

# V&V Reference Report

## L2 ASCDS Version : 8.5.1.1

Observation 4886 - L2 Version 5  
Chandra X-Ray Center

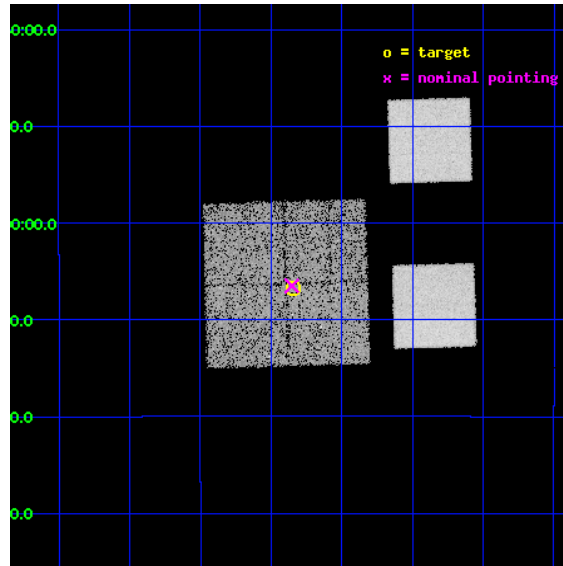
L2 Processing Date : Feb 11 2013

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# 1 Front

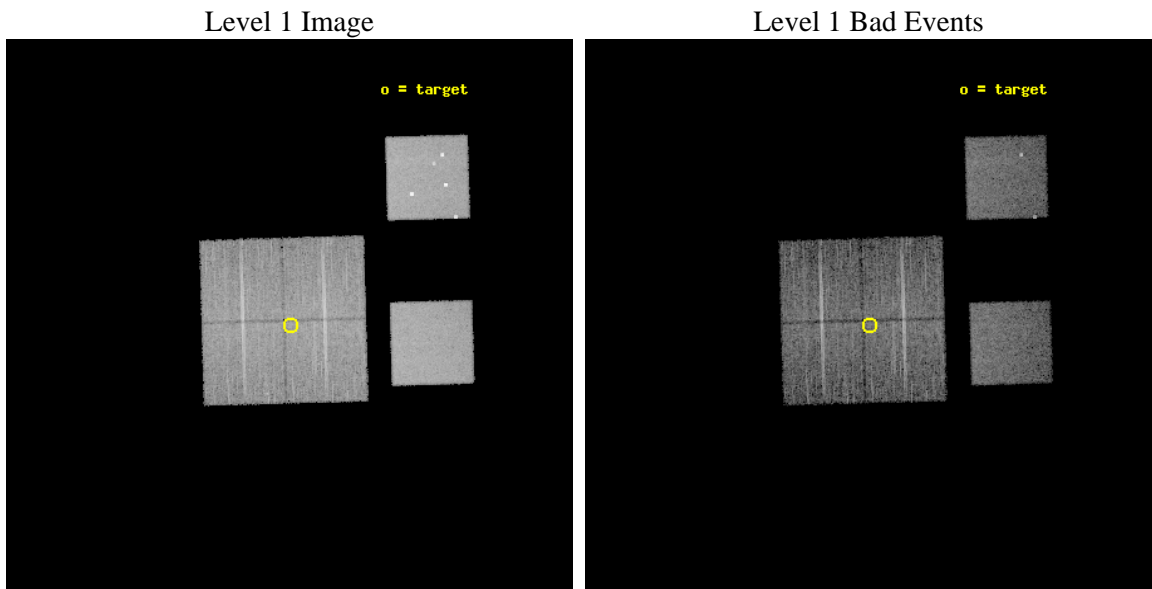
seq_num	700968	Sequence number
obs_id	4886	Observation id
title	AGN in low-redshift Clusters of Galaxies	Proposal title
observer	Prof. Paul Martini	Principal investigator
object	Abell85-P6	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	10.71125	Observer's specified target RA [deg]
dec_targ	-9.1125	Observer's specified target Dec [deg]
ra_nom	10.713226552493	Nominal RA [deg]
dec_nom	-9.1082872450581	Nominal Dec [deg]
roll_nom	88.40499502252	Nominal Roll [deg]
revision	5	Processing version of data
ontime	9740.6770127118	Sum of GTIs [s]
livetime	9617.3346952453	Livetime [s]
ontime0	9750.3999636769	Sum of GTIs [s]
ontime1	9750.3999636769	Sum of GTIs [s]
ontime2	9747.1589534581	Sum of GTIs [s]
ontime3	9740.6770127118	Sum of GTIs [s]
ontime5	9747.1589733958	Sum of GTIs [s]
ontime7	9743.9179831147	Sum of GTIs [s]
l2events	124097	Number of level 2 events



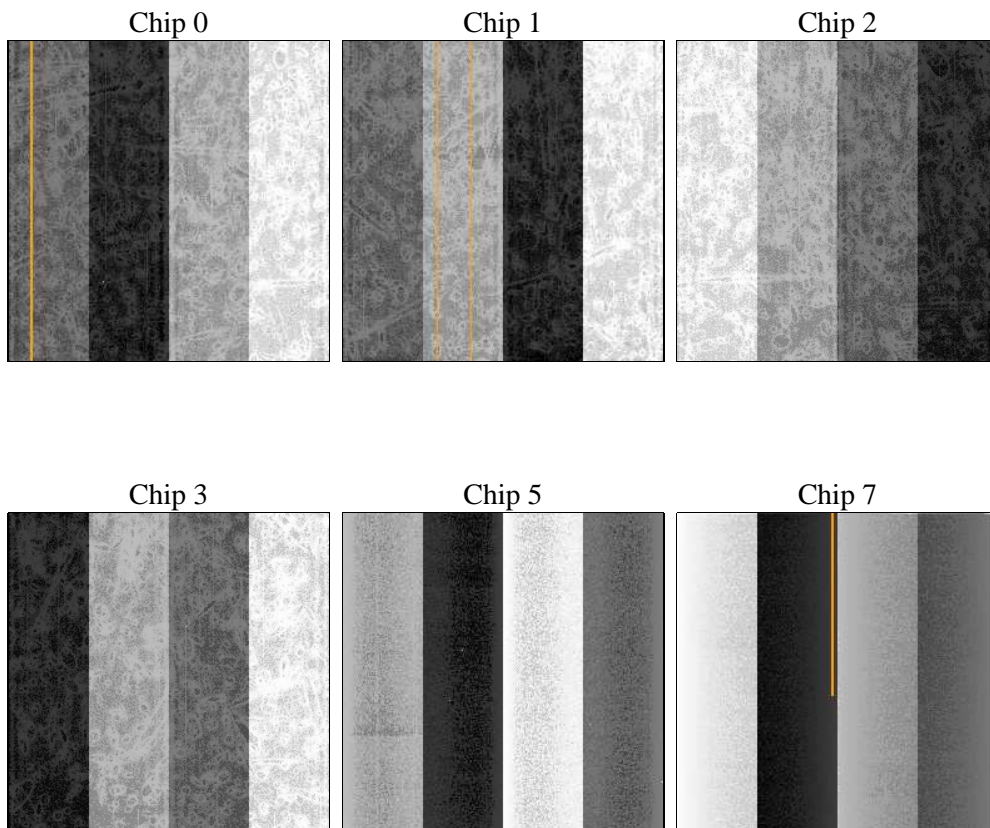
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	9991.494000	[s] Scheduled observation exposure time
ascdsver	8.5.1.1	Processing system revision	ontime	9740.6770127118	Sum of GTIs [s]
caldsver	4.5.5	&#160	ontime0	9750.3999636769	Sum of GTIs [s]
date	2013-02-11T23:45:02	Date and time of file creation	ontime1	9750.3999636769	Sum of GTIs [s]
revision	5	Processing version of data	ontime2	9747.1589534581	Sum of GTIs [s]
			ontime3	9740.6770127118	Sum of GTIs [s]
			ontime5	9747.1589733958	Sum of GTIs [s]
			ontime7	9743.9179831147	Sum of GTIs [s]
			l1events	501536	Number of level 1 events

