

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 10952 - L2 Version 2  
Chandra X-Ray Center

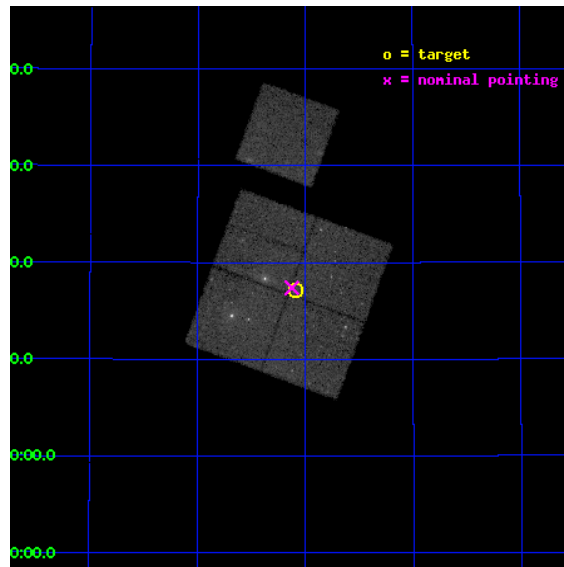
L2 Processing Date : Jun 21 2012

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# 1 Front

seq_num	200584	Sequence number
obs_id	10952	Observation id
title	The Chandra Cygnus OB2 Survey	Proposal title
observer	Dr. Jeremy Drake	Principal investigator
object	Cygnus OB2	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	308.022587	Observer's specified target RA [deg]
dec_targ	41.284875	Observer's specified target Dec [deg]
ra_nom	308.03110989107	Nominal RA [deg]
dec_nom	41.289780446224	Nominal Dec [deg]
roll_nom	20.192401213523	Nominal Roll [deg]
revision	2	Processing version of data
ontime	29546.059237003	Sum of GTIs [s]
livetime	29160.01822158	Livetime [s]
ontime0	29542.918296516	Sum of GTIs [s]
ontime1	29542.918296576	Sum of GTIs [s]
ontime2	29546.059266865	Sum of GTIs [s]
ontime3	29546.059237003	Sum of GTIs [s]
ontime6	29546.059266865	Sum of GTIs [s]
l2events	141431	Number of level 2 events

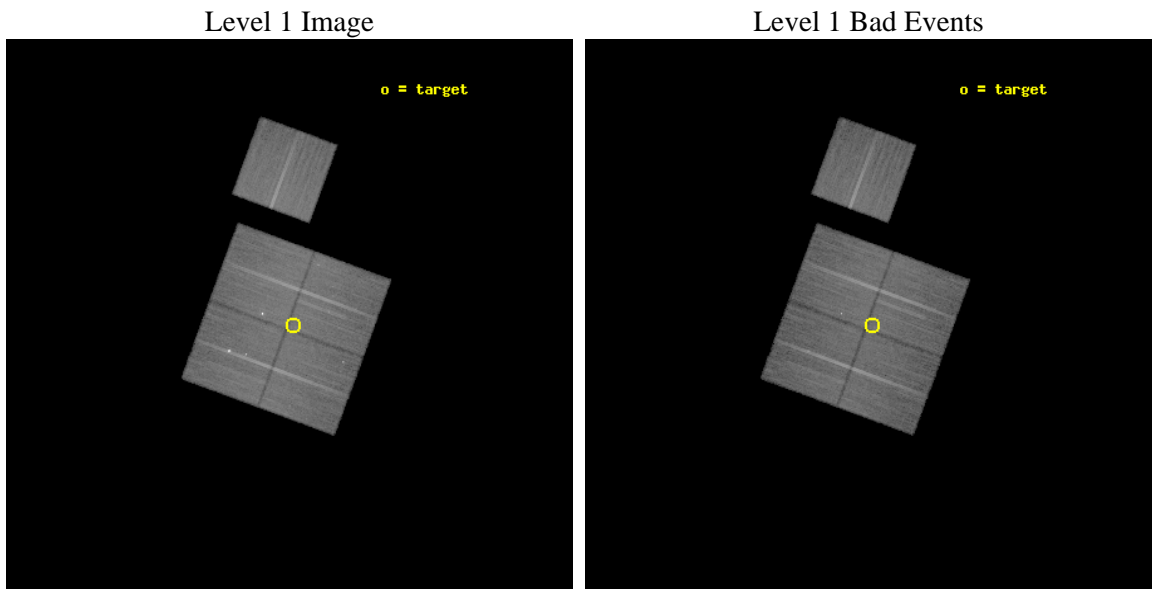




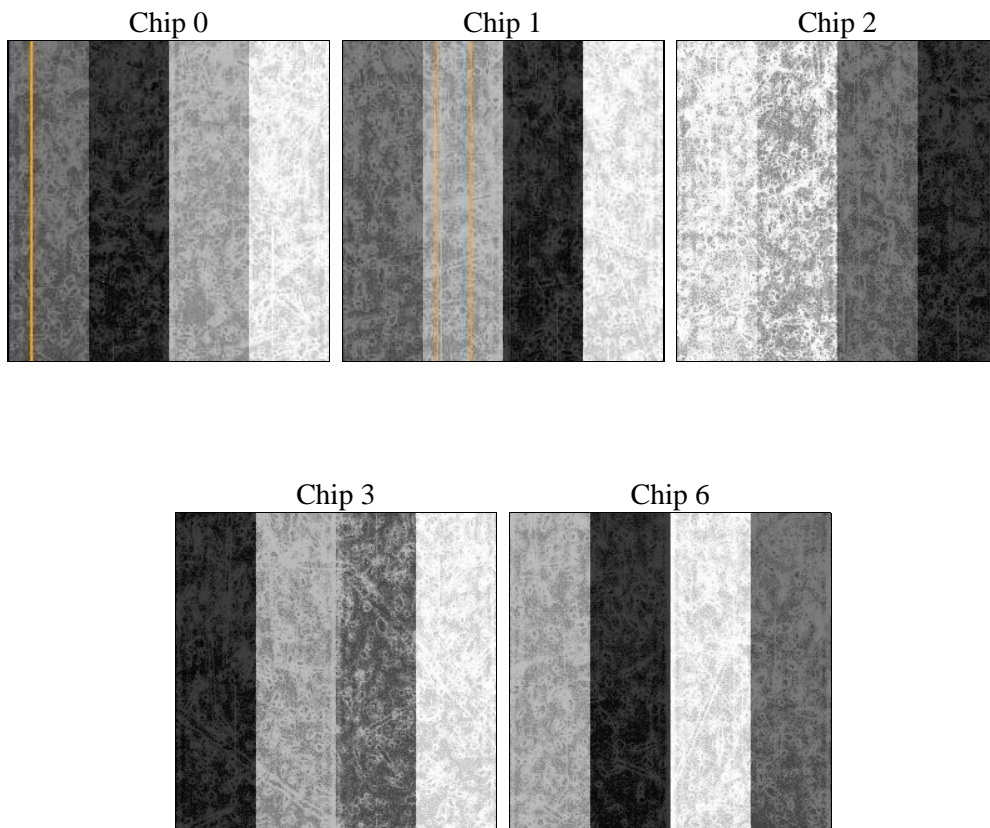
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	29500.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	29546.059237003	Sum of GTIs [s]
caldsver	4.4.10	&#160	ontime0	29542.918296516	Sum of GTIs [s]
date	2012-06-21T03:04:53	Date and time of file creation	ontime1	29542.918296576	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	29546.059266865	Sum of GTIs [s]
			ontime3	29546.059237003	Sum of GTIs [s]
			ontime6	29546.059266865	Sum of GTIs [s]
			l1events	1142529	Number of level 1 events

