

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 4052 - L2 Version 3  
Chandra X-Ray Center

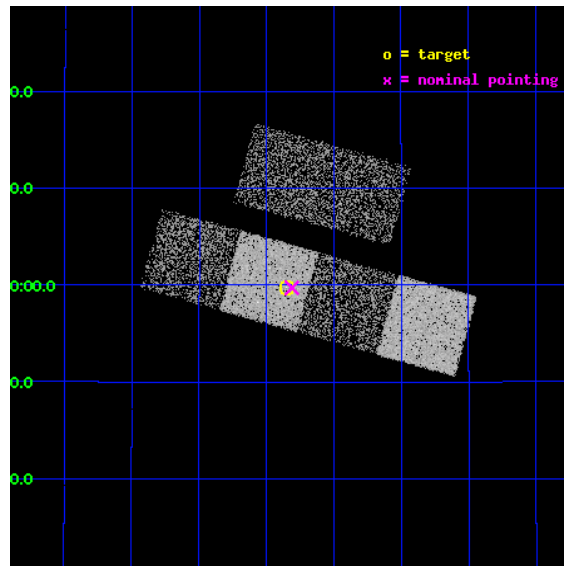
L2 Processing Date : Nov 3 2012

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# 1 Front

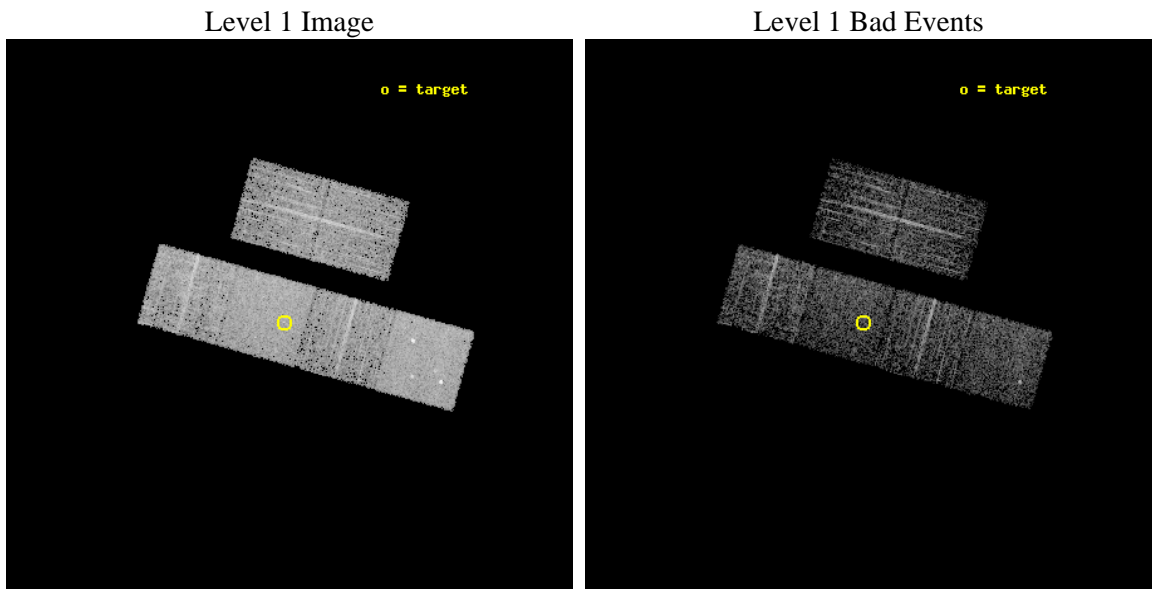
seq_num	700731	Sequence number
obs_id	4052	Observation id
title	WHY DO WE SEE BROAD LINES IN X-RAY ABSORBED AGN?	Proposal title
observer	Dr. Belinda Wilkes	Principal investigator
object	2MASS222221+195947	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	335.587917	Observer's specified target RA [deg]
dec_targ	19.9965	Observer's specified target Dec [deg]
ra_nom	335.57783213472	Nominal RA [deg]
dec_nom	19.995544634635	Nominal Dec [deg]
roll_nom	195.48238443178	Nominal Roll [deg]
revision	3	Processing version of data
ontime	3635.1999864578	Sum of GTIs [s]
livetime	3589.1688953747	Livetime [s]
ontime2	3635.1999864578	Sum of GTIs [s]
ontime3	3635.1999864578	Sum of GTIs [s]
ontime5	3635.1999864578	Sum of GTIs [s]
ontime6	3635.1999864578	Sum of GTIs [s]
ontime7	3635.1999864578	Sum of GTIs [s]
ontime8	3635.1999864578	Sum of GTIs [s]
l2events	35294	Number of level 2 events



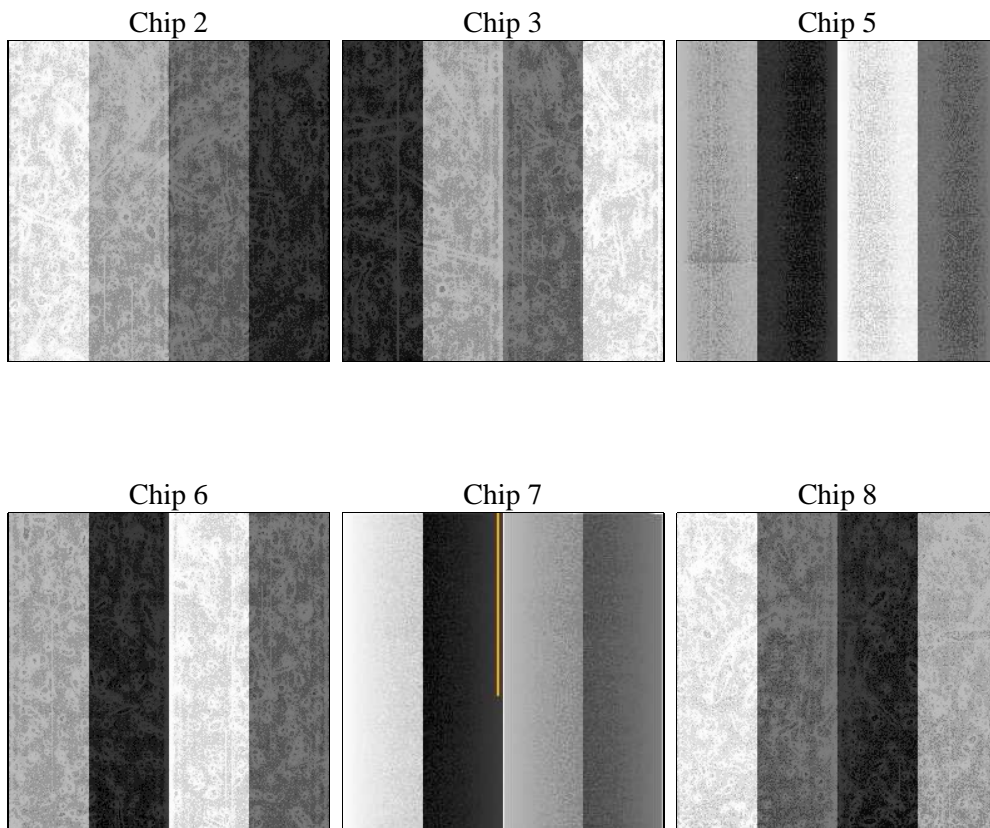
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	3500.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	3635.1999864578	Sum of GTIs [s]
caldsver	4.5.2	&#160	ontime2	3635.1999864578	Sum of GTIs [s]
date	2012-11-03T19:09:40	Date and time of file creation	ontime3	3635.1999864578	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	3635.1999864578	Sum of GTIs [s]
			ontime6	3635.1999864578	Sum of GTIs [s]
			ontime7	3635.1999864578	Sum of GTIs [s]
			ontime8	3635.1999864578	Sum of GTIs [s]
			l1events	176051	Number of level 1 events

