

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 4030 - L2 Version 3  
Chandra X-Ray Center

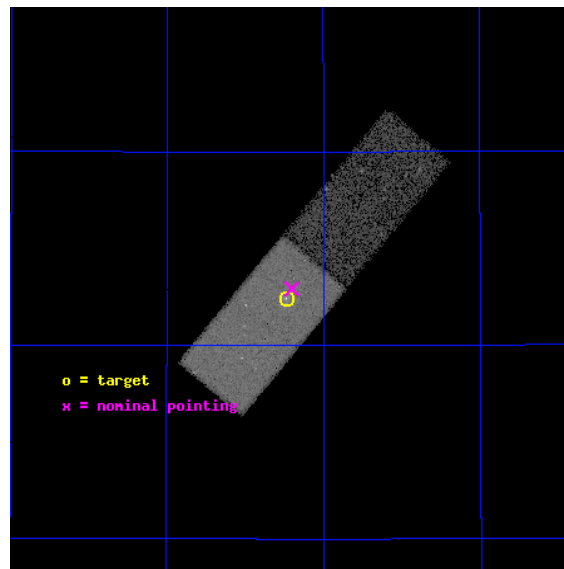
L2 Processing Date : Oct 23 2012

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# 1 Front

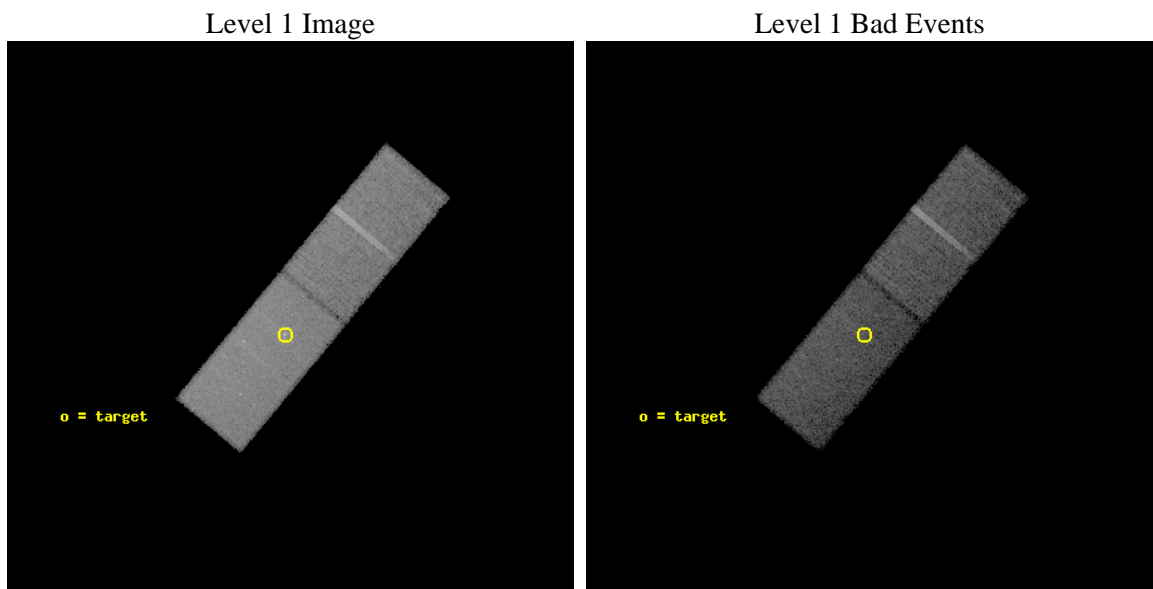
seq_num	700709	Sequence number
obs_id	4030	Observation id
title	PROBING THE NUCLEAR GEOMETRY OF THE MOST LUMINOUS GALAXY IN THE LOCAL UNIVERSE WITH CHANDRA	Proposal title
observer	Dr. Sarah Gallagher	Principal investigator
object	MARKARIAN 231	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	194.059167	Observer's specified target RA [deg]
dec_targ	56.873667	Observer's specified target Dec [deg]
ra_nom	194.05042390169	Nominal RA [deg]
dec_nom	56.882047280299	Nominal Dec [deg]
roll_nom	129.72016192784	Nominal Roll [deg]
revision	3	Processing version of data
ontime	36929.599862397	Sum of GTIs [s]
livetime	36006.044812945	Livetime [s]
ontime6	36927.958872259	Sum of GTIs [s]
ontime7	36929.599862397	Sum of GTIs [s]
l2events	82260	Number of level 2 events



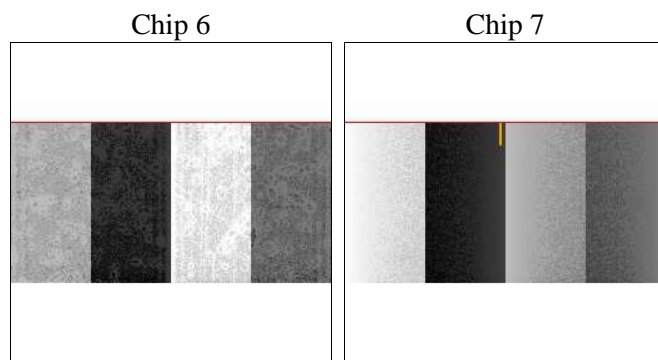
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	36770.001000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	36929.599862397	Sum of GTIs [s]
caldsver	4.5.2	&#160	ontime6	36927.958872259	Sum of GTIs [s]
date	2012-10-23T12:14:05	Date and time of file creation	ontime7	36929.599862397	Sum of GTIs [s]
revision	3	Processing version of data	l1events	287233	Number of level 1 events

### 2.1.4 Events

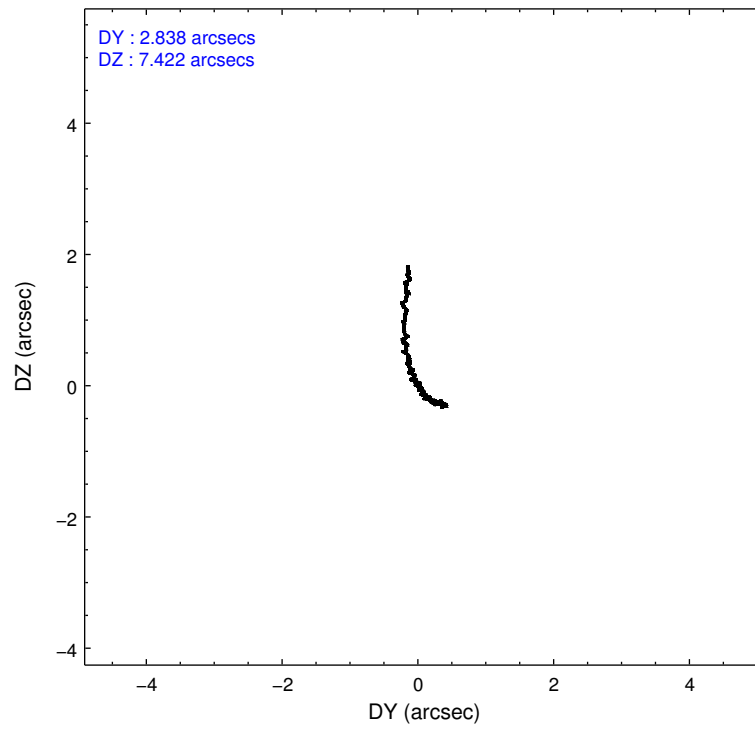
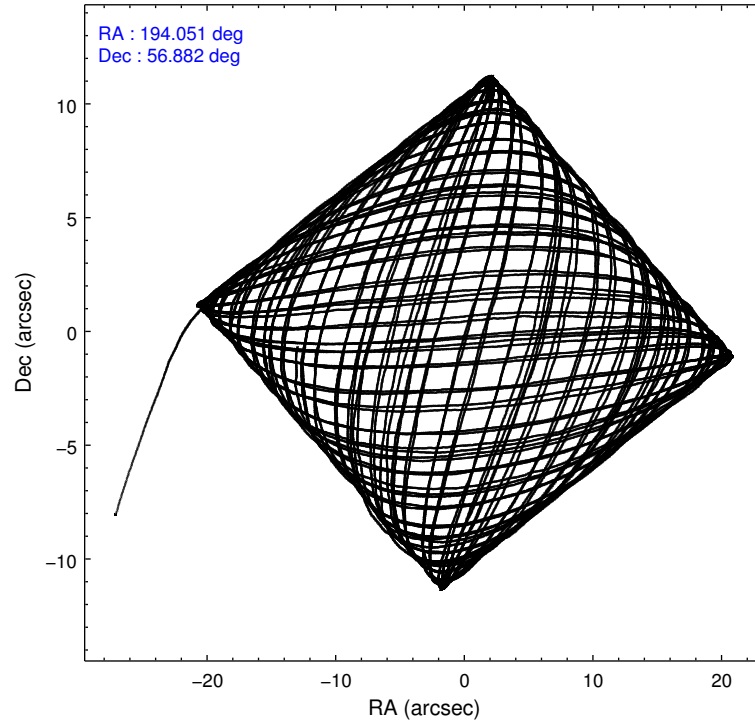
	ccd 6	ccd 7
level 1 events	126508	160725
rejected events	111758	89245
rejected %	88%	55%

