

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 12036 - L2 Version 2  
Chandra X-Ray Center

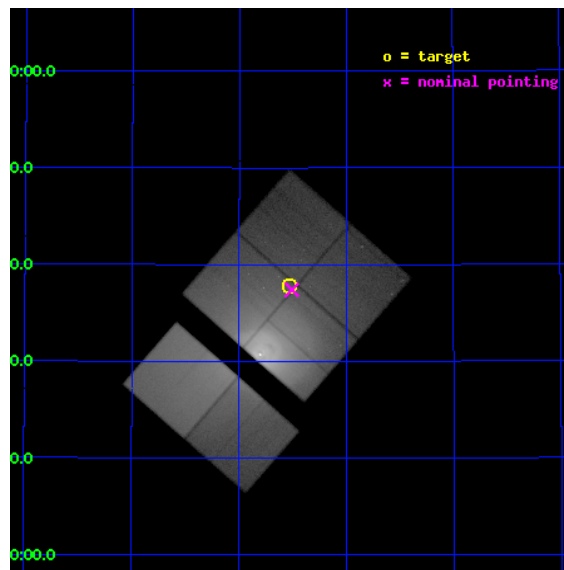
L2 Processing Date : Jun 17 2012

## 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

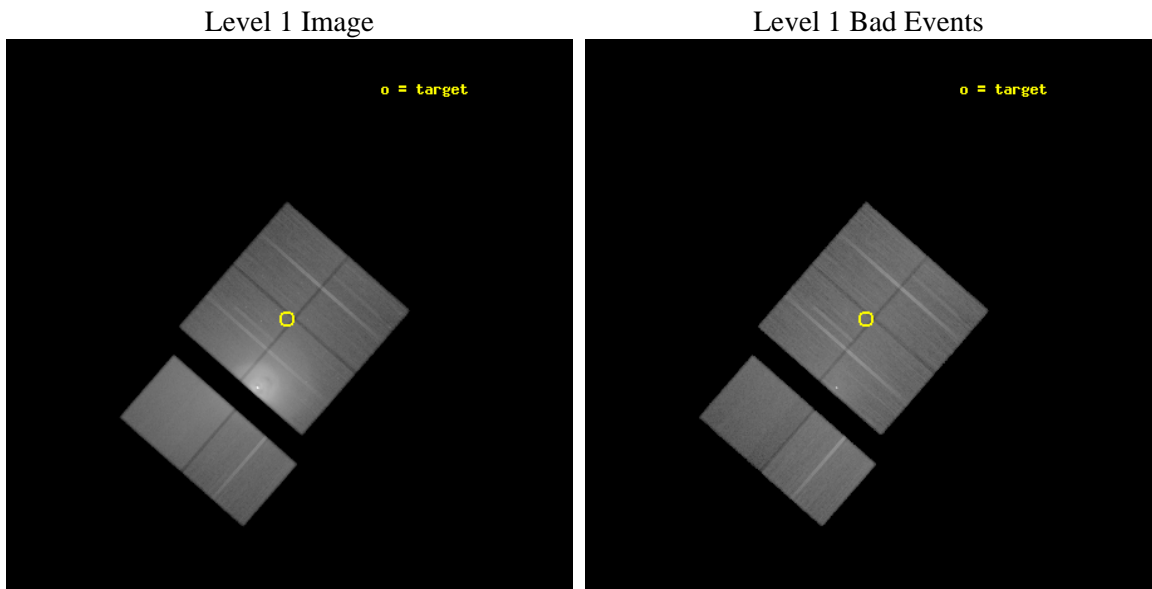
seq_num	800855	Sequence number
obs_id	12036	Observation id
title	Extending the Deep Image of the Perseus Cluster: The Outer Bubbles, Filaments and Ripples	Proposal title
observer	Professor Andrew Fabian	Principal investigator
object	Perseus cluster, Abell 426	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	49.8825	Observer's specified target RA [deg]
dec_targ	41.630278	Observer's specified target Dec [deg]
ra_nom	49.876855726904	Nominal RA [deg]
dec_nom	41.623389251525	Nominal Dec [deg]
roll_nom	221.21242527496	Nominal Roll [deg]
revision	2	Processing version of data
ontime	48537.599819243	Sum of GTIs [s]
livetime	47922.987504498	Livetime [s]
ontime0	48531.117788672	Sum of GTIs [s]
ontime1	48534.358789027	Sum of GTIs [s]
ontime2	48537.599819243	Sum of GTIs [s]
ontime3	48537.599819243	Sum of GTIs [s]
ontime6	48537.599819243	Sum of GTIs [s]
ontime7	48537.599819243	Sum of GTIs [s]
l2events	2988778	Number of level 2 events



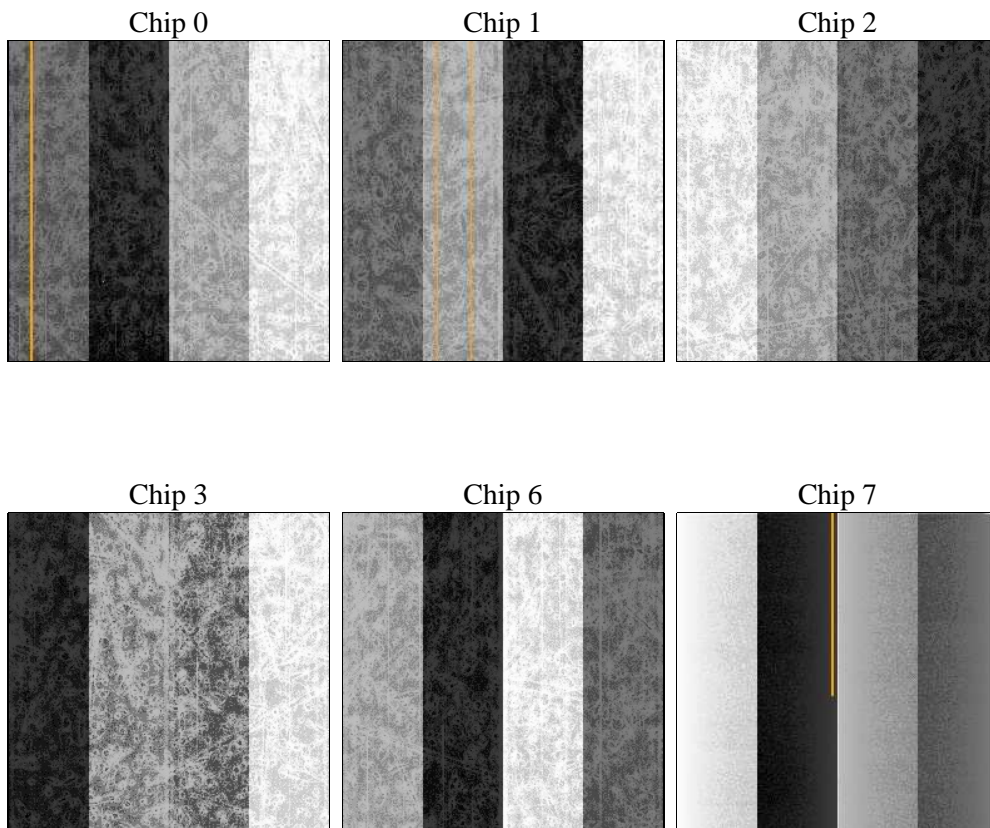
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	48500.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	48537.599819243	Sum of GTIs [s]
caldbver	4.4.10	&#160	ontime0	48531.117788672	Sum of GTIs [s]
date	2012-06-17T18:14:46	Date and time of file creation	ontime1	48534.358789027	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	48537.599819243	Sum of GTIs [s]
			ontime3	48537.599819243	Sum of GTIs [s]
			ontime6	48537.599819243	Sum of GTIs [s]
			ontime7	48537.599819243	Sum of GTIs [s]
			l1events	5418034	Number of level 1 events

