

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 2215 - L2 Version 3  
Chandra X-Ray Center

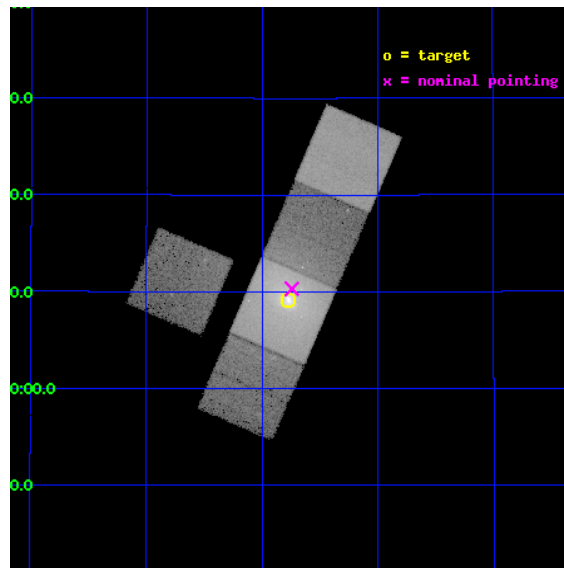
L2 Processing Date : Sep 21 2012

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# 1 Front

seq_num	800154	Sequence number
obs_id	2215	Observation id
title	THE INTERACTION BETWEEN CLUSTER CENTRAL RADIO SOURCES AND COOLING FLOWS	Proposal title
observer	Dr. CRAIG SARAZIN	Principal investigator
object	A262	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	28.19375	Observer's specified target RA [deg]
dec_targ	36.152194	Observer's specified target Dec [deg]
ra_nom	28.185557147387	Nominal RA [deg]
dec_nom	36.171959311816	Nominal Dec [deg]
roll_nom	113.34146722199	Nominal Roll [deg]
revision	3	Processing version of data
ontime	29124.499944001	Sum of GTIs [s]
livetime	28743.966911088	Livetime [s]
ontime3	29124.499944001	Sum of GTIs [s]
ontime5	29124.499944001	Sum of GTIs [s]
ontime6	29118.217993587	Sum of GTIs [s]
ontime7	29124.499944001	Sum of GTIs [s]
ontime8	29118.21801351	Sum of GTIs [s]
l2events	385802	Number of level 2 events

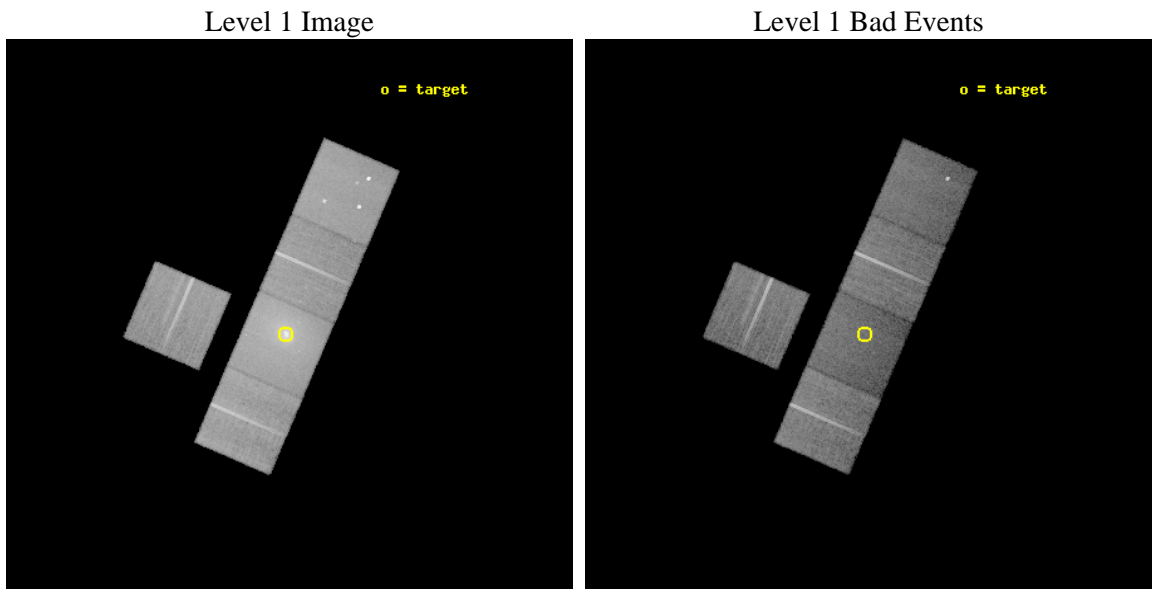




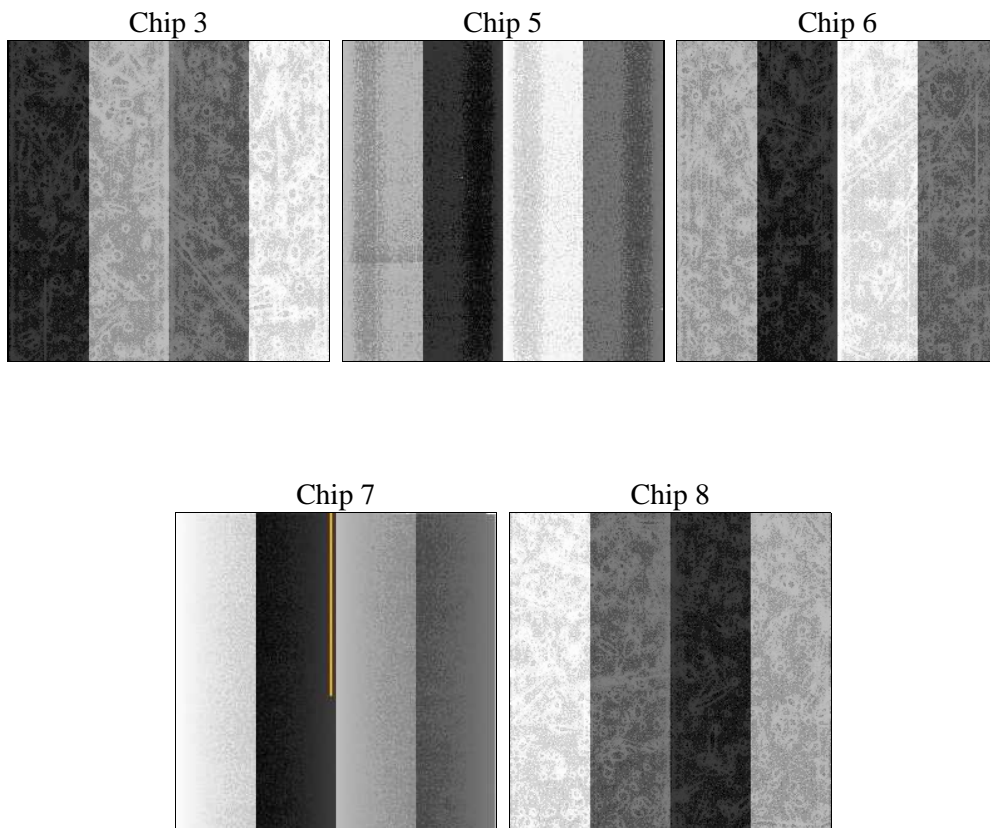
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	29000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	29124.499944001	Sum of GTIs [s]
caldsver	4.5.1.1	&#160	ontime3	29124.499944001	Sum of GTIs [s]
date	2012-09-21T10:35:00	Date and time of file creation	ontime5	29124.499944001	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	29118.217993587	Sum of GTIs [s]
			ontime7	29124.499944001	Sum of GTIs [s]
			ontime8	29118.21801351	Sum of GTIs [s]
			l1events	1121220	Number of level 1 events

