V&V Reference Report
L2 ASCDS Version : 8.4.4

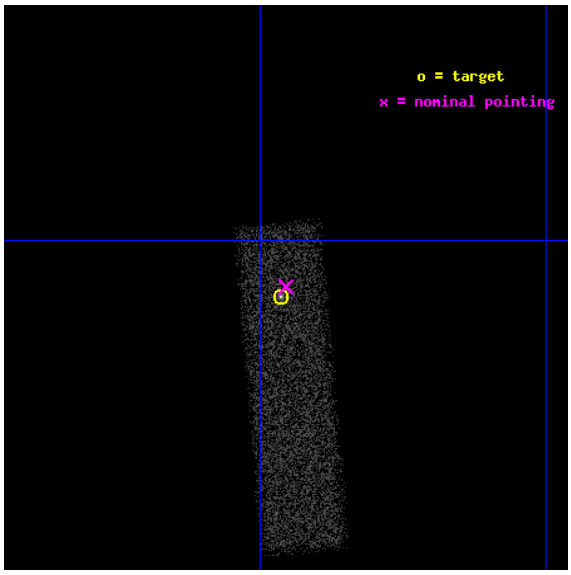
Observation 9221 - L2 Version 2
Chandra X-Ray Center

L2 Processing Date : May 21 2012

Contents

1 Front

seq_num	701662	Sequence number
obs_id	9221	Observation id
title	A Simple Test of Quasar Outflow Models	Proposal title
observer	Professor Fred Hamann	Principal investigator
object	PKS 0119-046	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	20.61625	Observer's specified target RA [deg]
dec_targ	-4.357639	Observer's specified target Dec [deg]
ra_nom	20.614079242609	Nominal RA [deg]
dec_nom	-4.3532666977998	Nominal Dec [deg]
roll_nom	85.007089932656	Nominal Roll [deg]
revision	2	Processing version of data
ontime	7178.4001070261	Sum of GTIs [s]
livetime	6828.117670528	Livetime [s]
ontime7	7178.4001070261	Sum of GTIs [s]
l2events	12913	Number of level 2 events

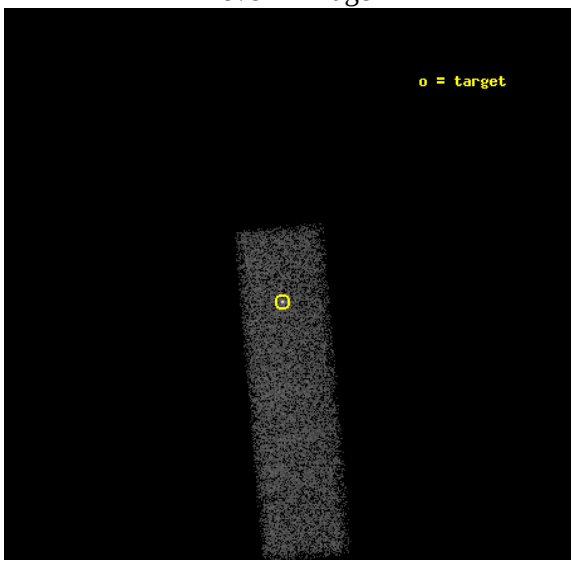


2 OBI

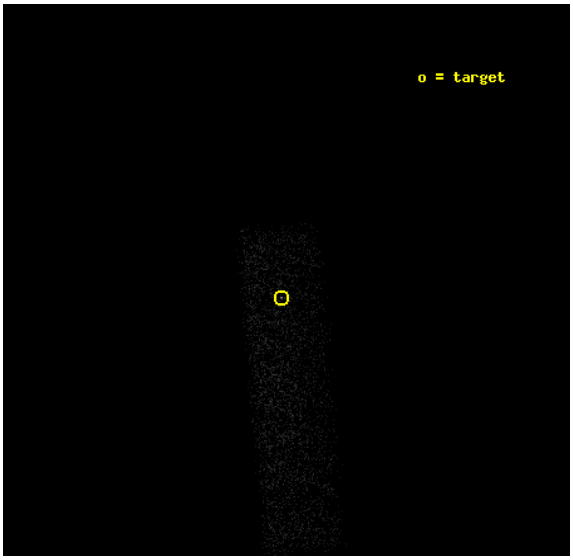
2.1 OBI

2.1.1 Images

Level 1 Image

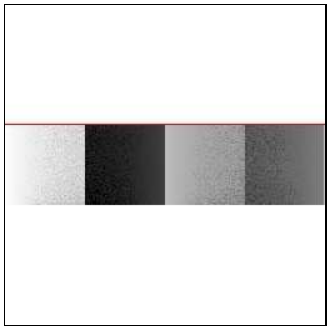


Level 1 Bad Events



2.1.2 Bias

Chip 7



2.1.3 Parameters

obi_num	0	Obi number
ascdsver	8.4.4	Processing system revision
caldbver	4.4.9	
date	2012-05-21T09:12:26	Date and time of file creation
revision	2	Processing version of data

sched_exp_time	7000.000000	[s] Scheduled observation exposure time
ontime	7178.4001070261	Sum of GTIs [s]
ontime7	7178.4001070261	Sum of GTIs [s]
l1events	30060	Number of level 1 events

2.1.4 Events

	ccd 7
level 1 events	30060
rejected events	16827
rejected %	55%

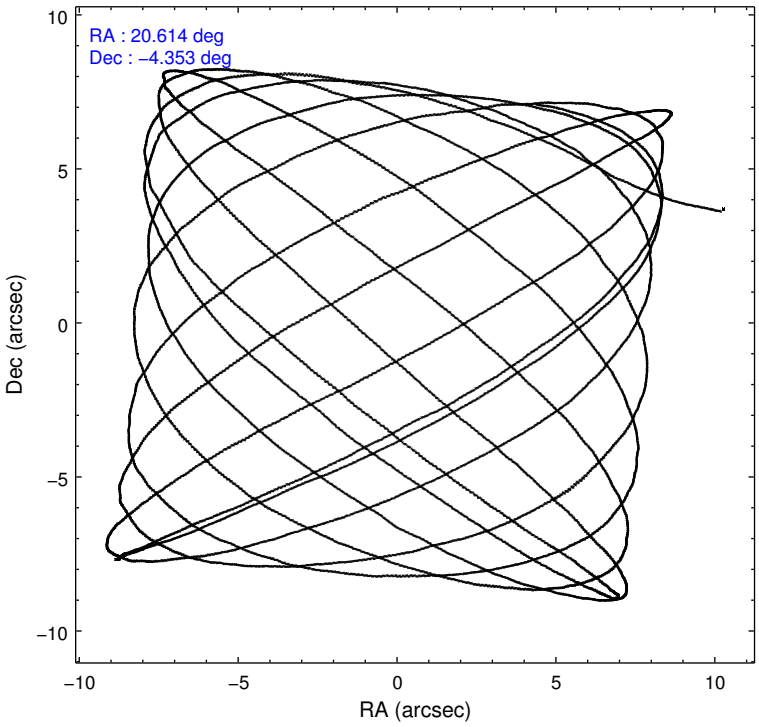
	ccd 7
grade 0 events	1749
	5%
grade 1 events	45
	0%
grade 2 events	3038
	10%
grade 3 events	1634
	5%
grade 4 events	1585
	5%
grade 5 events	2735
	9%
grade 6 events	6609
	21%
grade 7 events	12665
	42%

