V&V Reference Report
L2 ASCDS Version : 8.4.5

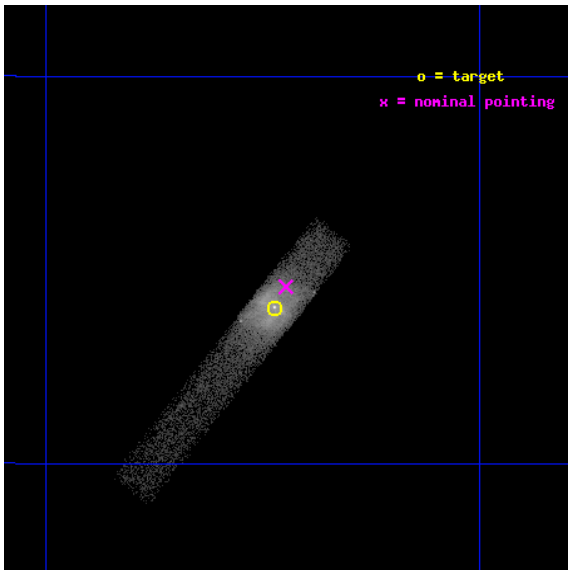
Observation 1707 - L2 Version 4
Chandra X-Ray Center

L2 Processing Date : Aug 28 2012

Contents

1 Front

seq_num	700264	Sequence number
obs_id	1707	Observation id
title	STUDIES OF RADIO JETS AND THE NARROW LINE REGIONS	Proposal title
observer	Professor Andrew Wilson	Principal investigator
object	CYGNUS A	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	299.867917	Observer's specified target RA [deg]
dec_targ	40.733889	Observer's specified target Dec [deg]
ra_nom	299.86172370582	Nominal RA [deg]
dec_nom	40.742722799116	Nominal Dec [deg]
roll_nom	128.47226053178	Nominal Roll [deg]
revision	4	Processing version of data
ontime	10174.800151616	Sum of GTIs [s]
livetime	9228.006667528	Livetime [s]
ontime7	10174.800151616	Sum of GTIs [s]
l2events	38629	Number of level 2 events

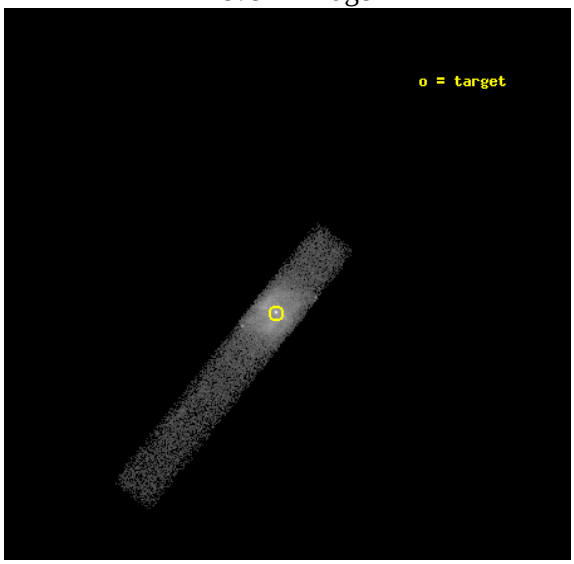


2 OBI

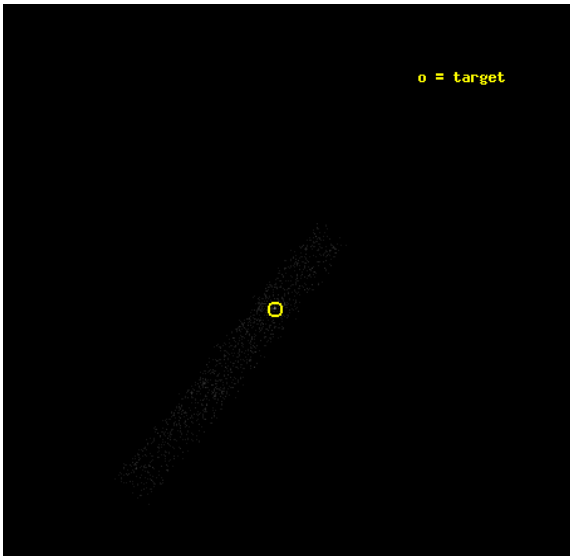
2.1 OBI

2.1.1 Images

Level 1 Image

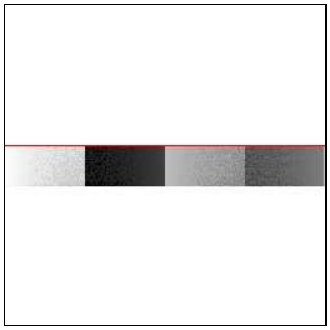


Level 1 Bad Events



2.1.2 Bias

Chip 7



2.1.3 Parameters

obi_num	0	Obi number
ascdsver	8.4.5	Processing system revision
caldbver	4.5.1.1	
date	2012-08-28T05:16:08	Date and time of file creation
revision	4	Processing version of data

sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ontime	10174.800151616	Sum of GTIs [s]
ontime7	10174.800151616	Sum of GTIs [s]
l1events	46347	Number of level 1 events

2.1.4 Events

	ccd 7
level 1 events	46347
rejected events	7200
rejected %	15%

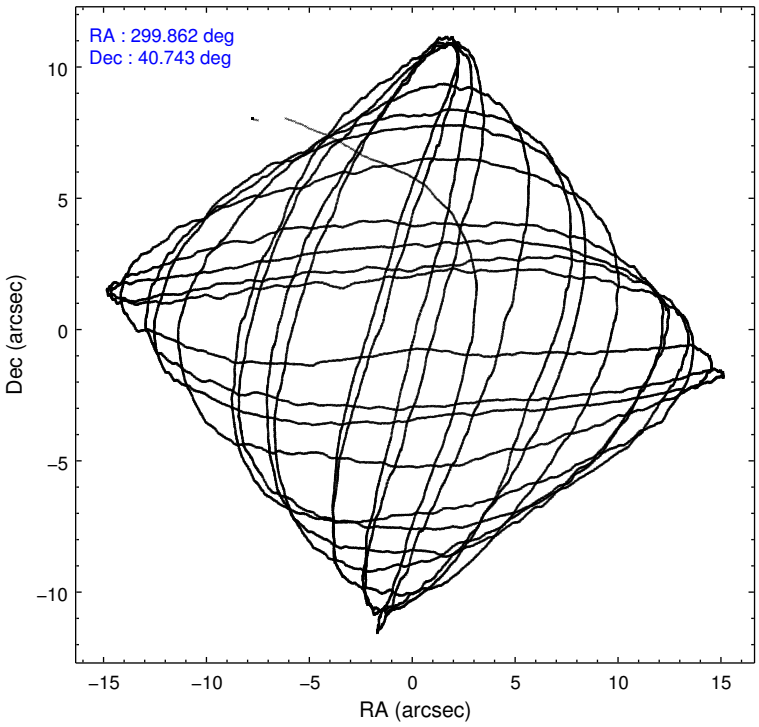
	ccd 7
grade 0 events	9847
	21%
grade 1 events	27
	0%
grade 2 events	9973
	21%
grade 3 events	4876
	10%
grade 4 events	4786
	10%
grade 5 events	1253
	2%
grade 6 events	10557
	22%
grade 7 events	5028
	10%