### 2.1.4 Events

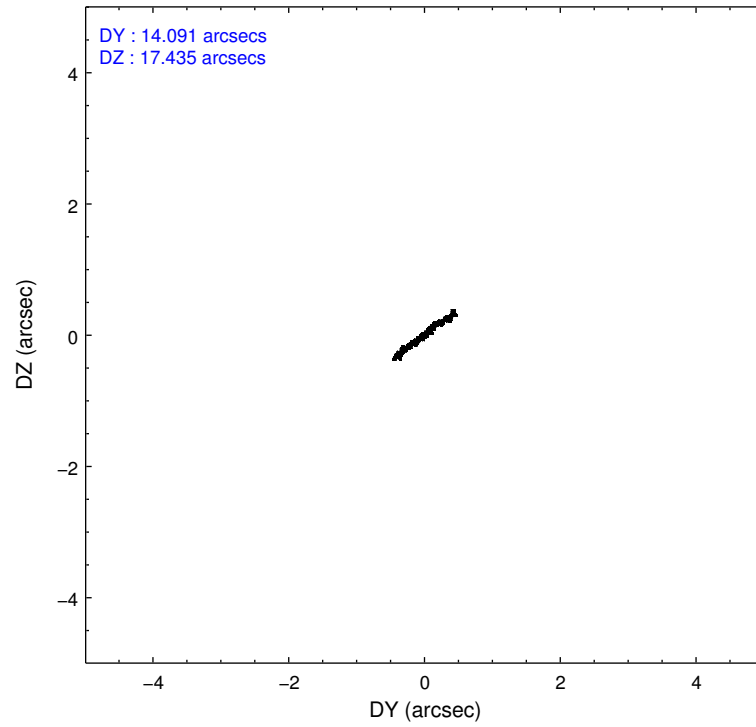
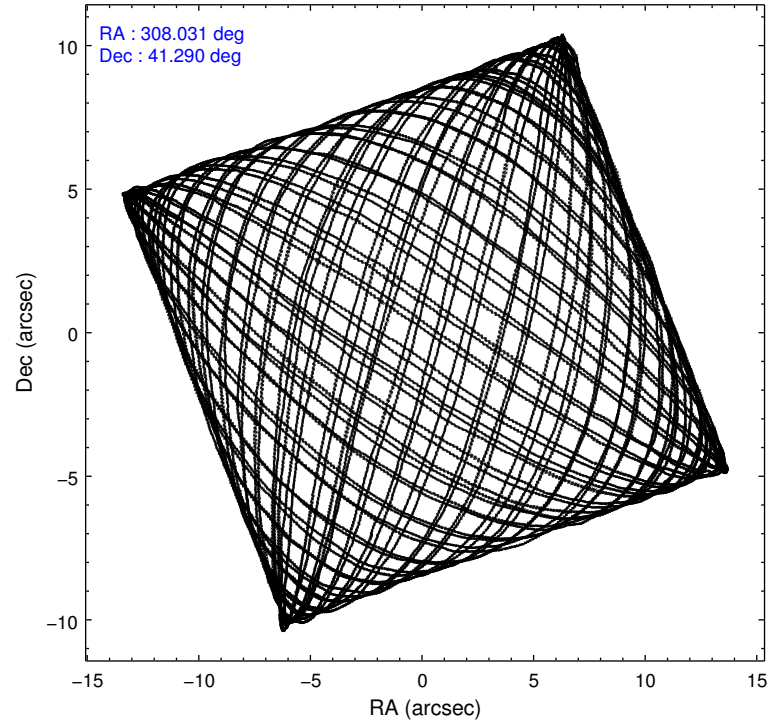
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	224213	215468	248150	223574	231124
rejected events	183229	183472	208963	197089	204009
rejected %	81%	85%	84%	88%	88%

