

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 11580 - L2 Version 2  
Chandra X-Ray Center

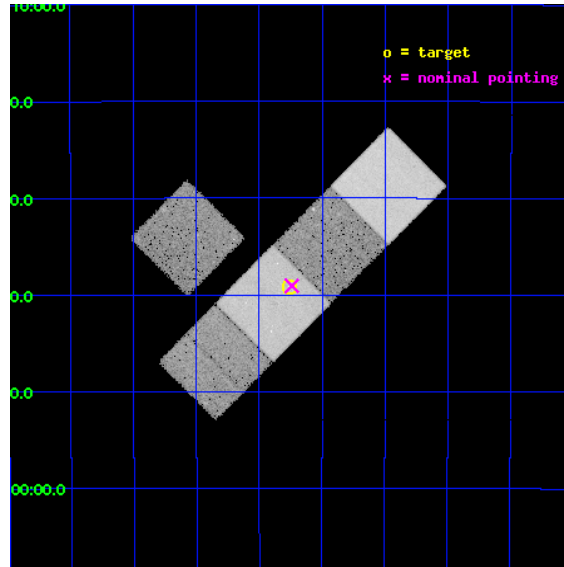
L2 Processing Date : Jun 30 2012

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# 1 Front

seq_num	702166	Sequence number
obs_id	11580	Observation id
title	X-ray Obscured Broad-line AGN	Proposal title
observer	Dr. Jennifer Donley	Principal investigator
object	HELLAS2XMM 05370175	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	85.190417	Observer's specified target RA [deg]
dec_targ	-28.652222	Observer's specified target Dec [deg]
ra_nom	85.185052165422	Nominal RA [deg]
dec_nom	-28.65109872975	Nominal Dec [deg]
roll_nom	134.80325428709	Nominal Roll [deg]
revision	2	Processing version of data
ontime	23041.106071532	Sum of GTIs [s]
livetime	22740.057058092	Livetime [s]
ontime3	23037.841981113	Sum of GTIs [s]
ontime5	23041.065031528	Sum of GTIs [s]
ontime6	23041.023991525	Sum of GTIs [s]
ontime7	23041.106071532	Sum of GTIs [s]
ontime8	23040.941911519	Sum of GTIs [s]
l2events	265472	Number of level 2 events

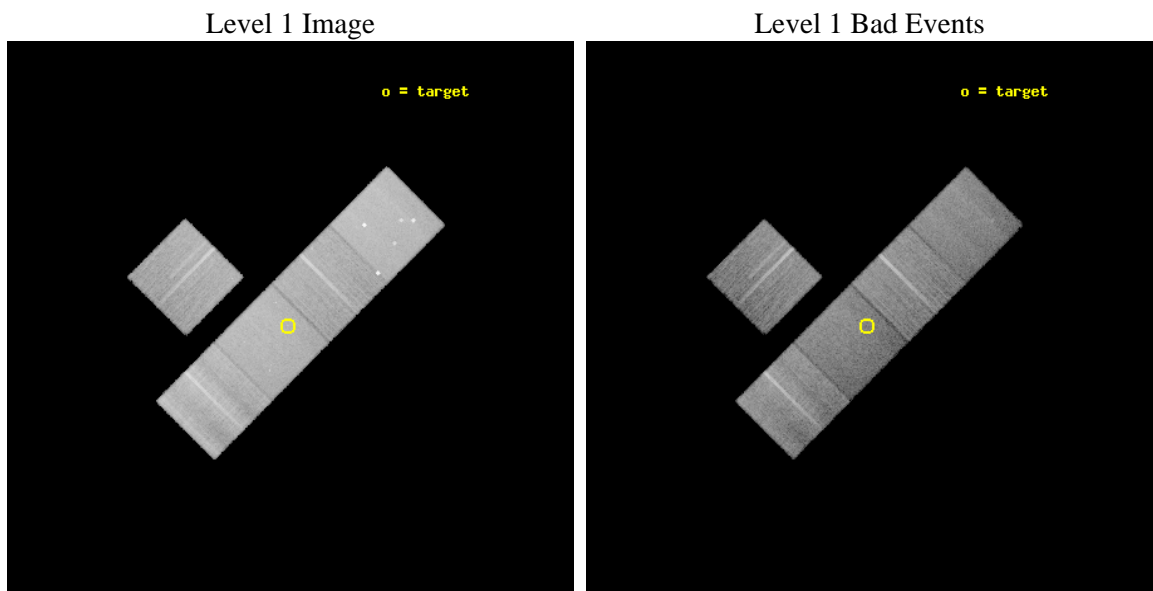




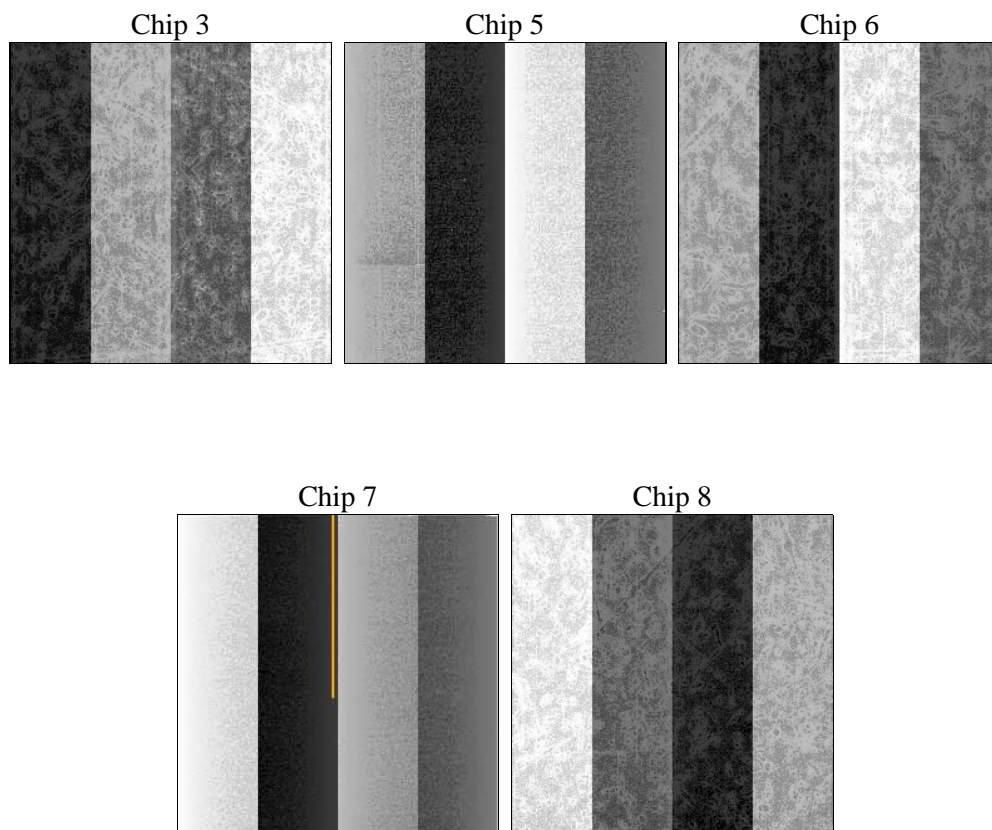
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	23000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	23041.106071532	Sum of GTIs [s]
caldsver	4.5.0	&#160	ontime3	23037.841981113	Sum of GTIs [s]
date	2012-06-30T15:43:10	Date and time of file creation	ontime5	23041.065031528	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	23041.023991525	Sum of GTIs [s]
			ontime7	23041.106071532	Sum of GTIs [s]
			ontime8	23040.941911519	Sum of GTIs [s]
			l1events	1039088	Number of level 1 events

