V&V Reference Report
L2 ASCDS Version : 7.6.10

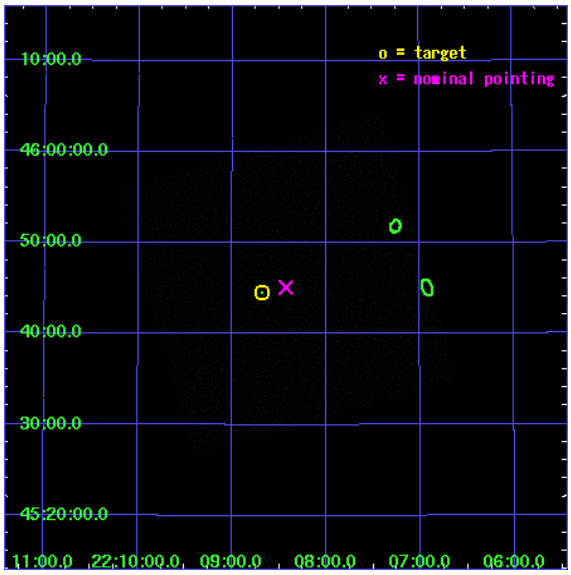
Observation 2352 - L2 Version 4
Chandra X-Ray Center

L2 Processing Date : Nov 21 2007

Contents

1 Front

seq_num	290099
obs_id	2352
title	HRC-I CALIBRATION OBSERVATIONS OF ARLAC
observer	Dr. CXC Calibration
object	ARLAC,HRC-I,AO2A
ra_targ	332.17
dec_targ	45.742306
ra_nom	332.10681393475
dec_nom	45.752125858155
roll_nom	298.72706107119
revision	4
ontime	1202.5812959671
livetime	1196.7108981428
l2events	34232

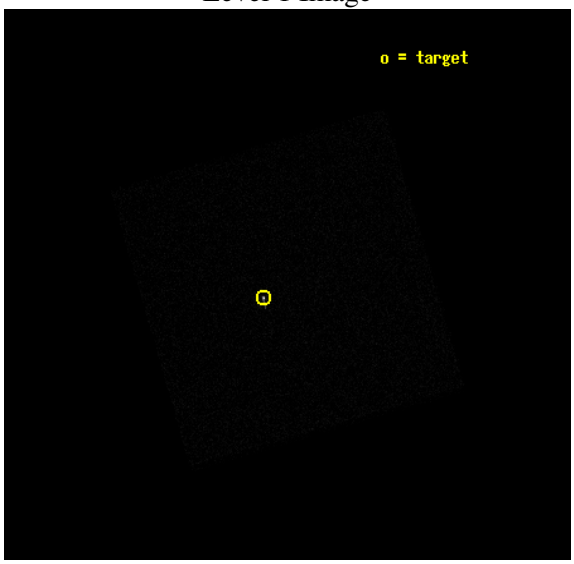


2 OBI

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	2007-11-21T04:47:00
revision	4

sched_exp_time	1000.000000
ontime	1202.5812959671
l1events	59718

2.1.3 Events

Level 1 Events

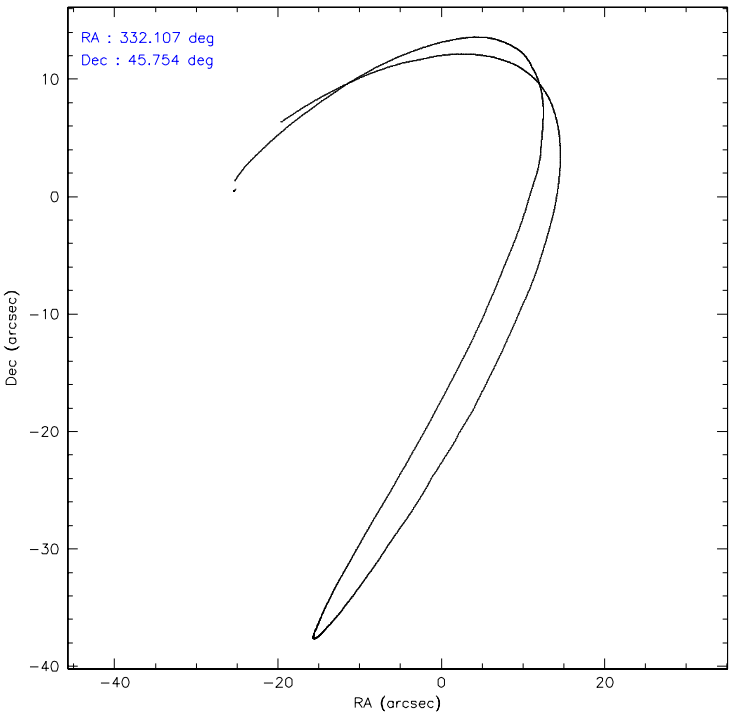
	segment 0
level 1 events	59718
rejected events	12054
rejected %	20%

