V&V Reference Report
L2 ASCDS Version : 7.6.8.1

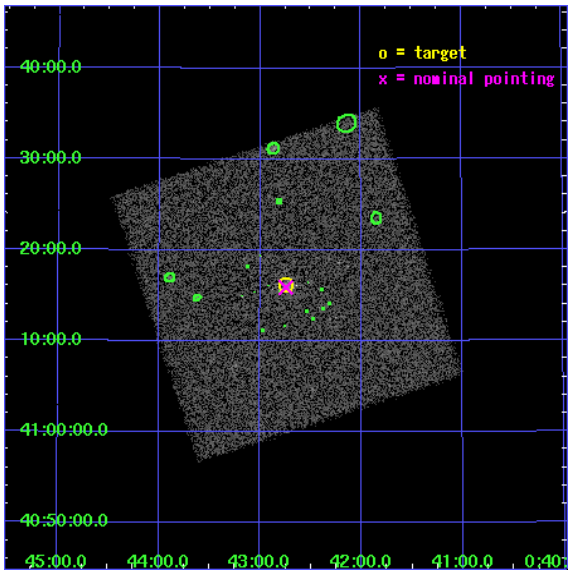
Observation 2905 - L2 Version 3
Chandra X-Ray Center

L2 Processing Date : Nov 20 2007

Contents

1 Front

seq_num	600242
obs_id	2905
title	SEARCHING FOR X-RAY TRANSIENTS IN M31 WITH CHANDRA AND HST
observer	Dr. MICHAEL GARCIA
object	M31-CORE
ra_targ	10.685
dec_targ	41.268972
ra_nom	10.686197113001
dec_nom	41.26497156353
roll_nom	296.74050576993
revision	3
ontime	1102.1312943399
livetime	1094.221998317
l2events	54832

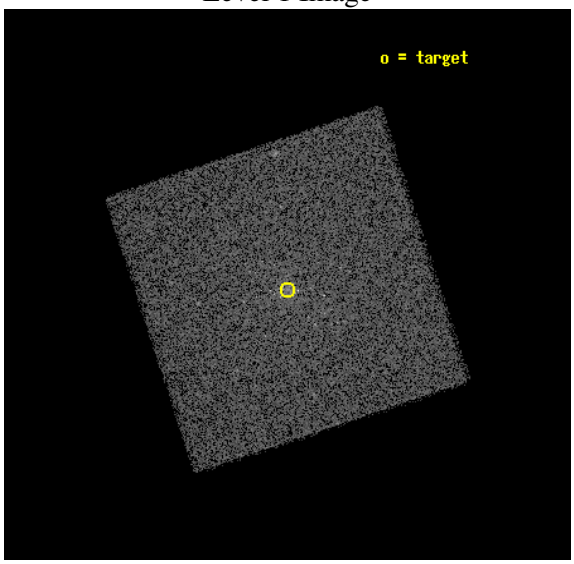


2 OBI

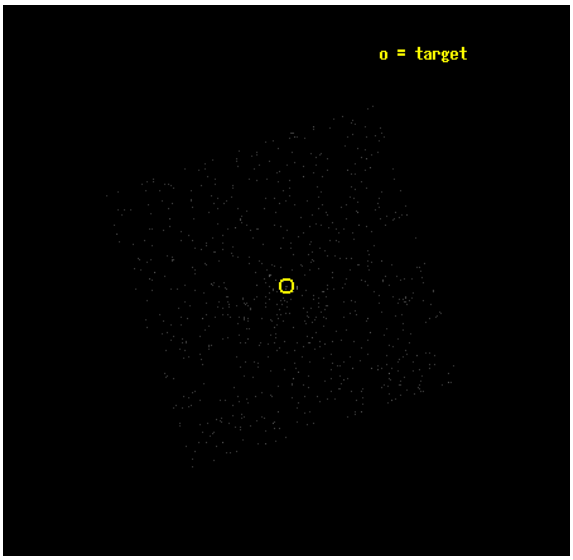
2.1 OBI

2.1.1 Images

Level 1 Image



Level 1 Bad Events



2.1.2 Parameters

obi_num	0
ascdsver	7.6.11.2
caldbver	3.4.1
date	2007-11-20T21:51:32
revision	3

sched_exp_time	900.000000
ontime	1102.1312943399
l1events	98741

2.1.3 Events

Level 1 Events

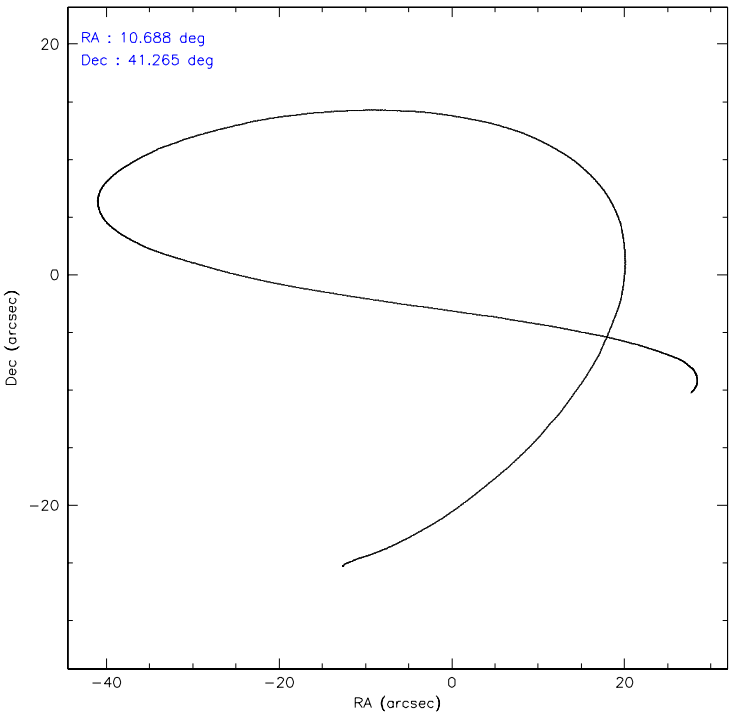
	segment 0
level 1 events	98741
rejected events	21811
rejected %	22%

