

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 8960 - L2 Version 2  
Chandra X-Ray Center

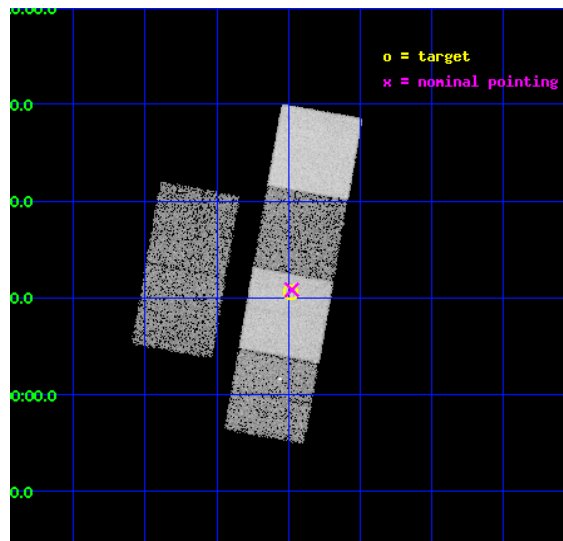
L2 Processing Date : May 12 2012

## 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

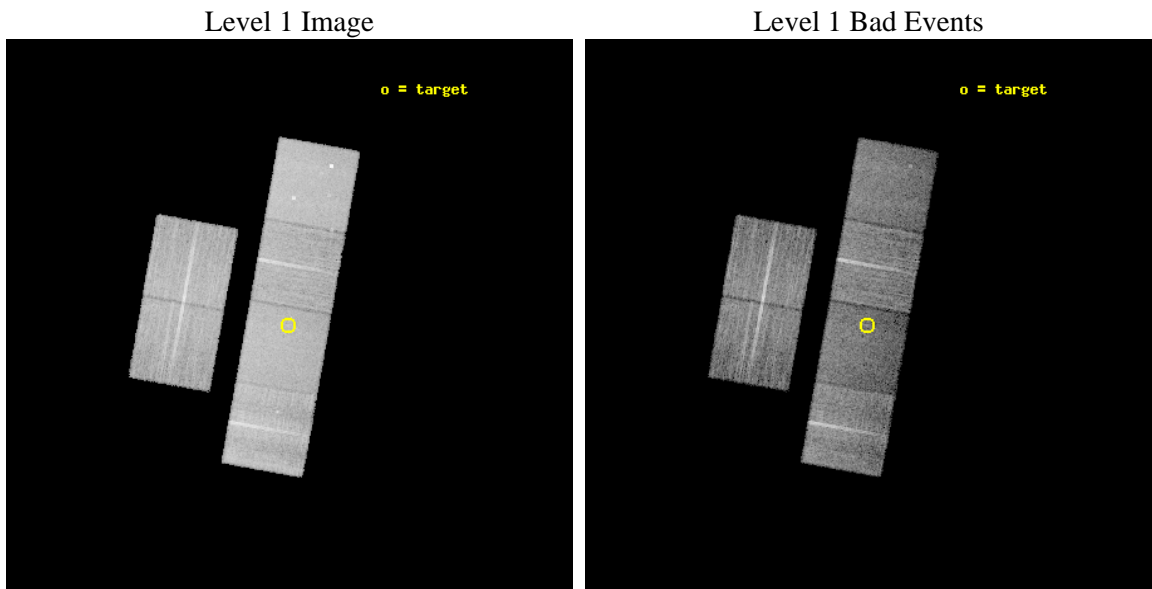
seq_num	300216	Sequence number
obs_id	8960	Observation id
title	A Chandra Legacy Survey of Dynamically Active Globular Clusters	Pr
observer	Prof. David Pooley	Principal investigator
object	NGC 7089	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	323.372083	Observer's specified target RA [deg]
dec_targ	-0.823056	Observer's specified target Dec [deg]
ra_nom	323.36888318916	Nominal RA [deg]
dec_nom	-0.81939121269332	Nominal Dec [deg]
roll_nom	100.12262874572	Nominal Roll [deg]
revision	2	Processing version of data
ontime	11663.999956608	Sum of GTIs [s]
livetime	11516.30336594	Livetime [s]
ontime2	11663.999956608	Sum of GTIs [s]
ontime3	11660.758966386	Sum of GTIs [s]
ontime5	11663.999956608	Sum of GTIs [s]
ontime6	11660.758986354	Sum of GTIs [s]
ontime7	11663.999956608	Sum of GTIs [s]
ontime8	11660.758966386	Sum of GTIs [s]
l2events	136376	Number of level 2 events



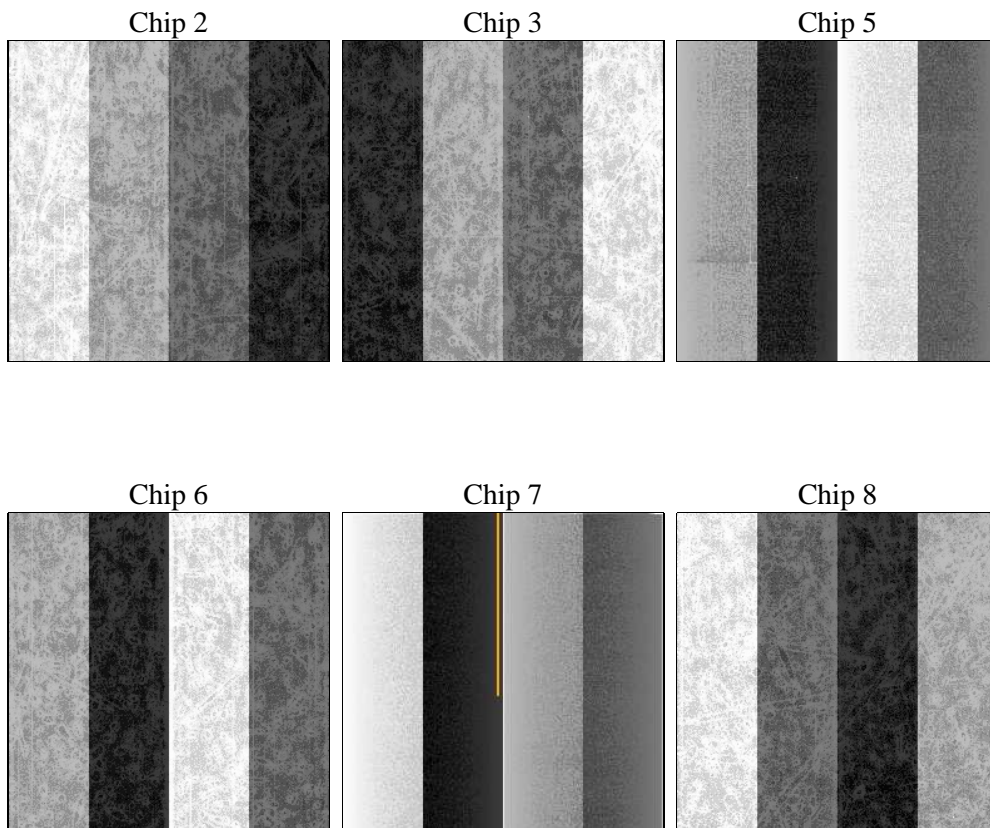
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	11500.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	11663.999956608	Sum of GTIs [s]
caldsver	4.4.9	&#160	ontime2	11663.999956608	Sum of GTIs [s]
date	2012-05-12T14:42:00	Date and time of file creation	ontime3	11660.758966386	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	11663.999956608	Sum of GTIs [s]
			ontime6	11660.758966354	Sum of GTIs [s]
			ontime7	11663.999956608	Sum of GTIs [s]
			ontime8	11660.758966386	Sum of GTIs [s]
			l1events	618179	Number of level 1 events

