

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 677 - L2 Version 4  
Chandra X-Ray Center

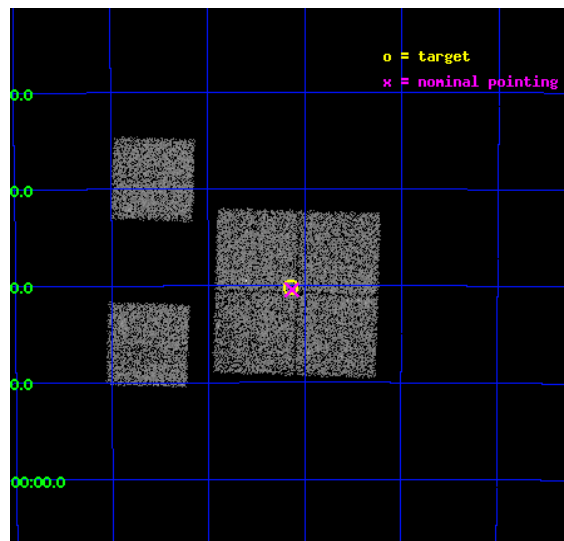
L2 Processing Date : Aug 30 2012

## 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

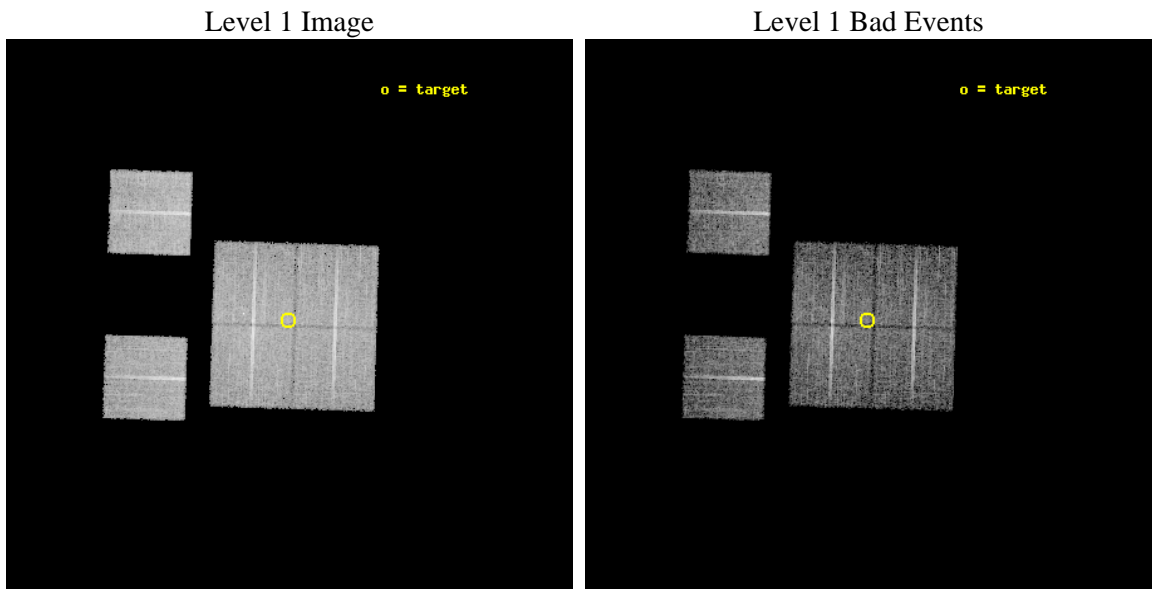
seq_num	400044	Sequence number
obs_id	677	Observation id
title	BLACK HOLE EVENT HORIZONS AND ADVECTION-DOMINATED ACCRETION	Propos
observer	Dr. Jeffrey McClintock	Principal investigator
object	4U 1543-47	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	236.785833	Observer's specified target RA [deg]
dec_targ	-47.669444	Observer's specified target Dec [deg]
ra_nom	236.78318143869	Nominal RA [deg]
dec_nom	-47.674001313306	Nominal Dec [deg]
roll_nom	271.82317137425	Nominal Roll [deg]
revision	4	Processing version of data
ontime	9968.0000092685	Sum of GTIs [s]
livetime	9841.7791911421	Livetime [s]
ontime0	9968.0000092685	Sum of GTIs [s]
ontime1	9968.0000092685	Sum of GTIs [s]
ontime2	9961.5180090219	Sum of GTIs [s]
ontime3	9968.0000092685	Sum of GTIs [s]
ontime6	9968.0000092685	Sum of GTIs [s]
ontime8	9968.0000092685	Sum of GTIs [s]
l2events	36234	Number of level 2 events



