

# V&V Reference Report

## L2 ASCDS Version : 10.5.2

Observation 19909 - L2 Version 1  
Chandra X-Ray Center

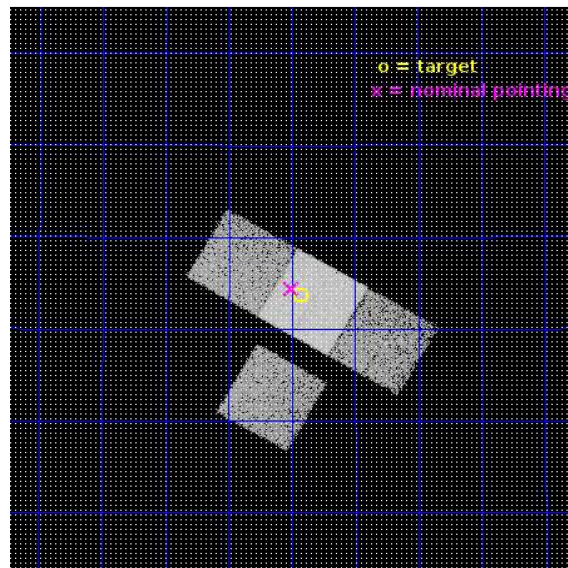
L2 Processing Date : Nov 2 2016

## 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

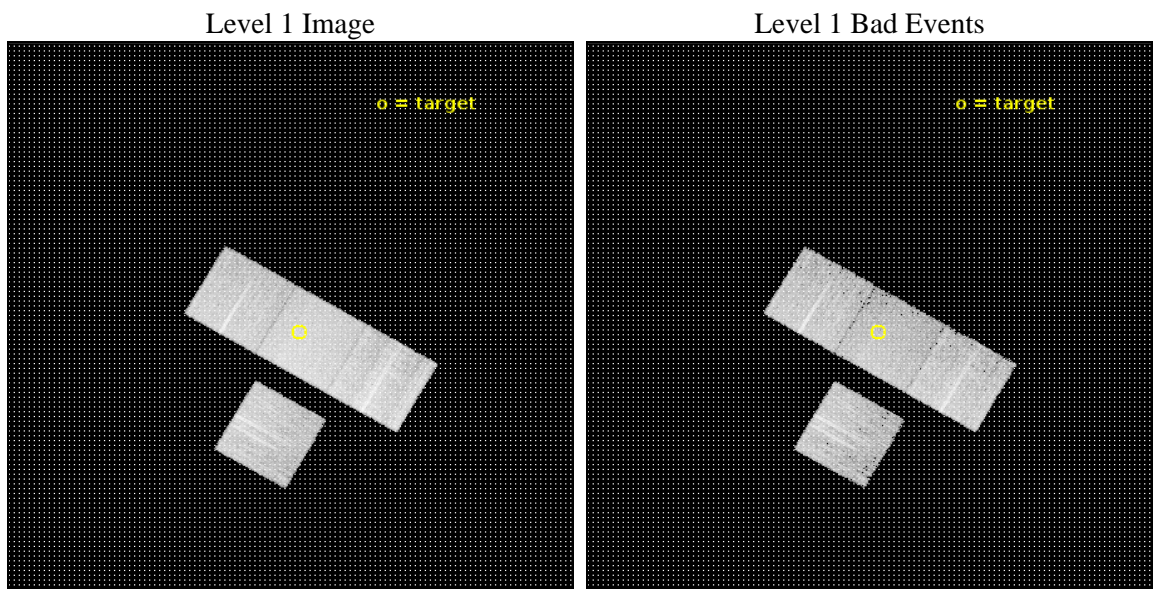
seq_num	801563	Sequence number
obs_id	19909	Observation id
title	Tales of tails: the Coma episodes	Proposal title
observer	Ming Sun	Principal investigator
object	KUG 1255+283	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	194.482917	Observer's specified target RA [deg]
dec_targ	28.061583	Observer's specified target Dec [deg]
ra_nom	194.50114208249	Nominal RA [deg]
dec_nom	28.073228379861	Nominal Dec [deg]
roll_nom	30.148061776312	Nominal Roll [deg]
revision	1	Processing version of data
ontime	10053.300077438	Sum of GTIs [s]
livetime	9921.9463107948	Livetime [s]
ontime3	10050.159047365	Sum of GTIs [s]
ontime6	10047.018116593	Sum of GTIs [s]
ontime7	10053.300077438	Sum of GTIs [s]
ontime8	10047.017947078	Sum of GTIs [s]
l2events	73902	Number of level 2 events



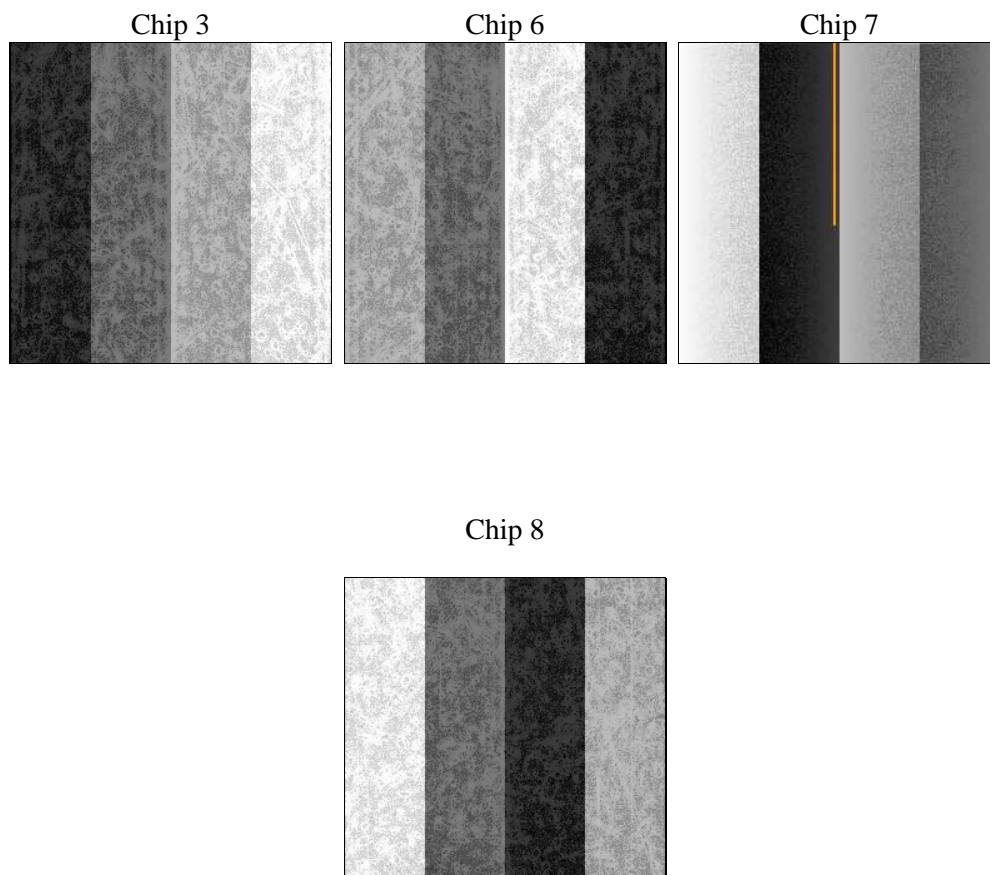
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.5.2	Processing system revision	ontime	10053.300077438	Sum of GTIs [s]
caldsver	4.7.2	&#160	ontime3	10050.159047365	Sum of GTIs [s]
date	2016-11-02T03:52:11	Date and time of file creation	ontime6	10047.018116593	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	10053.300077438	Sum of GTIs [s]
			ontime8	10047.017947078	Sum of GTIs [s]
			l1events	329456	Number of level 1 events

### 2.1.4 Events

	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	70323	73164	92629	93340
rejected events	58424	60017	50129	67406
rejected %	83%	82%	54%	72%

