

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 3269 - L2 Version 3  
Chandra X-Ray Center

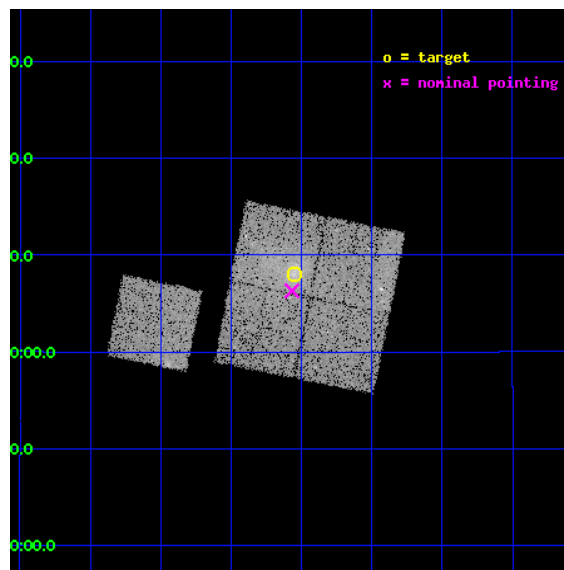
L2 Processing Date : Oct 2 2012

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# 1 Front

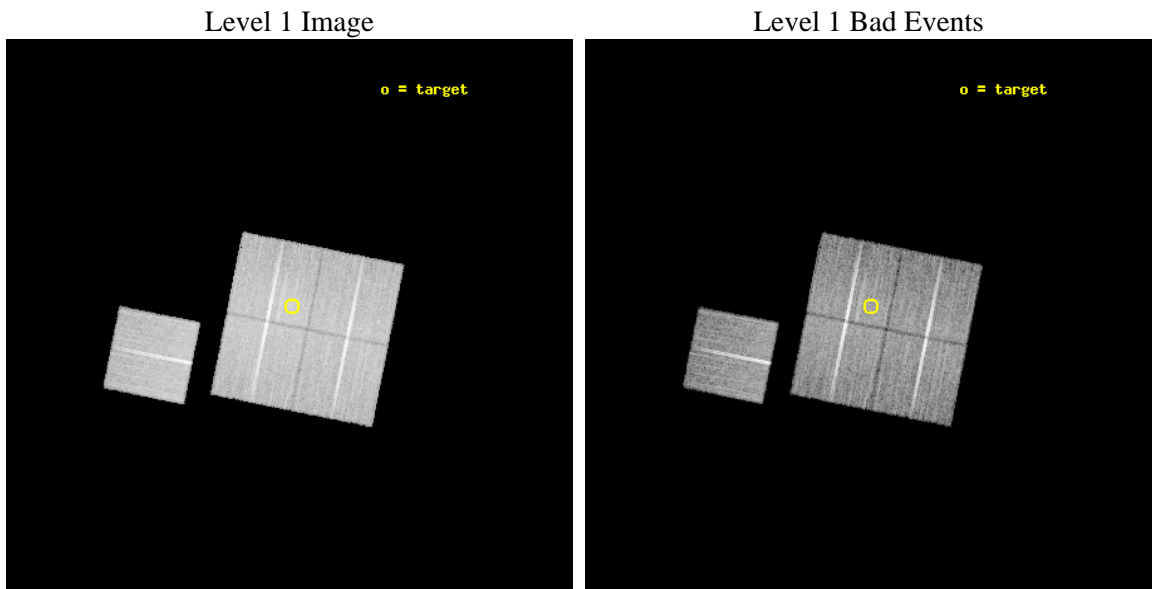
seq_num	800269	Sequence number
obs_id	3269	Observation id
title	MACS: THE X-RAY PROPERTIES OF THE MOST MASSIVE GALAXY CLUSTERS AT Z>0.3	Proposal title
observer	Dr. Harald Ebeling	Principal investigator
object	MACSJ0404.6+1109	Source name
dtycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	61.138333	Observer's specified target RA [deg]
dec_targ	11.132778	Observer's specified target Dec [deg]
ra_nom	61.141998570054	Nominal RA [deg]
dec_nom	11.105150443077	Nominal Dec [deg]
roll_nom	281.39464063877	Nominal Roll [deg]
revision	3	Processing version of data
ontime	22099.899957508	Sum of GTIs [s]
livetime	21811.148494853	Livetime [s]
ontime0	22096.758997262	Sum of GTIs [s]
ontime1	22087.336136401	Sum of GTIs [s]
ontime2	22096.758997262	Sum of GTIs [s]
ontime3	22099.899957508	Sum of GTIs [s]
ontime6	22099.899957508	Sum of GTIs [s]
l2events	56293	Number of level 2 events



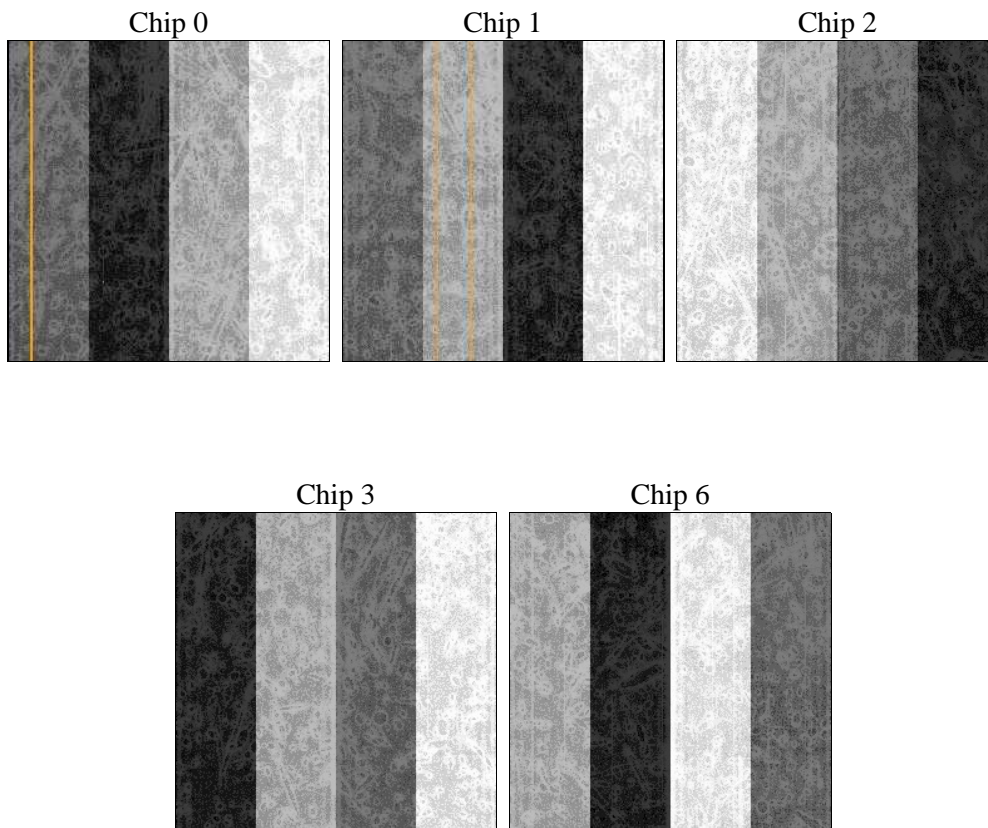
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	22000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	22099.899957508	Sum of GTIs [s]
caldsver	4.5.2	&#160	ontime0	22096.758997262	Sum of GTIs [s]
date	2012-10-02T15:04:51	Date and time of file creation	ontime1	22087.336136401	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	22096.758997262	Sum of GTIs [s]
			ontime3	22099.899957508	Sum of GTIs [s]
			ontime6	22099.899957508	Sum of GTIs [s]
			l1events	645670	Number of level 1 events

