V&V Reference Report
L2 ASCDS Version : 7.6.9

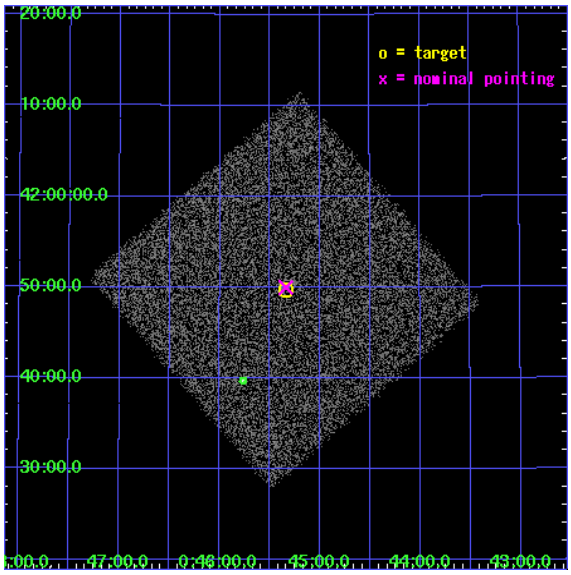
Observation 1574 - L2 Version 3
Chandra X-Ray Center

L2 Processing Date : Nov 20 2007

Contents

1 Front

seq_num	600131
obs_id	1574
title	HRC MONITORING OF M31
observer	Dr. Stephen Murray
object	M31 - NORTH 2
ra_targ	11.333333
dec_targ	41.829722
ra_nom	11.334878107571
dec_nom	41.833286684187
roll_nom	93.97243720757
revision	3
ontime	1200.2750467807
livetime	1194.349872967
l2events	29509

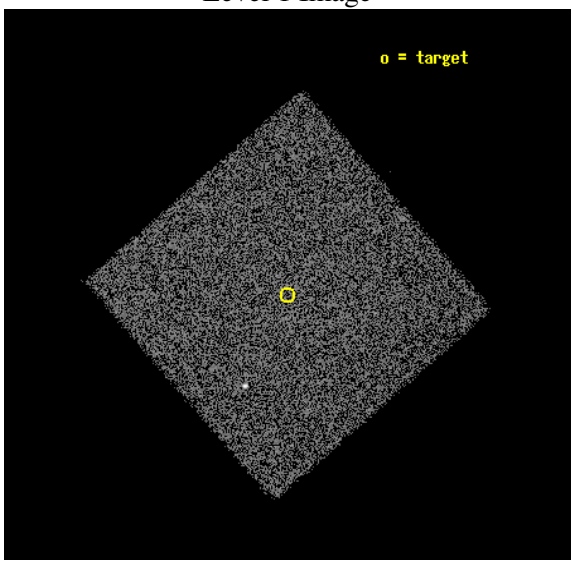


2 OBI

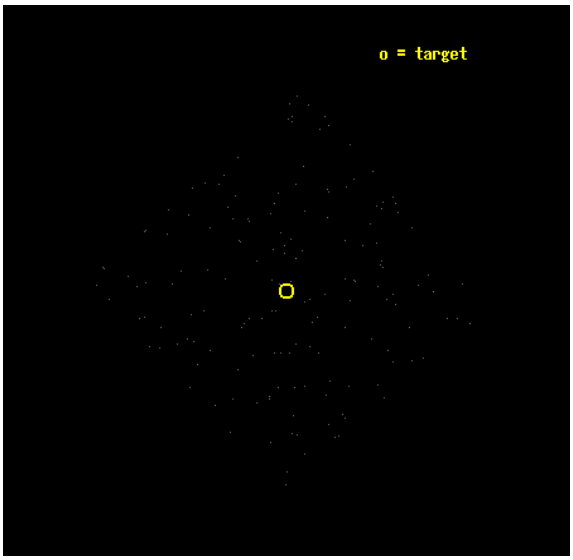
2.1 OBI

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	2007-11-20T14:57:03
revision	3

sched_exp_time	1000.000000
ontime	1200.2750467807
l1events	55155

2.1.3 Events

Level 1 Events

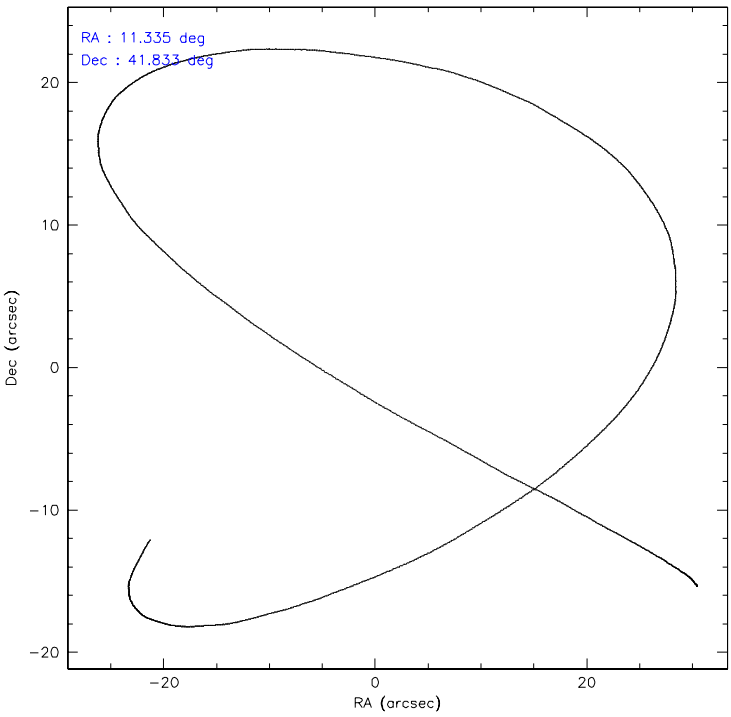
	segment 0
level 1 events	55155
rejected events	10820
rejected %	19%