### 2.1.4 Events

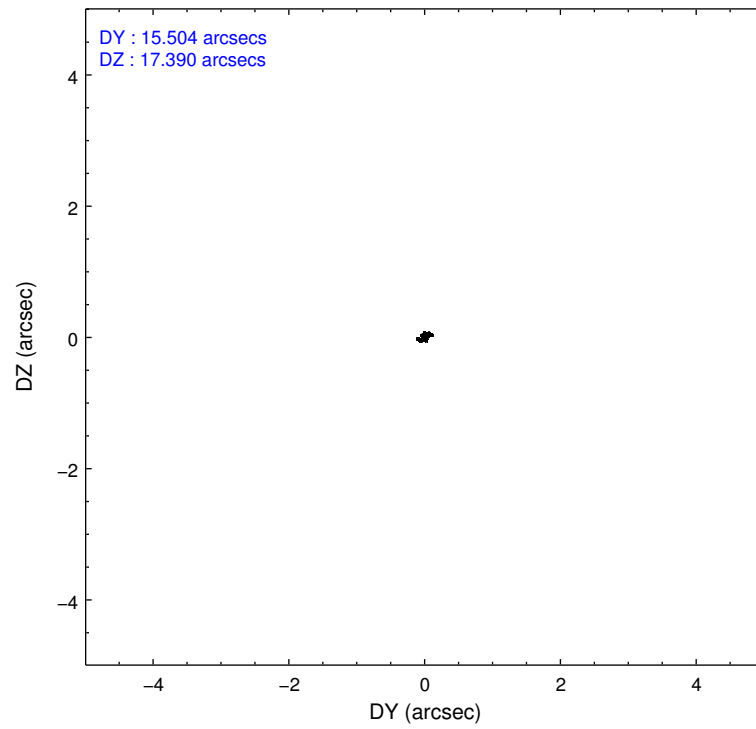
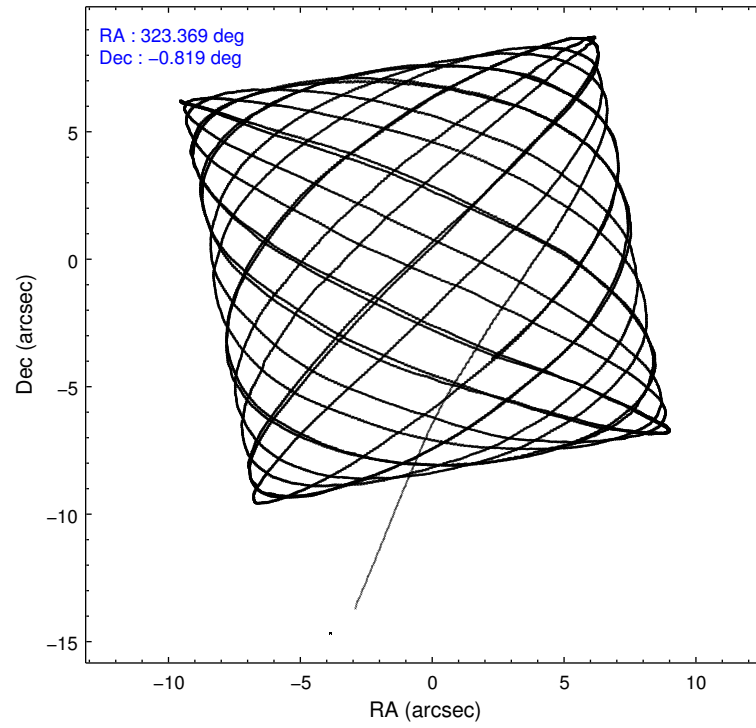
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	98370	86578	126469	90590	102036	114136	grade 0 events	3184	2845	6617	3293	4387	8500
rejected events	89547	78287	63587	81239	55656	85848		3%	3%	5%	3%	4%	7%
rejected %	91%	90%	50%	89%	54%	75%	grade 1 events	56	59	378	40	152	96
								0%	0%	0%	0%	0%	0%
							grade 2 events	2135	1850	18759	2138	9537	6513
								2%	2%	14%	2%	9%	5%
							grade 3 events	935	1007	2615	1019	4392	3103
								0%	1%	2%	1%	4%	2%
							grade 4 events	1022	974	2633	1041	4250	2816
								1%	1%	2%	1%	4%	2%
							grade 5 events	3030	3438	9892	3756	10782	5222
								3%	3%	7%	4%	10%	4%
							grade 6 events	1637	1695	32809	1936	24235	7554
								1%	1%	25%	2%	23%	6%
							grade 7 events	86371	74710	52766	77367	44301	80332
								87%	86%	41%	85%	43%	70%

