

# V&V Reference Report

## L2 ASCDS Version : 10.4.2.1

Observation 17286 - L2 Version 1  
Chandra X-Ray Center

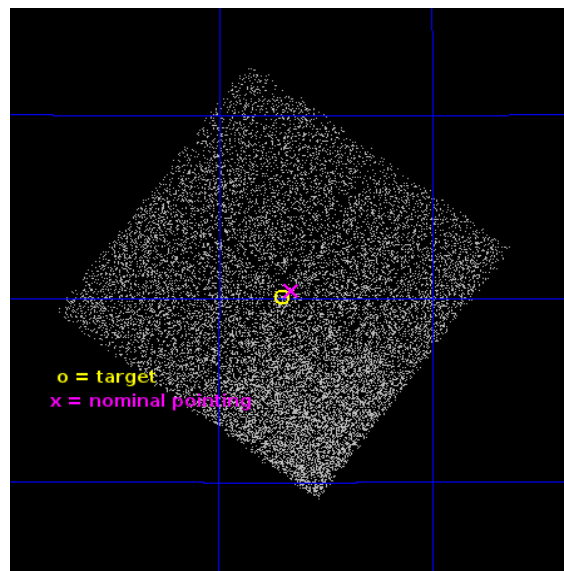
L2 Processing Date : Oct 6 2015

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# 1 Front

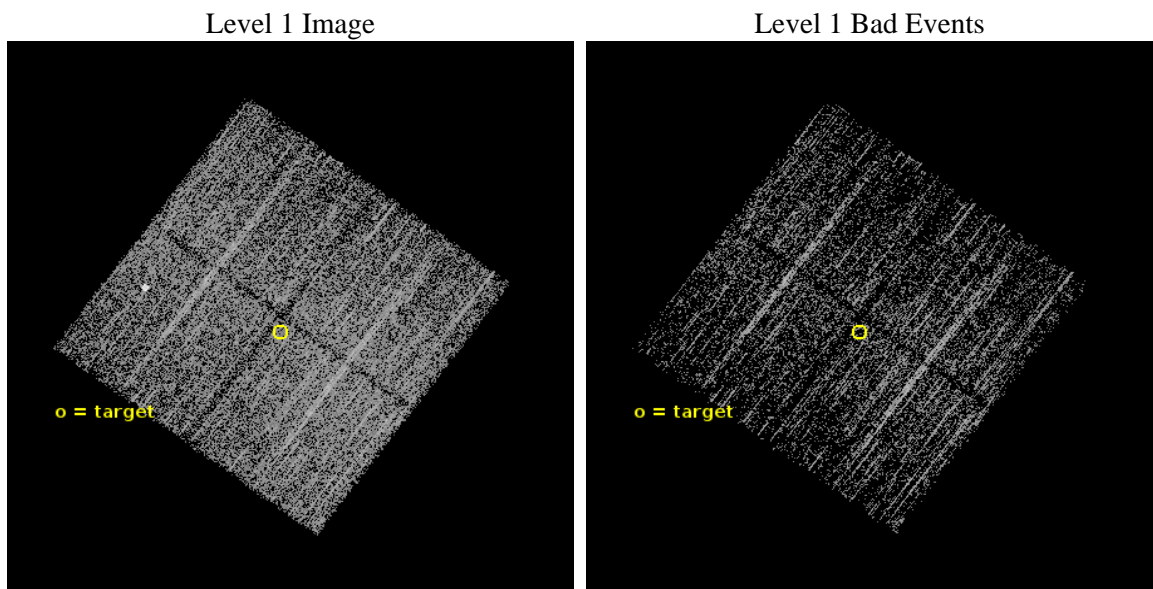
seq_num	801531	Sequence number
obs_id	17286	Observation id
title	Perseus: A New, Low-Redshift Anchor for Cluster Cosmology	Proposal
observer	Prof. Steven Allen	Principal investigator
object	Perseus cluster	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	50.17626	Observer's specified target RA [deg]
dec_targ	41.834942	Observer's specified target Dec [deg]
ra_nom	50.164970330302	Nominal RA [deg]
dec_nom	41.840609954521	Nominal Dec [deg]
roll_nom	126.54163056566	Nominal Roll [deg]
revision	1	Processing version of data
ontime	4792.6000369787	Sum of GTIs [s]
livetime	4729.9811892348	Livetime [s]
ontime0	4792.6000369787	Sum of GTIs [s]
ontime1	4792.6000369787	Sum of GTIs [s]
ontime2	4792.6000369787	Sum of GTIs [s]
ontime3	4792.6000369787	Sum of GTIs [s]
l2events	19498	Number of level 2 events



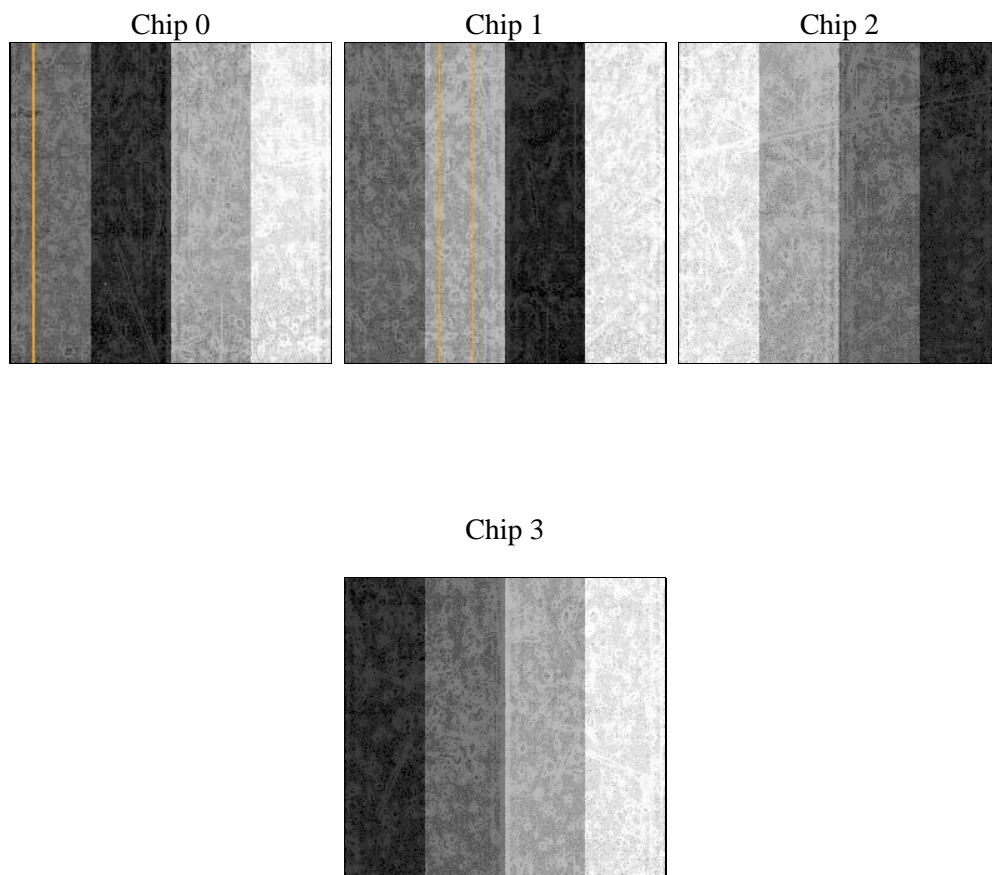
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	10.4.2.1	Processing system revision	ontime	4792.6000369787	Sum of GTIs [s]
caldsver	4.6.10a	&#160	ontime0	4792.6000369787	Sum of GTIs [s]
date	2015-10-07T03:25:26	Date and time of file creation	ontime1	4792.6000369787	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	4792.6000369787	Sum of GTIs [s]
			ontime3	4792.6000369787	Sum of GTIs [s]
			l1events	105712	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	23362	25049	26682	30619
rejected events	19518	19098	21768	22478
rejected %	83%	76%	81%	73%