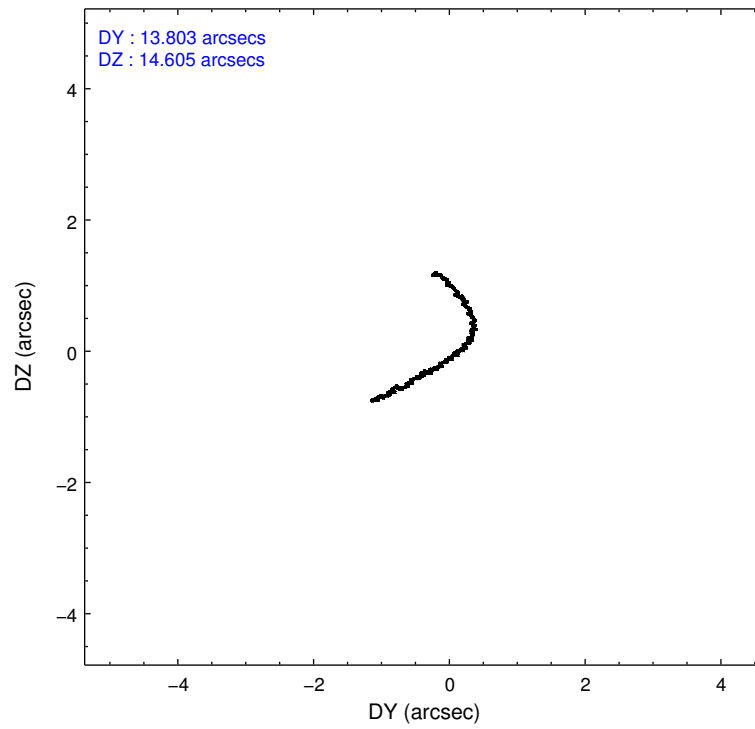
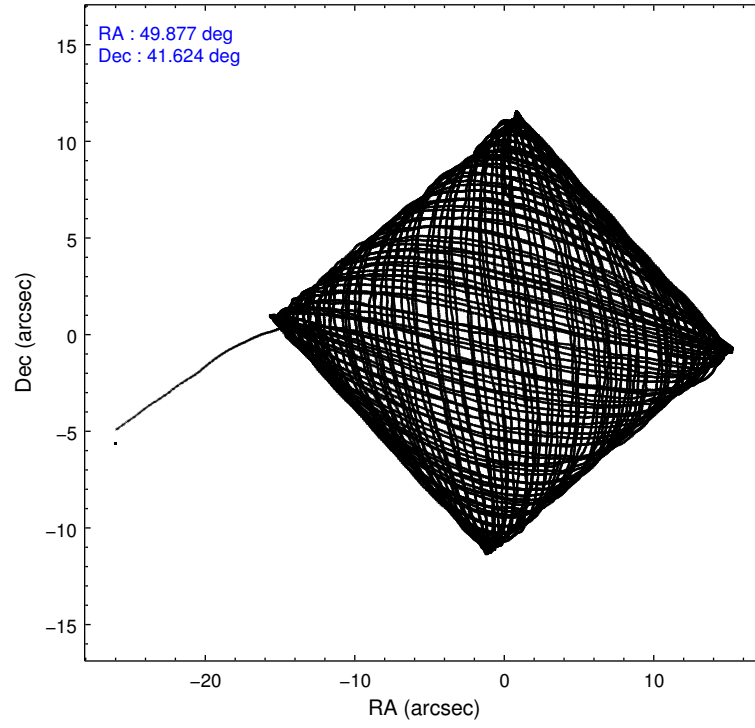
### 2.1.4 Events

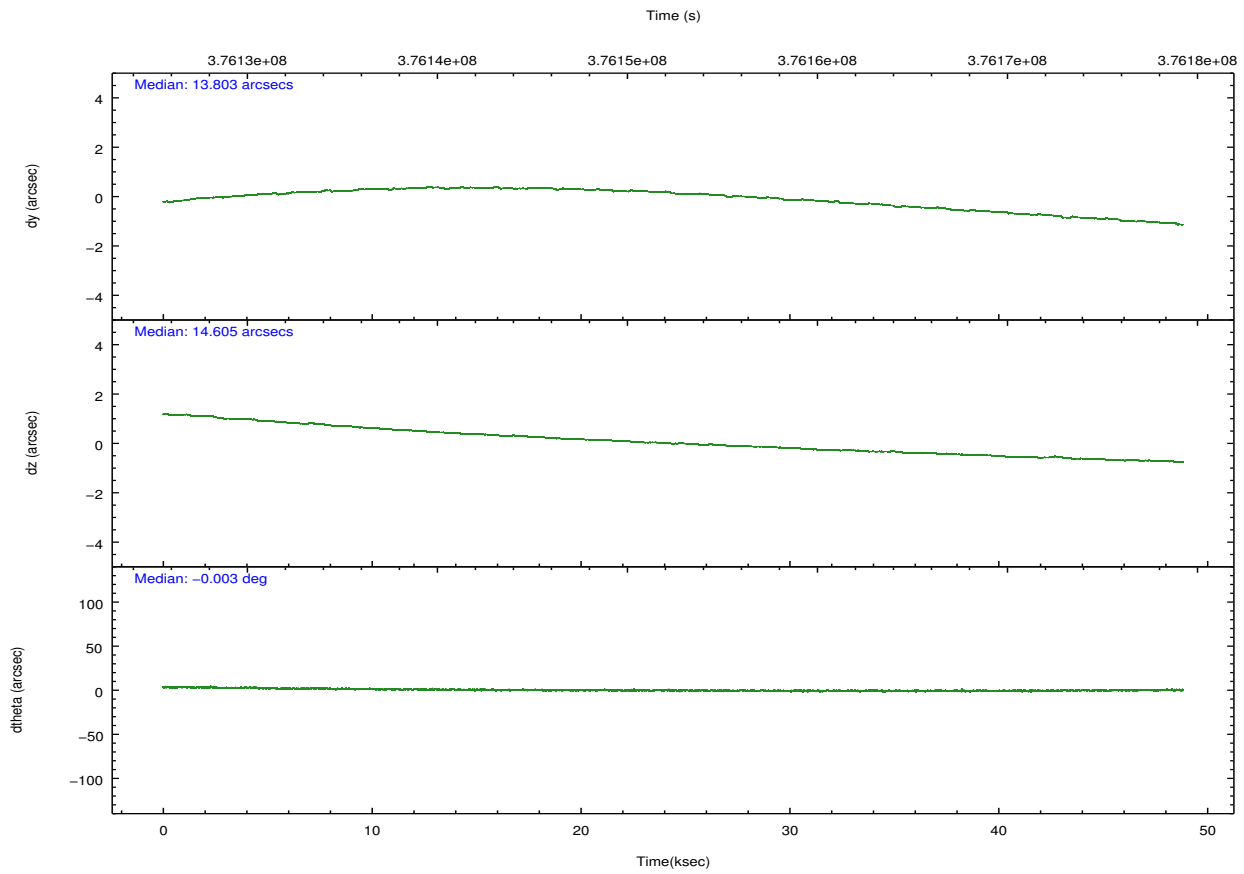
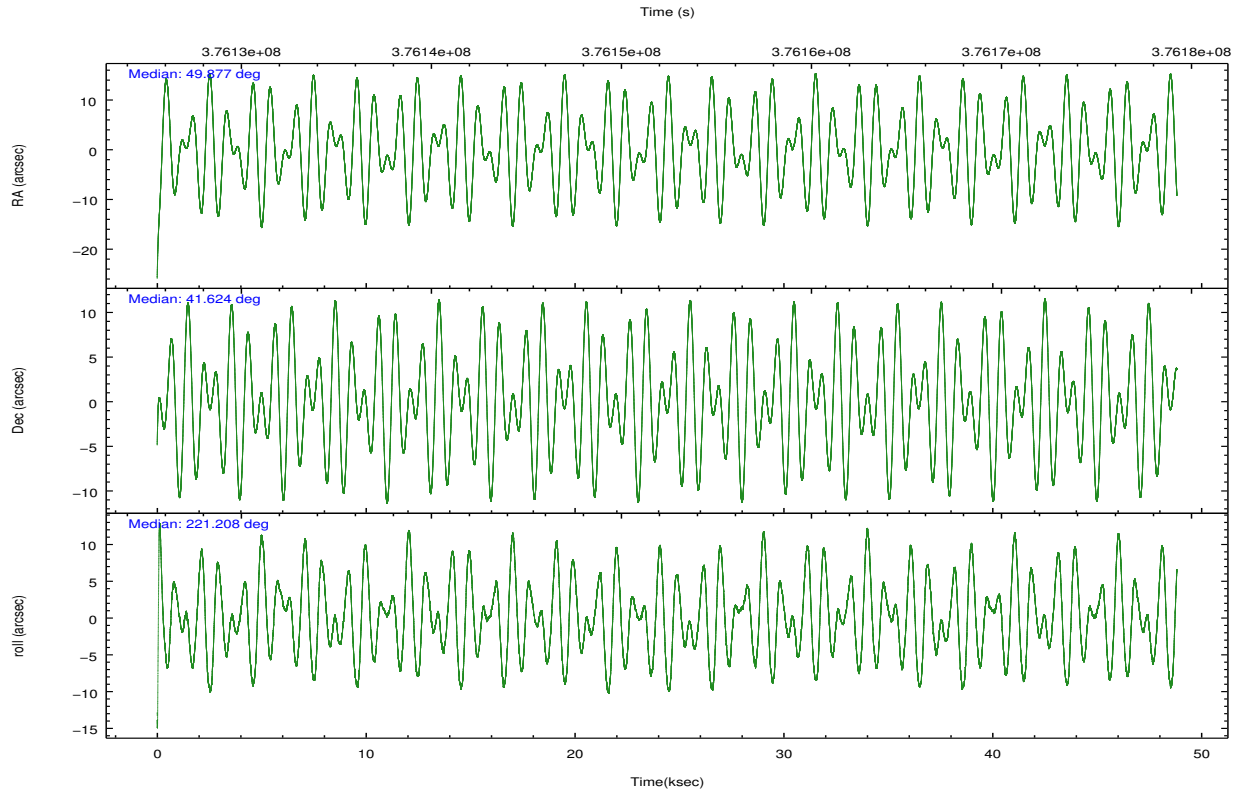
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	499886	485968	2007922	865441	653744	905073	grade 0 events	94811	79379	1241282	359257	181350	130299
rejected events	355362	359401	450081	396177	402179	273190		18%	16%	61%	41%	27%	14%
rejected %	71%	73%	22%	45%	61%	30%	grade 1 events	738	582	13205	2825	1266	774
								0%	0%	0%	0%	0%	0%
							grade 2 events	21790	19552	161968	53333	32328	154078
								4%	4%	8%	6%	4%	17%
							grade 3 events	8134	7655	53206	18043	11150	66858
								1%	1%	2%	2%	1%	7%
							grade 4 events	7855	7599	53176	18366	11001	66720
								1%	1%	2%	2%	1%	7%
							grade 5 events	16112	17368	23861	19921	19468	53883
								3%	3%	1%	2%	2%	5%
							grade 6 events	11949	12401	48404	20321	15773	214010
								2%	2%	2%	2%	2%	23%
							grade 7 events	338497	341432	412820	373375	381408	218451
								67%	70%	20%	43%	58%	24%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	49.888559	49.8768557269044	CCD I2 on	Y	Y
[deg] Pointing Dec	41.649450	41.62338925152509	CCD I3 on	Y	Y
[deg] Pointing Roll	220.995973	221.2124252749632	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O2	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	O1	Y
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	376128317.184000	376127090.8447	CCD S5 on	N	N
Observation start date	2009-12-02T08:04:11	2009-12-02T07:44:50	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	376176817.184000	376177131.34722	On-chip summing requested	N	N
Observation end date	2009-12-02T21:32:31	2009-12-02T21:38:51	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