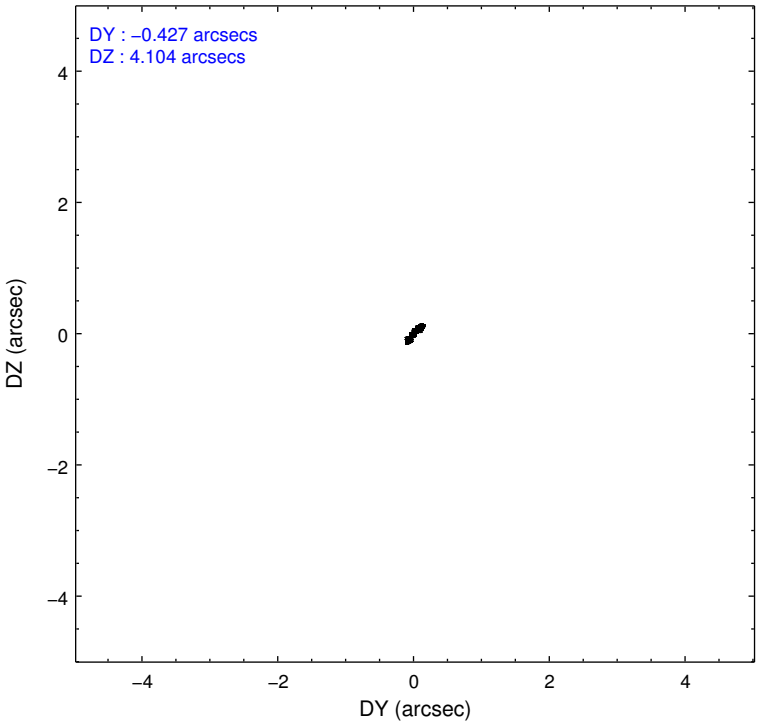
2.2 Compared Parameters

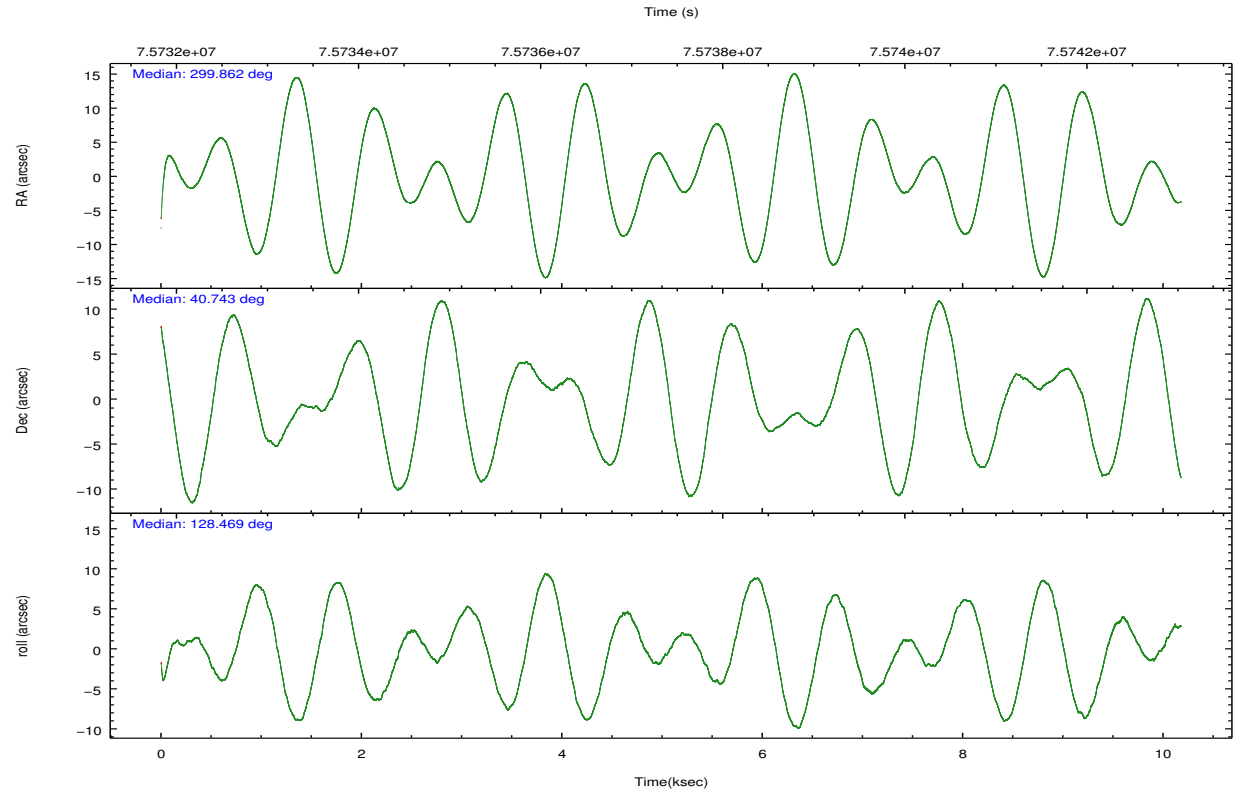
Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-7	ACIS-7
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	299.895457	299.8617237058249
[deg] Pointing Dec	40.732742	40.74272279911606
[deg] Pointing Roll	128.293621	128.4722605317759
[mm] SIM focus 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)	75732522.184000	75731319.864334
Observation start date	2000-05-26T12:47:38	2000-05-26T12:28:39
[s] Observation end time (MET)	75742522.184000	75743236.514773
Observation end date	2000-05-26T15:34:18	2000-05-26T15:47:16
Read mode	TIMED	TIMED

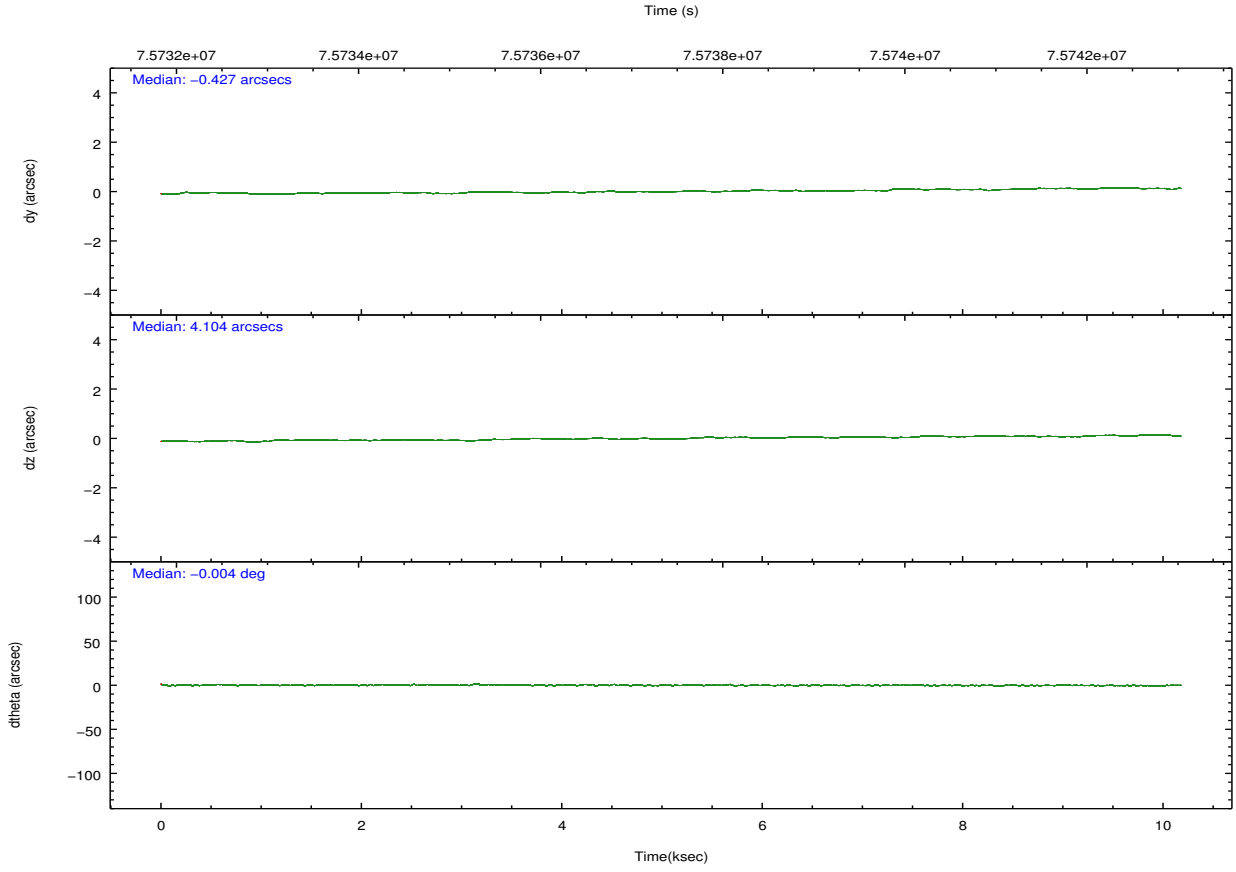
Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	CUSTOM	1/8
Subarray start row	447	447
Subarray row count	128	128
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	0.4

2.3 Aspect


RA : 299.862 deg
Dec : 40.743 deg
Dec (arcsec)
RA (arcsec)
10
5
0
−5
−10
−15
−10
−5
0
5
10
15


DY : −0.427 arcsecs
DZ : 4.104 arcsecs
DZ (arcsec)
DY (arcsec)
4
2
0
−2
−4
−4
−2
0
2
4


Time (s)
7.5732e+07
7.5734e+07
7.5736e+07
7.5738e+07
7.574e+07
7.5742e+07
Median: 299.862 deg
RA (arcsec)
Median: 40.743 deg
Dec (arcsec)
Median: 128.469 deg
roll (arcsec)
Time(ksec)

