

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 3940 - L2 Version 3  
Chandra X-Ray Center

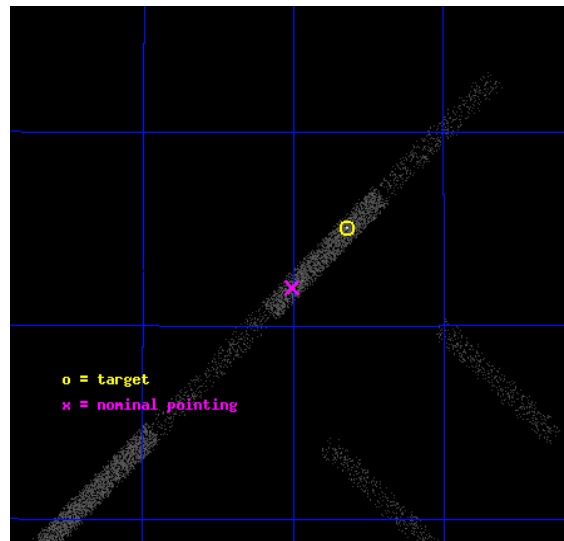
L2 Processing Date : Nov 3 2012

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# 1 Front

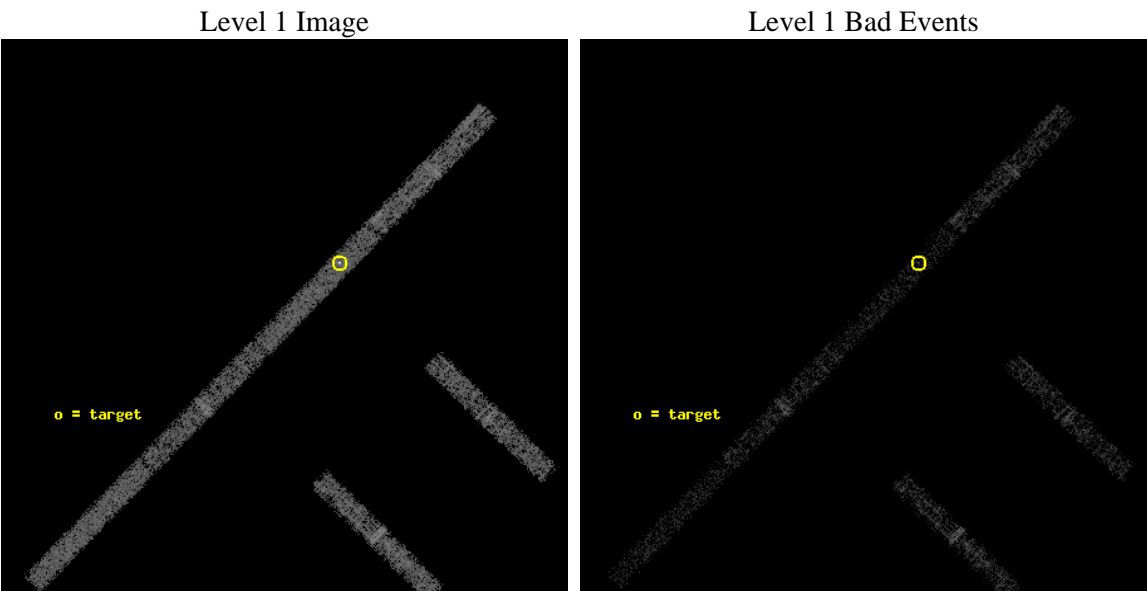
seq_num	600314	Sequence number
obs_id	3940	Observation id
title	PROBING THE SPECTRAL VARIABILITY OF THE ULTRALUMINOUS X-RAY SOURCE NGC 5204 X-1	Proposal title
observer	Dr Timothy Roberts	Principal investigator
object	NGC 5204 X-1	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	202.410833	Observer's specified target RA [deg]
dec_targ	58.418333	Observer's specified target Dec [deg]
ra_nom	202.50248221122	Nominal RA [deg]
dec_nom	58.366437118221	Nominal Dec [deg]
roll_nom	314.28419471309	Nominal Roll [deg]
revision	3	Processing version of data
ontime	5125.399912715	Sum of GTIs [s]
livetime	4841.5469325549	Livetime [s]
ontime2	5125.399912715	Sum of GTIs [s]
ontime3	5125.399912715	Sum of GTIs [s]
ontime5	5125.399912715	Sum of GTIs [s]
ontime6	5125.399912715	Sum of GTIs [s]
ontime7	5125.399912715	Sum of GTIs [s]
ontime8	5125.399912715	Sum of GTIs [s]
l2events	8938	Number of level 2 events



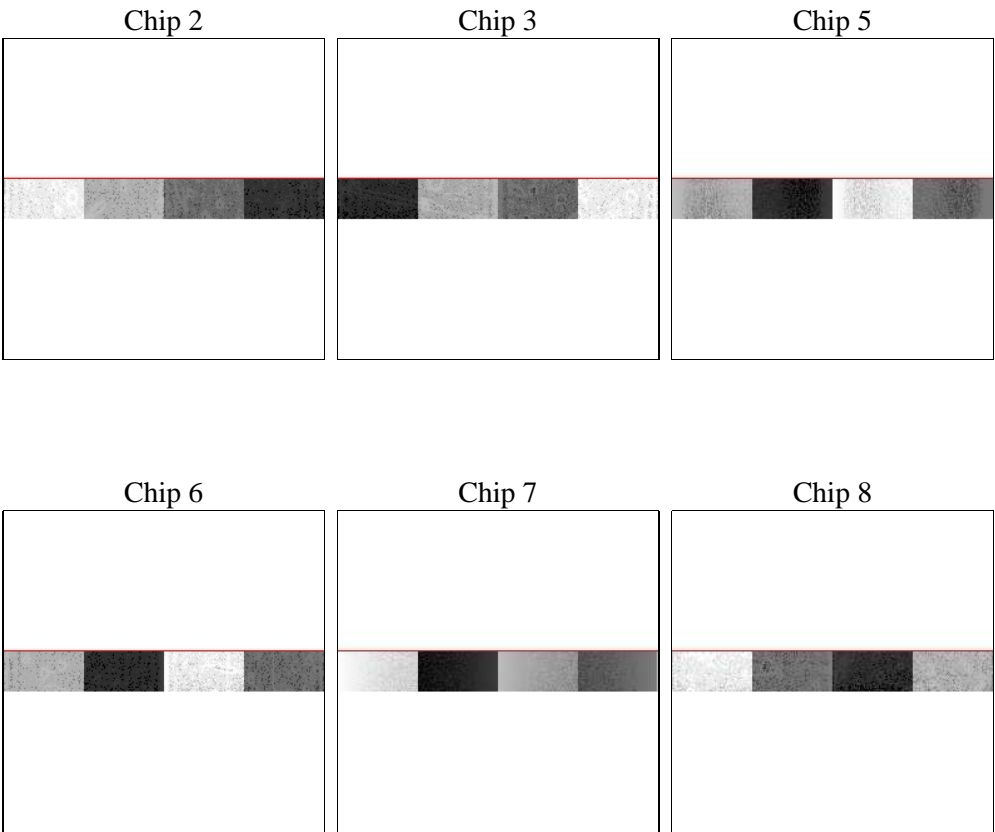
# 2 OBI

## 2.1 OBI

### 2.1.1 Images



### 2.1.2 Bias



Chip 6



Chip 7



Chip 8



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	5125.399912715	Sum of GTIs [s]
caldsver	4.5.2	&#160	ontime2	5125.399912715	Sum of GTIs [s]
date	2012-11-03T19:13:37	Date and time of file creation	ontime3	5125.399912715	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	5125.399912715	Sum of GTIs [s]
			ontime6	5125.399912715	Sum of GTIs [s]
			ontime7	5125.399912715	Sum of GTIs [s]
			ontime8	5125.399912715	Sum of GTIs [s]
			l1events	50624	Number of level 1 events

