

# V&V Reference Report

## L2 ASCDS Version : 7.6.8

Observation 4106 - L2 Version 001  
Chandra X-Ray Center

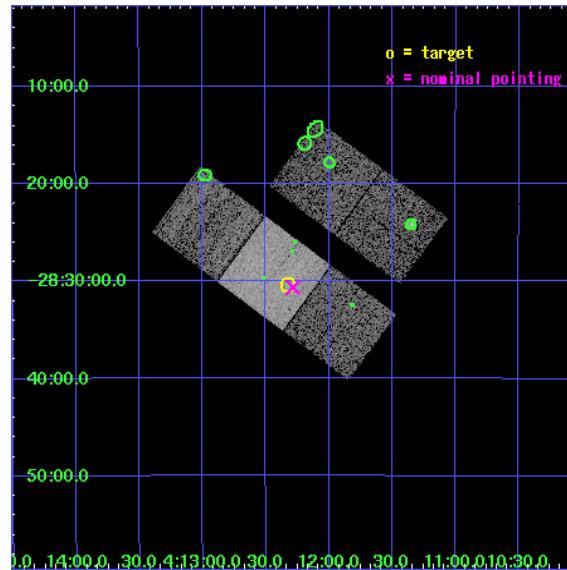
L2 Processing Date : Aug 1 2006

## 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>Point Sources</b>	<b>17</b>
<b>A</b>	<b>Summary</b>	<b>18</b>
A.1	Status . . . . .	18
A.2	Comments . . . . .	18

# 1 Front

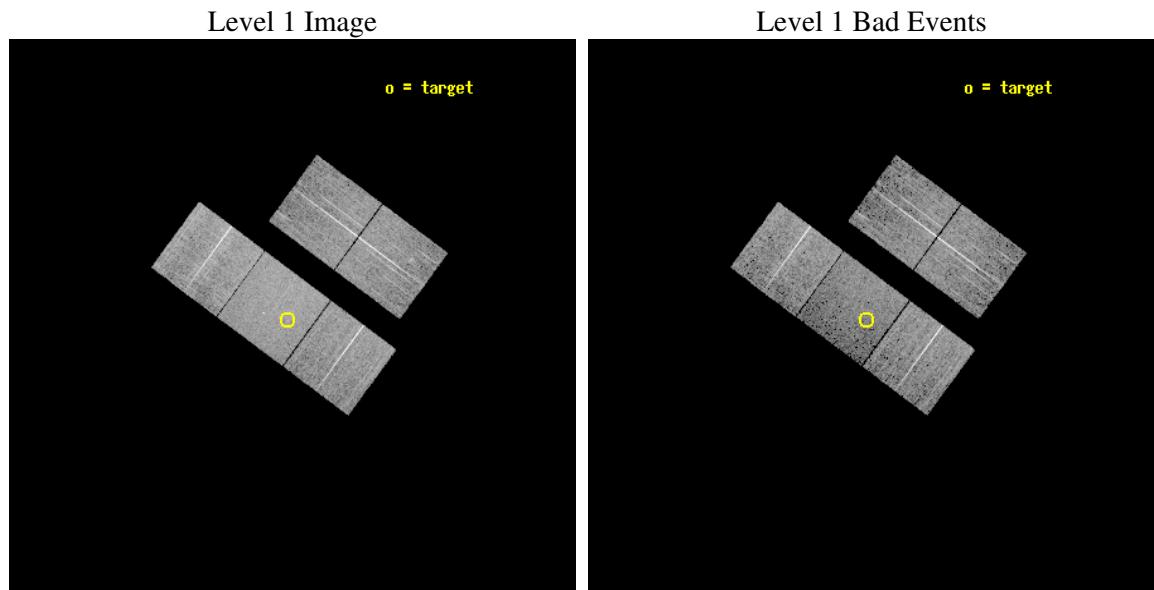
seq_num	700785
obs_id	4106
title	THE X-RAY PROPERTIES OF ULTRALUMINOUS INFRARED GALAXIES (ULIGS)
observer	Prof. Andrew Wilson
object	F04103-2838
dtycycle	0
cycle	P
ra_targ	63.08125
dec_targ	-28.506778
ra_nom	63.071402394733
dec_nom	-28.511070055745
roll_nom	216.47314841852
revision	2
ontime	10471.799979866
livetime	10334.978203902
ontime2	10468.659019649
ontime3	10468.659039557
ontime6	10465.518079311
ontime7	10471.799979866
ontime8	10468.659019619
l2events	64382



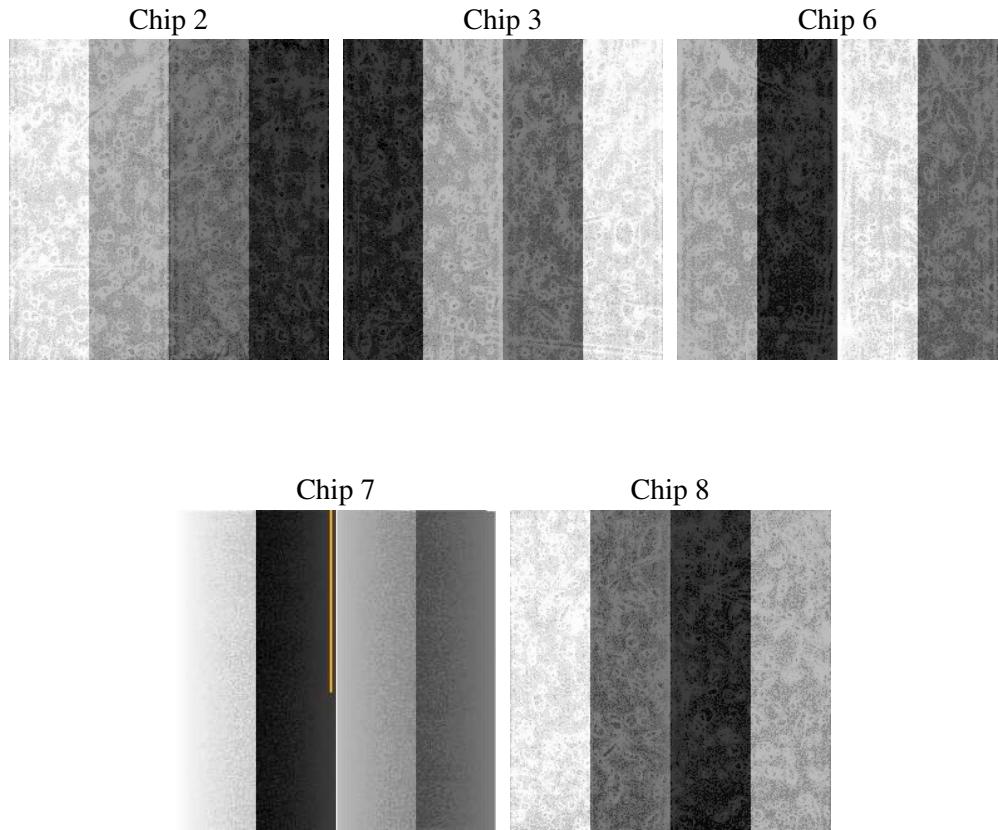
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0
ascdsver	7.6.8
caldbver	3.2.2
date	2006-08-01T06:42:46
revision	2

sched_exp_time	10300.000000
ontime	11615.418001533
ontime2	11615.418051392
ontime3	11612.277061224
ontime6	11609.136100978
ontime7	11615.418001533
ontime8	11615.418051362
l1events	348940

