

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 4433 - L2 Version 3  
Chandra X-Ray Center

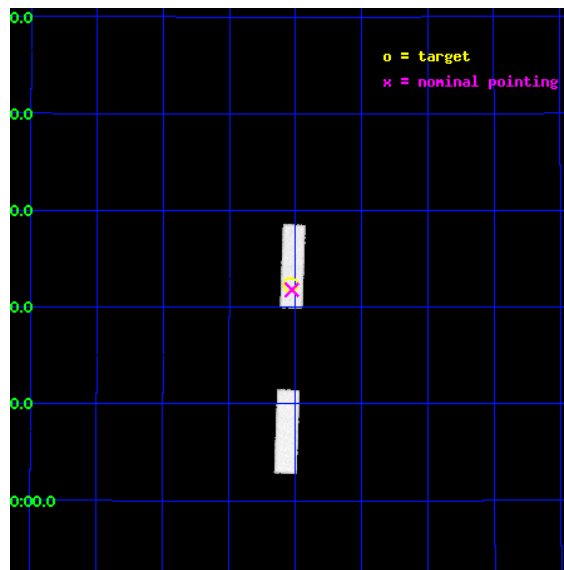
L2 Processing Date : Oct 26 2012

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# 1 Front

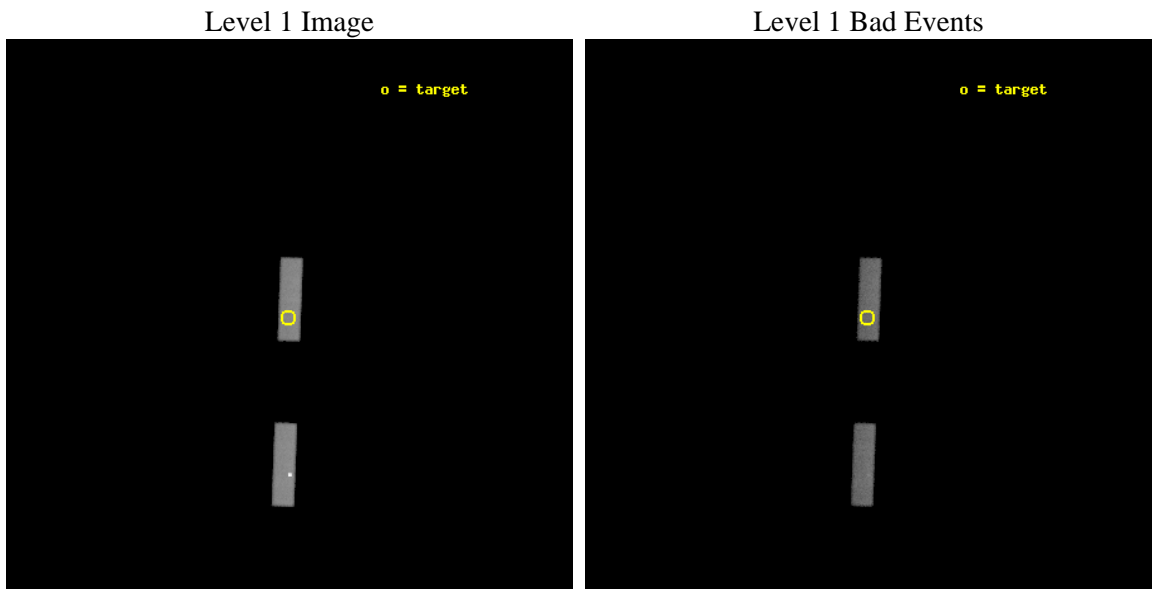
seq_num	100035	Sequence number
obs_id	4433	Observation id
title	SPATIALLY RESOLVED X-RAY EMISSION FROM SATURN	Proposal title
observer	Dr Jan-Uwe Ness	Principal investigator
object	SATURN	Source name
dtycycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	84.0083	Observer's specified target RA [deg]
dec_targ	22.37283	Observer's specified target Dec [deg]
ra_nom	84.006840475967	Nominal RA [deg]
dec_nom	22.363256215794	Nominal Dec [deg]
roll_nom	272.03270781716	Nominal Roll [deg]
revision	3	Processing version of data
ontime	35261.018173397	Sum of GTIs [s]
liveltime	33723.238497893	Livetime [s]
ontime5	35261.018173397	Sum of GTIs [s]
ontime7	35261.018173397	Sum of GTIs [s]
l2events	93239	Number of level 2 events



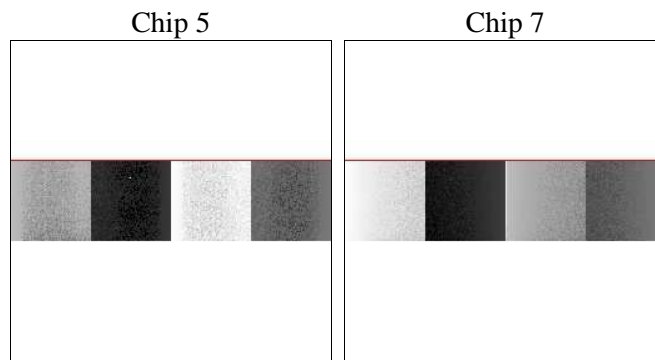
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	35428.377000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	35261.018173397	Sum of GTIs [s]
caldsver	4.5.2	&#160	ontime5	35261.018173397	Sum of GTIs [s]
date	2012-10-26T13:17:48	Date and time of file creation	ontime7	35261.018173397	Sum of GTIs [s]
revision	3	Processing version of data	l1events	208811	Number of level 1 events

### 2.1.4 Events

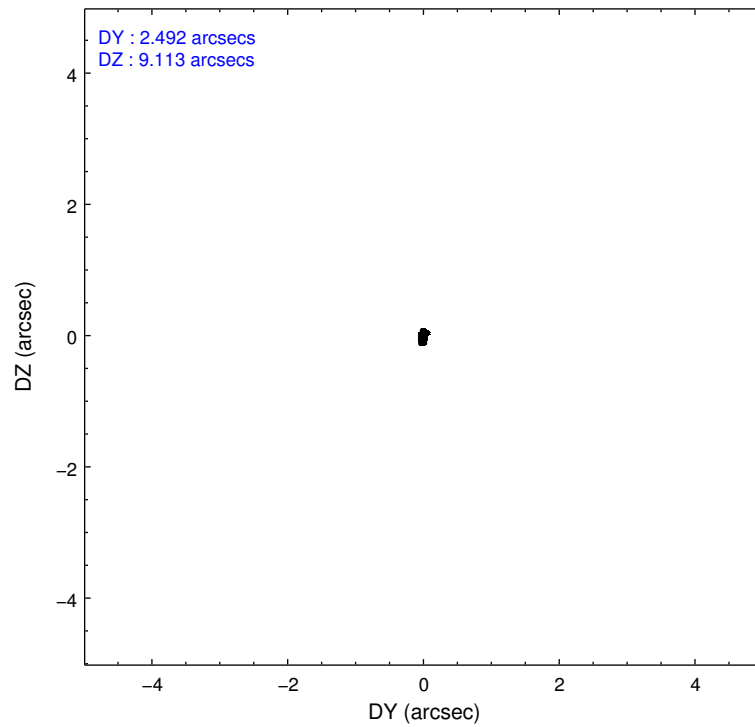
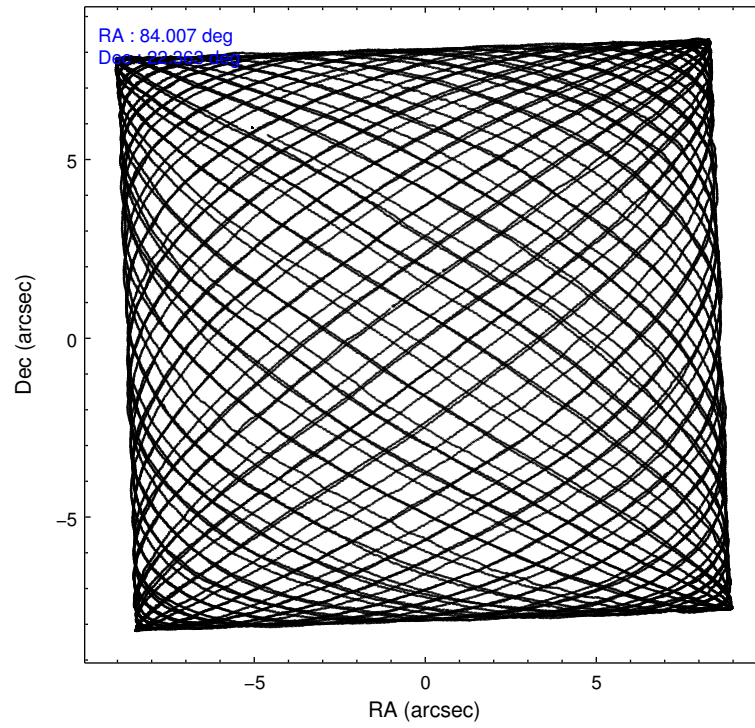
	ccd 5	ccd 7
level 1 events	123957	84854
rejected events	42646	41175
rejected %	34%	48%