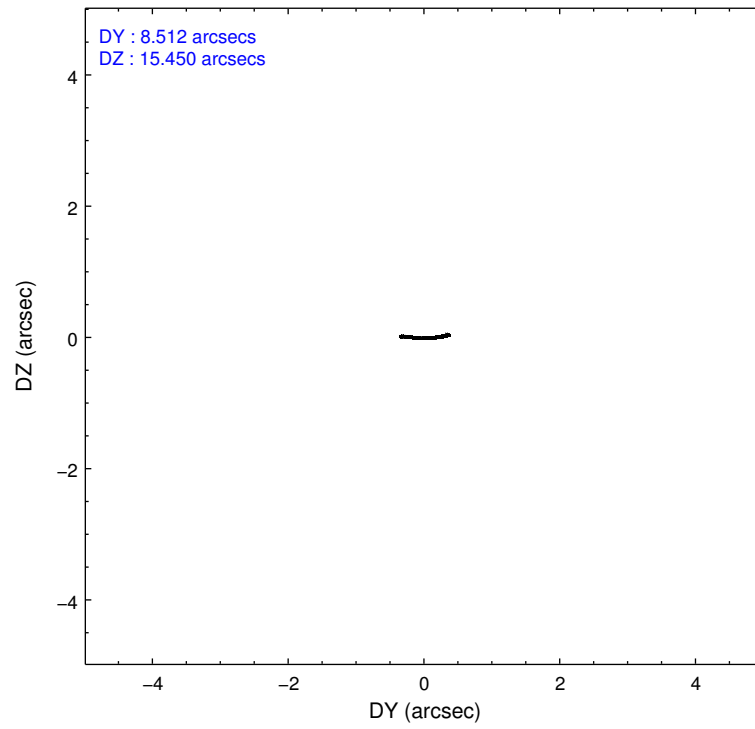
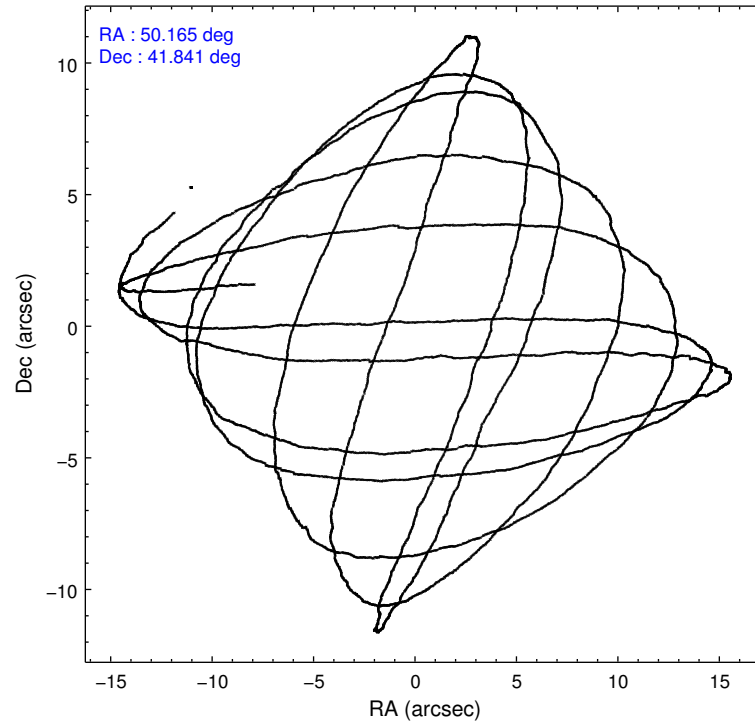
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	1746	3490	2574	5234
	7%	13%	9%	17%
grade 1 events	16	23	16	27
	0%	0%	0%	0%
grade 2 events	818	999	997	1164
	3%	3%	3%	3%
grade 3 events	351	363	328	483
	1%	1%	1%	1%
grade 4 events	293	381	370	495
	1%	1%	1%	1%
grade 5 events	1132	1170	1079	1305
	4%	4%	4%	4%
grade 6 events	638	727	653	778
	2%	2%	2%	2%
grade 7 events	18368	17896	20665	21133
	78%	71%	77%	69%

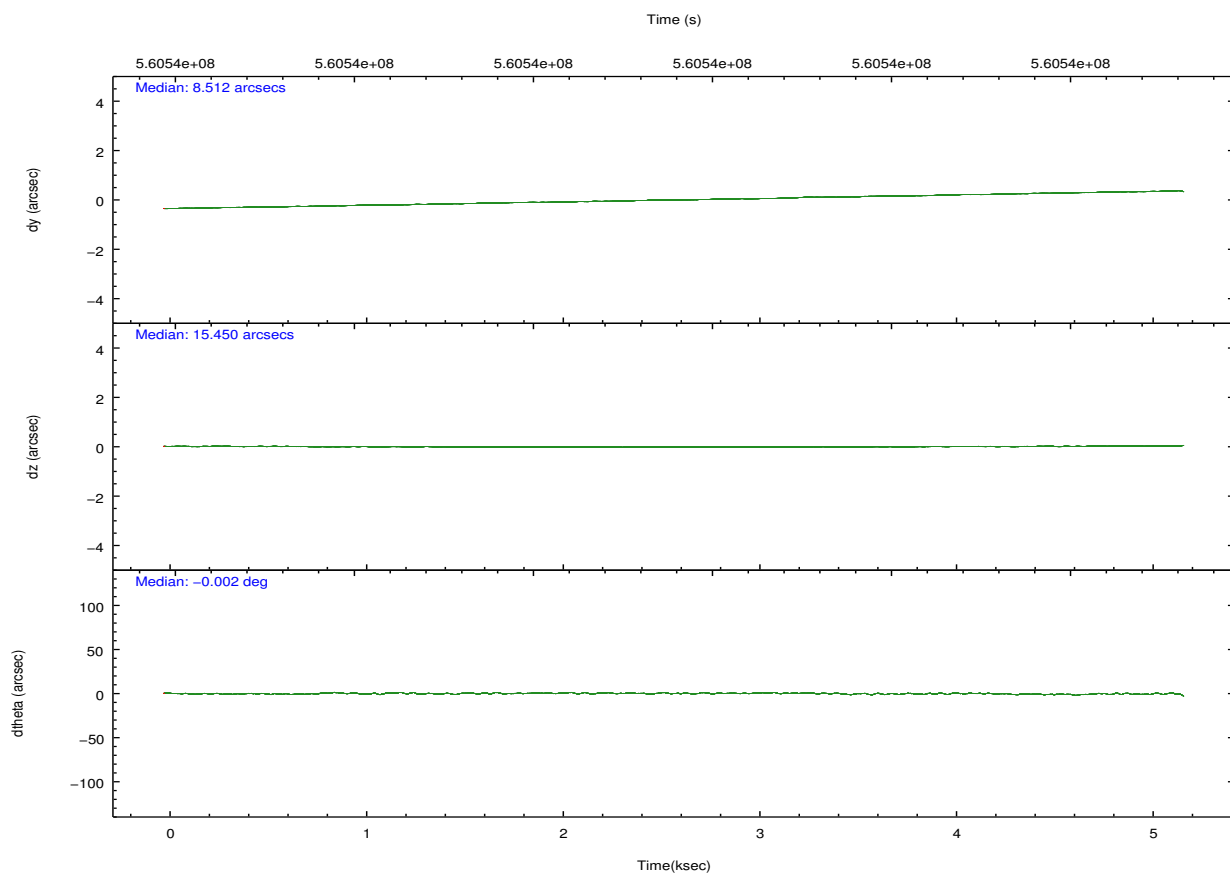
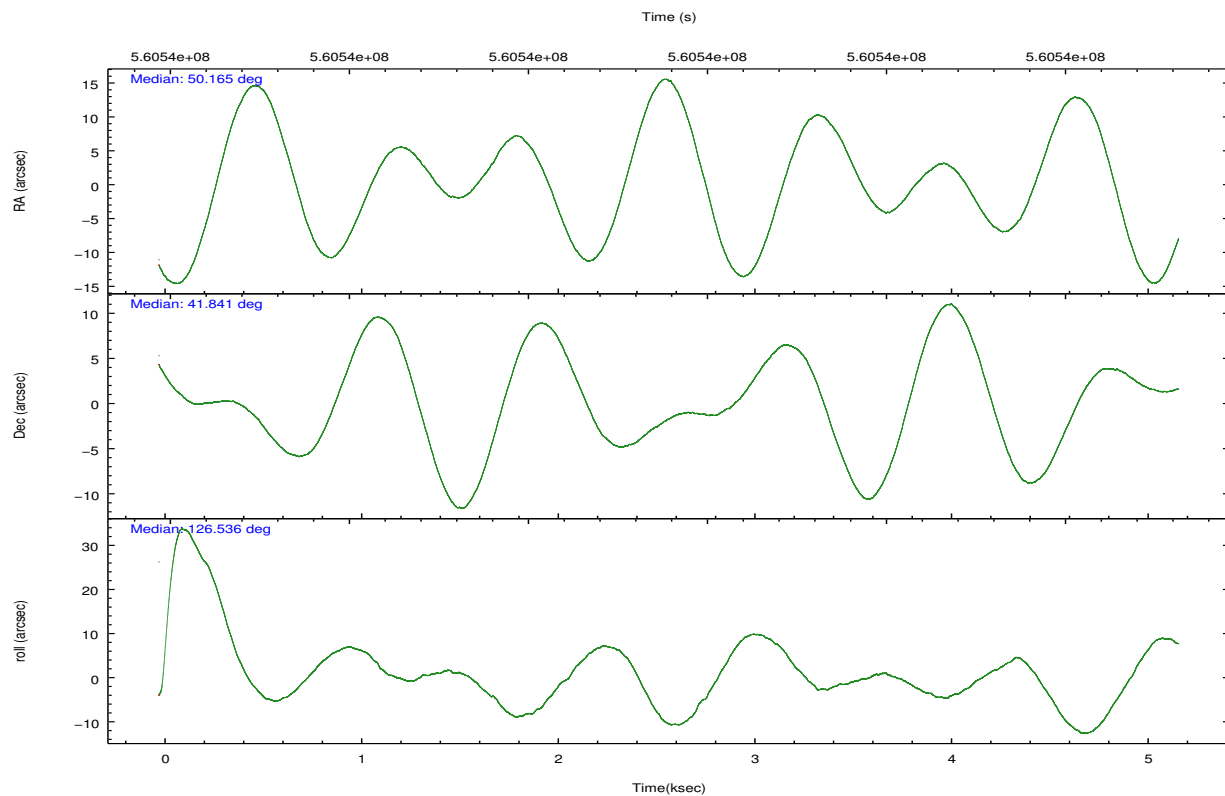


