

# V&V Reference Report

## L2 ASCDS Version : 8.5.1

Observation 15605 - L2 Version 2  
Chandra X-Ray Center

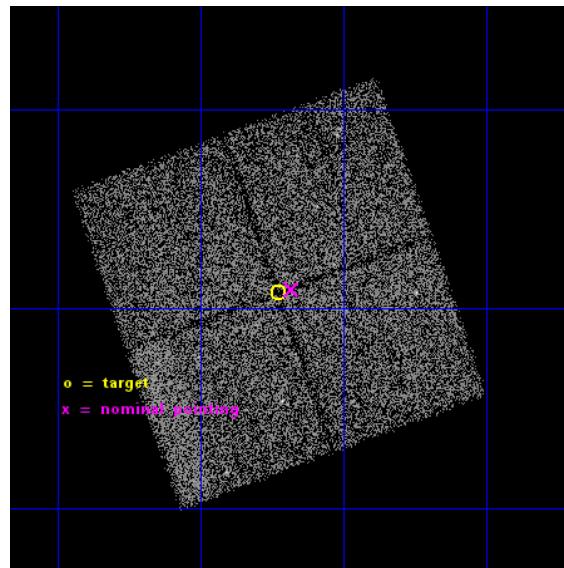
L2 Processing Date : Nov 30 2014

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# 1 Front

seq_num	901041	Sequence number
obs_id	15605	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	150.05698	Observer's specified target RA [deg]
dec_targ	2.680278	Observer's specified target Dec [deg]
ra_nom	150.04558657059	Nominal RA [deg]
dec_nom	2.6828797965311	Nominal Dec [deg]
roll_nom	70.209222067509	Nominal Roll [deg]
revision	2	Processing version of data
ontime	22090.176879466	Sum of GTIs [s]
livetime	21801.552455984	Livetime [s]
ontime0	22090.135839462	Sum of GTIs [s]
ontime1	22090.176879466	Sum of GTIs [s]
ontime2	22083.935948789	Sum of GTIs [s]
ontime3	22087.117949247	Sum of GTIs [s]
l2events	48774	Number of level 2 events

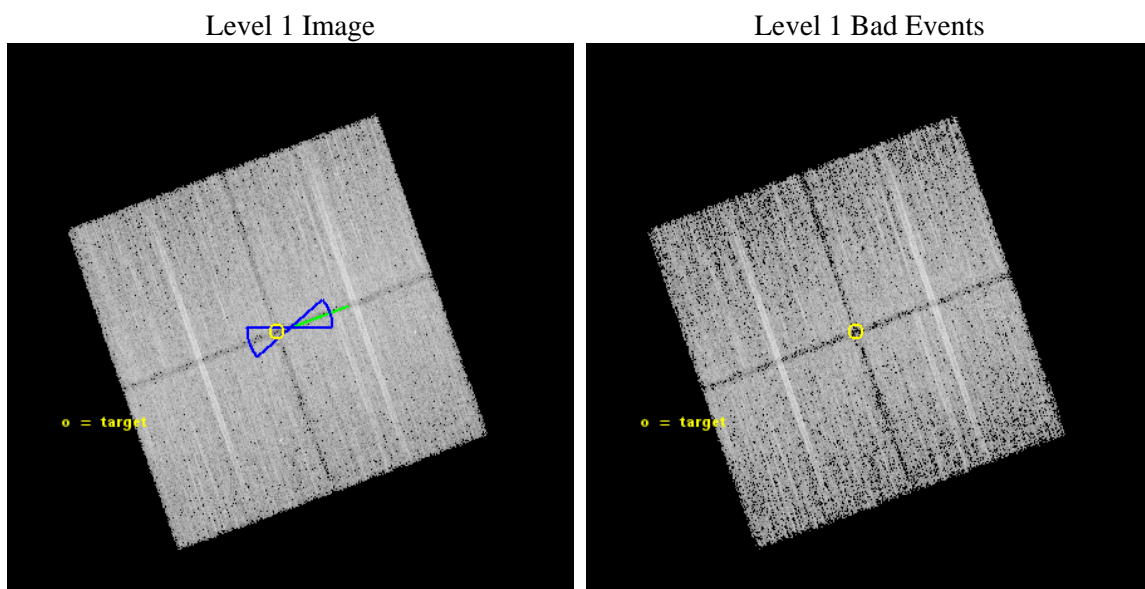




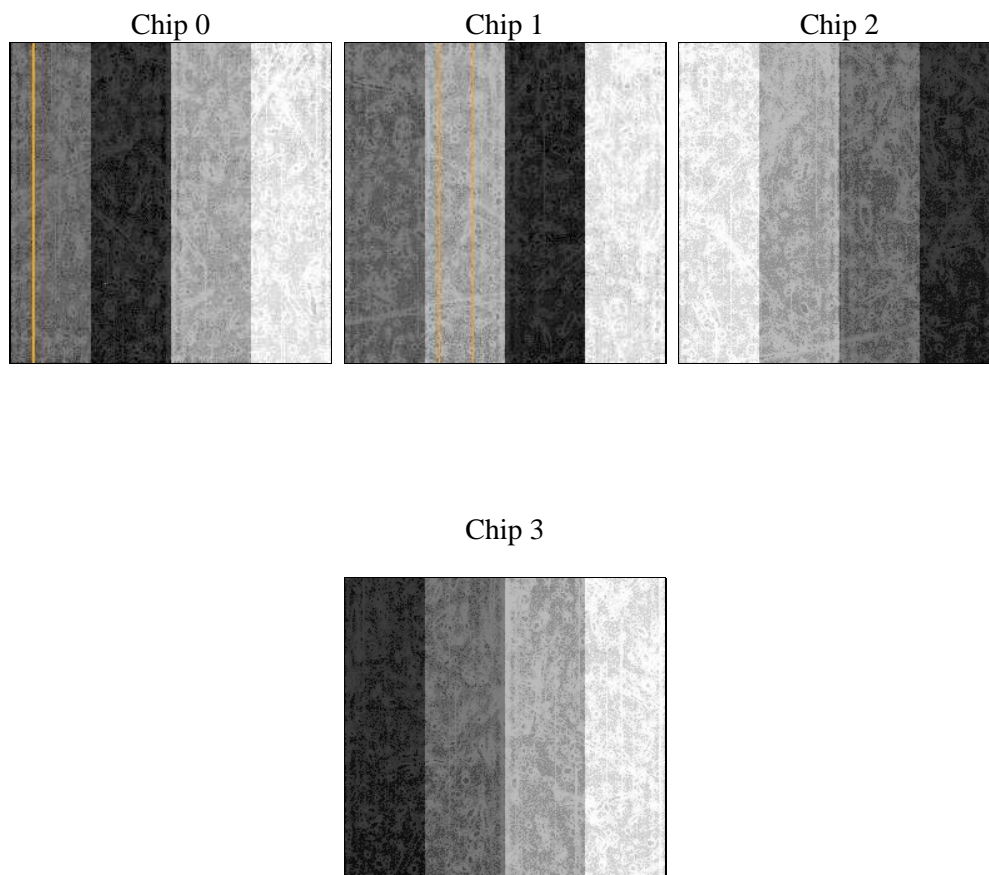
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	22000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	22090.176879466	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime0	22090.135839462	Sum of GTIs [s]
date	2014-11-30T07:38:59	Date and time of file creation	ontime1	22090.176879466	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	22083.935948789	Sum of GTIs [s]
			ontime3	22087.117949247	Sum of GTIs [s]
			l1events	471074	Number of level 1 events

