

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 545 - L2 Version 4  
Chandra X-Ray Center

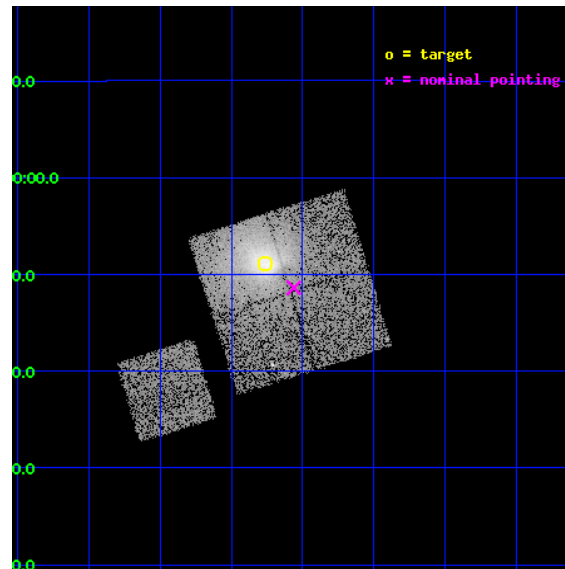
L2 Processing Date : Aug 30 2012

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# 1 Front

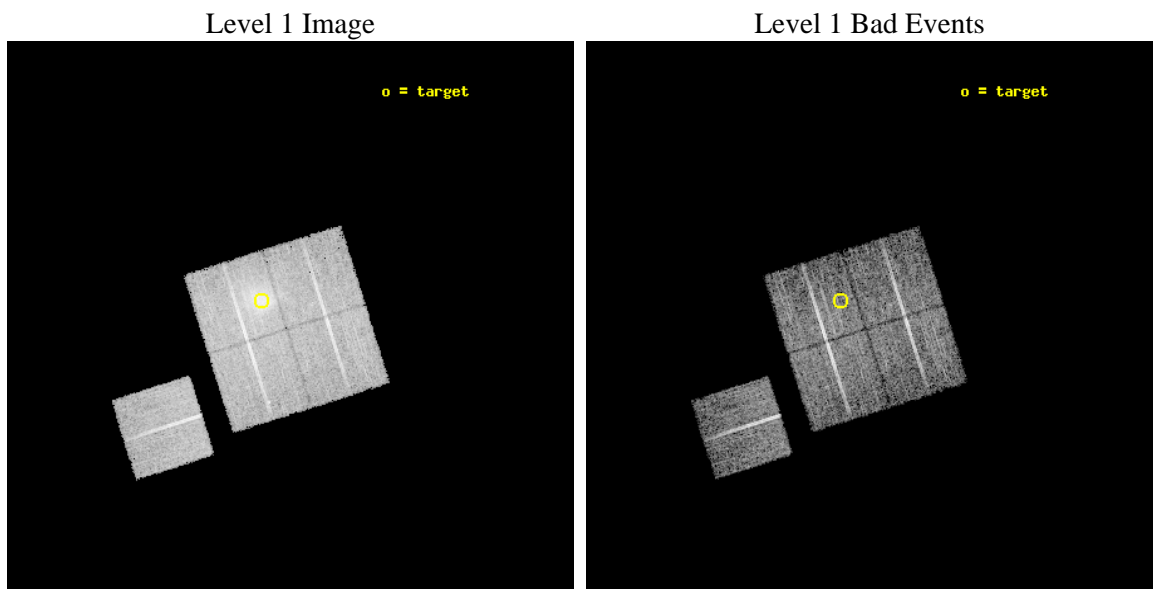
seq_num	800053	Sequence number
obs_id	545	Observation id
title	DETERMINATION OF H0/Q0	Proposal title
observer	DR. LEON VANSPEYBROECK	Principal investigator
object	A2163	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	243.9407	Observer's specified target RA [deg]
dec_targ	-6.148611	Observer's specified target Dec [deg]
ra_nom	243.89026019355	Nominal RA [deg]
dec_nom	-6.1898888129464	Nominal Dec [deg]
roll_nom	252.53576788008	Nominal Roll [deg]
revision	4	Processing version of data
ontime	9567.0678803921	Sum of GTIs [s]
livetime	9445.9239062939	Livetime [s]
ontime0	9563.7037802339	Sum of GTIs [s]
ontime1	9566.9858003855	Sum of GTIs [s]
ontime2	9567.0268403888	Sum of GTIs [s]
ontime3	9567.0678803921	Sum of GTIs [s]
ontime6	9566.9037203938	Sum of GTIs [s]
l2events	57057	Number of level 2 events



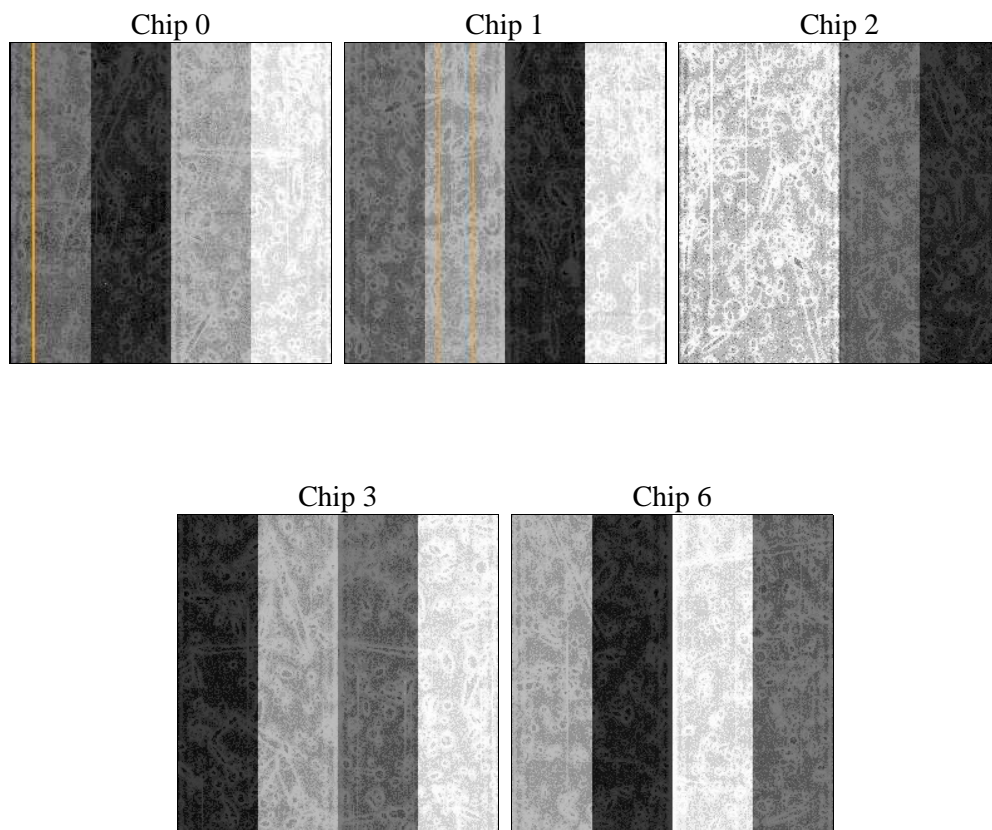
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	9500.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	9567.0678803921	Sum of GTIs [s]
caldsver	4.5.1.1	&#160	ontime0	9563.7037802339	Sum of GTIs [s]
date	2012-08-30T21:27:12	Date and time of file creation	ontime1	9566.9858003855	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	9567.0268403888	Sum of GTIs [s]
			ontime3	9567.0678803921	Sum of GTIs [s]
			ontime6	9566.9037203938	Sum of GTIs [s]
			l1events	292145	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	51146	52524	55306	80945	52224
rejected events	44316	42048	48146	49011	46085
rejected %	86%	80%	87%	60%	88%