### 2.1.4 Events

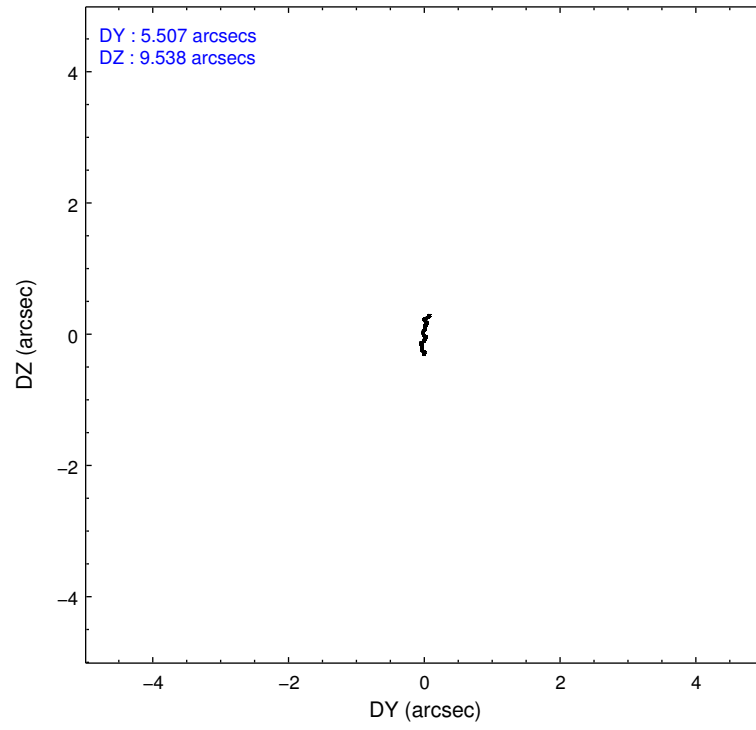
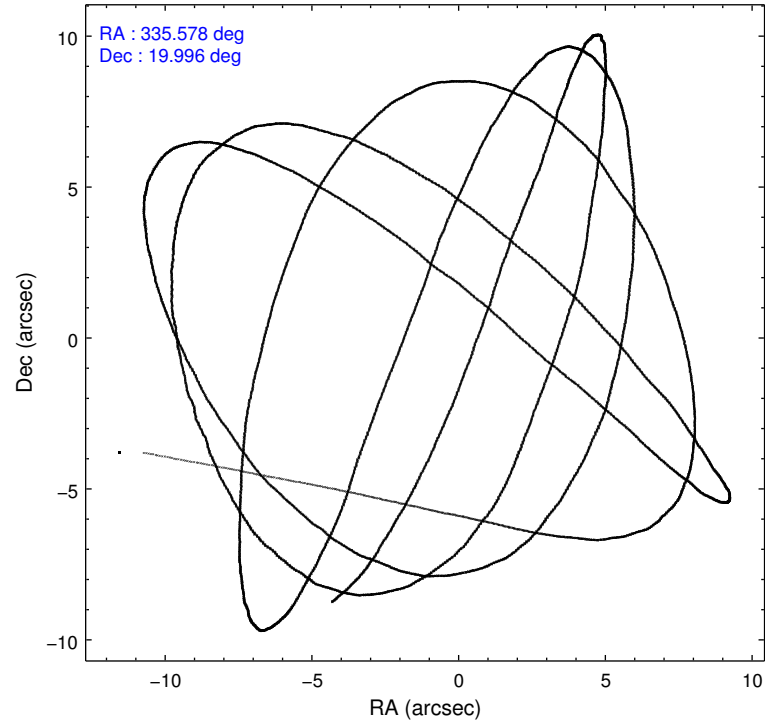
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	25006	24201	37113	24836	33321	31574	grade 0 events	1320	1265	2096	1173	1310	1940
rejected events	22417	21659	21586	22161	20878	26069		5%	5%	5%	4%	3%	6%
rejected %	89%	89%	58%	89%	62%	82%	grade 1 events	14	10	35	10	28	24
								0%	0%	0%	0%	0%	0%
							grade 2 events	558	530	5194	615	2696	1302
								2%	2%	13%	2%	8%	4%
							grade 3 events	273	288	650	288	1247	661
								1%	1%	1%	1%	3%	2%
							grade 4 events	280	273	628	297	1261	608
								1%	1%	1%	1%	3%	1%
							grade 5 events	983	1114	2706	1077	3112	1457
								3%	4%	7%	4%	9%	4%
							grade 6 events	450	486	8733	574	7323	1558
								1%	2%	23%	2%	21%	4%
							grade 7 events	21128	20235	17071	20802	16344	24024
								84%	83%	45%	83%	49%	76%

