

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 10424 - L2 Version 2  
Chandra X-Ray Center

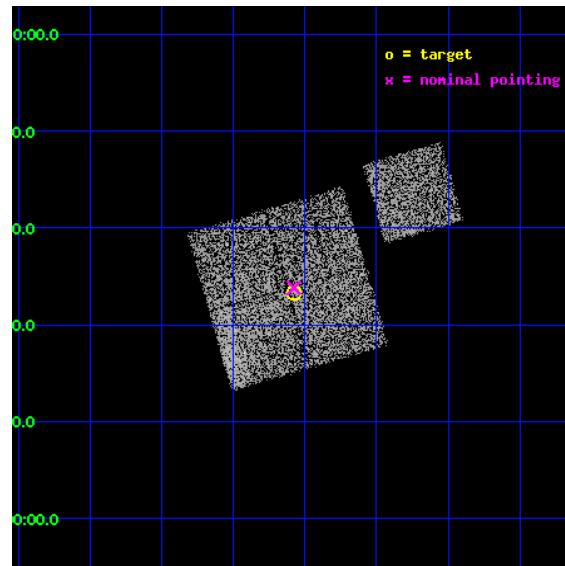
L2 Processing Date : May 31 2012

## 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

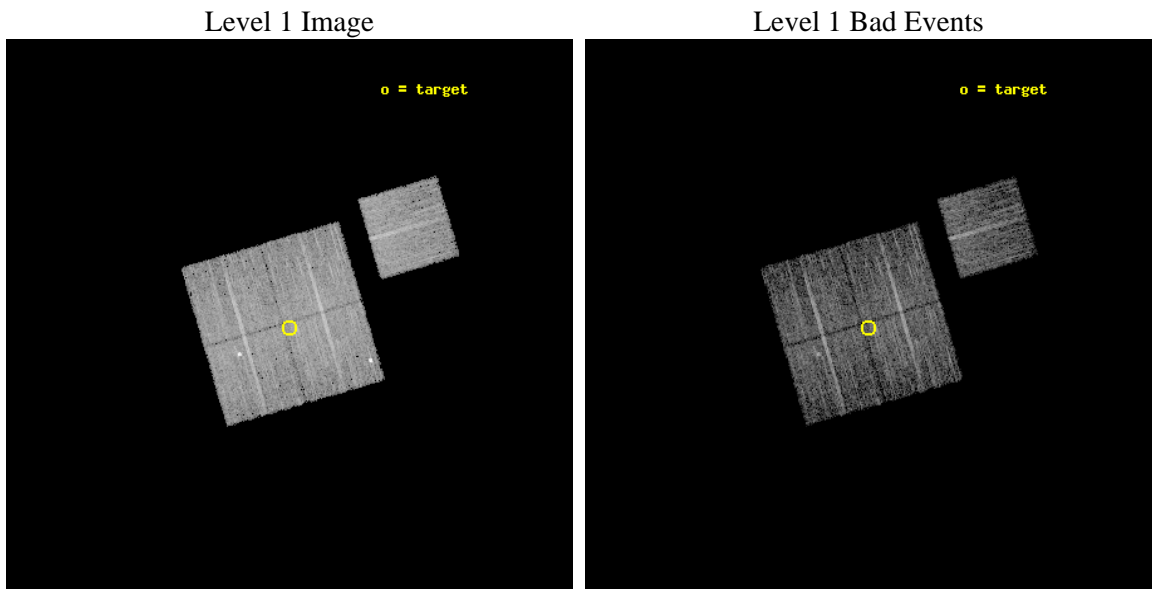
seq_num	800785	Sequence number
obs_id	10424	Observation id
title	A Chandra baseline for galaxy cluster evolution studies	Proposal t
observer	Dr Ben Maughan	Principal investigator
object	A1650	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	194.519479	Observer's specified target RA [deg]
dec_targ	-1.611068	Observer's specified target Dec [deg]
ra_nom	194.51936088753	Nominal RA [deg]
dec_nom	-1.6030520760955	Nominal Dec [deg]
roll_nom	73.608745038626	Nominal Roll [deg]
revision	2	Processing version of data
ontime	5046.2977441549	Sum of GTIs [s]
livetime	4980.3641490972	Livetime [s]
ontime0	5046.174624145	Sum of GTIs [s]
ontime1	5046.2156641483	Sum of GTIs [s]
ontime2	5046.2567041516	Sum of GTIs [s]
ontime3	5046.2977441549	Sum of GTIs [s]
ontime6	5046.1335841417	Sum of GTIs [s]
l2events	19756	Number of level 2 events



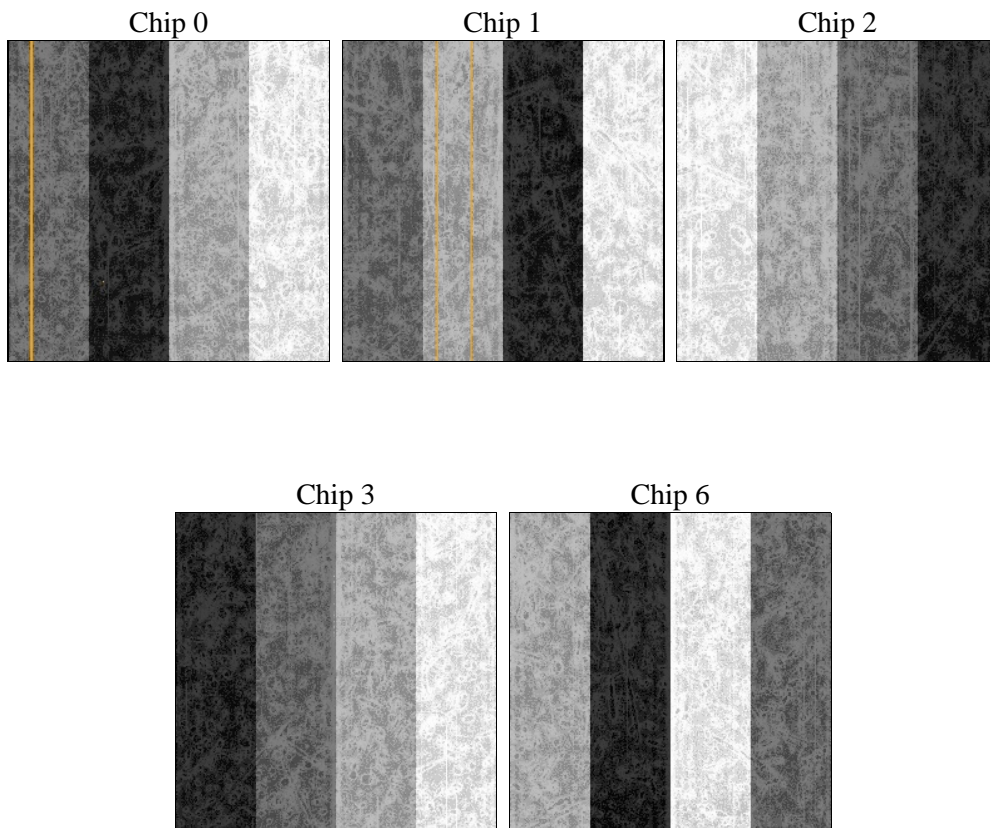
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	5046.2977441549	Sum of GTIs [s]
caldsver	4.4.9	&#160	ontime0	5046.174624145	Sum of GTIs [s]
date	2012-05-31T14:59:52	Date and time of file creation	ontime1	5046.2156641483	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	5046.2567041516	Sum of GTIs [s]
			ontime3	5046.2977441549	Sum of GTIs [s]
			ontime6	5046.1335841417	Sum of GTIs [s]
			l1events	212660	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	40423	42395	42830	44965	42047
rejected events	35798	35125	38616	39240	37630
rejected %	88%	82%	90%	87%	89%