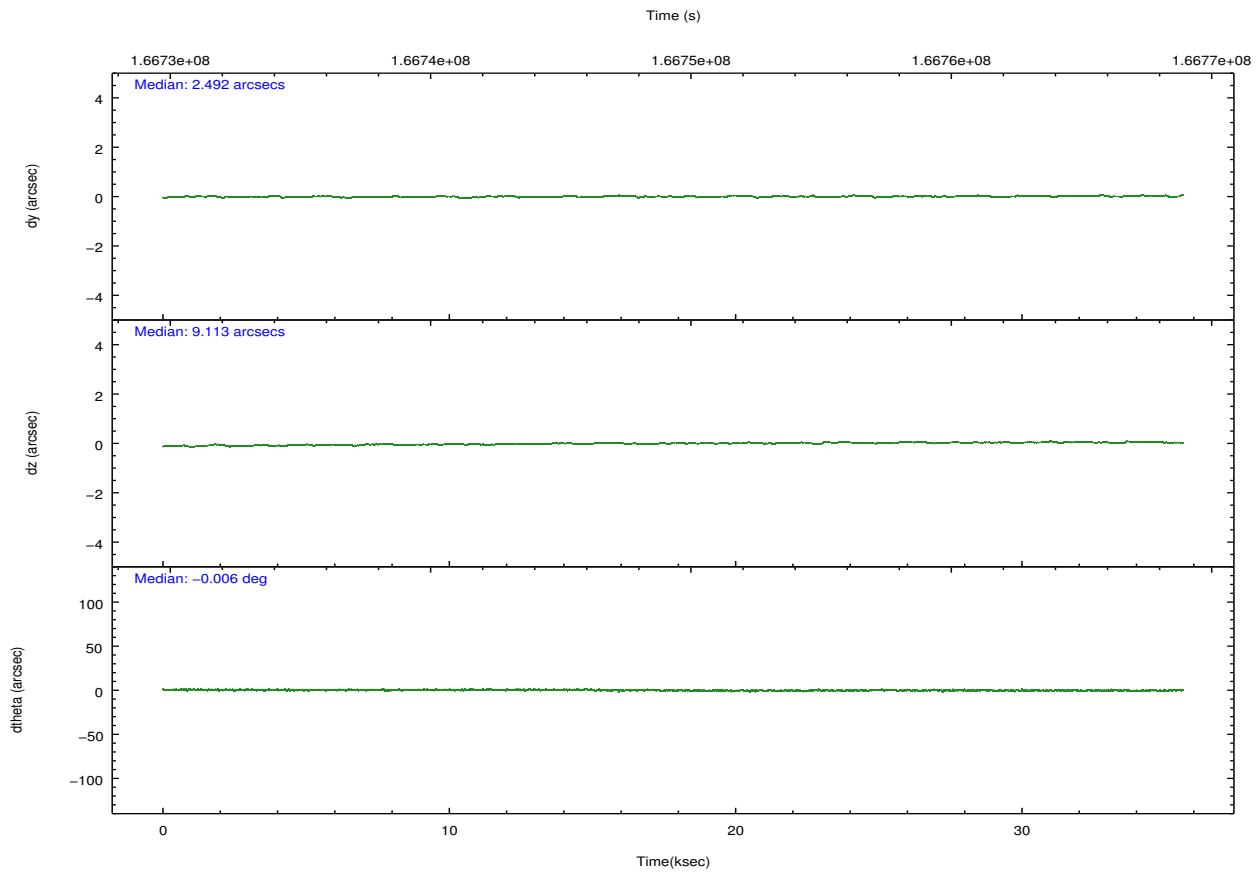
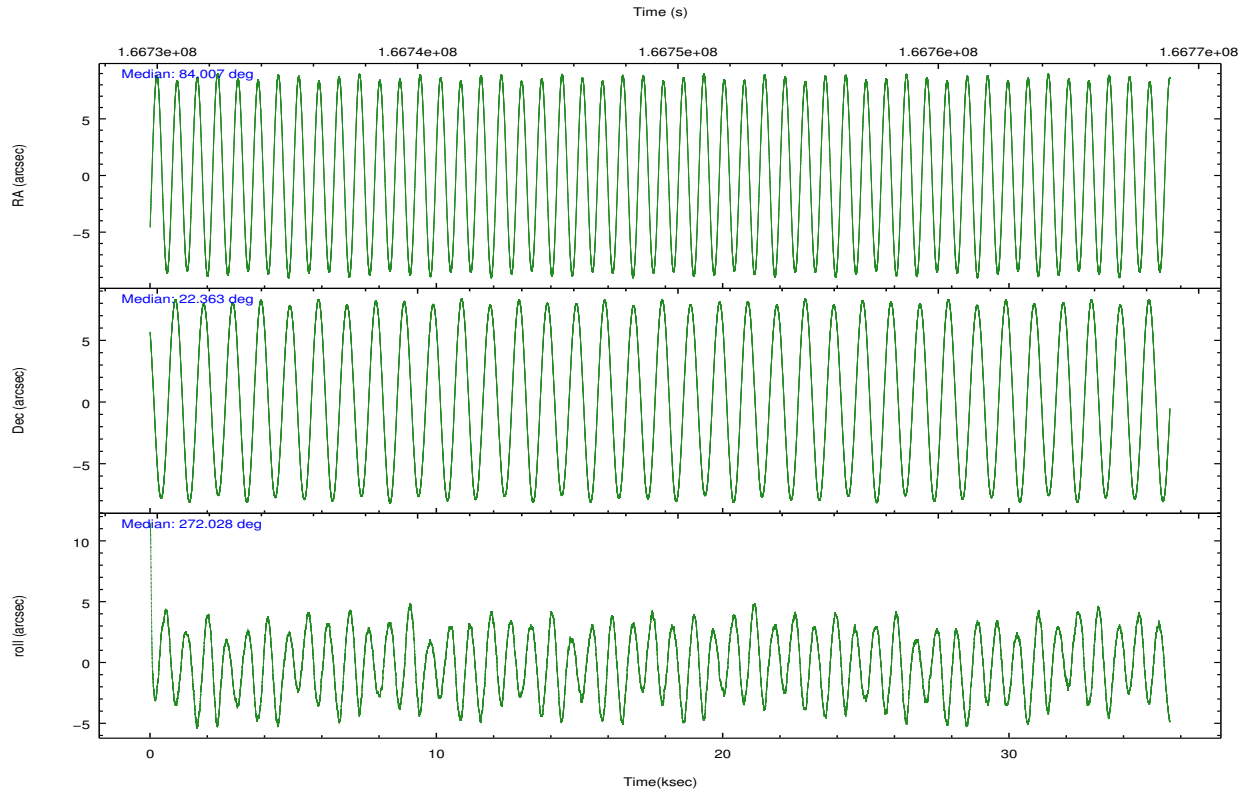
	ccd 5	ccd 7
grade 0 events	35467	5232
	28%	6%
grade 1 events	297	69
	0%	0%
grade 2 events	16387	8508
	13%	10%
grade 3 events	3770	4444
	3%	5%
grade 4 events	3457	4418
	2%	5%
grade 5 events	6733	7108
	5%	8%
grade 6 events	22231	21081
	17%	24%
grade 7 events	35615	33994
	28%	40%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-57	ACIS-57	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	83.990883	84.00684047596656	Subarray requested	CUSTOM	1/4
[deg] Pointing Dec	22.386144	22.36325621579381	Subarray start row	385	385
[deg] Pointing Roll	271.882158	272.0327078171637	Subarray row count	256	256
[mm] SIM focus pos	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
[mm] SIM defocus	0	0.001444936568705701	[s] Primary exposure time	0.000000	0.9
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	166731698.184000	166731321.63153			
Observation start date	2003-04-14T18:20:34	2003-04-14T18:15:21			
[s] Observation end time (MET)	166767126.184000	166767440.58306			
Observation end date	2003-04-15T04:11:02	2003-04-15T04:17:20			
Read mode	TIMED	TIMED			

