

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 10955 - L2 Version 2  
Chandra X-Ray Center

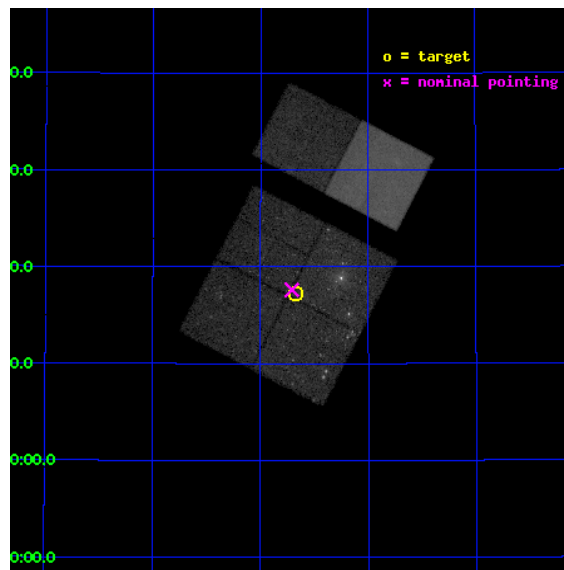
L2 Processing Date : Jun 21 2012

## 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	200587	Sequence number
obs_id	10955	Observation id
title	The Chandra Cygnus OB2 Survey	Proposal title
observer	Dr. Jeremy Drake	Principal investigator
object	Cygnus OB2	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	308.41952	Observer's specified target RA [deg]
dec_targ	41.288179	Observer's specified target Dec [deg]
ra_nom	308.42717815258	Nominal RA [deg]
dec_nom	41.2938522073	Nominal Dec [deg]
roll_nom	27.403629761499	Nominal Roll [deg]
revision	2	Processing version of data
ontime	27843.199896336	Sum of GTIs [s]
livetime	27490.632534086	Livetime [s]
ontime0	27843.199896336	Sum of GTIs [s]
ontime1	27839.958896101	Sum of GTIs [s]
ontime2	27839.959035516	Sum of GTIs [s]
ontime3	27843.199896336	Sum of GTIs [s]
ontime6	27839.959015548	Sum of GTIs [s]
ontime7	27843.199896336	Sum of GTIs [s]
l2events	246286	Number of level 2 events

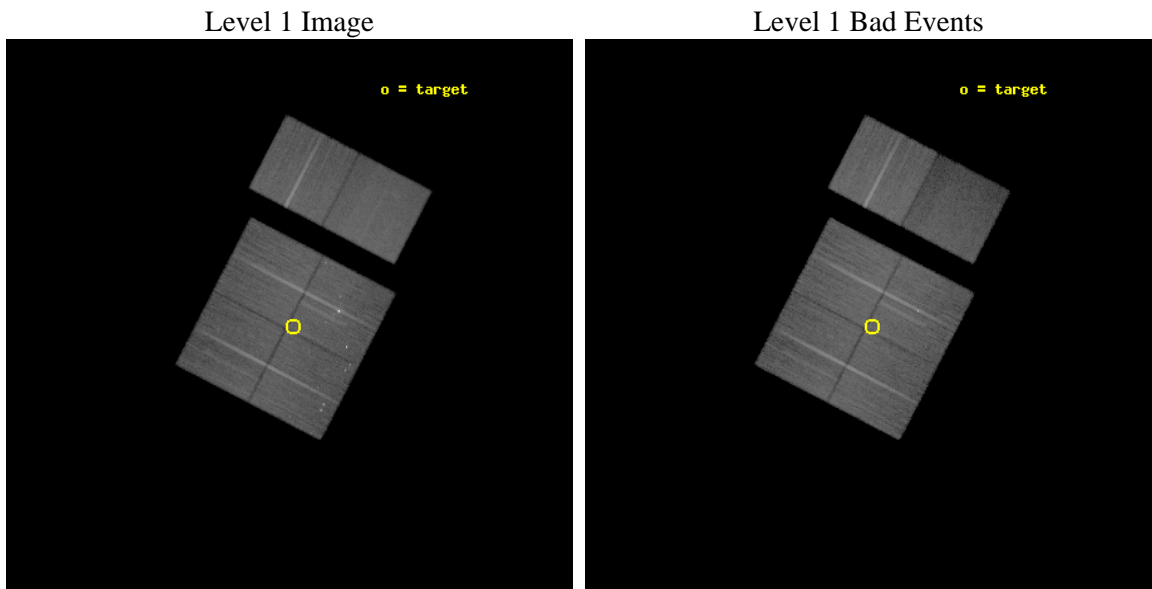




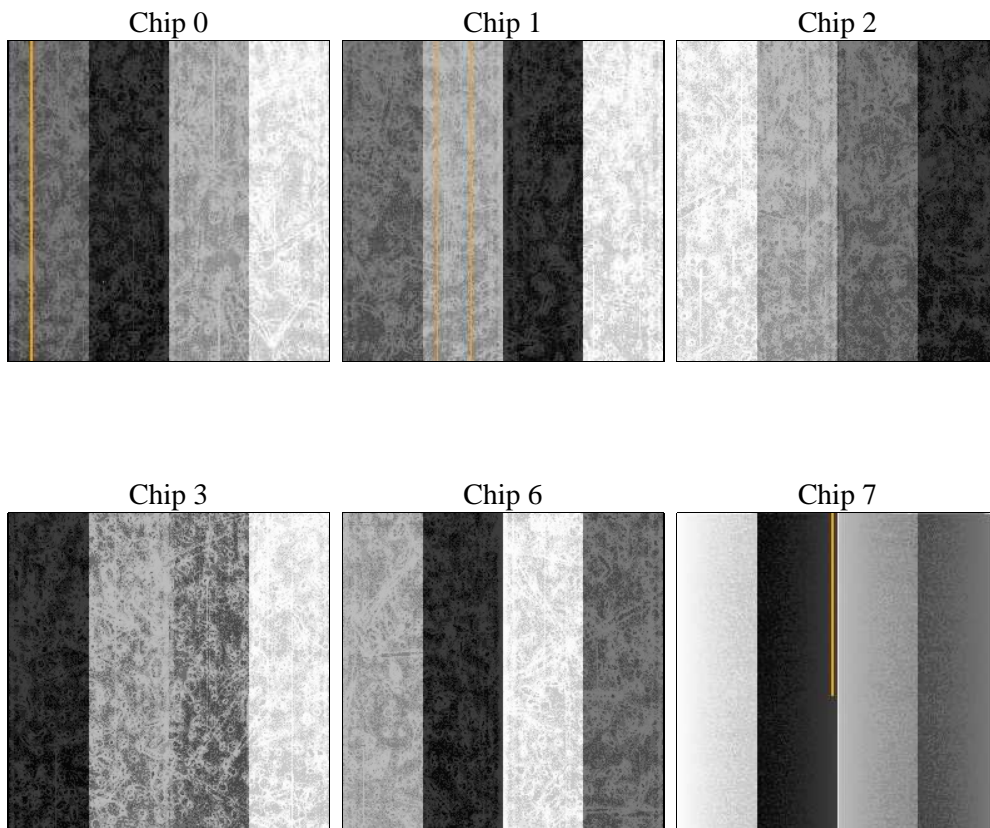
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	27700.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	27843.199896336	Sum of GTIs [s]
caldsver	4.4.10	&#160	ontime0	27843.199896336	Sum of GTIs [s]
date	2012-06-21T15:16:36	Date and time of file creation	ontime1	27839.958896101	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	27839.959035516	Sum of GTIs [s]
			ontime3	27843.199896336	Sum of GTIs [s]
			ontime6	27839.959015548	Sum of GTIs [s]
			ontime7	27843.199896336	Sum of GTIs [s]
			l1events	1300120	Number of level 1 events