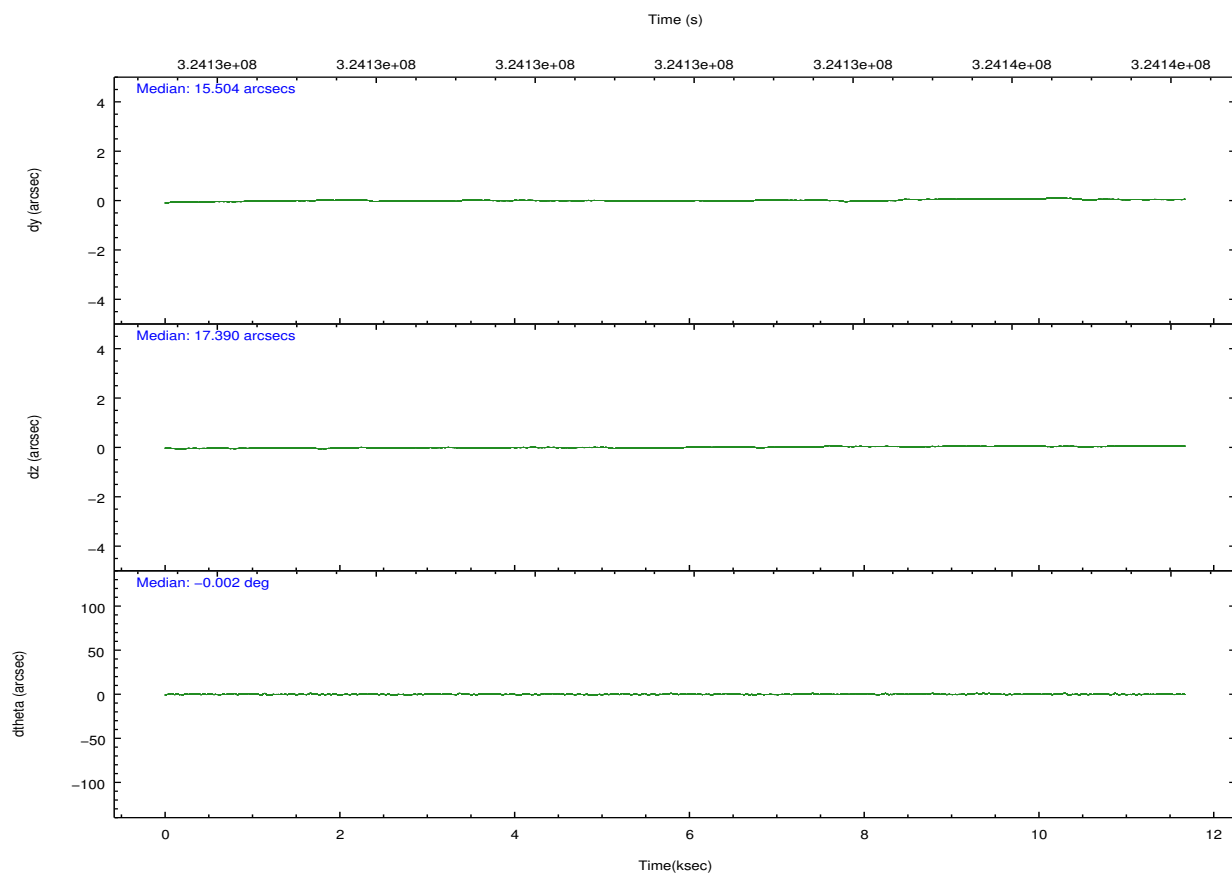
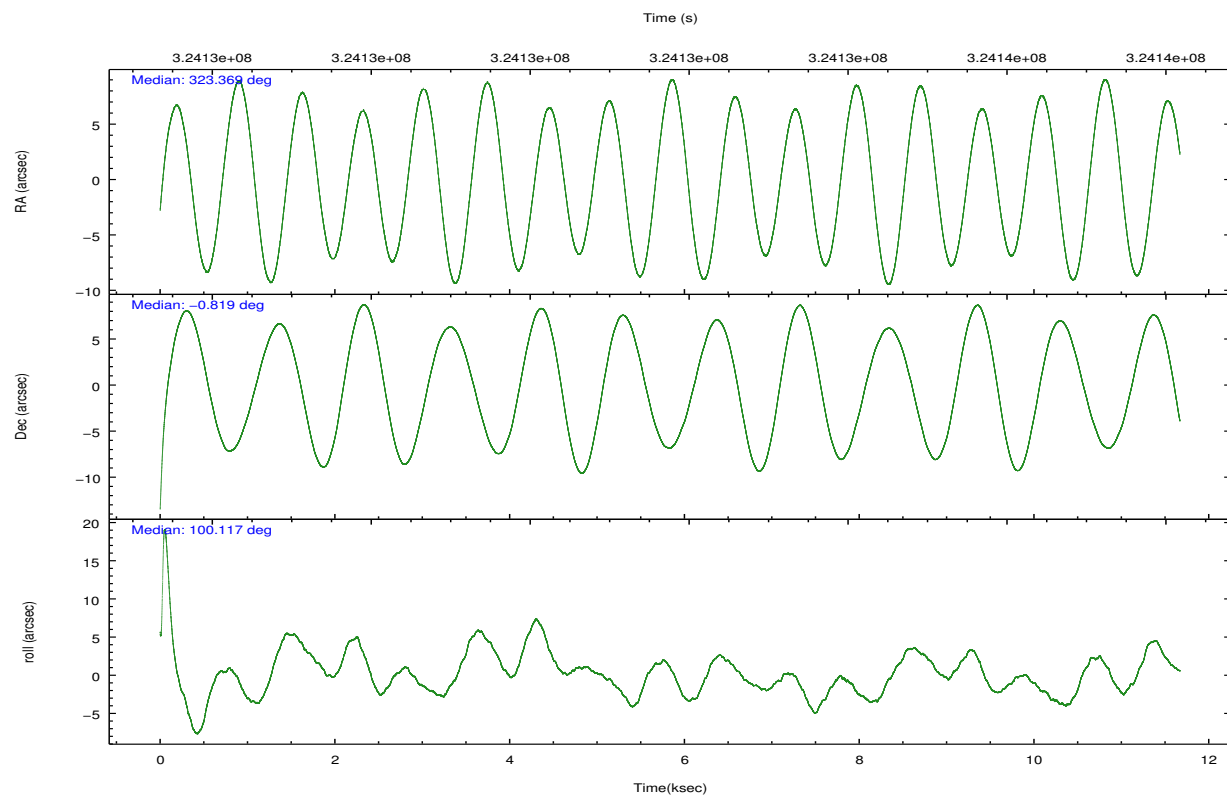


## 2.2 Compared Parameters

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	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	323.386758	323.3688831891628	CCD I2 on	O1	Y
[deg] Pointing Dec	-0.840108	-0.8193912126933165	CCD I3 on	O2	Y
[deg] Pointing Roll	99.966265	100.1226287457201	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	Y	Y
[s] Observation start time (MET)	324126091.184000	324124976.80757	CCD S5 on	N	N
Observation start date	2008-04-09T11:00:26	2008-04-09T10:42:56	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	324137591.184000	324137864.6457	On-chip summing requested	N	N
Observation end date	2008-04-09T14:12:06	2008-04-09T14:17:44	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



