

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 10953 - L2 Version 2  
Chandra X-Ray Center

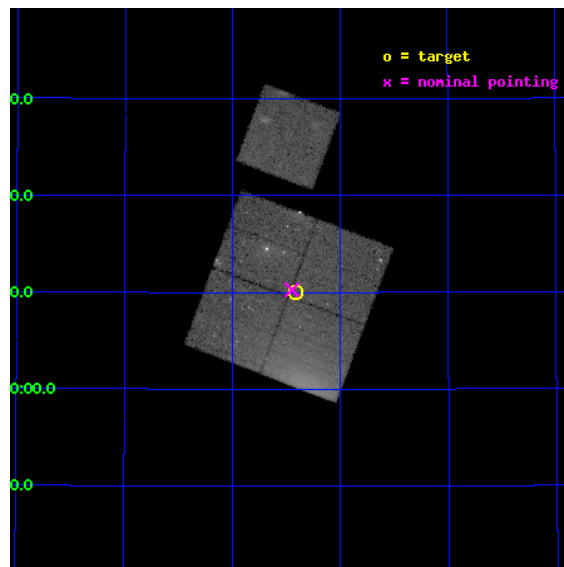
L2 Processing Date : Jun 21 2012

## 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

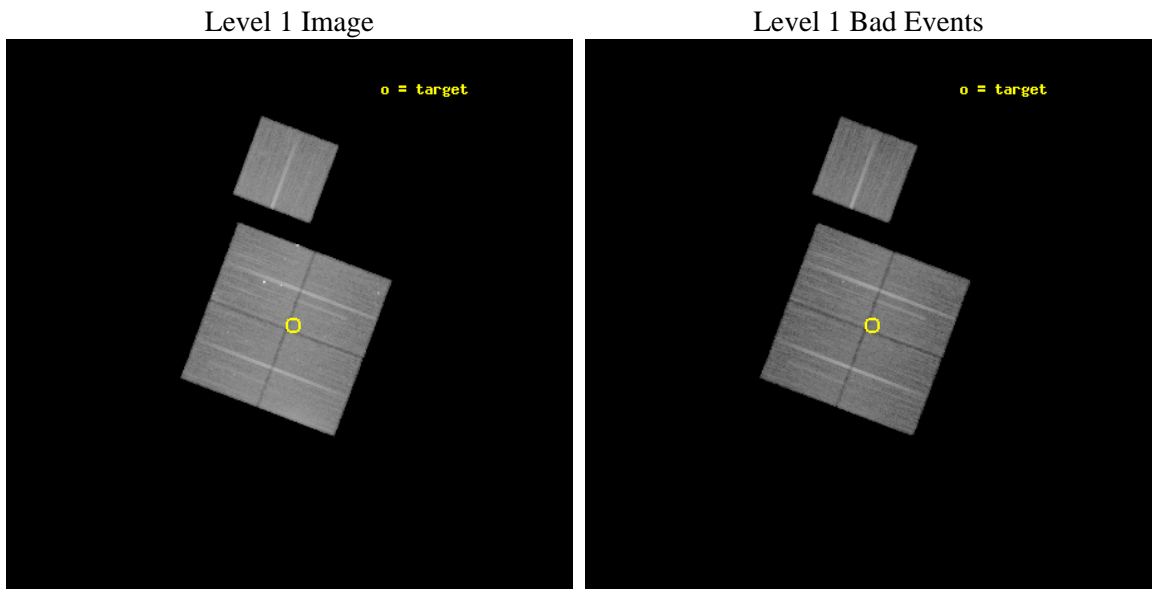
seq_num	200585	Sequence number
obs_id	10953	Observation id
title	The Chandra Cygnus OB2 Survey	Proposal title
observer	Dr. Jeremy Drake	Principal investigator
object	Cygnus OB2	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	308.103733	Observer's specified target RA [deg]
dec_targ	41.166286	Observer's specified target Dec [deg]
ra_nom	308.11219158087	Nominal RA [deg]
dec_nom	41.171235932537	Nominal Dec [deg]
roll_nom	20.568727246378	Nominal Roll [deg]
revision	2	Processing version of data
ontime	29268.797990143	Sum of GTIs [s]
livetime	28886.379597026	Livetime [s]
ontime0	29268.674870014	Sum of GTIs [s]
ontime1	29268.715910077	Sum of GTIs [s]
ontime2	29265.615979731	Sum of GTIs [s]
ontime3	29268.797990143	Sum of GTIs [s]
ontime6	29271.774790406	Sum of GTIs [s]
l2events	188067	Number of level 2 events



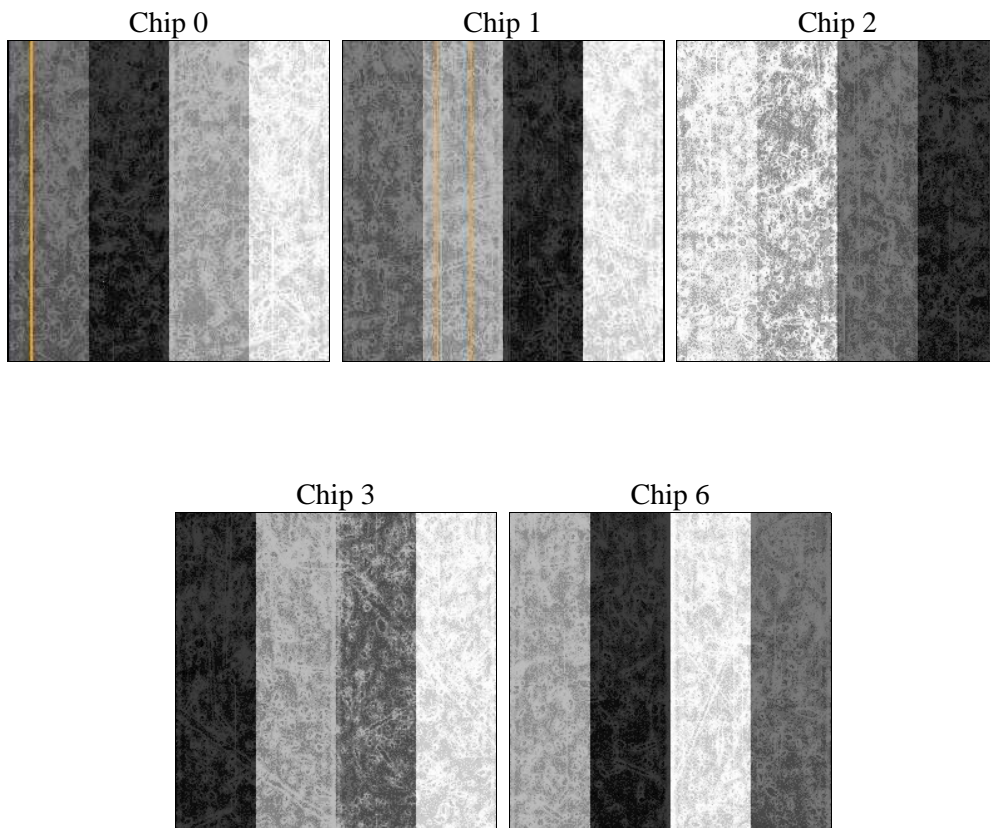
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	29500.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	29268.797990143	Sum of GTIs [s]
caldbver	4.4.10	&#160	ontime0	29268.674870014	Sum of GTIs [s]
date	2012-06-21T02:53:19	Date and time of file creation	ontime1	29268.715910077	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	29265.615979731	Sum of GTIs [s]
			ontime3	29268.797990143	Sum of GTIs [s]
			ontime6	29271.774790406	Sum of GTIs [s]
			l1events	1182718	Number of level 1 events