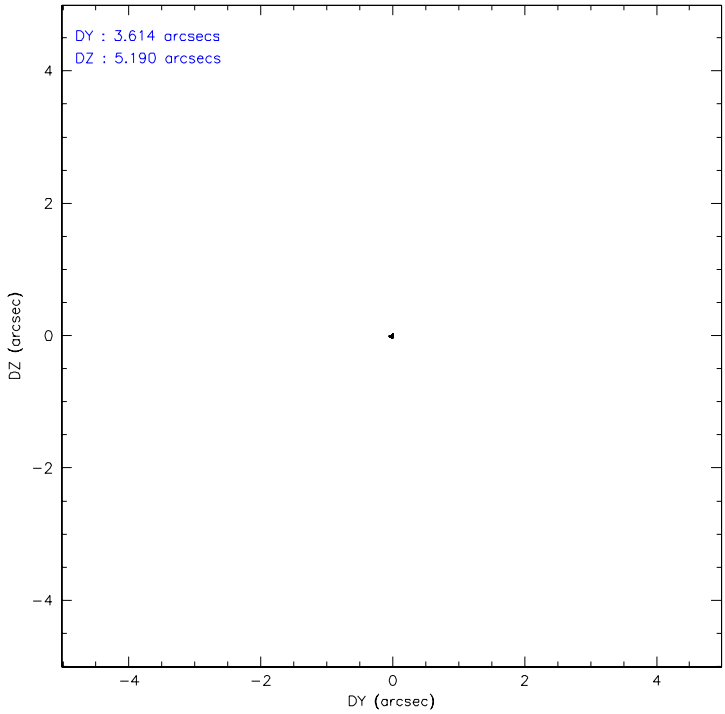
2.2 Compared Parameters

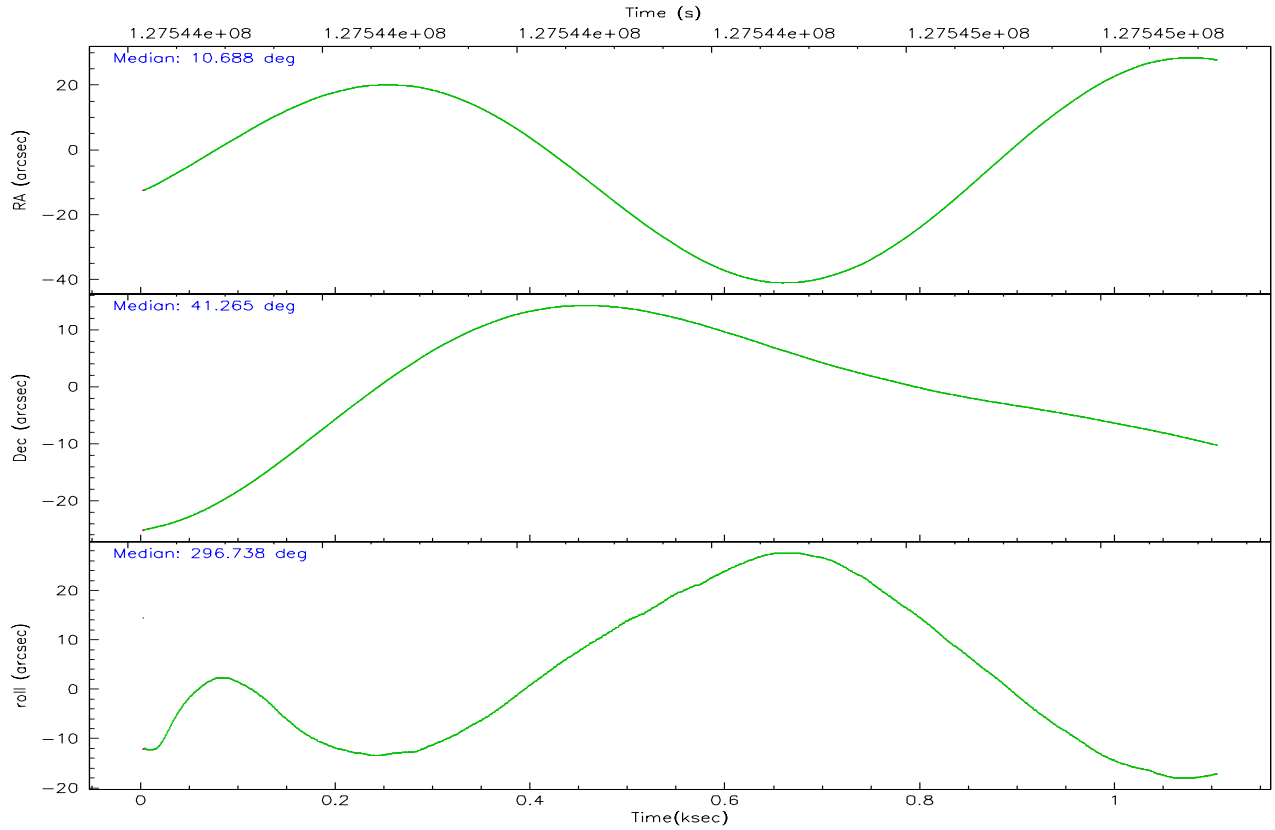
Parameter	Planned	Actual
Instrument	HRC	HRC
Detector	HRC-I	HRC-I
Grating	NONE	NONE
Data mode	OBSERVING	OBSERVING
Observation mode	POINTING	POINTING
Pointing RA	10.654777	10.68619711300146
Pointing Dec	41.279144	41.26497156353007
Pointing Roll	296.857011	296.7405057699256
Window start time	127353664.184000	127353664.184000
Window stop time	127958464.184000	127958464.184000
SIM focus pos (mm)	-1.040293	-1.038866356238299
SIM defocus (mm)	0	0.001426264420575141
SIM translation stage pos (mm)	126.985494	126.9829799899862
SIM translation stage offset (mm)	0	0.002508901615314585
Observation start time	127544022.184000	127543646.08963
Observation start date	2002-01-16T04:52:38	2002-01-16T04:47:26
Observation end time	127544922.184000	127545056.48969
Observation end date	2002-01-16T05:07:38	2002-01-16T05:10:56

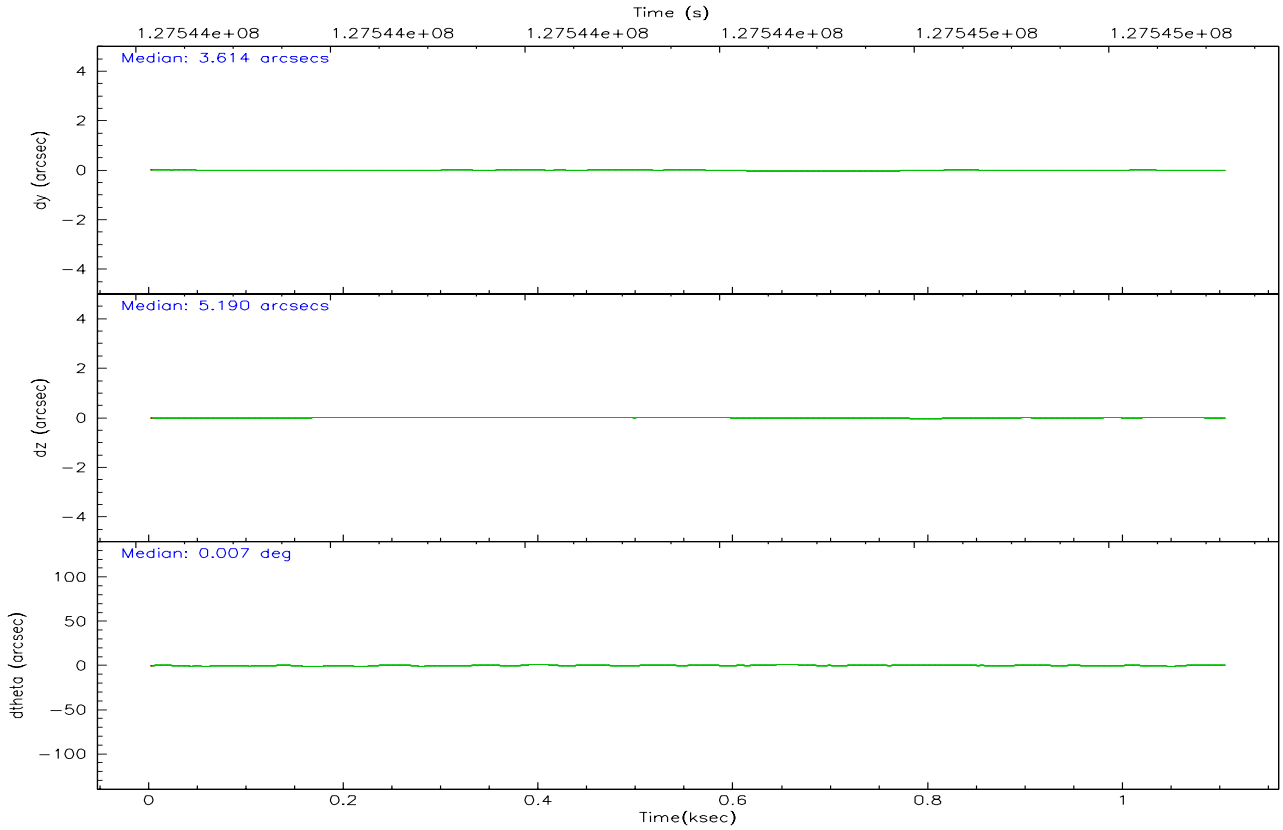
Parameter	Planned	Actual
Obspar format version number	6	6
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED

2.3 Aspect


RA : 10.688 deg
Dec : 41.265 deg
20
0
−20
Dec (arcsec)
−40
−20
0
20
RA (arcsec)


DY : 3.614 arcsecs
DZ : 5.190 arcsecs
4
2
0
−2
−4
DZ (arcsec)
−4
−2
0
2
4
DY (arcsec)


Time (s)
1.27544e+08
1.27544e+08
1.27544e+08
1.27544e+08
1.27545e+08
1.27545e+08
Median: 10.688 deg
RA (arcsec)
Median: 41.265 deg
Dec (arcsec)
Median: 296.738 deg
roll (arcsec)
Time(ksec)

