

# V&V Reference Report

## L2 ASCDS Version : 10.2.1

Observation 15751 - L2 Version 2  
Chandra X-Ray Center

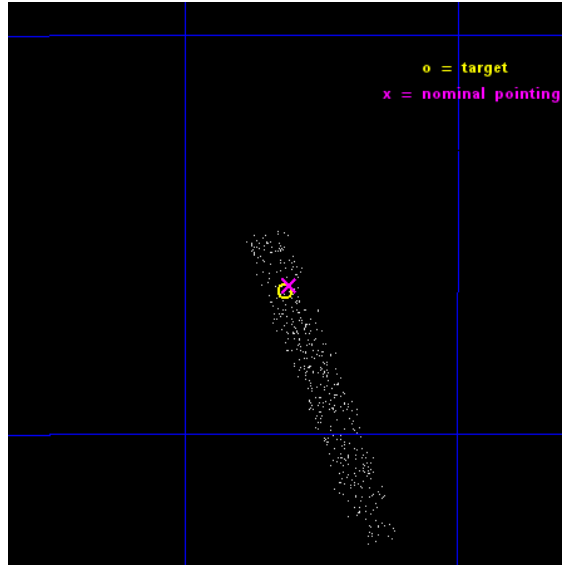
L2 Processing Date : Dec 10 2014

## 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

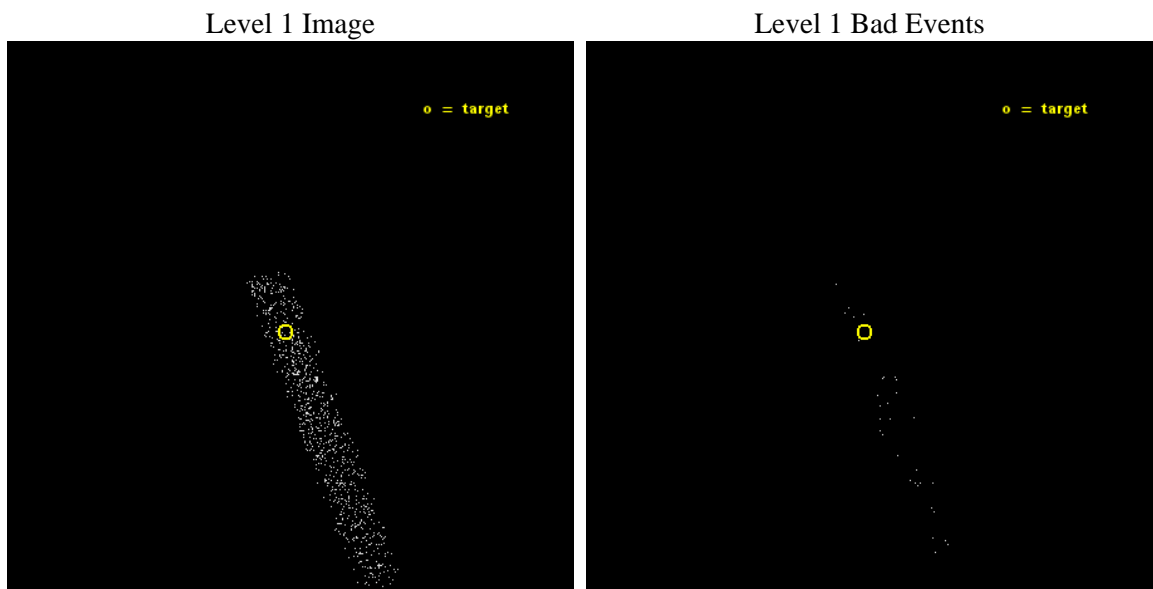
seq_num	401548	Sequence number
obs_id	15751	Observation id
title	Precise Localization of Transient Low-Mass X-ray Binaries	Proposal
observer	Prof. Deepto Chakrabarty	Principal investigator
object	MAXI J1421-613	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	215.408375	Observer's specified target RA [deg]
dec_targ	-61.606917	Observer's specified target Dec [deg]
ra_nom	215.40421552886	Nominal RA [deg]
dec_nom	-61.604522821627	Nominal Dec [deg]
roll_nom	68.68650120898	Nominal Roll [deg]
revision	2	Processing version of data
ontime	1068.3999363184	Sum of GTIs [s]
livetime	968.98234746817	Livetime [s]
ontime7	1068.3999363184	Sum of GTIs [s]
l2events	474	Number of level 2 events



## 2 OBI

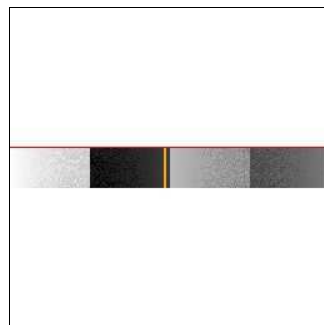
### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias

Chip 7



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	1000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	1068.3999363184	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime7	1068.3999363184	Sum of GTIs [s]
date	2014-12-10T06:31:05	Date and time of file creation	l1events	967	Number of level 1 events
revision	2	Processing version of data			

### 2.1.4 Events

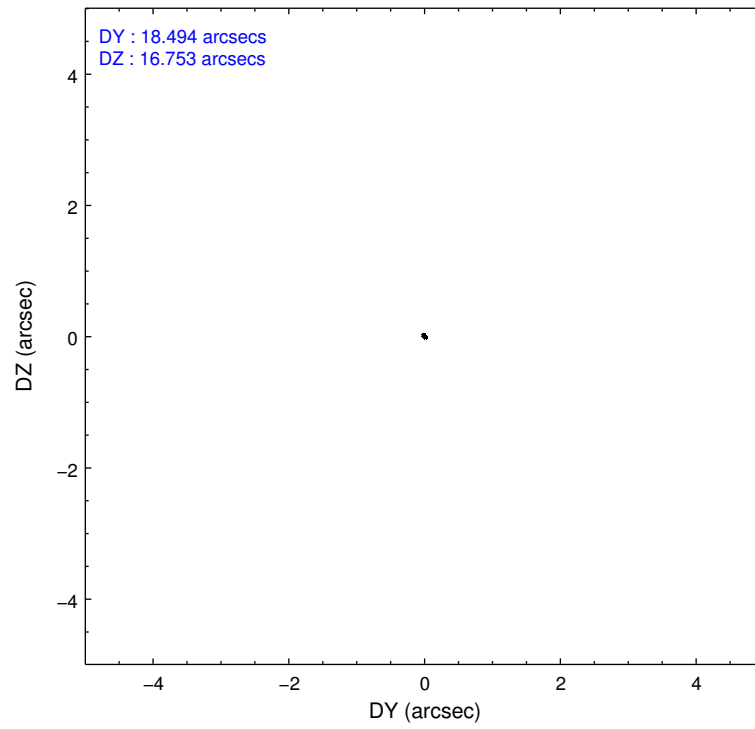
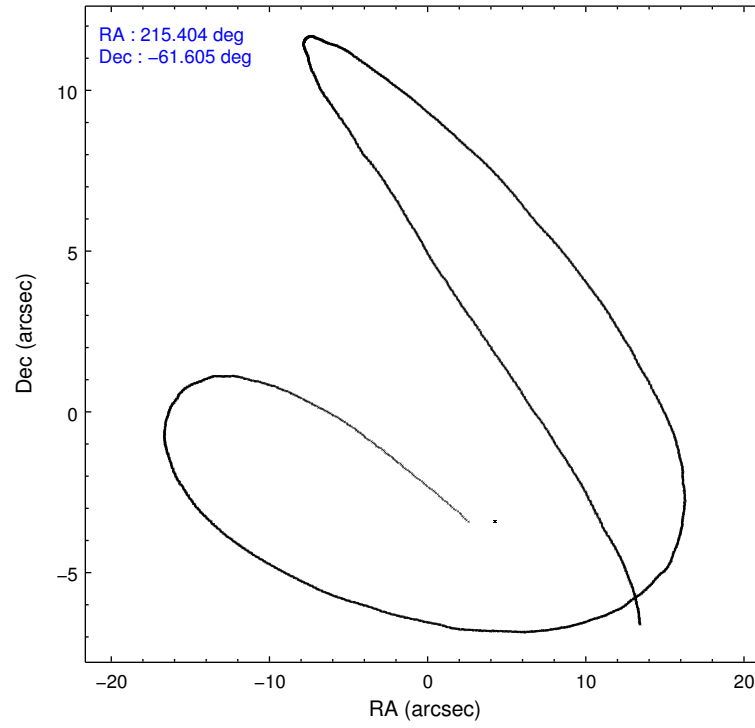
	<b>ccd 7</b>
level 1 events	967
rejected events	476
rejected %	49%