### 2.1.4 Events

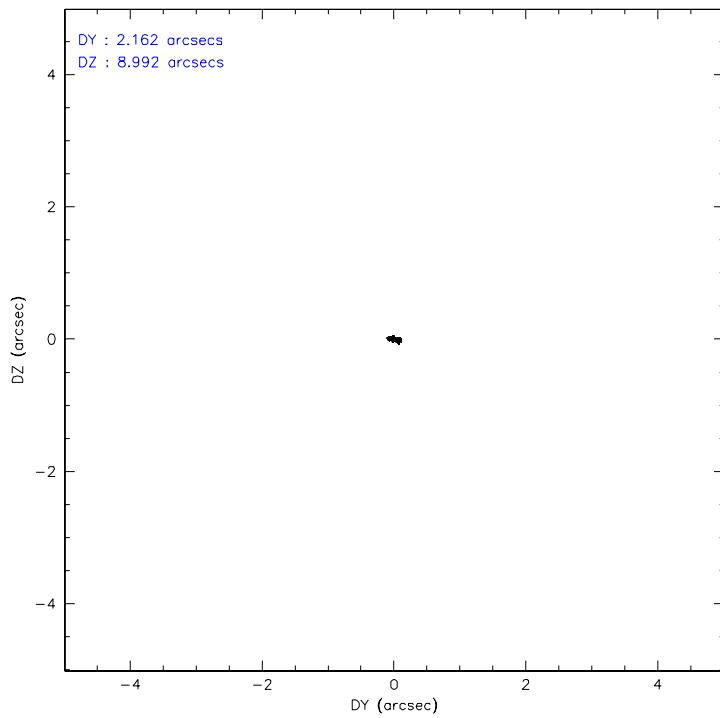
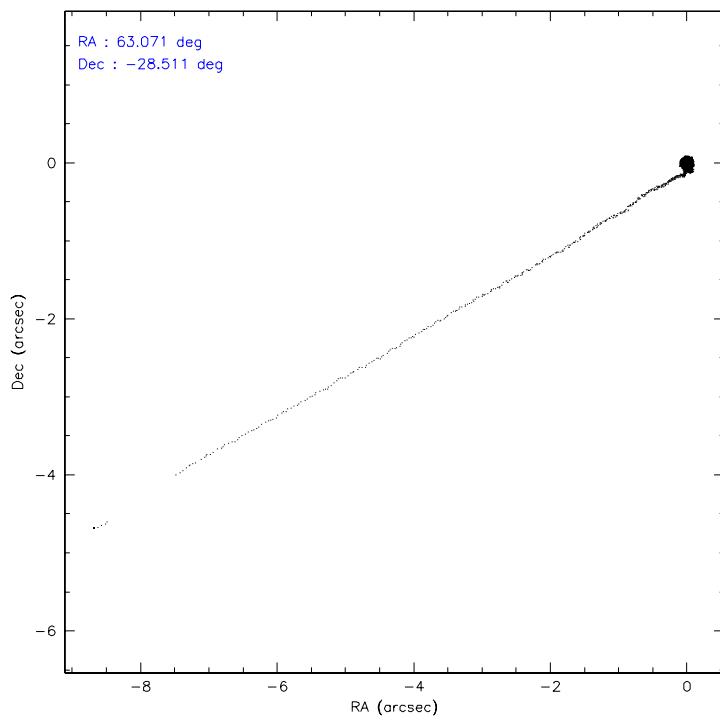
	<b>ccd 2</b>	<b>ccd 3</b>	<b>ccd 6</b>	<b>ccd 7</b>	<b>ccd 8</b>
level 1 events	62994	61491	65614	77203	81638
rejected events	55000	53977	56905	42666	63204
rejected %	87%	87%	86%	55%	77%