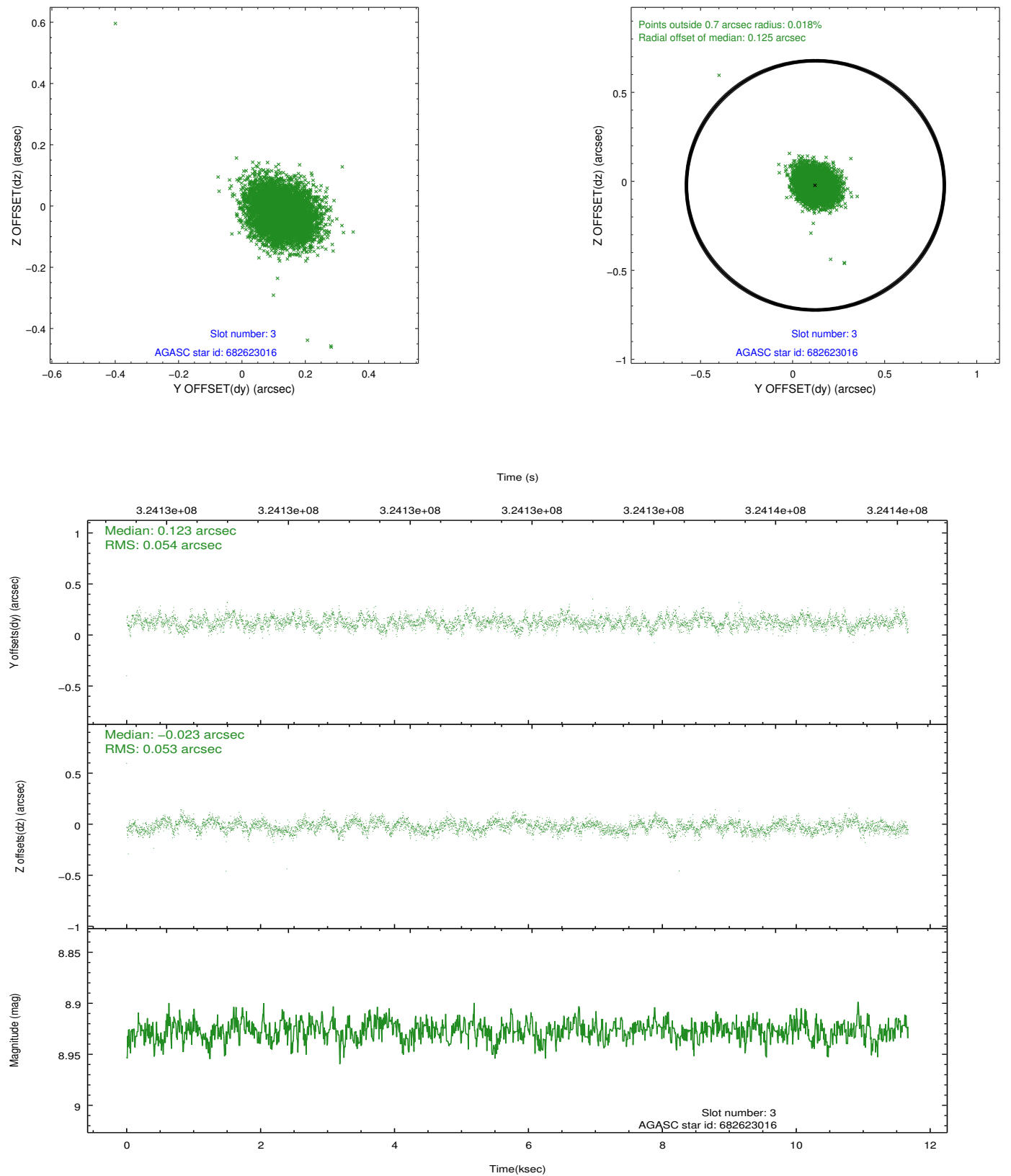


### Slot Statistics

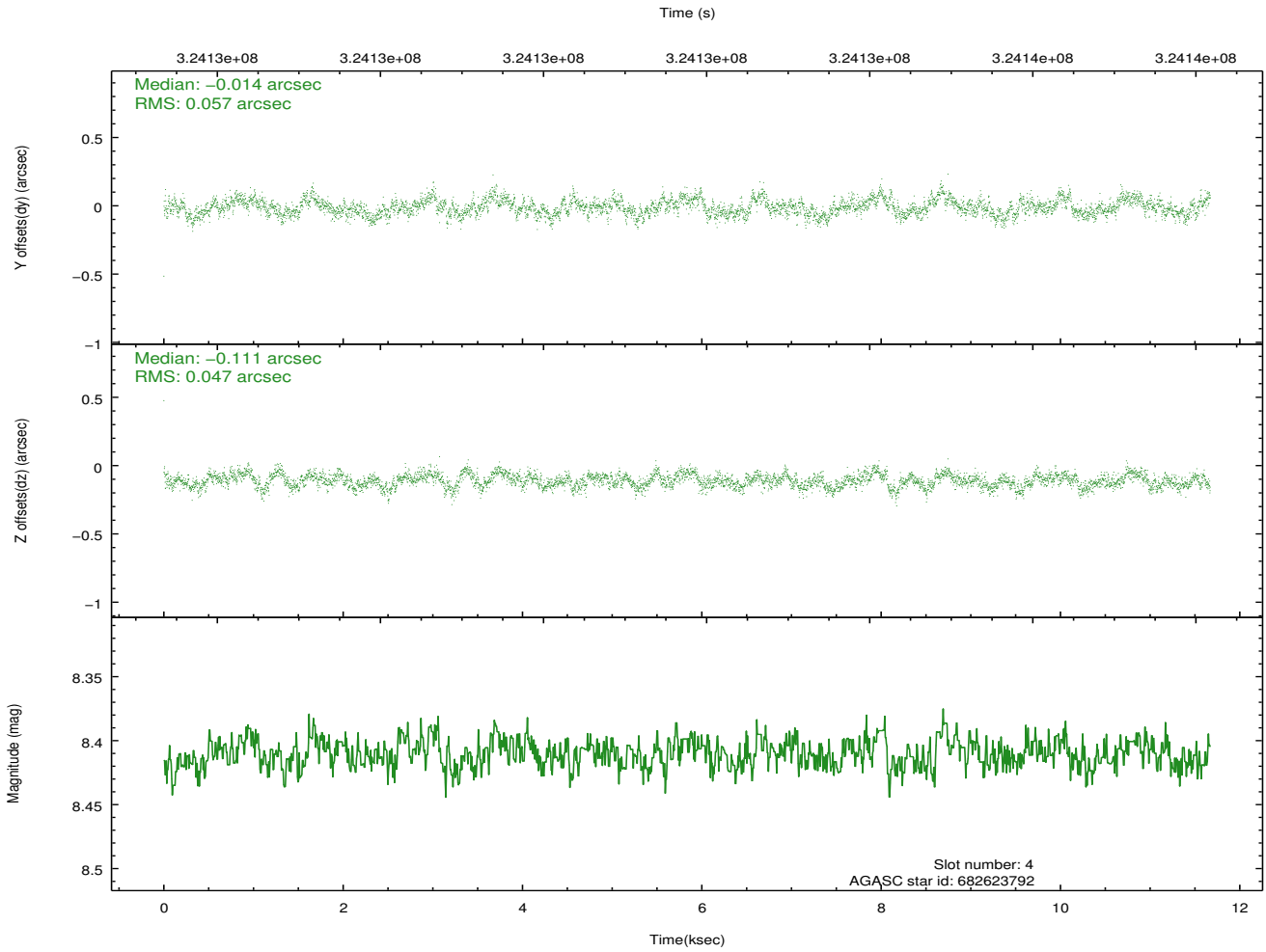
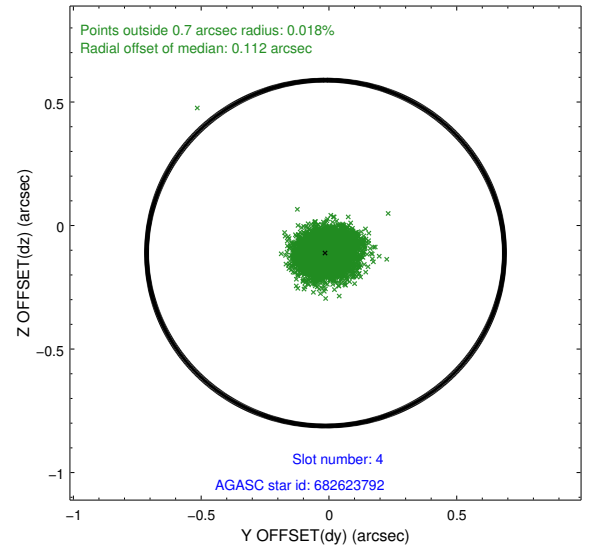
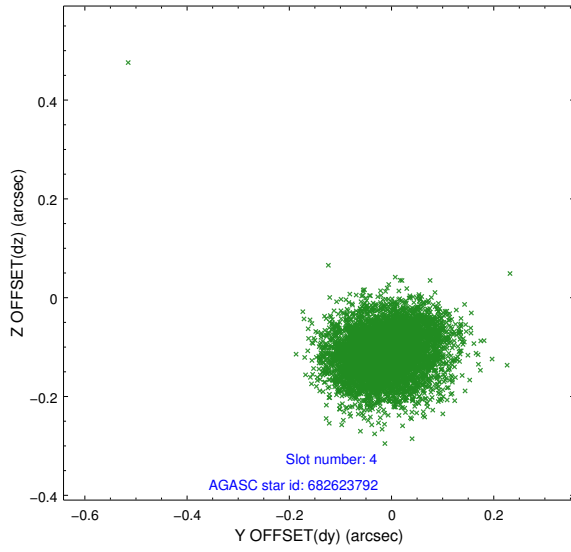
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.88	2847	-0.055	-0.020	0.007	0.012	0.000000	0.000000	-768.60	-1738.78
1	FID	ACIS-S-4	6.97	2847	0.121	0.032	0.006	0.010	0.000000	0.000000	2144.71	169.22
2	FID	ACIS-S-5	6.99	2847	-0.097	-0.003	0.007	0.012	0.000000	0.000000	-1820.88	163.46
3	GUIDE	682623016	8.93	5693	0.123	-0.023	0.079	0.127	323.277710	-1.353202	-1751.50	706.68
4	GUIDE	682623792	8.41	5694	-0.014	-0.111	0.078	0.125	323.021646	-1.542889	-2265.24	1732.50
5	GUIDE	682623840	9.24	5684	0.134	-0.186	0.094	0.160	322.916090	-1.560326	-2261.44	2117.80
6	GUIDE	682627808	9.50	5693	-0.324	-0.123	0.142	0.222	322.724561	-0.472766	1713.82	2120.09
7	GUIDE	682630648	9.77	5684	0.072	0.461	0.130	0.228	324.045121	-1.305174	-2059.32	-2042.84