	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	6375	6730	4306	7718
	9%	9%	4%	8%
grade 1 events	74	57	126	70
	0%	0%	0%	0%
grade 2 events	2017	2474	9204	6225
	2%	3%	9%	6%
grade 3 events	903	908	3467	2477
	1%	1%	3%	2%
grade 4 events	931	948	3478	2327
	1%	1%	3%	2%
grade 5 events	3405	3316	8700	4822
	4%	4%	9%	5%
grade 6 events	1684	2093	22086	7214
	2%	2%	23%	7%
grade 7 events	54934	56638	41262	62487
	78%	77%	44%	66%

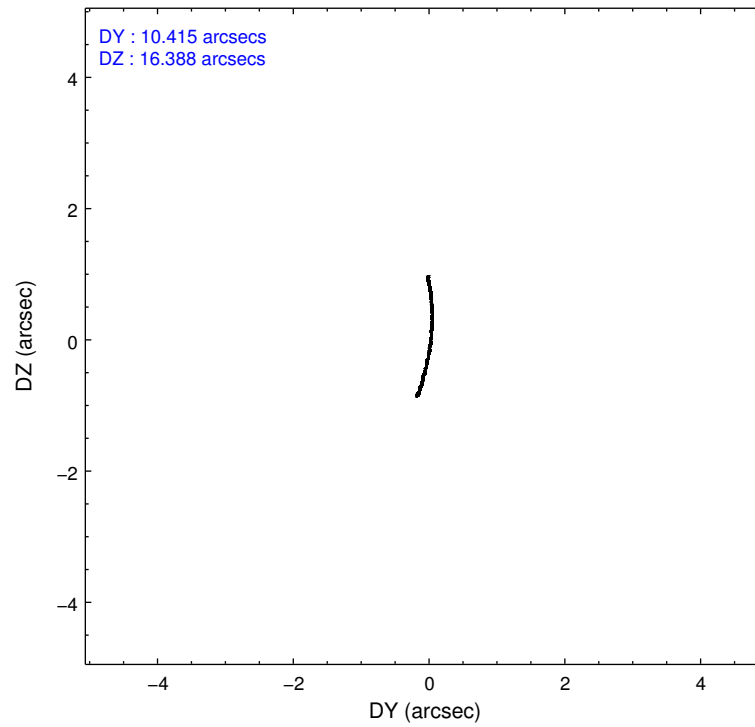
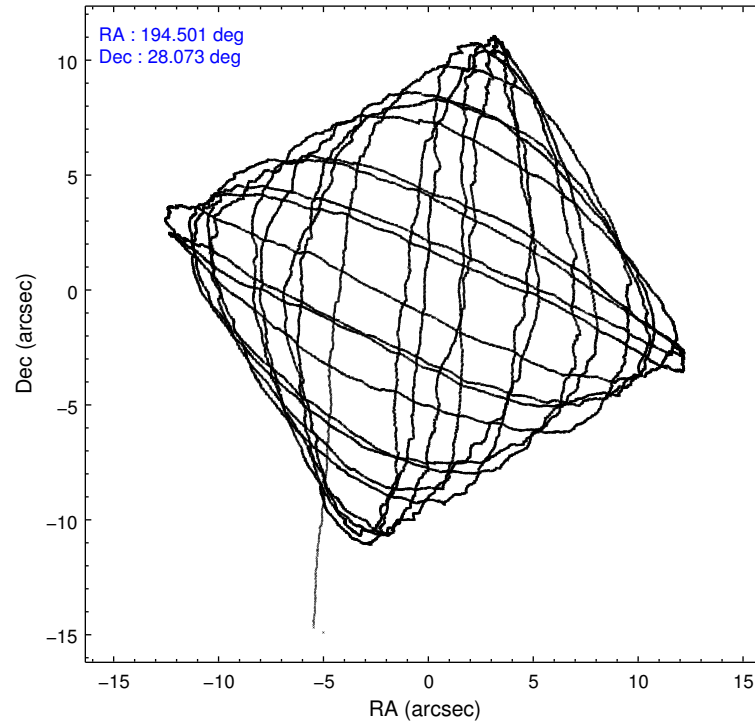