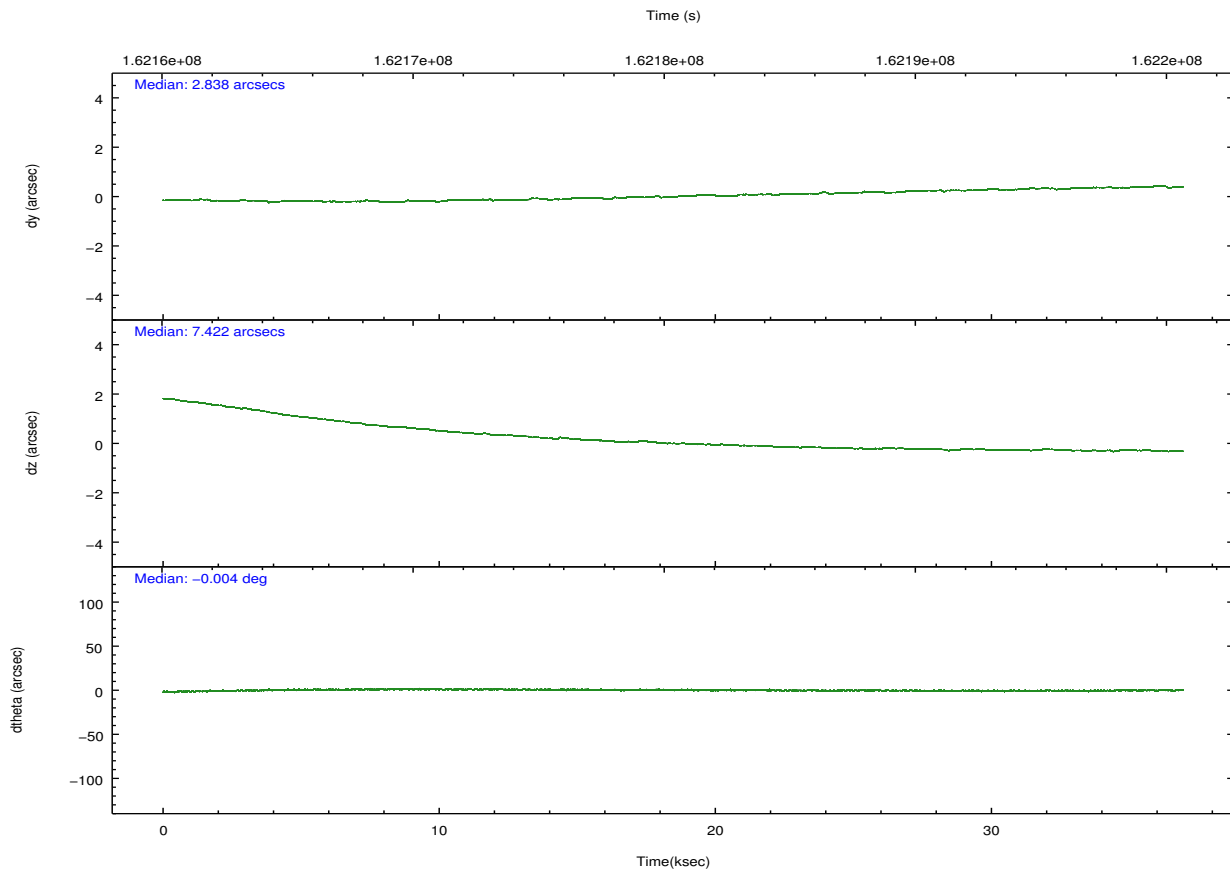
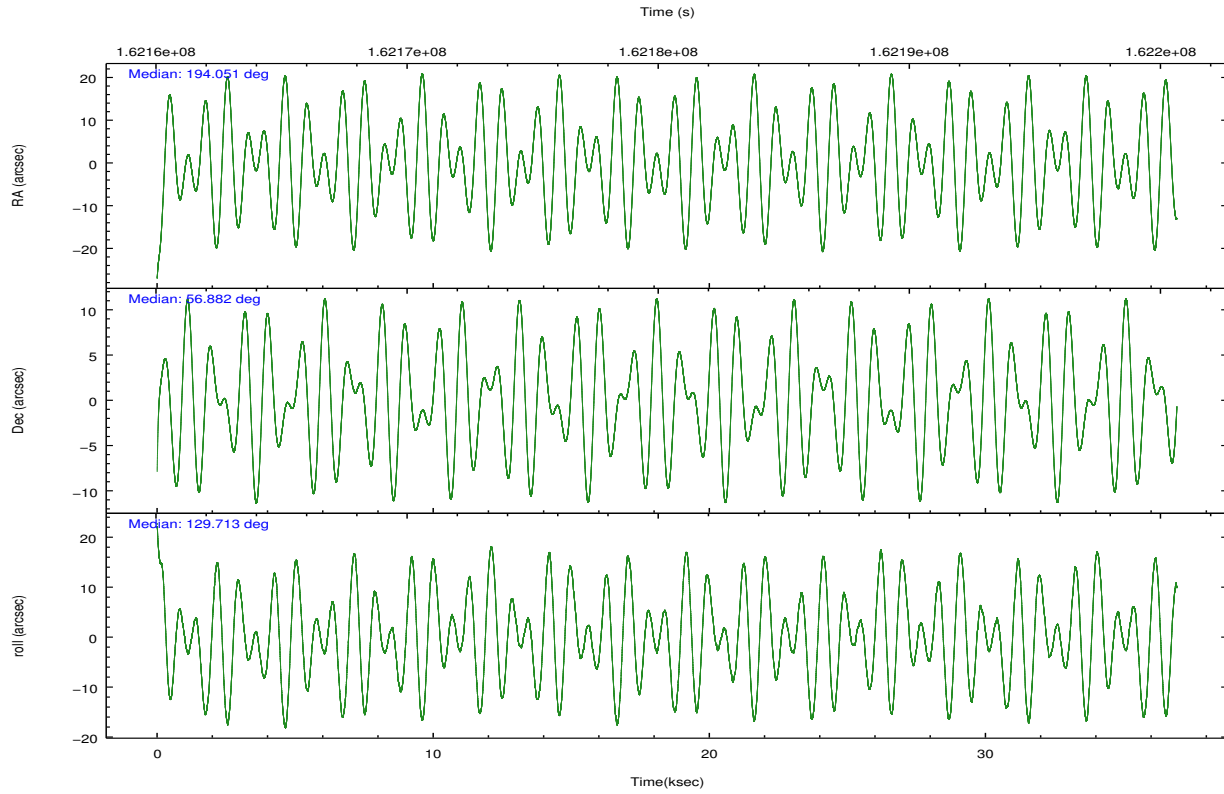
	ccd 6	ccd 7
grade 0 events	5974	8023
	4%	4%
grade 1 events	37	155
	0%	0%
grade 2 events	2678	14649
	2%	9%
grade 3 events	1755	7164
	1%	4%
grade 4 events	1780	7155
	1%	4%
grade 5 events	5354	14795
	4%	9%
grade 6 events	2834	35819
	2%	22%
grade 7 events	106096	72965
	83%	45%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-67	ACIS-67	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	194.097391	194.0504239016901	Subarray requested	CUSTOM	1/2
[deg] Pointing Dec	56.872975	56.88204728029898	Subarray start row	257	257
[deg] Pointing Roll	129.524205	129.7201619278371	Subarray row count	512	512
[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	1.6
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	162162053.184000	162161016.58898			
Observation start date	2003-02-20T20:59:49	2003-02-20T20:43:36			
[s] Observation end time (MET)	162198823.184000	162199137.36558			
Observation end date	2003-02-21T07:12:39	2003-02-21T07:18:57			
Read mode	TIMED	TIMED			