### 2.1.4 Events

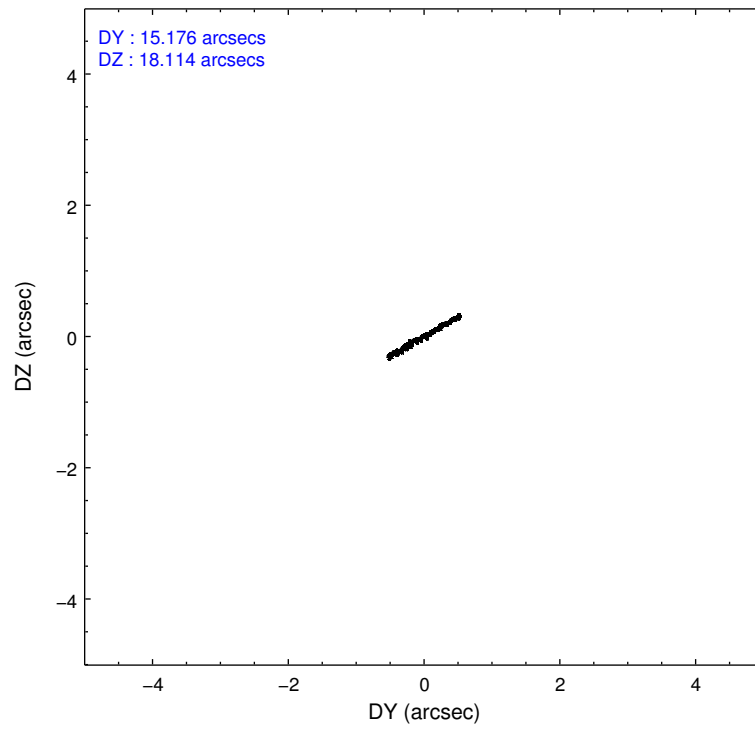
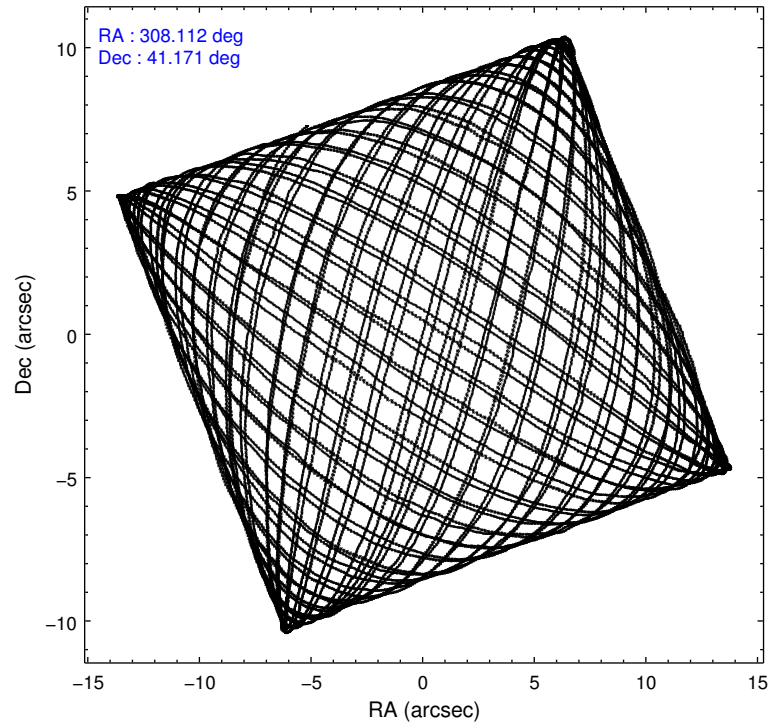
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	217163	253780	253605	226789	231381
rejected events	178250	181942	209819	196823	200625
rejected %	82%	71%	82%	86%	86%

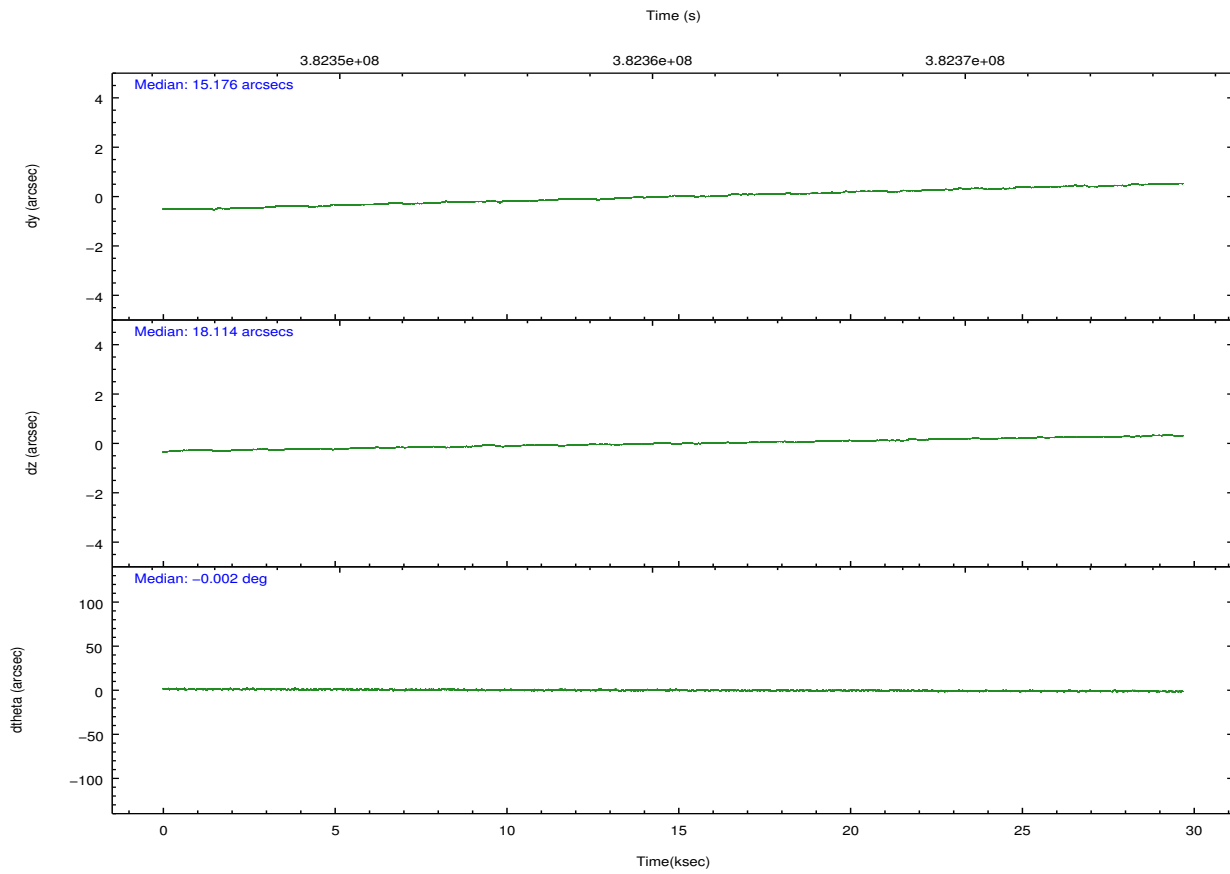
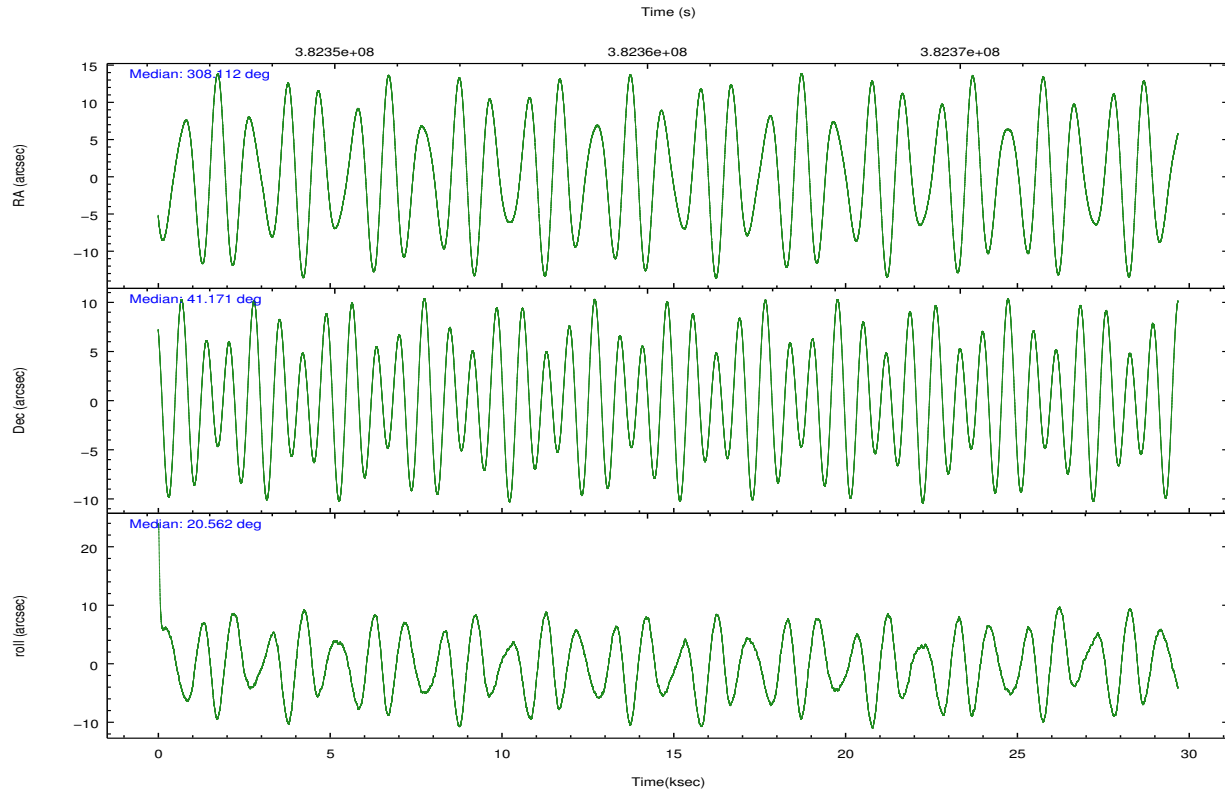
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	19923	43328	25122	14017	14080
	9%	17%	9%	6%	6%
grade 1 events	199	320	390	182	152
	0%	0%	0%	0%	0%
grade 2 events	7720	11917	7725	5874	6167
	3%	4%	3%	2%	2%
grade 3 events	3136	4689	3051	2766	2764
	1%	1%	1%	1%	1%
grade 4 events	3011	4646	3144	2682	2684
	1%	1%	1%	1%	1%
grade 5 events	7399	7987	6960	8326	7731
	3%	3%	2%	3%	3%
grade 6 events	5133	7270	4757	4635	5064
	2%	2%	1%	2%	2%
grade 7 events	170642	173623	202456	188307	192739
	78%	68%	79%	83%	83%

