

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 4992 - L2 Version 3  
Chandra X-Ray Center

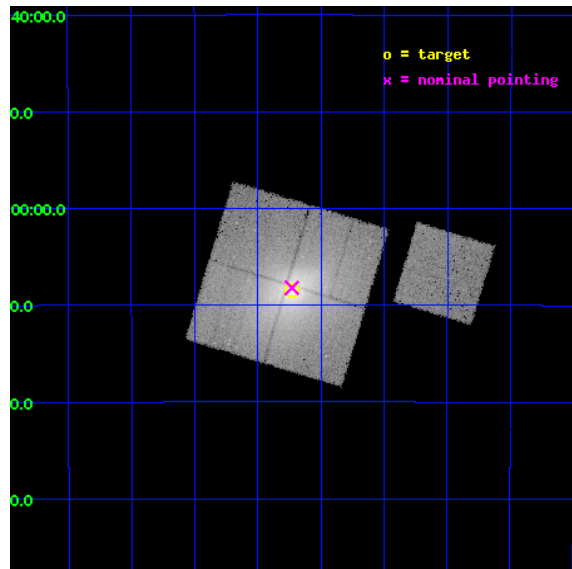
L2 Processing Date : Dec 3 2012

## 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

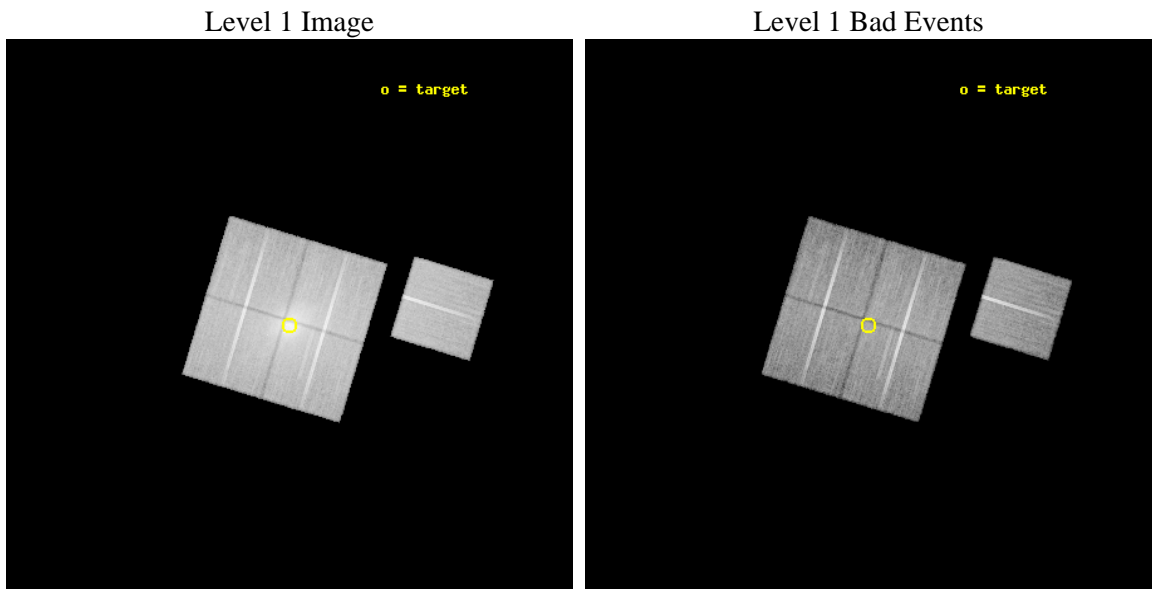
seq_num	800435	Sequence number
obs_id	4992	Observation id
title	A detailed study of entropy in low mass galaxy clusters	Proposal t
observer	Dr Edward Lloyd-Davies	Principal investigator
object	Abell 4038	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	356.932083	Observer's specified target RA [deg]
dec_targ	-28.1415	Observer's specified target Dec [deg]
ra_nom	356.9326238595	Nominal RA [deg]
dec_nom	-28.136896036576	Nominal Dec [deg]
roll_nom	106.89179103985	Nominal Roll [deg]
revision	3	Processing version of data
ontime	33972.869786173	Sum of GTIs [s]
livetime	33528.989231954	Livetime [s]
ontime0	33969.605676025	Sum of GTIs [s]
ontime1	33969.646735907	Sum of GTIs [s]
ontime2	33957.123974741	Sum of GTIs [s]
ontime3	33972.869786173	Sum of GTIs [s]
ontime6	33972.70562616	Sum of GTIs [s]
l2events	271542	Number of level 2 events



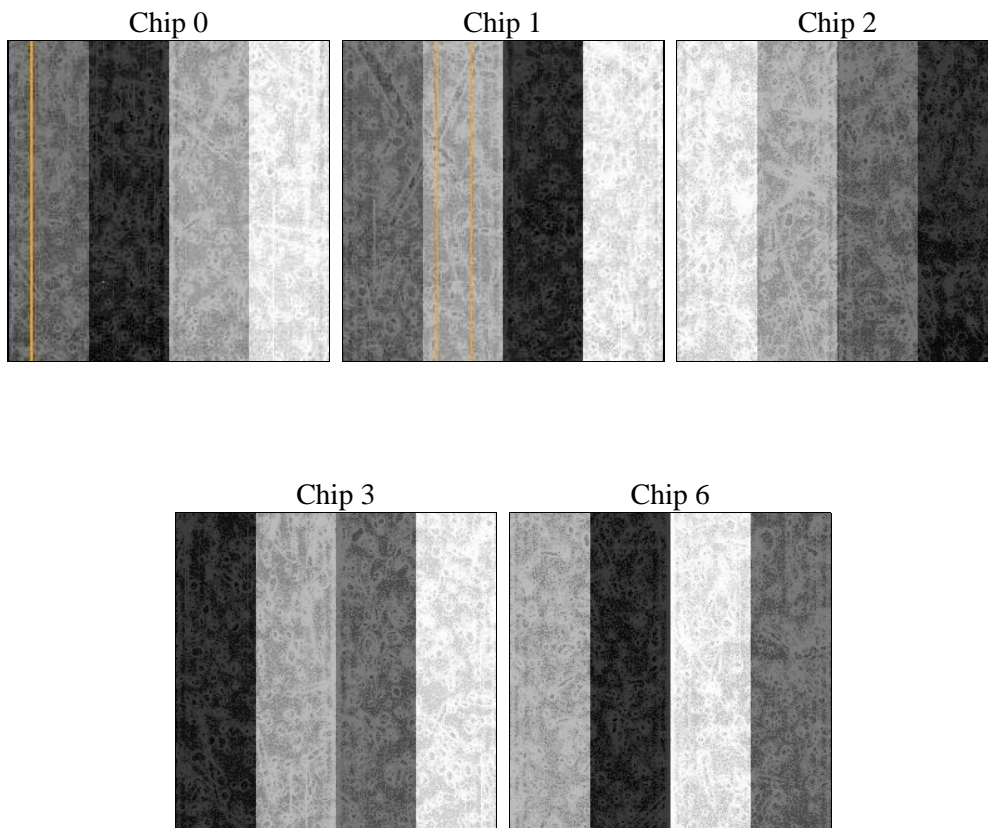
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	33921.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	33972.869786173	Sum of GTIs [s]
caldbver	4.5.2	&#160	ontime0	33969.605676025	Sum of GTIs [s]
date	2012-12-03T06:43:11	Date and time of file creation	ontime1	33969.646735907	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	33957.123974741	Sum of GTIs [s]
			ontime3	33972.869786173	Sum of GTIs [s]
			ontime6	33972.70562616	Sum of GTIs [s]
			l1events	1259782	Number of level 1 events