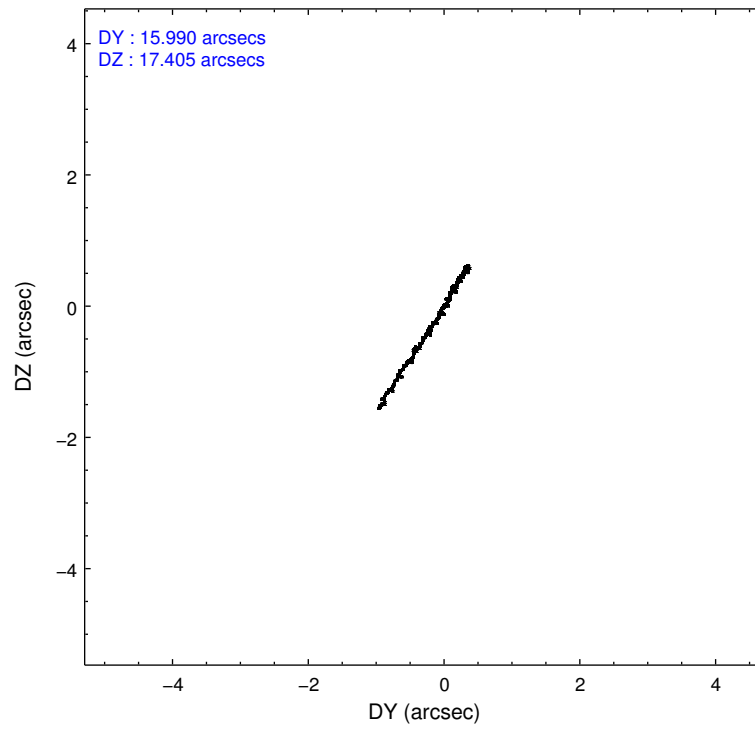
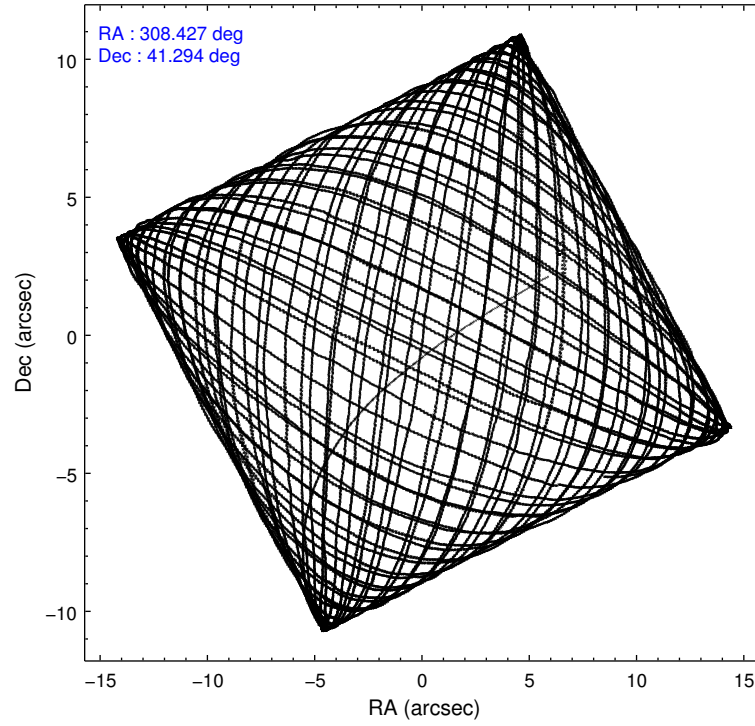
### 2.1.4 Events

