V&V Reference Report
L2 ASCDS Version : 8.4.5

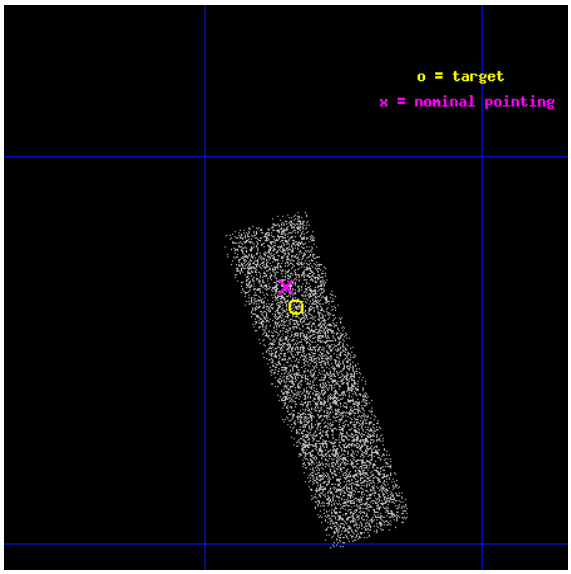
Observation 4805 - L2 Version 3
Chandra X-Ray Center

L2 Processing Date : Nov 9 2012

Contents

1 Front

seq_num	700888	Sequence number
obs_id	4805	Observation id
title	Unveiling the engine powering OH Gigamaser sources through X-rays. A well-defined Chandra survey	Proposal title
observer	Dr Cristian Vignali	Principal investigator
object	IRAS FSC 09531+1430	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	148.95875	Observer's specified target RA [deg]
dec_targ	14.268861	Observer's specified target Dec [deg]
ra_nom	148.96354913441	Nominal RA [deg]
dec_nom	14.277200200583	Nominal Dec [deg]
roll_nom	70.806234982325	Nominal Roll [deg]
revision	3	Processing version of data
ontime	4237.6000631452	Sum of GTIs [s]
livetime	4030.8190460812	Livetime [s]
ontime7	4237.6000631452	Sum of GTIs [s]
l2events	6406	Number of level 2 events

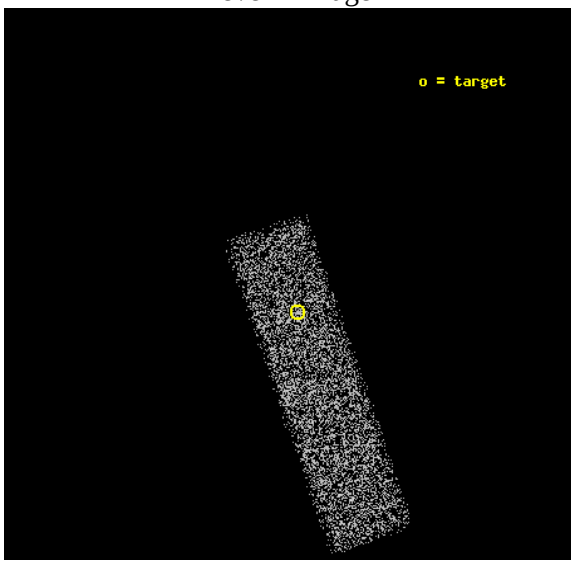


2 OBI

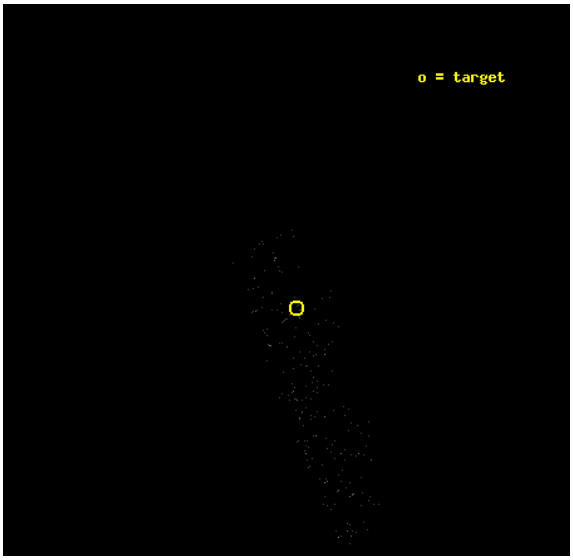
2.1 OBI

2.1.1 Images

Level 1 Image

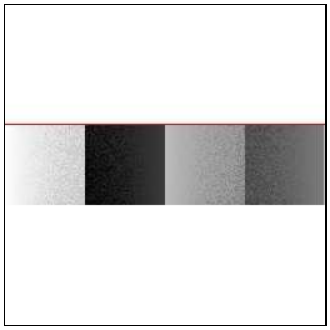


Level 1 Bad Events



2.1.2 Bias

Chip 7



2.1.3 Parameters

obi_num	0	Obi number
ascdsver	8.4.5	Processing system revision
caldbver	4.5.2	
date	2012-11-09T07:37:08	Date and time of file creation
revision	3	Processing version of data

sched_exp_time	4100.000000	[s] Scheduled observation exposure time
ontime	4237.6000631452	Sum of GTIs [s]
ontime7	4237.6000631452	Sum of GTIs [s]
l1events	9978	Number of level 1 events

2.1.4 Events

	ccd 7
level 1 events	9978
rejected events	3447
rejected %	34%

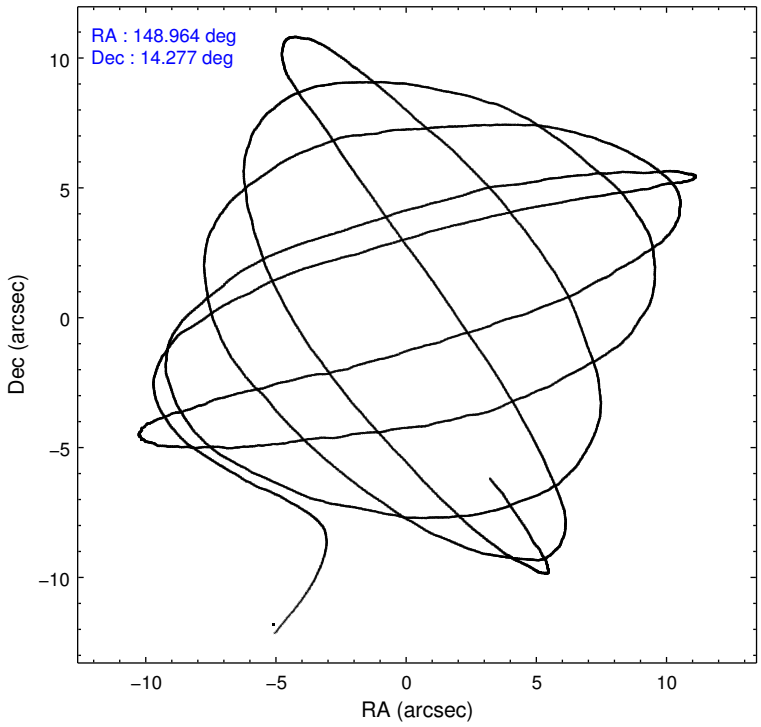
	ccd 7
grade 0 events	795
	7%
grade 1 events	4
	0%
grade 2 events	1438
	14%
grade 3 events	757
	7%
grade 4 events	693
	6%
grade 5 events	659
	6%
grade 6 events	3533
	35%
grade 7 events	2099
	21%