### 2.1.4 Events

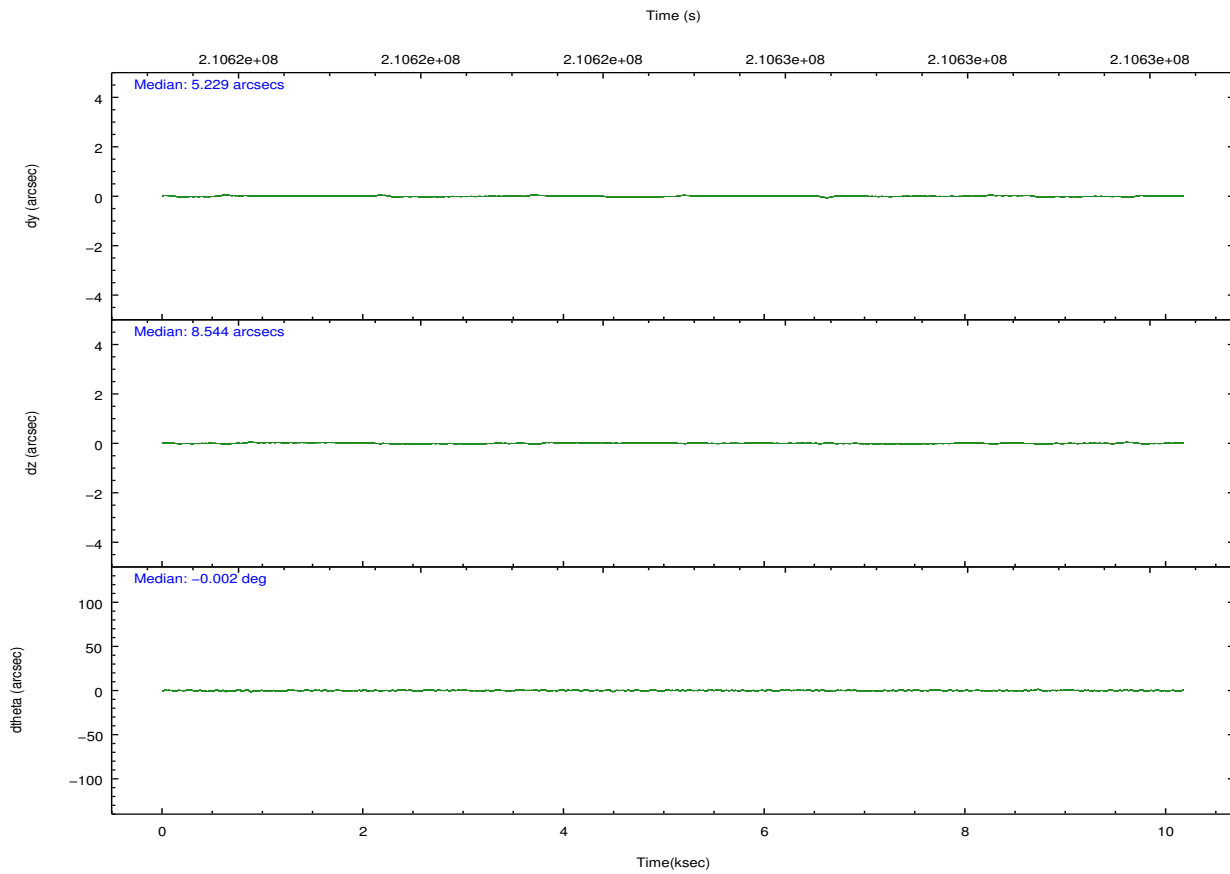
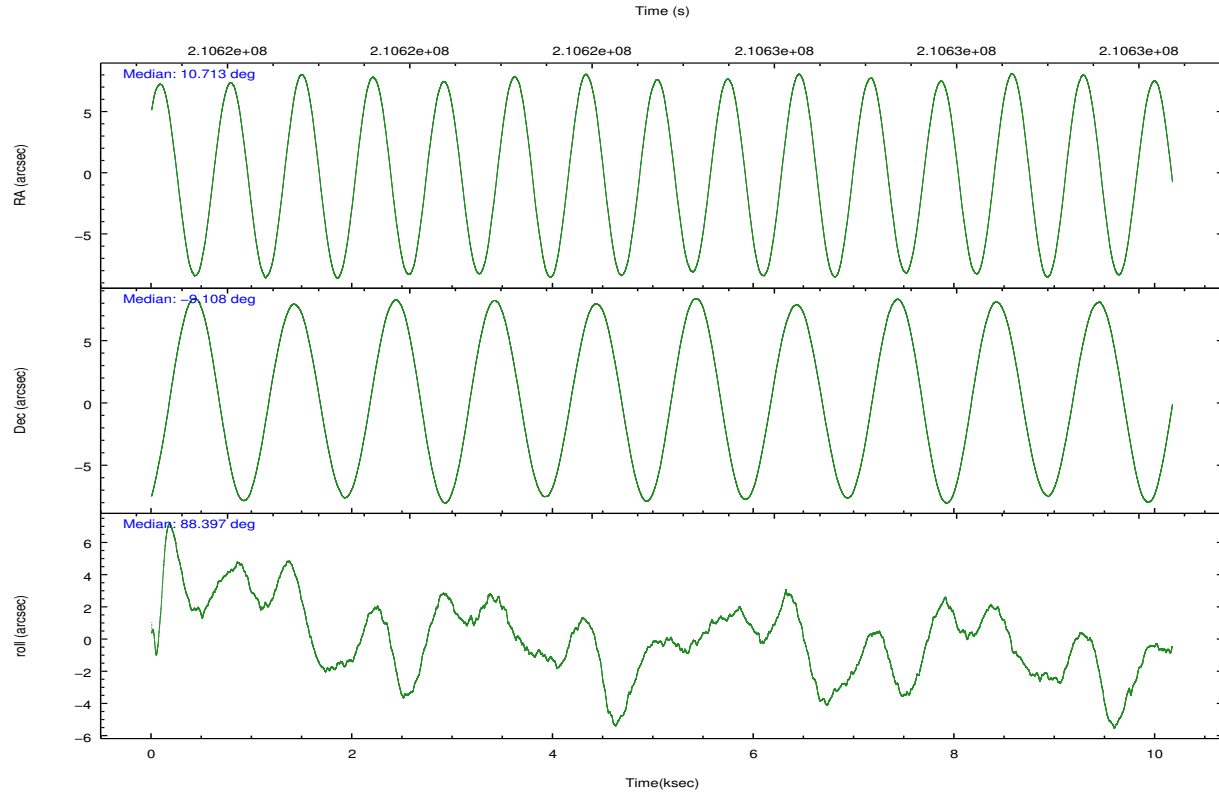
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 5	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 5	ccd 7
level 1 events	67585	67356	71511	72988	116670	105426	grade 0 events	3791	3753	3837	4374	10268	5265
rejected events	58712	57980	62961	63698	59911	58336		5%	5%	5%	5%	8%	4%
rejected %	86%	86%	88%	87%	51%	55%	grade 1 events	43	48	50	52	291	97
								0%	0%	0%	0%	0%	0%
							grade 2 events	1821	2014	1699	1679	15362	9753
								2%	2%	2%	2%	13%	9%
							grade 3 events	873	914	794	878	2031	4309
								1%	1%	1%	1%	1%	4%
							grade 4 events	829	902	851	906	1988	4226
								1%	1%	1%	1%	1%	4%
							grade 5 events	2909	3115	2802	3203	8069	9604
								4%	4%	3%	4%	6%	9%
							grade 6 events	1561	1797	1369	1458	27129	23550
								2%	2%	1%	1%	23%	22%
							grade 7 events	55758	54813	60109	60438	51532	48622
								82%	81%	84%	82%	44%	46%



## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012357	ACIS-012357	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	10.726495	10.71322655249296	Subarray requested	NONE	NONE
[deg] Pointing Dec	-9.132316	-9.108287245058134	Alternating exposures requested	N	N
[deg] Pointing Roll	88.198409	88.40499502252044	[s] Primary exposure time	0.000000	3.2
[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)	210619866.184000	210619490.63755			
Observation start date	2004-09-03T17:30:02	2004-09-03T17:24:50			
[s] Observation end time (MET)	210629858.184000	210630094.77552			
Observation end date	2004-09-03T20:16:34	2004-09-03T20:21:34			
Read mode	TIMED	TIMED			

## 2.3 Aspect

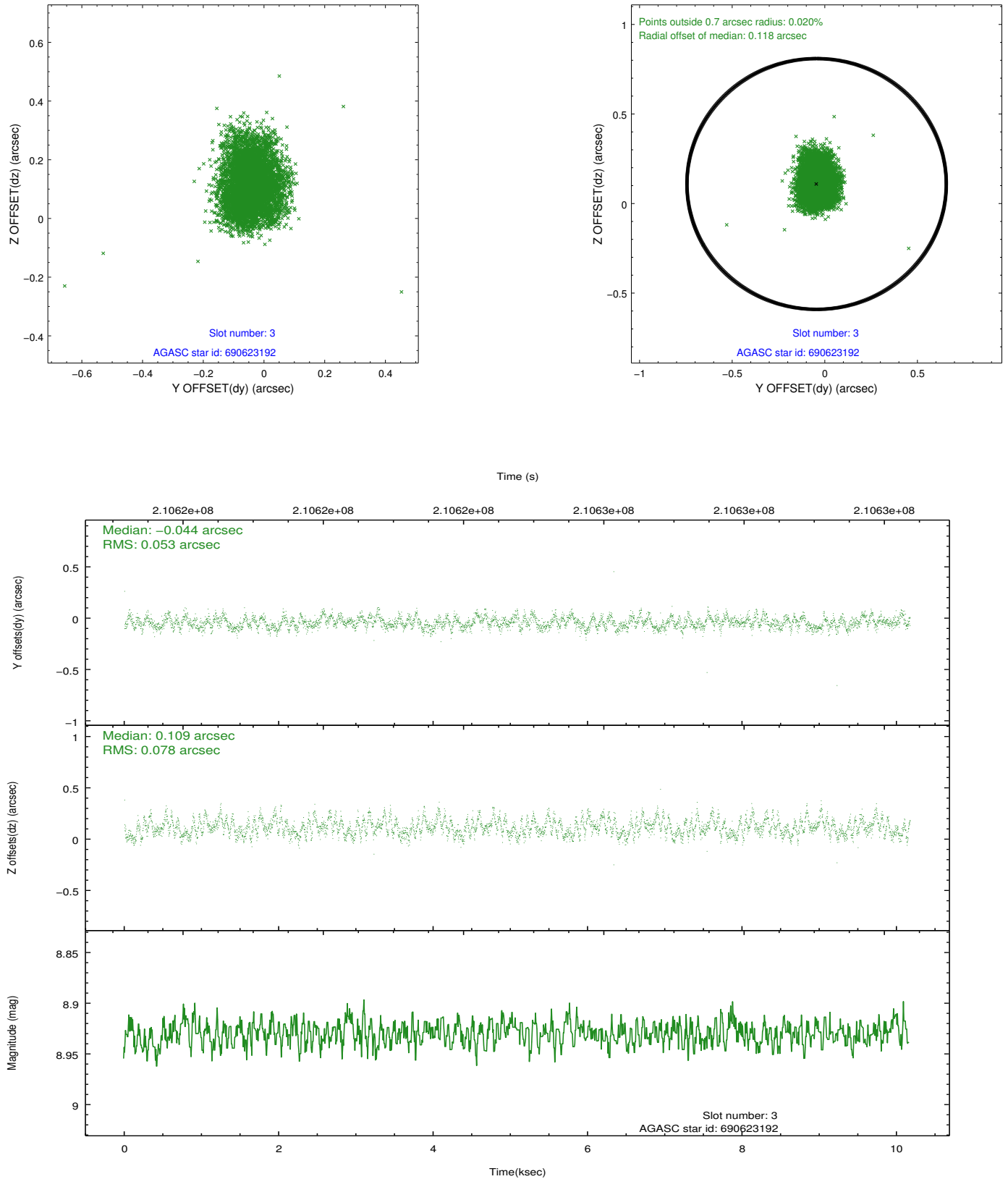


### Slot Statistics

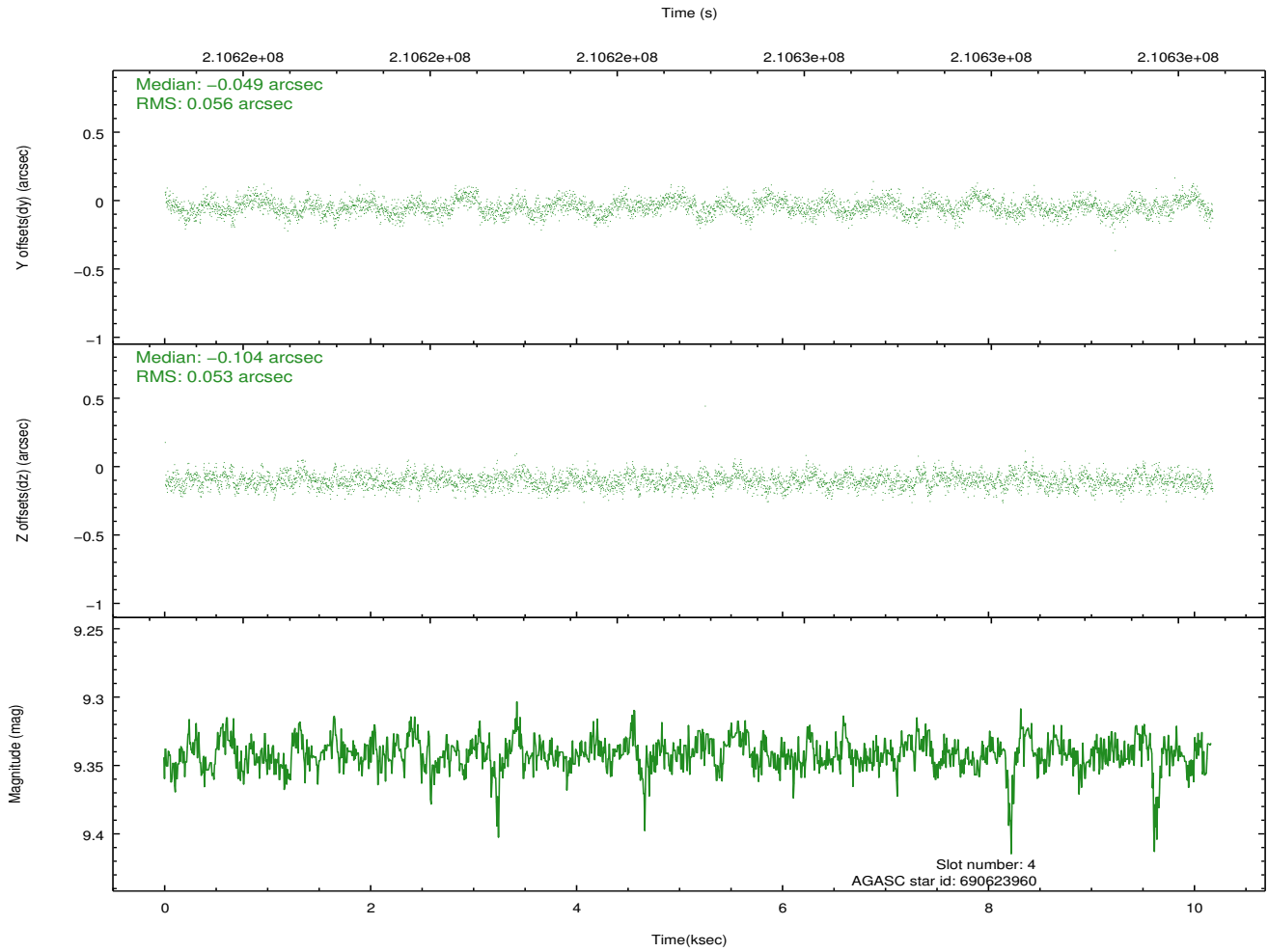
