V&V Reference Report
L2 ASCDS Version : 7.6.7.1

Observation 5751 - L2 Version 002
Chandra X-Ray Center

L2 Processing Date : Mar 10 2006

Contents

1 Front **2**

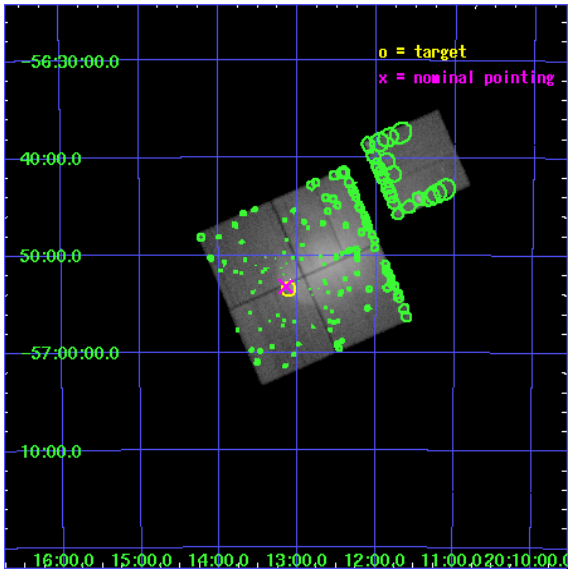
2 OBI **3**
- 2.1 OBI . . . 3
  - 2.1.1 Images . . . 3
  - 2.1.2 Bias . . . 3
  - 2.1.3 Parameters . . . 4
  - 2.1.4 Events . . . 4
- 2.2 Compared Parameters . . . 5
- 2.3 Aspect . . . 6
- 2.4 Star Slots . . . 9
  - 2.4.1 Slot 3 . . . 9
  - 2.4.2 Slot 4 . . . 10
  - 2.4.3 Slot 5 . . . 11
  - 2.4.4 Slot 6 . . . 12
  - 2.4.5 Slot 7 . . . 13
- 2.5 FID Slots . . . 14
  - 2.5.1 Slot 0 . . . 14
  - 2.5.2 Slot 1 . . . 15
  - 2.5.3 Slot 2 . . . 16

3 Point Sources **17**

A Summary **18**
- A.1 Status . . . 18
- A.2 Comments . . . 18

1 Front

seq_num	800466
obs_id	5751
title	A CHANDRA TREASURY OBSERVATION OF THE BEST EXAMPLE OF A CLUSTER COLD FRONT
observer	Dr Alexey Vikhlinin
object	Abell 3667
dtycycle	0
cycle	P
ra_targ	303.280208
dec_targ	-56.89
ra_nom	303.28636884366
dec_nom	-56.88683208015
roll_nom	66.300758844786
revision	2
ontime	130596.63578793
livetime	128890.29459752
ontime0	130590.35384718
ontime1	130596.63578793
ontime2	130574.64889622
ontime3	130580.93085667
ontime6	130596.63583761
l2events	1128063

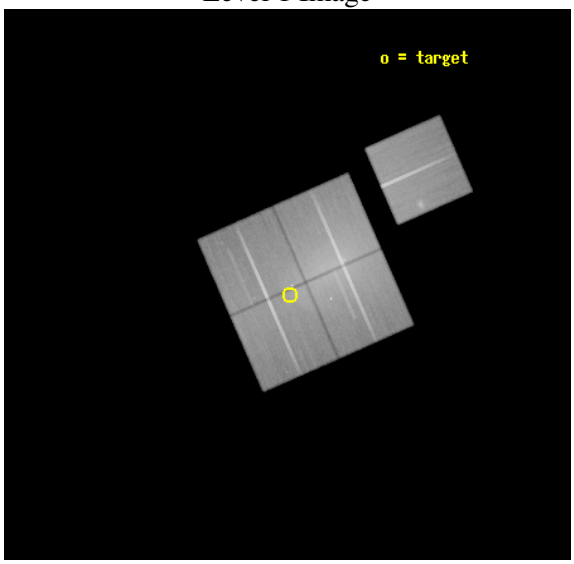


2 OBI

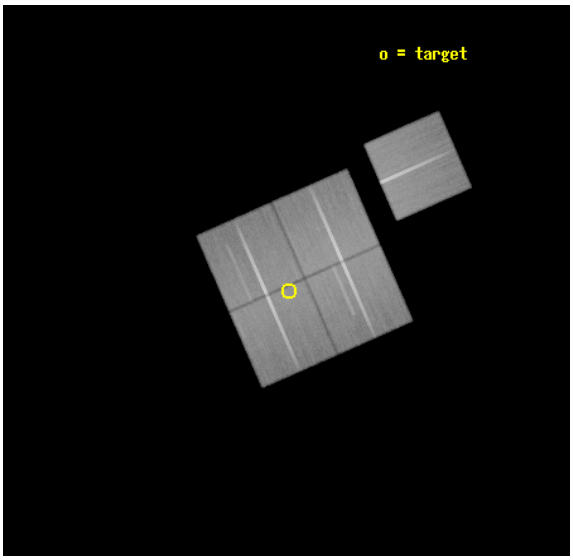
2.1 OBI

2.1.1 Images

Level 1 Image

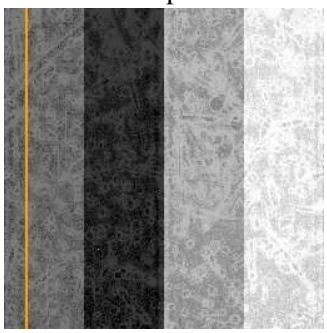


Level 1 Bad Events

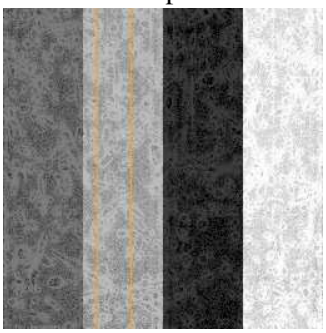


2.1.2 Bias

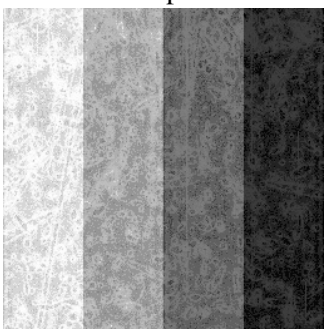
Chip 0



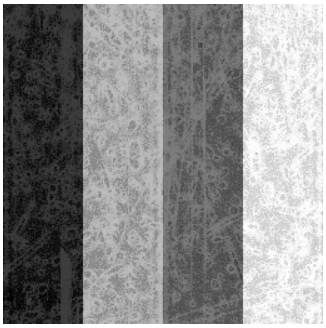
Chip 1



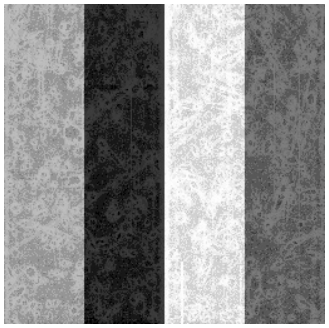
Chip 2



Chip 3



Chip 6



2.1.3 Parameters

obi_num	0
ascdsver	7.6.7.1
caldbver	3.2.1
date	2006-03-10T10:54:06
revision	2

sched_exp_time	130561.030000
ontime	130603.29336992
ontime0	130597.01142916
ontime1	130603.29336992
ontime2	130581.3064782
ontime3	130587.58844858
ontime6	130603.29342952
l1events	4980341

2.1.4 Events

	ccd 0	**ccd 1**	**ccd 2**	**ccd 3**	**ccd 6**
level 1 events	880272	877711	1207239	1080760	934359
rejected events	702890	699146	808783	763877	758889
rejected %	79%	79%	66%	70%	81%

