

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 13963 - L2 Version 2  
Chandra X-Ray Center

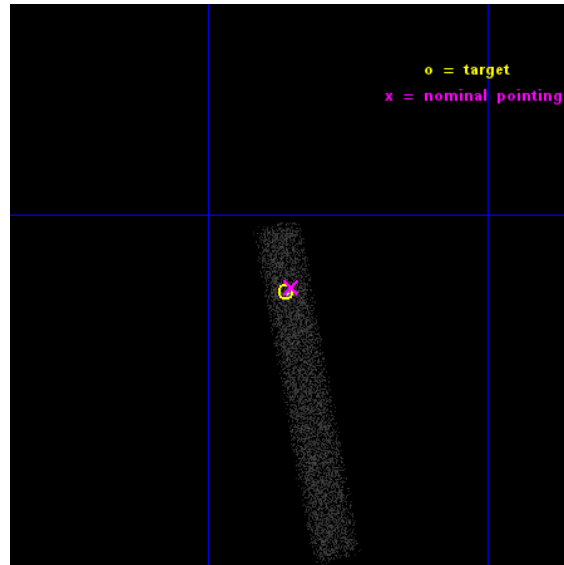
L2 Processing Date : Nov 29 2014

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# 1 Front

seq_num	702685	Sequence number
obs_id	13963	Observation id
title	Energy Dependent Microlensing in X-rays	Proposal title
observer	Prof. Xinyu Dai	Principal investigator
object	RXJ1131-1231	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	172.965	Observer's specified target RA [deg]
dec_targ	-12.5325	Observer's specified target Dec [deg]
ra_nom	172.96275947016	Nominal RA [deg]
dec_nom	-12.53041587947	Nominal Dec [deg]
roll_nom	79.225525654303	Nominal Roll [deg]
revision	2	Processing version of data
ontime	16069.999042153	Sum of GTIs [s]
livetime	14574.640887133	Livetime [s]
ontime7	16069.999042153	Sum of GTIs [s]
l2events	12347	Number of level 2 events

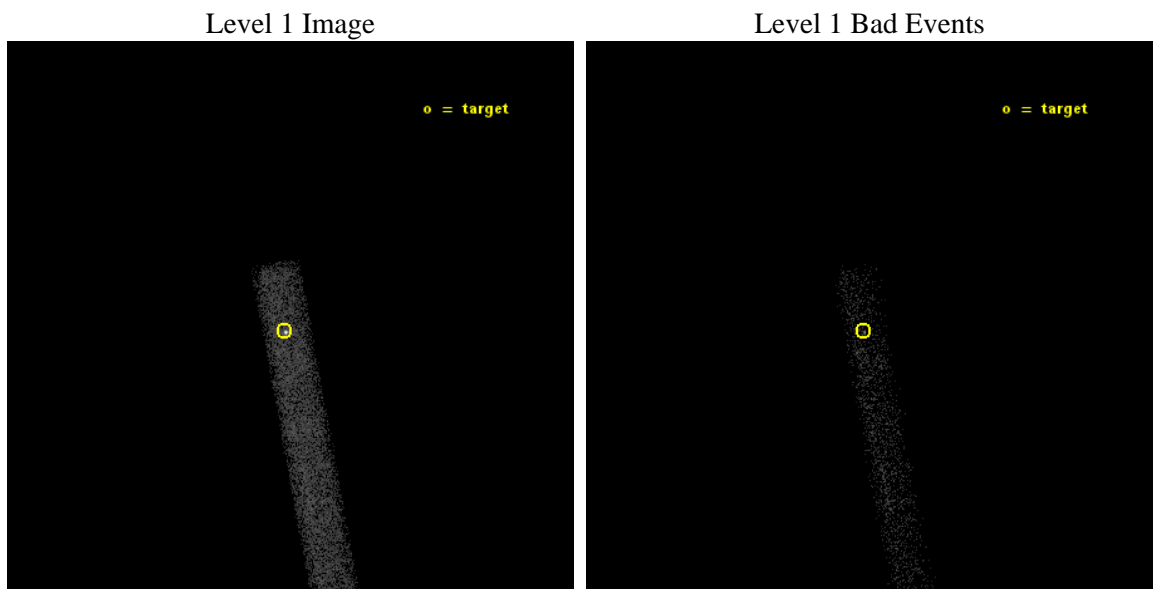




## 2 OBI

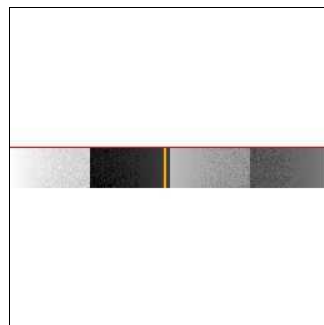
### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias

Chip 7



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	16000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	16069.999042153	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime7	16069.999042153	Sum of GTIs [s]
date	2014-11-29T06:58:33	Date and time of file creation	l1events	20382	Number of level 1 events
revision	2	Processing version of data			

### 2.1.4 Events

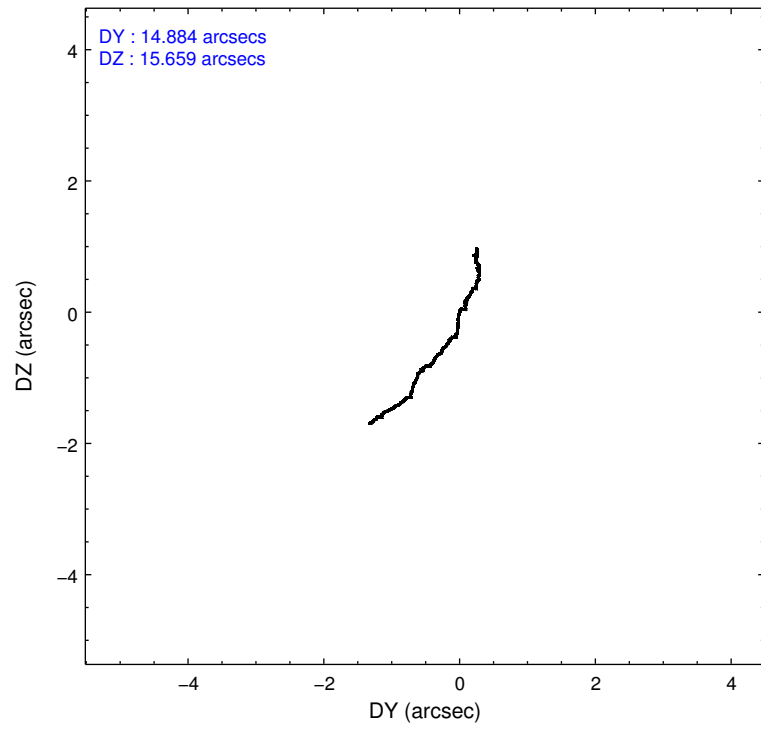
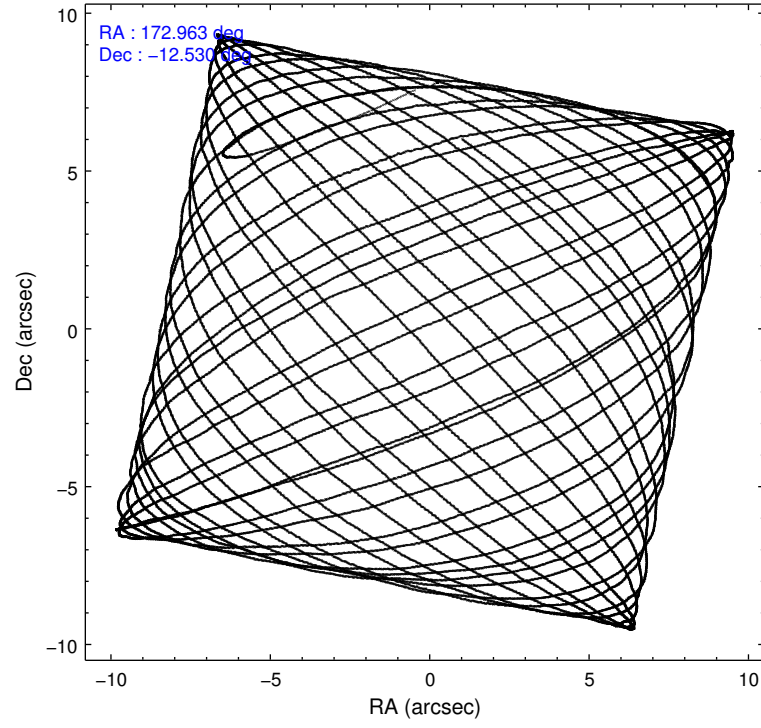
	<b>ccd 7</b>
level 1 events	20382
rejected events	7720
rejected %	37%