### 2.1.4 Events

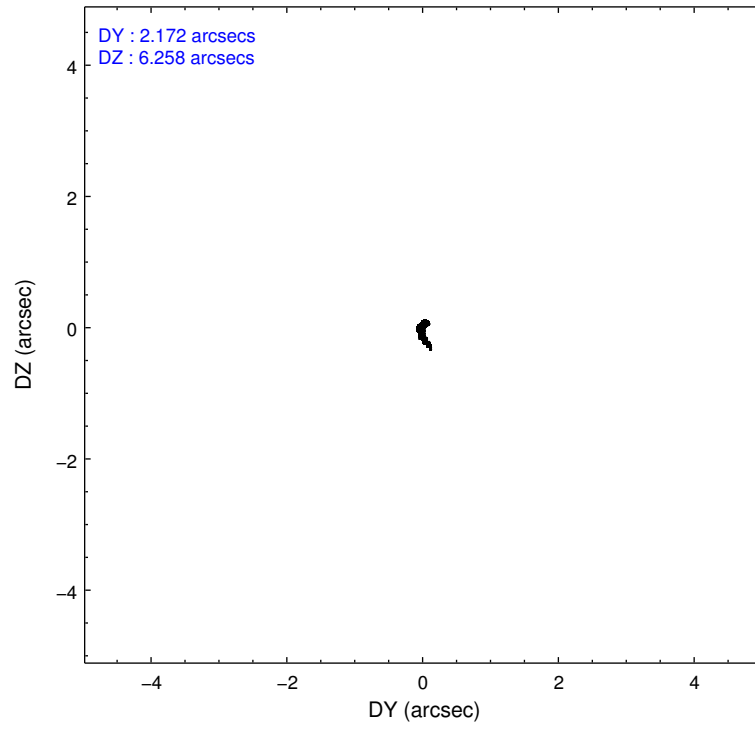
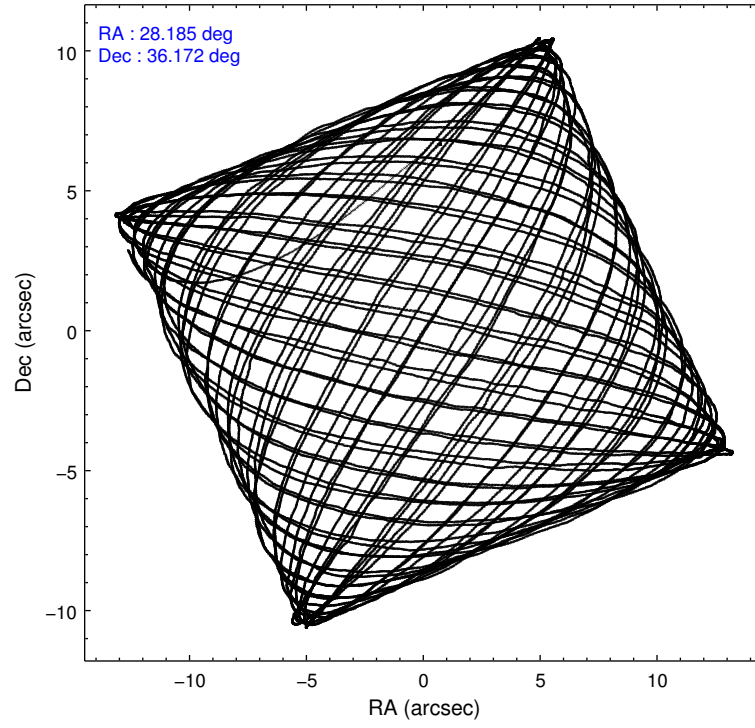
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	176563	227061	190697	311792	215107
rejected events	154423	113279	154733	100470	163359
rejected %	87%	49%	81%	32%	75%