### 2.1.4 Events

	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	8243	7497	8261	7447	9768	9408
rejected events	7603	6912	5320	6847	5497	8303
rejected %	92%	92%	64%	91%	56%	88%

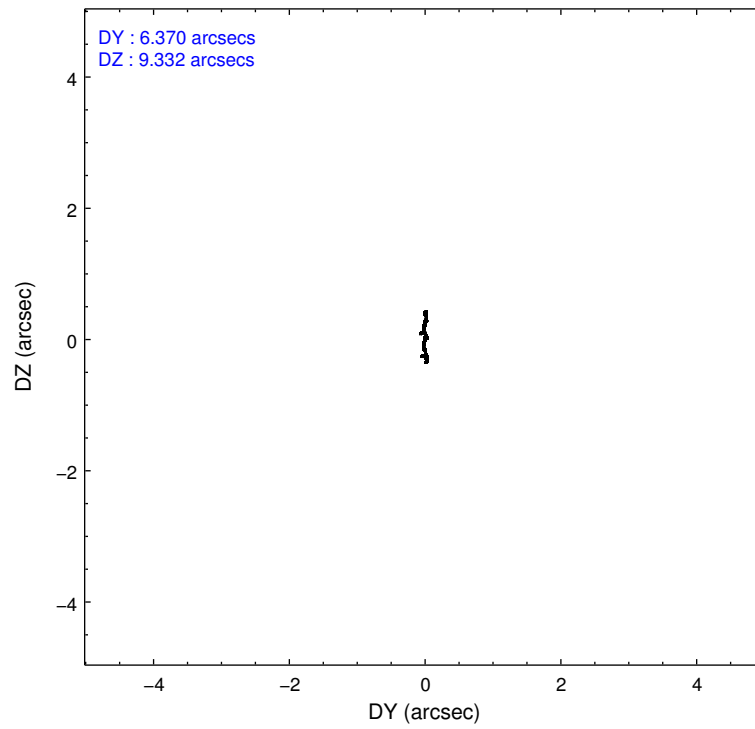
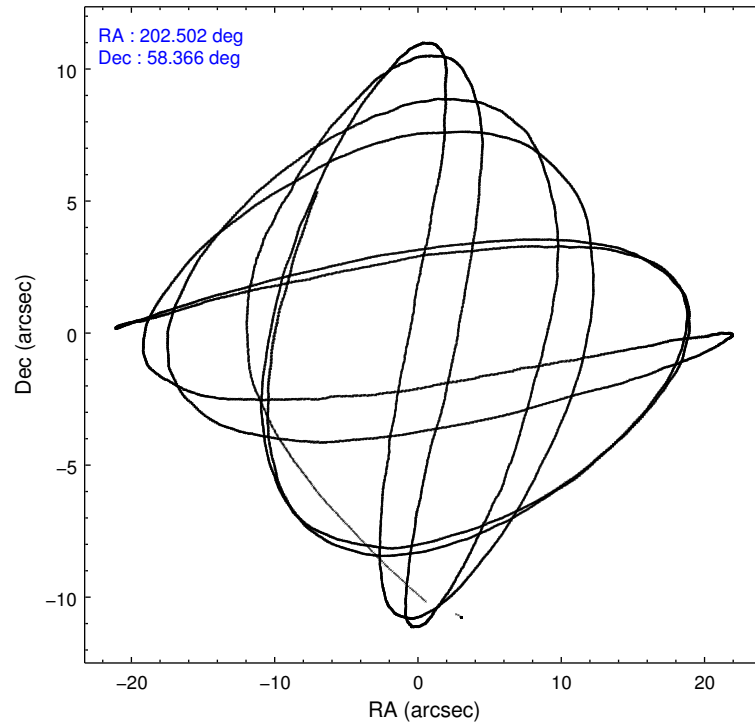
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	890	891	556	850	1194	1016
	10%	11%	6%	11%	12%	10%
grade 1 events	5	3	12	5	7	4
	0%	0%	0%	0%	0%	0%
grade 2 events	347	276	1265	282	1275	436
	4%	3%	15%	3%	13%	4%
grade 3 events	177	183	243	171	630	255
	2%	2%	2%	2%	6%	2%
grade 4 events	190	171	272	163	622	205
	2%	2%	3%	2%	6%	2%
grade 5 events	202	199	511	215	622	243
	2%	2%	6%	2%	6%	2%
grade 6 events	270	281	1986	298	2091	507
	3%	3%	24%	4%	21%	5%
grade 7 events	6162	5493	3416	5463	3327	6742
	74%	73%	41%	73%	34%	71%

