V&V Reference Report
L2 ASCDS Version : 7.6.7.1

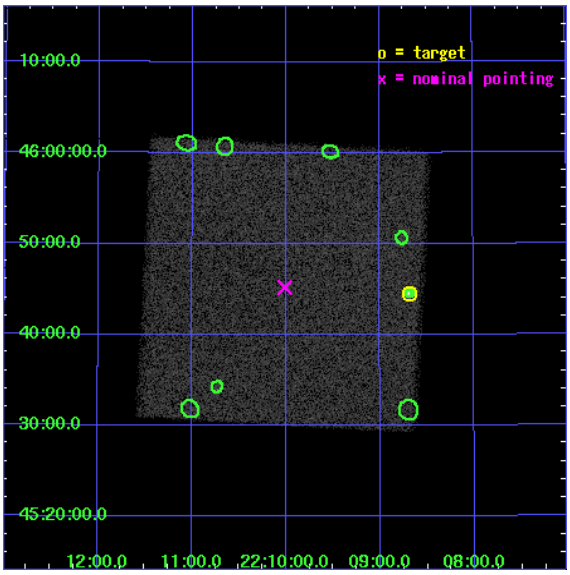
Observation 5997 - L2 Version 3
Chandra X-Ray Center

L2 Processing Date : Nov 24 2007

Contents

1 Front

seq_num	290489
obs_id	5997
title	AO6 Calibration Observations to Monitor the Spatial Variations in the HRC-I Gain
observer	Dr. CXC Calibration
object	ArLac
ra_targ	332.17
dec_targ	45.742306
ra_nom	332.50298873051
dec_nom	45.753670857593
roll_nom	228.03064373387
revision	3
ontime	1169.5250537992
livetime	1157.5433225148
l2events	91756

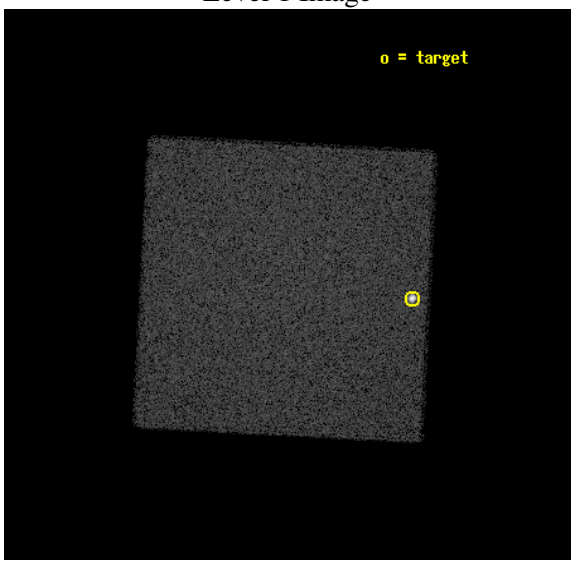


2 OBI

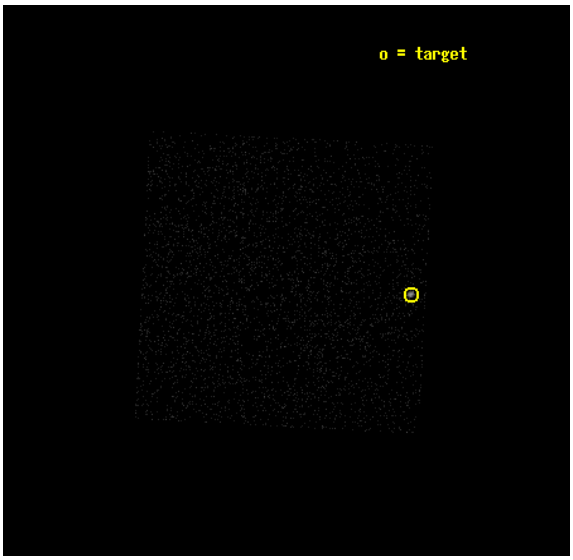
2.1 OBI

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	2007-11-24T17:48:57
revision	3

sched_exp_time	988.751000
ontime	1169.5250537992
l1events	170142

2.1.3 Events

Level 1 Events

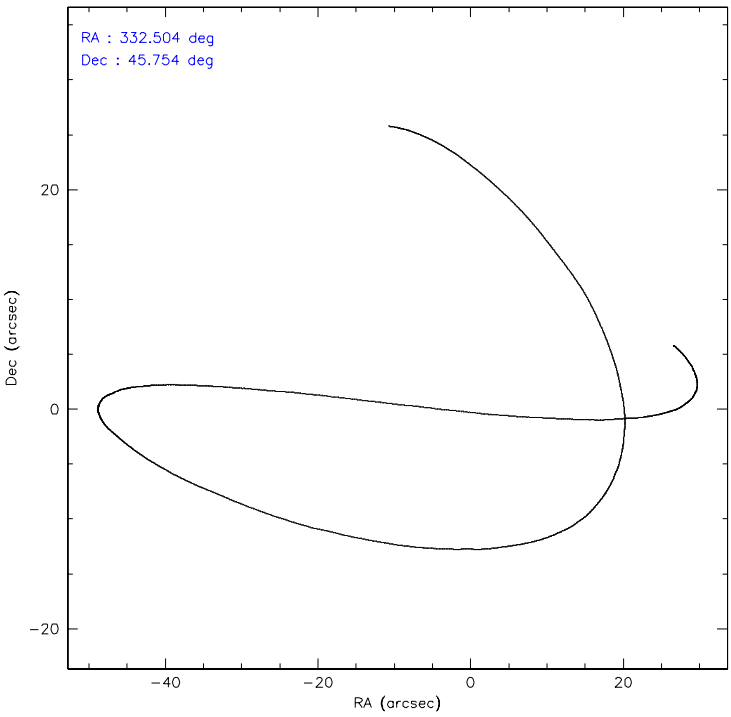
	segment 0
level 1 events	170142
rejected events	46068
rejected %	27%