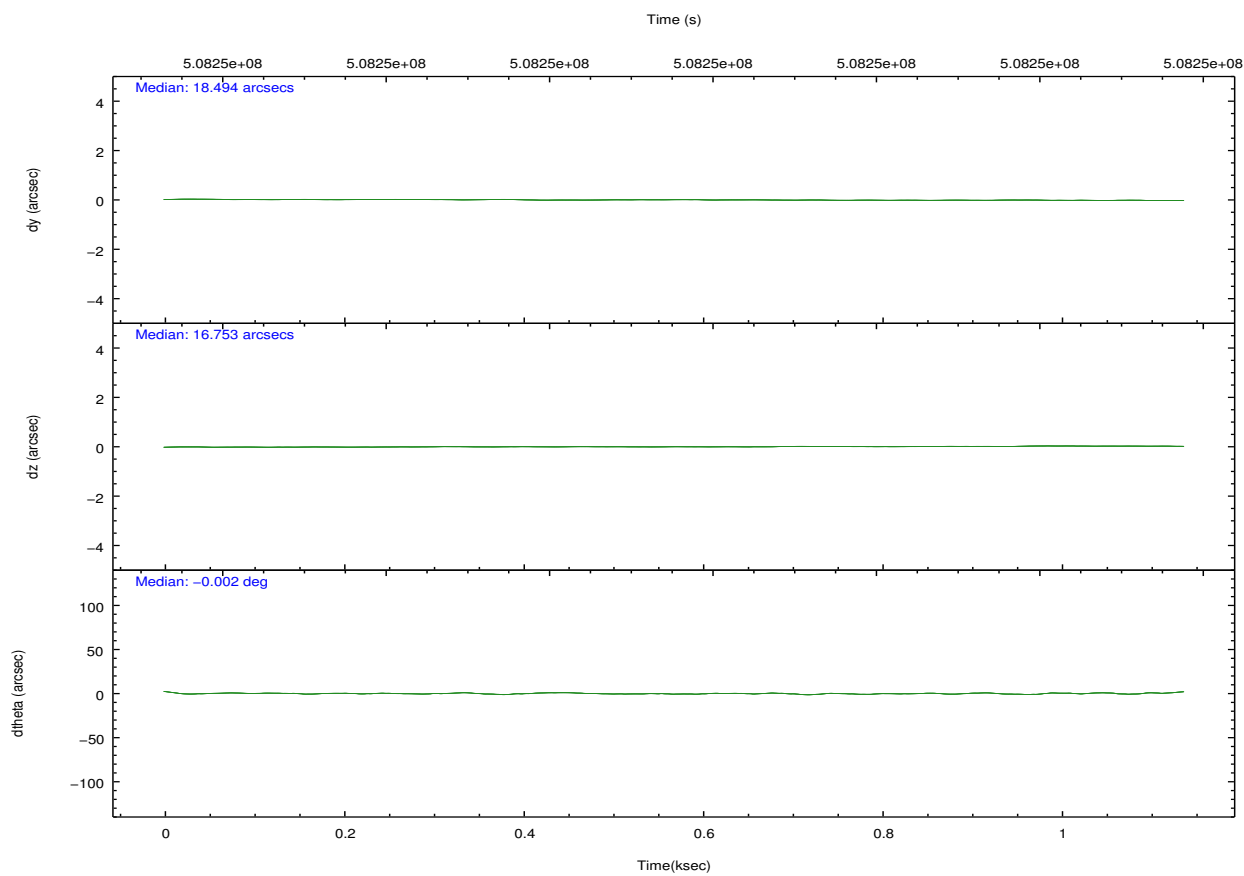
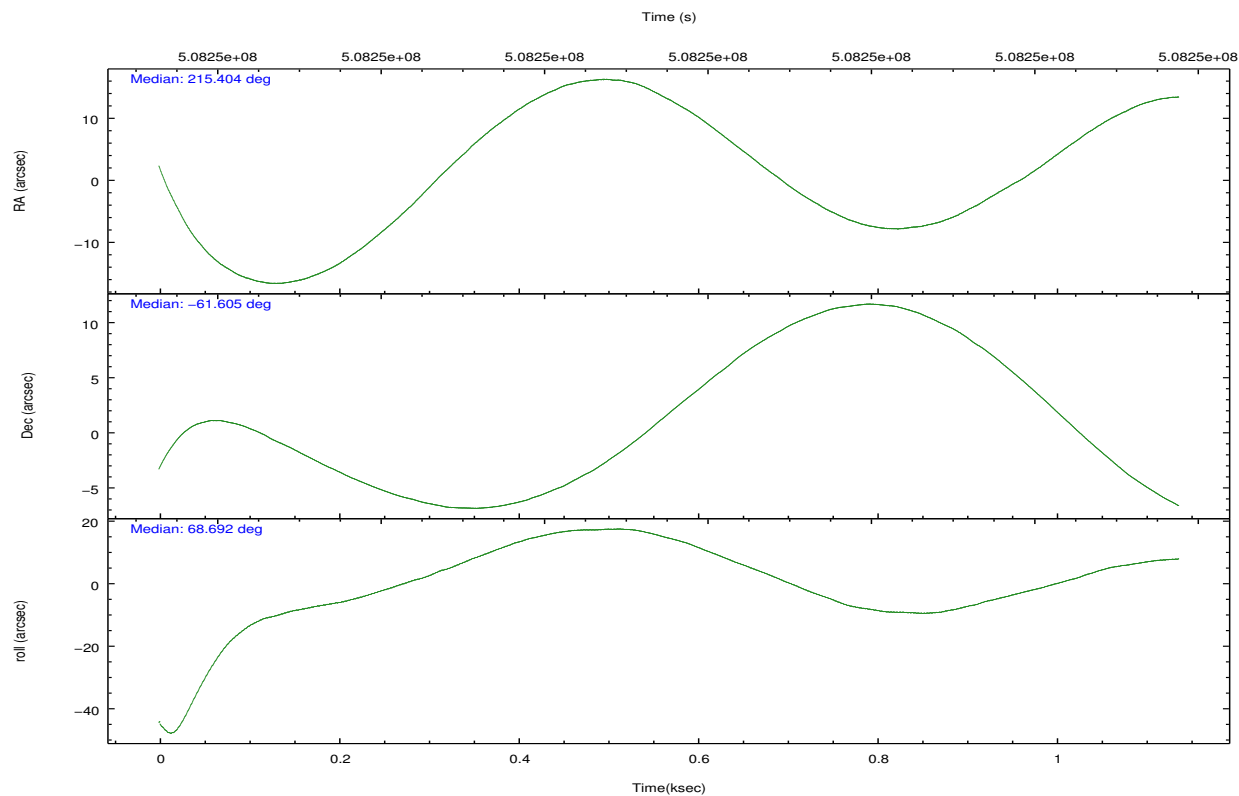
	<b>ccd 7</b>
grade 0 events	47
	4%
grade 1 events	2
	0%
grade 2 events	89
	9%
grade 3 events	69
	7%
grade 4 events	60
	6%
grade 5 events	91
	9%
grade 6 events	227
	23%
grade 7 events	382
	39%

