

# V&V Reference Report

## L2 ASCDS Version : 7.6.8.1

Observation 3915 - L2 Version 001  
Chandra X-Ray Center

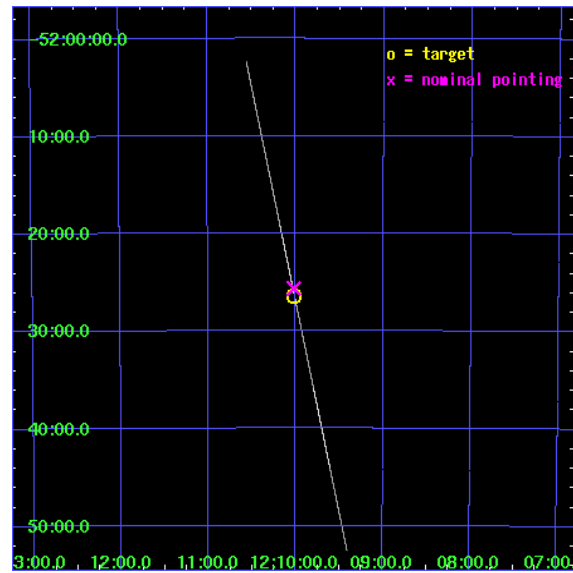
L2 Processing Date : Aug 7 2006

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# 1 Front

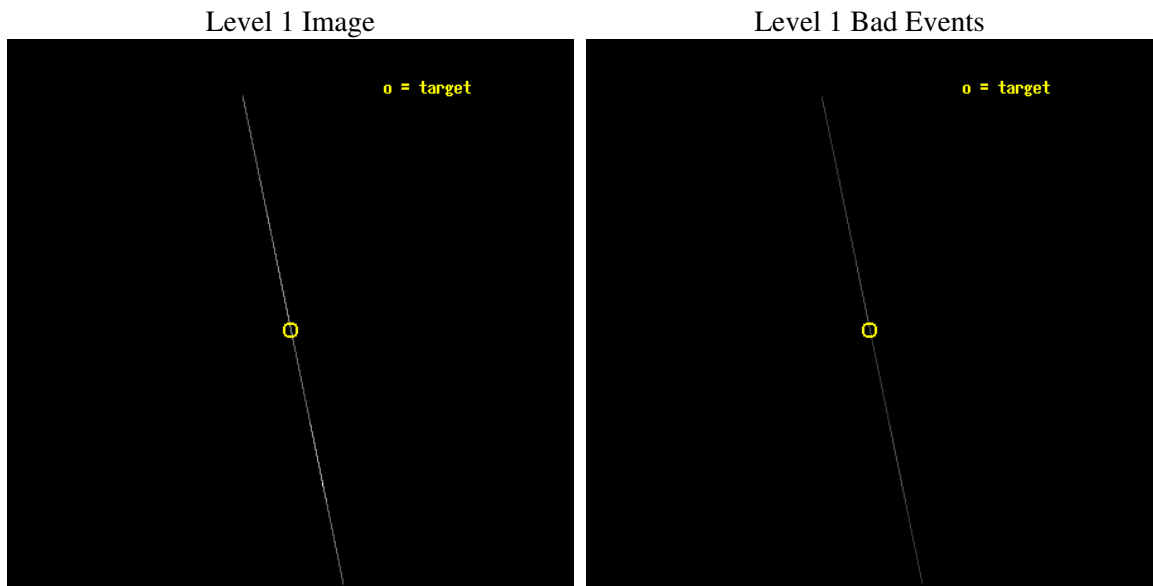
seq_num	500394
obs_id	3915
title	FIRST MEASUREMENT OF THE GRAVITATIONAL REDSHIFT AT THE SURFACE OF A NEUTRON STAR
observer	Dr. George Pavlov
object	1E 1207.4-5209
ra_targ	182.503333
dec_targ	-52.440306
ra_nom	182.50497441462
dec_nom	-52.427571782089
roll_nom	258.15793132658
revision	3
ontime	155680.25
livetime	155072.12402344
ontime4	155680.25
ontime5	155680.25
ontime6	155680.25
ontime7	155680.25
ontime8	155680.25
ontime9	155680.25
l2events	1695940



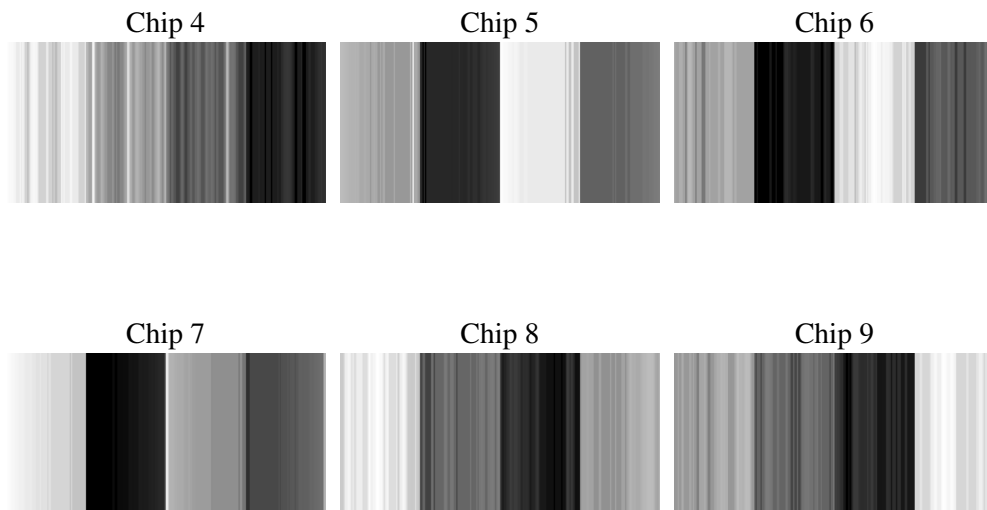
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0
ascdsver	7.6.8.1
caldsver	3.2.2
date	2006-08-07T03:51:41
revision	2

sched_exp_time	155567.138000
ontime	156523.59498164
ontime4	156120.86032504
ontime5	156530.89162123
ontime6	156150.04298514
ontime7	156523.59498164
ontime8	156166.0932959
ontime9	156152.96056587
l1events	2758936

### 2.1.4 Events

	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	213158	1083147	218434	628997	394455	220745
rejected events	44916	92062	50582	108234	67334	52070
rejected %	21%	8%	23%	17%	17%	23%