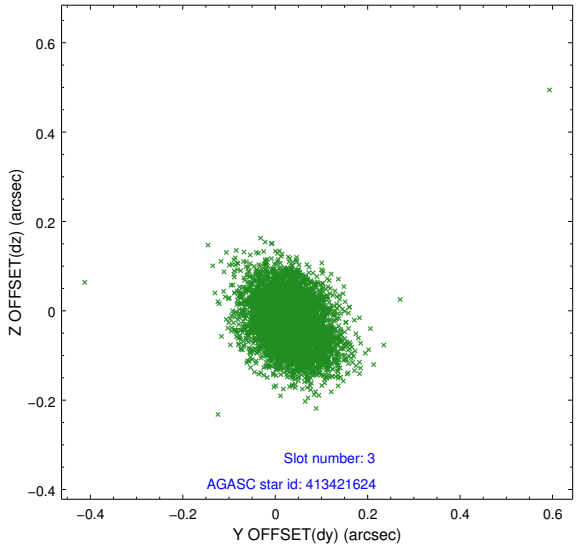

Time (s)
7.5732e+07
7.5734e+07
7.5736e+07
7.5738e+07
7.574e+07
7.5742e+07
Median: −0.427 arcsecs
dy (arcsec)
Median: 4.104 arcsecs
dz (arcsec)
Median: −0.004 deg
dtheta (arcsec)
Time(ksec)

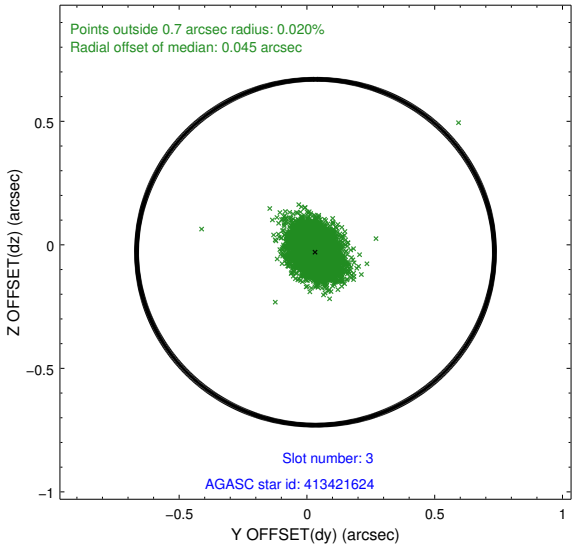
Slot Statistics

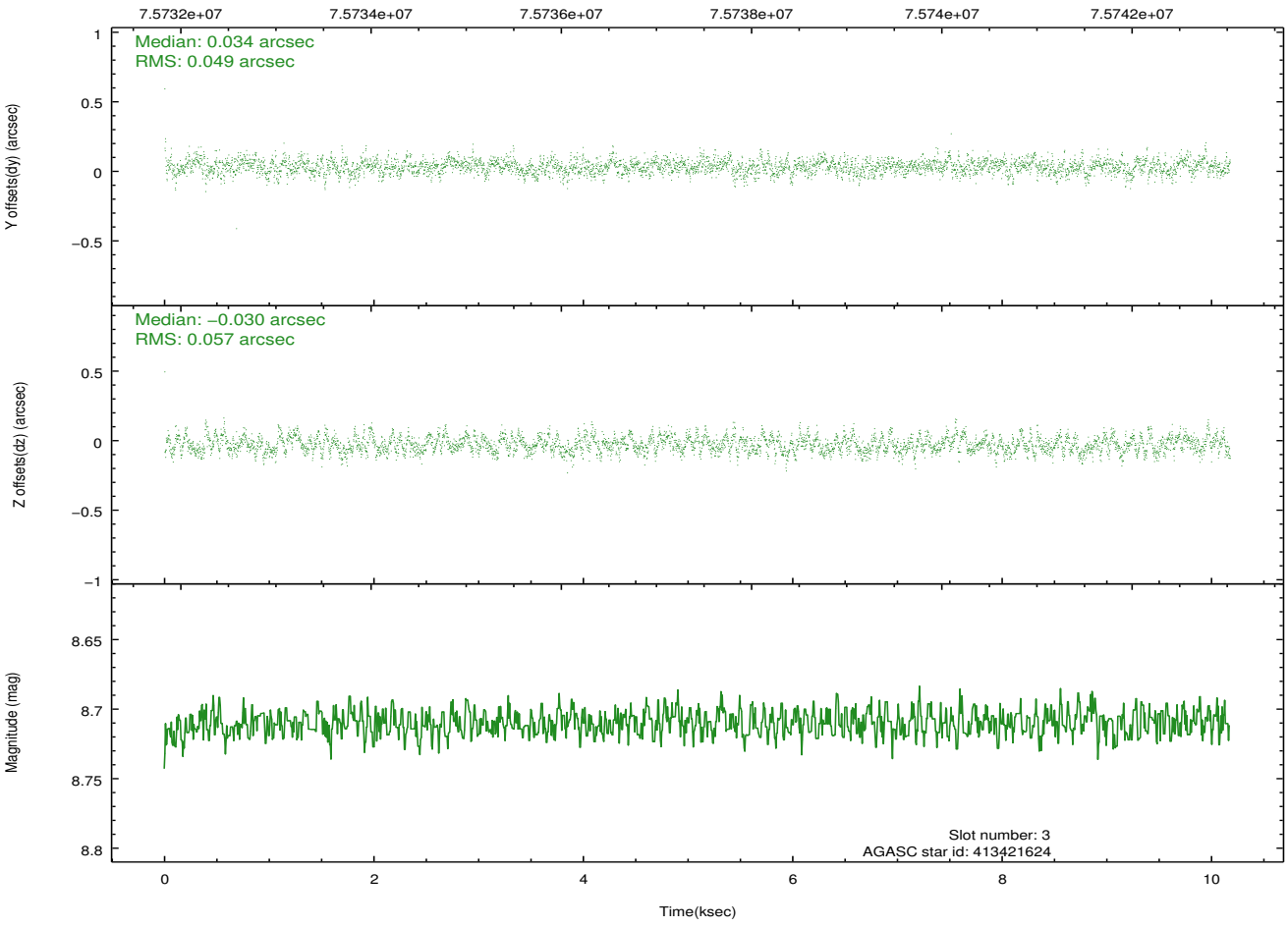
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	2483	-0.011	-0.016	0.007	0.012	0.000000	0.000000	-752.16	-1725.20
1	FID	ACIS-S-4	7.21	2483	0.026	0.010	0.007	0.012	0.000000	0.000000	2160.94	182.75
2	FID	ACIS-S-5	7.24	2482	-0.046	0.015	0.006	0.011	0.000000	0.000000	-1804.35	177.05
3	GUIDE	413421624	8.71	4962	0.034	-0.030	0.078	0.128	300.399768	40.893051	-394.66	-1437.27
4	GUIDE	411701312	8.71	4963	-0.220	-0.052	0.074	0.124	298.889956	40.820220	1956.30	1944.84
5	GUIDE	413426288	9.28	4965	0.184	0.036	0.087	0.145	300.490389	40.285080	-2272.72	-286.75
6	GUIDE	413414968	9.55	4894	0.019	0.132	0.107	0.170	300.952591	40.709216	-1841.33	-2222.52
7	GUIDE	411716544	9.55	4963	-0.013	-0.087	0.102	0.163	298.797783	40.819908	2113.31	2140.59

