

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 3981 - L2 Version 3  
Chandra X-Ray Center

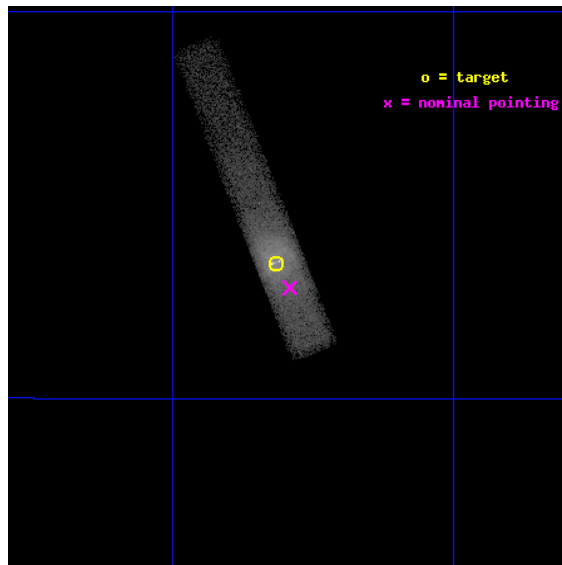
L2 Processing Date : Oct 31 2012

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

# 1 Front

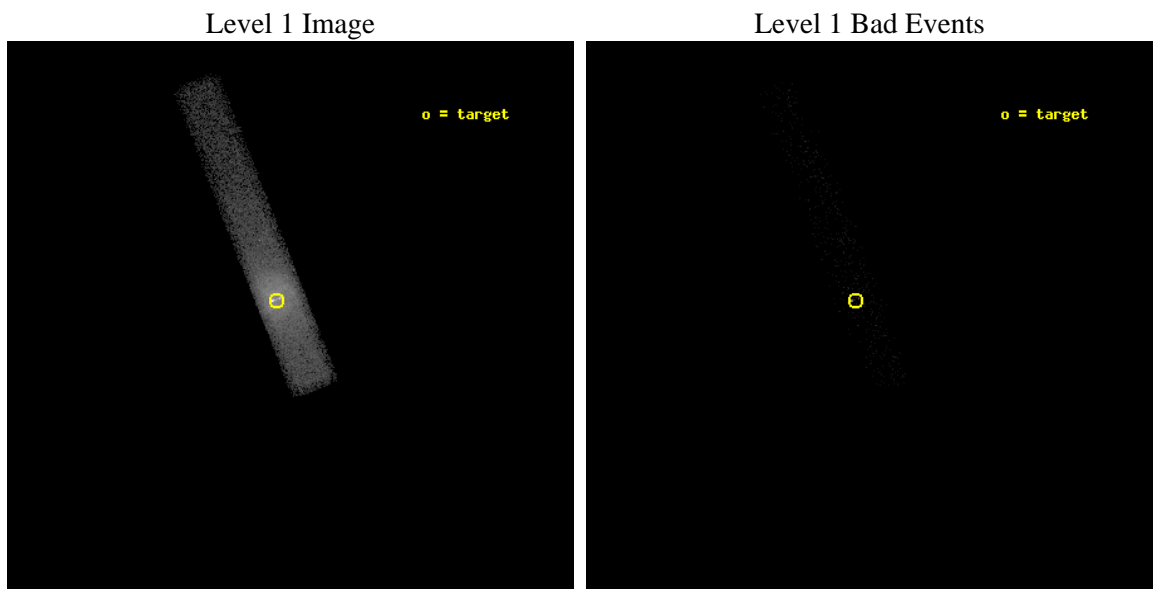
seq_num	700660	Sequence number
obs_id	3981	Observation id
title	X-RAY VARIABILITY IN THE JET AND CORE OF M87	Proposal title
observer	Dr. Daniel Harris	Principal investigator
object	M87	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	187.704167	Observer's specified target RA [deg]
dec_targ	12.391667	Observer's specified target Dec [deg]
ra_nom	187.69791714905	Nominal RA [deg]
dec_nom	12.380851914202	Nominal Dec [deg]
roll_nom	248.40667002745	Nominal Roll [deg]
revision	3	Processing version of data
ontime	5156.8000768125	Sum of GTIs [s]
livetime	4676.9454714425	Livetime [s]
ontime7	5156.8000768125	Sum of GTIs [s]
l2events	55041	Number of level 2 events



## 2 OBI

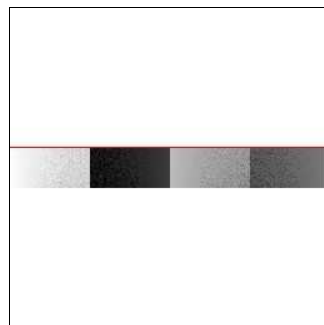
### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias

Chip 7



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	4710.475000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	5156.8000768125	Sum of GTIs [s]
caldsver	4.5.2	&#160	ontime7	5156.8000768125	Sum of GTIs [s]
date	2012-10-31T04:18:32	Date and time of file creation	l1events	61124	Number of level 1 events
revision	3	Processing version of data			

### 2.1.4 Events

	<b>ccd 7</b>
level 1 events	61124
rejected events	5480
rejected %	8%

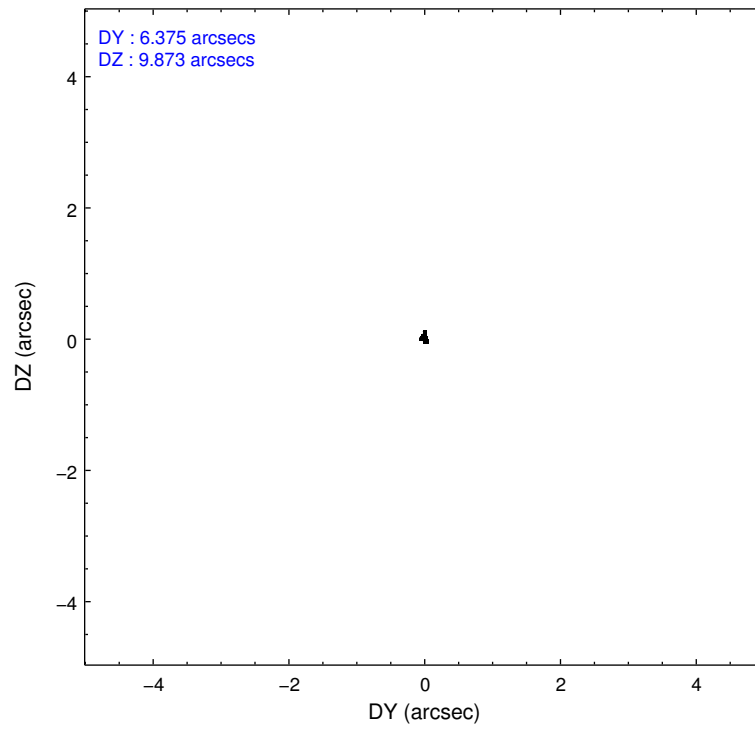
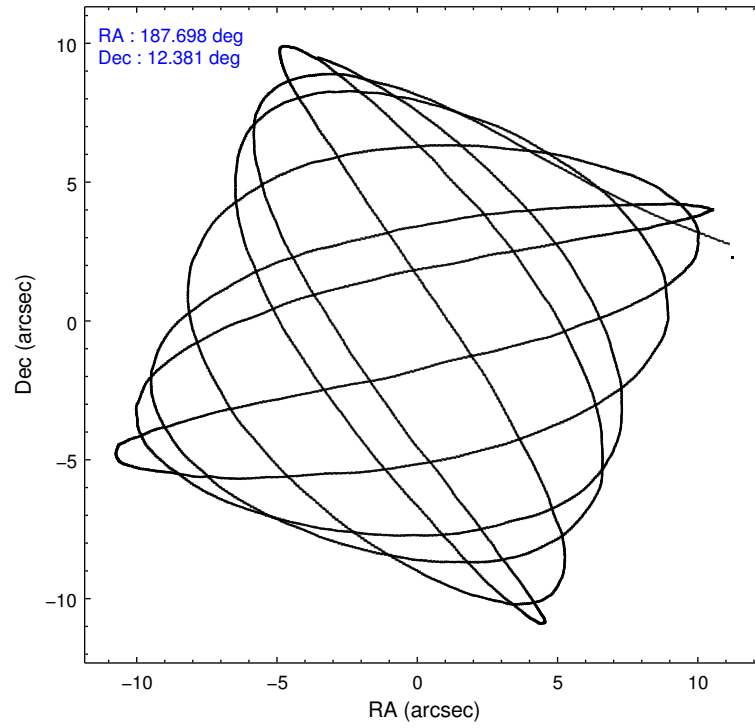
	<b>ccd 7</b>
grade 0 events	18652
	30%
grade 1 events	78
	0%
grade 2 events	14752
	24%
grade 3 events	6548
	10%
grade 4 events	6548
	10%
grade 5 events	1059
	1%
grade 6 events	10650
	17%
grade 7 events	2837
	4%