### 2.1.4 Events

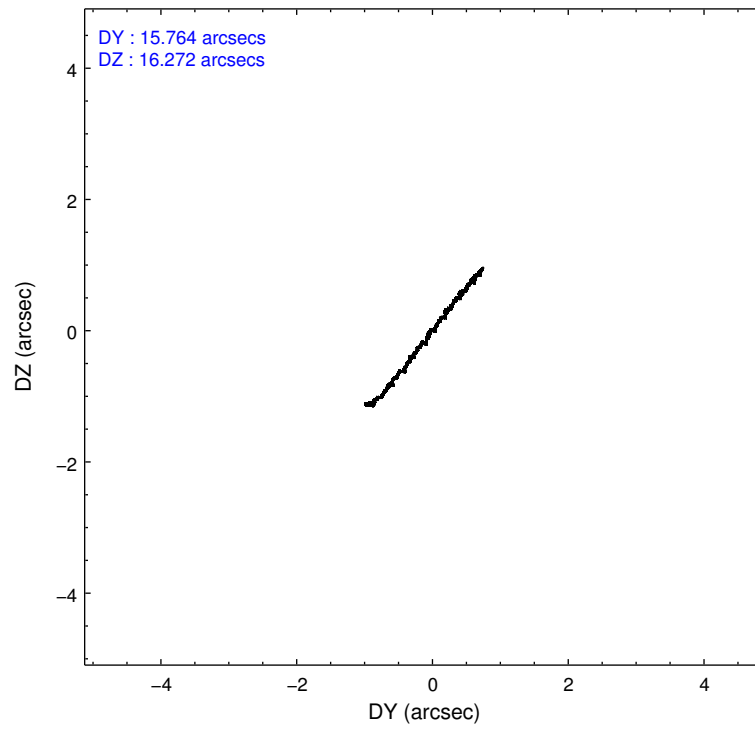
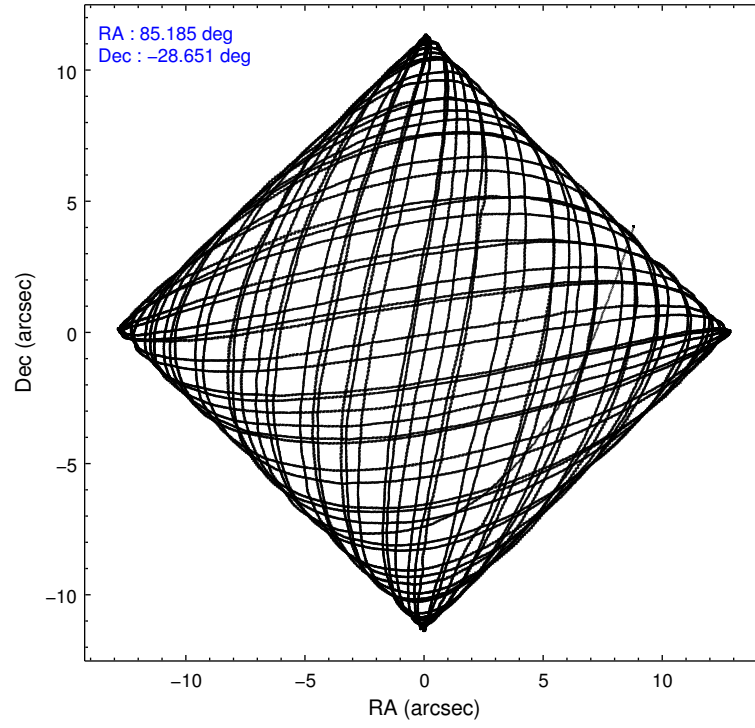
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	163711	265141	176503	209796	223937
rejected events	146429	131378	157073	115211	163880
rejected %	89%	49%	88%	54%	73%