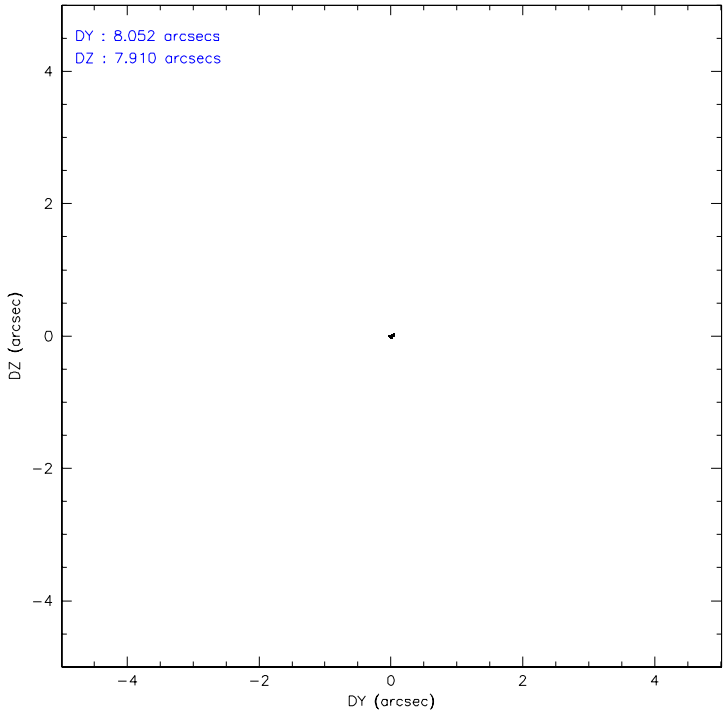
2.2 Compared Parameters

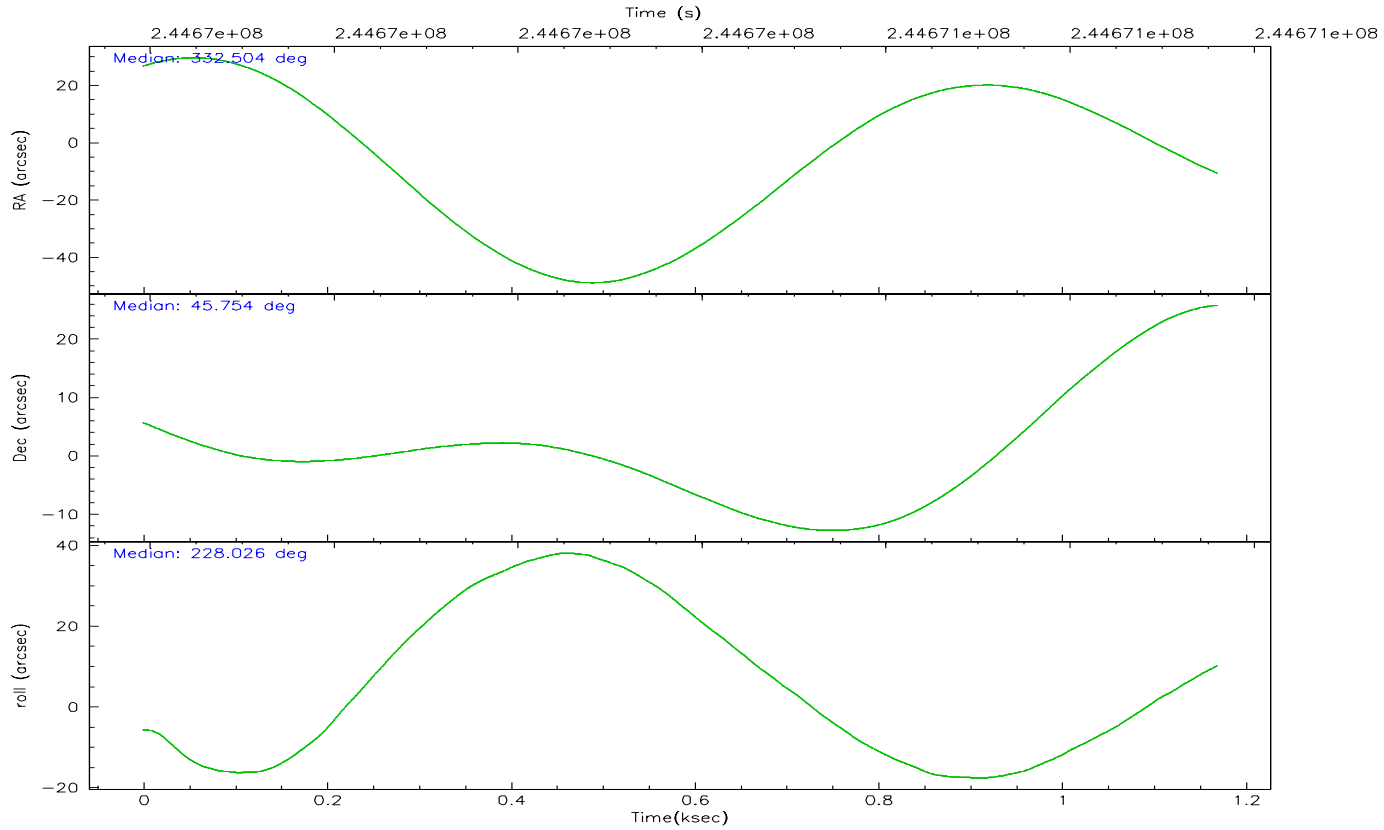
Parameter	Planned	Actual
Instrument	HRC	HRC
Detector	HRC-I	HRC-I
Grating	NONE	NONE
Data mode	OBSERVING	OBSERVING
Observation mode	POINTING	POINTING
Pointing RA	332.509012	332.502988730513
Pointing Dec	45.780496	45.75367085759322
Pointing Roll	228.121797	228.0306437338688
SIM focus pos (mm)	-1.040293	-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	244669971.184000	244669595.50624
Observation start date	2005-10-02T19:51:47	2005-10-02T19:46:35
Observation end time	244670960.184000	244671155.04381
Observation end date	2005-10-02T20:08:16	2005-10-02T20:12:35

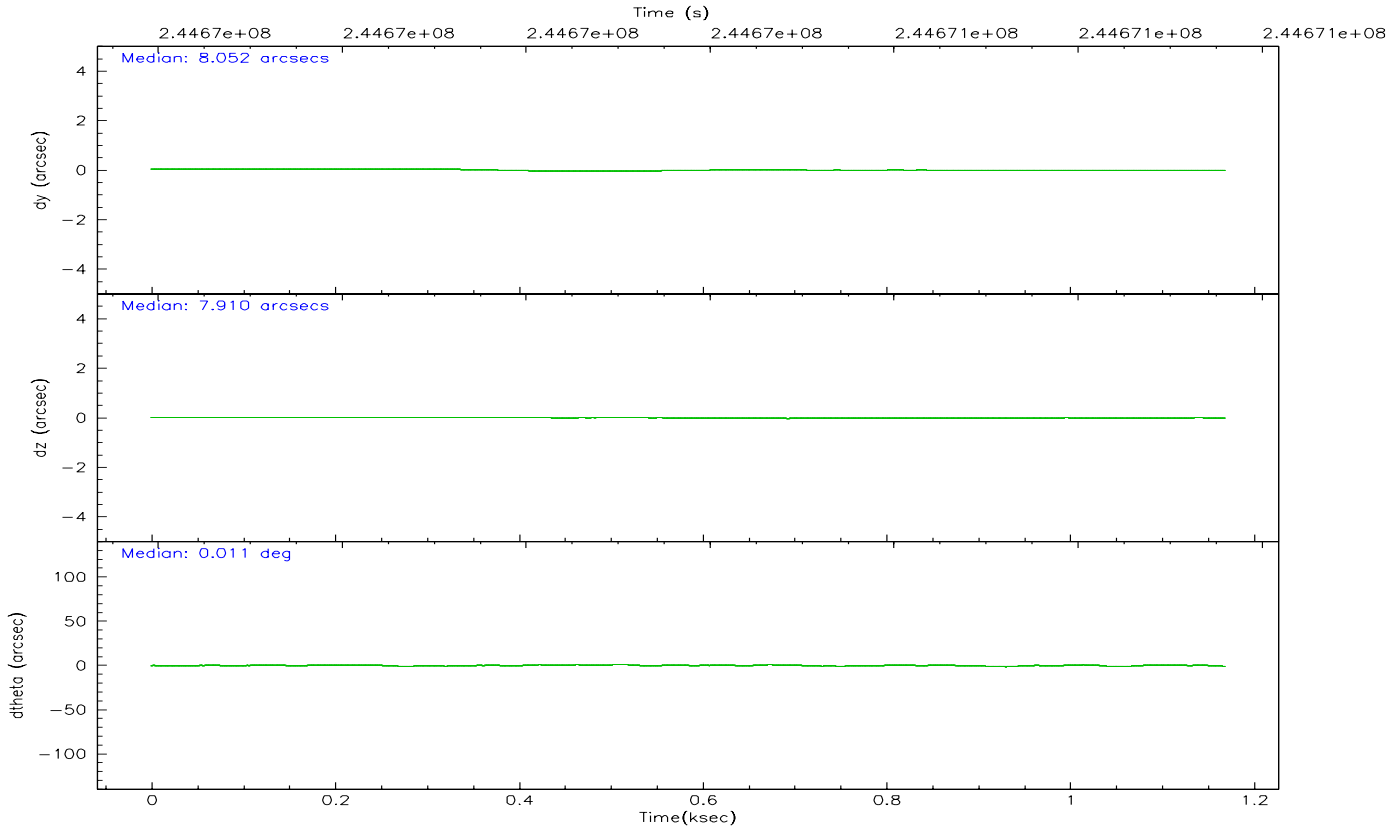
Parameter	Planned	Actual
Obspar format version number	6	6
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED

2.3 Aspect


RA : 332.504 deg
Dec : 45.754 deg
20
0
−20
Dec (arcsec)
−40
−20
0
20
RA (arcsec)


DY : 8.052 arcsecs
DZ : 7.910 arcsecs
4
2
0
−2
−4
DZ (arcsec)
−4
−2
0
2
4
DY (arcsec)


Time (s)
2.4467e+08
2.4467e+08
2.4467e+08
2.4467e+08
2.44671e+08
2.44671e+08
2.44671e+08
Median: 332.504 deg
RA (arcsec)
Median: 45.754 deg
Dec (arcsec)
Median: 228.026 deg
roll (arcsec)
Time(ksec)