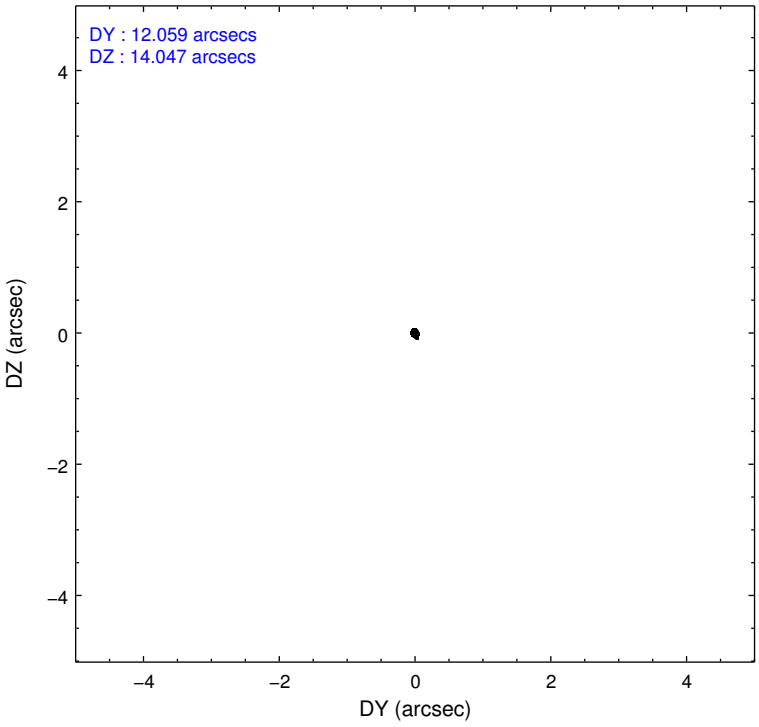
2.2 Compared Parameters

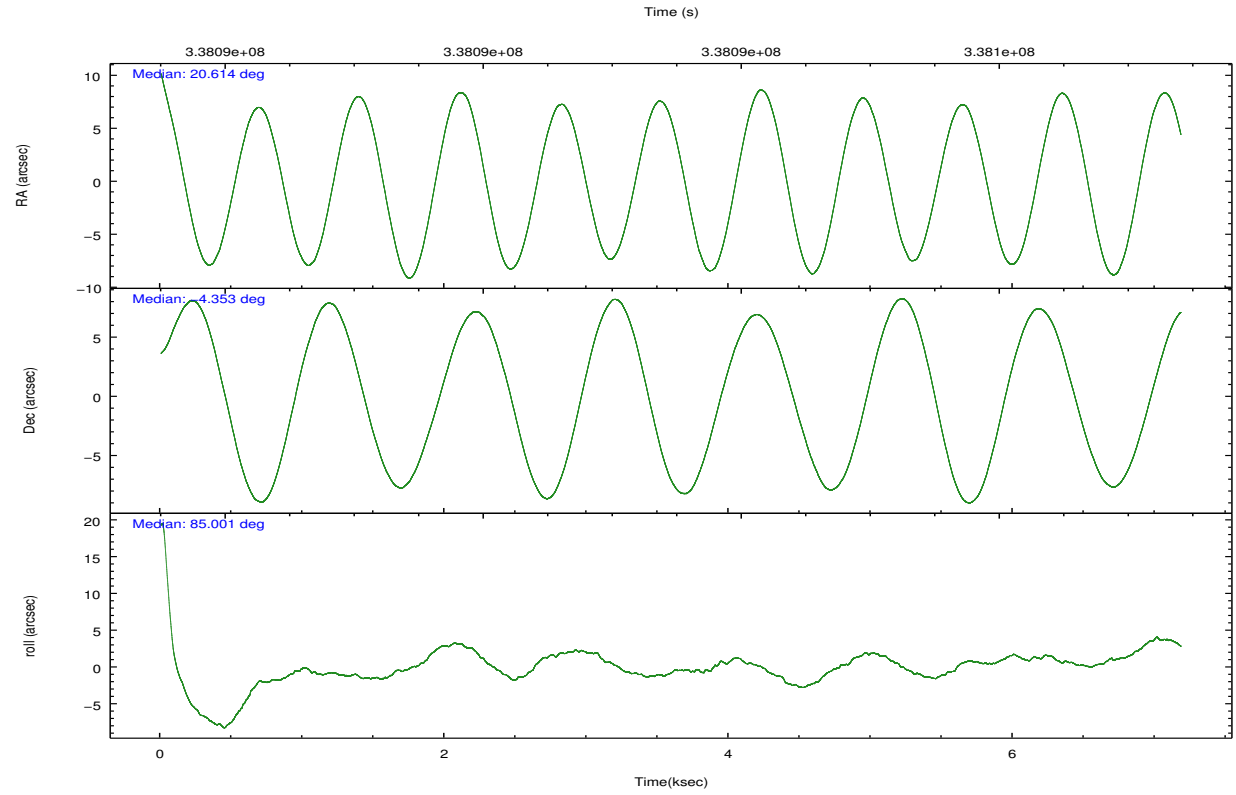
Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-7	ACIS-7
Grating	NONE	NONE
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	20.625998	20.61407924260904
[deg] Pointing Dec	-4.377932	-4.353266697799772
[deg] Pointing Roll	84.851335	85.00708993265607
[mm] SIM focus 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)	338090046.184000	338088906.9129
Observation start date	2008-09-18T01:53:01	2008-09-18T01:35:06
[s] Observation end time (MET)	338097046.184000	338097830.56334
Observation end date	2008-09-18T03:49:41	2008-09-18T04:03:50
Read mode	TIMED	TIMED

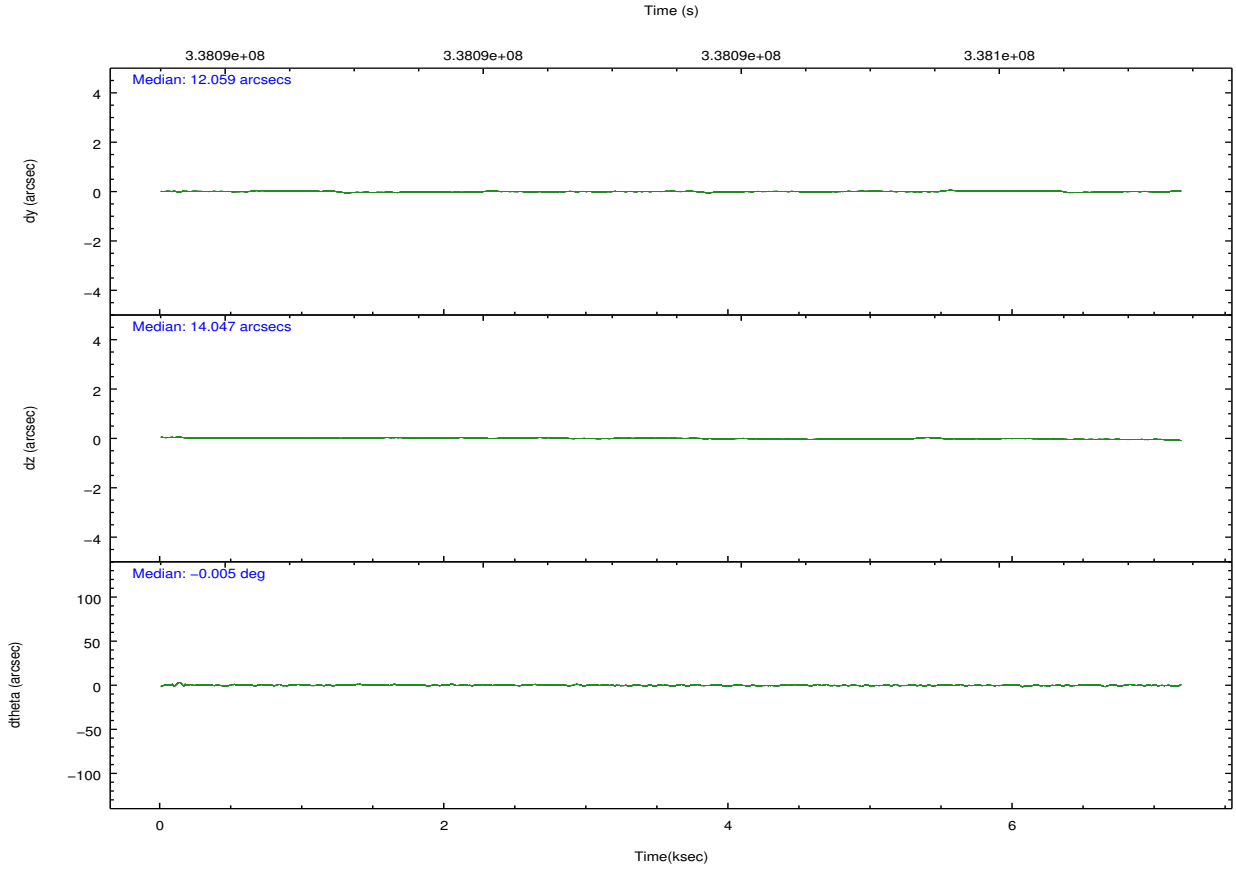
Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	CUSTOM	1/4
Subarray start row	385	385
Subarray row count	256	256
Alternating exposures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

2.3 Aspect


RA : 20.614 deg
Dec : –4.353 deg
Dec (arcsec)
RA (arcsec)
10
5
0
–5
–10
–10
–5
0
5
10


DY : 12.059 arcsecs
DZ : 14.047 arcsecs
DZ (arcsec)
DY (arcsec)
4
2
0
–2
–4
–4
–2
0
2
4


Time (s)
3.3809e+08
3.3809e+08
3.3809e+08
3.381e+08
Median: 20.614 deg
RA (arcsec)
Median: −4.353 deg
Dec (arcsec)
Median: 85.001 deg
roll (arcsec)
Time(ksec)