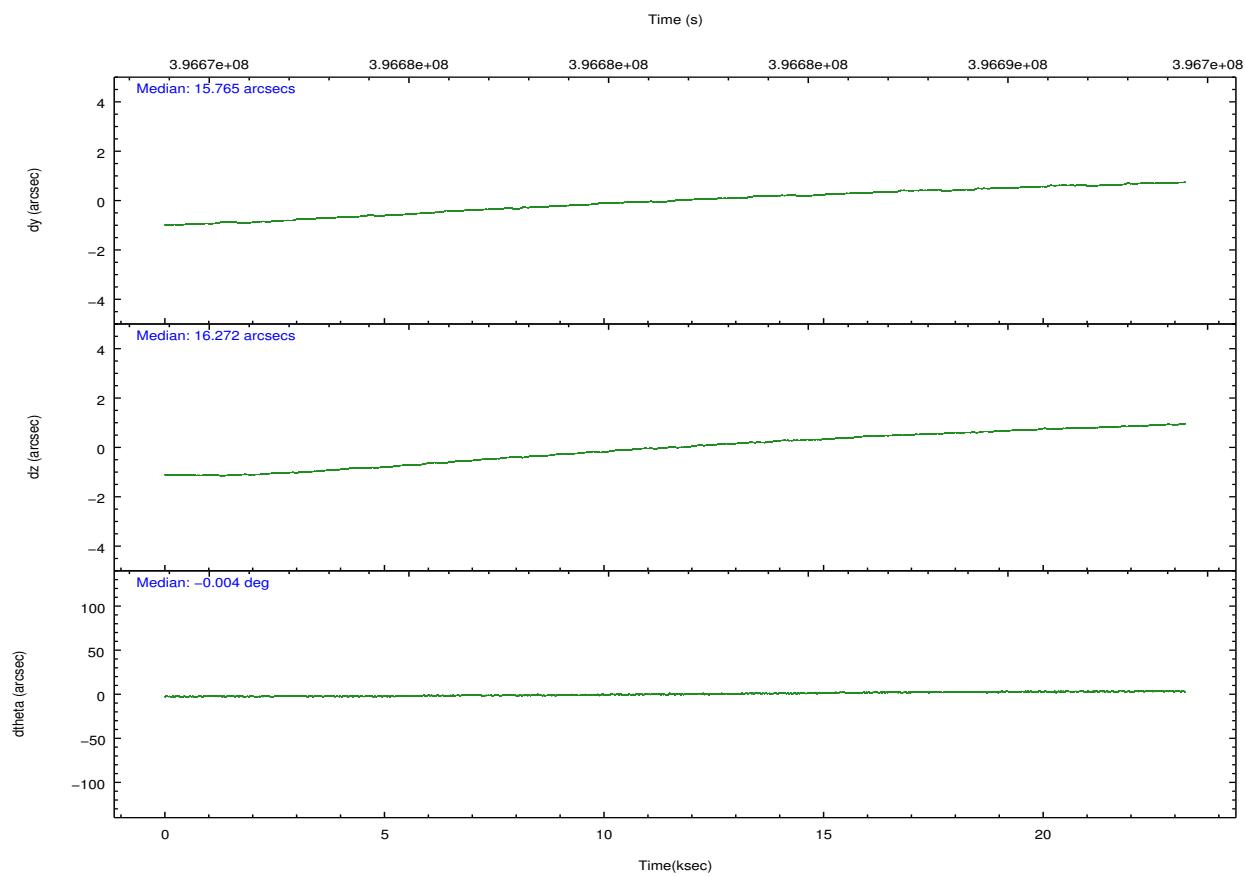
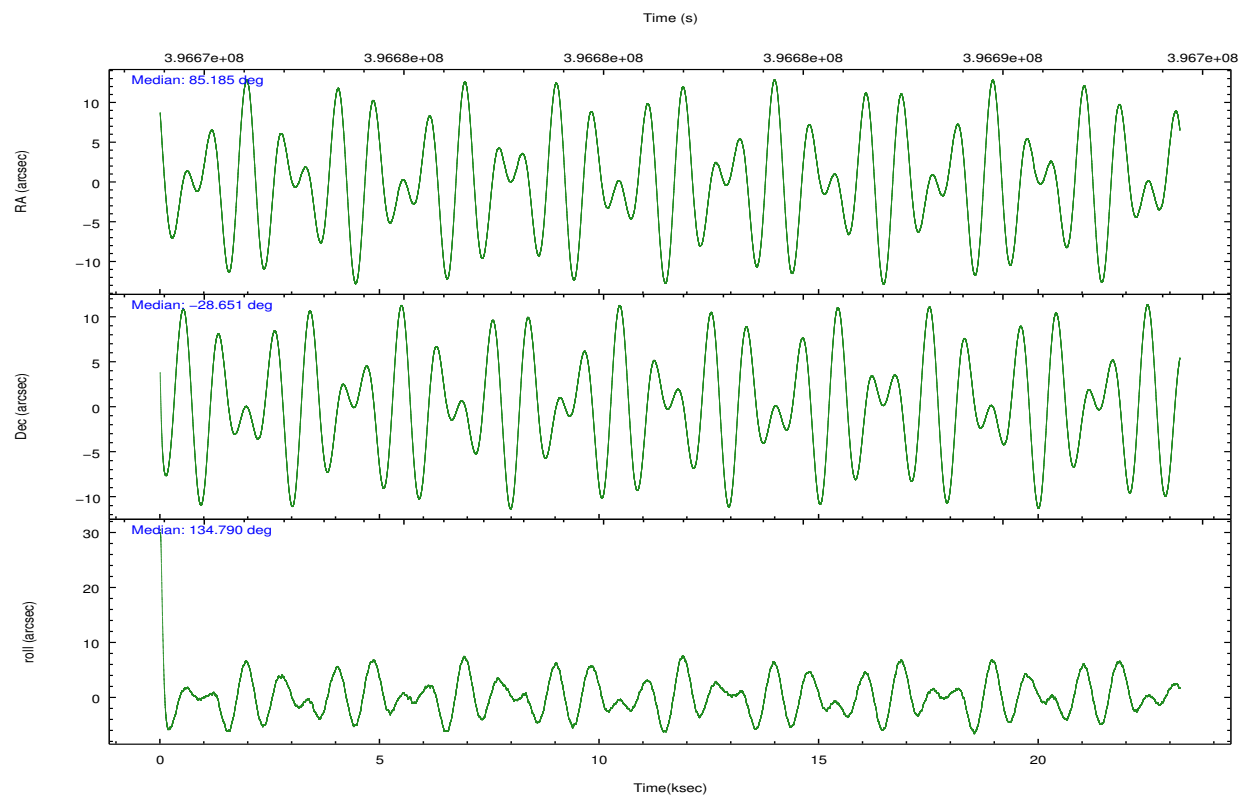
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	6102	17916	6709	8801	18476
	3%	6%	3%	4%	8%
grade 1 events	113	619	112	263	190
	0%	0%	0%	0%	0%
grade 2 events	3859	38076	4418	19254	13665
	2%	14%	2%	9%	6%
grade 3 events	1894	5328	1969	8322	6501
	1%	2%	1%	3%	2%
grade 4 events	1905	4976	2005	8293	5871
	1%	1%	1%	3%	2%
grade 5 events	7638	20082	7714	22134	11252
	4%	7%	4%	10%	5%
grade 6 events	3524	67494	4332	49921	15549
	2%	25%	2%	23%	6%
grade 7 events	138676	110650	149244	92808	152433
	84%	41%	84%	44%	68%

## 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	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	85.215230	85.18505216542232	CCD I2 on	N	N
[deg] Pointing Dec	-28.657894	-28.65109872975038	CCD I3 on	O1	Y
[deg] Pointing Roll	134.661089	134.803254287088	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	Y	Y
[s] Observation start time (MET)	396670277.184000	396669315.22564	CCD S5 on	N	N
Observation start date	2010-07-28T02:10:11	2010-07-28T01:55:15	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	396693277.184000	396694397.48942	On-chip summing requested	N	N
Observation end date	2010-07-28T08:33:31	2010-07-28T08:53:17	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



