

# V&V Reference Report

## L2 ASCDS Version : 10.1.1

Observation 15261 - L2 Version 2  
Chandra X-Ray Center

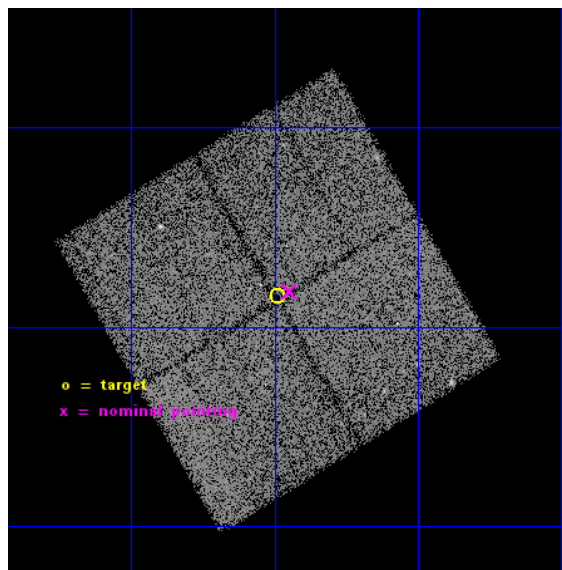
L2 Processing Date : Dec 9 2014

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# 1 Front

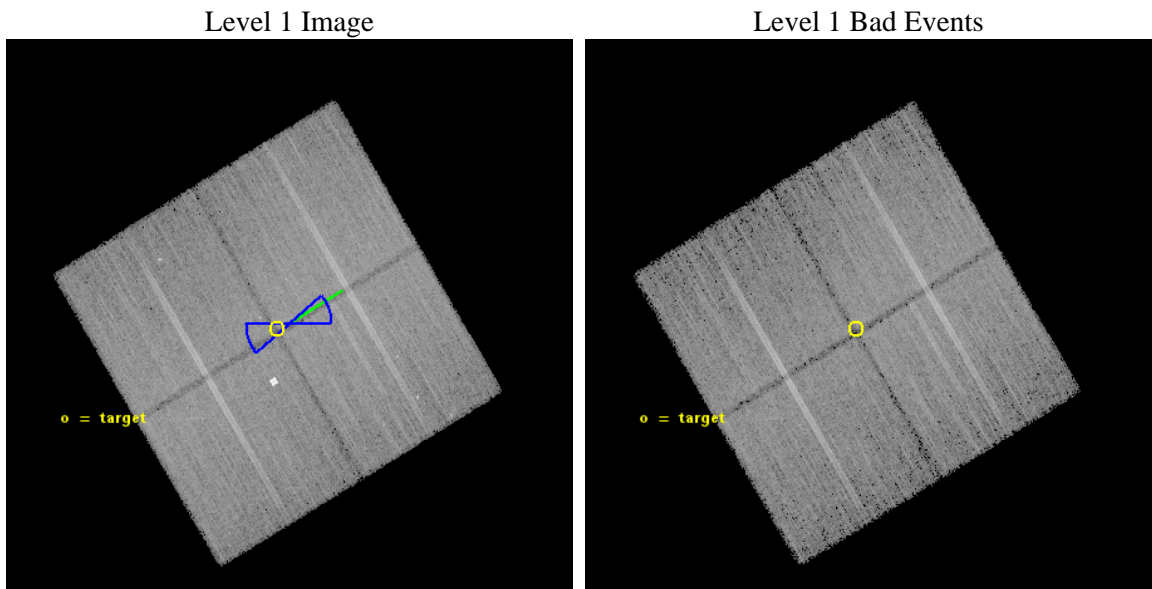
seq_num	901091	Sequence number
obs_id	15261	Observation id
title	The COSMOS Legacy Survey	Proposal title
observer	Dr Francesca Civano	Principal investigator
object	COSMOS Legacy	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	150.74782	Observer's specified target RA [deg]
dec_targ	1.859366	Observer's specified target Dec [deg]
ra_nom	150.73697776923	Nominal RA [deg]
dec_nom	1.8631915500661	Nominal Dec [deg]
roll_nom	59.209035151981	Nominal Roll [deg]
revision	2	Processing version of data
ontime	47088.959341764	Sum of GTIs [s]
livetime	46473.707421577	Livetime [s]
ontime0	47082.67725122	Sum of GTIs [s]
ontime1	47088.959341764	Sum of GTIs [s]
ontime2	47088.959321856	Sum of GTIs [s]
ontime3	47088.959341943	Sum of GTIs [s]
l2events	90090	Number of level 2 events



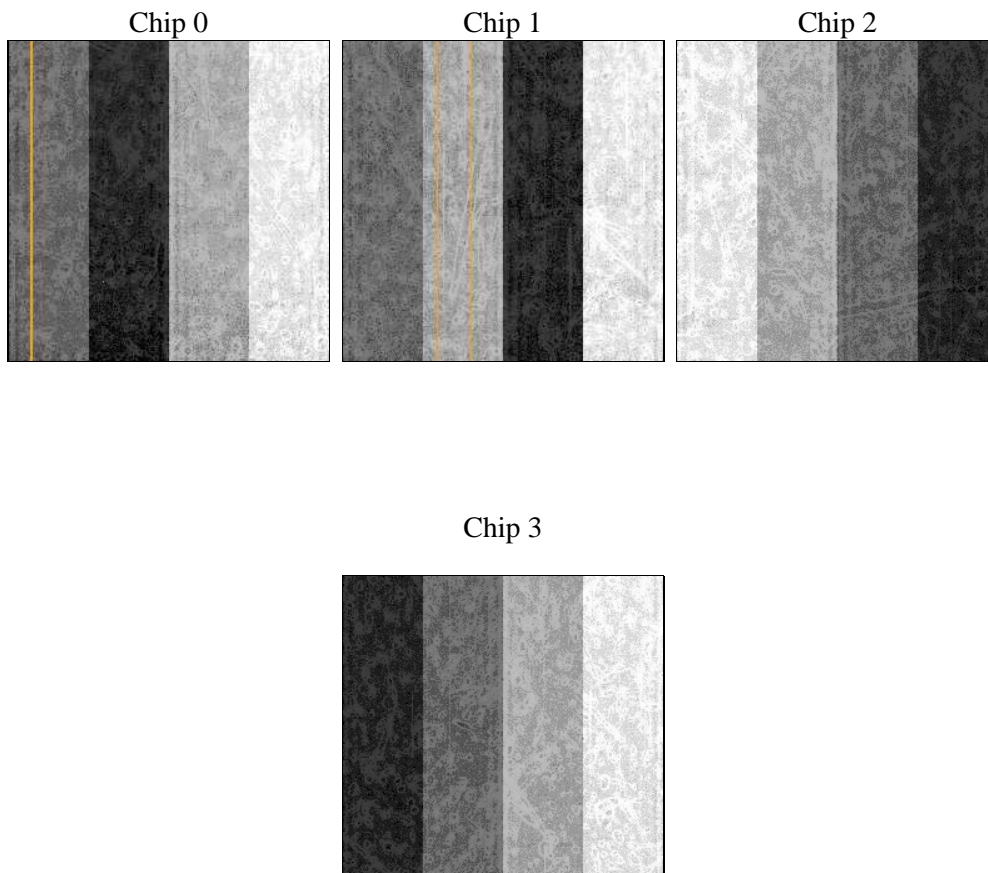
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	47000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	47088.959341764	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime0	47082.67725122	Sum of GTIs [s]
date	2014-12-10T01:17:56	Date and time of file creation	ontime1	47088.959341764	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	47088.959321856	Sum of GTIs [s]
			ontime3	47088.959341943	Sum of GTIs [s]
			l1events	861305	Number of level 1 events