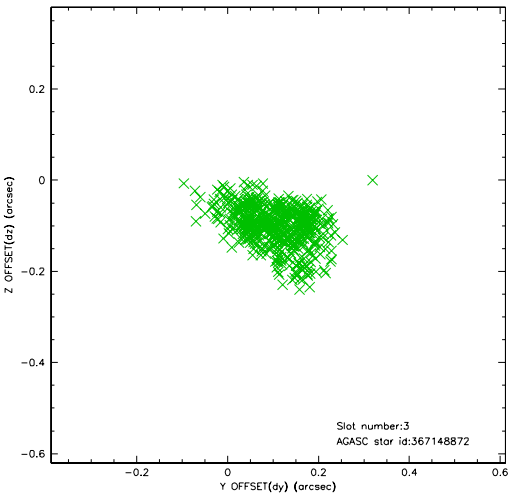

Time (s)
1.27544e+08
1.27544e+08
1.27544e+08
1.27544e+08
1.27545e+08
1.27545e+08
Median: 3.614 arcsecs
dy (arcsec)
Median: 5.190 arcsecs
dz (arcsec)
Median: 0.007 deg
dtheta (arcsec)
Time(ksec)

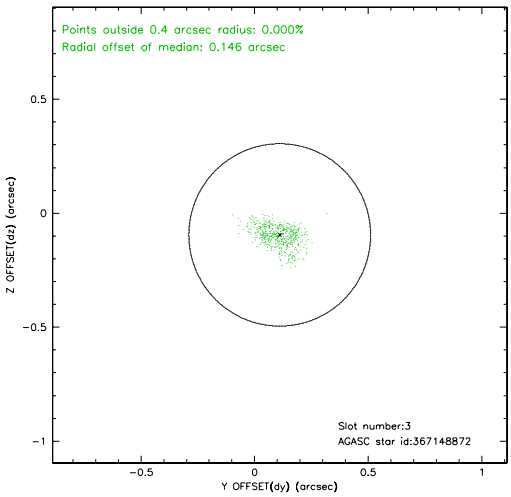
Slot Statistics

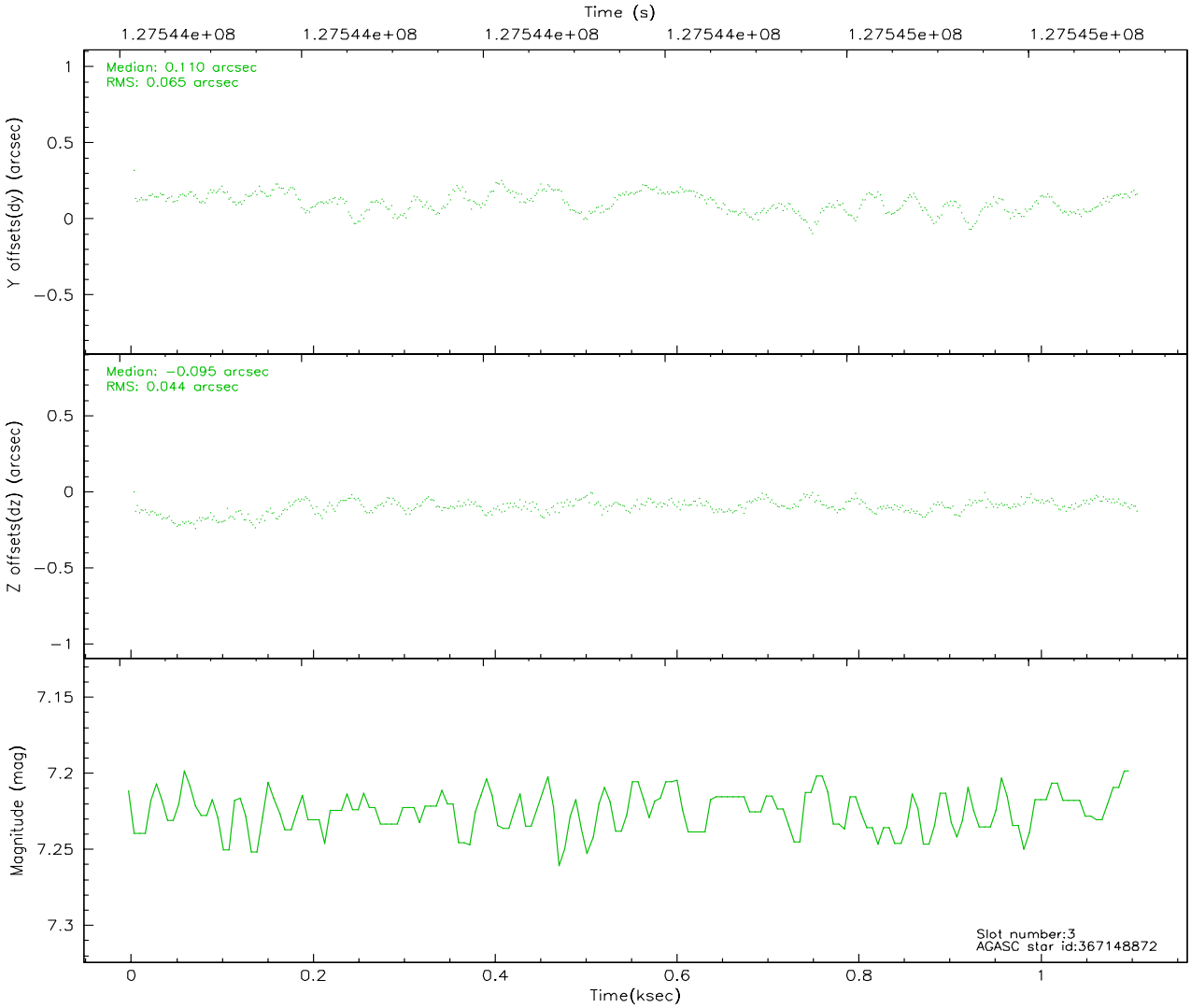
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	HRC-I-1	6.96	270	0.006	0.052	0.006	0.011	0.000000	0.000000	-759.06	-1292.95
1	FID	HRC-I-2	7.00	270	0.077	-0.053	0.005	0.009	0.000000	0.000000	850.83	-1299.37
2	FID	HRC-I-3	7.04	270	0.035	-0.089	0.006	0.010	0.000000	0.000000	-1184.42	1006.65
3	GUIDE	367148872	7.22	539	0.110	-0.095	0.080	0.135	10.505940	40.688258	1713.06	-1326.58
4	GUIDE	367146616	8.86	539	0.050	0.023	0.088	0.167	11.418645	41.190163	1214.61	1700.06
5	GUIDE	367657896	9.02	539	0.037	0.049	0.082	0.139	11.197765	41.313576	549.75	1368.03
6	GUIDE	367671800	9.41	539	-0.144	-0.038	0.105	0.219	10.554735	41.964935	-2323.95	875.82
7	GUIDE	367665472	9.49	538	-0.041	0.049	0.086	0.154	10.241611	41.730843	-1959.98	-255.98

