

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 5013 - L2 Version 3  
Chandra X-Ray Center

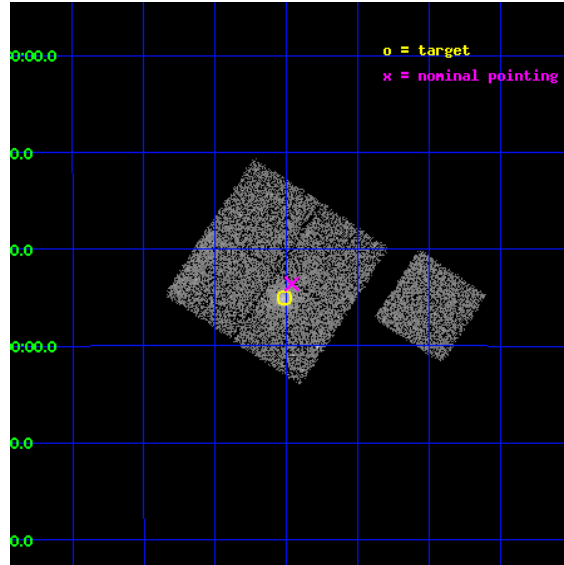
L2 Processing Date : Dec 2 2012

## 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

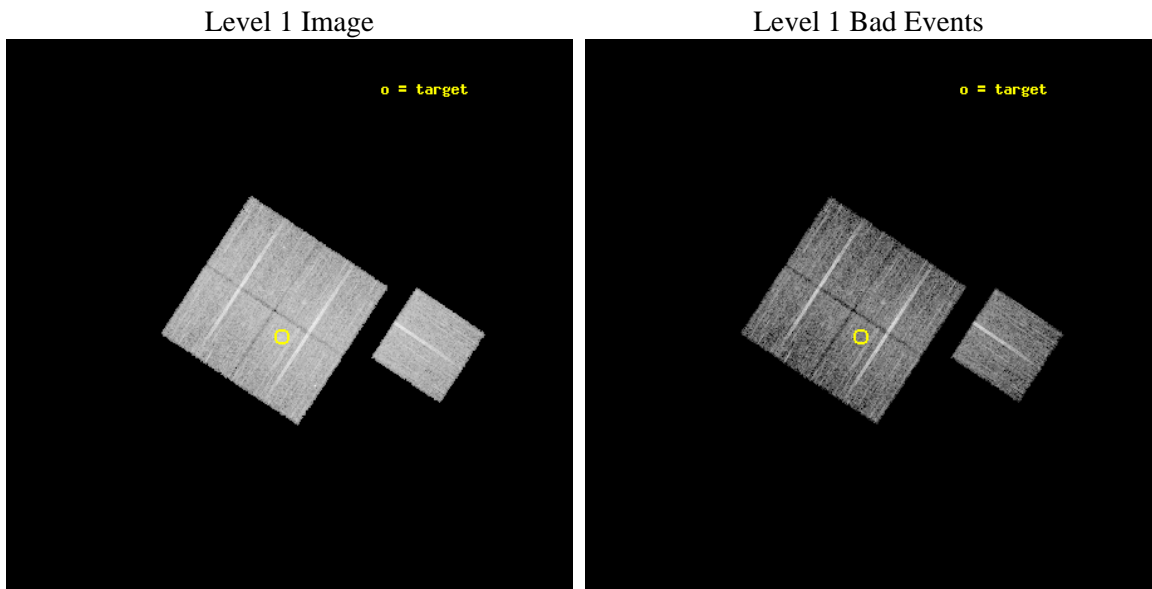
seq_num	800456	Sequence number
obs_id	5013	Observation id
title	Cluster studies: Determination of H0/q0	Proposal title
observer	DR. LEON VANSPEYBROECK	Principal investigator
object	MACS0140.0-0555	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	25.004167	Observer's specified target RA [deg]
dec_targ	-5.917222	Observer's specified target Dec [deg]
ra_nom	24.990491493738	Nominal RA [deg]
dec_nom	-5.8930539369799	Nominal Dec [deg]
roll_nom	123.38945925162	Nominal Roll [deg]
revision	3	Processing version of data
ontime	10332.299980104	Sum of GTIs [s]
livetime	10197.300874335	Livetime [s]
ontime0	10329.159039795	Sum of GTIs [s]
ontime1	10332.299980104	Sum of GTIs [s]
ontime2	10329.159009874	Sum of GTIs [s]
ontime3	10332.299980104	Sum of GTIs [s]
ontime6	10329.159019858	Sum of GTIs [s]
l2events	28014	Number of level 2 events



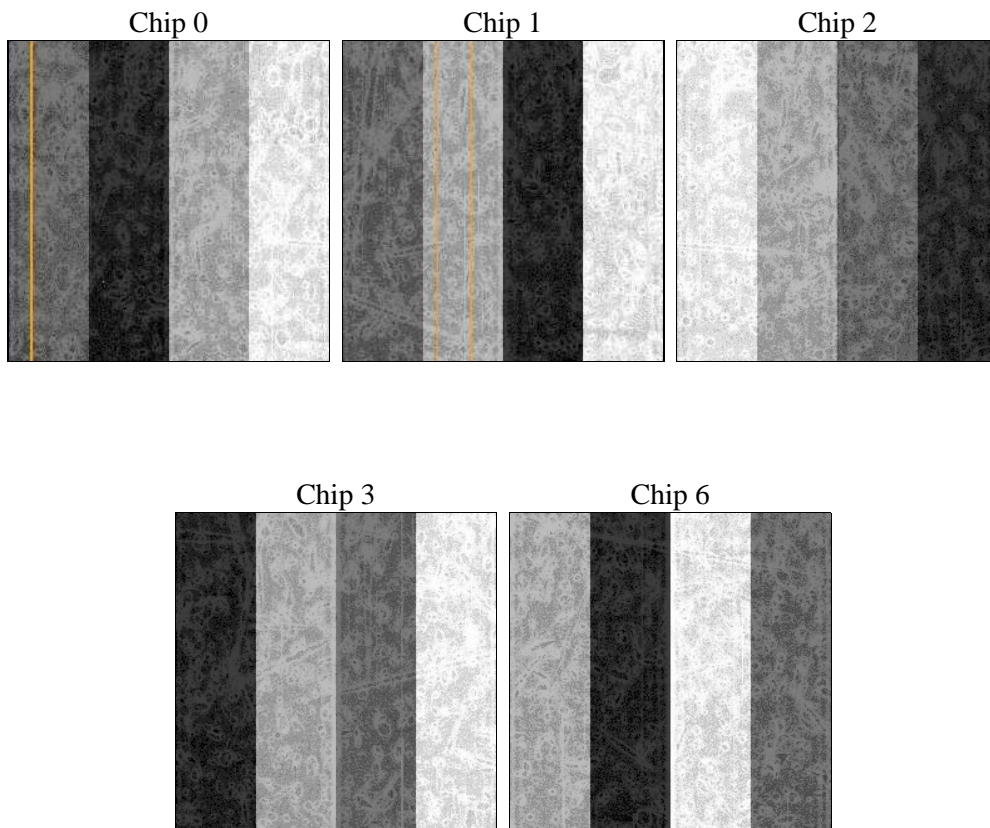
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10200.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	10332.299980104	Sum of GTIs [s]
caldsver	4.5.2	&#160	ontime0	10329.159039795	Sum of GTIs [s]
date	2012-12-02T23:06:06	Date and time of file creation	ontime1	10332.299980104	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	10329.159009874	Sum of GTIs [s]
			ontime3	10332.299980104	Sum of GTIs [s]
			ontime6	10329.159019858	Sum of GTIs [s]
			l1events	323755	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	60861	61477	67508	67432	66477
rejected events	54496	54356	61390	59514	60196
rejected %	89%	88%	90%	88%	90%

