

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 11765 - L2 Version 3  
Chandra X-Ray Center

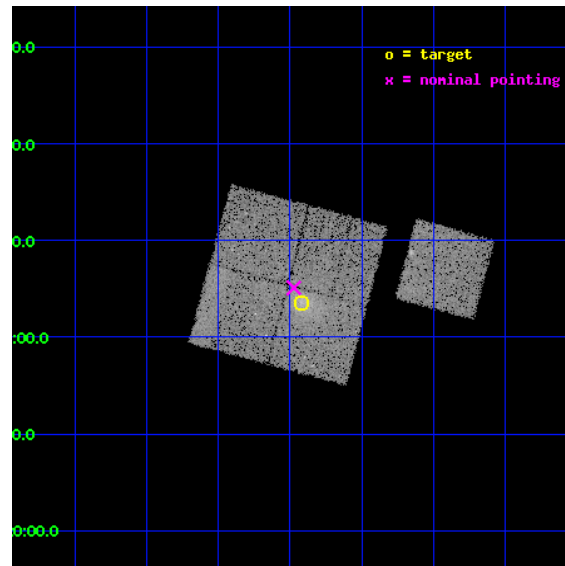
L2 Processing Date : Jun 12 2012

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# 1 Front

seq_num	800905	Sequence number
obs_id	11765	Observation id
title	The X-Ray, SZ, and Optical Scaling Relations of Massive Galaxy Clusters	Proposal title
observer	Dr. Eli Rykoff	Principal investigator
object	SDSS J0104+0003	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	16.230833	Observer's specified target RA [deg]
dec_targ	0.060083	Observer's specified target Dec [deg]
ra_nom	16.243220764721	Nominal RA [deg]
dec_nom	0.085117292764382	Nominal Dec [deg]
roll_nom	105.05480114611	Nominal Roll [deg]
revision	3	Processing version of data
ontime	15155.859106362	Sum of GTIs [s]
livetime	14957.836649556	Livetime [s]
ontime0	15152.718096137	Sum of GTIs [s]
ontime1	15159.000116587	Sum of GTIs [s]
ontime2	15152.718135834	Sum of GTIs [s]
ontime3	15155.859106362	Sum of GTIs [s]
ontime6	15159.000116587	Sum of GTIs [s]
l2events	60244	Number of level 2 events

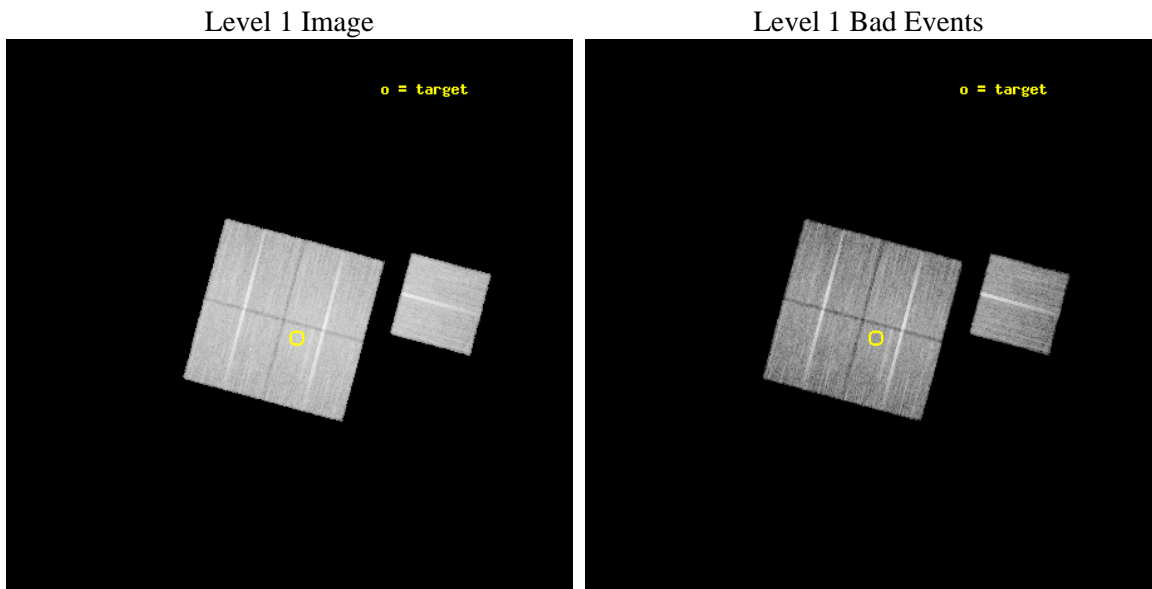




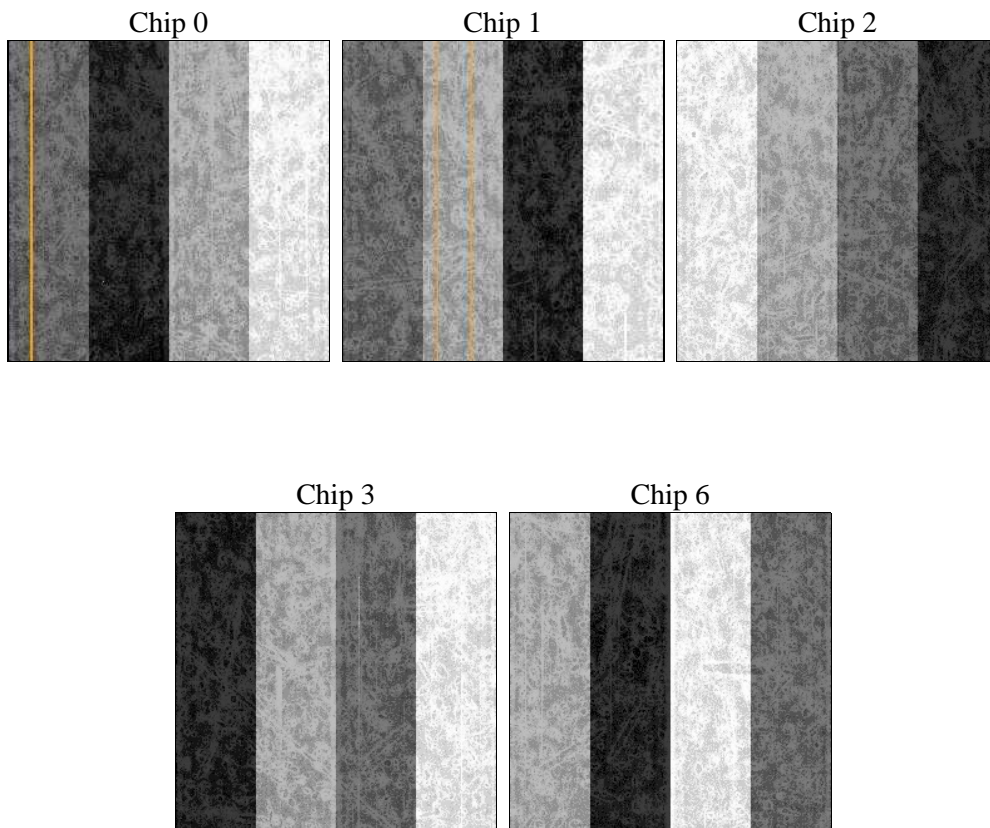
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	2	Obi number	sched_exp_time	15000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	15155.859106362	Sum of GTIs [s]
caldsver	4.4.10	&#160	ontime0	15152.718096137	Sum of GTIs [s]
date	2012-06-12T21:48:55	Date and time of file creation	ontime1	15159.000116587	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	15152.718135834	Sum of GTIs [s]
			ontime3	15155.859106362	Sum of GTIs [s]
			ontime6	15159.000116587	Sum of GTIs [s]
			l1events	677153	Number of level 1 events

