V&V Reference Report
L2 ASCDS Version : 7.6.8.1

Observation 2623 - L2 Version 3
Chandra X-Ray Center

L2 Processing Date : Nov 21 2007

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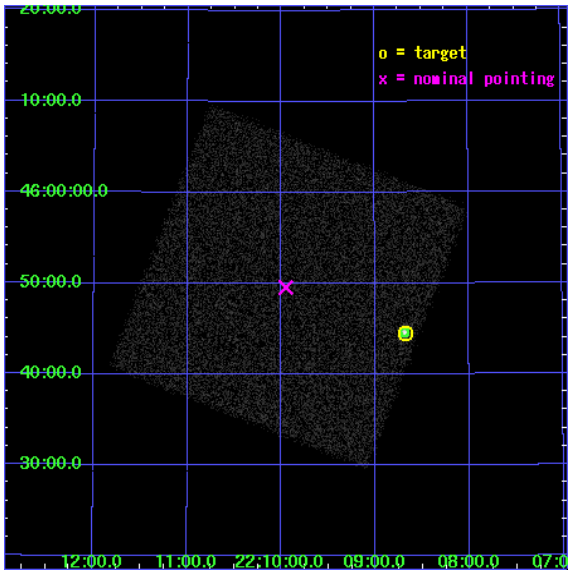
1 Front

seq_num	290179
obs_id	2623
title	AO3 HRC-I CALIBRATION OBSERVATION: MINI-SCAN OF ARLAC
observer	Dr. CXC Calibration
object	ARLAC
ra_targ	332.17
dec_targ	45.742306
ra_nom	332.48775079742
dec_nom	45.826103680187
roll_nom	336.38112212989
revision	3
ontime	1194.3812981099
livetime	1187.8141870711
l2events	35909

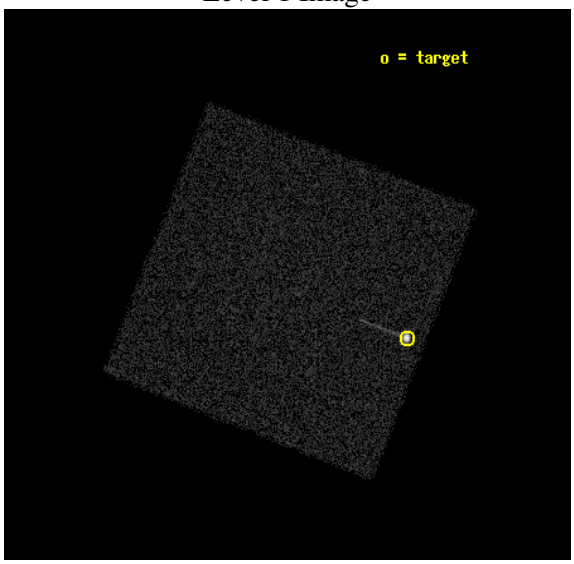


2 OBI

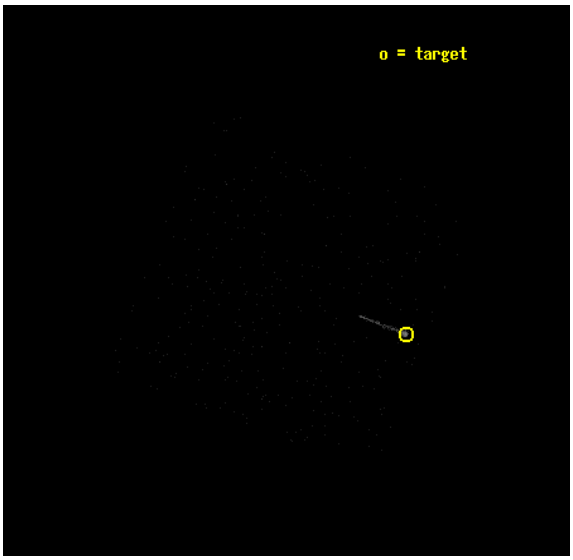
2.1 OBI

2.1.1 Images

Level 1 Image



Level 1 Bad Events



2.1.2 Parameters

obi_num	1
ascdsver	7.6.11.2
caldbver	3.4.1
date	2007-11-21T19:12:02
revision	3

sched_exp_time	1000.000000
ontime	1194.3812981099
l1events	66120

2.1.3 Events

Level 1 Events

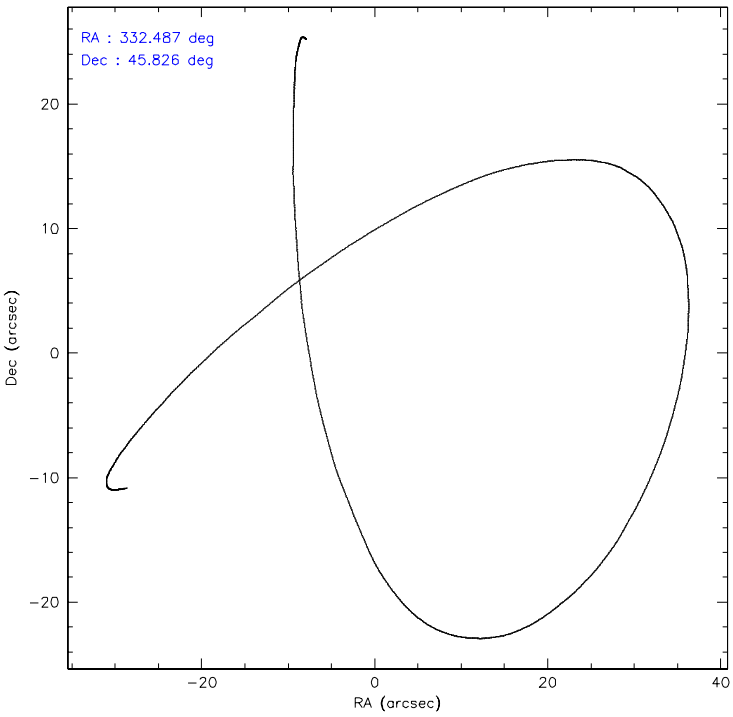
	segment 0
level 1 events	66120
rejected events	13778
rejected %	20%