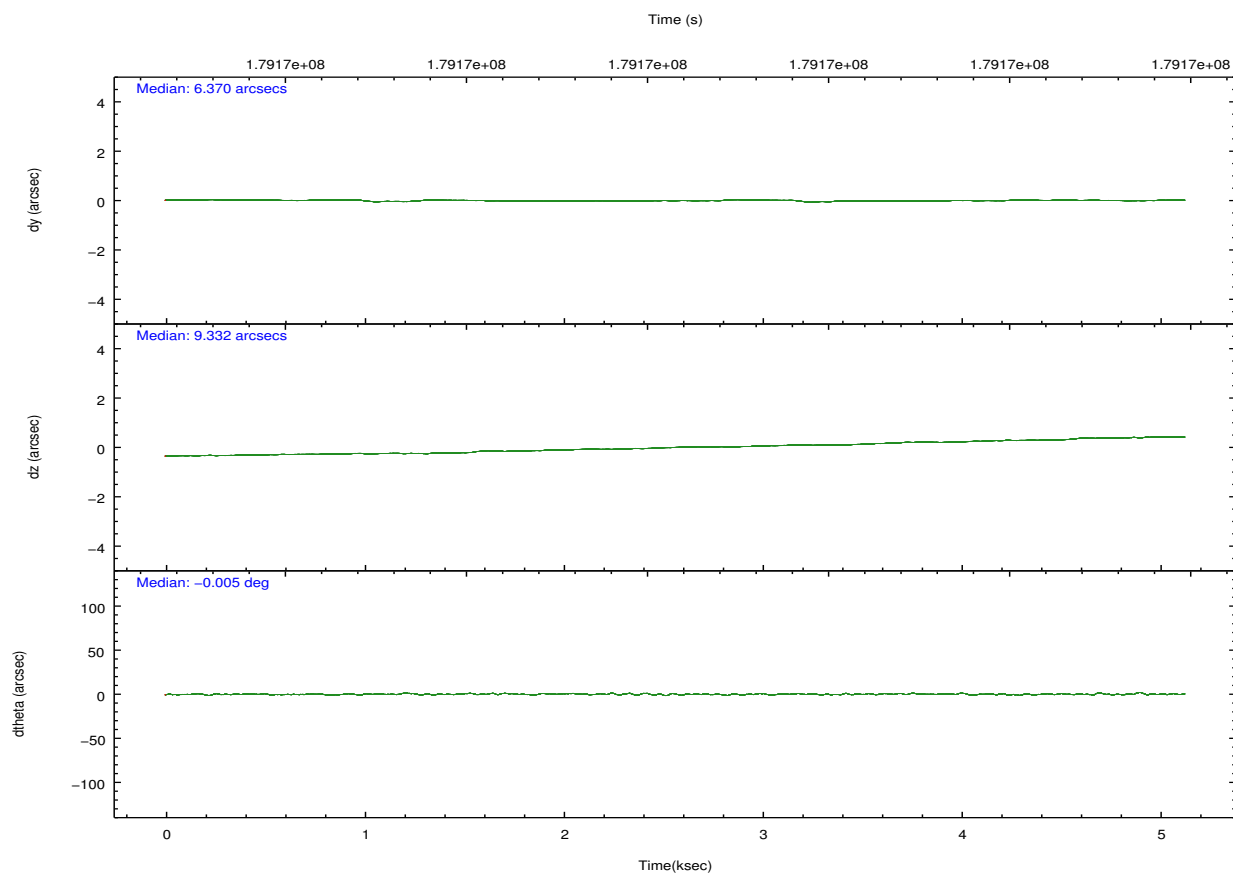
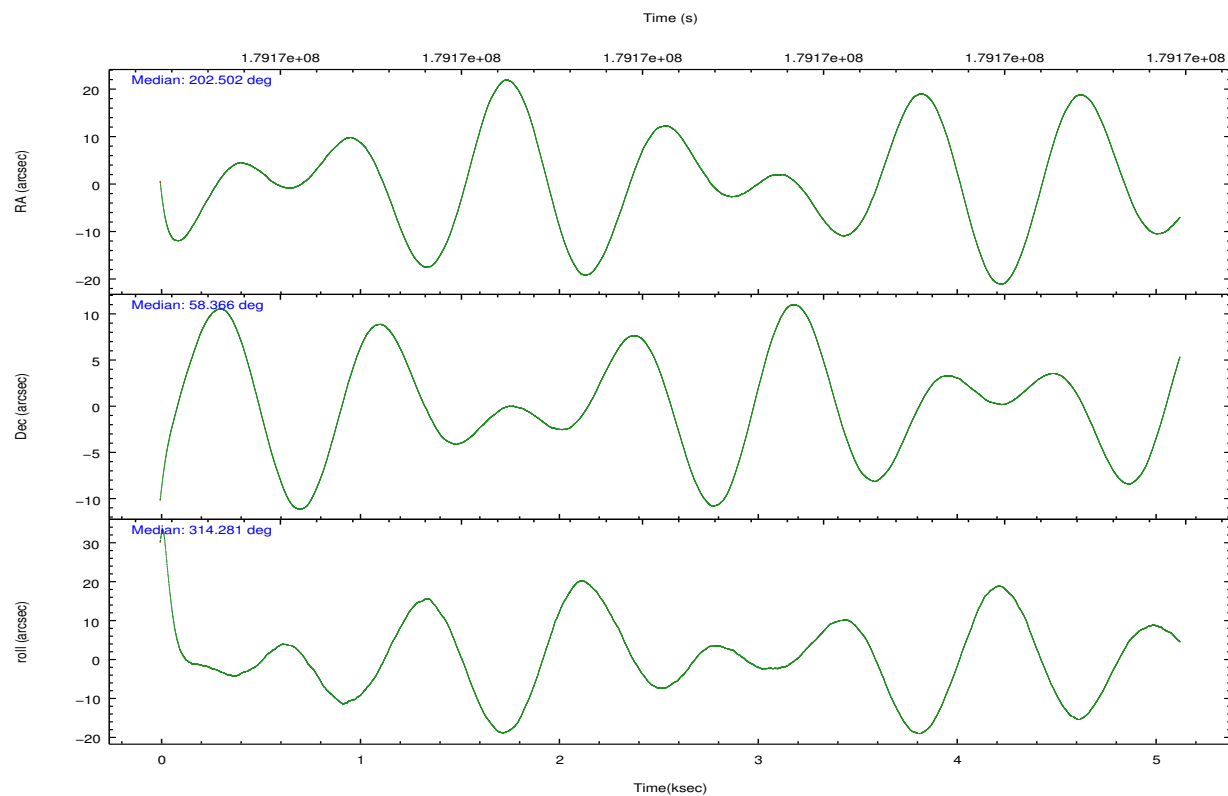


## 2.2 Compared Parameters

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	202.452363	202.5024822112242	Subarray requested	CUSTOM	1/8
[deg] Pointing Dec	58.373464	58.36643711822055	Subarray start row	449	449
[deg] Pointing Roll	314.170131	314.2841947130923	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	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	179166712.184000	179165505.93529			
Observation start date	2003-09-05T16:30:48	2003-09-05T16:11:45			
[s] Observation end time (MET)	179171712.184000	179172362.16058			
Observation end date	2003-09-05T17:54:08	2003-09-05T18:06:02			
Read mode	TIMED	TIMED			

