

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 5337 - L2 Version 3  
Chandra X-Ray Center

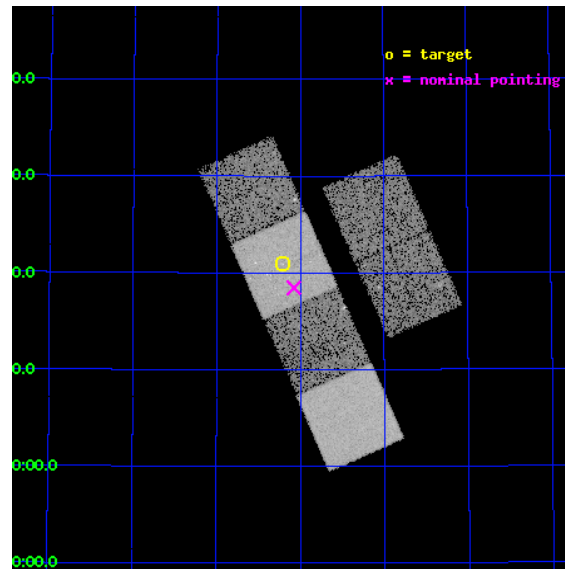
L2 Processing Date : Dec 3 2012

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# 1 Front

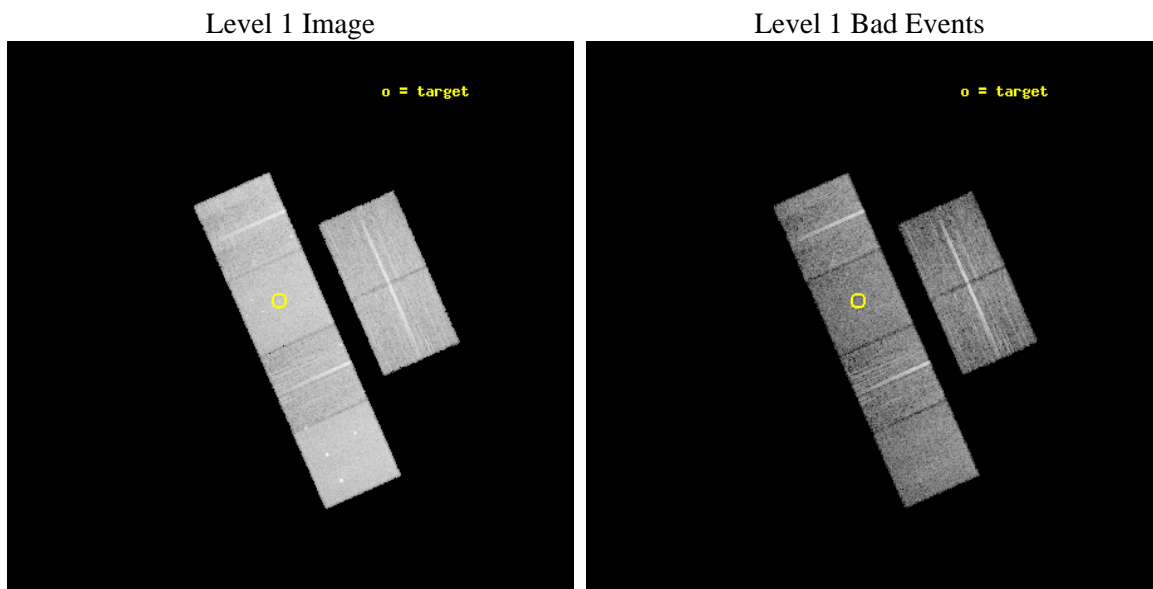
seq_num	600389	Sequence number
obs_id	5337	Observation id
title	An Ultra-Deep Study of M101	Proposal title
observer	Dr. K.D. Kuntz	Principal investigator
object	M101	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	210.80375	Observer's specified target RA [deg]
dec_targ	54.348778	Observer's specified target Dec [deg]
ra_nom	210.76926165404	Nominal RA [deg]
dec_nom	54.307709681598	Nominal Dec [deg]
roll_nom	246.18466370406	Nominal Roll [deg]
revision	3	Processing version of data
ontime	10070.399962485	Sum of GTIs [s]
livetime	9942.882494493	Livetime [s]
ontime2	10070.399962485	Sum of GTIs [s]
ontime3	10070.399962485	Sum of GTIs [s]
ontime5	10070.399962485	Sum of GTIs [s]
ontime6	10070.399962485	Sum of GTIs [s]
ontime7	10070.399962485	Sum of GTIs [s]
ontime8	10070.399962485	Sum of GTIs [s]
l2events	121270	Number of level 2 events



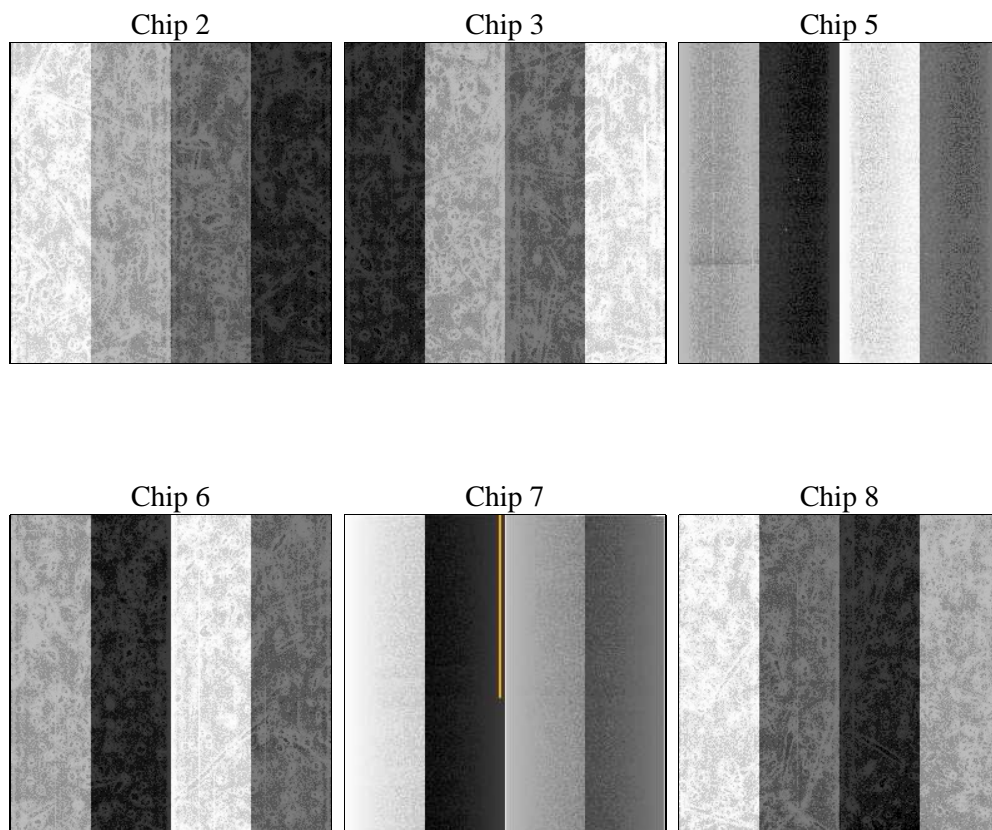
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	9964.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	10070.399962485	Sum of GTIs [s]
caldsver	4.5.2	&#160	ontime2	10070.399962485	Sum of GTIs [s]
date	2012-12-03T19:08:47	Date and time of file creation	ontime3	10070.399962485	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	10070.399962485	Sum of GTIs [s]
			ontime6	10070.399962485	Sum of GTIs [s]
			ontime7	10070.399962485	Sum of GTIs [s]
			ontime8	10070.399962485	Sum of GTIs [s]
			l1events	542412	Number of level 1 events

