

# V&V Reference Report

## L2 ASCDS Version : 7.6.7

Observation 6174 - L2 Version 002  
Chandra X-Ray Center

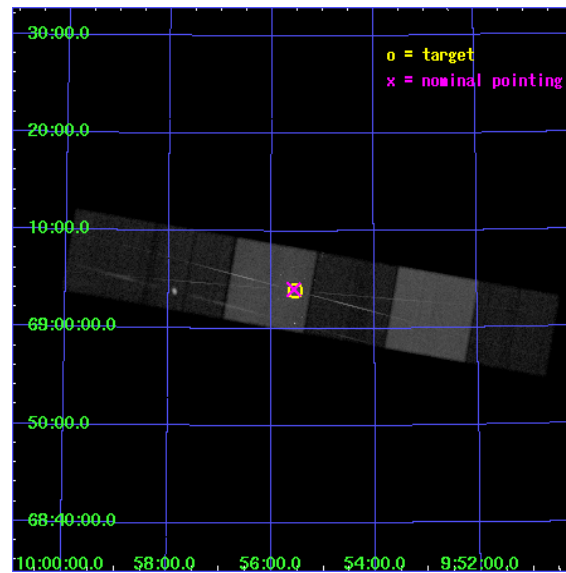
L2 Processing Date: Feb 25 2006

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# 1 Front

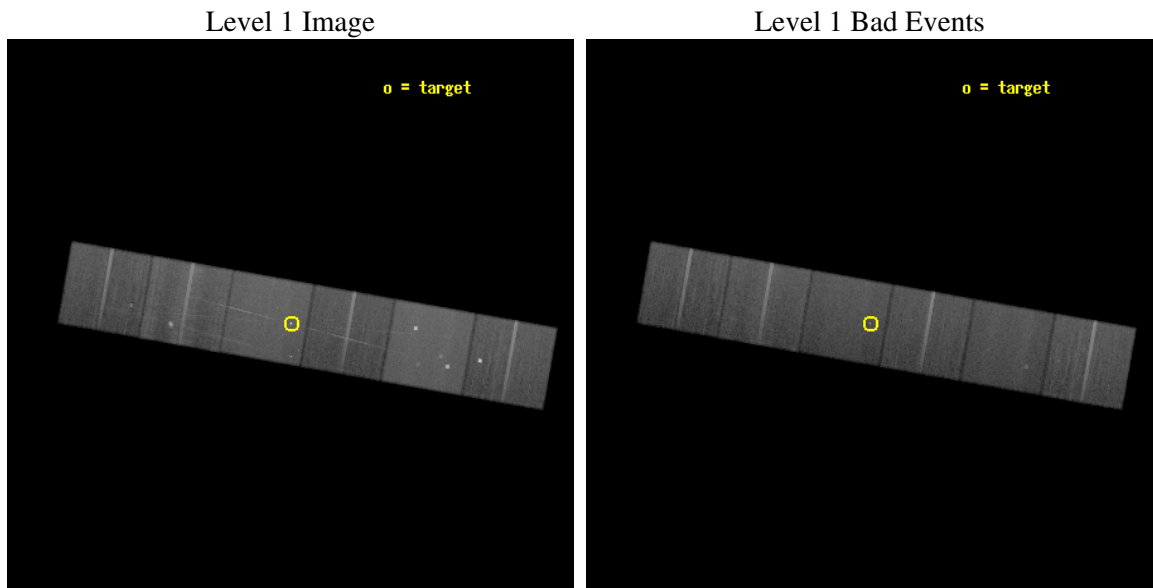
seq_num	701024
obs_id	6174
title	Understanding the accretion process in a Low-Luminosity AGN: is M81* a starved black hole?
observer	Dr. Claude Canizares
object	M81*
dtcycle	0
cycle	P
ra_targ	148.888333
dec_targ	69.065306
ra_nom	148.89167408892
dec_nom	69.067205342257
roll_nom	189.98278117267
revision	2
ontime	45180.799831688
livetime	44608.693339608
ontime4	45180.799831688
ontime5	45180.799831688
ontime6	45180.799831688
ontime7	45180.799831688
ontime8	45180.799831688
ontime9	45180.799831688
l2events	554145



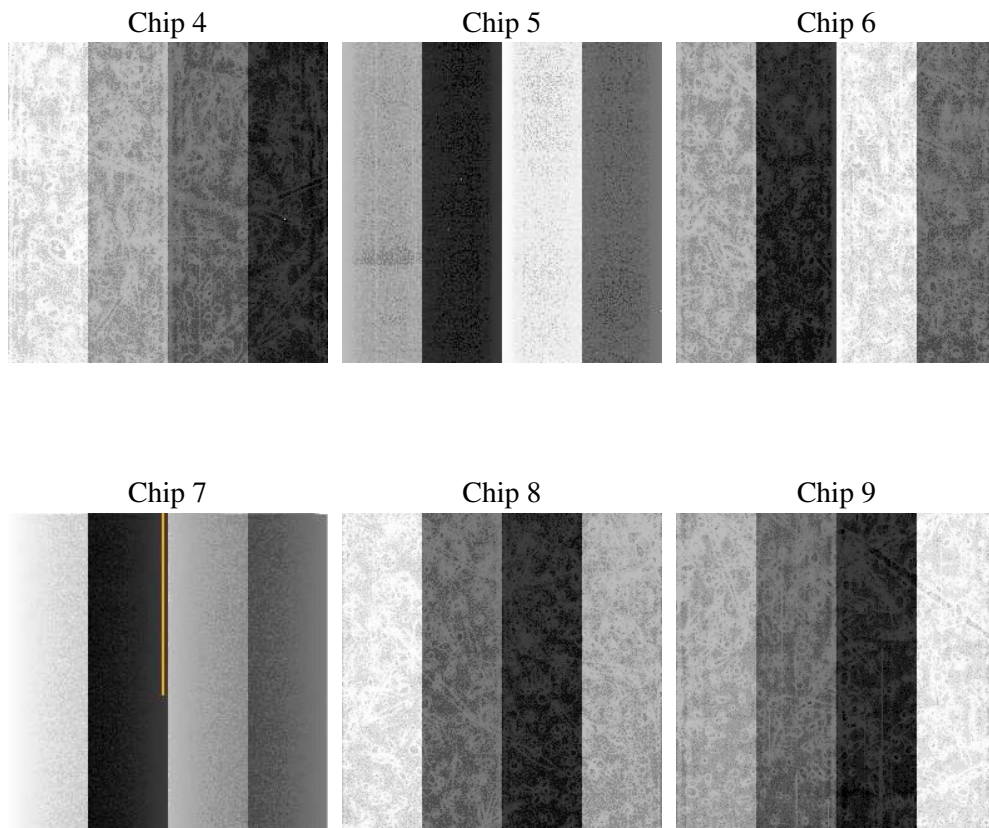
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0
ascdsver	7.6.7
caldsver	3.2.1
date	2006-02-25T09:17:22
revision	2

sched_exp_time	45000.000000
ontime	46628.406171471
ontime4	46628.406171471
ontime5	46628.406191379
ontime6	46628.406171471
ontime7	46628.406171471
ontime8	46628.406171471
ontime9	46628.406171471
l1events	2555851

### 2.1.4 Events

	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	391268	524700	354178	486154	449109	350442
rejected events	338132	295588	307602	296531	347857	306140
rejected %	86%	56%	86%	60%	77%	87%

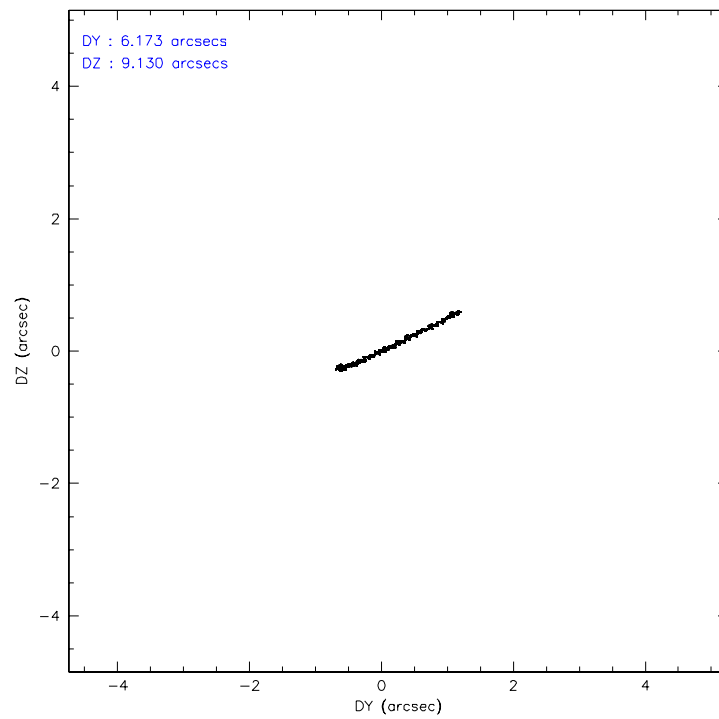
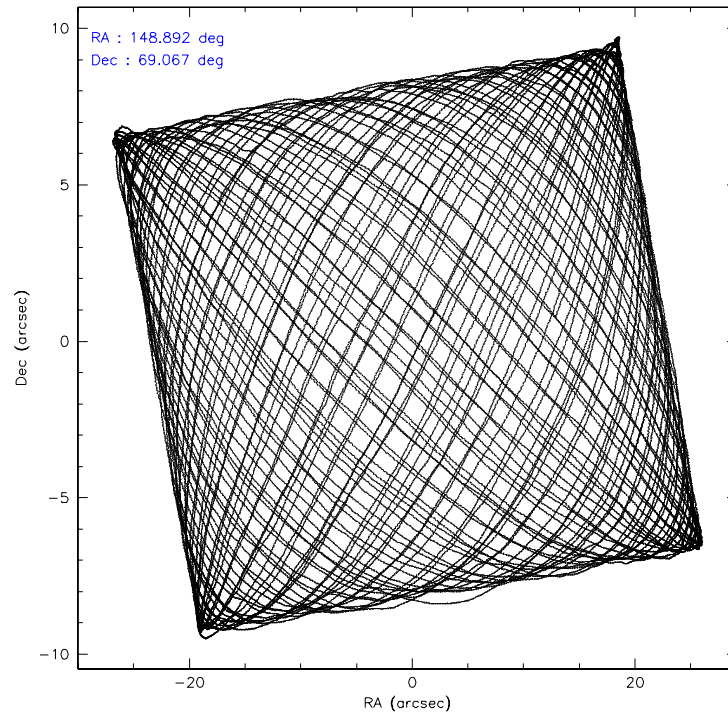
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	30666	23274	21621	12937	36376	20139
	7%	4%	6%	2%	8%	5%
grade 1 events	469	402	179	352	341	227
	0%	0%	0%	0%	0%	0%
grade 2 events	8952	72734	9281	49493	22443	8562
	2%	13%	2%	10%	4%	2%
grade 3 events	4301	5350	4208	10375	10392	4351
	1%	1%	1%	2%	2%	1%
grade 4 events	4227	4785	4197	10366	9676	4182
	1%	0%	1%	2%	2%	1%
grade 5 events	15411	24980	16265	31406	21602	17266
	3%	4%	4%	6%	4%	4%
grade 6 events	6655	130583	8508	111840	25474	8435
	1%	24%	2%	23%	5%	2%
grade 7 events	320587	262592	289919	259385	322805	287280
	81%	50%	81%	53%	71%	81%

