

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 3281 - L2 Version 3  
Chandra X-Ray Center

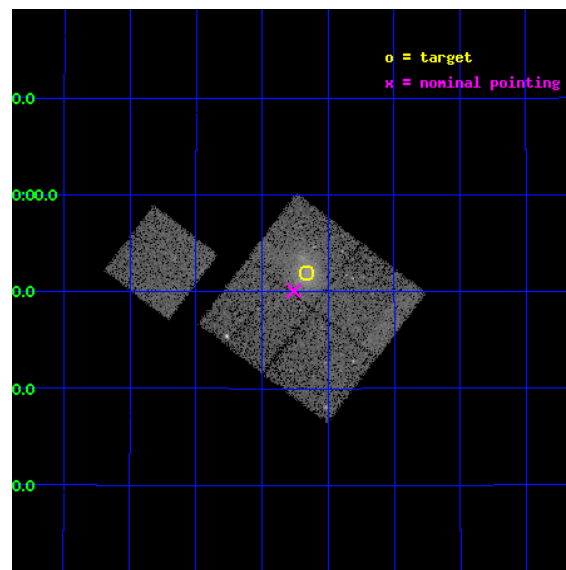
L2 Processing Date : Oct 17 2012

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# 1 Front

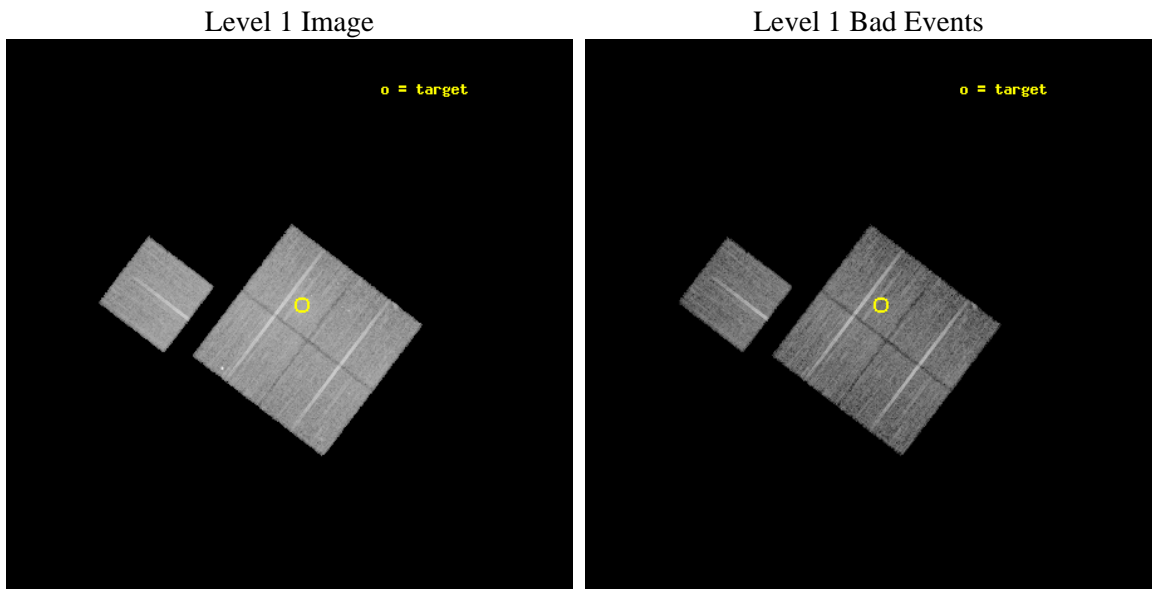
seq_num	800281	Sequence number
obs_id	3281	Observation id
title	MACS: THE X-RAY PROPERTIES OF THE MOST MASSIVE GALAXY CLUSTERS AT $Z>0.3$	Proposal title
observer	Dr. Harald Ebeling	Principal investigator
object	MACSJ1731.6+2252	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	262.916667	Observer's specified target RA [deg]
dec_targ	22.866111	Observer's specified target Dec [deg]
ra_nom	262.93976922349	Nominal RA [deg]
dec_nom	22.835046286591	Nominal Dec [deg]
roll_nom	307.38208254762	Nominal Roll [deg]
revision	3	Processing version of data
ontime	20773.099960029	Sum of GTIs [s]
livetime	20501.684116118	Livetime [s]
ontime0	20773.099960029	Sum of GTIs [s]
ontime1	20773.099960029	Sum of GTIs [s]
ontime2	20763.677049428	Sum of GTIs [s]
ontime3	20773.099960029	Sum of GTIs [s]
ontime6	20766.818039536	Sum of GTIs [s]
l2events	53432	Number of level 2 events



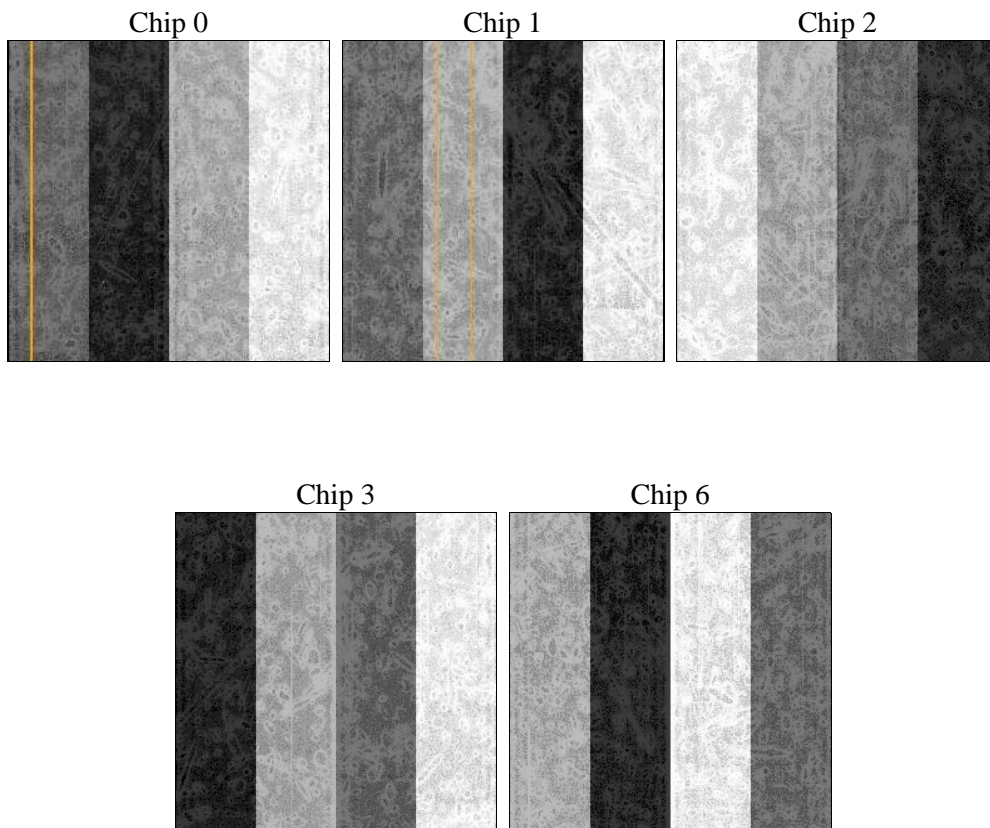
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	21000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	20773.099960029	Sum of GTIs [s]
caldsver	4.5.2	&#160	ontime0	20773.099960029	Sum of GTIs [s]
date	2012-10-17T11:12:01	Date and time of file creation	ontime1	20773.099960029	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	20763.677049428	Sum of GTIs [s]
			ontime3	20773.099960029	Sum of GTIs [s]
			ontime6	20766.818039536	Sum of GTIs [s]
			l1events	546015	Number of level 1 events