2.4 Star Slots

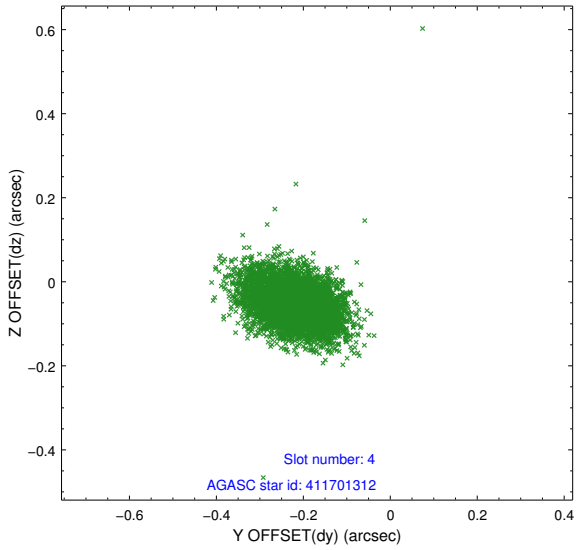
2.4.1 Slot 3

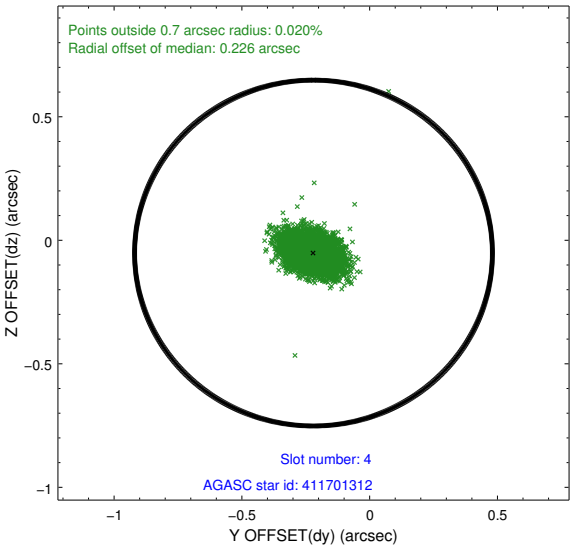


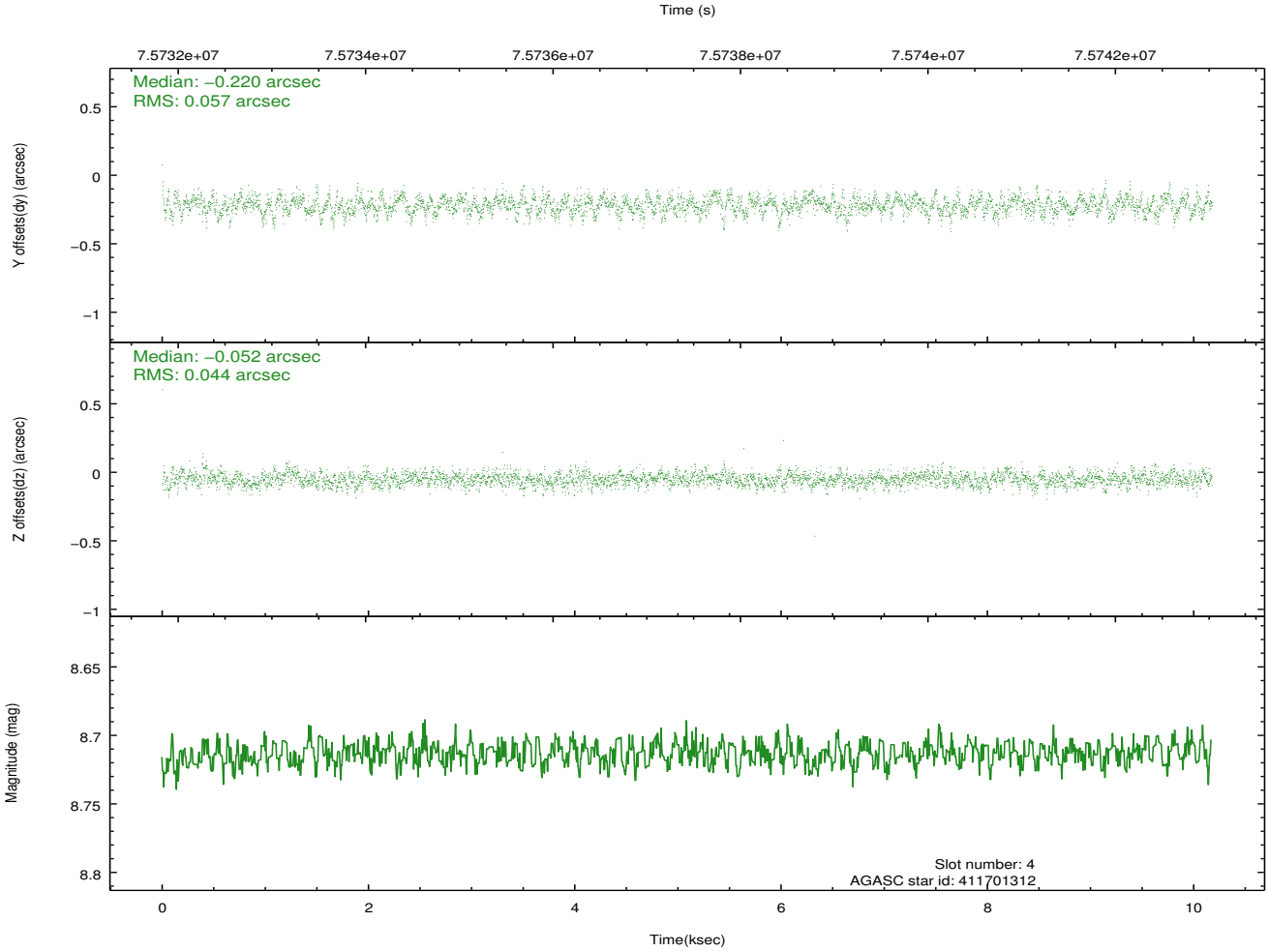




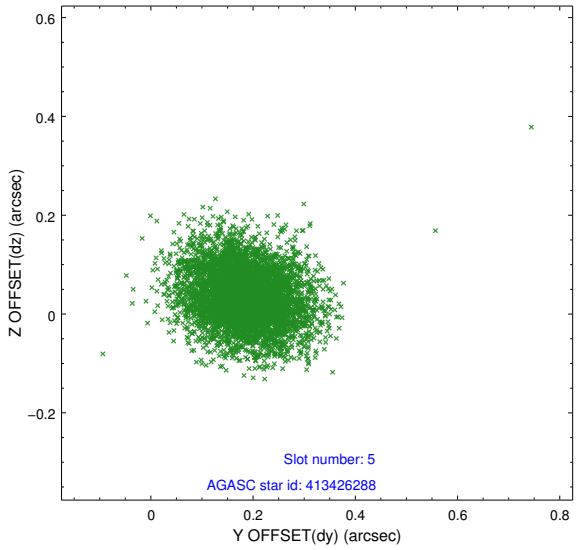
2.4.2 Slot 4

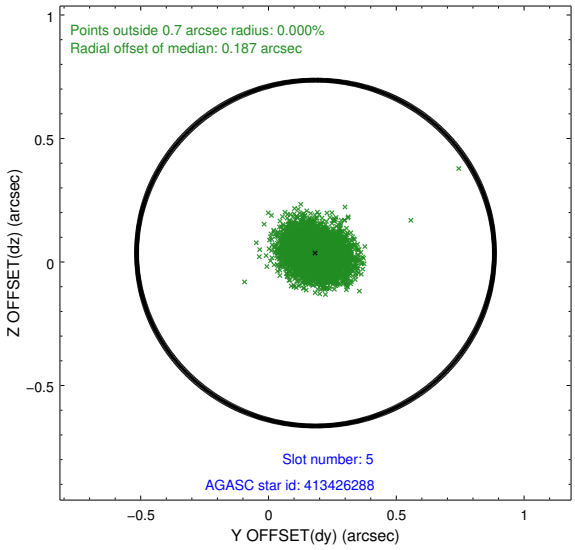

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 4
AGASC star id: 411701312

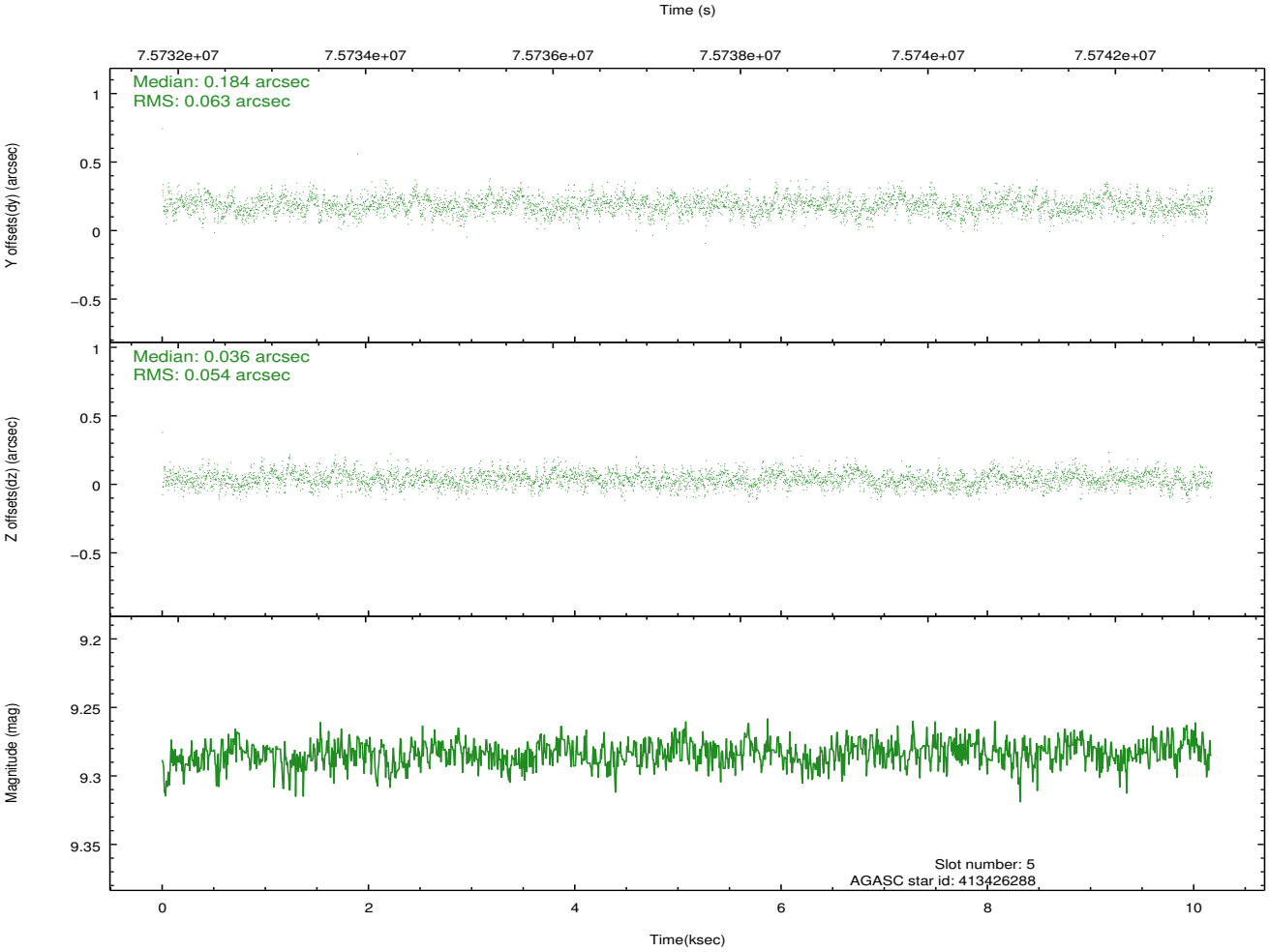

Points outside 0.7 arcsec radius: 0.020%
Radial offset of median: 0.226 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 4
AGASC star id: 411701312


Time (s)