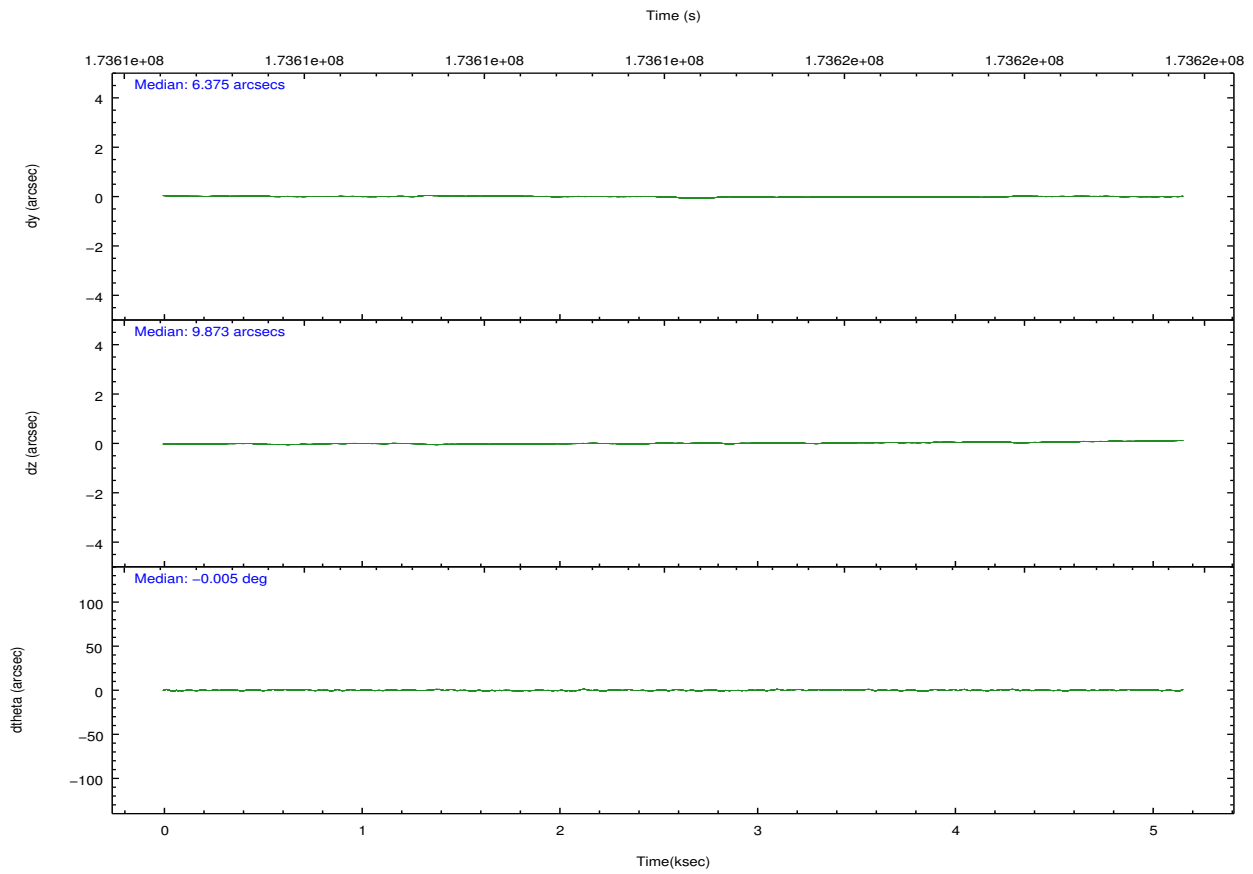
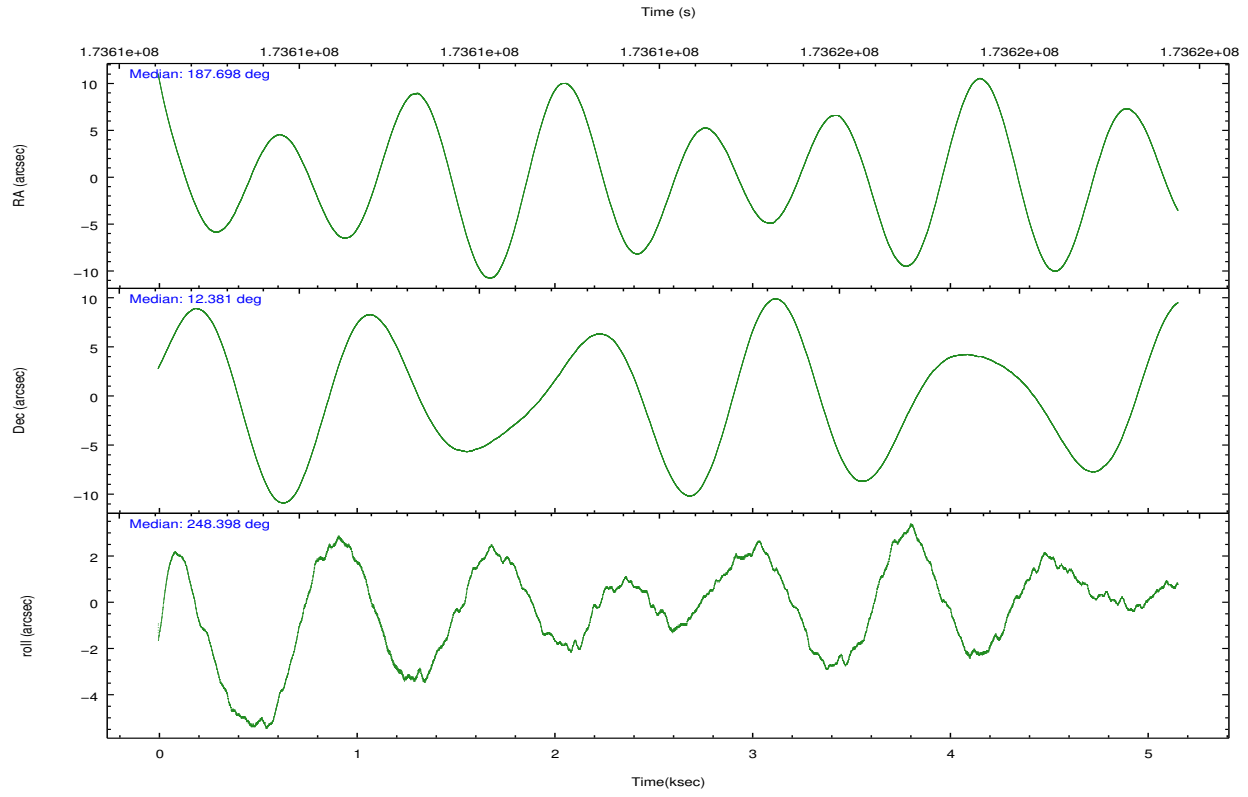