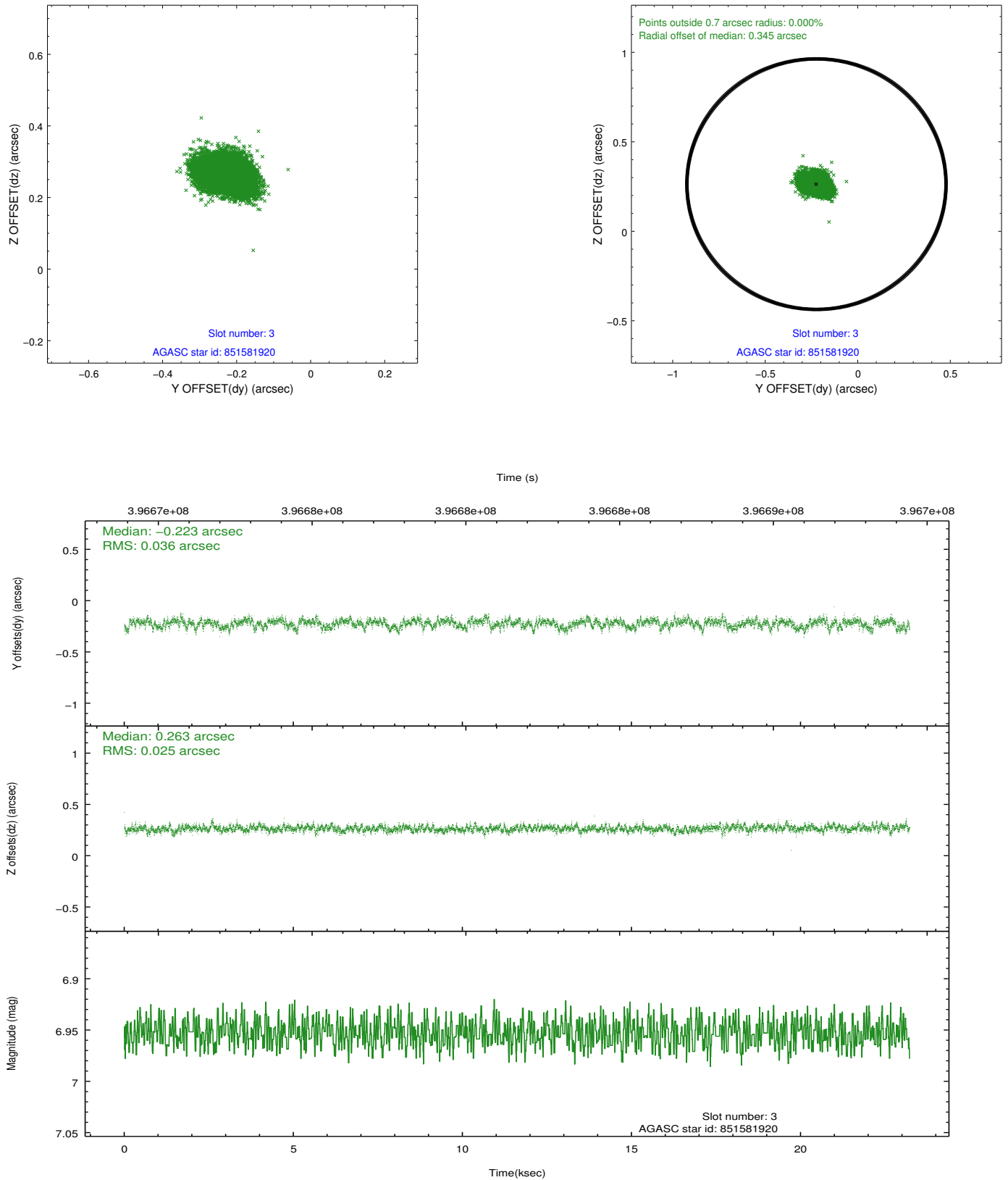


### Slot Statistics

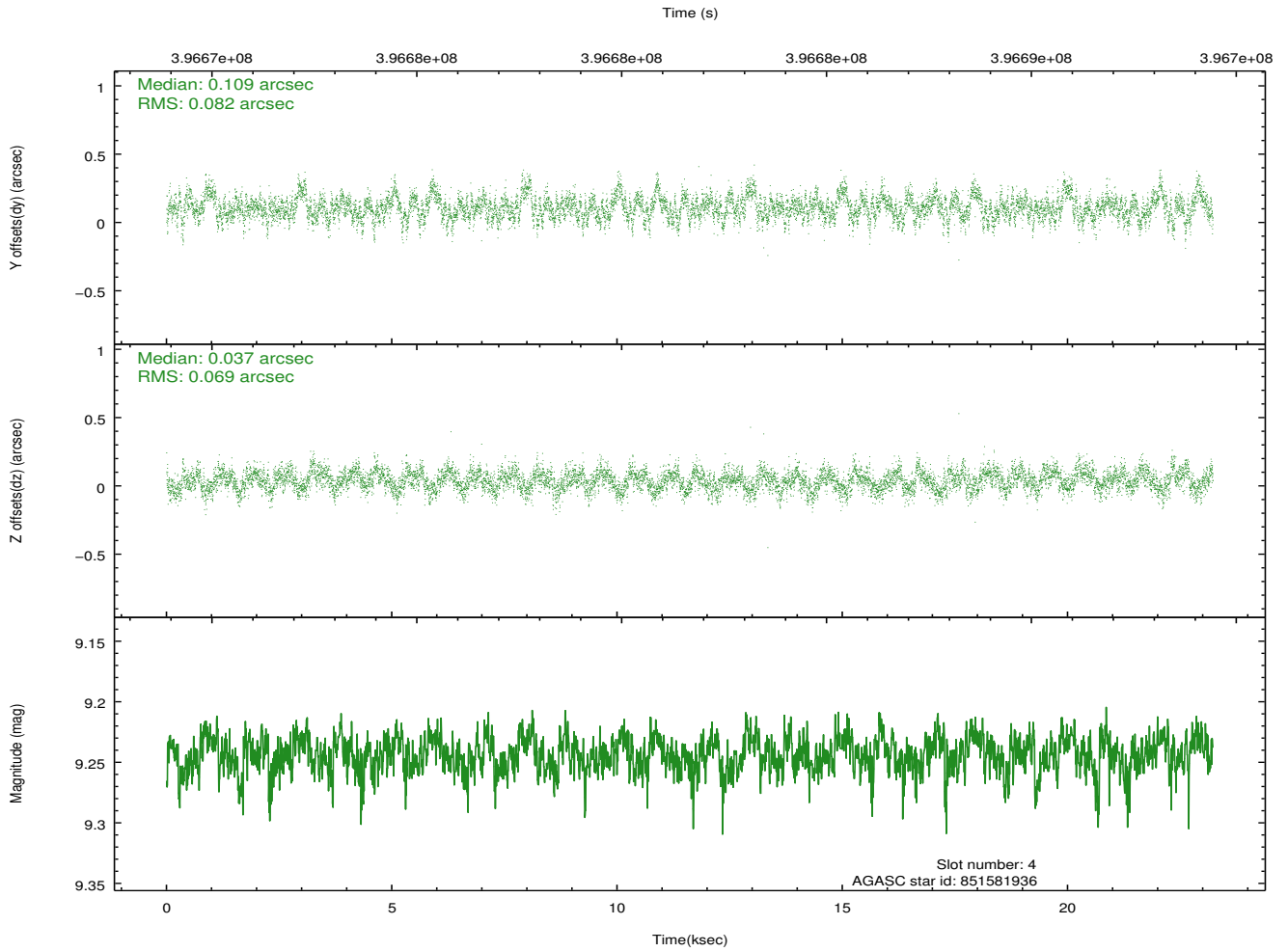
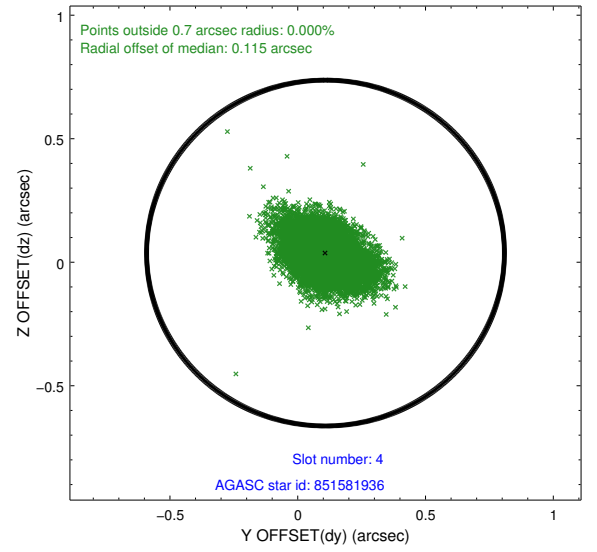
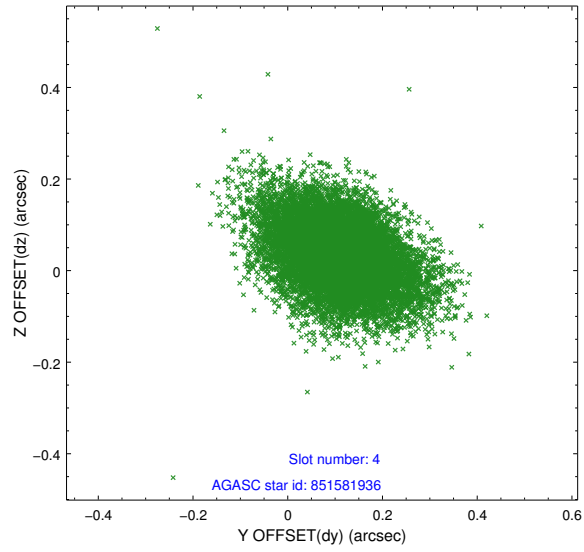
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.85	5664	-0.081	-0.010	0.014	0.024	0.000000	0.000000	-768.79	-1737.63
1	FID	ACIS-S-4	6.93	5664	0.163	0.042	0.023	0.043	0.000000	0.000000	2144.68	170.75
2	FID	ACIS-S-5	6.96	5664	-0.116	-0.022	0.013	0.034	0.000000	0.000000	-1821.48	164.54
3	GUIDE	851581920	6.95	11329	-0.223	0.263	0.046	0.079	85.244897	-27.952156	1741.26	-1852.42
4	GUIDE	851581936	9.24	11307	0.109	0.037	0.112	0.191	85.287957	-27.810257	2008.74	-2309.56
5	GUIDE	852106712	9.37	11320	0.043	0.116	0.106	0.170	85.194465	-28.273363	1031.81	-926.12
6	GUIDE	852110448	8.74	11324	0.033	0.008	0.077	0.122	85.027812	-28.773338	119.95	712.97
7	GUIDE	852100992	7.22	11323	0.041	-0.419	0.070	0.114	84.461225	-28.937358	948.60	2401.90