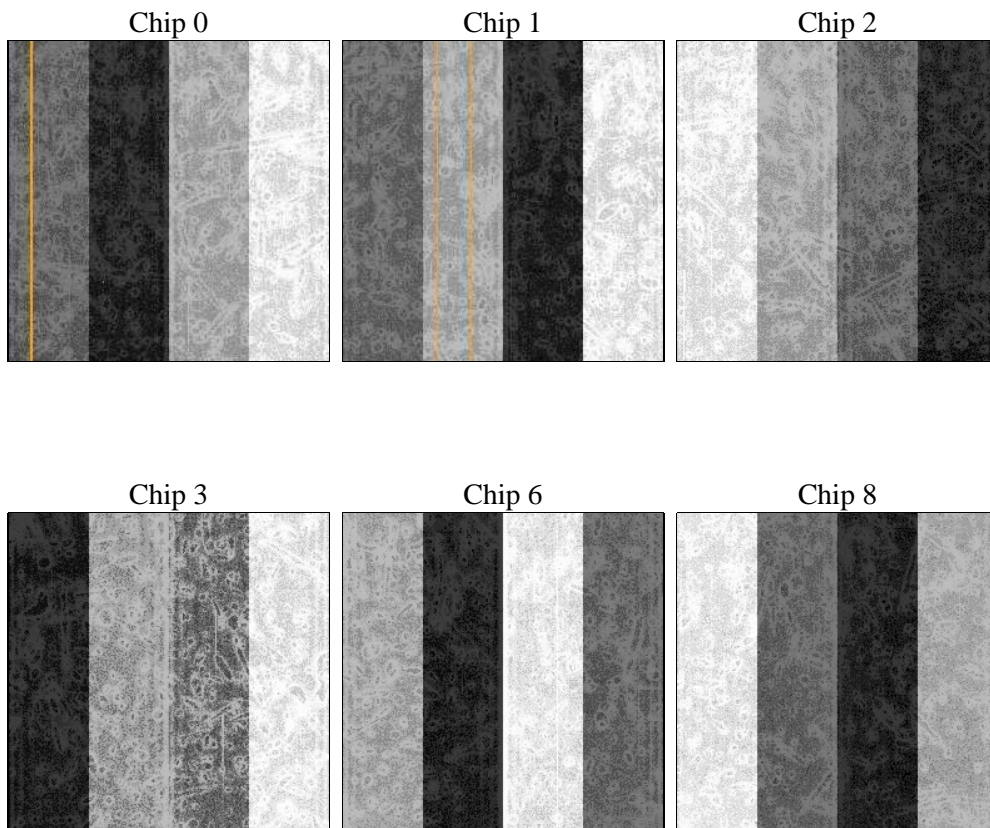
## 2 OBI

### 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	8.4.5	Processing system revision	ontime	9968.0000092685	Sum of GTIs [s]
caldsver	4.5.1.1	&#160	ontime0	9968.0000092685	Sum of GTIs [s]
date	2012-08-30T18:35:30	Date and time of file creation	ontime1	9968.0000092685	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	9961.5180090219	Sum of GTIs [s]
			ontime3	9968.0000092685	Sum of GTIs [s]
			ontime6	9968.0000092685	Sum of GTIs [s]
			ontime8	9968.0000092685	Sum of GTIs [s]
			l1events	346164	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 8		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 8
level 1 events	50213	52442	56413	55854	56686	74556	grade 0 events	3197	3231	2959	3353	2888	4897
rejected events	43278	45145	49767	48787	49893	59703		6%	6%	5%	6%	5%	6%
rejected %	86%	86%	88%	87%	88%	80%	grade 1 events	20	23	27	28	24	40
								0%	0%	0%	0%	0%	0%
							grade 2 events	1338	1448	1397	1357	1348	3048
								2%	2%	2%	2%	2%	4%
							grade 3 events	708	705	615	616	662	1586
								1%	1%	1%	1%	1%	2%
							grade 4 events	603	676	602	647	697	1521
								1%	1%	1%	1%	1%	2%
							grade 5 events	1902	2161	1870	2096	2237	2989
								3%	4%	3%	3%	3%	4%
							grade 6 events	1089	1241	1075	1094	1198	3802
								2%	2%	1%	1%	2%	5%
							grade 7 events	41356	42957	47868	46663	47632	56673
								82%	81%	84%	83%	84%	76%

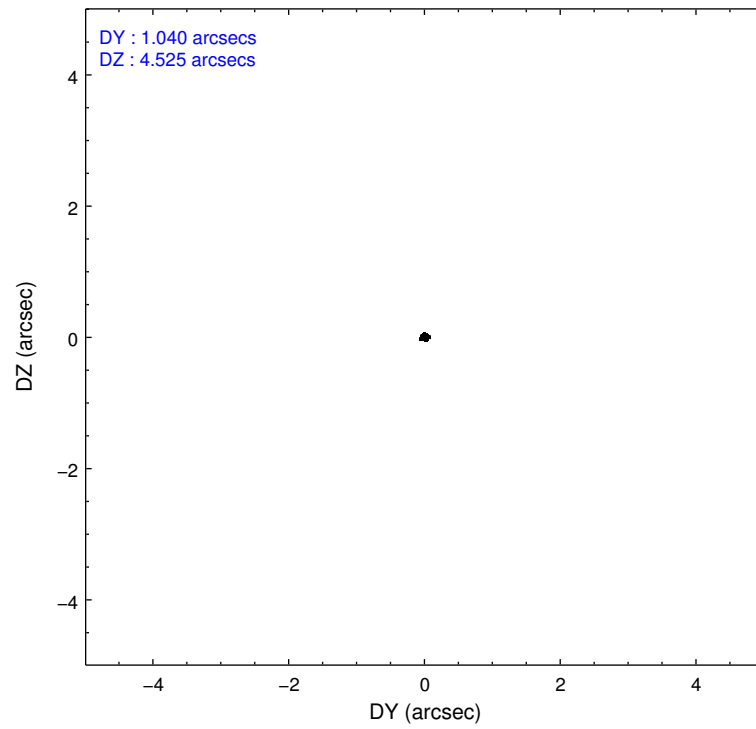
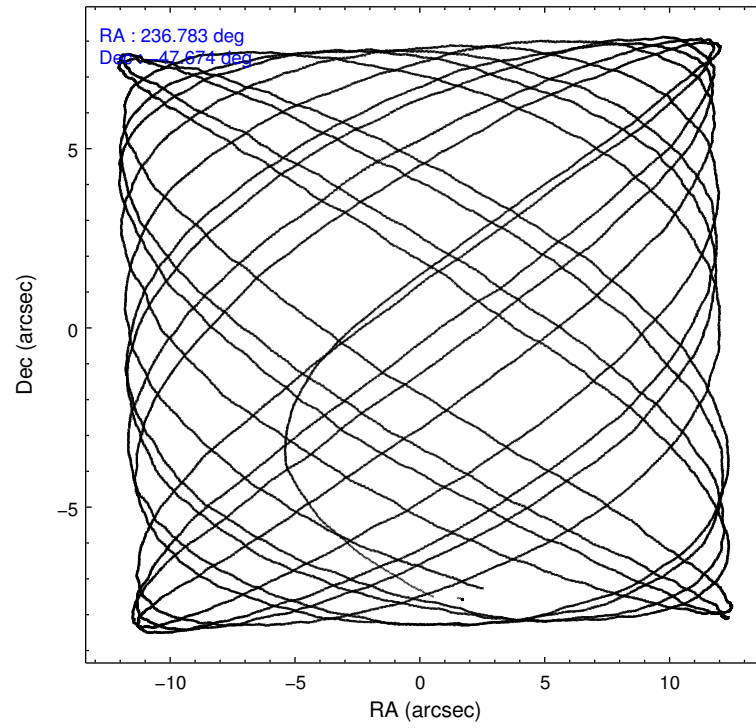