## 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	308.089121	308.1121915808678	CCD I2 on	Y	Y
[deg] Pointing Dec	41.149939	41.17123593253744	CCD I3 on	Y	Y
[deg] Pointing Roll	20.375229	20.56872724637826	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)	382345995.184000	382345619.07169	CCD S5 on	N	N
Observation start date	2010-02-12T07:12:09	2010-02-12T07:06:59	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	382375495.184000	382375629.02321	On-chip summing requested	N	N
Observation end date	2010-02-12T15:23:49	2010-02-12T15:27:09	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





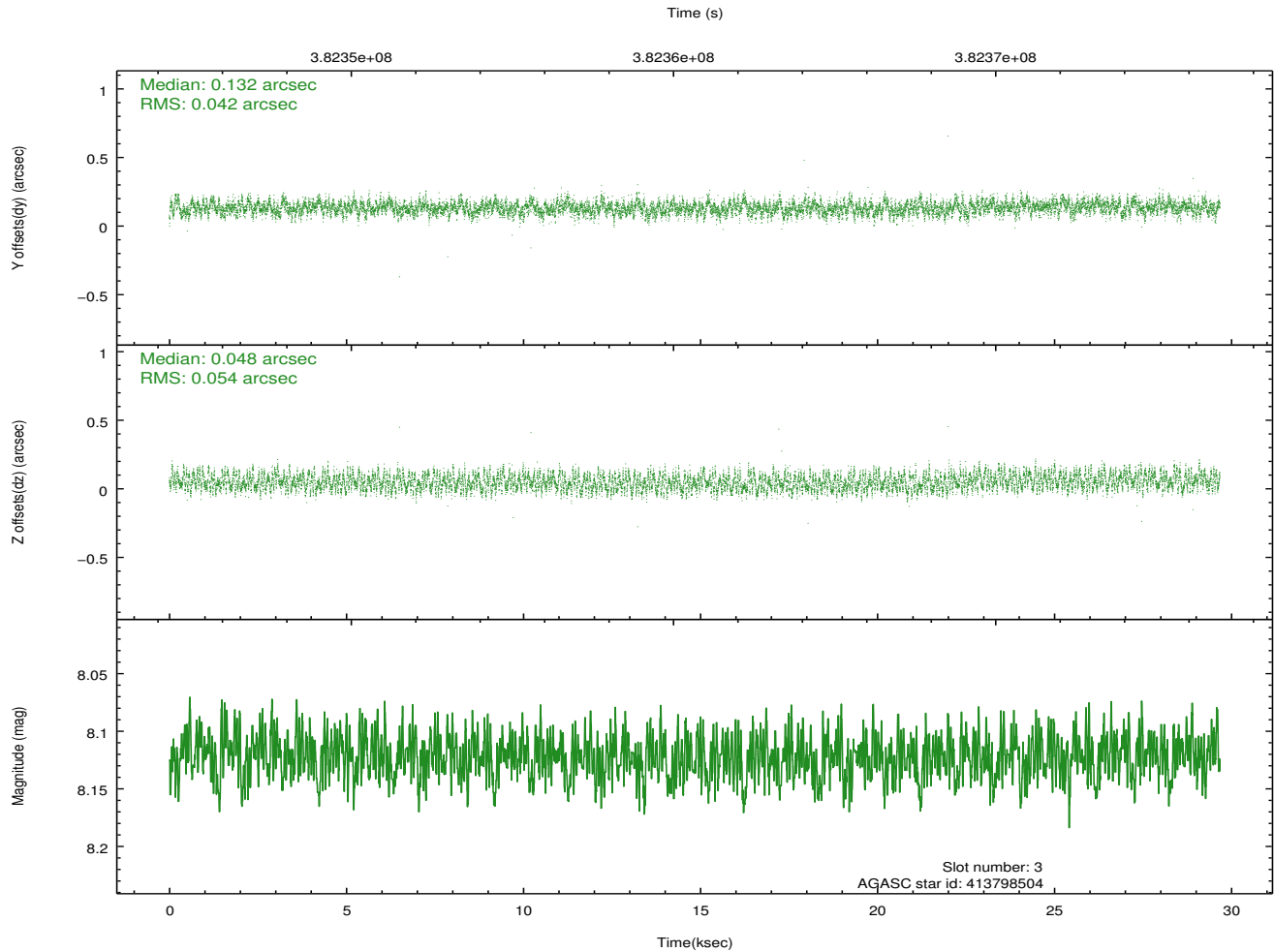
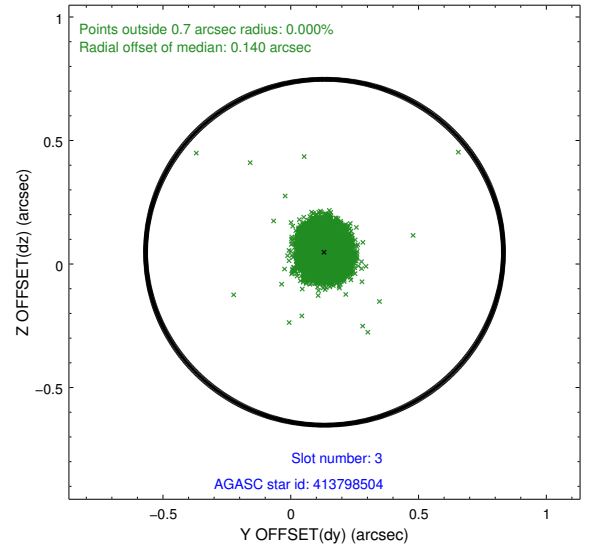
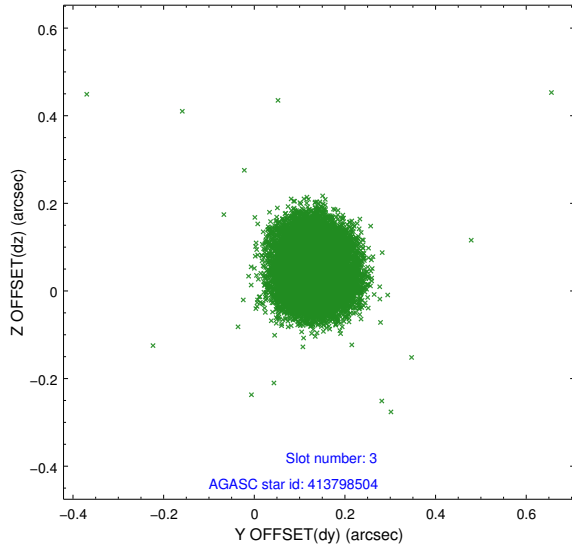
### Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.00	7239	0.046	0.011	0.014	0.034	0.000000	0.000000	924.32	-841.78
1	FID	ACIS-I-5	6.99	7238	-0.209	0.057	0.012	0.026	0.000000	0.000000	-1823.99	1055.72
2	FID	ACIS-I-6	7.01	7239	0.073	0.001	0.008	0.013	0.000000	0.000000	389.82	1700.24
3	GUIDE	413798504	8.12	14476	0.132	0.048	0.074	0.113	307.761525	40.426565	-1747.21	-2127.06
4	GUIDE	413803288	6.98	14474	0.032	0.062	0.055	0.085	307.629978	40.506899	-1982.74	-1729.61
5	GUIDE	413805792	7.34	14477	-0.076	0.073	0.066	0.110	307.778748	40.858024	-1157.31	-689.13
6	GUIDE	414326136	7.36	14478	-0.060	-0.093	0.065	0.100	308.256176	41.473642	828.50	936.36
7	GUIDE	414324712	9.35	14460	-0.029	-0.087	0.119	0.185	307.938856	41.820690	462.88	2404.54

