

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 4036 - L2 Version 4  
Chandra X-Ray Center

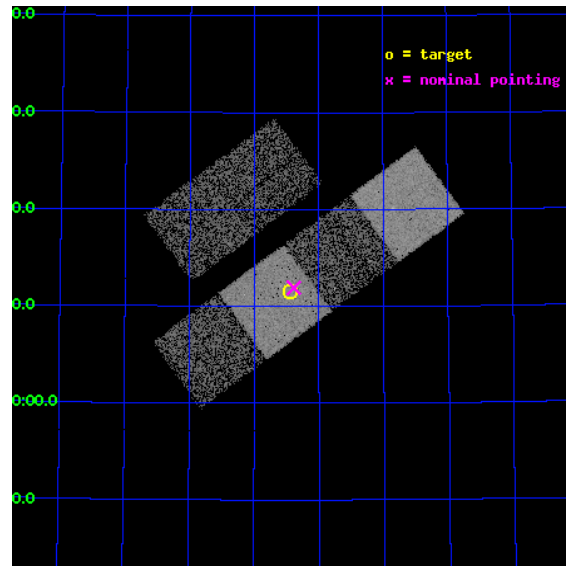
L2 Processing Date : Oct 21 2012

## 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

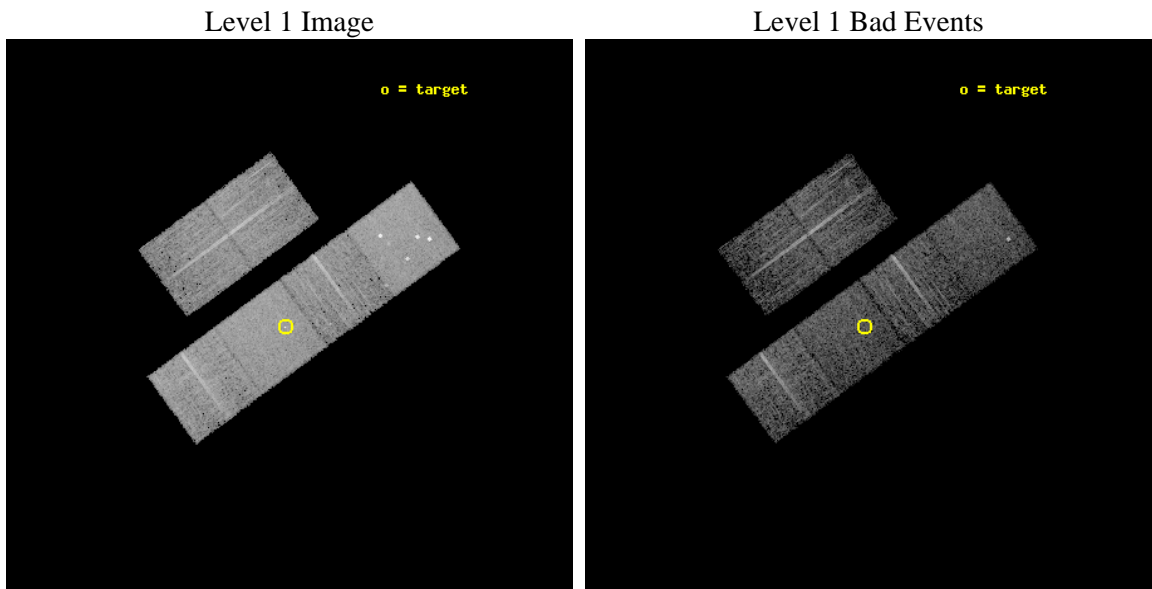
seq_num	700715	Sequence number
obs_id	4036	Observation id
title	WHY DO WE SEE BROAD LINES IN X-RAY ABSORBED AGN?	Proposal title
observer	Dr. Belinda Wilkes	Principal investigator
object	2MASS102127+631130	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	155.36125	Observer's specified target RA [deg]
dec_targ	63.191722	Observer's specified target Dec [deg]
ra_nom	155.34647999405	Nominal RA [deg]
dec_nom	63.198635424067	Nominal Dec [deg]
roll_nom	143.76040211651	Nominal Roll [deg]
revision	4	Processing version of data
ontime	6258.536041677	Sum of GTIs [s]
livetime	6179.2866898793	Livetime [s]
ontime2	6258.5770816803	Sum of GTIs [s]
ontime3	6258.4129216671	Sum of GTIs [s]
ontime5	6258.4950016737	Sum of GTIs [s]
ontime6	6258.4539616704	Sum of GTIs [s]
ontime7	6258.536041677	Sum of GTIs [s]
ontime8	6258.3718816936	Sum of GTIs [s]
l2events	60456	Number of level 2 events



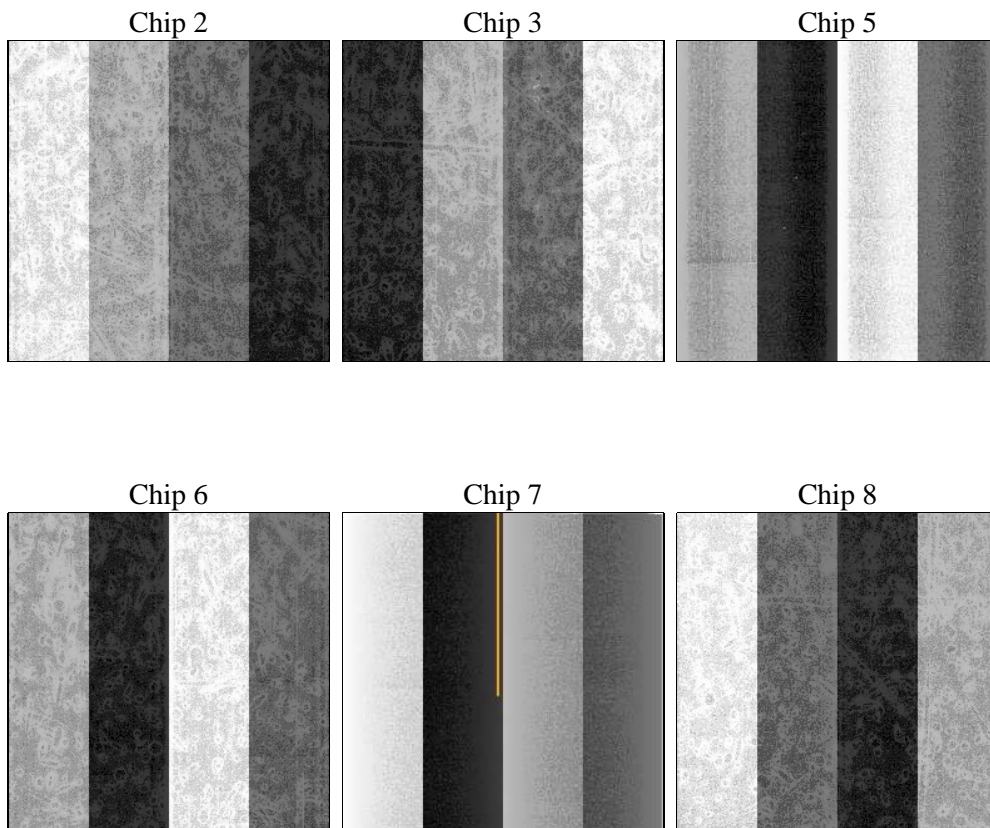
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	6300.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	6258.536041677	Sum of GTIs [s]
caldsver	4.5.2	&#160	ontime2	6258.5770816803	Sum of GTIs [s]
date	2012-10-21T04:57:29	Date and time of file creation	ontime3	6258.4129216671	Sum of GTIs [s]
revision	4	Processing version of data	ontime5	6258.4950016737	Sum of GTIs [s]
			ontime6	6258.4539616704	Sum of GTIs [s]
			ontime7	6258.536041677	Sum of GTIs [s]
			ontime8	6258.3718816936	Sum of GTIs [s]
			l1events	274350	Number of level 1 events