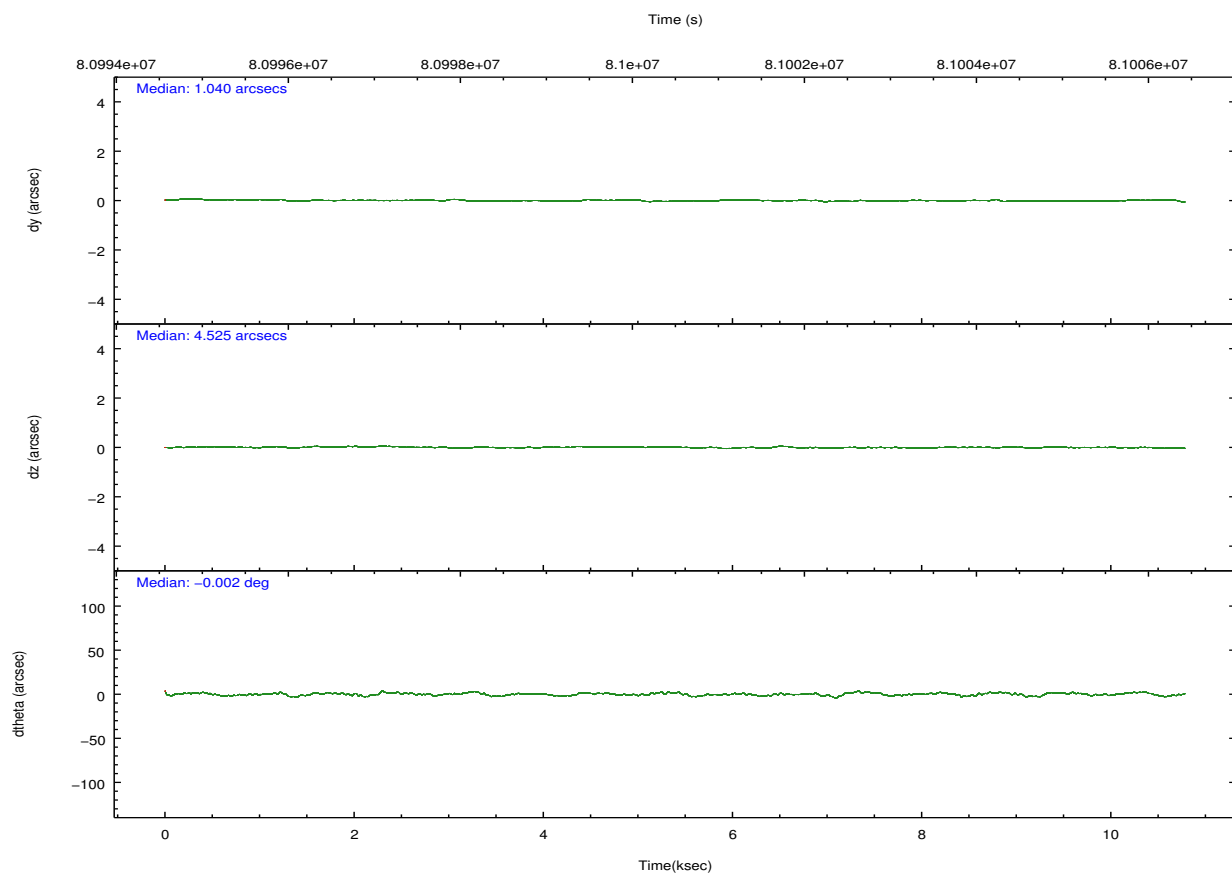
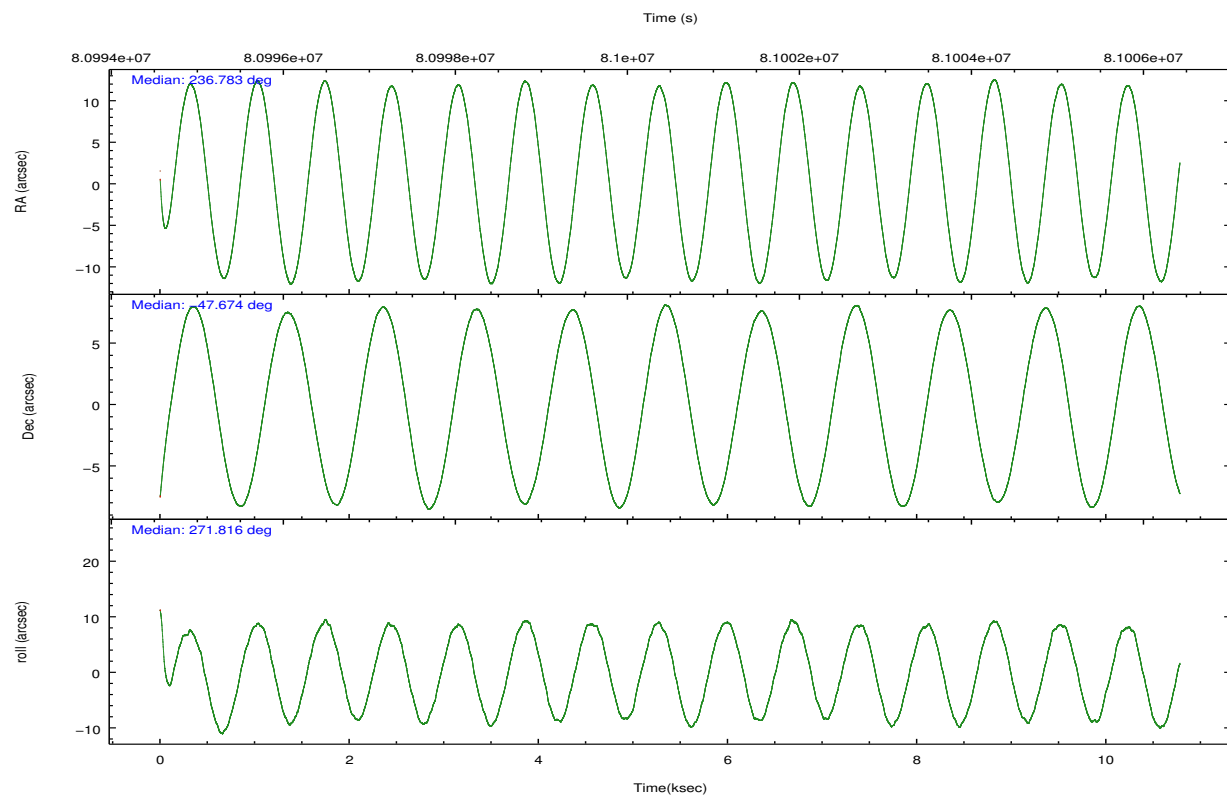
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-012368	ACIS-012368
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	236.761774	236.7831814386888
[deg] Pointing Dec	-47.650551	-47.67400131330648
[deg] Pointing Roll	271.598648	271.8231713742471
[mm] SIM focus pos	-0.782348	-0.7809083437167272
[mm] SIM defocus	0	0.001439871863259334
[mm] SIM translation stage pos	-233.592463	-233.5874344608287
[mm] SIM translation stage offset	0	-0.005018542100998502
[s] Observation start time (MET)	80995888.184000	80994633.04603501
Observation start date	2000-07-26T10:50:24	2000-07-26T10:30:33
[s] Observation end time (MET)	81005888.184000	81006721.383985
Observation end date	2000-07-26T13:37:04	2000-07-26T13:52:01
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	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