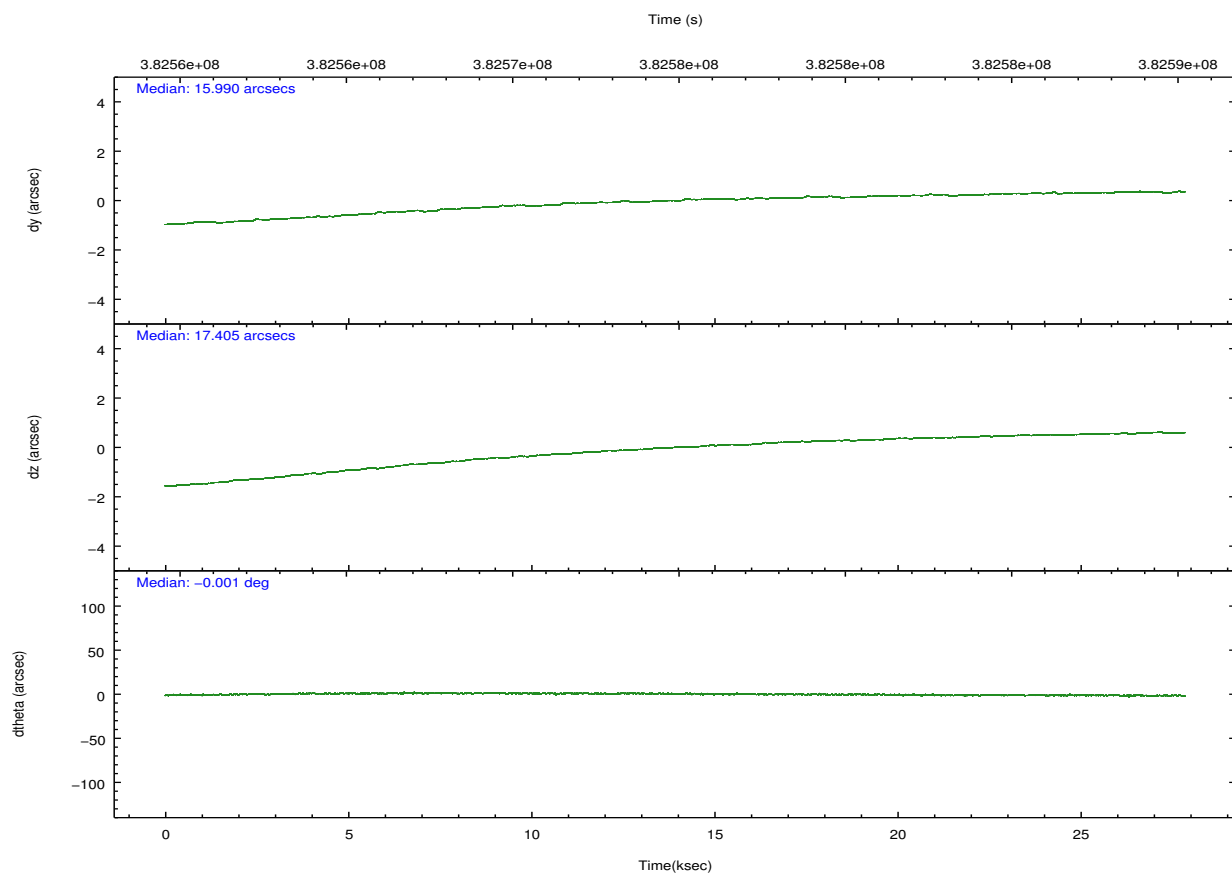
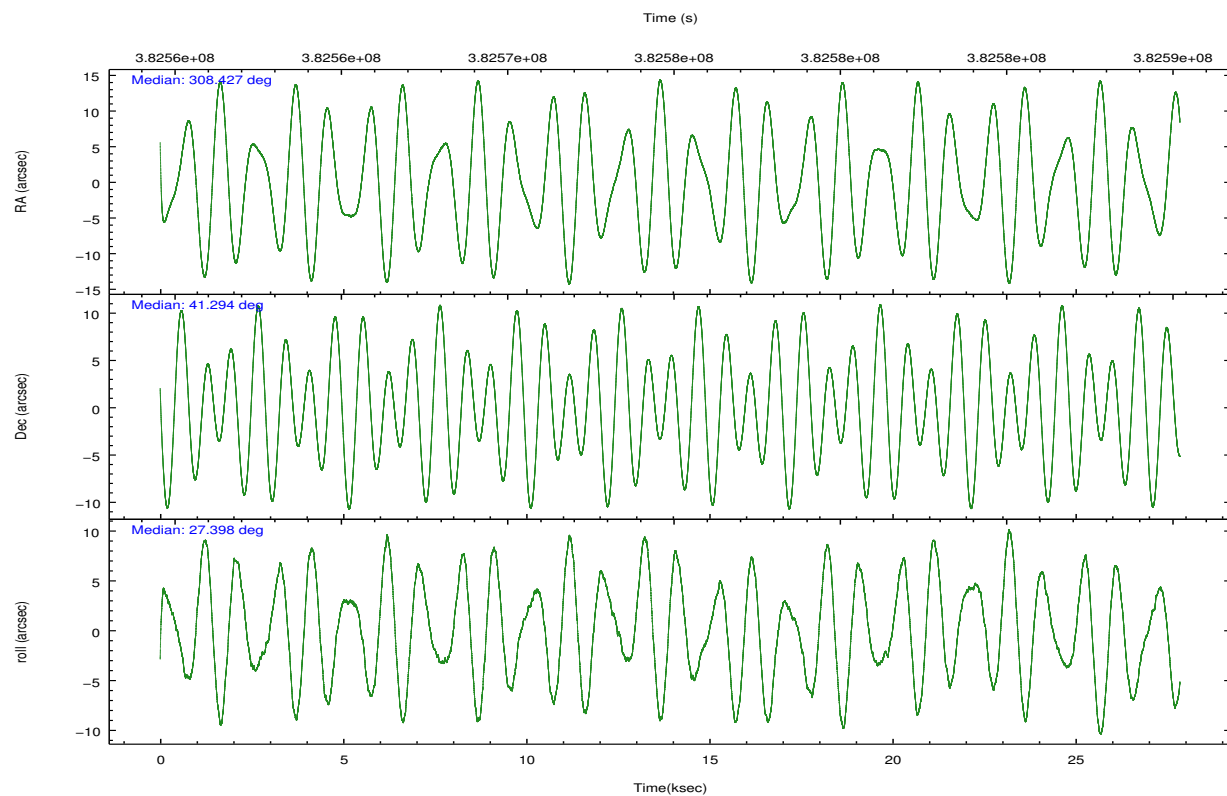
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	191032	203991	220829	241943	223474	218851	grade 0 events	10404	15548	11354	33971	10377	12314
rejected events	166116	171758	195360	187603	198055	108762		5%	7%	5%	14%	4%	5%
rejected %	86%	84%	88%	77%	88%	49%	grade 1 events	138	121	151	1659	131	308
								0%	0%	0%	0%	0%	0%
							grade 2 events	5755	6274	5644	8627	5563	24057
								3%	3%	2%	3%	2%	10%
							grade 3 events	2472	2851	2281	3532	2430	10171
								1%	1%	1%	1%	1%	4%
							grade 4 events	2310	2778	2428	3591	2464	10301
								1%	1%	1%	1%	1%	4%
							grade 5 events	6793	7478	6499	8407	7988	23264
								3%	3%	2%	3%	3%	10%
							grade 6 events	4113	4964	3875	4915	4722	53815
								2%	2%	1%	2%	2%	24%
							grade 7 events	159047	163977	188597	177241	189799	84621
								83%	80%	85%	73%	84%	38%

## 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	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	308.407581	308.4271781525778	CCD I2 on	Y	Y
[deg] Pointing Dec	41.270632	41.29385220729999	CCD I3 on	Y	Y
[deg] Pointing Roll	27.207872	27.4036297614991	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)	382561094.184000	382559913.78255	CCD S5 on	N	N
Observation start date	2010-02-14T18:57:08	2010-02-14T18:38:33	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	382588794.184000	382588928.45902	On-chip summing requested	N	N
Observation end date	2010-02-15T02:38:48	2010-02-15T02:42:08	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



