

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 7695 - L2 Version 3  
Chandra X-Ray Center

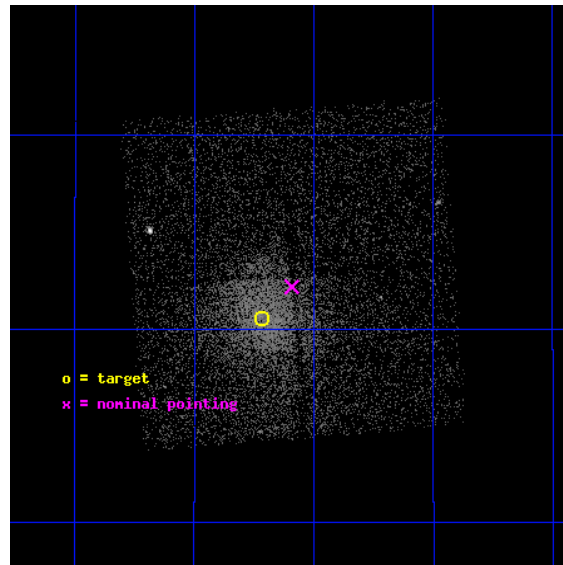
L2 Processing Date : Apr 25 2012

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# 1 Front

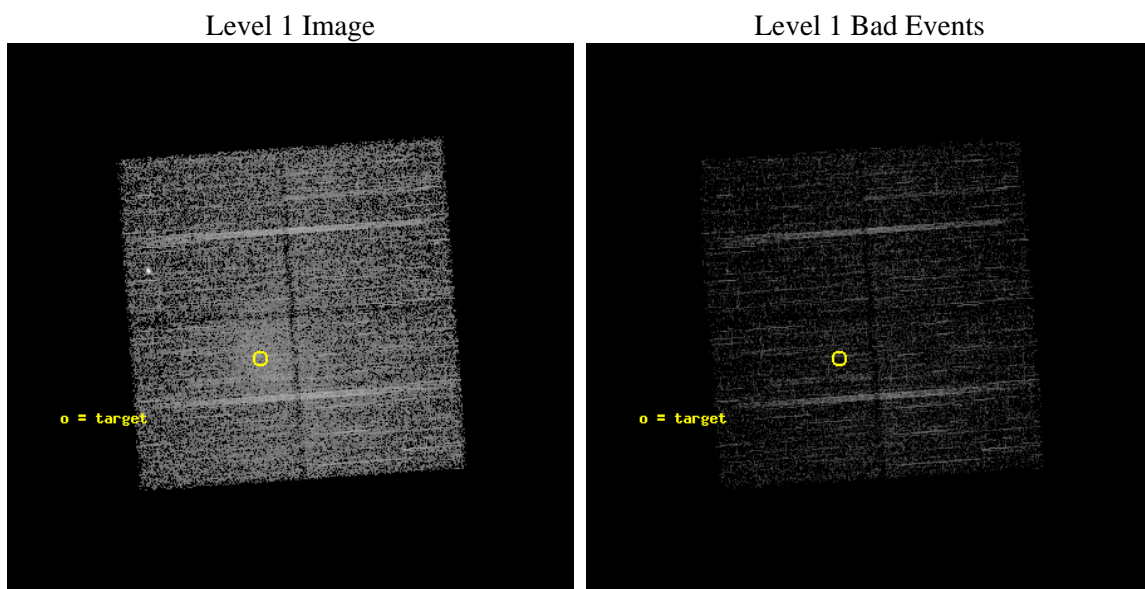
seq_num	701363	Sequence number
obs_id	7695	Observation id
title	Snapshot Survey for X-ray Outbursts in Rich Clusters of Galaxies	P
observer	Professor Gordon Garmire	Principal investigator
object	A2034	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	227.55375	Observer's specified target RA [deg]
dec_targ	33.509444	Observer's specified target Dec [deg]
ra_nom	227.52294281933	Nominal RA [deg]
dec_nom	33.536441584587	Nominal Dec [deg]
roll_nom	175.94914301381	Nominal Roll [deg]
revision	3	Processing version of data
ontime	4826.1929265261	Sum of GTIs [s]
livetime	4763.1351629495	Livetime [s]
ontime0	4826.0698065162	Sum of GTIs [s]
ontime1	4826.1108465195	Sum of GTIs [s]
ontime2	4823.010946095	Sum of GTIs [s]
ontime3	4826.1929265261	Sum of GTIs [s]
l2events	18021	Number of level 2 events



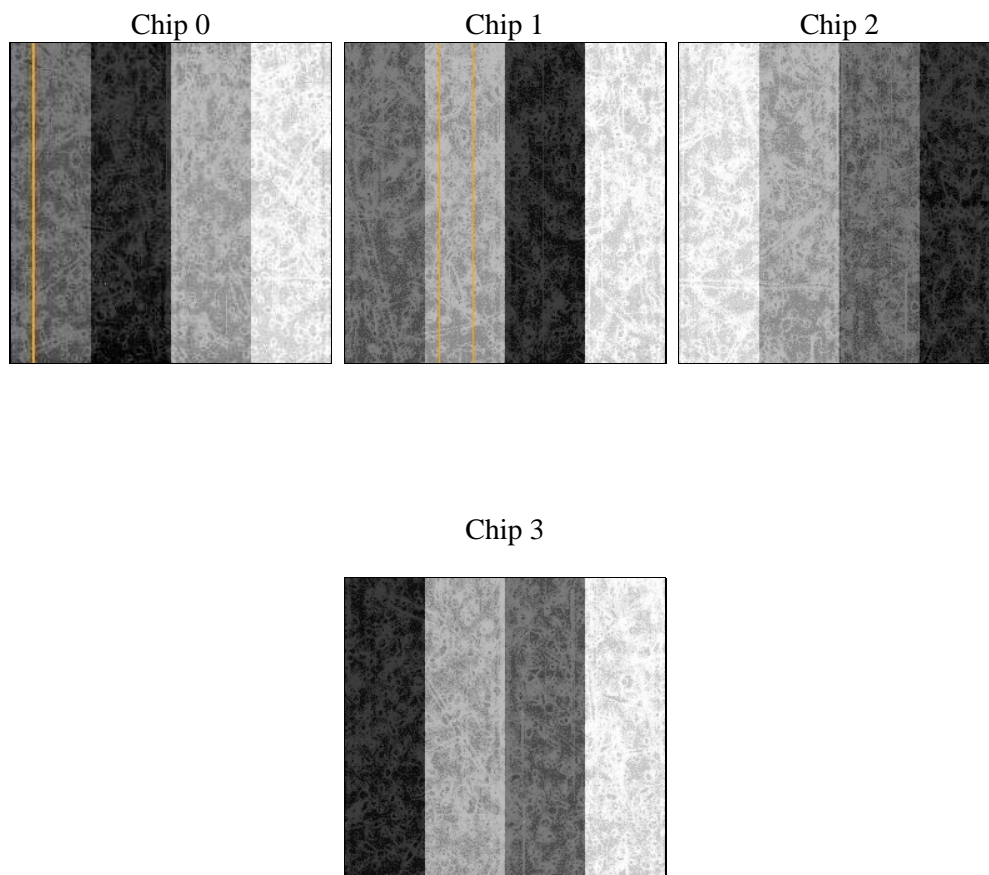
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5034.444000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	4826.1929265261	Sum of GTIs [s]
caldsver	4.4.9	&#160	ontime0	4826.0698065162	Sum of GTIs [s]
date	2012-04-25T16:36:33	Date and time of file creation	ontime1	4826.1108465195	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	4823.010946095	Sum of GTIs [s]
			ontime3	4826.1929265261	Sum of GTIs [s]
			l1events	137717	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	31664	30291	37827	37935
rejected events	28600	25456	33530	29184
rejected %	90%	84%	88%	76%