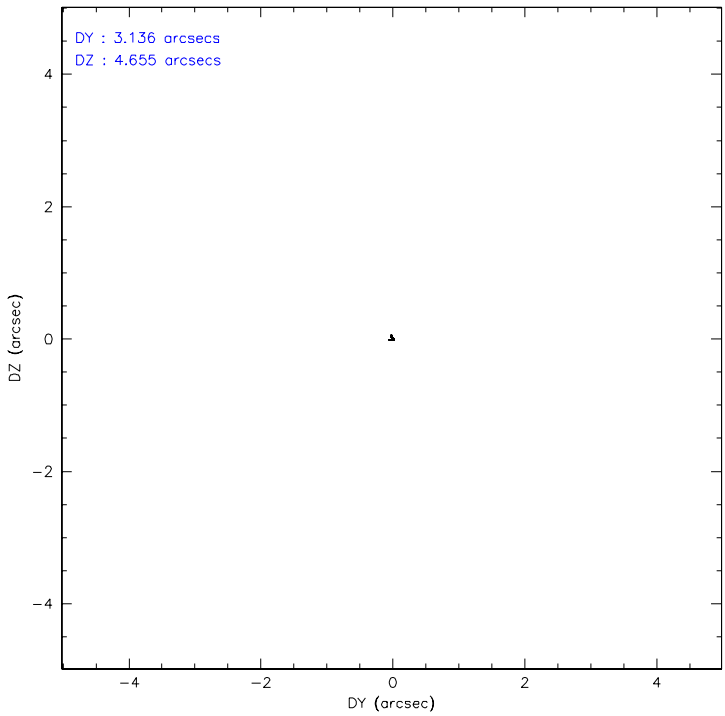
2.2 Compared Parameters

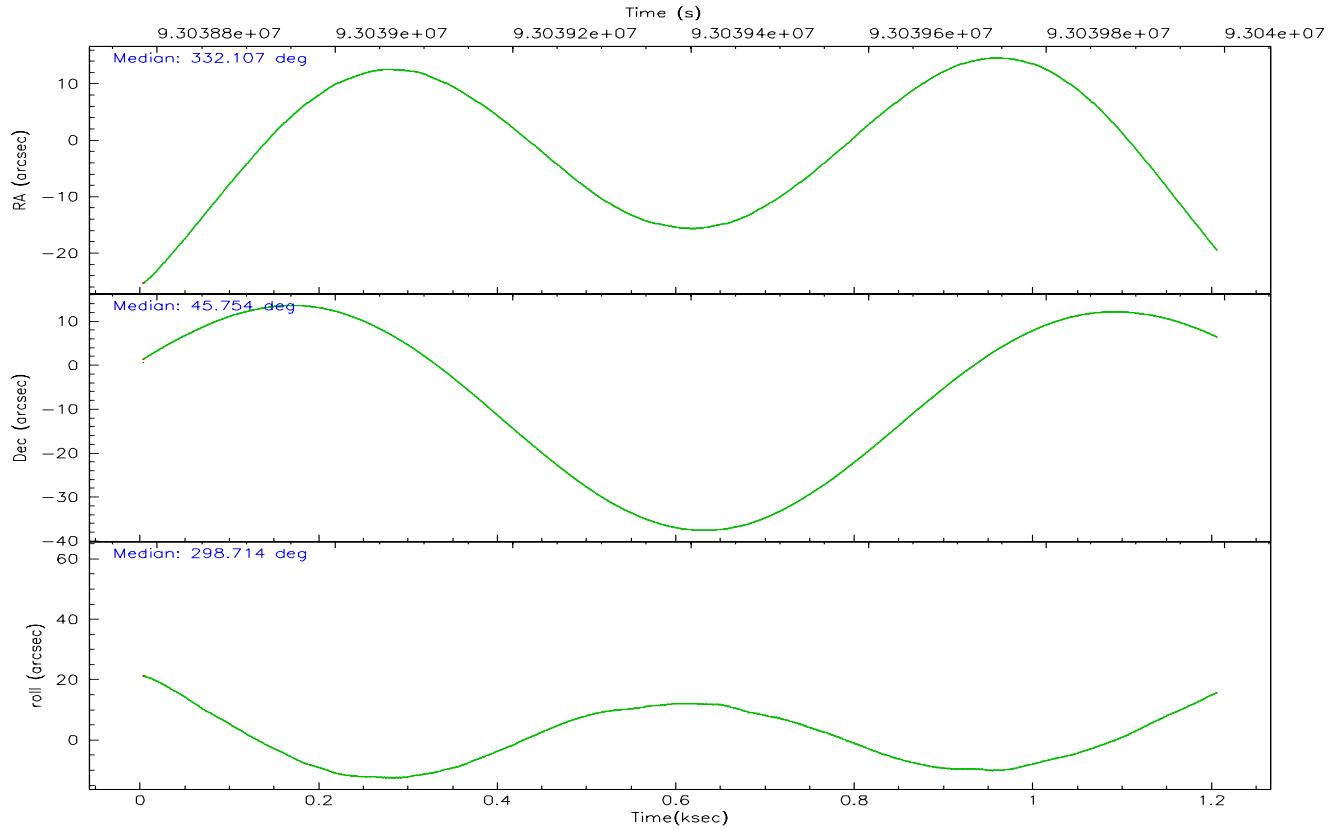
Parameter	Planned	Actual
Instrument	HRC	HRC
Detector	HRC-I	HRC-I
Grating	NONE	NONE
Data mode	OBSERVING	OBSERVING
Observation mode	POINTING	POINTING
Pointing RA	332.072084	332.1068139347487
Pointing Dec	45.764841	45.75212585815509
Pointing Roll	298.847435	298.7270610711878
SIM focus pos (mm)	-1.040293	-1.038866356238299
SIM defocus (mm)	0	0.00142626442057514 1
SIM translation stage pos (mm)	126.985494	126.9854943052878
SIM translation stage offset (mm)	0	-5.413686238853188e-06
Observation start time	93038991.184000	93038614.637915
Observation start date	2000-12-12T20:08:47	2000-12-12T20:03:34
Observation end time	93039991.184000	93040124.462973
Observation end date	2000-12-12T20:25:27	2000-12-12T20:28:44

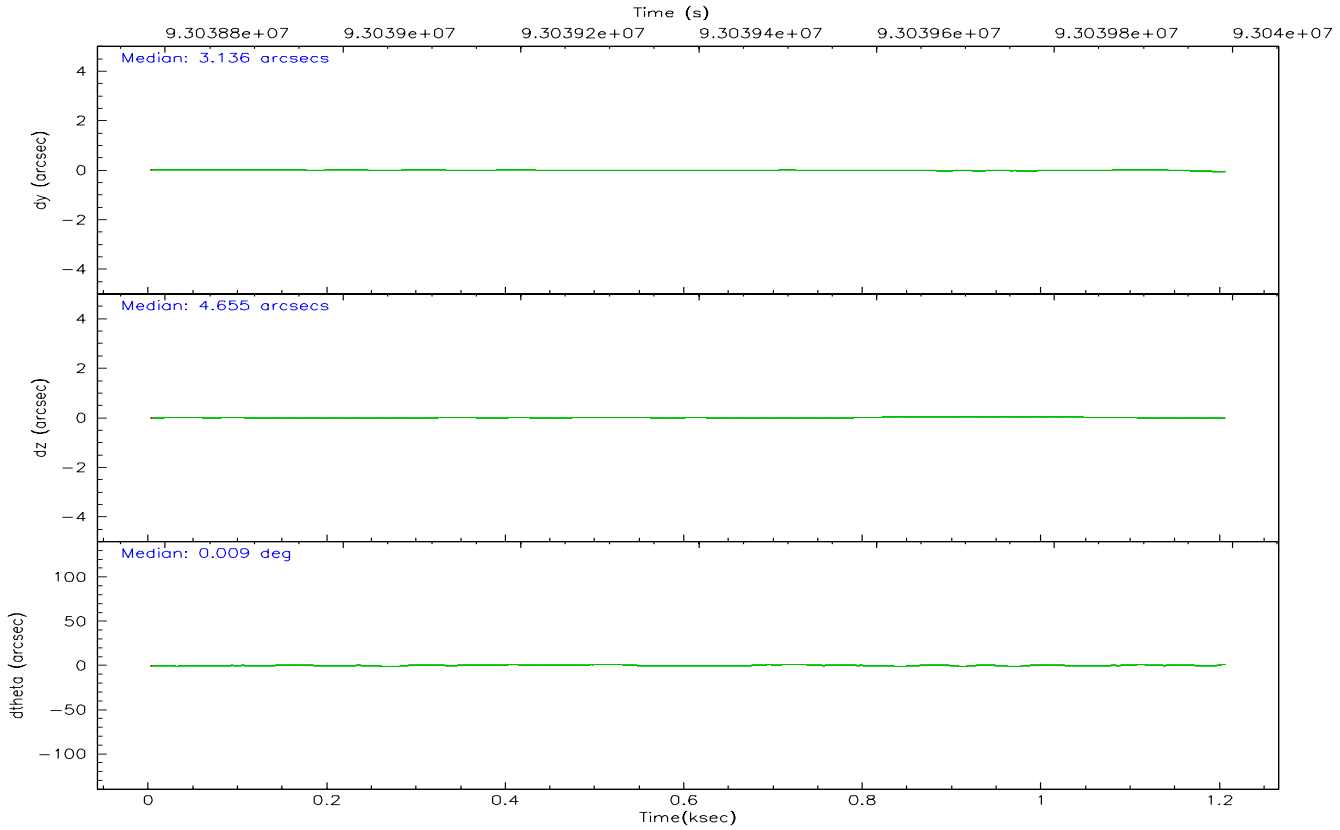
Parameter	Planned	Actual
Obspar format version number	6	6
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED

2.3 Aspect


RA : 332.107 deg
Dec : 45.754 deg
10
0
−10
−20
−30
−40
Dec (arcsec)
−40
−20
0
20
RA (arcsec)


DY : 3.136 arcsecs
DZ : 4.655 arcsecs
4
2
0
−2
−4
DZ (arcsec)
−4
−2
0
2
4
DY (arcsec)


Time (s)
9.30388e+07
9.3039e+07
9.30392e+07
9.30394e+07
9.30396e+07
9.30398e+07
9.304e+07
Median: 332.107 deg
RA (arcsec)
Median: 45.754 deg
Dec (arcsec)
Median: 298.714 deg
roll (arcsec)
Time(ksec)