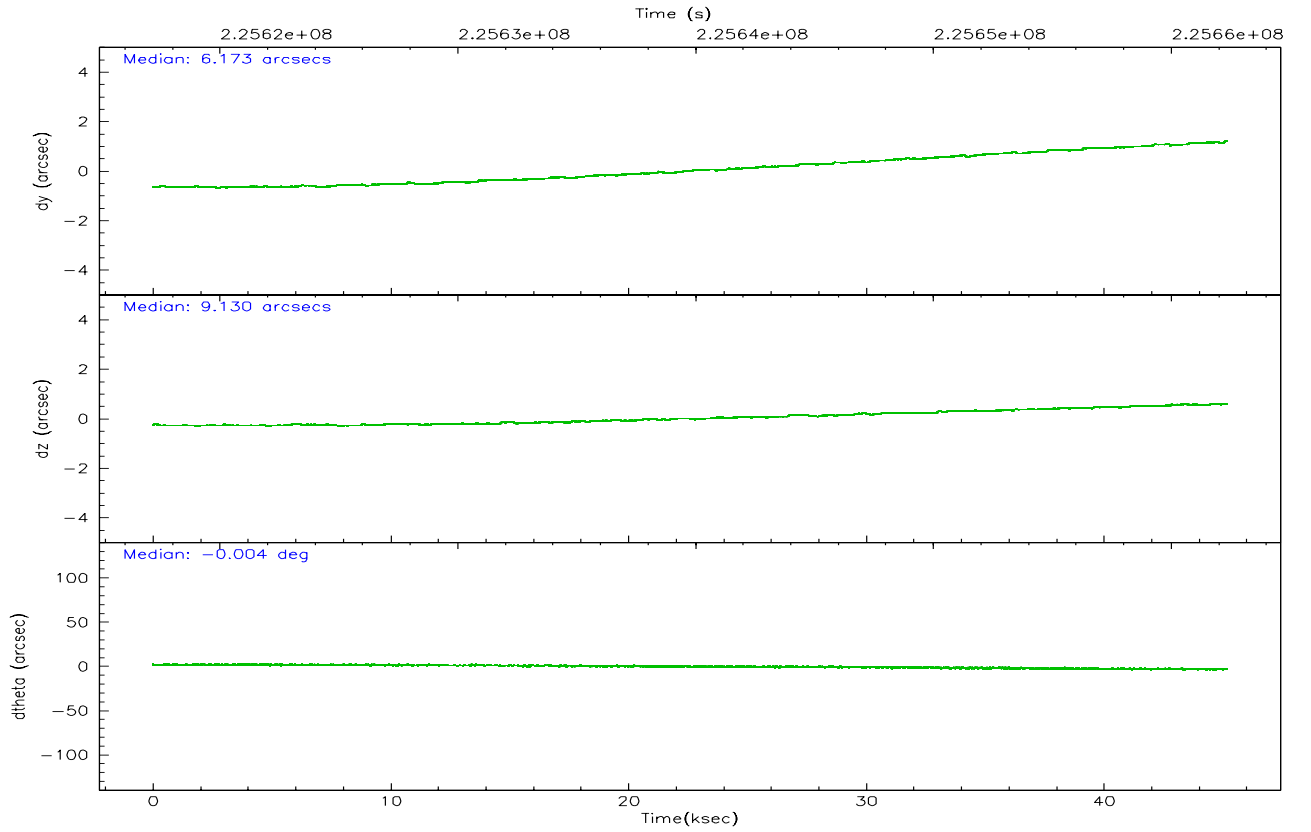
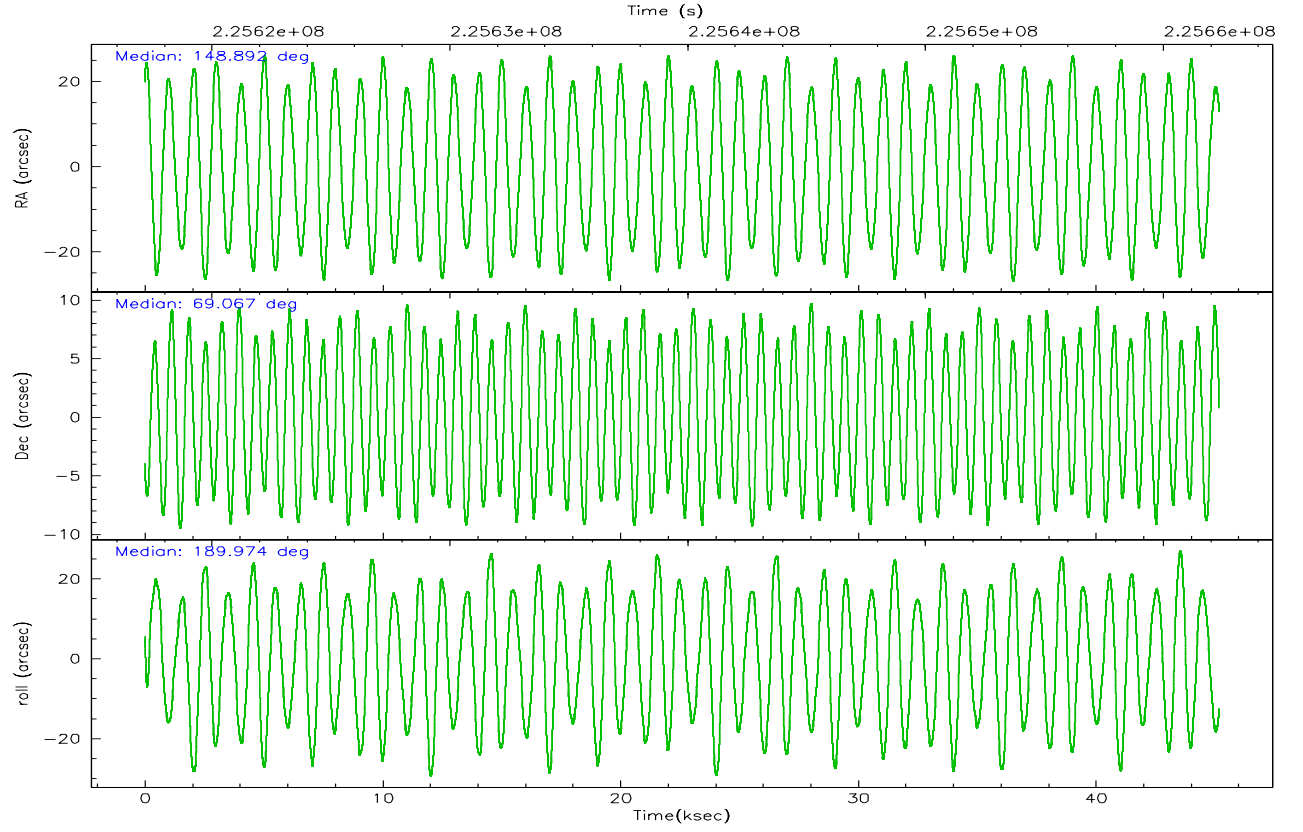


## 2.2 Compared Parameters

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	On-chip summing requested	N	N
Observation mode	POINTING	POINTING	Subarray requested	NONE	NONE
Pointing RA	148.949370	148.8916740889249	Alternating exposures requested	N	N
Pointing Dec	69.084978	69.06720534225731	Primary exposure time	0.000000	3.2
Pointing Roll	189.772263	189.9827811726672			
Window start time	225604864.184000	225604864.184000			
Window stop time	225662464.184000	225662464.184000			
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-190.132523	-190.1425803651734			
SIM translation stage offset (mm)	0	0.01005778216563158			
Observation start time	225617359.184000	225615419.66138			
Observation start date	2005-02-24T07:28:15	2005-02-24T06:56:59			
Observation end time	225662359.184000	225664070.26359			
Observation end date	2005-02-24T19:58:15	2005-02-24T20:27:50			
Read mode	TIMED	TIMED			