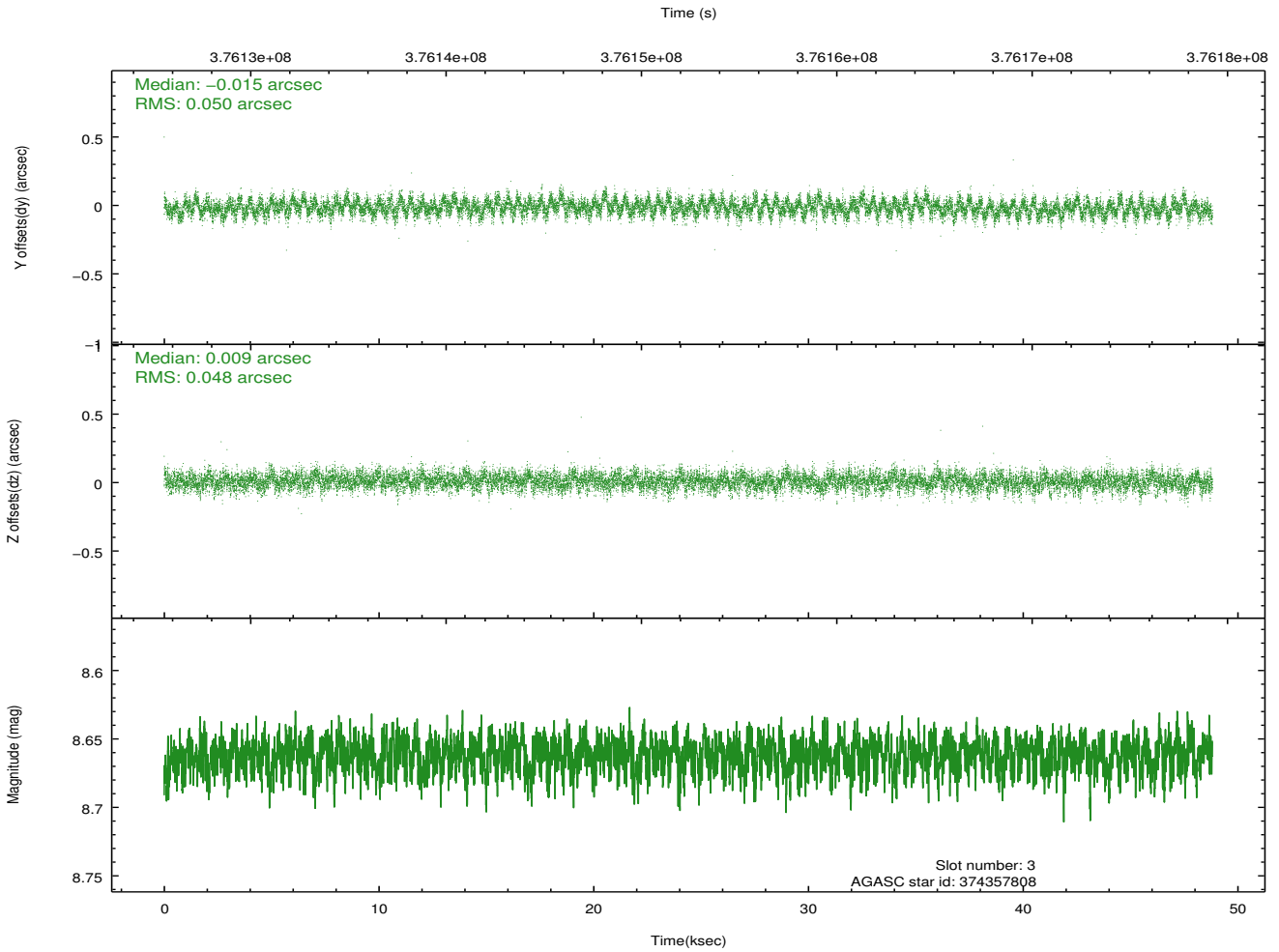
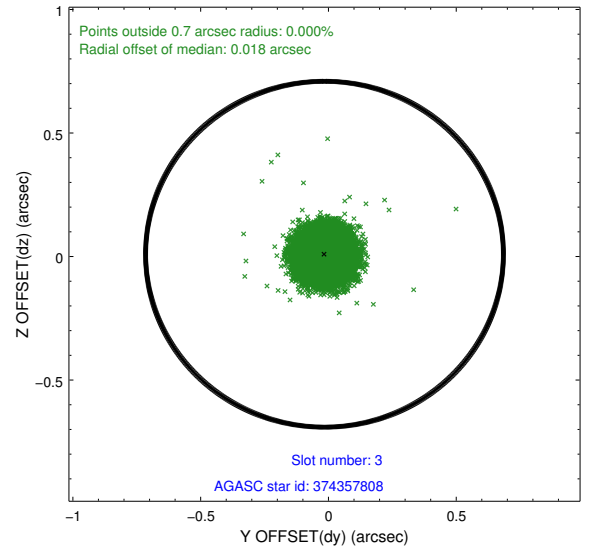
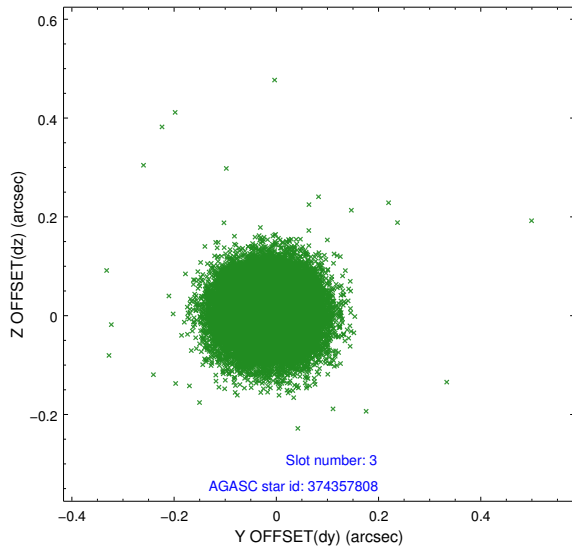


