

# V&V Reference Report

## L2 ASCDS Version : 8.5

Observation 15604 - L2 Version 2  
Chandra X-Ray Center

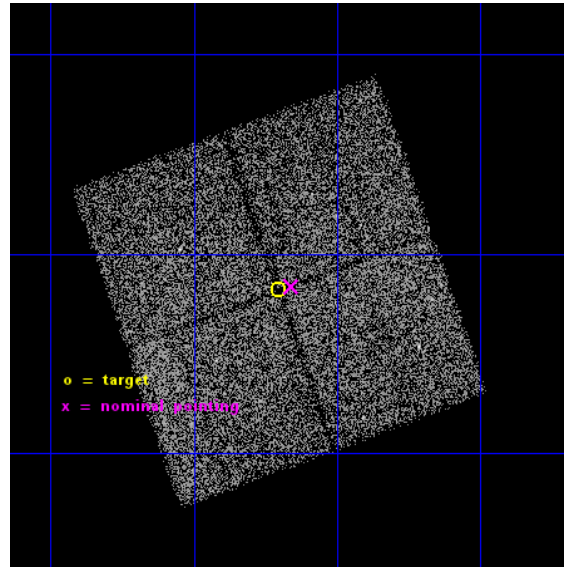
L2 Processing Date : Nov 30 2014

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# 1 Front

seq_num	901040	Sequence number
obs_id	15604	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	150.17615	Observer's specified target RA [deg]
dec_targ	2.637133	Observer's specified target Dec [deg]
ra_nom	150.16474156864	Nominal RA [deg]
dec_nom	2.639752248334	Nominal Dec [deg]
roll_nom	70.209218306127	Nominal Roll [deg]
revision	2	Processing version of data
ontime	21266.000163555	Sum of GTIs [s]
livetime	20988.144215617	Livetime [s]
ontime0	21262.85912323	Sum of GTIs [s]
ontime1	21266.000163555	Sum of GTIs [s]
ontime2	21253.43607229	Sum of GTIs [s]
ontime3	21266.000163555	Sum of GTIs [s]
l2events	44552	Number of level 2 events

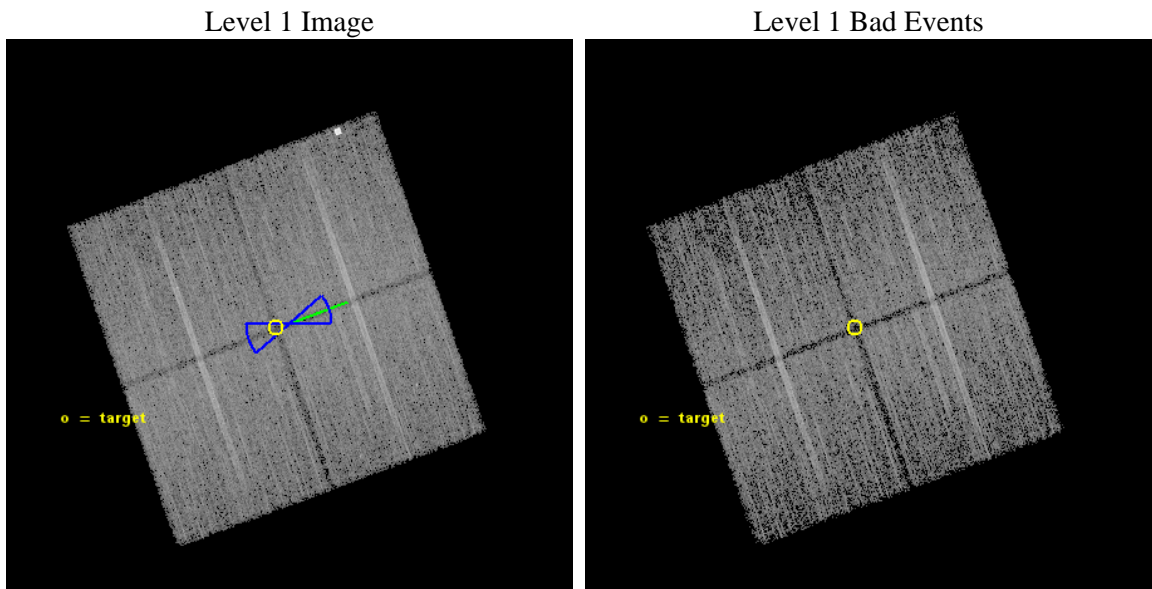




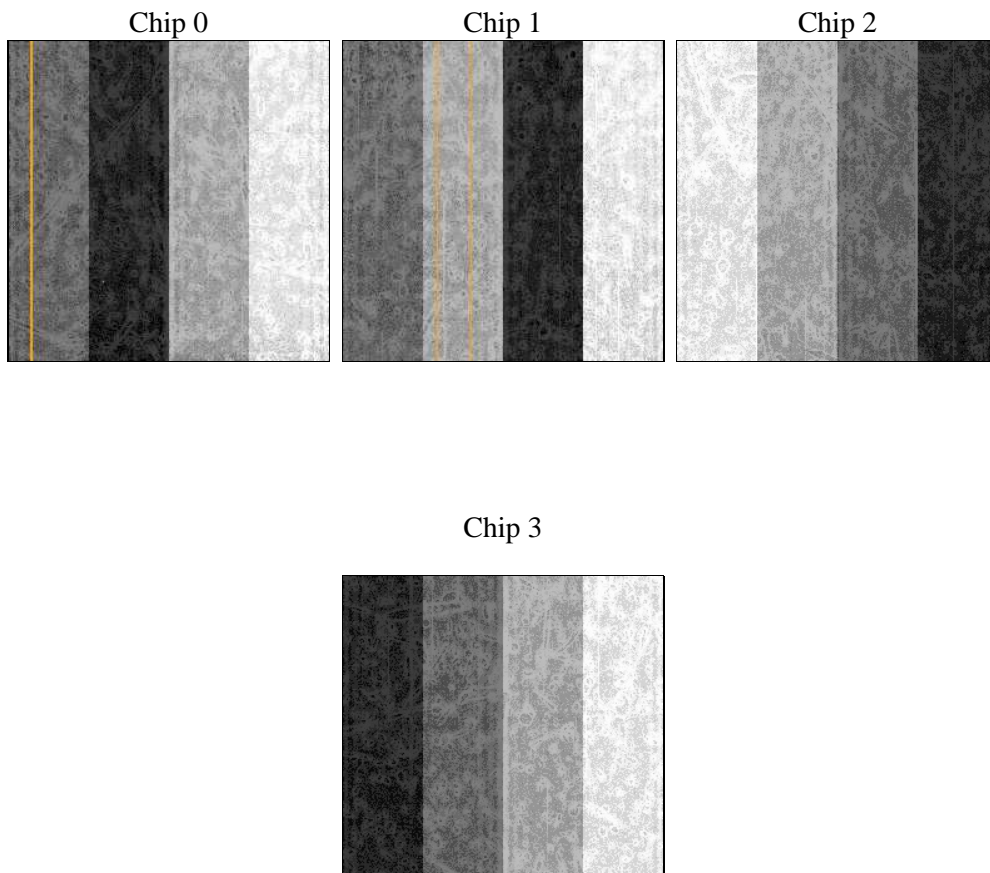
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	21177.904000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	21266.000163555	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime0	21262.85912323	Sum of GTIs [s]
date	2014-11-30T05:26:59	Date and time of file creation	ontime1	21266.000163555	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	21253.43607229	Sum of GTIs [s]
			ontime3	21266.000163555	Sum of GTIs [s]
			l1events	433053	Number of level 1 events