## 2.3 Aspect



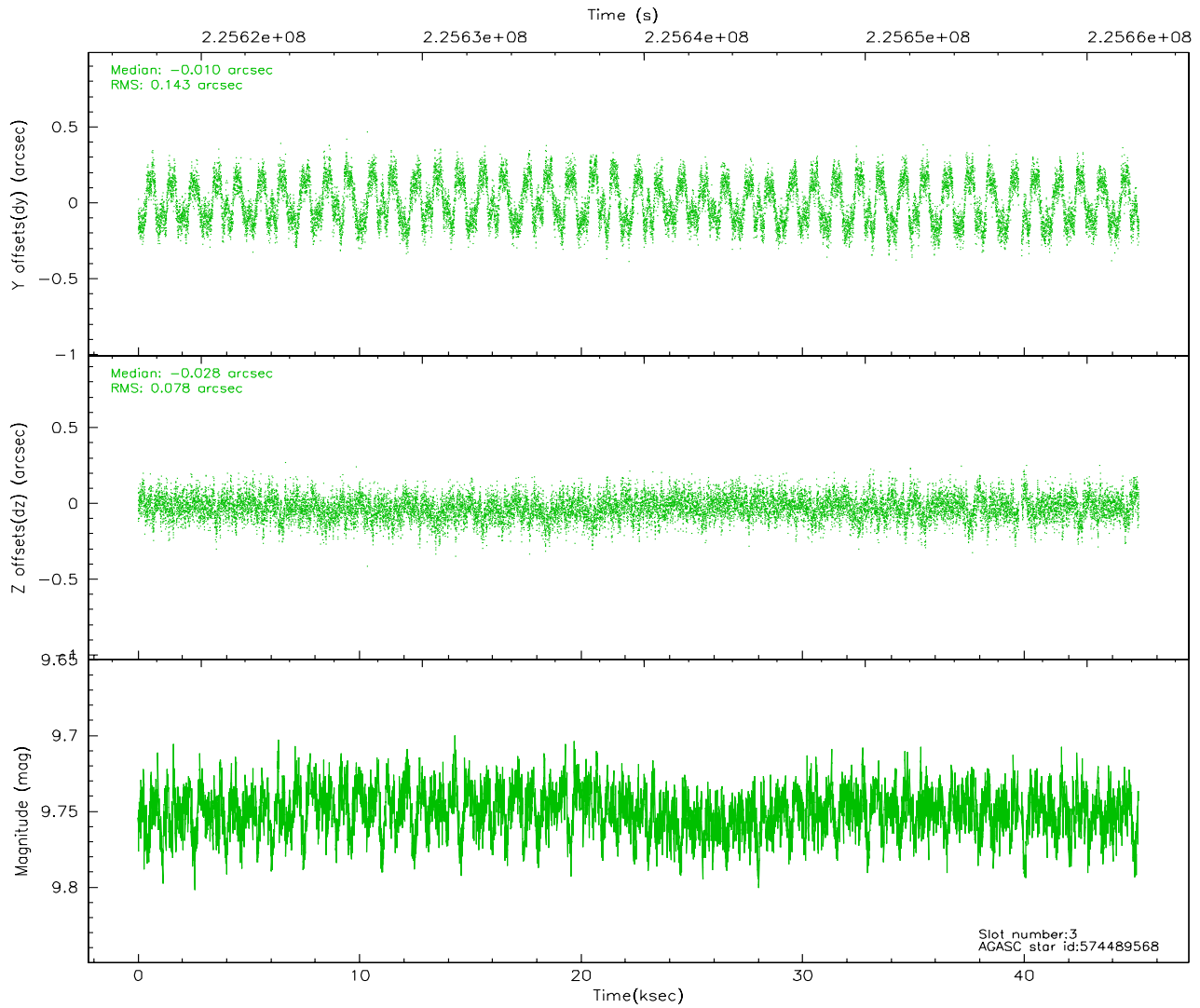
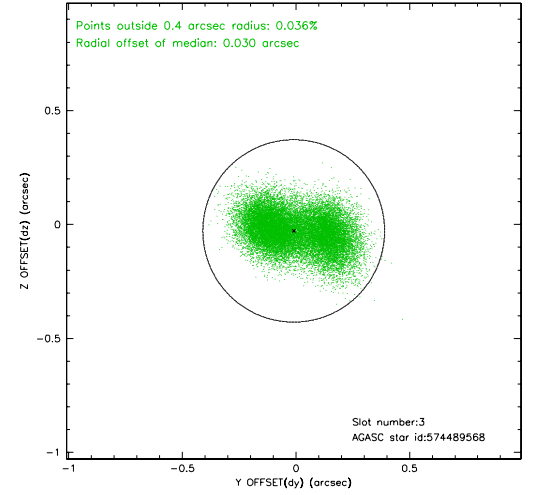
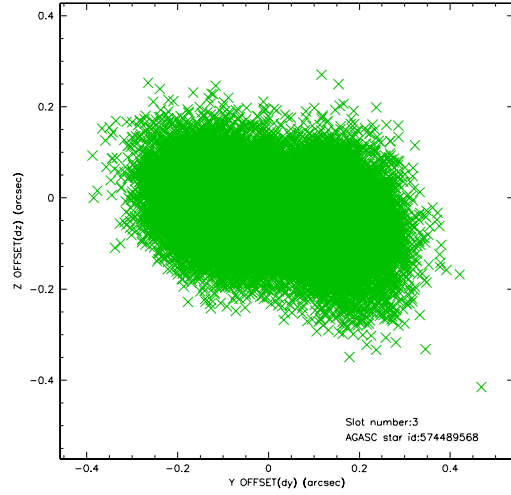


### Slot Statistics

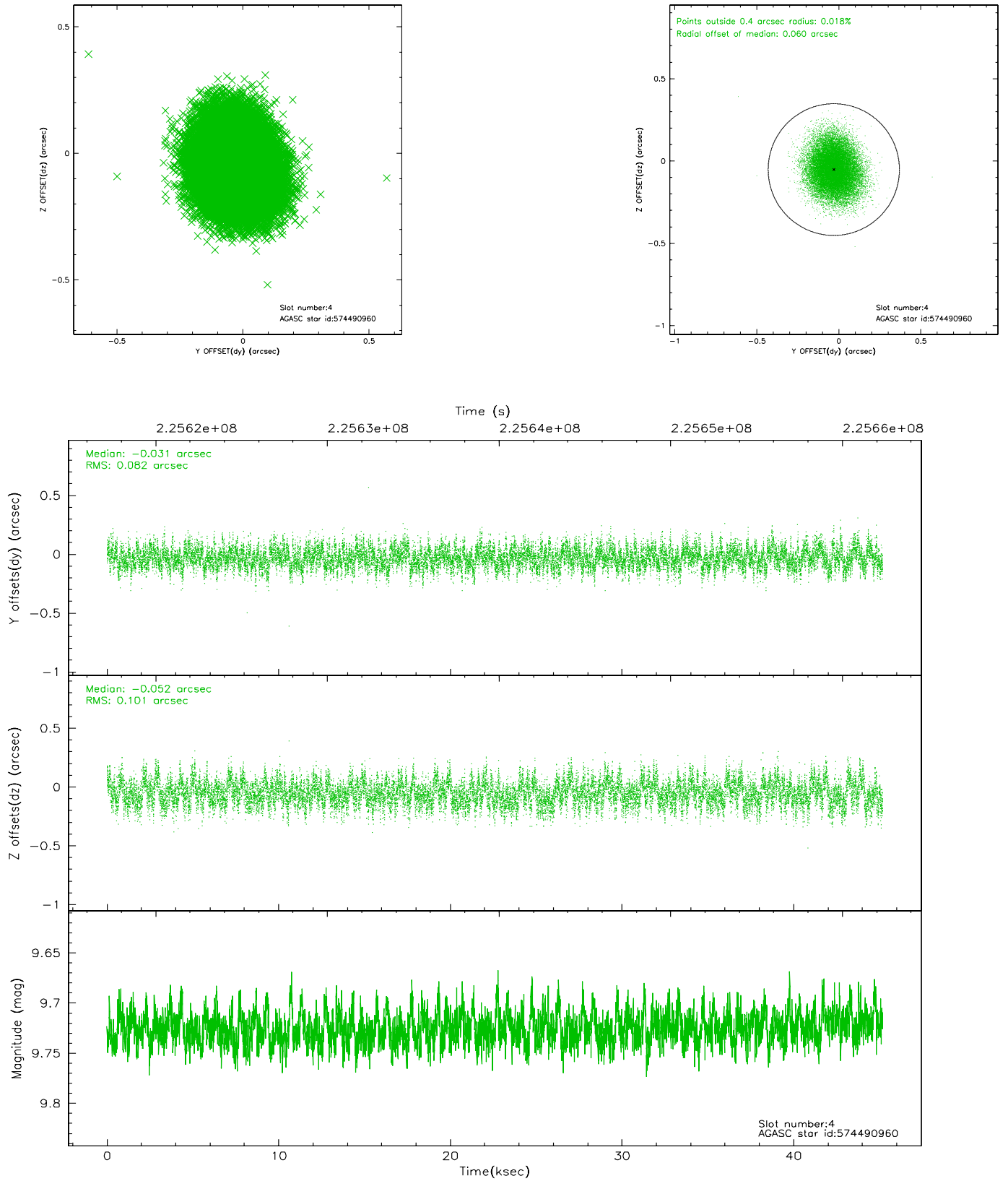
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	11021	-0.042	-0.028	0.014	0.022	0.000000	0.000000	-759.02	-1730.38
1	FID	ACIS-S-4	7.21	11019	0.063	0.028	0.014	0.029	0.000000	0.000000	2154.35	178.17
2	FID	ACIS-S-5	7.23	11020	-0.051	0.007	0.012	0.024	0.000000	0.000000	-1811.89	171.79
3	GUIDE	574489568	9.75	21955	-0.010	-0.028	0.177	0.269	147.223974	69.438157	1929.02	-1653.08
4	GUIDE	574490960	9.73	22021	-0.031	-0.052	0.139	0.220	148.185918	69.658768	590.56	-2203.43
5	GUIDE	574491280	9.33	22031	0.016	-0.032	0.126	0.201	148.611567	69.450135	198.44	-1368.63
6	GUIDE	574497600	10.43	21943	0.073	0.077	0.240	0.366	147.824120	68.451903	1850.79	1980.62
7	GUIDE	574496360	9.47	22023	-0.080	0.020	0.131	0.215	150.806604	68.529829	-2078.80	2348.41

