

# V&V Reference Report

## L2 ASCDS Version : 7.6.10

Observation 610 - L2 Version 002  
Chandra X-Ray Center

L2 Processing Date : May 12 2007

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# 1 Front

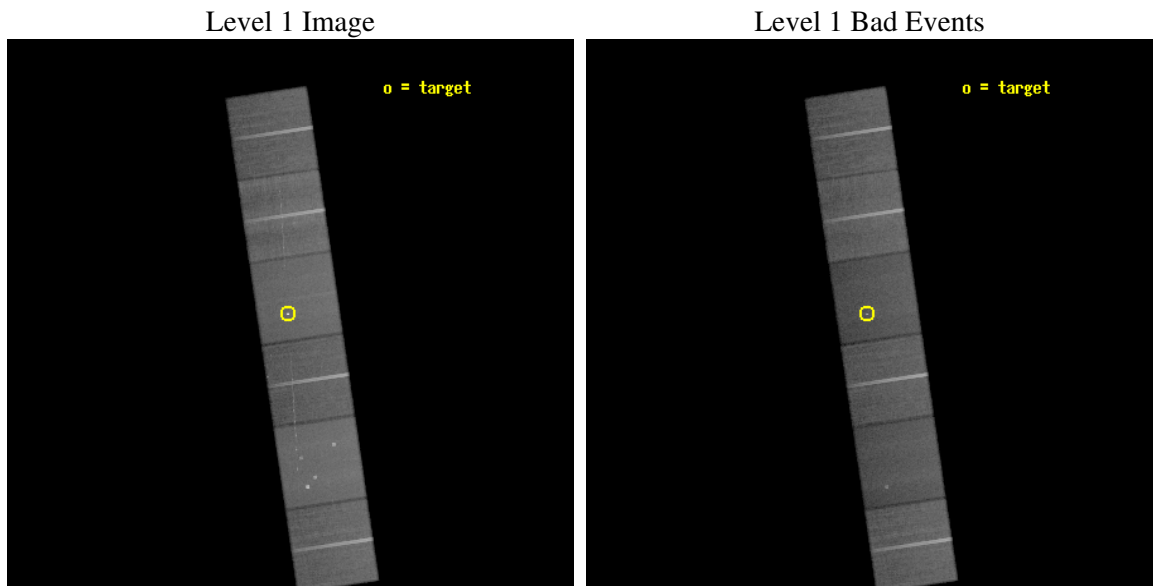
seq_num	200035
obs_id	610
title	MEASURING DOPPLER SHIFTS OF X-RAY LINES TO DETERMINE THE STELLAR WIND X-RAY LOCATIONS IN OB STARS
observer	Wayne Waldron
object	ZETA ORI
dtcycle	0
cycle	P
ra_targ	85.189583
dec_targ	-1.942778
ra_nom	85.185481203311
dec_nom	-1.9577069228694
roll_nom	261.55103347338
revision	4
ontime	60435.200056285
livetime	59669.933163463
ontime4	60370.380791813
ontime5	60435.200056285
ontime6	60376.862602681
ontime7	60435.200056285
ontime8	60383.052073002
ontime9	60389.826573193
l2events	600991



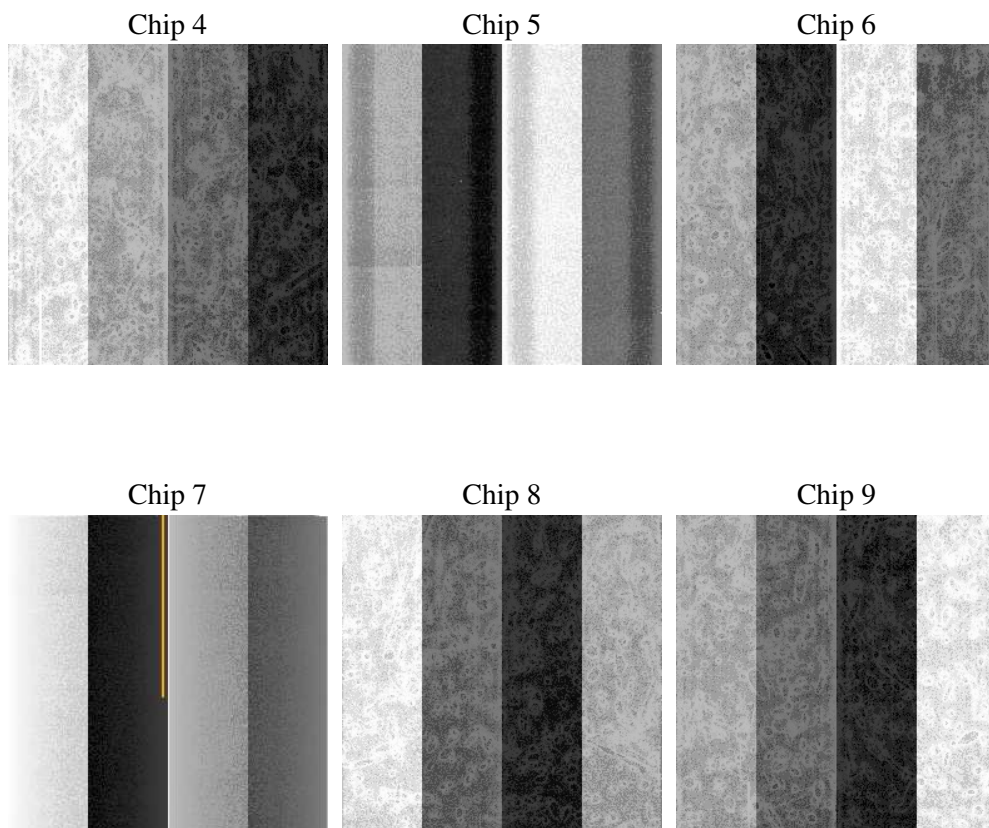
## 2 OBI

### 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	2007-05-12T03:56:02
revision	4

sched_exp_time	60000.000000
ontime	60435.200056285
ontime4	60370.380791813
ontime5	60435.200056285
ontime6	60376.862602681
ontime7	60435.200056285
ontime8	60383.052073002
ontime9	60389.826573193
l1events	2967636

### 2.1.4 Events

	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	483473	564678	435101	523659	538867	421858
rejected events	435516	317186	387804	311583	436370	376212
rejected %	90%	56%	89%	59%	80%	89%

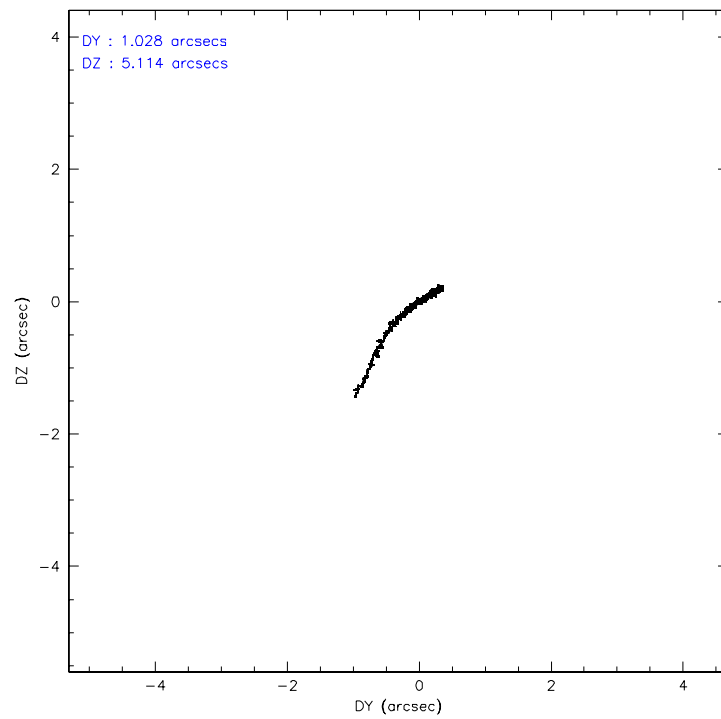
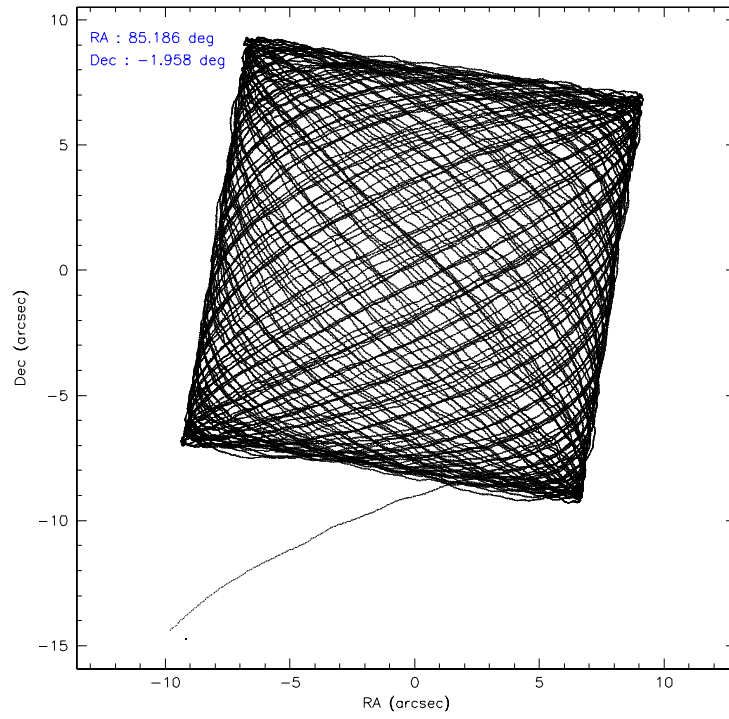
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	25710	32279	26392	28331	39769	24665
	5%	5%	6%	5%	7%	5%
grade 1 events	268	658	236	692	307	215
	0%	0%	0%	0%	0%	0%
grade 2 events	12651	82706	10663	48506	23299	10732
	2%	14%	2%	9%	4%	2%
grade 3 events	5072	12880	5281	22986	12206	5356
	1%	2%	1%	4%	2%	1%
grade 4 events	4879	12141	5157	22133	11155	5147
	1%	2%	1%	4%	2%	1%
grade 5 events	13247	41276	15398	47638	19496	15633
	2%	7%	3%	9%	3%	3%
grade 6 events	9204	134548	10315	117405	27288	10204
	1%	23%	2%	22%	5%	2%
grade 7 events	412442	248190	361659	235968	405347	349906
	85%	43%	83%	45%	75%	82%