## 2.3 Aspect



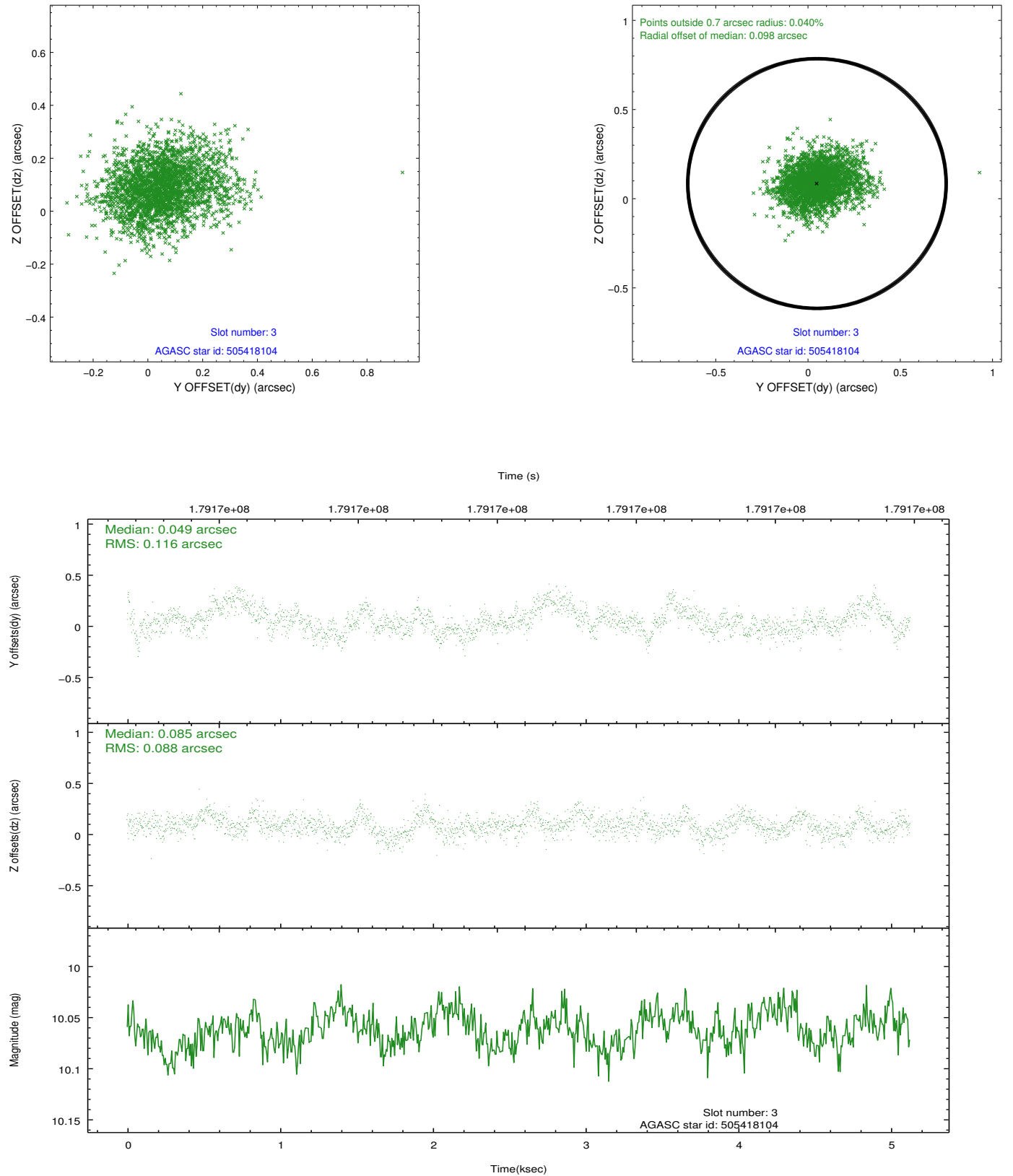


### Slot Statistics

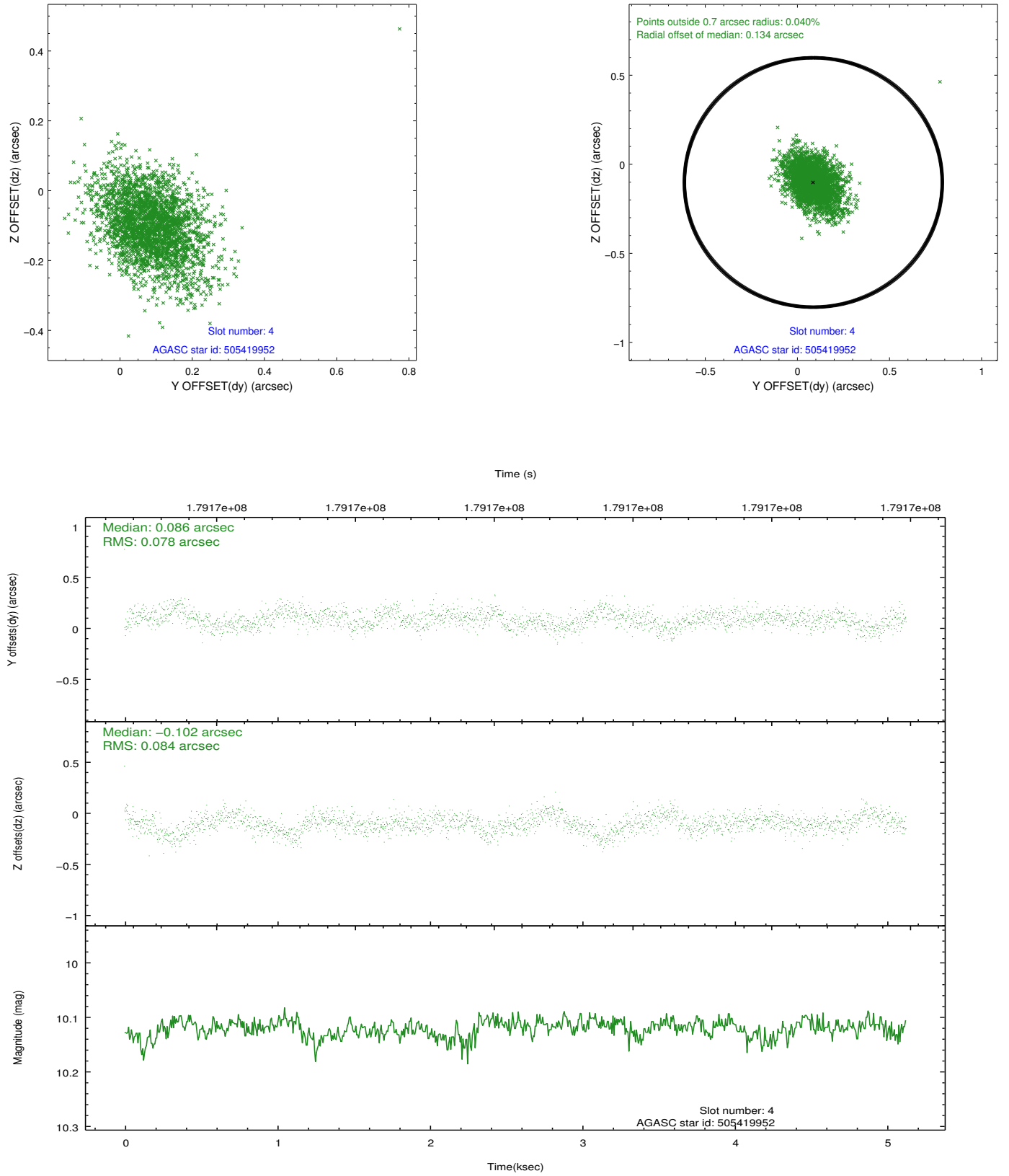
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.18	1251	-0.018	-0.001	0.008	0.015	0.000000	0.000000	936.90	-1726.20
1	FID	ACIS-S-4	7.20	1251	0.028	0.011	0.007	0.011	0.000000	0.000000	2155.02	176.75
2	FID	ACIS-S-6	7.35	1251	-0.033	0.001	0.007	0.013	0.000000	0.000000	404.36	815.45
3	GUIDE	505418104	10.06	2499	0.049	0.085	0.153	0.254	204.045955	58.342161	2153.55	2106.37
4	GUIDE	505419952	10.12	2500	0.086	-0.102	0.118	0.205	201.880700	58.804366	-1857.31	320.39
5	GUIDE	505421936	8.86	2502	-0.162	0.066	0.083	0.131	201.854843	57.887820	453.28	-2034.38
6	GUIDE	505421968	8.20	2501	0.051	-0.065	0.070	0.109	202.022601	58.209270	-145.11	-995.35
7	GUIDE	505422344	8.62	2499	-0.027	0.016	0.069	0.110	202.767077	57.846963	1779.14	-887.29

