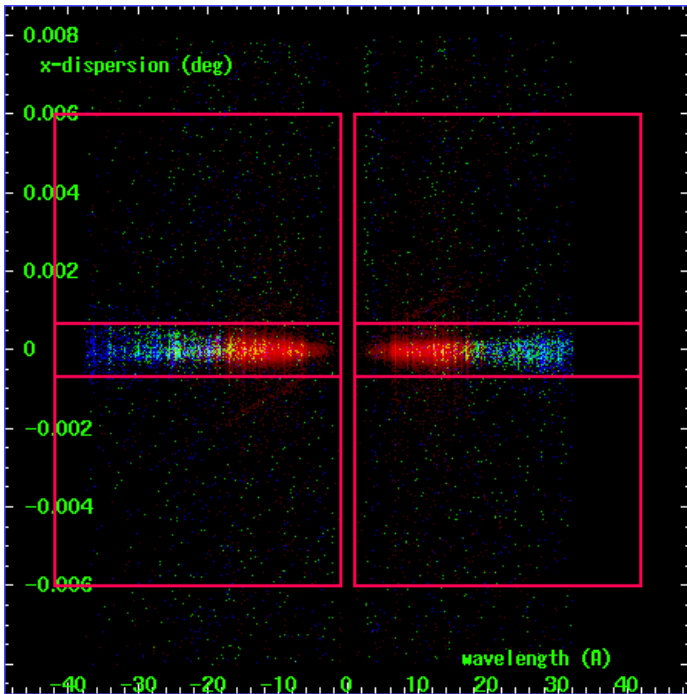
MEG Order Sort 123



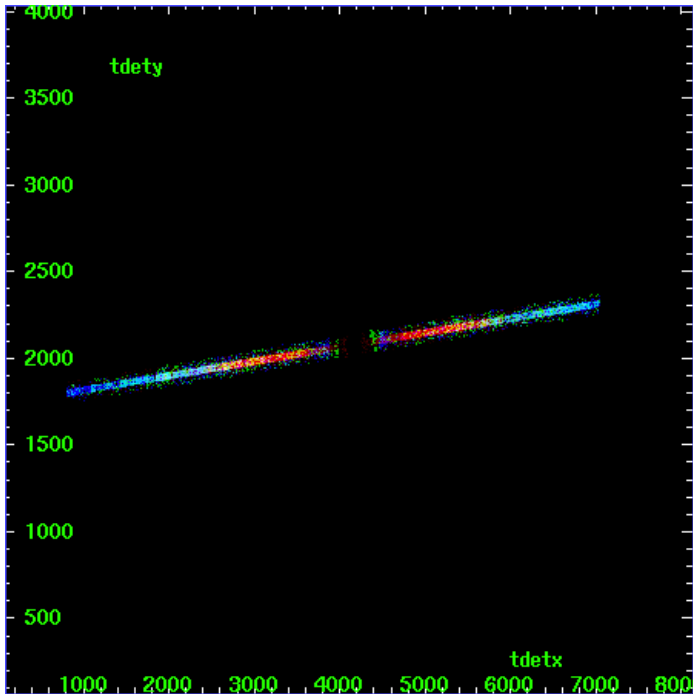
MEG Zero Order



MEG Order Sort ALL

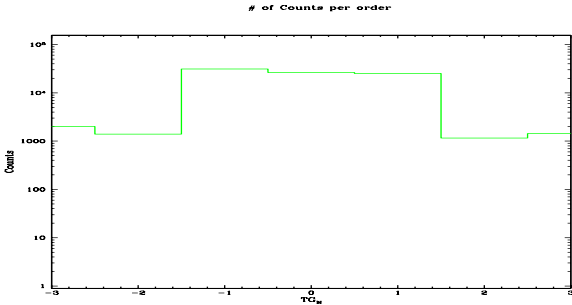


Spot Image MEG



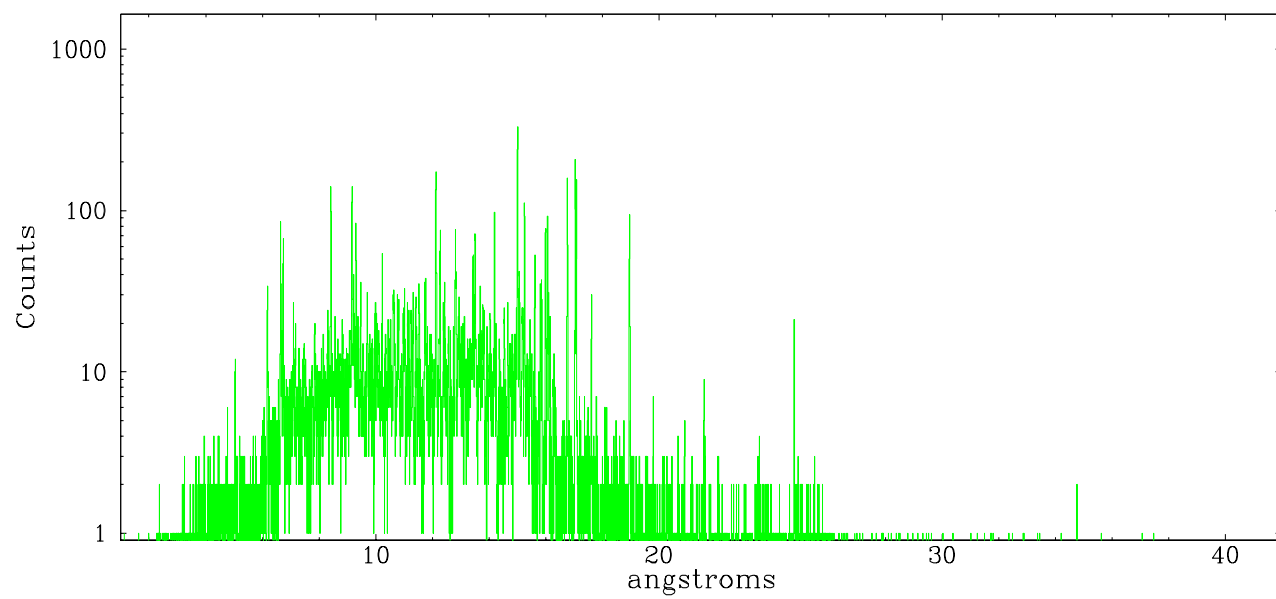
Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	2017	1395	31044	26349	25158	1156	1438

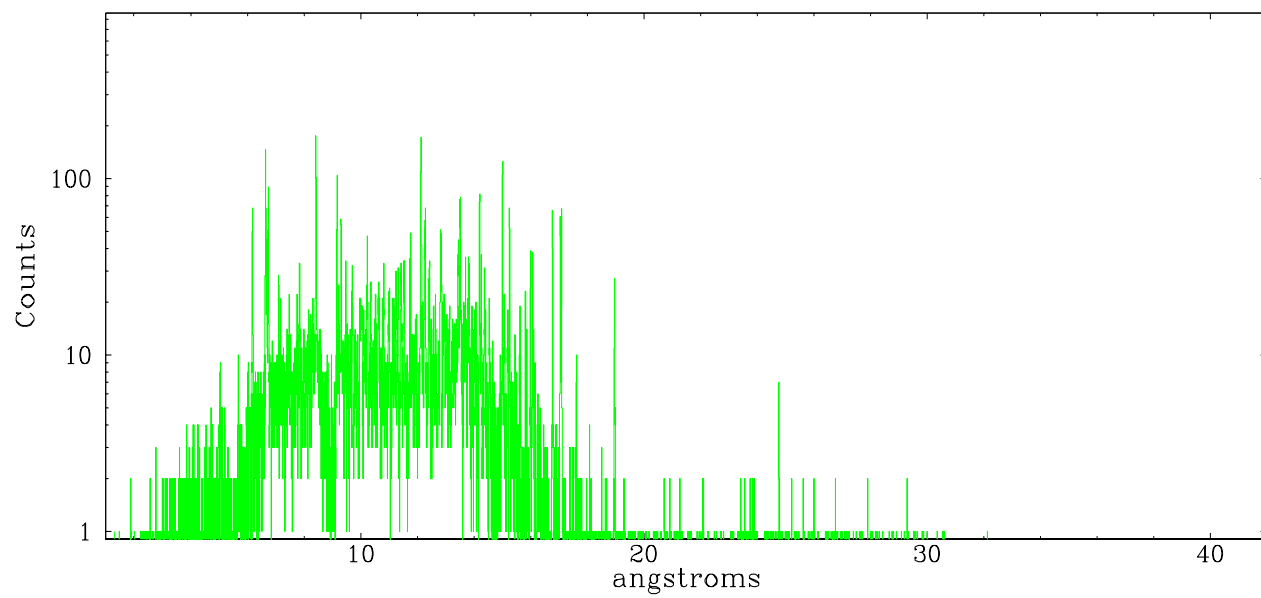




meg order -1



meg order +1





## A Summary

### A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2007.07.30
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	87.473

### A.2 Comments

Charge time for this ObsId remains at original value 87.473 ks,  
although  
with the current processing the charge time would have been 87.993  
ksec.