### 2.1.4 Events

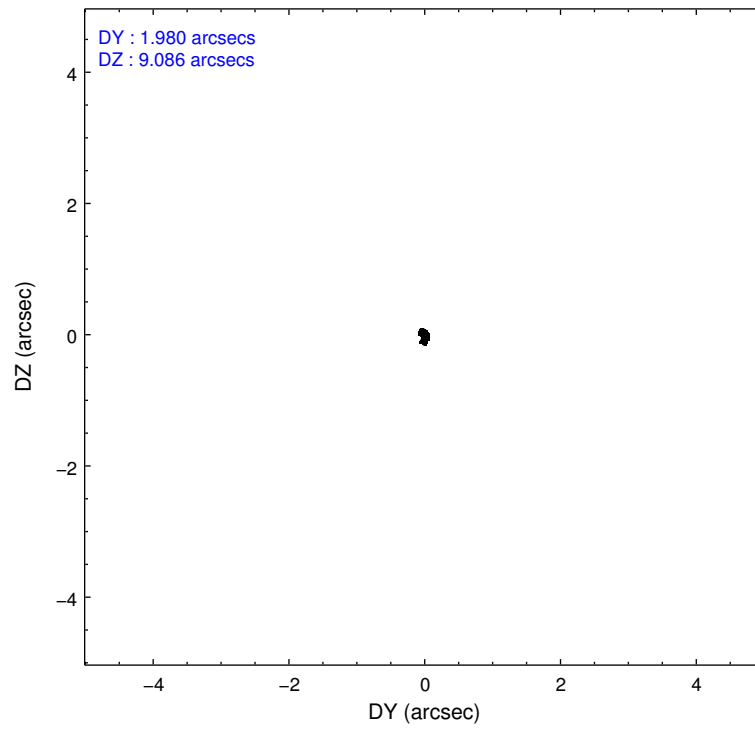
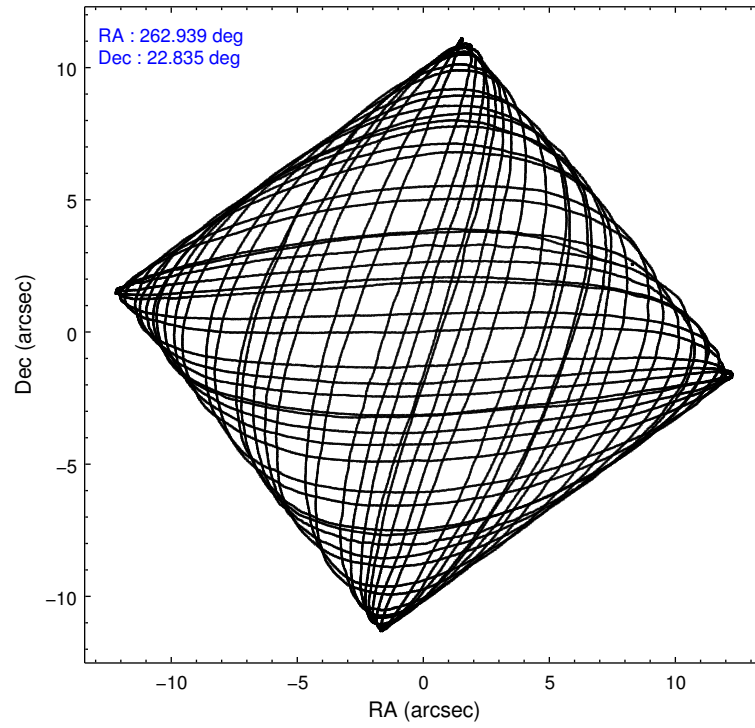
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	98796	101932	118397	116703	110187
rejected events	87656	89336	105817	100413	99017
rejected %	88%	87%	89%	86%	89%