### 2.1.4 Events

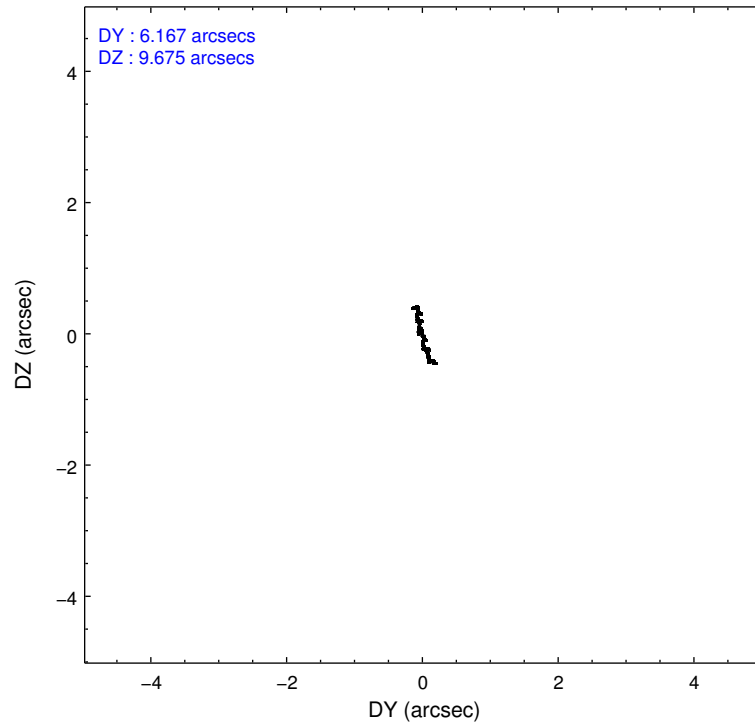
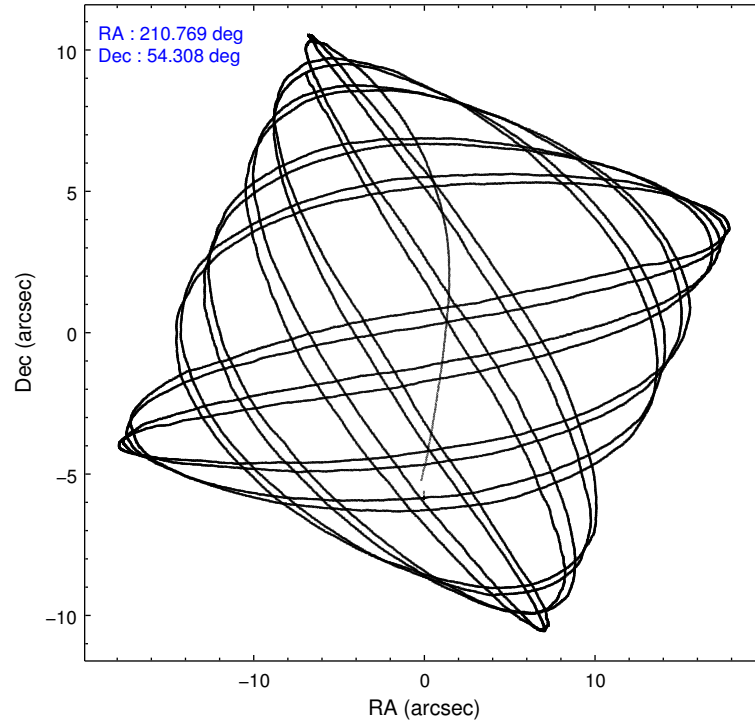
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	79159	73395	112949	76764	104377	95768	grade 0 events	4016	3743	4749	3770	4420	6343
rejected events	70281	64887	62694	67629	61287	76770		5%	5%	4%	4%	4%	6%
rejected %	88%	88%	55%	88%	58%	80%	grade 1 events	57	34	196	28	118	52
								0%	0%	0%	0%	0%	0%
							grade 2 events	1782	1656	15007	1877	8680	4328
								2%	2%	13%	2%	8%	4%
							grade 3 events	827	892	1812	887	3844	1880
								1%	1%	1%	1%	3%	1%
							grade 4 events	909	888	1792	905	3867	1801
								1%	1%	1%	1%	3%	1%
							grade 5 events	3110	3363	7740	3512	9824	4590
								3%	4%	6%	4%	9%	4%
							grade 6 events	1485	1476	27796	1839	22925	5040
								1%	2%	24%	2%	21%	5%
							grade 7 events	66973	61343	53857	63946	50699	71734
								84%	83%	47%	83%	48%	74%