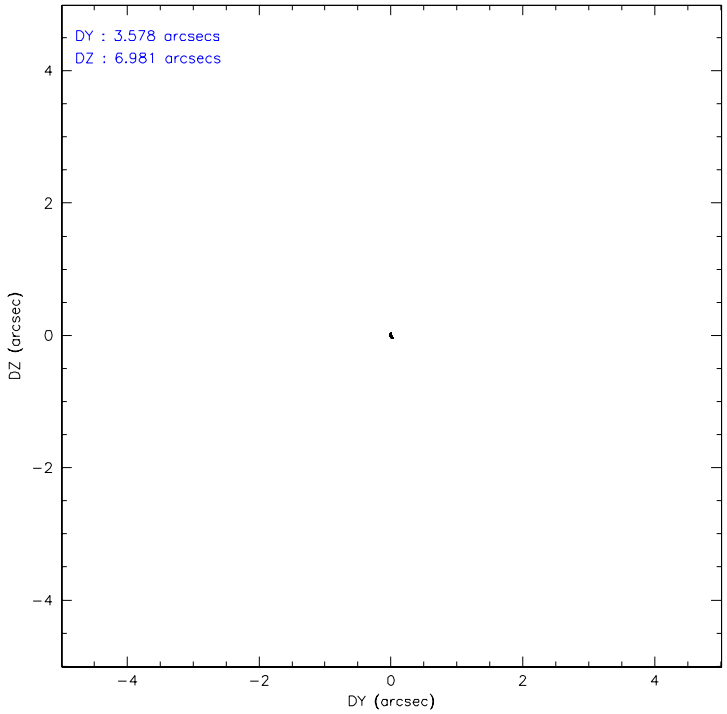
2.2 Compared Parameters

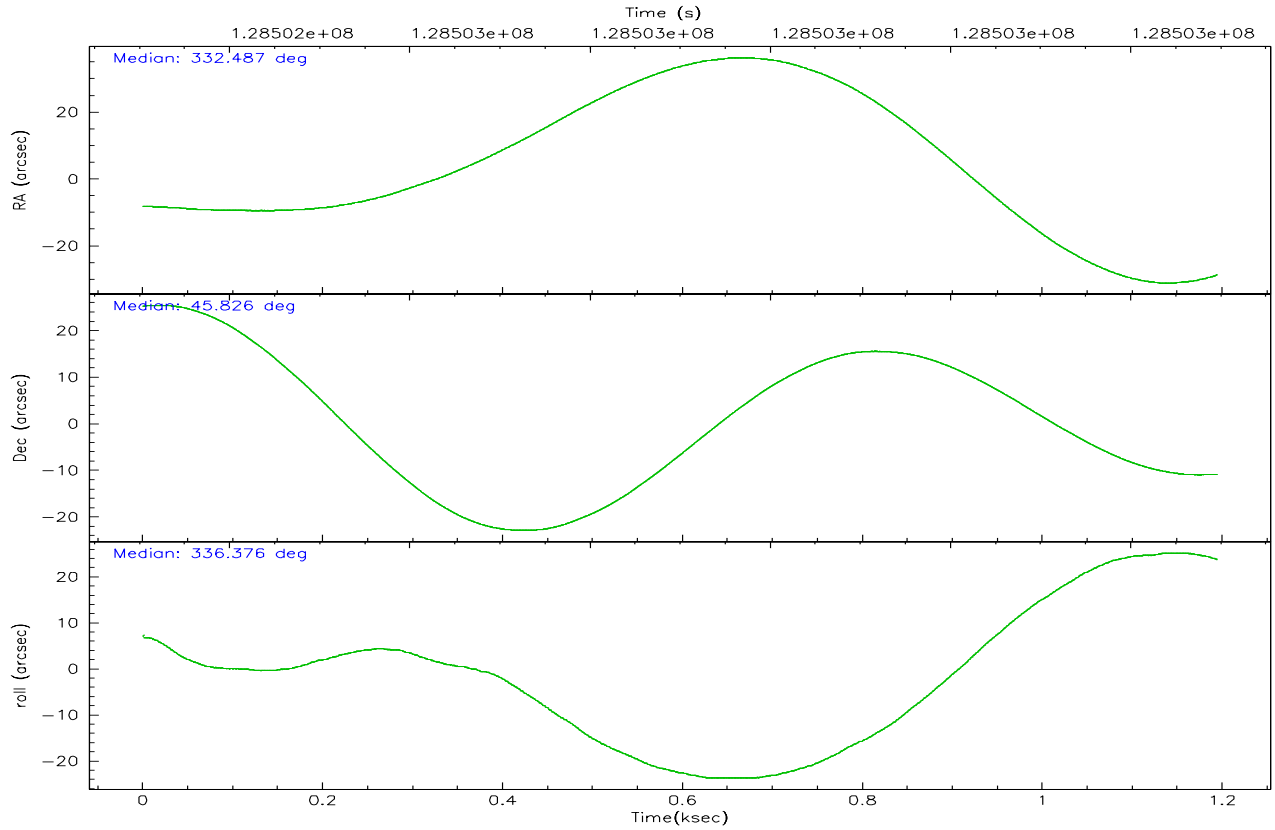
Parameter	Planned	Actual
Instrument	HRC	HRC
Detector	HRC-I	HRC-I
Grating	NONE	NONE
Data mode	OBSERVING	OBSERVING
Observation mode	POINTING	POINTING
Pointing RA	332.449872	332.4877507974219
Pointing Dec	45.822391	45.82610368018727
Pointing Roll	336.503809	336.3811221298897
SIM focus pos (mm)	-1.040293	-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	128502499.184000	128502123.62823
Observation start date	2002-01-27T07:07:15	2002-01-27T07:02:03
Observation end time	128503499.184000	128503633.45329
Observation end date	2002-01-27T07:23:55	2002-01-27T07:27:13

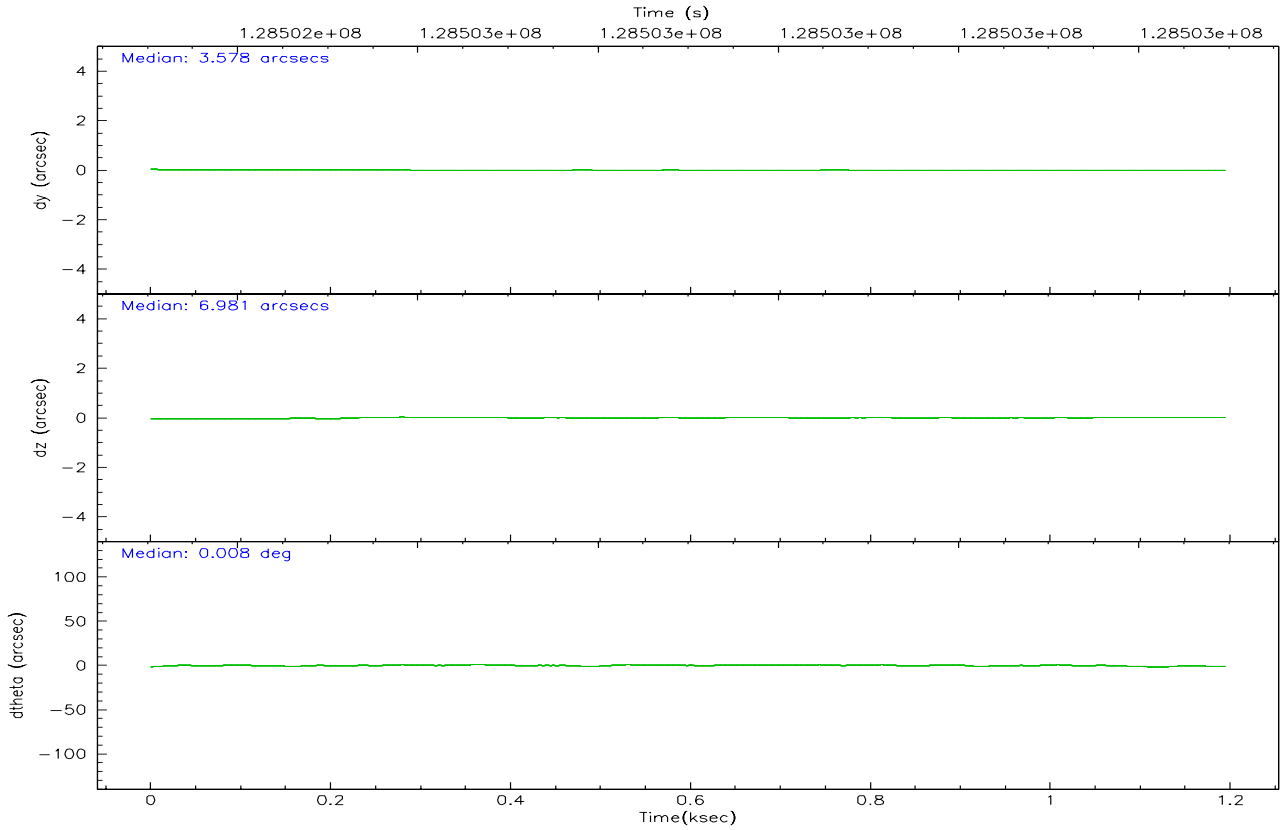
Parameter	Planned	Actual
Obspar format version number	6	6
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED

2.3 Aspect


RA : 332.487 deg
Dec : 45.826 deg
20
10
0
−10
−20
Dec (arcsec)
−20
0
20
40
RA (arcsec)


DY : 3.578 arcsecs
DZ : 6.981 arcsecs
4
2
0
−2
−4
DZ (arcsec)
−4
−2
0
2
4
DY (arcsec)


Time (s)
1.28502e+08
1.28503e+08
1.28503e+08
1.28503e+08
1.28503e+08
1.28503e+08
Median: 332.487 deg
RA (arcsec)
Median: 45.826 deg
Dec (arcsec)
Median: 336.376 deg
roll (arcsec)
Time(ksec)