## 2.4 Star Slots

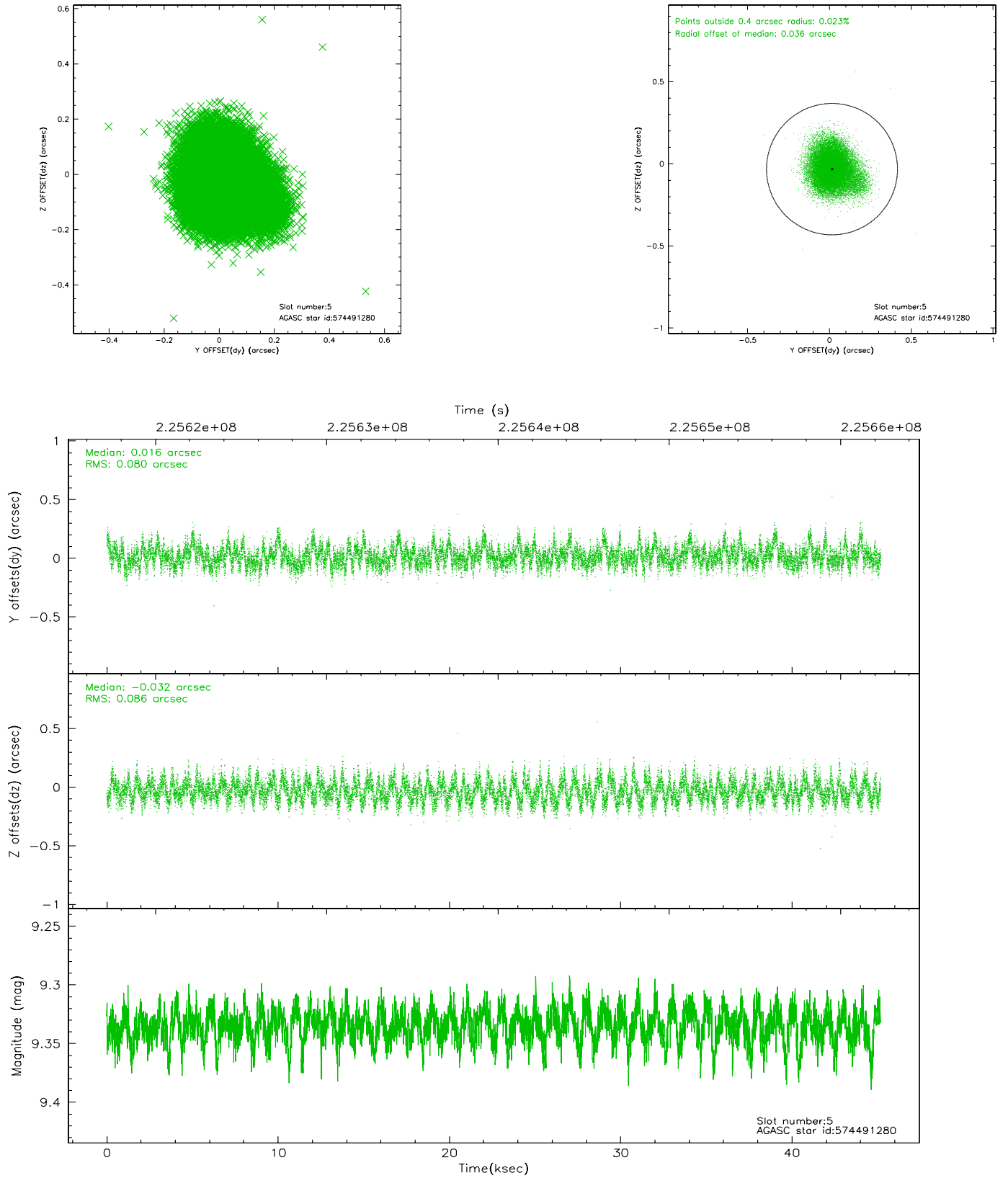
### 2.4.1 Slot 3



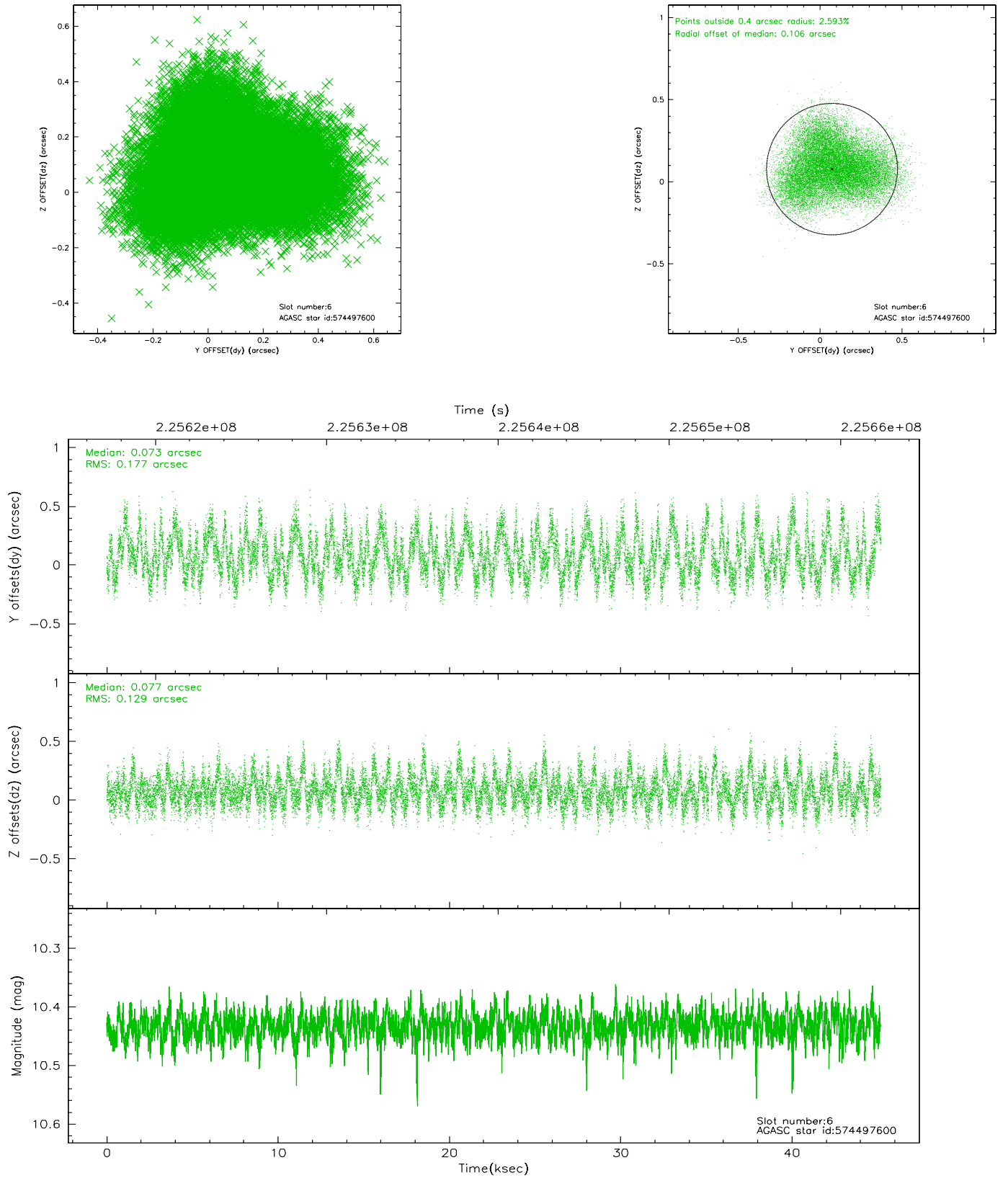
## 2.4.2 Slot 4



### 2.4.3 Slot 5