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	3164	5944	3463	23229	2659
	6%	11%	6%	28%	5%
grade 1 events	35	40	22	100	22
	0%	0%	0%	0%	0%
grade 2 events	1352	1661	1355	3987	1164
	2%	3%	2%	4%	2%
grade 3 events	633	814	620	1462	555
	1%	1%	1%	1%	1%
grade 4 events	524	791	646	1504	620
	1%	1%	1%	1%	1%
grade 5 events	1816	1905	1731	2009	2101
	3%	3%	3%	2%	4%
grade 6 events	1158	1270	1076	1759	1147
	2%	2%	1%	2%	2%
grade 7 events	42464	40099	46393	46895	43956
	83%	76%	83%	57%	84%

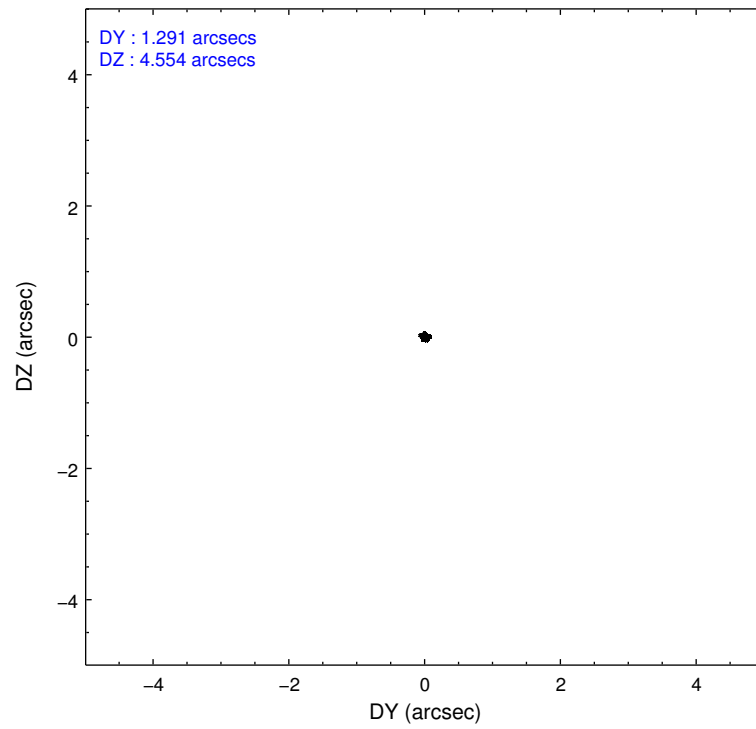
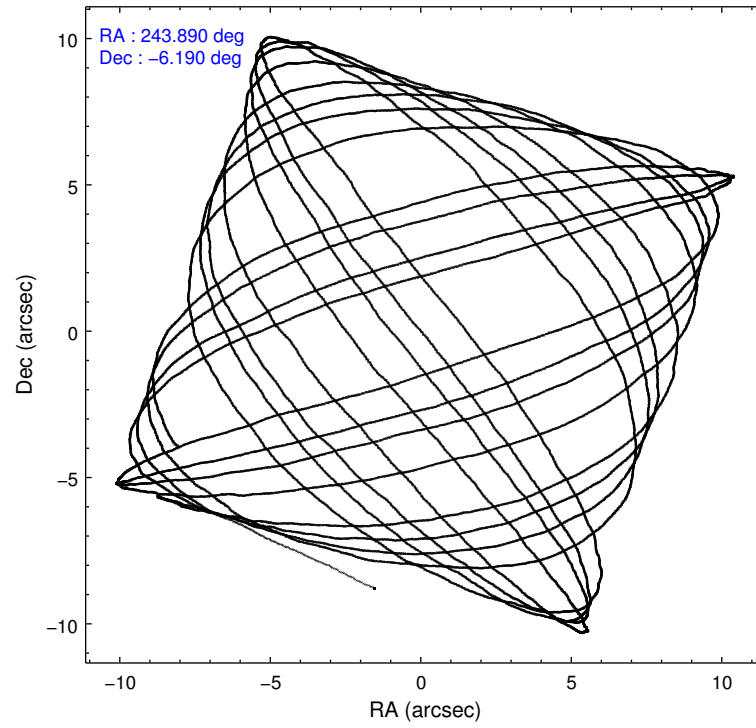