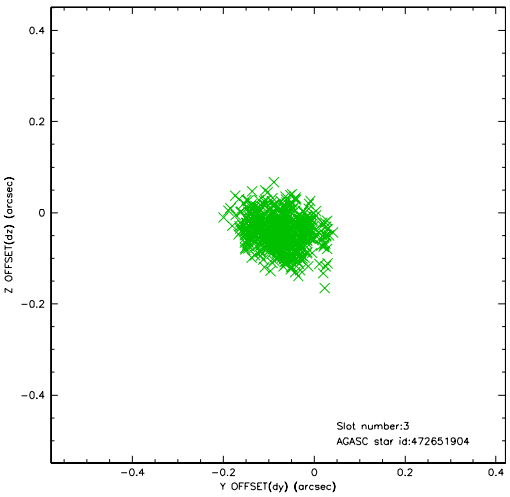

Time (s)
2.4467e+08
2.4467e+08
2.4467e+08
2.4467e+08
2.44671e+08
2.44671e+08
2.44671e+08
Median: 8.052 arcsecs
dy (arcsec)
Median: 7.910 arcsecs
dz (arcsec)
Median: 0.011 deg
dtheta (arcsec)
Time(ksec)

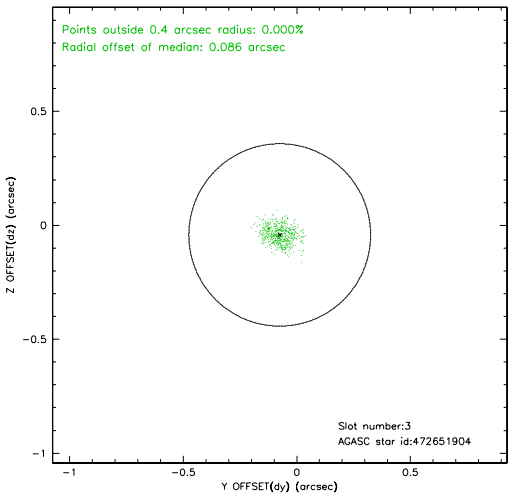
Slot Statistics

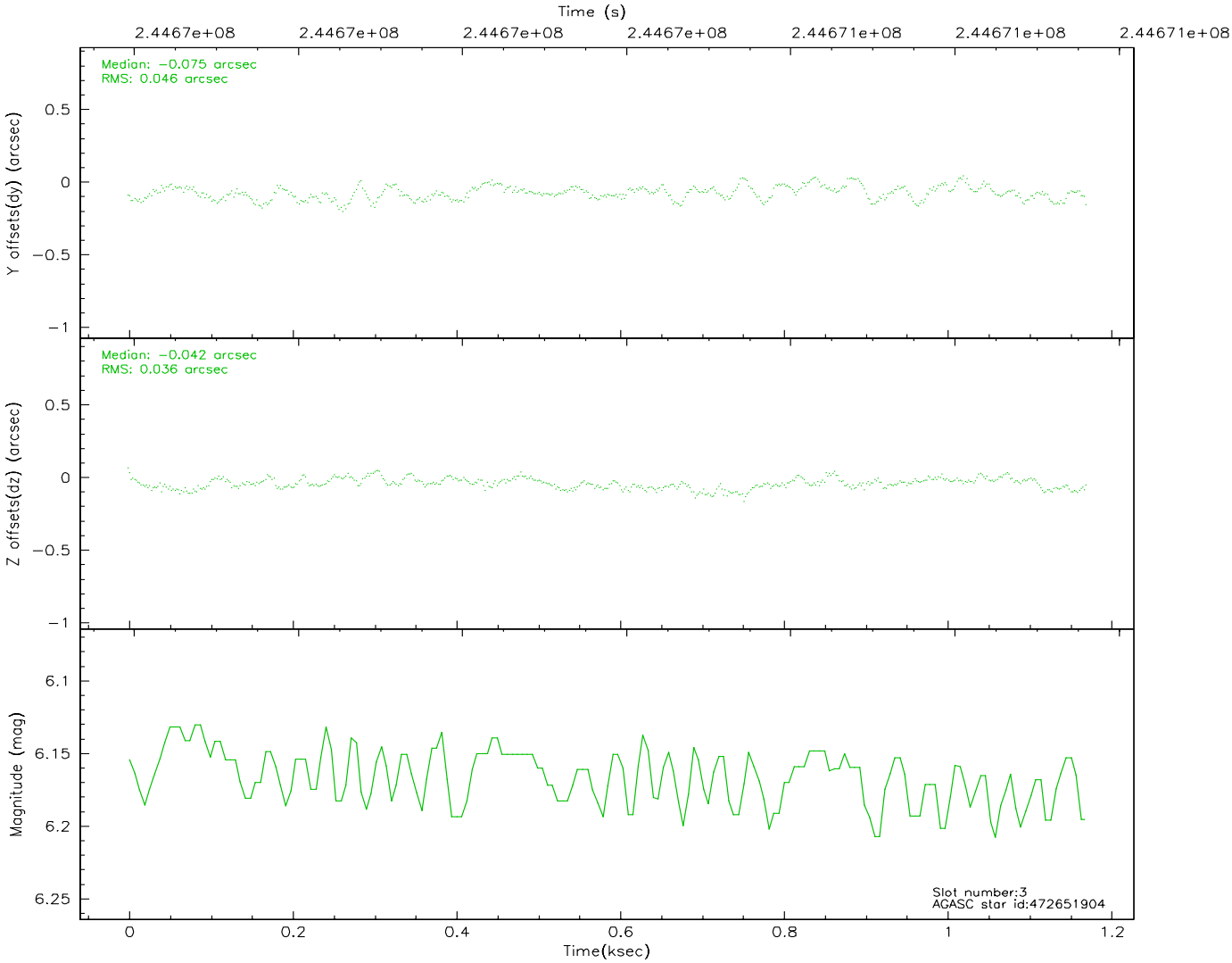
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	HRC-I-1	6.99	286	0.050	0.022	0.006	0.009	0.000000	0.000000	-763.69	-1295.72
1	FID	HRC-I-3	7.08	286	-0.062	-0.062	0.007	0.011	0.000000	0.000000	-1194.84	1004.25
2	FID	HRC-I-4	7.02	286	0.127	-0.051	0.006	0.010	0.000000	0.000000	1275.12	1009.78
3	GUIDE	472651904	6.16	572	-0.075	-0.042	0.064	0.101	332.170077	45.742257	671.23	-546.00
4	GUIDE	472655152	9.44	572	0.107	0.011	0.145	0.244	332.504239	45.862991	-210.13	-210.31
5	GUIDE	472663080	9.42	572	0.033	0.016	0.097	0.162	332.652741	46.473840	-2095.18	-1403.88
6	GUIDE	472665256	9.02	572	0.001	-0.001	0.077	0.120	332.808125	46.195041	-1611.73	-446.98
7	GUIDE	472662552	9.79	571	-0.072	0.041	0.144	0.248	333.514552	45.981196	-2230.27	1376.91