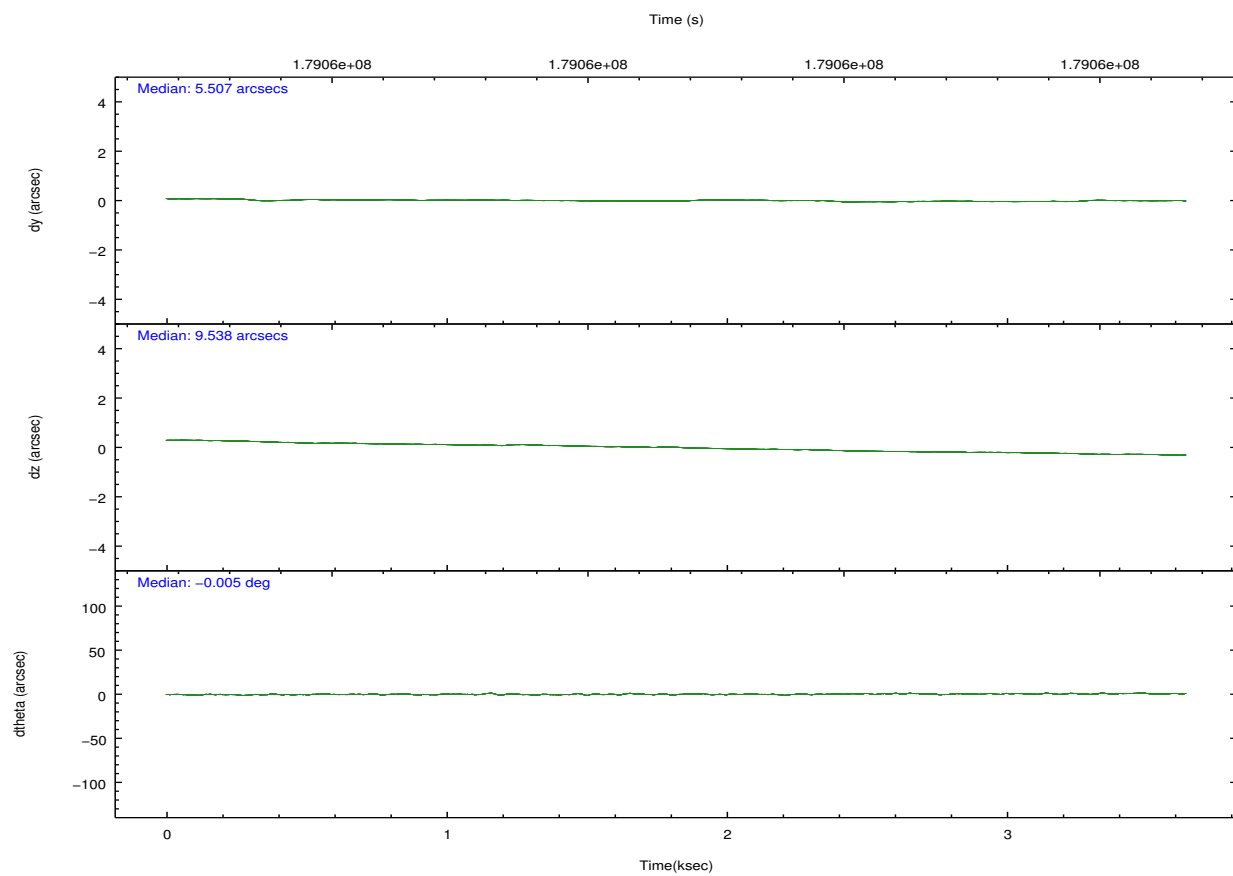
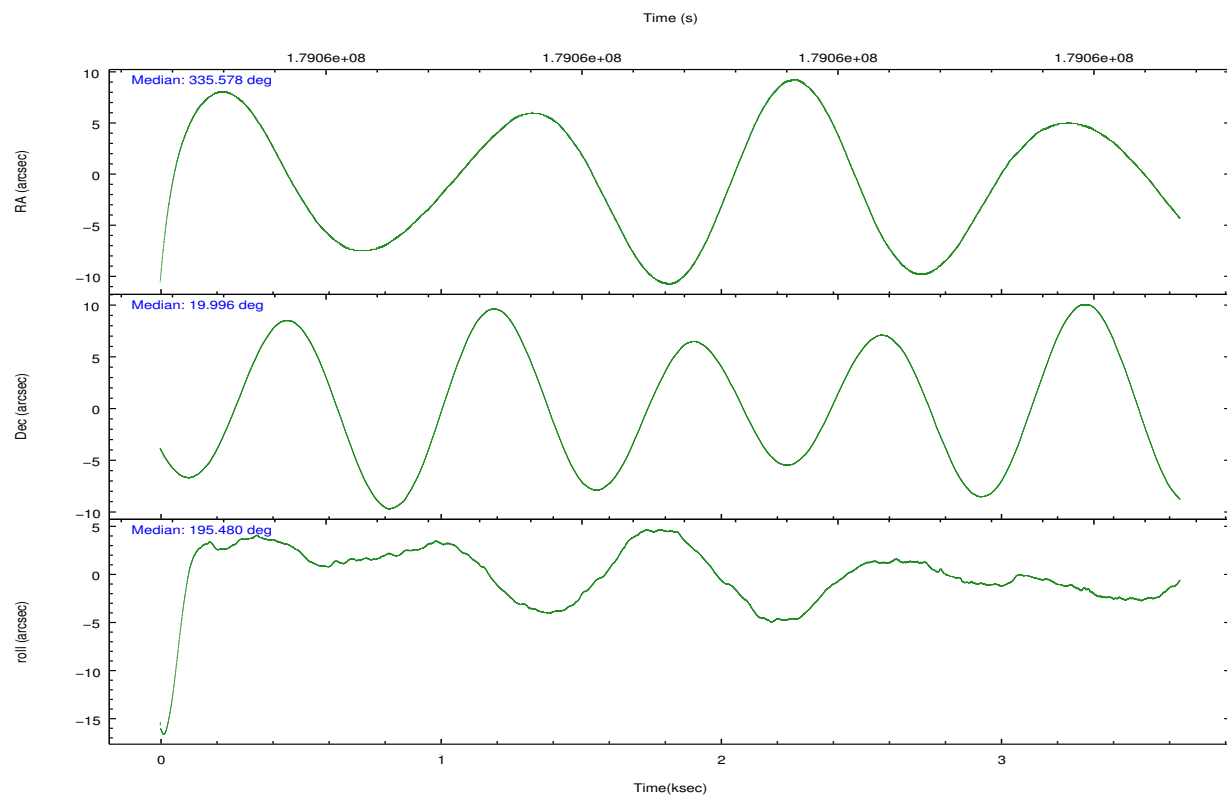


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-235678	ACIS-235678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	335.597711	335.5778321347157	Subarray requested	NONE	NONE
[deg] Pointing Dec	20.015267	19.99554463463534	Alternating exposures requested	N	N
[deg] Pointing Roll	195.319024	195.4823844317796	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	179058666.184000	179057419.68066			
Observation start date	2003-09-04T10:30:02	2003-09-04T10:10:19			
[s] Observation end time (MET)	179062166.184000	179063156.0934			
Observation end date	2003-09-04T11:28:22	2003-09-04T11:45:56			
Read mode	TIMED	TIMED			