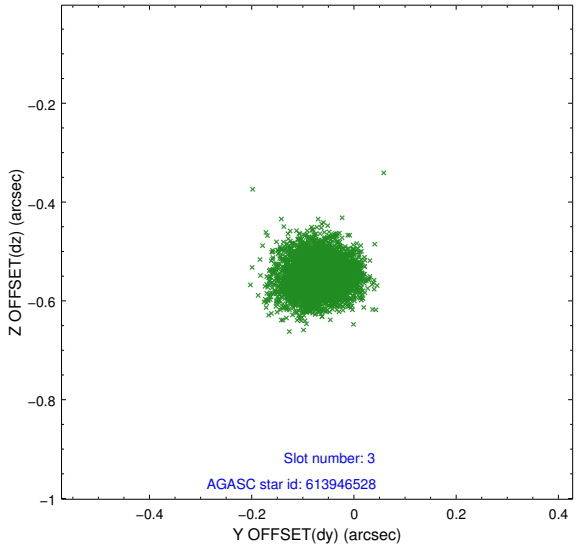

Time (s)
3.3809e+08
3.3809e+08
3.3809e+08
3.381e+08
Median: 12.059 arcsecs
dy (arcsec)
Median: 14.047 arcsecs
dz (arcsec)
Median: −0.005 deg
dtheta (arcsec)
Time(ksec)

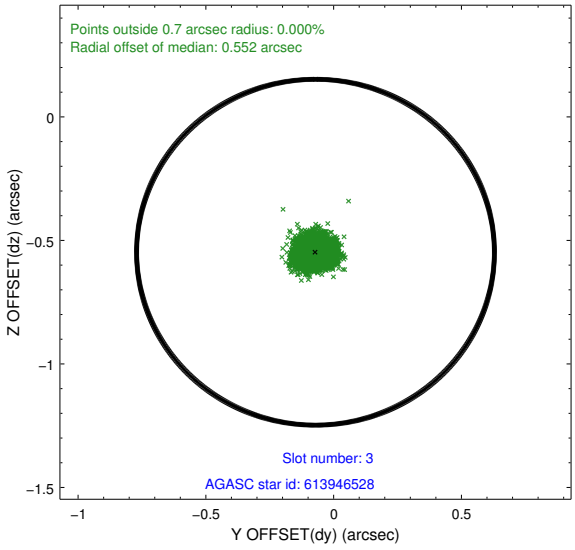
Slot Statistics

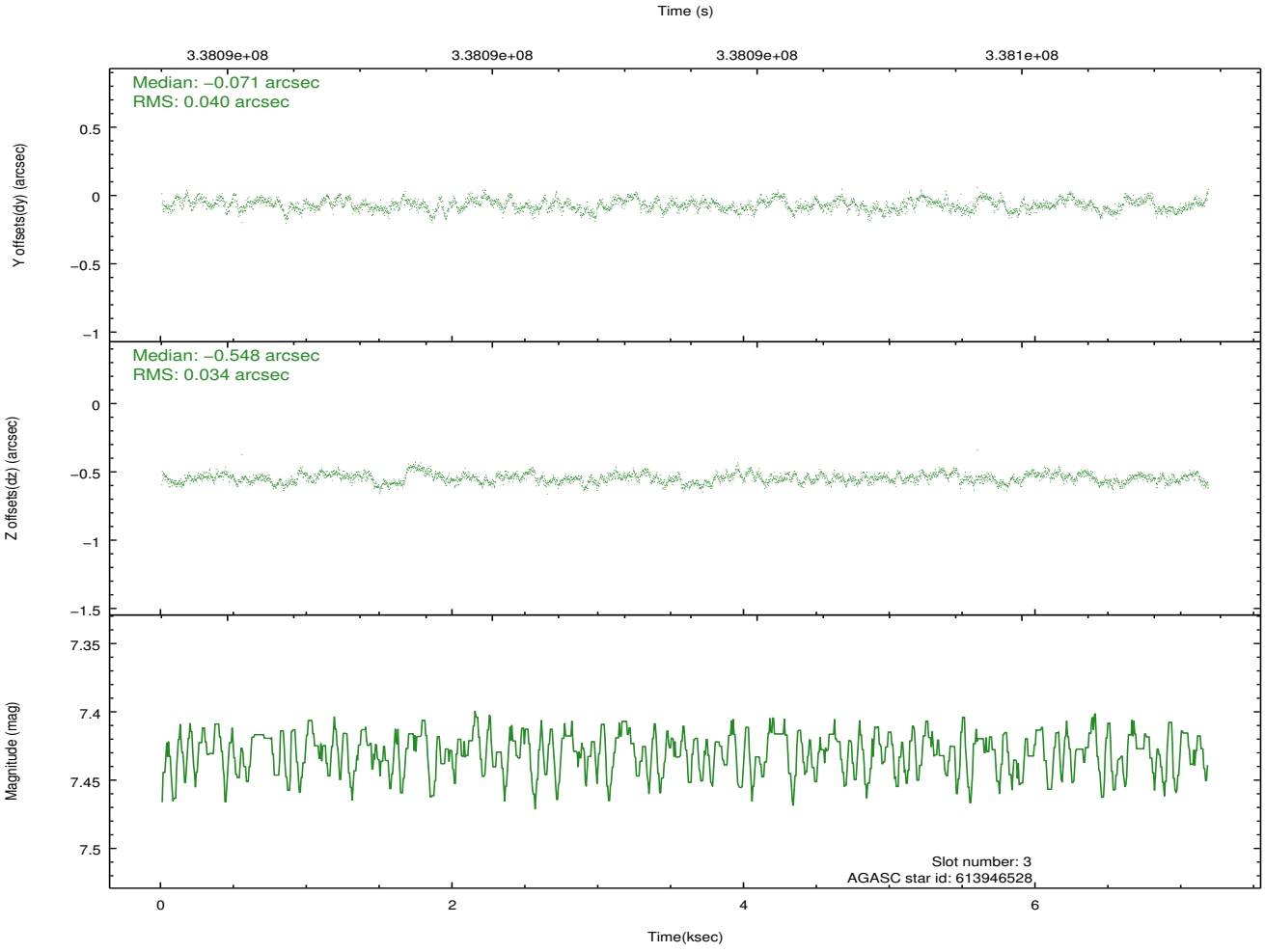
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	6.95	1751	0.067	0.000	0.006	0.011	0.000000	0.000000	931.16	-1731.03
1	FID	ACIS-S-2	6.86	1751	-0.076	0.008	0.006	0.010	0.000000	0.000000	-764.44	-1736.40
2	FID	ACIS-S-6	7.08	1751	-0.012	-0.004	0.006	0.011	0.000000	0.000000	396.37	809.48
3	GUIDE	613946528	7.43	3503	-0.071	-0.548	0.057	0.089	20.641934	-3.800304	2076.28	129.22
4	GUIDE	613947672	9.04	3500	0.189	0.106	0.101	0.161	21.263393	-4.157932	994.42	-2208.18
5	GUIDE	613948160	9.40	3434	-0.018	0.330	0.101	0.165	21.004127	-4.128540	1016.14	-1271.84
6	GUIDE	613949376	7.80	3503	0.048	-0.048	0.072	0.117	20.530458	-4.564354	-698.74	280.72
7	GUIDE	613949424	9.03	3502	-0.138	0.170	0.081	0.129	20.327627	-4.127790	800.16	1148.03