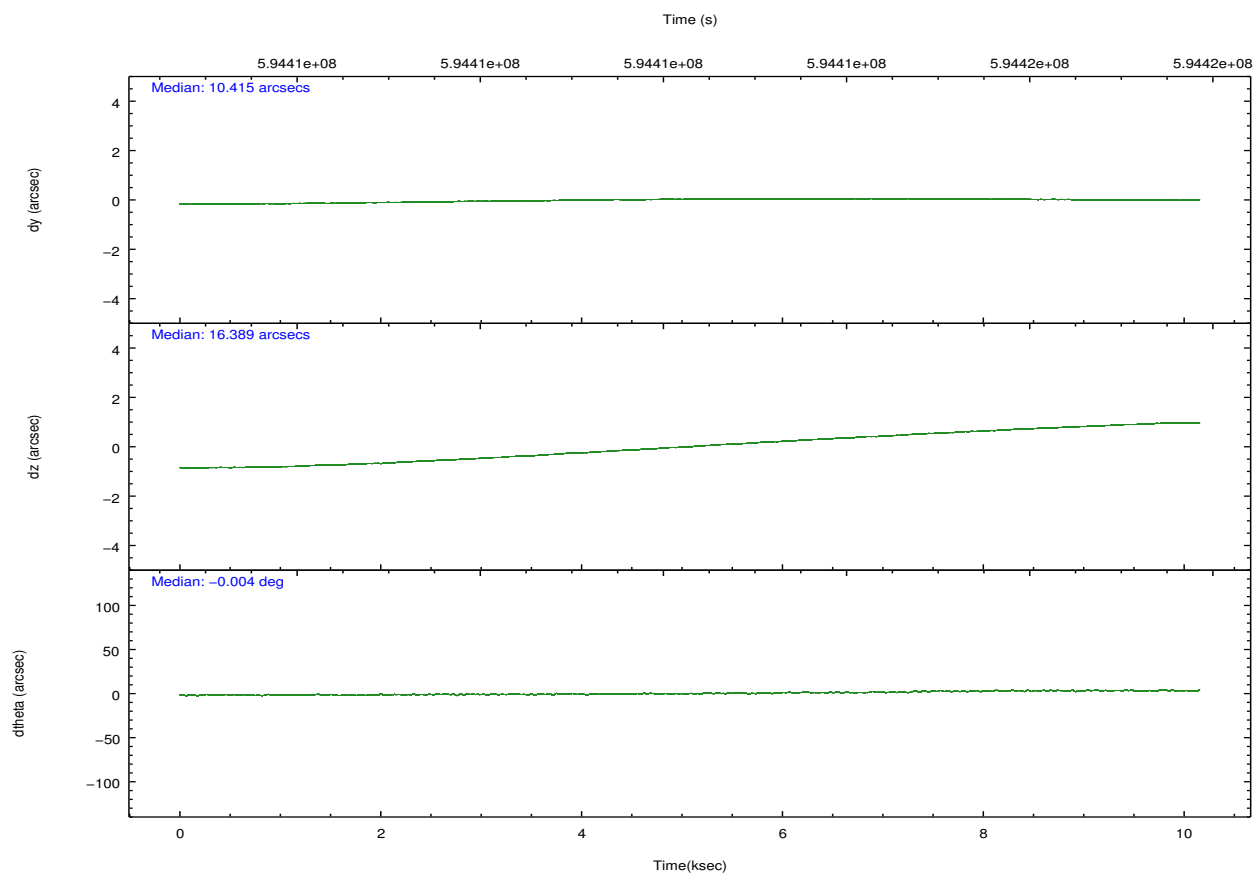
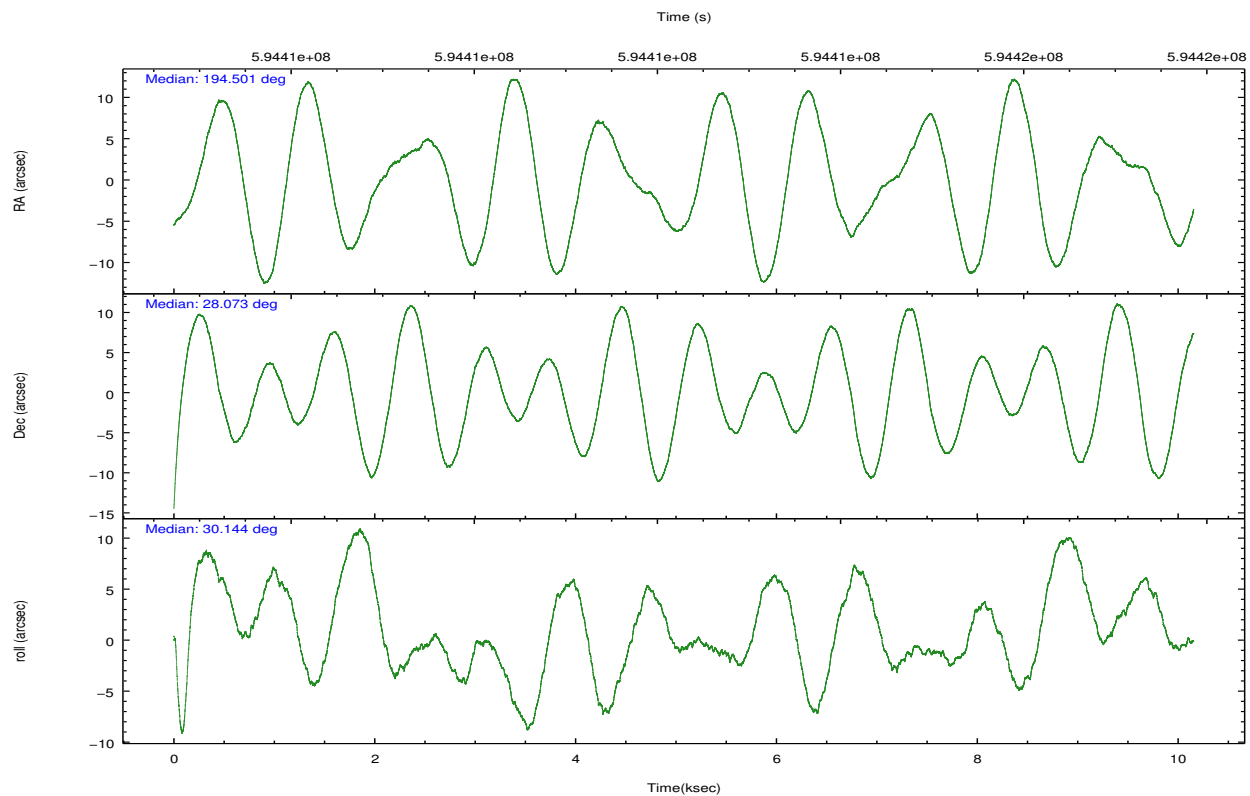
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-3678	ACIS-3678
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	194.486055	194.5011420824913
[deg] Pointing Dec	28.049229	28.07322837986059
[deg] Pointing Roll	29.998520	30.1480617763119
[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)	594407379.184000	594406105.92493
Observation start date	2016-11-01T17:08:31	2016-11-01T16:48:25
[s] Observation end time (MET)	594417379.184000	594418410.5381401
Observation end date	2016-11-01T19:55:11	2016-11-01T20:13:30
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
CCD I0 on	N	N
CCD I1 on	N	N
CCD I2 on	O1	N
CCD I3 on	Y	Y
CCD S0 on	N	N
CCD S1 on	N	N
CCD S2 on	Y	Y
CCD S3 on	Y	Y
CCD S4 on	Y	Y
CCD S5 on	N	N
Number of optional ACIS chips dropped	1	1
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



