V&V Reference Report
L2 ASCDS Version : 7.6.9

Observation 2255 - L2 Version 001
Chandra X-Ray Center

L2 Processing Date : Dec 31 2006

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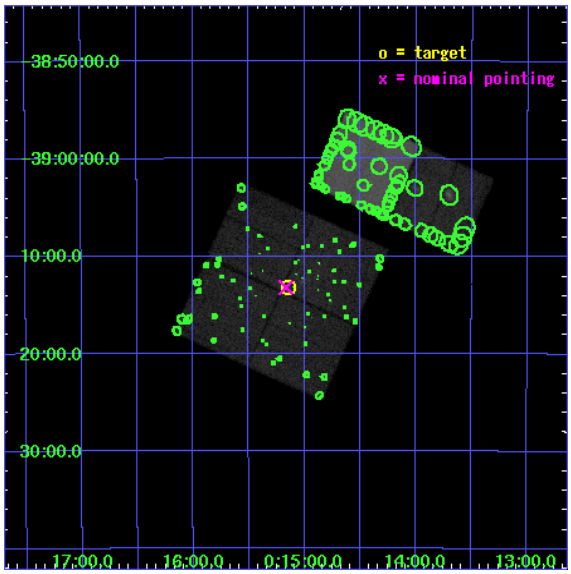
1 Front

seq_num	900082
obs_id	2255
title	X-RAY SEARCH FOR MISSING BARYON
observer	Dr. Naomi Ota
object	NGC 55
dtycycle	0
cycle	P
ra_targ	3.785417
dec_targ	-39.220361
ra_nom	3.7915041273387
dec_nom	-39.220250185798
roll_nom	24.33989067822
revision	2
ontime	60118.40005599
livetime	59357.144675526
ontime0	60118.40005599
ontime1	60118.40005599
ontime2	60118.40005599
ontime3	60118.40005599
ontime7	60118.40005599
ontime8	60118.40005599
l2events	411266

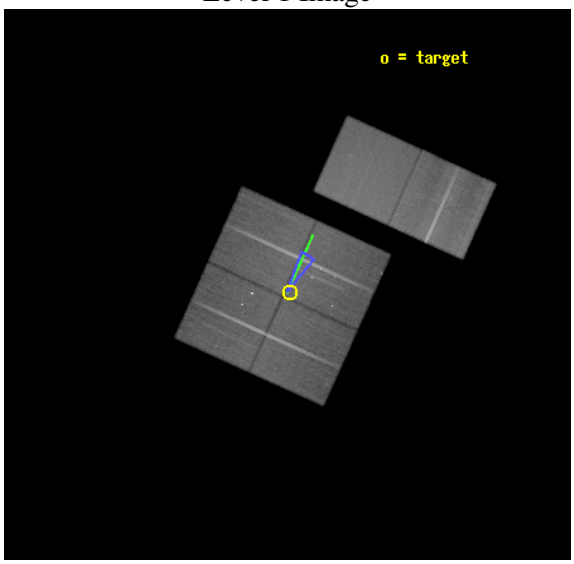


2 OBI

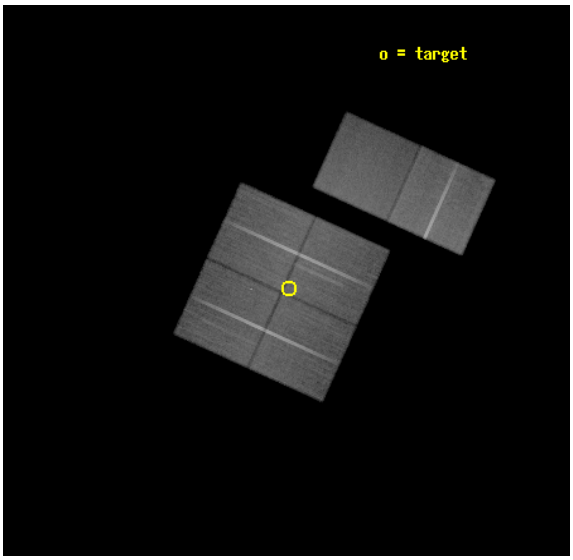
2.1 OBI

2.1.1 Images

Level 1 Image

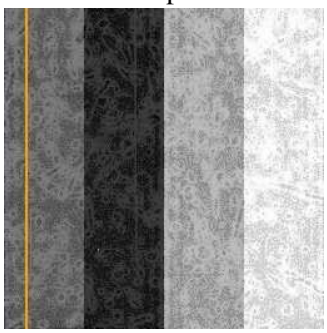


Level 1 Bad Events

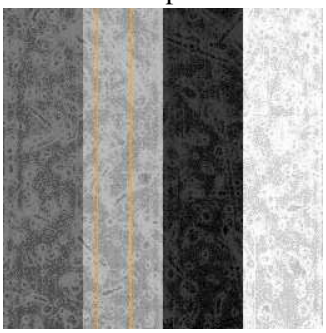


2.1.2 Bias

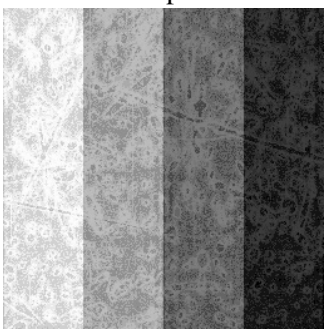
Chip 0



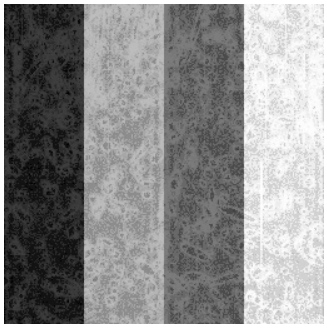
Chip 1



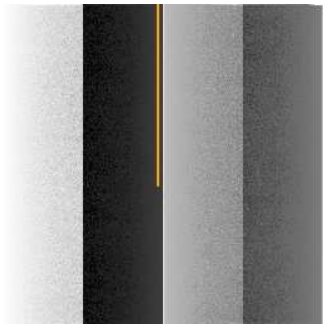
Chip 2



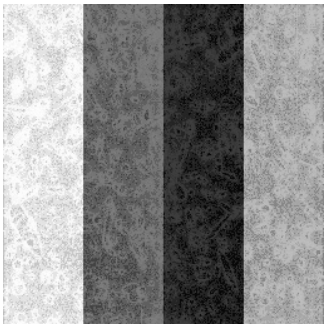
Chip 3



Chip 7



Chip 8



2.1.3 Parameters

obi_num	0
ascdsver	7.6.9
caldbver	3.2.4
date	2006-12-31T12:36:56
revision	2

sched_exp_time	60000.000000
ontime	60120.633896515
ontime0	60120.633896515
ontime1	60120.633896515
ontime2	60120.633896515
ontime3	60120.633896515
ontime7	60120.633896515
ontime8	60120.633896515
l1events	2601975

2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7	ccd 8
level 1 events	381984	371778	405266	408941	508266	525740
rejected events	322907	323672	361727	354292	314935	421677
rejected %	84%	87%	89%	86%	61%	80%

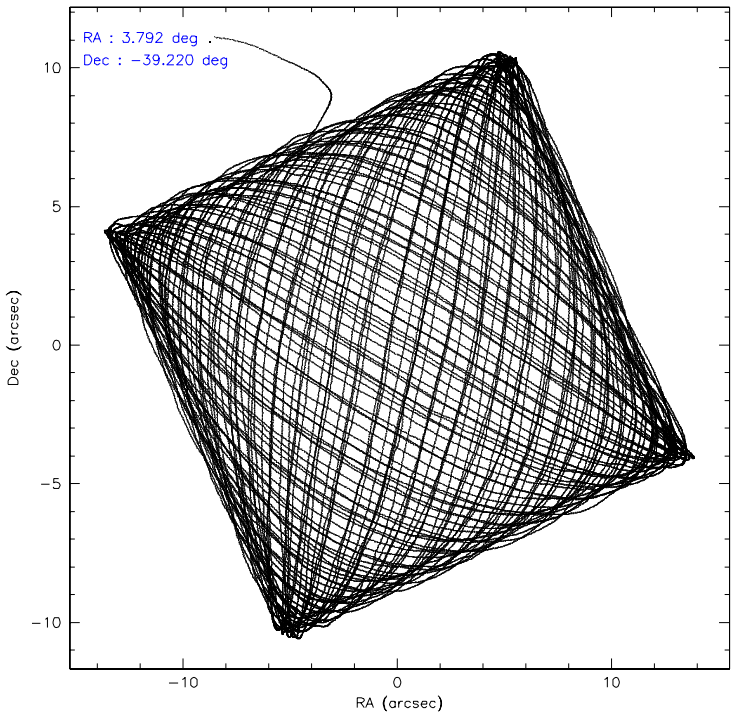
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7	ccd 8
grade 0 events	29896	19258	17871	27429	11857	32940
	7%	5%	4%	6%	2%	6%
grade 1 events	544	164	166	310	307	342
	0%	0%	0%	0%	0%	0%
grade 2 events	11135	9947	9383	9965	46893	22535
	2%	2%	2%	2%	9%	4%
grade 3 events	4967	4884	4332	4620	10291	11062
	1%	1%	1%	1%	2%	2%
grade 4 events	4631	4950	4163	4427	9968	10103
	1%	1%	1%	1%	1%	1%
grade 5 events	14563	15412	13776	15569	34241	21679
	3%	4%	3%	3%	6%	4%
grade 6 events	8455	9069	7793	8212	114330	27425
	2%	2%	1%	2%	22%	5%
grade 7 events	307793	308094	347782	338409	280379	399654
	80%	82%	85%	82%	55%	76%