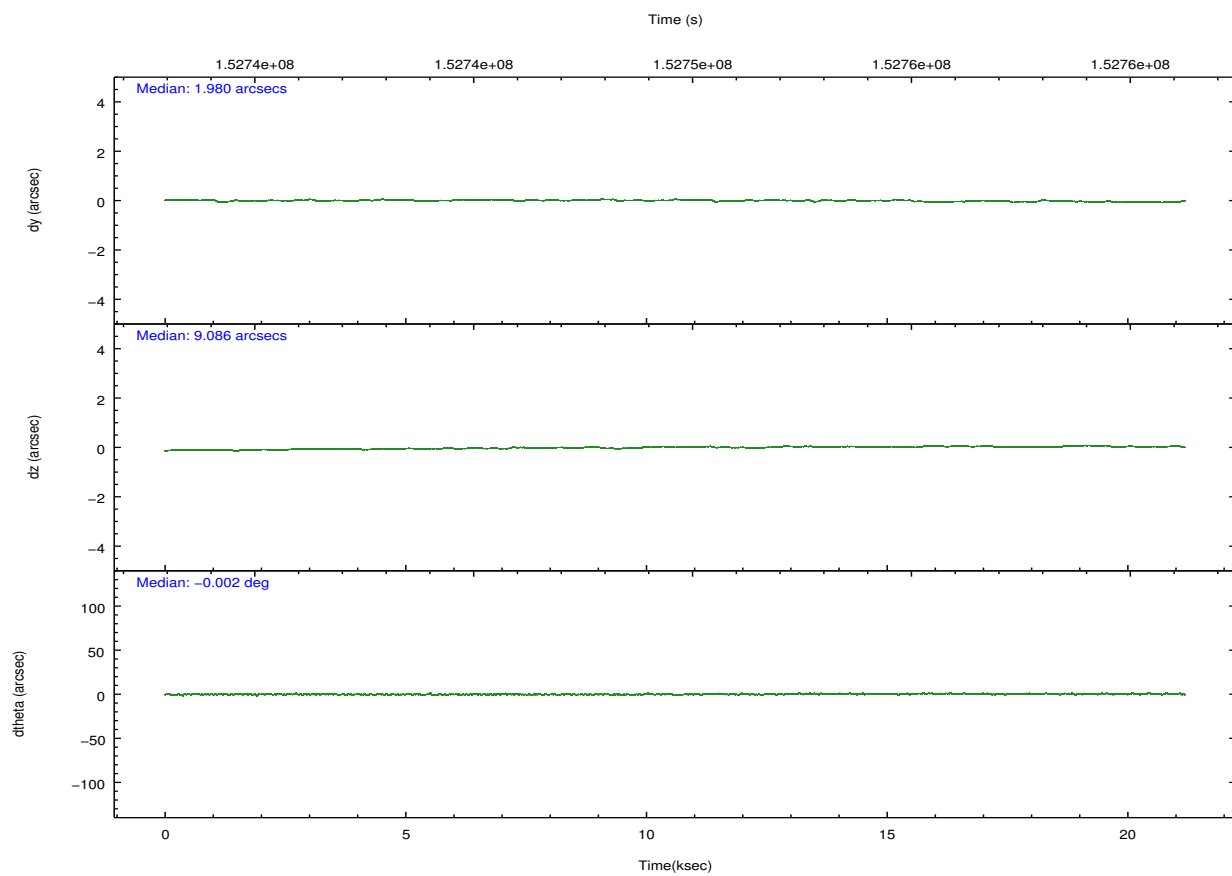
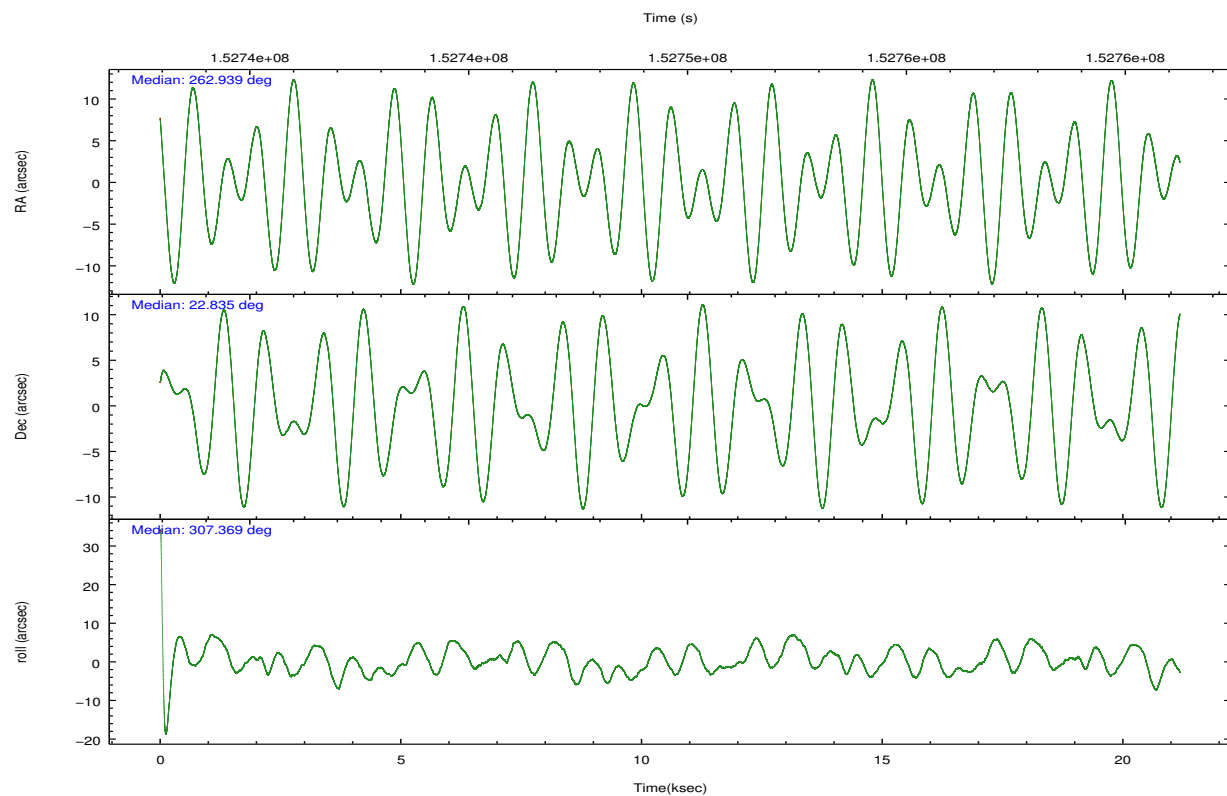
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	4162	4791	5449	8670	4050
	4%	4%	4%	7%	3%
grade 1 events	49	47	55	78	49
	0%	0%	0%	0%	0%
grade 2 events	2498	2566	2660	2732	2316
	2%	2%	2%	2%	2%
grade 3 events	1282	1413	1298	1372	1297
	1%	1%	1%	1%	1%
grade 4 events	1140	1452	1251	1364	1223
	1%	1%	1%	1%	1%
grade 5 events	3583	3906	3421	4042	4092
	3%	3%	2%	3%	3%
grade 6 events	2060	2375	1924	2156	2284
	2%	2%	1%	1%	2%
grade 7 events	84022	85382	102339	96289	94876
	85%	83%	86%	82%	86%

## 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	262.912308	262.9397692234907	Subarray requested	NONE	NONE
[deg] Pointing Dec	22.845489	22.83504628659059	Alternating exposures requested	N	N
[deg] Pointing Roll	307.184019	307.3820825476208	[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	-227.742463	-227.734108438797			
[mm] SIM translation stage offset	-5.85	-5.858344564132665			
[s] Observation start time (MET)	152739193.184000	152738567.8827			
Observation start date	2002-11-03T19:32:09	2002-11-03T19:22:47			
[s] Observation end time (MET)	152760193.184000	152760927.23363			
Observation end date	2002-11-04T01:22:09	2002-11-04T01:35:27			
Read mode	TIMED	TIMED			

