

# V&V Reference Report

## L2 ASCDS Version : 7.6.9

Observation 1890 - L2 Version 001  
Chandra X-Ray Center

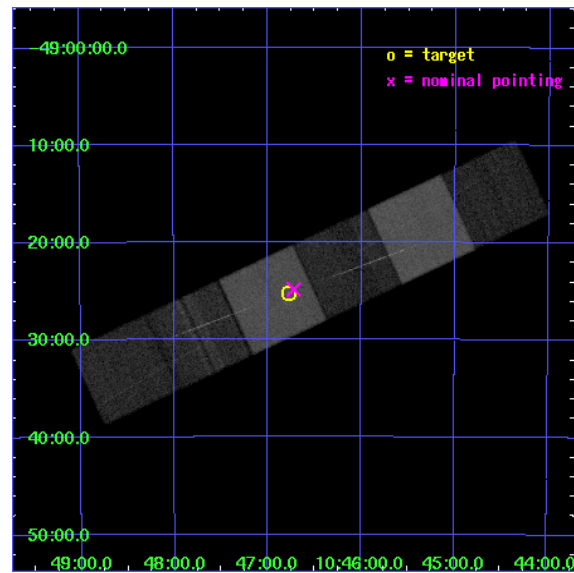
L2 Processing Date : Jan 11 2007

## Contents

<b>1</b>	<b>Front</b>	<b>2</b>
<b>2</b>	<b>OBI</b>	<b>3</b>
2.1	OBI . . . . .	3
2.1.1	Images . . . . .	3
2.1.2	Bias . . . . .	3
2.1.3	Parameters . . . . .	4
2.1.4	Events . . . . .	4
2.2	Compared Parameters . . . . .	5
2.3	Aspect . . . . .	6
2.4	Star Slots . . . . .	9
2.4.1	Slot 3 . . . . .	9
2.4.2	Slot 4 . . . . .	10
2.4.3	Slot 5 . . . . .	11
2.4.4	Slot 6 . . . . .	12
2.4.5	Slot 7 . . . . .	13
2.5	FID Slots . . . . .	14
2.5.1	Slot 0 . . . . .	14
2.5.2	Slot 1 . . . . .	15
2.5.3	Slot 2 . . . . .	16
<b>3</b>	<b>Gratings</b>	<b>17</b>
3.1	HEG Arm . . . . .	17
3.2	MEG Arm . . . . .	19
<b>A</b>	<b>Summary</b>	<b>21</b>
A.1	Status . . . . .	21
A.2	Comments . . . . .	21

# 1 Front

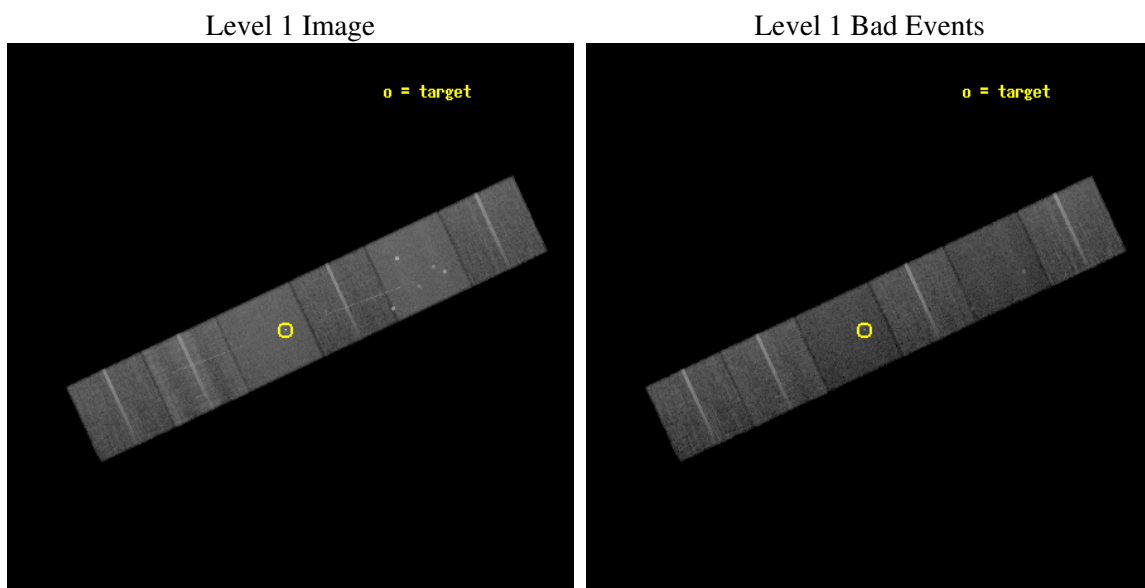
seq_num	200118
obs_id	1890
title	TORTURED CORONAE IN THE RAPID BRAKING ZONE
observer	Dr. Thomas Ayres
object	HD 93497
dtcycle	0
cycle	P
ra_targ	161.692083
dec_targ	-49.42
ra_nom	161.67986435011
dec_nom	-49.414362800697
roll_nom	154.93686188029
revision	2
ontime	19910.359058291
livetime	19658.242103316
ontime4	19913.600018546
ontime5	19910.359058291
ontime6	19910.359058291
ontime7	19910.359058291
ontime8	19910.359058291
ontime9	19910.359058291
l2events	366585



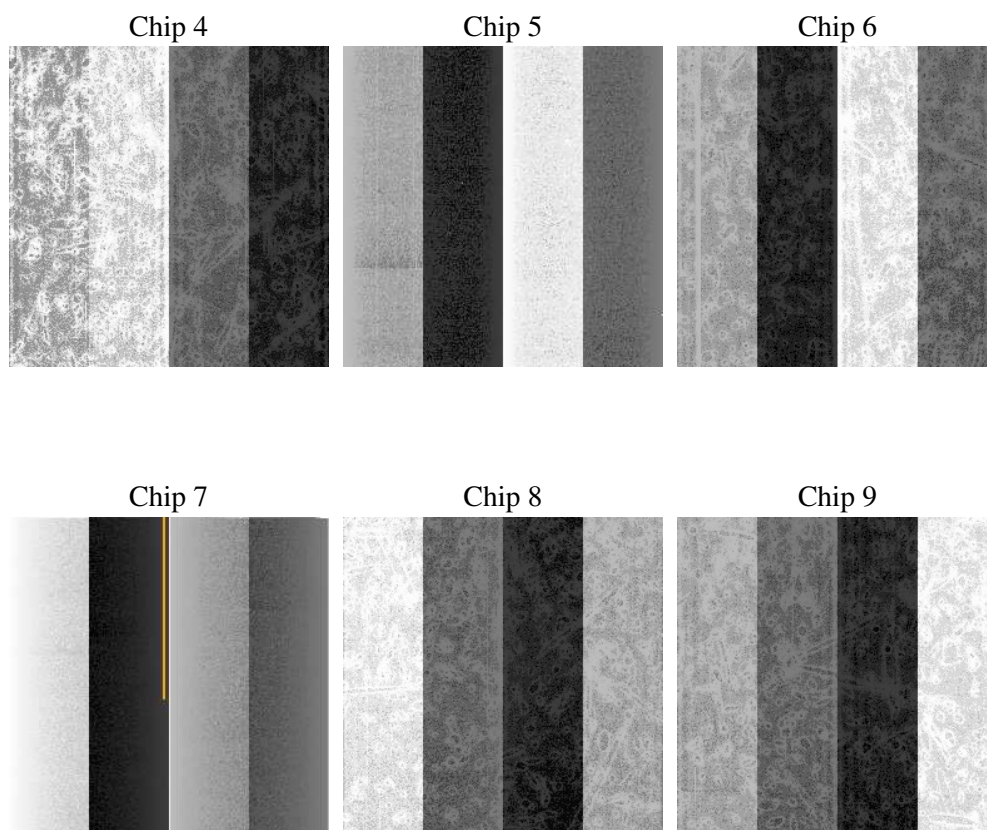
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1
ascdsver	7.6.10
caldsver	3.3.0
date	2007-01-11T20:24:00
revision	2

sched_exp_time	81000.000000
ontime	19910.359058291
ontime4	19913.600018546
ontime5	19910.359058291
ontime6	19910.359058291
ontime7	19910.359058291
ontime8	19910.359058291
ontime9	19910.359058291
l1events	1341353