### 2.1.4 Events

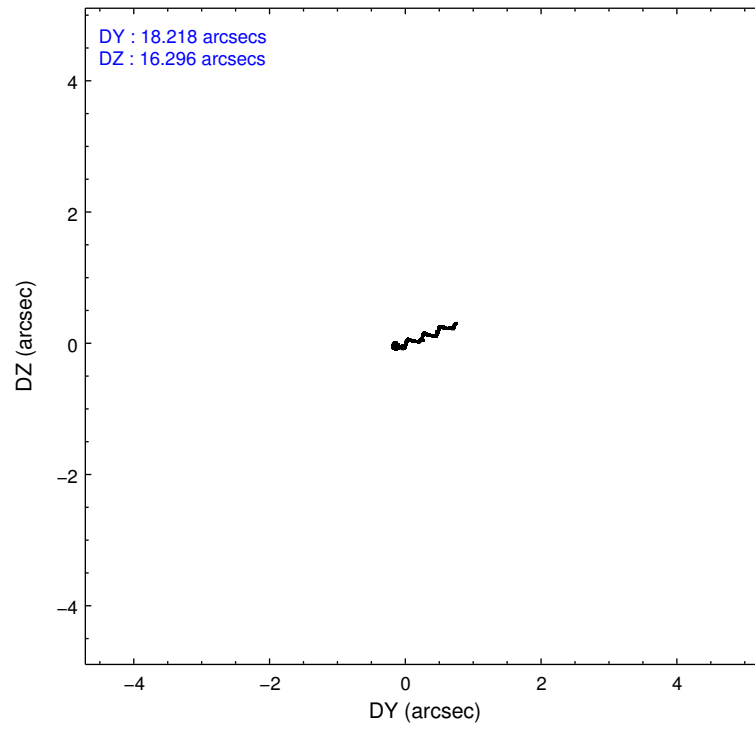
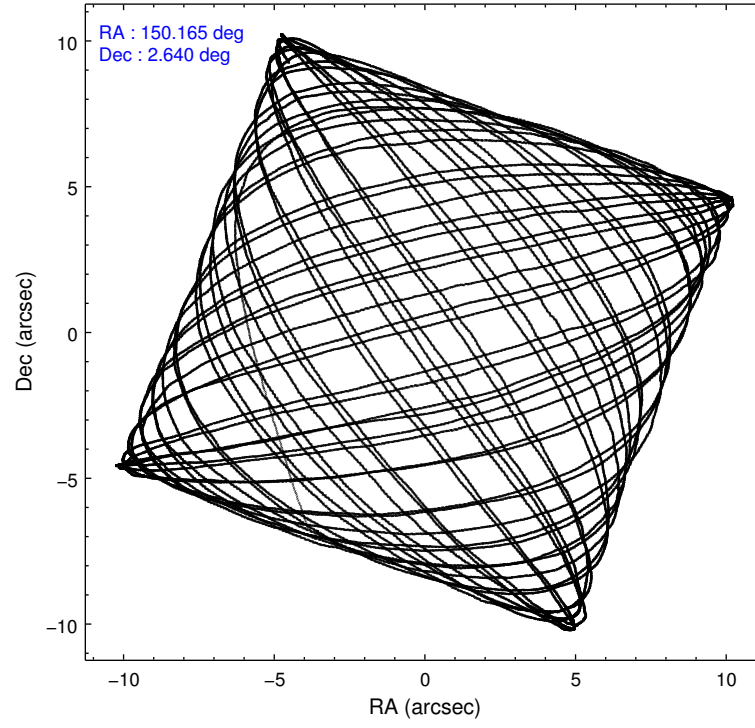
	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	100464	106283	116629	109677
rejected events	87237	91711	97381	97044
rejected %	86%	86%	83%	88%