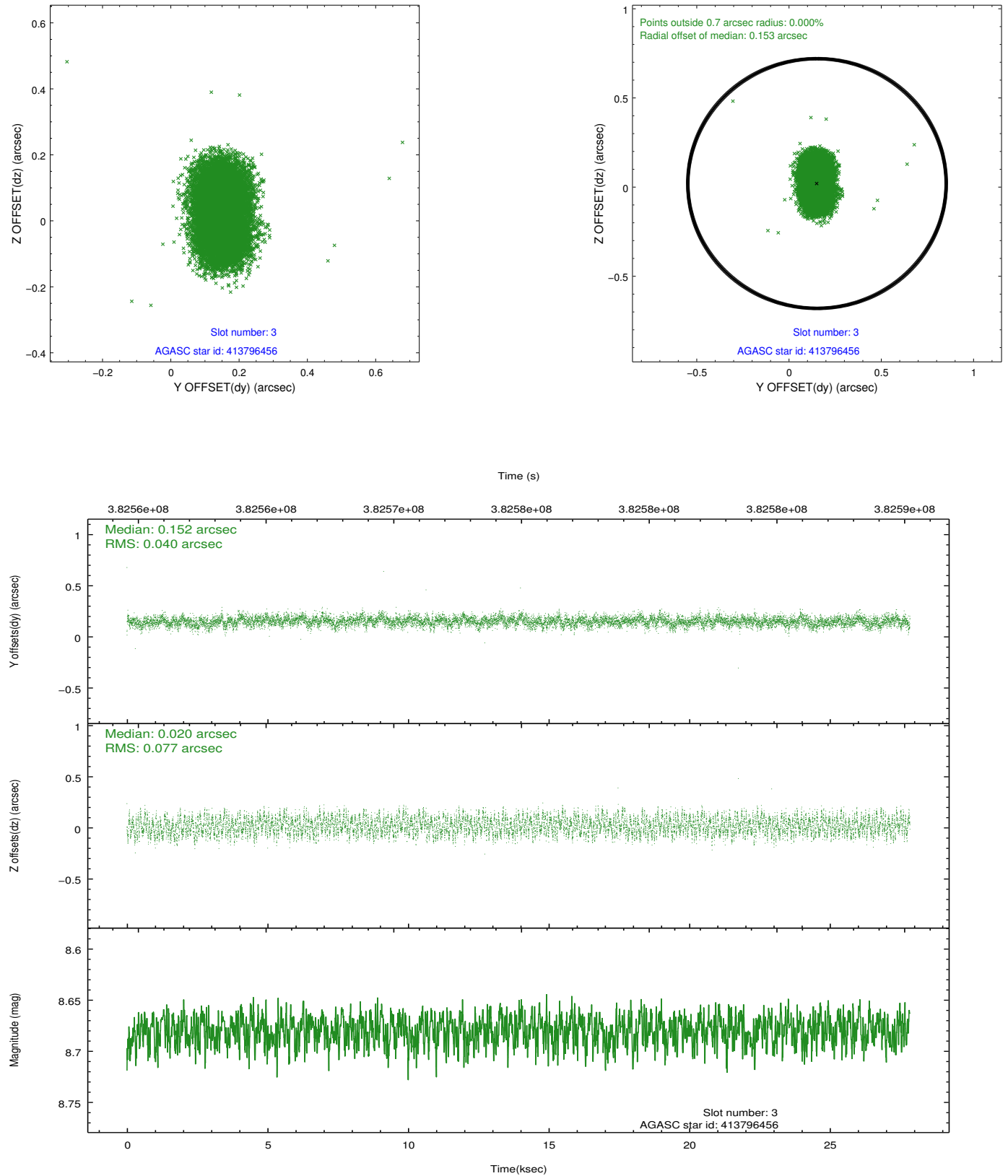


### Slot Statistics

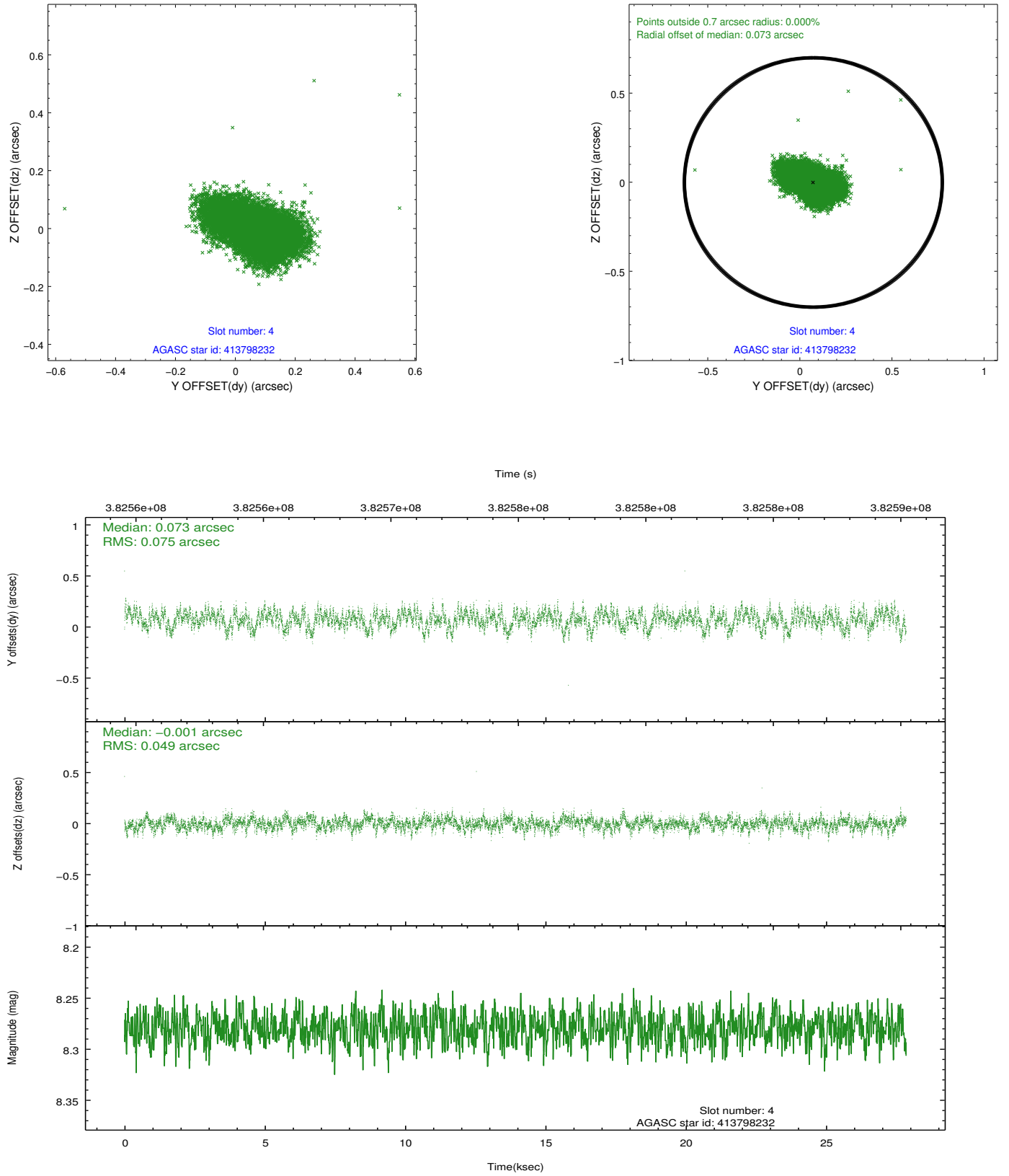
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	6.98	6793	0.041	0.007	0.022	0.037	0.000000	0.000000	923.59	-840.88
1	FID	ACIS-I-5	6.99	6792	-0.185	0.055	0.009	0.022	0.000000	0.000000	-1824.68	1056.63
2	FID	ACIS-I-6	7.00	6792	0.055	0.006	0.016	0.043	0.000000	0.000000	389.08	1701.18
3	GUIDE	413796456	8.68	13582	0.152	0.020	0.093	0.149	308.312084	40.613132	-1313.74	-1985.58
4	GUIDE	413798232	8.28	13581	0.073	-0.001	0.094	0.159	309.116117	41.044272	1342.09	-1597.39
5	GUIDE	414324232	8.31	13578	-0.064	-0.072	0.066	0.106	308.637806	41.996627	1743.23	2043.67
6	GUIDE	414326136	7.36	13584	-0.089	-0.125	0.075	0.114	308.256176	41.473642	-28.37	837.46
7	GUIDE	413802872	9.32	13496	-0.068	0.175	0.122	0.188	308.231239	40.487807	-1716.74	-2284.56