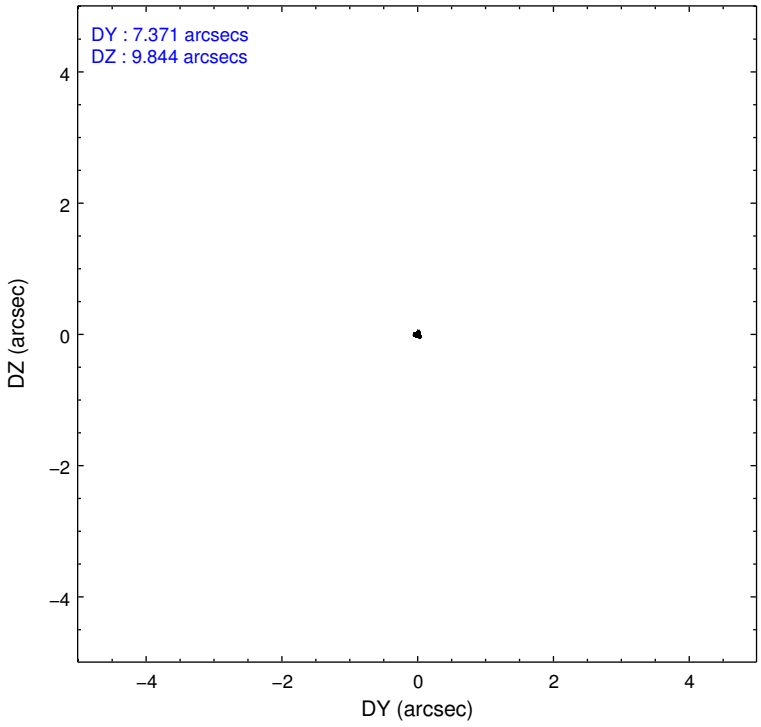
2.2 Compared Parameters

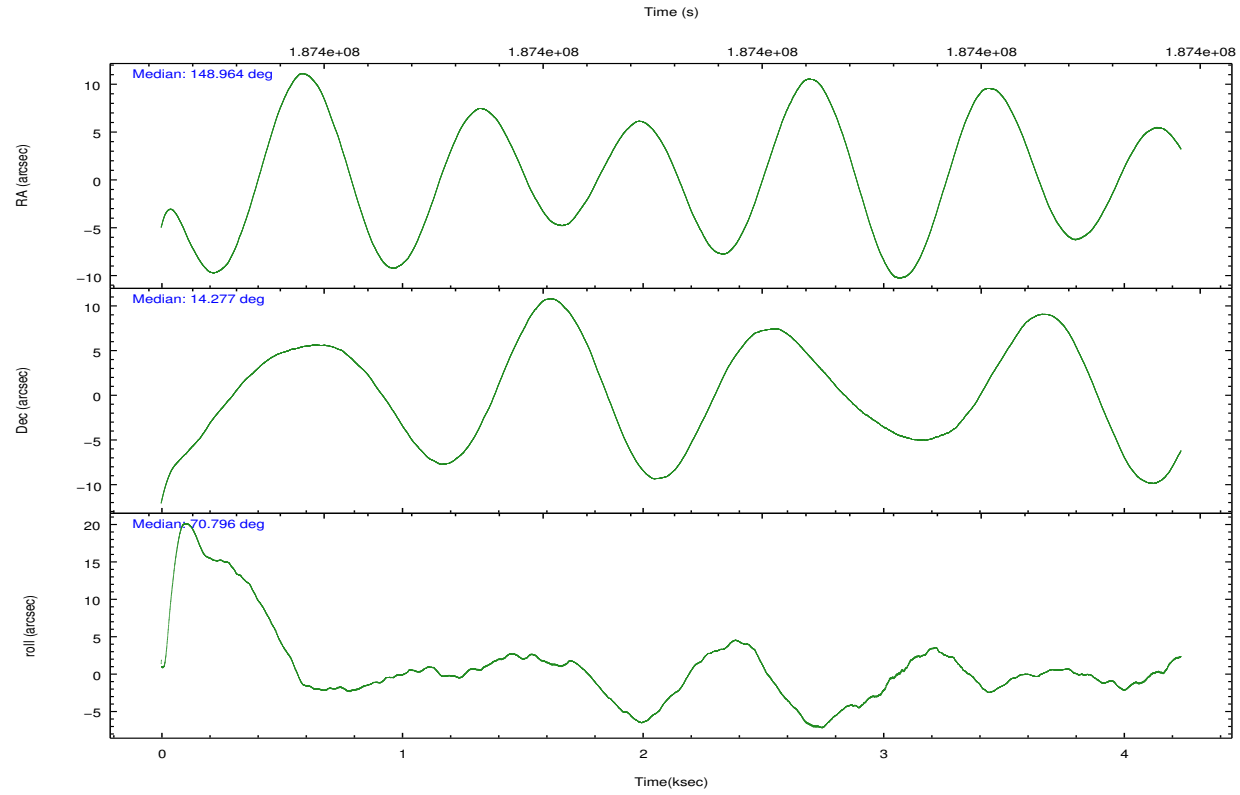
Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-7	ACIS-7
Grating	NONE	NONE
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	148.969274	148.9635491344093
[deg] Pointing Dec	14.250619	14.27720020058349
[deg] Pointing Roll	70.648270	70.80623498232453
[mm] SIM focus 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)	187394599.184000	187393529.2775
Observation start date	2003-12-09T22:02:15	2003-12-09T21:45:29
[s] Observation end time (MET)	187398699.184000	187400568.4653
Observation end date	2003-12-09T23:10:35	2003-12-09T23:42:48
Read mode	TIMED	TIMED

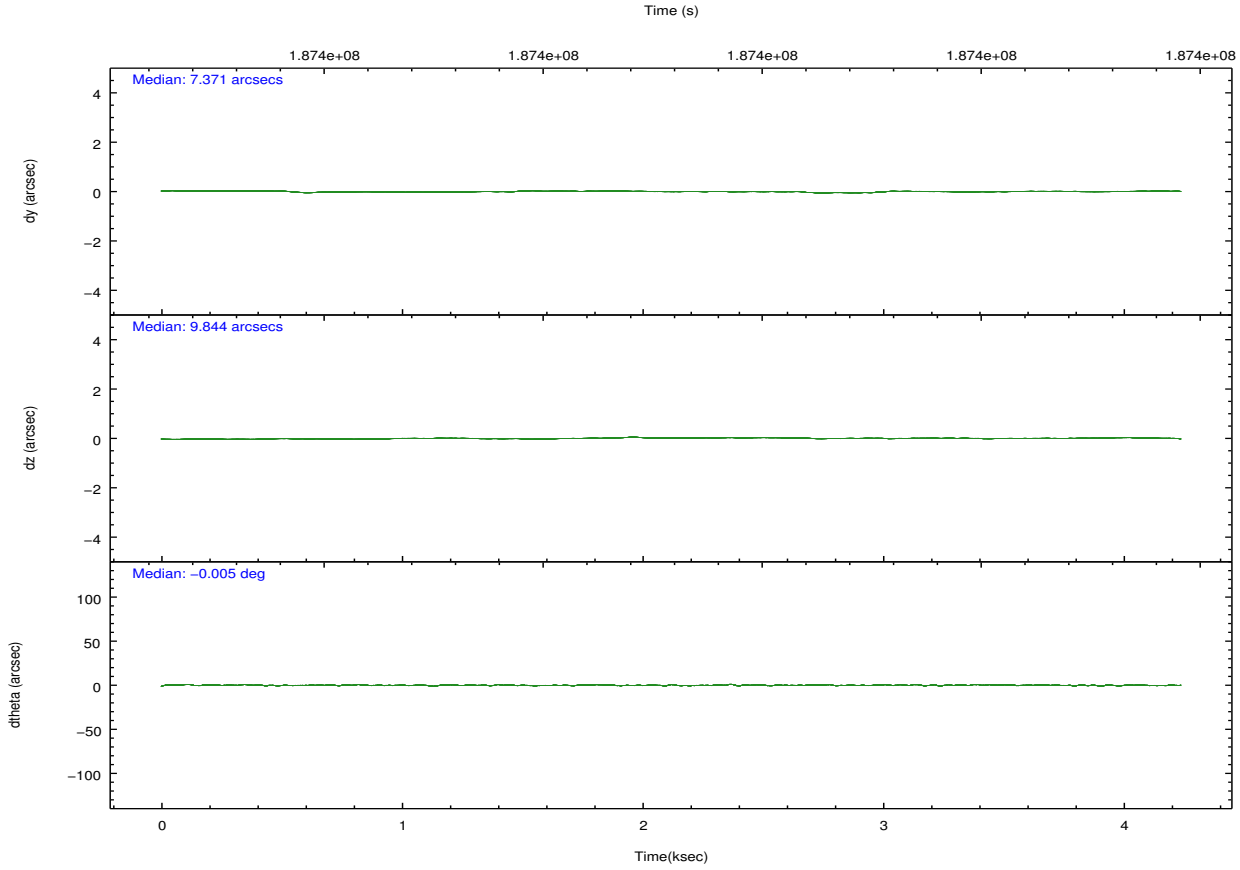
Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	CUSTOM	1/4
Subarray start row	385	385
Subarray row count	256	256
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	0.8

2.3 Aspect


RA : 148.964 deg
Dec : 14.277 deg
Dec (arcsec)
RA (arcsec)
10
5
0
−5
−10
−10
−5
0
5
10


DY : 7.371 arcsecs
DZ : 9.844 arcsecs
DZ (arcsec)
DY (arcsec)
4
2
0
−2
−4
−4
−2
0
2
4