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-7	ACIS-7	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	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
[deg] Pointing RA	187.693441	187.697917149054	Subarray requested	CUSTOM	1/8
[deg] Pointing Dec	12.407686	12.38085191420232	Subarray start row	449	449
[deg] Pointing Roll	248.251004	248.4066700274505	Subarray row count	128	128
[mm] SIM focus pos	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
[mm] SIM defocus	0	0.001444936568705701	[s] Primary exposure time	0.000000	0.4
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	173611912.184000	173610816.98564			
Observation start date	2003-07-03T09:30:48	2003-07-03T09:13:36			
[s] Observation end time (MET)	173616623.184000	173616937.2609			
Observation end date	2003-07-03T10:49:19	2003-07-03T10:55:37			
Read mode	TIMED	TIMED			

## 2.3 Aspect



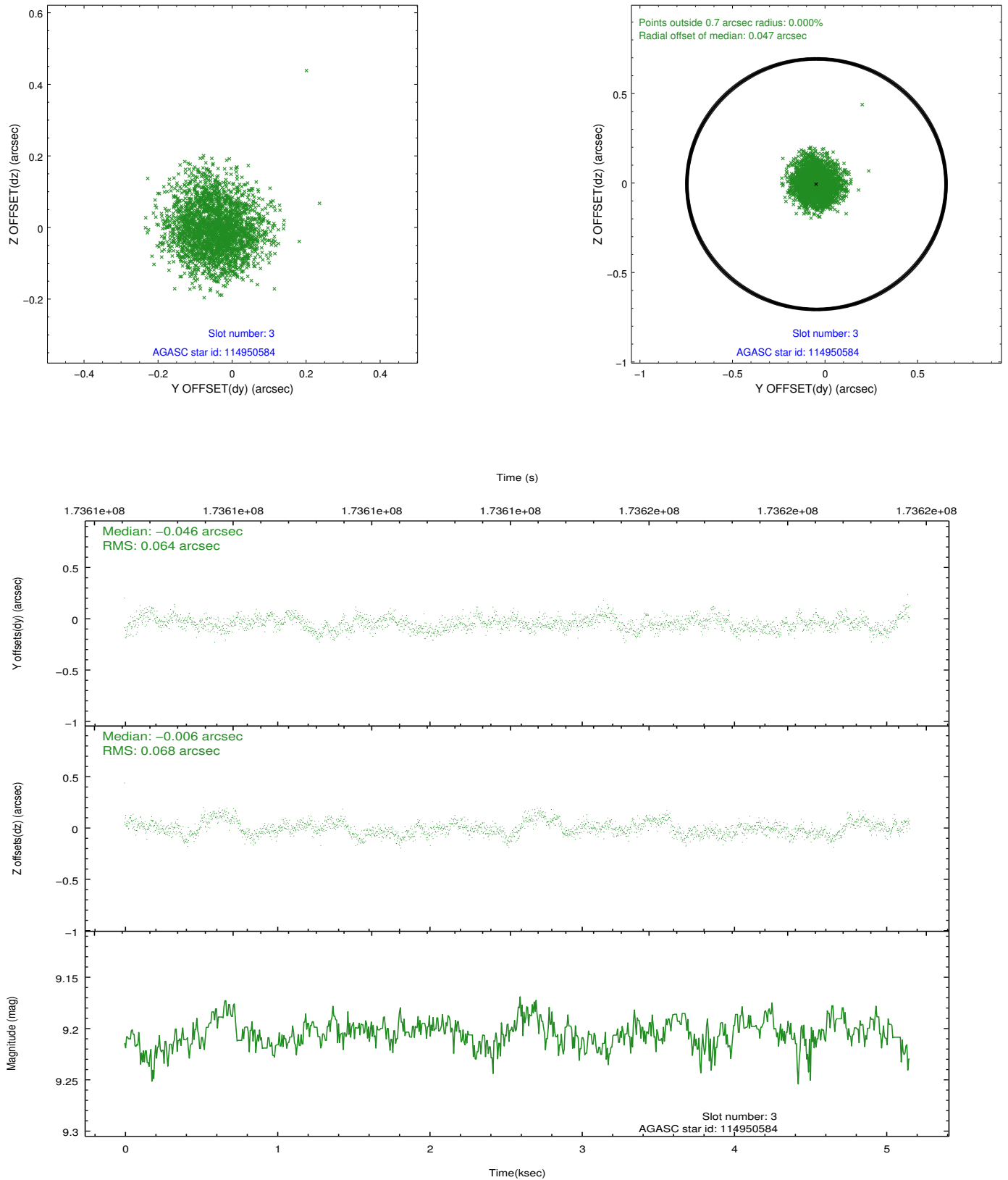


