V&V Reference Report
L2 ASCDS Version : 7.6.10

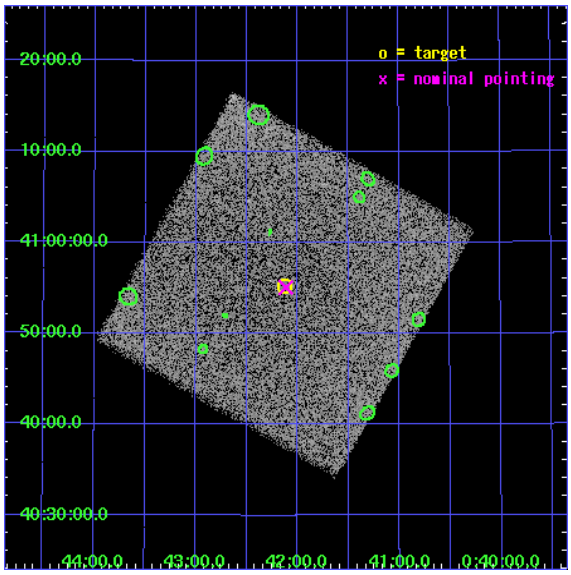
Observation 2891 - L2 Version 3
Chandra X-Ray Center

L2 Processing Date : Nov 20 2007

Contents

1 Front

seq_num	600228
obs_id	2891
title	SEARCHING FOR X-RAY TRANSIENTS IN M31 WITH CHANDRA AND HST
observer	Dr. MICHAEL GARCIA
object	M31-S1
ra_targ	10.532917
dec_targ	40.921
ra_nom	10.528768196021
dec_nom	40.918229735117
roll_nom	254.36476821039
revision	3
ontime	1184.1312973201
livetime	1173.8091414847
l2events	67630

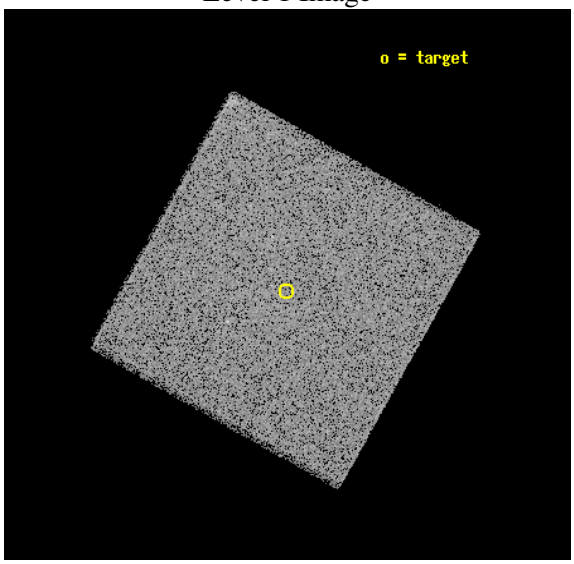


2 OBI

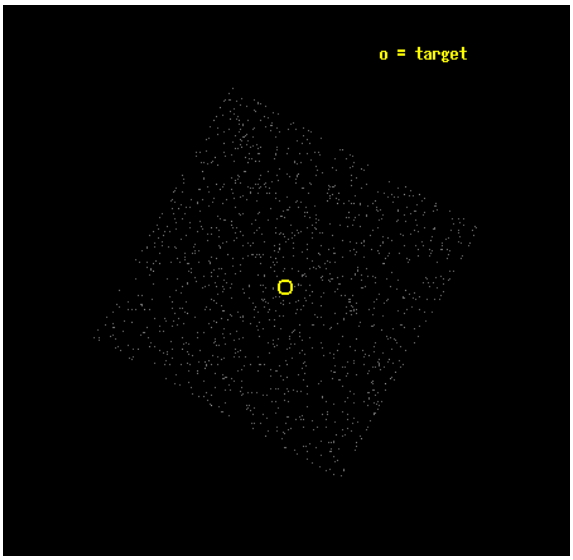
2.1 OBI

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	2007-11-20T20:10:12
revision	3

sched_exp_time	1000.000000
ontime	1184.1312973201
l1events	136066

2.1.3 Events

Level 1 Events

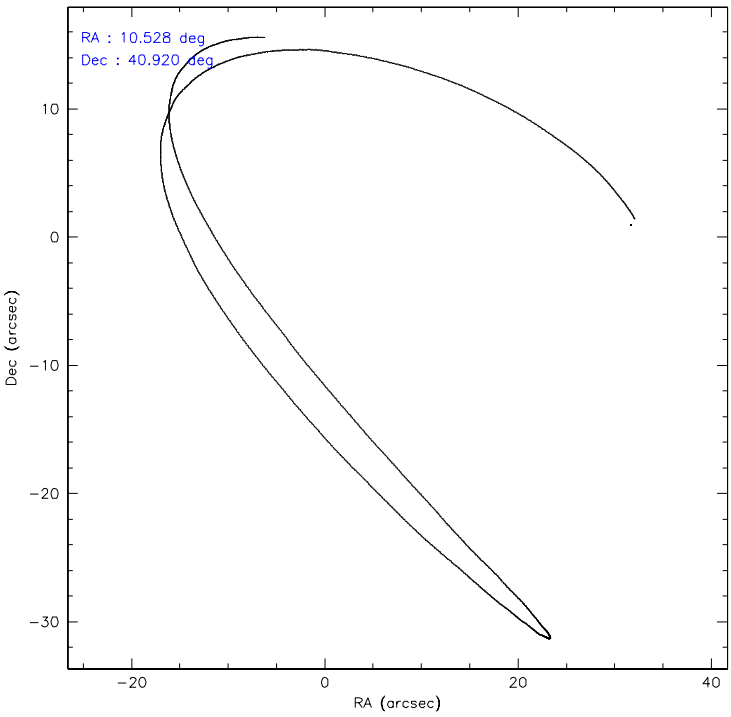
	segment 0
level 1 events	136066
rejected events	29441
rejected %	21%

