

# V&V Reference Report

## L2 ASCDS Version : 8.5

Observation 15349 - L2 Version 2  
Chandra X-Ray Center

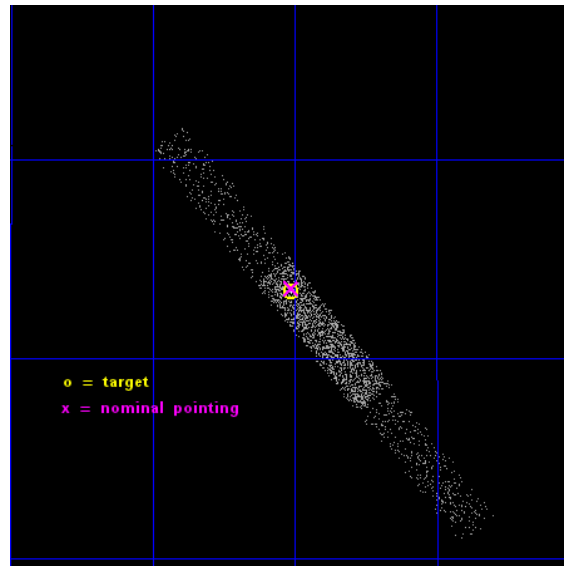
L2 Processing Date : Nov 29 2014

## Contents

<b>1</b>	<b>Front</b>	<b>2</b>
<b>2</b>	<b>OBI</b>	<b>3</b>
2.1	OBI . . . . .	3
2.1.1	Images . . . . .	3
2.1.2	Bias . . . . .	3
2.1.3	Parameters . . . . .	4
2.1.4	Events . . . . .	4
2.2	Compared Parameters . . . . .	5
2.3	Aspect . . . . .	6
2.4	Star Slots . . . . .	9
2.4.1	Slot 3 . . . . .	9
2.4.2	Slot 4 . . . . .	10
2.4.3	Slot 5 . . . . .	11
2.4.4	Slot 6 . . . . .	12
2.4.5	Slot 7 . . . . .	13
2.5	FID Slots . . . . .	14
2.5.1	Slot 0 . . . . .	14
2.5.2	Slot 1 . . . . .	15
2.5.3	Slot 2 . . . . .	16
<b>A</b>	<b>Summary</b>	<b>17</b>
A.1	Status . . . . .	17
A.2	Comments . . . . .	17

# 1 Front

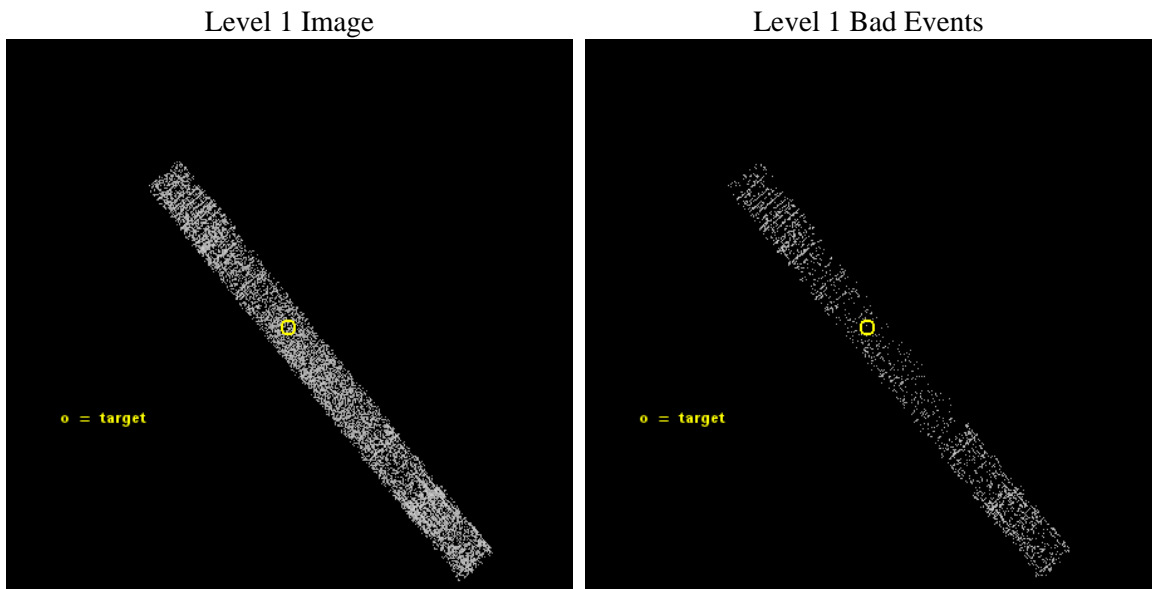
seq_num	702909	Sequence number
obs_id	15349	Observation id
title	Clarifying the Nature of Weak-Line Quasars with Chandra Spectroscopy and Snapshots	Proposal title
observer	Professor Gordon Garmire	Principal investigator
object	SDSS J1417+0733	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	214.37875	Observer's specified target RA [deg]
dec_targ	7.55575	Observer's specified target Dec [deg]
ra_nom	214.37792964618	Nominal RA [deg]
dec_nom	7.5587731589111	Nominal Dec [deg]
roll_nom	50.276088084355	Nominal Roll [deg]
revision	2	Processing version of data
ontime	2595.265860796	Sum of GTIs [s]
livetime	2482.0828814039	Livetime [s]
ontime6	2595.2248207927	Sum of GTIs [s]
ontime7	2595.265860796	Sum of GTIs [s]
ontime8	2595.1837807894	Sum of GTIs [s]
l2events	2808	Number of level 2 events



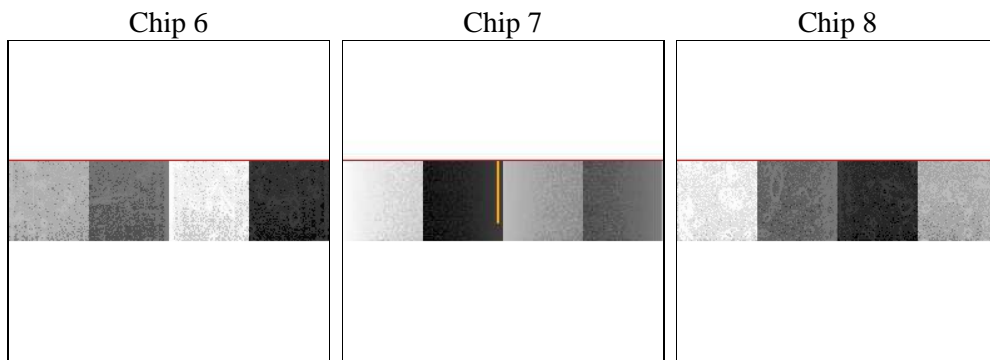
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	2500.528000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	2595.265860796	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime6	2595.2248207927	Sum of GTIs [s]
date	2014-11-30T02:36:57	Date and time of file creation	ontime7	2595.265860796	Sum of GTIs [s]
revision	2	Processing version of data	ontime8	2595.1837807894	Sum of GTIs [s]
			l1events	13019	Number of level 1 events

### 2.1.4 Events

	<b>ccd 6</b>	<b>ccd 7</b>	<b>ccd 8</b>
level 1 events	3909	4055	5055
rejected events	3444	1934	3855
rejected %	<b>88%</b>	<b>47%</b>	<b>76%</b>