### 2.1.4 Events

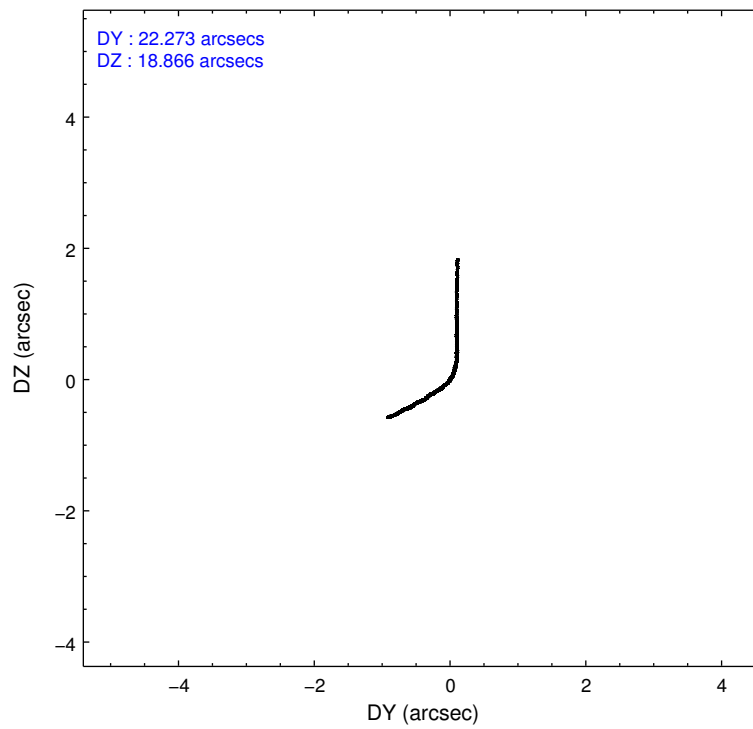
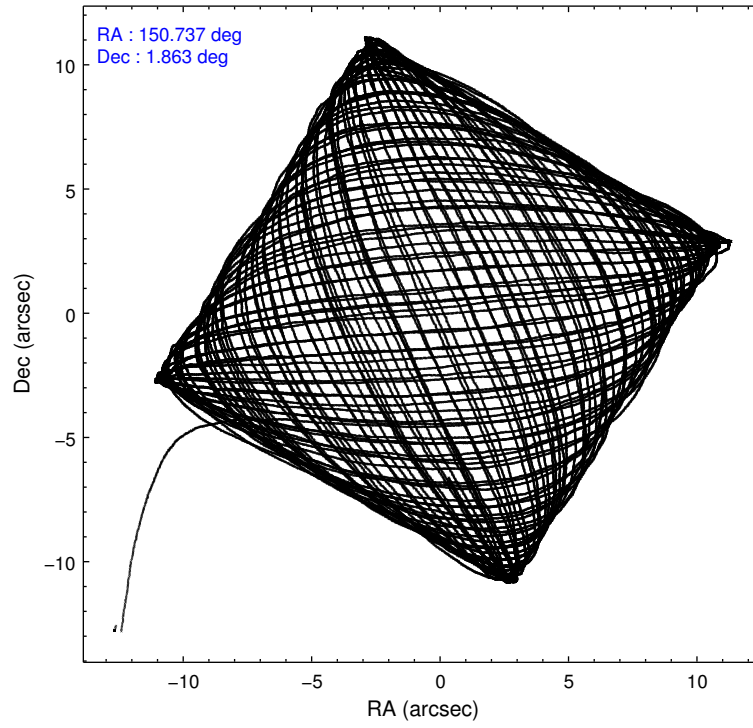
	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	199544	215701	222413	223647
rejected events	172865	177775	196964	197845
rejected %	86%	82%	88%	88%

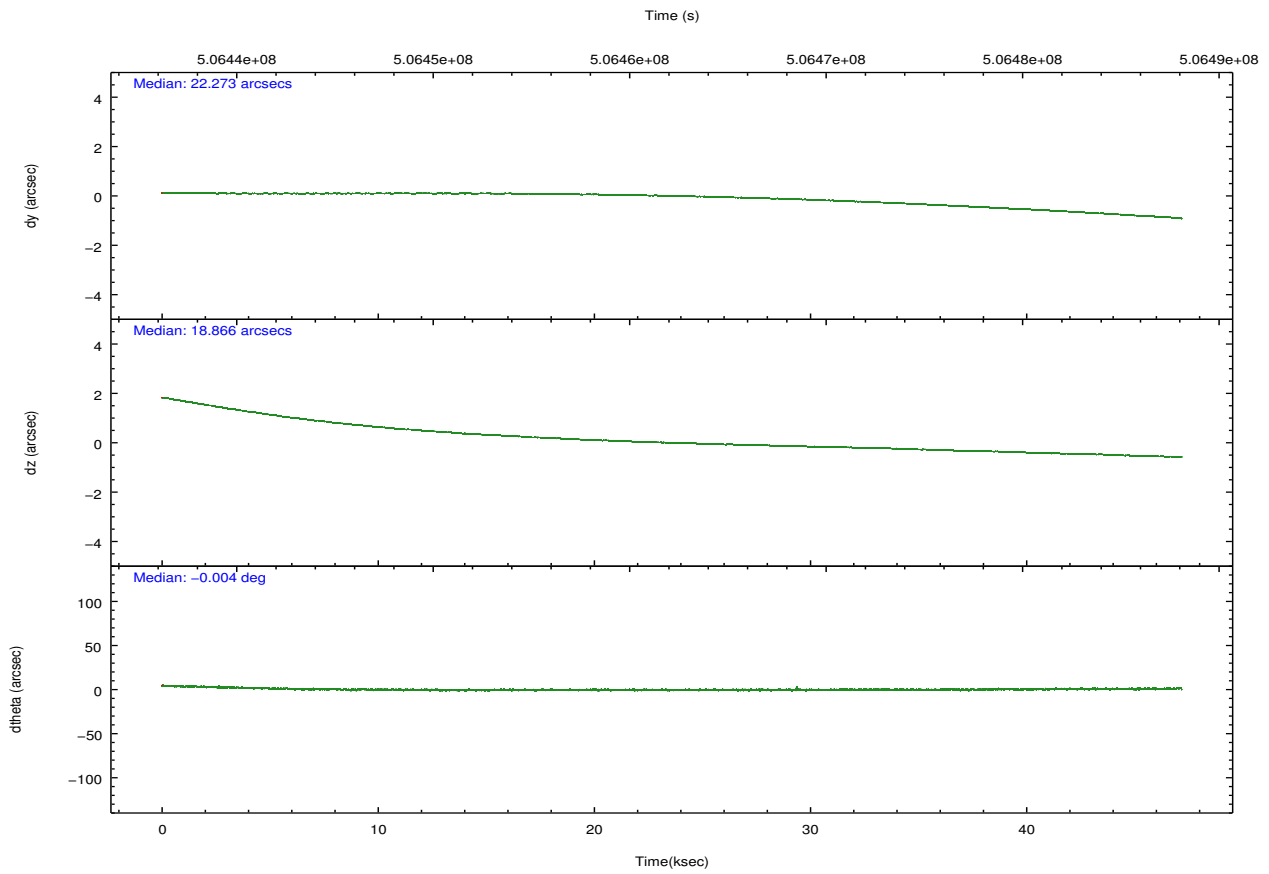
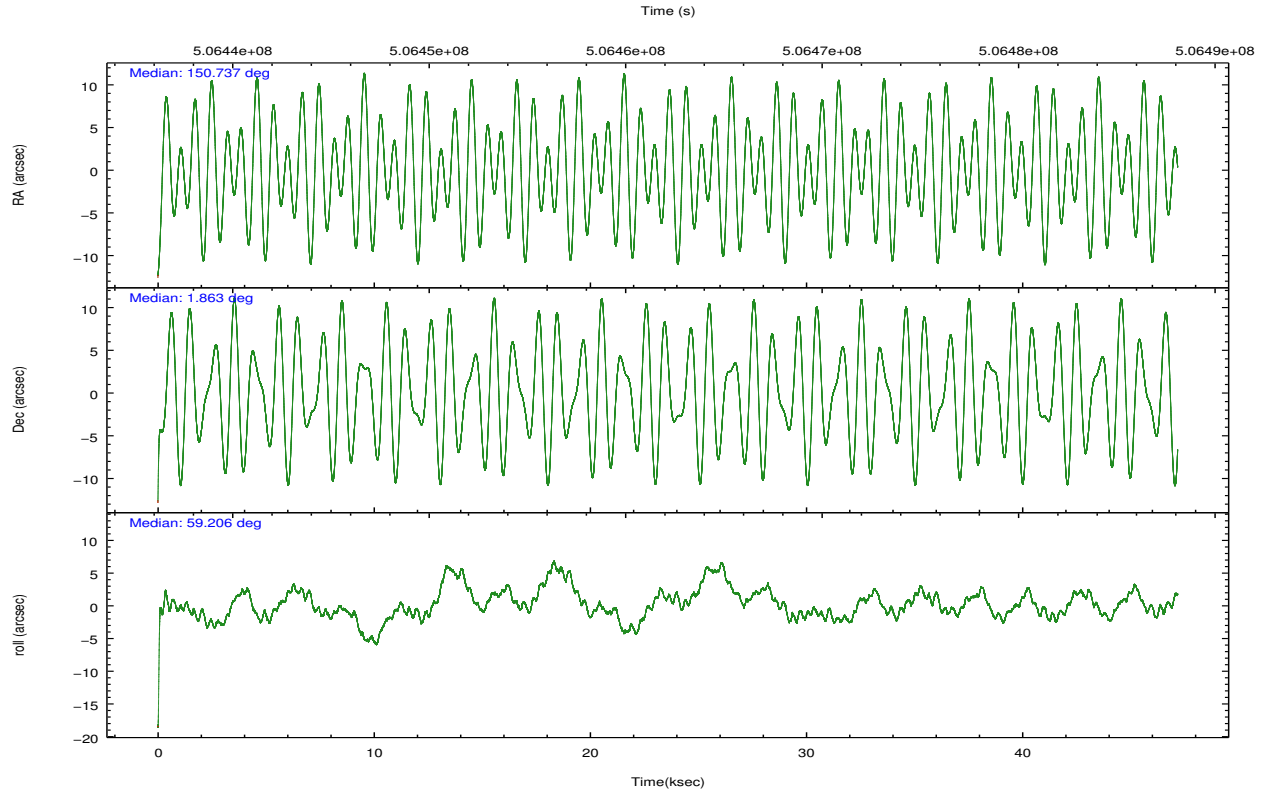
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	9224	9742	8791	8856
	4%	4%	3%	3%
grade 1 events	131	112	132	122
	0%	0%	0%	0%
grade 2 events	6565	15766	6232	5920
	3%	7%	2%	2%
grade 3 events	2795	2944	2656	2688
	1%	1%	1%	1%
grade 4 events	2536	2981	2689	2759
	1%	1%	1%	1%
grade 5 events	10778	11457	10218	12324
	5%	5%	4%	5%
grade 6 events	5562	6497	5082	5583
	2%	3%	2%	2%
grade 7 events	161953	166202	186613	185395
	81%	77%	83%	82%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-0123	ACIS-0123	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	150.736717	150.7369777692268	Subarray requested	NONE	NONE
[deg] Pointing Dec	1.835704	1.863191550066123	Alternating exposures requested	N	N
[deg] Pointing Roll	59.000365	59.2090351519814	[s] Primary exposure time	0.000000	3.1
[deg] Roll angle	250.000000	250.000000			
[deg] Roll tolerance	20.000000	20.000000			
Roll constraint allows 180D rotation	Y	Y			
[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)	506438731.184000	506437751.2648			
Observation start date	2014-01-18T13:24:24	2014-01-18T13:09:11			
[s] Observation end time (MET)	506485731.184000	506486728.84249			
Observation end date	2014-01-19T02:27:44	2014-01-19T02:45:28			
Read mode	TIMED	TIMED			

