

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 12742 - L2 Version 3  
Chandra X-Ray Center

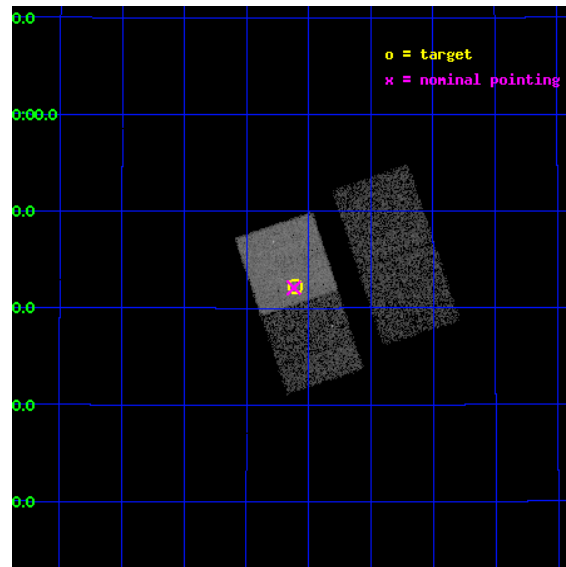
L2 Processing Date : Feb 23 2012

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# 1 Front

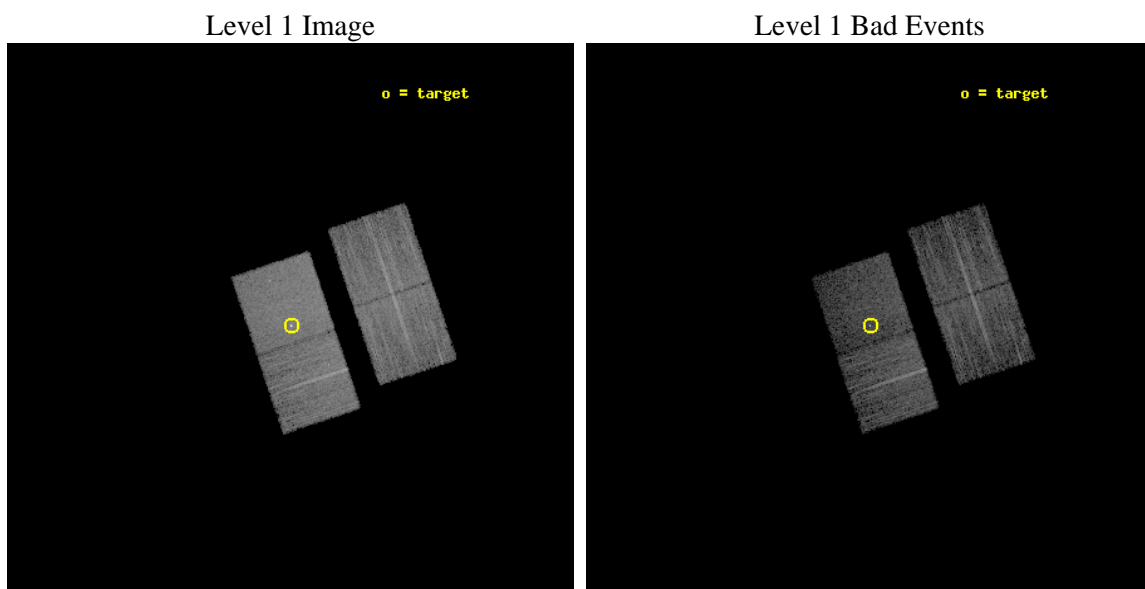
seq_num	702378	Sequence number
obs_id	12742	Observation id
title	Completing the Chandra 3C Snapshot Survey: Extragalactic Radio Sources with $z < 0.3$	Proposal title
observer	Dr. Daniel Harris	Principal investigator
object	3C 410	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	305.0275	Observer's specified target RA [deg]
dec_targ	29.703944	Observer's specified target Dec [deg]
ra_nom	305.02968343282	Nominal RA [deg]
dec_nom	29.701650988495	Nominal Dec [deg]
roll_nom	251.47043137033	Nominal Roll [deg]
revision	3	Processing version of data
ontime	8056.4894649386	Sum of GTIs [s]
livetime	7951.225498978	Livetime [s]
ontime2	8056.3663449287	Sum of GTIs [s]
ontime3	8056.407384932	Sum of GTIs [s]
ontime6	8056.4484249353	Sum of GTIs [s]
ontime7	8056.4894649386	Sum of GTIs [s]
l2events	47405	Number of level 2 events



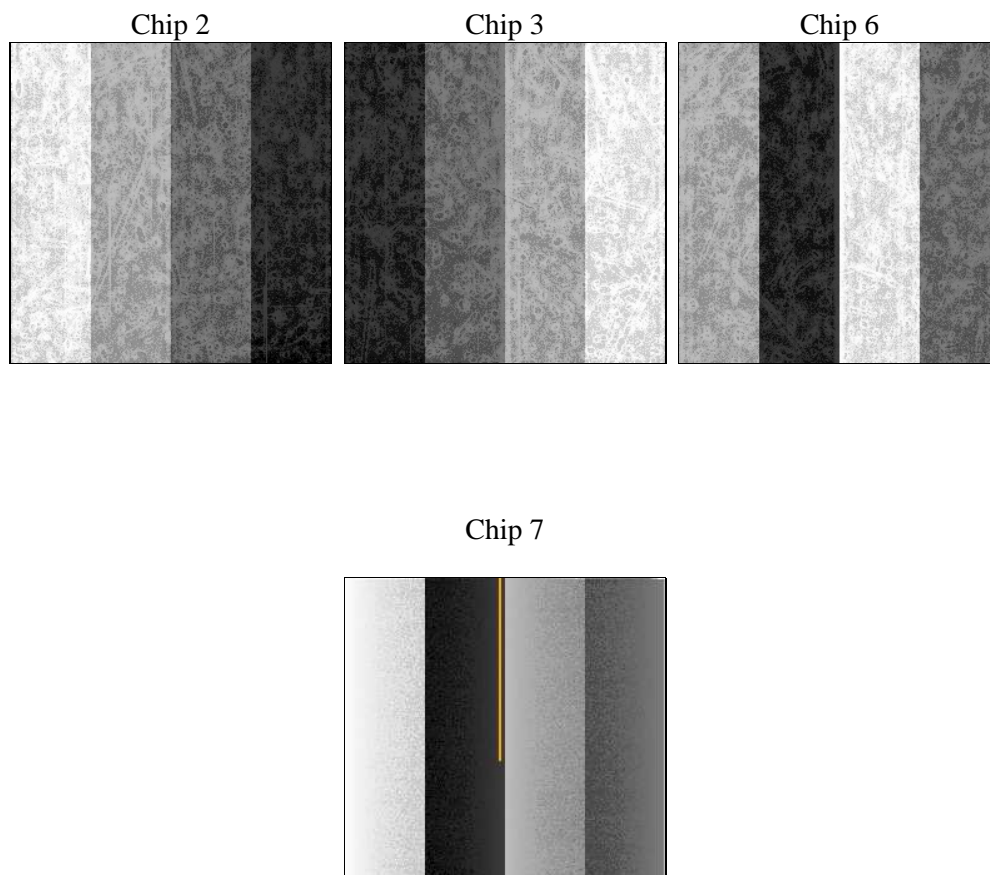
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	8000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	8056.4894649386	Sum of GTIs [s]
caldsver	4.4.8	&#160	ontime2	8056.3663449287	Sum of GTIs [s]
date	2012-02-23T15:57:02	Date and time of file creation	ontime3	8056.407384932	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	8056.4484249353	Sum of GTIs [s]
			ontime7	8056.4894649386	Sum of GTIs [s]
			l1events	229069	Number of level 1 events