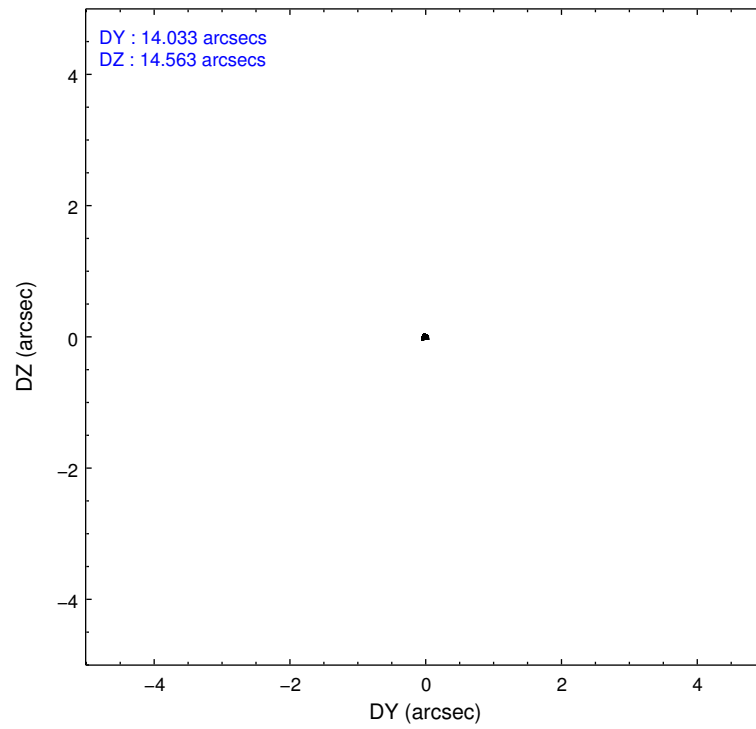
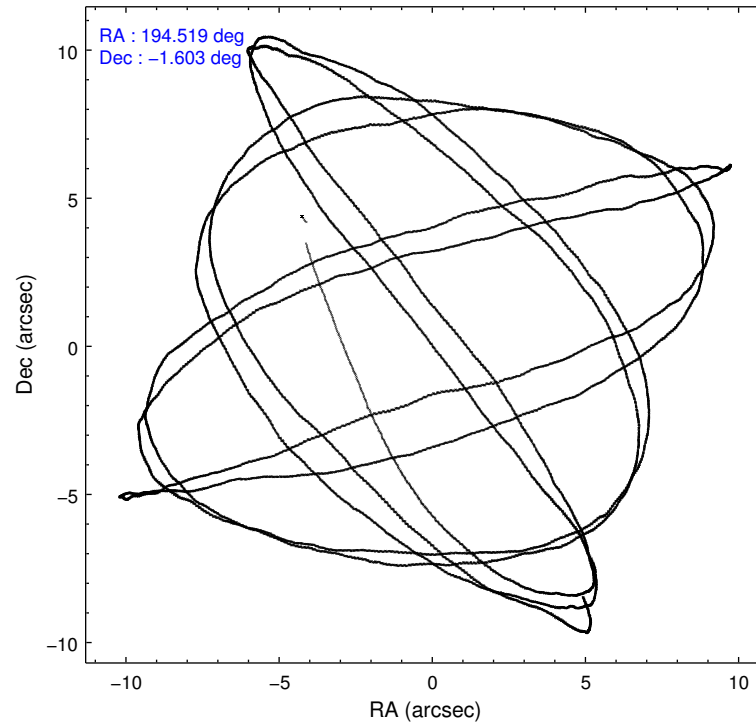
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	1734	3998	1546	2645	1613
	4%	9%	3%	5%	3%
grade 1 events	29	251	29	21	33
	0%	0%	0%	0%	0%
grade 2 events	1100	1159	1003	1289	924
	2%	2%	2%	2%	2%
grade 3 events	496	542	417	489	457
	1%	1%	0%	1%	1%
grade 4 events	464	576	477	442	438
	1%	1%	1%	0%	1%
grade 5 events	1532	1760	1450	1802	1717
	3%	4%	3%	4%	4%
grade 6 events	831	998	774	862	987
	2%	2%	1%	1%	2%
grade 7 events	34237	33111	37134	37415	35878
	84%	78%	86%	83%	85%