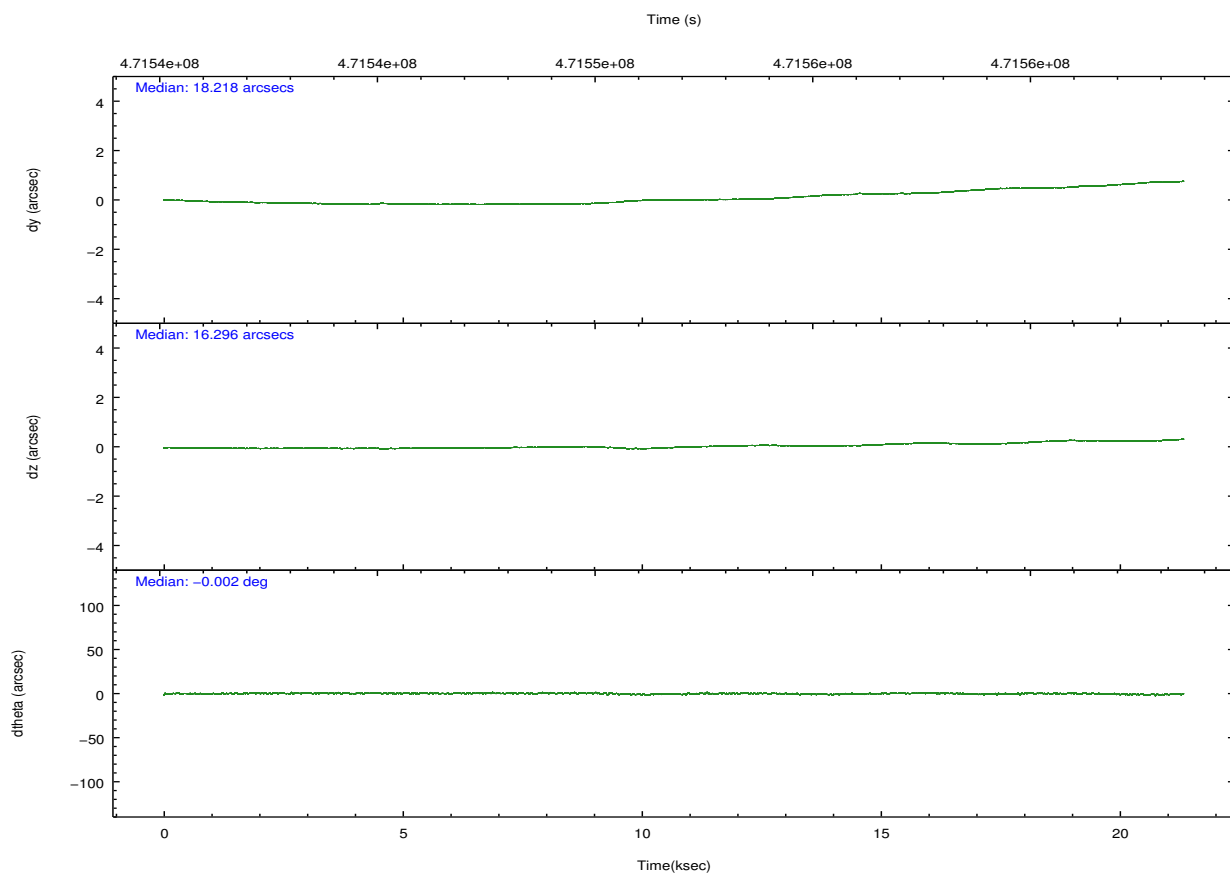
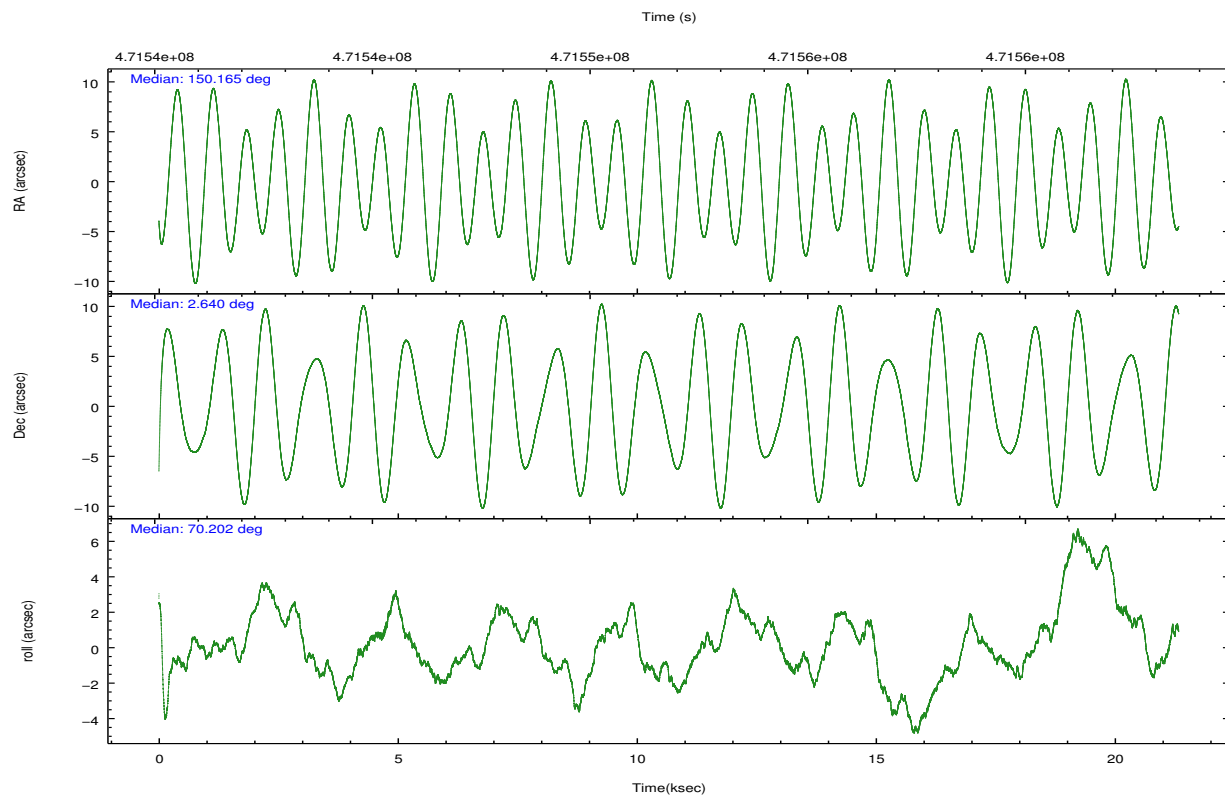
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	4491	5095	4494	4437
	4%	4%	3%	4%
grade 1 events	47	44	63	61
	0%	0%	0%	0%
grade 2 events	3292	3531	9595	2931
	3%	3%	8%	2%
grade 3 events	1429	1425	1386	1258
	1%	1%	1%	1%
grade 4 events	1285	1413	1338	1329
	1%	1%	1%	1%
grade 5 events	5291	5445	4891	5965
	5%	5%	4%	5%
grade 6 events	2735	3113	2436	2681
	2%	2%	2%	2%
grade 7 events	81894	86217	92426	91015
	81%	81%	79%	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	150.169730	150.164741568643	Subarray requested	NONE	NONE
[deg] Pointing Dec	2.612683	2.639752248334033	Alternating exposures requested	N	N
[deg] Pointing Roll	70.000304	70.20921830612726	[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)	471541298.184000	471540368.22935			
Observation start date	2012-12-10T15:40:31	2012-12-10T15:26:08			
[s] Observation end time (MET)	471562476.184000	471562713.23055			
Observation end date	2012-12-10T21:33:29	2012-12-10T21:38:33			
Read mode	TIMED	TIMED			