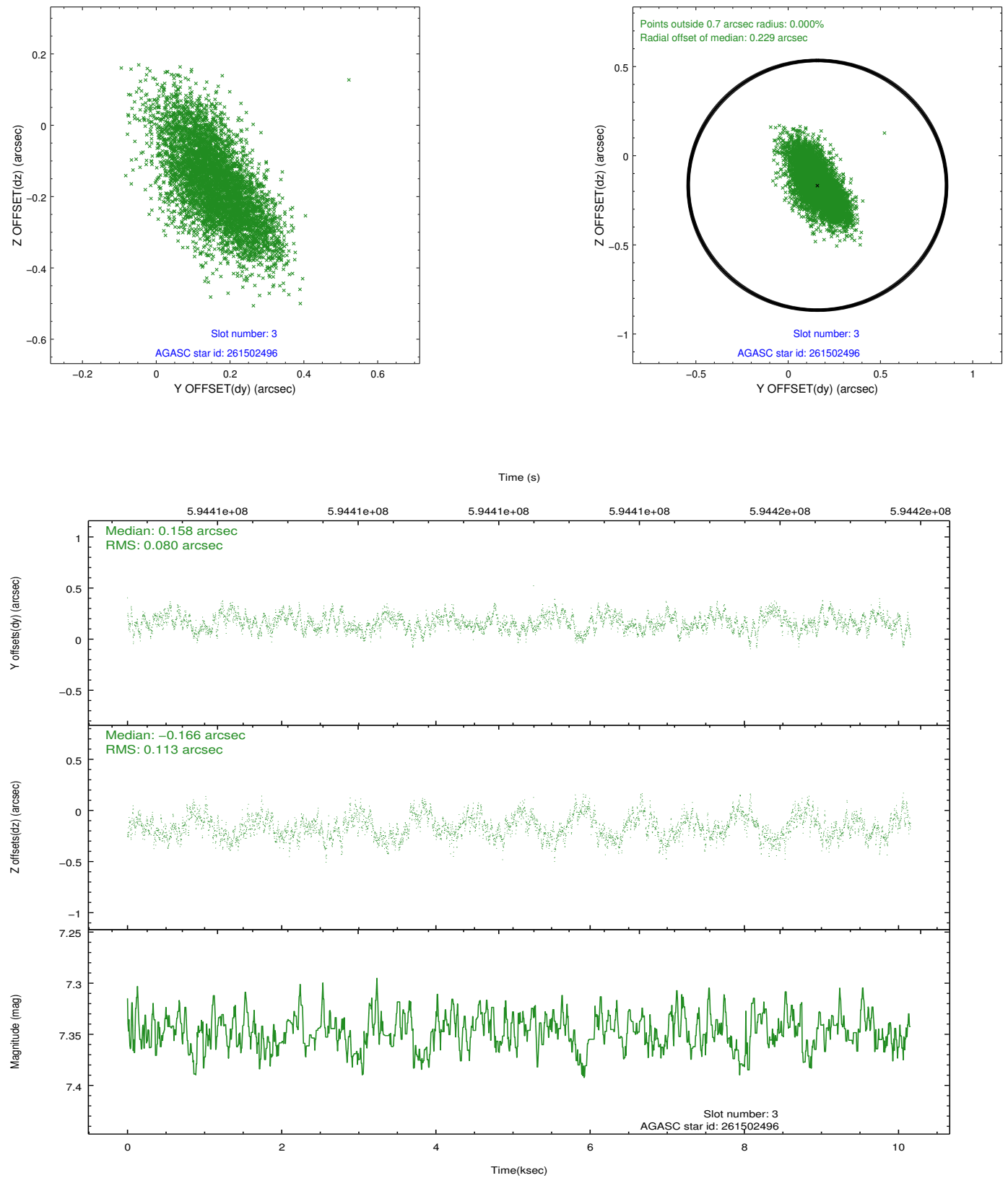


### Slot Statistics

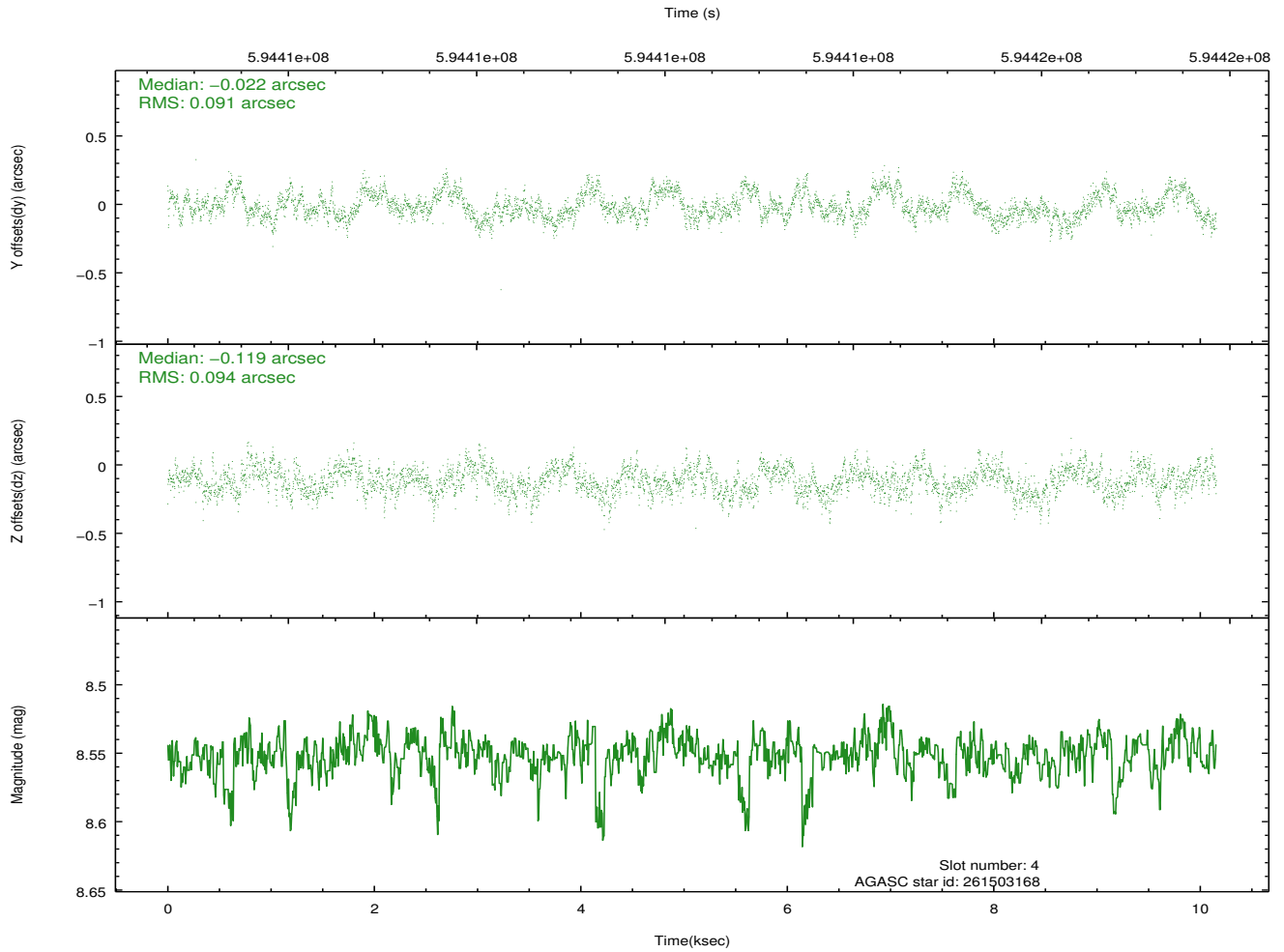
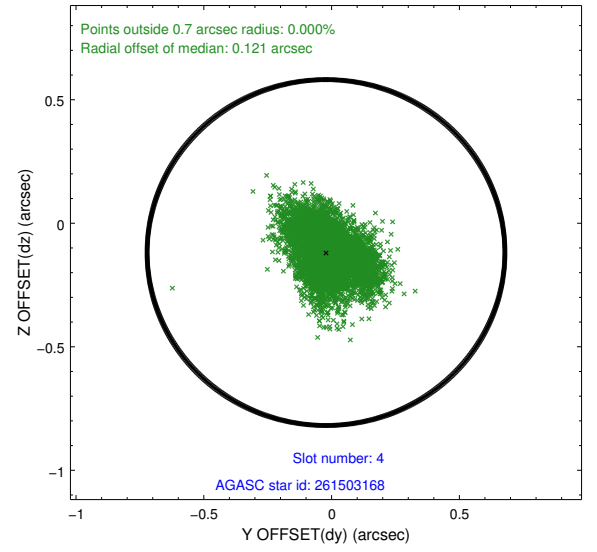
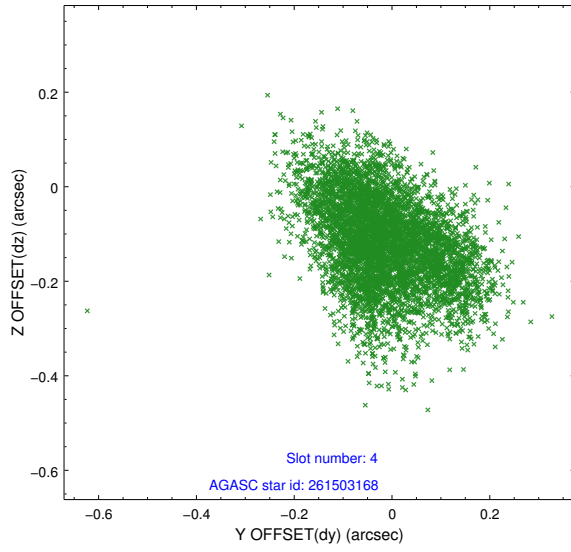
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.08	2477	-0.152	-0.064	0.020	0.043	0.000000	0.000000	-763.38	-1737.84
1	FID		ACIS-S-4	7.20	2477	0.386	0.091	0.010	0.017	0.000000	0.000000	2150.19	170.27
2	FID		ACIS-S-5	7.20	2477	-0.269	-0.018	0.018	0.039	0.000000	0.000000	-1815.68	164.42
3	GUIDE	used	261502496	7.35	4955	0.158	-0.166	0.145	0.249	194.887297	28.065668	1134.97	-584.22
4	GUIDE	used	261503168	8.55	4950	-0.022	-0.119	0.139	0.226	193.765545	28.234101	-1642.58	1724.40
5	GUIDE	used	261505232	9.72	4950	0.134	0.389	0.207	0.314	194.216553	27.802521	-1186.84	-340.24
6	GUIDE	used	261505760	9.76	4948	0.157	-0.054	0.171	0.297	193.736841	27.992885	-2160.43	1021.53
7	GUIDE	used	261492080	9.27	4946	-0.447	-0.052	0.139	0.228	194.976344	28.631585	2390.80	1044.20