## 2.3 Aspect



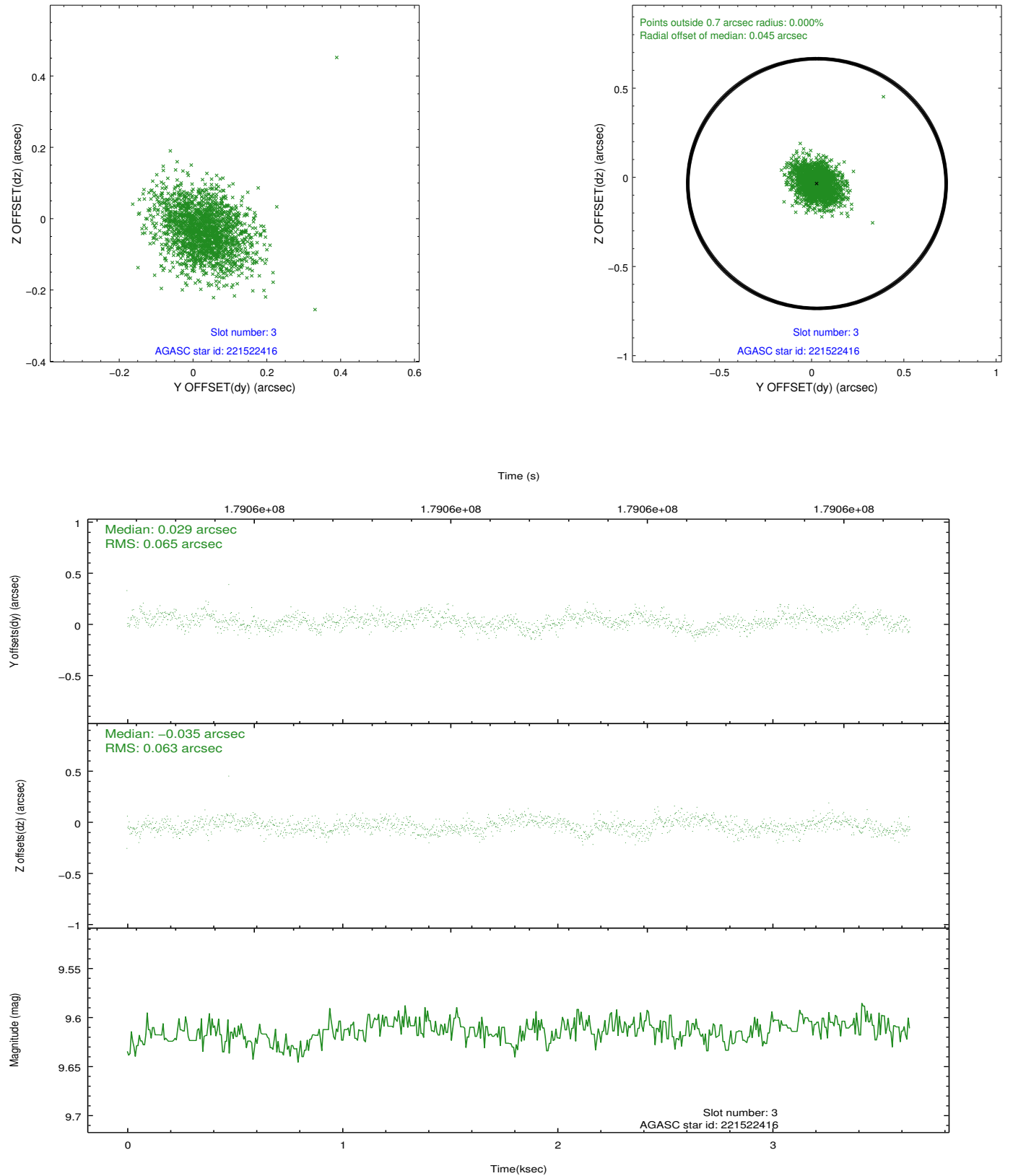


### Slot Statistics

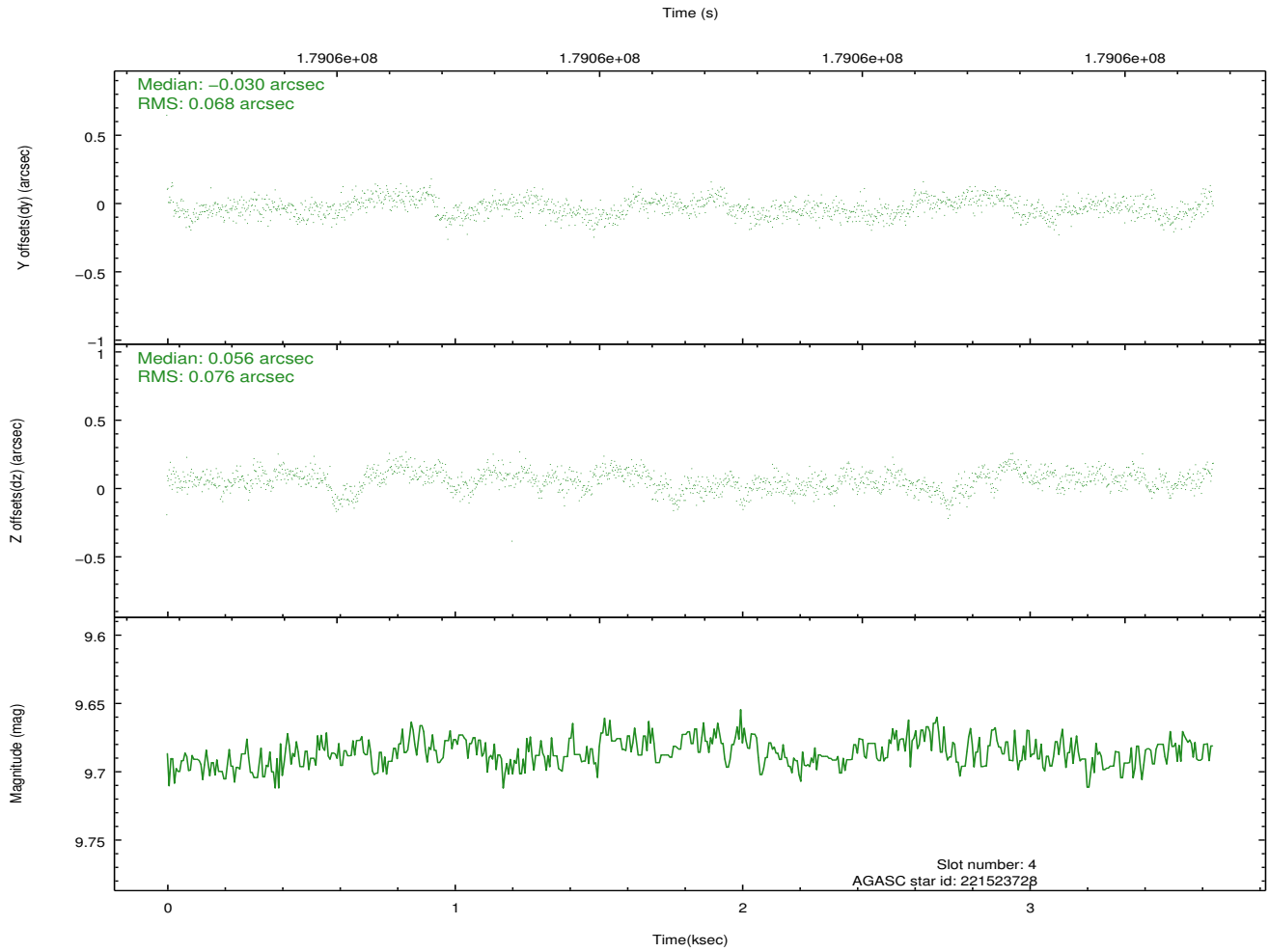
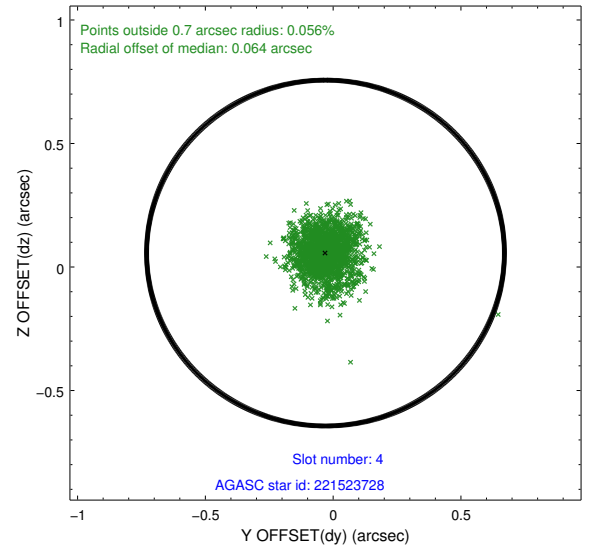
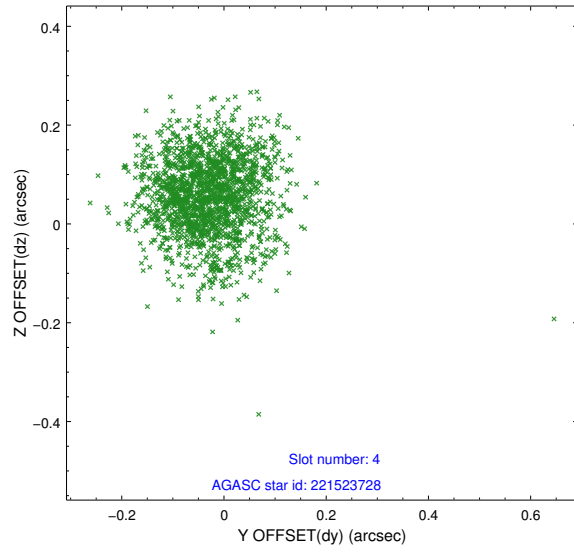
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.18	888	0.009	0.003	0.009	0.013	0.000000	0.000000	937.80	-1726.34
1	FID	ACIS-S-5	7.23	888	-0.070	0.004	0.007	0.013	0.000000	0.000000	-1810.28	169.48
2	FID	ACIS-S-6	7.34	888	0.039	0.005	0.010	0.017	0.000000	0.000000	401.56	815.36
3	GUIDE	221522416	9.61	1776	0.029	-0.035	0.094	0.157	335.801392	19.787525	-448.26	972.52
4	GUIDE	221523728	9.69	1776	-0.030	0.056	0.107	0.174	335.948872	20.537809	-1638.59	-1502.36
5	GUIDE	221524824	9.69	1777	0.032	0.028	0.139	0.213	335.185669	19.540573	1799.16	1276.43
6	GUIDE	223220768	8.78	1776	-0.029	0.099	0.066	0.102	336.138894	20.276133	-2009.62	-425.03
7	GUIDE	223222032	8.75	1776	0.005	-0.149	0.070	0.110	336.302529	20.086316	-2367.68	377.46