Median: −0.220 arcsec
RMS: 0.057 arcsec
Y offsets(dy) (arcsec)
Median: −0.052 arcsec
RMS: 0.044 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 4
AGASC star id: 411701312
Time(ksec)

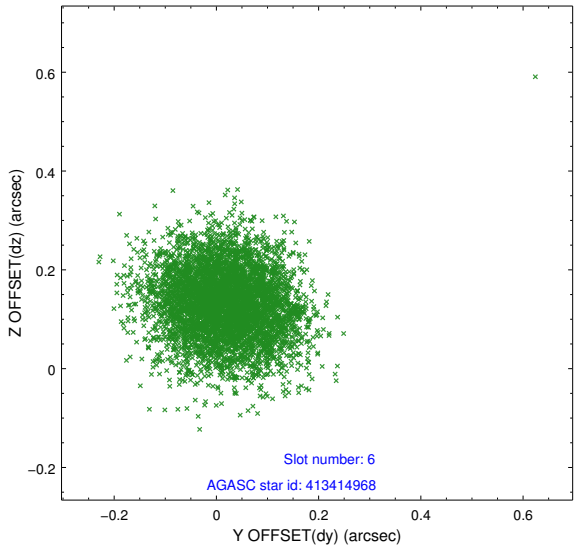
2.4.3 Slot 5

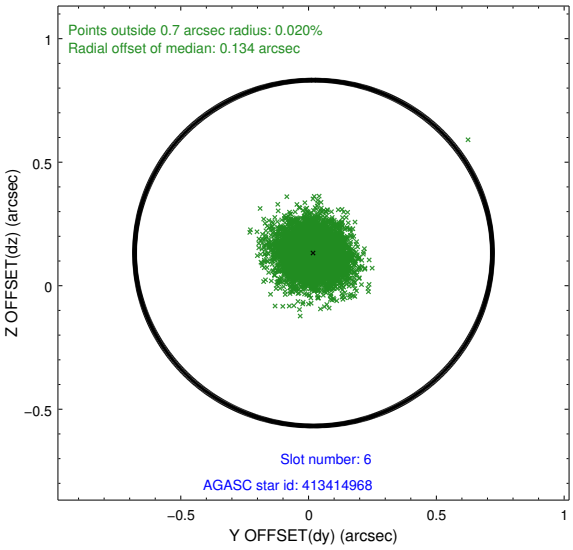

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 5
AGASC star id: 413426288

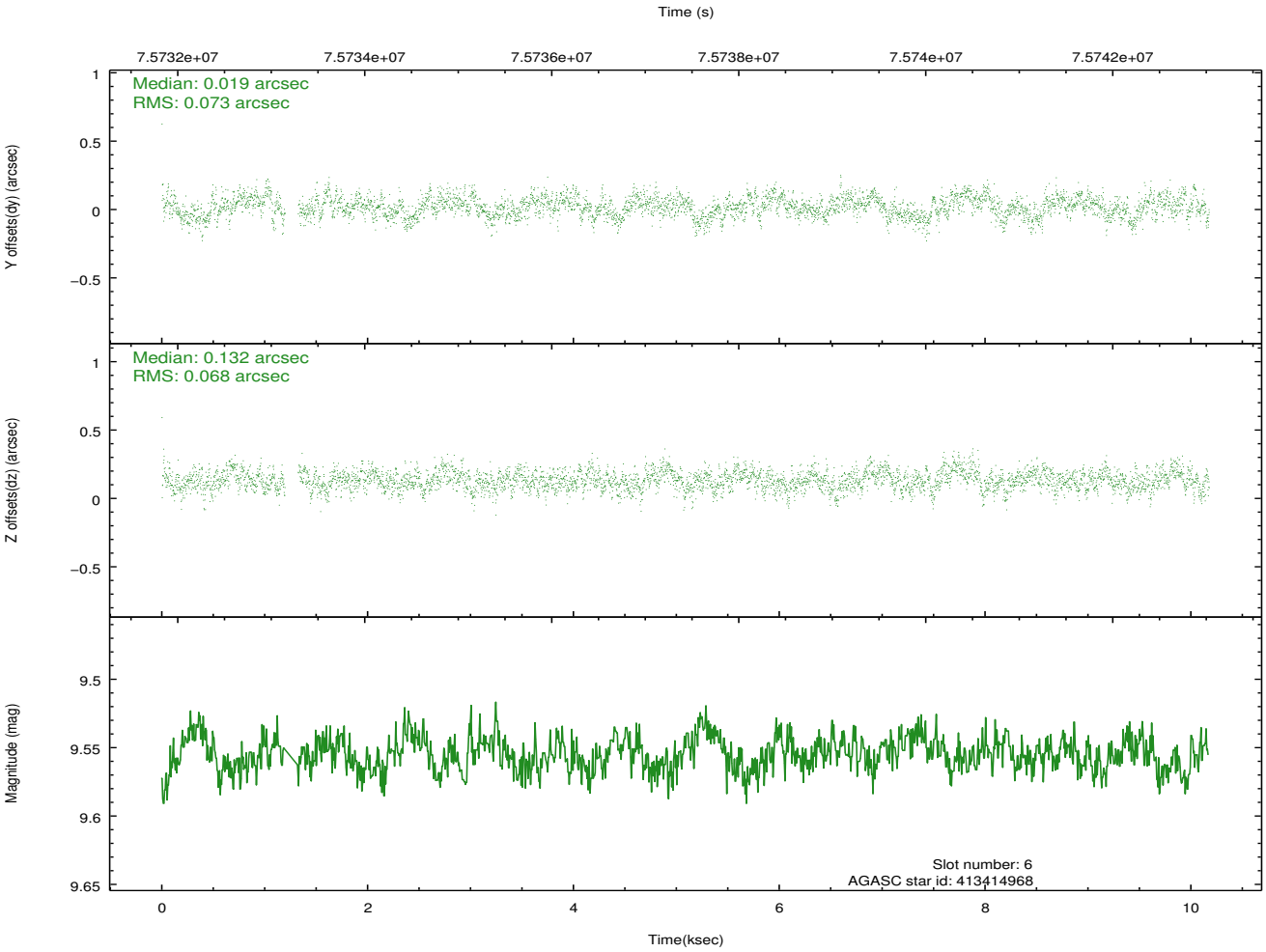

Points outside 0.7 arcsec radius: 0.000%
Radial offset of median: 0.187 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 5
AGASC star id: 413426288