### Slot Statistics

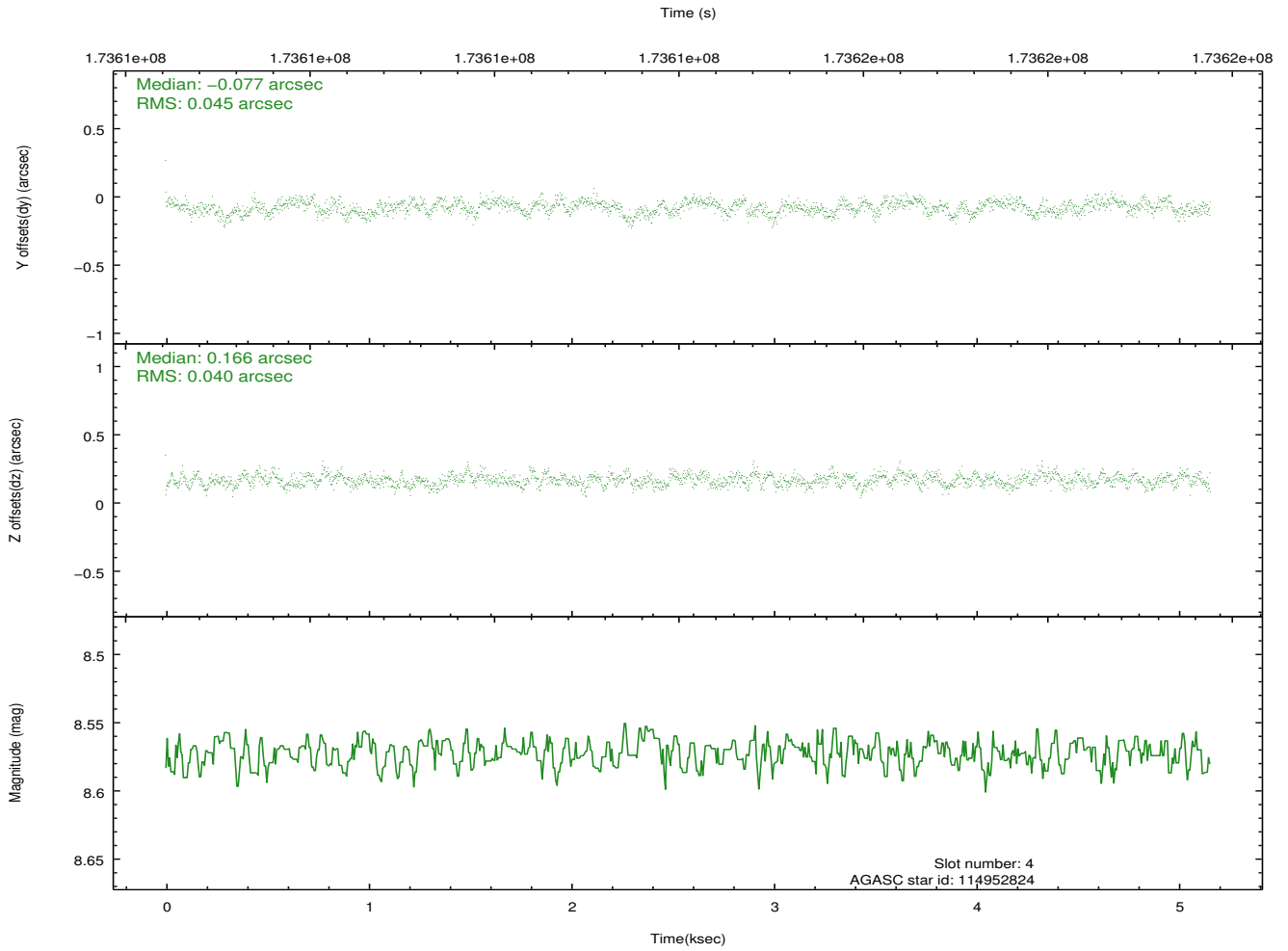
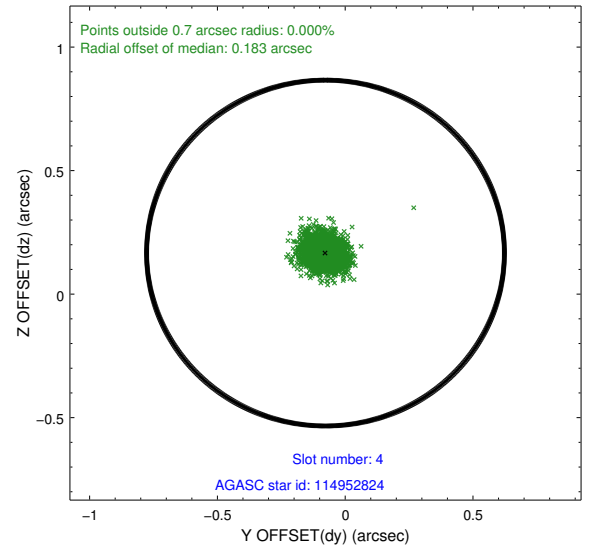
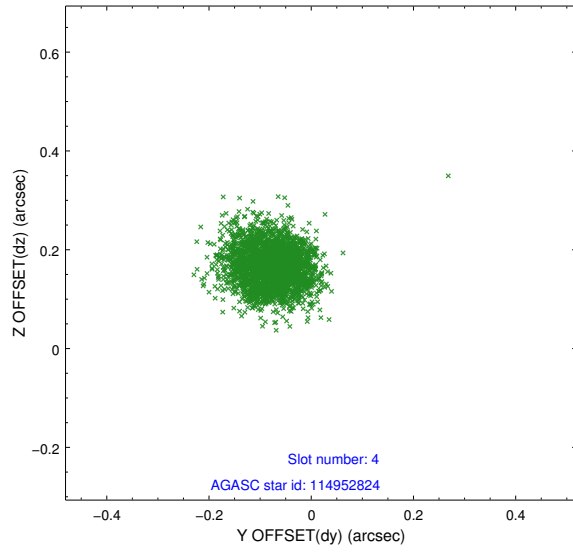
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.18	1258	0.012	-0.019	0.007	0.013	0.000000	0.000000	936.94	-1726.78
1	FID	ACIS-S-5	7.24	1257	-0.054	0.007	0.006	0.011	0.000000	0.000000	-1811.46	169.60
2	FID	ACIS-S-6	7.35	1258	0.021	0.024	0.008	0.014	0.000000	0.000000	401.24	814.90
3	GUIDE	114950584	9.21	2516	-0.046	-0.006	0.100	0.159	187.487323	11.827248	2210.25	99.90
4	GUIDE	114952824	8.57	2517	-0.077	0.166	0.065	0.104	187.703904	12.486727	-276.48	-71.18
5	GUIDE	114954440	9.20	2515	0.067	-0.070	0.085	0.138	186.915066	12.219118	1642.52	-2293.14
6	GUIDE	114955056	8.32	2517	-0.041	0.040	0.064	0.102	187.914001	12.127854	648.75	1093.45
7	GUIDE	114957008	8.25	2514	0.092	-0.129	0.079	0.136	186.894794	12.099160	2070.90	-2200.71

