V&V Reference Report
L2 ASCDS Version : 7.6.11.10

Observation 2655 - L2 Version 5
Chandra X-Ray Center

L2 Processing Date : Mar 23 2009

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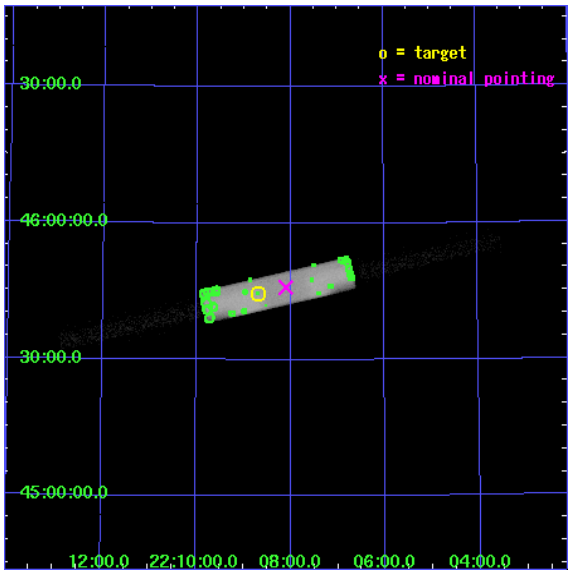
1 Front

seq_num	290211
obs_id	2655
title	AO3B HRC-S CALIBRATION OBSERVATION: MINI-SCAN OF ARLAC
observer	Dr. CXC Calibration
object	ARLAC
ra_targ	332.17
dec_targ	45.742306
ra_nom	332.02398429563
dec_nom	45.765471560816
roll_nom	167.035060648
revision	5
ontime	1443.2000594139
livetime	251.80430701056
l2events	253877