## 2.3 Aspect



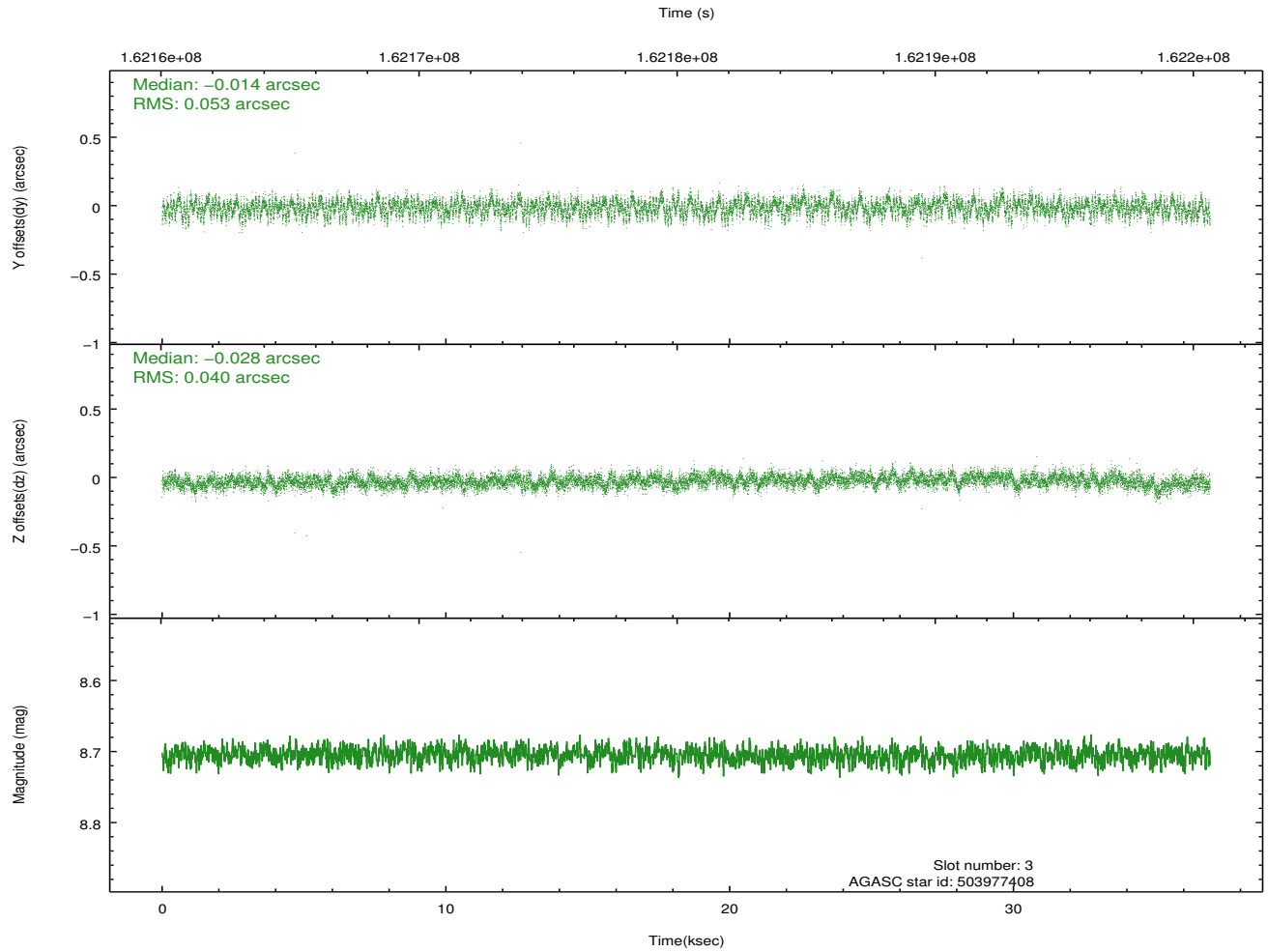
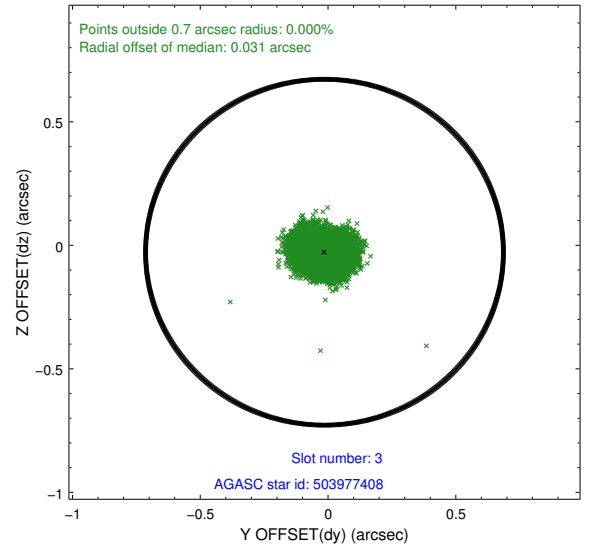
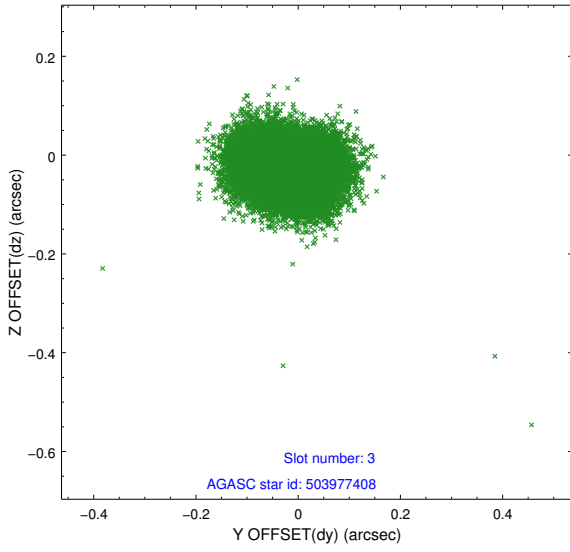