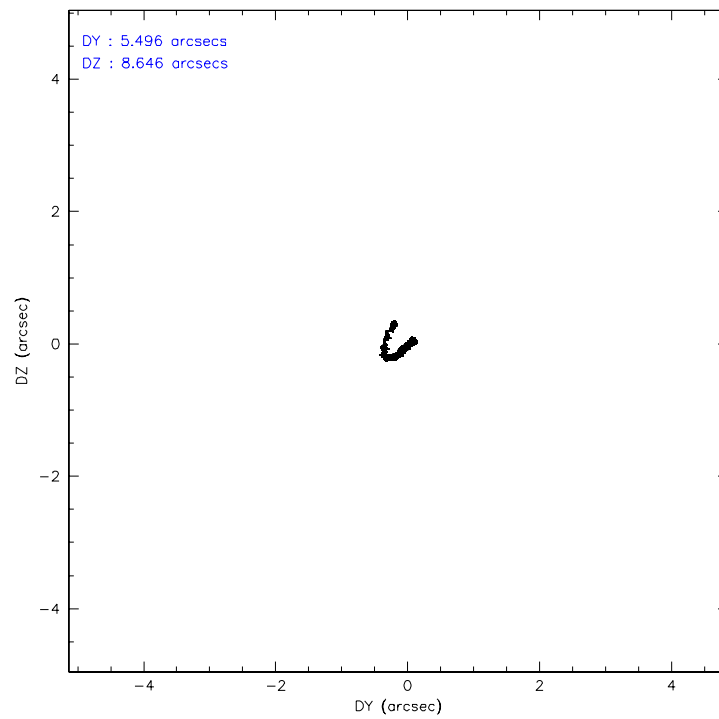
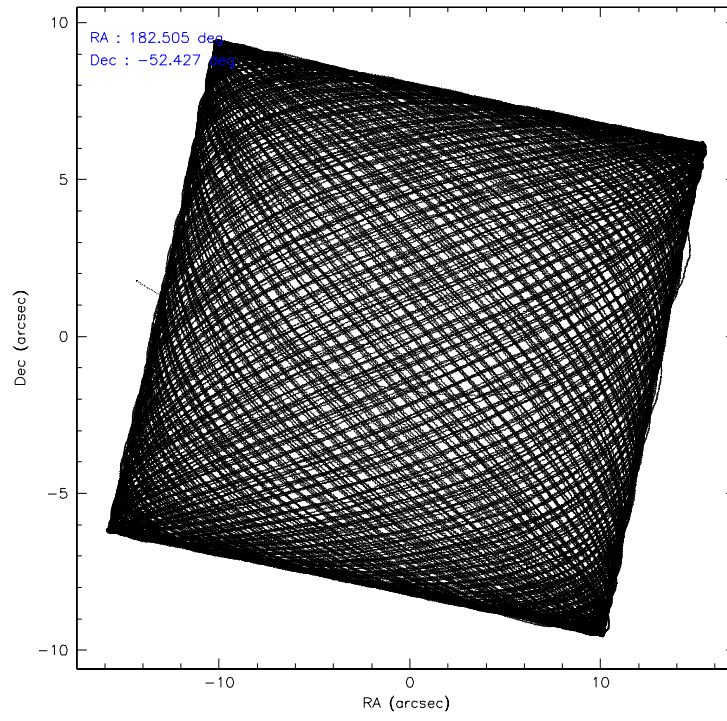
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	20528	328399	21185	34086	59952	21548
	9%	30%	9%	5%	15%	9%
grade 1 events	735	879	606	1017	1219	698
	0%	0%	0%	0%	0%	0%
grade 2 events	74039	258694	71201	143368	111617	71473
	34%	23%	32%	22%	28%	32%
grade 3 events	22334	14151	20976	23182	38054	19425
	10%	1%	9%	3%	9%	8%
grade 4 events	22986	13599	20448	22690	37604	20791
	10%	1%	9%	3%	9%	9%
grade 5 events	33129	73117	37551	89621	52596	39217
	15%	6%	17%	14%	13%	17%
grade 6 events	39407	394308	46467	315033	93413	47593
	18%	36%	21%	50%	23%	21%
grade 7 events	0	0	0	0	0	0
	0%	0%	0%	0%	0%	0%

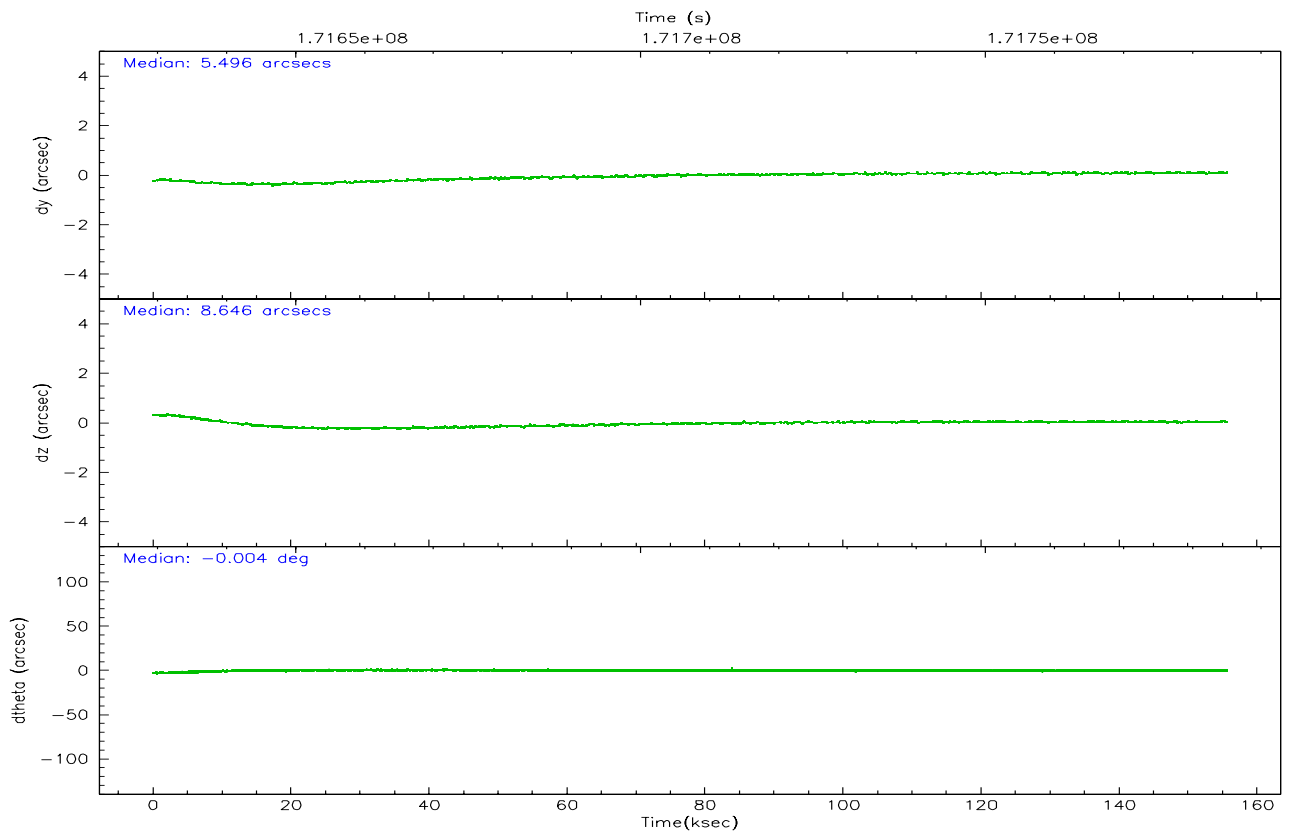
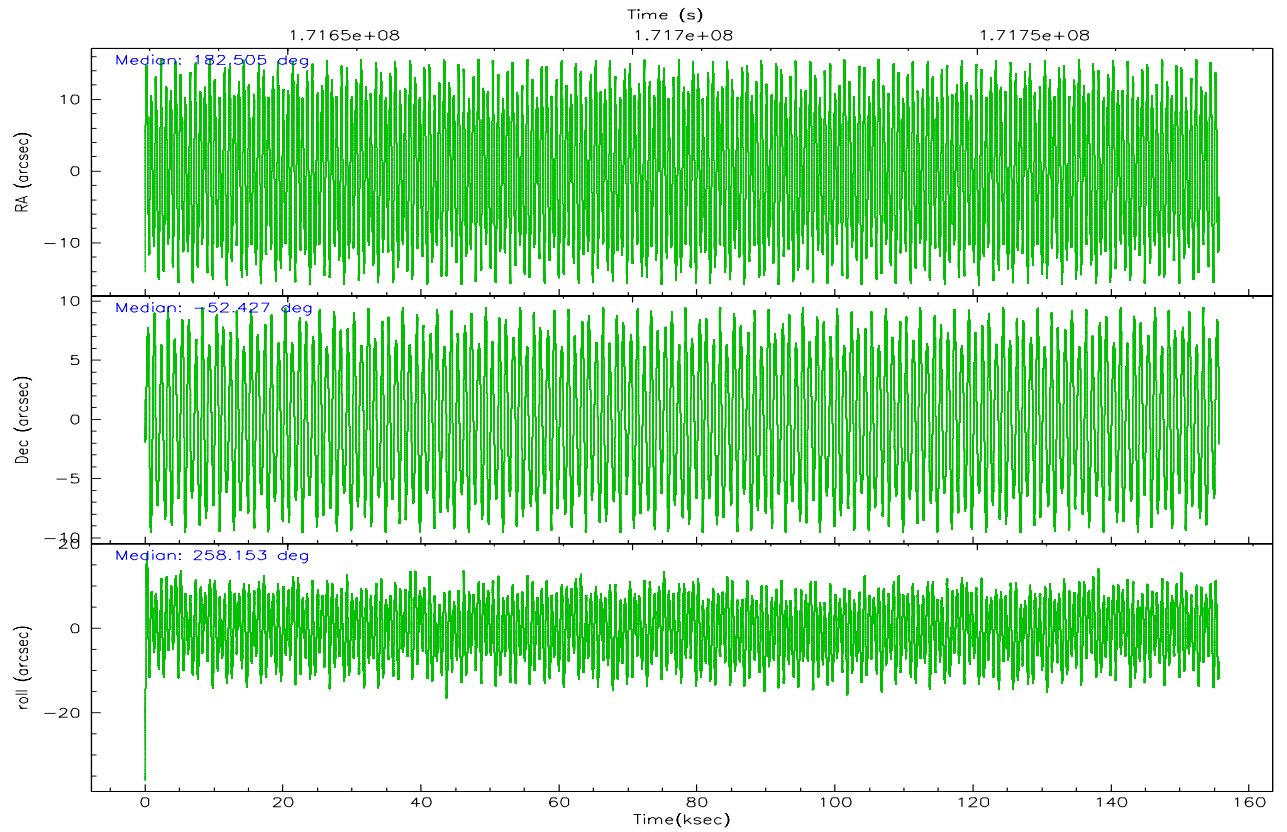


