V&V Reference Report
L2 ASCDS Version : 7.6.10

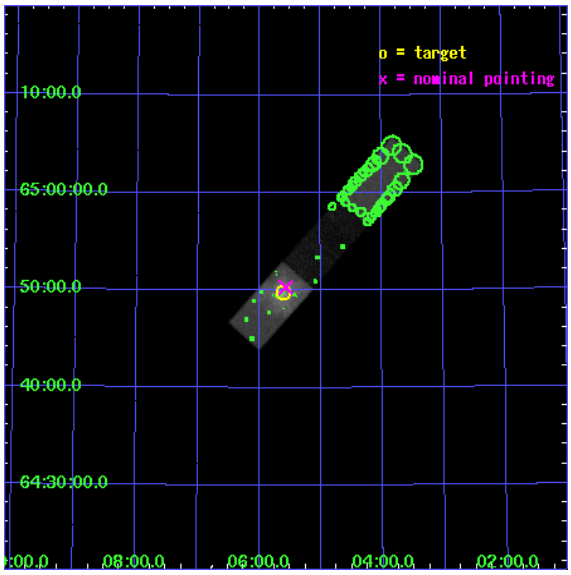
Observation 728 - L2 Version 001
Chandra X-Ray Center

L2 Processing Date : Jun 6 2007

Contents

1 Front

seq_num	500024
obs_id	728
title	GETTING TO THE HEART OF 3C 58
observer	Dr. Patrick Slane
object	3C 58
dtycycle	0
cycle	P
ra_targ	31.404167
dec_targ	64.83
ra_nom	31.392066423435
dec_nom	64.838447894452
roll_nom	131.7561687464
revision	2
ontime	51231.999809146
livetime	49950.762744743
ontime5	51231.999809146
ontime6	51231.999809146
ontime7	51231.999809146
l2events	320445

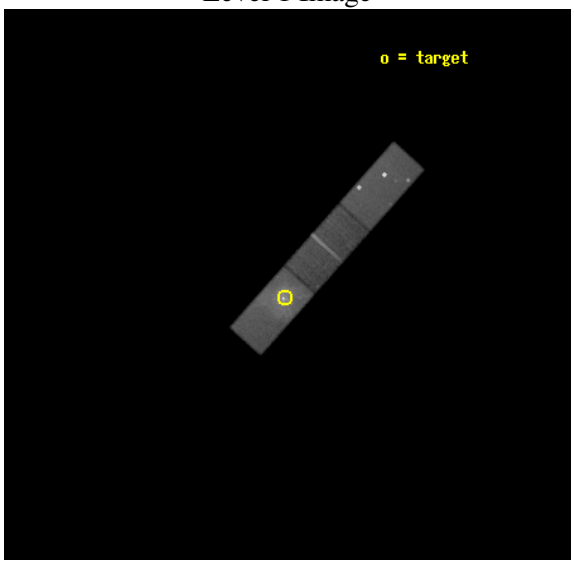


2 OBI

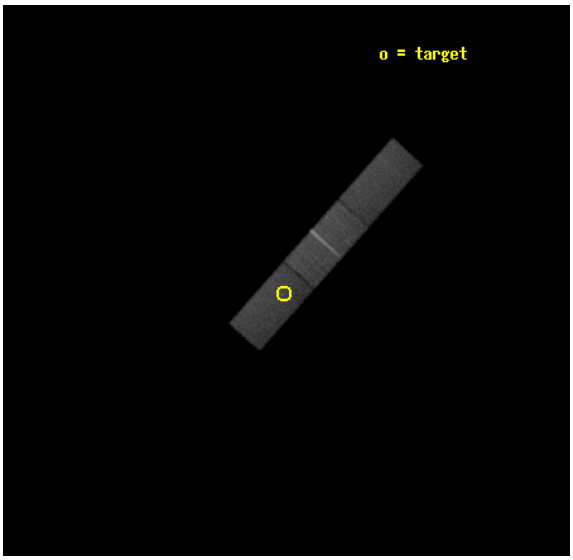
2.1 OBI

2.1.1 Images

Level 1 Image



Level 1 Bad Events



2.1.2 Bias

Chip 5 Chip 6 Chip 7

2.1.3 Parameters

obi_num	1
ascdsver	7.6.10
caldbver	3.4.0
date	2007-06-06T19:44:49
revision	2

sched_exp_time	51000.000000
ontime	51231.999809146
ontime5	51231.999809146
ontime6	51231.999809146
ontime7	51231.999809146
l1events	759447

2.1.4 Events

	ccd 5	ccd 6	ccd 7
level 1 events	266405	178582	314460
rejected events	115542	158090	112158
rejected %	43%	88%	35%

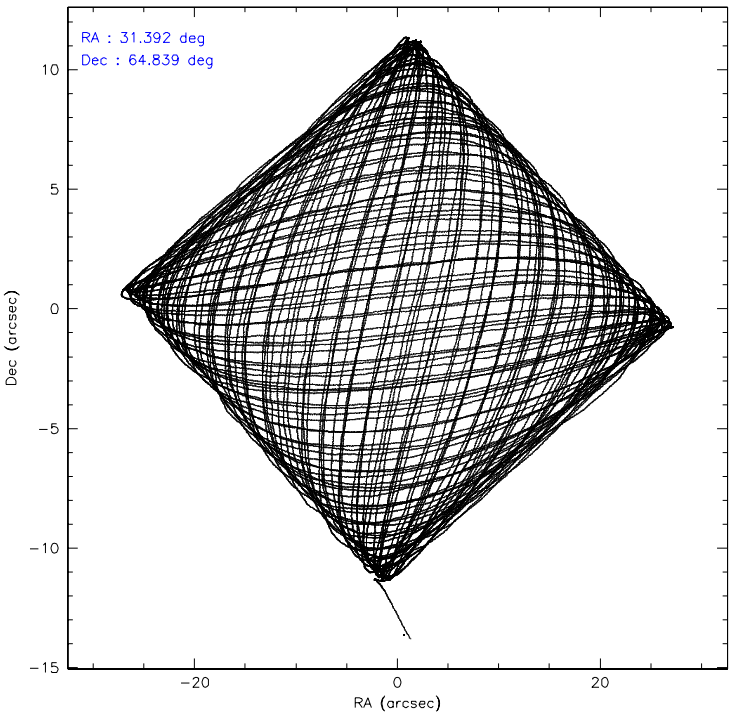
	ccd 5	ccd 6	ccd 7
grade 0 events	54712	8494	40763
	20%	4%	12%
grade 1 events	346	55	235
	0%	0%	0%
grade 2 events	30805	3582	47517
	11%	2%	15%
grade 3 events	6495	2511	22410
	2%	1%	7%
grade 4 events	6242	2399	21635
	2%	1%	6%
grade 5 events	17769	6449	19409
	6%	3%	6%
grade 6 events	53657	3653	70841
	20%	2%	22%
grade 7 events	96379	151439	91650
	36%	84%	29%