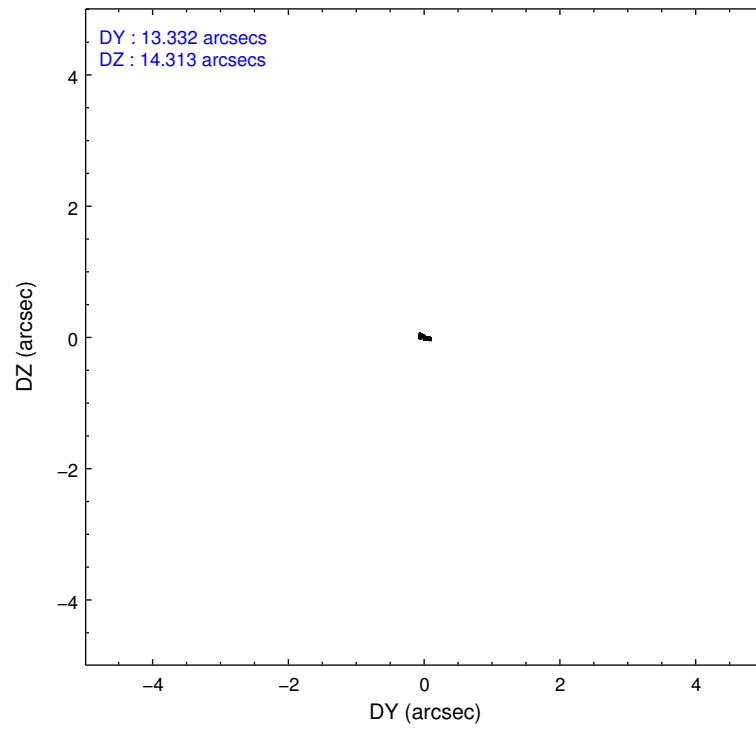
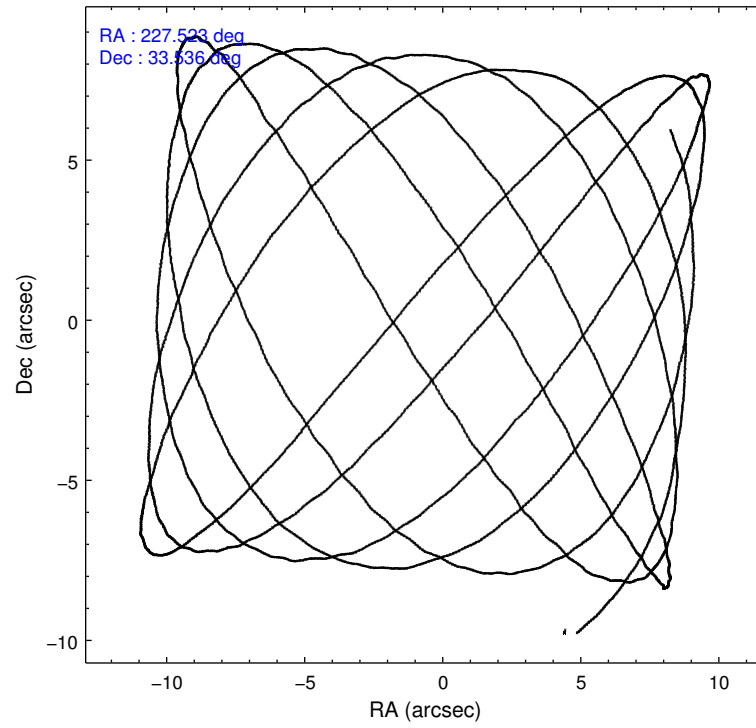
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	1306	2700	2393	6114
	4%	8%	6%	16%
grade 1 events	21	30	30	56
	0%	0%	0%	0%
grade 2 events	720	778	832	1111
	2%	2%	2%	2%
grade 3 events	358	435	316	489
	1%	1%	0%	1%
grade 4 events	292	426	369	453
	0%	1%	0%	1%
grade 5 events	539	627	517	639
	1%	2%	1%	1%
grade 6 events	393	500	391	590
	1%	1%	1%	1%
grade 7 events	28035	24795	32979	28483
	88%	81%	87%	75%