## 2.2 Compared Parameters

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	LETG	LETG	Obspar update status	NONE	UPDATED
Data mode	CC33_FAINT	CC33_FAINT	On-chip summing requested	N	N
Observation mode	POINTING	POINTING	Subarray requested	NONE	NONE
Pointing RA	182.490479	182.5049744146166	Alternating exposures requested	N	N
Pointing Dec	-52.401836	-52.42757178208855	Primary exposure time	0.000000	0
Pointing Roll	257.989821	258.1579313265838			
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-182.132523	-182.1344861297048			
SIM translation stage offset (mm)	-8	-7.998036453302973			
Observation start time	171629466.184000	171628486.37638			
Observation start date	2003-06-10T10:50:02	2003-06-10T10:34:46			
Observation end time	171785033.184000	171785347.77054			
Observation end date	2003-06-12T06:02:49	2003-06-12T06:09:07			
Read mode	CONTINUOUS	CONTINUOUS			

## 2.3 Aspect



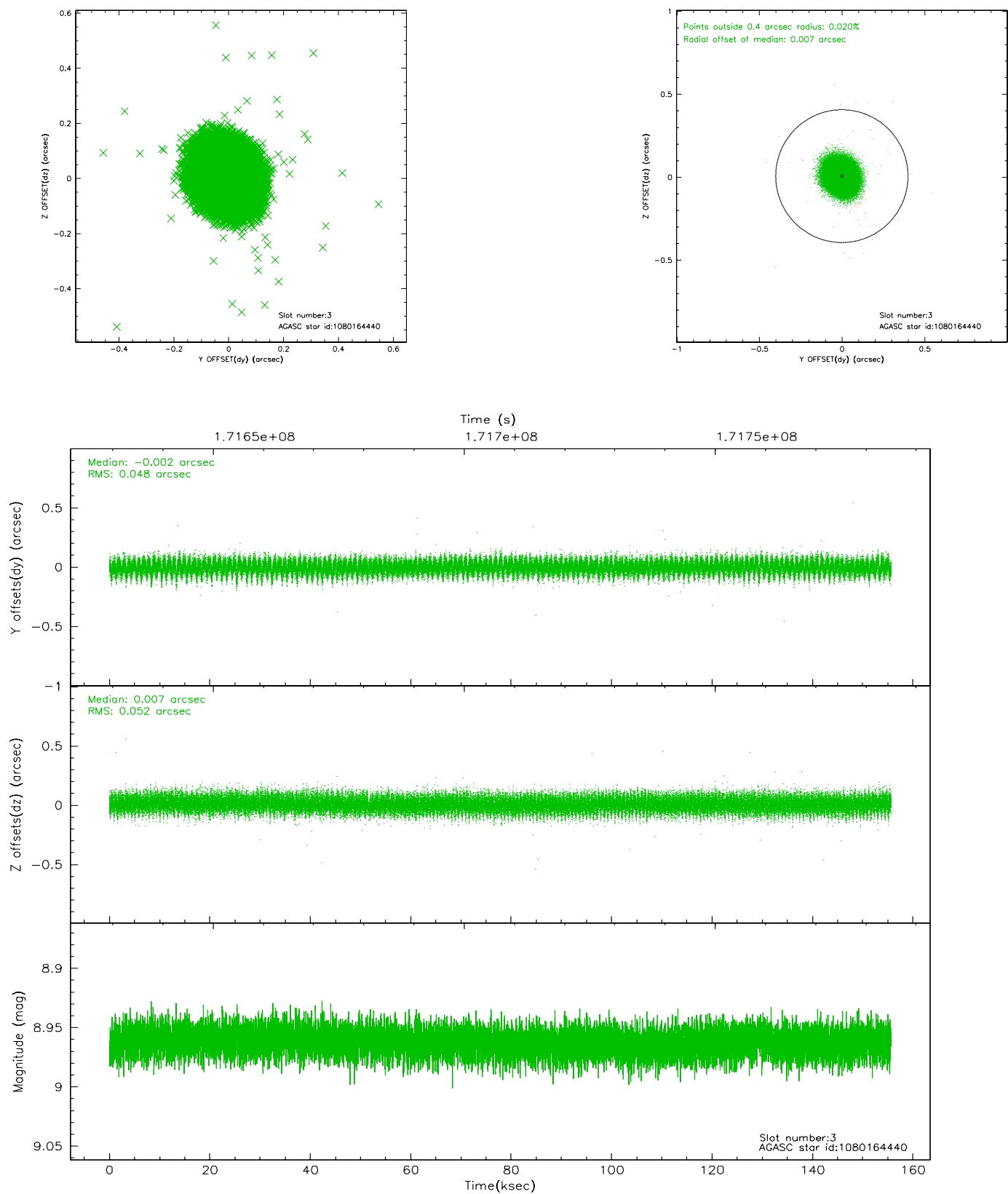


### Slot Statistics

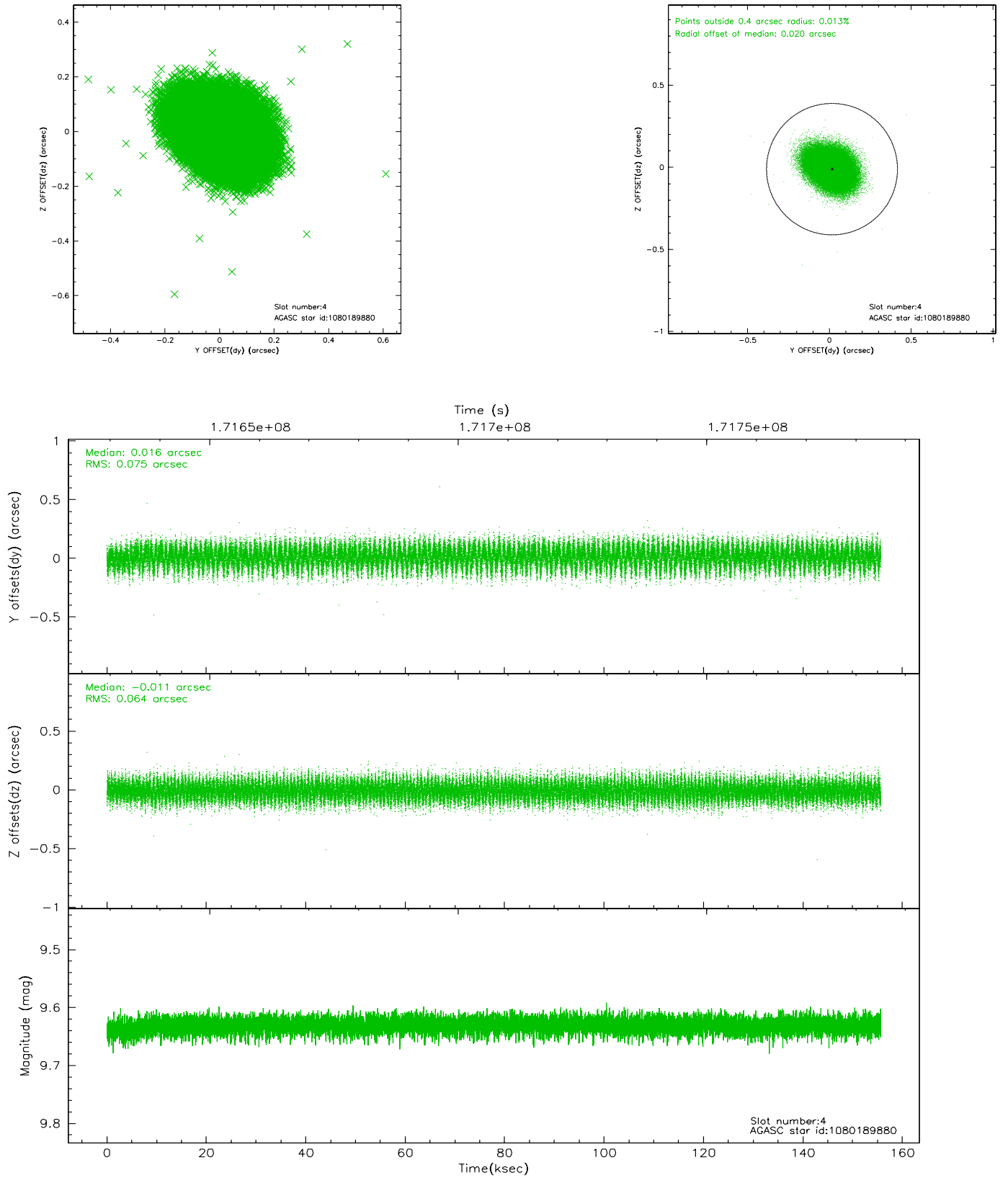
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.19	37972	0.025	0.170	0.010	0.016	0.000000	0.000000	938.46	-1890.06
1	FID	ACIS-S-4	7.18	37971	0.046	-0.125	0.009	0.016	0.000000	0.000000	2155.85	13.88
2	FID	ACIS-S-5	7.24	37969	-0.098	-0.032	0.006	0.012	0.000000	0.000000	-1810.65	7.49
3	GUIDE	1080164440	8.96	75844	-0.002	0.007	0.075	0.121	181.986340	-52.264623	-247.70	-1188.21
4	GUIDE	1080189880	9.63	75838	0.016	-0.011	0.105	0.170	182.794721	-51.898848	-1909.94	284.58
5	GUIDE	1131421616	9.18	75915	0.032	0.090	0.087	0.138	182.273623	-52.784412	1446.53	-174.67
6	GUIDE	1131423616	8.85	75925	0.021	-0.053	0.080	0.128	182.073492	-52.590429	856.96	-749.95
7	GUIDE	1131424824	9.24	75900	-0.063	-0.031	0.087	0.140	181.758646	-52.547110	853.37	-1456.28