### 2.1.4 Events

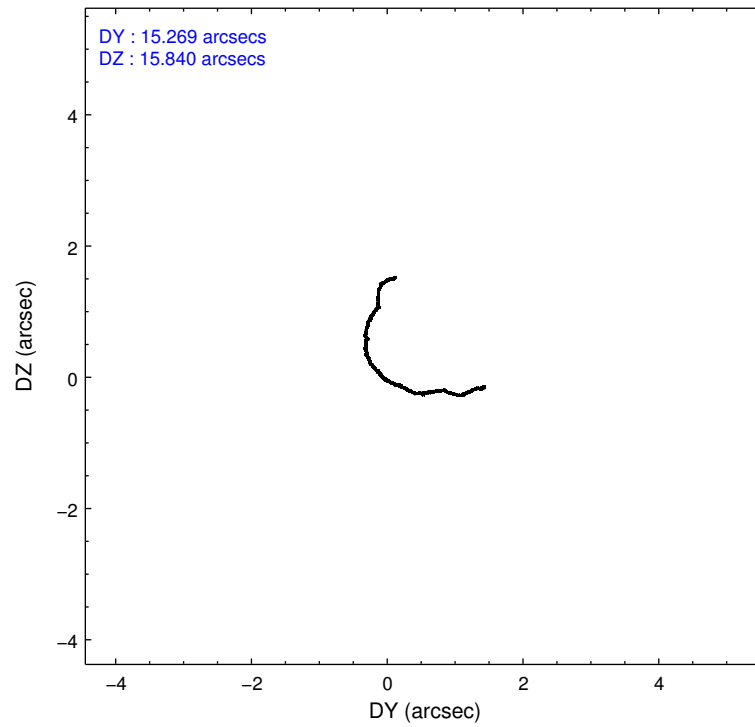
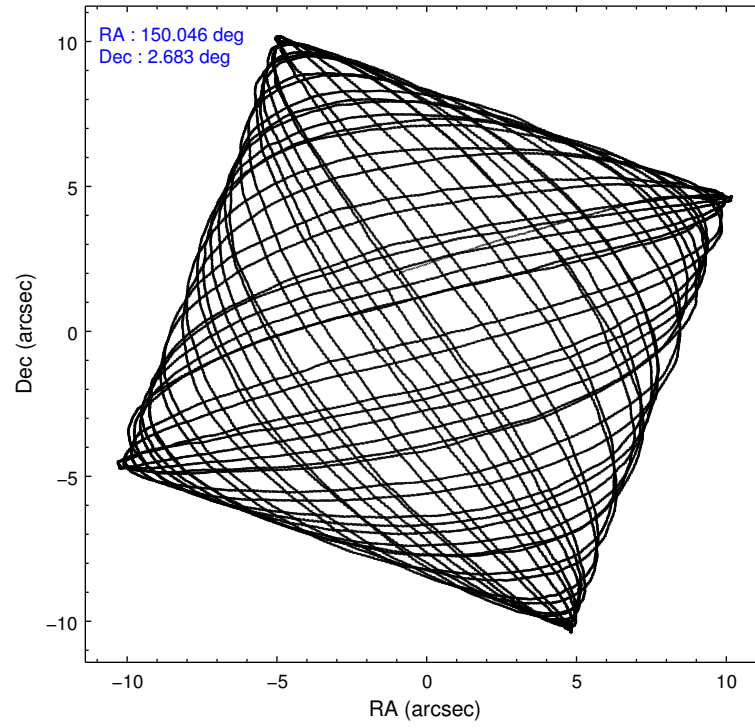
	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	112046	114356	126282	118390
rejected events	97083	97762	110370	105000
rejected %	86%	85%	87%	88%

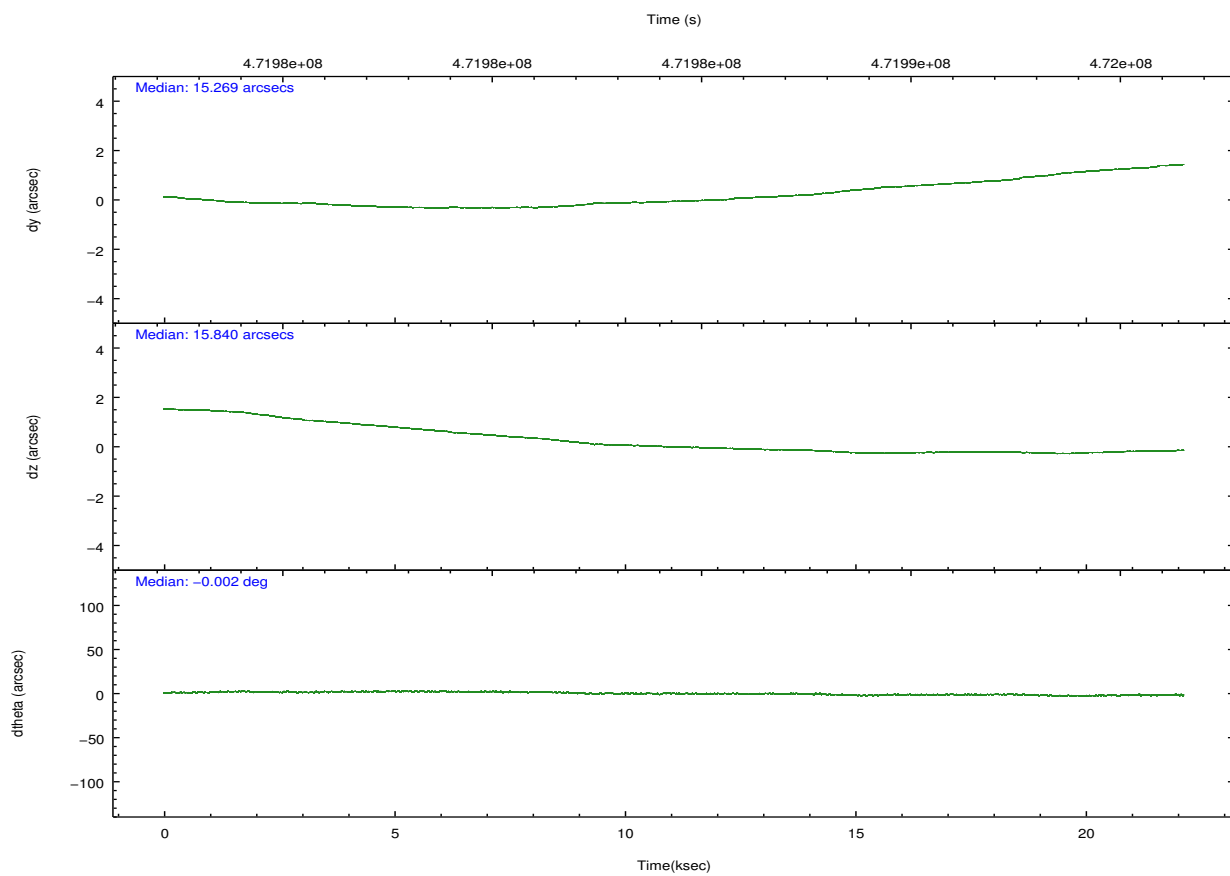
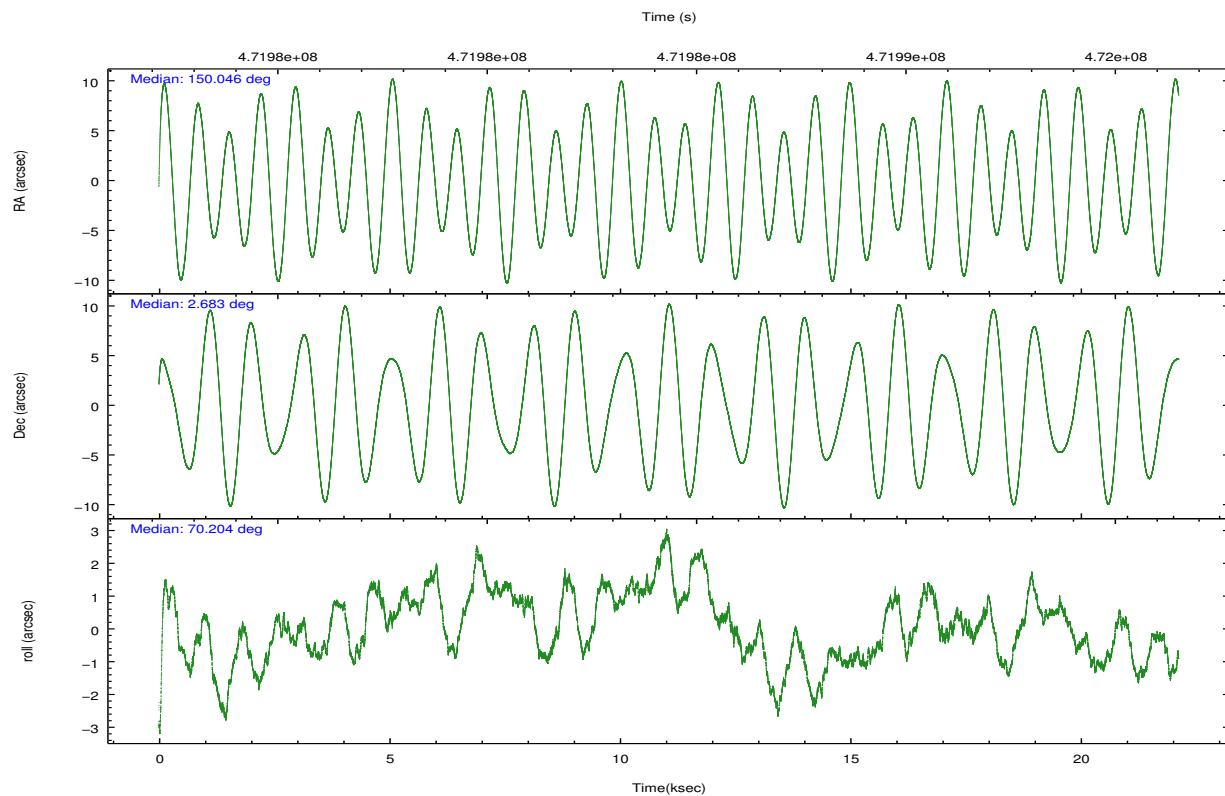
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	5585	6021	6178	4770
	4%	5%	4%	4%
grade 1 events	63	65	78	68
	0%	0%	0%	0%
grade 2 events	3815	4125	3953	3054
	3%	3%	3%	2%
grade 3 events	1476	1554	1396	1447
	1%	1%	1%	1%
grade 4 events	1358	1451	1588	1403
	1%	1%	1%	1%
grade 5 events	5393	5602	5038	6108
	4%	4%	3%	5%
grade 6 events	2730	3444	2798	2718
	2%	3%	2%	2%
grade 7 events	91626	92094	105253	98822
	81%	80%	83%	83%