Time (s)
Median: 0.184 arcsec
RMS: 0.063 arcsec
Y offsets(dy) (arcsec)
Median: 0.036 arcsec
RMS: 0.054 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 5
AGASC star id: 413426288
Time(ksec)

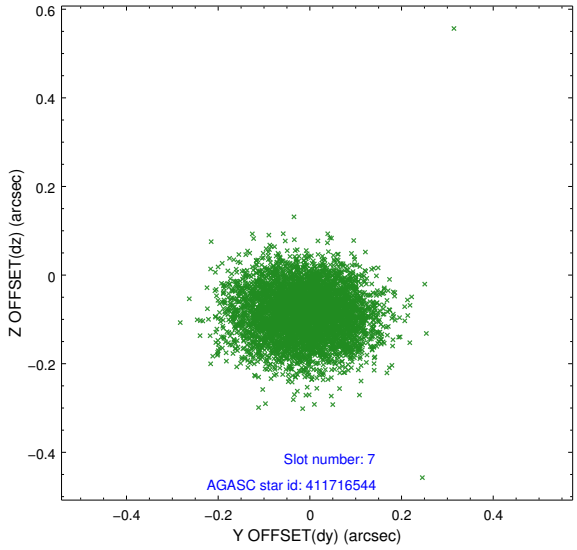
2.4.4 Slot 6

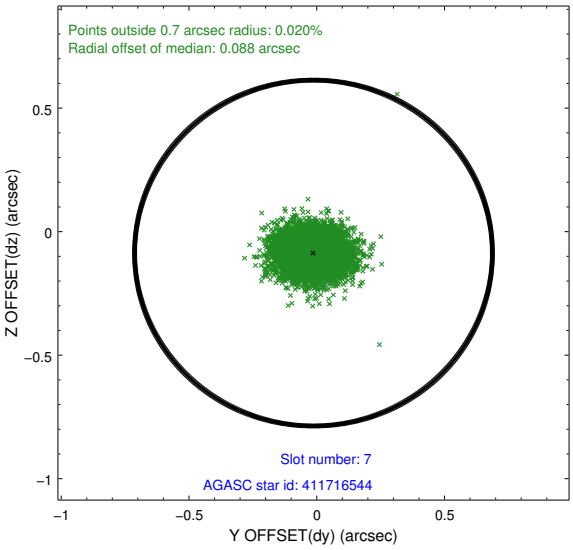

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 6
AGASC star id: 413414968

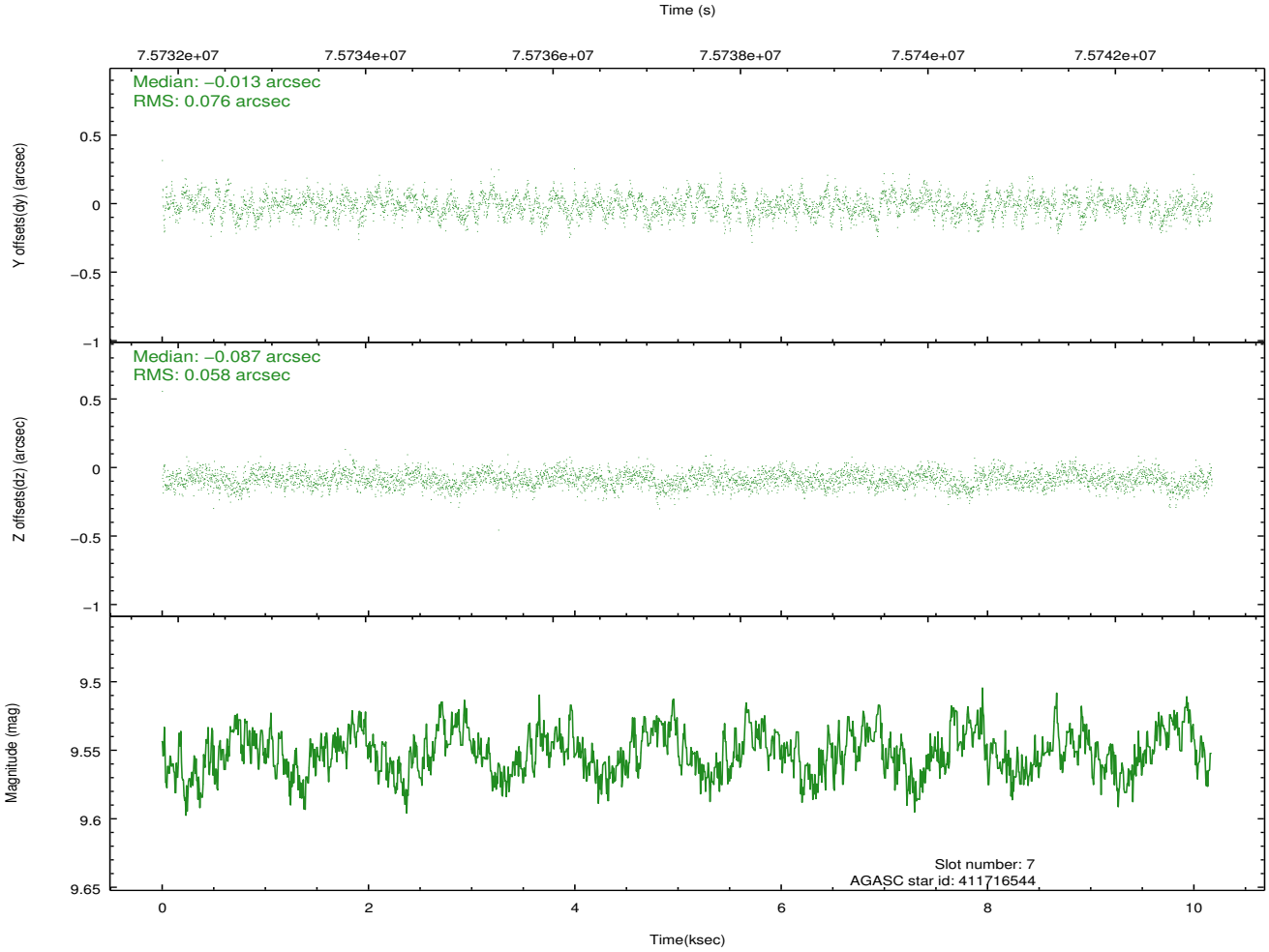

Points outside 0.7 arcsec radius: 0.020%
Radial offset of median: 0.134 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 6
AGASC star id: 413414968


Time (s)
Median: 0.019 arcsec
RMS: 0.073 arcsec
Y offsets(dy) (arcsec)
Median: 0.132 arcsec
RMS: 0.068 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 6
AGASC star id: 413414968
Time(ksec)

2.4.5 Slot 7

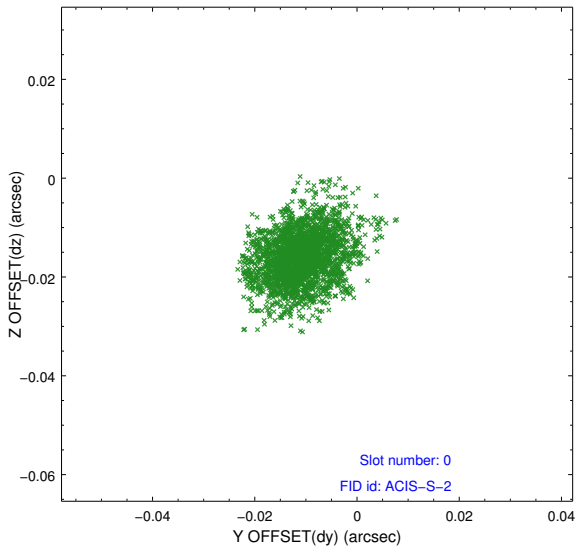

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 7
AGASC star id: 411716544

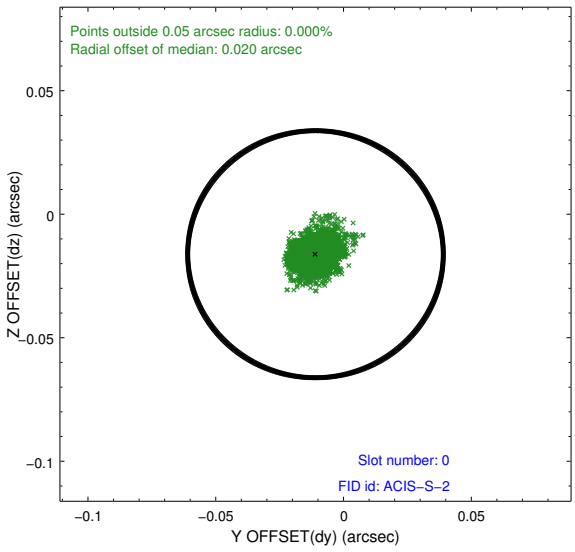

Points outside 0.7 arcsec radius: 0.020%
Radial offset of median: 0.088 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 7
AGASC star id: 411716544