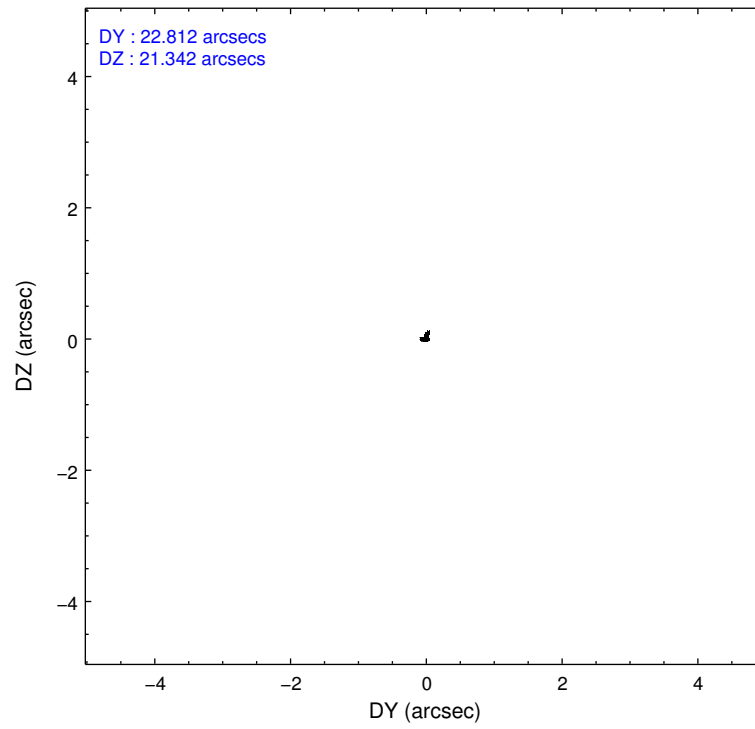
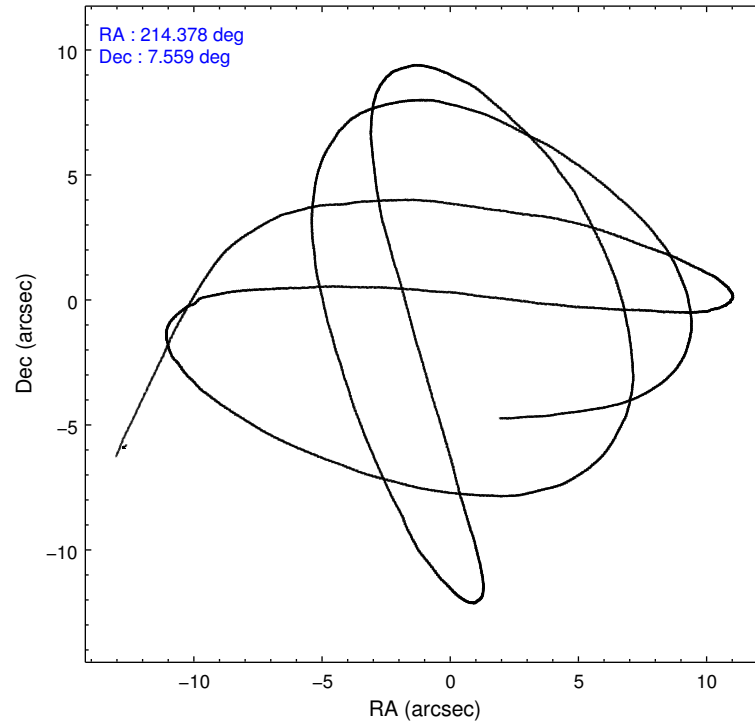
	<b>ccd 6</b>	<b>ccd 7</b>	<b>ccd 8</b>
grade 0 events	140	236	294
	3%	5%	5%
grade 1 events	0	7	4
	0%	0%	0%
grade 2 events	98	459	269
	2%	11%	5%
grade 3 events	83	239	142
	2%	5%	2%
grade 4 events	63	214	139
	1%	5%	2%
grade 5 events	161	405	223
	4%	9%	4%
grade 6 events	81	973	356
	2%	23%	7%
grade 7 events	3283	1522	3628
	83%	37%	71%