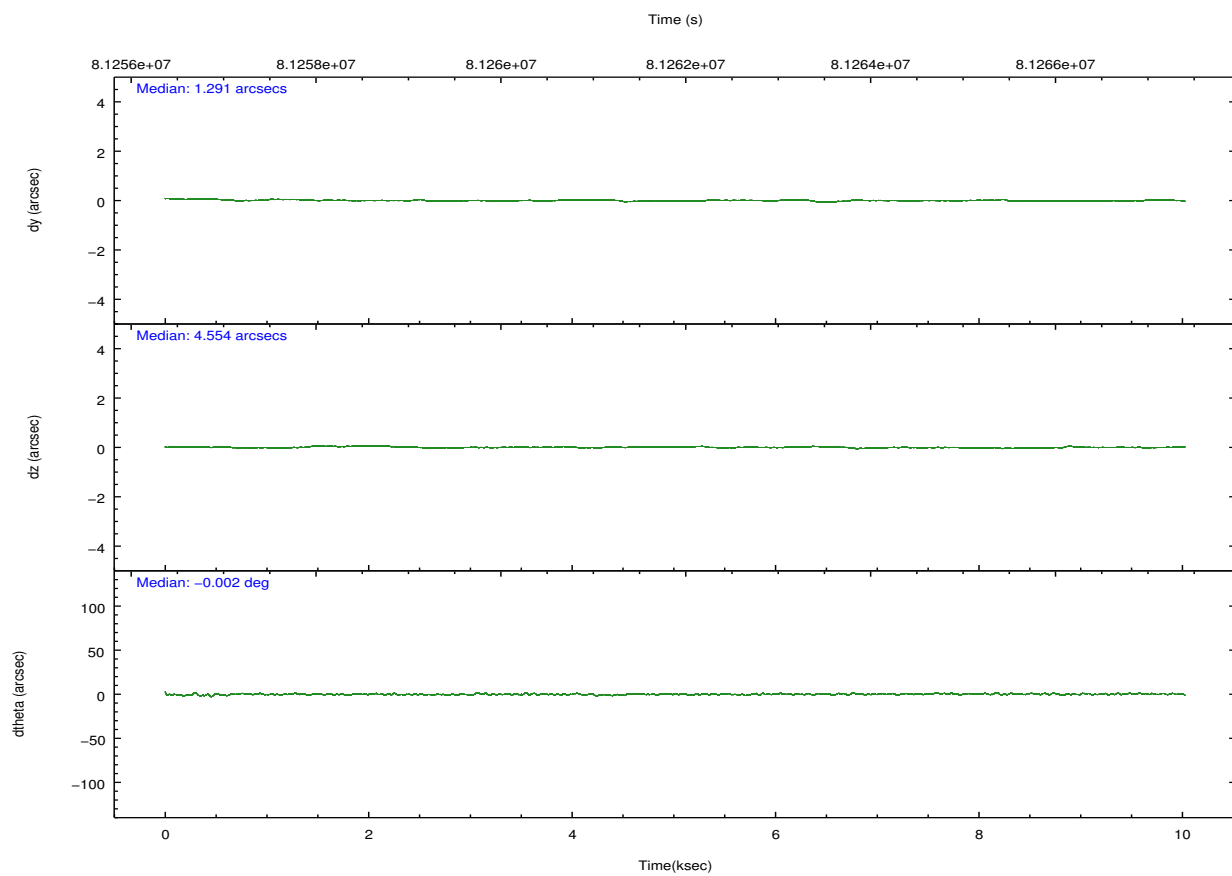
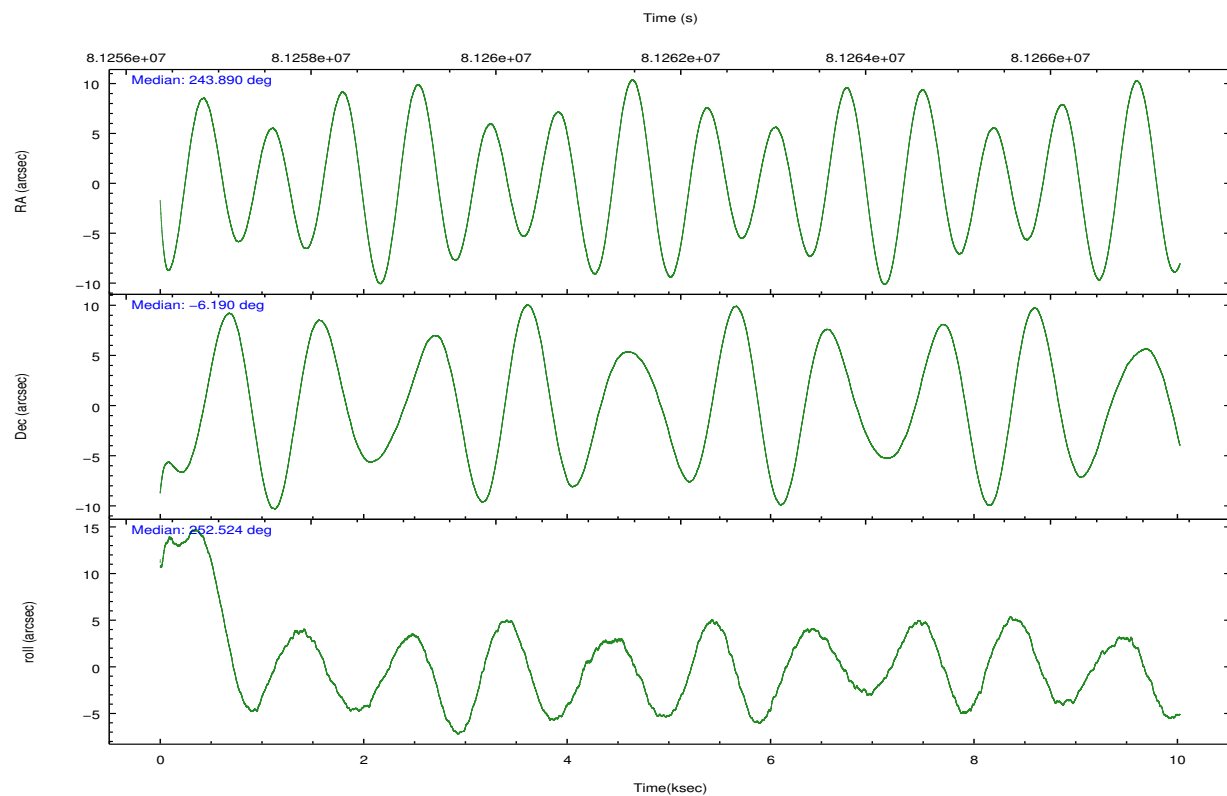
## 2.2 Compared Parameters

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	243.884378	243.8902601935529
[deg] Pointing Dec	-6.162954	-6.189888812946444
[deg] Pointing Roll	252.326450	252.5357678800845
[mm] SIM focus pos	-0.782348	-0.7809083437167272
[mm] SIM defocus	0	0.001439871863259334
[mm] SIM translation stage pos	-236.532463	-236.5241547330508
[mm] SIM translation stage offset	2.94	2.931701730121091
[s] Observation start time (MET)	81257397.184000	81256262.25576399
Observation start date	2000-07-29T11:28:53	2000-07-29T11:11:02
[s] Observation end time (MET)	81266897.184000	81267685.881189
Observation end date	2000-07-29T14:07:13	2000-07-29T14:21:25
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	3.2