### 2.1.4 Events

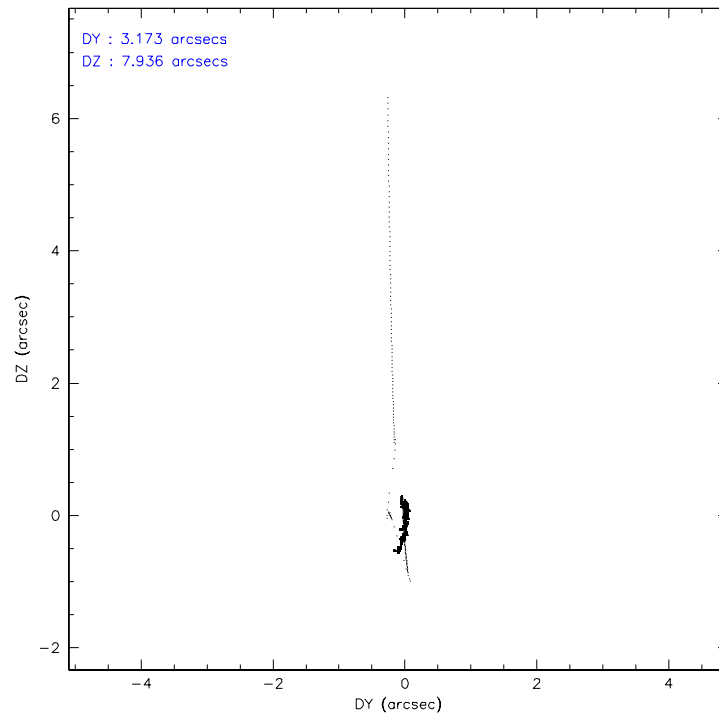
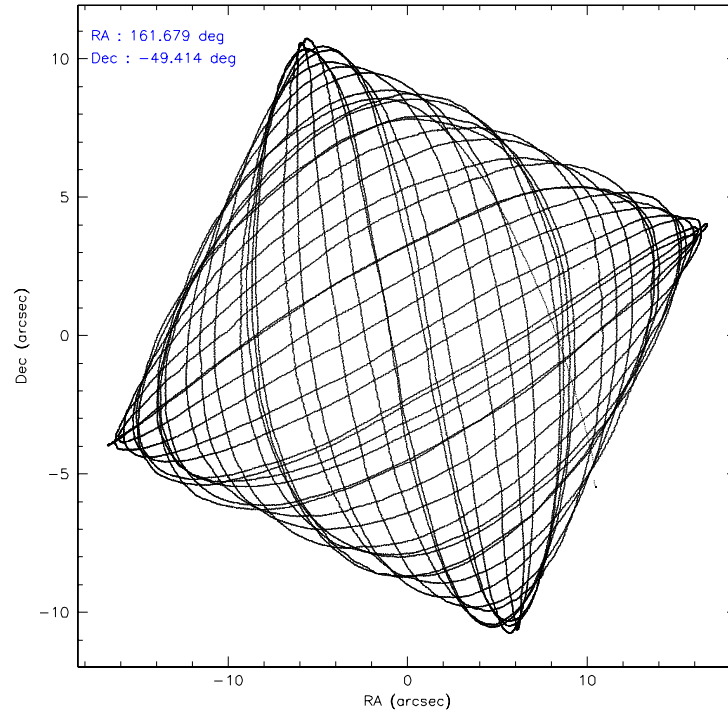
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	214187	259063	198968	239492	243358	186285
rejected events	179975	126929	163084	122769	166896	152265
rejected %	84%	48%	81%	51%	68%	81%

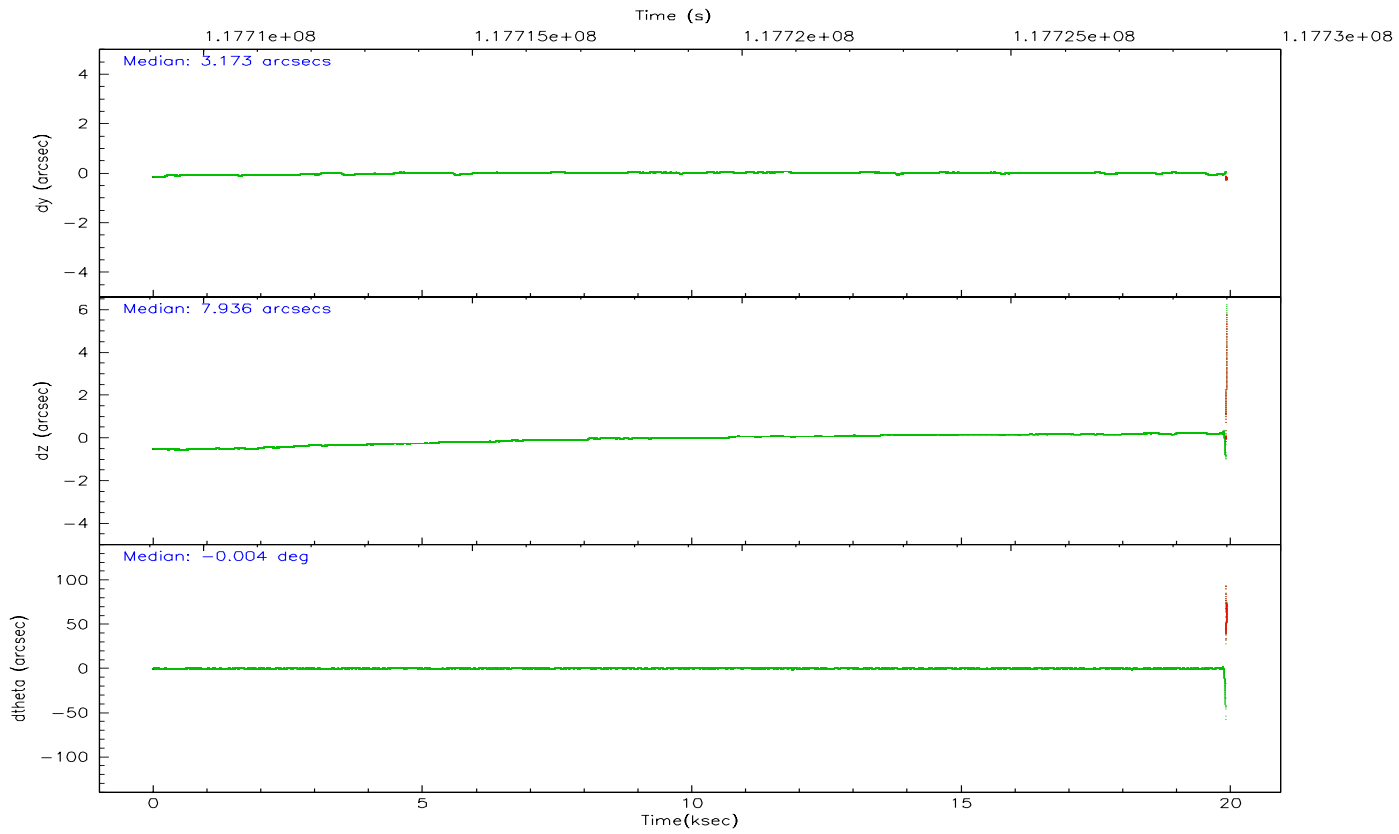
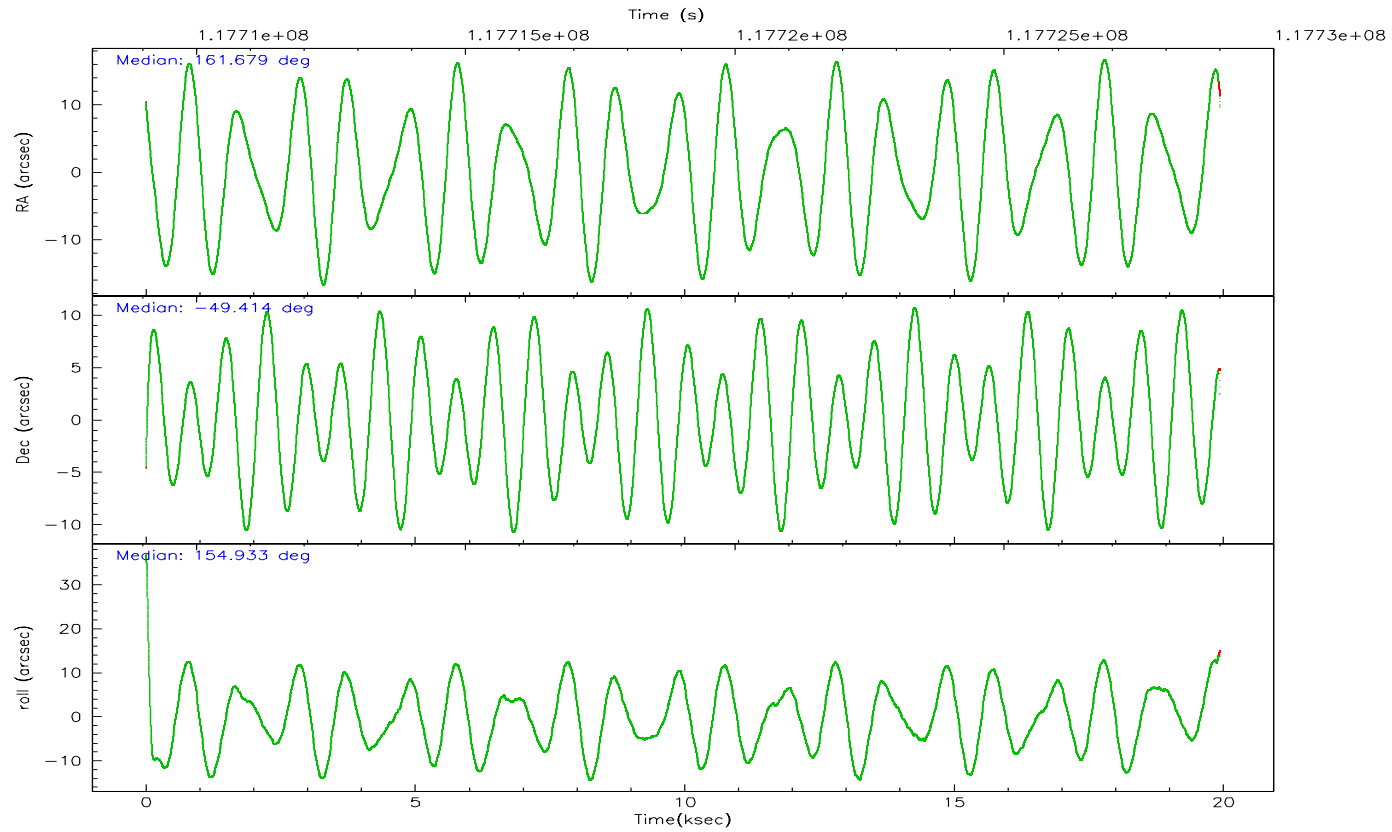
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	21397	18653	23588	17328	35661	21720
	9%	7%	11%	7%	14%	11%
grade 1 events	174	432	142	313	248	141
	0%	0%	0%	0%	0%	0%
grade 2 events	9359	48206	8400	27315	15982	8227
	4%	18%	4%	11%	6%	4%
grade 3 events	3012	6988	3383	12370	9615	3248
	1%	2%	1%	5%	3%	1%
grade 4 events	2959	6701	3260	12192	8721	3206
	1%	2%	1%	5%	3%	1%
grade 5 events	4922	16754	5818	18299	7655	5934
	2%	6%	2%	7%	3%	3%
grade 6 events	7507	65789	9502	62958	18896	8979
	3%	25%	4%	26%	7%	4%
grade 7 events	164857	95540	144875	88717	146580	134830
	76%	36%	72%	37%	60%	72%

