V&V Reference Report
L2 ASCDS Version : 7.6.7.1

Observation 5157 - L2 Version 4
Chandra X-Ray Center

L2 Processing Date : Nov 23 2007

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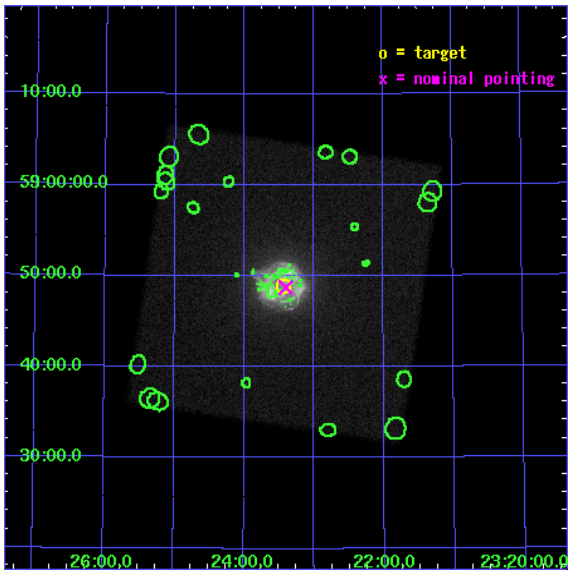
1 Front

seq_num	590355
obs_id	5157
title	AO5B Observations of the Standard Candles Cas A and G21.5-09
observer	Dr. CXC Calibration
object	Cas A
ra_targ	350.8575
dec_targ	58.814833
ra_nom	350.85033661592
dec_nom	58.812562578204
roll_nom	233.47804785627
revision	4
ontime	5144.7314805984
livetime	5075.2691530171
l2events	649231

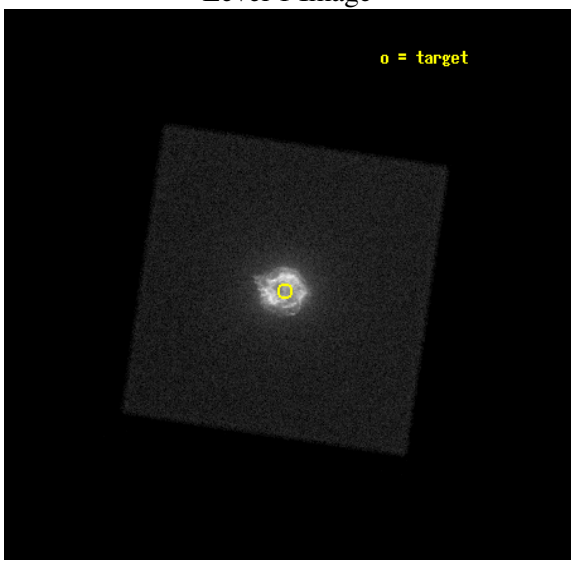


2 OBI

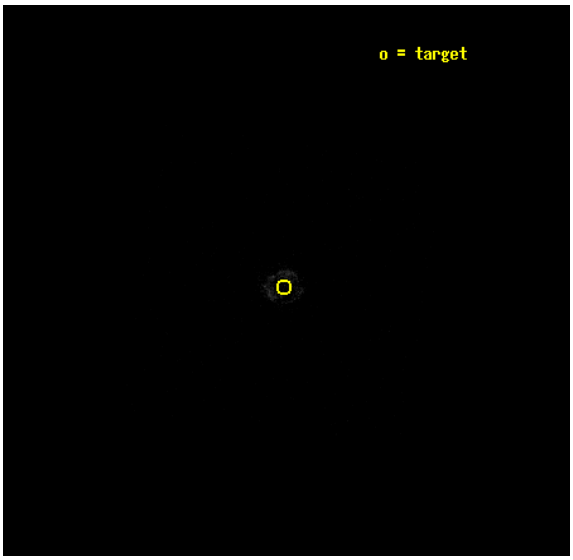
2.1 OBI

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	2007-11-24T01:02:55
revision	4

sched_exp_time	5000.000000
ontime	5144.7314805984
l1events	784542

2.1.3 Events

Level 1 Events

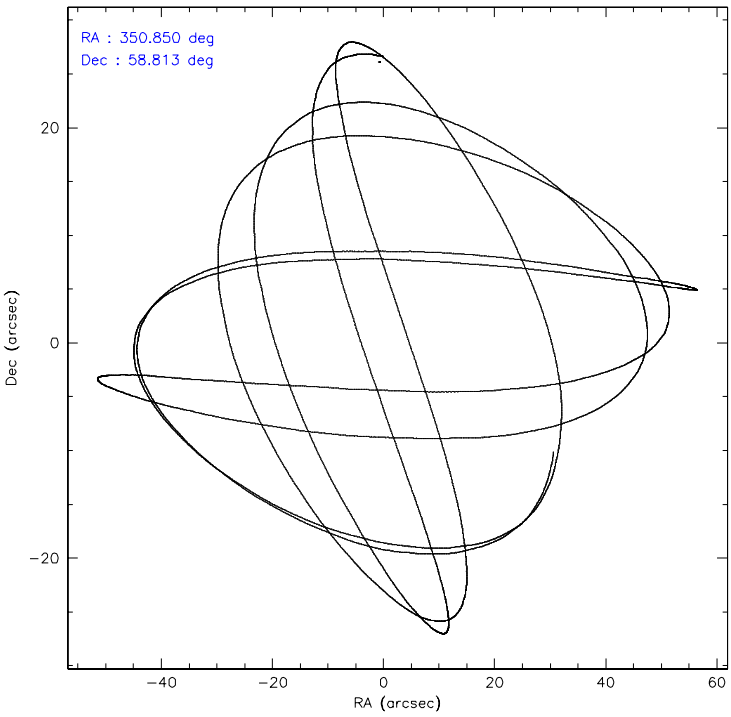
	segment 0
level 1 events	784542
rejected events	13510
rejected %	1%