### 2.1.4 Events

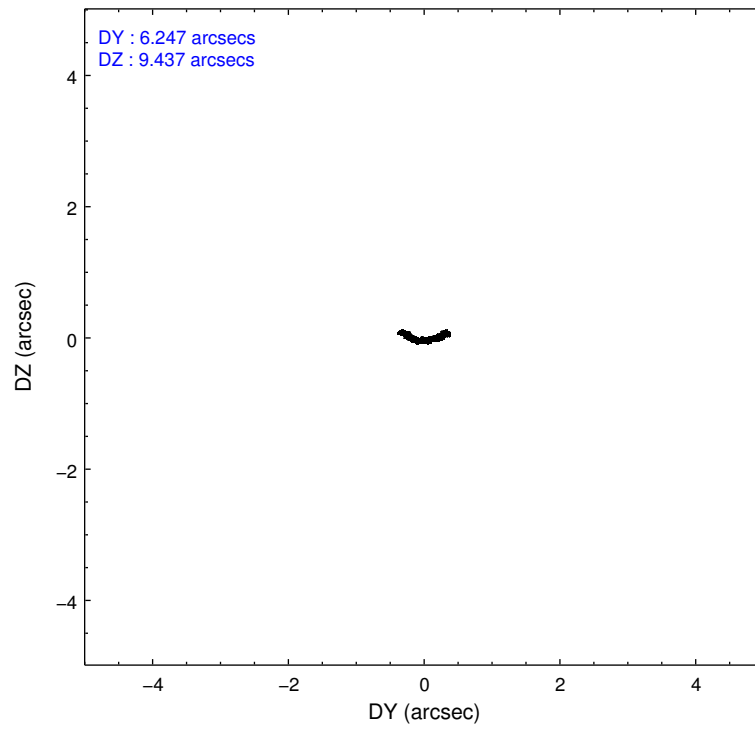
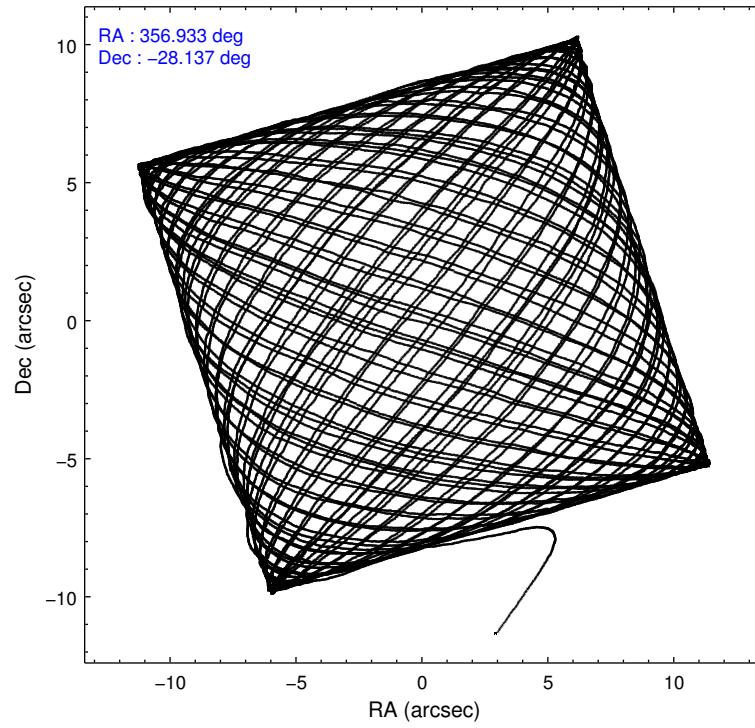
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	219000	249669	288125	285520	217468
rejected events	178385	178659	213708	195213	193453
rejected %	81%	71%	74%	68%	88%

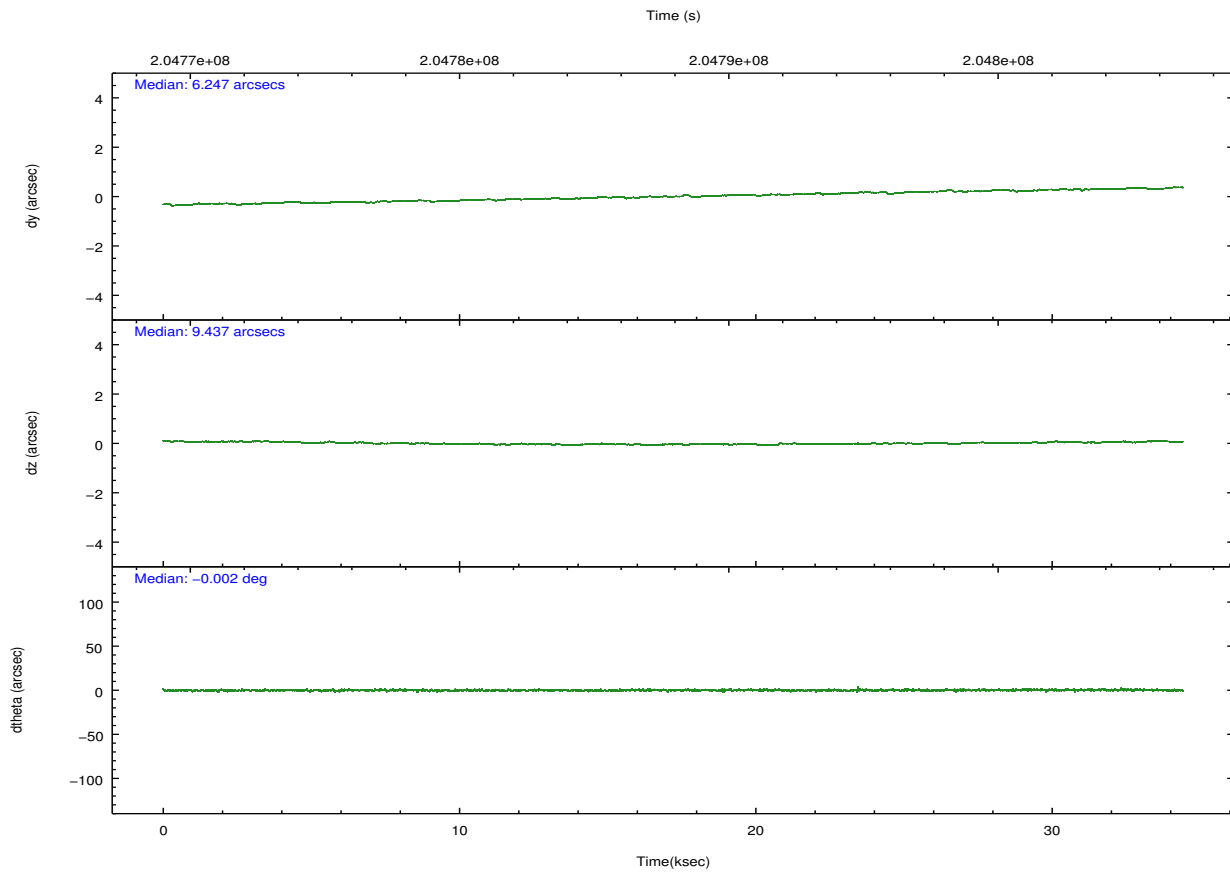
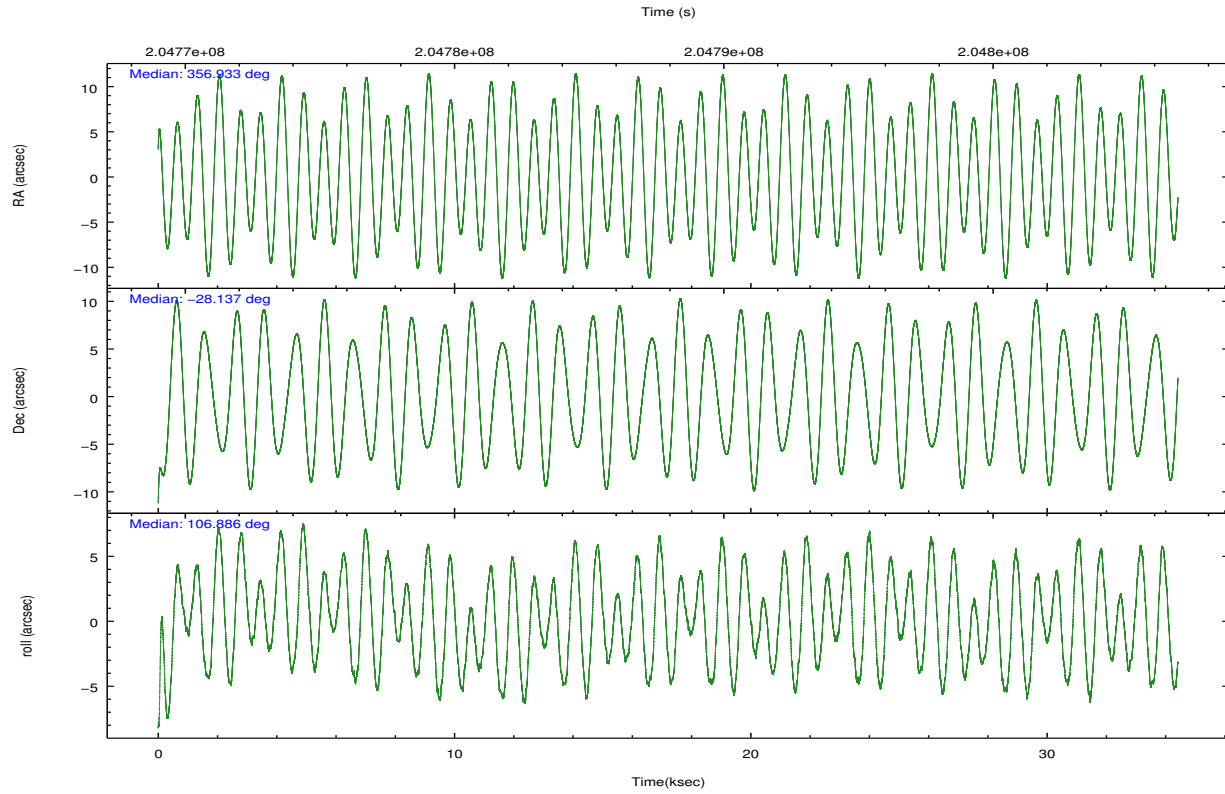
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	23500	47808	52546	66126	9476
	10%	19%	18%	23%	4%
grade 1 events	186	271	405	459	92
	0%	0%	0%	0%	0%
grade 2 events	6805	9798	9581	10647	4922
	3%	3%	3%	3%	2%
grade 3 events	3112	3982	3703	4211	2551
	1%	1%	1%	1%	1%
grade 4 events	2733	3833	3735	4131	2515
	1%	1%	1%	1%	1%
grade 5 events	7475	7935	7467	8673	8401
	3%	3%	2%	3%	3%
grade 6 events	4469	5603	4860	5198	4552
	2%	2%	1%	1%	2%
grade 7 events	170720	170439	205828	186075	184959
	77%	68%	71%	65%	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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	356.955406	356.9326238559467	Subarray requested	NONE	NONE
[deg] Pointing Dec	-28.155521	-28.13689603657602	Alternating exposures requested	N	N
[deg] Pointing Roll	106.693856	106.8917910398476	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	204771213.184000	204770126.46505			
Observation start date	2004-06-28T00:52:29	2004-06-28T00:35:26			
[s] Observation end time (MET)	204805134.184000	204805865.65413			
Observation end date	2004-06-28T10:17:50	2004-06-28T10:31:05			
Read mode	TIMED	TIMED			