### Slot Statistics

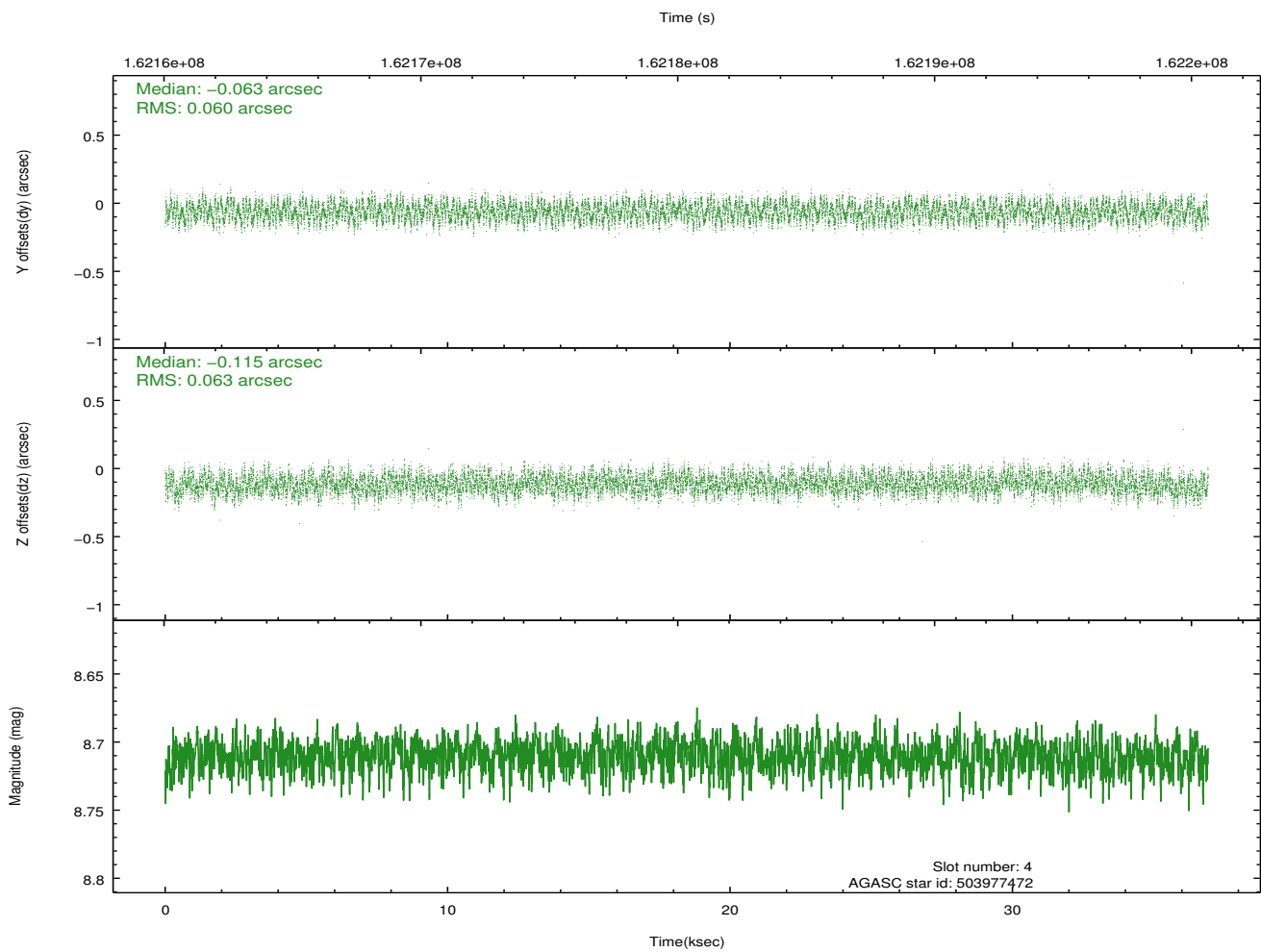
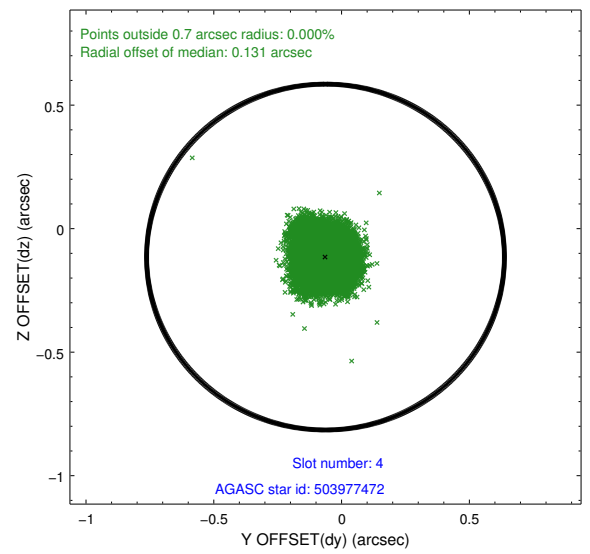
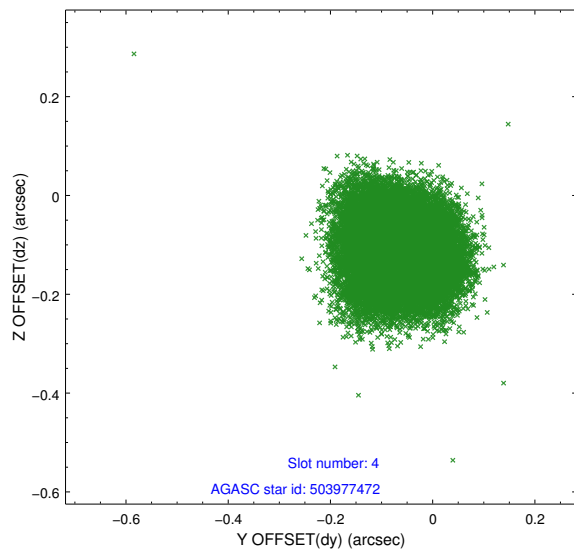
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	9007	-0.021	-0.008	0.010	0.019	0.000000	0.000000	-755.53	-1728.87
1	FID	ACIS-S-4	7.21	9007	-0.005	0.012	0.013	0.024	0.000000	0.000000	2157.74	179.61
2	FID	ACIS-S-5	7.24	9008	-0.006	0.005	0.012	0.020	0.000000	0.000000	-1808.33	173.30
3	GUIDE	503977408	8.70	18011	-0.014	-0.028	0.071	0.113	192.662536	56.861423	1787.74	2186.01
4	GUIDE	503977472	8.71	18010	-0.063	-0.115	0.094	0.142	193.107383	56.634174	595.21	2050.26
5	GUIDE	503980544	9.39	18001	-0.080	0.150	0.105	0.170	195.335648	57.048690	-1037.87	-2286.48
6	GUIDE	503980752	9.56	18014	0.073	0.018	0.118	0.196	195.429177	56.932049	-1480.66	-2169.45
7	GUIDE	504368776	7.97	18015	0.080	-0.017	0.091	0.151	194.317087	57.691724	2005.57	-2202.13

## 2.4 Star Slots

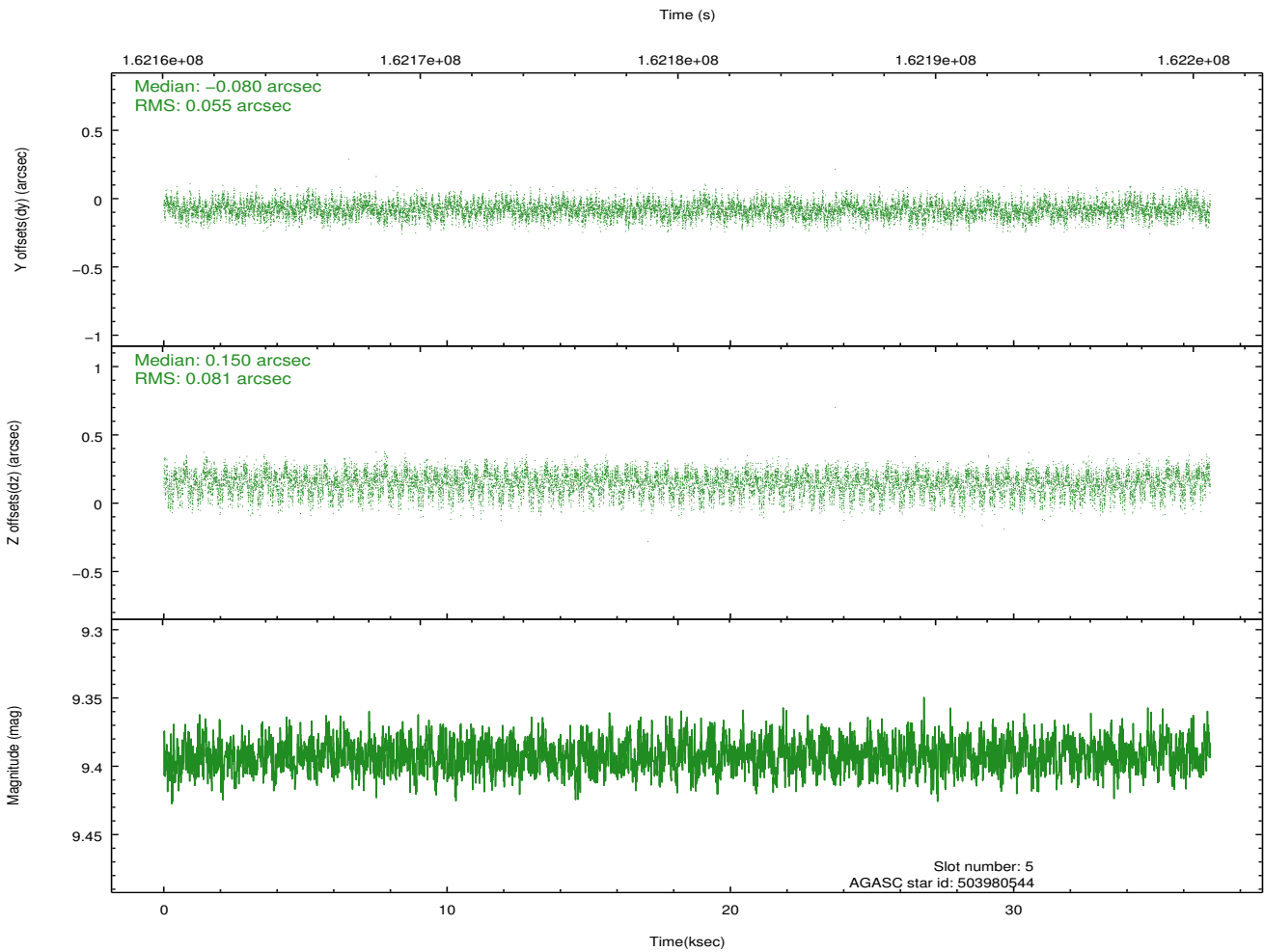
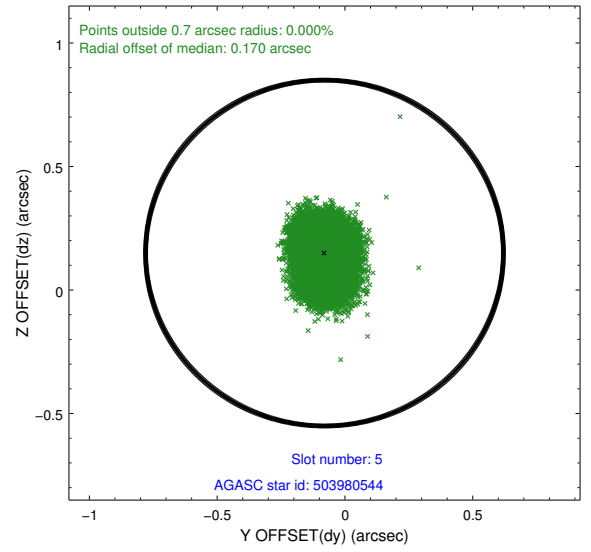
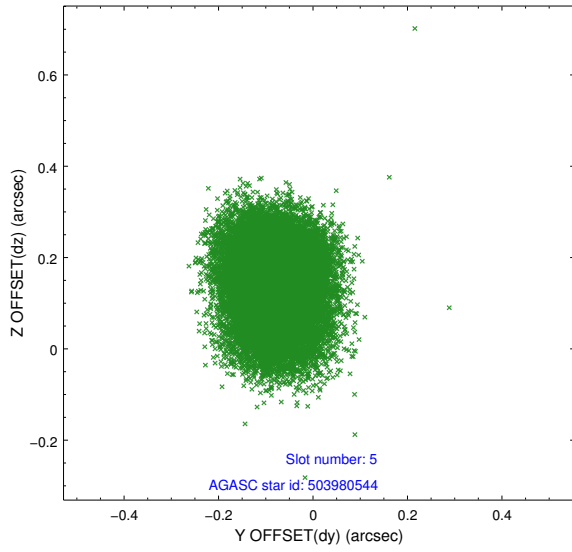
### 2.4.1 Slot 3