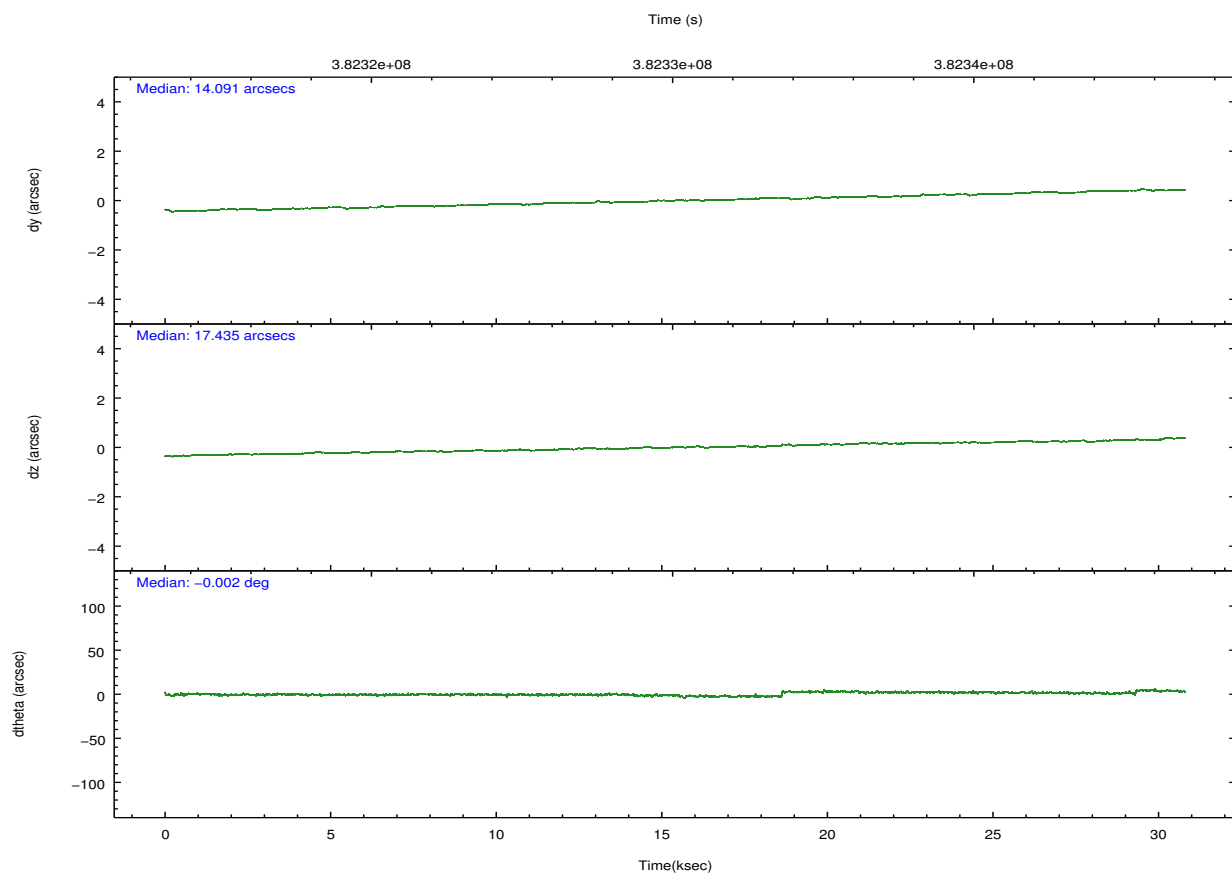
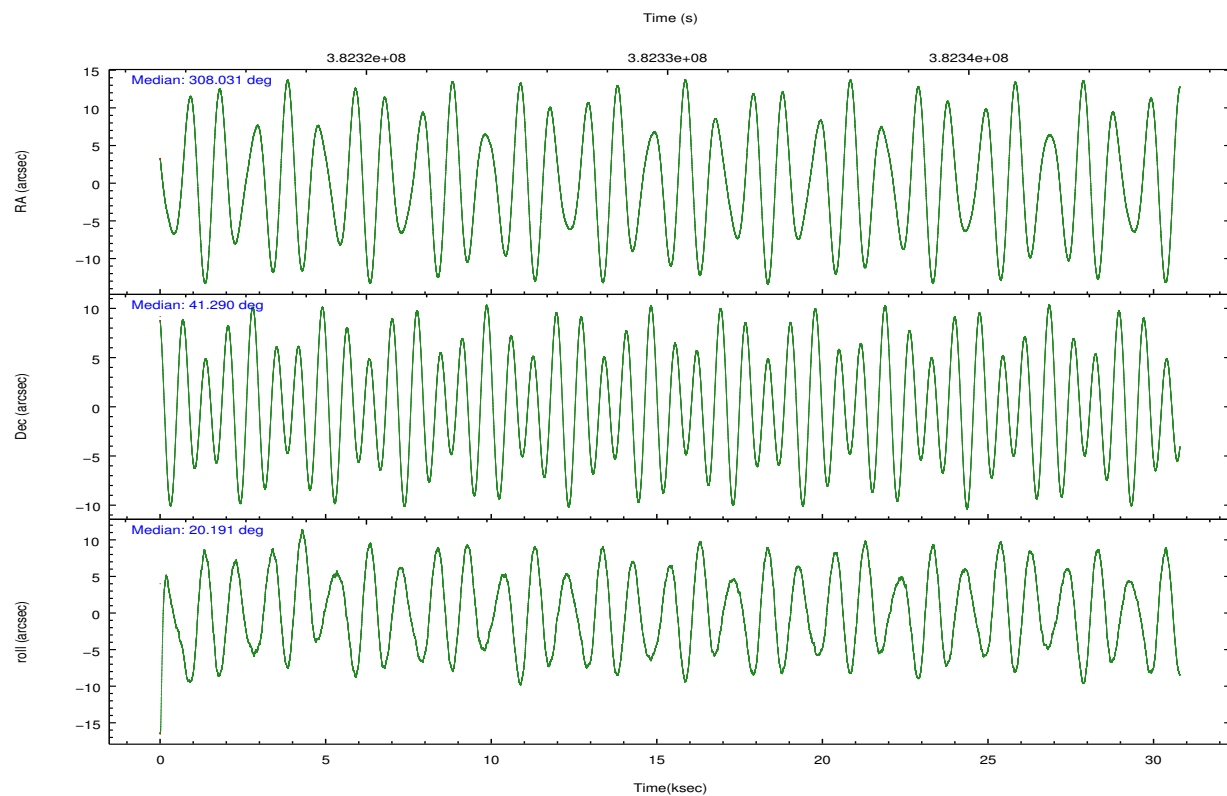
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	22086	14059	20922	11369	11301
	9%	6%	8%	5%	4%
grade 1 events	245	153	723	147	125
	0%	0%	0%	0%	0%
grade 2 events	7821	6553	7555	5635	5671
	3%	3%	3%	2%	2%
grade 3 events	3182	3050	3071	2550	2594
	1%	1%	1%	1%	1%
grade 4 events	2991	3041	3049	2510	2618
	1%	1%	1%	1%	1%
grade 5 events	7483	8002	7440	8522	8038
	3%	3%	2%	3%	3%
grade 6 events	4907	5297	4593	4424	4935
	2%	2%	1%	1%	2%
grade 7 events	175498	175313	200797	188417	195842
	78%	81%	80%	84%	84%

## 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	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	308.007807	308.0311098910687	CCD I2 on	Y	Y
[deg] Pointing Dec	41.268601	41.28978044622402	CCD I3 on	Y	Y
[deg] Pointing Roll	19.999099	20.19240121352269	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O1	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	N	N
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	382315985.184000	382314503.14511	CCD S5 on	N	N
Observation start date	2010-02-11T22:51:59	2010-02-11T22:28:23	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	382345485.184000	382345619.07169	On-chip summing requested	N	N
Observation end date	2010-02-12T07:03:39	2010-02-12T07:06:59	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