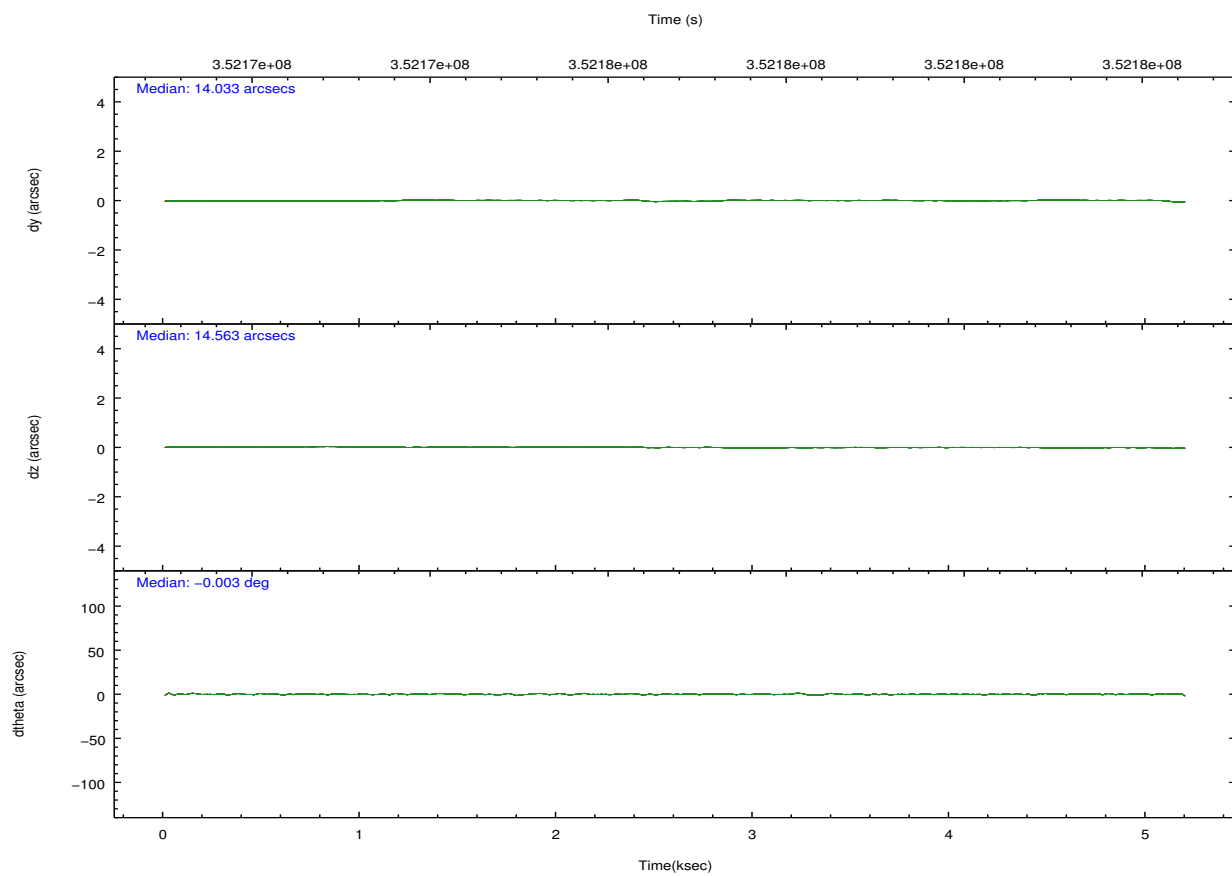
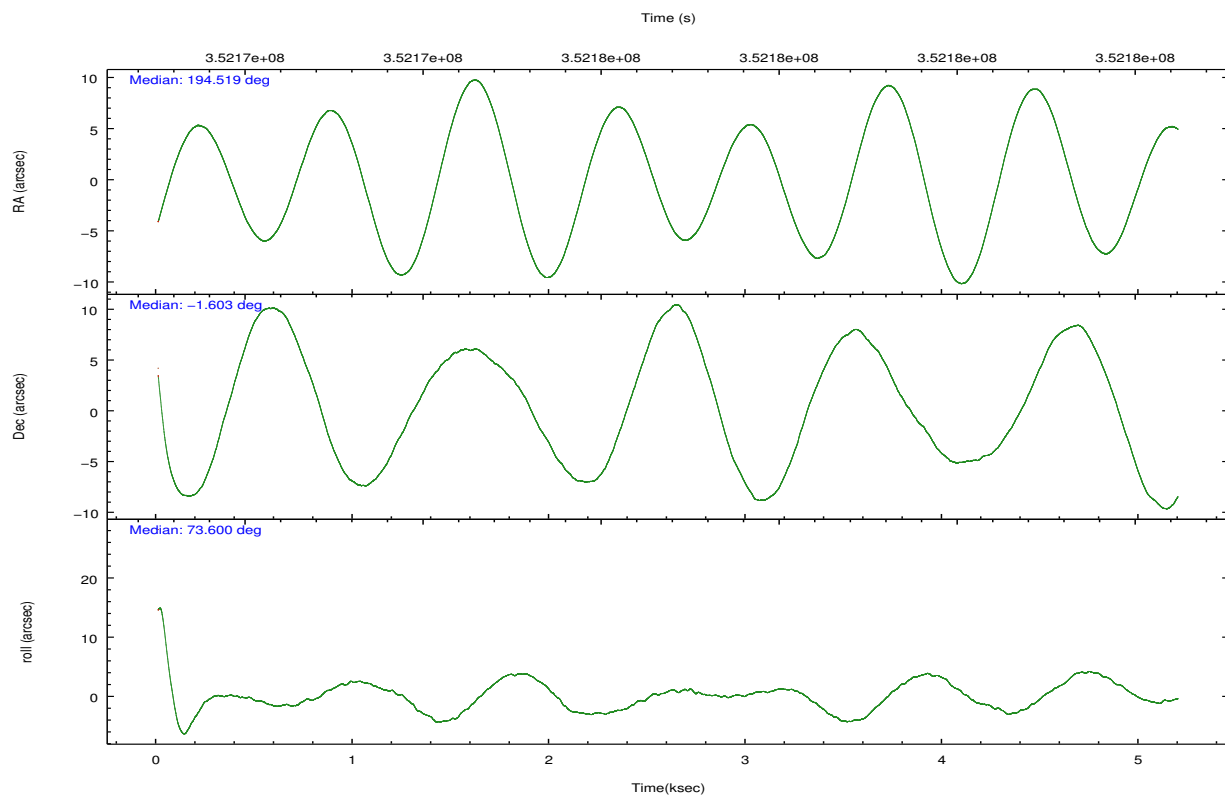


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01236	ACIS-01236	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	194.525934	194.519360887531	CCD I2 on	Y	Y
[deg] Pointing Dec	-1.629688	-1.603052076095528	CCD I3 on	Y	Y
[deg] Pointing Roll	73.400179	73.60874503862644	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	O1	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	N	N
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	352172972.184000	352172041.17122	CCD S5 on	N	N
Observation start date	2009-02-28T01:48:26	2009-02-28T01:34:01	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	352177972.184000	352178106.60902	On-chip summing requested	N	N
Observation end date	2009-02-28T03:11:46	2009-02-28T03:15:06	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