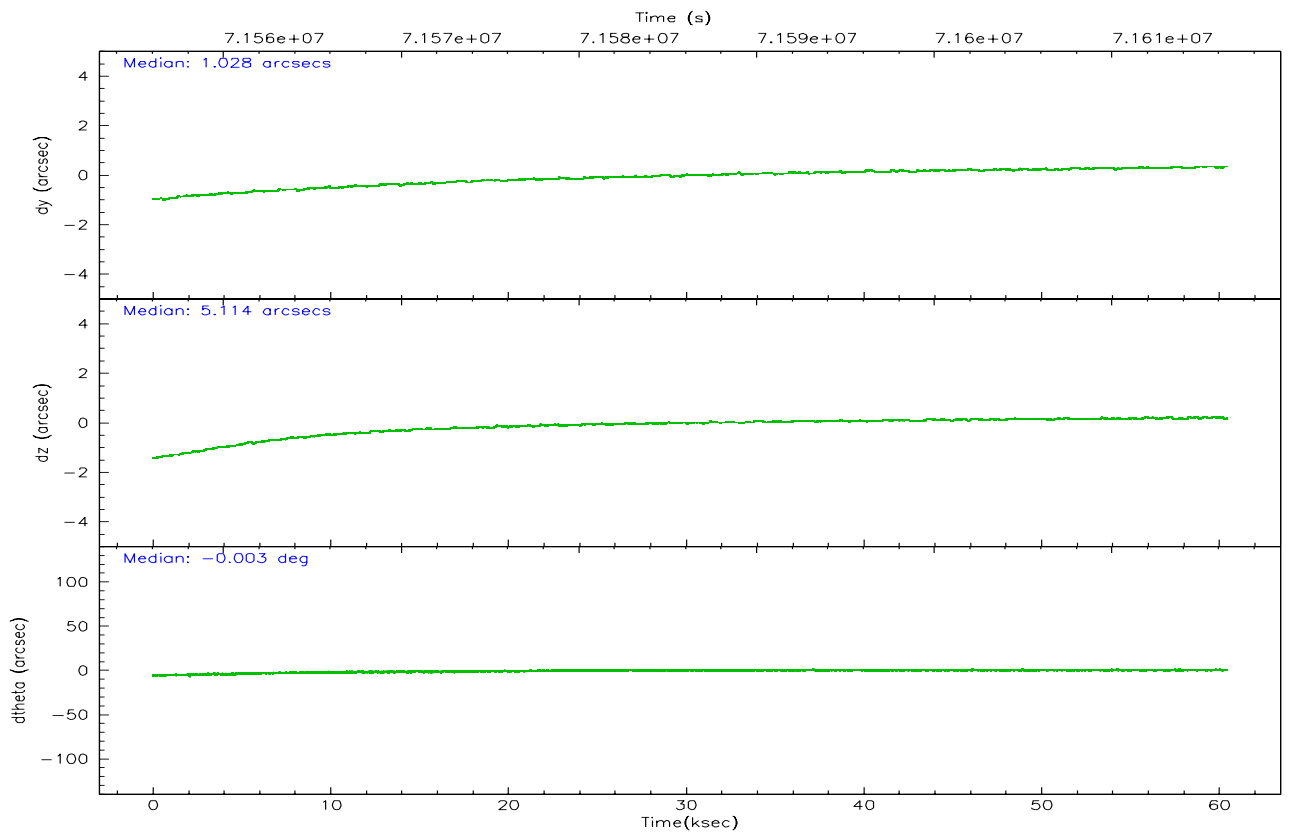
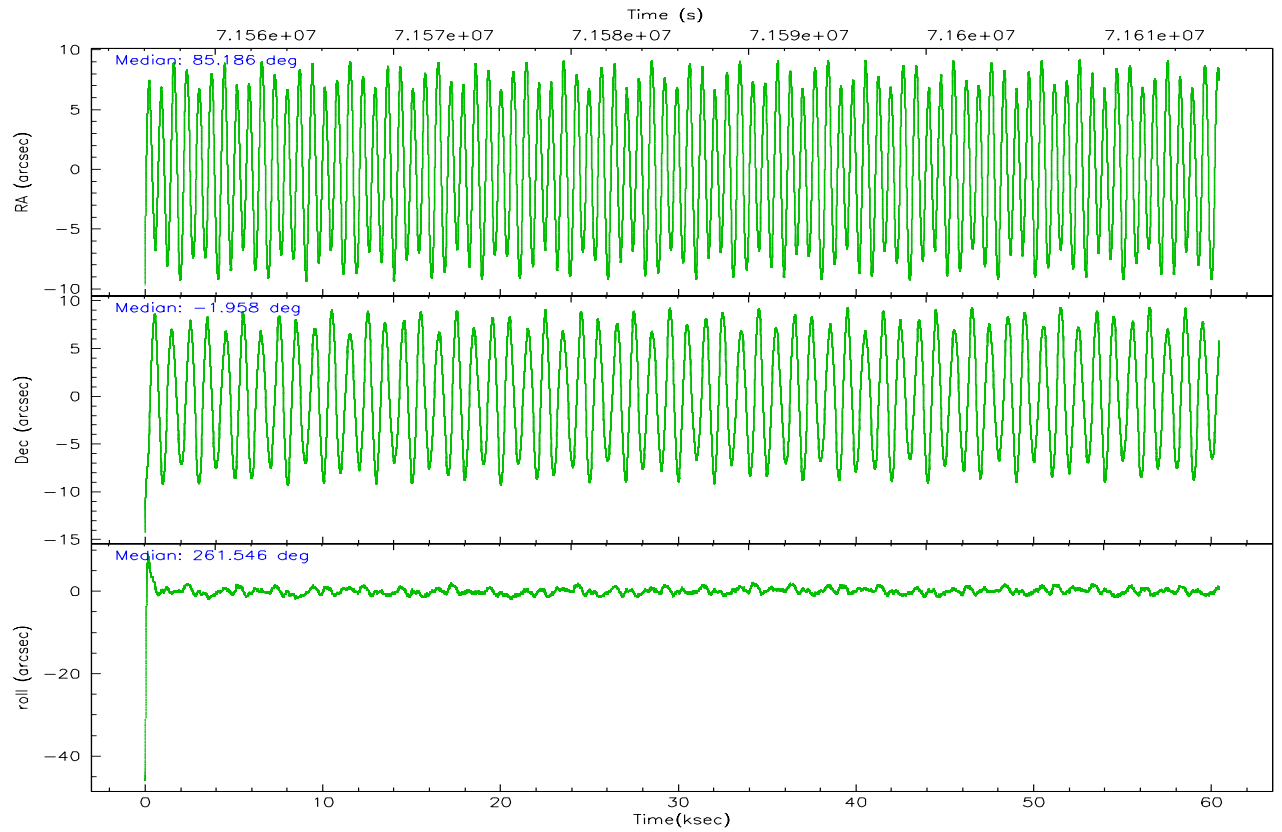


## 2.2 Compared Parameters

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	NONE	UPDATED
Data mode	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
Pointing RA	85.175334	85.18548120331148	Subarray requested	NONE	NONE
Pointing Dec	-1.932202	-1.957706922869405	Alternating exposures requested	N	N
Pointing Roll	261.394075	261.5510334733791	Primary exposure time	3.200000	3.2
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-187.132523	-187.1228876879999			
SIM translation stage offset (mm)	-3	-3.009634895007935			
Observation start time	71556476.184000	71554092.62350801			
Observation start date	2000-04-08T04:46:52	2000-04-08T04:08:12			
Observation end time	71616476.184000	71618277.61336			
Observation end date	2000-04-08T21:26:52	2000-04-08T21:57:57			
Read mode	TIMED	TIMED			