## 2.3 Aspect





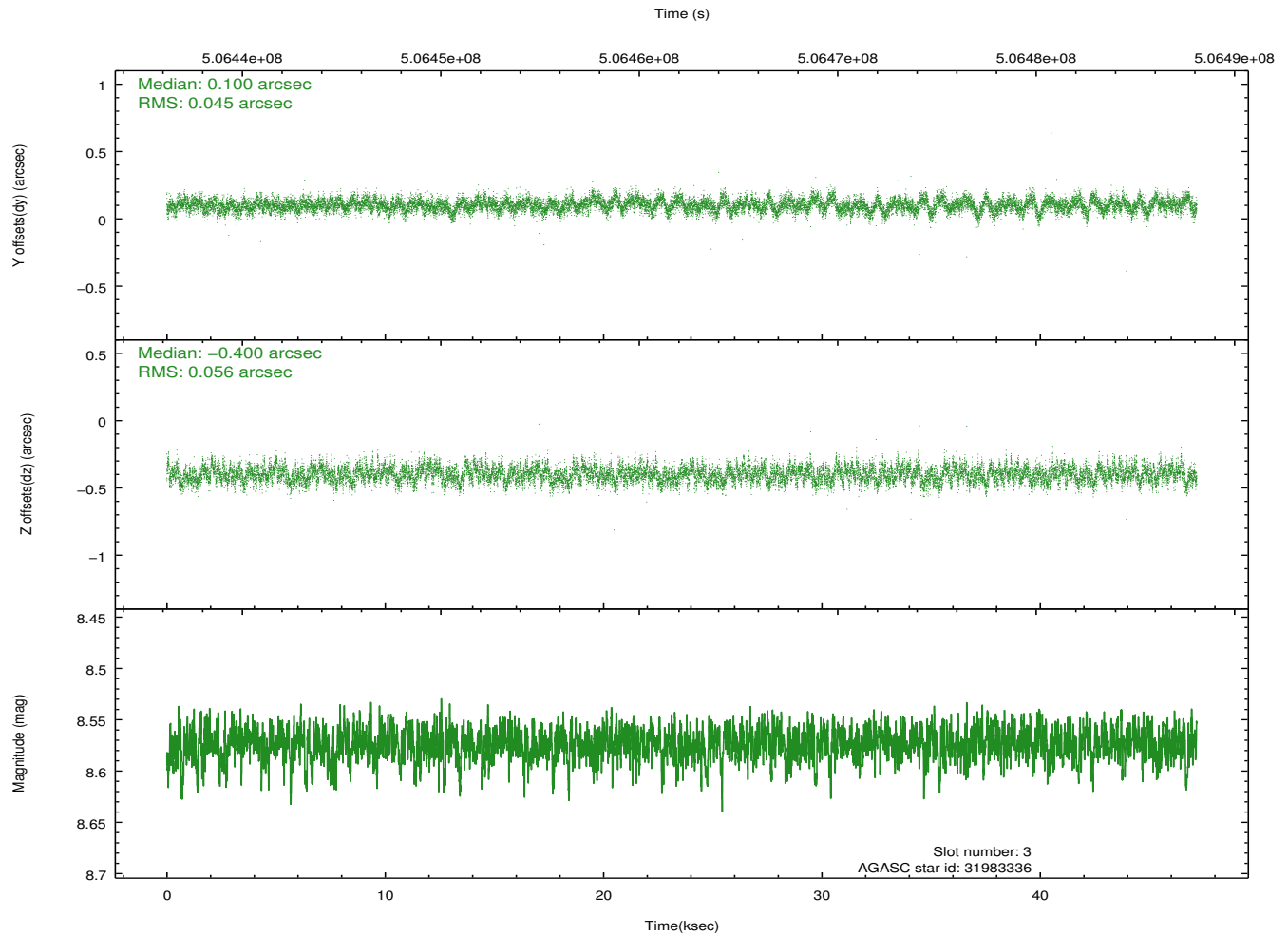
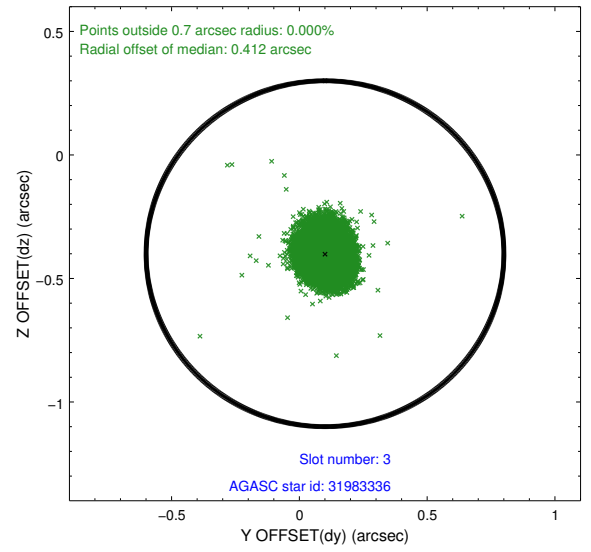
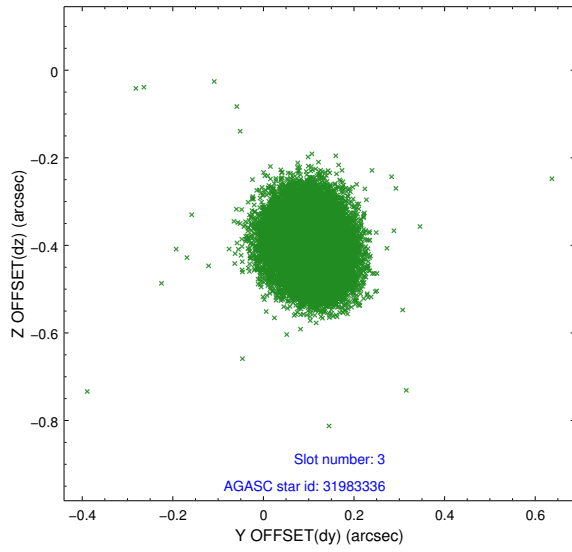
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.15	11508	0.044	0.020	0.010	0.059	0.000000	0.000000	917.21	-842.71
1	FID		ACIS-I-5	7.14	11507	-0.273	0.038	0.008	0.014	0.000000	0.000000	-1831.28	1054.72
2	FID		ACIS-I-6	7.15	11508	0.137	0.012	0.015	0.050	0.000000	0.000000	382.77	1699.27
3	GUIDE	used	31983336	8.57	23002	0.100	-0.400	0.076	0.122	150.429924	2.291234	837.79	1790.56
4	GUIDE	used	31985760	8.47	23006	-0.053	-0.163	0.076	0.120	150.924581	2.094394	1146.30	-99.33
5	GUIDE	used	31986576	9.03	22997	-0.179	0.741	0.158	0.247	151.600045	2.029023	2197.41	-2302.51
6	GUIDE	used	31991816	8.66	23006	0.377	0.319	0.088	0.139	150.917113	1.006843	-2222.41	-2092.86
7	GUIDE	used	32374896	9.20	22995	-0.263	-0.487	0.122	0.192	150.682269	2.512794	1988.27	1422.90