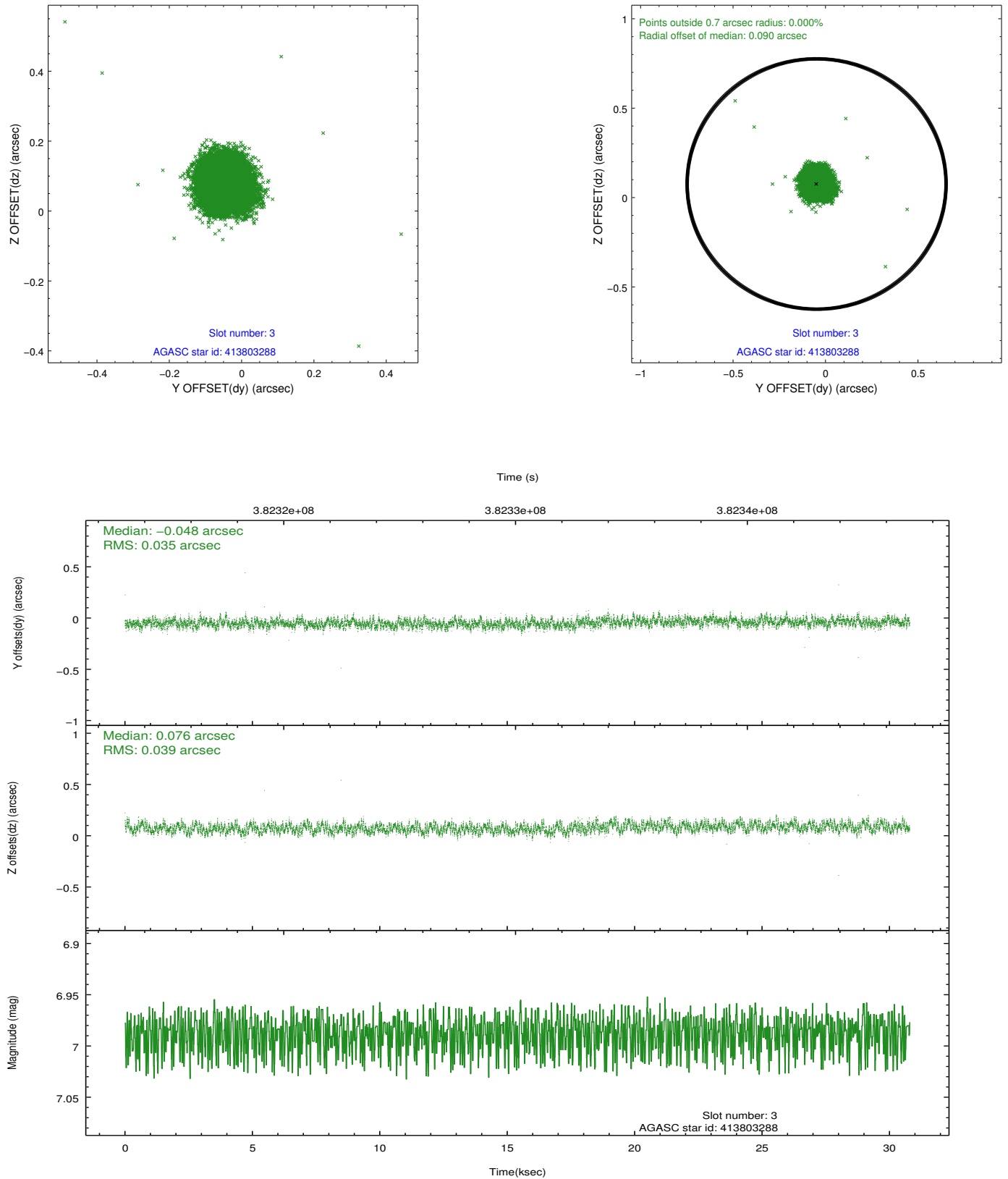


### Slot Statistics

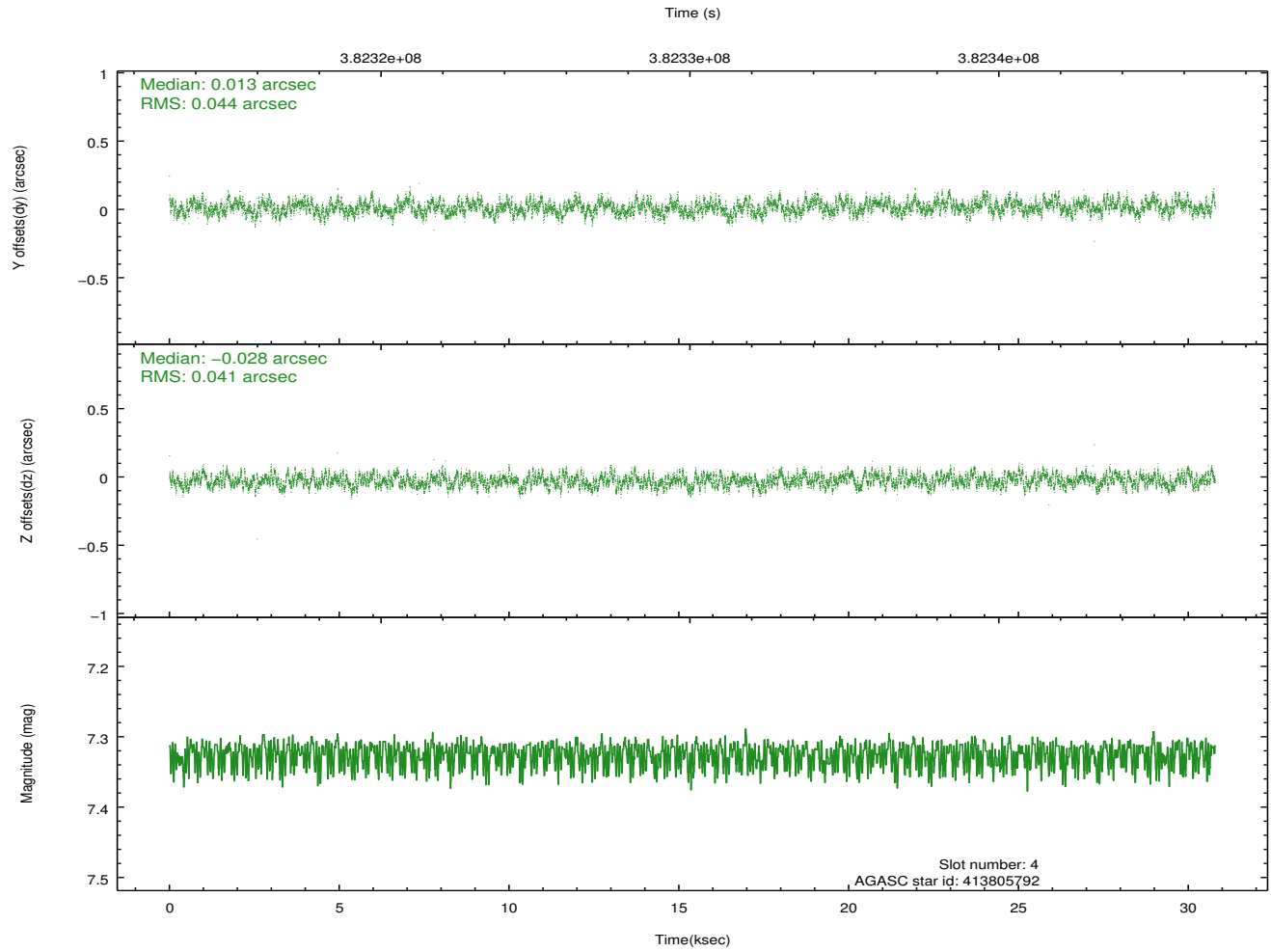
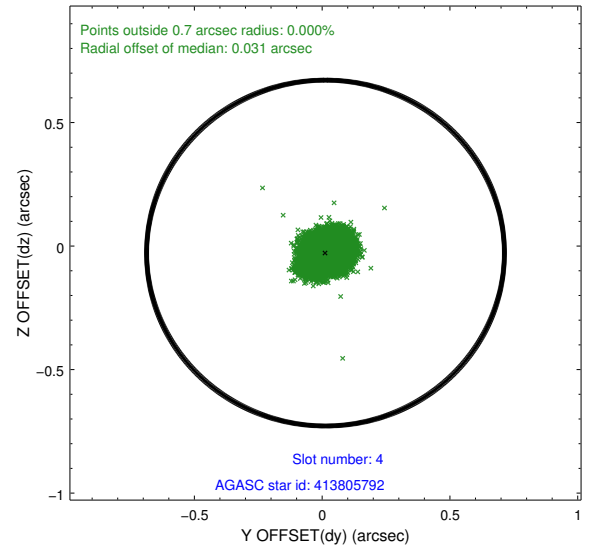
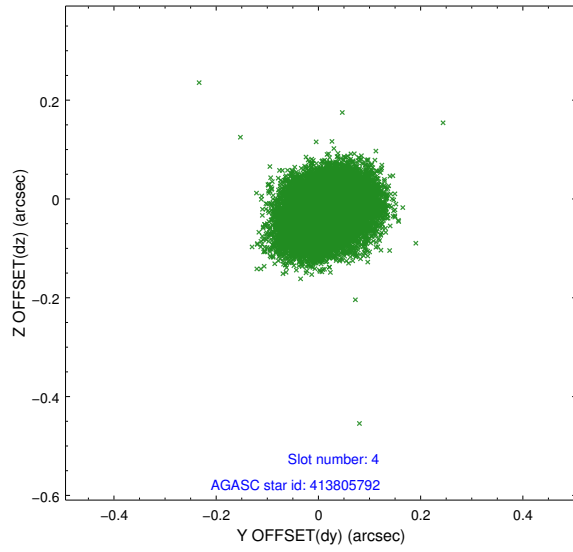
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	6.92	7510	-0.097	-0.074	0.022	0.038	0.000000	0.000000	-768.87	-847.54
1	FID	ACIS-I-4	6.93	7509	0.190	0.078	0.014	0.021	0.000000	0.000000	2145.44	1058.75
2	FID	ACIS-I-5	6.99	7510	-0.199	0.068	0.014	0.024	0.000000	0.000000	-1822.72	1056.67
3	GUIDE	413803288	6.99	15021	-0.048	0.076	0.055	0.087	307.629978	40.506899	-1908.60	-2220.89
4	GUIDE	413805792	7.32	15018	0.013	-0.028	0.065	0.102	307.778748	40.858024	-1090.82	-1174.62
5	GUIDE	414326136	7.35	15021	-0.023	-0.208	0.068	0.111	308.256176	41.473642	882.83	465.54
6	GUIDE	414328464	9.18	15008	0.057	0.172	0.100	0.158	308.778827	41.333671	2042.25	-483.61
7	GUIDE	414324712	9.34	14941	-0.006	-0.014	0.128	0.201	307.938856	41.820690	506.38	1931.10