## 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	150.050561	150.0455865705899	Subarray requested	NONE	NONE
[deg] Pointing Dec	2.655835	2.68287979653113	Alternating exposures requested	N	N
[deg] Pointing Roll	70.000311	70.20922206750878	[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)	471973392.184000	471972234.57765			
Observation start date	2012-12-15T15:42:05	2012-12-15T15:23:54			
[s] Observation end time (MET)	471995392.184000	471996178.57894			
Observation end date	2012-12-15T21:48:45	2012-12-15T22:02:58			
Read mode	TIMED	TIMED			

## 2.3 Aspect



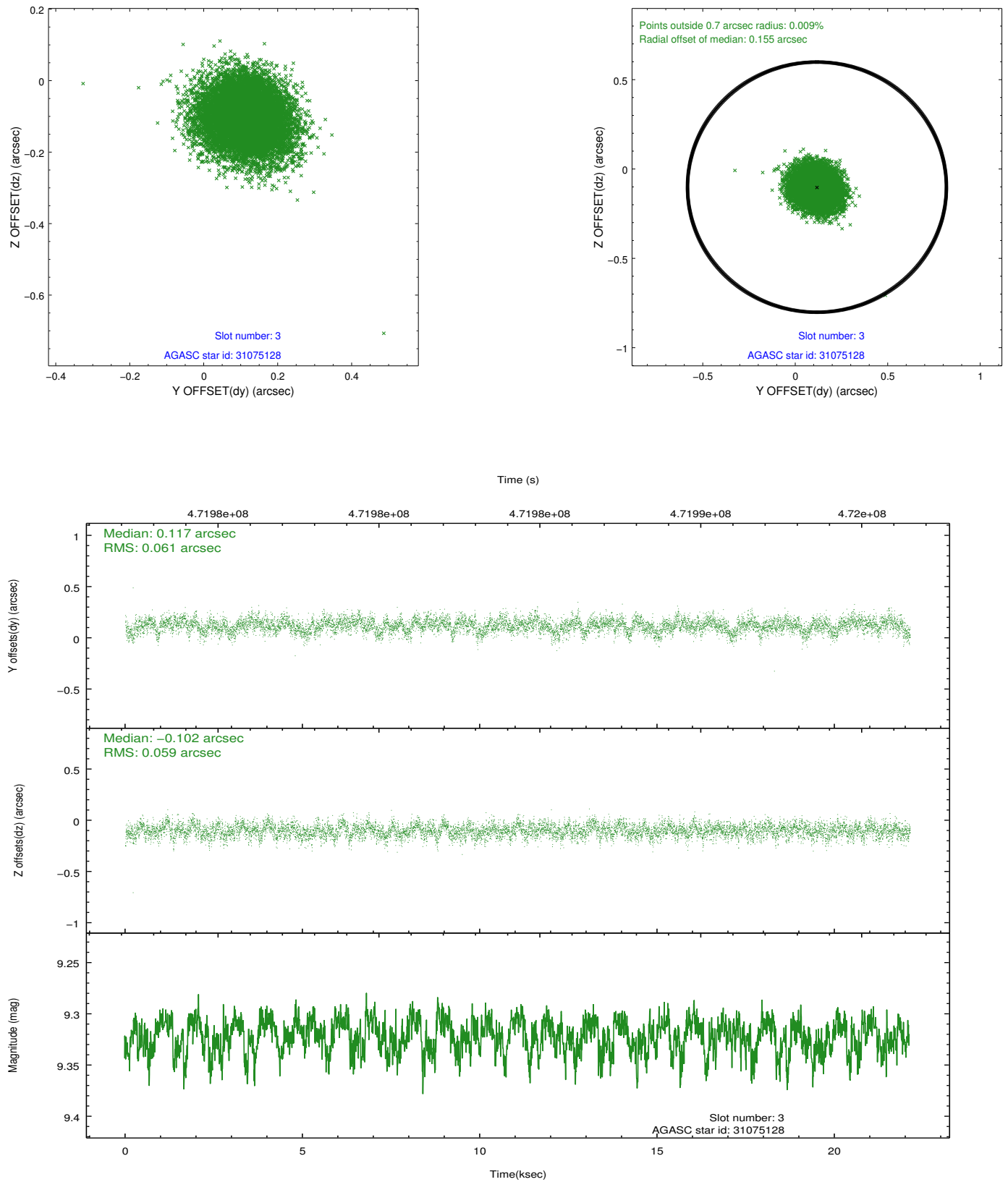


### Slot Statistics

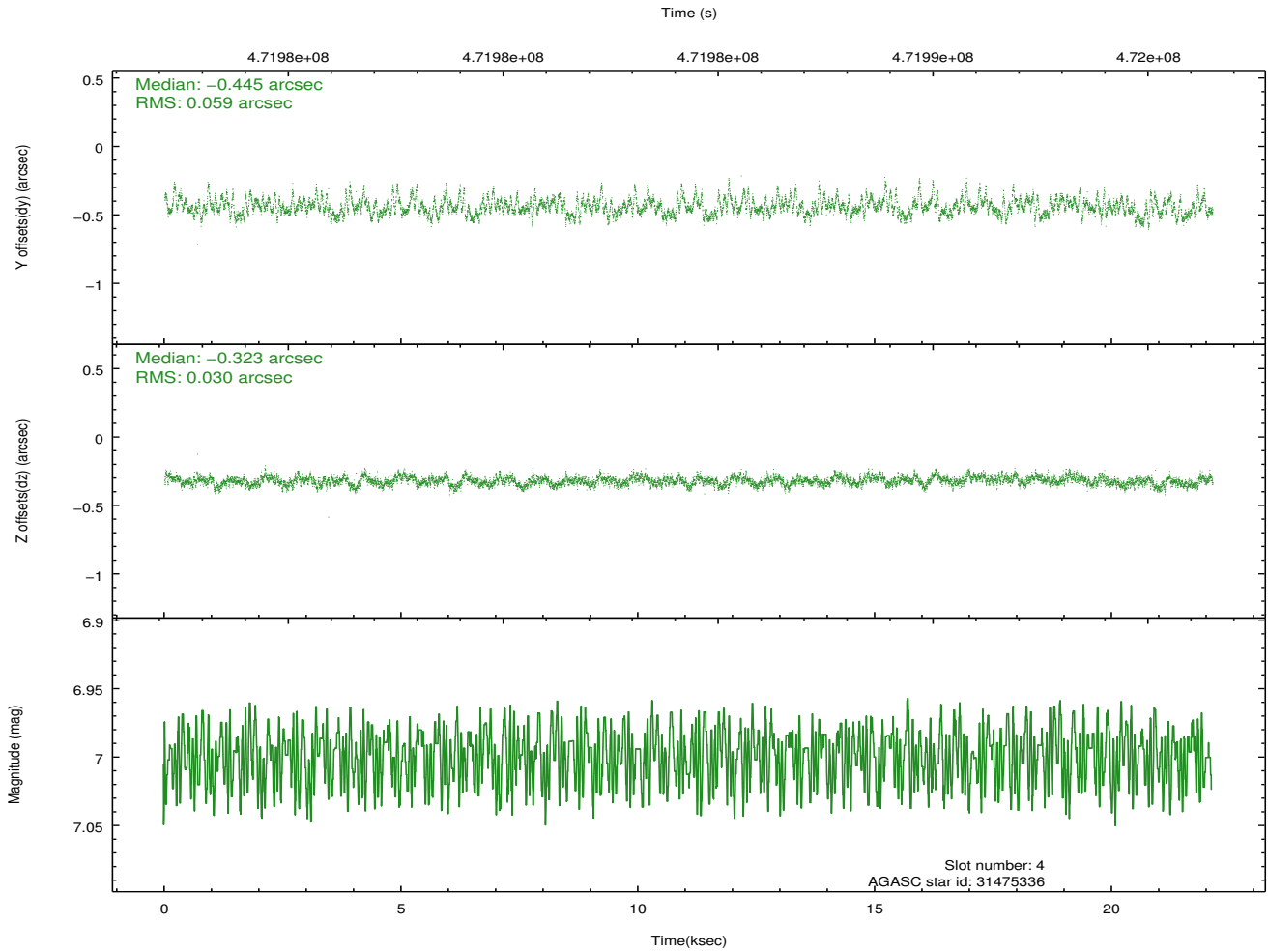
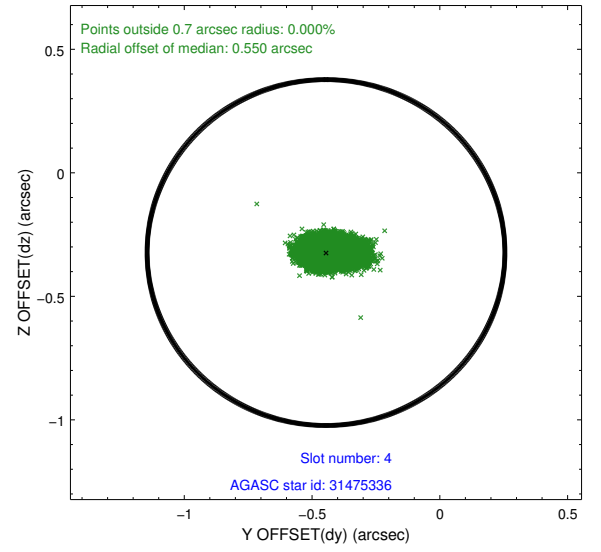
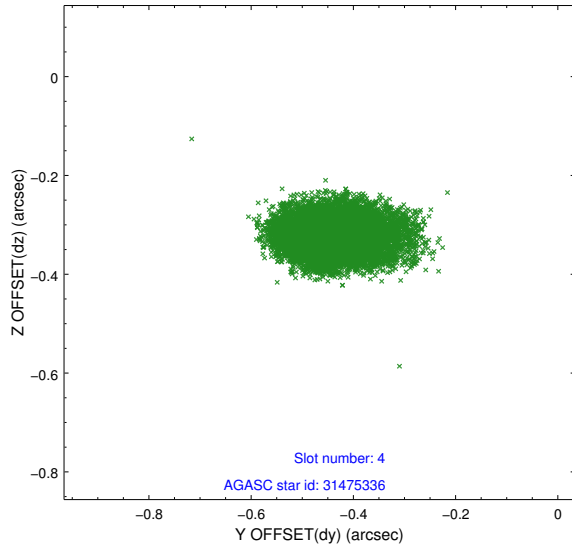
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.10	5397	0.058	-0.037	0.018	0.026	0.000000	0.000000	924.01	-839.78
1	FID		ACIS-I-5	7.09	5397	-0.230	0.053	0.015	0.024	0.000000	0.000000	-1824.30	1057.73
2	FID		ACIS-I-6	7.10	5395	0.078	0.054	0.017	0.039	0.000000	0.000000	389.41	1702.40
3	GUIDE	used	31075128	9.32	10785	0.117	-0.102	0.091	0.147	149.584516	2.364347	-1558.79	1216.42
4	GUIDE	used	31475336	7.00	10795	-0.445	-0.323	0.067	0.121	149.929497	3.384805	2316.91	1307.56
5	GUIDE	used	31983336	8.59	10786	0.553	0.299	0.085	0.143	150.429924	2.291234	-765.23	-1730.65
6	GUIDE	used	32387968	9.19	10728	-0.108	-0.278	0.100	0.156	150.106347	3.119099	1636.03	381.85
7	GUIDE	used	32374896	9.22	10781	-0.121	0.397	0.096	0.157	150.682269	2.512794	294.07	-2310.38