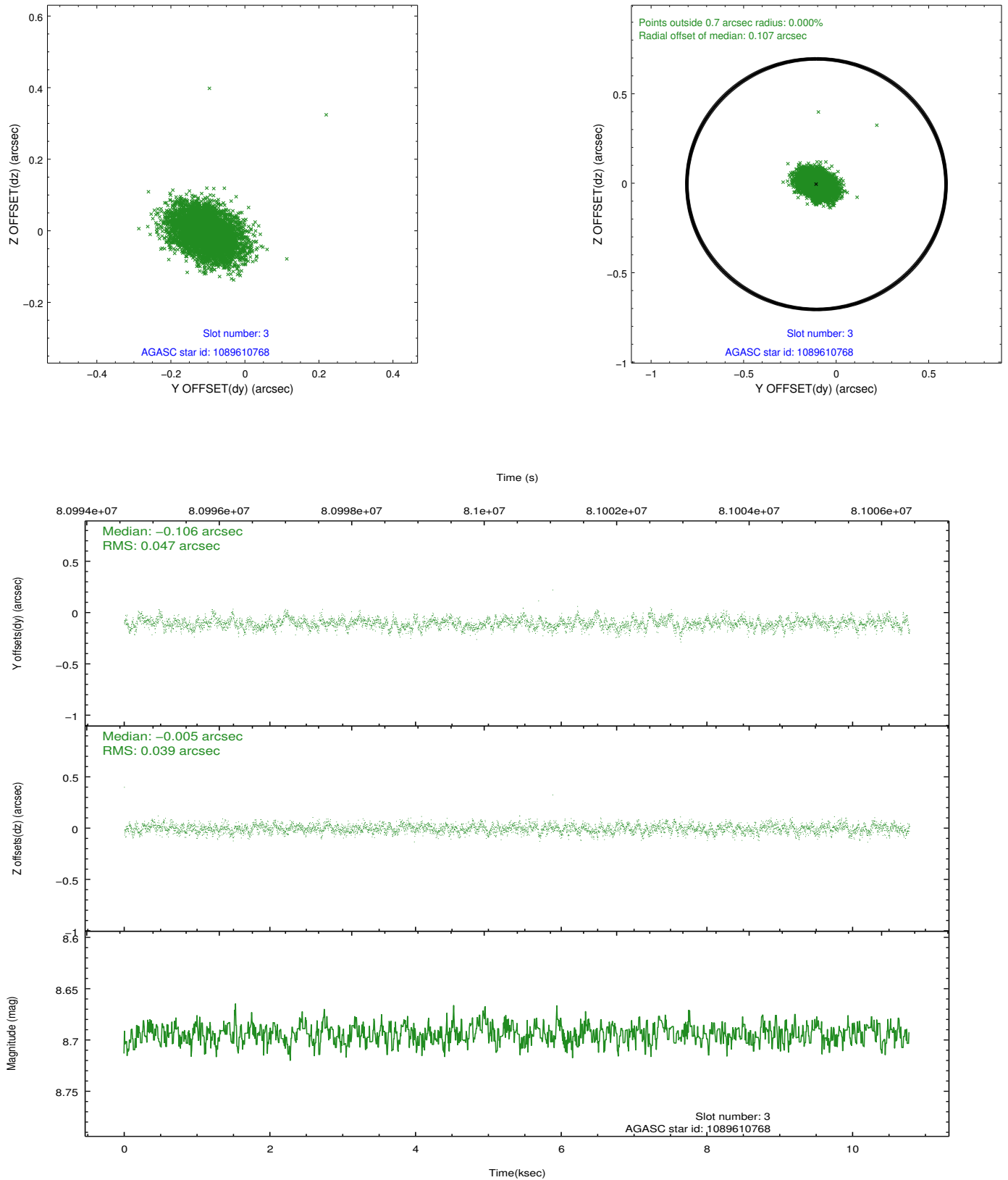


### Slot Statistics

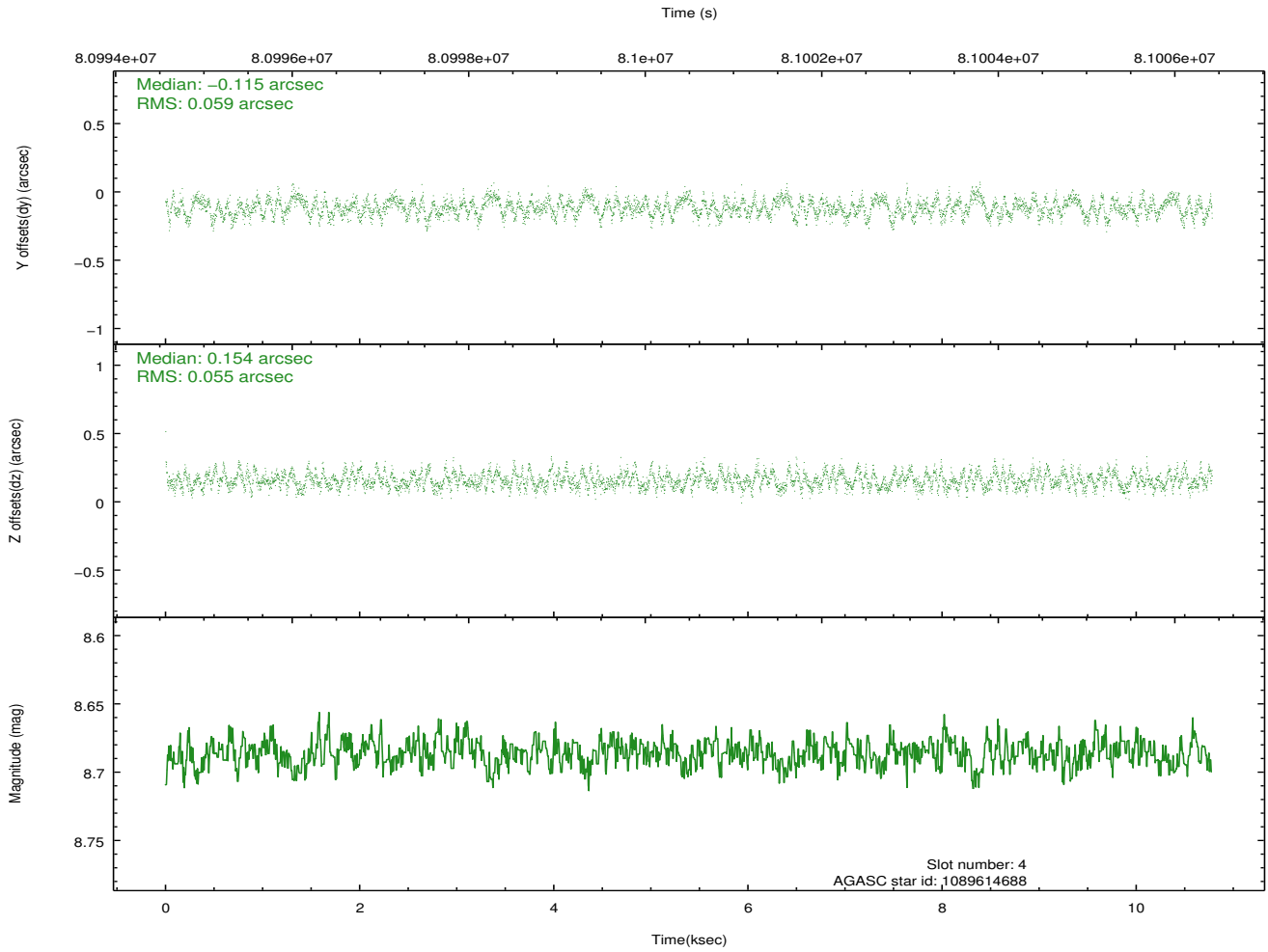
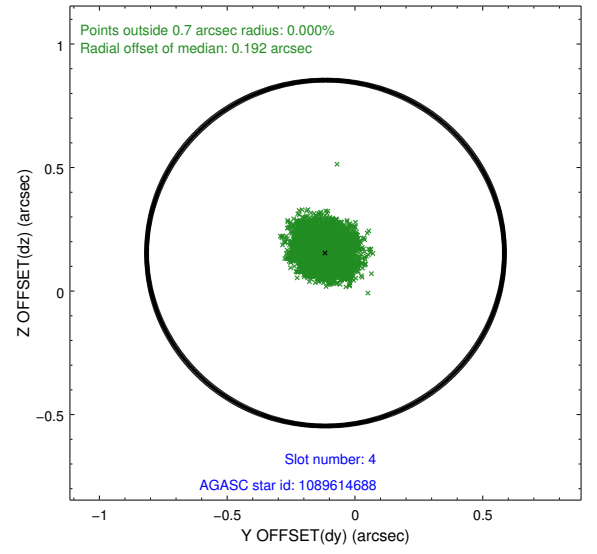
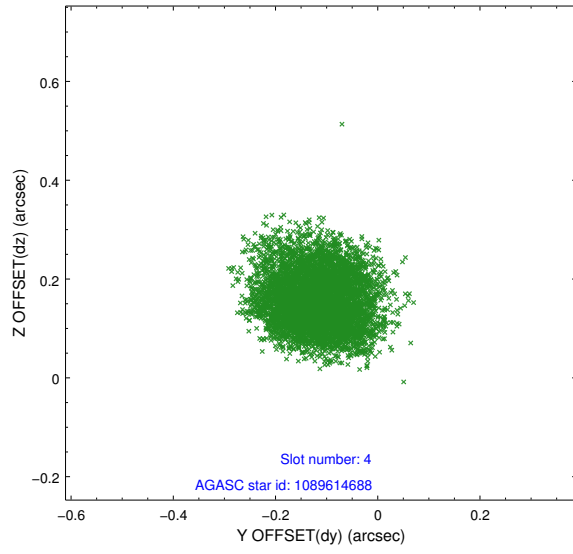
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	7.15	2628	-0.028	-0.022	0.016	0.026	0.000000	0.000000	-755.39	-834.24
1	FID	ACIS-I-4	7.19	2627	-0.035	0.030	0.009	0.016	0.000000	0.000000	2158.44	1071.75
2	FID	ACIS-I-5	7.23	2628	-0.038	0.061	0.014	0.023	0.000000	0.000000	-1808.61	1070.17
3	GUIDE	1089610768	8.69	5256	-0.106	-0.005	0.065	0.108	236.932509	-47.418379	-823.00	439.58
4	GUIDE	1089614688	8.69	5256	-0.115	0.154	0.088	0.134	237.281593	-47.031024	-2189.44	1337.79
5	GUIDE	1089602168	9.14	5256	0.098	-0.064	0.079	0.126	236.272755	-48.160772	1807.48	-1224.16
6	GUIDE	1089614056	8.51	5257	-0.022	0.011	0.080	0.131	237.721700	-47.460303	-604.42	2354.52
7	GUIDE	1087923304	9.75	5258	0.157	-0.099	0.119	0.192	236.006027	-48.288425	2254.73	-1872.69