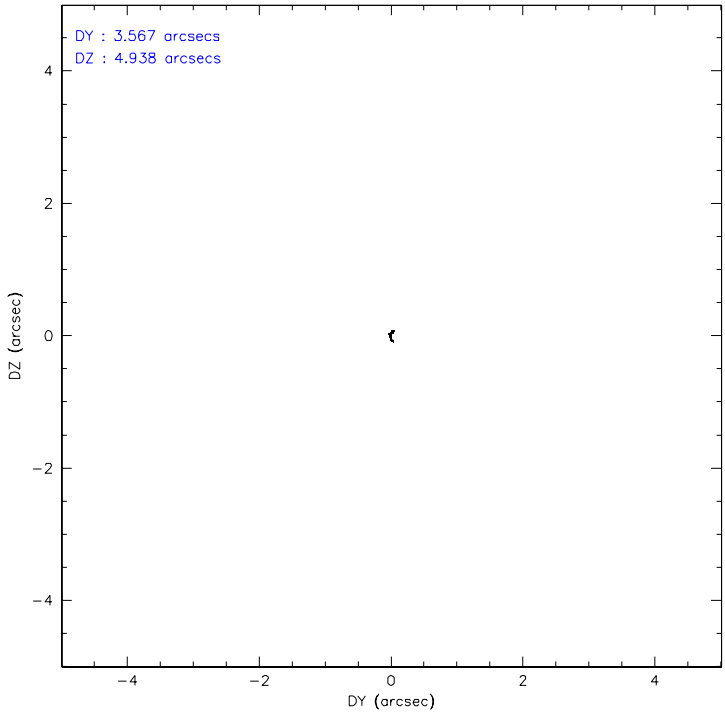
2.2 Compared Parameters

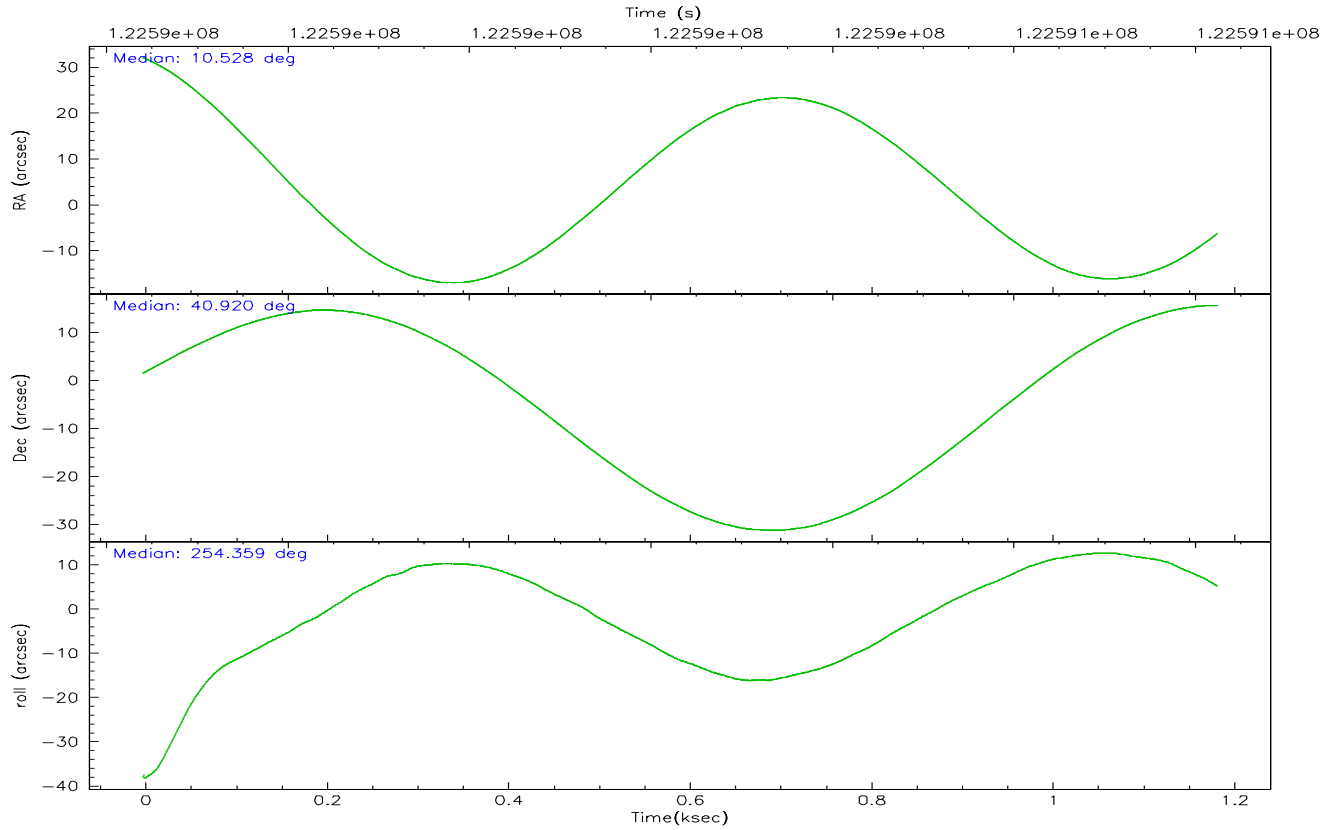
Parameter	Planned	Actual
Instrument	HRC	HRC
Detector	HRC-I	HRC-I
Grating	NONE	NONE
Data mode	OBSERVING	OBSERVING
Observation mode	POINTING	POINTING
Pointing RA	10.519791	10.52876819602127
Pointing Dec	40.943815	40.91822973511651
Pointing Roll	254.466180	254.36476821039
Window start time	122515264.184000	122515264.184000
Window stop time	123120064.184000	123120064.184000
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	122589821.184000	122589444.71602
Observation start date	2001-11-19T20:42:37	2001-11-19T20:37:24
Observation end time	122590821.184000	122590955.05358
Observation end date	2001-11-19T20:59:17	2001-11-19T21:02:35

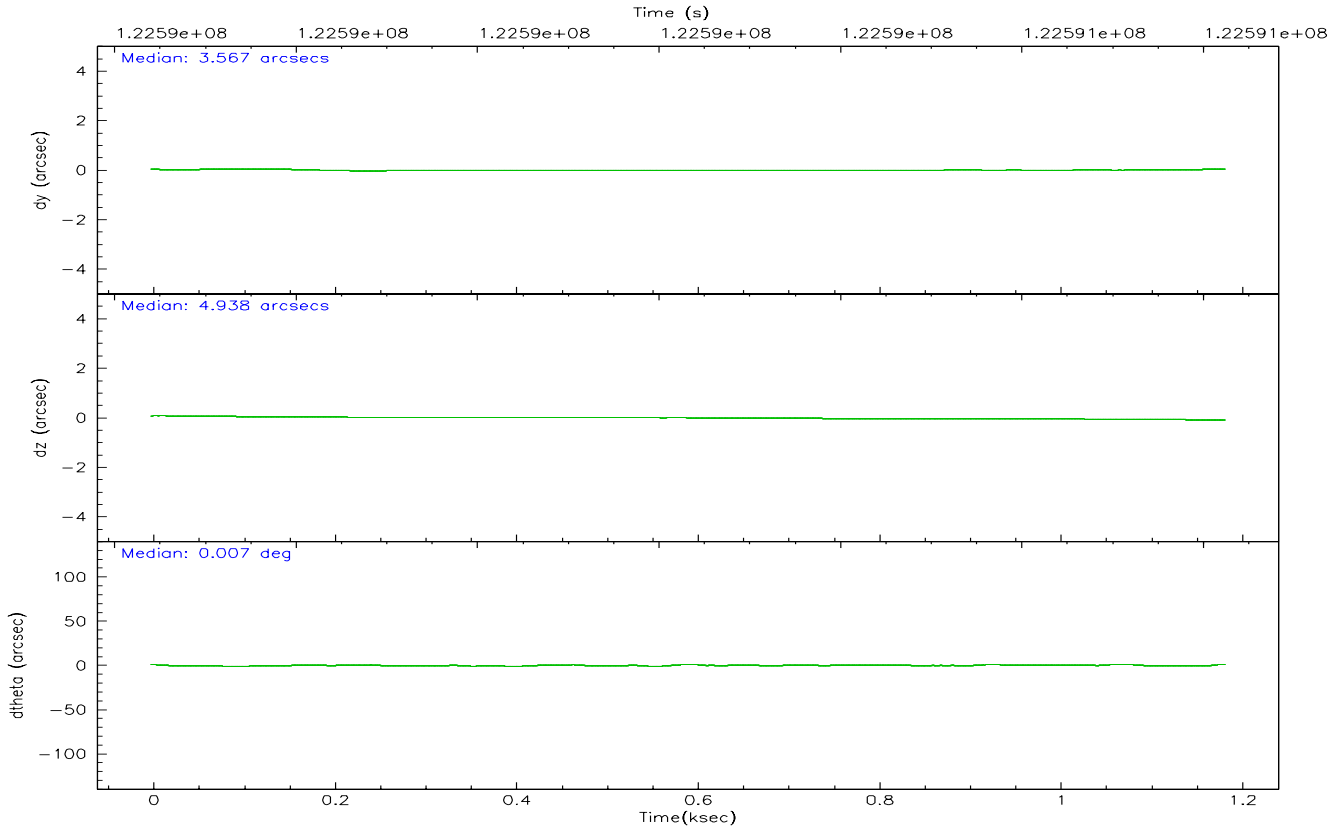
Parameter	Planned	Actual
Obspar format version number	6	6
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED

2.3 Aspect


RA : 10.528 deg
Dec : 40.920 deg
10
0
−10
−20
−30
Dec (arcsec)
−20
0
20
40
RA (arcsec)


DY : 3.567 arcsecs
DZ : 4.938 arcsecs
4
2
0
−2
−4
DZ (arcsec)
−4
−2
0
2
4
DY (arcsec)


Time (s)
1.2259e+08
1.2259e+08
1.2259e+08
1.2259e+08
1.2259e+08
1.22591e+08
1.22591e+08
Median: 10.528 deg
RA (arcsec)
Median: 40.920 deg
Dec (arcsec)
Median: 254.359 deg
roll (arcsec)
Time(ksec)