## 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	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	215.414085	215.4042155288608	Subarray requested	CUSTOM	1/8
[deg] Pointing Dec	-61.631439	-61.60452282162742	Subarray start row	449	449
[deg] Pointing Roll	68.539212	68.68650120898019	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	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	508252328.184000	508251252.08951			
Observation start date	2014-02-08T13:11:01	2014-02-08T12:54:12			
[s] Observation end time (MET)	508253328.184000	508253645.97714			
Observation end date	2014-02-08T13:27:41	2014-02-08T13:34:05			
Read mode	TIMED	TIMED			

## 2.3 Aspect





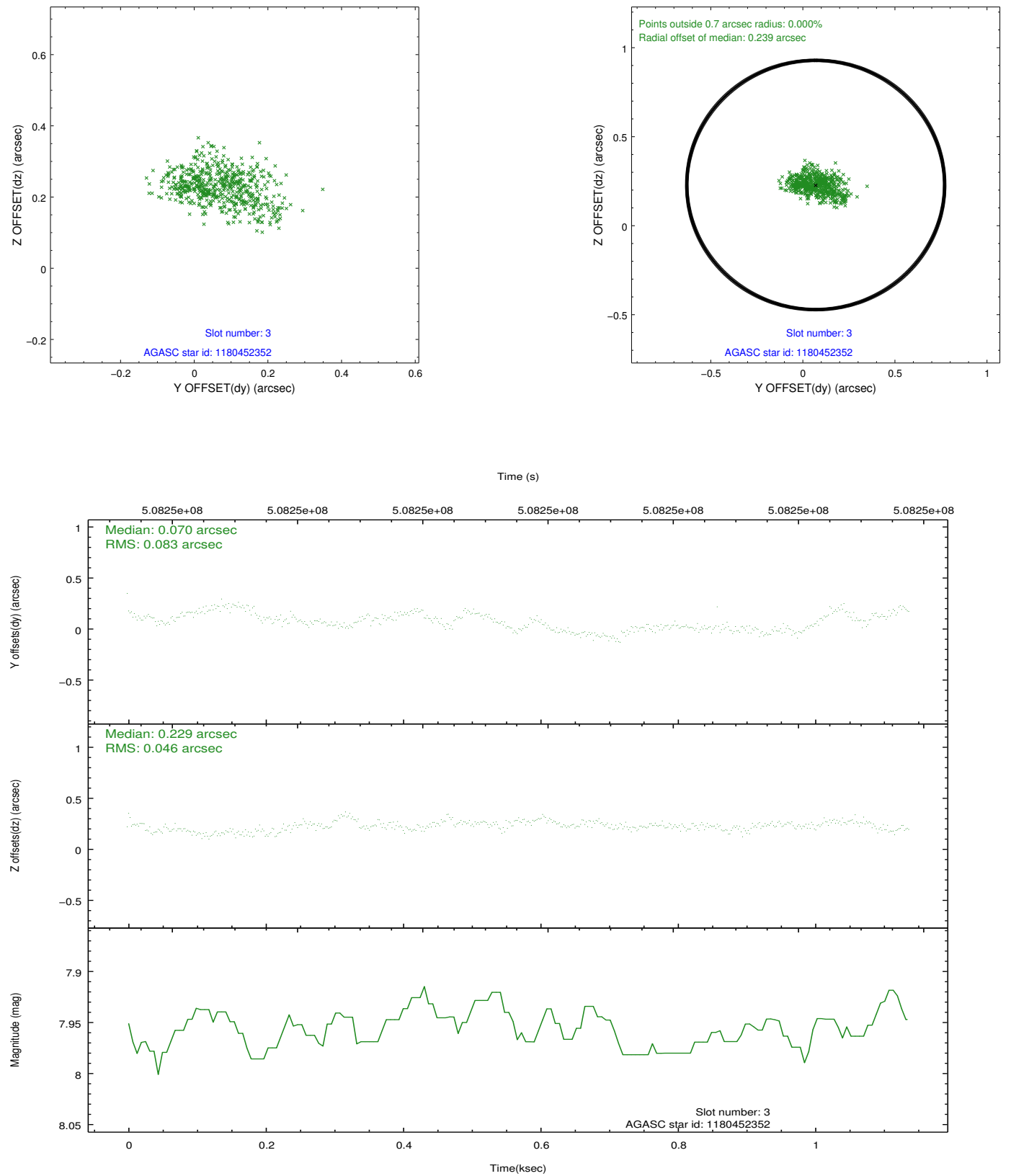
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-1	7.17	278	0.097	-0.046	0.007	0.013	0.000000	0.000000	924.47	-1733.86
1	FID		ACIS-S-2	7.09	278	-0.234	-0.061	0.007	0.011	0.000000	0.000000	-768.53	-1744.40
2	FID		ACIS-S-4	7.16	278	0.110	0.113	0.007	0.015	0.000000	0.000000	2139.14	164.28
3	GUIDE	used	1180452352	7.96	556	0.070	0.229	0.102	0.168	216.134657	-61.389426	1259.71	-840.12
4	GUIDE	used	1180457696	7.45	556	0.105	0.321	0.087	0.127	216.346800	-61.748158	182.58	-1638.57
5	GUIDE	used	1180464536	8.32	556	-0.256	-0.170	0.105	0.170	215.094952	-60.889516	2280.99	1493.20
6	GUIDE	used	1180467264	8.32	556	-0.117	-0.356	0.190	0.309	214.799252	-60.826085	2302.46	2066.85
7	GUIDE	used	1180438304	9.39	555	0.257	-0.014	0.216	0.325	215.156782	-61.840579	-856.27	134.37