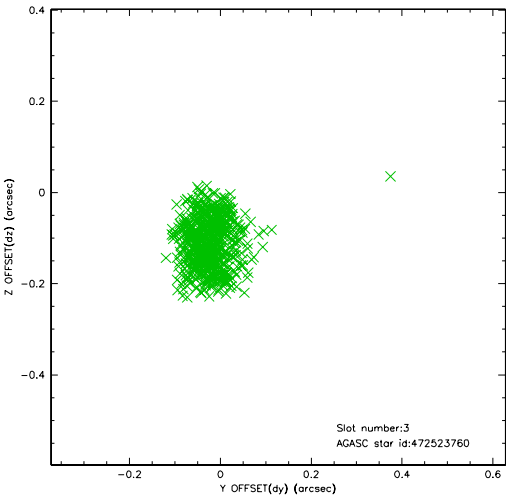

Time (s)
1.28502e+08
1.28503e+08
1.28503e+08
1.28503e+08
1.28503e+08
1.28503e+08
Median: 3.578 arcsecs
dy (arcsec)
Median: 6.981 arcsecs
dz (arcsec)
Median: 0.008 deg
dtheta (arcsec)
Time(ksec)

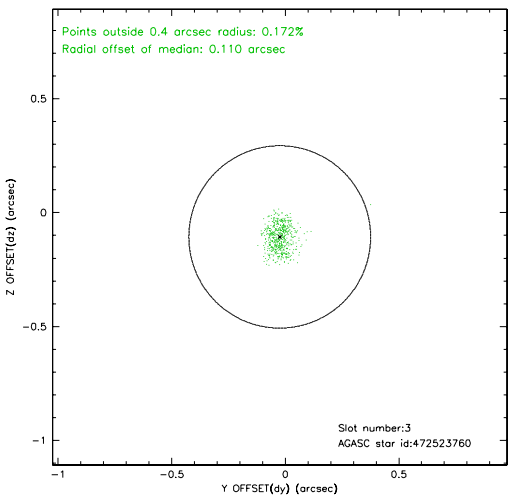
Slot Statistics

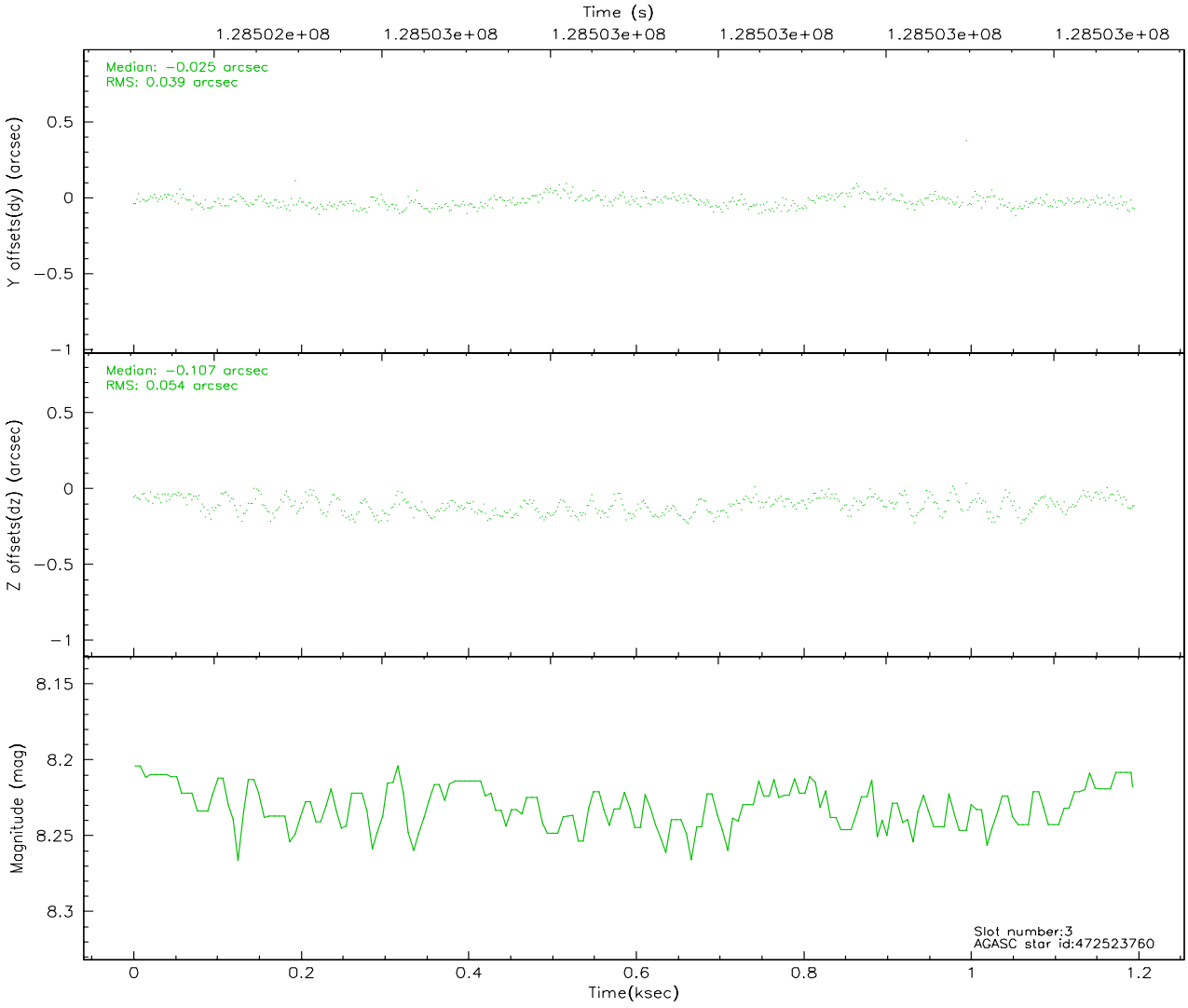
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	HRC-I-1	6.97	292	0.028	0.030	0.008	0.027	0.000000	0.000000	-759.02	-1294.85
1	FID	HRC-I-2	7.00	292	0.079	-0.074	0.007	0.018	0.000000	0.000000	851.06	-1300.94
2	FID	HRC-I-3	7.05	292	0.013	-0.046	0.007	0.016	0.000000	0.000000	-1184.64	1005.18
3	GUIDE	472523760	8.23	583	-0.025	-0.107	0.072	0.108	331.645363	45.403260	-1265.30	-2185.75
4	GUIDE	472660976	8.60	584	0.090	0.112	0.071	0.110	333.433329	46.196713	1703.87	2223.00
5	GUIDE	472665256	9.01	584	-0.104	0.026	0.081	0.126	332.808125	46.195041	287.70	1591.59
6	GUIDE	472659832	9.46	584	0.126	0.058	0.115	0.220	332.780399	46.098139	362.69	1243.38
7	GUIDE	472523568	9.34	580	-0.086	-0.071	0.104	0.170	331.465966	45.371411	-1638.17	-2465.53