## 2.3 Aspect



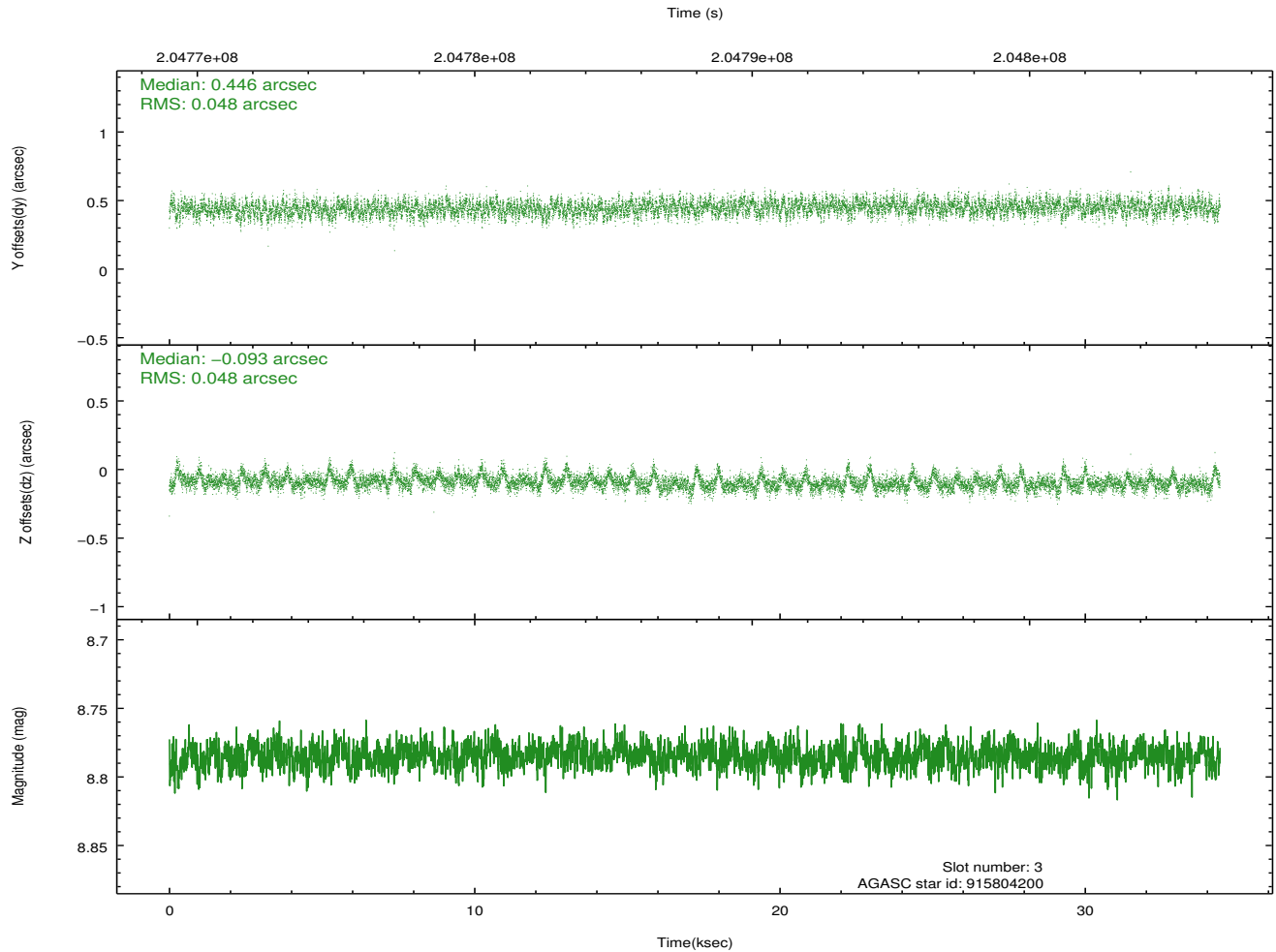
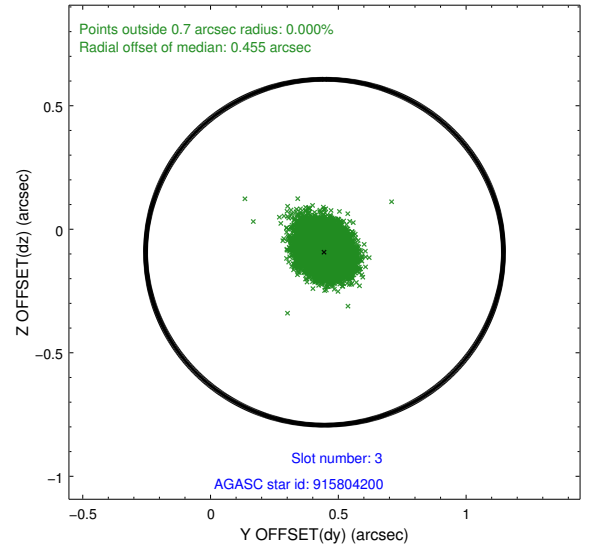
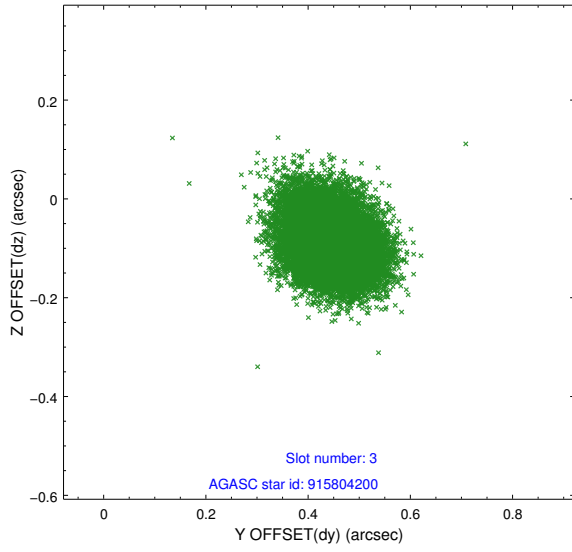