## 2.4 Star Slots

### 2.4.1 Slot 3

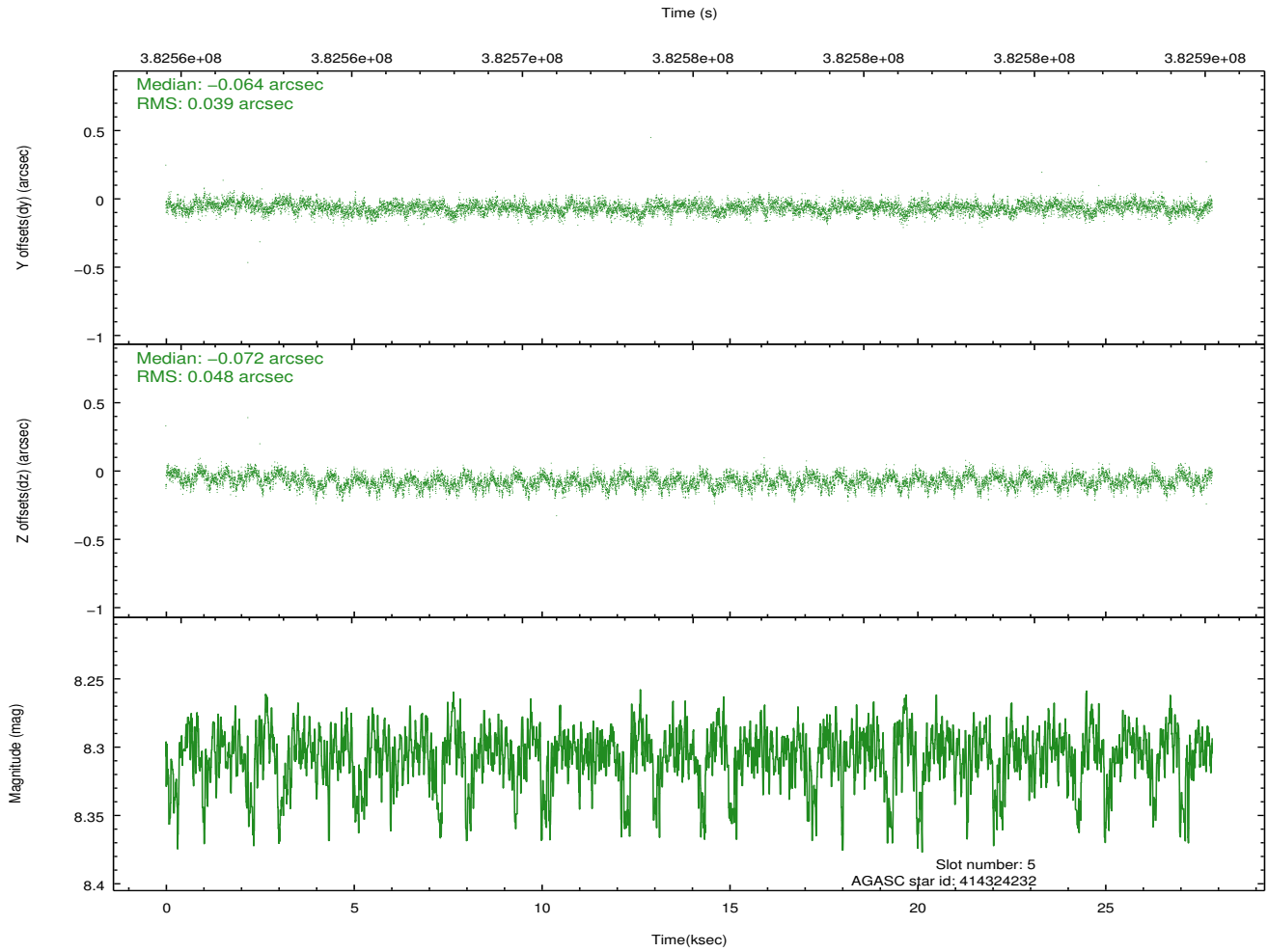
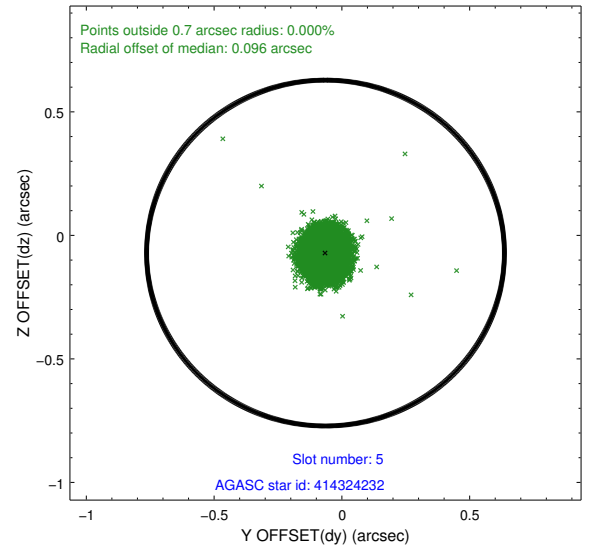
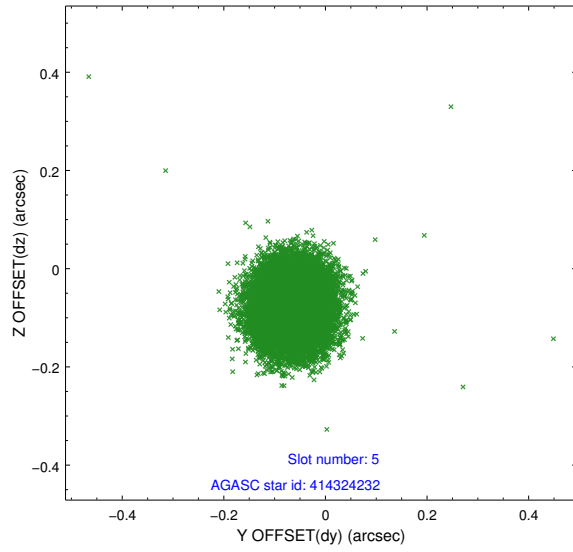