### 2.1.4 Events

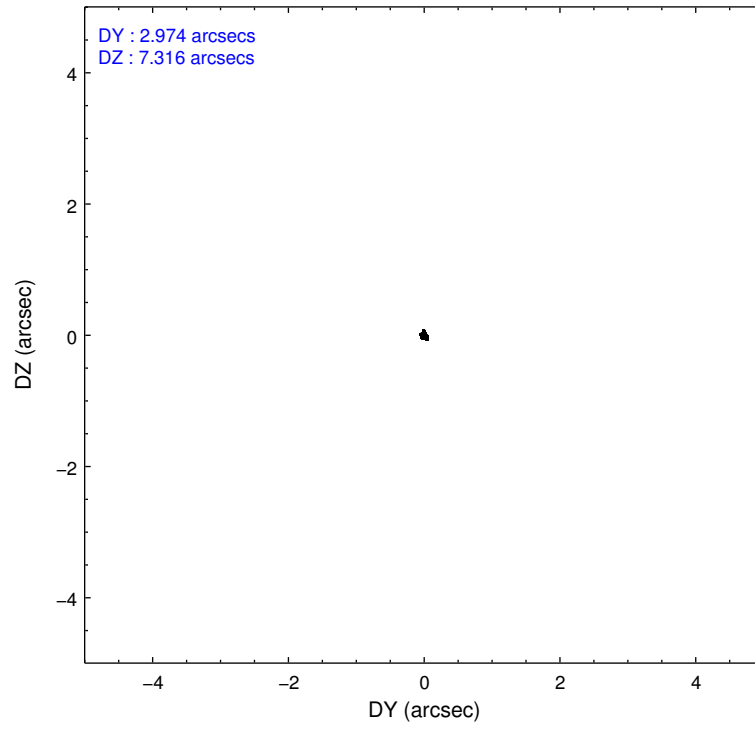
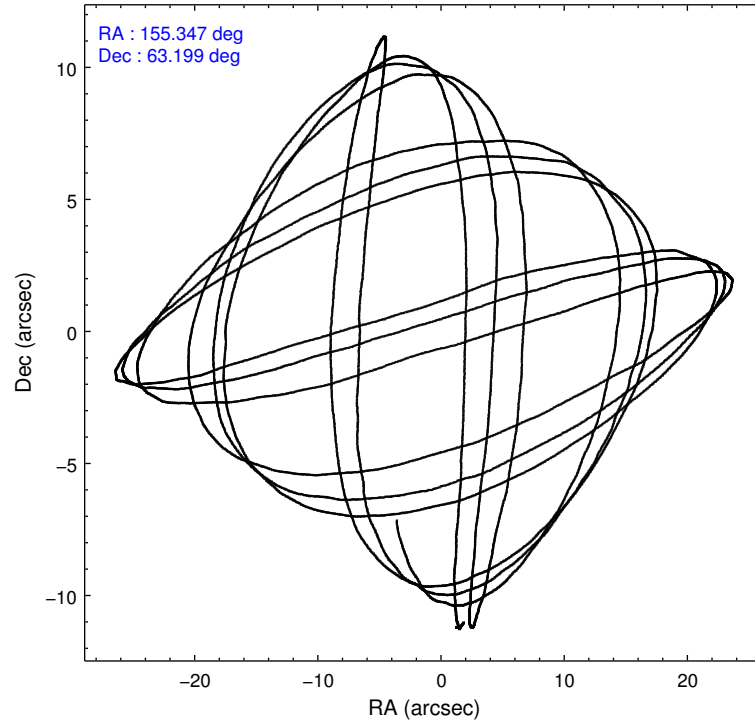
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	40338	35423	60489	38656	50979	48465	grade 0 events	1857	1871	6841	1841	2037	2944
rejected events	35972	31142	30517	34063	29641	38880		4%	5%	11%	4%	3%	6%
rejected %	89%	87%	50%	88%	58%	80%	grade 1 events	15	21	514	9	35	33
								0%	0%	0%	0%	0%	0%
							grade 2 events	878	812	7836	936	4255	2113
								2%	2%	12%	2%	8%	4%
							grade 3 events	464	413	1016	448	1816	978
								1%	1%	1%	1%	3%	2%
							grade 4 events	455	441	932	419	1941	907
								1%	1%	1%	1%	3%	1%
							grade 5 events	1470	1538	3914	1634	4674	2192
								3%	4%	6%	4%	9%	4%
							grade 6 events	717	750	13385	953	11311	2658
								1%	2%	22%	2%	22%	5%
							grade 7 events	34482	29577	26051	32416	24910	36640
								85%	83%	43%	83%	48%	75%