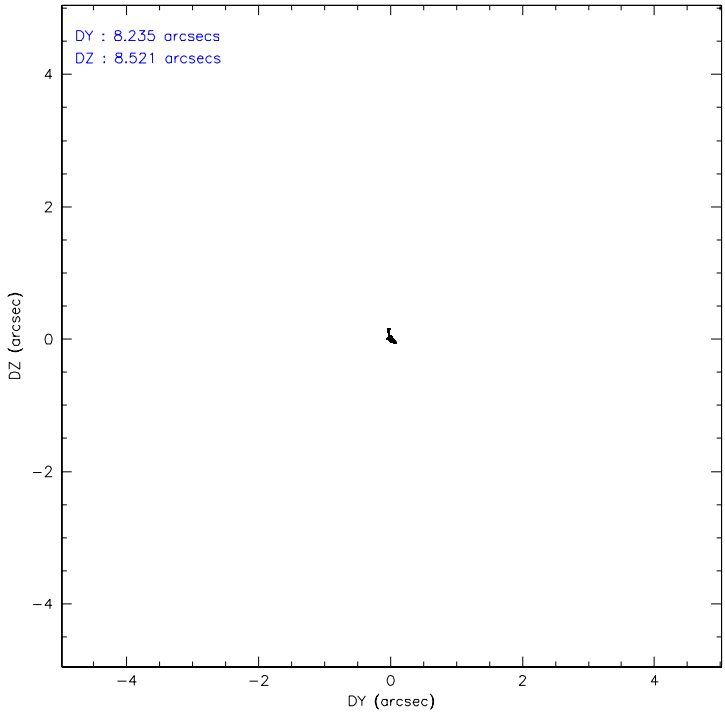
2.2 Compared Parameters

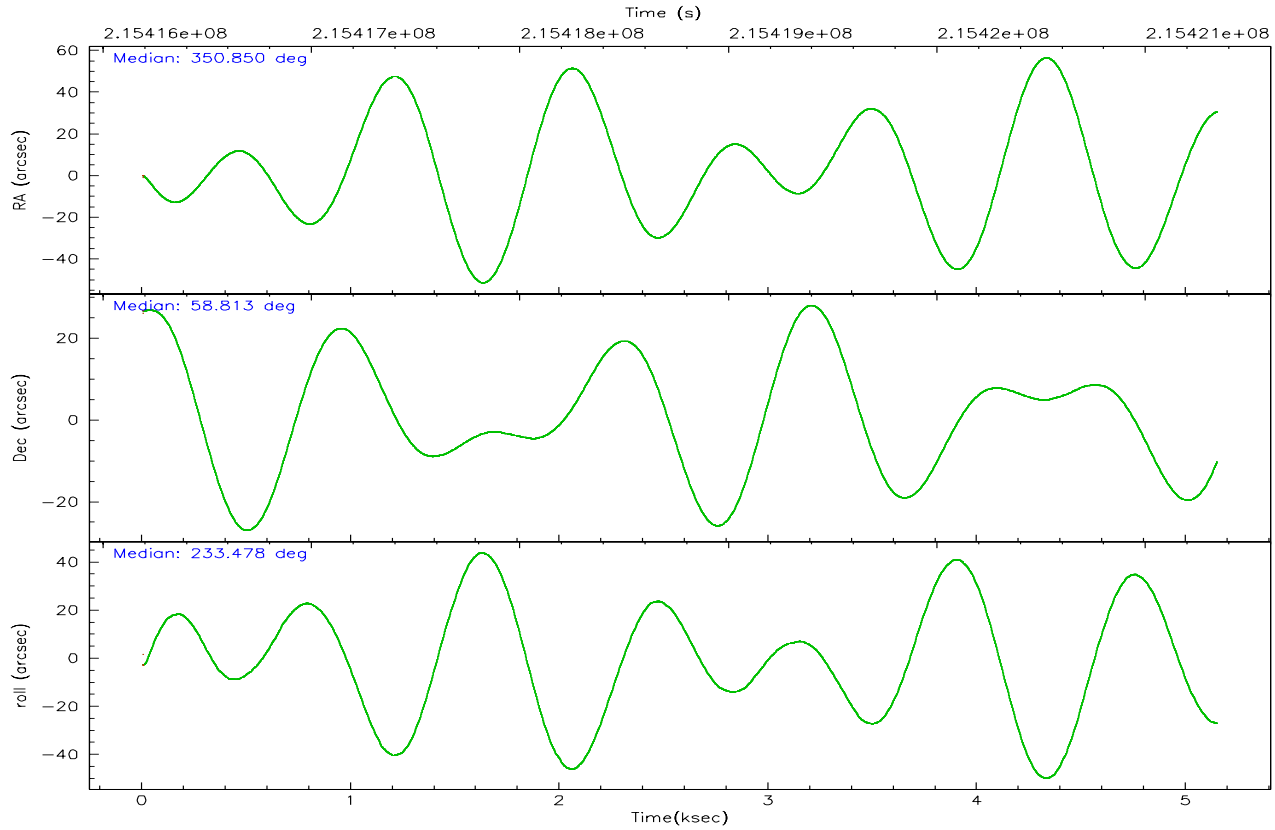
Parameter	Planned	Actual
Instrument	HRC	HRC
Detector	HRC-I	HRC-I
Grating	NONE	NONE
Data mode	OBSERVING	OBSERVING
Observation mode	POINTING	POINTING
Pointing RA	350.855334	350.8503366159185
Pointing Dec	58.839694	58.81256257820436
Pointing Roll	233.569259	233.4780478562686
Window start time	212976064.184000	212976064.184000
Window stop time	215568064.184000	215568064.184000
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	215416346.184000	215415949.13943
Observation start date	2004-10-29T05:51:22	2004-10-29T05:45:49
Observation end time	215421346.184000	215422343.08972
Observation end date	2004-10-29T07:14:42	2004-10-29T07:32:23

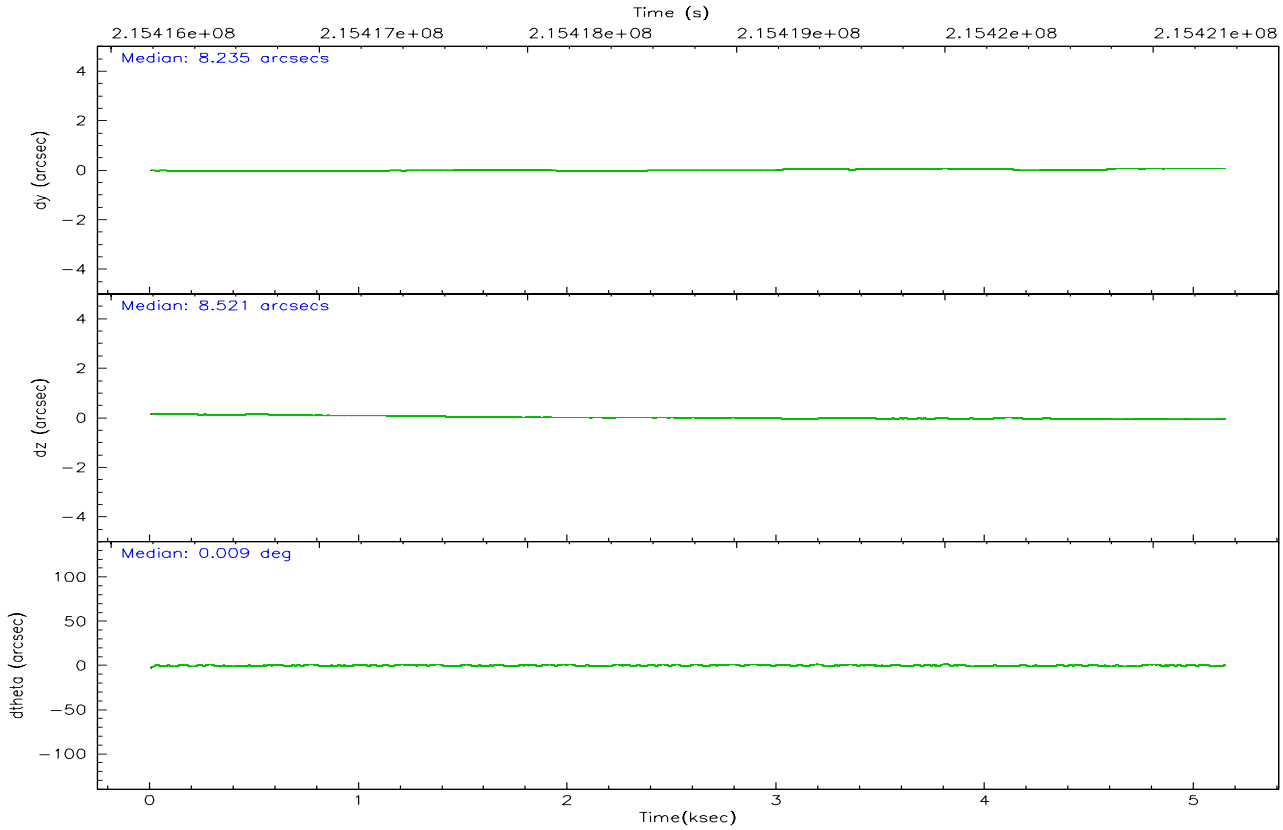
Parameter	Planned	Actual
Obspar format version number	6	6
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED

2.3 Aspect


RA : 350.850 deg
Dec : 58.813 deg
Dec (arcsec)
RA (arcsec)
20
0
−20
−40
−20
0
20
40
60


DY : 8.235 arcsecs
DZ : 8.521 arcsecs
DZ (arcsec)
DY (arcsec)
4
2
0
−2
−4
−4
−2
0
2
4


Time (s)
2.15416e+08
2.15417e+08
2.15418e+08
2.15419e+08
2.1542e+08
2.15421e+08
Median: 350.850 deg
RA (arcsec)
Median: 58.813 deg
Dec (arcsec)
Median: 233.478 deg
roll (arcsec)
Time(ksec)