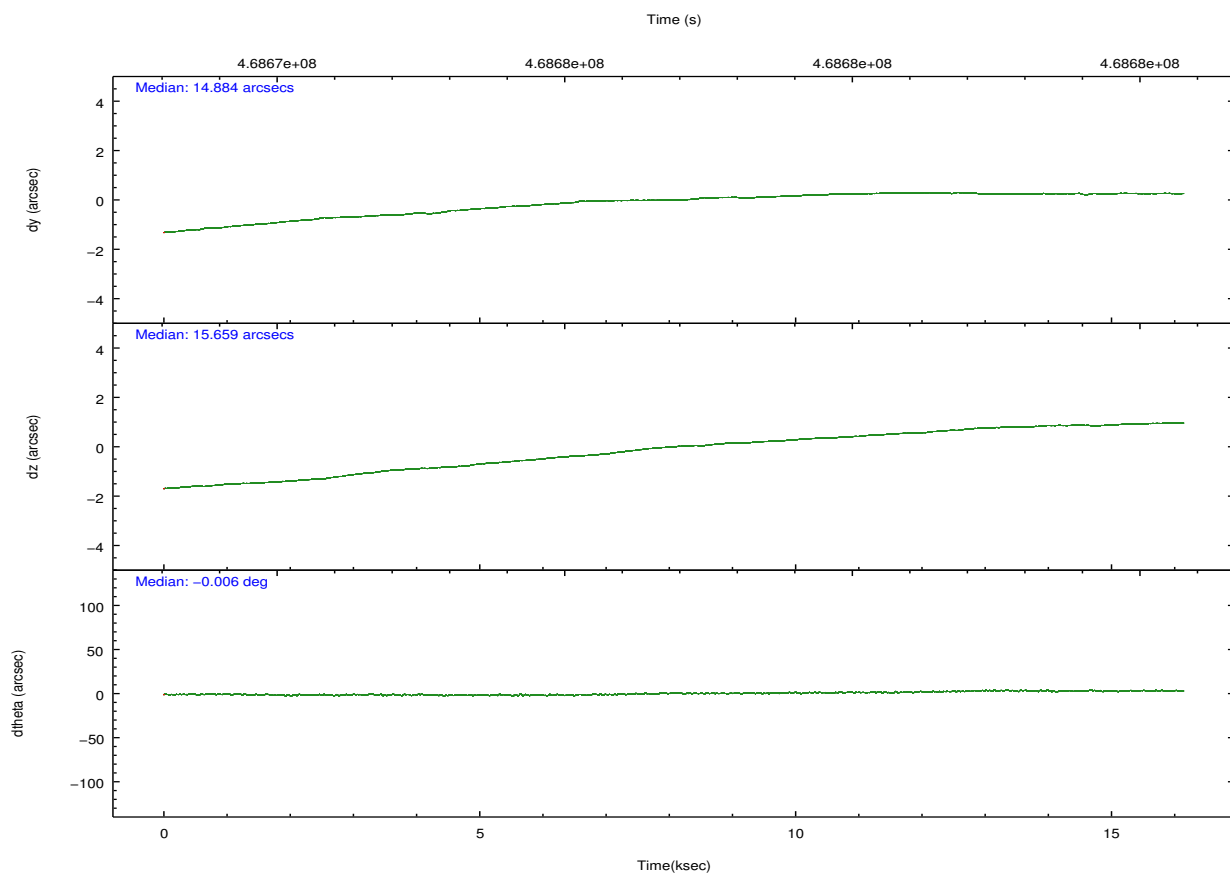
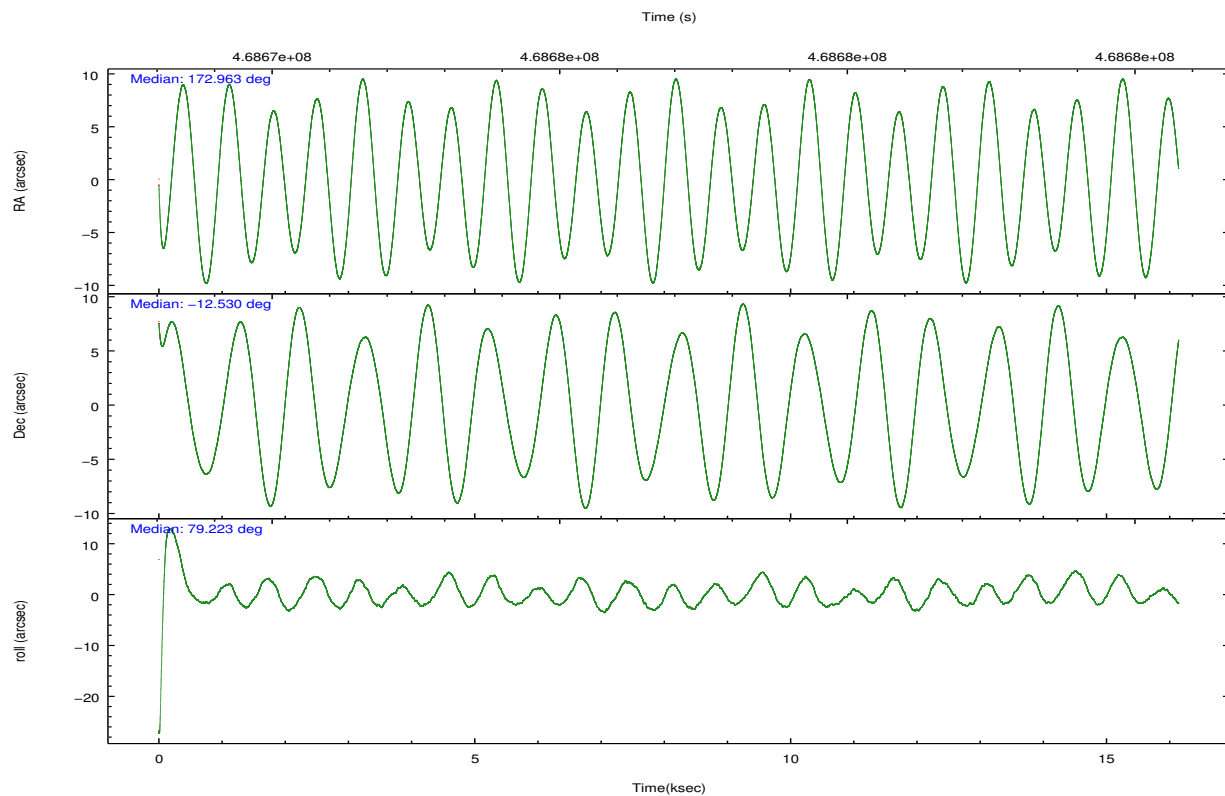
	<b>ccd 7</b>
grade 0 events	2221
	10%
grade 1 events	46
	0%
grade 2 events	2830
	13%
grade 3 events	1613
	7%
grade 4 events	1514
	7%
grade 5 events	1596
	7%
grade 6 events	4484
	21%
grade 7 events	6078
	29%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-7	ACIS-7	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	172.972326	172.9627594701619	Subarray requested	CUSTOM	1/8
[deg] Pointing Dec	-12.556116	-12.53041587947014	Subarray start row	449	449
[deg] Pointing Roll	79.071008	79.22552565430253	Subarray row count	128	128
[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	0.4
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	468668974.184000	468667828.12491			
Observation start date	2012-11-07T09:48:27	2012-11-07T09:30:28			
[s] Observation end time (MET)	468684974.184000	468685584.71337			
Observation end date	2012-11-07T14:15:07	2012-11-07T14:26:24			
Read mode	TIMED	TIMED			