## 2.4 Star Slots

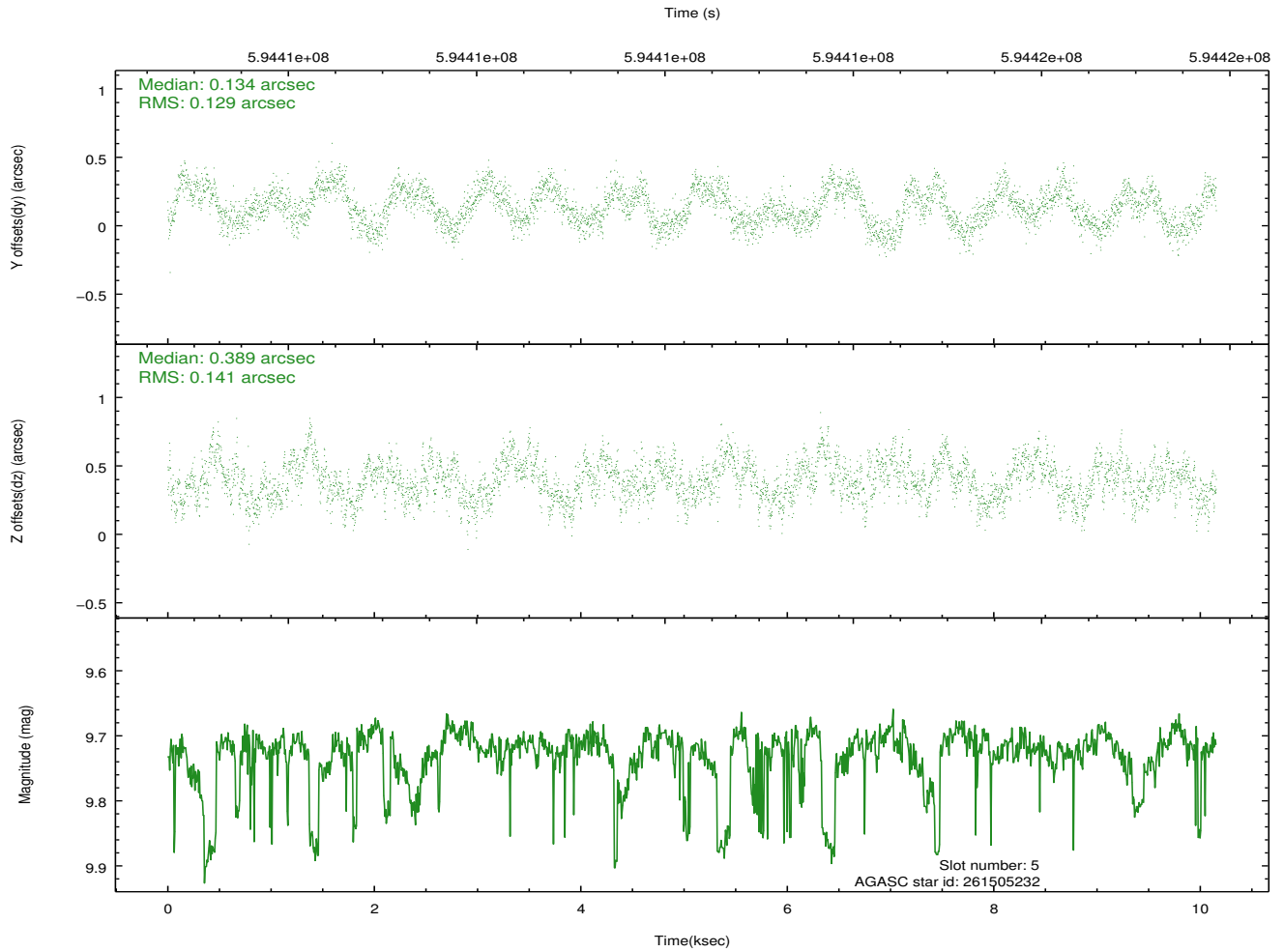
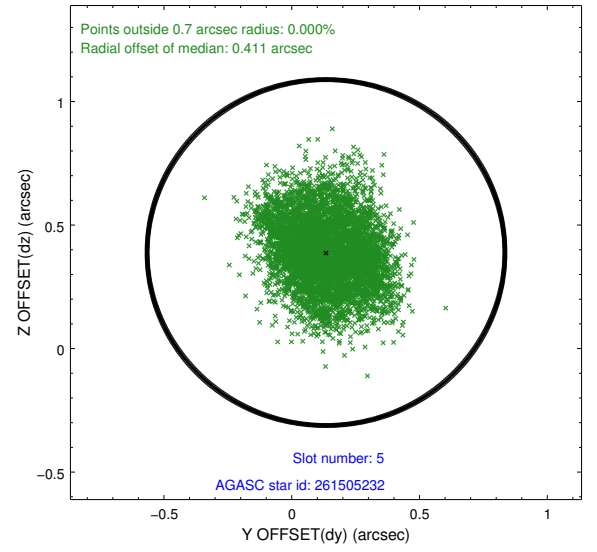
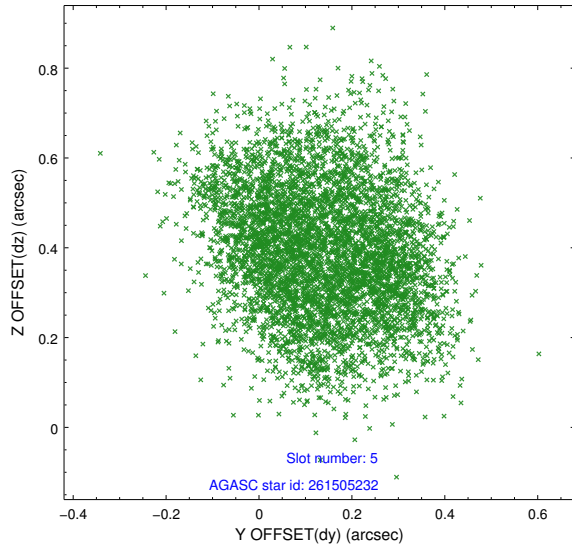
### 2.4.1 Slot 3