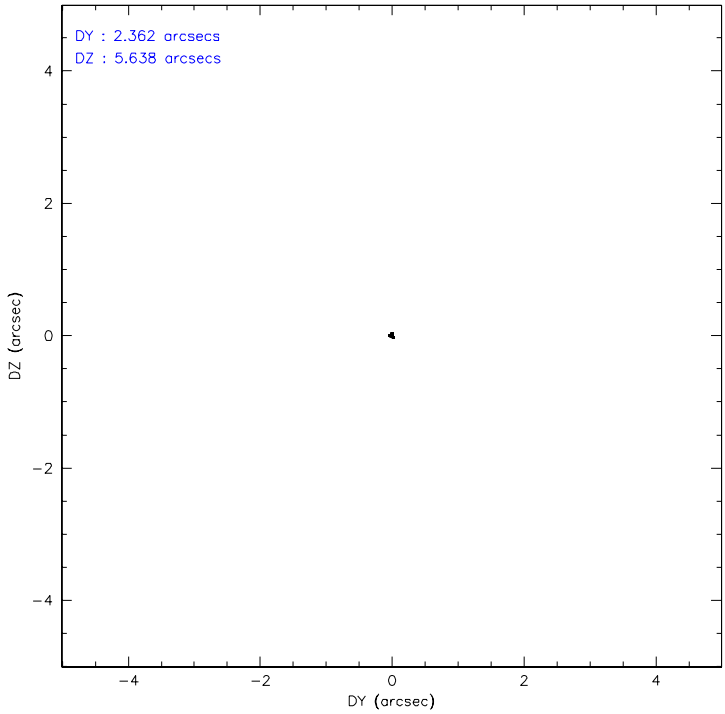
2.2 Compared Parameters

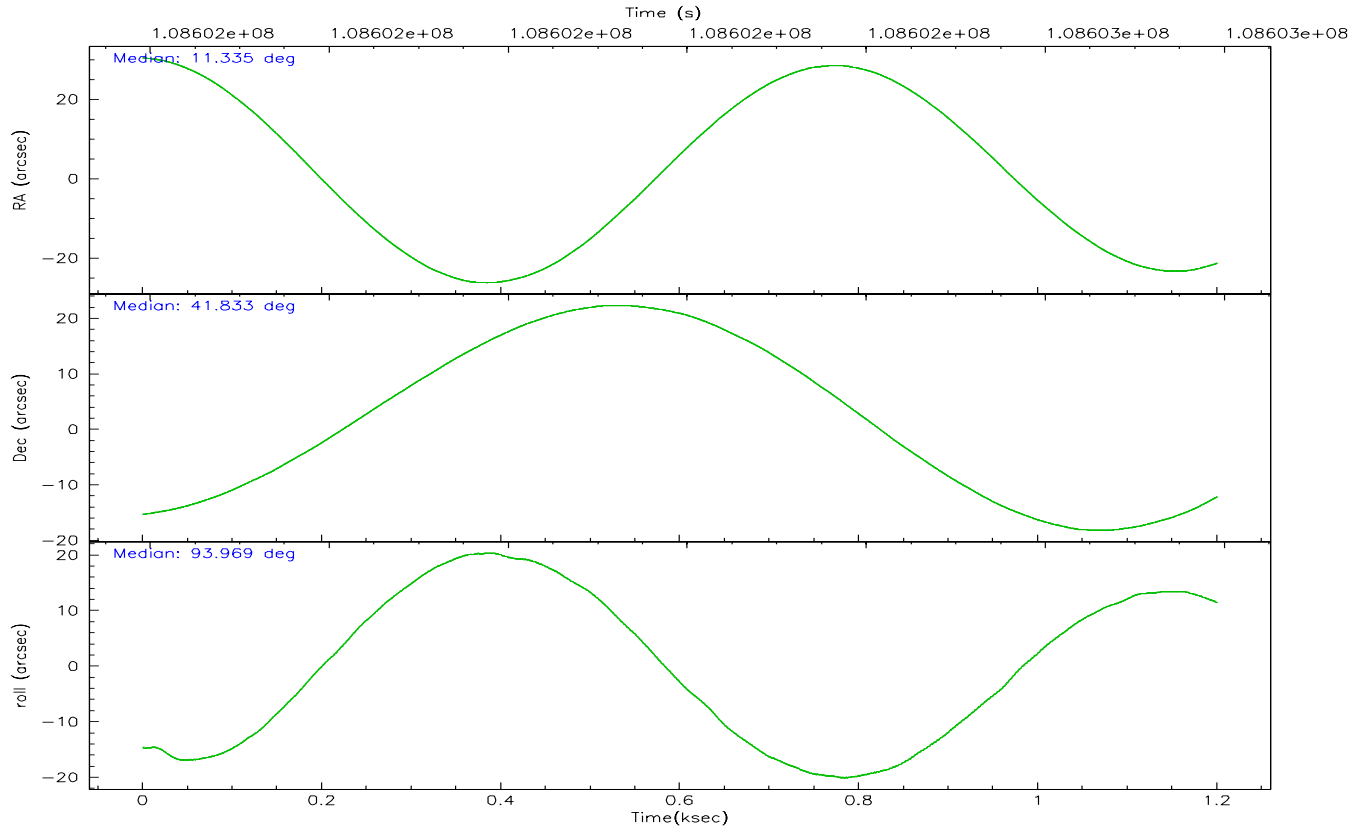
Parameter	Planned	Actual
Instrument	HRC	HRC
Detector	HRC-I	HRC-I
Grating	NONE	NONE
Data mode	OBSERVING	OBSERVING
Observation mode	POINTING	POINTING
Pointing RA	11.356141	11.33487810757125
Pointing Dec	41.811557	41.83328668418683
Pointing Roll	94.053722	93.97243720757041
Window start time	108172864.184000	108172864.184000
Window stop time	108691264.184000	108691264.184000
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	108601776.184000	108601400.36413
Observation start date	2001-06-10T23:08:32	2001-06-10T23:03:20
Observation end time	108602776.184000	108603661.00172
Observation end date	2001-06-10T23:25:12	2001-06-10T23:41:01

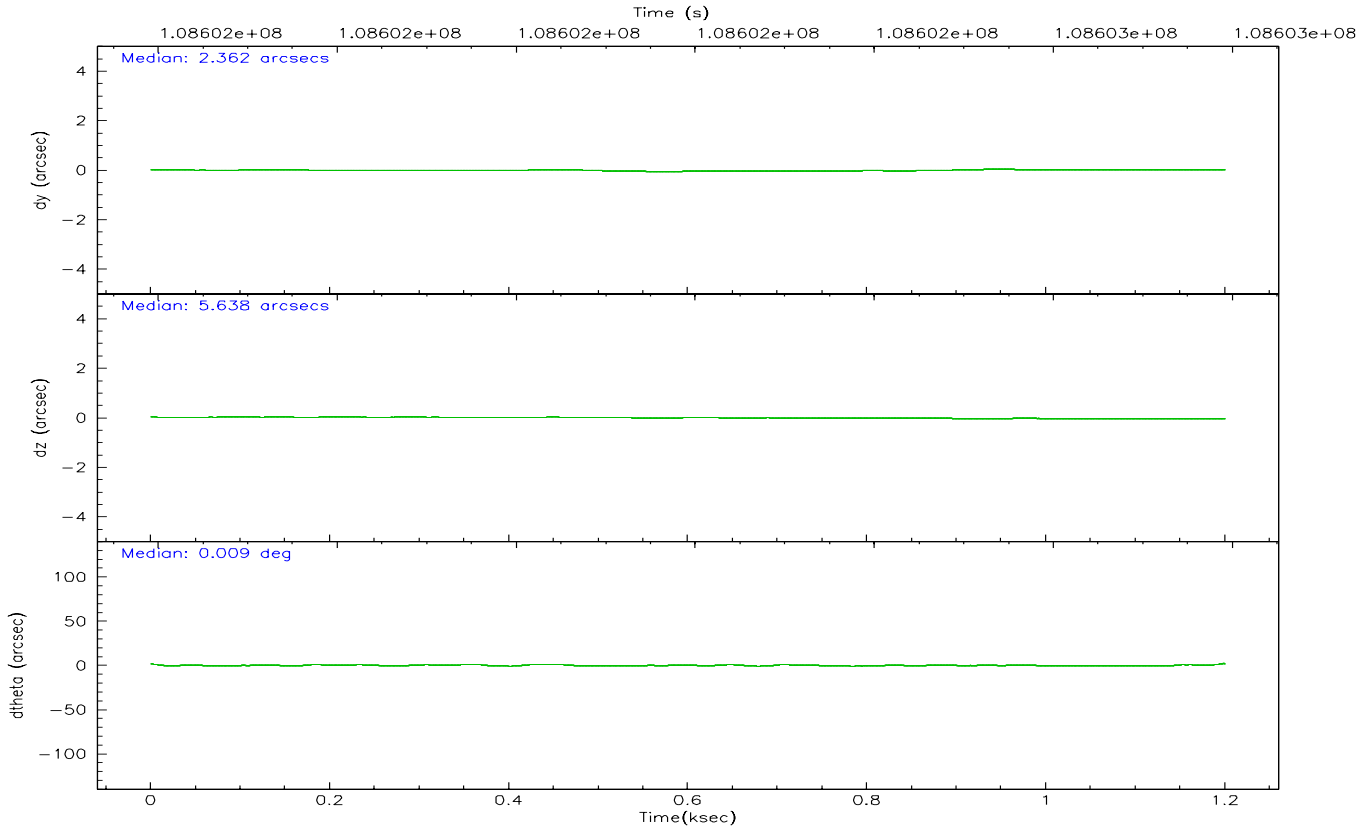
Parameter	Planned	Actual
Obspar format version number	6	6
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED

2.3 Aspect


RA : 11.335 deg
Dec : 41.833 deg
20
10
0
−10
−20
Dec (arcsec)
−20
0
20
RA (arcsec)


DY : 2.362 arcsecs
DZ : 5.638 arcsecs
4
2
0
−2
−4
DZ (arcsec)
−4
−2
0
2
4
DY (arcsec)


Time (s)
1.08602e+08
1.08602e+08
1.08602e+08
1.08602e+08
1.08602e+08
1.08603e+08
1.08603e+08
Median: 11.335 deg
RA (arcsec)
Median: 41.833 deg
Dec (arcsec)
Median: 93.969 deg
roll (arcsec)
Time(ksec)