## 2.3 Aspect



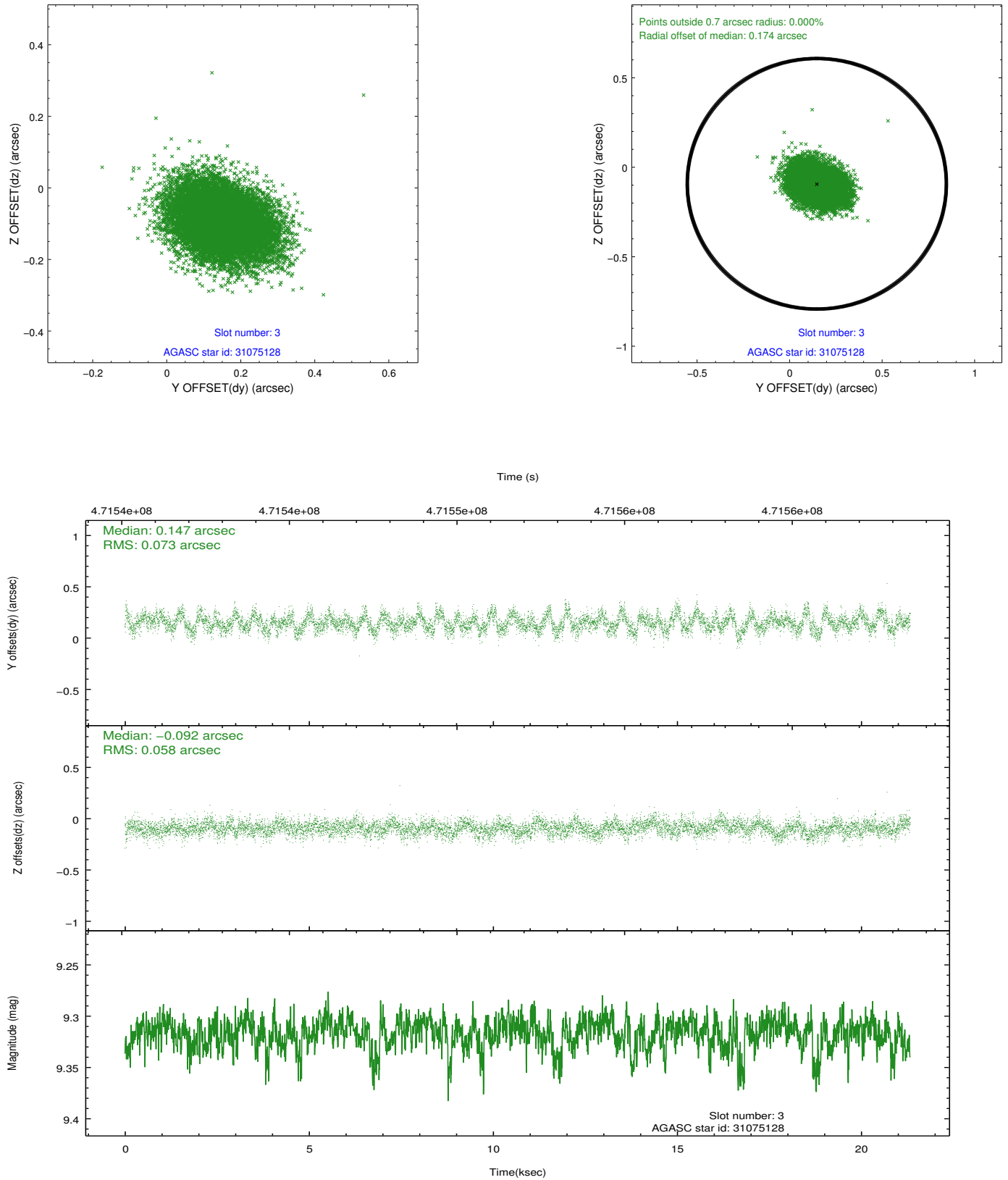


### Slot Statistics

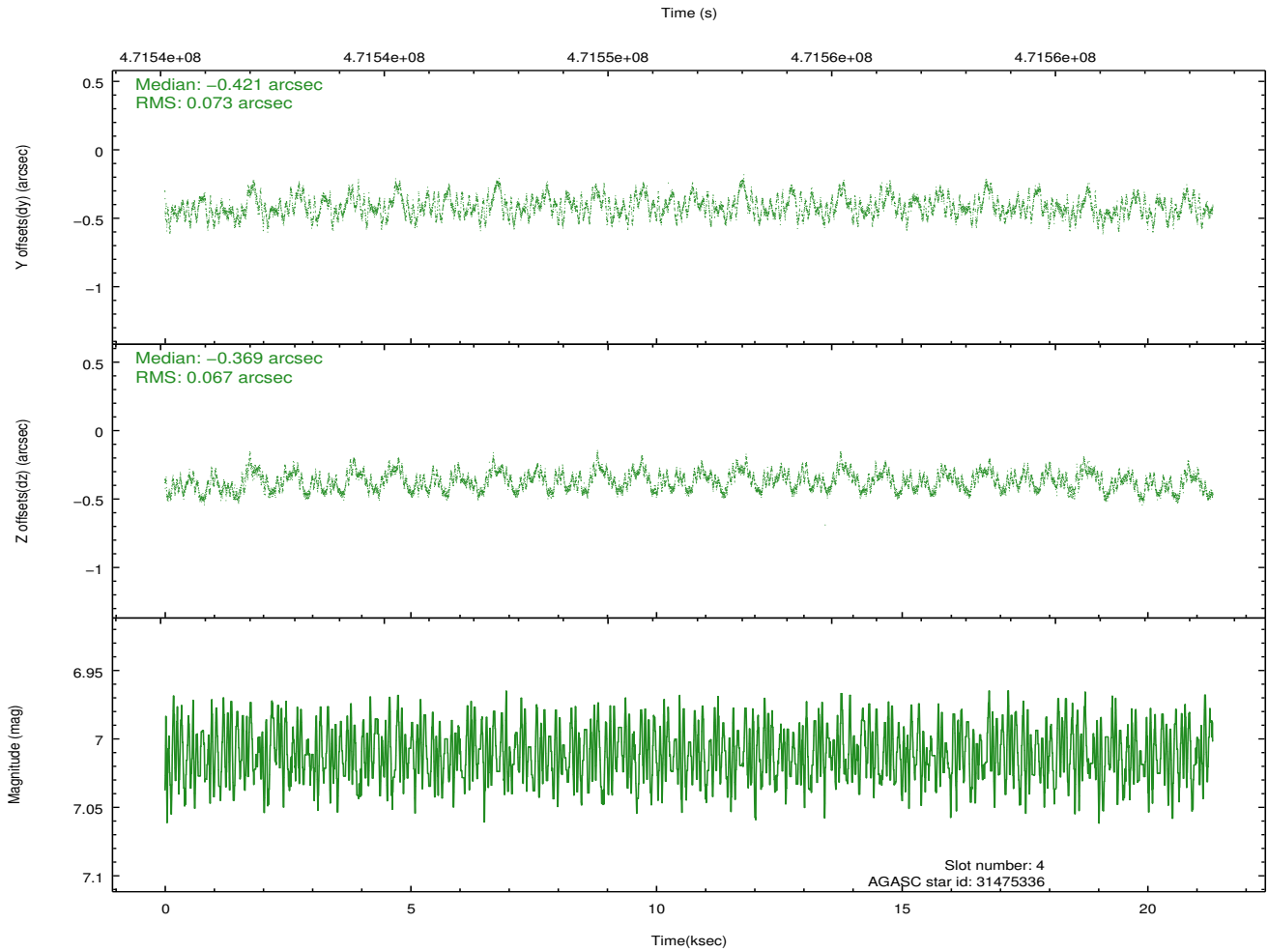
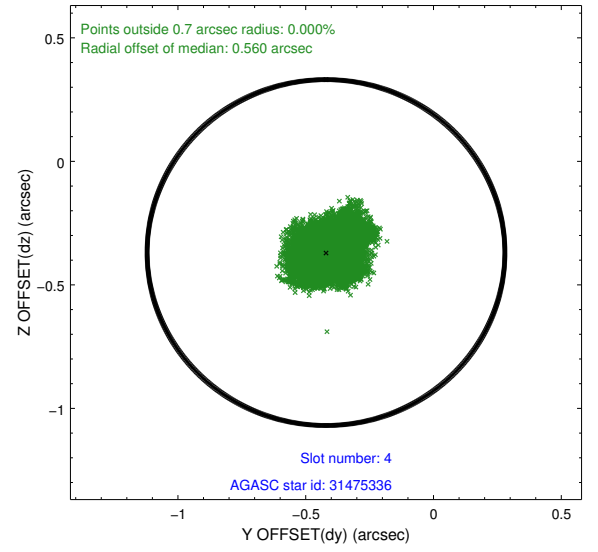
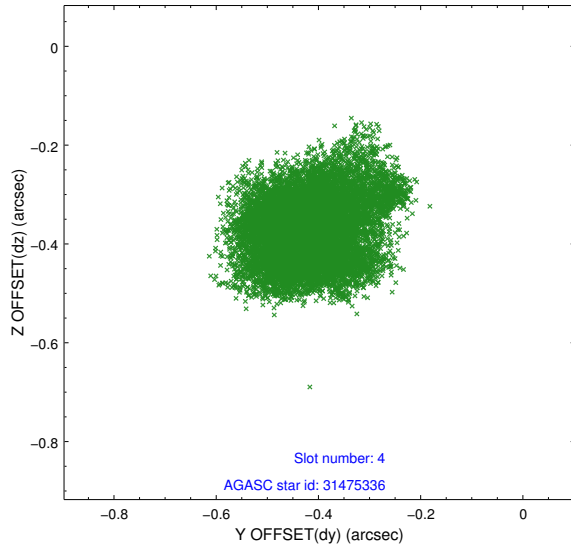
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.16	5203	0.085	-0.064	0.010	0.020	0.000000	0.000000	921.13	-840.03
1	FID		ACIS-I-5	7.15	5203	-0.292	0.060	0.008	0.014	0.000000	0.000000	-1827.26	1057.50
2	FID		ACIS-I-6	7.17	5203	0.116	0.074	0.009	0.019	0.000000	0.000000	386.53	1702.20
3	GUIDE	used	31075128	9.32	10403	0.147	-0.092	0.098	0.161	149.584516	2.364347	-1559.52	1672.29
4	GUIDE	used	31475336	7.01	10406	-0.421	-0.369	0.106	0.168	149.929497	3.384805	2316.24	1763.15
5	GUIDE	used	31983336	8.59	10400	0.551	0.300	0.083	0.134	150.429924	2.291234	-766.14	-1274.79
6	GUIDE	used	32374896	9.20	10334	-0.105	0.361	0.127	0.204	150.682269	2.512794	292.87	-1854.83
7	GUIDE	used	32387968	9.19	10344	-0.179	-0.194	0.104	0.172	150.106347	3.119099	1635.28	837.55

