

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 10945 - L2 Version 2  
Chandra X-Ray Center

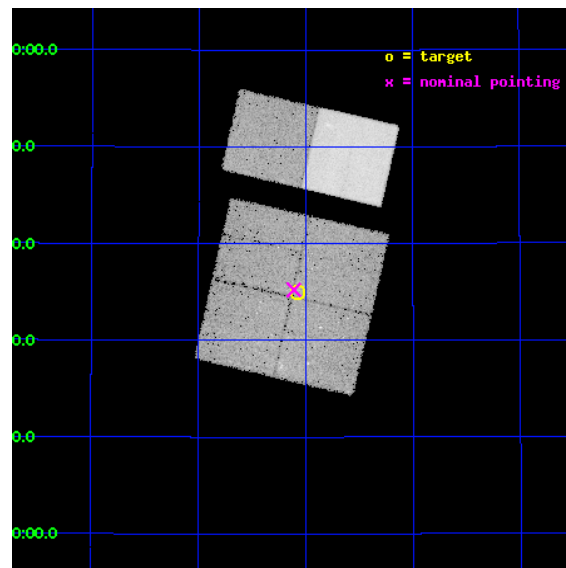
L2 Processing Date : Jun 20 2012

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# 1 Front

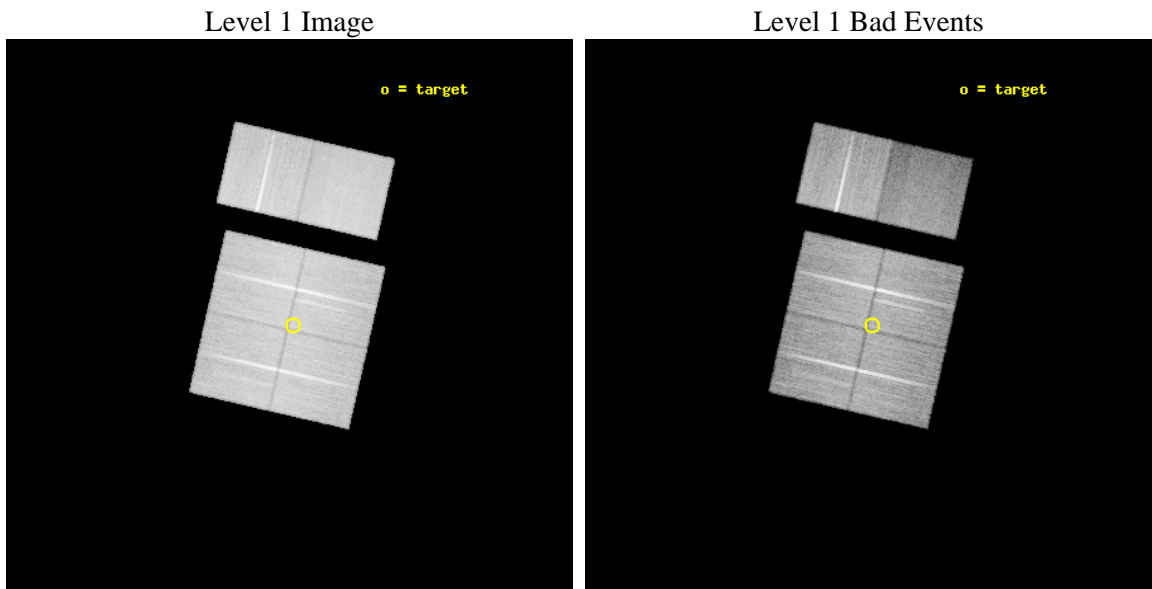
seq_num	200577	Sequence number
obs_id	10945	Observation id
title	The Chandra Cygnus OB2 Survey	Proposal title
observer	Dr. Jeremy Drake	Principal investigator
object	Cygnus OB2	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	308.018188	Observer's specified target RA [deg]
dec_targ	41.582999	Observer's specified target Dec [deg]
ra_nom	308.02750148485	Nominal RA [deg]
dec_nom	41.587058849097	Nominal Dec [deg]
roll_nom	12.902501071182	Nominal Roll [deg]
revision	2	Processing version of data
ontime	28239.917954266	Sum of GTIs [s]
livetime	27882.327109092	Livetime [s]
ontime0	28243.152869701	Sum of GTIs [s]
ontime1	28243.158994198	Sum of GTIs [s]
ontime2	28243.158944368	Sum of GTIs [s]
ontime3	28239.917954266	Sum of GTIs [s]
ontime6	28243.15892458	Sum of GTIs [s]
ontime7	28246.399894834	Sum of GTIs [s]
l2events	211554	Number of level 2 events



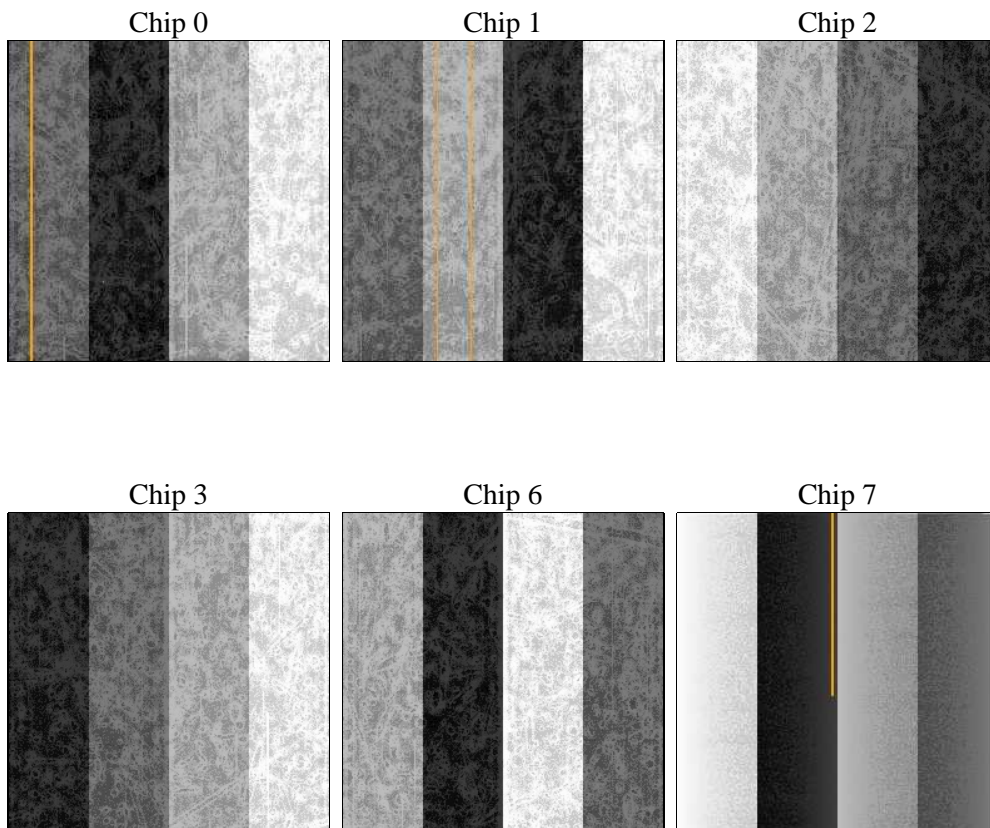
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	28492.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	28239.917954266	Sum of GTIs [s]
caldsver	4.4.10	&#160	ontime0	28243.152869701	Sum of GTIs [s]
date	2012-06-20T14:12:13	Date and time of file creation	ontime1	28243.158994198	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	28243.158944368	Sum of GTIs [s]
			ontime3	28239.917954266	Sum of GTIs [s]
			ontime6	28243.15892458	Sum of GTIs [s]
			ontime7	28246.399894834	Sum of GTIs [s]
			l1events	1300905	Number of level 1 events