## 2.3 Aspect



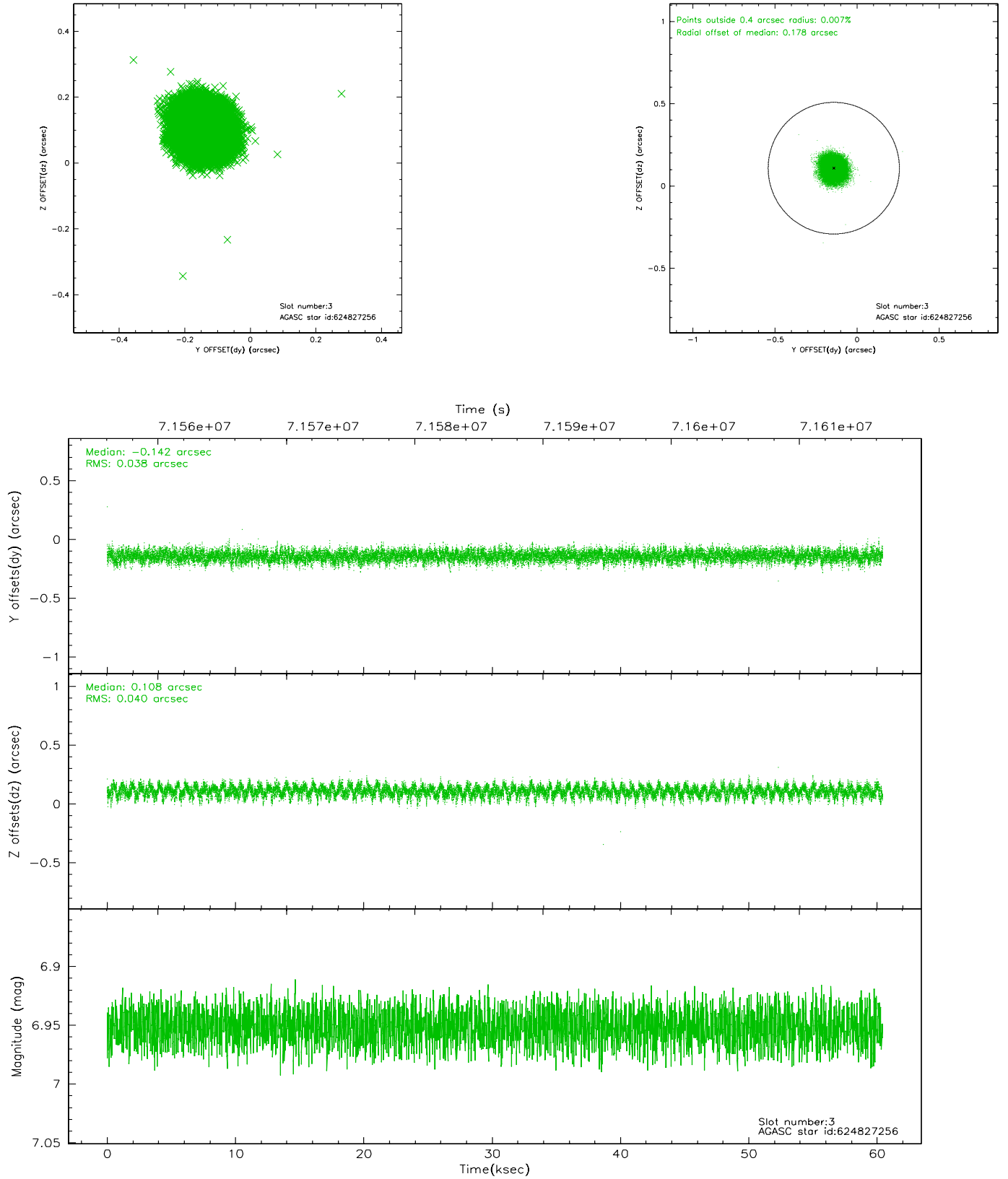


### Slot Statistics

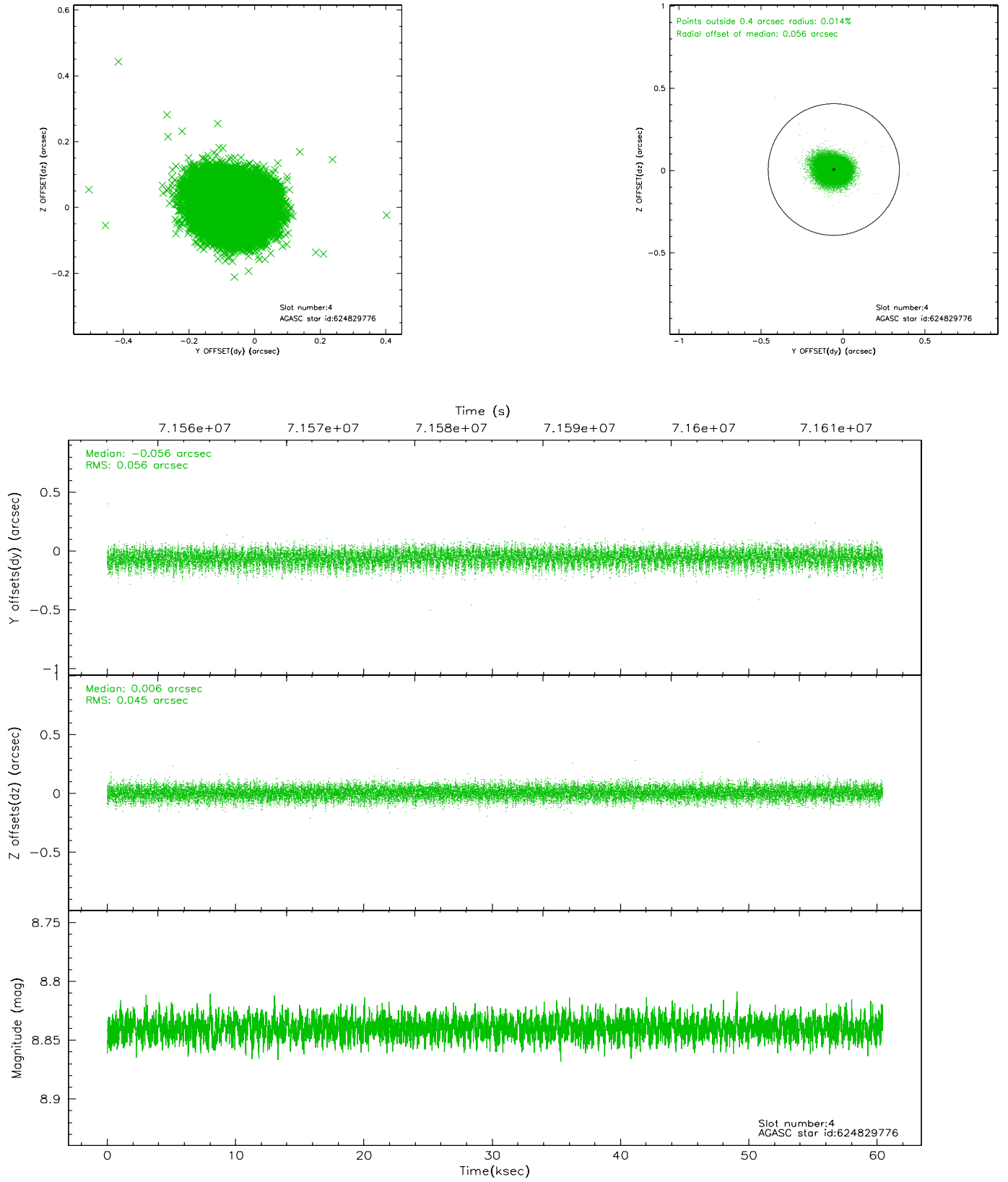
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	14741	-0.017	-0.023	0.012	0.027	0.000000	0.000000	-753.36	-1788.22
1	FID	ACIS-S-4	7.20	14741	-0.051	0.015	0.033	0.048	0.000000	0.000000	2159.95	120.29
2	FID	ACIS-S-5	7.23	14742	0.034	0.018	0.020	0.034	0.000000	0.000000	-1806.18	113.97
3	GUIDE	624827256	6.95	29482	-0.142	0.108	0.060	0.096	85.016618	-1.425471	-1718.28	-838.05
4	GUIDE	624829776	8.84	29472	-0.056	0.006	0.076	0.122	84.830774	-1.274621	-2154.99	-1580.90
5	GUIDE	624824008	8.66	29476	-0.202	-0.075	0.073	0.114	84.769527	-1.230815	-2278.04	-1822.62
6	GUIDE	625352160	8.95	29472	0.482	-0.149	0.107	0.179	84.418648	-2.443564	2228.79	-2415.79
7	GUIDE	624828488	9.20	29464	-0.083	0.112	0.077	0.124	85.333320	-1.326548	-2240.90	235.56