## 2.4 Star Slots

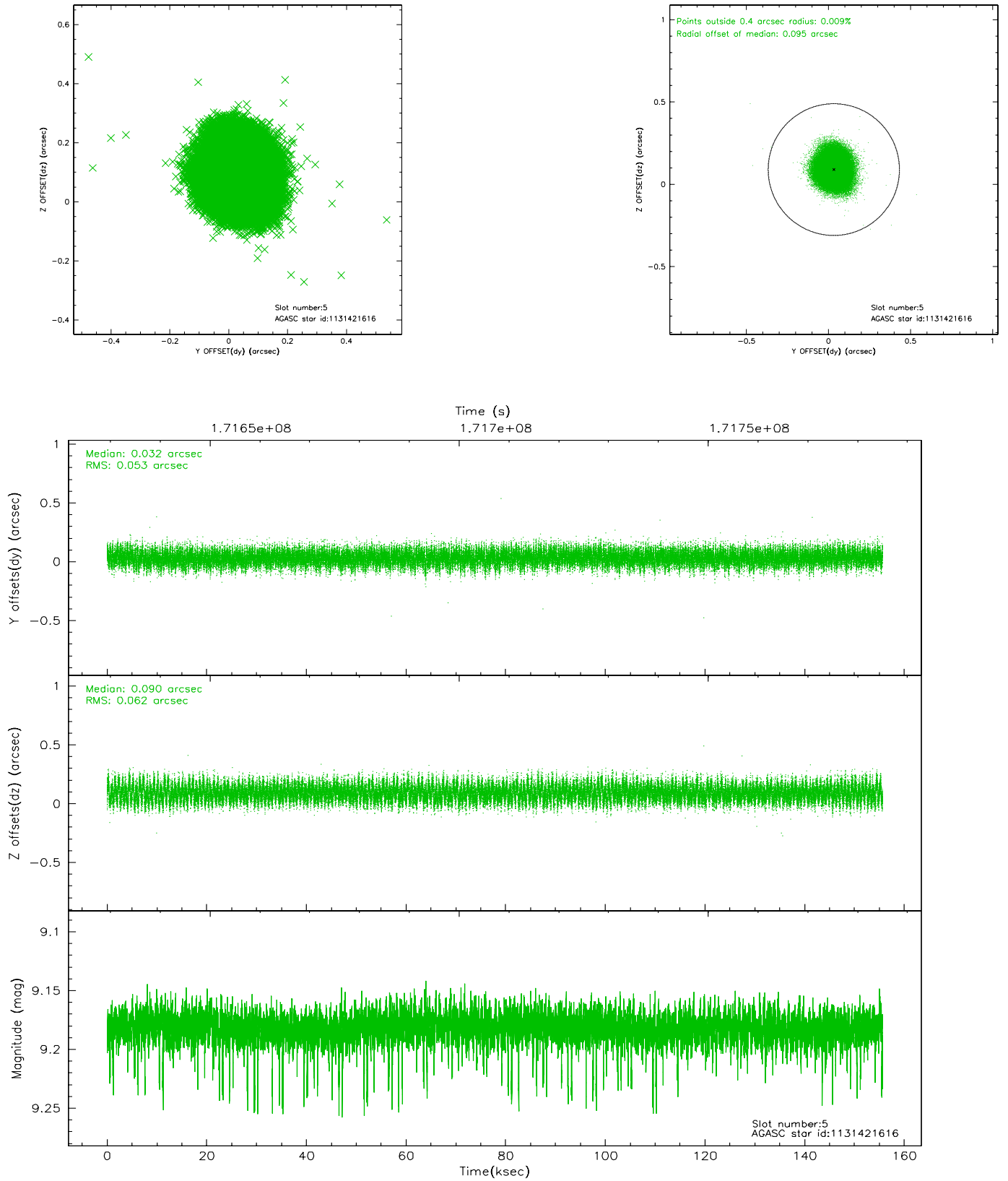
### 2.4.1 Slot 3



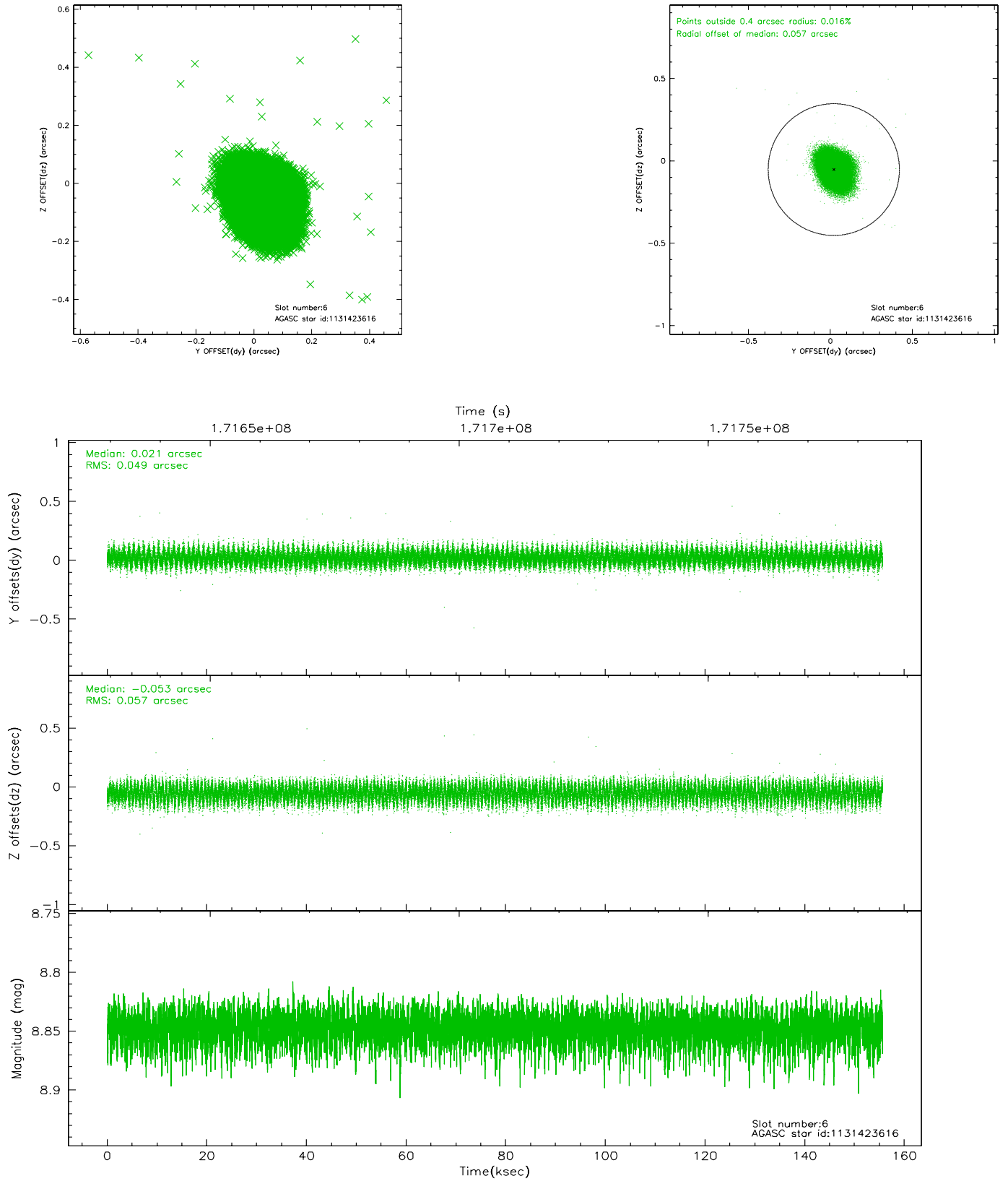