## 2.2 Compared Parameters

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	50.199184	50.16497033030201	Subarray requested	NONE	NONE
[deg] Pointing Dec	41.829720	41.84060995452057	Alternating exposures requested	N	N
[deg] Pointing Roll	126.310223	126.5416305656574	[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)	560536347.184000	560535971.25494			
Observation start date	2015-10-06T16:31:19	2015-10-06T16:26:11			
[s] Observation end time (MET)	560541347.184000	560541960.84278			
Observation end date	2015-10-06T17:54:39	2015-10-06T18:06:00			
Read mode	TIMED	TIMED			

## 2.3 Aspect



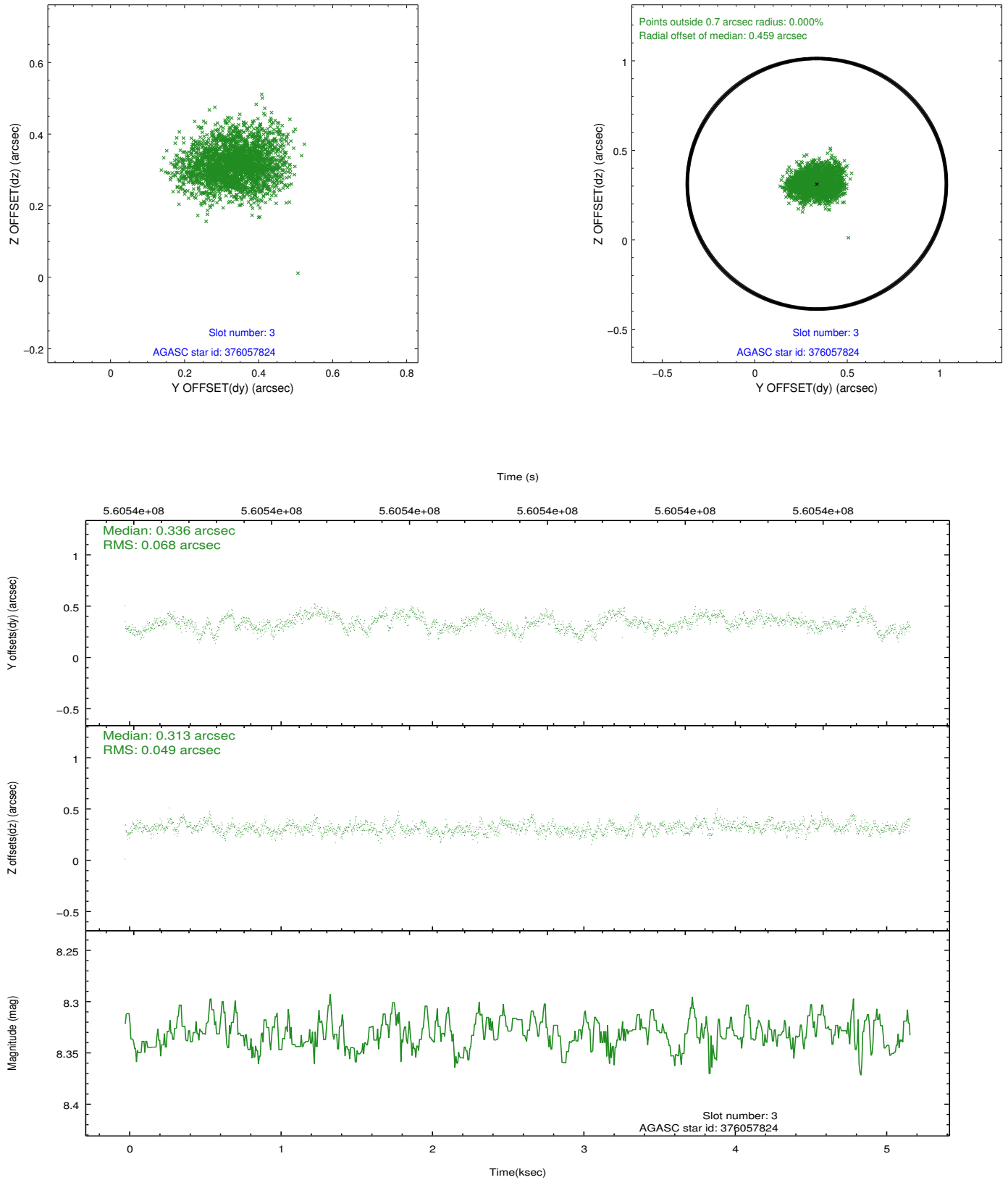


### Slot Statistics

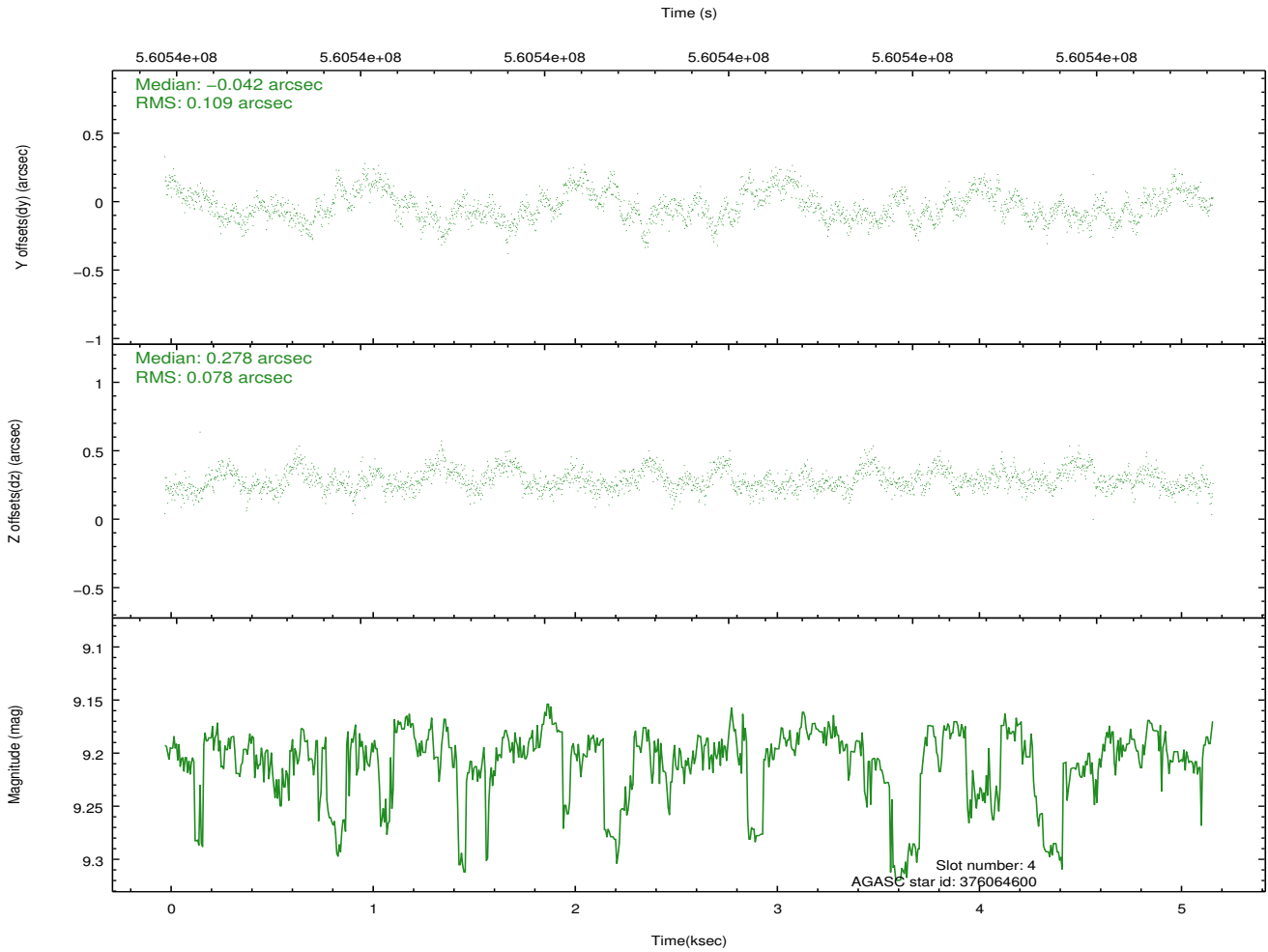
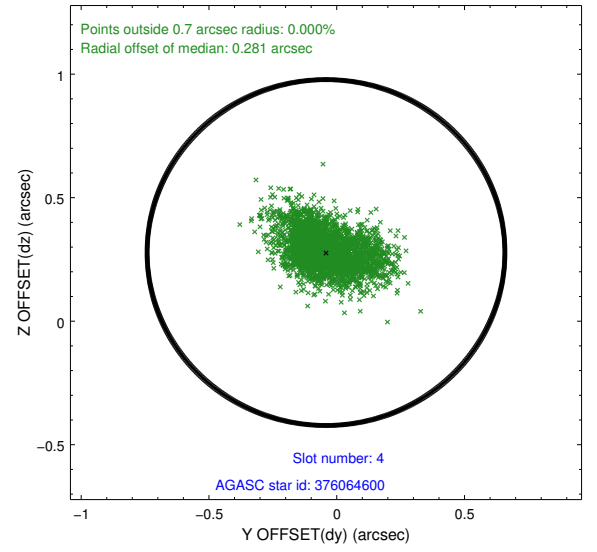
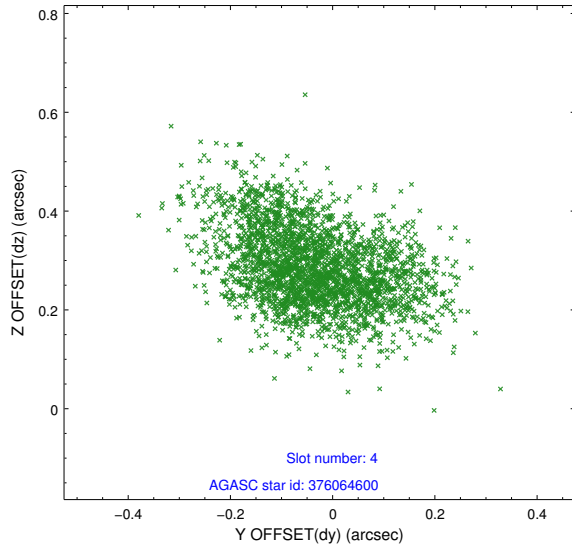
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.25	1266	0.024	-0.073	0.011	0.018	0.000000	0.000000	931.15	-839.13
1	FID		ACIS-I-4	7.18	1266	0.249	0.062	0.008	0.013	0.000000	0.000000	2152.06	1060.23
2	FID		ACIS-I-5	7.24	1265	-0.372	0.081	0.010	0.020	0.000000	0.000000	-1815.75	1059.40
3	GUIDE	used	376057824	8.33	2531	0.336	0.313	0.091	0.146	50.665569	41.926280	-457.13	-1214.44
4	GUIDE	used	376064600	9.20	2526	-0.042	0.278	0.140	0.237	50.213209	42.582691	2162.08	-1635.44
5	GUIDE	used	376070040	8.39	2529	-0.024	-0.111	0.077	0.126	50.072031	41.897206	398.27	129.55
6	GUIDE	used	373826120	8.91	2530	0.025	-0.205	0.103	0.161	49.738165	41.186341	-1124.16	2375.53
7	GUIDE	used	374360816	9.32	2526	-0.302	-0.288	0.129	0.204	49.918310	42.508790	2411.69	-847.13