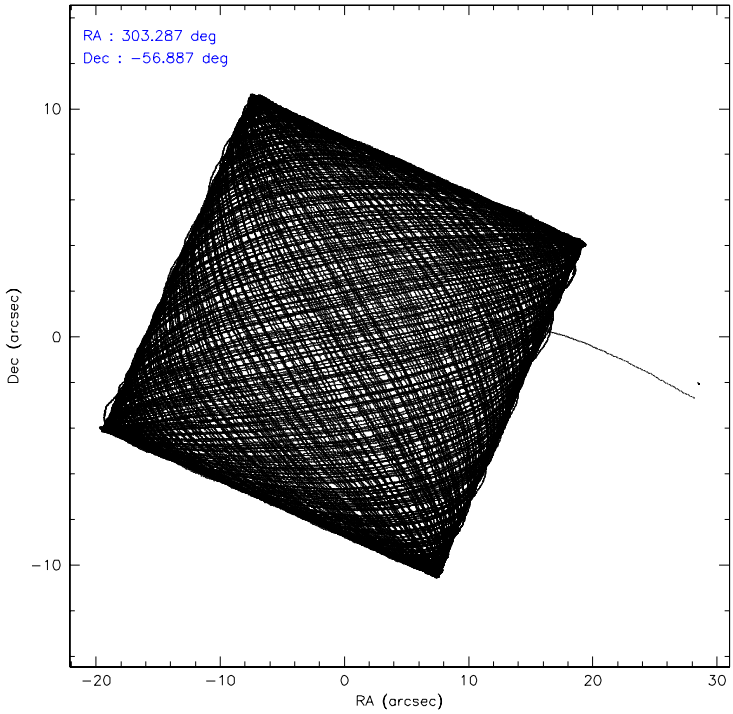
	ccd 0	**ccd 1**	**ccd 2**	**ccd 3**	**ccd 6**
grade 0 events	104549	102567	288092	223242	103347
	11%	11%	23%	20%	11%
grade 1 events	833	727	2124	1541	676
	0%	0%	0%	0%	0%
grade 2 events	29642	28921	49926	39889	27347
	3%	3%	4%	3%	2%
grade 3 events	12613	13108	18650	16234	12287
	1%	1%	1%	1%	1%
grade 4 events	11832	12745	18791	16029	12201
	1%	1%	1%	1%	1%
grade 5 events	30156	31999	29174	34346	33053
	3%	3%	2%	3%	3%
grade 6 events	18758	21237	23023	21512	20298
	2%	2%	1%	1%	2%
grade 7 events	671889	666407	777459	727967	725150
	76%	75%	64%	67%	77%

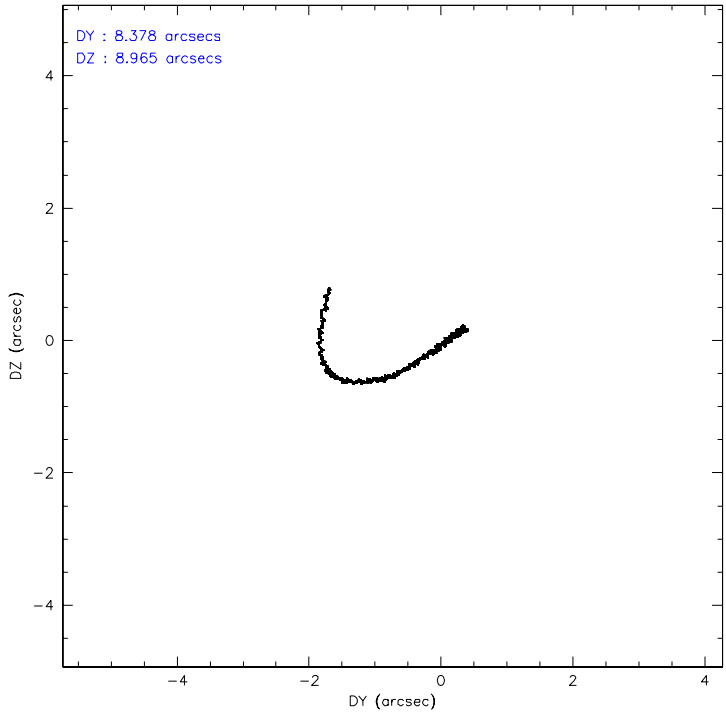
2.2 Compared Parameters

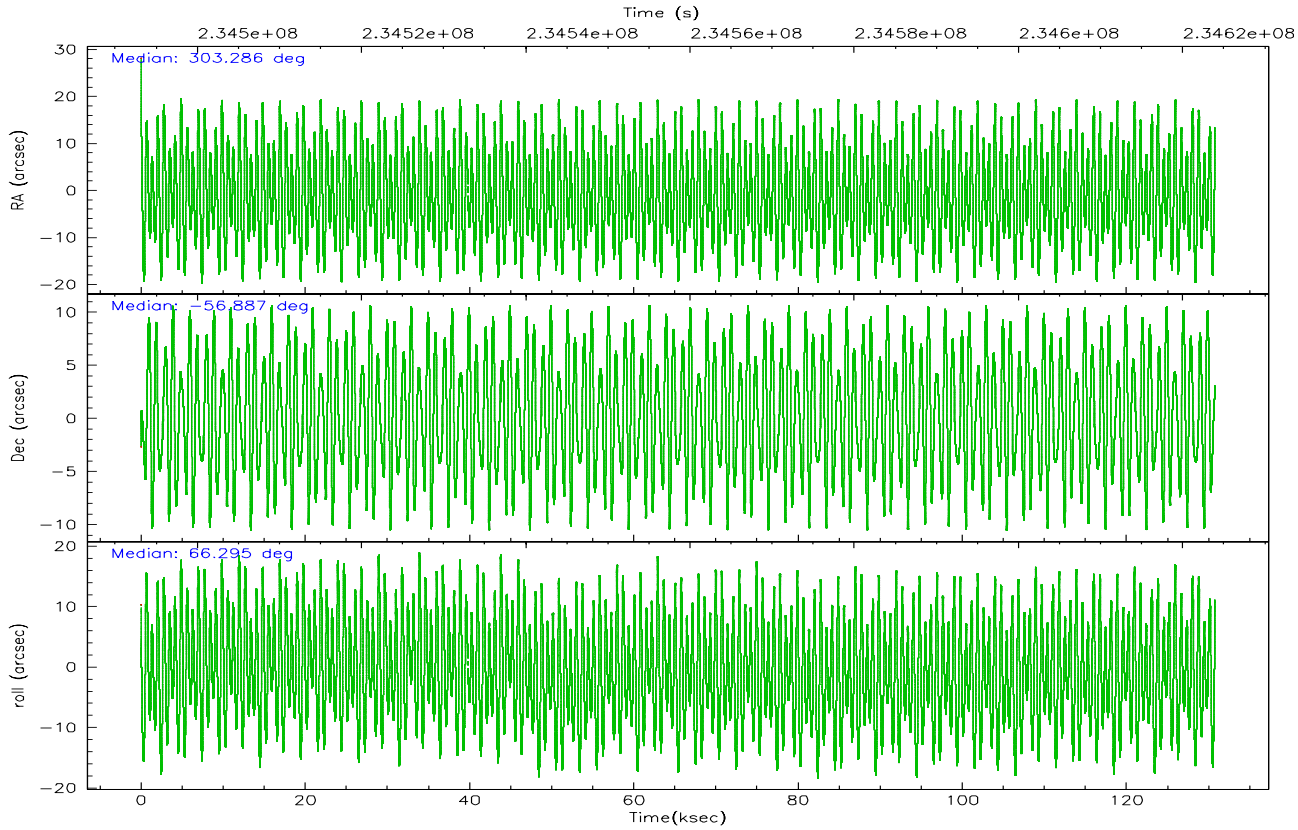
Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-01236	ACIS-01236
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
Pointing RA	303.292081	303.2863688436645
Pointing Dec	-56.914030	-56.88683208014972
Pointing Roll	66.096856	66.30075884478583
SIM focus pos (mm)	-0.782348	-0.7809083437167272
SIM defocus (mm)	0	0.001439871863259334
SIM translation stage pos (mm)	-241.592463	-241.5930143809957
SIM translation stage offset (mm)	8	8.000561378066038
Observation start time	234493397.184000	234492444.86491
Observation start date	2005-06-07T01:02:13	2005-06-07T00:47:24
Observation end time	234623958.184000	234624190.68342
Observation end date	2005-06-08T13:18:14	2005-06-08T13:23:10
Read mode	TIMED	TIMED

