V&V Reference Report
L2 ASCDS Version : 7.6.8

Observation 3780 - L2 Version 001
Chandra X-Ray Center

L2 Processing Date : Jul 18 2006

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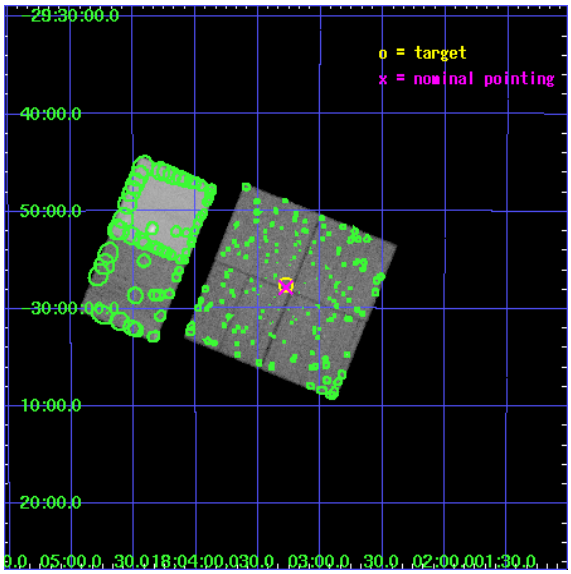
1 Front

seq_num	300105
obs_id	3780
title	X-RAYING BAADE'S WINDOW THROUGH THE GALACTIC BULGE
observer	Prof. Jonathan Grindlay
object	BAADE'S WINDOW FIELD 1
dtycycle	0
cycle	P
ra_targ	270.819333
dec_targ	-29.959467
ra_nom	270.81923644226
dec_nom	-29.96408702034
roll_nom	291.9643040463
revision	3
ontime	97727.876715034
livetime	96490.387495406
ontime0	97724.635734737
ontime1	97731.117695272
ontime2	97724.635734767
ontime3	97727.876715034
ontime6	97727.876714975
ontime7	97731.11771521
l2events	699876

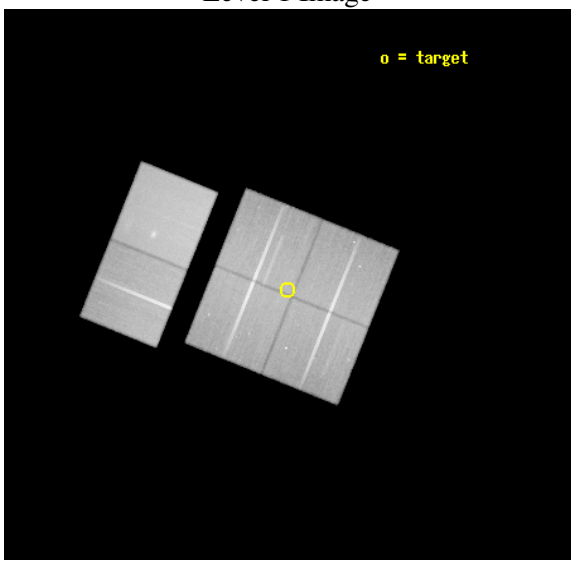


2 OBI

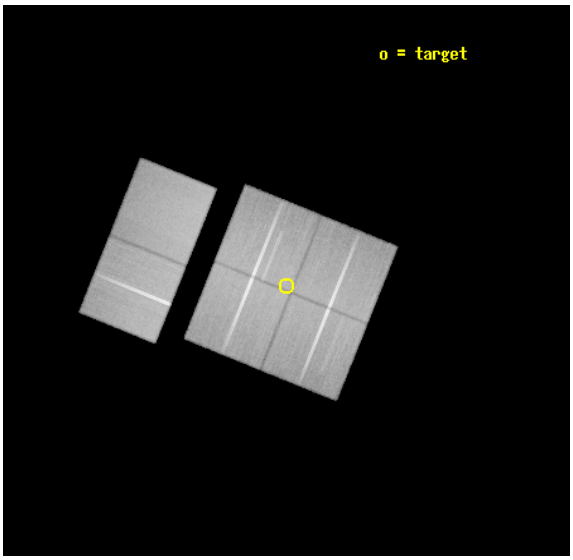
2.1 OBI

2.1.1 Images

Level 1 Image

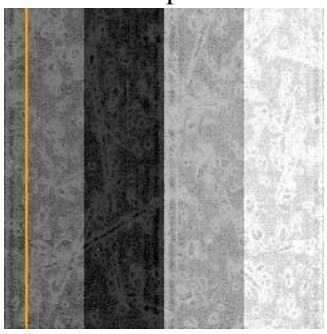


Level 1 Bad Events

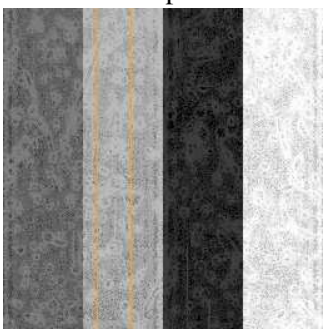


2.1.2 Bias

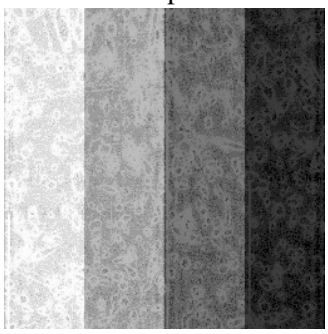
Chip 0



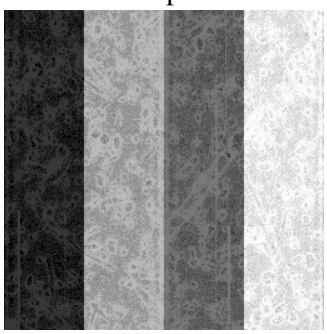
Chip 1



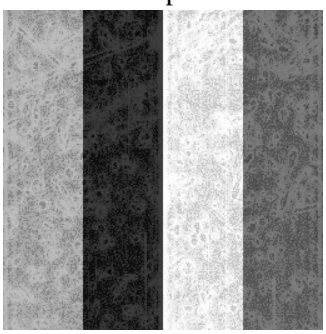
Chip 2



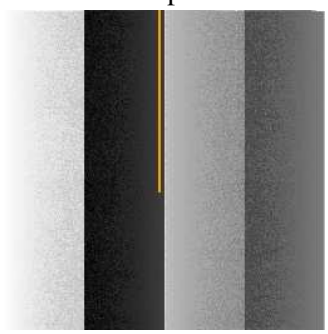
Chip 3



Chip 6



Chip 7



2.1.3 Parameters

obi_num	0
ascdsver	7.6.8
caldbver	3.2.2
date	2006-07-18T19:10:59
revision	3

sched_exp_time	97771.000000
ontime	97732.613240868
ontime0	97729.372260571
ontime1	97735.854221106
ontime2	97729.3722606
ontime3	97732.613240868
ontime6	97732.613240808
ontime7	97735.854241043
l1events	3748820

2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	549073	560264	599958	595156	625174	819195
rejected events	462432	469395	514745	509154	541999	491497
rejected %	84%	83%	85%	85%	86%	59%

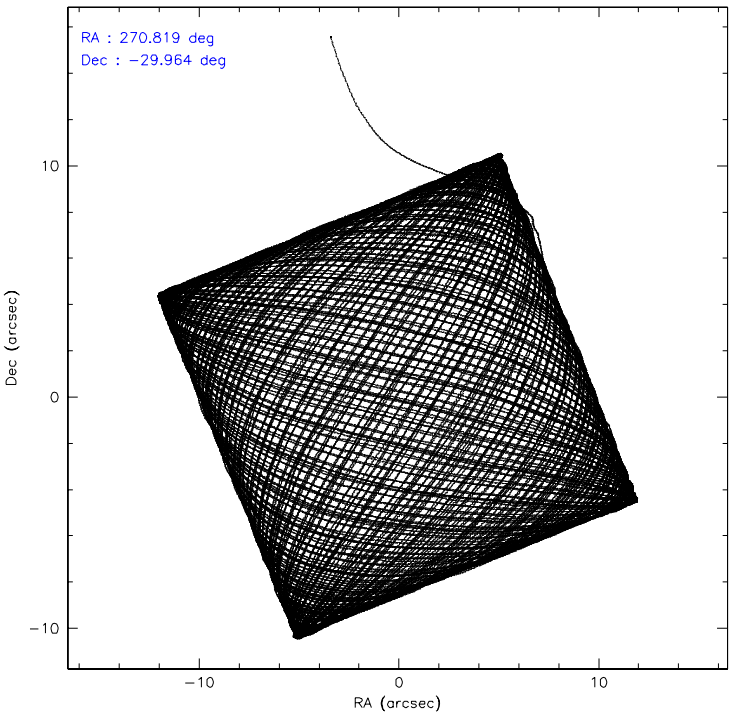
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	44037	44046	44393	45275	38888	25349
	8%	7%	7%	7%	6%	3%
grade 1 events	366	362	382	420	286	499
	0%	0%	0%	0%	0%	0%
grade 2 events	15812	16739	14929	14337	15651	82268
	2%	2%	2%	2%	2%	10%
grade 3 events	7413	7751	7136	7050	7215	18459
	1%	1%	1%	1%	1%	2%
grade 4 events	6958	7714	7023	7068	7039	18461
	1%	1%	1%	1%	1%	2%
grade 5 events	23411	24554	22846	25783	27662	52816
	4%	4%	3%	4%	4%	6%
grade 6 events	12422	14621	11735	12273	14386	183179
	2%	2%	1%	2%	2%	22%
grade 7 events	438654	444477	491514	482950	514047	438164
	79%	79%	81%	81%	82%	53%