## 2.4 Star Slots

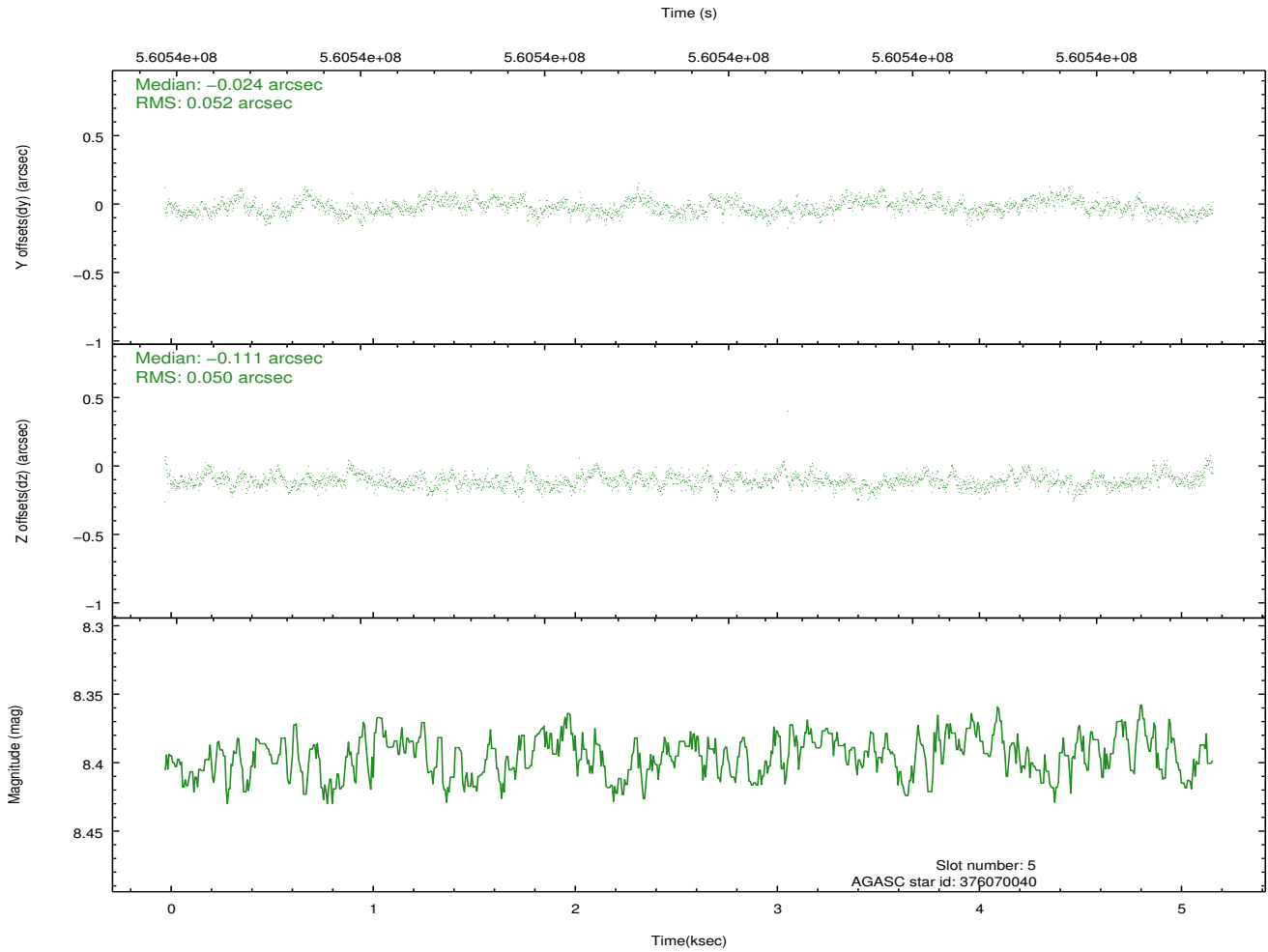
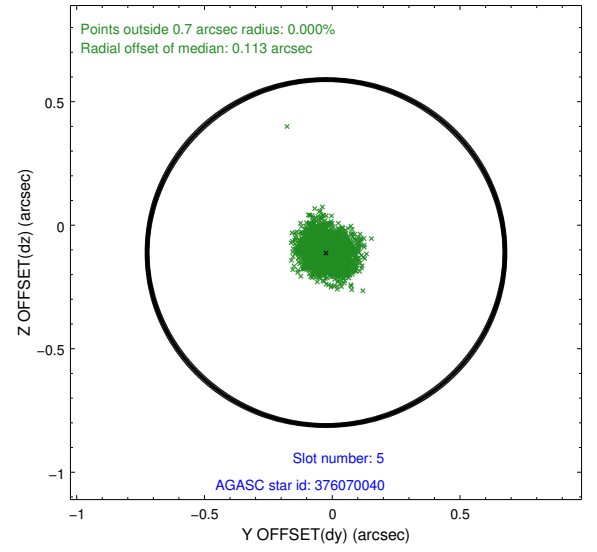
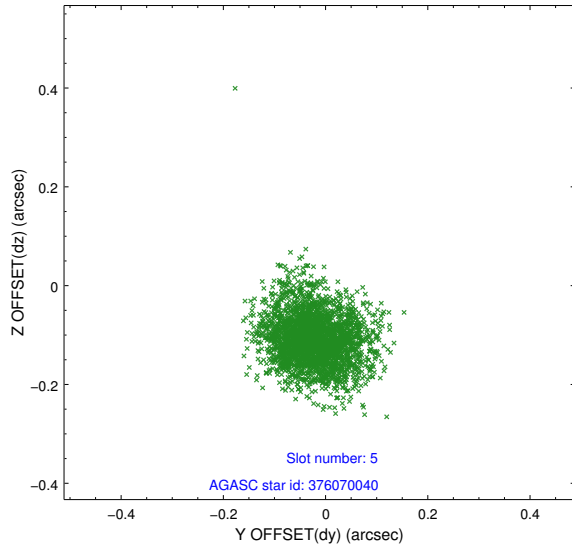
### 2.4.1 Slot 3