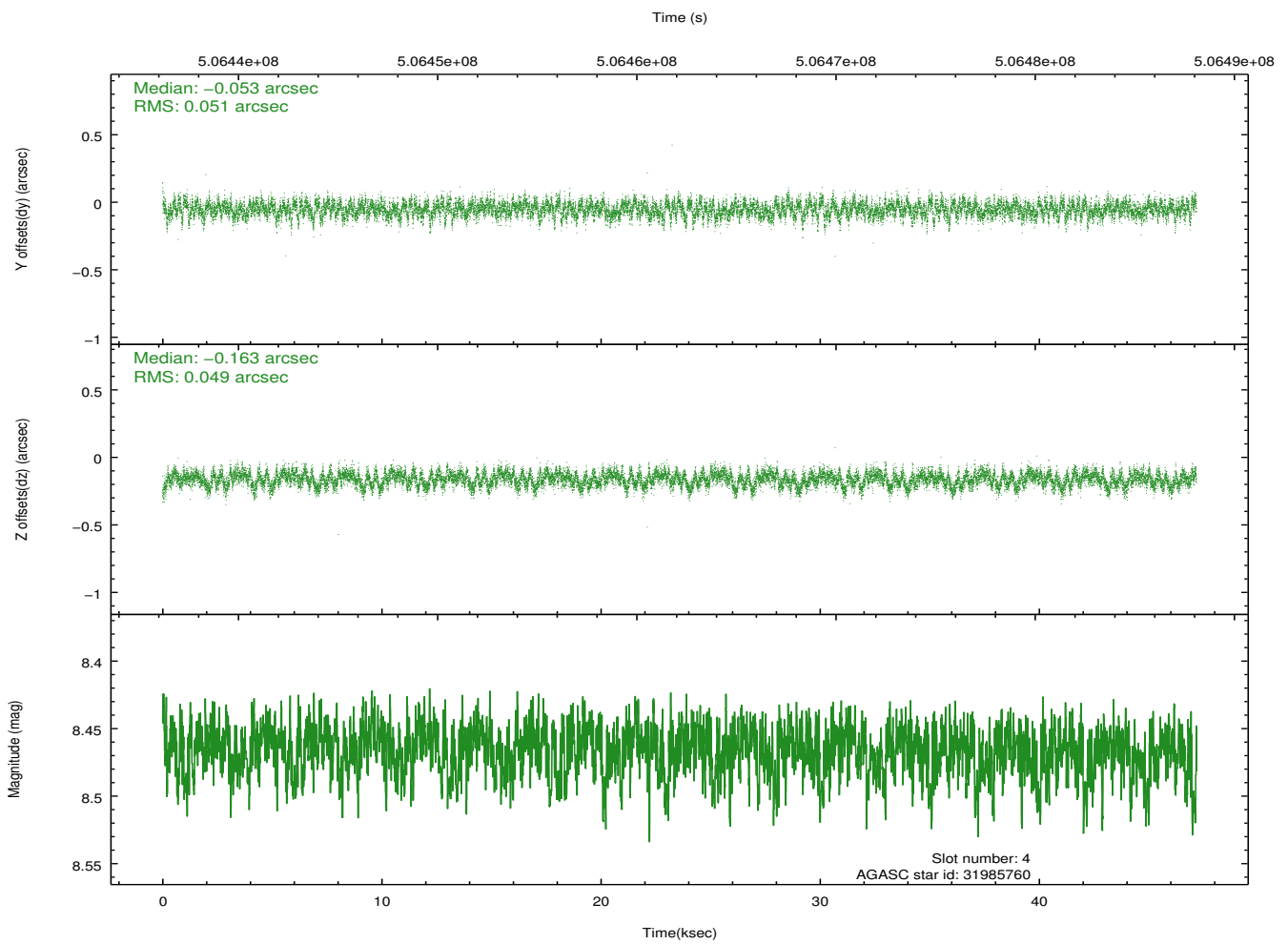
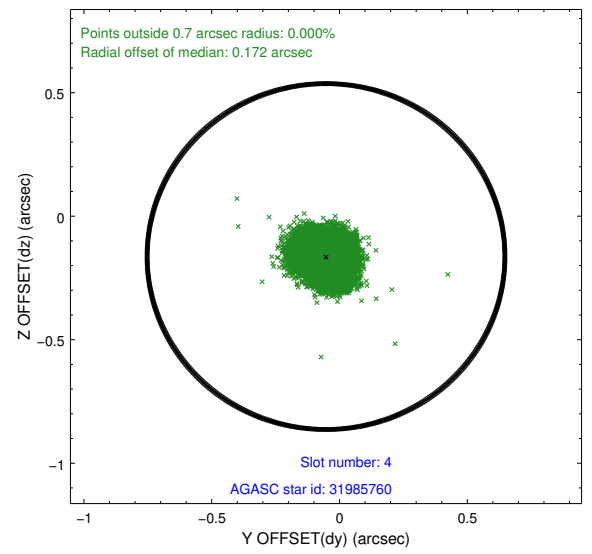
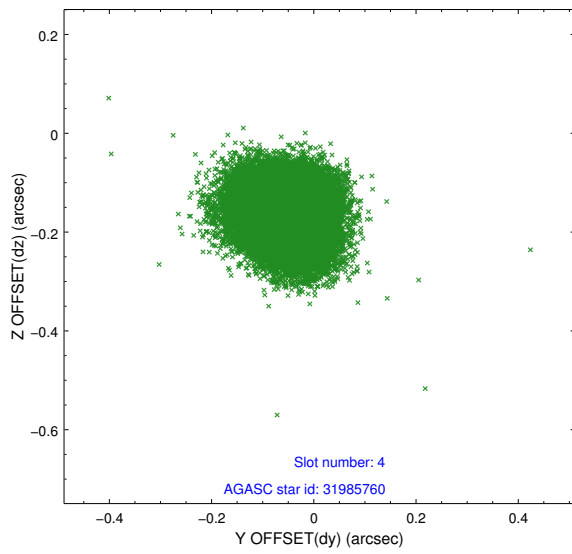
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## 2.4 Star Slots