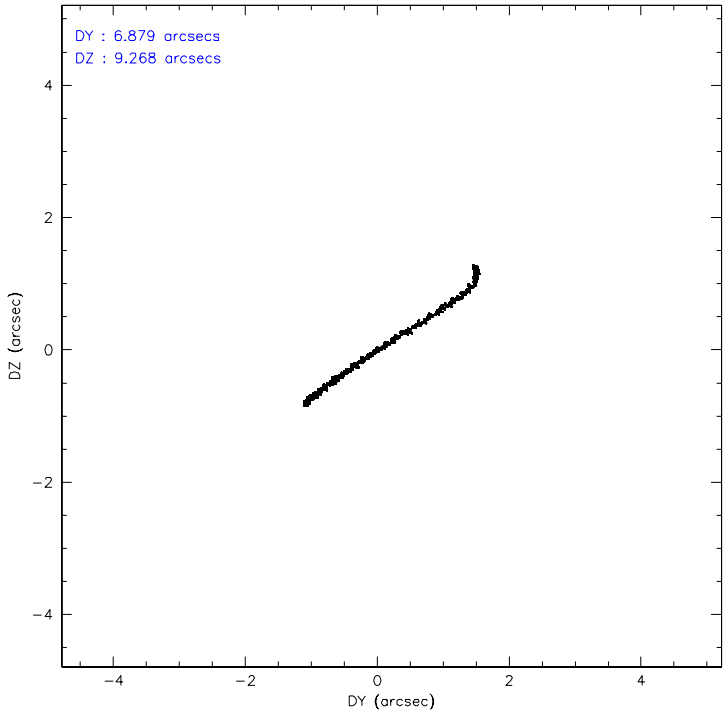
2.2 Compared Parameters

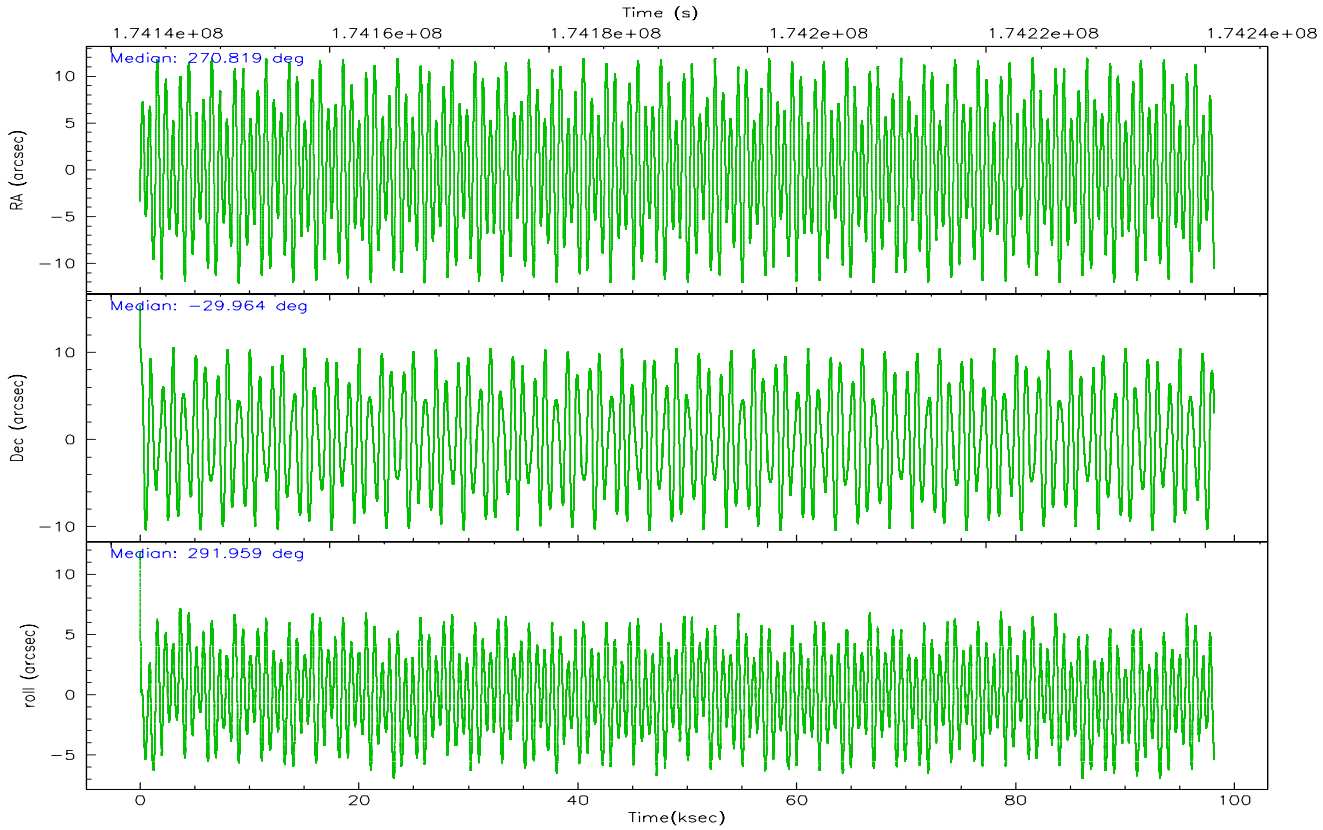
Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-012367	ACIS-012367
Grating	NONE	NONE
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
Pointing RA	270.794275	270.8192364422632
Pointing Dec	-29.947311	-29.96408702034022
Pointing Roll	291.743150	291.9643040463005
SIM focus pos (mm)	-0.782348	-0.7809083437167272
SIM defocus (mm)	0	0.001439871863259334
SIM translation stage pos (mm)	-233.592463	-233.5874344608287
SIM translation stage offset (mm)	0	-0.005018542100998502
Observation start time	174143040.184000	174141978.67076
Observation start date	2003-07-09T13:02:56	2003-07-09T12:46:18
Observation end time	174240811.184000	174241935.13752
Observation end date	2003-07-10T16:12:27	2003-07-10T16:32:15
Read mode	TIMED	TIMED

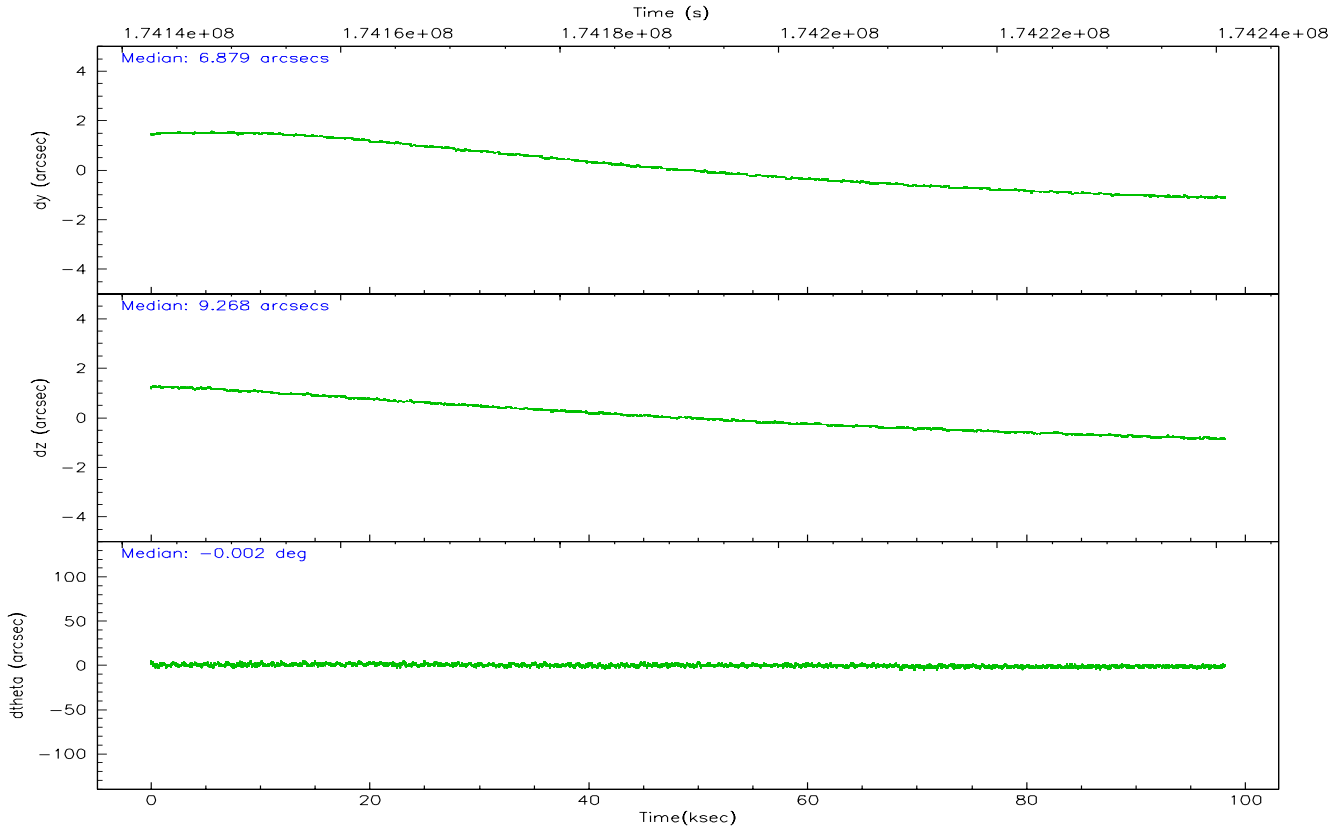
Parameter	Planned	Actual
Obspar format version number	6	6
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
Primary exposure time	0.000000	3.2