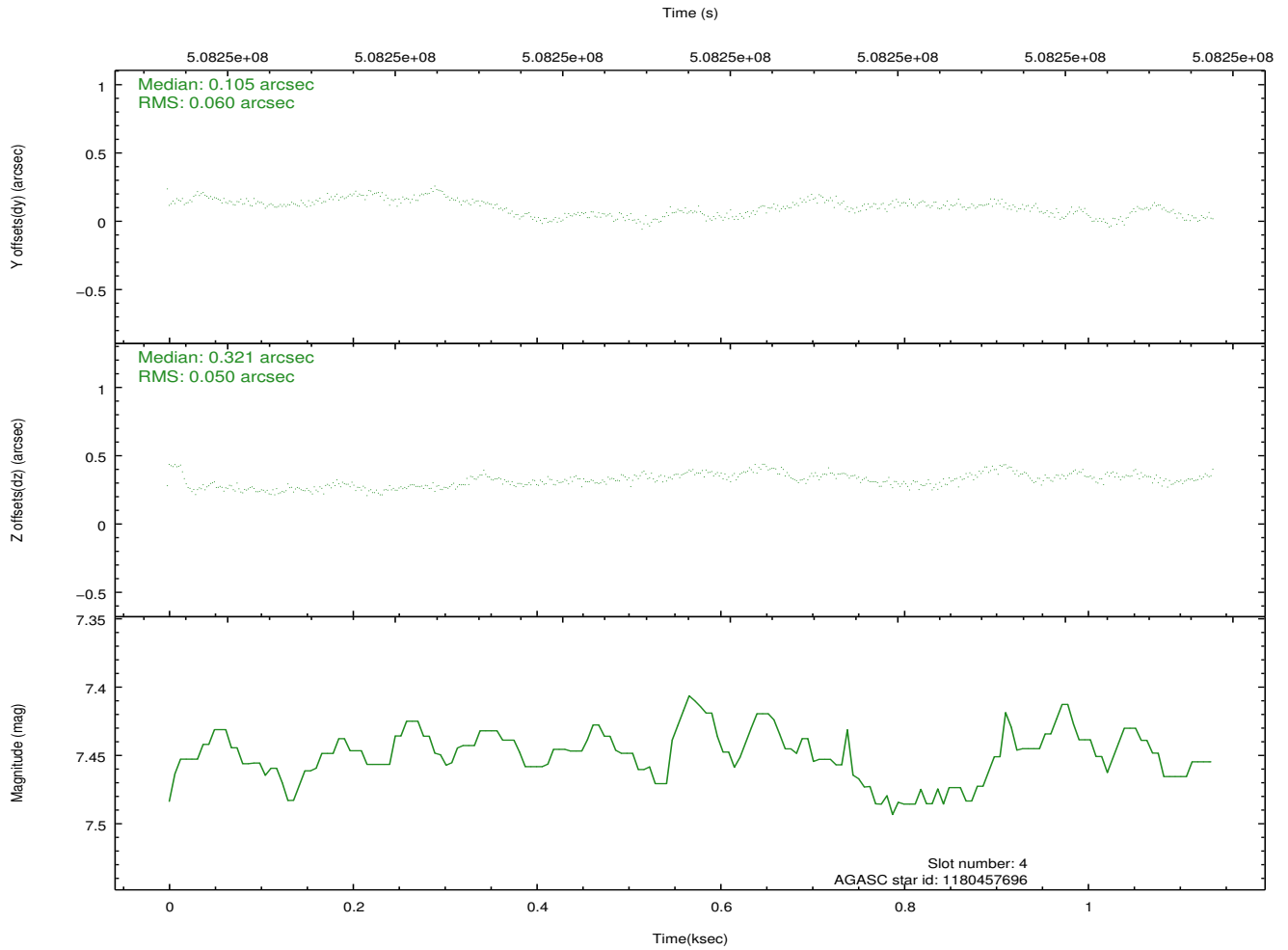
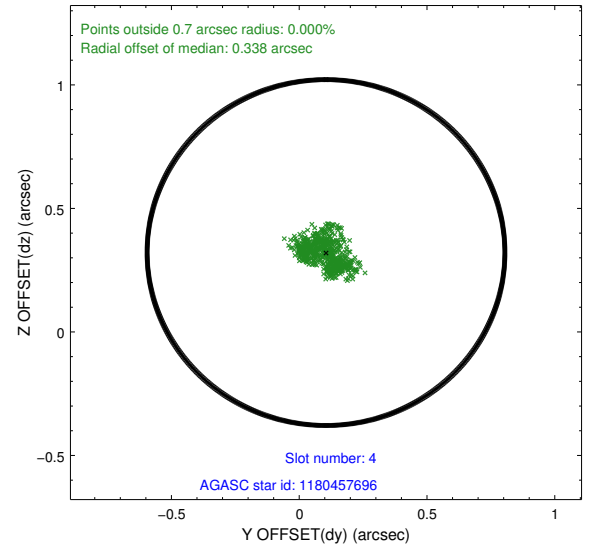
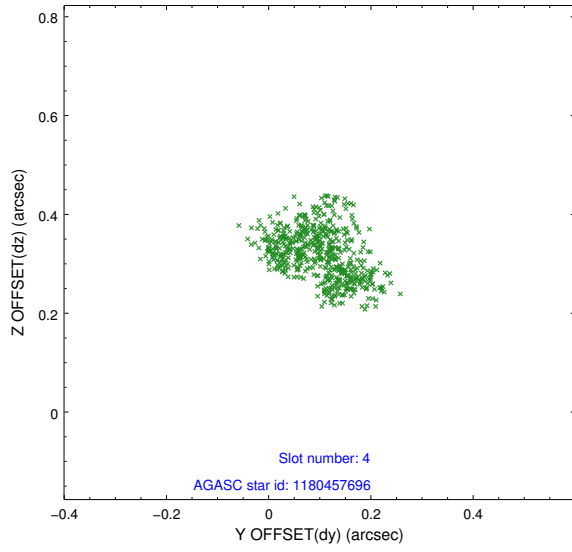