2.4 Star Slots

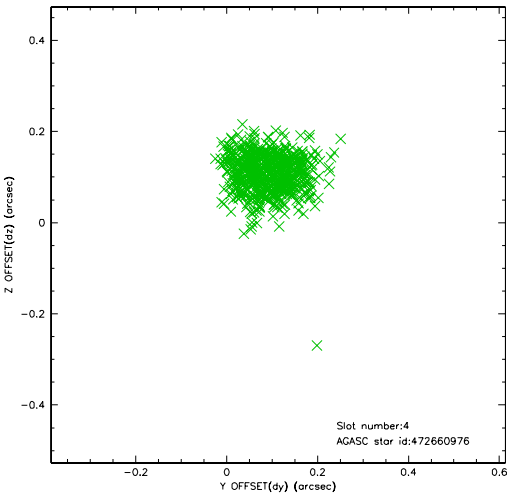
2.4.1 Slot 3

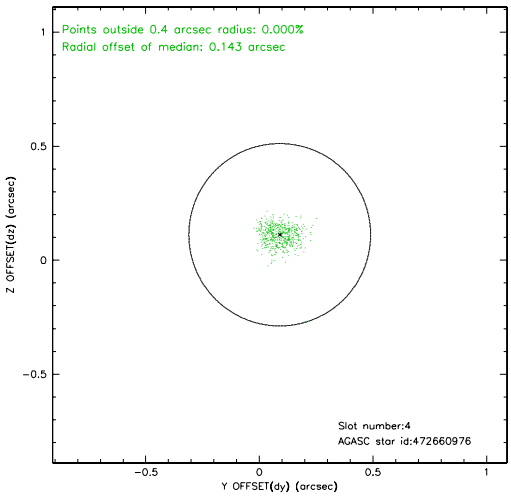


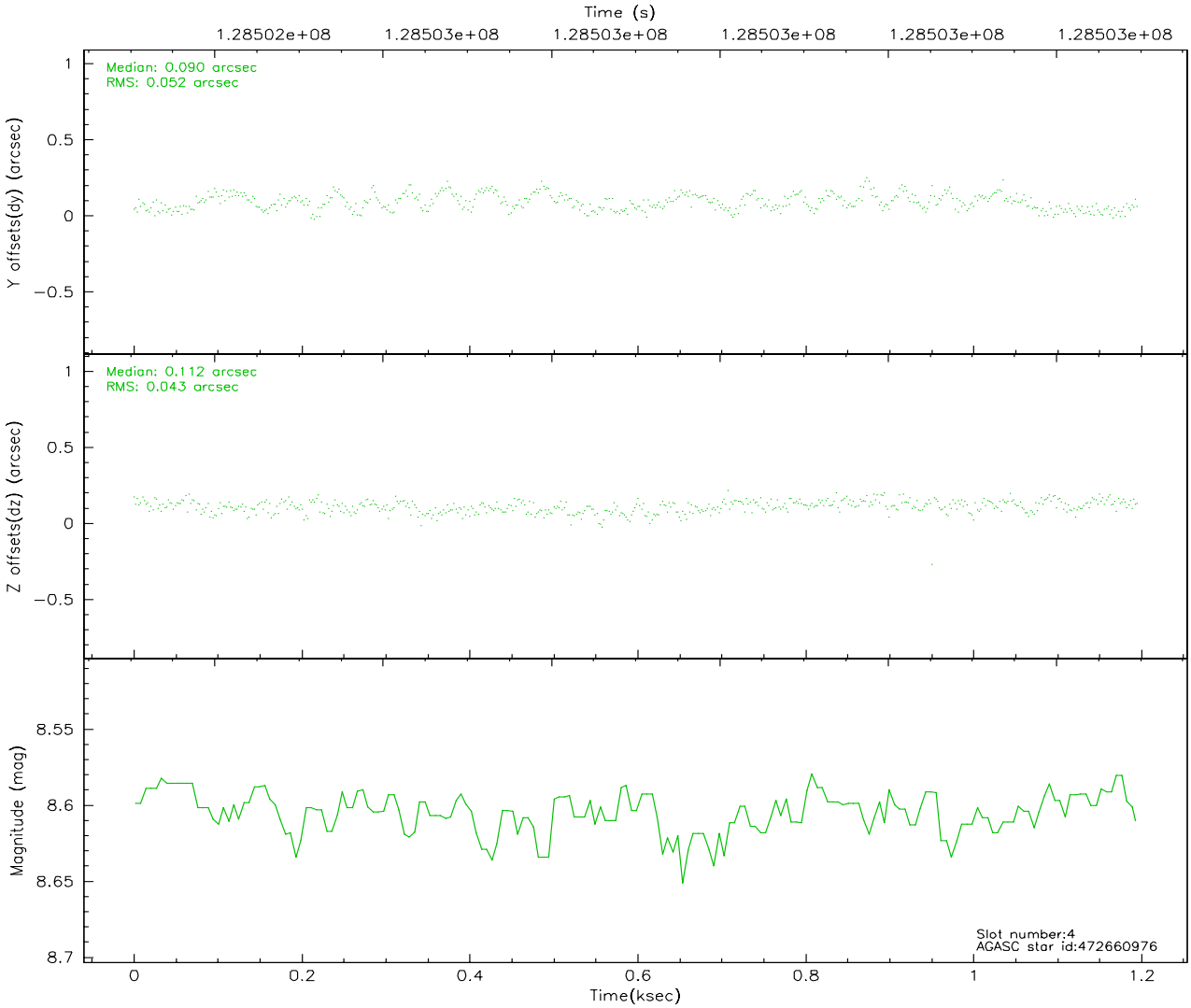




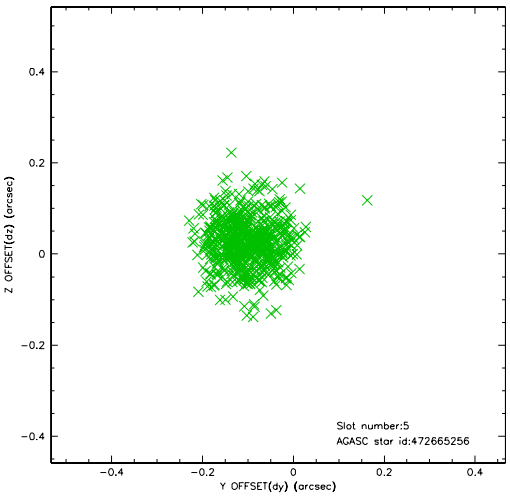
2.4.2 Slot 4

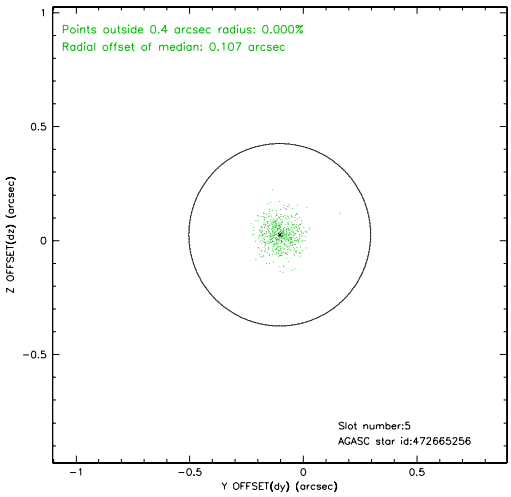

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:4
AGASC star id:472660976

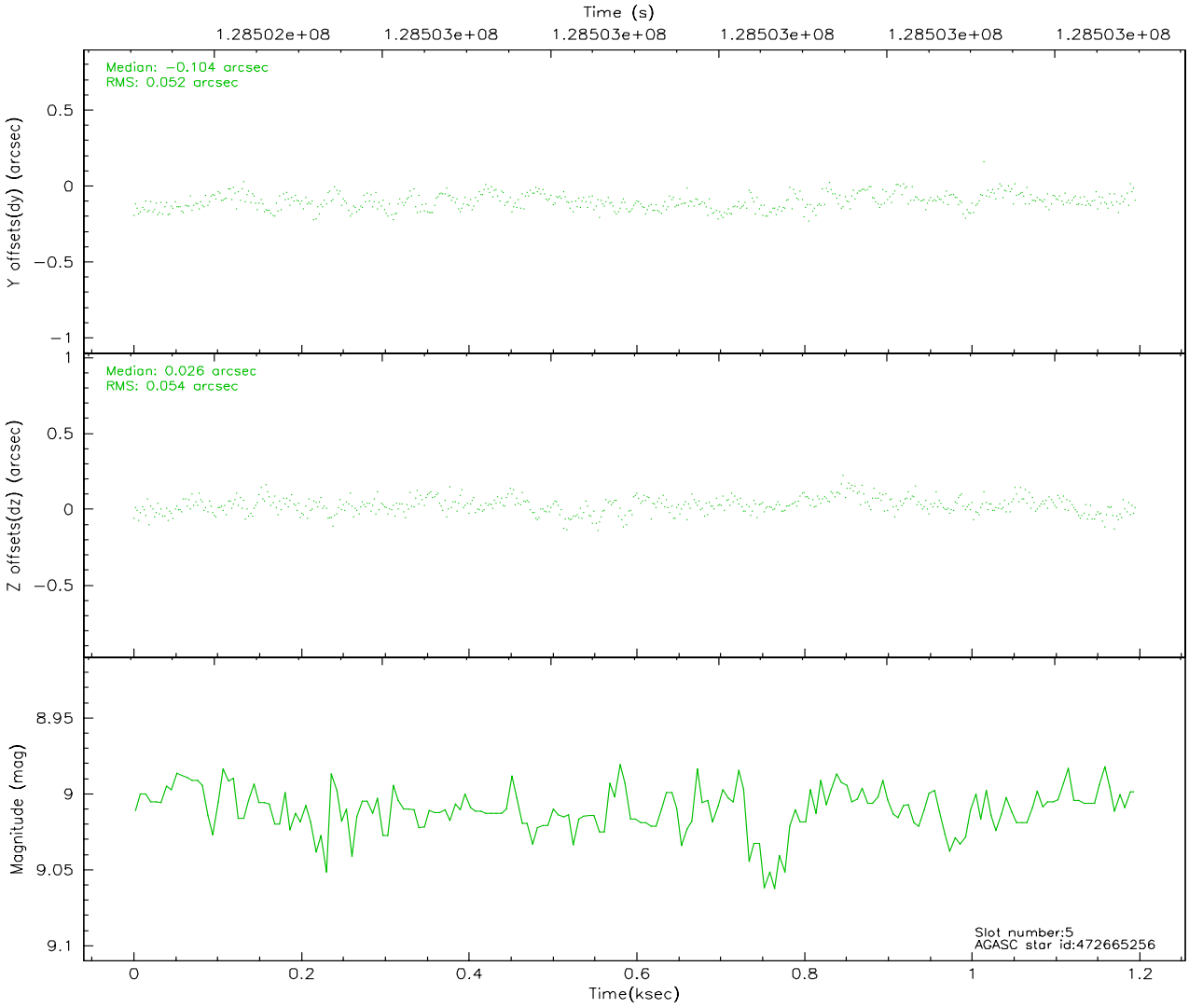

Points outside 0.4 arcsec radius: 0.000%
Radial offset of median: 0.143 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:4
AGASC star id:472660976


Time (s)
1.28502e+08
1.28503e+08
1.28503e+08
1.28503e+08
1.28503e+08
1.28503e+08
Median: 0.090 arcsec
RMS: 0.052 arcsec
Y offsets(dy) (arcsec)
Median: 0.112 arcsec