## 2.4 Star Slots

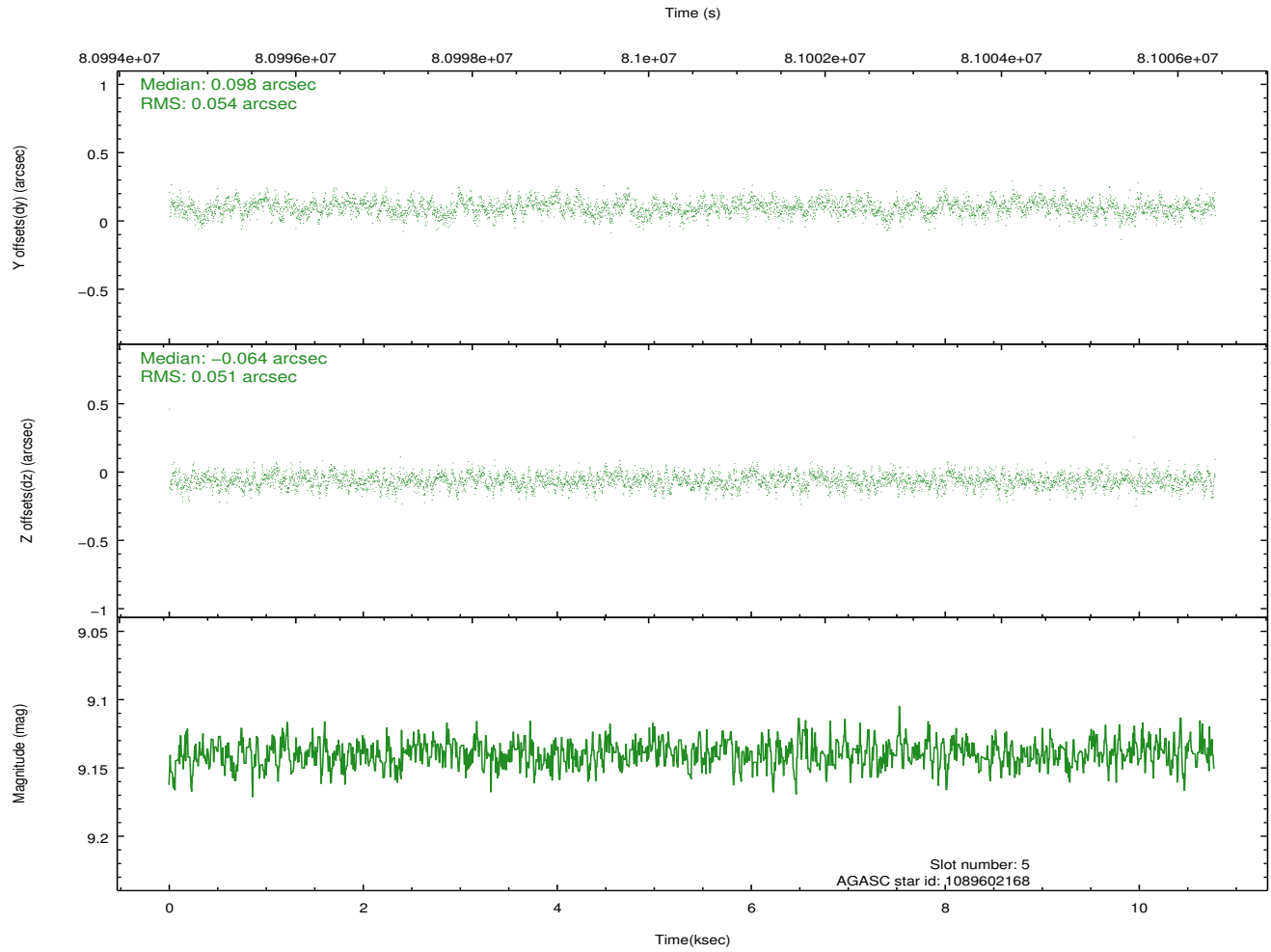
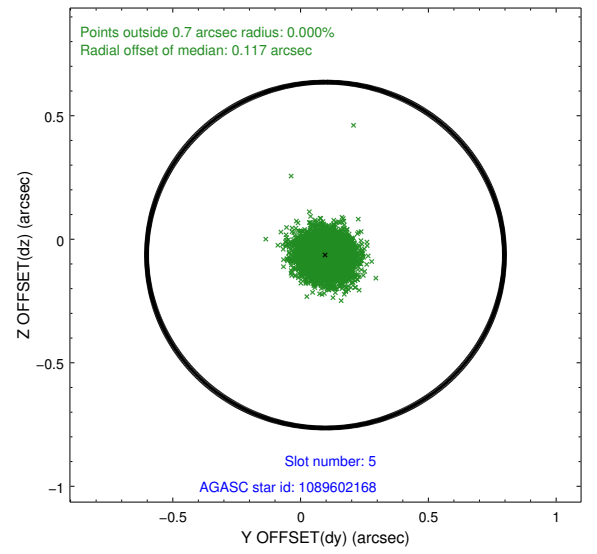
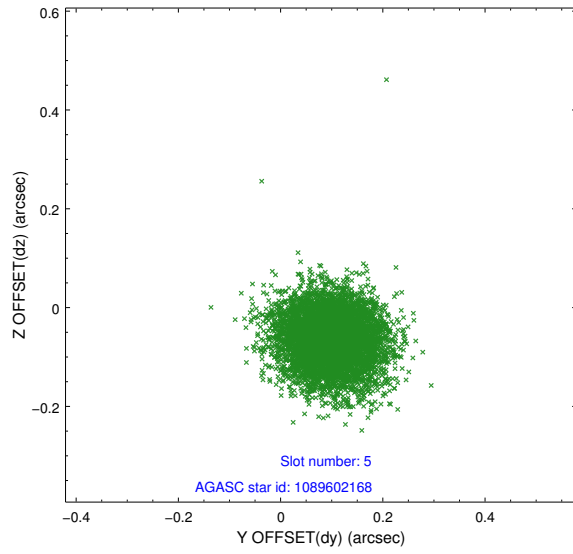
### 2.4.1 Slot 3