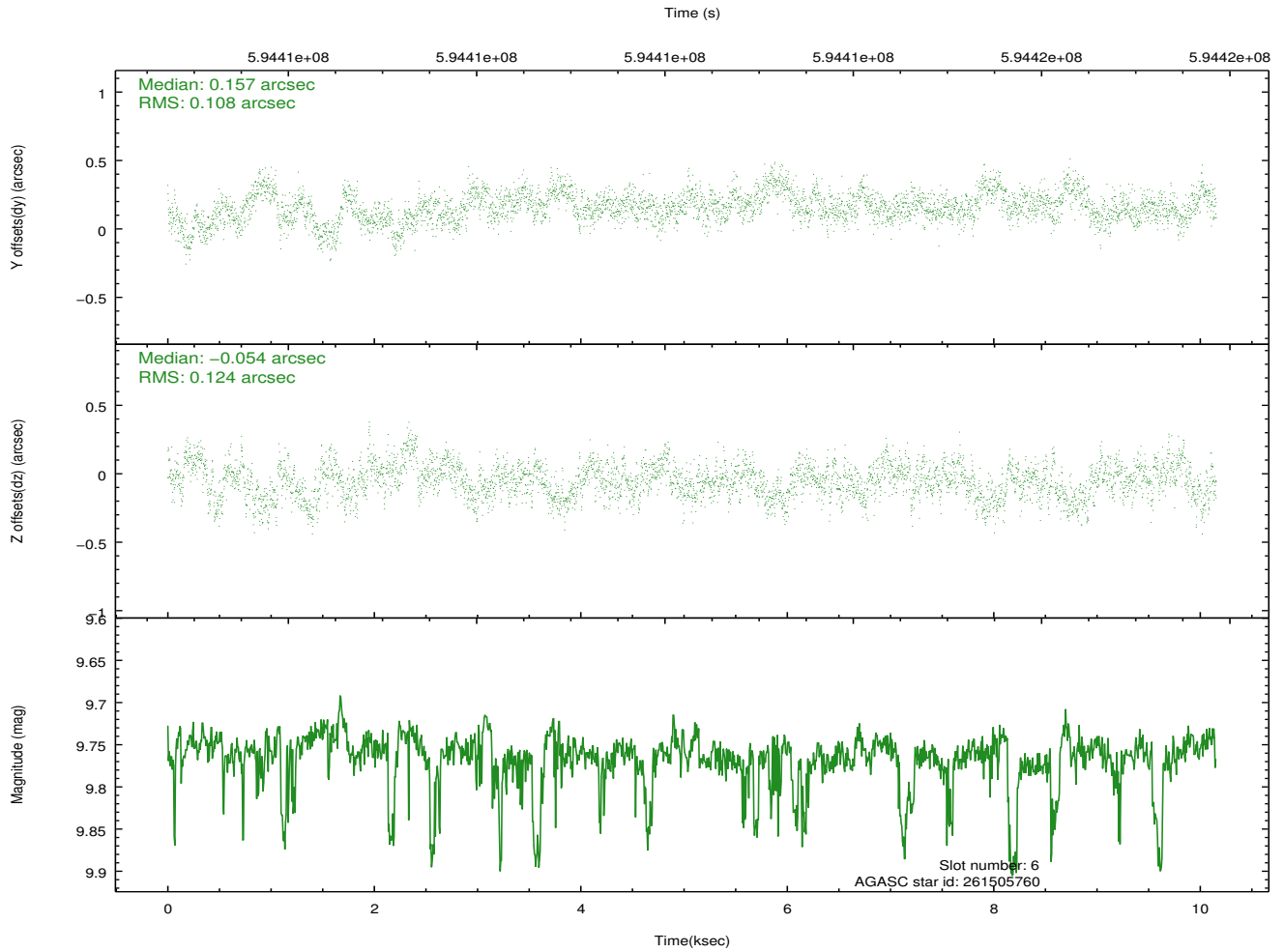
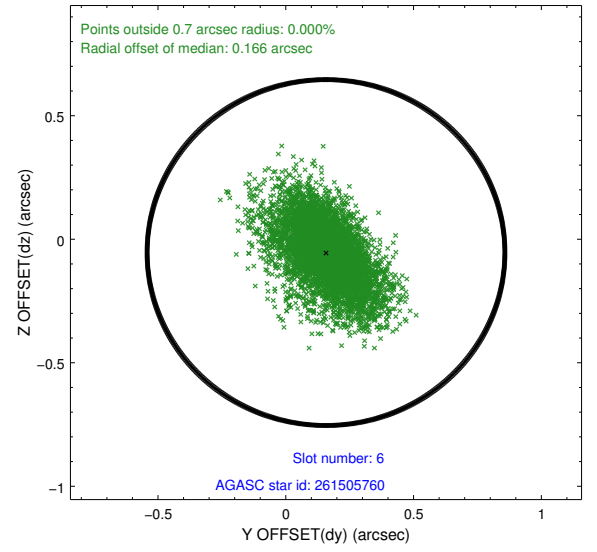
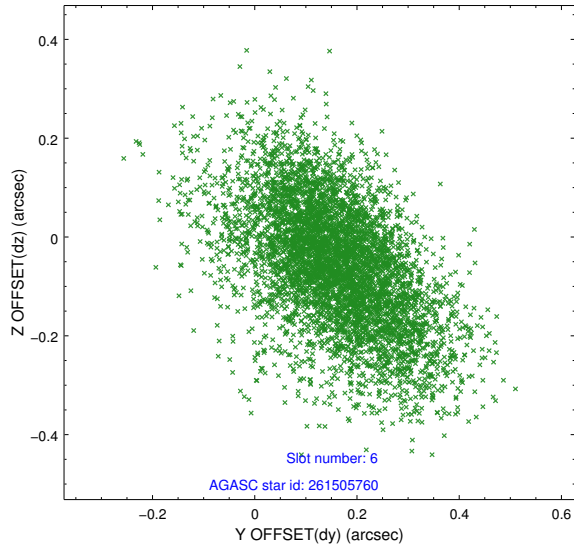
## 2.4.2 Slot 4



### 2.4.3 Slot 5

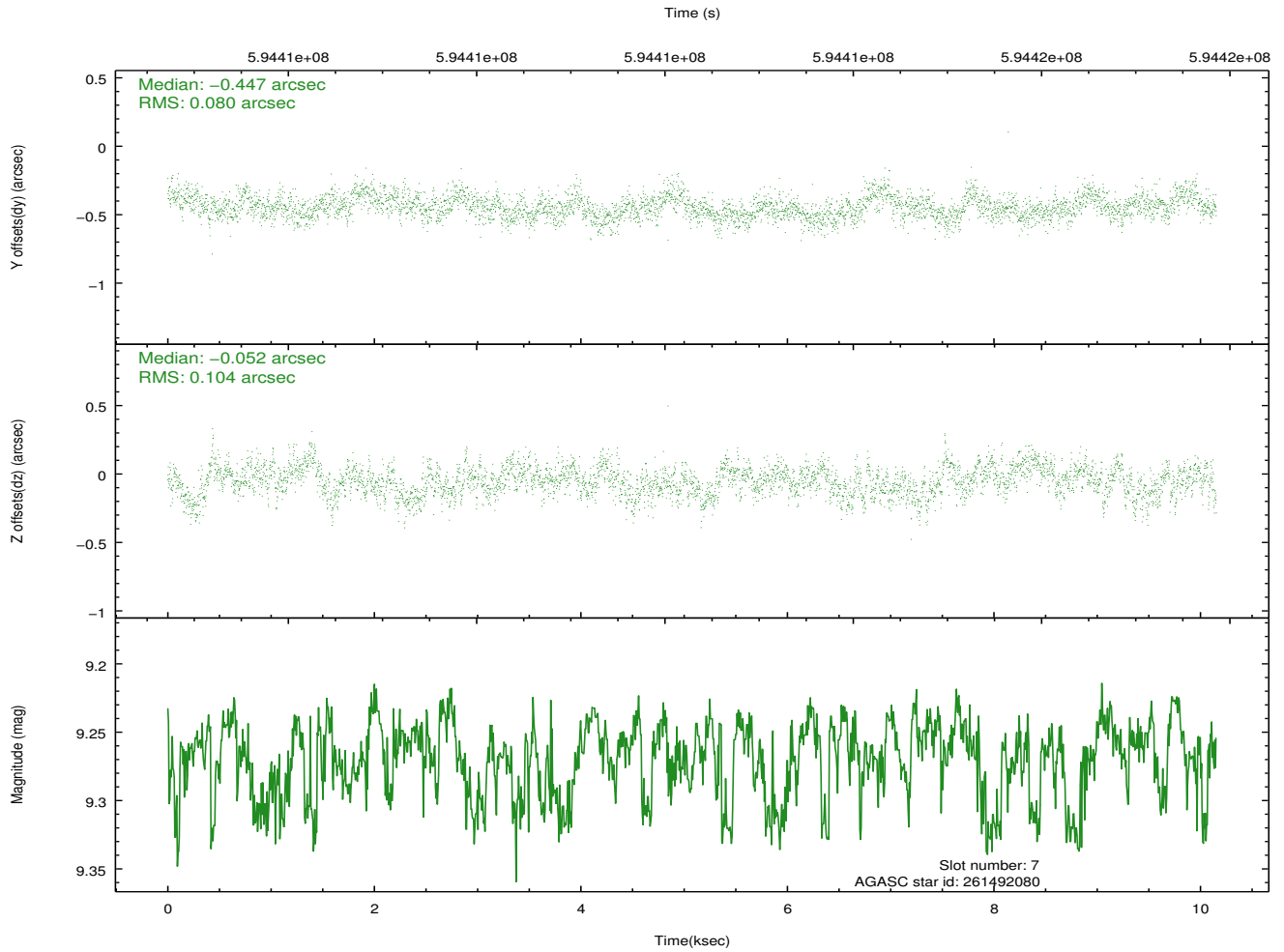
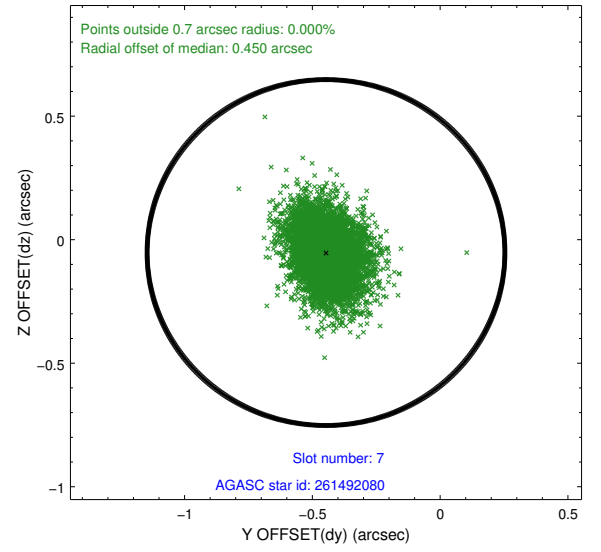
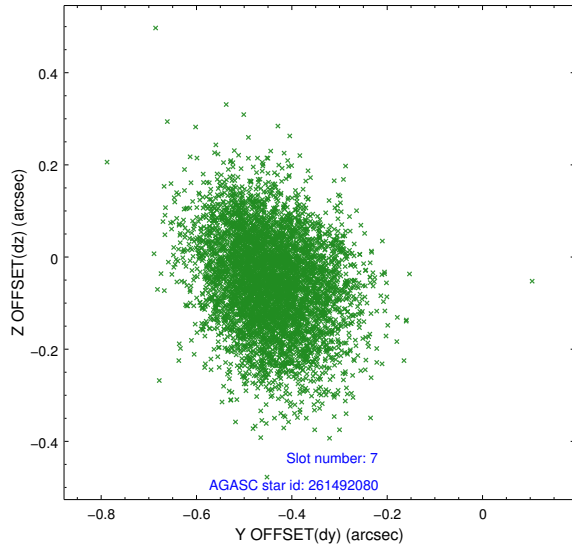