## 2.4 Star Slots

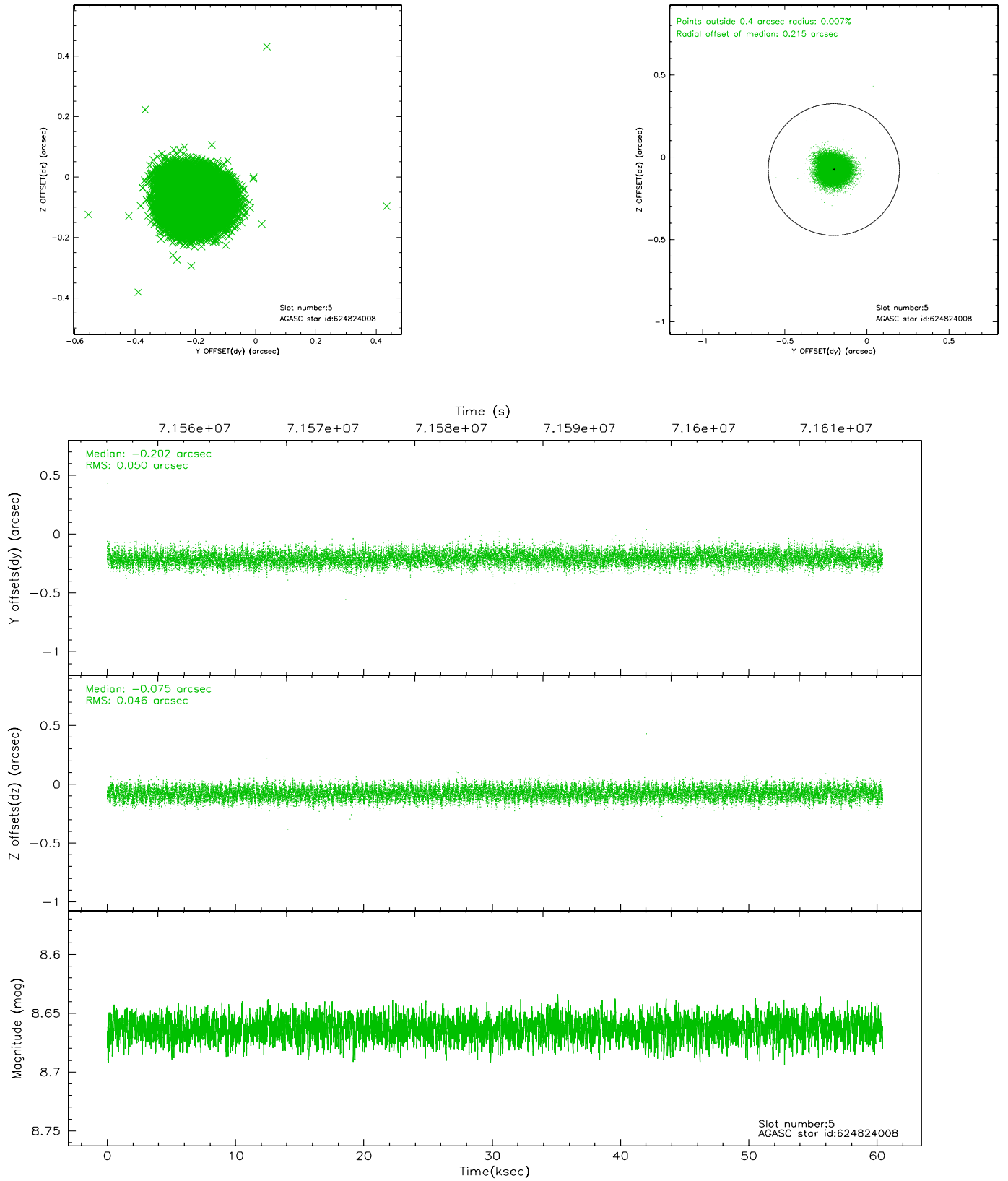
### 2.4.1 Slot 3



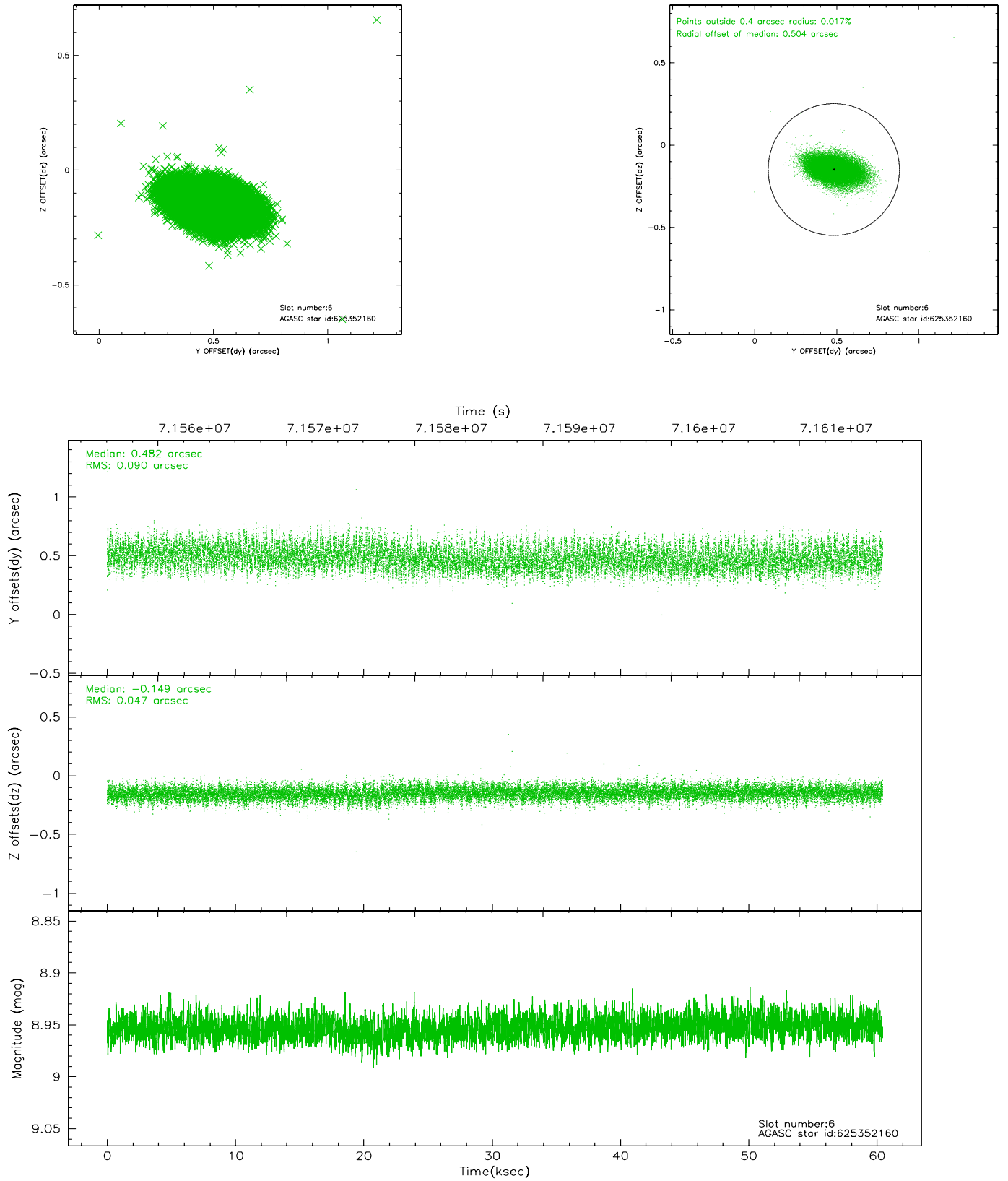
## 2.4.2 Slot 4



### 