### 2.1.4 Events

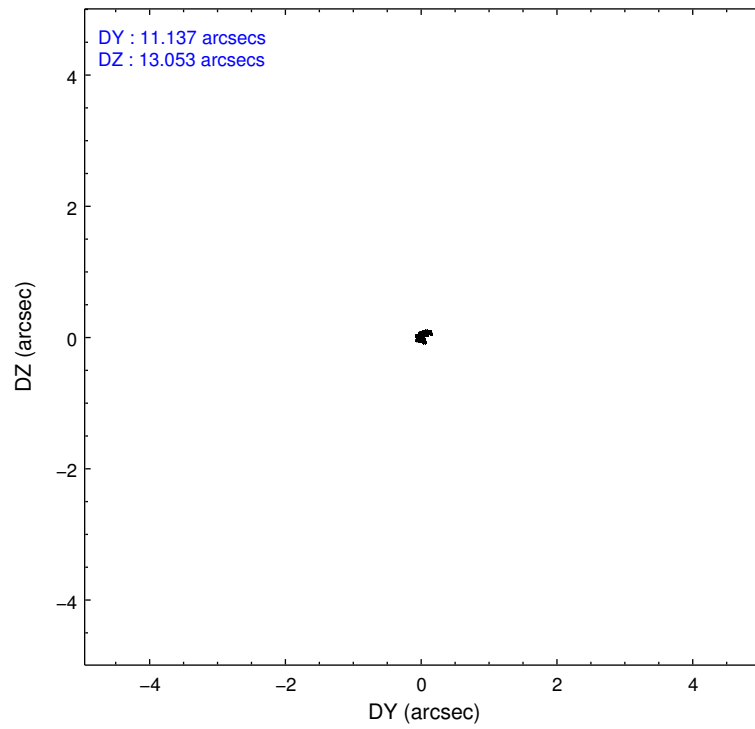
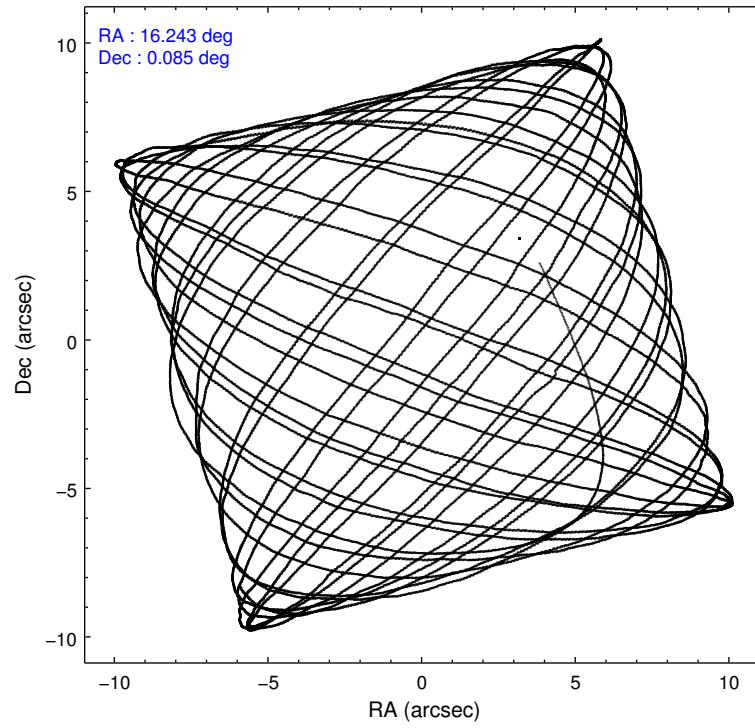
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	128556	129404	144232	138657	136304
rejected events	115120	113587	130887	122836	122530
rejected %	89%	87%	90%	88%	89%