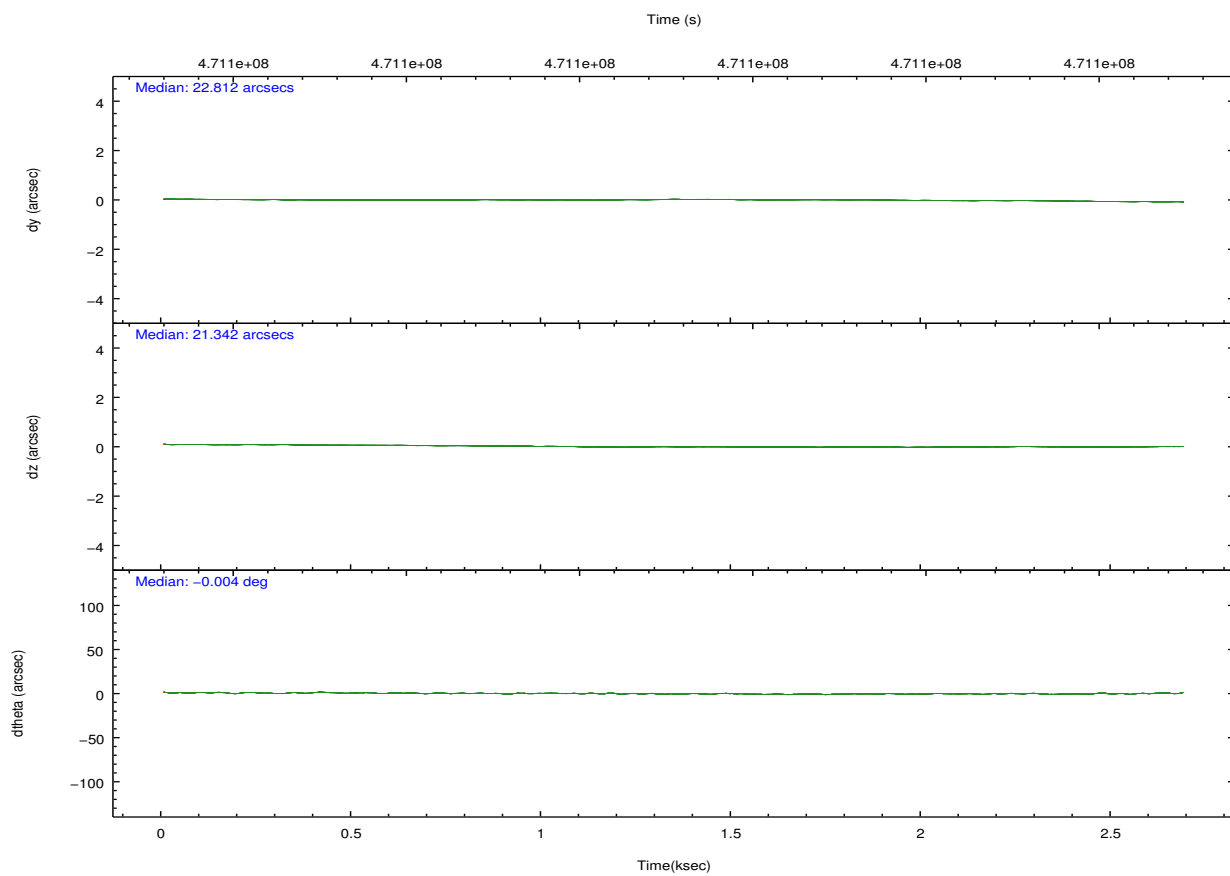
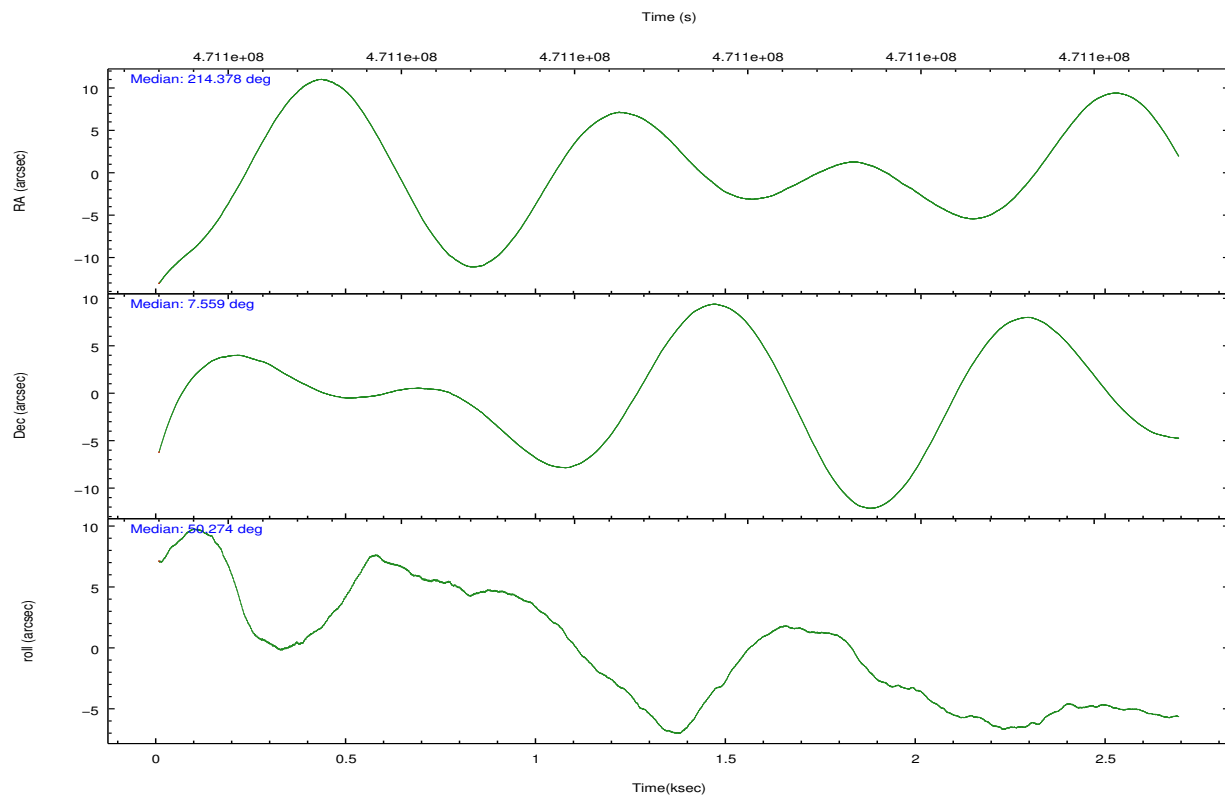
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-678	ACIS-678
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	214.373527	214.3779296461773
[deg] Pointing Dec	7.531625	7.558773158911058
[deg] Pointing Roll	50.120073	50.27608808435547
[mm] SIM focus pos	-0.684267	-0.6828225247311905
[mm] SIM defocus	0	0.001444936568705701
[mm] SIM translation stage pos	-190.132523	-190.1425803651734
[mm] SIM translation stage offset	0	0.01005778216563158
[s] Observation start time (MET)	471101122.184000	471100461.2682
Observation start date	2012-12-05T13:24:15	2012-12-05T13:14:21
[s] Observation end time (MET)	471103622.184000	471103848.38088
Observation end date	2012-12-05T14:05:55	2012-12-05T14:10:48
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	CUSTOM	1/4
Subarray start row	385	385
Subarray row count	256	256
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	0.9

## 2.3 Aspect





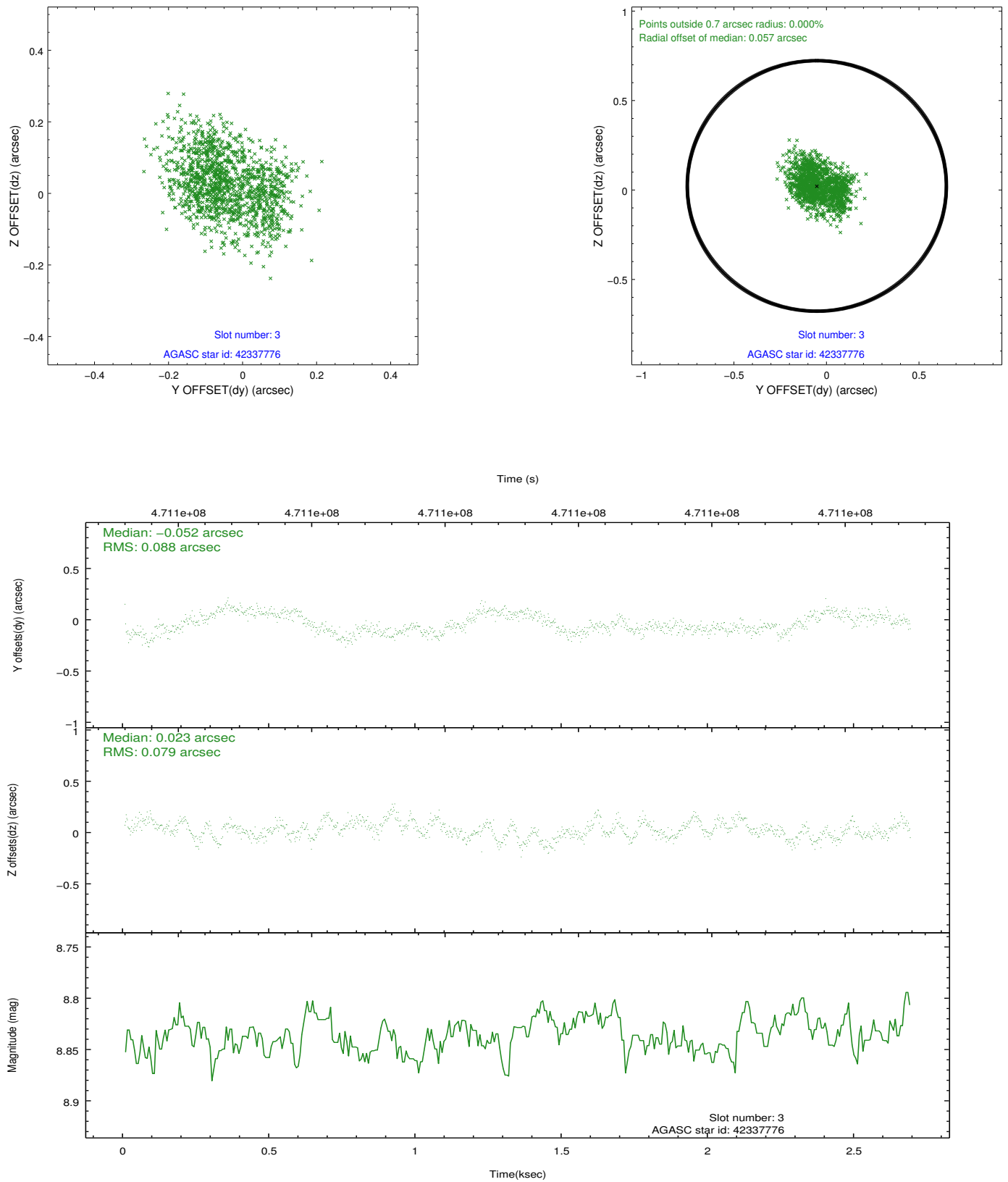
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.92	656	-0.098	-0.016	0.006	0.010	0.000000	0.000000	-776.09	-1742.87
1	FID		ACIS-S-4	7.00	656	0.267	0.052	0.005	0.010	0.000000	0.000000	2136.45	163.17
2	FID		ACIS-S-5	7.04	656	-0.200	-0.027	0.007	0.011	0.000000	0.000000	-1825.97	159.51
3	GUIDE	used	42337776	8.84	1311	-0.052	0.023	0.130	0.196	214.782884	7.378990	515.19	-1473.36
4	GUIDE	used	42338216	9.33	1303	0.343	0.120	0.136	0.212	214.545343	6.840230	-1515.62	-2068.00
5	GUIDE	used	119146840	9.29	1299	-0.239	0.015	0.120	0.186	214.909401	7.618244	1464.64	-1268.09
6	GUIDE	used	42338864	8.69	1310	0.242	0.049	0.083	0.136	214.291523	6.752765	-2338.22	-1573.34
7	GUIDE	used	119146944	9.87	1286	-0.301	-0.219	0.224	0.358	214.768212	8.088129	2437.57	204.36