2.4 Star Slots

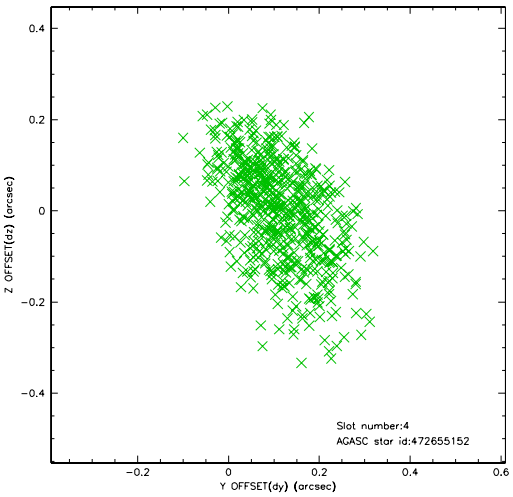
2.4.1 Slot 3

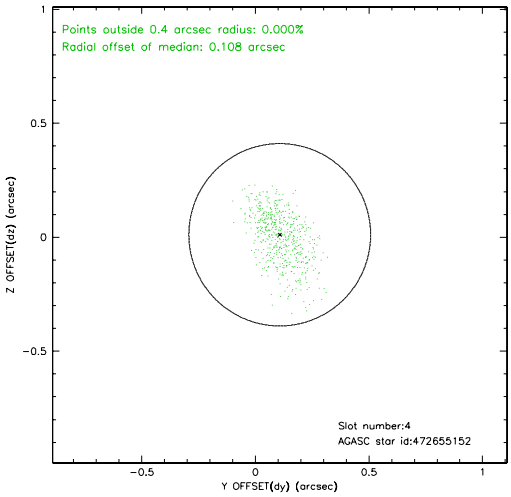


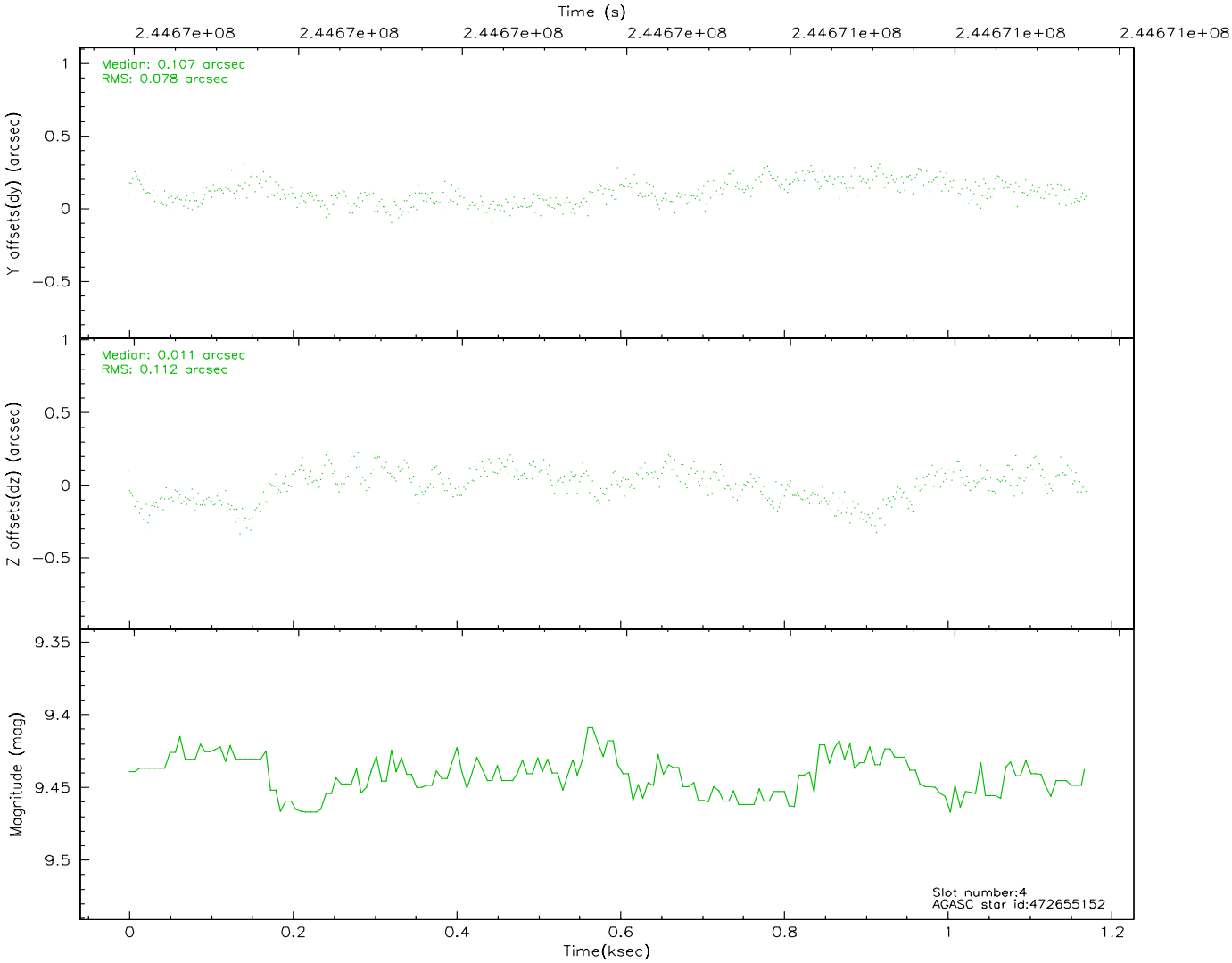




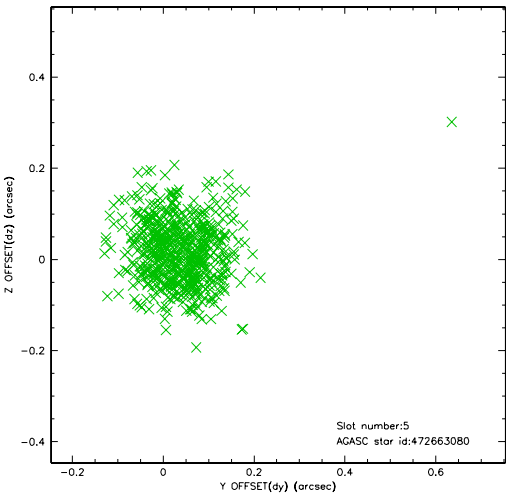
2.4.2 Slot 4

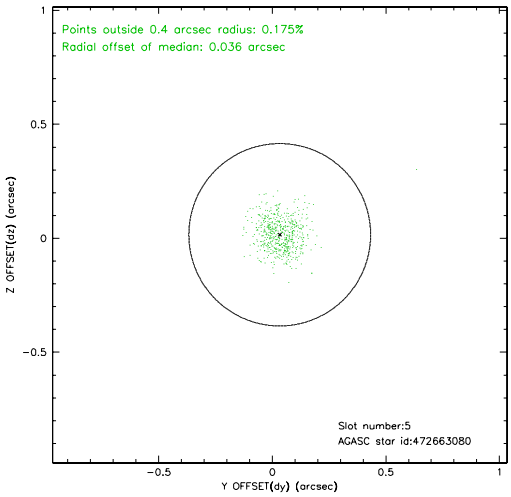

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:4
AGASC star id:472655152

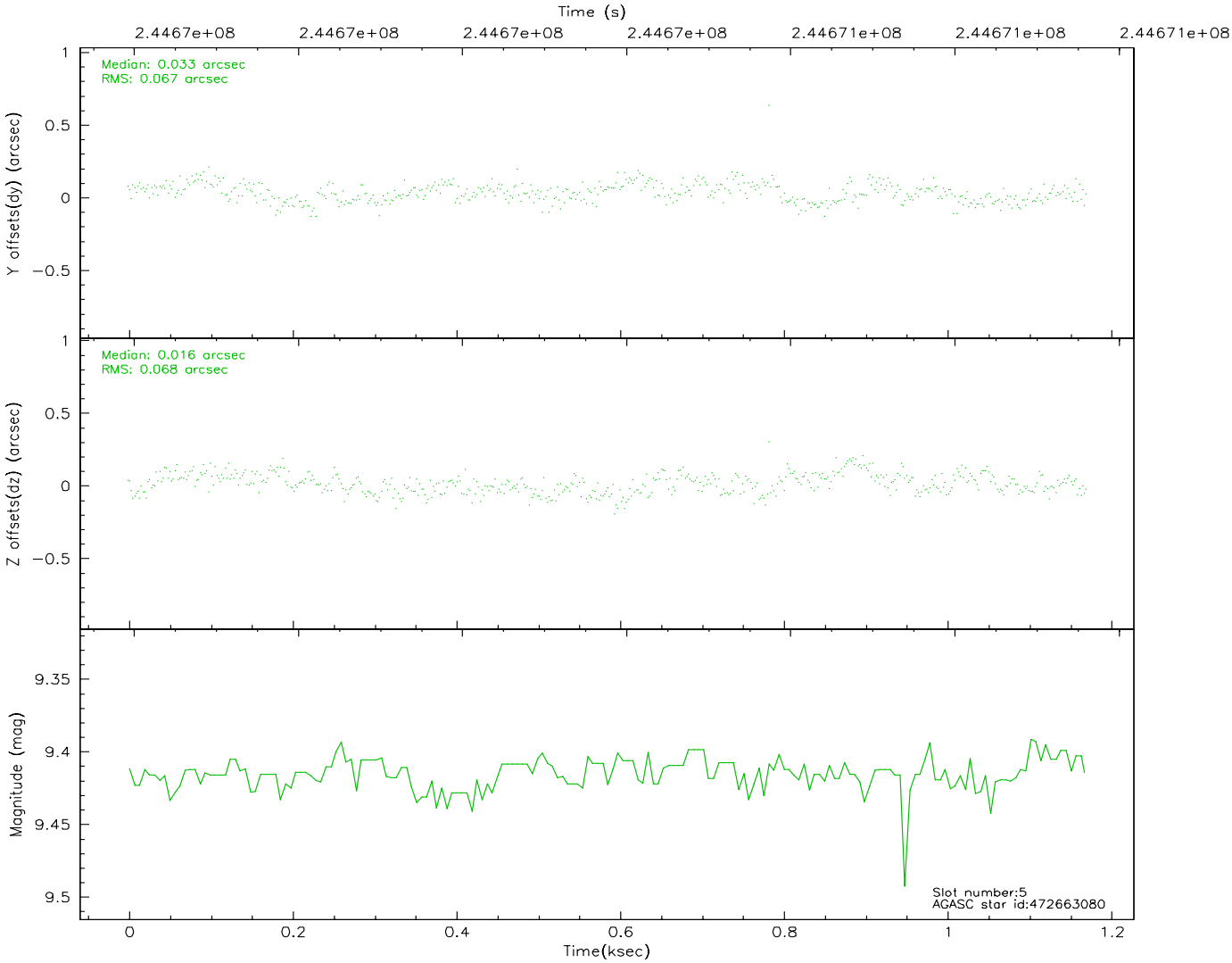

Points outside 0.4 arcsec radius: 0.000%
Radial offset of median: 0.108 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:4
AGASC star id:472655152


Time (s)
Median: 0.107 arcsec
RMS: 0.078 arcsec
Y offsets(dy) (arcsec)
Median: 0.011 arcsec