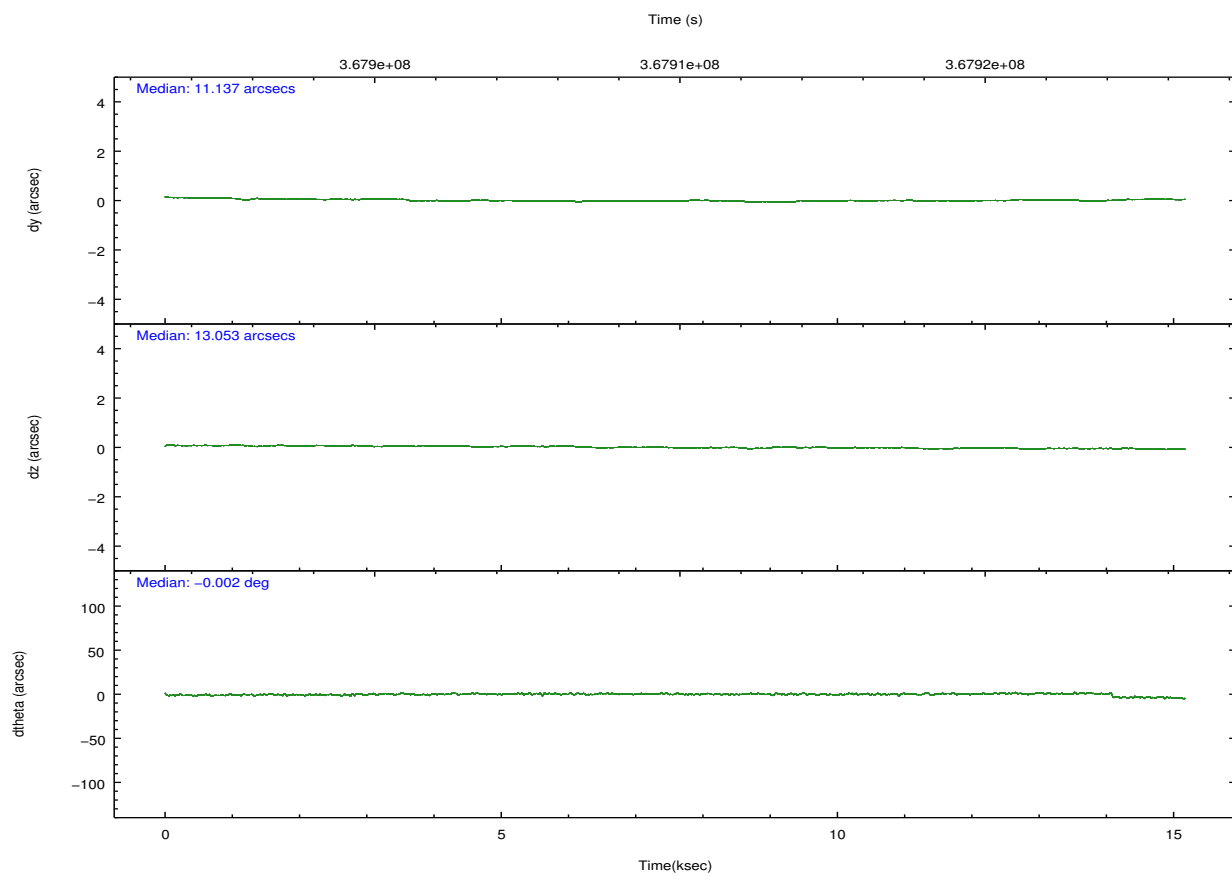
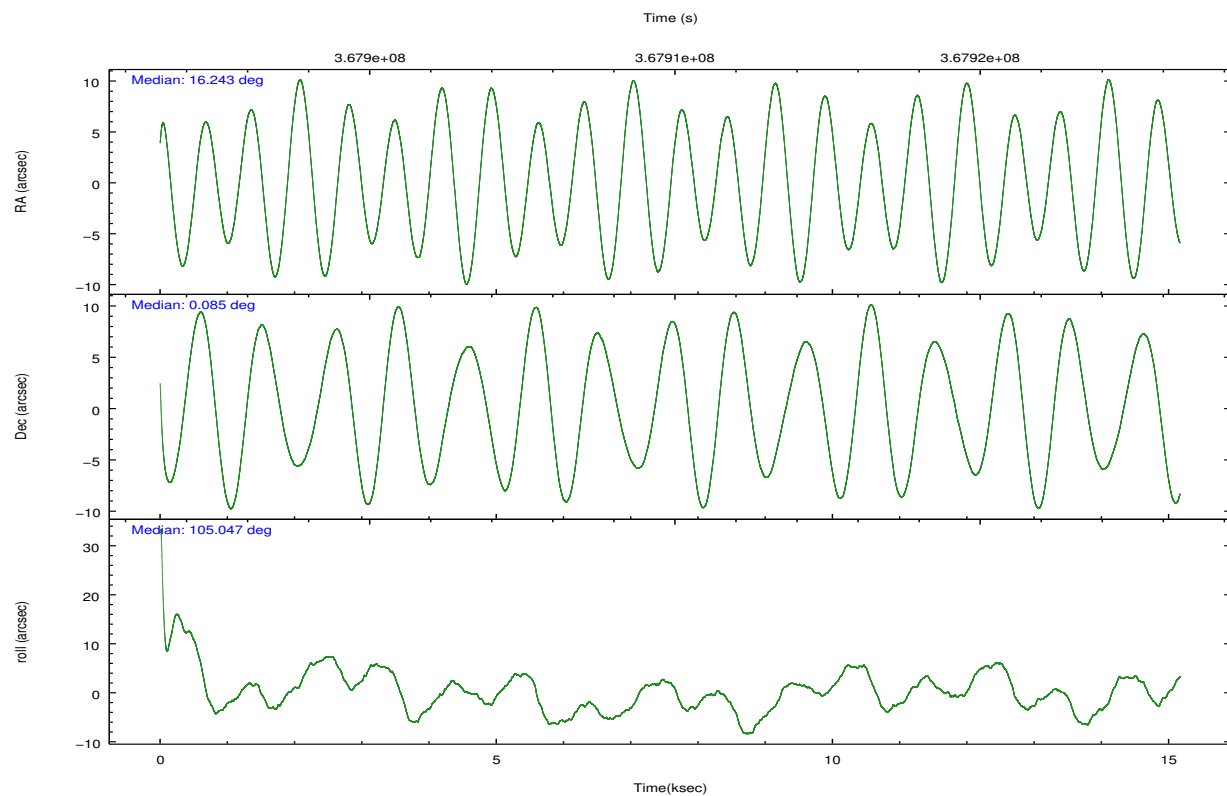
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	4857	6100	5023	7124	5057
	3%	4%	3%	5%	3%
grade 1 events	79	89	77	105	74
	0%	0%	0%	0%	0%
grade 2 events	3387	3760	3333	3244	3125
	2%	2%	2%	2%	2%
grade 3 events	1551	1750	1402	1562	1555
	1%	1%	0%	1%	1%
grade 4 events	1390	1636	1496	1628	1464
	1%	1%	1%	1%	1%
grade 5 events	4883	5467	4615	5760	5573
	3%	4%	3%	4%	4%
grade 6 events	2696	3167	2602	2785	3100
	2%	2%	1%	2%	2%
grade 7 events	109713	107435	125684	116449	116356
	85%	83%	87%	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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	16.262773	16.24322076472061	Subarray requested	NONE	NONE
[deg] Pointing Dec	0.065795	0.08511729276438205	Alternating exposures requested	N	N
[deg] Pointing Roll	104.846064	105.054801146111	[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)	367902504.184000	367901236.34336			
Observation start date	2009-08-29T03:07:18	2009-08-29T02:47:16			
[s] Observation end time (MET)	367917504.184000	367918392.79422			
Observation end date	2009-08-29T07:17:18	2009-08-29T07:33:12			
Read mode	TIMED	TIMED			