## 2.4 Star Slots

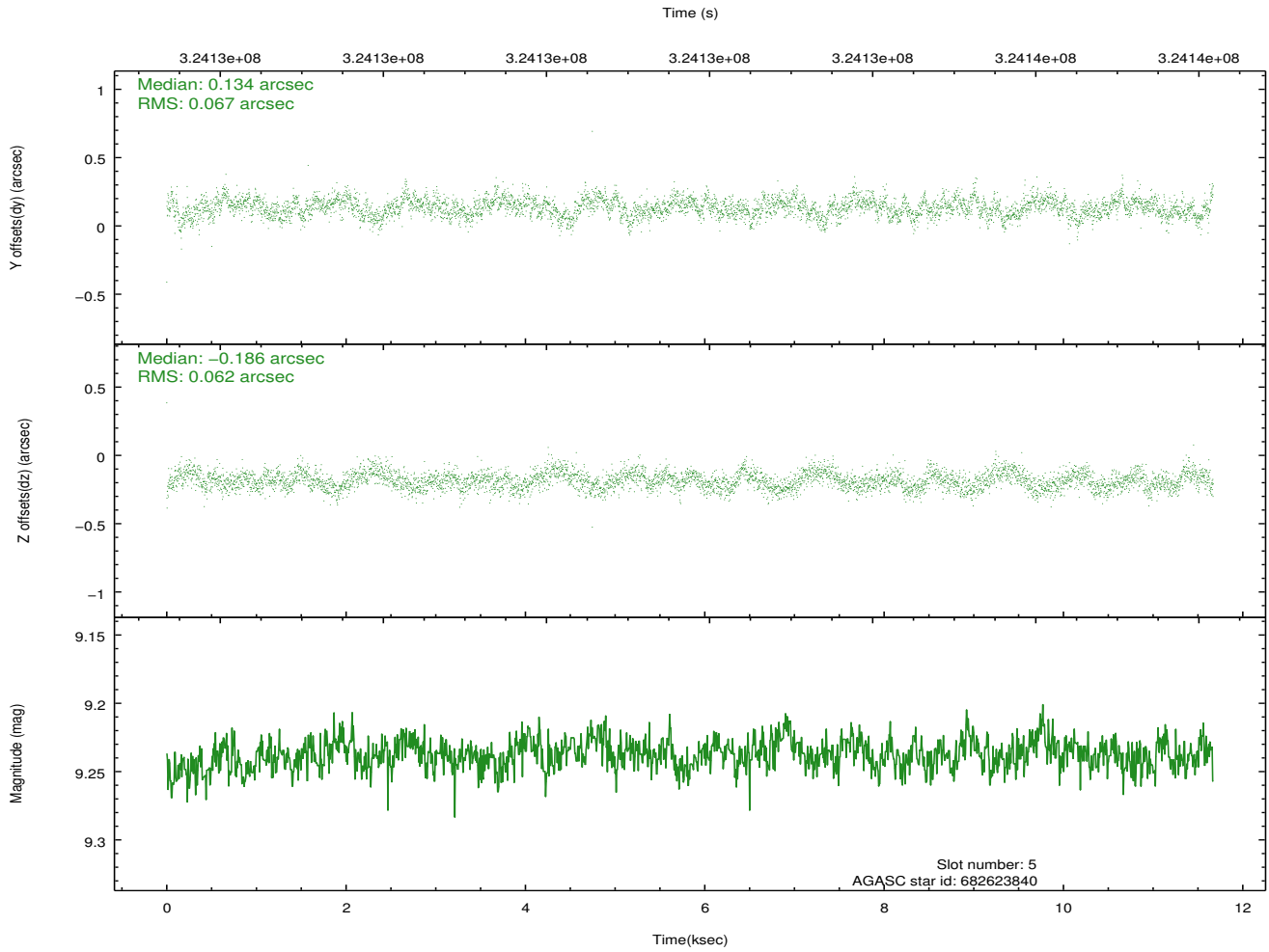
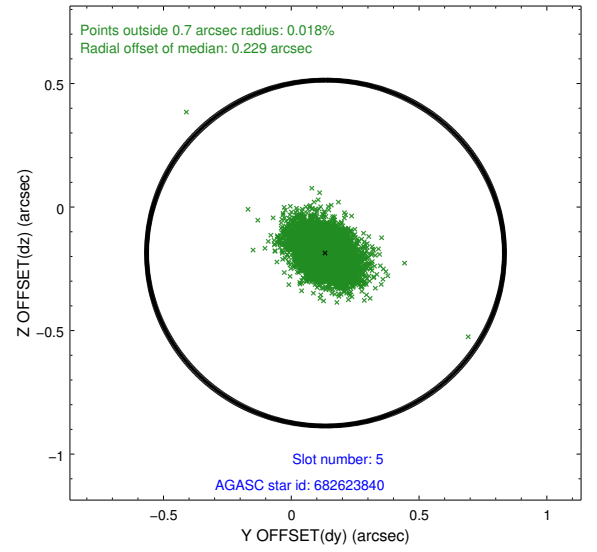
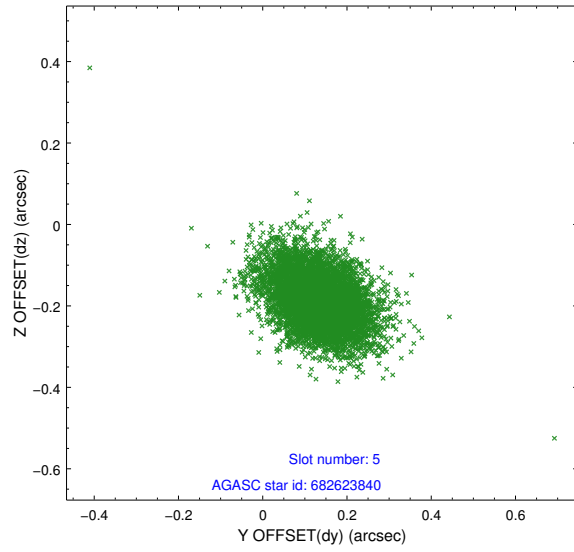
### 2.4.1 Slot 3