Time (s)
1.874e+08
1.874e+08
1.874e+08
1.874e+08
1.874e+08
Median: 148.964 deg
RA (arcsec)
Median: 14.277 deg
Dec (arcsec)
Median: 70.796 deg
roll (arcsec)
Time(ksec)

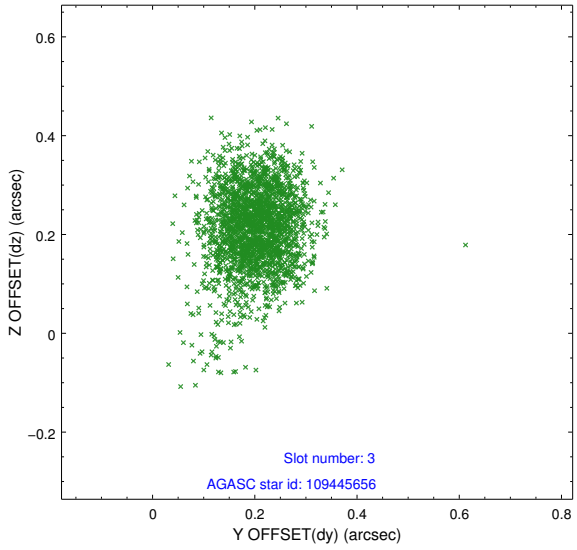

Time (s)
1.874e+08
1.874e+08
1.874e+08
1.874e+08
1.874e+08
Median: 7.371 arcsecs
dy (arcsec)
Median: 9.844 arcsecs
dz (arcsec)
Median: −0.005 deg
dtheta (arcsec)
Time(ksec)

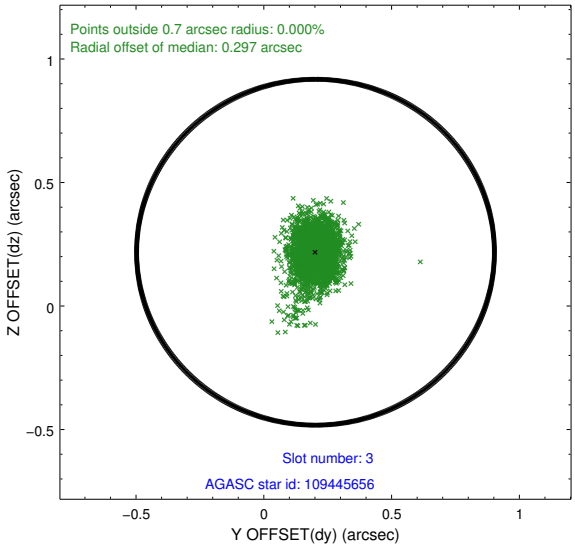
Slot Statistics

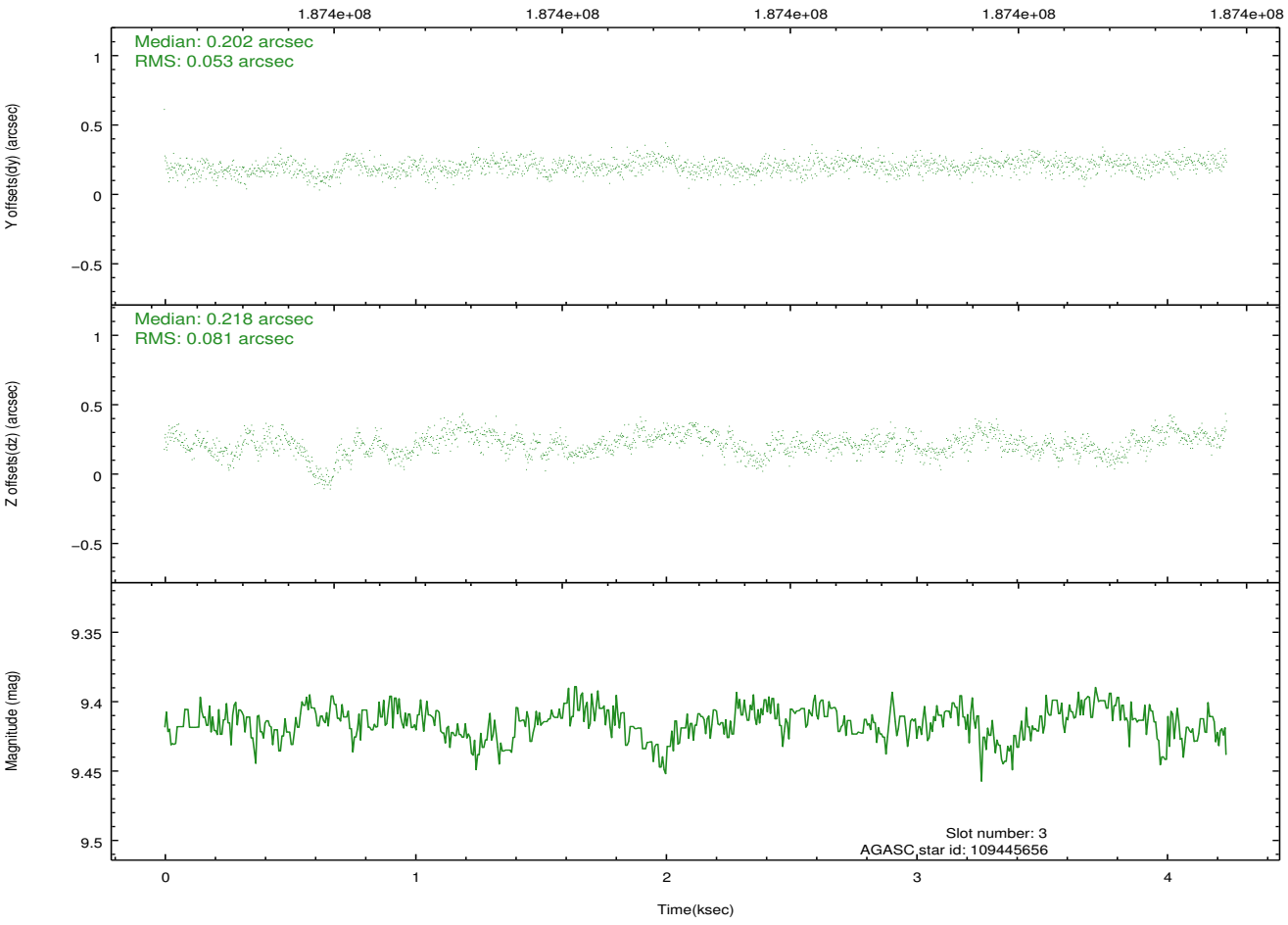
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	1035	-0.039	-0.014	0.007	0.010	0.000000	0.000000	-760.14	-1731.11
1	FID	ACIS-S-4	7.20	1034	0.070	0.023	0.005	0.010	0.000000	0.000000	2152.55	175.95
2	FID	ACIS-S-5	7.23	1035	-0.062	0.001	0.007	0.011	0.000000	0.000000	-1811.16	171.19
3	GUIDE	109445656	9.41	2069	0.202	0.218	0.097	0.169	149.158351	13.833589	-1196.25	-1121.34
4	GUIDE	109453192	9.87	2066	0.031	-0.040	0.141	0.237	148.405735	14.314201	-433.44	1930.78
5	GUIDE	109447576	8.01	2069	0.057	0.390	0.080	0.139	149.469137	13.607253	-1603.02	-2415.78
6	GUIDE	109455232	10.53	2007	-0.346	-0.900	0.202	0.316	148.423366	14.746656	1056.56	2383.74
7	GUIDE	109454992	10.14	2068	0.048	0.311	0.184	0.292	149.199694	14.787833	2092.15	-113.86