## 2.3 Aspect



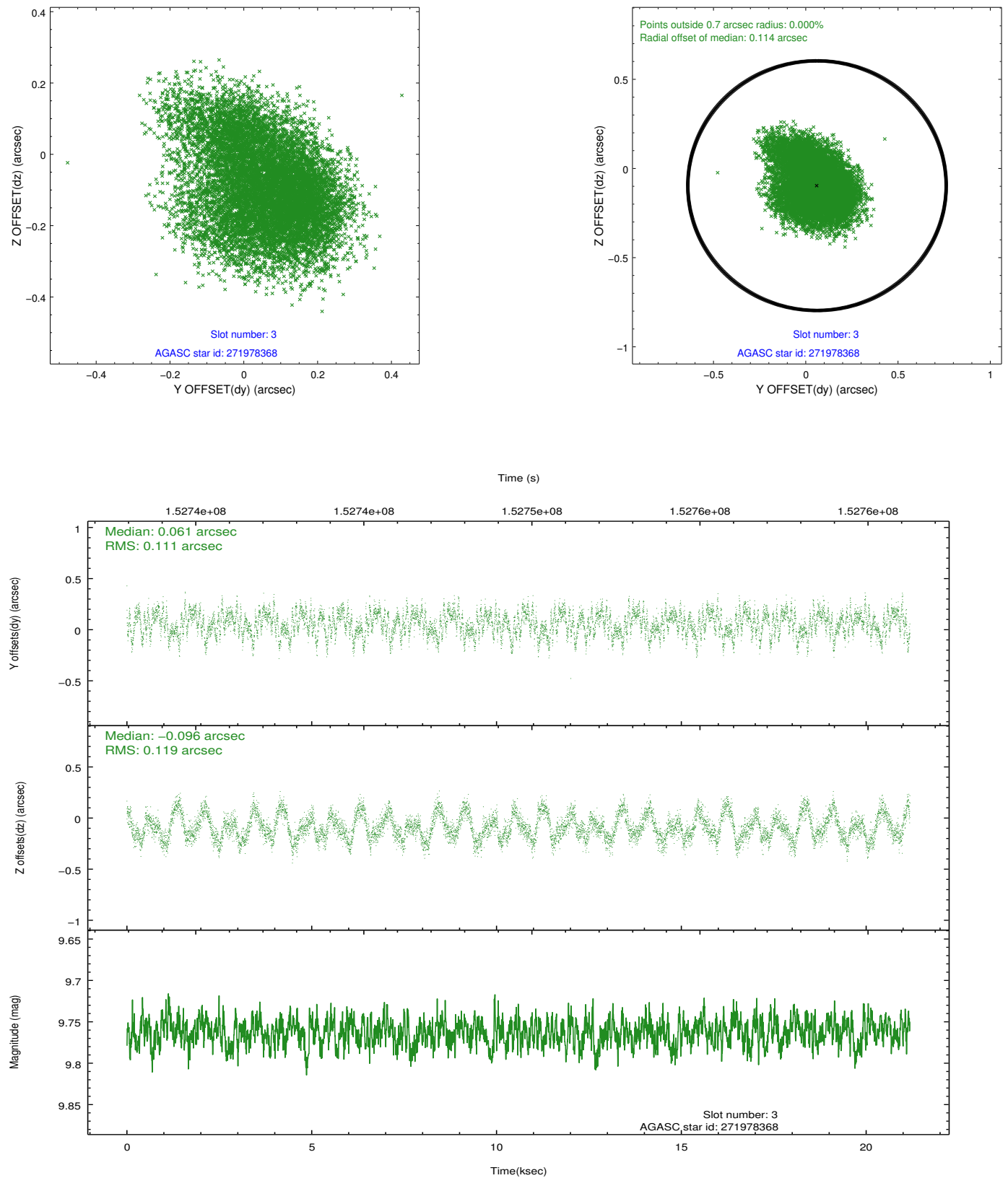


### Slot Statistics

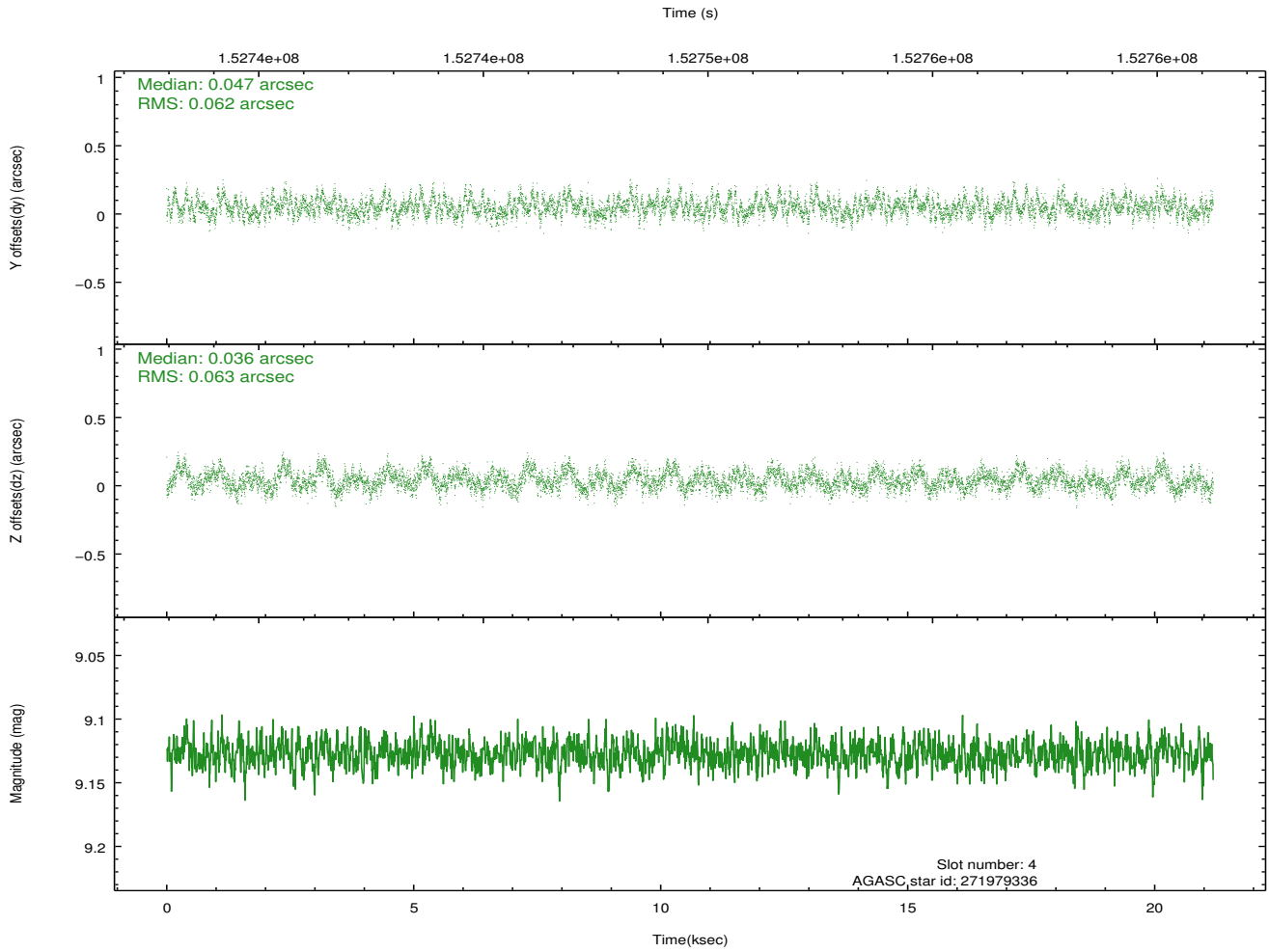
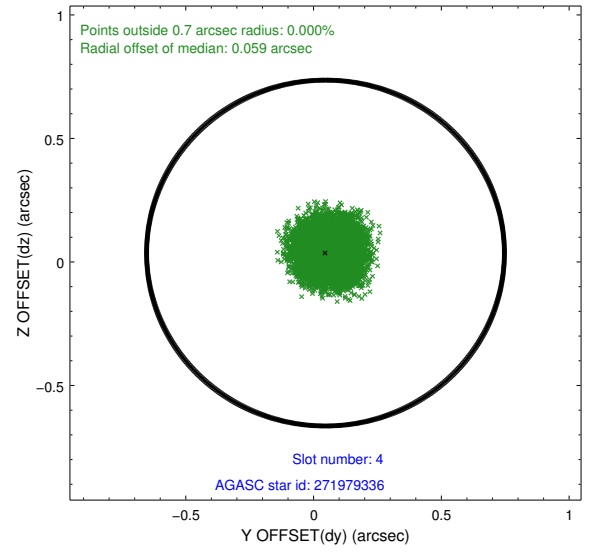
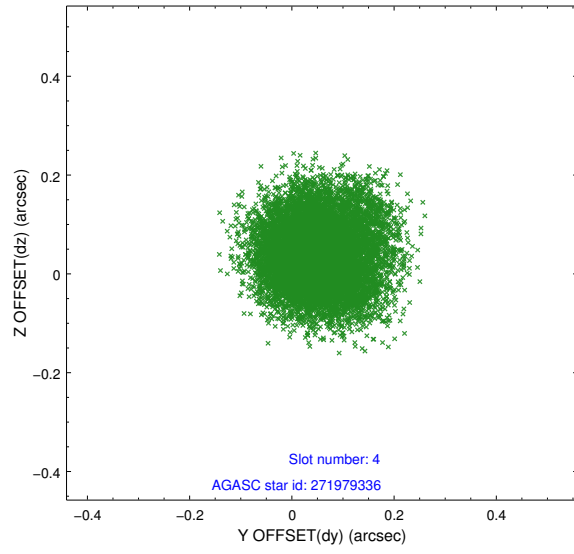
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.24	5168	0.029	-0.007	0.007	0.012	0.000000	0.000000	937.76	-952.78
1	FID	ACIS-I-5	7.23	5167	-0.126	0.057	0.006	0.010	0.000000	0.000000	-1810.40	944.69
2	FID	ACIS-I-6	7.25	5167	0.006	0.021	0.007	0.012	0.000000	0.000000	403.12	1589.34
3	GUIDE	271978368	9.76	10325	0.061	-0.096	0.175	0.277	263.155604	23.545364	-1521.93	2162.97
4	GUIDE	271979336	9.13	10325	0.047	0.036	0.094	0.152	263.202554	23.288341	-690.23	1729.34
5	GUIDE	271988024	9.40	10323	-0.084	0.014	0.108	0.170	263.403778	23.086720	290.21	1823.95
6	GUIDE	203165048	8.35	10333	-0.025	0.027	0.073	0.114	262.431727	22.304803	583.08	-2449.48
7	GUIDE	203171184	9.41	10264	-0.009	-0.001	0.126	0.202	262.672265	22.409857	767.67	-1583.44