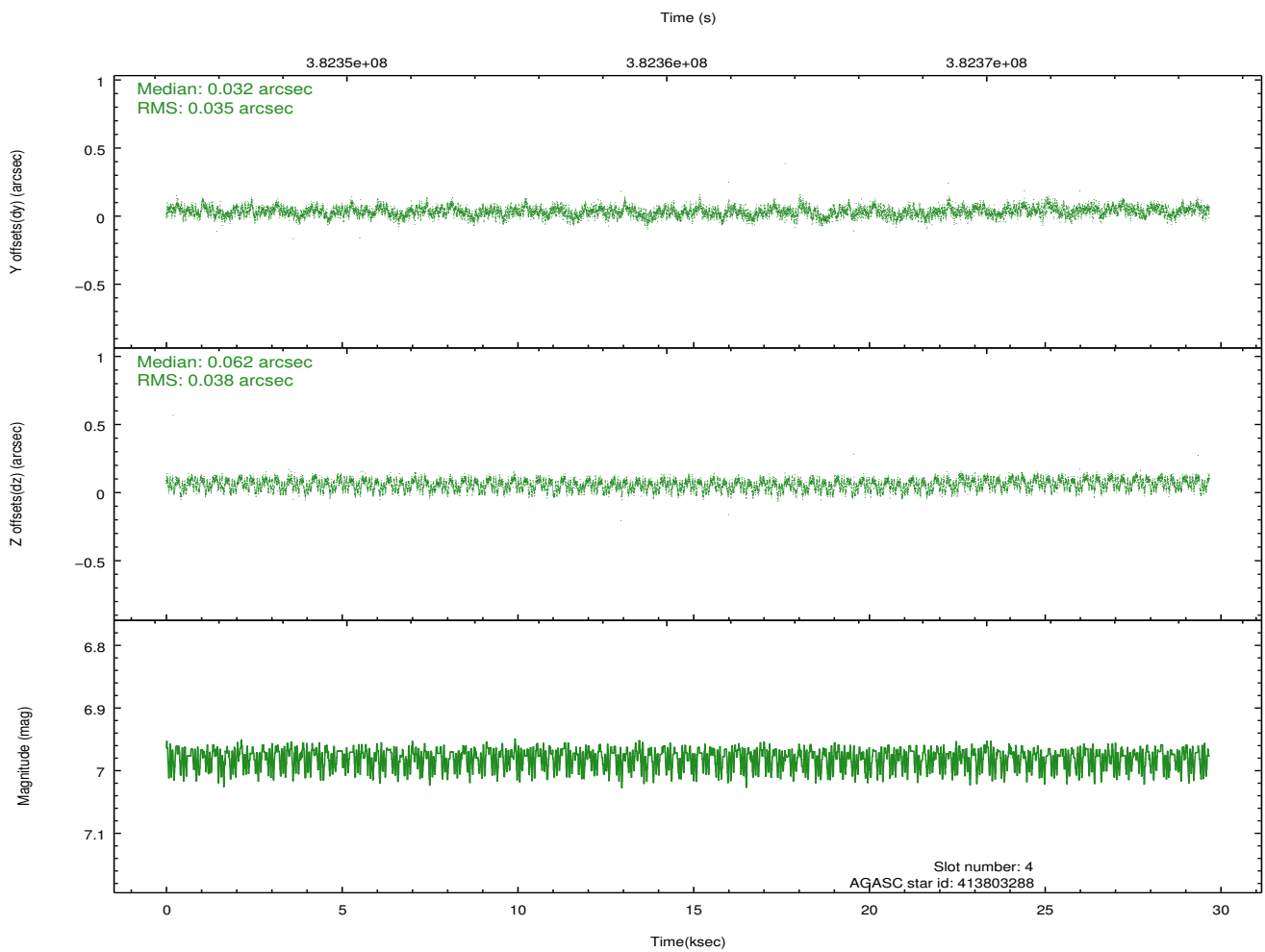
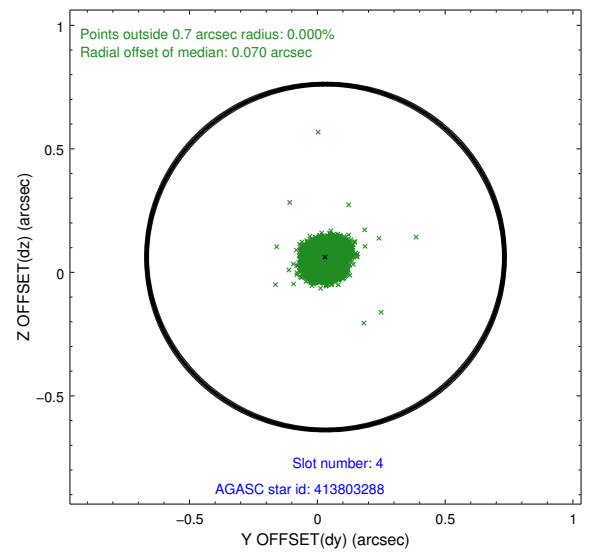
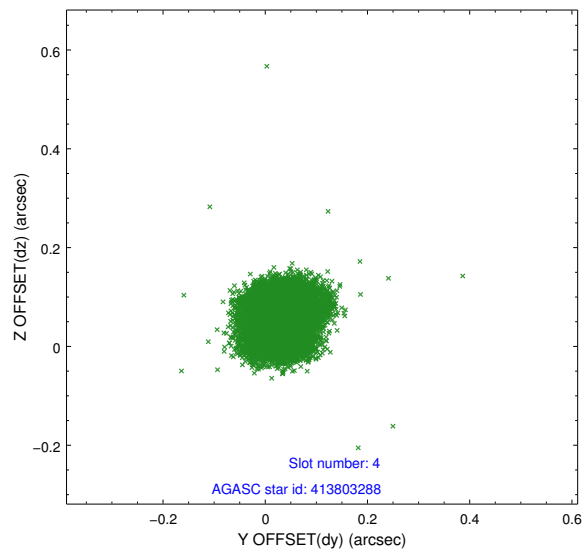
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## 2.4 Star Slots