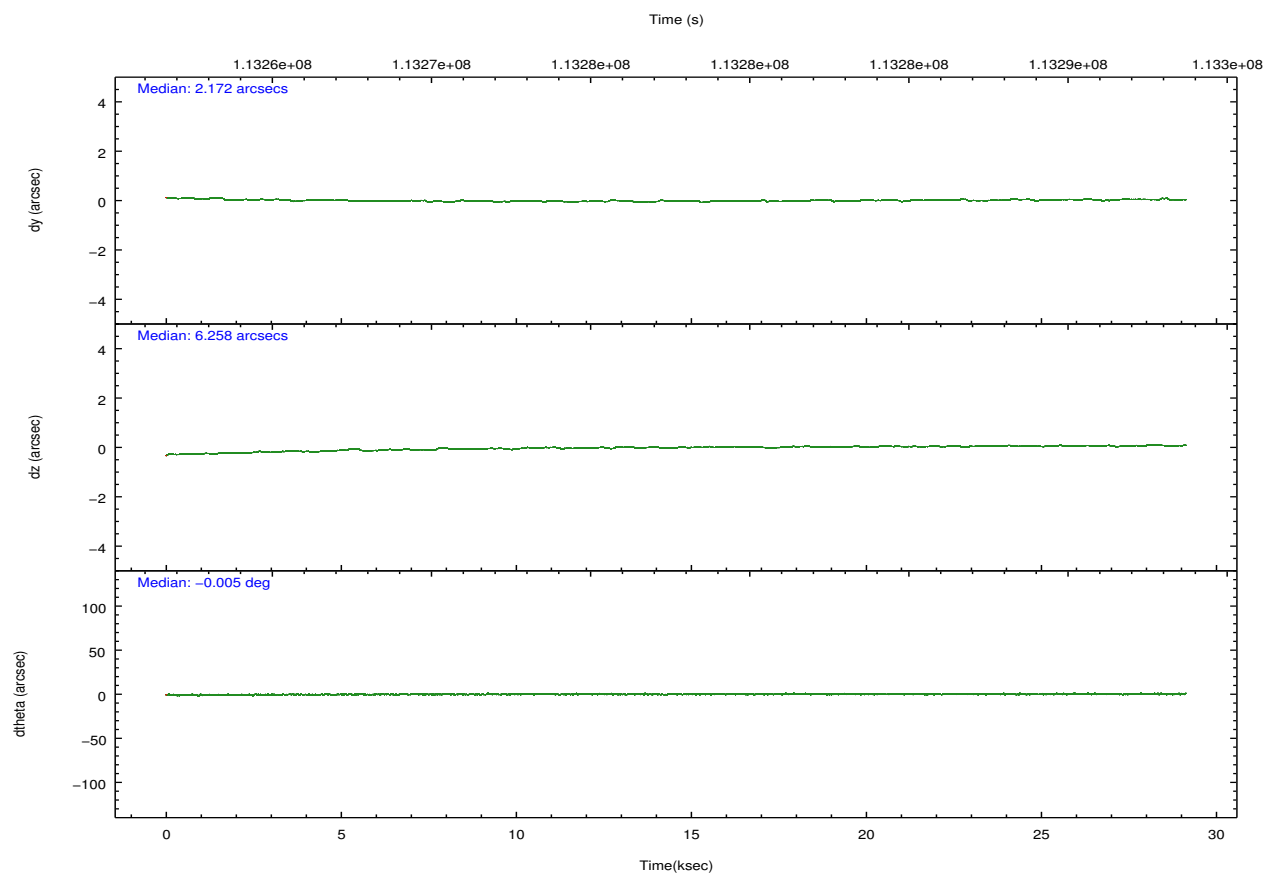
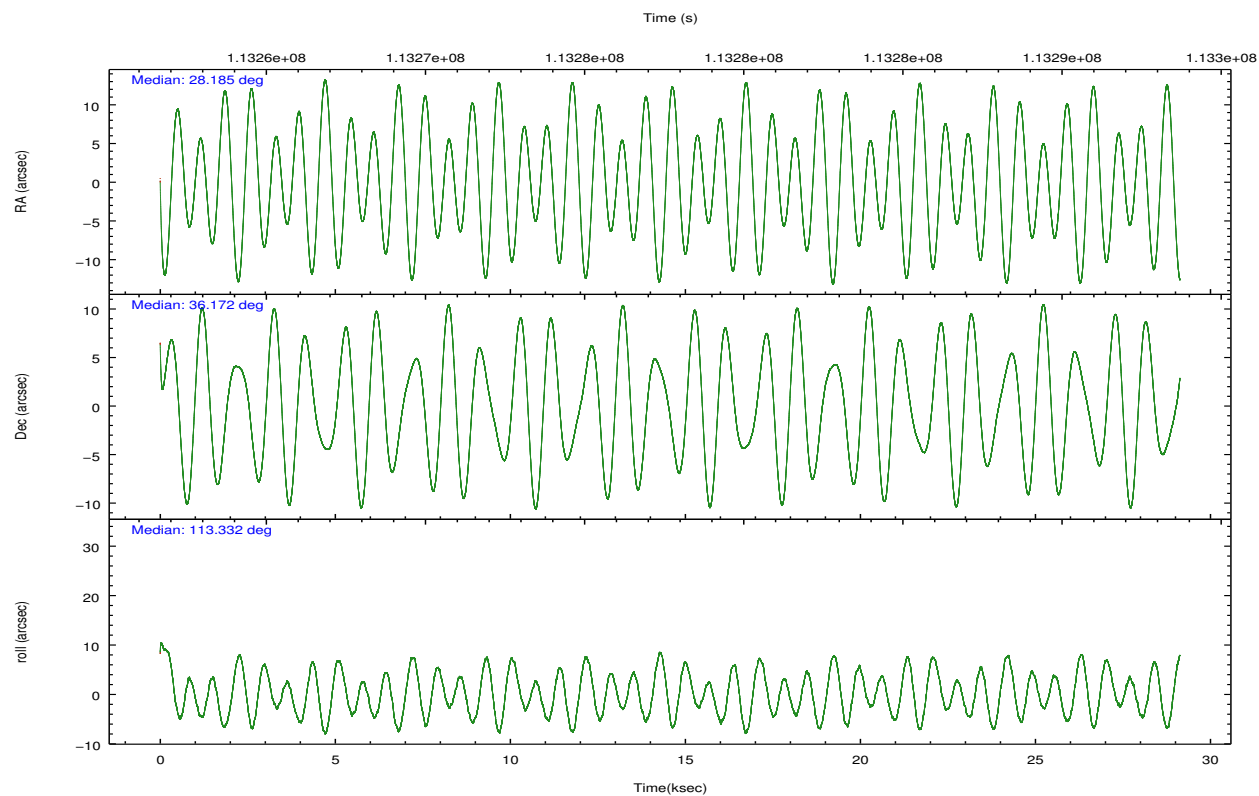
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	11985	21374	23176	50114	22206
	6%	9%	12%	16%	10%
grade 1 events	107	2432	147	186	154
	0%	1%	0%	0%	0%
grade 2 events	3828	32894	5386	52504	10437
	2%	14%	2%	16%	4%
grade 3 events	1972	5822	2420	23988	5131
	1%	2%	1%	7%	2%
grade 4 events	1985	5775	2399	23912	4791
	1%	2%	1%	7%	2%
grade 5 events	5546	17961	6173	19310	8347
	3%	7%	3%	6%	3%
grade 6 events	3136	54132	3738	65834	11552
	1%	23%	1%	21%	5%
grade 7 events	148004	86671	147258	75944	152489
	83%	38%	77%	24%	70%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-35678	ACIS-35678	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	28.212883	28.18555714738689	Subarray requested	NONE	NONE
[deg] Pointing Dec	36.155910	36.17195931181552	Alternating exposures requested	N	N
[deg] Pointing Roll	113.168713	113.3414672219944	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	113263247.184000	113261481.55891			
Observation start date	2001-08-03T21:59:43	2001-08-03T21:31:21			
[s] Observation end time (MET)	113292247.184000	113293357.52267			
Observation end date	2001-08-04T06:03:03	2001-08-04T06:22:37			
Read mode	TIMED	TIMED			