### 2.1.4 Events

	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	52676	50716	56652	69025
rejected events	46593	44978	50083	36804
rejected %	88%	88%	88%	53%

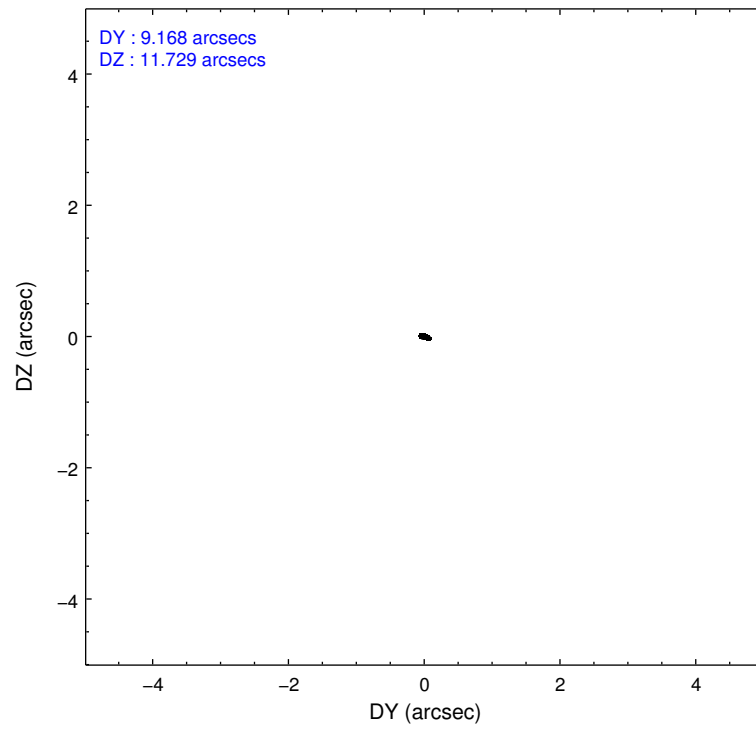
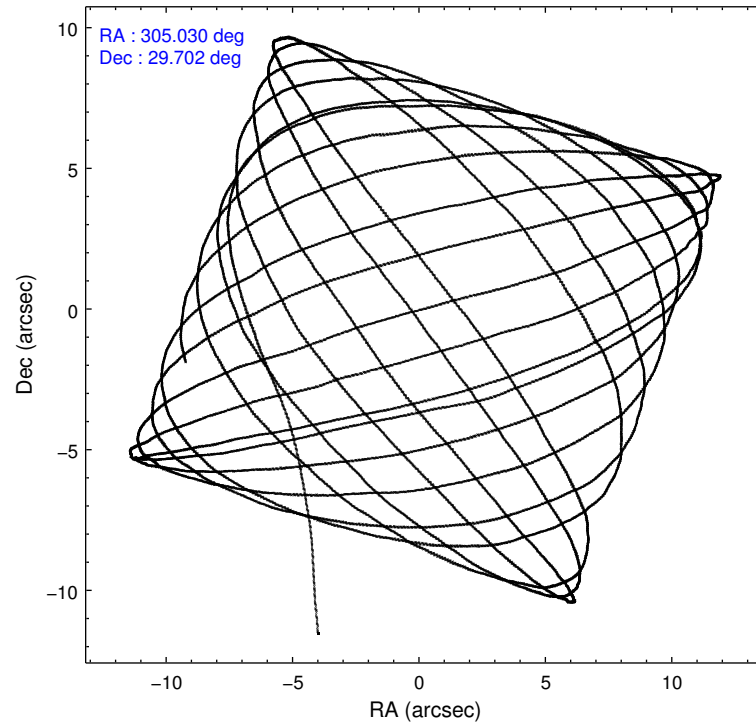
	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	2256	2151	2493	3114
	4%	4%	4%	4%
grade 1 events	19	32	35	119
	0%	0%	0%	0%
grade 2 events	1447	1163	1370	6664
	2%	2%	2%	9%
grade 3 events	620	592	623	2825
	1%	1%	1%	4%
grade 4 events	647	623	631	2897
	1%	1%	1%	4%
grade 5 events	2115	2378	2393	6888
	4%	4%	4%	9%
grade 6 events	1114	1211	1455	16736
	2%	2%	2%	24%
grade 7 events	44458	42566	47652	29782
	84%	83%	84%	43%