2.3 Aspect


RA : 270.819 deg
Dec : −29.964 deg
10
0
−10
Dec (arcsec)
−10
0
10
RA (arcsec)


DY : 6.879 arcsecs
DZ : 9.268 arcsecs
4
2
0
−2
−4
DZ (arcsec)
−4
−2
0
2
4
DY (arcsec)


Time (s)
1.7414e+08
1.7416e+08
1.7418e+08
1.742e+08
1.7422e+08
1.7424e+08
Median: 270.819 deg
RA (arcsec)
Median: −29.964 deg
Dec (arcsec)
Median: 291.959 deg
roll (arcsec)
Time(ksec)

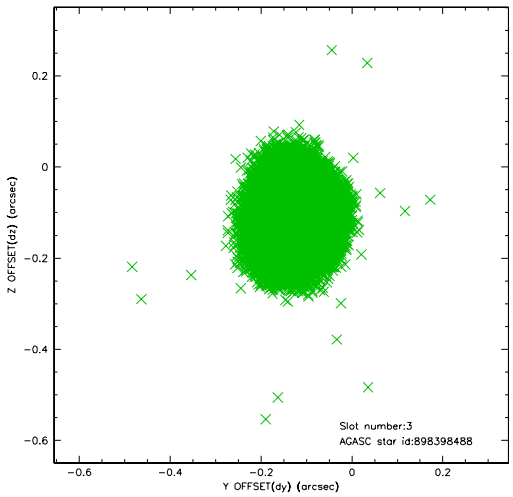

Time (s)
1.7414e+08
1.7416e+08
1.7418e+08
1.742e+08
1.7422e+08
1.7424e+08
Median: 6.879 arcsecs
dy (arcsec)
Median: 9.268 arcsecs
dz (arcsec)
Median: −0.002 deg
dtheta (arcsec)
Time(ksec)

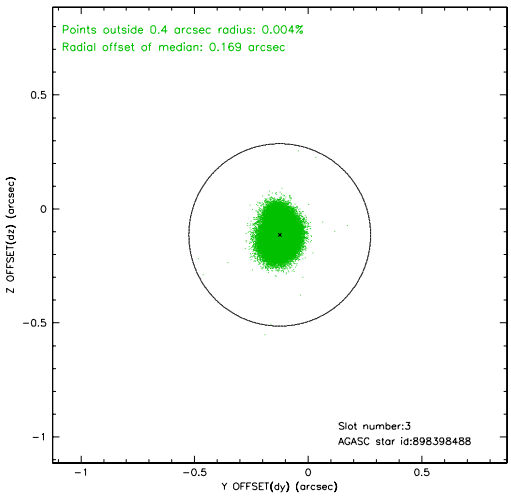
Slot Statistics

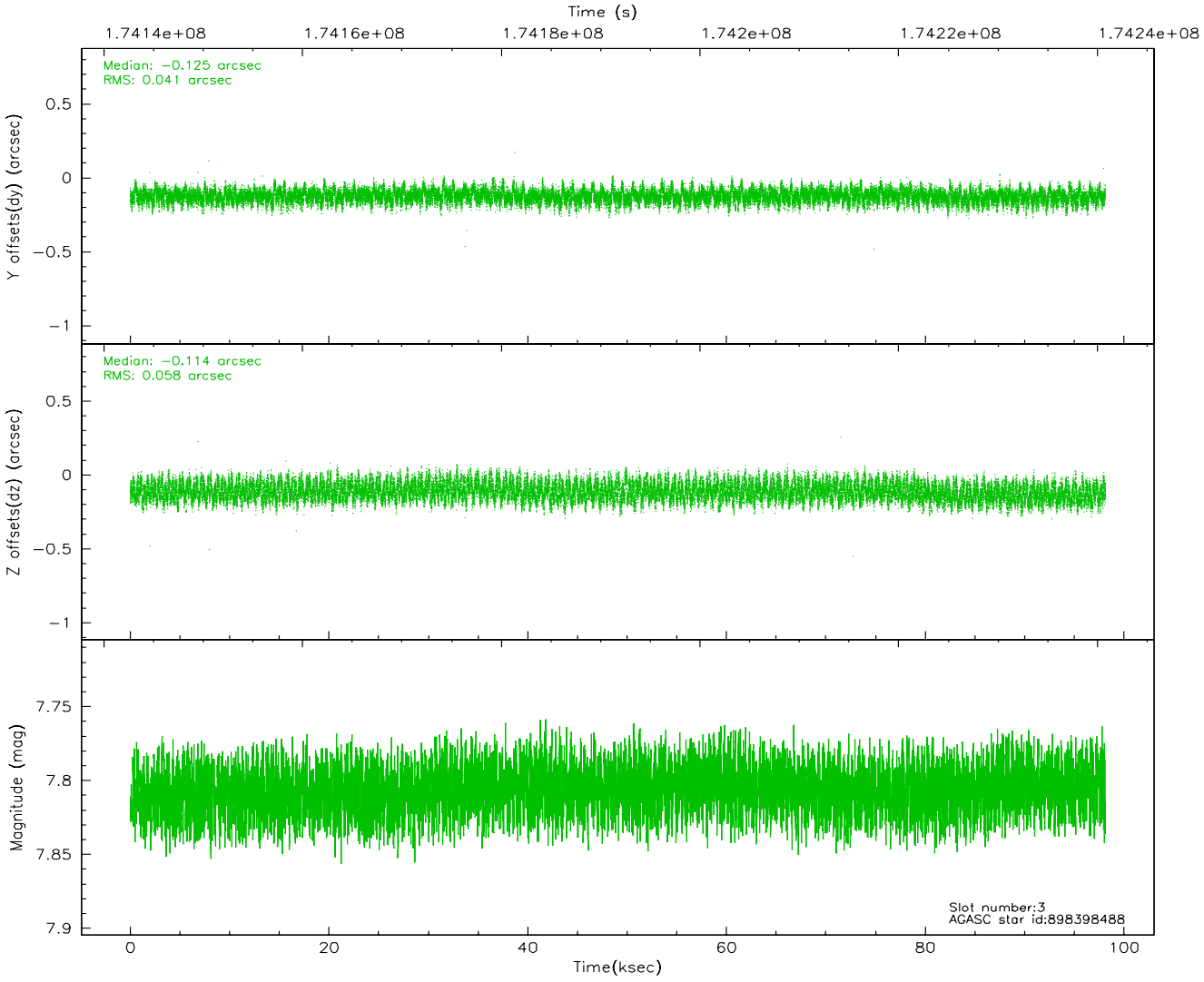
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.24	23935	-0.058	0.087	0.018	0.032	0.000000	0.000000	932.60	-832.72
1	FID	ACIS-I-2	7.14	23933	-0.090	-0.063	0.021	0.042	0.000000	0.000000	-761.57	-839.26
2	FID	ACIS-I-4	7.18	23937	0.051	0.042	0.023	0.044	0.000000	0.000000	2152.65	1067.08
3	GUIDE	898398488	7.80	47873	-0.125	-0.114	0.077	0.118	270.116283	-29.824370	-1189.41	-1805.26
4	GUIDE	898398632	9.37	47634	0.010	0.177	0.107	0.168	271.488963	-29.917256	708.65	2051.45
5	GUIDE	968755000	8.89	47862	0.108	0.039	0.071	0.113	271.252958	-30.227226	1467.52	951.31
6	GUIDE	898398712	9.34	47847	-0.004	-0.062	0.110	0.180	270.233152	-29.902122	-795.38	-1567.81
7	GUIDE	898384816	9.40	47848	0.010	-0.036	0.089	0.144	271.272338	-29.735589	-151.38	1669.39