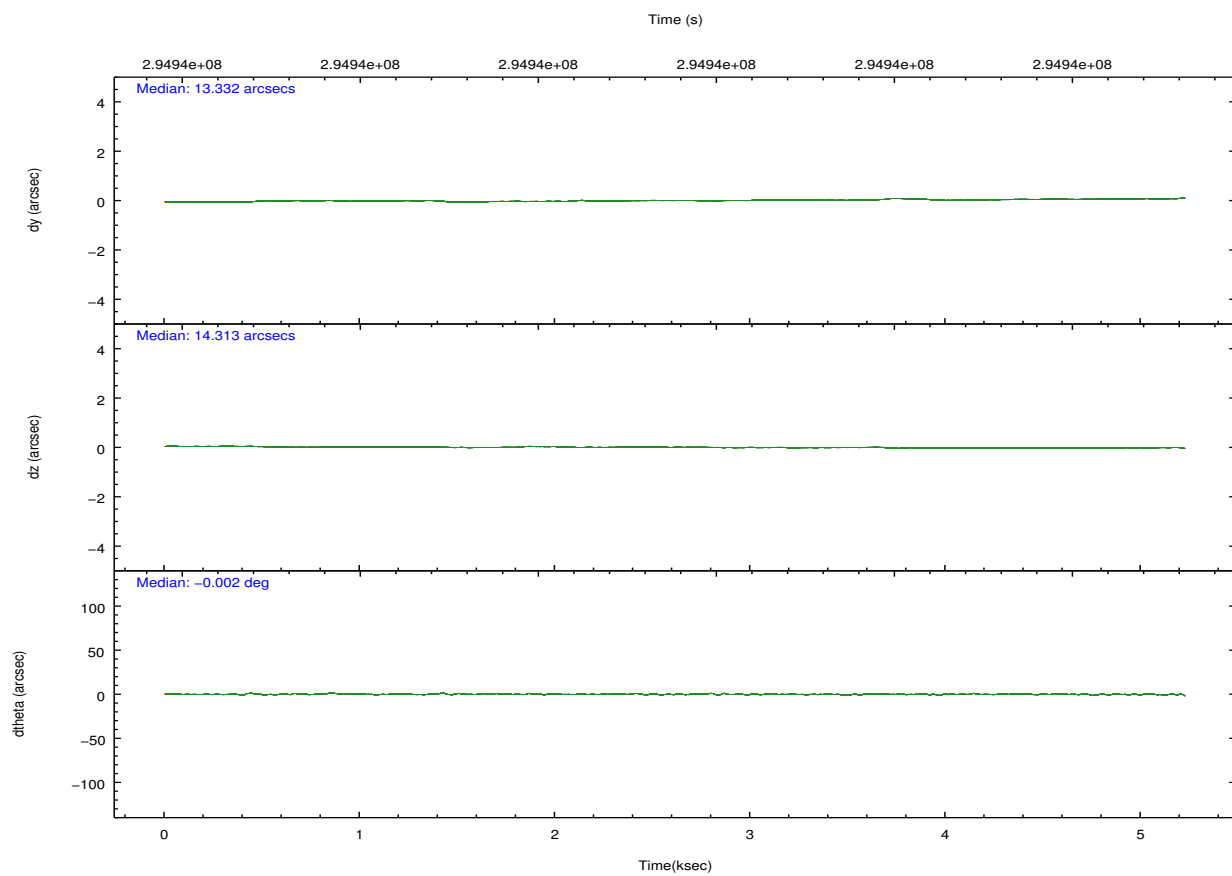
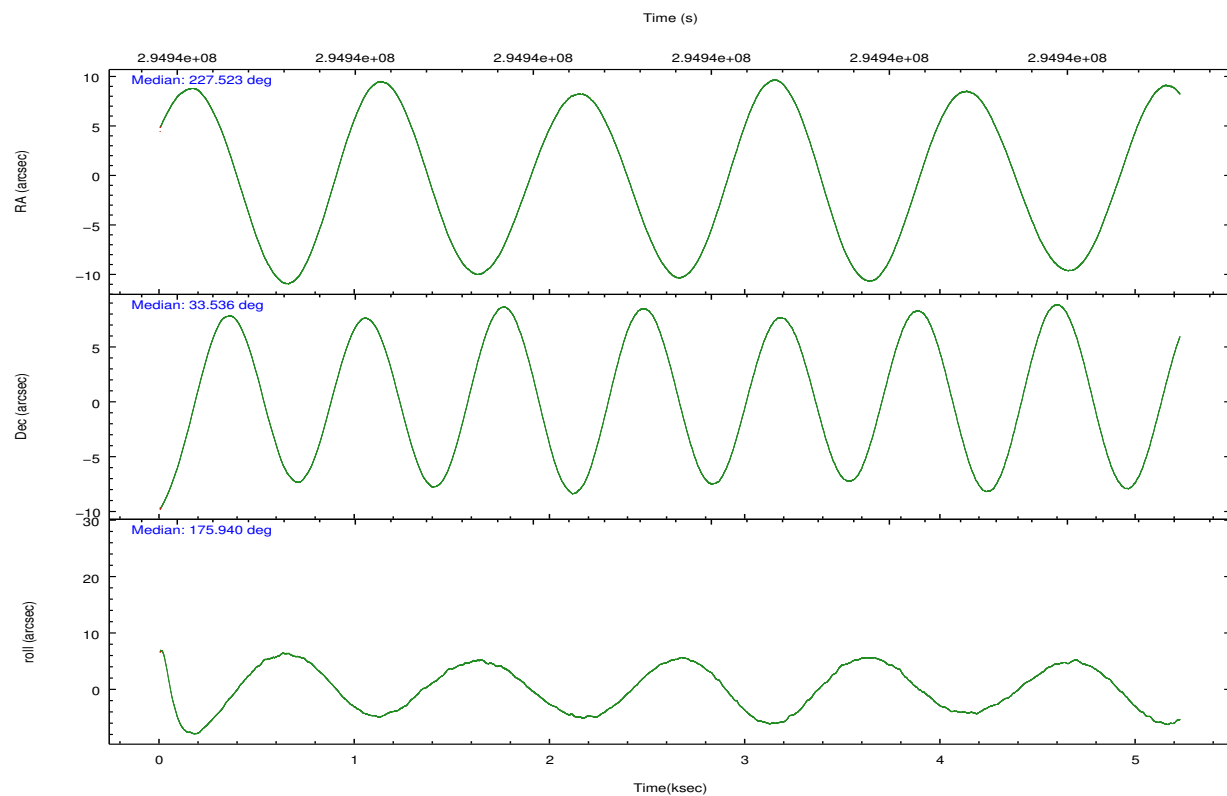


## 2.2 Compared Parameters

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	227.552452	227.5229428193313	Subarray requested	NONE	NONE
[deg] Pointing Dec	33.548641	33.53644158458669	Alternating exposures requested	N	N
[deg] Pointing Roll	175.724142	175.9491430138102	[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)	294936355.184000	294935711.12519			
Observation start date	2007-05-07T14:44:50	2007-05-07T14:35:11			
[s] Observation end time (MET)	294941389.184000	294941617.68797			
Observation end date	2007-05-07T16:08:44	2007-05-07T16:13:37			
Read mode	TIMED	TIMED			