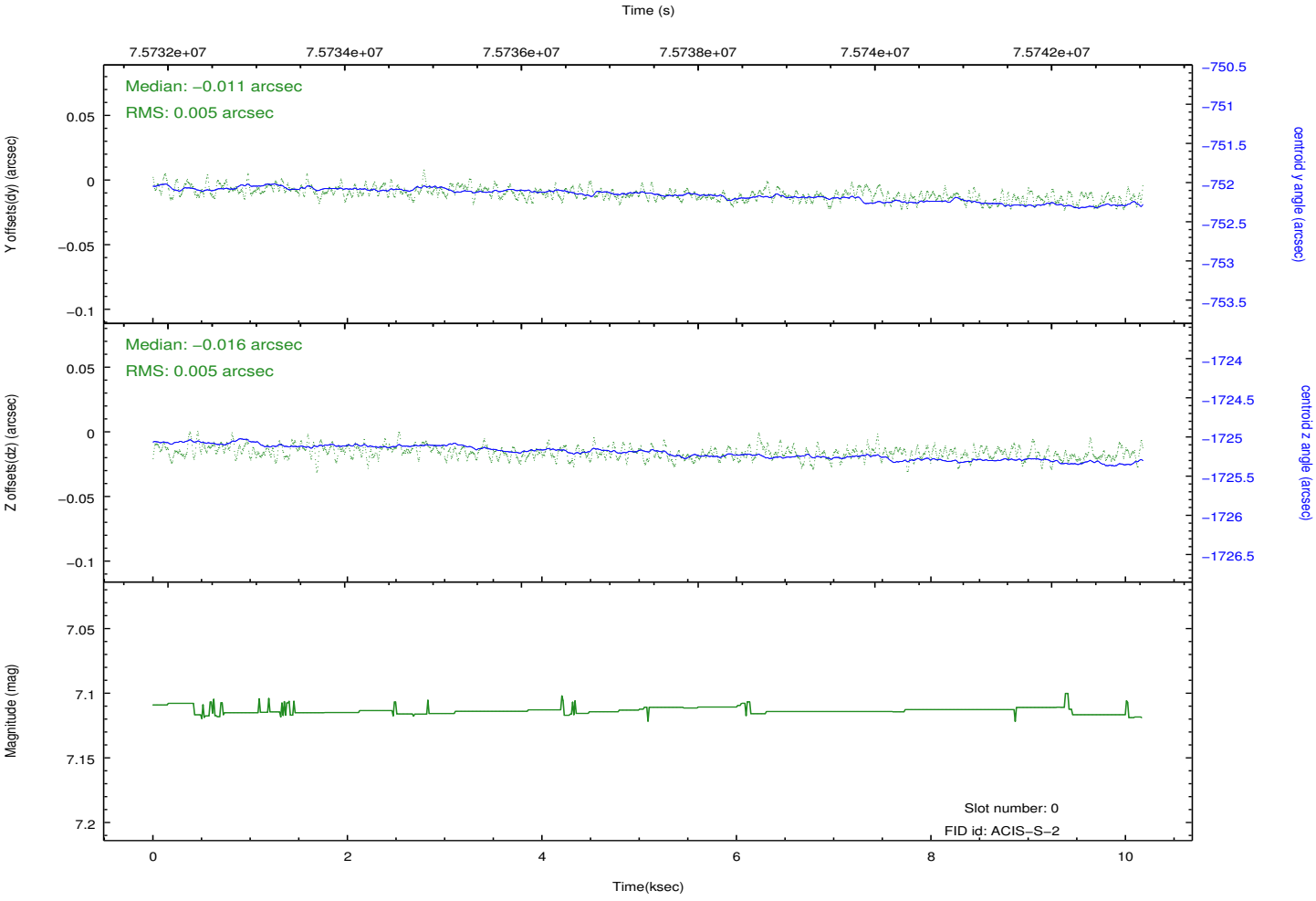

Time (s)
Median: –0.013 arcsec
RMS: 0.076 arcsec
Y offsets(dy) (arcsec)
Median: –0.087 arcsec
RMS: 0.058 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 7
AGASC star id: 411716544
Time(ksec)