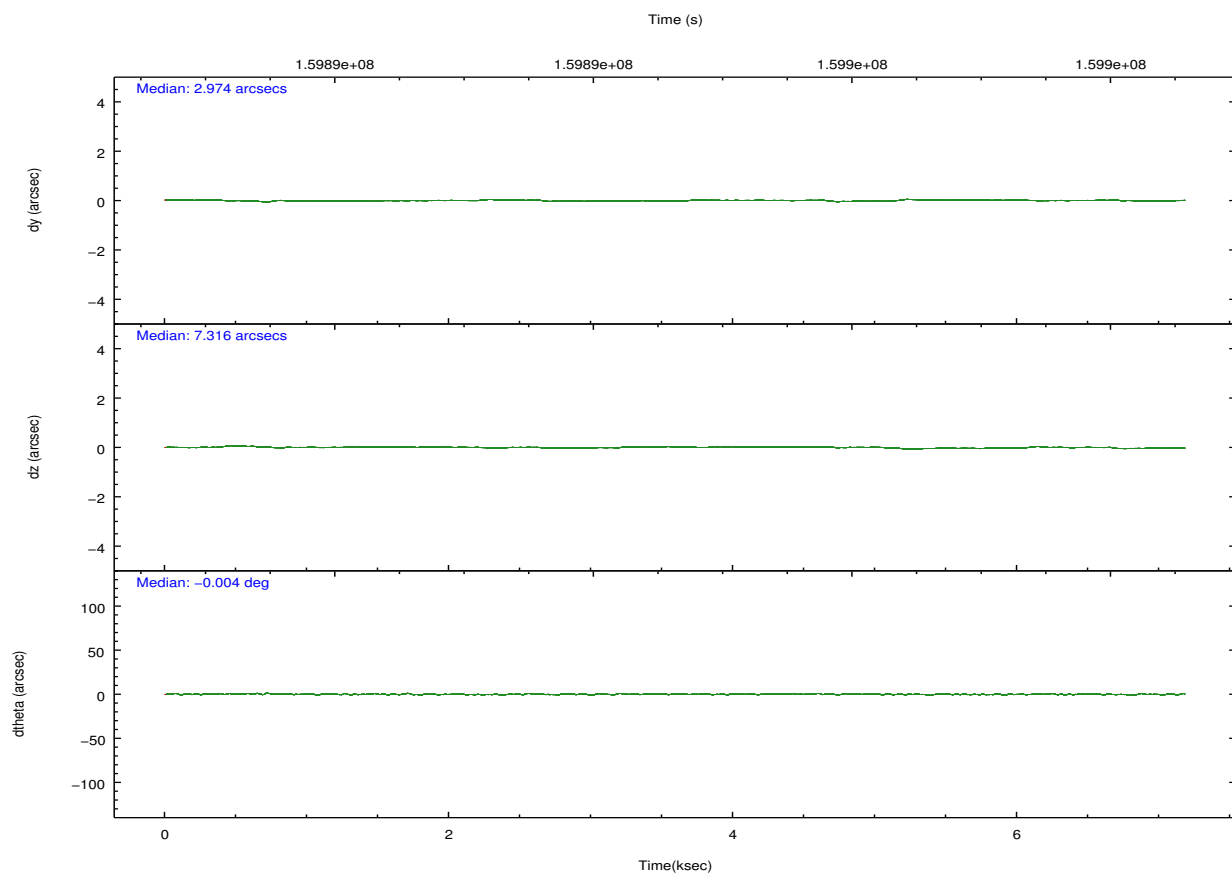
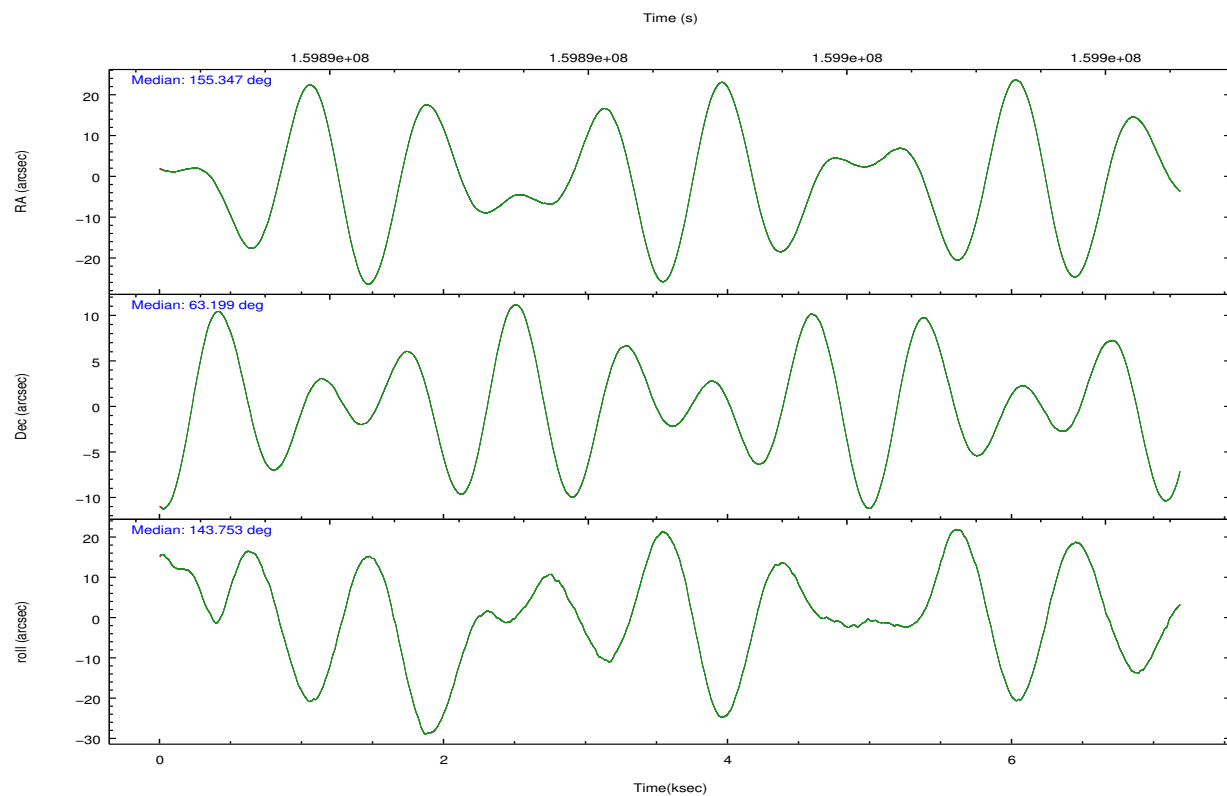


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-235678	ACIS-235678	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	155.406554	155.3464799940493	Subarray requested	NONE	NONE
[deg] Pointing Dec	63.196124	63.19863542406706	Alternating exposures requested	N	N
[deg] Pointing Roll	143.550154	143.7604021165137	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	159891927.184000	159890619.45615			
Observation start date	2003-01-25T14:24:23	2003-01-25T14:03:39			
[s] Observation end time (MET)	159898227.184000	159898524.76899			
Observation end date	2003-01-25T16:09:23	2003-01-25T16:15:24			
Read mode	TIMED	TIMED			