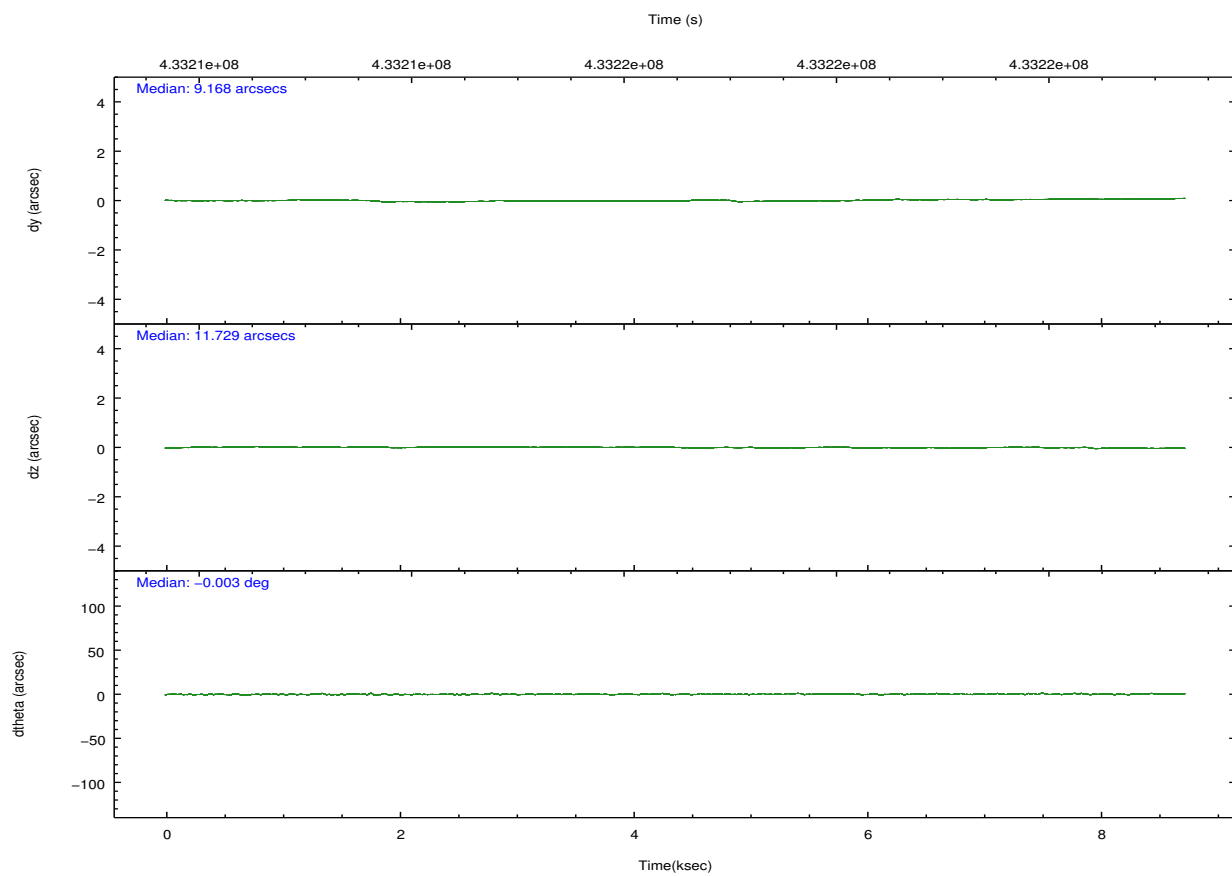
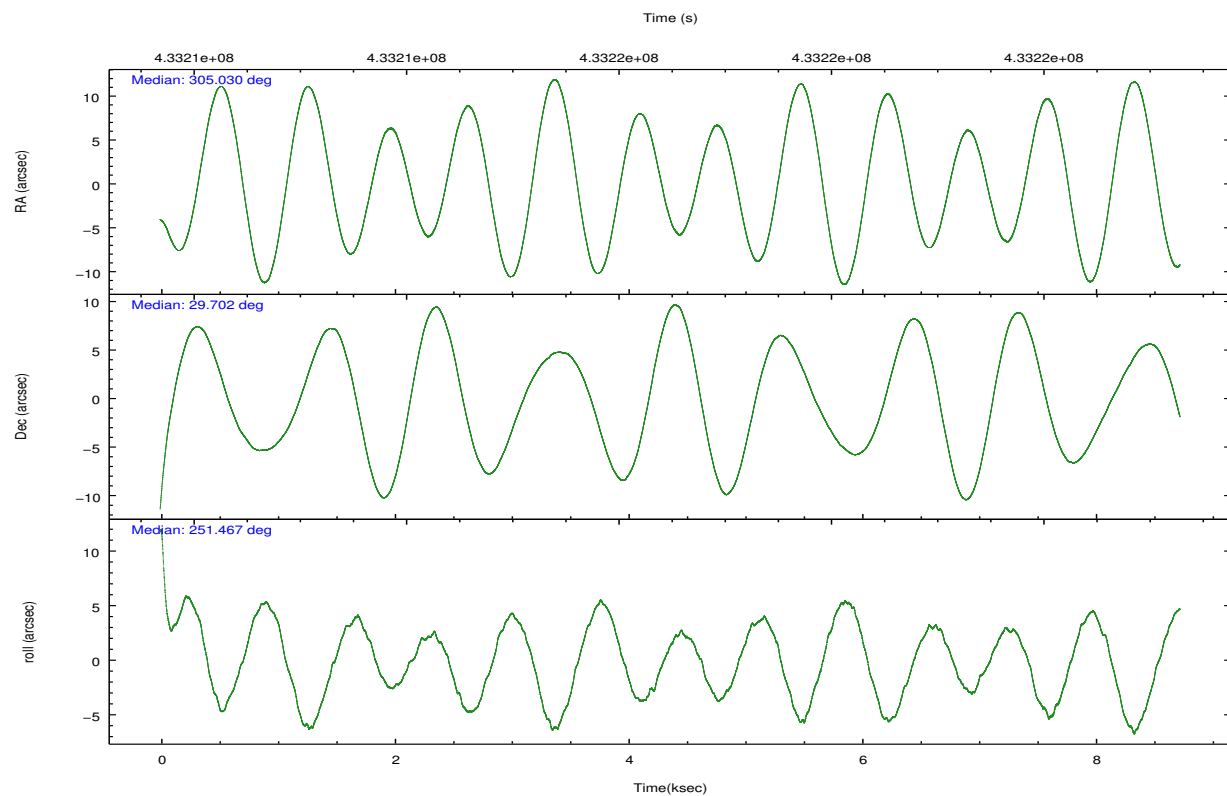


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-2367	ACIS-2367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	305.023012	305.029683432825	CCD I2 on	O1	Y
[deg] Pointing Dec	29.728307	29.70165098849487	CCD I3 on	O2	Y
[deg] Pointing Roll	251.317094	251.4704313703319	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	N	N
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	N	N
[s] Observation start time (MET)	433212841.184000	433211506.15834	CCD S5 on	N	N
Observation start date	2011-09-24T00:52:55	2011-09-24T00:31:46	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	433220841.184000	433222373.72141	On-chip summing requested	N	N
Observation end date	2011-09-24T03:06:15	2011-09-24T03:32:53	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