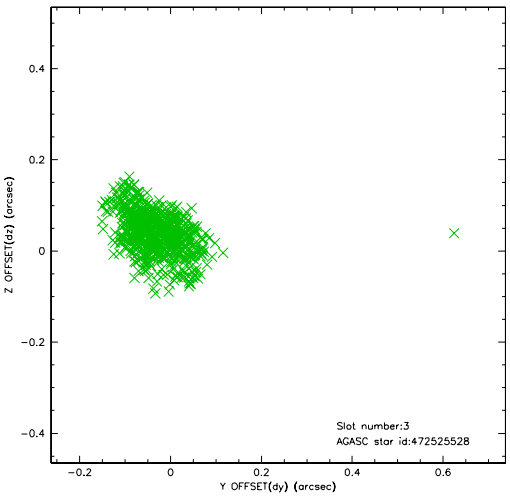

Time (s)
9.30388e+07
9.3039e+07
9.30392e+07
9.30394e+07
9.30396e+07
9.30398e+07
9.304e+07
Median: 3.136 arcsecs
dy (arcsec)
Median: 4.655 arcsecs
dz (arcsec)
Median: 0.009 deg
dtheta (arcsec)
Time(ksec)

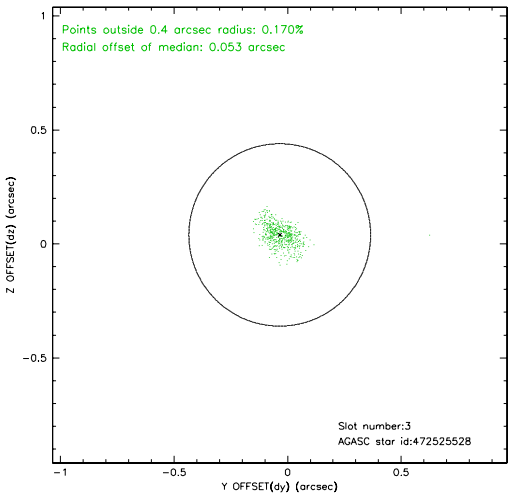
Slot Statistics

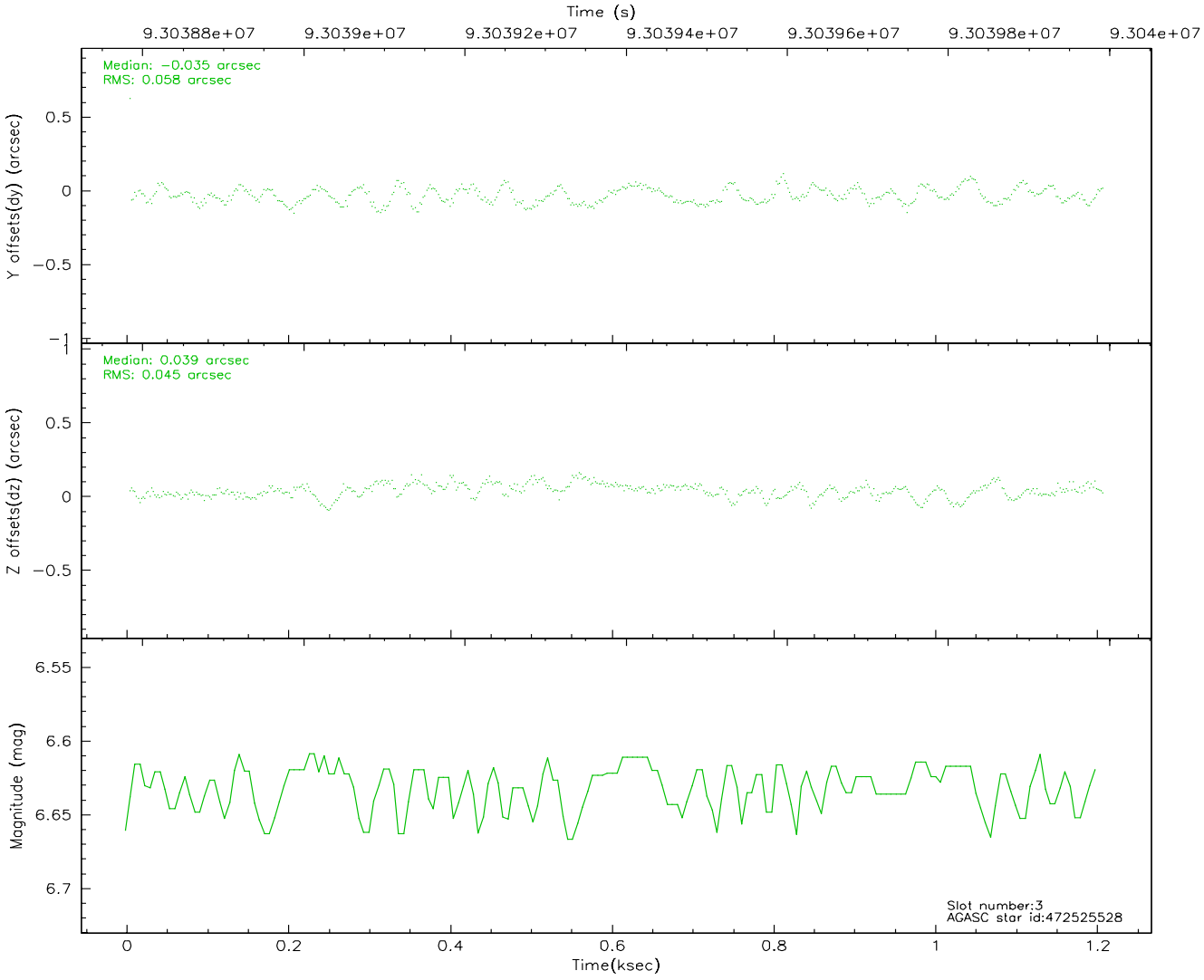
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	HRC-I-1	6.97	294	0.048	0.066	0.006	0.010	0.000000	0.000000	-758.57	-1292.42
1	FID	HRC-I-3	7.05	294	0.028	-0.098	0.006	0.011	0.000000	0.000000	-1189.65	1007.59
2	FID	HRC-I-4	6.99	294	0.039	-0.057	0.005	0.009	0.000000	0.000000	1280.18	1013.04
3	GUIDE	472525528	6.63	588	-0.035	0.039	0.072	0.121	331.551102	45.248694	989.04	-2055.80
4	GUIDE	472523760	8.23	588	-0.064	-0.115	0.054	0.087	331.645363	45.403260	621.12	-1579.90
5	GUIDE	472665256	9.01	588	-0.112	-0.131	0.090	0.141	332.808125	46.195041	-476.69	2349.93
6	GUIDE	472659832	9.47	588	0.035	0.050	0.099	0.151	332.780399	46.098139	-204.09	2130.45
7	GUIDE	472646552	9.63	587	0.180	0.162	0.115	0.178	333.120915	45.571877	1869.84	1987.47

