

# V&V Reference Report

## L2 ASCDS Version : 8.5.1

Observation 6228 - L2 Version 3  
Chandra X-Ray Center

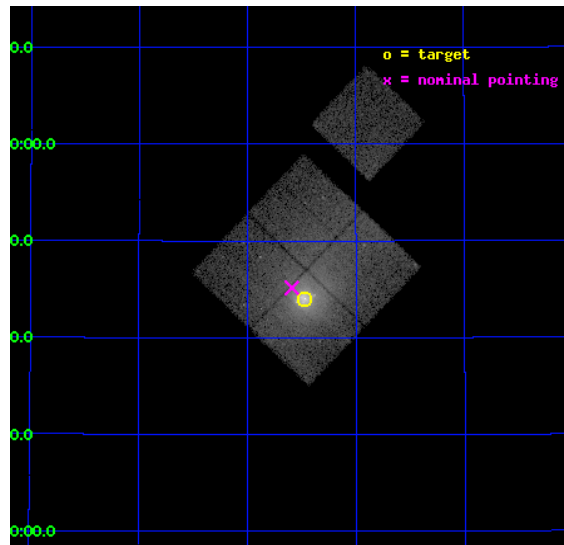
L2 Processing Date : Dec 17 2012

## 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

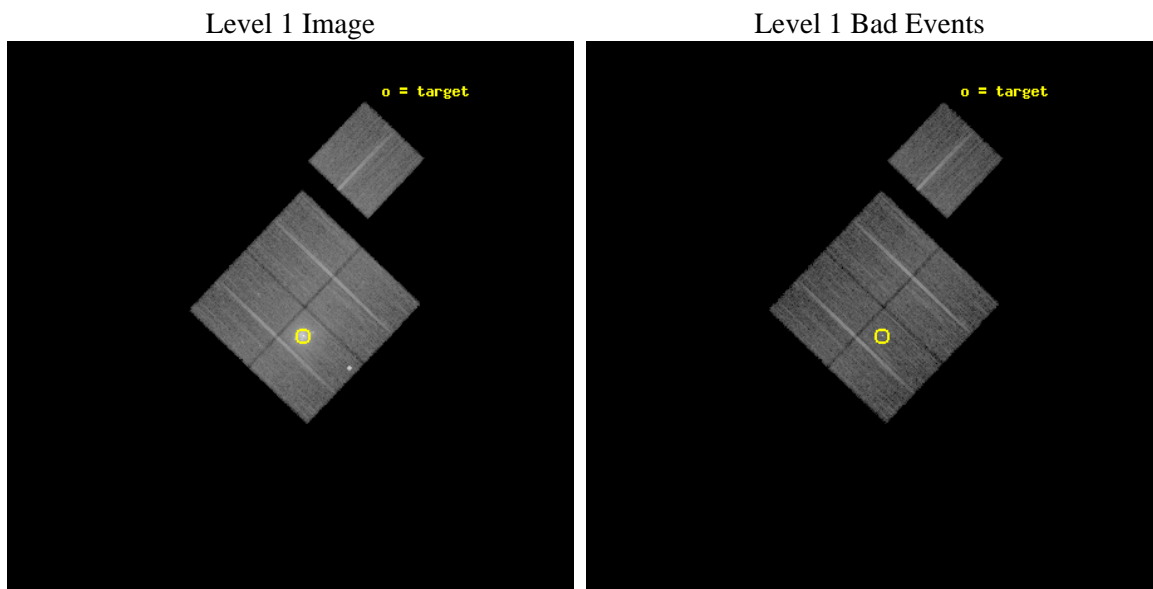
seq_num	800540	Sequence number
obs_id	6228	Observation id
title	Cygnus A --- Shock Heating of the Intra-Cluster Medium	Proposal ti
observer	Dr Andrew Young	Principal investigator
object	Cygnus A	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	299.867917	Observer's specified target RA [deg]
dec_targ	40.733889	Observer's specified target Dec [deg]
ra_nom	299.89759261971	Nominal RA [deg]
dec_nom	40.752712924968	Nominal Dec [deg]
roll_nom	43.689314286158	Nominal Roll [deg]
revision	3	Processing version of data
ontime	16250.199968725	Sum of GTIs [s]
livetime	16037.879142911	Livetime [s]
ontime0	16250.199968725	Sum of GTIs [s]
ontime1	16250.199968725	Sum of GTIs [s]
ontime2	16250.199968725	Sum of GTIs [s]
ontime3	16250.199968725	Sum of GTIs [s]
ontime6	16250.199968725	Sum of GTIs [s]
l2events	149359	Number of level 2 events



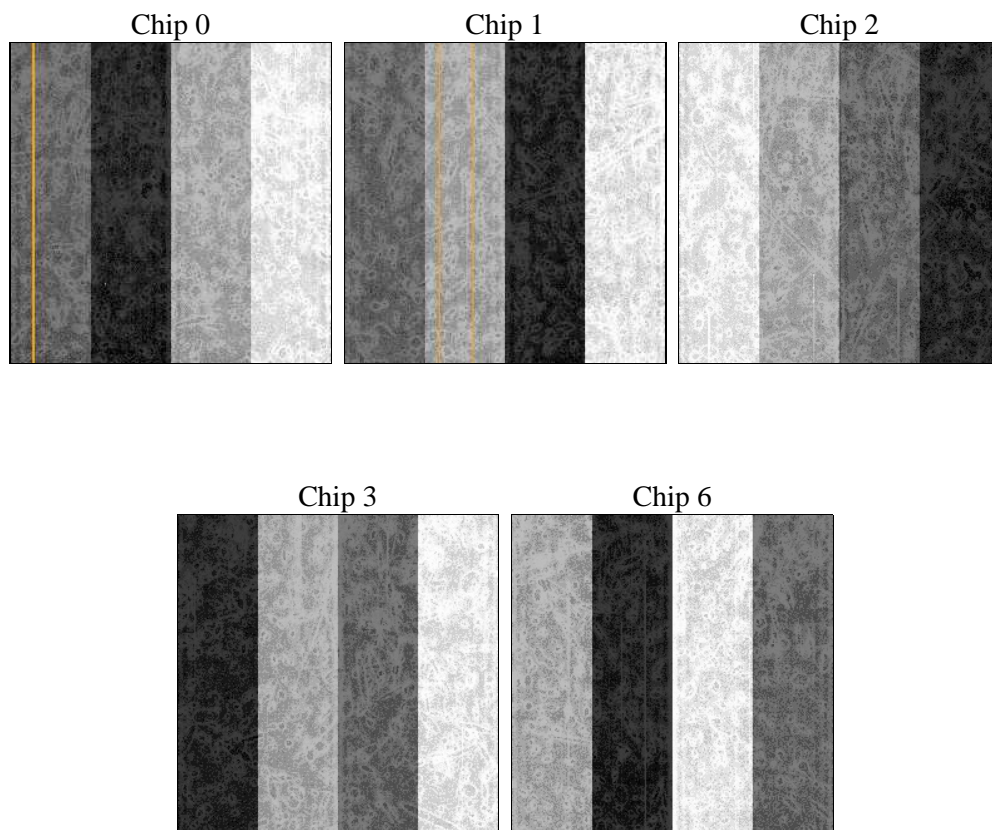
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	16198.982000	[s] Scheduled observation exposure time
ascdsver	8.5.1	Processing system revision	ontime	16250.199968725	Sum of GTIs [s]
caldsver	4.5.5	&#160	ontime0	16250.199968725	Sum of GTIs [s]
date	2012-12-17T19:12:13	Date and time of file creation	ontime1	16250.199968725	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	16250.199968725	Sum of GTIs [s]
			ontime3	16250.199968725	Sum of GTIs [s]
			ontime6	16250.199968725	Sum of GTIs [s]
			l1events	618188	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	102103	176635	114221	118885	106344
rejected events	82012	86944	93454	92585	94064
rejected %	80%	49%	81%	77%	88%