## 2.4 Star Slots

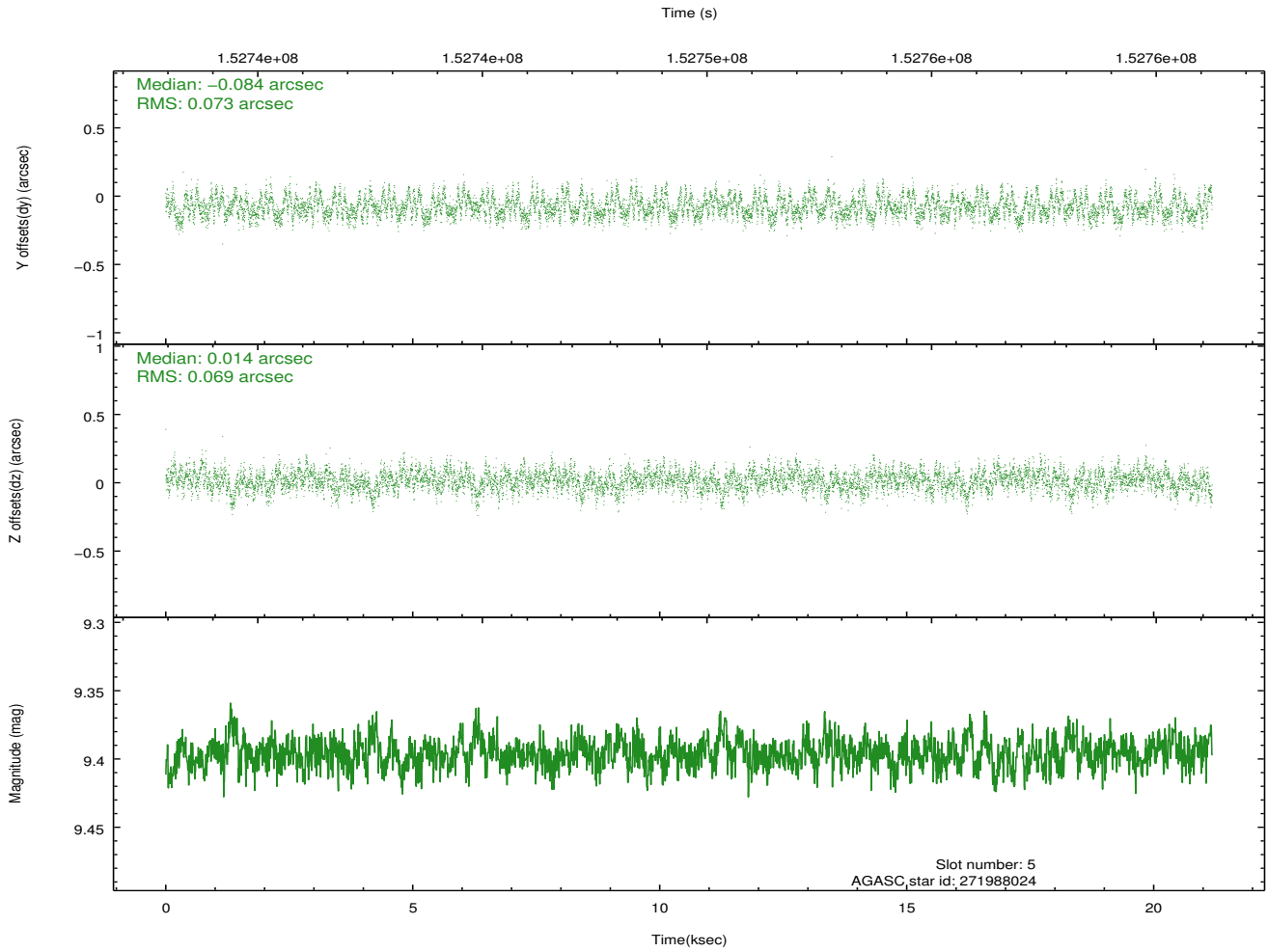
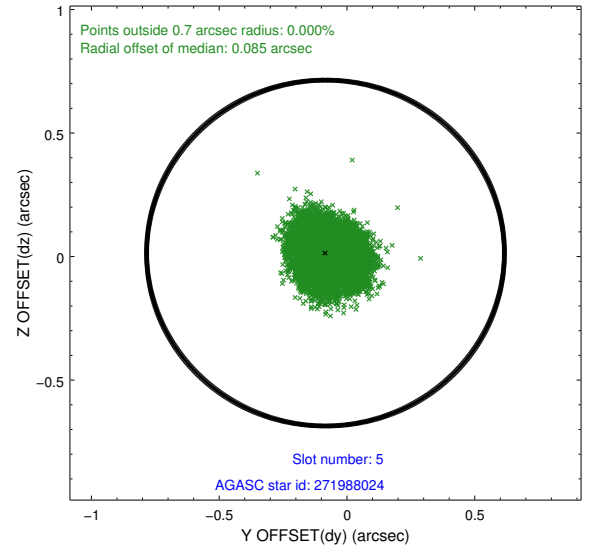
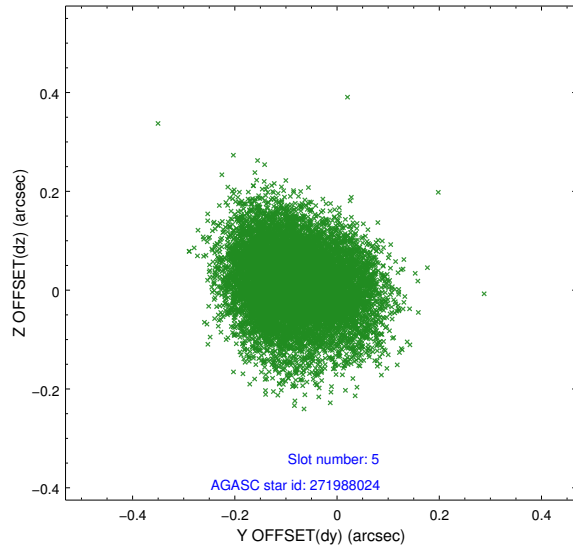
### 2.4.1 Slot 3