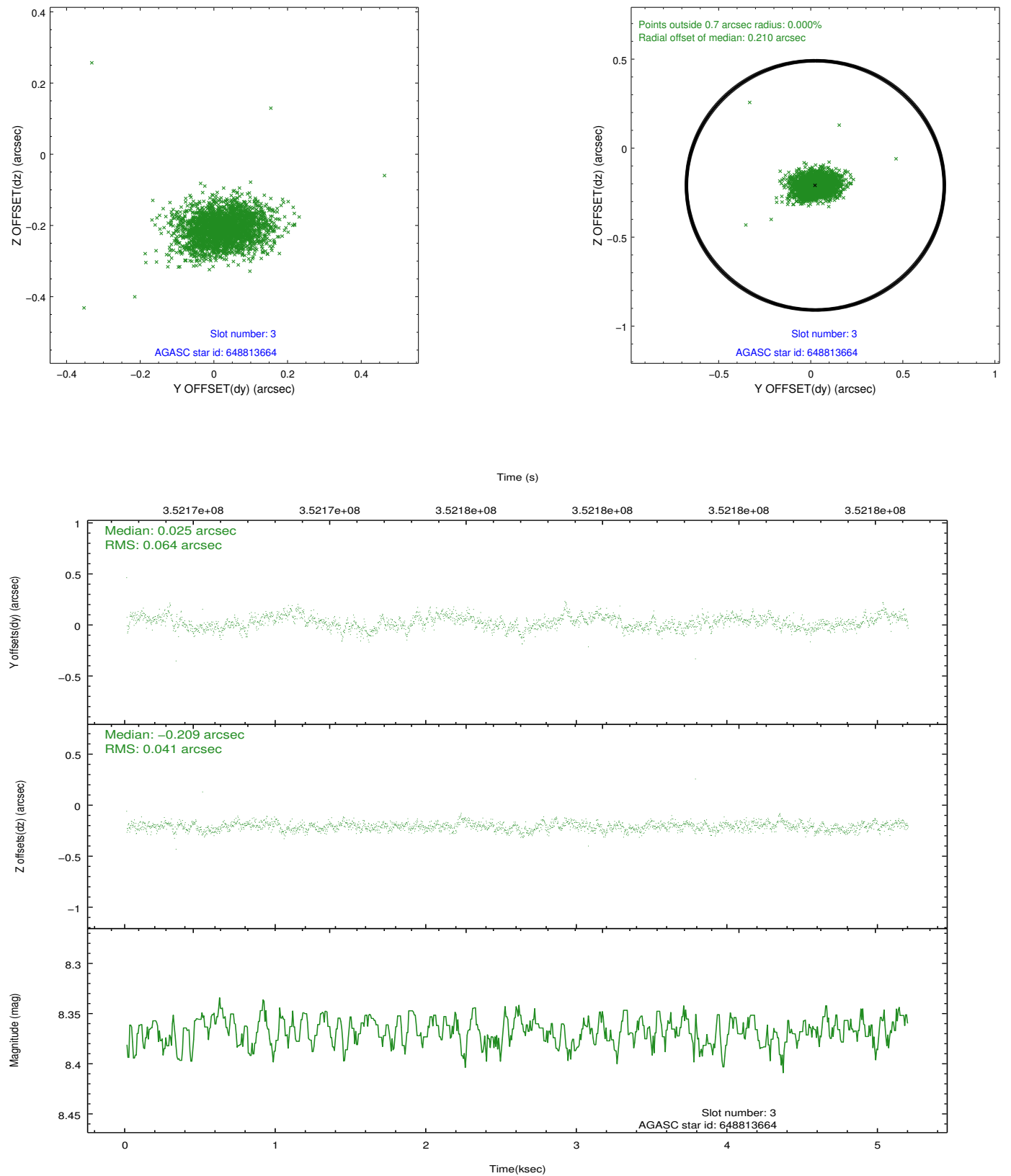


### Slot Statistics

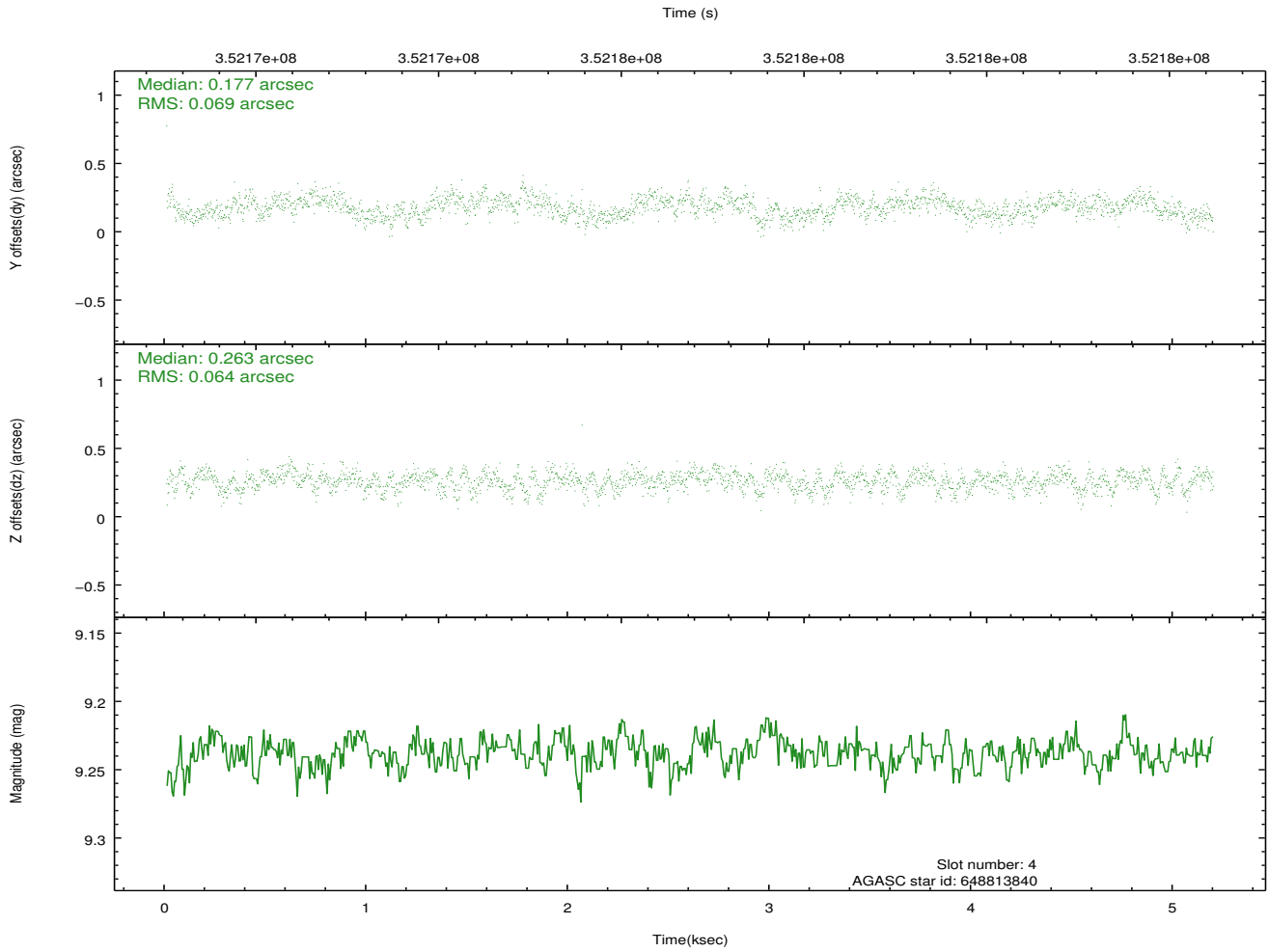
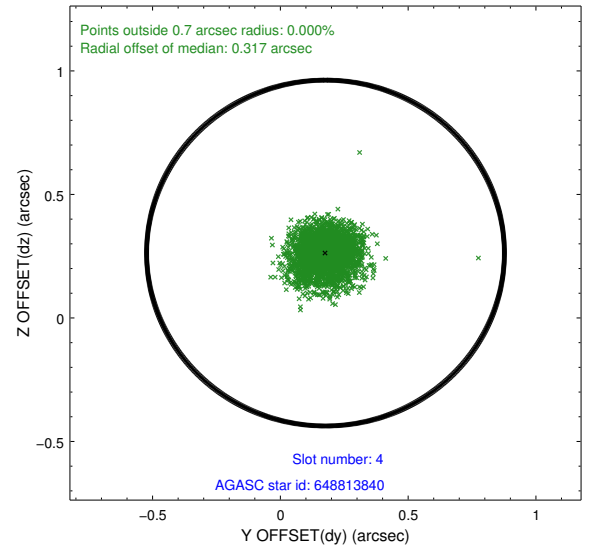
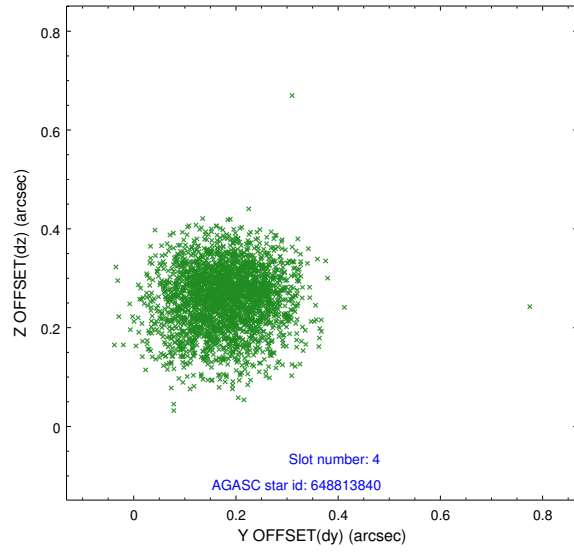
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.09	1267	0.035	0.009	0.006	0.010	0.000000	0.000000	925.51	-838.13
1	FID	ACIS-I-5	7.08	1266	-0.226	0.039	0.006	0.011	0.000000	0.000000	-1822.25	1058.76
2	FID	ACIS-I-6	7.08	1267	0.100	0.022	0.006	0.011	0.000000	0.000000	389.80	1704.61
3	GUIDE	648813664	8.37	2530	0.025	-0.209	0.076	0.132	194.615044	-1.051809	2085.86	287.36
4	GUIDE	648813840	9.24	2530	0.177	0.263	0.099	0.161	194.717621	-1.945504	-891.44	-985.96
5	GUIDE	648814760	8.59	2530	-0.082	-0.130	0.097	0.153	193.918749	-1.719969	-936.20	2000.36
6	GUIDE	649730488	7.84	2532	-0.072	0.197	0.075	0.123	195.031921	-1.185947	2051.41	-1287.64
7	GUIDE	648813864	8.81	2529	-0.045	-0.112	0.083	0.131	194.235605	-1.103465	1517.91	1542.29