## 2.4 Star Slots

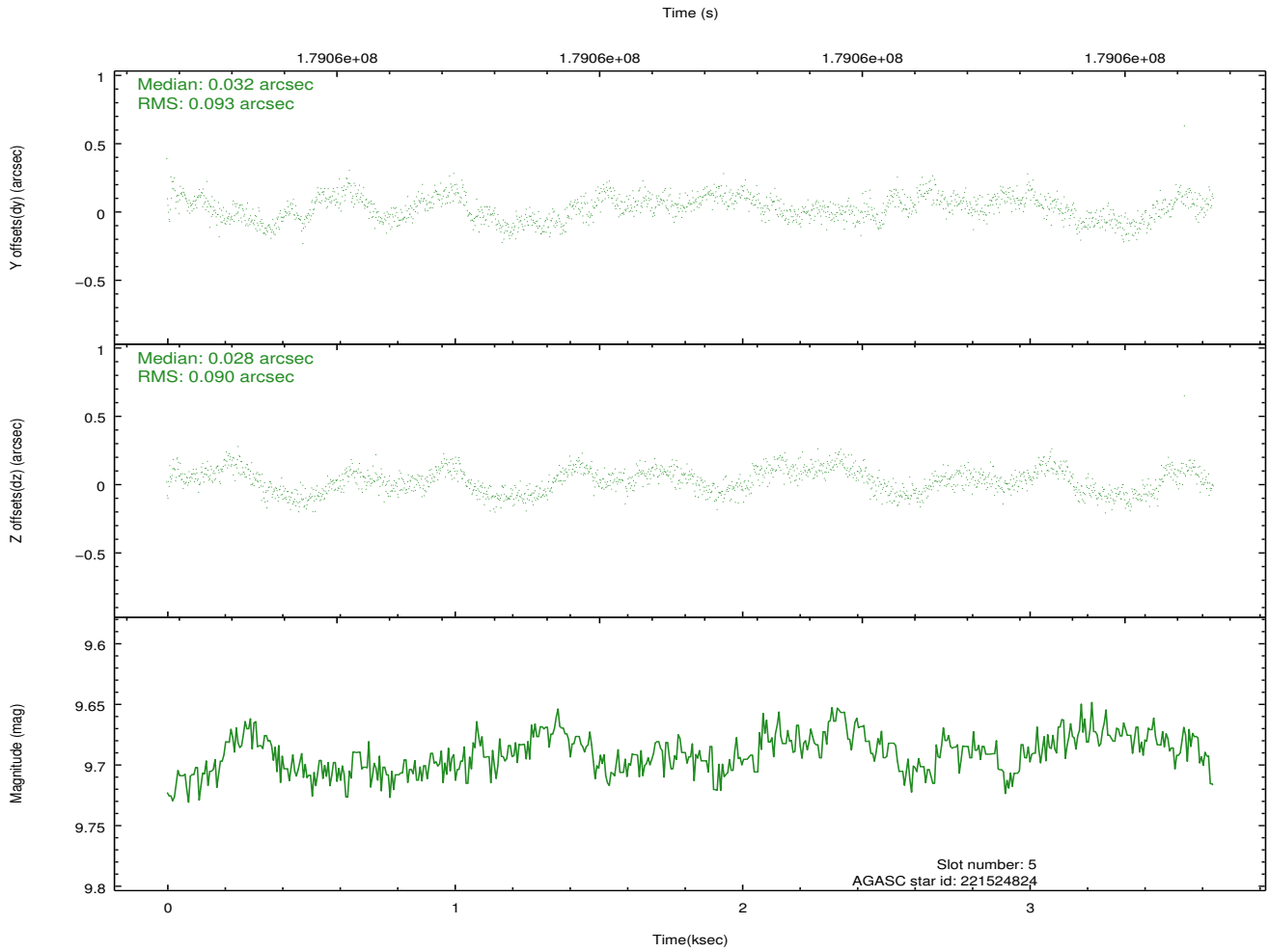
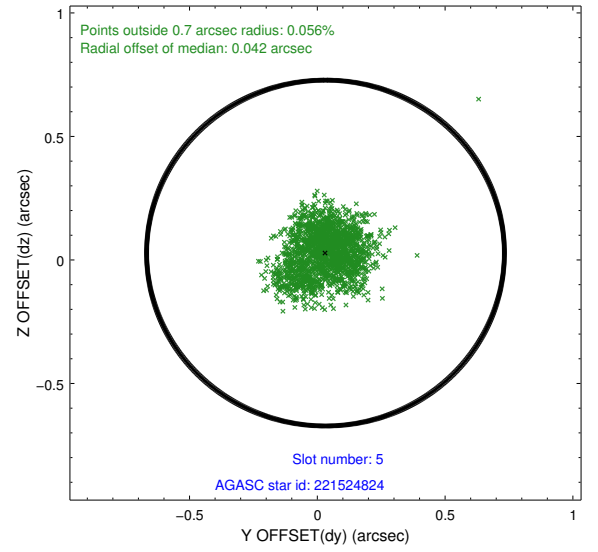
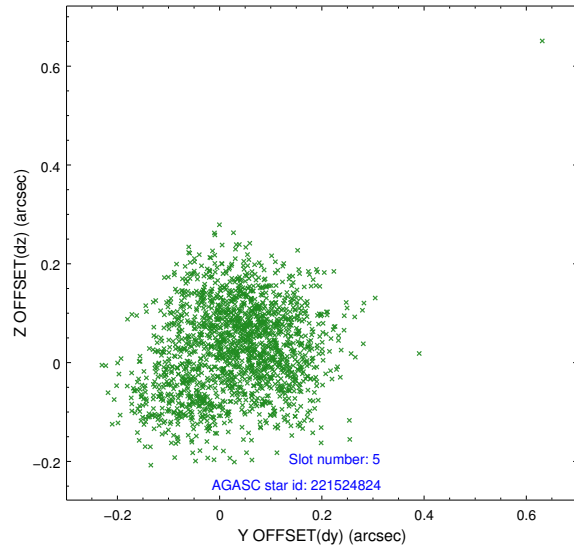
### 2.4.1 Slot 3