## 2.4 Star Slots

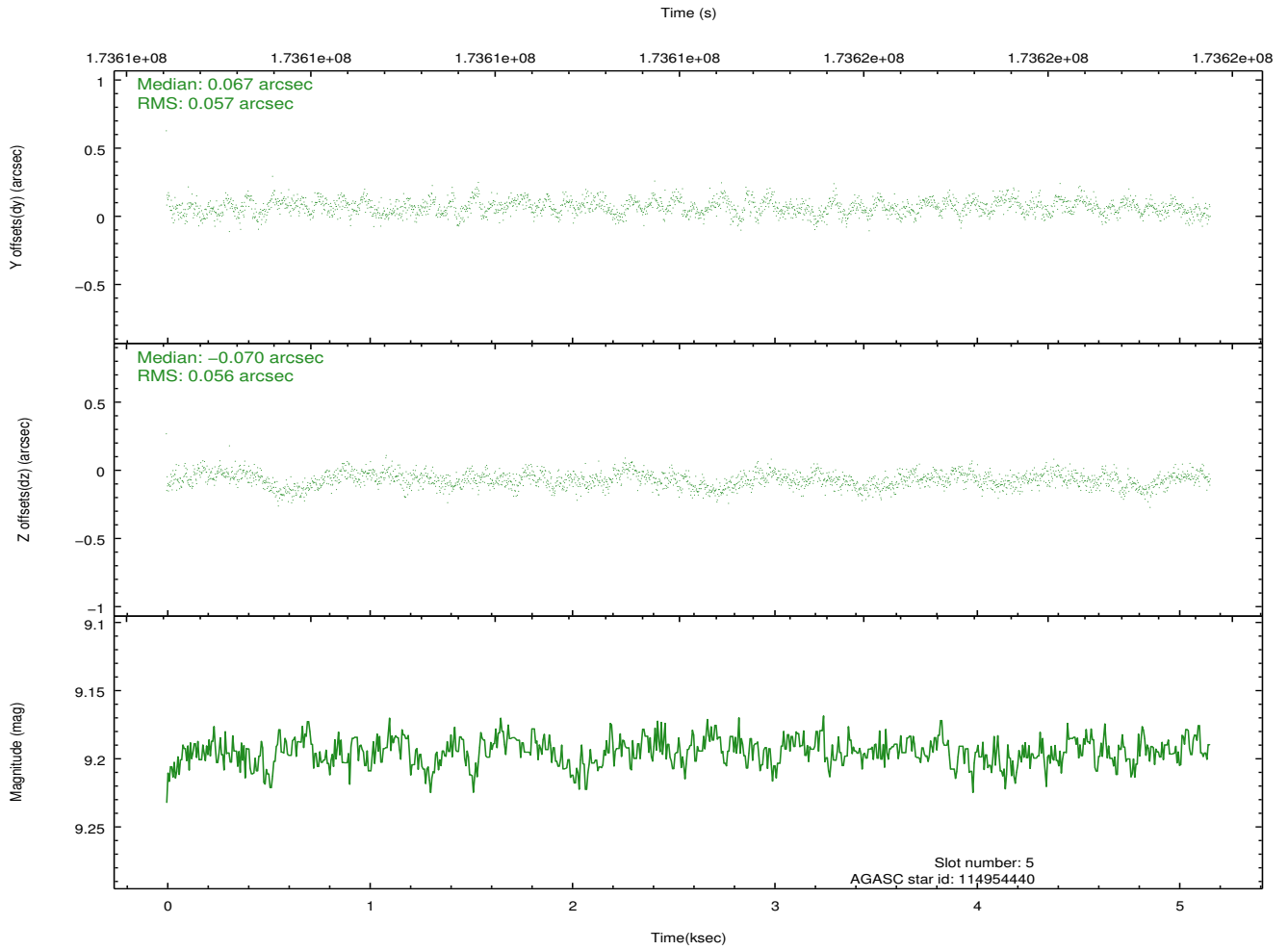
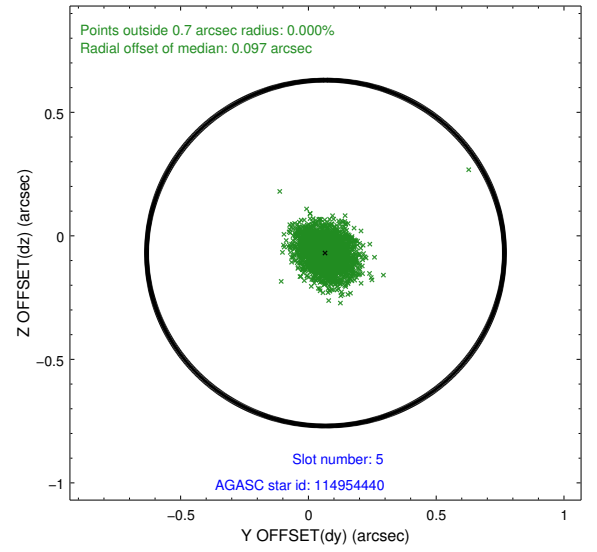
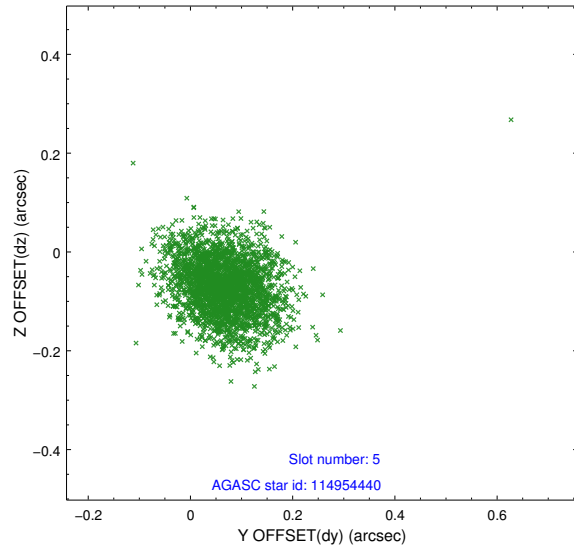
### 2.4.1 Slot 3