## 2.3 Aspect



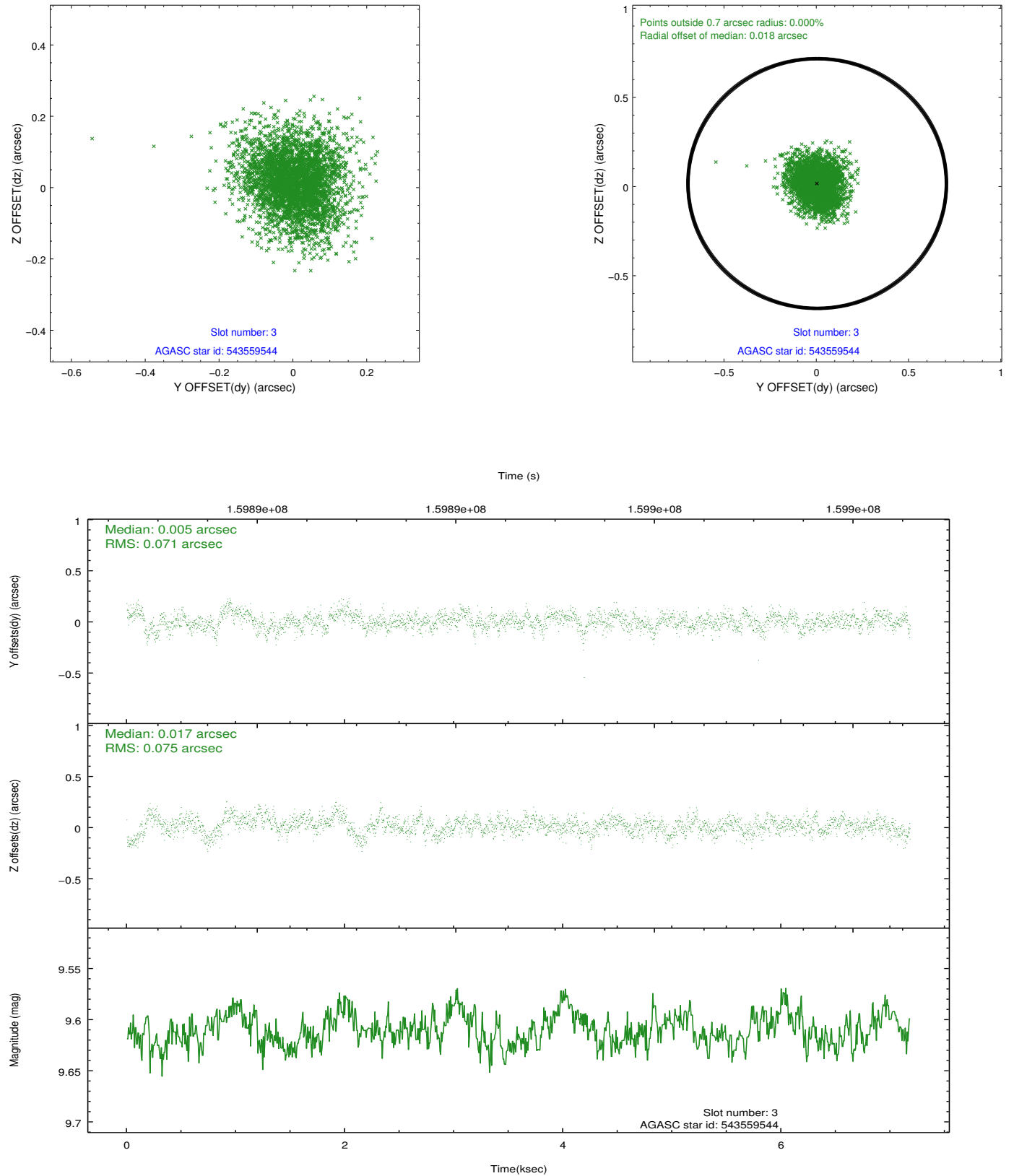


### Slot Statistics

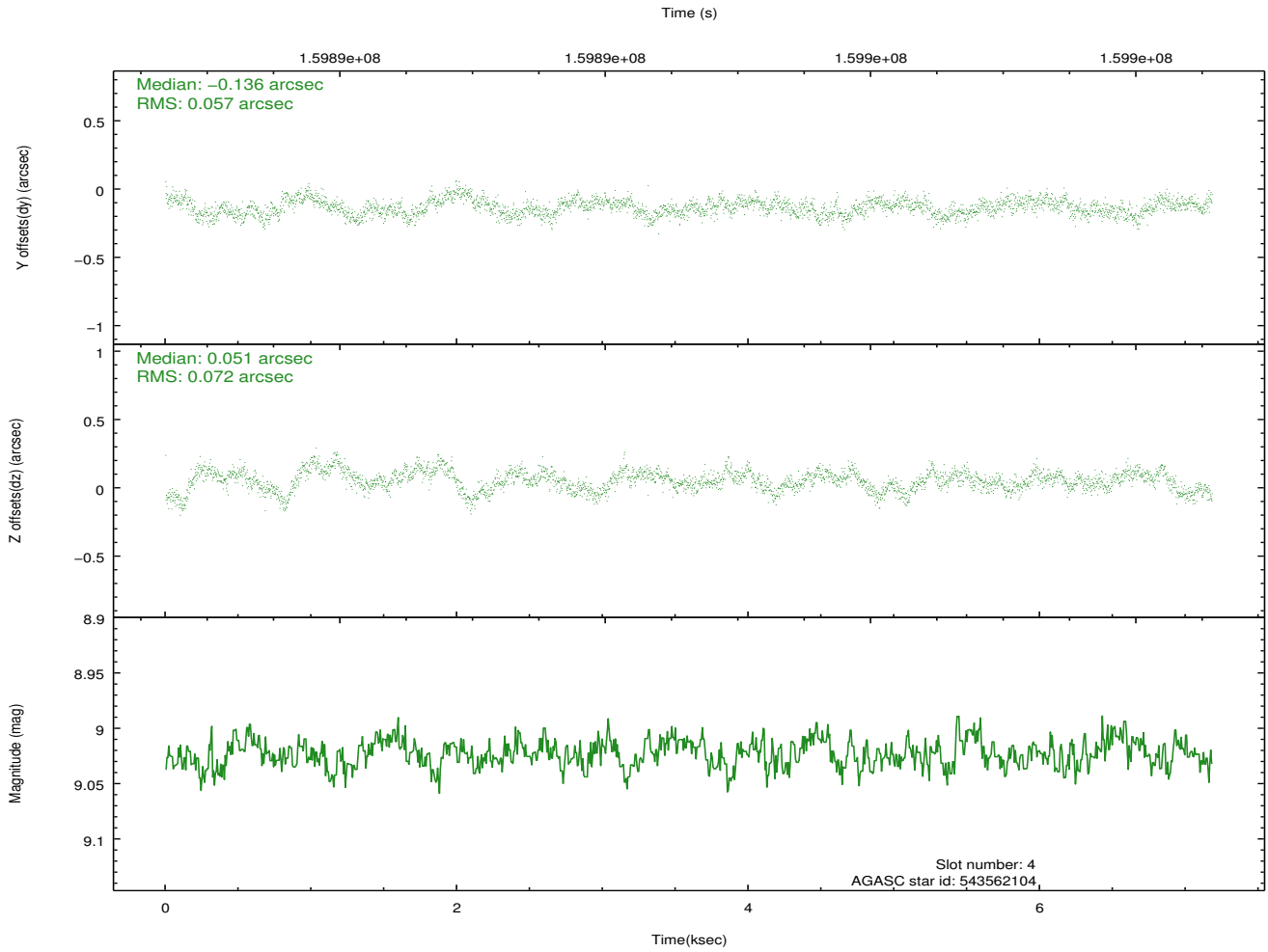
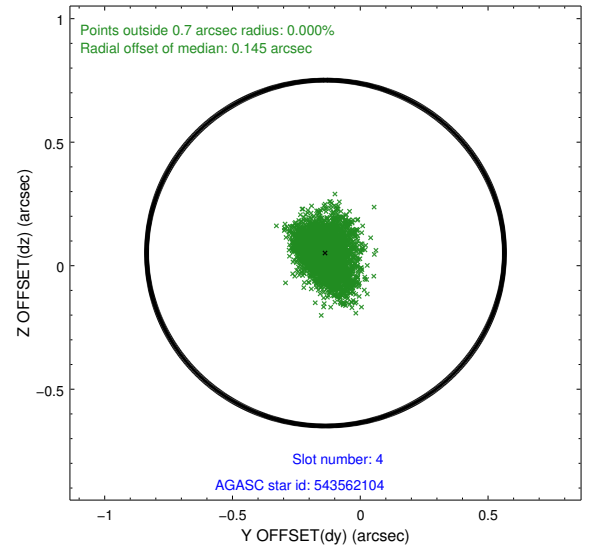
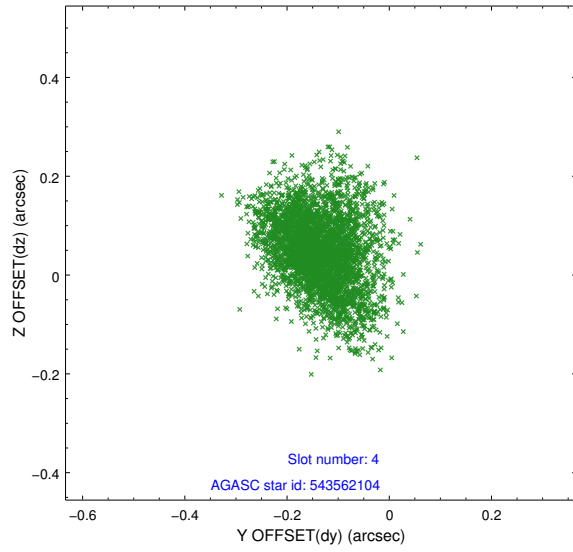
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.12	1752	-0.022	-0.011	0.007	0.011	0.000000	0.000000	-755.63	-1728.50
1	FID	ACIS-S-4	7.20	1752	0.009	0.014	0.005	0.010	0.000000	0.000000	2157.31	179.19
2	FID	ACIS-S-5	7.24	1752	-0.018	0.006	0.007	0.011	0.000000	0.000000	-1807.44	173.76
3	GUIDE	543559544	9.61	3501	0.005	0.017	0.108	0.184	155.488993	63.856379	1307.66	-1989.49
4	GUIDE	543562104	9.02	3502	-0.136	0.051	0.097	0.163	155.237007	63.724275	1347.92	-1369.55
5	GUIDE	543562752	9.60	3502	-0.056	-0.046	0.142	0.223	154.845994	62.819863	-60.49	1633.50
6	GUIDE	543563600	9.80	3498	0.043	-0.092	0.177	0.268	156.186685	62.673608	-2149.73	741.02
7	GUIDE	542641792	10.48	3496	0.143	0.089	0.185	0.417	153.457398	63.002446	2175.92	2414.82