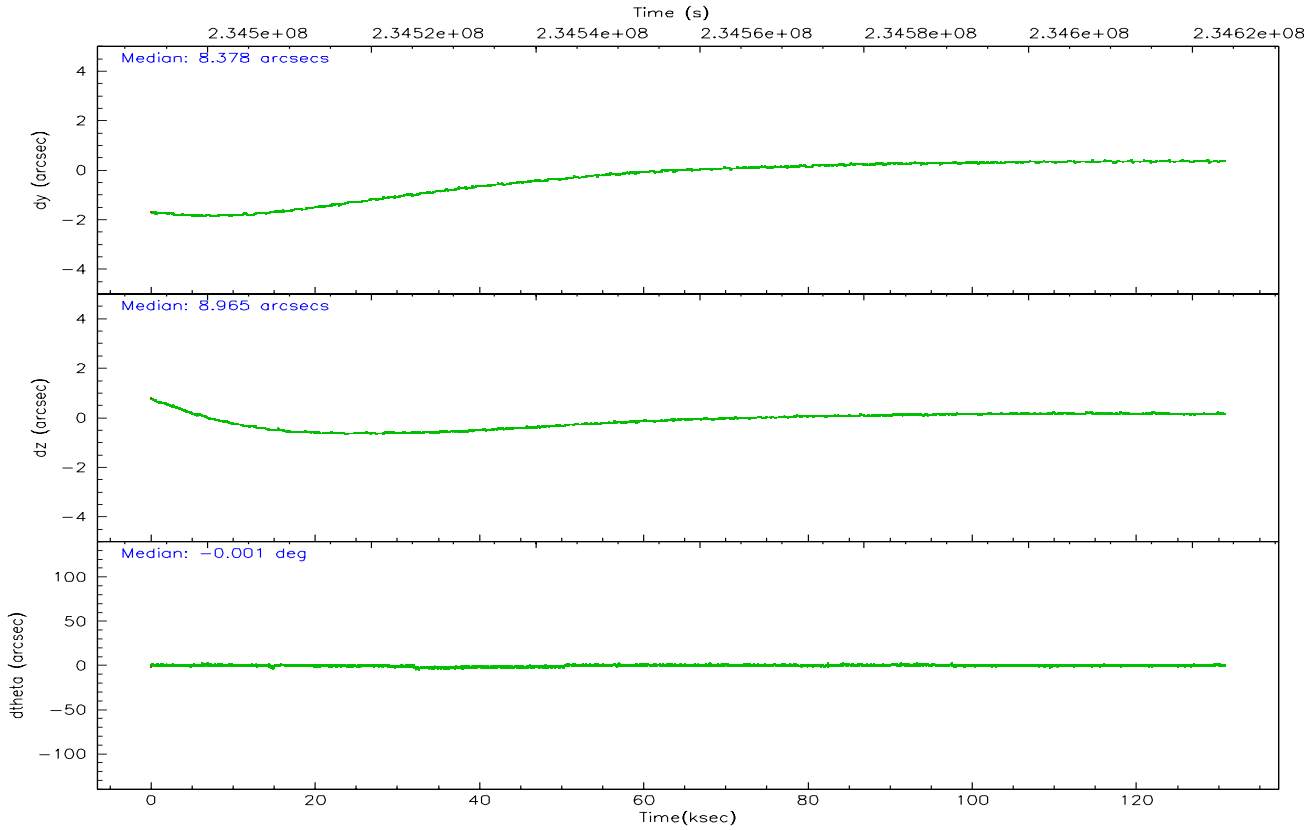
Parameter	Planned	Actual
Obspar format version number	6	6
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
Primary exposure time	0.000000	3.1

2.3 Aspect


RA : 303.287 deg
Dec : −56.887 deg
Dec (arcsec)
RA (arcsec)
10
0
−10
−20
−10
0
10
20
30


DY : 8.378 arcsecs
DZ : 8.965 arcsecs
DZ (arcsec)
DY (arcsec)
4
2
0
−2
−4
−4
−2
0
2
4


Time (s)
2.345e+08
2.3452e+08
2.3454e+08
2.3456e+08
2.3458e+08
2.346e+08
2.3462e+08
Median: 303.286 deg
RA (arcsec)
Median: −56.887 deg
Dec (arcsec)
Median: 66.295 deg
roll (arcsec)
Time(ksec)

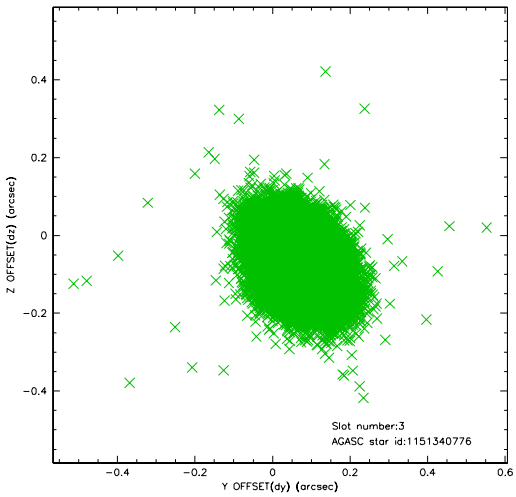

Time (s)
2.345e+08
2.3452e+08
2.3454e+08
2.3456e+08
2.3458e+08
2.346e+08
2.3462e+08
Median: 8.378 arcsecs
dy (arcsec)
Median: 8.965 arcsecs
dz (arcsec)
Median: −0.001 deg
dtheta (arcsec)
Time(ksec)

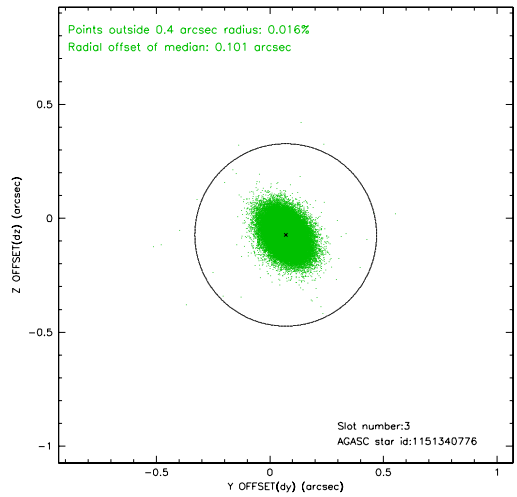
Slot Statistics

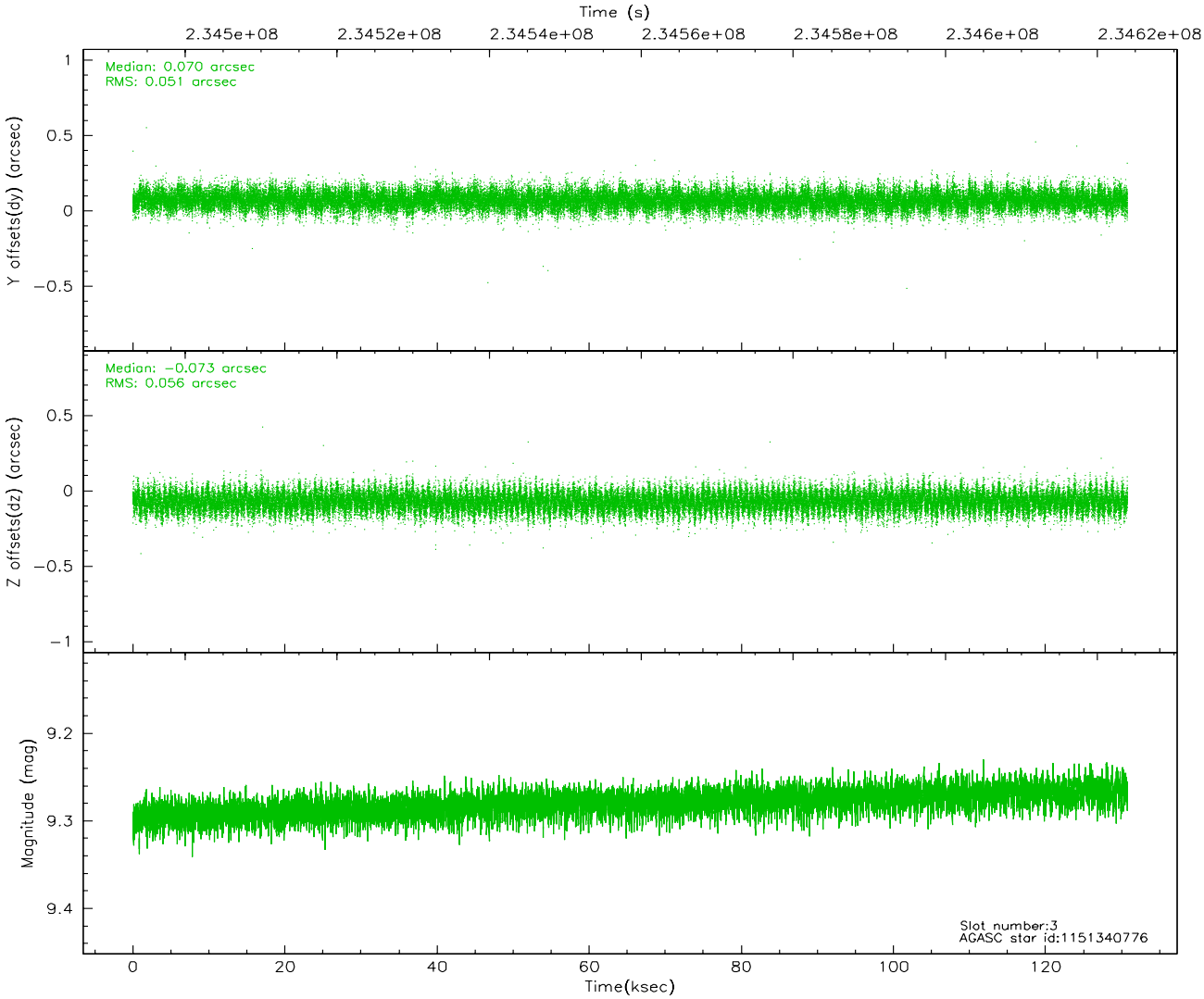
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	7.17	31898	0.001	-0.028	0.018	0.038	0.000000	0.000000	-761.98	-675.30
1	FID	ACIS-I-4	7.24	31900	0.137	0.019	0.014	0.042	0.000000	0.000000	2152.31	1231.00
2	FID	ACIS-I-5	7.23	31899	-0.236	0.078	0.018	0.031	0.000000	0.000000	-1816.57	1229.85
3	GUIDE	1151340776	9.28	63748	0.070	-0.073	0.079	0.133	302.320116	-57.331751	-2152.16	1112.06
4	GUIDE	1151350112	9.14	63436	-0.041	-0.183	0.086	0.138	303.241865	-56.846660	181.80	188.89
5	GUIDE	1151467856	9.64	63735	-0.213	0.080	0.107	0.170	303.931677	-56.775960	960.44	-953.85
6	GUIDE	1151472992	9.63	63712	0.007	0.220	0.101	0.168	303.531180	-57.237033	-874.70	-896.84
7	GUIDE	1151471240	9.45	63759	0.177	-0.046	0.095	0.151	303.425045	-57.451391	-1663.94	-1019.23