## 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	161.721569	161.679864350114	Subarray requested	NONE	NONE
Pointing Dec	-49.411705	-49.41436280069674	Alternating exposures requested	N	N
Pointing Roll	154.811879	154.9368618802948	Primary exposure time	0.000000	3.2
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-190.132523	-190.1400660498719			
SIM translation stage offset (mm)	0	0.00754346686406393			
Observation start time	117709196.184000	117707780.54694			
Observation start date	2001-09-24T08:58:52	2001-09-24T08:36:20			
Observation end time	117790196.184000	117729023.67279			
Observation end date	2001-09-25T07:28:52	2001-09-24T14:30:23			
Read mode	TIMED	TIMED			

## 2.3 Aspect





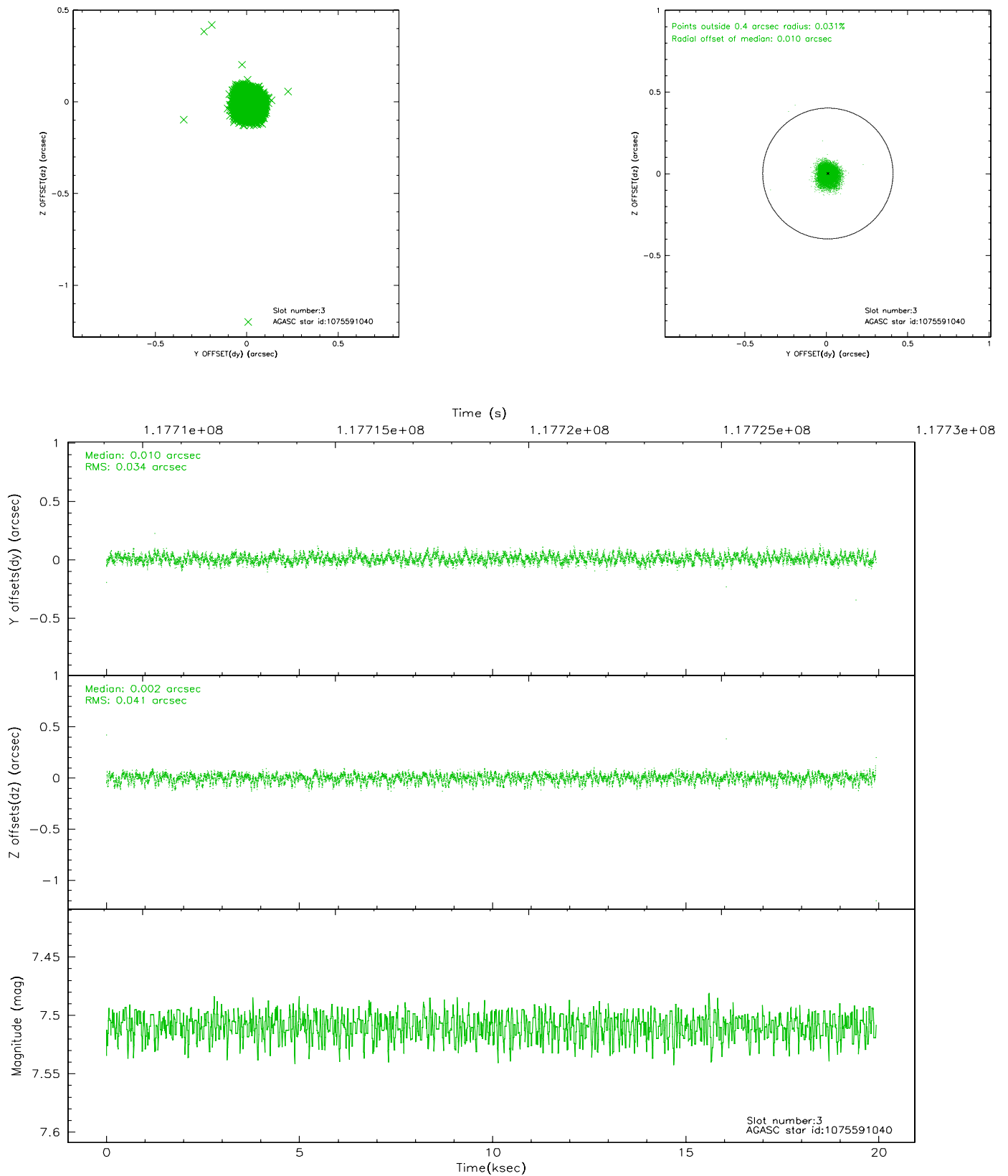
### Slot Statistics

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	4856	0.021	0.024	0.008	0.014	0.000000	0.000000	-755.80	-1729.03
1	FID	ACIS-S-4	7.19	4854	-0.099	-0.017	0.005	0.010	0.000000	0.000000	2157.28	179.20
2	FID	ACIS-S-5	7.24	4855	0.047	0.001	0.007	0.013	0.000000	0.000000	-1808.36	173.13
3	GUIDE	1075591040	7.51	9719	0.010	0.002	0.054	0.089	162.767737	-49.503631	-2361.95	-726.42
4	GUIDE	1075588576	8.57	9721	0.002	-0.018	0.061	0.098	162.498014	-49.400454	-1633.83	-802.74
5	GUIDE	1075585824	8.52	9718	-0.032	0.026	0.058	0.096	161.885623	-48.861959	489.60	-1956.10
6	GUIDE	1075578760	8.91	9720	0.088	0.003	0.064	0.105	160.997233	-49.587657	1255.97	1299.72
7	GUIDE	1075593816	9.16	9719	-0.068	-0.008	0.075	0.123	160.844645	-49.710344	1383.81	1852.48