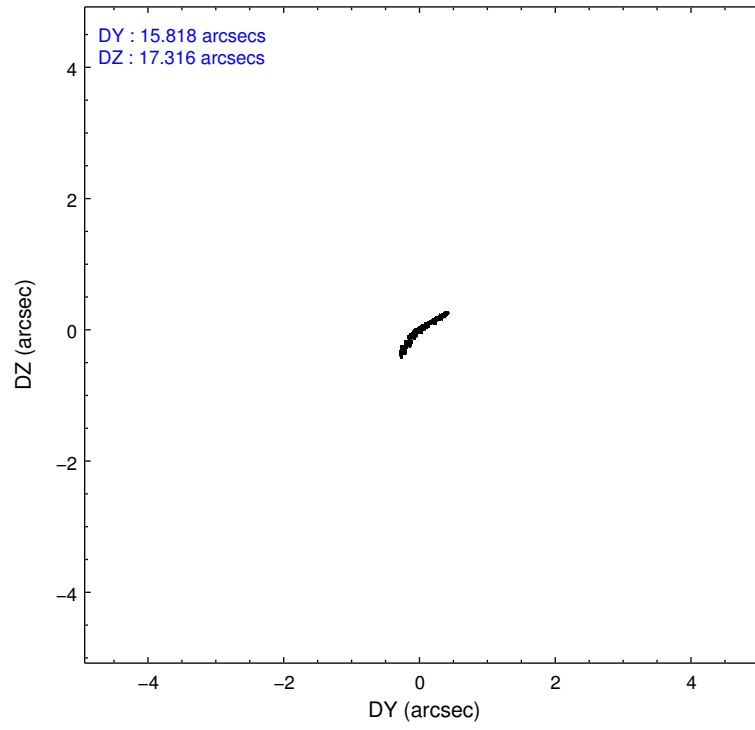
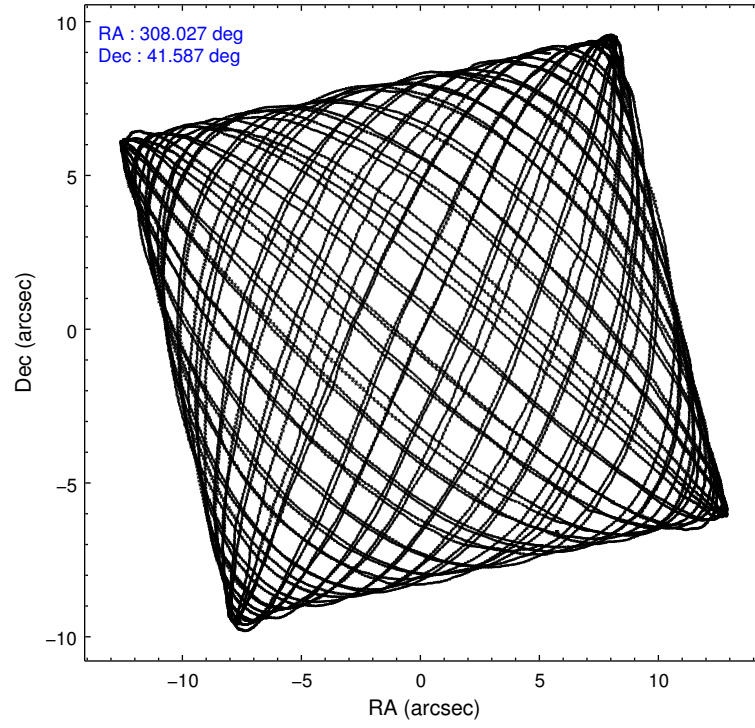
### 2.1.4 Events