2.4.3 Slot 5

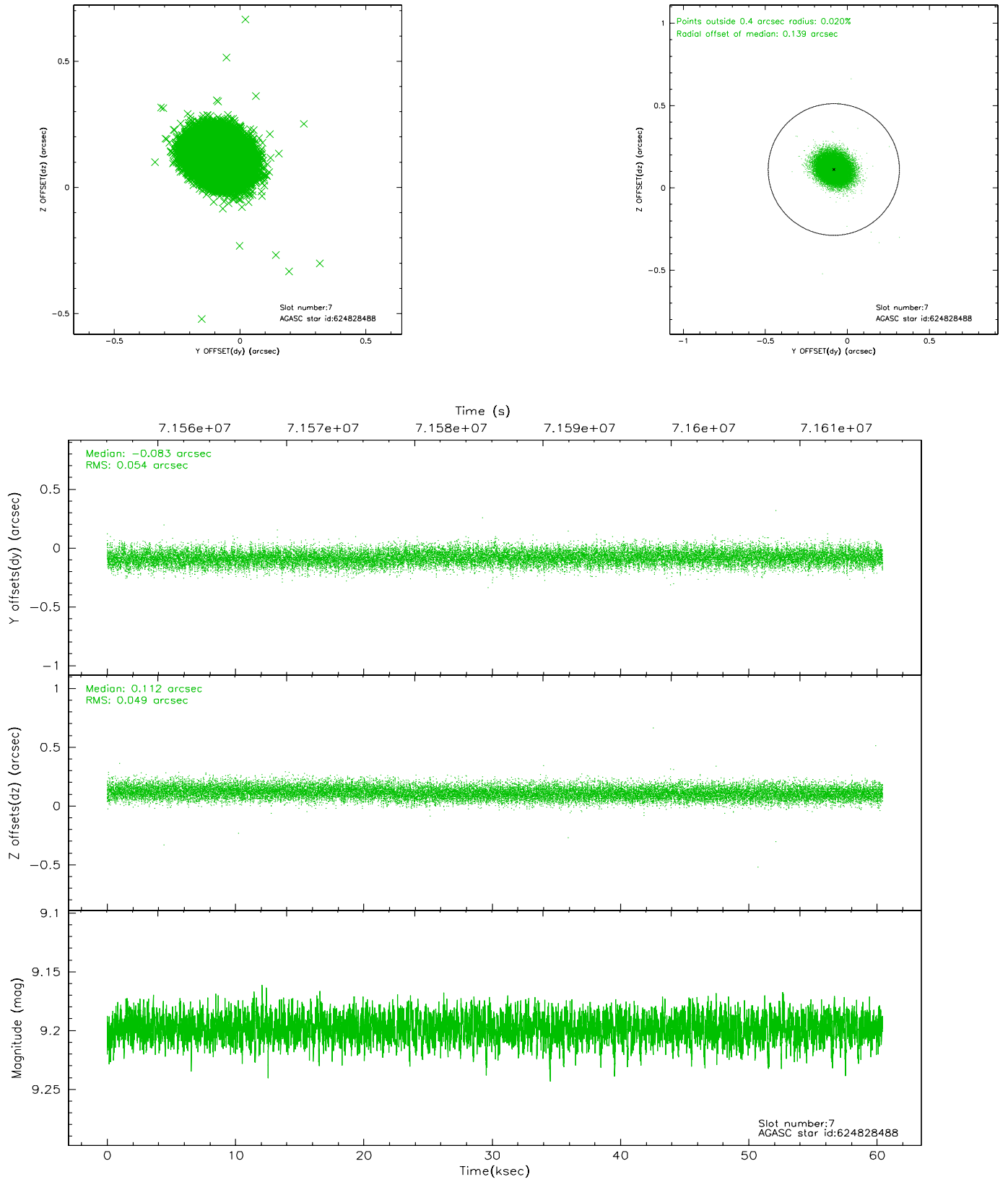


## 2.4.4 Slot 6



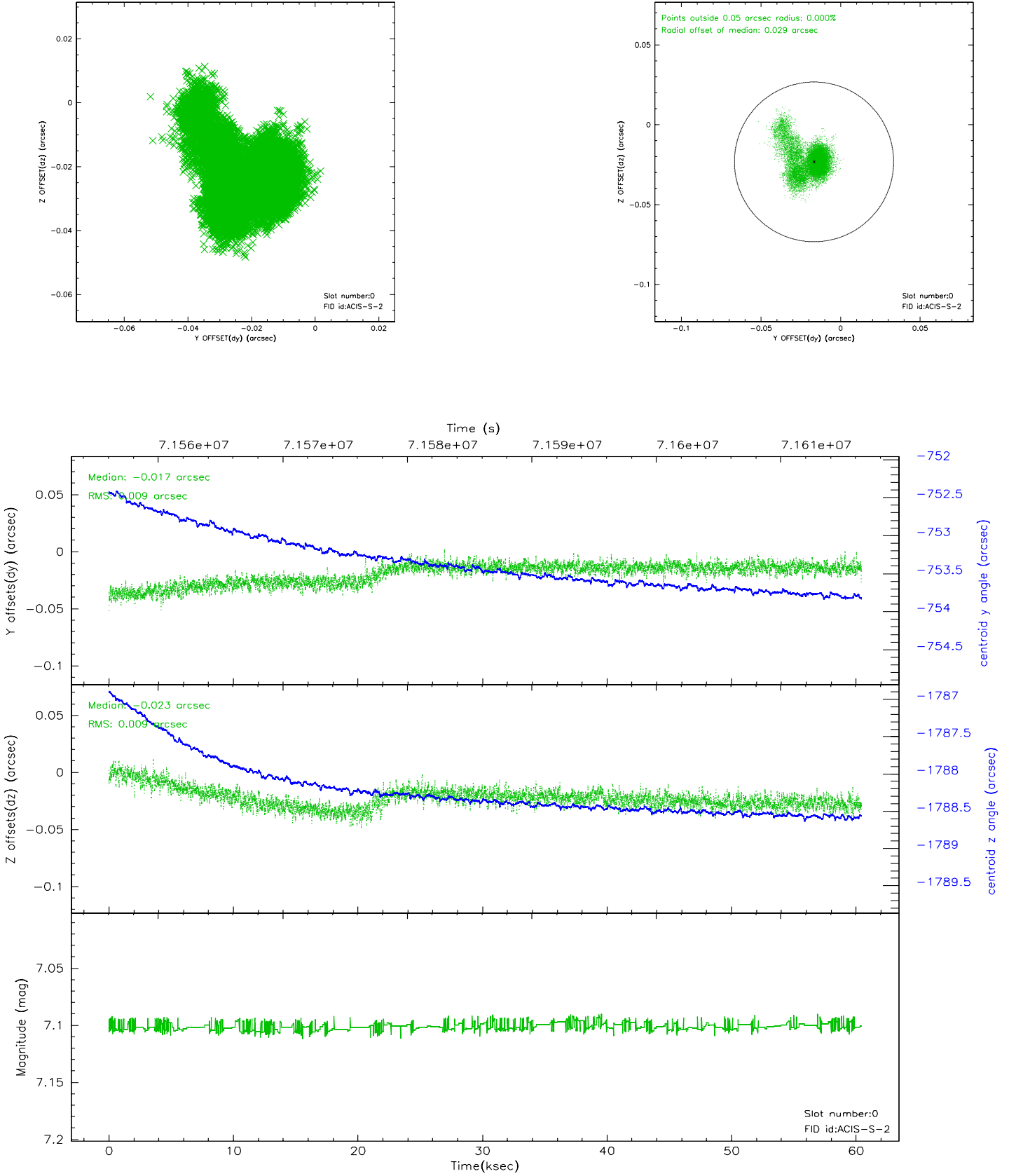


## 2.4.5 Slot 7