2.4 Star Slots

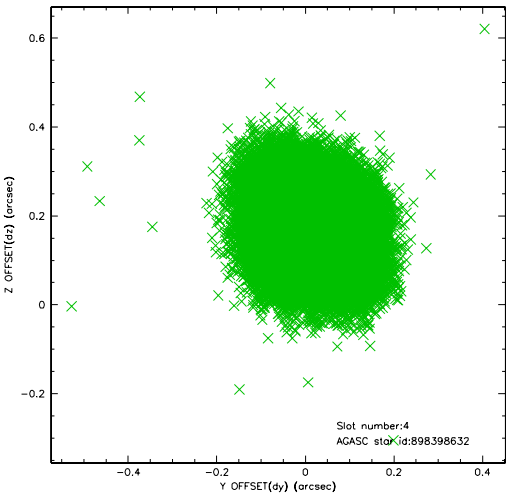
2.4.1 Slot 3

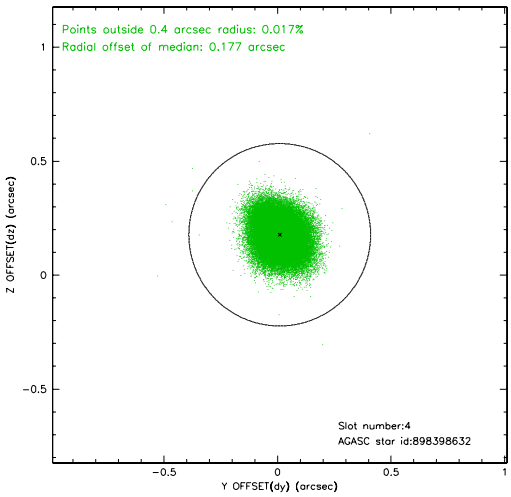


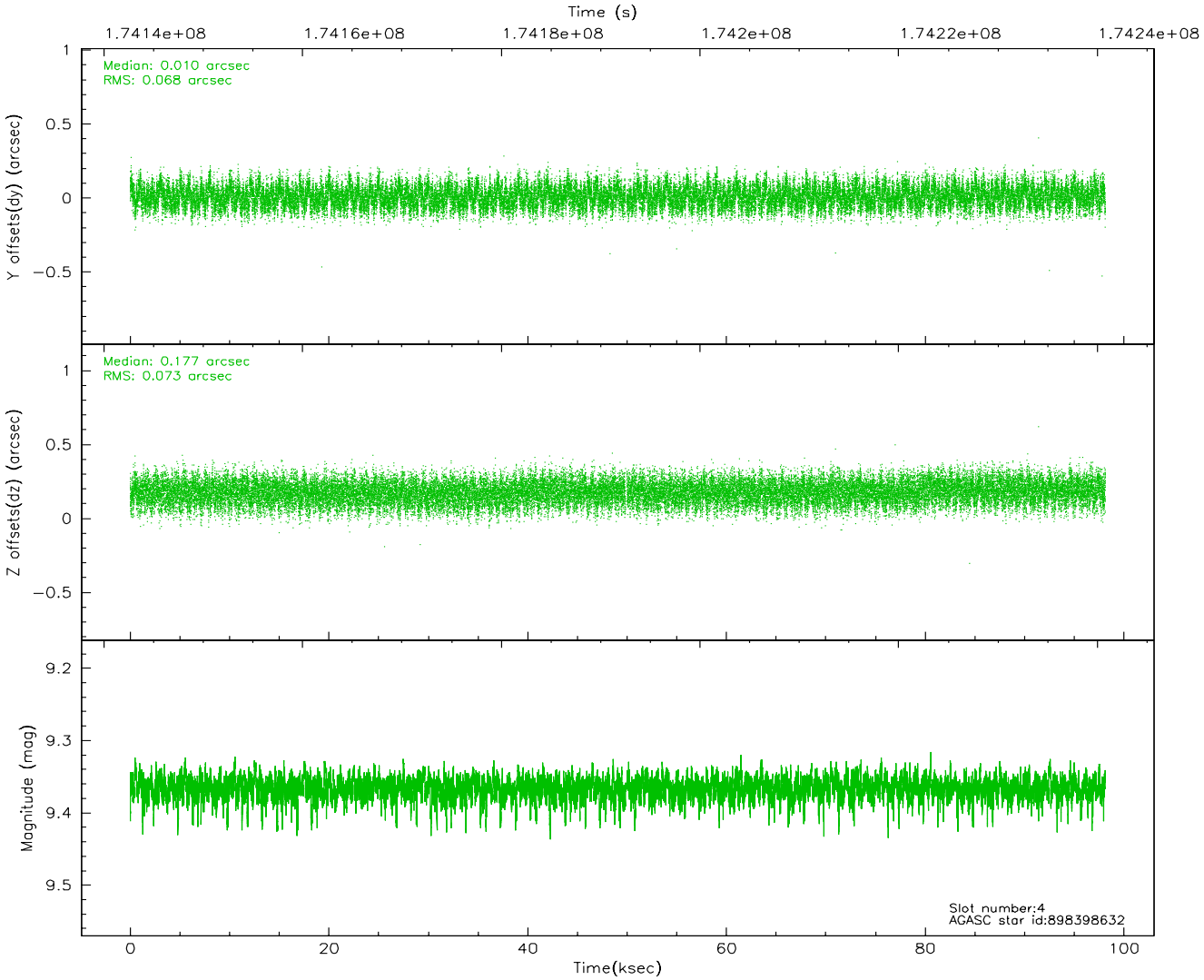




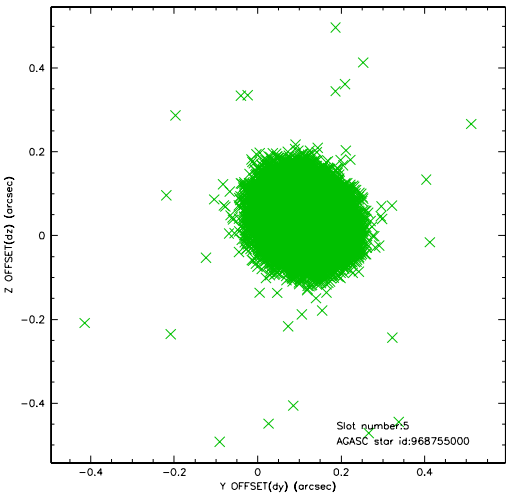
2.4.2 Slot 4

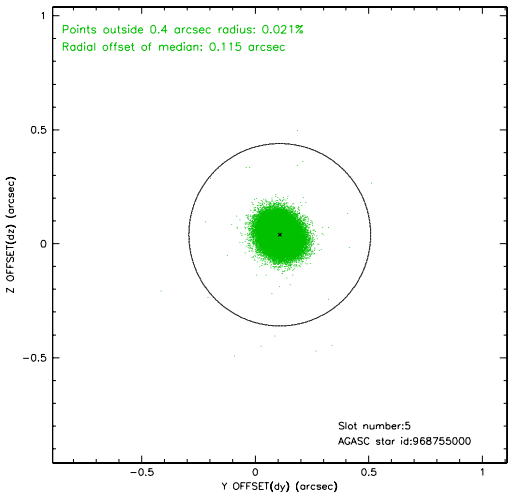

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:4
AGASC star id:898398632

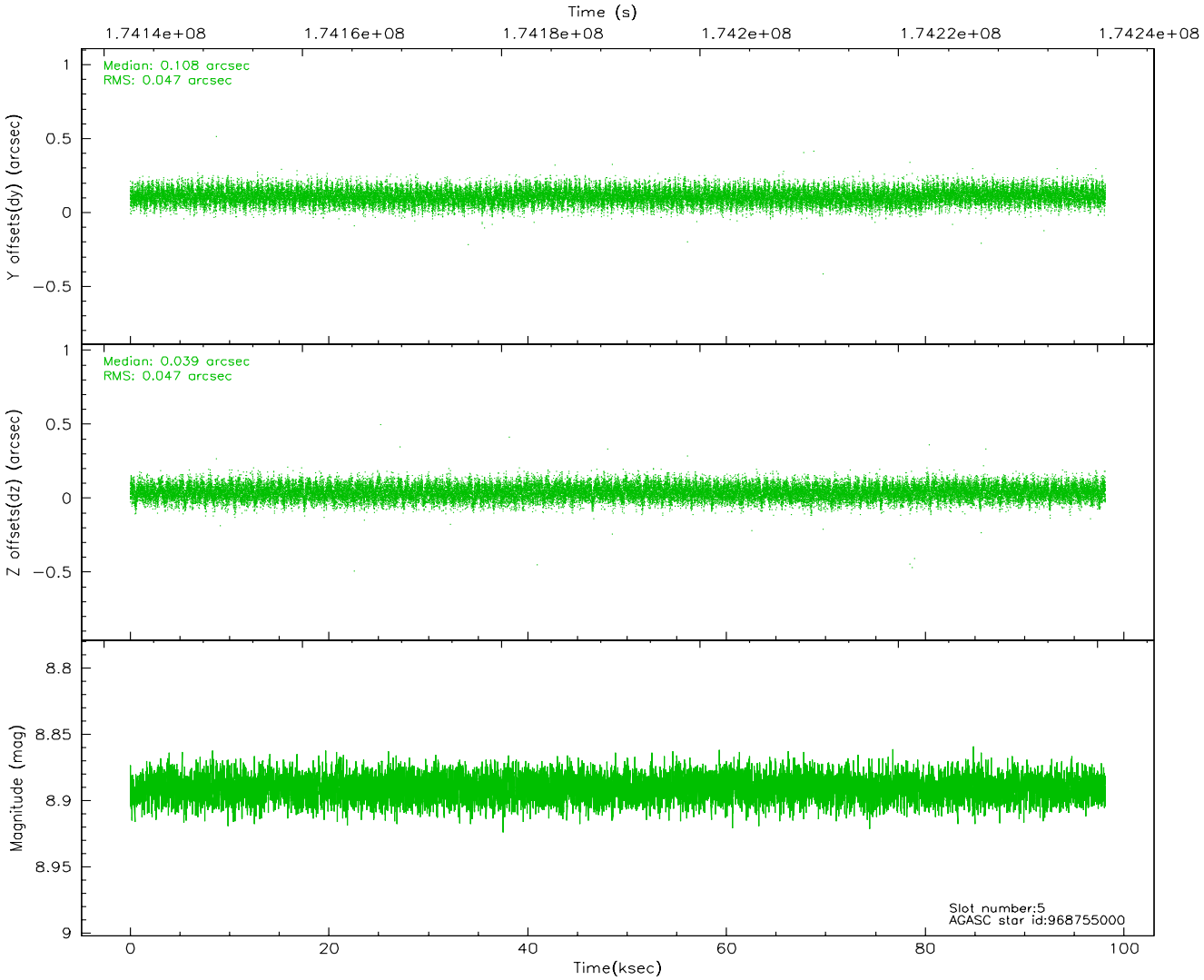

Points outside 0.4 arcsec radius: 0.017%
Radial offset of median: 0.177 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:4
AGASC star id:898398632


Time (s)
1.7414e+08
1.7416e+08
1.7418e+08
1.742e+08