2.4 Star Slots

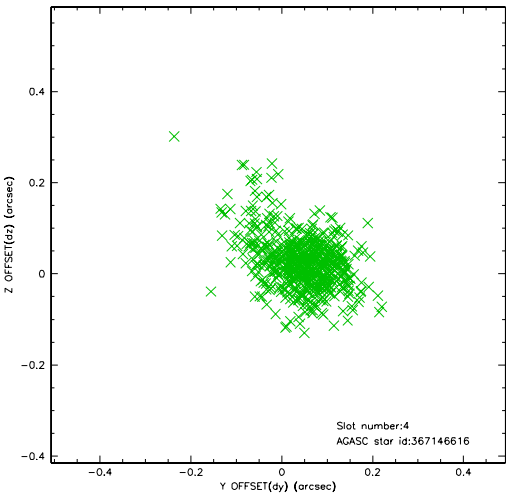
2.4.1 Slot 3

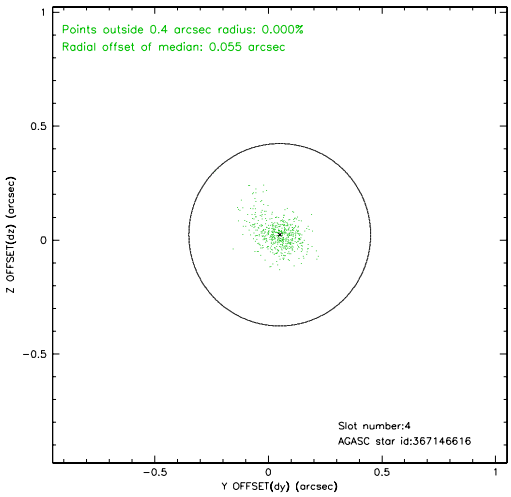


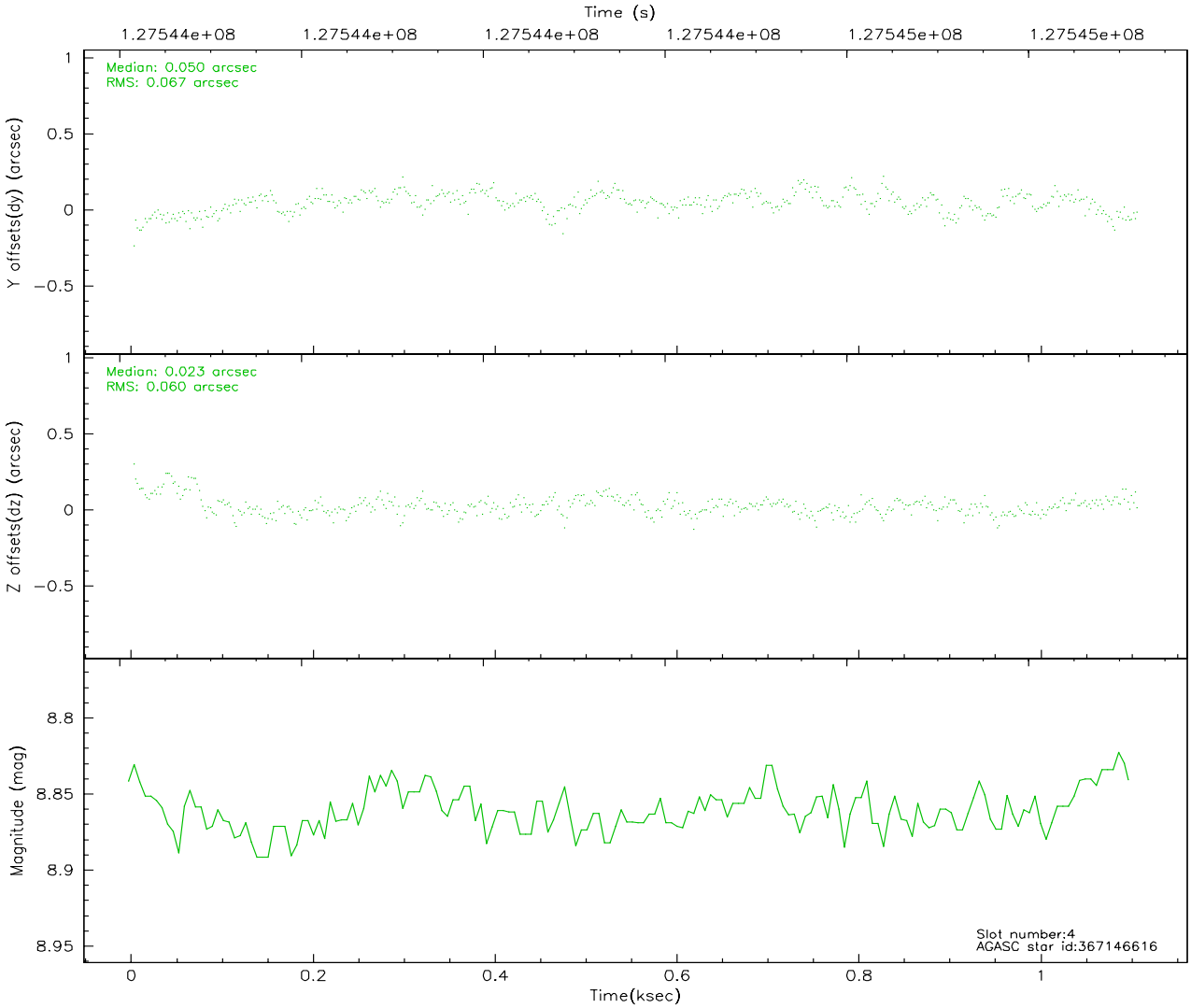




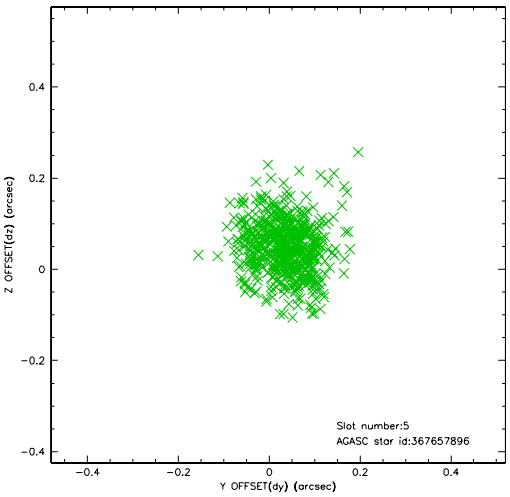
2.4.2 Slot 4

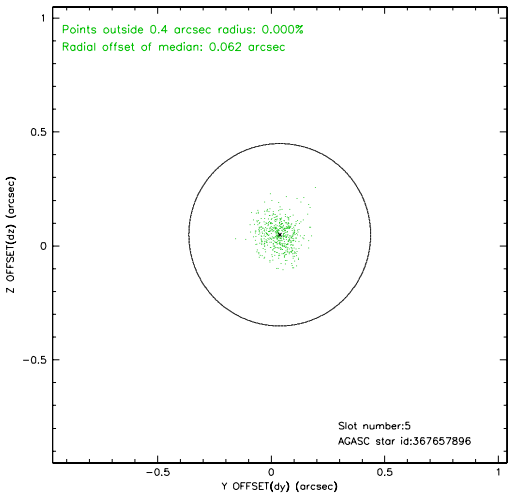

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:4
AGASC star id:367146616

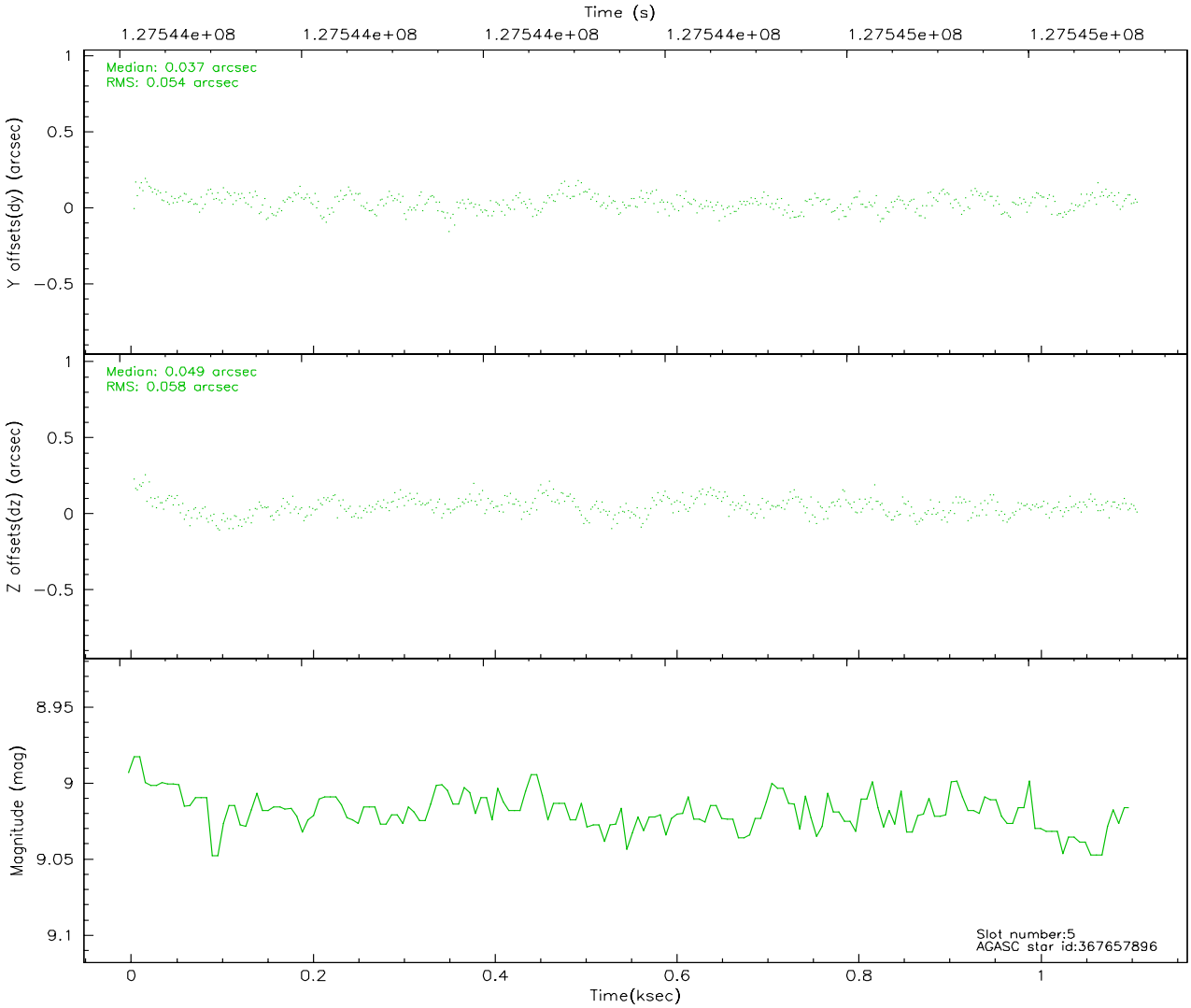

Points outside 0.4 arcsec radius: 0.000%
Radial offset of median: 0.055 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:4
AGASC star id:367146616


Time (s)
1.27544e+08
1.27544e+08
1.27544e+08
1.27544e+08
1.27545e+08
1.27545e+08
Median: 0.050 arcsec
RMS: 0.067 arcsec
Y offsets(dy) (arcsec)
Median: 0.023 arcsec