### 2.1.4 Events

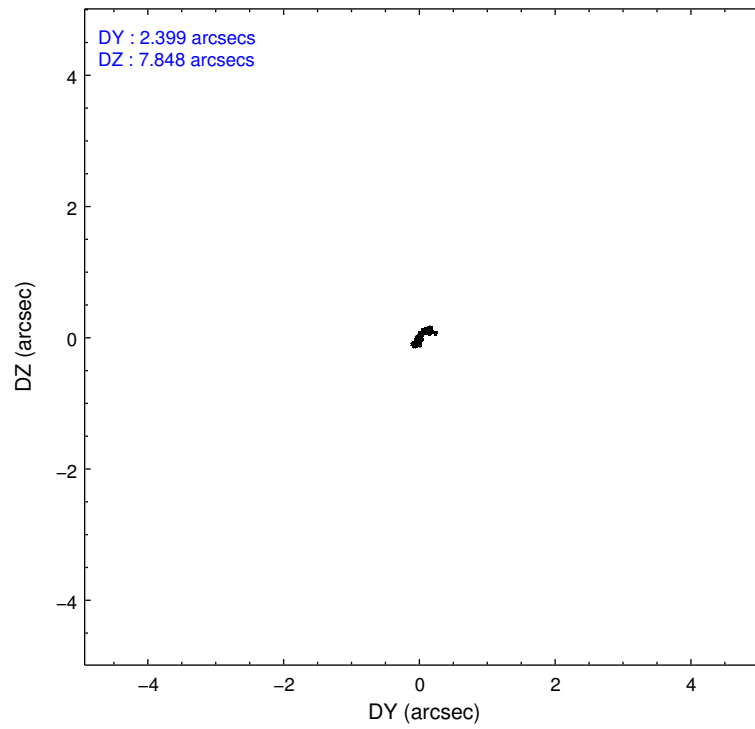
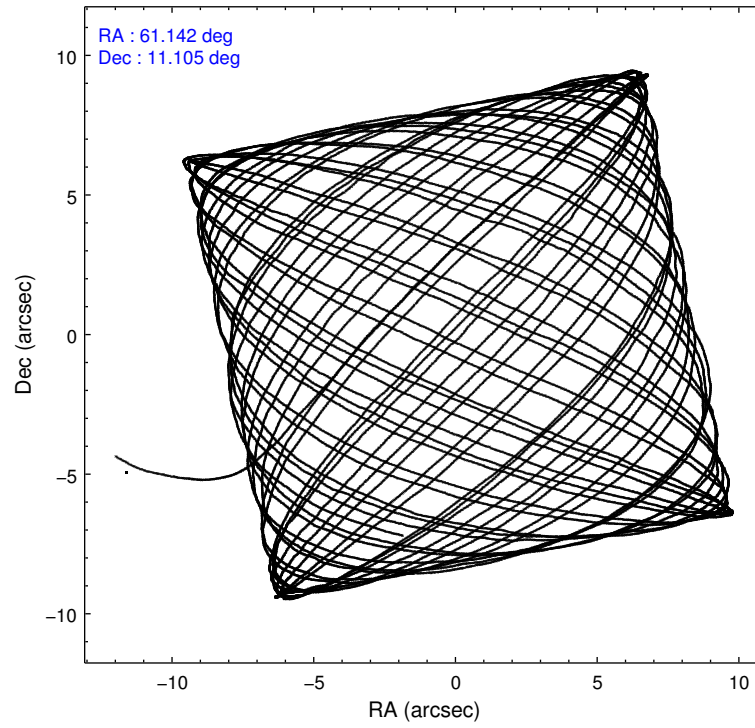
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	123803	122886	134848	134420	129713
rejected events	111465	108567	121851	118267	117112
rejected %	90%	88%	90%	87%	90%

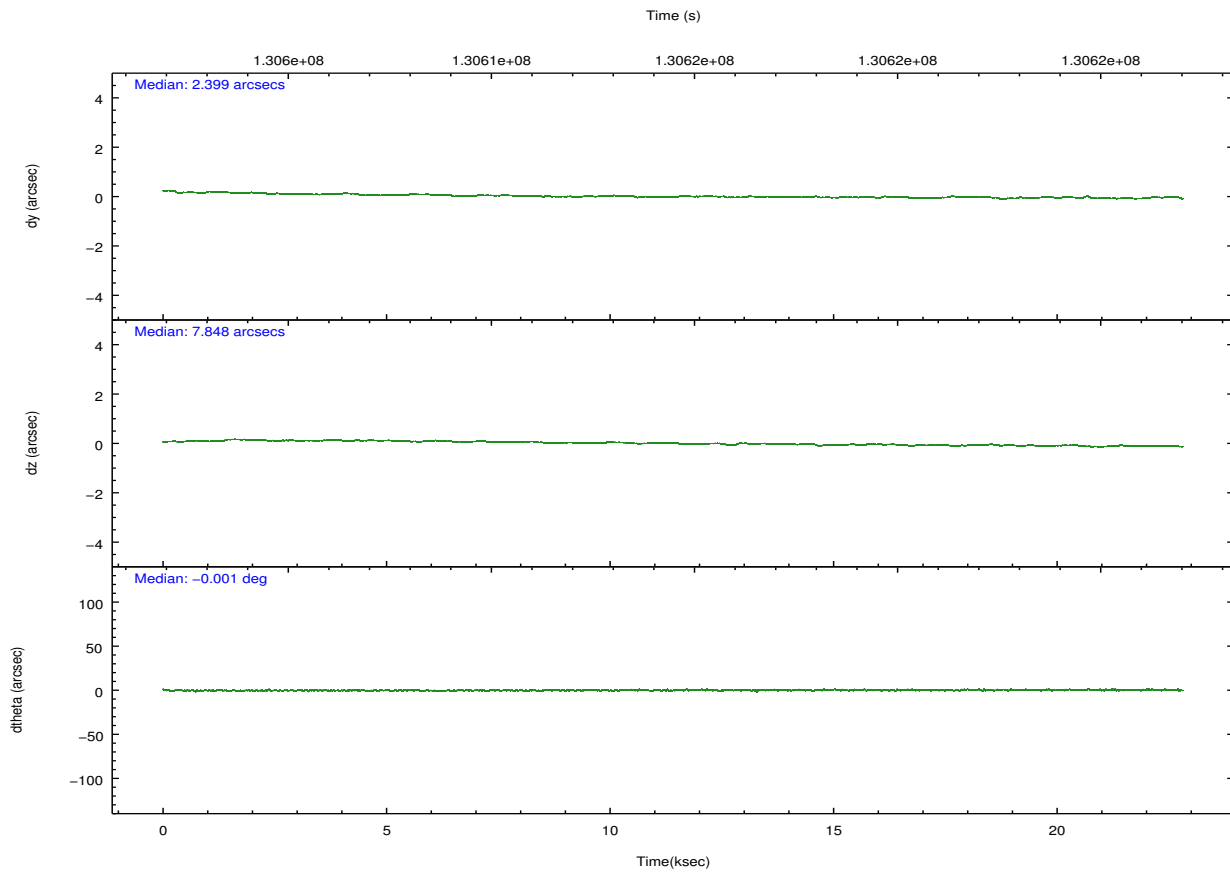
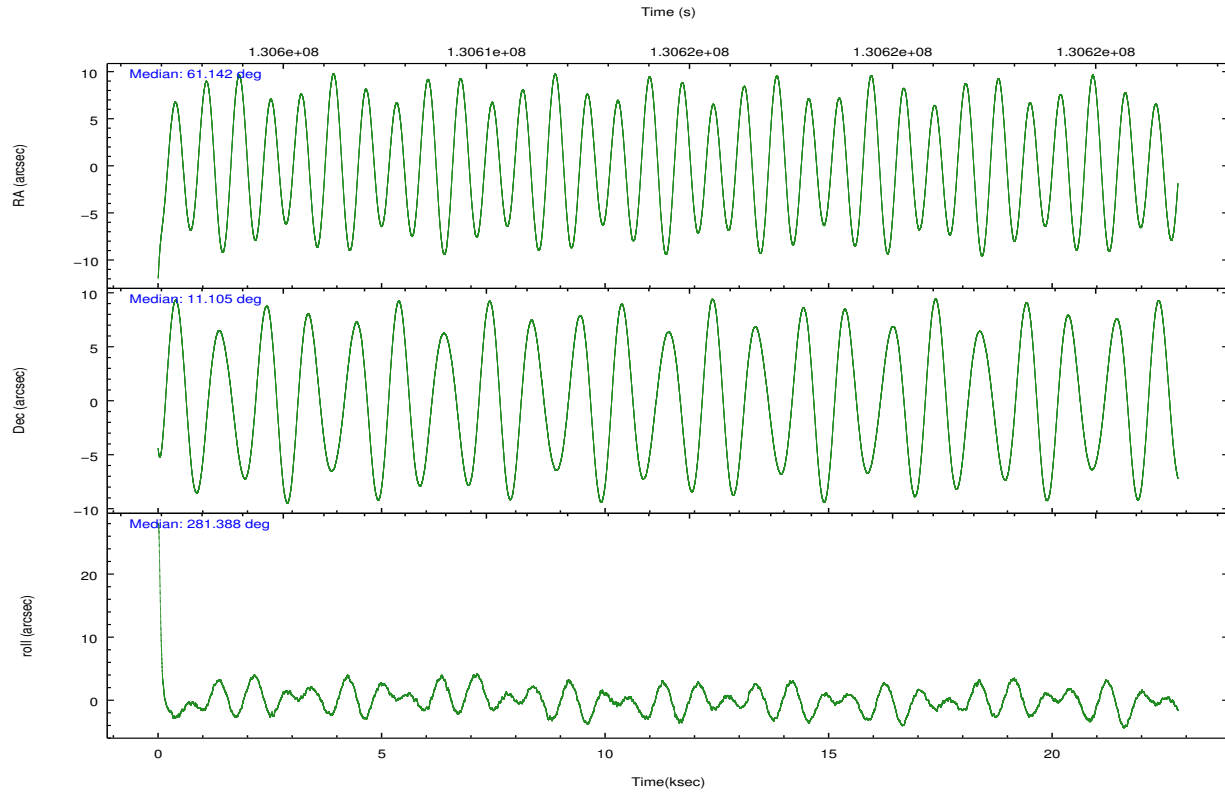
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	4362	5428	5007	7873	4555
	3%	4%	3%	5%	3%
grade 1 events	53	56	58	81	71
	0%	0%	0%	0%	0%
grade 2 events	2877	3038	2990	2915	2589
	2%	2%	2%	2%	1%
grade 3 events	1415	1579	1303	1486	1444
	1%	1%	0%	1%	1%
grade 4 events	1284	1554	1369	1501	1396
	1%	1%	1%	1%	1%
grade 5 events	4055	4405	3799	4581	4463
	3%	3%	2%	3%	3%
grade 6 events	2401	2724	2331	2386	2623
	1%	2%	1%	1%	2%
grade 7 events	107356	104102	117991	113597	112572
	86%	84%	87%	84%	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	61.123491	61.14199857005381	Subarray requested	NONE	NONE
[deg] Pointing Dec	11.125654	11.10515044307672	Alternating exposures requested	N	N
[deg] Pointing Roll	281.189508	281.394640638772	[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	-229.452463	-229.4463571591594			
[mm] SIM translation stage offset	-4.14	-4.146095843770325			
[s] Observation start time (MET)	130603879.184000	130602606.50046			
Observation start date	2002-02-20T14:50:15	2002-02-20T14:30:06			
[s] Observation end time (MET)	130625879.184000	130626619.68893			
Observation end date	2002-02-20T20:56:55	2002-02-20T21:10:19			
Read mode	TIMED	TIMED			