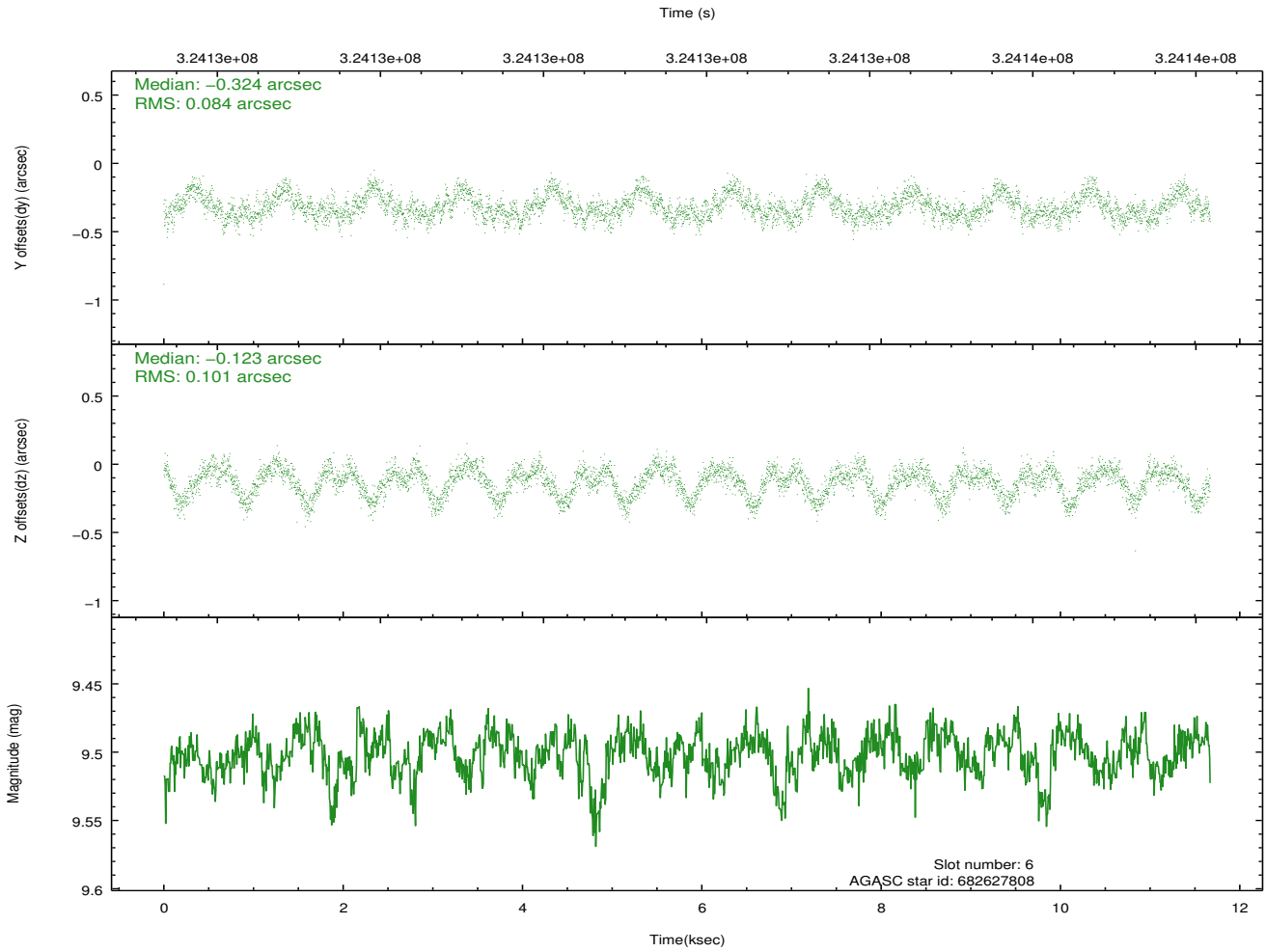
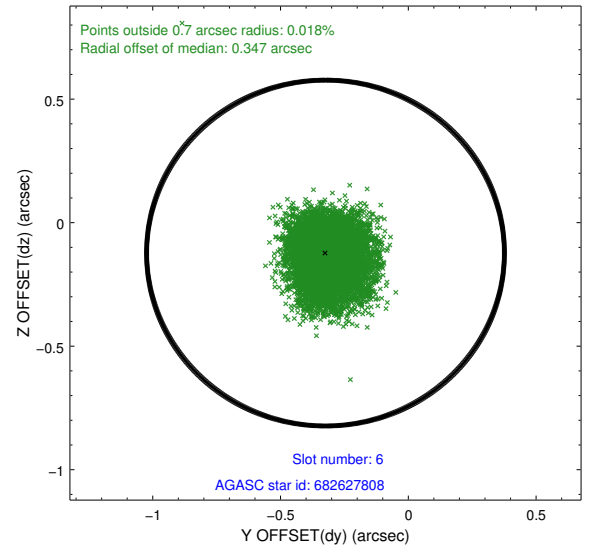
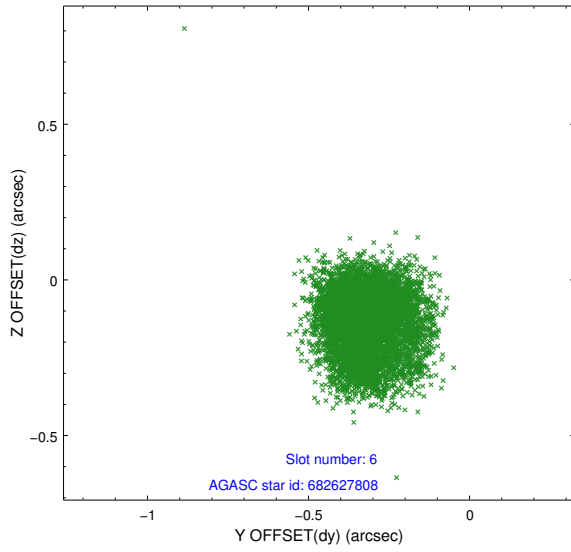
## 2.4.2 Slot 4