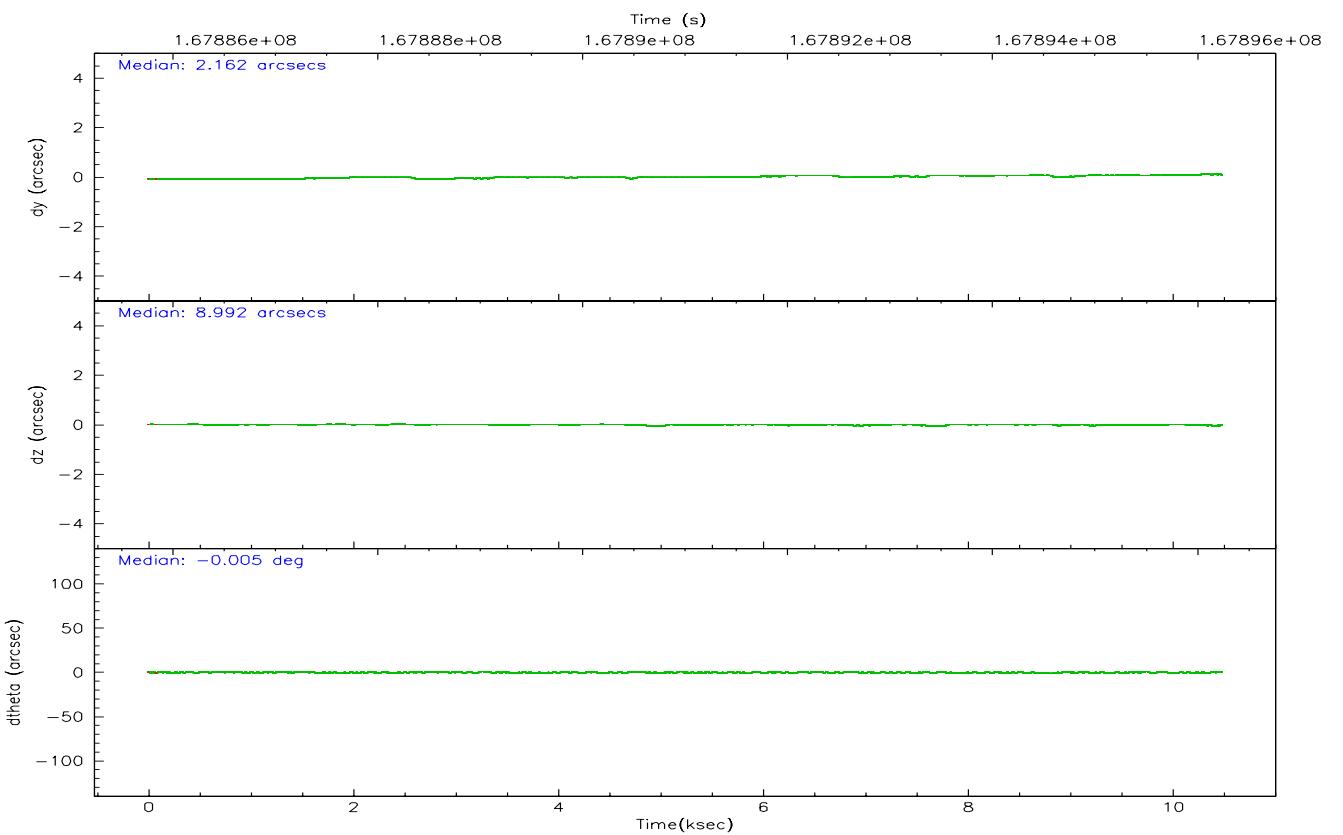
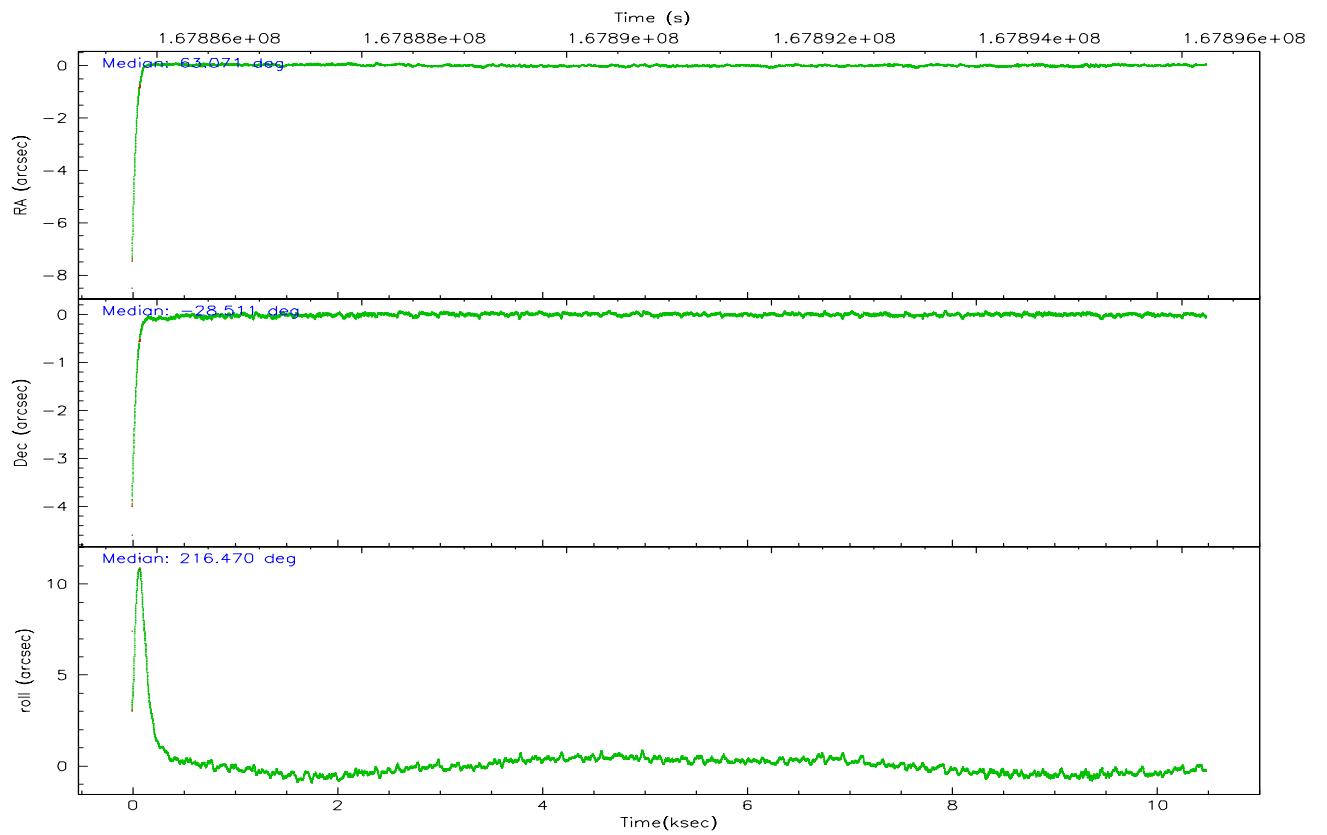
	<b>ccd 2</b>	<b>ccd 3</b>	<b>ccd 6</b>	<b>ccd 7</b>	<b>ccd 8</b>
grade 0 events	4052	3690	4363	2995	8173
	6%	6%	6%	3%	10%
grade 1 events	47	25	40	32	64
	0%	0%	0%	0%	0%
grade 2 events	1781	1511	1779	9097	3904
	2%	2%	2%	11%	4%
grade 3 events	747	837	863	2304	1992
	1%	1%	1%	2%	2%
grade 4 events	769	798	846	2200	1856
	1%	1%	1%	2%	2%
grade 5 events	1938	2313	2469	5280	3367
	3%	3%	3%	6%	4%
grade 6 events	1402	1464	1707	21220	4657
	2%	2%	2%	27%	5%
grade 7 events	52258	50853	53547	34075	57625
	82%	82%	81%	44%	70%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-23678	ACIS-23678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	On-chip summing requested	N	N
Observation mode	POINTING	POINTING	Subarray requested	NONE	NONE
Pointing RA	63.083369	63.07140239473264	Alternating exposures requested	N	N
Pointing Dec	-28.485962	-28.51107005574504	Primary exposure time	0.000000	3.1
Pointing Roll	216.322237	216.4731484185189			
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	167885939.184000	167884375.4428			
Observation start date	2003-04-28T02:57:55	2003-04-28T02:32:55			
Observation end time	167896239.184000	167897193.58084			
Observation end date	2003-04-28T05:49:35	2003-04-28T06:06:33			
Read mode	TIMED	TIMED			