## 2.3 Aspect



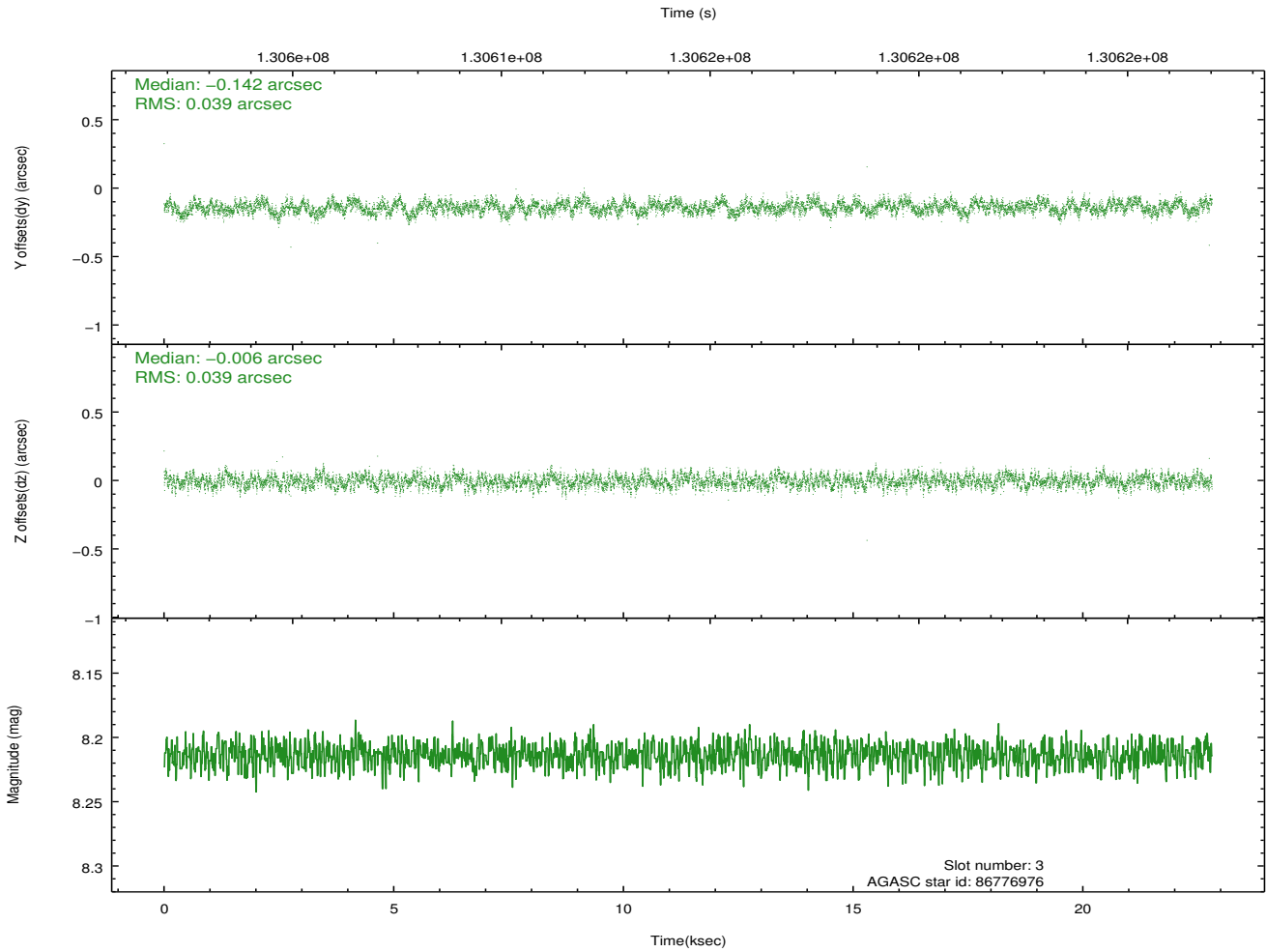
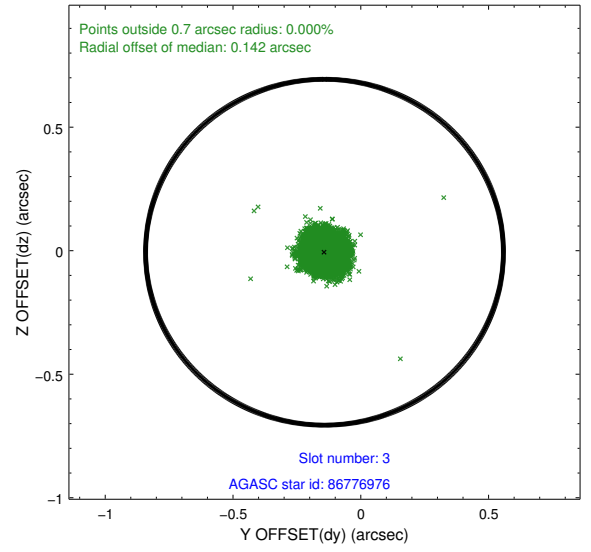
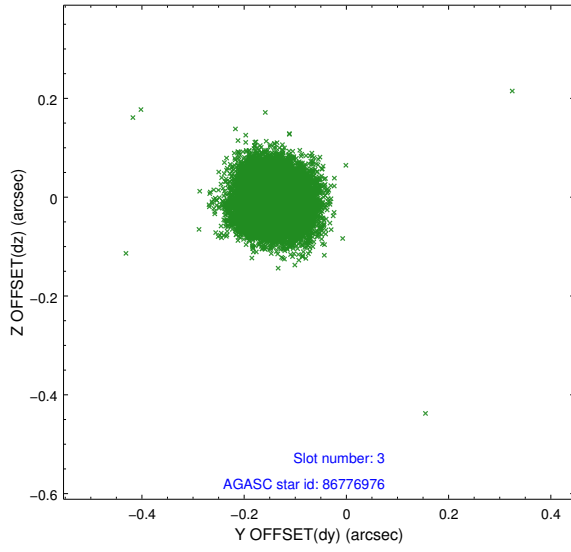