## 2.3 Aspect



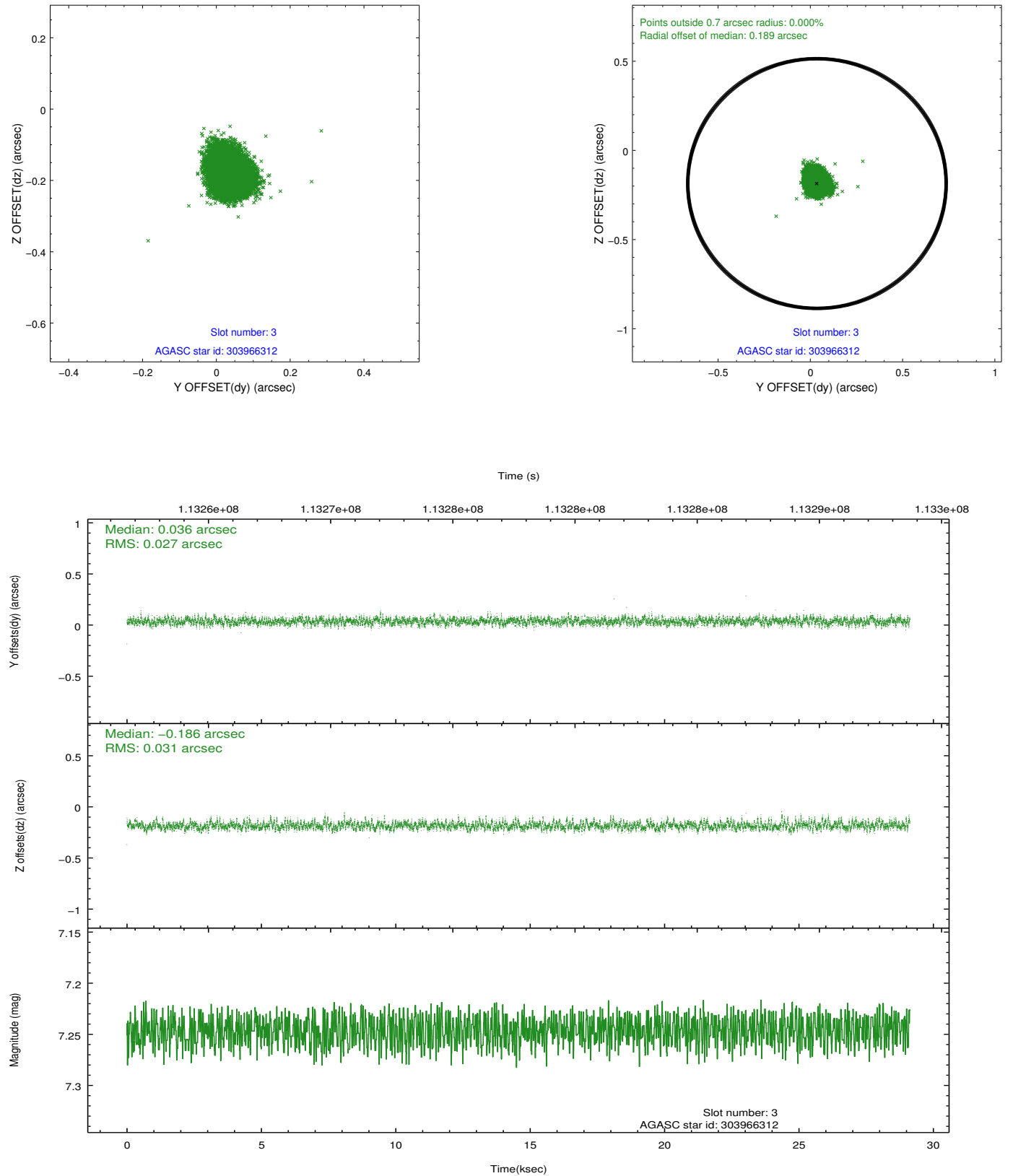


### Slot Statistics

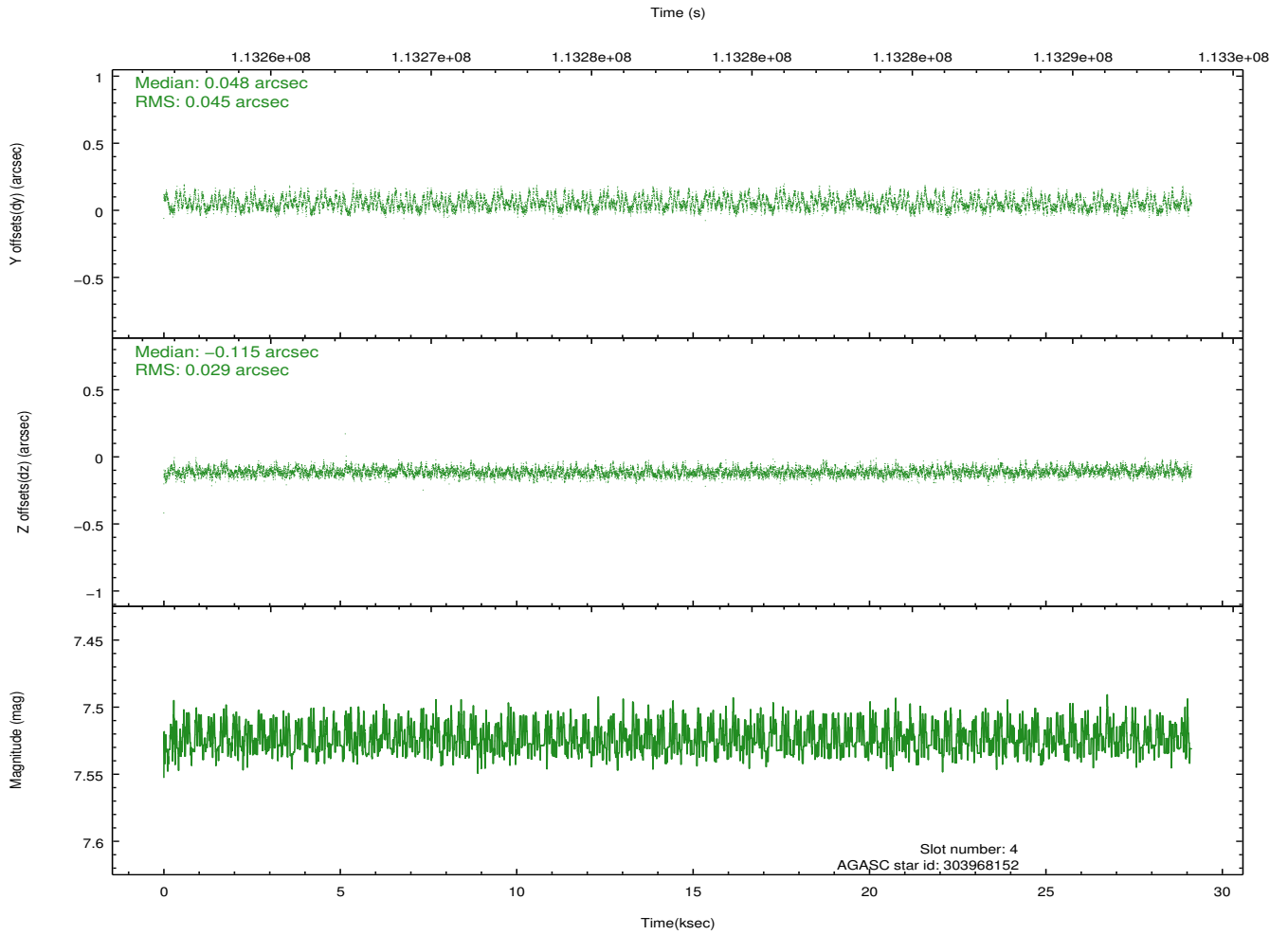
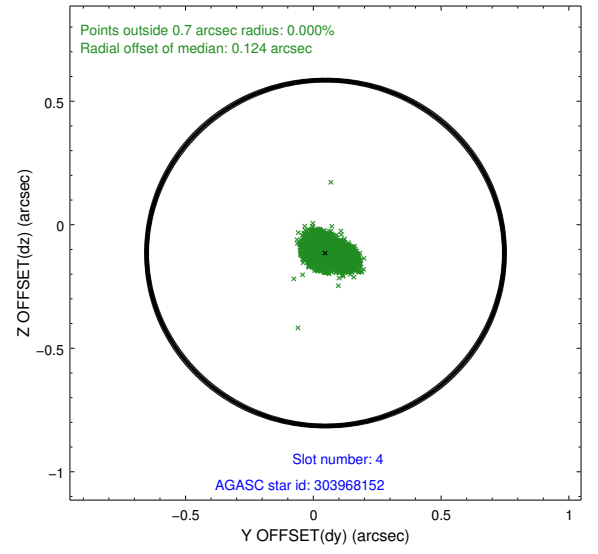
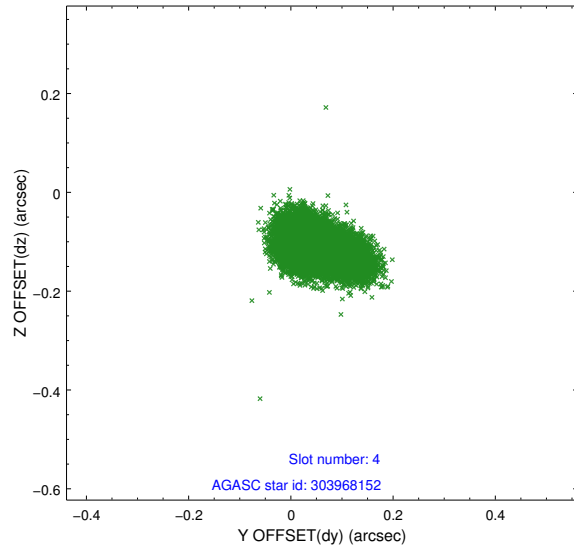
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.12	7106	-0.039	-0.000	0.007	0.011	0.000000	0.000000	-754.80	-1727.39
1	FID	ACIS-S-4	7.20	7106	-0.033	0.019	0.006	0.011	0.000000	0.000000	2158.41	181.09
2	FID	ACIS-S-5	7.24	7105	0.040	-0.010	0.007	0.011	0.000000	0.000000	-1807.50	174.75
3	GUIDE	303966312	7.25	14210	0.036	-0.186	0.043	0.071	27.721207	35.845006	-462.15	1757.76
4	GUIDE	303968152	7.52	14211	0.048	-0.115	0.058	0.094	27.917944	35.666074	-1281.53	1486.19
5	GUIDE	303959464	8.19	14211	-0.039	-0.078	0.057	0.091	27.686727	36.051336	259.11	1554.47
6	GUIDE	303967320	8.40	14205	0.055	0.234	0.068	0.110	28.812073	36.002246	-1190.62	-1388.63
7	GUIDE	303961216	9.27	14196	-0.107	0.145	0.094	0.160	28.660393	37.005124	2306.74	-2386.43