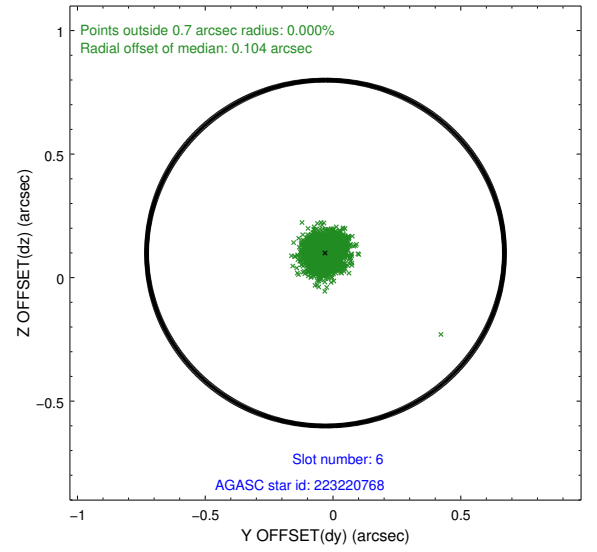
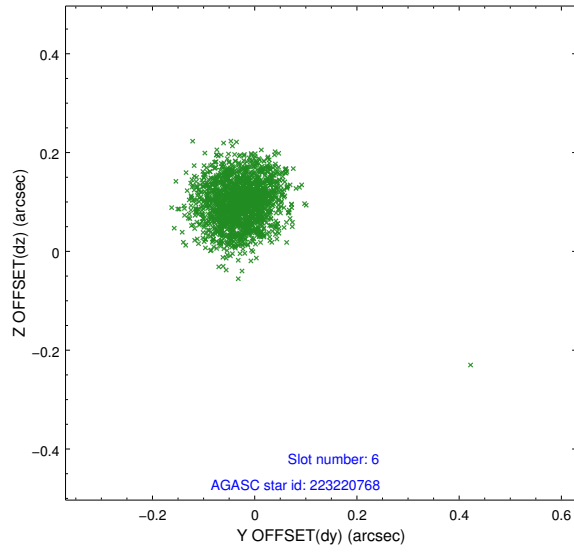
## 2.4.2 Slot 4