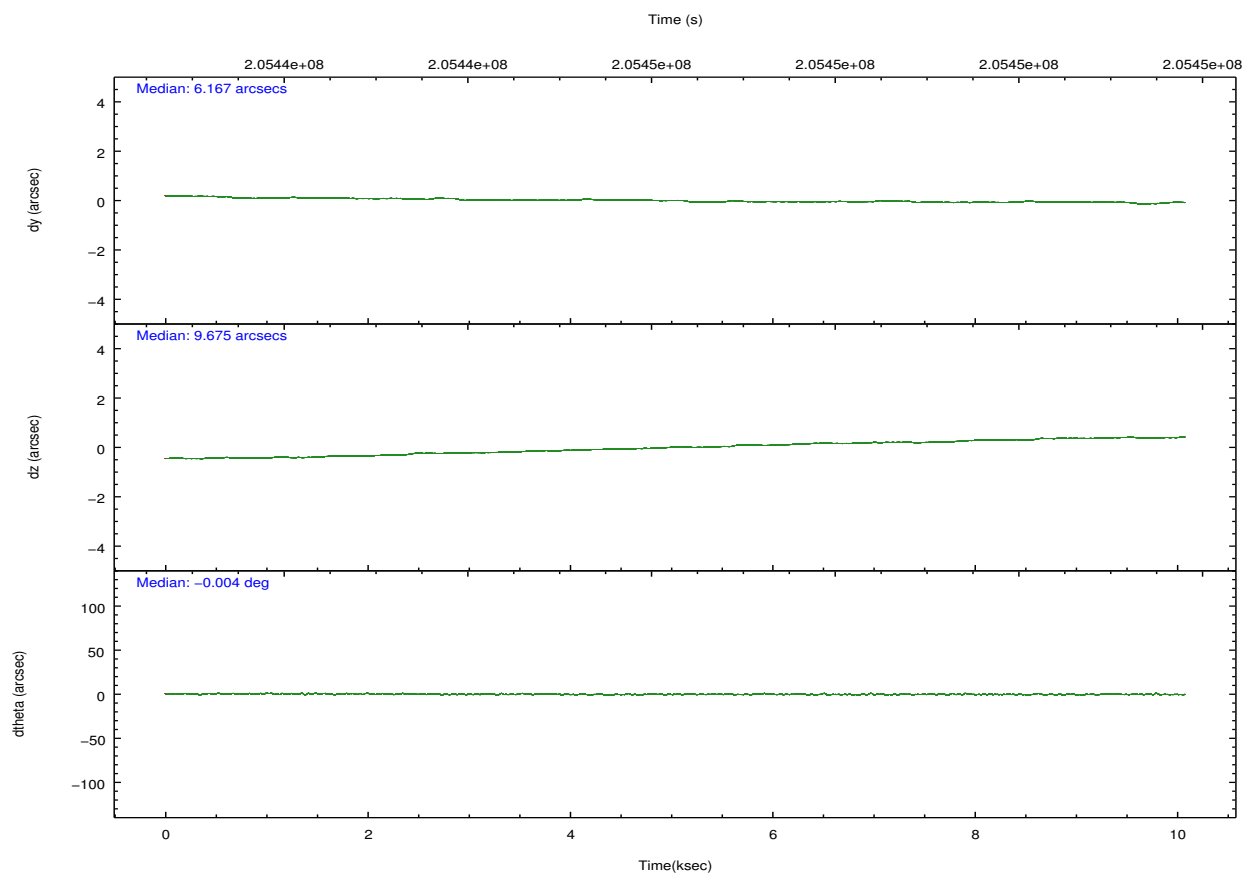
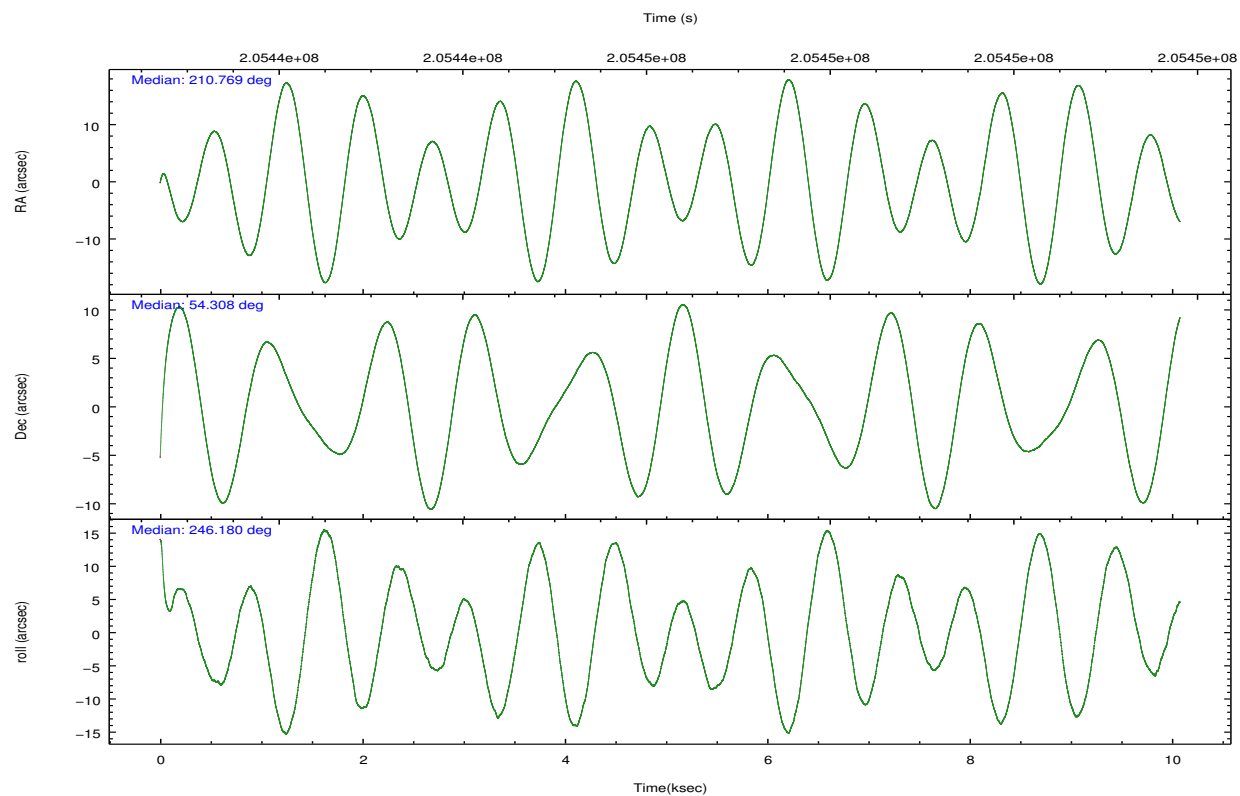


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-235678	ACIS-235678	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	210.763621	210.7692616540401	Subarray requested	NONE	NONE
[deg] Pointing Dec	54.334730	54.30770968159752	Alternating exposures requested	N	N
[deg] Pointing Roll	246.032598	246.1846637040576	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	205441325.184000	205440157.71975			
Observation start date	2004-07-05T19:01:01	2004-07-05T18:42:37			
[s] Observation end time (MET)	205451289.184000	205452118.95778			
Observation end date	2004-07-05T21:47:05	2004-07-05T22:01:58			
Read mode	TIMED	TIMED			

