

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 3937 - L2 Version 3  
Chandra X-Ray Center

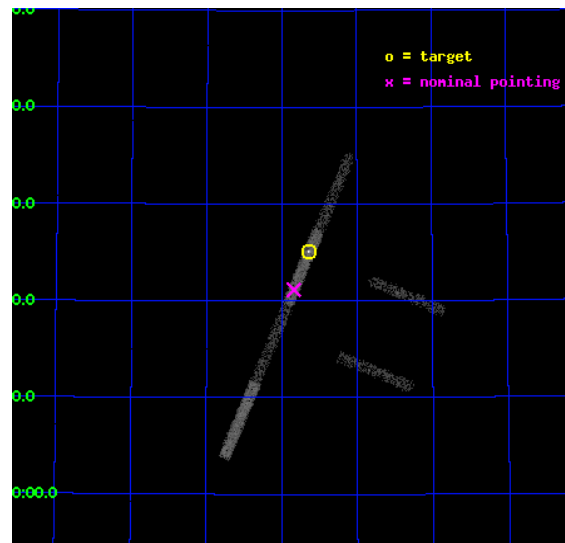
L2 Processing Date : Nov 3 2012

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# 1 Front

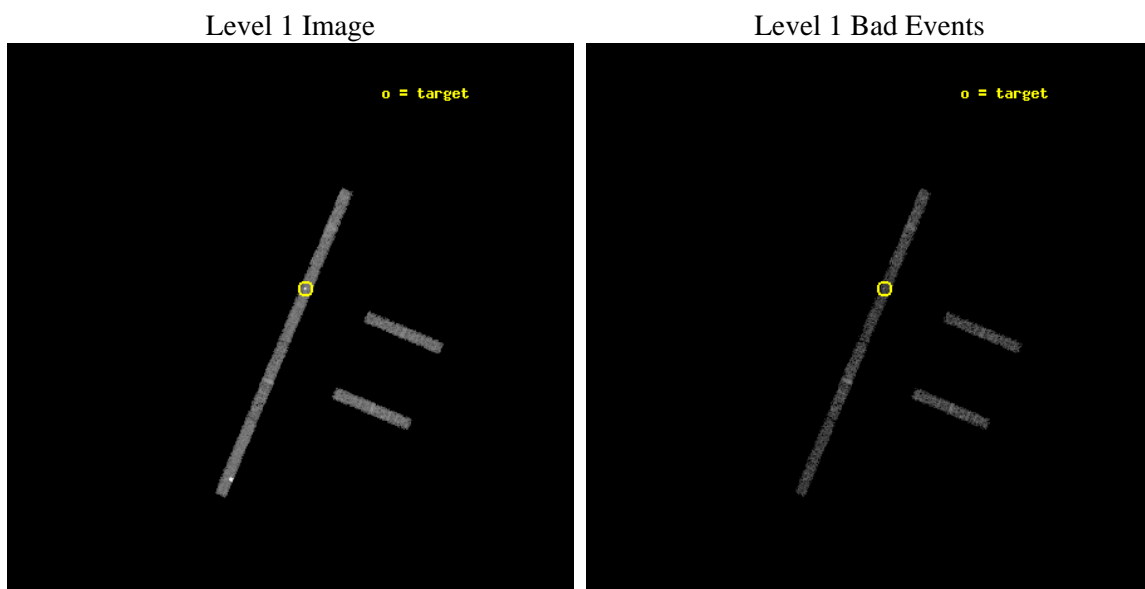
seq_num	600311	Sequence number
obs_id	3937	Observation id
title	PROBING THE SPECTRAL VARIABILITY OF THE ULTRALUMINOUS X-RAY SOURCE NGC 5204 X-1	Proposal title
observer	Dr Timothy Roberts	Principal investigator
object	NGC 5204 X-1	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	202.410833	Observer's specified target RA [deg]
dec_targ	58.418333	Observer's specified target Dec [deg]
ra_nom	202.4600212357	Nominal RA [deg]
dec_nom	58.352438665134	Nominal Dec [deg]
roll_nom	292.83859898165	Nominal Roll [deg]
revision	3	Processing version of data
ontime	4906.2999164462	Sum of GTIs [s]
livetime	4634.5810502973	Livetime [s]
ontime2	4906.2999164462	Sum of GTIs [s]
ontime3	4906.2999164462	Sum of GTIs [s]
ontime5	4906.2999164462	Sum of GTIs [s]
ontime6	4906.2999164462	Sum of GTIs [s]
ontime7	4906.2999164462	Sum of GTIs [s]
ontime8	4906.2999164462	Sum of GTIs [s]
l2events	9308	Number of level 2 events



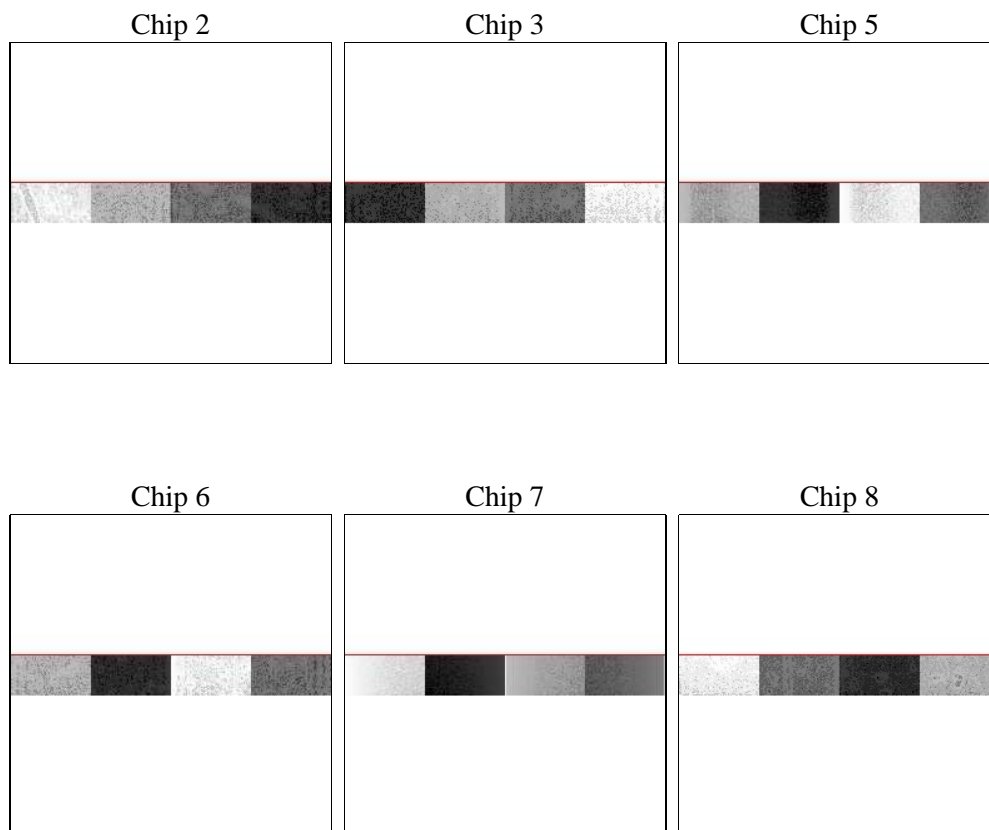
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	4773.253000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	4906.2999164462	Sum of GTIs [s]
caldsver	4.5.2	&#160	ontime2	4906.2999164462	Sum of GTIs [s]
date	2012-11-03T14:24:38	Date and time of file creation	ontime3	4906.2999164462	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	4906.2999164462	Sum of GTIs [s]
			ontime6	4906.2999164462	Sum of GTIs [s]
			ontime7	4906.2999164462	Sum of GTIs [s]
			ontime8	4906.2999164462	Sum of GTIs [s]
			l1events	59555	Number of level 1 events