## 2.4 Star Slots

### 2.4.1 Slot 3

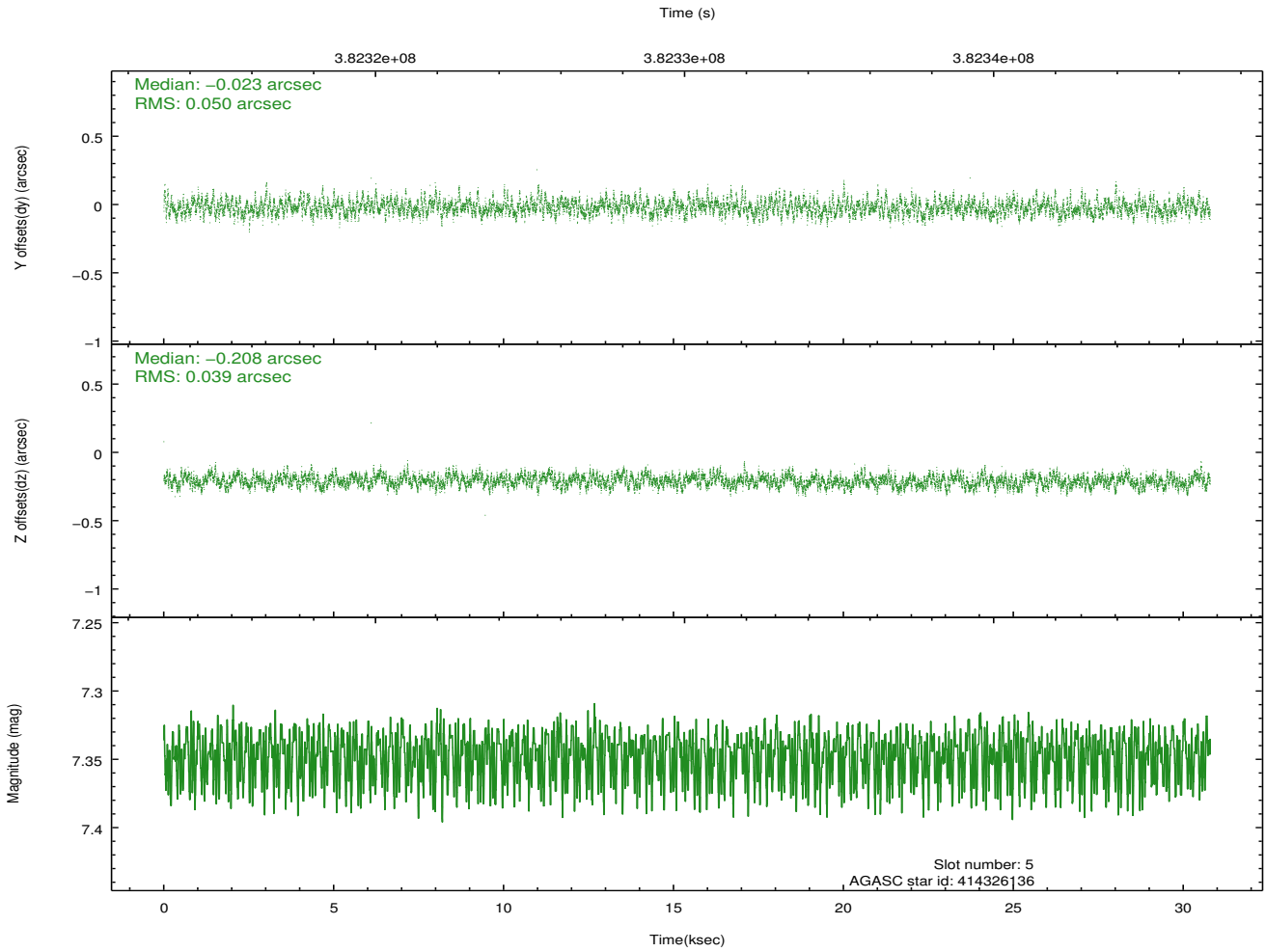
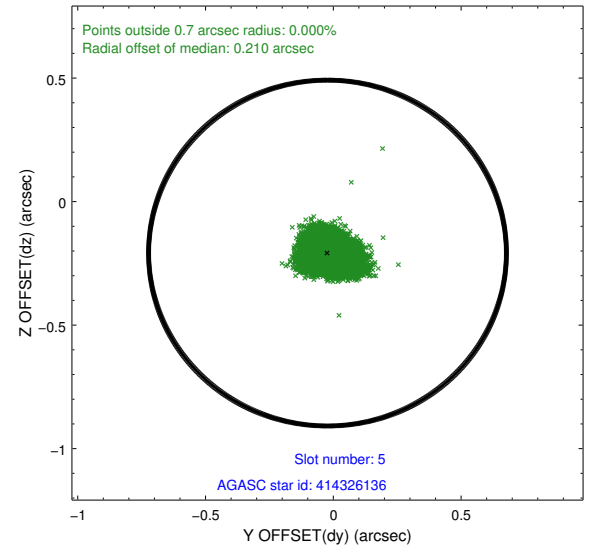
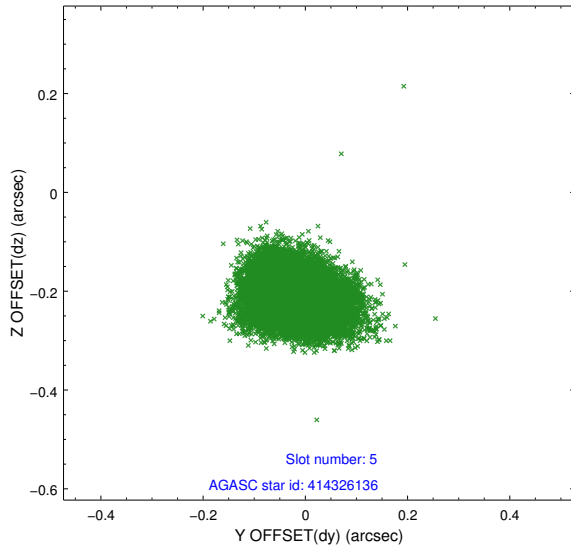