## 2.4 Star Slots

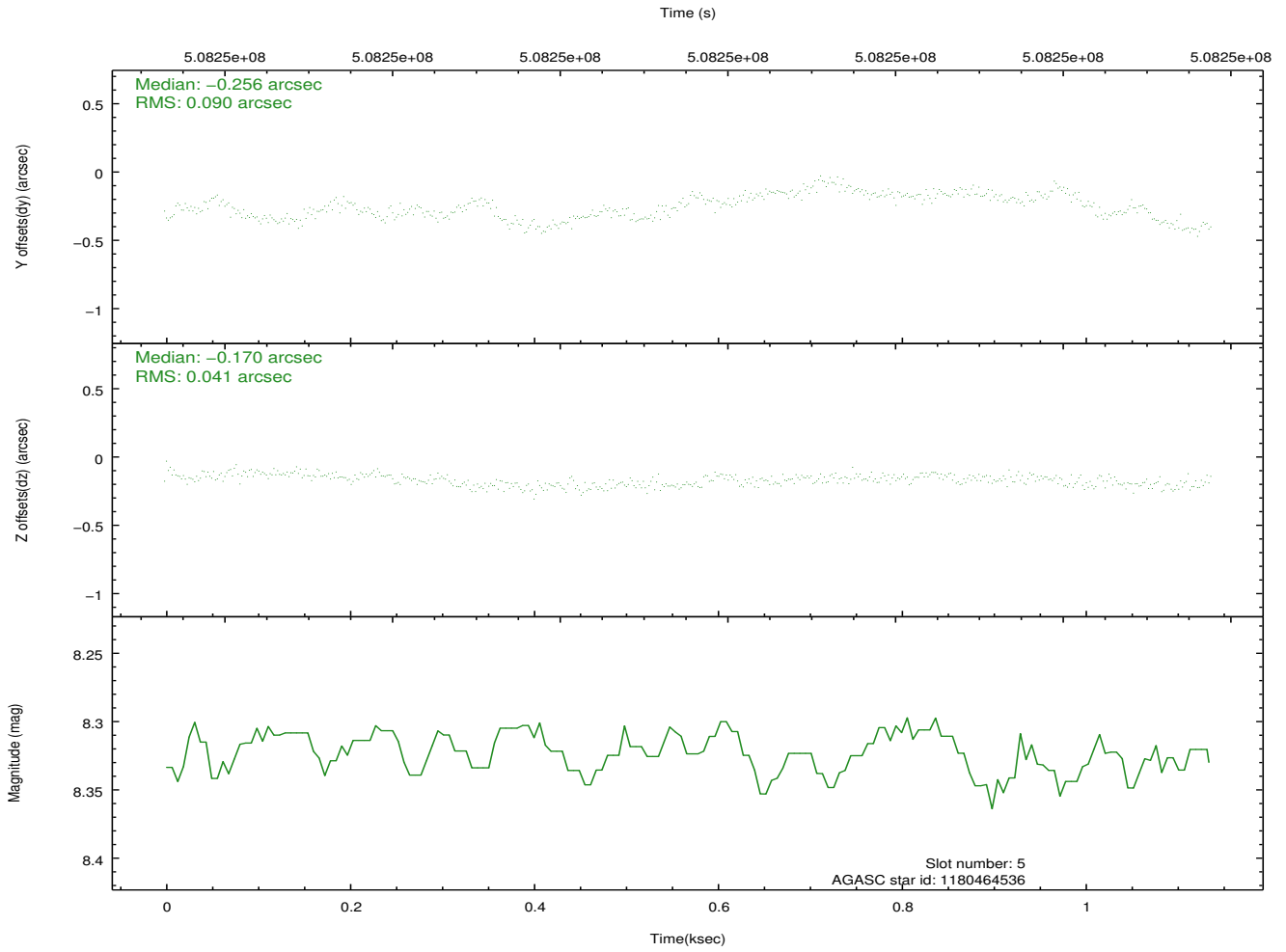
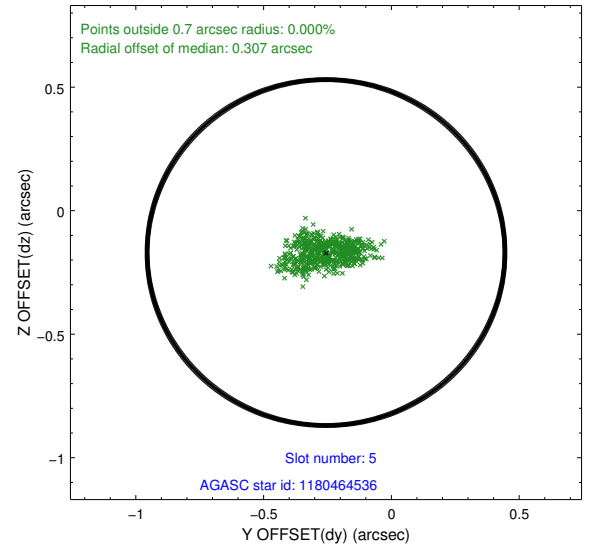
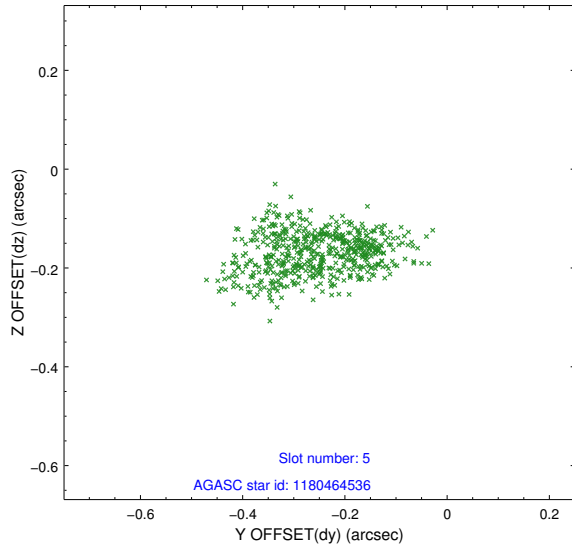
### 2.4.1 Slot 3



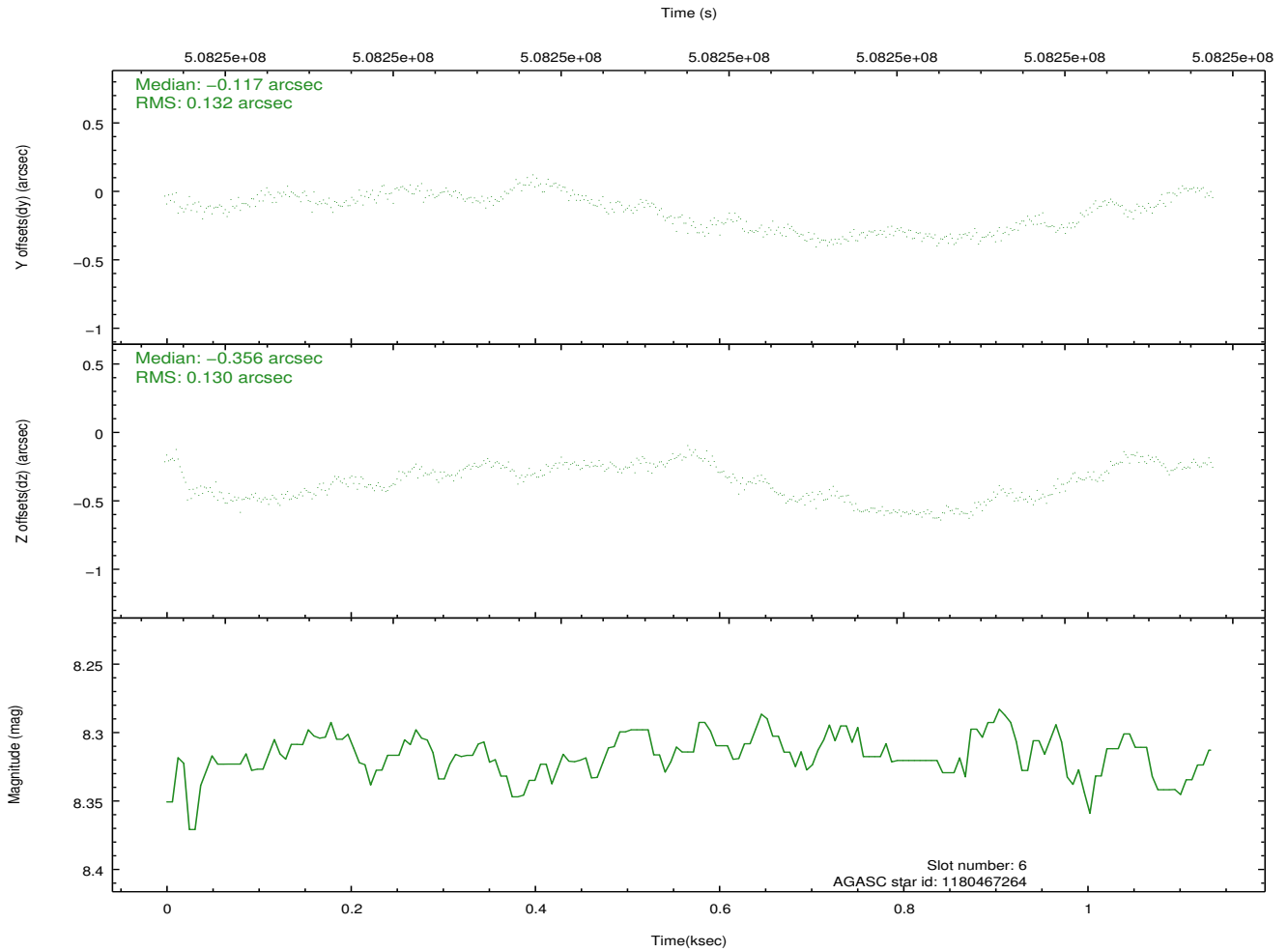
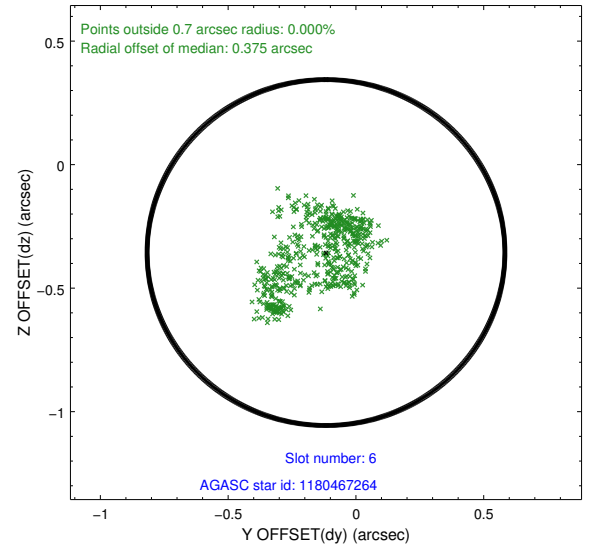
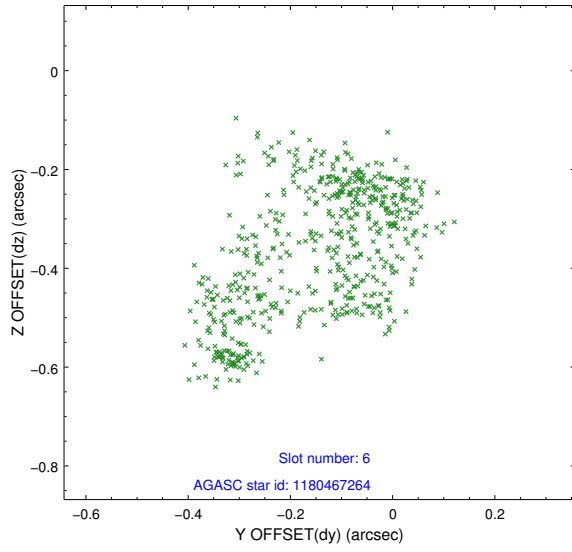
## 2.4.2 Slot 4