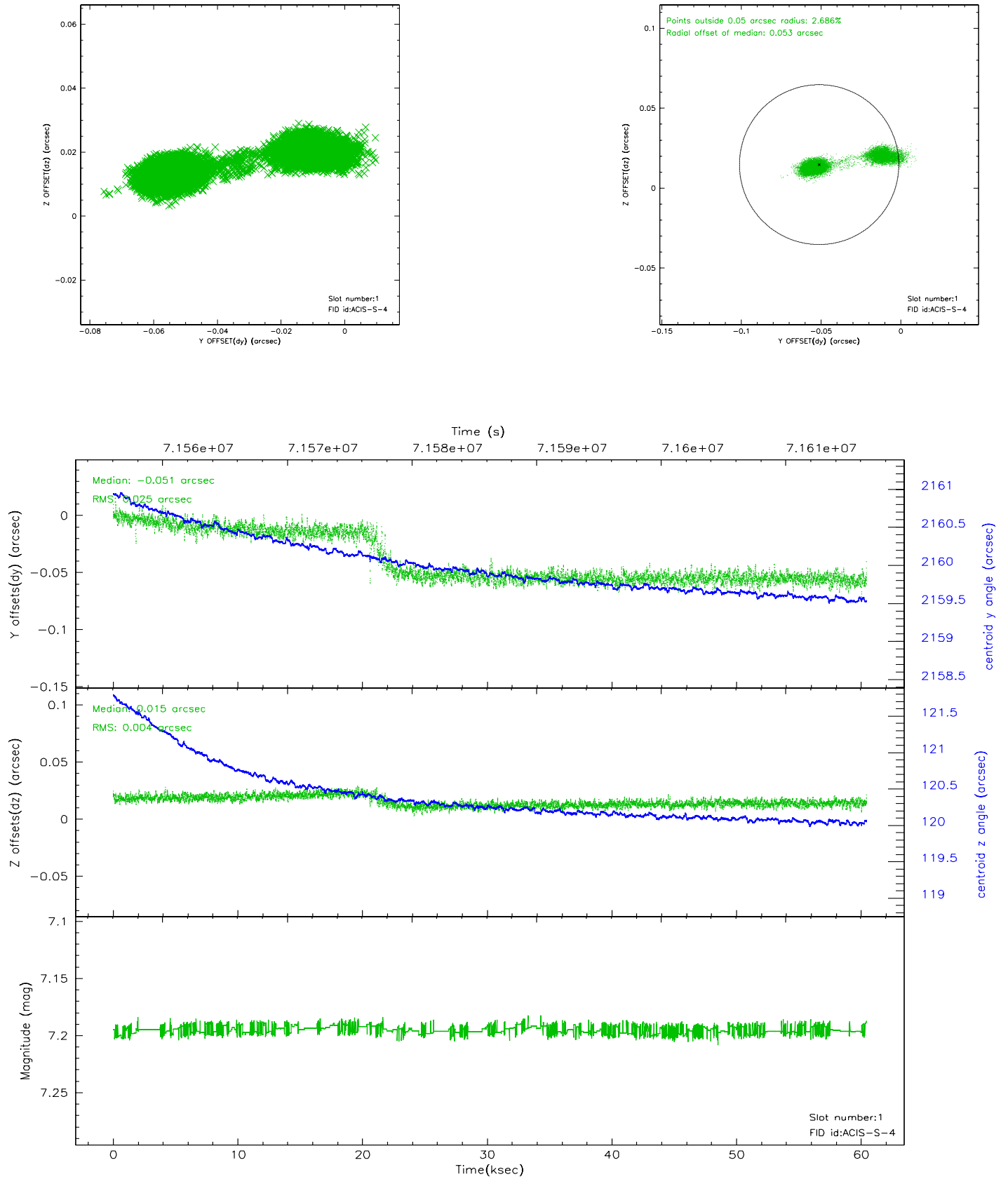


## 2.5 FID Slots

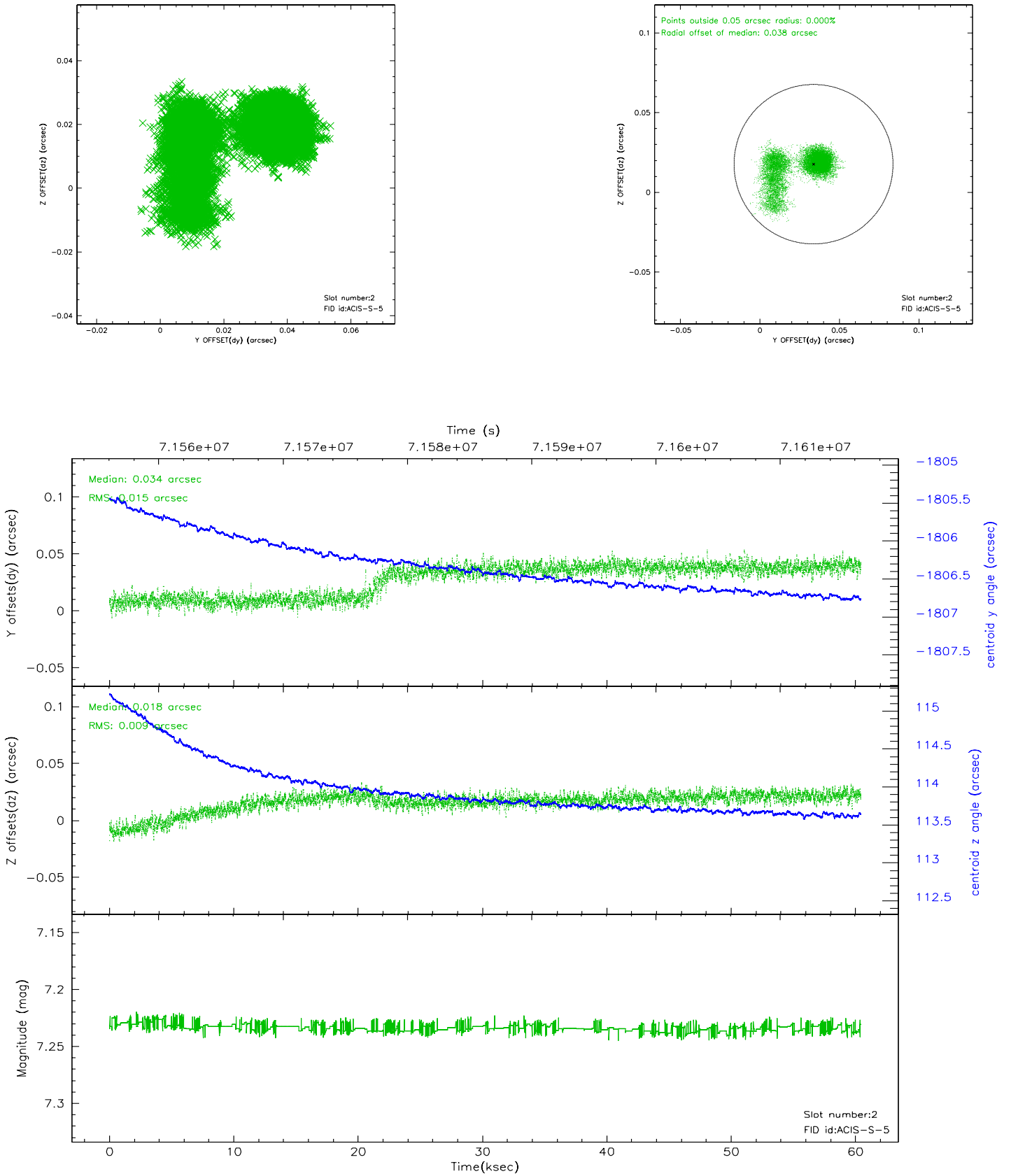
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2