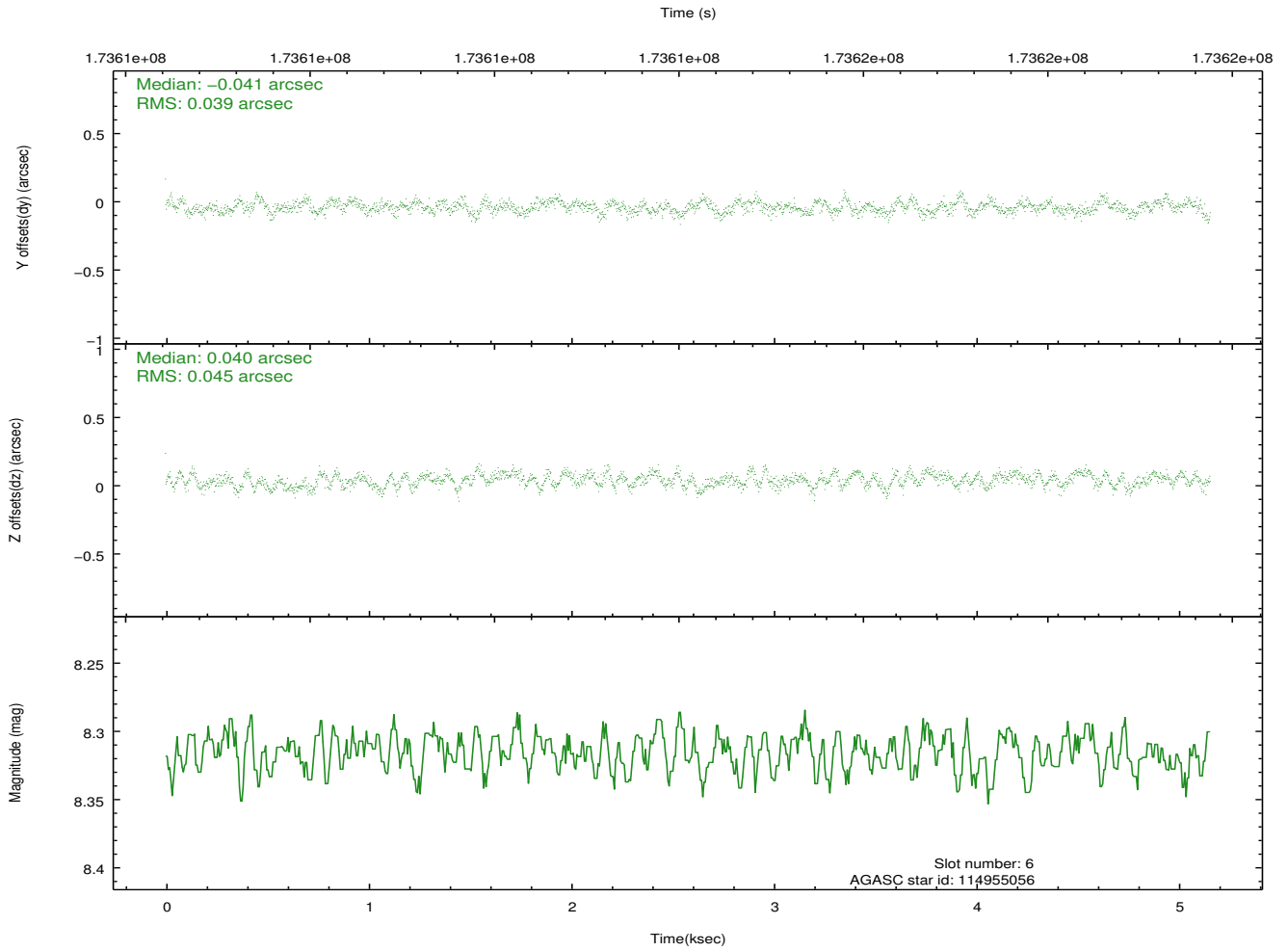
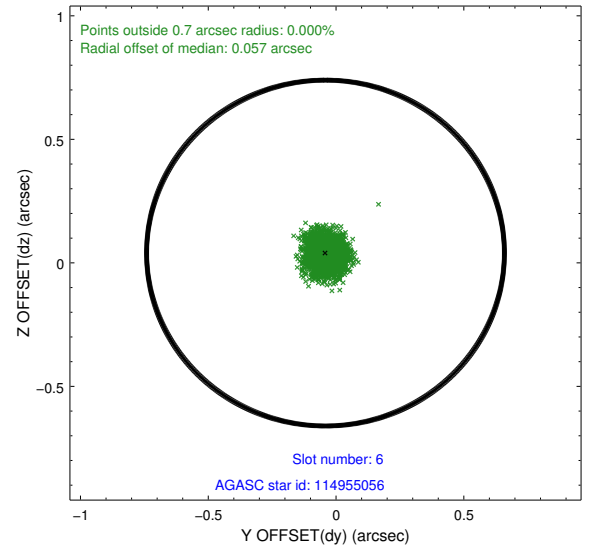
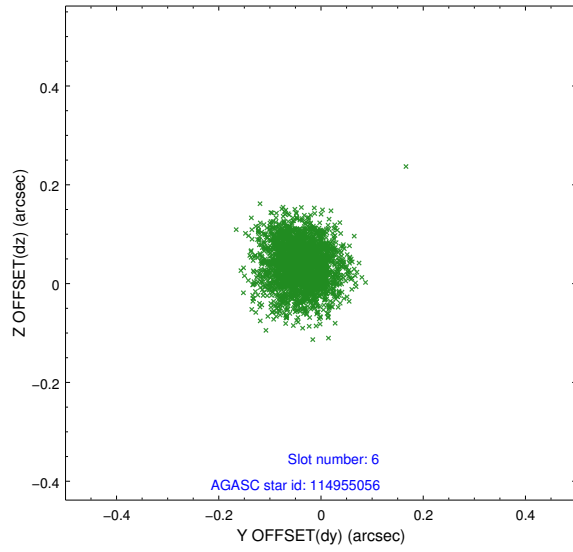