## 2.4 Star Slots

### 2.4.1 Slot 3

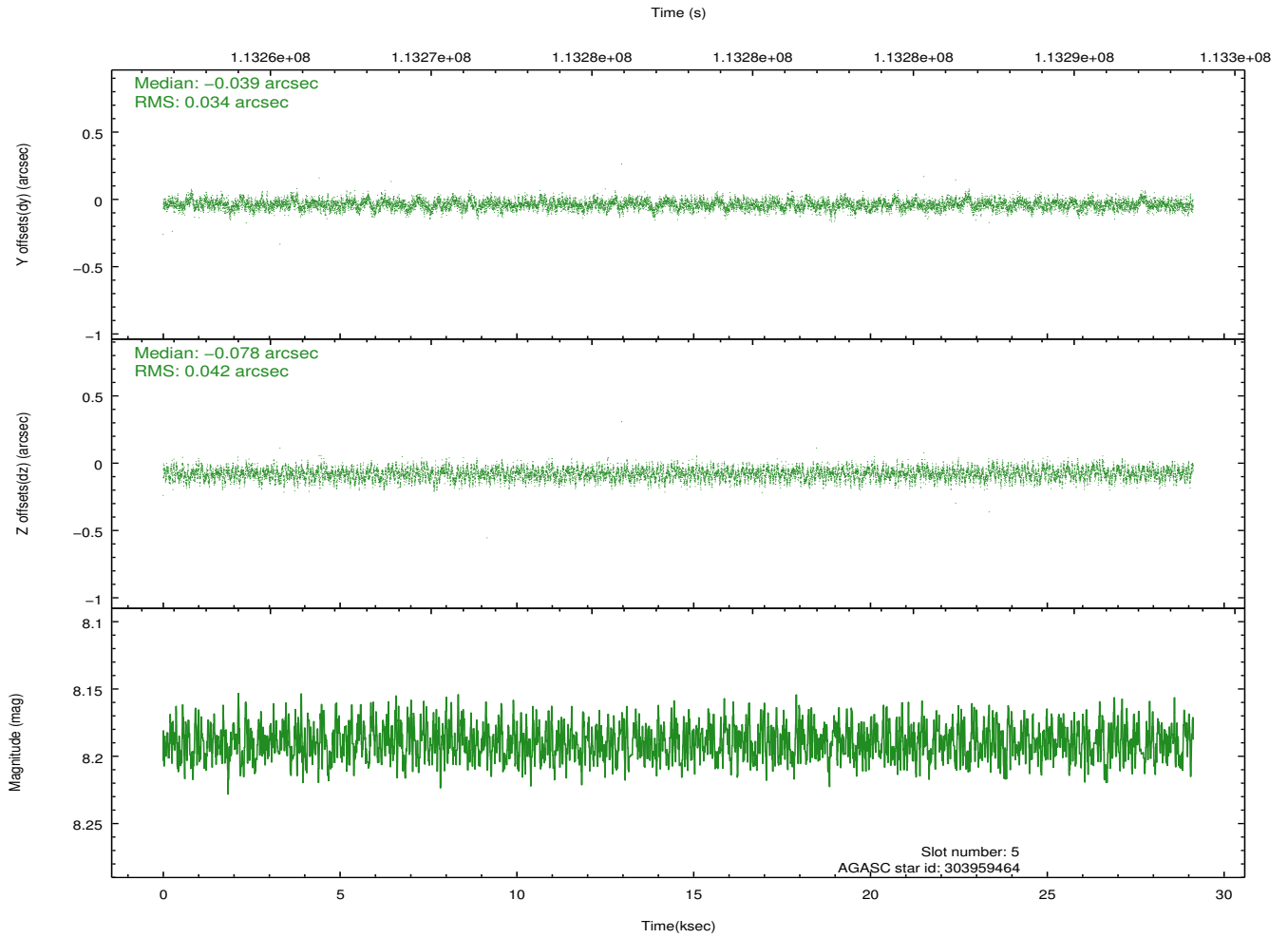
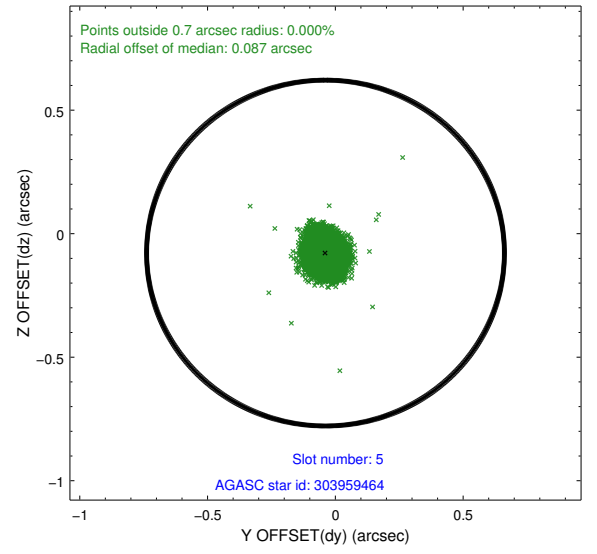
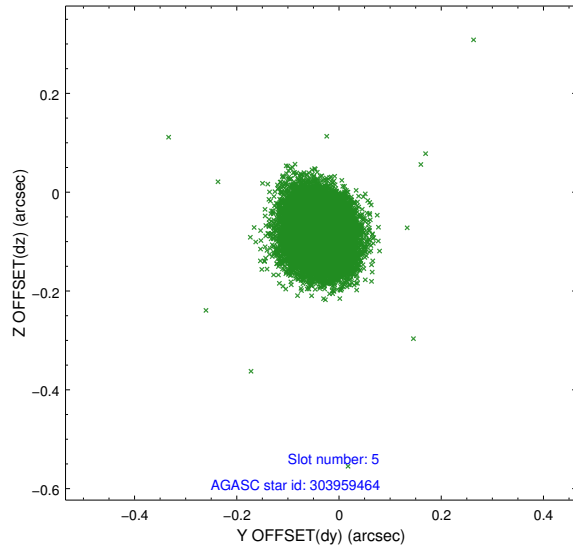