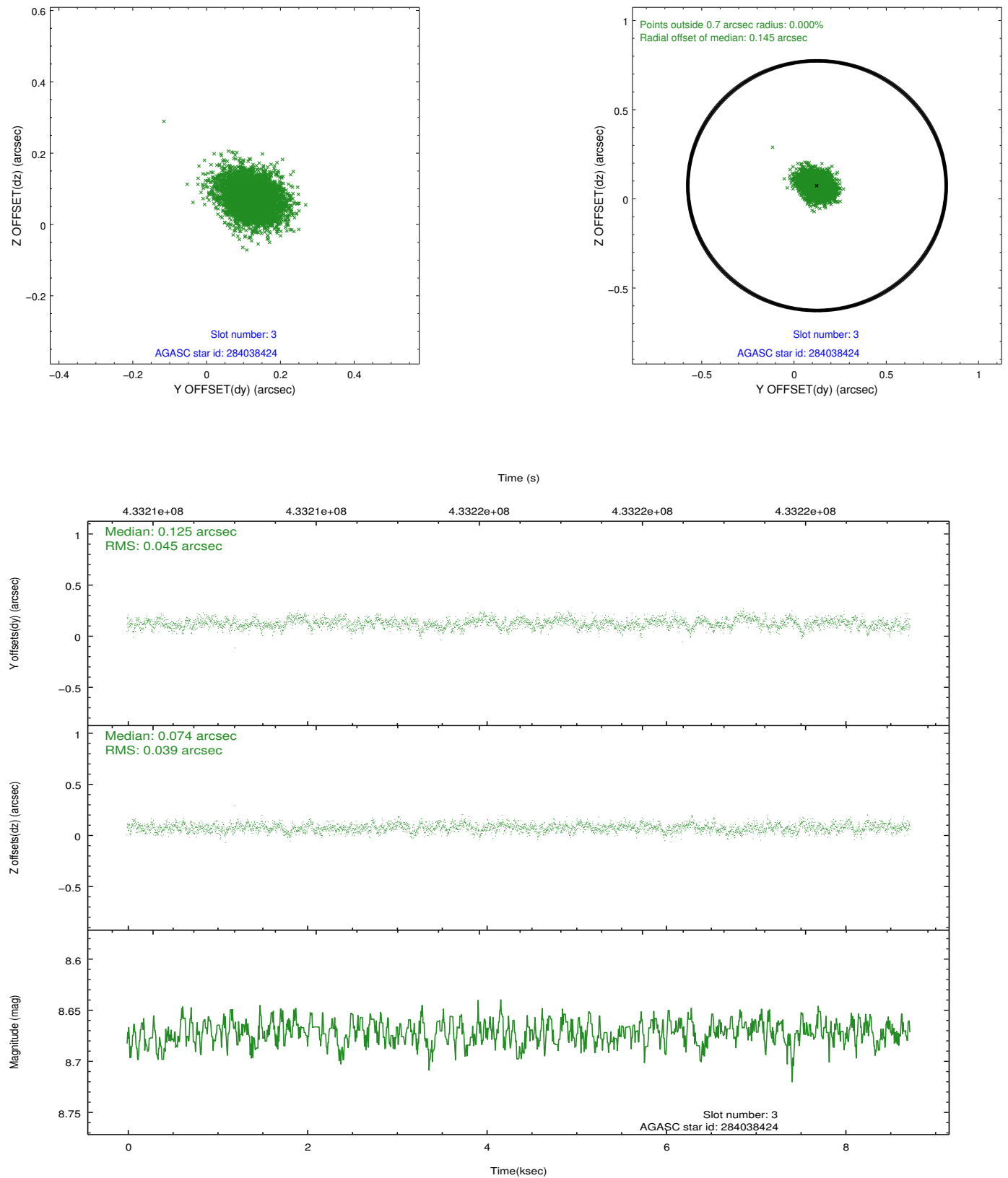


### Slot Statistics

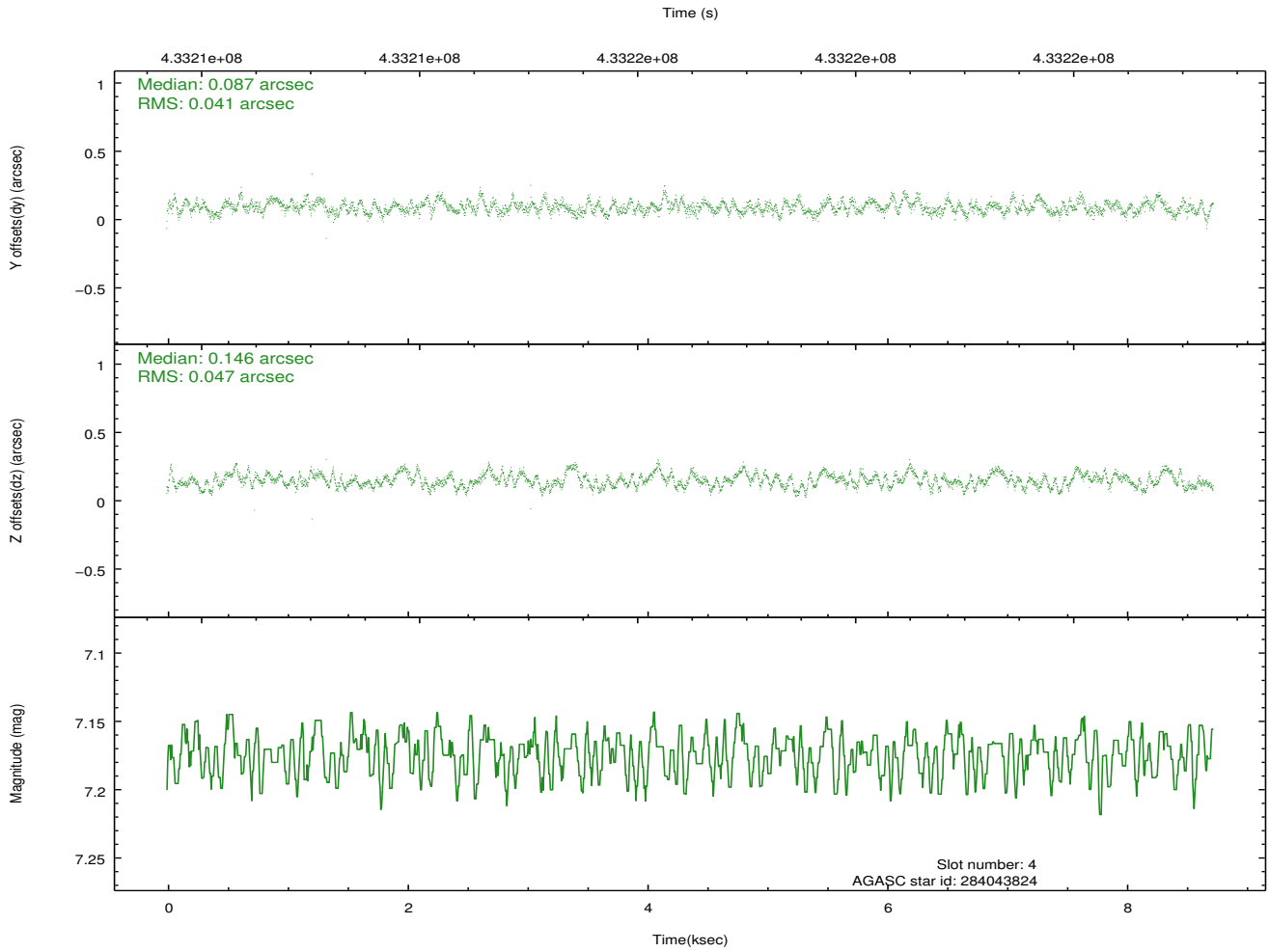
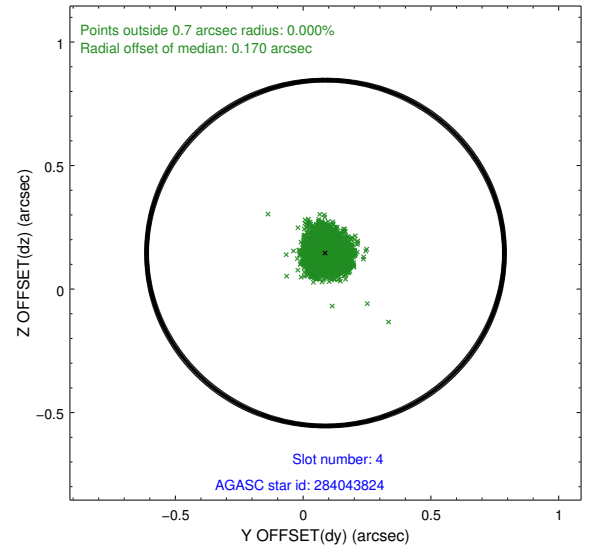
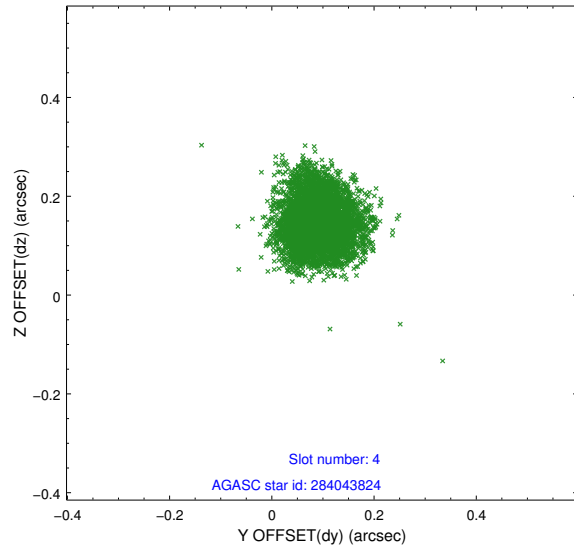
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.96	2129	-0.114	-0.086	0.006	0.011	0.000000	0.000000	-762.14	-1733.08
1	FID	ACIS-S-4	7.05	2129	0.141	0.045	0.006	0.010	0.000000	0.000000	2151.15	174.80
2	FID	ACIS-S-6	7.19	2129	-0.054	0.048	0.007	0.011	0.000000	0.000000	400.77	812.96
3	GUIDE	284038424	8.67	4257	0.125	0.074	0.063	0.104	305.501331	28.972970	2090.78	2297.76
4	GUIDE	284043824	7.17	4259	0.087	0.146	0.067	0.104	304.793704	29.499056	1012.27	-415.47
5	GUIDE	350239040	8.50	4258	-0.055	-0.105	0.066	0.105	305.332905	30.204701	-1934.19	363.54
6	GUIDE	350239792	8.92	4255	-0.133	0.061	0.110	0.180	304.605117	30.367476	-1766.35	-1967.21
7	GUIDE	284173040	8.08	4258	-0.025	-0.176	0.064	0.100	305.756449	29.541604	-106.13	2388.63