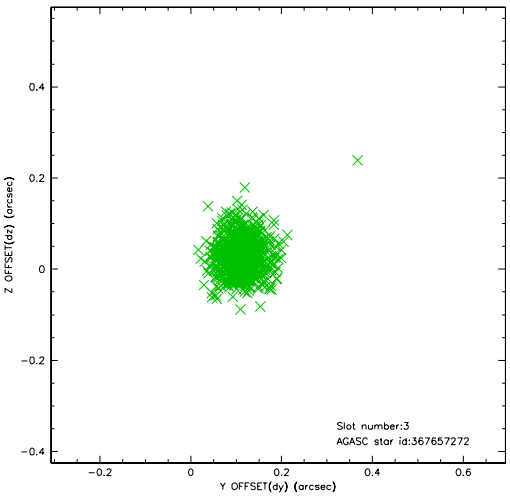

Time (s)
1.08602e+08
1.08602e+08
1.08602e+08
1.08602e+08
1.08602e+08
1.08603e+08
1.08603e+08
Median: 2.362 arcsecs
dy (arcsec)
Median: 5.638 arcsecs
dz (arcsec)
Median: 0.009 deg
dtheta (arcsec)
Time(ksec)

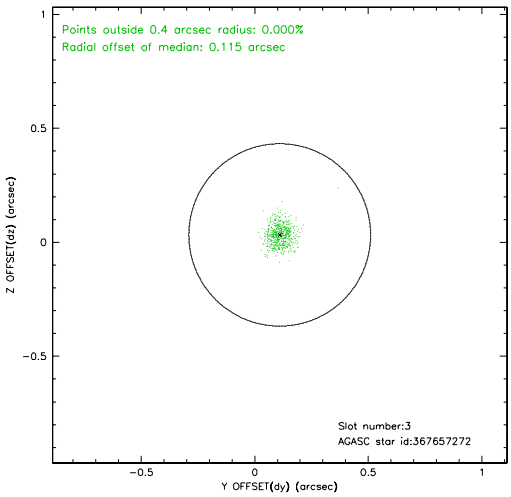
Slot Statistics

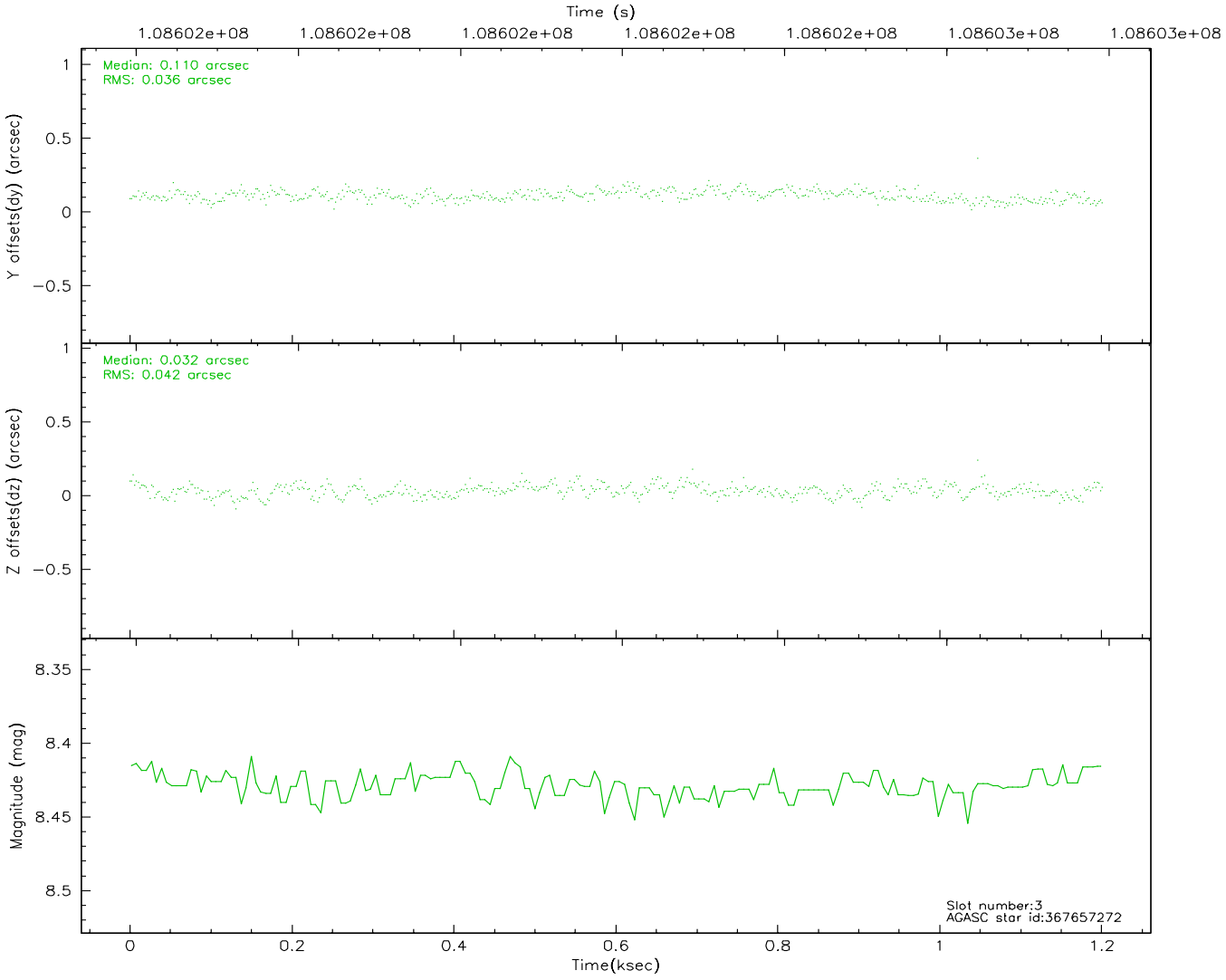
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	HRC-I-1	6.98	293	0.025	0.031	0.006	0.011	0.000000	0.000000	-757.79	-1293.41
1	FID	HRC-I-3	7.07	293	0.032	-0.091	0.006	0.011	0.000000	0.000000	-1188.85	1006.62
2	FID	HRC-I-4	7.01	293	0.057	-0.030	0.005	0.009	0.000000	0.000000	1280.98	1012.13
3	GUIDE	367657272	8.43	587	0.110	0.032	0.059	0.093	11.834471	41.298907	-1926.83	-1160.30
4	GUIDE	367667384	8.66	587	0.027	0.167	0.080	0.132	12.077552	41.596878	-901.45	-1885.05
5	GUIDE	367665384	8.80	587	-0.198	-0.238	0.073	0.119	10.414363	42.275730	1857.95	2380.00
6	GUIDE	367657368	8.64	582	0.088	0.115	0.059	0.101	11.928227	41.287266	-1981.93	-1406.60
7	GUIDE	367674552	8.85	586	-0.032	-0.097	0.066	0.108	11.016238	41.570845	-799.58	971.84