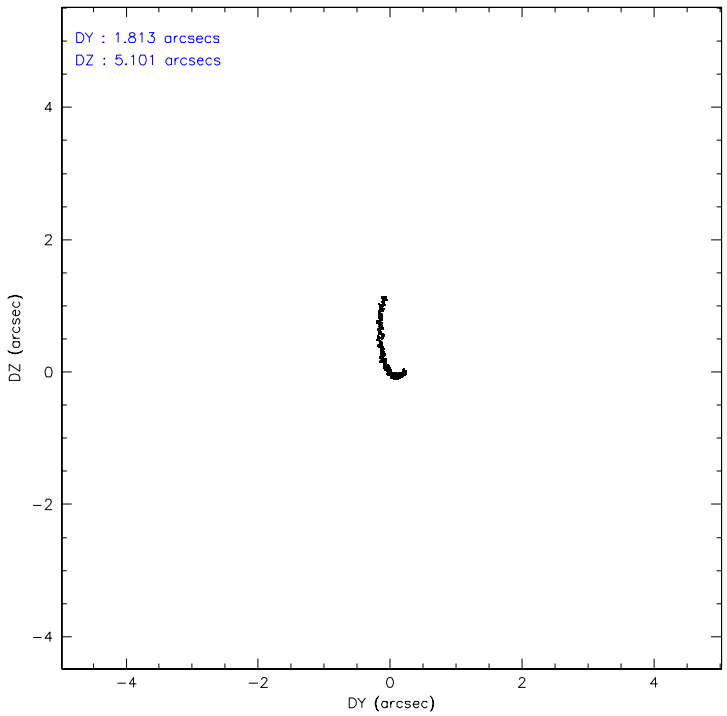
2.2 Compared Parameters

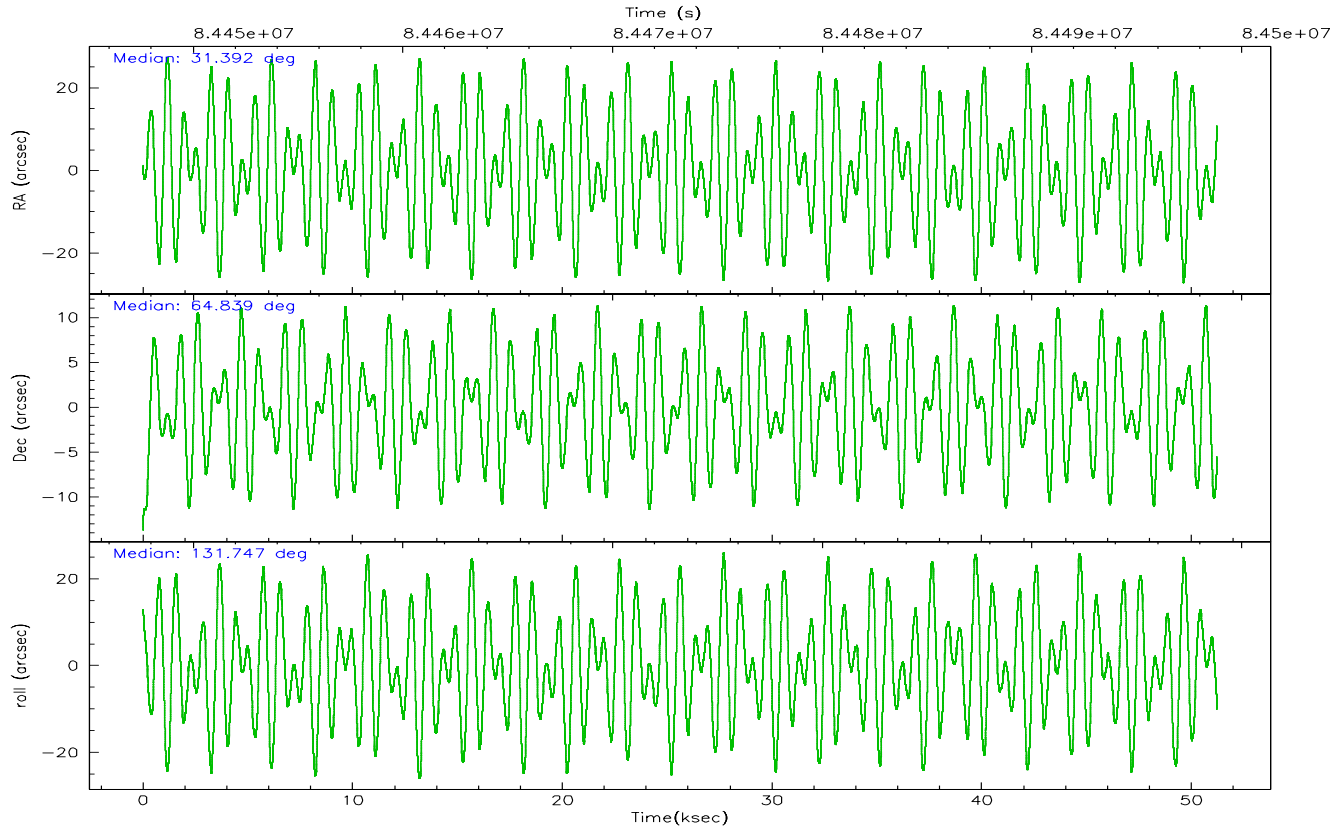
Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-567	ACIS-567
Grating	NONE	NONE
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
Pointing RA	31.453301	31.39206642343522
Pointing Dec	64.830050	64.83844789445202
Pointing Roll	131.544114	131.7561687464024
SIM focus pos (mm)	-0.684267	-0.6828225247311905
SIM defocus (mm)	0	0.001444936568705701
SIM translation stage pos (mm)	-190.132523	-190.1400660498719
SIM translation stage offset (mm)	0	0.00754346686406393
Observation start time	84447844.184000	84446861.36261
Observation start date	2000-09-04T09:43:00	2000-09-04T09:27:41
Observation end time	84498844.184000	84499321.37707999
Observation end date	2000-09-04T23:53:00	2000-09-05T00:02:01
Read mode	TIMED	TIMED

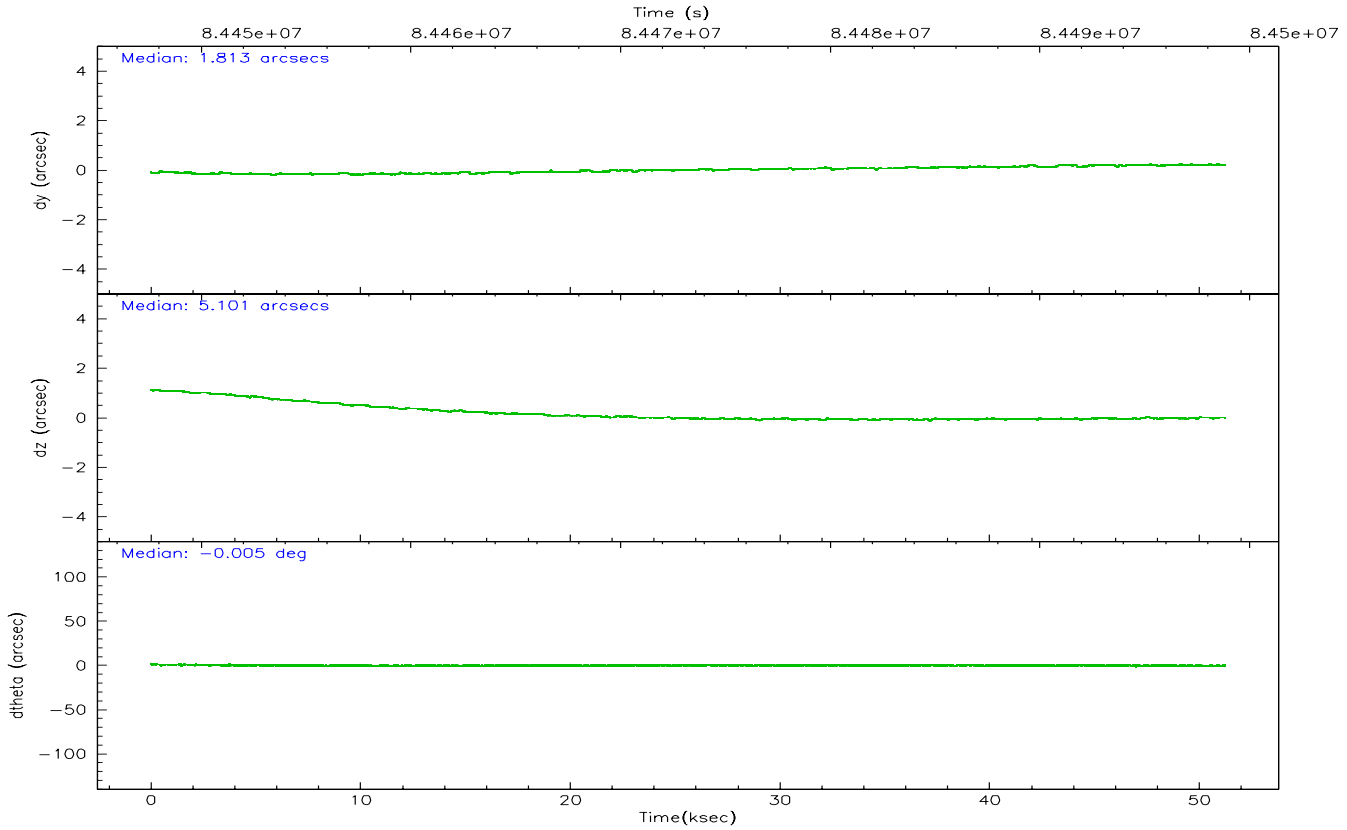
Parameter	Planned	Actual
Obspar format version number	6	6
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	CUSTOM	1/2
Subarray start row	257	257
Subarray row count	512	512
Alternating exposures requested	N	N
Primary exposure time	0.000000	1.6

