V&V Reference Report
L2 ASCDS Version : 7.6.7

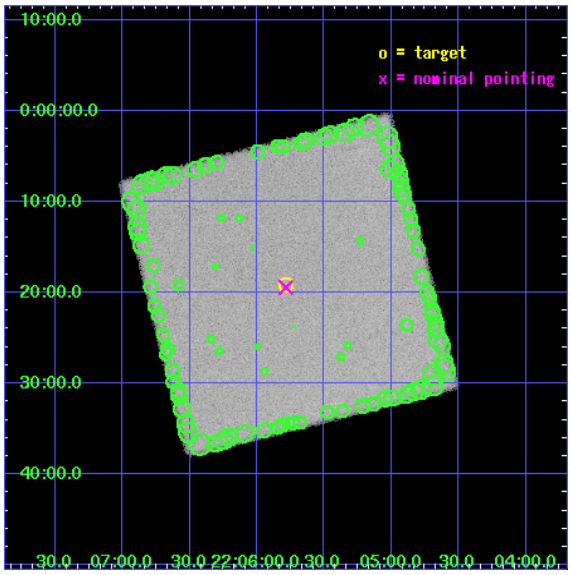
Observation 5414 - L2 Version 3
Chandra X-Ray Center

L2 Processing Date : Nov 24 2007

Contents

1 Front

seq_num	200347
obs_id	5414
title	Resolving the Puzzle of Hybrid Star Coronal X-rays
observer	Dr. THOMAS AYRES
object	HD 209750
ra_targ	331.445833
dec_targ	-0.319861
ra_nom	331.44639895139
dec_nom	-0.32399935001287
roll_nom	300.91542331555
revision	3
ontime	20148.682158172
livetime	20008.699852112
l2events	747790

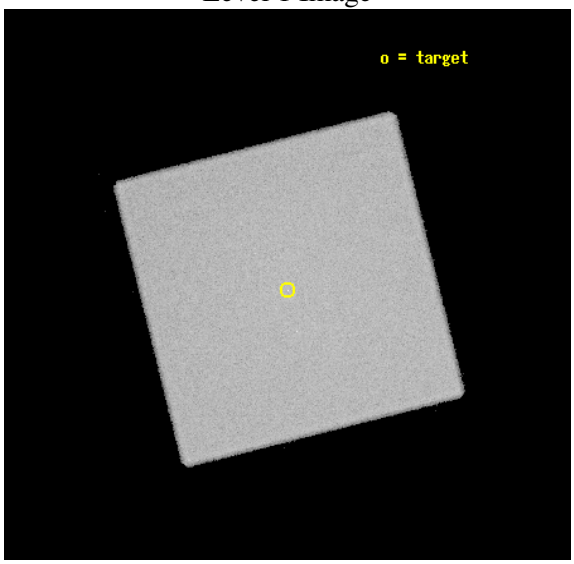


2 OBI

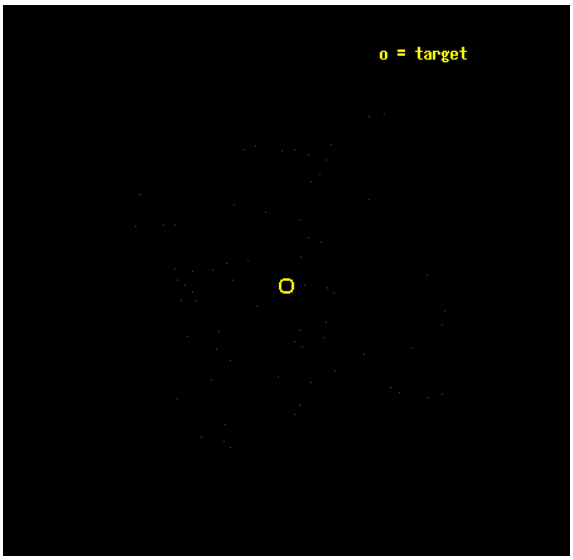
2.1 OBI

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	2007-11-24T05:06:41
revision	3

sched_exp_time	20000.000000
ontime	20148.682158172
l1events	1149778

2.1.3 Events

Level 1 Events

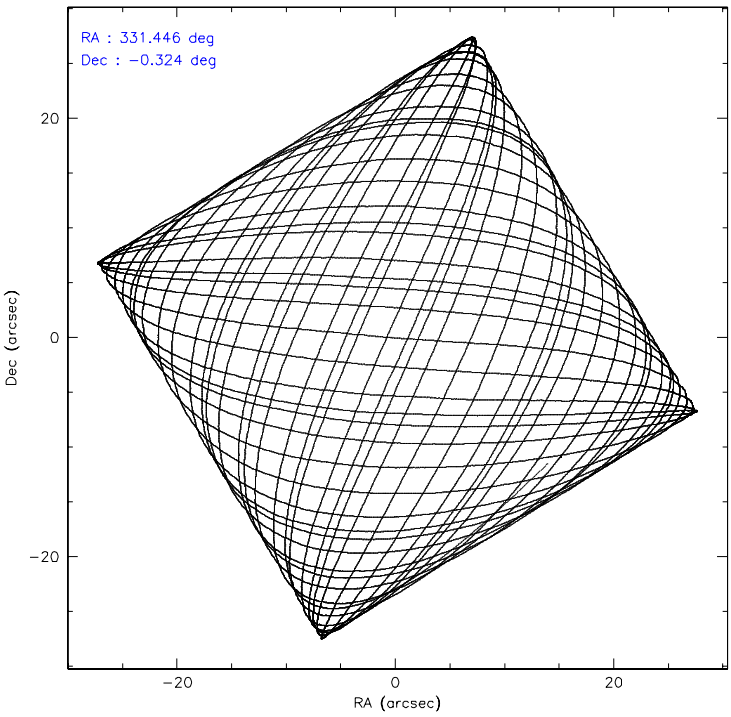
	segment 0
level 1 events	1149778
rejected events	42906
rejected %	3%