1.7422e+08
1.7424e+08
Median: 0.010 arcsec
RMS: 0.068 arcsec
Y offsets(dy) (arcsec)
Median: 0.177 arcsec
RMS: 0.073 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:4
AGASC star id:898398632
Time(ksec)

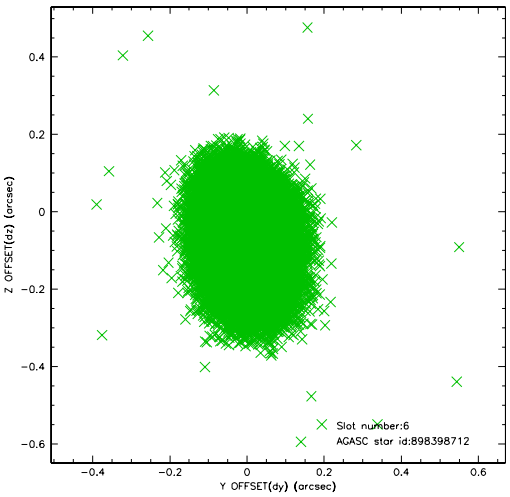
2.4.3 Slot 5

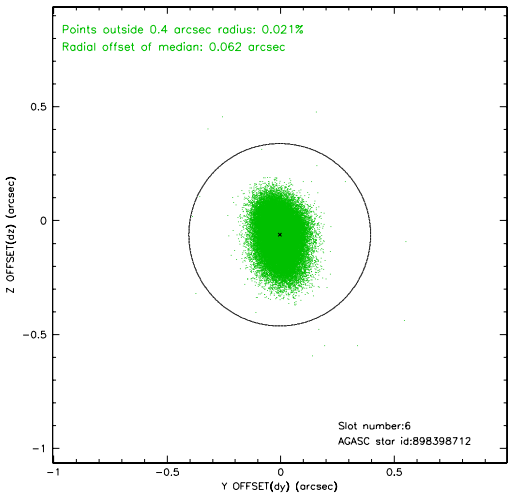

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:5
AGASC star id:968755000

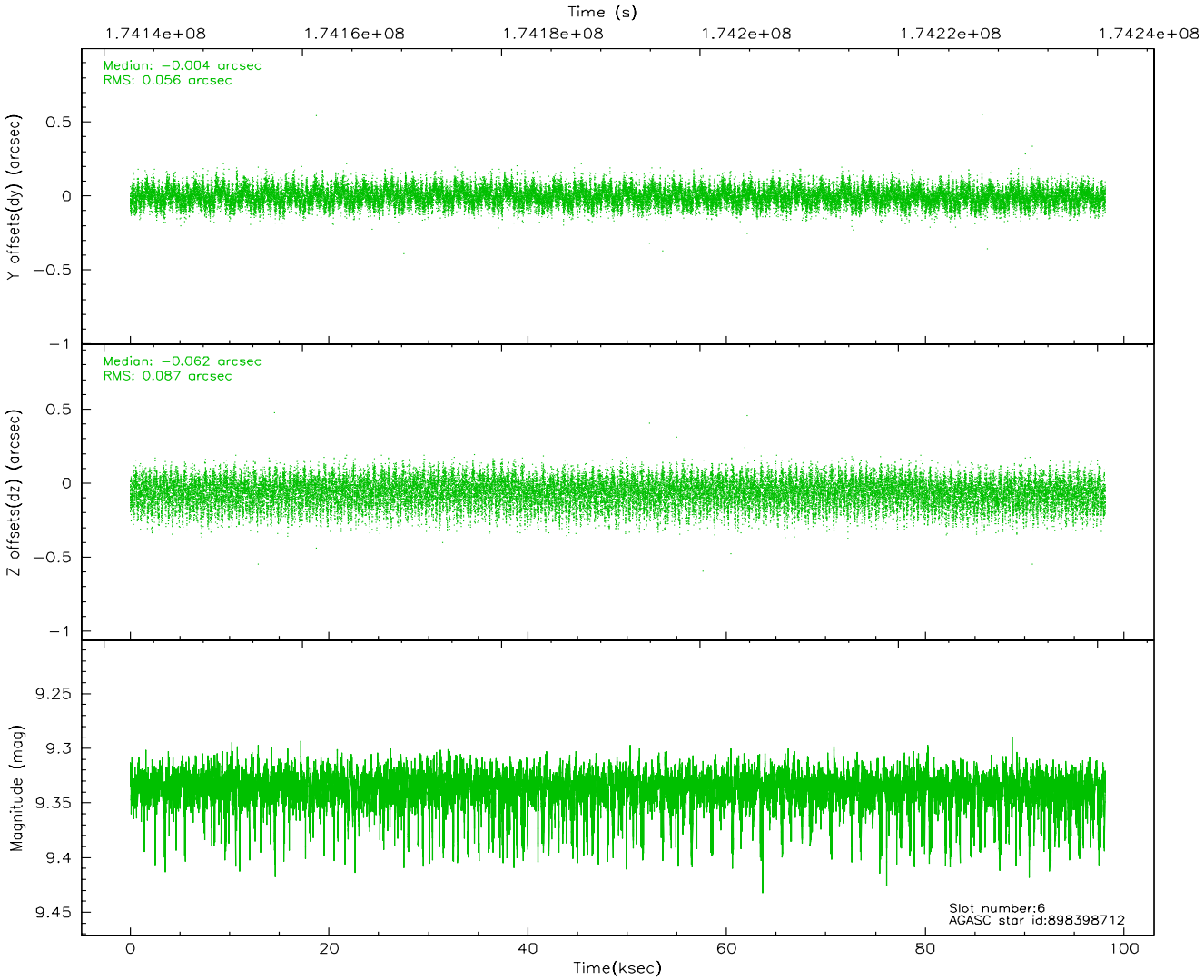

Points outside 0.4 arcsec radius: 0.021%
Radial offset of median: 0.115 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:5
AGASC star id:968755000