## 2.3 Aspect



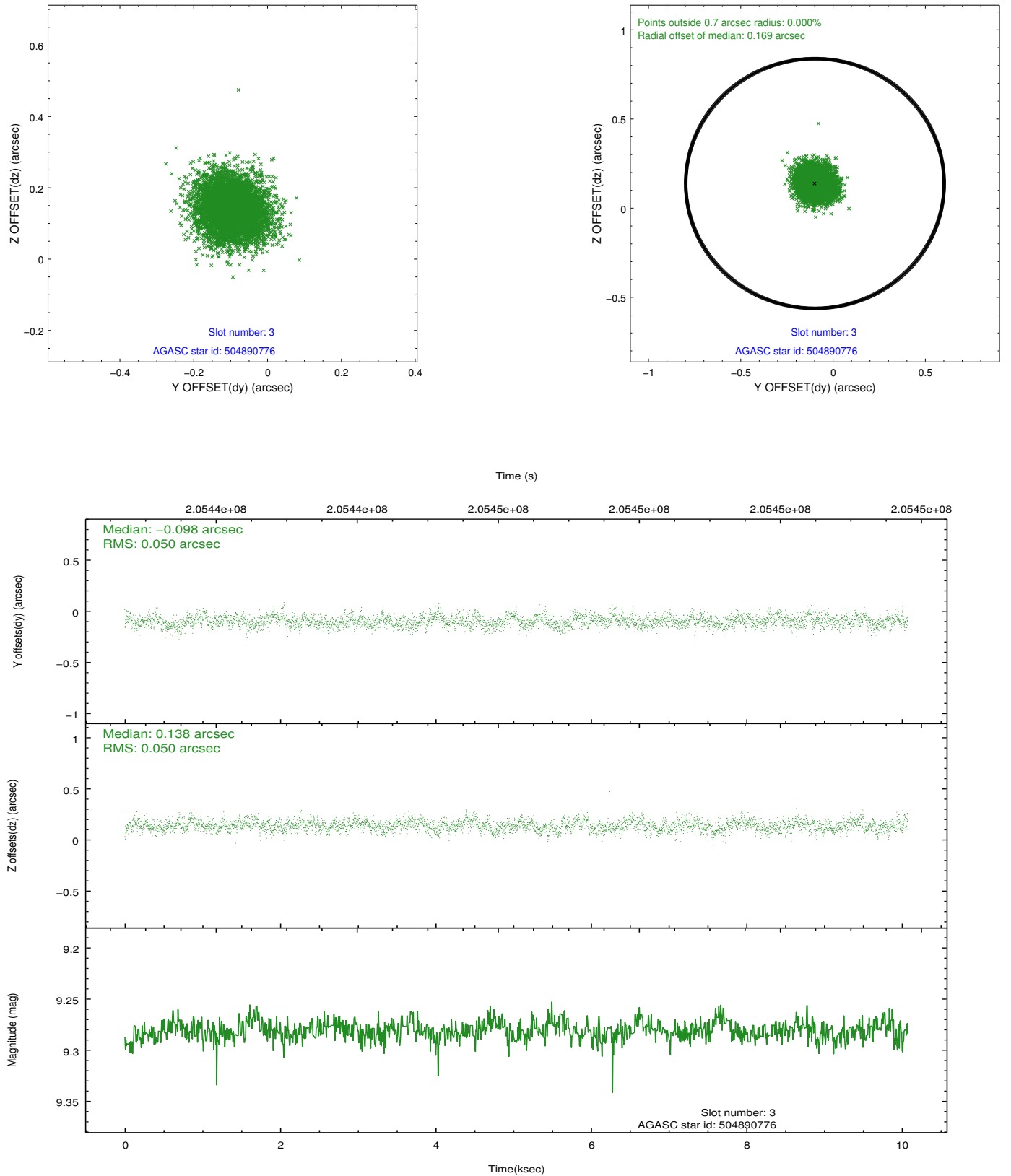


### Slot Statistics

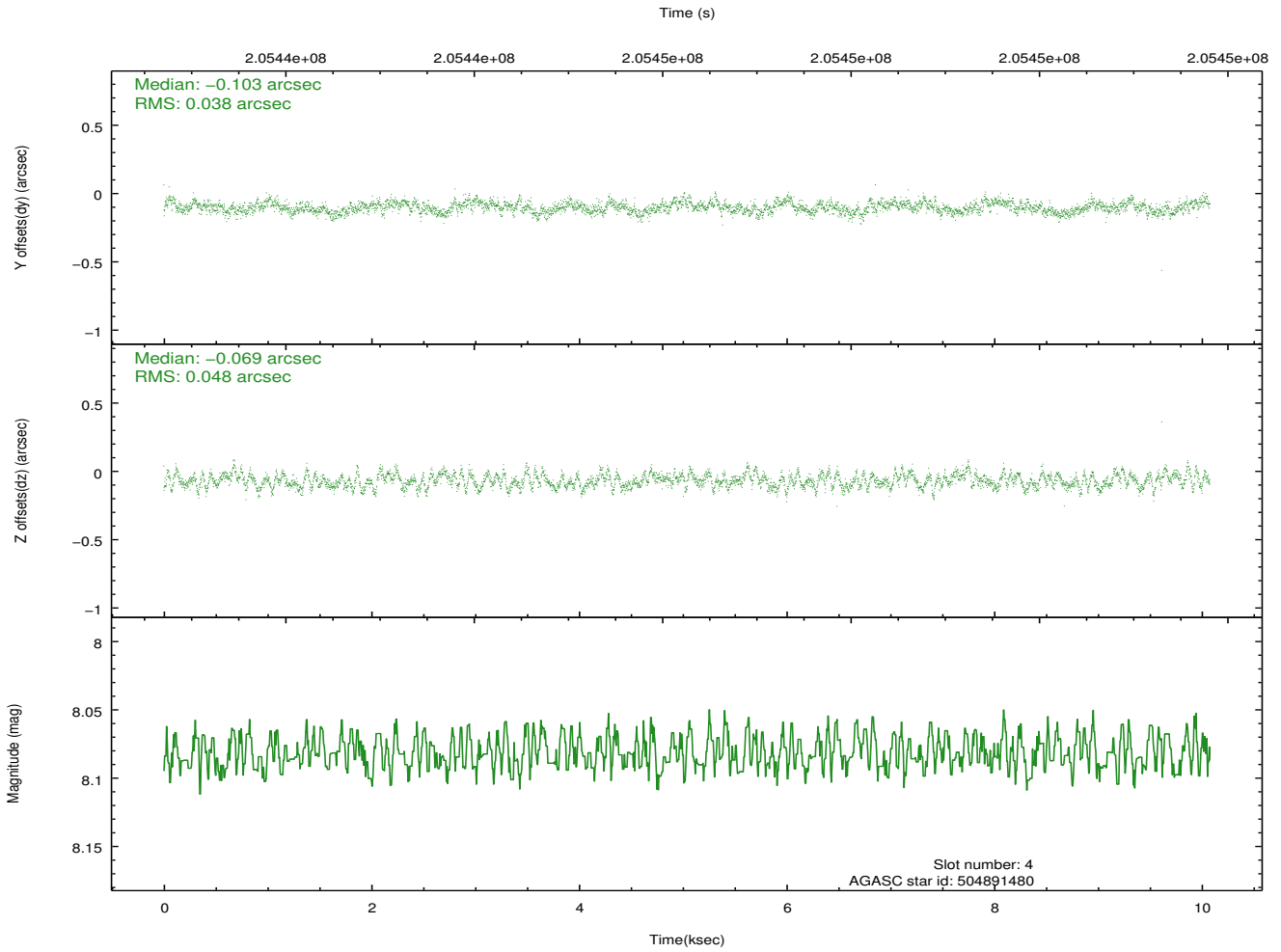
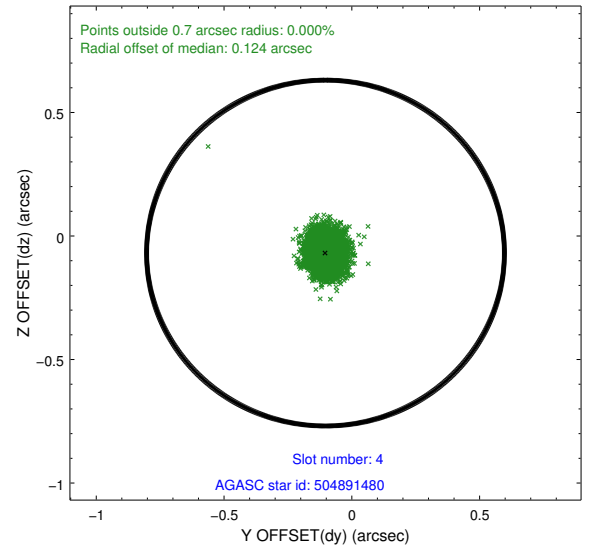
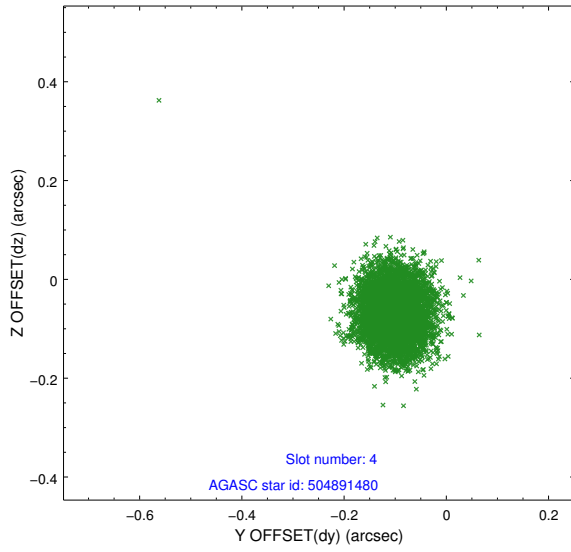
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	2458	-0.083	-0.057	0.007	0.013	0.000000	0.000000	-758.98	-1730.95
1	FID	ACIS-S-4	7.20	2459	0.066	0.047	0.006	0.010	0.000000	0.000000	2154.20	177.10
2	FID	ACIS-S-6	7.35	2459	-0.011	0.017	0.008	0.013	0.000000	0.000000	403.74	815.06
3	GUIDE	504890776	9.28	4913	-0.098	0.138	0.075	0.122	211.095934	54.816966	-1867.47	-75.78
4	GUIDE	504891480	8.08	4915	-0.103	-0.069	0.065	0.102	210.708012	54.666096	-1043.03	-590.34
5	GUIDE	504893088	9.21	4917	0.058	-0.061	0.080	0.129	210.351715	54.364955	249.66	-834.61
6	GUIDE	504894856	8.98	4916	0.093	-0.085	0.090	0.144	209.819510	54.132689	1462.16	-1529.51
7	GUIDE	504890480	8.18	4916	0.049	0.077	0.073	0.114	210.132463	53.768436	2404.38	-401.52