## 2.4 Star Slots

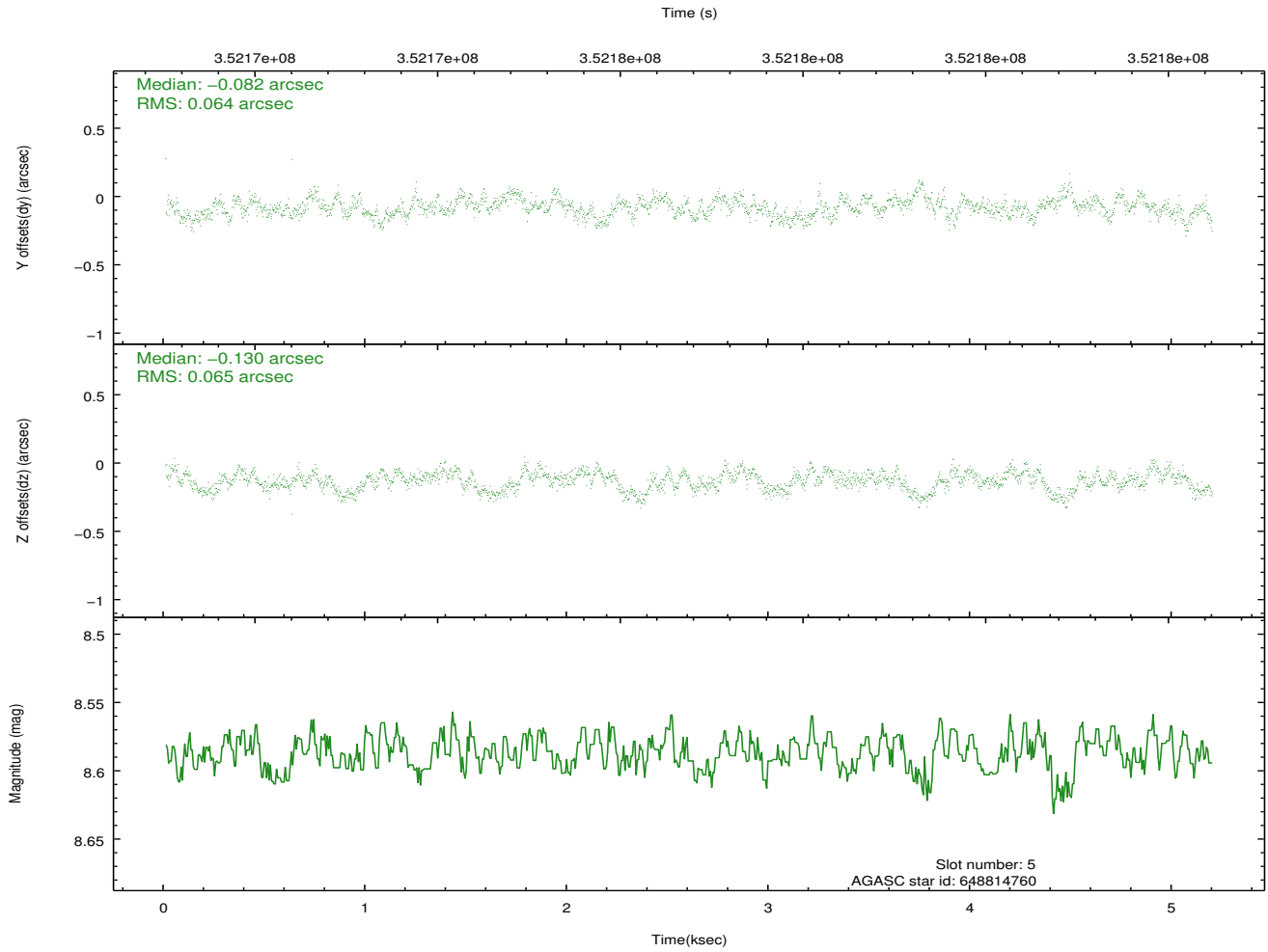
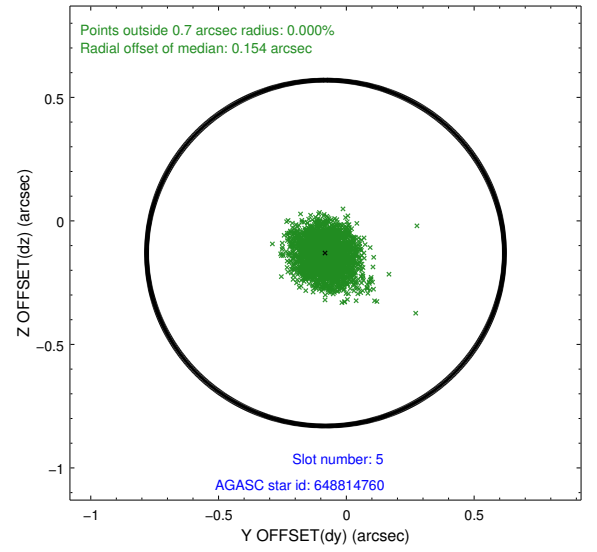
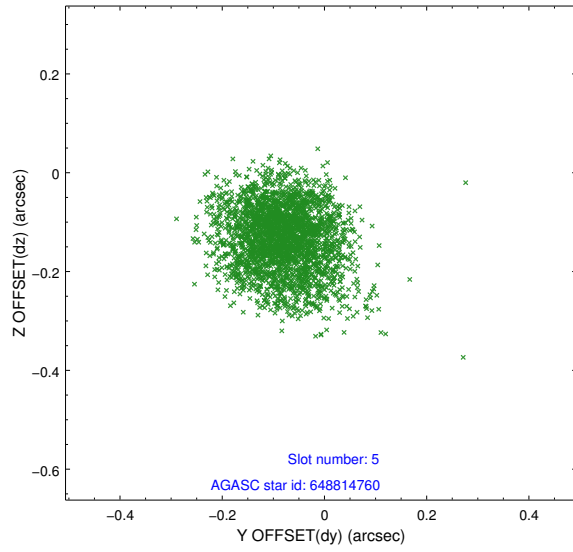
### 2.4.1 Slot 3