### Slot Statistics

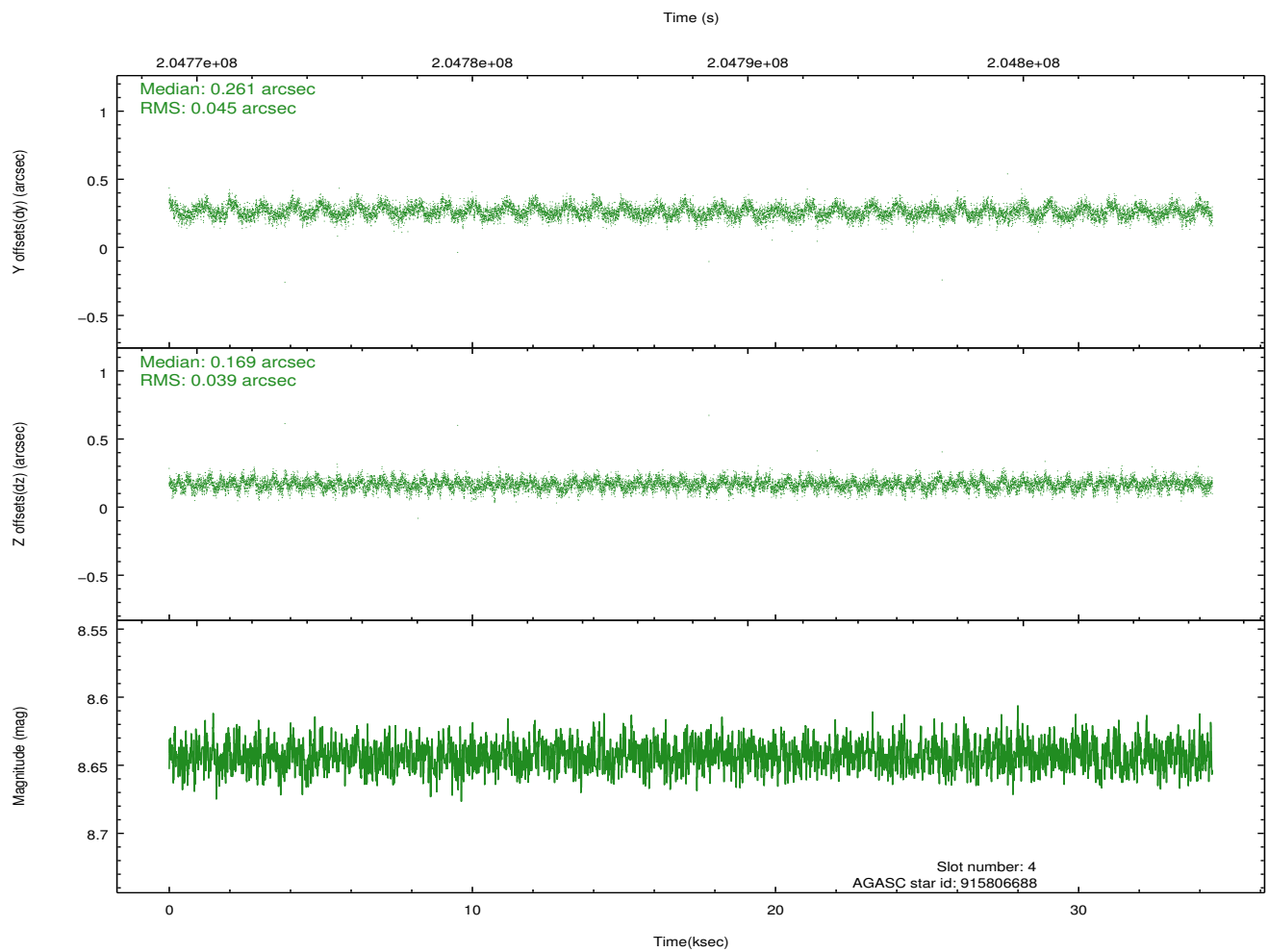
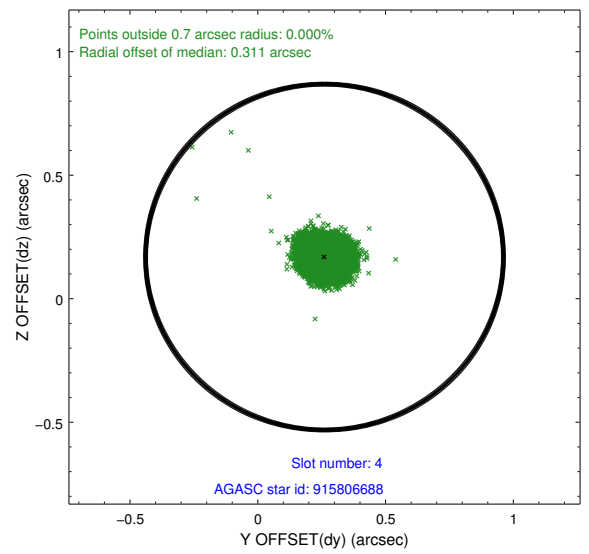
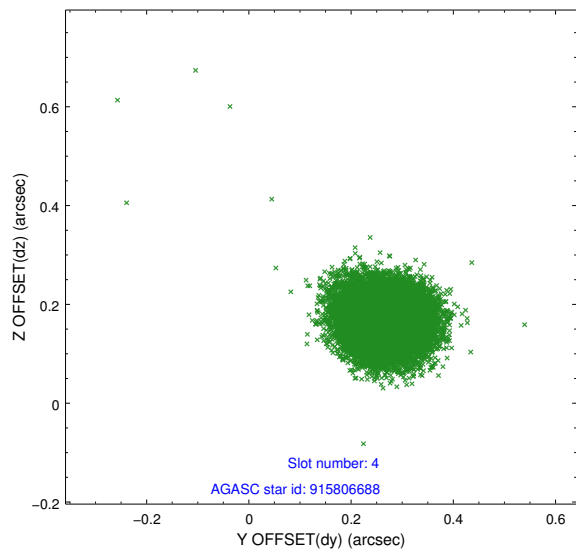
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	7.13	8394	-0.049	-0.056	0.011	0.018	0.000000	0.000000	-760.77	-839.32
1	FID	ACIS-I-4	7.18	8392	0.113	0.050	0.011	0.018	0.000000	0.000000	2153.43	1066.94
2	FID	ACIS-I-5	7.22	8394	-0.165	0.075	0.011	0.018	0.000000	0.000000	-1814.66	1064.86
3	GUIDE	915804200	8.79	16787	0.446	-0.093	0.072	0.118	356.699199	-28.786294	-1943.07	1426.75
4	GUIDE	915806688	8.64	16779	0.261	0.169	0.063	0.100	357.088845	-27.897504	767.57	-673.49
5	GUIDE	915807248	9.94	16772	0.258	0.330	0.164	0.256	357.192532	-27.548911	1874.44	-1351.47
6	GUIDE	915940872	8.00	16787	0.332	0.235	0.100	0.147	357.438295	-28.341635	-1083.42	-1272.28
7	GUIDE	915809360	9.01	16780	-1.290	-0.650	0.084	0.134	357.210134	-28.120770	-114.23	-810.96