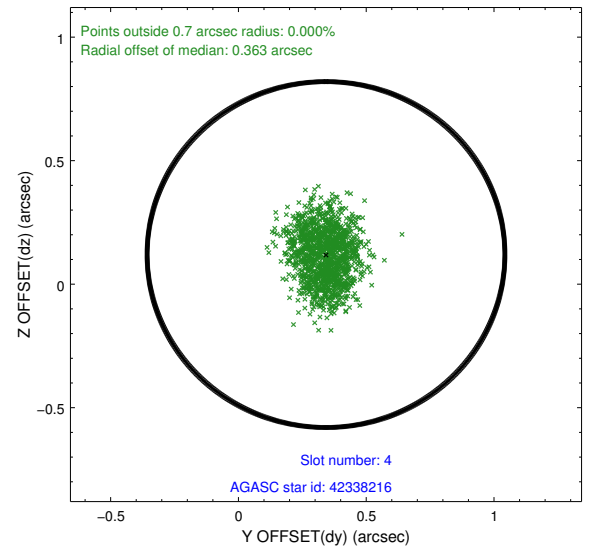
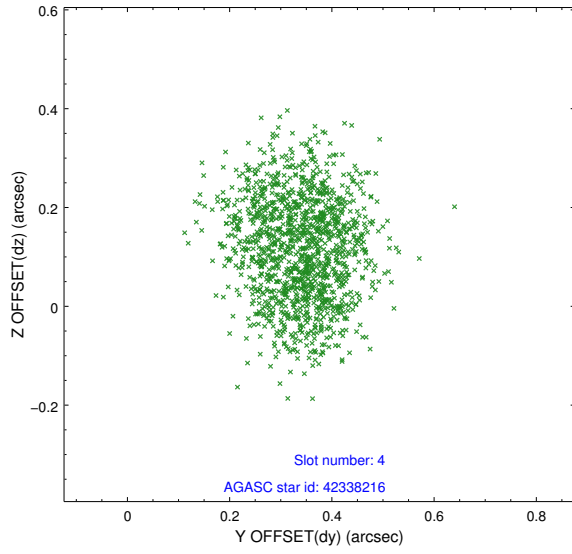