## 2.4 Star Slots

### 2.4.1 Slot 3

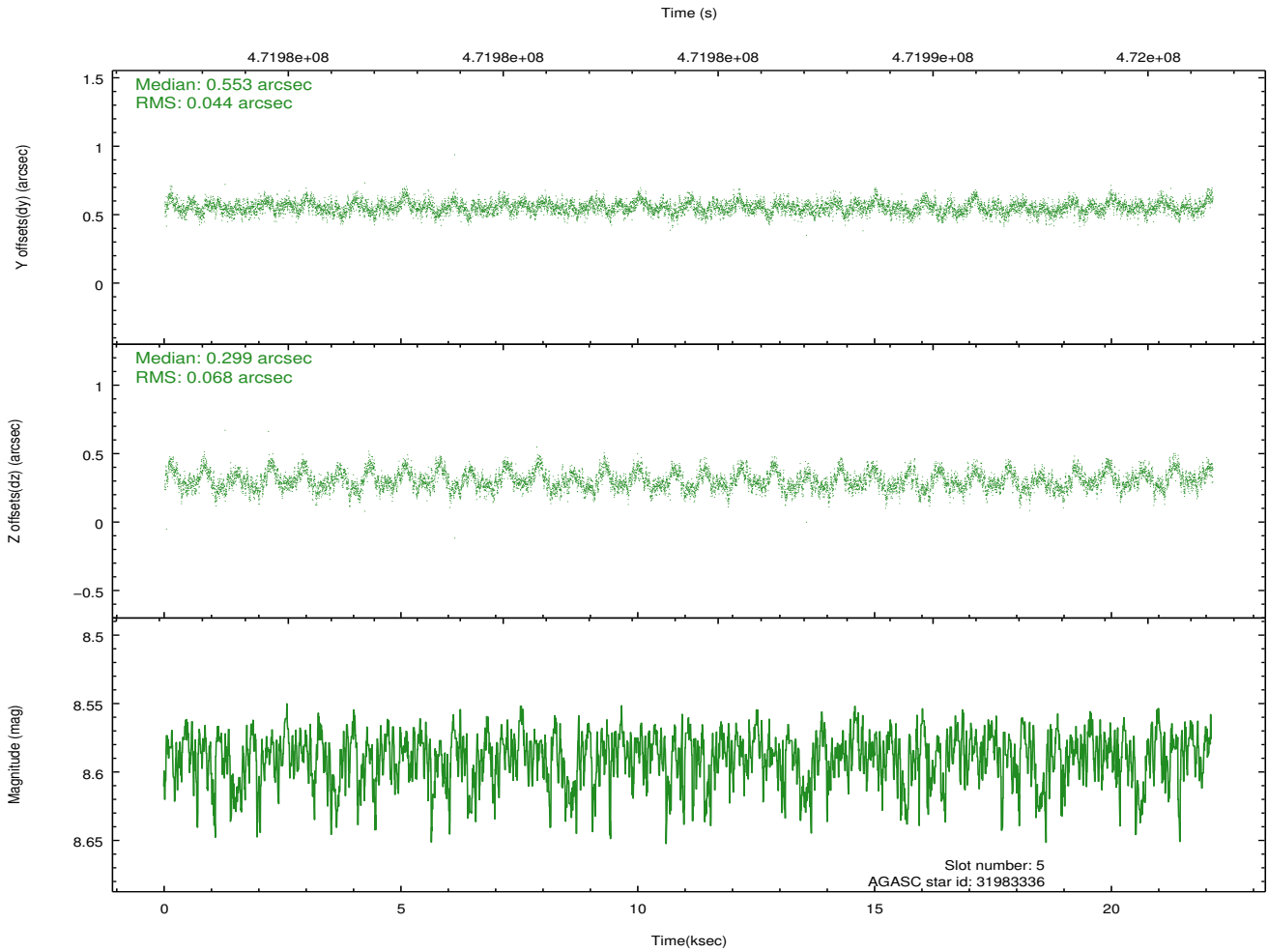
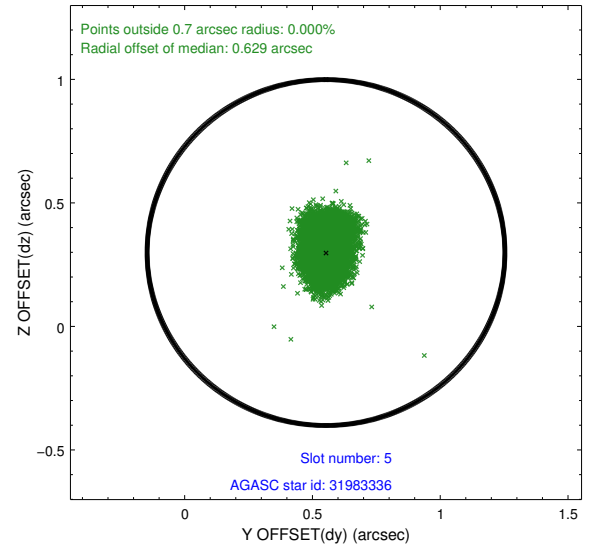
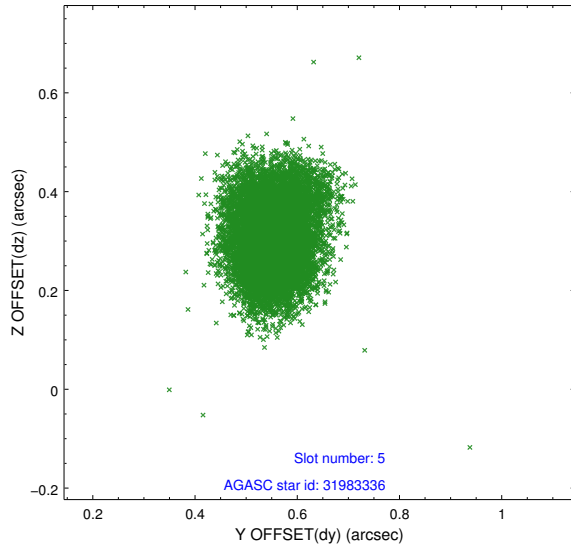