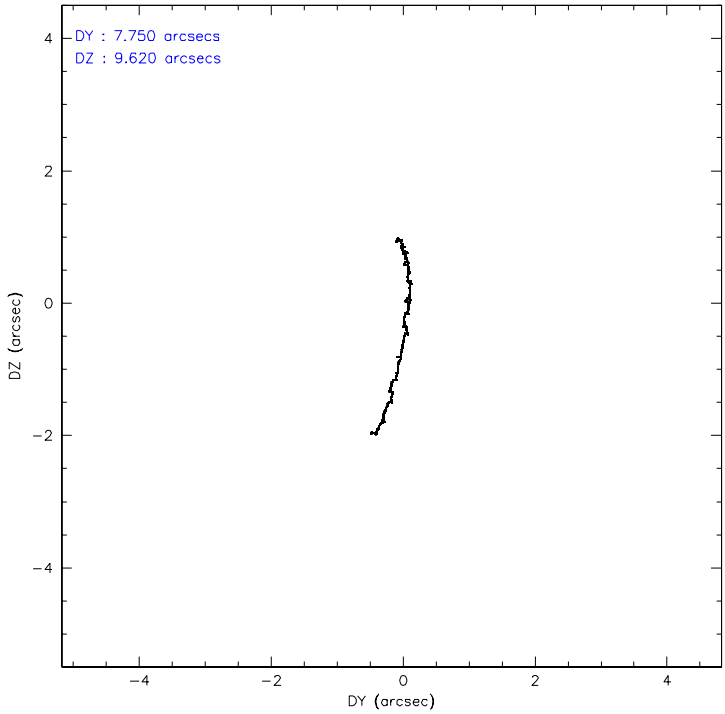
2.2 Compared Parameters

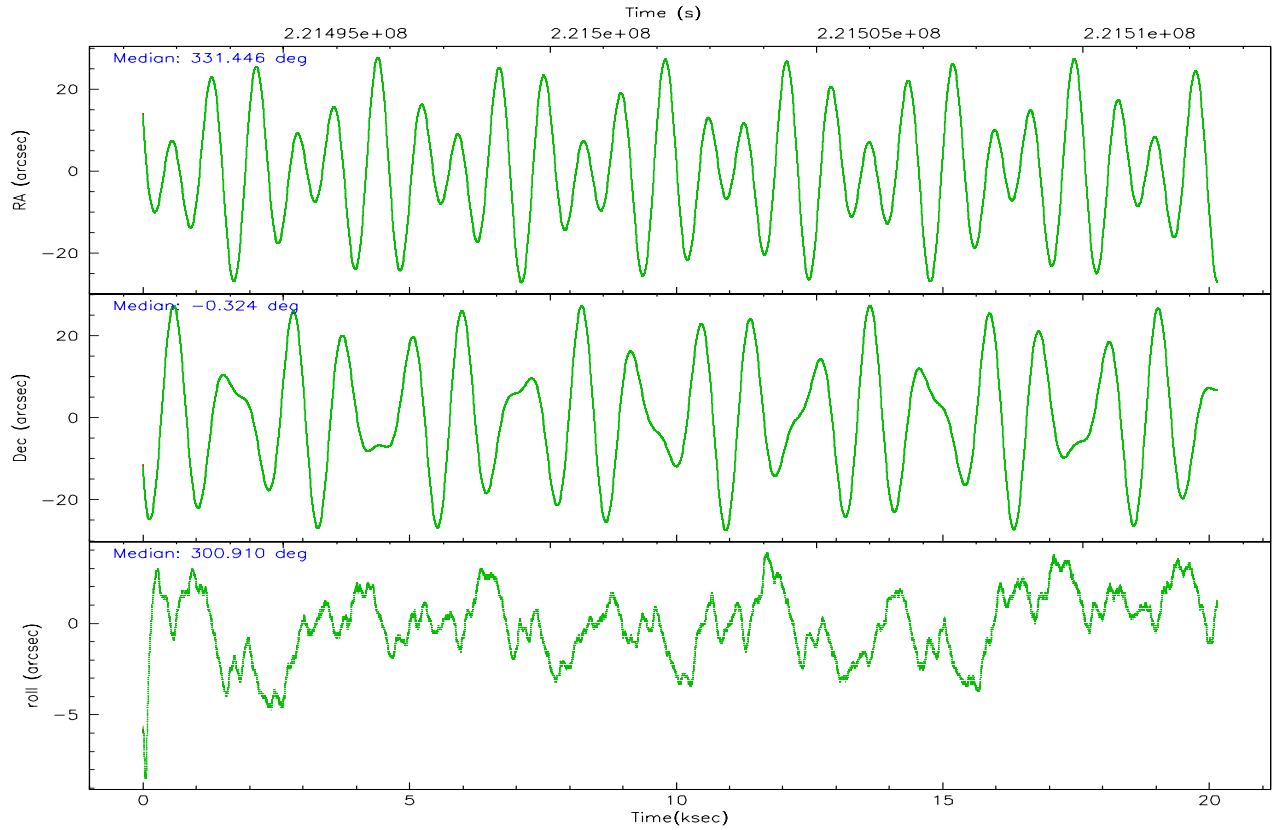
Parameter	Planned	Actual
Instrument	HRC	HRC
Detector	HRC-I	HRC-I
Grating	NONE	NONE
Data mode	OBSERVING	OBSERVING
Observation mode	POINTING	POINTING
Pointing RA	331.422439	331.4463989513873
Pointing Dec	-0.311364	-0.3239993500128727
Pointing Roll	301.010777	300.9154233155515
SIM focus pos (mm)	-1.040293	-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	221492516.184000	221491538.00005
Observation start date	2005-01-07T13:40:52	2005-01-07T13:25:38
Observation end time	221512516.184000	221513028.15102
Observation end date	2005-01-07T19:14:12	2005-01-07T19:23:48

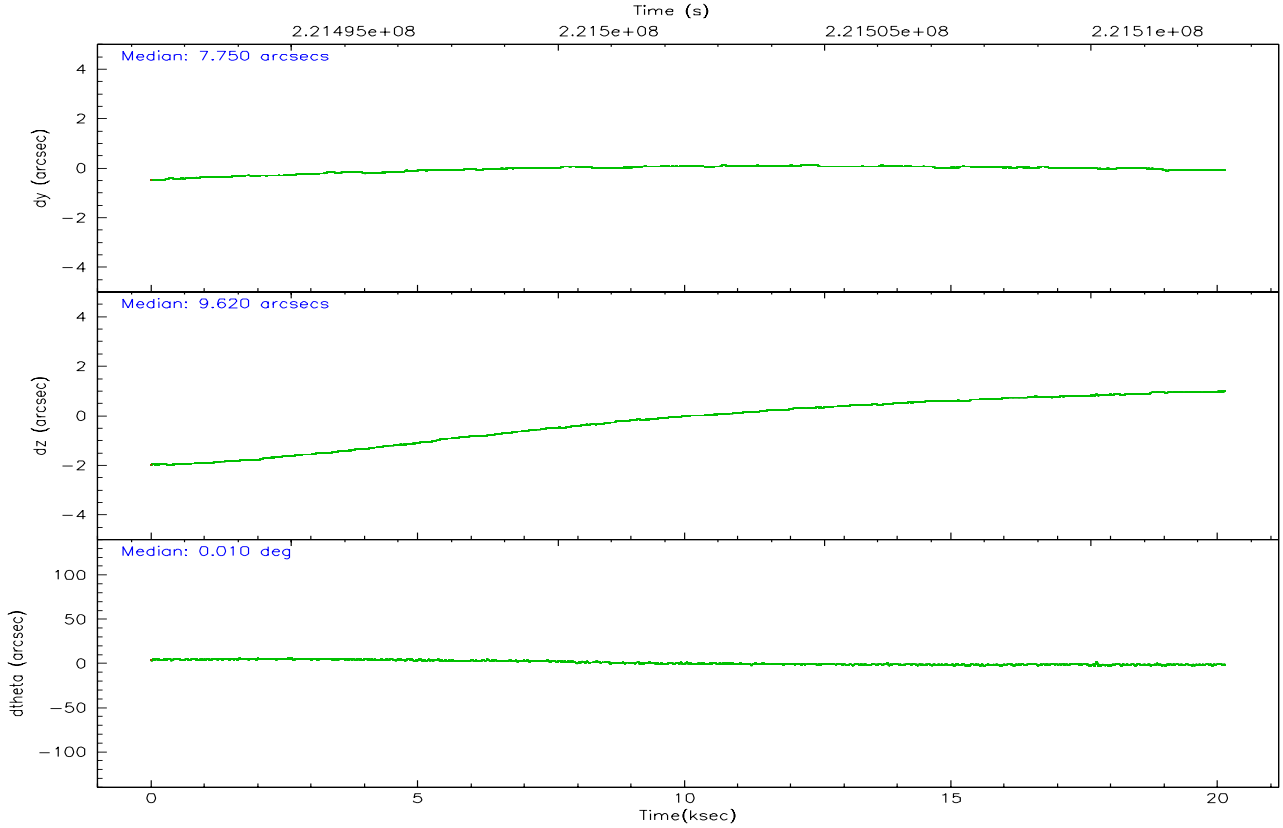
Parameter	Planned	Actual
Obspar format version number	6	6
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED

2.3 Aspect


RA : 331.446 deg
Dec : −0.324 deg
20
0
−20
Dec (arcsec)
−20
0
20
RA (arcsec)


DY : 7.750 arcsecs
DZ : 9.620 arcsecs
4
2
0
−2
−4
DZ (arcsec)
−4
−2
0
2
4
DY (arcsec)


Time (s)
2.21495e+08
2.215e+08
2.21505e+08
2.2151e+08
Median: 331.446 deg
RA (arcsec)
Median: −0.324 deg
Dec (arcsec)
Median: 300.910 deg
roll (arcsec)
Time(ksec)

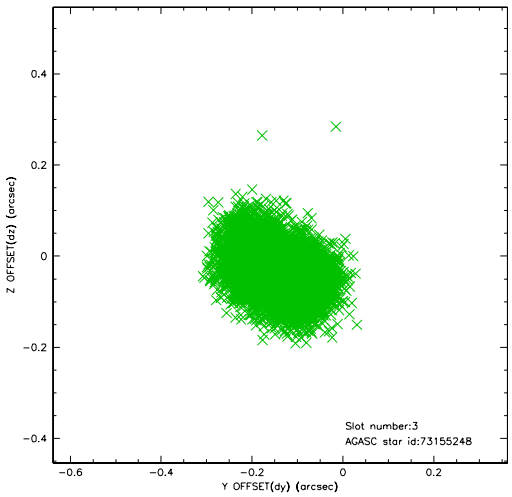

Time (s)
2.21495e+08
2.215e+08
2.21505e+08
2.2151e+08
Median: 7.750 arcsecs
dy (arcsec)
Median: 9.620 arcsecs
dz (arcsec)
Median: 0.010 deg
dtheta (arcsec)
Time(ksec)