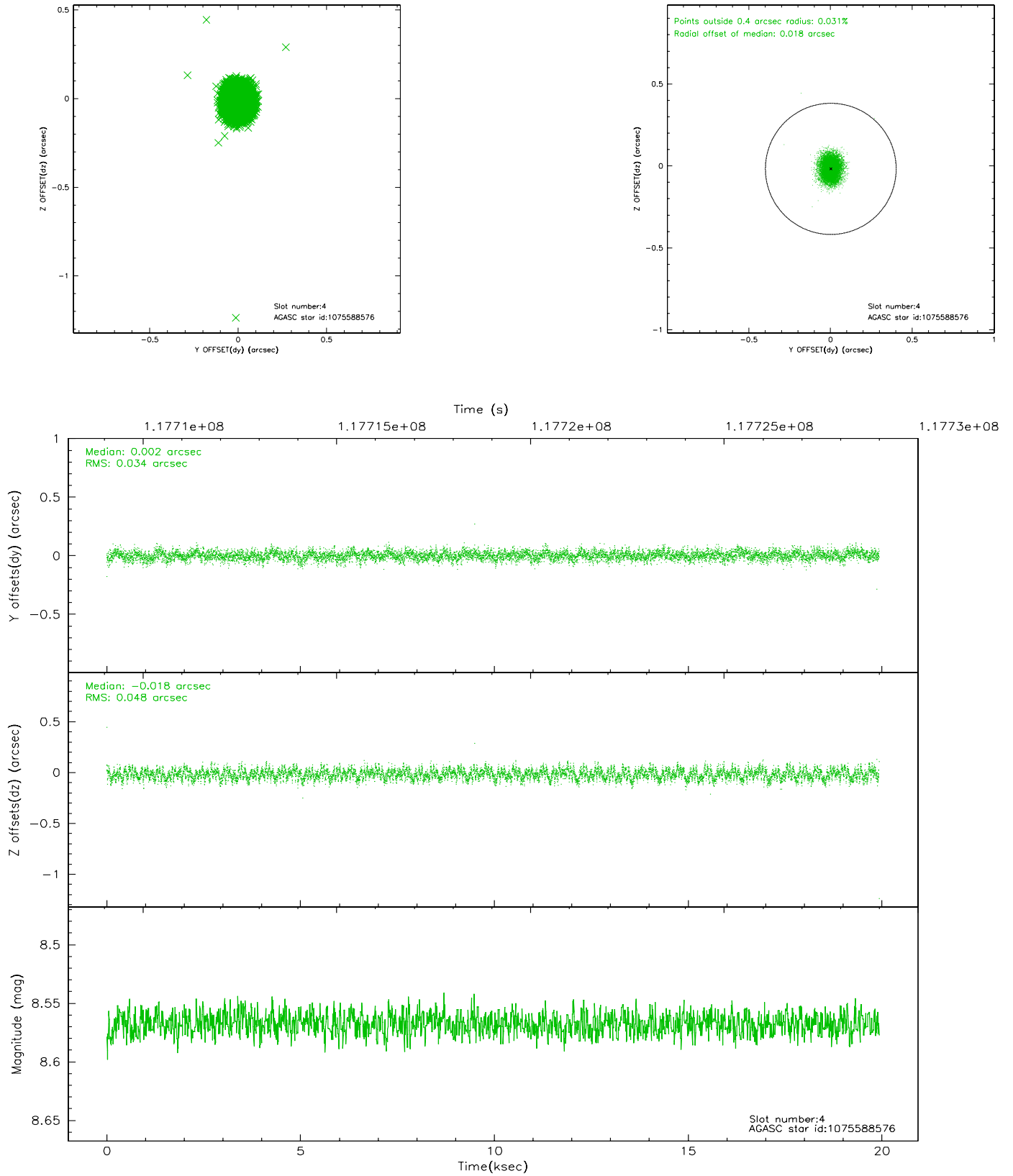


## 2.4 Star Slots

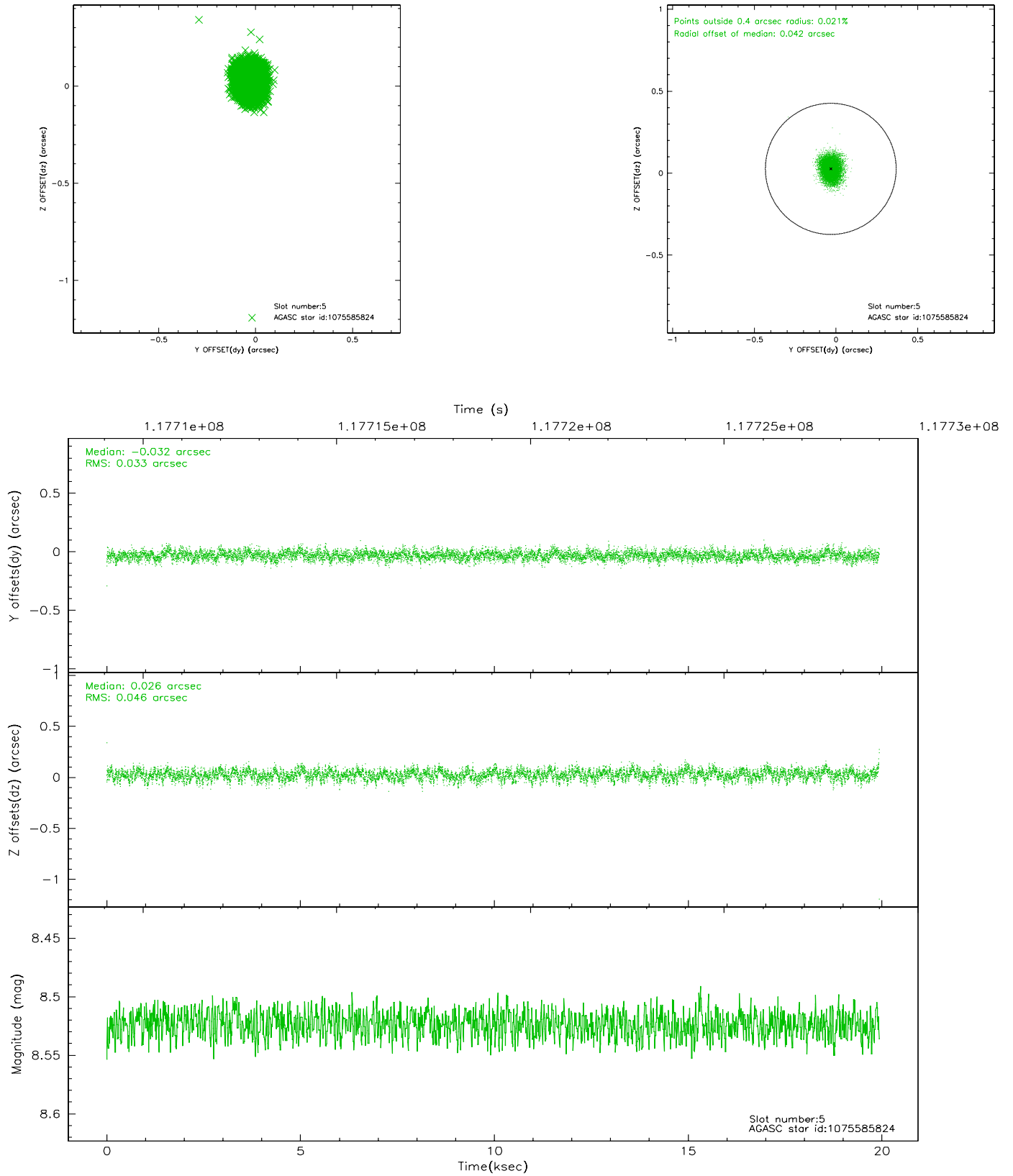
### 2.4.1 Slot 3



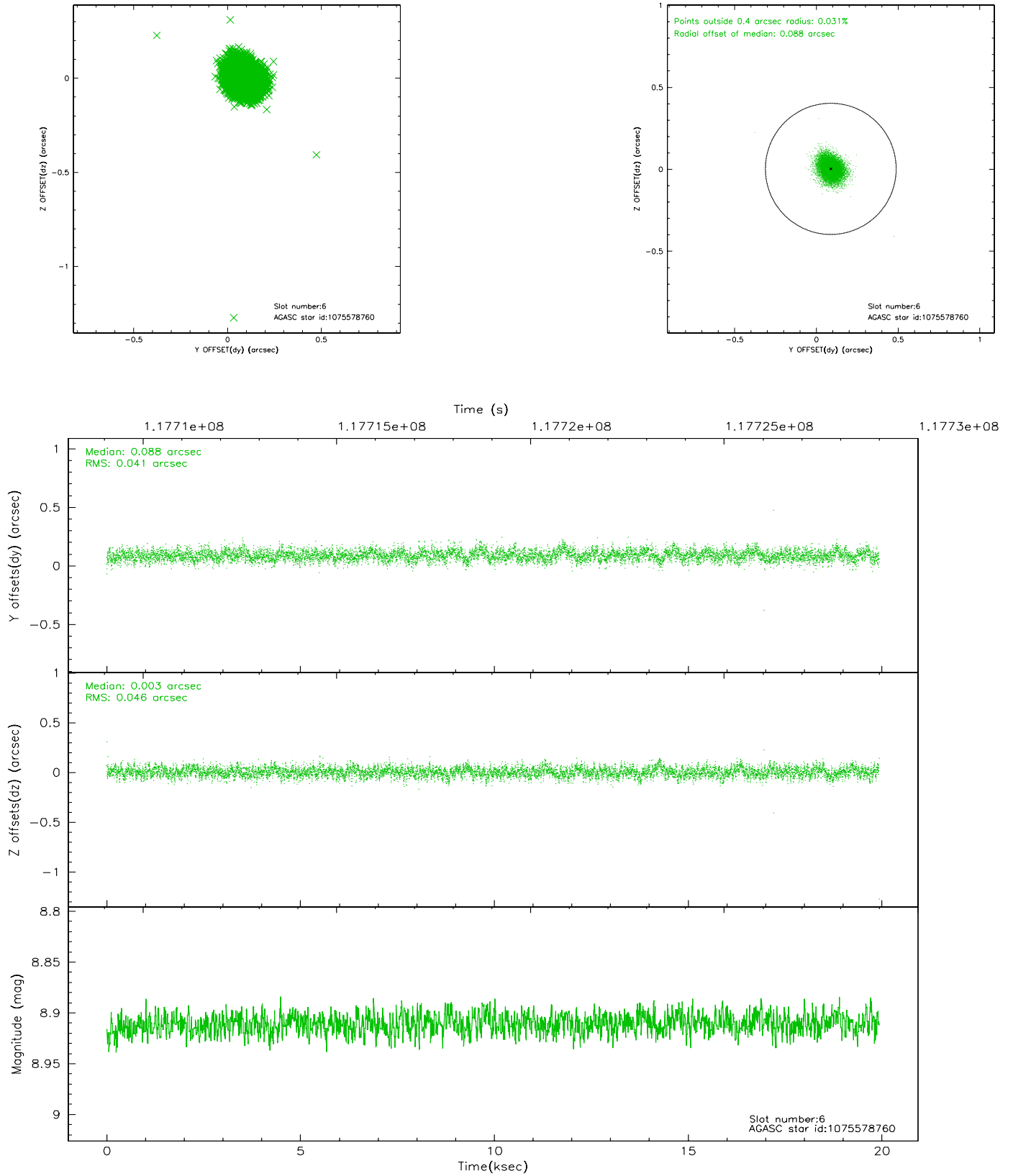
## 2.4.2 Slot 4