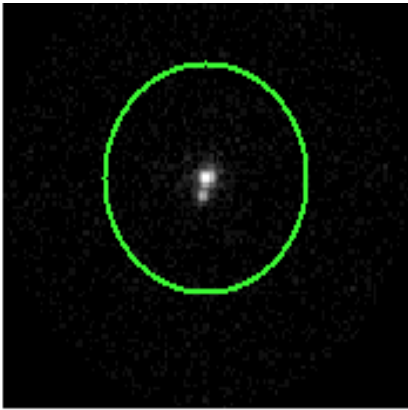


# 3 Gratings

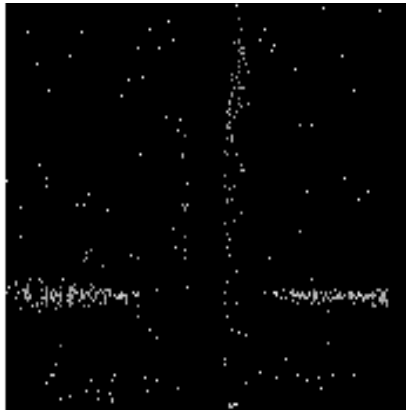
## 3.1 HEG Arm



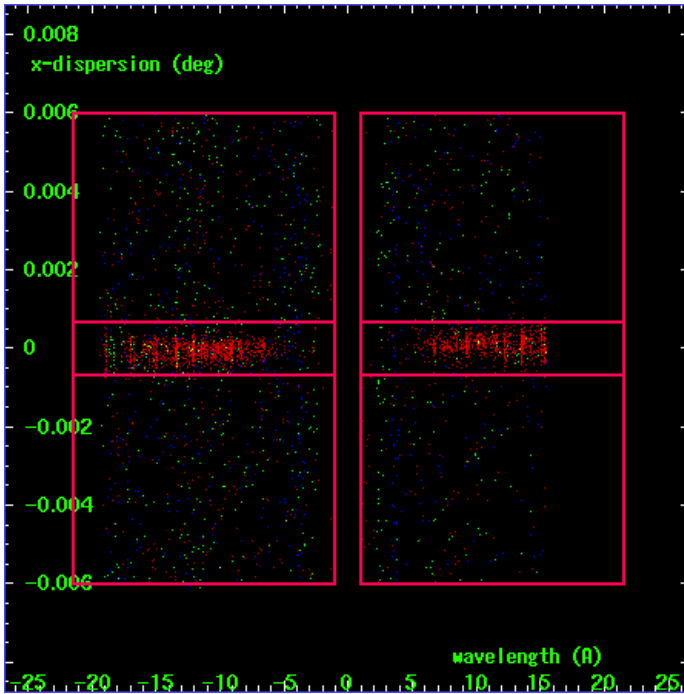
HEG Order Sort 123



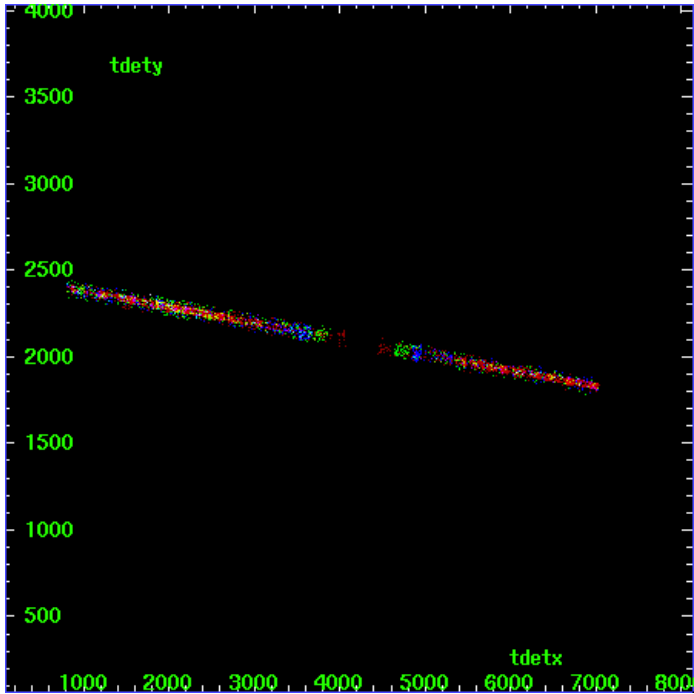
HEG Zero Order



HEG Order Sort ALL

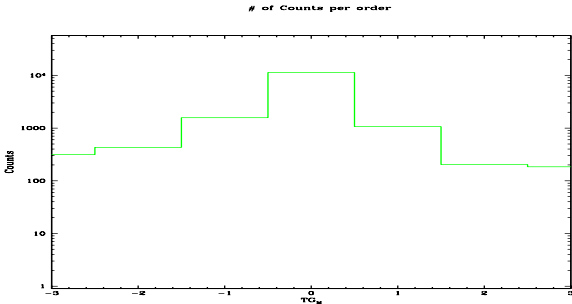


Spot Image HEG

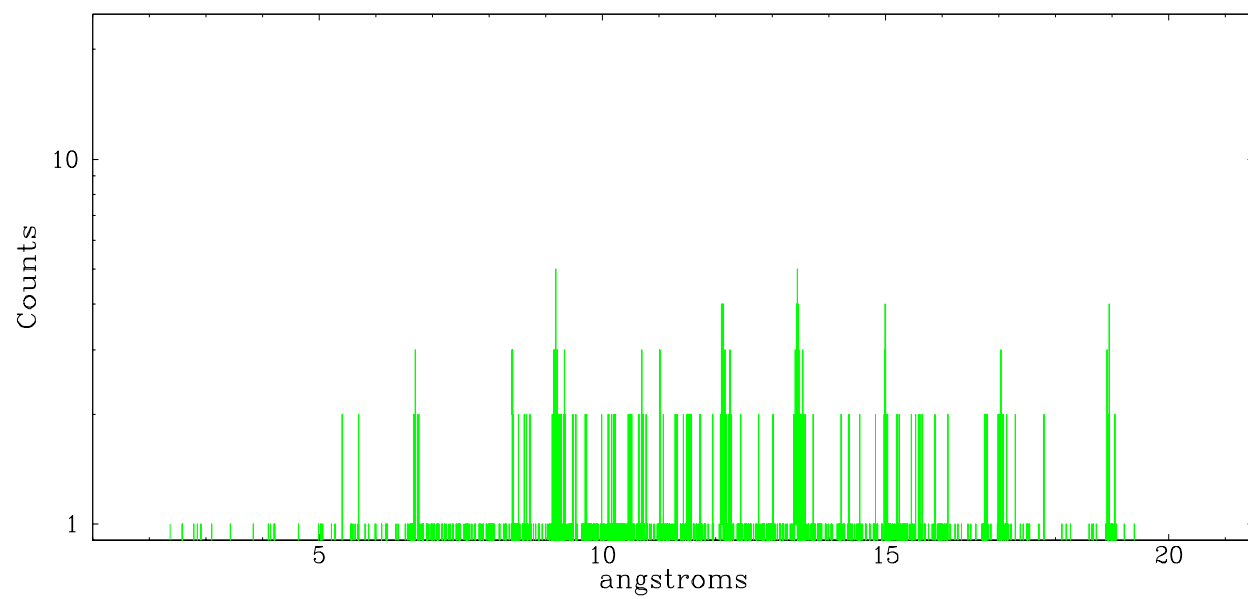


Full Detector HEG

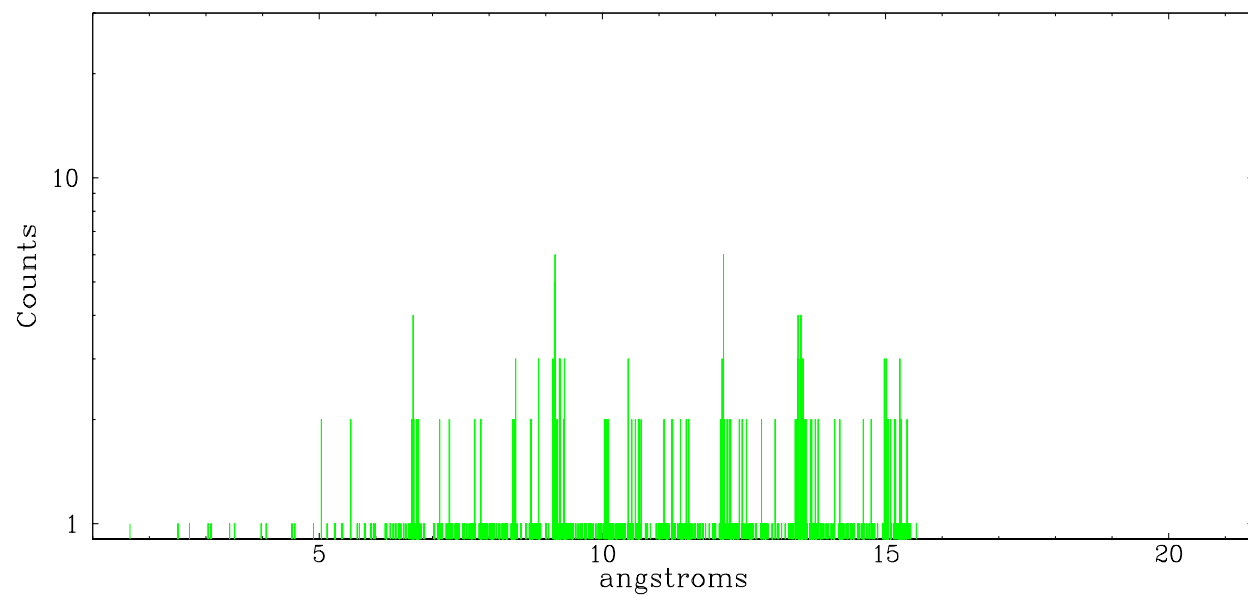
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	314	432	1572	11342	1061	203	184