## 2.4 Star Slots

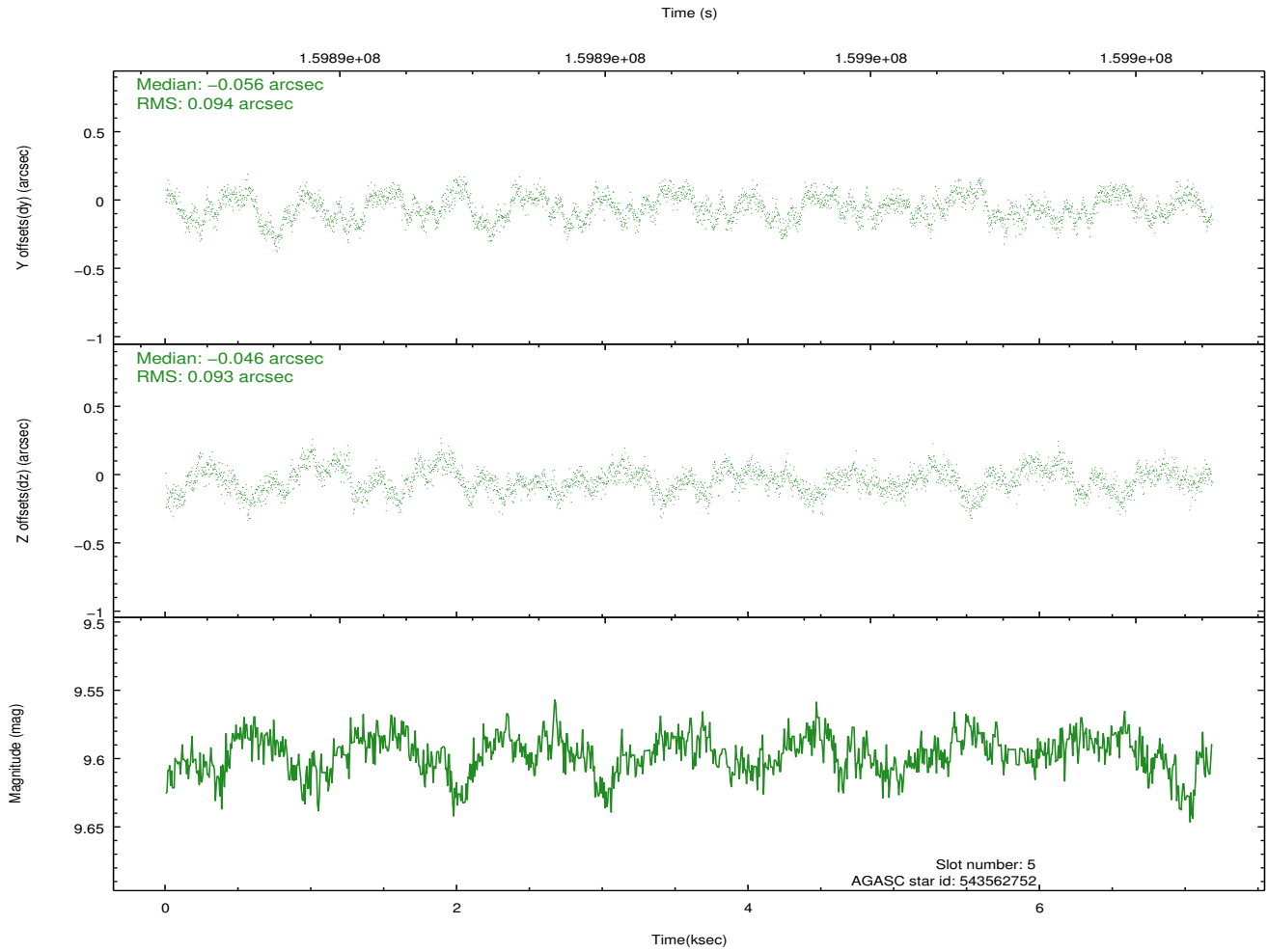
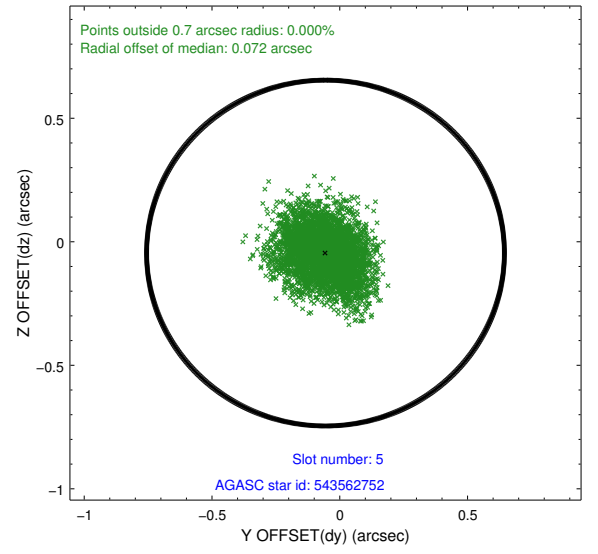
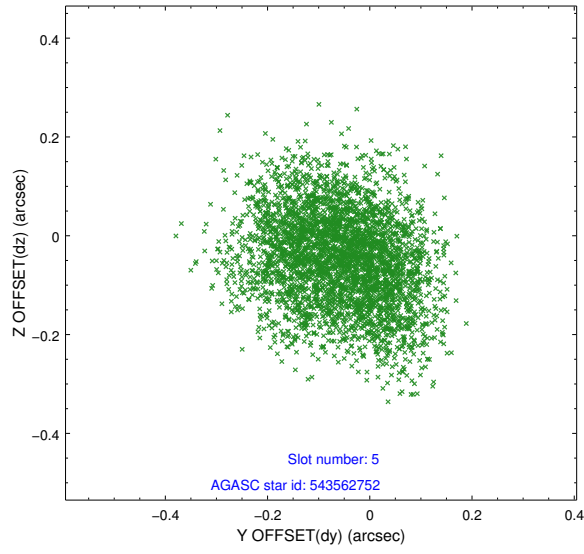
### 2.4.1 Slot 3