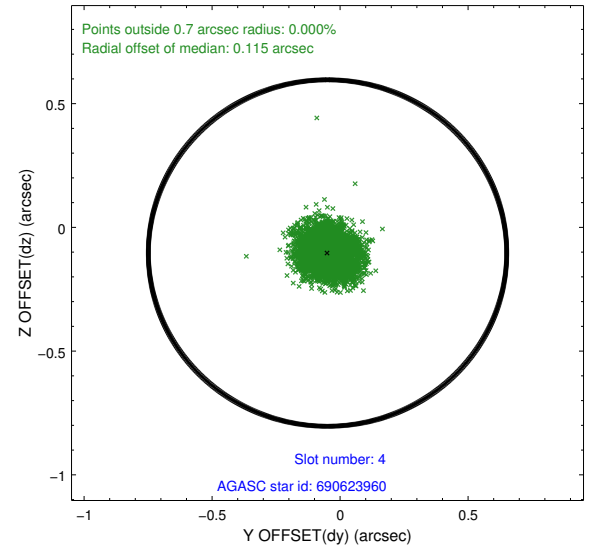
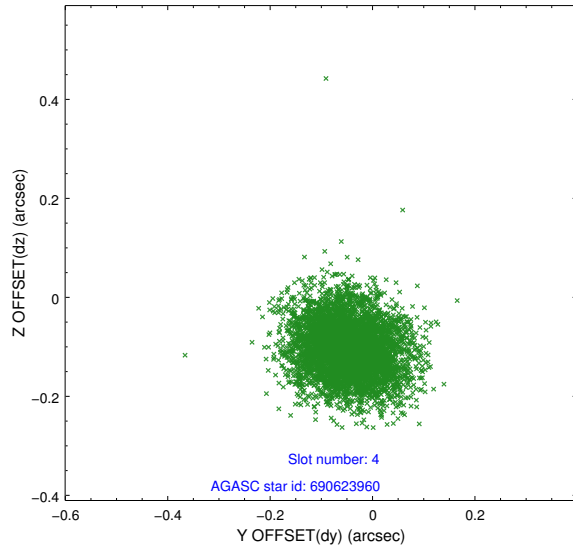
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.24	2480	0.020	0.035	0.006	0.010	0.000000	0.000000	934.53	-831.94
1	FID	ACIS-I-5	7.23	2479	-0.165	0.046	0.006	0.010	0.000000	0.000000	-1813.49	1065.29
2	FID	ACIS-I-6	7.25	2479	0.054	-0.011	0.006	0.010	0.000000	0.000000	399.53	1710.33
3	GUIDE	690623192	8.93	4957	-0.044	0.109	0.100	0.160	11.363175	-9.544394	-1413.08	-2305.86
4	GUIDE	690623960	9.34	4954	-0.049	-0.104	0.082	0.132	10.570675	-9.168103	-146.32	549.44
5	GUIDE	690625776	9.14	4957	-0.020	0.082	0.092	0.149	10.846019	-9.315741	-646.09	-446.13
6	GUIDE	690632656	9.26	4954	0.025	-0.133	0.080	0.130	10.397747	-9.674983	-1989.91	1104.70
7	GUIDE	690636928	9.26	4952	0.089	0.039	0.082	0.140	11.054156	-9.568424	-1533.03	-1211.49