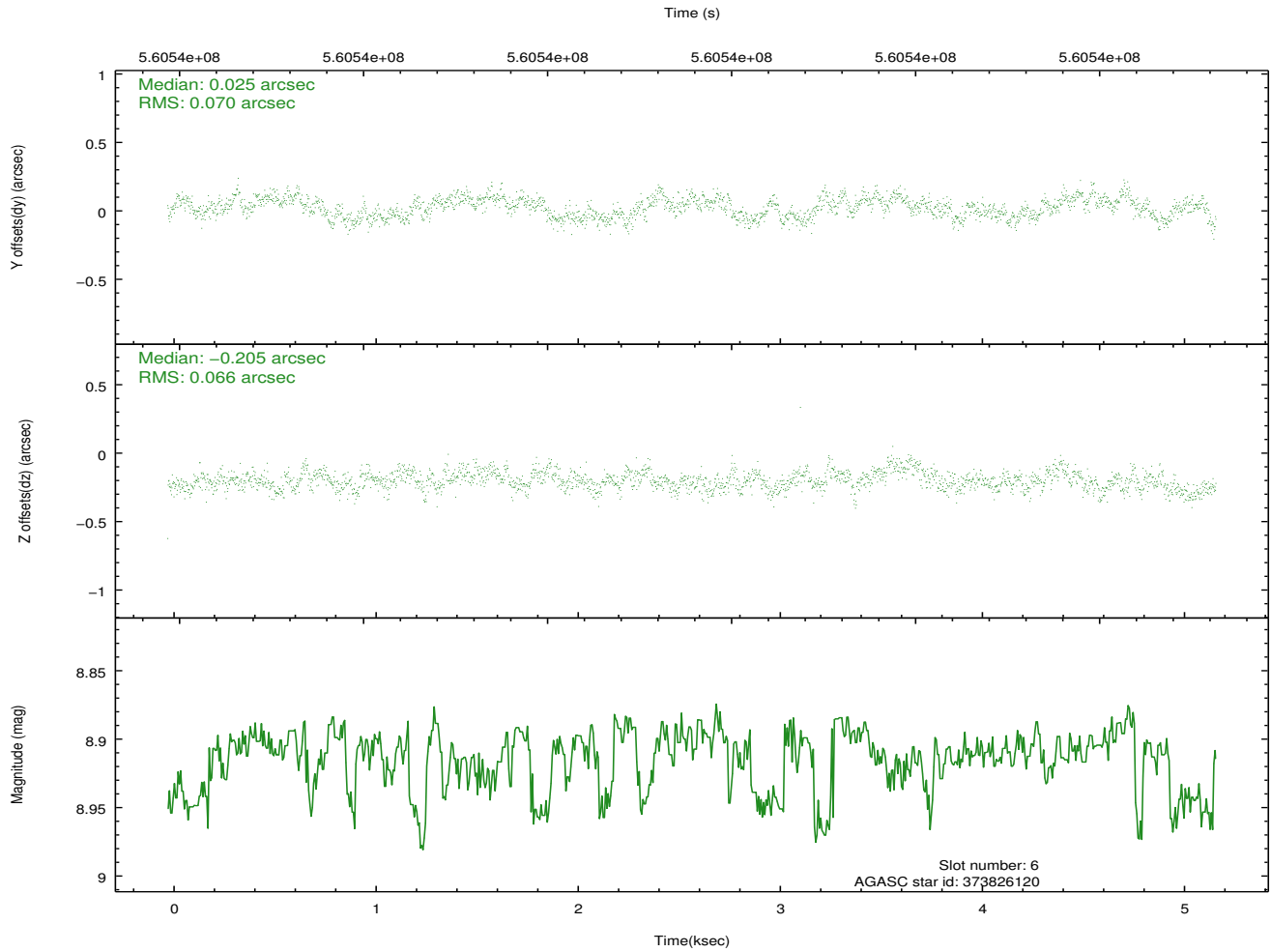
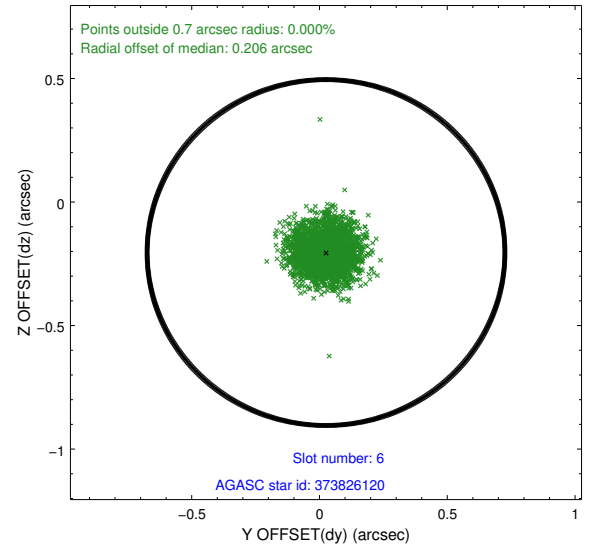
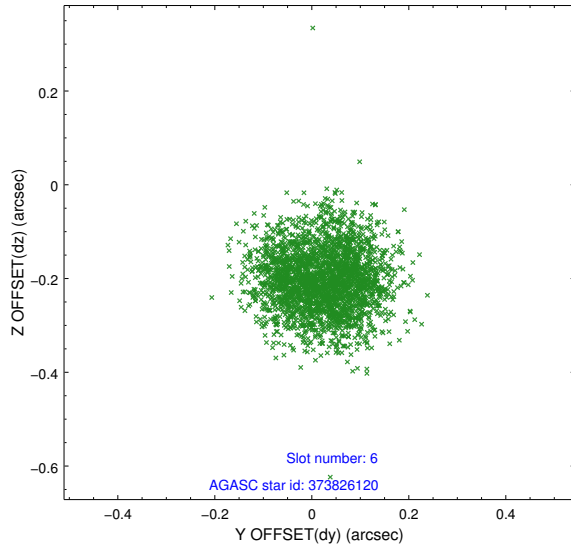