## 2.3 Aspect



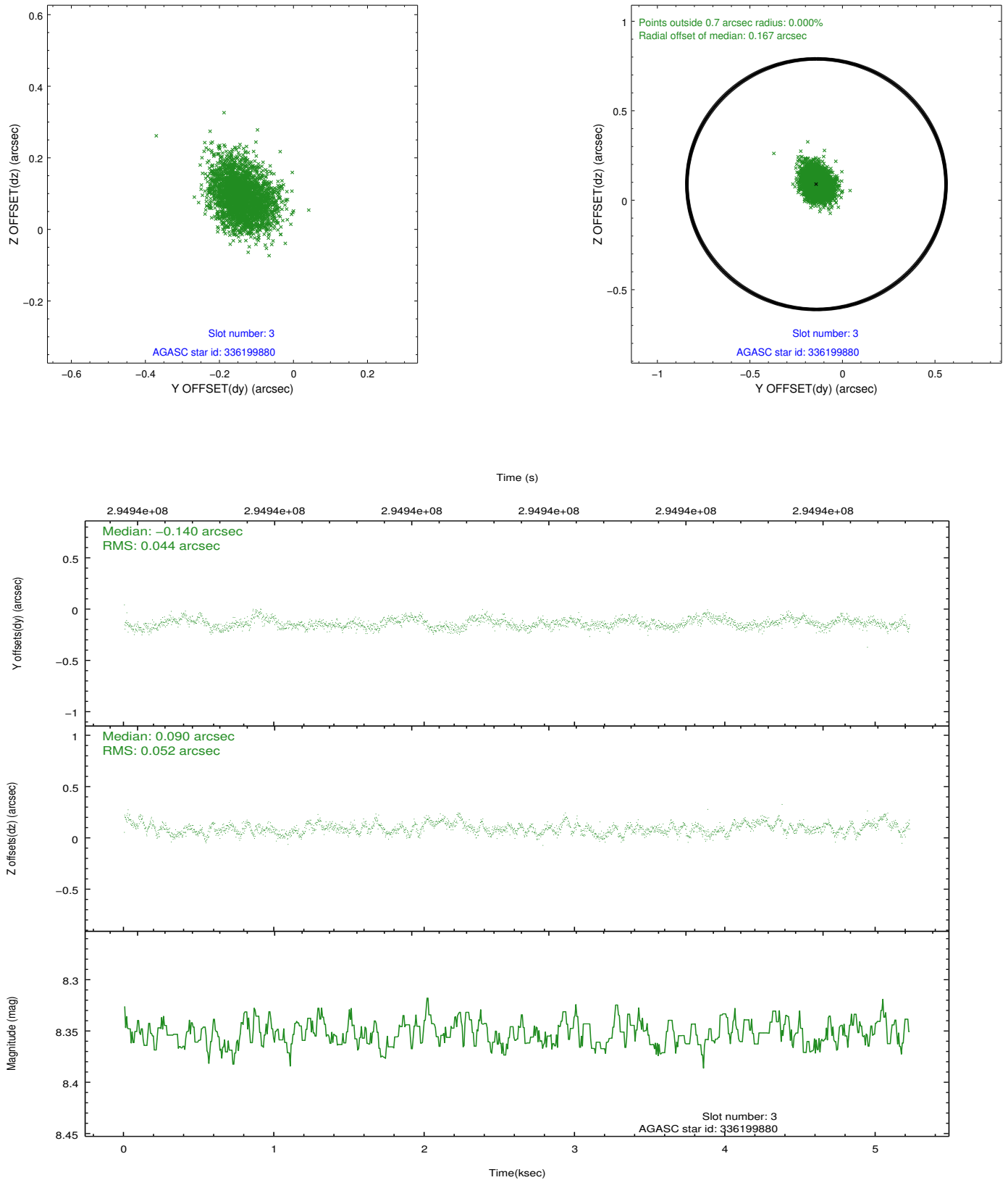


### Slot Statistics

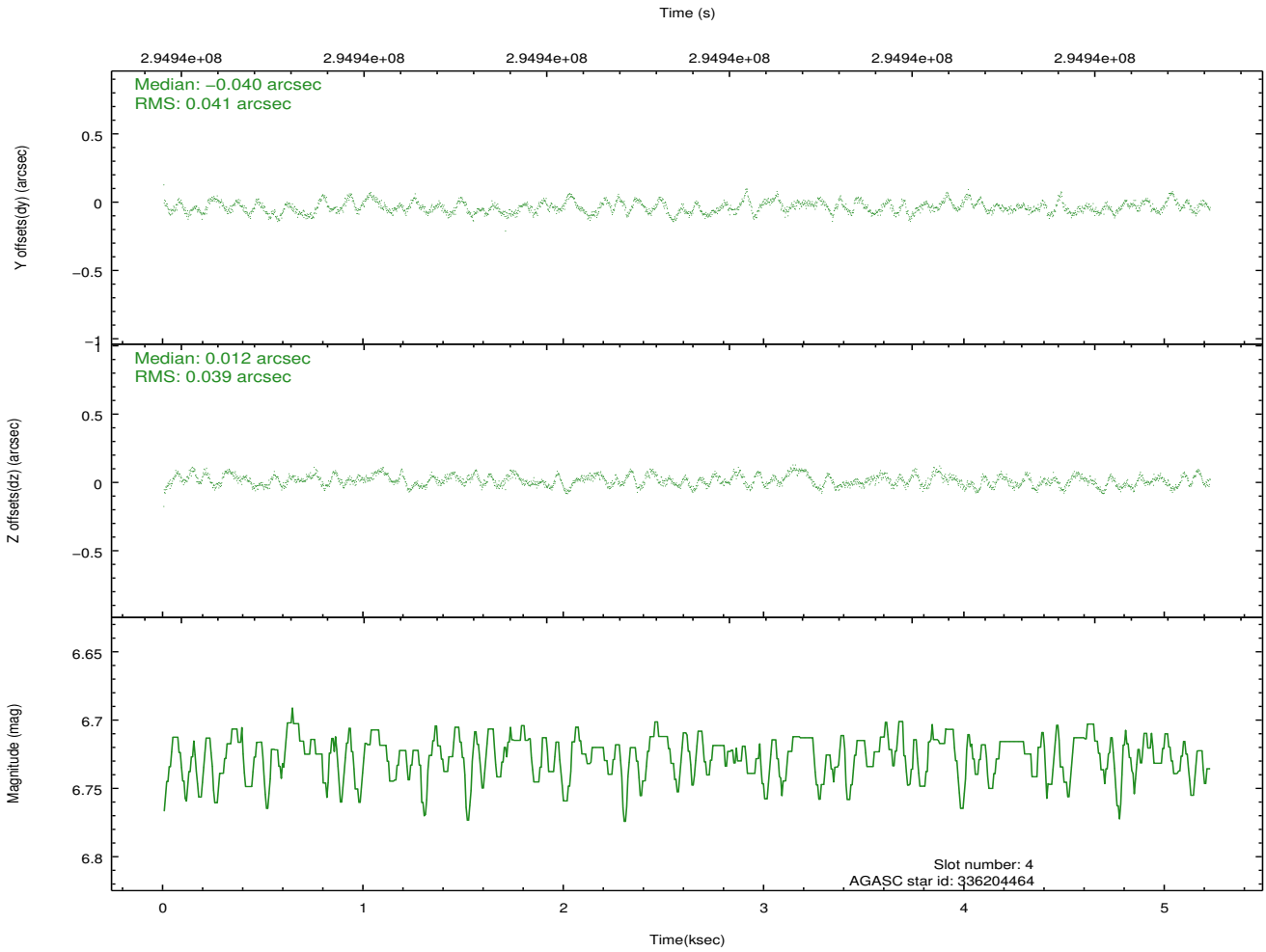
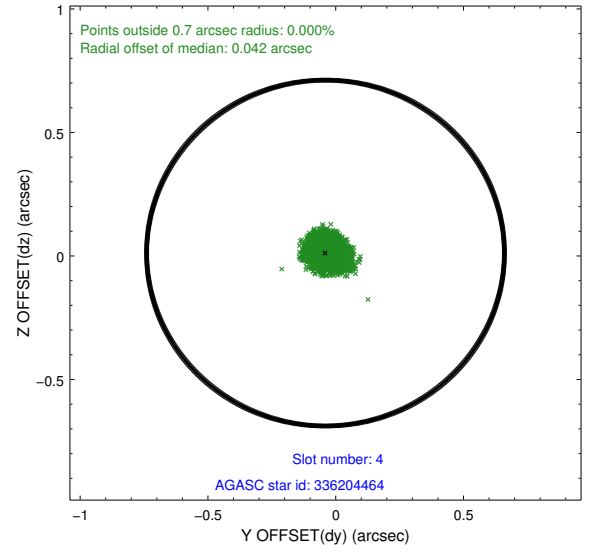
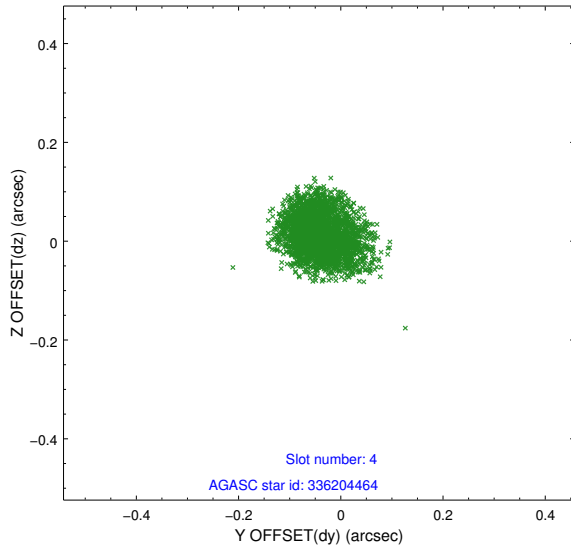
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.23	1275	0.037	-0.002	0.011	0.021	0.000000	0.000000	926.21	-837.89
1	FID	ACIS-I-5	7.22	1275	-0.224	0.039	0.009	0.018	0.000000	0.000000	-1821.53	1059.04
2	FID	ACIS-I-6	7.24	1275	0.095	0.033	0.009	0.015	0.000000	0.000000	390.53	1704.86
3	GUIDE	336199880	8.35	2546	-0.140	0.090	0.073	0.116	227.783989	33.320747	-755.46	765.23
4	GUIDE	336204464	6.72	2548	-0.040	0.012	0.062	0.094	227.662063	33.078883	-455.91	1661.66
5	GUIDE	336204600	6.96	2549	-0.001	-0.045	0.067	0.101	227.238782	33.265363	866.07	1086.28
6	GUIDE	336207928	9.06	2548	0.143	-0.081	0.083	0.132	227.107778	33.476608	1313.65	355.90
7	GUIDE	336207352	7.58	2548	0.040	0.020	0.052	0.087	226.776230	33.965033	2424.80	-1330.34