## 2.4 Star Slots

### 2.4.1 Slot 3

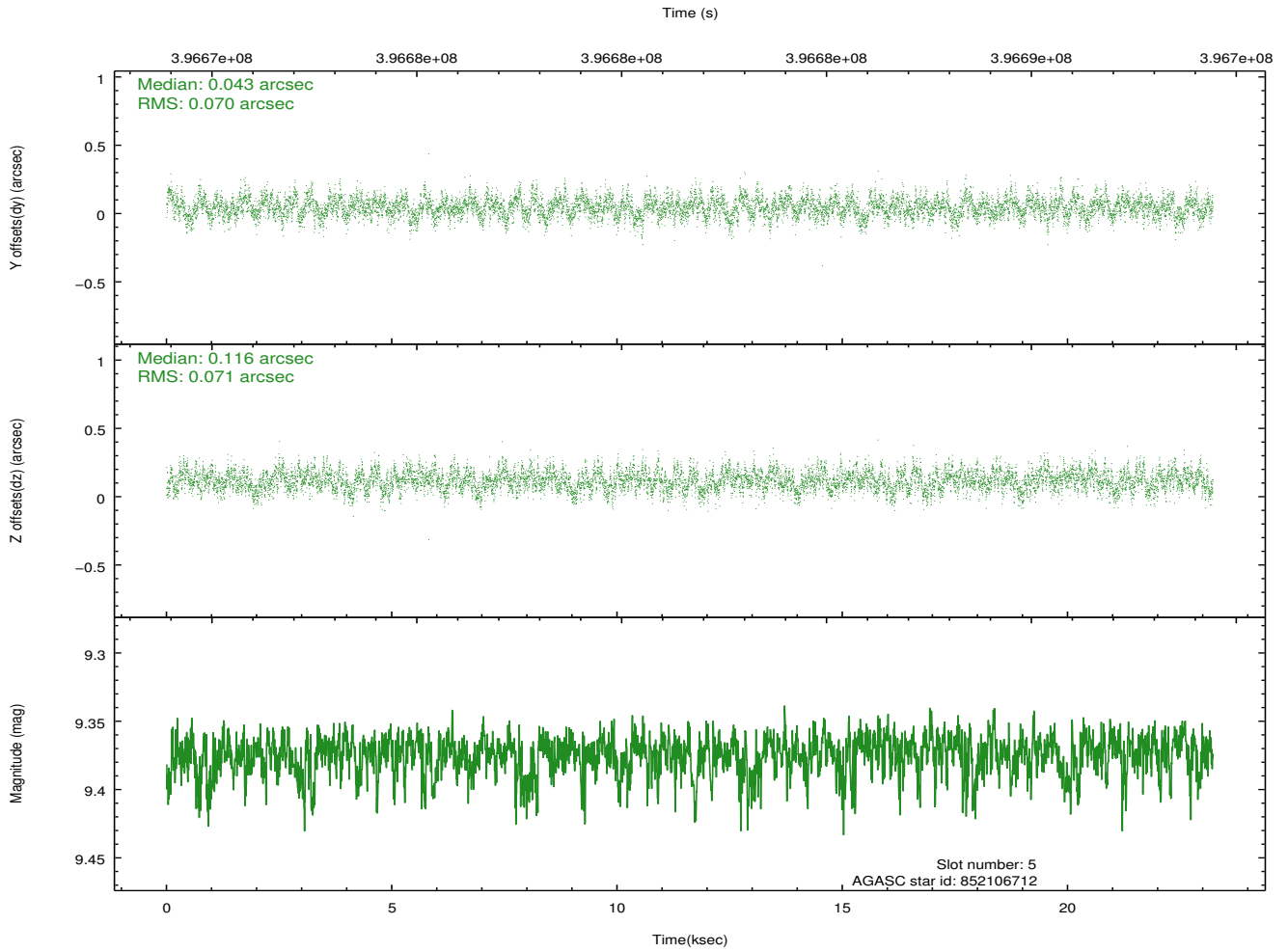
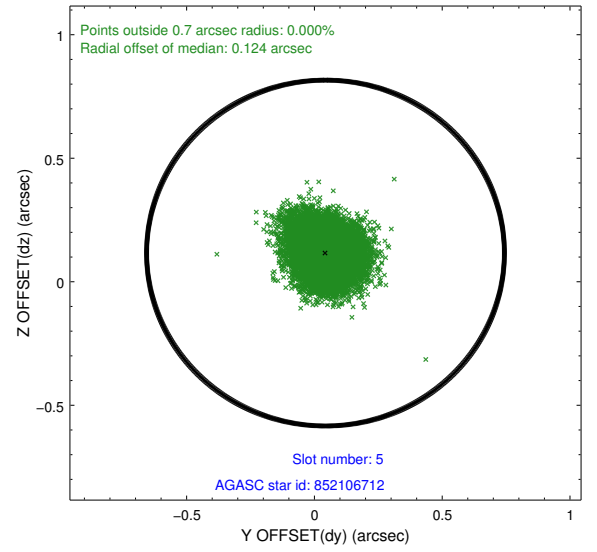
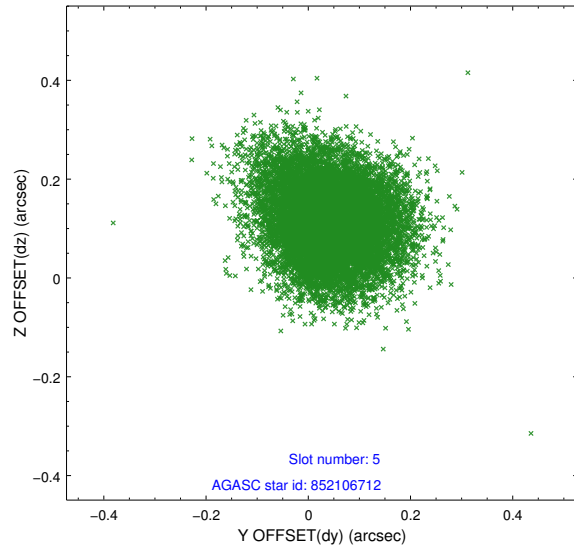