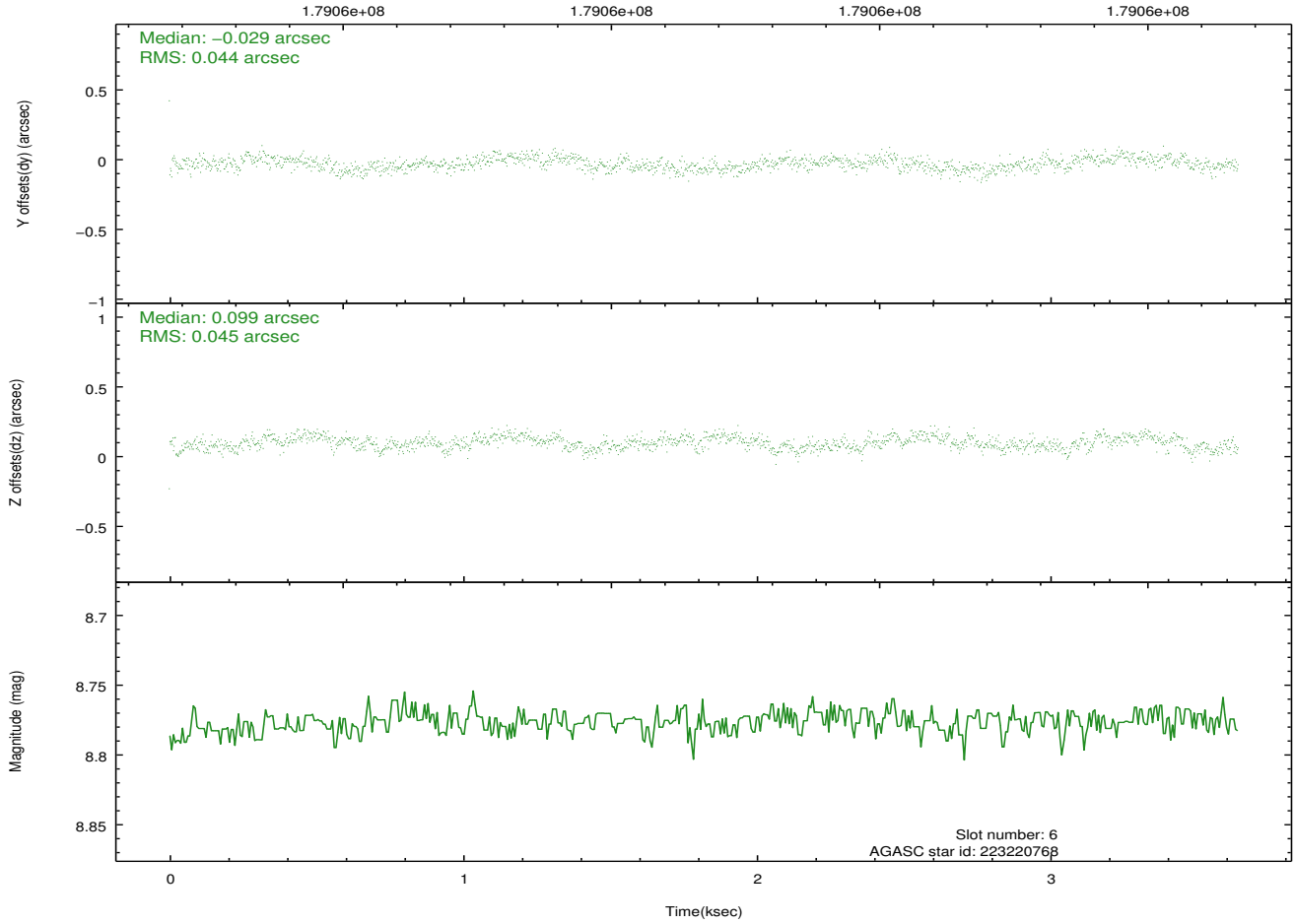
### 2.4.3 Slot 5



## 2.4.4 Slot 6

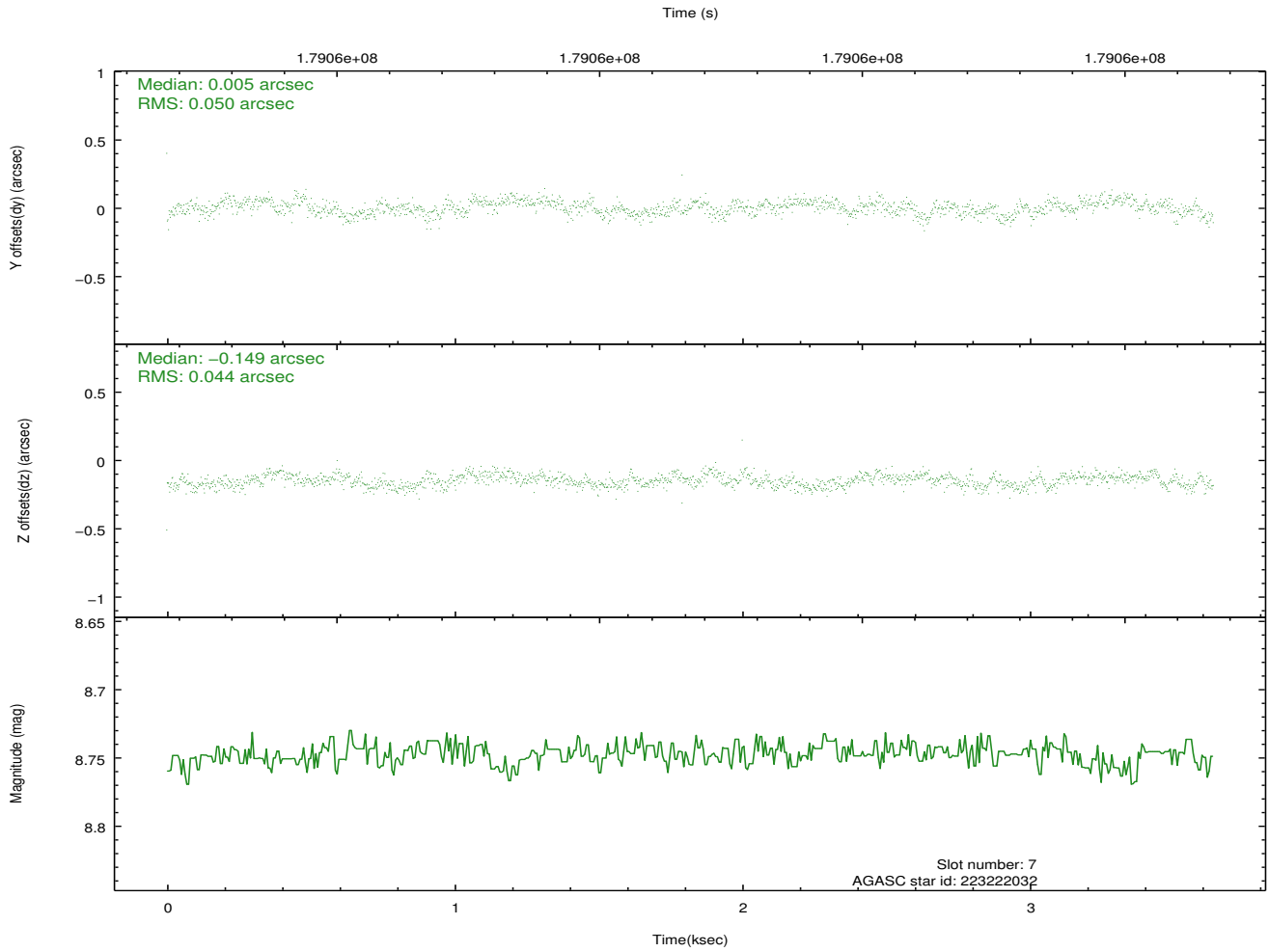
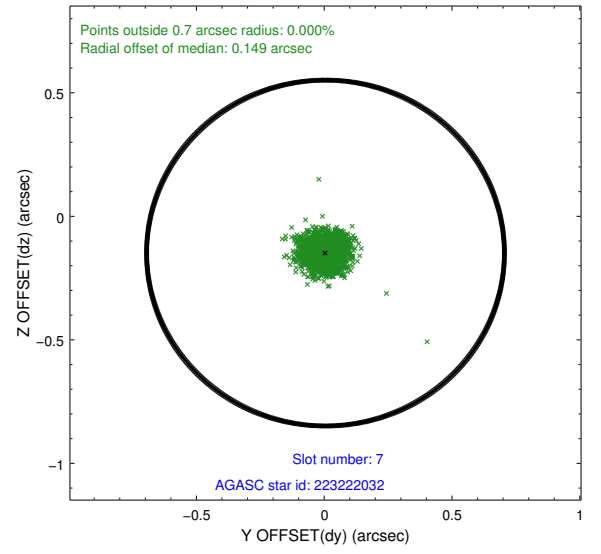
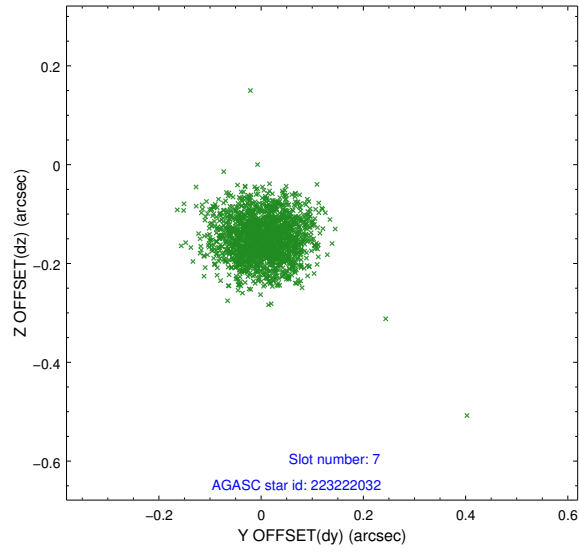


Time (s)