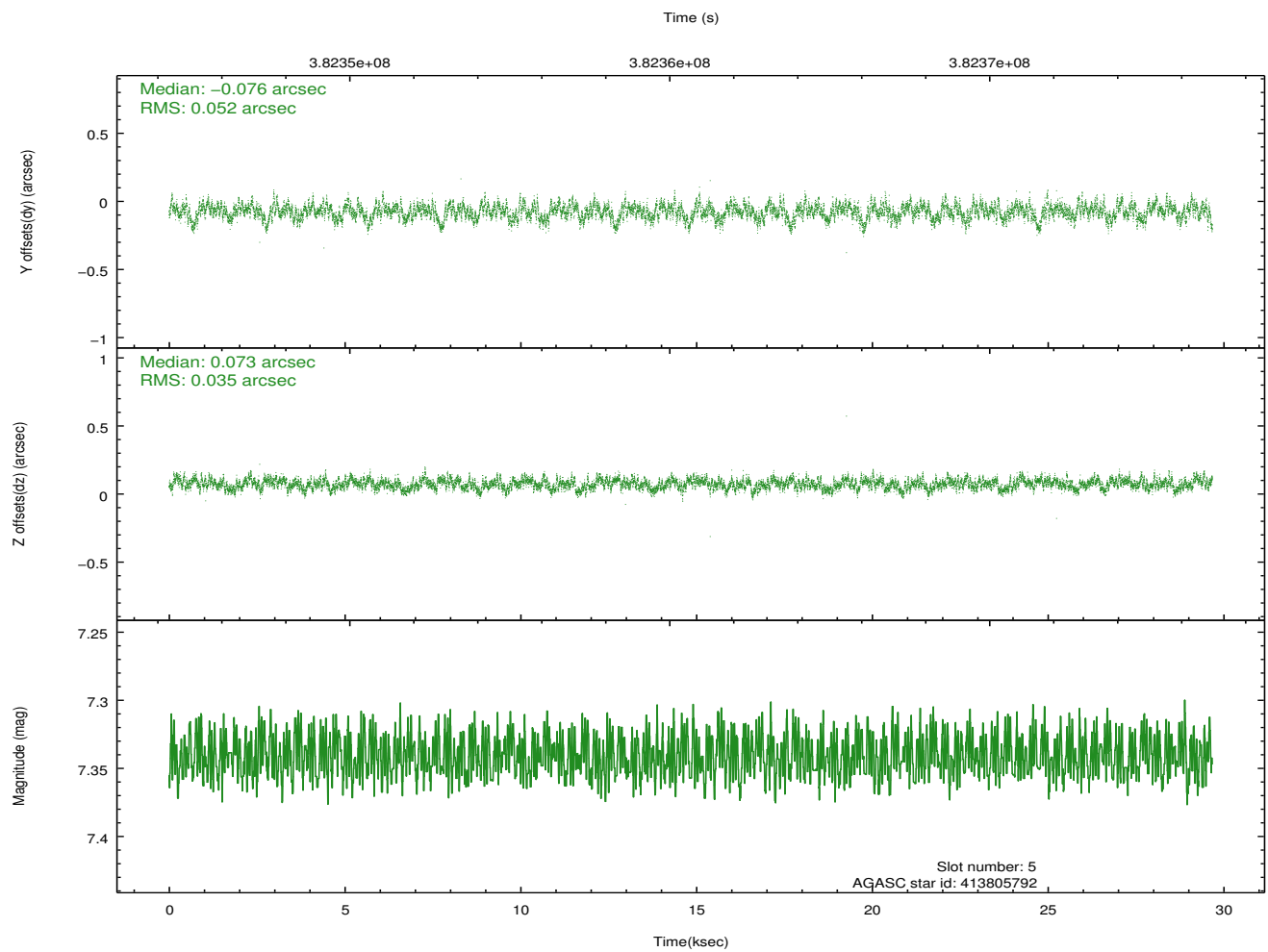
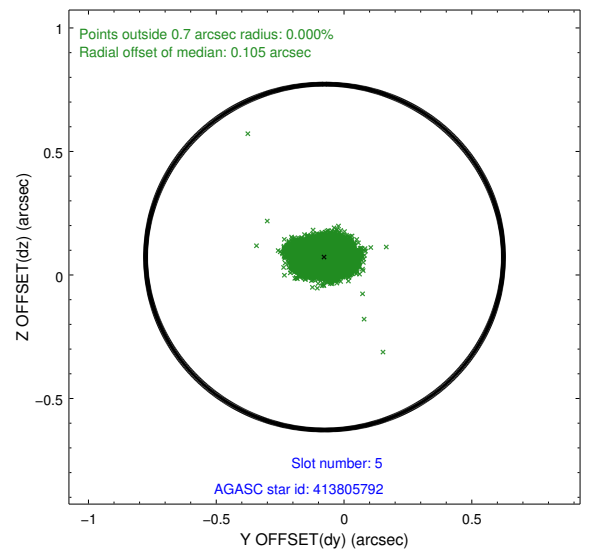
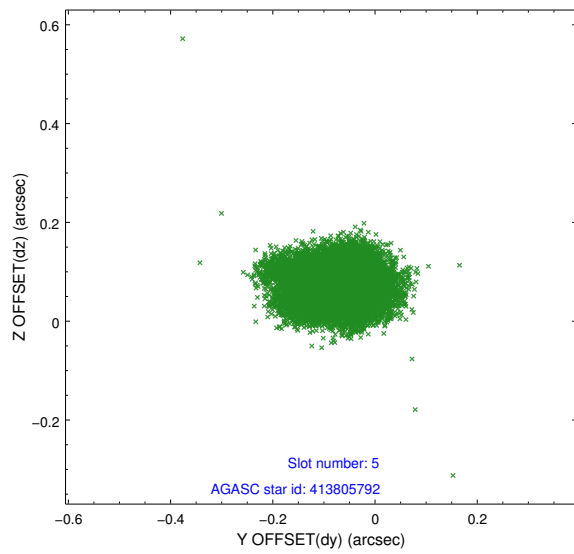
### 2.4.1 Slot 3



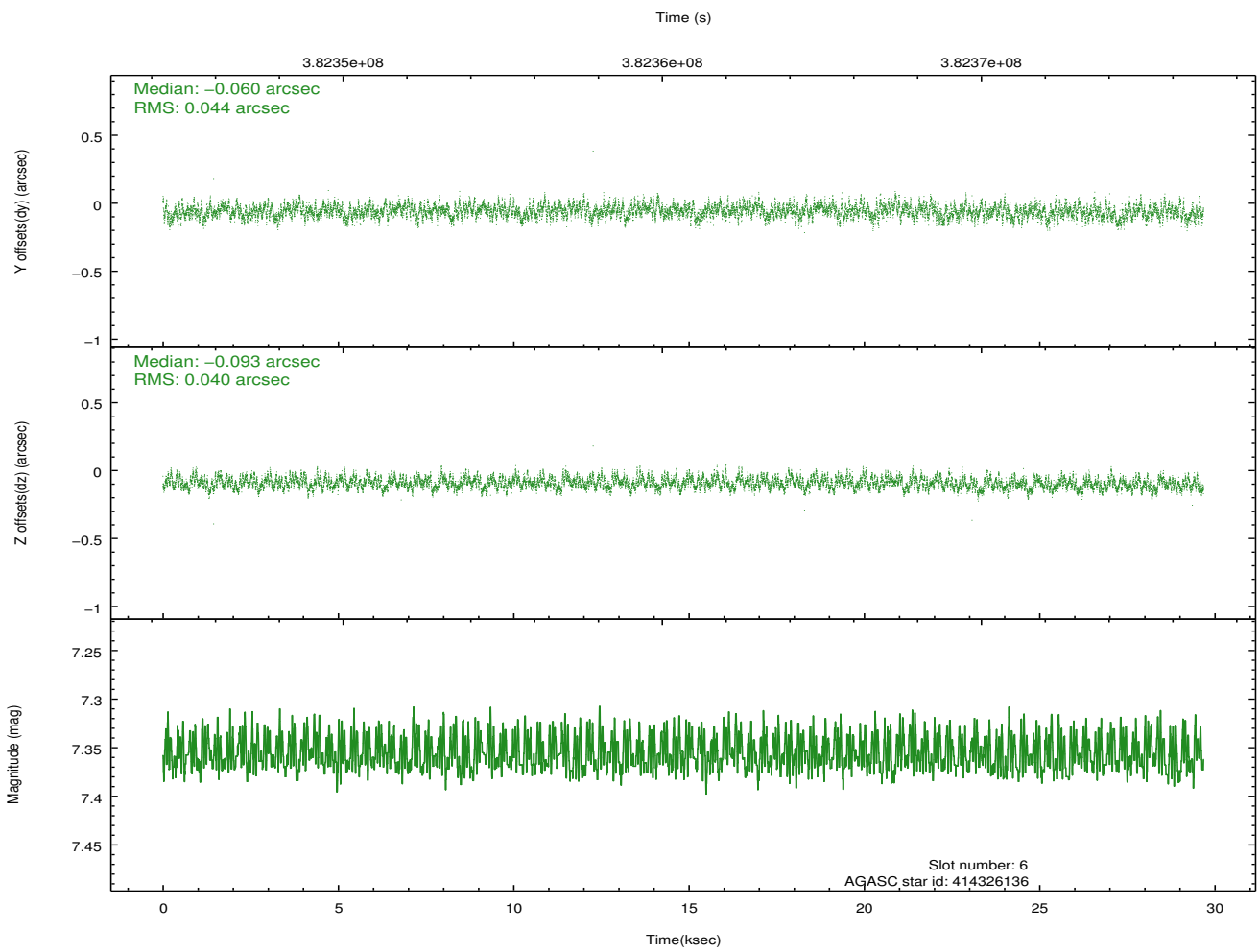
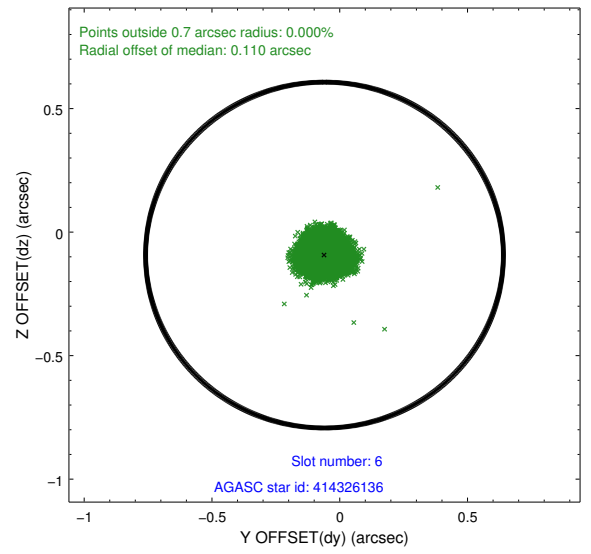
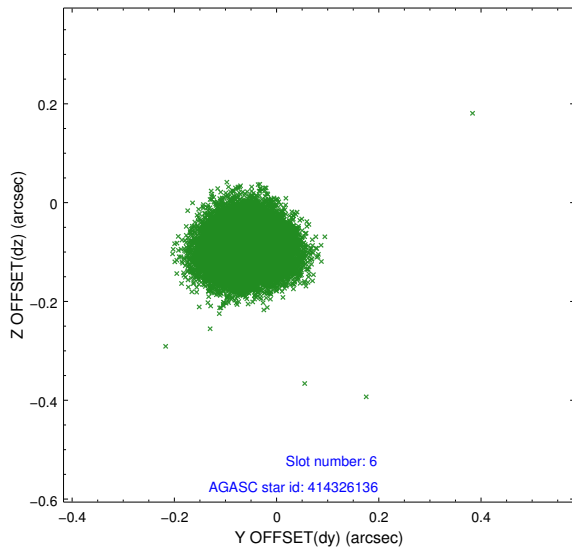
## 2.4.2 Slot 4