2.5 FID Slots

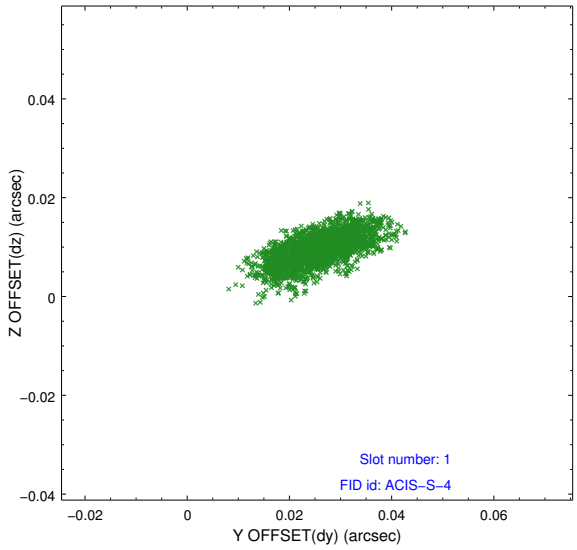
2.5.1 Slot 0

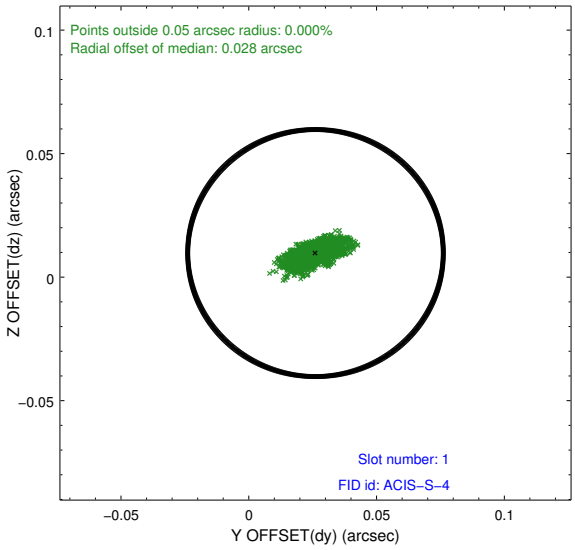


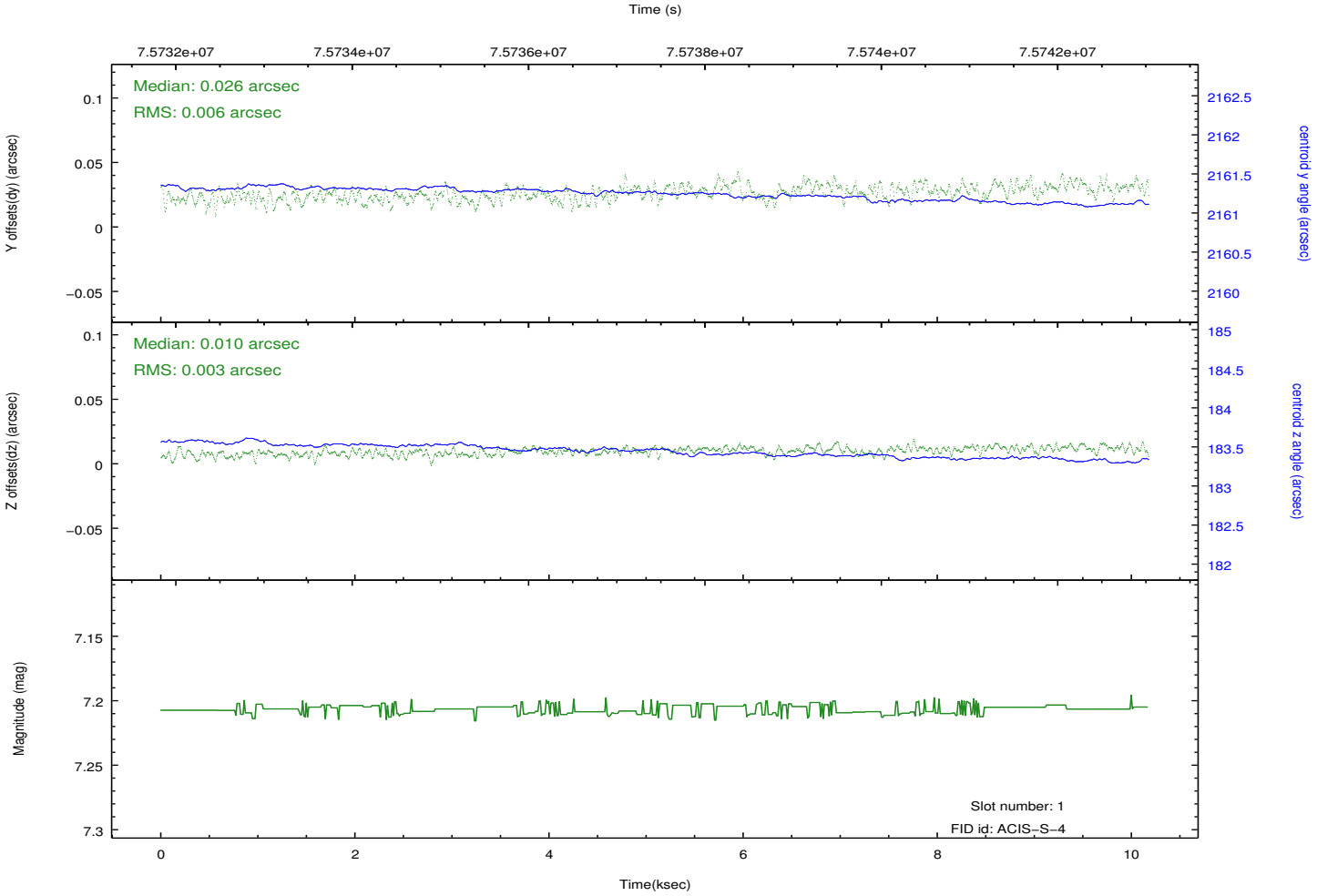




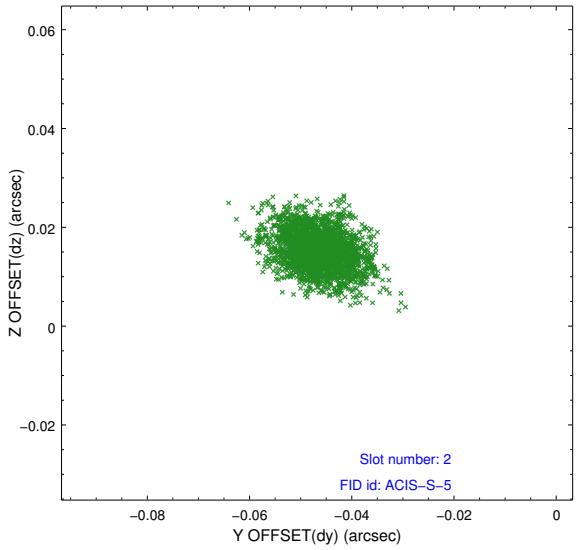
2.5.2 Slot 1

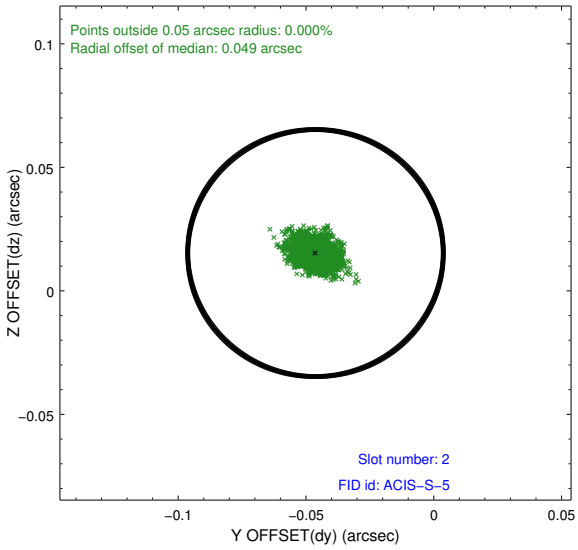

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 1
FID id: ACIS−S−4

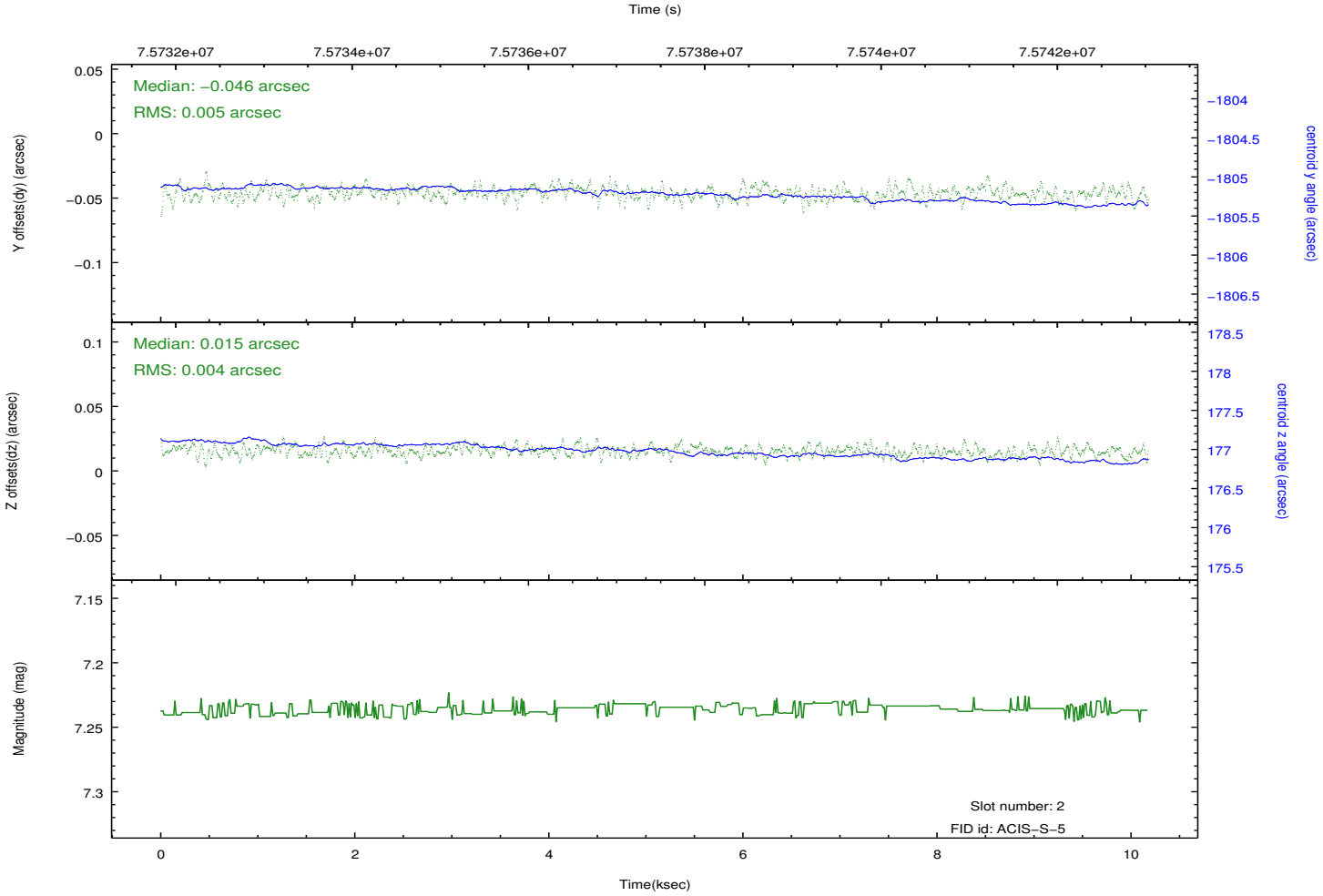

Points outside 0.05 arcsec radius: 0.000%
Radial offset of median: 0.028 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 1
FID id: ACIS−S−4


Time (s)
Median: 0.026 arcsec
RMS: 0.006 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: 0.010 arcsec
RMS: 0.003 arcsec
Z offsets(dz) (arcsec)
centroid z angle (arcsec)
Magnitude (mag)
Slot number: 1
FID id: ACIS−S−4
Time(ksec)

2.5.3 Slot 2


Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 2
FID id: ACIS−S−5


Points outside 0.05 arcsec radius: 0.000%
Radial offset of median: 0.049 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 2
FID id: ACIS−S−5


Time (s)
Median: −0.046 arcsec
RMS: 0.005 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: 0.015 arcsec
RMS: 0.004 arcsec
Z offsets(dz) (arcsec)
centroid z angle (arcsec)
Magnitude (mag)
Slot number: 2
FID id: ACIS−S−5
Time(ksec)

A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.08.31
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.174

A.2 Comments