## 2.4 Star Slots

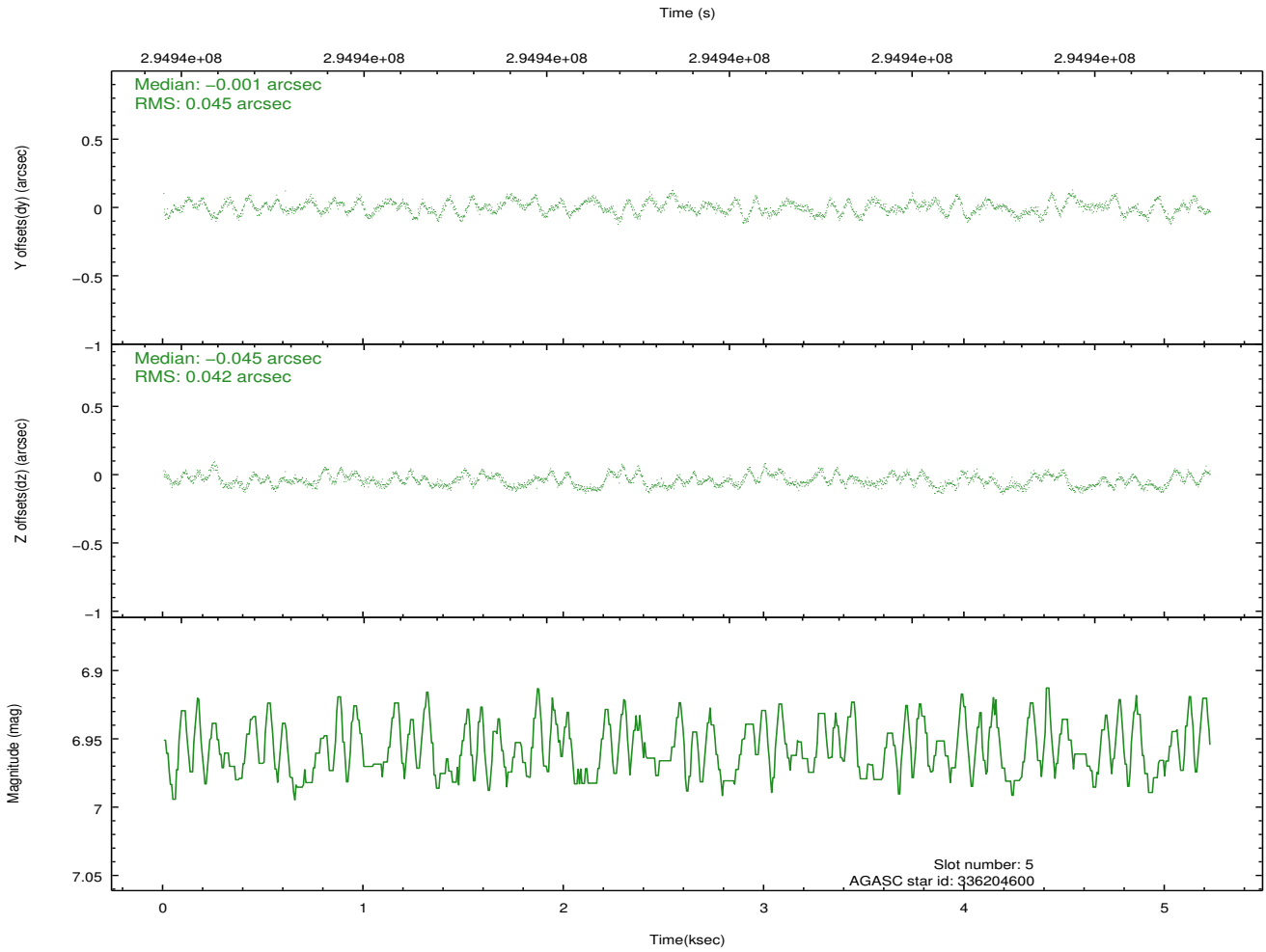
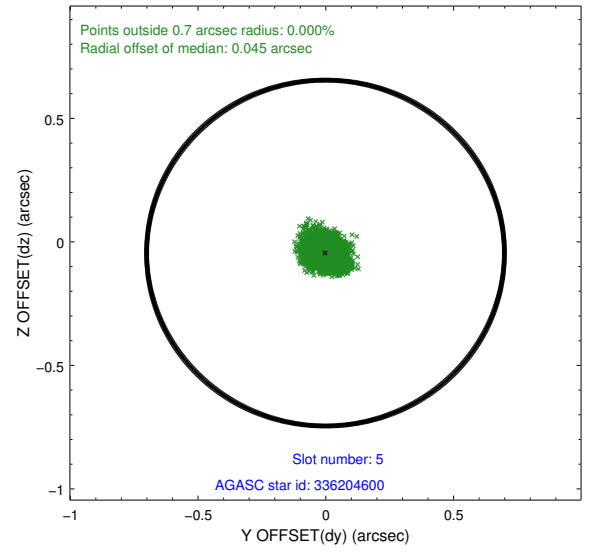
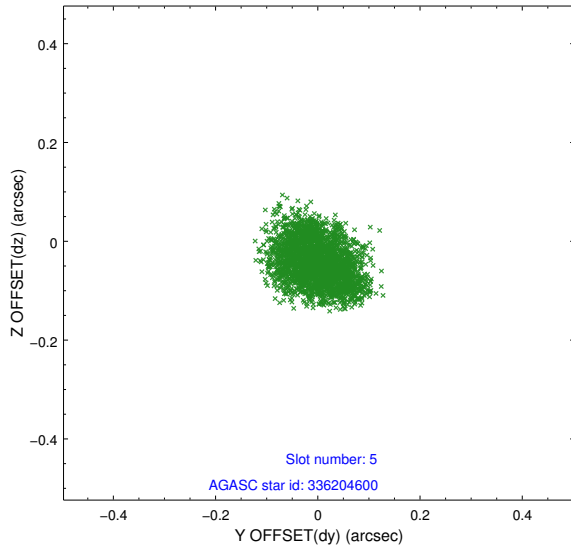
### 2.4.1 Slot 3