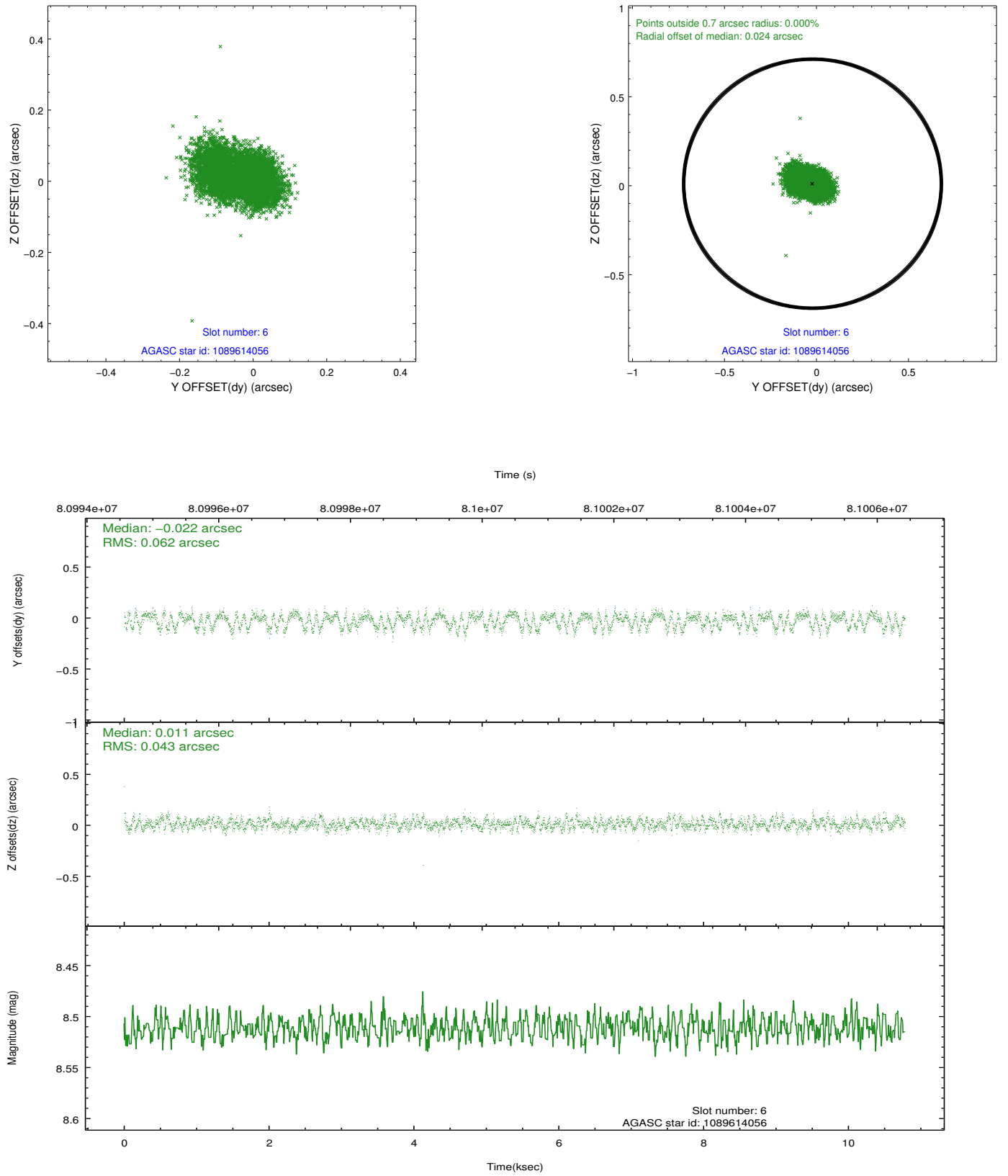
## 2.4.2 Slot 4



### 2.4.3 Slot 5

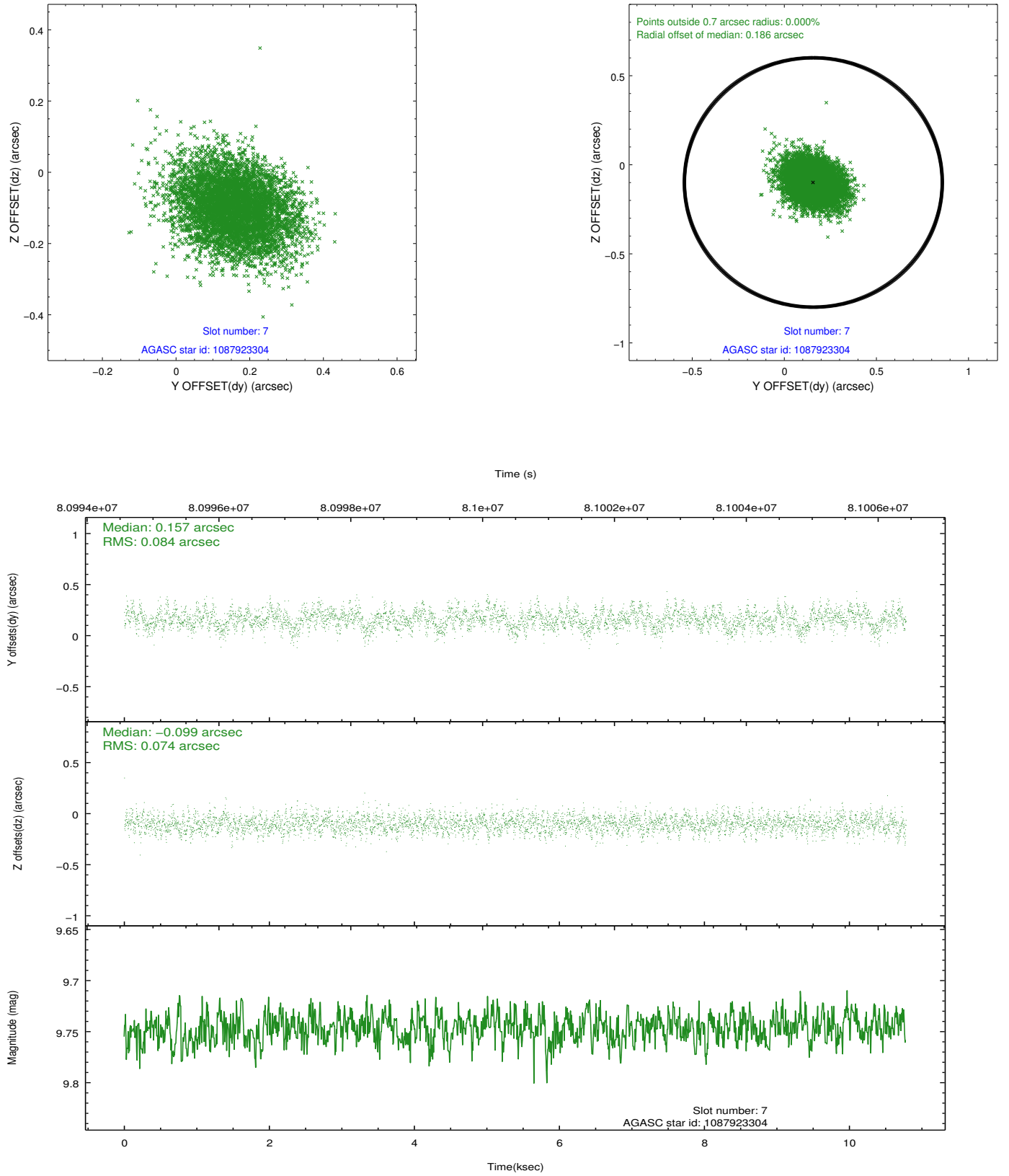


## 2.4.4 Slot 6