## 2.4 Star Slots

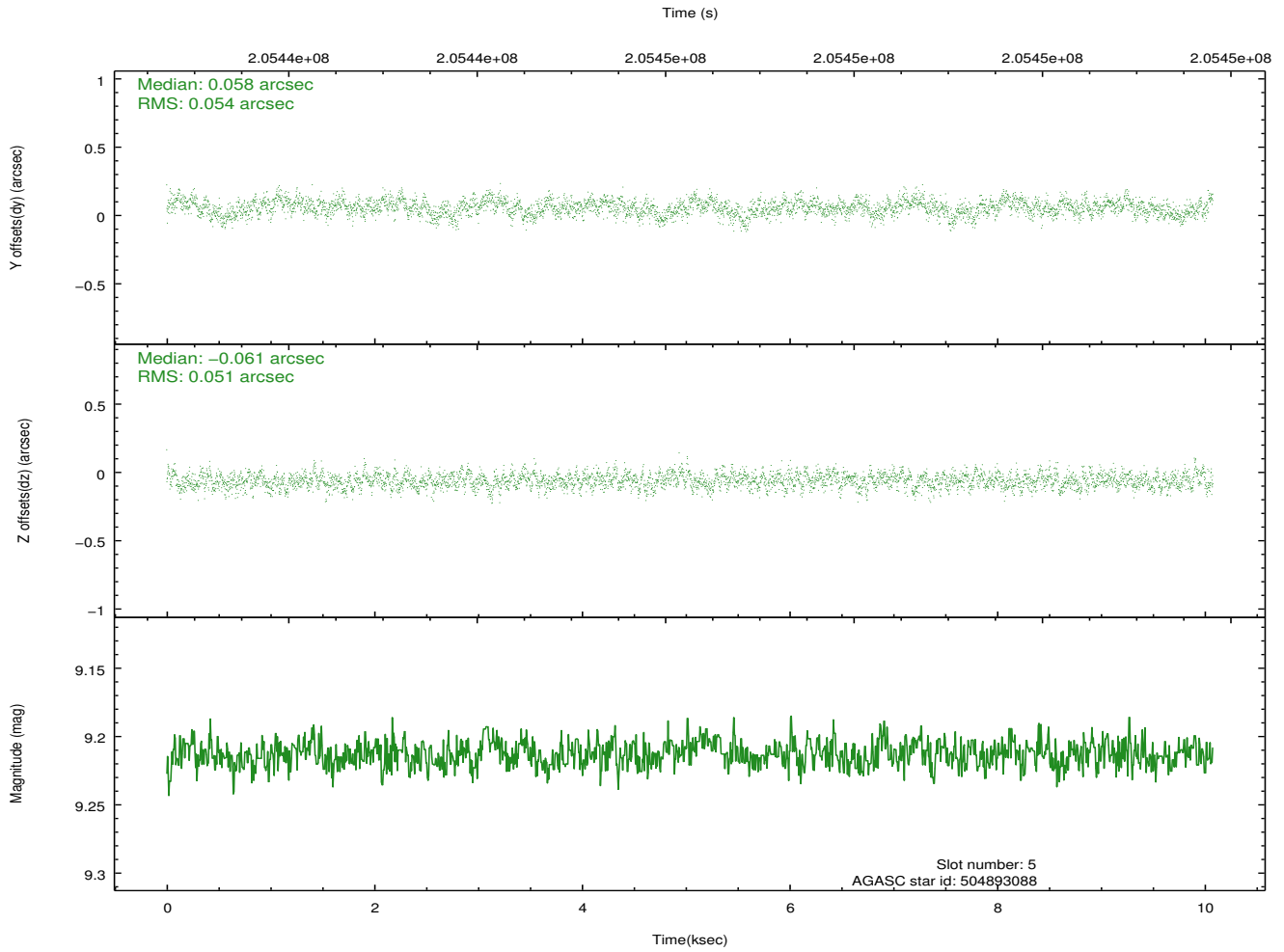
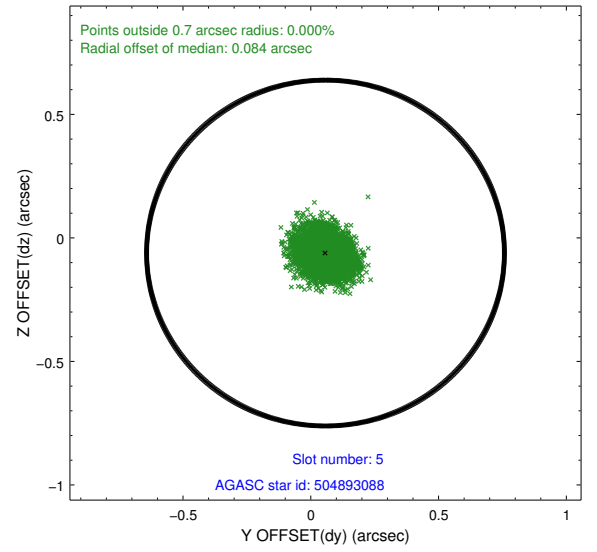
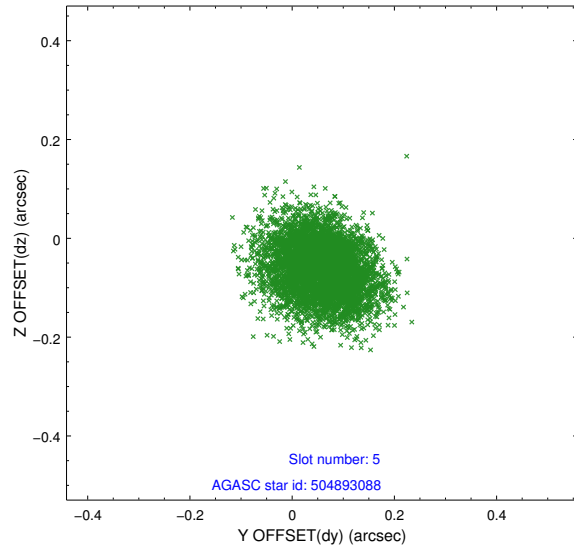
### 2.4.1 Slot 3