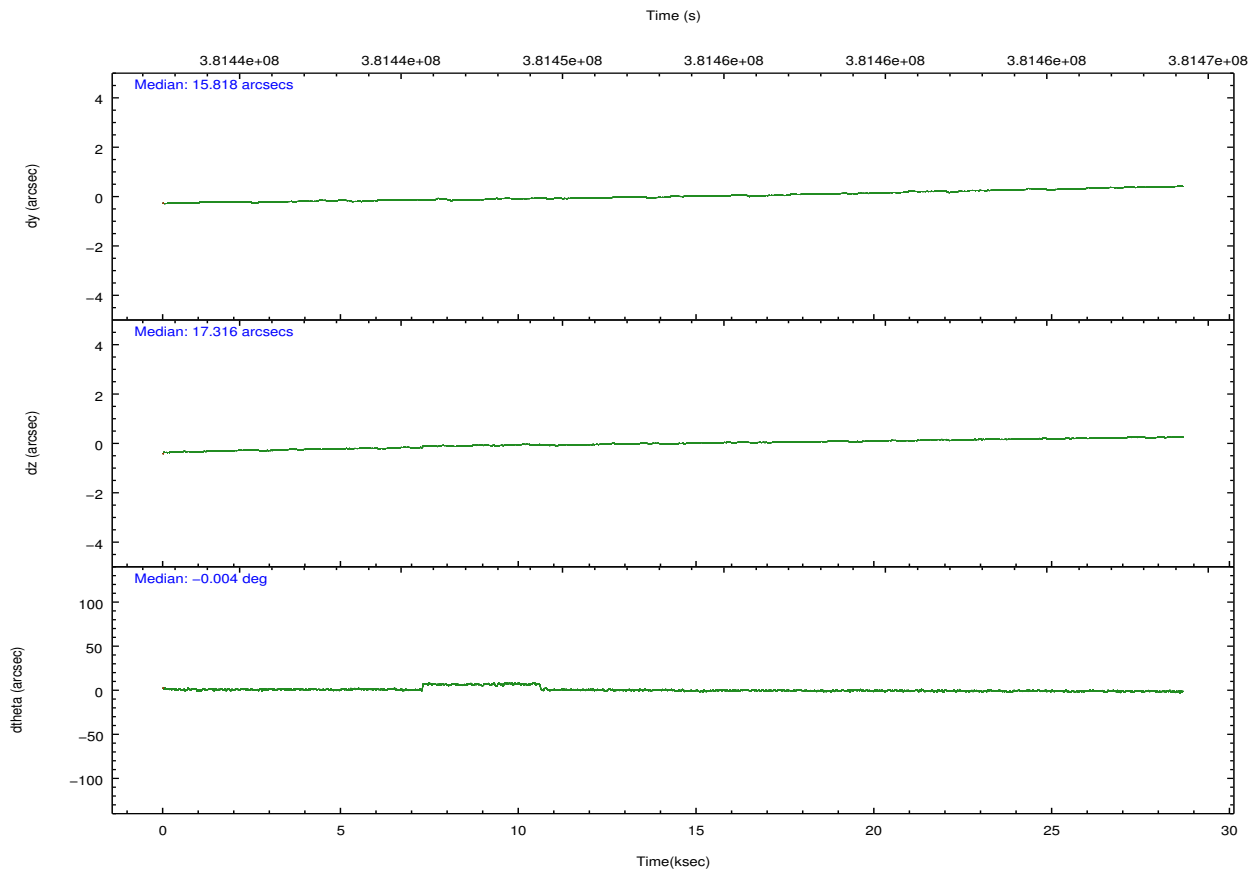
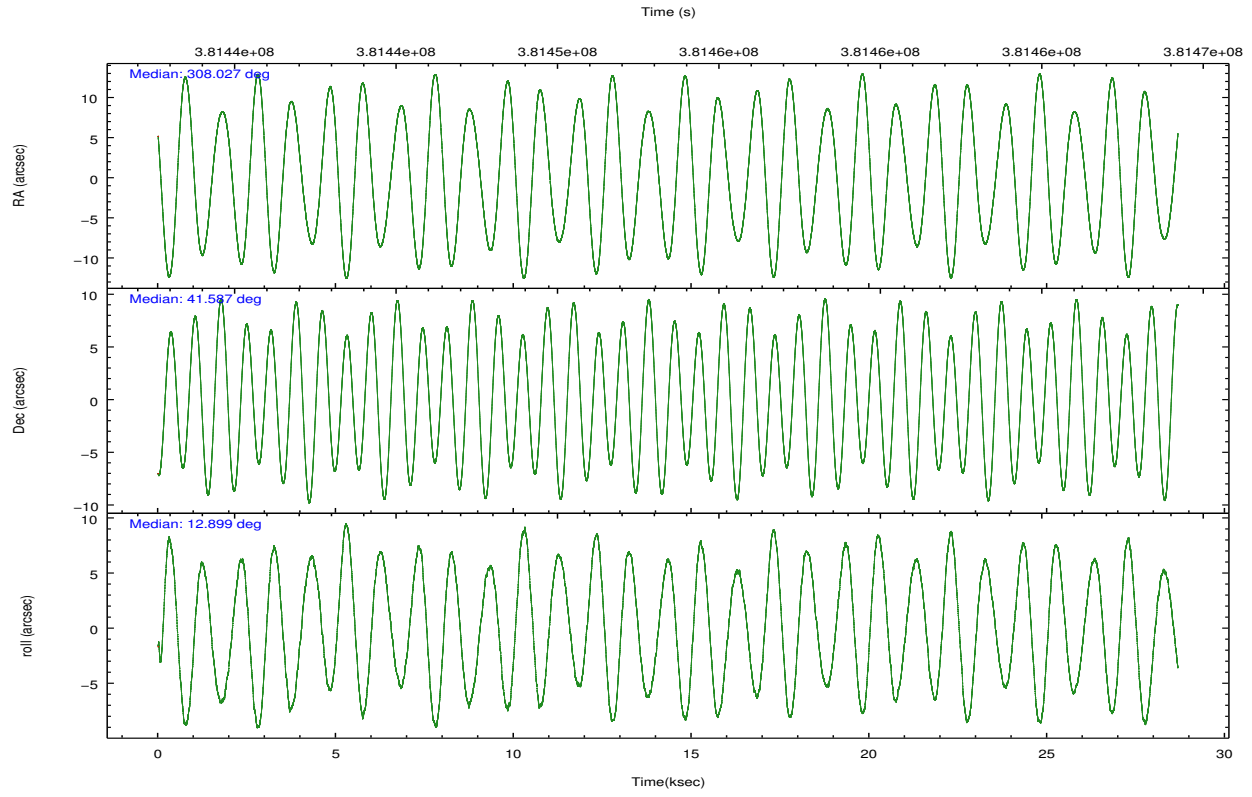
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	206460	207436	226596	213705	225936	220772	grade 0 events	11307	11528	9759	9174	9312	11144
rejected events	179500	179742	202369	190788	201271	111500		5%	5%	4%	4%	4%	5%
rejected %	86%	86%	89%	89%	89%	50%	grade 1 events	144	114	146	138	153	327
								0%	0%	0%	0%	0%	0%
							grade 2 events	6199	5759	5702	4881	5536	23635
								3%	2%	2%	2%	2%	10%
							grade 3 events	2583	2732	2408	2402	2542	10142
								1%	1%	1%	1%	1%	4%
							grade 4 events	2561	2782	2404	2358	2418	9871
								1%	1%	1%	1%	1%	4%
							grade 5 events	7016	7531	6797	7936	8119	23623
								3%	3%	2%	3%	3%	10%
							grade 6 events	4314	4903	3961	4113	4860	54511
								2%	2%	1%	1%	2%	24%
							grade 7 events	172336	172087	195419	182703	192996	87519
								83%	82%	86%	85%	85%	39%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	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	308.000710	308.0275014848458	CCD I2 on	Y	Y
[deg] Pointing Dec	41.568260	41.58705884909735	CCD I3 on	Y	Y
[deg] Pointing Roll	12.711601	12.90250107118244	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	O2	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	O1	Y
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	381439273.184000	381438896.85075	CCD S5 on	N	N
Observation start date	2010-02-01T19:20:07	2010-02-01T19:14:56	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	381467765.184000	381468736.13976	On-chip summing requested	N	N
Observation end date	2010-02-02T03:14:59	2010-02-02T03:32:16	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