## 2.3 Aspect



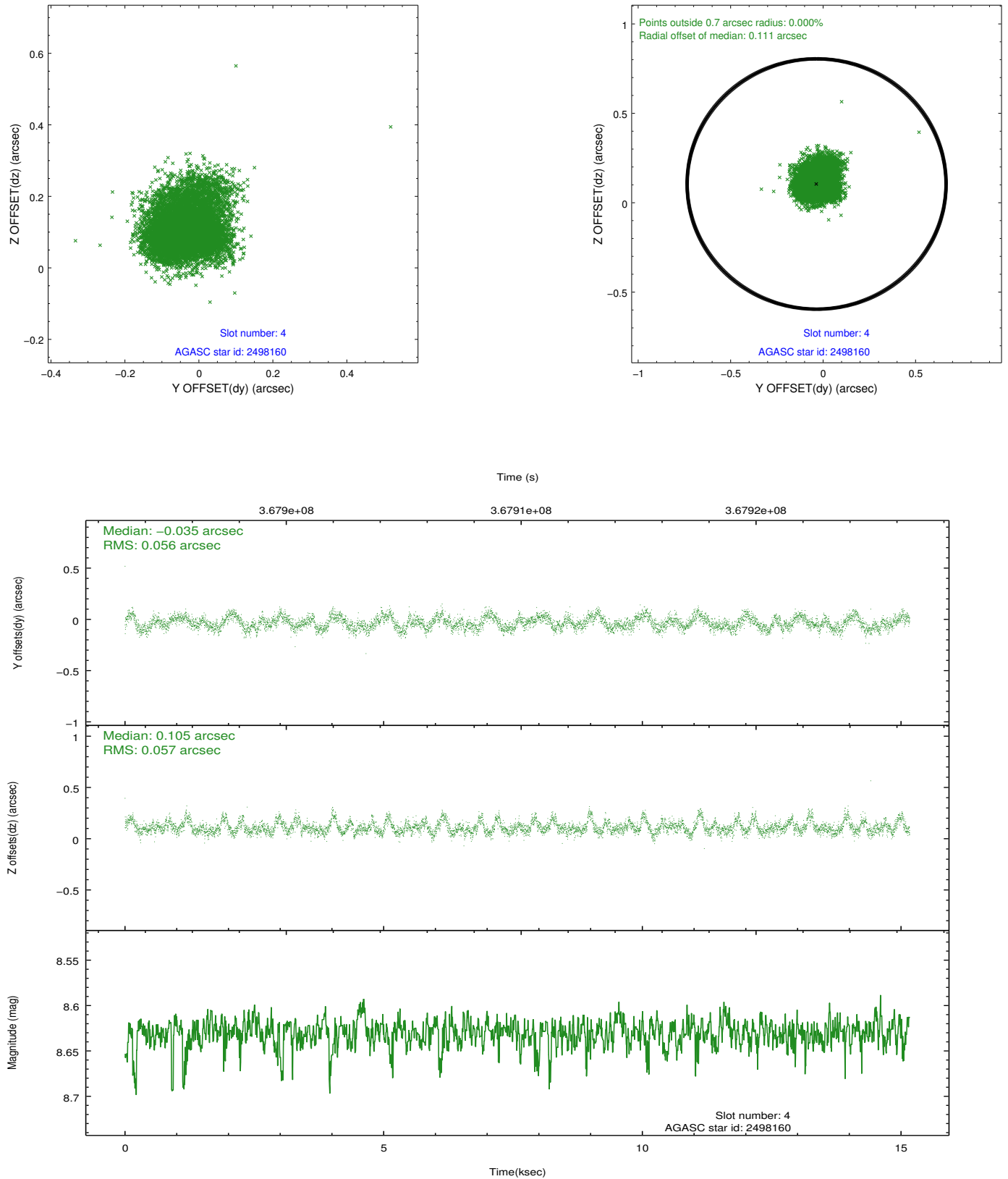


### Slot Statistics

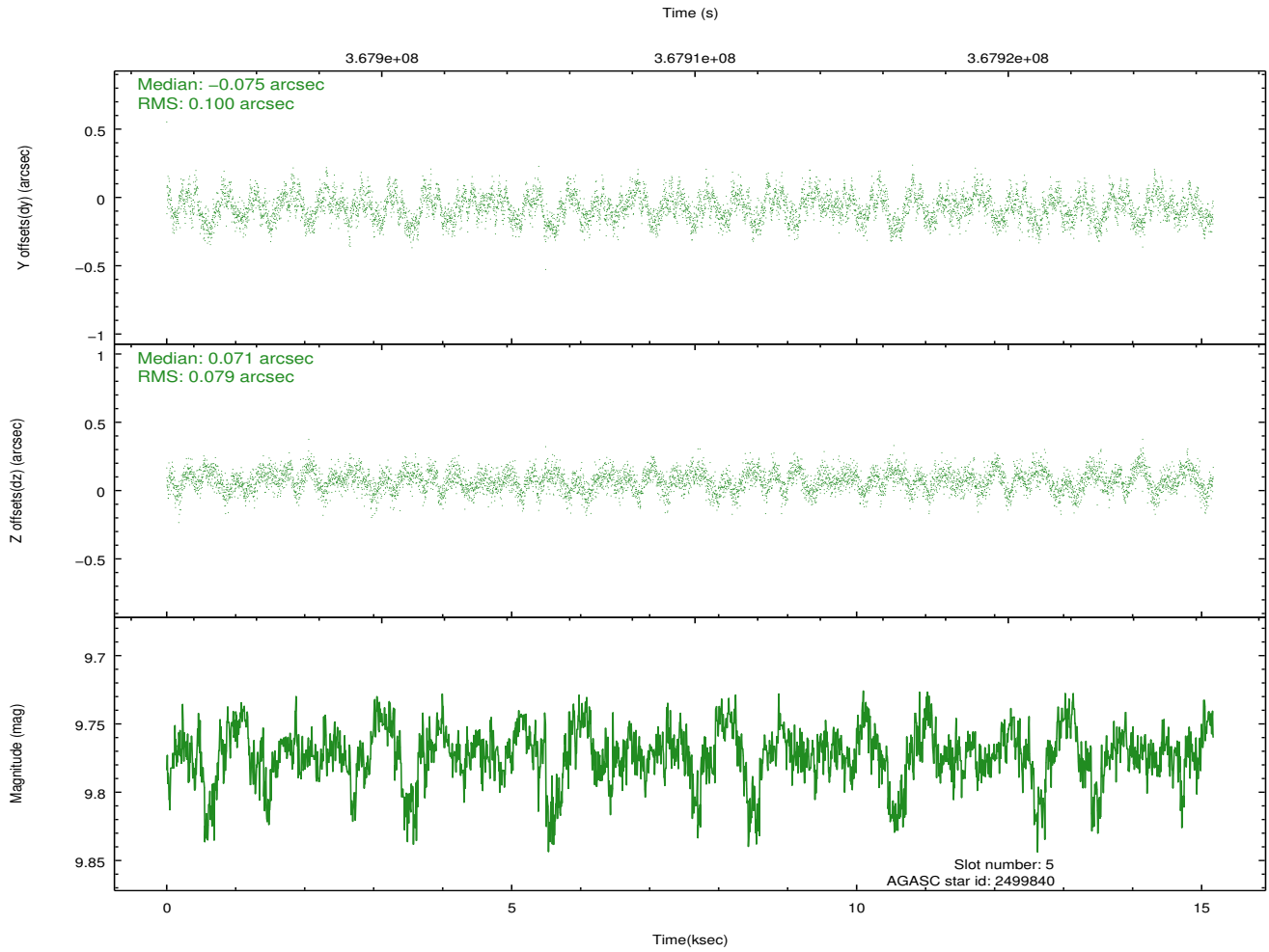
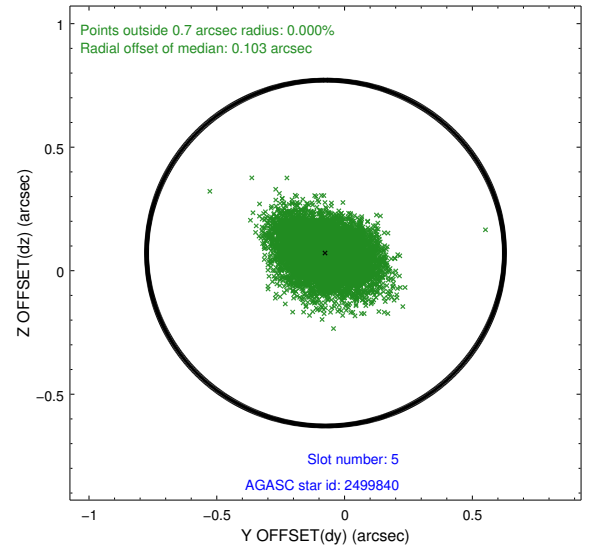
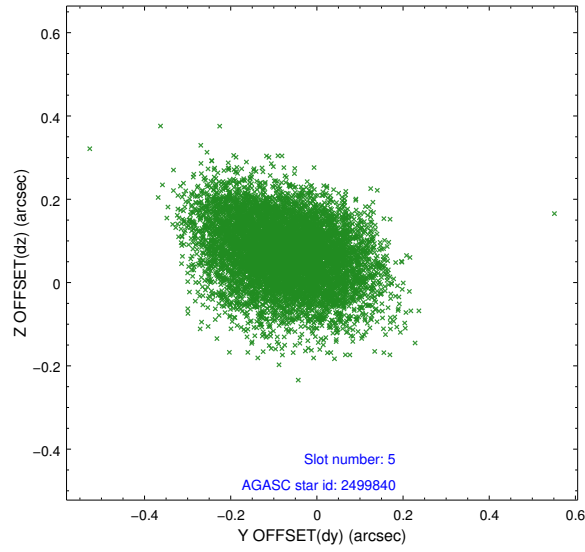
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	6.90	3700	-0.074	-0.078	0.010	0.020	0.000000	0.000000	-765.84	-843.05
1	FID	ACIS-I-4	6.94	3700	0.160	0.068	0.007	0.015	0.000000	0.000000	2148.33	1063.11
2	FID	ACIS-I-5	6.98	3699	-0.187	0.079	0.010	0.021	0.000000	0.000000	-1819.38	1061.32
3	OMITTED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
4	GUIDE	2498160	8.63	7394	-0.035	0.105	0.084	0.140	16.460620	0.343812	785.36	-944.68
5	GUIDE	2499840	9.77	7393	-0.075	0.071	0.136	0.219	16.497751	0.599402	1640.33	-1310.15
6	GUIDE	613553328	10.30	7381	0.160	-0.117	0.158	0.268	15.879616	-0.377365	-1188.40	1741.71
7	GUIDE	613557512	9.46	7391	-0.050	-0.061	0.127	0.206	16.400287	-0.171161	-951.17	-259.83