## 2.4.2 Slot 4

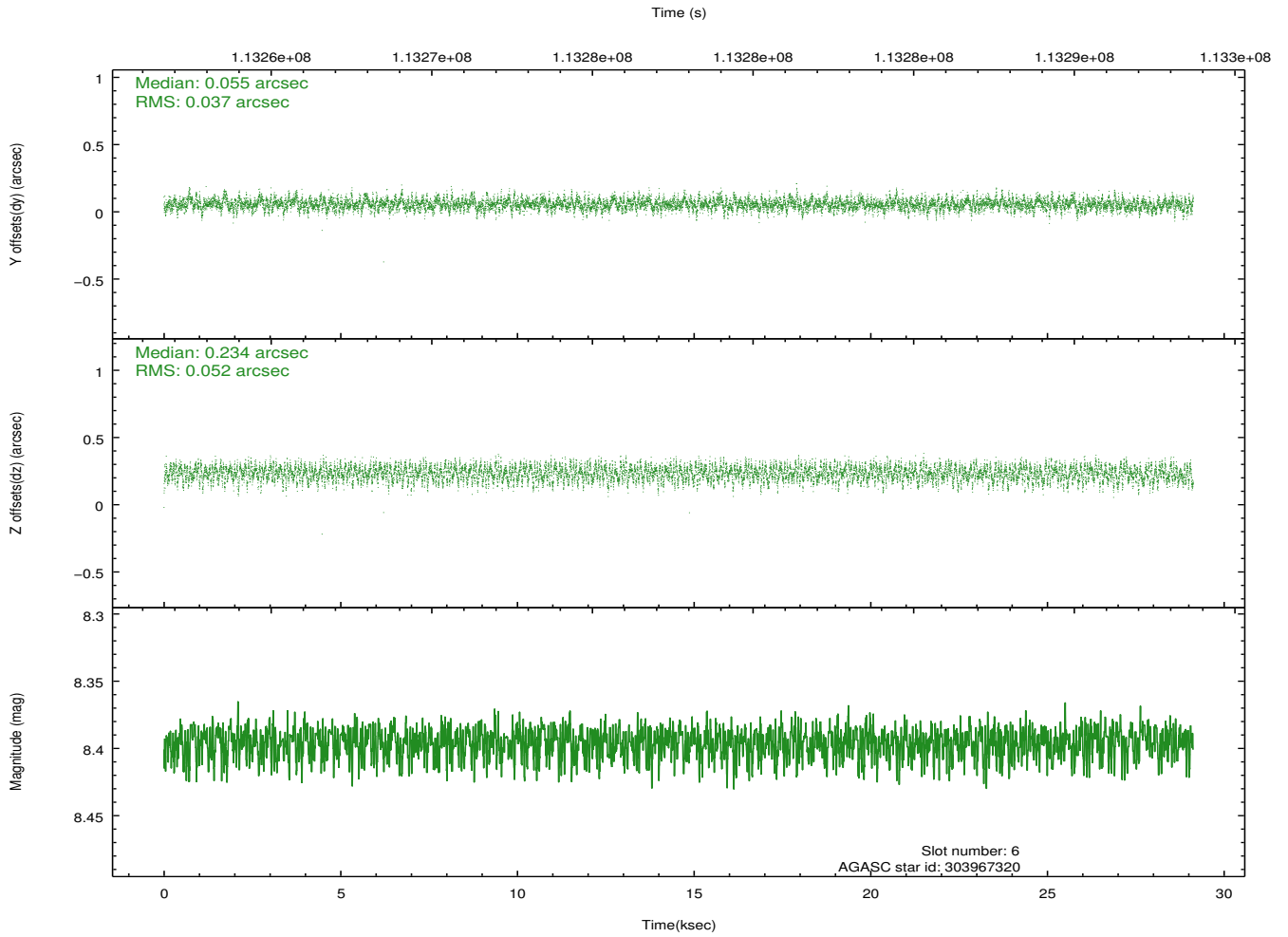
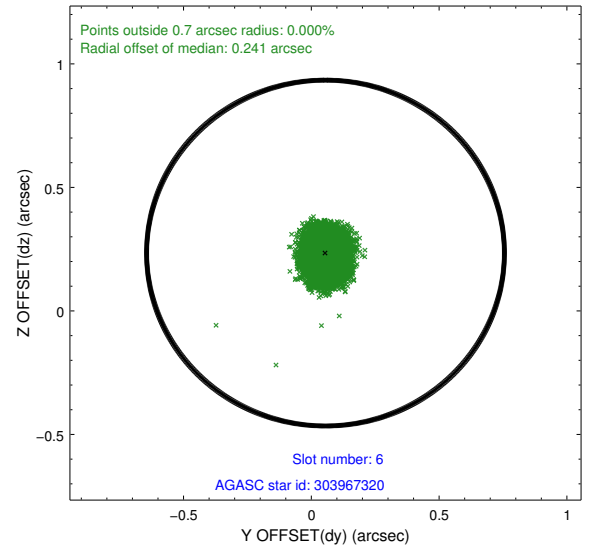
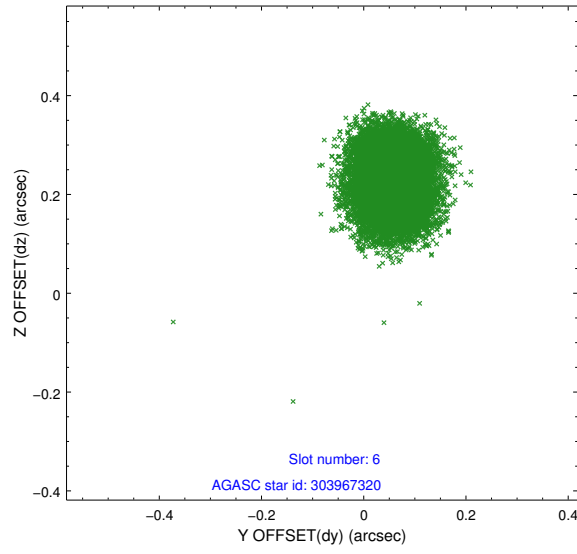