2.4 Star Slots

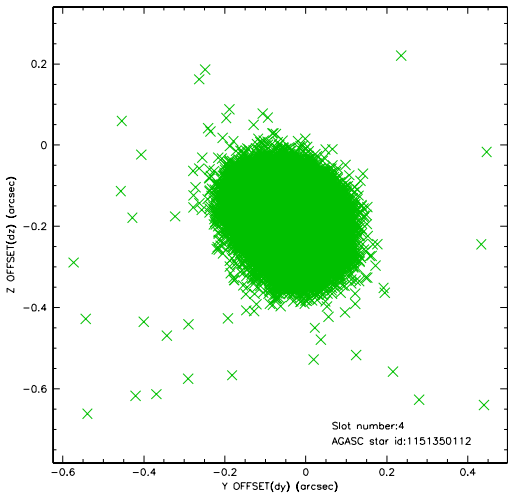
2.4.1 Slot 3

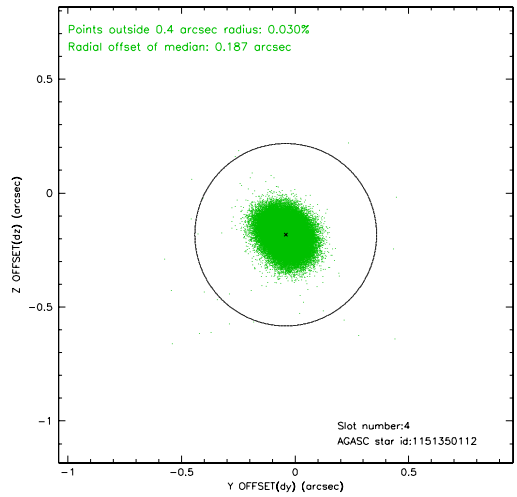


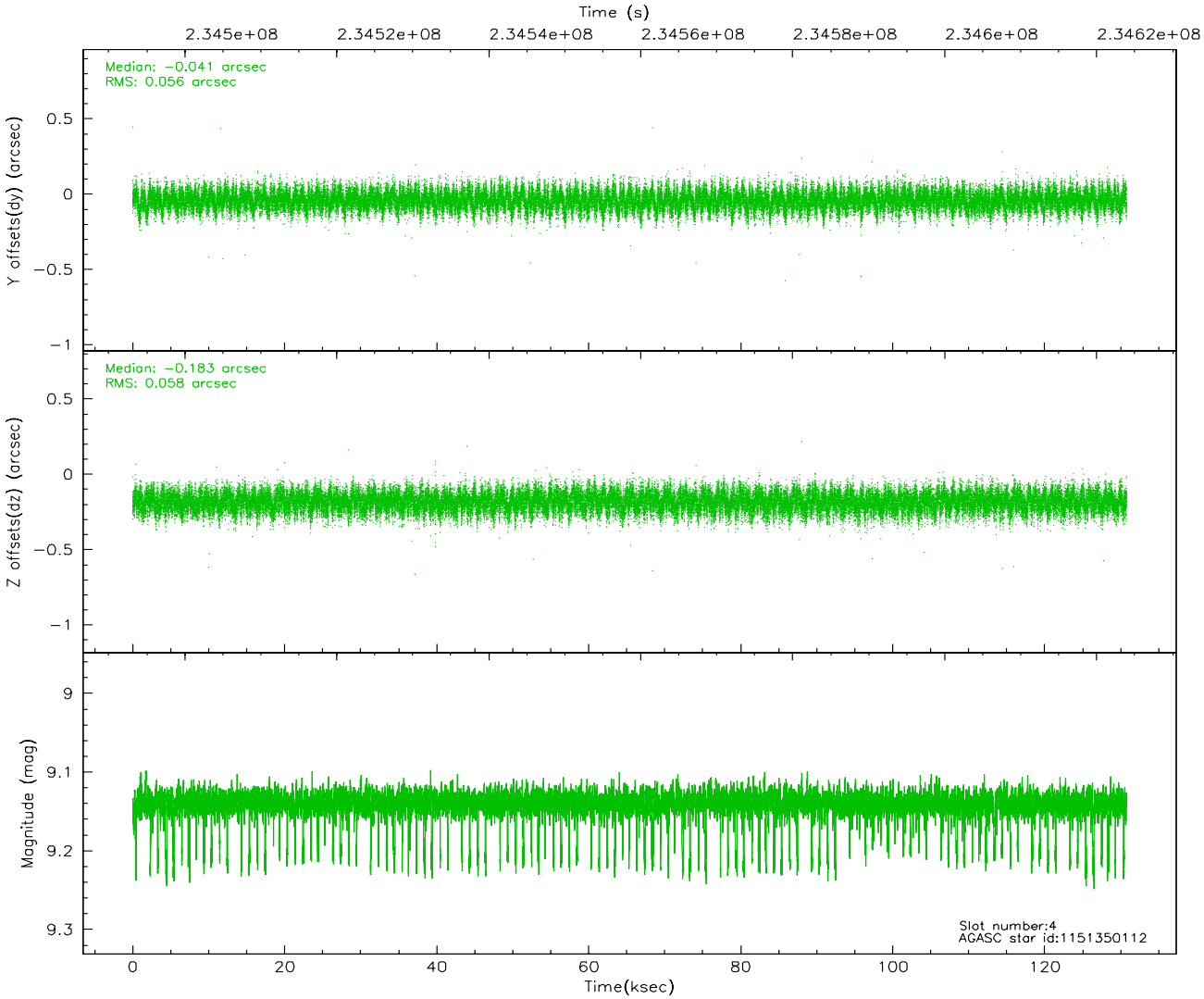




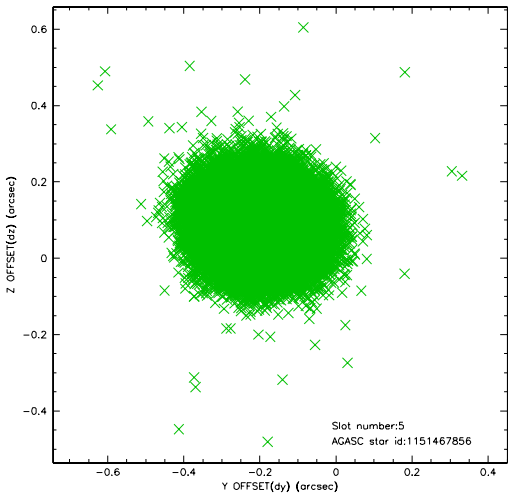
2.4.2 Slot 4

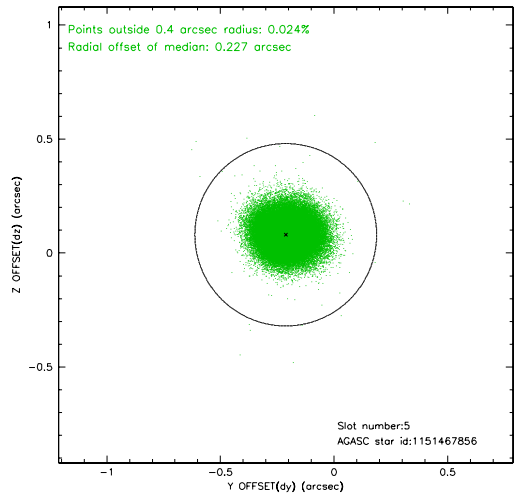

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:4
AGASC star id:1151350112

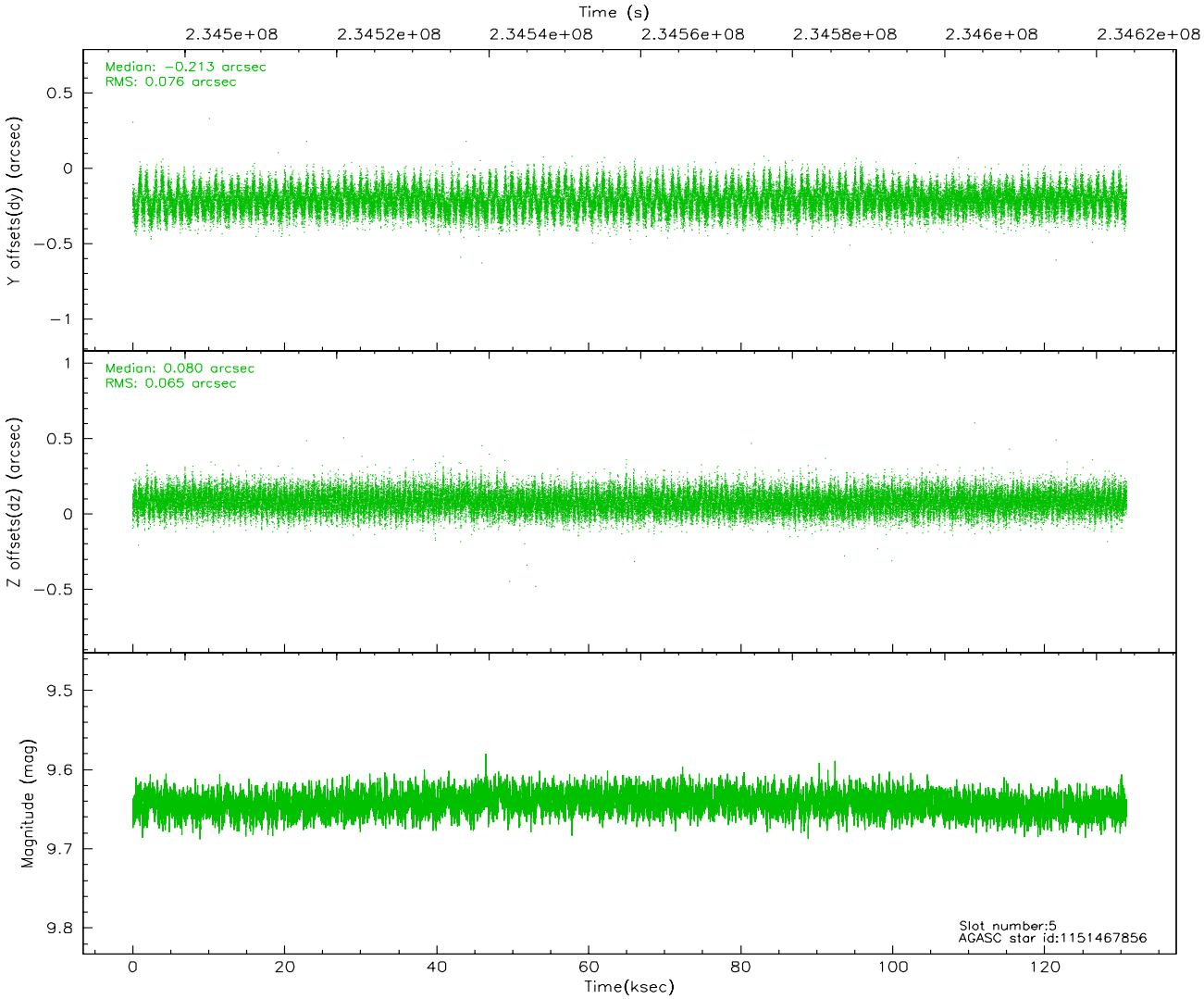

Points outside 0.4 arcsec radius: 0.030%
Radial offset of median: 0.187 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:4
AGASC star id:1151350112


Time (s)