### 2.1.4 Events

	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	8333	7021	17367	7441	10288	9105
rejected events	7654	6441	8019	6807	5607	7711
rejected %	91%	91%	46%	91%	54%	84%

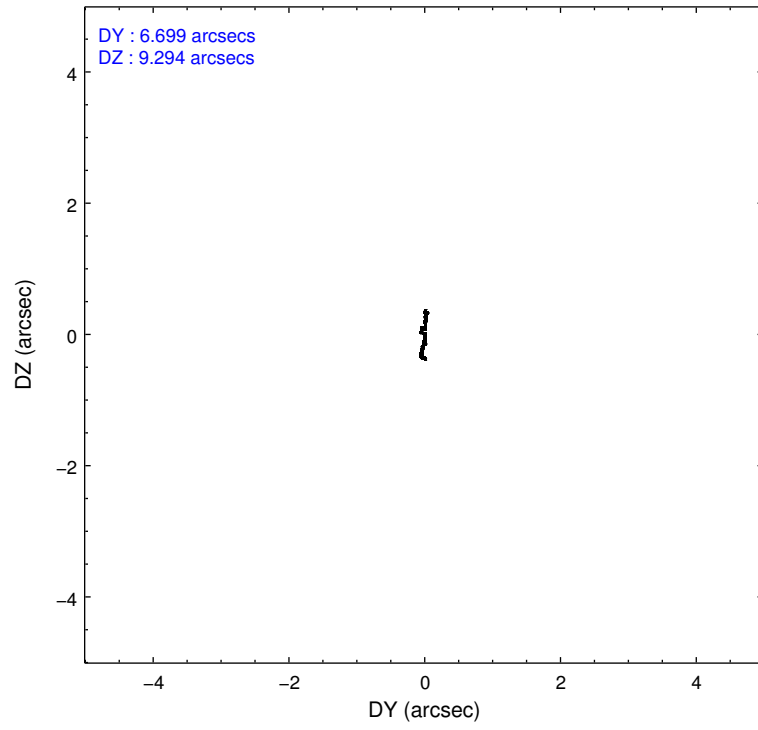
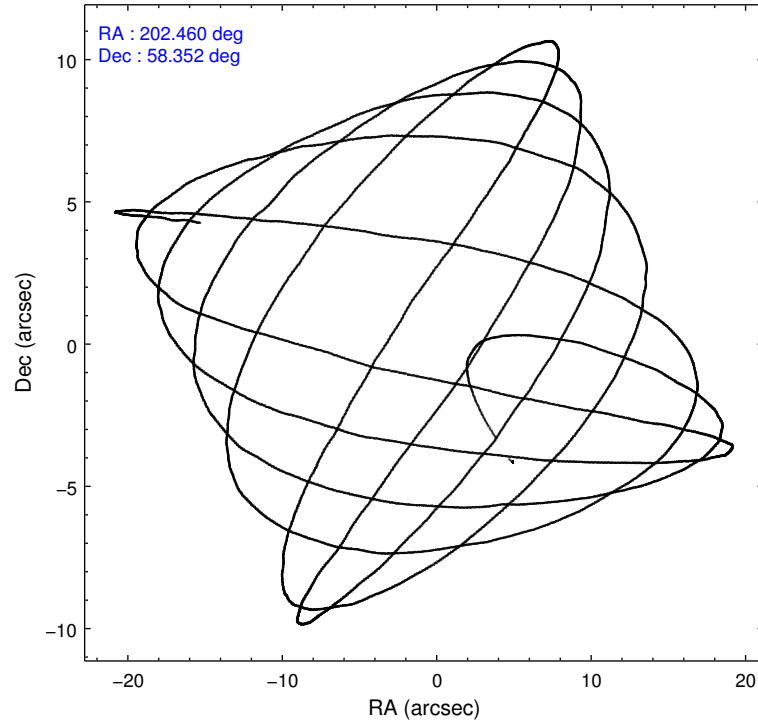
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	325	278	8078	276	1193	517
	3%	3%	46%	3%	11%	5%
grade 1 events	1	4	19	1	25	2
	0%	0%	0%	0%	0%	0%
grade 2 events	169	144	2210	157	1258	343
	2%	2%	12%	2%	12%	3%
grade 3 events	147	138	302	130	631	202
	1%	1%	1%	1%	6%	2%
grade 4 events	135	109	338	151	638	206
	1%	1%	1%	2%	6%	2%
grade 5 events	228	241	727	220	766	311
	2%	3%	4%	2%	7%	3%
grade 6 events	133	116	1900	138	1924	548
	1%	1%	10%	1%	18%	6%
grade 7 events	7195	5991	3793	6368	3853	6976
	86%	85%	21%	85%	37%	76%