## 2.3 Aspect



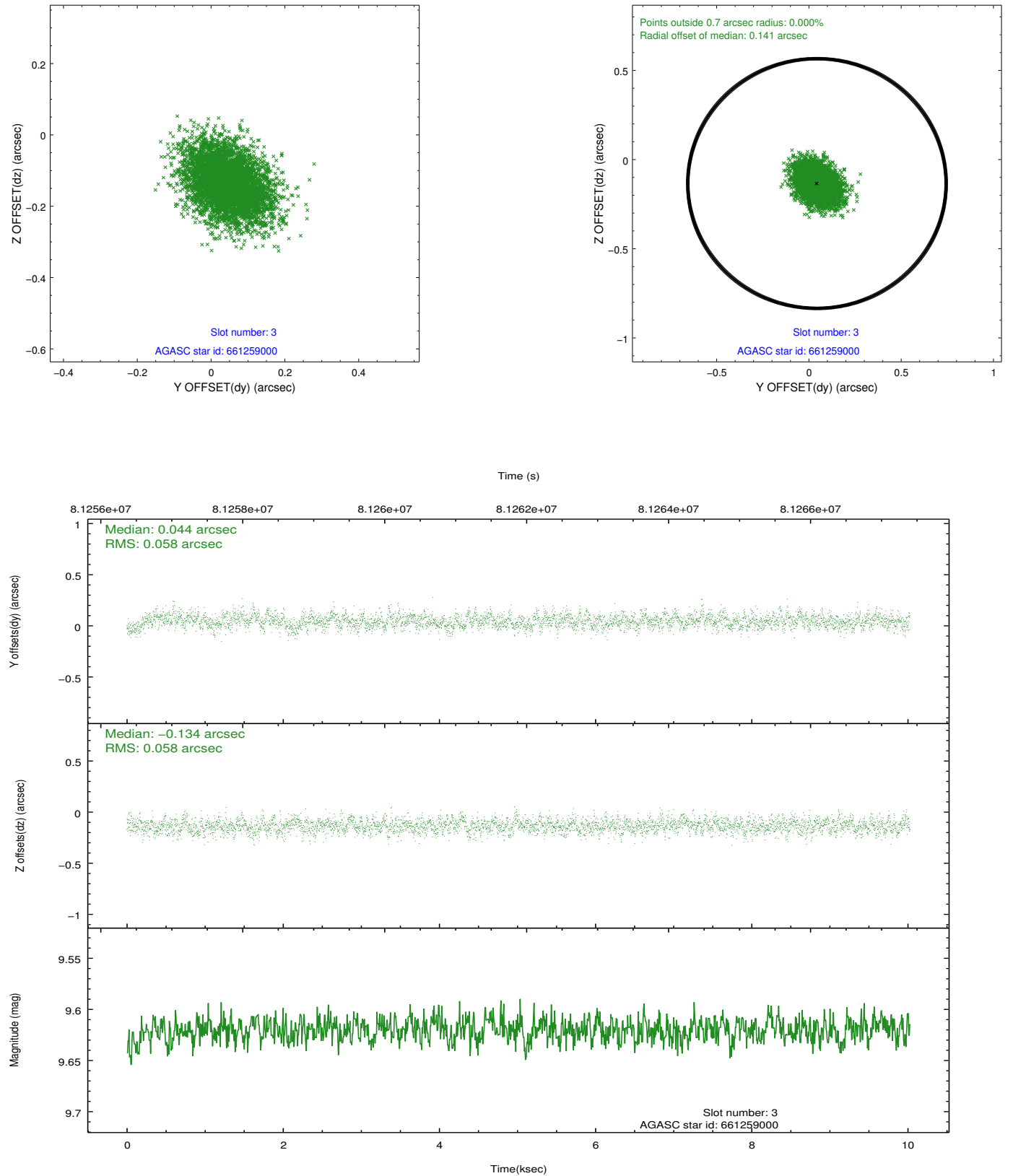


### Slot Statistics

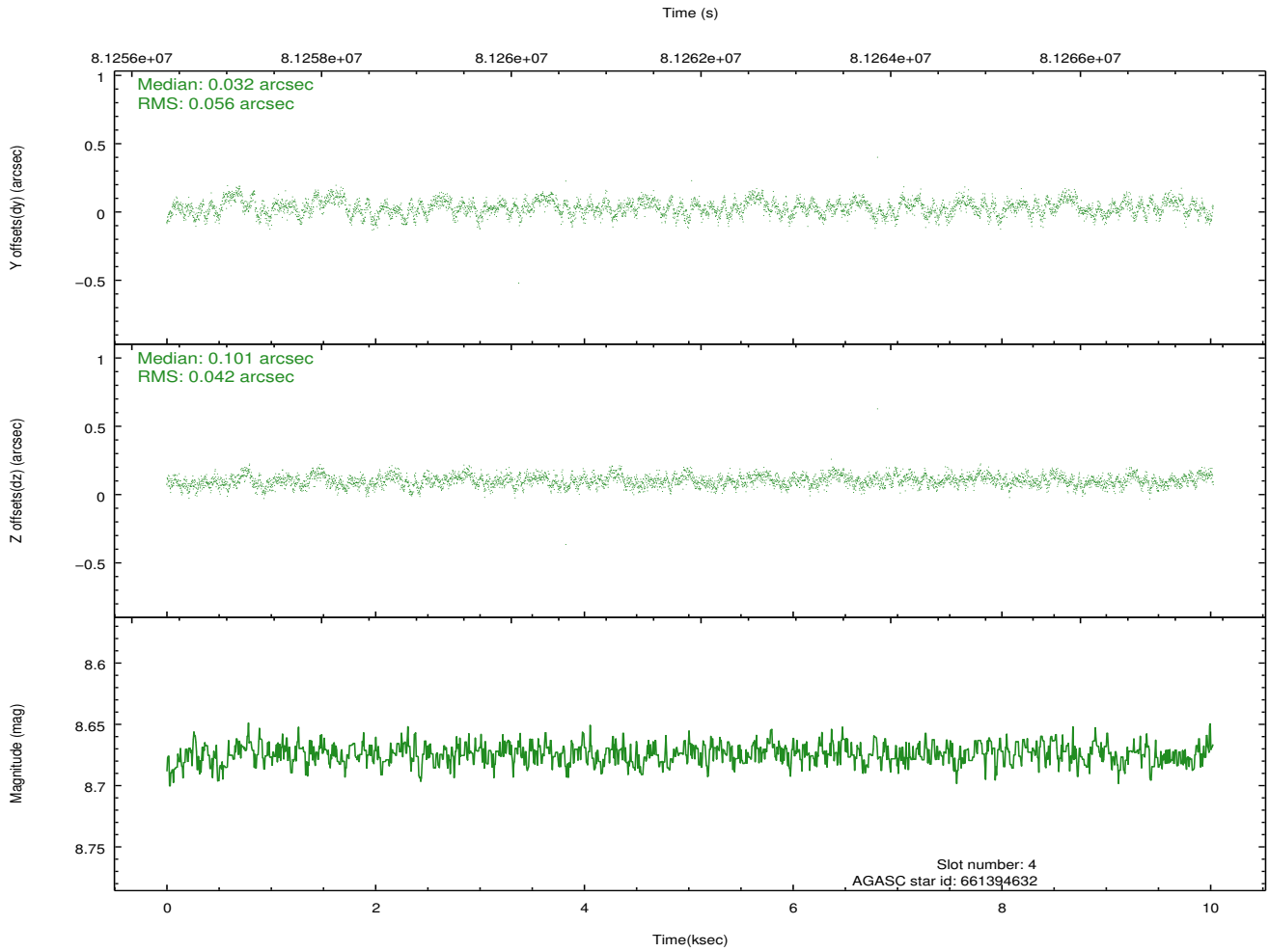
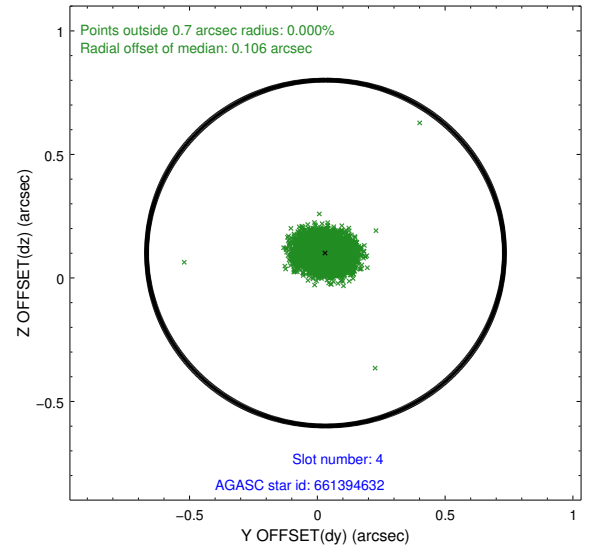
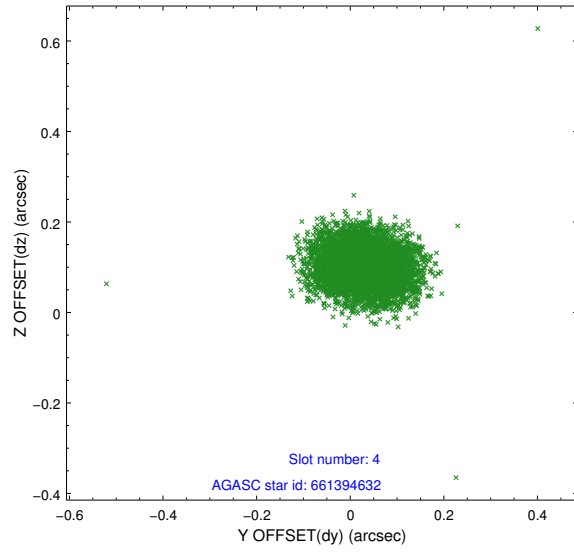
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	7.14	2446	-0.019	-0.023	0.009	0.017	0.000000	0.000000	-755.44	-774.33
1	FID	ACIS-I-4	7.22	2446	-0.010	0.026	0.006	0.011	0.000000	0.000000	2158.42	1131.65
2	FID	ACIS-I-5	7.23	2445	-0.072	0.066	0.009	0.015	0.000000	0.000000	-1808.78	1130.55
3	GUIDE	661259000	9.62	4890	0.044	-0.134	0.086	0.145	243.433065	-6.229365	719.75	-1465.82
4	GUIDE	661394632	8.67	4891	0.032	0.101	0.074	0.118	244.012741	-6.597743	1352.66	912.97
5	GUIDE	661395928	9.74	4890	0.041	0.179	0.093	0.151	244.257186	-6.222729	-198.92	1337.32
6	GUIDE	661260568	9.73	4891	-0.040	-0.108	0.111	0.186	243.232041	-6.293387	1158.39	-2080.43
7	GUIDE	661393160	9.59	4887	-0.080	-0.039	0.100	0.160	244.614442	-6.074956	-1093.29	2394.12