### Slot Statistics

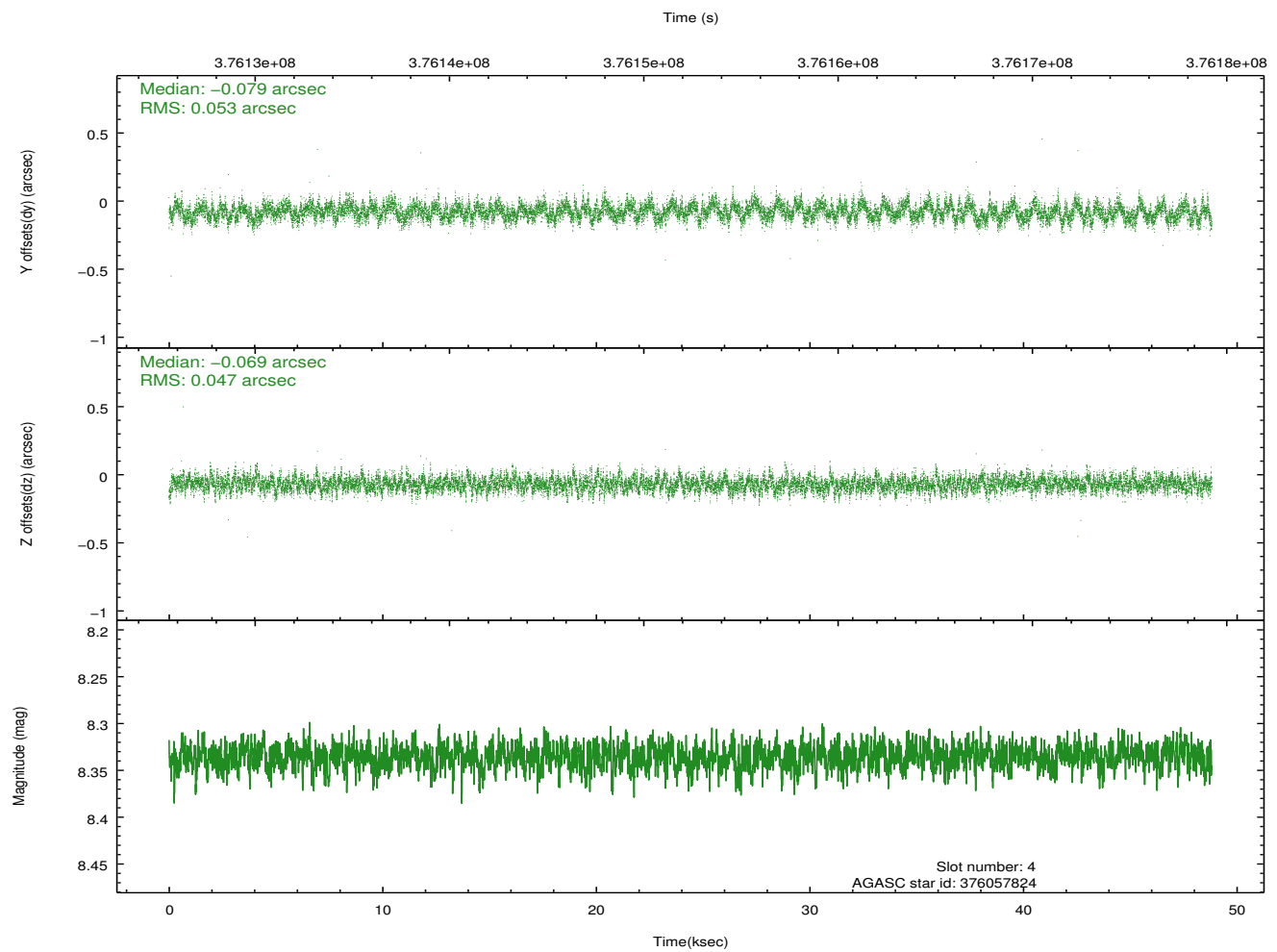
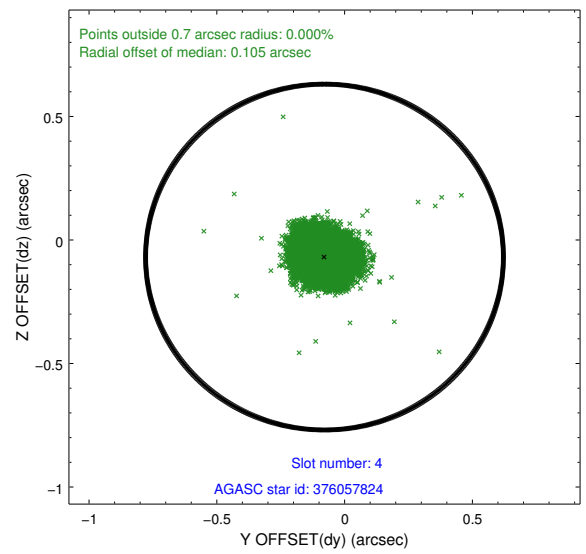
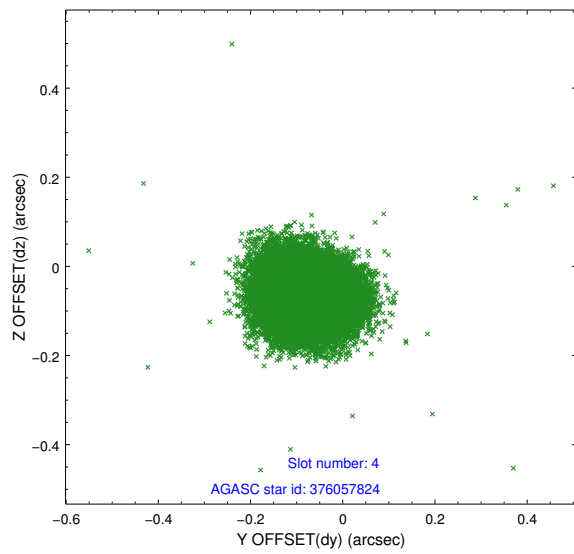
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.04	11907	0.032	0.011	0.020	0.066	0.000000	0.000000	925.87	-838.25
1	FID	ACIS-I-5	7.03	11908	-0.219	0.039	0.015	0.029	0.000000	0.000000	-1822.53	1059.24
2	FID	ACIS-I-6	7.04	11907	0.092	0.022	0.020	0.041	0.000000	0.000000	391.45	1703.74
3	GUIDE	374357808	8.66	23803	-0.015	0.009	0.075	0.118	49.921429	42.176083	-1309.49	-1373.08
4	GUIDE	376057824	8.34	23806	-0.079	-0.069	0.075	0.121	50.665569	41.926280	-2230.37	606.42
5	GUIDE	373826120	8.90	23799	0.047	-0.013	0.095	0.153	49.738165	41.186341	1401.31	991.15
6	GUIDE	374345008	9.37	23783	0.122	-0.087	0.116	0.189	48.768668	41.619367	2333.78	-1909.19
7	GUIDE	374358688	9.28	23760	-0.070	0.163	0.123	0.189	49.259903	42.100043	199.87	-2330.17