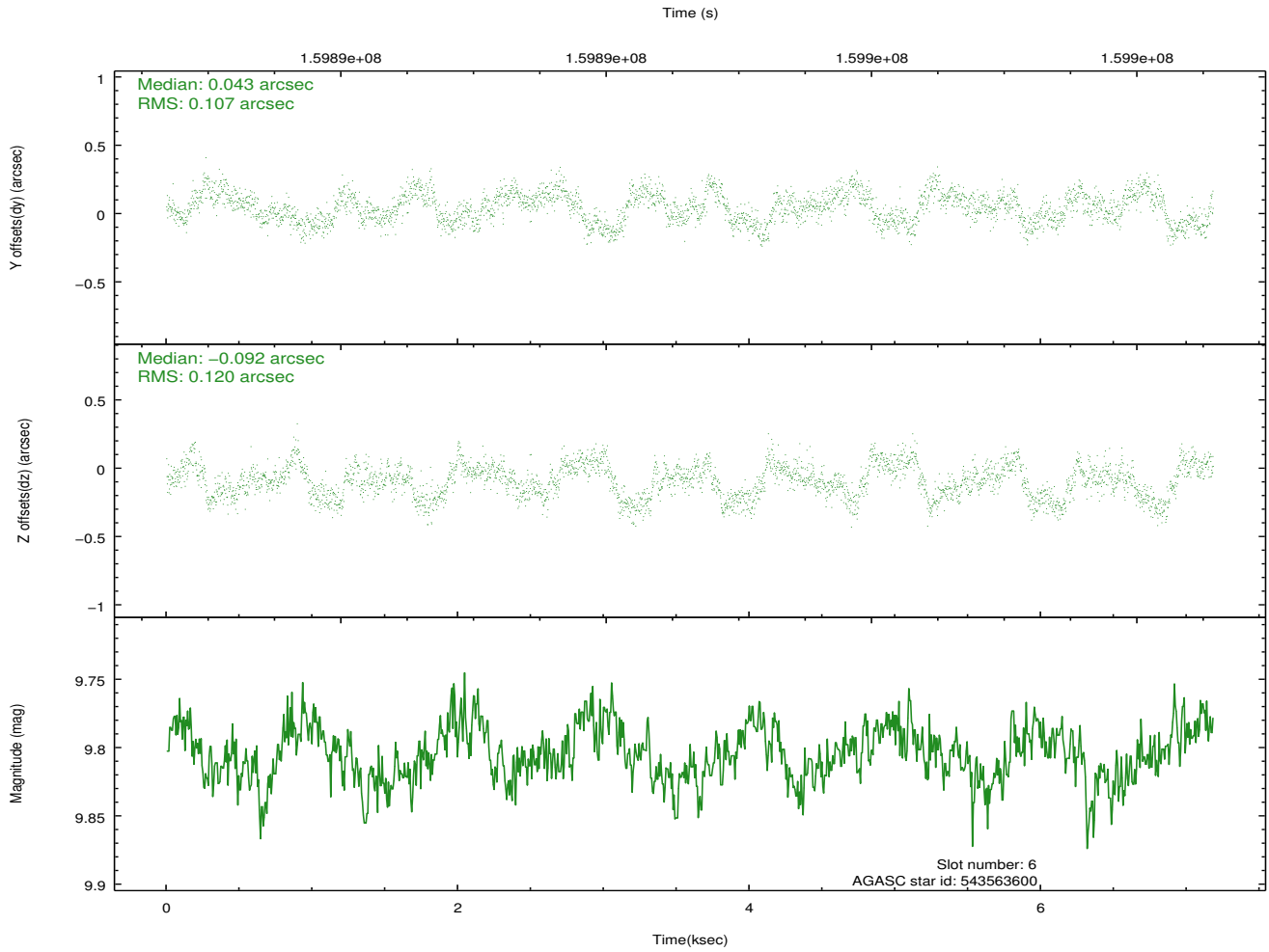
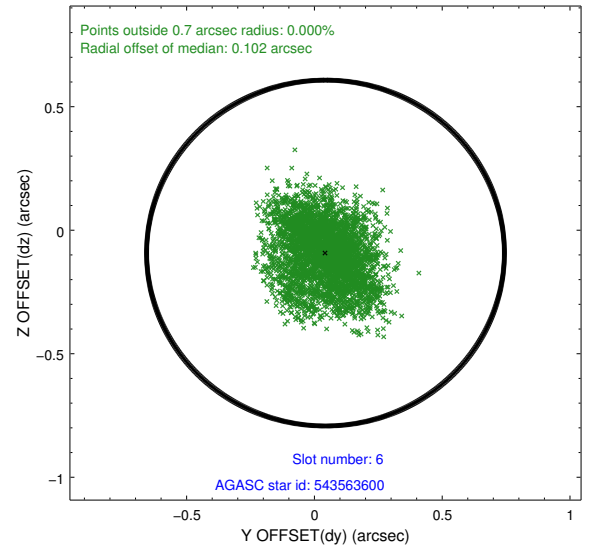
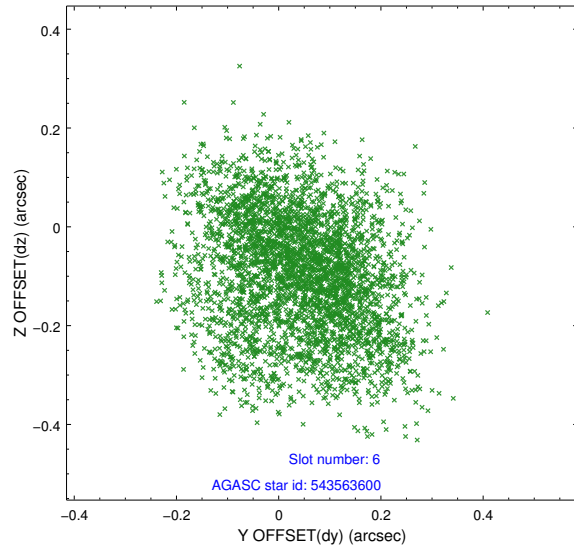
## 2.4.2 Slot 4