## 2.4.2 Slot 4



### 2.4.3 Slot 5

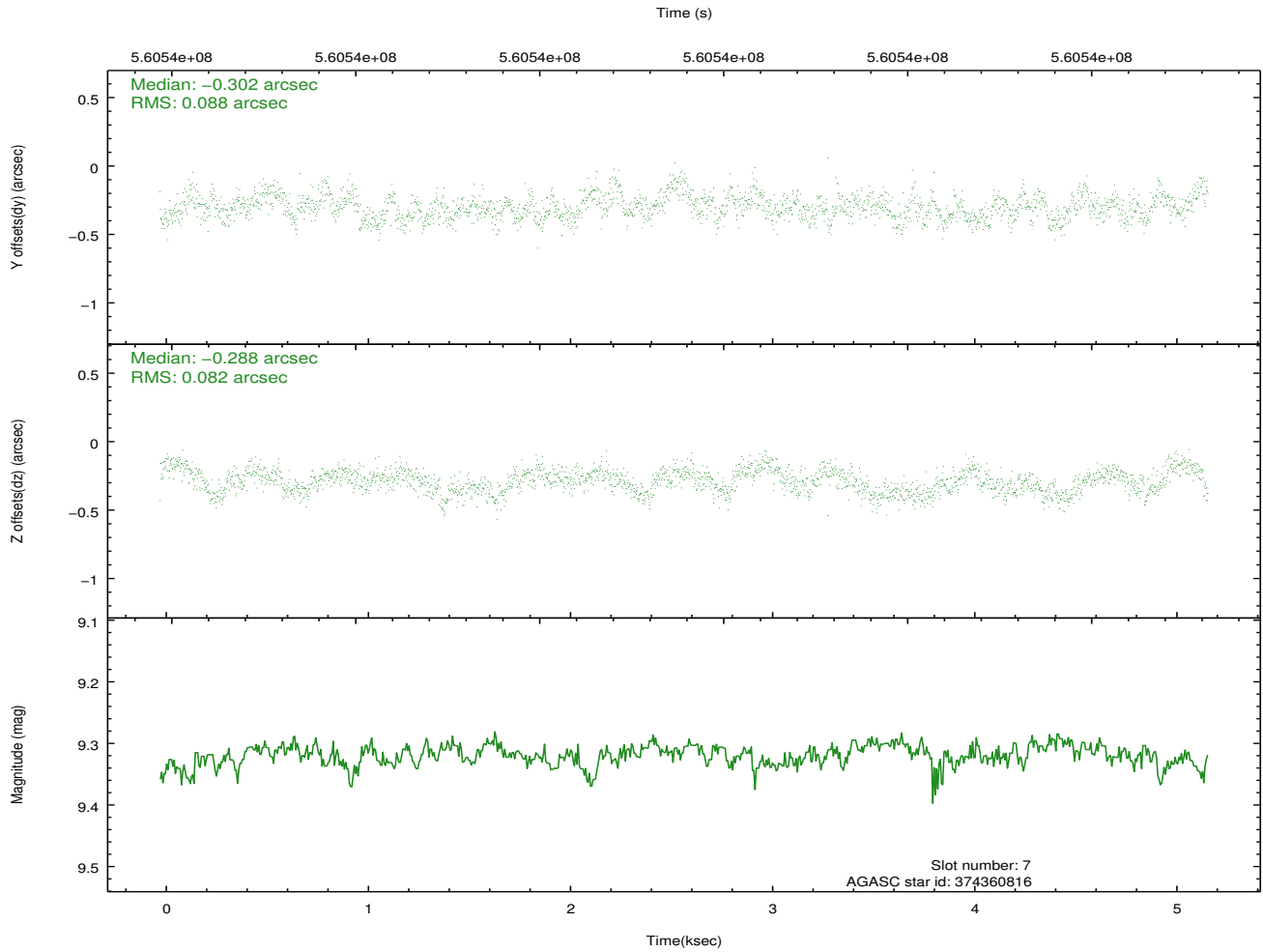
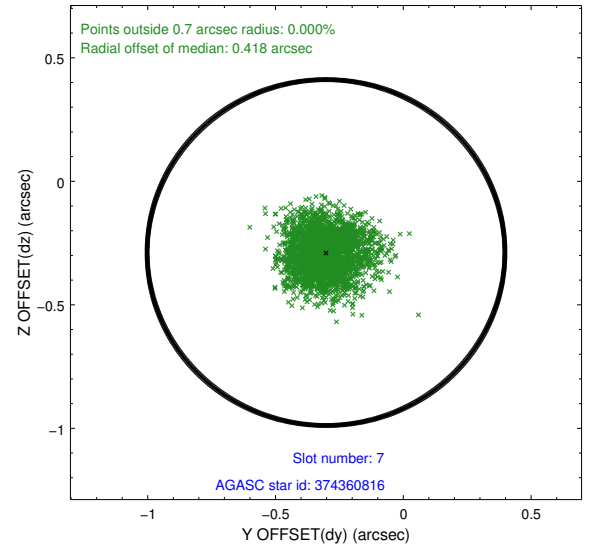
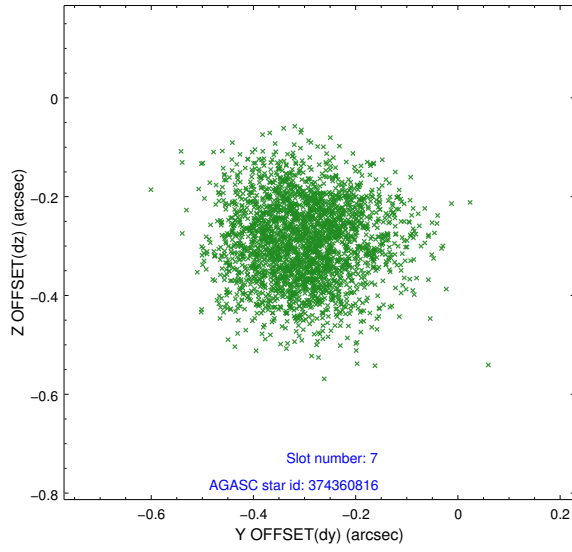