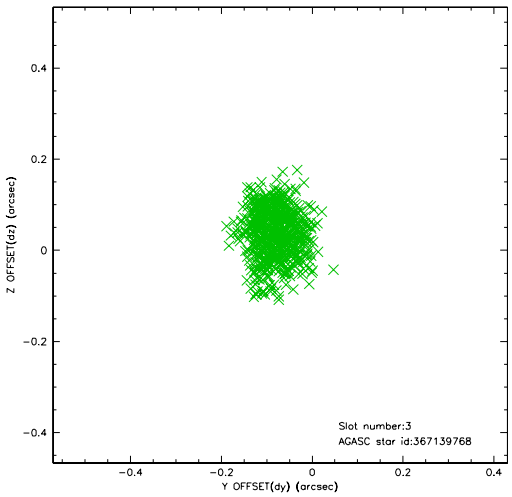

Time (s)
1.2259e+08
1.2259e+08
1.2259e+08
1.2259e+08
1.2259e+08
1.22591e+08
1.22591e+08
Median: 3.567 arcsecs
dy (arcsec)
Median: 4.938 arcsecs
dz (arcsec)
Median: 0.007 deg
dtheta (arcsec)
Time(ksec)

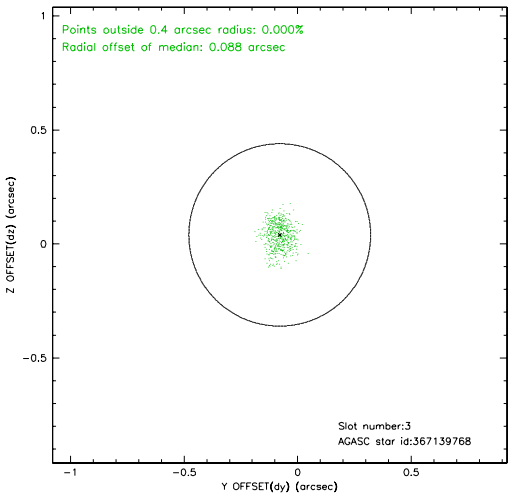
Slot Statistics

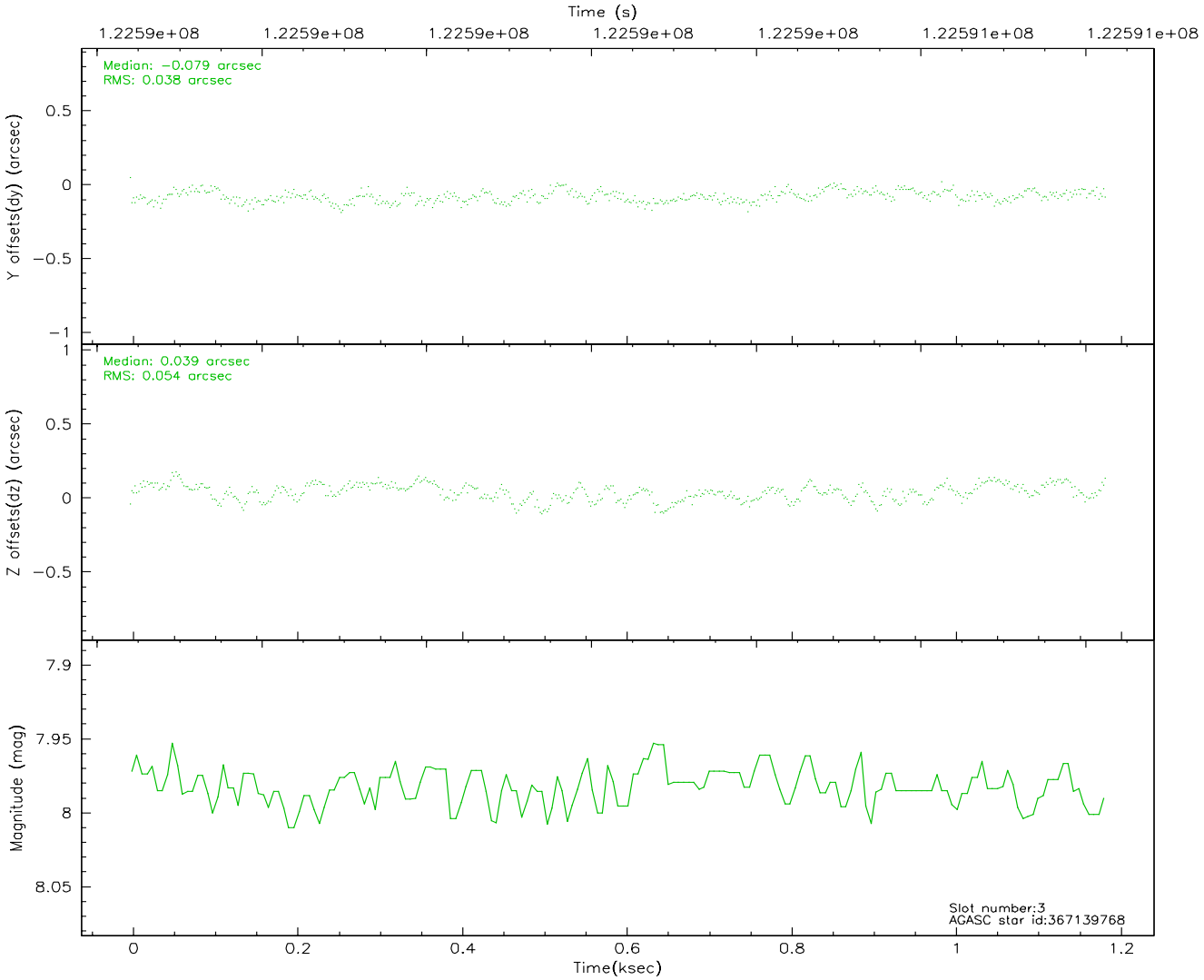
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	HRC-I-1	6.96	289	0.011	0.065	0.006	0.010	0.000000	0.000000	-759.01	-1292.67
1	FID	HRC-I-2	7.00	289	0.074	-0.056	0.005	0.010	0.000000	0.000000	851.05	-1298.80
2	FID	HRC-I-3	7.04	289	0.035	-0.099	0.005	0.010	0.000000	0.000000	-1184.59	1007.22
3	GUIDE	367139768	7.98	579	-0.079	0.039	0.071	0.115	11.069715	40.685175	492.65	1696.80
4	GUIDE	365439720	8.50	579	0.083	-0.013	0.083	0.128	9.704623	40.431022	2370.35	-1655.29
5	GUIDE	367144424	8.65	579	-0.015	-0.042	0.060	0.101	10.464515	40.309136	2248.36	465.23
6	GUIDE	367146616	8.88	574	0.044	-0.037	0.086	0.139	11.418645	41.190163	-1512.44	2108.28
7	GUIDE	367658664	9.60	577	-0.038	0.070	0.103	0.167	10.374070	41.369746	-1372.50	-784.31