2.4 Star Slots

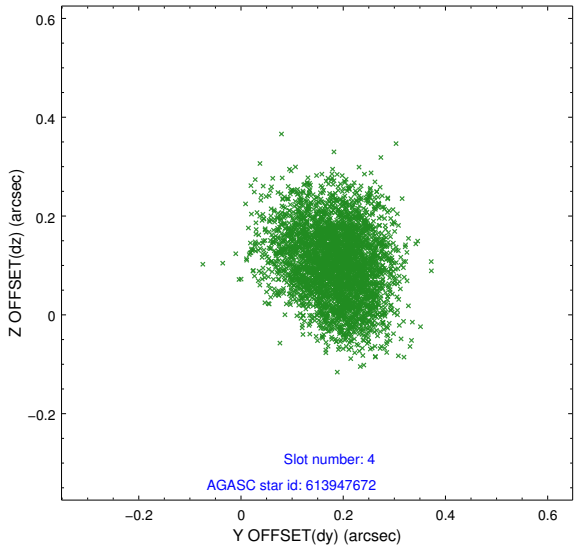
2.4.1 Slot 3

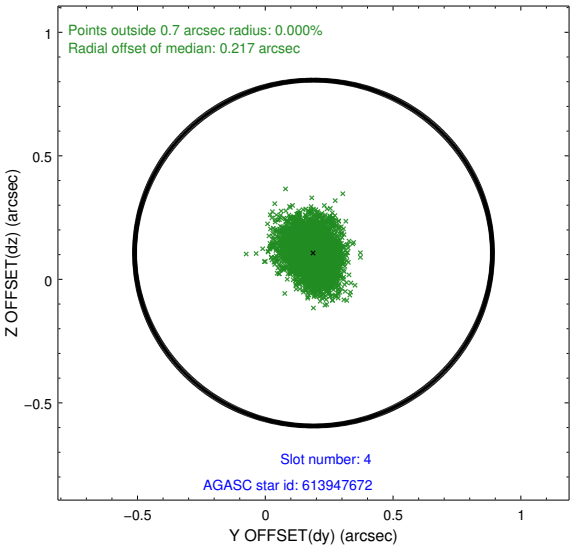


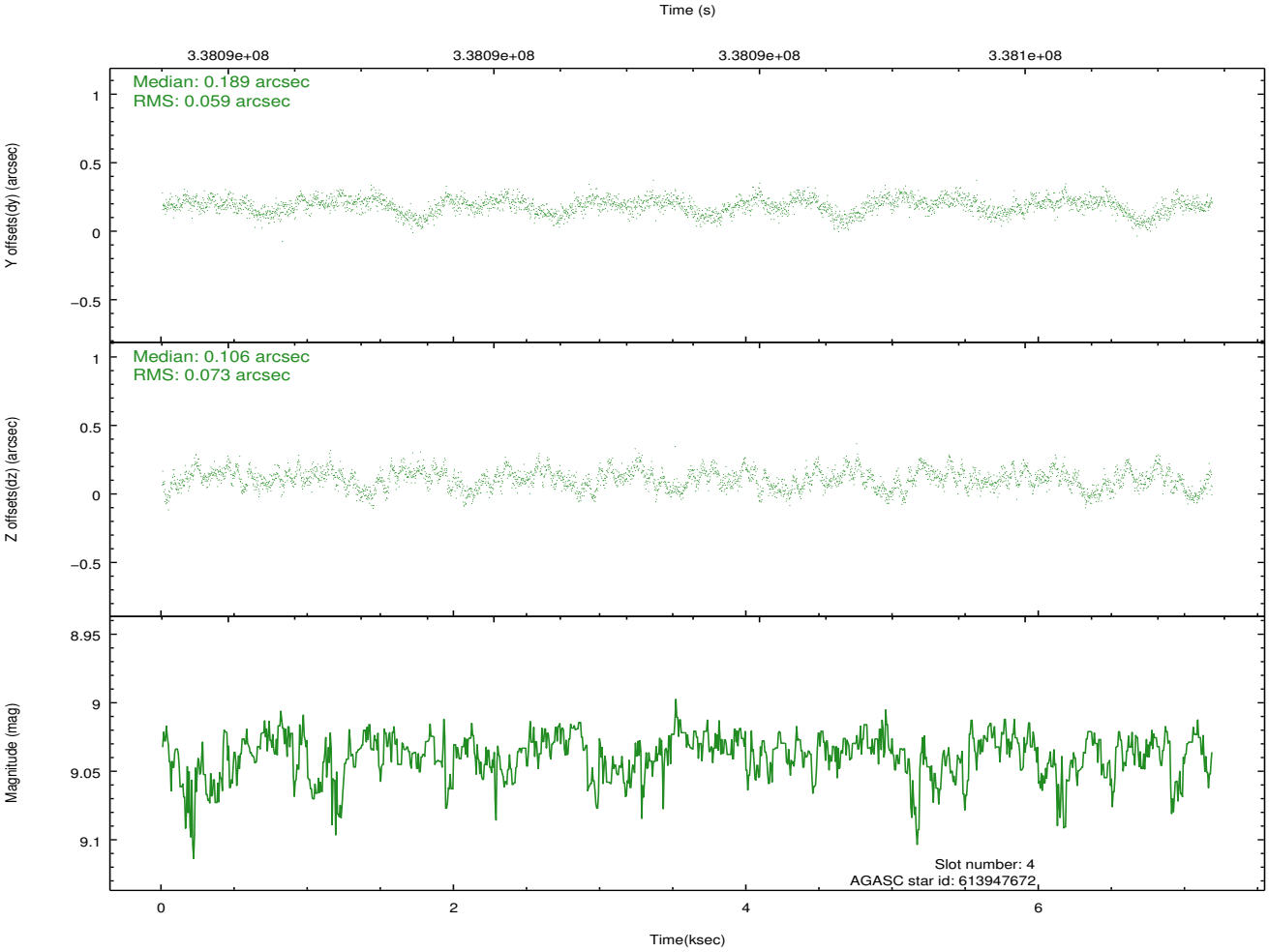




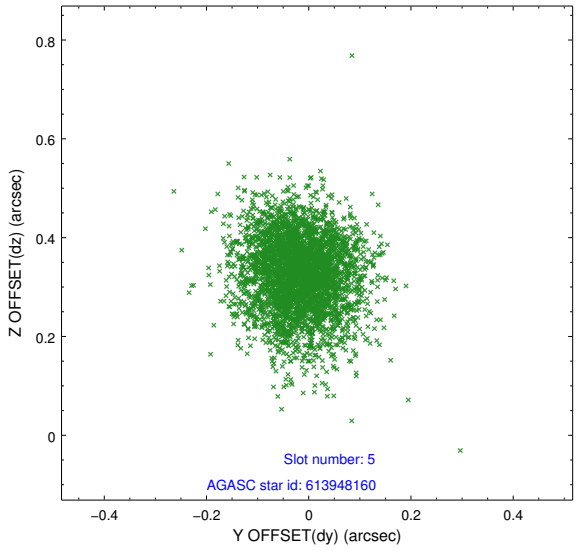
2.4.2 Slot 4

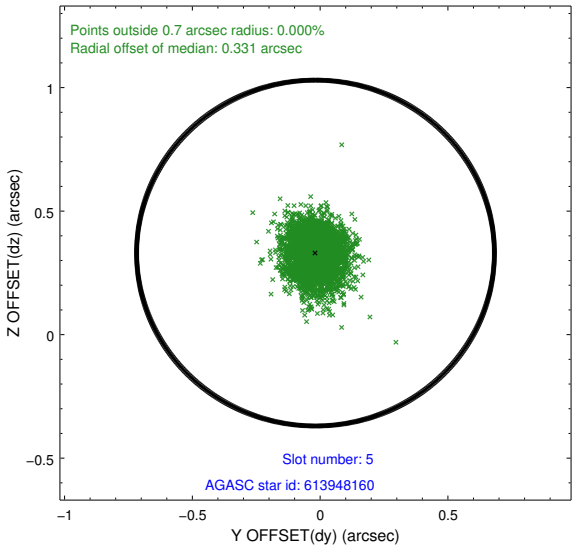

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 4
AGASC star id: 613947672

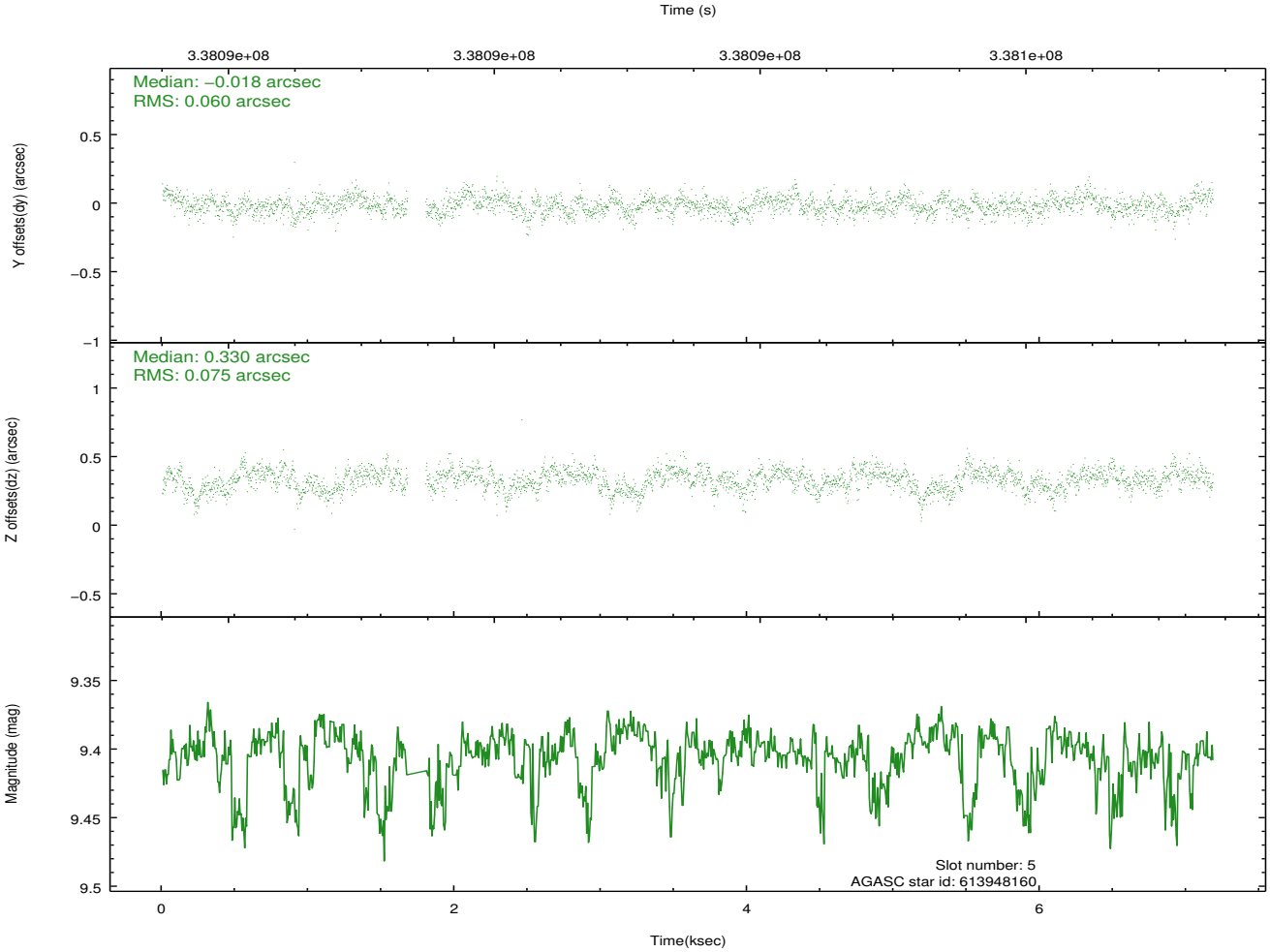

Points outside 0.7 arcsec radius: 0.000%
Radial offset of median: 0.217 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 4
AGASC star id: 613947672


Time (s)
3.3809e+08
3.3809e+08
3.3809e+08