## 2.3 Aspect



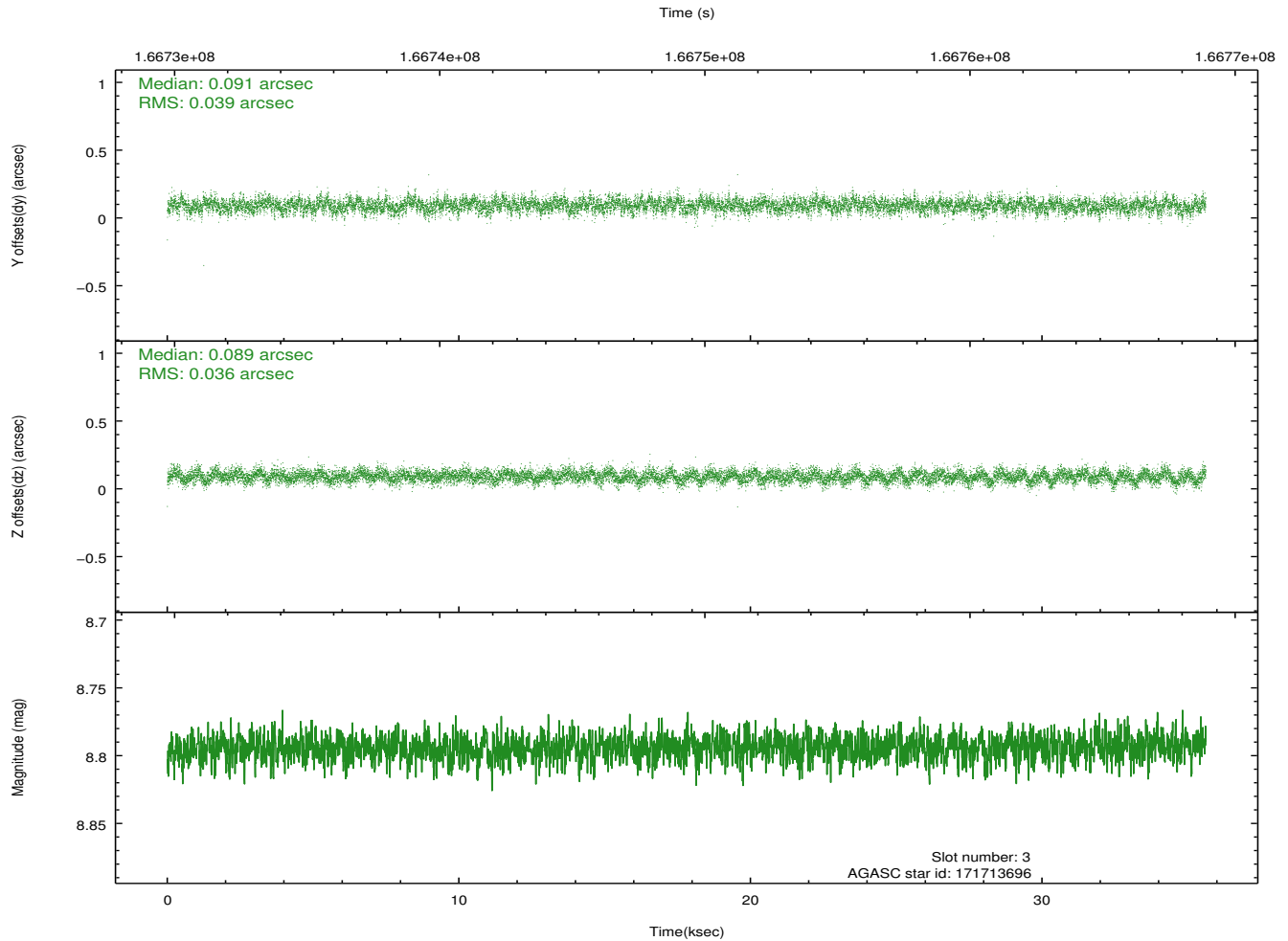
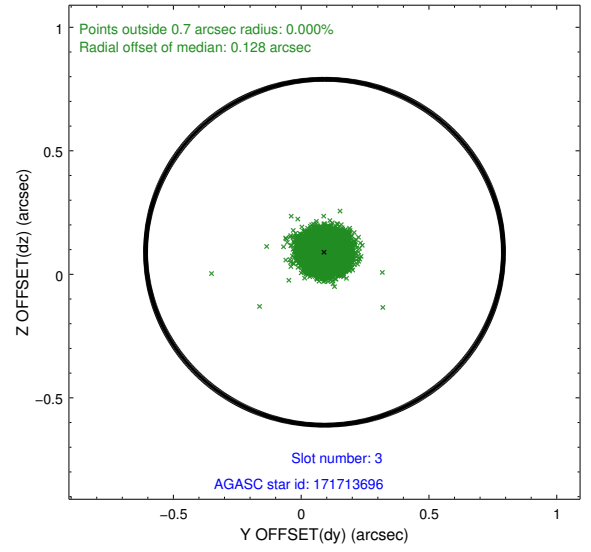
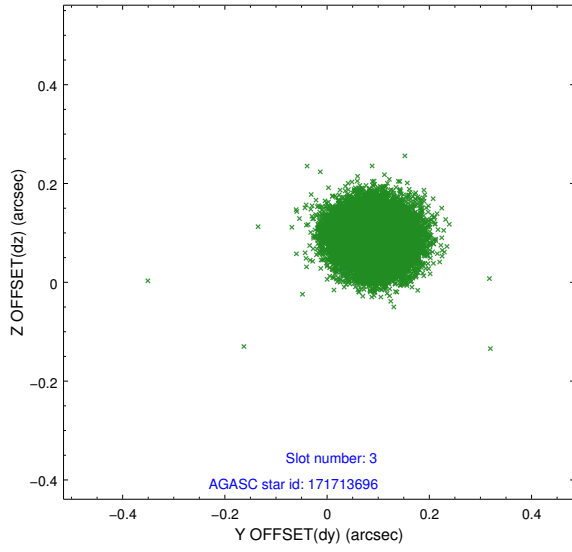