## 2.4 Star Slots

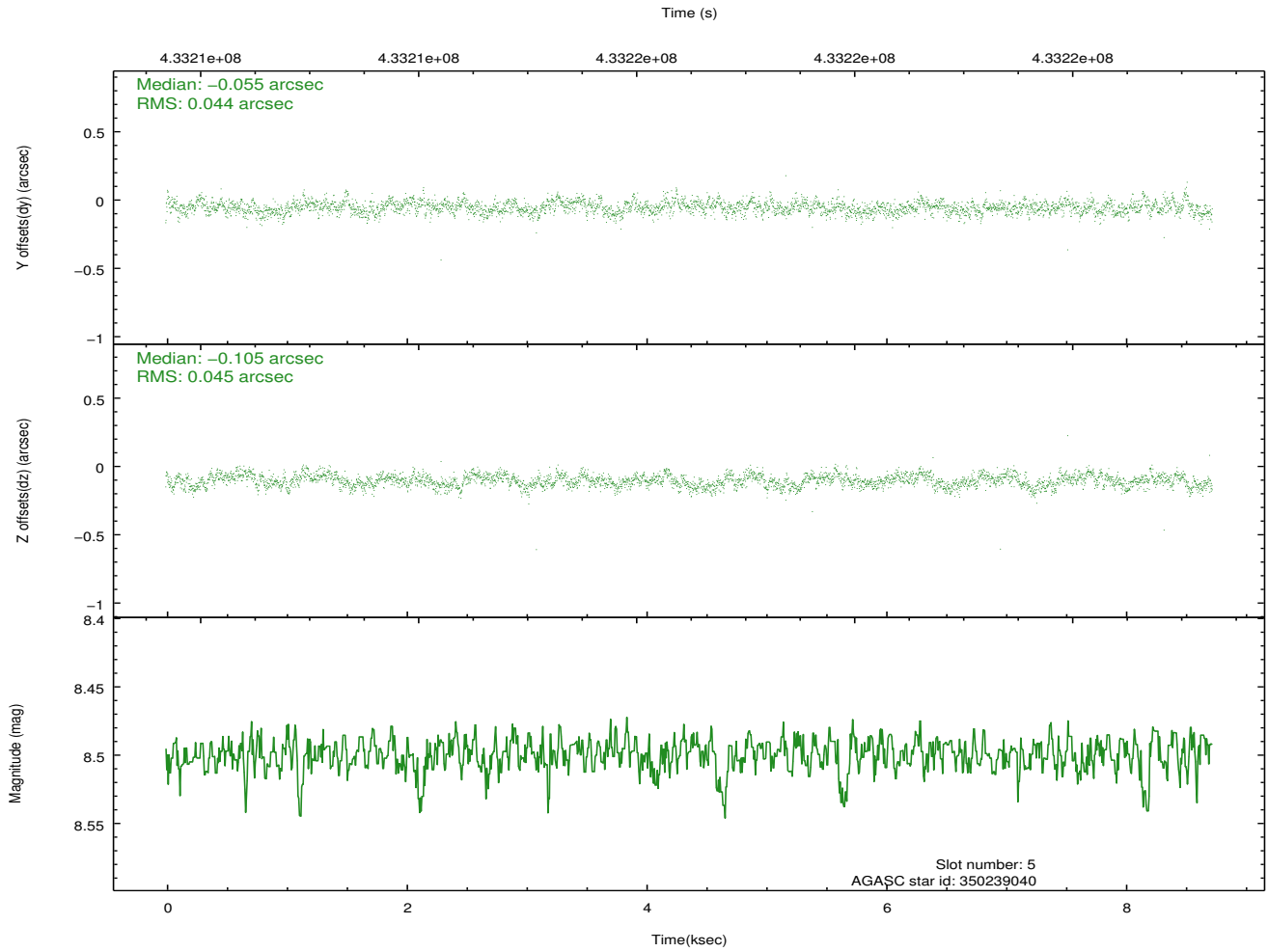
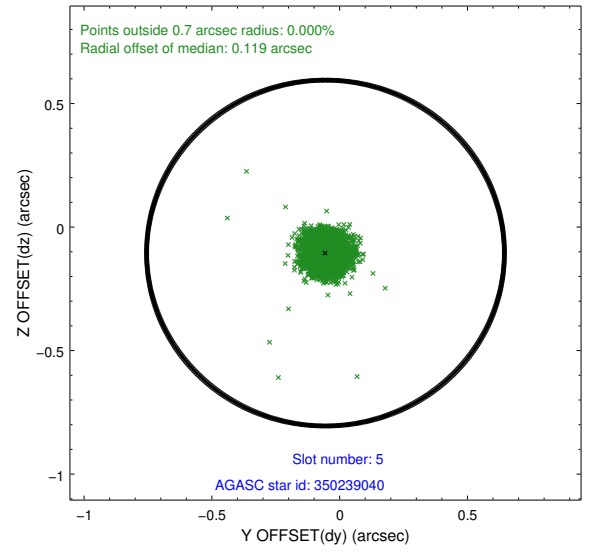
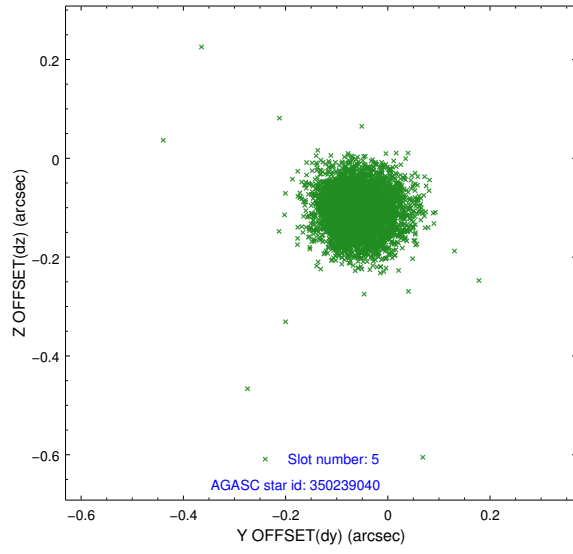
### 2.4.1 Slot 3