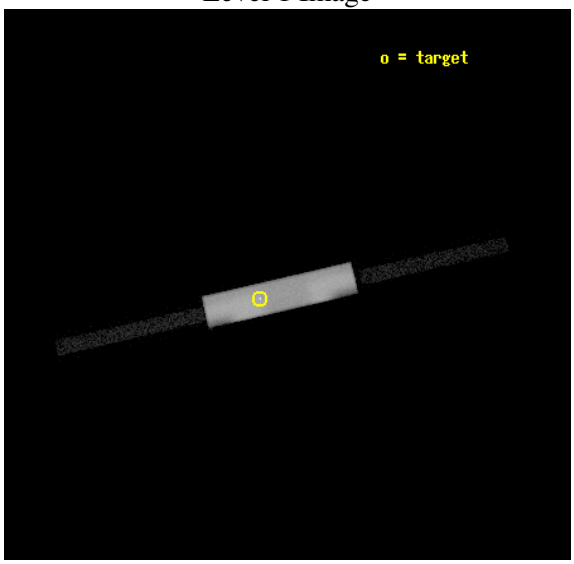


2 OBI

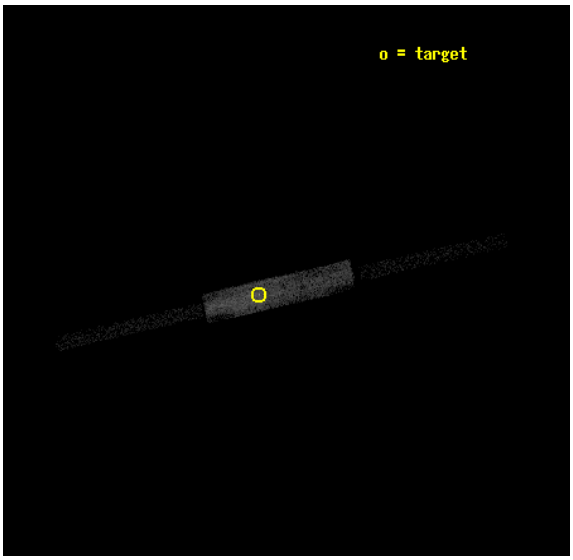
2.1 OBI

2.1.1 Images

Level 1 Image



Level 1 Bad Events



2.1.2 Parameters

obi_num	0
ascdsver	7.6.11.10
caldbver	3.5.1
date	2009-03-23T19:03:03
revision	5

sched_exp_time	933.472000
ontime	1443.2000594139
l1events	279720

2.1.3 Events

Level 1 Events

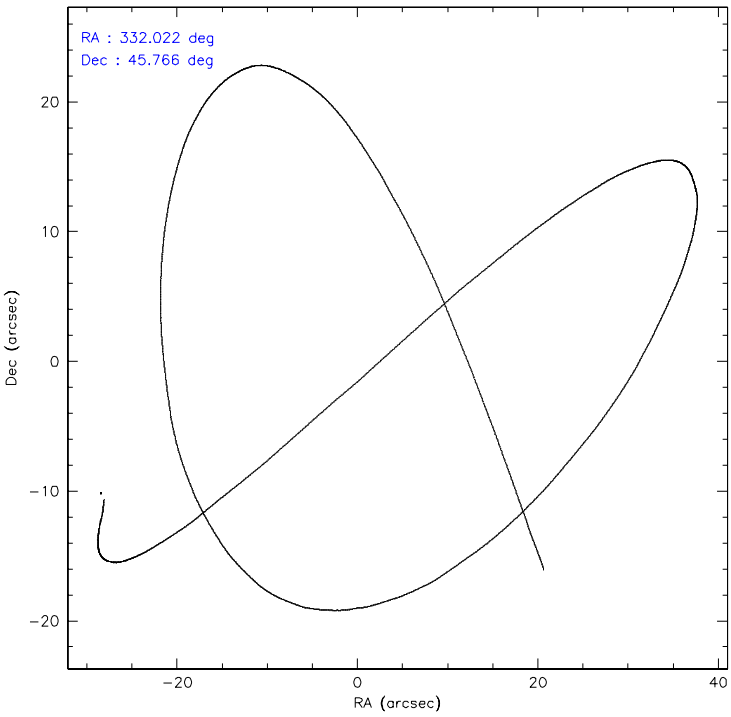
	segment 1	**segment 2**	**segment 3**
level 1 events	2819	274703	2198
rejected events	2037	16885	1639
rejected %	72%	6%	74%