## 2.3 Aspect



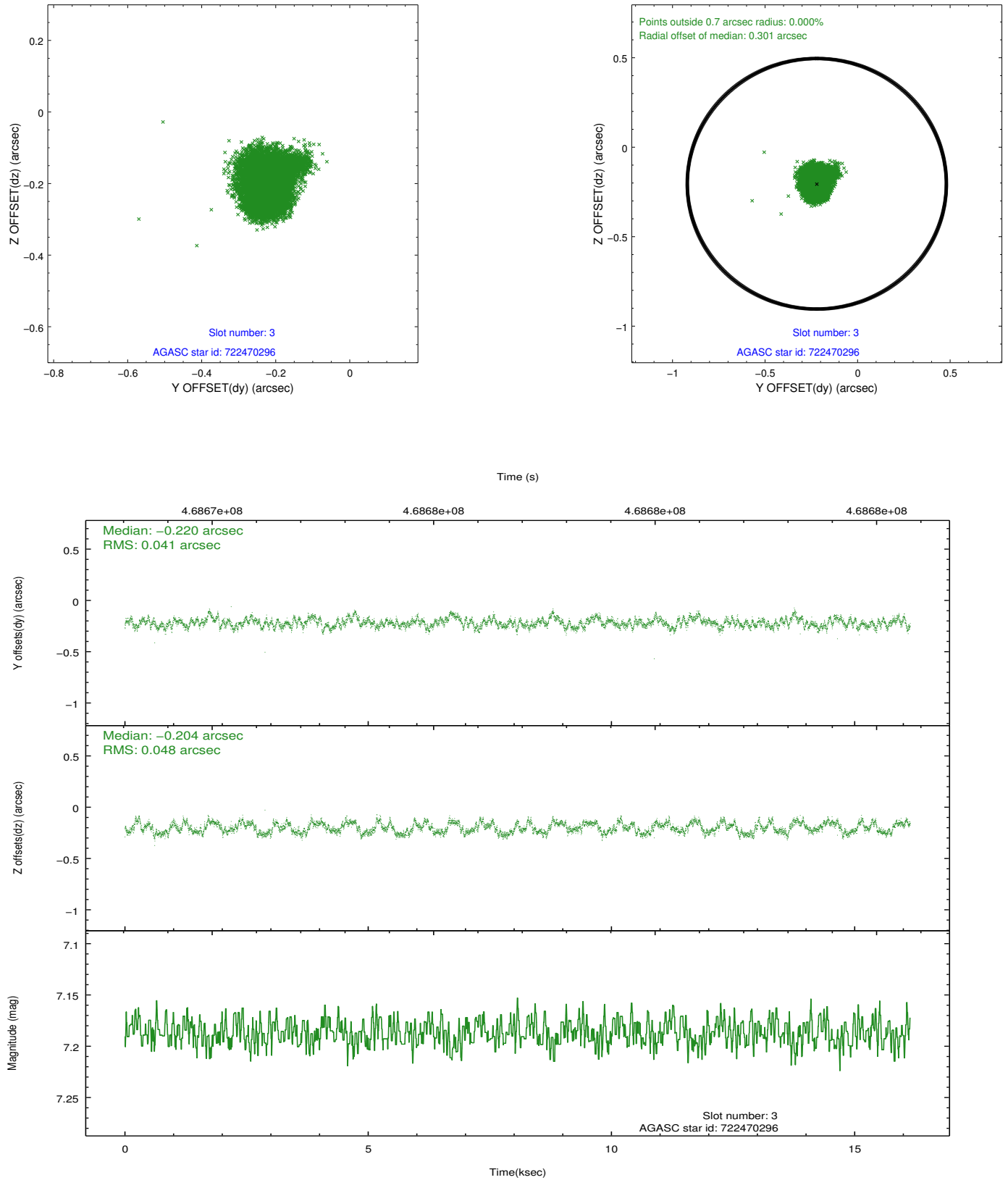


### Slot Statistics

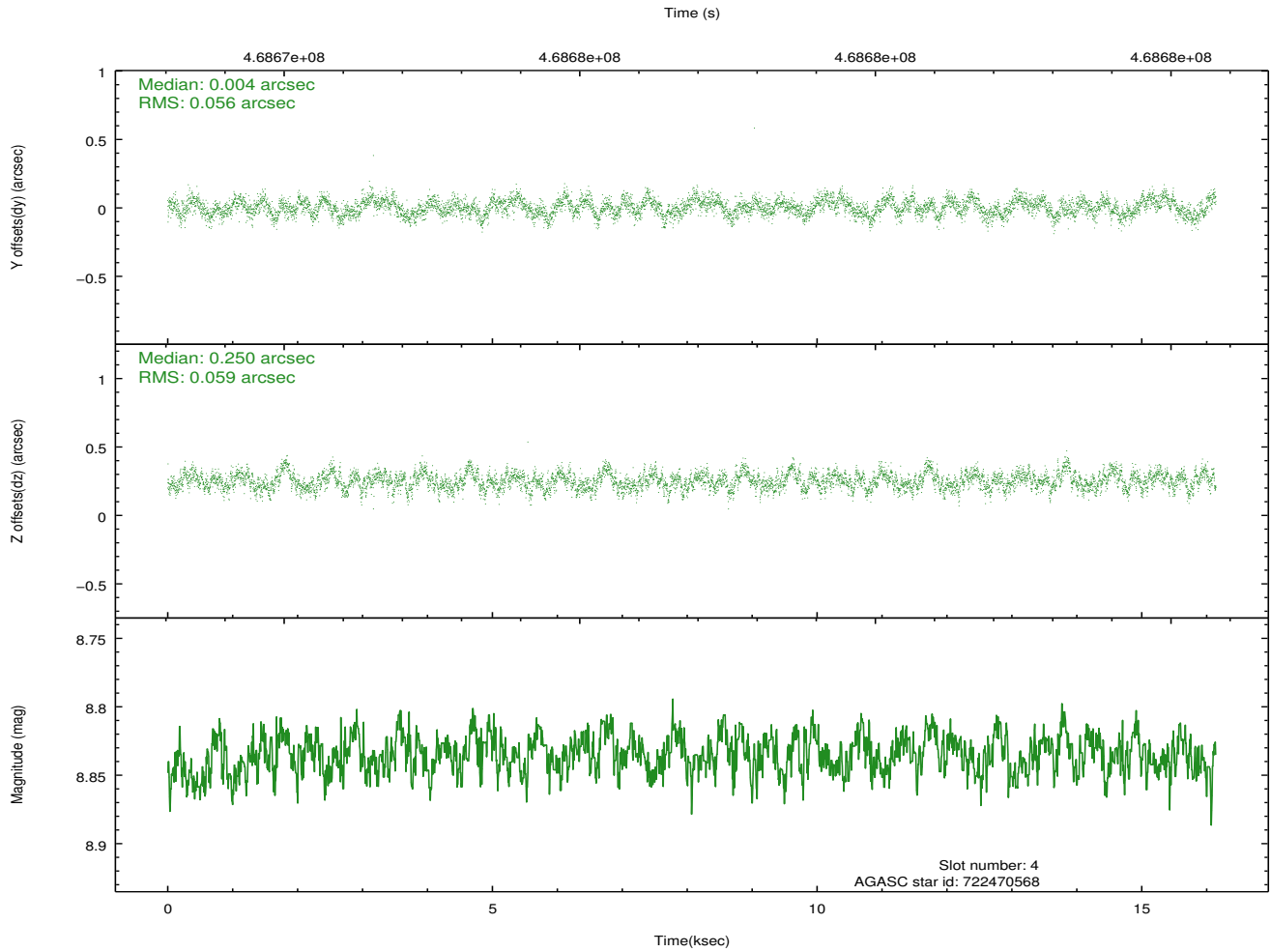
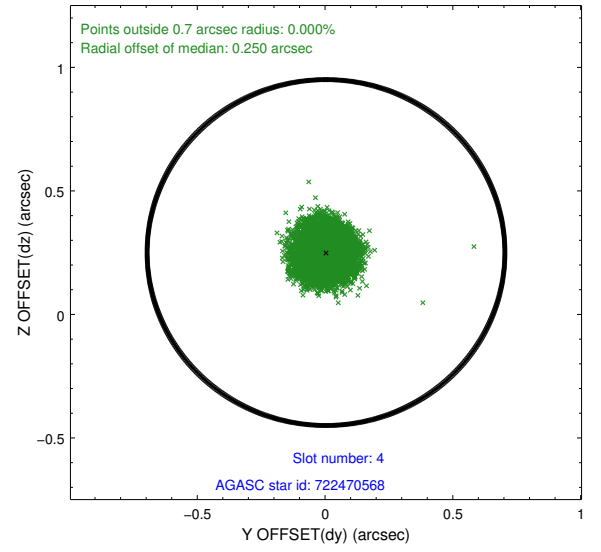
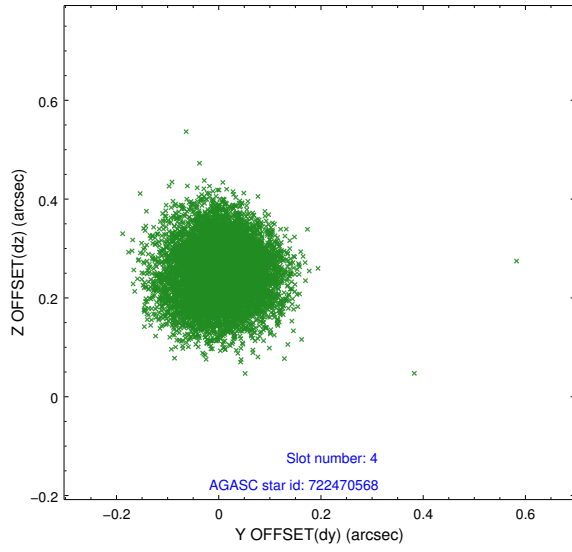
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-1	7.03	3938	0.083	-0.084	0.037	0.068	0.000000	0.000000	928.47	-1732.57
1	FID		ACIS-S-5	7.07	3937	-0.166	0.044	0.011	0.018	0.000000	0.000000	-1820.65	164.79
2	FID		ACIS-S-6	7.17	3938	0.059	0.057	0.036	0.087	0.000000	0.000000	393.67	809.07
3	GUIDE	used	722470296	7.19	7874	-0.220	-0.204	0.068	0.103	172.921689	-12.381367	583.97	294.42
4	GUIDE	used	722470568	8.84	7873	0.004	0.250	0.088	0.137	173.210269	-12.342558	913.46	-675.43
5	GUIDE	used	722473176	9.43	7853	-0.024	-0.141	0.102	0.162	172.599746	-12.066793	1480.07	1621.94
6	GUIDE	used	722871728	9.68	7817	0.041	0.139	0.193	0.286	173.202235	-12.568355	110.02	-800.87
7	GUIDE	used	722873464	7.30	7873	0.207	-0.052	0.087	0.130	172.661543	-13.050266	-1954.14	732.23