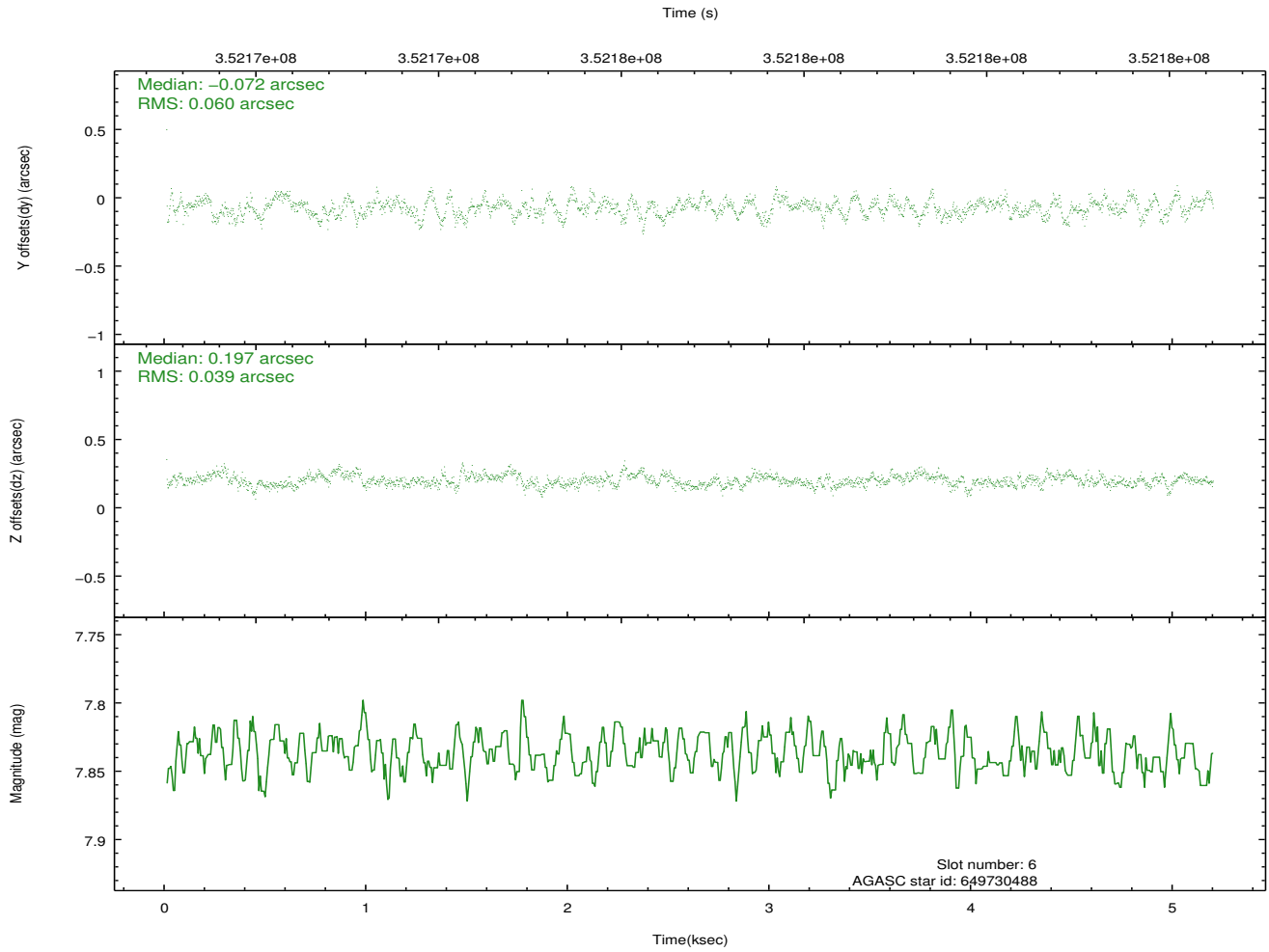
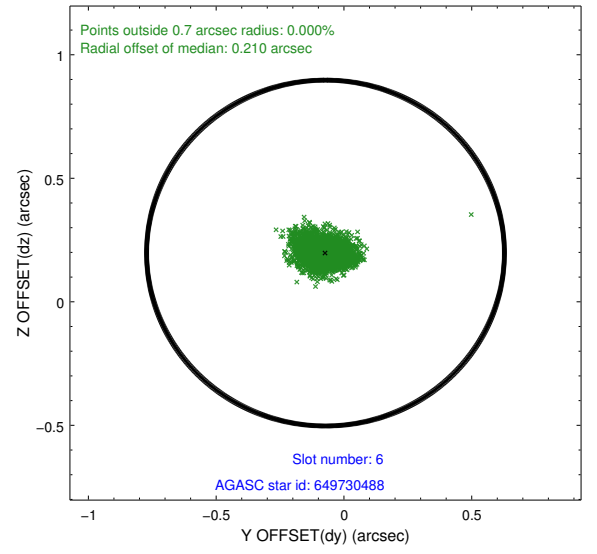
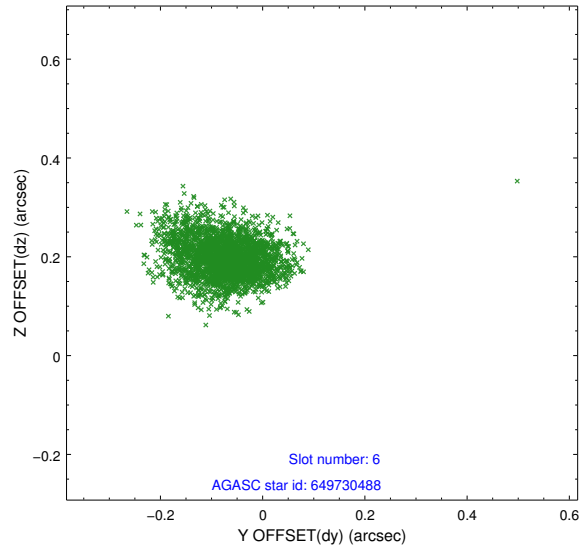
## 2.4.2 Slot 4