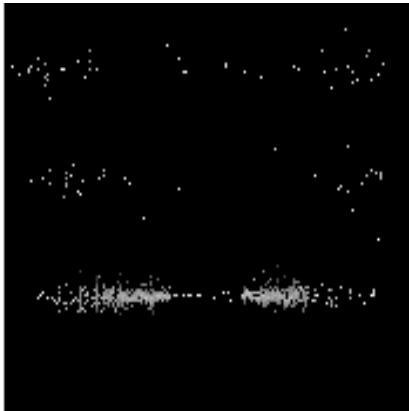
heg order -1



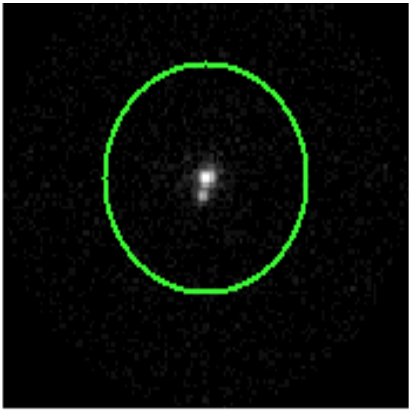
heg order +1



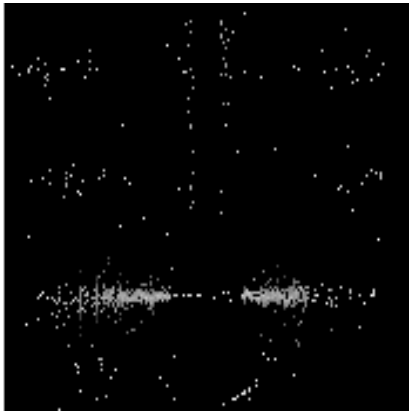
### 3.2 MEG Arm



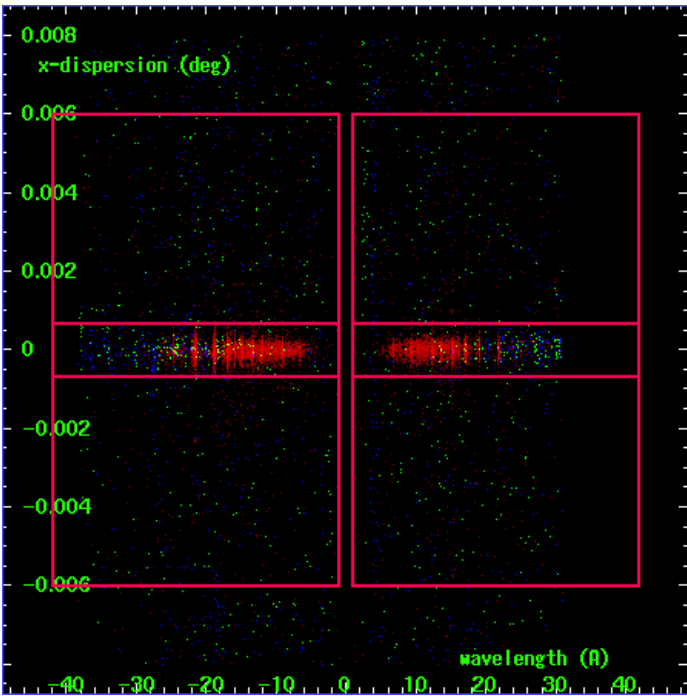
MEG Order Sort 123



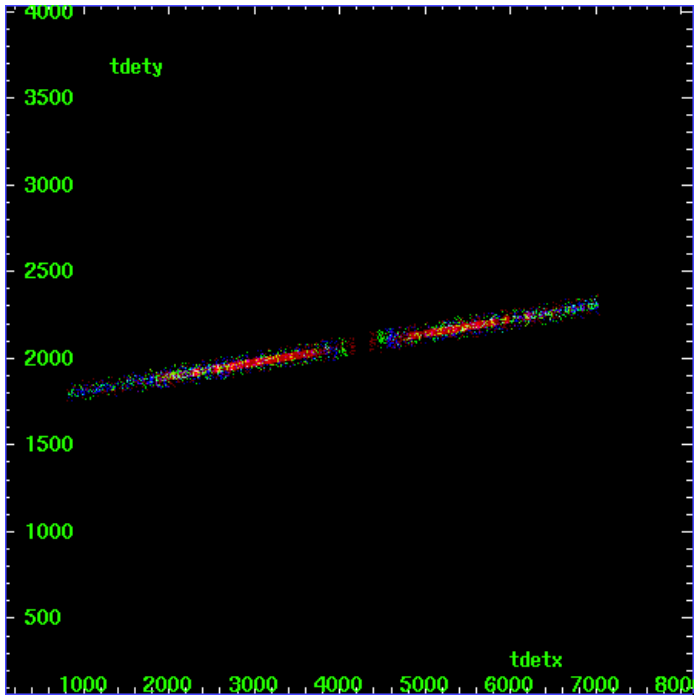
MEG Zero Order



MEG Order Sort ALL

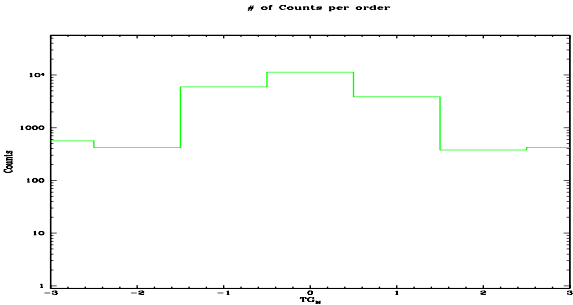


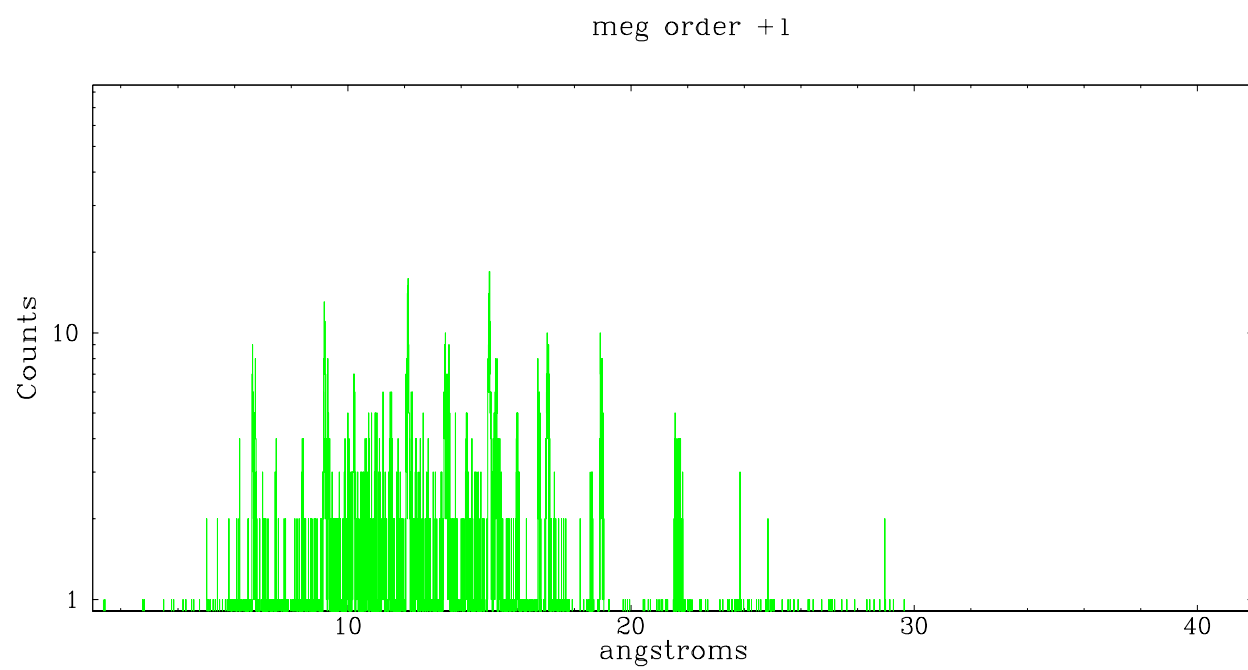
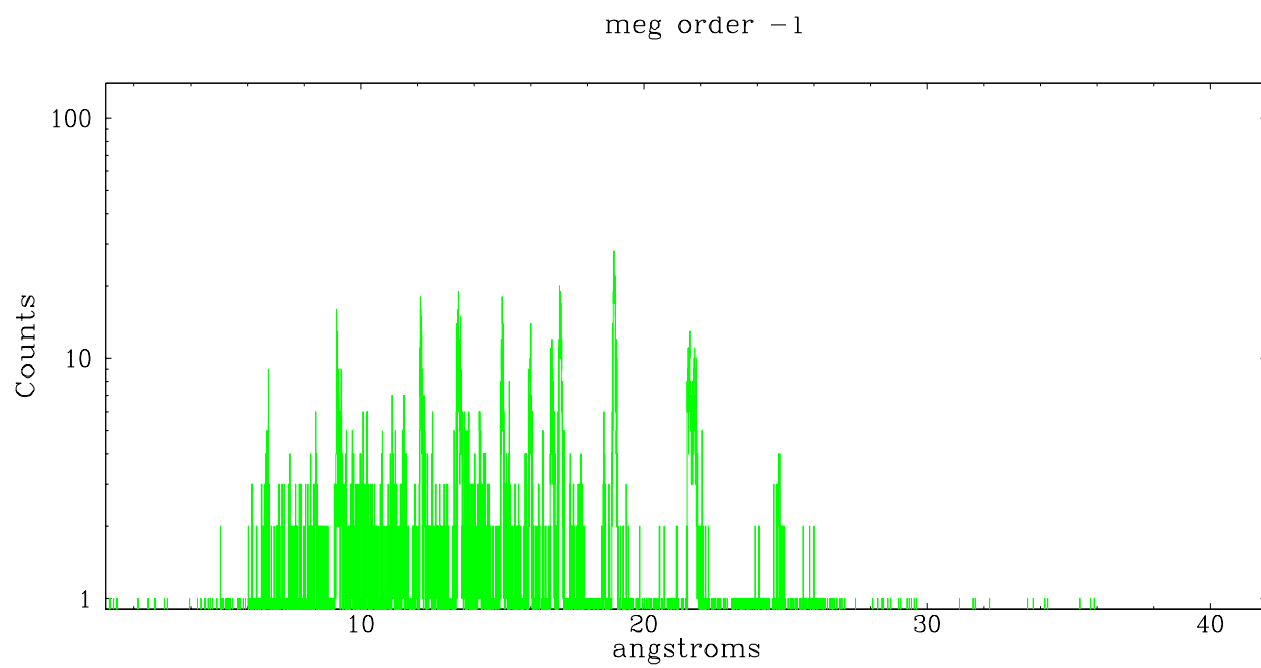
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	565	419	5961	11342	3855	378	423







# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2007.05.22
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	59.91

## A.2 Comments

Faint nearby source. Charge time for this ObsId remains at original value of 59.91 ksec, although with the current processing the charge time would have been 60.43 ksec.