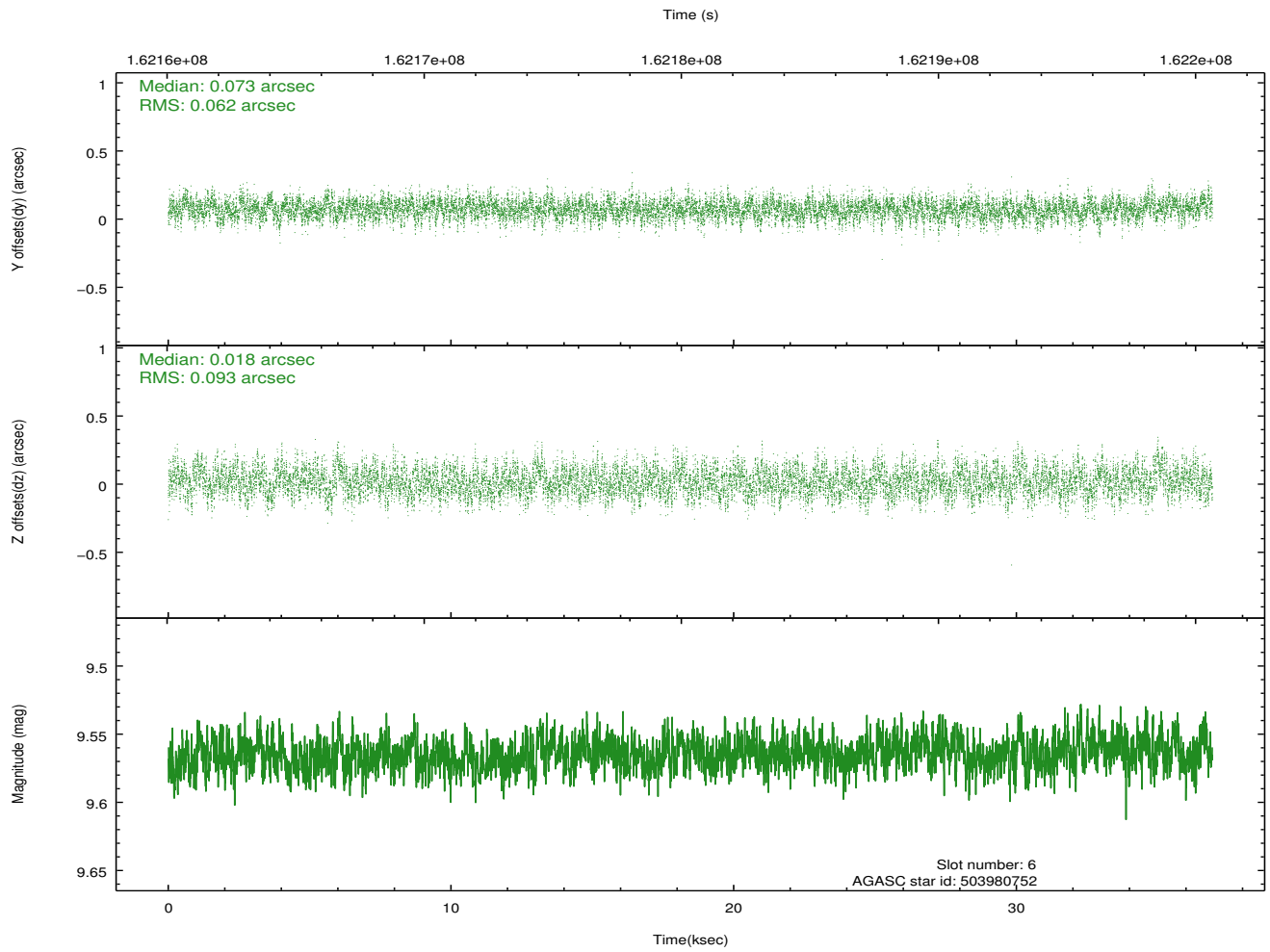
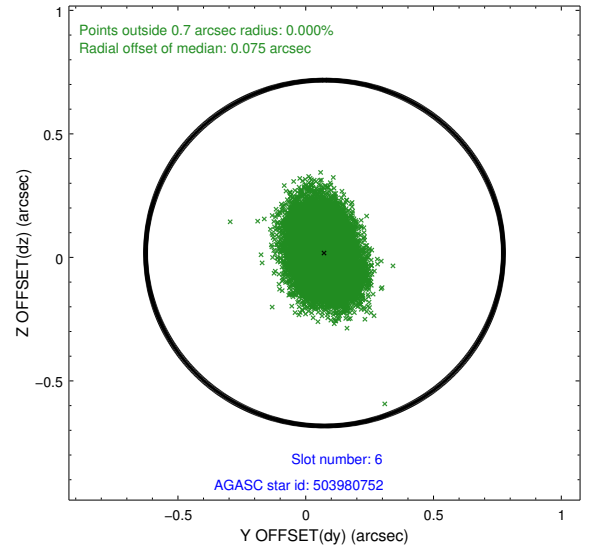
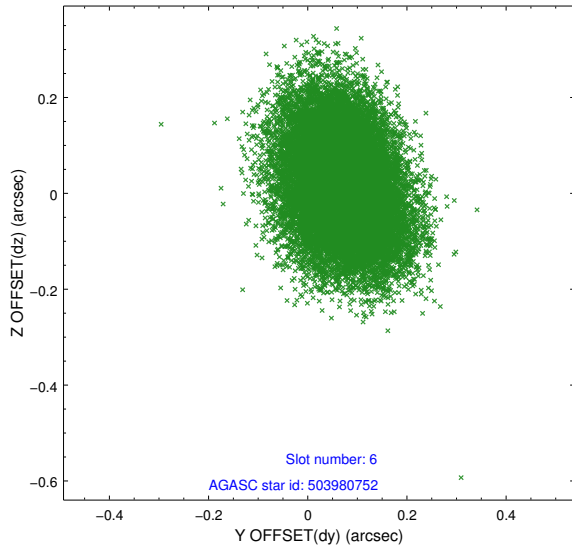
## 2.4.2 Slot 4