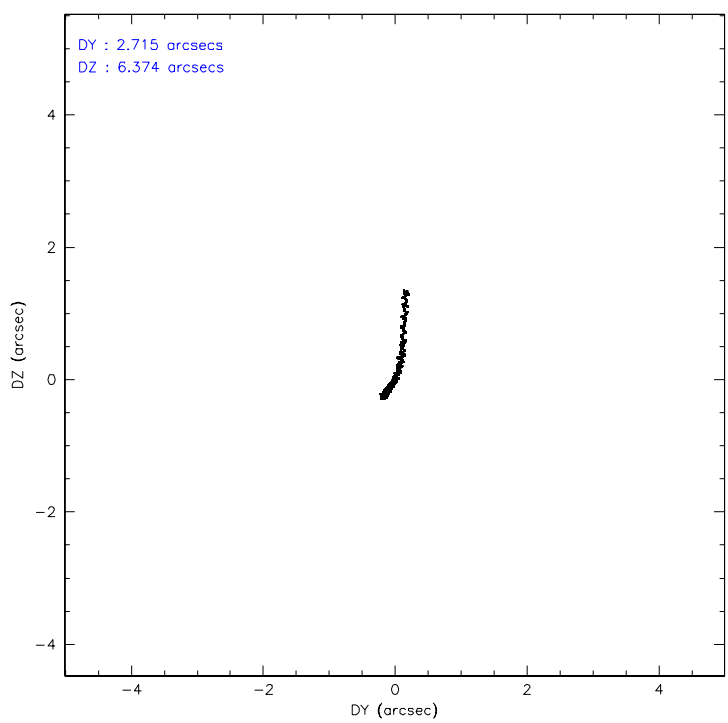
2.2 Compared Parameters

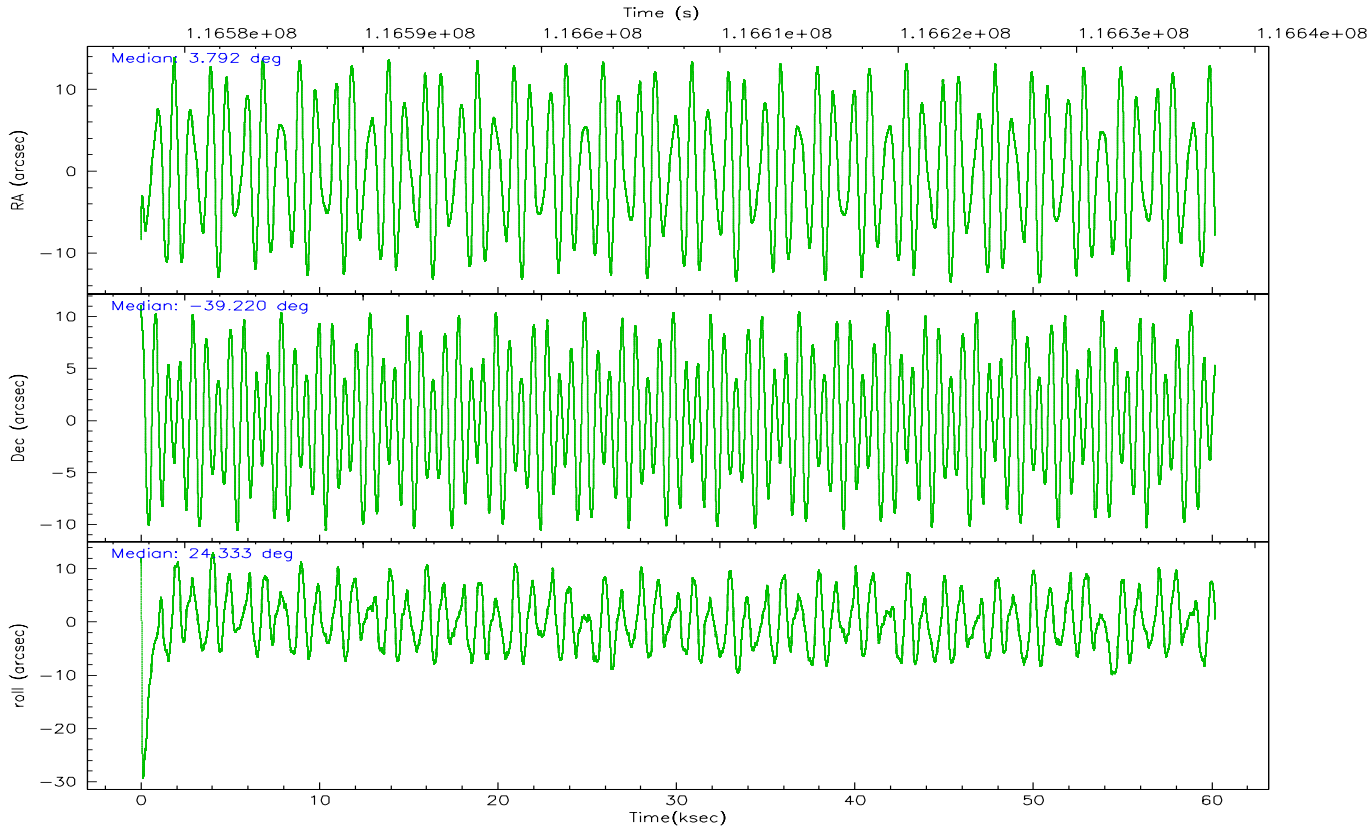
Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-012378	ACIS-012378
Grating	NONE	NONE
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
Pointing RA	3.770906	3.791504127338684
Pointing Dec	-39.242556	-39.22025018579756
Pointing Roll	24.118172	24.33989067822046
Roll angle	30.000000	30.000000
Roll tolerance	10.000000	10.000000
Roll constraint allows 180D rotation	N	N
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	116577751.184000	116576705.8147
Observation start date	2001-09-11T06:41:27	2001-09-11T06:25:05
Observation end time	116637751.184000	116638220.16714
Observation end date	2001-09-11T23:21:27	2001-09-11T23:30:20
Read mode	TIMED	TIMED