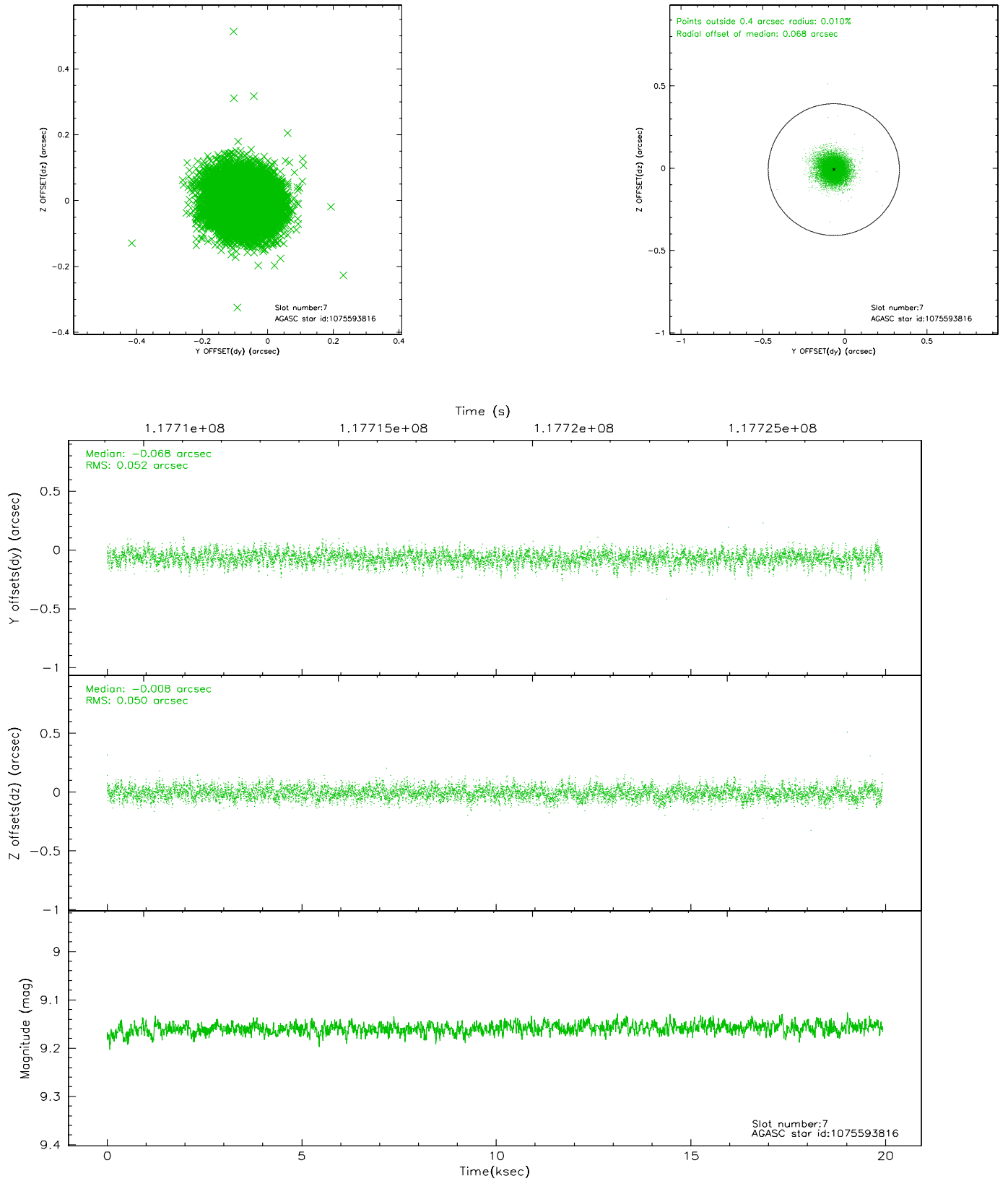
### 2.4.3 Slot 5



## 2.4.4 Slot 6

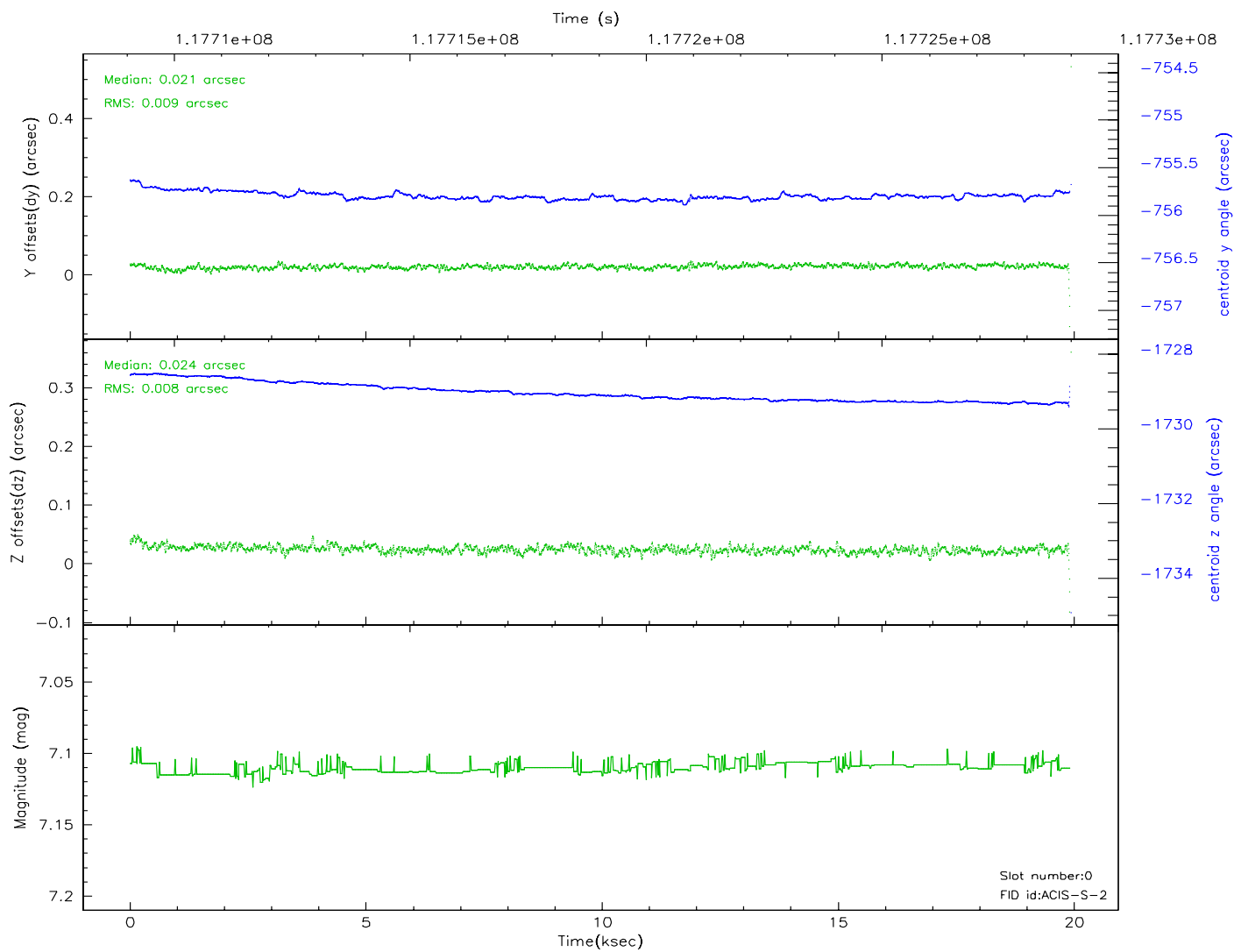
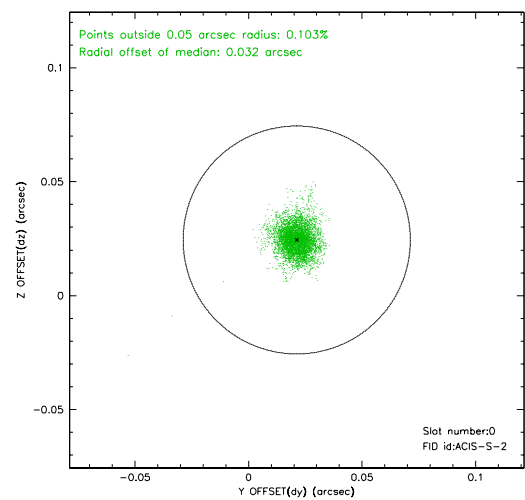
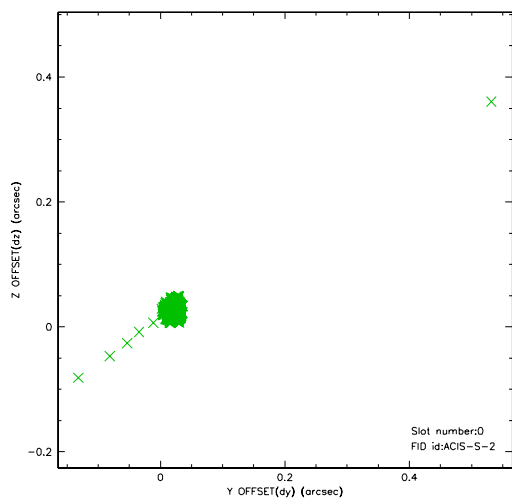