## 2.4 Star Slots

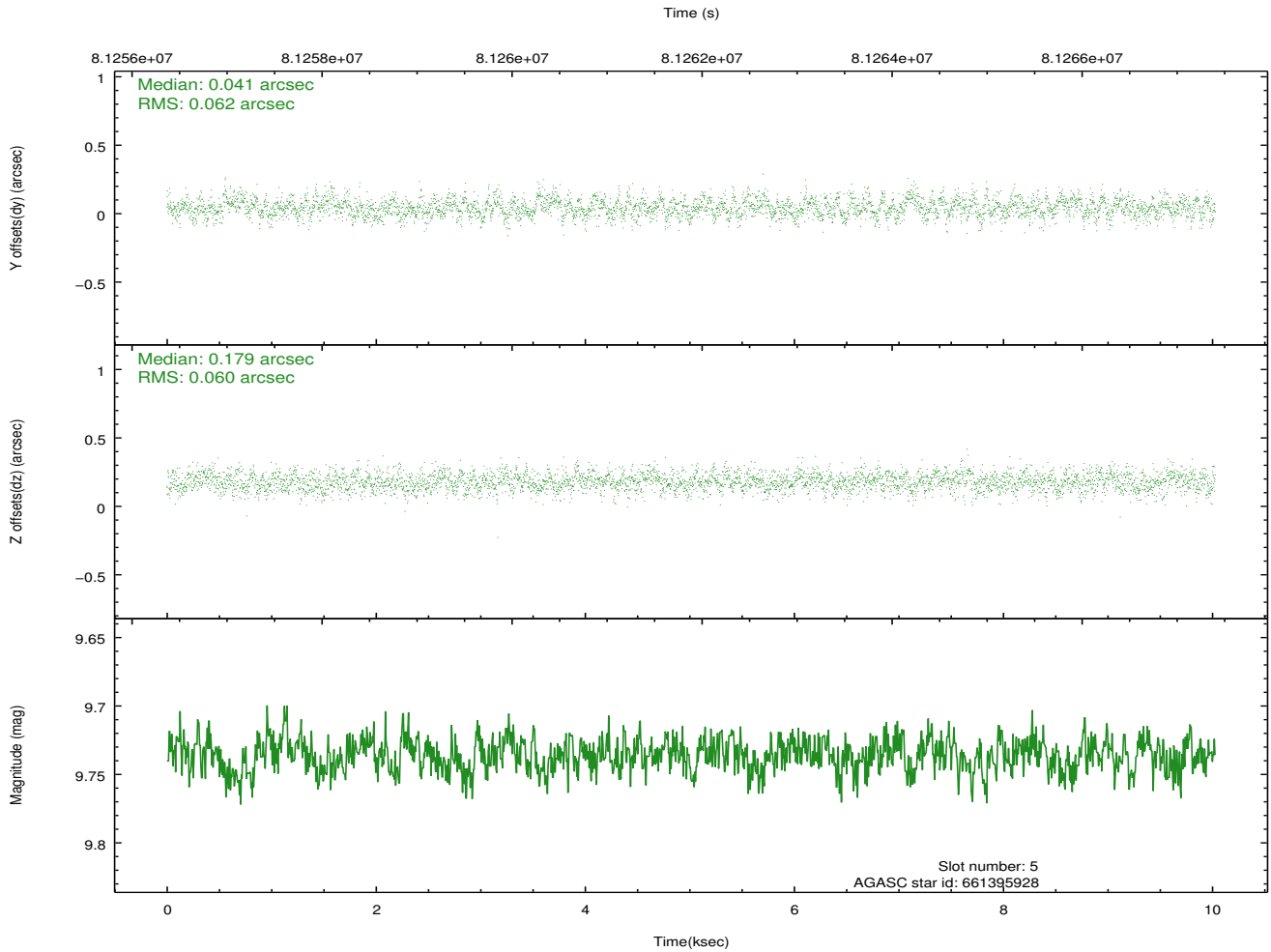
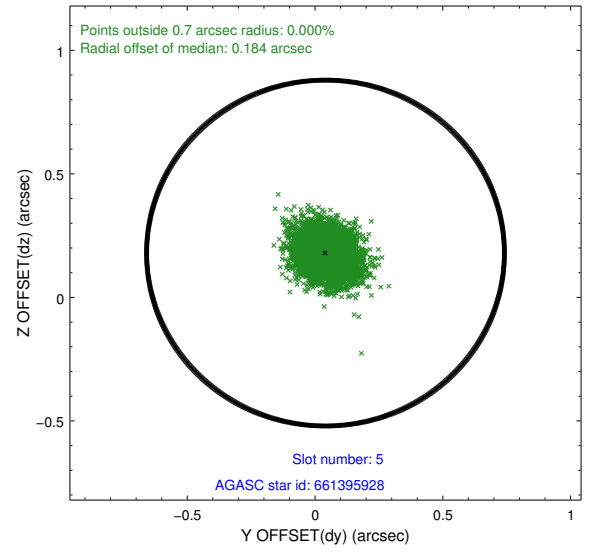
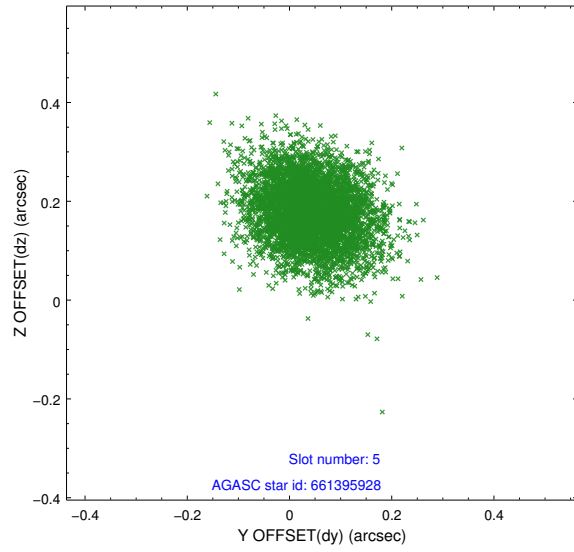
### 2.4.1 Slot 3