### Slot Statistics

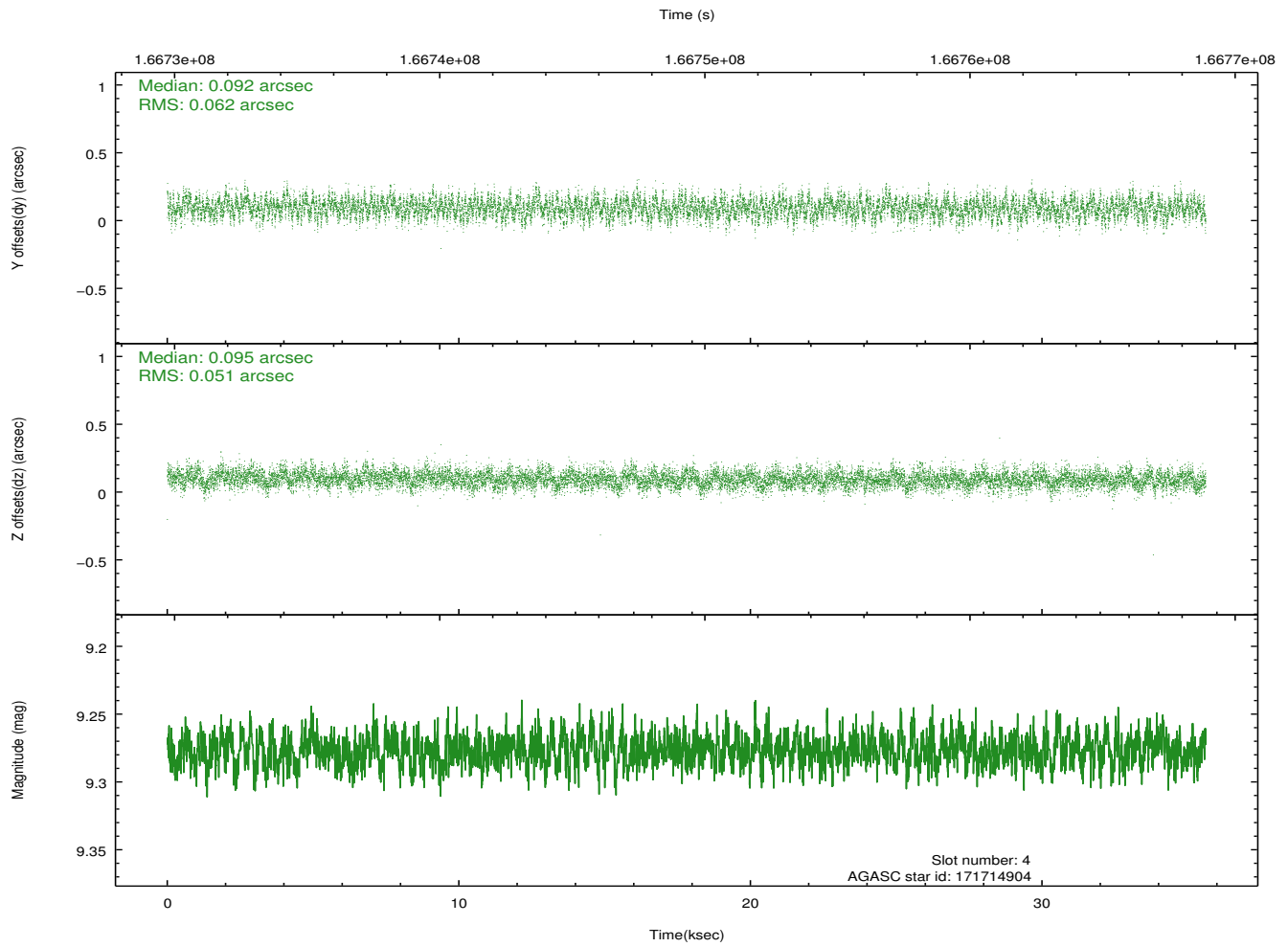
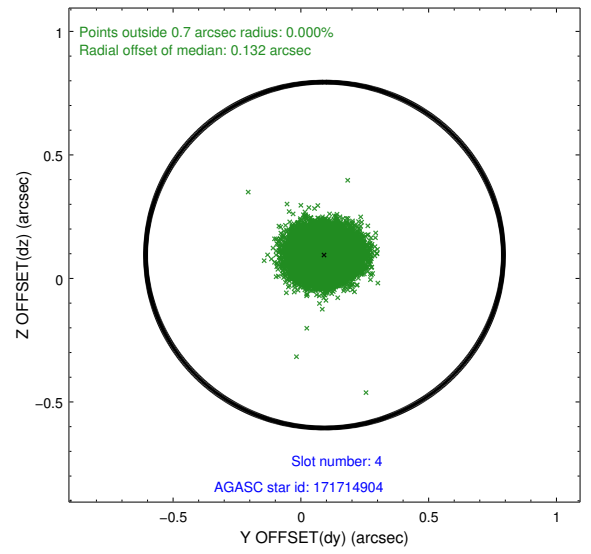
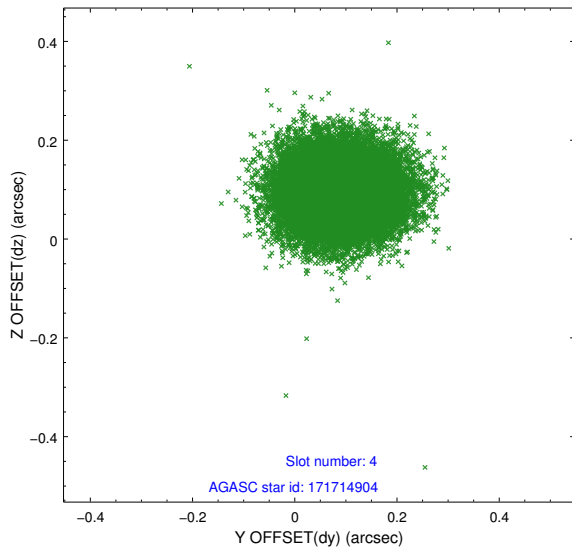
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.19	8685	0.008	0.028	0.007	0.012	0.000000	0.000000	940.94	-1725.92
1	FID	ACIS-S-5	7.24	8685	-0.011	0.026	0.006	0.011	0.000000	0.000000	-1808.07	171.58
2	FID	ACIS-S-6	7.36	8686	-0.019	-0.042	0.008	0.013	0.000000	0.000000	406.41	815.52
3	GUIDE	171713696	8.79	17368	0.091	0.089	0.056	0.091	84.473197	21.894804	1818.39	1552.58
4	GUIDE	171714904	9.28	17366	0.092	0.095	0.087	0.138	84.565036	22.013202	1401.64	1871.70
5	GUIDE	242223104	8.60	17367	-0.189	-0.190	0.094	0.145	83.329008	22.957429	-2132.33	-2125.34
6	GUIDE	243941560	8.29	17365	0.001	-0.094	0.071	0.114	83.733264	22.568598	-685.19	-834.58
7	GUIDE	171720040	9.30	17364	0.011	0.107	0.084	0.134	84.493575	22.465216	-232.35	1681.00