2.4 Star Slots

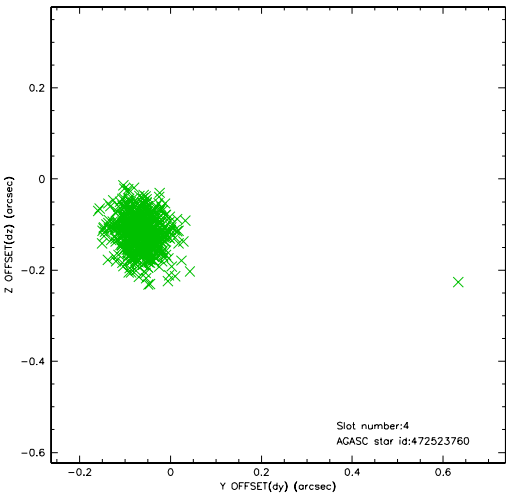
2.4.1 Slot 3

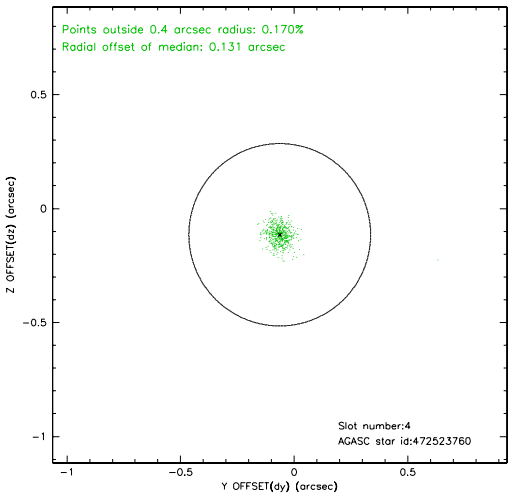


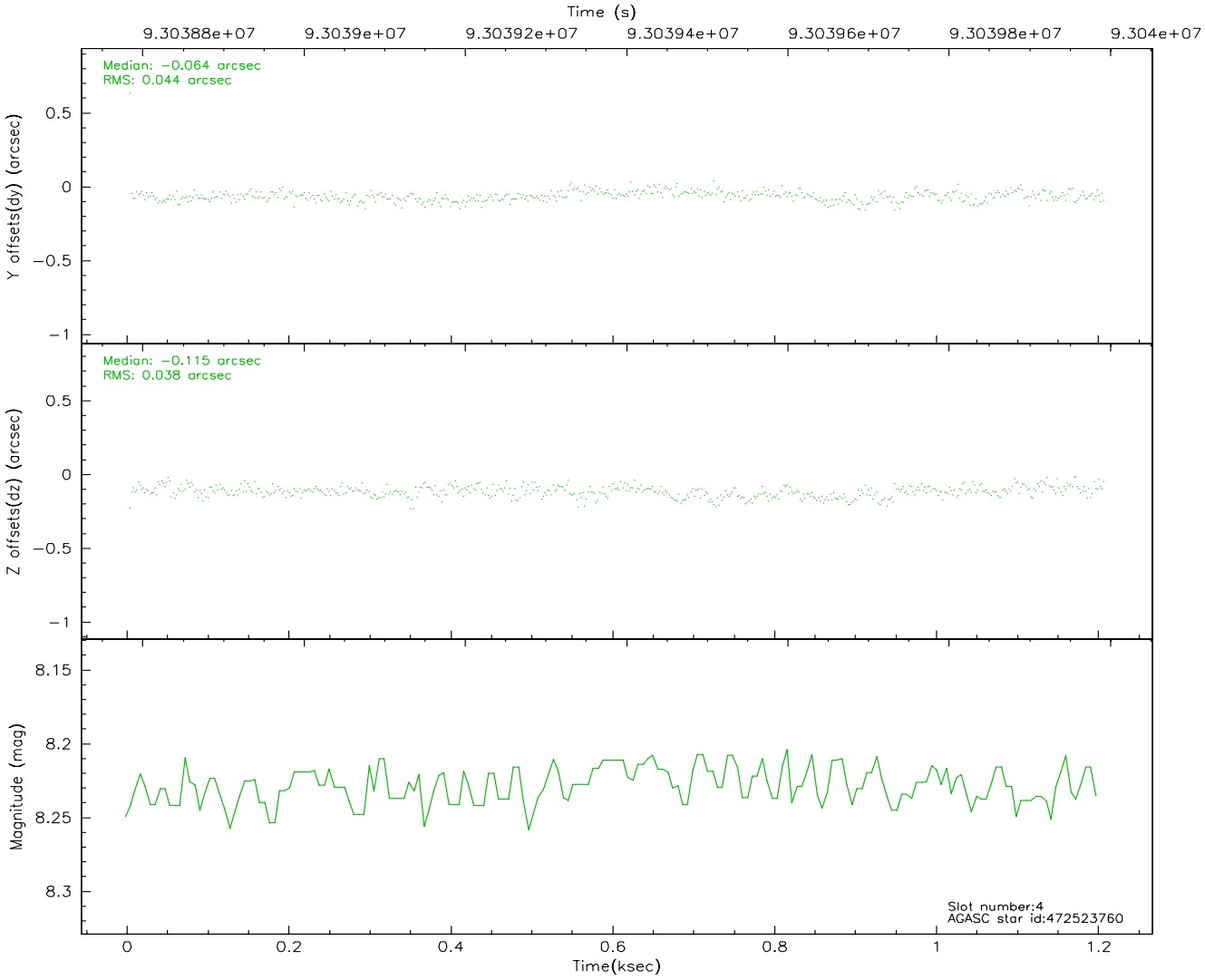




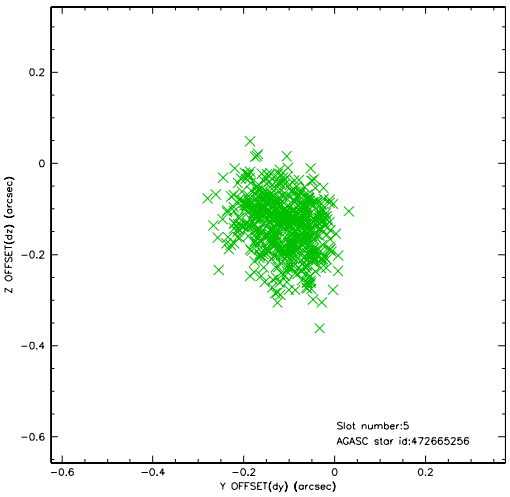
2.4.2 Slot 4

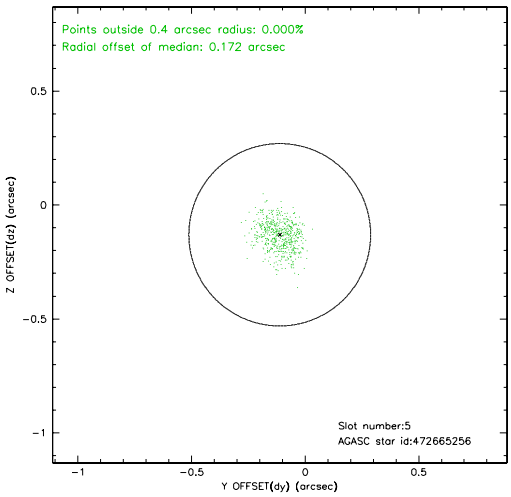

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:4
AGASC star id:472523760

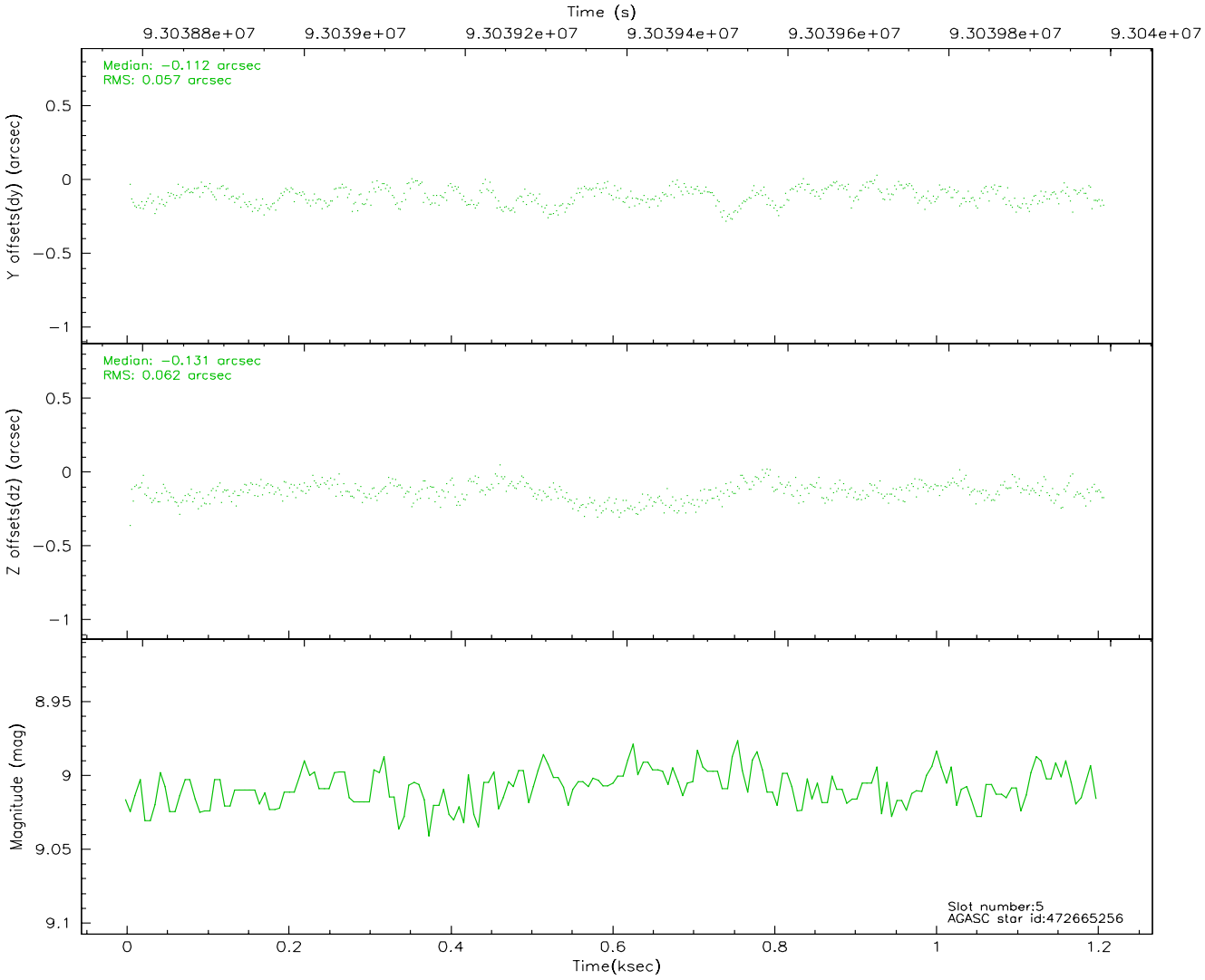

Points outside 0.4 arcsec radius: 0.170%
Radial offset of median: 0.131 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:4
AGASC star id:472523760


Time (s)
Median: −0.064 arcsec
RMS: 0.044 arcsec
Y offsets(dy) (arcsec)
Median: −0.115 arcsec