## 2.4 Star Slots

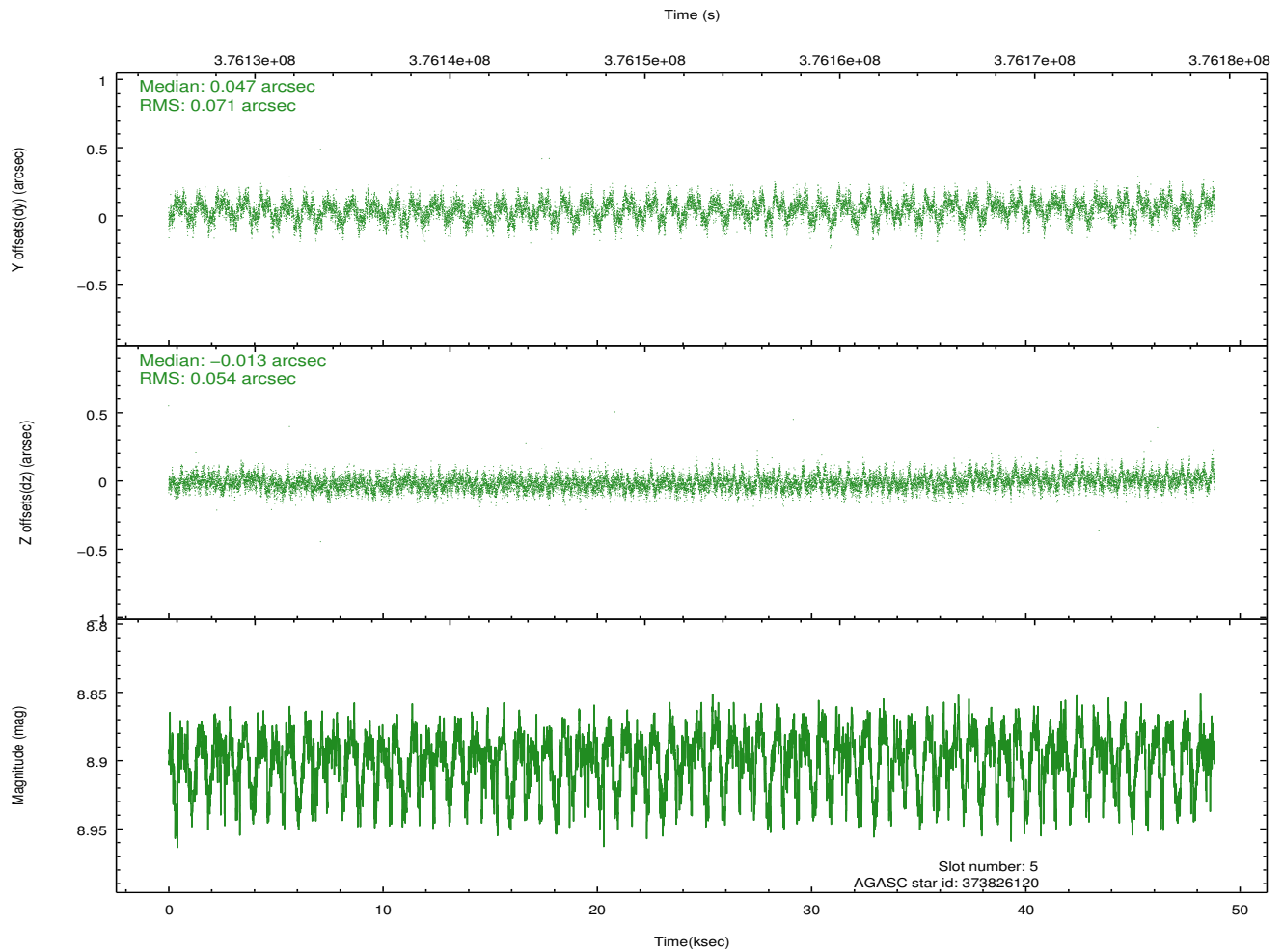
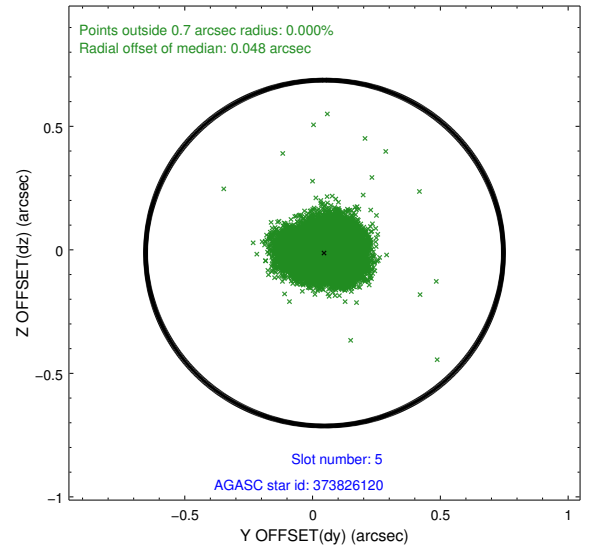
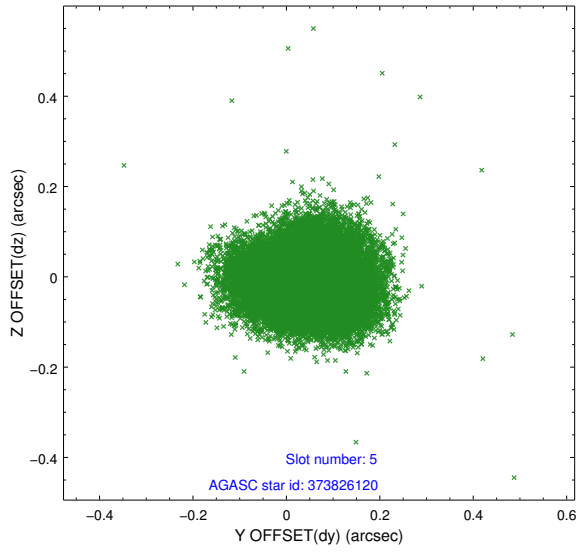
### 2.4.1 Slot 3