2.4 Star Slots

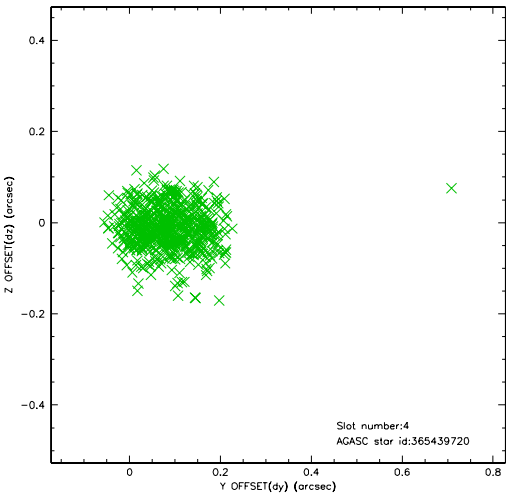
2.4.1 Slot 3

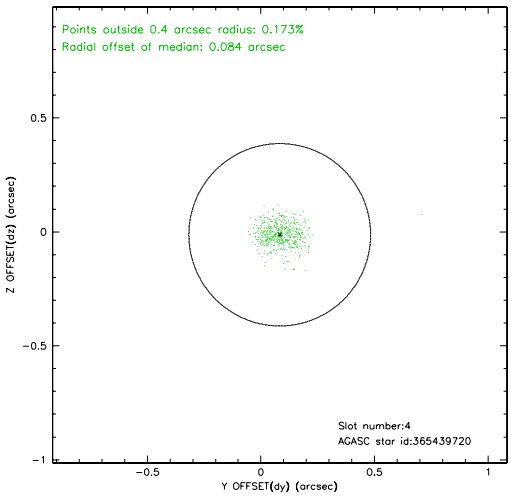


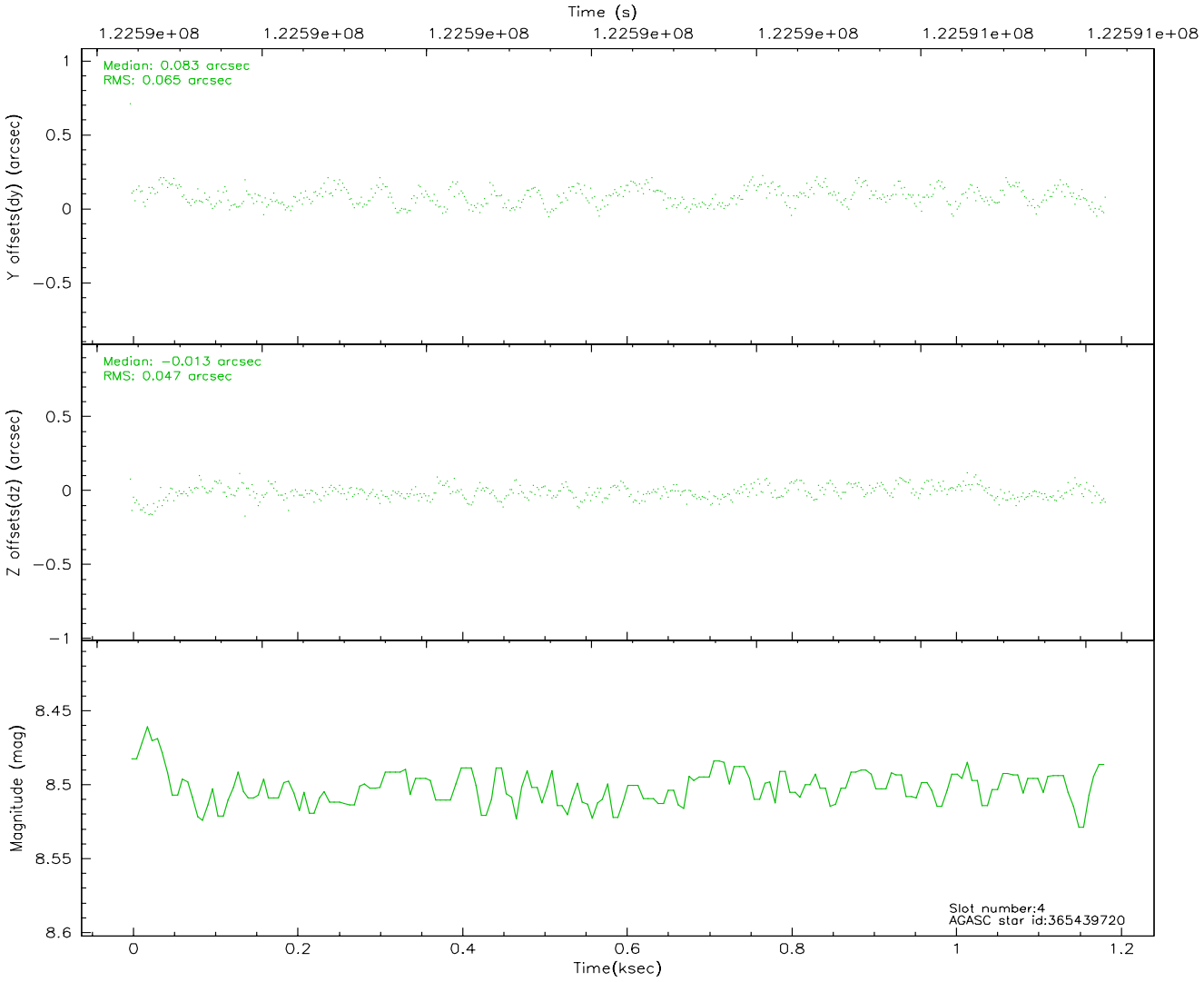




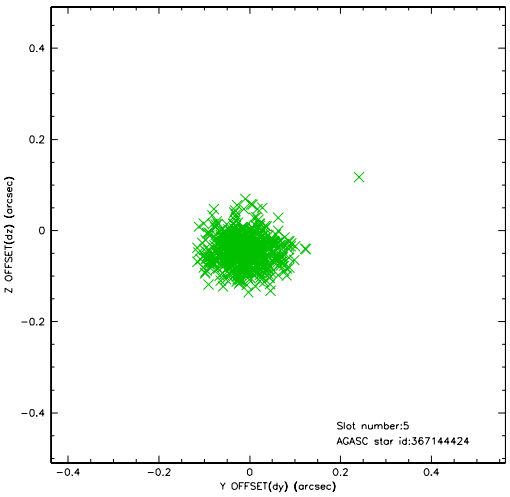
2.4.2 Slot 4

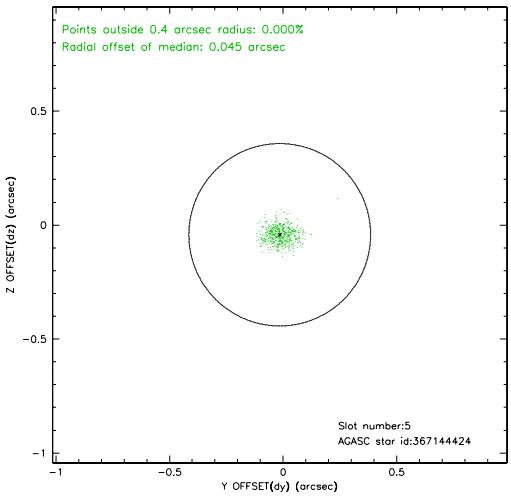

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:4
AGASC star id:365439720

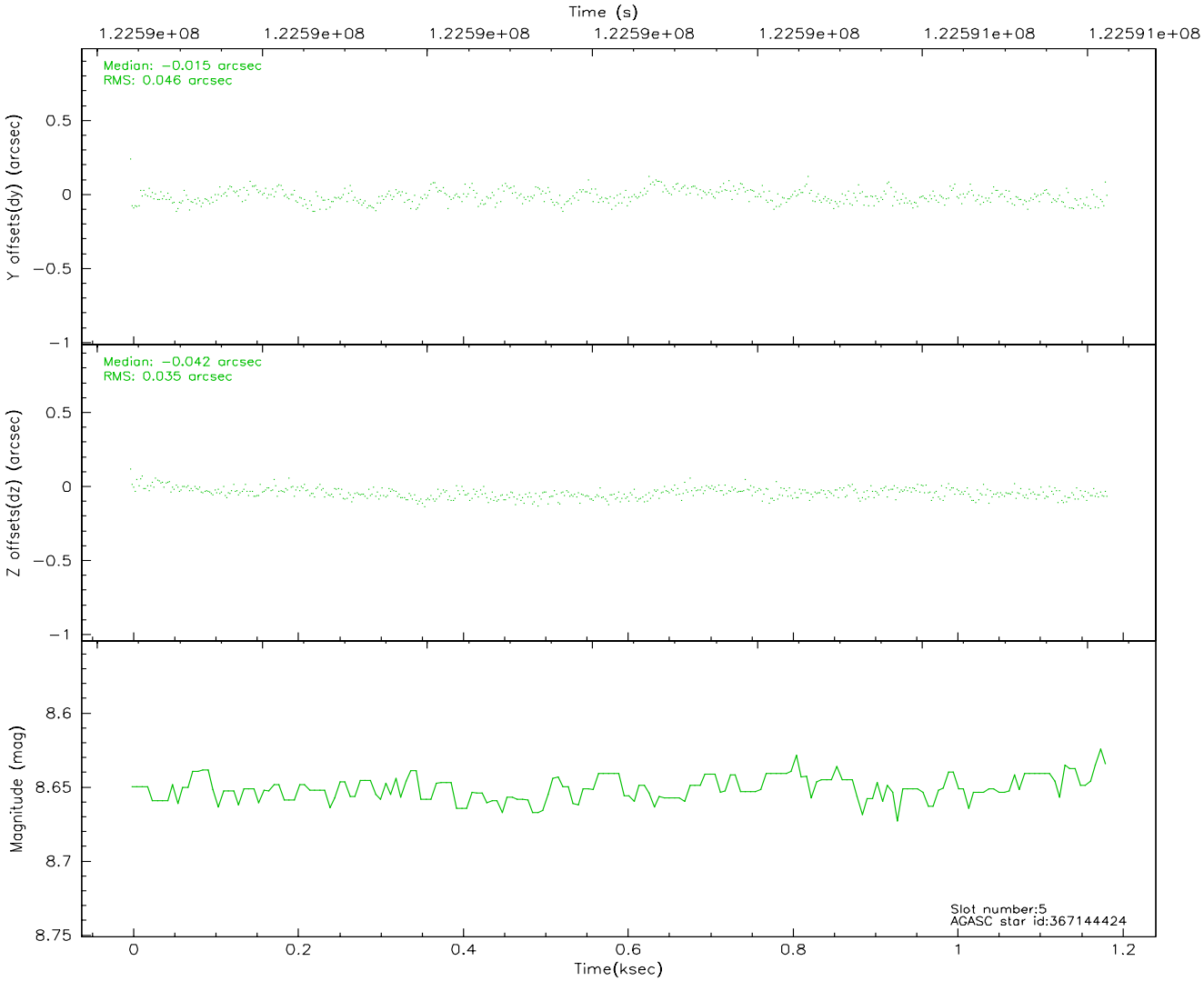

Points outside 0.4 arcsec radius: 0.173%
Radial offset of median: 0.084 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:4
AGASC star id:365439720


Time (s)
Median: 0.083 arcsec
RMS: 0.065 arcsec
Y offsets(dy) (arcsec)
Median: −0.013 arcsec