RMS: 0.060 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:4
AGASC star id:367146616
Time(ksec)

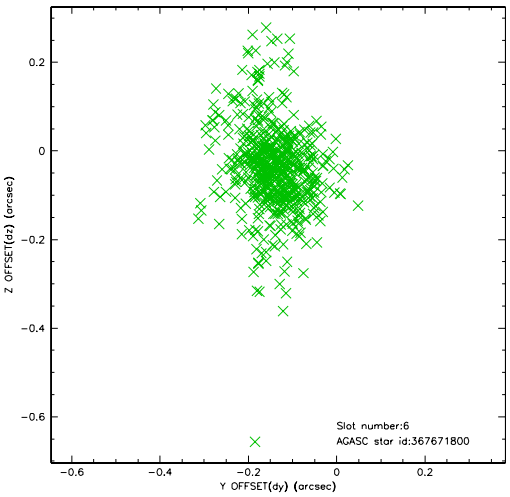
2.4.3 Slot 5

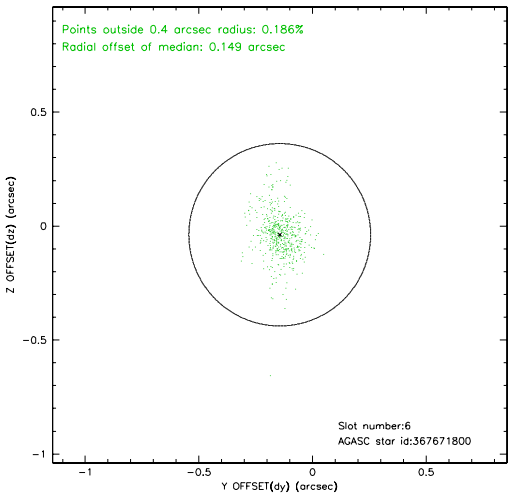

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:5
AGASC star id:367657896

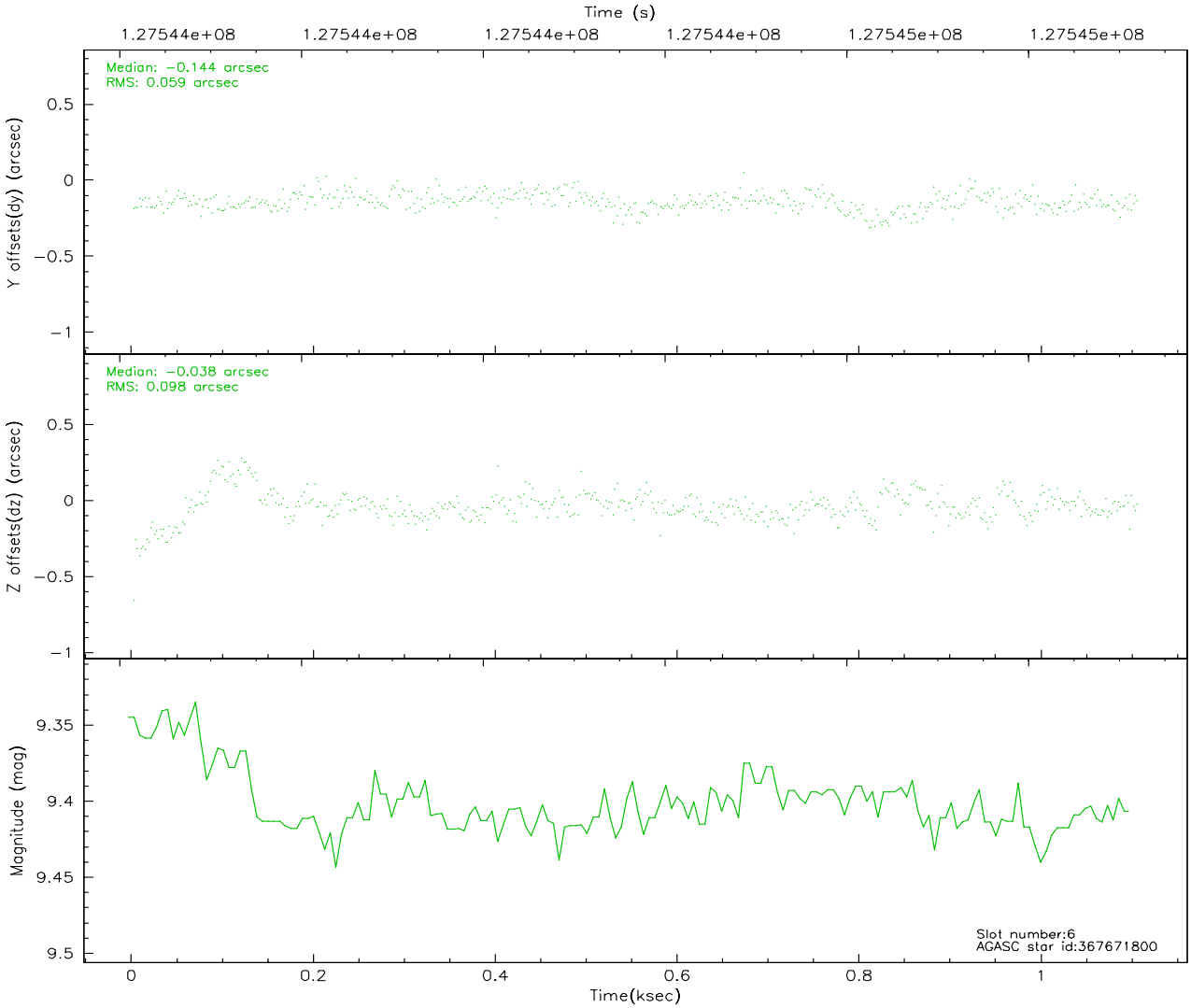

Points outside 0.4 arcsec radius: 0.000%
Radial offset of median: 0.062 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:5
AGASC star id:367657896


Time (s)
1.27544e+08
1.27544e+08
1.27544e+08
1.27544e+08
1.27545e+08
1.27545e+08
Median: 0.037 arcsec
RMS: 0.054 arcsec
Y offsets(dy) (arcsec)
Median: 0.049 arcsec
RMS: 0.058 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:5
AGASC star id:367657896
Time(ksec)