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	2224	2588	2238	3885	2220
	3%	4%	3%	5%	3%
grade 1 events	32	31	35	40	28
	0%	0%	0%	0%	0%
grade 2 events	1611	1597	1473	1473	1403
	2%	2%	2%	2%	2%
grade 3 events	842	816	678	791	759
	1%	1%	1%	1%	1%
grade 4 events	695	827	717	813	750
	1%	1%	1%	1%	1%
grade 5 events	2400	2523	2174	2530	2619
	3%	4%	3%	3%	3%
grade 6 events	1204	1520	1200	1205	1372
	1%	2%	1%	1%	2%
grade 7 events	51853	51575	58993	56695	57326
	85%	83%	87%	84%	86%

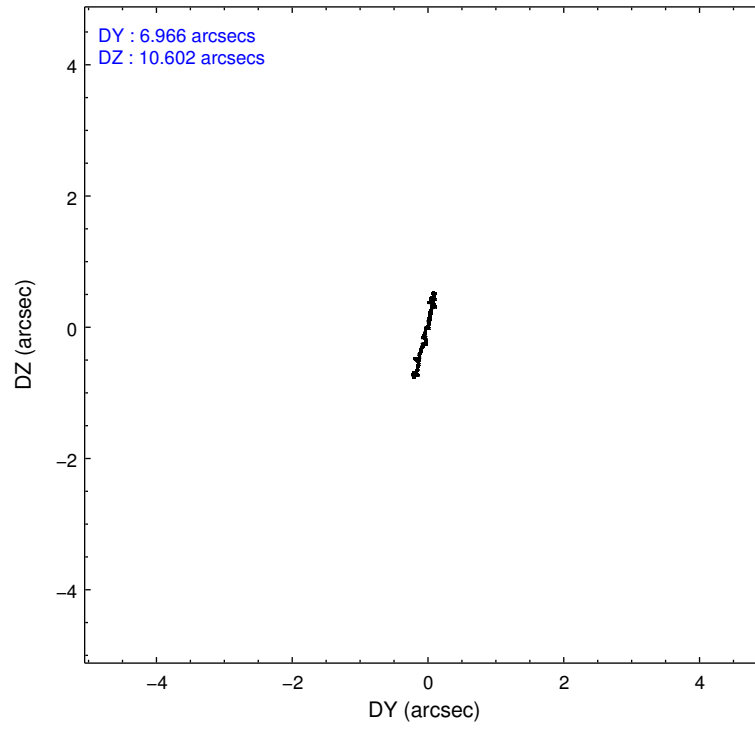
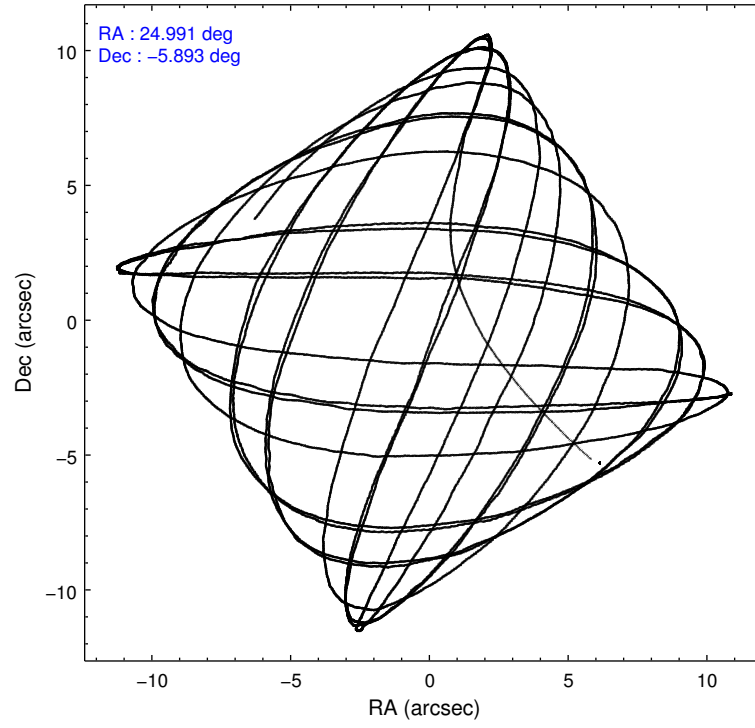