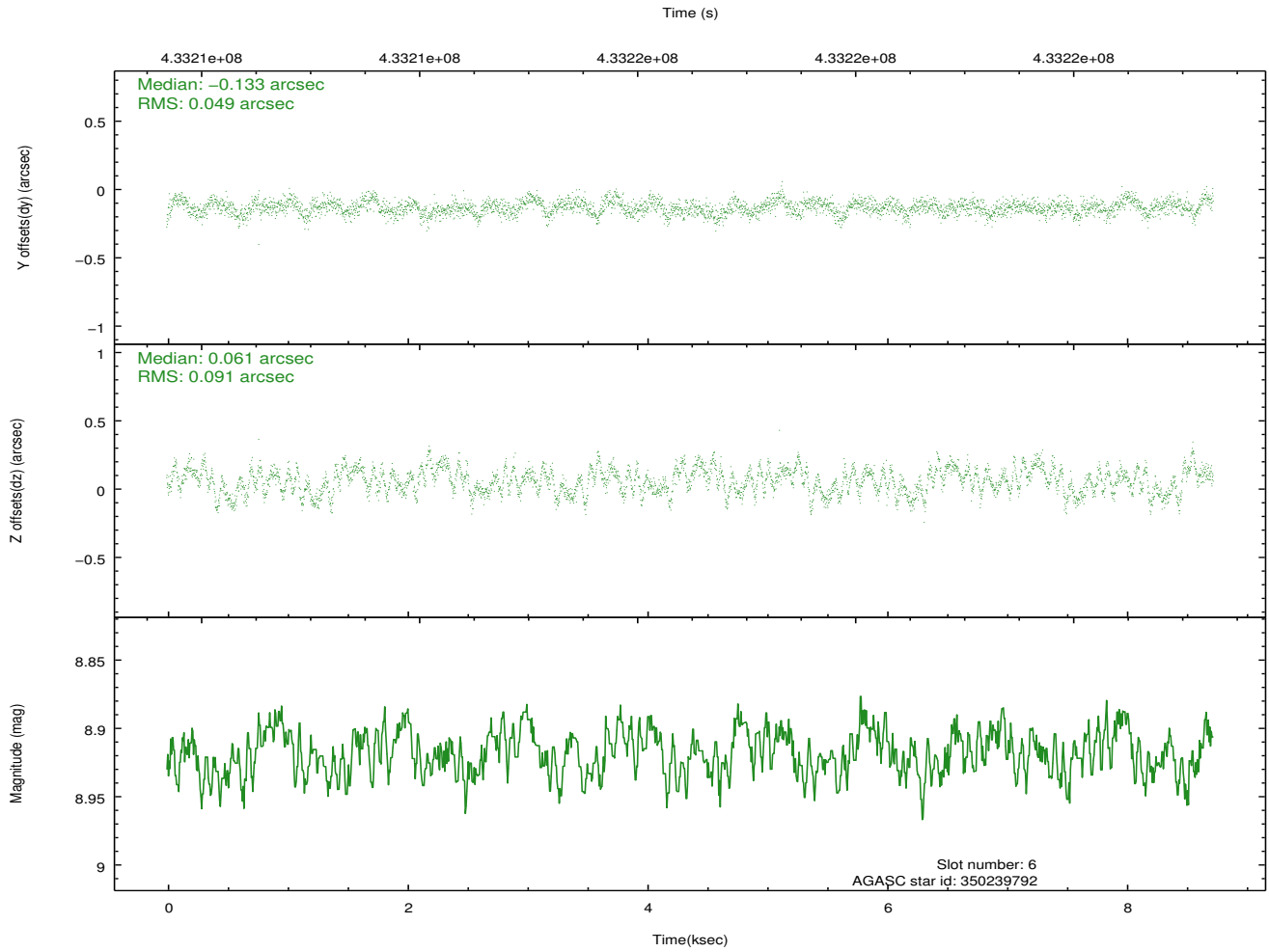
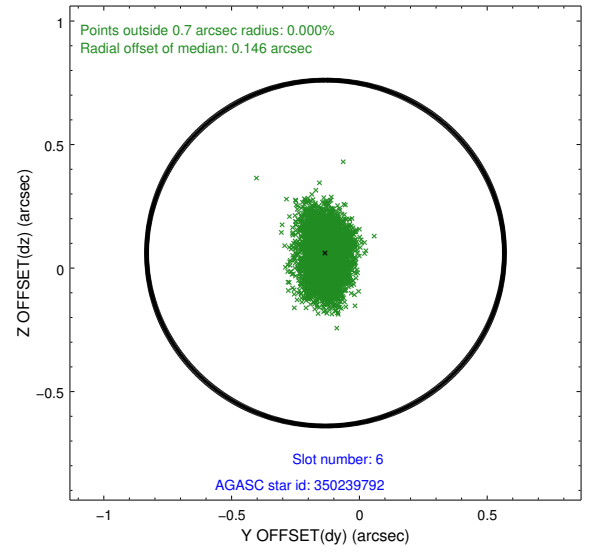
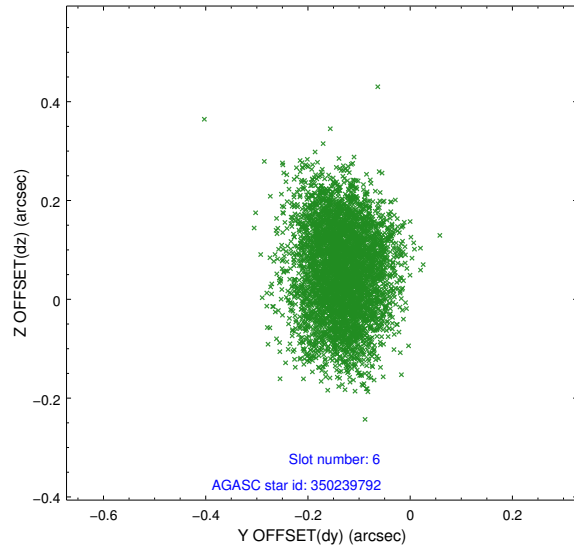
## 2.4.2 Slot 4