## 2.4 Star Slots

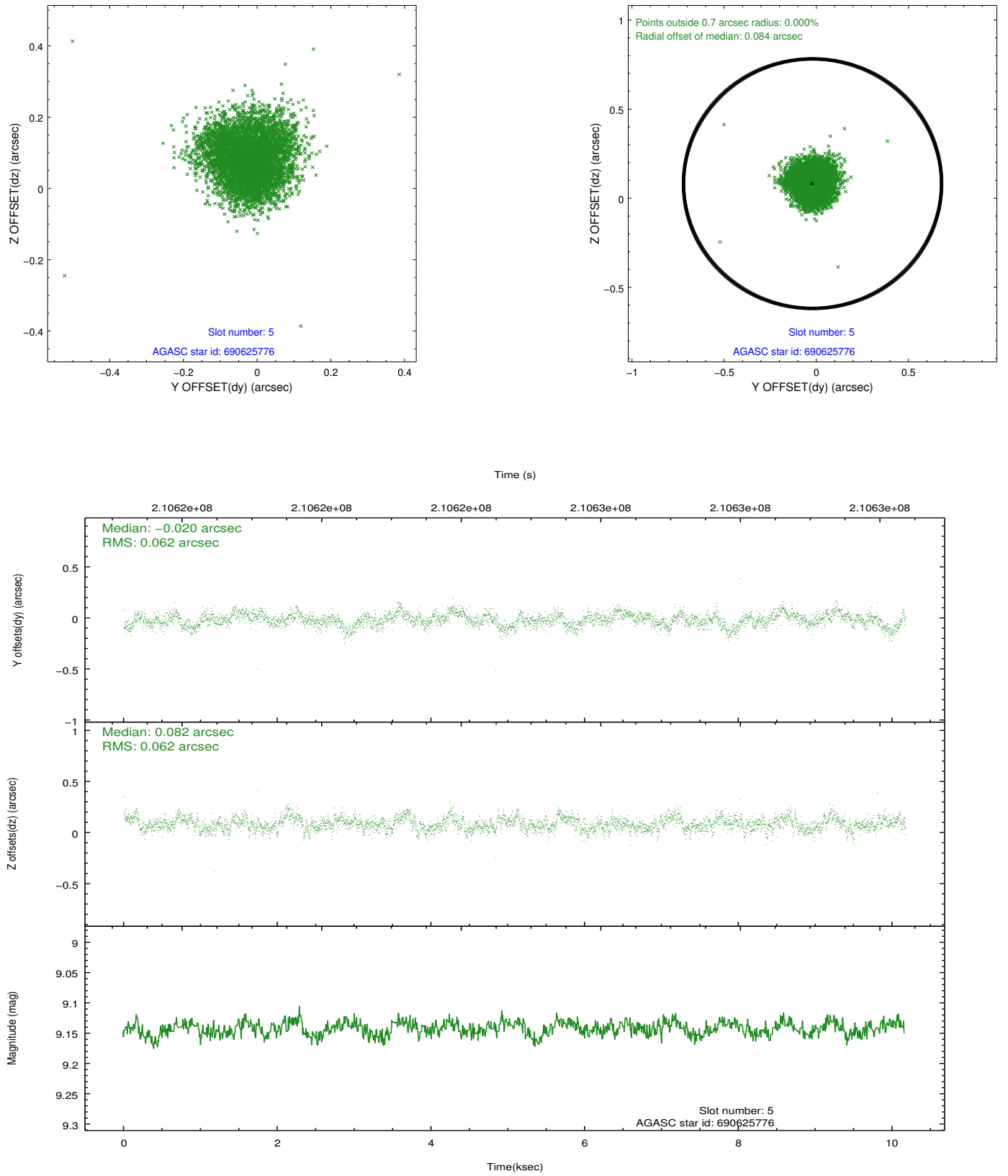
### 2.4.1 Slot 3



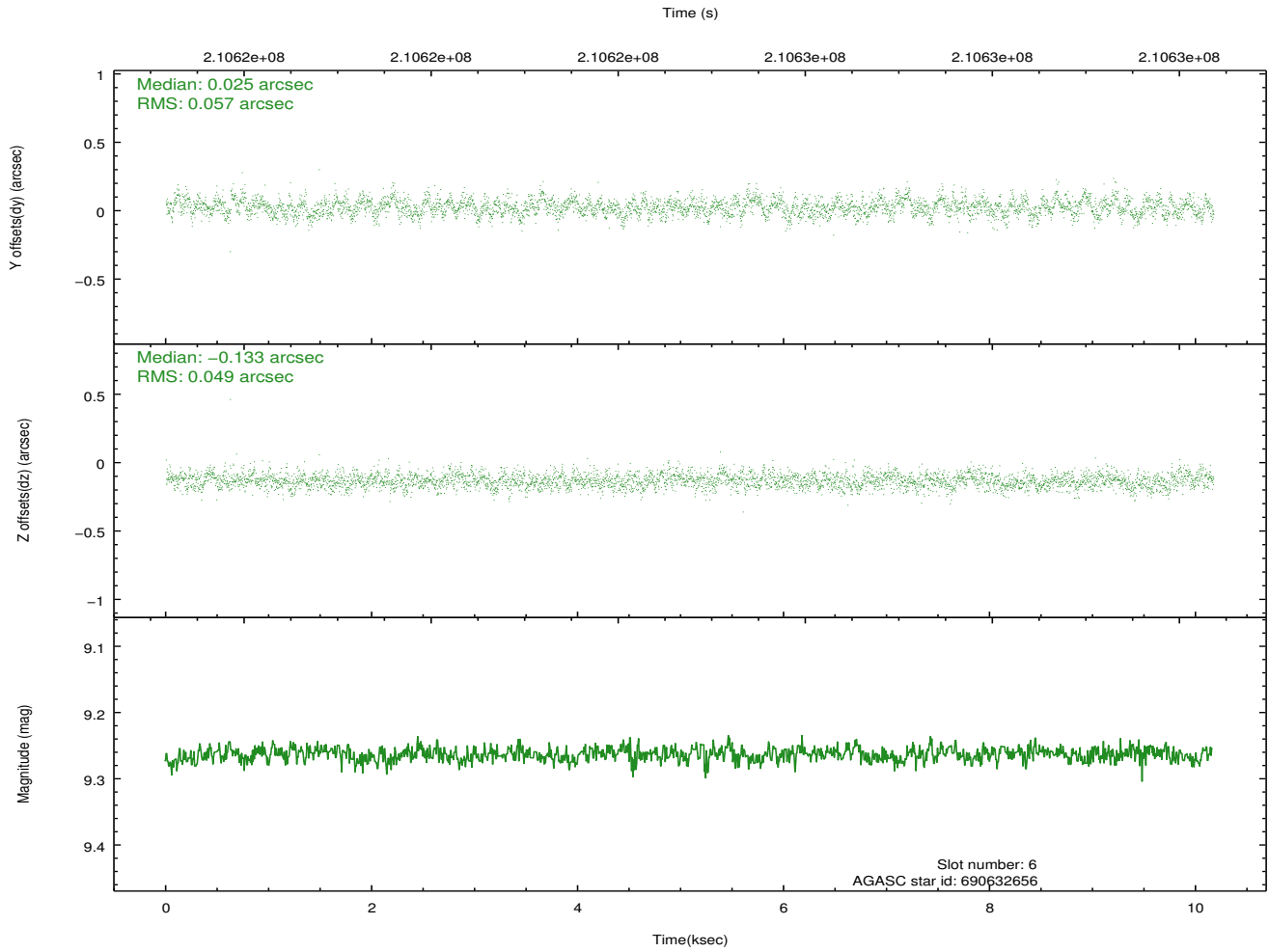
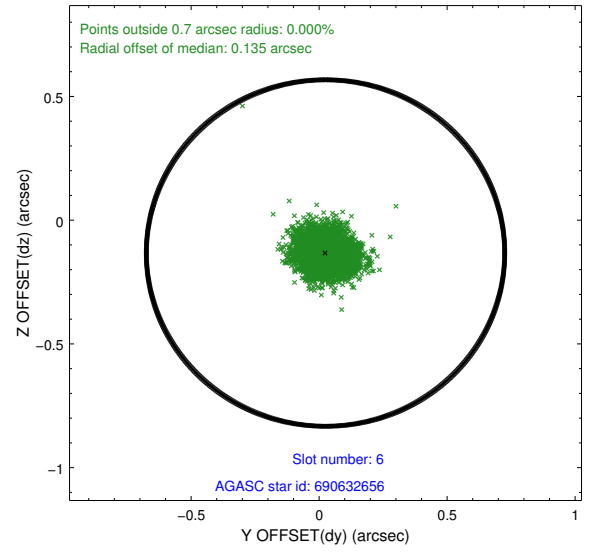
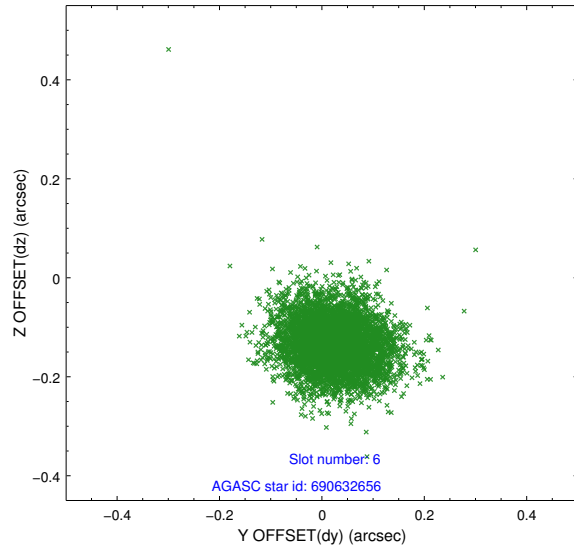
## 2.4.2 Slot 4