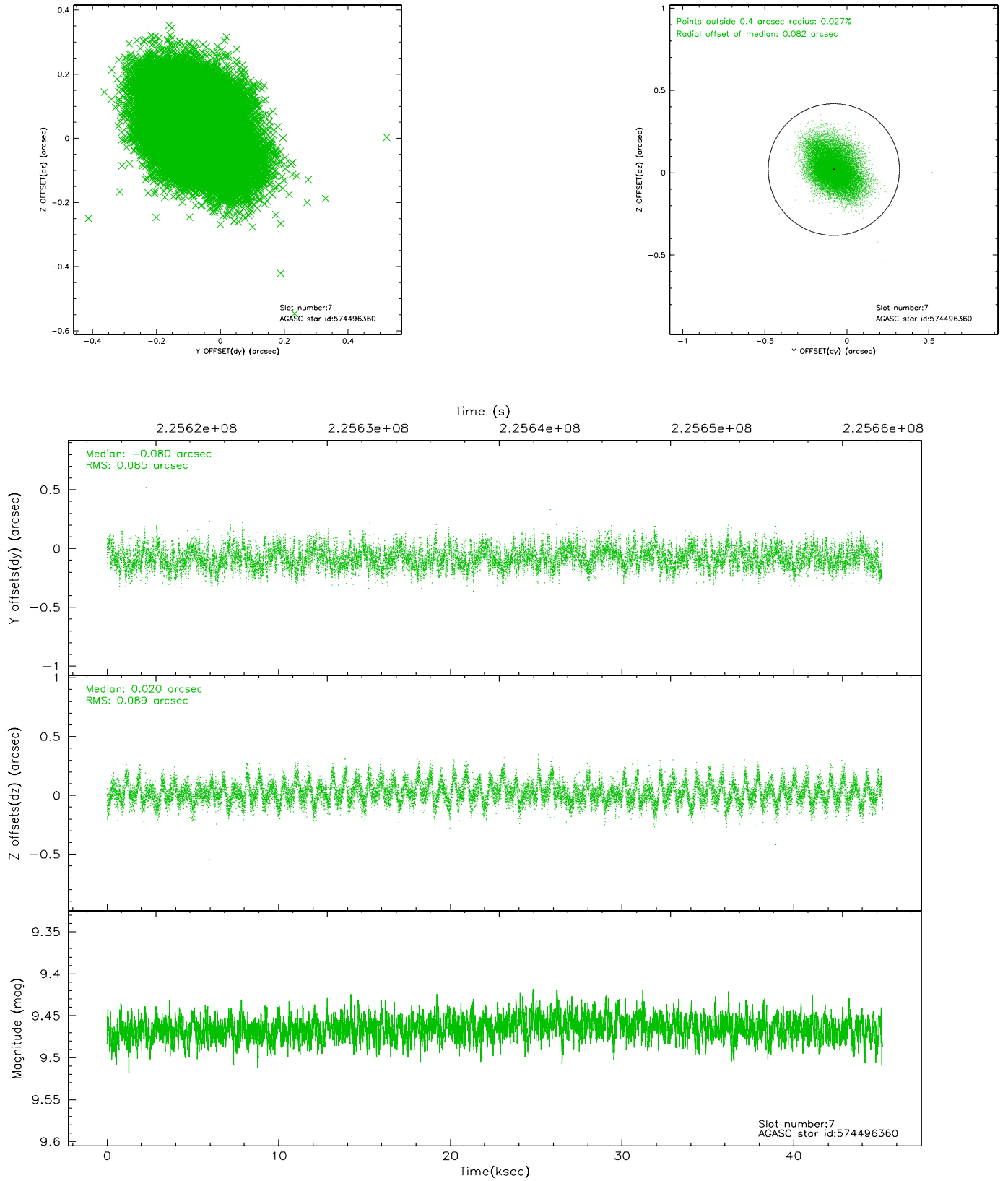


## 2.4.4 Slot 6



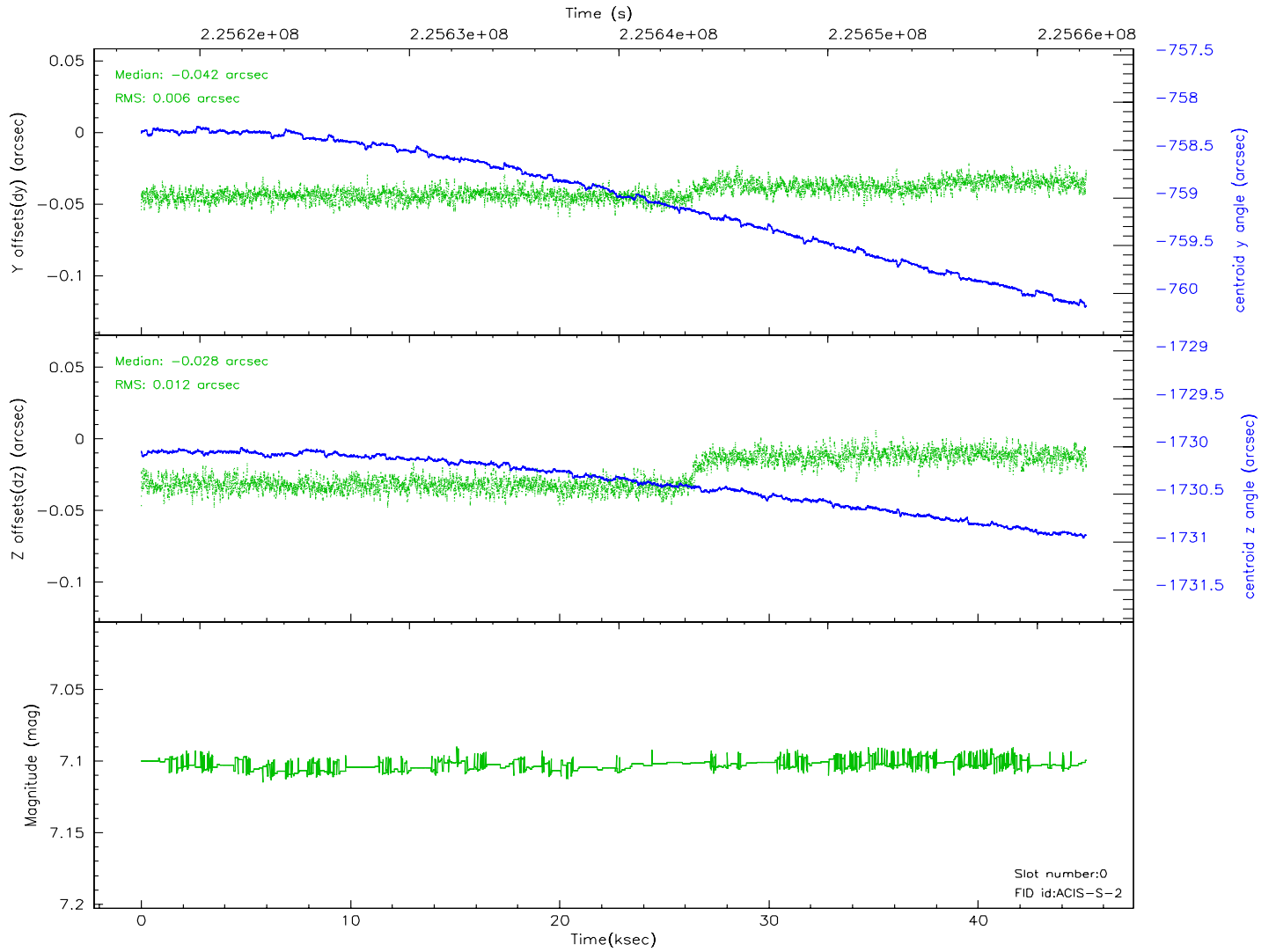
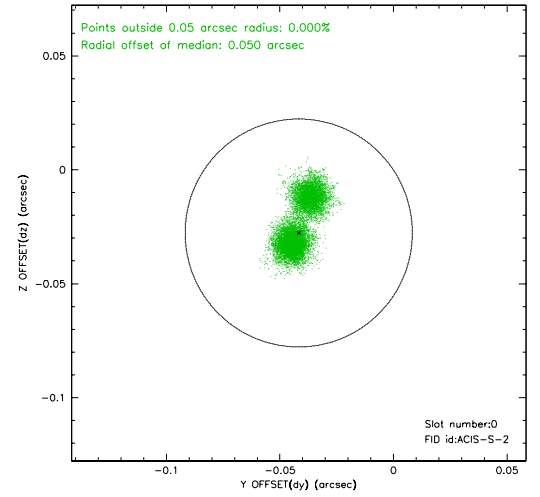
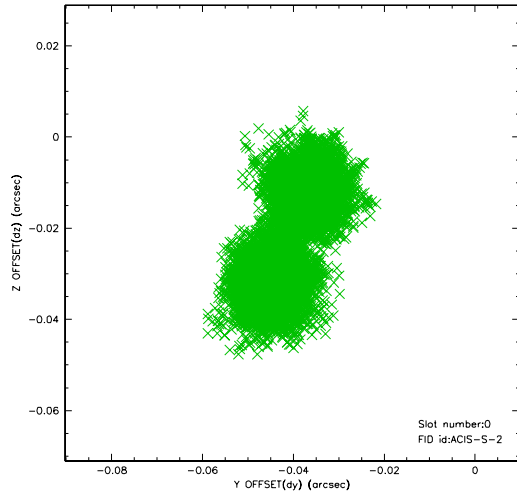