## 2.4.2 Slot 4

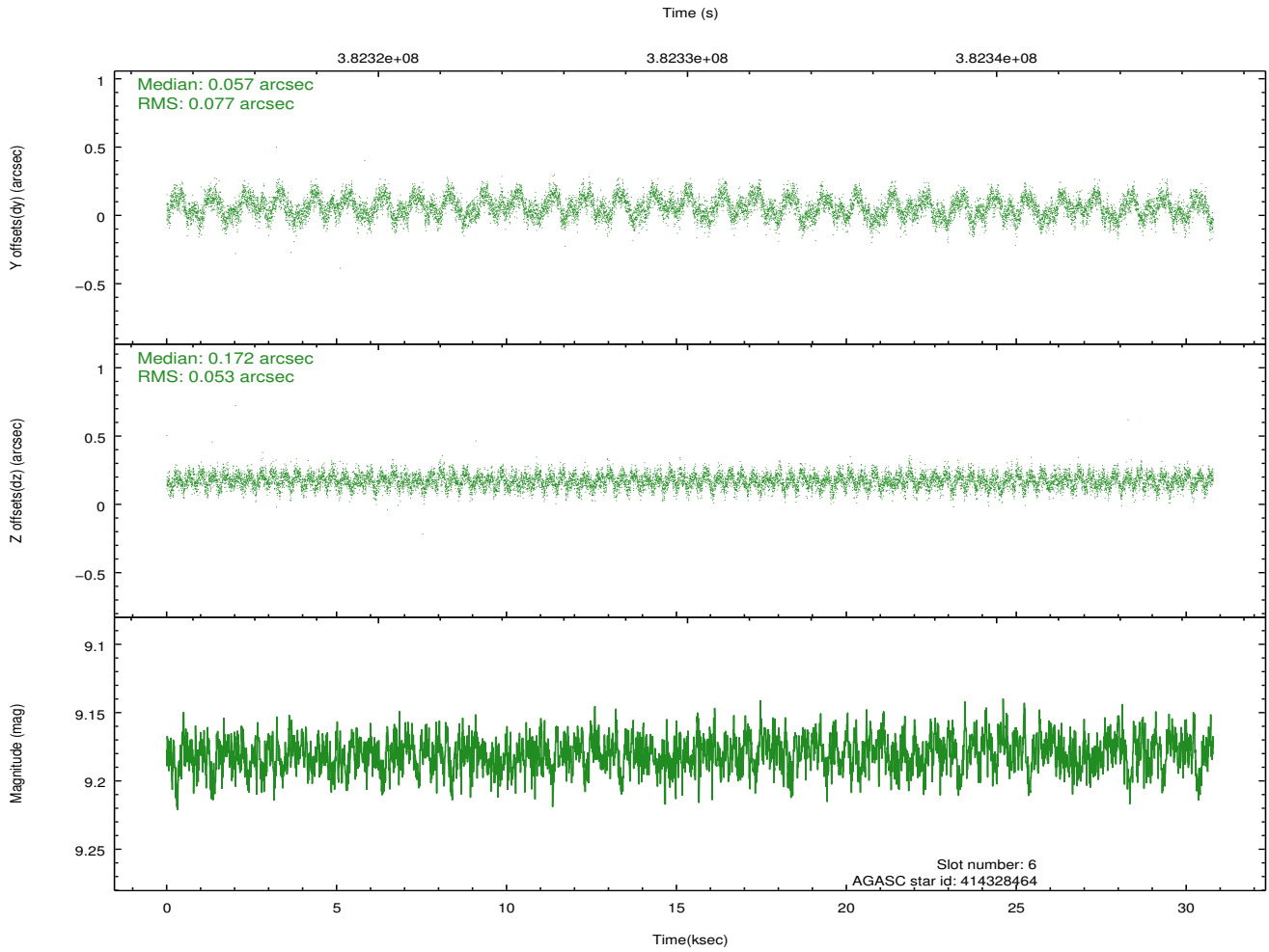
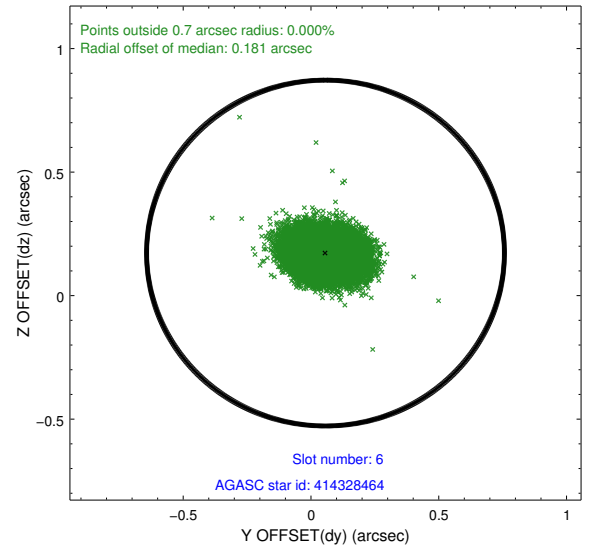
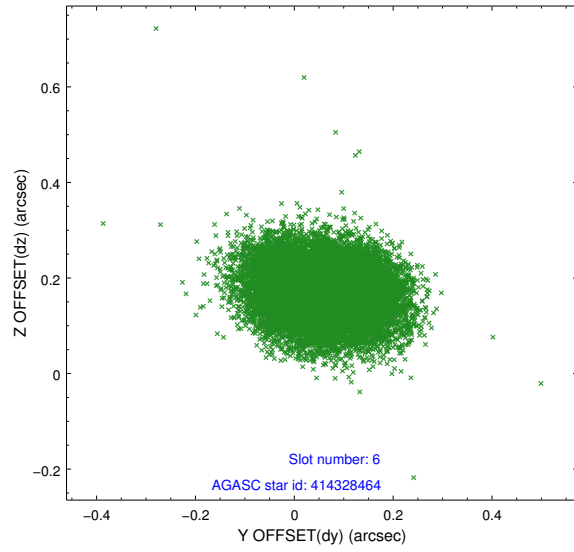