### 2.4.3 Slot 5

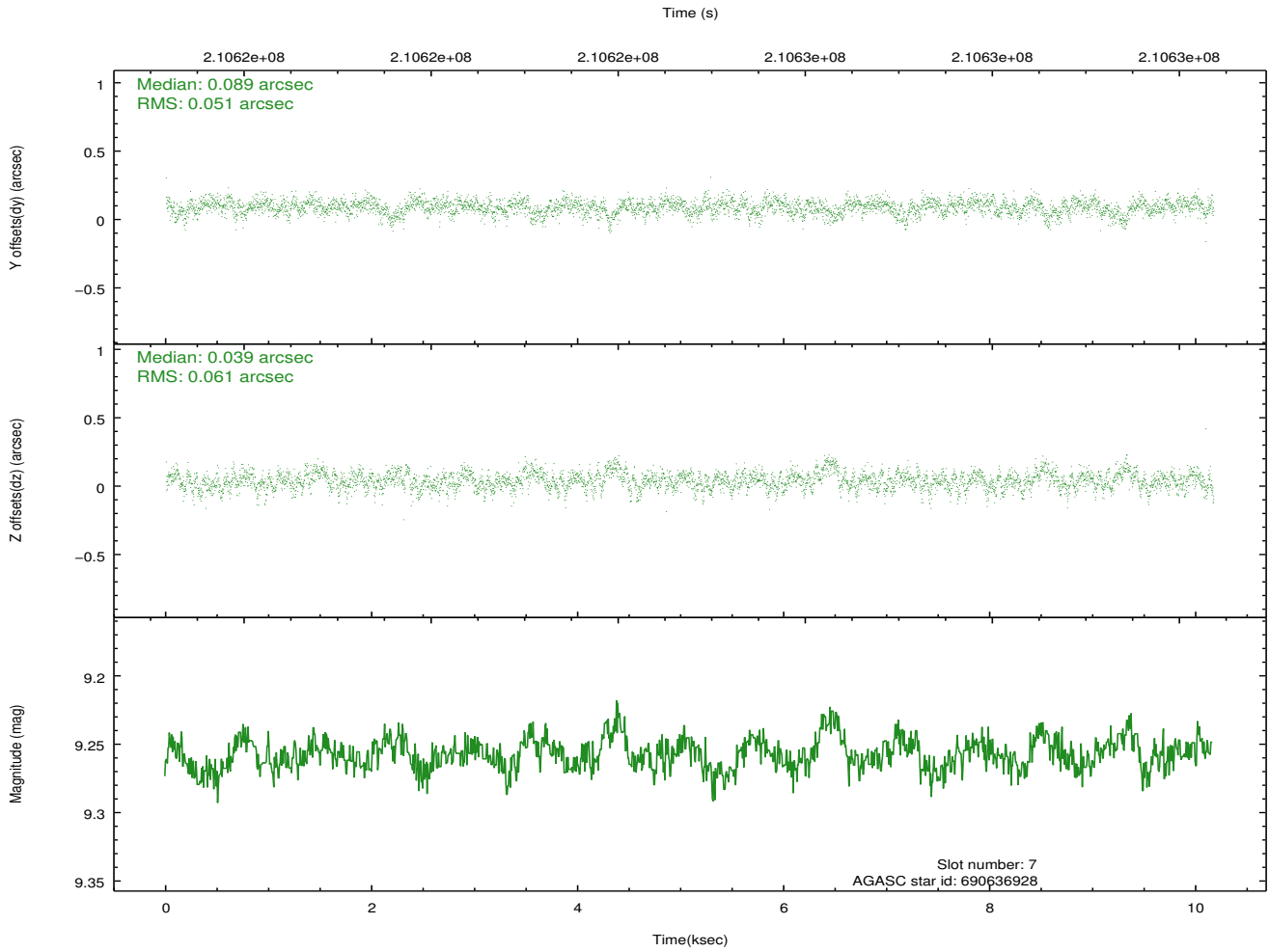
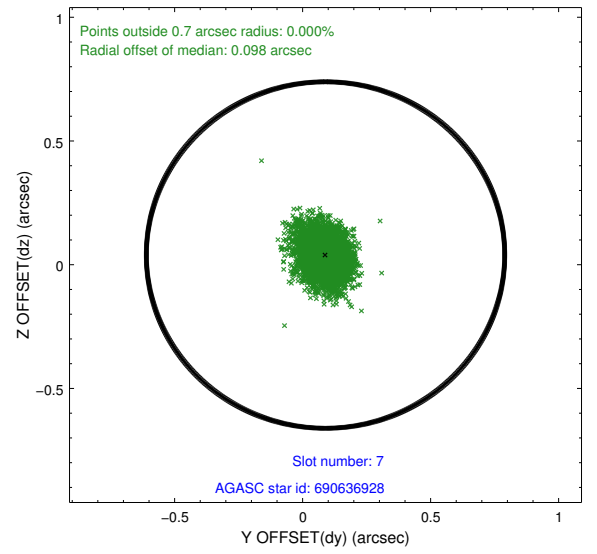
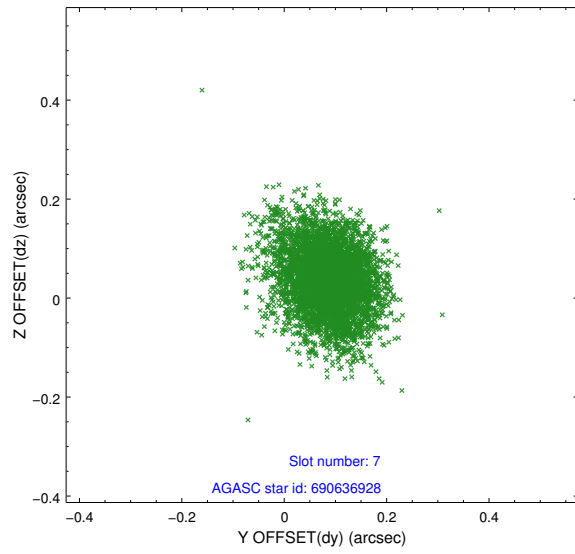