## 2.4.5 Slot 7

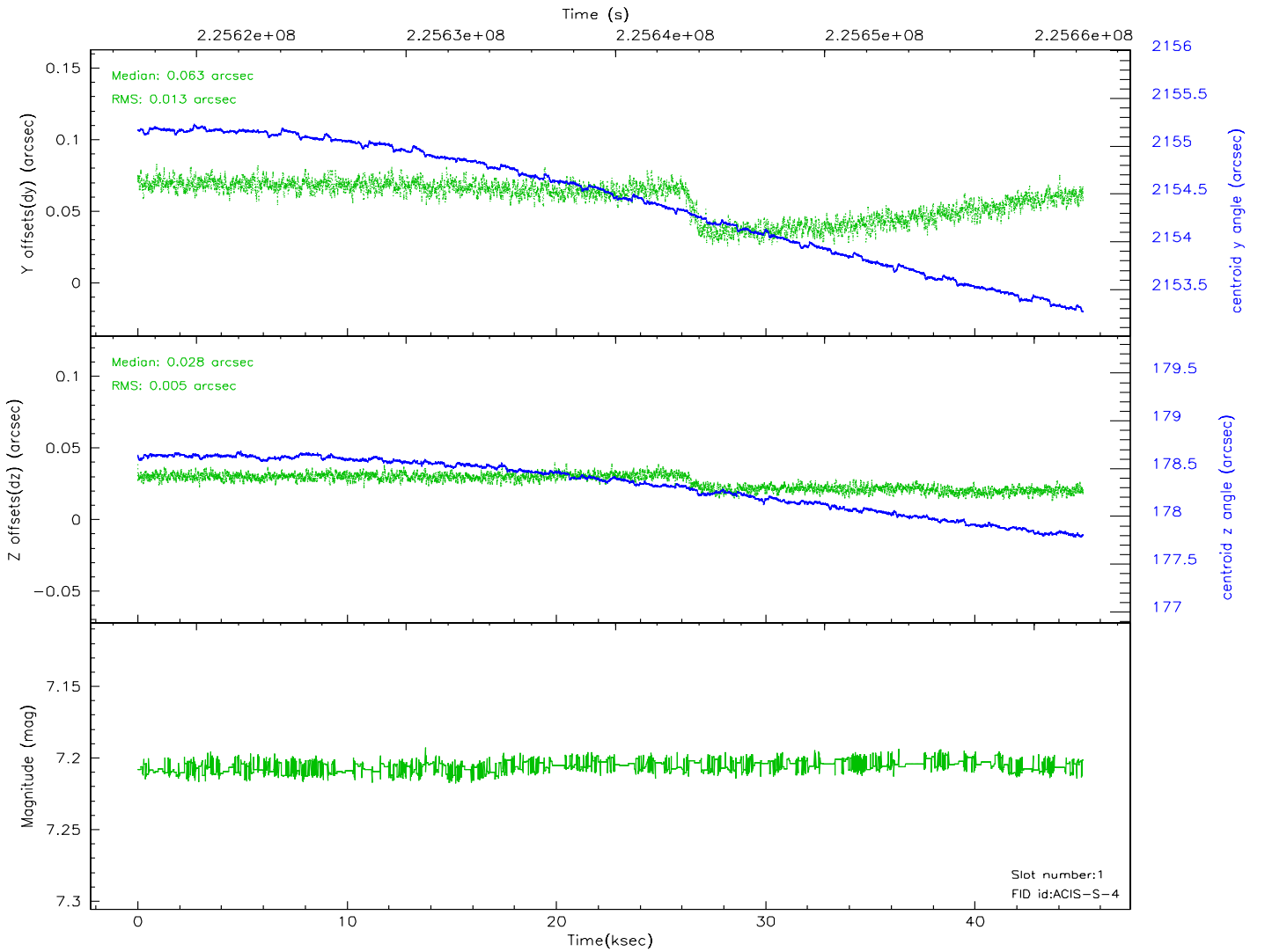
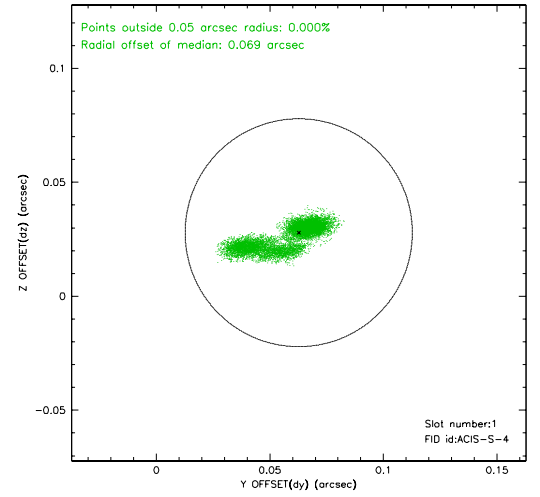
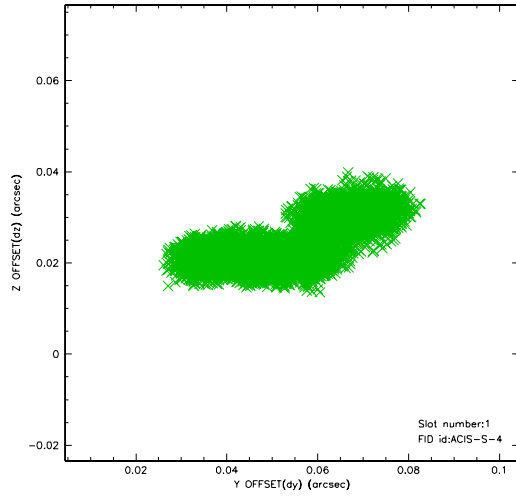


## 2.5 FID Slots

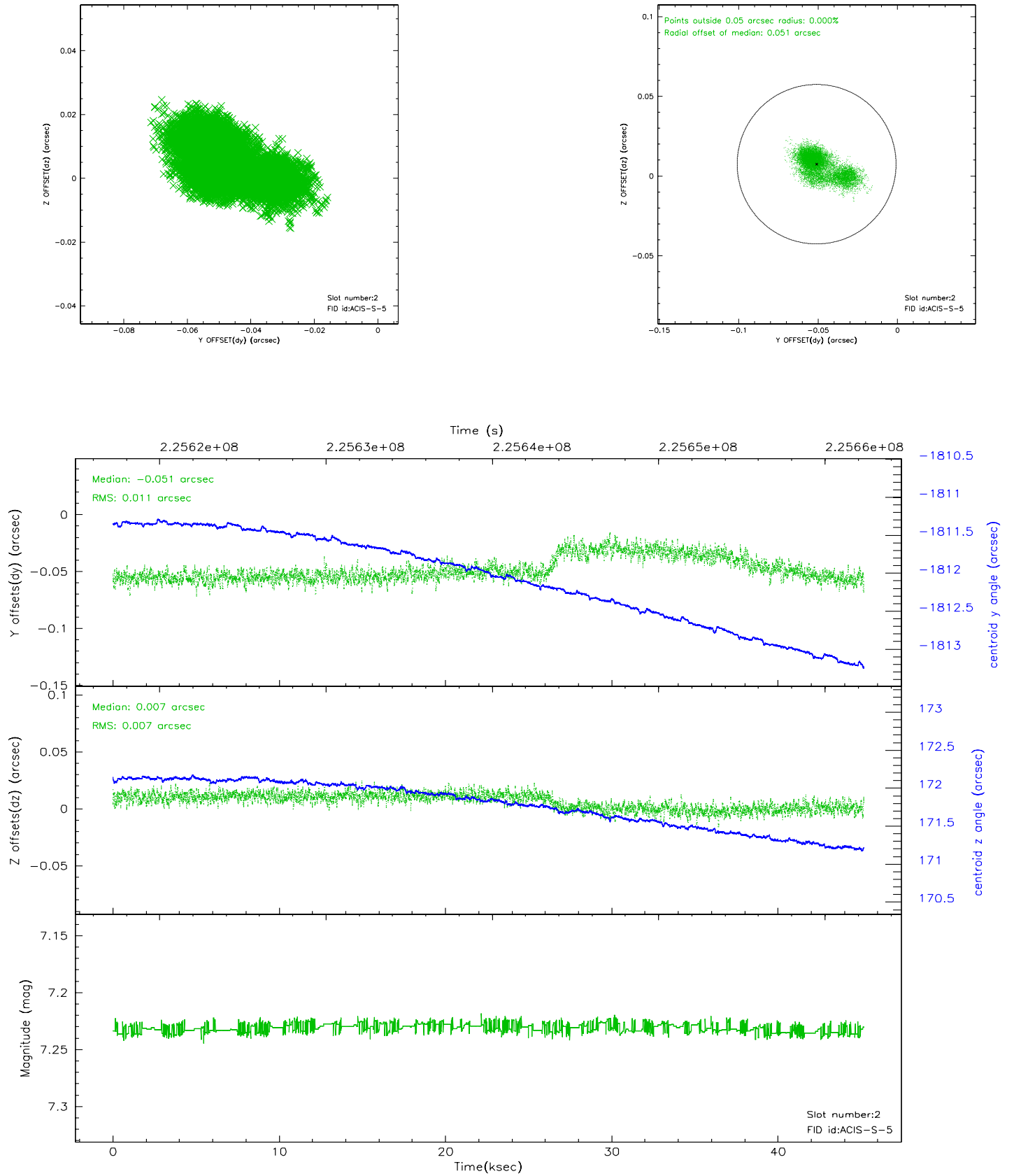
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2