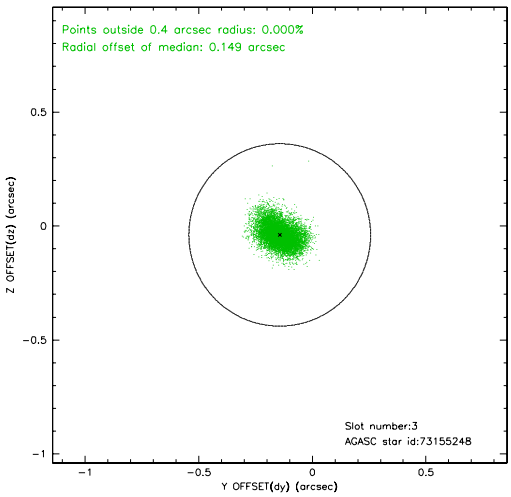
Slot Statistics

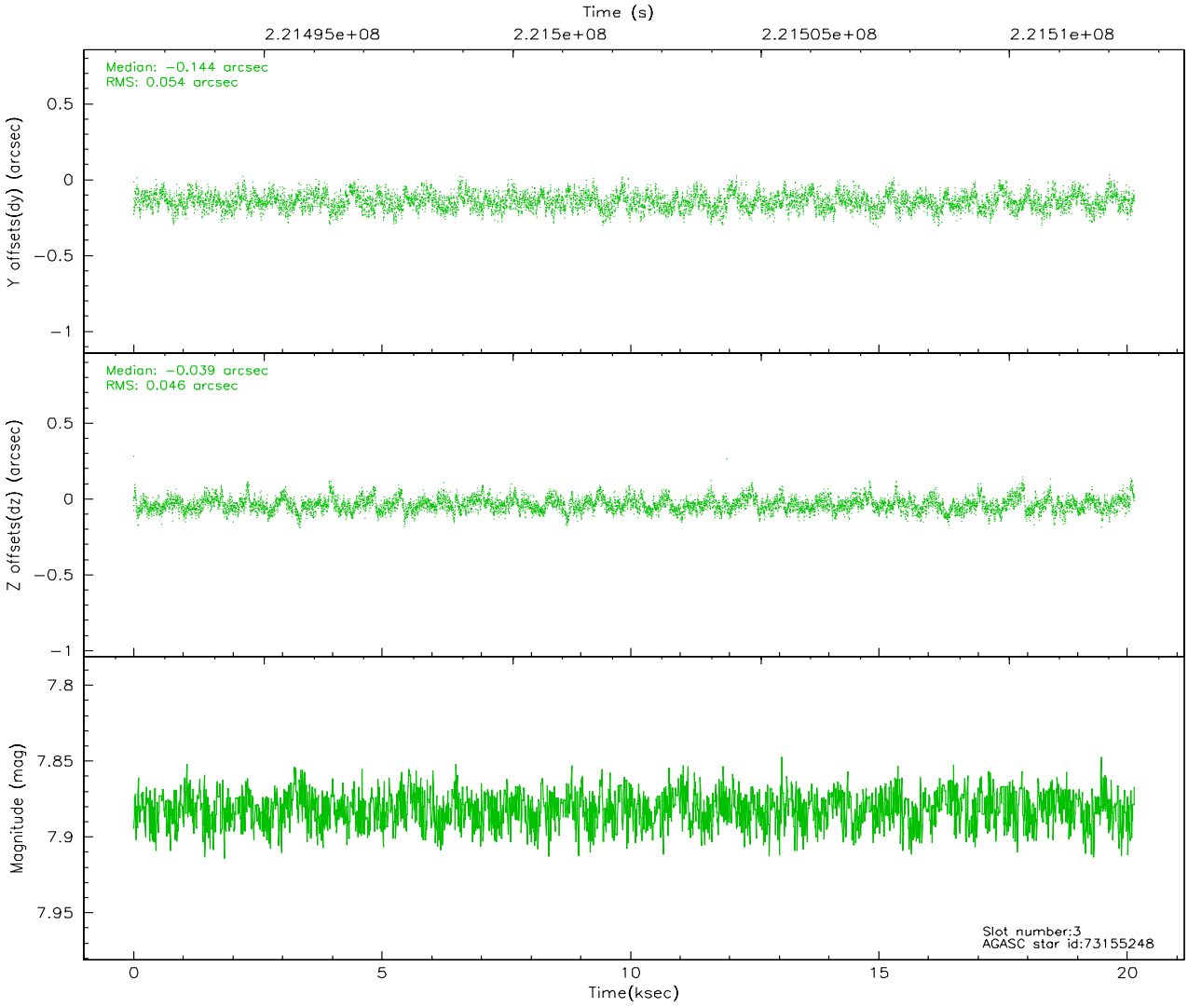
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	HRC-I-1	6.96	4914	0.015	0.034	0.027	0.038	0.000000	0.000000	-763.32	-1297.23
1	FID	HRC-I-3	7.05	4914	-0.024	-0.100	0.014	0.042	0.000000	0.000000	-1191.94	1006.95
2	FID	HRC-I-4	6.99	4914	0.121	-0.022	0.021	0.038	0.000000	0.000000	1279.40	1005.01
3	GUIDE	73155248	7.88	9830	-0.144	-0.039	0.076	0.123	331.348846	0.261149	-1902.91	834.87
4	GUIDE	684724560	7.66	9829	0.052	-0.094	0.058	0.093	331.712195	-0.748932	1887.64	82.49
5	GUIDE	684725424	9.54	9826	0.100	0.006	0.104	0.182	331.313843	-0.700069	998.78	-1055.38
6	GUIDE	684726104	9.13	9826	0.072	-0.023	0.086	0.140	331.127859	-0.834413	1068.21	-1878.72
7	GUIDE	684731584	10.00	9812	-0.075	0.150	0.138	0.229	331.170044	-0.028510	-1340.51	-254.02