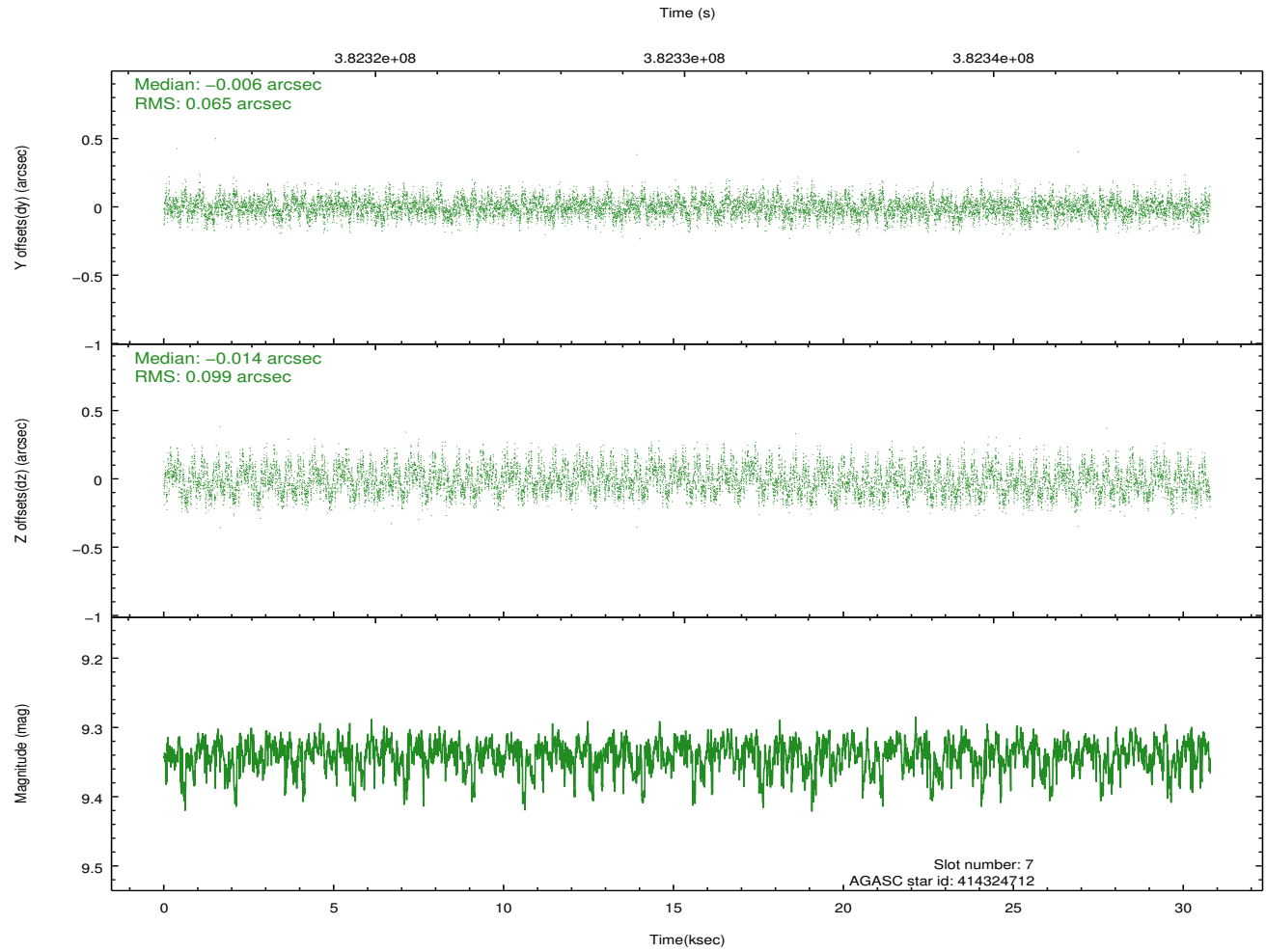
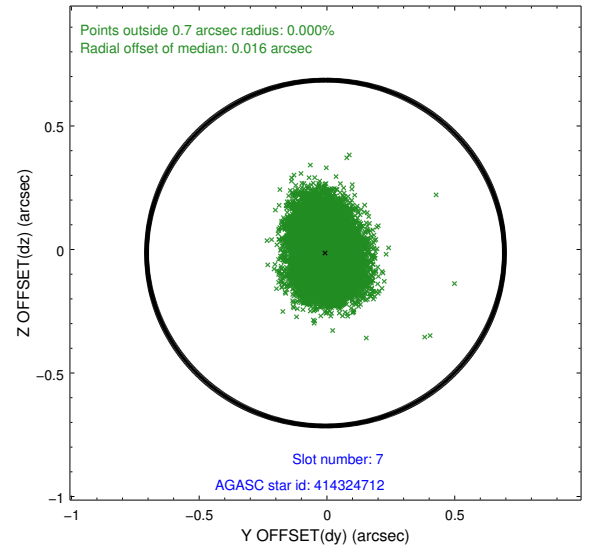
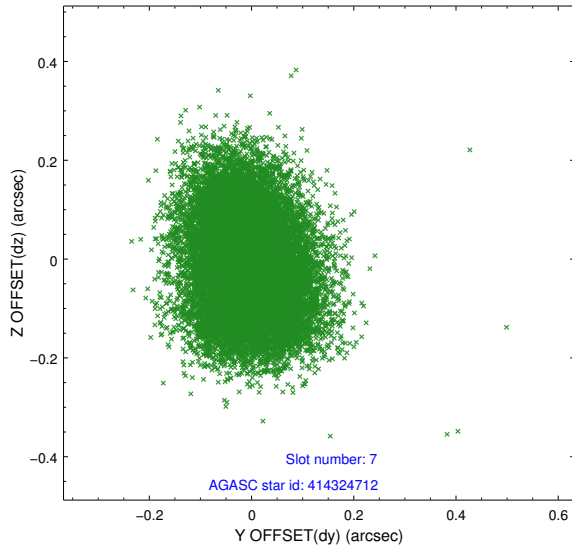
### 2.4.3 Slot 5