## 2.4 Star Slots

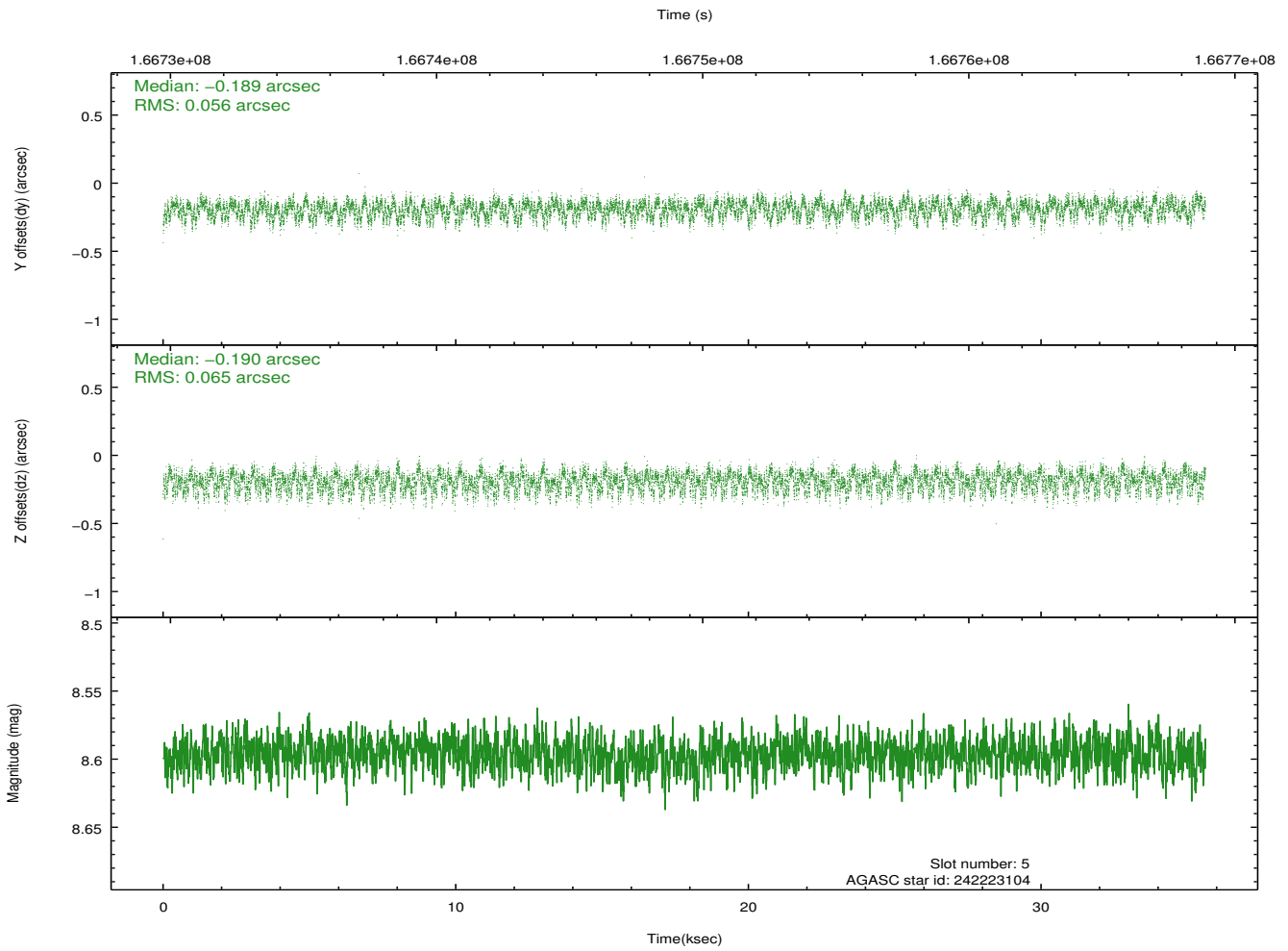
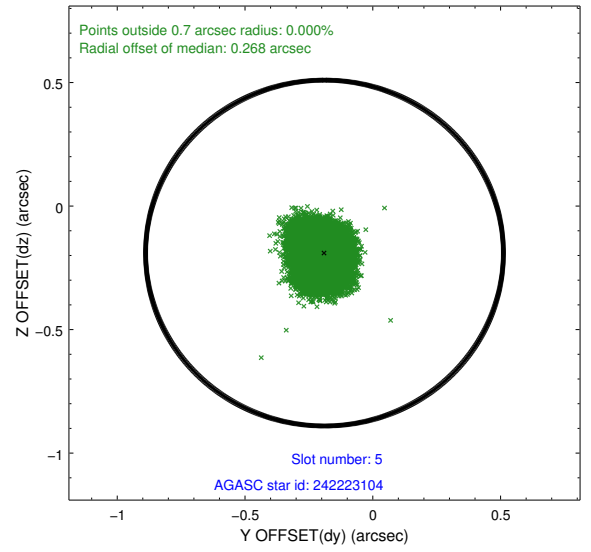
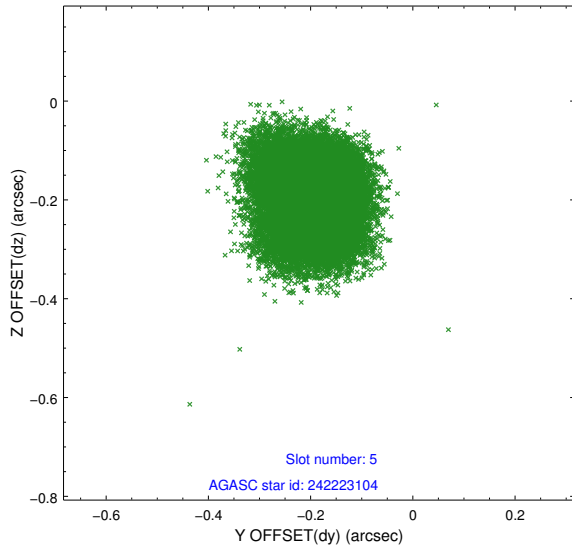
### 2.4.1 Slot 3



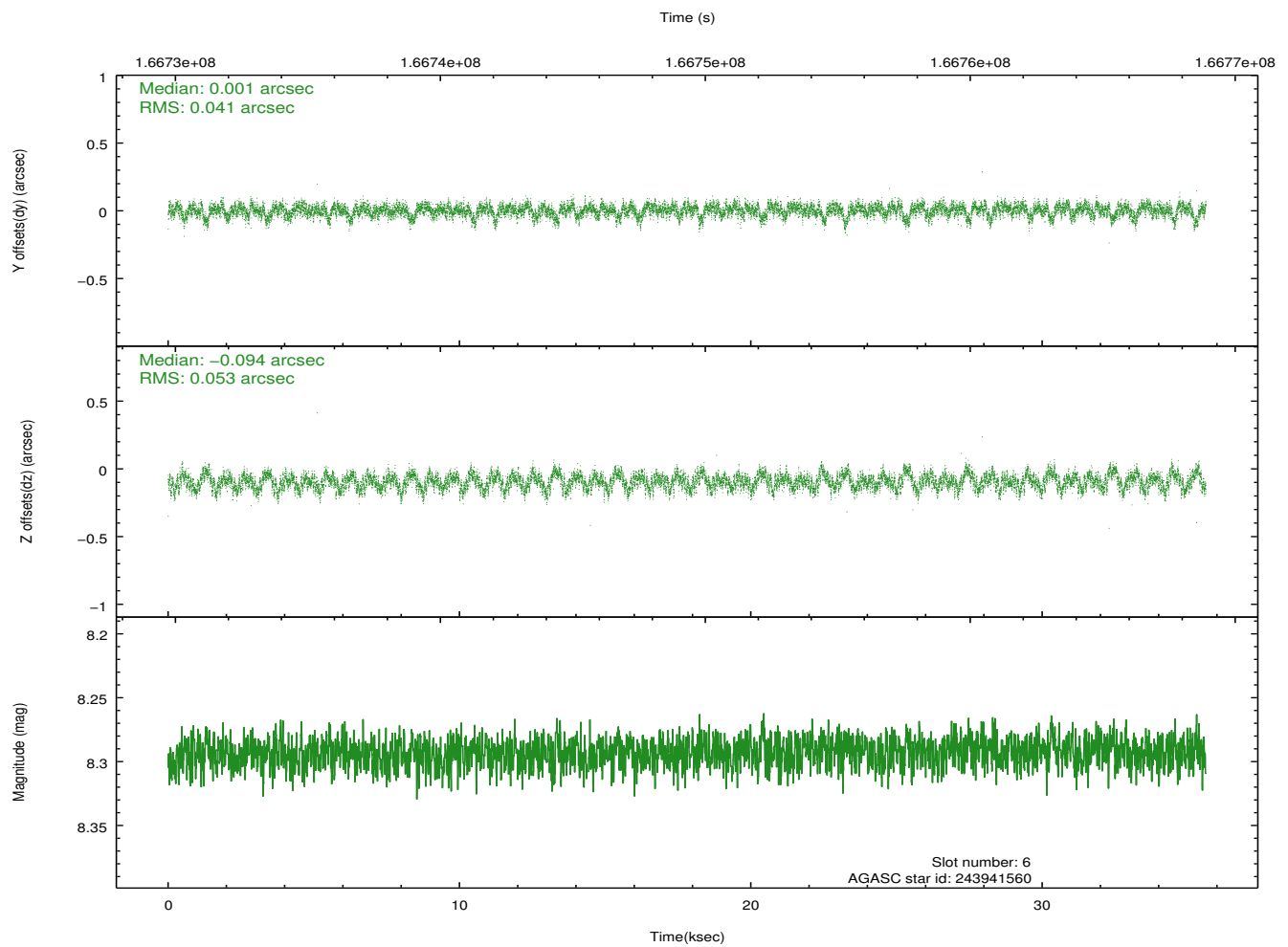
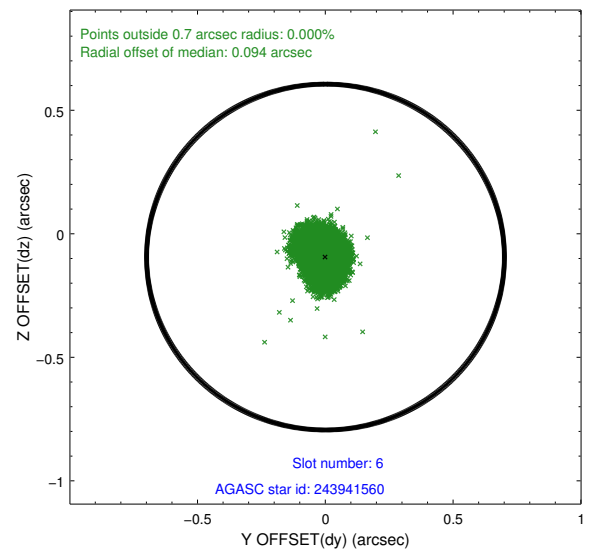
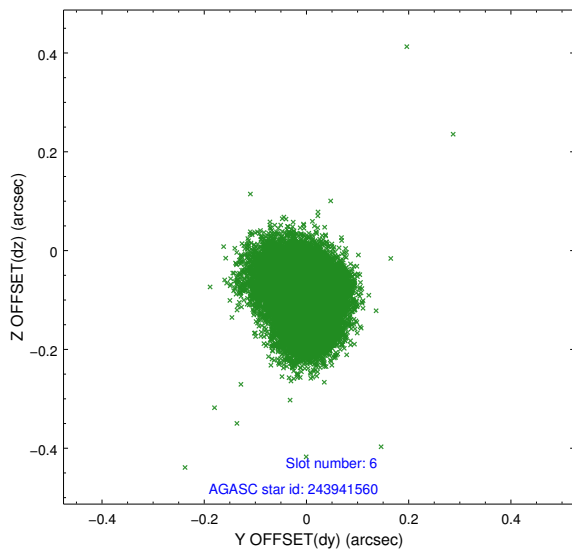
### 2.4.2 Slot 4