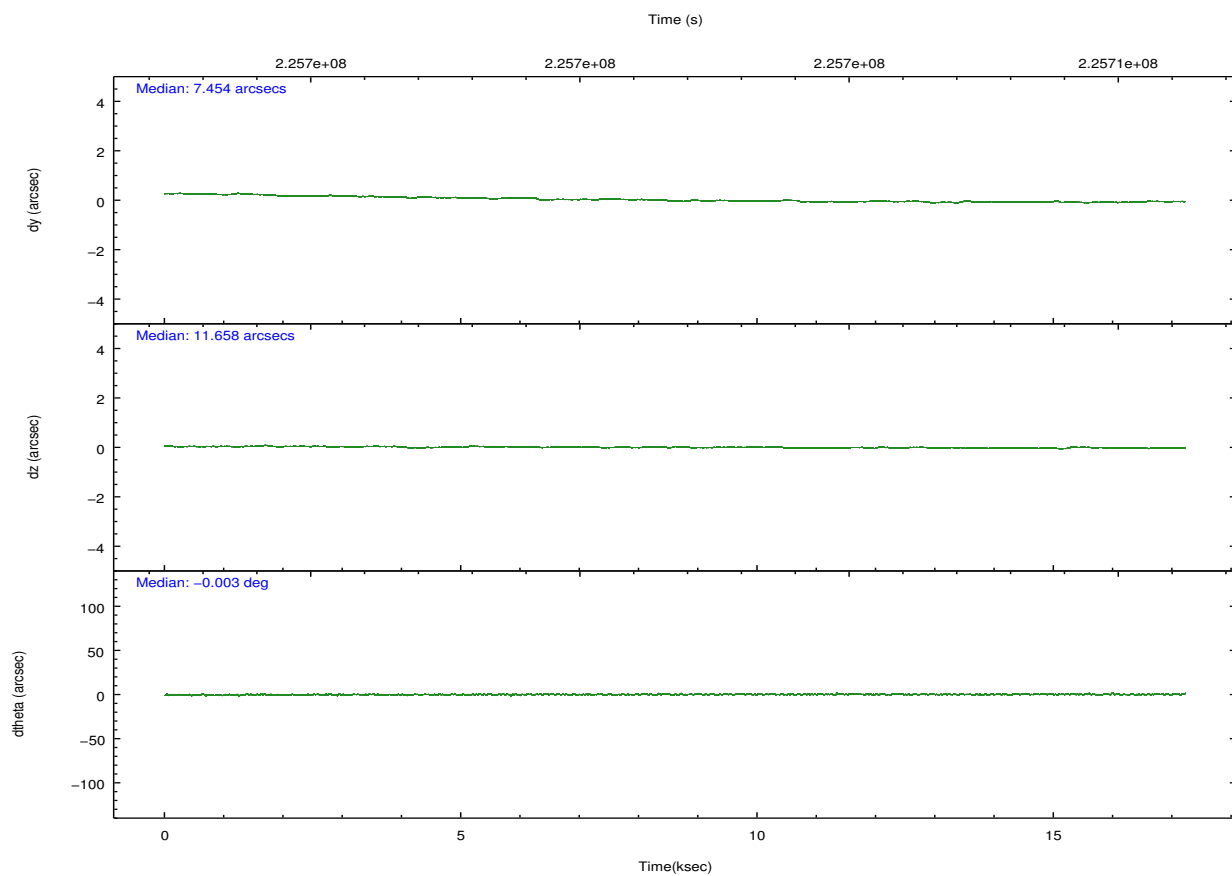
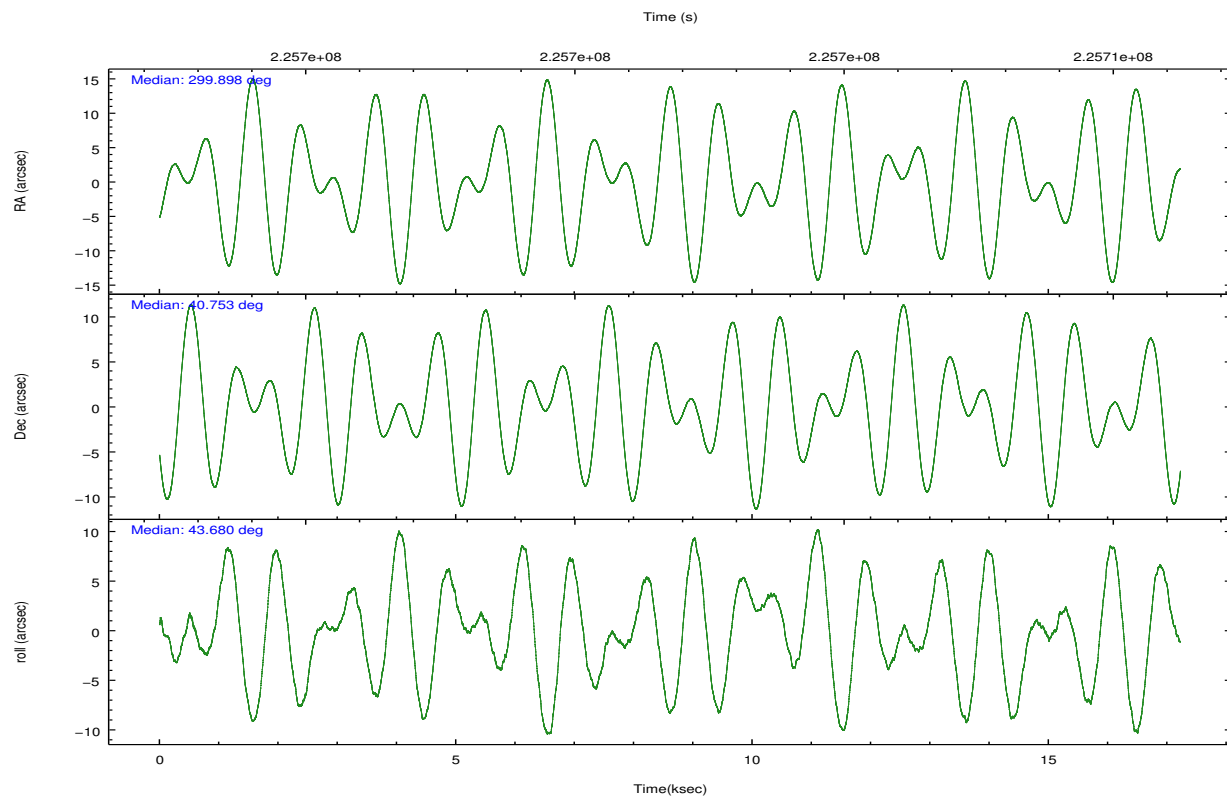
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	11439	61273	12367	16724	5102
	11%	34%	10%	14%	4%
grade 1 events	98	533	109	121	43
	0%	0%	0%	0%	0%
grade 2 events	3438	10776	3446	3817	2392
	3%	6%	3%	3%	2%
grade 3 events	1501	8753	1398	1676	1238
	1%	4%	1%	1%	1%
grade 4 events	1459	3743	1431	1649	1205
	1%	2%	1%	1%	1%
grade 5 events	3718	4452	3522	4087	4022
	3%	2%	3%	3%	3%
grade 6 events	2257	5167	2129	2438	2346
	2%	2%	1%	2%	2%
grade 7 events	78193	81938	89819	88373	89996
	76%	46%	78%	74%	84%



## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01236	ACIS-01236	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	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
[deg] Pointing RA	299.887572	299.8975926197062	Subarray requested	NONE	NONE
[deg] Pointing Dec	40.726424	40.75271292496757	Alternating exposures requested	N	N
[deg] Pointing Roll	43.487167	43.68931428615786	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-242.392463	-242.3975952774949			
[mm] SIM translation stage offset	8.800000000000001	8.805142274565242			
[s] Observation start time (MET)	225694185.184000	225692834.32739			
Observation start date	2005-02-25T04:48:41	2005-02-25T04:27:14			
[s] Observation end time (MET)	225710384.184000	225710625.25319			
Observation end date	2005-02-25T09:18:40	2005-02-25T09:23:45			
Read mode	TIMED	TIMED			

## 2.3 Aspect

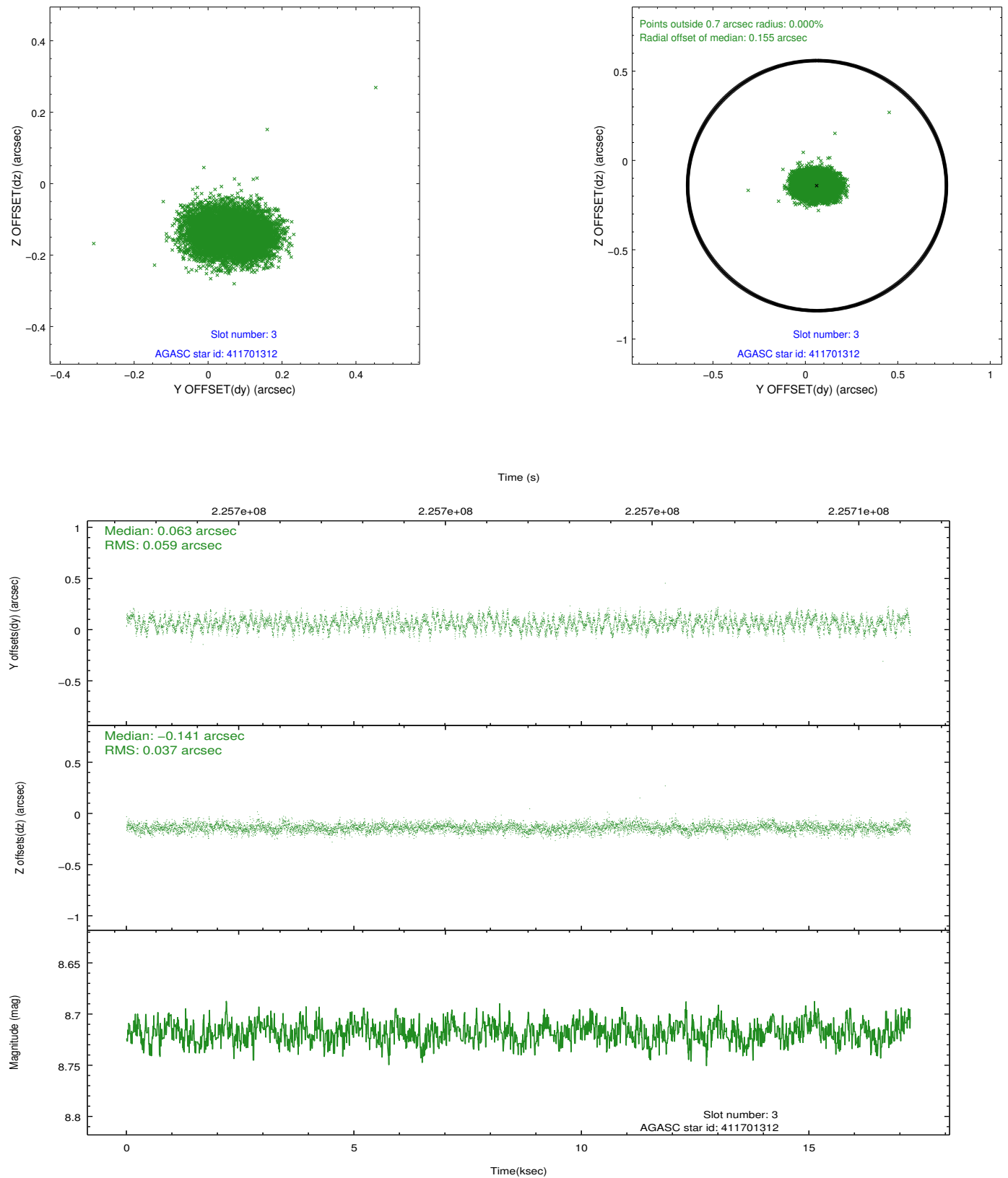


### Slot Statistics

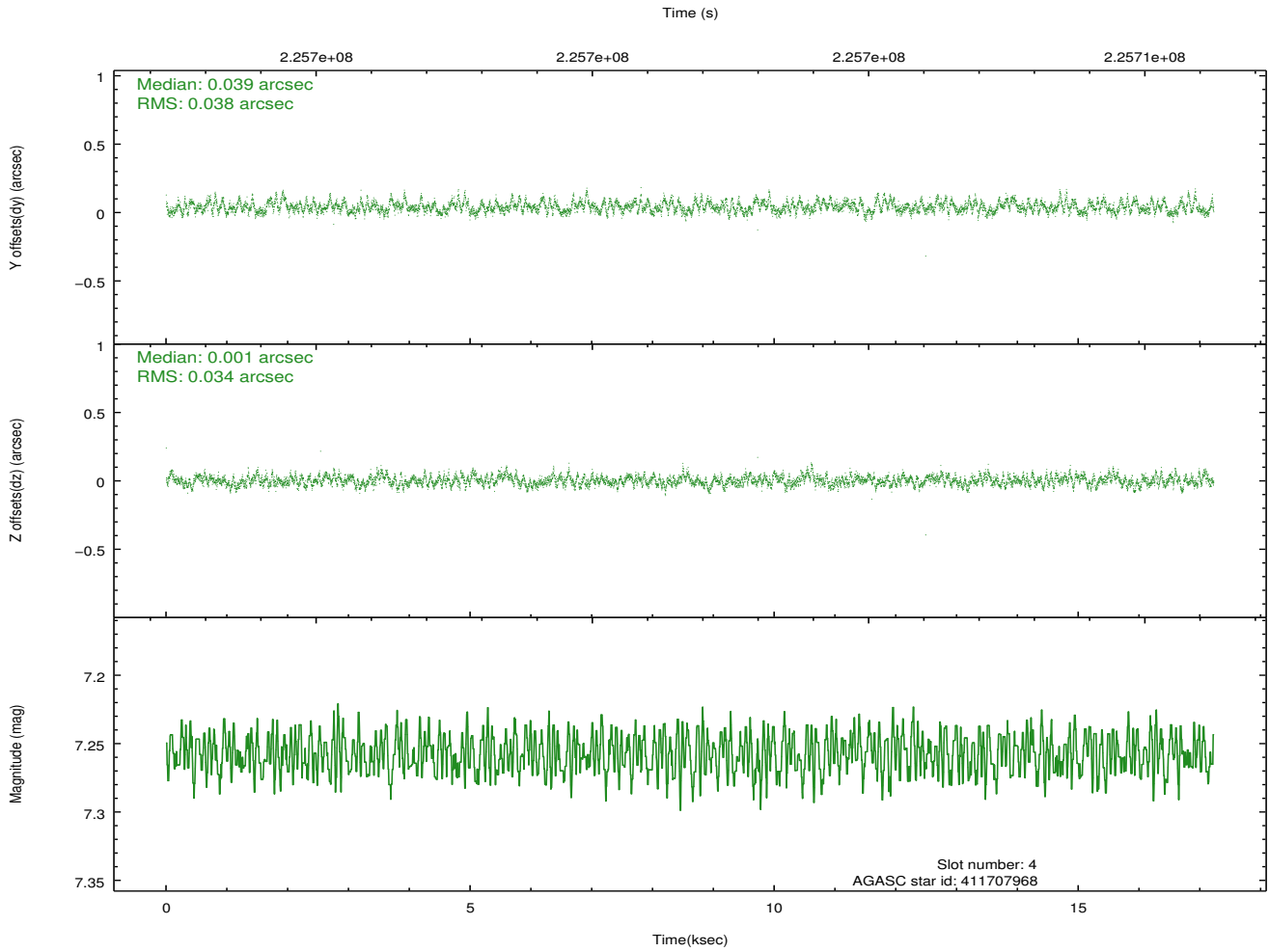
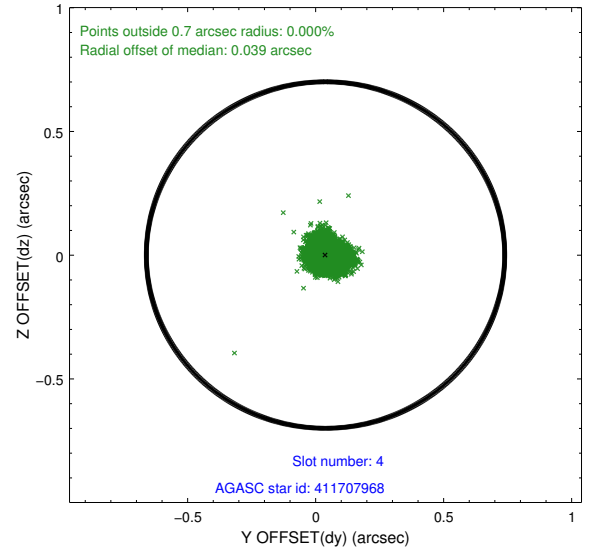
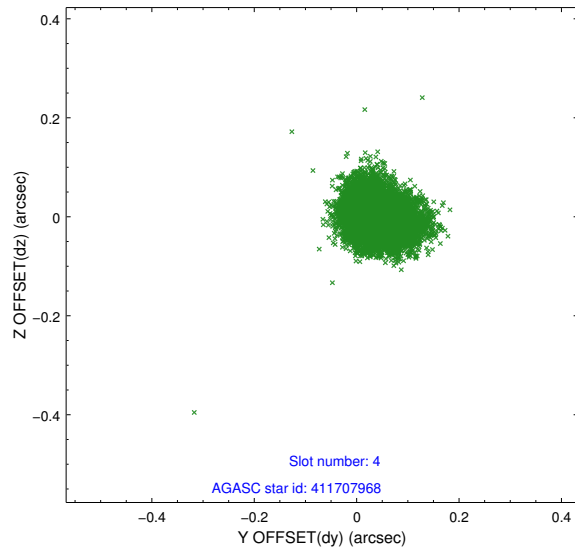
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.28	4202	-0.047	0.110	0.008	0.014	0.000000	0.000000	932.30	-654.07
1	FID	ACIS-I-5	7.24	4202	-0.097	0.007	0.007	0.012	0.000000	0.000000	-1815.74	1243.20
2	FID	ACIS-I-6	7.24	4201	0.053	-0.047	0.007	0.011	0.000000	0.000000	397.65	1887.94
3	GUIDE	411701312	8.72	8403	0.063	-0.141	0.076	0.119	298.889956	40.820220	-1728.75	2126.38
4	GUIDE	411707968	7.26	8404	0.039	0.001	0.054	0.085	299.509933	40.926839	-247.13	1232.37
5	GUIDE	413405352	8.35	8399	0.017	-0.198	0.058	0.093	300.290830	41.091941	1701.39	203.92
6	GUIDE	413418680	9.30	8402	0.044	0.236	0.096	0.156	300.860298	40.740057	1969.46	-1778.96
7	GUIDE	413421016	8.71	8400	-0.161	0.101	0.068	0.110	300.612426	40.446254	752.99	-2092.32