2.4 Star Slots

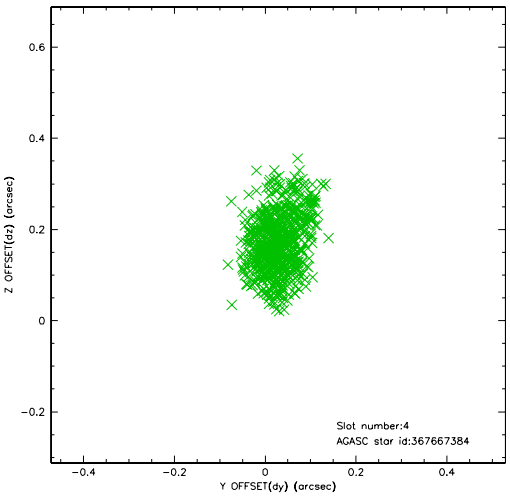
2.4.1 Slot 3

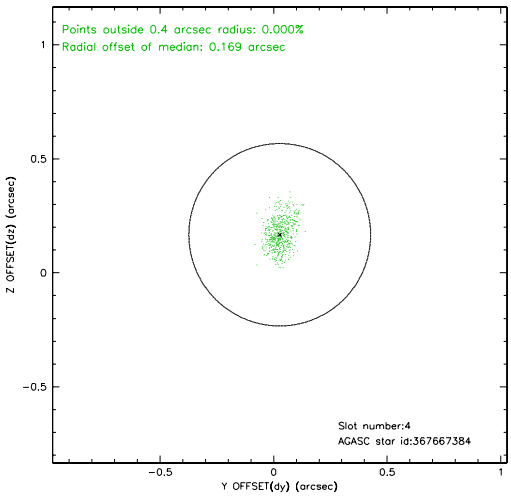


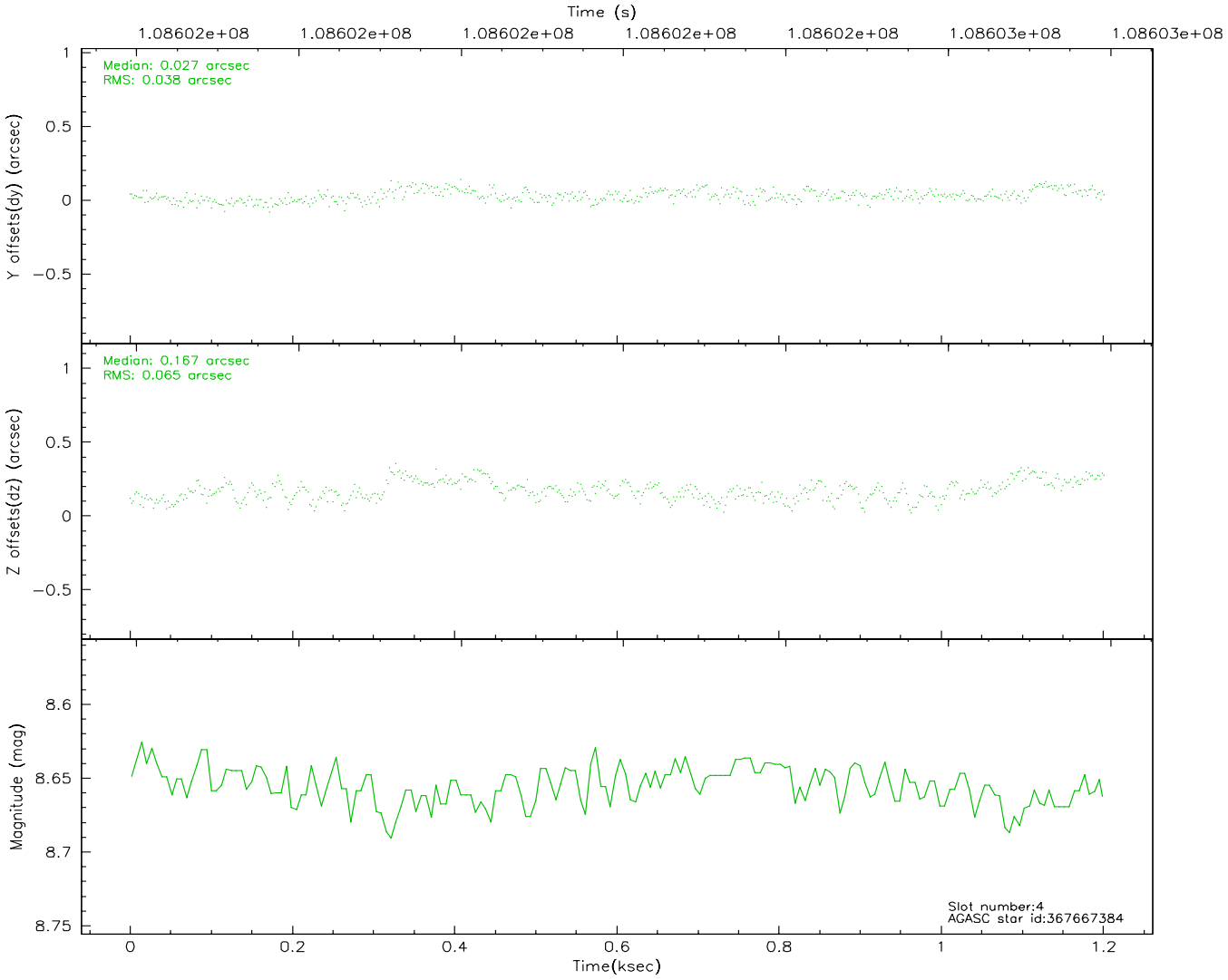




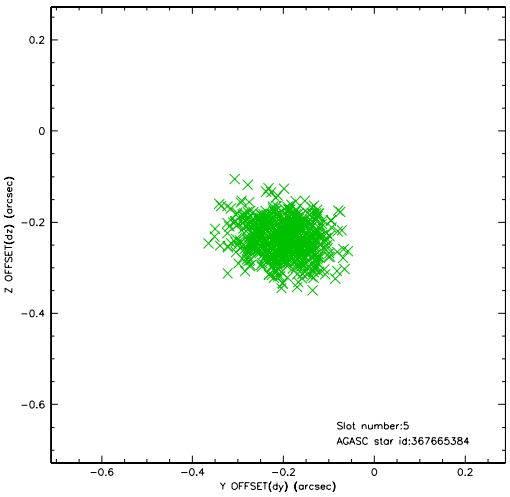
2.4.2 Slot 4

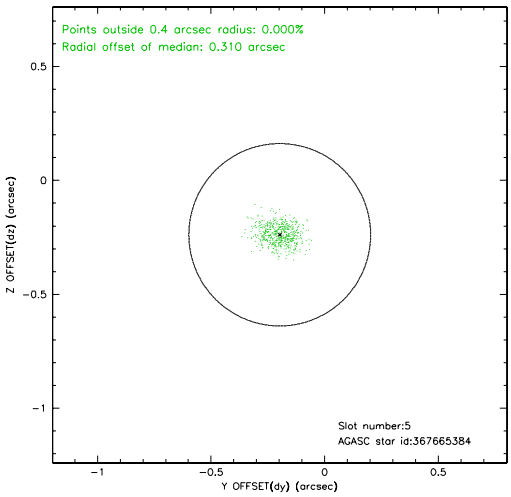

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:4
AGASC star id:367667384

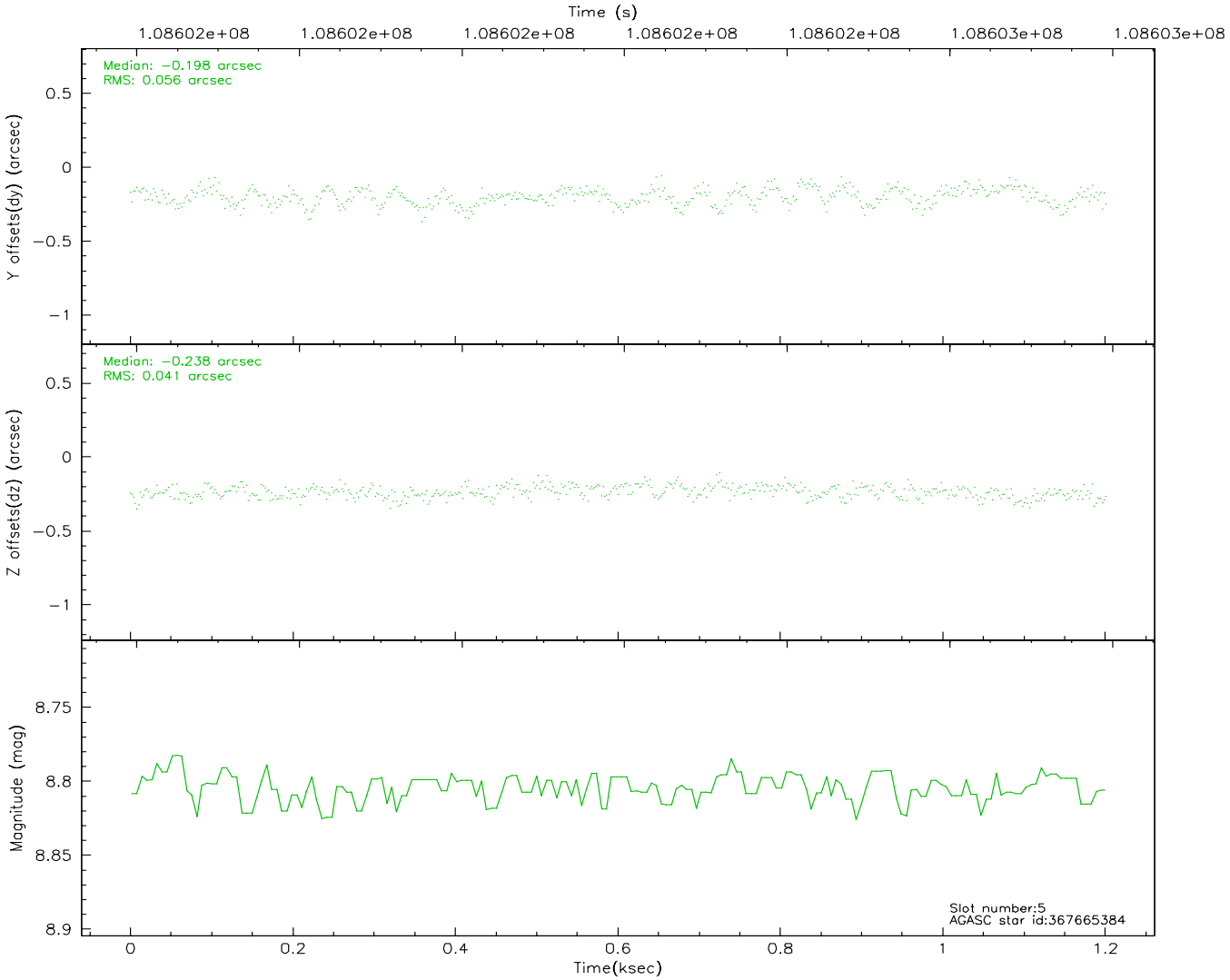

Points outside 0.4 arcsec radius: 0.000%
Radial offset of median: 0.169 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:4
AGASC star id:367667384


Time (s)