## 2.4.2 Slot 4



### 2.4.3 Slot 5

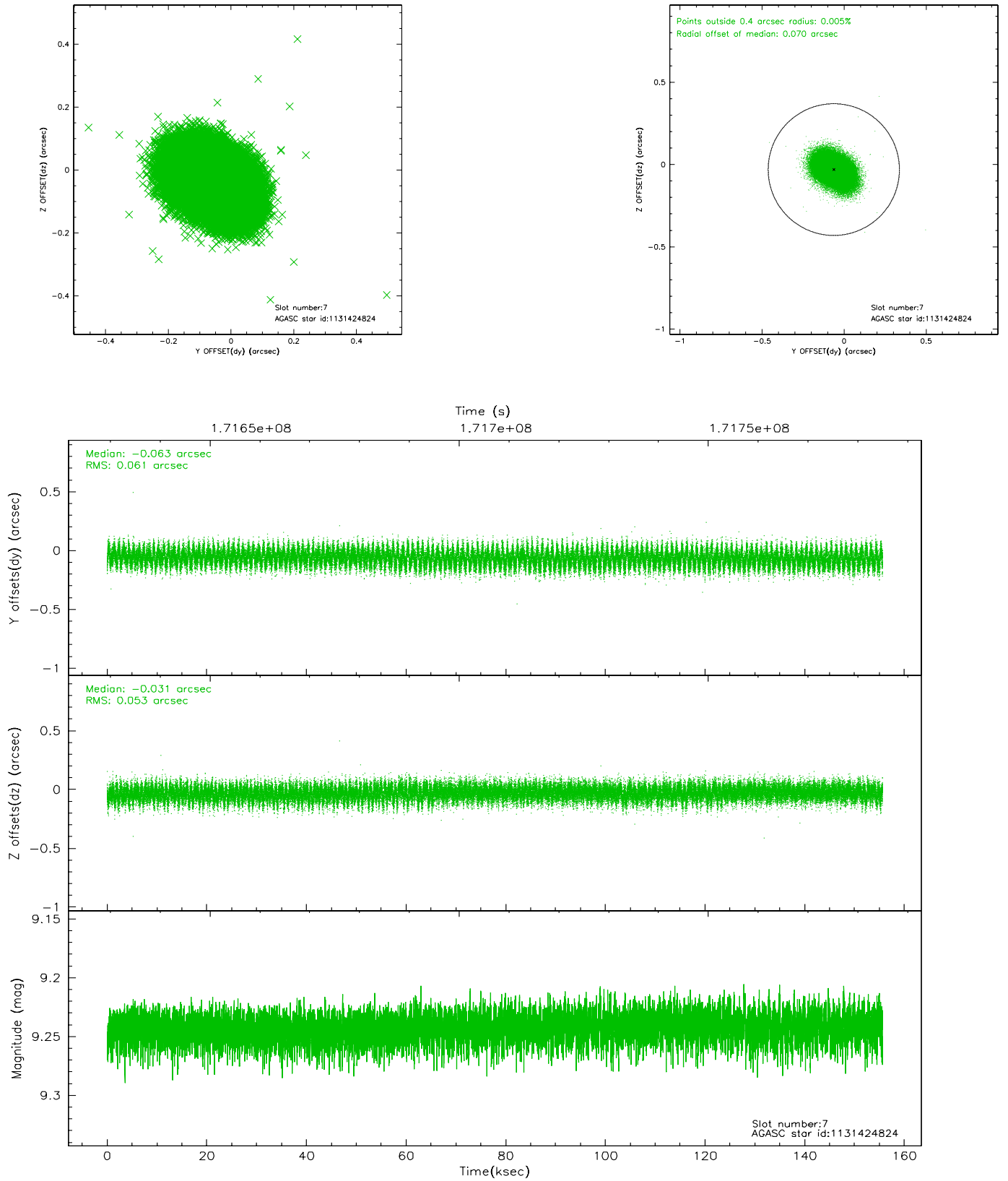


## 2.4.4 Slot 6



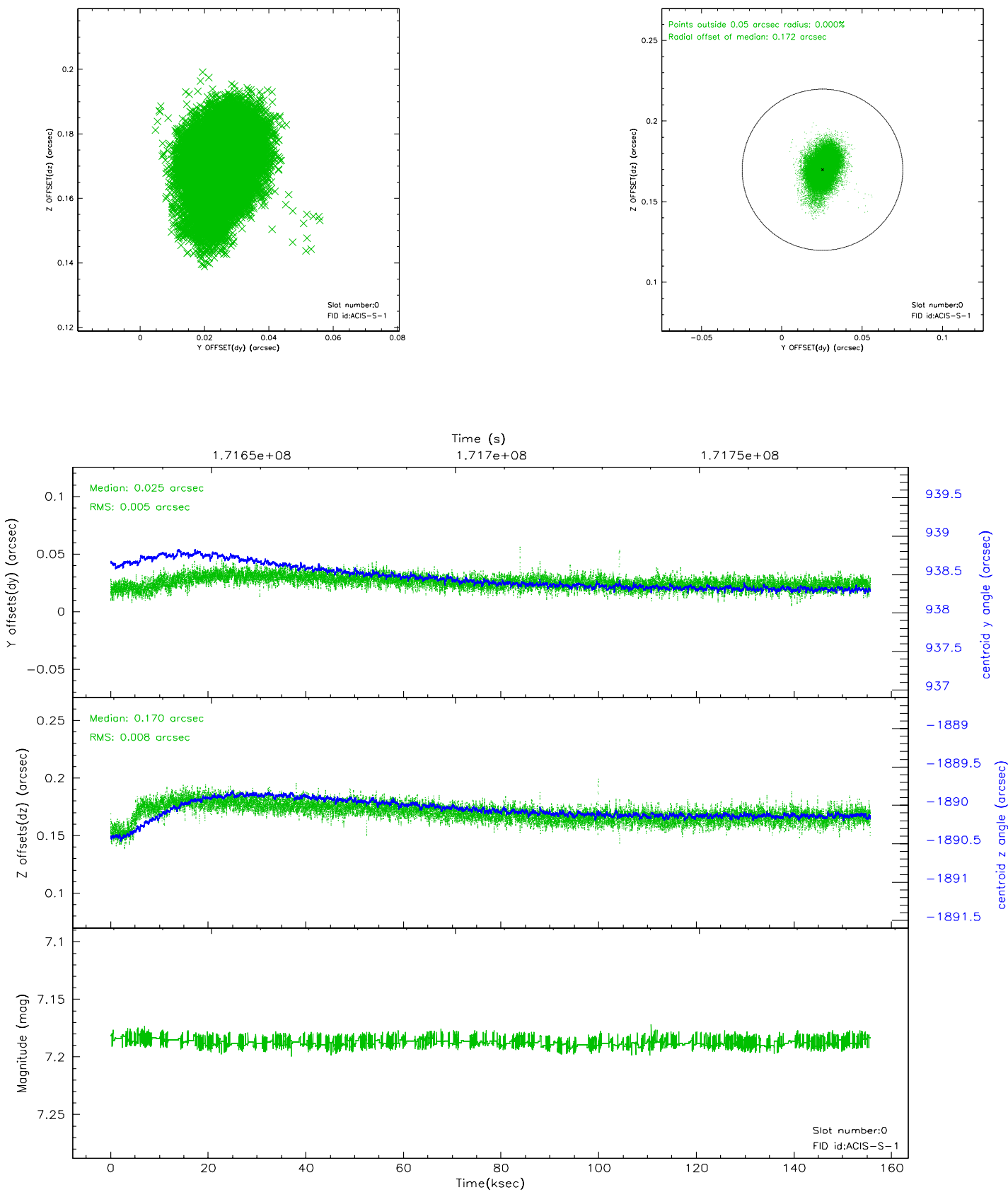