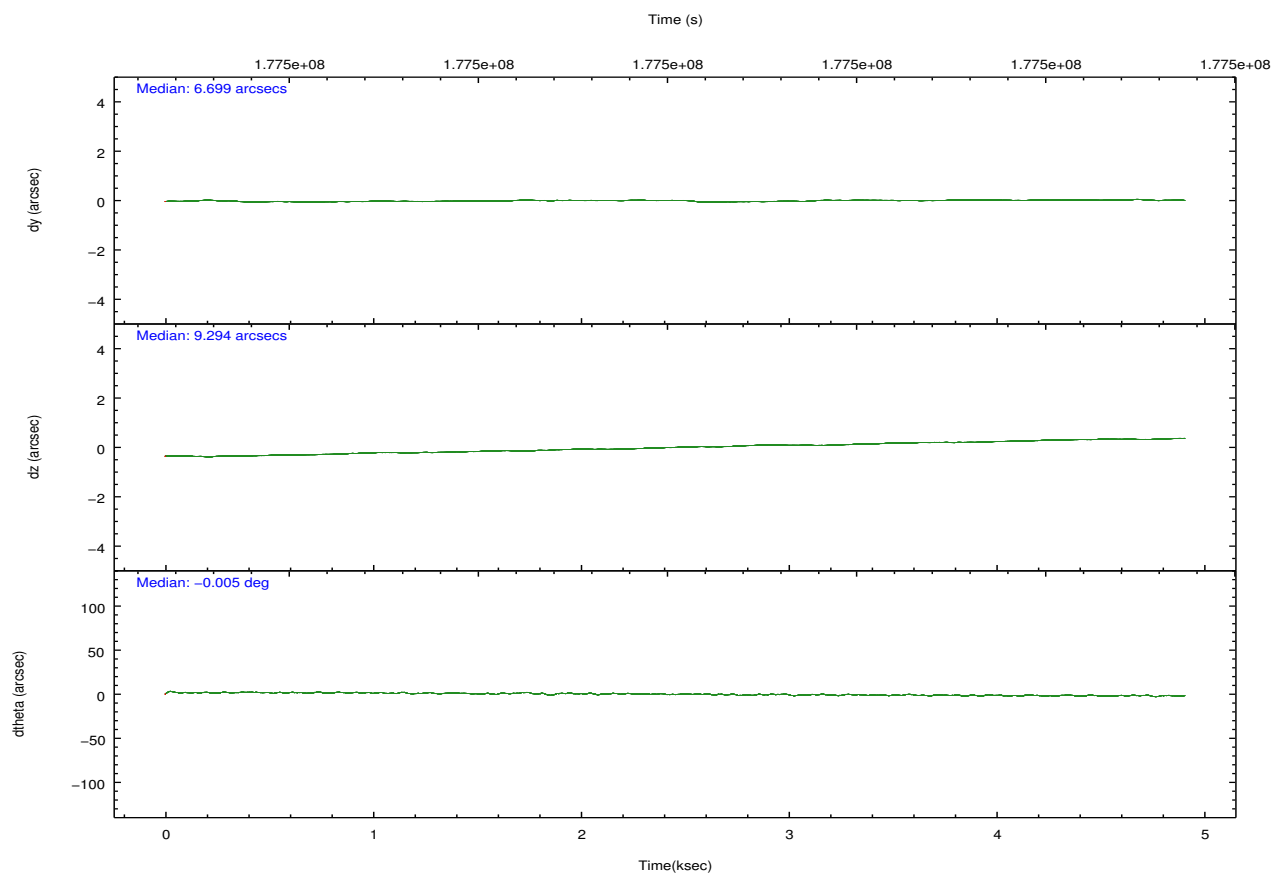
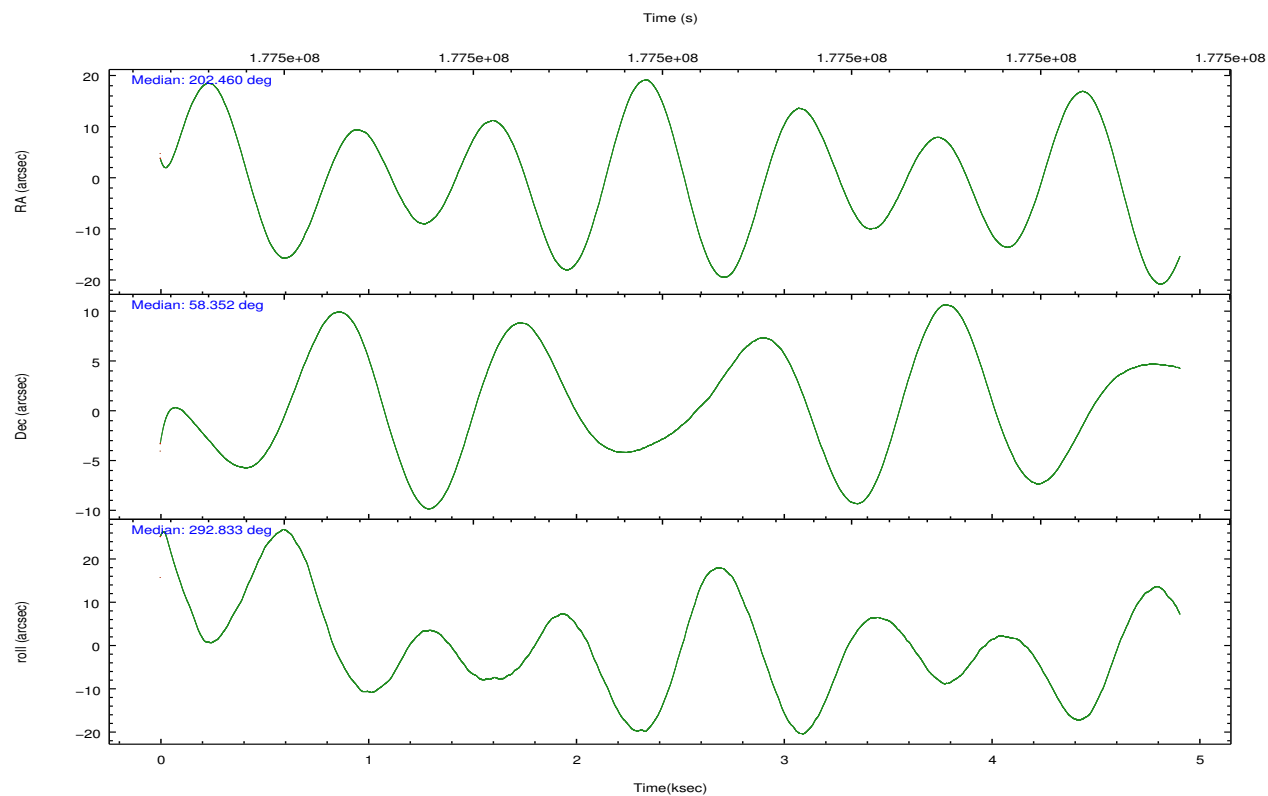


## 2.2 Compared Parameters

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	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	202.418144	202.4600212357014	Subarray requested	CUSTOM	1/8
[deg] Pointing Dec	58.368613	58.35243866513363	Subarray start row	449	449
[deg] Pointing Roll	292.717612	292.8385989816495	Subarray row count	128	128
[mm] SIM focus pos	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
[mm] SIM defocus	0	0.001444936568705701	[s] Primary exposure time	0.000000	0.7
[mm] SIM translation stage pos	-190.132523	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	177495715.184000	177493787.23875			
Observation start date	2003-08-17T08:20:51	2003-08-17T07:49:47			
[s] Observation end time (MET)	177500488.184000	177500802.85155			
Observation end date	2003-08-17T09:40:24	2003-08-17T09:46:42			
Read mode	TIMED	TIMED			