### Slot Statistics

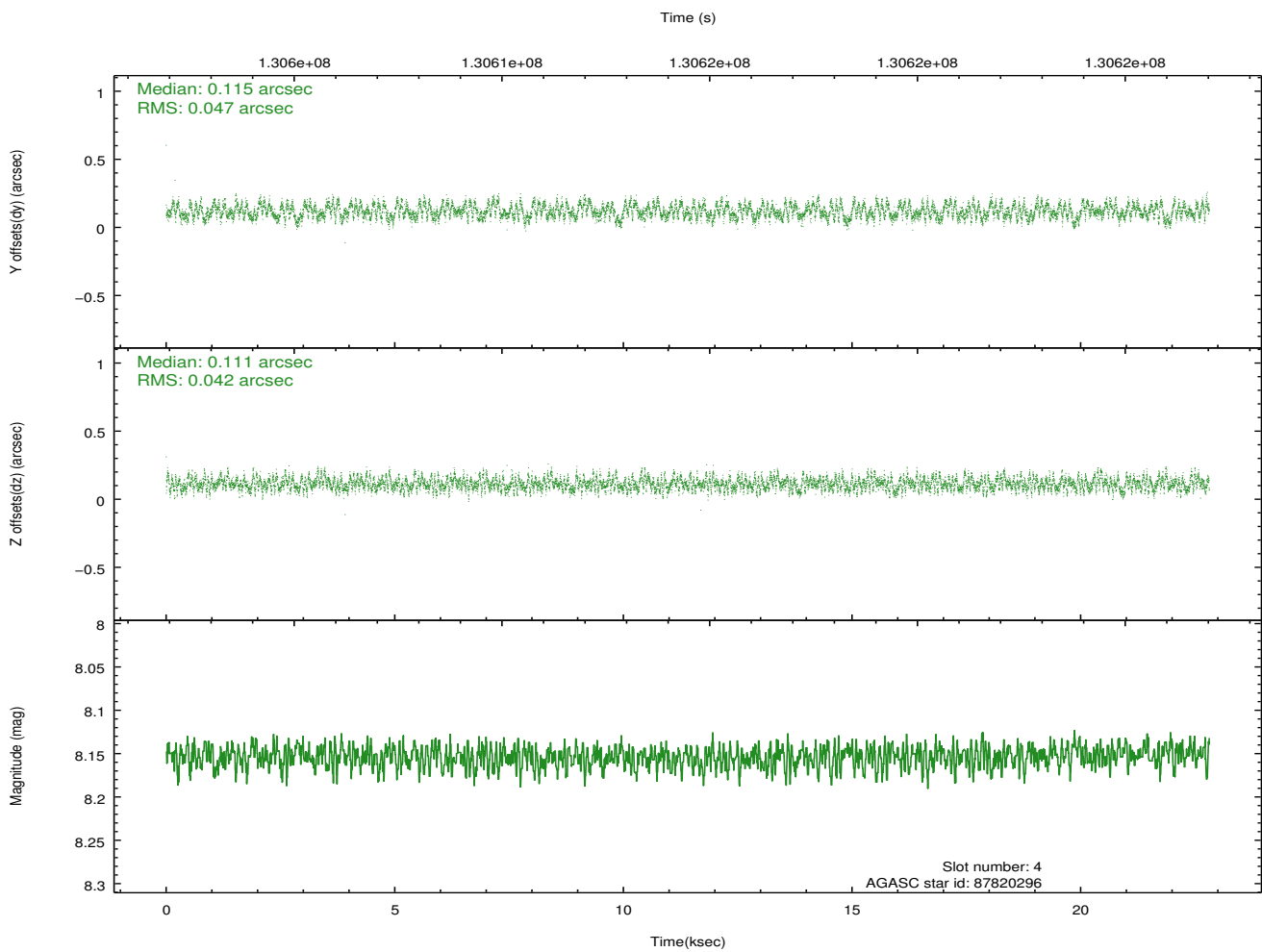
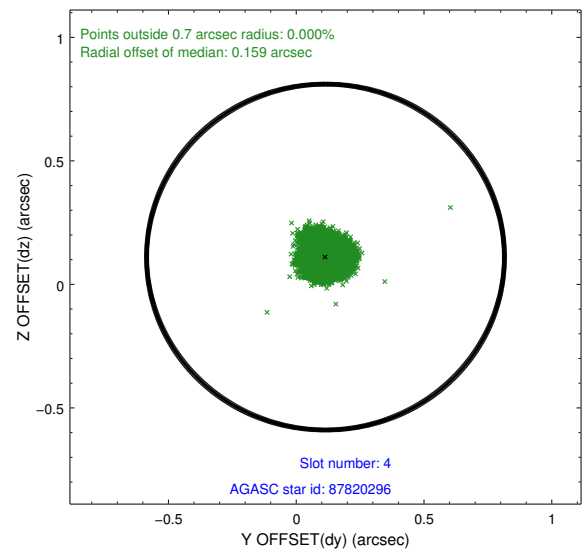
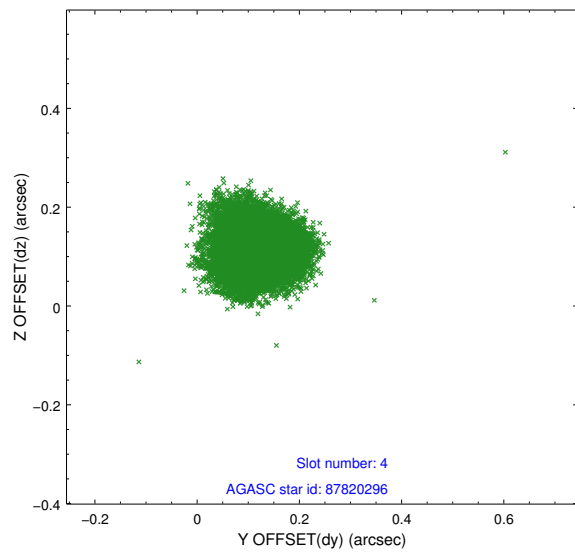
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.24	5563	0.000	0.052	0.007	0.011	0.000000	0.000000	937.30	-916.30
1	FID	ACIS-I-5	7.23	5564	-0.102	0.046	0.007	0.011	0.000000	0.000000	-1810.81	981.13
2	FID	ACIS-I-6	7.26	5564	0.010	-0.027	0.007	0.012	0.000000	0.000000	402.73	1625.70
3	GUIDE	86776976	8.21	11128	-0.142	-0.006	0.059	0.092	60.870326	11.495844	-1480.34	-617.87
4	GUIDE	87820296	8.15	11126	0.115	0.111	0.069	0.103	61.786393	10.799685	1604.20	2072.45
5	GUIDE	86779328	8.49	11127	-0.094	-0.135	0.077	0.126	60.514440	11.301517	-1039.54	-1986.28
6	GUIDE	87823712	8.94	11116	-0.008	0.058	0.076	0.121	61.454612	11.070354	422.12	1108.77
7	GUIDE	86773384	8.99	11122	0.128	-0.026	0.081	0.134	60.792404	10.571699	1729.38	-1536.33