## 2.4.5 Slot 7

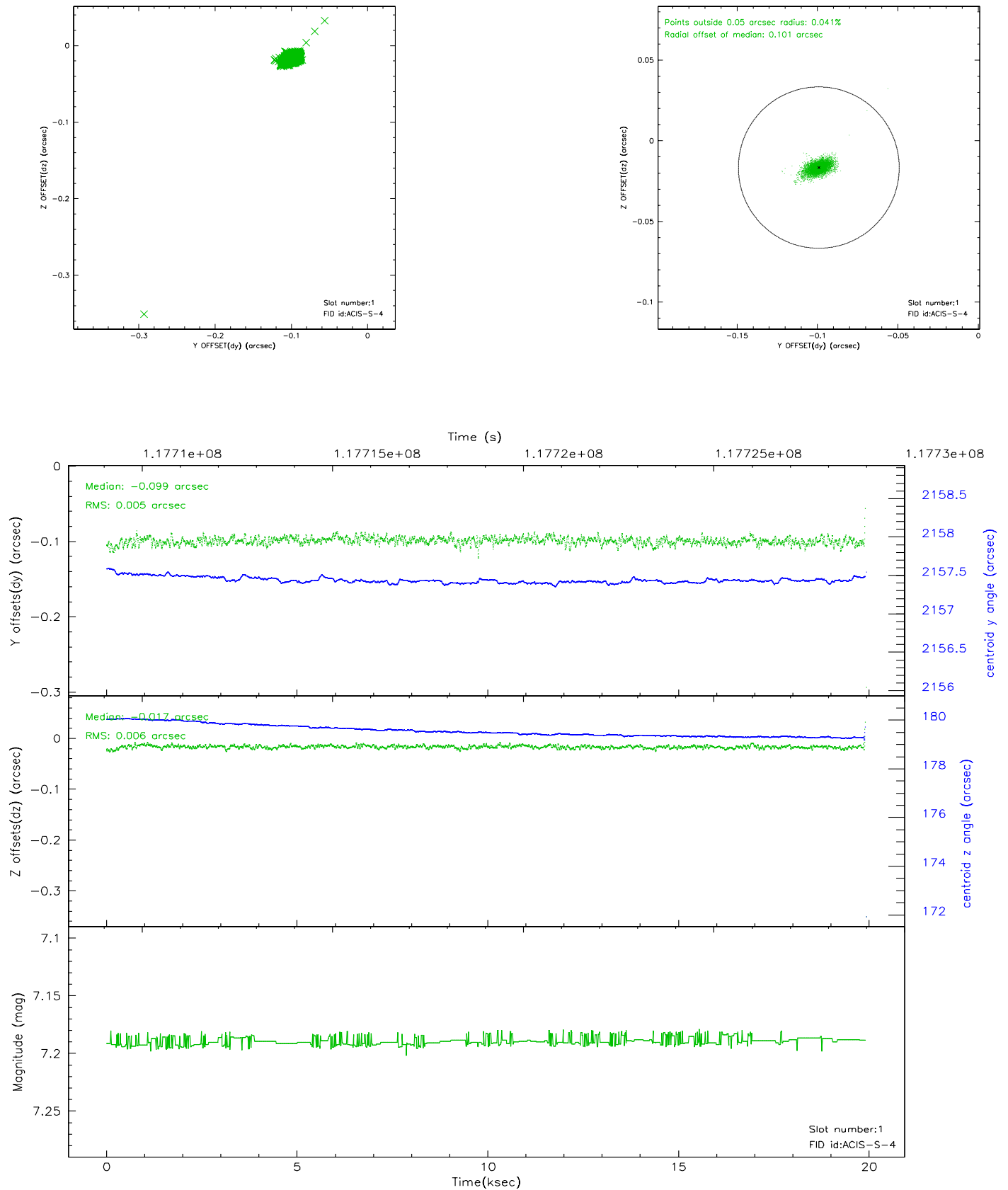


## 2.5 FID Slots

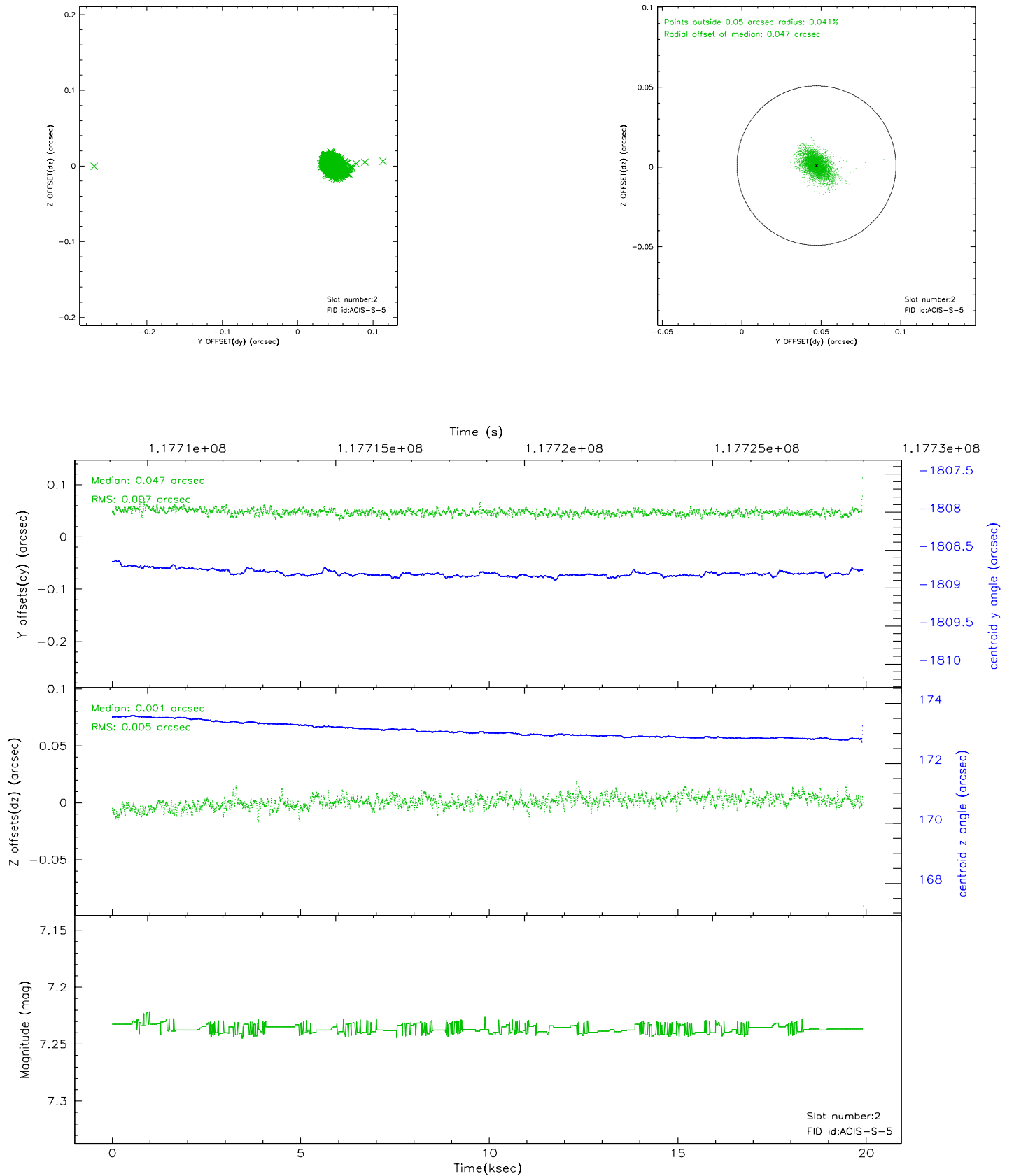
### 2.5.1 Slot 0



## 2.5.2 Slot 1



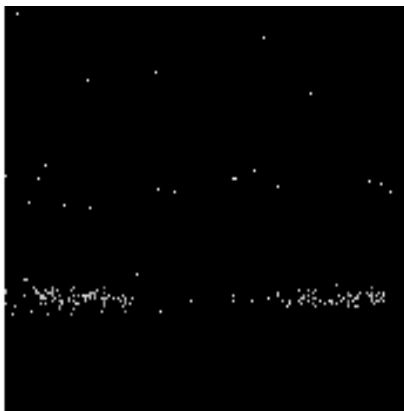
### 2.5.3 Slot 2



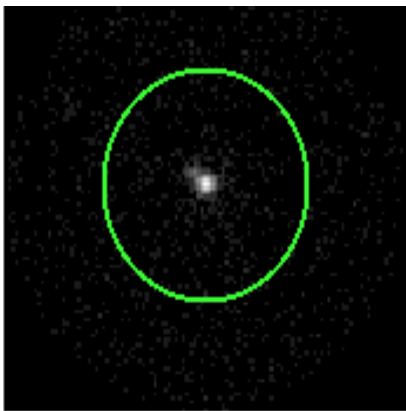


# 3 Gratings

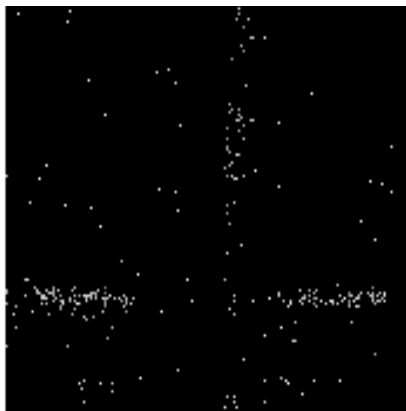