### 2.4.3 Slot 5

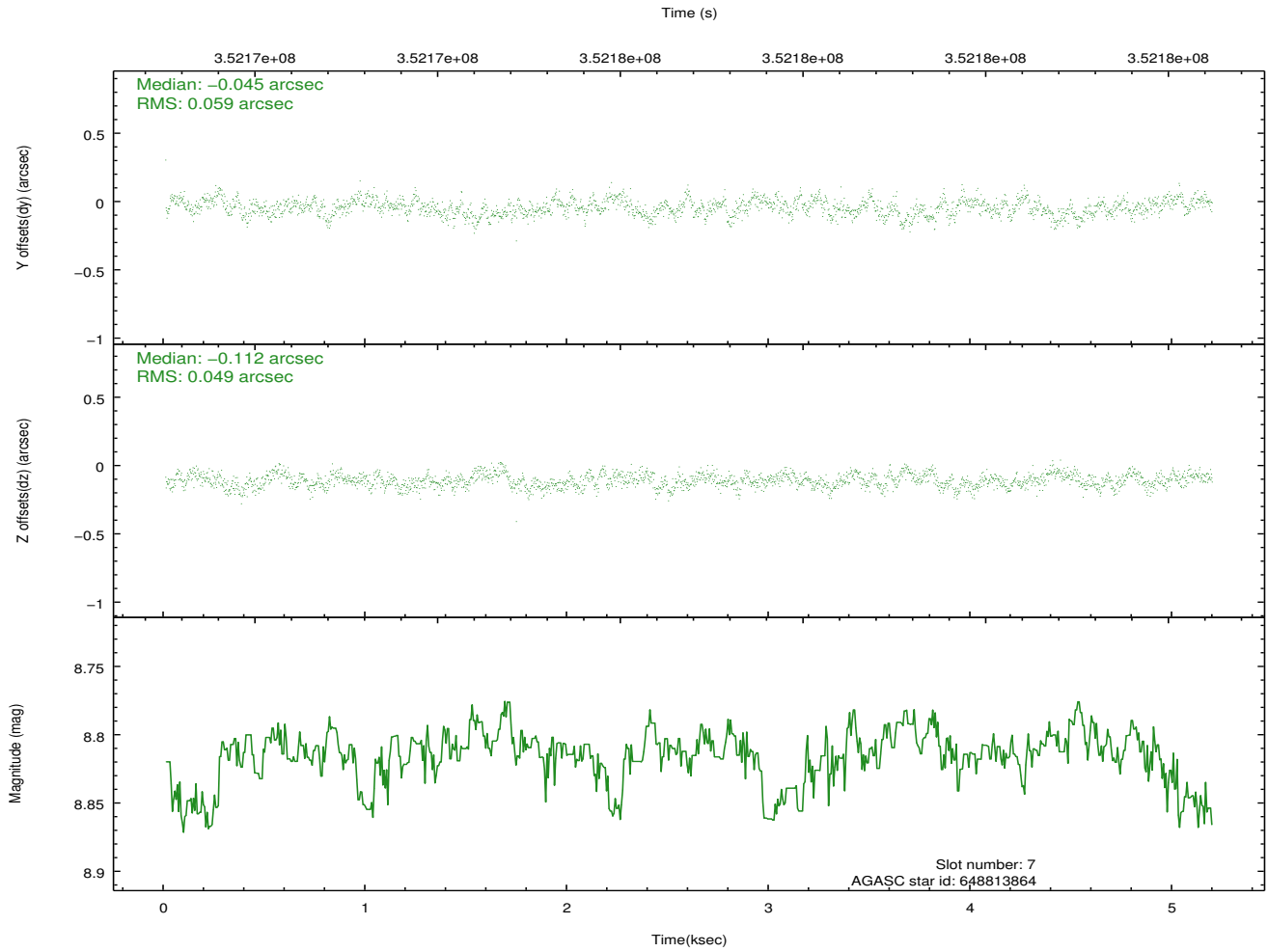
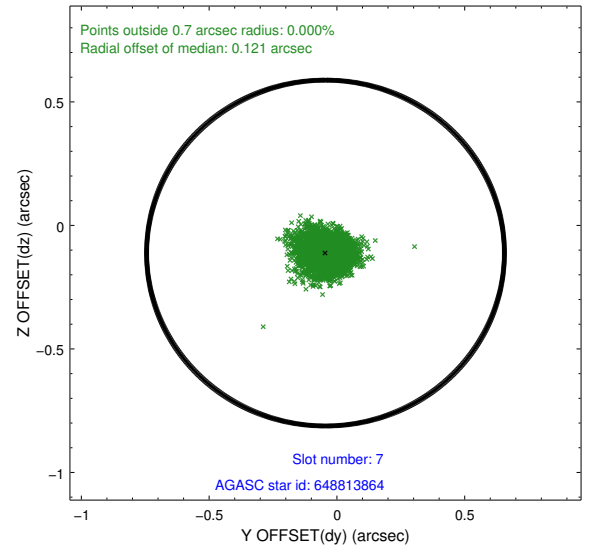
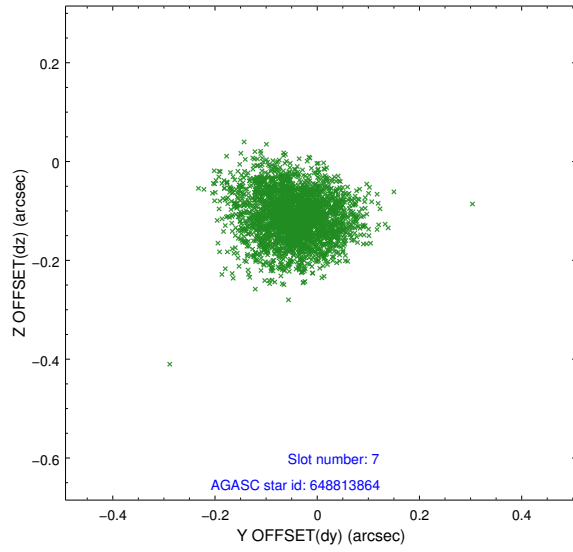