## 2.4 Star Slots

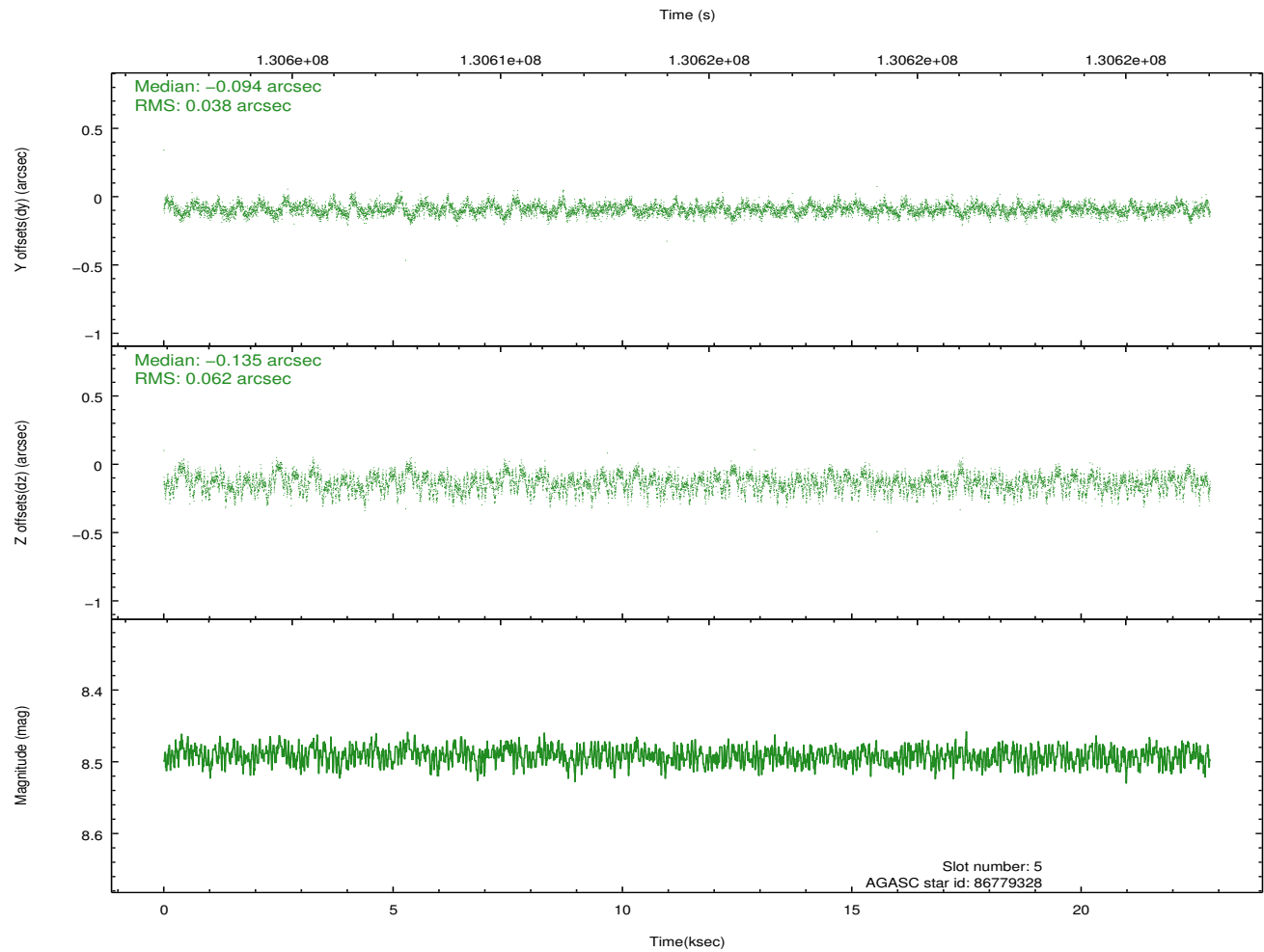
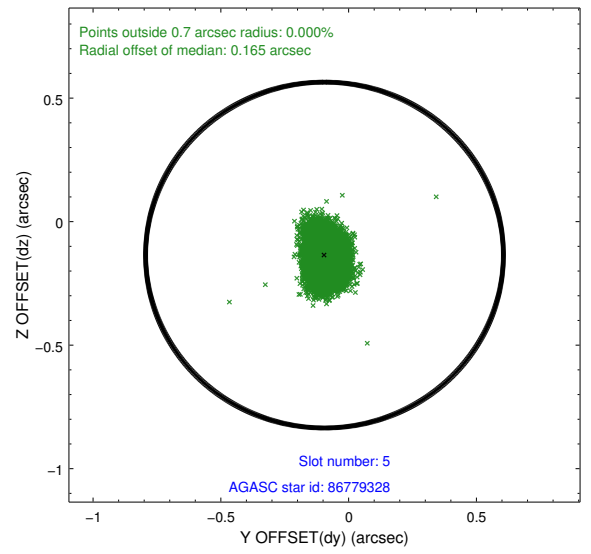
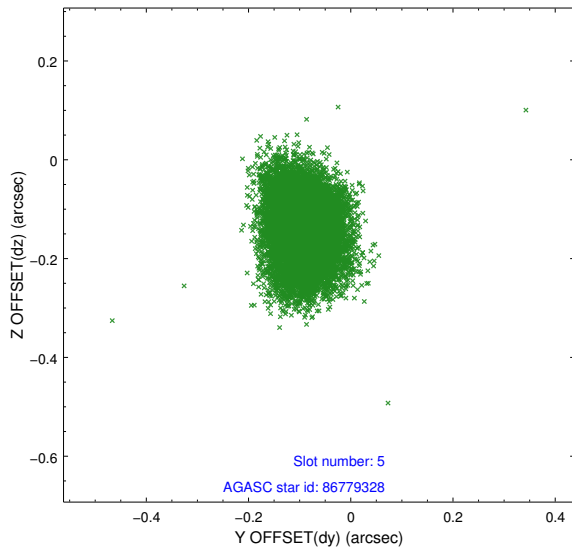
### 2.4.1 Slot 3