Median: 0.027 arcsec
RMS: 0.038 arcsec
Y offsets(dy) (arcsec)
Median: 0.167 arcsec
RMS: 0.065 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:4
AGASC star id:367667384
Time(ksec)

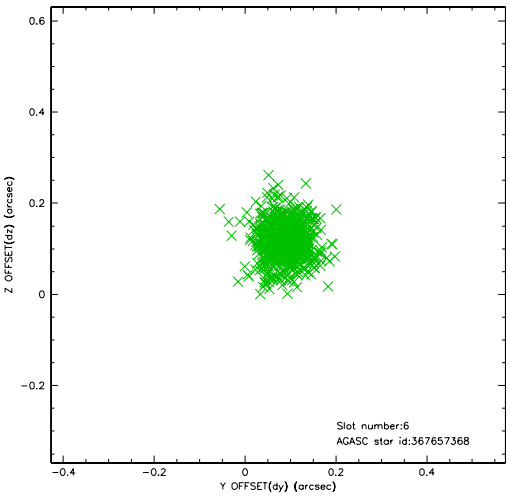
2.4.3 Slot 5

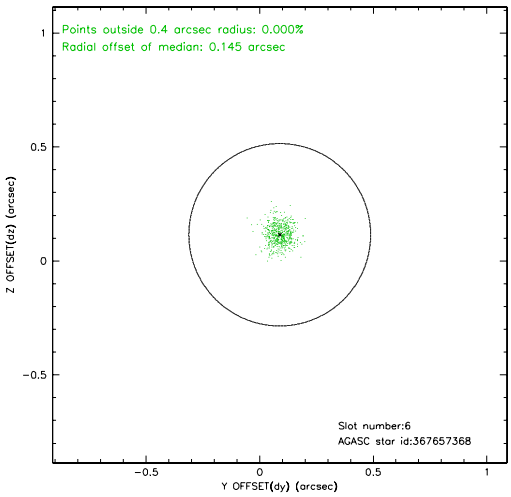

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:5
AGASC star id:367665384

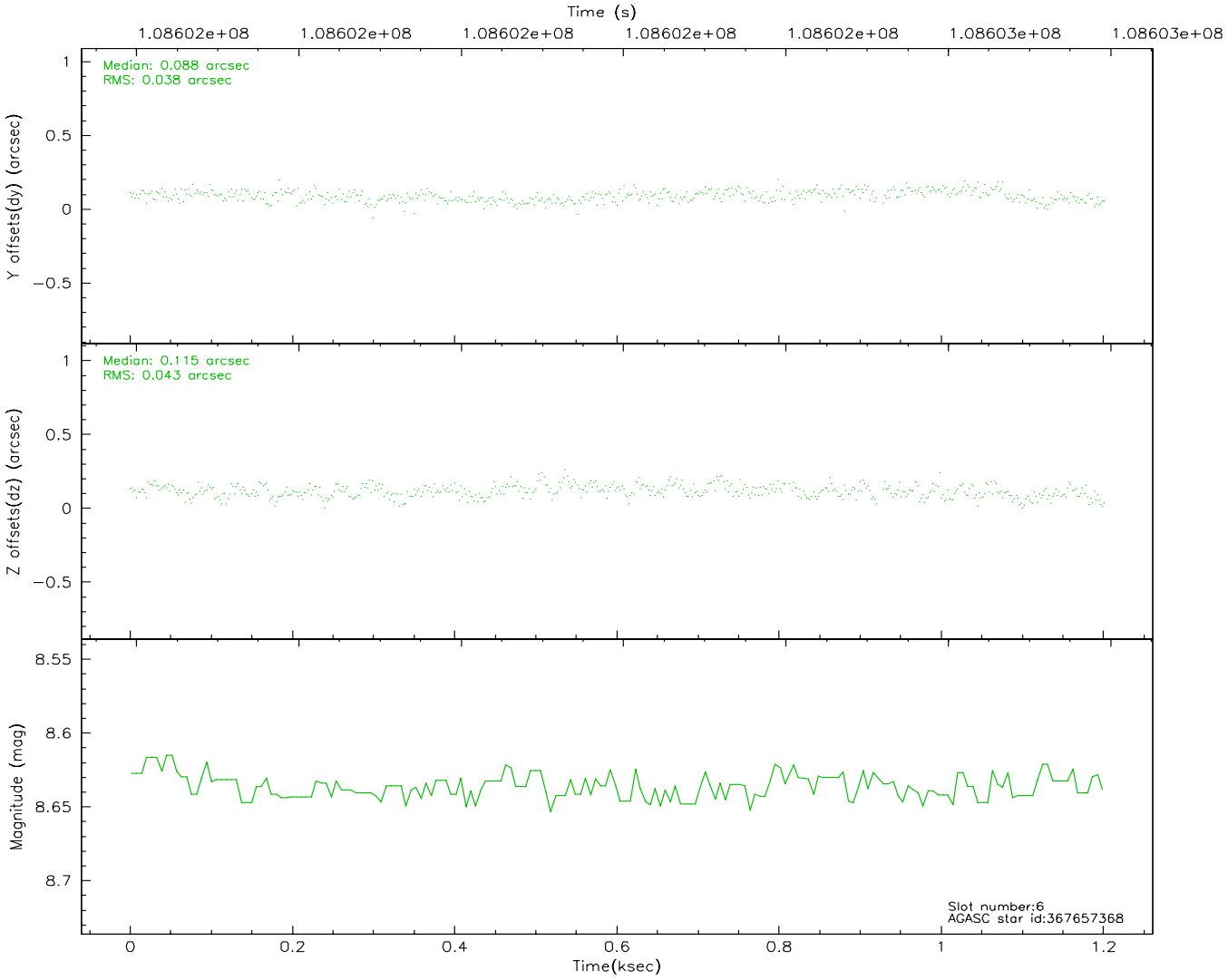

Points outside 0.4 arcsec radius: 0.000%
Radial offset of median: 0.310 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:5
AGASC star id:367665384