RMS: 0.112 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:4
AGASC star id:472655152
Time(ksec)

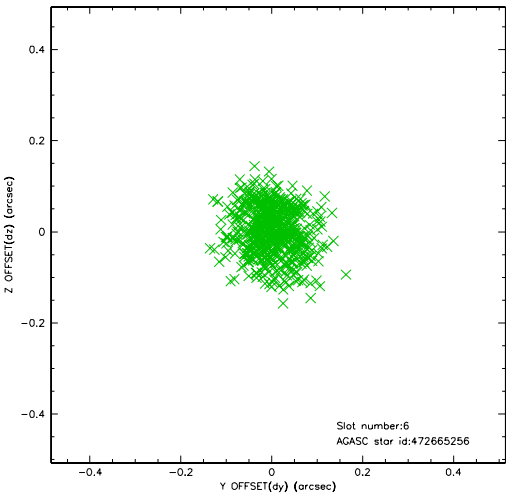
2.4.3 Slot 5

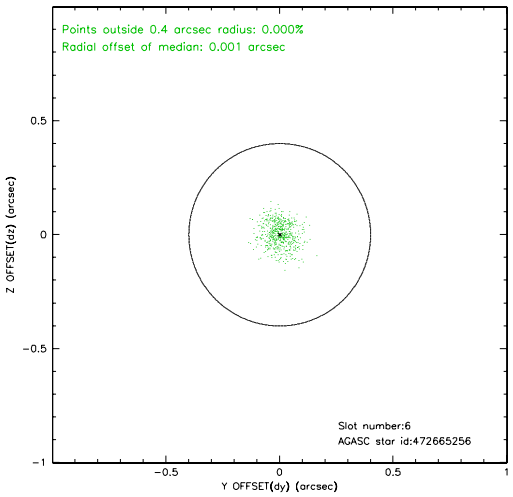

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:5
AGASC star id:472663080

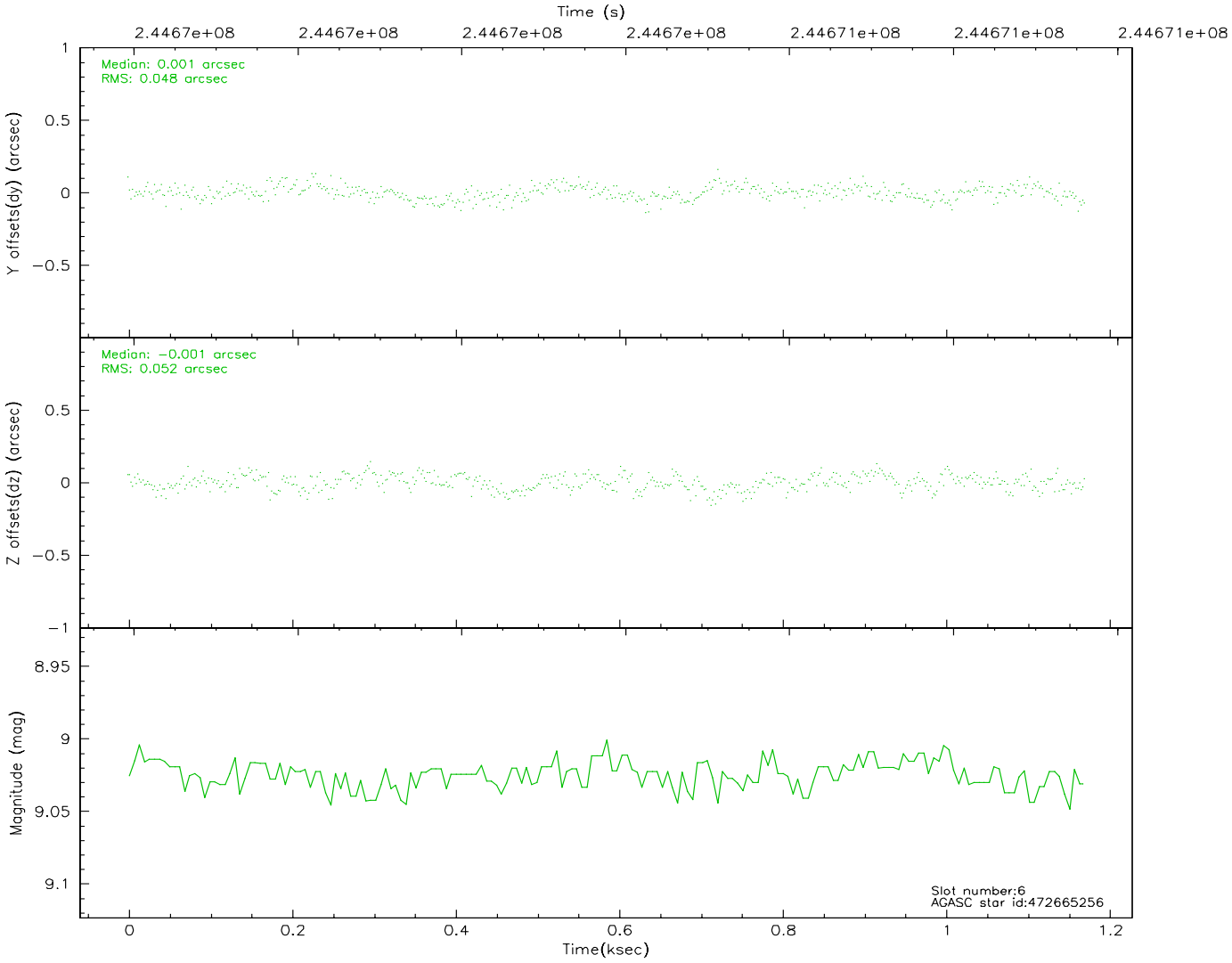

Points outside 0.4 arcsec radius: 0.175%
Radial offset of median: 0.036 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:5
AGASC star id:472663080


Time (s)
Median: 0.033 arcsec
RMS: 0.067 arcsec
Y offsets(dy) (arcsec)
Median: 0.016 arcsec
RMS: 0.068 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:5
AGASC star id:472663080
Time(ksec)