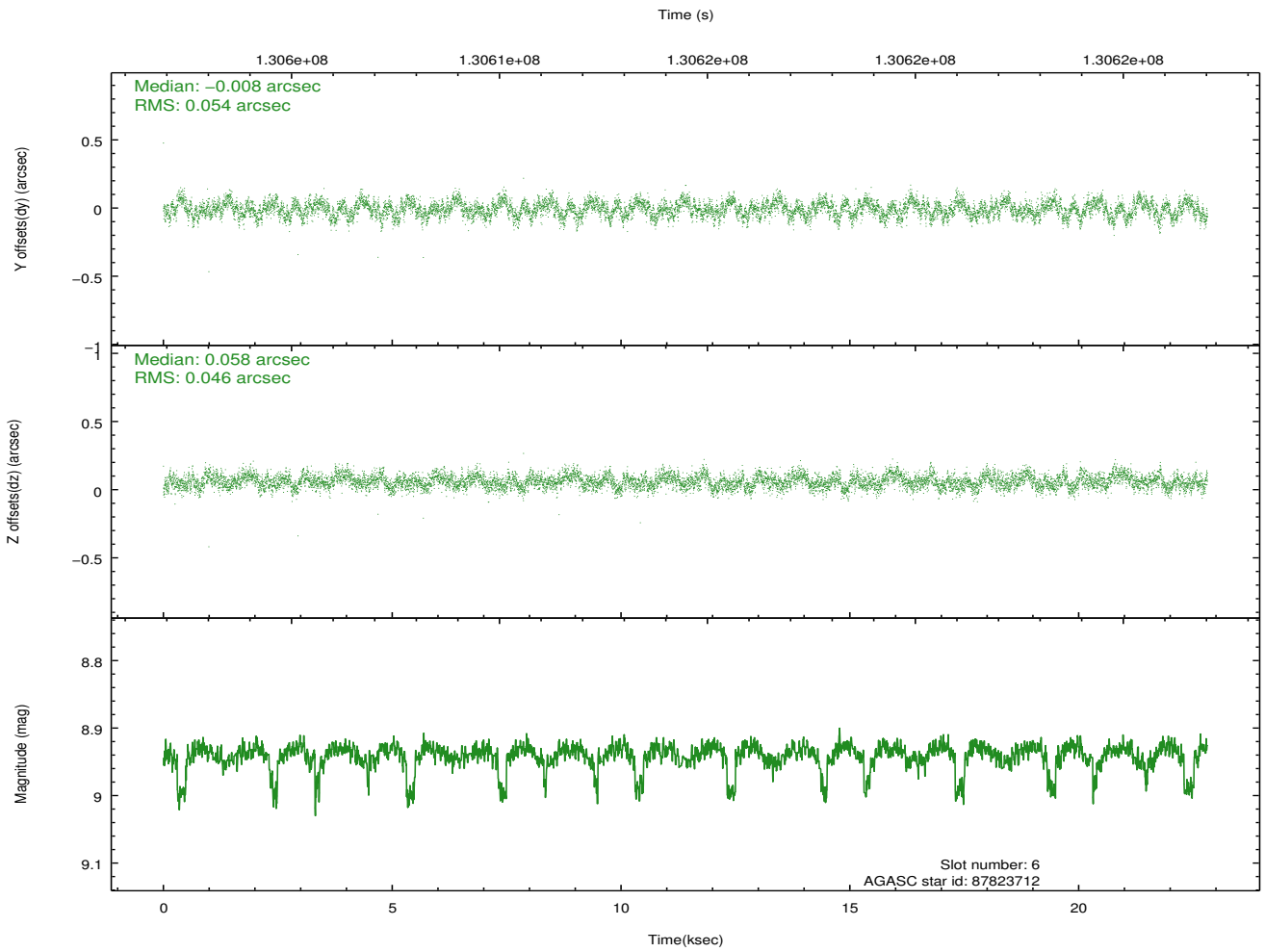
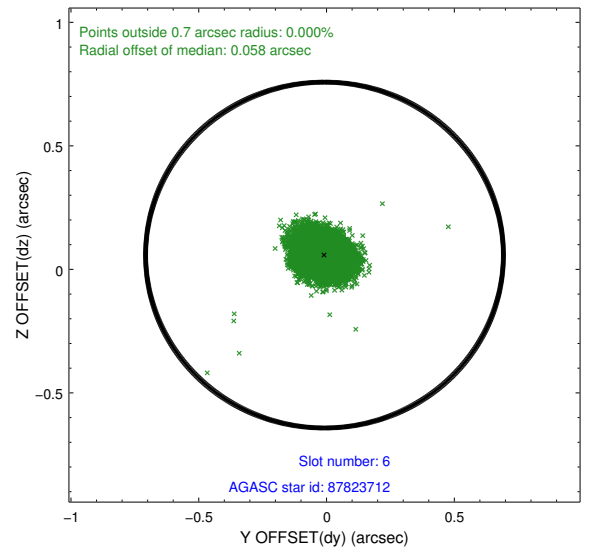
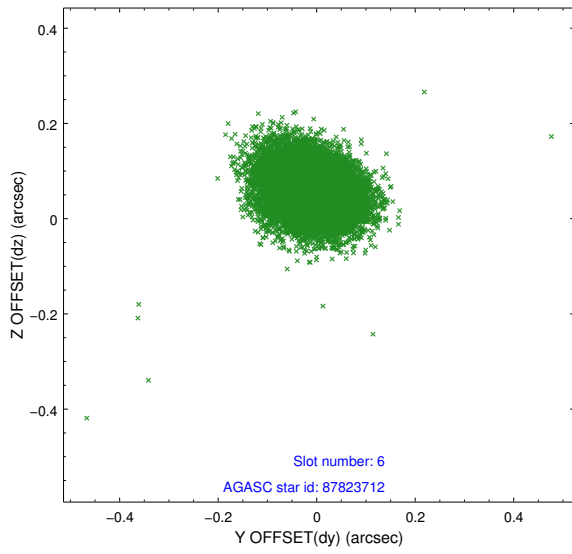
## 2.4.2 Slot 4



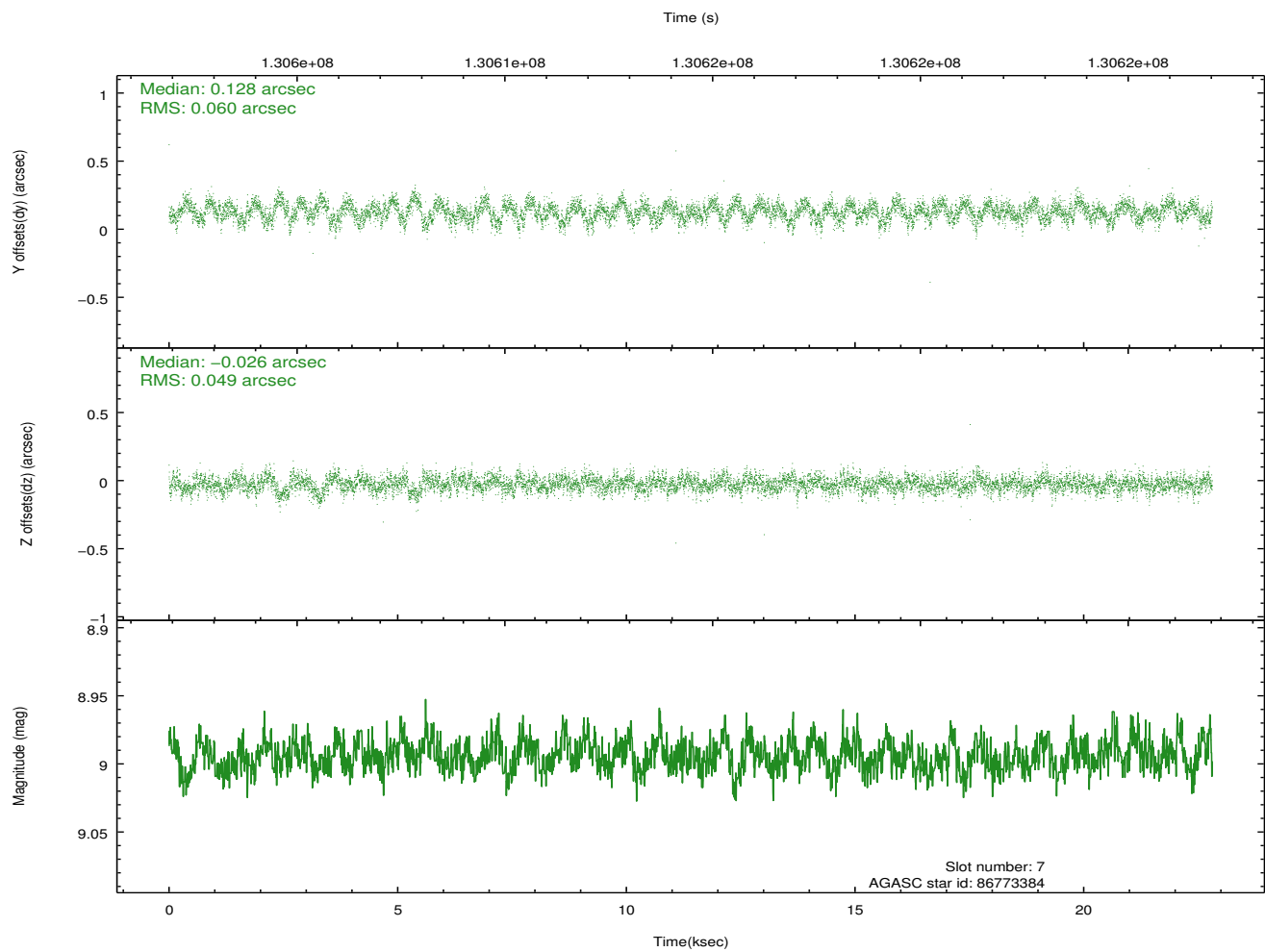
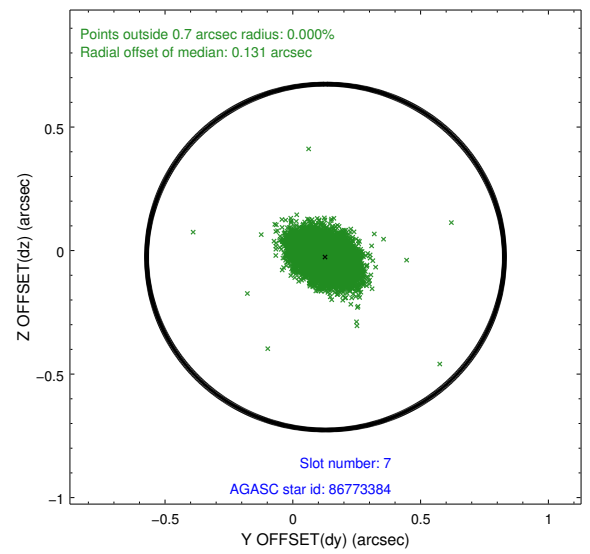
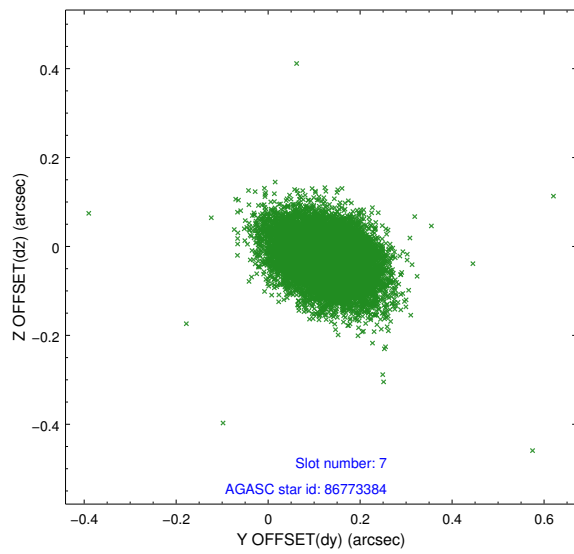
### 2.4.3 Slot 5