2.4 Star Slots

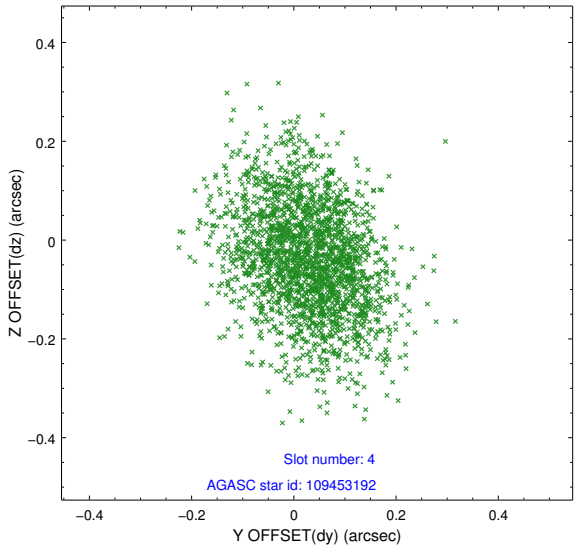
2.4.1 Slot 3

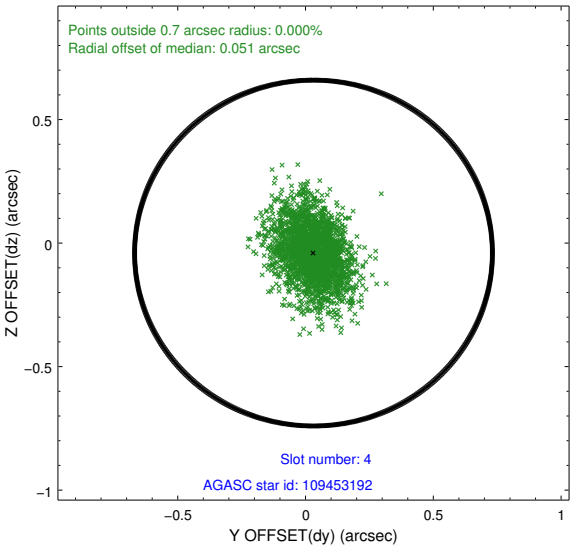


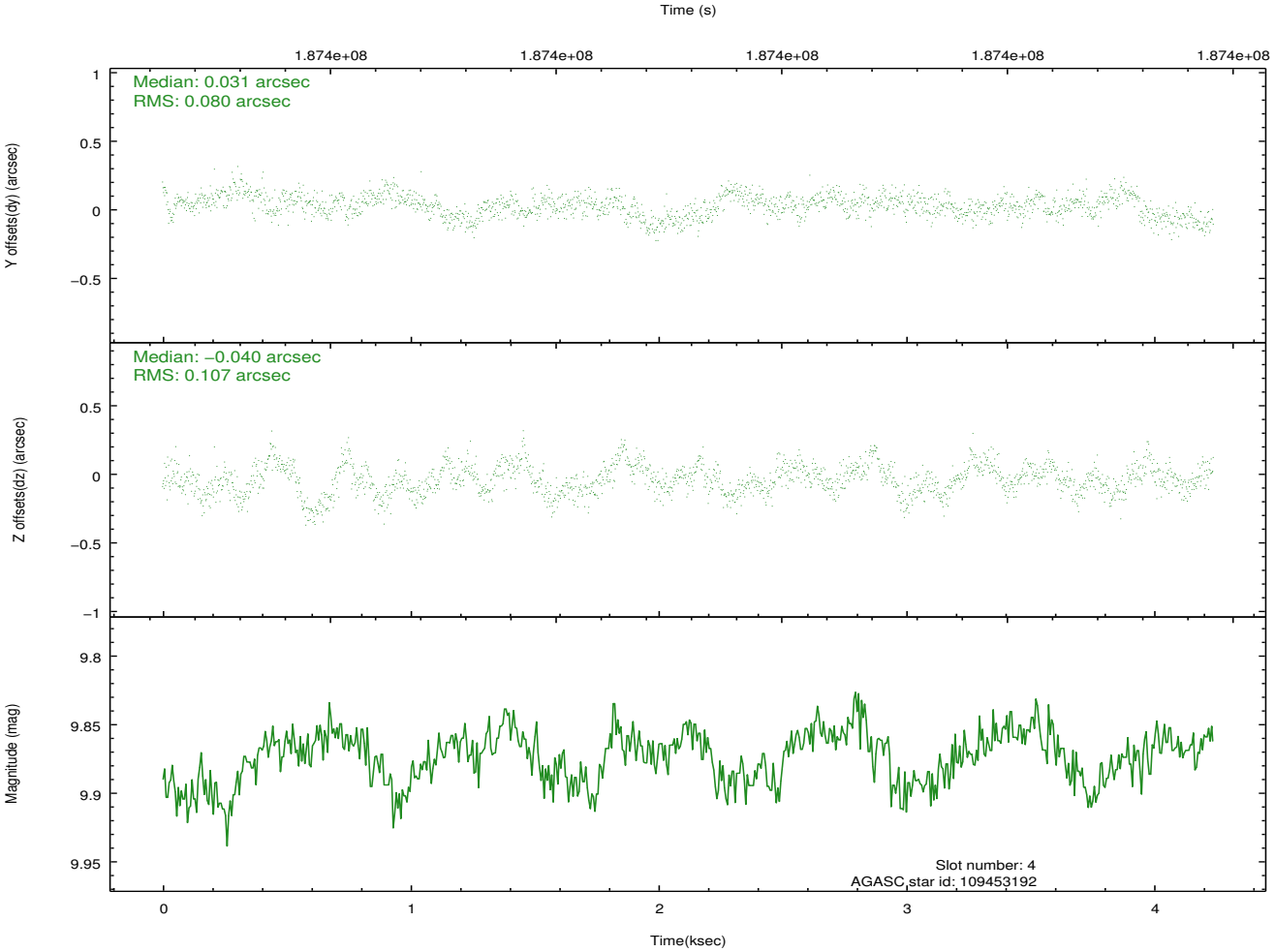




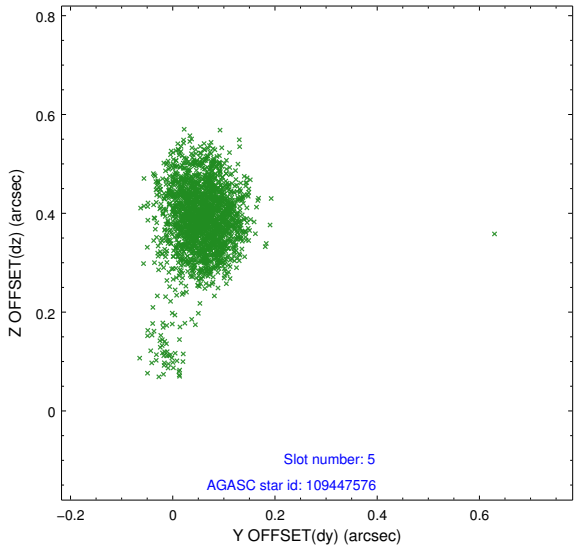
2.4.2 Slot 4

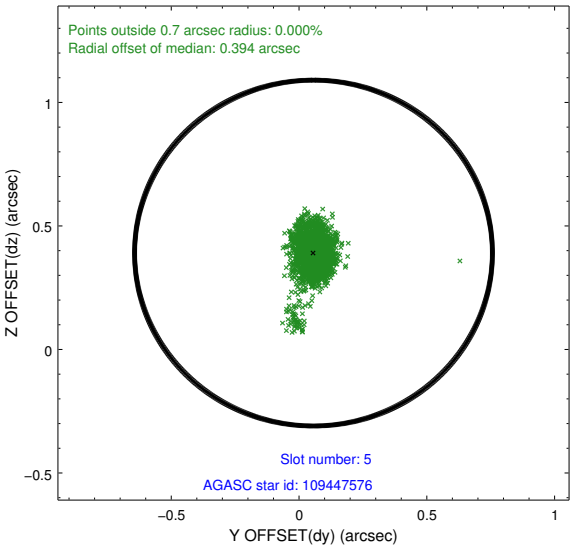

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 4
AGASC star id: 109453192

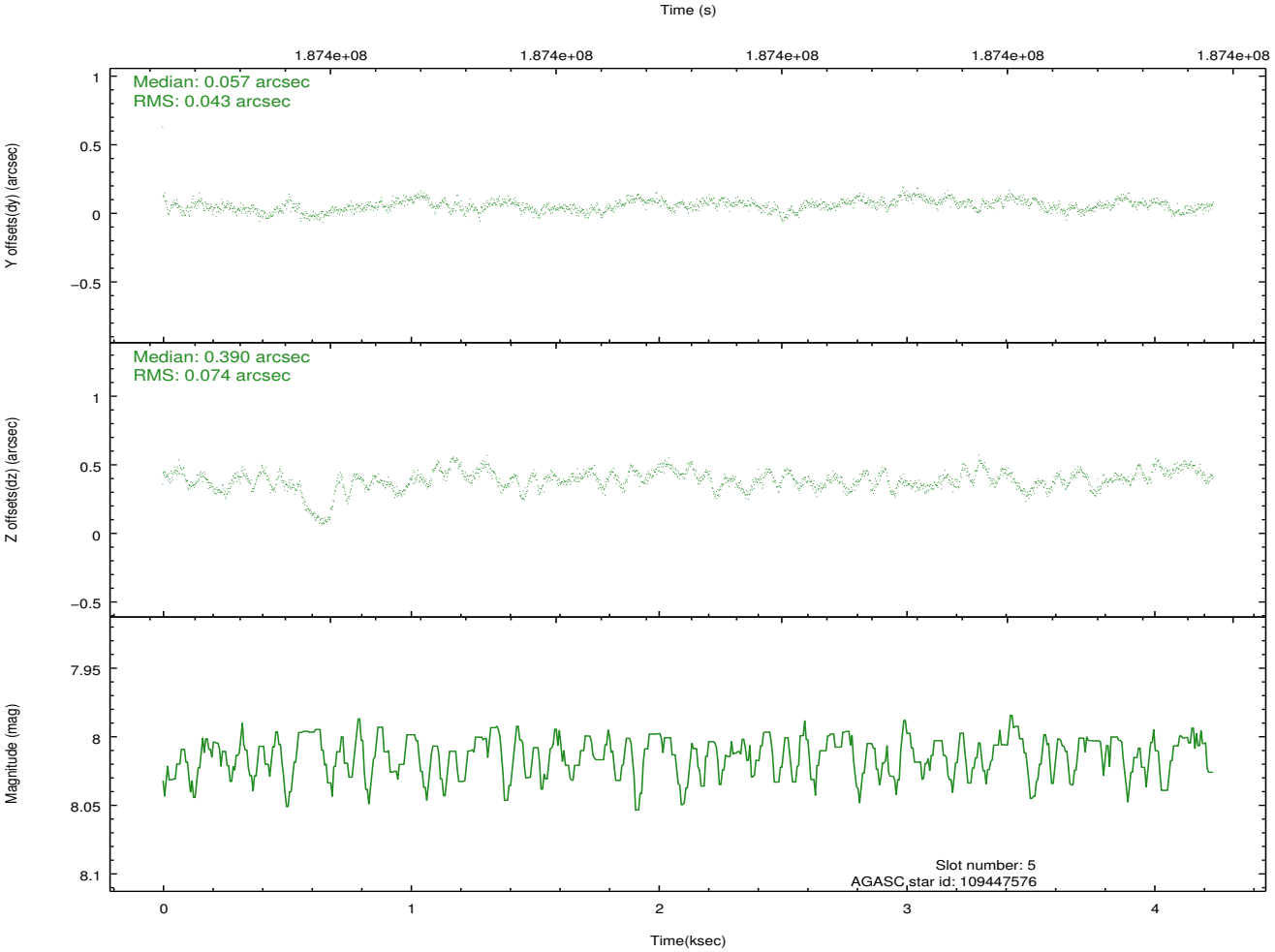

Points outside 0.7 arcsec radius: 0.000%
Radial offset of median: 0.051 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 4
AGASC star id: 109453192


Time (s)