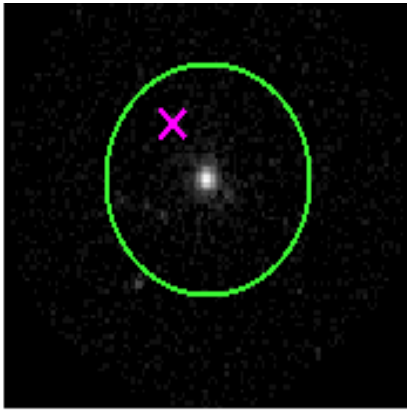


# 3 Gratings

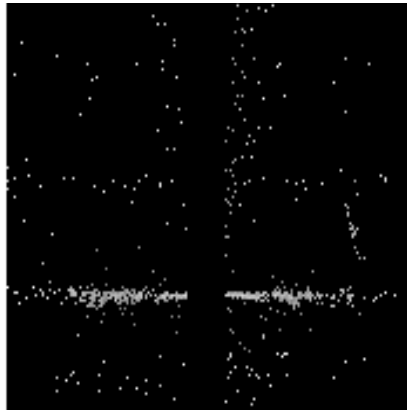
## 3.1 HEG Arm



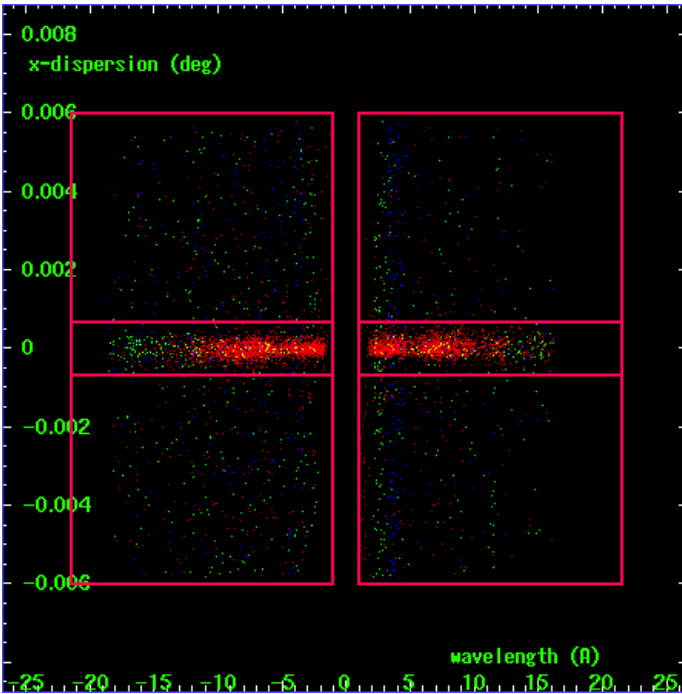
HEG Order Sort 123



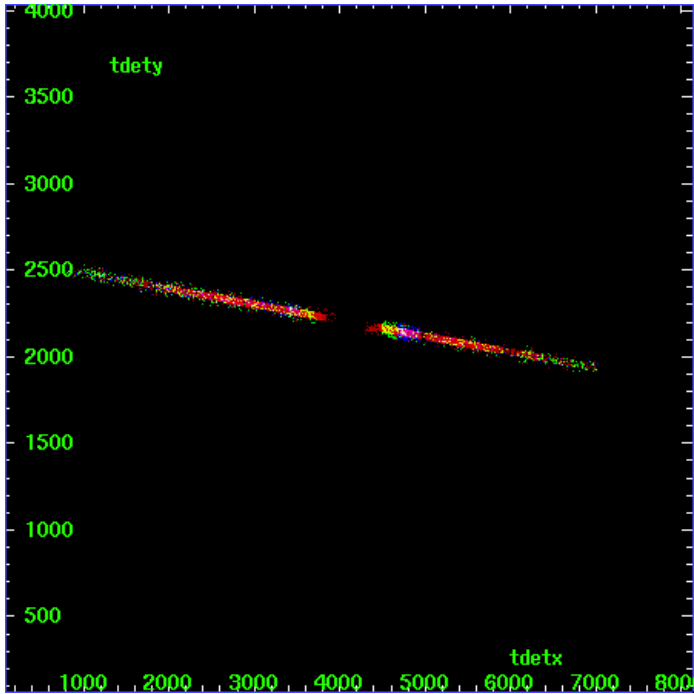
HEG Zero Order



HEG Order Sort ALL

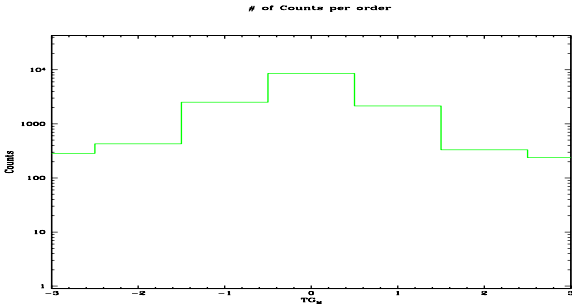


Spot Image HEG

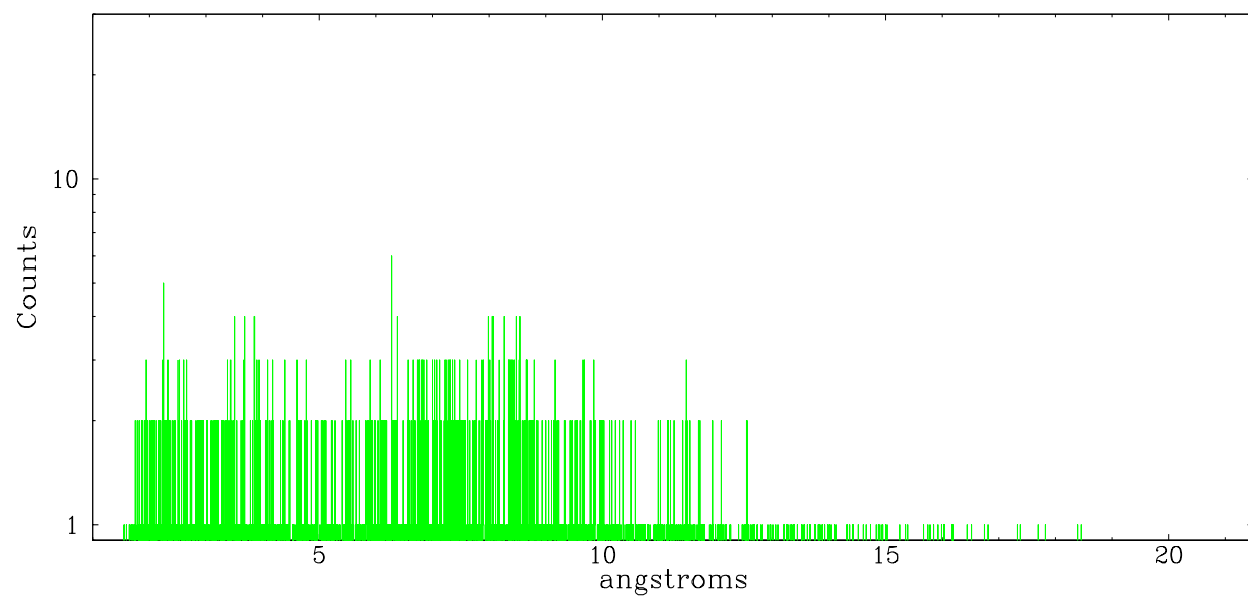


Full Detector HEG

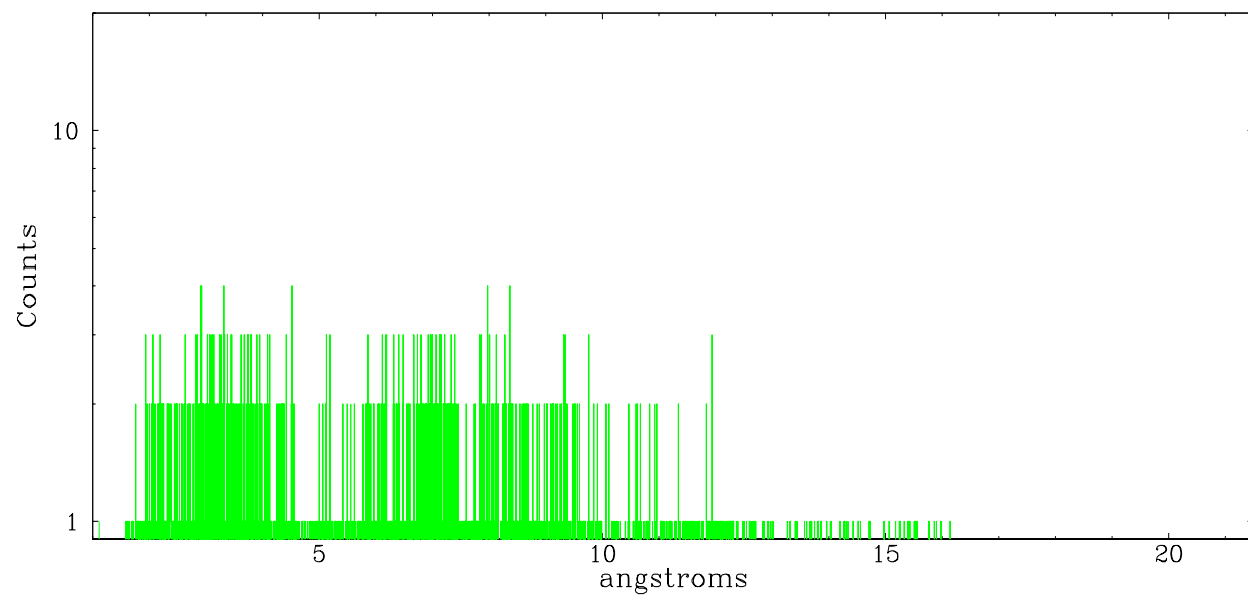
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	286	429	2518	8549	2148	332	238