## 2.4 Star Slots

### 2.4.1 Slot 4

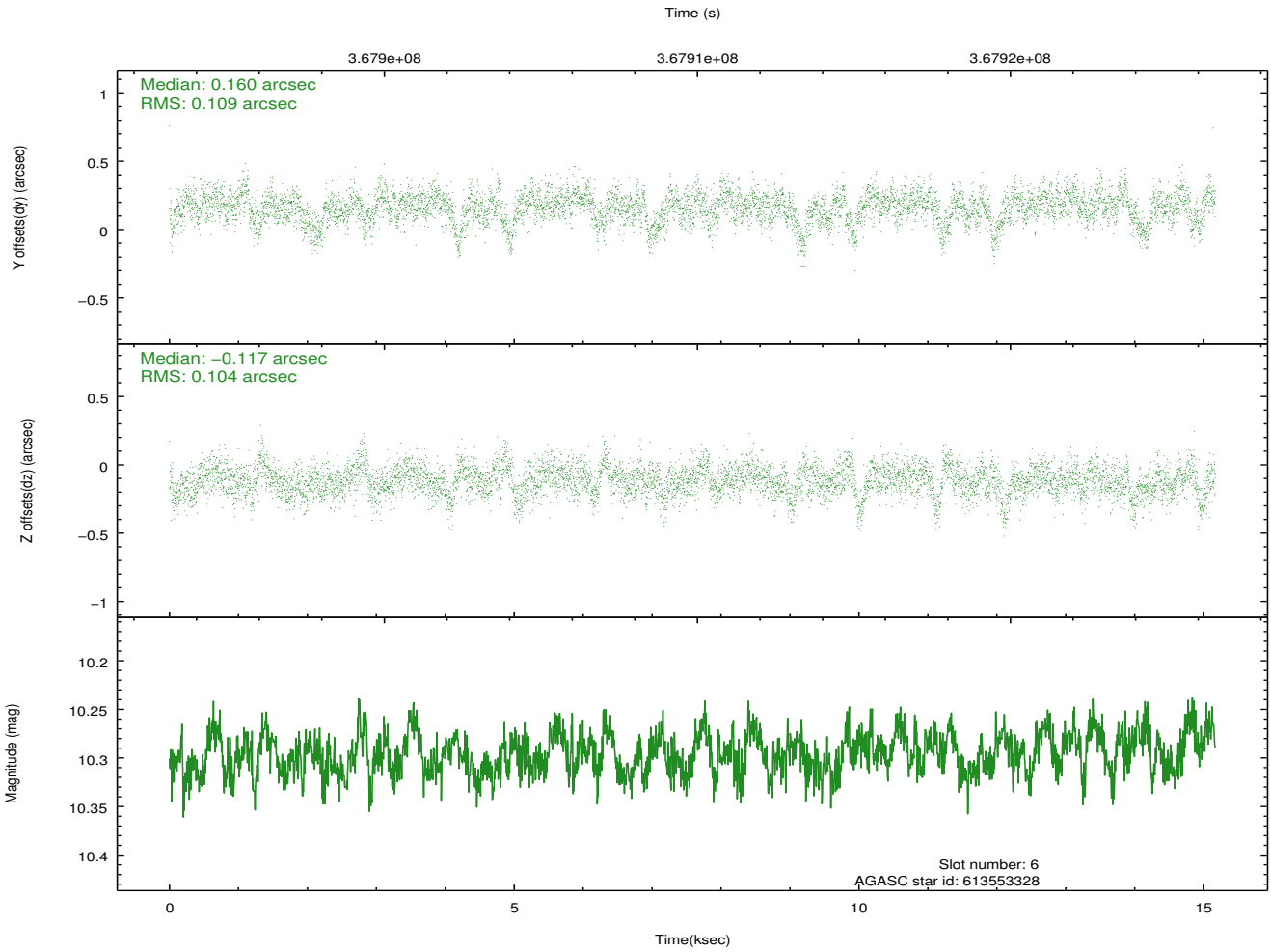
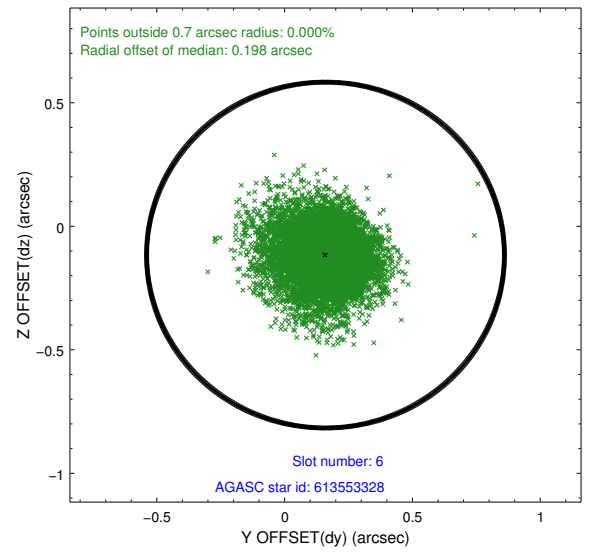
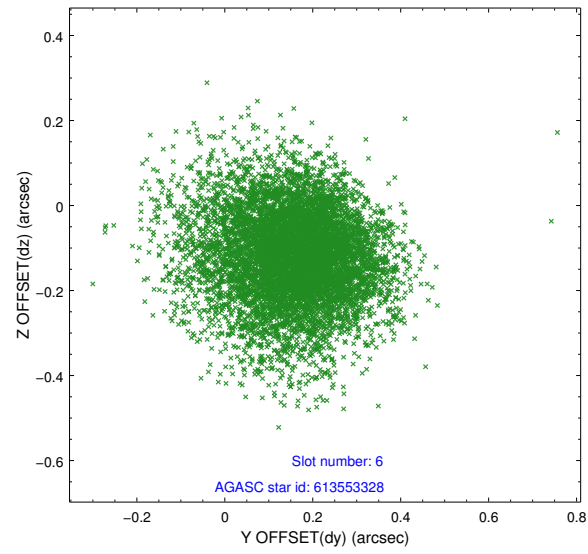