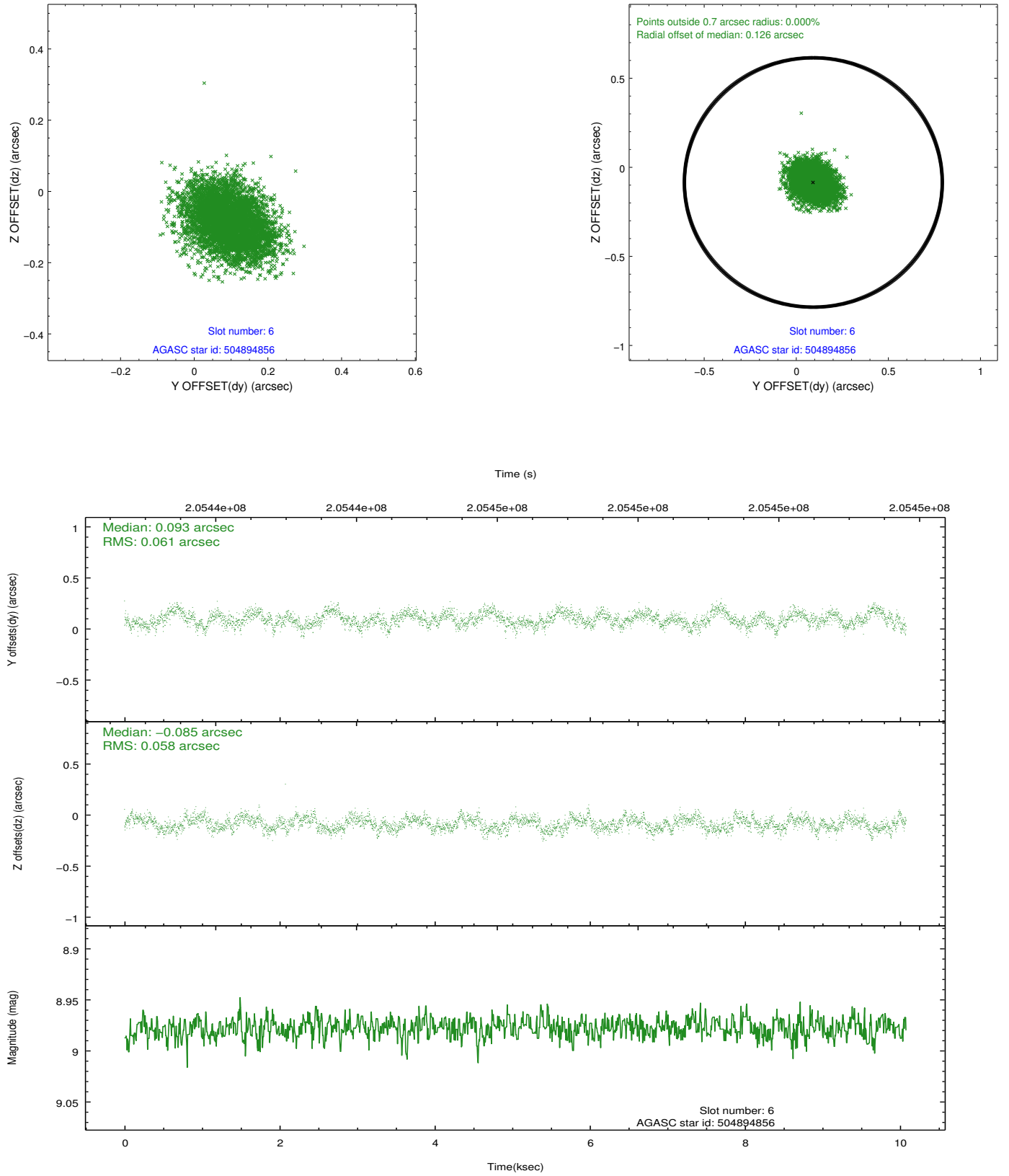
## 2.4.2 Slot 4



### 2.4.3 Slot 5

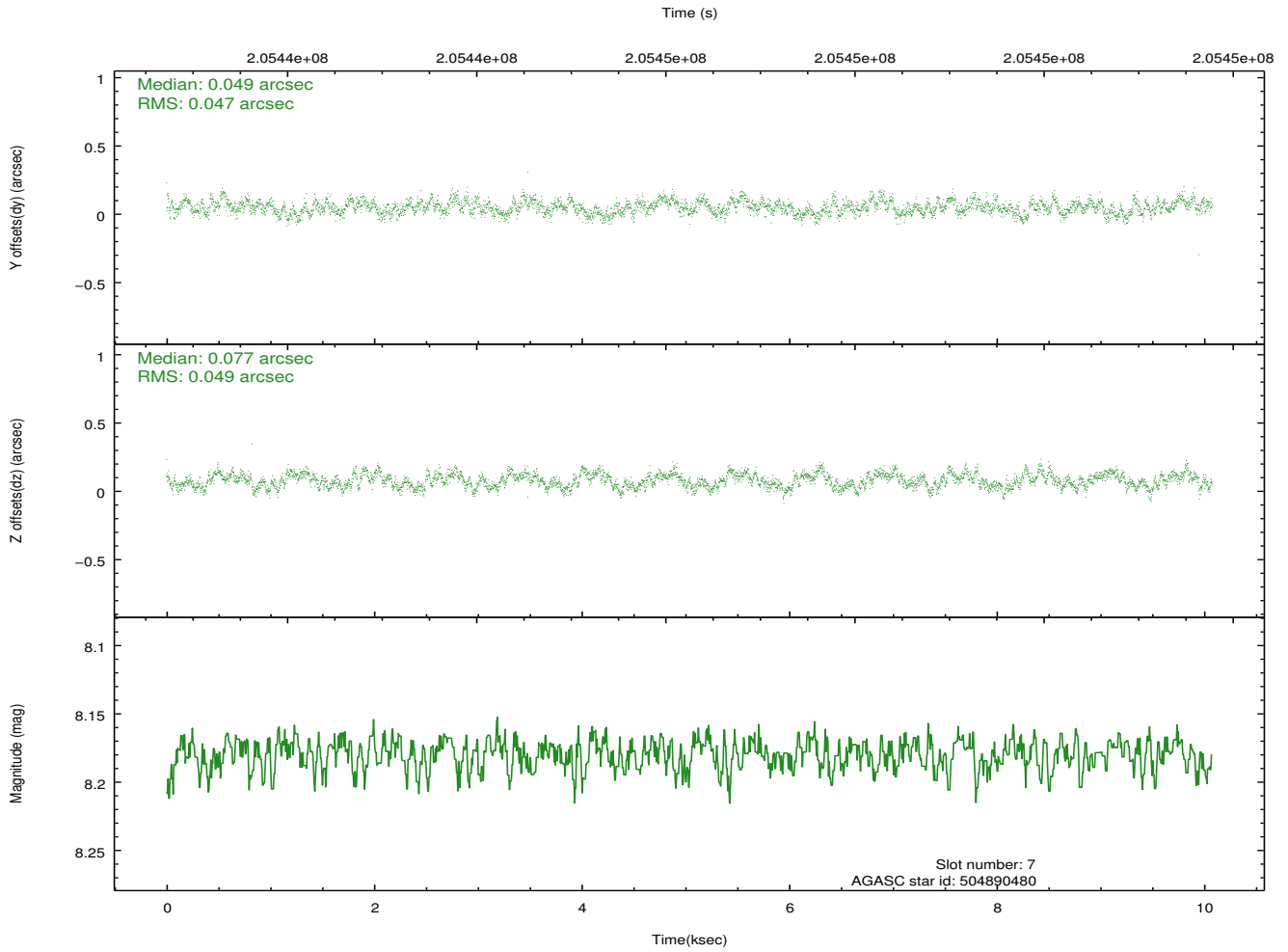
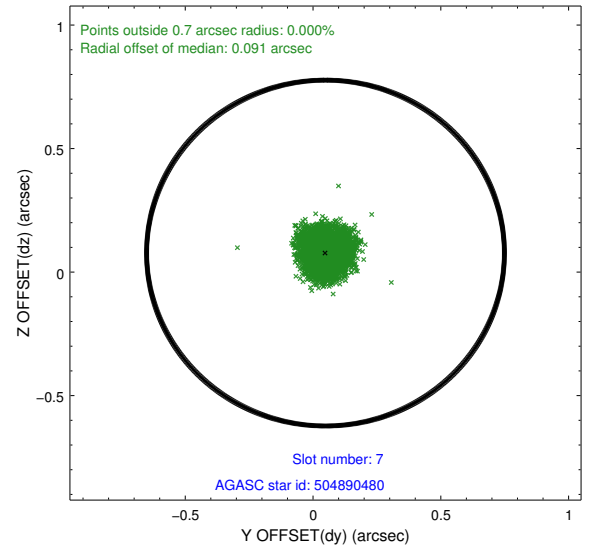
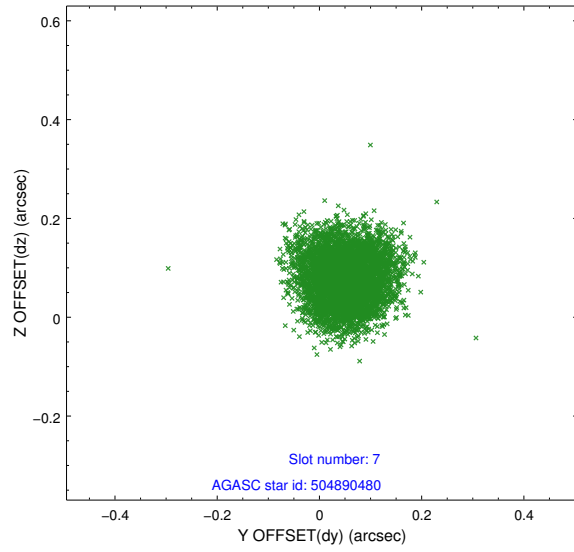