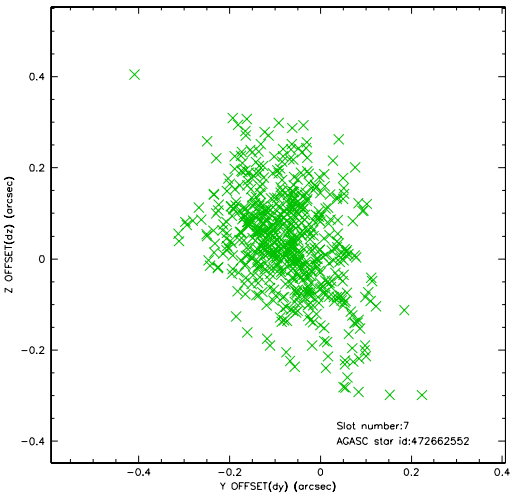
2.4.4 Slot 6

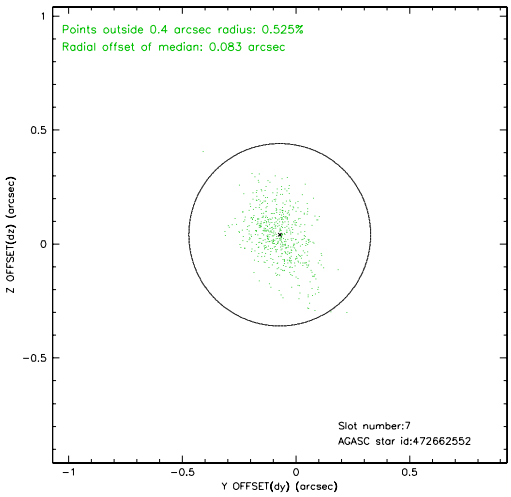

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:6
AGASC star id:472665256

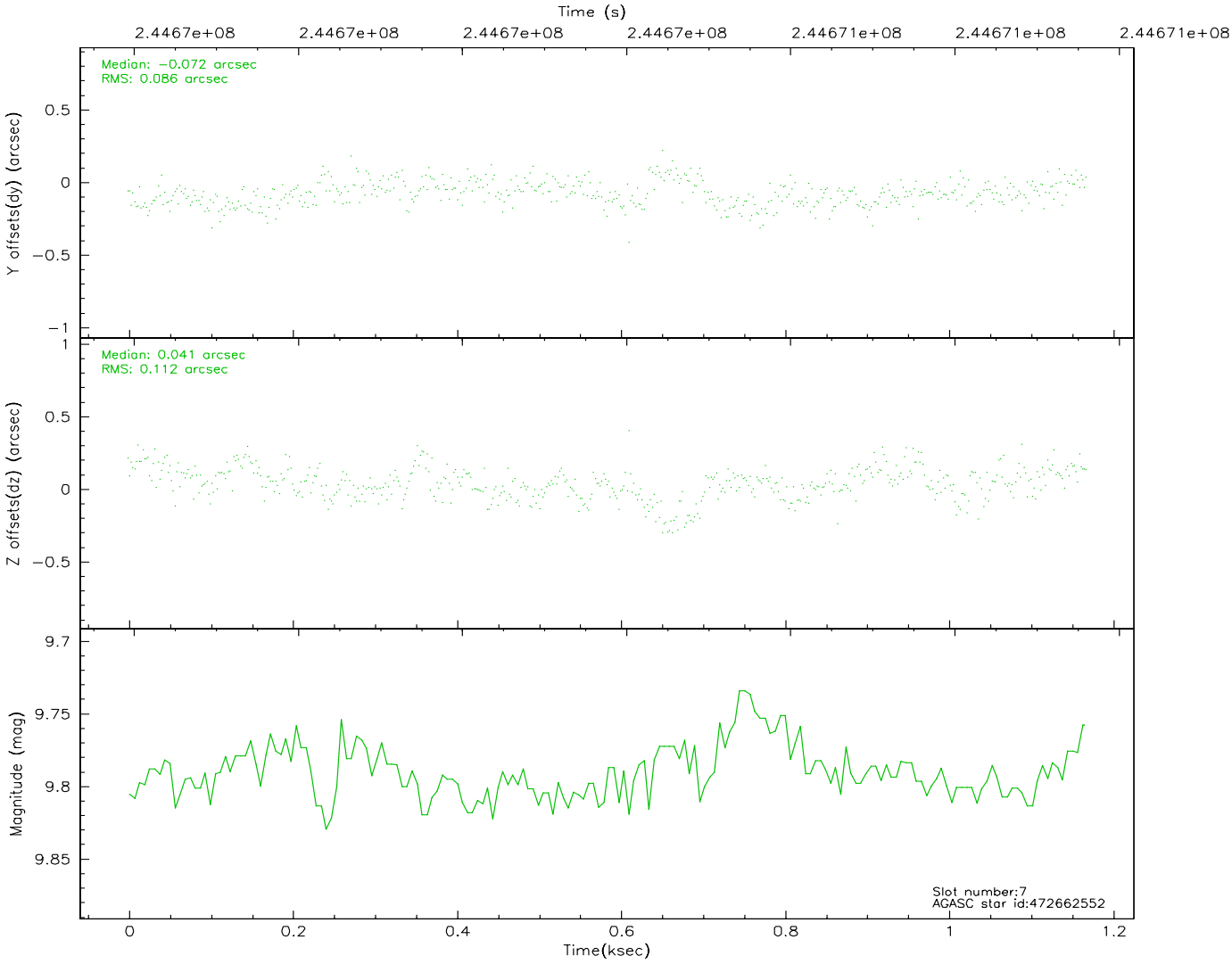

Points outside 0.4 arcsec radius: 0.000%
Radial offset of median: 0.001 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:6
AGASC star id:472665256


Time (s)
Median: 0.001 arcsec
RMS: 0.048 arcsec
Y offsets(dy) (arcsec)
Median: −0.001 arcsec
RMS: 0.052 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:6
AGASC star id:472665256
Time(ksec)

2.4.5 Slot 7

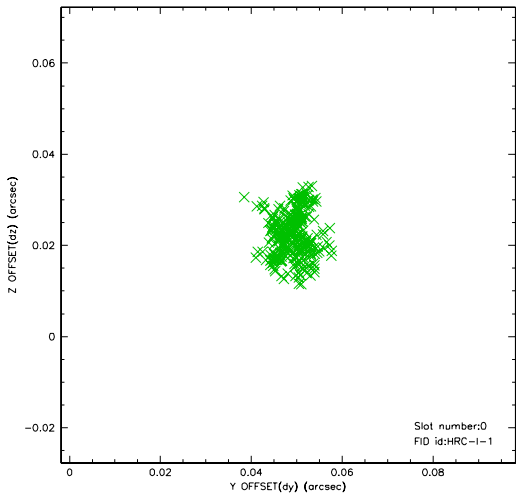

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:7
AGASC star id:472662552

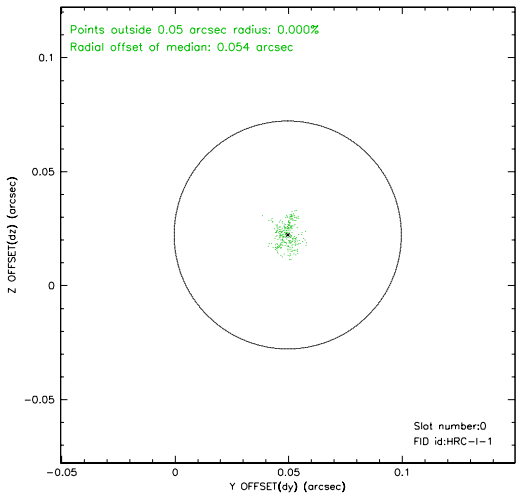

Points outside 0.4 arcsec radius: 0.525%
Radial offset of median: 0.083 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:7
AGASC star id:472662552