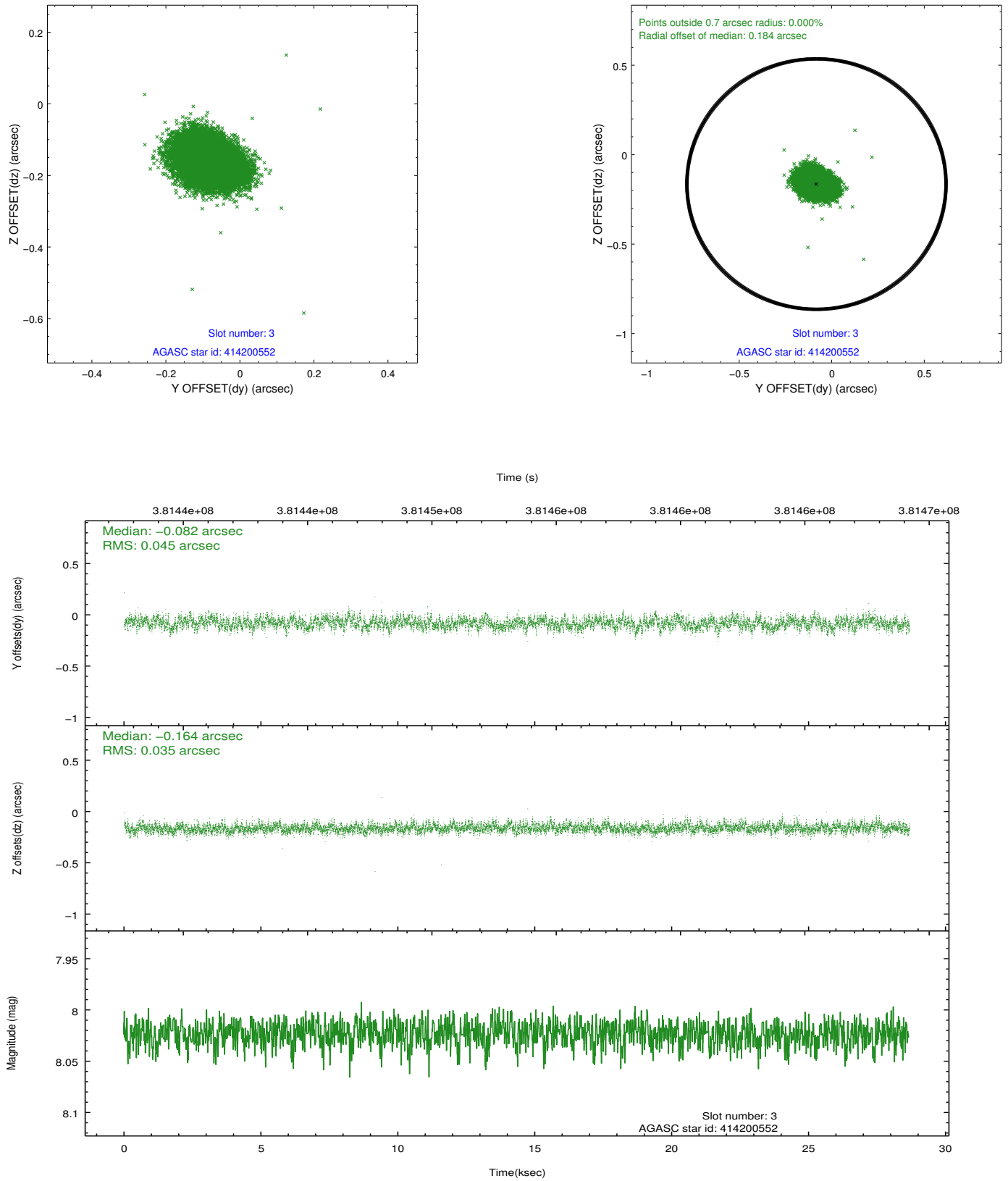


### Slot Statistics

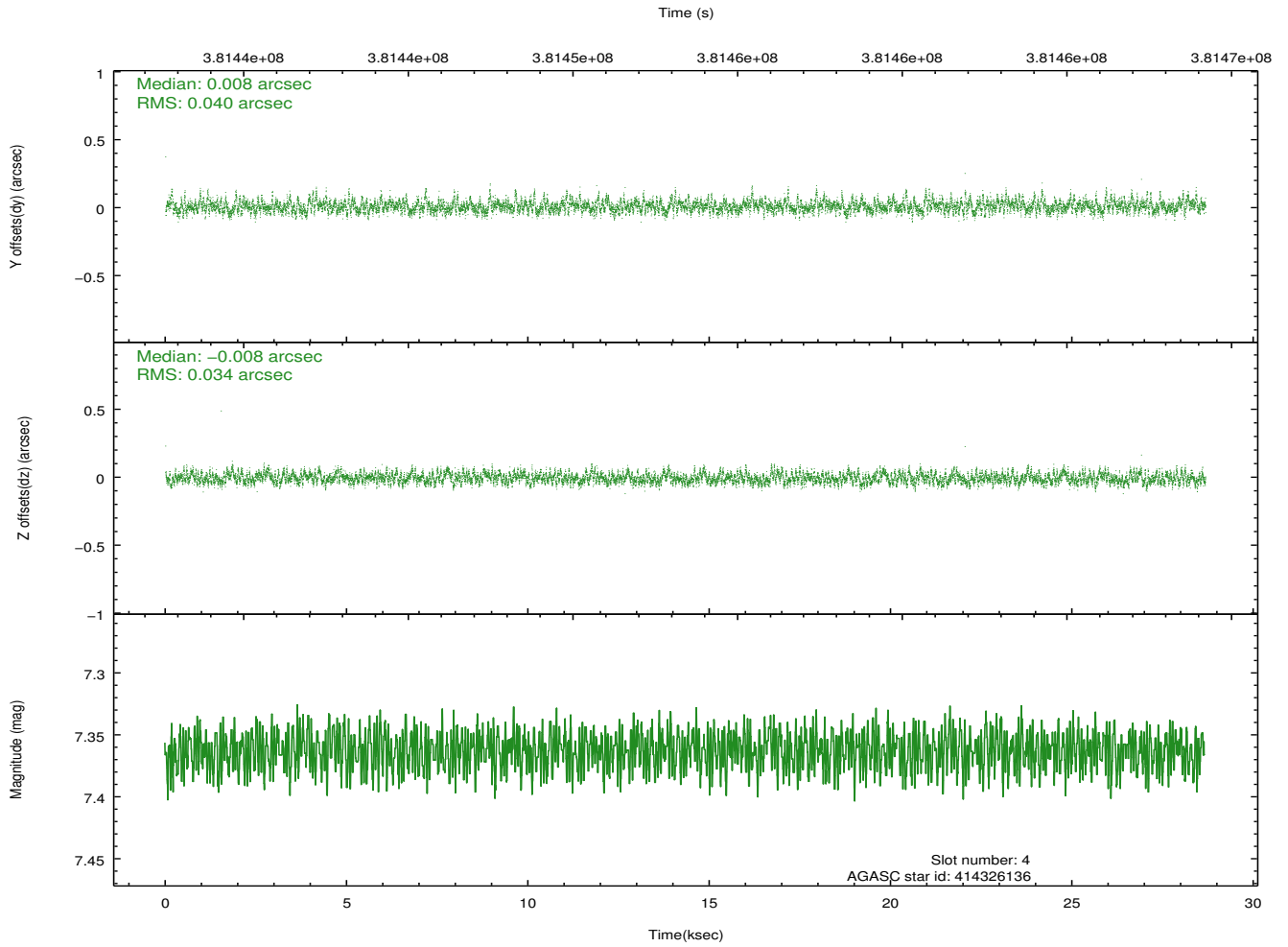
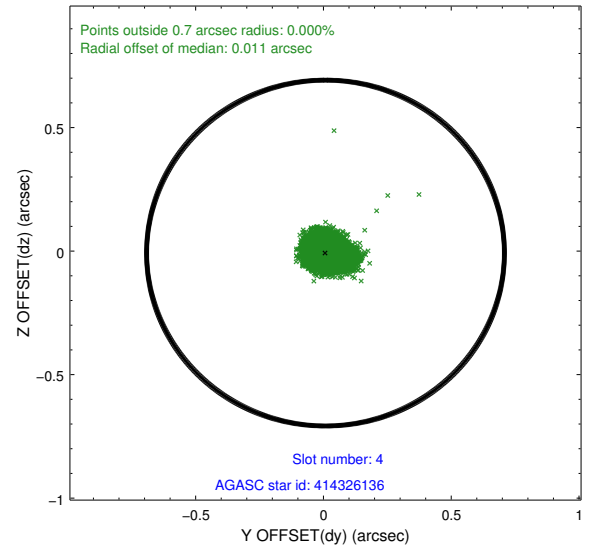
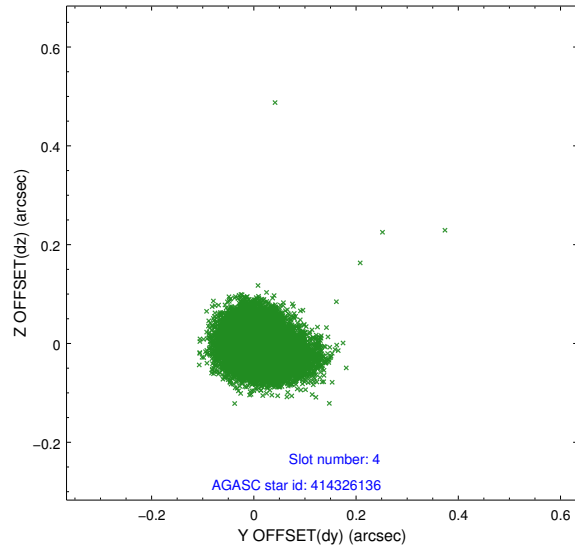
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	6.93	6995	-0.089	-0.106	0.015	0.055	0.000000	0.000000	-770.65	-847.44
1	FID	ACIS-I-4	6.94	6992	0.163	0.082	0.013	0.026	0.000000	0.000000	2143.57	1058.93
2	FID	ACIS-I-5	7.00	6995	-0.177	0.092	0.017	0.031	0.000000	0.000000	-1824.50	1056.80
3	GUIDE	414200552	8.02	13983	-0.082	-0.164	0.060	0.099	307.125971	42.009807	-1930.22	2077.10
4	GUIDE	414326136	7.36	13988	0.008	-0.008	0.055	0.090	308.256176	41.473642	597.76	-482.17
5	GUIDE	413805792	7.33	13990	0.007	0.008	0.058	0.089	307.778748	40.858024	-1151.52	-2359.92
6	GUIDE	414199536	8.57	13981	0.073	0.175	0.067	0.108	307.117380	41.957142	-1996.10	1898.03
7	GUIDE	414324232	8.31	13983	-0.008	-0.008	0.069	0.109	308.637806	41.996627	2003.34	1135.91