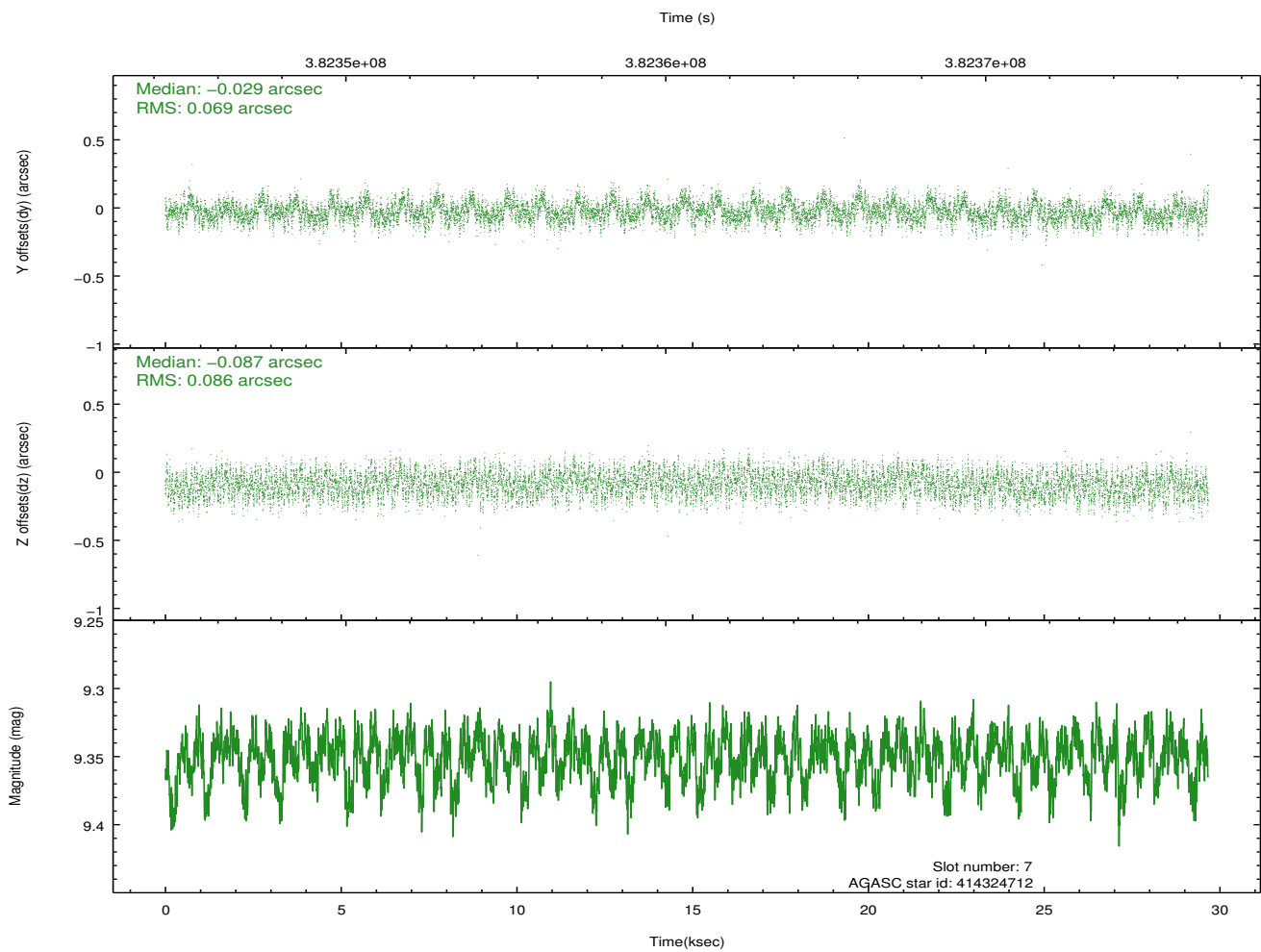
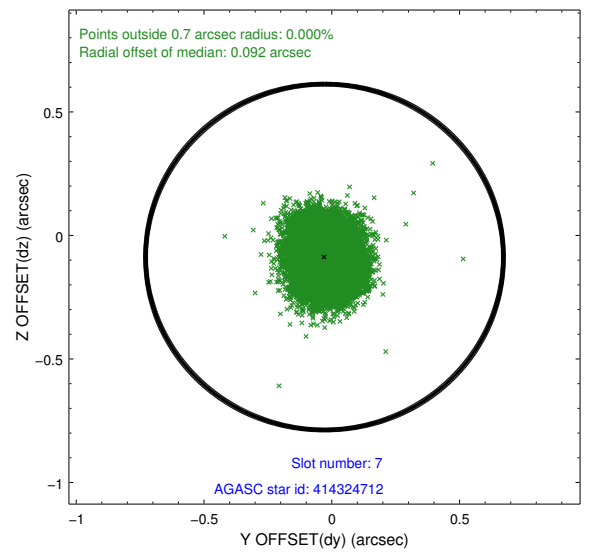
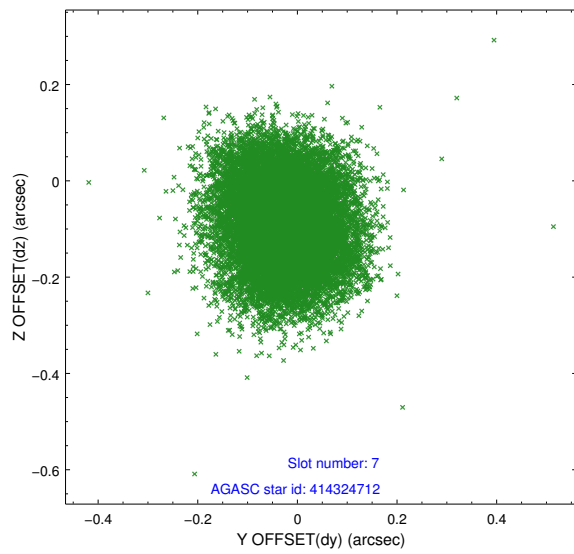
### 2.4.3 Slot 5