## 2.4.5 Slot 7

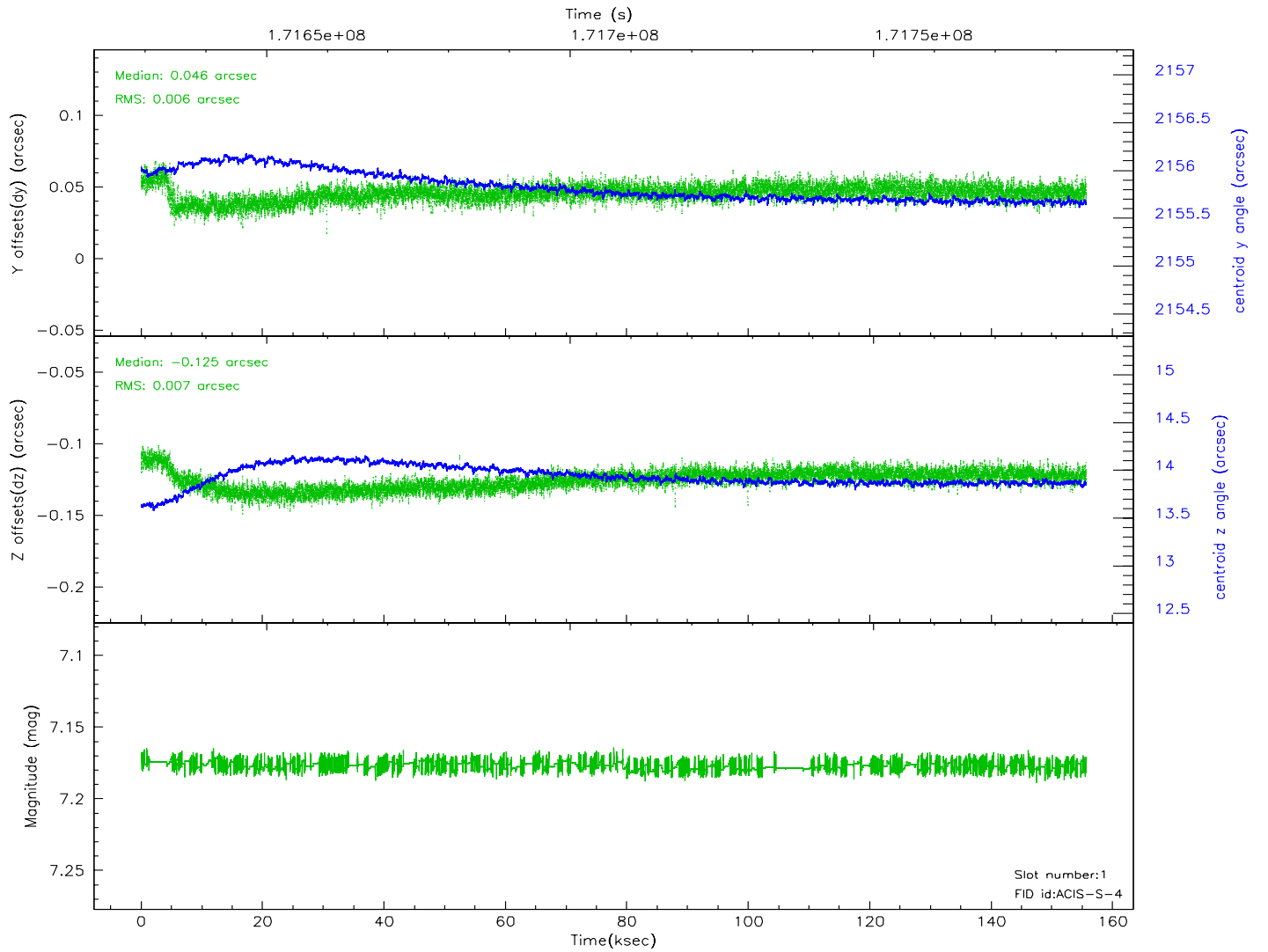
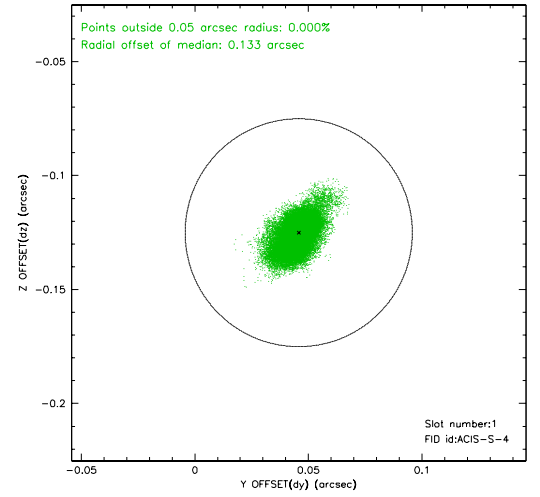
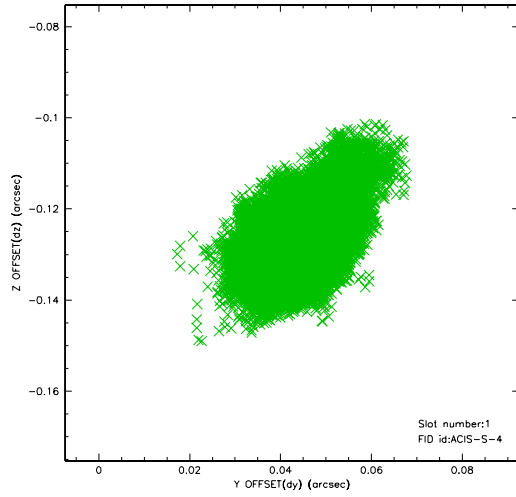