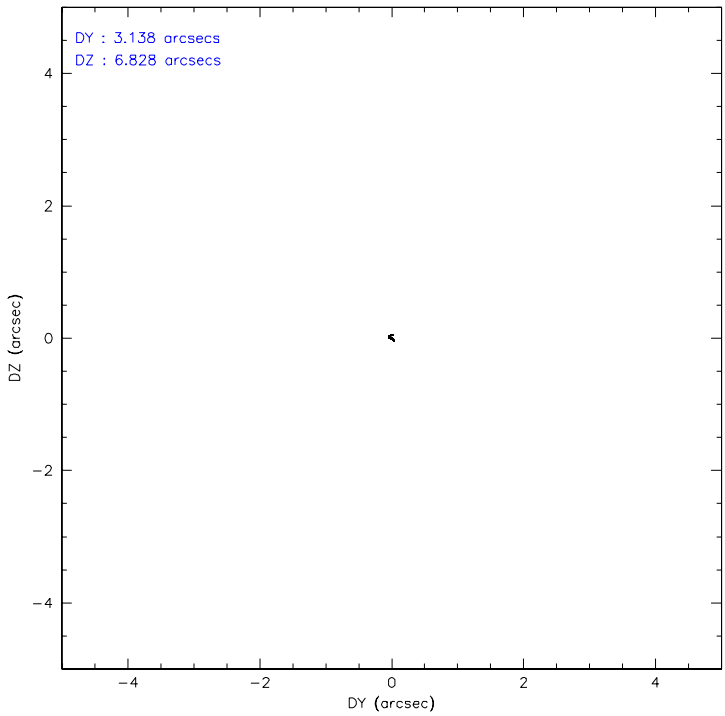
2.2 Compared Parameters

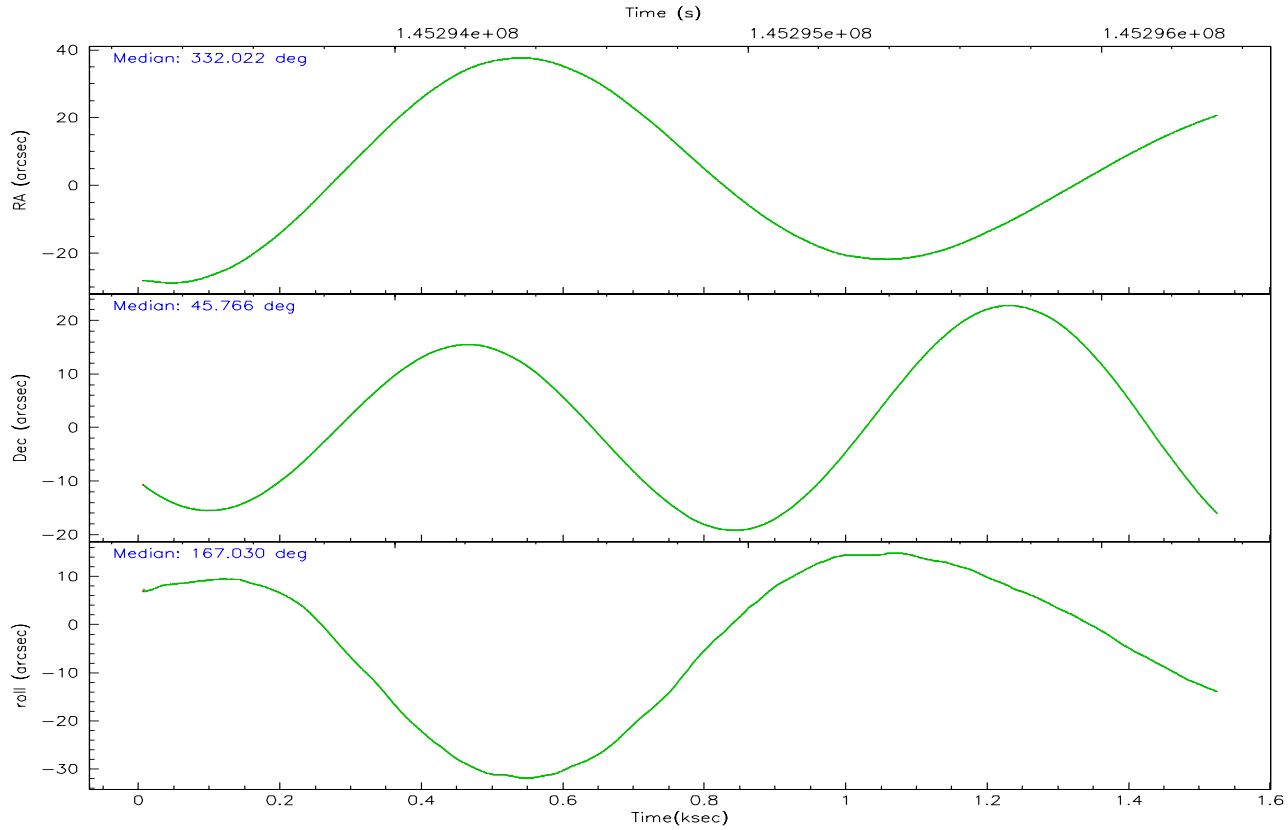
Parameter	Planned	Actual
Instrument	HRC	HRC
Detector	HRC-S	HRC-S
Grating	NONE	NONE
Data mode	OBSERVING	OBSERVING
Observation mode	POINTING	POINTING
Pointing RA	332.0239842956333	332.0239842956333
Pointing Dec	45.76547156081648	45.76547156081648
Pointing Roll	167.0350606480037	167.0350606480037
SIM focus pos (mm)	-1.4281808131	-1.4281808131
SIM defocus (mm)	0.1051557500557434	0.1051557500557434
SIM translation stage pos (mm)	250.4660330802	250.4660330802
SIM translation stage offset (mm)	-0.01005726120527584	-0.01005726120527584
Observation start time	145294149.399723	145294149.399723
Observation start date	2002-08-09T15:31:14	2002-08-09T15:29:09
Observation end time	145295670.86	145295670.86
Observation end date	2002-08-09T15:46:47	2002-08-09T15:54:30