## 2.4.2 Slot 4

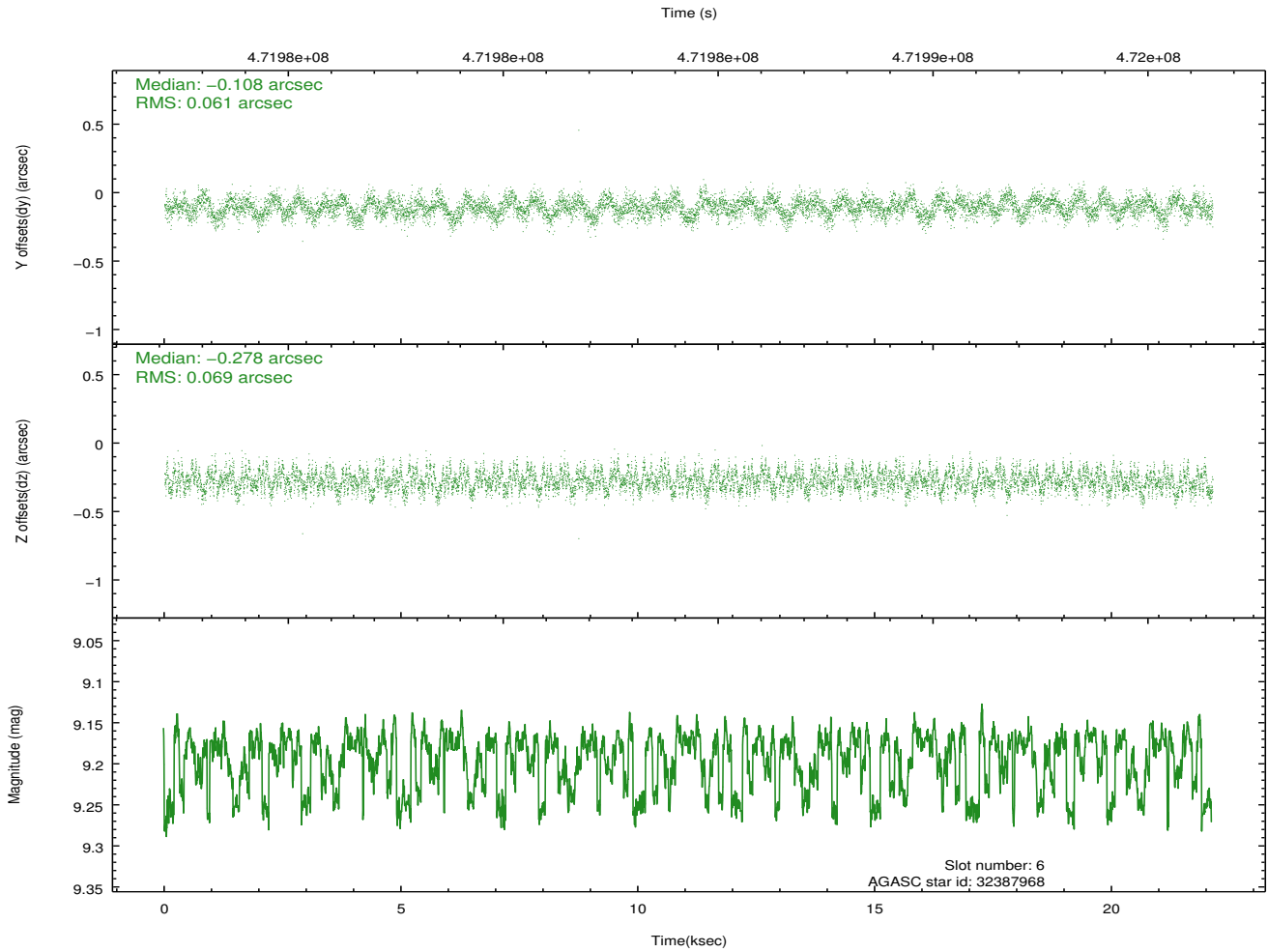
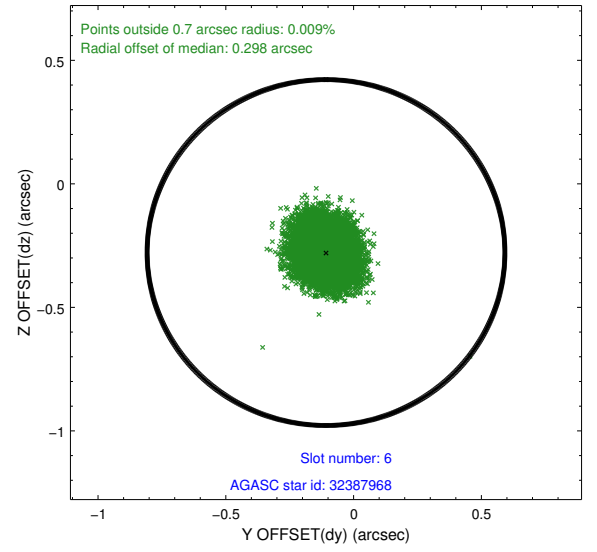
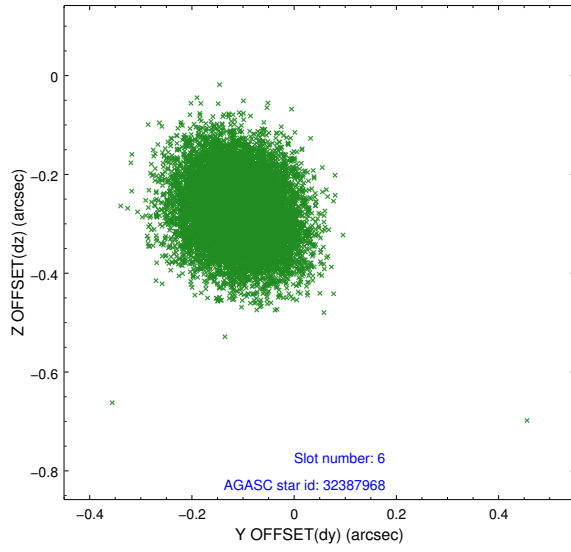