## 2.4 Star Slots

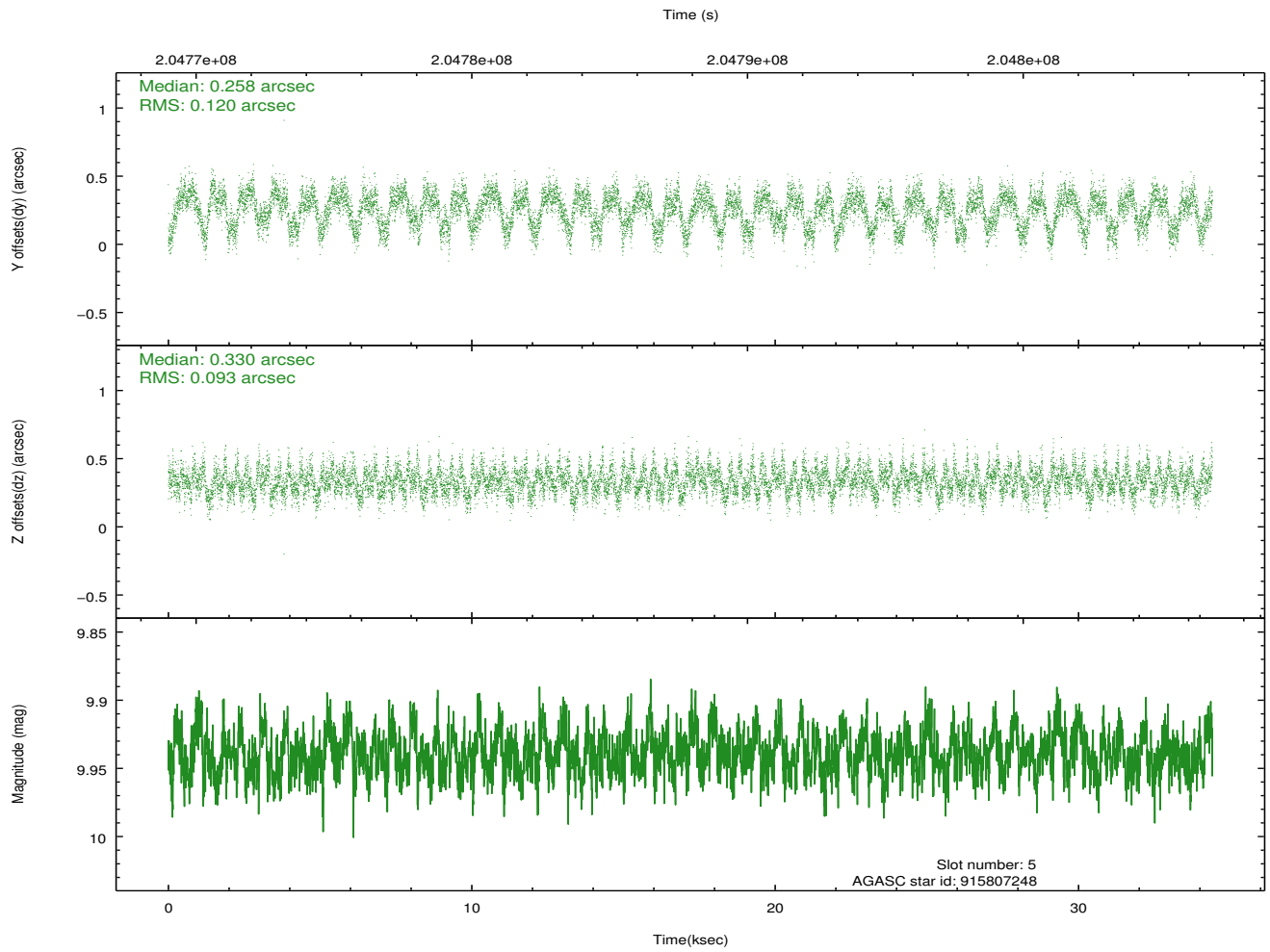
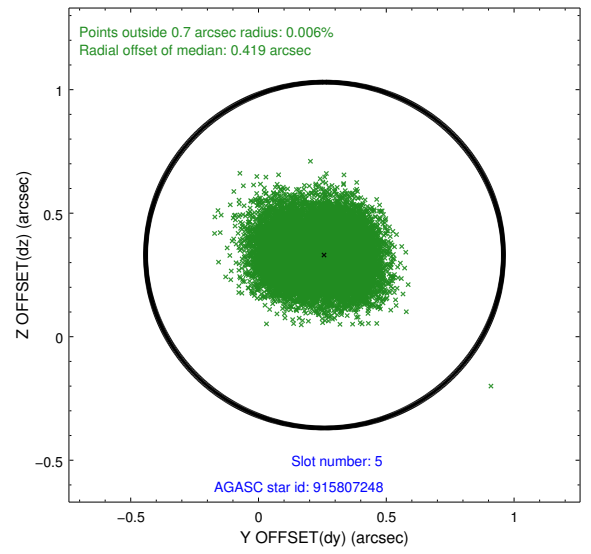
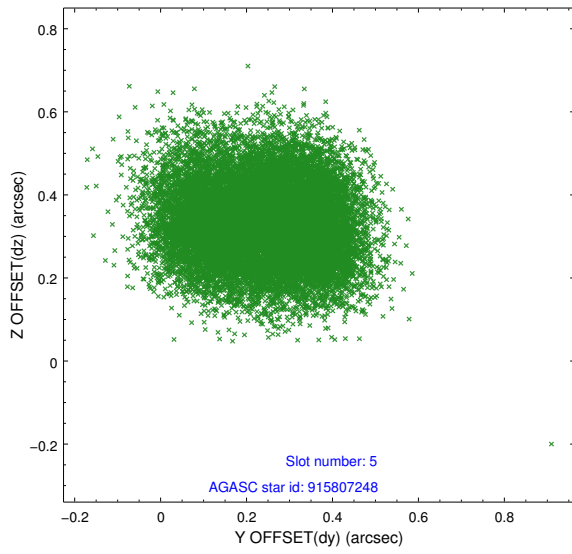
### 2.4.1 Slot 3



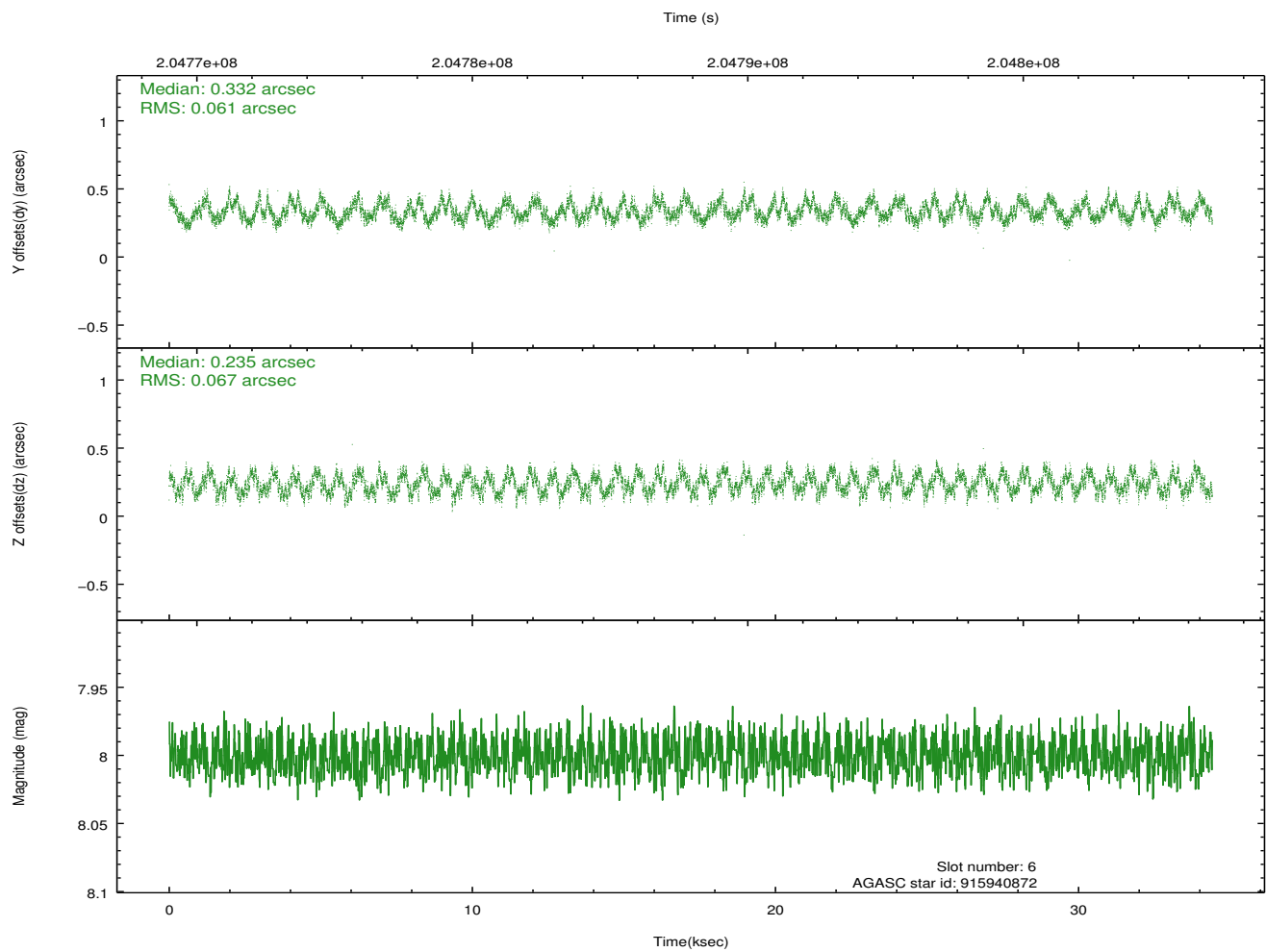
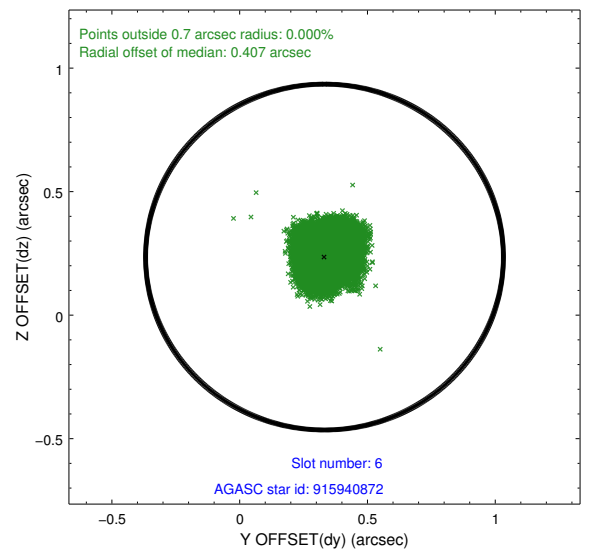
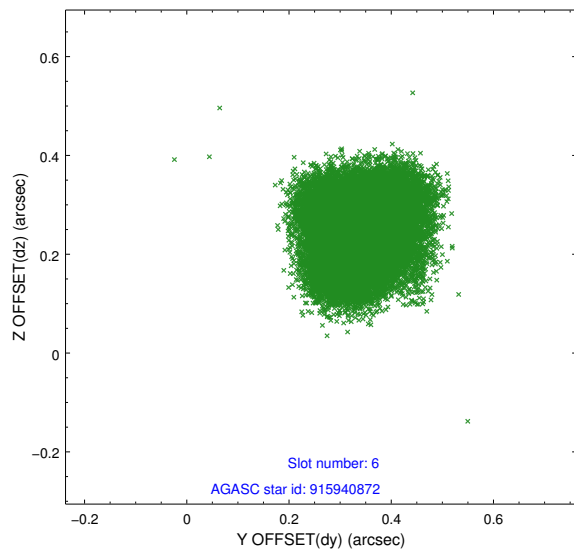
## 2.4.2 Slot 4