## 2.4.4 Slot 6



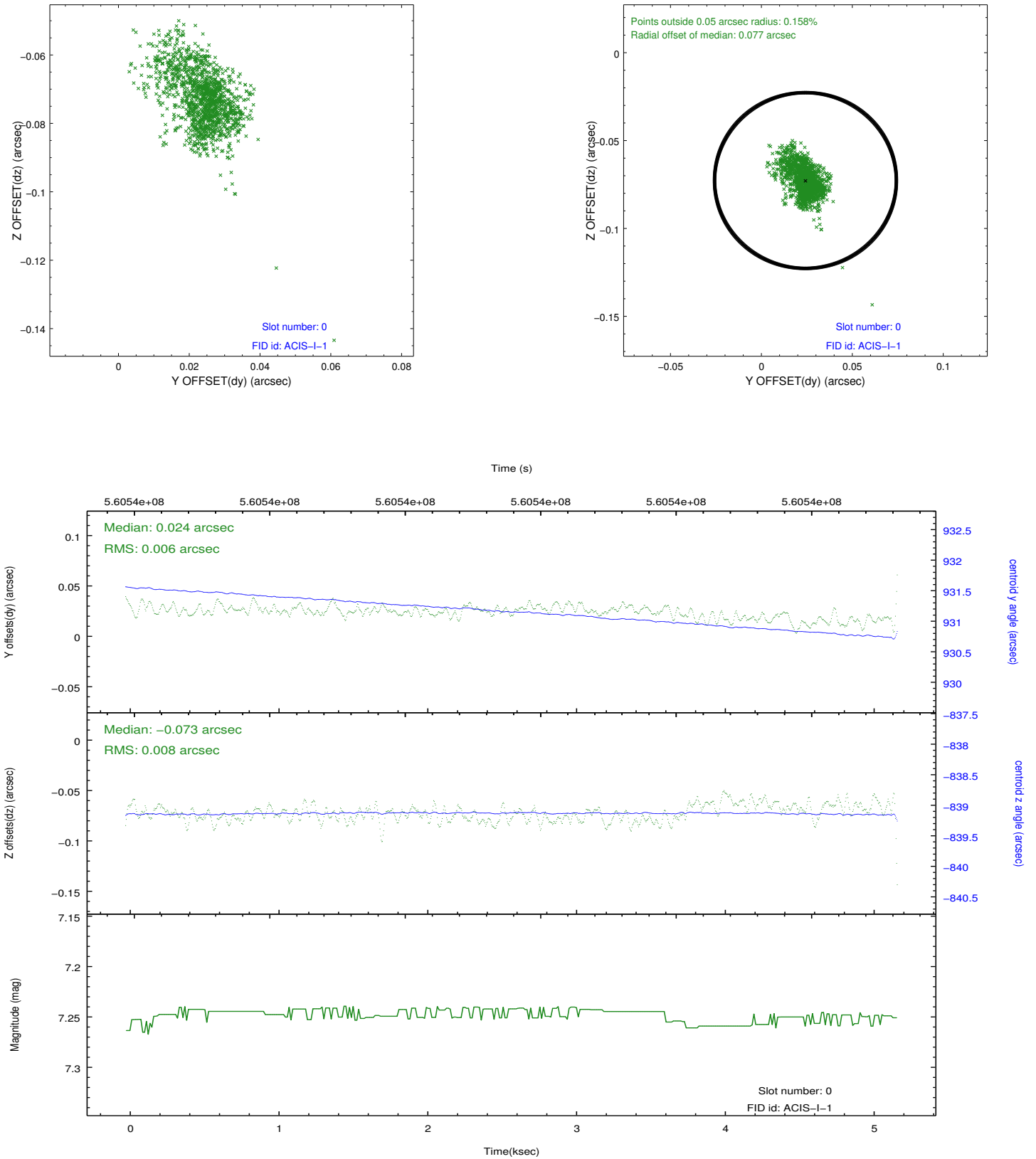


## 2.4.5 Slot 7

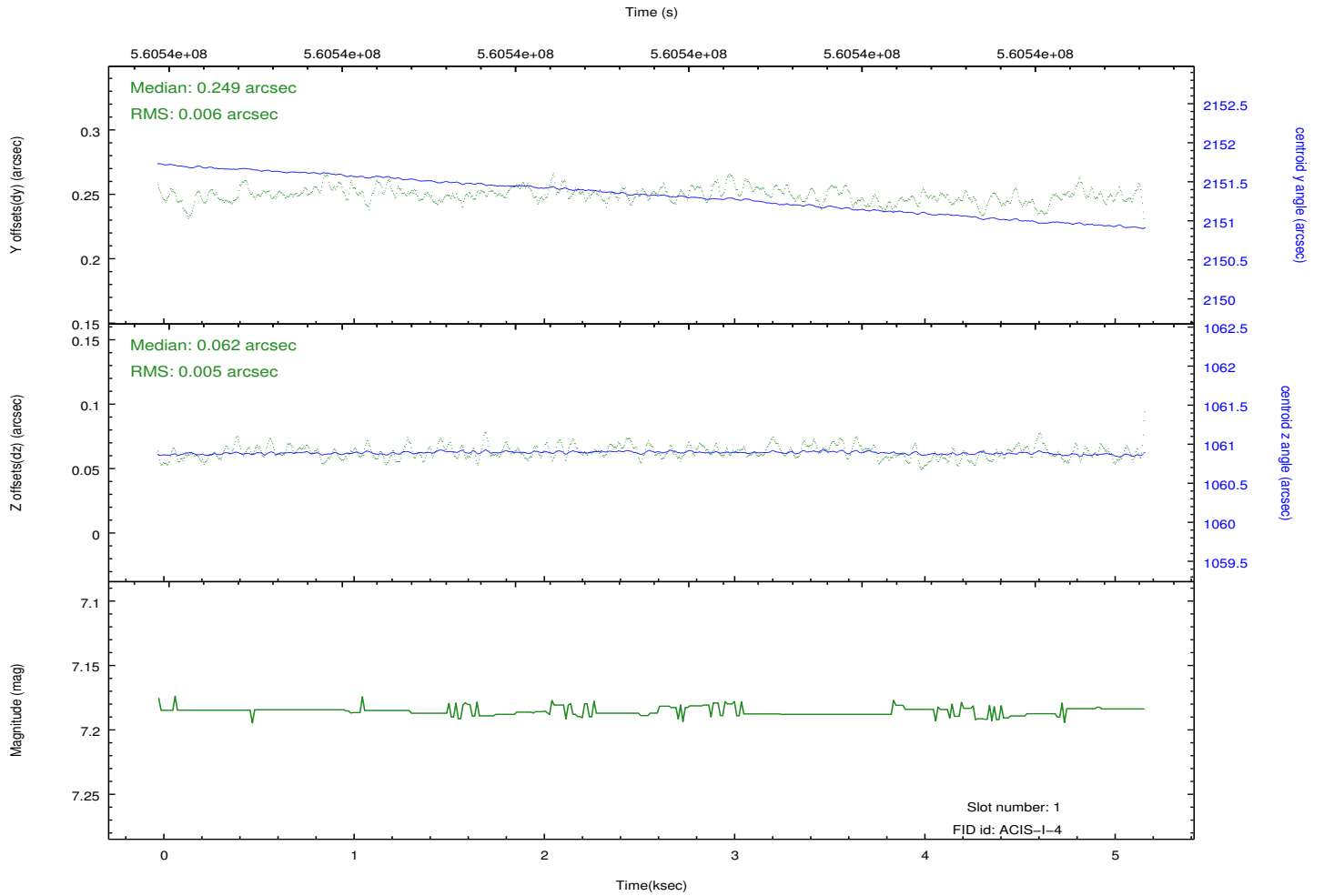
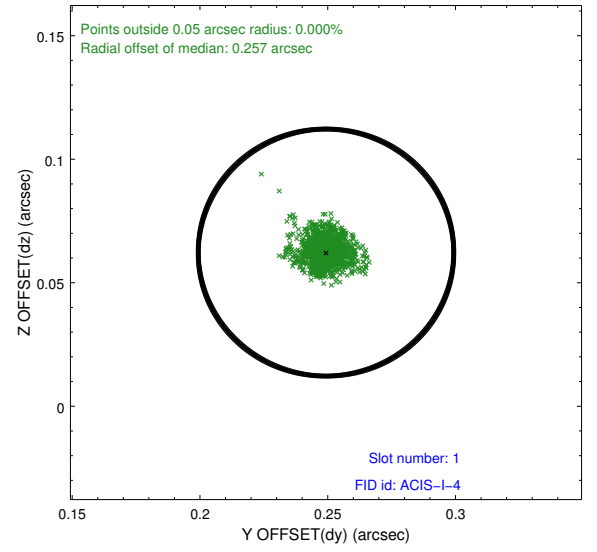
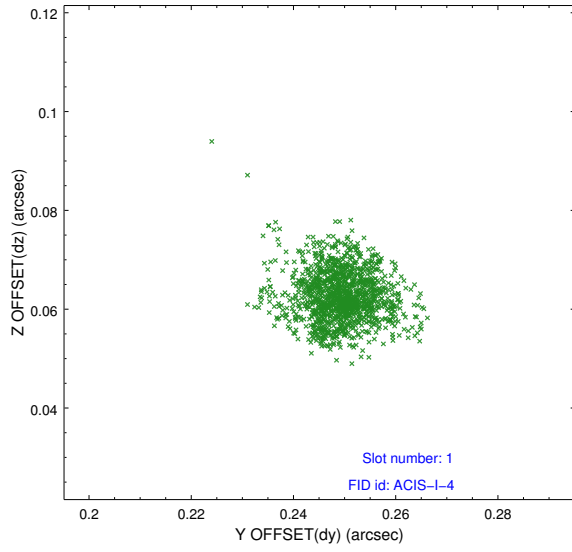