2.4 Star Slots

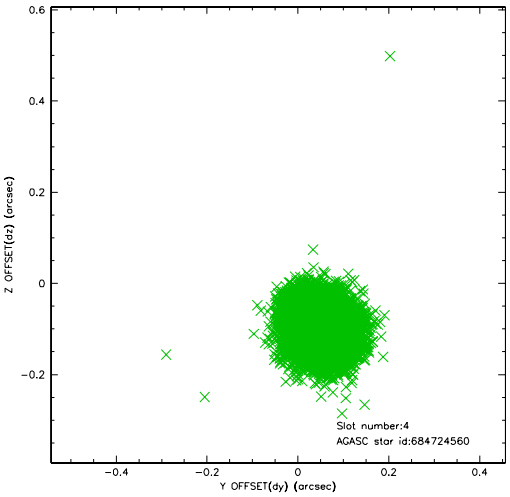
2.4.1 Slot 3

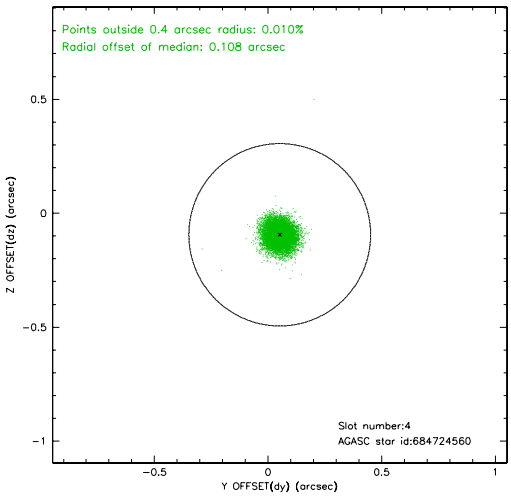


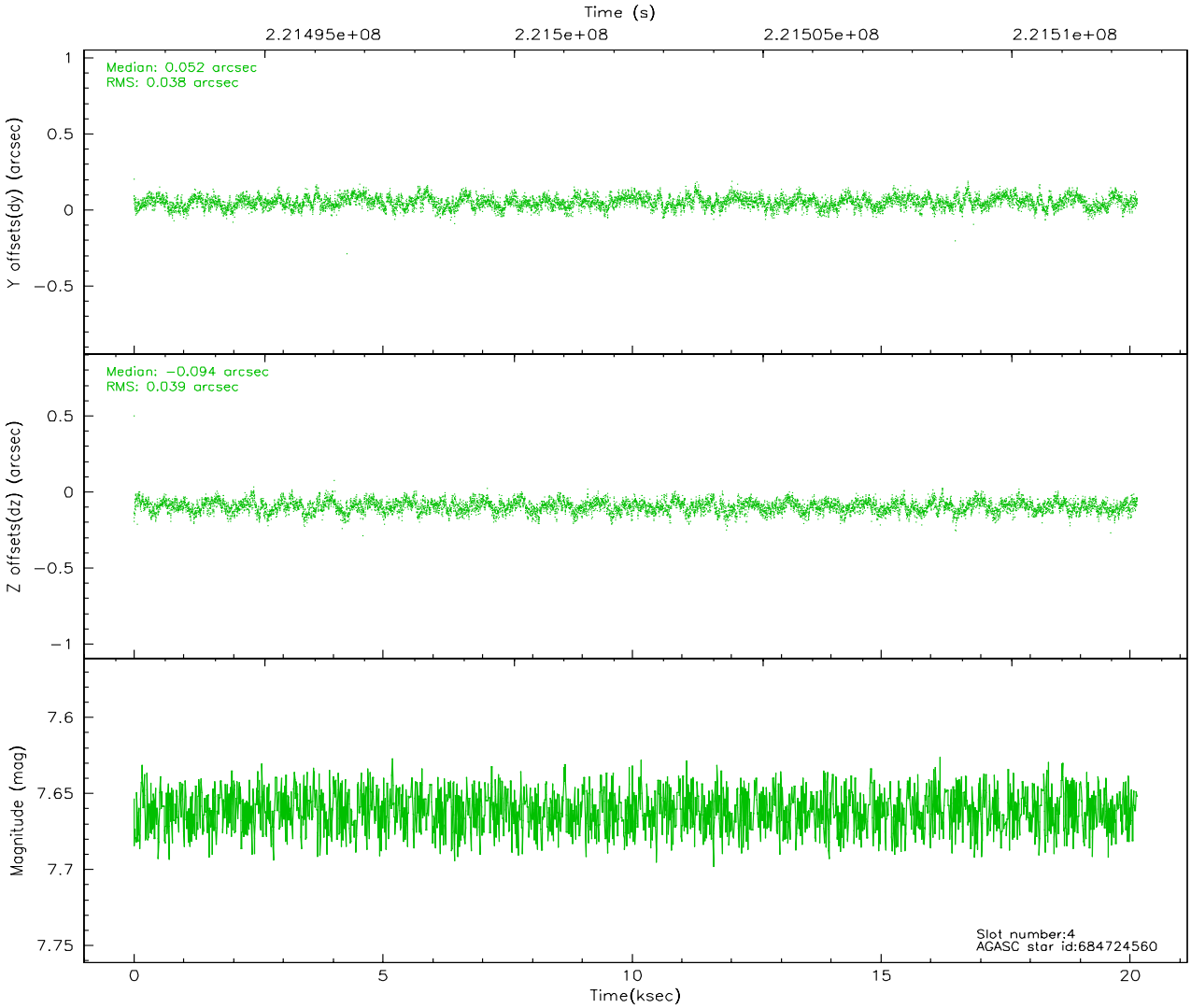




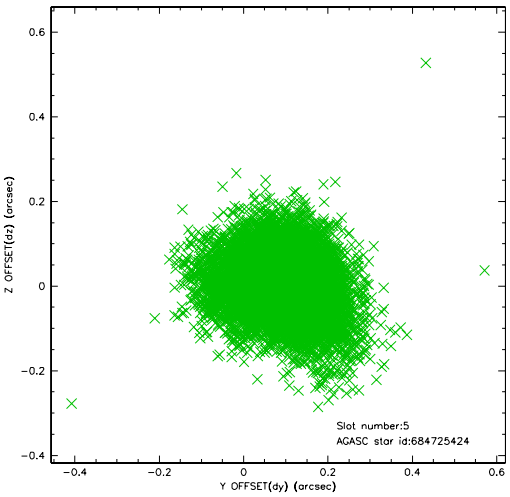
2.4.2 Slot 4

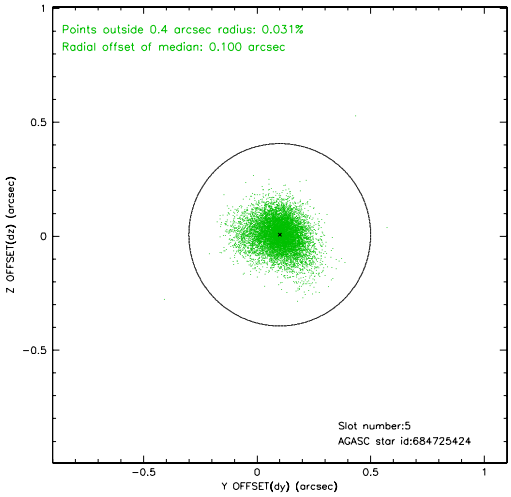

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:4
AGASC star id:684724560

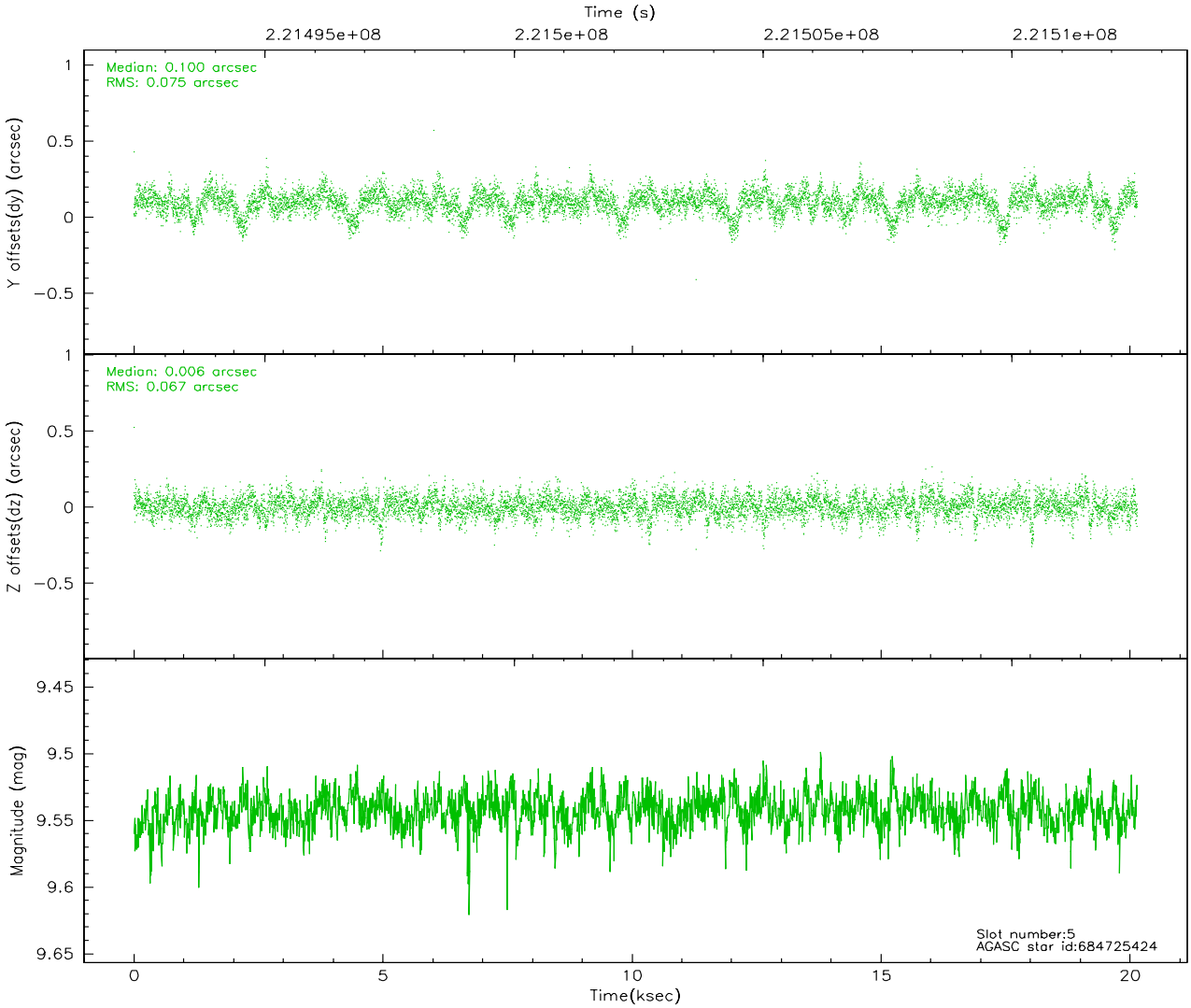

Points outside 0.4 arcsec radius: 0.010%
Radial offset of median: 0.108 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:4
AGASC star id:684724560


Time (s)
2.21495e+08
2.215e+08
2.21505e+08
2.2151e+08
Median: 0.052 arcsec
RMS: 0.038 arcsec
Y offsets(dy) (arcsec)
Median: −0.094 arcsec