2.3 Aspect


RA : 31.392 deg
Dec : 64.839 deg
Dec (arcsec)
RA (arcsec)
10
5
0
−5
−10
−15
−20
0
20


DY : 1.813 arcsecs
DZ : 5.101 arcsecs
DZ (arcsec)
DY (arcsec)
4
2
0
−2
−4
−4
−2
0
2
4


Time (s)
8.445e+07
8.446e+07
8.447e+07
8.448e+07
8.449e+07
8.45e+07
Median: 31.392 deg
RA (arcsec)
Median: 64.839 deg
Dec (arcsec)
Median: 131.747 deg
roll (arcsec)
Time(ksec)

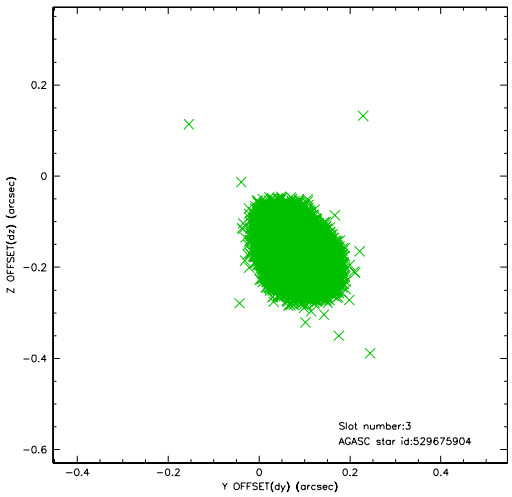

Time (s)
8.445e+07
8.446e+07
8.447e+07
8.448e+07
8.449e+07
8.45e+07
Median: 1.813 arcsecs
dy (arcsec)
Median: 5.101 arcsecs
dz (arcsec)
Median: −0.005 deg
dtheta (arcsec)
Time(ksec)

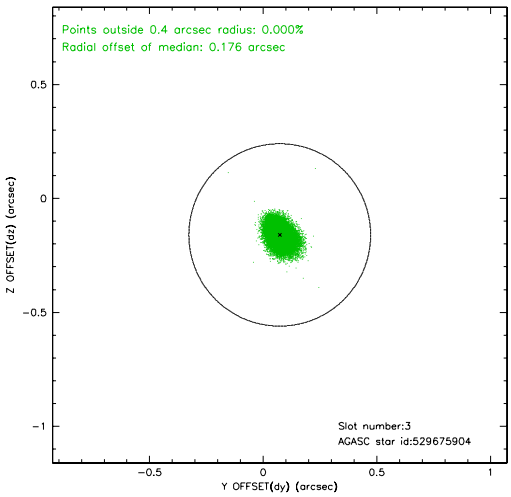
Slot Statistics

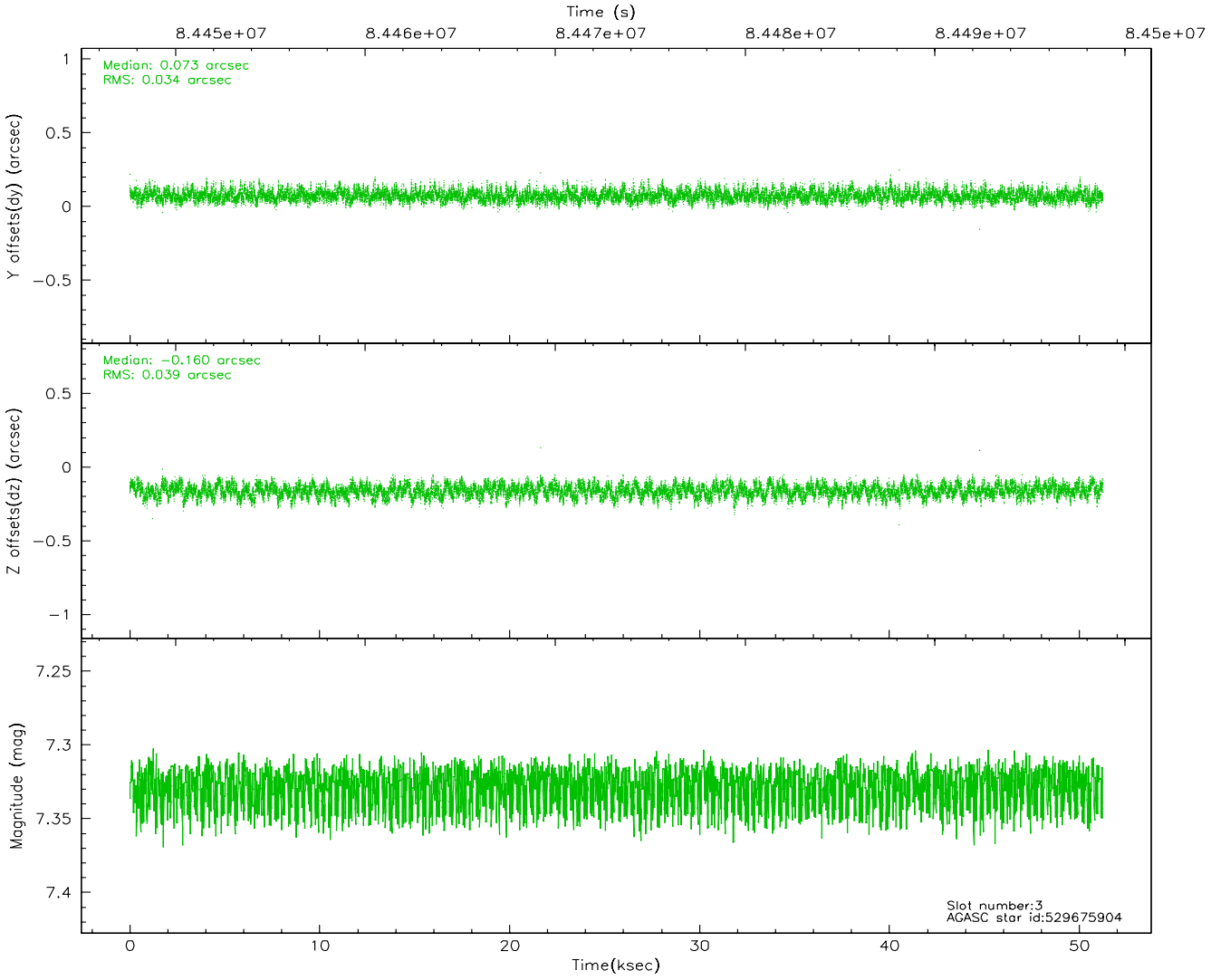
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	12496	-0.025	0.025	0.008	0.013	0.000000	0.000000	-754.44	-1726.40
1	FID	ACIS-S-4	7.21	12496	-0.054	0.005	0.007	0.015	0.000000	0.000000	2158.80	182.12
2	FID	ACIS-S-5	7.24	12496	0.048	-0.021	0.009	0.016	0.000000	0.000000	-1807.25	175.70
3	GUIDE	529675904	7.33	24991	0.073	-0.160	0.056	0.090	31.256077	64.385587	-994.09	1290.43
4	GUIDE	529673088	8.82	24979	0.012	-0.057	0.080	0.133	30.560791	64.638256	402.59	1481.71
5	GUIDE	529667344	8.69	24985	-0.158	0.195	0.075	0.122	31.882421	65.482125	1333.37	-2037.48
6	GUIDE	529663800	9.32	24975	-0.030	-0.061	0.082	0.134	30.492887	64.812823	937.28	1135.16
7	GUIDE	529665672	9.39	24911	0.107	0.085	0.097	0.151	32.707839	64.829181	-1261.85	-1448.08