## 2.4 Star Slots

### 2.4.1 Slot 3

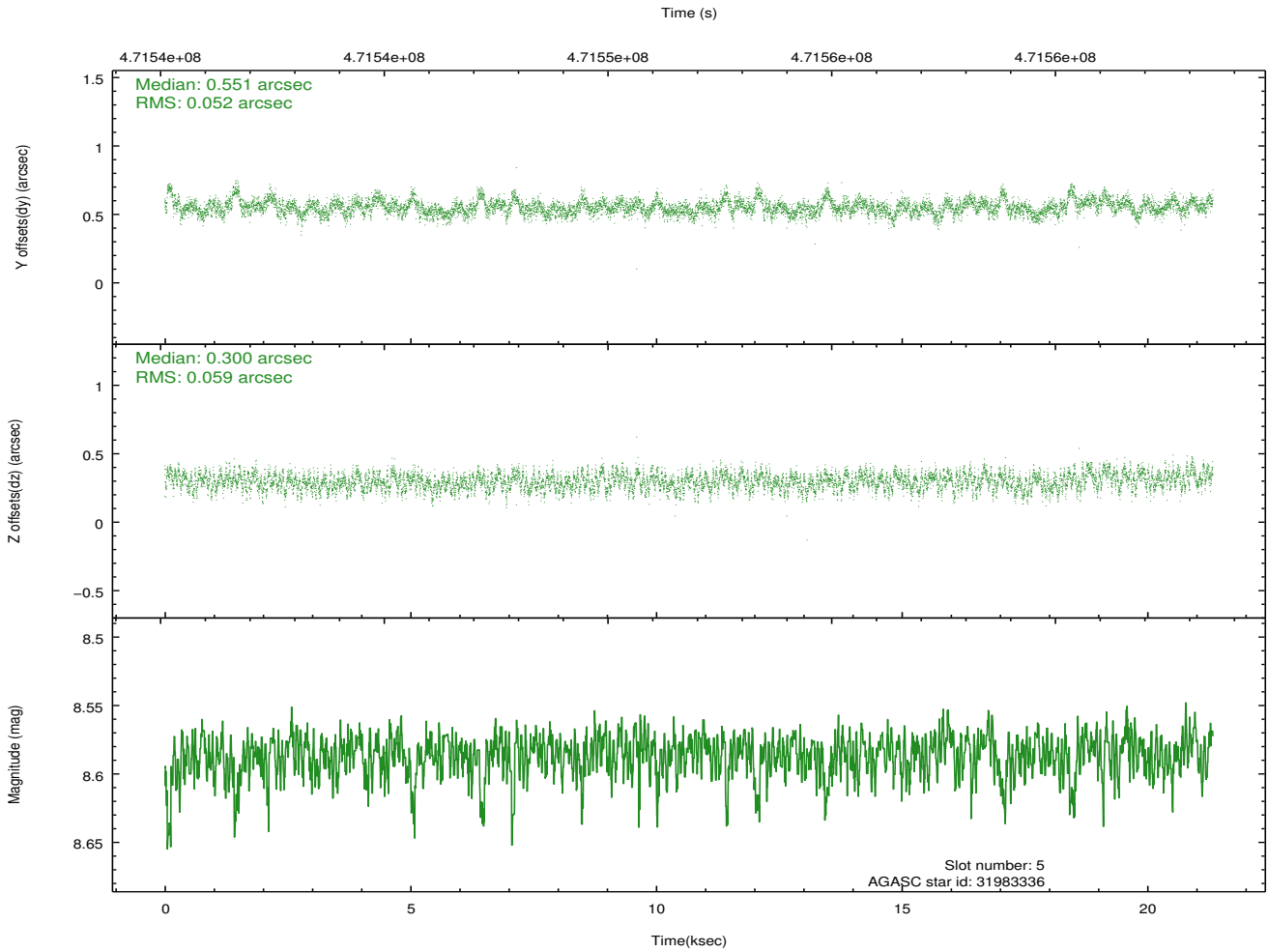
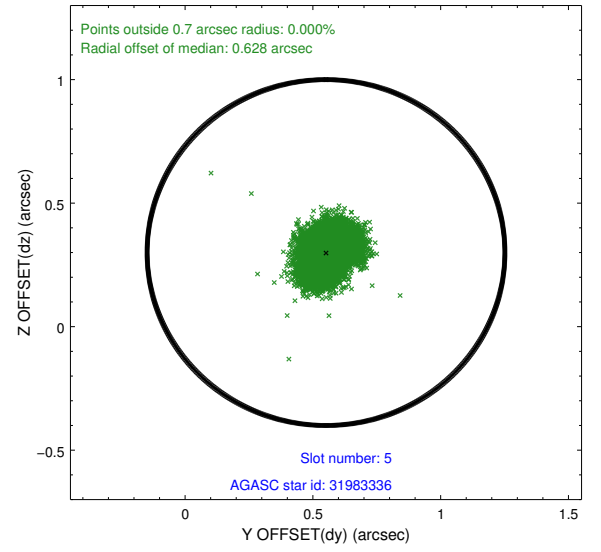
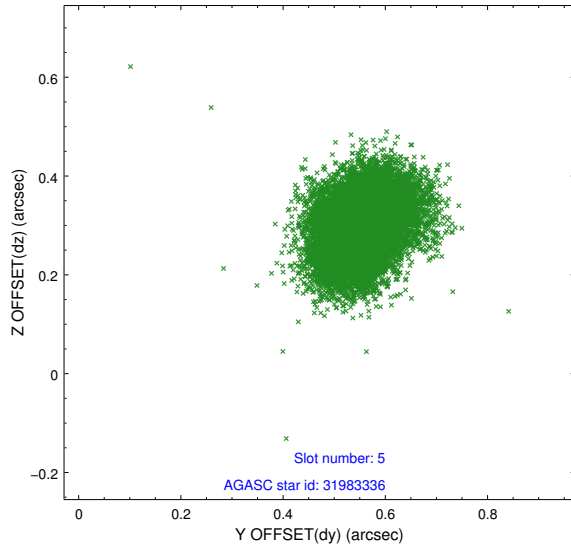