3.381e+08
Median: 0.189 arcsec
RMS: 0.059 arcsec
Y offsets(dy) (arcsec)
Median: 0.106 arcsec
RMS: 0.073 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 4
AGASC star id: 613947672
Time(ksec)

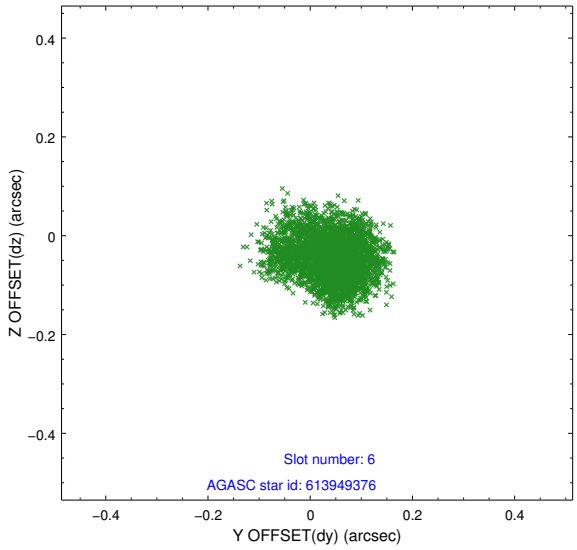
2.4.3 Slot 5

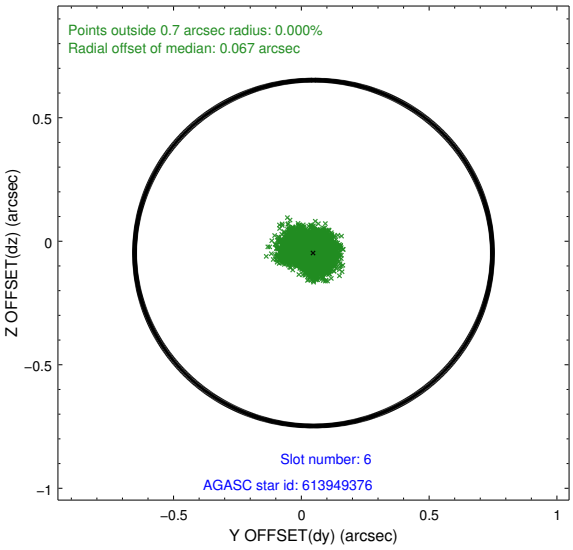

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 5
AGASC star id: 613948160

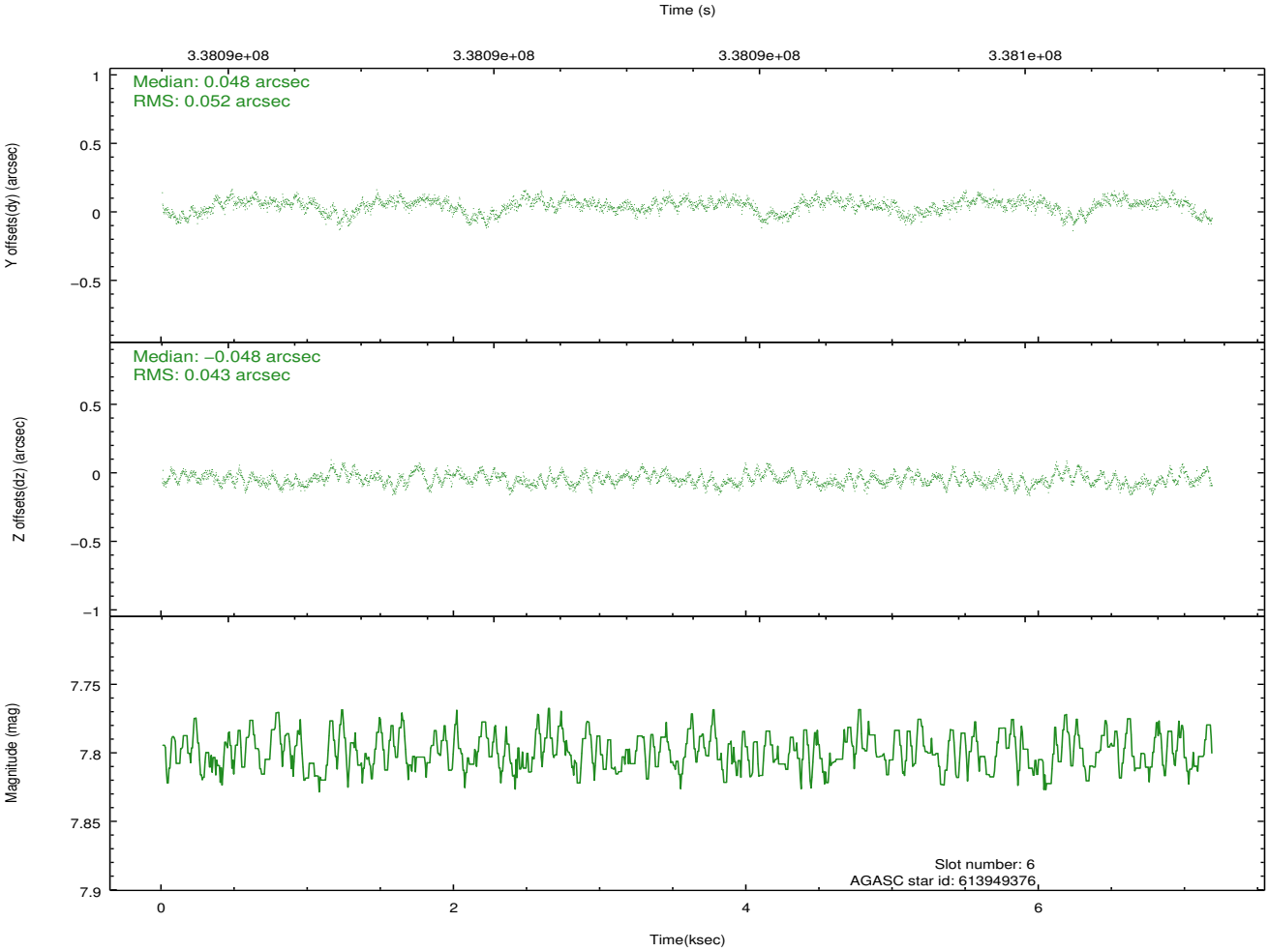

Points outside 0.7 arcsec radius: 0.000%
Radial offset of median: 0.331 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 5
AGASC star id: 613948160