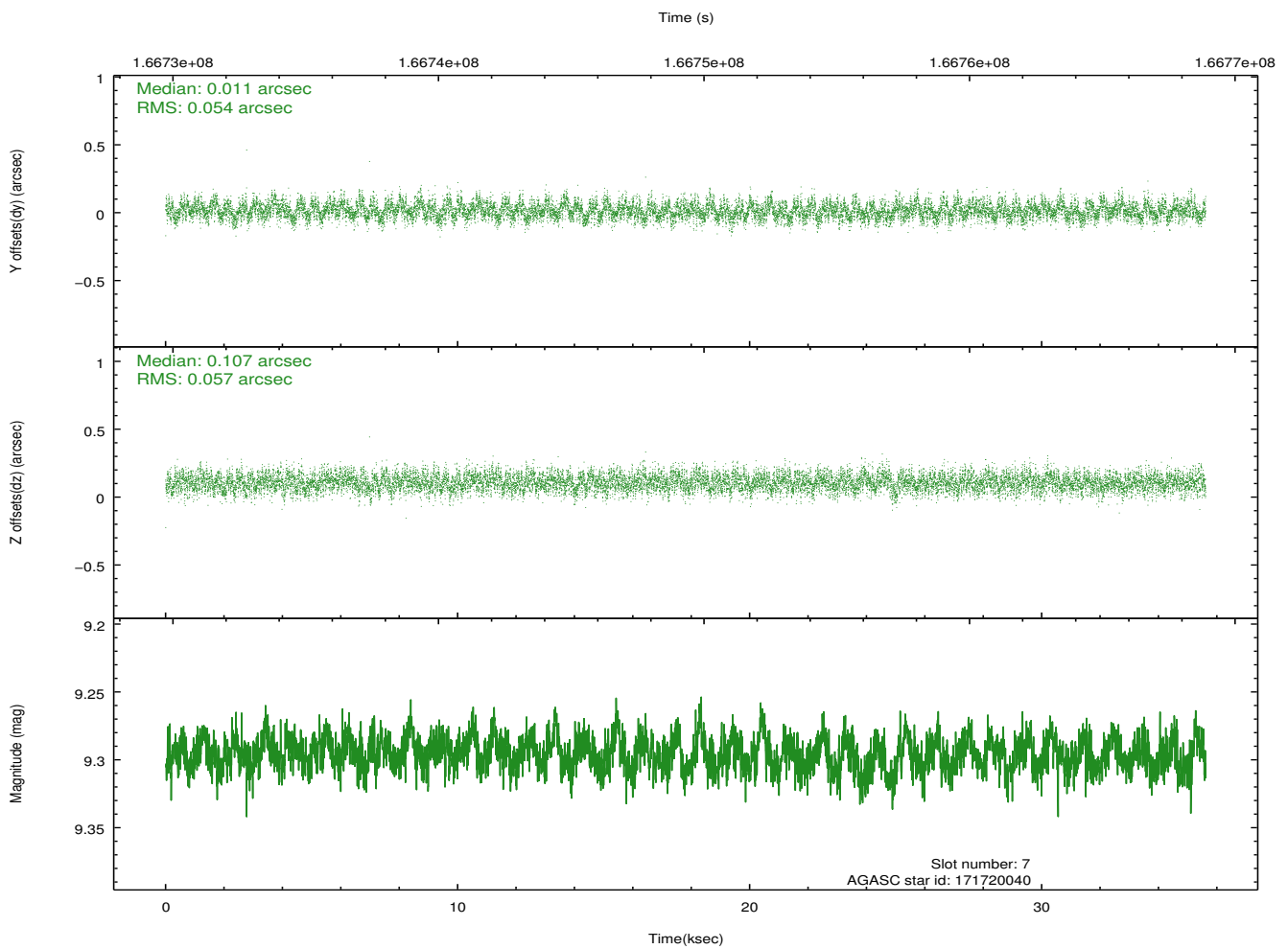
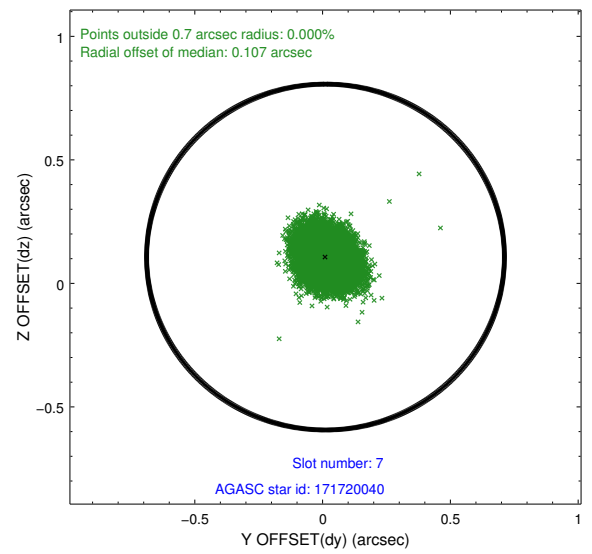
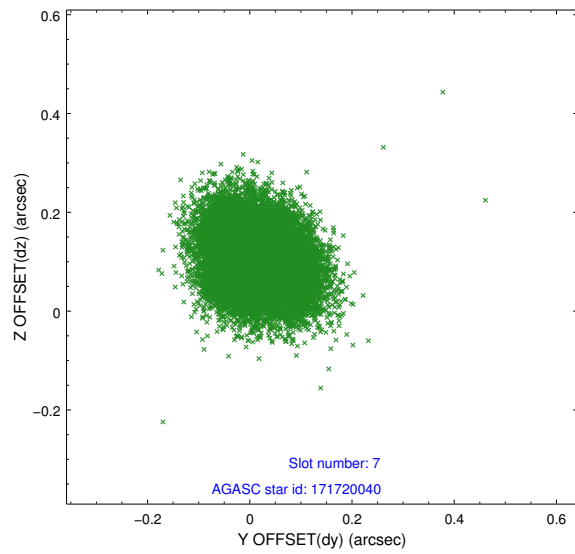
### 2.4.3 Slot 5