RMS: 0.043 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:4
AGASC star id:472660976
Time(ksec)

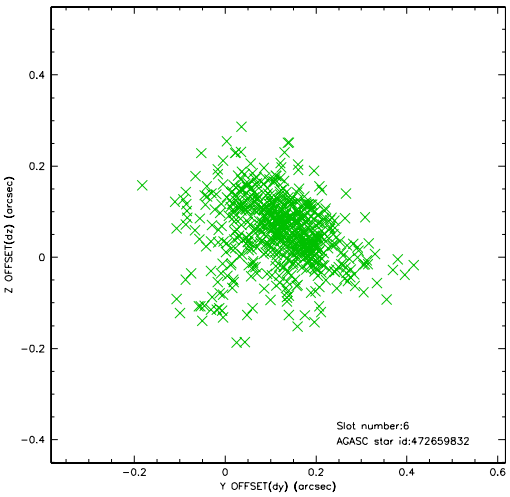
2.4.3 Slot 5

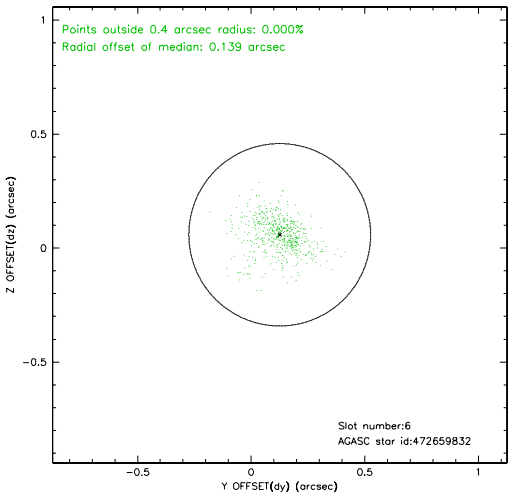

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:5
AGASC star id:472665256

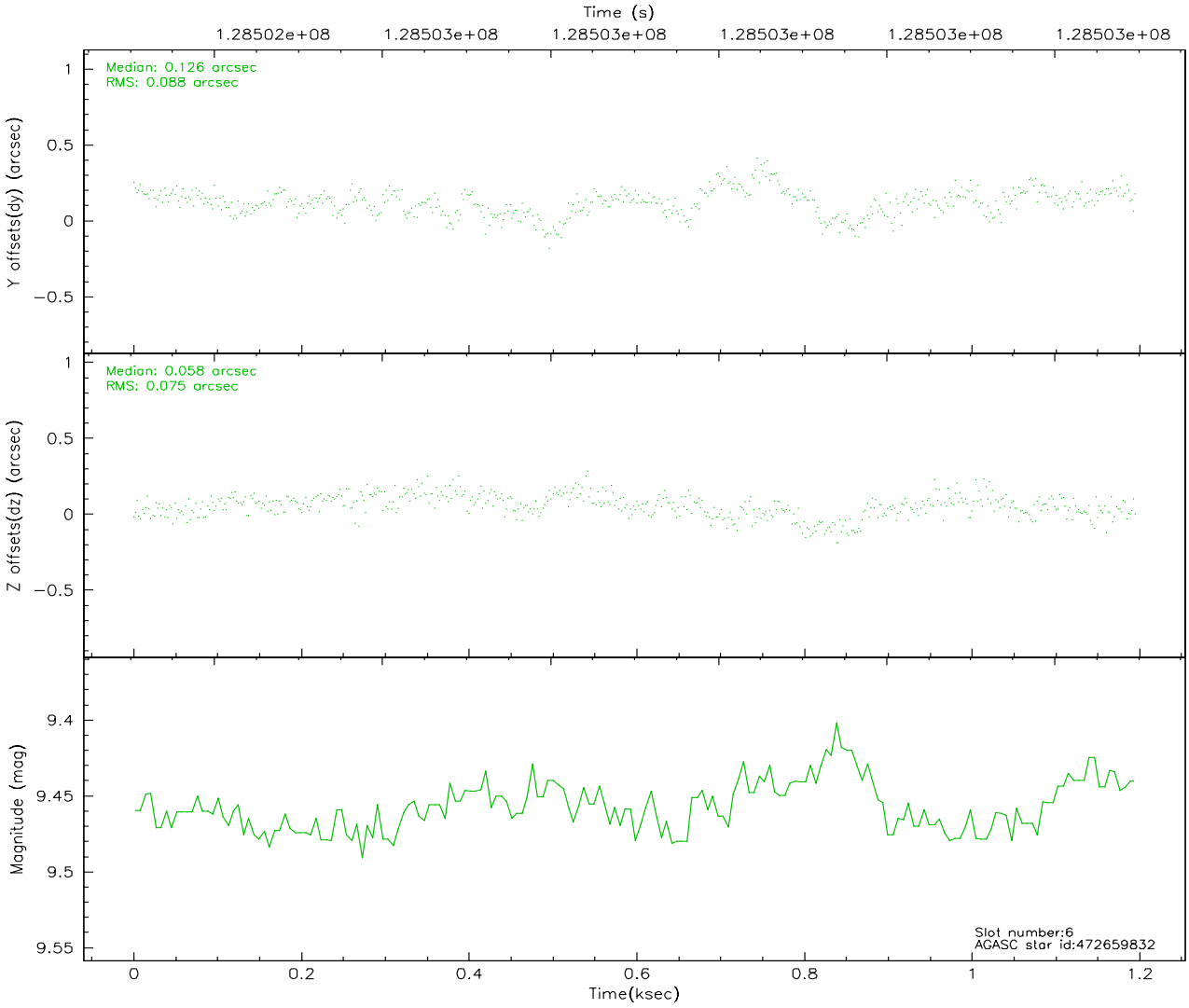

Points outside 0.4 arcsec radius: 0.000%
Radial offset of median: 0.107 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:5
AGASC star id:472665256


Time (s)
1.28502e+08
1.28503e+08
1.28503e+08
1.28503e+08
1.28503e+08
1.28503e+08
Median: −0.104 arcsec
RMS: 0.052 arcsec
Y offsets(dy) (arcsec)
Median: 0.026 arcsec
RMS: 0.054 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:5
AGASC star id:472665256
Time(ksec)