## 2.5 FID Slots

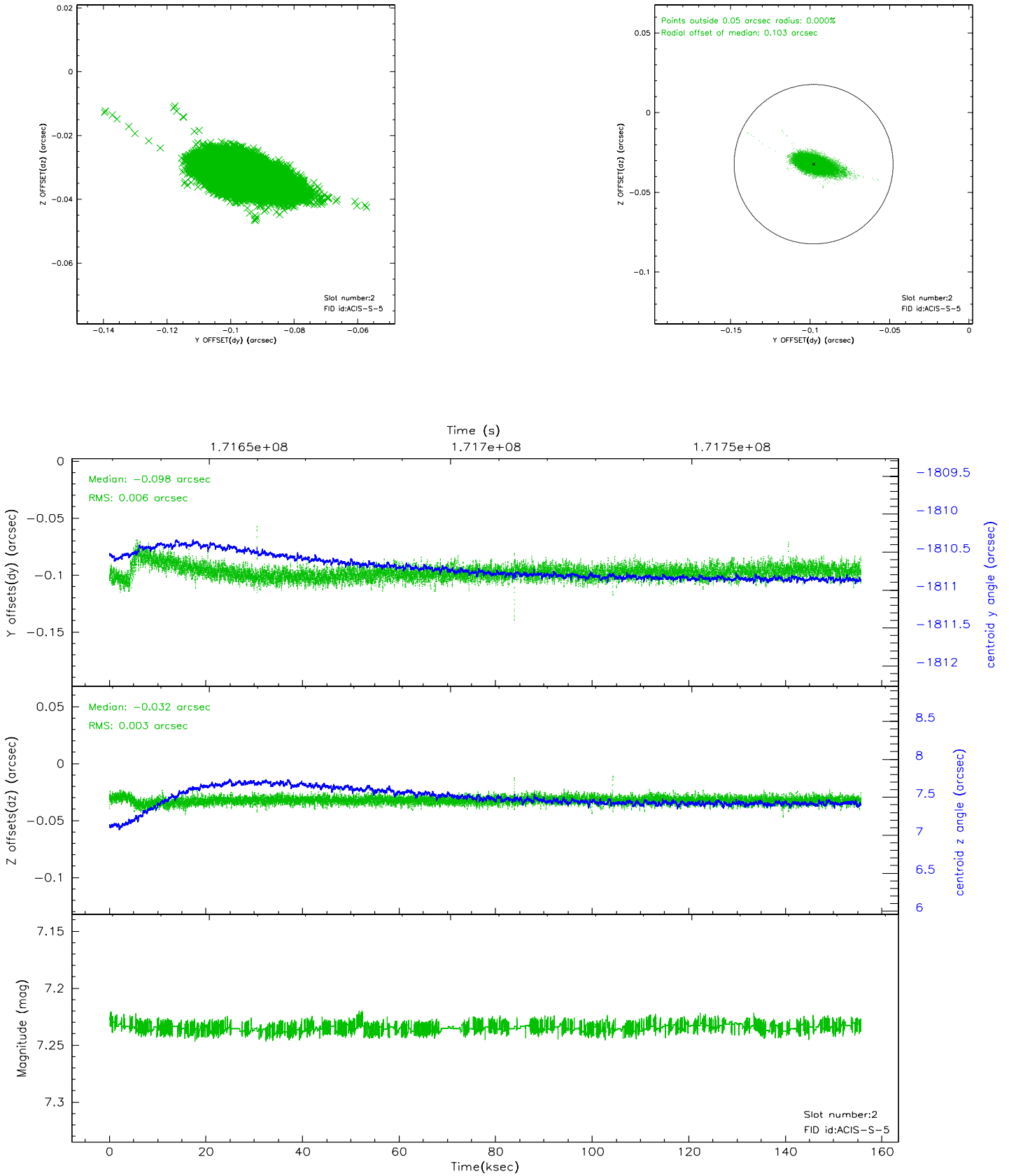
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2