Time (s)
1.7414e+08
1.7416e+08
1.7418e+08
1.742e+08
1.7422e+08
1.7424e+08
Median: 0.108 arcsec
RMS: 0.047 arcsec
Y offsets(dy) (arcsec)
Median: 0.039 arcsec
RMS: 0.047 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:5
AGASC star id:968755000
Time(ksec)

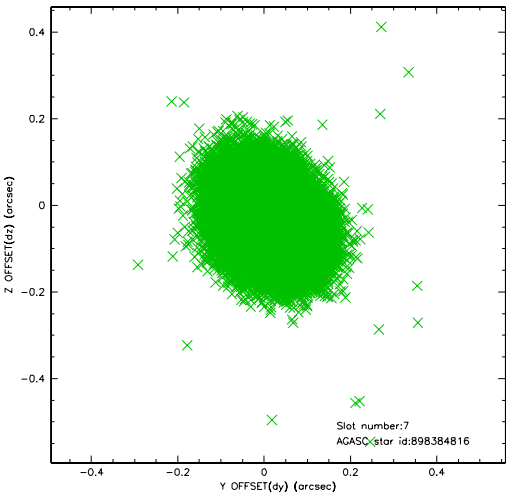
2.4.4 Slot 6

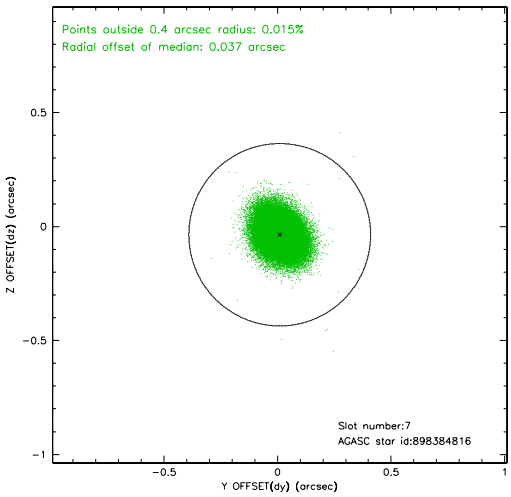

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:6
AGASC star id:898398712

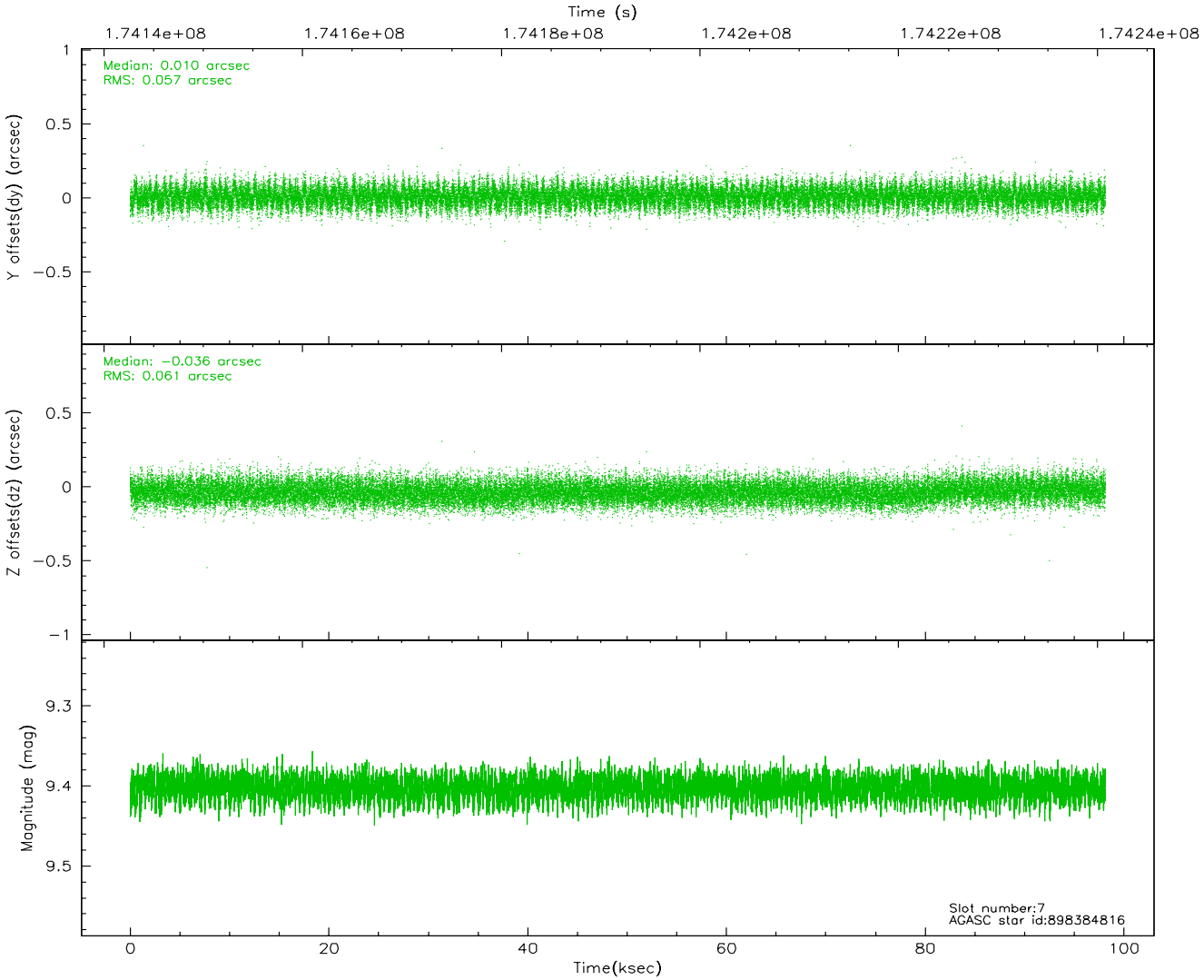

Points outside 0.4 arcsec radius: 0.021%
Radial offset of median: 0.062 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:6
AGASC star id:898398712


Time (s)
1.7414e+08
1.7416e+08
1.7418e+08
1.742e+08
1.7422e+08
1.7424e+08
Median: −0.004 arcsec
RMS: 0.056 arcsec
Y offsets(dy) (arcsec)
Median: −0.062 arcsec
RMS: 0.087 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:6
AGASC star id:898398712
Time(ksec)

2.4.5 Slot 7

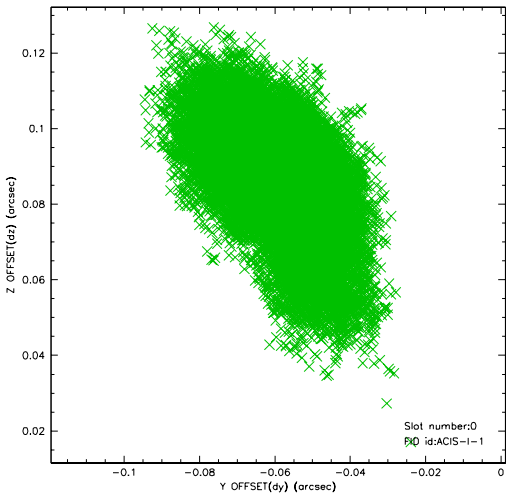

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:7
AGASC star id:898384816

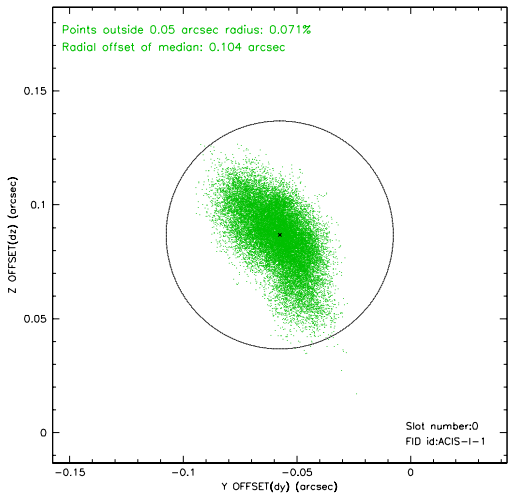

Points outside 0.4 arcsec radius: 0.015%
Radial offset of median: 0.037 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:7
AGASC star id:898384816