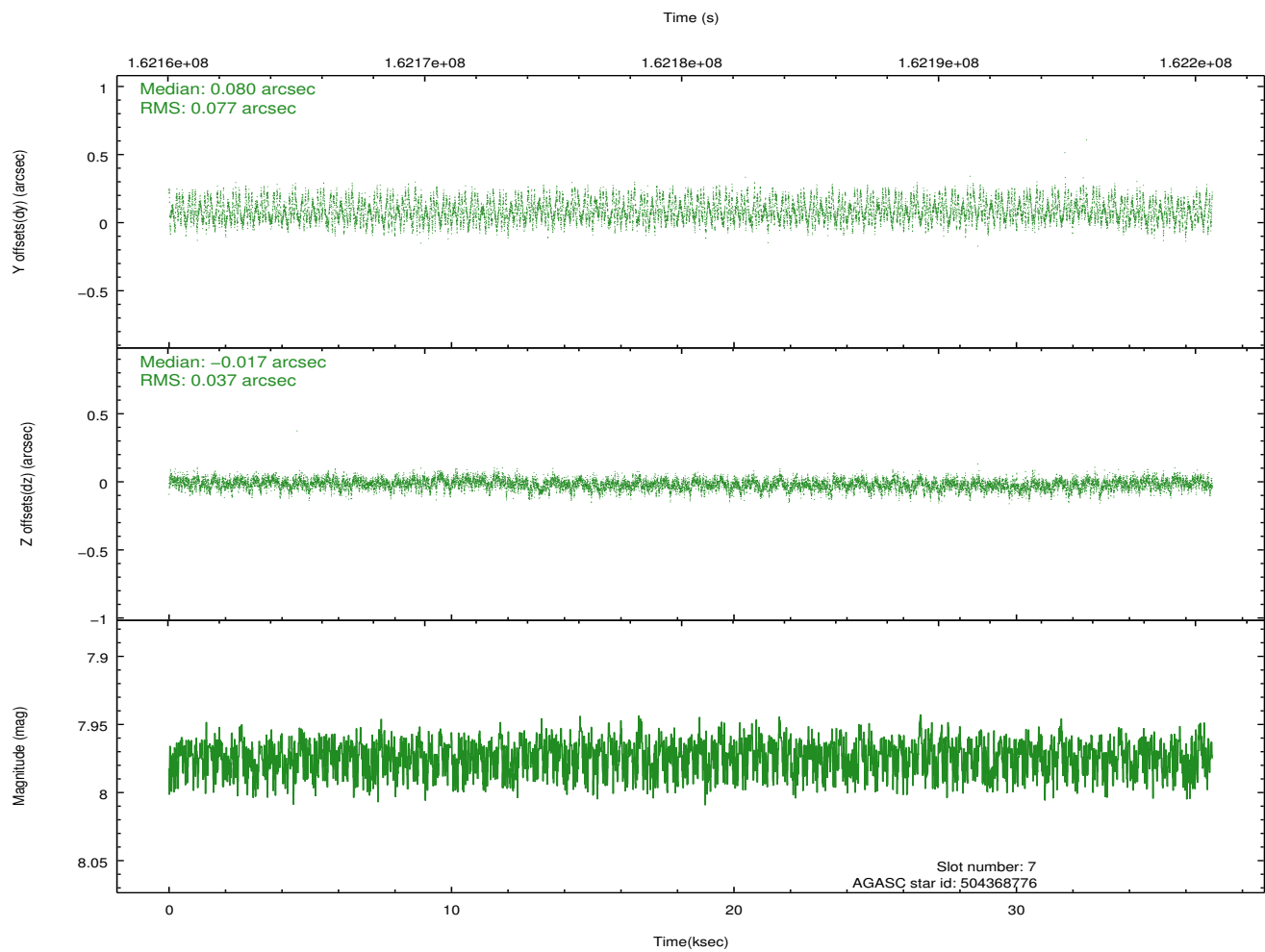
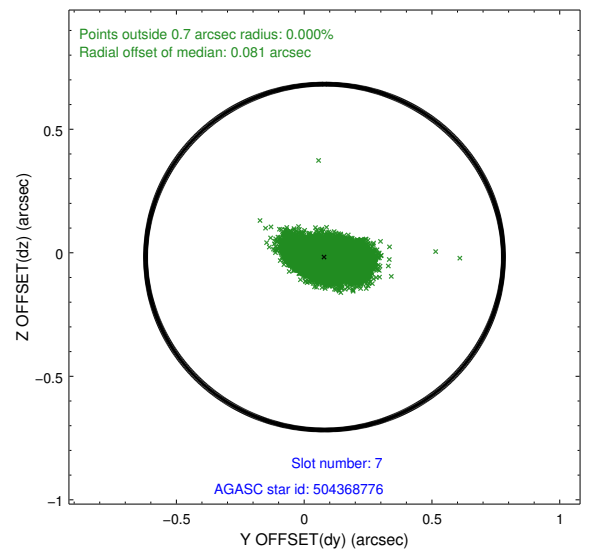
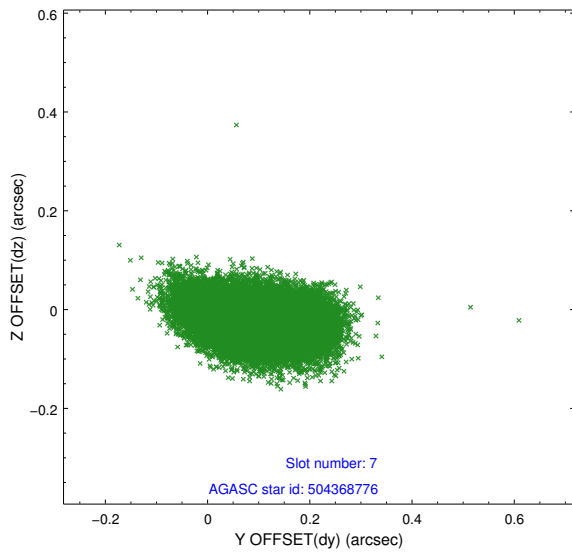
### 2.4.3 Slot 5