## 2.3 Aspect



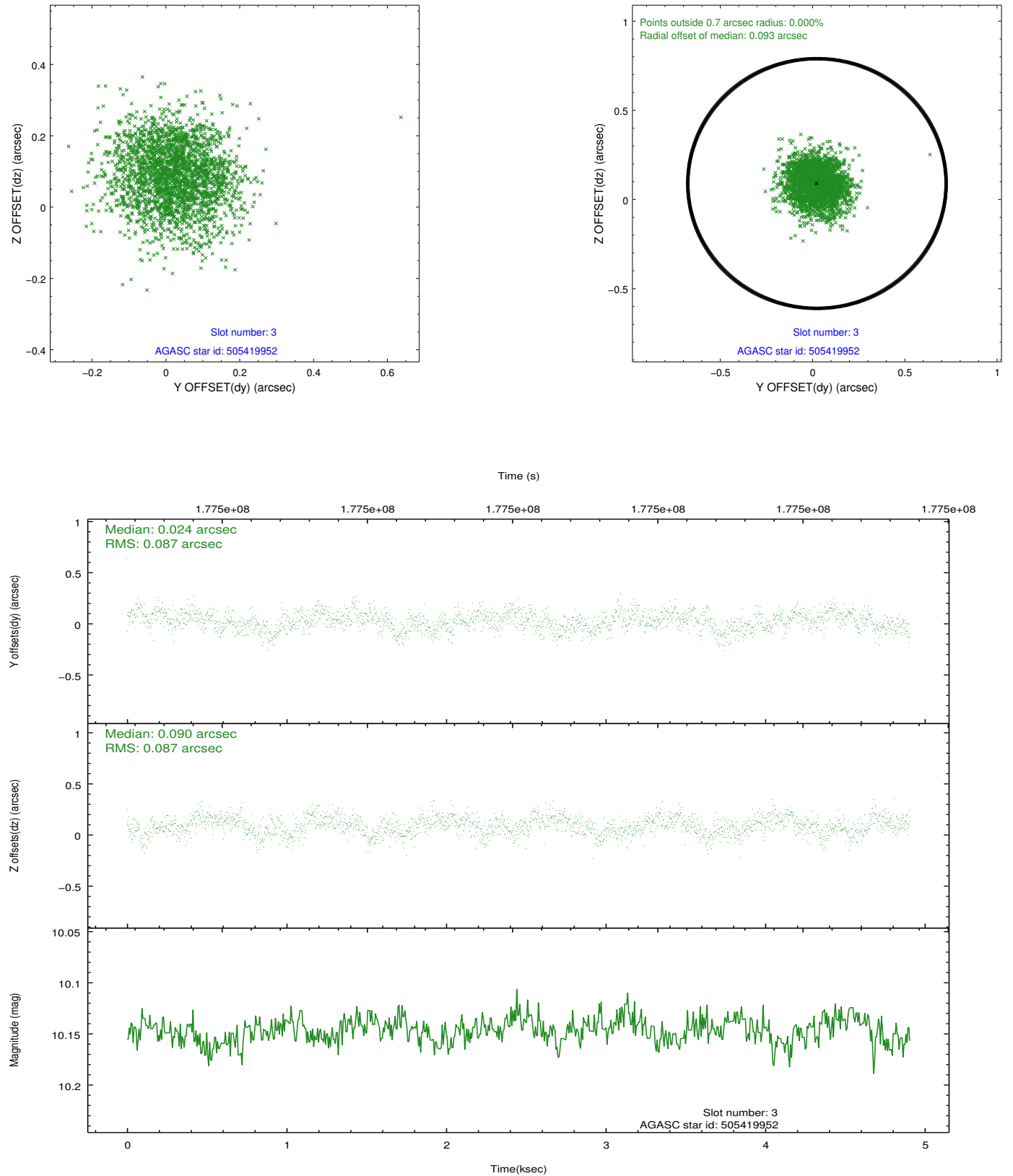


### Slot Statistics

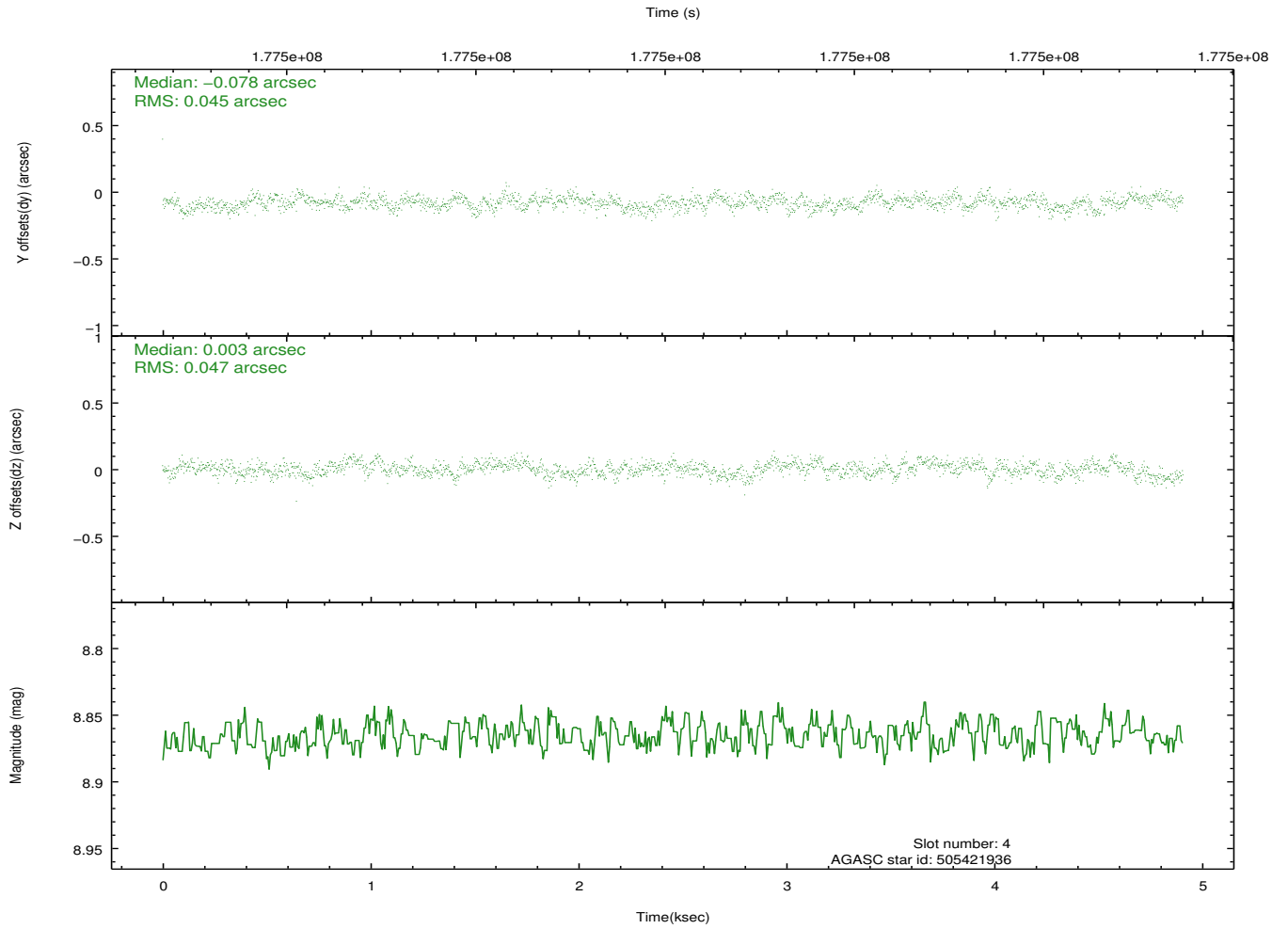
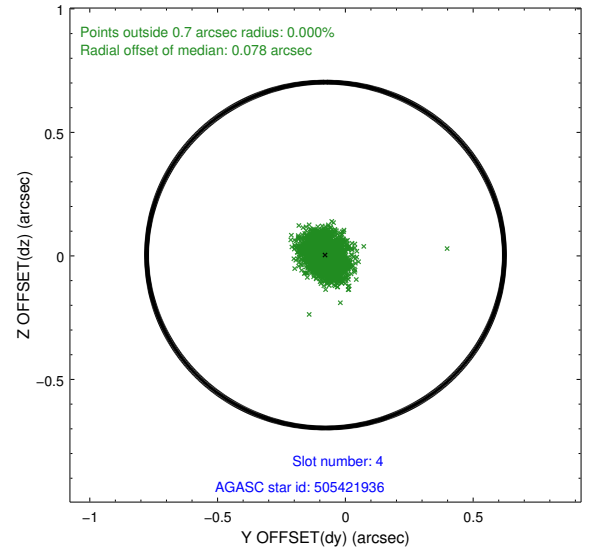
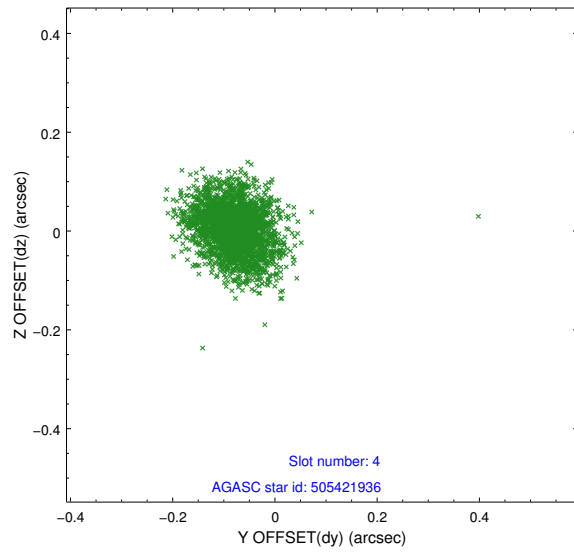
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-4	7.20	1198	0.060	0.011	0.007	0.011	0.000000	0.000000	2153.97	178.22
1	FID	ACIS-S-5	7.23	1197	-0.067	0.014	0.006	0.010	0.000000	0.000000	-1810.74	171.82
2	FID	ACIS-S-6	7.34	1198	-0.021	-0.011	0.009	0.017	0.000000	0.000000	400.81	815.54
3	GUIDE	505419952	10.15	2393	0.024	0.090	0.131	0.210	201.880700	58.804366	-1837.44	-317.10
4	GUIDE	505421936	8.87	2394	-0.078	0.003	0.069	0.110	201.854843	57.887820	1175.69	-1661.04
5	GUIDE	505421968	8.19	2395	0.002	-0.051	0.059	0.096	202.022601	58.209270	238.21	-913.38
6	GUIDE	505422344	8.62	2394	0.059	0.125	0.060	0.097	202.767077	57.846963	1989.31	-107.93
7	GUIDE	505414952	10.01	2392	-0.004	-0.163	0.131	0.212	203.527988	58.651569	-151.84	2317.11