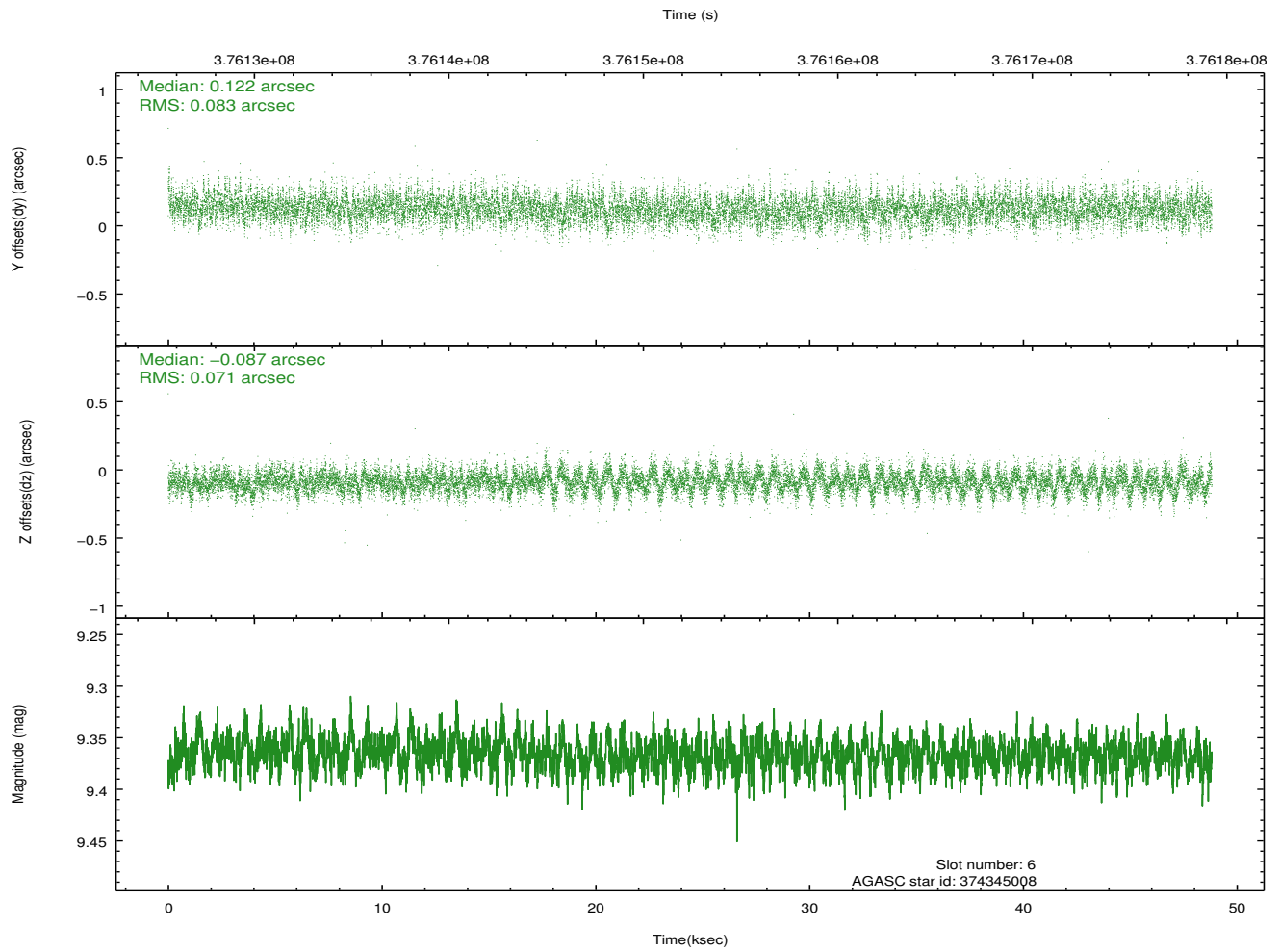
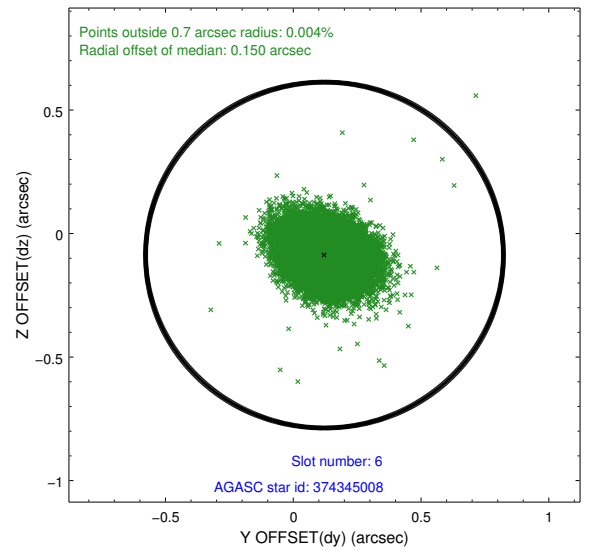
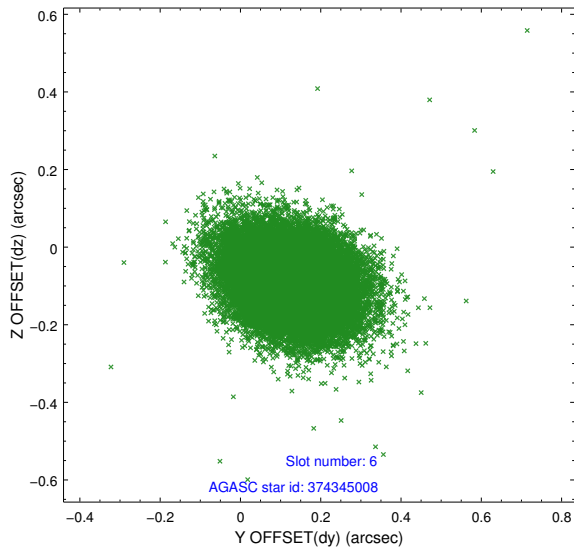
## 2.4.2 Slot 4



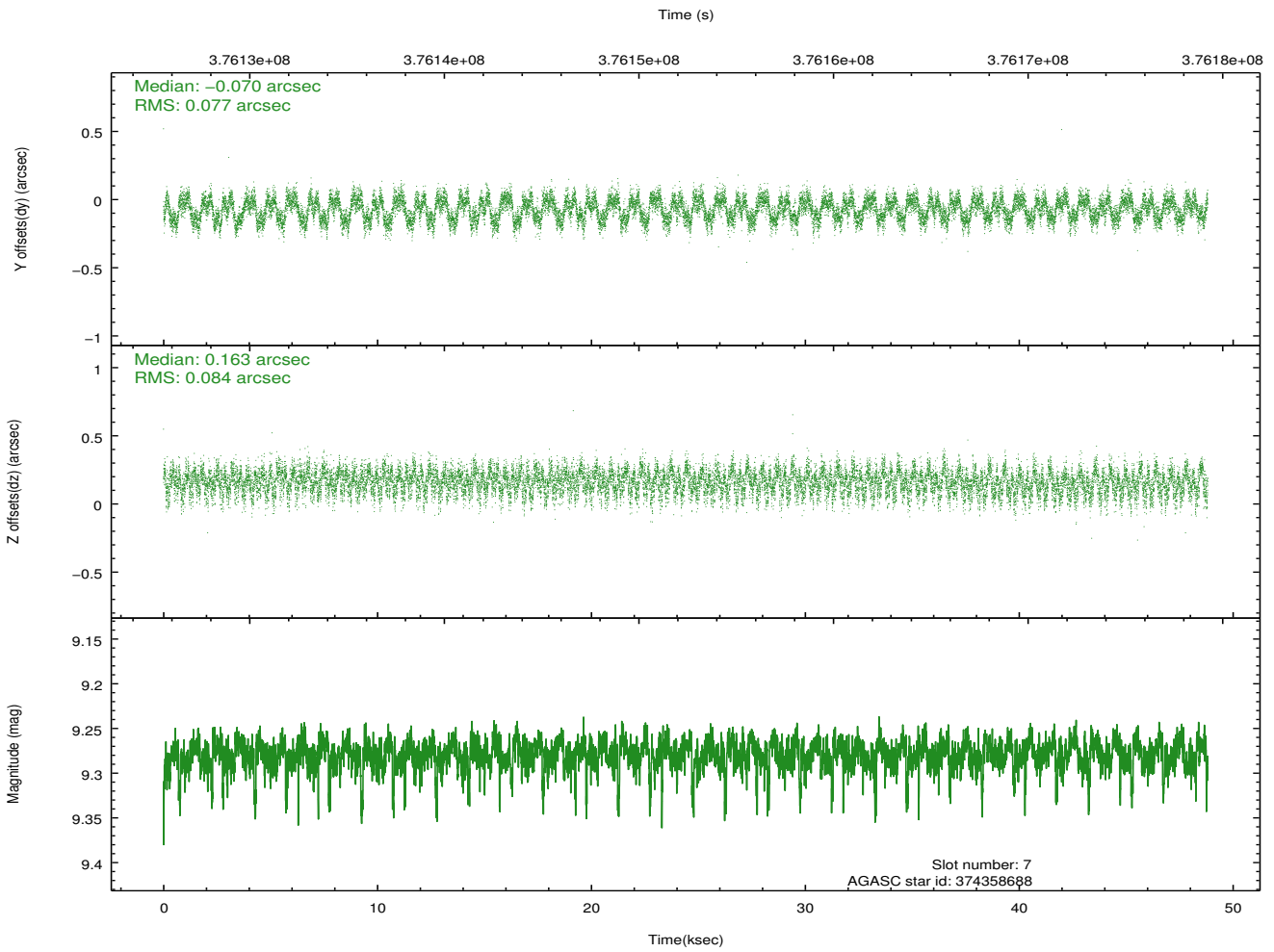
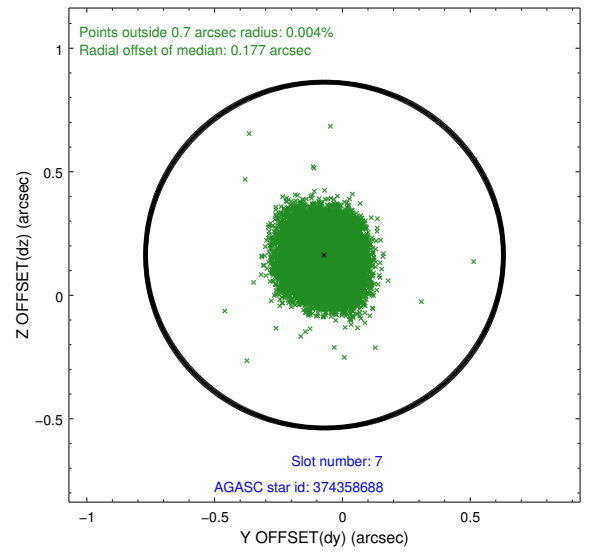
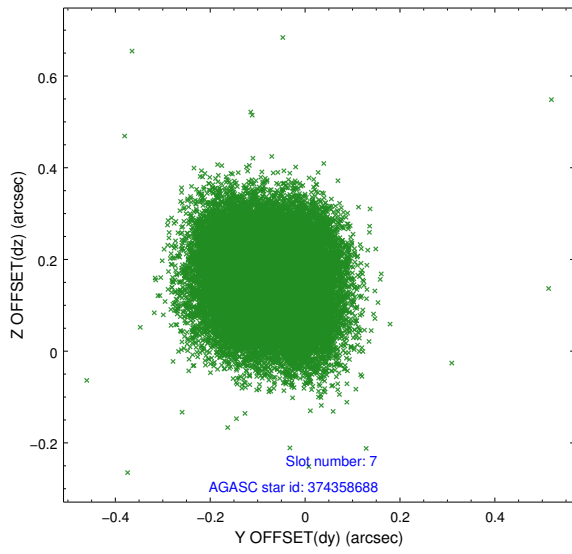
### 2.4.3 Slot 5