2.4 Star Slots

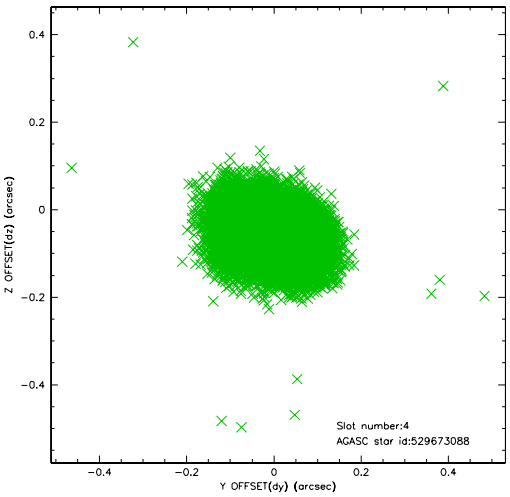
2.4.1 Slot 3

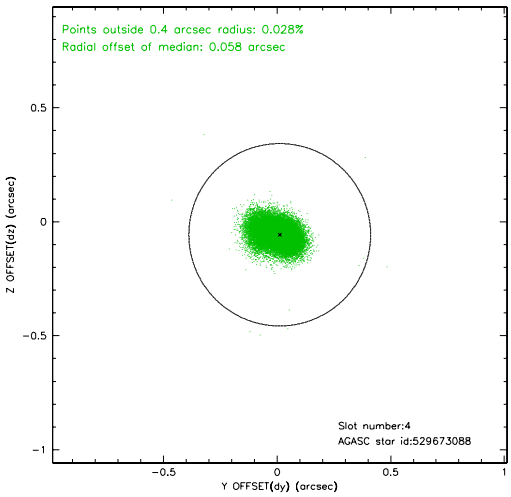


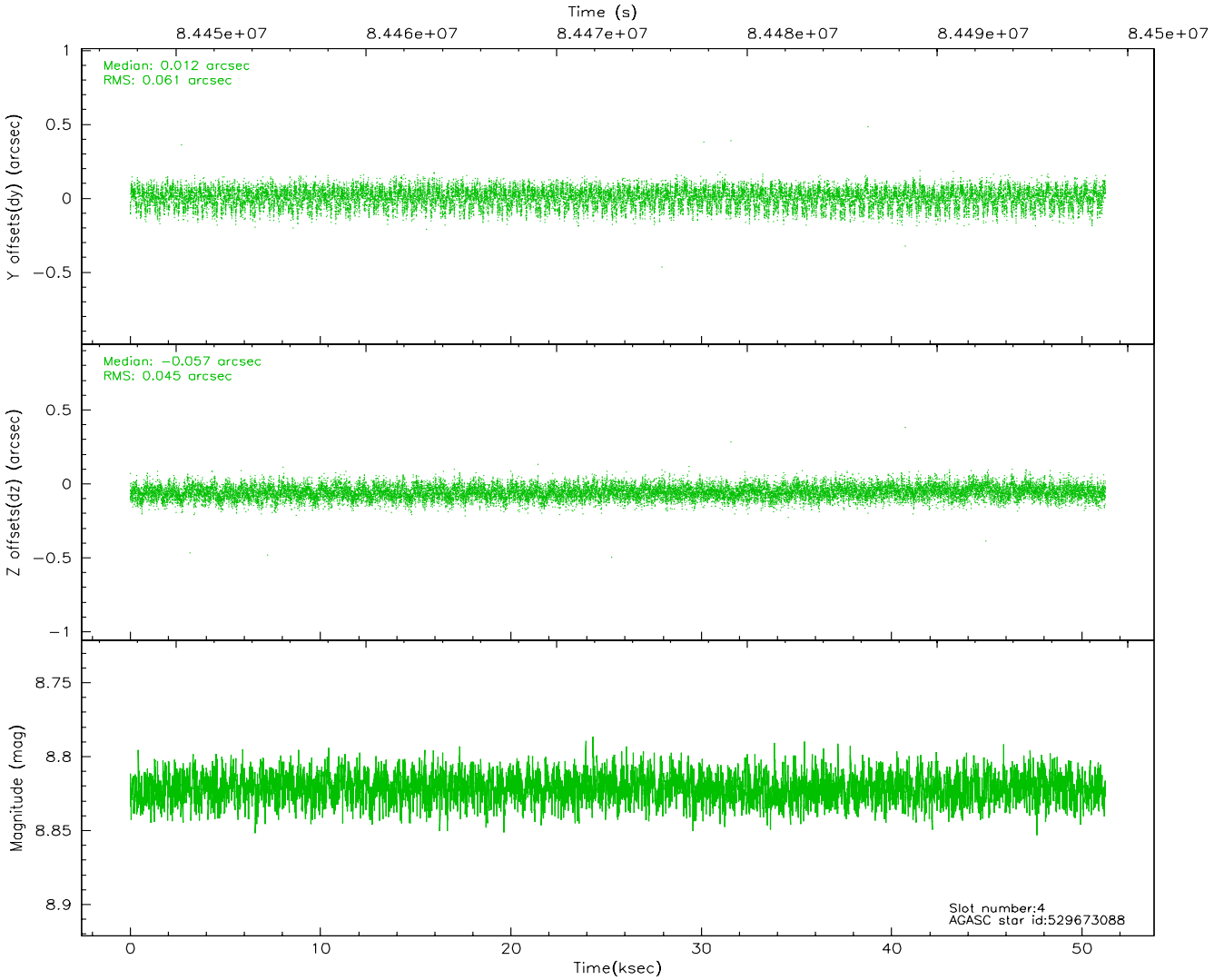




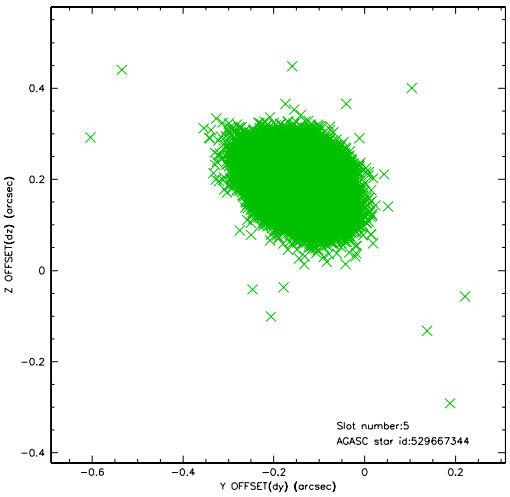
2.4.2 Slot 4

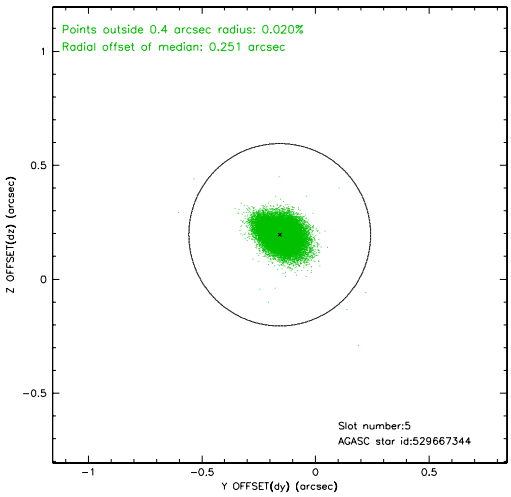

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:4
AGASC star id:529673088

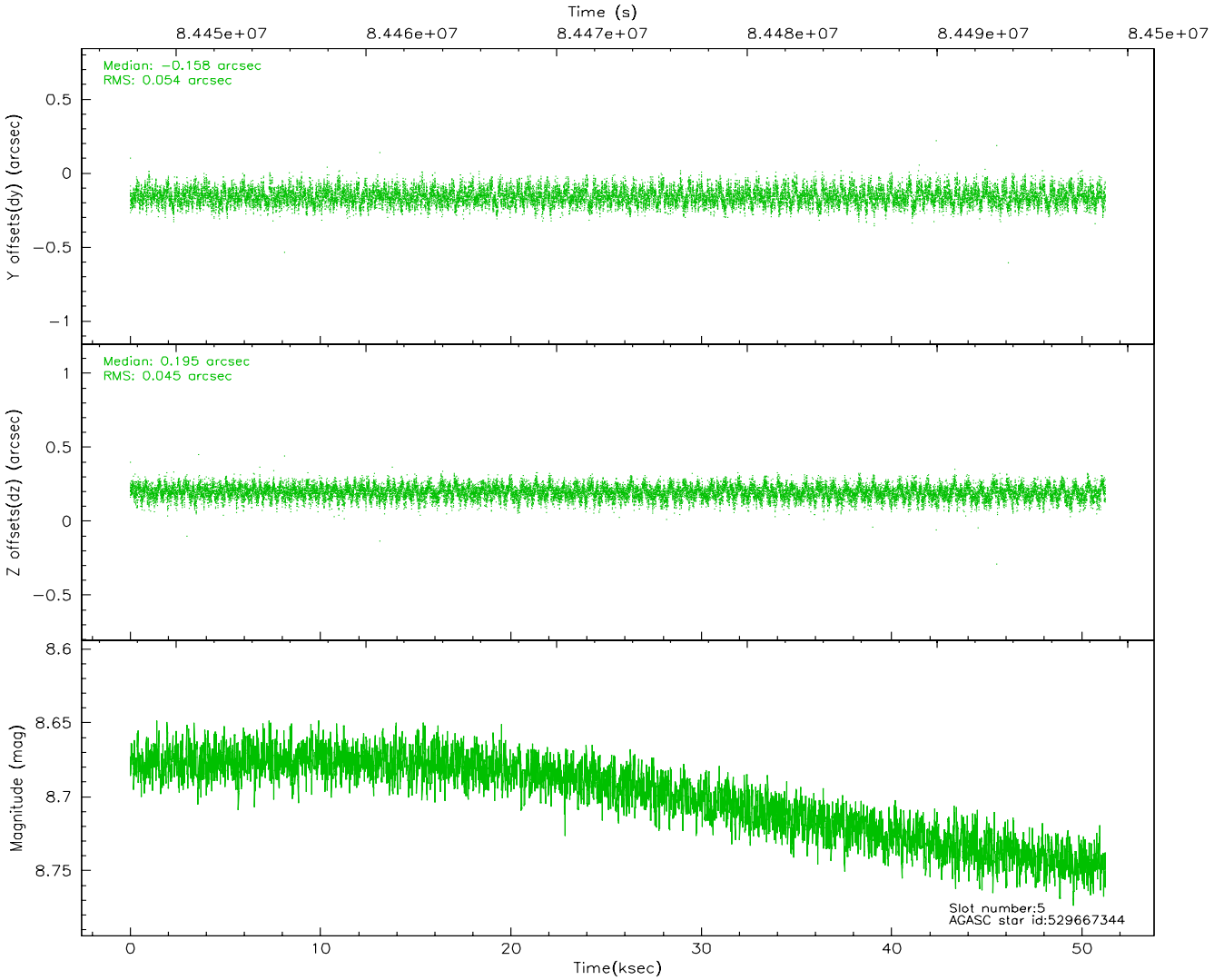

Points outside 0.4 arcsec radius: 0.028%
Radial offset of median: 0.058 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:4
AGASC star id:529673088


Time (s)