## 2.4 Star Slots

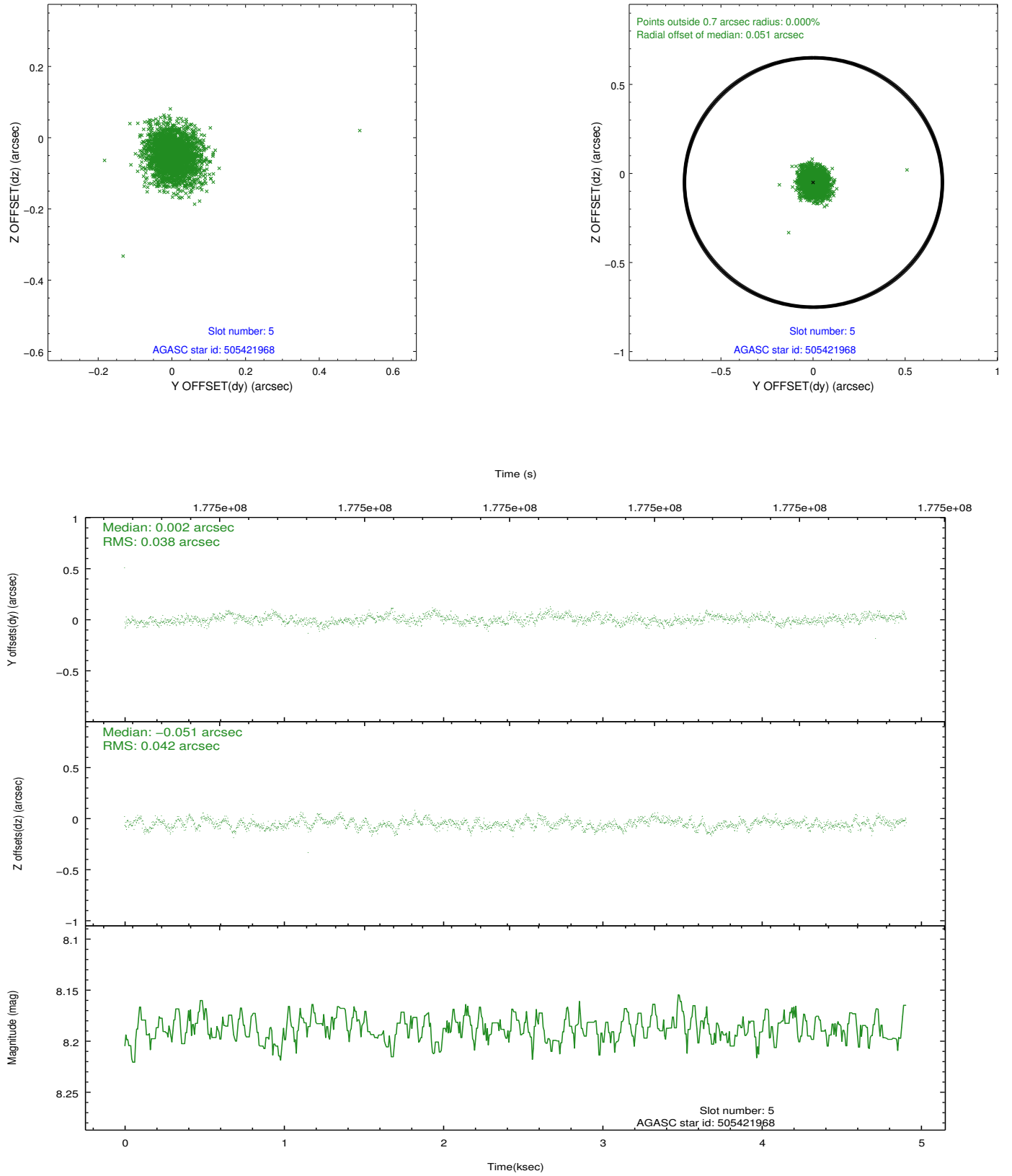
### 2.4.1 Slot 3



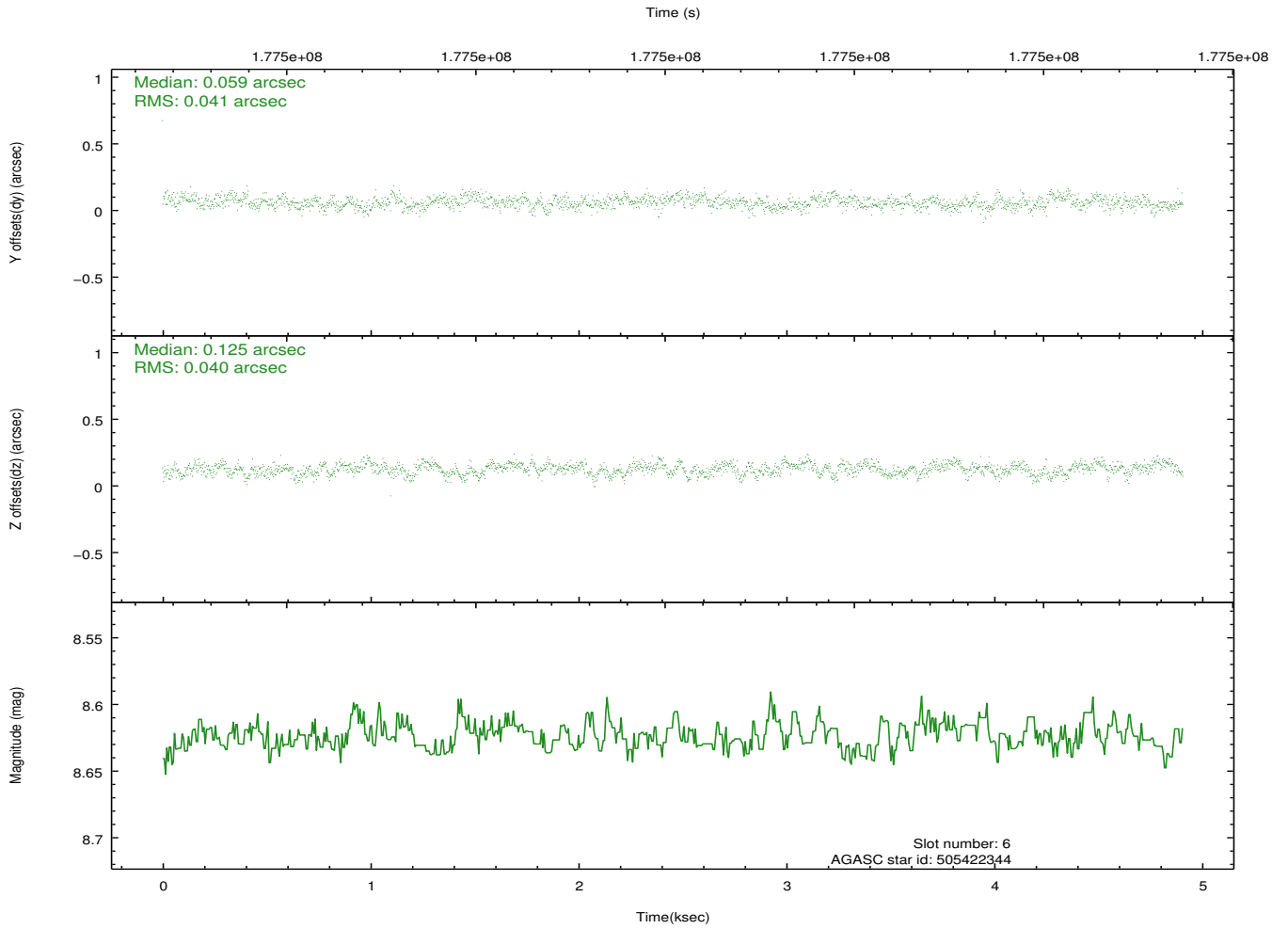
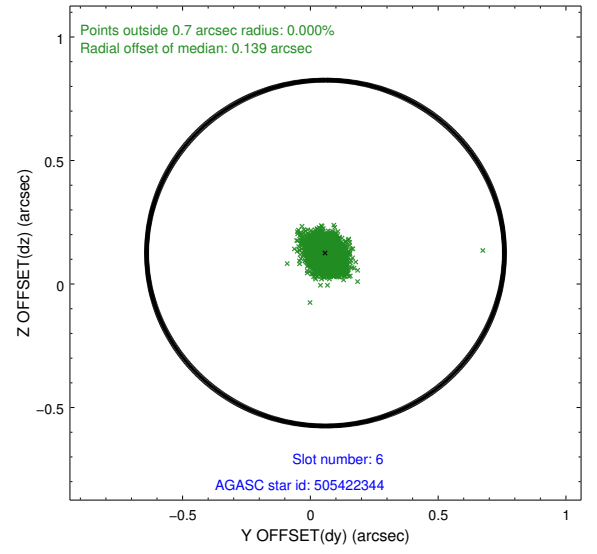