### 2.4.3 Slot 5

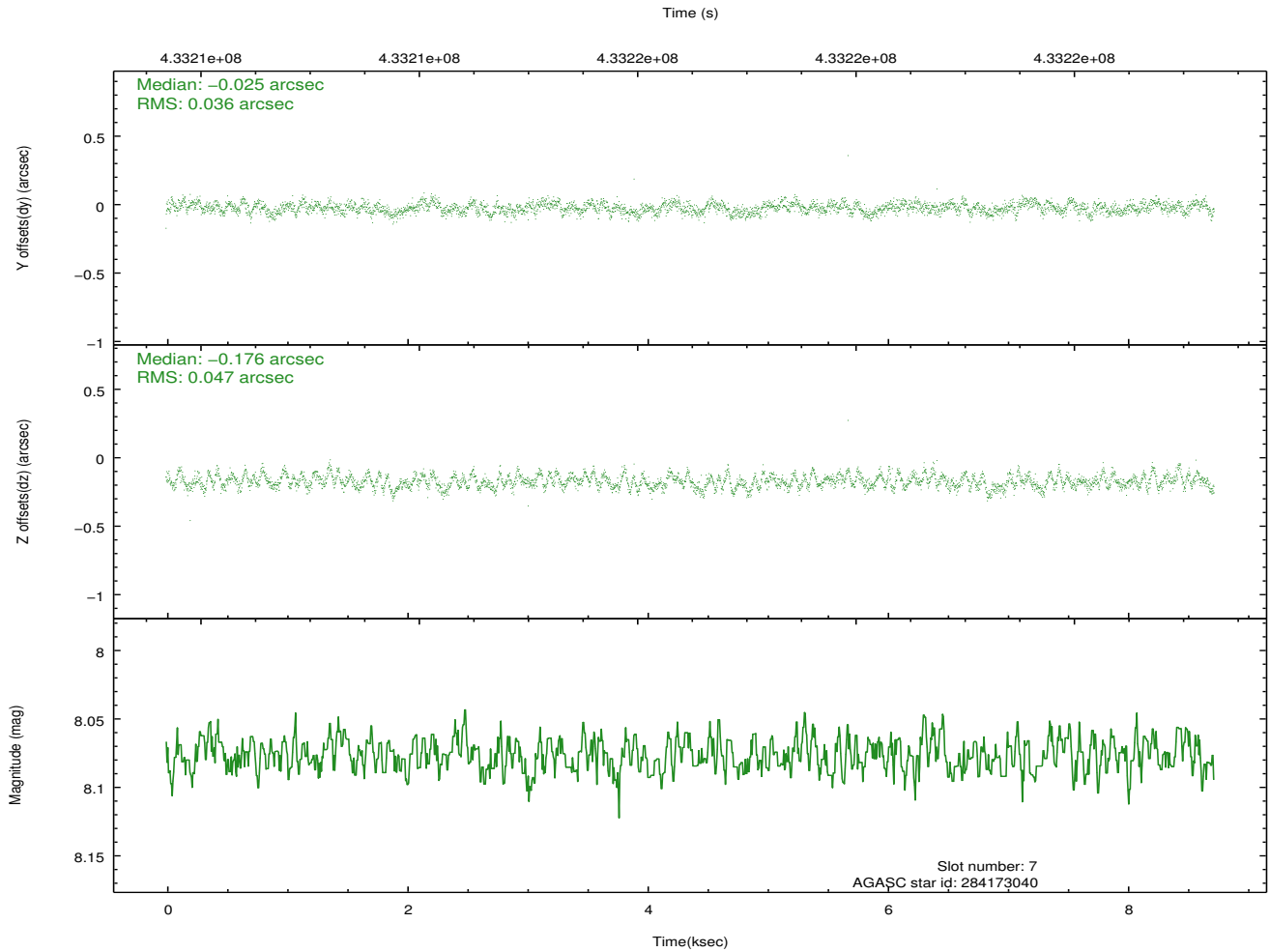
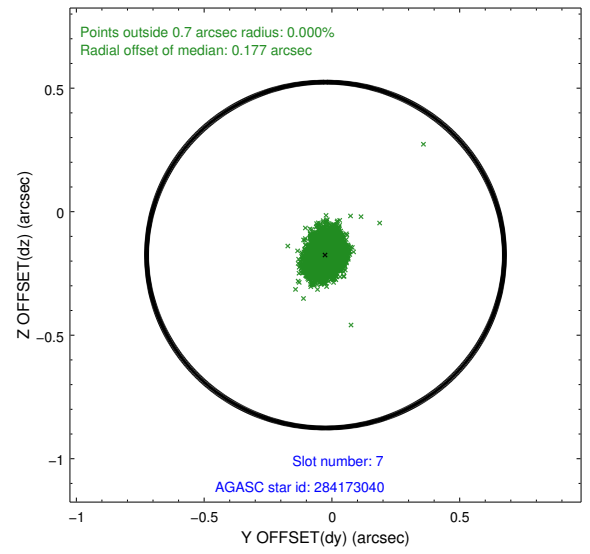
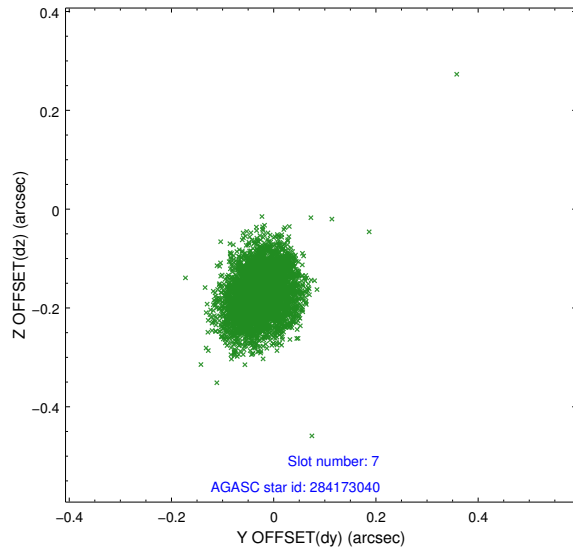