## 2.4 Star Slots

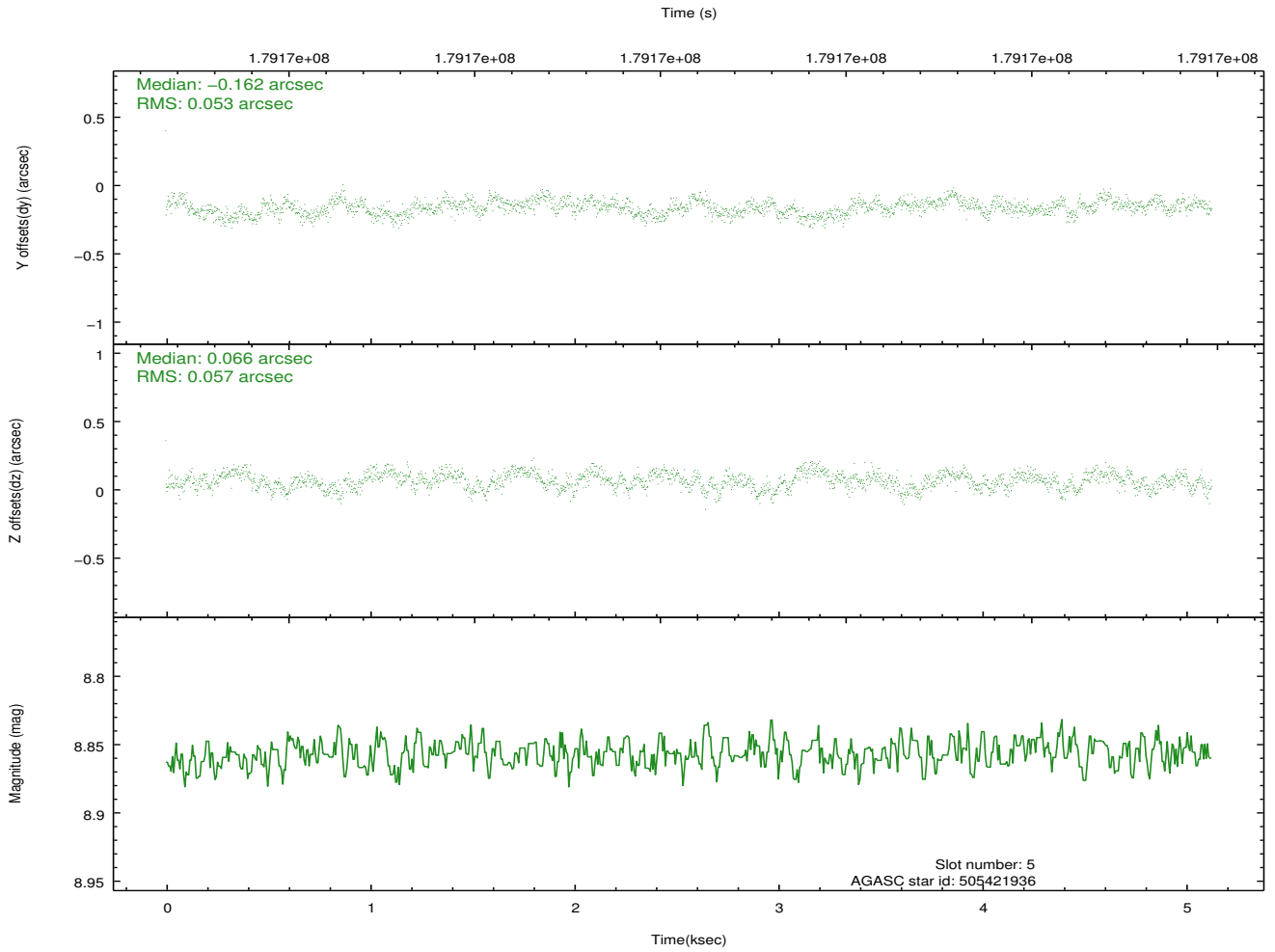
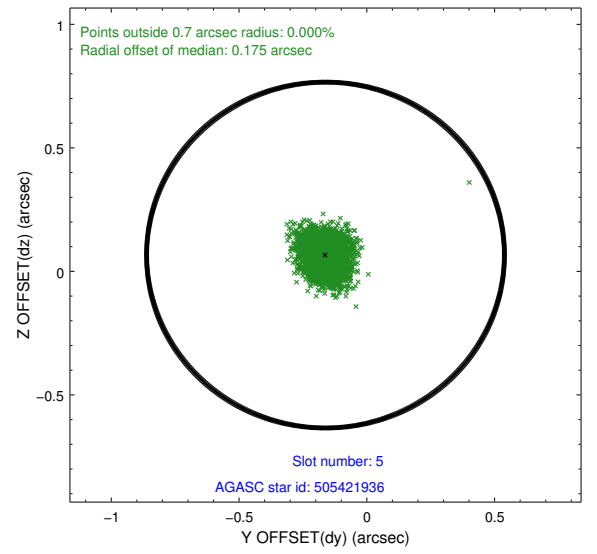
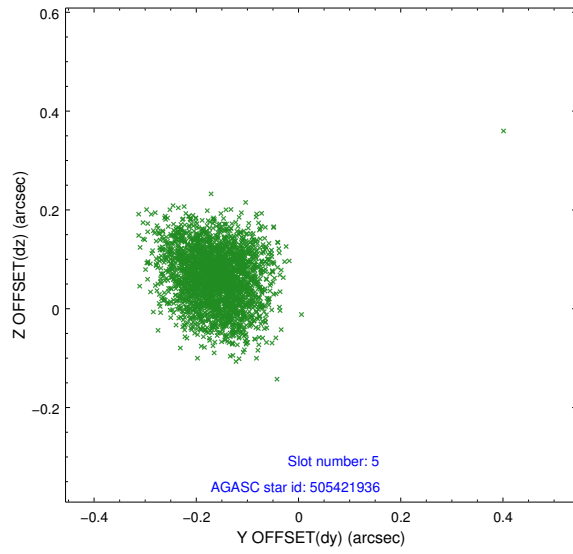
### 2.4.1 Slot 3