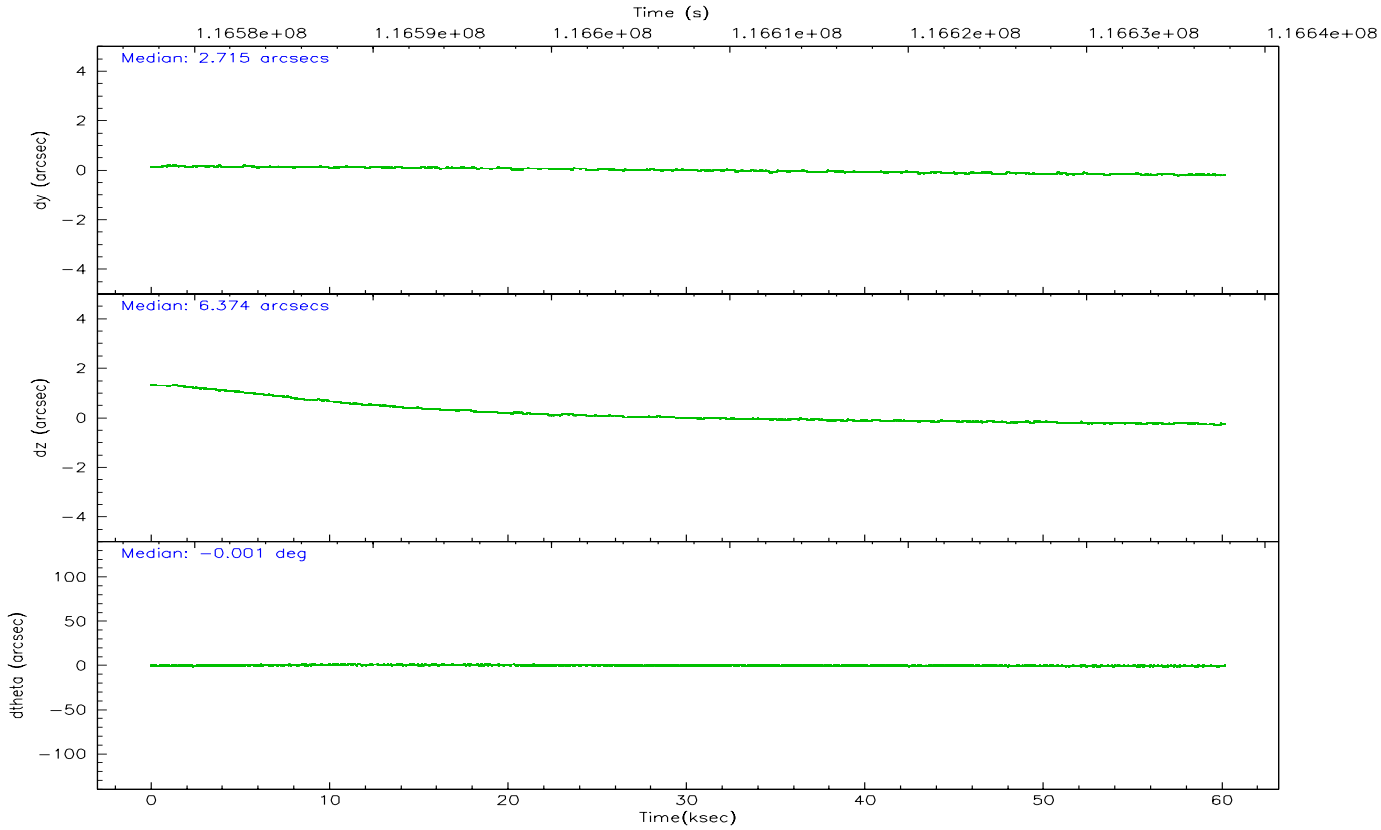
Parameter	Planned	Actual
Obspar format version number	6	6
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
Primary exposure time	0.000000	3.2

2.3 Aspect


RA : 3.792 deg
Dec : −39.220 deg
Dec (arcsec)
RA (arcsec)
10
5
0
−5
−10
−10
0
10


DY : 2.715 arcsecs
DZ : 6.374 arcsecs
DZ (arcsec)
DY (arcsec)
4
2
0
−2
−4
−4
−2
0
2
4


Time (s)
1.1658e+08
1.1659e+08
1.166e+08
1.1661e+08
1.1662e+08
1.1663e+08
1.1664e+08
Median: 3.792 deg
RA (arcsec)
Median: −39.220 deg
Dec (arcsec)
Median: 24.333 deg
roll (arcsec)
Time(ksec)

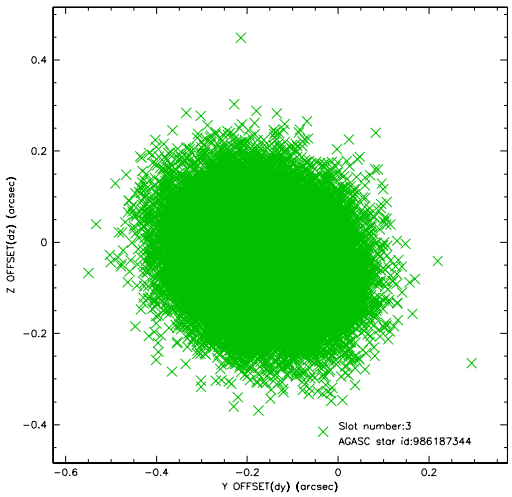

Time (s)
1.1658e+08
1.1659e+08
1.166e+08
1.1661e+08
1.1662e+08
1.1663e+08
1.1664e+08
Median: 2.715 arcsecs
dy (arcsec)
Median: 6.374 arcsecs
dz (arcsec)
Median: −0.001 deg
dtheta (arcsec)
Time(ksec)

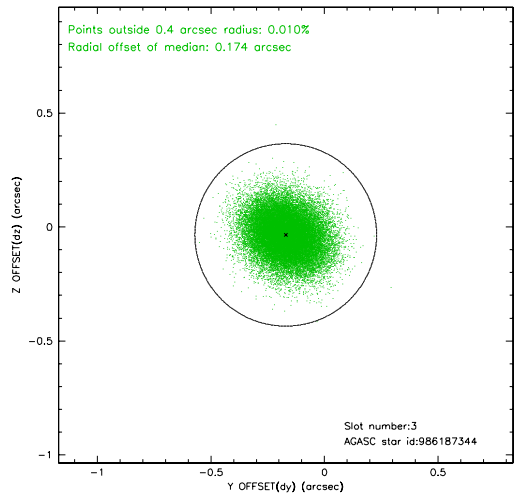
Slot Statistics

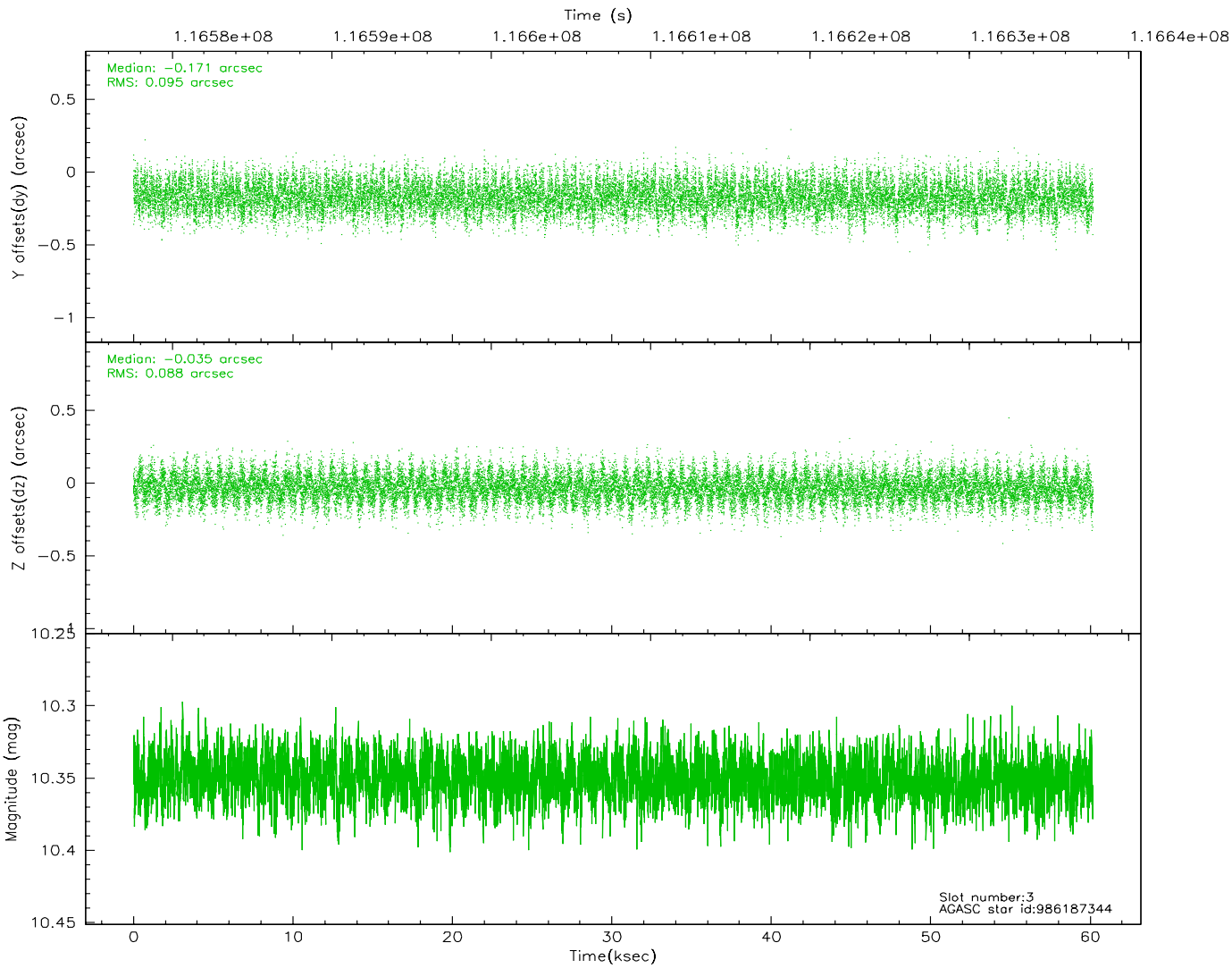
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.25	14679	-0.024	0.043	0.009	0.023	0.000000	0.000000	937.05	-829.91
1	FID	ACIS-I-5	7.24	14676	-0.013	0.041	0.009	0.014	0.000000	0.000000	-1811.04	1067.64
2	FID	ACIS-I-6	7.26	14678	-0.054	-0.013	0.010	0.032	0.000000	0.000000	402.65	1712.01
3	GUIDE	986187344	10.35	29328	-0.171	-0.035	0.138	0.222	3.870730	-38.604769	1193.96	1981.53
4	GUIDE	986186168	9.99	29262	0.095	-0.141	0.127	0.213	4.318921	-39.027908	1712.61	75.70
5	GUIDE	986186240	9.31	29336	0.018	-0.023	0.088	0.146	4.166509	-39.491915	635.40	-1269.83
6	GUIDE	986062896	9.42	29351	0.063	0.069	0.108	0.175	3.098710	-39.608867	-2243.18	-447.69
7	GUIDE	986186112	10.01	28901	-0.002	0.130	0.165	0.256	4.129797	-39.348756	754.58	-758.03