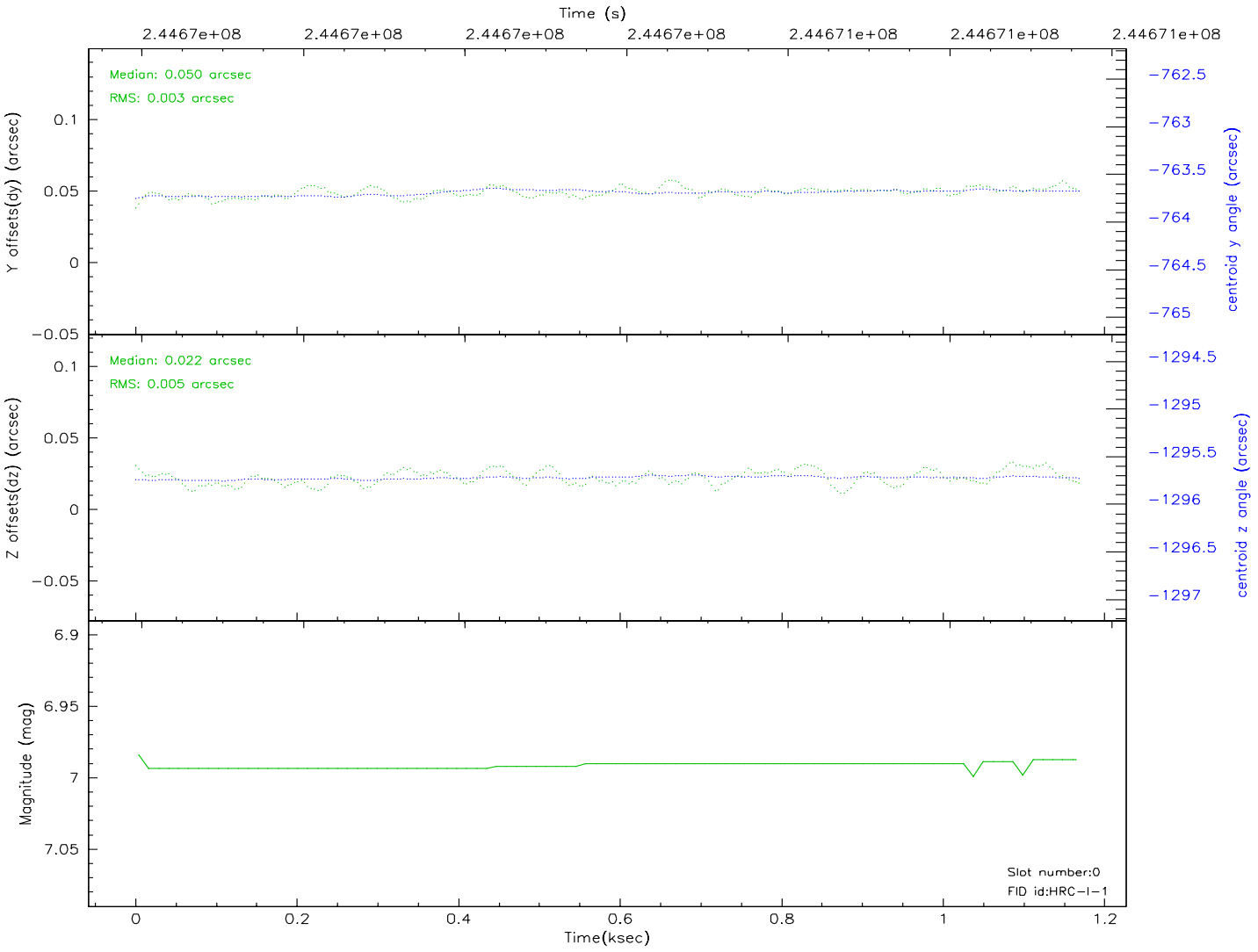

Time (s)
Median: −0.072 arcsec
RMS: 0.086 arcsec
Y offsets(dy) (arcsec)
Median: 0.041 arcsec
RMS: 0.112 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:7
AGASC star id:472662552
Time(ksec)