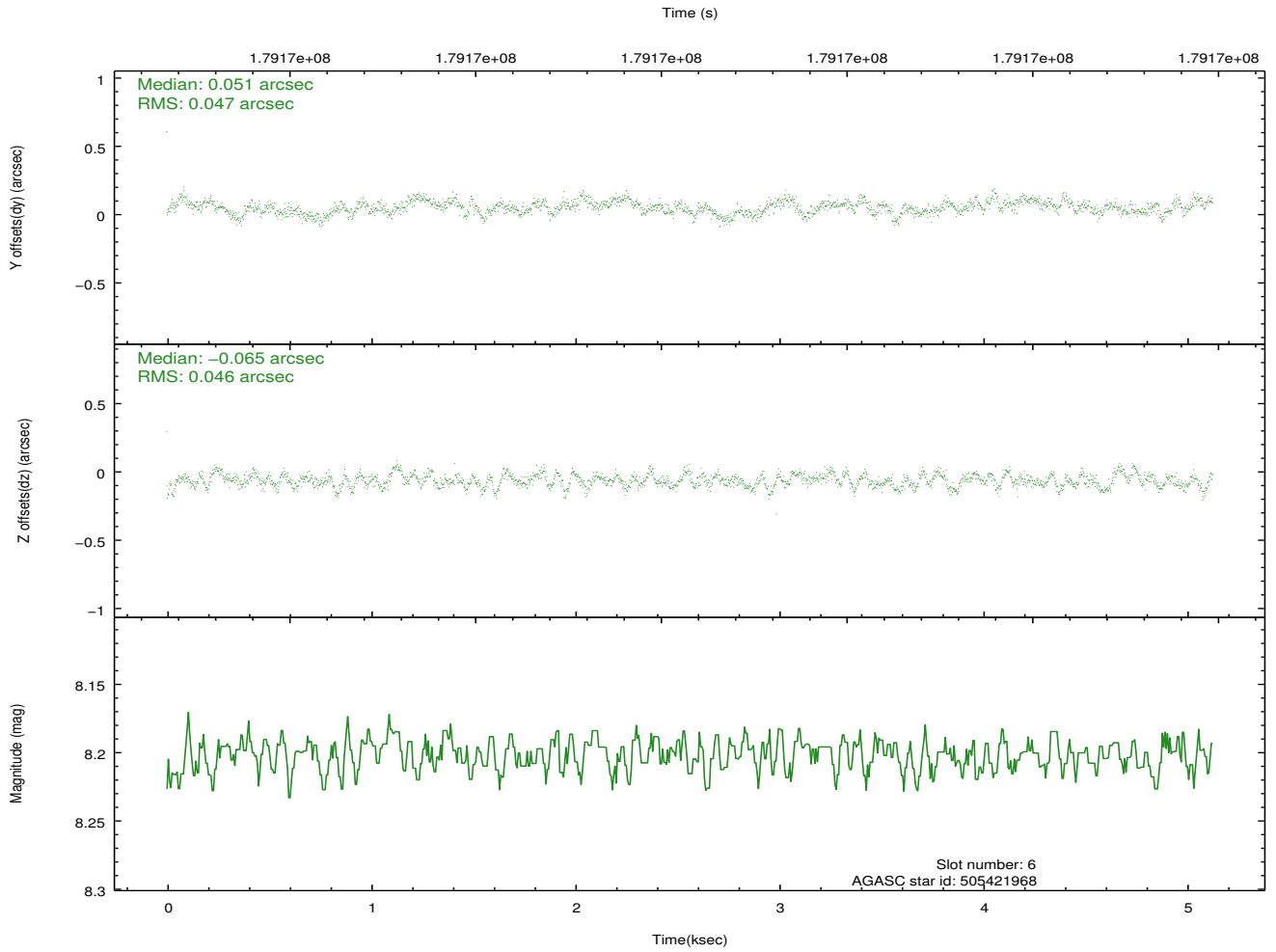
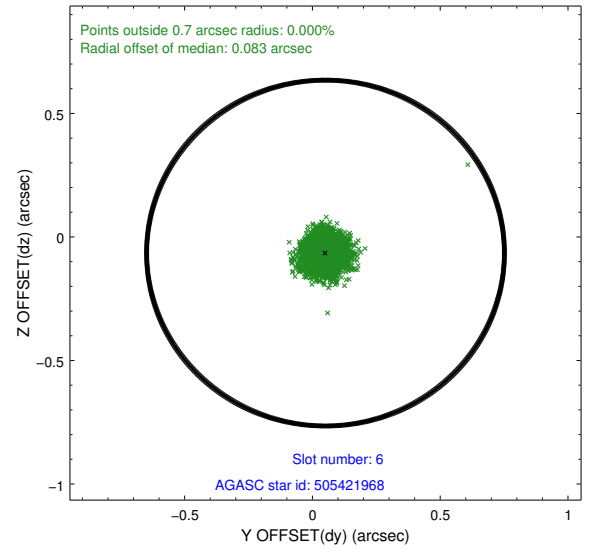
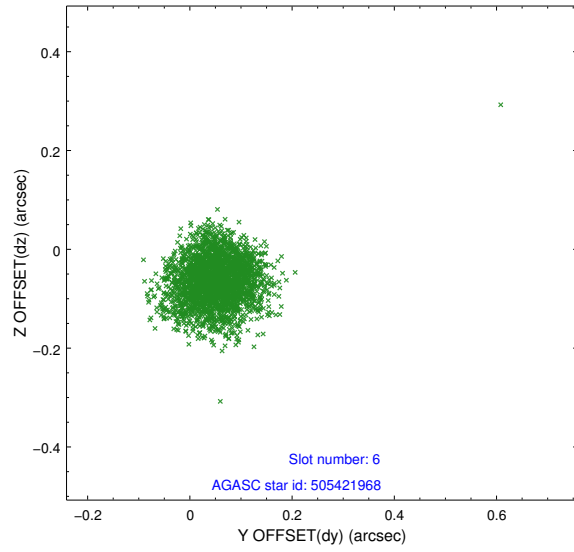