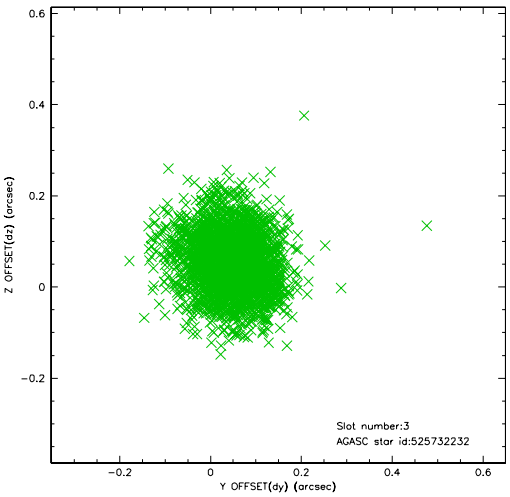

Time (s)
2.15416e+08
2.15417e+08
2.15418e+08
2.15419e+08
2.1542e+08
2.15421e+08
Median: 8.235 arcsecs
dy (arcsec)
Median: 8.521 arcsecs
dz (arcsec)
Median: 0.009 deg
dtheta (arcsec)
Time(ksec)

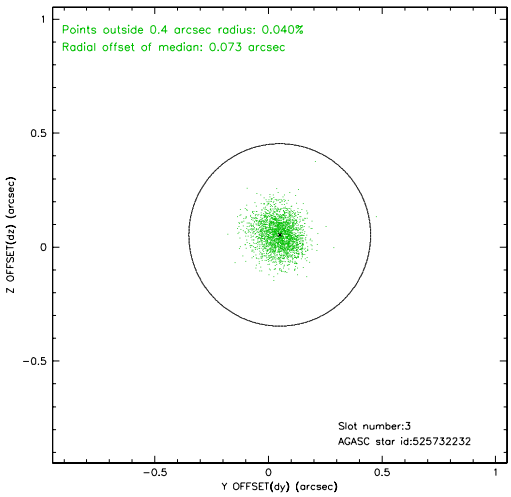
Slot Statistics

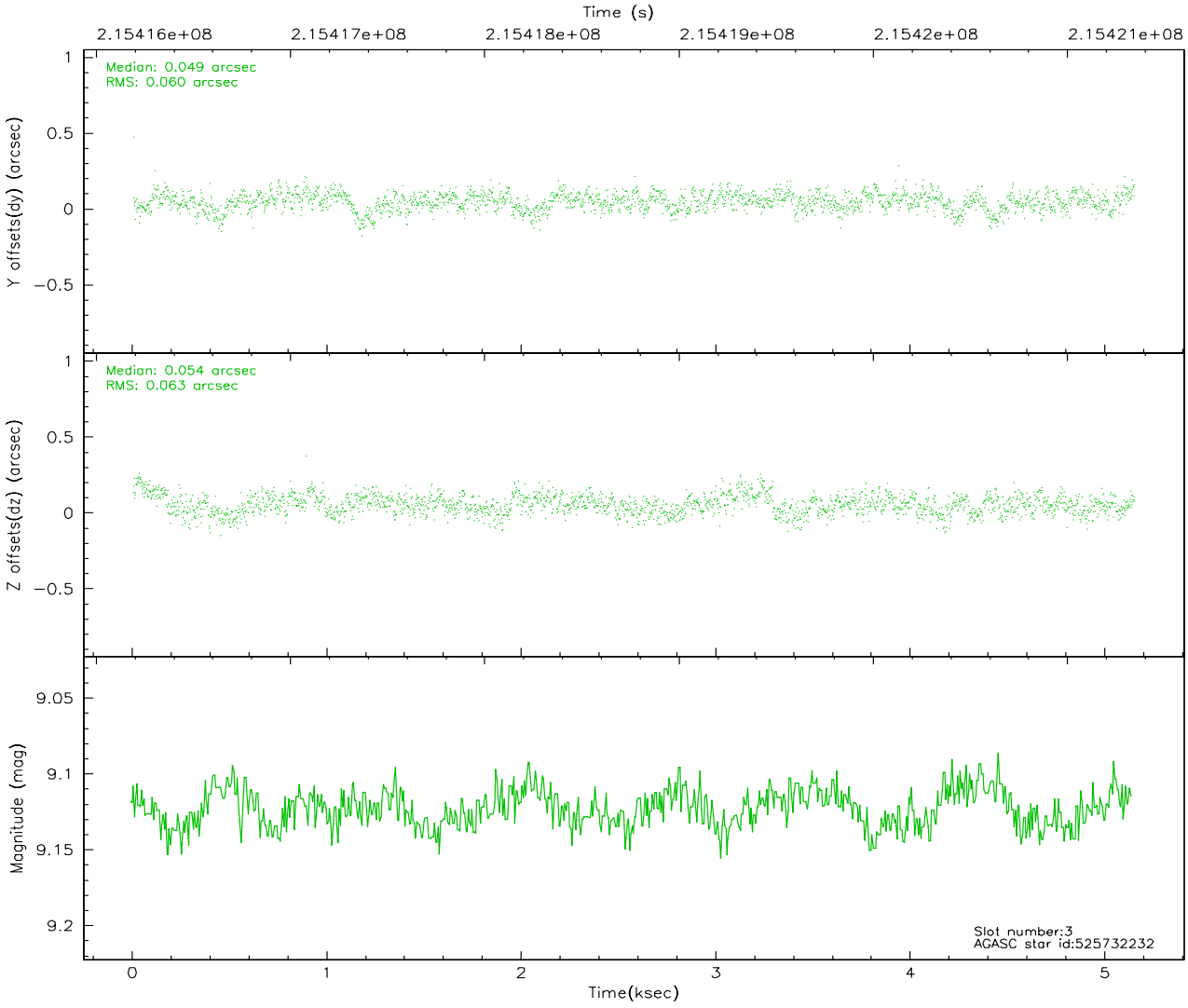
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	HRC-I-1	7.04	1255	-0.014	0.047	0.008	0.013	0.000000	0.000000	-763.89	-1296.38
1	FID	HRC-I-2	7.08	1256	0.172	-0.136	0.006	0.011	0.000000	0.000000	848.32	-1299.18
2	FID	HRC-I-3	7.13	1255	-0.040	-0.000	0.007	0.015	0.000000	0.000000	-1191.70	1007.11
3	GUIDE	525732232	9.12	2509	0.049	0.054	0.092	0.153	351.669550	58.757012	-671.11	1395.57
4	GUIDE	525732488	8.43	2511	-0.049	0.106	0.066	0.107	350.087090	58.516915	1785.15	-476.00
5	GUIDE	525736400	9.08	2509	-0.039	0.149	0.088	0.146	350.974563	59.175145	-1102.15	-540.13
6	GUIDE	525735976	8.84	2511	-0.056	-0.119	0.076	0.123	350.142956	58.277622	2422.13	112.35
7	GUIDE	525732528	9.36	2508	0.098	-0.193	0.086	0.145	351.607241	59.298932	-2156.49	125.60