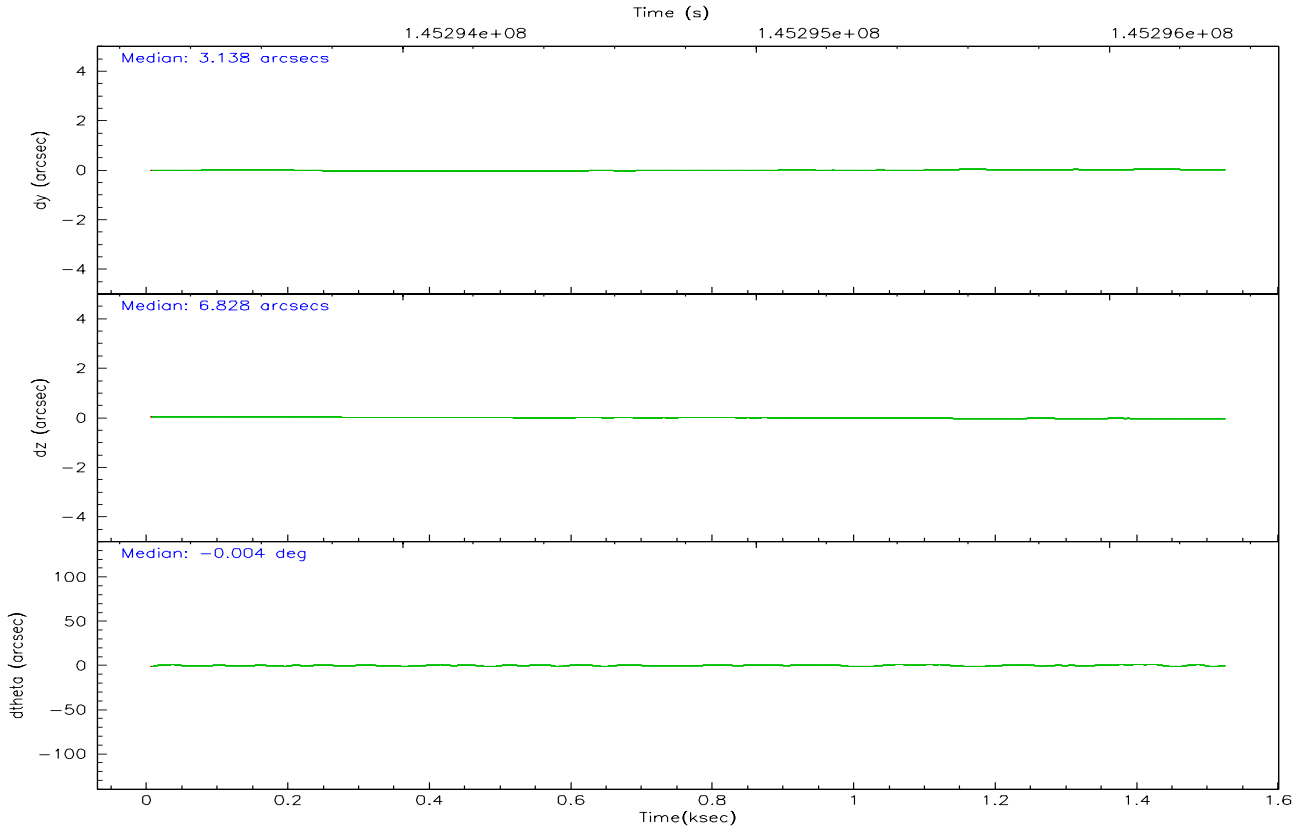
Parameter	Planned	Actual
Obspar format version number	6	6
Obspar file type	PREDICTED	ACTUAL
Obspar update status	OVERRIDE	OVERRIDE

2.3 Aspect


RA : 332.022 deg
Dec : 45.766 deg
Dec (arcsec)
RA (arcsec)
20
10
0
−10
−20
−20
0
20
40


DY : 3.138 arcsecs
DZ : 6.828 arcsecs
DZ (arcsec)
DY (arcsec)
4
2
0
−2
−4
−4
−2
0
2
4


Time (s)
1.45294e+08
1.45295e+08
1.45296e+08
Median: 332.022 deg
RA (arcsec)
Median: 45.766 deg
Dec (arcsec)
Median: 167.030 deg
roll (arcsec)
Time(ksec)