## 3.1 HEG Arm



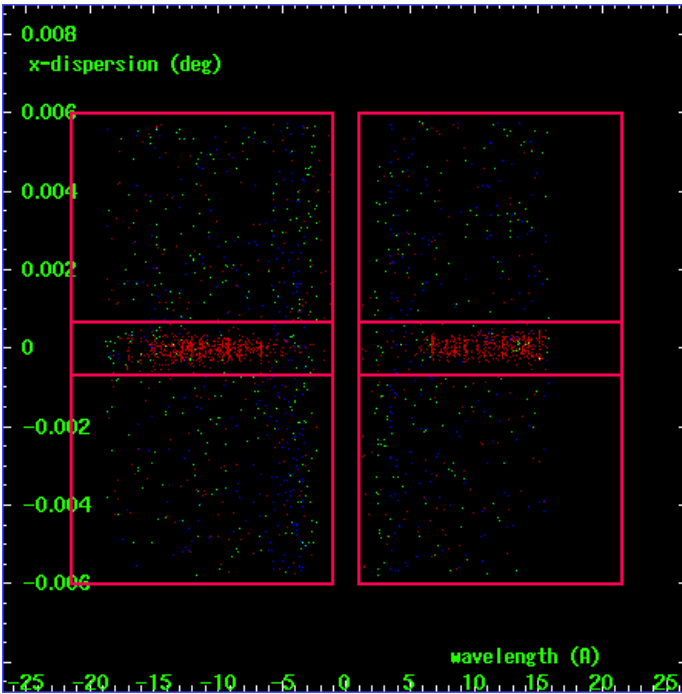
HEG Order Sort 123



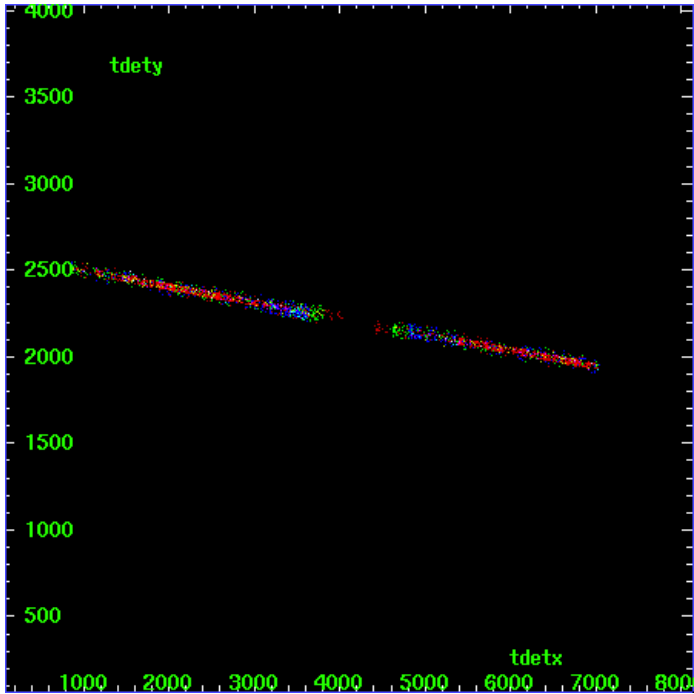
HEG Zero Order



HEG Order Sort ALL

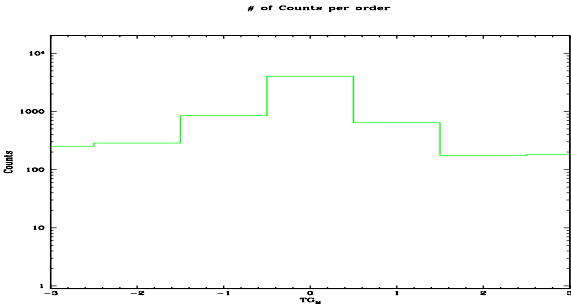


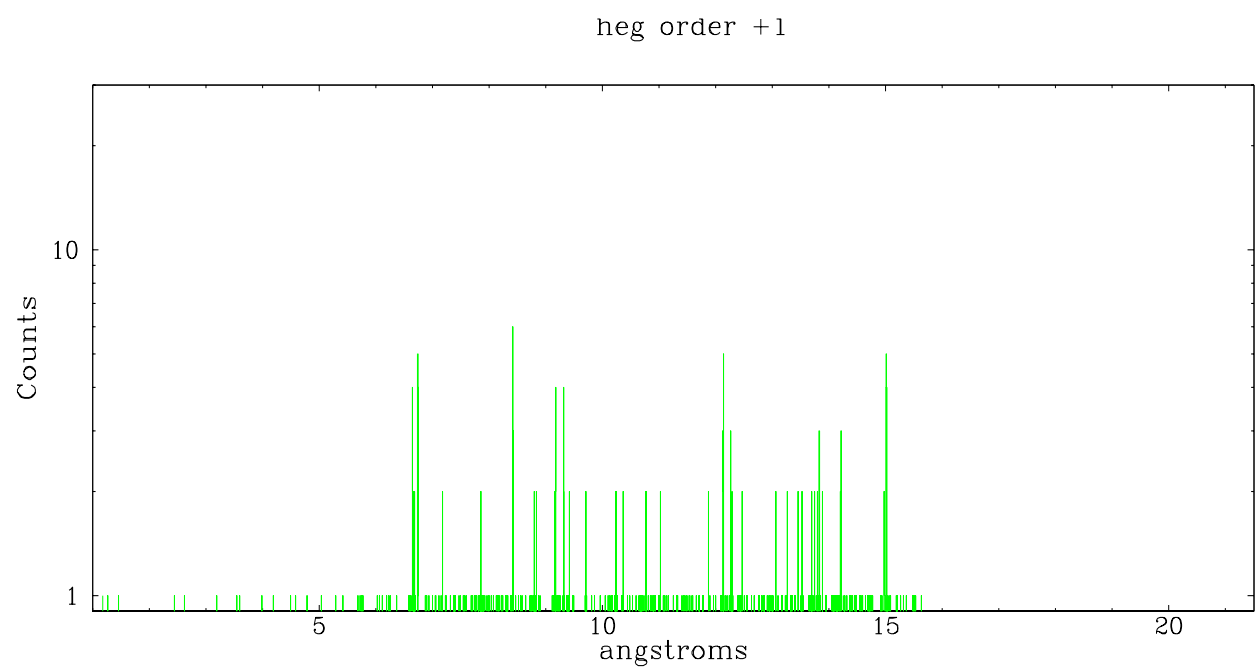
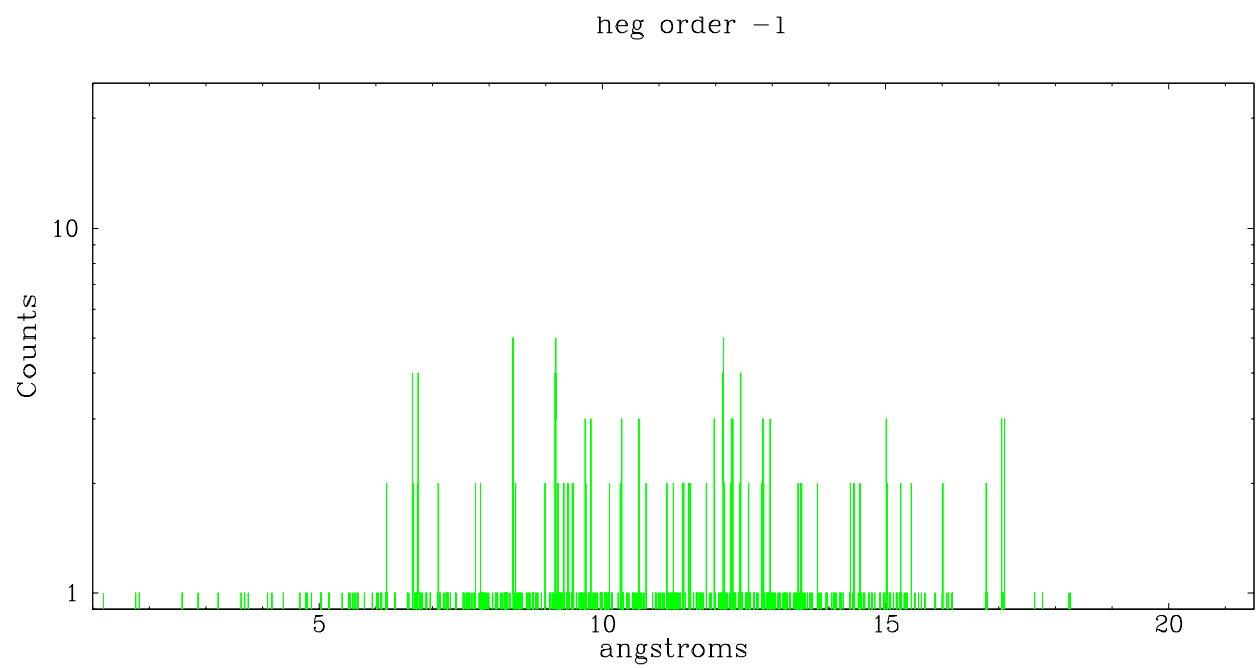
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	253	285	848	4018	642	175	182