## 2.4.2 Slot 5

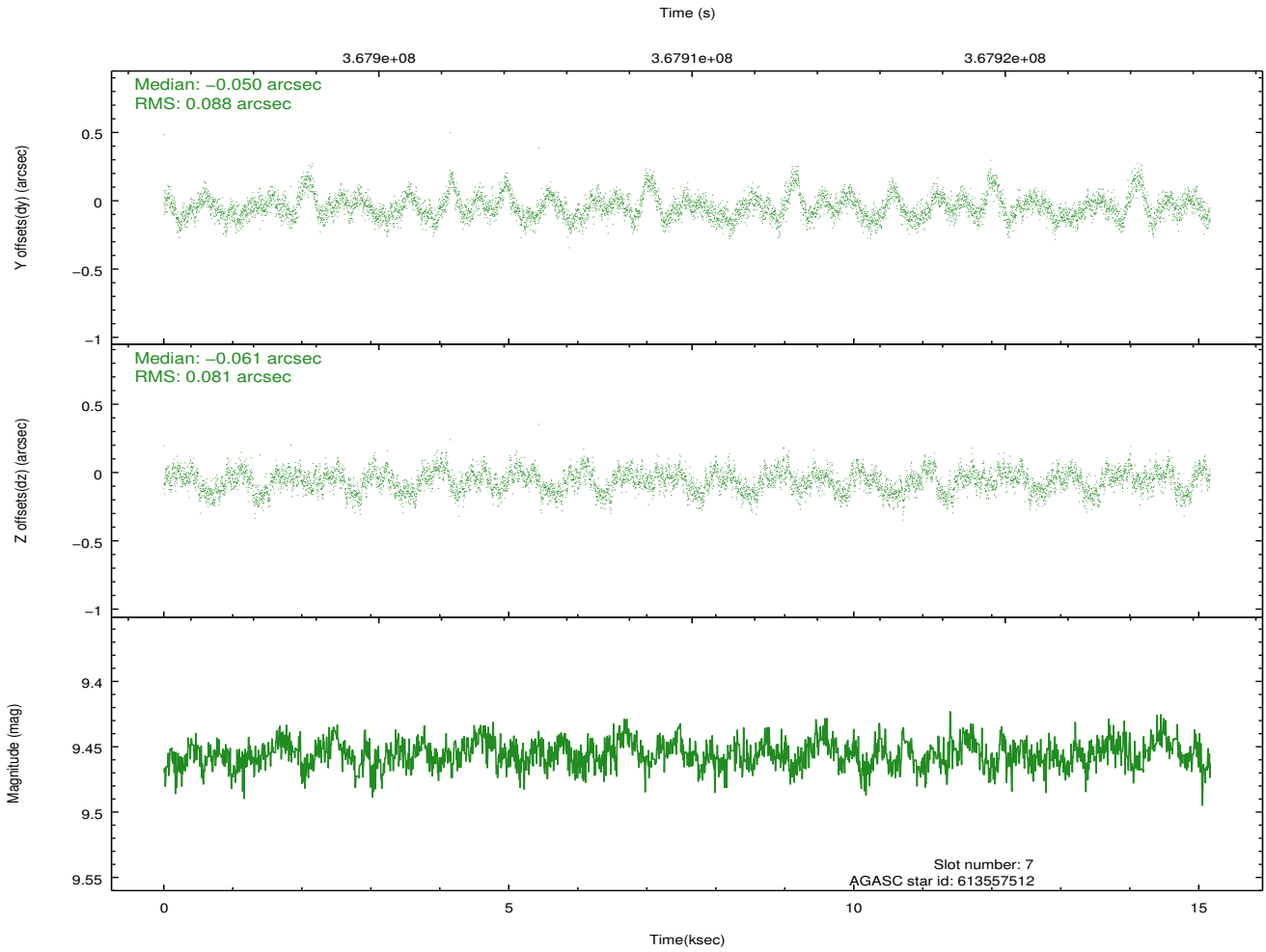
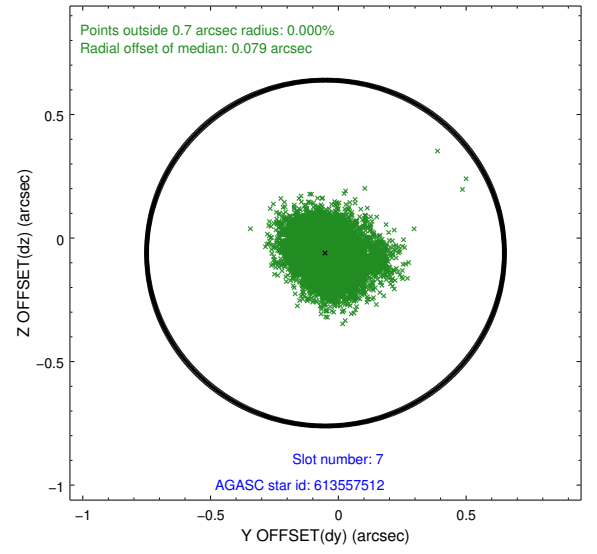
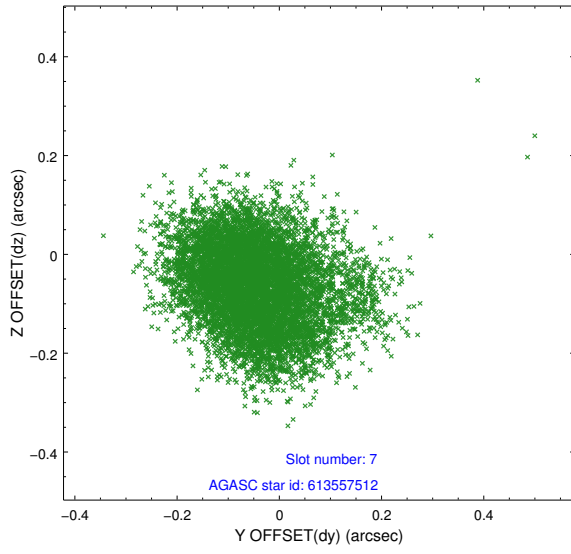