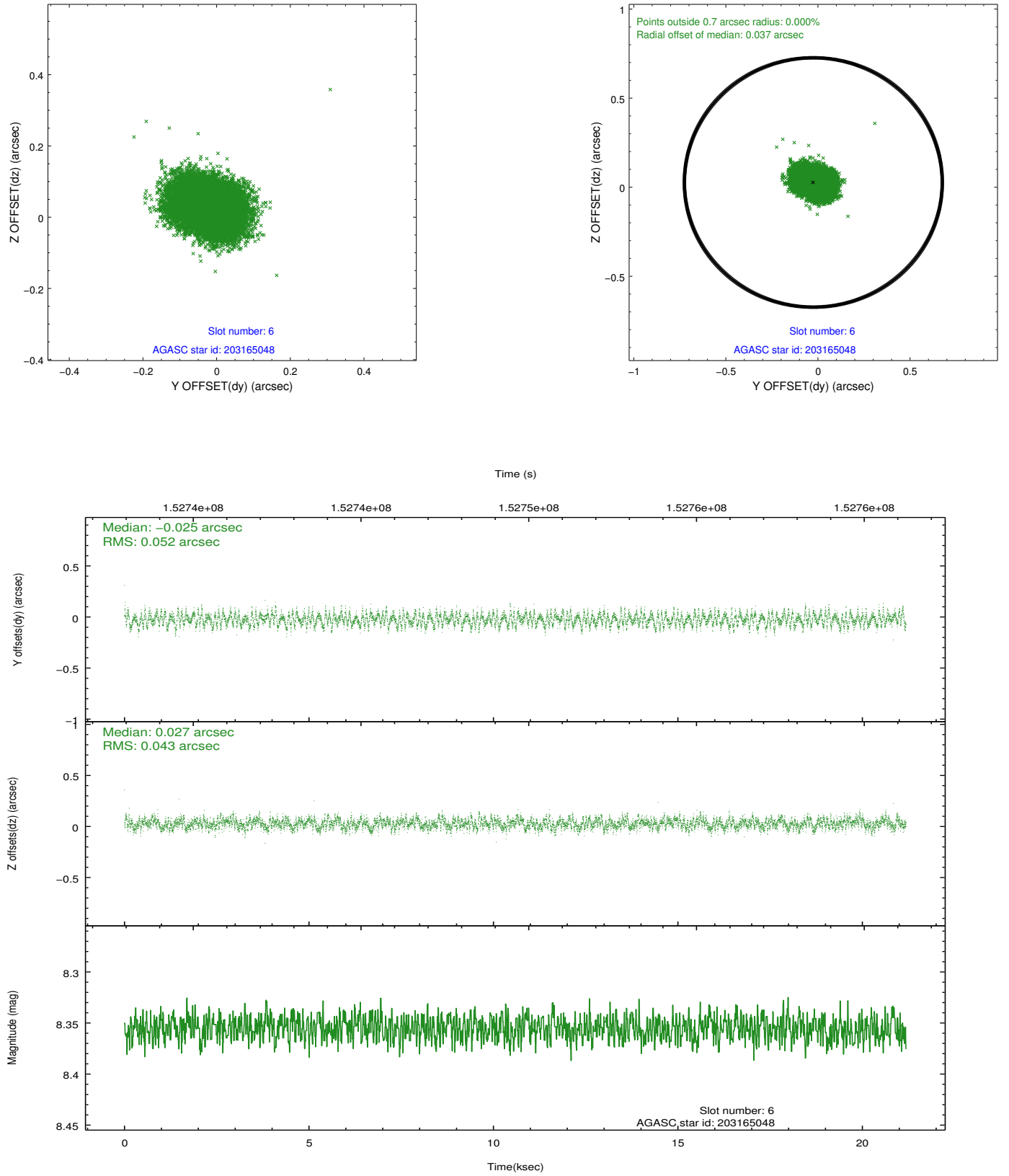
## 2.4.2 Slot 4



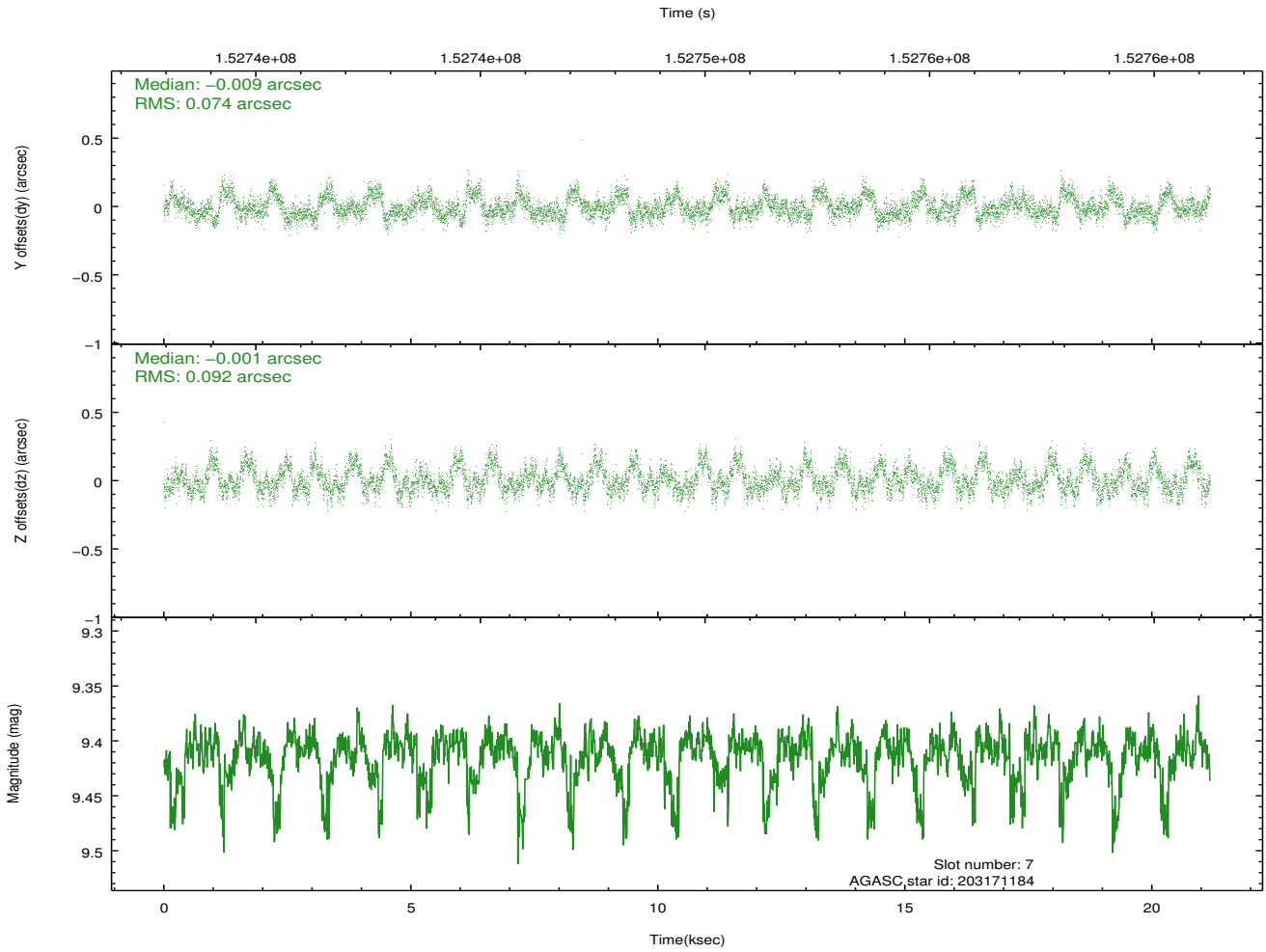
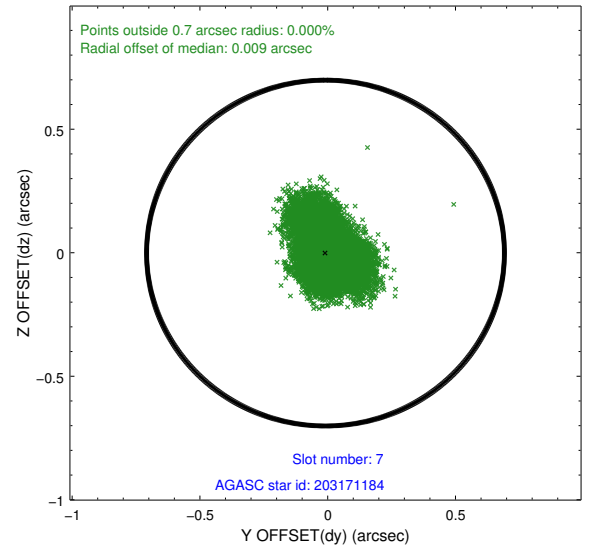
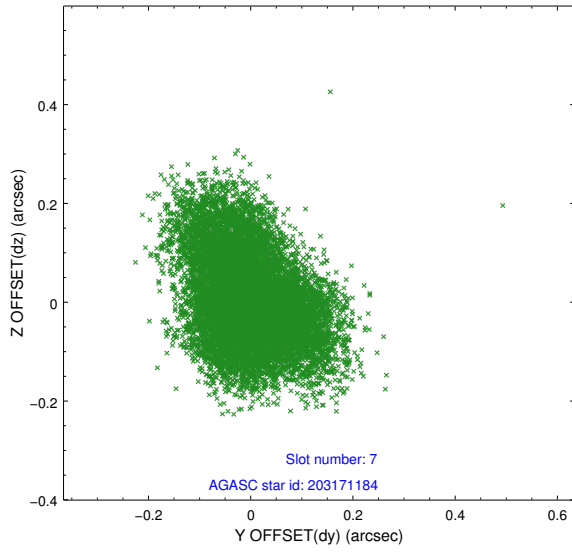
### 2.4.3 Slot 5