RMS: 0.039 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:4
AGASC star id:684724560
Time(ksec)

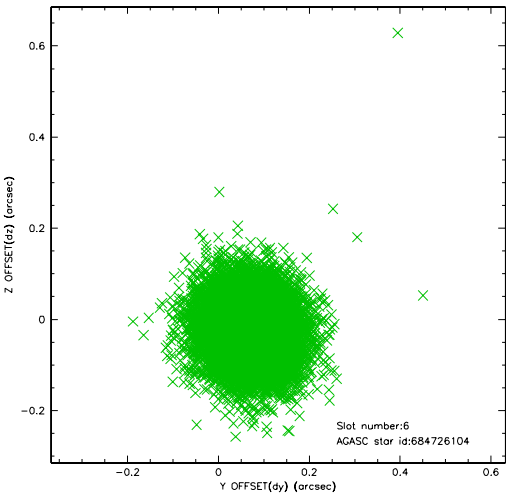
2.4.3 Slot 5

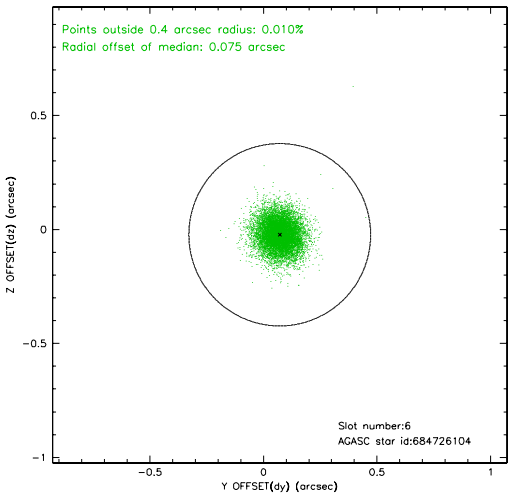

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:5
AGASC star id:684725424

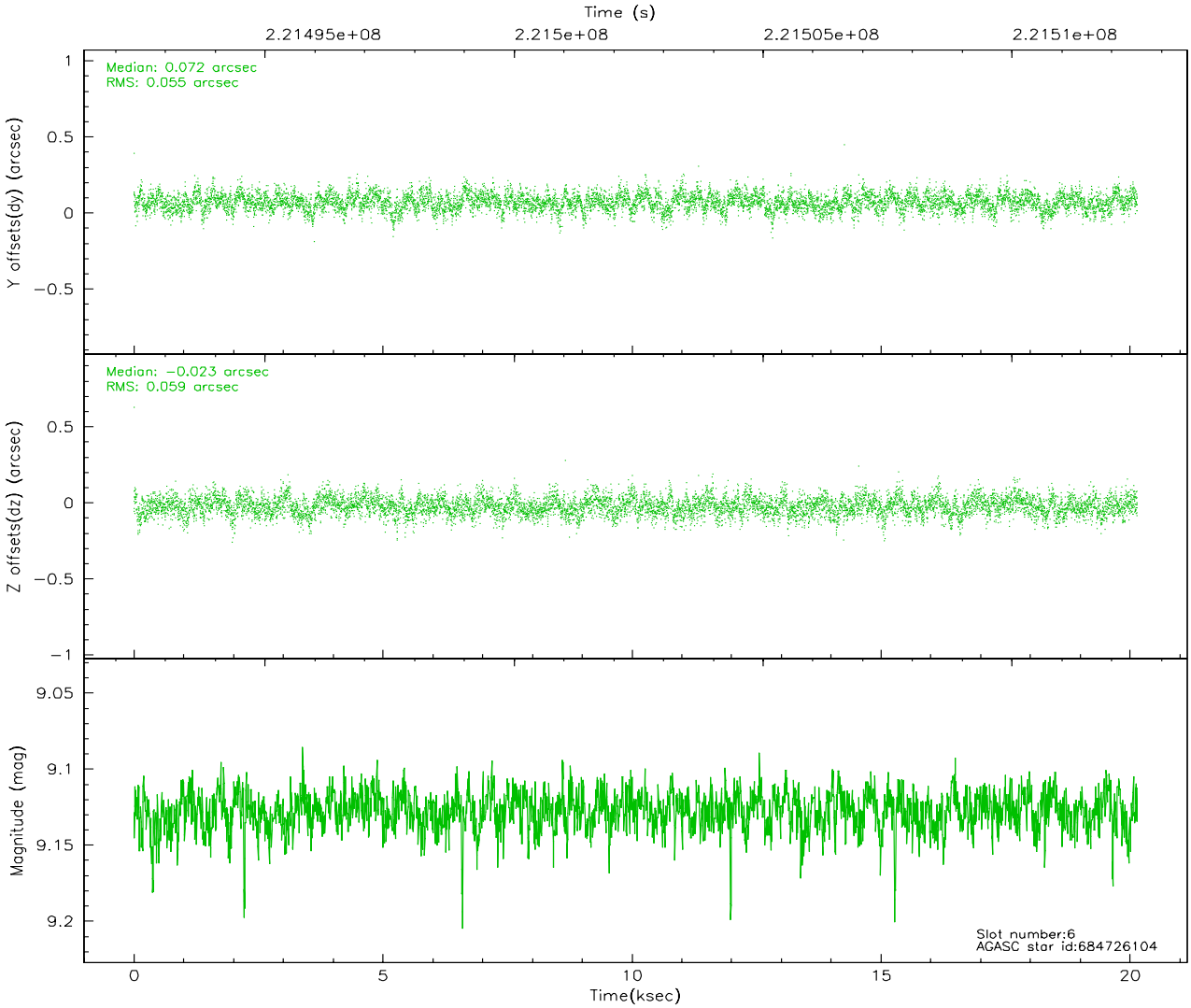

Points outside 0.4 arcsec radius: 0.031%
Radial offset of median: 0.100 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:5
AGASC star id:684725424


Time (s)
2.21495e+08
2.215e+08
2.21505e+08
2.2151e+08
Median: 0.100 arcsec
RMS: 0.075 arcsec
Y offsets(dy) (arcsec)
Median: 0.006 arcsec
RMS: 0.067 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:5
AGASC star id:684725424
Time(ksec)