### 2.4.4 Slot 6

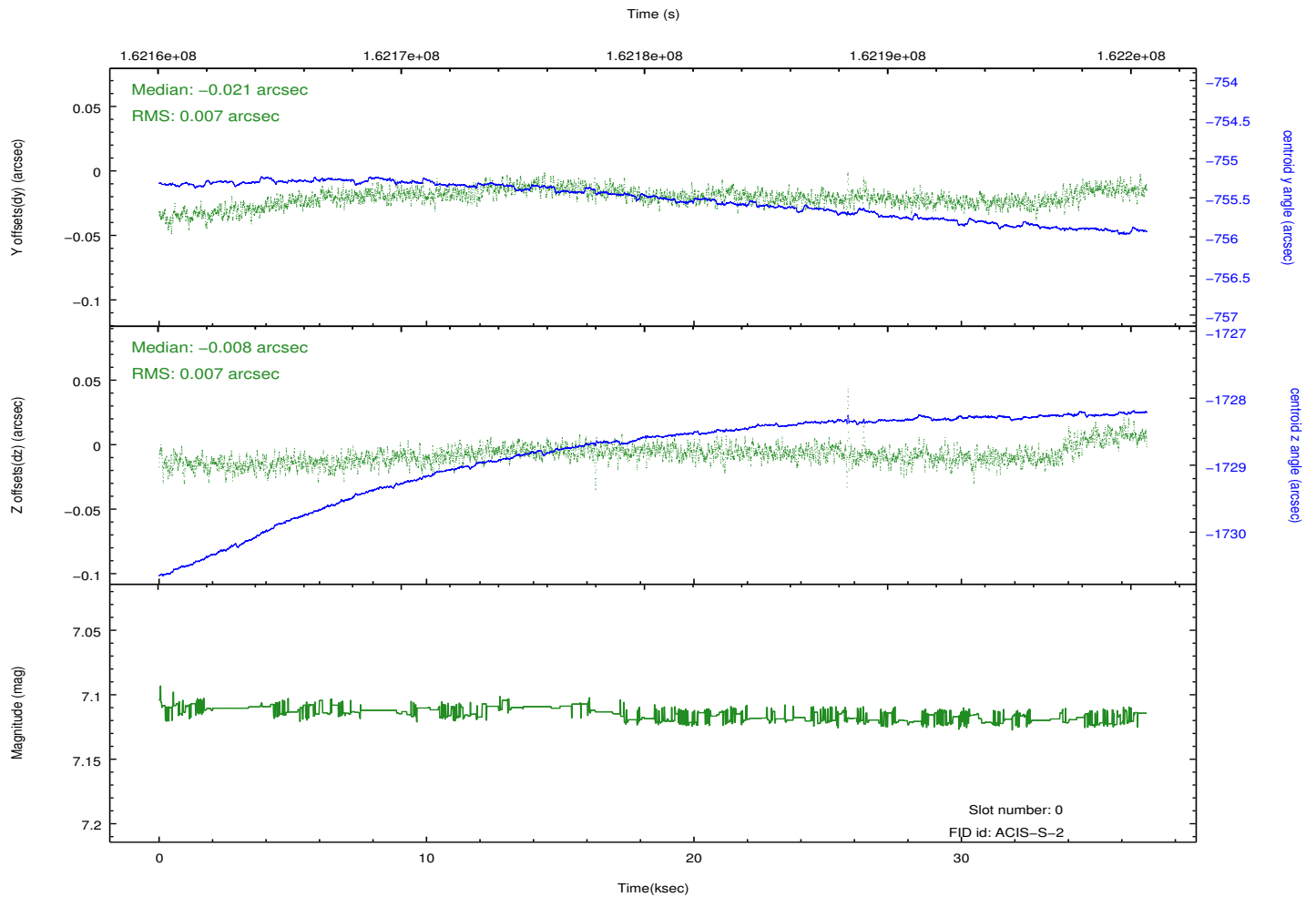
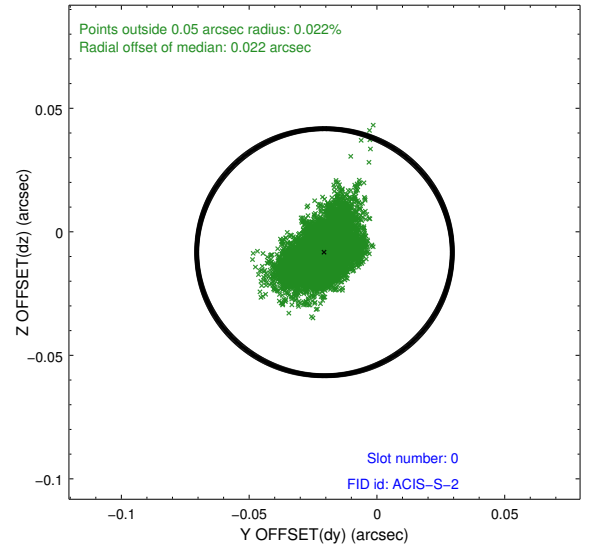
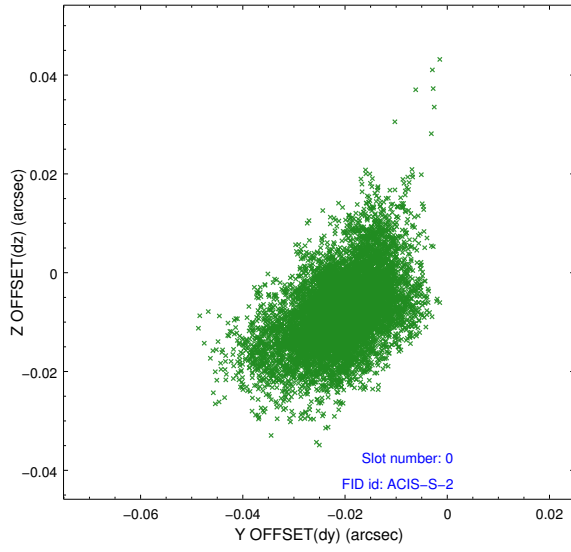


## 2.4.5 Slot 7

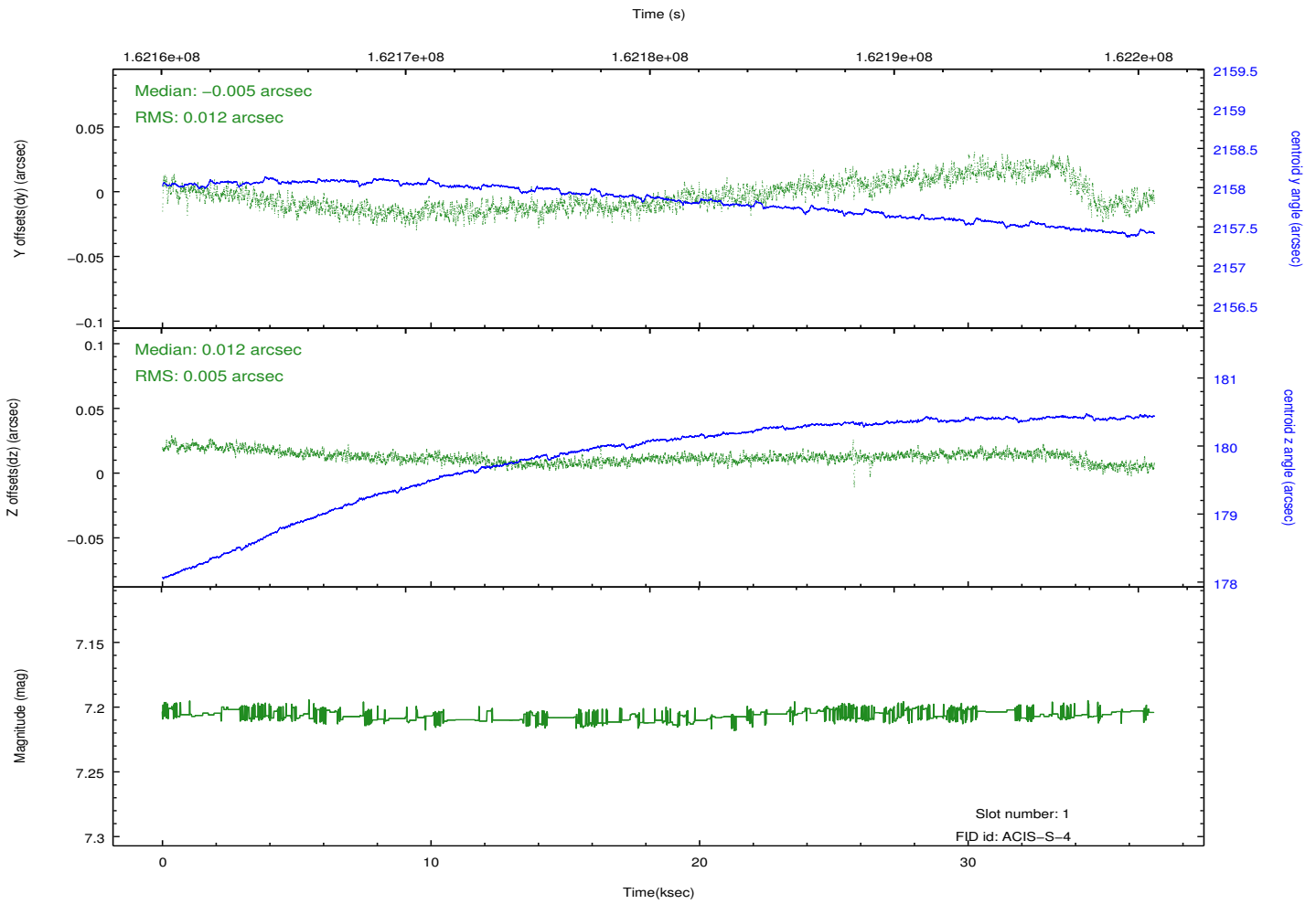
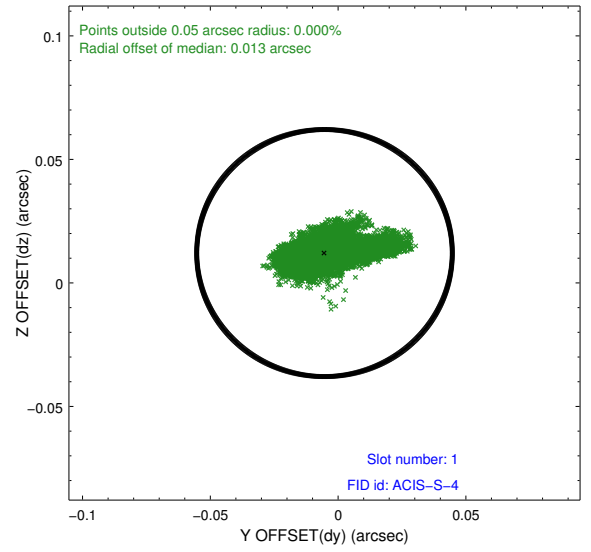
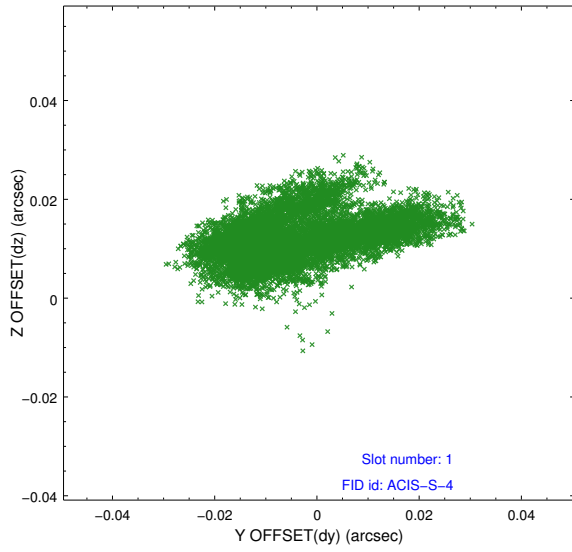