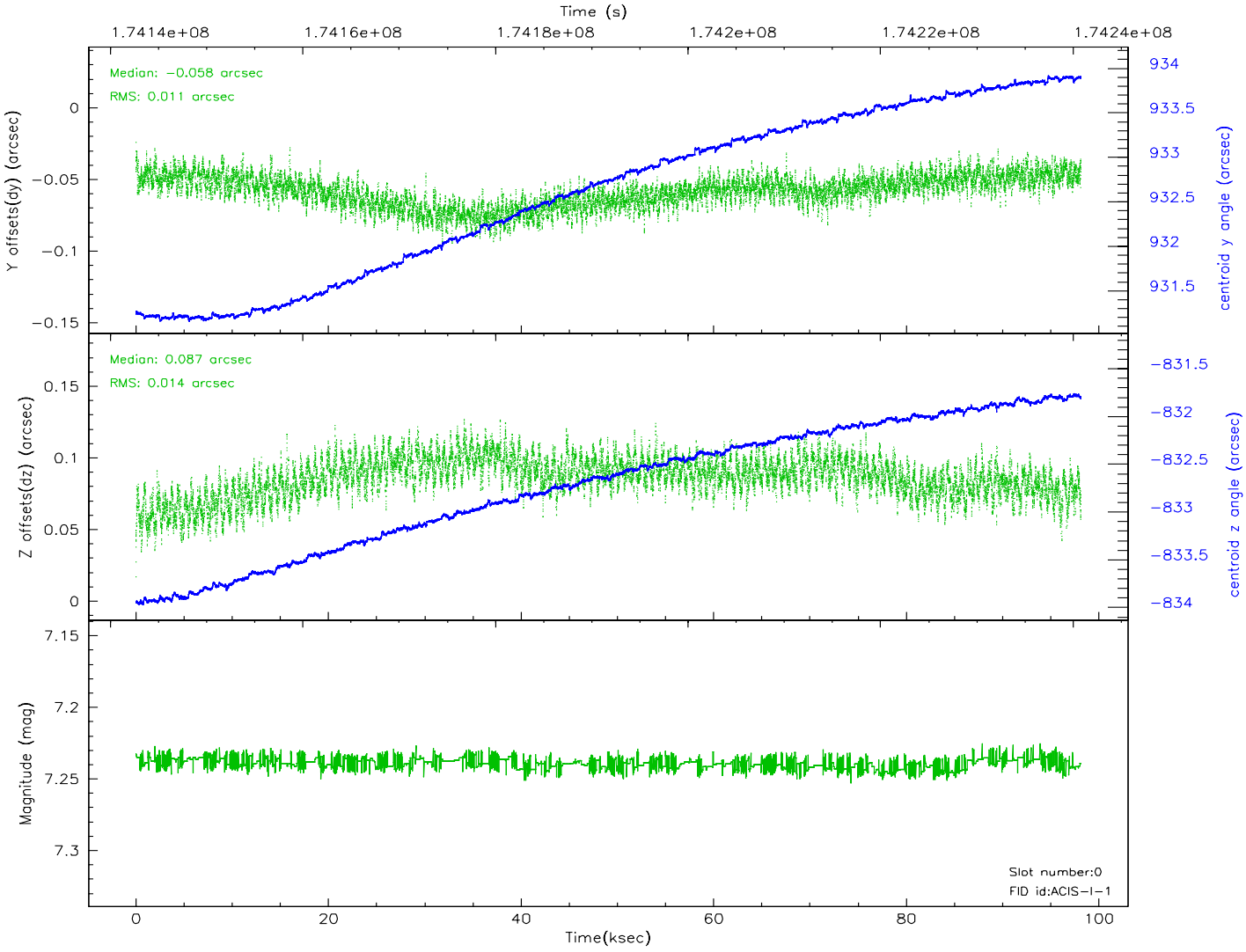

Time (s)
1.7414e+08
1.7416e+08
1.7418e+08
1.742e+08
1.7422e+08
1.7424e+08
Median: 0.010 arcsec
RMS: 0.057 arcsec
Y offsets(dy) (arcsec)
Median: −0.036 arcsec
RMS: 0.061 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:7
AGASC star id:898384816
Time(ksec)