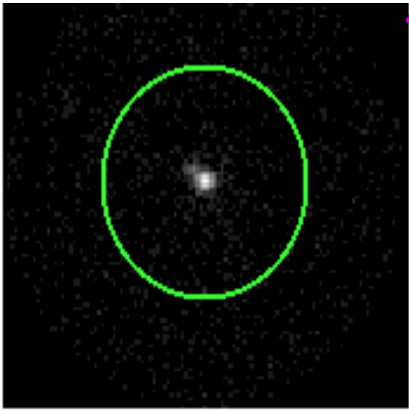




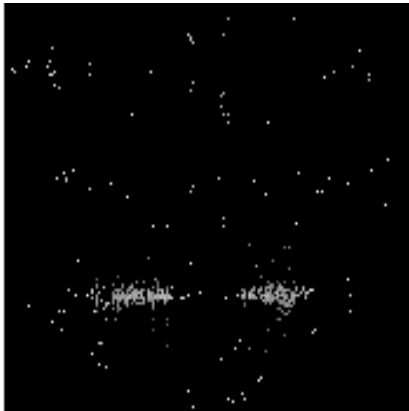
### 3.2 MEG Arm



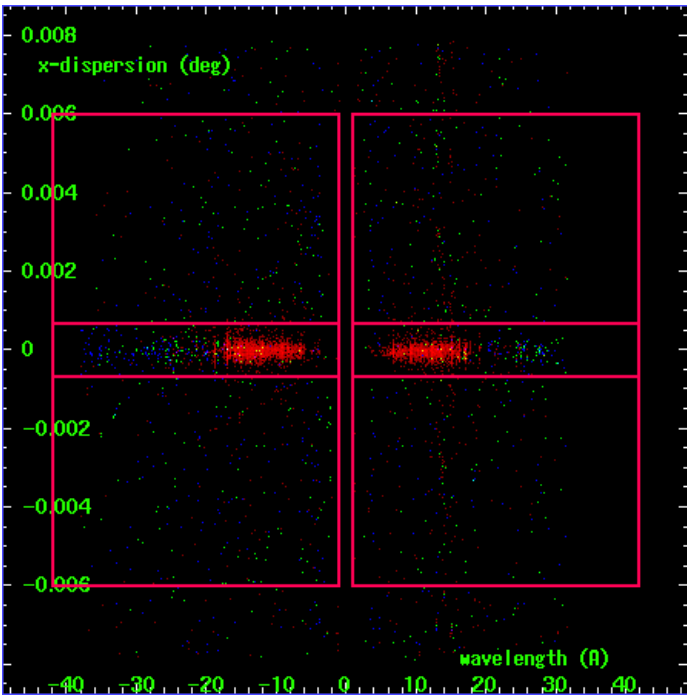
MEG Order Sort 123



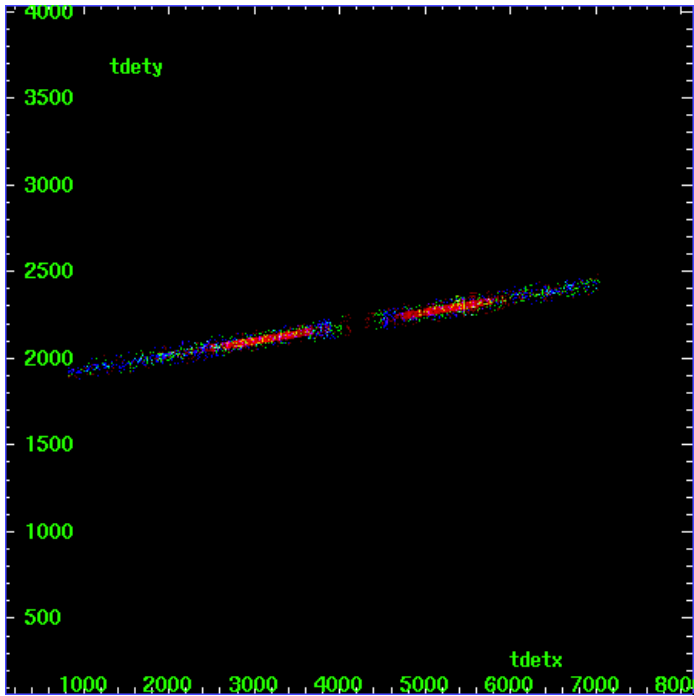
MEG Zero Order



MEG Order Sort ALL

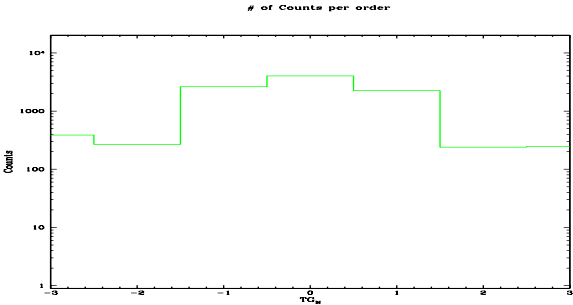


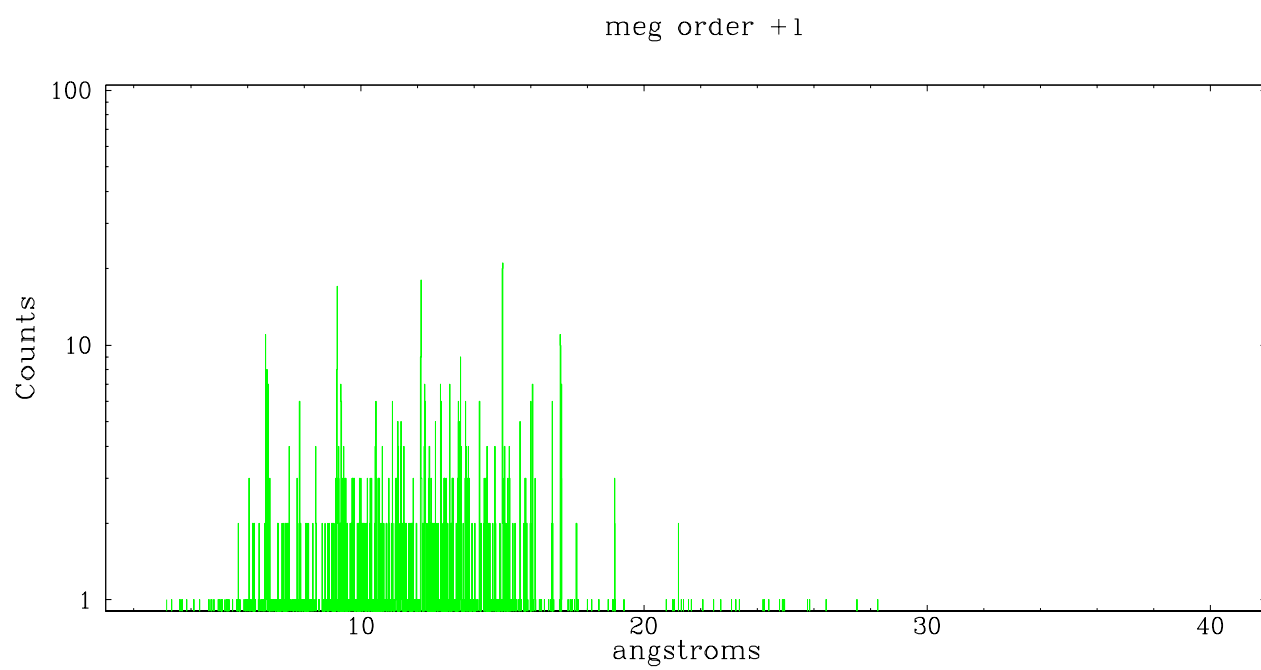
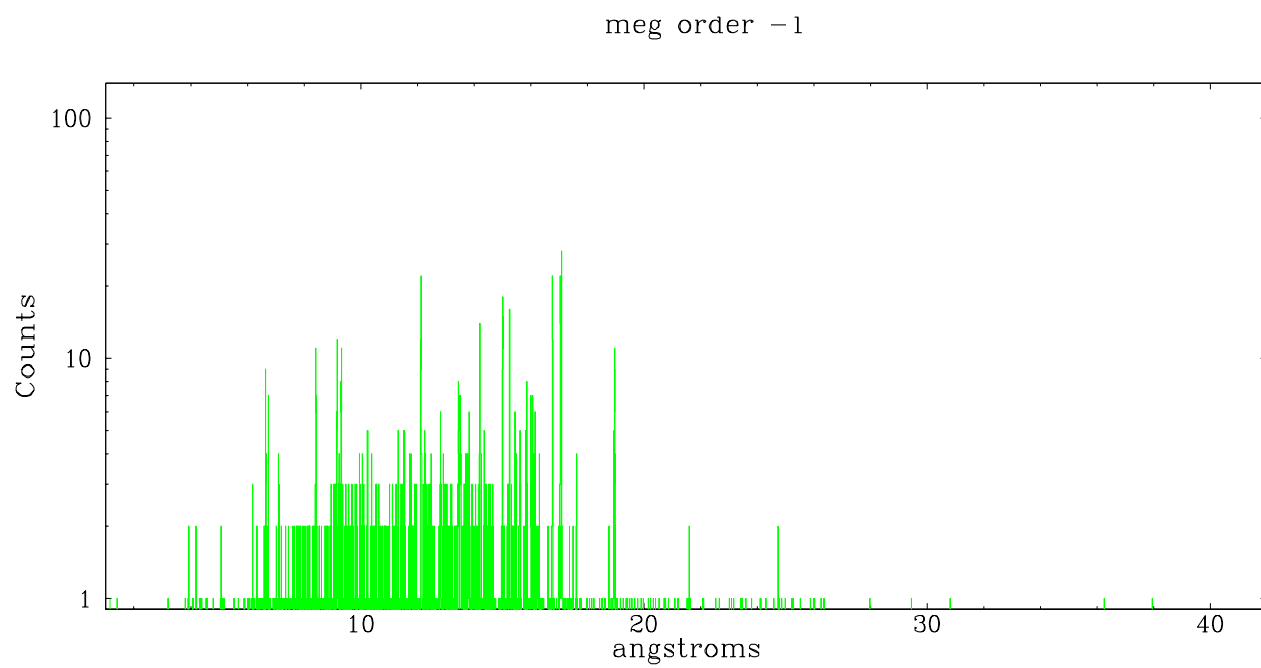
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	388	267	2622	4018	2251	240	244





# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2007.01.22
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	19.916

## A.2 Comments

High radiation environment caused safing of the ACIS instrument on Day 267 at 14:29:03 GMT. This observation was interrupted by the safing action.