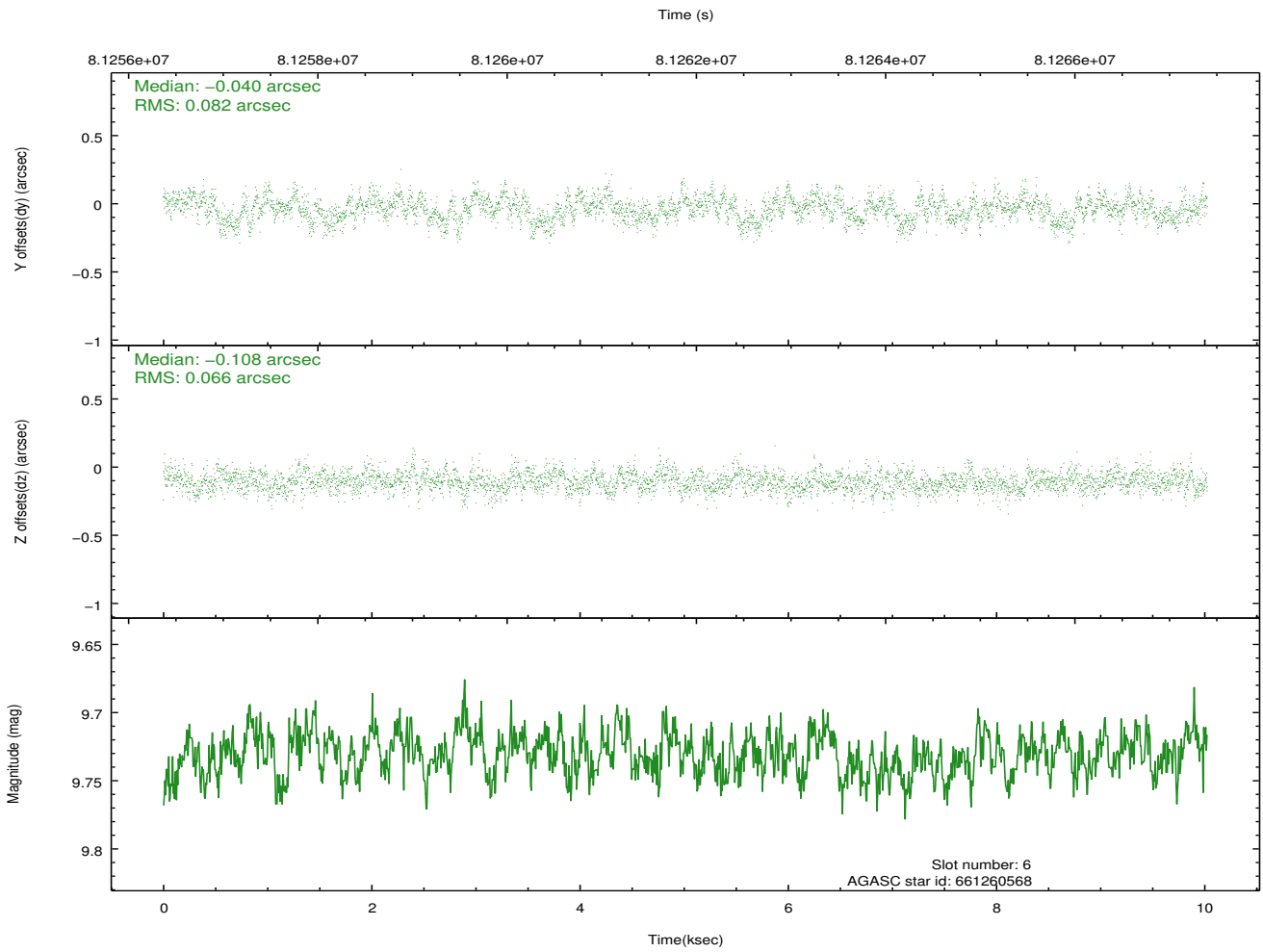
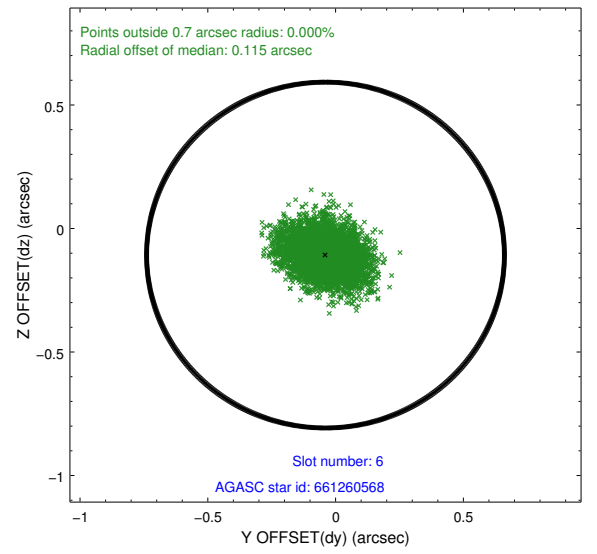
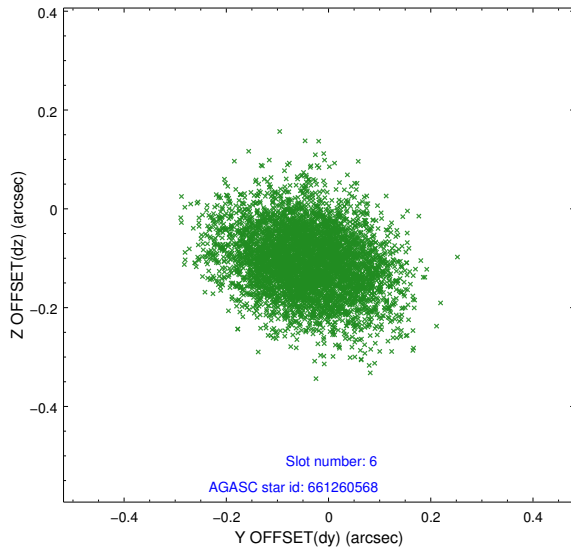
## 2.4.2 Slot 4