## 2.4.4 Slot 6



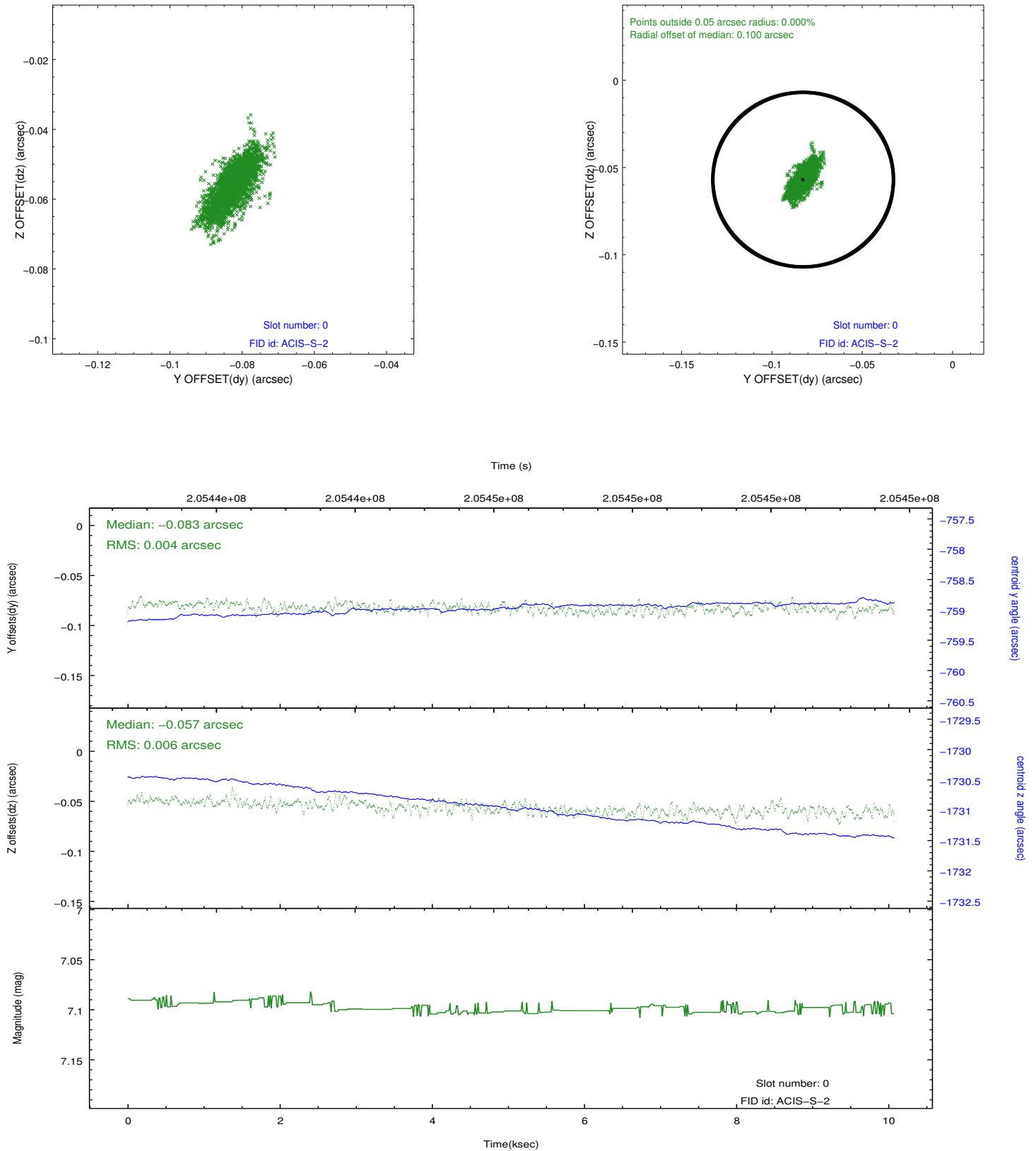


## 2.4.5 Slot 7

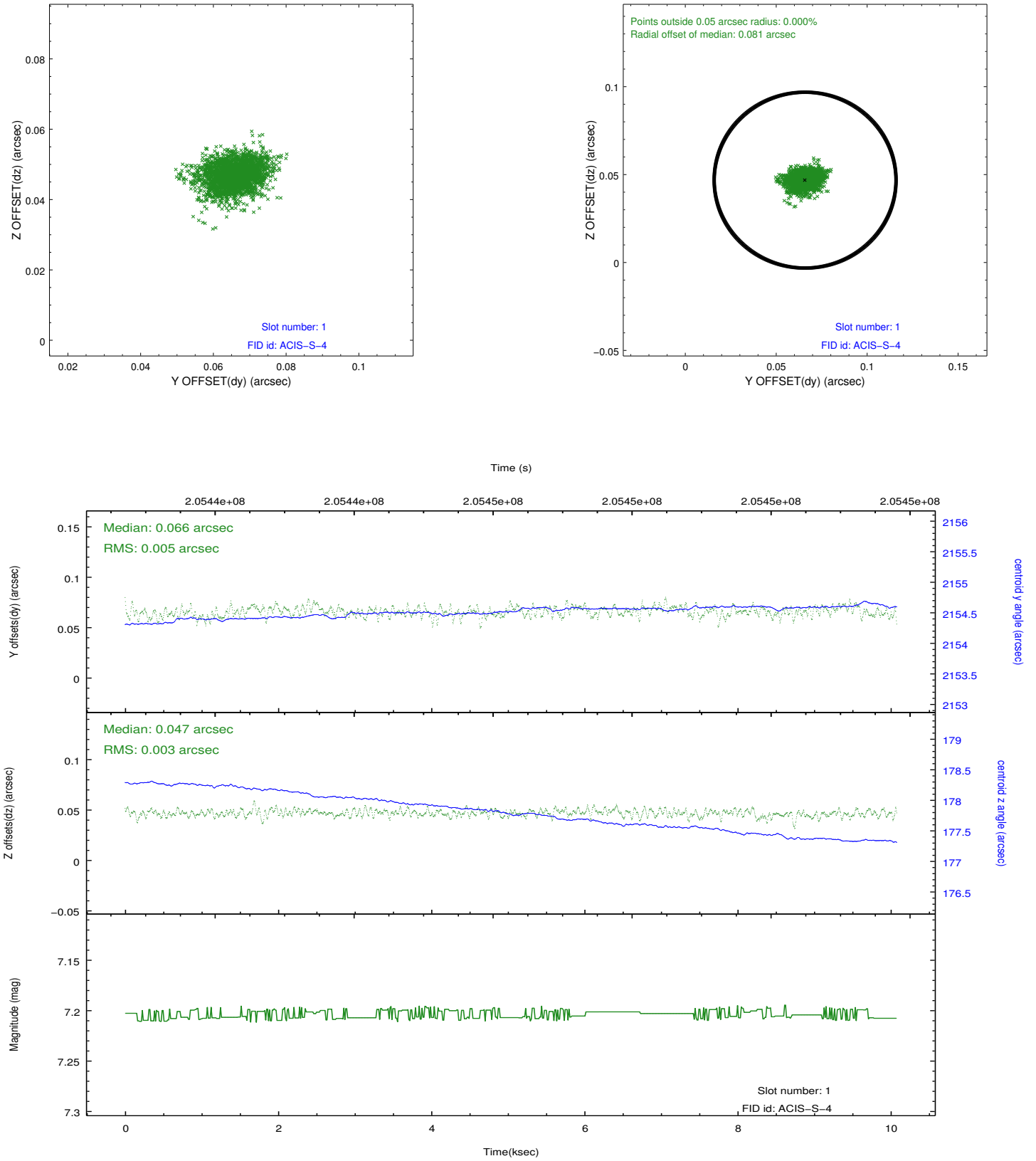


## 2.5 FID Slots

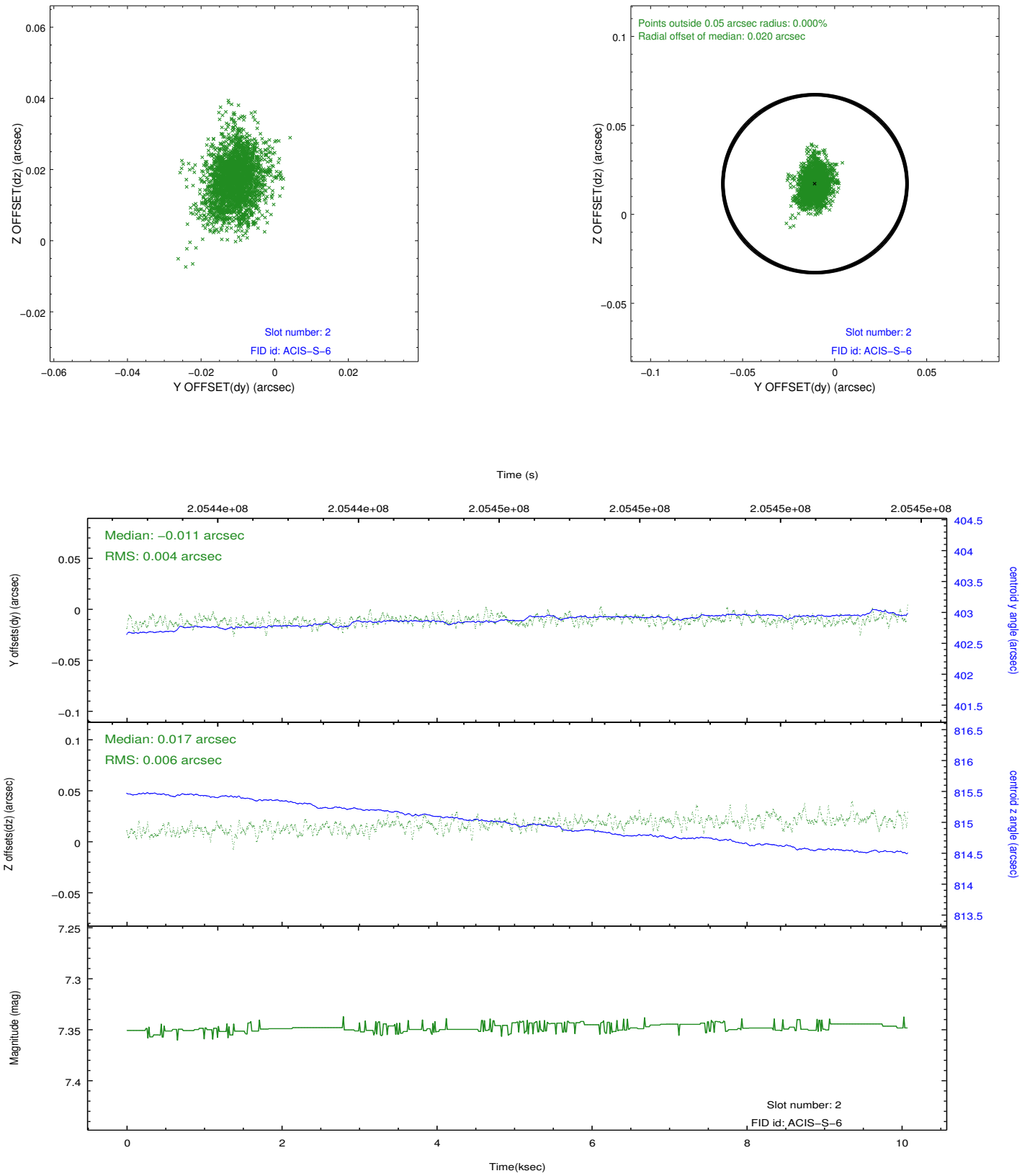
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2012.12.12
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.07

### A.2 Comments