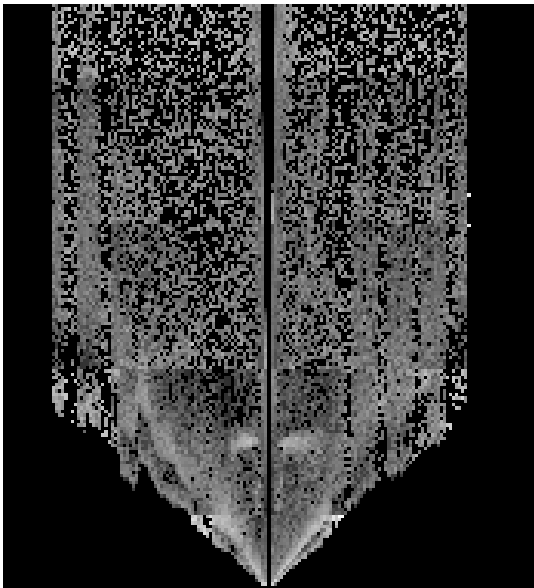


# 3 Gratings

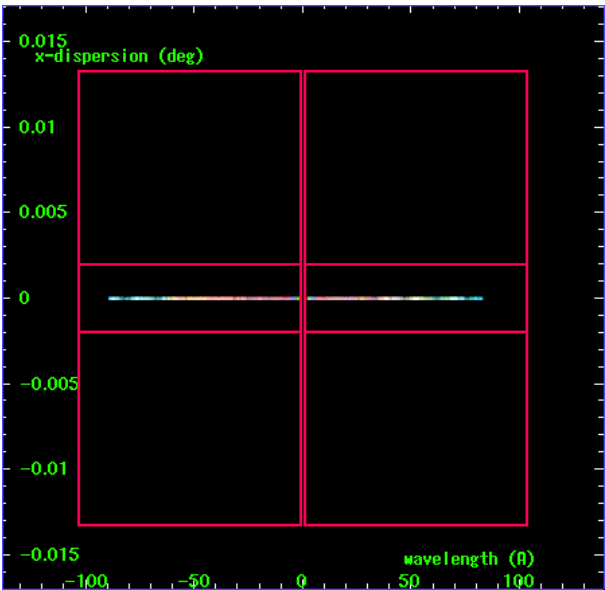
## 3.1 LETG Arm



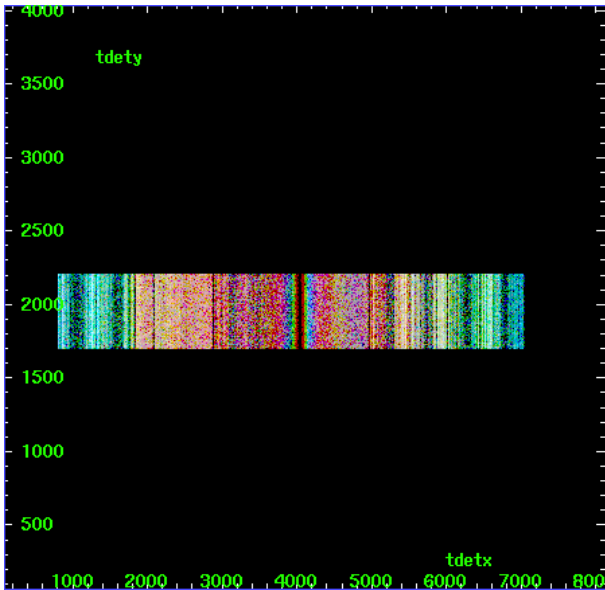
LETG Order Sort 123



LETG Order Sort ALL

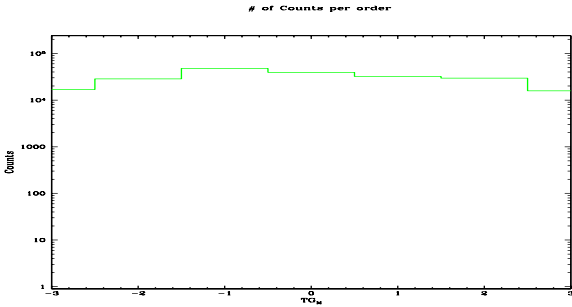


Spot Image LETG

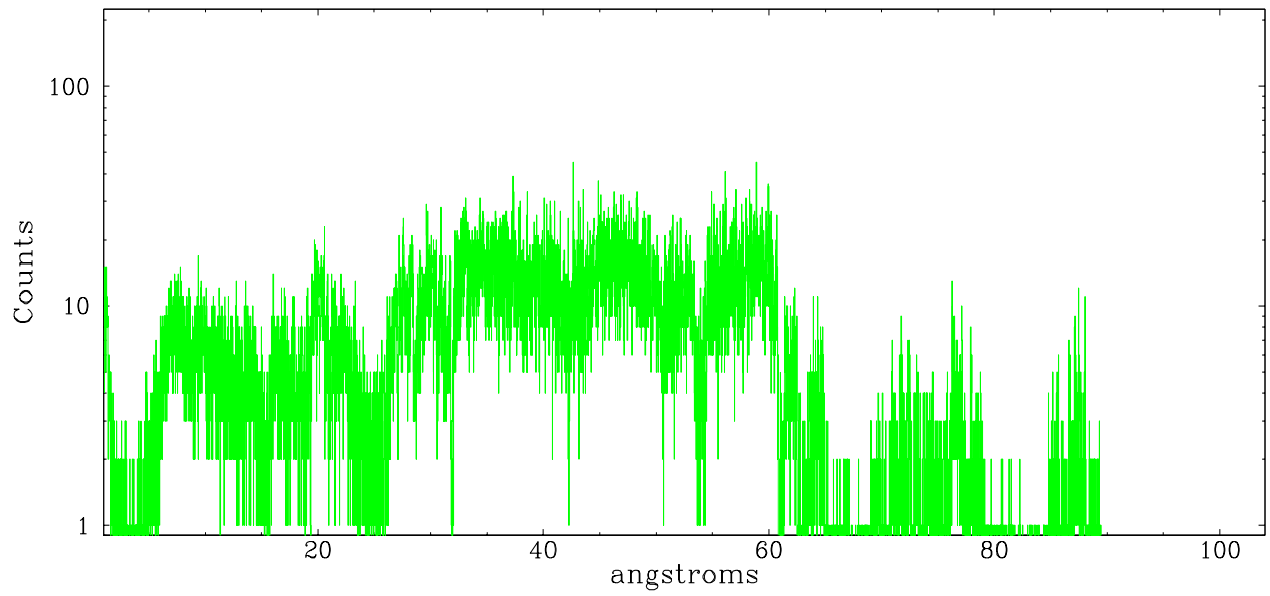


Full Detector LETG

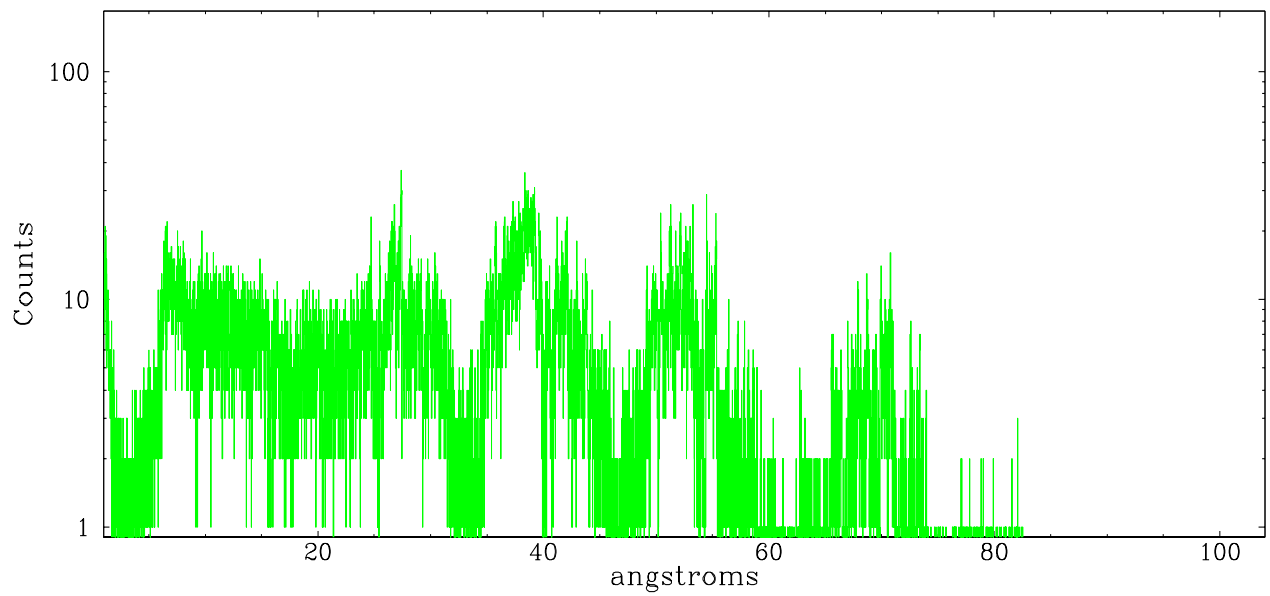
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	16860	28416	47636	39332	32211	29538	15793



leg order  $-1$



leg order  $+1$



## A Summary

### A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2006.08.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	156.683

### A.2 Comments