### 2.4.3 Slot 5

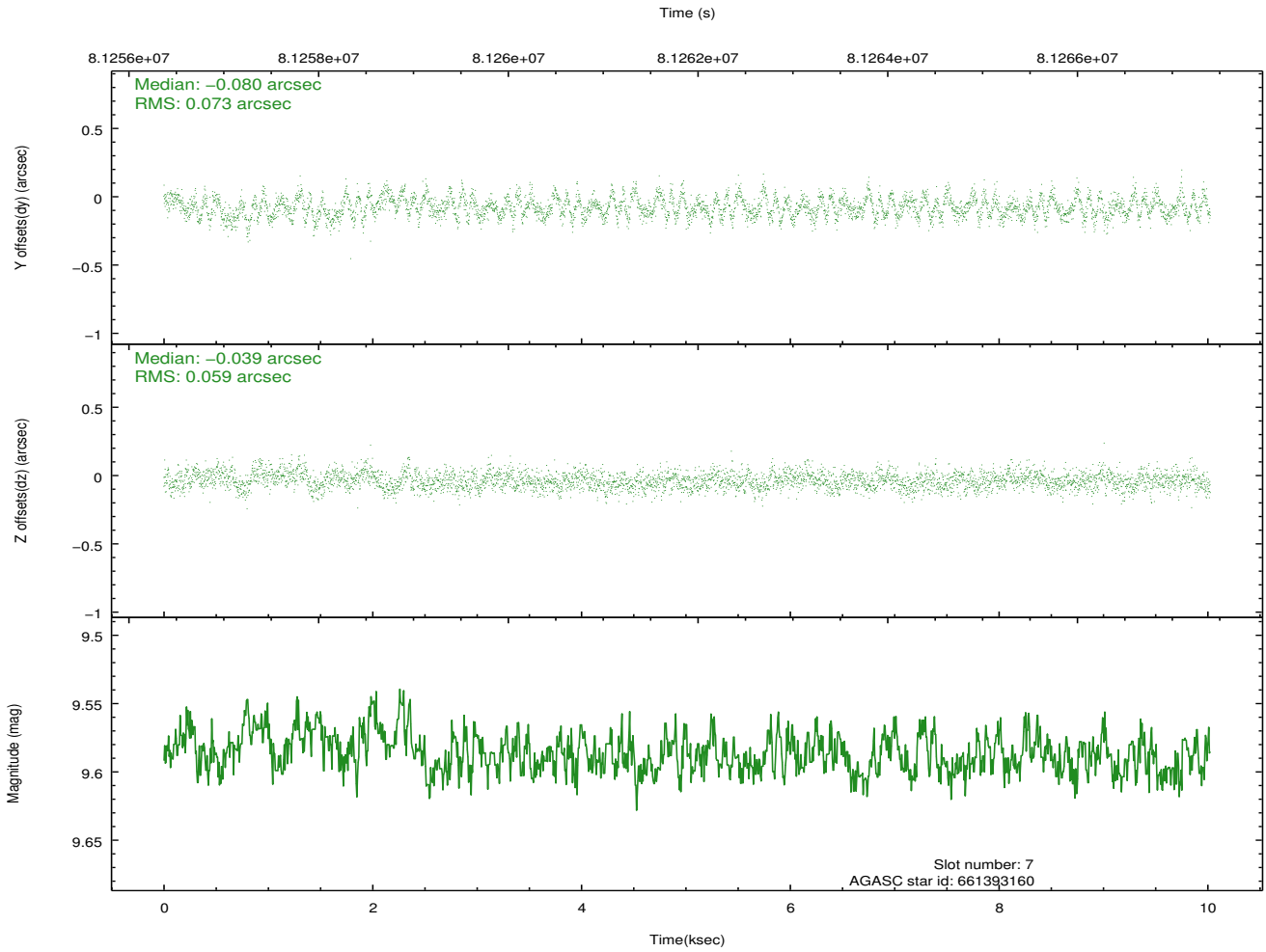
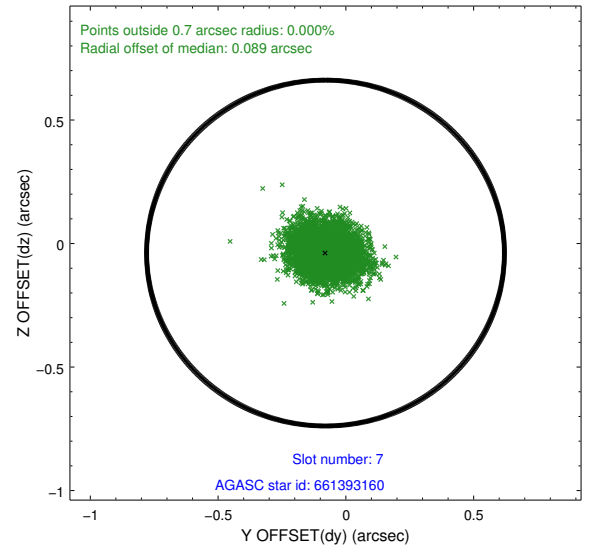
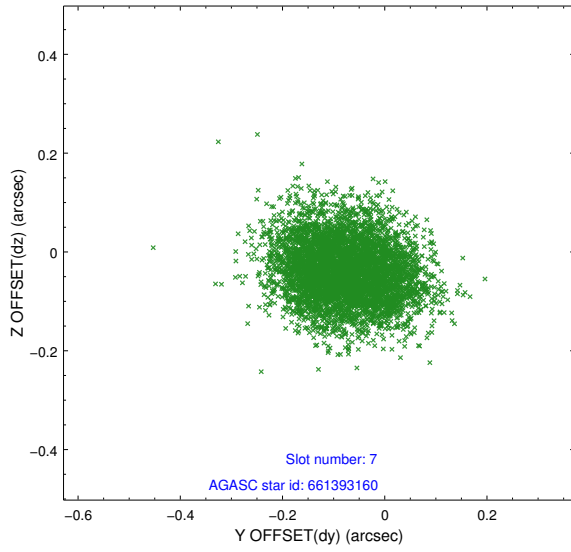