## 2.4.4 Slot 6



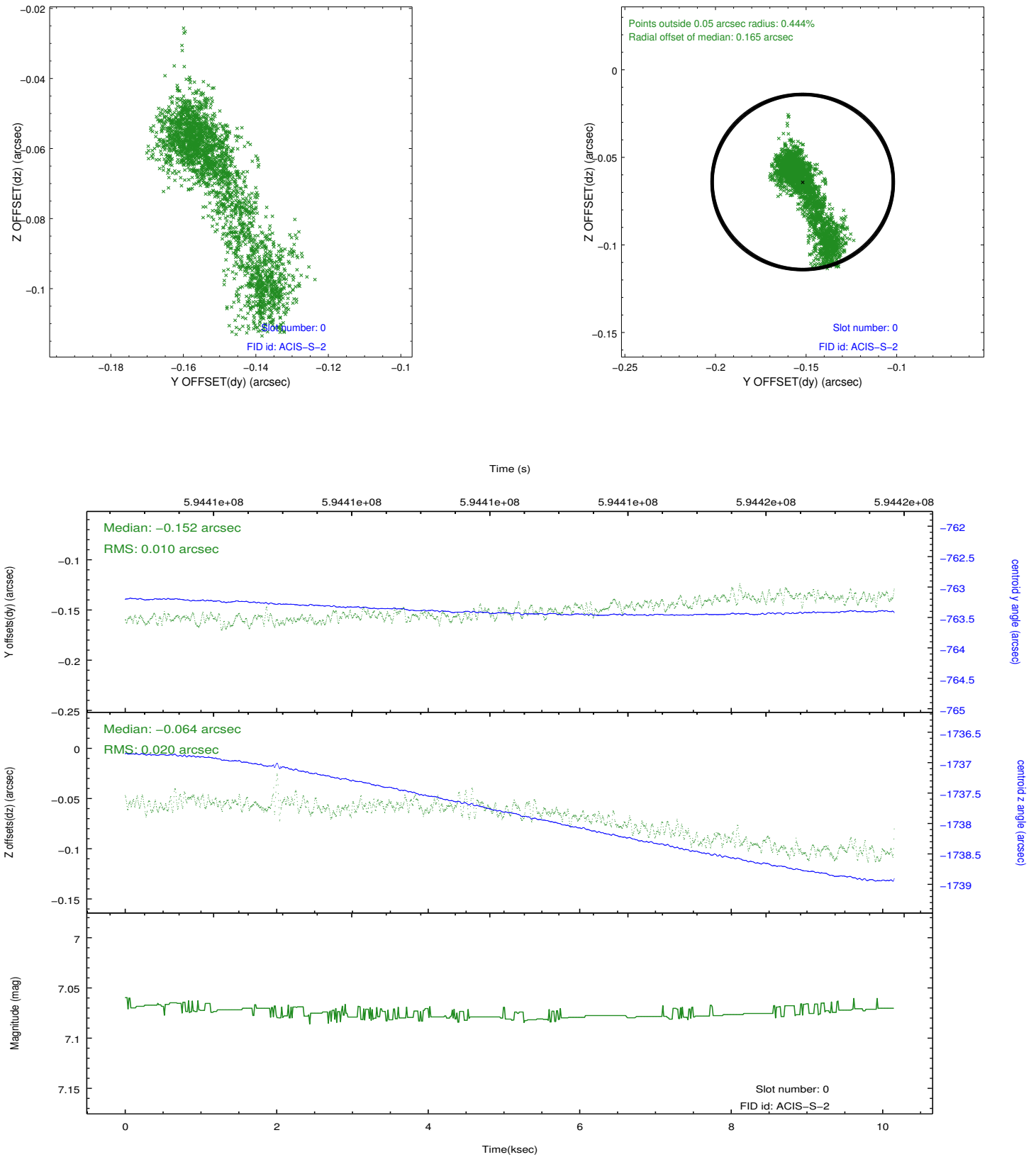


## 2.4.5 Slot 7

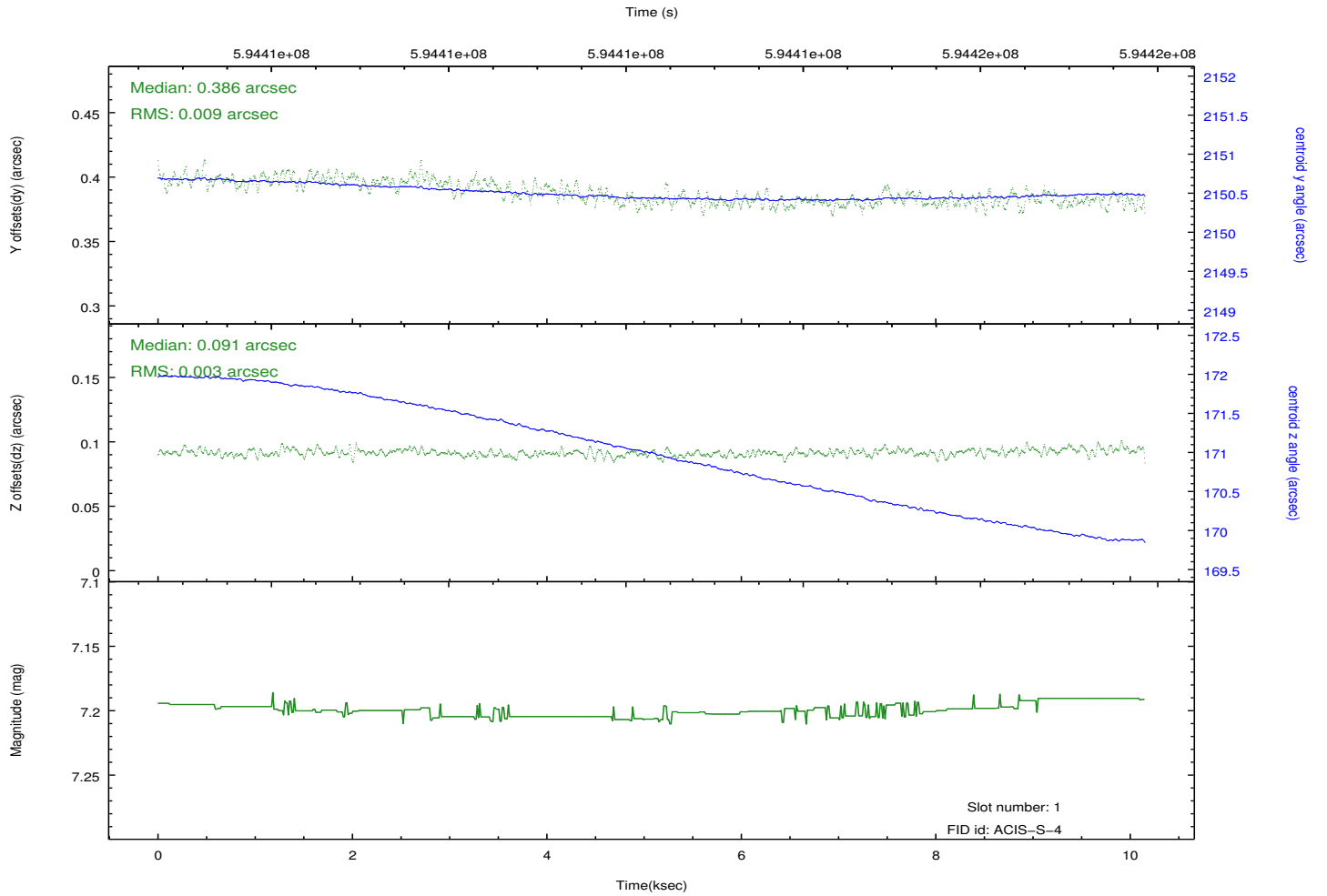
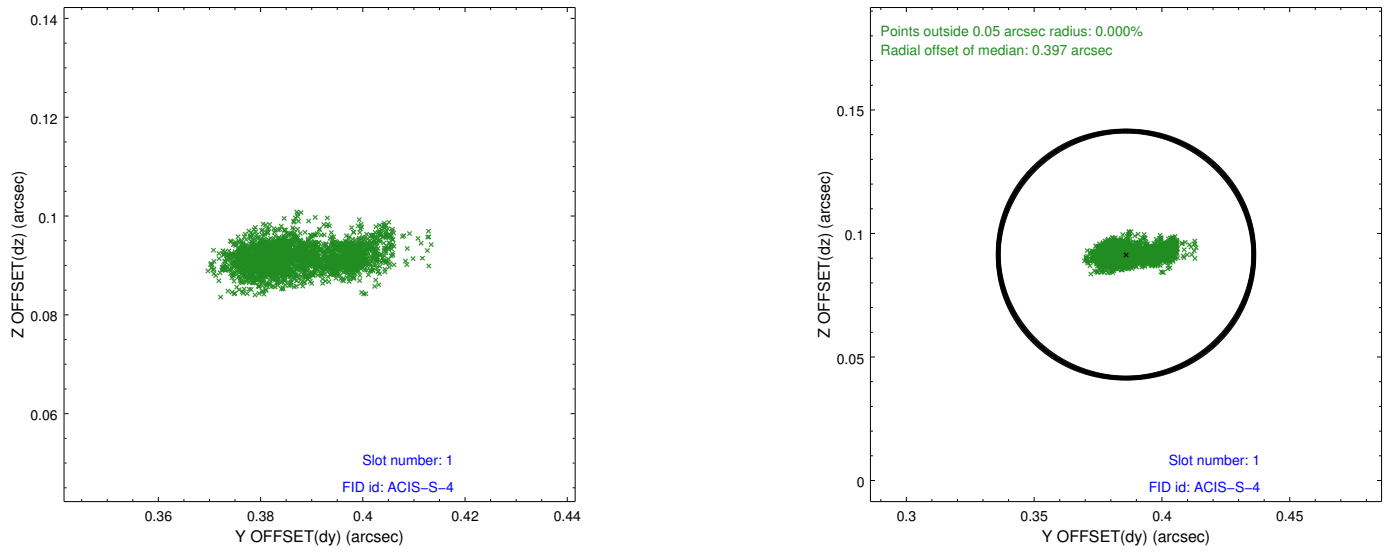