Median: 0.031 arcsec
RMS: 0.080 arcsec
Y offsets(dy) (arcsec)
Median: −0.040 arcsec
RMS: 0.107 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 4
AGASC star id: 109453192
Time(ksec)

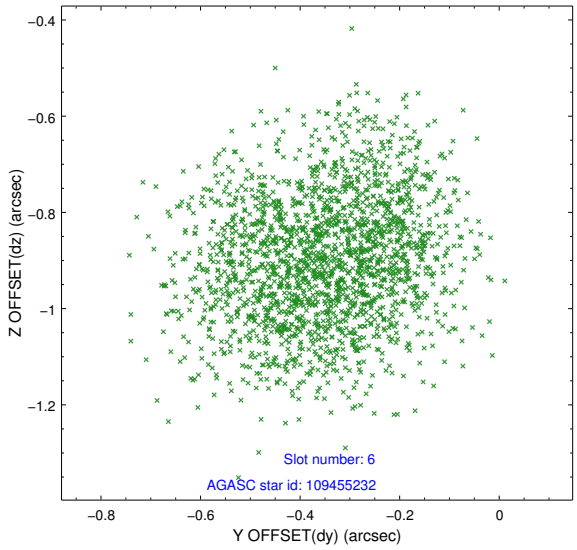
2.4.3 Slot 5

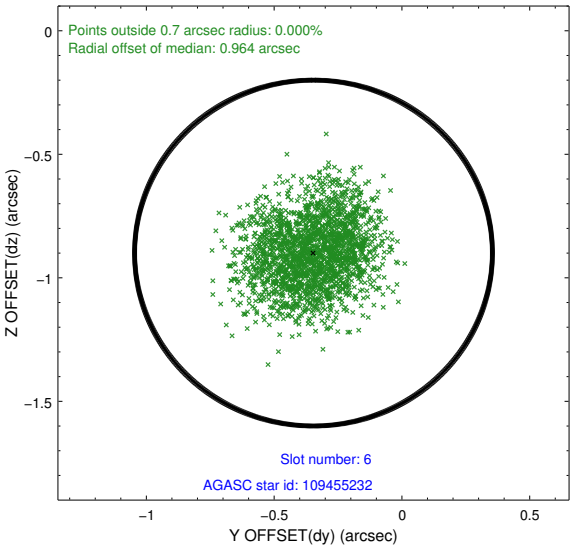

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 5
AGASC star id: 109447576

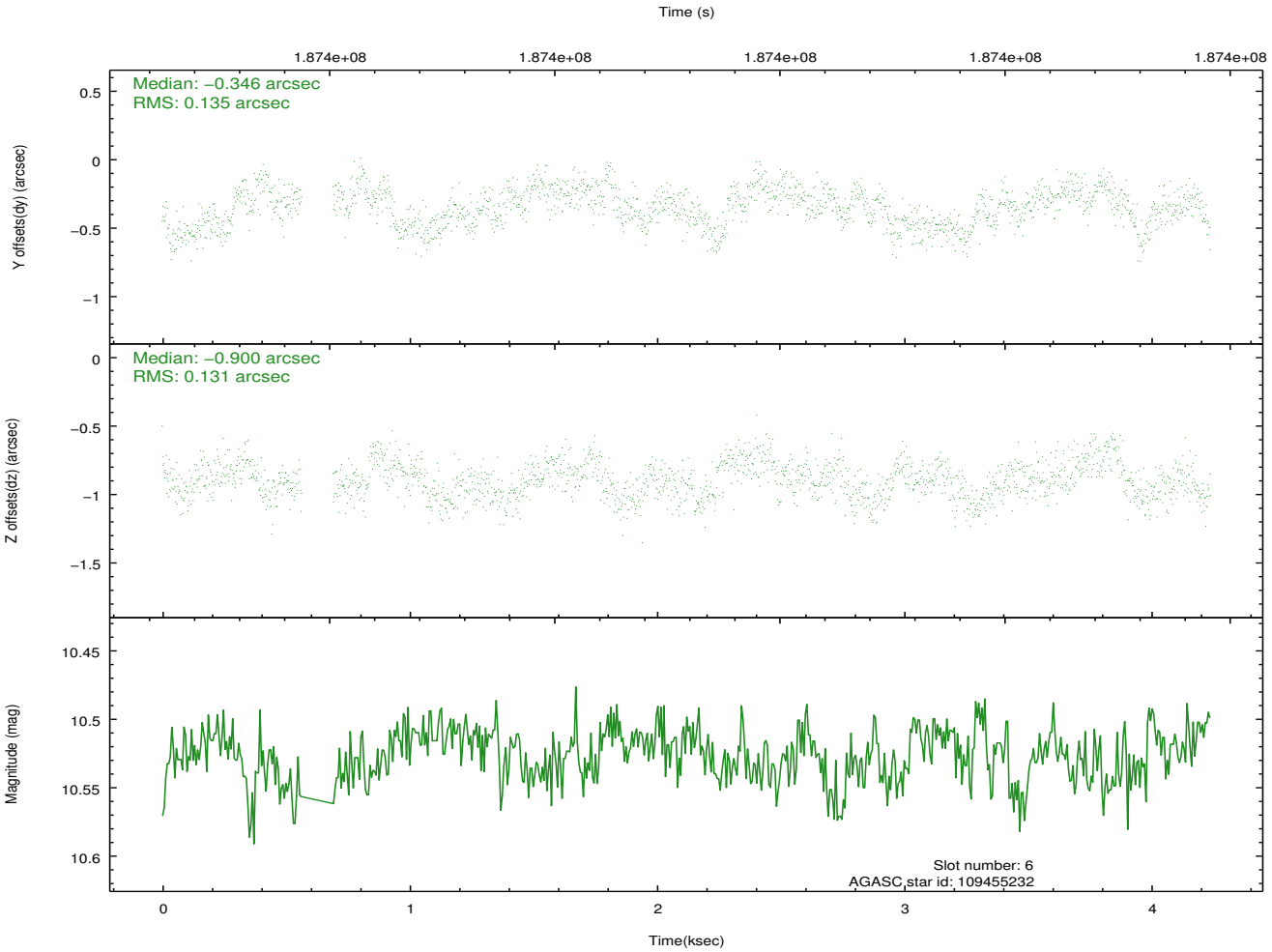

Points outside 0.7 arcsec radius: 0.000%
Radial offset of median: 0.394 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 5
AGASC star id: 109447576