## 2.4.2 Slot 4

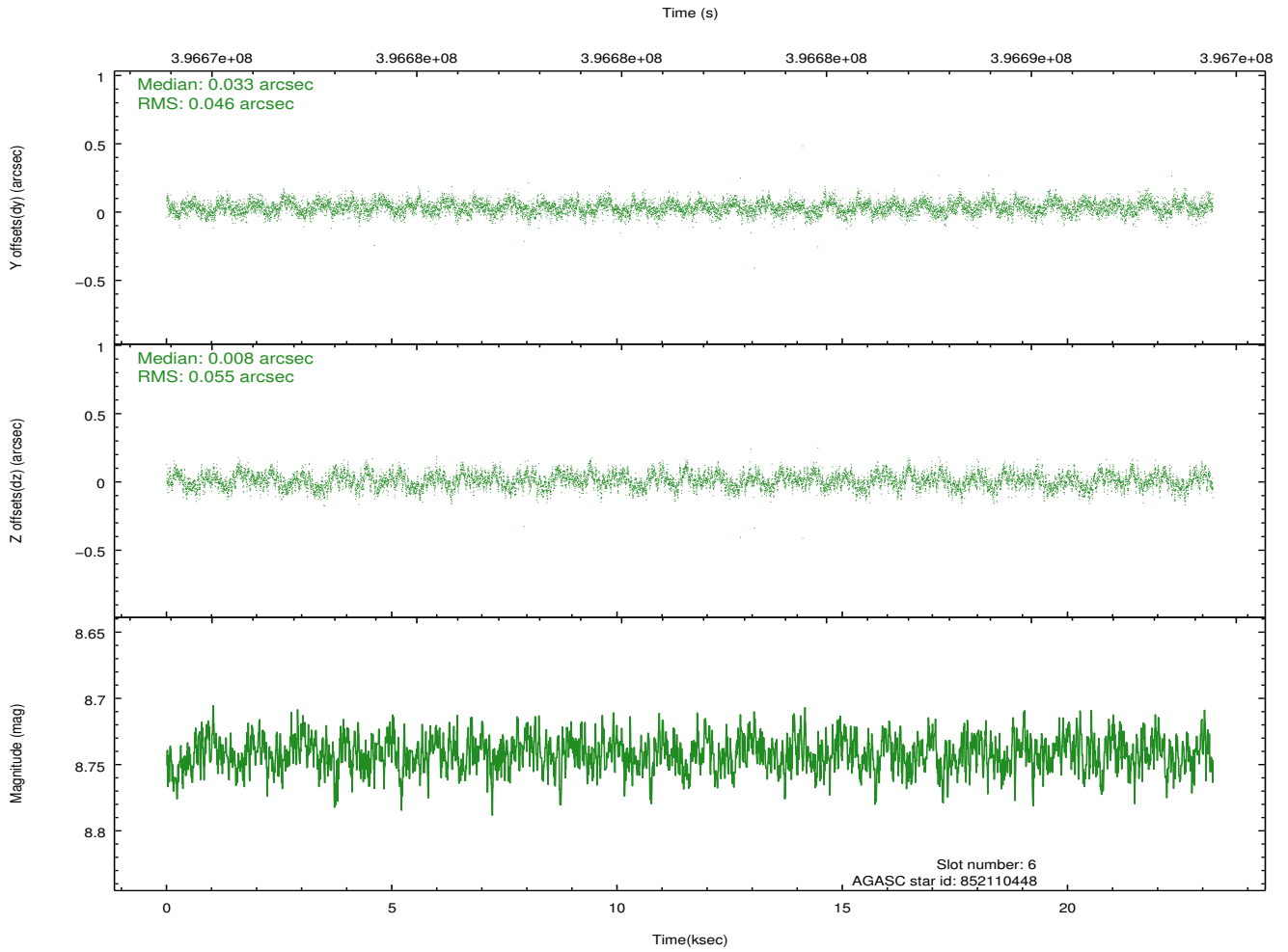
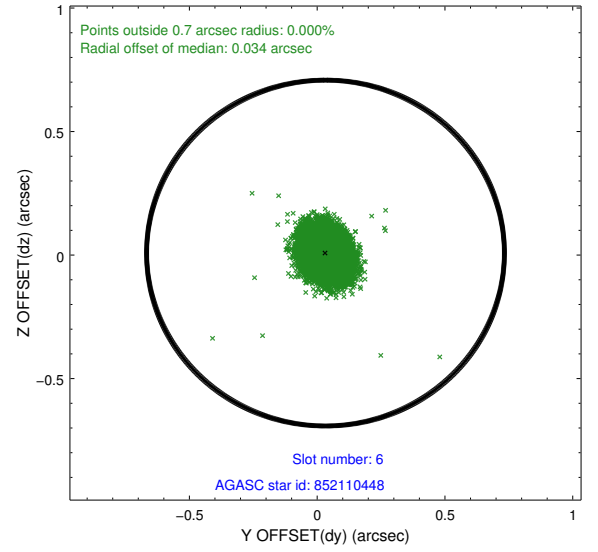
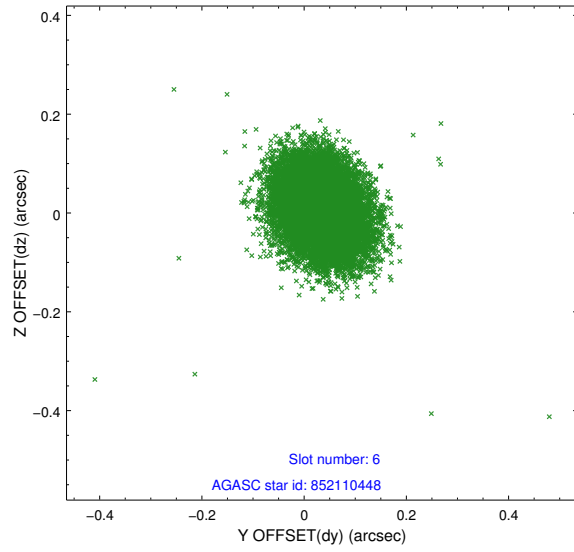