2.4 Star Slots

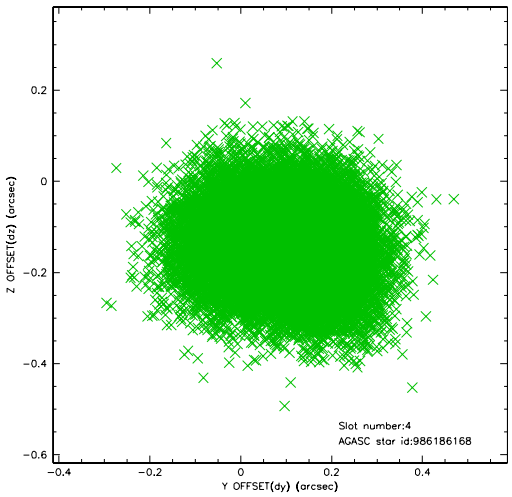
2.4.1 Slot 3

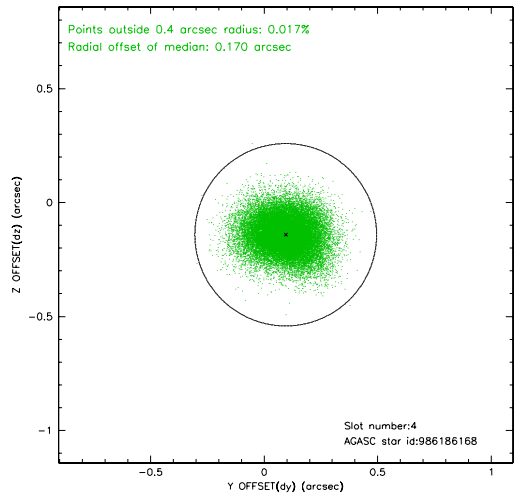


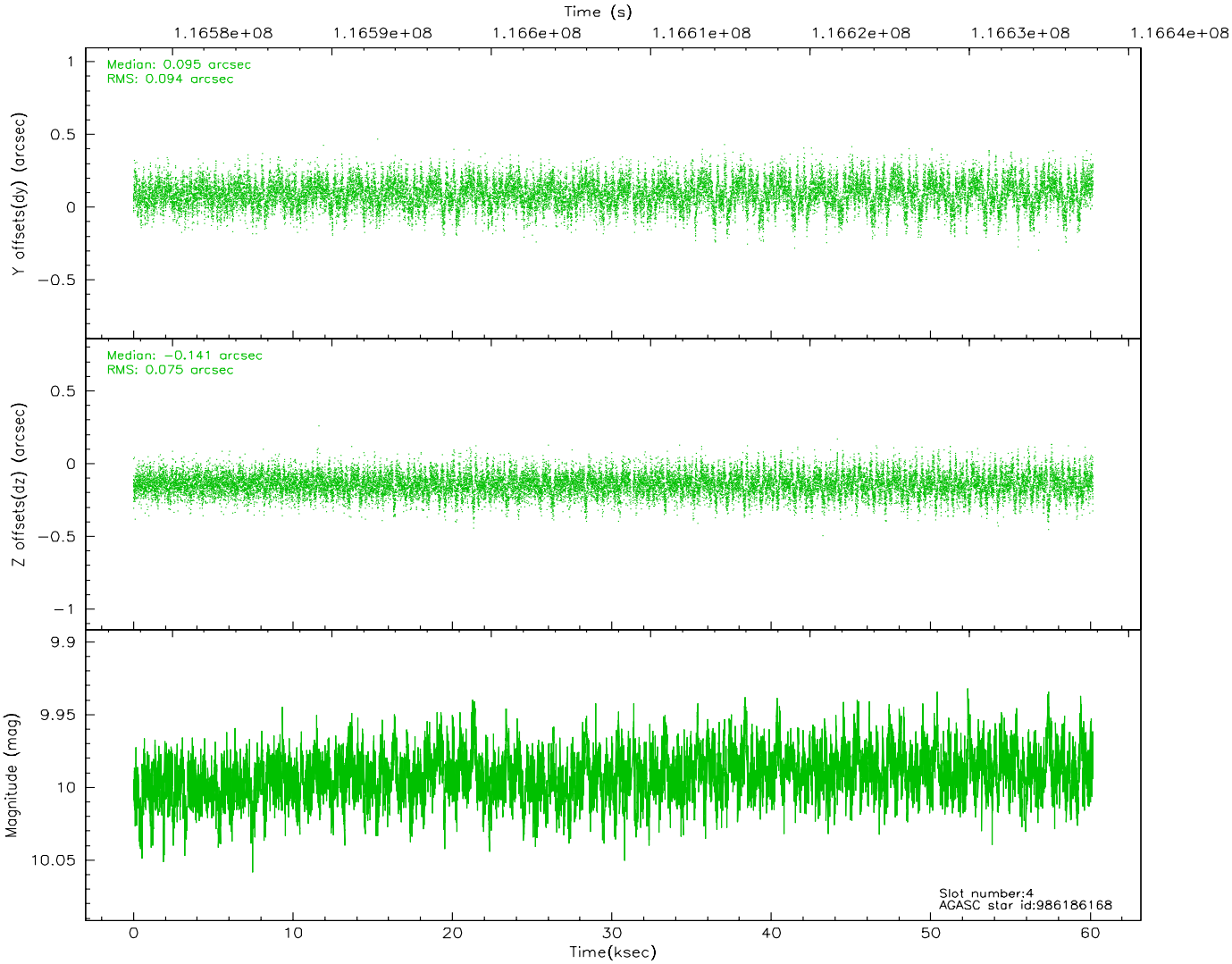




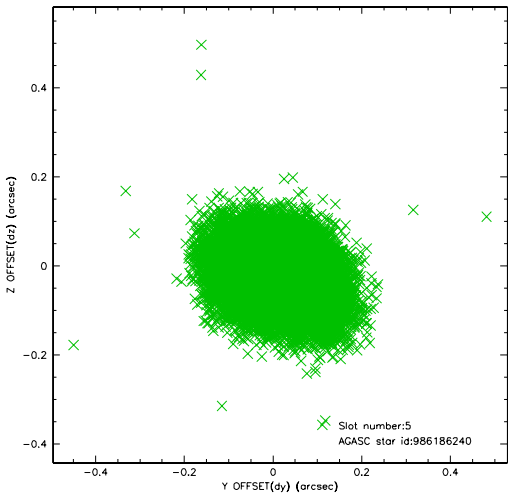
2.4.2 Slot 4

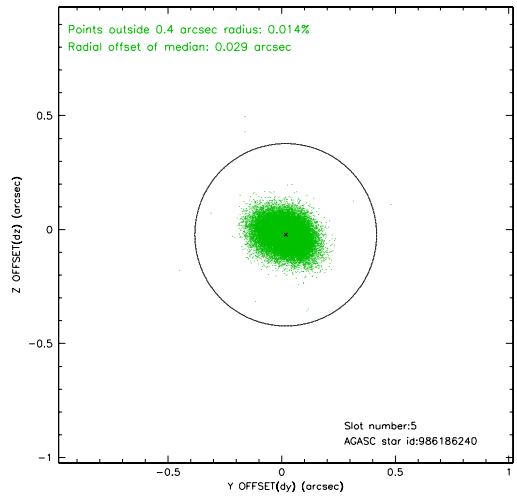

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:4
AGASC star id:986186168

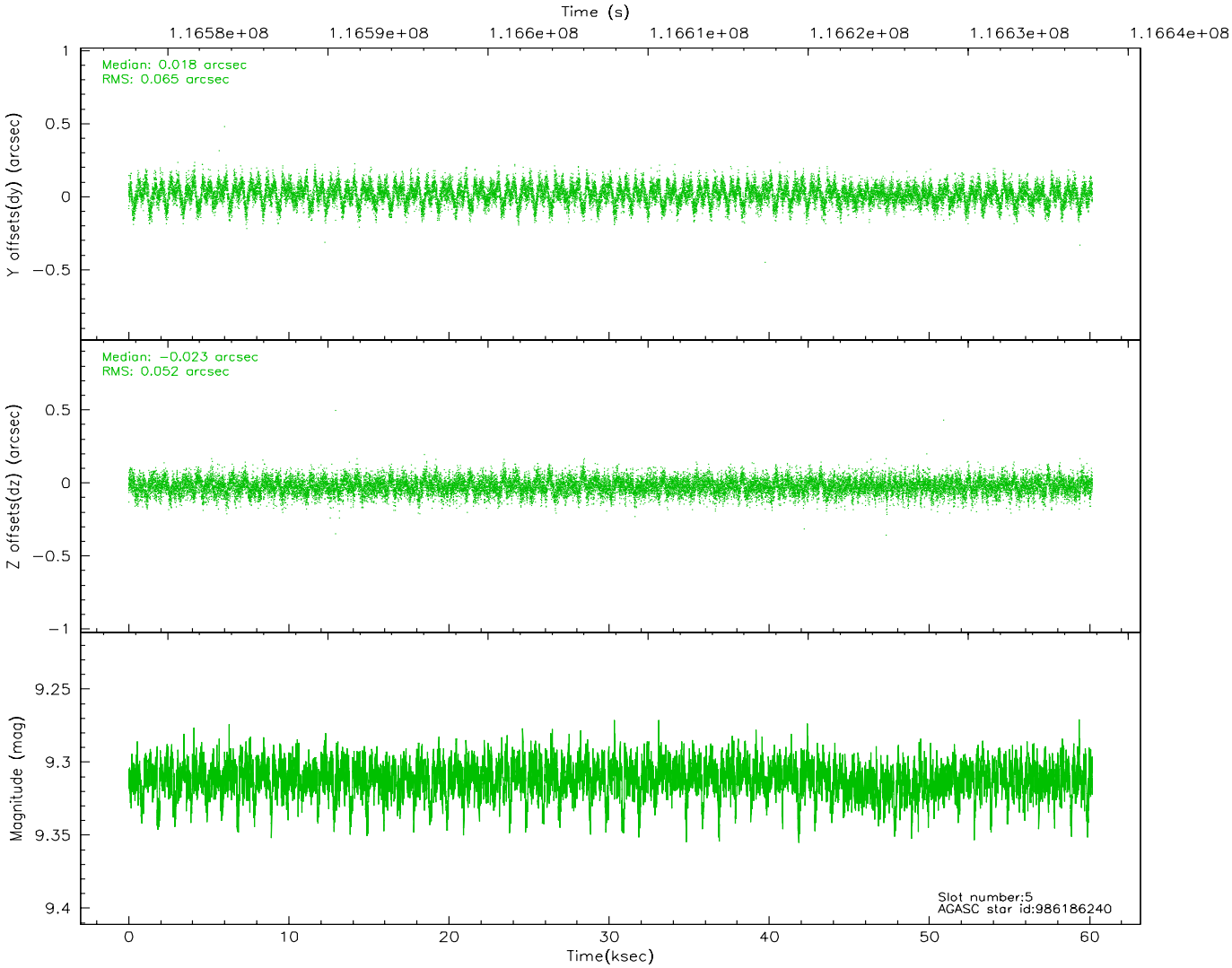

Points outside 0.4 arcsec radius: 0.017%
Radial offset of median: 0.170 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:4
AGASC star id:986186168


Time (s)