## 2.4 Star Slots

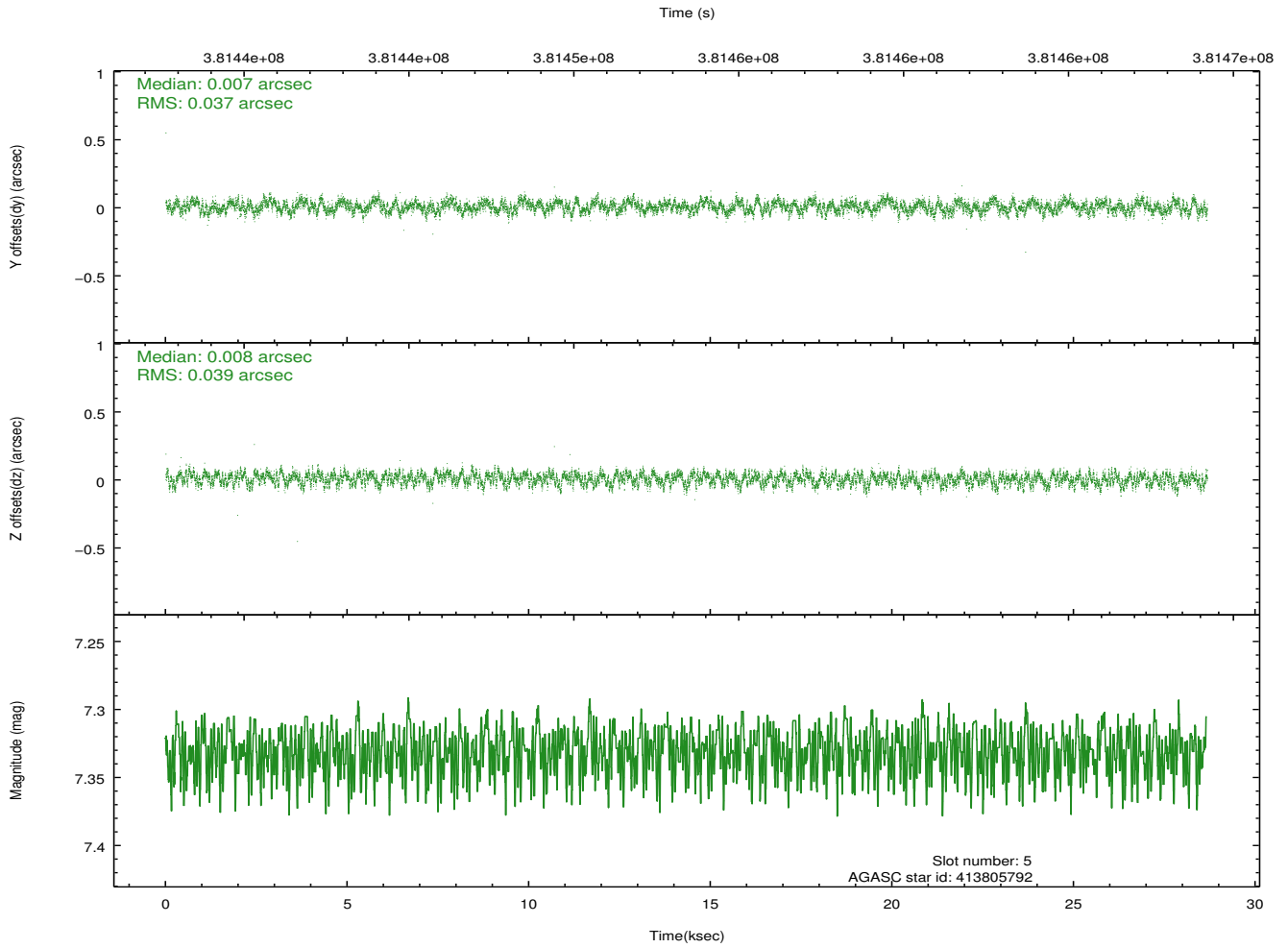
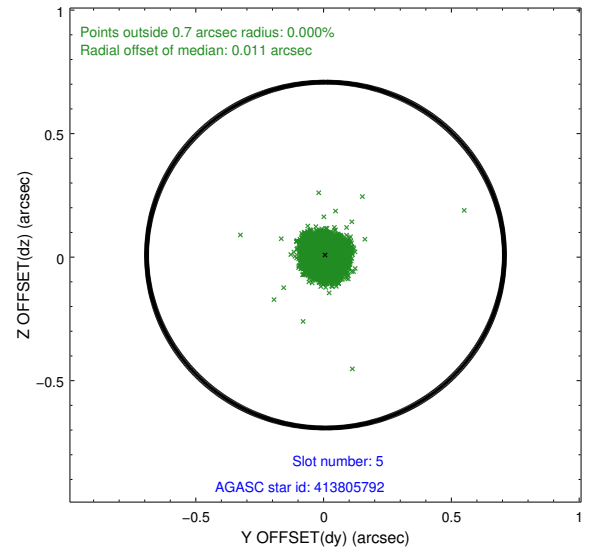
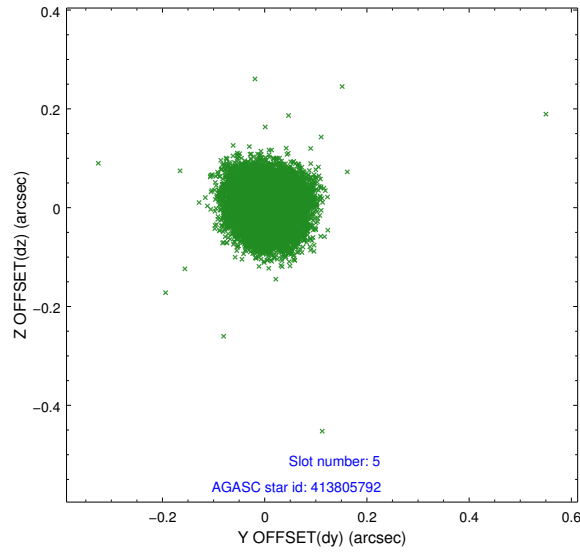
### 2.4.1 Slot 3