## 2.4.2 Slot 4



### 2.4.3 Slot 5

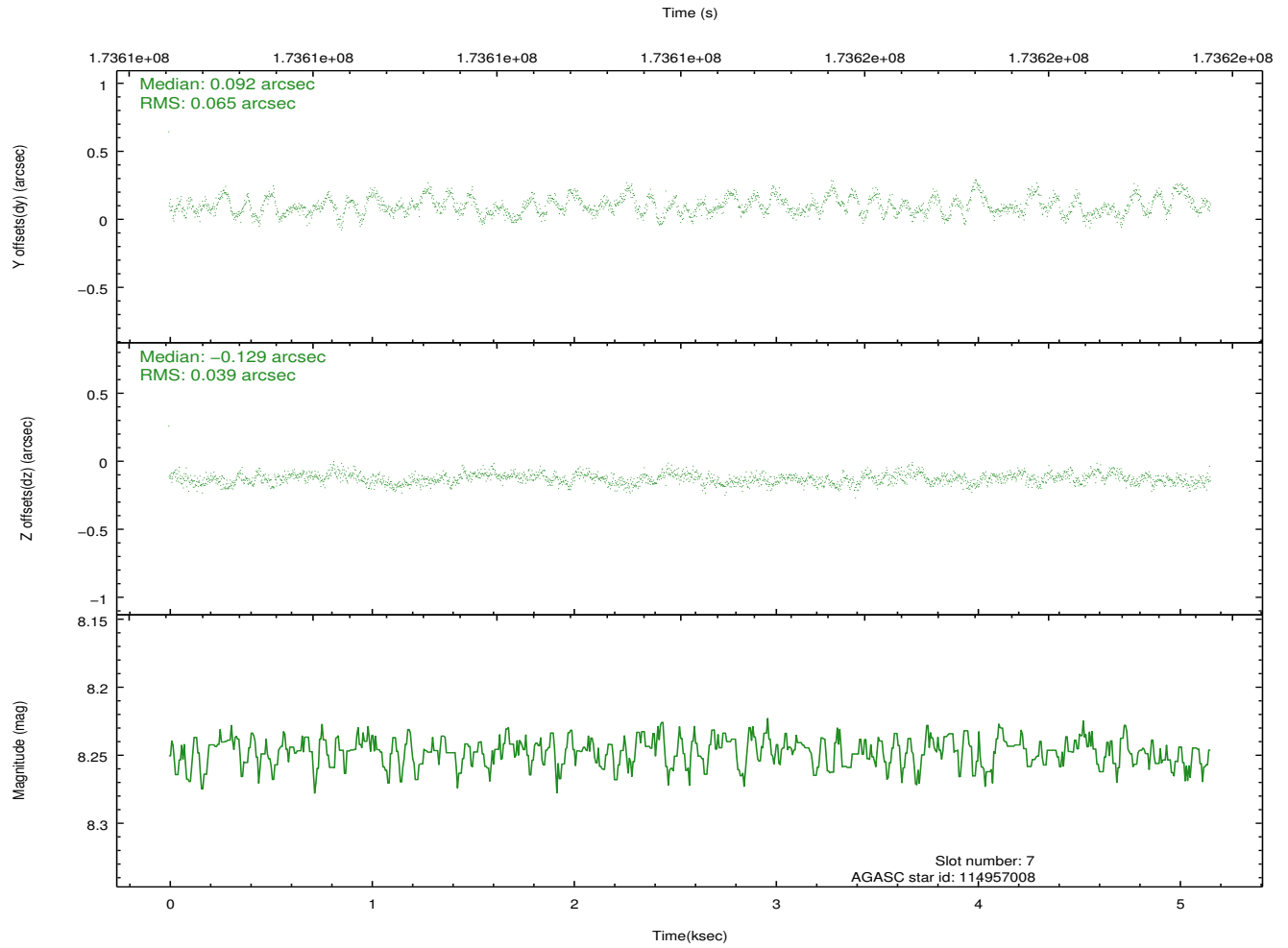
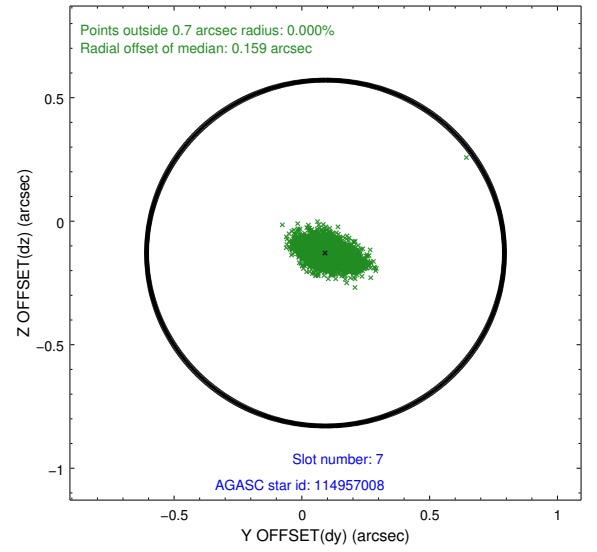
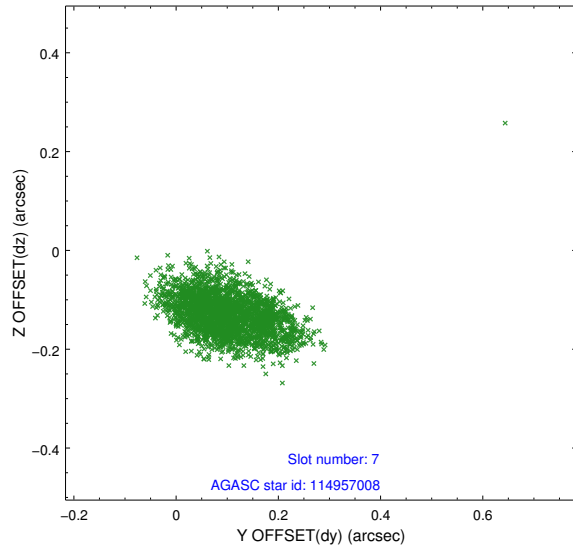