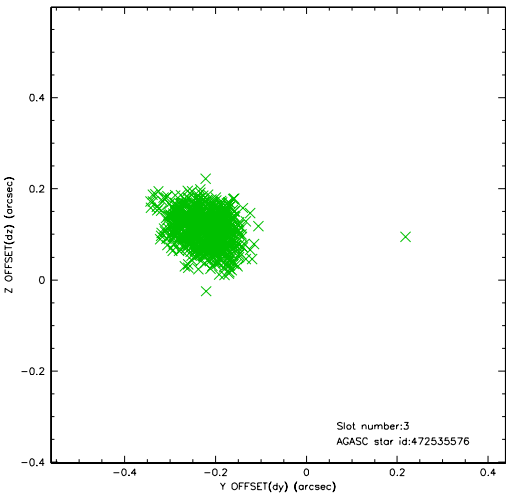

Time (s)
1.45294e+08
1.45295e+08
1.45296e+08
Median: 3.138 arcsecs
dy (arcsec)
Median: 6.828 arcsecs
dz (arcsec)
Median: −0.004 deg
dtheta (arcsec)
Time(ksec)

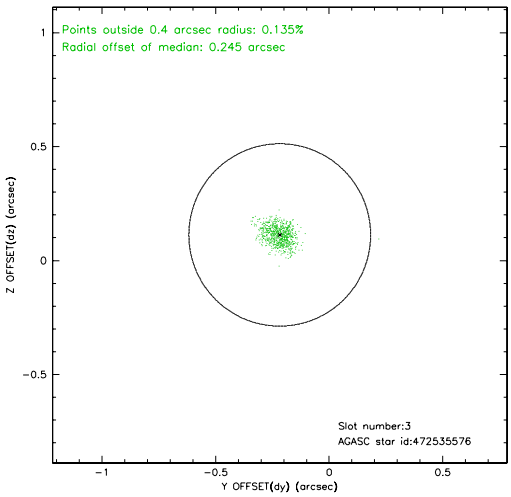
Slot Statistics

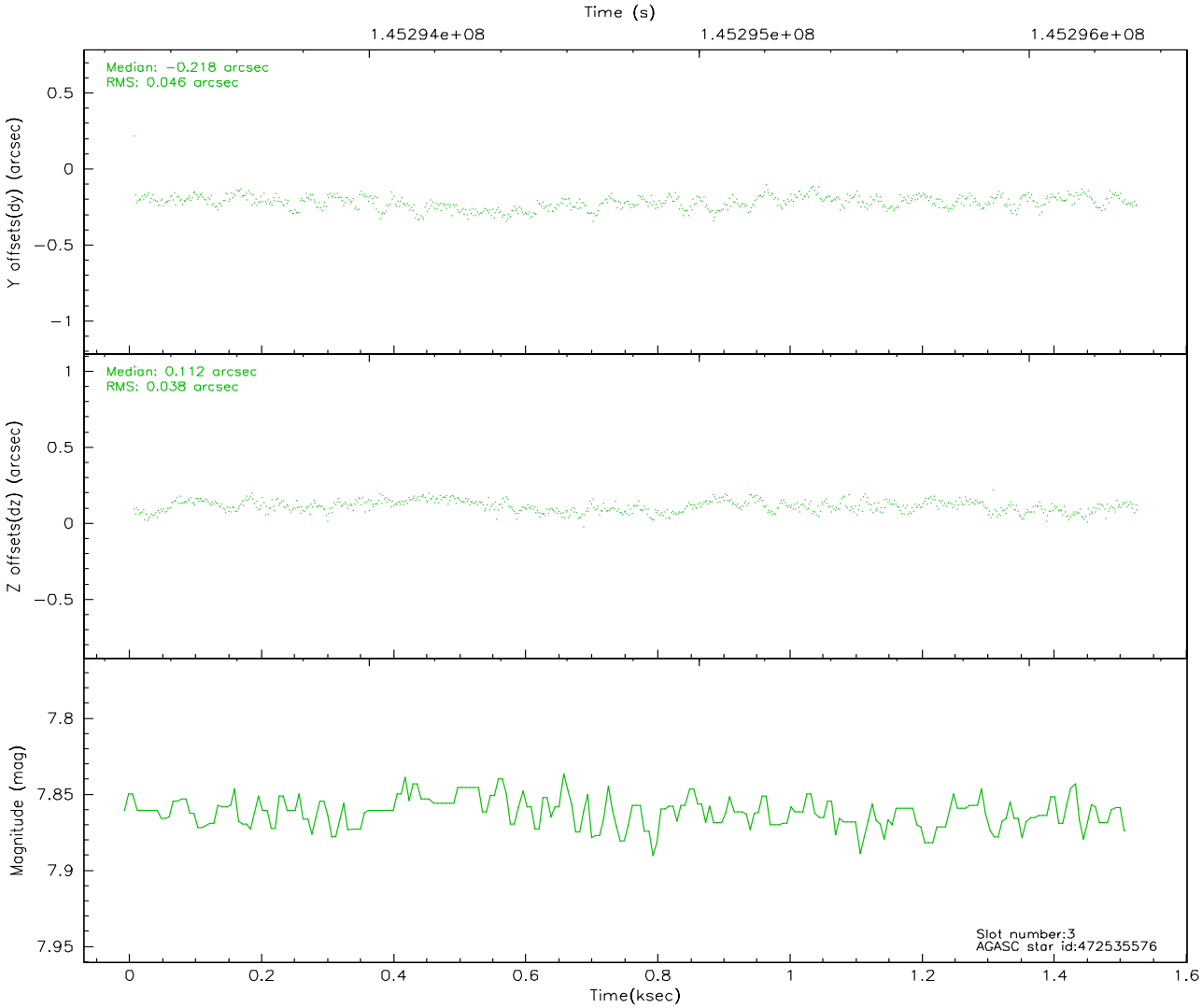
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	HRC-S-1	7.01	371	0.153	-0.106	0.007	0.013	0.000000	0.000000	-1157.16	-455.37
1	FID	HRC-S-2	7.01	371	0.091	-0.094	0.005	0.009	0.000000	0.000000	1239.34	-449.20
2	FID	HRC-S-3	7.03	371	0.146	-0.103	0.008	0.014	0.000000	0.000000	-1156.55	572.96
3	GUIDE	472535576	7.86	742	-0.218	0.112	0.061	0.096	331.438373	46.291802	1930.71	-1464.39
4	GUIDE	472523760	8.23	742	-0.120	-0.093	0.068	0.103	331.645363	45.403260	724.16	1540.04
5	GUIDE	472665256	9.02	742	0.154	0.068	0.074	0.121	332.808125	46.195041	-1468.46	-1896.67
6	GUIDE	472527656	9.17	739	0.101	-0.071	0.080	0.131	331.004689	45.273362	2200.93	2347.97
7	GUIDE	472659832	9.46	741	0.105	-0.017	0.081	0.137	332.780399	46.098139	-1481.30	-1540.30