Median: 0.095 arcsec
RMS: 0.094 arcsec
Y offsets(dy) (arcsec)
Median: −0.141 arcsec
RMS: 0.075 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:4
AGASC star id:986186168
Time(ksec)

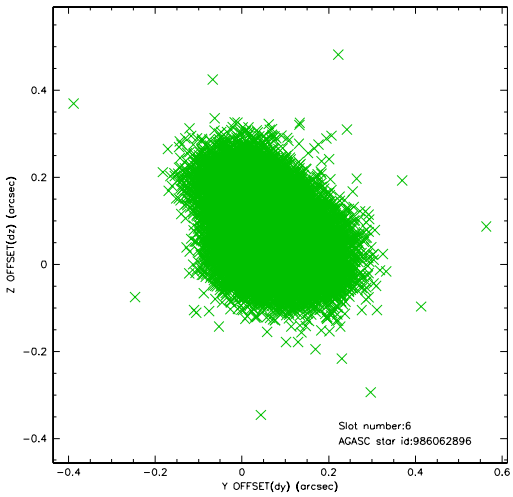
2.4.3 Slot 5

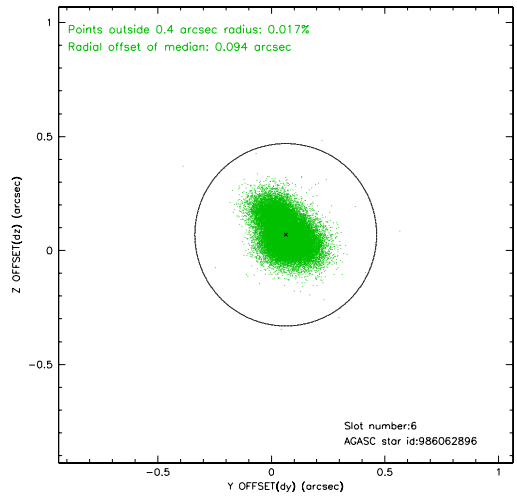

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:5
AGASC star id:986186240

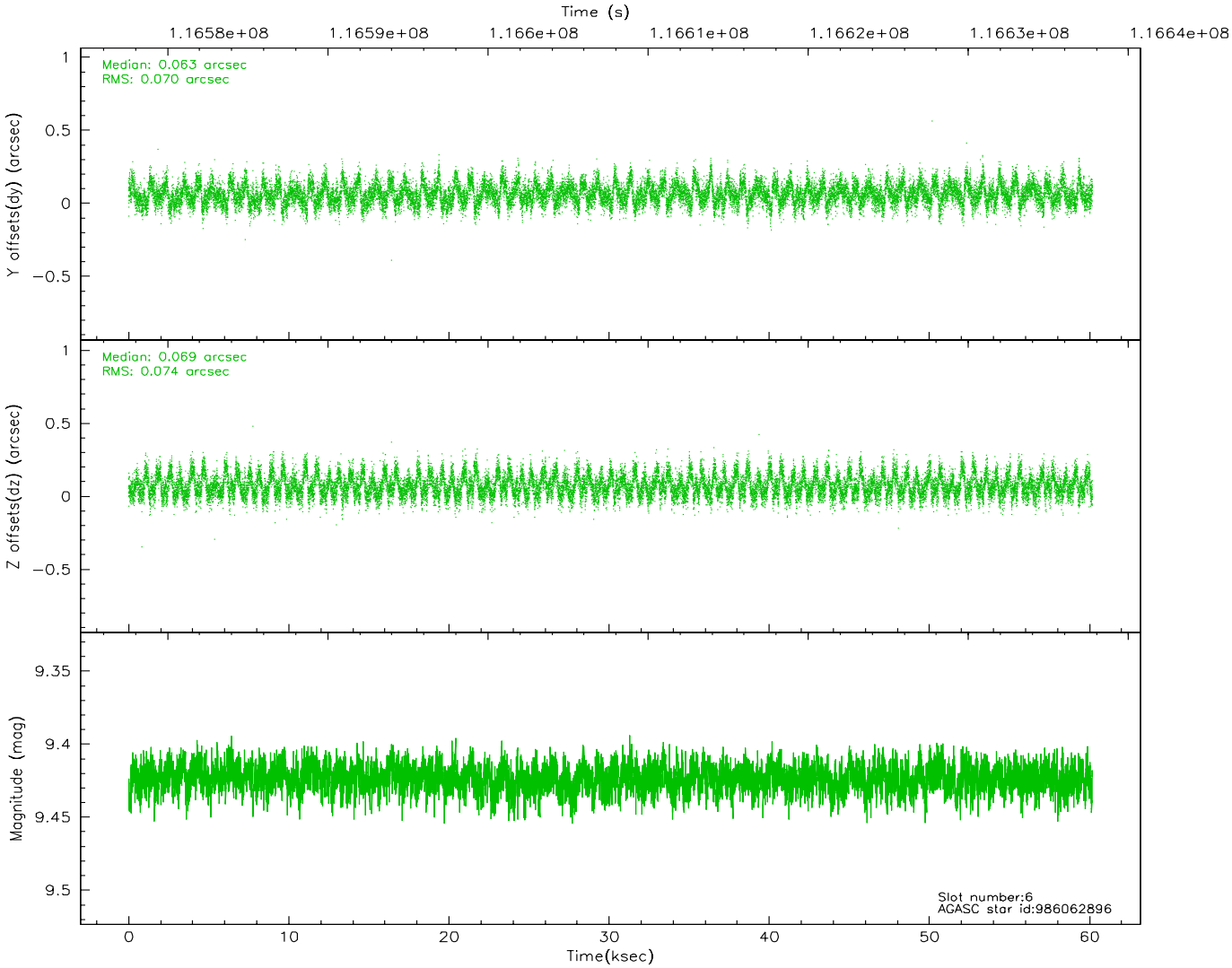

Points outside 0.4 arcsec radius: 0.014%
Radial offset of median: 0.029 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:5
AGASC star id:986186240