### 2.4.4 Slot 6

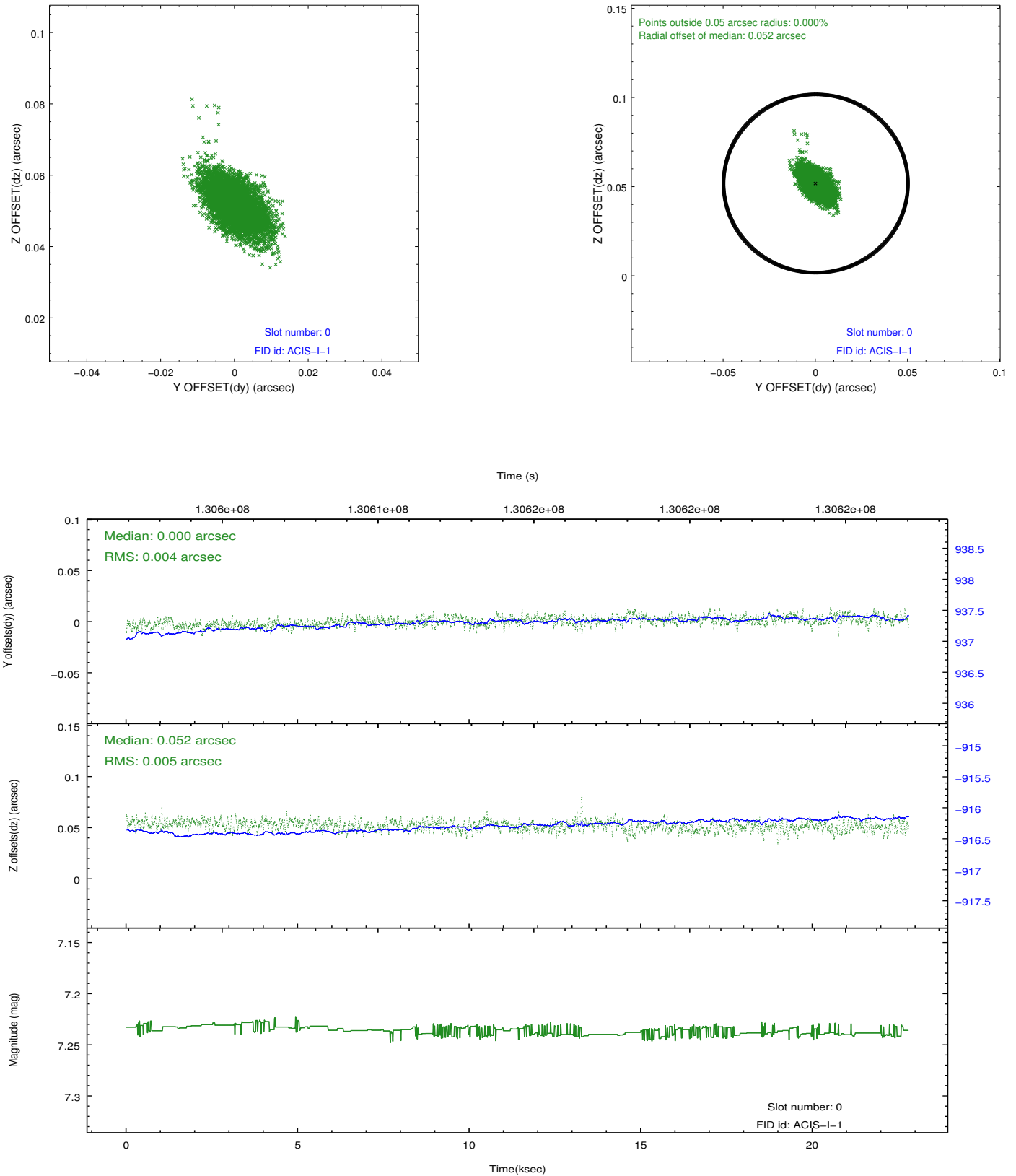


## 2.4.5 Slot 7

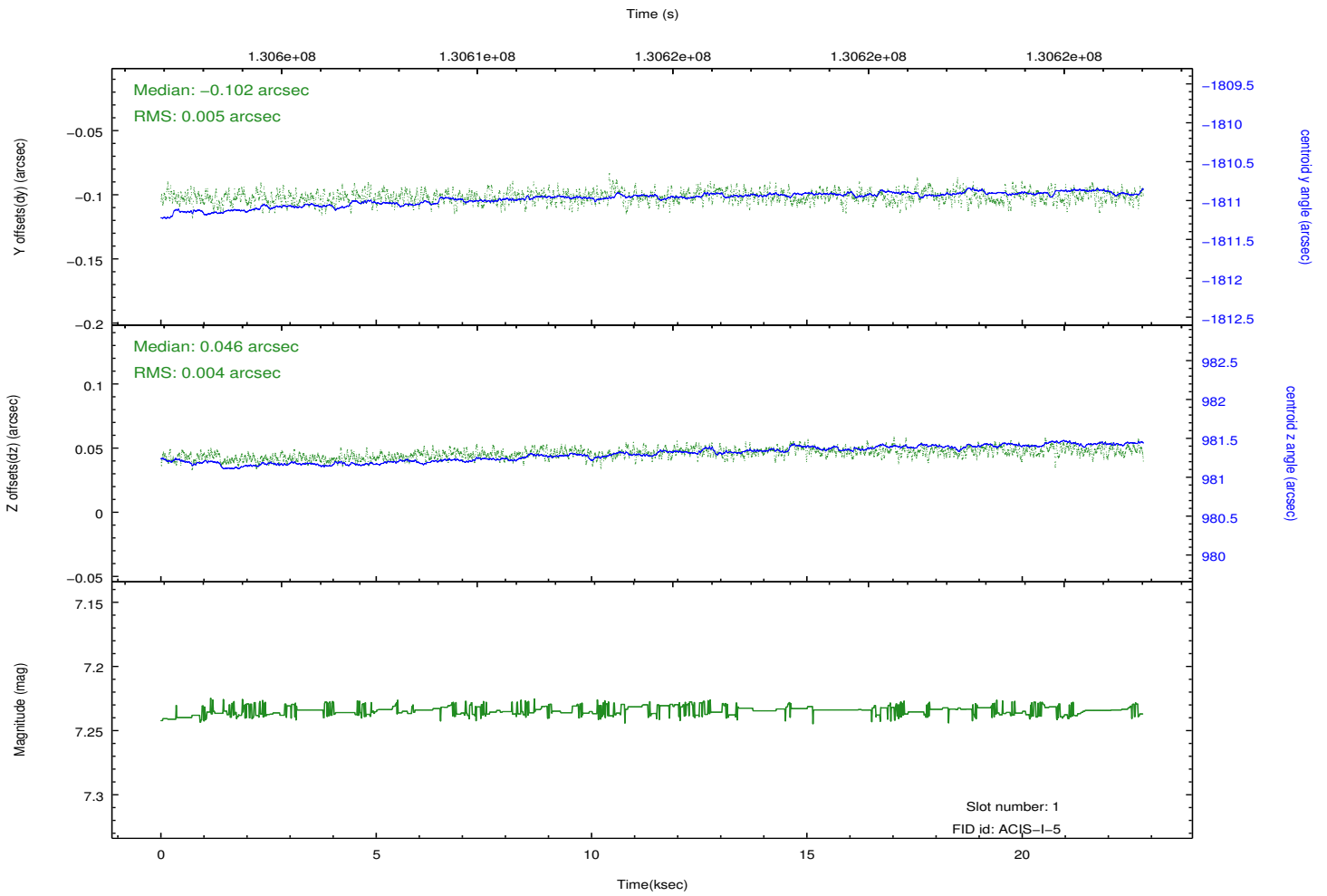
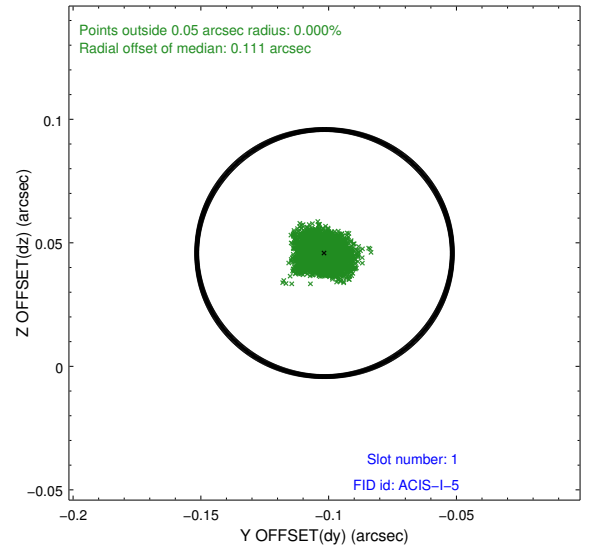
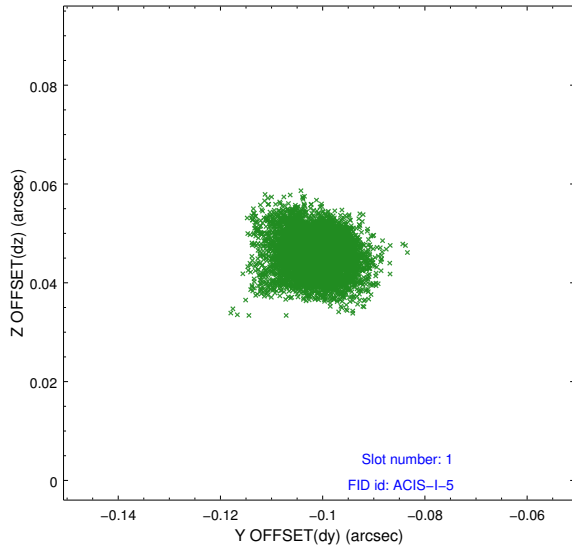