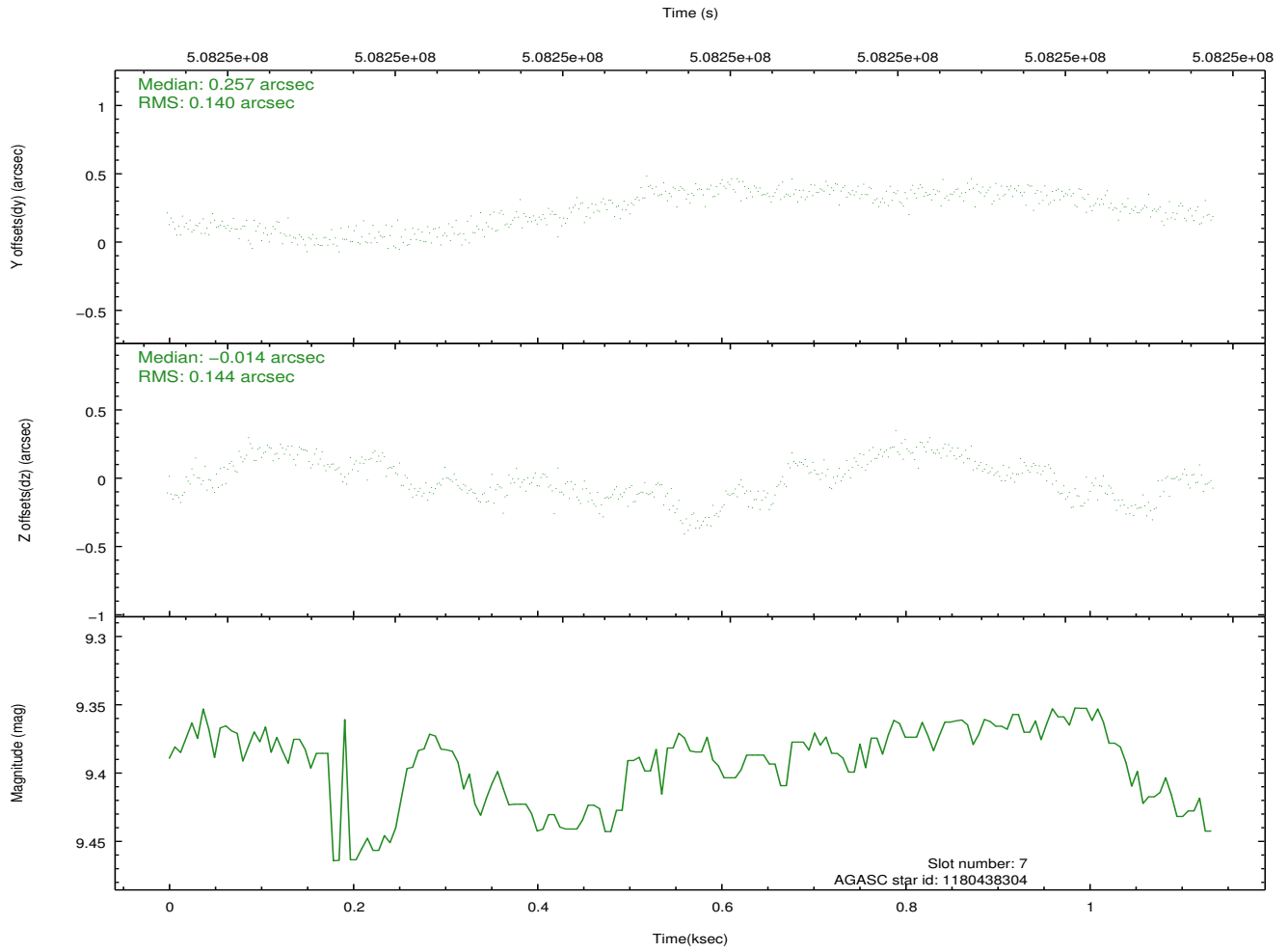
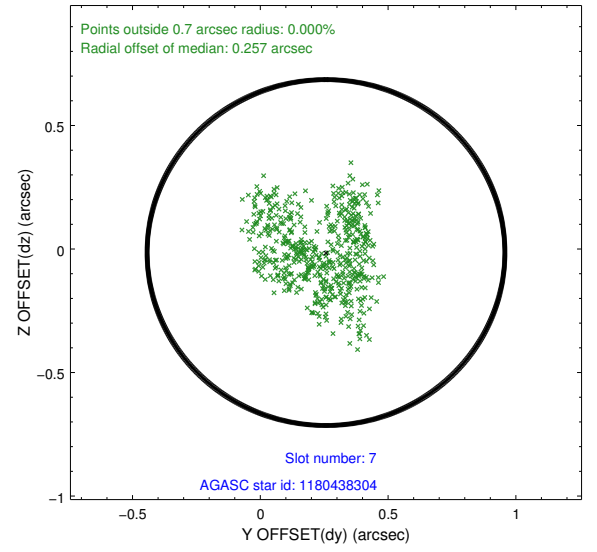
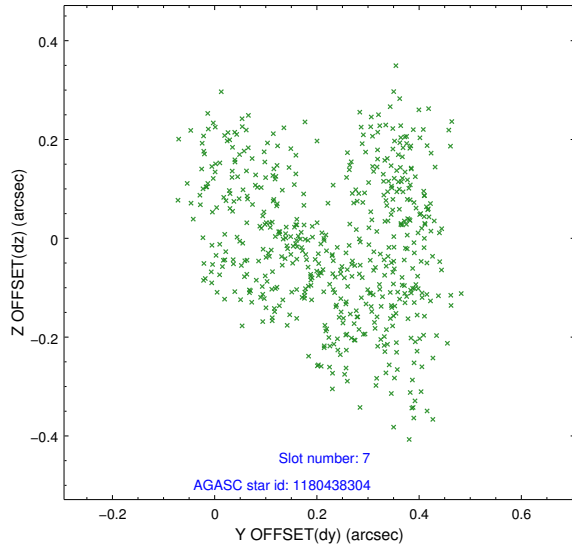
### 2.4.3 Slot 5