## 2.3 Aspect





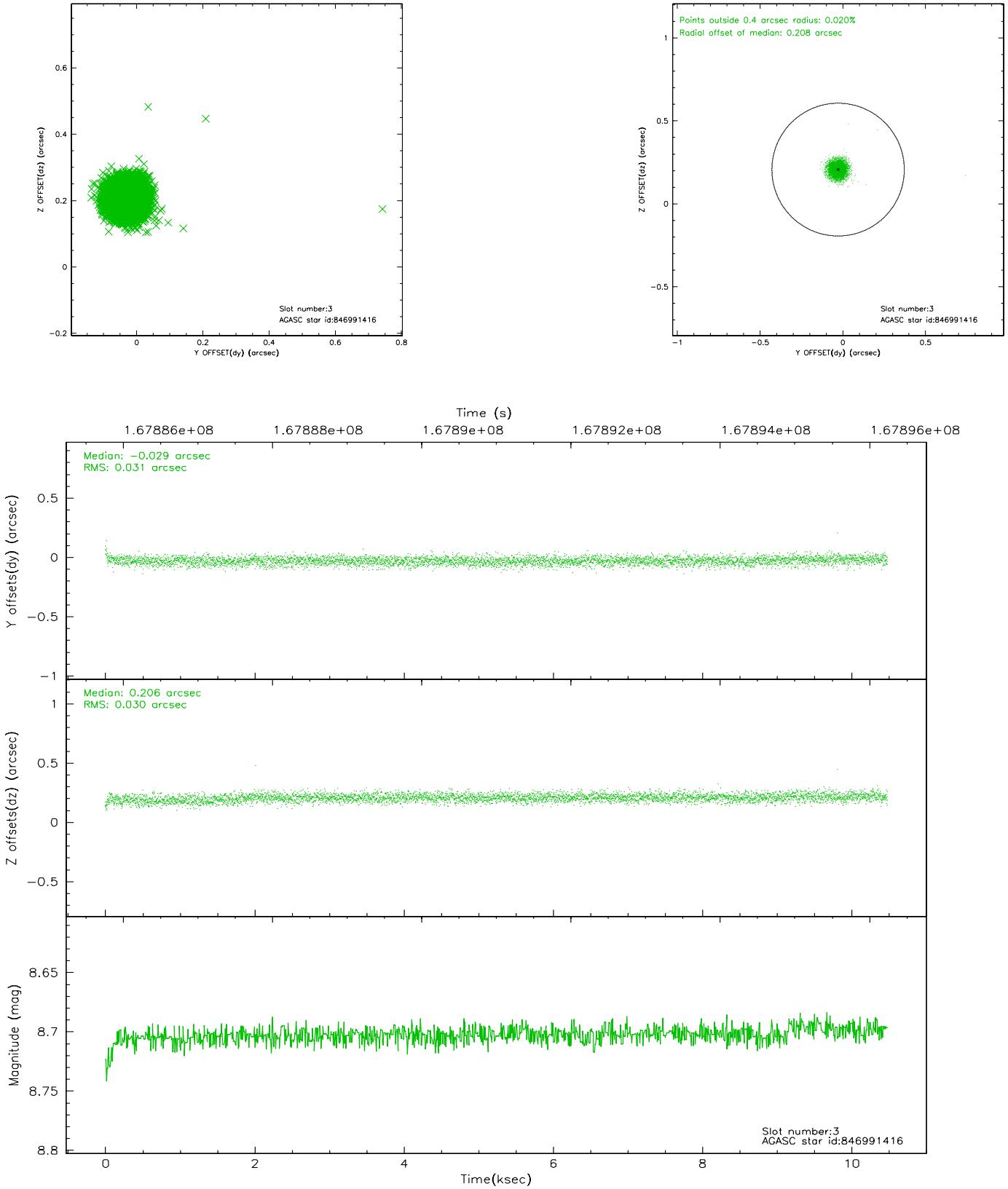
### Slot Statistics

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	2556	-0.032	-0.001	0.007	0.011	0.000000	0.000000	-754.80	-1730.22
1	FID	ACIS-S-4	7.20	2556	-0.027	0.016	0.005	0.010	0.000000	0.000000	2158.23	177.79
2	FID	ACIS-S-5	7.24	2556	0.029	-0.006	0.006	0.011	0.000000	0.000000	-1806.96	171.97
3	GUIDE	846991416	8.70	5113	-0.029	0.206	0.045	0.073	62.723044	-29.054268	2126.65	978.65
4	GUIDE	846992480	9.28	5110	0.048	0.032	0.058	0.096	63.122470	-29.099933	1210.75	1854.13
5	GUIDE	846997656	9.51	5105	0.011	-0.089	0.067	0.113	62.548524	-28.467498	1327.12	-1052.57
6	GUIDE	846989992	8.83	5111	-0.195	-0.170	0.047	0.078	63.139725	-27.984513	-1213.15	-1348.55
7	GUIDE	846988376	9.07	5112	0.166	0.018	0.051	0.085	63.900777	-28.395928	-2272.35	1279.15