2.4 Star Slots

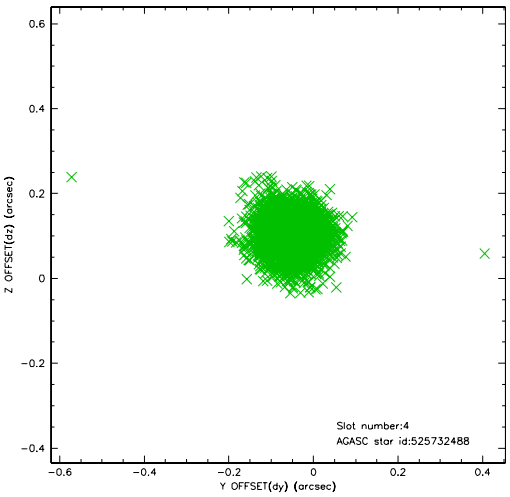
2.4.1 Slot 3

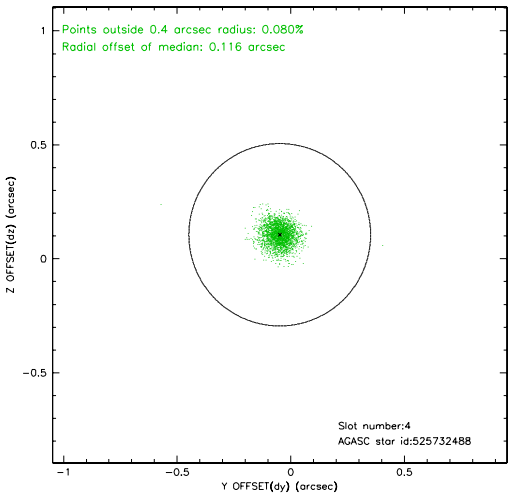


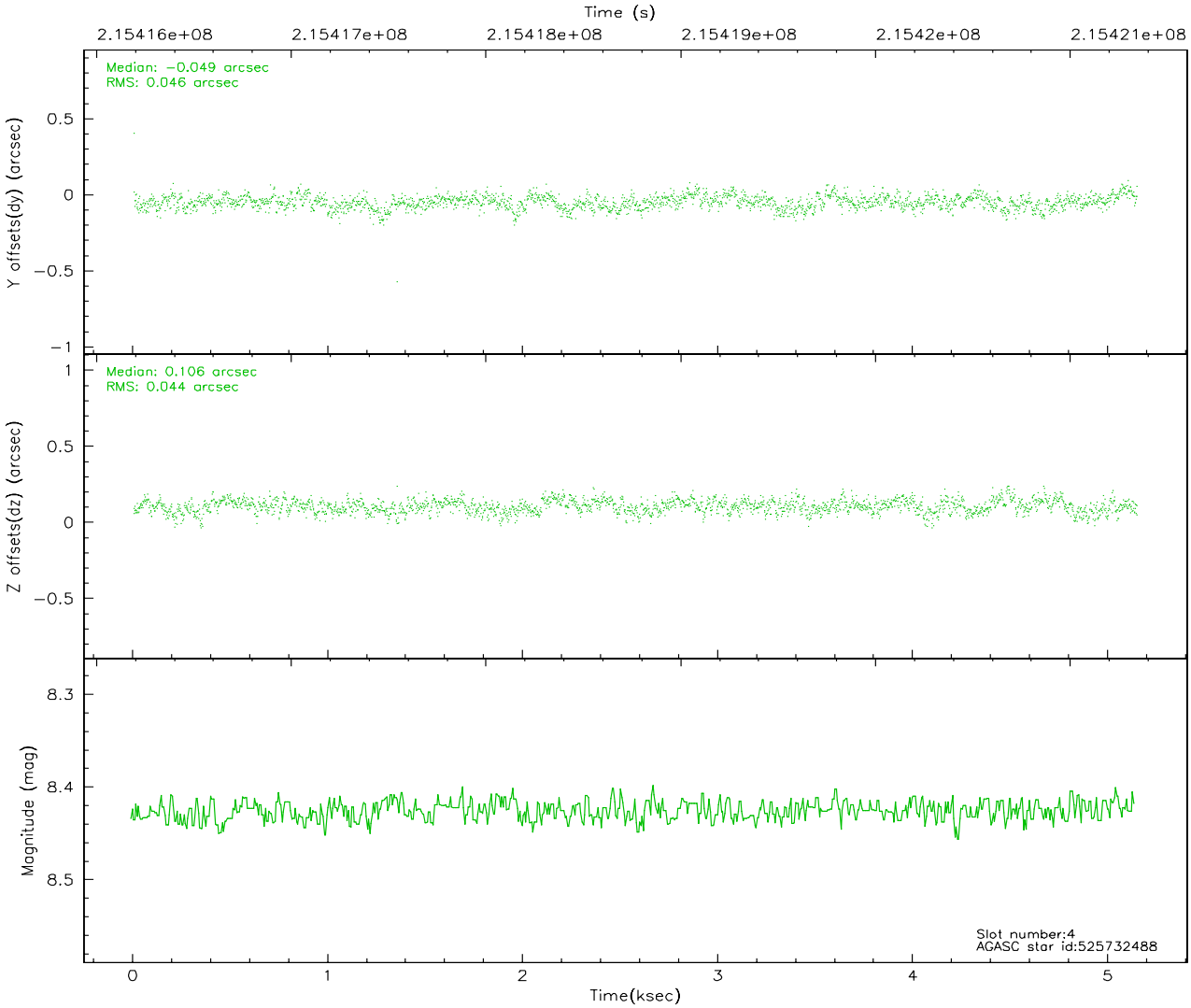




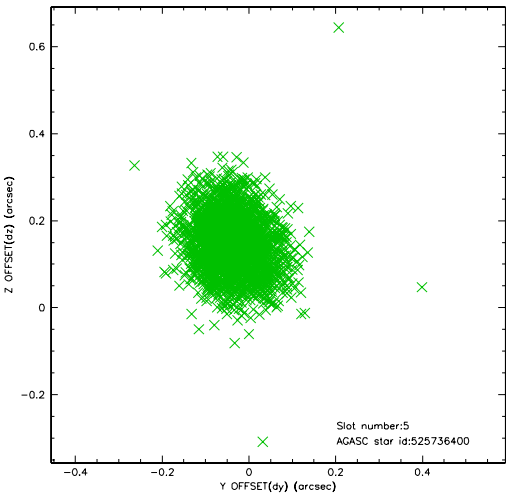
2.4.2 Slot 4

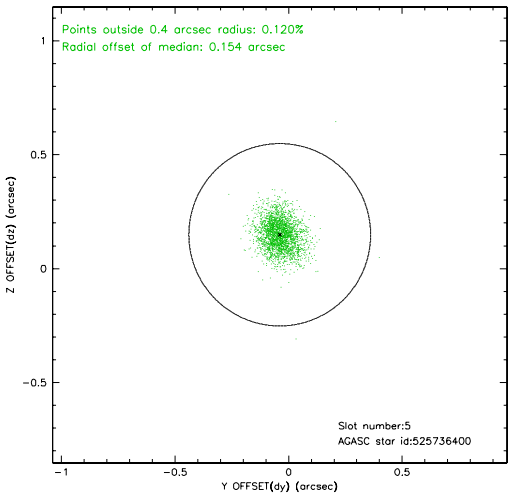

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:4
AGASC star id:525732488

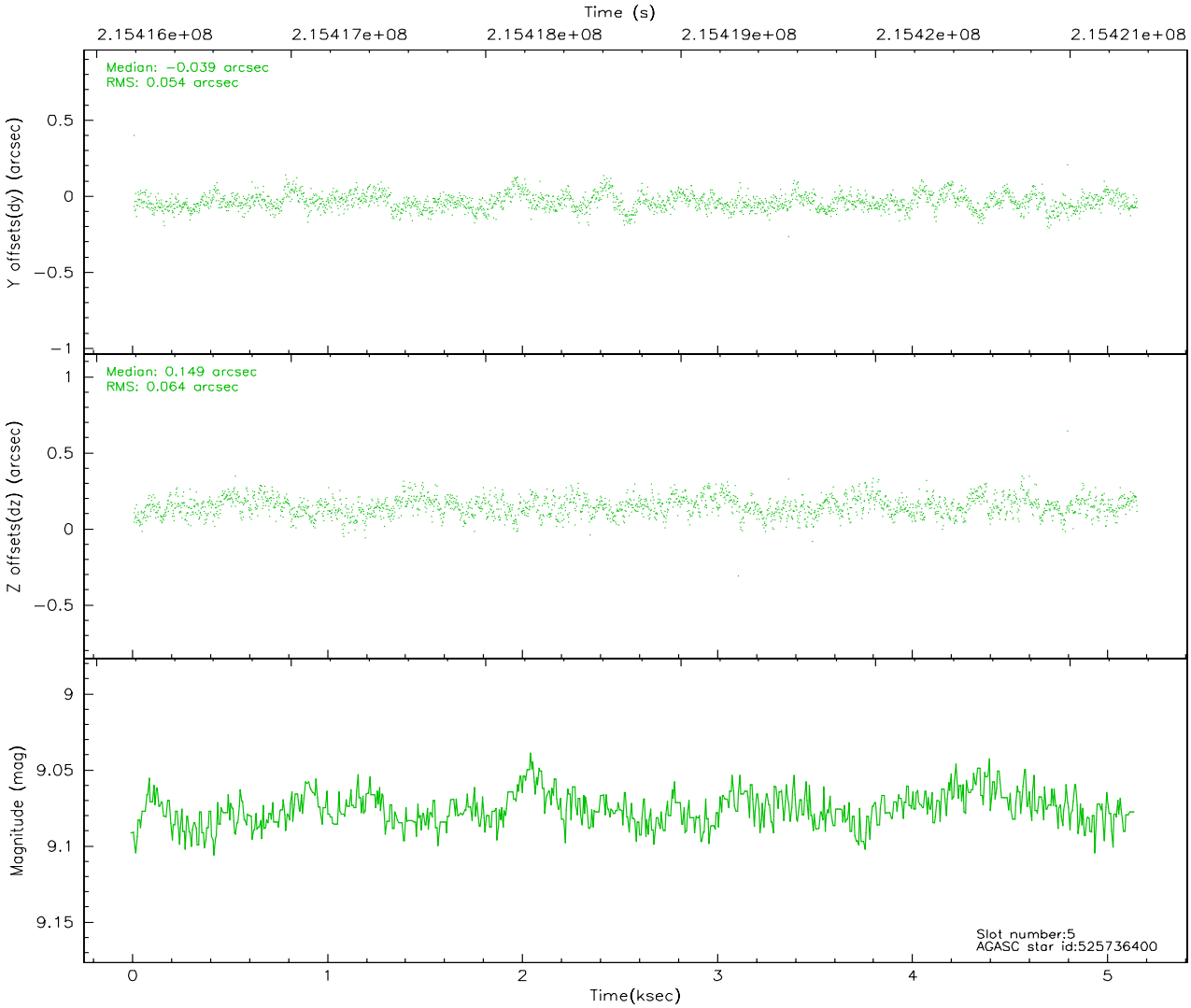

Points outside 0.4 arcsec radius: 0.080%
Radial offset of median: 0.116 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:4
AGASC star id:525732488


Time (s)
Median: −0.049 arcsec
RMS: 0.046 arcsec
Y offsets(dy) (arcsec)
Median: 0.106 arcsec
RMS: 0.044 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:4