RMS: 0.038 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:4
AGASC star id:472523760
Time(ksec)

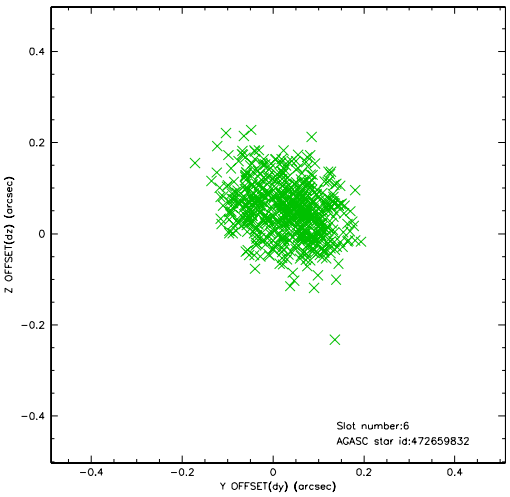
2.4.3 Slot 5

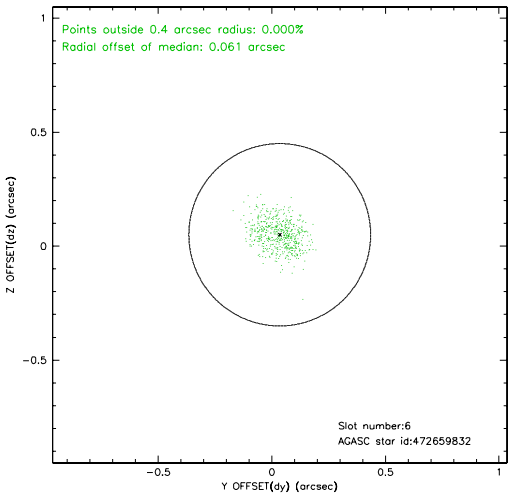

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:5
AGASC star id:472665256

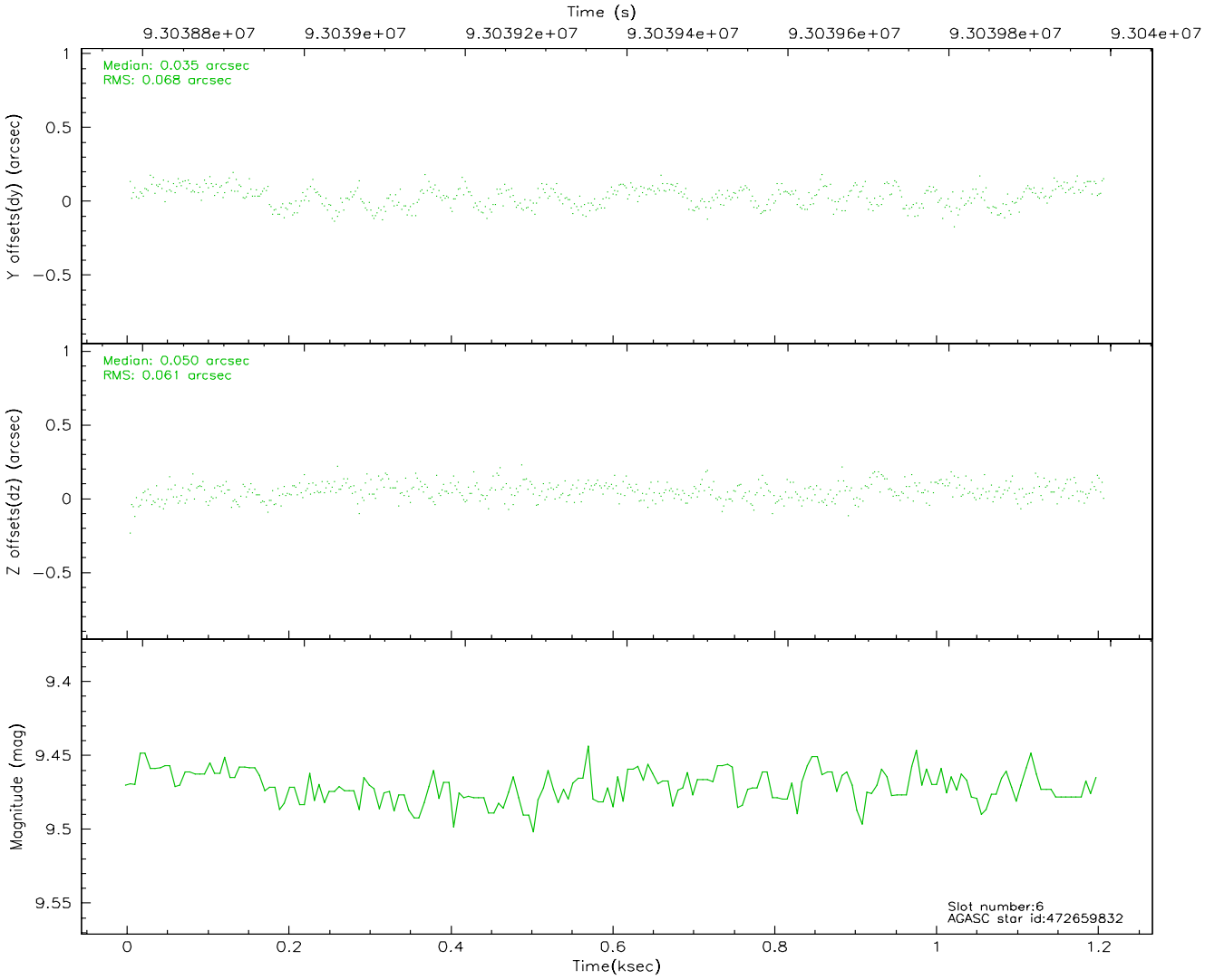

Points outside 0.4 arcsec radius: 0.000%
Radial offset of median: 0.172 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:5
AGASC star id:472665256


Time (s)
Median: −0.112 arcsec
RMS: 0.057 arcsec
Y offsets(dy) (arcsec)
Median: −0.131 arcsec
RMS: 0.062 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:5
AGASC star id:472665256
Time(ksec)