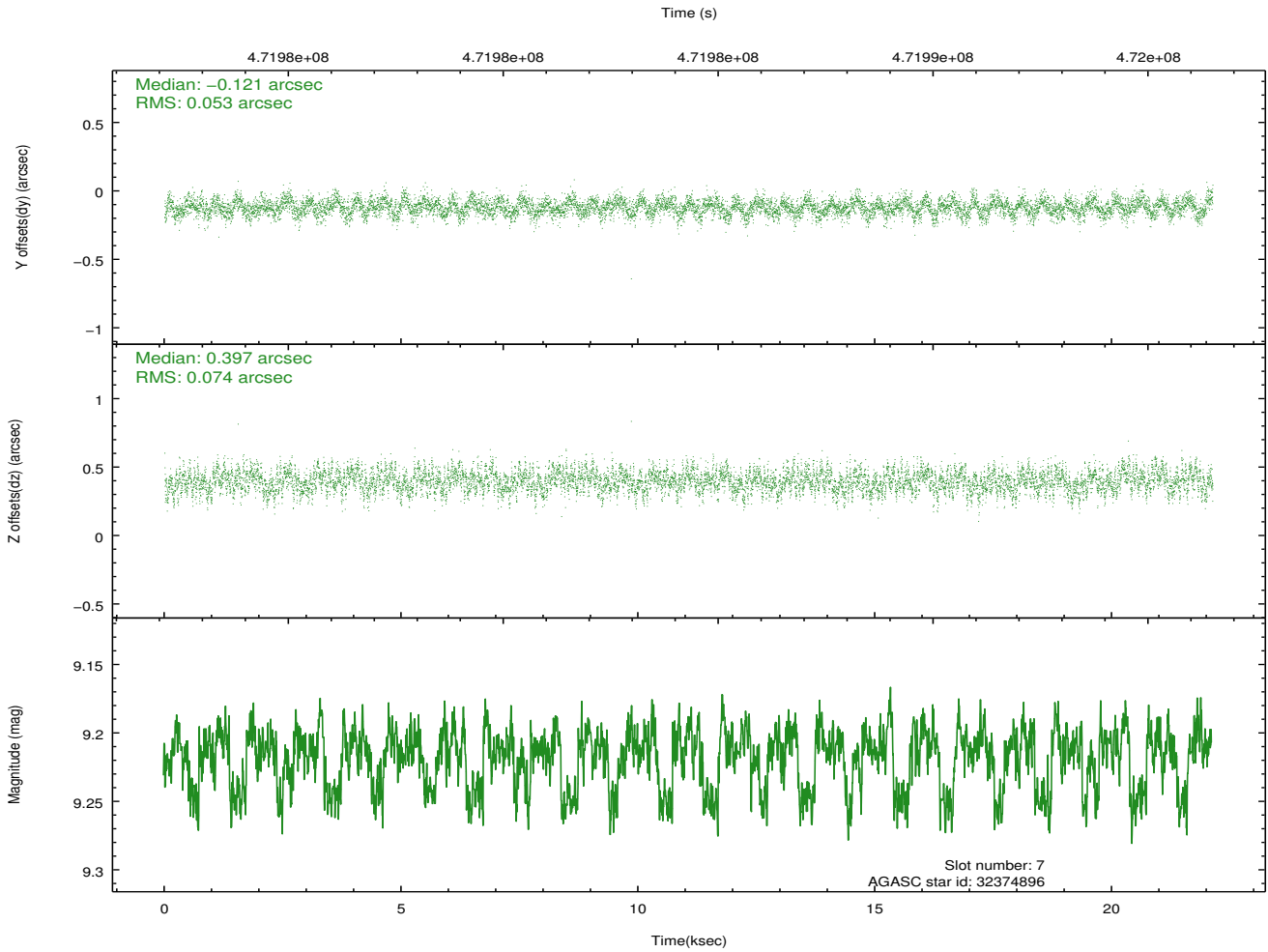
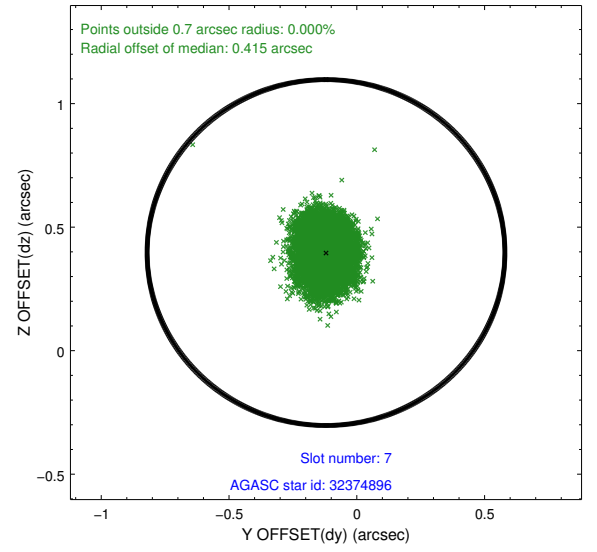
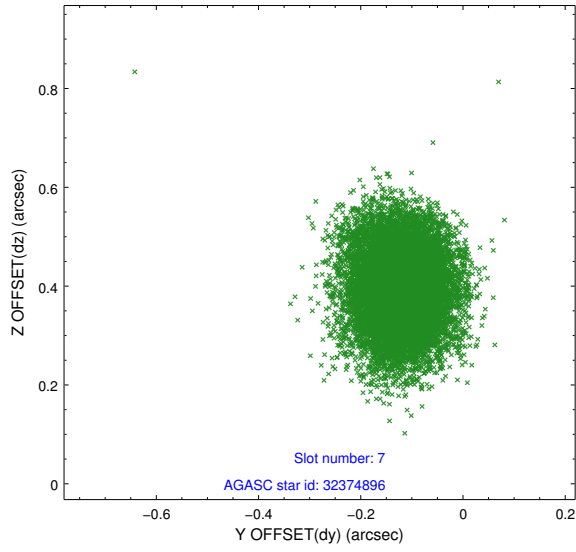
### 2.4.3 Slot 5