## 2.4.2 Slot 4

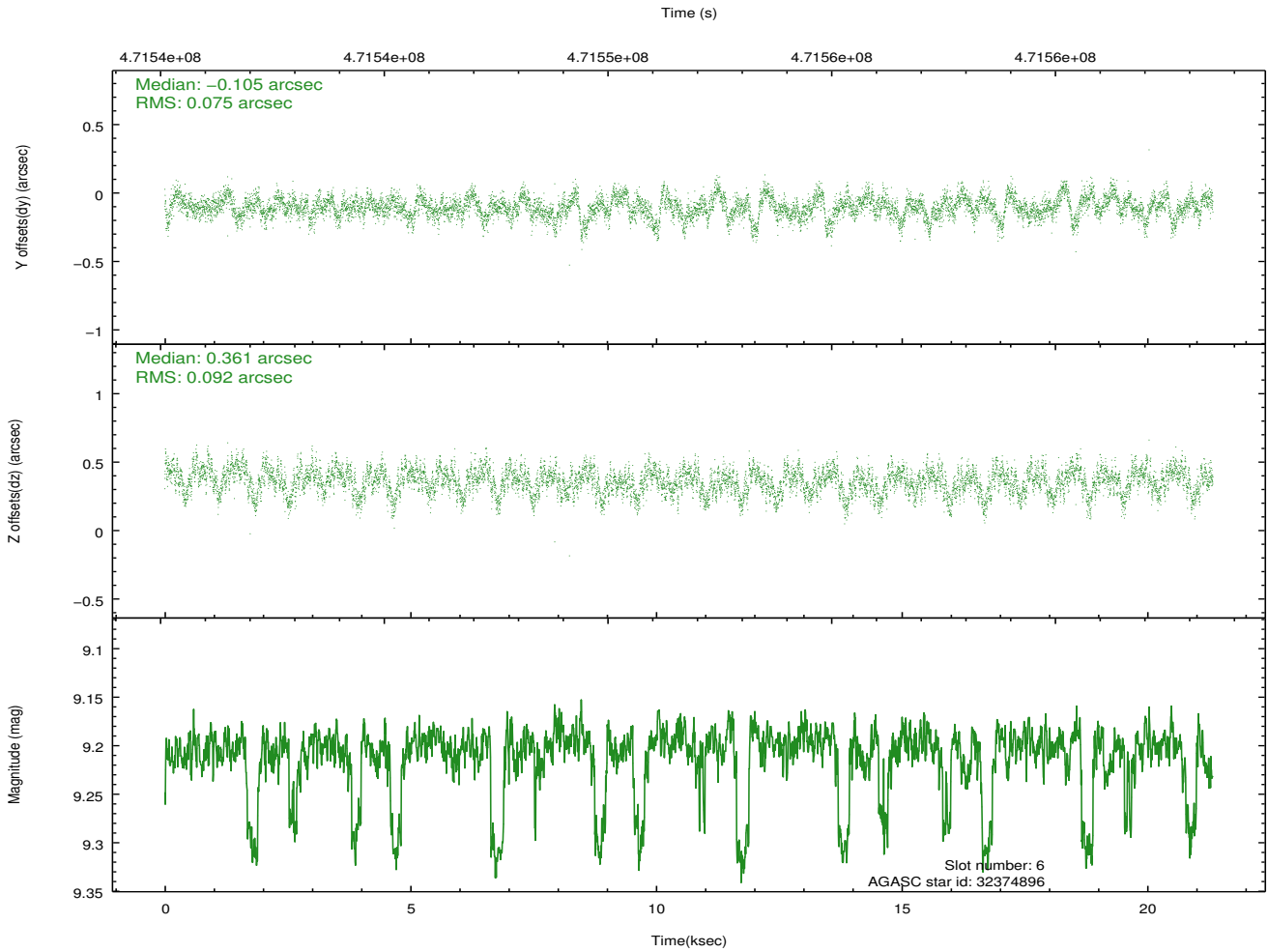
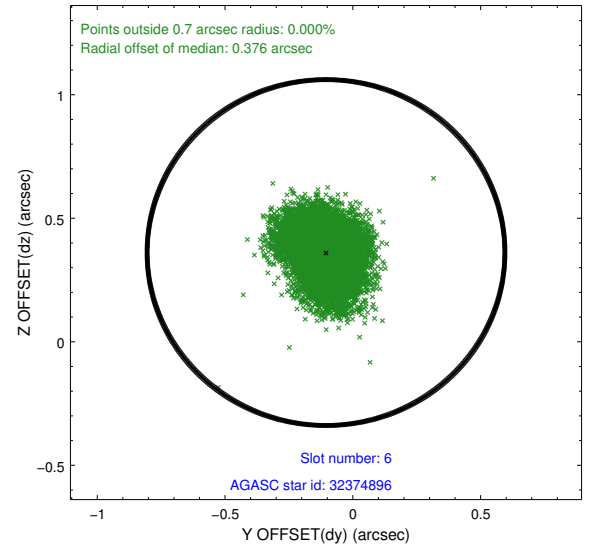
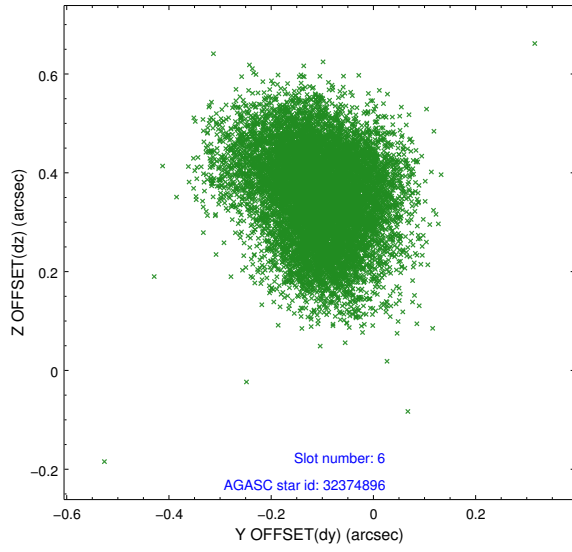