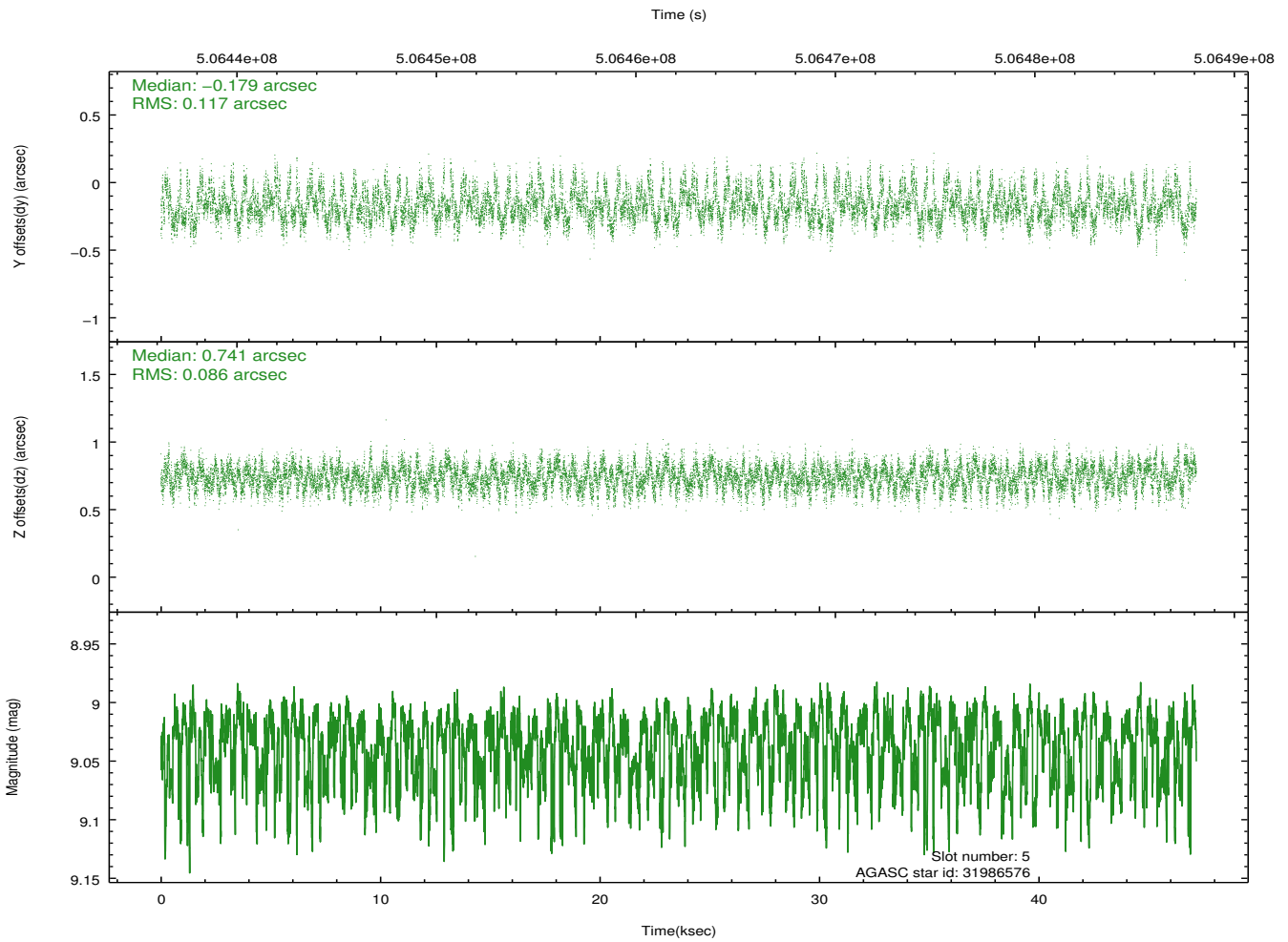
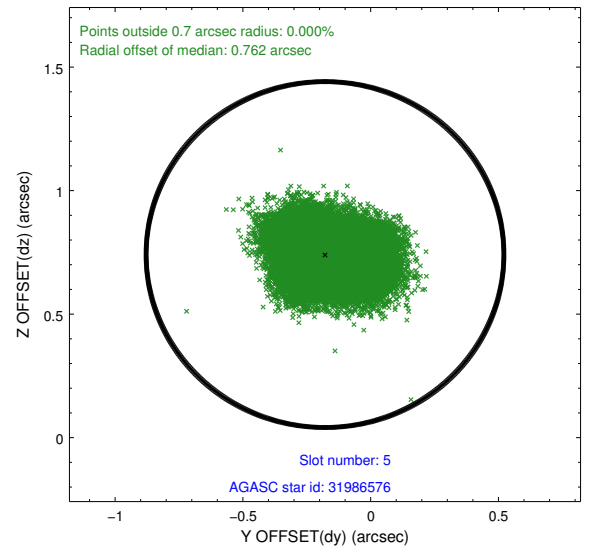
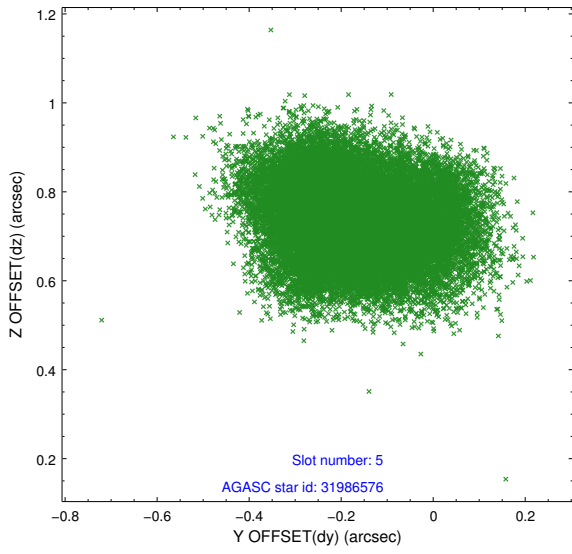
### 2.4.1 Slot 3



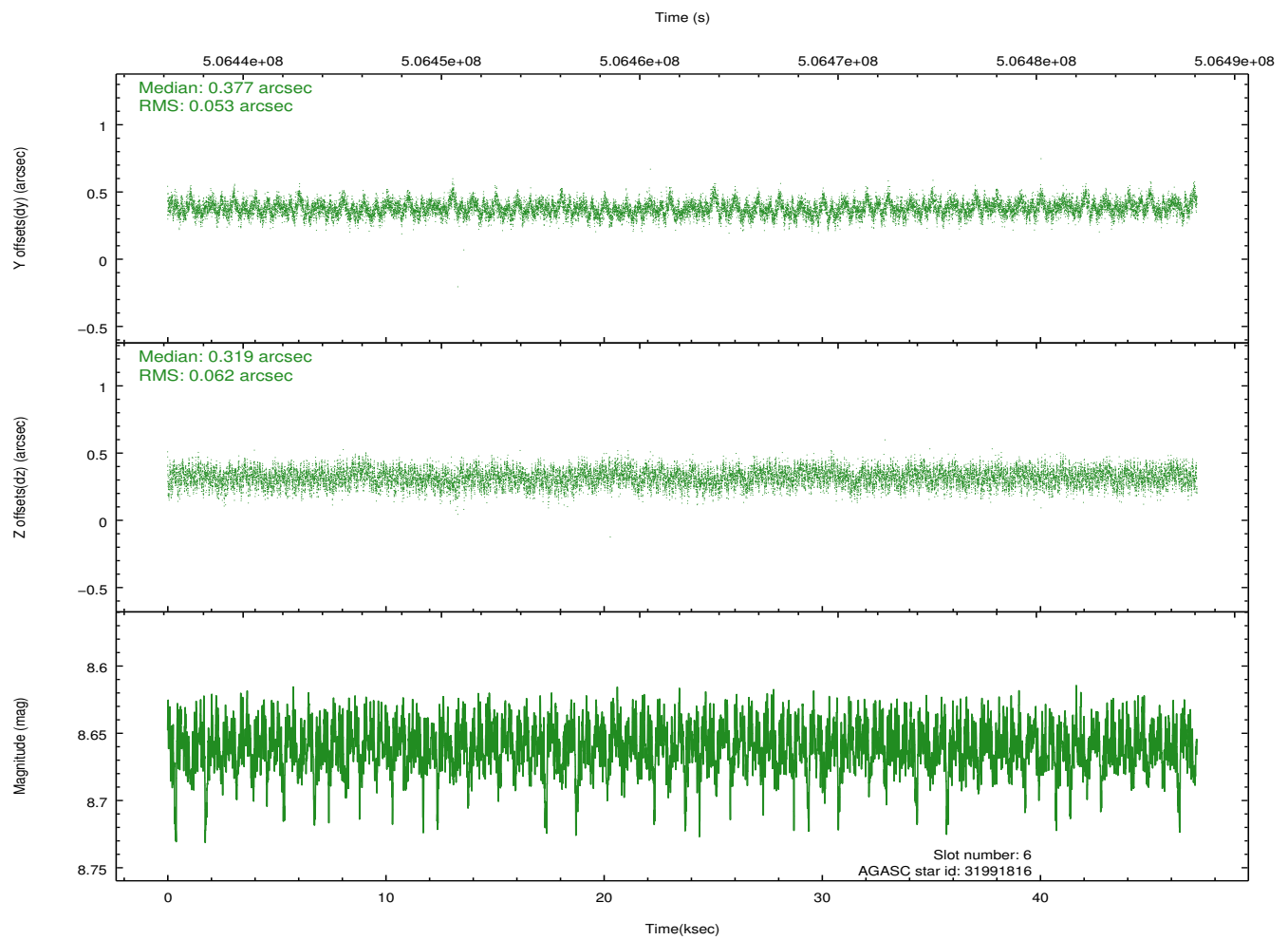
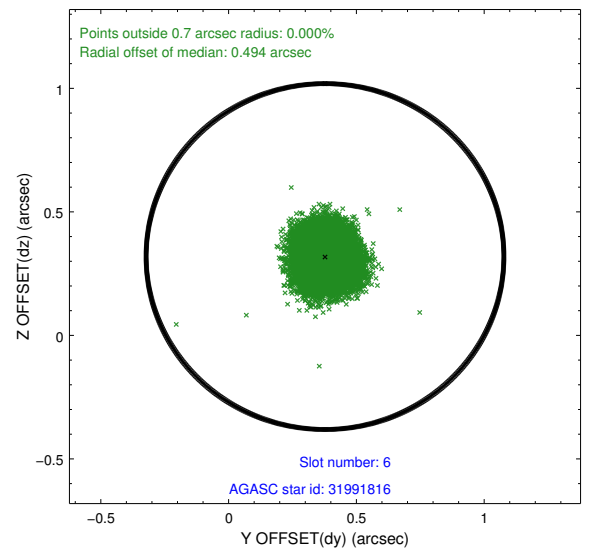
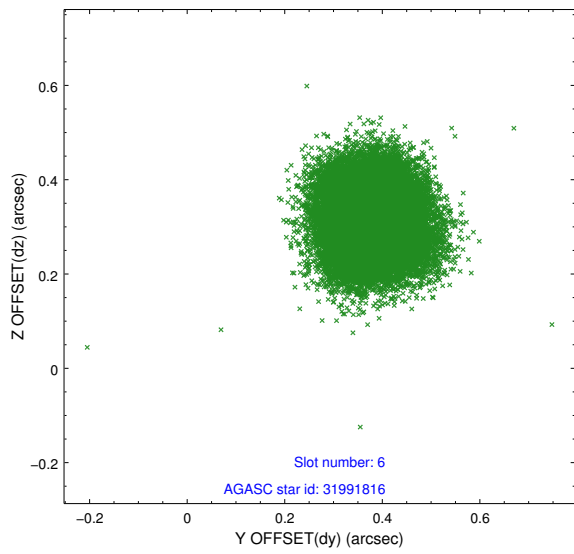
## 2.4.2 Slot 4