## 2.4.4 Slot 6

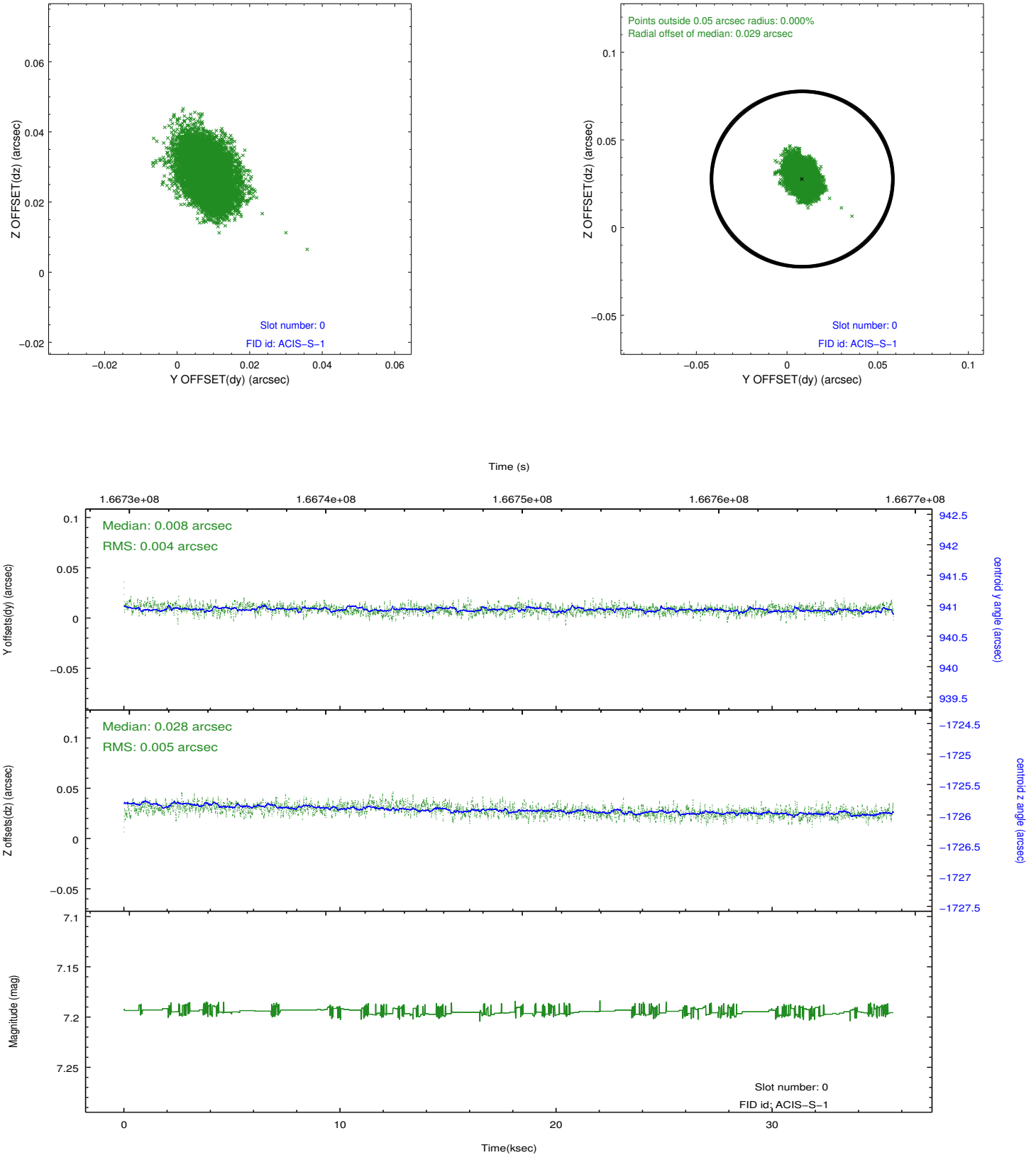


## 2.4.5 Slot 7

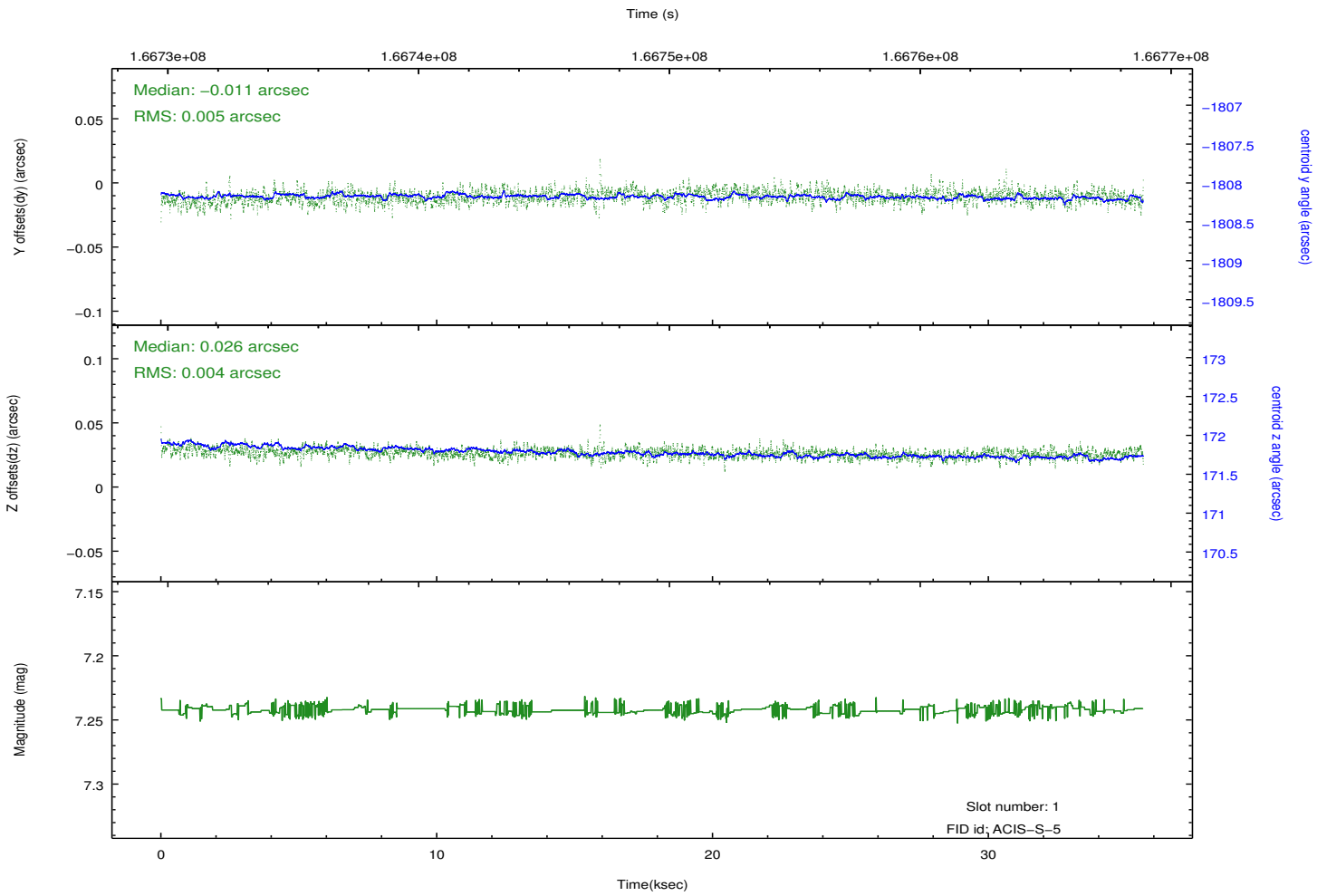
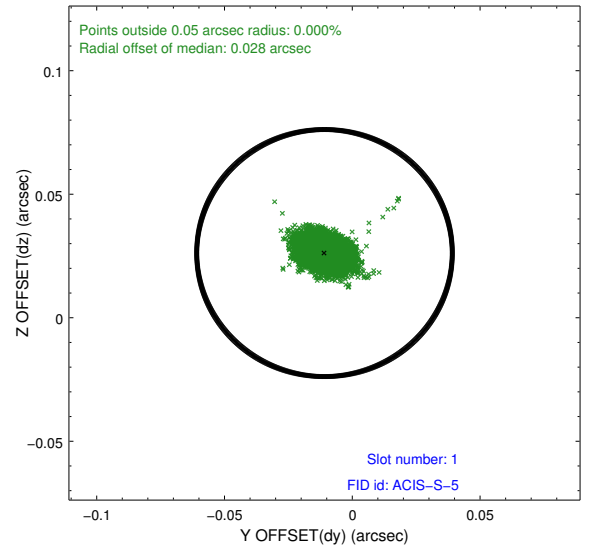
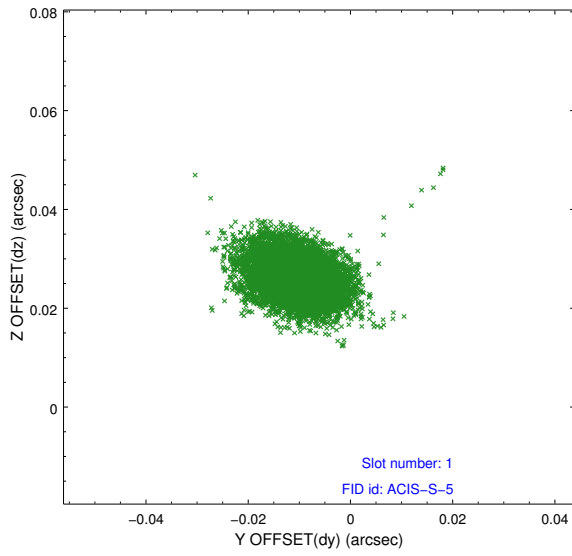