## 2.4.2 Slot 4

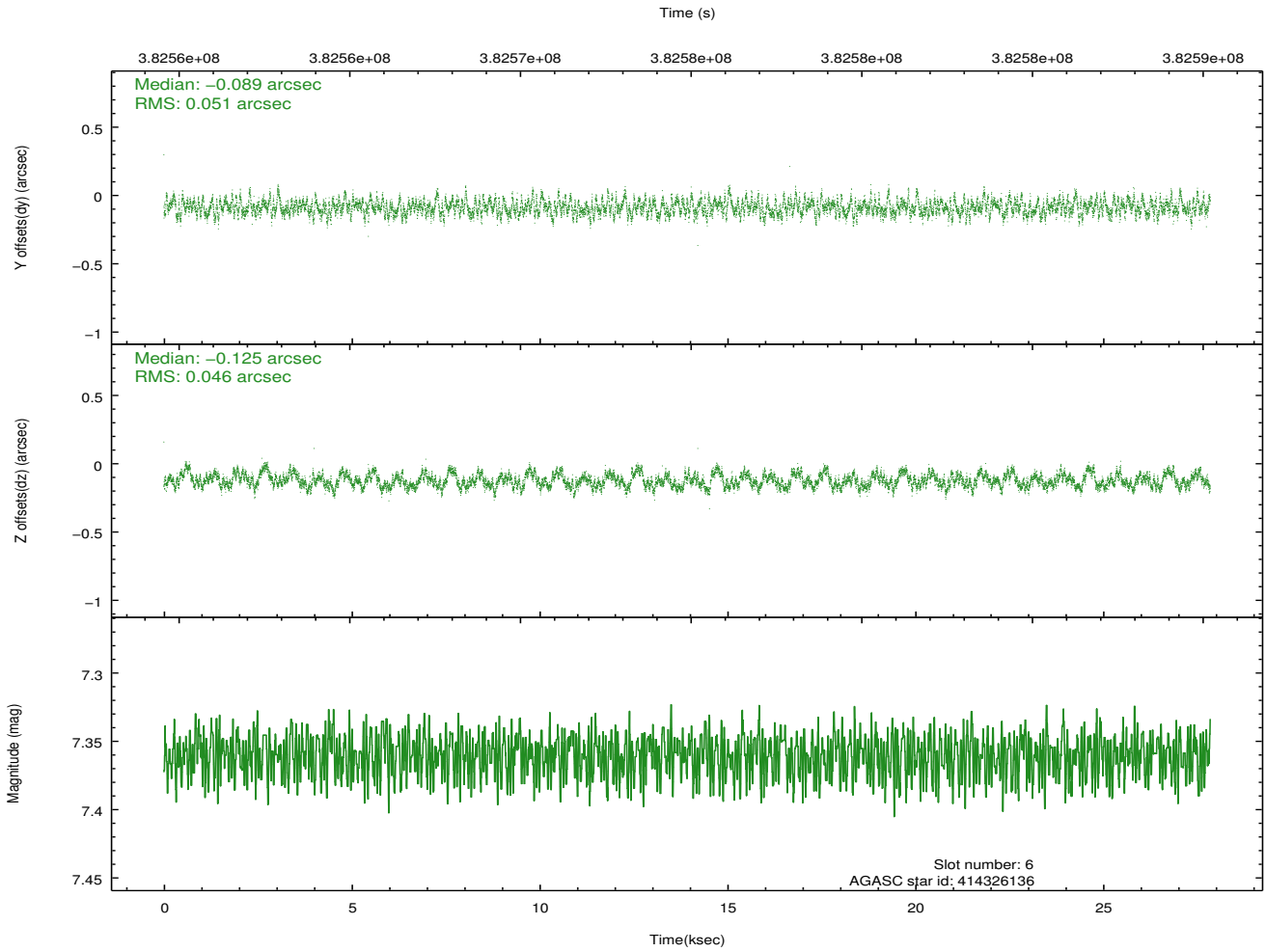
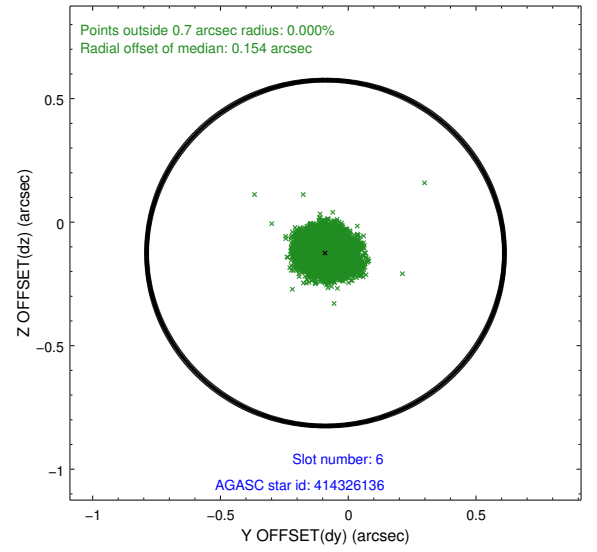
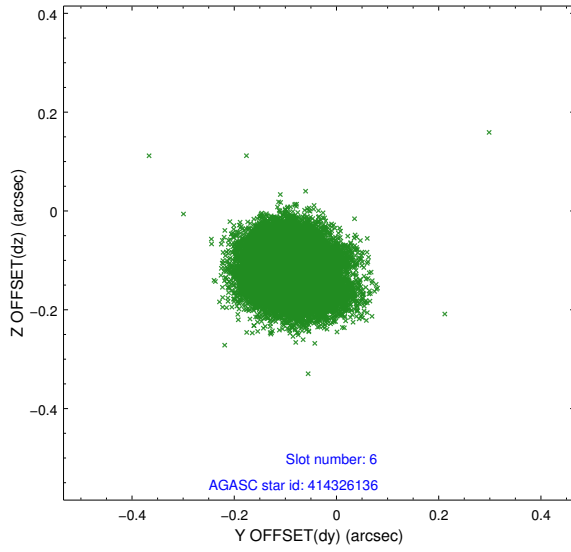