Time (s)
Median: 0.057 arcsec
RMS: 0.043 arcsec
Y offsets(dy) (arcsec)
Median: 0.390 arcsec
RMS: 0.074 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 5
AGASC star id: 109447576
Time(ksec)

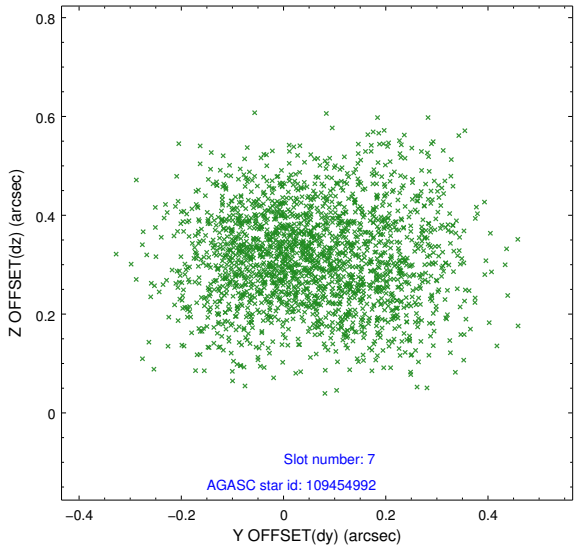
2.4.4 Slot 6

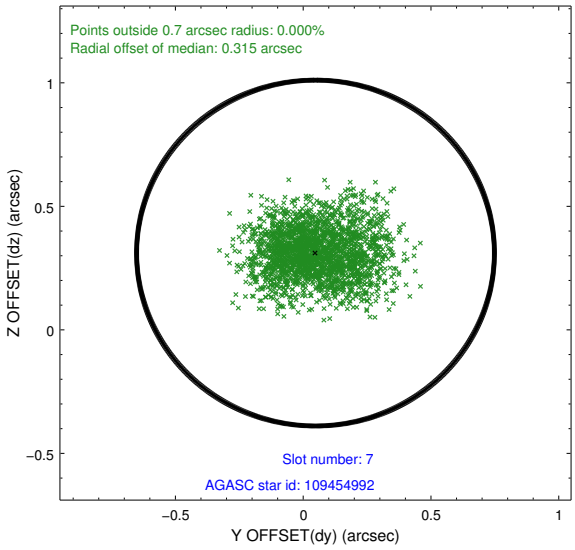

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 6
AGASC star id: 109455232

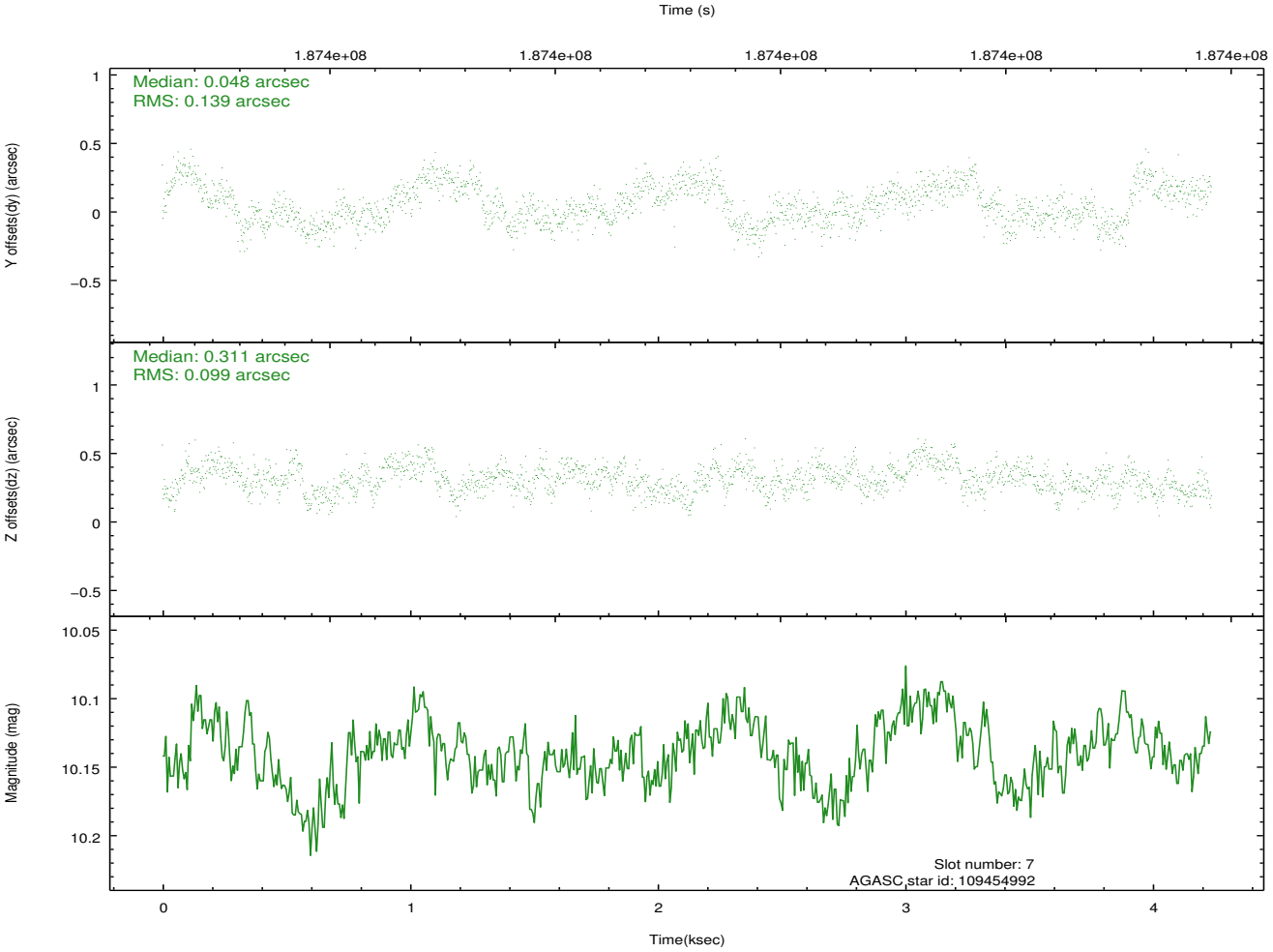

Points outside 0.7 arcsec radius: 0.000%
Radial offset of median: 0.964 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 6
AGASC star id: 109455232


Time (s)
Median: –0.346 arcsec
RMS: 0.135 arcsec
Y offsets(dy) (arcsec)
Median: –0.900 arcsec
RMS: 0.131 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 6
AGASC star id: 109455232
Time(ksec)

2.4.5 Slot 7

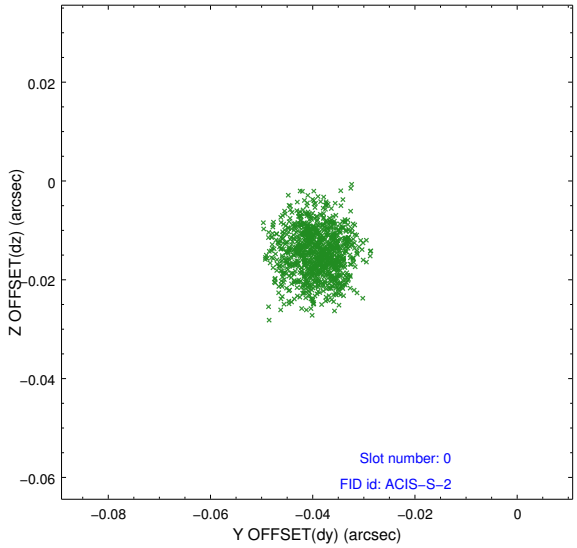

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 7
AGASC star id: 109454992

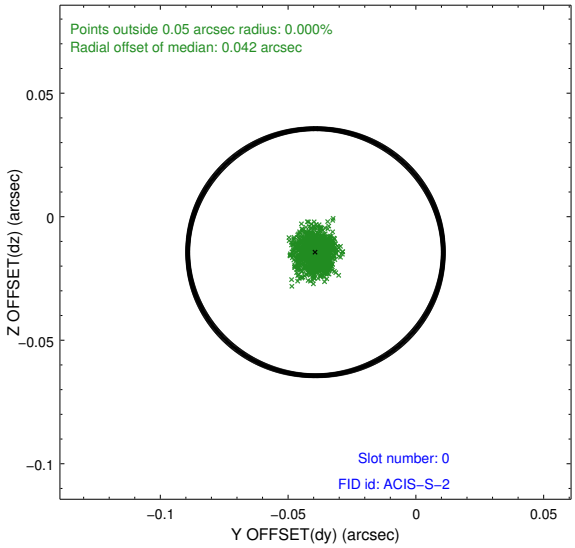

Points outside 0.7 arcsec radius: 0.000%
Radial offset of median: 0.315 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 7
AGASC star id: 109454992