## 2.4 Star Slots

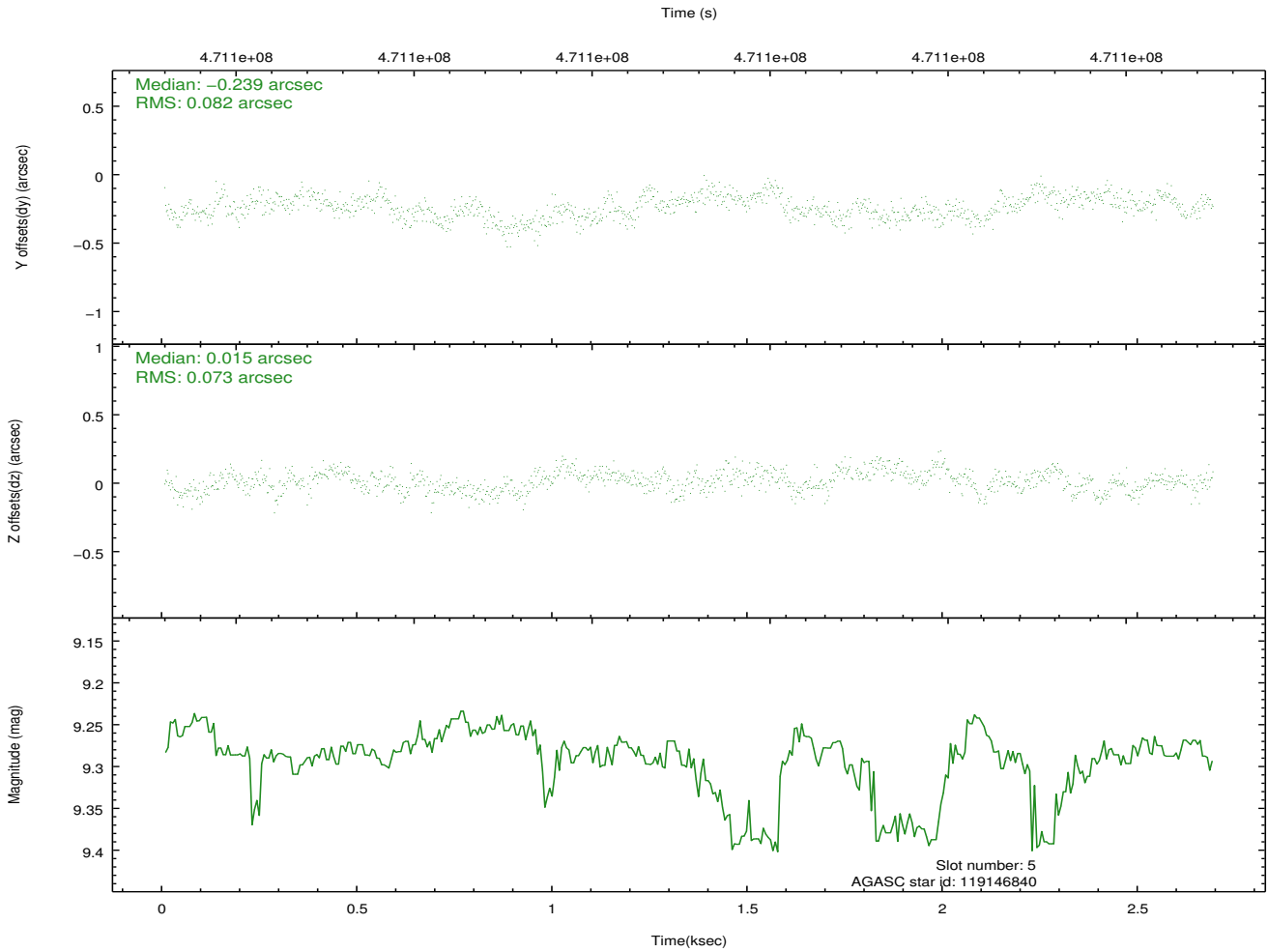
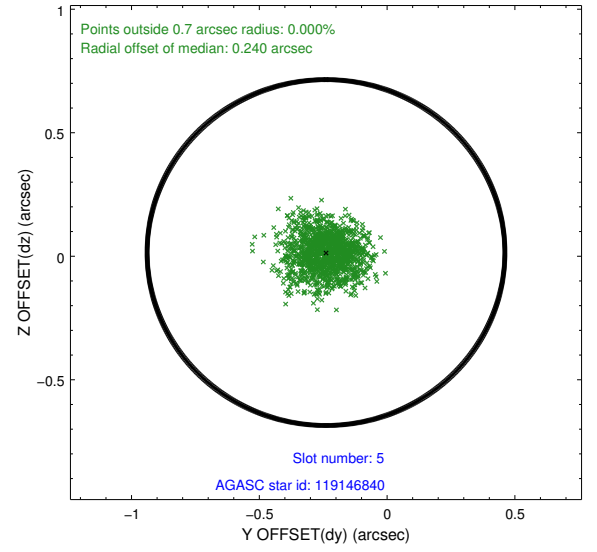
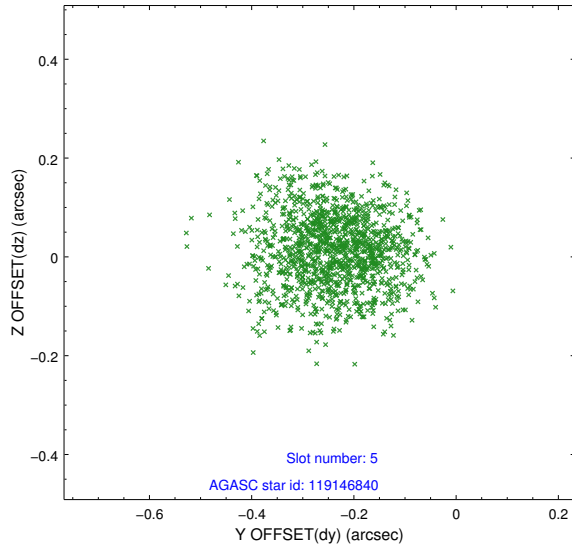
### 2.4.1 Slot 3



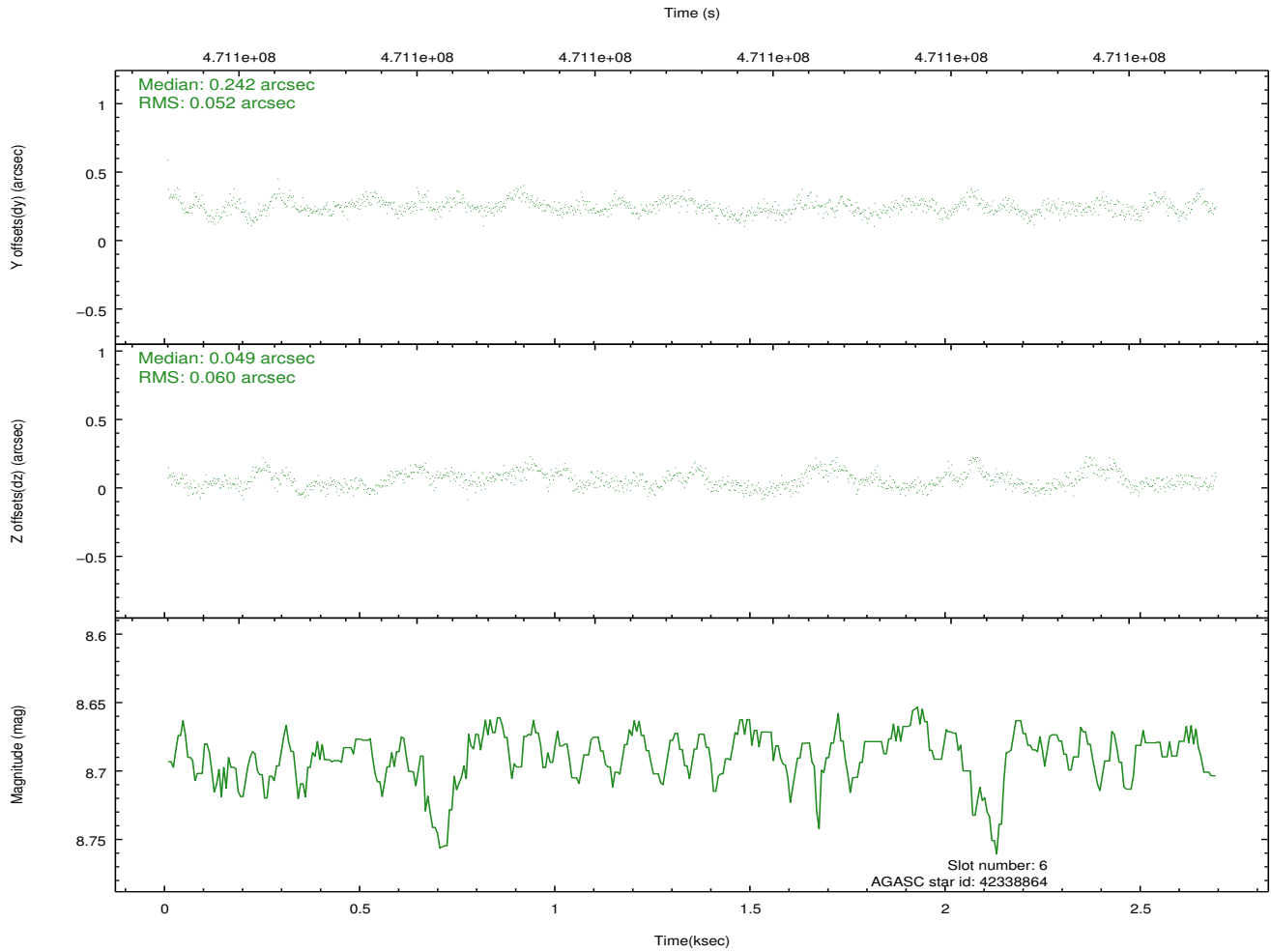
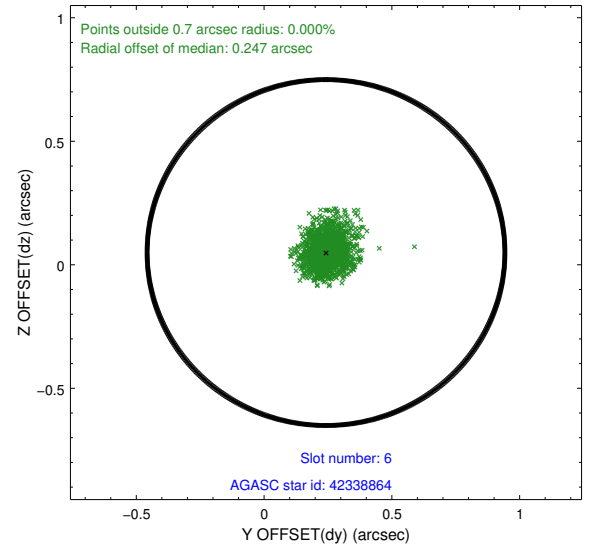
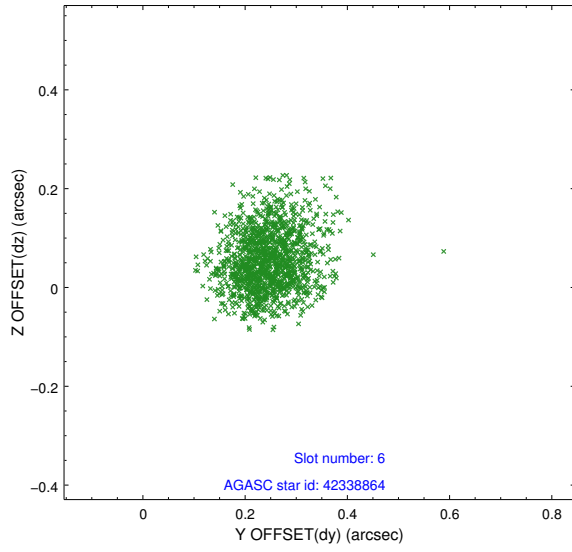
## 2.4.2 Slot 4