### 2.4.3 Slot 6

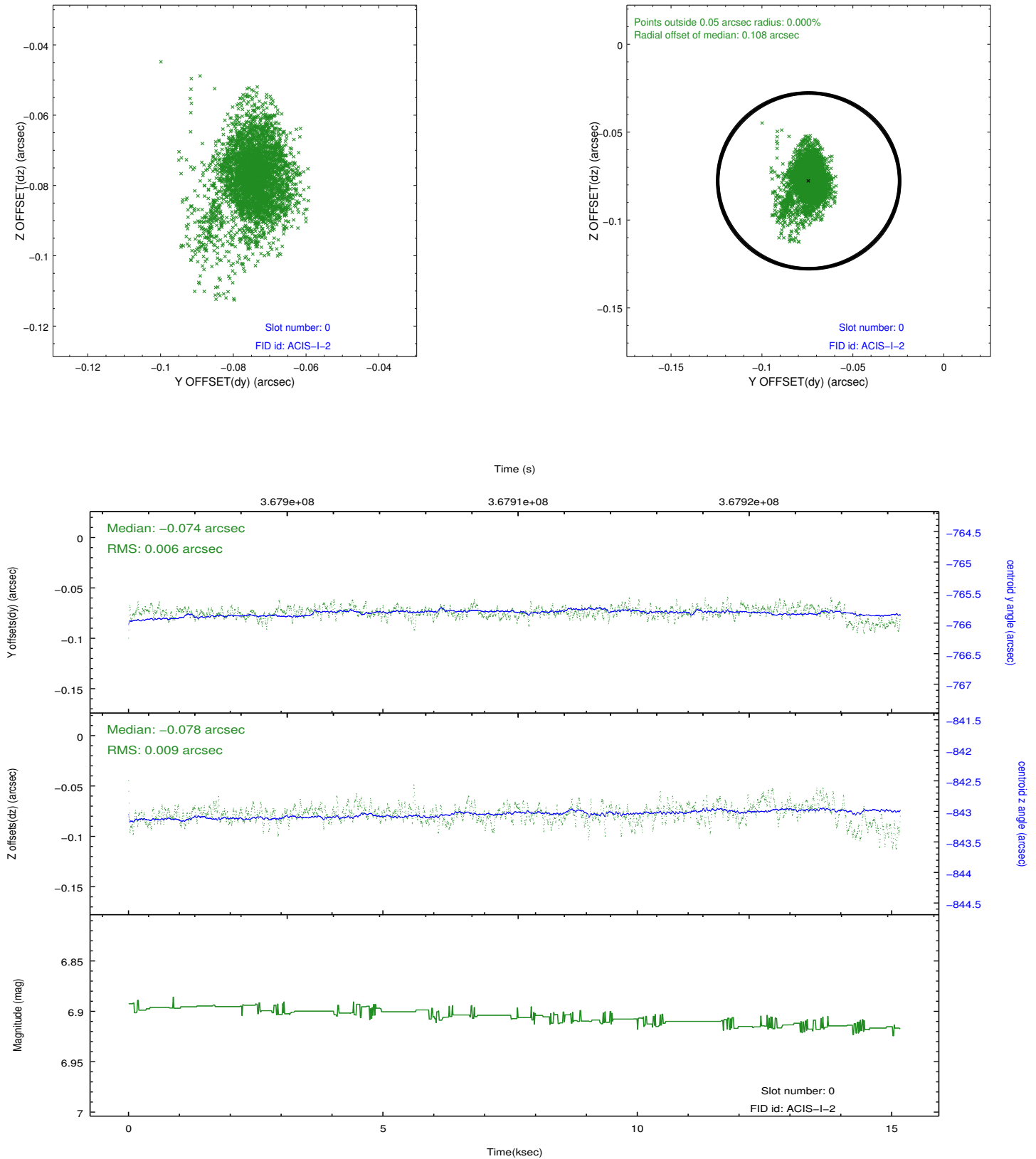


## 2.4.4 Slot 7

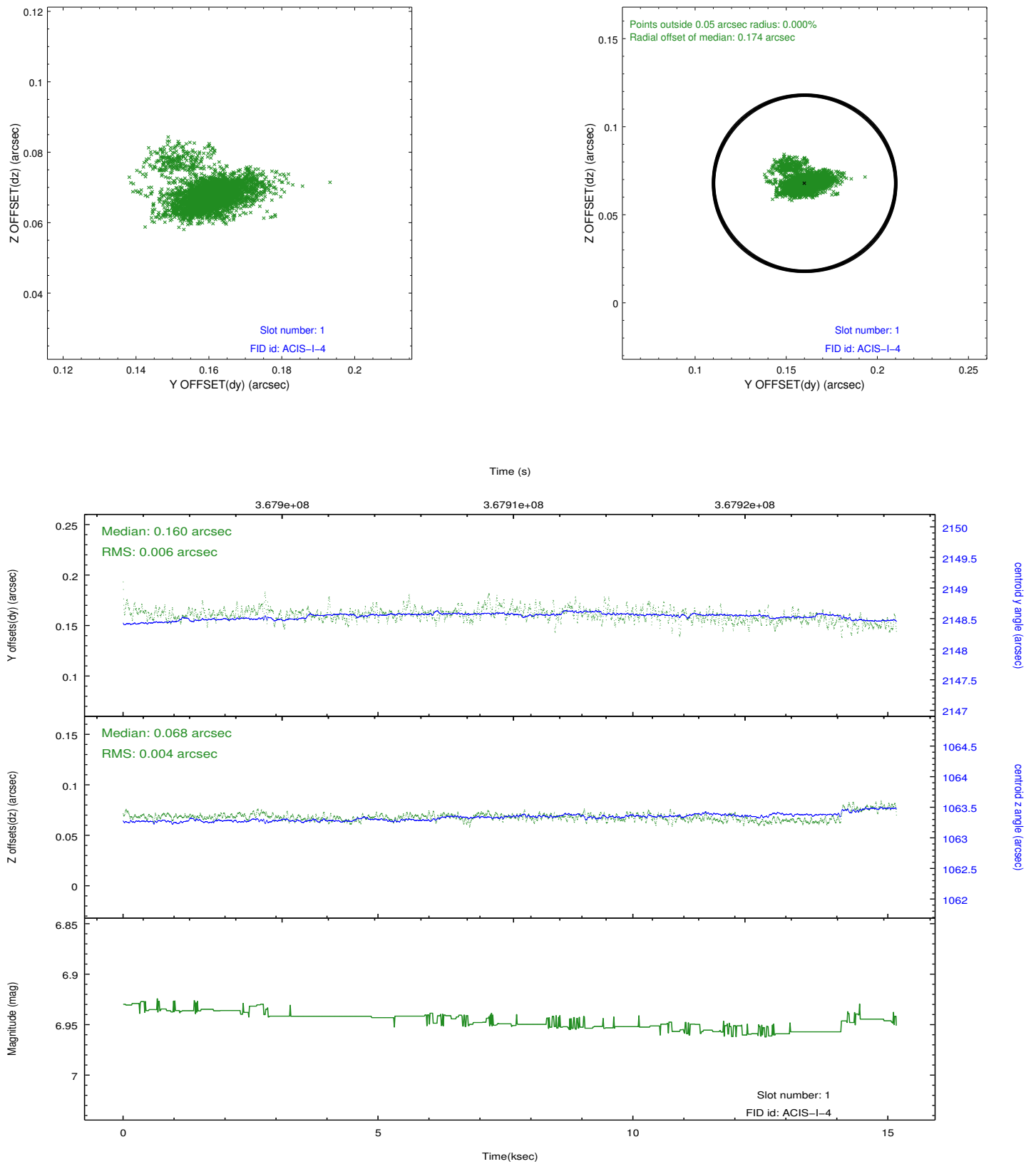


## 2.5 FID Slots

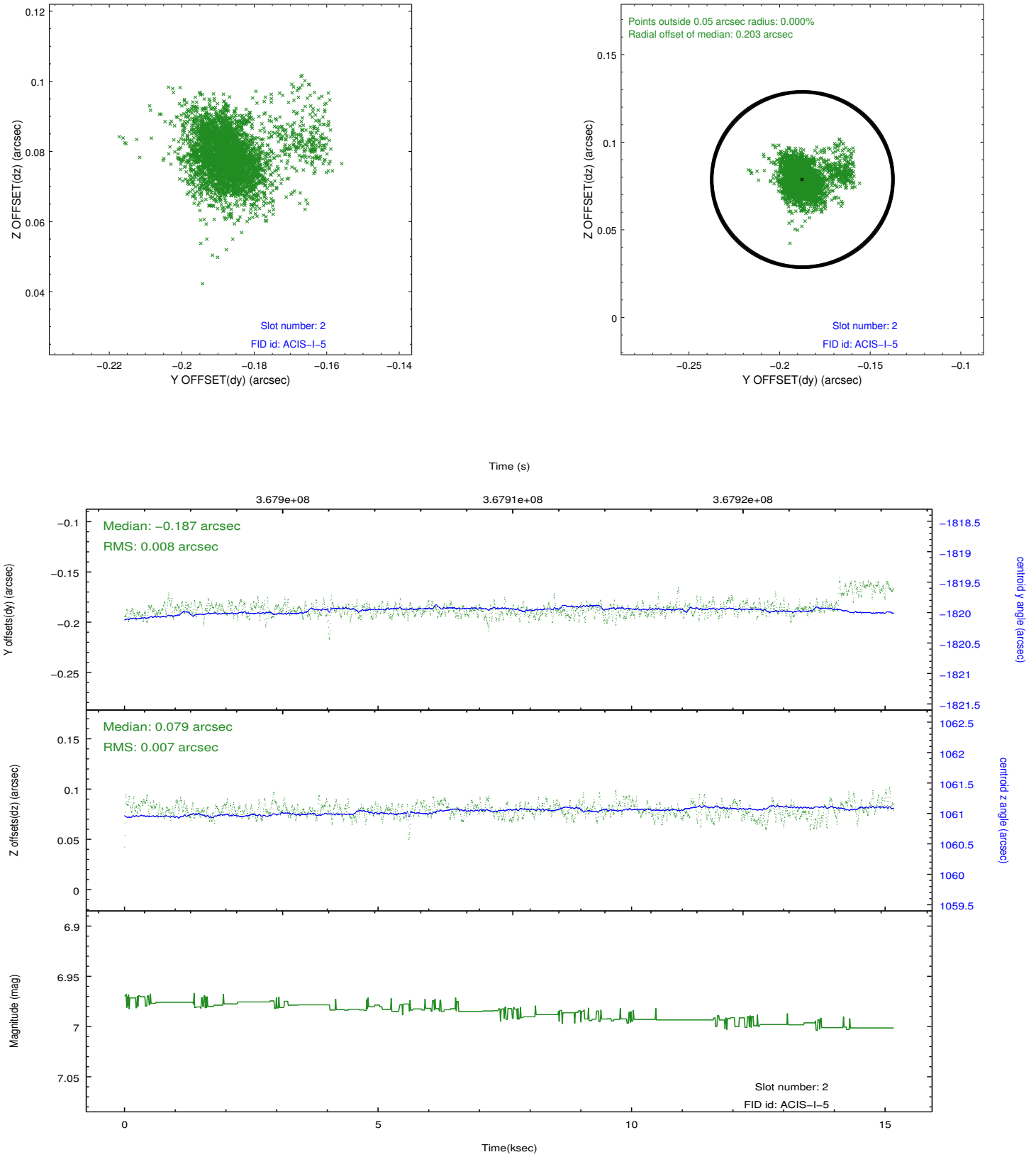
### 2.5.1 Slot 0



## 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)	2012.06.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	15.155859106302

### A.2 Comments

The guide star in slot 3 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this guide star from the solution.