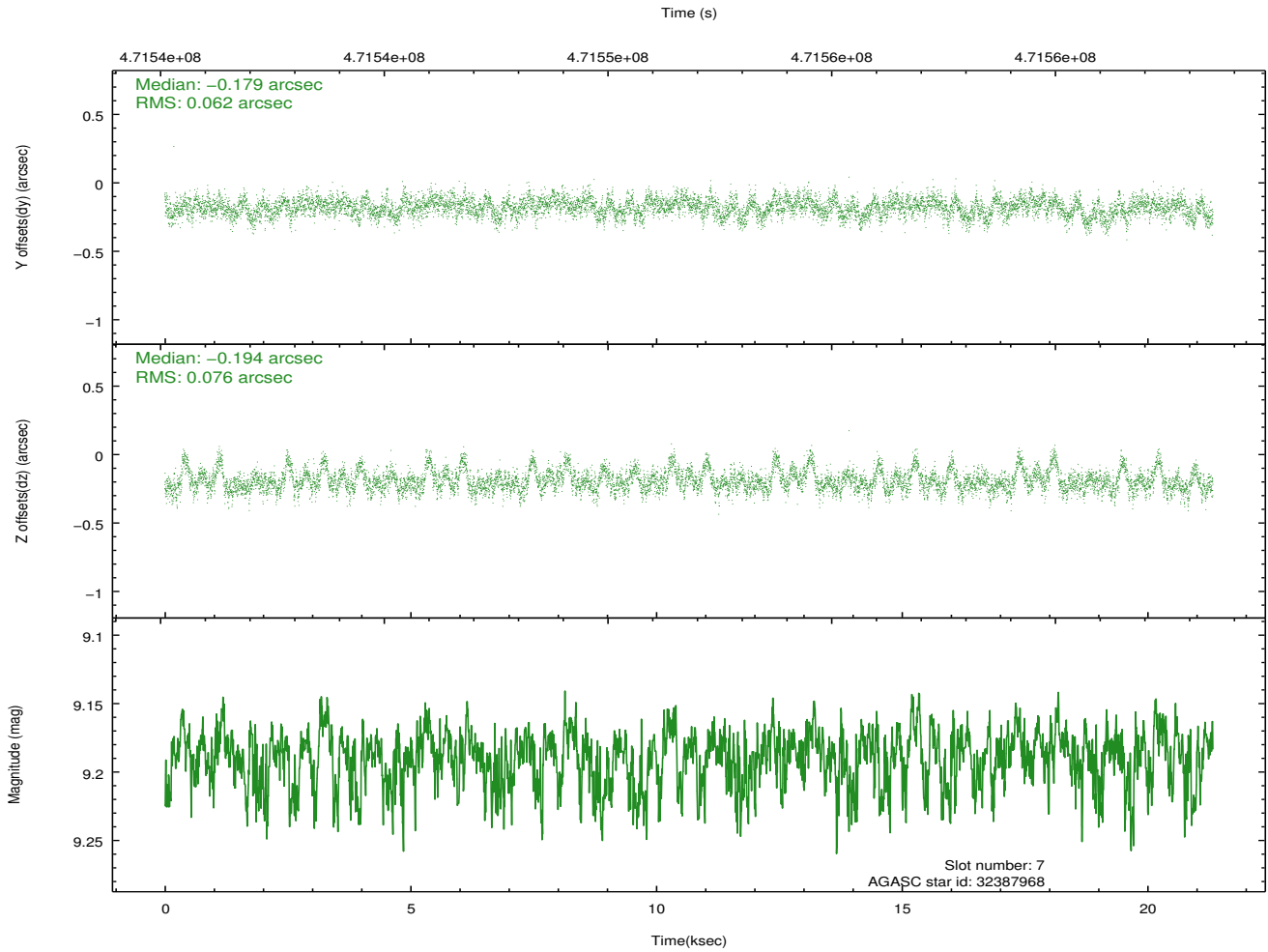
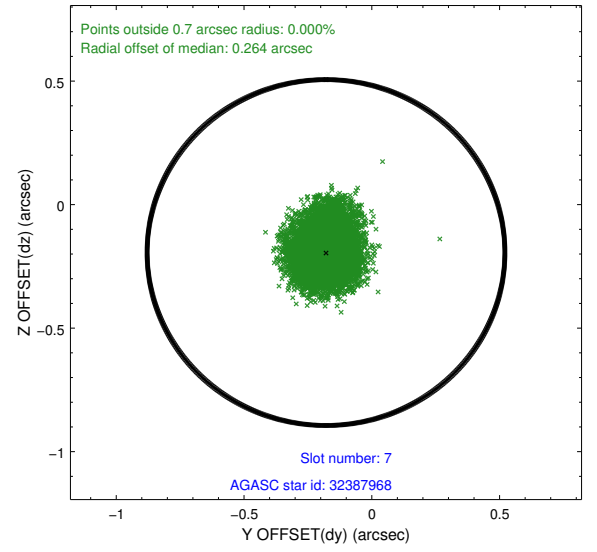
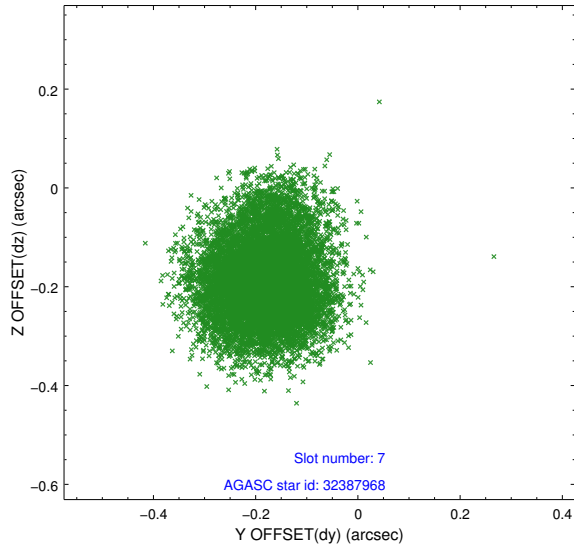
### 2.4.3 Slot 5