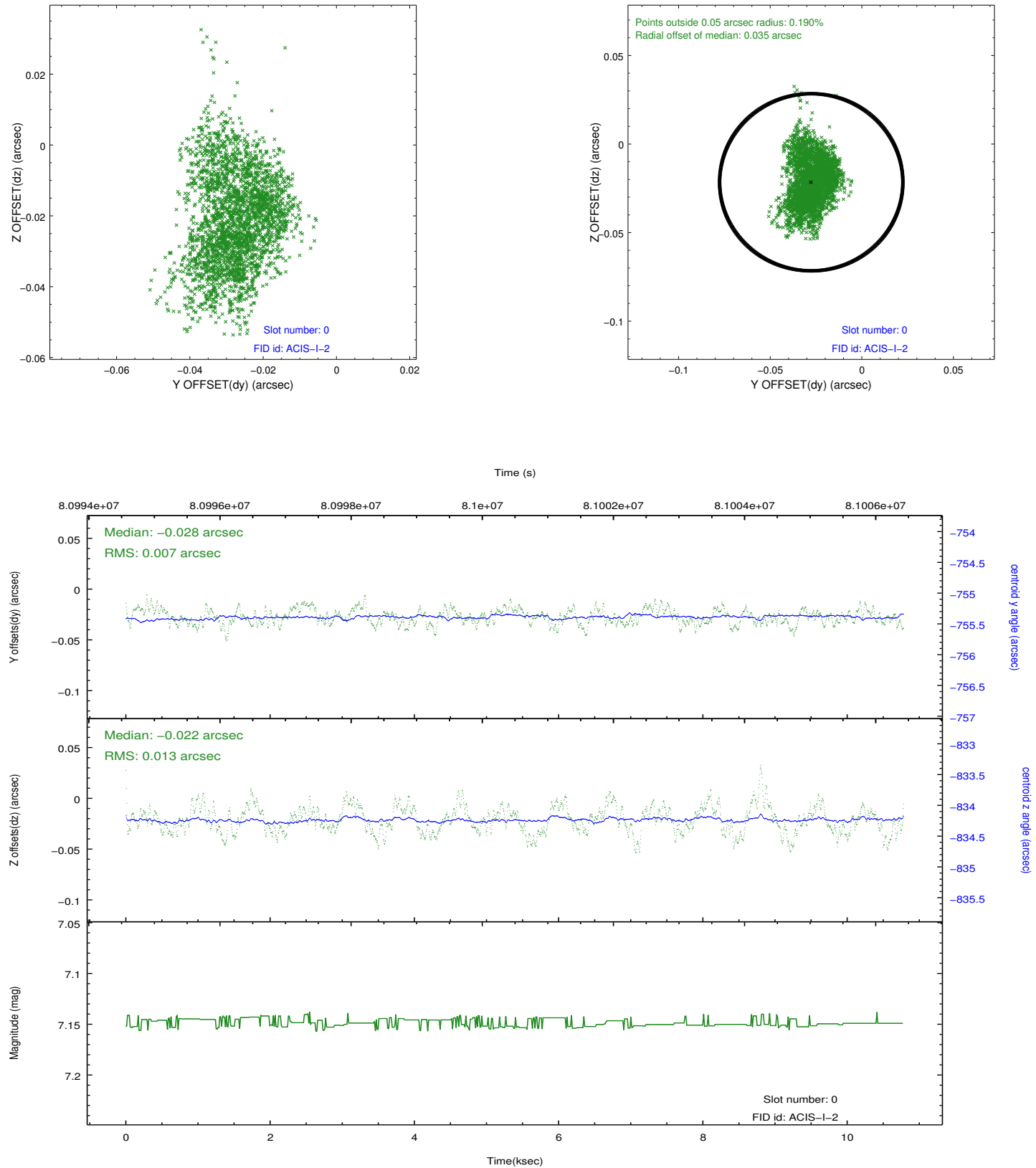


## 2.4.5 Slot 7

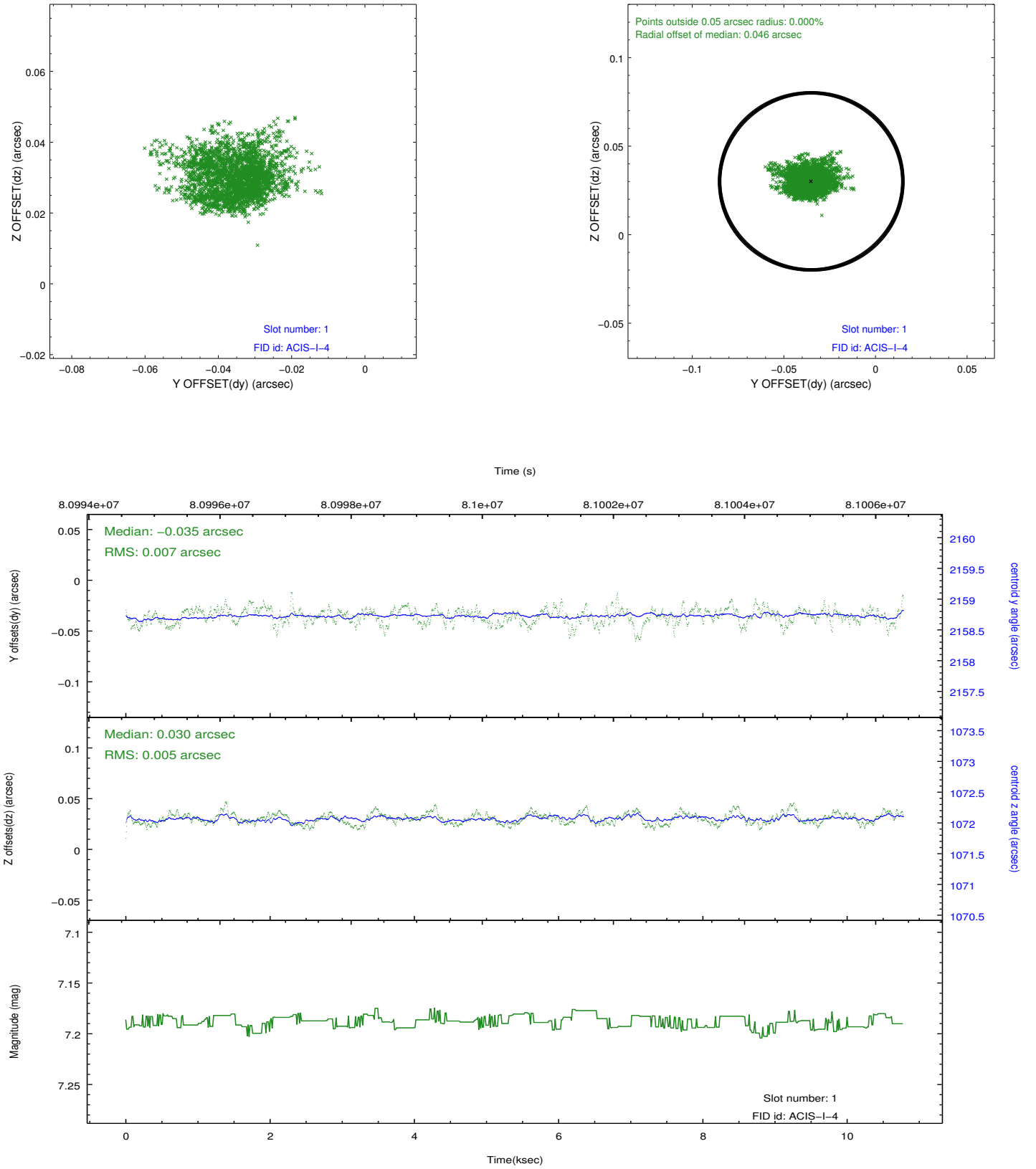


## 2.5 FID Slots

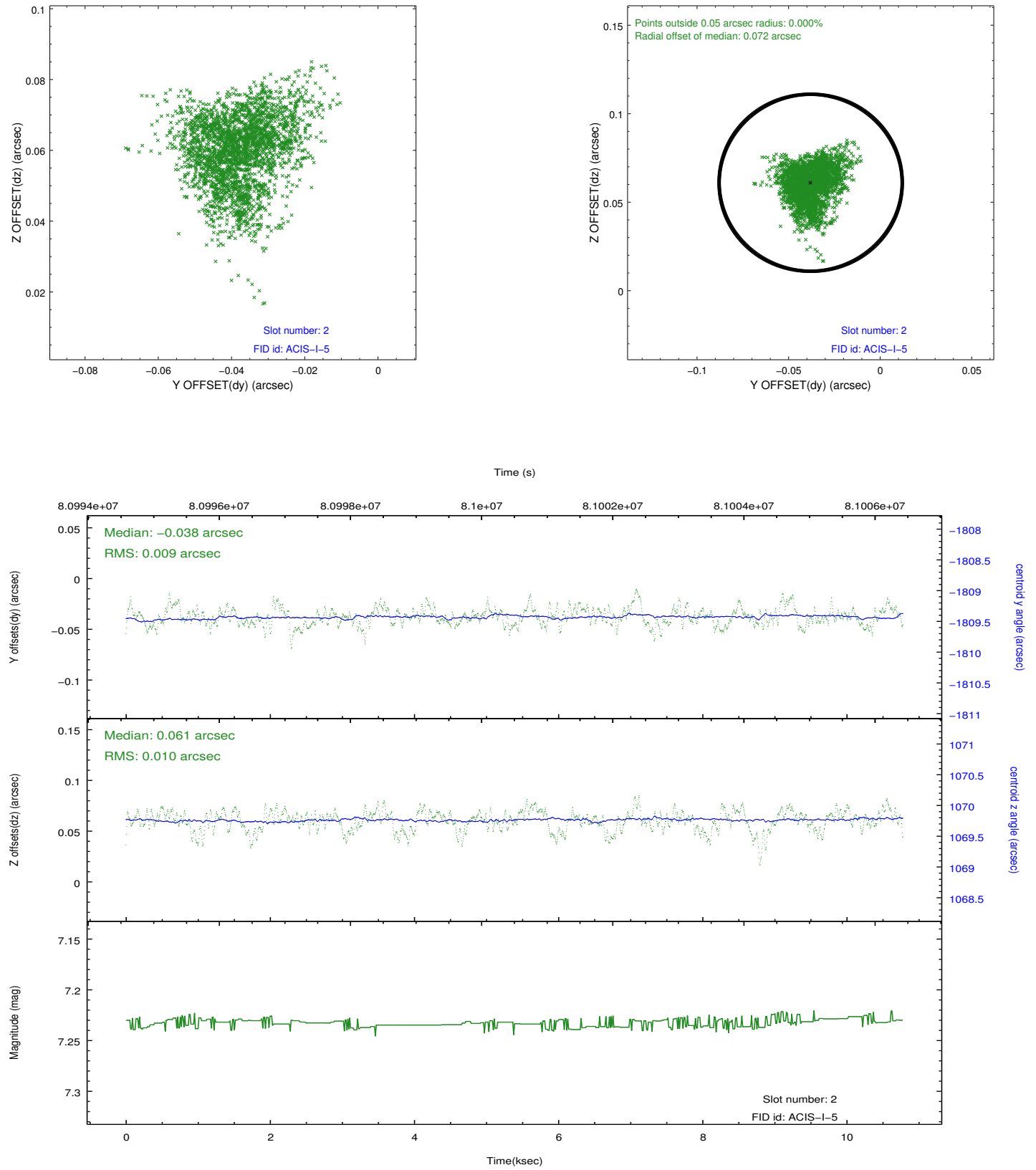
### 2.5.1 Slot 0



## 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)	2012.09.05
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.974

### A.2 Comments