RMS: 0.047 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:4
AGASC star id:365439720
Time(ksec)

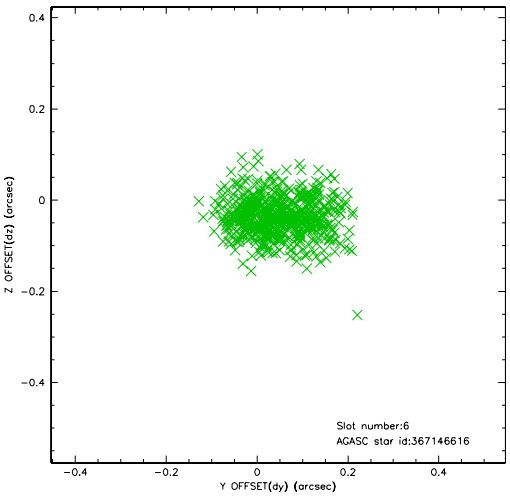
2.4.3 Slot 5

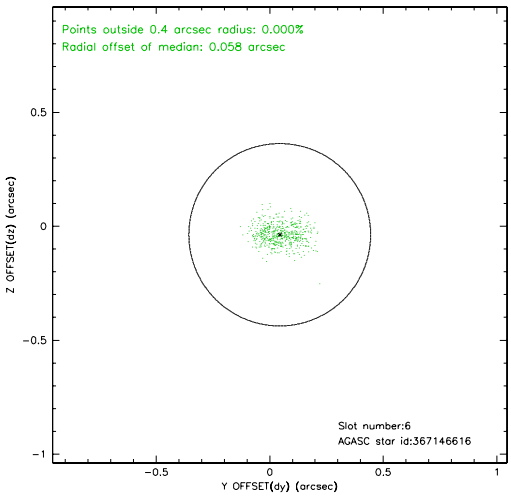

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:5
AGASC star id:367144424

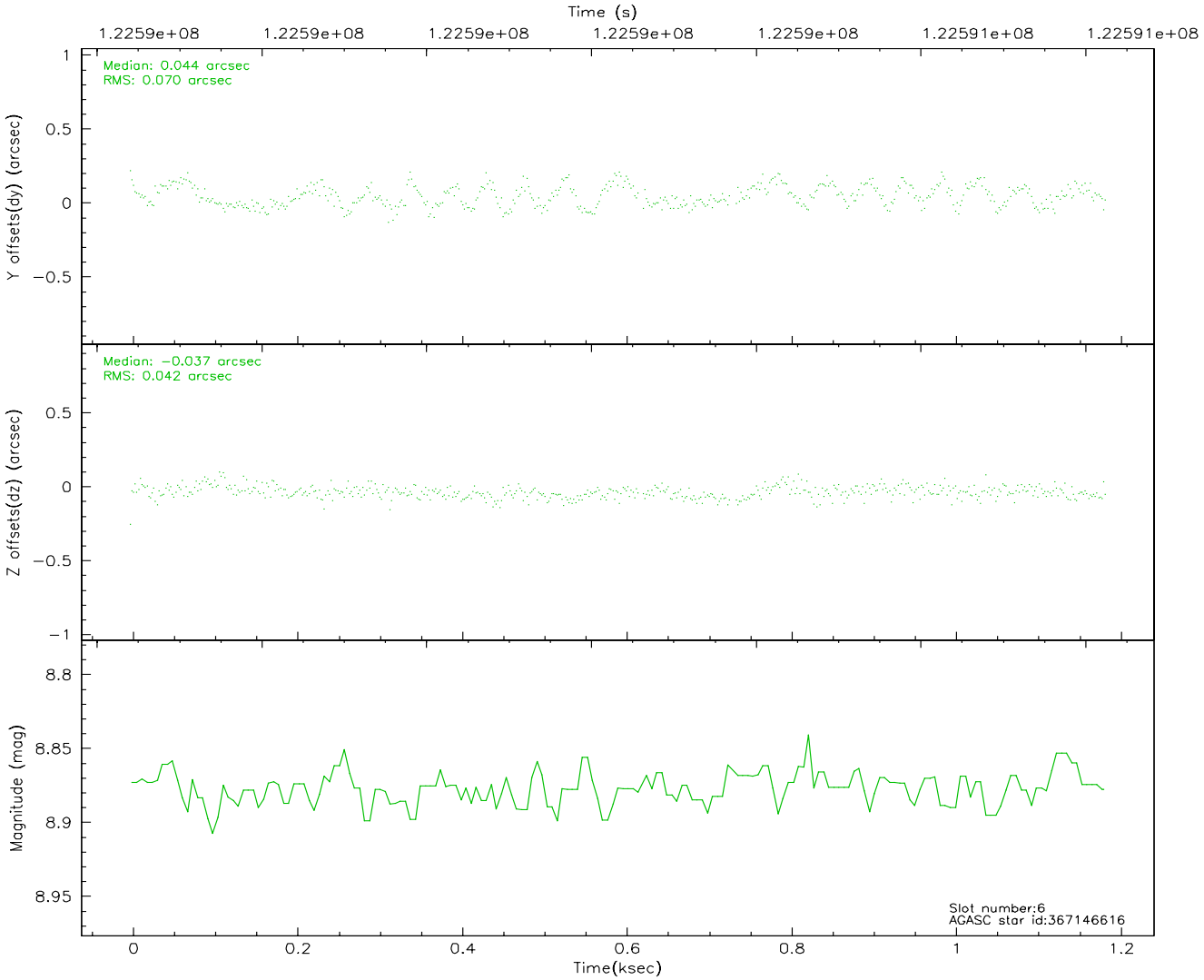

Points outside 0.4 arcsec radius: 0.000%
Radial offset of median: 0.045 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:5
AGASC star id:367144424


Time (s)
Median: −0.015 arcsec
RMS: 0.046 arcsec
Y offsets(dy) (arcsec)
Median: −0.042 arcsec
RMS: 0.035 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:5
AGASC star id:367144424
Time(ksec)