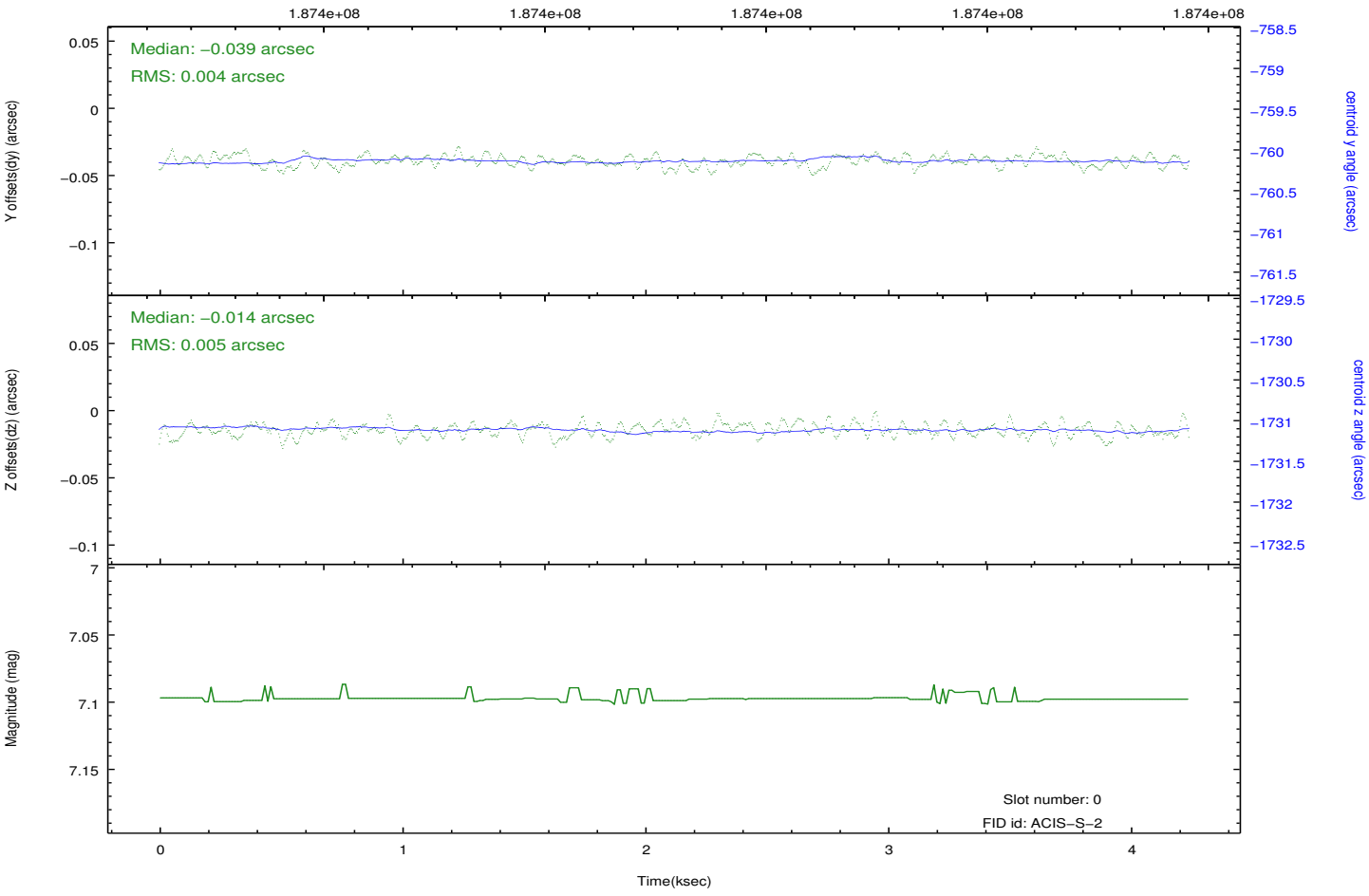

Time (s)
Median: 0.048 arcsec
RMS: 0.139 arcsec
Y offsets(dy) (arcsec)
Median: 0.311 arcsec
RMS: 0.099 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 7
AGASC star id: 109454992
Time(ksec)