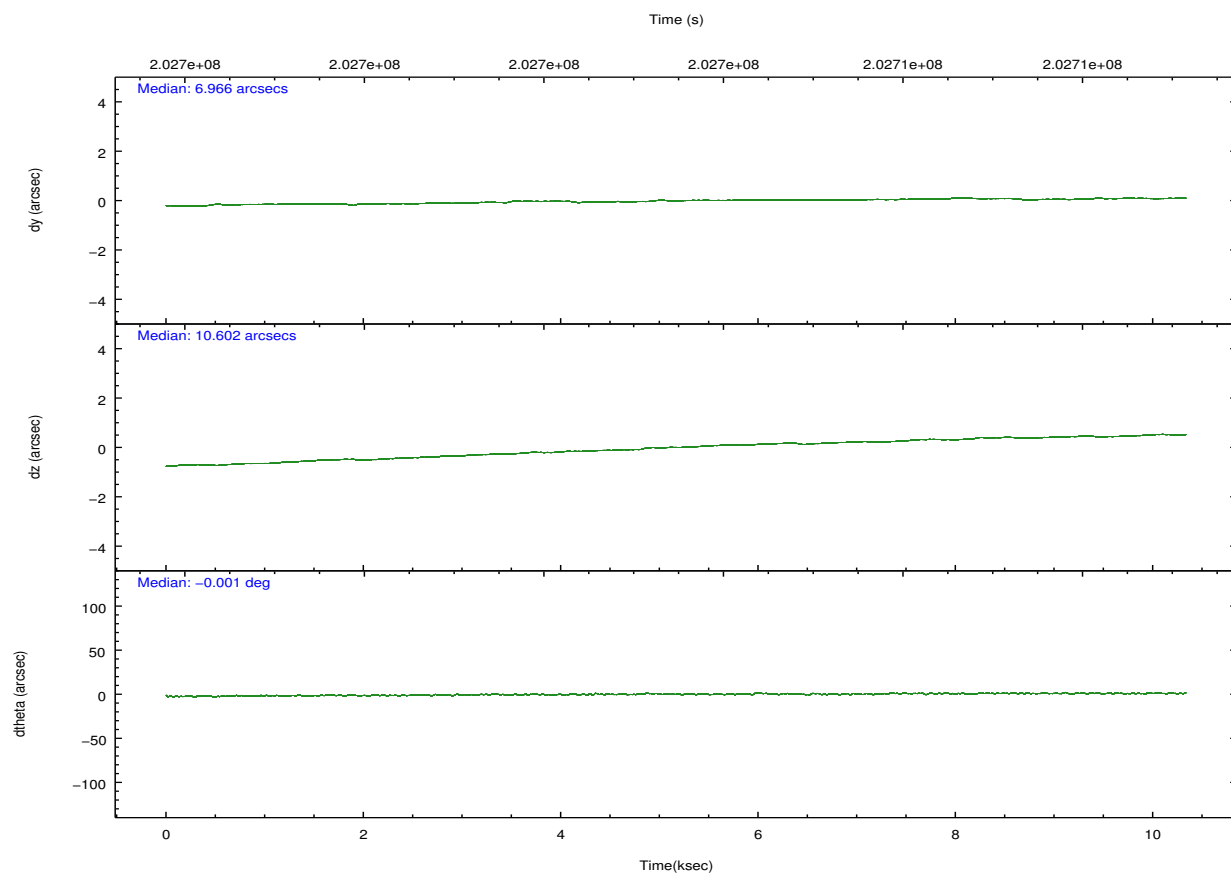
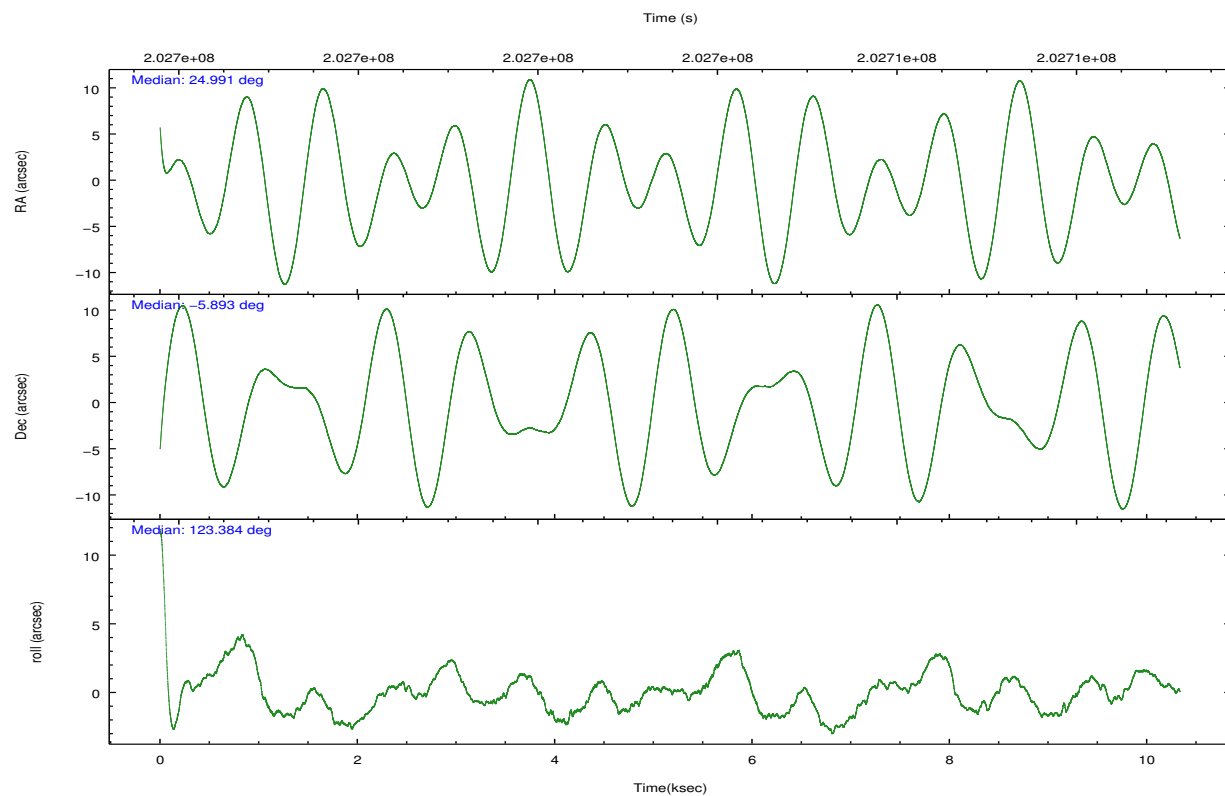
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-01236	ACIS-01236
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	25.015145	24.99049149373792
[deg] Pointing Dec	-5.905293	-5.893053936979893
[deg] Pointing Roll	123.183299	123.3894592516176
[mm] SIM focus pos	-0.782348	-0.7809083437167272
[mm] SIM defocus	0	0.001439871863259334
[mm] SIM translation stage pos	-229.442463	-229.4438428438578
[mm] SIM translation stage offset	-4.15	-4.148610159071865
[s] Observation start time (MET)	202698442.184000	202697293.9858
Observation start date	2004-06-04T01:06:18	2004-06-04T00:48:13
[s] Observation end time (MET)	202708642.184000	202709432.03634
Observation end date	2004-06-04T03:56:18	2004-06-04T04:10:32
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