Median: 0.012 arcsec
RMS: 0.061 arcsec
Y offsets(dy) (arcsec)
Median: −0.057 arcsec
RMS: 0.045 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:4
AGASC star id:529673088
Time(ksec)

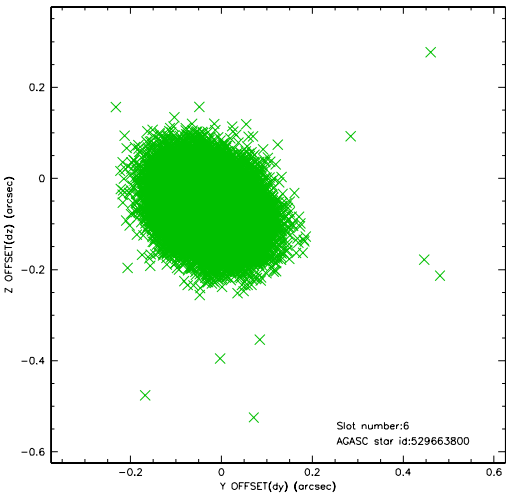
2.4.3 Slot 5

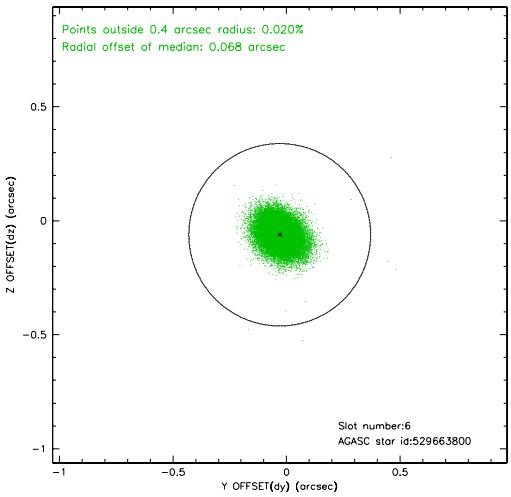

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:5
AGASC star id:529667344

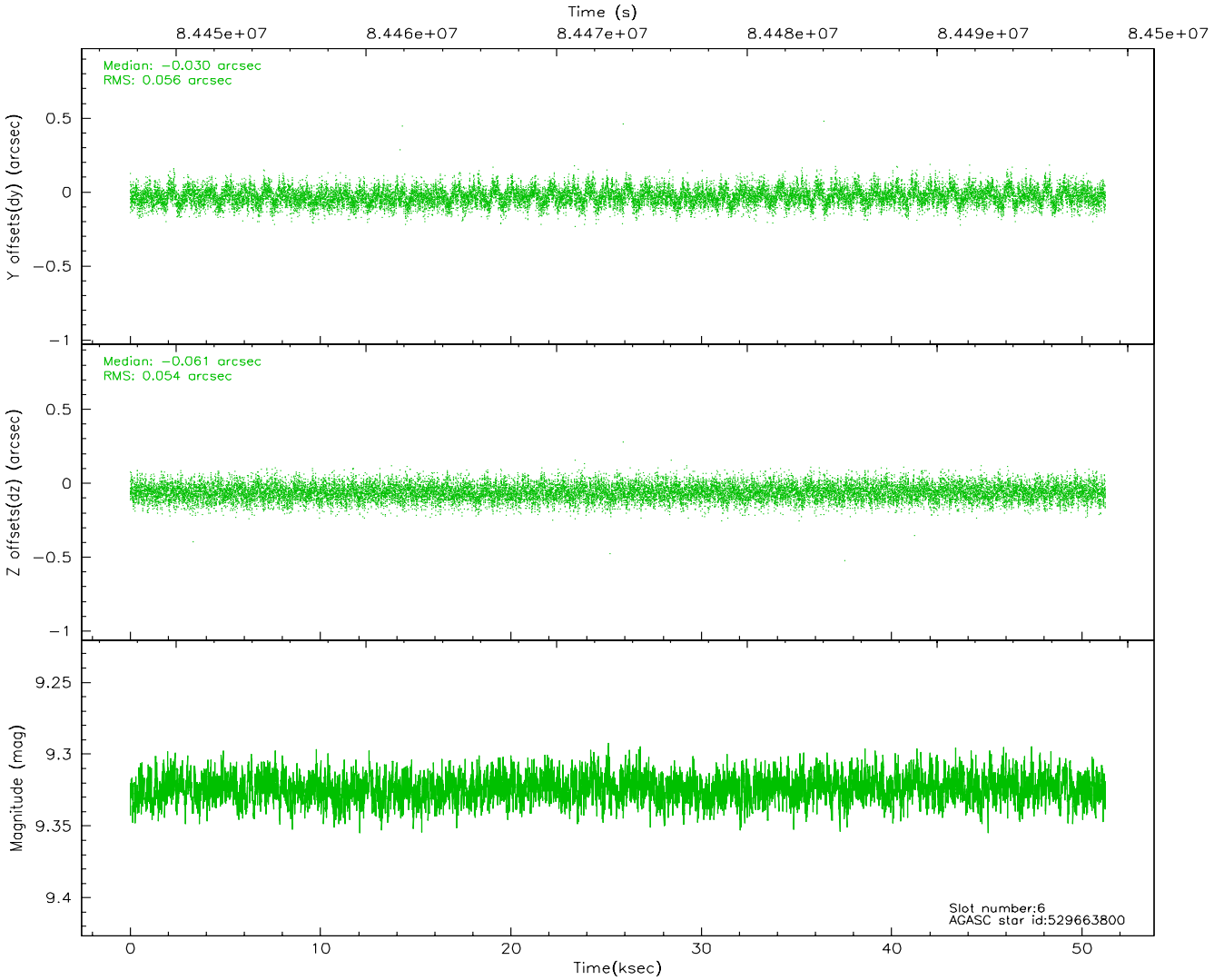

Points outside 0.4 arcsec radius: 0.020%
Radial offset of median: 0.251 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:5
AGASC star id:529667344