Time (s)
3.3809e+08
3.3809e+08
3.3809e+08
3.381e+08
Median: −0.018 arcsec
RMS: 0.060 arcsec
Y offsets(dy) (arcsec)
Median: 0.330 arcsec
RMS: 0.075 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 5
AGASC star id: 613948160
Time(ksec)

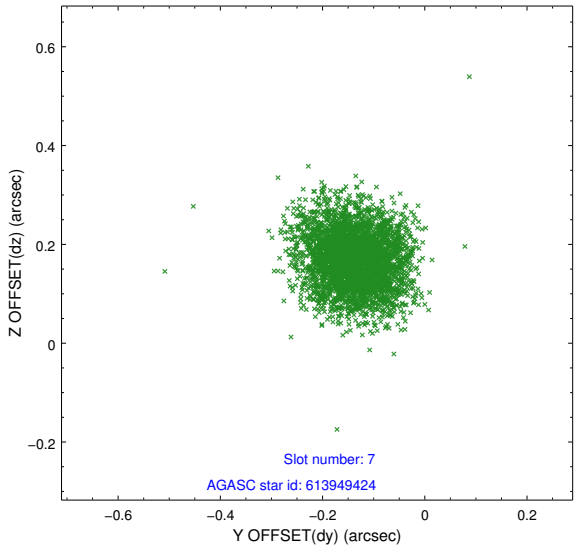
2.4.4 Slot 6

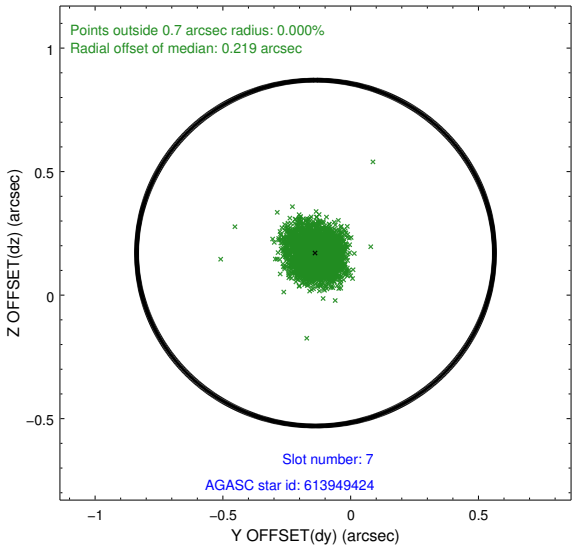

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 6
AGASC star id: 613949376

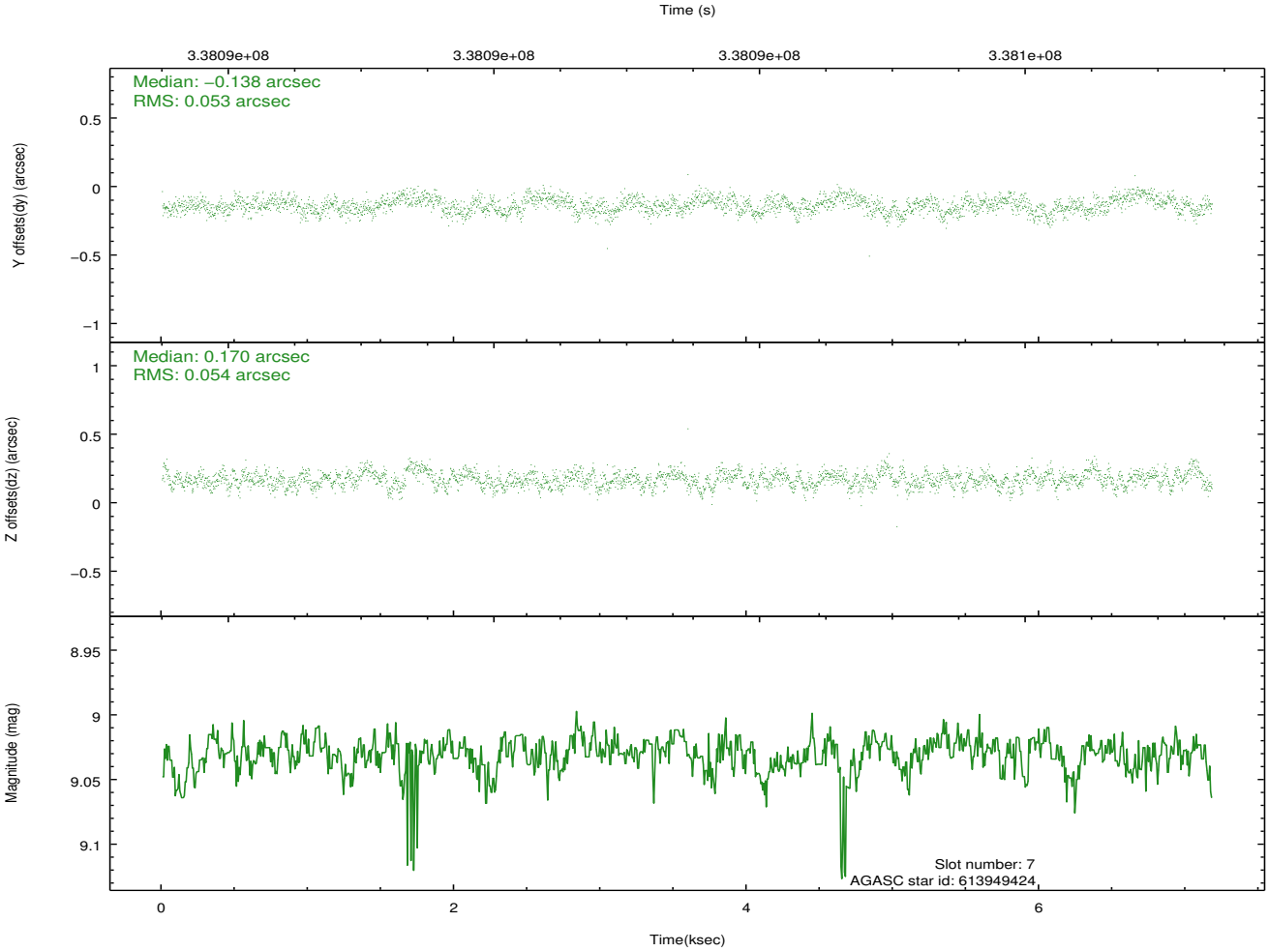

Points outside 0.7 arcsec radius: 0.000%
Radial offset of median: 0.067 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 6
AGASC star id: 613949376


Time (s)
3.3809e+08
3.3809e+08
3.3809e+08
3.381e+08
Median: 0.048 arcsec
RMS: 0.052 arcsec
Y offsets(dy) (arcsec)
Median: −0.048 arcsec
RMS: 0.043 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 6
AGASC star id: 613949376
Time(ksec)

2.4.5 Slot 7

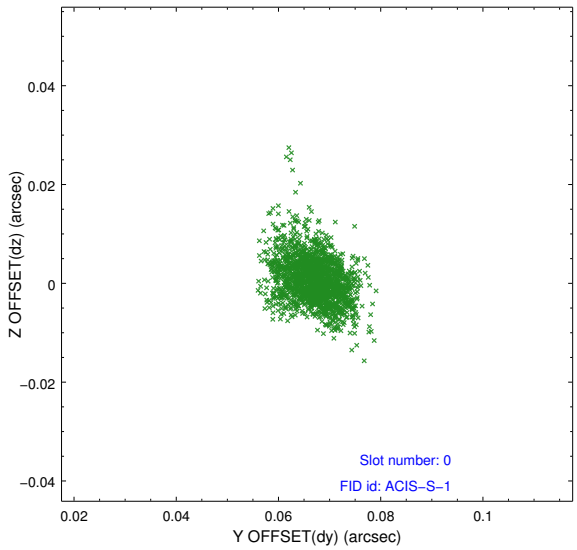

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 7
AGASC star id: 613949424

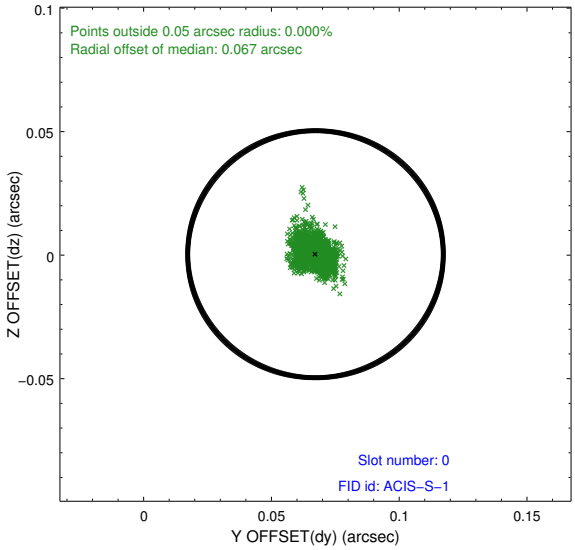

Points outside 0.7 arcsec radius: 0.000%
Radial offset of median: 0.219 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 7
AGASC star id: 613949424