### 2.4.3 Slot 5

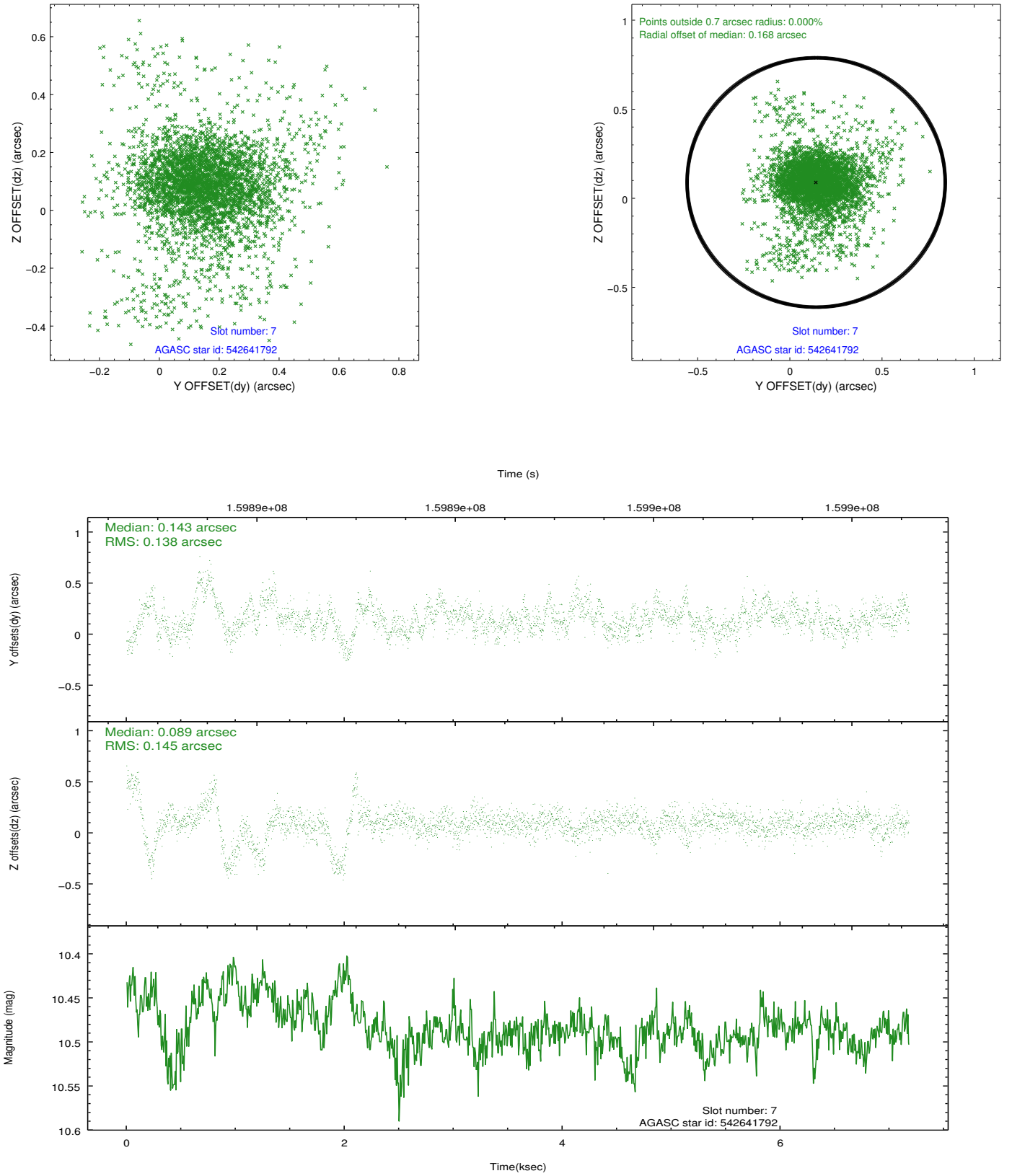


## 2.4.4 Slot 6



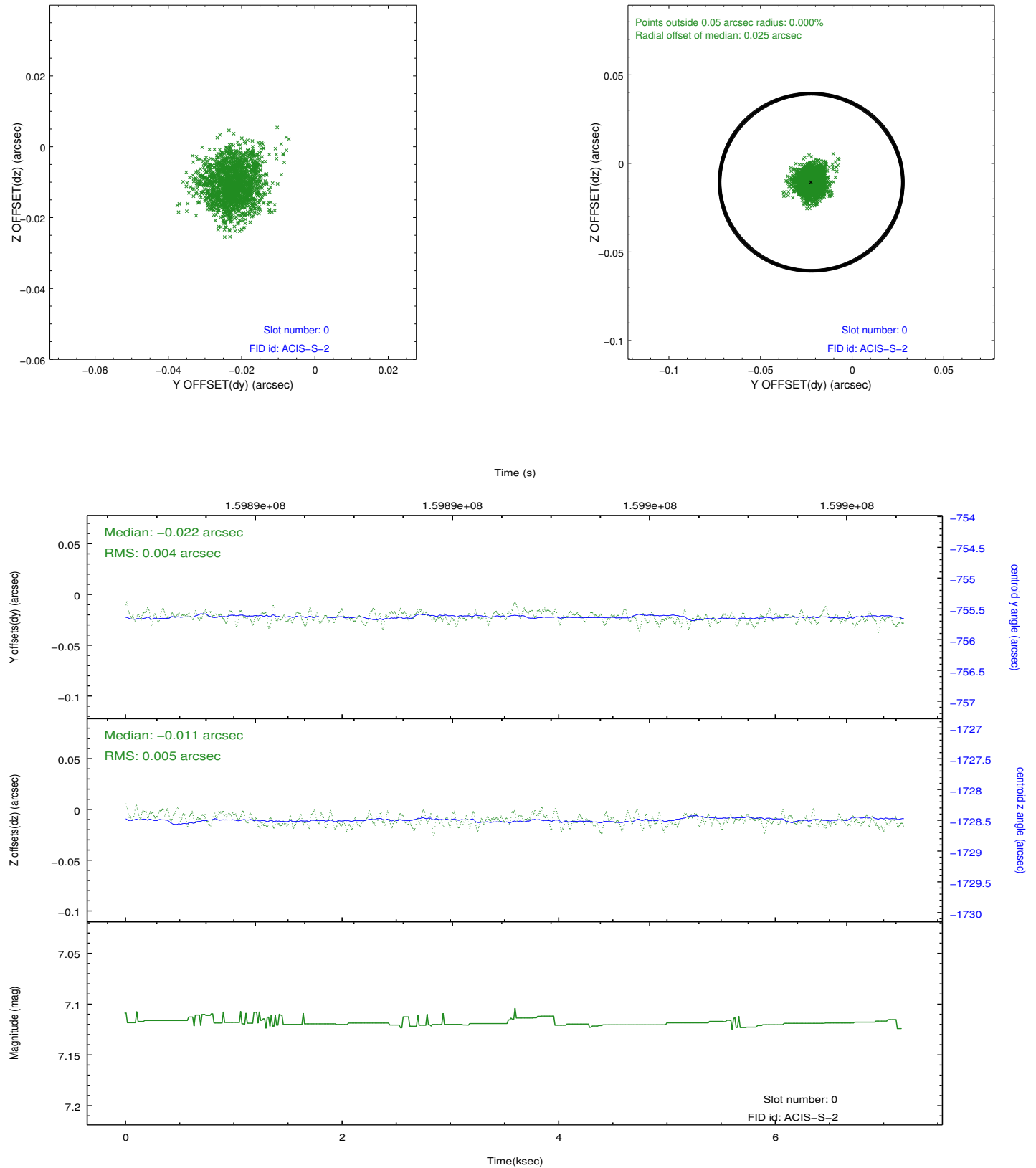


### 2.4.5 Slot 7

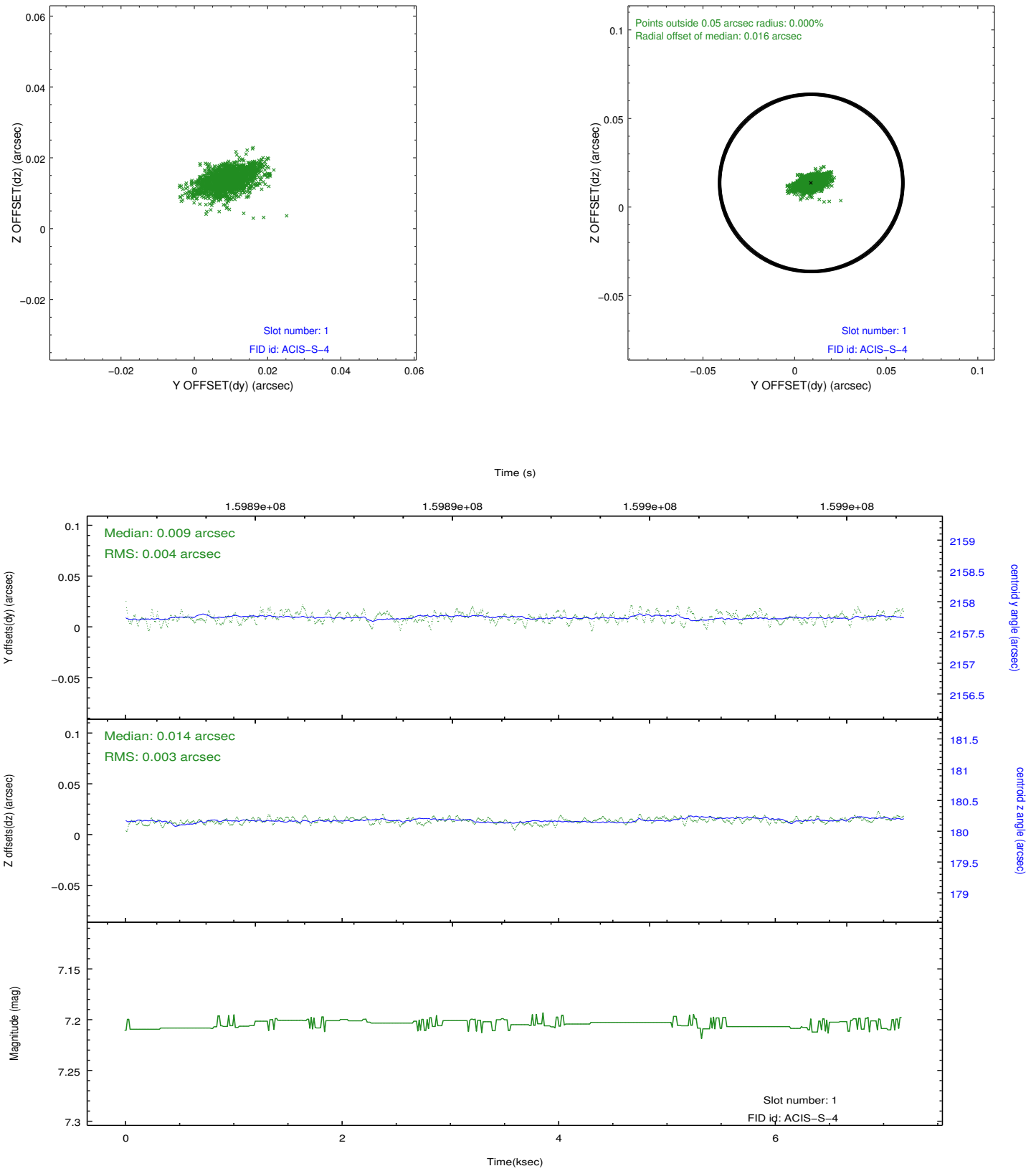