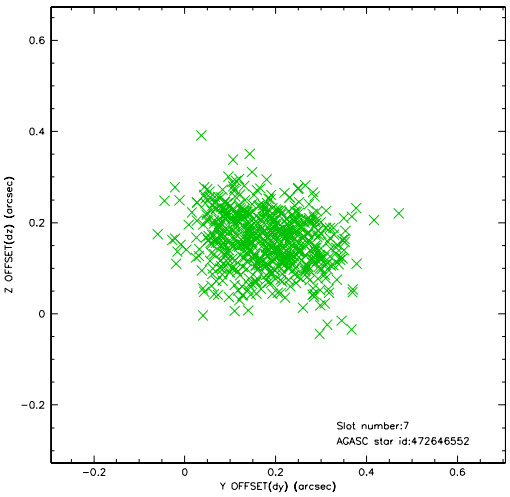
2.4.4 Slot 6

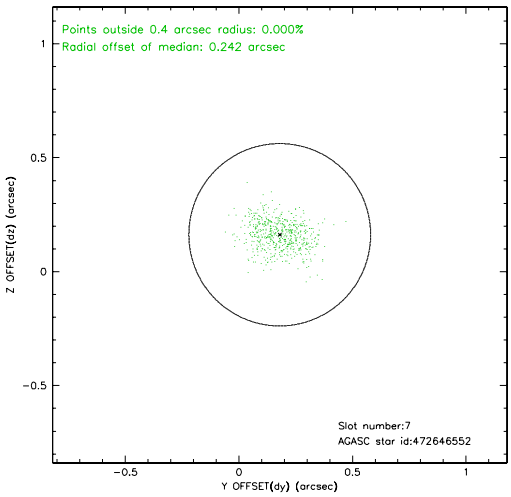

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:6
AGASC star id:472659832

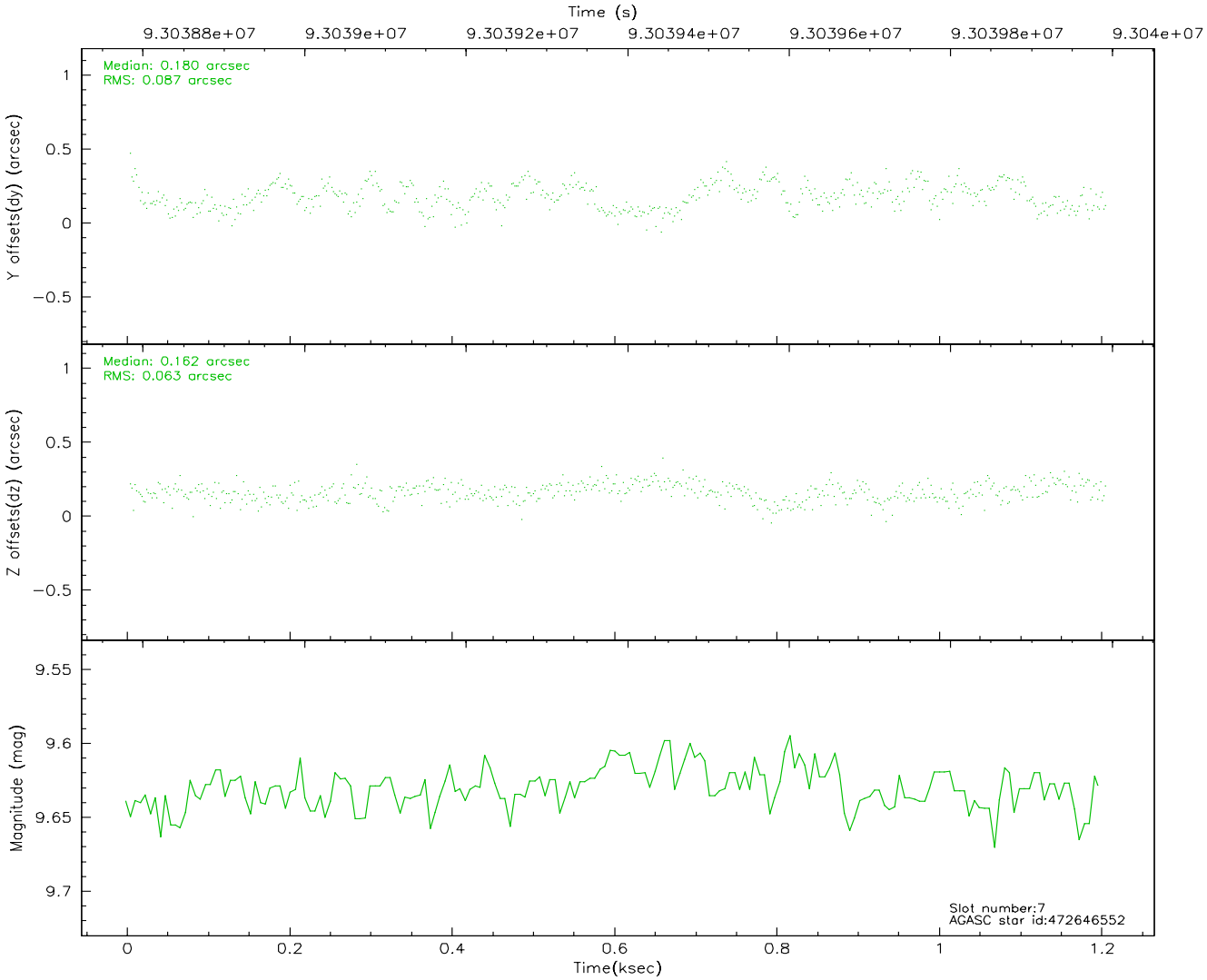

Points outside 0.4 arcsec radius: 0.000%
Radial offset of median: 0.061 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:6
AGASC star id:472659832


Time (s)
Median: 0.035 arcsec
RMS: 0.068 arcsec
Y offsets(dy) (arcsec)
Median: 0.050 arcsec
RMS: 0.061 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:6
AGASC star id:472659832
Time(ksec)

2.4.5 Slot 7

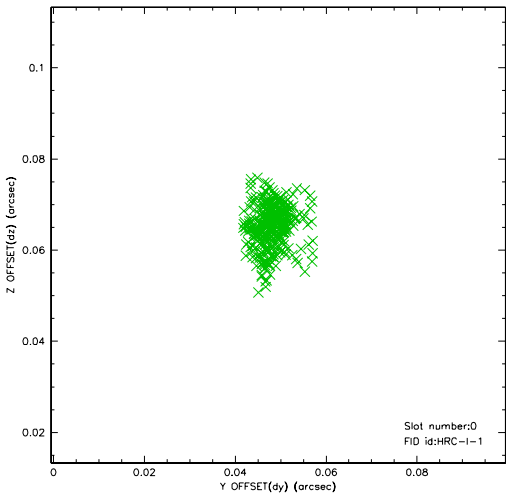

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:7
AGASC star id:472646552

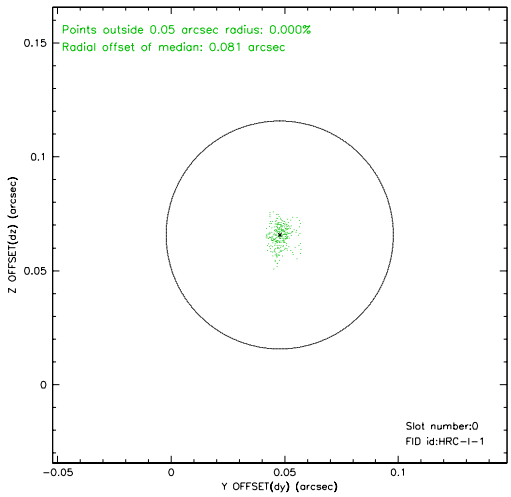

Points outside 0.4 arcsec radius: 0.000%
Radial offset of median: 0.242 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:7
AGASC star id:472646552