## 2.4.4 Slot 6



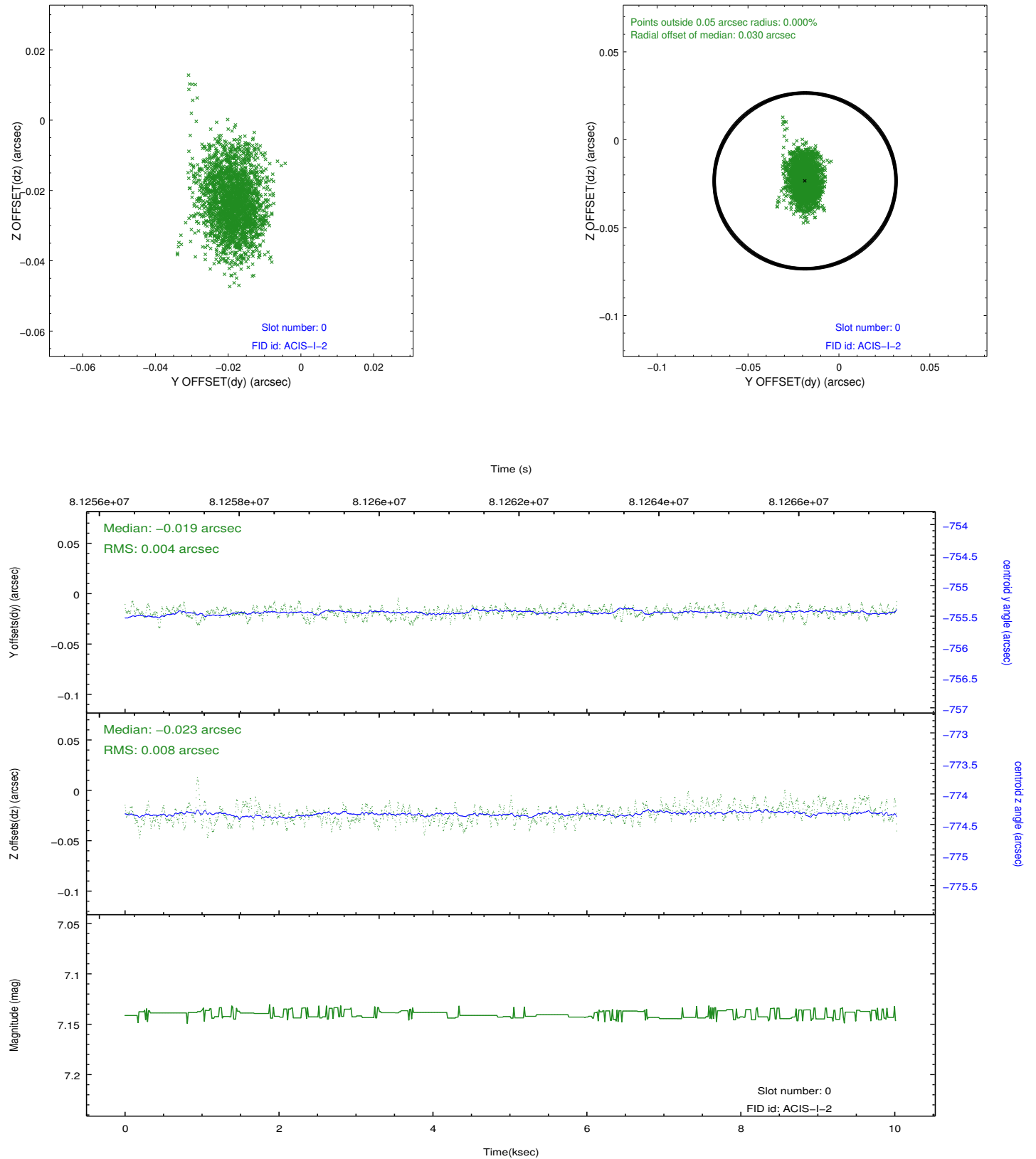


## 2.4.5 Slot 7

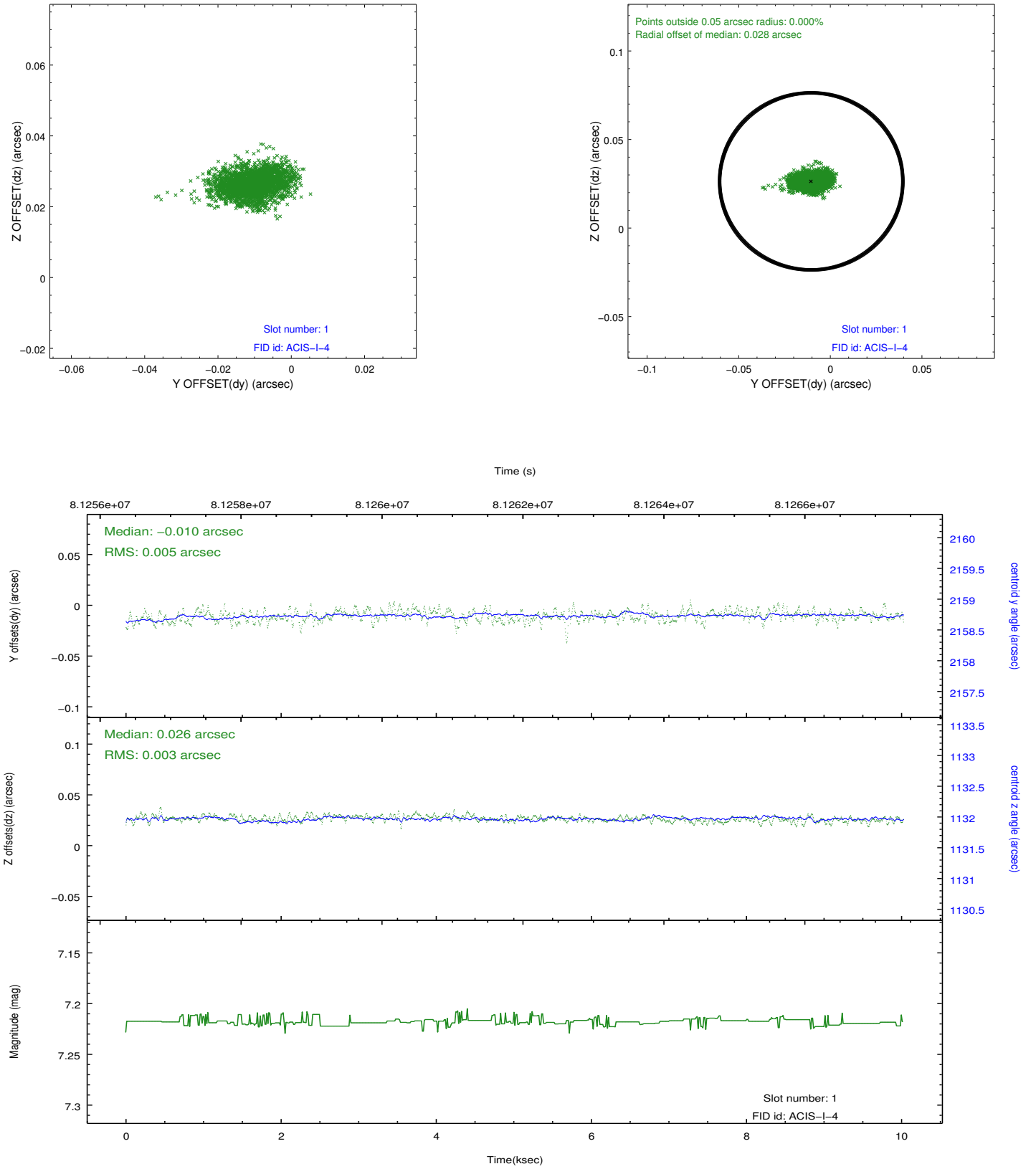


## 2.5 FID Slots

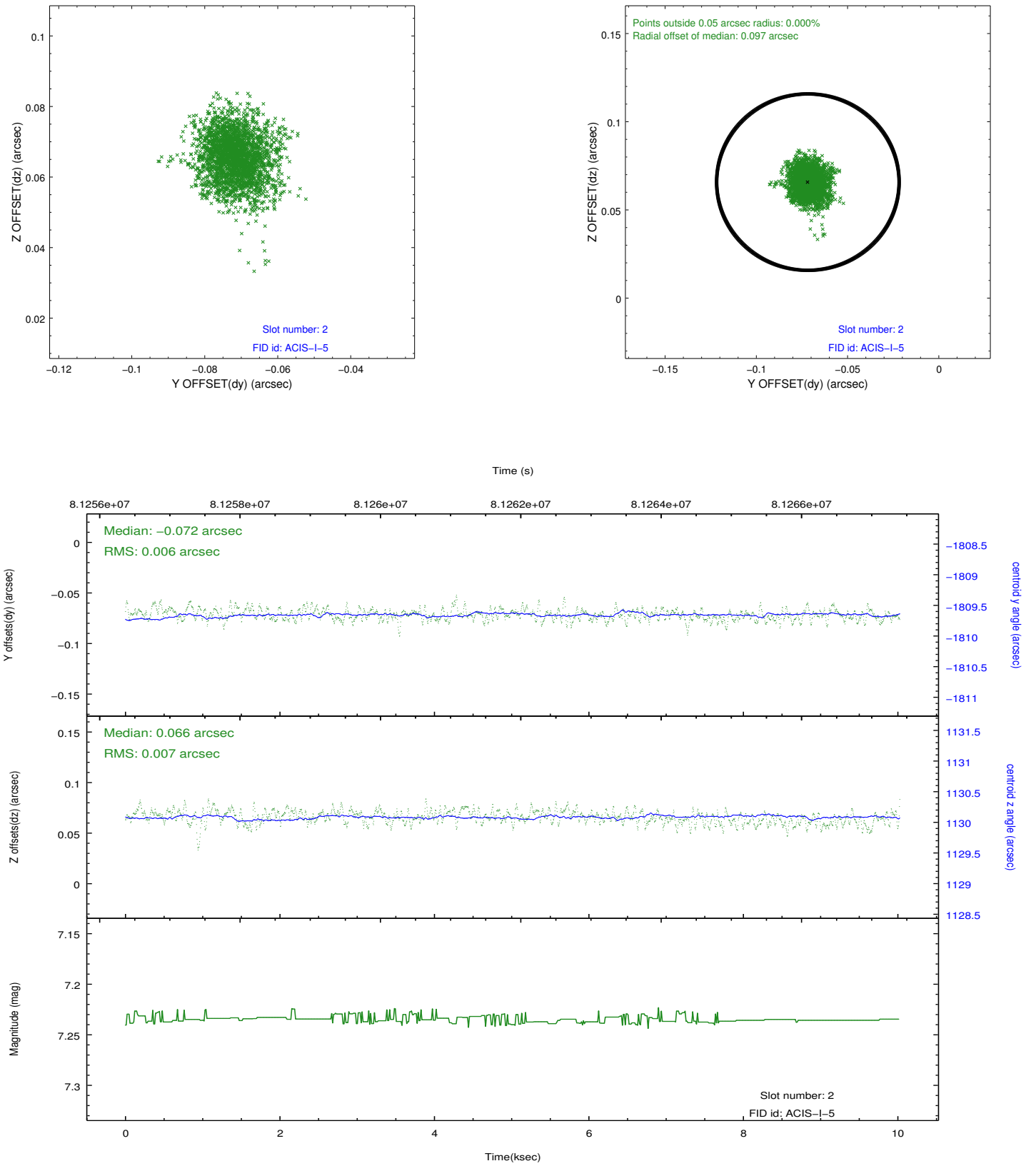
### 2.5.1 Slot 0



## 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)	2012.09.04
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.568

### **A.2 Comments**