## 2.4.2 Slot 4



### 2.4.3 Slot 5

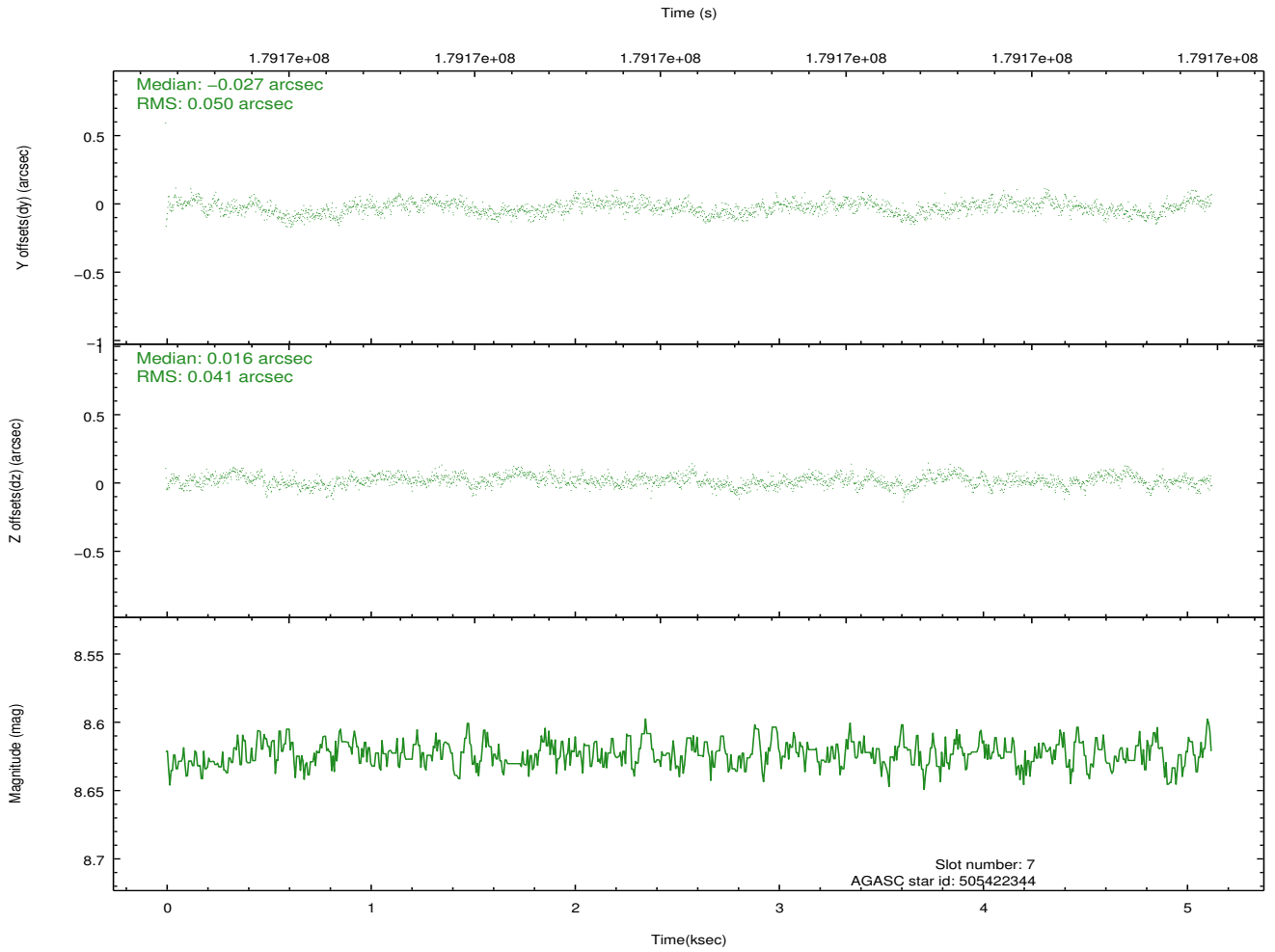
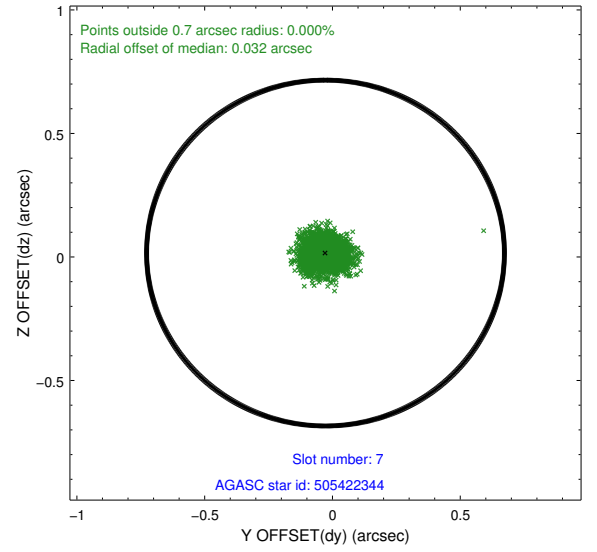
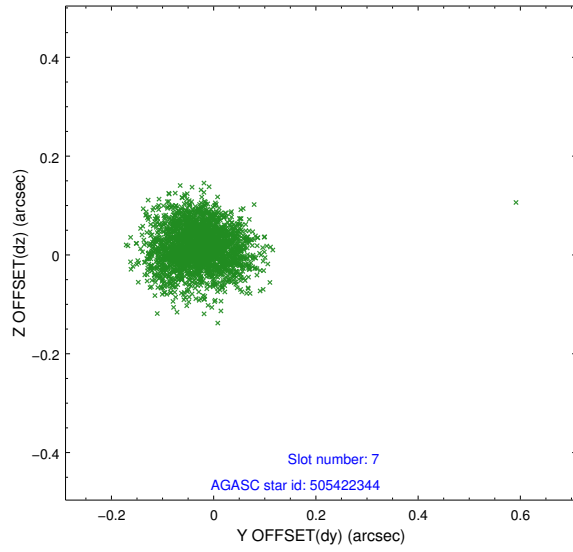