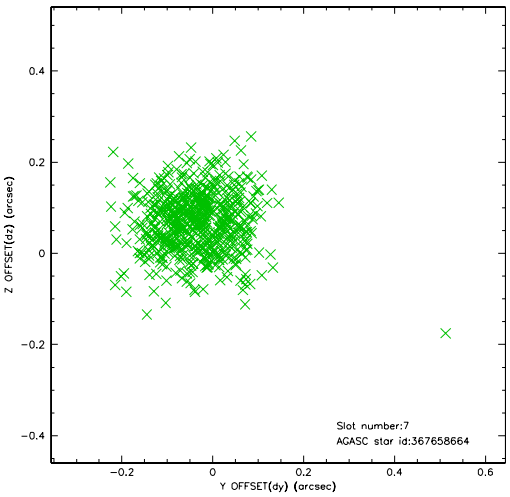
2.4.4 Slot 6

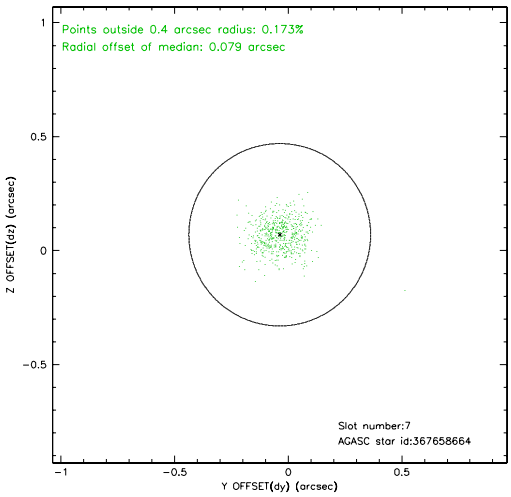

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:6
AGASC star id:367146616

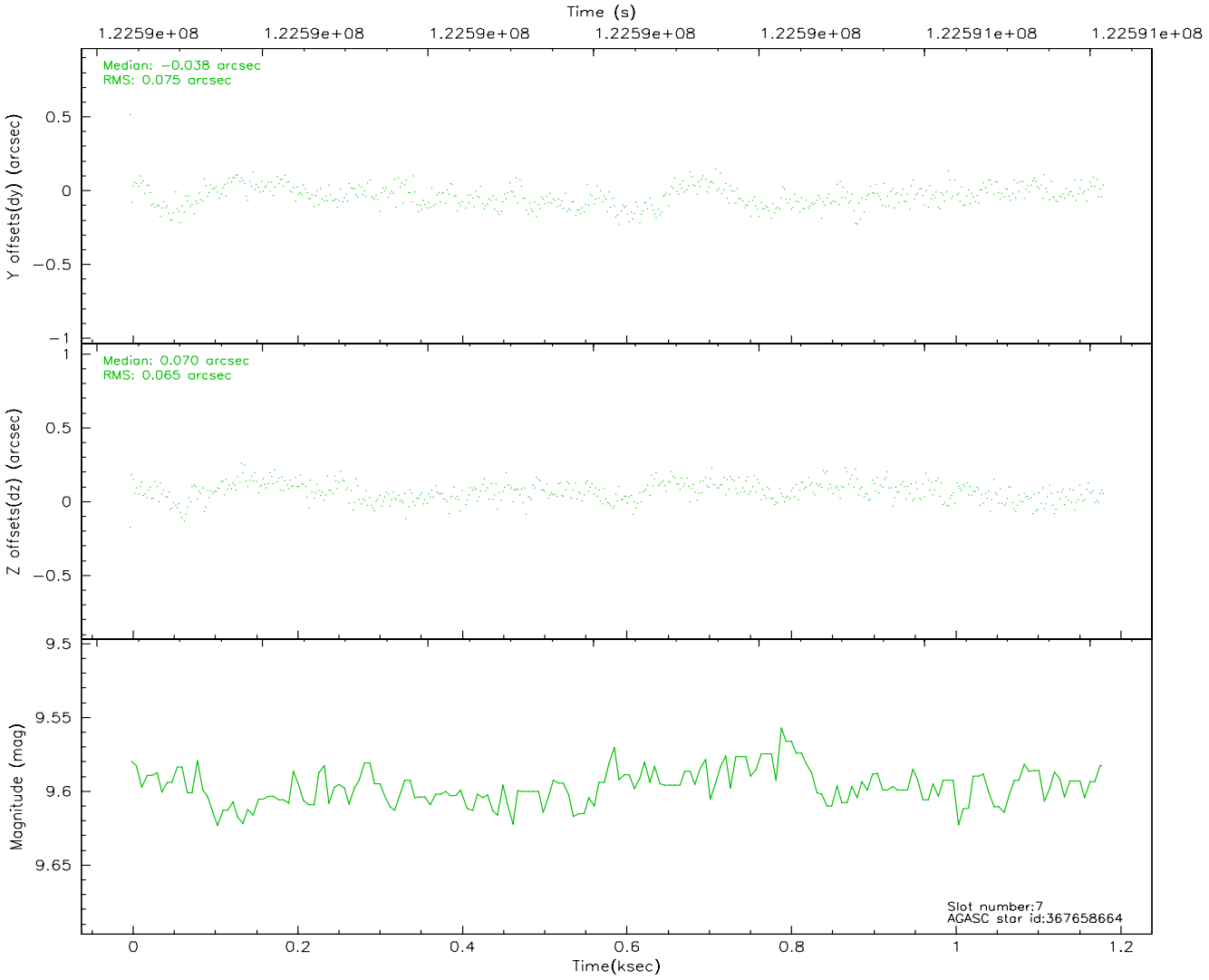

Points outside 0.4 arcsec radius: 0.000%
Radial offset of median: 0.058 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:6
AGASC star id:367146616


Time (s)
Median: 0.044 arcsec
RMS: 0.070 arcsec
Y offsets(dy) (arcsec)
Median: −0.037 arcsec
RMS: 0.042 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:6
AGASC star id:367146616
Time(ksec)

2.4.5 Slot 7

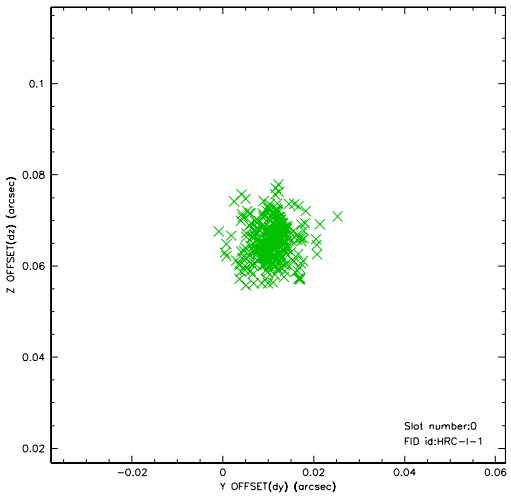

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:7
AGASC star id:367658664

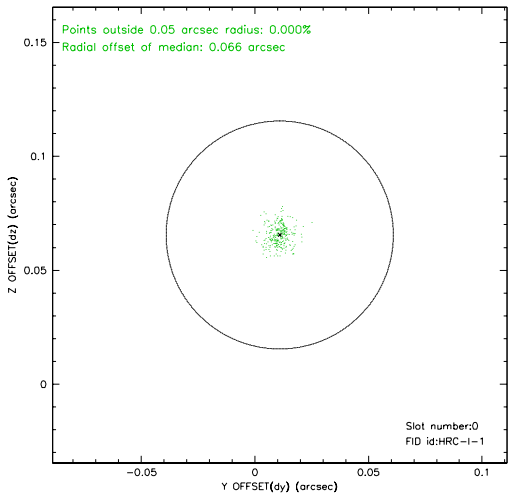

Points outside 0.4 arcsec radius: 0.173%
Radial offset of median: 0.079 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:7
AGASC star id:367658664