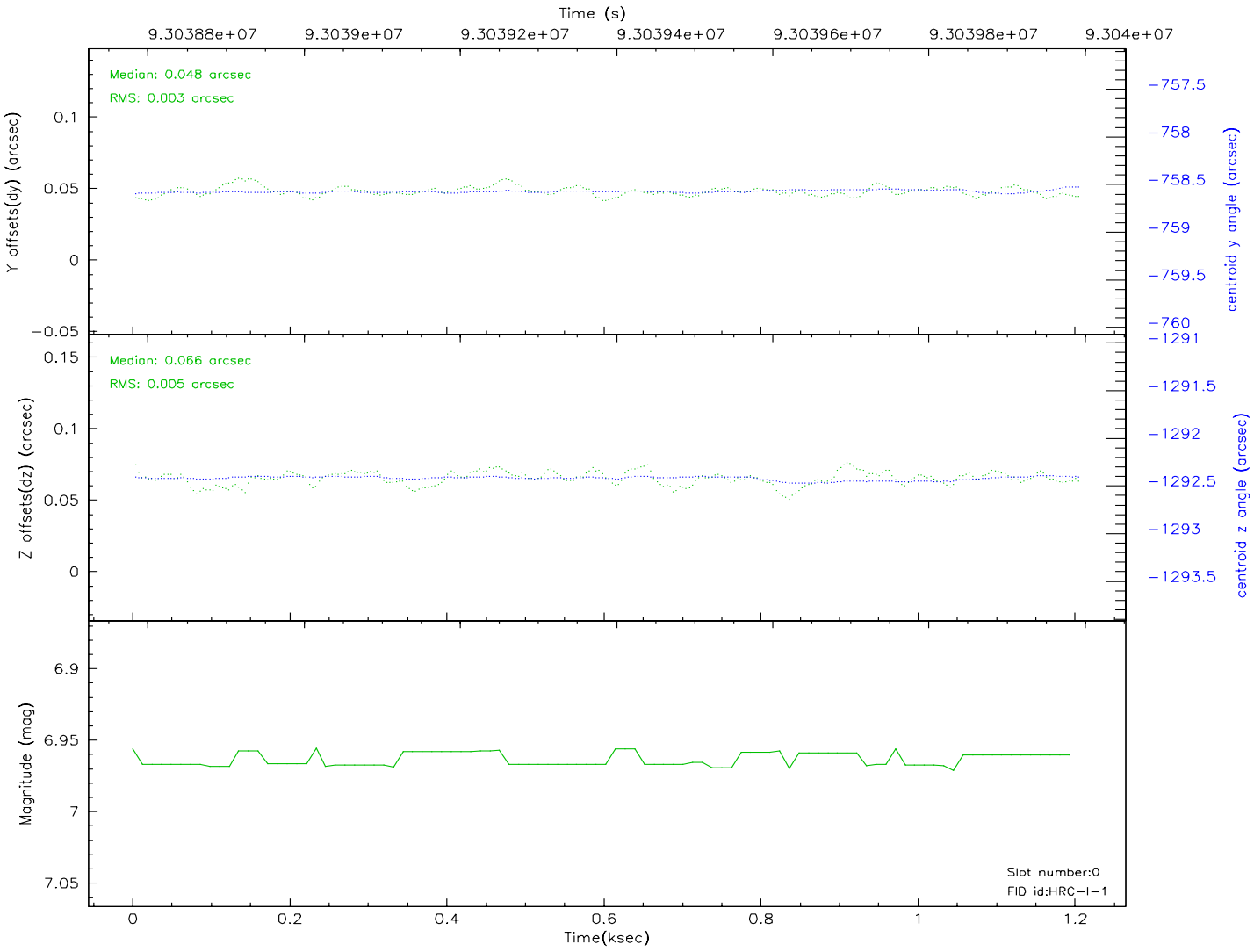

Time (s)
Median: 0.180 arcsec
RMS: 0.087 arcsec
Y offsets(dy) (arcsec)
Median: 0.162 arcsec
RMS: 0.063 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:7
AGASC star id:472646552
Time(ksec)