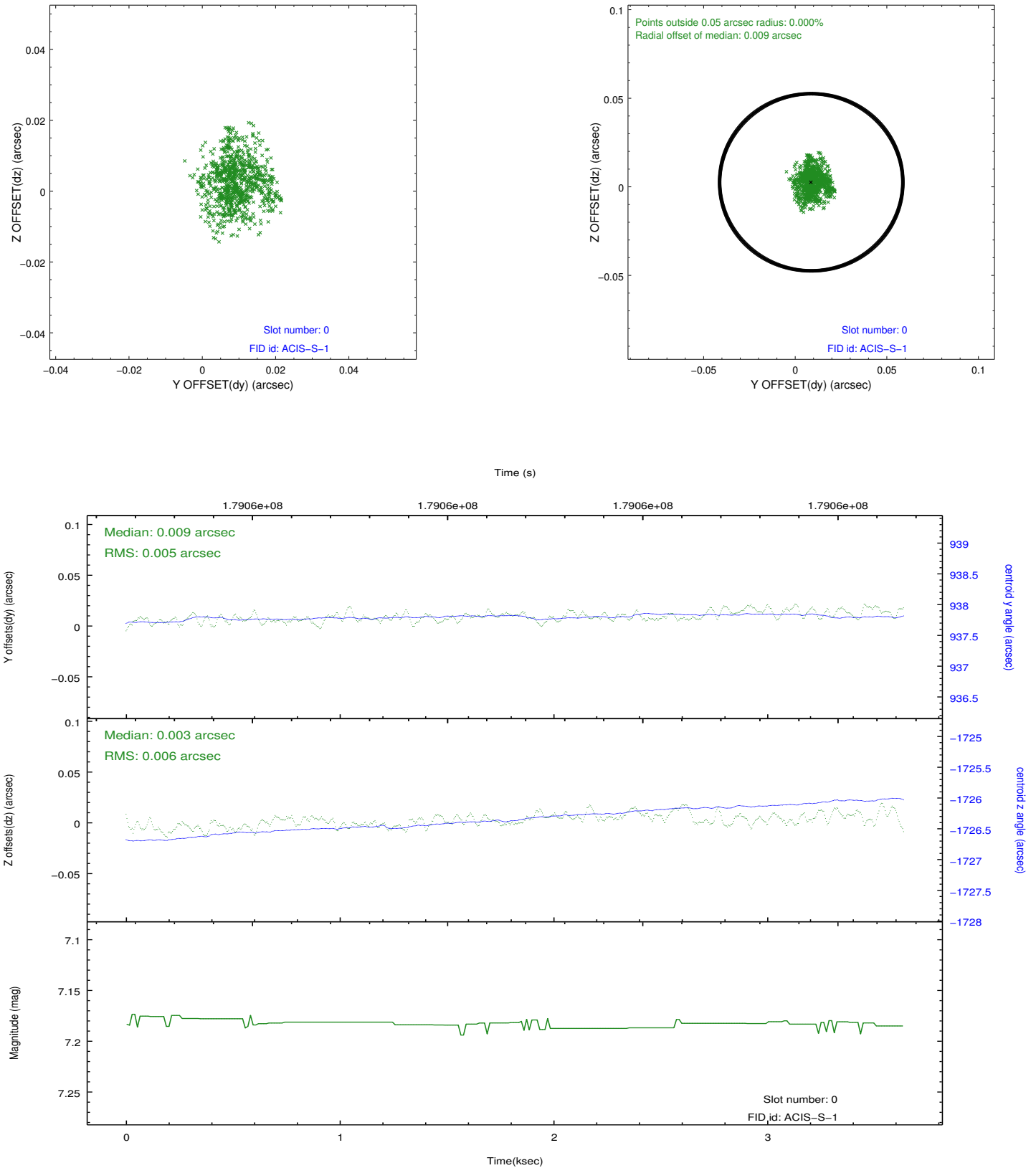


## 2.4.5 Slot 7

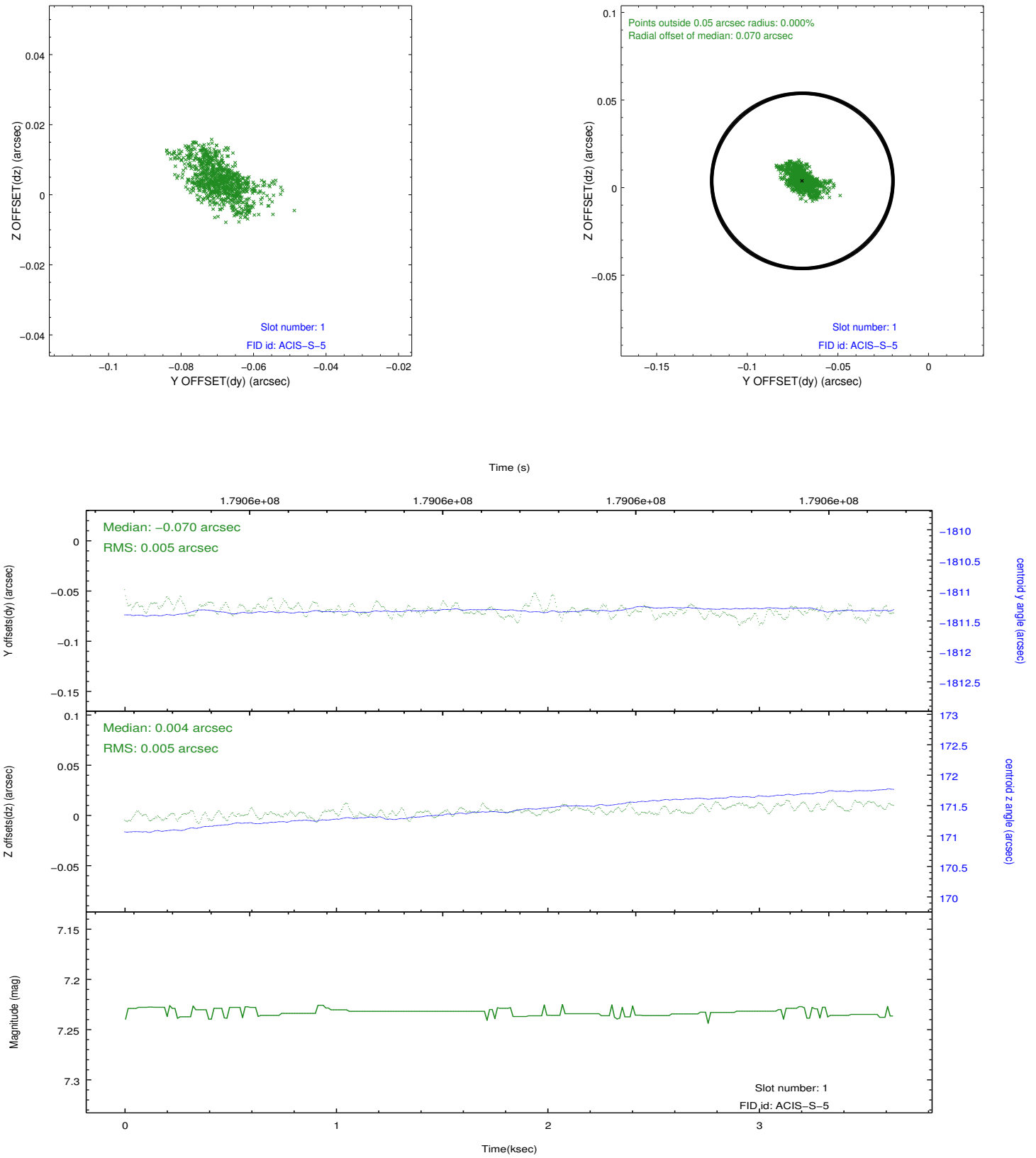


## 2.5 FID Slots

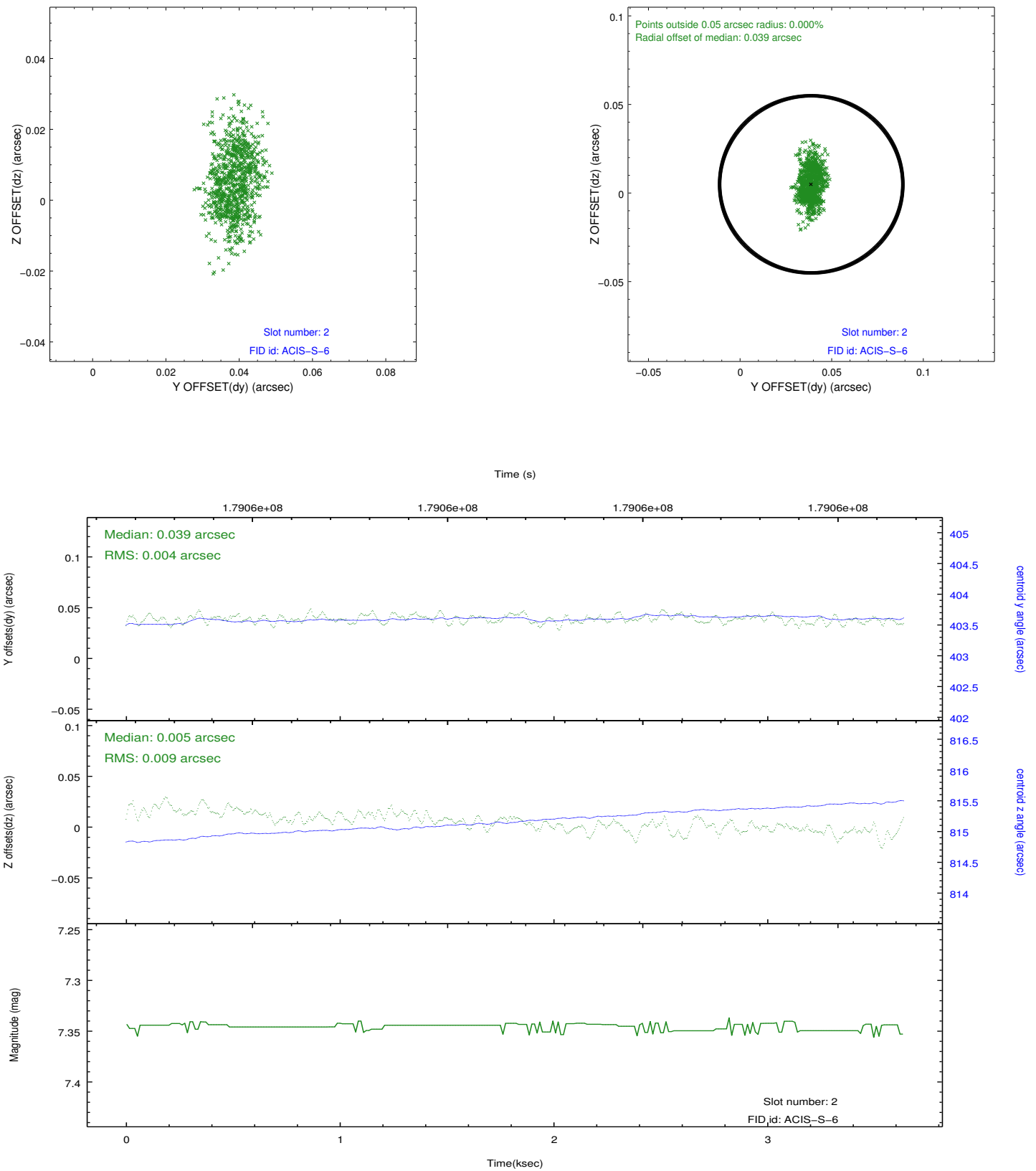
### 2.5.1 Slot 0



## 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)	2012.11.29
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	3.635

### A.2 Comments