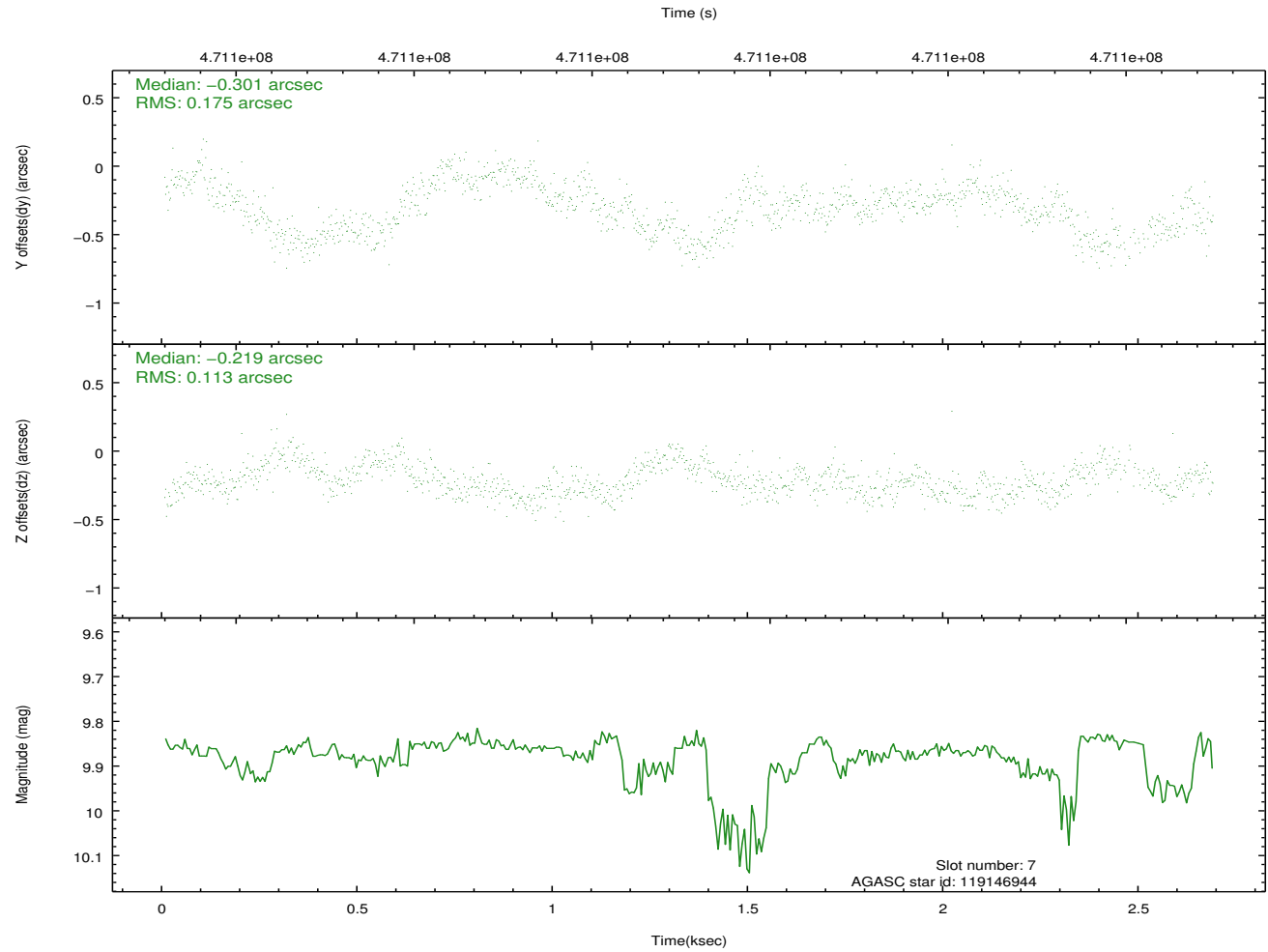
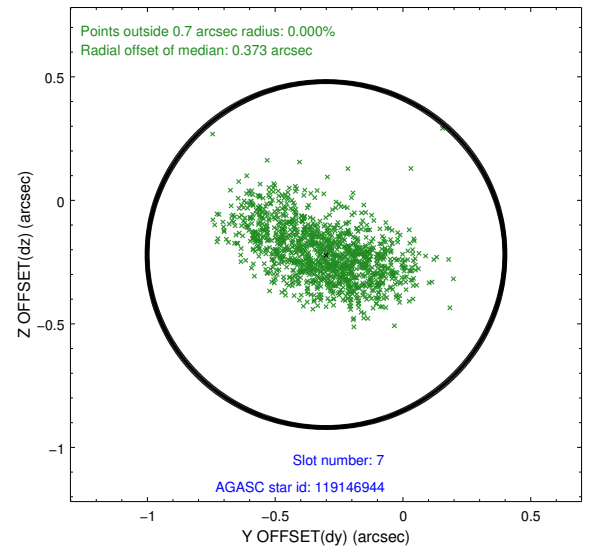
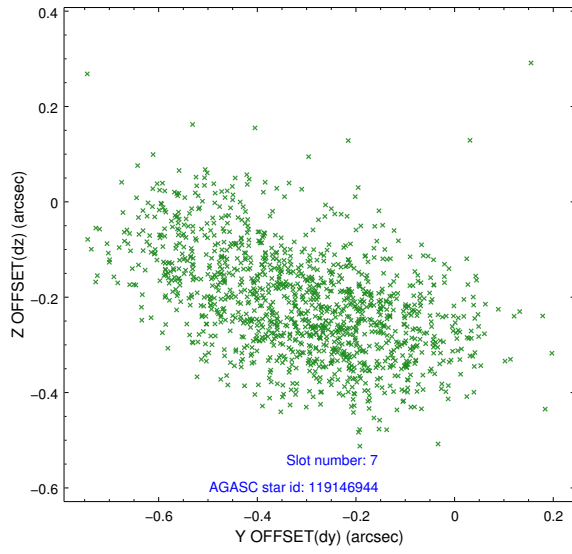
### 2.4.3 Slot 5