Time (s)
Median: −0.198 arcsec
RMS: 0.056 arcsec
Y offsets(dy) (arcsec)
Median: −0.238 arcsec
RMS: 0.041 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:5
AGASC star id:367665384
Time(ksec)

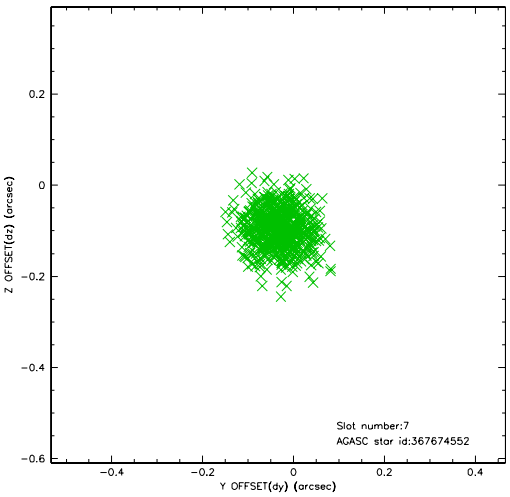
2.4.4 Slot 6

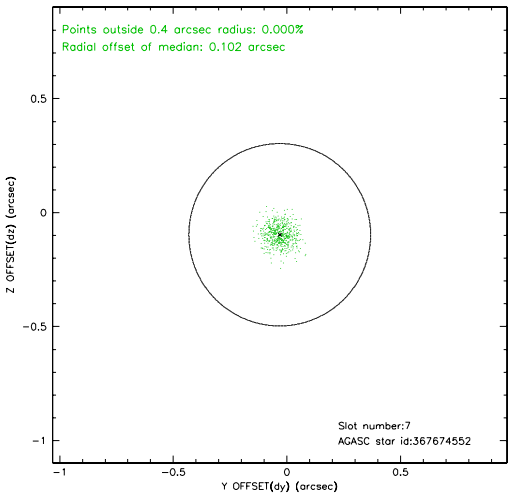

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:6
AGASC star id:367657368


Points outside 0.4 arcsec radius: 0.000%
Radial offset of median: 0.145 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:6
AGASC star id:367657368


Time (s)
1.08602e+08
1.08602e+08
1.08602e+08
1.08602e+08
1.08602e+08
1.08603e+08
1.08603e+08
Median: 0.088 arcsec
RMS: 0.038 arcsec
Y offsets(dy) (arcsec)
Median: 0.115 arcsec
RMS: 0.043 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:6
AGASC star id:367657368
Time(ksec)

2.4.5 Slot 7


Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:7
AGASC star id:367674552


Points outside 0.4 arcsec radius: 0.000%
Radial offset of median: 0.102 arcsec
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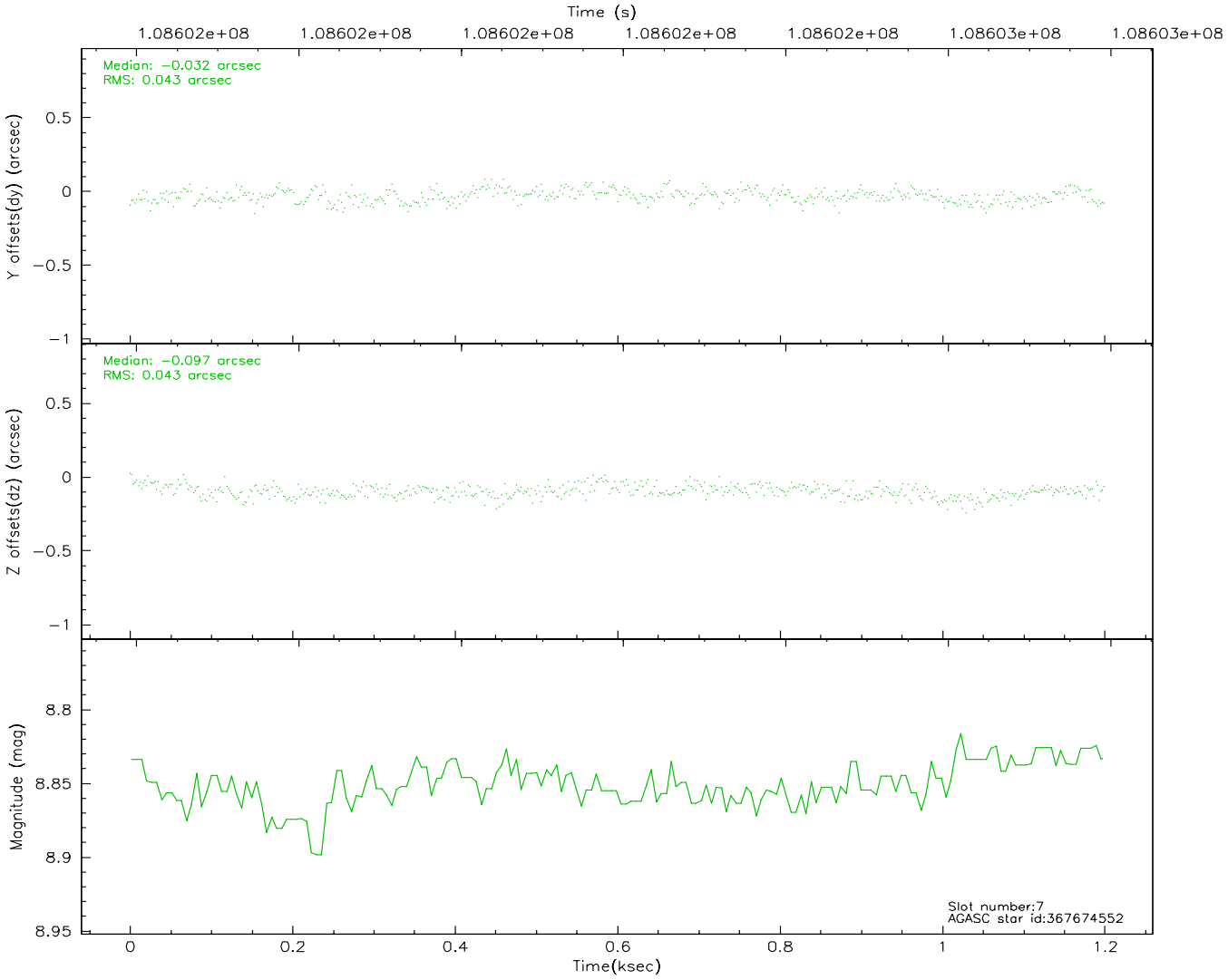
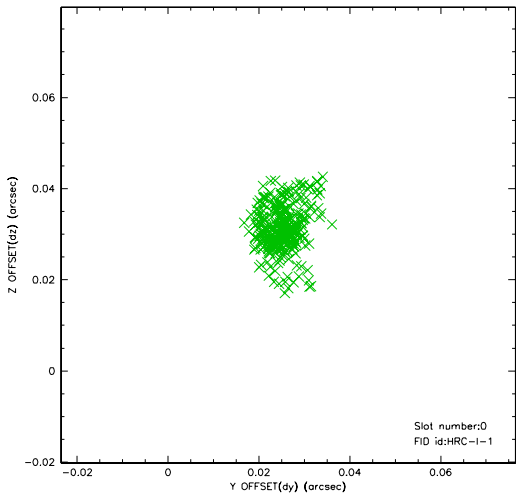
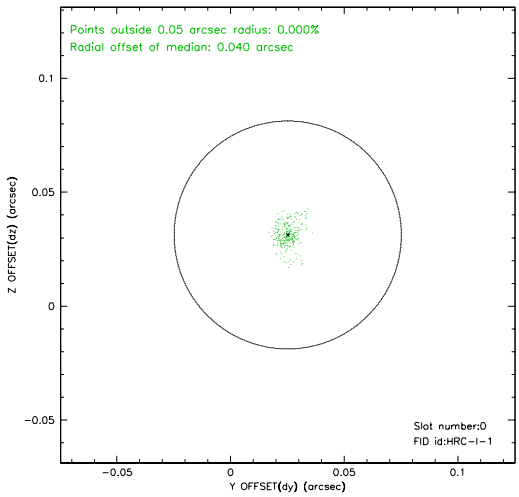
Y OFFSET(dy) (arcsec)
Slot number:7
AGASC star id:367674552