Time (s)
1.1658e+08
1.1659e+08
1.166e+08
1.1661e+08
1.1662e+08
1.1663e+08
1.1664e+08
Median: 0.018 arcsec
RMS: 0.065 arcsec
Y offsets(dy) (arcsec)
Median: −0.023 arcsec
RMS: 0.052 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:5
AGASC star id:986186240
Time(ksec)

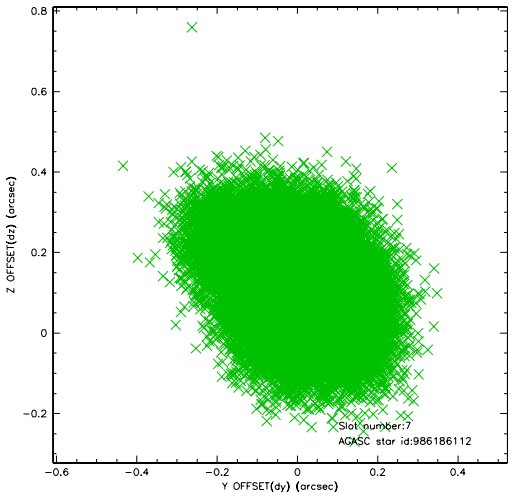
2.4.4 Slot 6

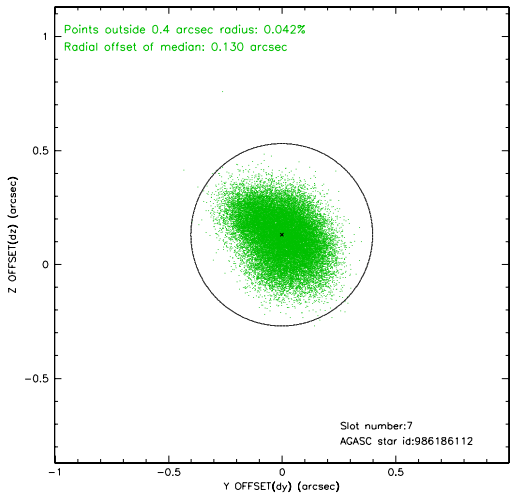

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:6
AGASC star id:986062896

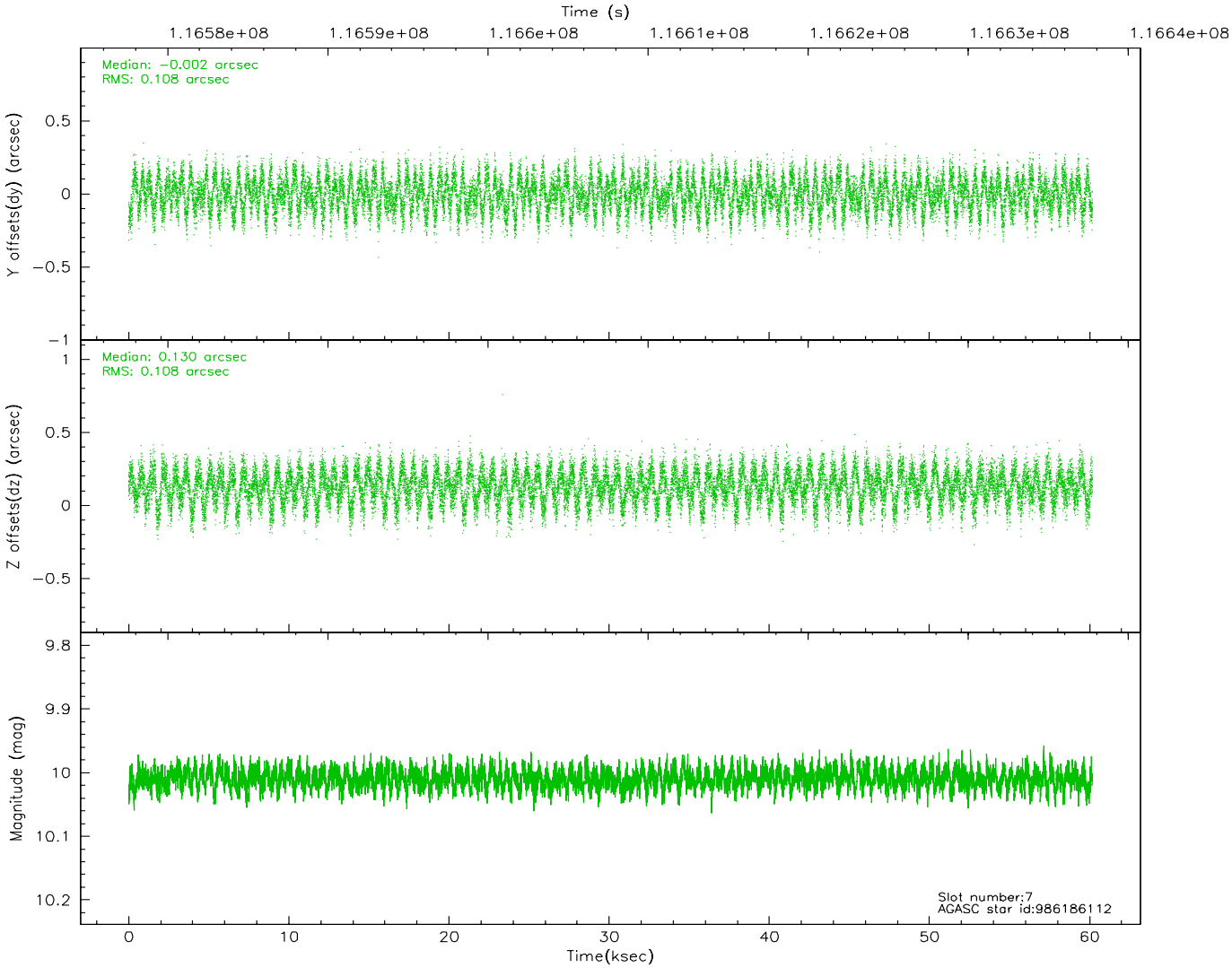

Points outside 0.4 arcsec radius: 0.017%
Radial offset of median: 0.094 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:6
AGASC star id:986062896


Time (s)
1.1658e+08
1.1659e+08
1.166e+08
1.1661e+08
1.1662e+08
1.1663e+08
1.1664e+08
Median: 0.063 arcsec
RMS: 0.070 arcsec
Y offsets(dy) (arcsec)
Median: 0.069 arcsec
RMS: 0.074 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:6
AGASC star id:986062896
Time(ksec)

2.4.5 Slot 7

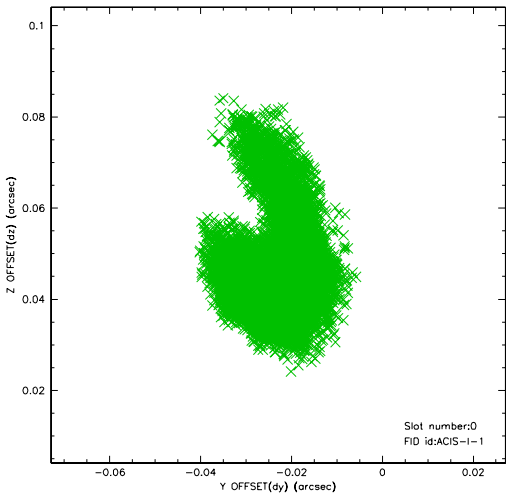

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:7
AGASC star id:986186112

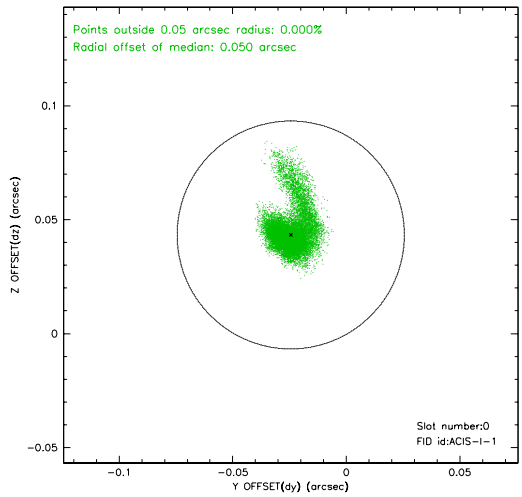

Points outside 0.4 arcsec radius: 0.042%
Radial offset of median: 0.130 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:7
AGASC star id:986186112