## 2.4.4 Slot 6



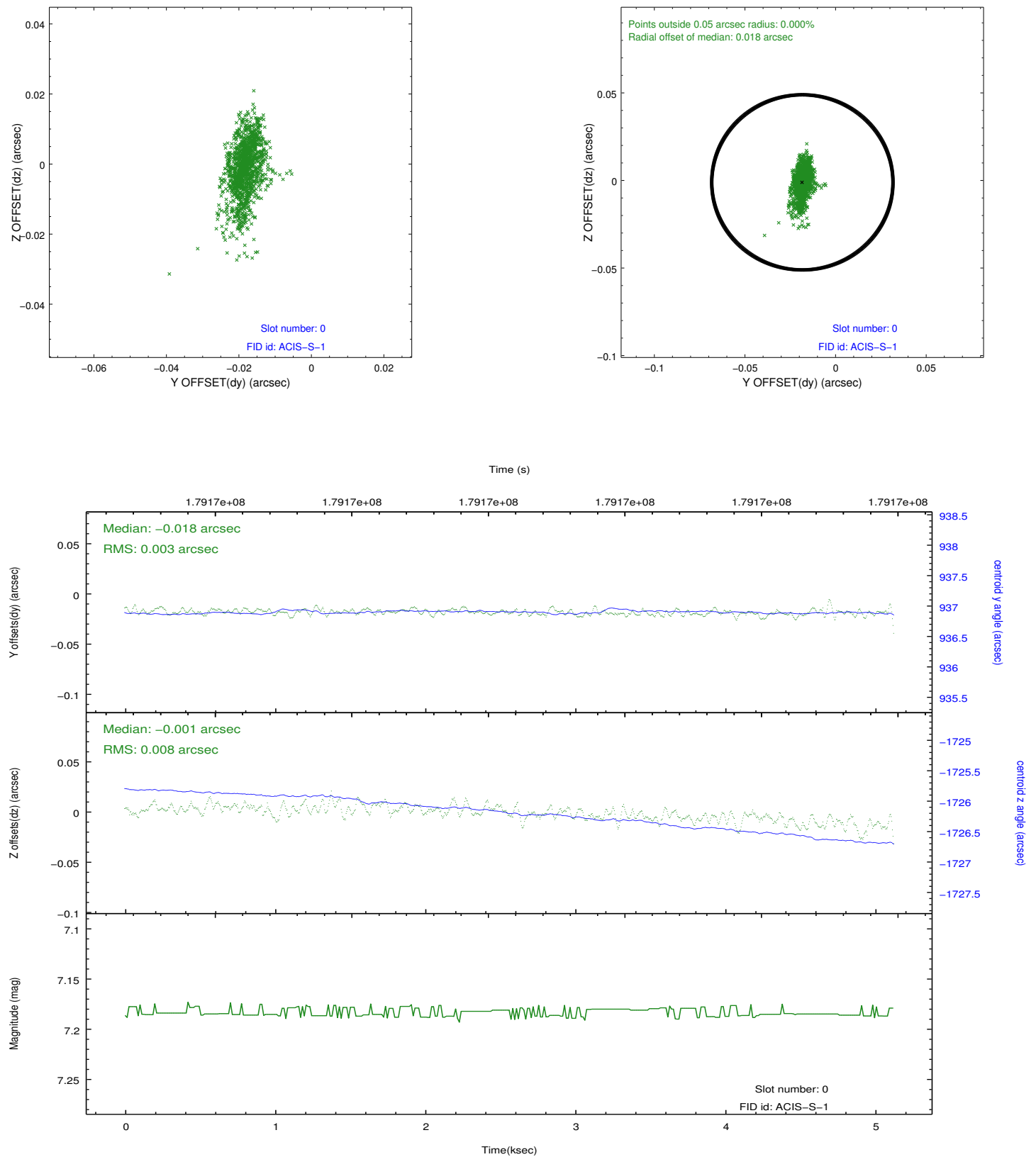


## 2.4.5 Slot 7

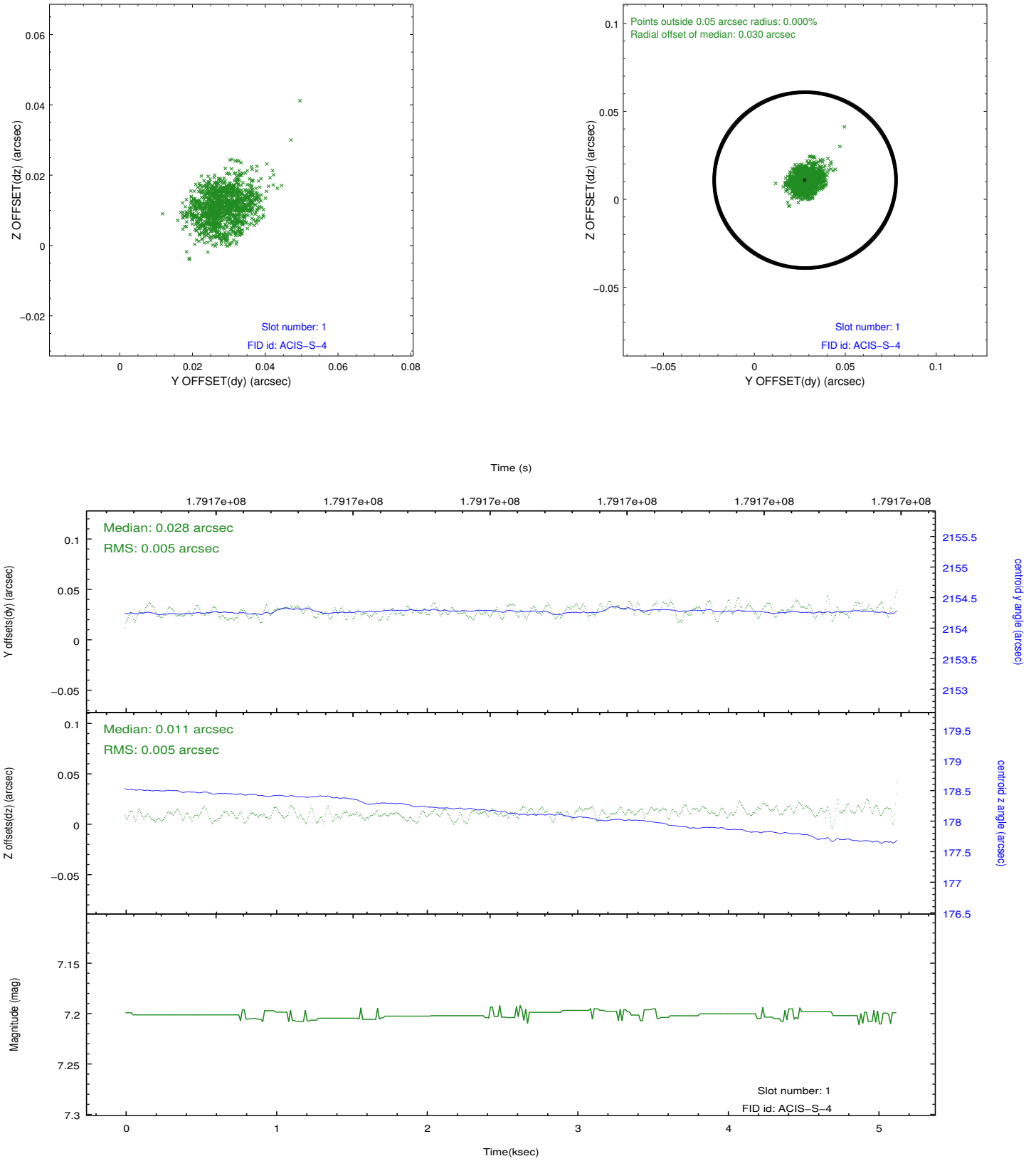


## 2.5 FID Slots

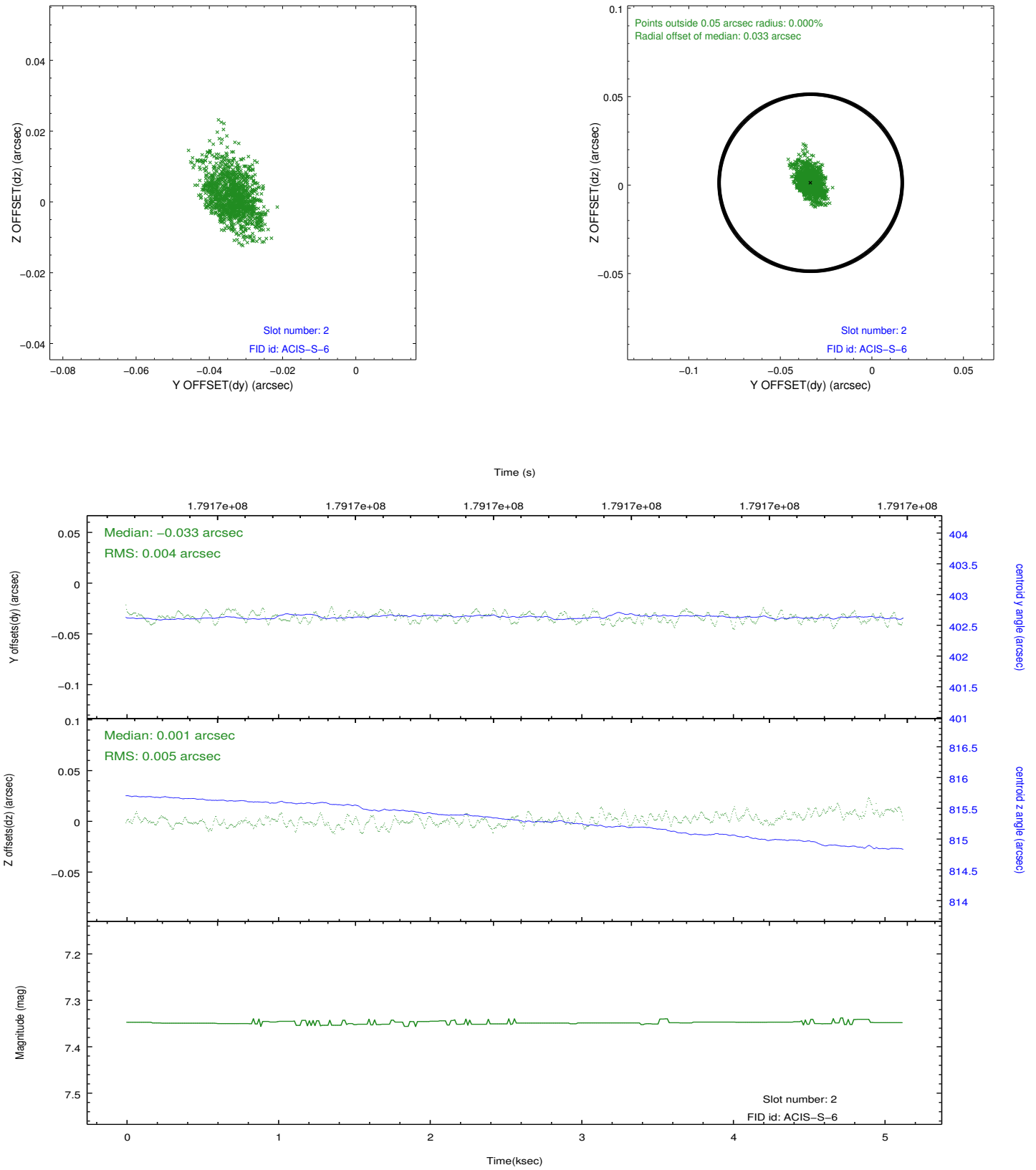
### 2.5.1 Slot 0



## 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)	2012.11.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.125

### A.2 Comments