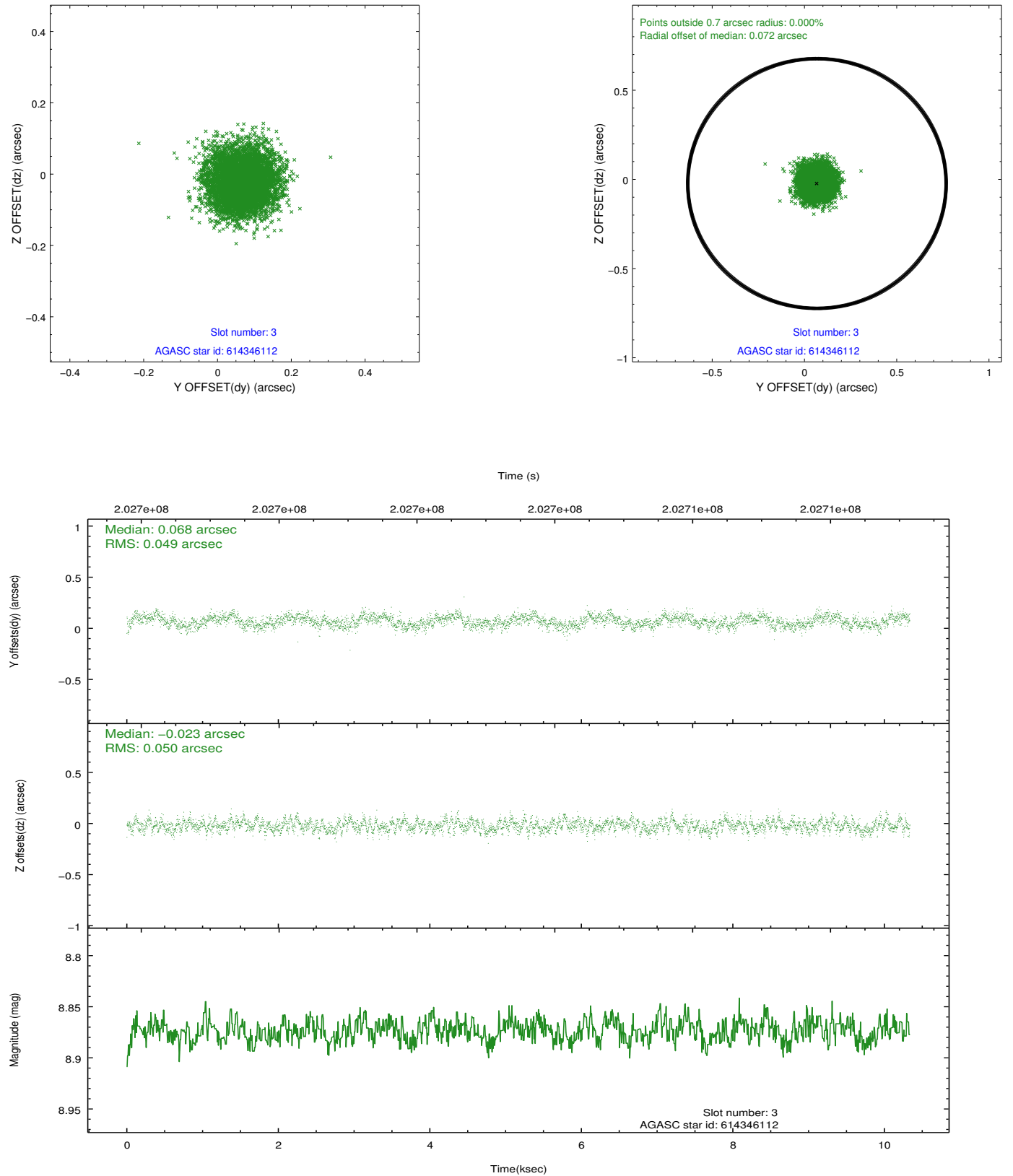


### Slot Statistics

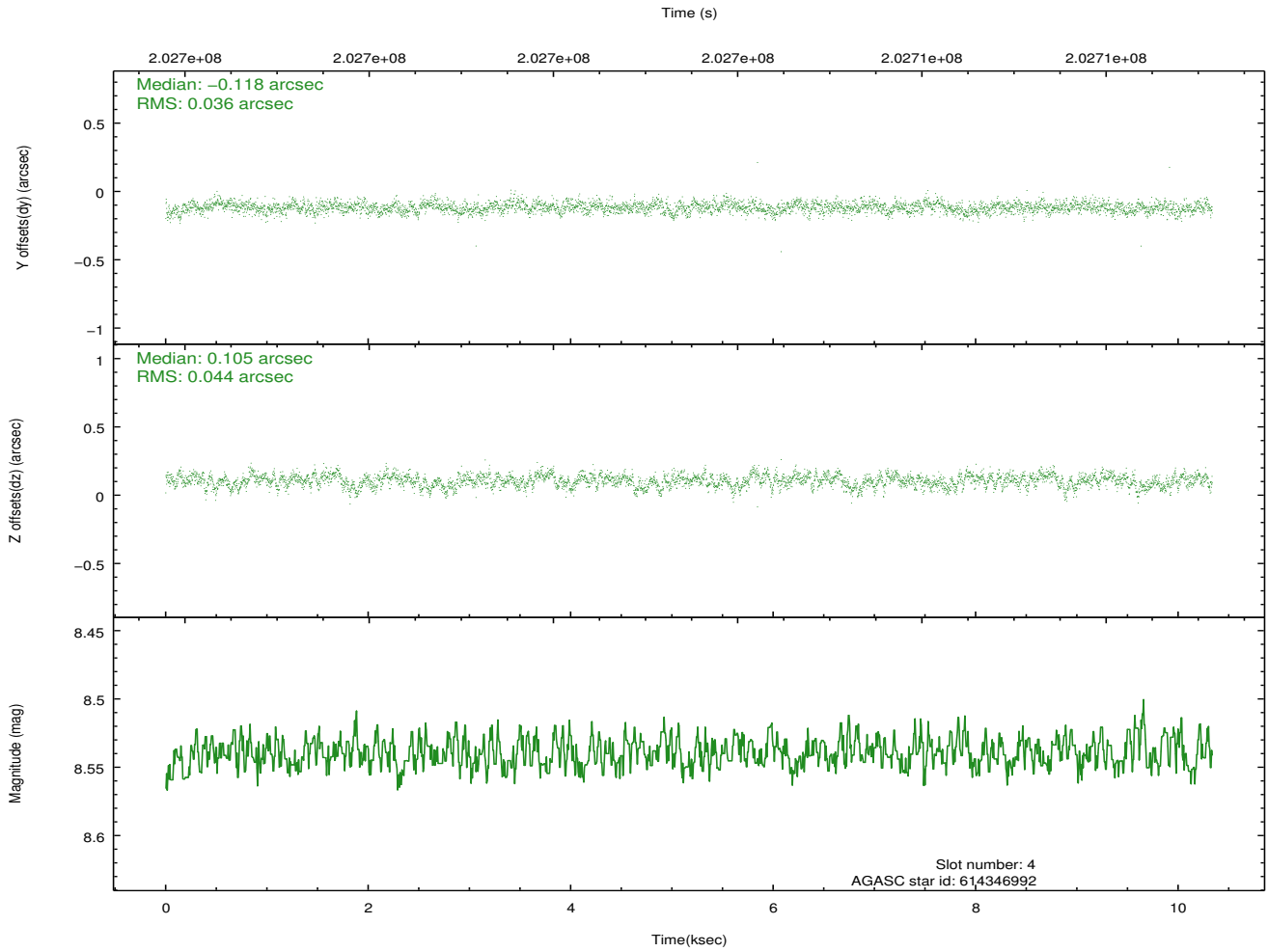
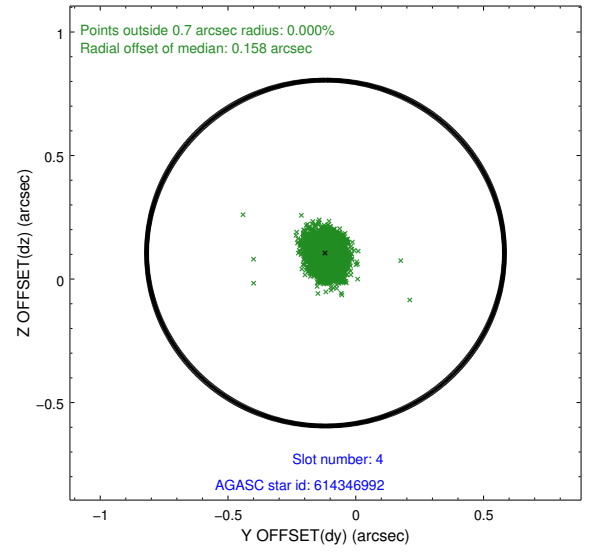
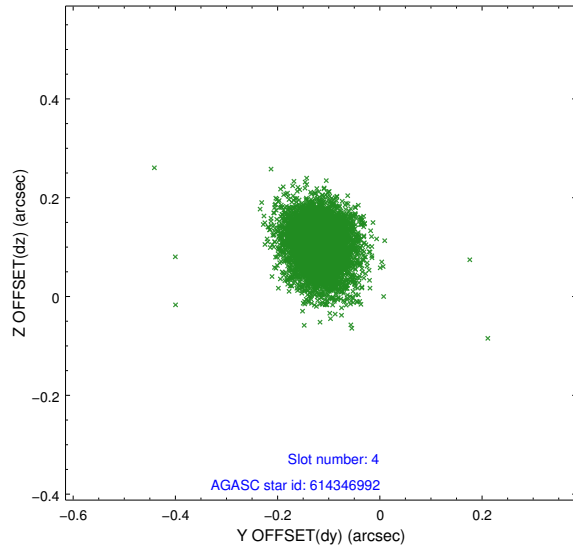
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.24	2521	0.073	-0.031	0.012	0.025	0.000000	0.000000	932.72	-919.20
1	FID	ACIS-I-5	7.22	2521	-0.189	0.084	0.012	0.021	0.000000	0.000000	-1815.33	978.16
2	FID	ACIS-I-6	7.25	2521	0.025	0.020	0.012	0.018	0.000000	0.000000	397.72	1623.14
3	GUIDE	614346112	8.87	5042	0.068	-0.023	0.075	0.117	25.317381	-6.037294	-990.12	-645.10
4	GUIDE	614346992	8.54	5042	-0.118	0.105	0.059	0.097	25.244875	-5.403615	1060.68	-1676.71
5	GUIDE	614350984	9.45	5039	-0.107	-0.072	0.085	0.137	24.289818	-5.710471	2007.50	1791.83
6	GUIDE	614351496	8.14	5038	-0.012	0.154	0.064	0.100	25.217205	-6.162663	-1171.01	-97.21
7	GUIDE	614336552	9.23	5039	0.168	-0.161	0.086	0.137	25.065470	-6.628544	-2277.96	1274.74