Time (s)
Median: −0.158 arcsec
RMS: 0.054 arcsec
Y offsets(dy) (arcsec)
Median: 0.195 arcsec
RMS: 0.045 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:5
AGASC star id:529667344
Time(ksec)

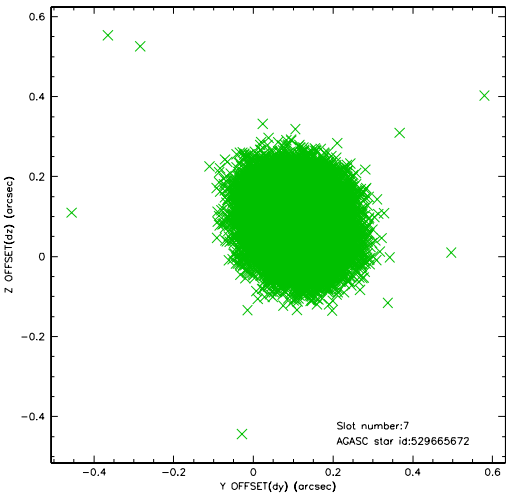
2.4.4 Slot 6

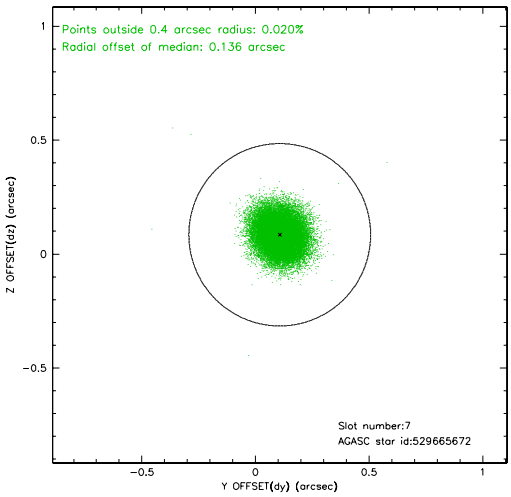

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:6
AGASC star id:529663800

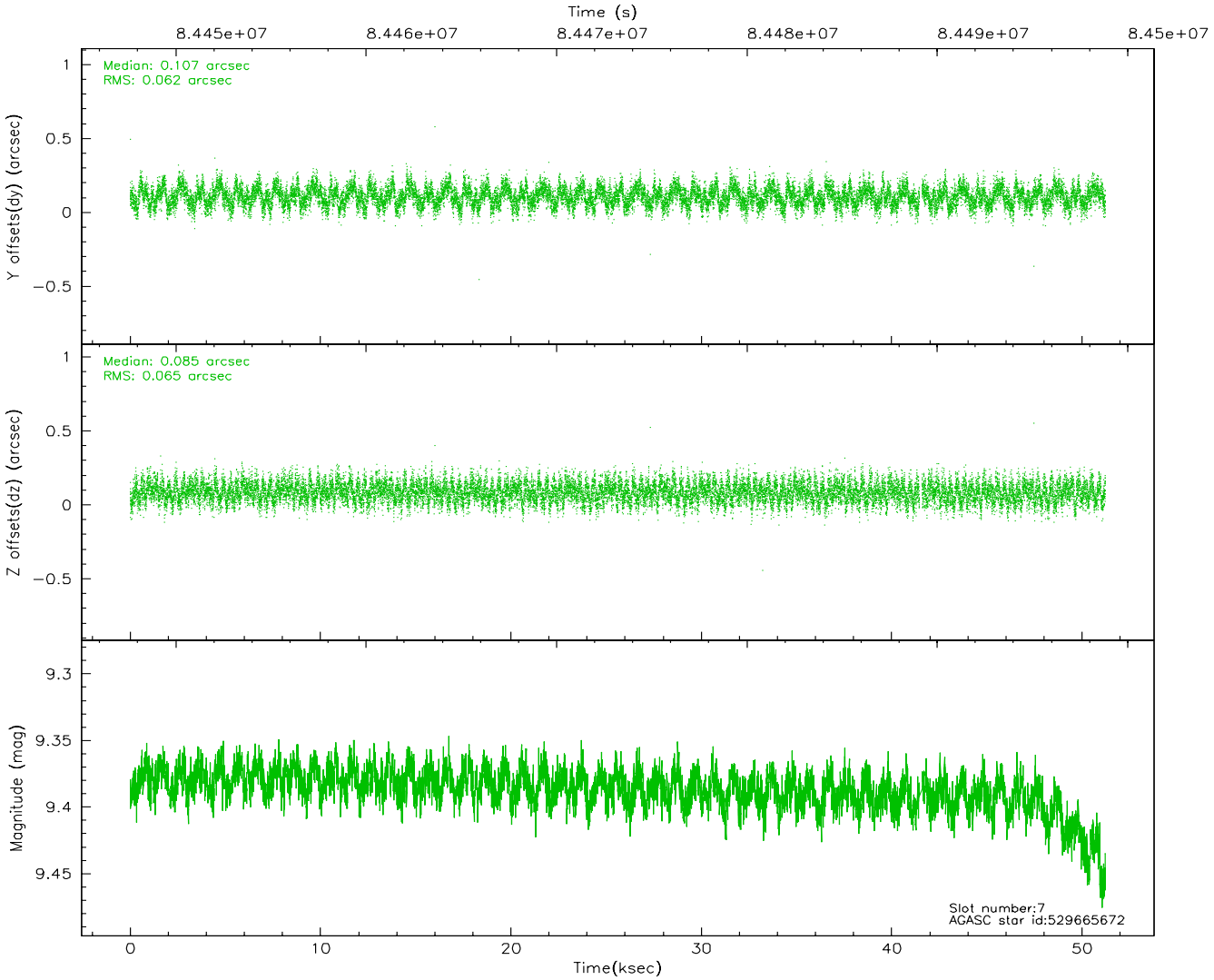

Points outside 0.4 arcsec radius: 0.020%
Radial offset of median: 0.068 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:6
AGASC star id:529663800


Time (s)
Median: −0.030 arcsec
RMS: 0.056 arcsec
Y offsets(dy) (arcsec)
Median: −0.061 arcsec
RMS: 0.054 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:6
AGASC star id:529663800
Time(ksec)

2.4.5 Slot 7

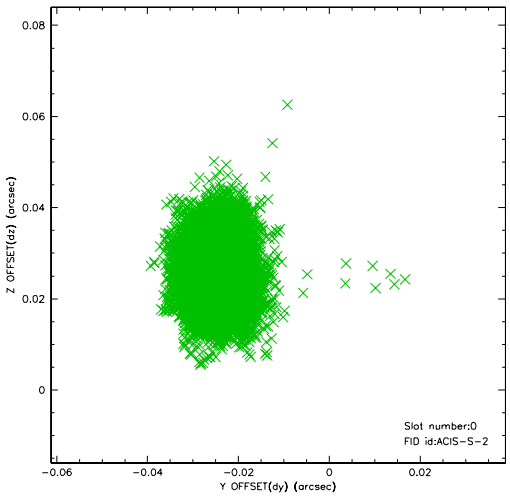

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:7
AGASC star id:529665672

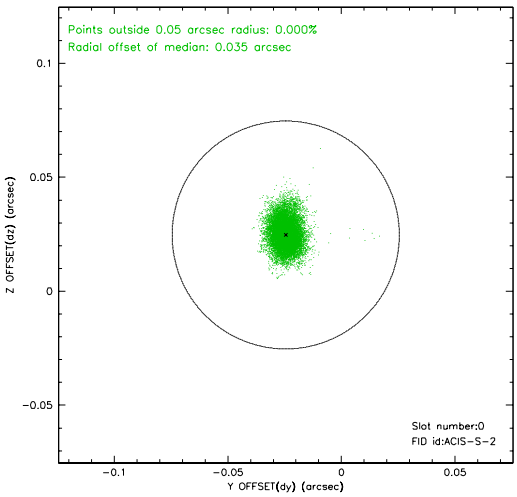

Points outside 0.4 arcsec radius: 0.020%
Radial offset of median: 0.136 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:7
AGASC star id:529665672