## 2.4.4 Slot 6

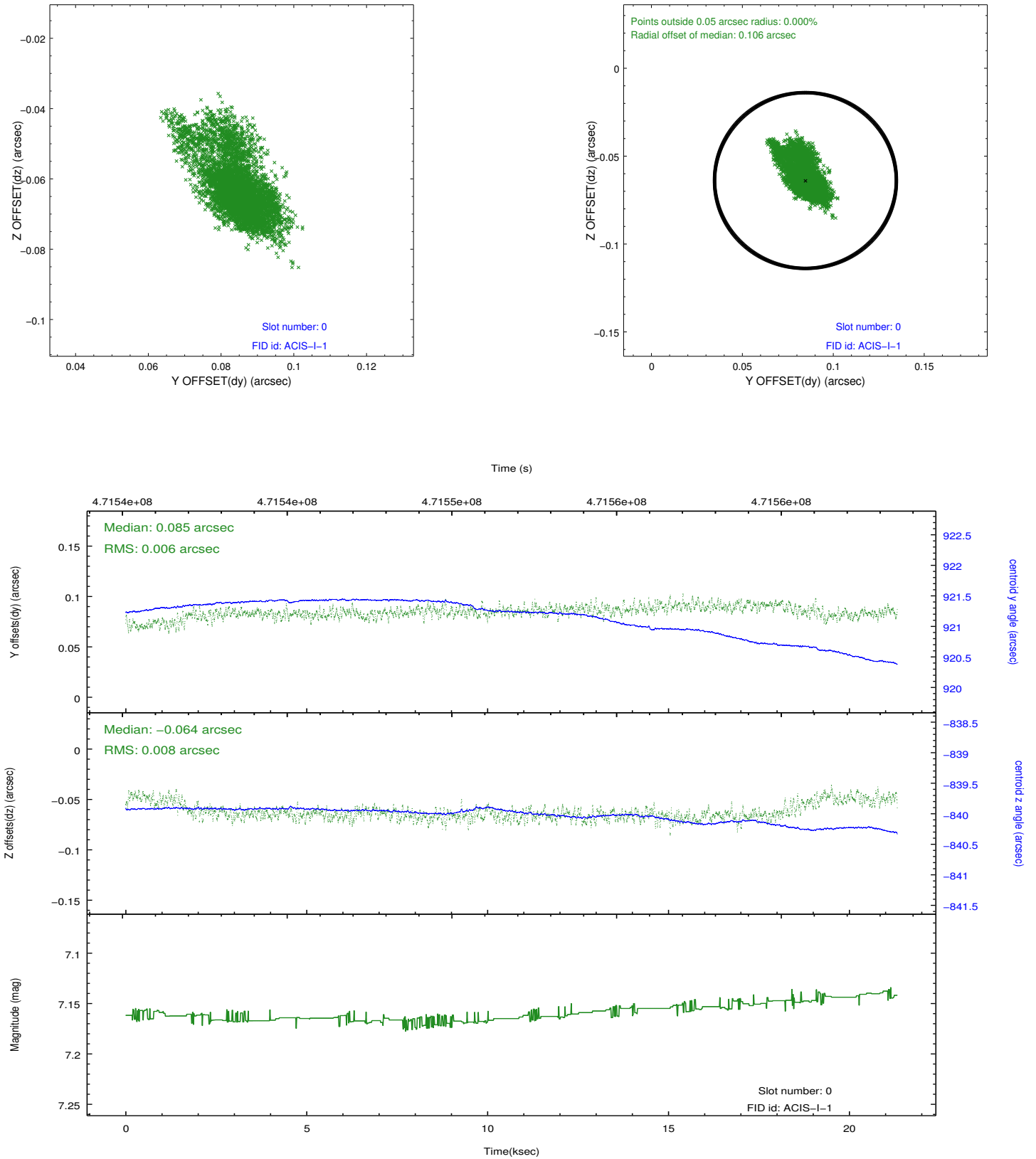


## 2.4.5 Slot 7

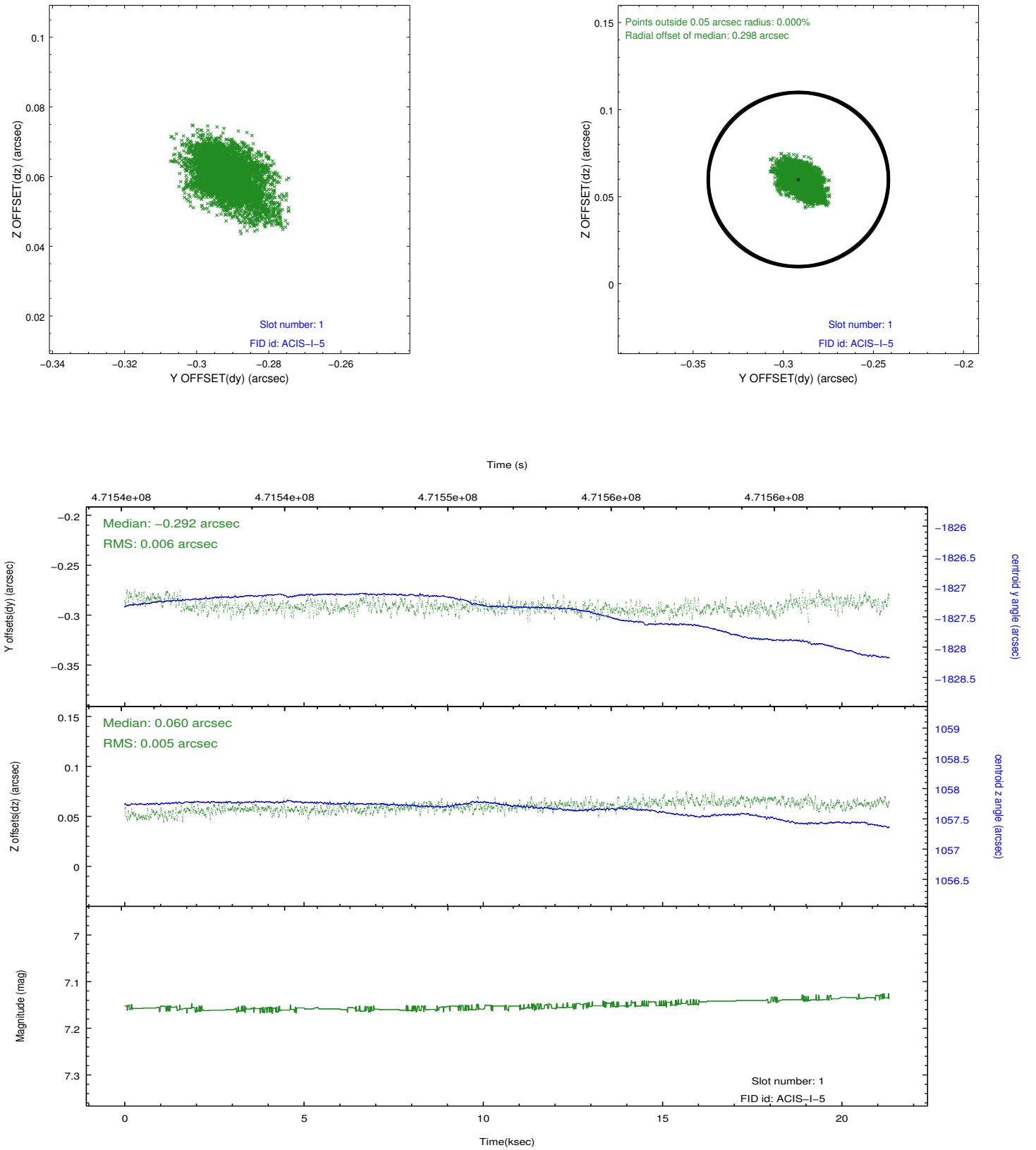


## 2.5 FID Slots

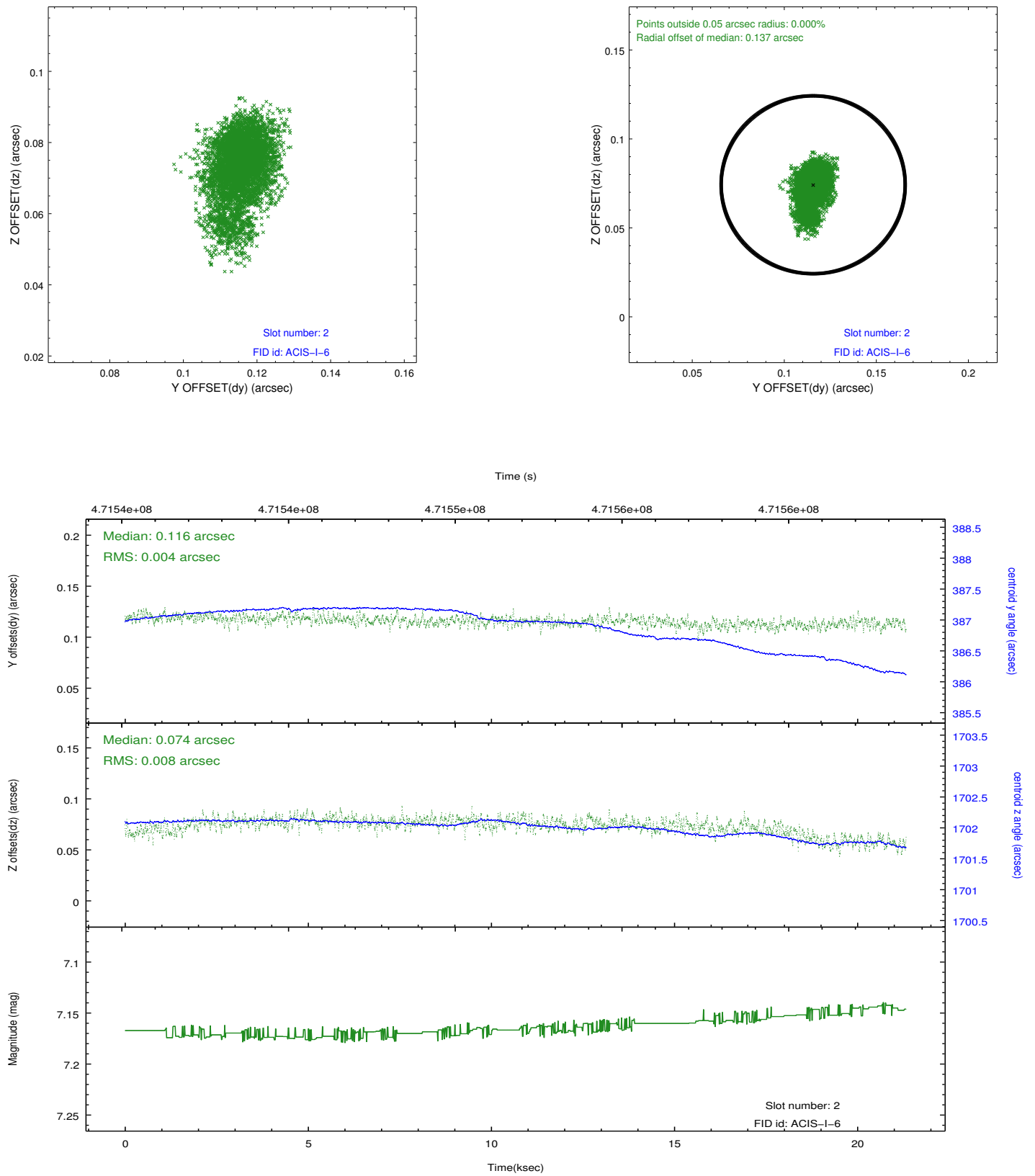
### 2.5.1 Slot 0



## 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	21.266000163555

## A.2 Comments

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.