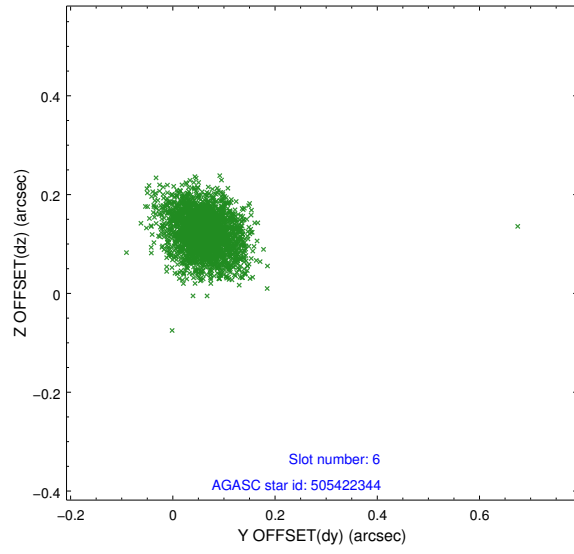
## 2.4.2 Slot 4



### 2.4.3 Slot 5

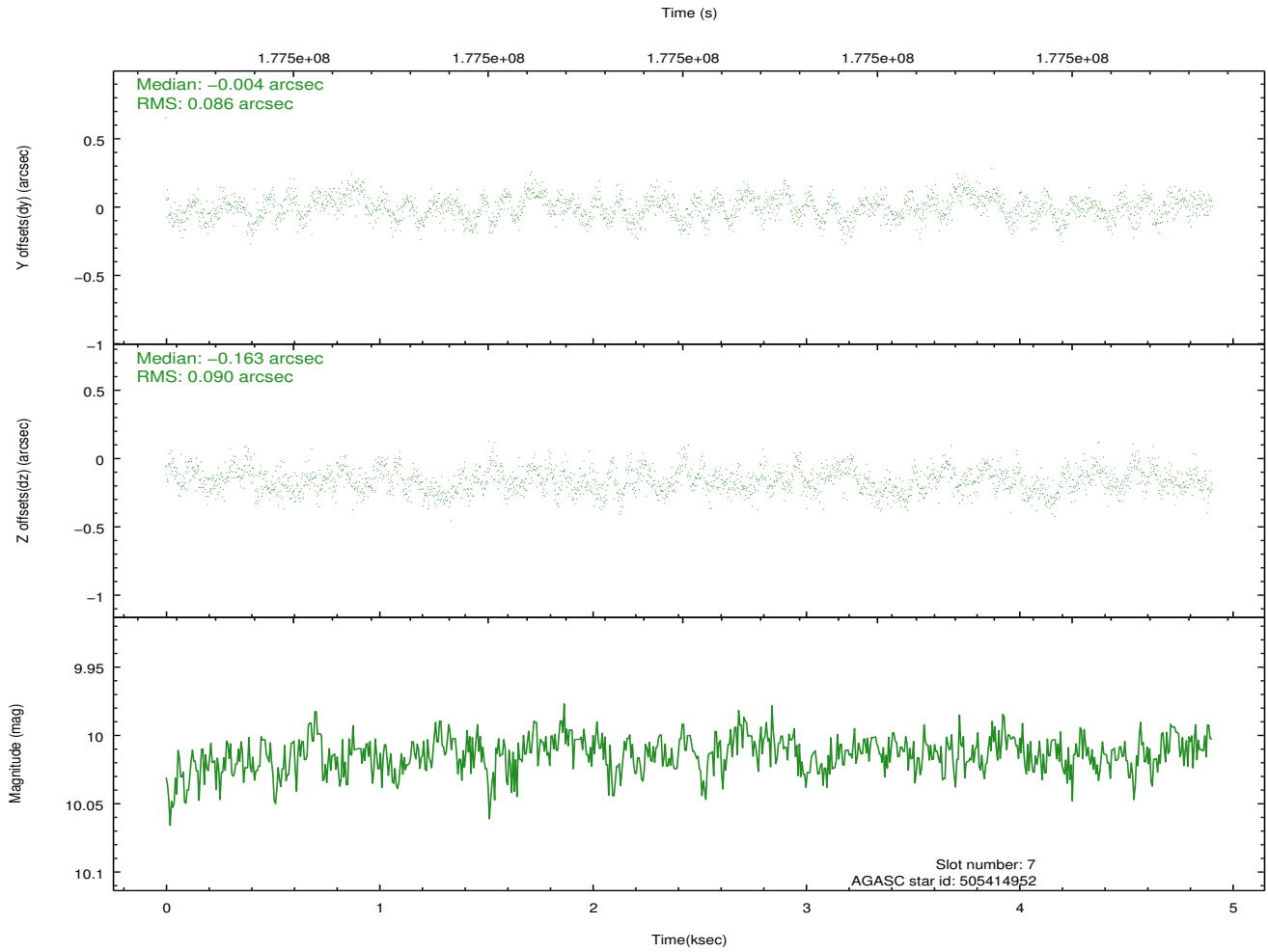
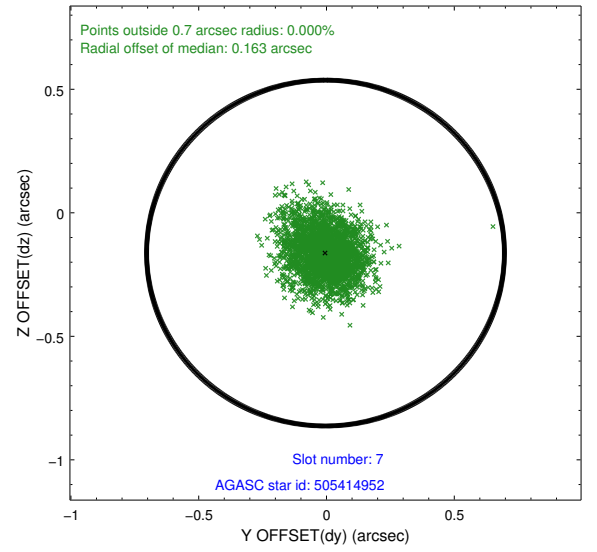
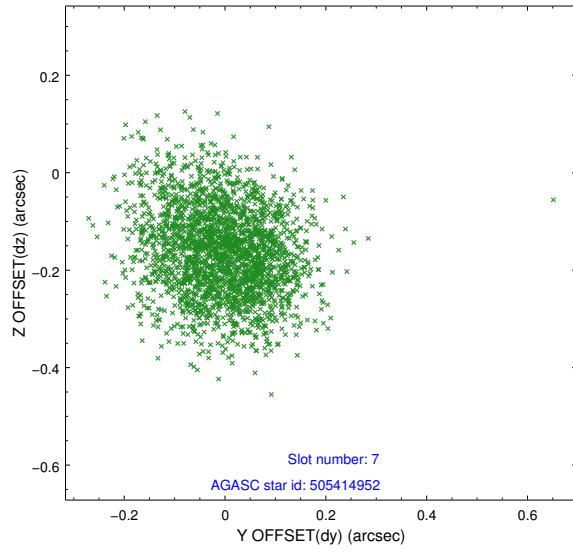