## 2.5 FID Slots

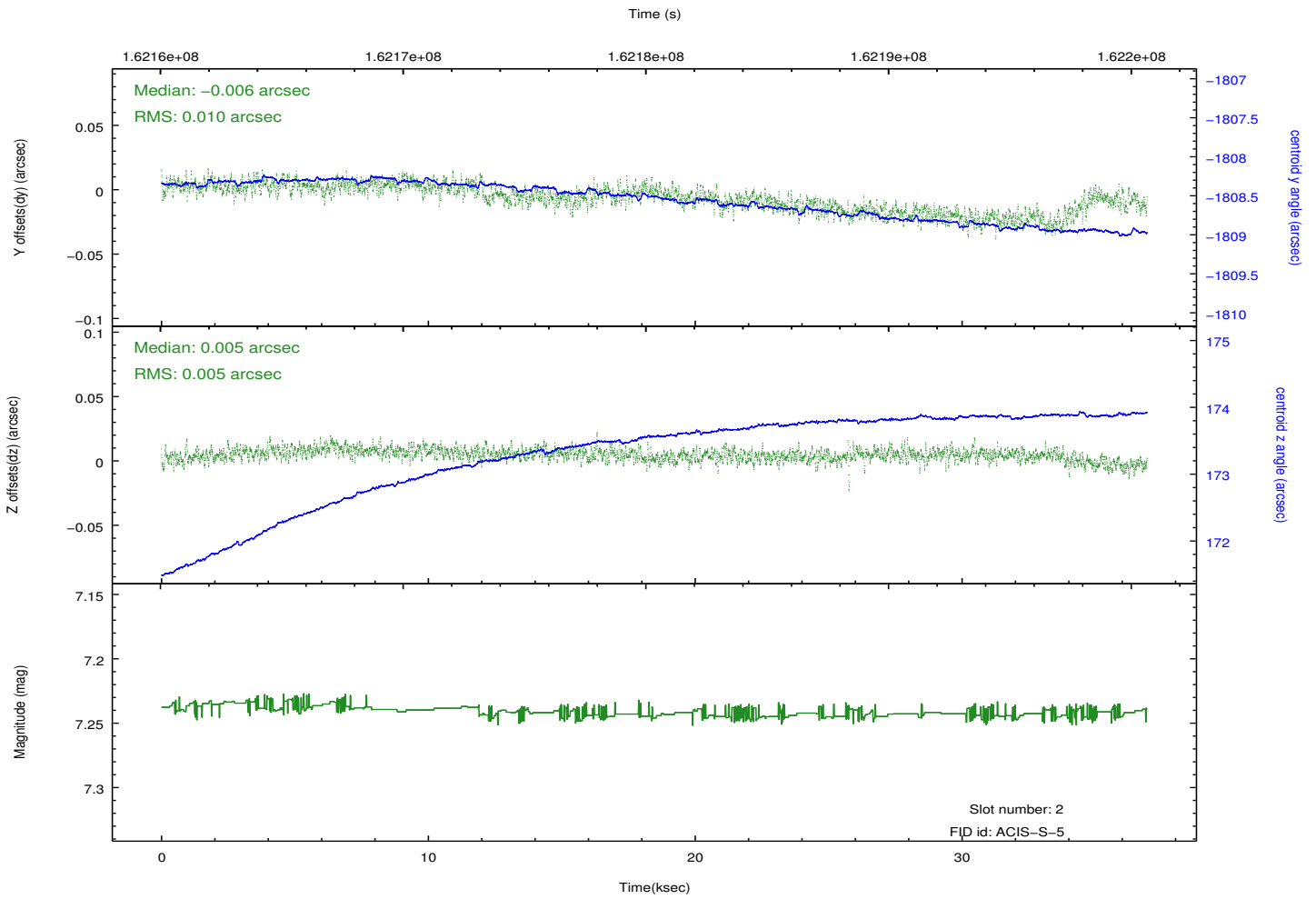
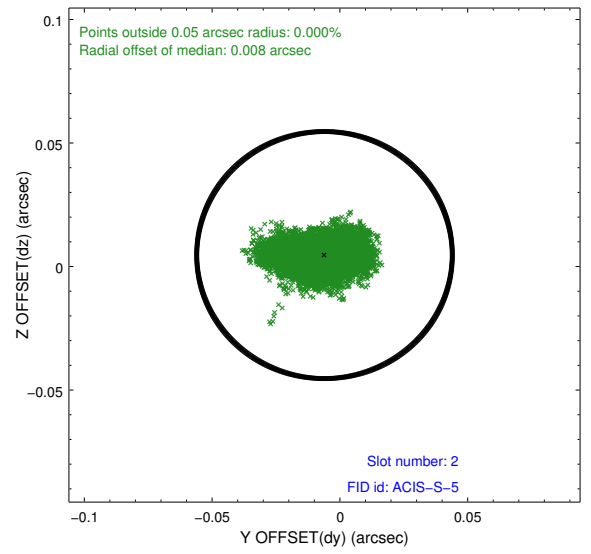
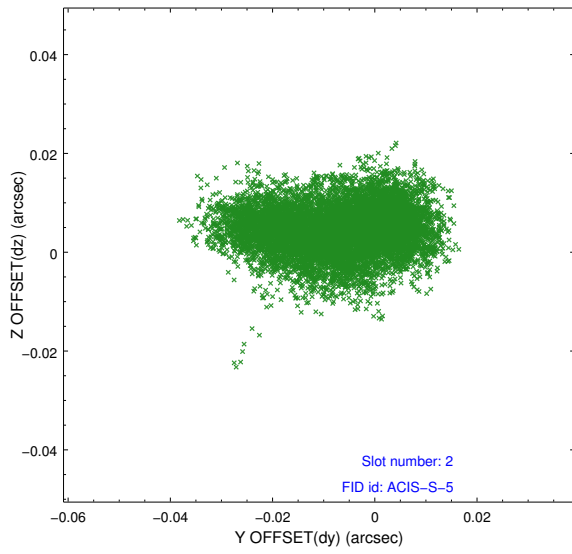
### 2.5.1 Slot 0



## 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)	2012.11.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	36.929

## A.2 Comments

Monitor constraint met.