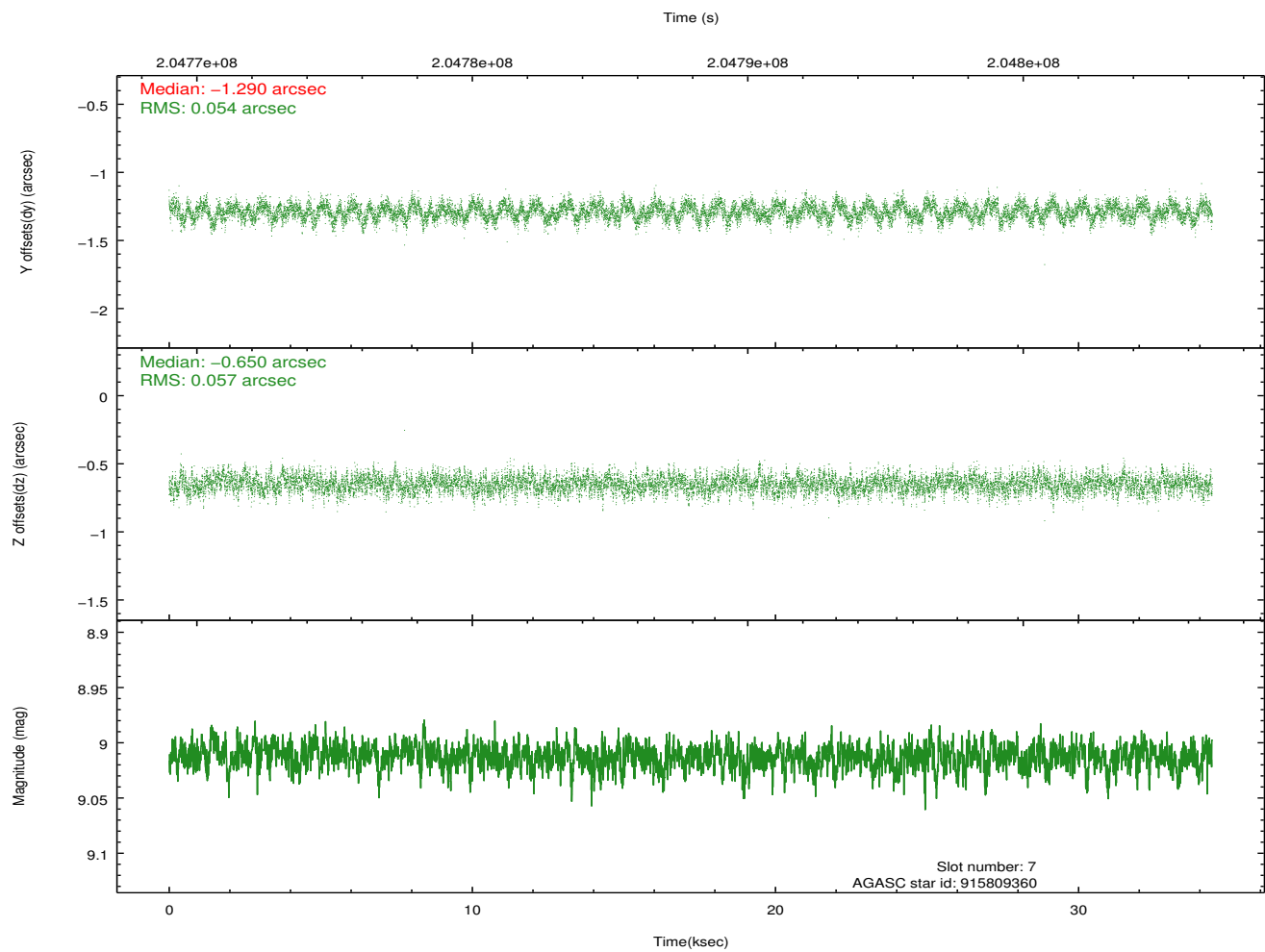
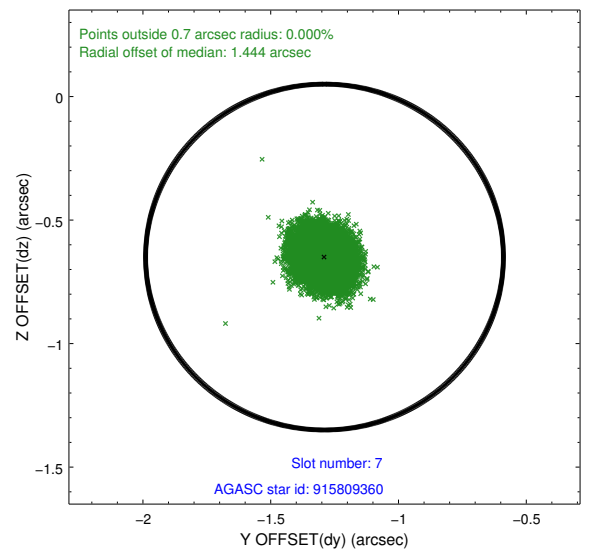
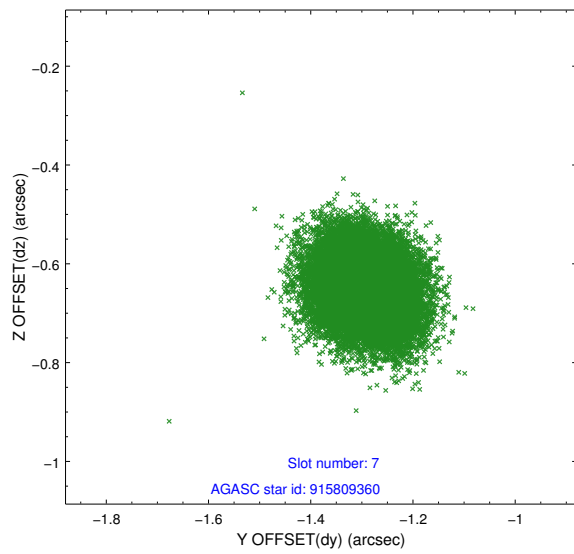
### 2.4.3 Slot 5