## 2.4.4 Slot 6



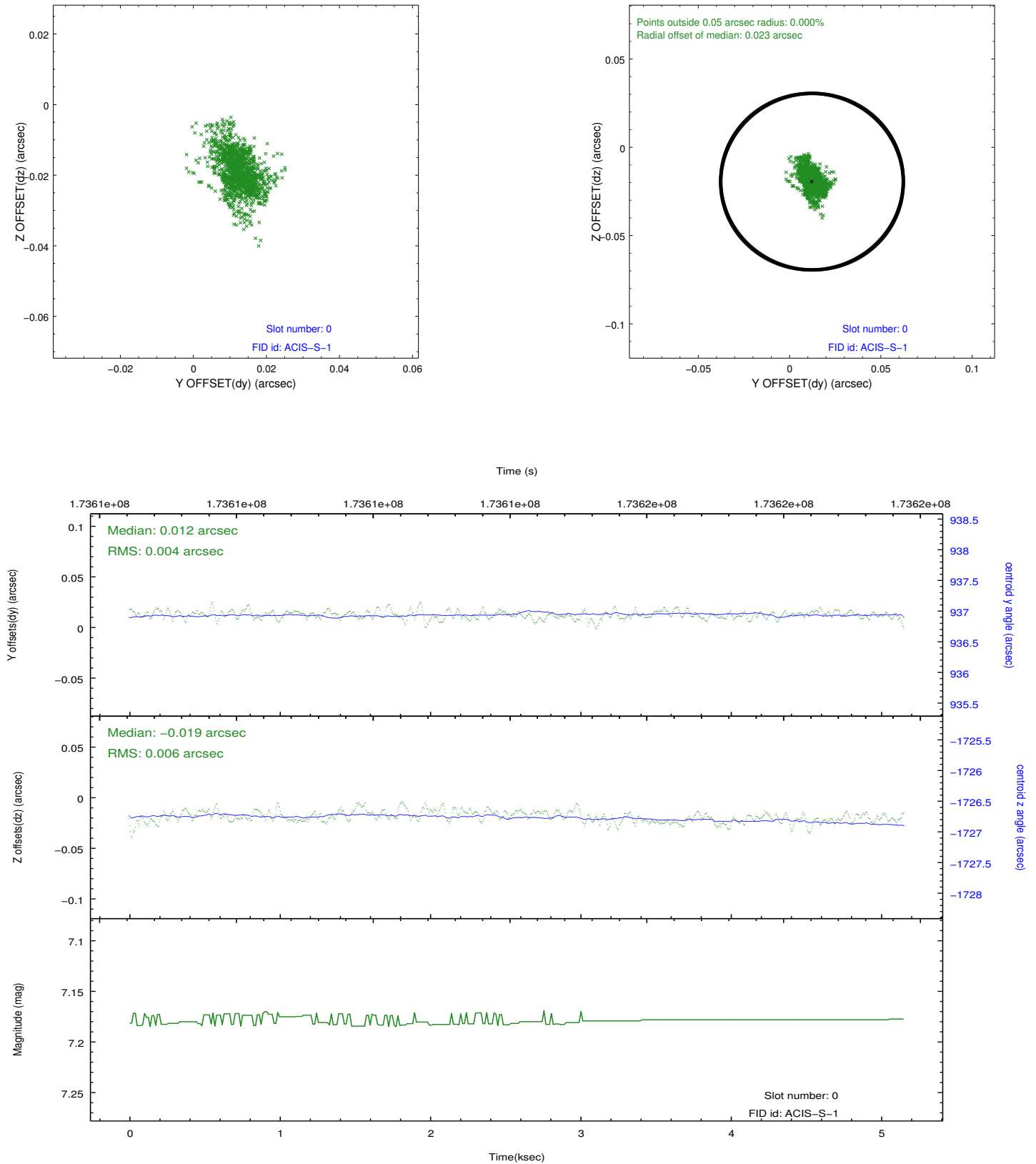


## 2.4.5 Slot 7

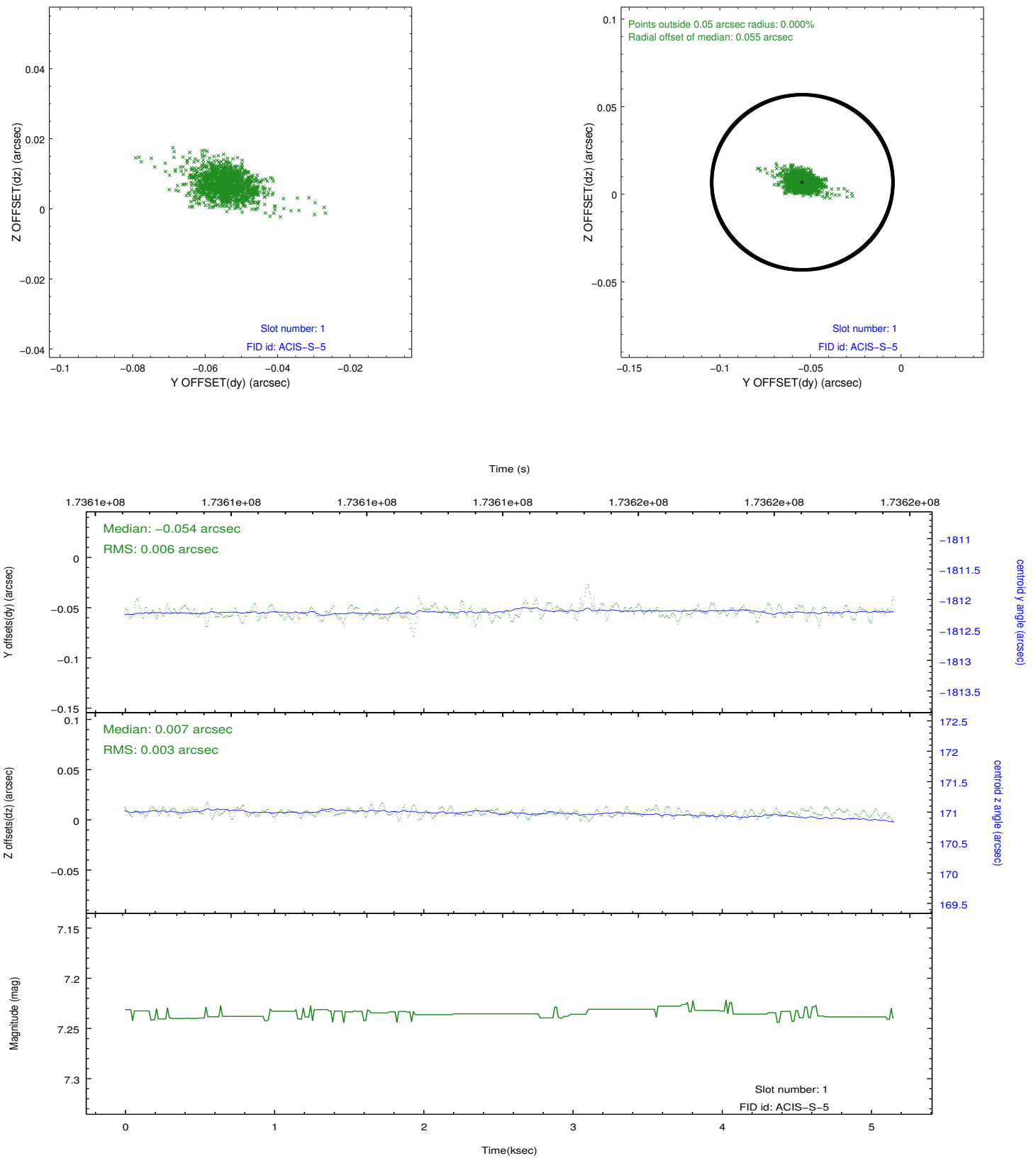


## 2.5 FID Slots

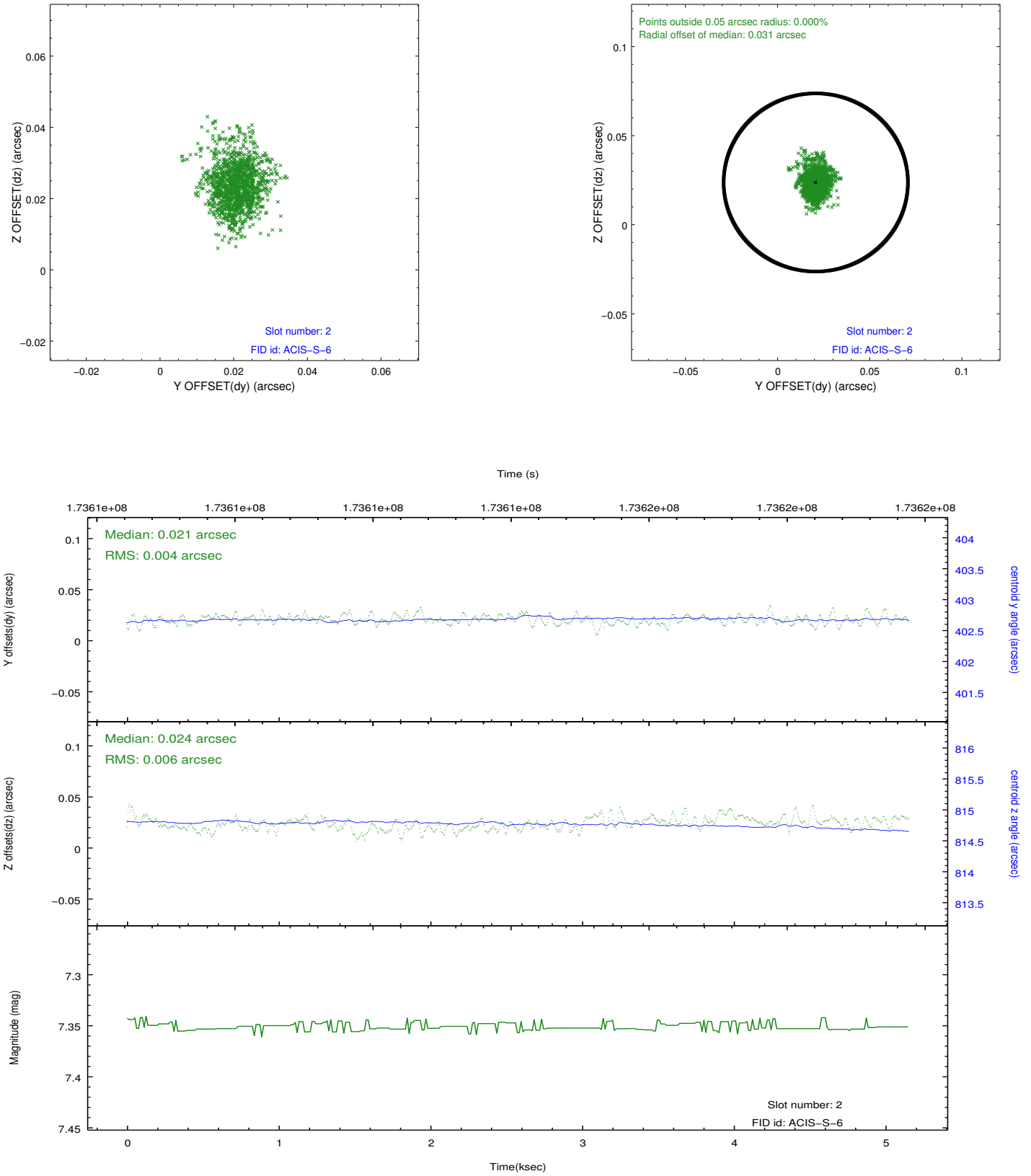
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.11.16
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.156

### A.2 Comments