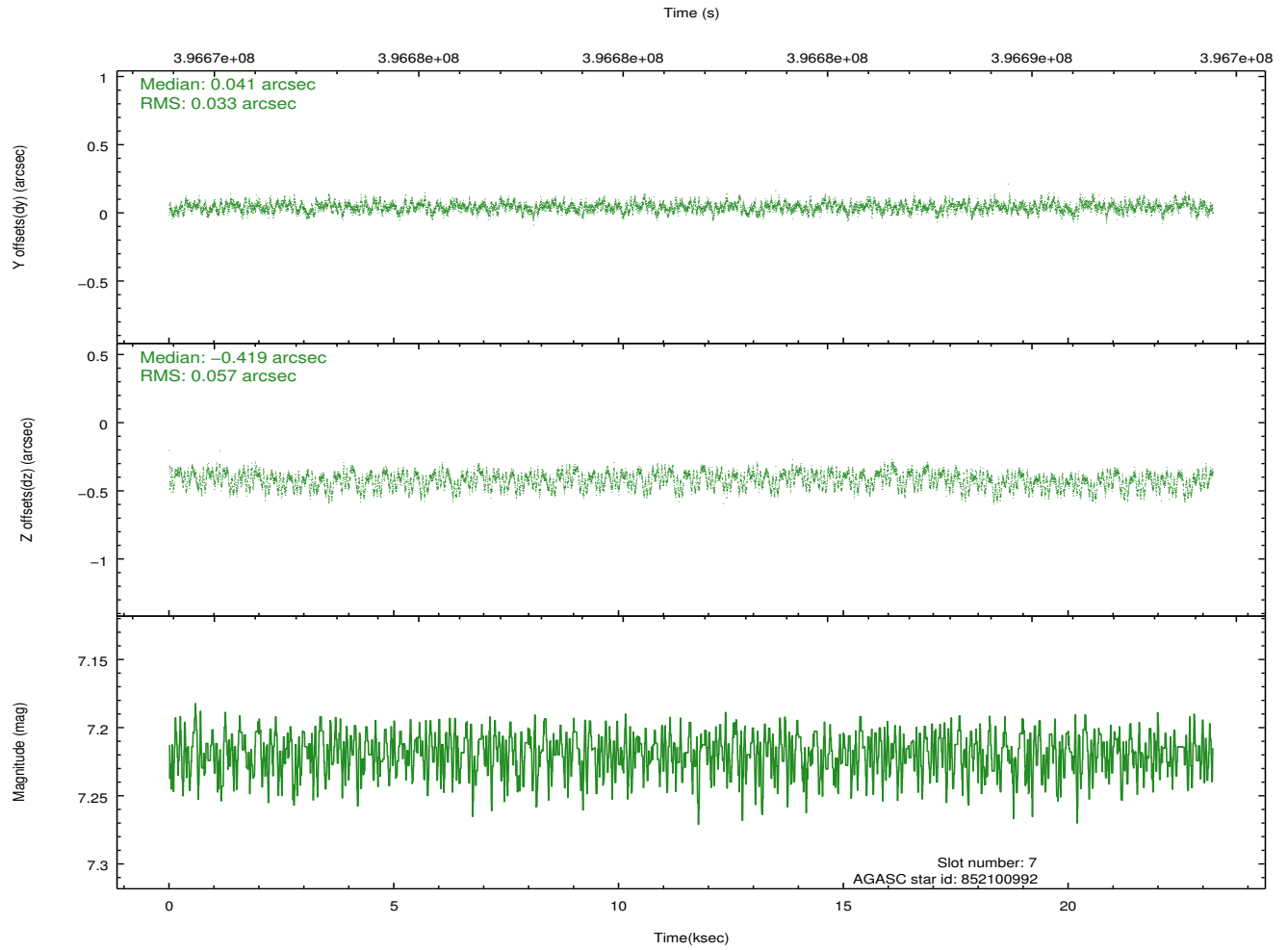
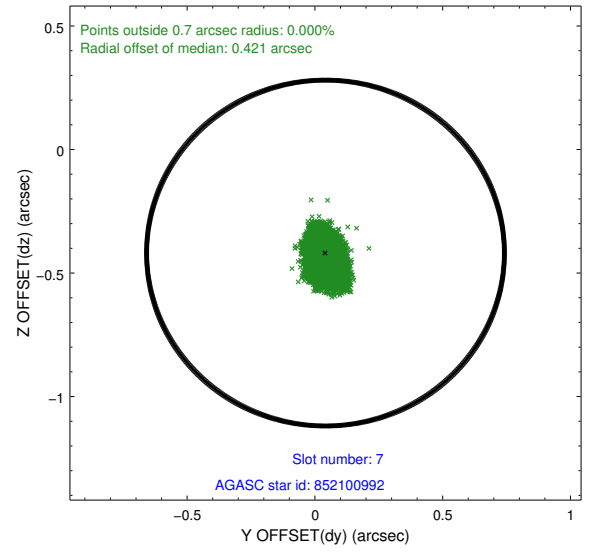
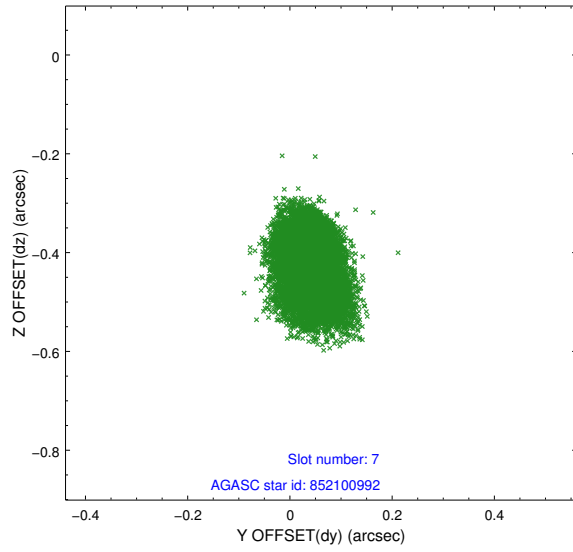
### 2.4.3 Slot 5