### 2.4.4 Slot 6

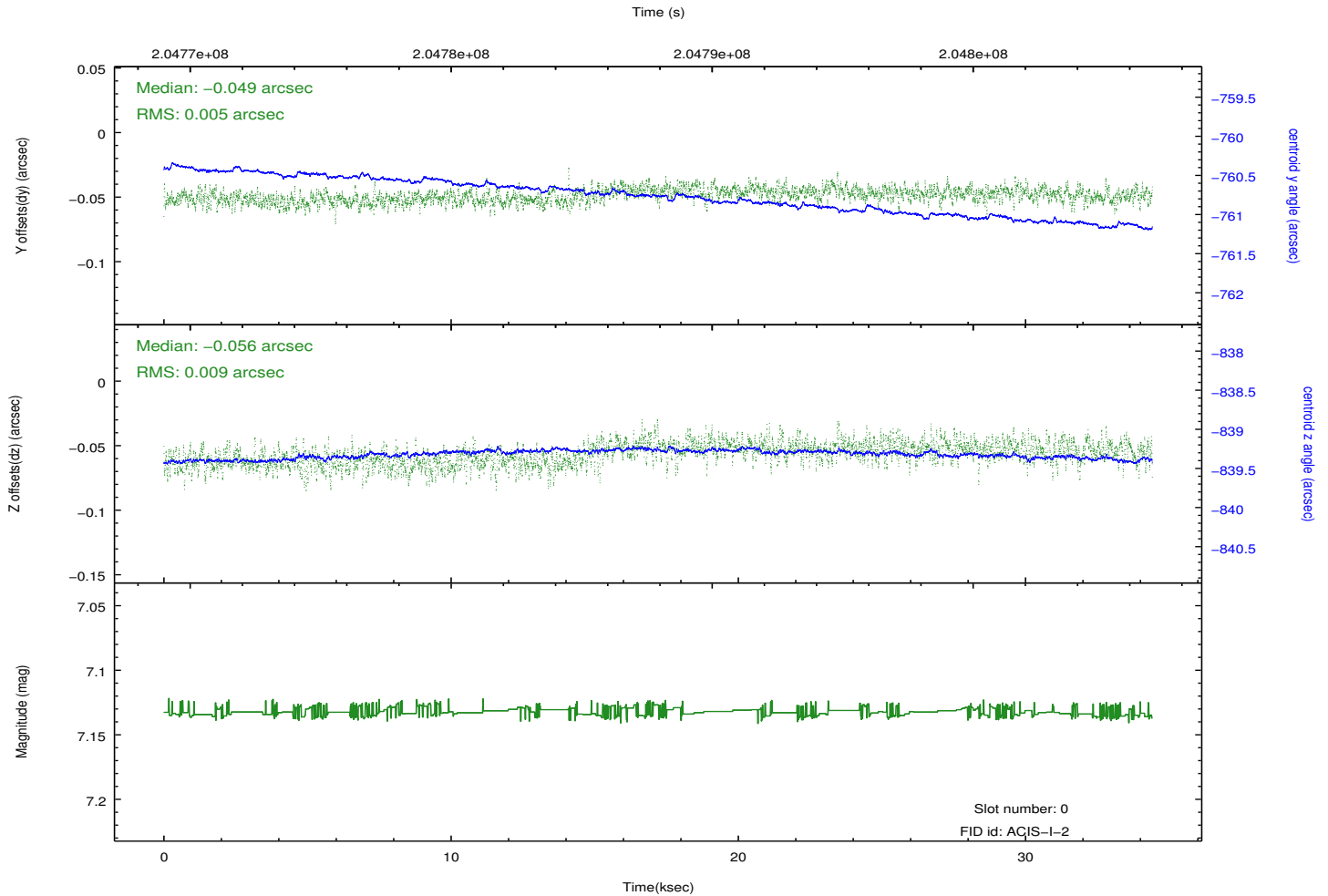
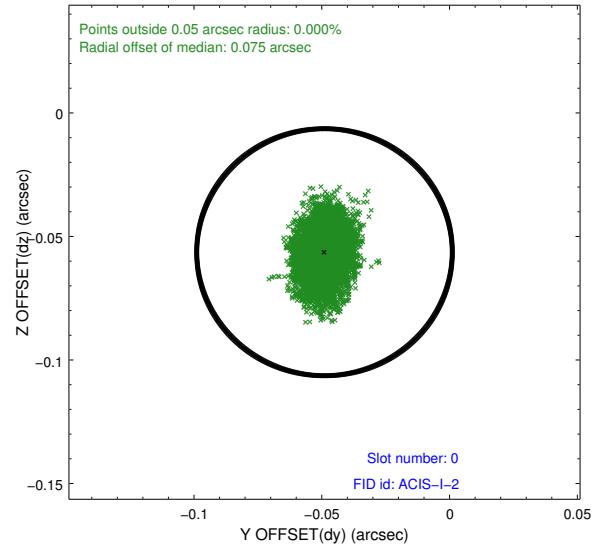
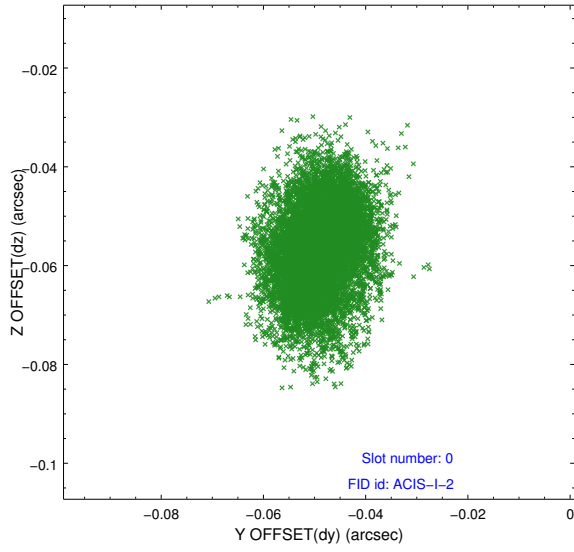


## 2.4.5 Slot 7

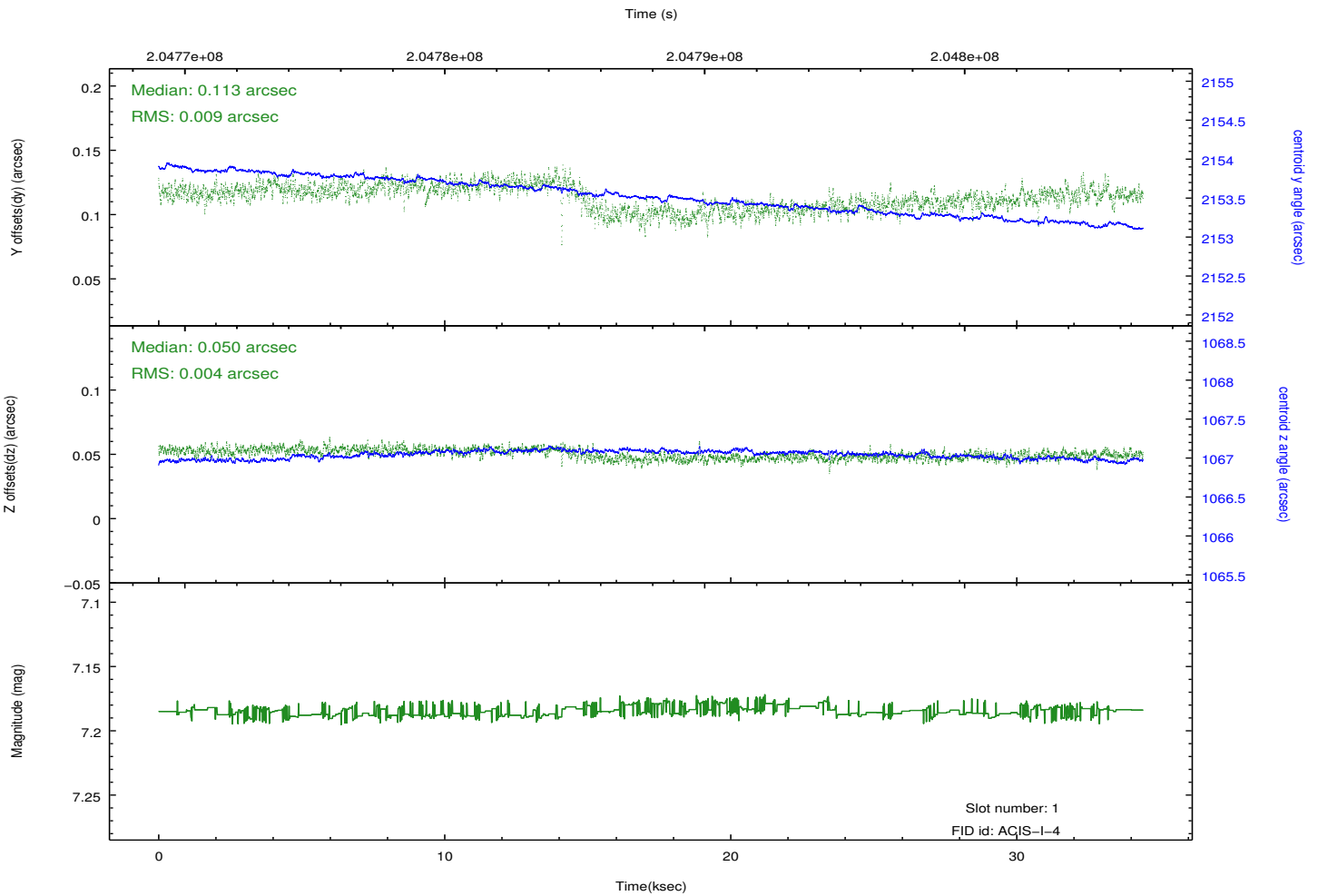
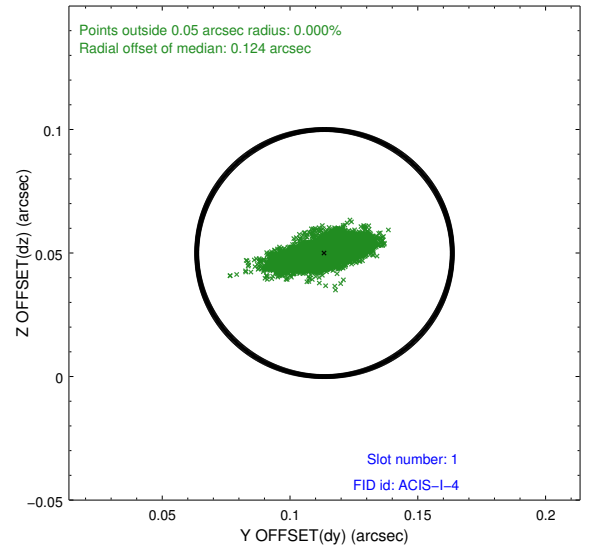
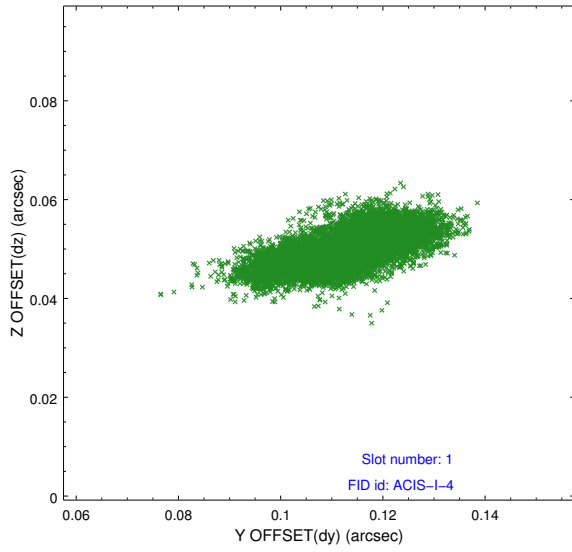