### 2.4.3 Slot 5

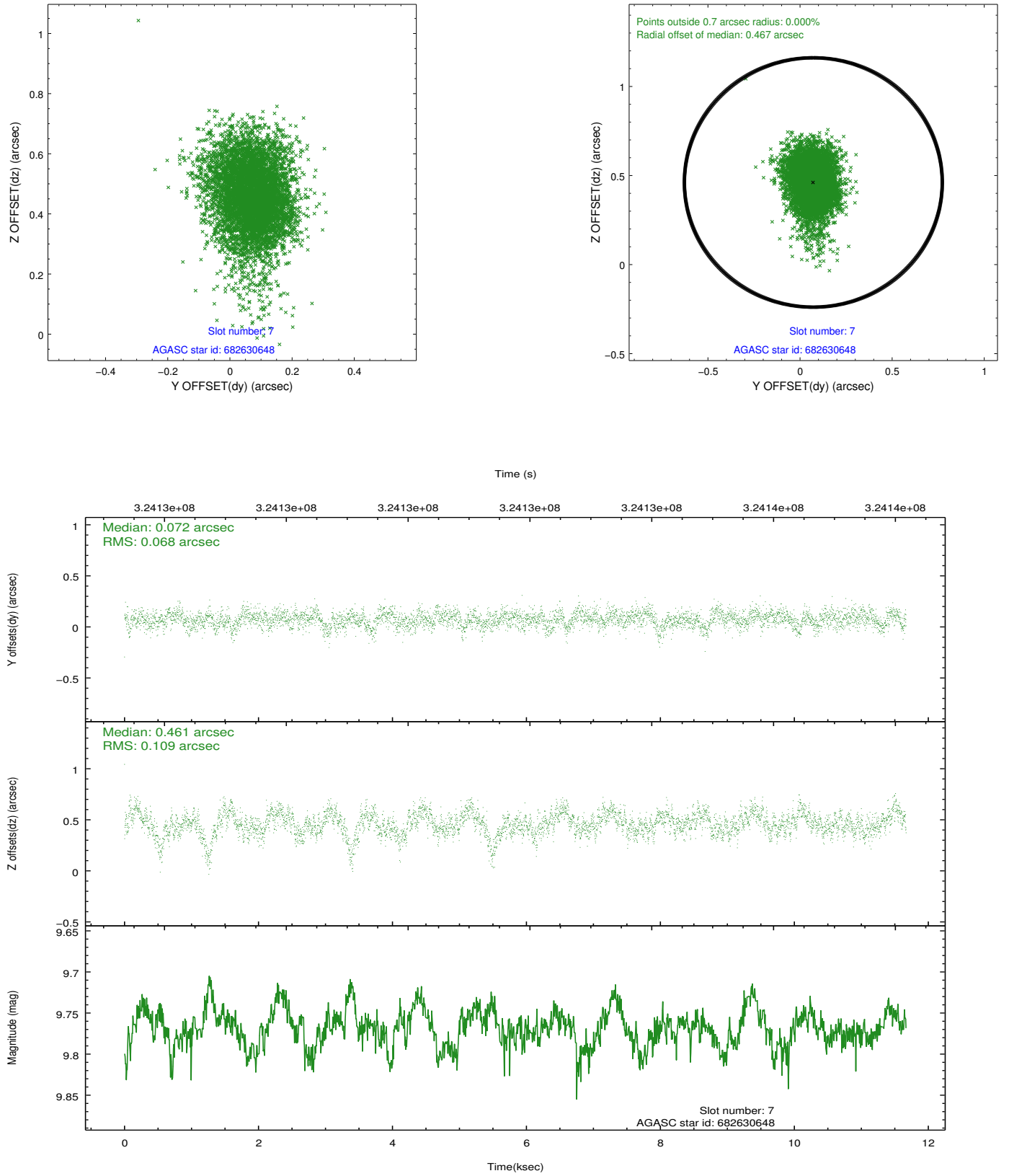


## 2.4.4 Slot 6



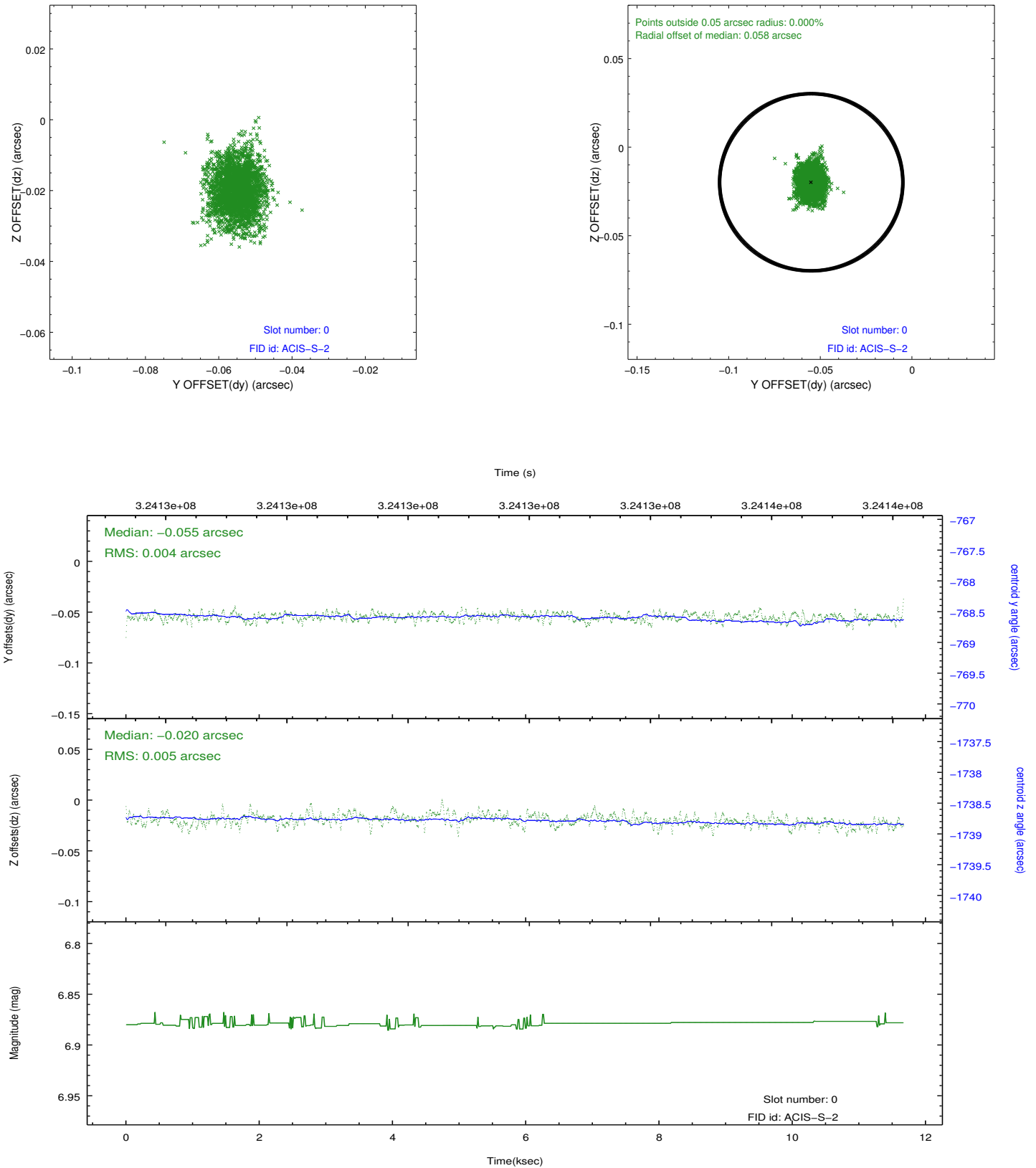


## 2.4.5 Slot 7

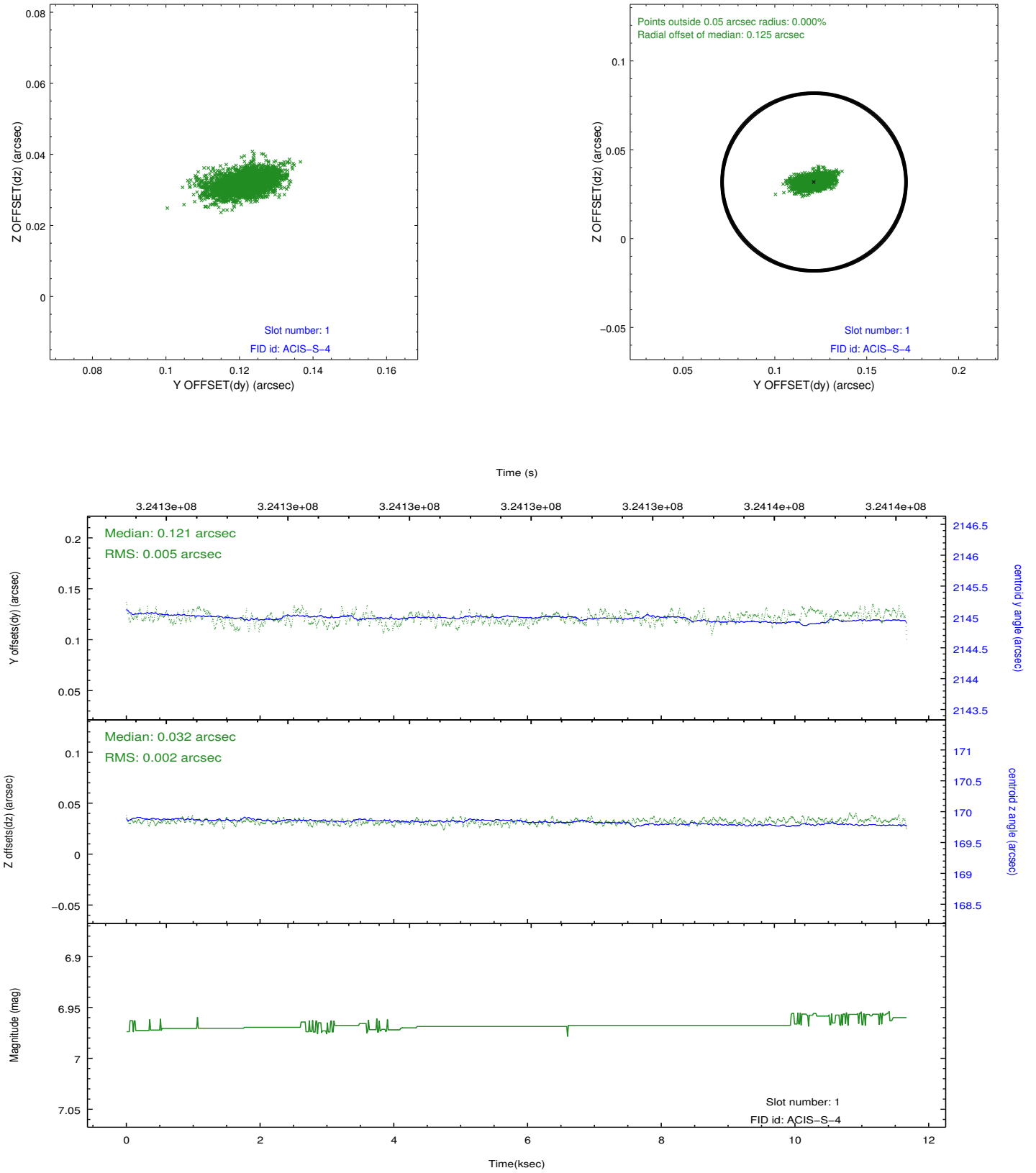