Median: −0.041 arcsec
RMS: 0.056 arcsec
Y offsets(dy) (arcsec)
Median: −0.183 arcsec
RMS: 0.058 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:4
AGASC star id:1151350112
Time(ksec)

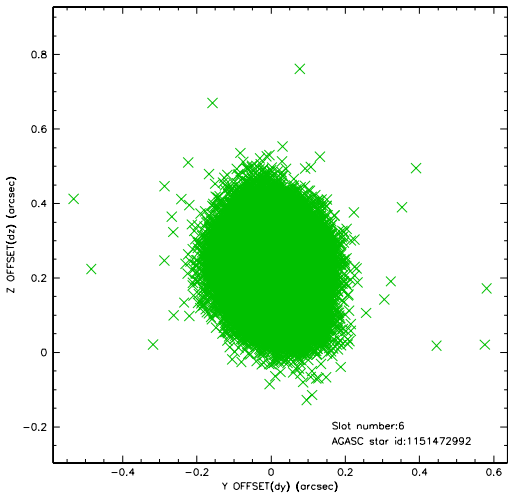
2.4.3 Slot 5

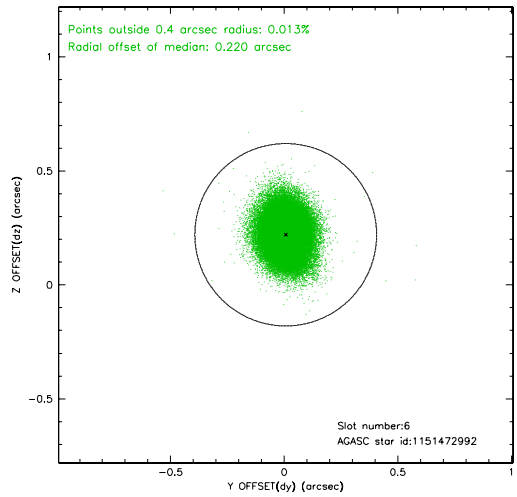

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:5
AGASC star id:1151467856

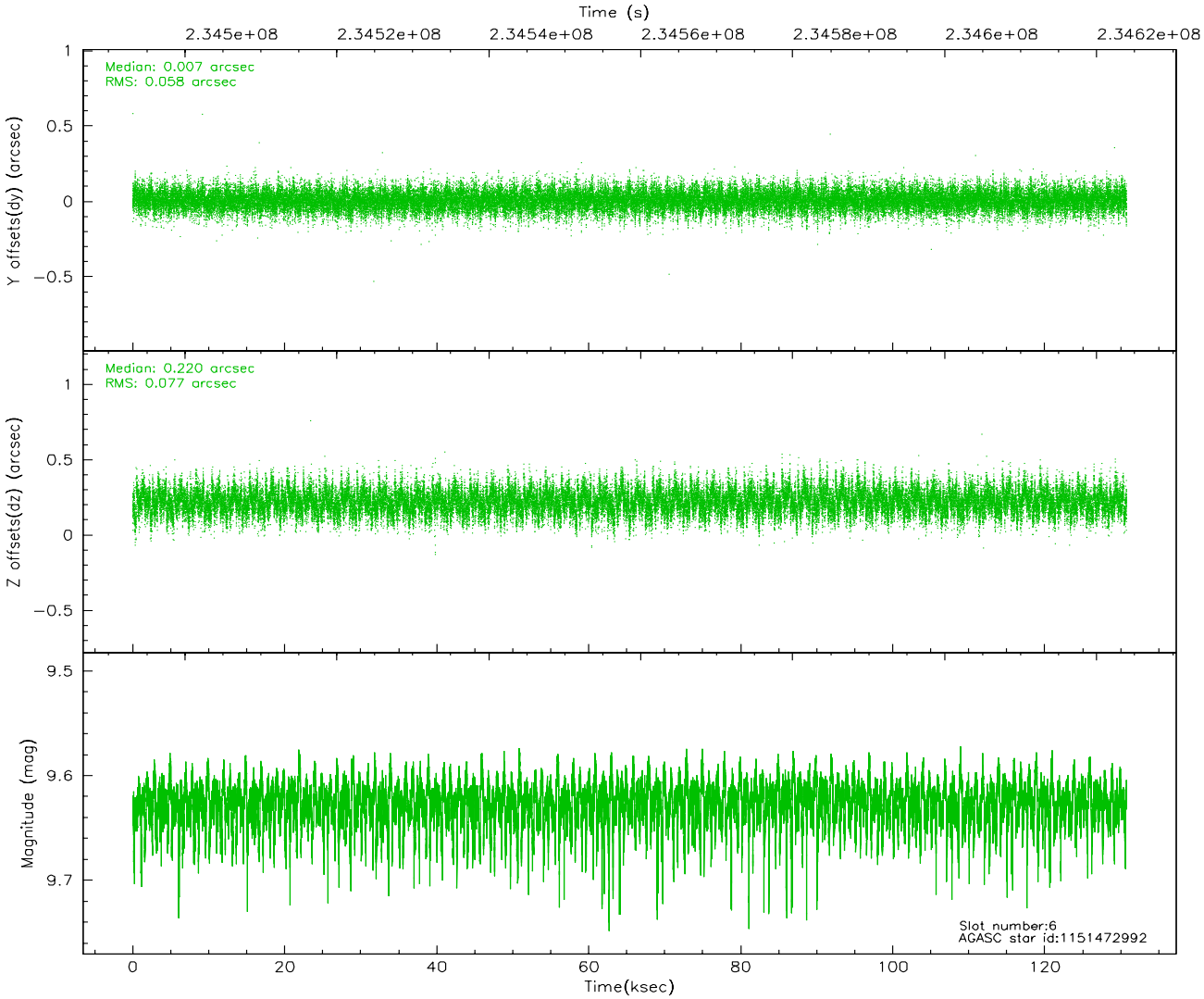

Points outside 0.4 arcsec radius: 0.024%
Radial offset of median: 0.227 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:5
AGASC star id:1151467856