## 2.4.4 Slot 6

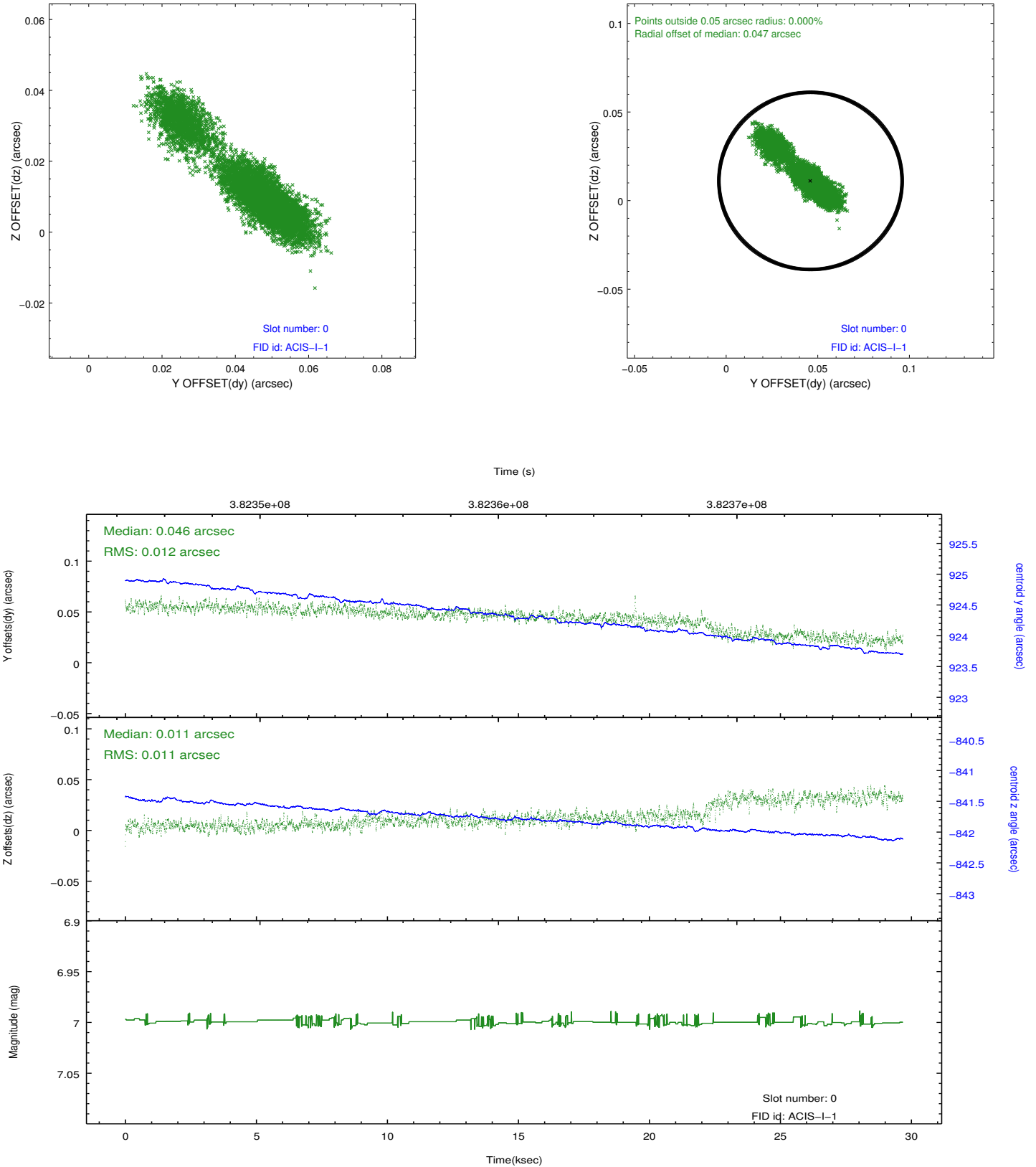


## 2.4.5 Slot 7

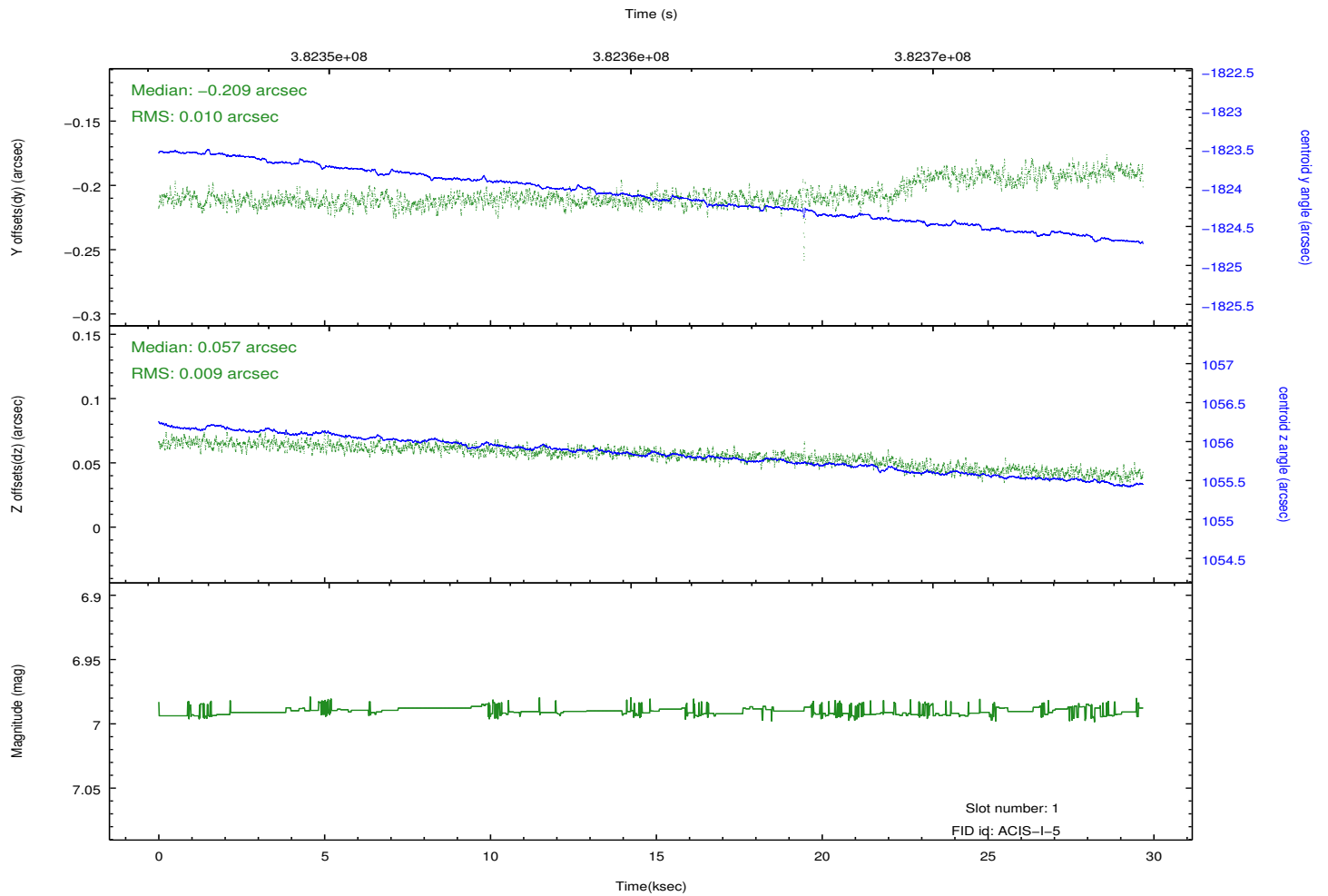
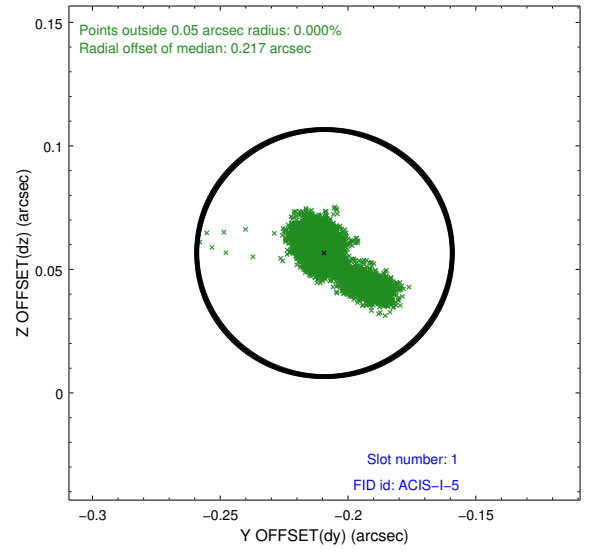
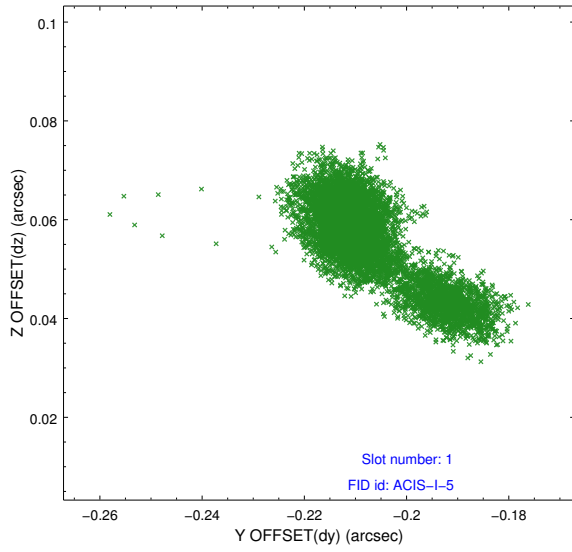