## 2.5 FID Slots

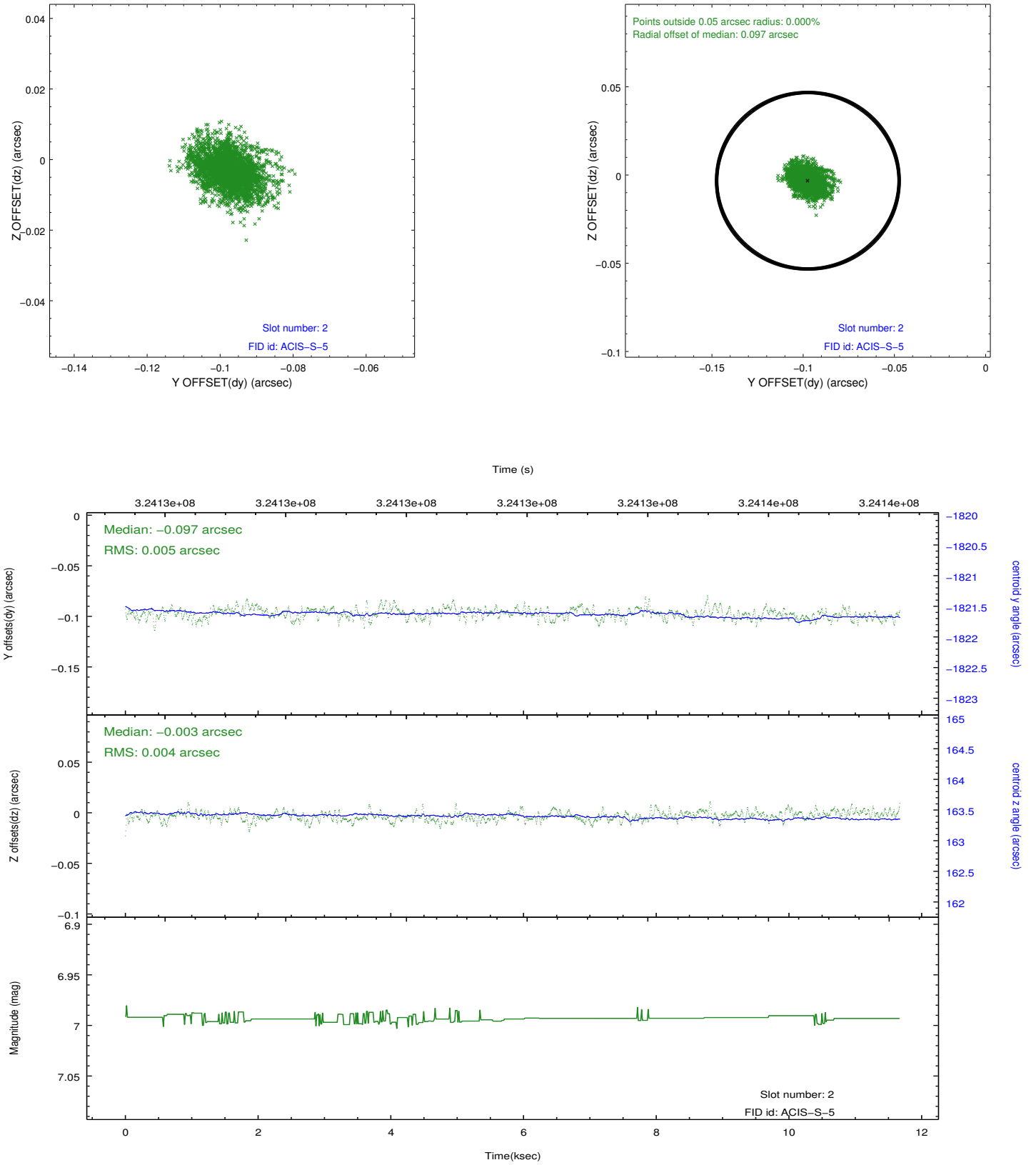
### 2.5.1 Slot 0



## 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)	2012.05.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	11.6639999

### A.2 Comments