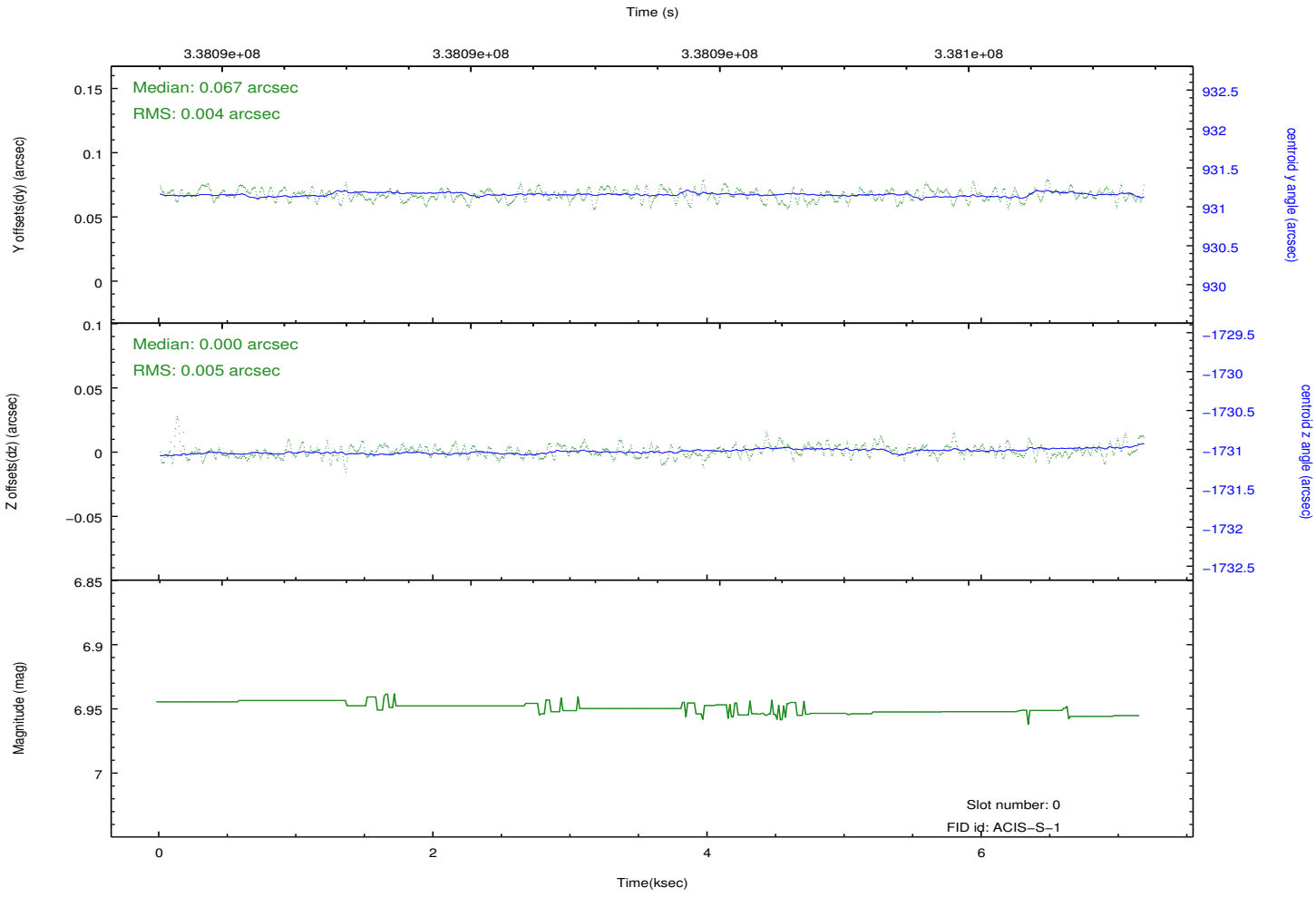

Time (s)
3.3809e+08
3.3809e+08
3.3809e+08
3.381e+08
Median: −0.138 arcsec
RMS: 0.053 arcsec
Y offsets(dy) (arcsec)
Median: 0.170 arcsec
RMS: 0.054 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 7
AGASC star id: 613949424
Time(ksec)