AGASC star id:525732488
Time(ksec)

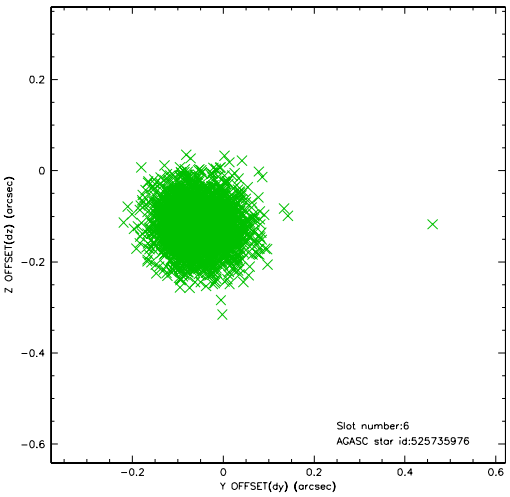
2.4.3 Slot 5

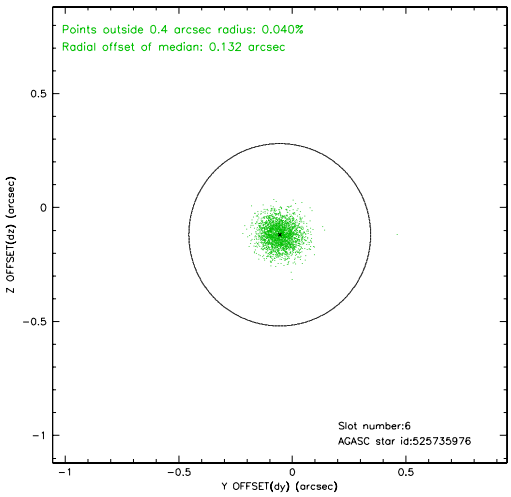

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:5
AGASC star id:525736400

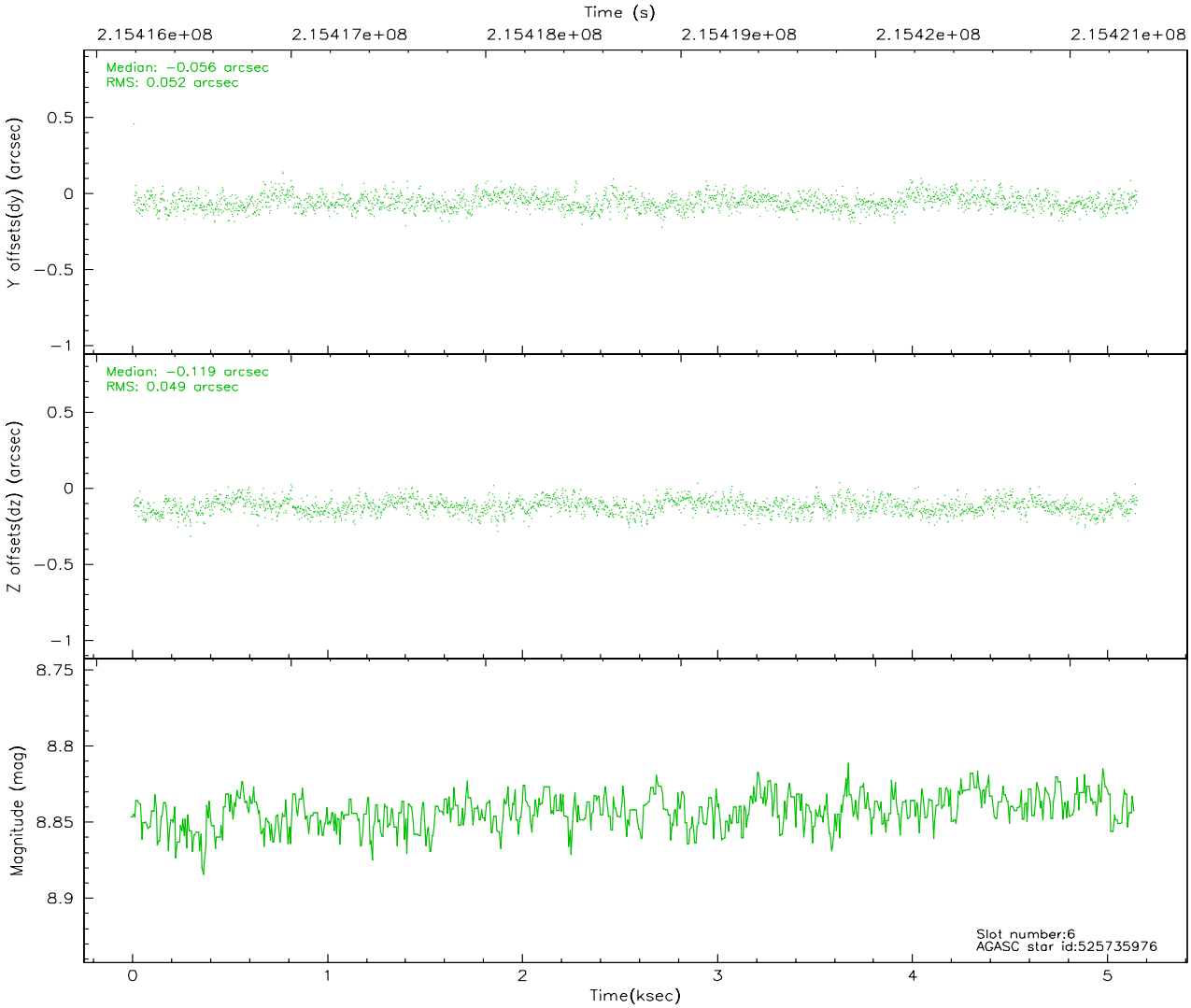

Points outside 0.4 arcsec radius: 0.120%
Radial offset of median: 0.154 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:5
AGASC star id:525736400


Time (s)
2.15416e+08
2.15417e+08
2.15418e+08
2.15419e+08
2.1542e+08
2.15421e+08
Median: −0.039 arcsec
RMS: 0.054 arcsec
Y offsets(dy) (arcsec)
Median: 0.149 arcsec
RMS: 0.064 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:5
AGASC star id:525736400
Time(ksec)