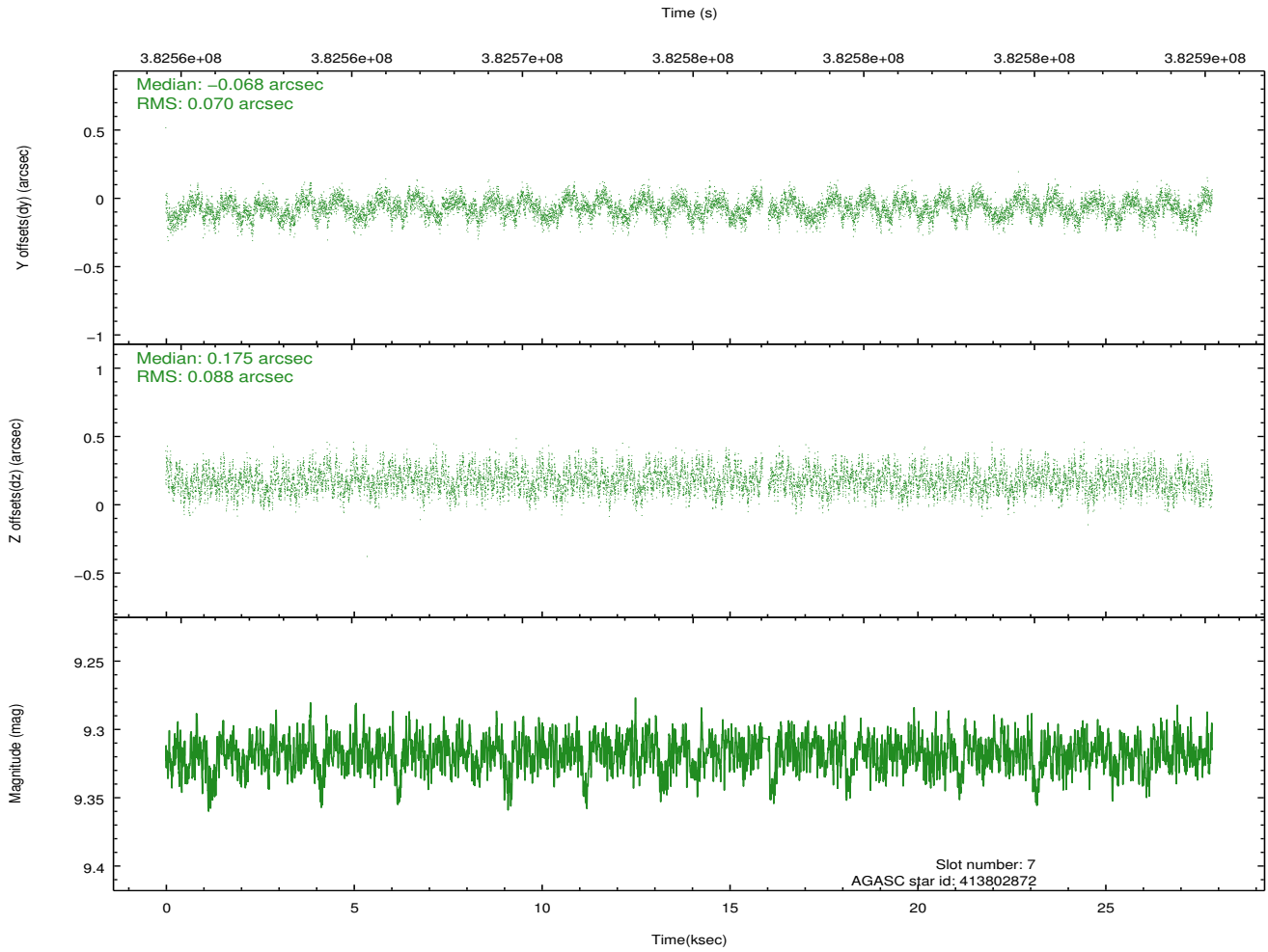
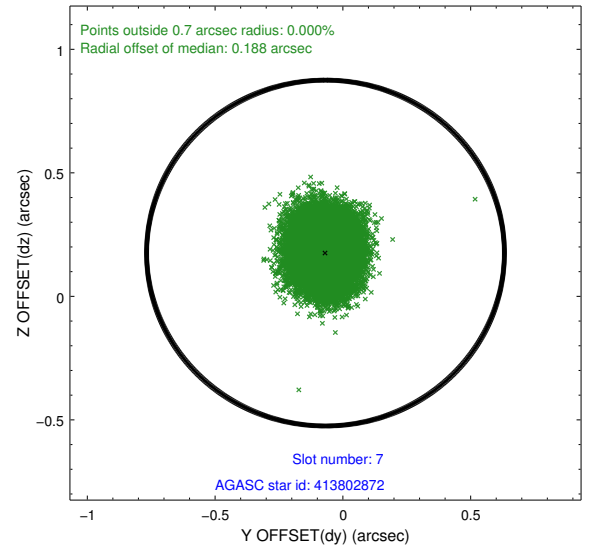
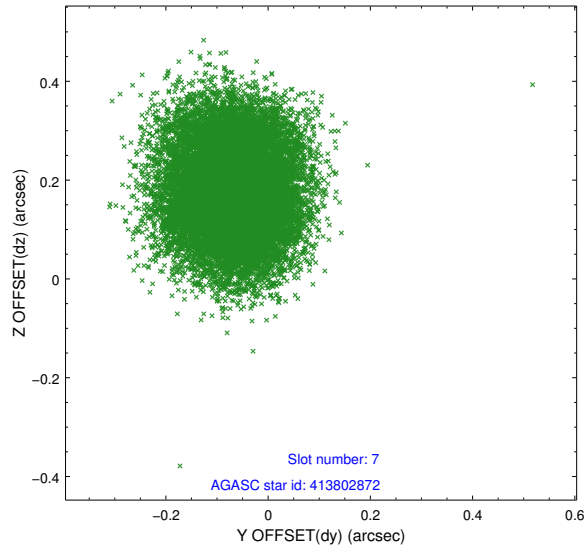
### 2.4.3 Slot 5