## 2.4.4 Slot 6

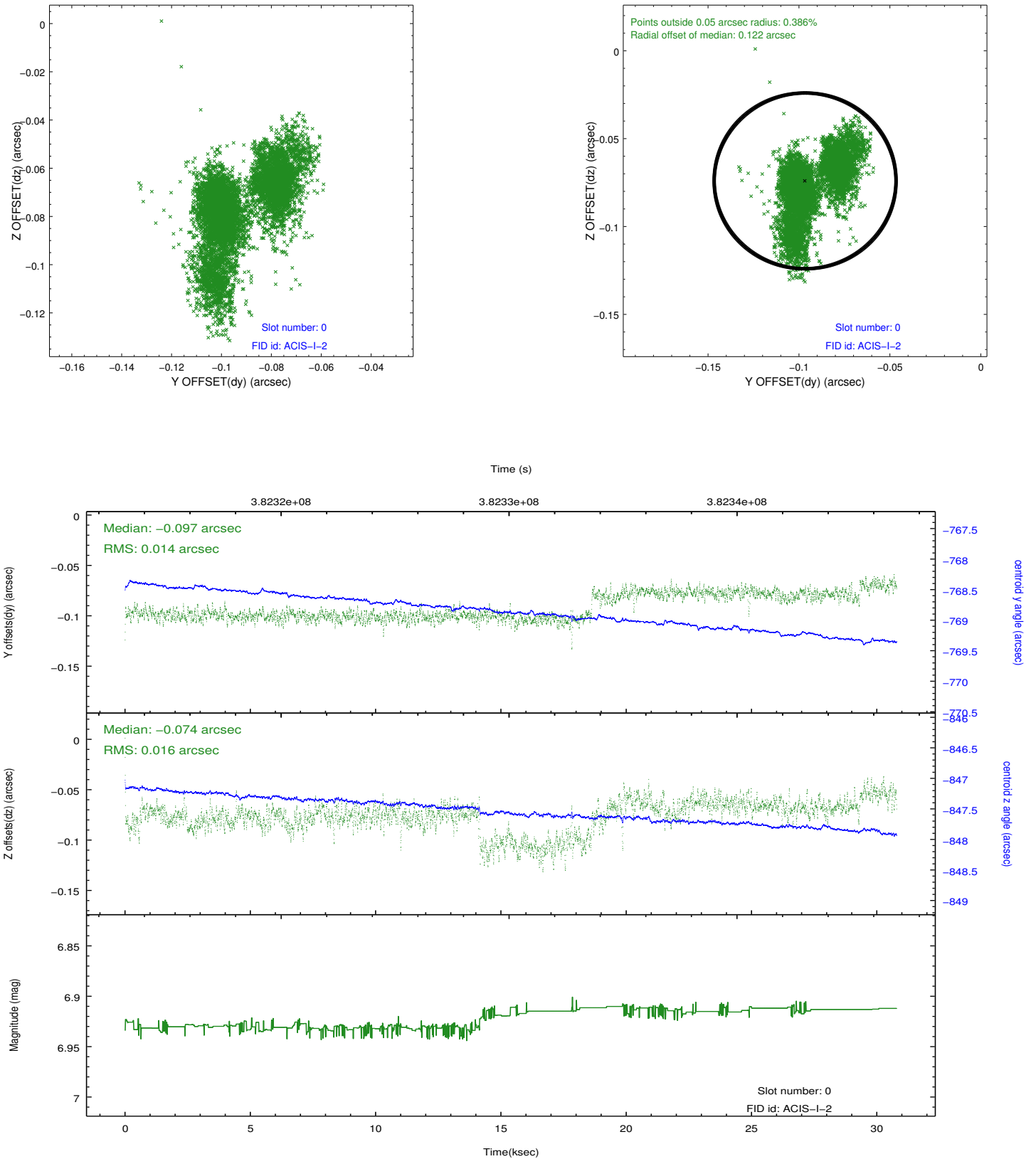


## 2.4.5 Slot 7

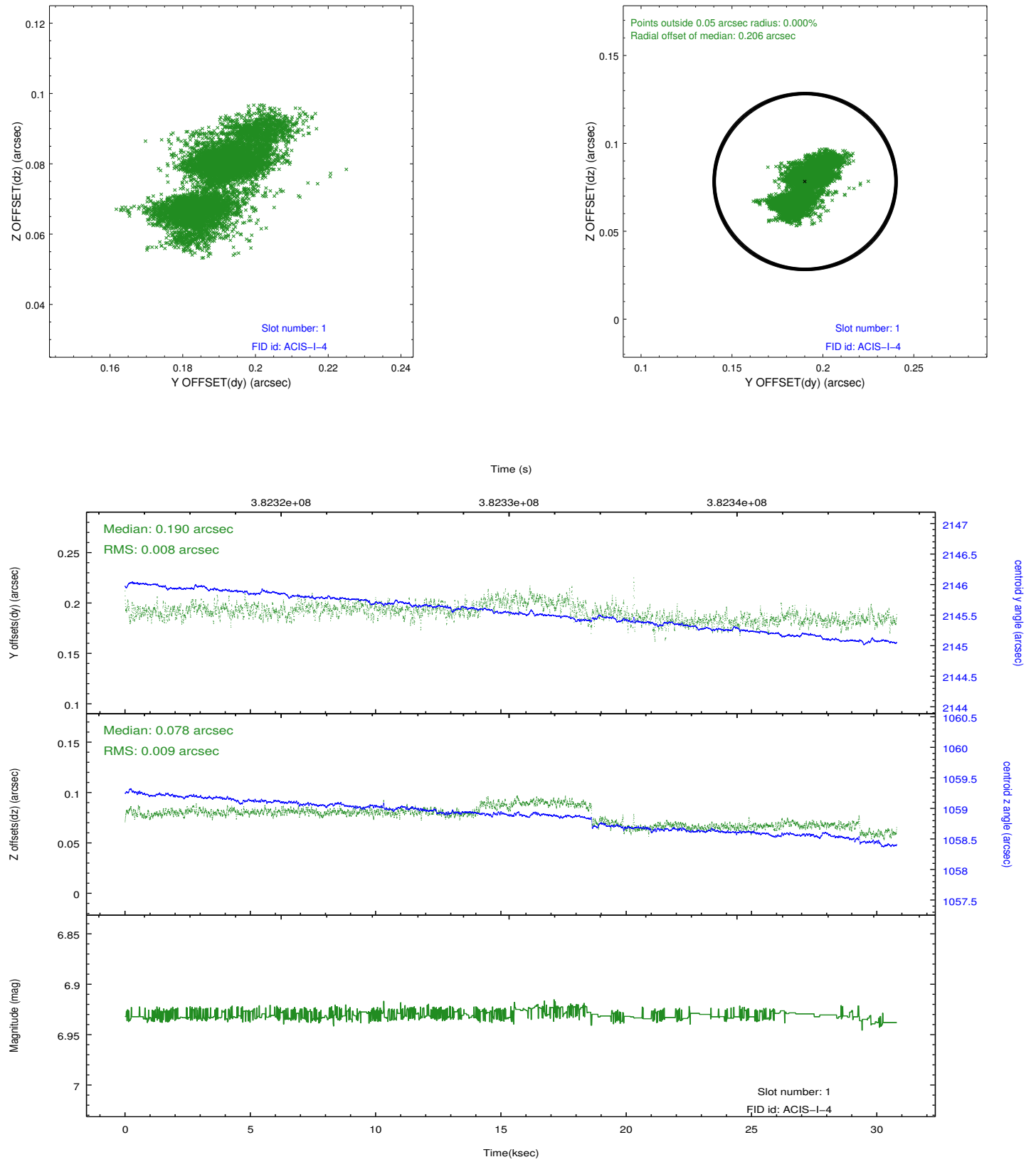


## 2.5 FID Slots

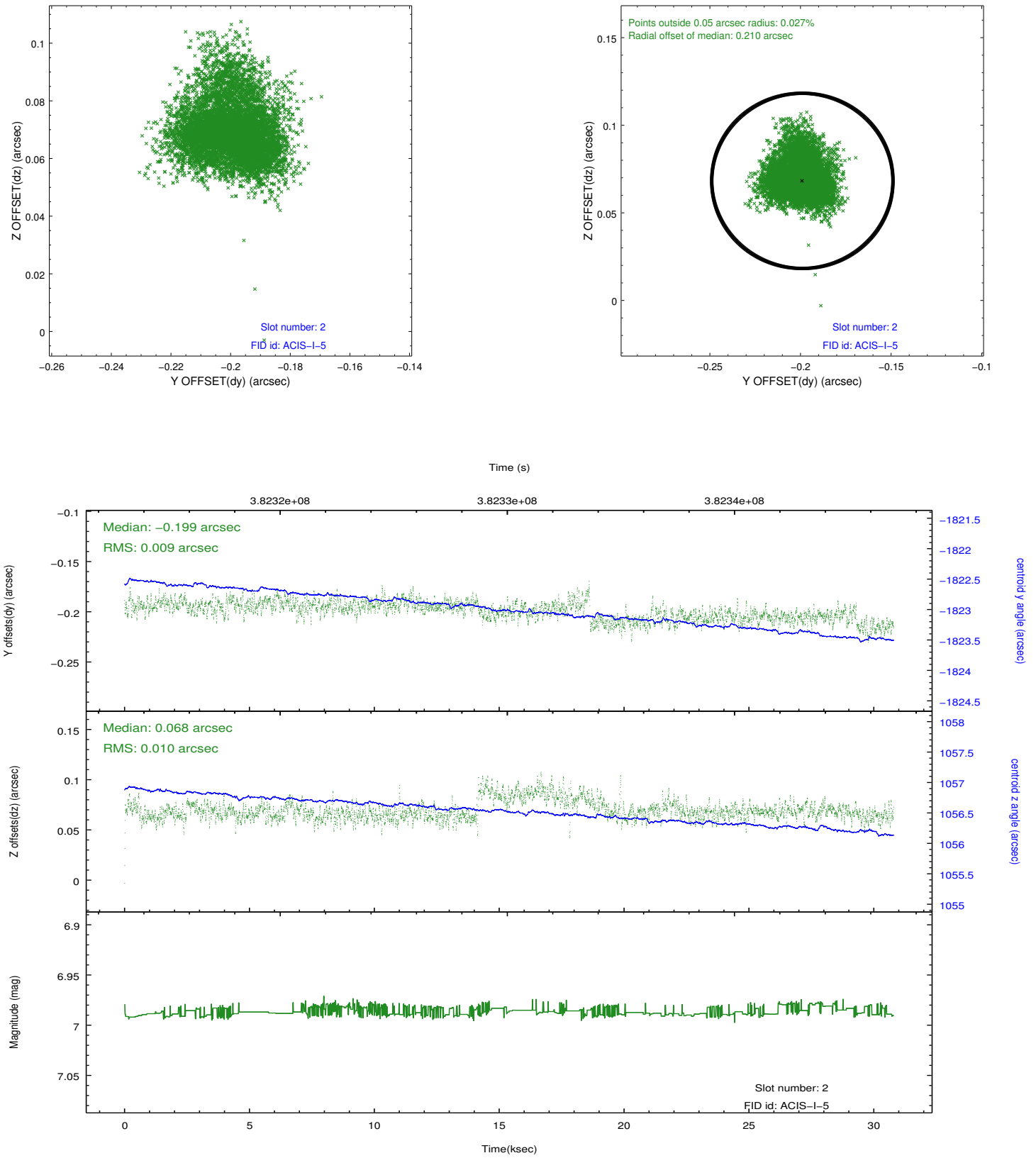
### 2.5.1 Slot 0



## 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)	2012.06.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	29.5460592

### A.2 Comments

Roll angle preference met.