## 2.5 FID Slots

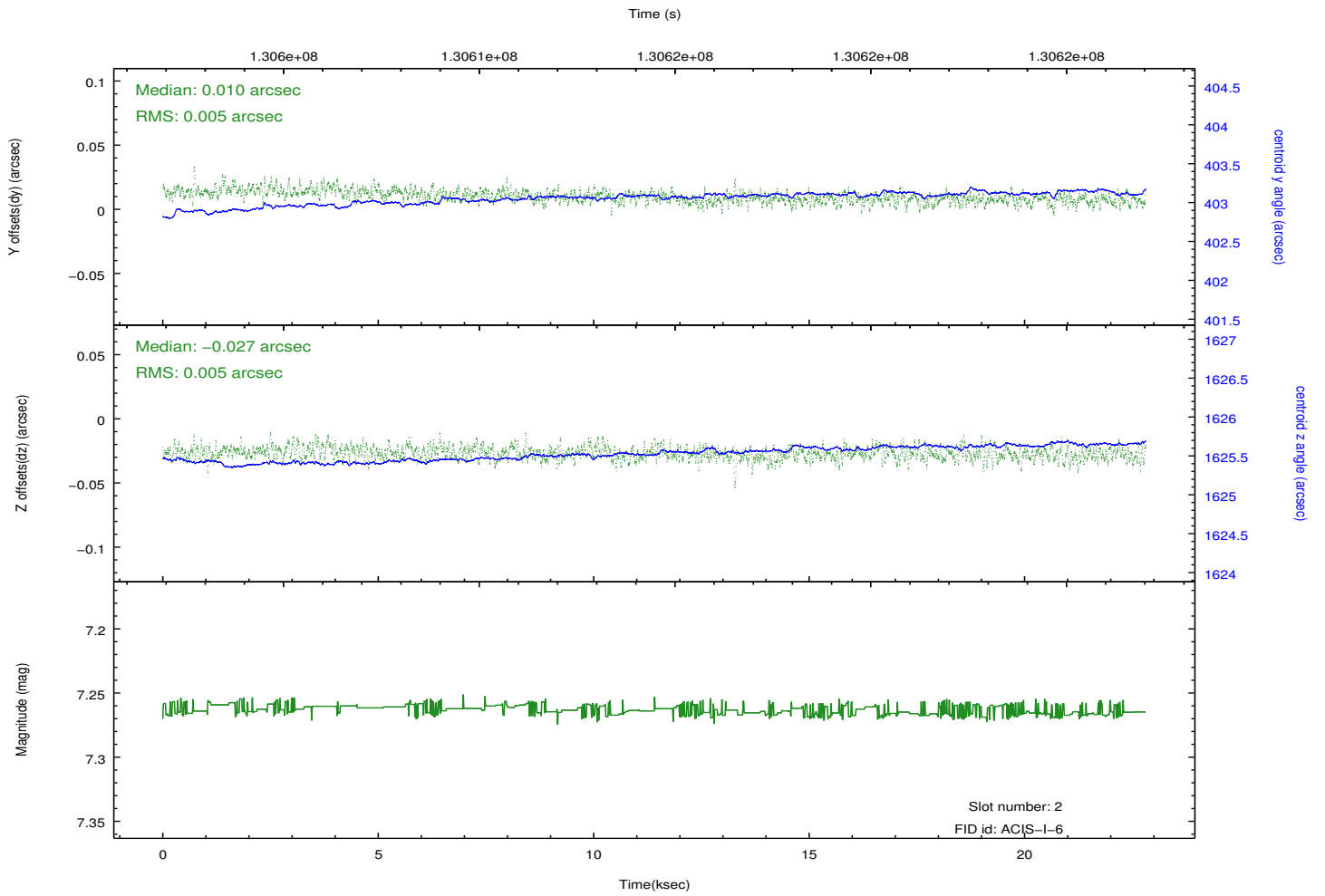
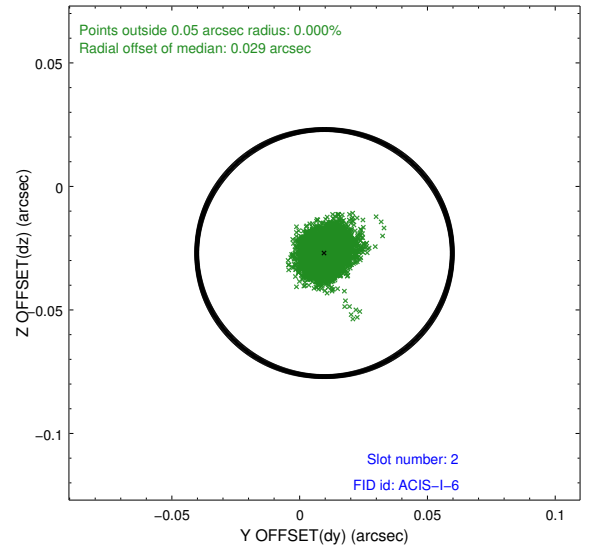
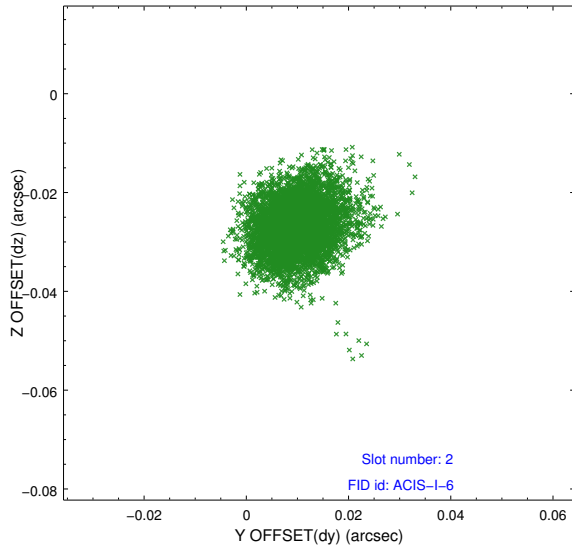
### 2.5.1 Slot 0



## 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)	2012.10.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	22.102

### A.2 Comments