## 2.4.4 Slot 6

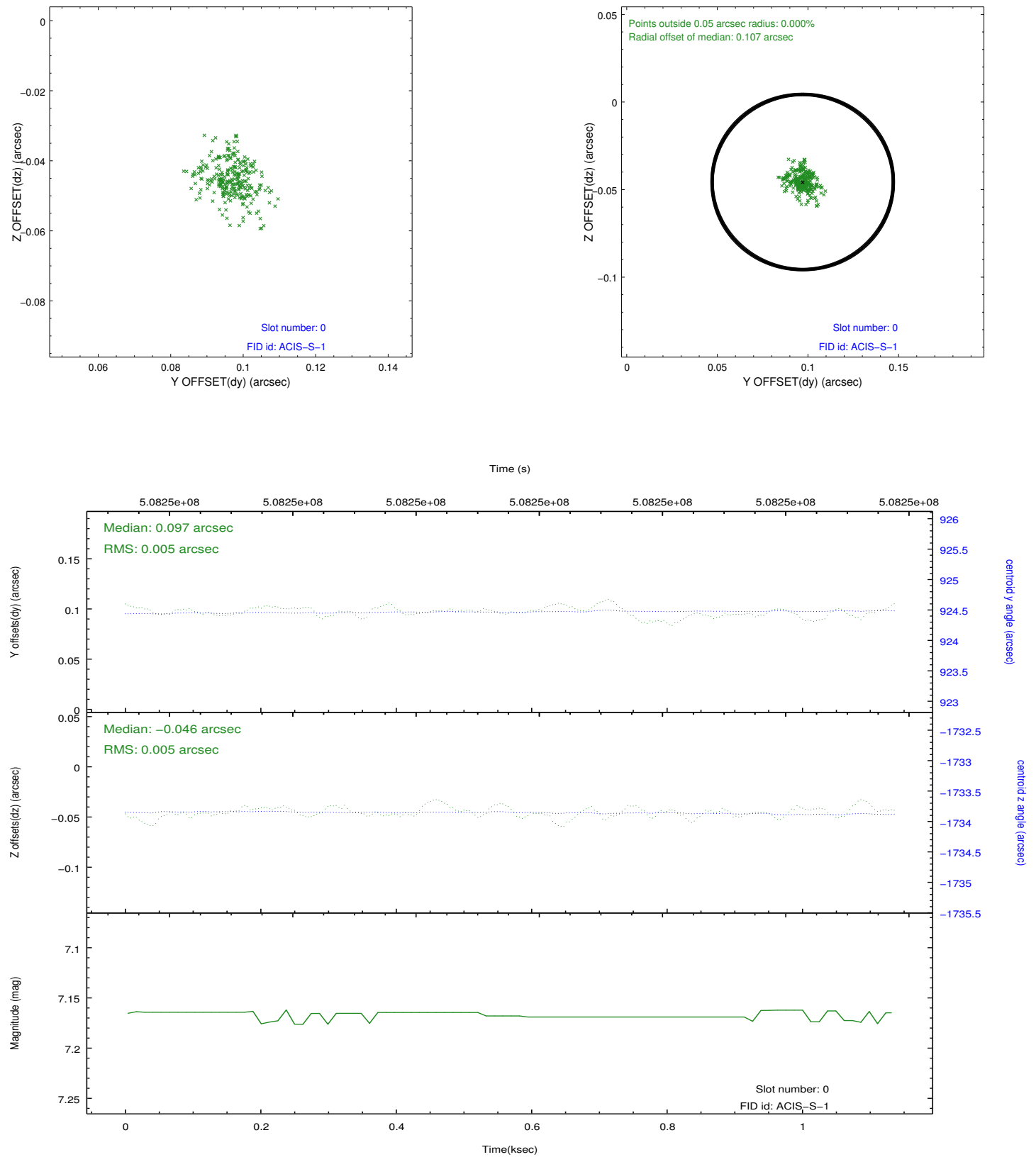


## 2.4.5 Slot 7

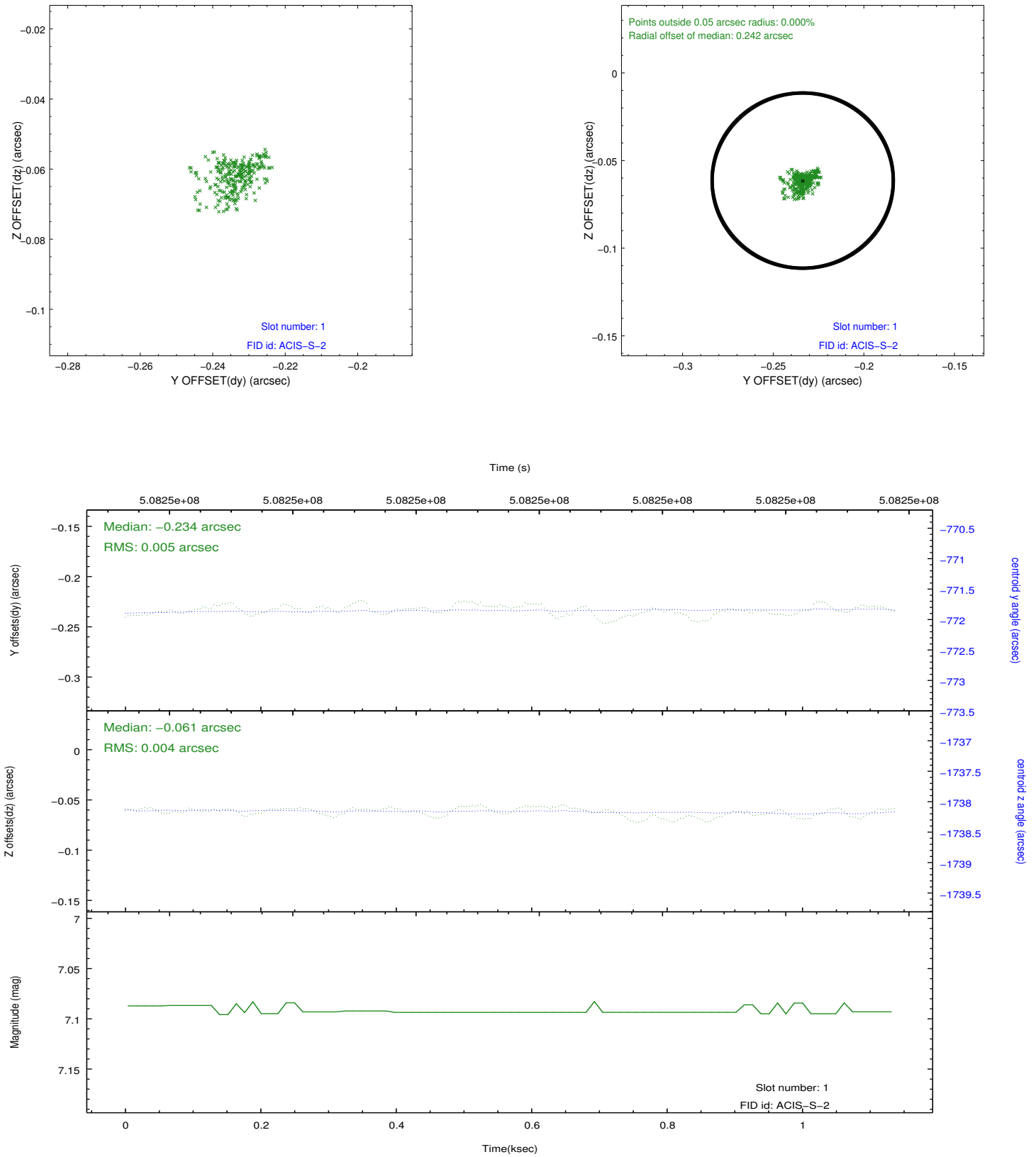


## 2.5 FID Slots

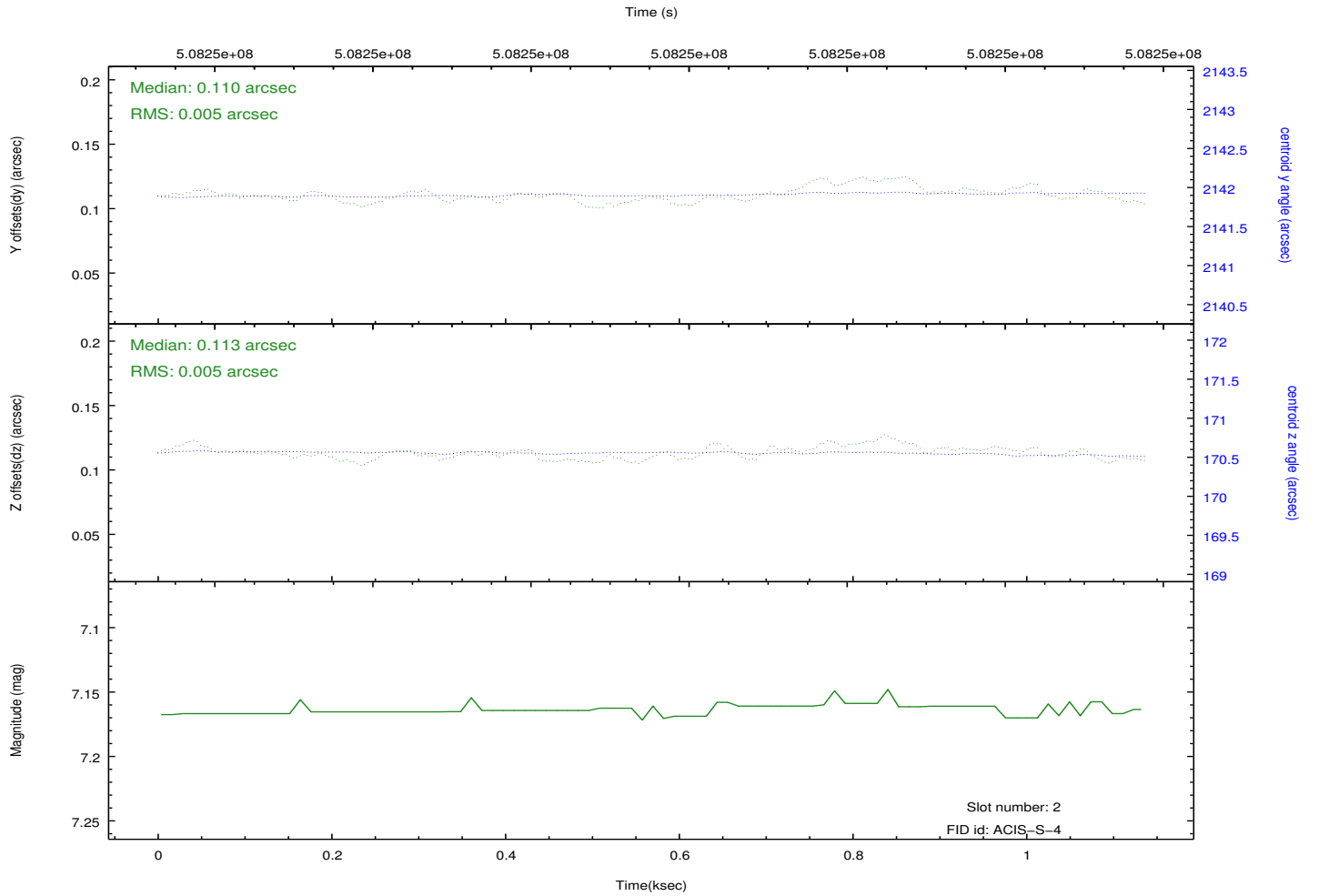
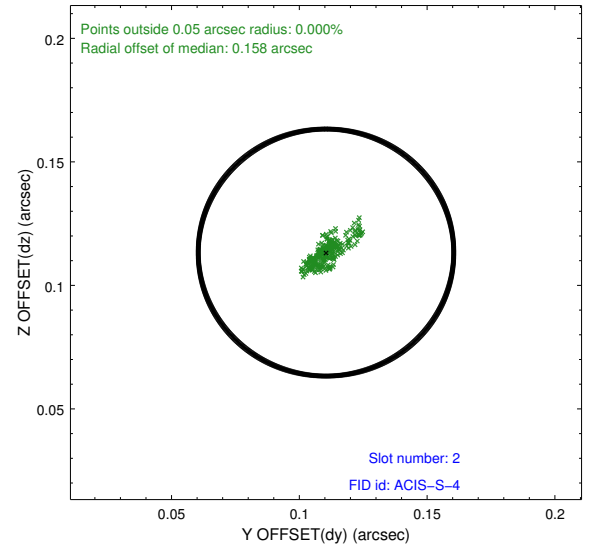
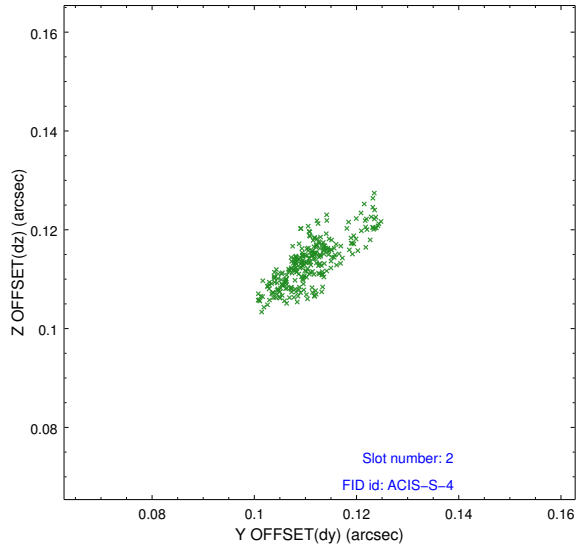
### 2.5.1 Slot 0



## 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)	2014.12.17
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.0683999363184

## 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.