## 2.4.4 Slot 6



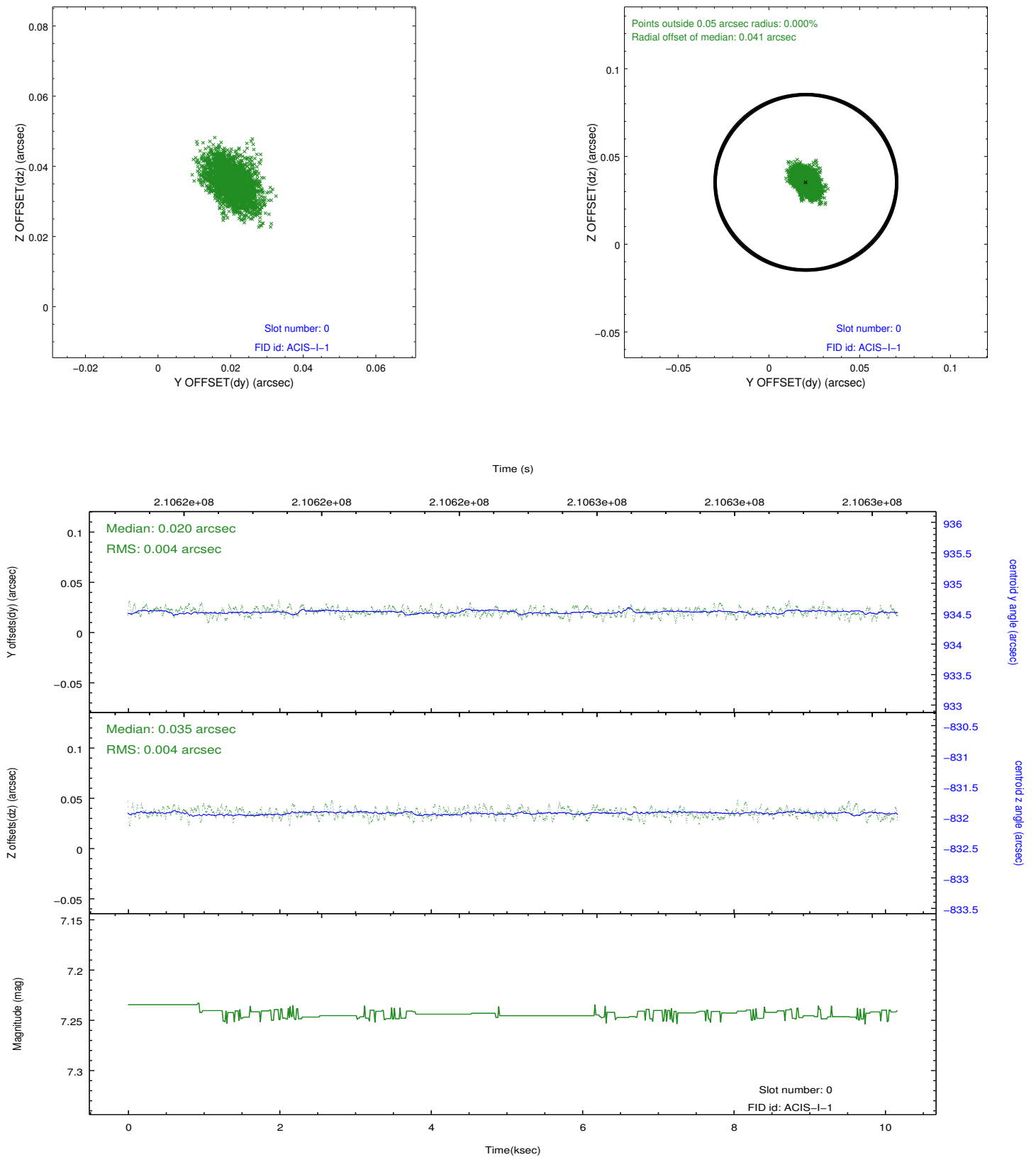


## 2.4.5 Slot 7

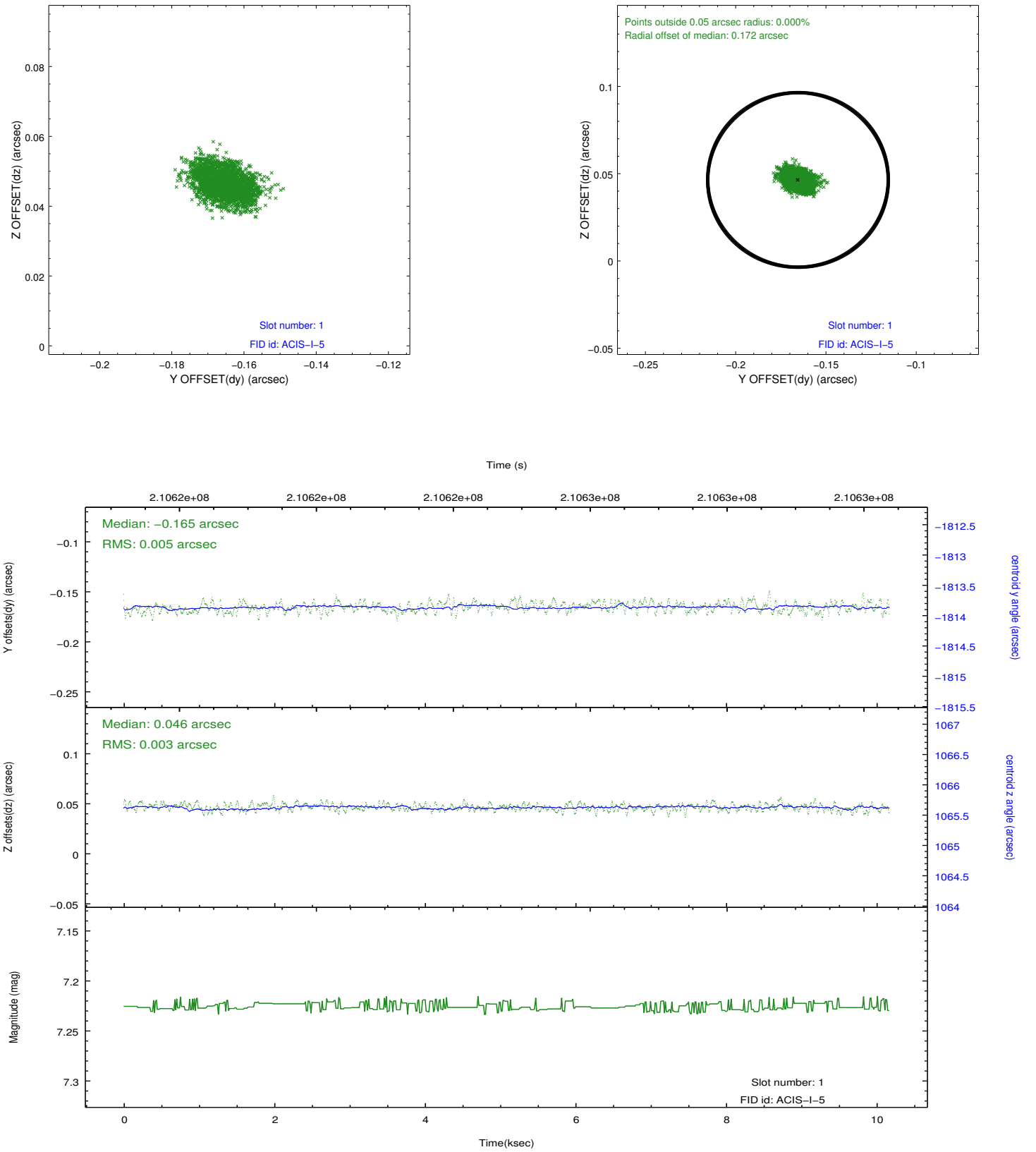


## 2.5 FID Slots

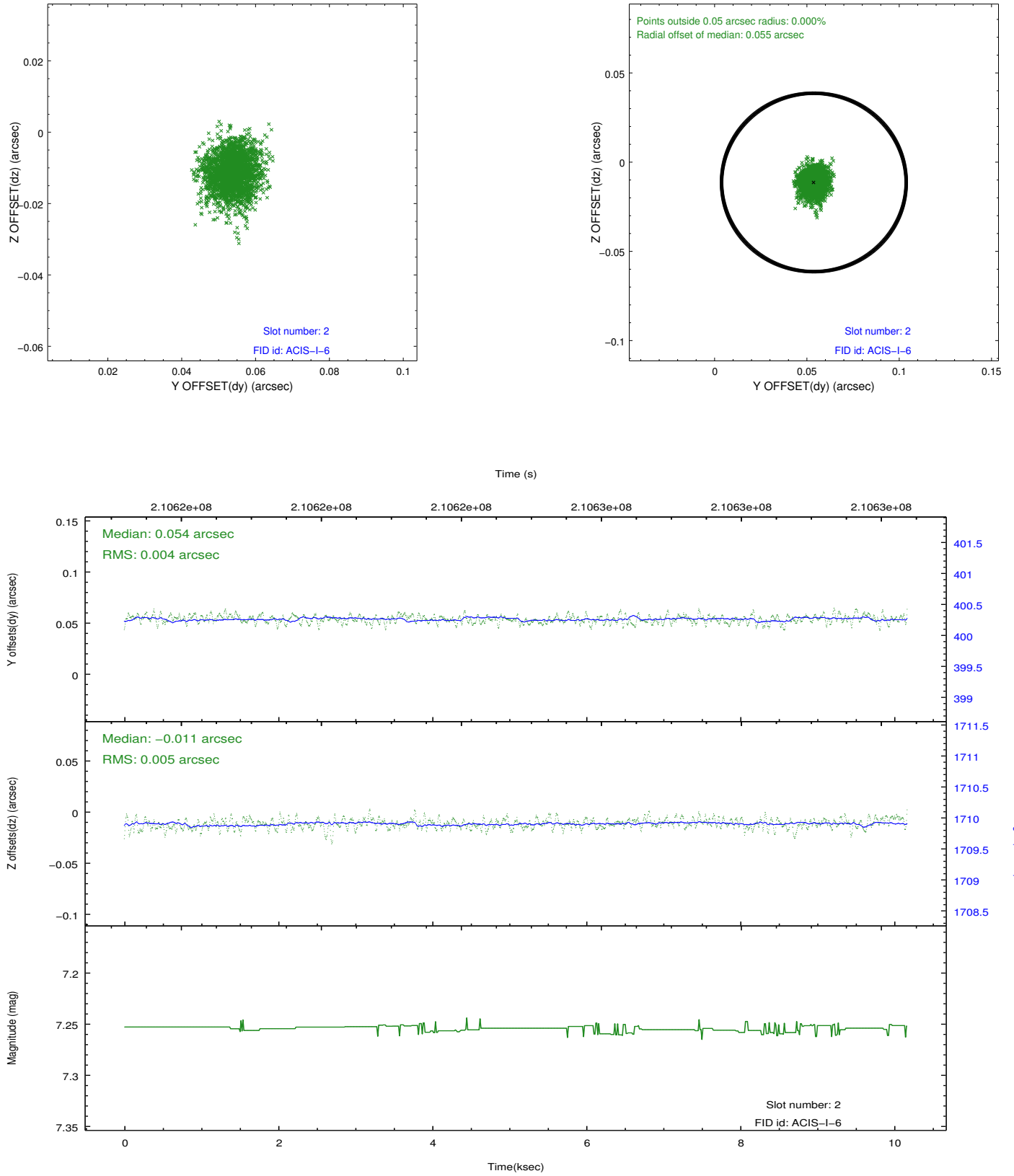
### 2.5.1 Slot 0



## 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)	2013.02.12
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.74

## A.2 Comments

A spatial region of the original bias map for CCD = 1 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 = 1 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:  
(10.81137,-9.24781),(10.81565,-9.24792),(10.81668,-9.21098),(10.81240,-9.21088)