2.5 FID Slots

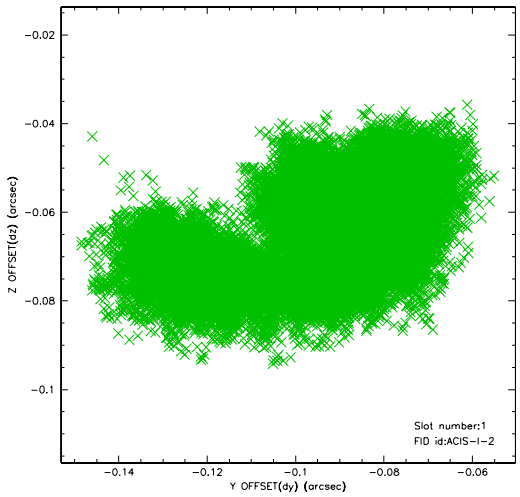
2.5.1 Slot 0

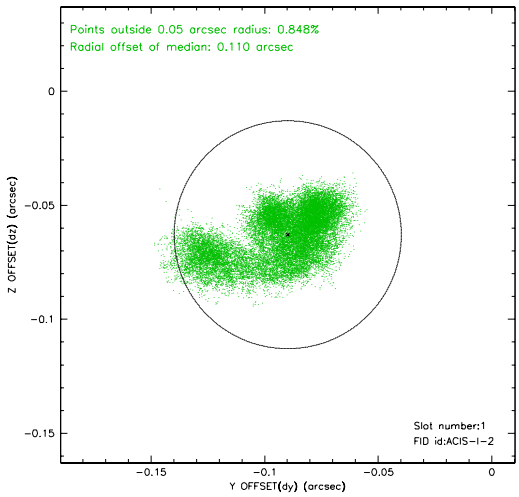


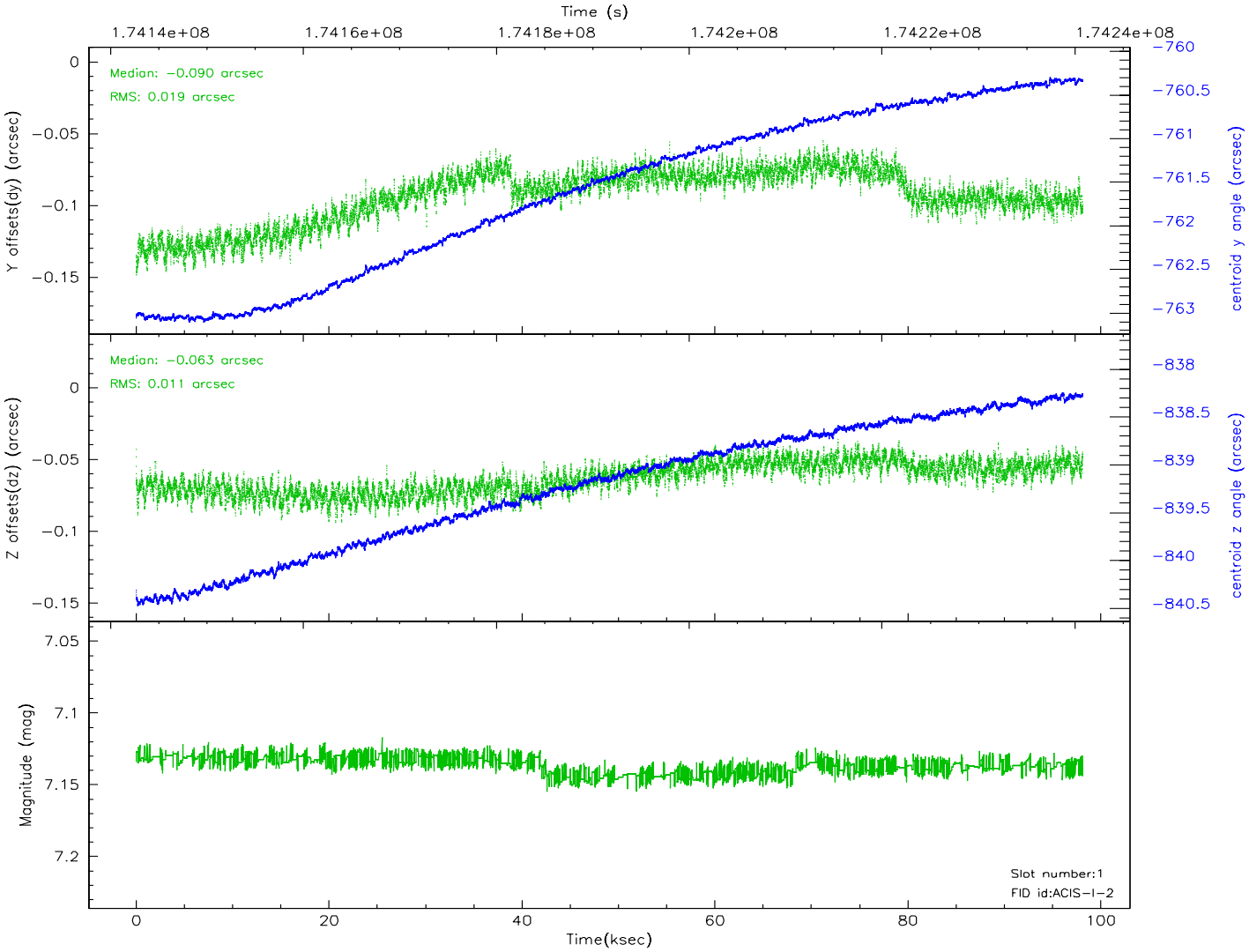




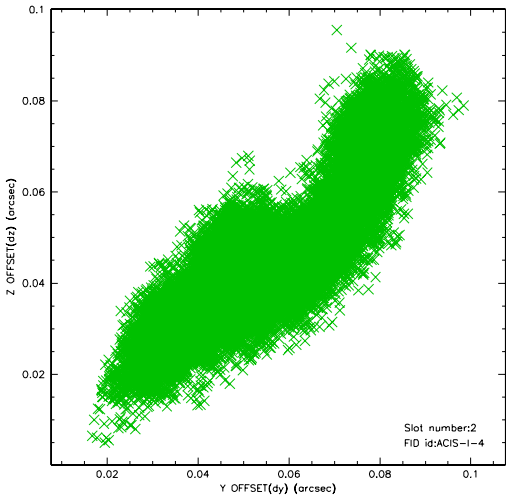
2.5.2 Slot 1

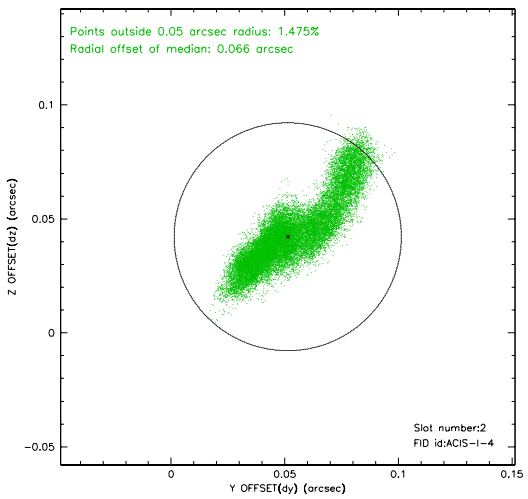

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:1
FID id:ACIS-I-2

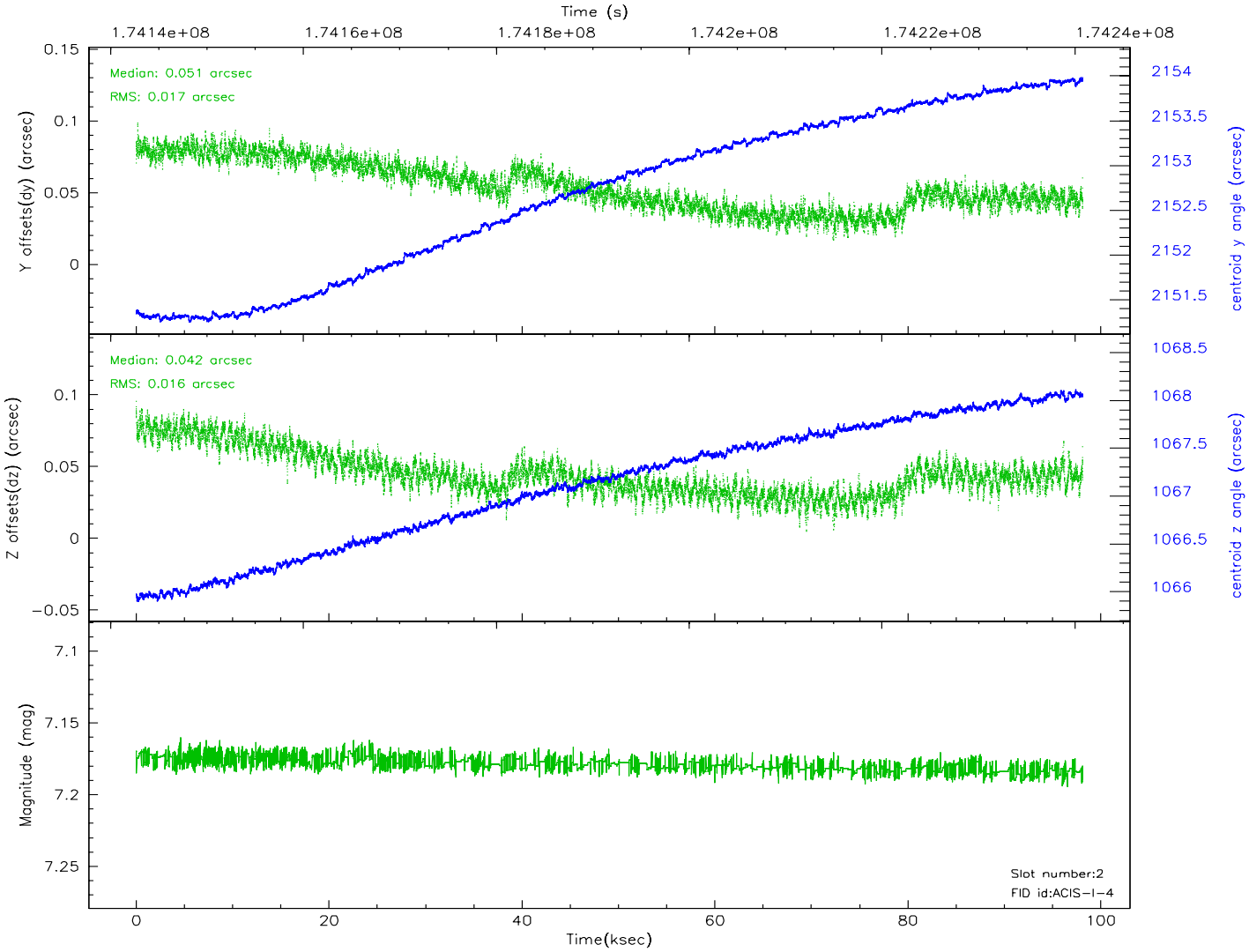

Points outside 0.05 arcsec radius: 0.848%
Radial offset of median: 0.110 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:1
FID id:ACIS-I-2


Time (s)
Median: −0.090 arcsec
RMS: 0.019 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: −0.063 arcsec
RMS: 0.011 arcsec
Z offsets(dz) (arcsec)
centroid z angle (arcsec)
Magnitude (mag)
Slot number:1
FID id:ACIS-I-2
Time(ksec)

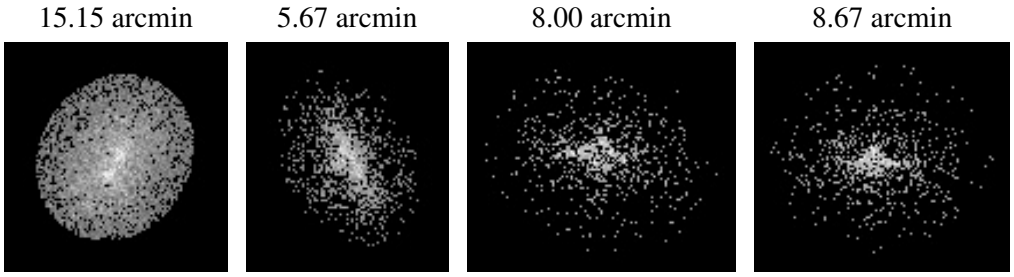
2.5.3 Slot 2


Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:2
FID id:ACIS-I-4


Points outside 0.05 arcsec radius: 1.475%
Radial offset of median: 0.066 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:2
FID id:ACIS-I-4


Time (s)
Median: 0.051 arcsec
RMS: 0.017 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: 0.042 arcsec
RMS: 0.016 arcsec
Z offsets(dz) (arcsec)
centroid z angle (arcsec)
Magnitude (mag)
Slot number:2
FID id:ACIS-I-4
Time(ksec)

3 Point Sources



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2006.07.19
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	97.721

A.2 Comments

```
Focal plane temperature is warmer than -118.7 degrees C during first
approximately 3 ksec of the observation.

The ACIS spectral response calibration for the front-illuminated chips
is less accurate at these warmer temperatures than it is at -119.7 C.
The back-illuminated chips are unaffected at this temperature. Users
whose science objectives depend on the most accurate spectral response
(ie: fitting line-rich spectra) may notice an effect if they use data
from a front-illuminated chip. Users whose science objectives do not
depend on the most accurate spectral response should not notice an
effect.

The original processing of this obsid used the telemetered data from
the
recorder that had a bias map with a data gap. That bias file was
replaced
in the original processing with bias file constructed by scaling a
similar
bias file from another observation to fill the data gap. For this
processing, realtime data from the satellite was used to fill data gaps
from the recorder. All bias maps are complete in this version of the
processing and there was no need to construct a replacement bias.
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