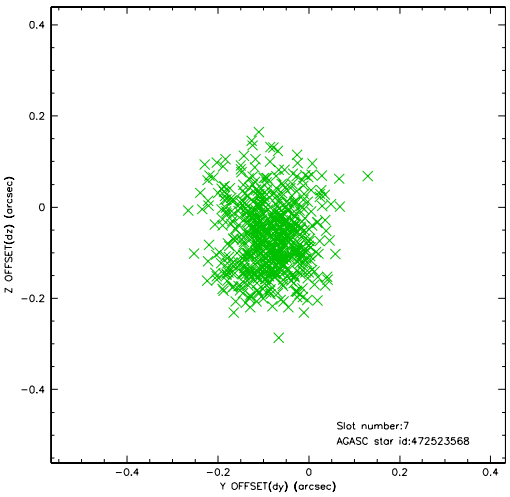
2.4.4 Slot 6

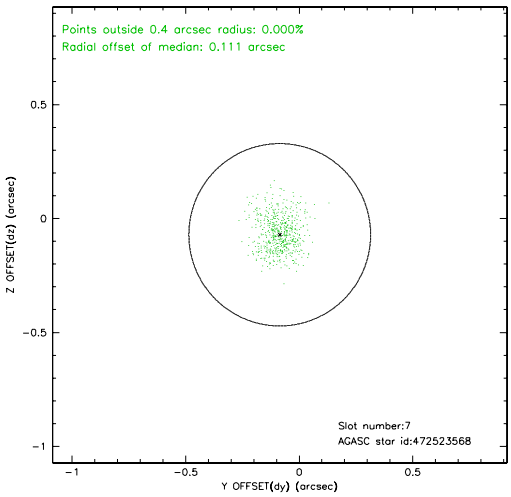

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:6
AGASC star id:472659832

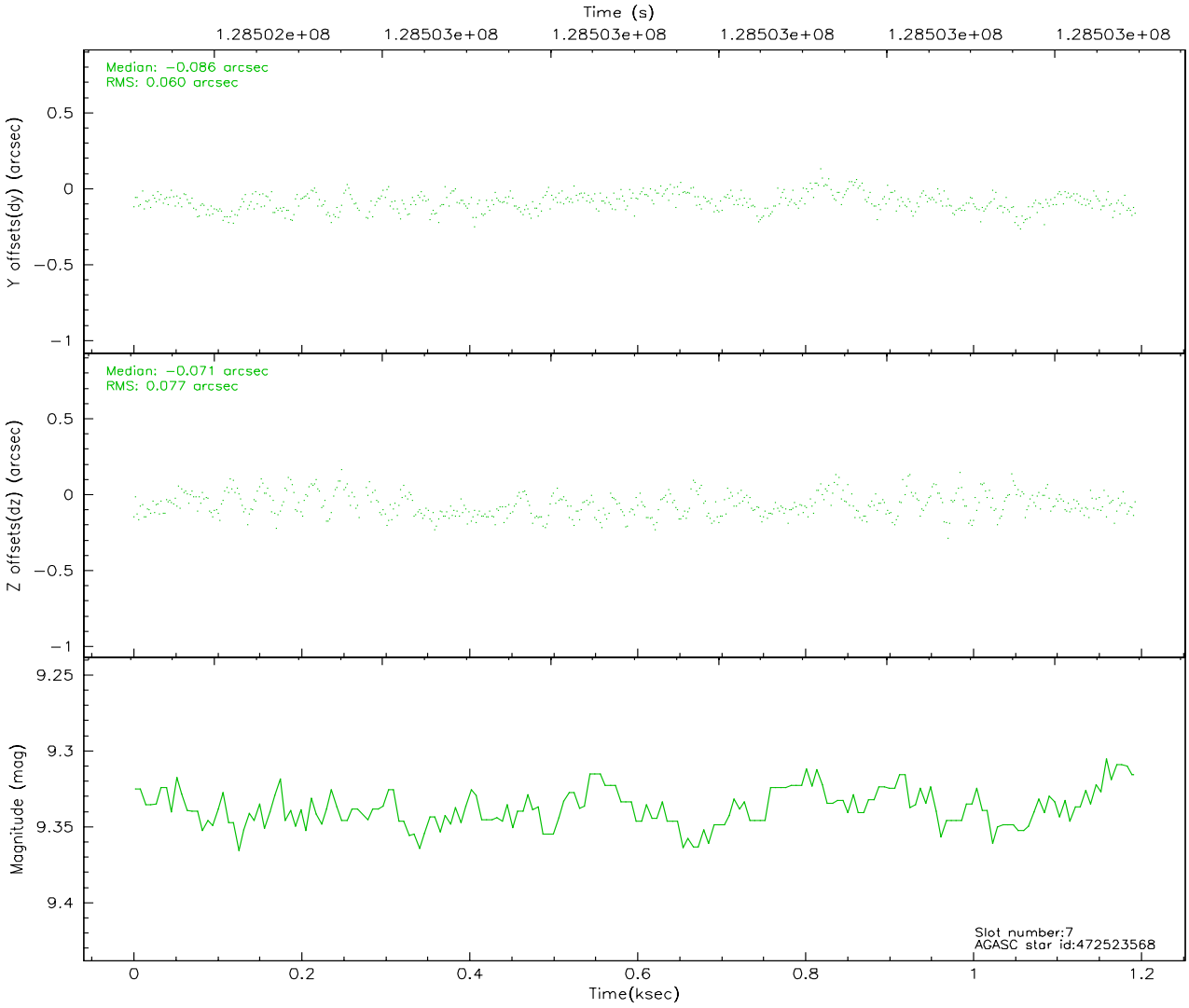

Points outside 0.4 arcsec radius: 0.000%
Radial offset of median: 0.139 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:6
AGASC star id:472659832


Time (s)
1.28502e+08
1.28503e+08
1.28503e+08
1.28503e+08
1.28503e+08
1.28503e+08
Median: 0.126 arcsec
RMS: 0.088 arcsec
Y offsets(dy) (arcsec)
Median: 0.058 arcsec
RMS: 0.075 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:6
AGASC star id:472659832
Time(ksec)

2.4.5 Slot 7

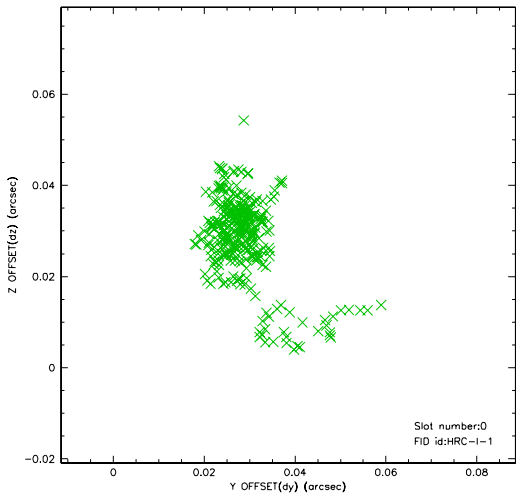

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:7
AGASC star id:472523568

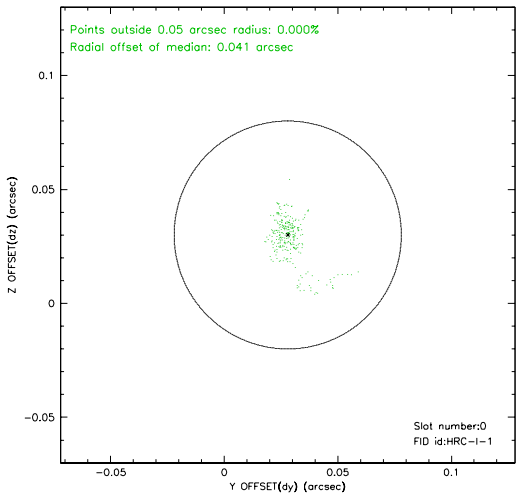

Points outside 0.4 arcsec radius: 0.000%
Radial offset of median: 0.111 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:7
AGASC star id:472523568