Time (s)
Median: −0.213 arcsec
RMS: 0.076 arcsec
Y offsets(dy) (arcsec)
Median: 0.080 arcsec
RMS: 0.065 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:5
AGASC star id:1151467856
Time(ksec)

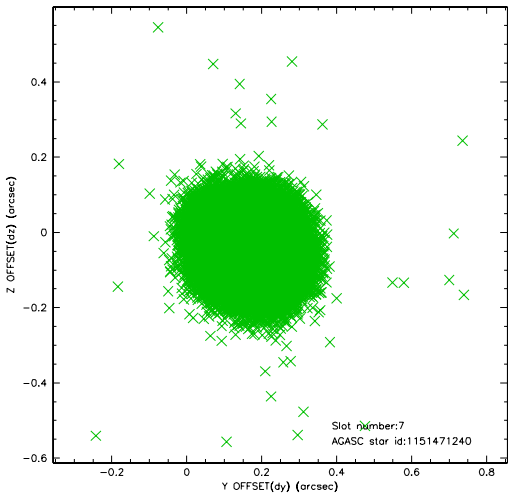
2.4.4 Slot 6

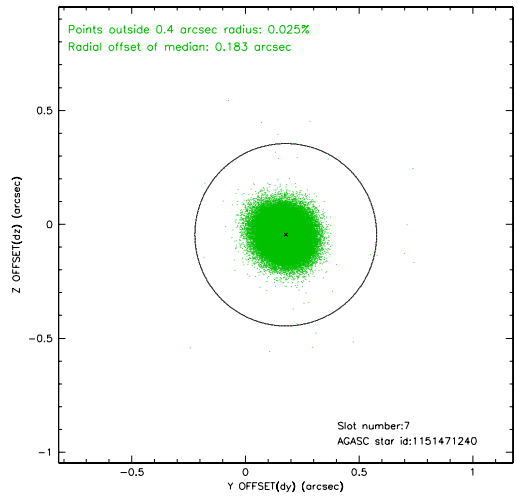

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:6
AGASC star id:1151472992

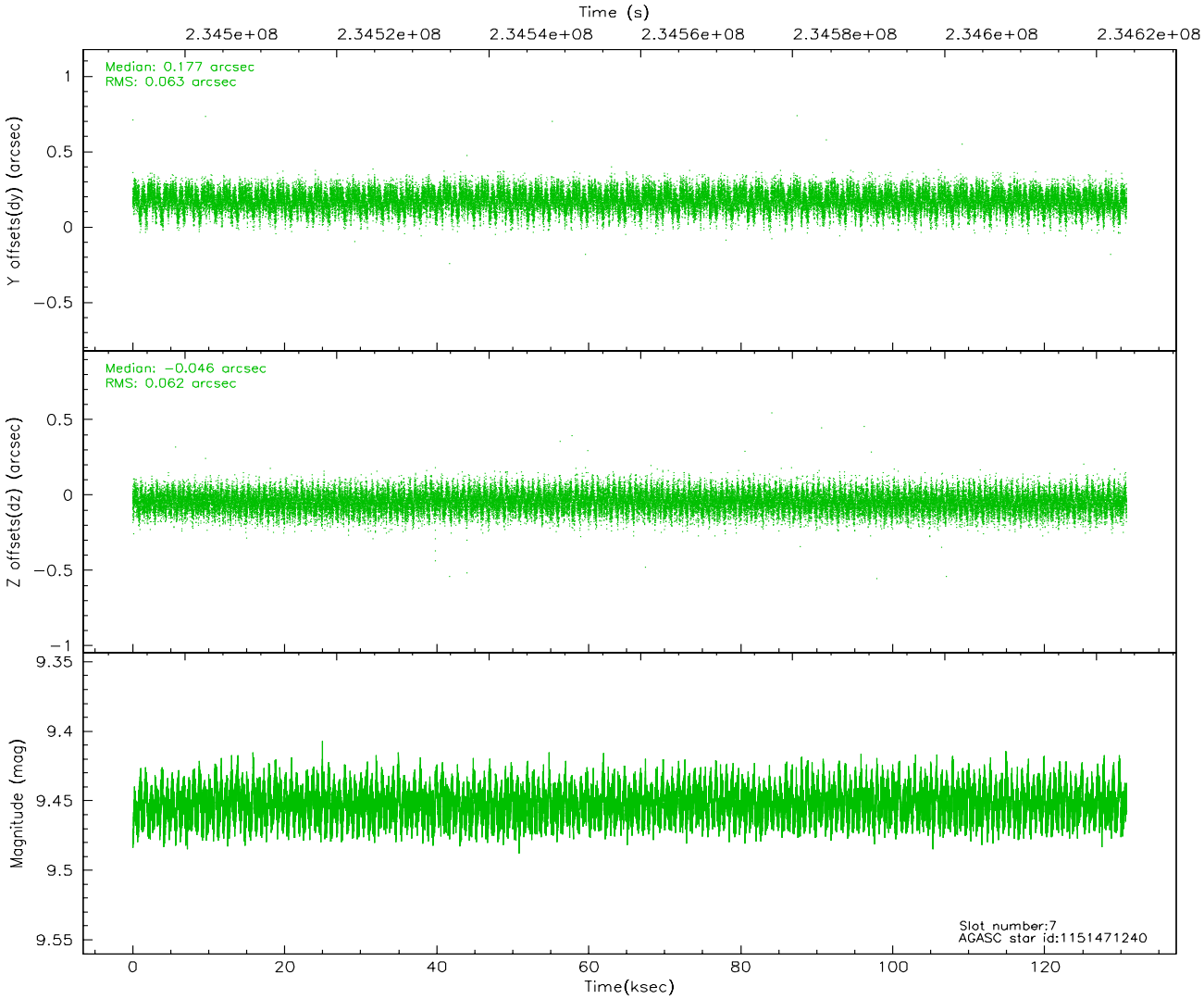

Points outside 0.4 arcsec radius: 0.013%
Radial offset of median: 0.220 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:6
AGASC star id:1151472992


Time (s)
Median: 0.007 arcsec
RMS: 0.058 arcsec
Y offsets(dy) (arcsec)
Median: 0.220 arcsec
RMS: 0.077 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:6
AGASC star id:1151472992
Time(ksec)

2.4.5 Slot 7

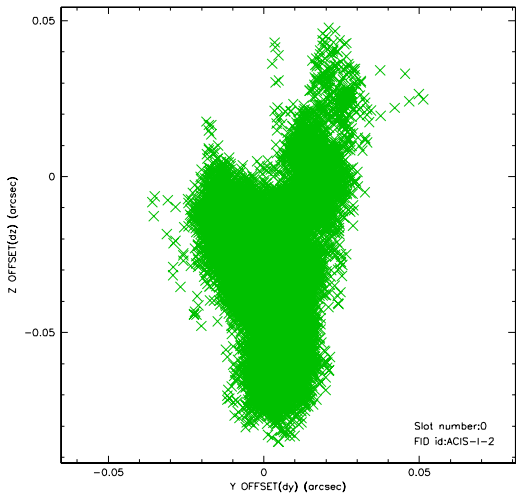

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:7
AGASC star id:1151471240

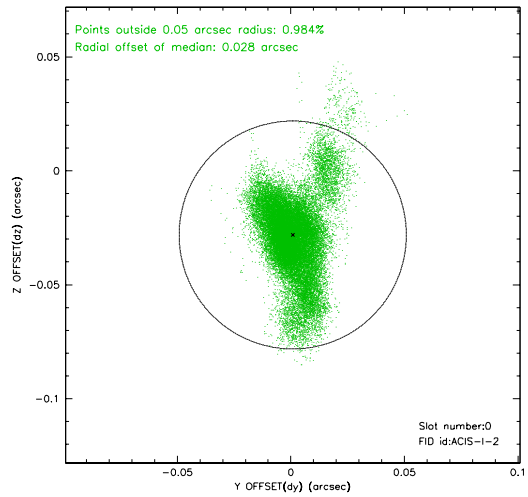

Points outside 0.4 arcsec radius: 0.025%
Radial offset of median: 0.183 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:7
AGASC star id:1151471240