## 2.4.4 Slot 6

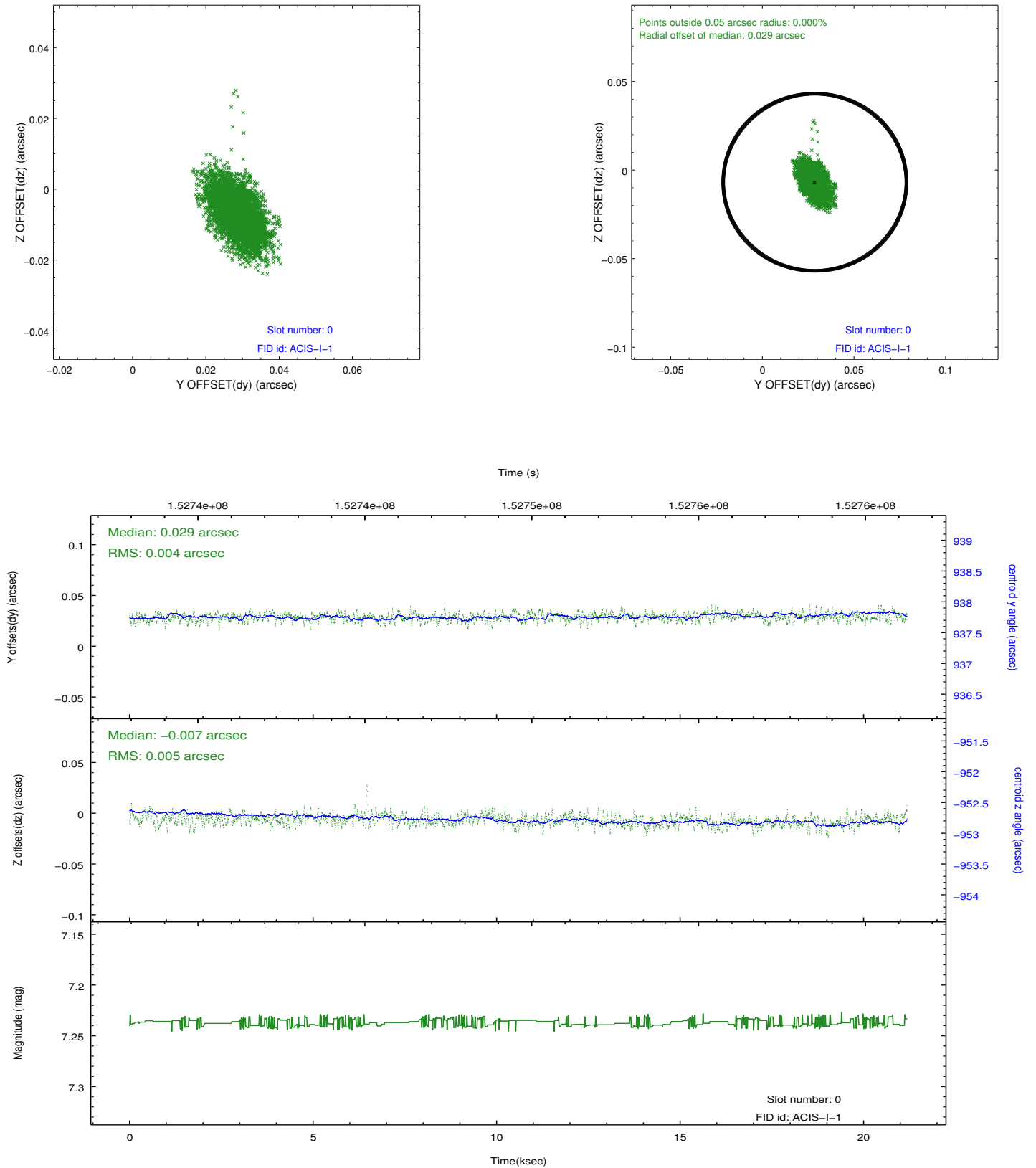


## 2.4.5 Slot 7

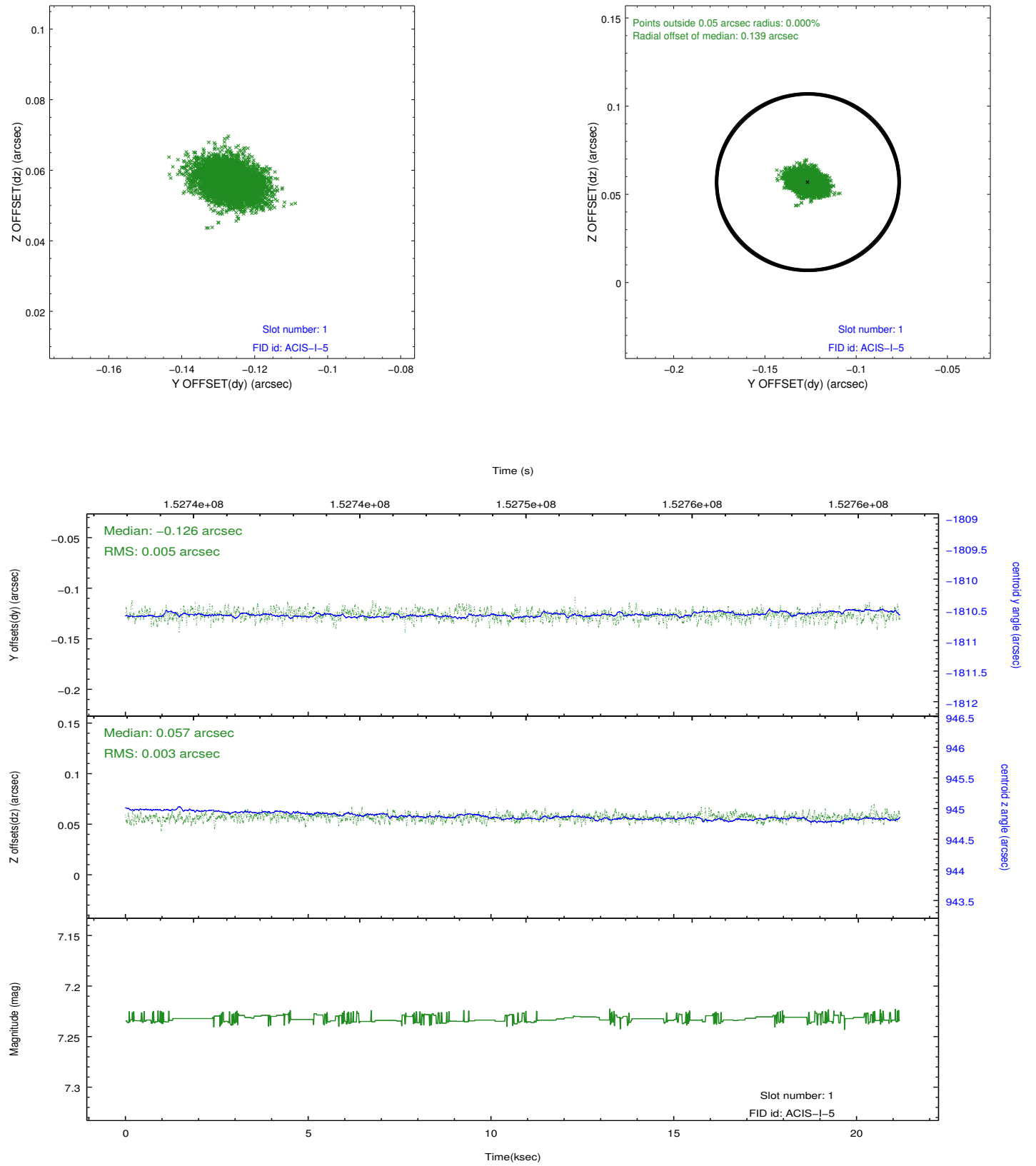


## 2.5 FID Slots

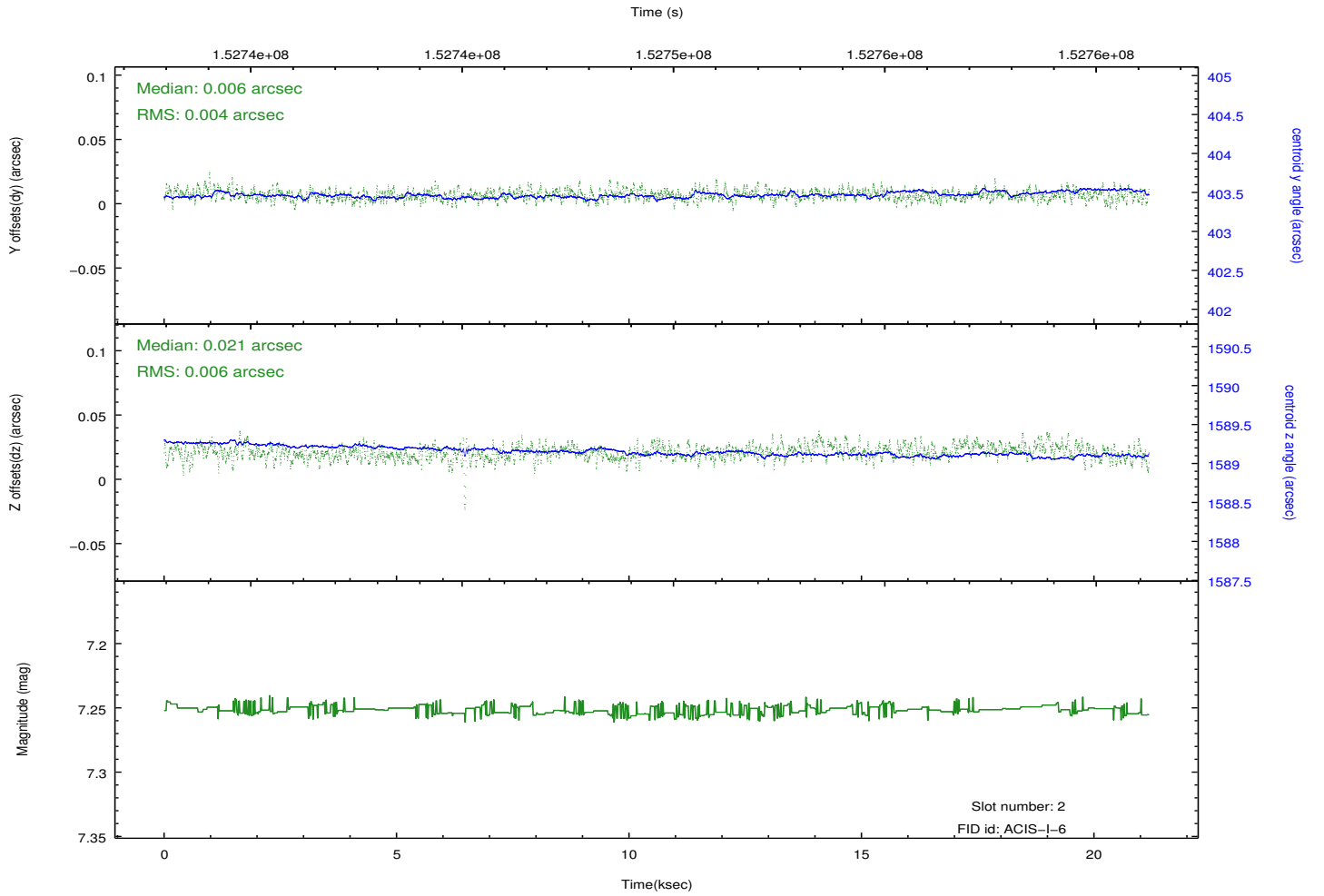
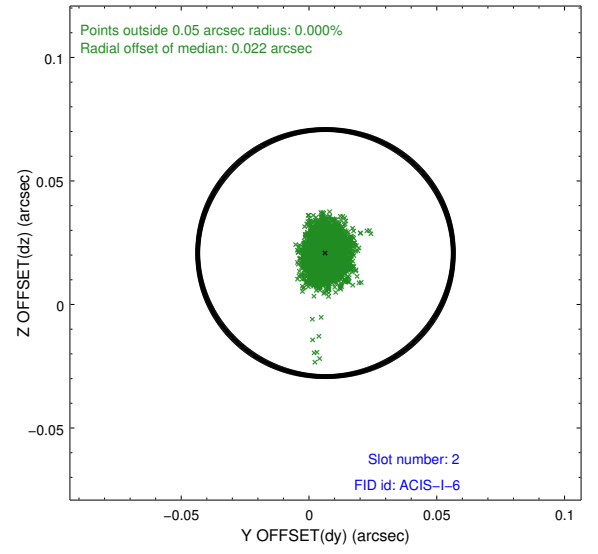
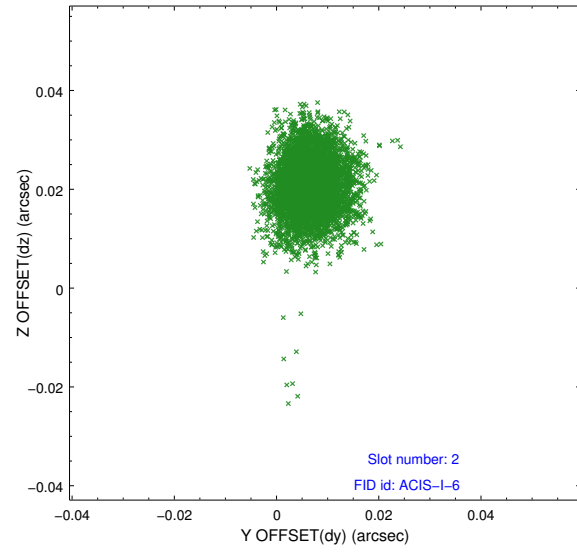
### 2.5.1 Slot 0



## 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)	2012.10.26
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.769

### A.2 Comments