## 2.4.4 Slot 6

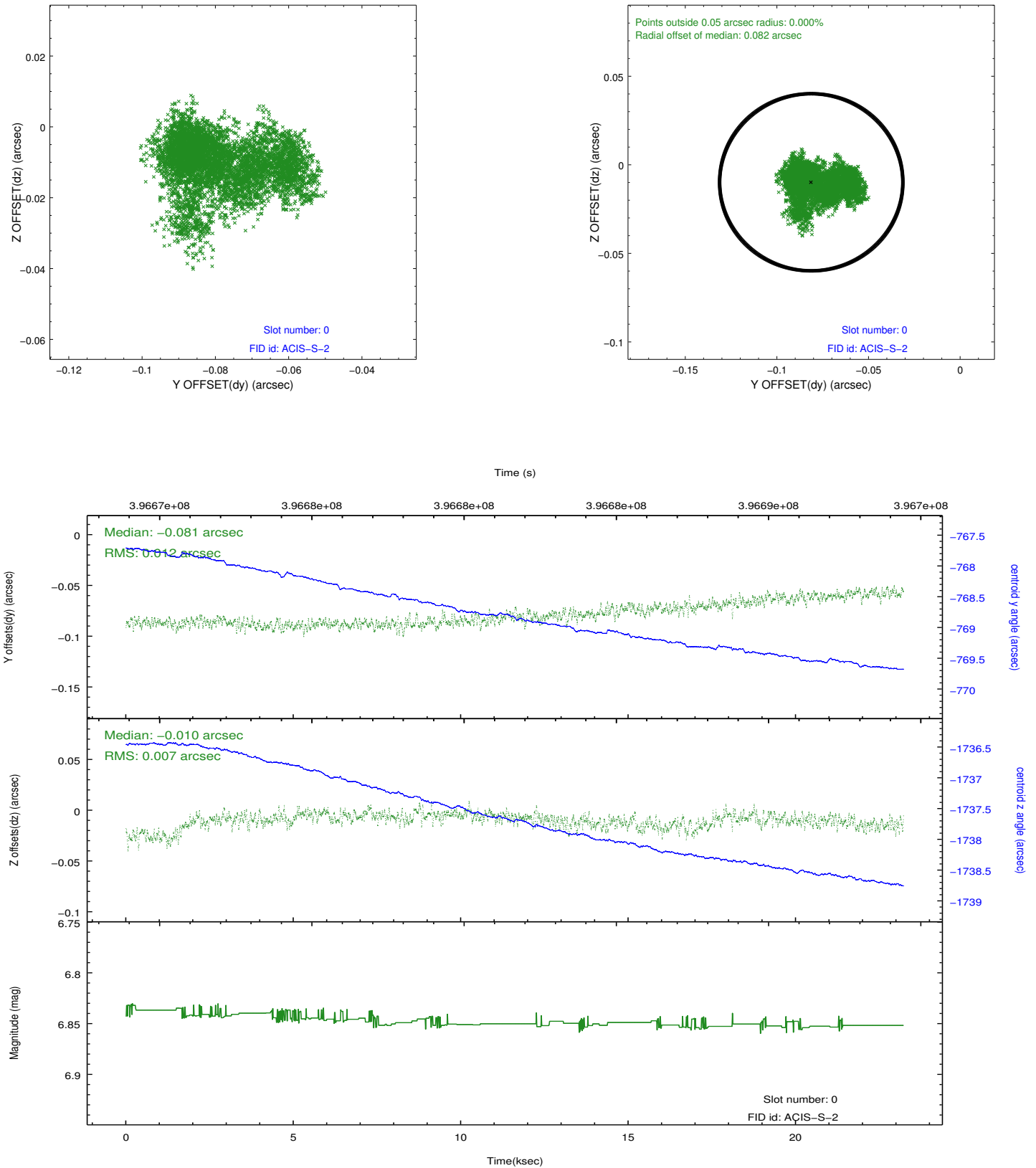


## 2.4.5 Slot 7

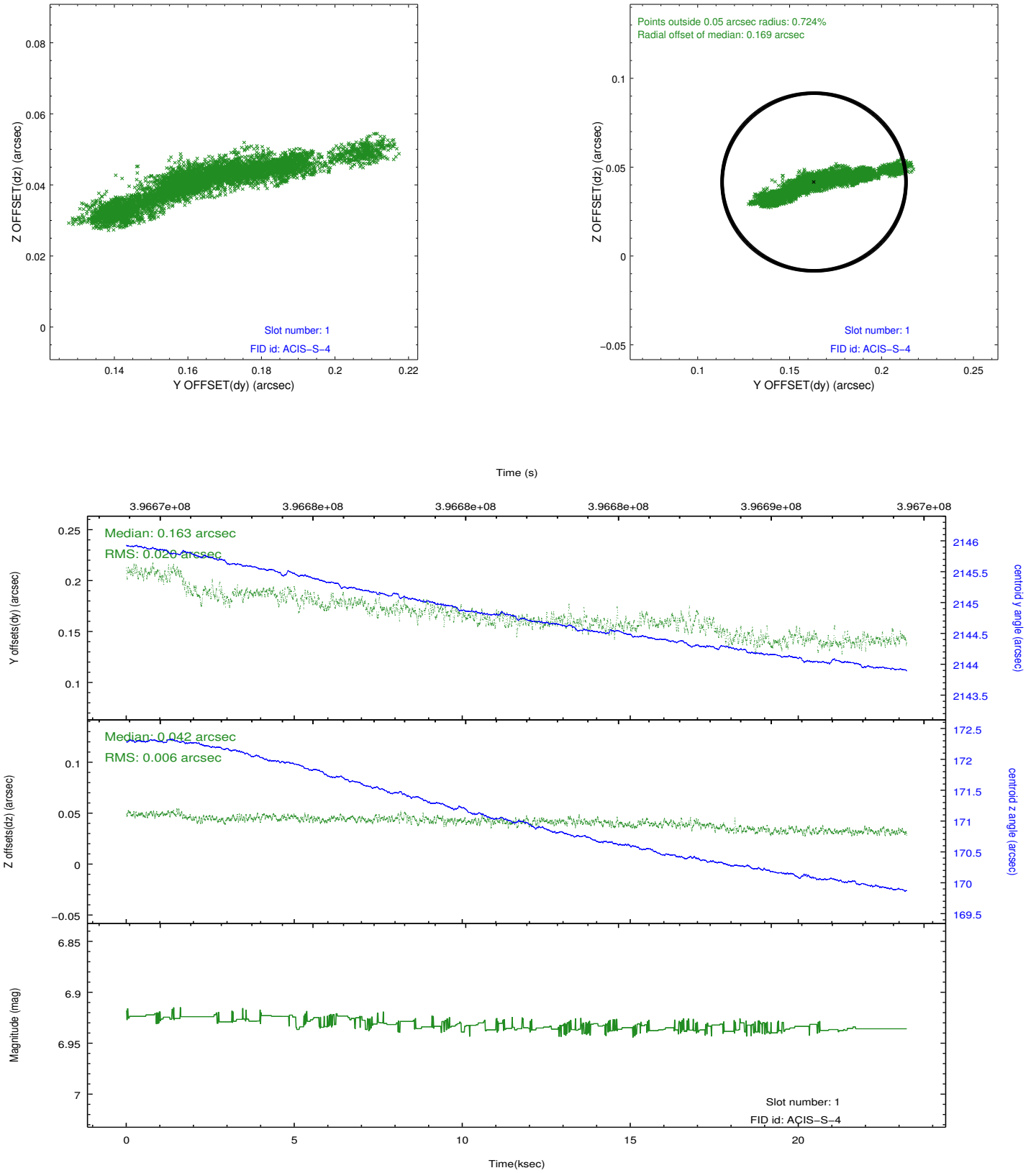


## 2.5 FID Slots

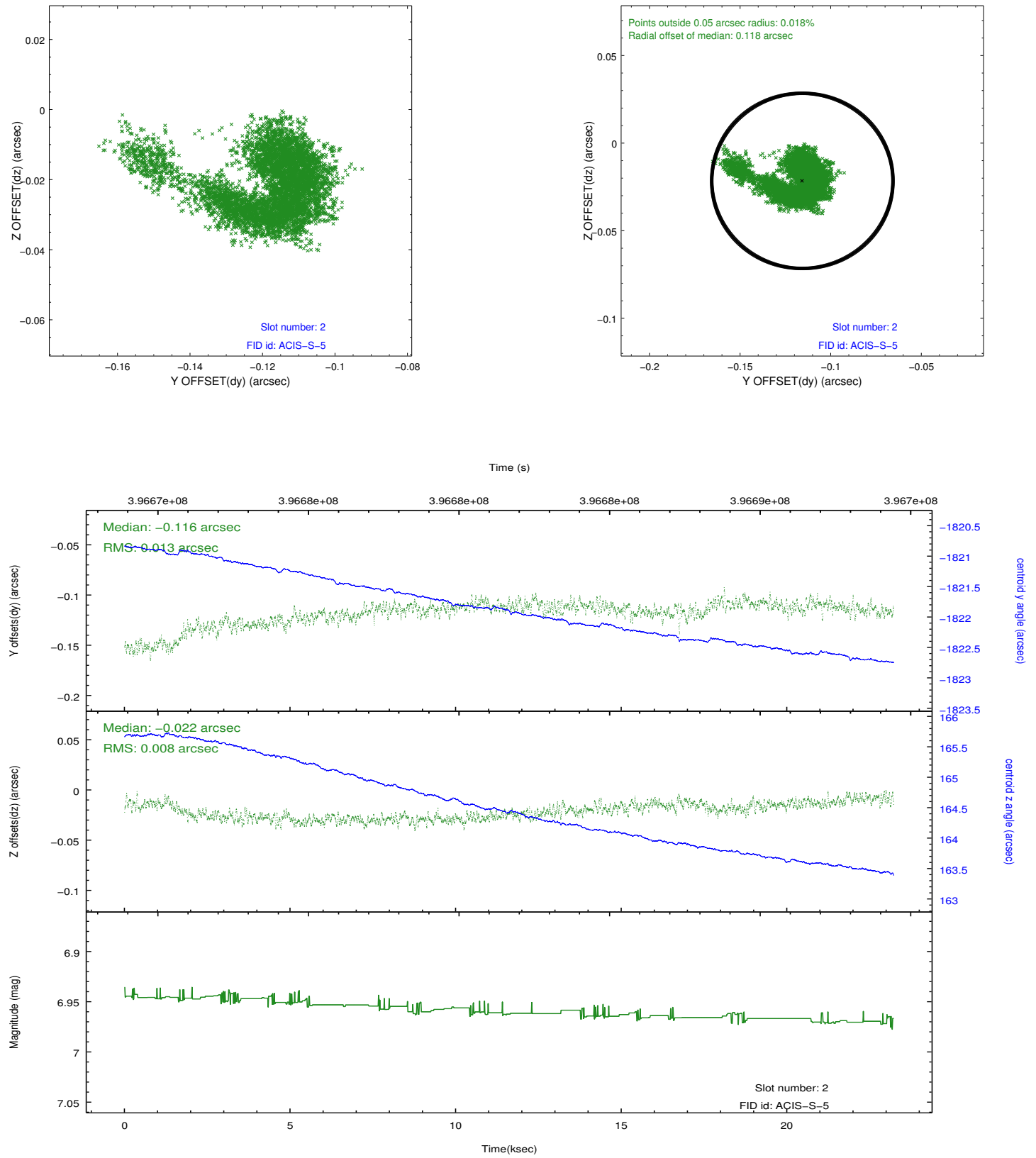
### 2.5.1 Slot 0



## 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)	2012.07.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	23.041106062531

### **A.2 Comments**