## 2.5 FID Slots

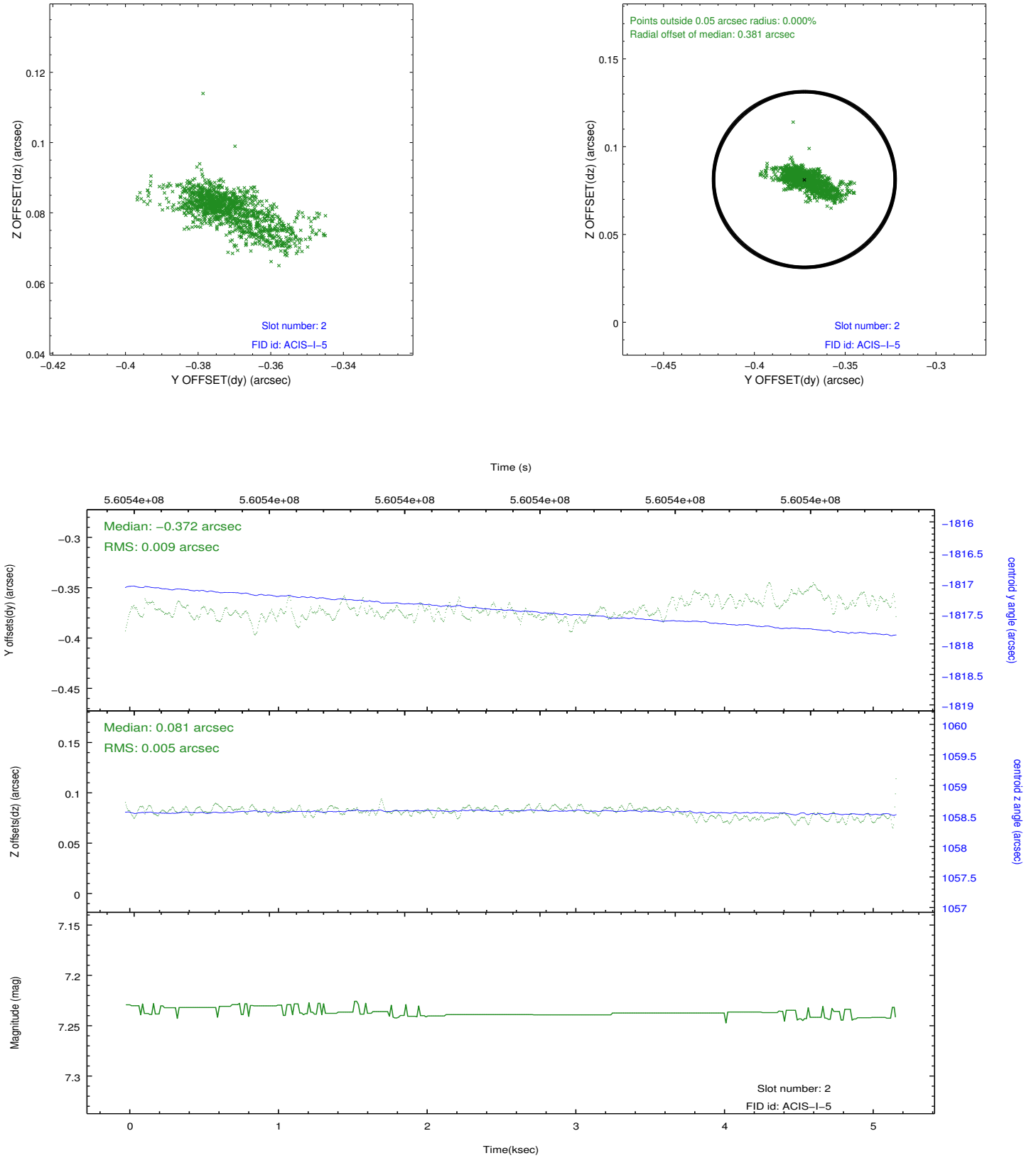
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2015.10.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.7926000369787

### A.2 Comments