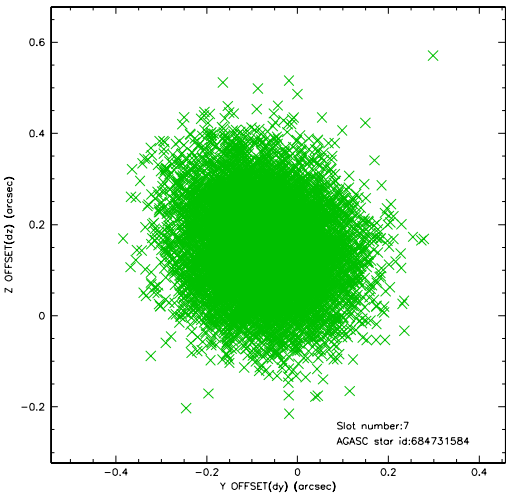
2.4.4 Slot 6

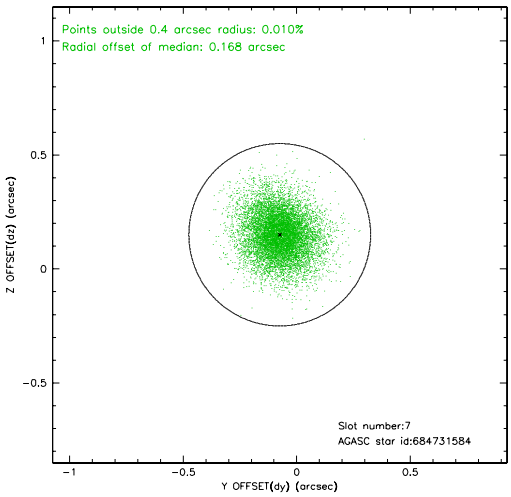

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:6
AGASC star id:684726104

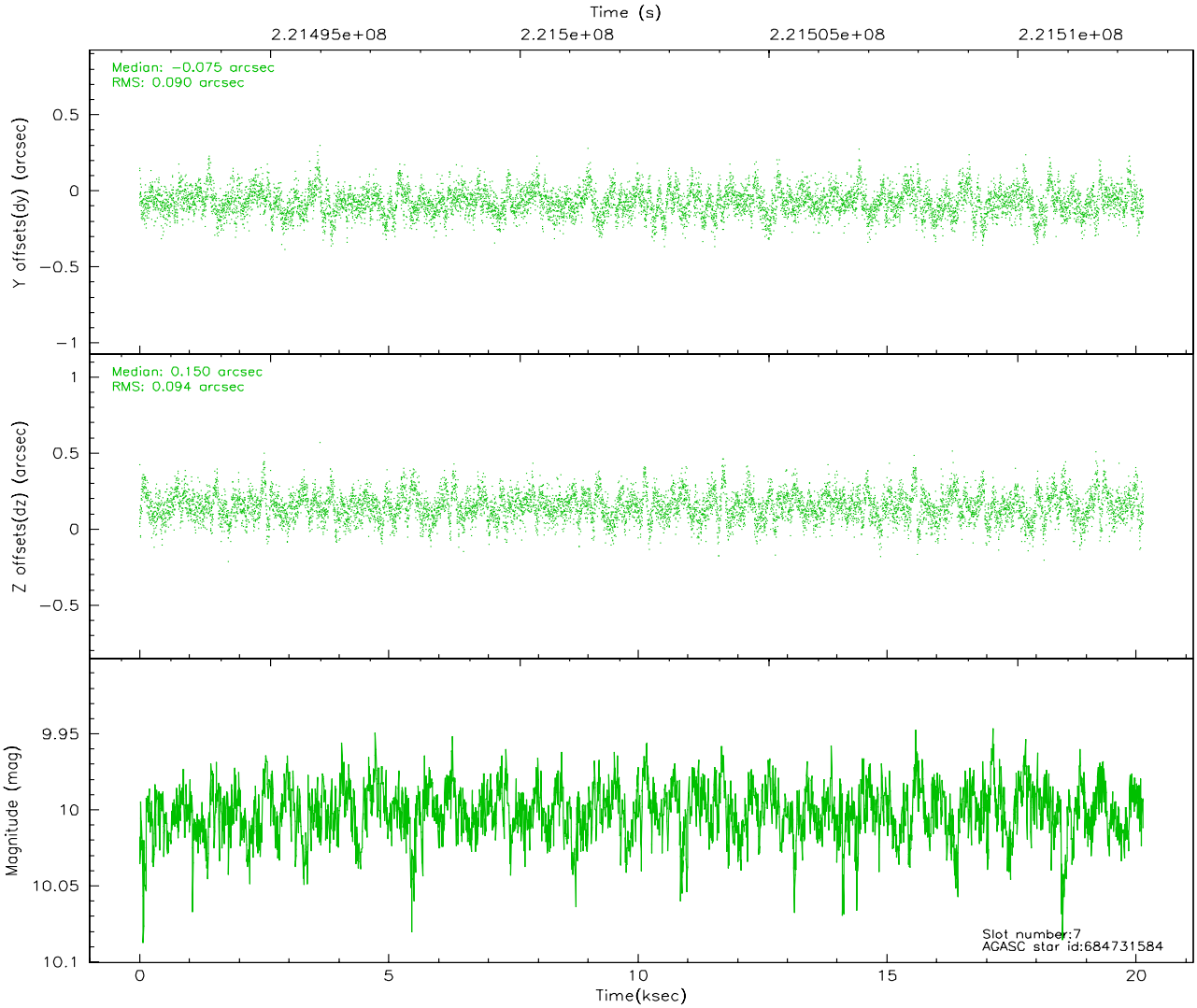

Points outside 0.4 arcsec radius: 0.010%
Radial offset of median: 0.075 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:6
AGASC star id:684726104


Time (s)
2.21495e+08
2.215e+08
2.21505e+08
2.2151e+08
Median: 0.072 arcsec
RMS: 0.055 arcsec
Y offsets(dy) (arcsec)
Median: −0.023 arcsec
RMS: 0.059 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:6
AGASC star id:684726104
Time(ksec)

2.4.5 Slot 7

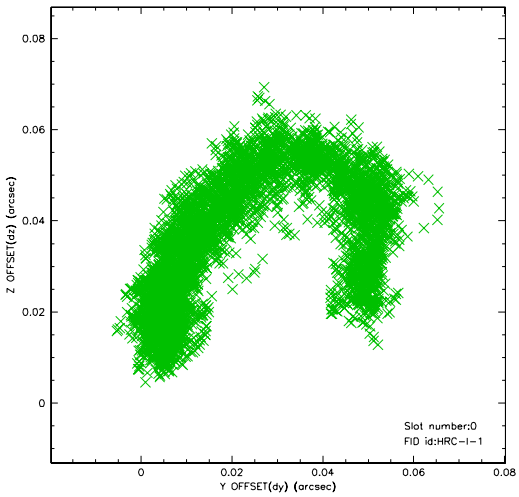

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:7
AGASC star id:684731584

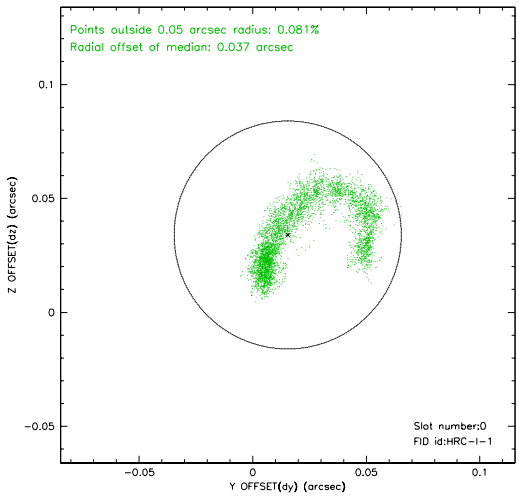

Points outside 0.4 arcsec radius: 0.010%
Radial offset of median: 0.168 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:7
AGASC star id:684731584