## 2.4.4 Slot 6

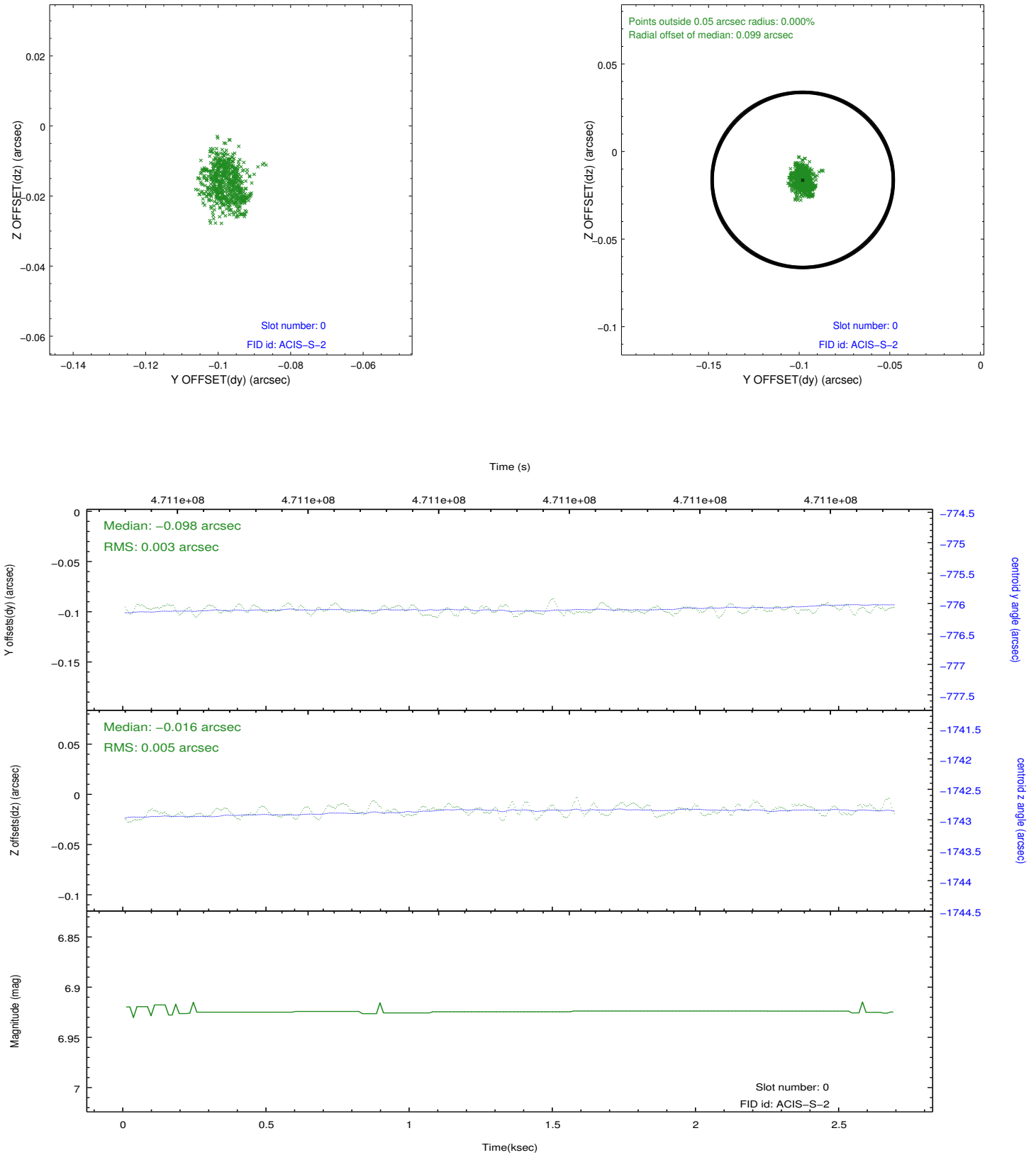


## 2.4.5 Slot 7

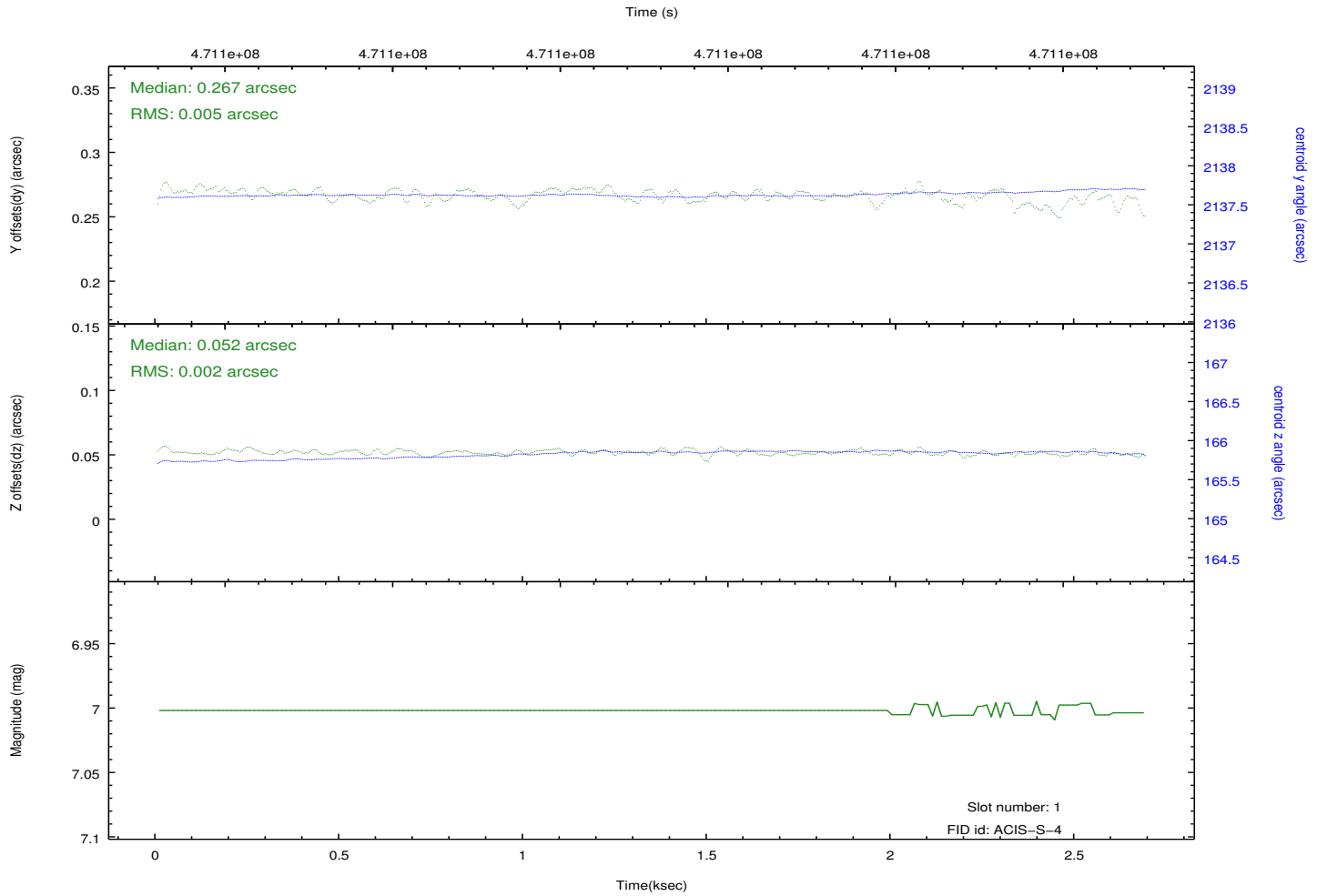
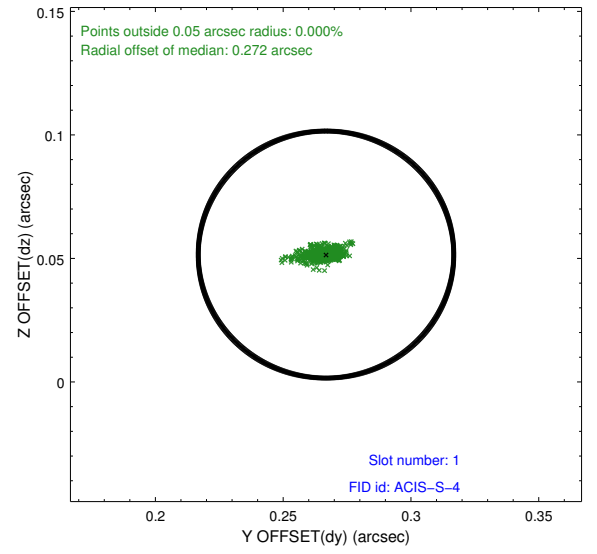
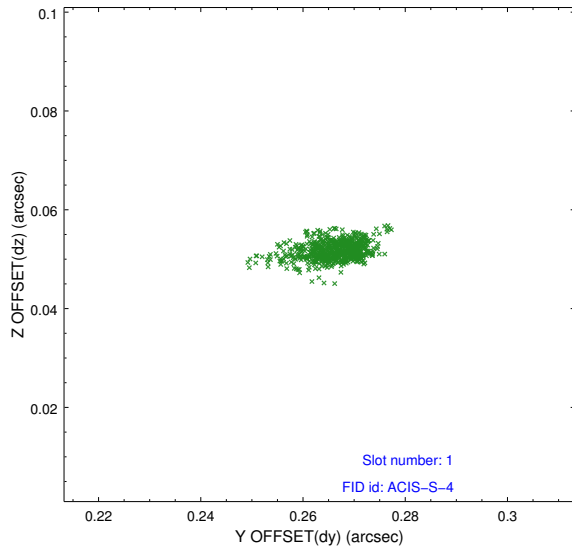


## 2.5 FID Slots

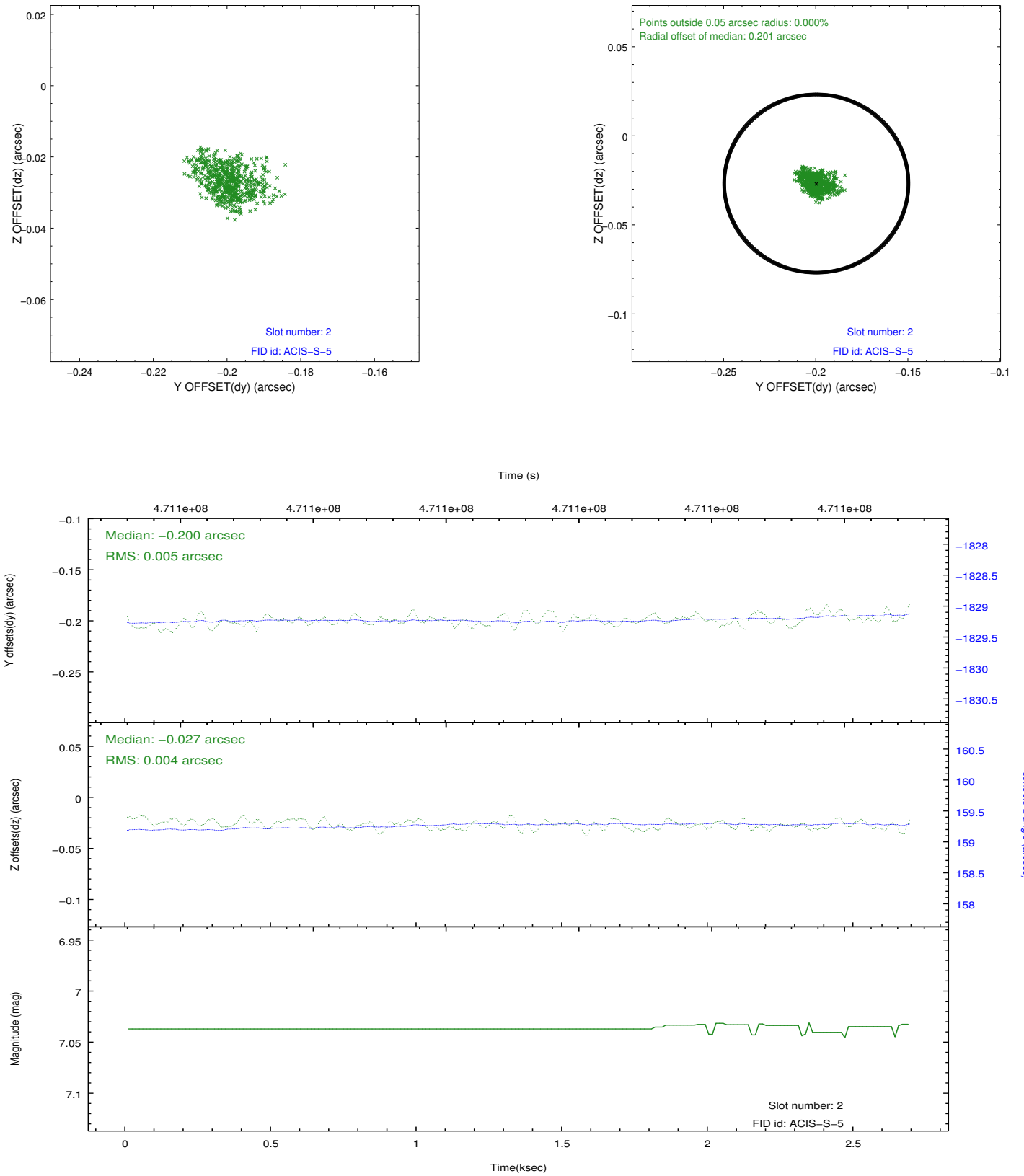
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2





# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2014.12.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	2.595265860796

## 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.