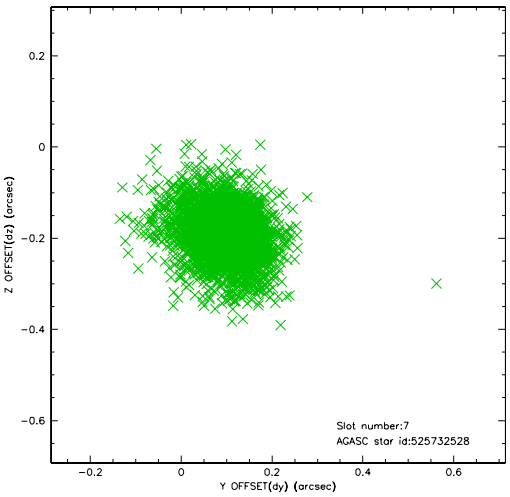
2.4.4 Slot 6

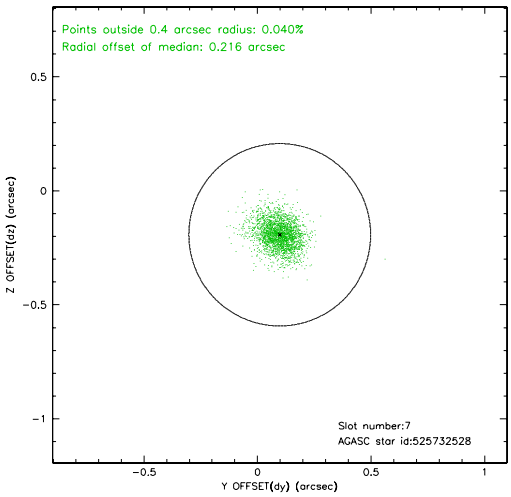

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:6
AGASC star id:525735976

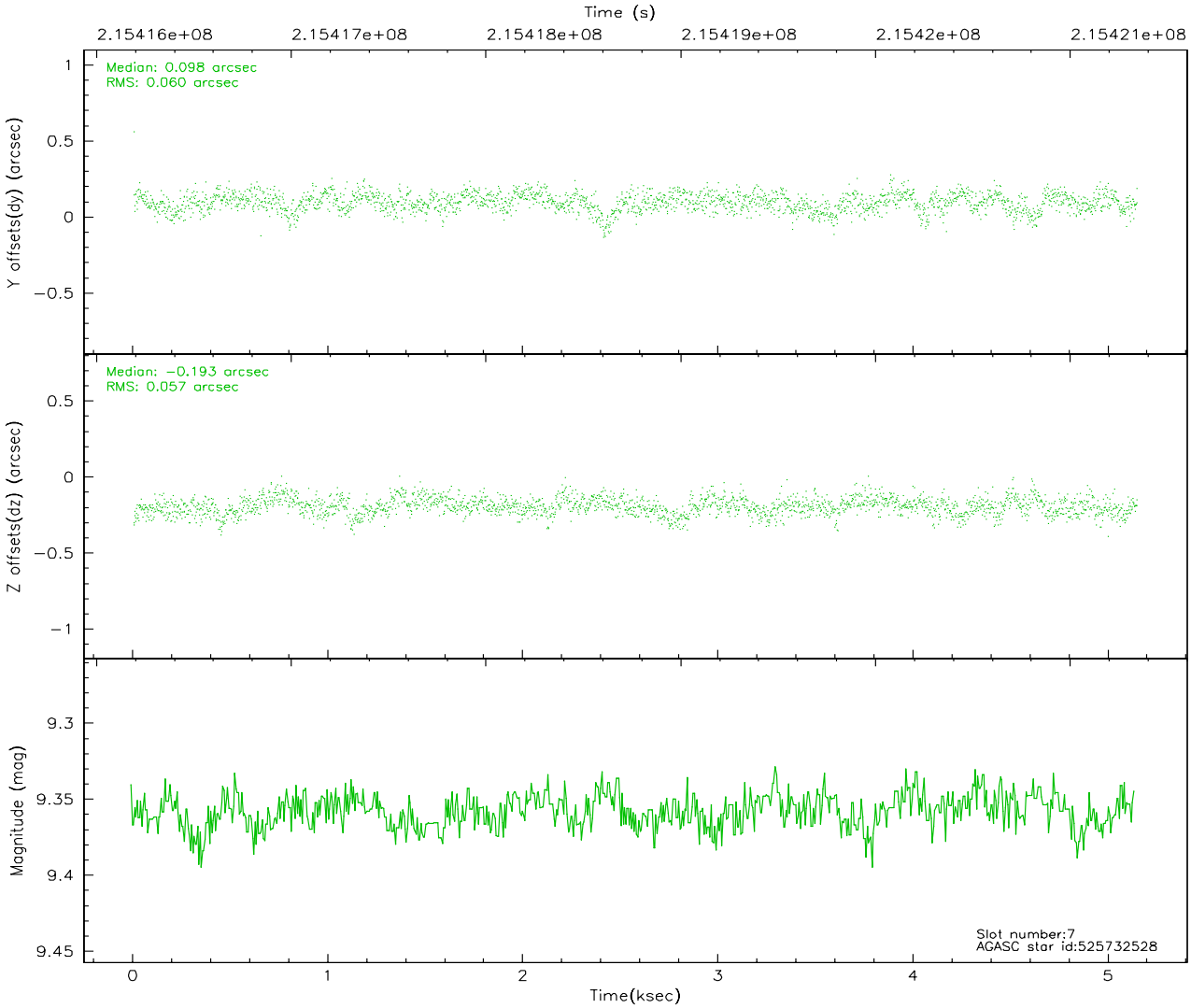

Points outside 0.4 arcsec radius: 0.040%
Radial offset of median: 0.132 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:6
AGASC star id:525735976


Time (s)
2.15416e+08
2.15417e+08
2.15418e+08
2.15419e+08
2.1542e+08
2.15421e+08
Median: −0.056 arcsec
RMS: 0.052 arcsec
Y offsets(dy) (arcsec)
Median: −0.119 arcsec
RMS: 0.049 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:6
AGASC star id:525735976
Time(ksec)

2.4.5 Slot 7

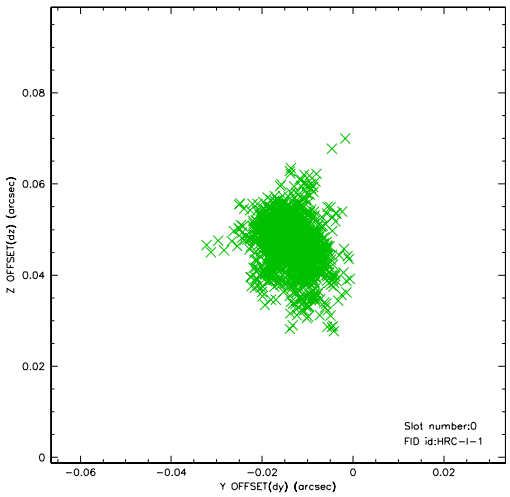

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:7
AGASC star id:525732528

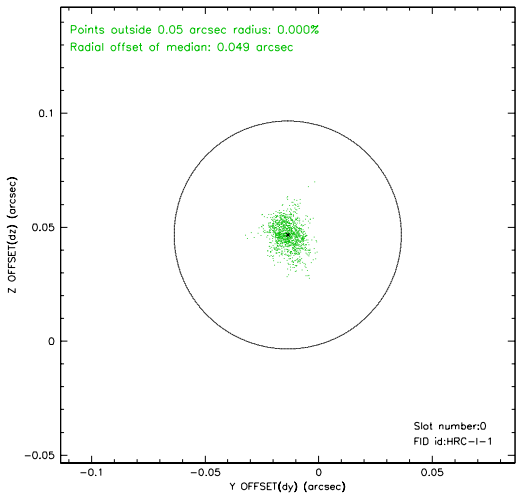

Points outside 0.4 arcsec radius: 0.040%
Radial offset of median: 0.216 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:7
AGASC star id:525732528