2.5 FID Slots

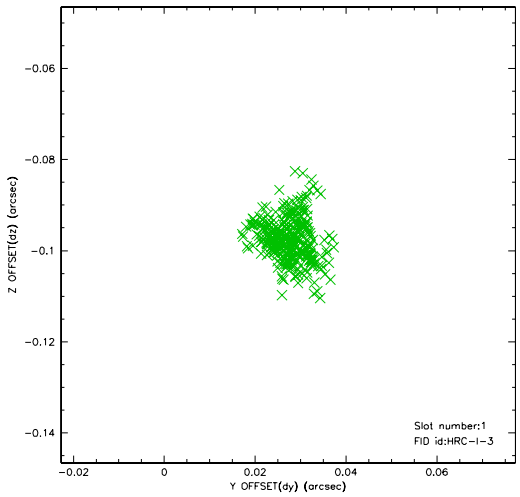
2.5.1 Slot 0

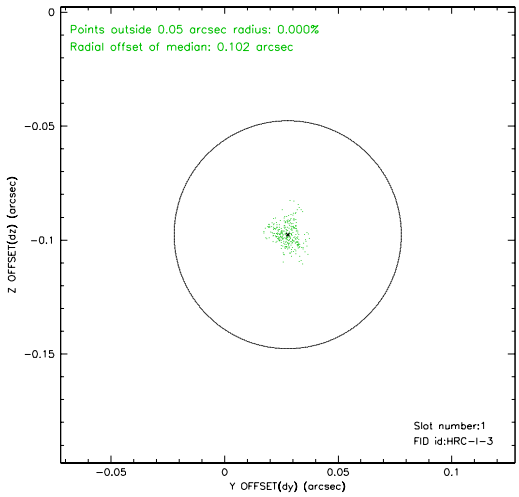


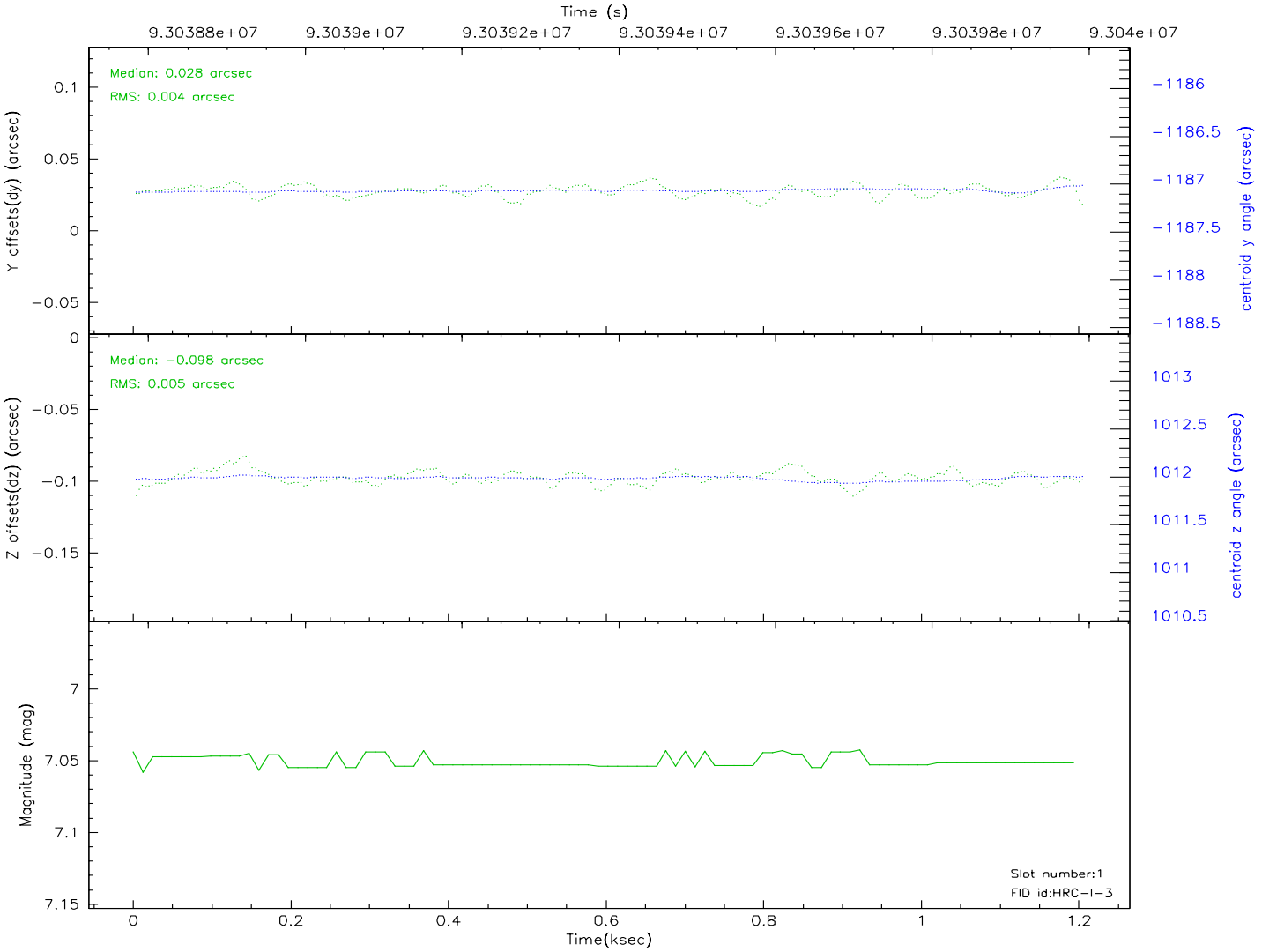




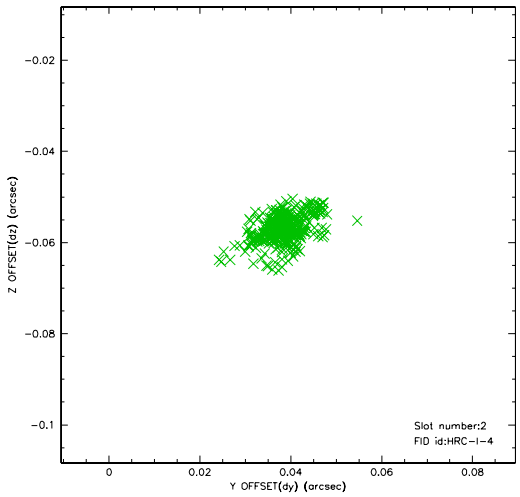
2.5.2 Slot 1

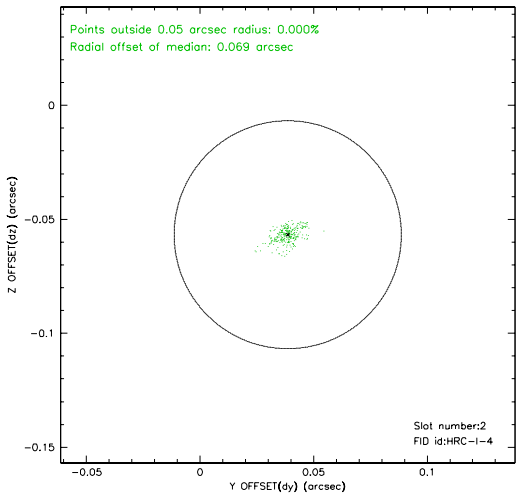

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:1
FID id:HRC-I-3

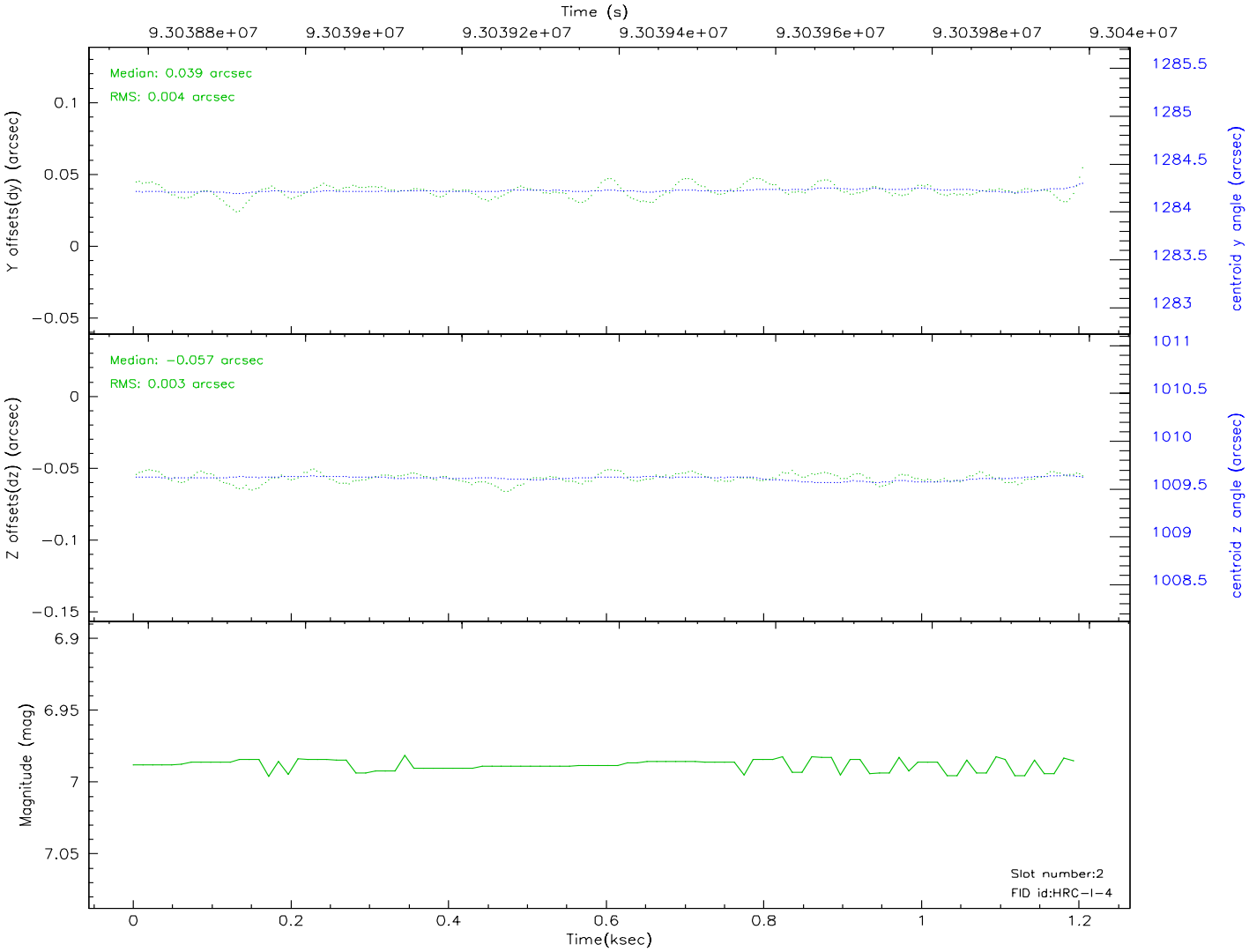

Points outside 0.05 arcsec radius: 0.000%
Radial offset of median: 0.102 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:1
FID id:HRC-I-3


Time (s)
Median: 0.028 arcsec
RMS: 0.004 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: −0.098 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)

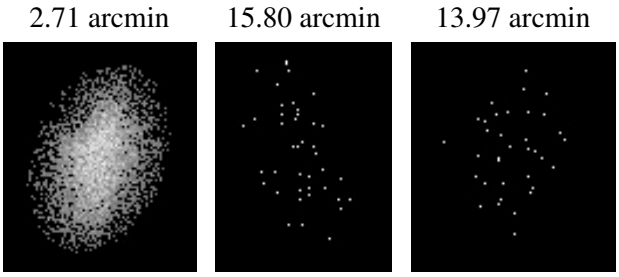
2.5.3 Slot 2


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


Time (s)
Median: 0.039 arcsec
RMS: 0.004 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: −0.057 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)	2007.12.04
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.202

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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