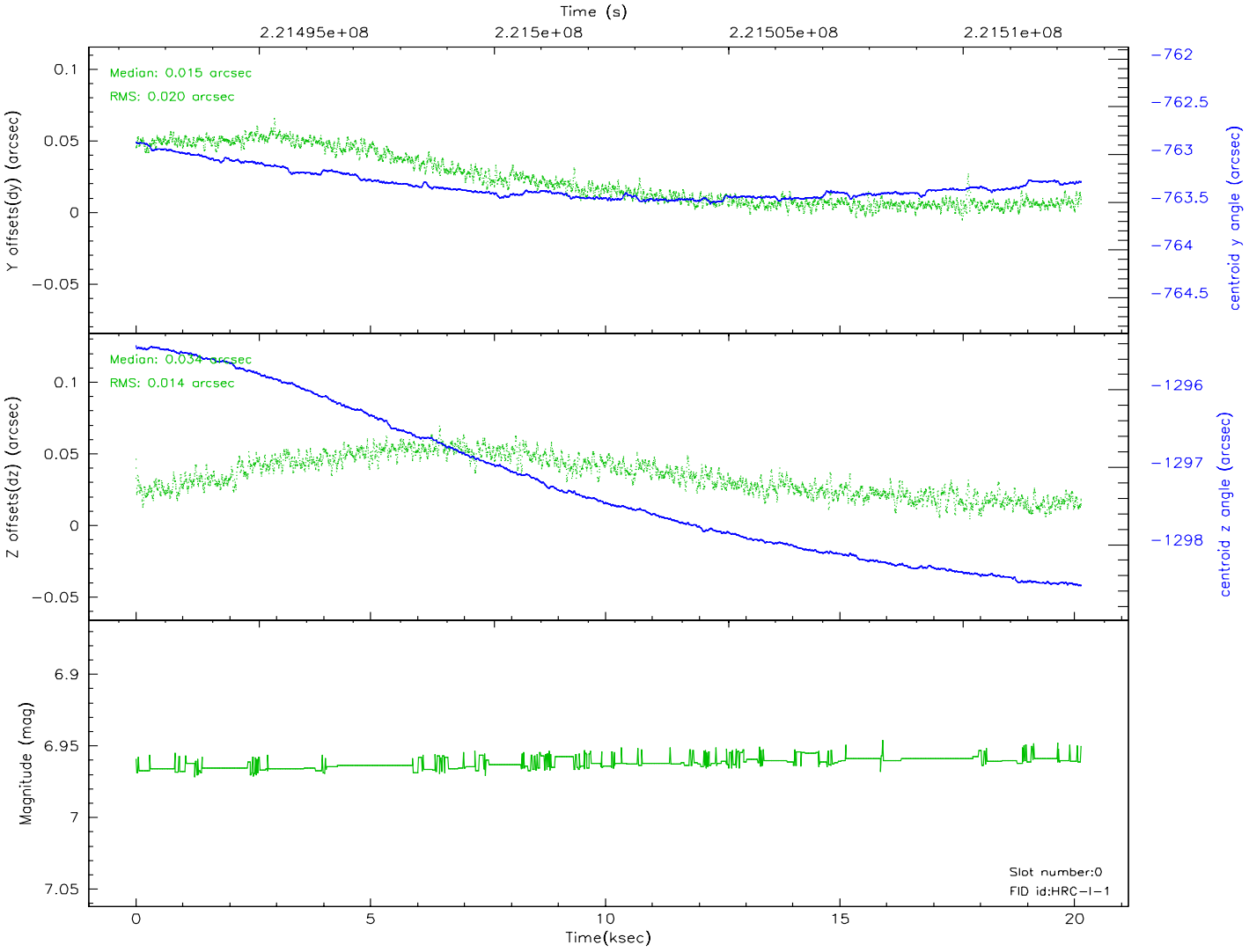

Time (s)
2.21495e+08
2.215e+08
2.21505e+08
2.2151e+08
Median: −0.075 arcsec
RMS: 0.090 arcsec
Y offsets(dy) (arcsec)
Median: 0.150 arcsec
RMS: 0.094 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:7
AGASC star id:684731584
Time(ksec)