2.5 FID Slots

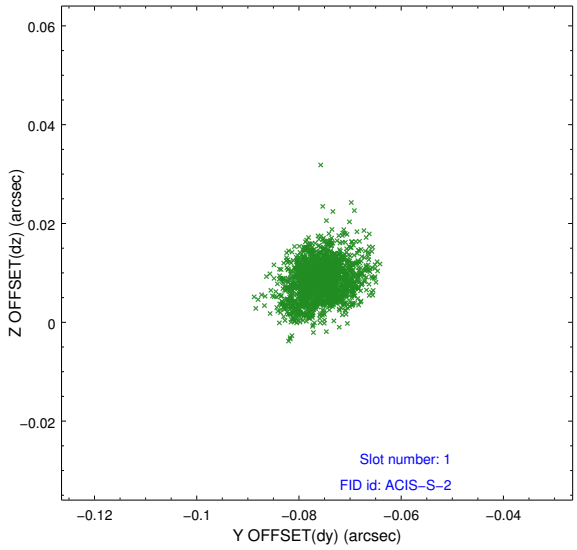
2.5.1 Slot 0

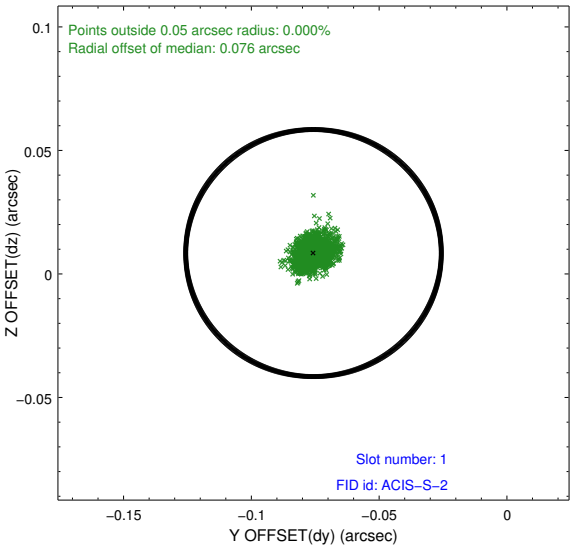


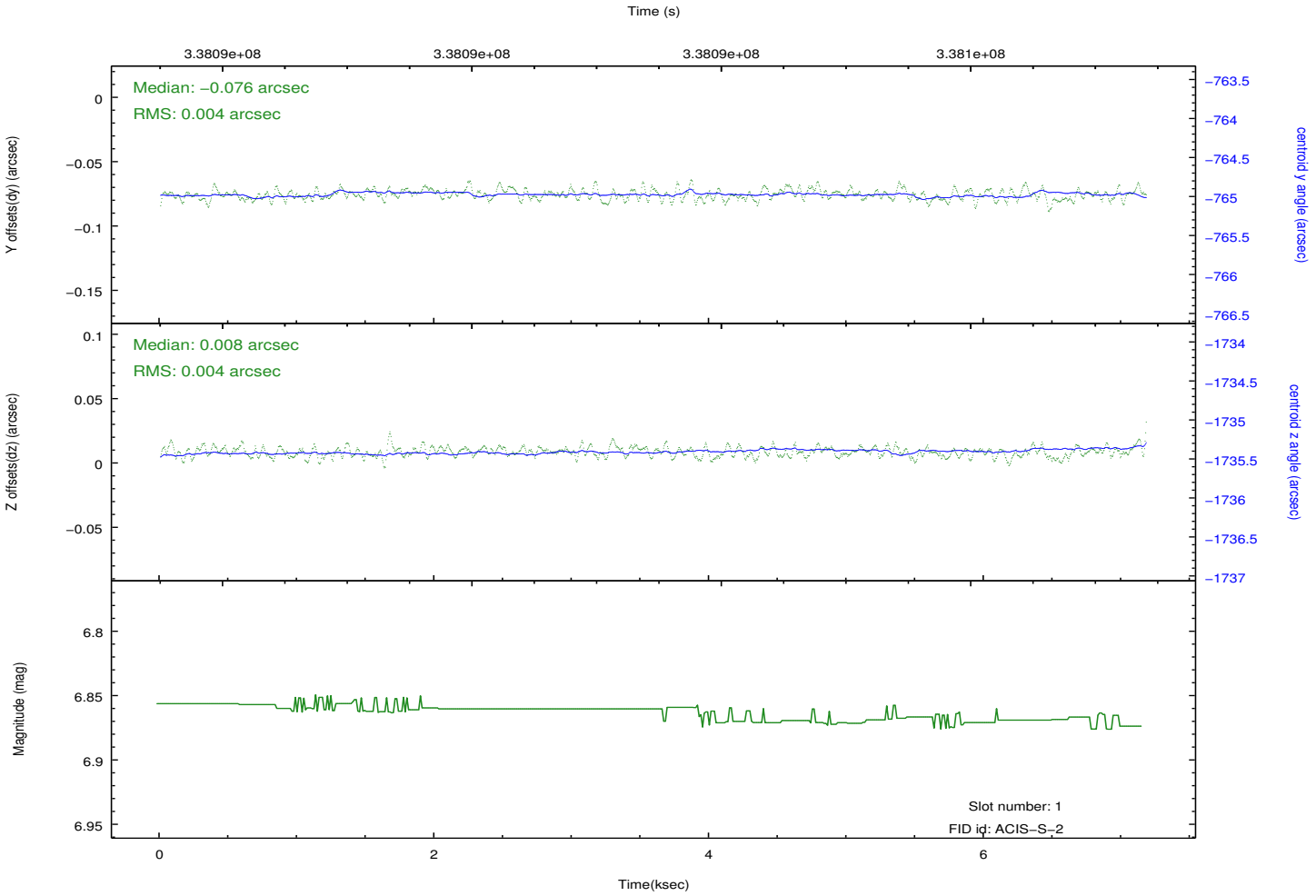




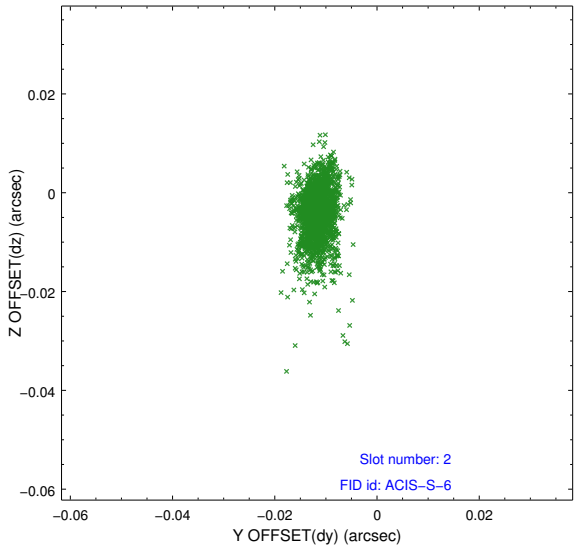
2.5.2 Slot 1

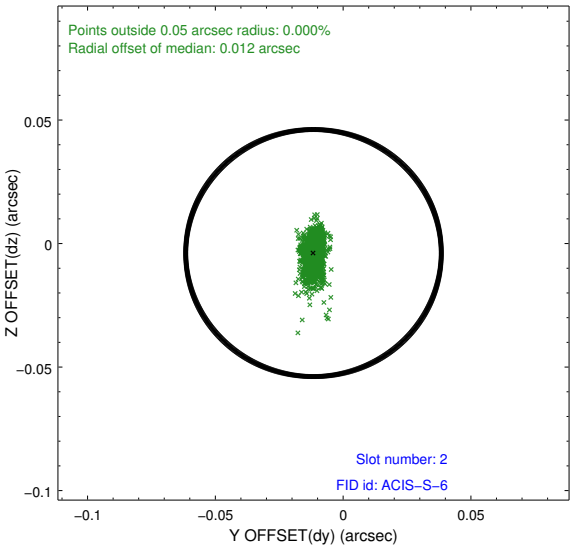

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 1
FID id: ACIS−S−2

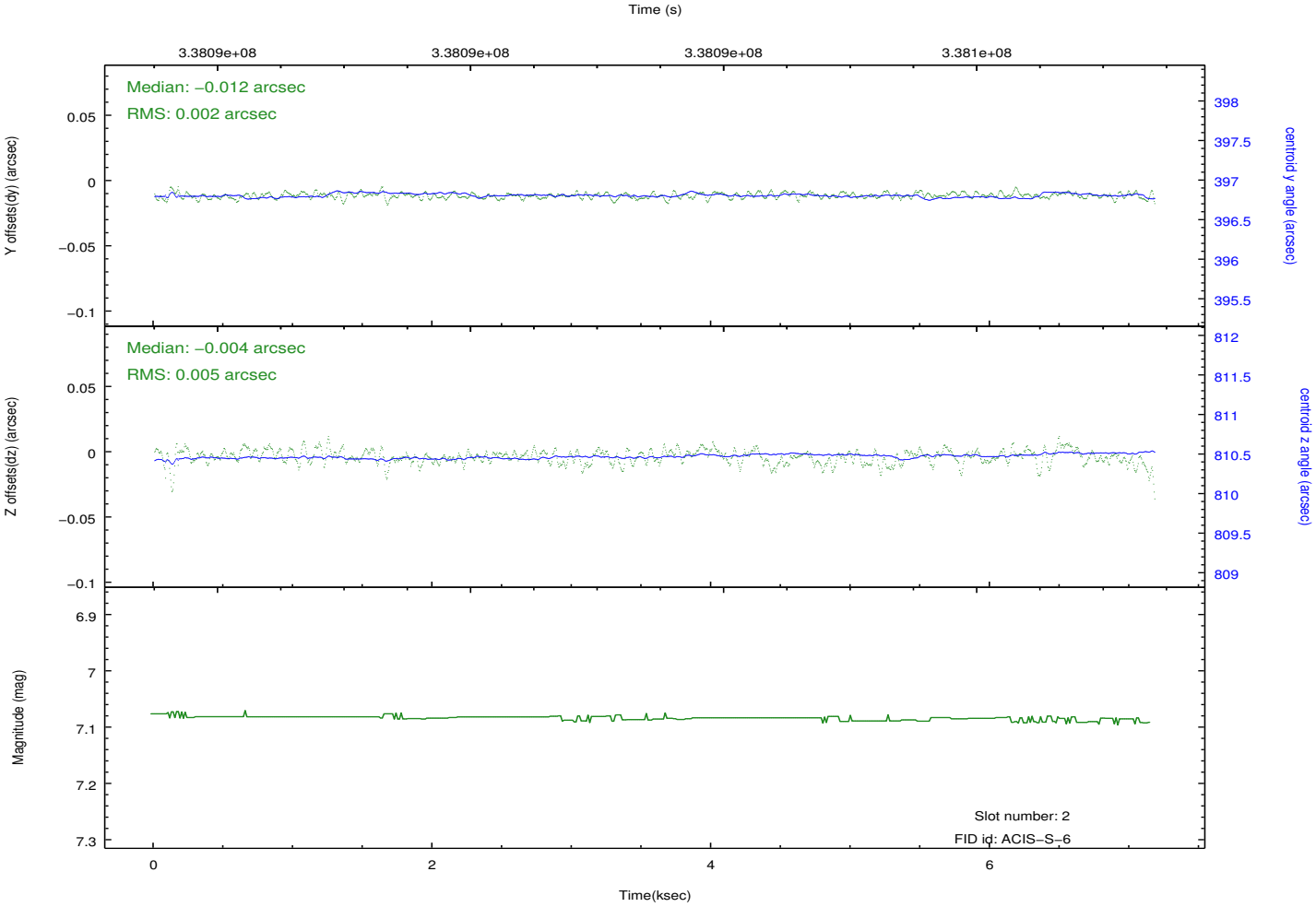

Points outside 0.05 arcsec radius: 0.000%
Radial offset of median: 0.076 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 1
FID id: ACIS−S−2


Time (s)
Median: −0.076 arcsec
RMS: 0.004 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: 0.008 arcsec
RMS: 0.004 arcsec
Z offsets(dz) (arcsec)
centroid z angle (arcsec)
Magnitude (mag)
Slot number: 1
FID id: ACIS−S−2
Time(ksec)

2.5.3 Slot 2


Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 2
FID id: ACIS−S−6


Points outside 0.05 arcsec radius: 0.000%
Radial offset of median: 0.012 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 2
FID id: ACIS−S−6


Time (s)
3.3809e+08
3.3809e+08
3.3809e+08
3.381e+08
Median: −0.012 arcsec
RMS: 0.002 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: −0.004 arcsec
RMS: 0.005 arcsec
Z offsets(dz) (arcsec)
centroid z angle (arcsec)
Magnitude (mag)
Slot number: 2
FID id: ACIS−S−6
Time(ksec)

A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.05.30
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.1784001

A.2 Comments