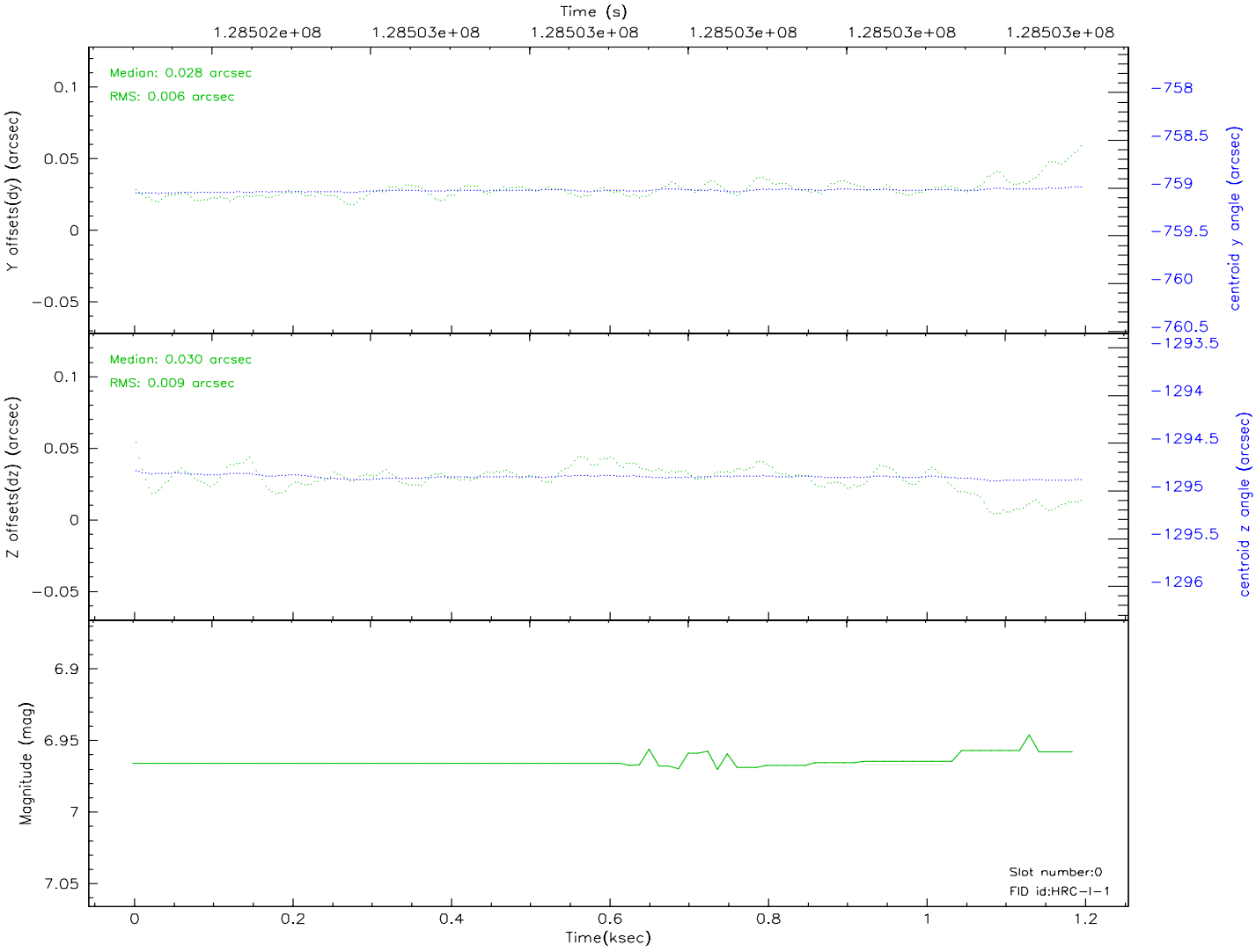

Time (s)
1.28502e+08
1.28503e+08
1.28503e+08
1.28503e+08
1.28503e+08
1.28503e+08
Median: −0.086 arcsec
RMS: 0.060 arcsec
Y offsets(dy) (arcsec)
Median: −0.071 arcsec
RMS: 0.077 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:7
AGASC star id:472523568
Time(ksec)