## 2.4 Star Slots

### 2.4.1 Slot 3

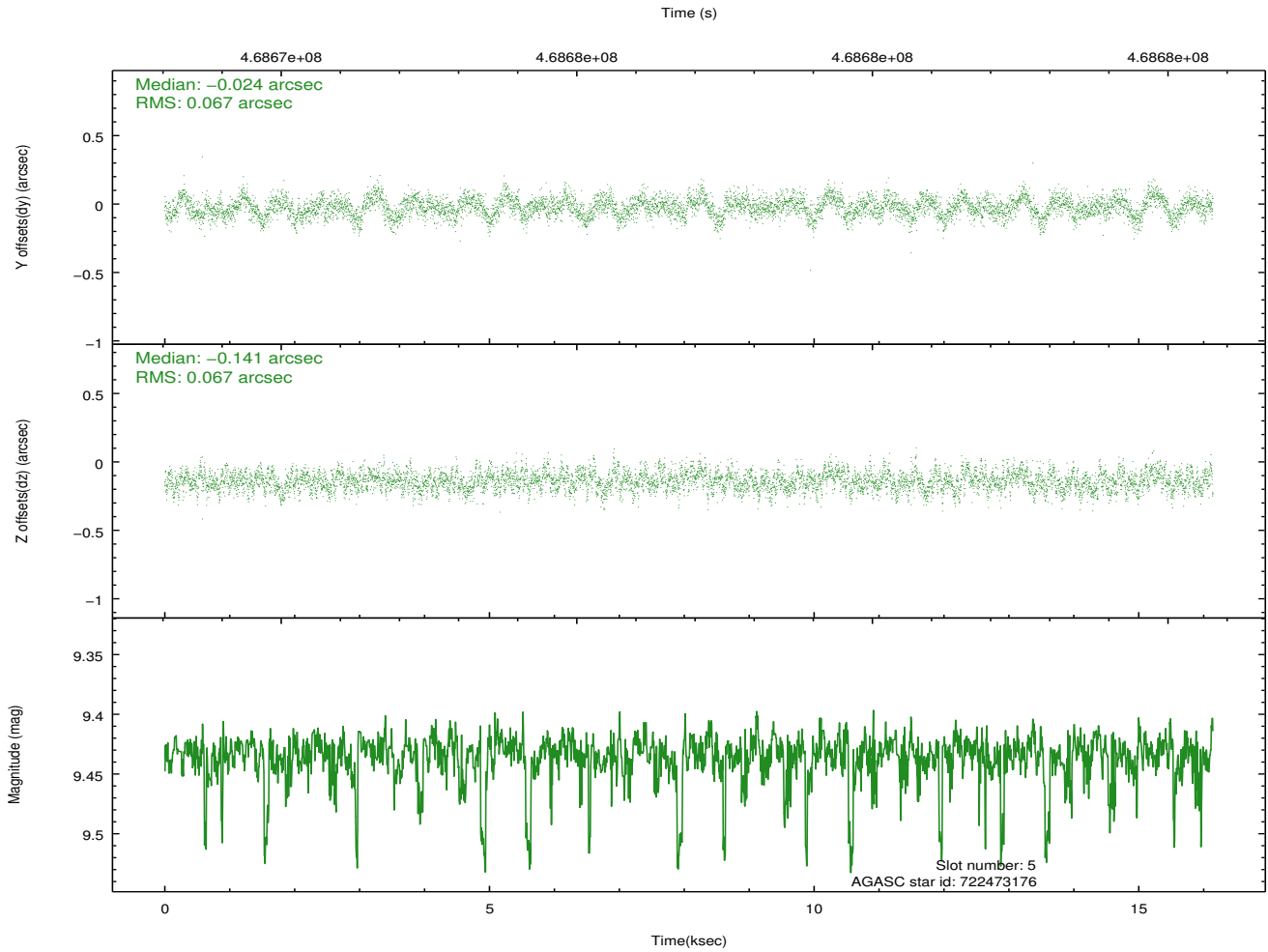
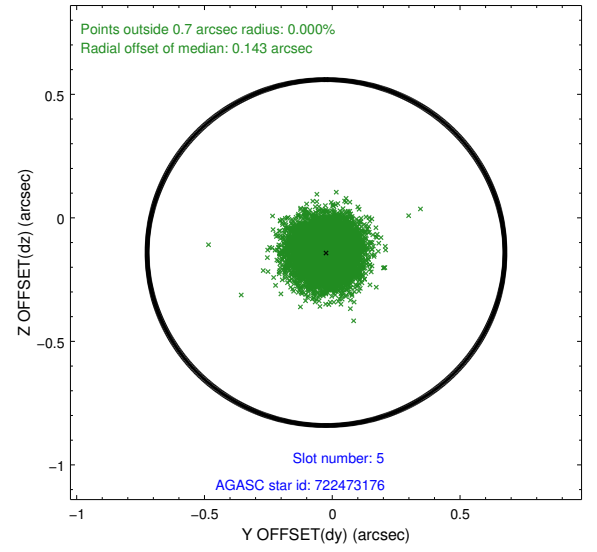
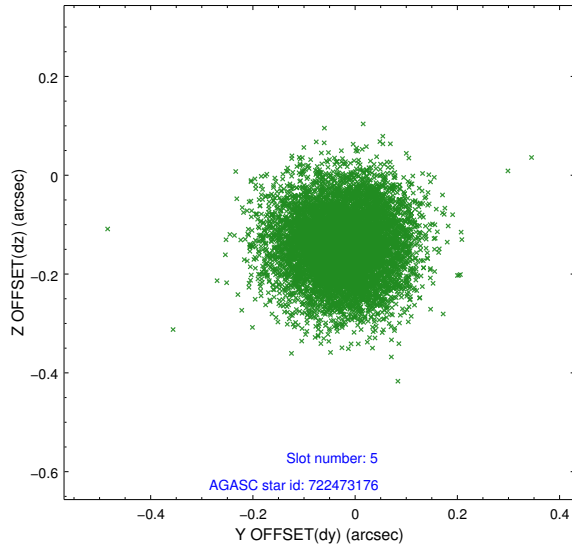