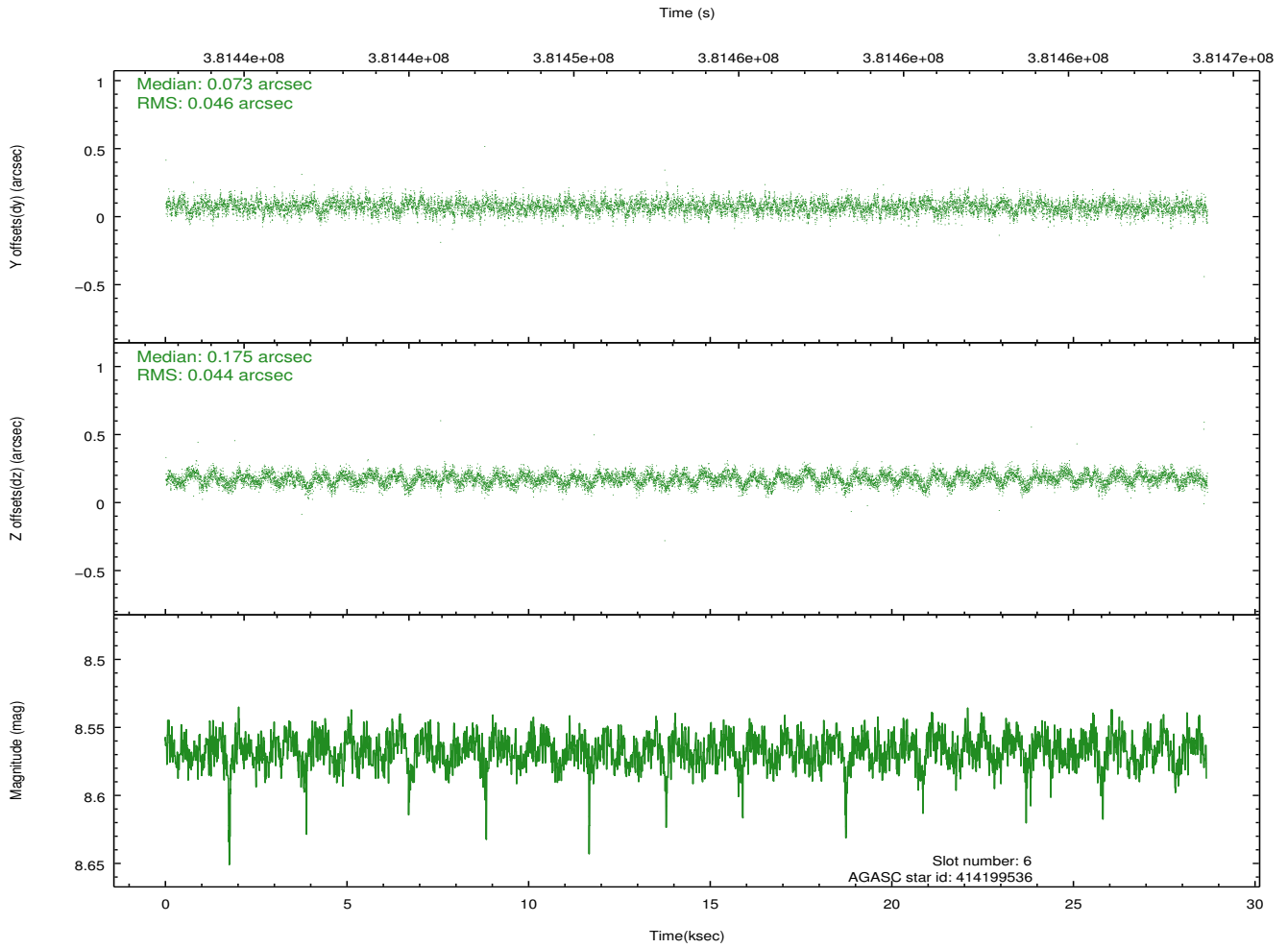
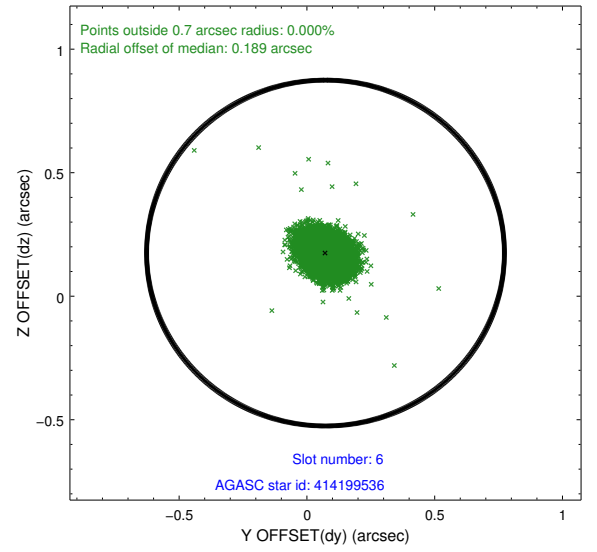
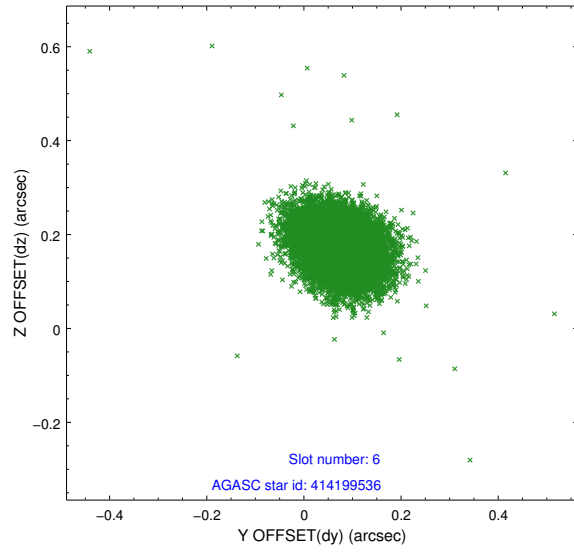
## 2.4.2 Slot 4