## 2.4 Star Slots

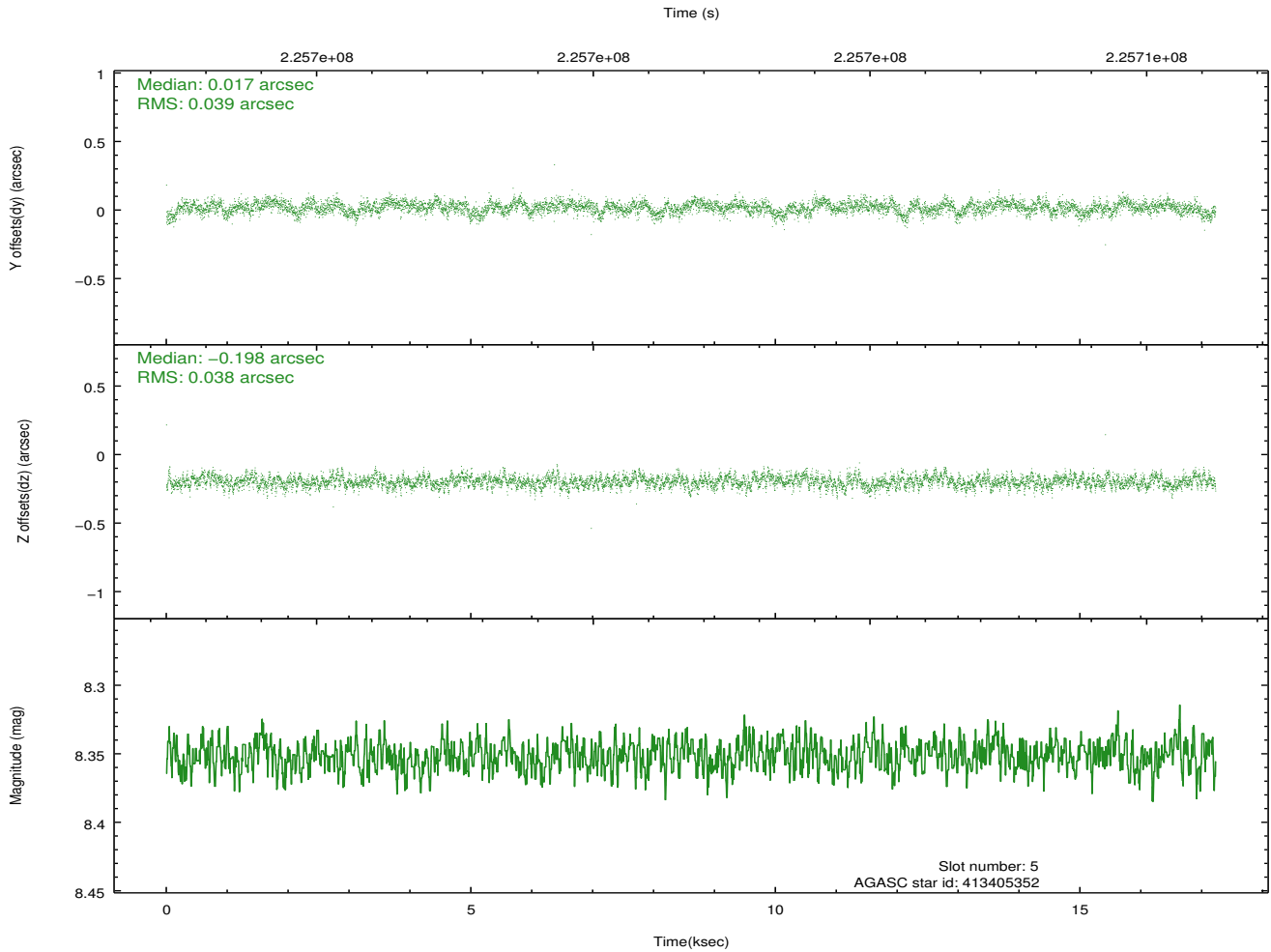
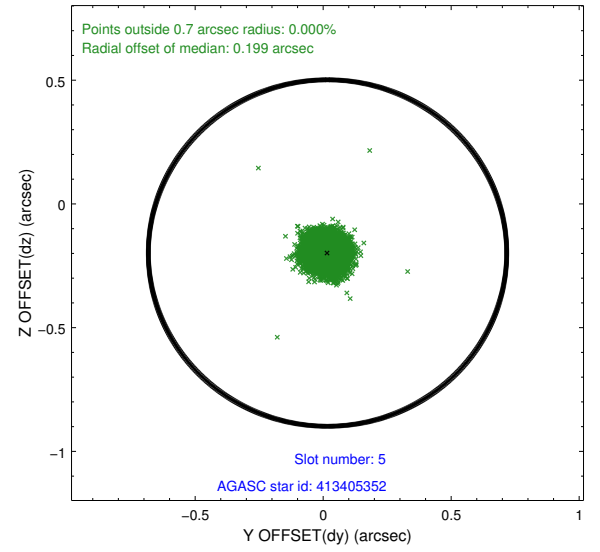
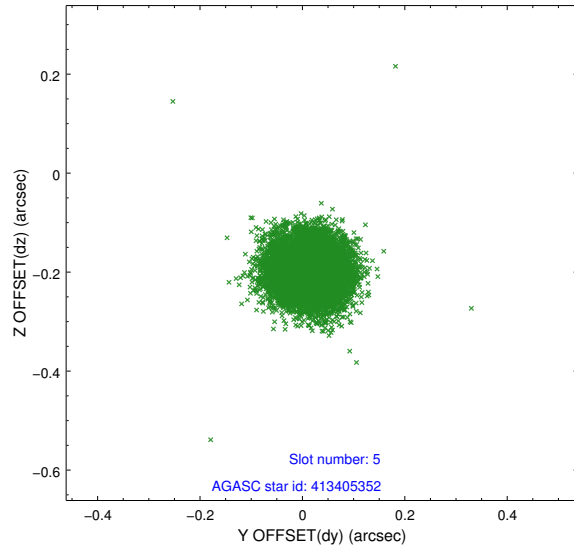