2.5 FID Slots

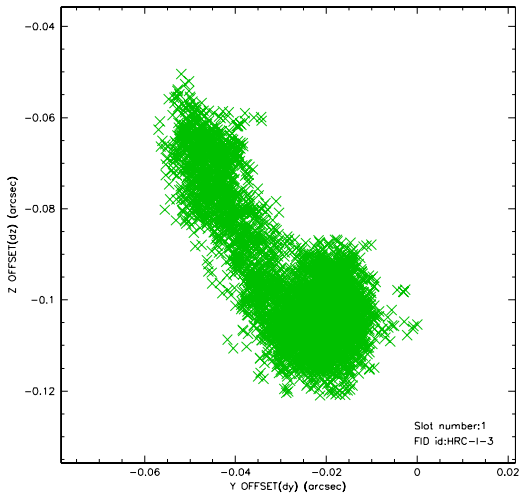
2.5.1 Slot 0

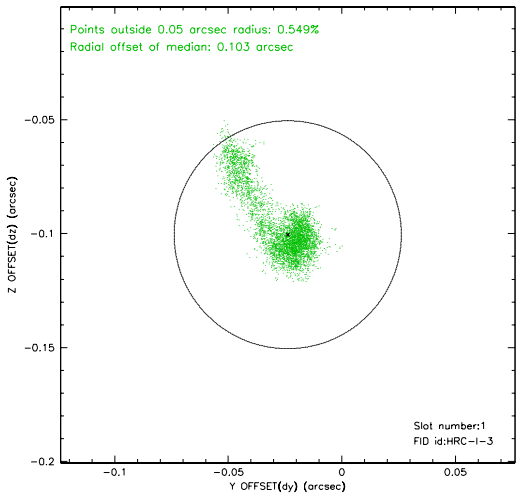


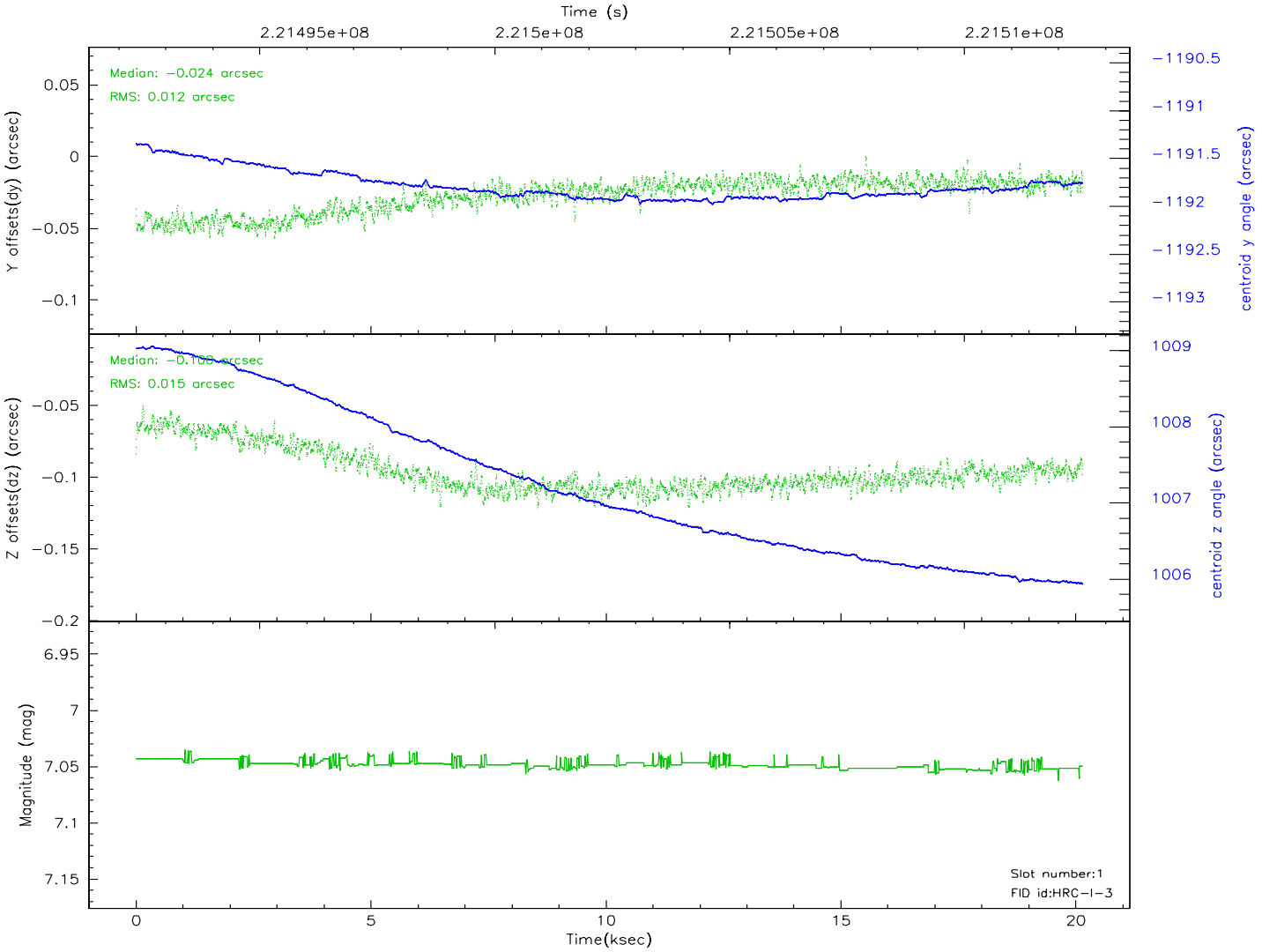




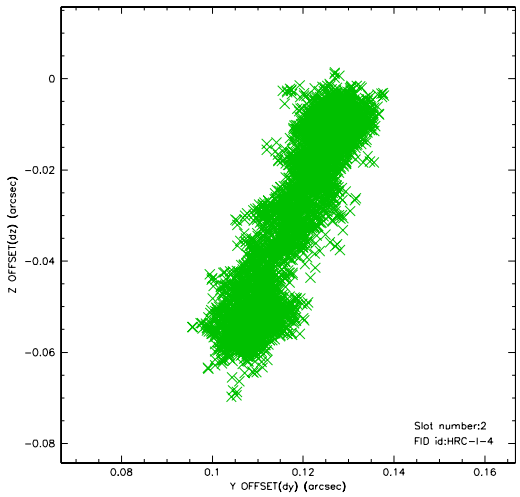
2.5.2 Slot 1

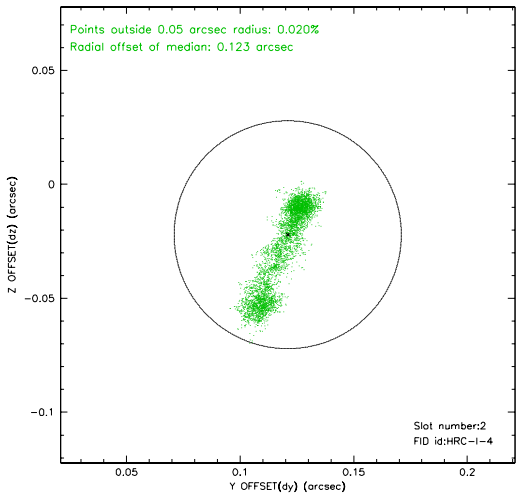

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:1
FID id:HRC-I-3

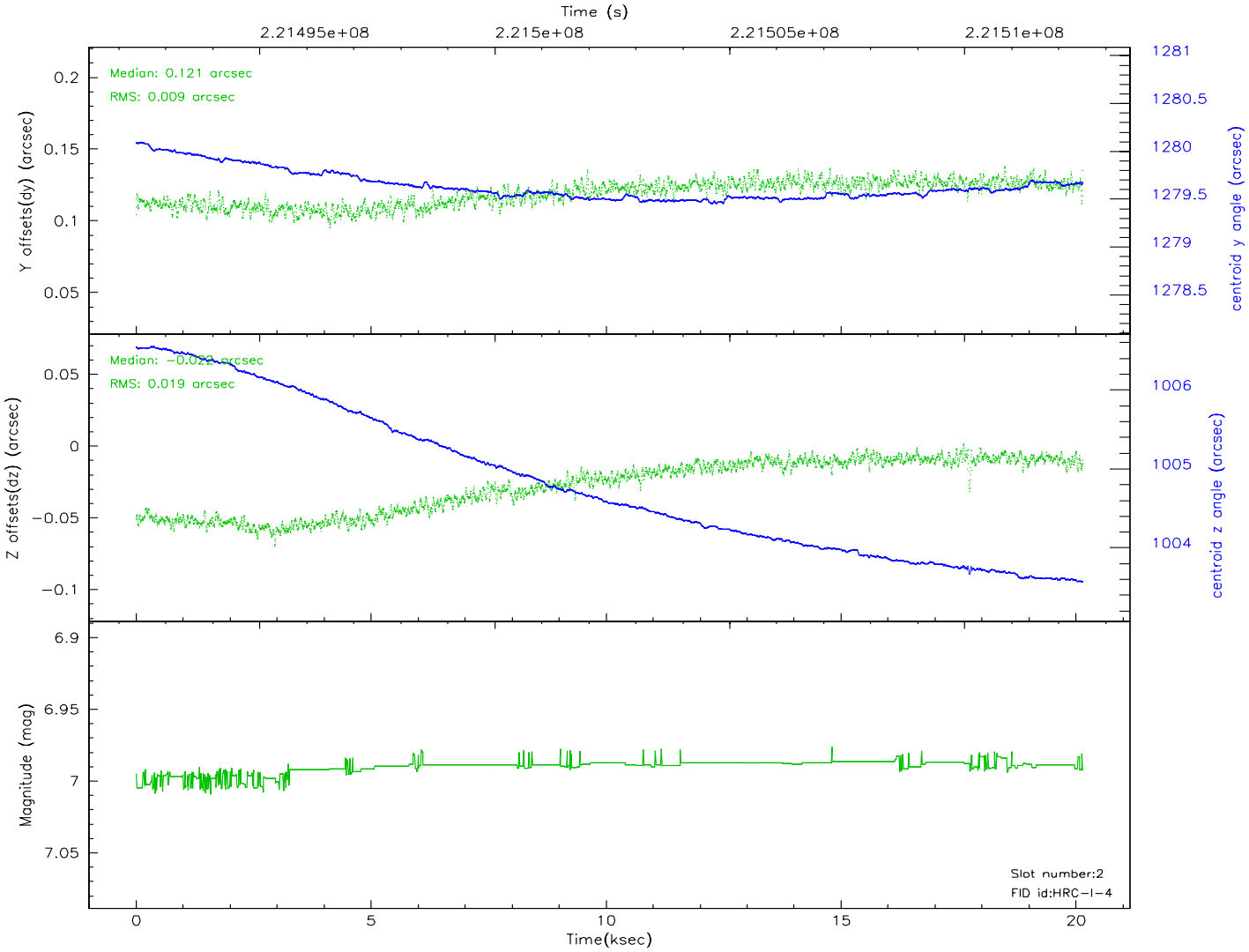

Points outside 0.05 arcsec radius: 0.549%
Radial offset of median: 0.103 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:1
FID id:HRC-I-3


Time (s)
2.21495e+08
2.215e+08
2.21505e+08
2.2151e+08
Median: -0.024 arcsec
RMS: 0.012 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: -0.100 arcsec
RMS: 0.015 arcsec
Z offsets(dz) (arcsec)
centroid z angle (arcsec)
Magnitude (mag)
Slot number:1
FID id:HRC-I-3
Time(ksec)

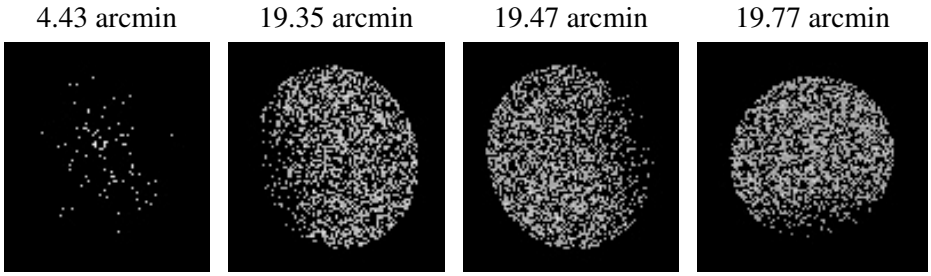
2.5.3 Slot 2


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


Points outside 0.05 arcsec radius: 0.020%
Radial offset of median: 0.123 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:2
FID id:HRC-I-4


Time (s)
2.21495e+08
2.215e+08
2.21505e+08
2.2151e+08
Median: 0.121 arcsec
RMS: 0.009 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: −0.020 arcsec
RMS: 0.019 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	Beth Sundheim
V&V Date (YYYY-MM-DD)	2007.12.05
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.14868

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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