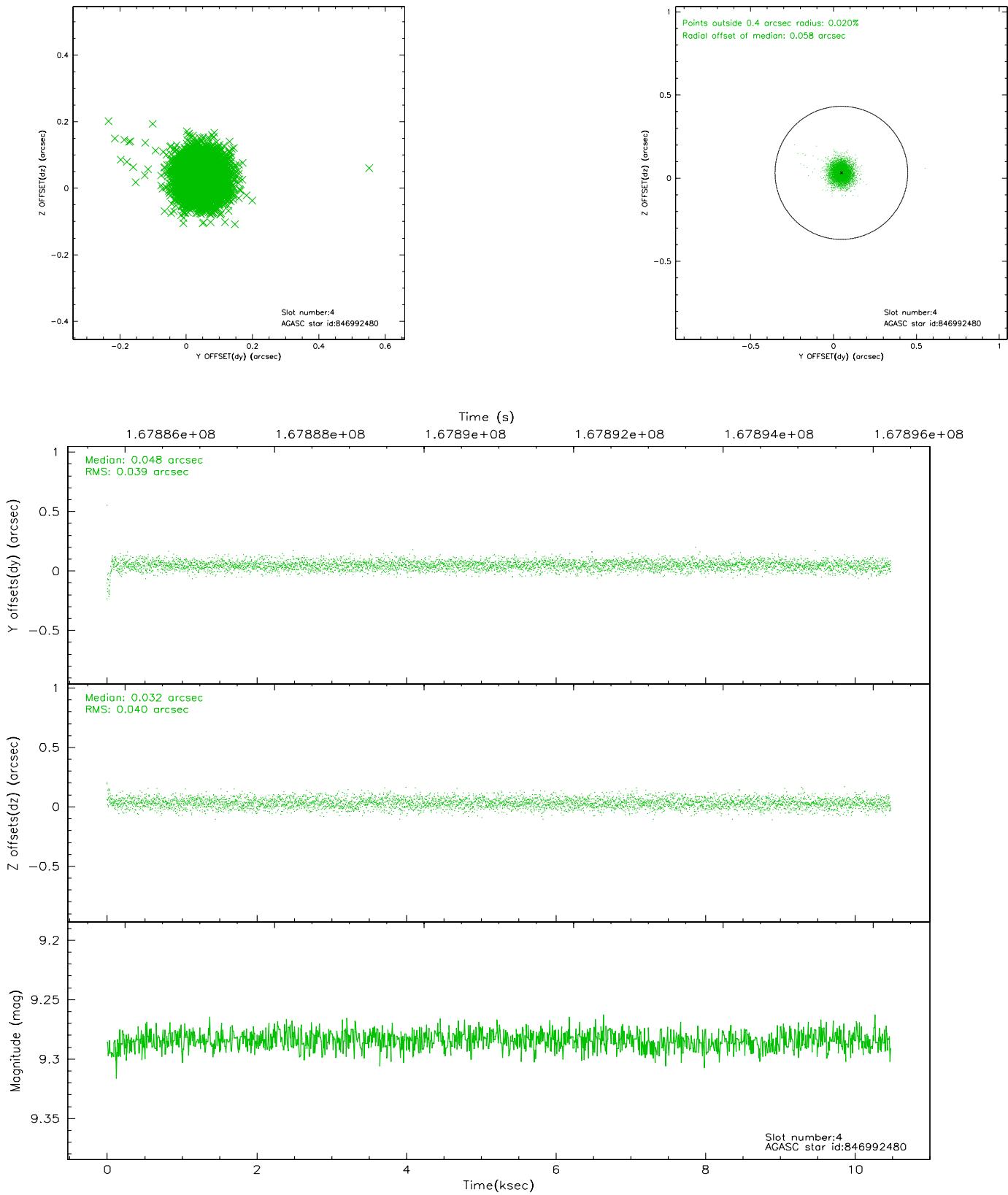
∞

## 2.4 Star Slots

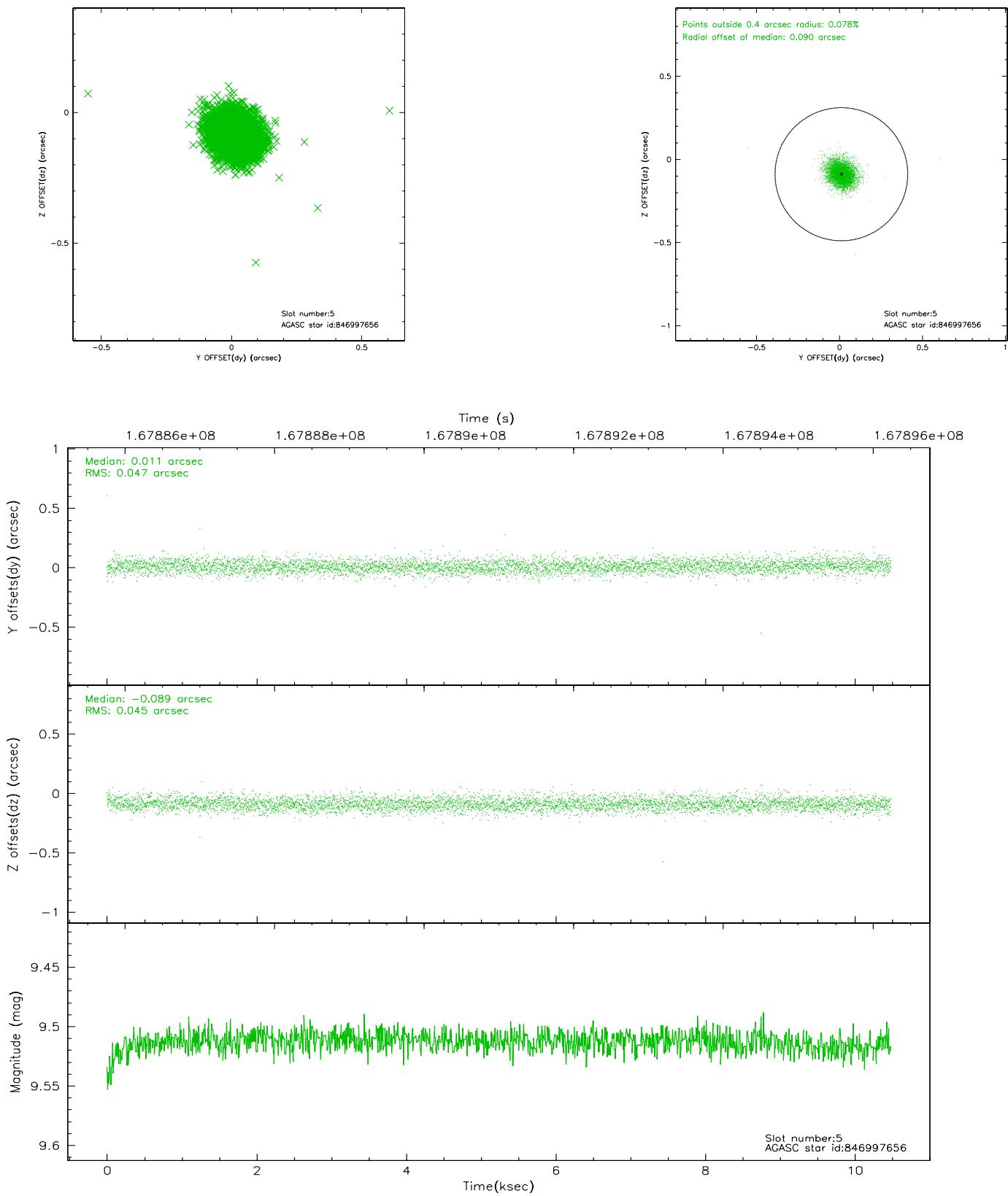
### 2.4.1 Slot 3



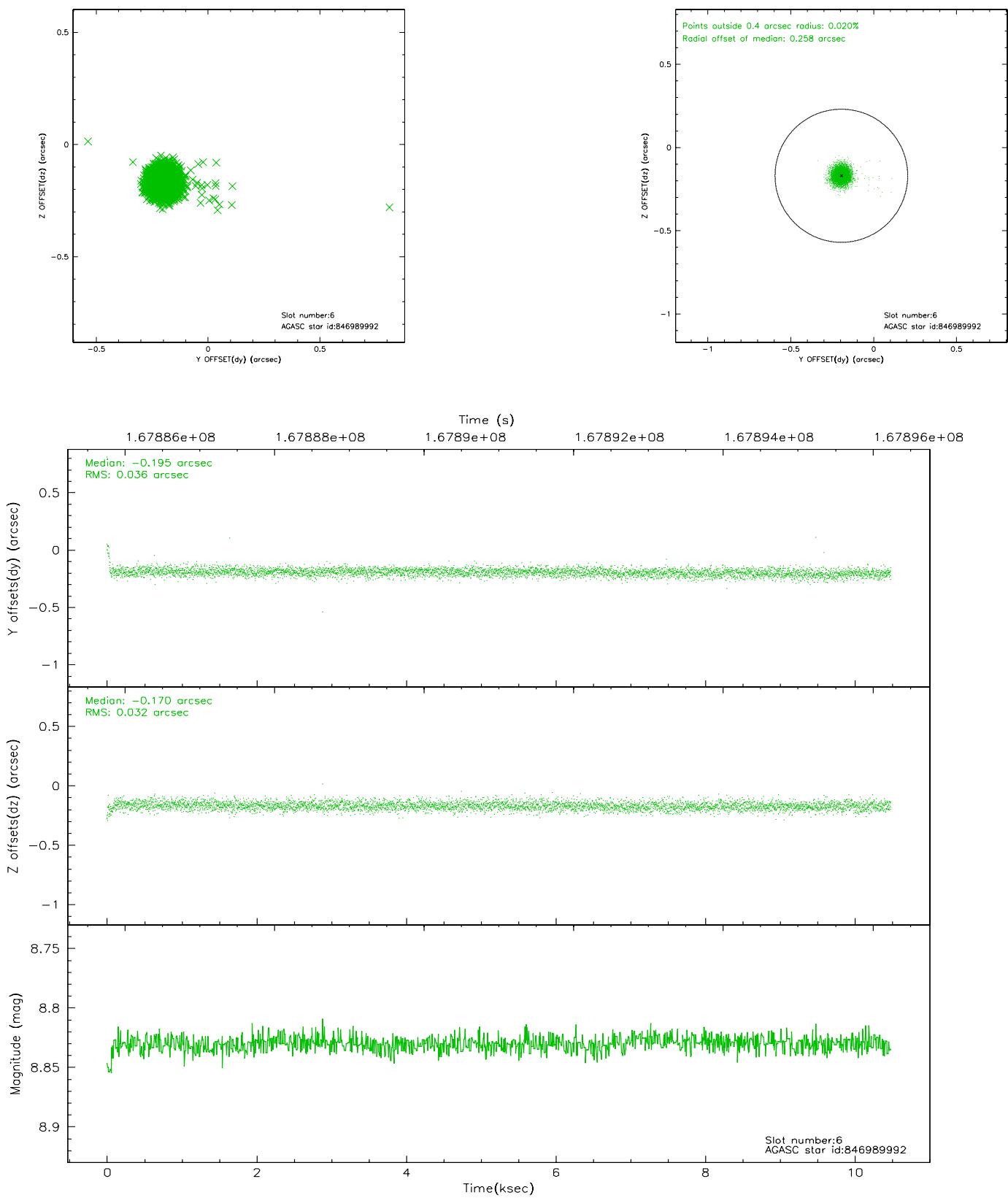
## 2.4.2 Slot 4



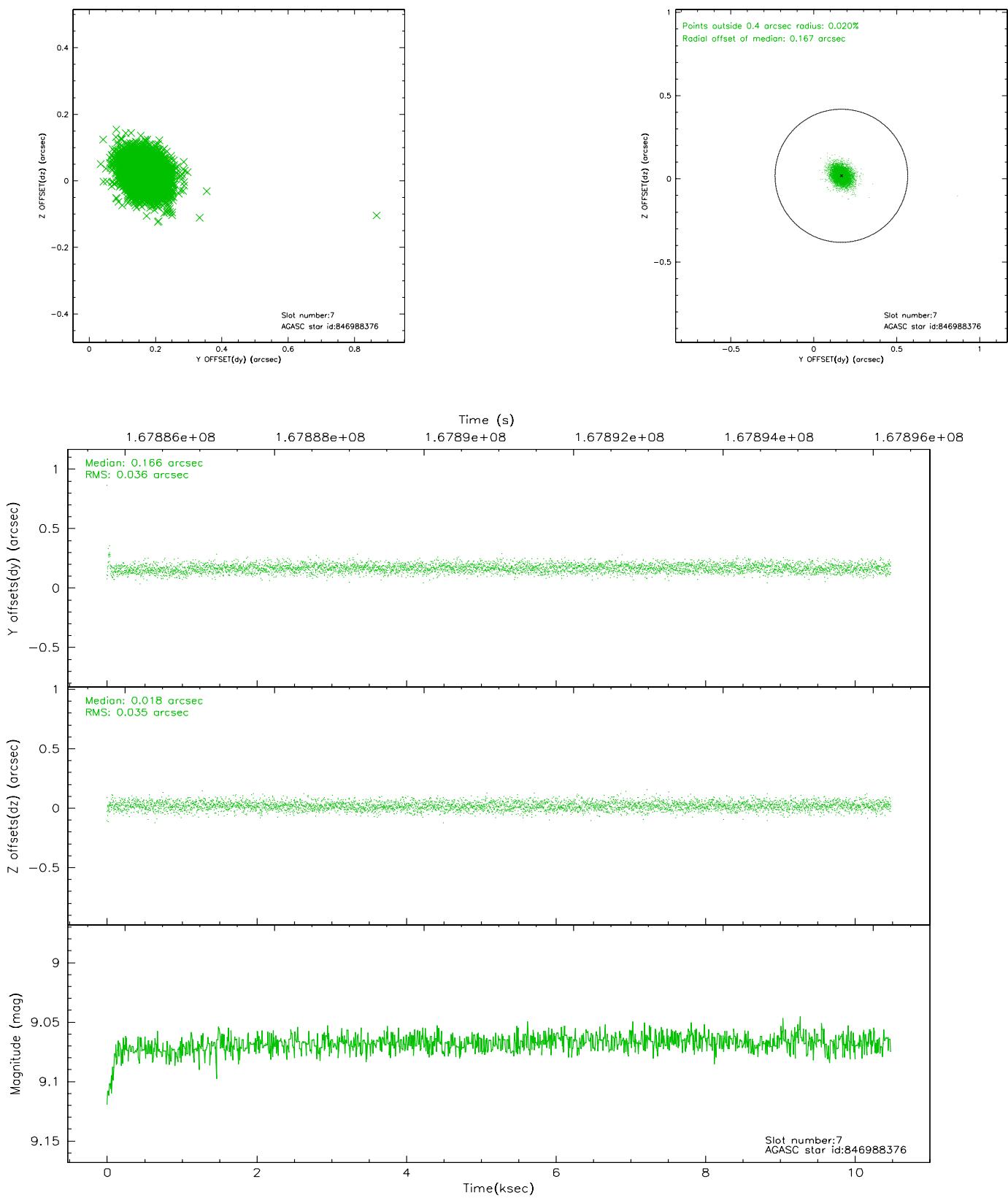