## 2.4 Star Slots

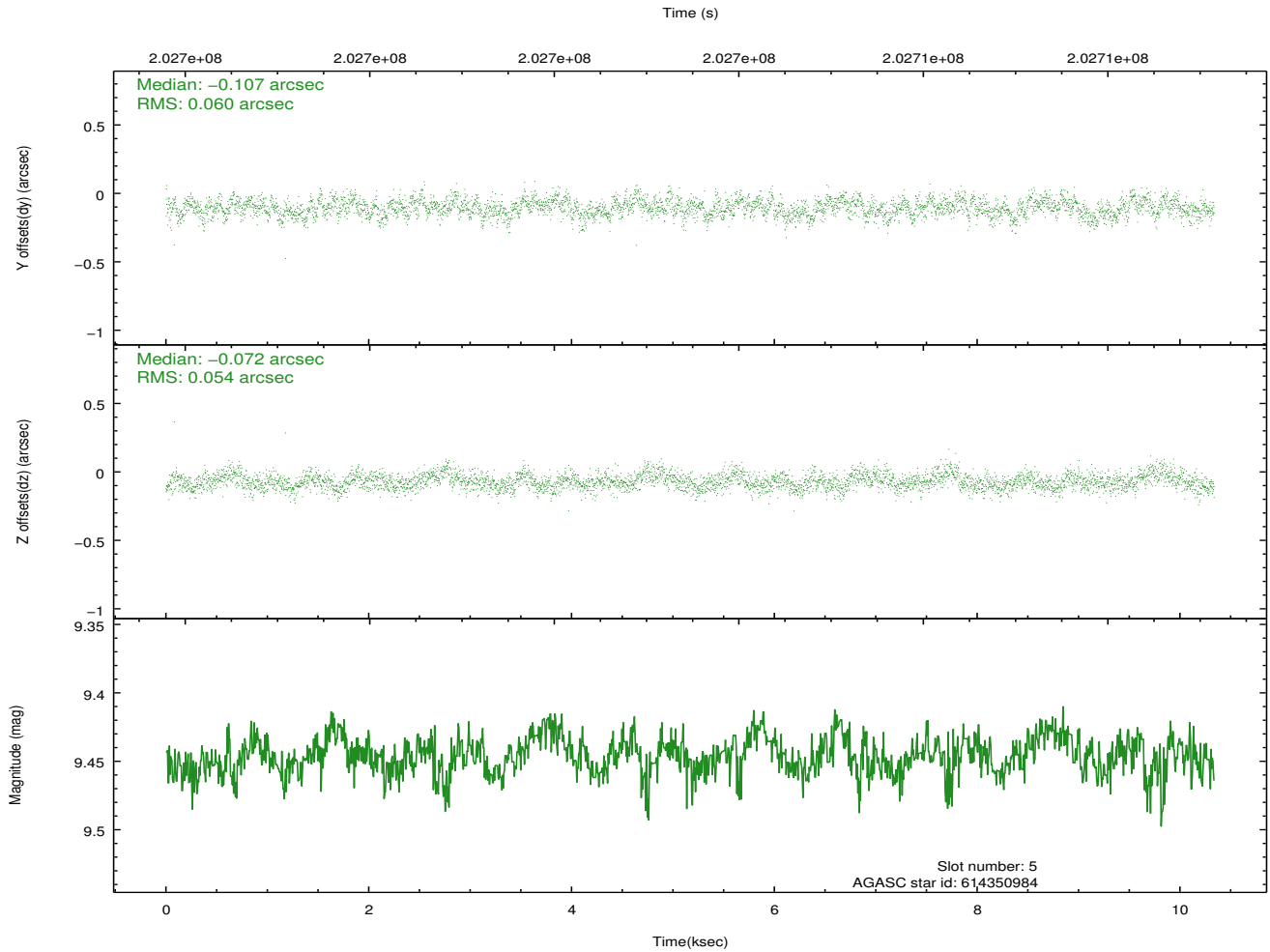
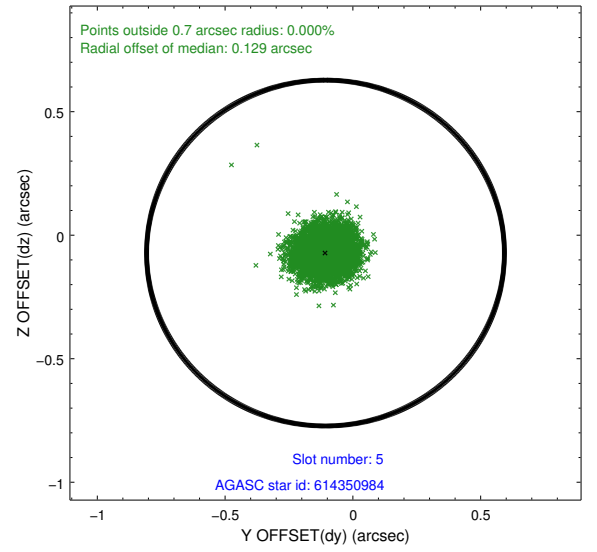
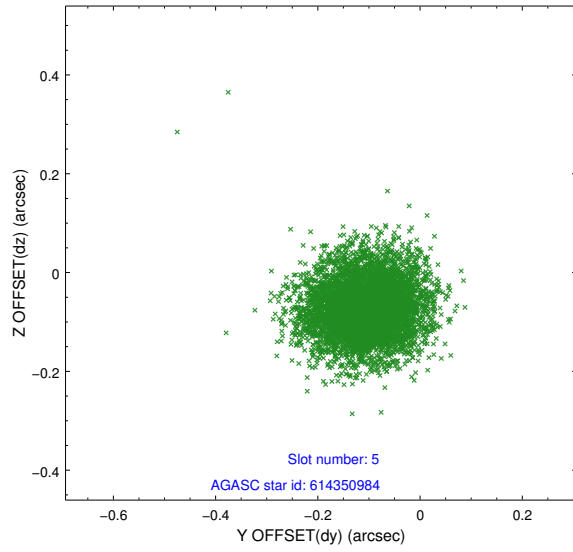
### 2.4.1 Slot 3