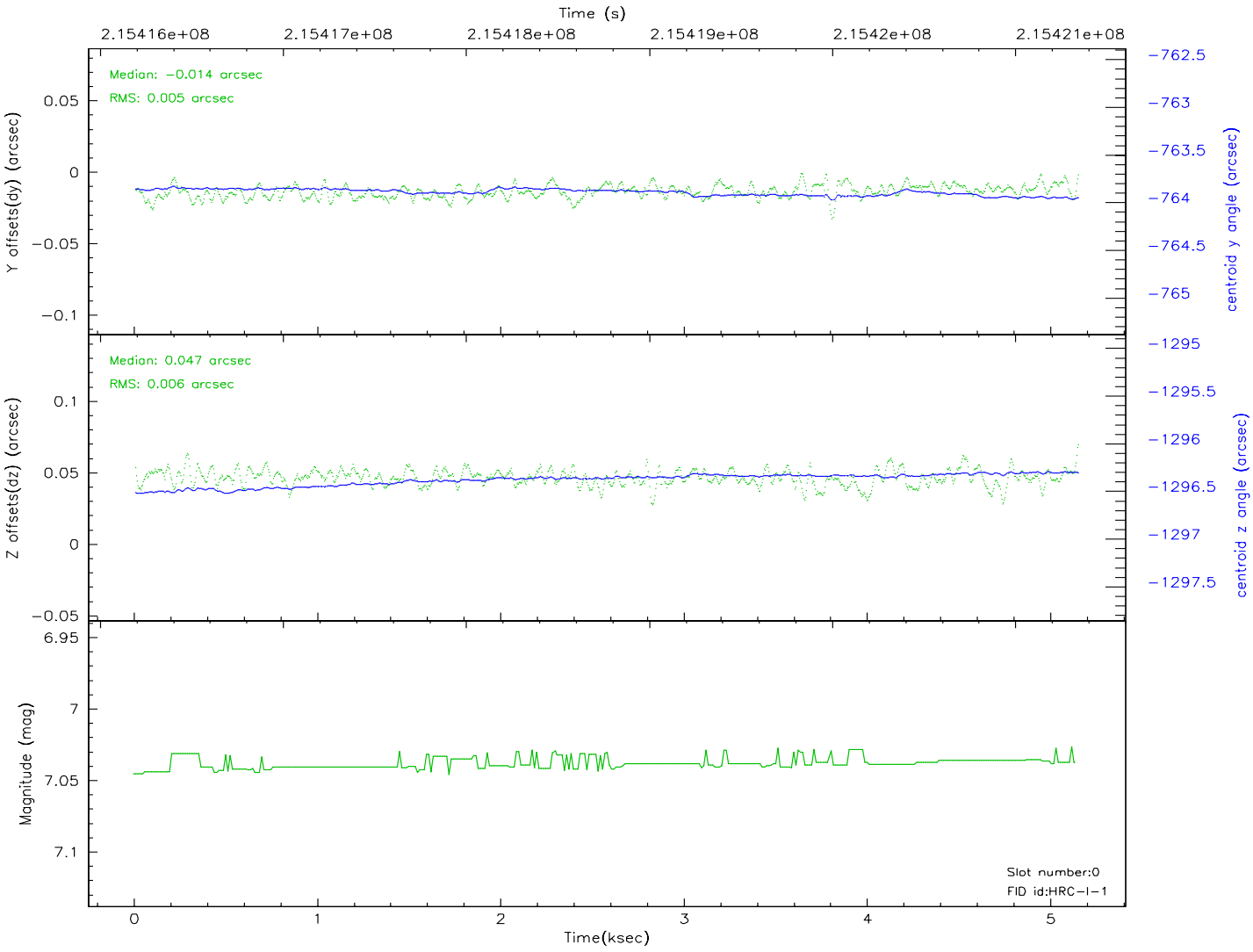

Time (s)
2.15416e+08
2.15417e+08
2.15418e+08
2.15419e+08
2.1542e+08
2.15421e+08
Median: 0.098 arcsec
RMS: 0.060 arcsec
Y offsets(dy) (arcsec)
Median: −0.193 arcsec
RMS: 0.057 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:7
AGASC star id:525732528
Time(ksec)