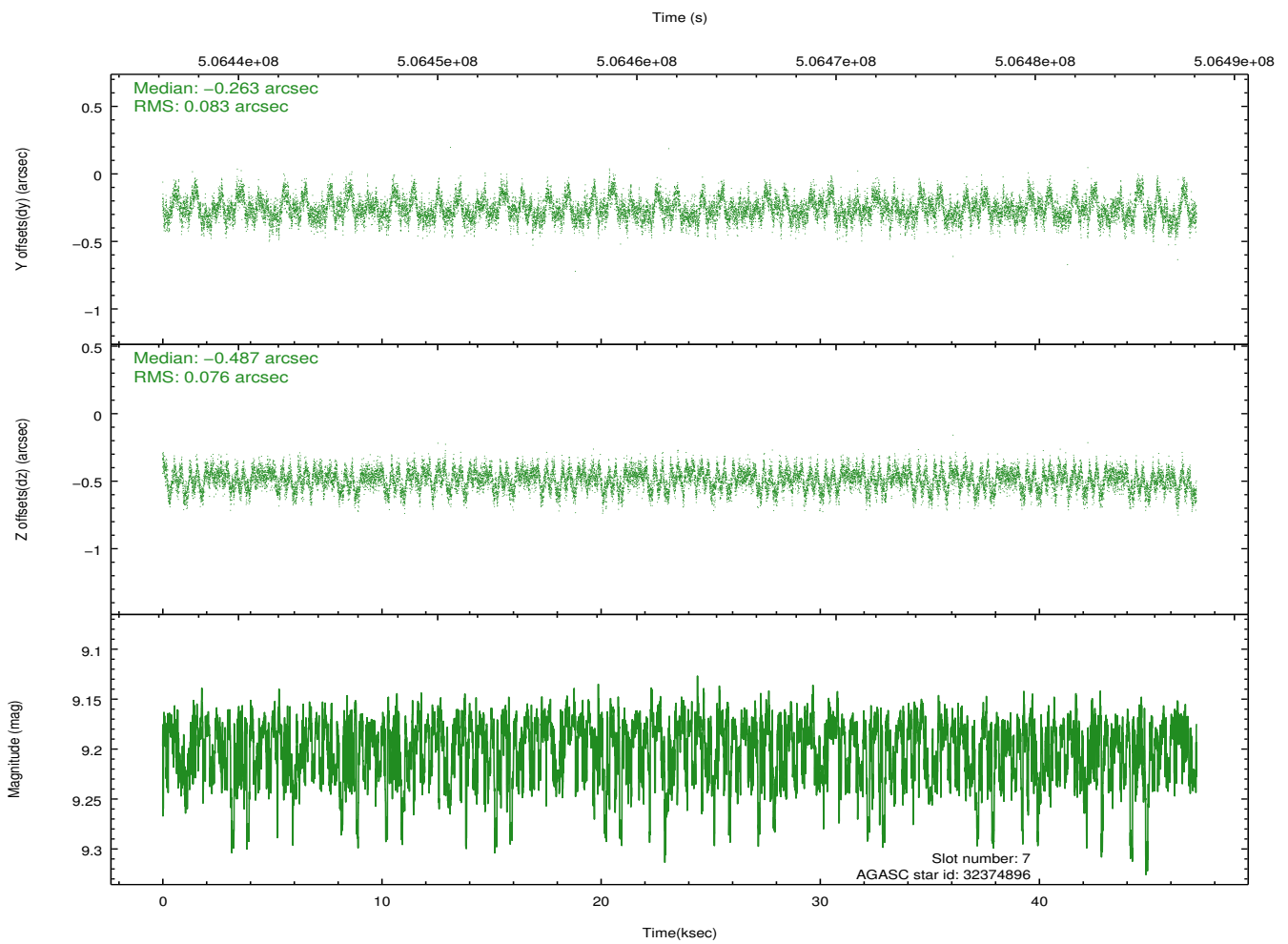
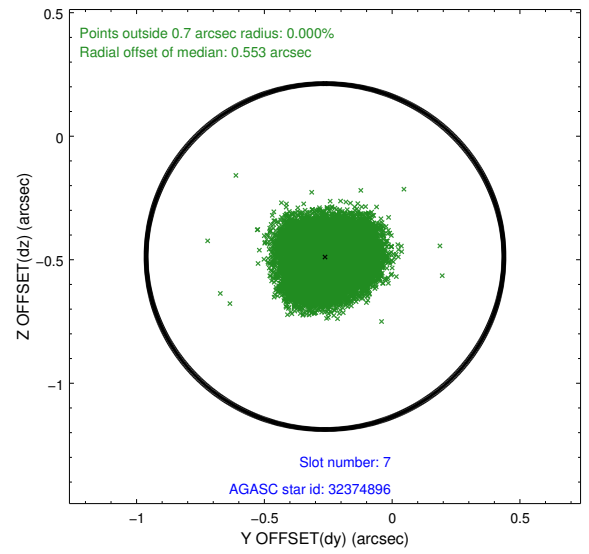
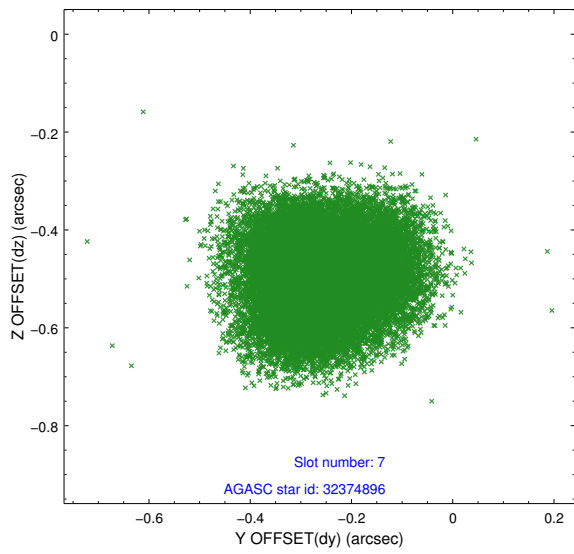
### 2.4.3 Slot 5