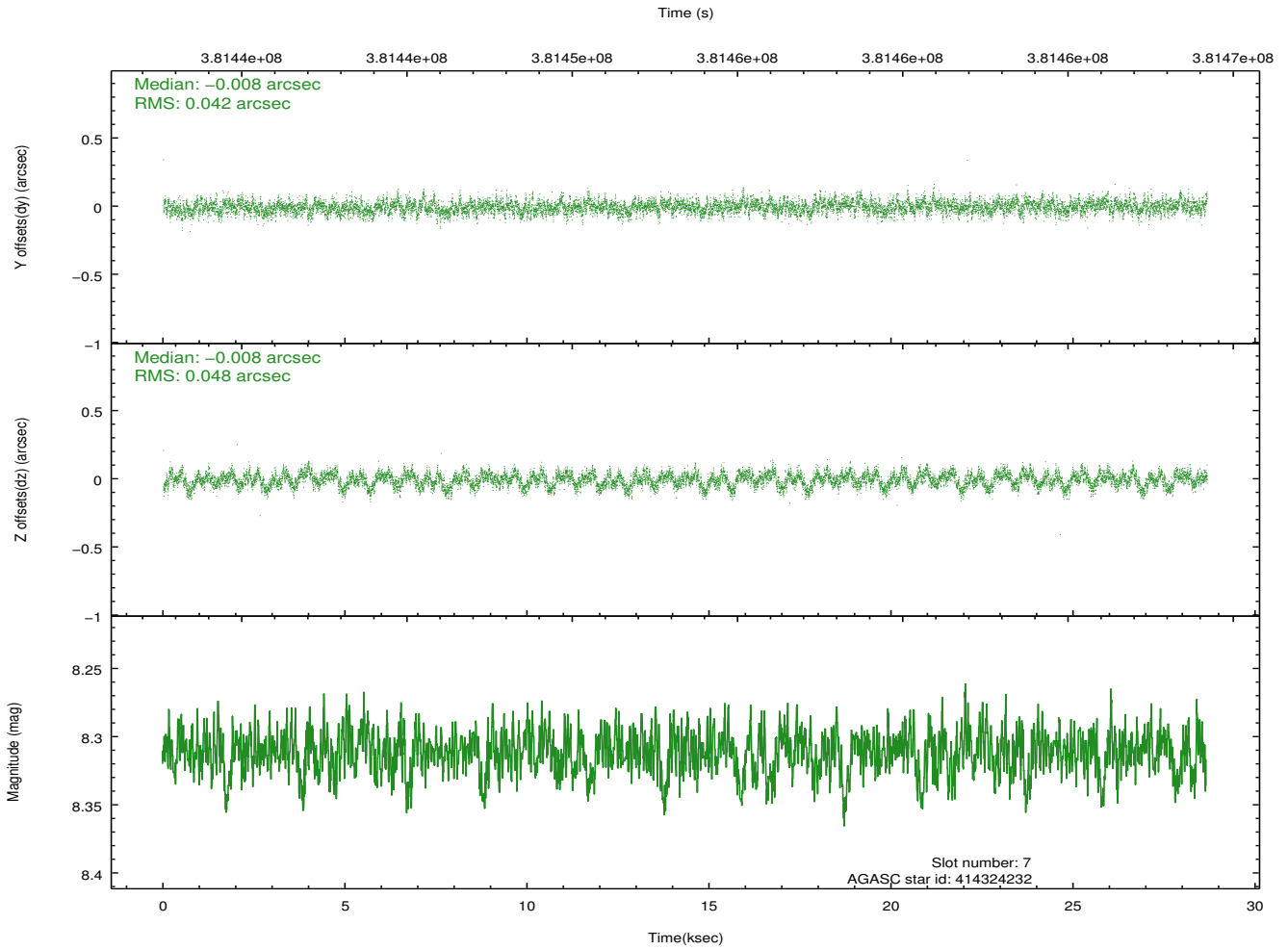
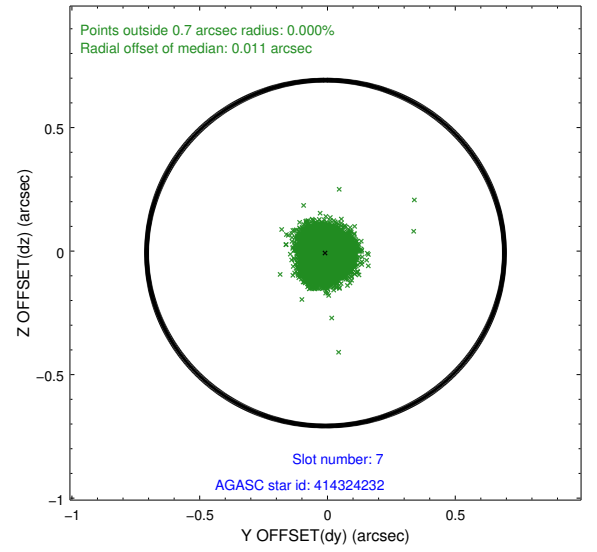
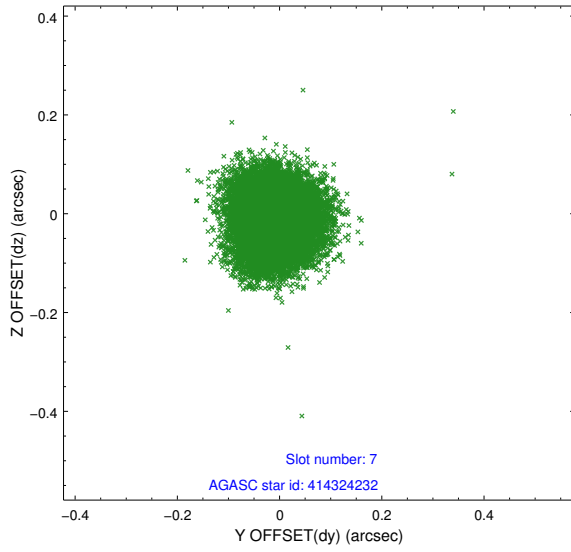
### 2.4.3 Slot 5