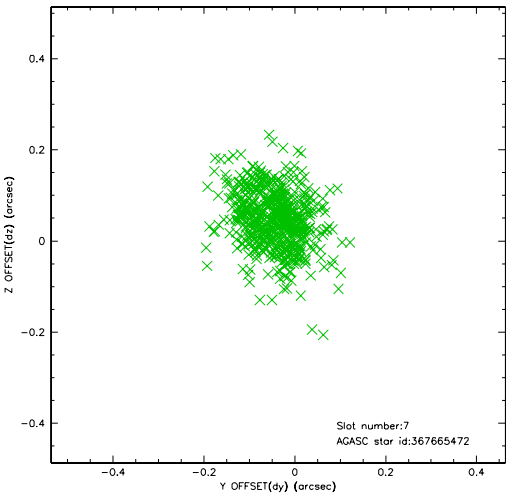
2.4.4 Slot 6

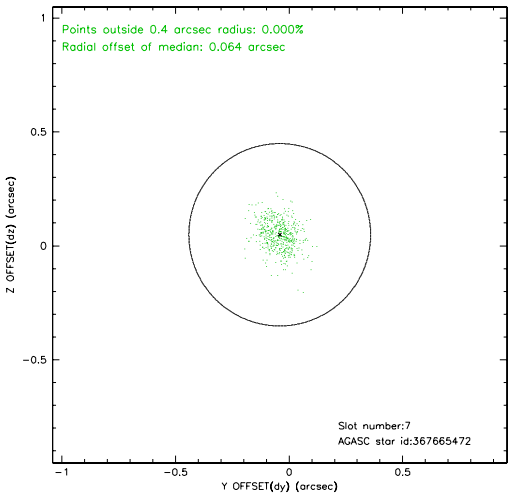

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:6
AGASC star id:367671800

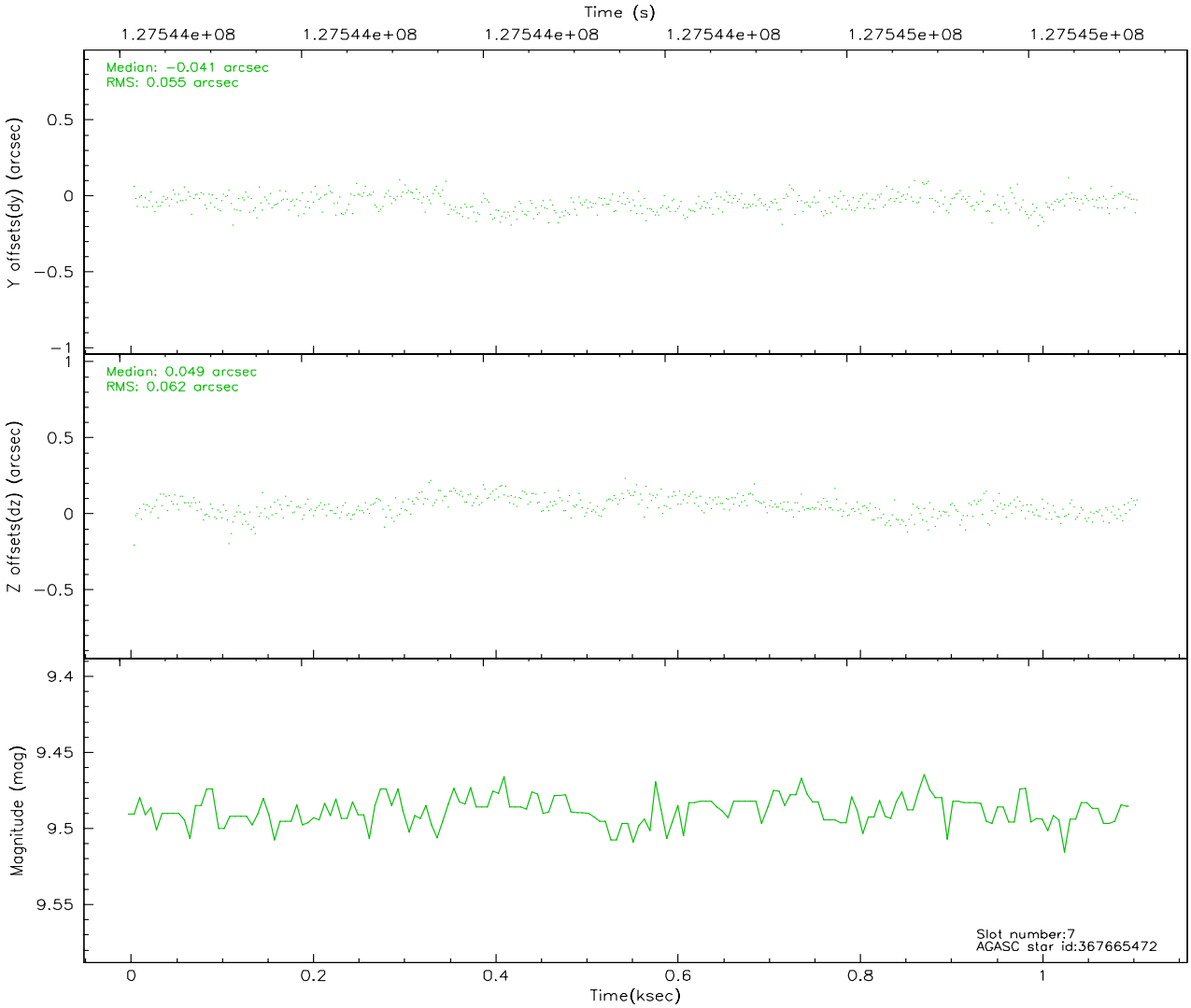

Points outside 0.4 arcsec radius: 0.186%
Radial offset of median: 0.149 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:6
AGASC star id:367671800


Time (s)
1.27544e+08
1.27544e+08
1.27544e+08
1.27544e+08
1.27545e+08
1.27545e+08
Median: −0.144 arcsec
RMS: 0.059 arcsec
Y offsets(dy) (arcsec)
Median: −0.038 arcsec
RMS: 0.098 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:6
AGASC star id:367671800
Time(ksec)

2.4.5 Slot 7

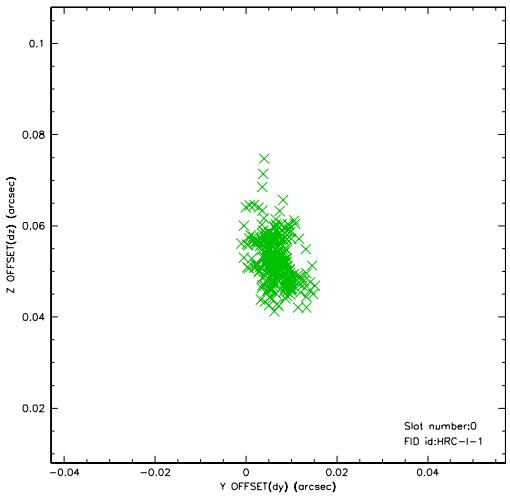

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:7
AGASC star id:367665472

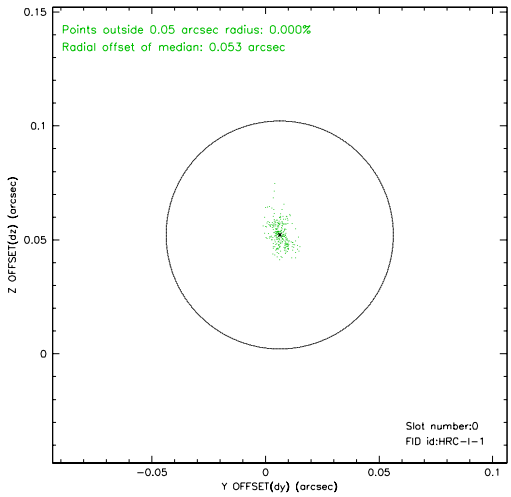

Points outside 0.4 arcsec radius: 0.000%
Radial offset of median: 0.064 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:7
AGASC star id:367665472