## 2.4.4 Slot 6



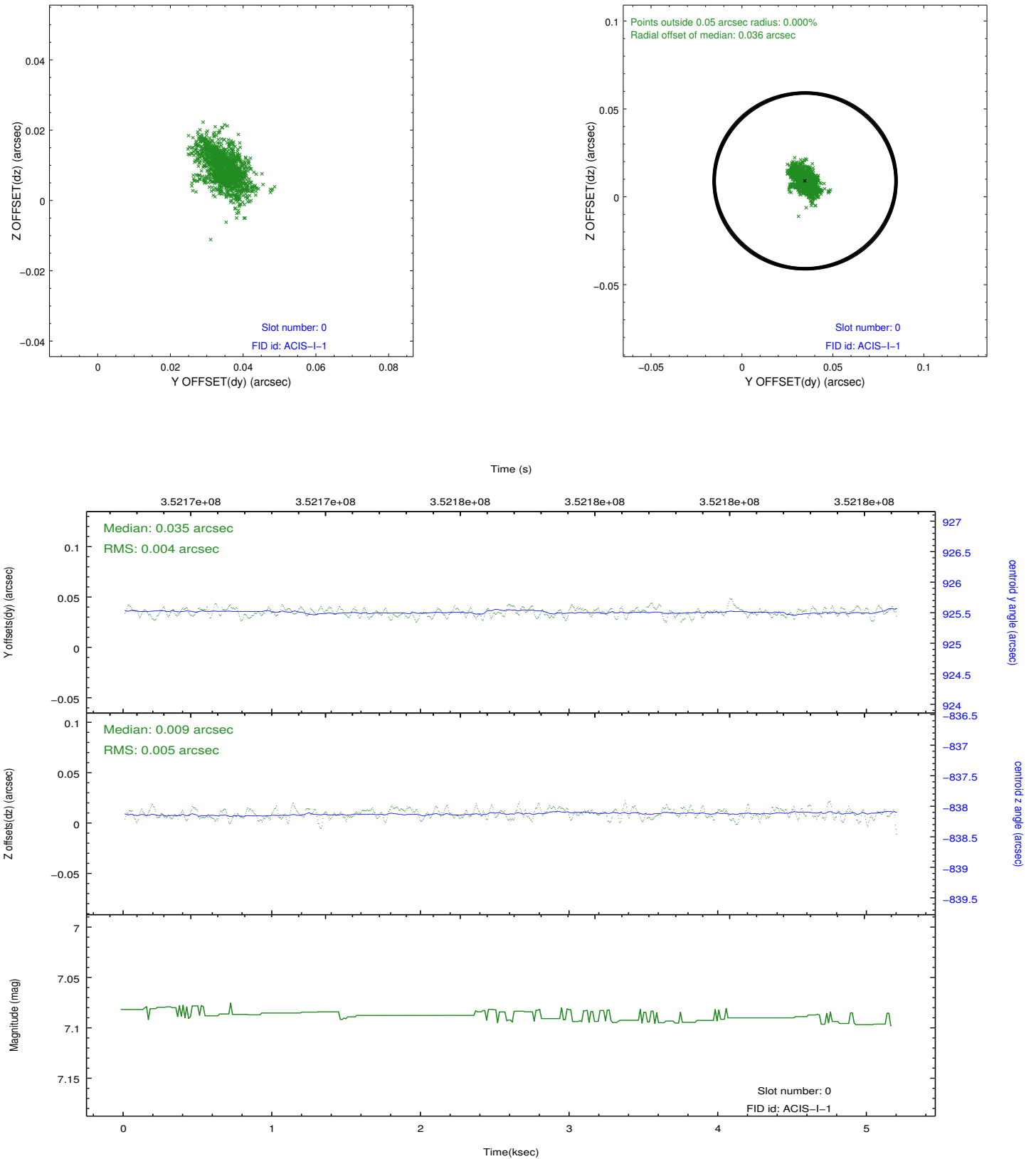


## 2.4.5 Slot 7

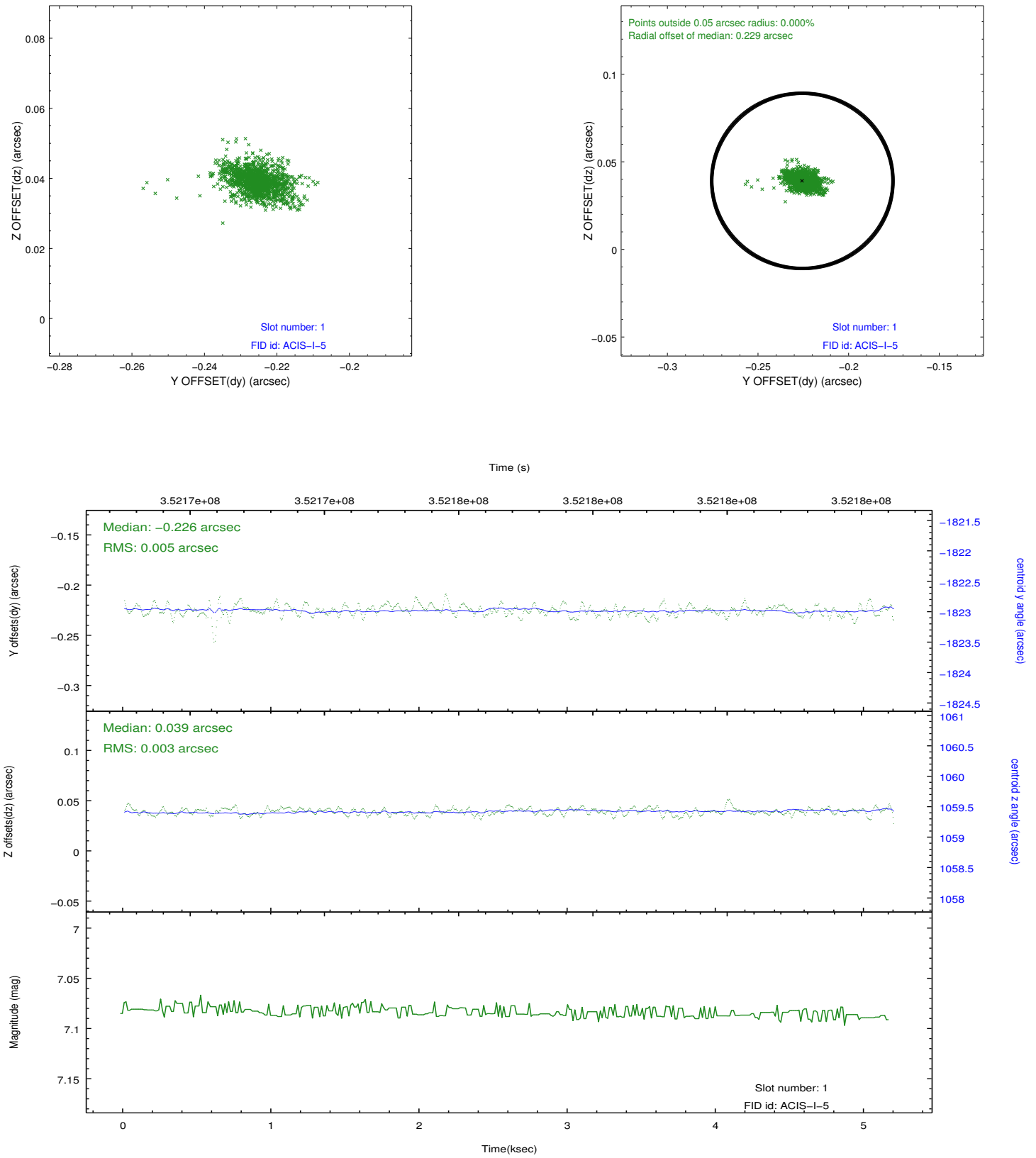


## 2.5 FID Slots

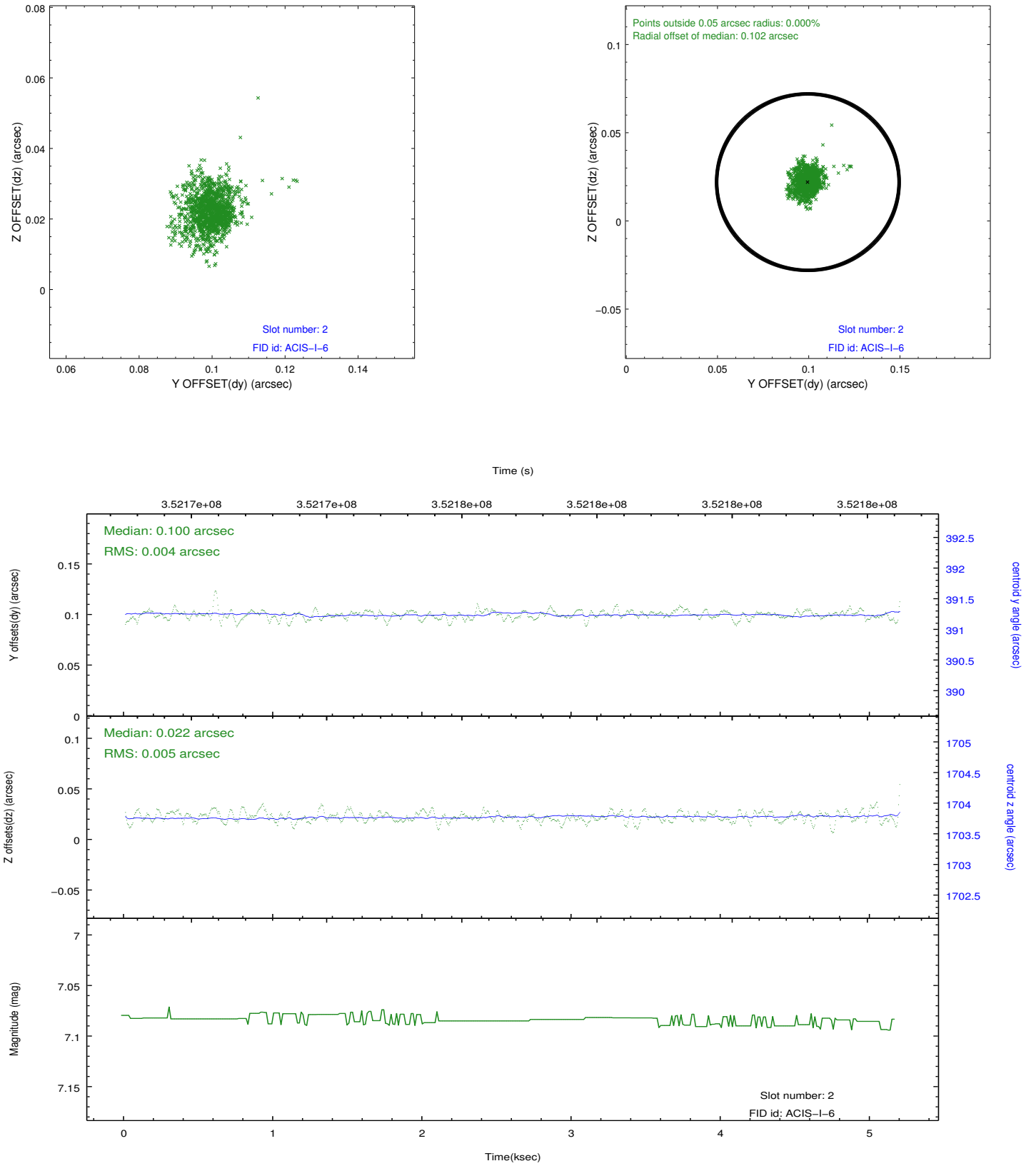
### 2.5.1 Slot 0



## 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)	2012.06.05
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.04680003

### A.2 Comments