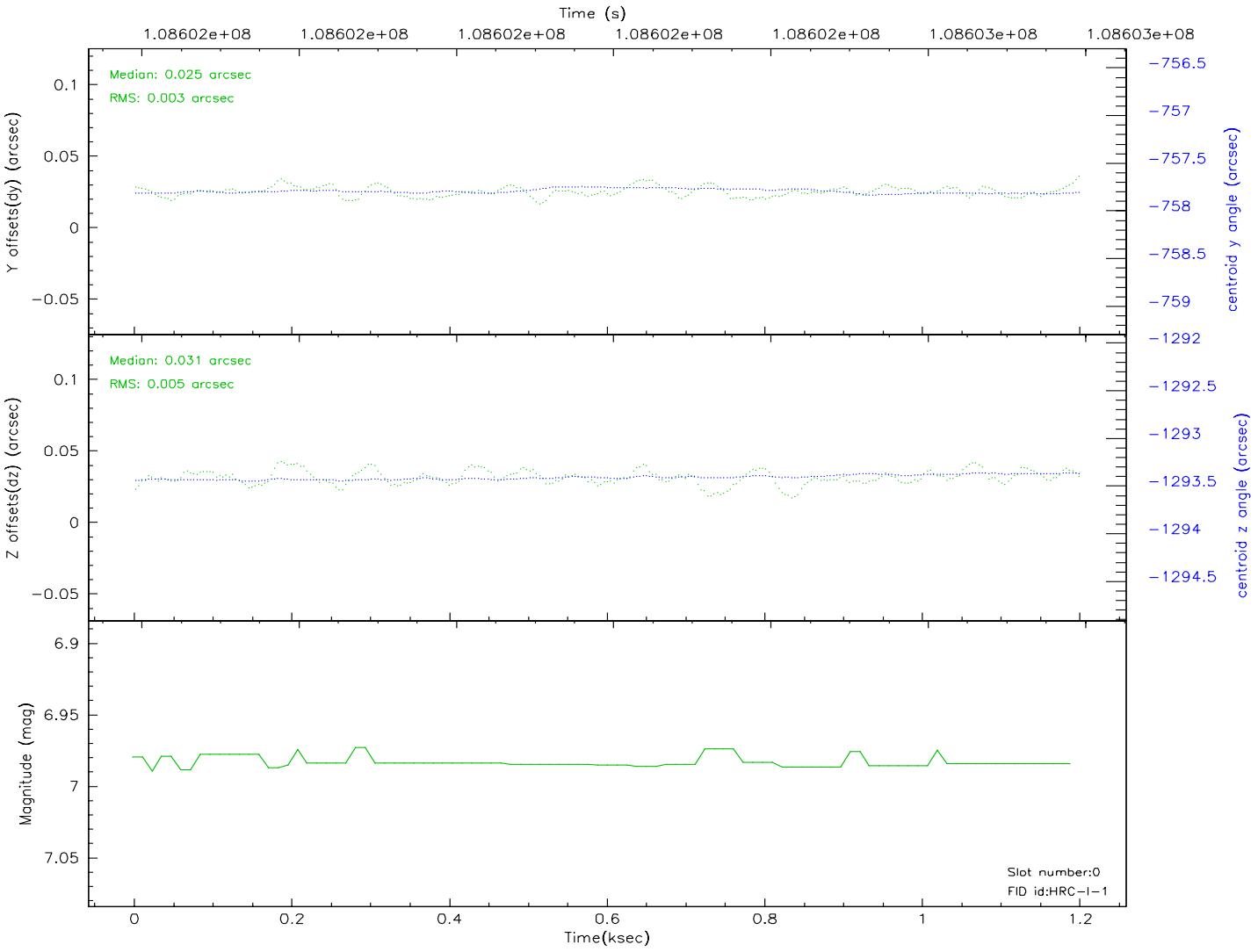

Time (s)
Median: −0.032 arcsec
RMS: 0.043 arcsec
Y offsets(dy) (arcsec)
Median: −0.097 arcsec
RMS: 0.043 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:7
AGASC star id:367674552
Time(ksec)