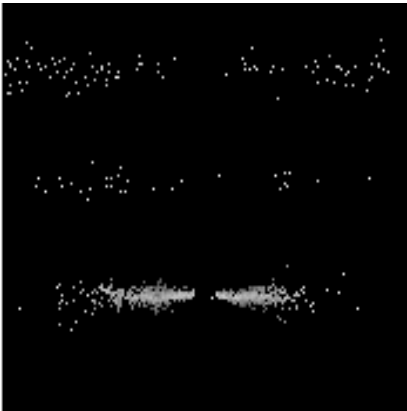
heg order -1



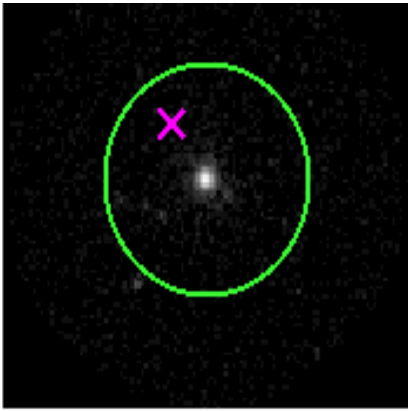
heg order +1



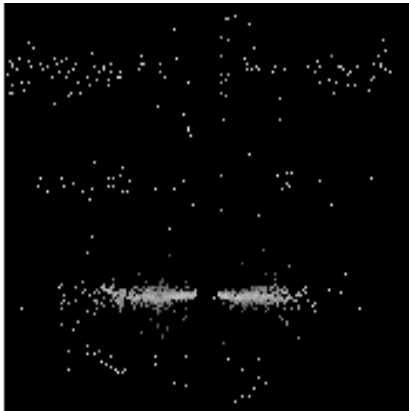
### 3.2 MEG Arm



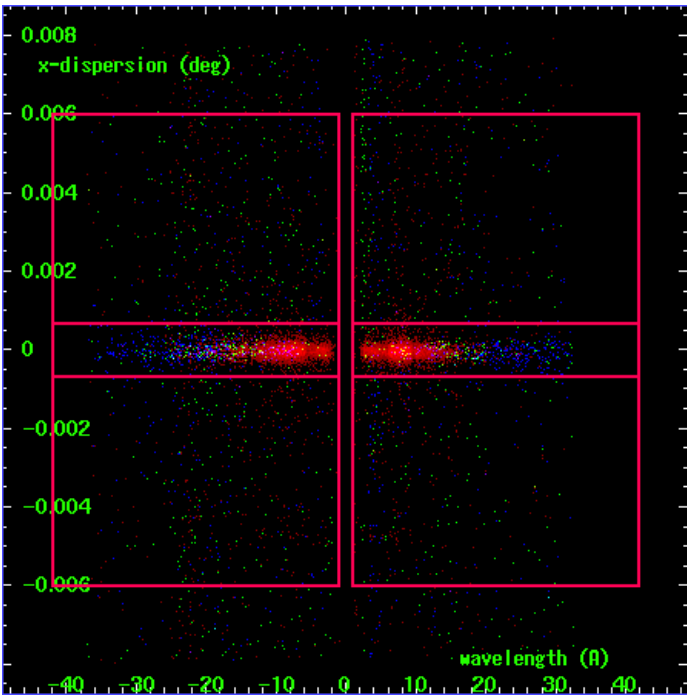
MEG Order Sort 123



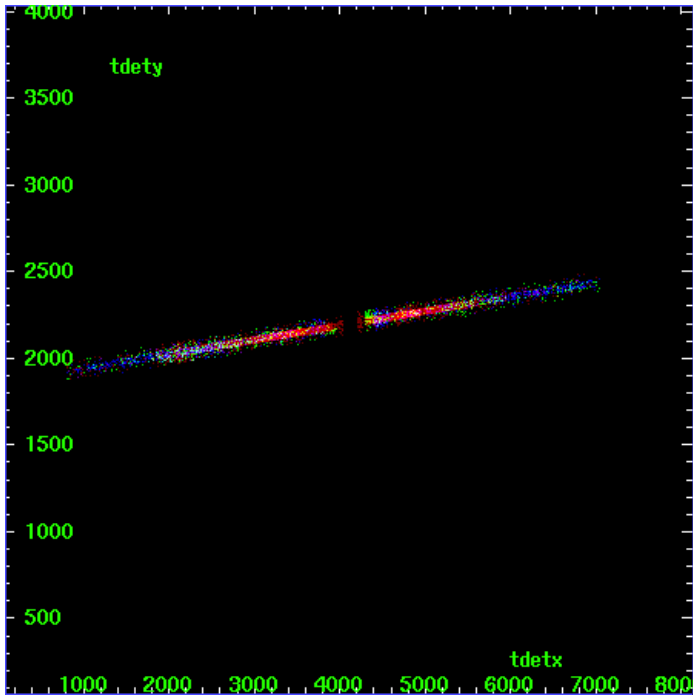
MEG Zero Order



MEG Order Sort ALL

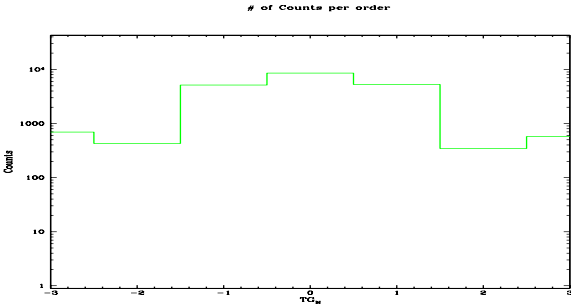


Spot Image MEG

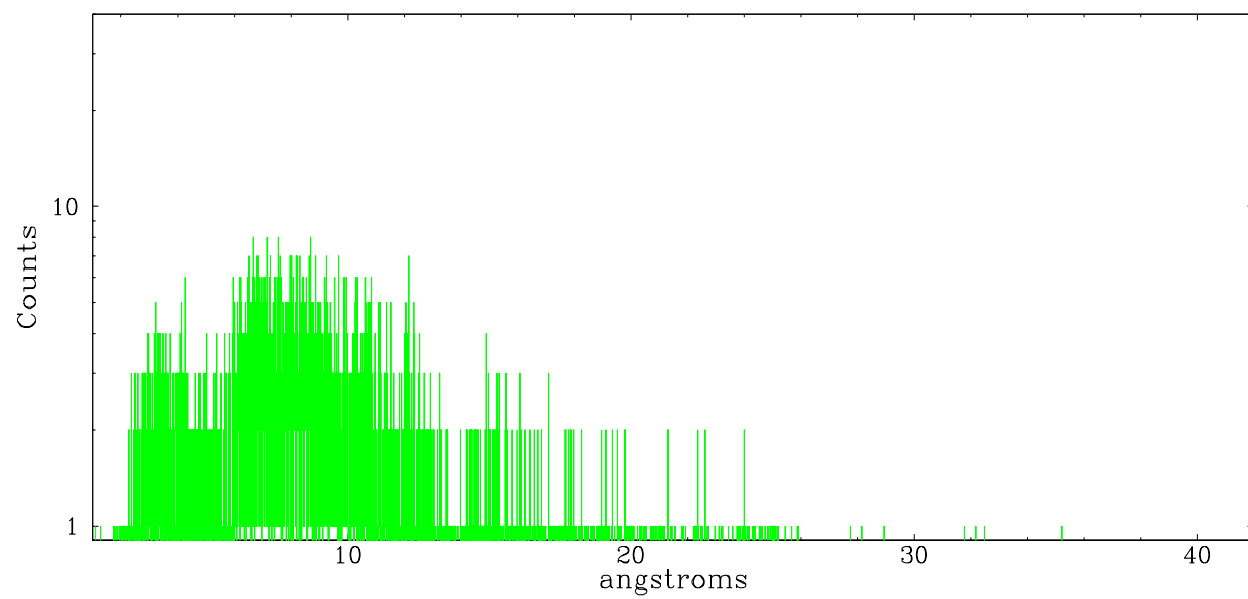


Full Detector MEG

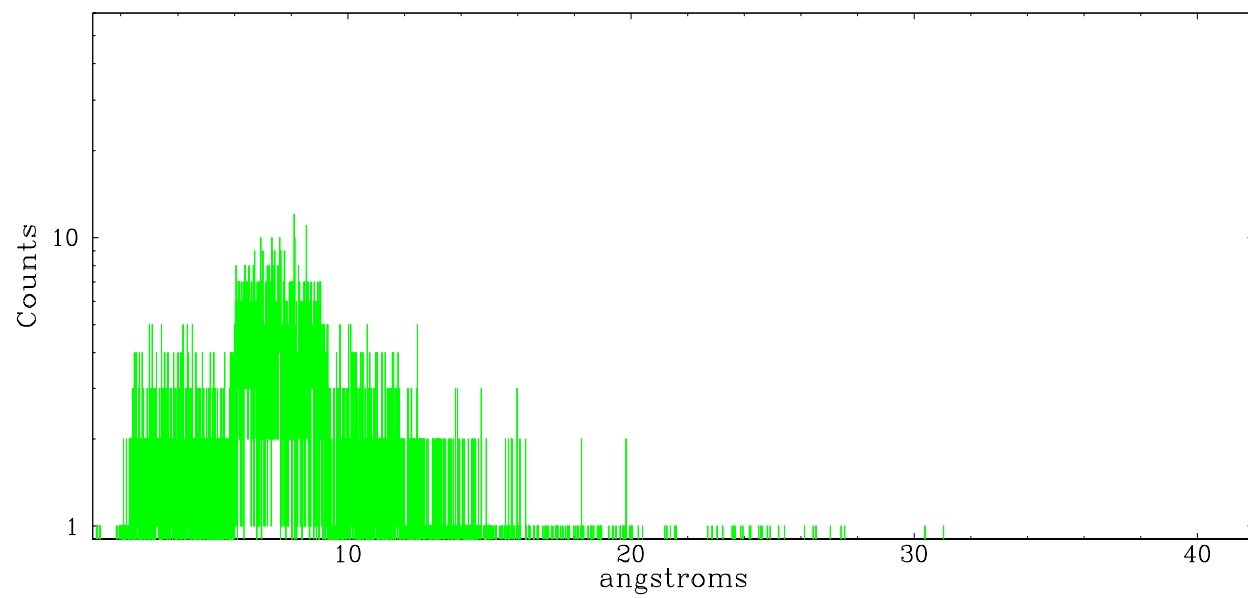
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	695	428	5136	8549	5268	346	572



meg order -1



meg order +1





## A Summary

### A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2006.02.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	45.18079

### A.2 Comments

Window constraint satisfied.