## 2.4.4 Slot 6

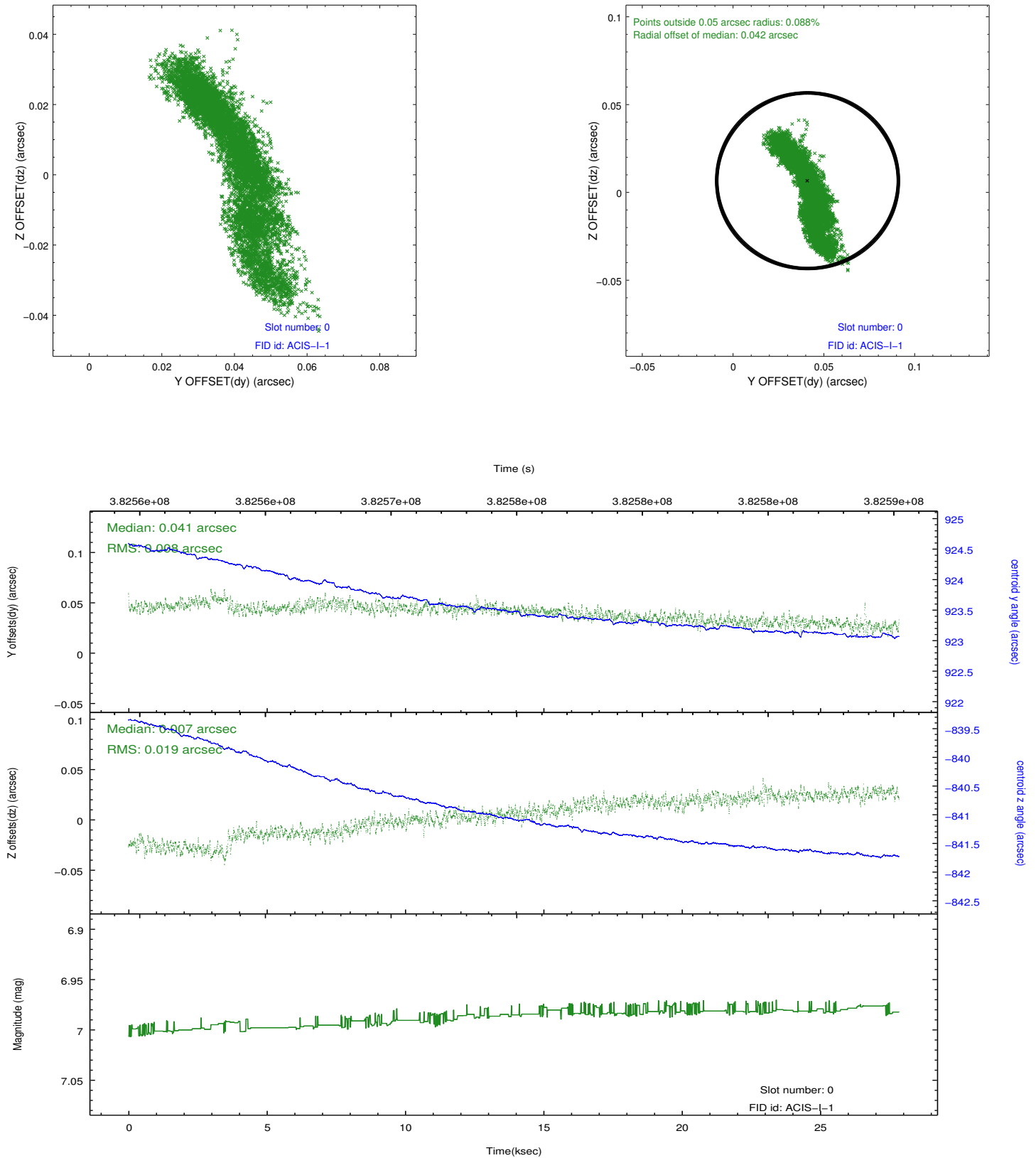


## 2.4.5 Slot 7

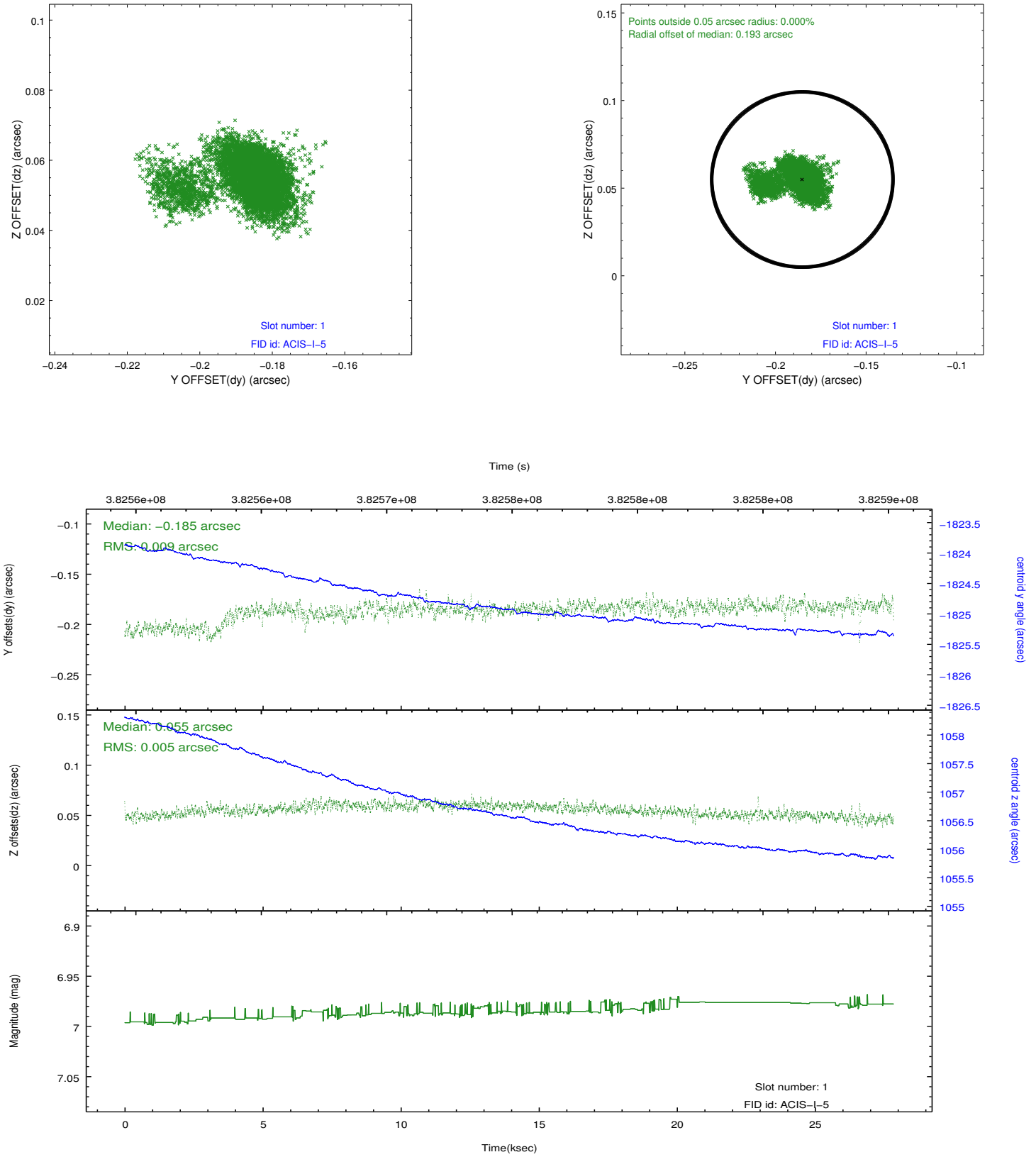


## 2.5 FID Slots

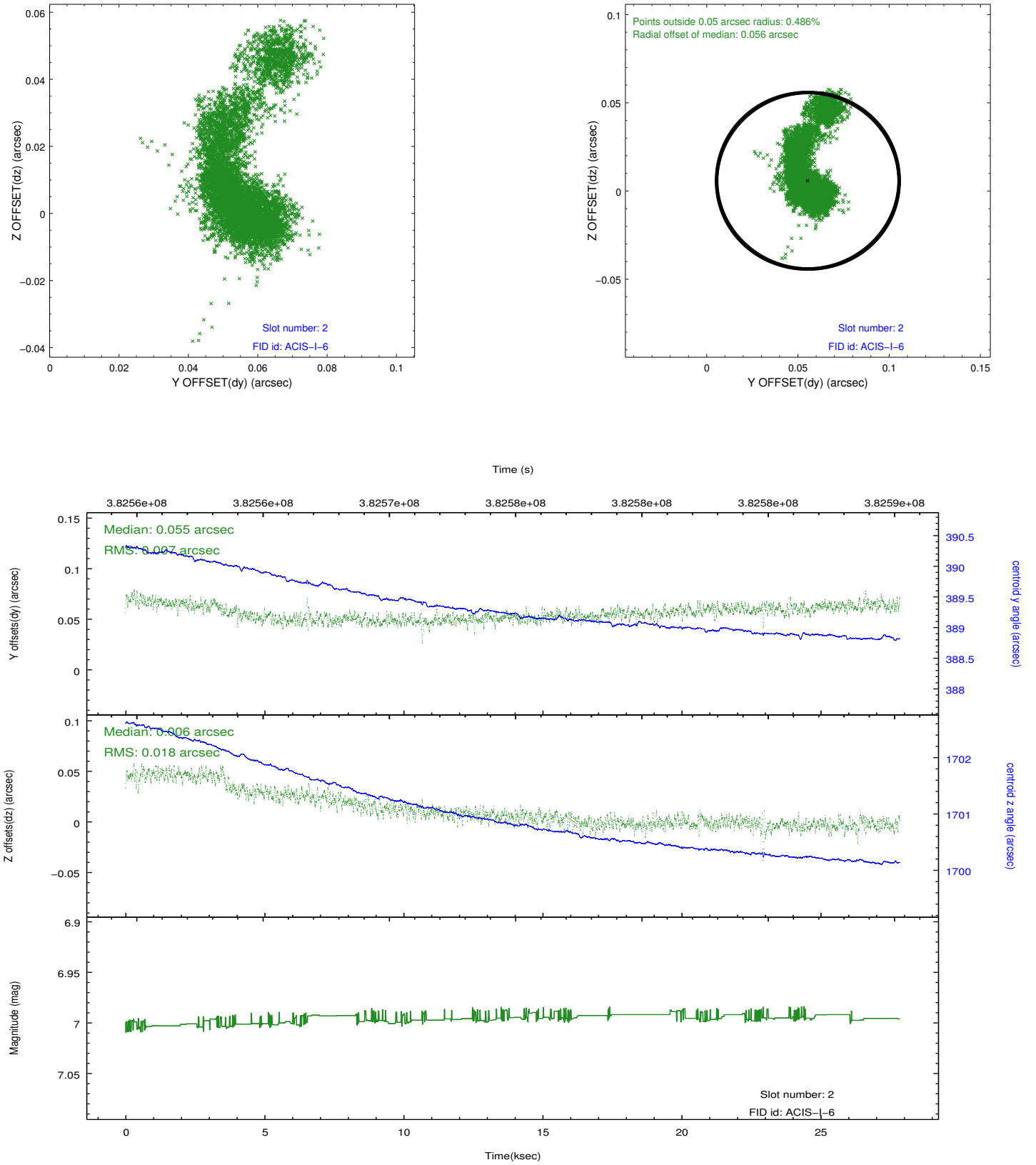
### 2.5.1 Slot 0



## 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)	2012.06.28
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	27.843199896336

### A.2 Comments