## 2.5 FID Slots

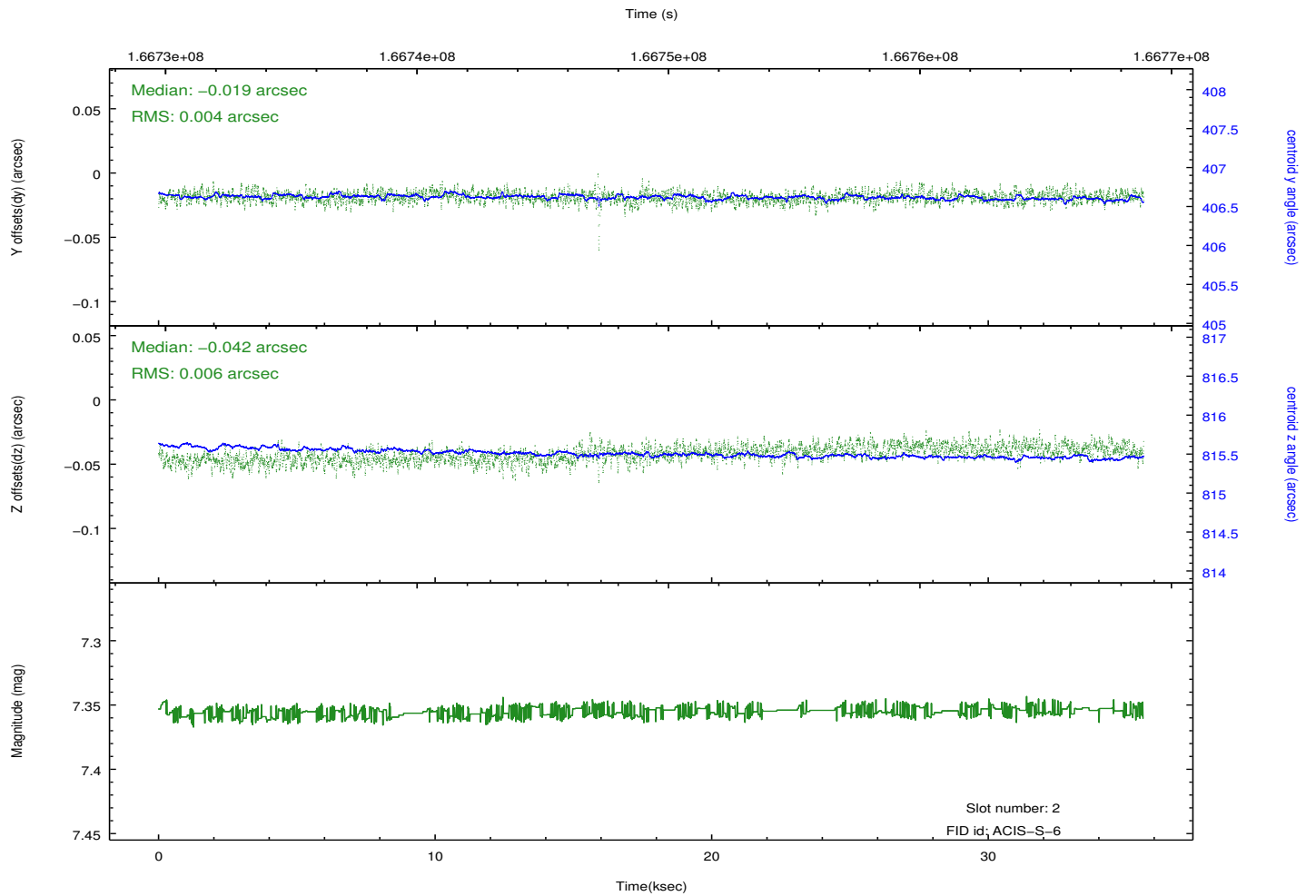
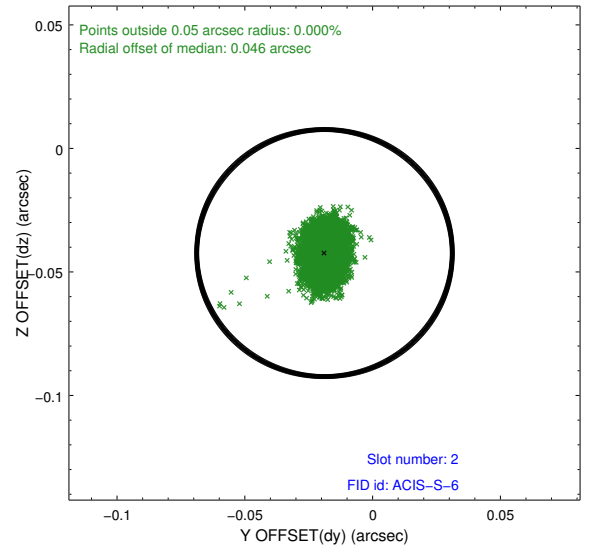
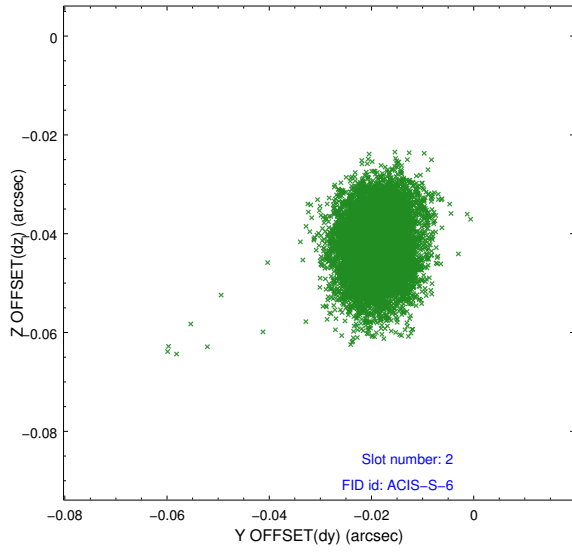
### 2.5.1 Slot 0



## 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)	2012.11.14
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	35.261

## A.2 Comments

This is a moving target. Users will need to run `sso_freeze` or similar software to position the events in the reference frame of the target.