2.5 FID Slots

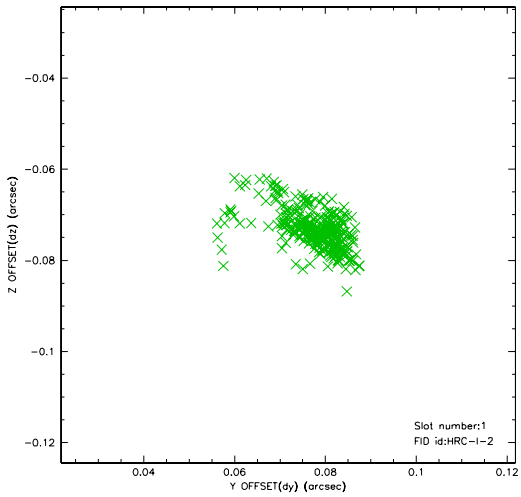
2.5.1 Slot 0

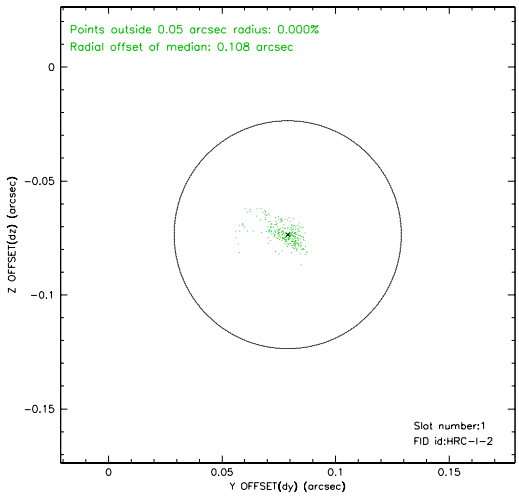


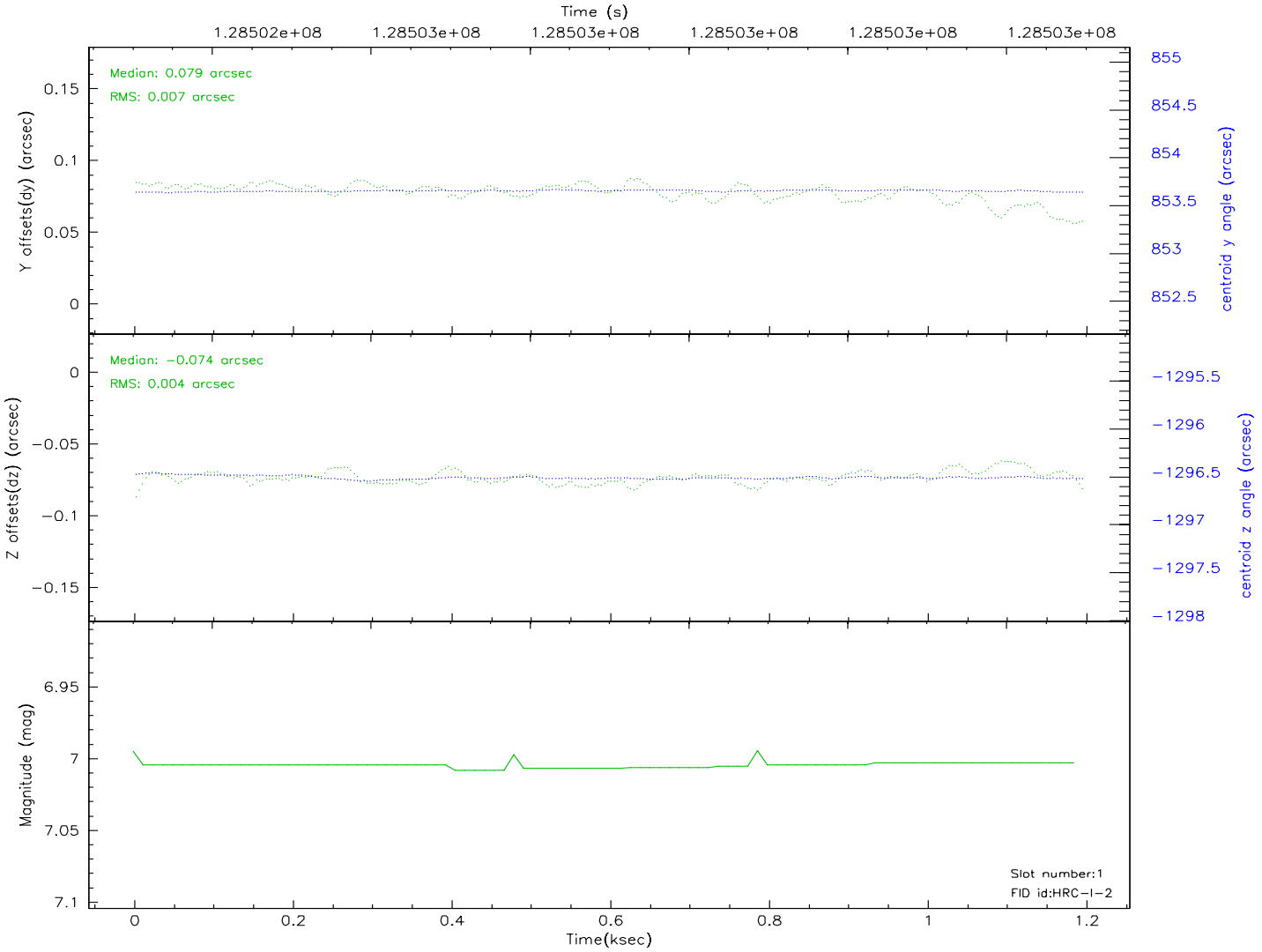




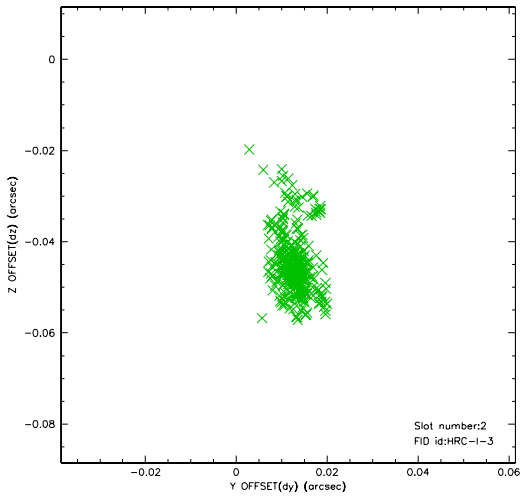
2.5.2 Slot 1

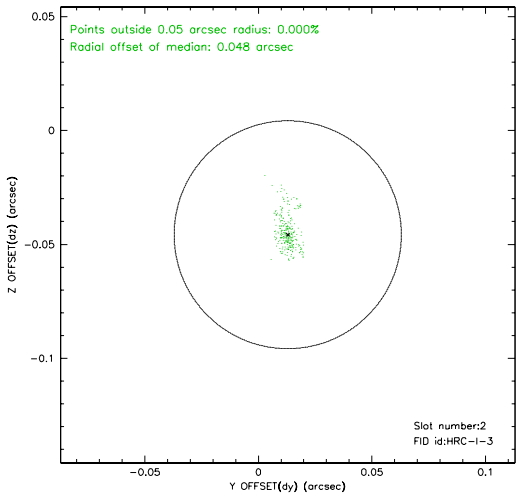

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:1
FID id:HRC-I-2

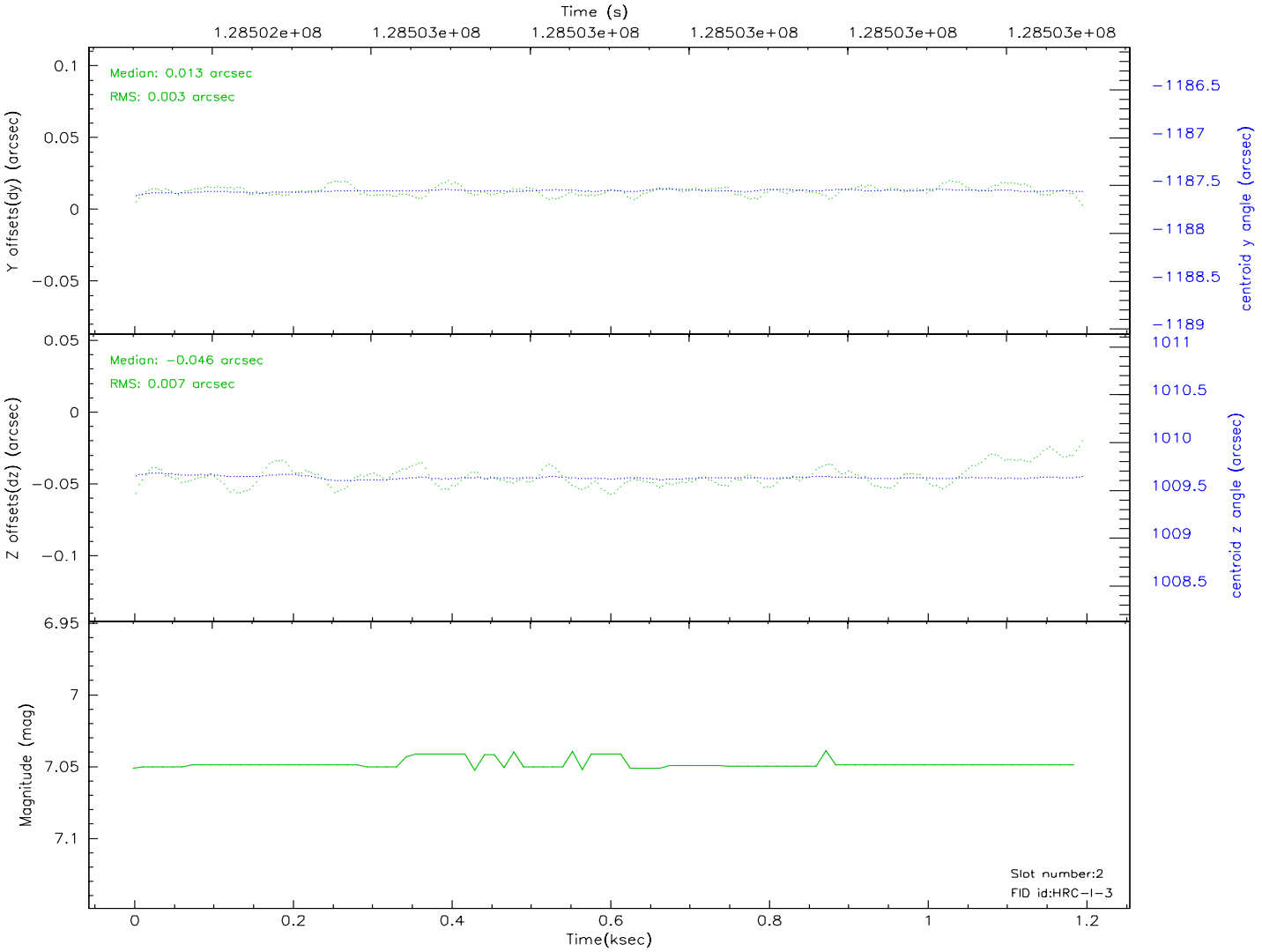

Points outside 0.05 arcsec radius: 0.000%
Radial offset of median: 0.108 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:1
FID id:HRC-I-2


Time (s)
Median: 0.079 arcsec
RMS: 0.007 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: −0.074 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

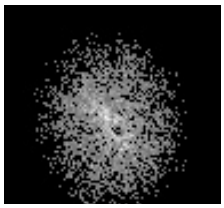

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:2
FID id:HRC-I-3


Points outside 0.05 arcsec radius: 0.000%
Radial offset of median: 0.048 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:2
FID id:HRC-I-3


Time (s)
1.28502e+08
1.28503e+08
Median: 0.013 arcsec
RMS: 0.003 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: −0.046 arcsec
RMS: 0.007 arcsec
Z offsets(dz) (arcsec)
centroid z angle (arcsec)
Magnitude (mag)
Slot number:2
FID id:HRC-I-3
Time(ksec)

3 Point Sources

14.19 arcmin



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	1.194

A.2 Comments

Monitor constraint met. Target is near the edge of the detector and is consequently extended and asymmetric.

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.