## 2.5 FID Slots

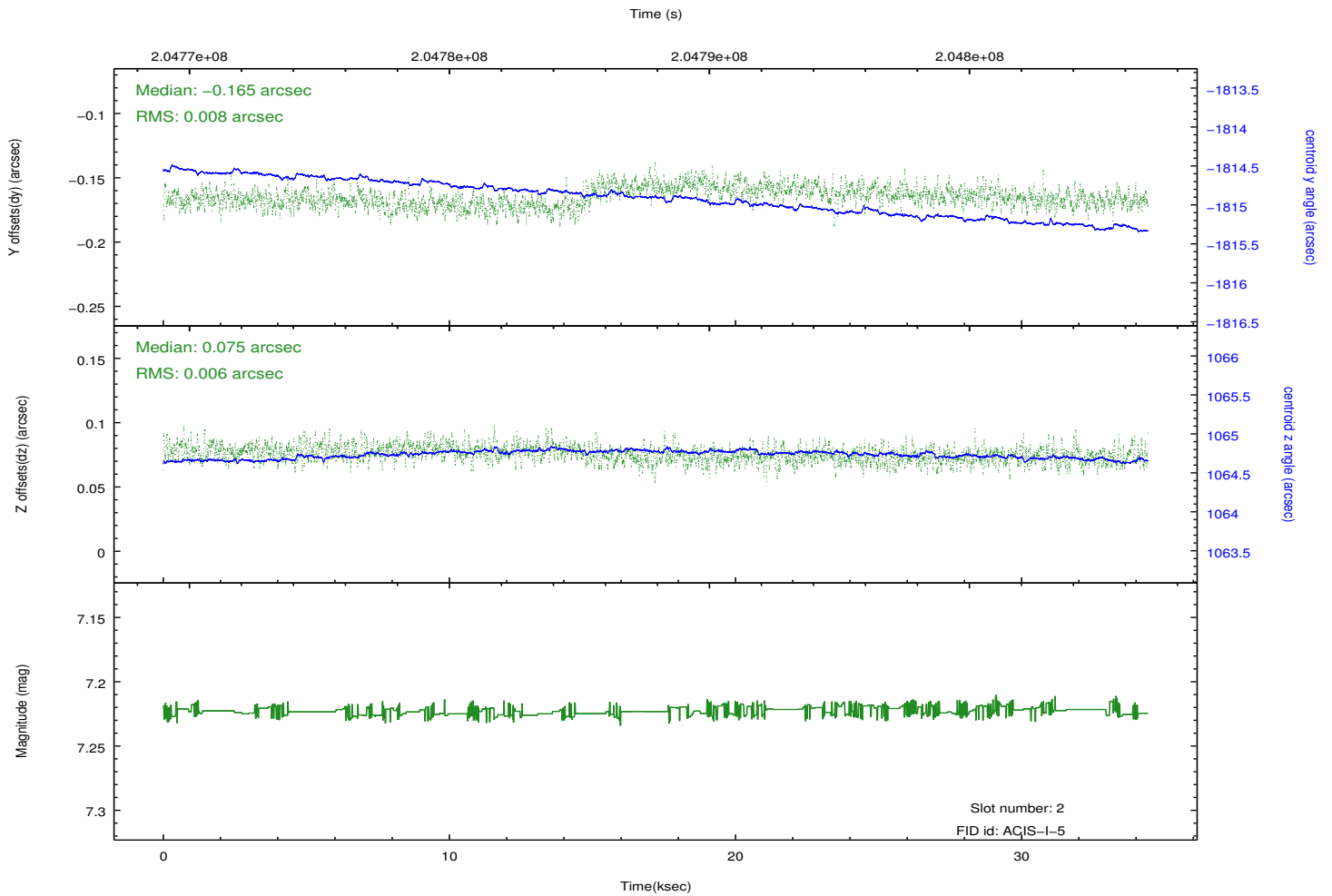
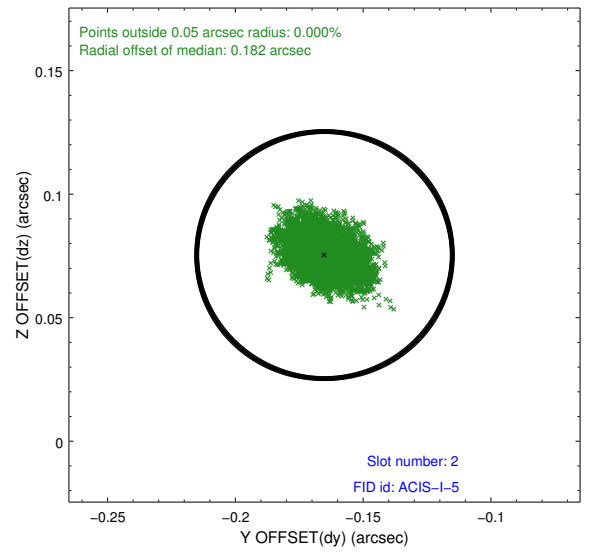
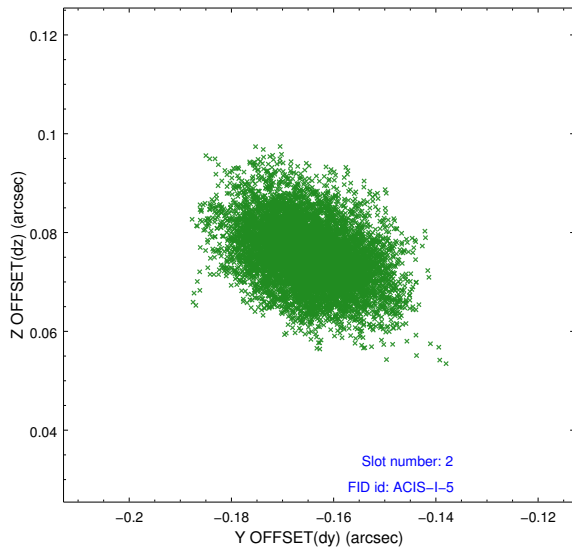
### 2.5.1 Slot 0



## 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)	2012.12.20
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	33.972

### A.2 Comments