### 2.4.1 Slot 3



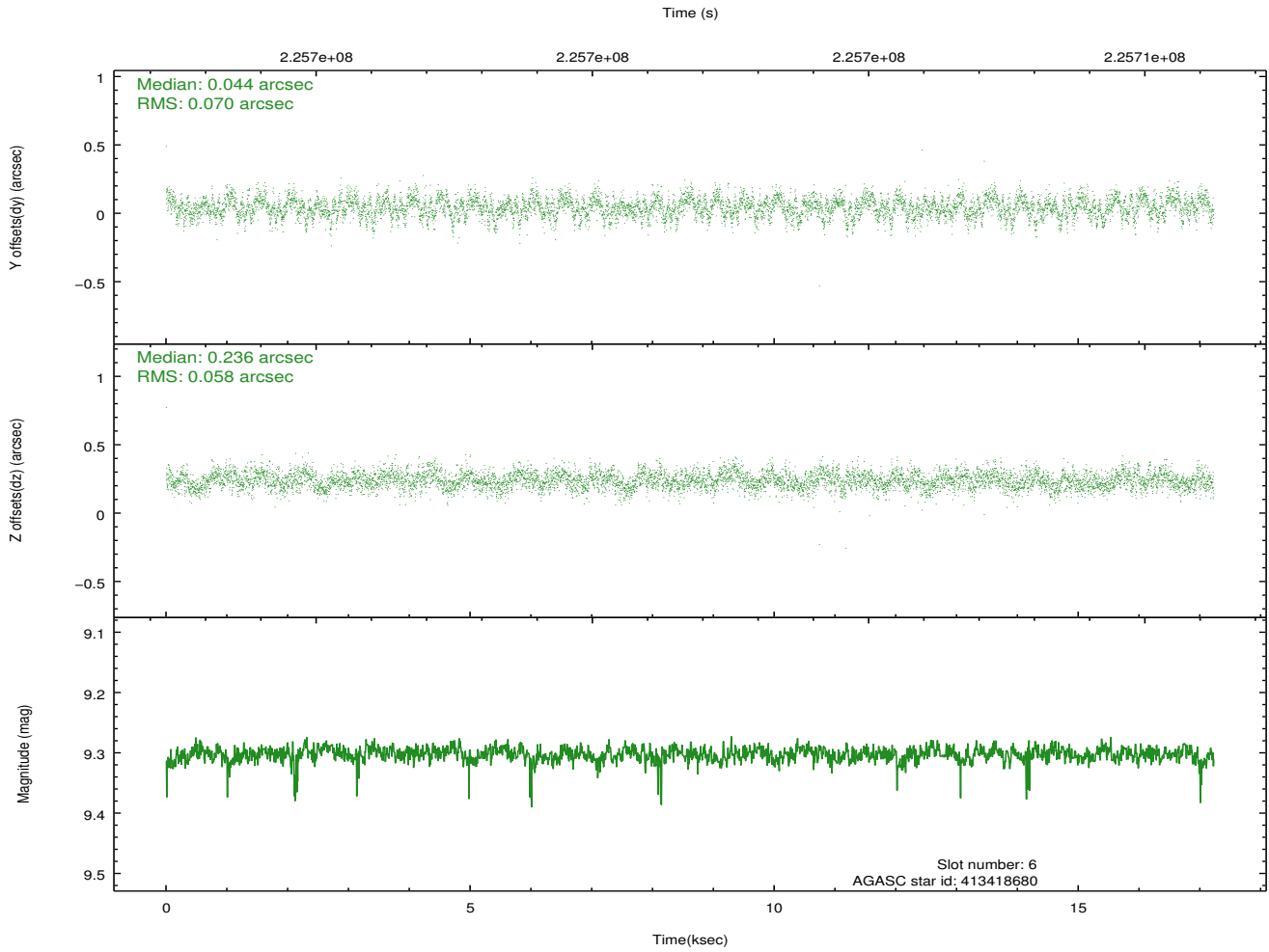
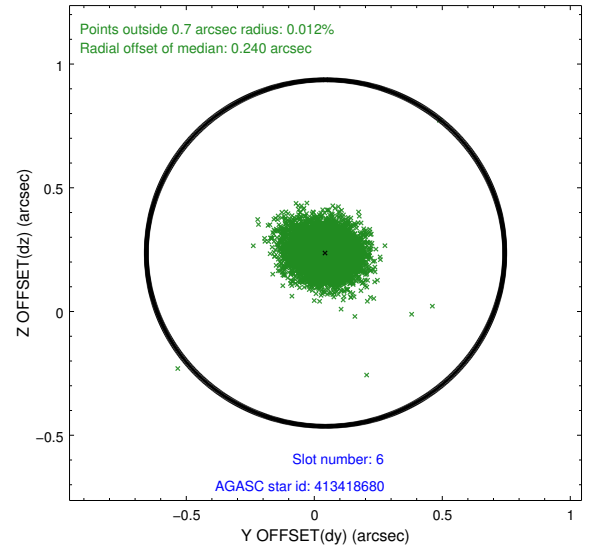
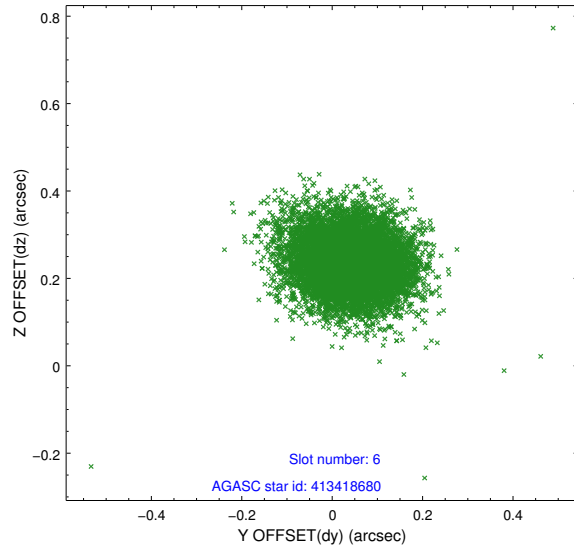
## 2.4.2 Slot 4