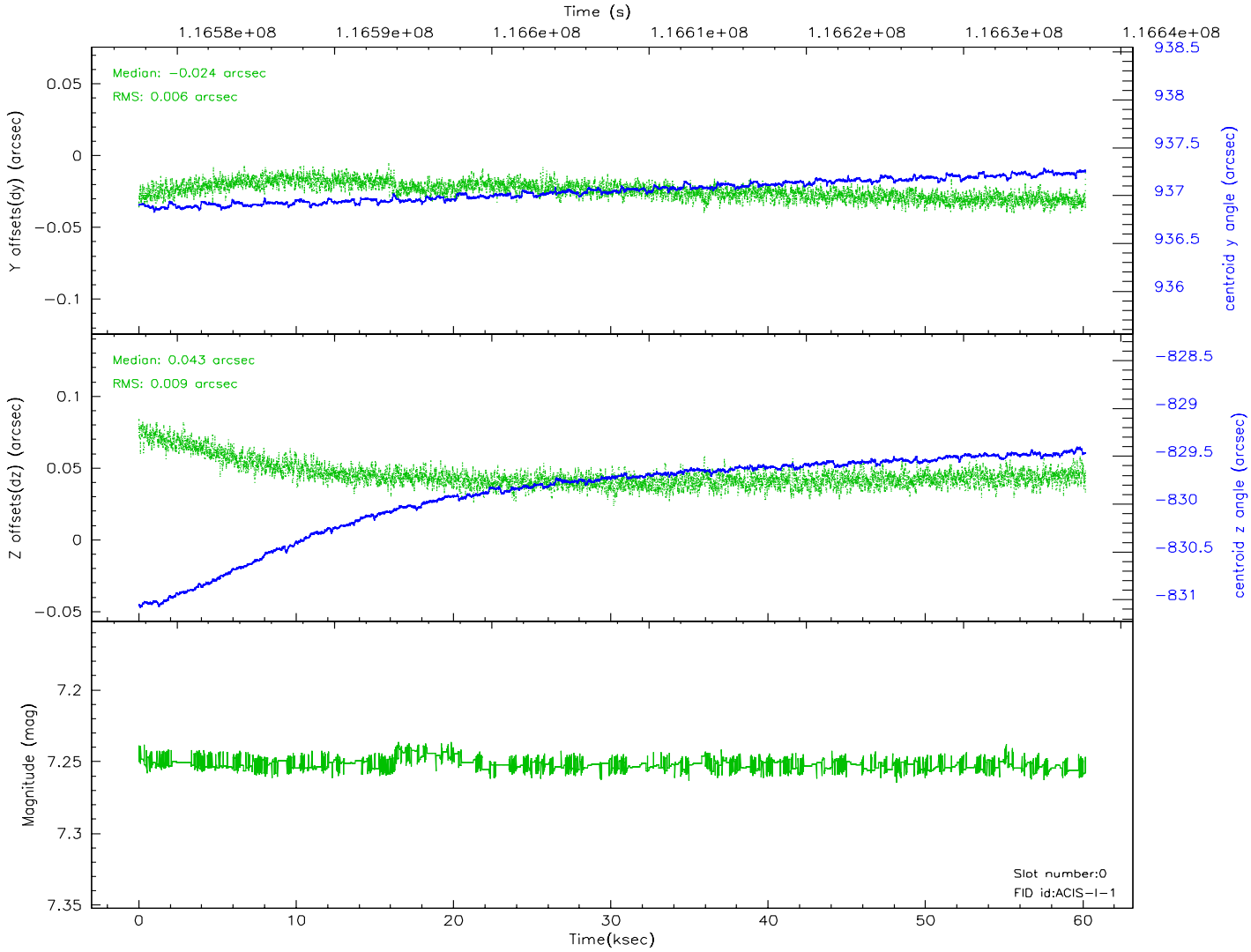

Time (s)
Median: −0.002 arcsec
RMS: 0.108 arcsec
Y offsets(dy) (arcsec)
Median: 0.130 arcsec
RMS: 0.108 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:7
AGASC star id:986186112
Time(ksec)