### 2.4.4 Slot 6

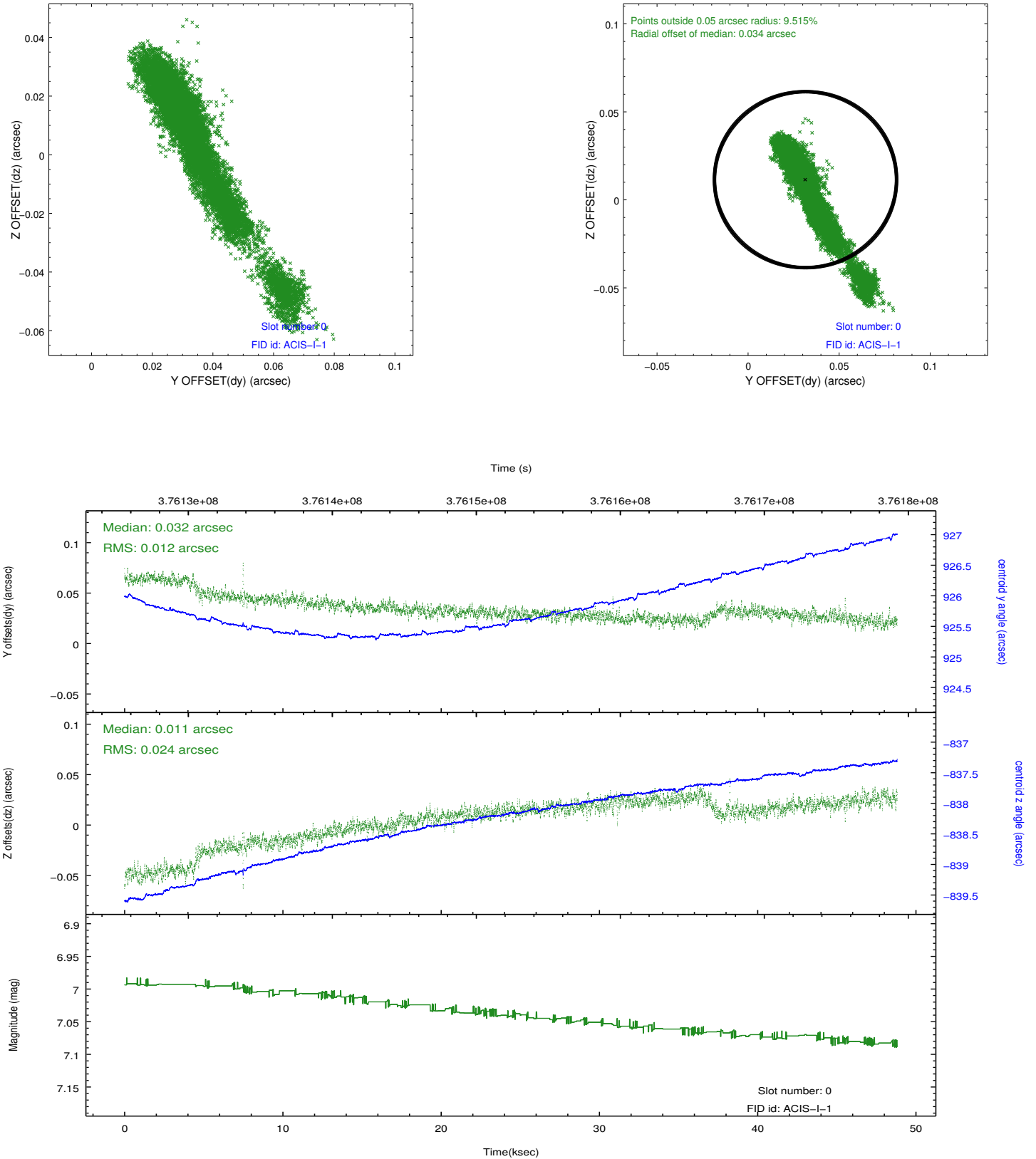


### 2.4.5 Slot 7

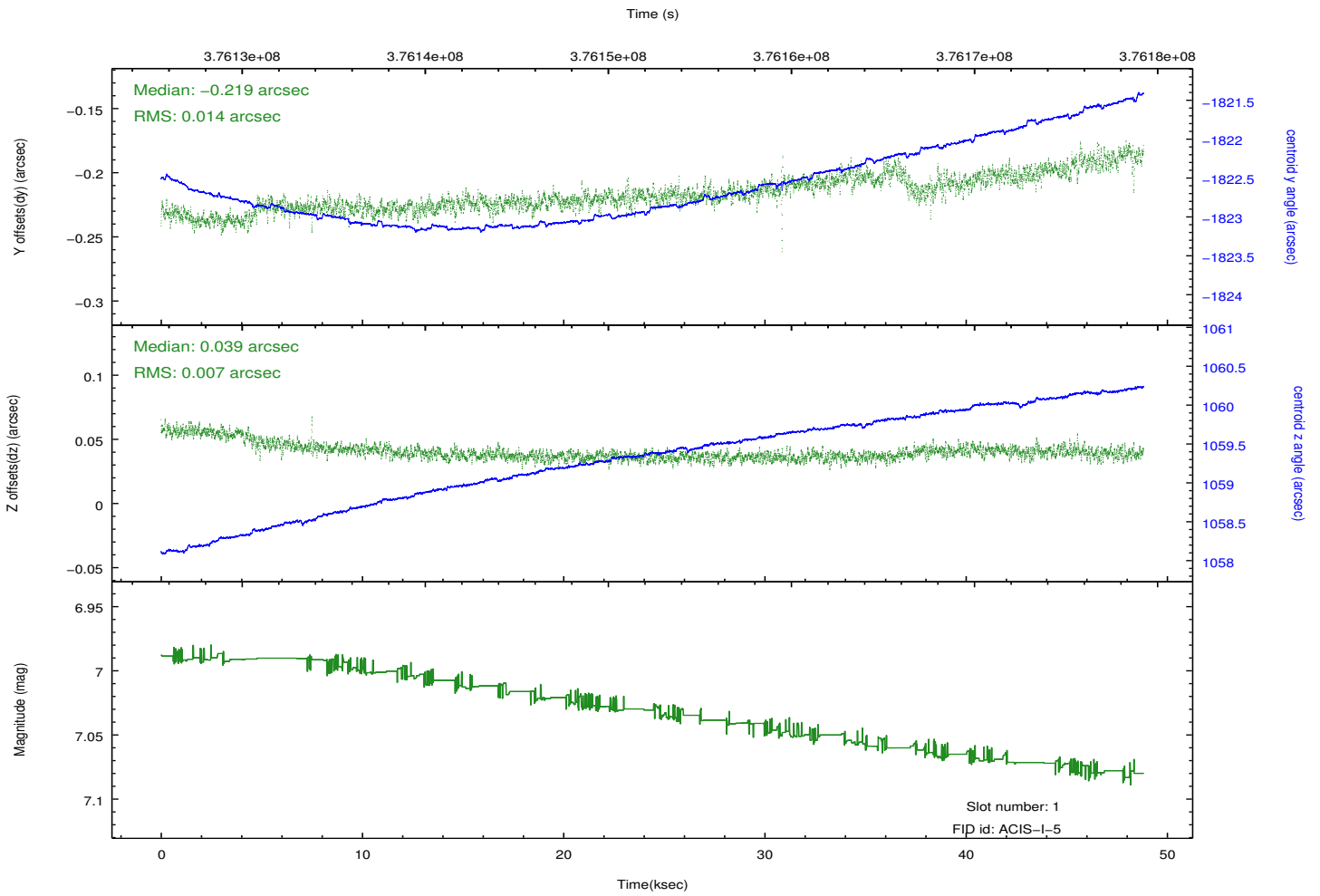
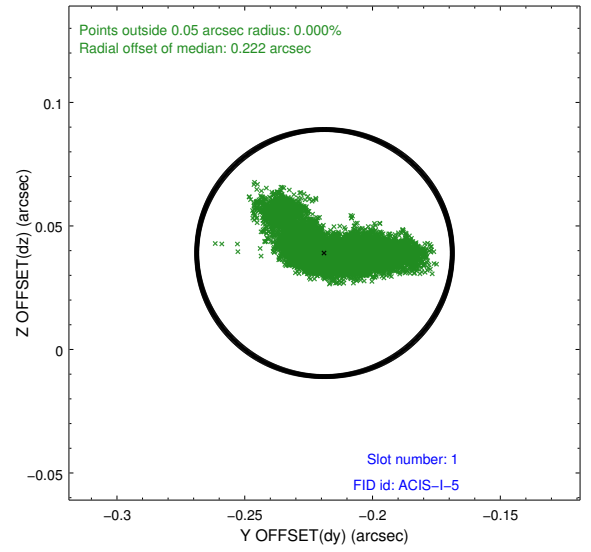
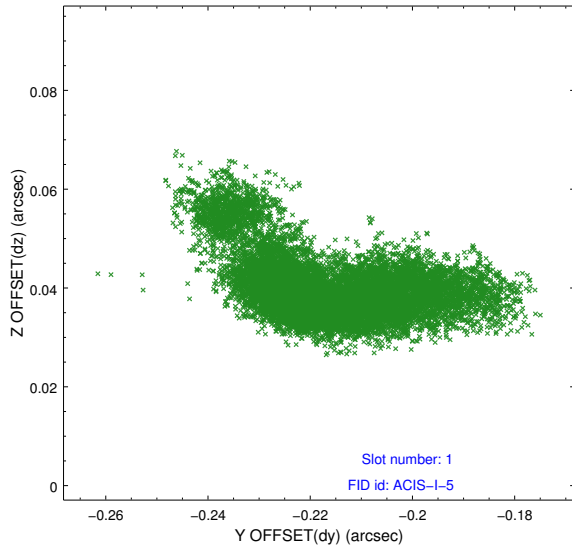