### 2.4.3 Slot 5

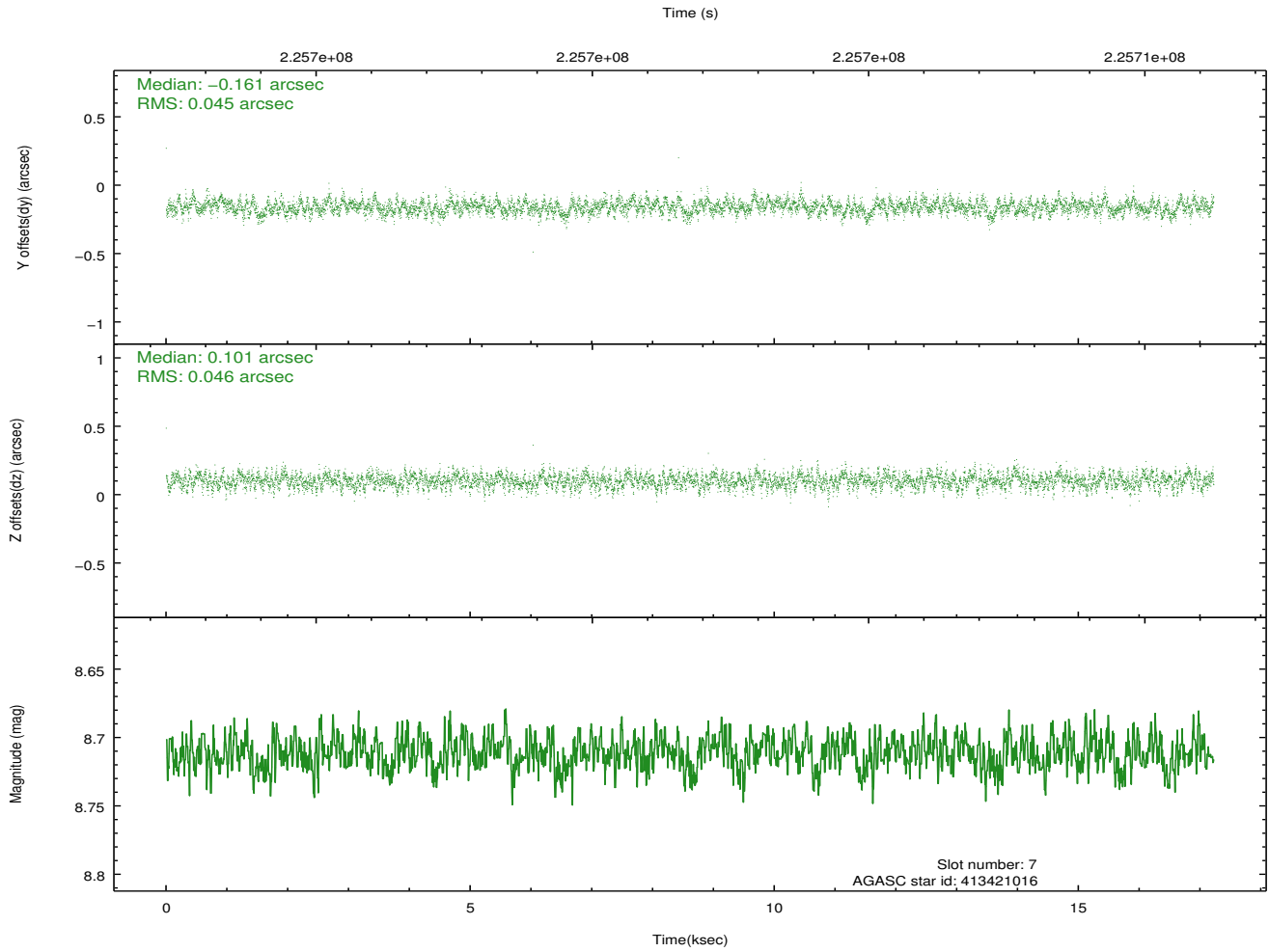
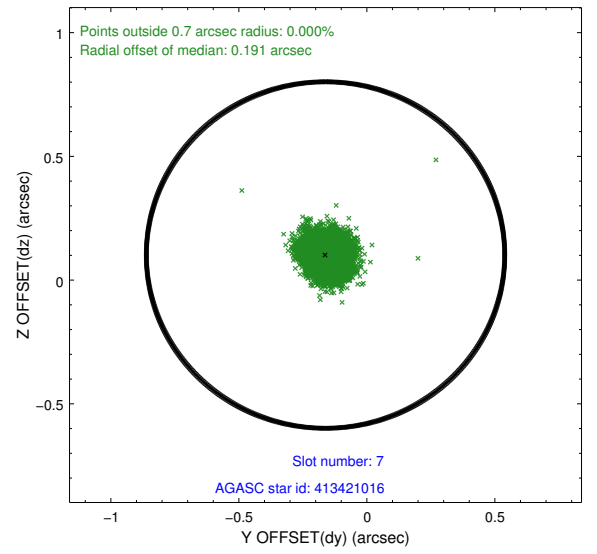
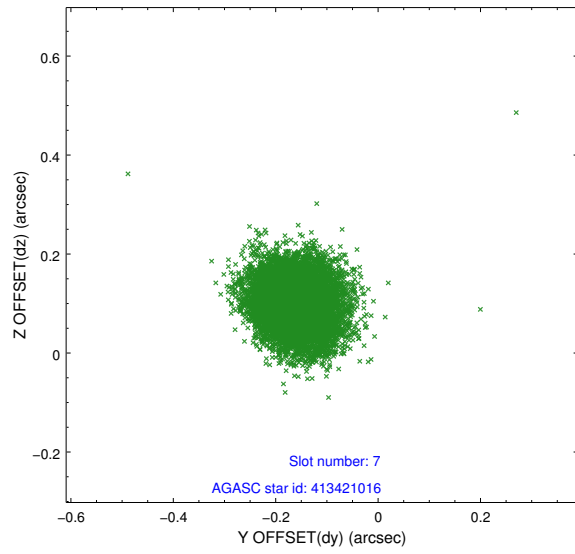