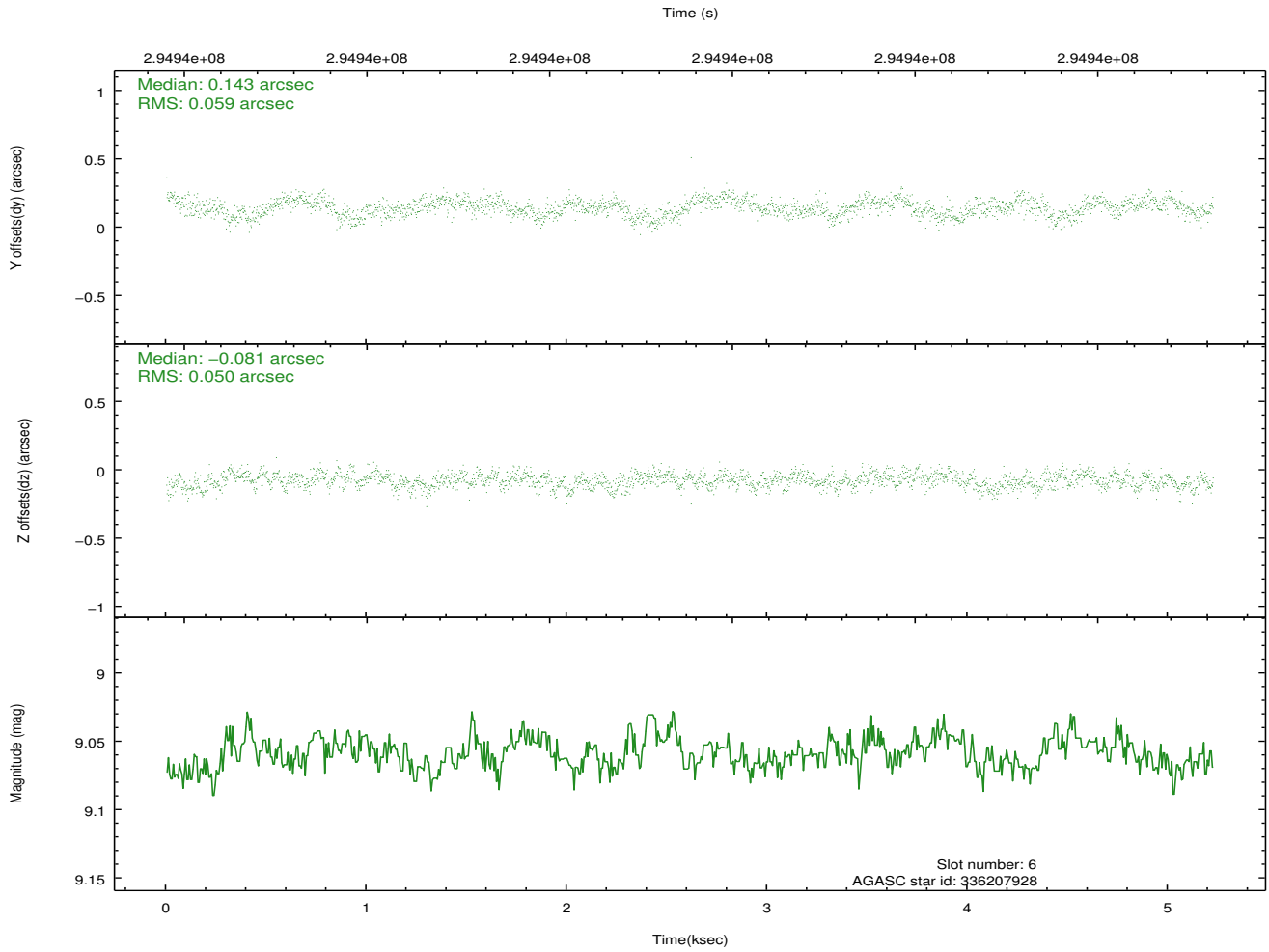
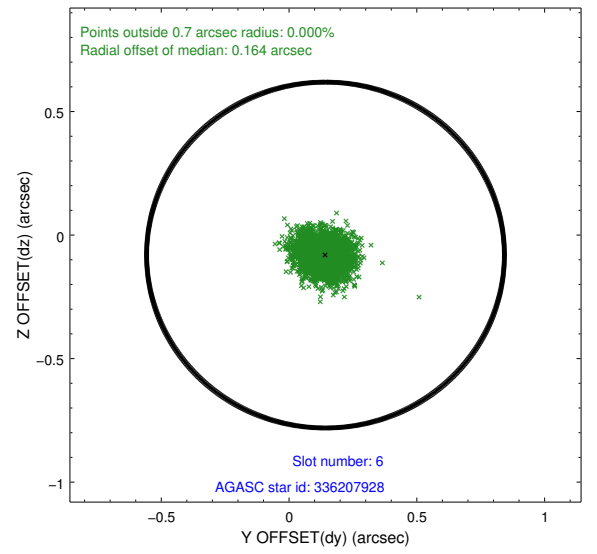
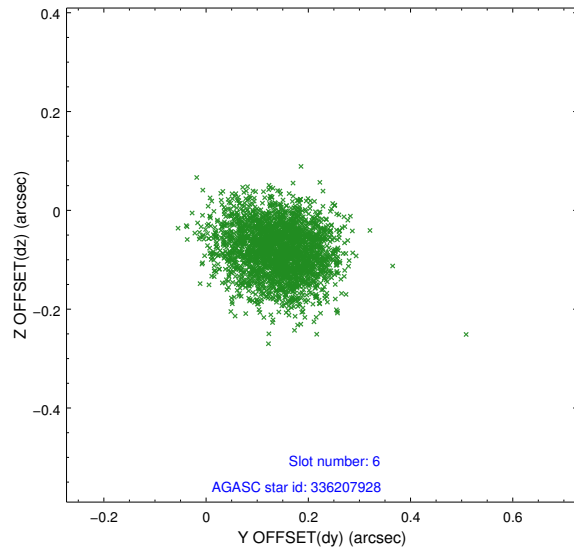
## 2.4.2 Slot 4



### 2.4.3 Slot 5

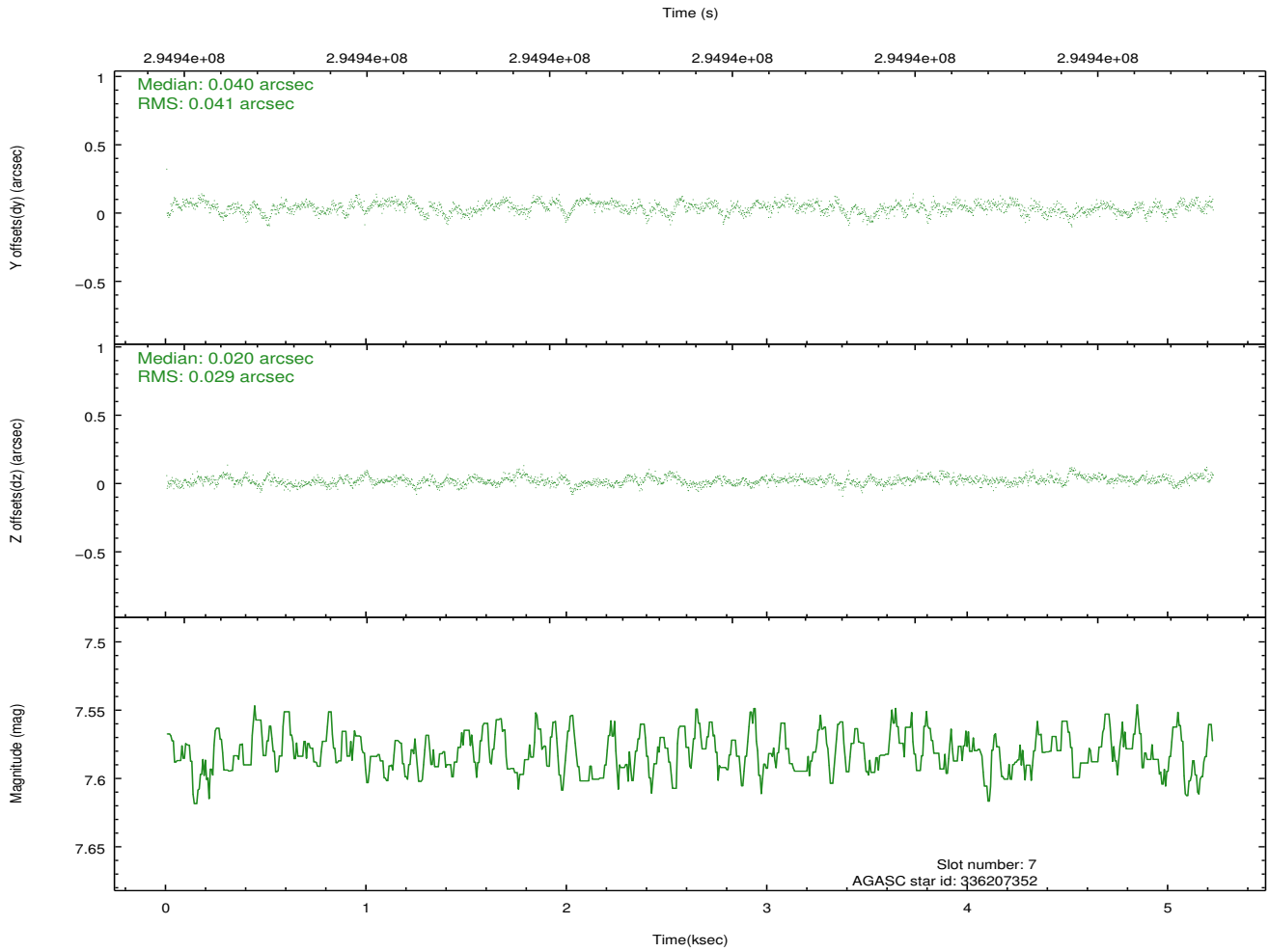
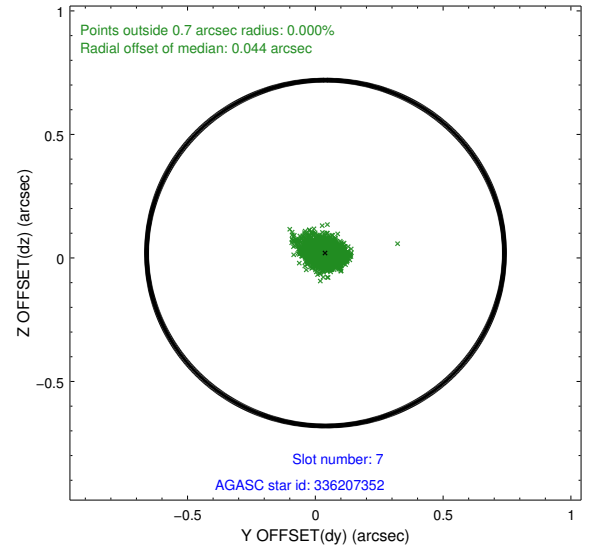
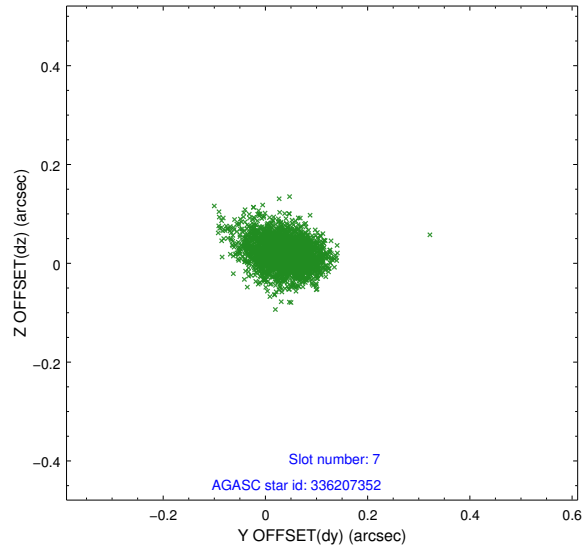