2.5 FID Slots

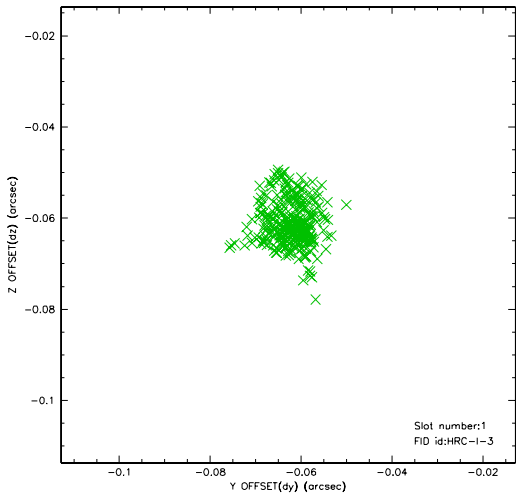
2.5.1 Slot 0

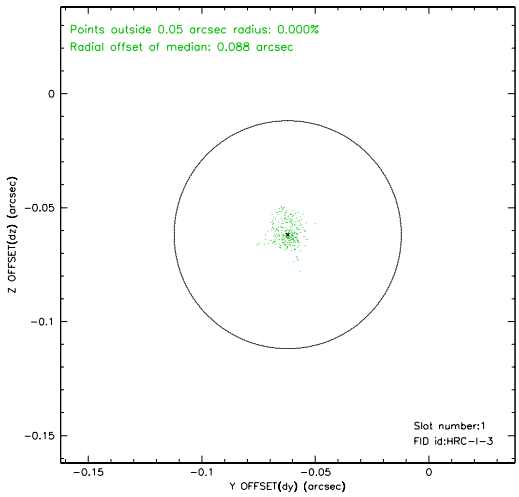


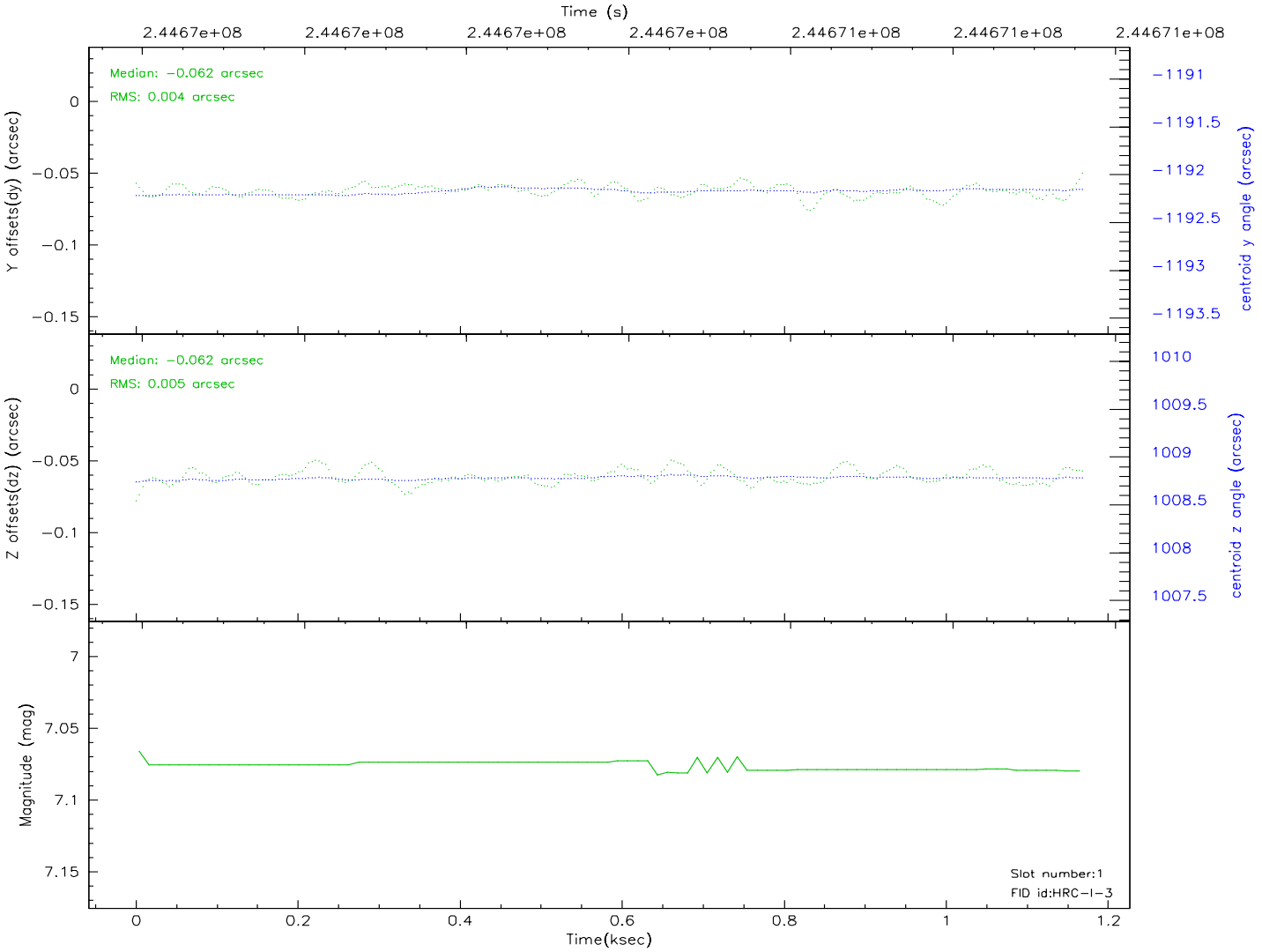




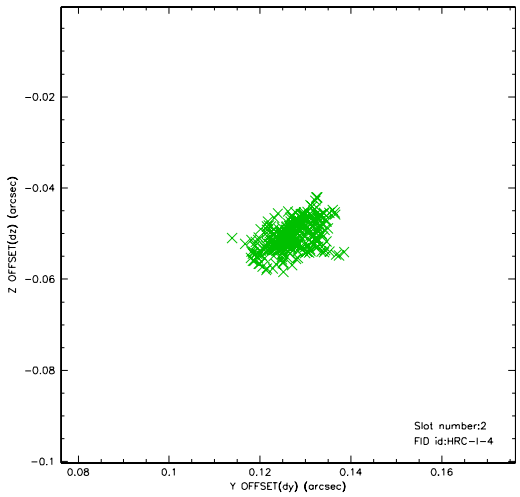
2.5.2 Slot 1

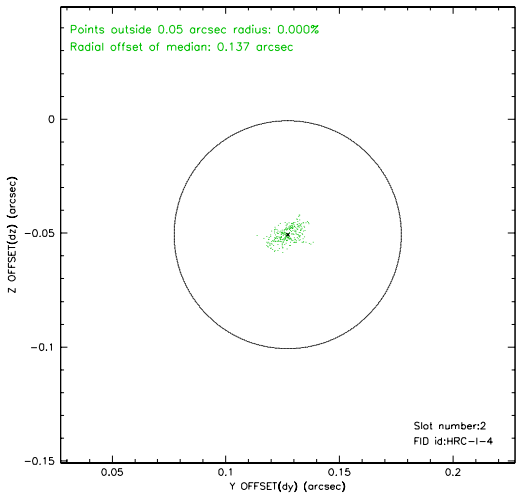

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:1
FID id:HRC-I-3

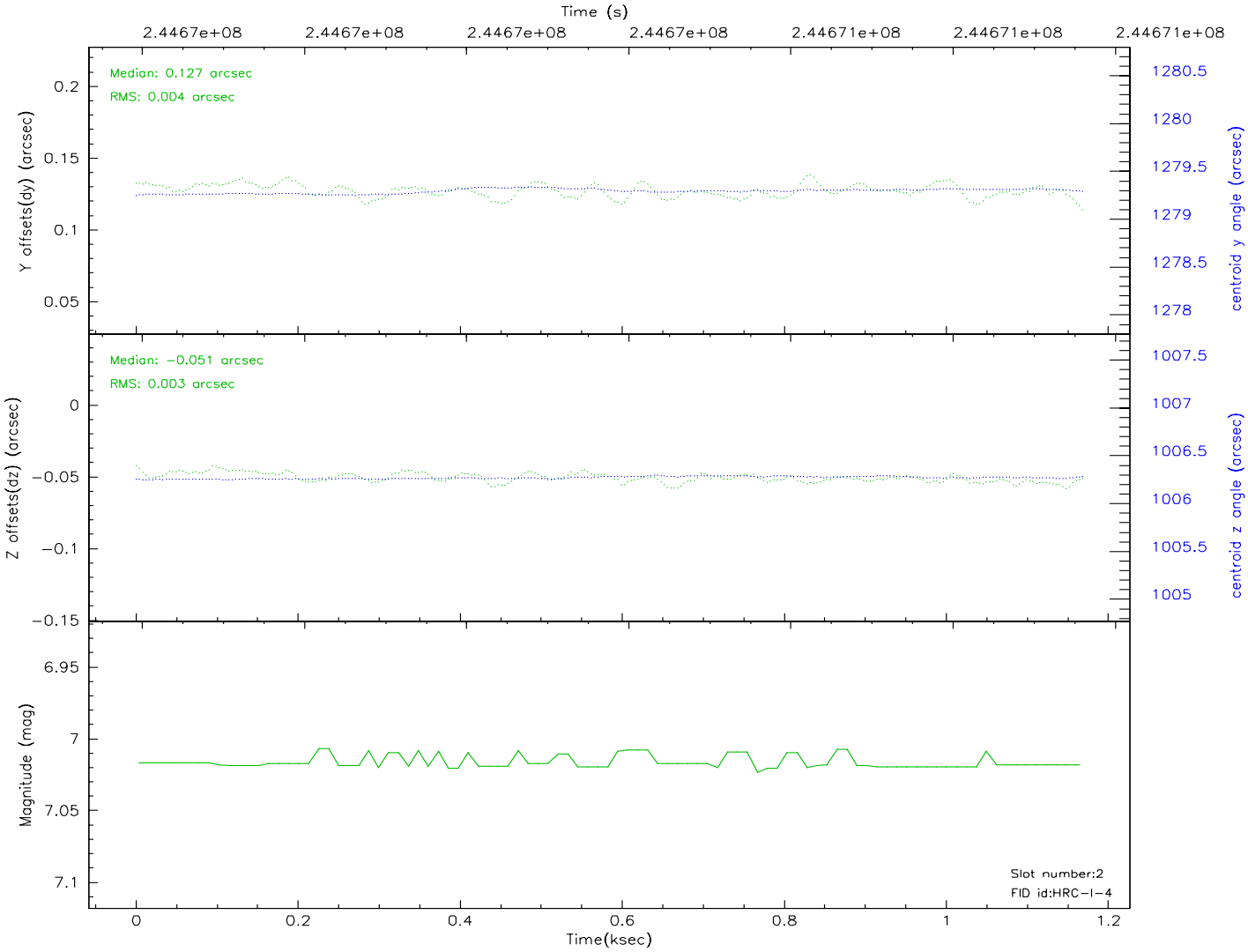

Points outside 0.05 arcsec radius: 0.000%
Radial offset of median: 0.088 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:1
FID id:HRC-I-3


Time (s)
Median: −0.062 arcsec
RMS: 0.004 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: −0.062 arcsec
RMS: 0.005 arcsec
Z offsets(dz) (arcsec)
centroid z angle (arcsec)
Magnitude (mag)
Slot number:1
FID id:HRC-I-3
Time(ksec)

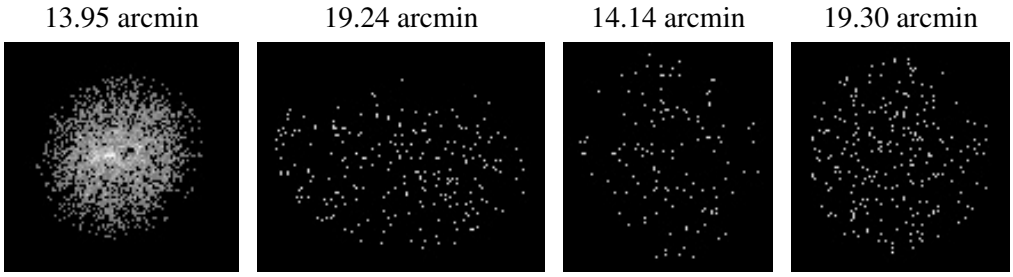
2.5.3 Slot 2


Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:2
FID id:HRC-I-4


Points outside 0.05 arcsec radius: 0.000%
Radial offset of median: 0.137 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:2
FID id:HRC-I-4


Time (s)
Median: 0.127 arcsec
RMS: 0.004 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: −0.051 arcsec
RMS: 0.003 arcsec
Z offsets(dz) (arcsec)
centroid z angle (arcsec)
Magnitude (mag)
Slot number:2
FID id:HRC-I-4
Time(ksec)

3 Point Sources



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2007.12.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.169525

A.2 Comments

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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.
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