## 2.4.2 Slot 4

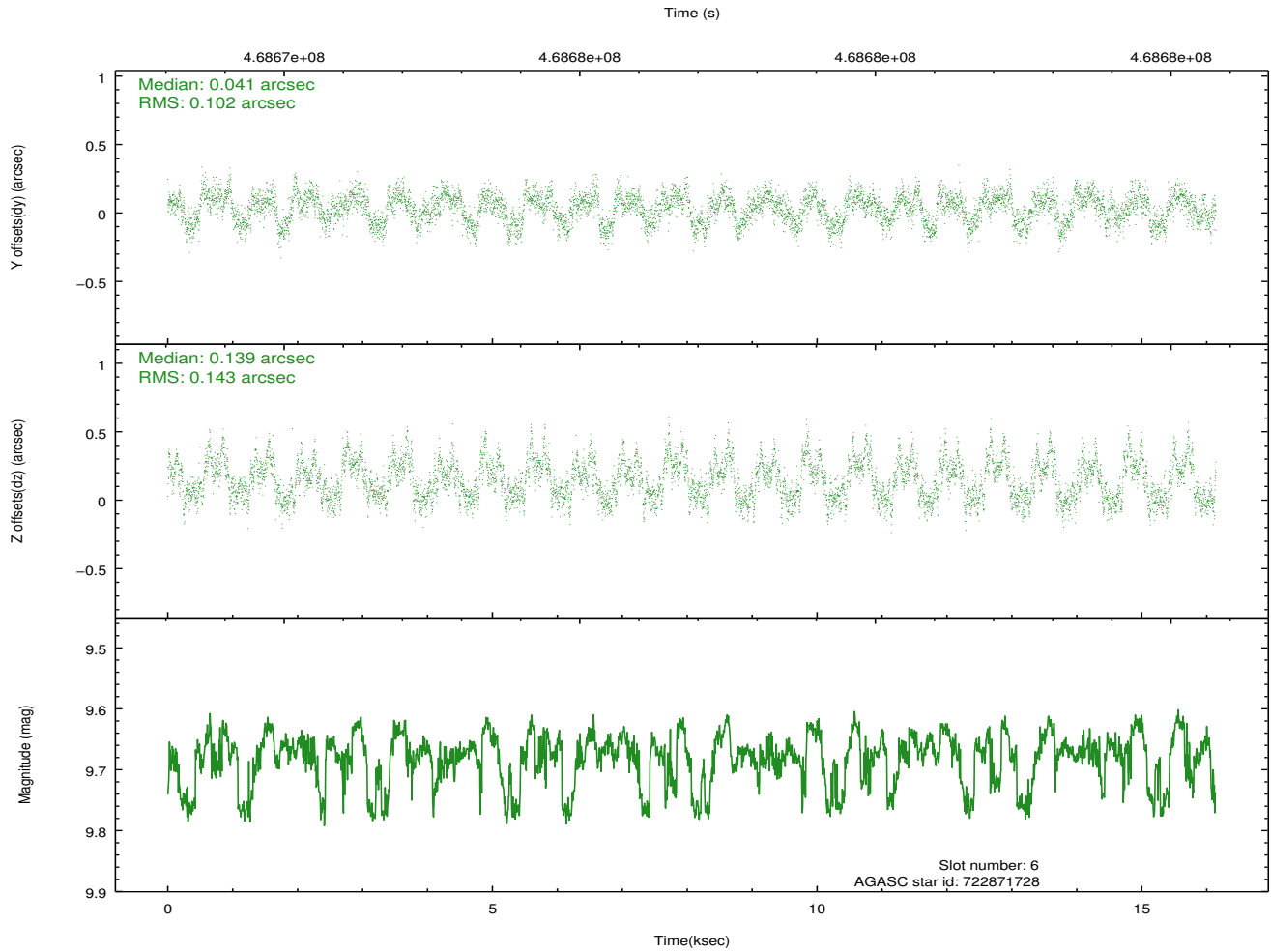
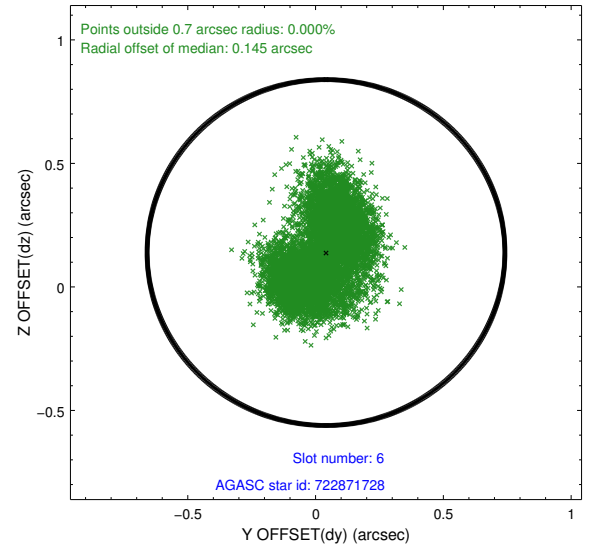
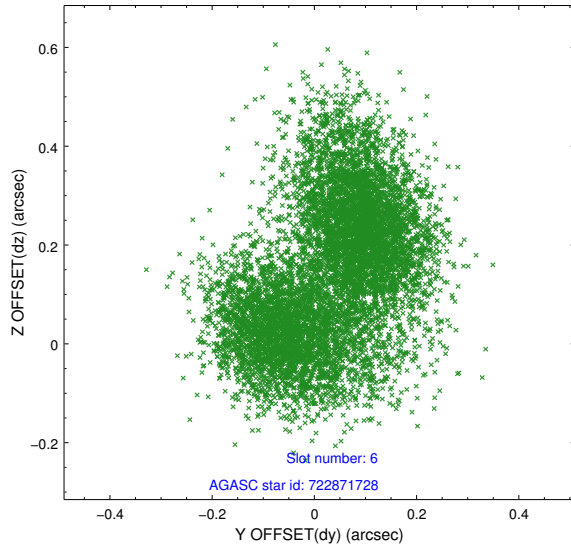