## 2.4.4 Slot 6



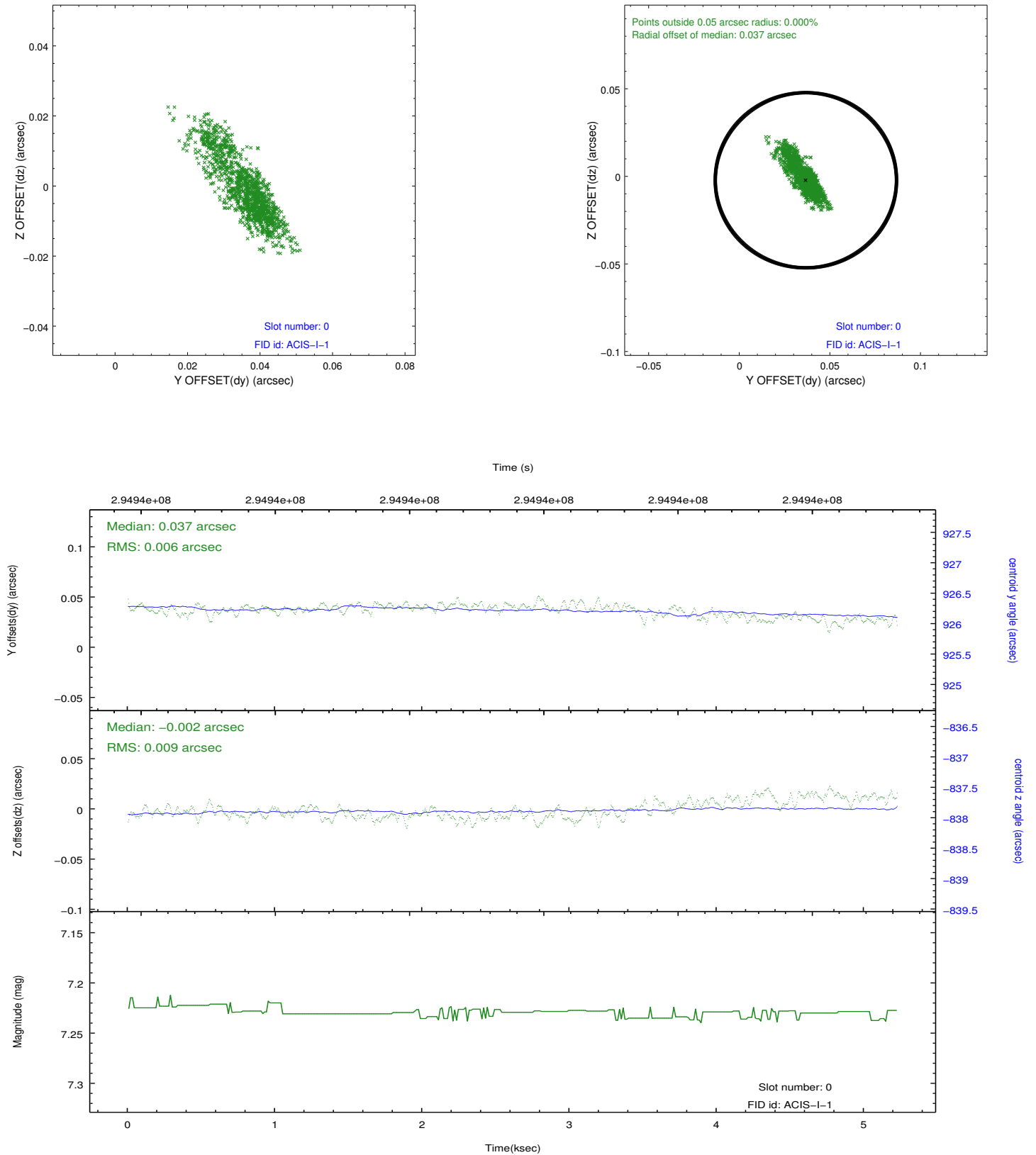


## 2.4.5 Slot 7

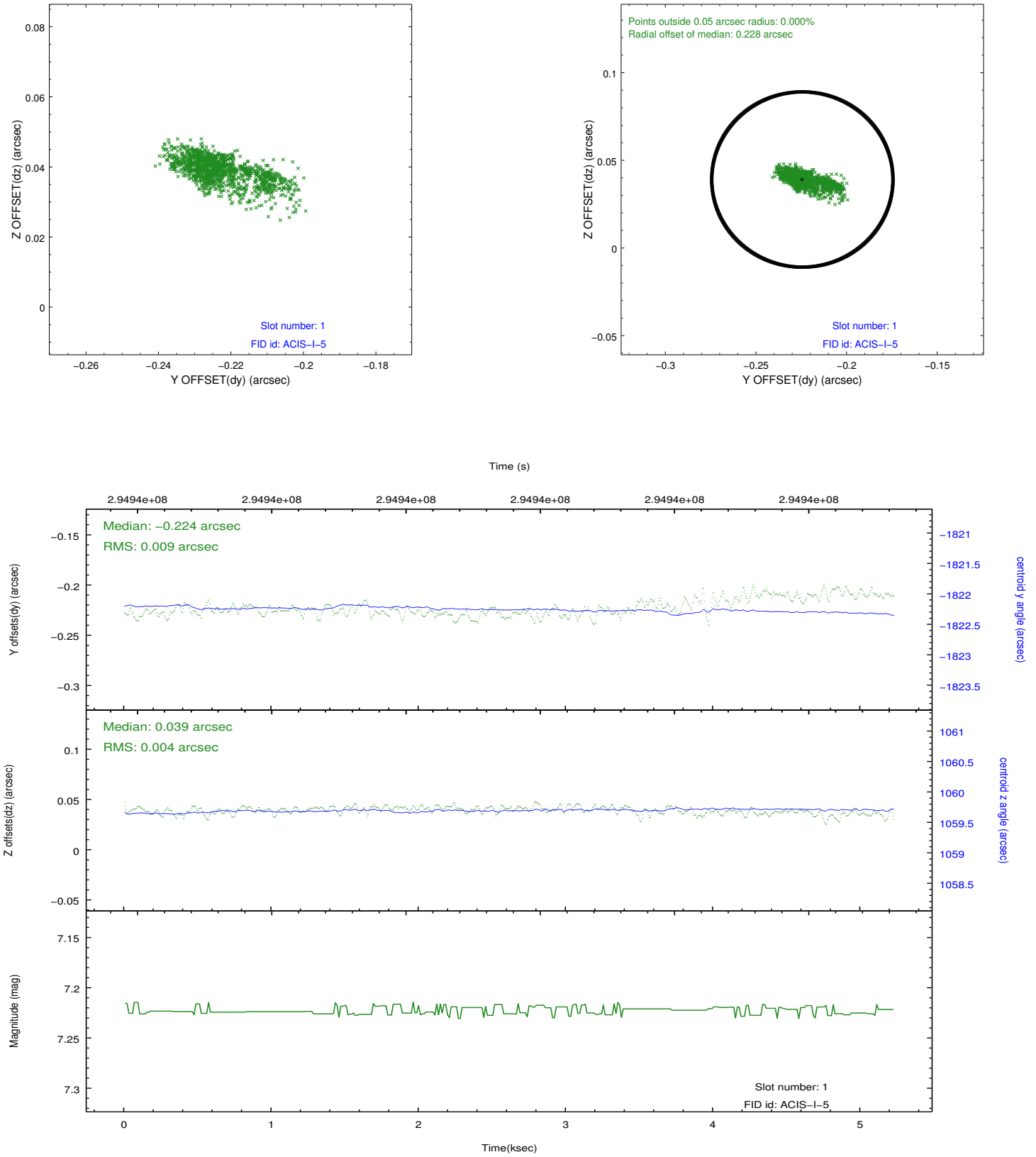


## 2.5 FID Slots

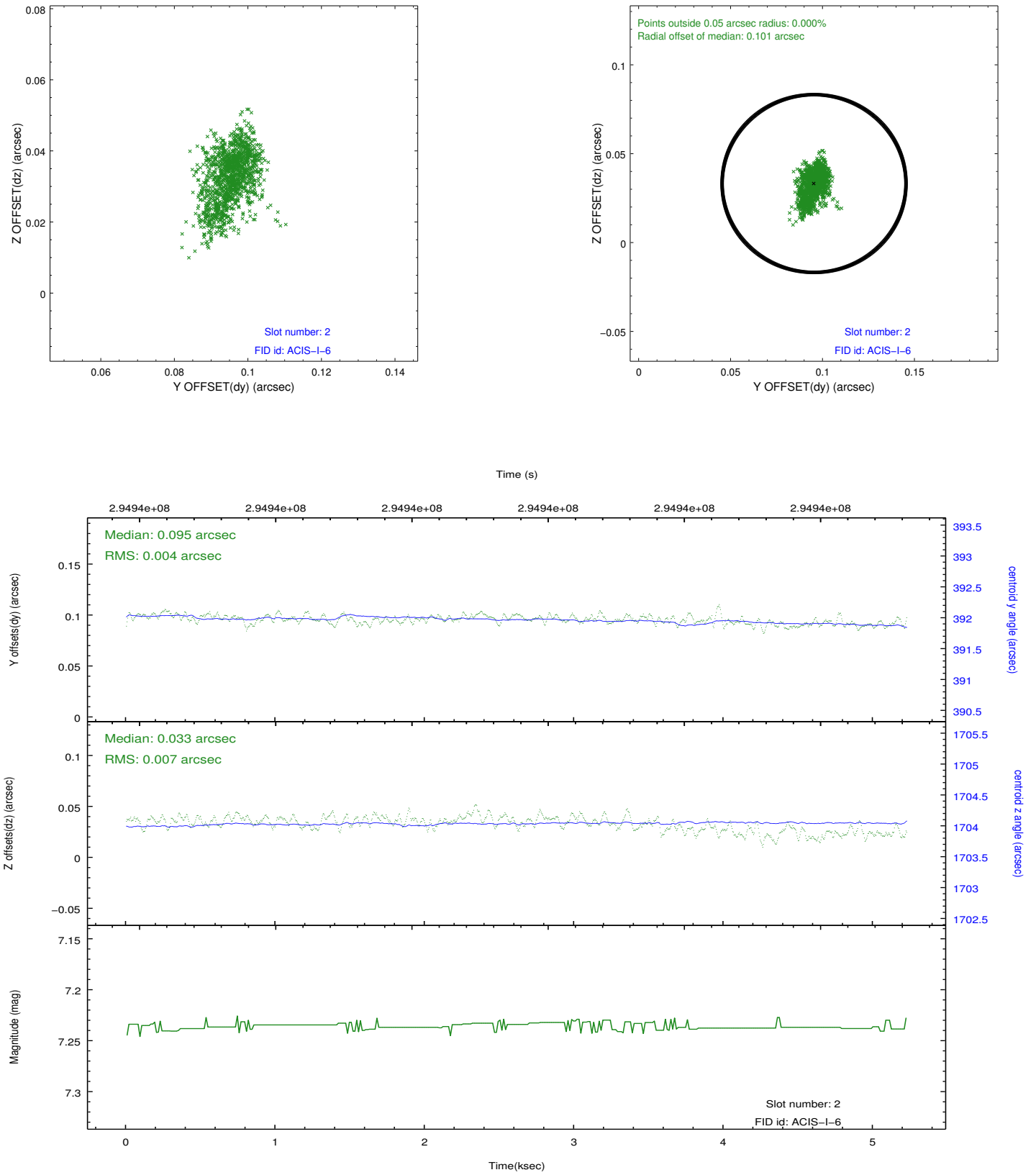
### 2.5.1 Slot 0



## 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)	2012.04.26
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.82670003

## A.2 Comments

A spatial region of the original bias map for CCD = 0 suffered from anomalously high data values. Pixels in the event data that were bias-corrected by one of the original affected bias pixels may have an apparent energy shift. While the change in energy is expected to be small ( $\sim 20$  eV), it depends on many parameters that have not yet been fully explored for this bias anomaly. The bias map for CCD = 0 has been reconstructed for this processing to remove this anomaly using scaled data from a comparable bias map from another observation. The pixels affected by the anomaly are bounded by sky coords:  
(227.45485,33.63683), (227.45459,33.63384), (227.51371,33.63037), (227.51757,33.63315)