### 2.4.4 Slot 6

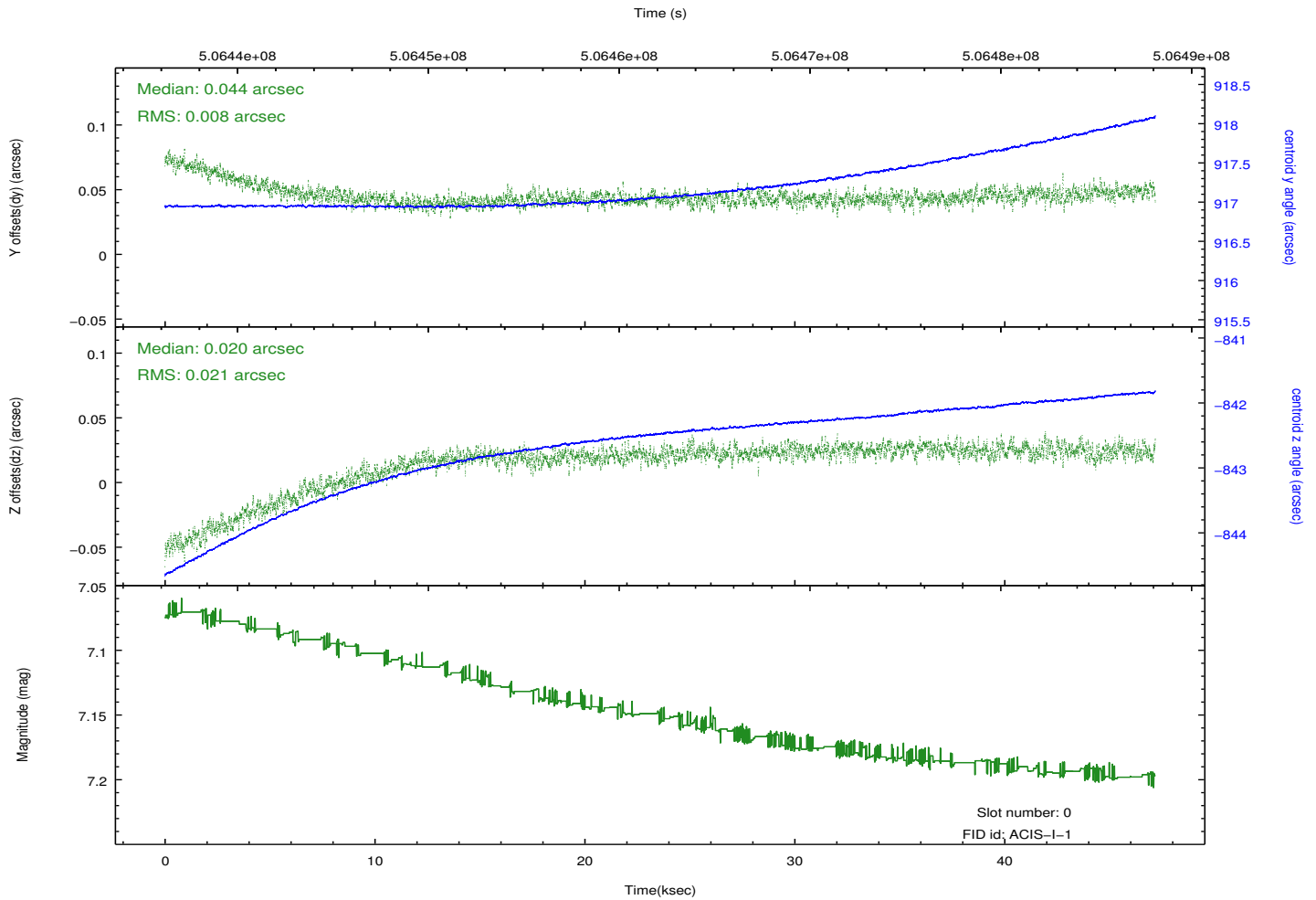
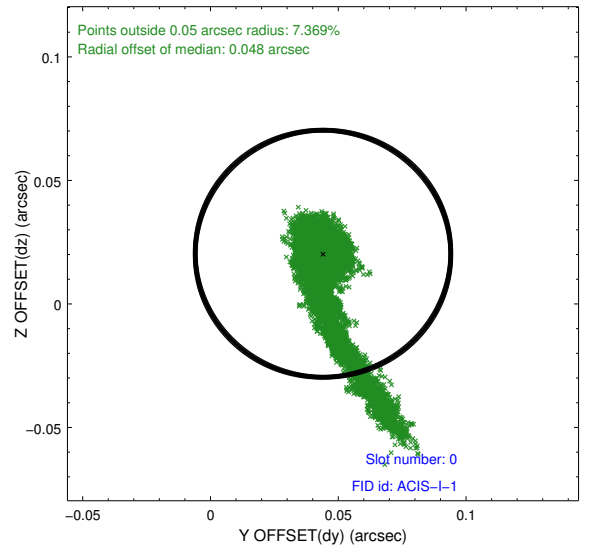
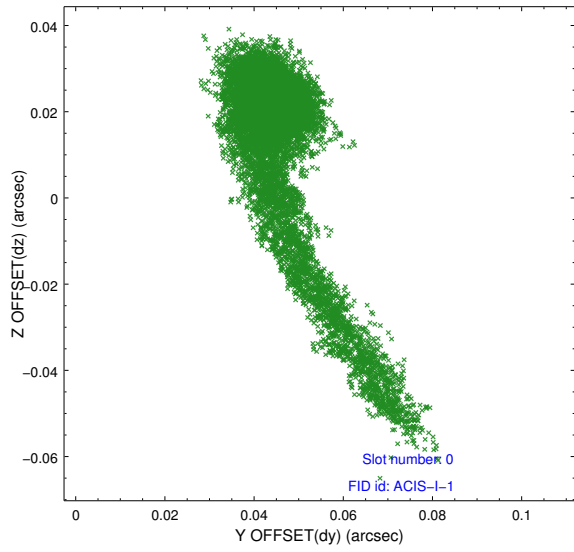


## 2.4.5 Slot 7

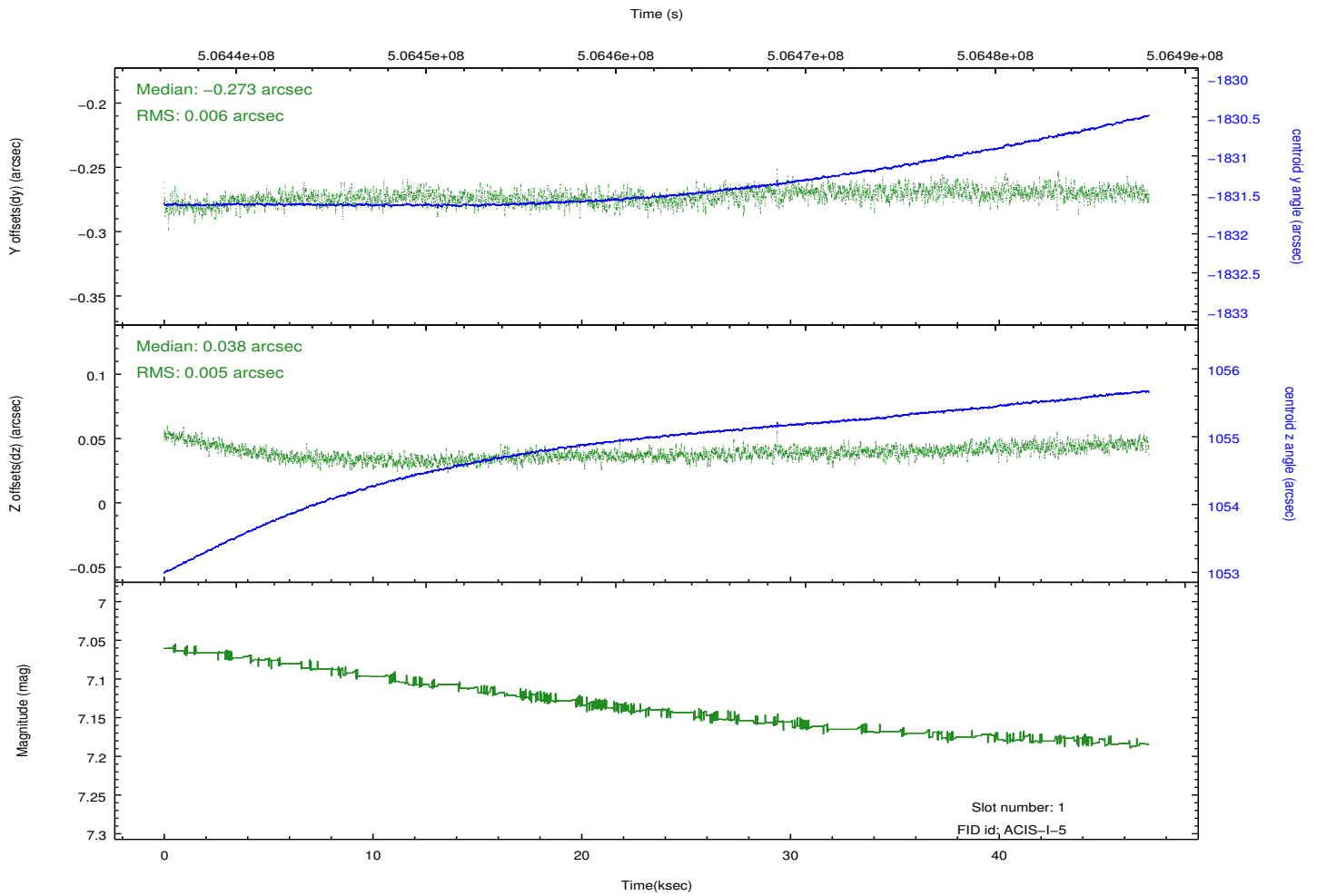
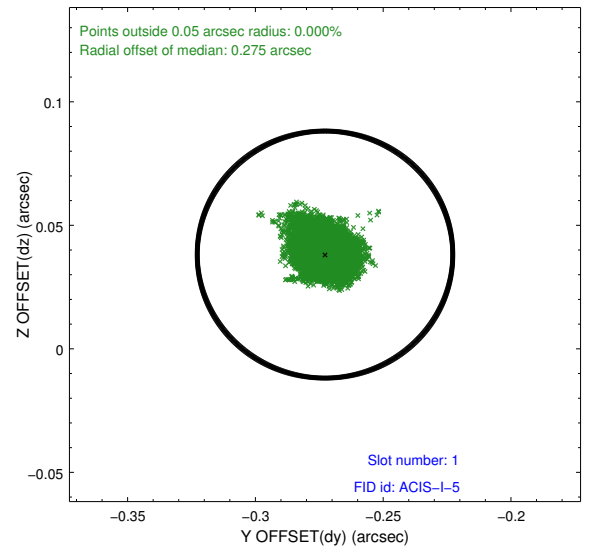
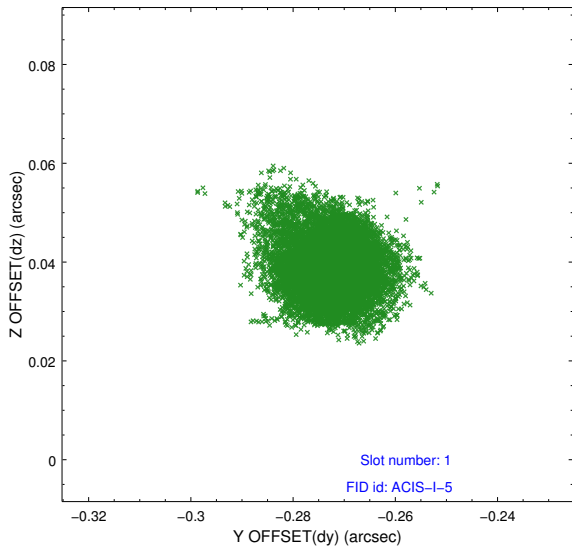