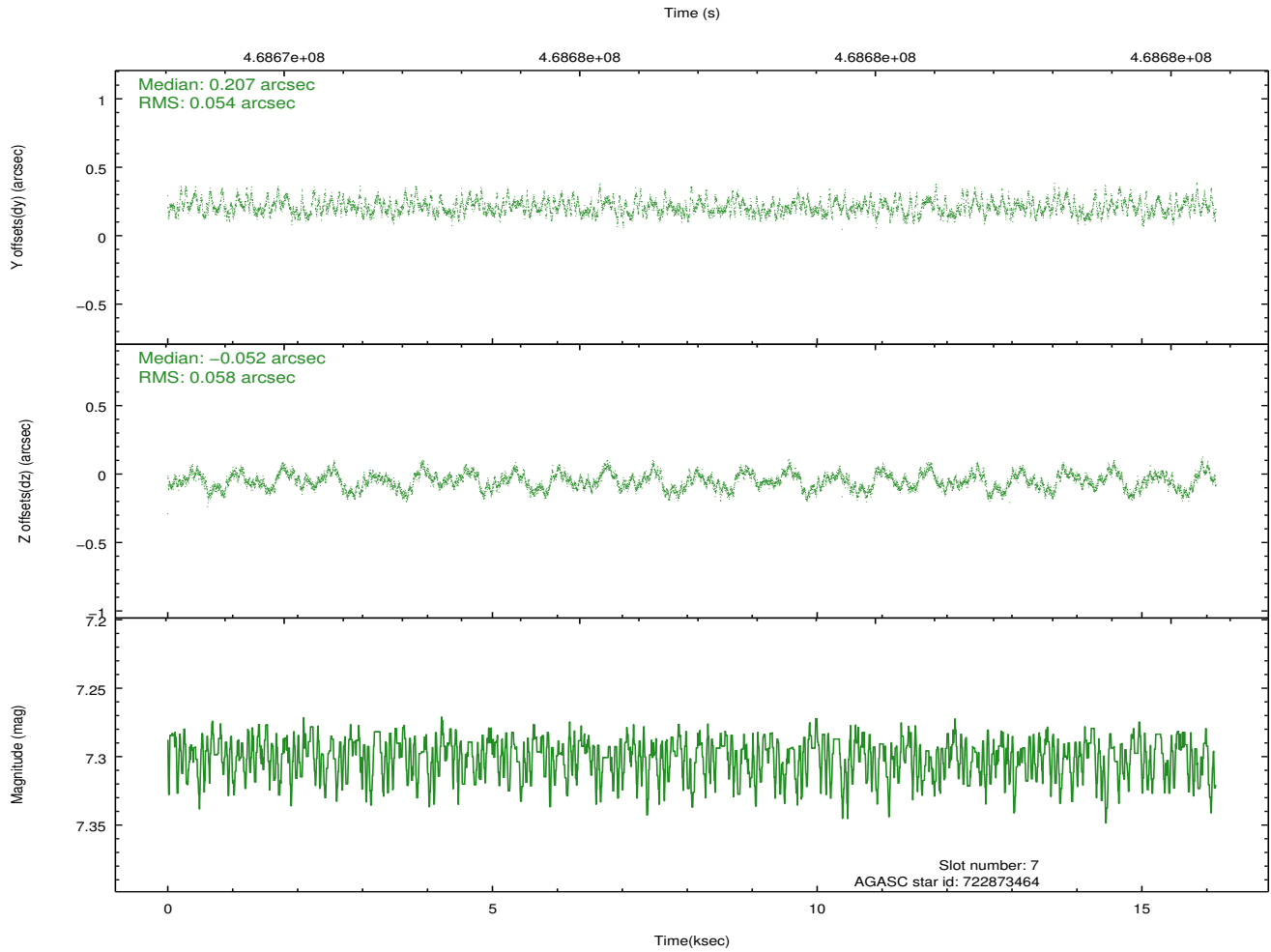
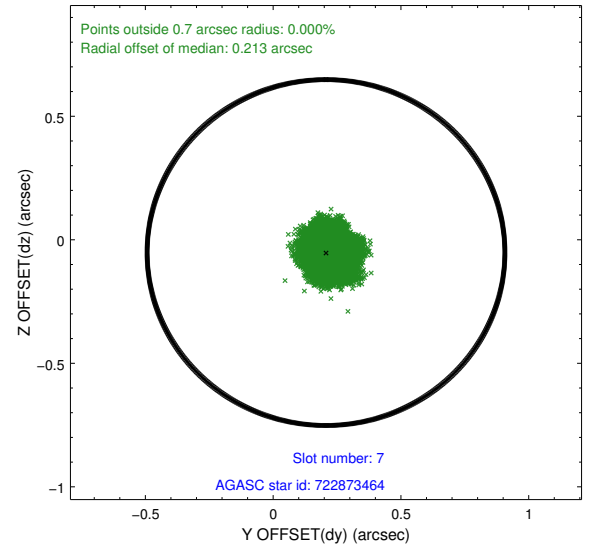
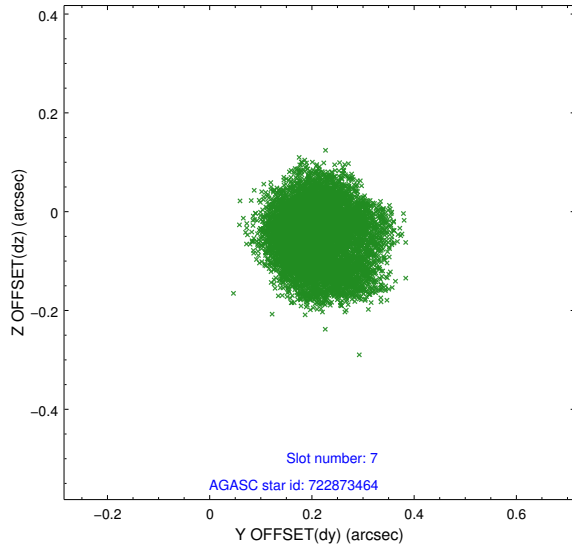
### 2.4.3 Slot 5