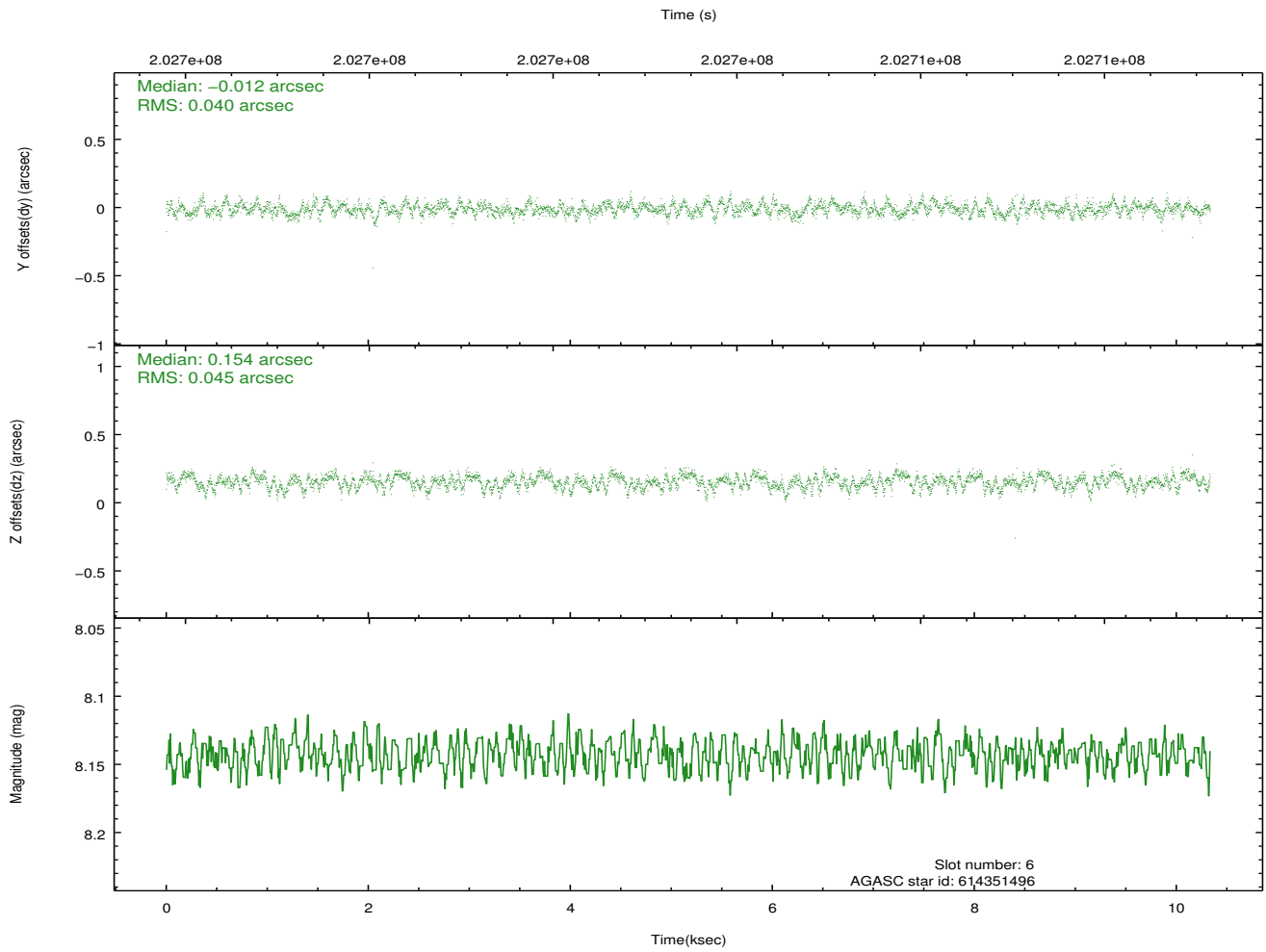
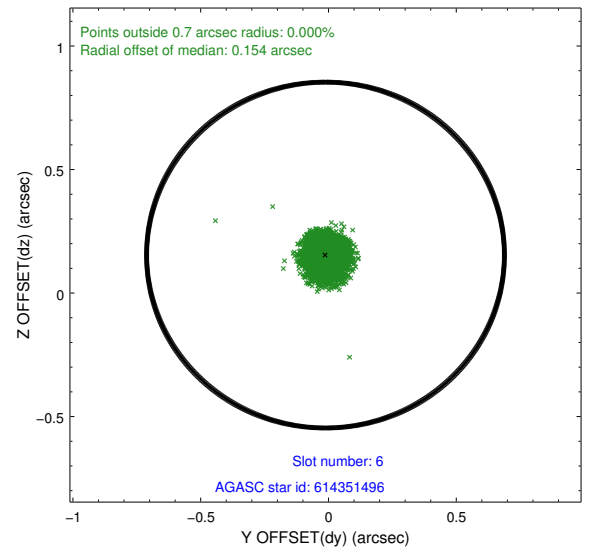
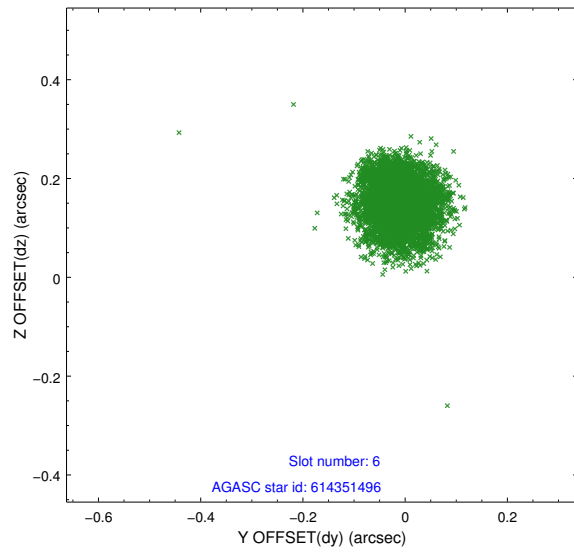
## 2.4.2 Slot 4