## 2.5 FID Slots

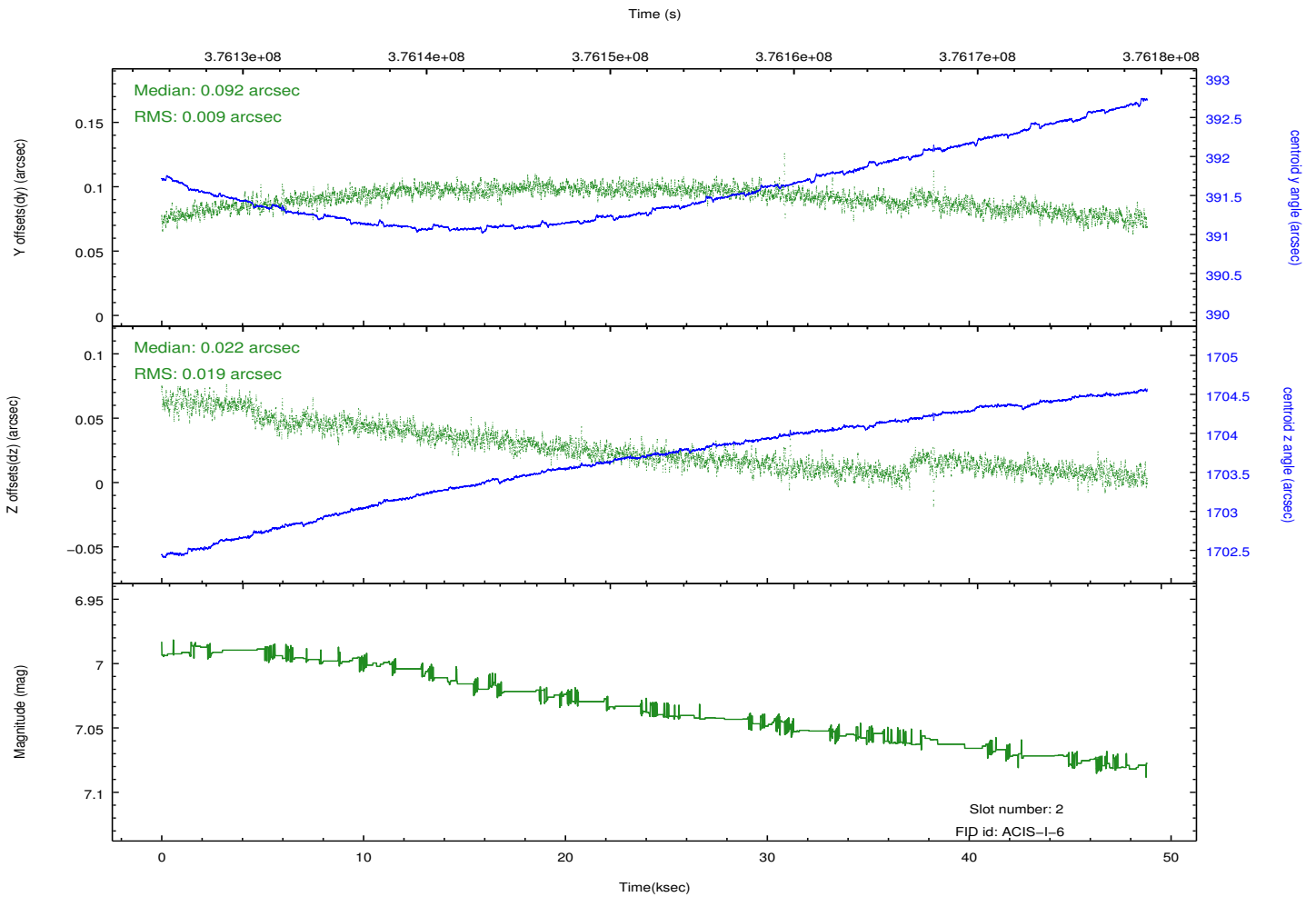
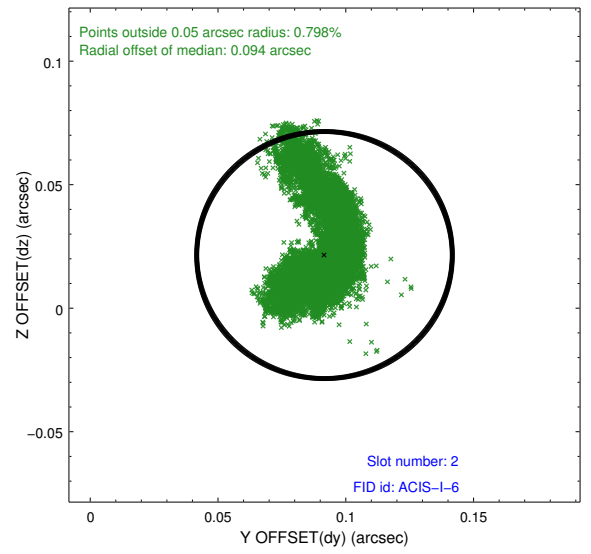
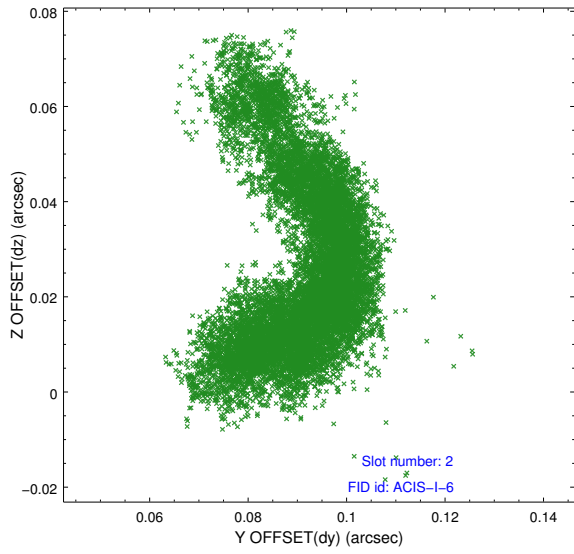
### 2.5.1 Slot 0



## 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)	2012.06.21
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	48.537599819243

## A.2 Comments