2.5 FID Slots

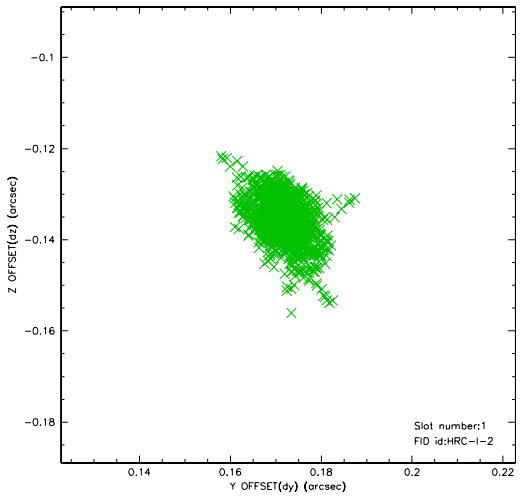
2.5.1 Slot 0

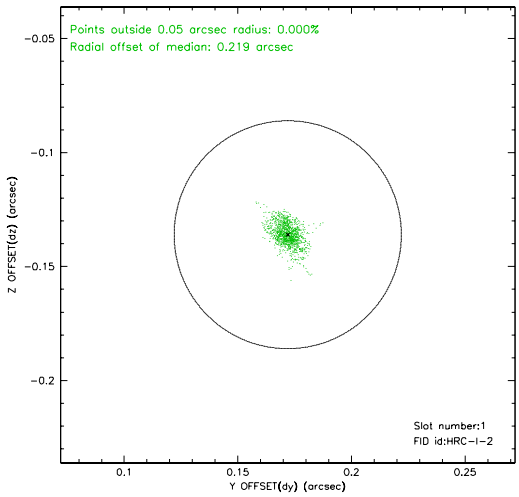


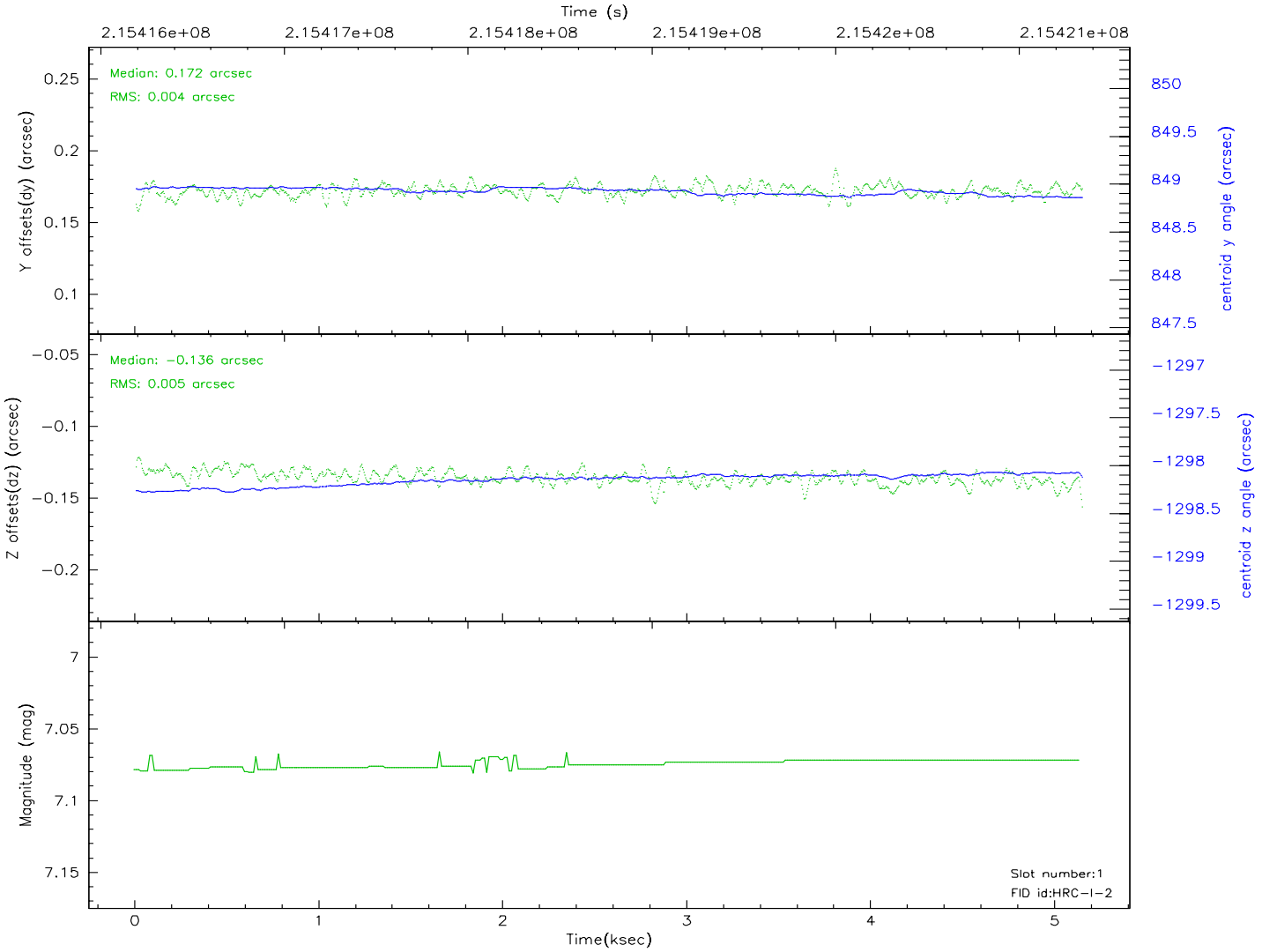




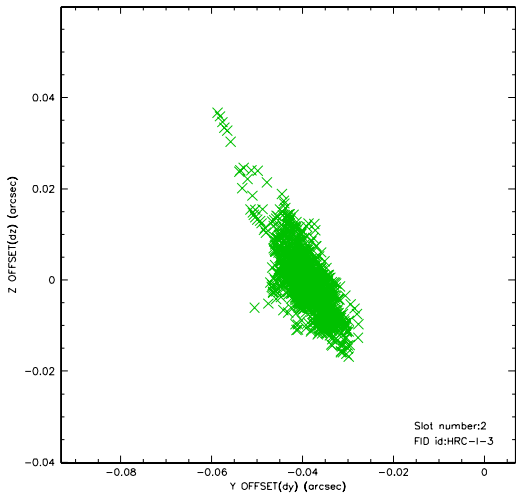
2.5.2 Slot 1

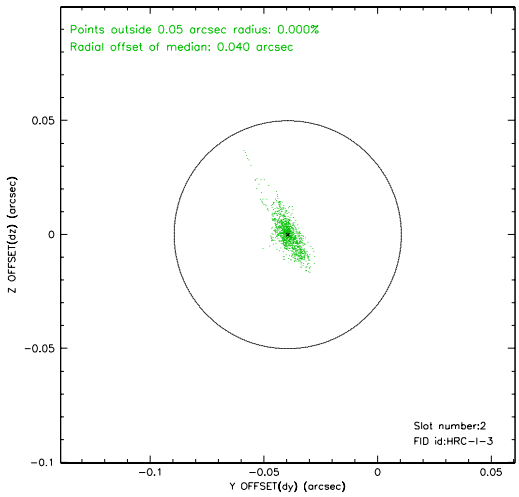

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:1
FID id:HRC-I-2

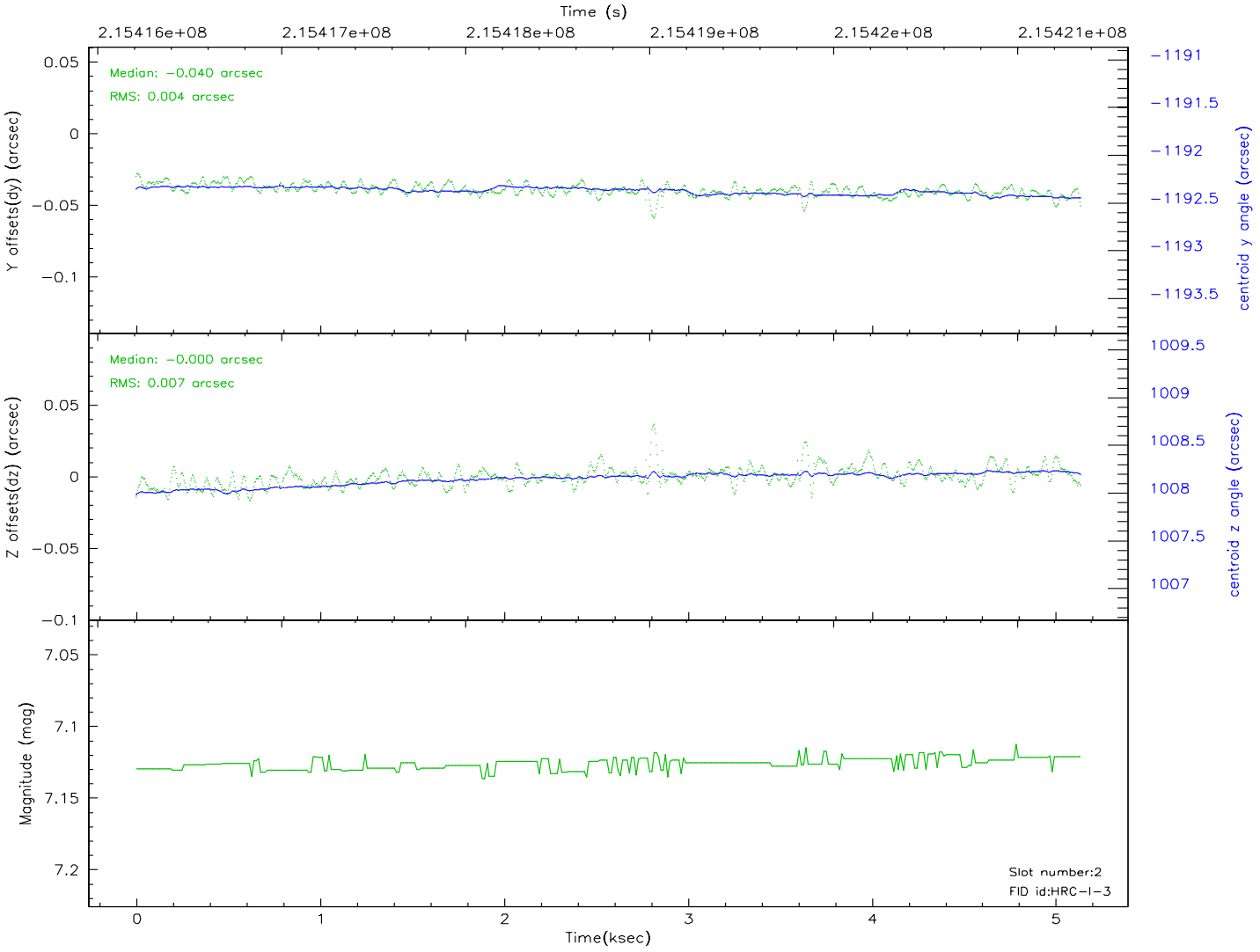

Points outside 0.05 arcsec radius: 0.000%
Radial offset of median: 0.219 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:1
FID id:HRC-I-2


Time (s)
Median: 0.172 arcsec
RMS: 0.004 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: −0.136 arcsec
RMS: 0.005 arcsec
Z offsets(dz) (arcsec)
centroid z angle (arcsec)
Magnitude (mag)
Slot number:1
FID id:HRC-I-2
Time(ksec)

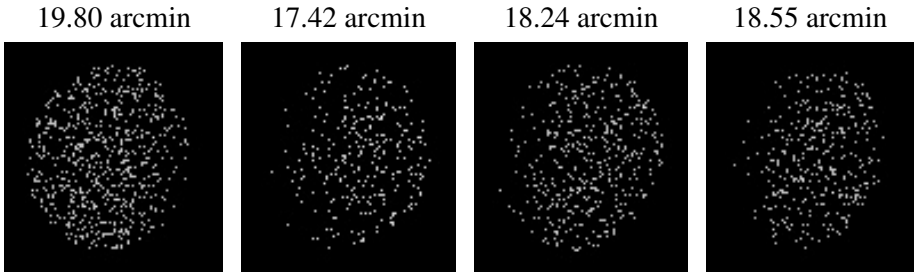
2.5.3 Slot 2


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


Time (s)
Median: −0.040 arcsec
RMS: 0.004 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: −0.000 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



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2007.12.05
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.144

A.2 Comments

```
Window constraint met.

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.
```