2.5 FID Slots

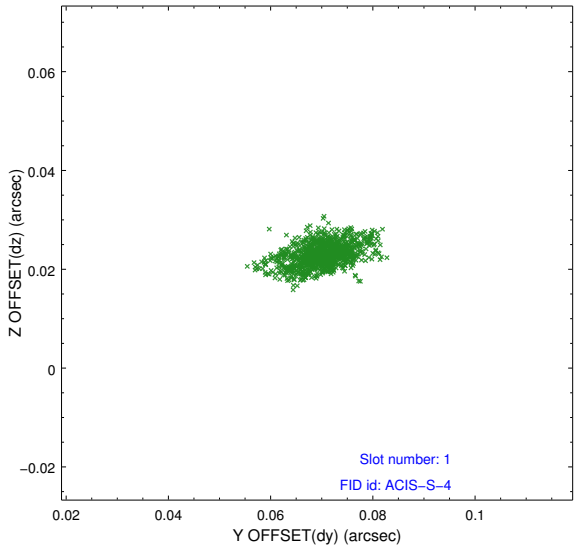
2.5.1 Slot 0

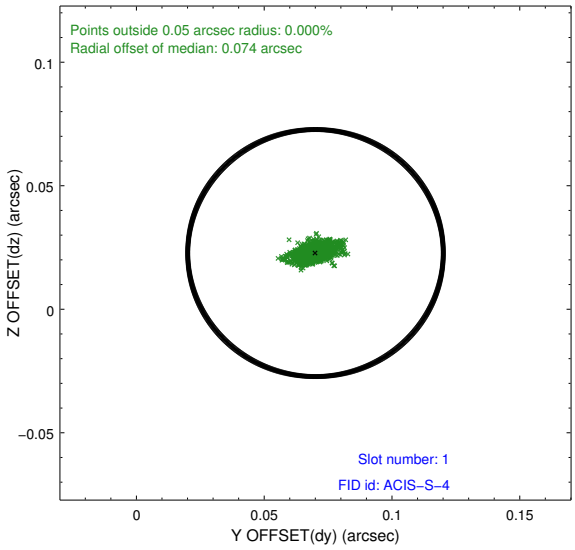


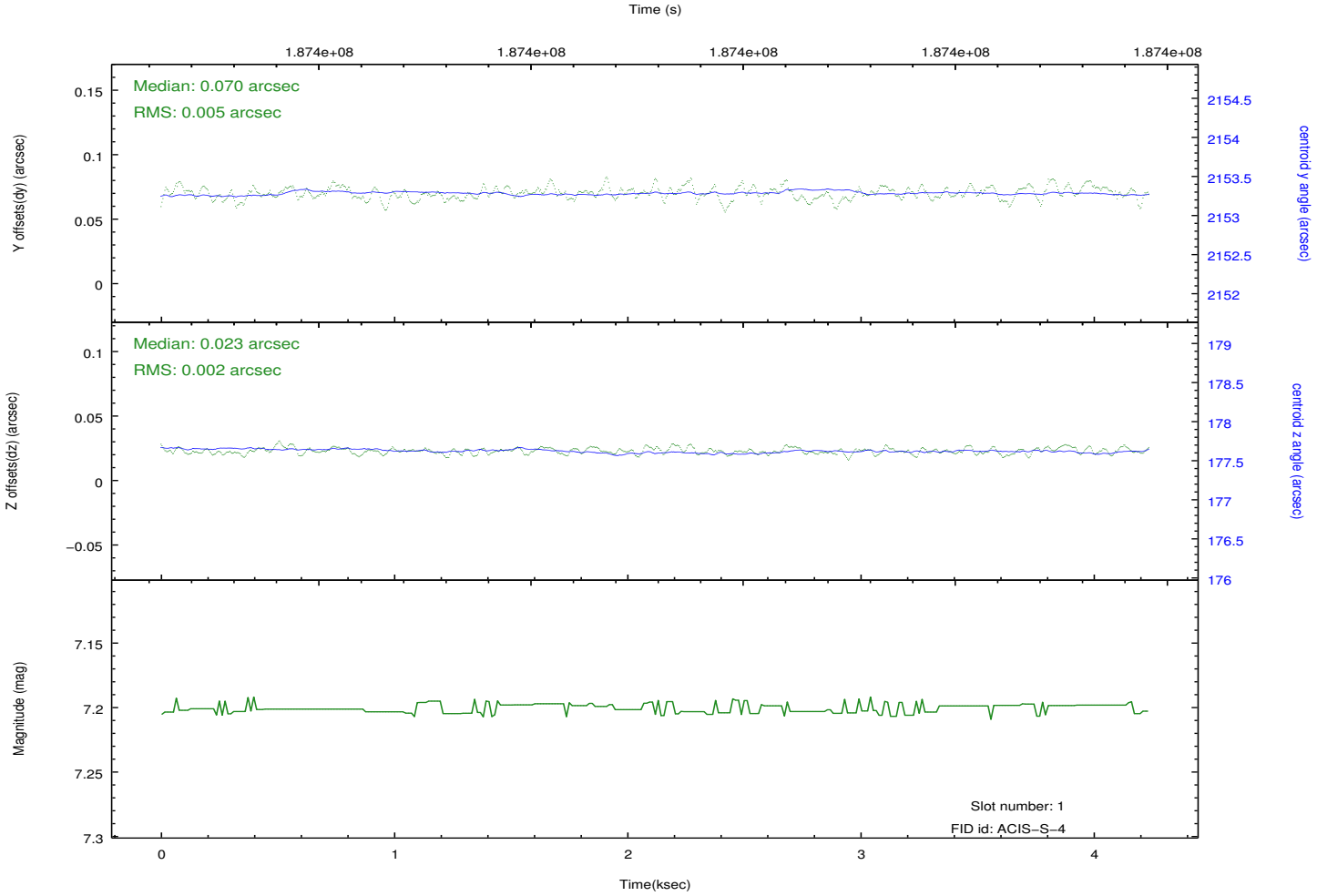




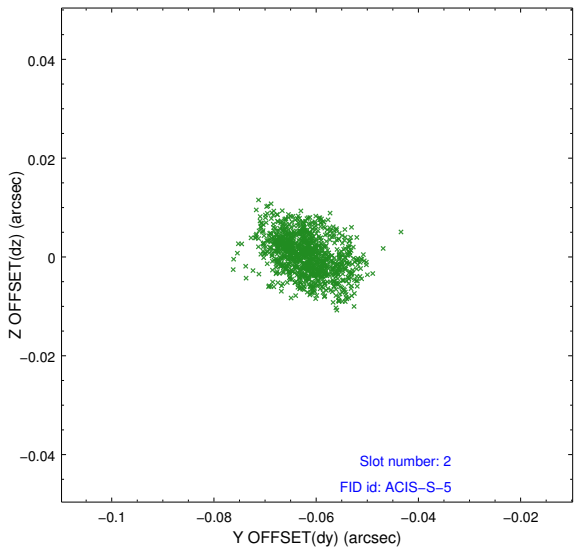
2.5.2 Slot 1

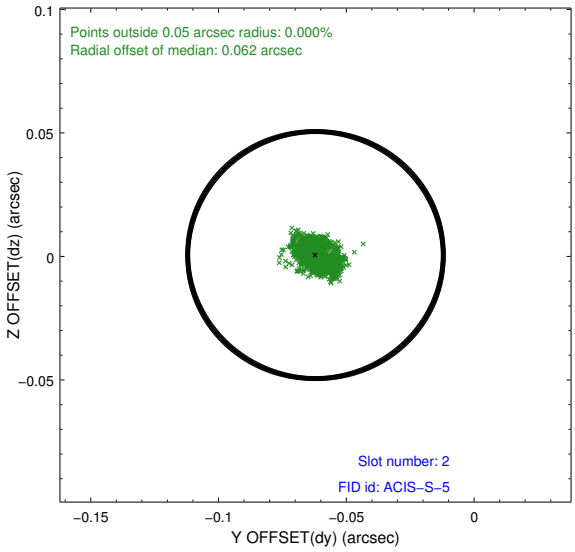

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 1
FID id: ACIS−S−4

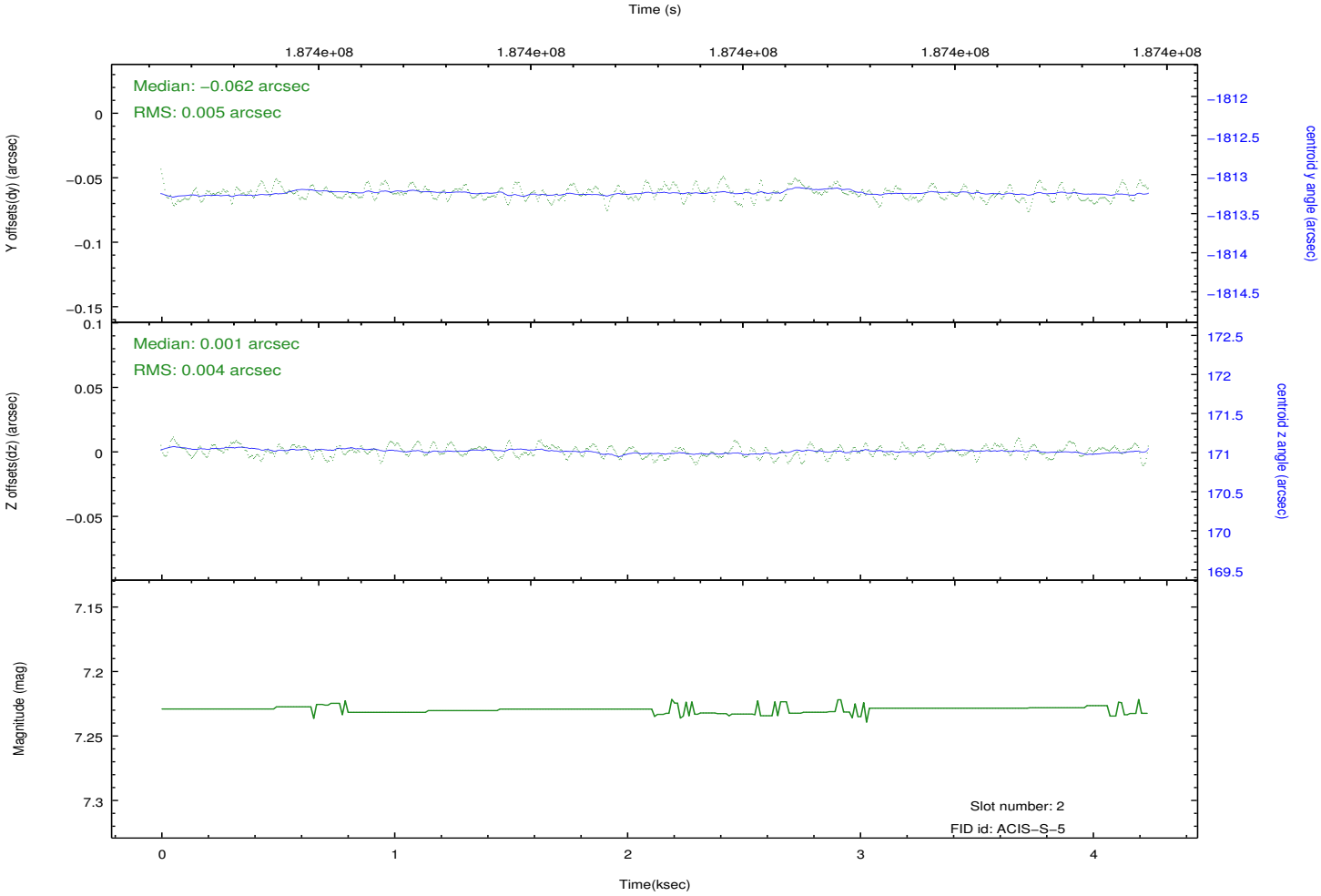

Points outside 0.05 arcsec radius: 0.000%
Radial offset of median: 0.074 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 1
FID id: ACIS−S−4


Time (s)
Median: 0.070 arcsec
RMS: 0.005 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: 0.023 arcsec
RMS: 0.002 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: 0.062 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 2
FID id: ACIS−S−5


Time (s)
Median: −0.062 arcsec
RMS: 0.005 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: 0.001 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)	2012.12.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.237

A.2 Comments