## 2.5 FID Slots

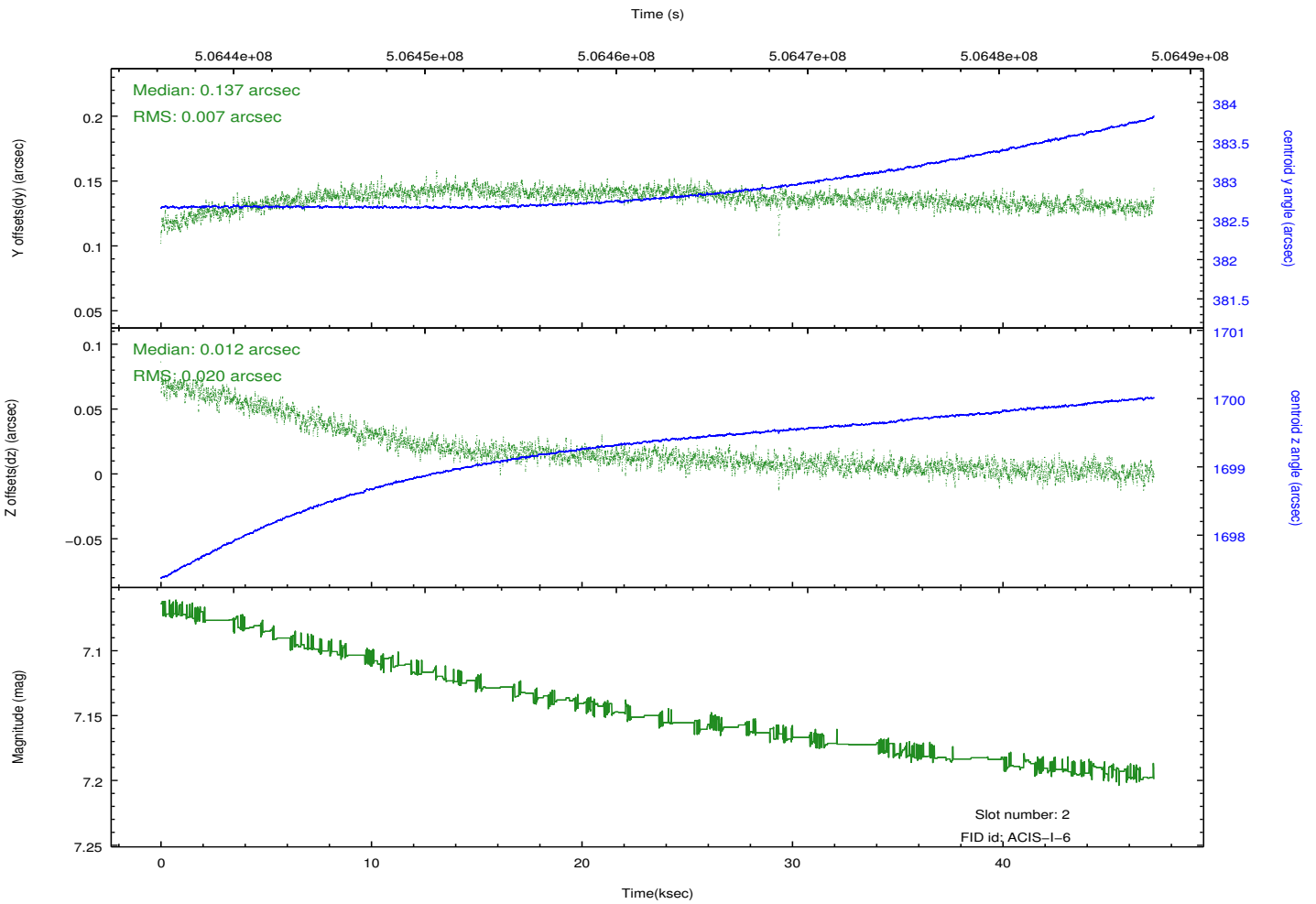
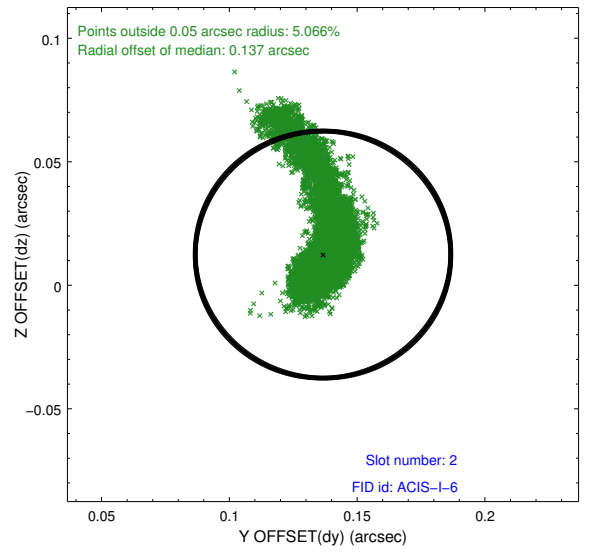
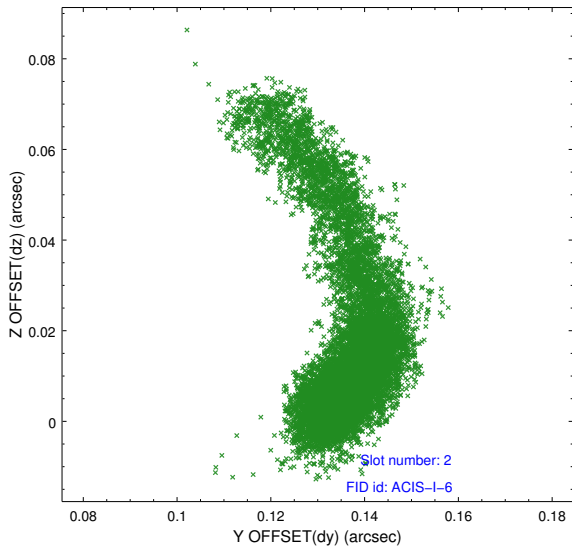
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2014.12.16
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	47.088959341764

## A.2 Comments

Roll preference met.

These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.