## 2.4.4 Slot 6

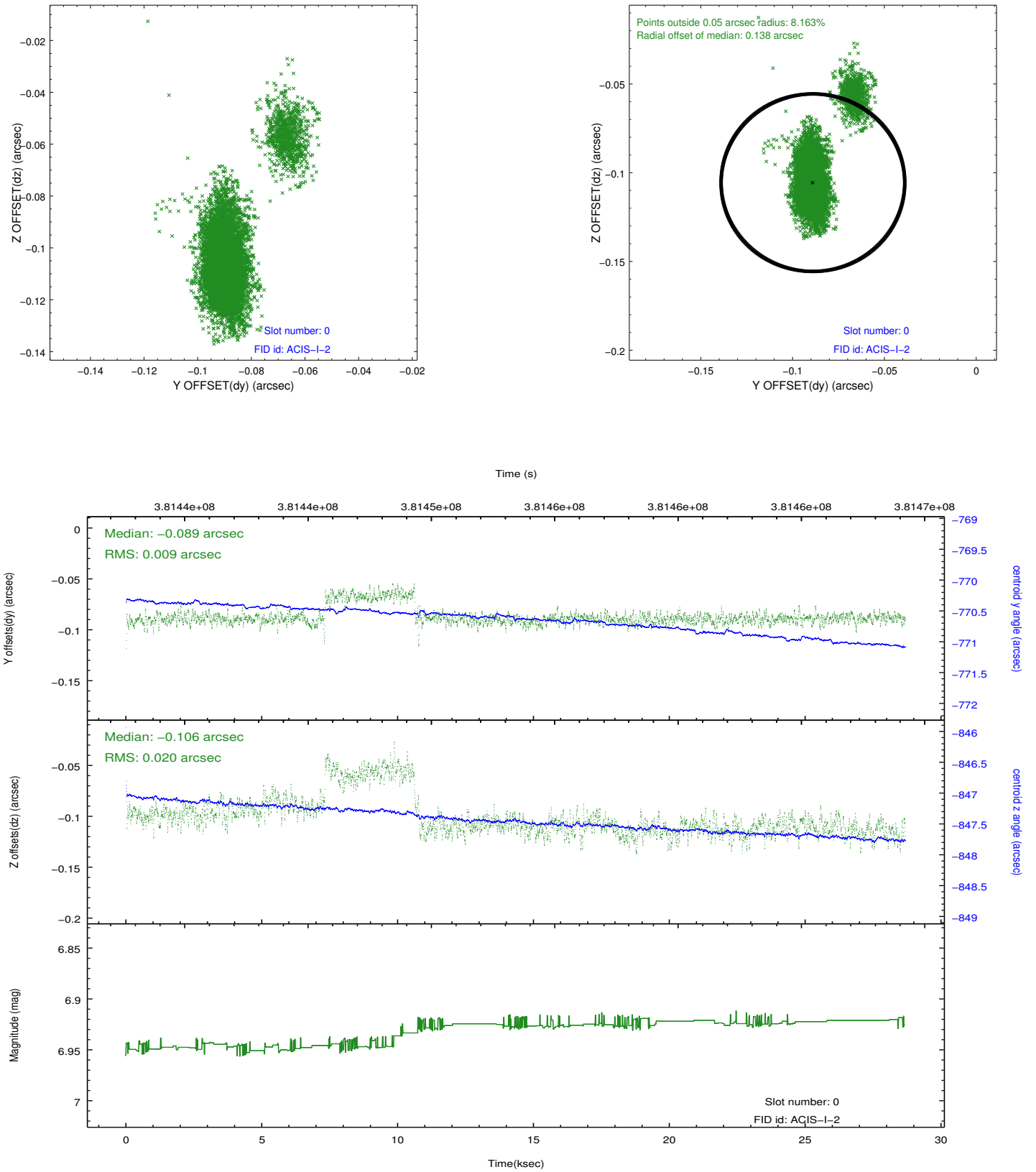


### 2.4.5 Slot 7

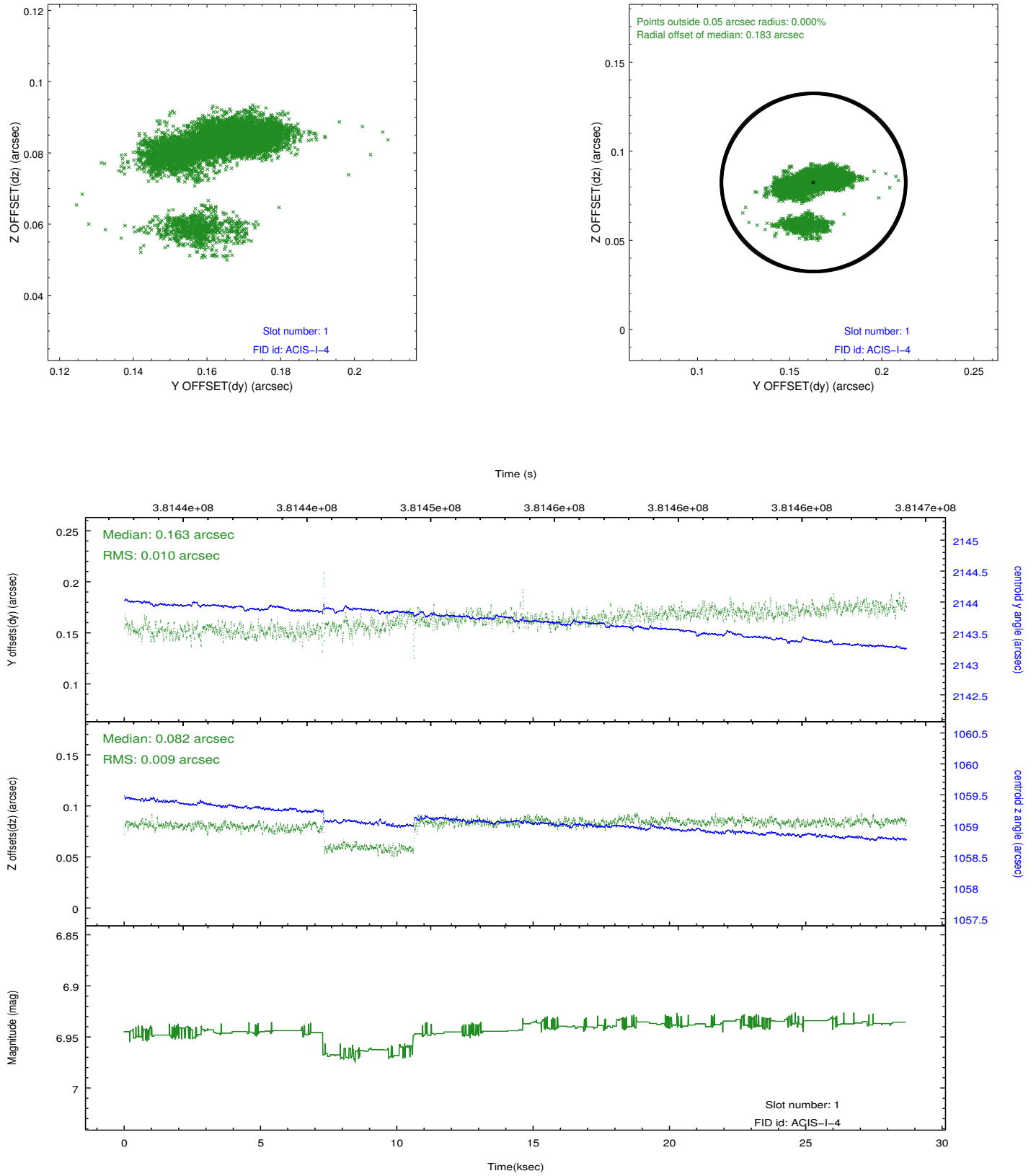


## 2.5 FID Slots

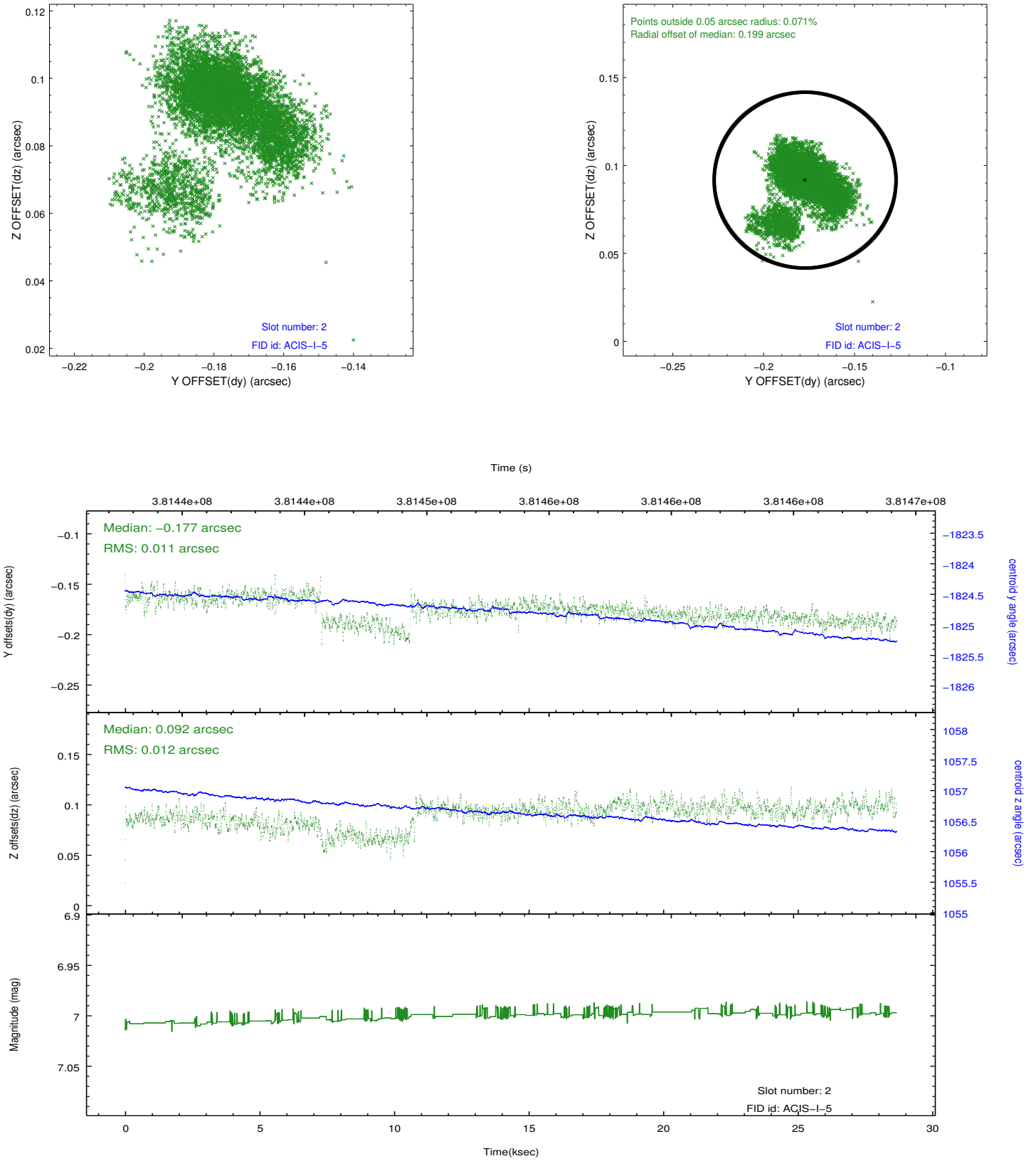
### 2.5.1 Slot 0



## 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)	2012.06.26
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	28.239917954266

### A.2 Comments

Roll preference met.