## 2.4.4 Slot 6



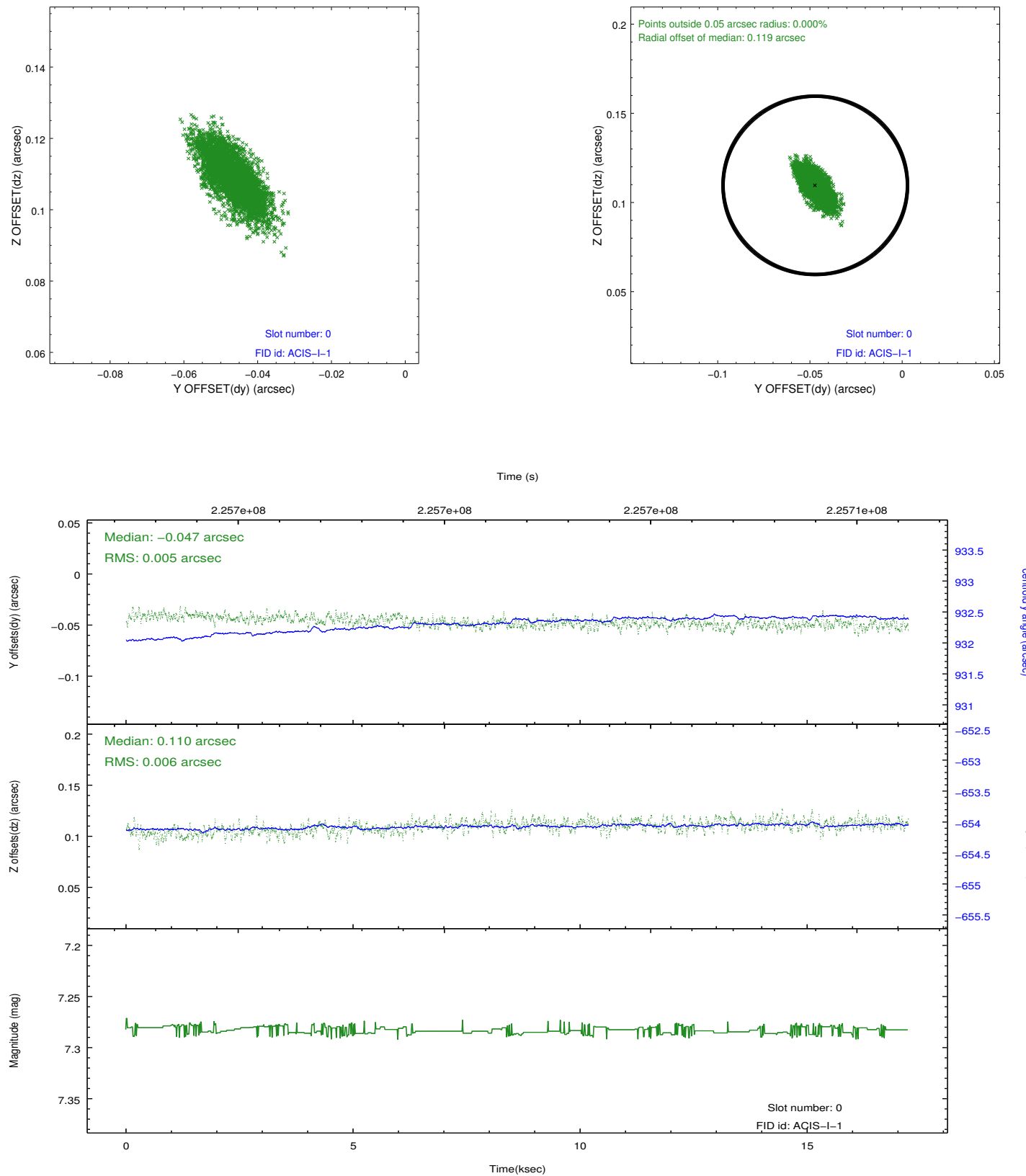


## 2.4.5 Slot 7

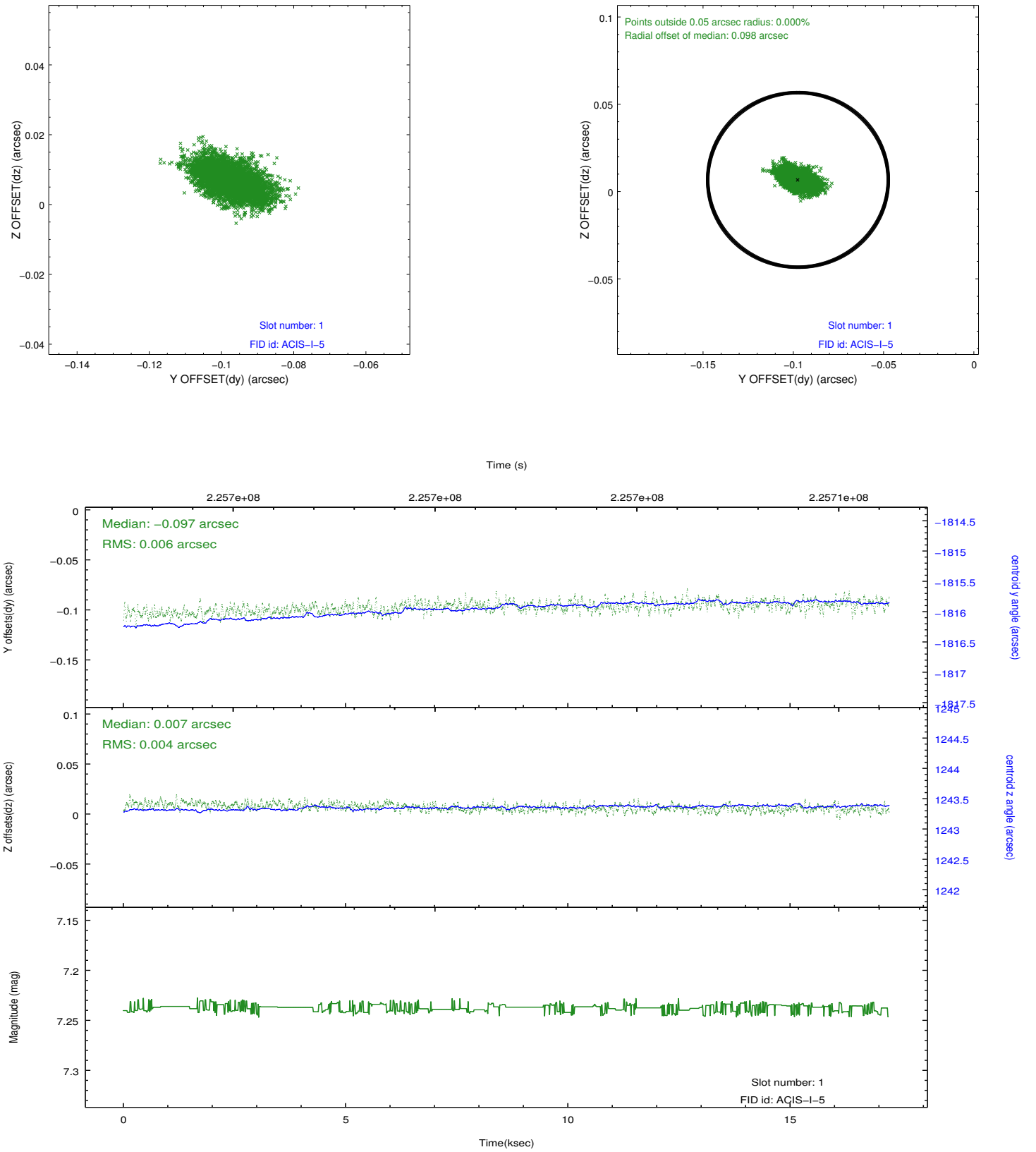


## 2.5 FID Slots

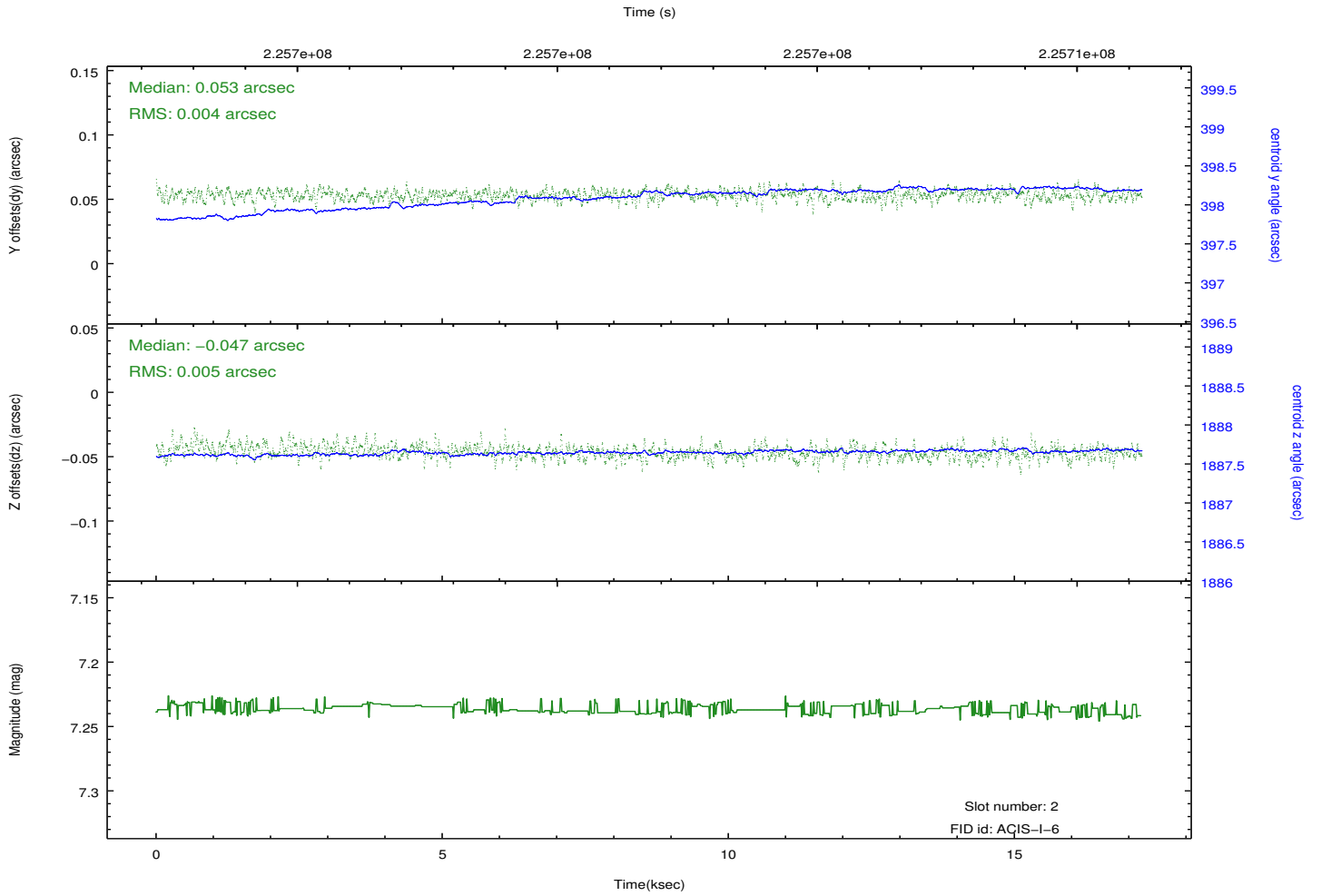
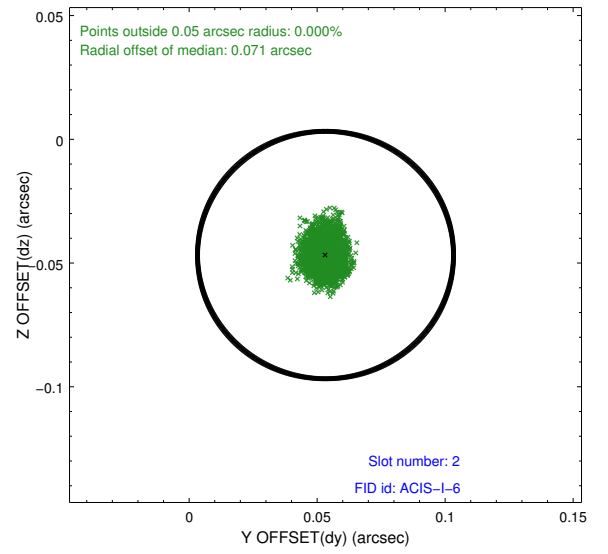
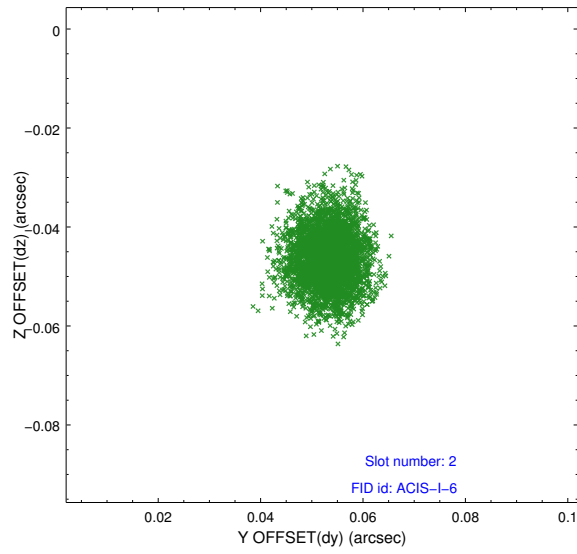
### 2.5.1 Slot 0



## 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)	2013.01.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	16.25019

### A.2 Comments