2.5 FID Slots

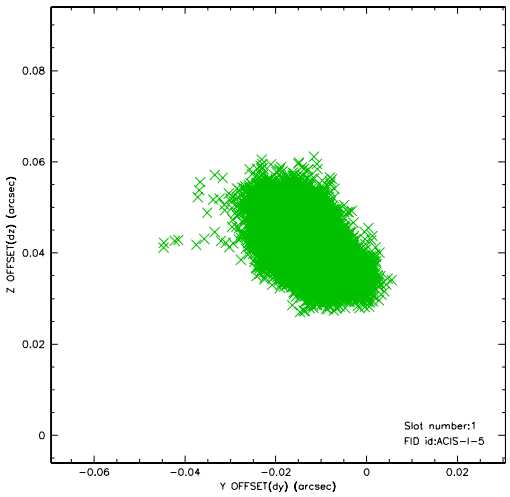
2.5.1 Slot 0

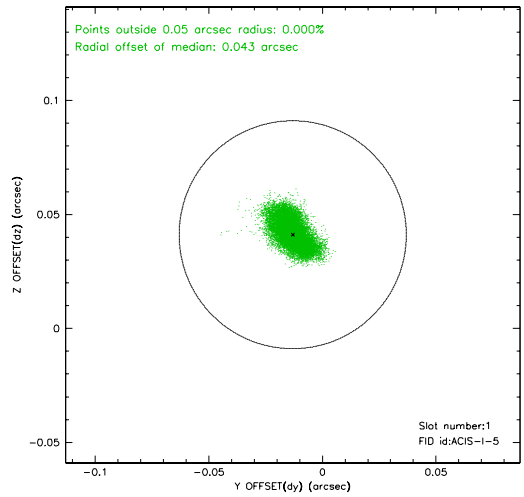


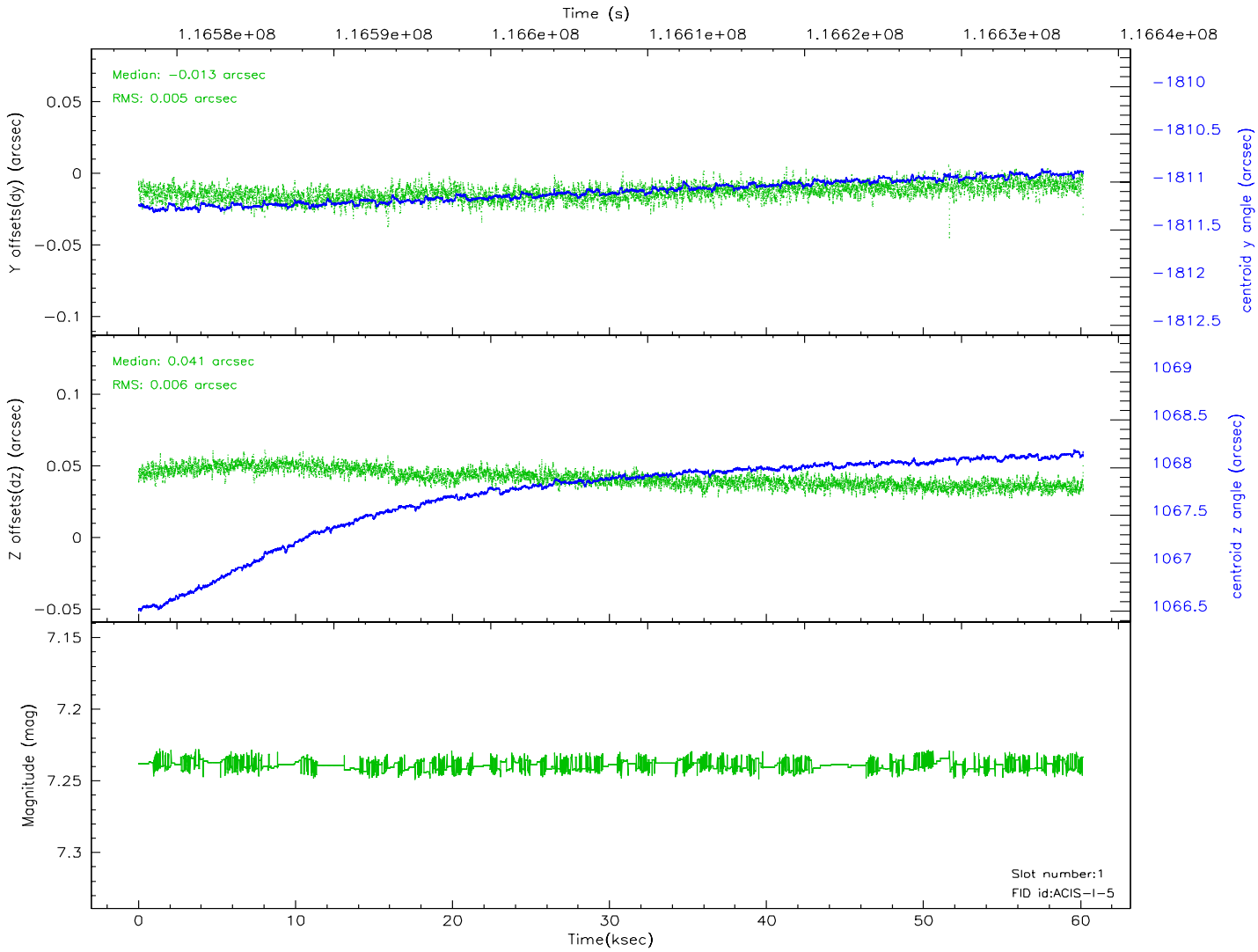




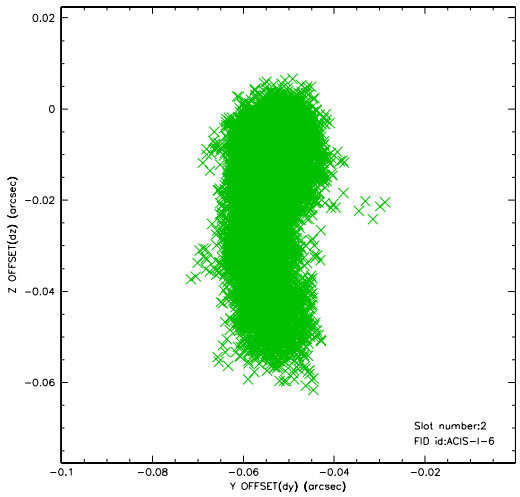
2.5.2 Slot 1

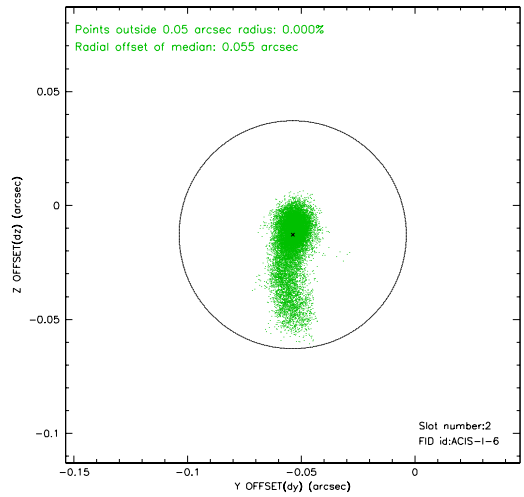

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:1
FID id:ACIS-I-5

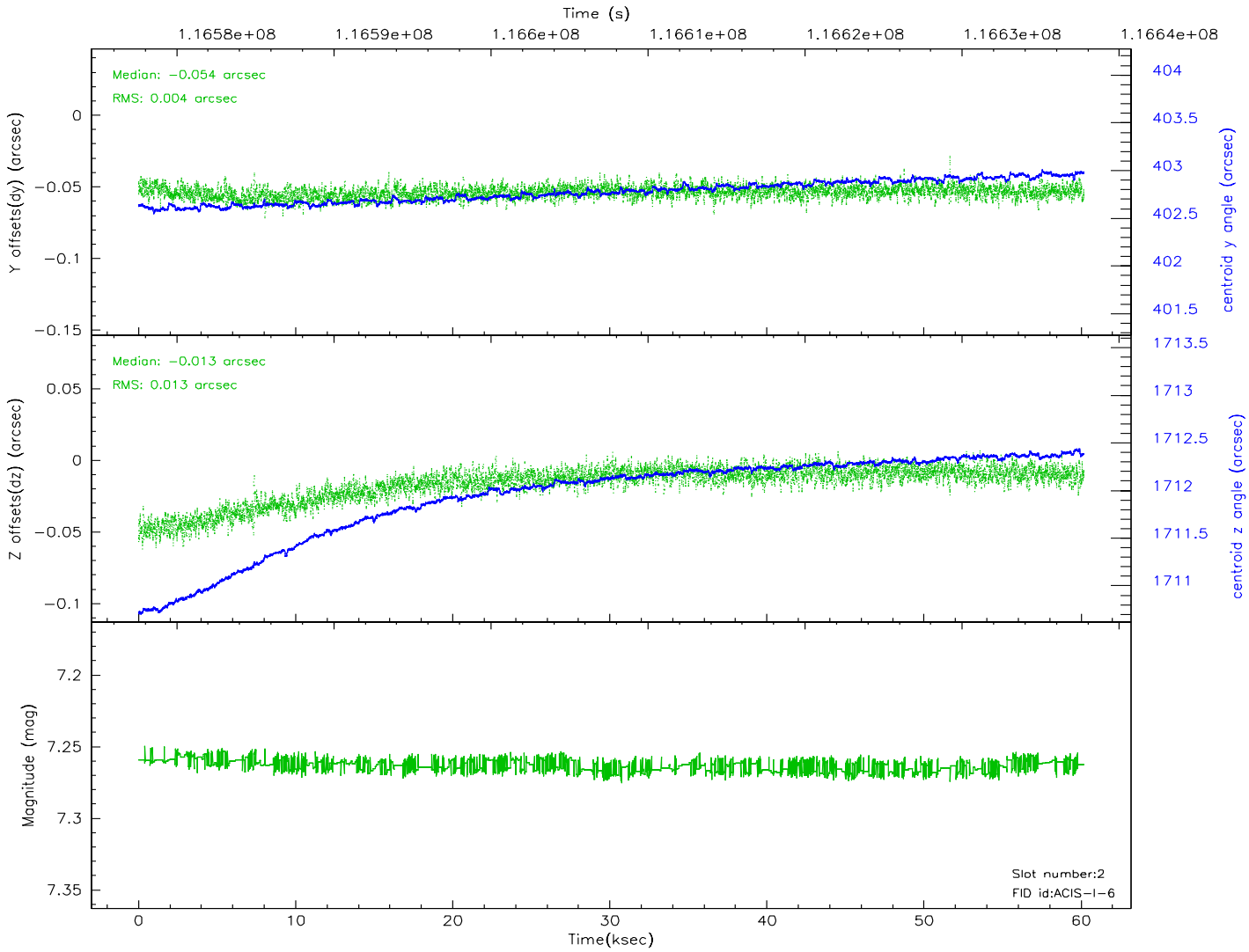

Points outside 0.05 arcsec radius: 0.000%
Radial offset of median: 0.043 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:1
FID id:ACIS-I-5


Time (s)
Median: −0.013 arcsec
RMS: 0.005 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: 0.041 arcsec
RMS: 0.006 arcsec
Z offsets(dz) (arcsec)
centroid z angle (arcsec)
Magnitude (mag)
Slot number:1
FID id:ACIS-I-5
Time(ksec)

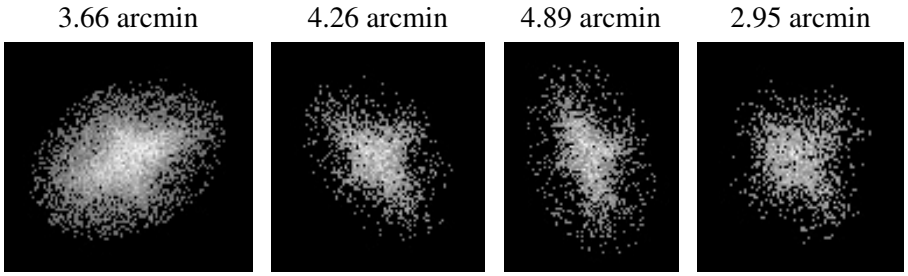
2.5.3 Slot 2


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


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:2
FID id:ACIS-I-6


Time (s)
Median: −0.054 arcsec
RMS: 0.004 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: −0.013 arcsec
RMS: 0.013 arcsec
Z offsets(dz) (arcsec)
centroid z angle (arcsec)
Magnitude (mag)
Slot number:2
FID id:ACIS-I-6
Time(ksec)

3 Point Sources



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2007.01.04
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	60.118

A.2 Comments

```
Roll constraint satisfied.
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