### 2.4.3 Slot 5



## 2.4.4 Slot 6

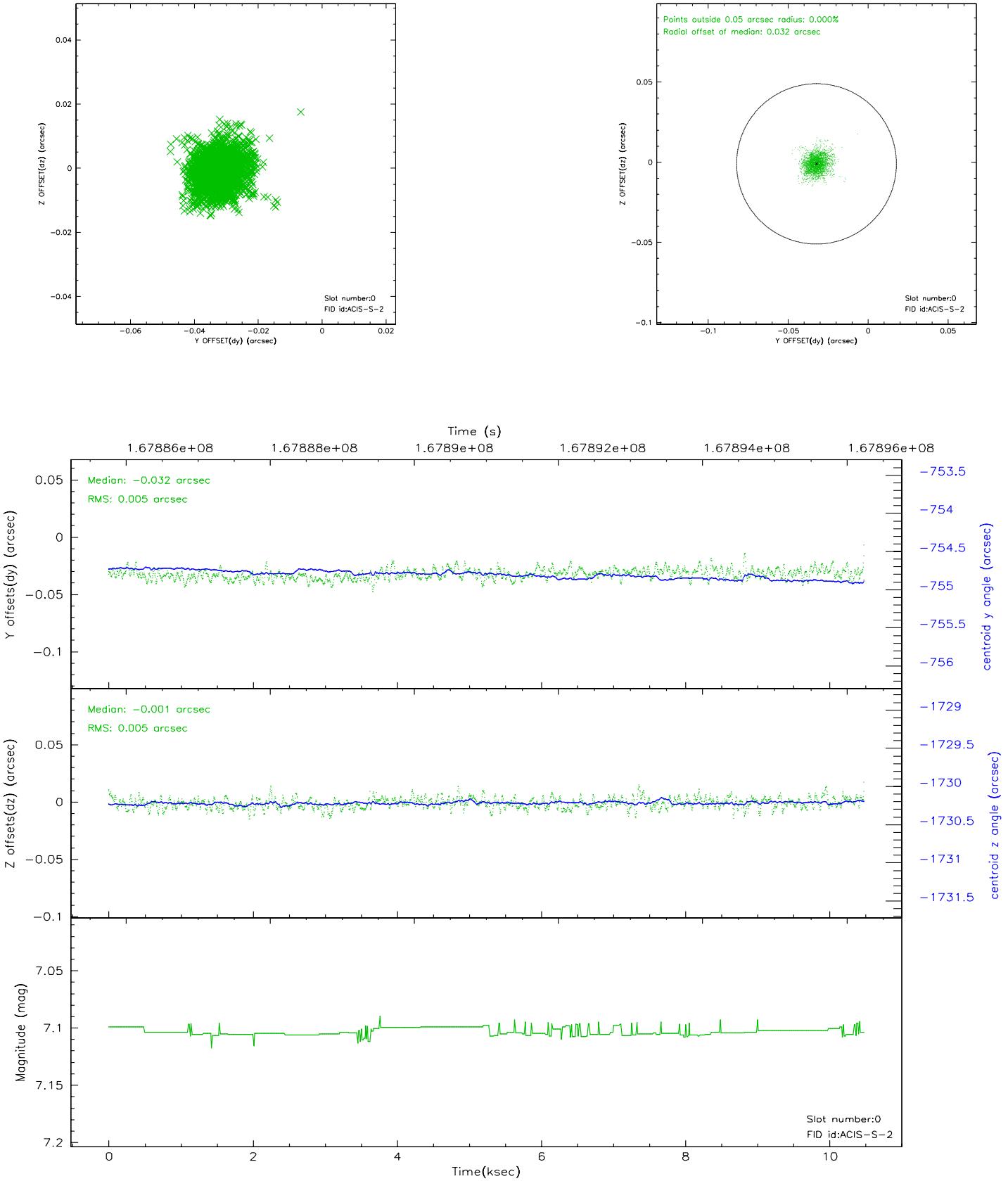


## 2.4.5 Slot 7

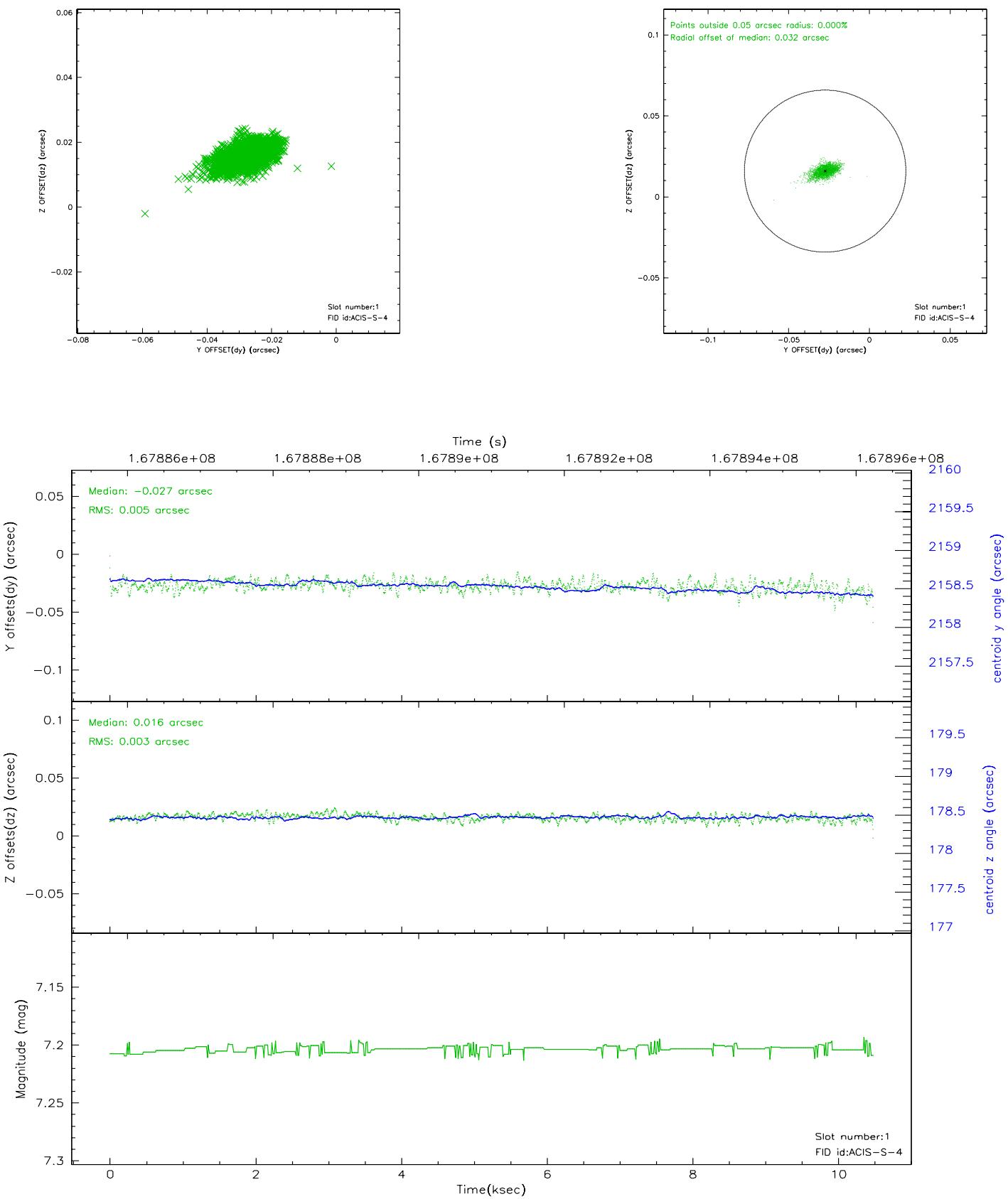


## 2.5 FID Slots

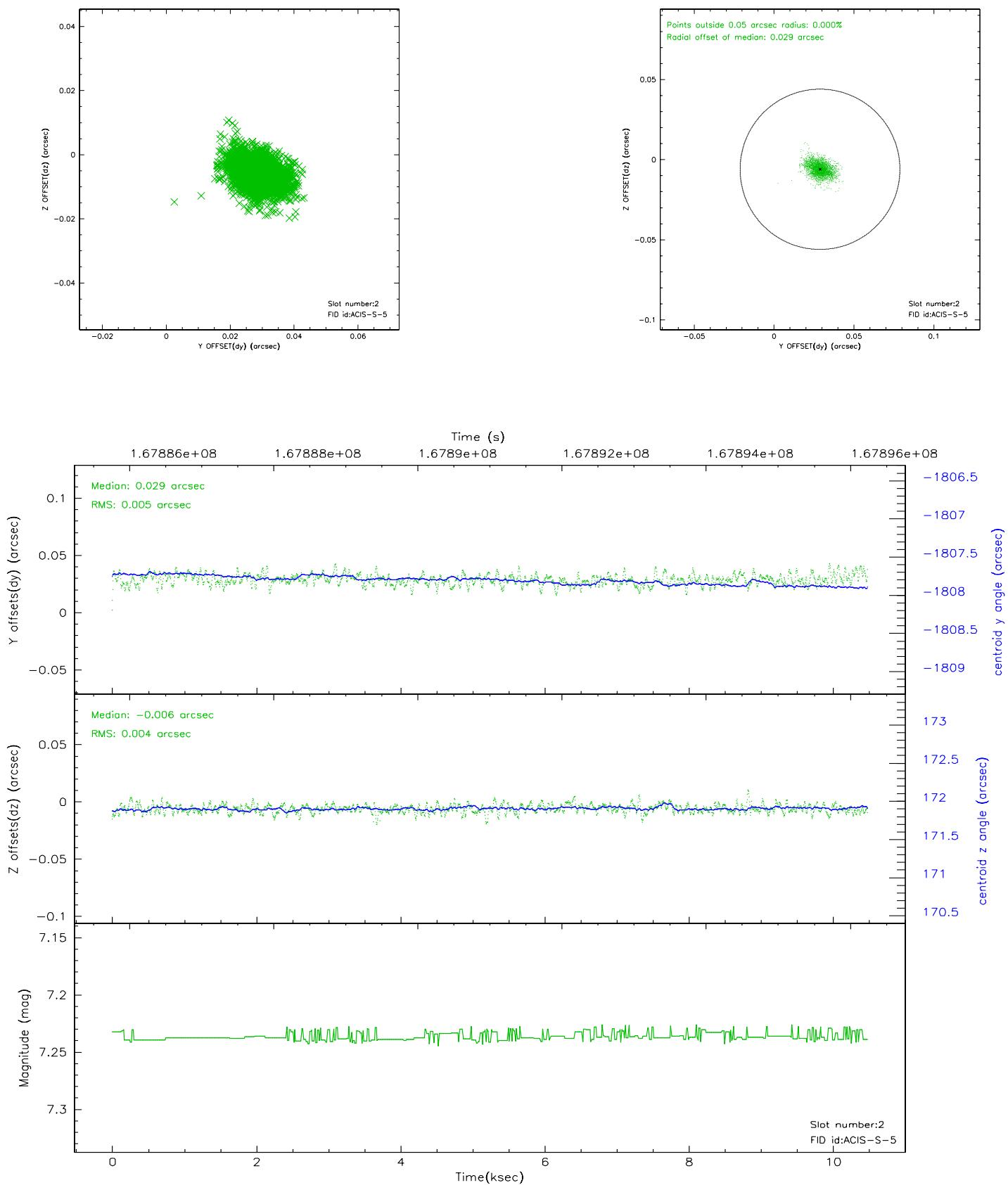
### 2.5.1 Slot 0



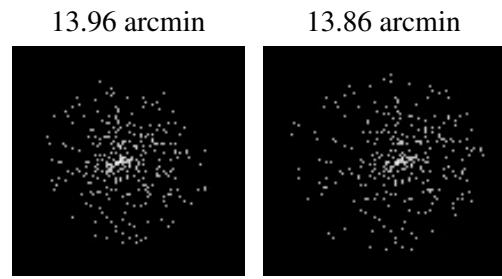
## 2.5.2 Slot 1



### 2.5.3 Slot 2



### 3 Point Sources



# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2006.08.01
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.471

## A.2 Comments

This observation was taken with NO spacecraft dither due to an error in the spacecraft load. Pixel-to-pixel variations will be greater than they would have been in dithered mode. Chip boundaries are very sharp.

An apparent spike in the radiation environment about 6 ksec into the observation caused a spike in the count rate at that time.