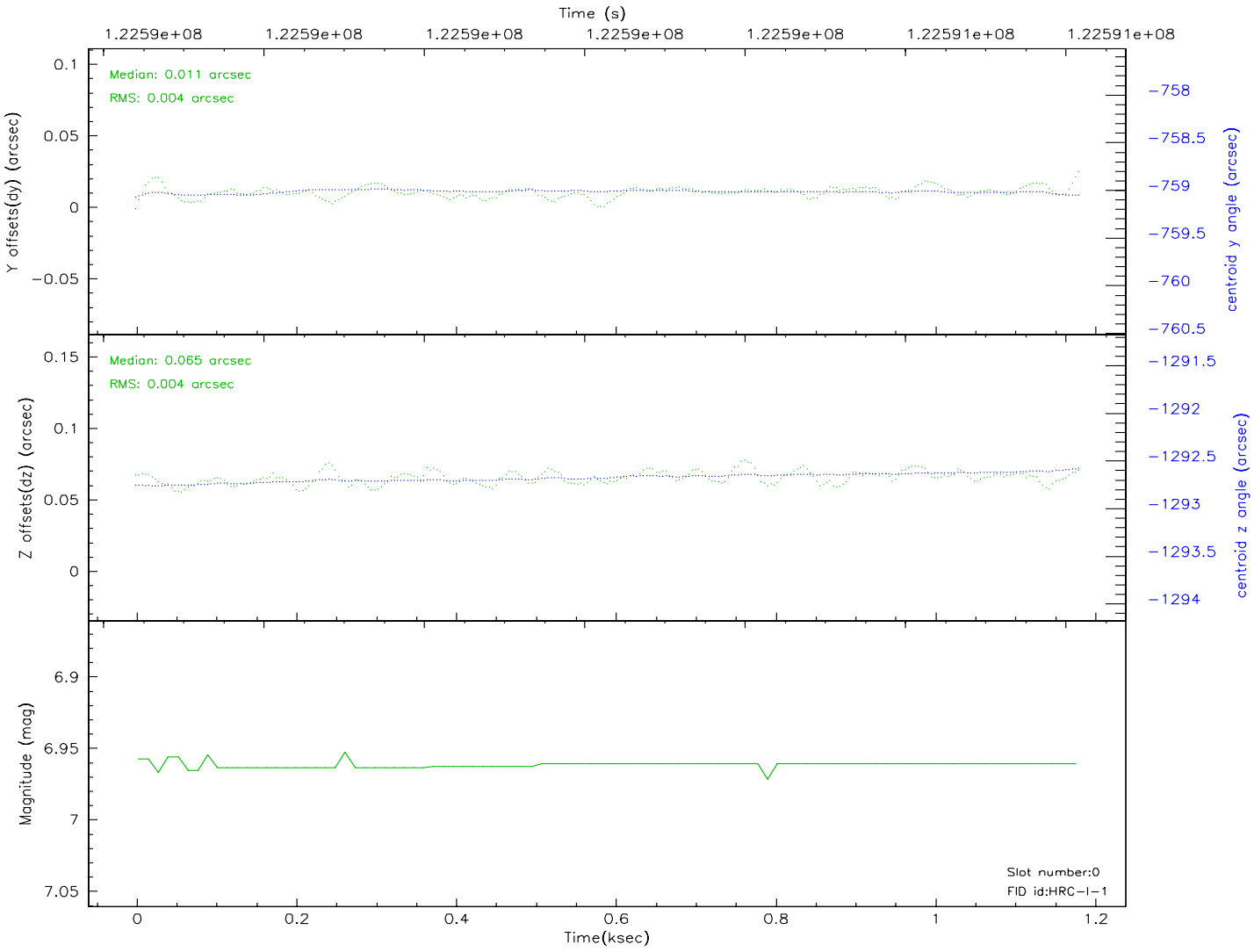

Time (s)
Median: −0.038 arcsec
RMS: 0.075 arcsec
Y offsets(dy) (arcsec)
Median: 0.070 arcsec
RMS: 0.065 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:7
AGASC star id:367658664
Time(ksec)