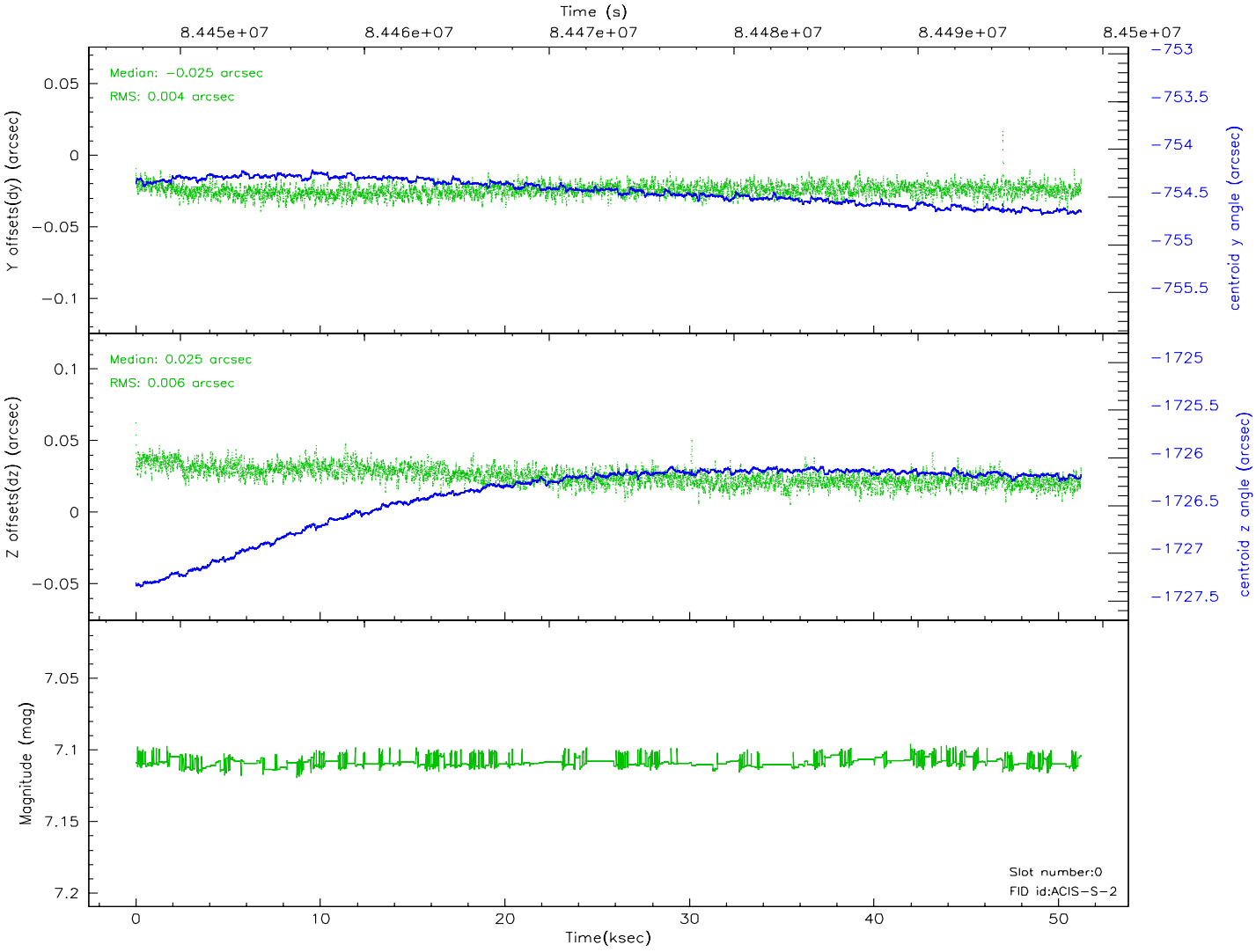

Time (s)
Median: 0.107 arcsec
RMS: 0.062 arcsec
Y offsets(dy) (arcsec)
Median: 0.085 arcsec
RMS: 0.065 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:7
AGASC star id:529665672
Time(ksec)