## 2.4.4 Slot 6

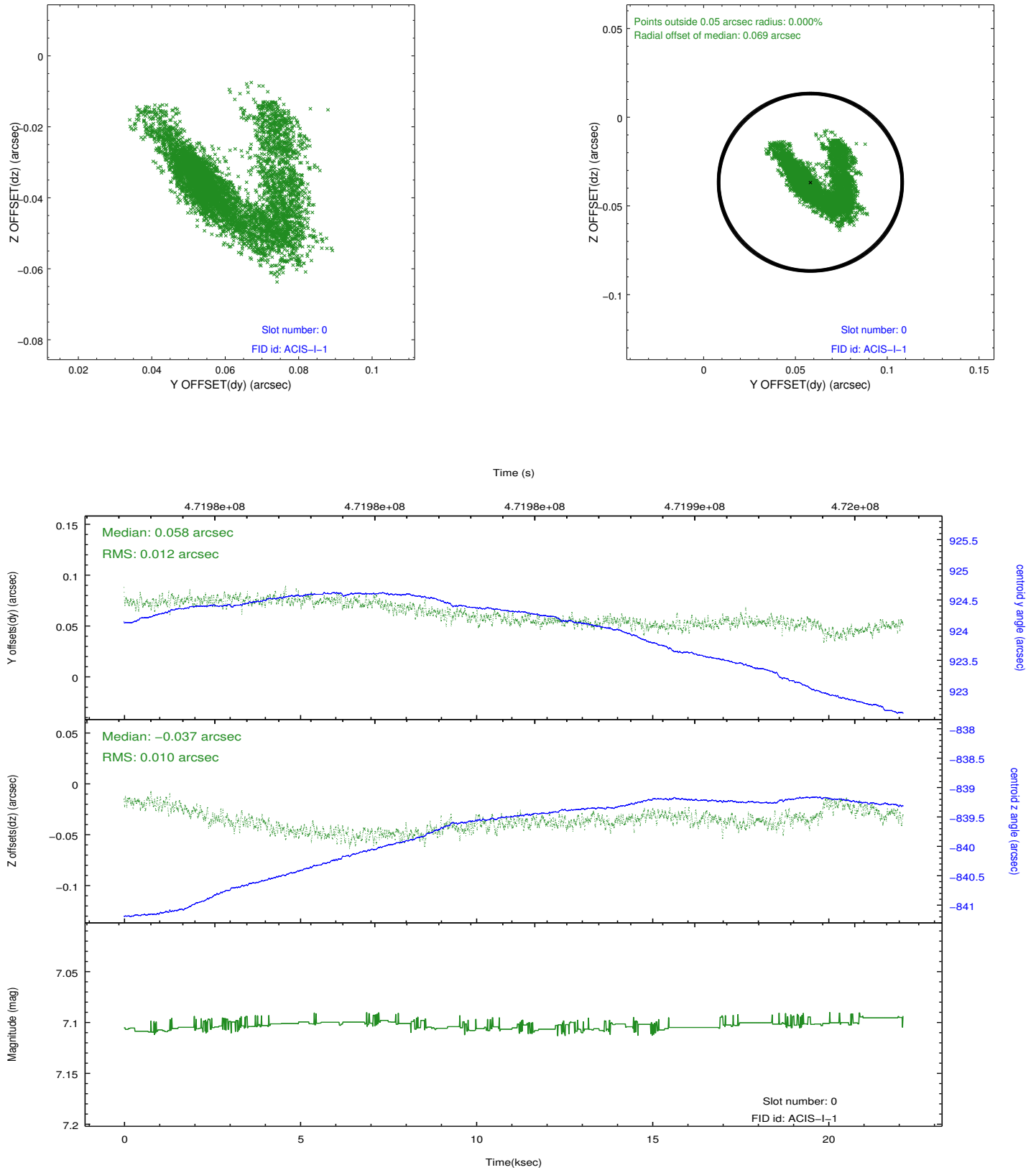


## 2.4.5 Slot 7

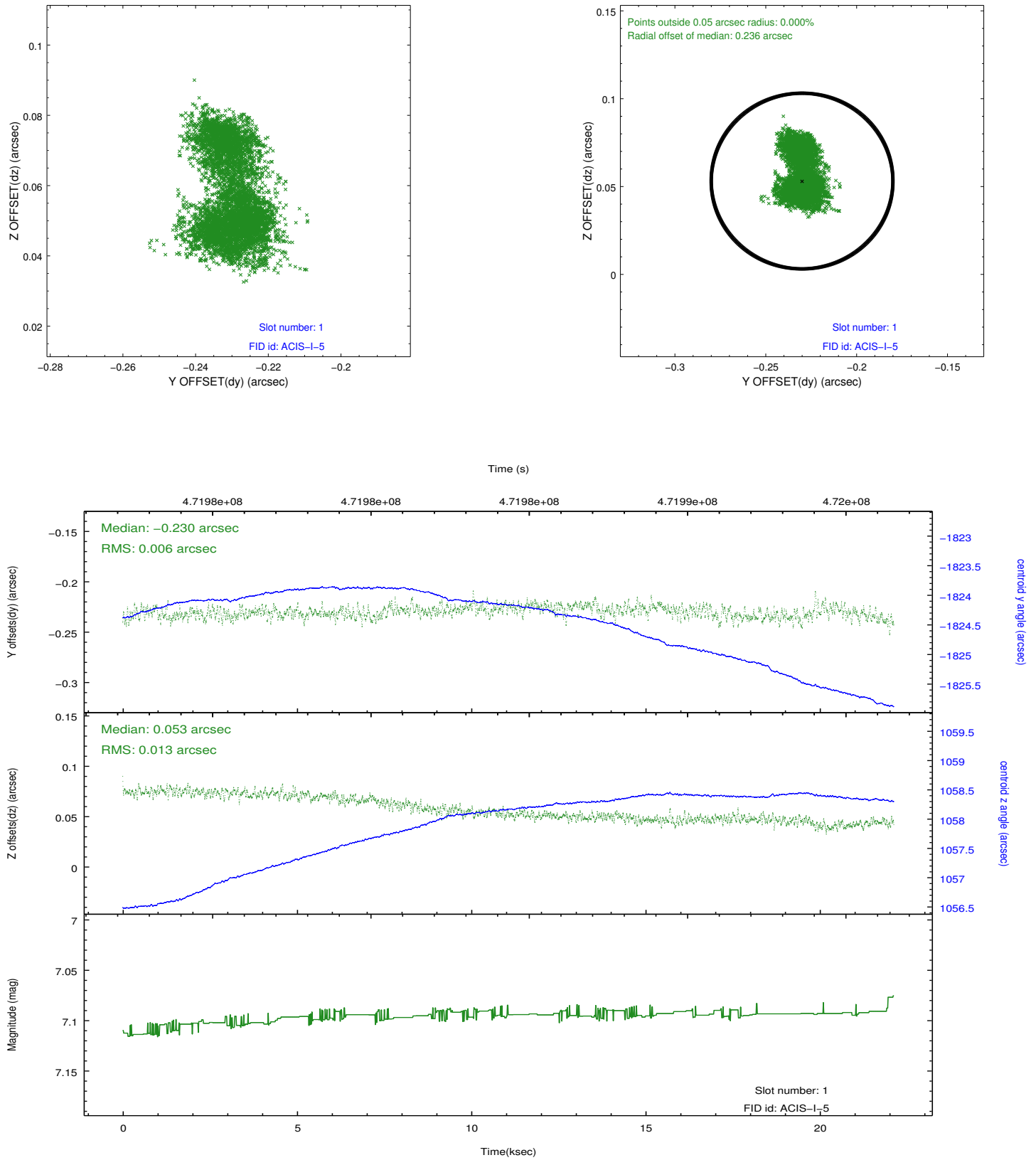


## 2.5 FID Slots

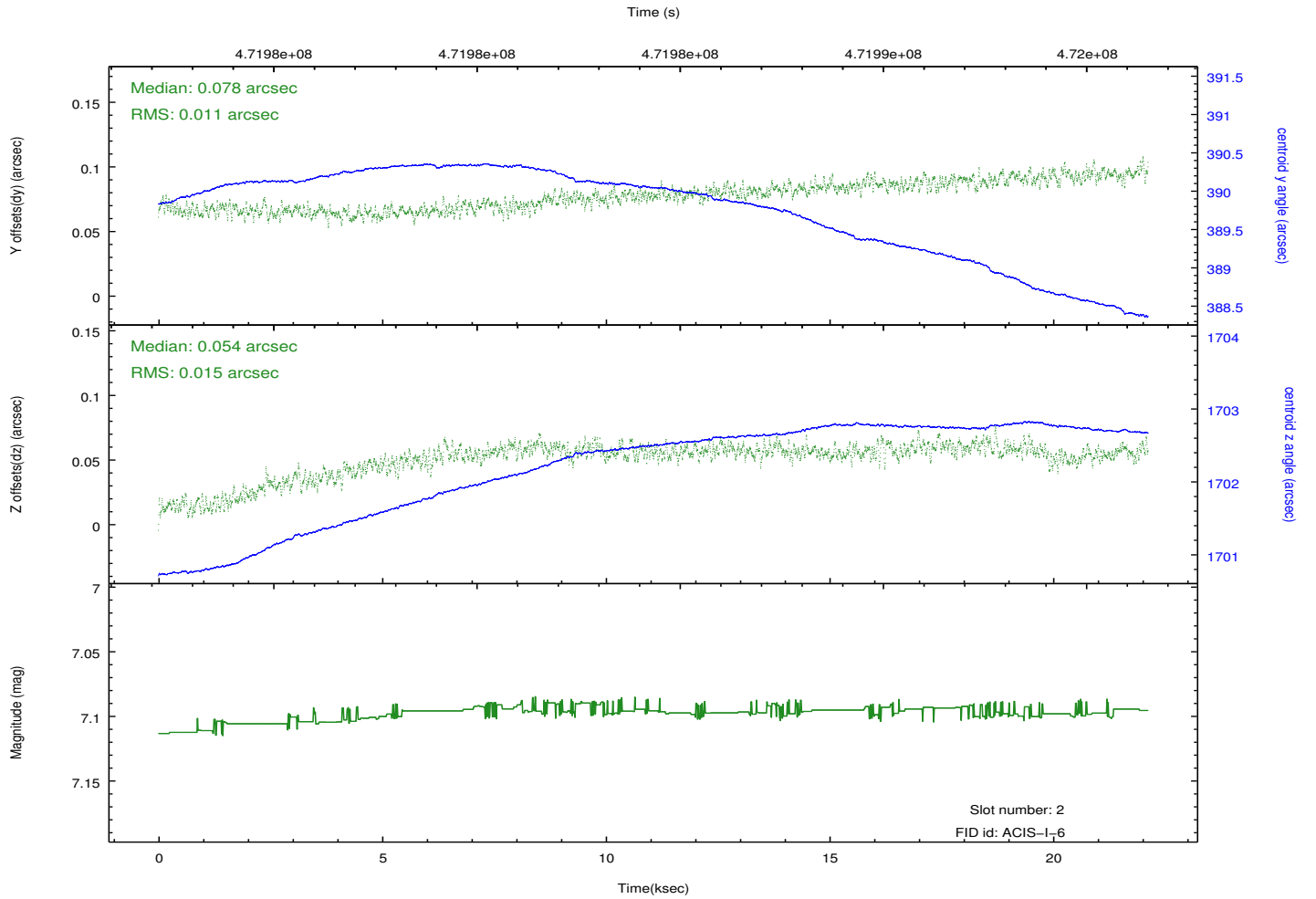
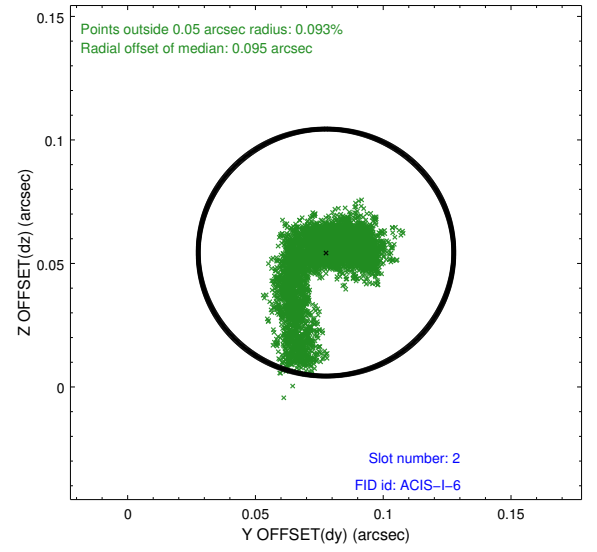
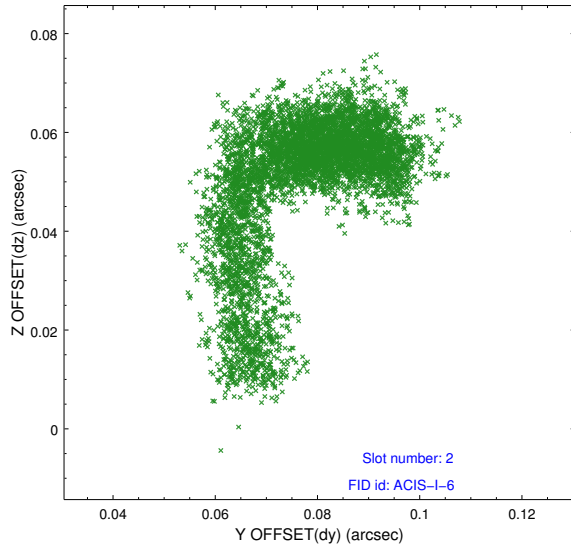
### 2.5.1 Slot 0



## 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)	2014.12.04
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	22.090176879466

## A.2 Comments

Roll constraint met.

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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.