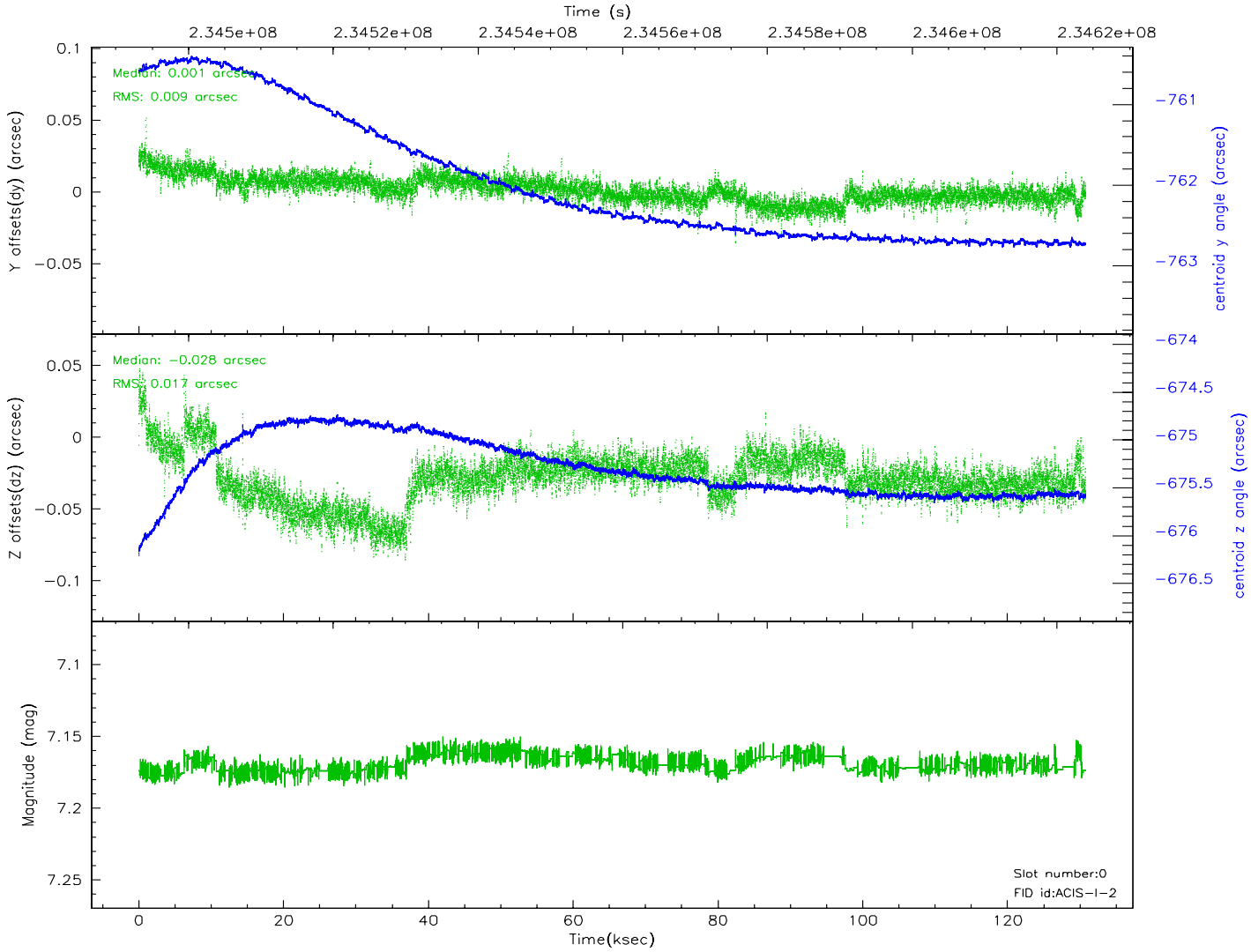

Time (s)
Median: 0.177 arcsec
RMS: 0.063 arcsec
Y offsets(dy) (arcsec)
Median: −0.046 arcsec
RMS: 0.062 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:7
AGASC star id:1151471240
Time(ksec)