2.5 FID Slots

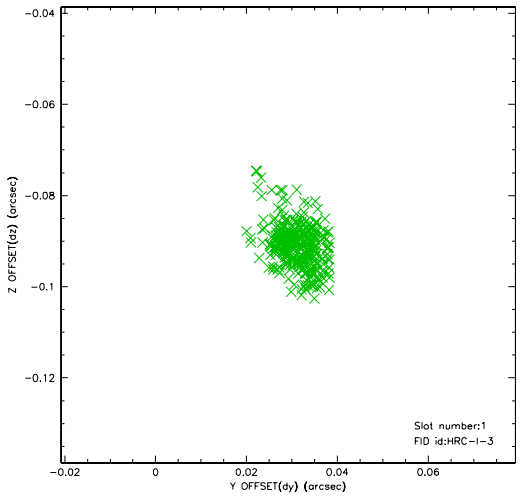
2.5.1 Slot 0

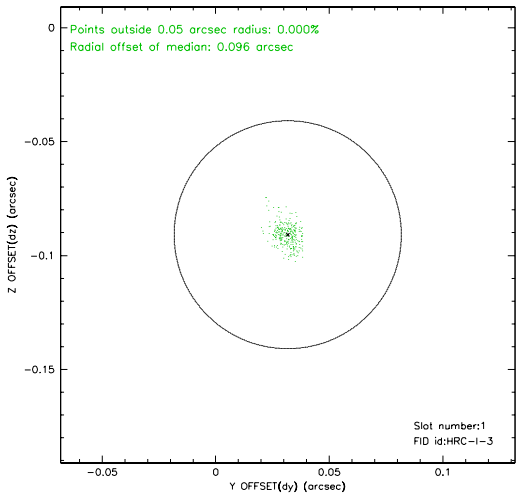


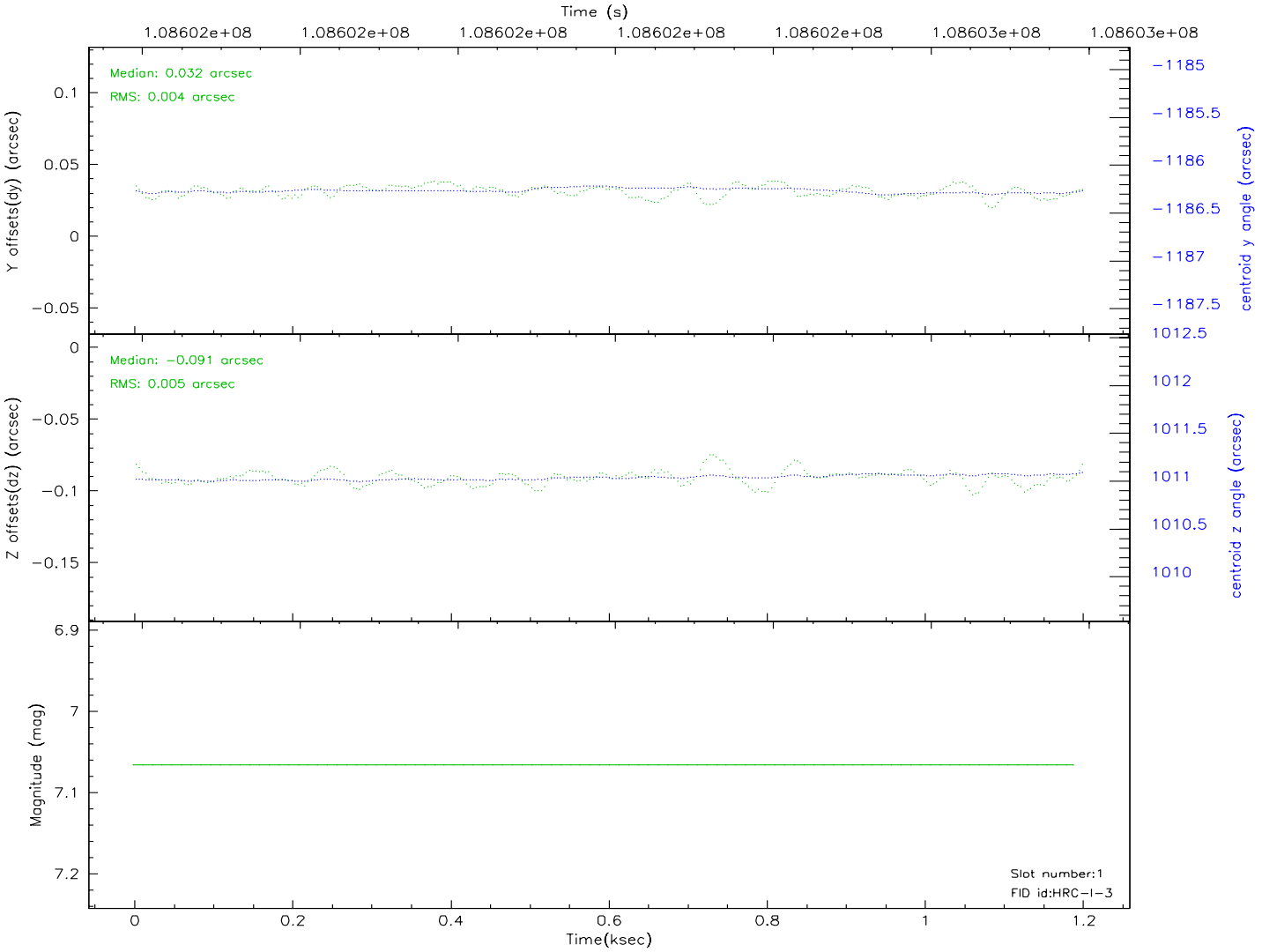




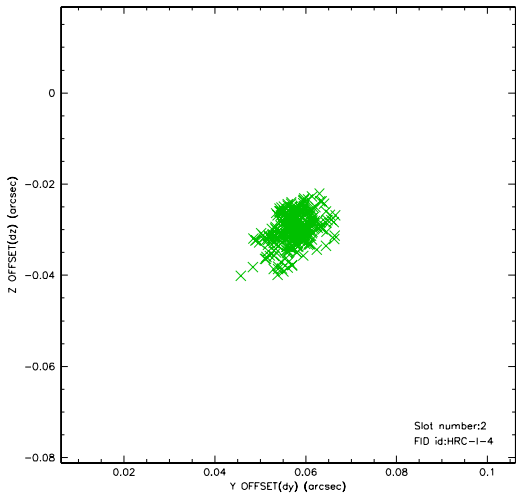
2.5.2 Slot 1

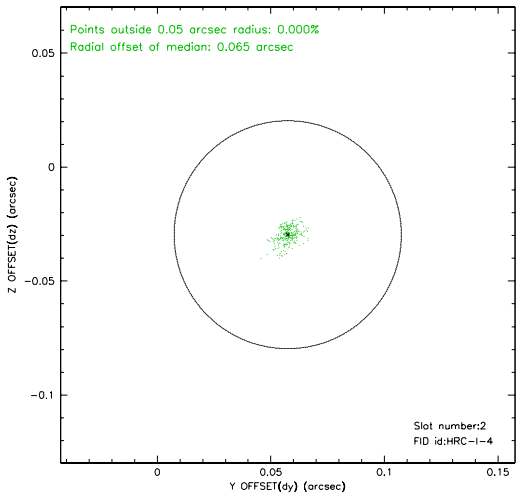

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:1
FID id:HRC-I-3

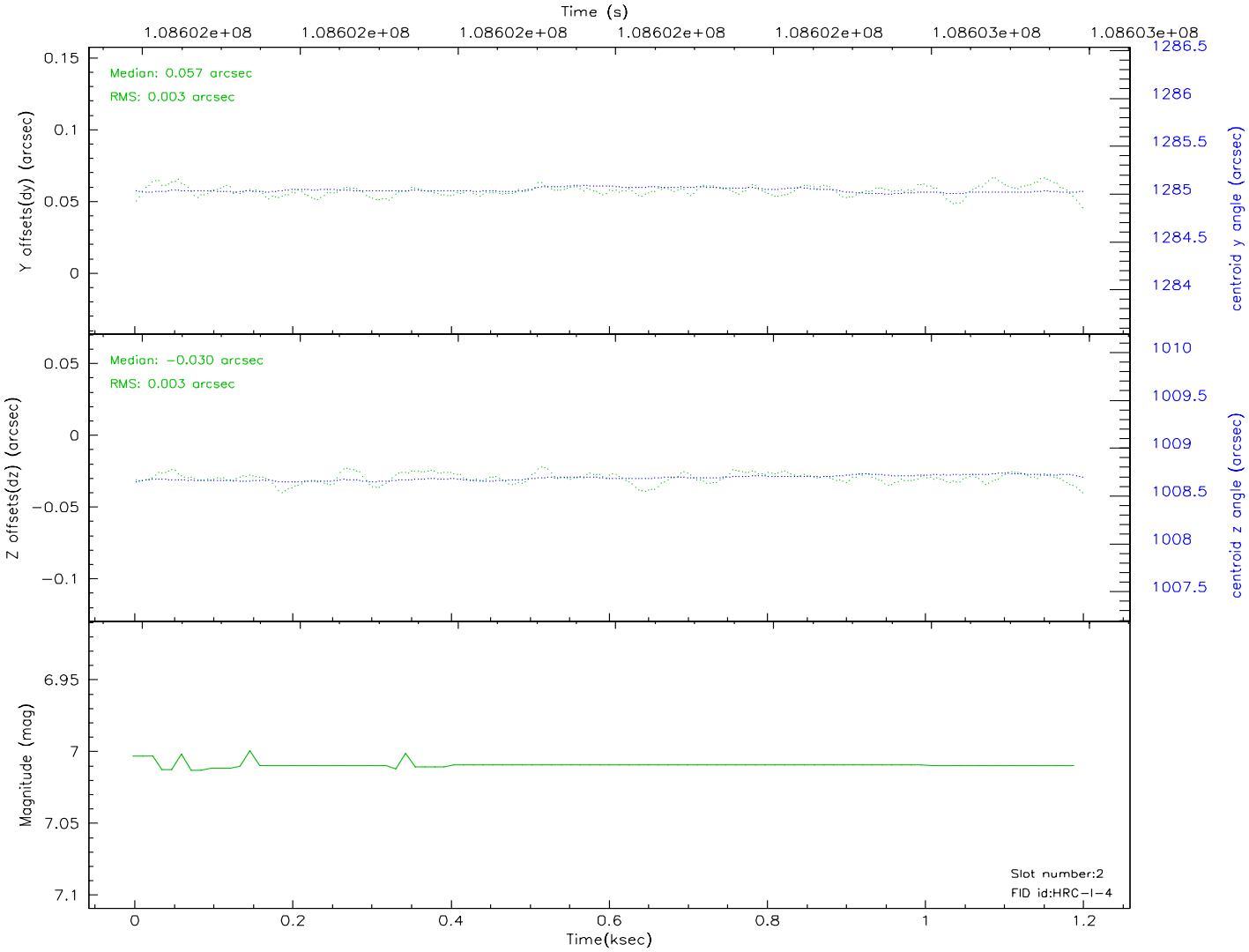

Points outside 0.05 arcsec radius: 0.000%
Radial offset of median: 0.096 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:1
FID id:HRC-I-3


Time (s)
Median: 0.032 arcsec
RMS: 0.004 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: −0.091 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

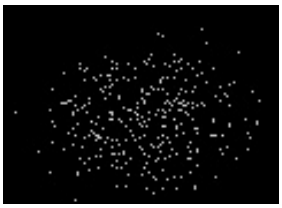

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:2
FID id:HRC-I-4


Points outside 0.05 arcsec radius: 0.000%
Radial offset of median: 0.065 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:2
FID id:HRC-I-4


Time (s)
Median: 0.057 arcsec
RMS: 0.003 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: −0.030 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

11.32 arcmin



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2007.12.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.198

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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