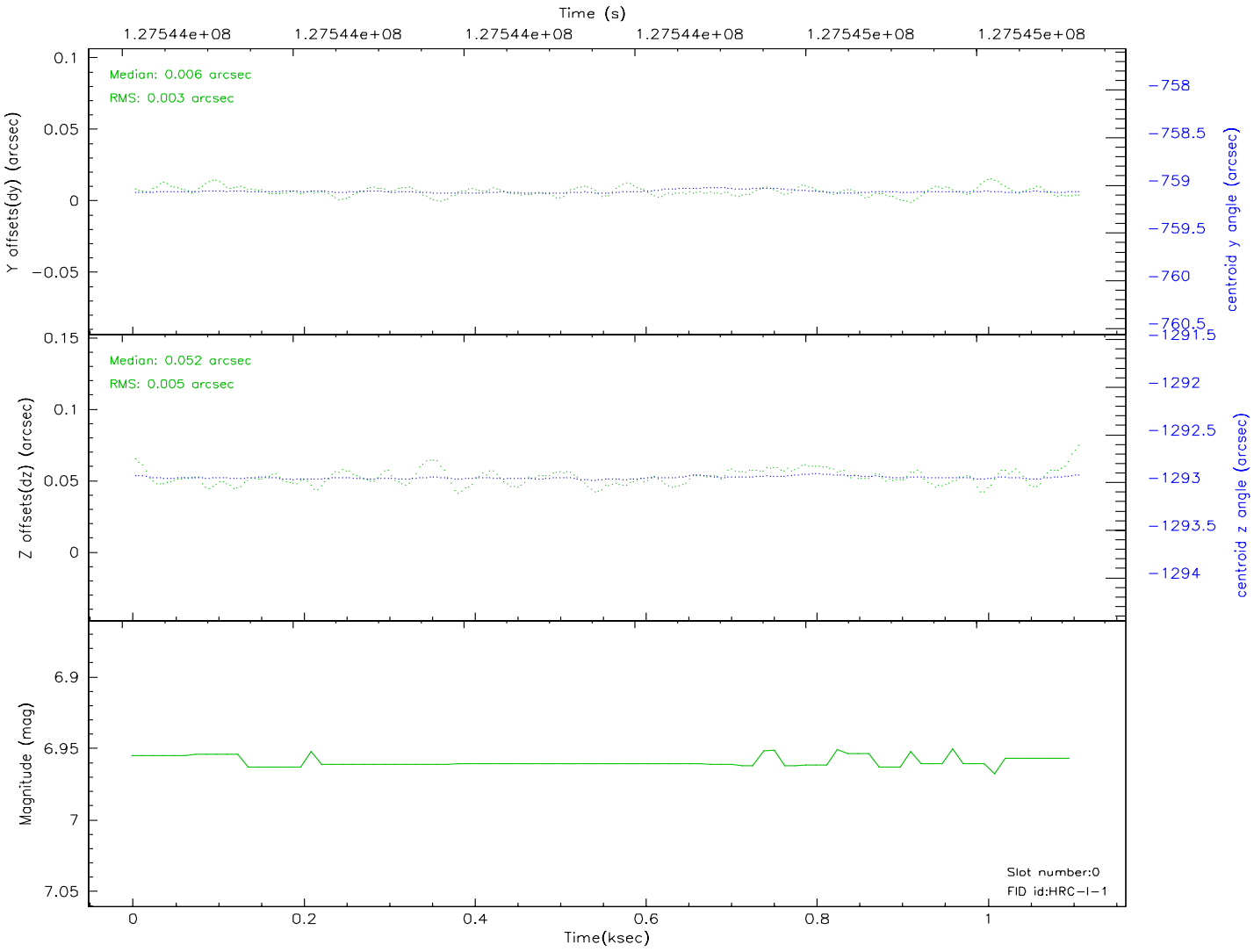

Time (s)
1.27544e+08
1.27544e+08
1.27544e+08
1.27544e+08
1.27545e+08
1.27545e+08
Median: −0.041 arcsec
RMS: 0.055 arcsec
Y offsets(dy) (arcsec)
Median: 0.049 arcsec
RMS: 0.062 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:7
AGASC star id:367665472
Time(ksec)