### 2.4.3 Slot 5

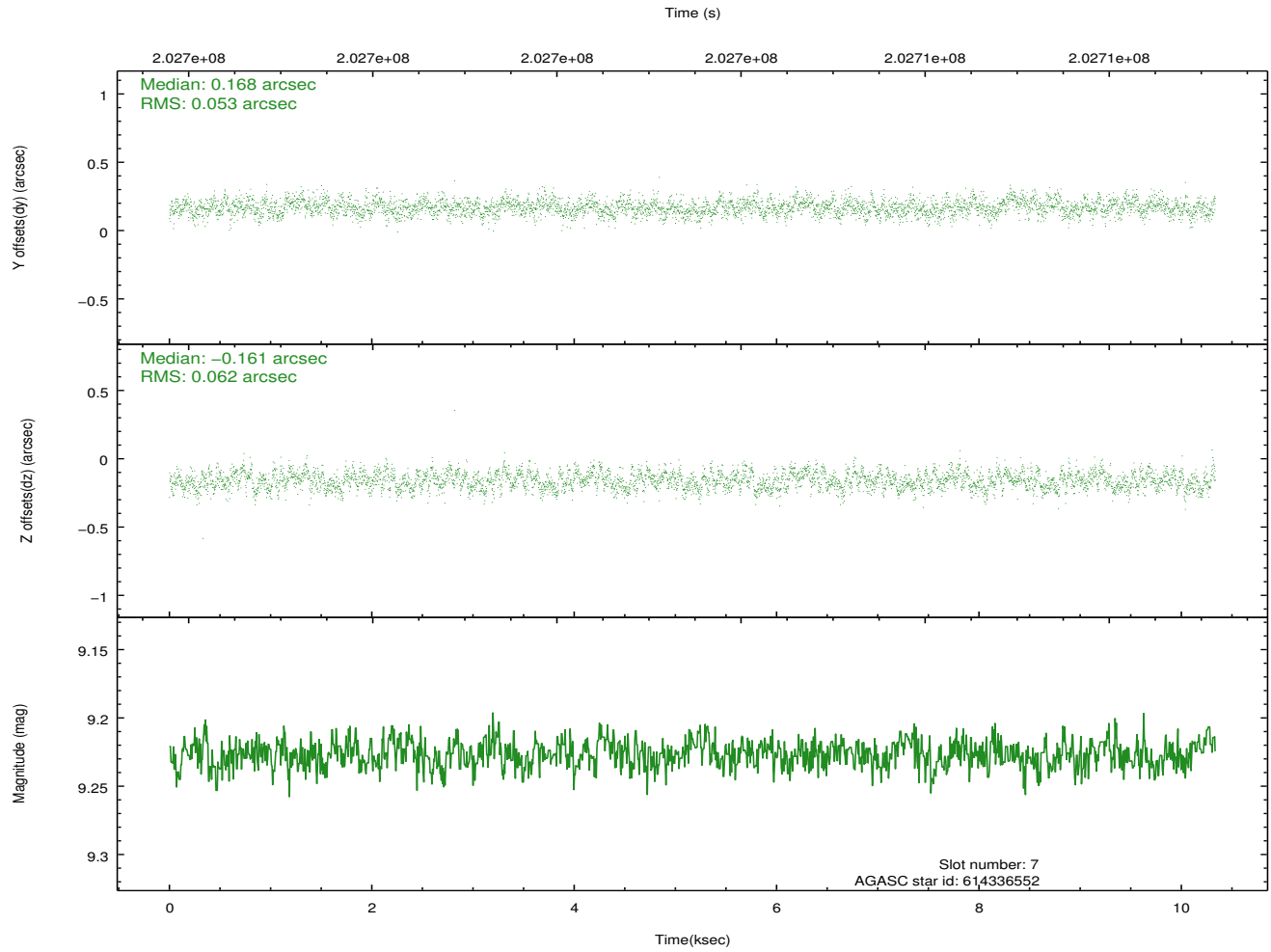
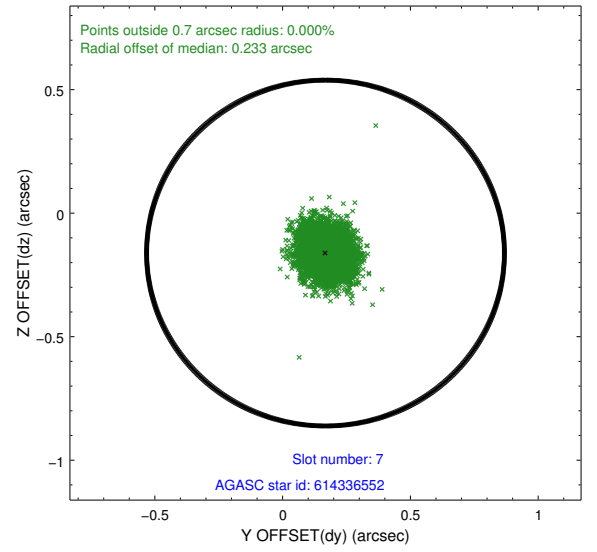
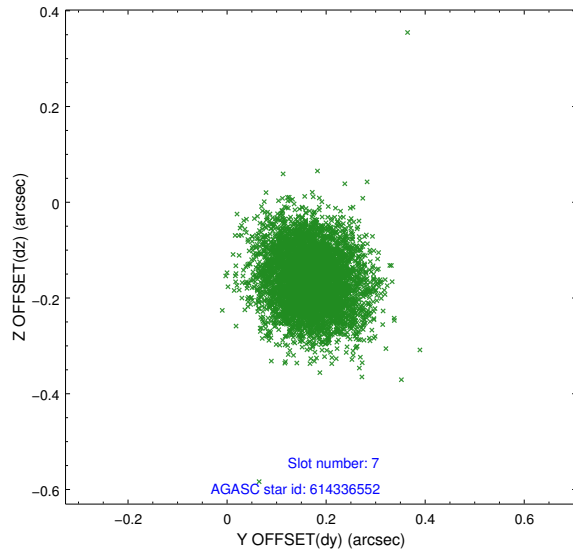