## 2.5 FID Slots

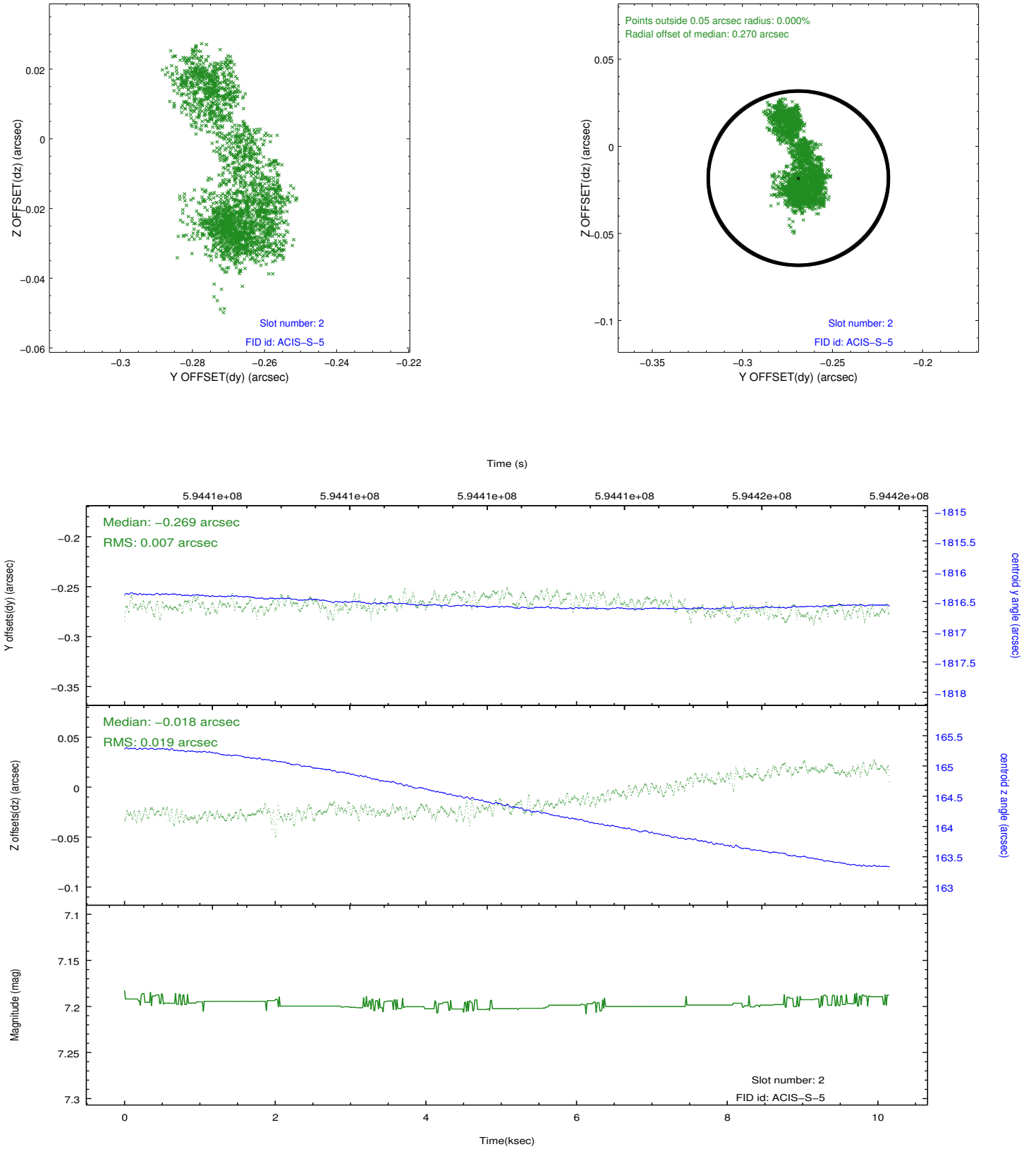
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2016.11.02
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.053300077438

### A.2 Comments