2.5 FID Slots

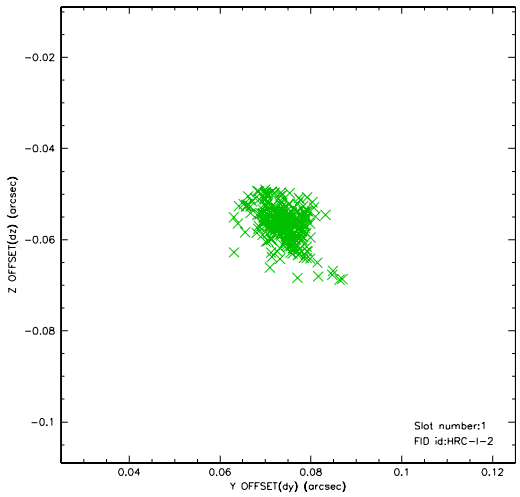
2.5.1 Slot 0

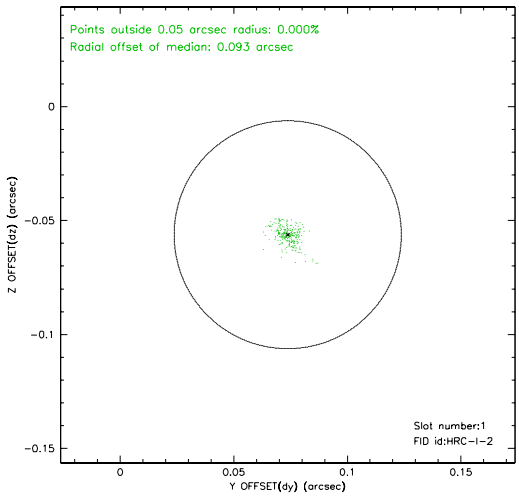


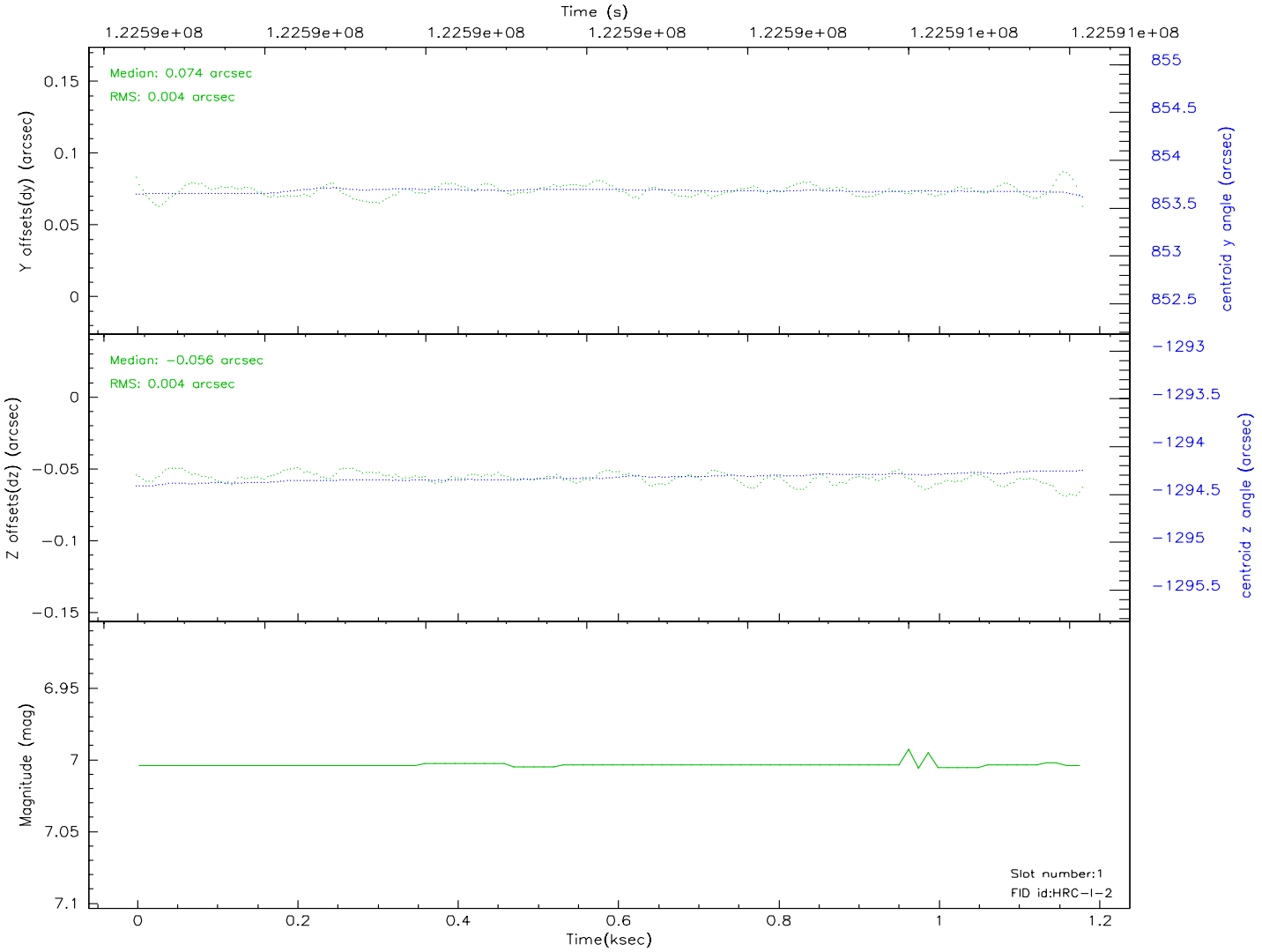




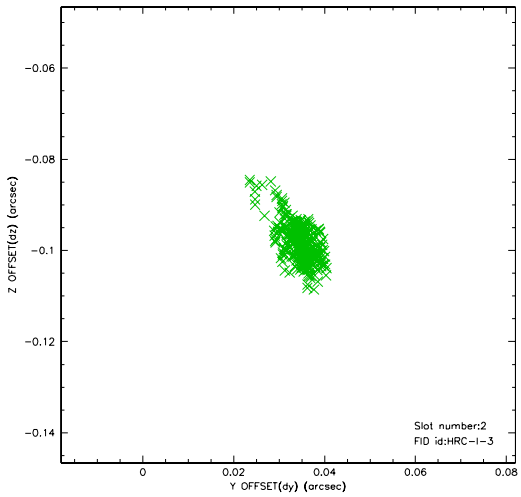
2.5.2 Slot 1

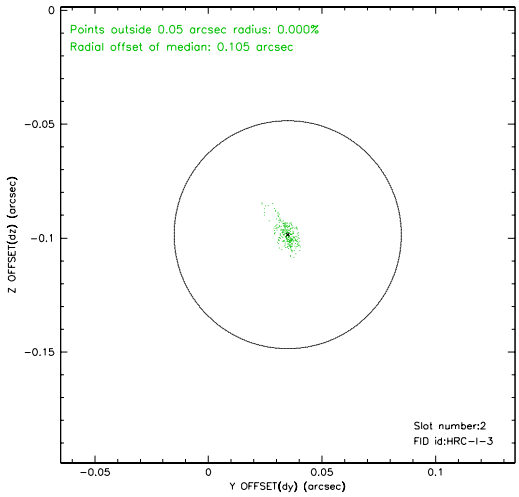

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:1
FID id:HRC-I-2

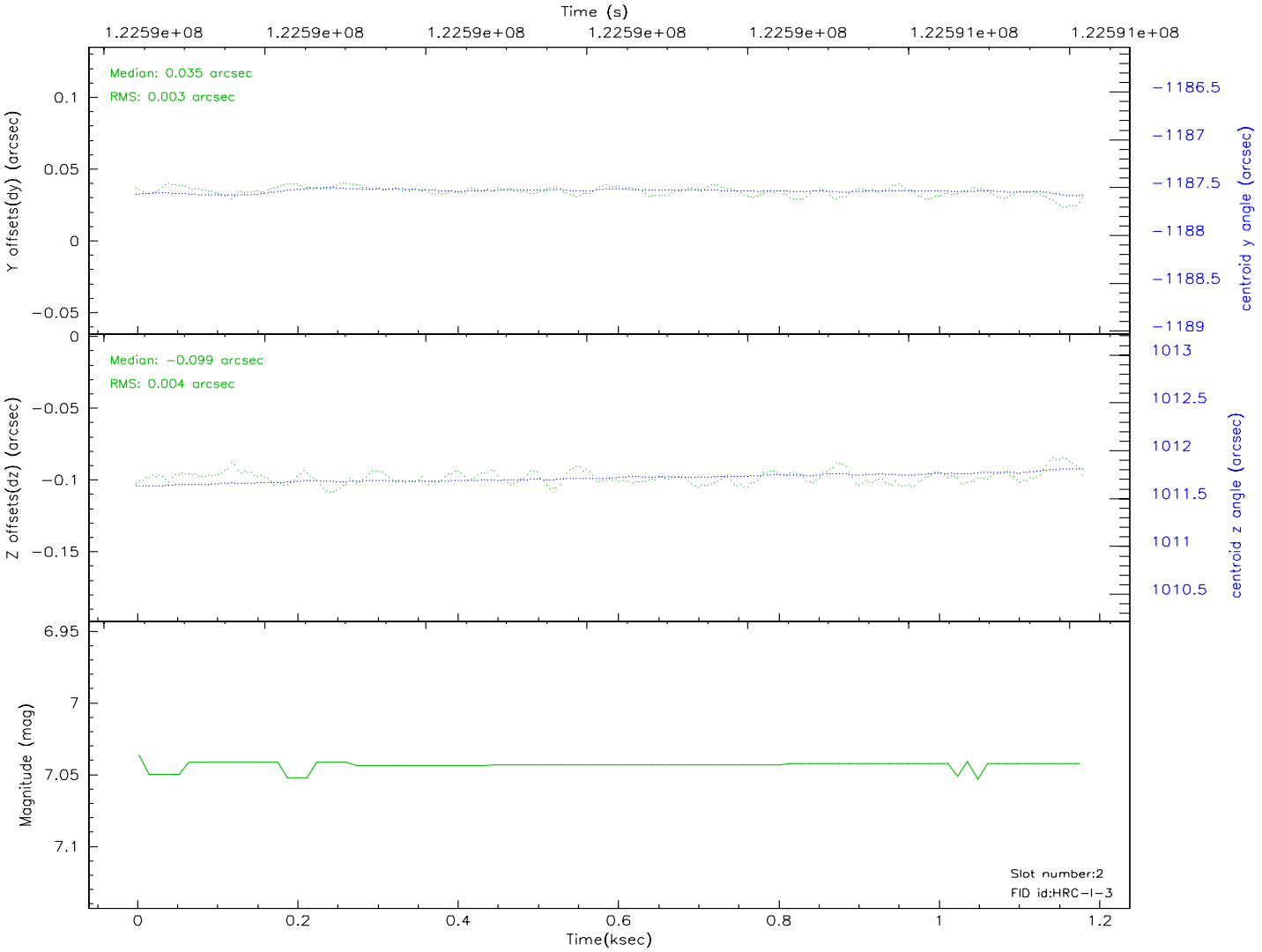

Points outside 0.05 arcsec radius: 0.000%
Radial offset of median: 0.093 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:1
FID id:HRC-I-2


Time (s)
Median: 0.074 arcsec
RMS: 0.004 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: −0.056 arcsec
RMS: 0.004 arcsec
Z offsets(dz) (arcsec)
centroid z angle (arcsec)
Magnitude (mag)
Slot number:1
FID id:HRC-I-2
Time(ksec)

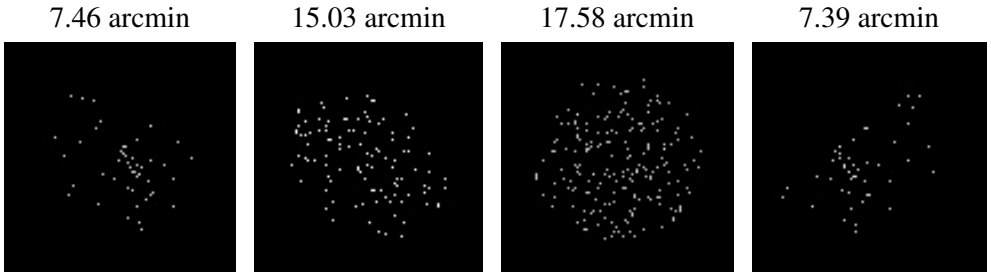
2.5.3 Slot 2


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: 0.105 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: −0.099 arcsec
RMS: 0.004 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	1.184

A.2 Comments

```
Window constraint met.

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.
```