## 2.4.4 Slot 6



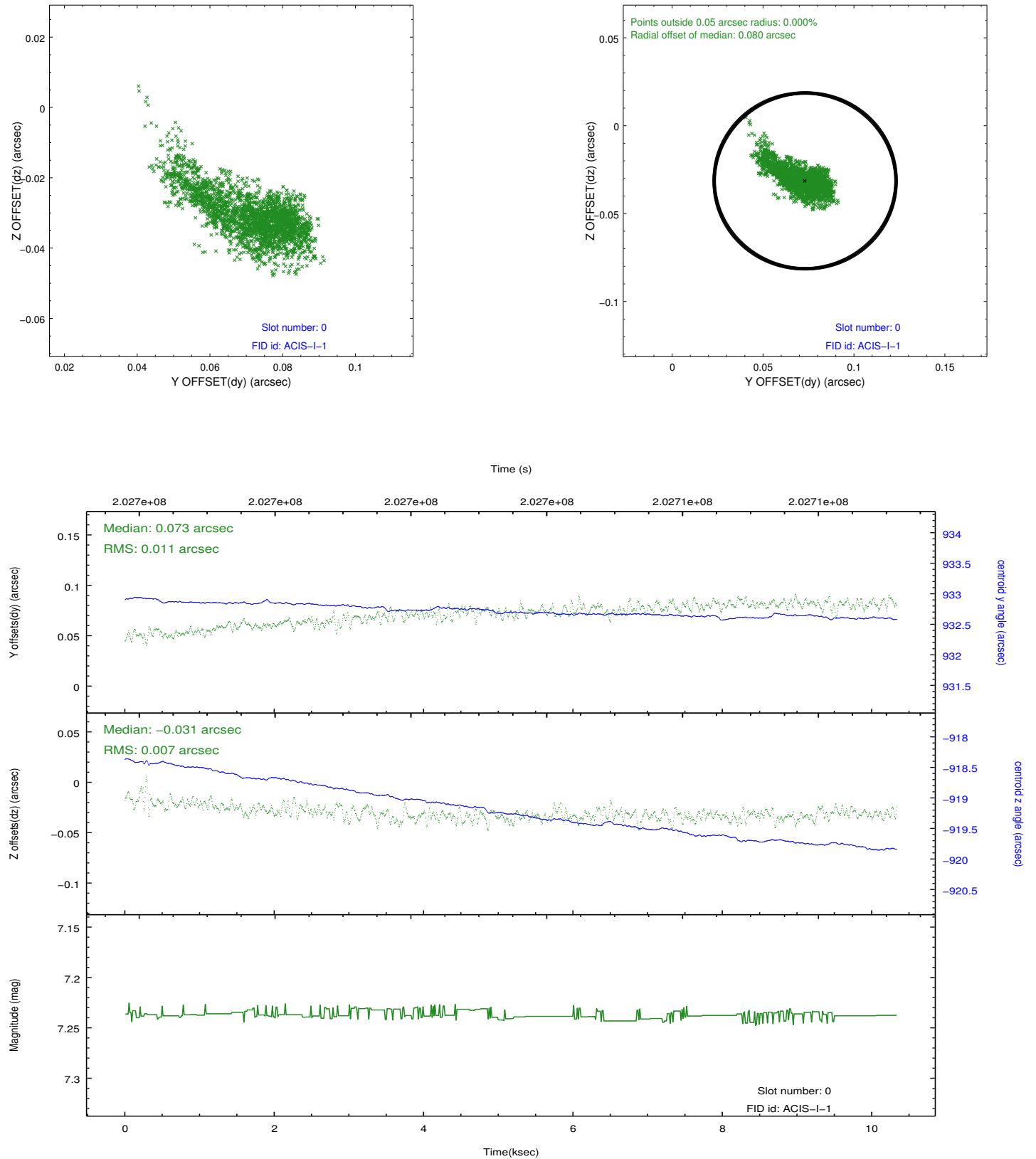


## 2.4.5 Slot 7

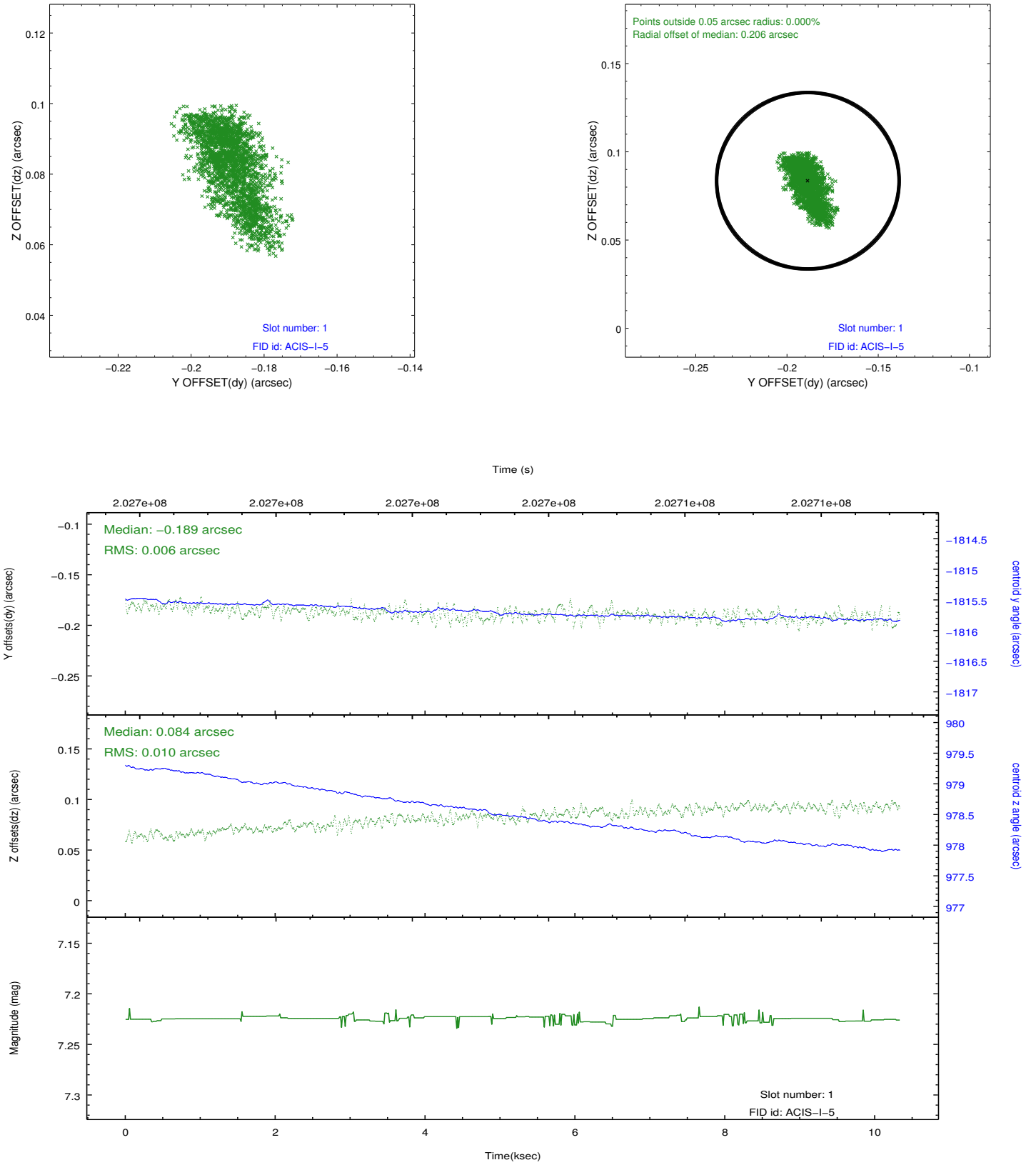


## 2.5 FID Slots

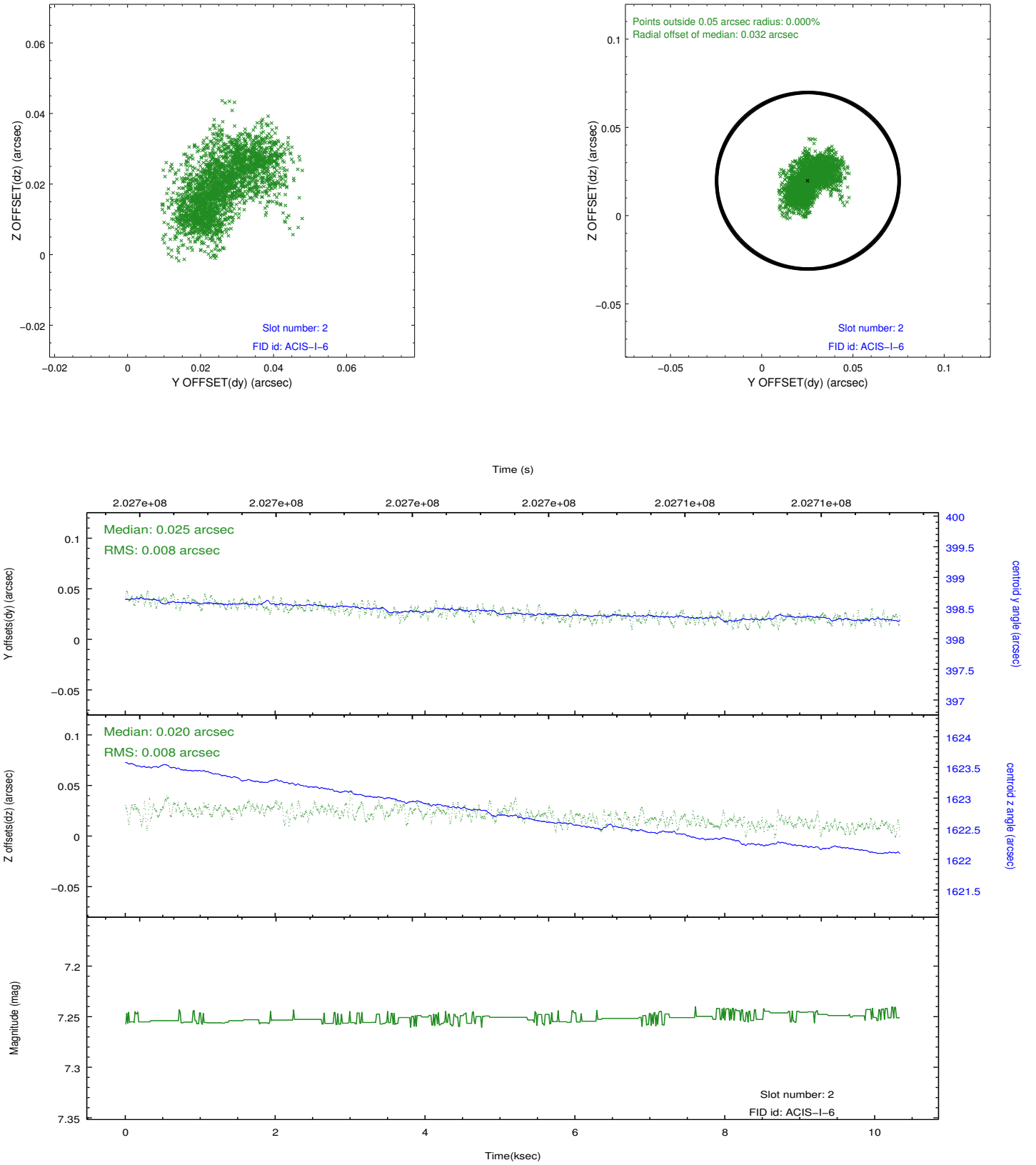
### 2.5.1 Slot 0



## 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)	2012.12.17
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.332

### **A.2 Comments**