2.5 FID Slots

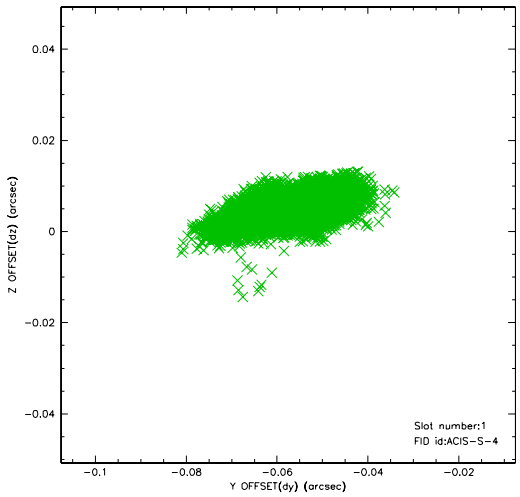
2.5.1 Slot 0

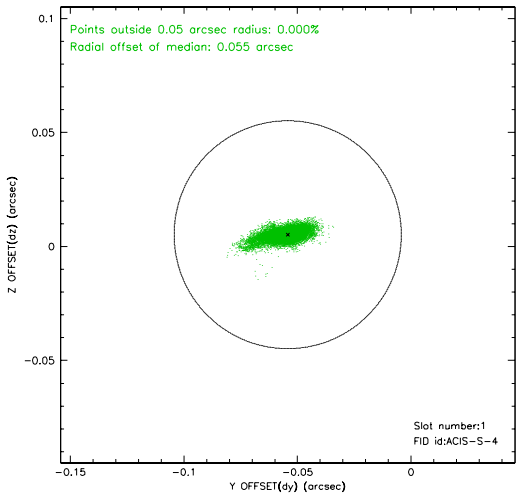


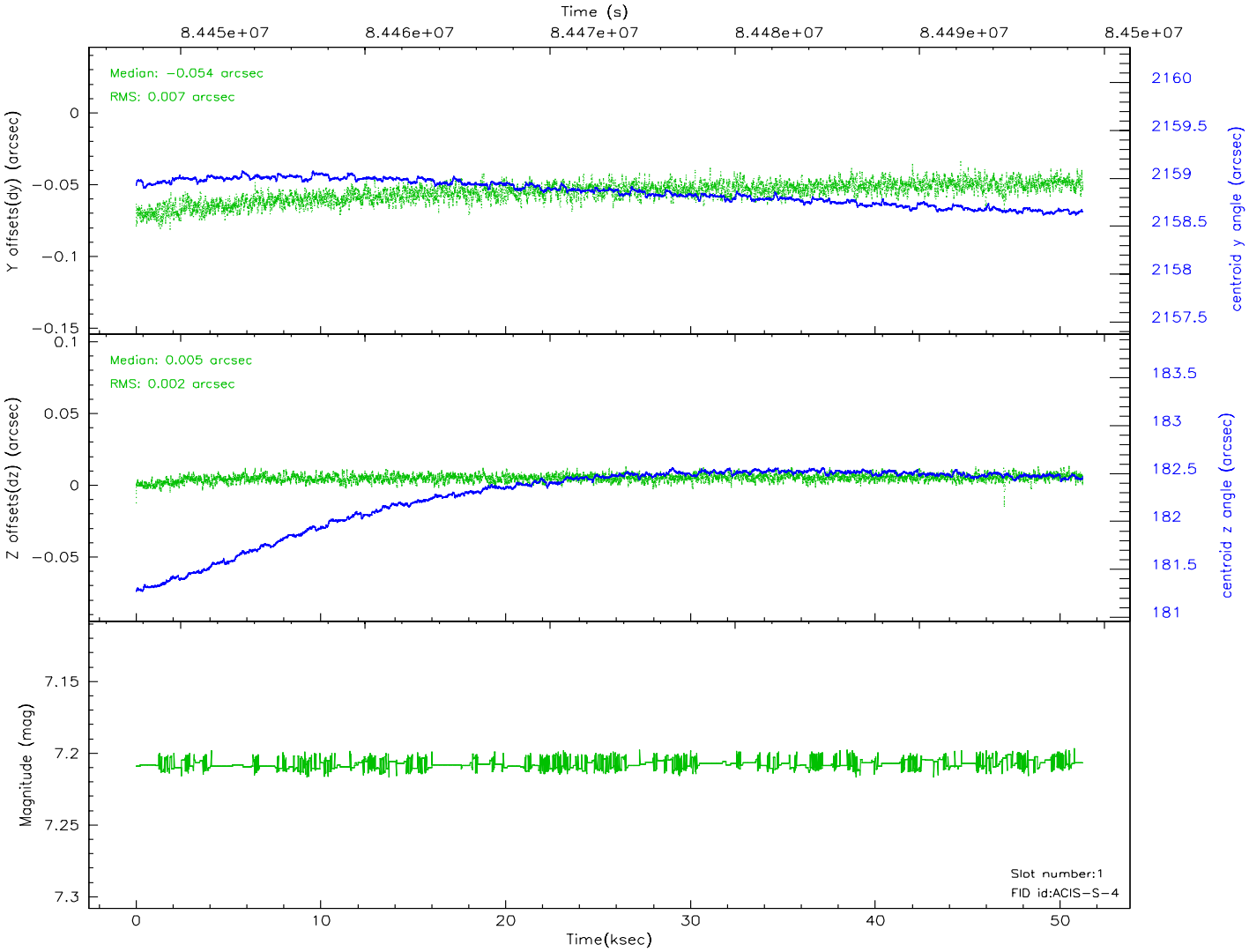




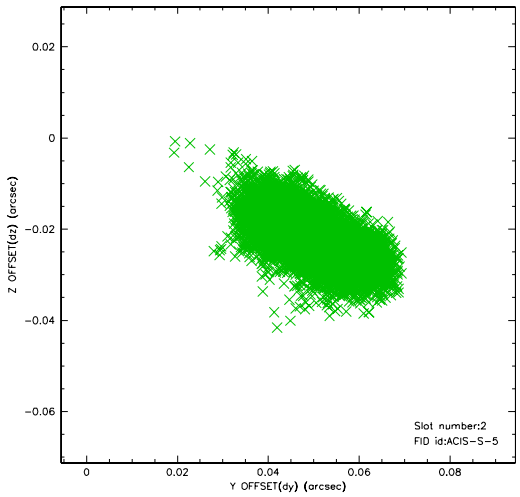
2.5.2 Slot 1

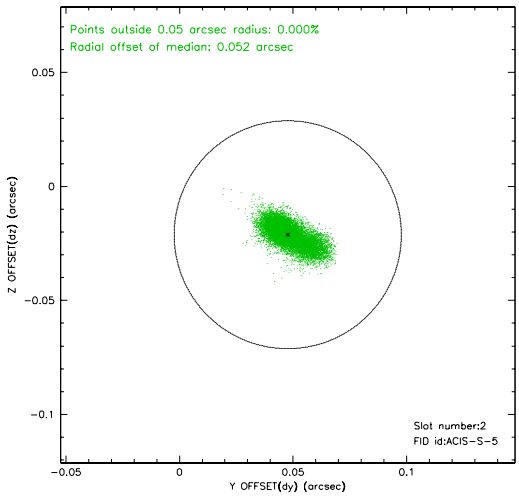

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:1
FID id:ACIS-S-4

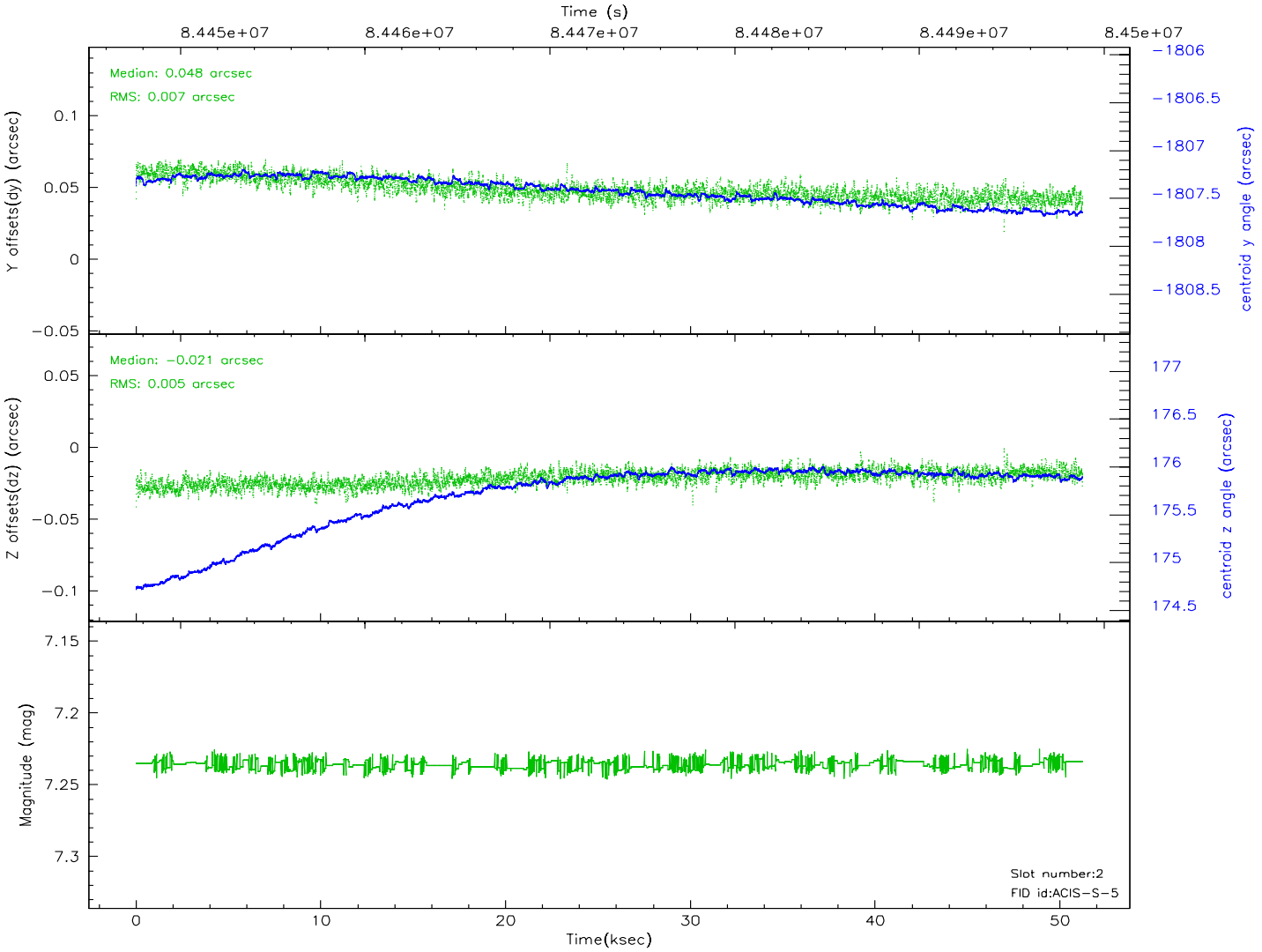

Points outside 0.05 arcsec radius: 0.000%
Radial offset of median: 0.055 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:1
FID id:ACIS-S-4


Time (s)
Median: −0.054 arcsec
RMS: 0.007 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: 0.005 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)

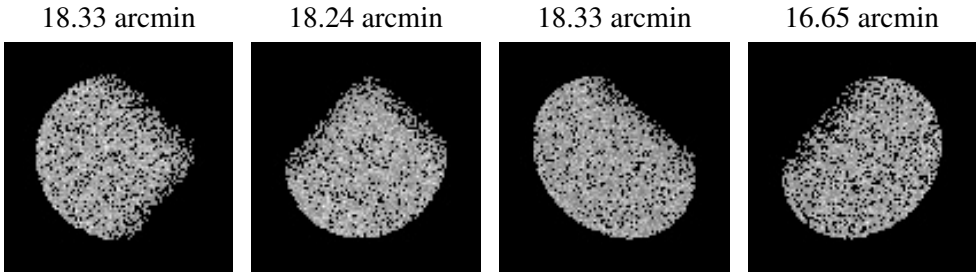
2.5.3 Slot 2


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


Time (s)
Median: 0.048 arcsec
RMS: 0.007 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: −0.021 arcsec
RMS: 0.005 arcsec
Z offsets(dz) (arcsec)
centroid z angle (arcsec)
Magnitude (mag)
Slot number:2
FID id:ACIS-S-5
Time(ksec)

3 Point Sources



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2007.06.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	51.231

A.2 Comments