## 2.4.4 Slot 6



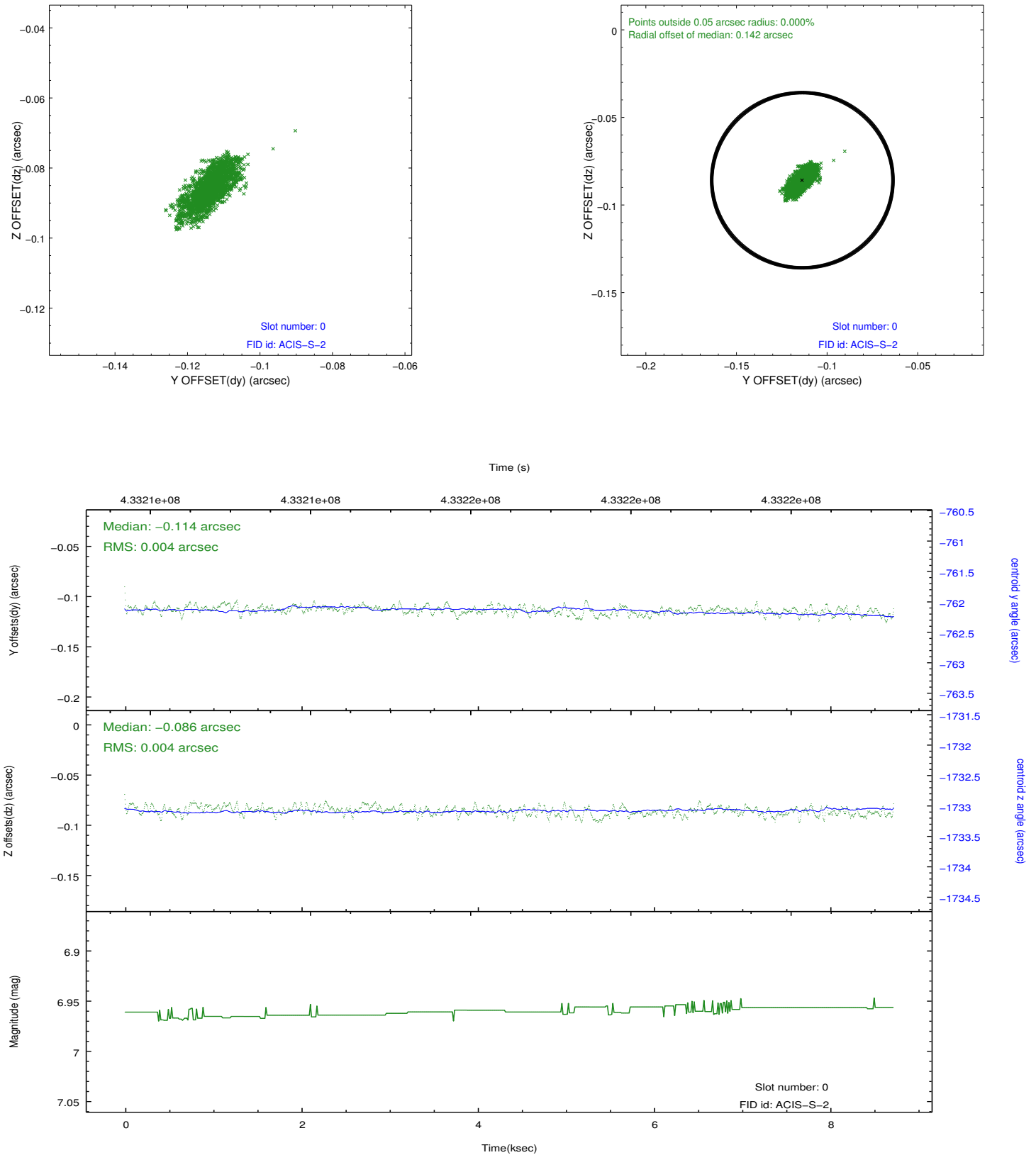


## 2.4.5 Slot 7

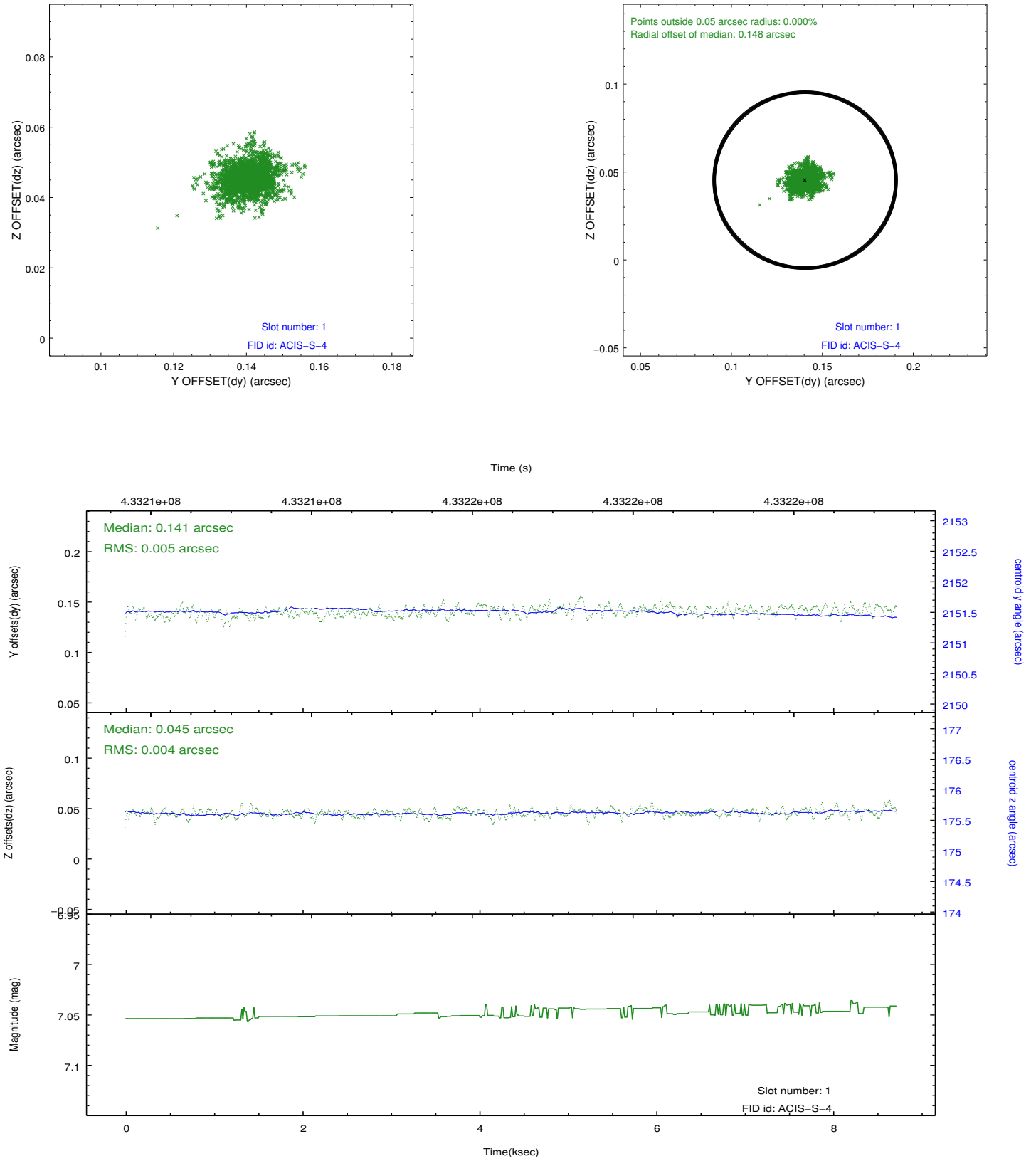


## 2.5 FID Slots

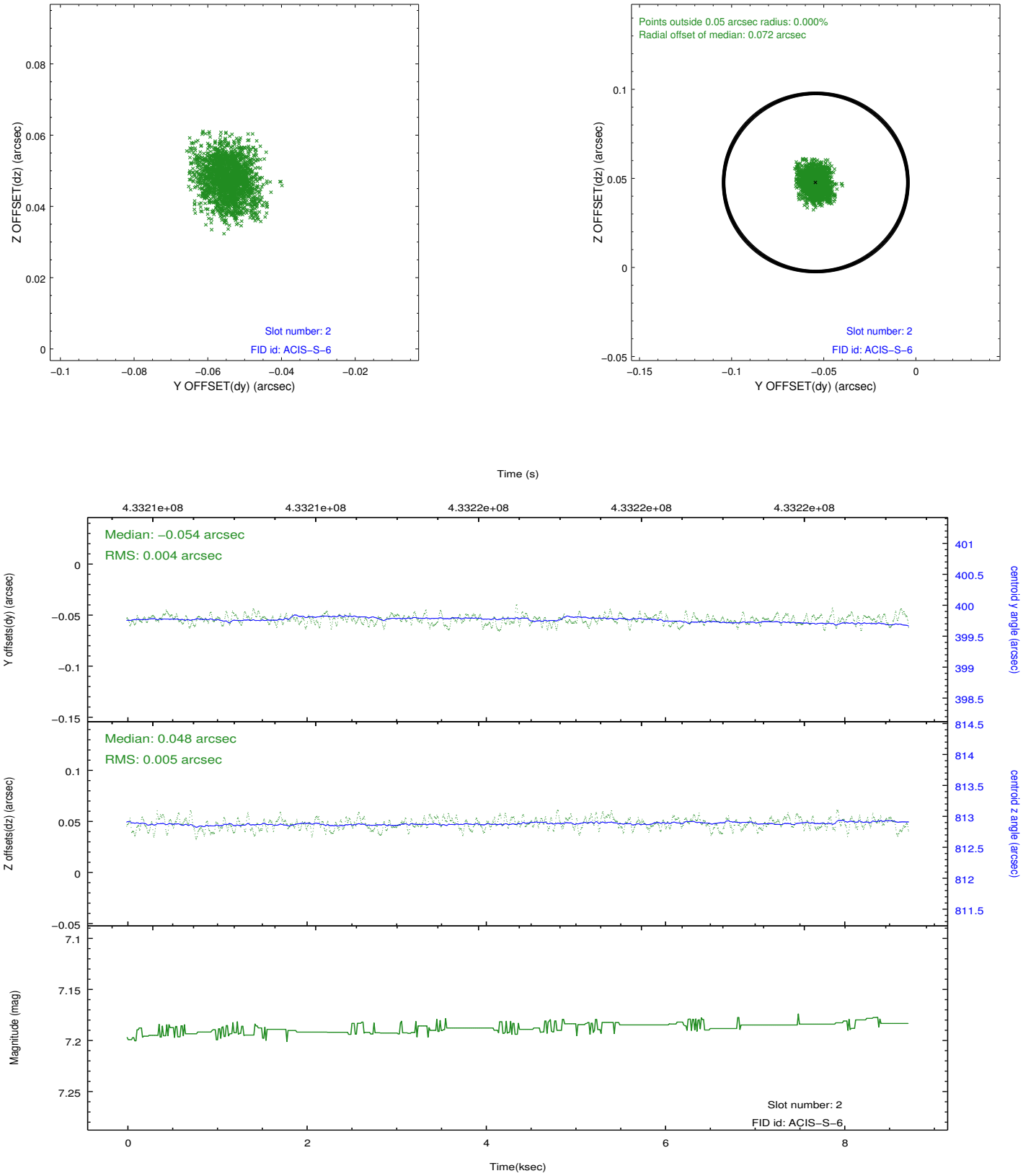
### 2.5.1 Slot 0



## 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)	2012.02.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	8.056489464283

## A.2 Comments

A spatial region of the original bias map for CCD = 2 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 = 2 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:  
(304.73882,29.67448), (304.74166,29.67367), (304.76246,29.72800), (304.76057,29.73127)