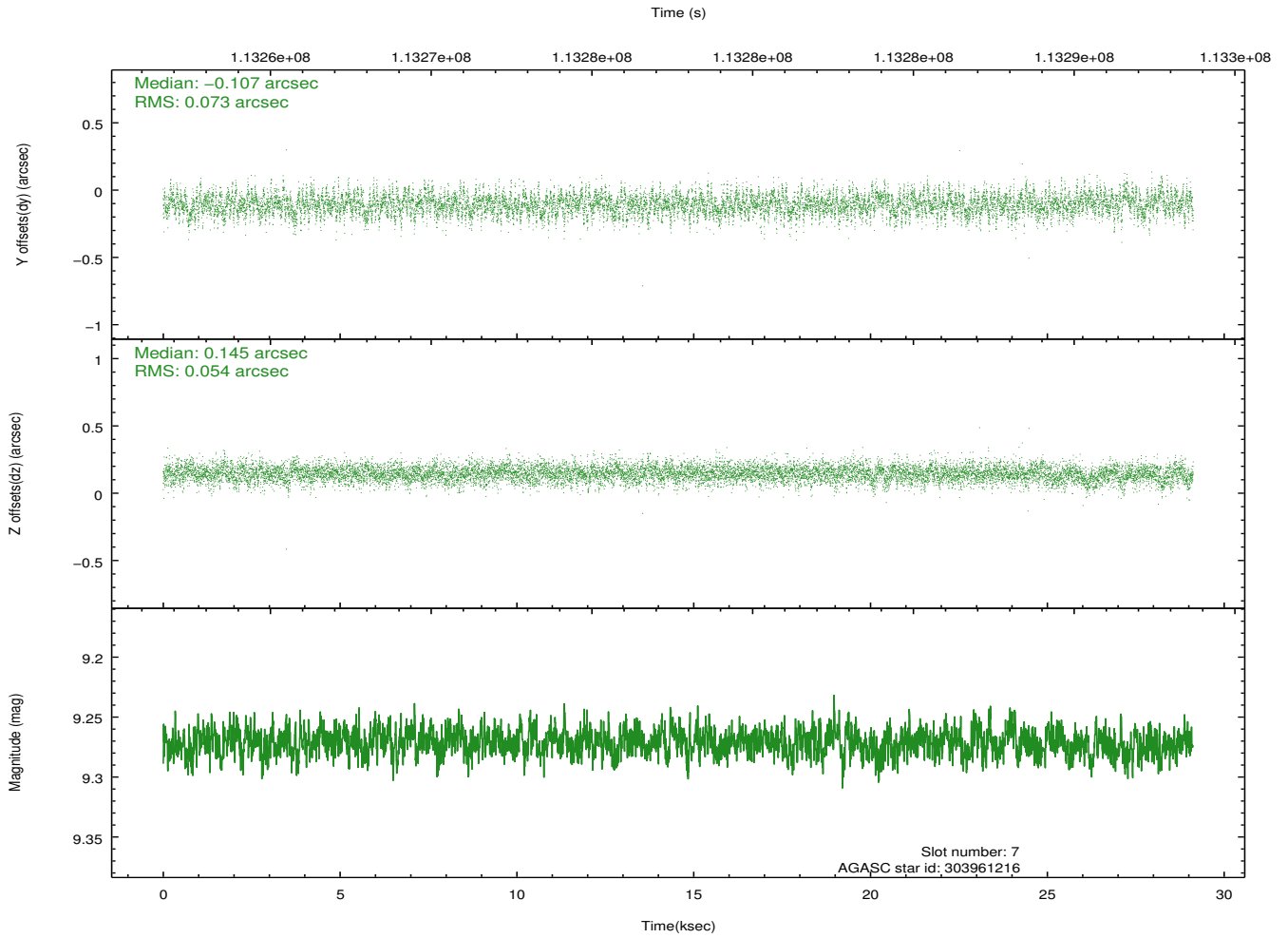
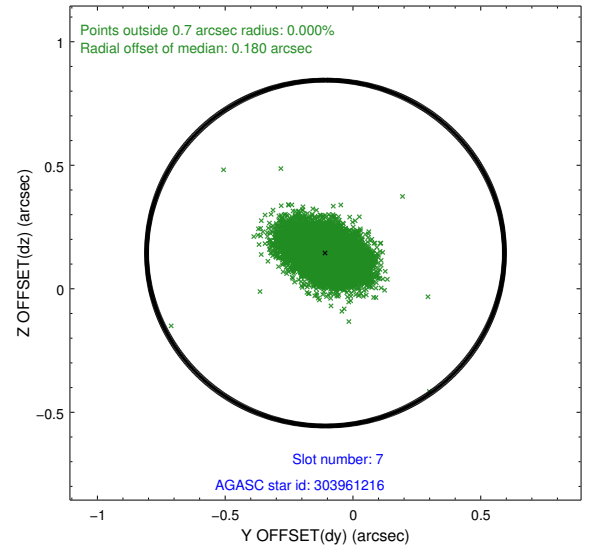
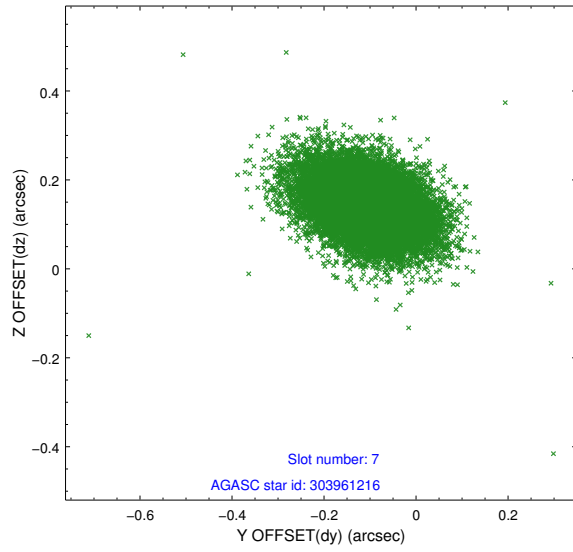
### 2.4.3 Slot 5