## 2.5 FID Slots

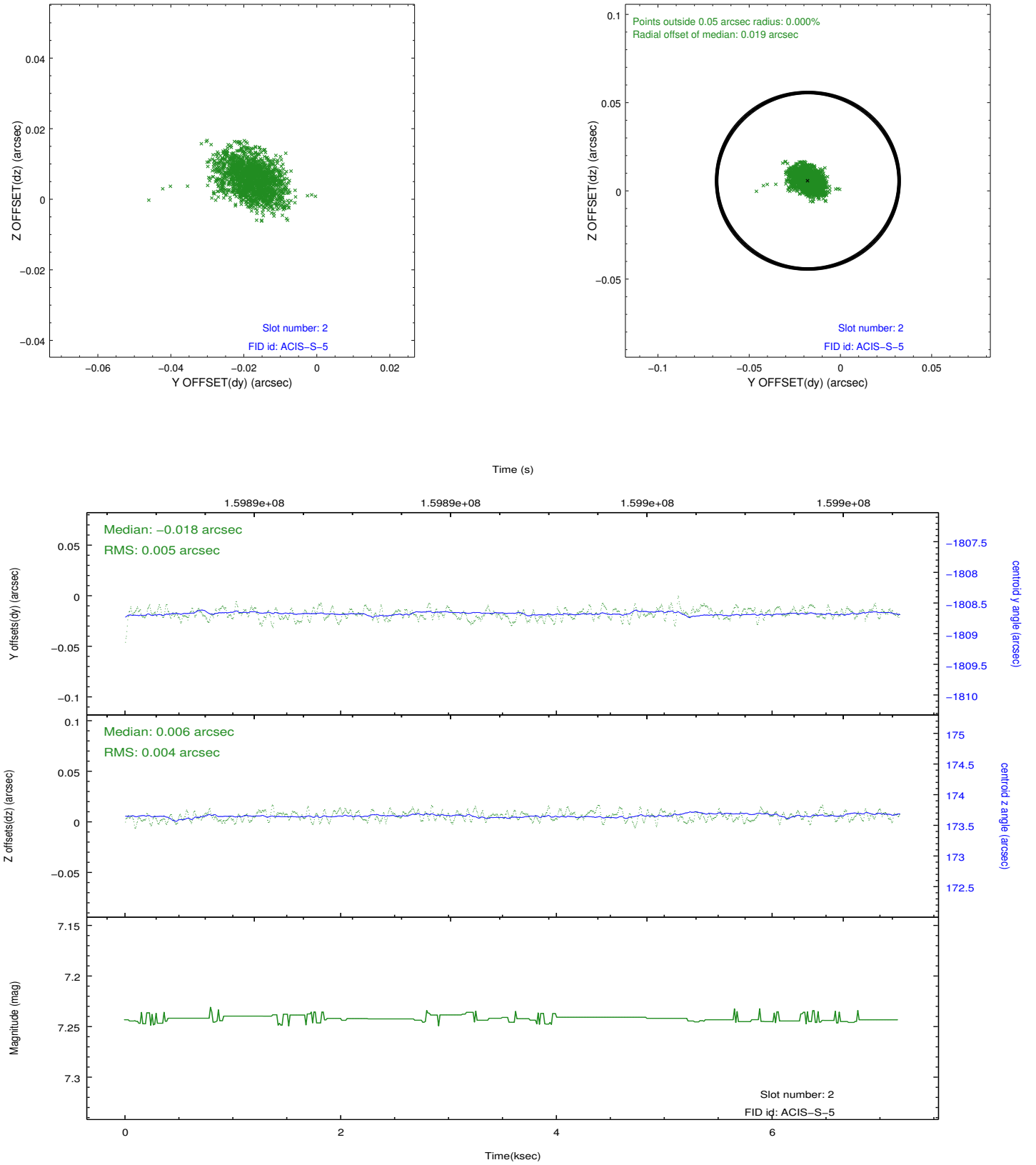
### 2.5.1 Slot 0



## 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)	2012.11.01
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	6.259

### A.2 Comments