## 2.5 FID Slots

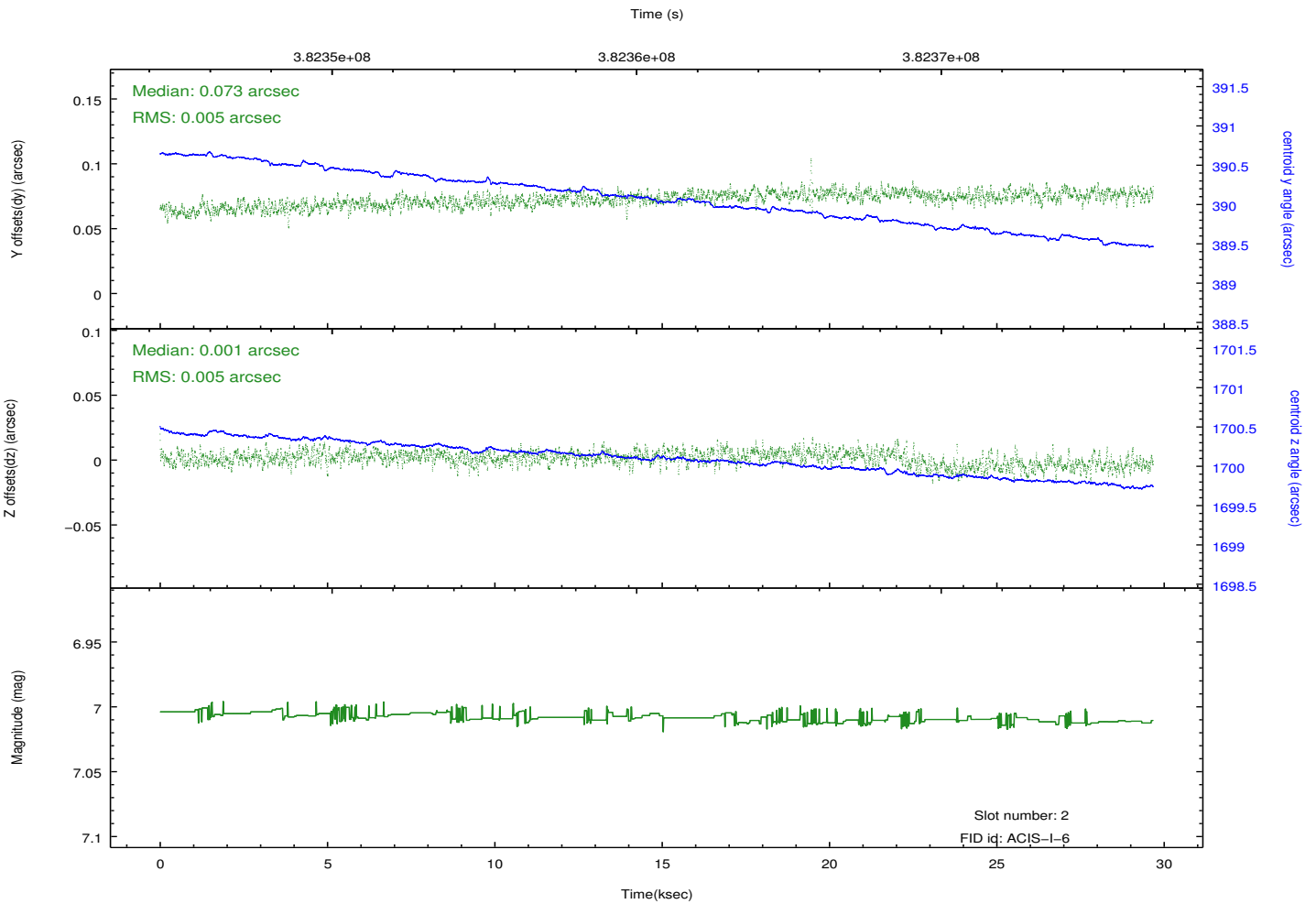
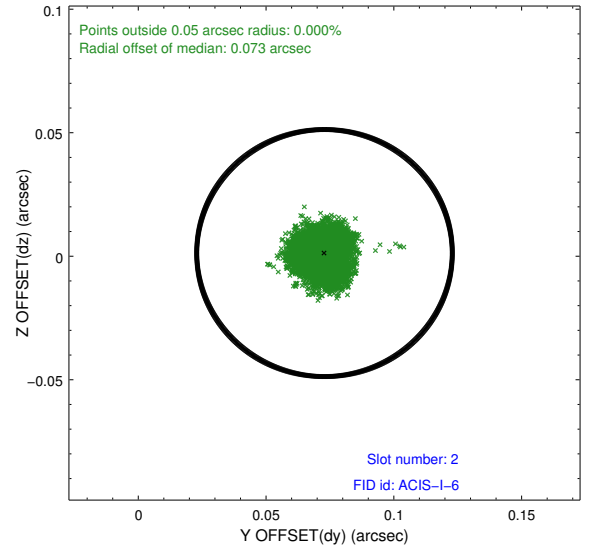
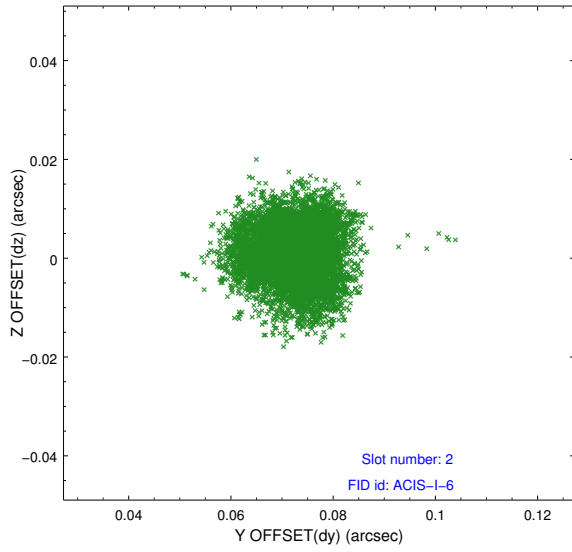
### 2.5.1 Slot 0



## 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)	2012.06.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	29.2687979

## A.2 Comments

Roll angle preference met.