## 2.4.4 Slot 6

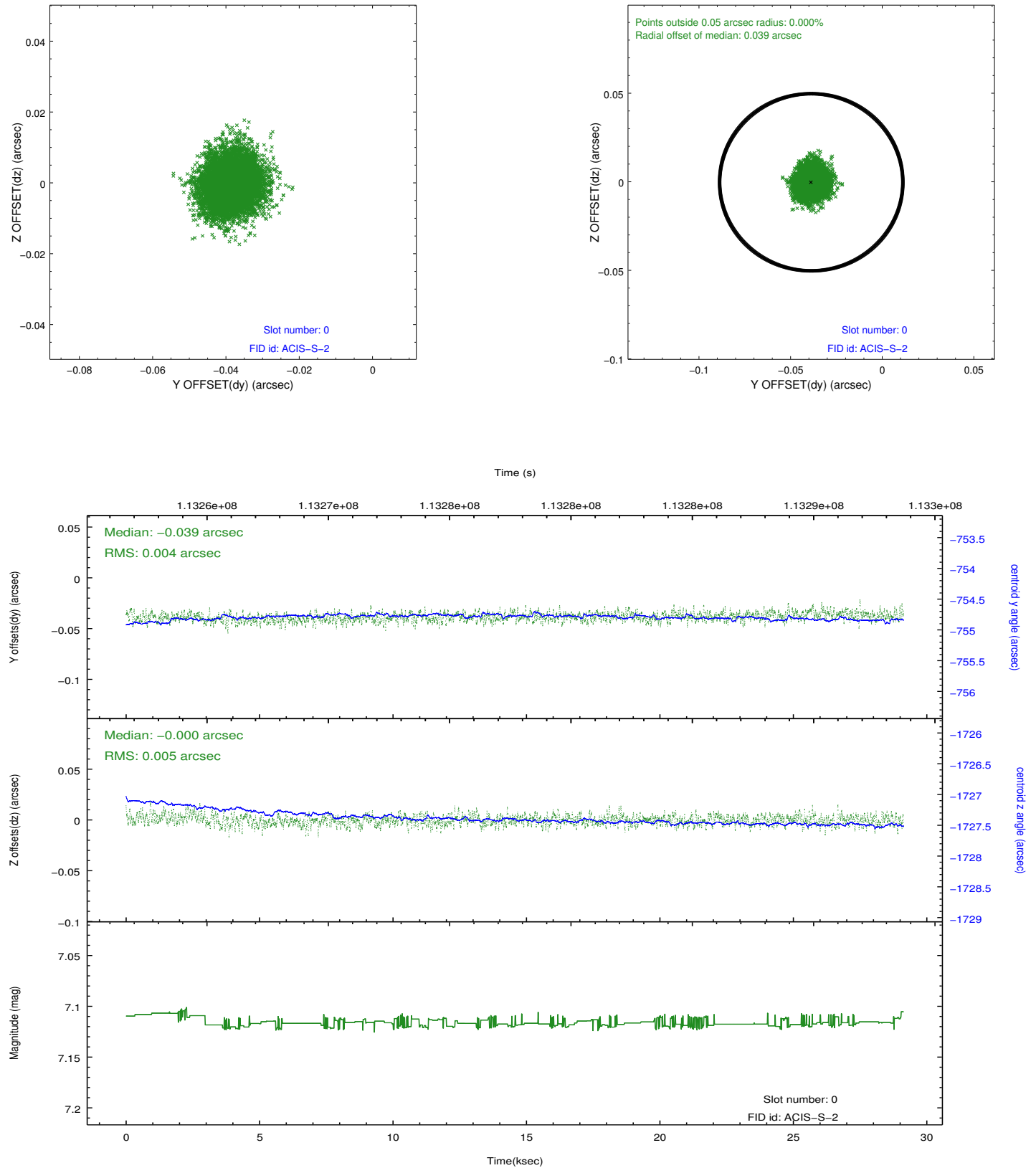


## 2.4.5 Slot 7

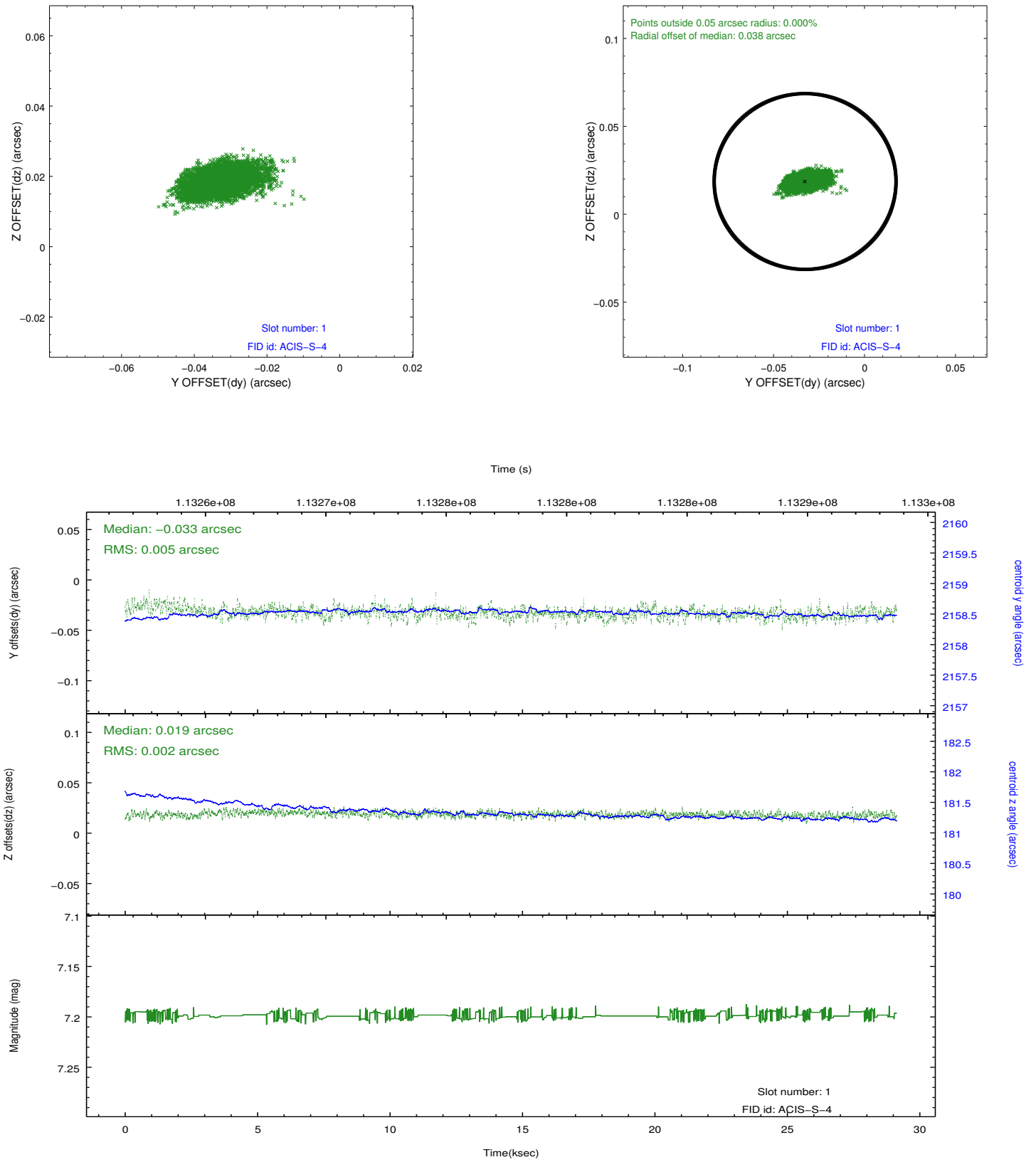


## 2.5 FID Slots

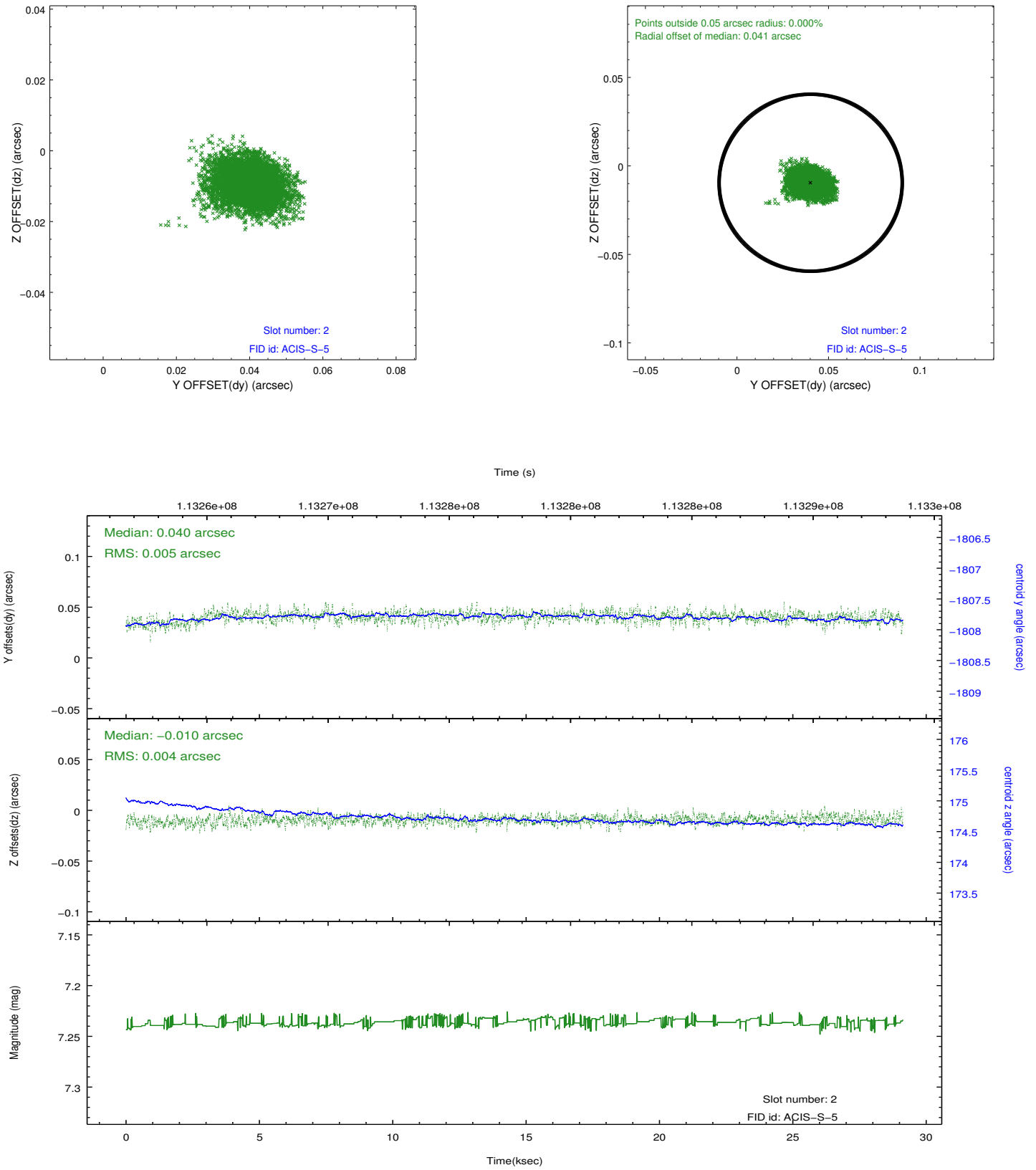
### 2.5.1 Slot 0



## 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)	2012.09.25
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	29.124

### A.2 Comments