2.5 FID Slots

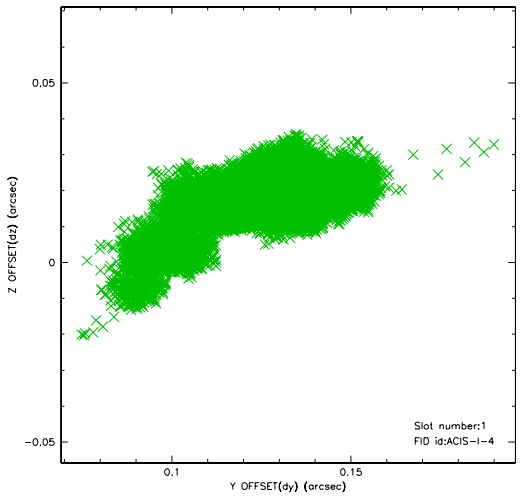
2.5.1 Slot 0

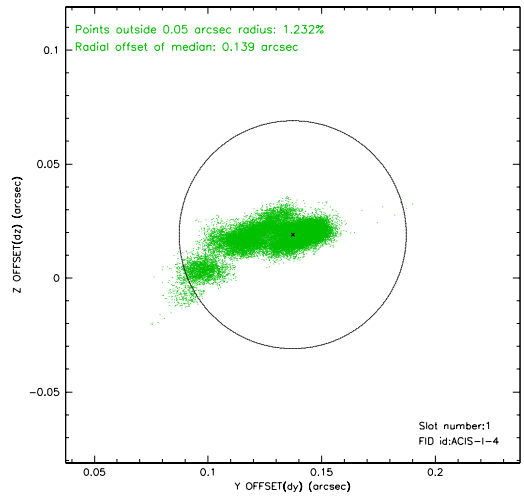


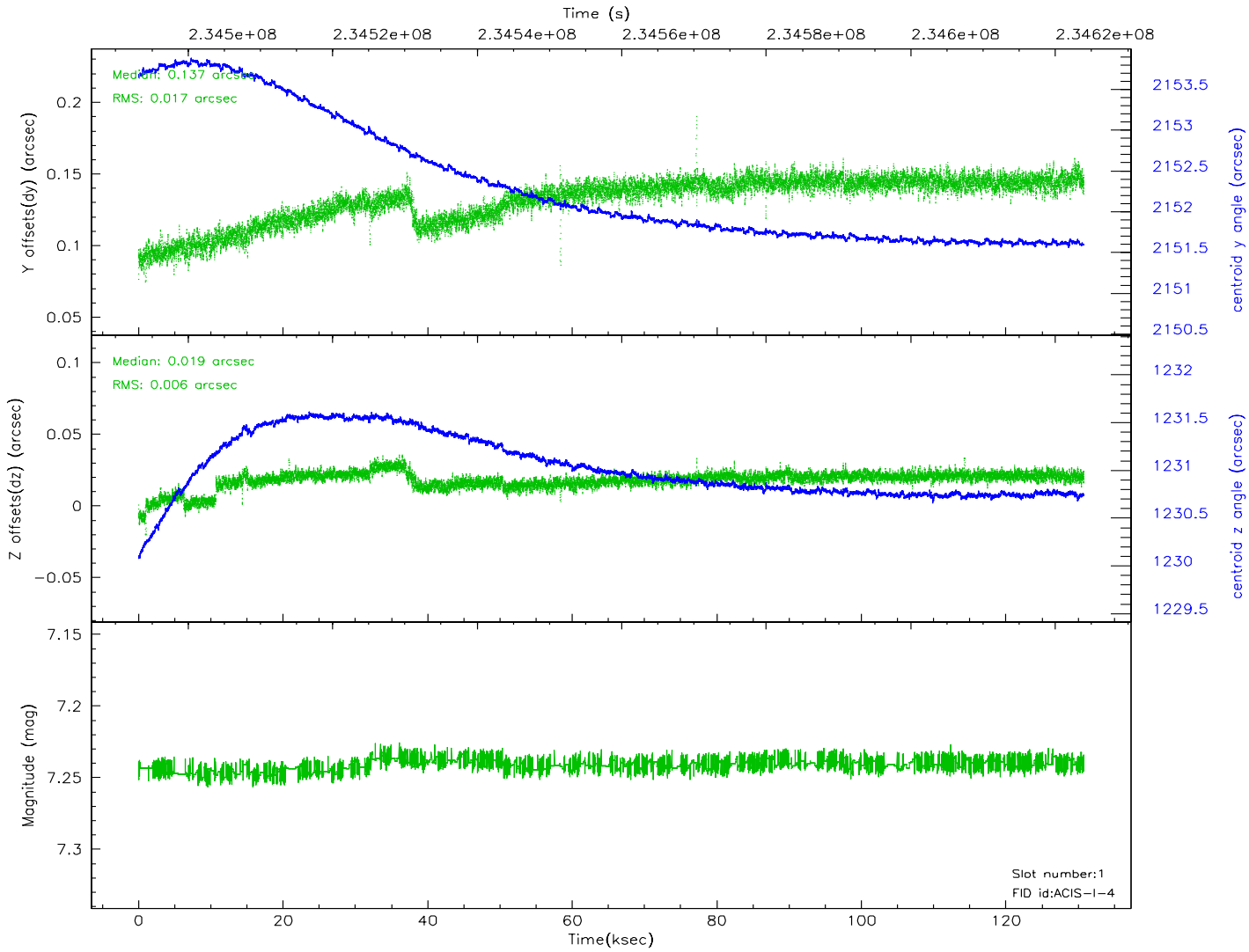




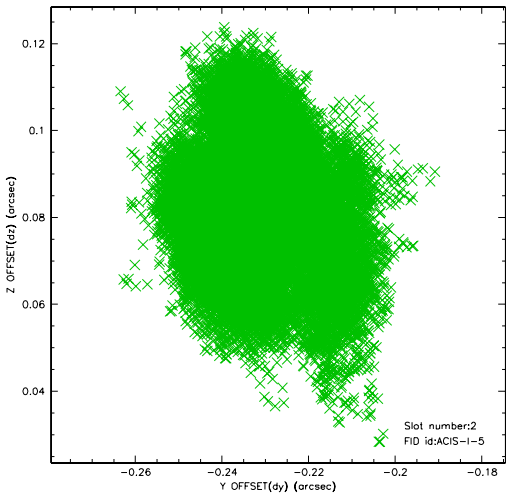
2.5.2 Slot 1

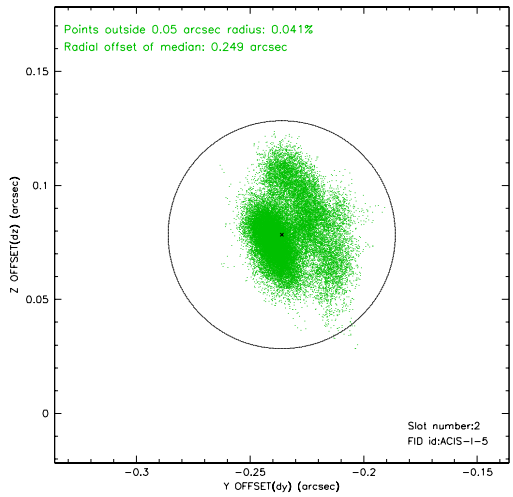

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:1
FID id:ACIS-I-4

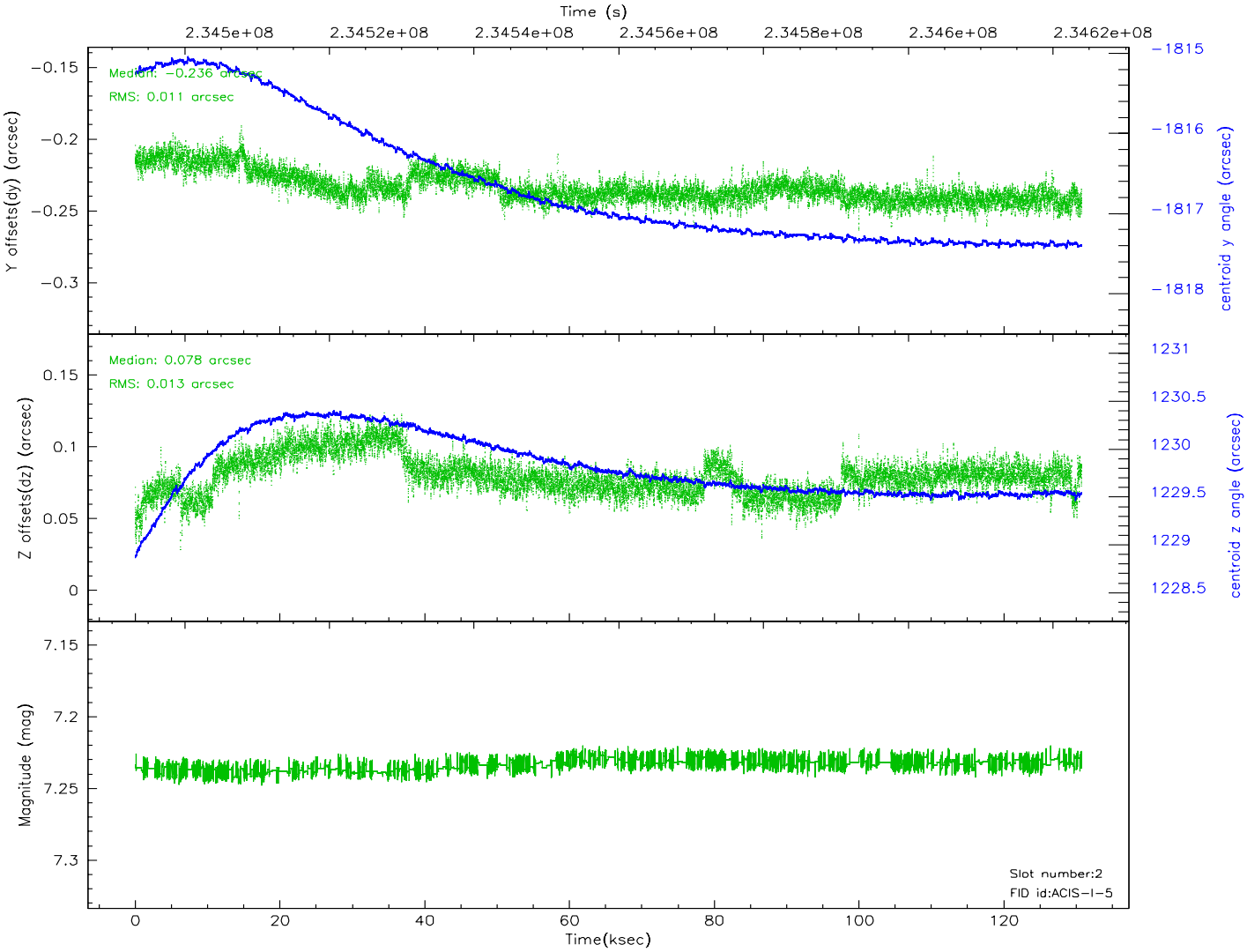

Points outside 0.05 arcsec radius: 1.232%
Radial offset of median: 0.139 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:1
FID id:ACIS-I-4


Time (s)
Median: 0.137 arcsec
RMS: 0.017 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: 0.019 arcsec
RMS: 0.006 arcsec
Z offsets(dz) (arcsec)
centroid z angle (arcsec)
Magnitude (mag)
Slot number:1
FID id:ACIS-I-4
Time(ksec)

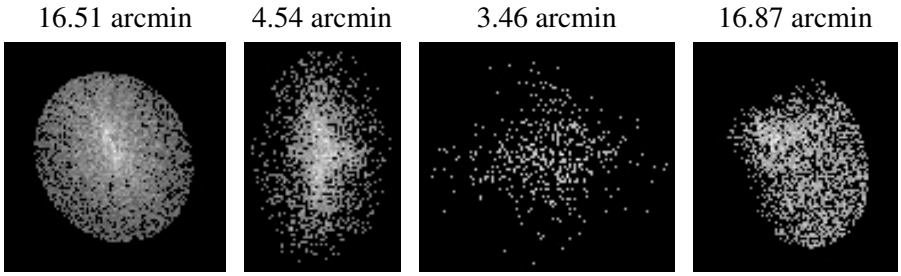
2.5.3 Slot 2


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


Points outside 0.05 arcsec radius: 0.041%
Radial offset of median: 0.249 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:2
FID id:ACIS-I-5


Time (s)
Median: -0.236 arcsec
RMS: 0.011 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: 0.078 arcsec
RMS: 0.013 arcsec
Z offsets(dz) (arcsec)
centroid z angle (arcsec)
Magnitude (mag)
Slot number:2
FID id:ACIS-I-5
Time(ksec)

3 Point Sources



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2006.03.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	130.5966

A.2 Comments