## 2.4.4 Slot 6

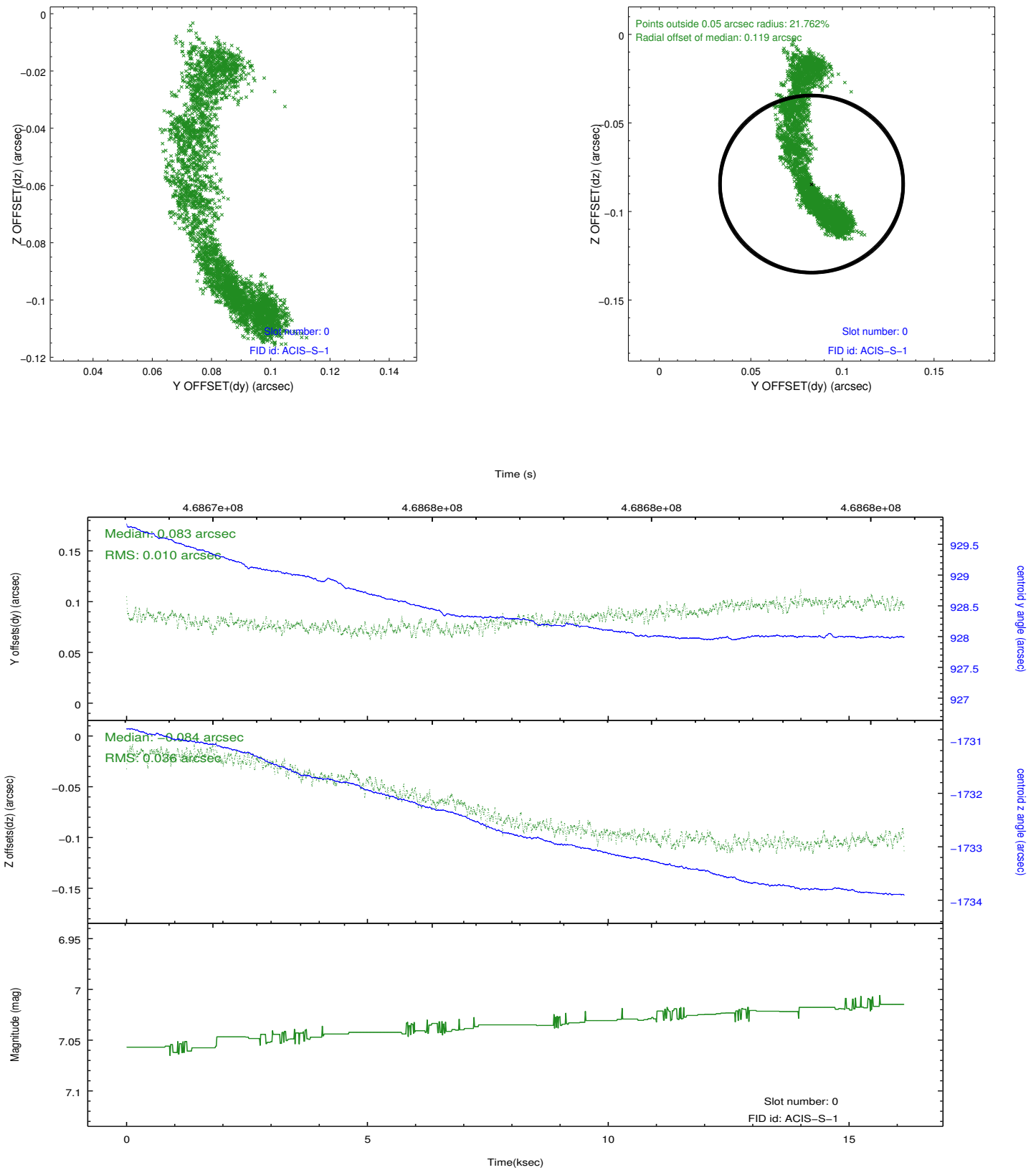


## 2.4.5 Slot 7

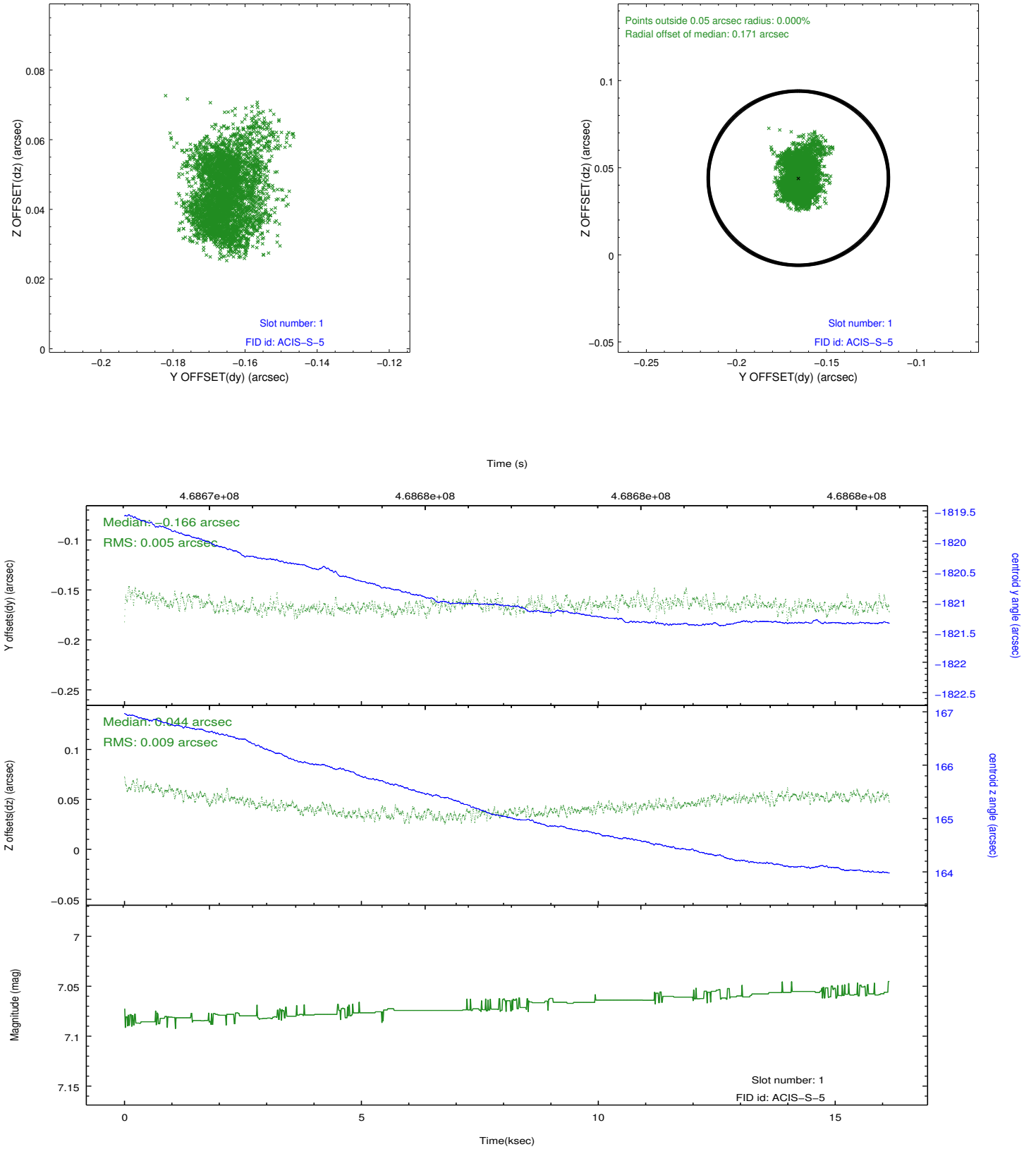


## 2.5 FID Slots

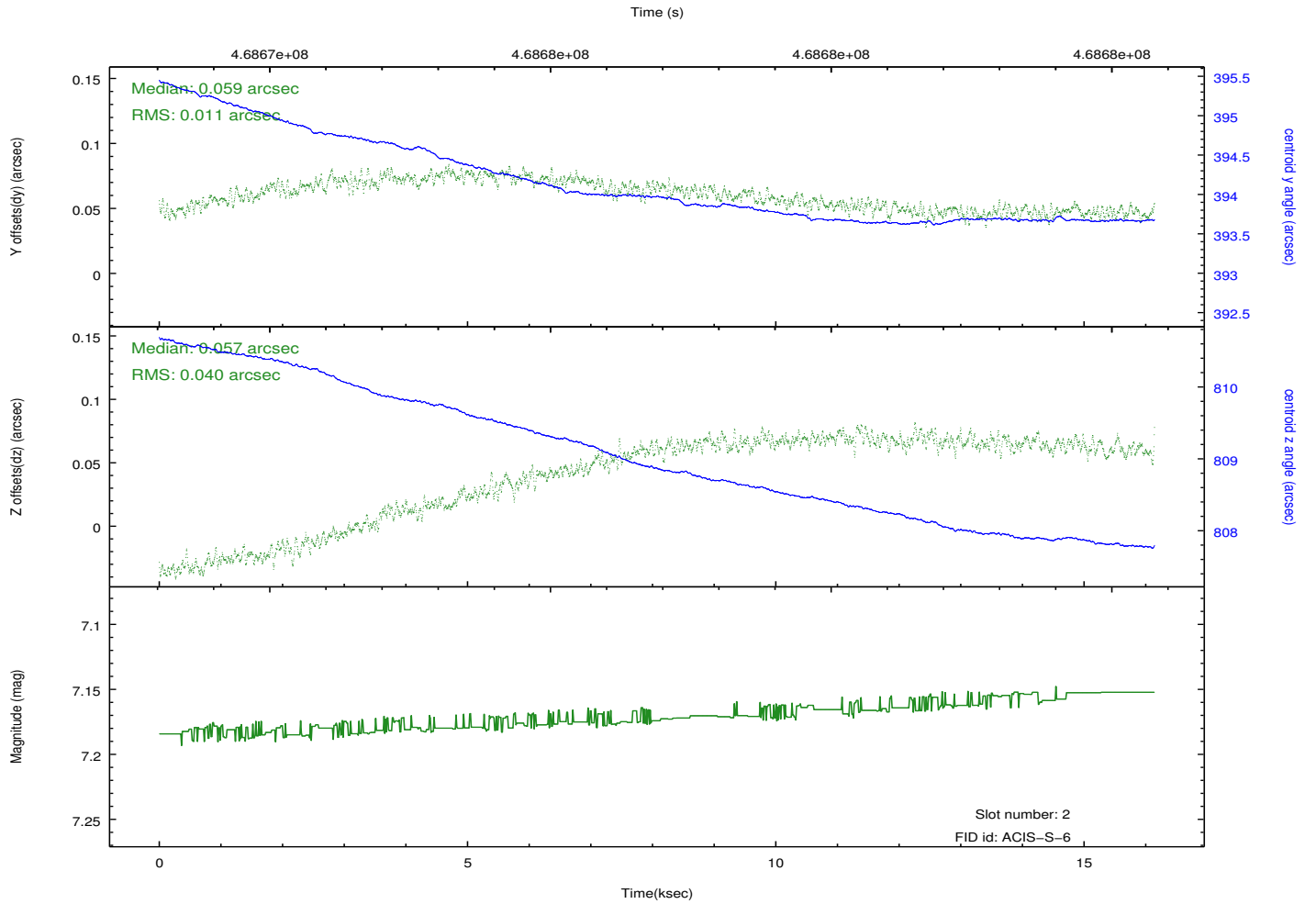
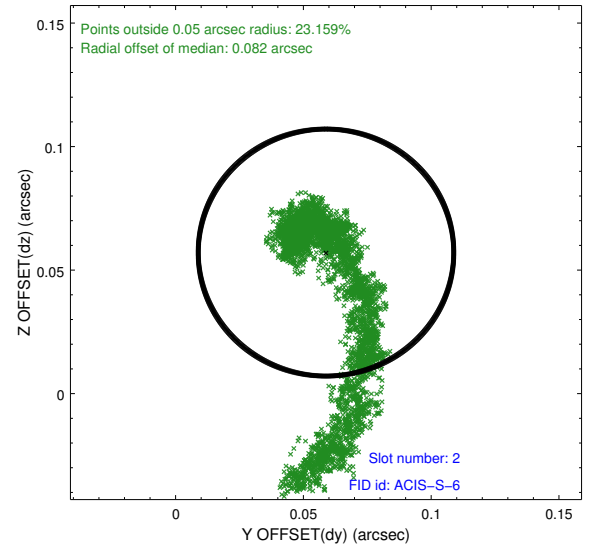
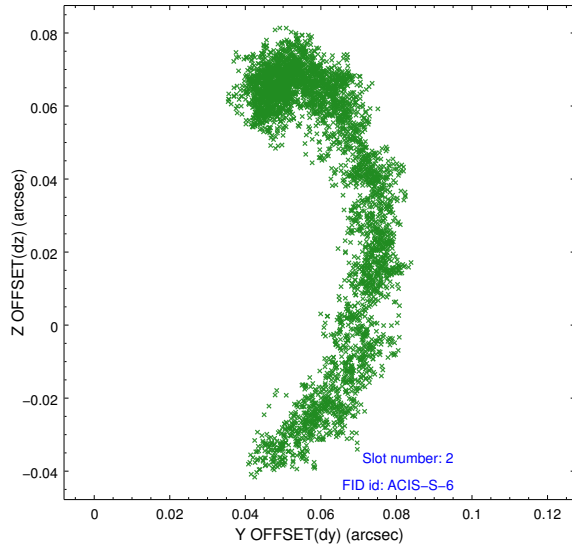
### 2.5.1 Slot 0



## 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)	2014.12.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	16.069999042153

## A.2 Comments

These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.