## 2.4.4 Slot 6



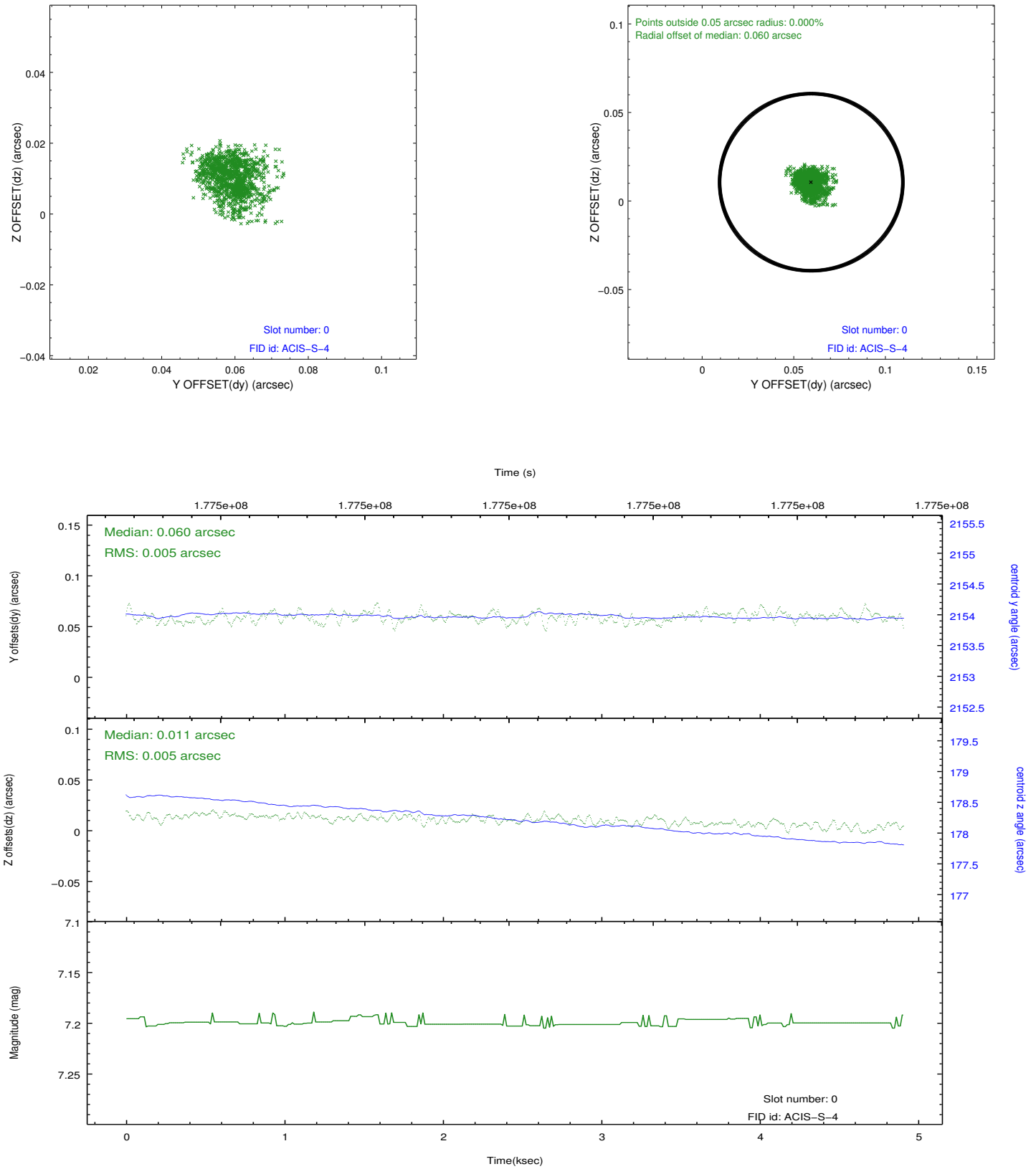


## 2.4.5 Slot 7

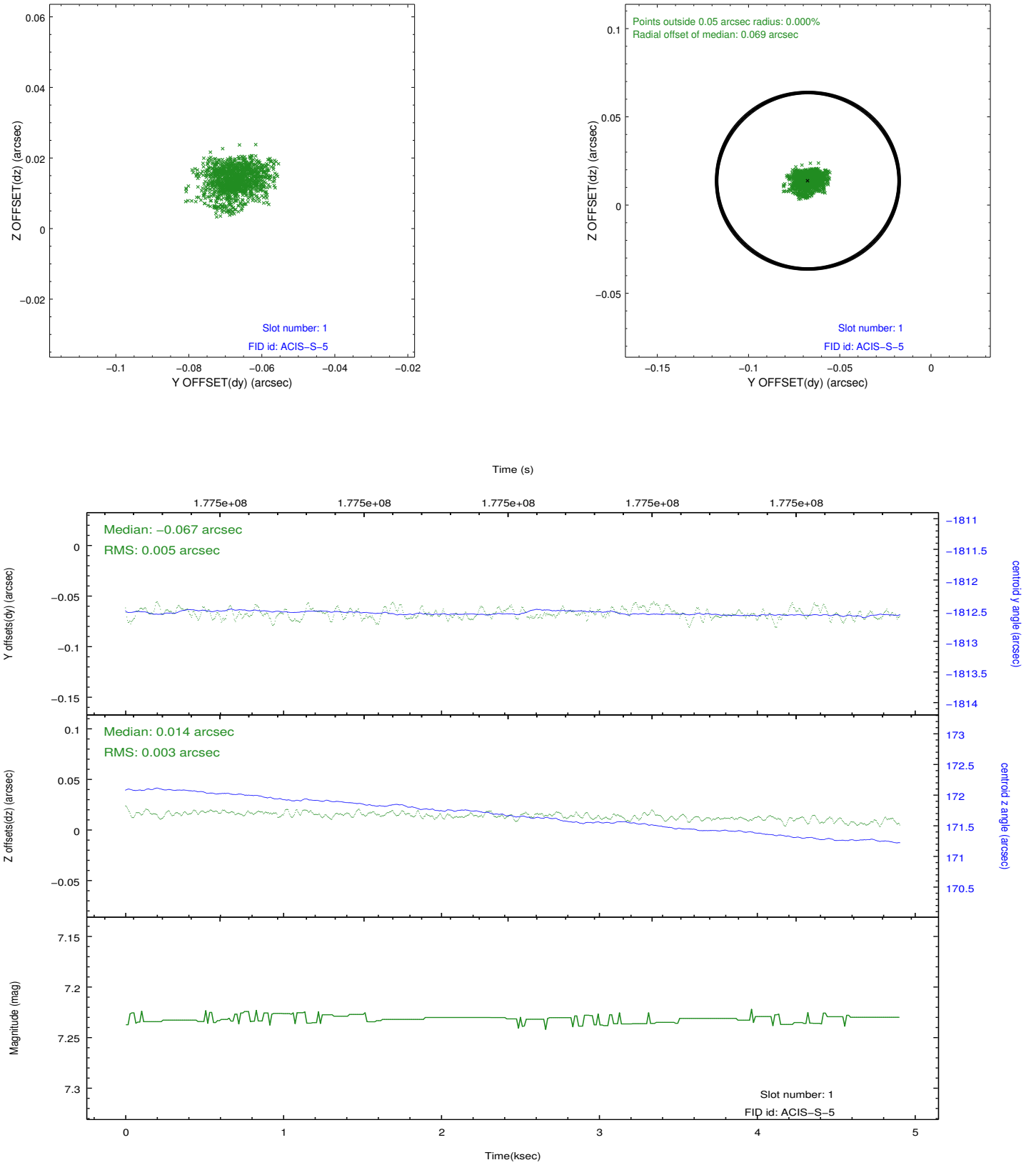


## 2.5 FID Slots

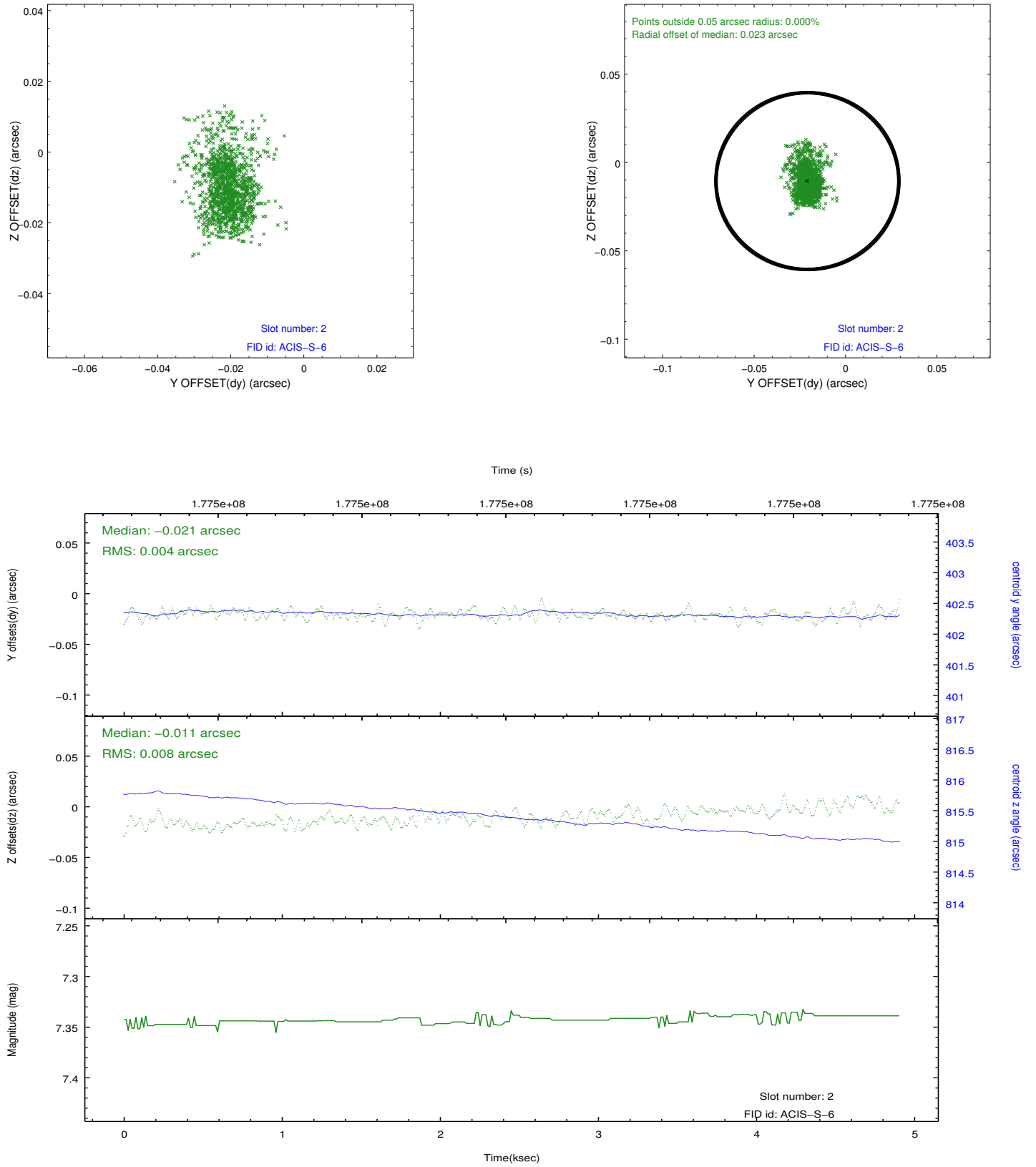
### 2.5.1 Slot 0



## 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)	2012.11.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.906

### A.2 Comments