2.5 FID Slots

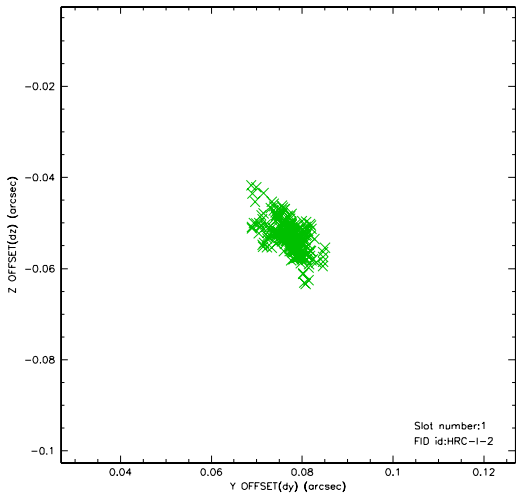
2.5.1 Slot 0

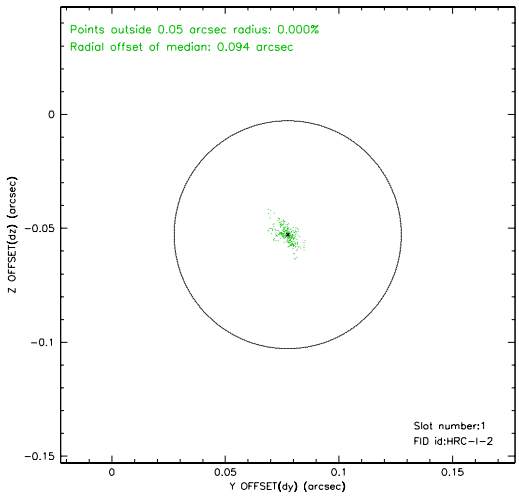


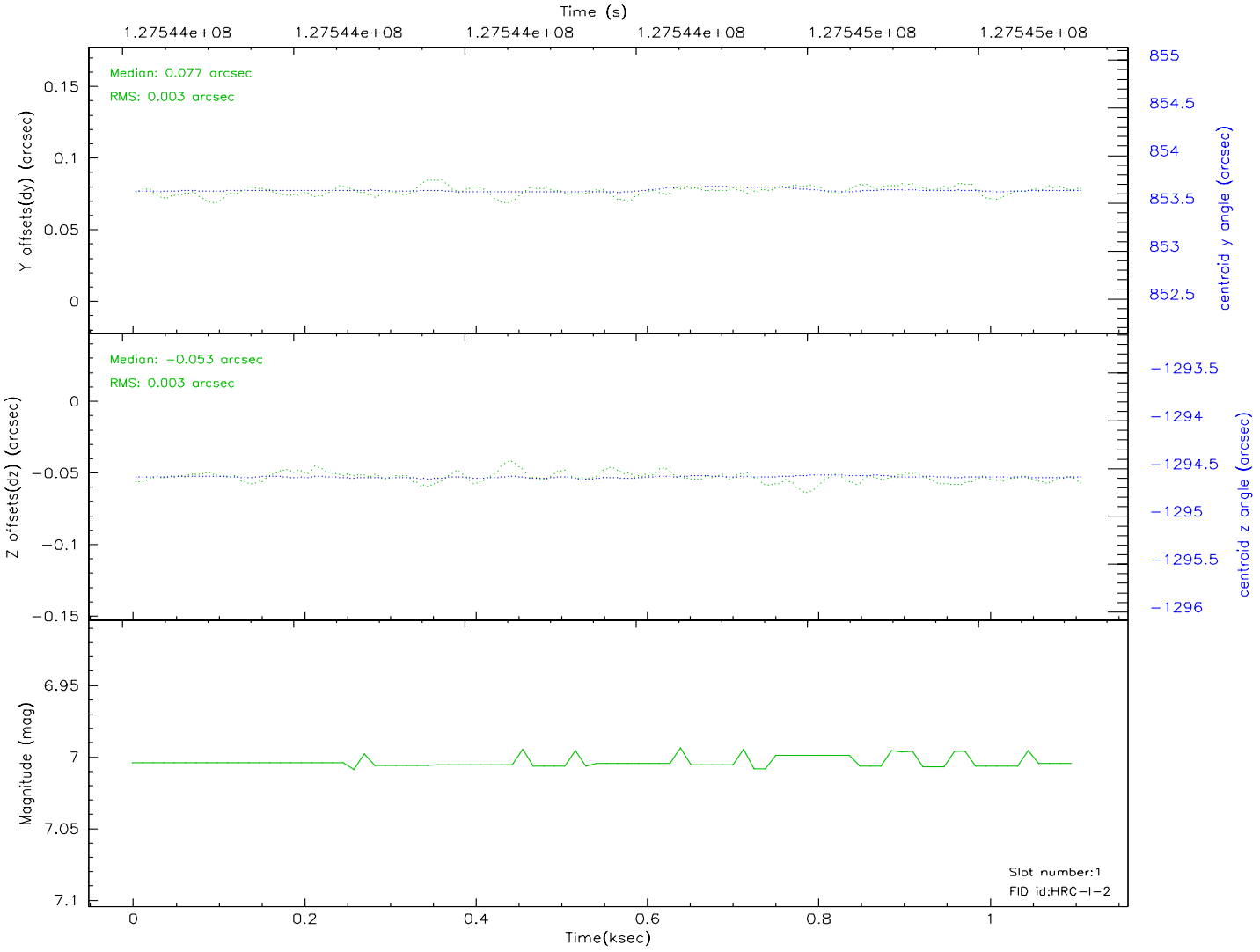




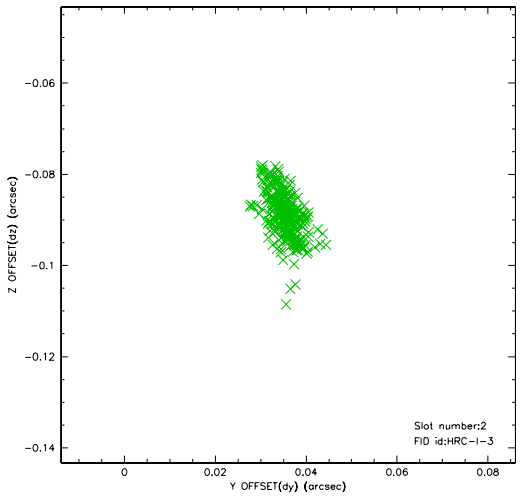
2.5.2 Slot 1

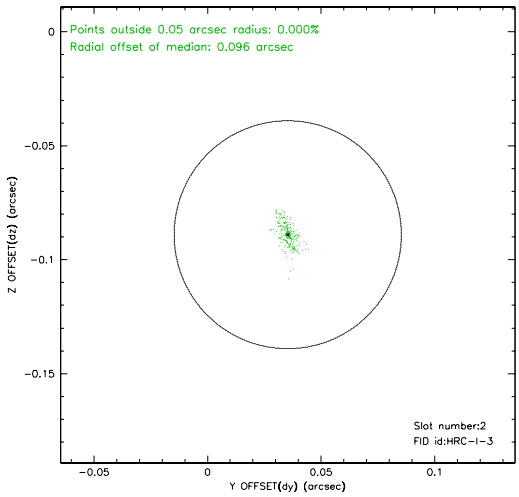

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:1
FID id:HRC-I-2

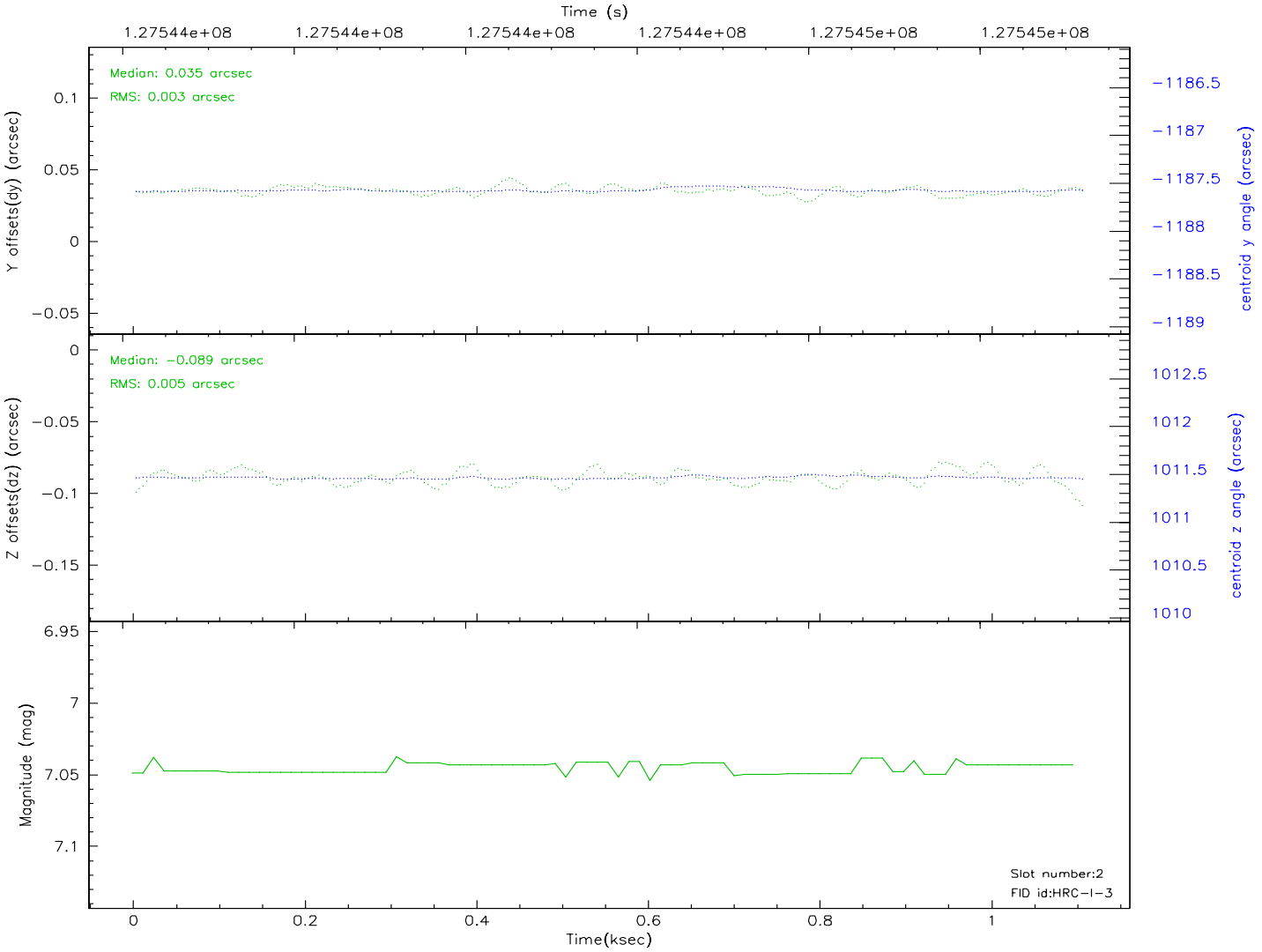

Points outside 0.05 arcsec radius: 0.000%
Radial offset of median: 0.094 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:1
FID id:HRC-I-2


Time (s)
Median: 0.077 arcsec
RMS: 0.003 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: −0.053 arcsec
RMS: 0.003 arcsec
Z offsets(dz) (arcsec)
centroid z angle (arcsec)
Magnitude (mag)
Slot number:1
FID id:HRC-I-2
Time(ksec)

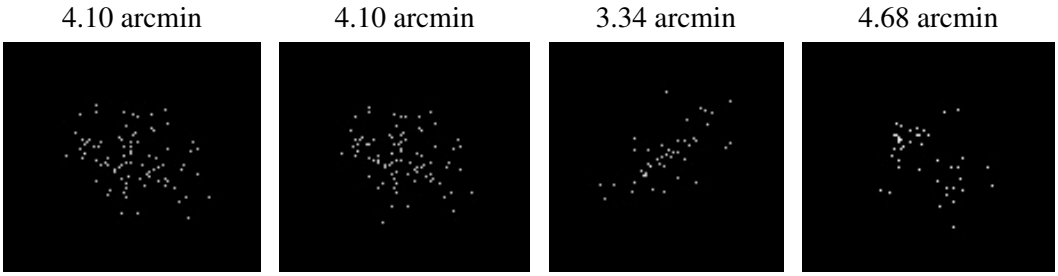
2.5.3 Slot 2


Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:2
FID id:HRC-I-3


Points outside 0.05 arcsec radius: 0.000%
Radial offset of median: 0.096 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:2
FID id:HRC-I-3


Time (s)
Median: 0.035 arcsec
RMS: 0.003 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: −0.089 arcsec
RMS: 0.005 arcsec
Z offsets(dz) (arcsec)
centroid z angle (arcsec)
Magnitude (mag)
Slot number:2
FID id:HRC-I-3
Time(ksec)

3 Point Sources



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2007.12.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.102

A.2 Comments

```
Window constraint satisfied.

The current observation has been reprocessed as part of Repro III ('C'
supplement) the purpose of which is to update all HRC-I ObsIDs since Jan
2000 to the latest calibrations available for that configuration.
Specifically, we are updating the DEGAP solution and the Gain Maps
applied. For more information see the Repro IIIC web page at

http://asc.harvard.edu/cda/repro3.html#IIIc

and the associated links.
```