2.4 Star Slots

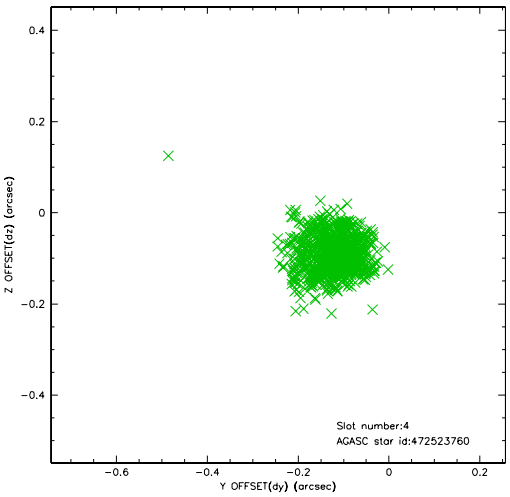
2.4.1 Slot 3

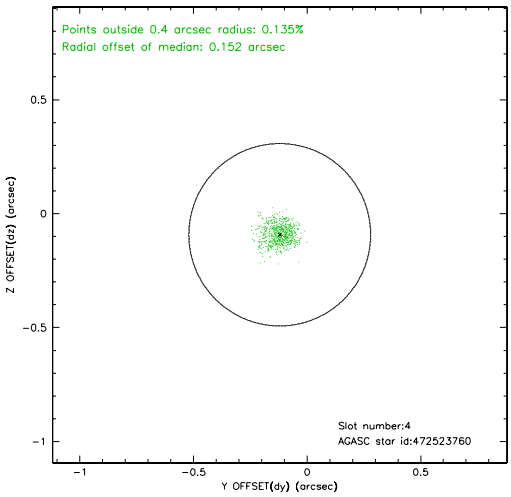


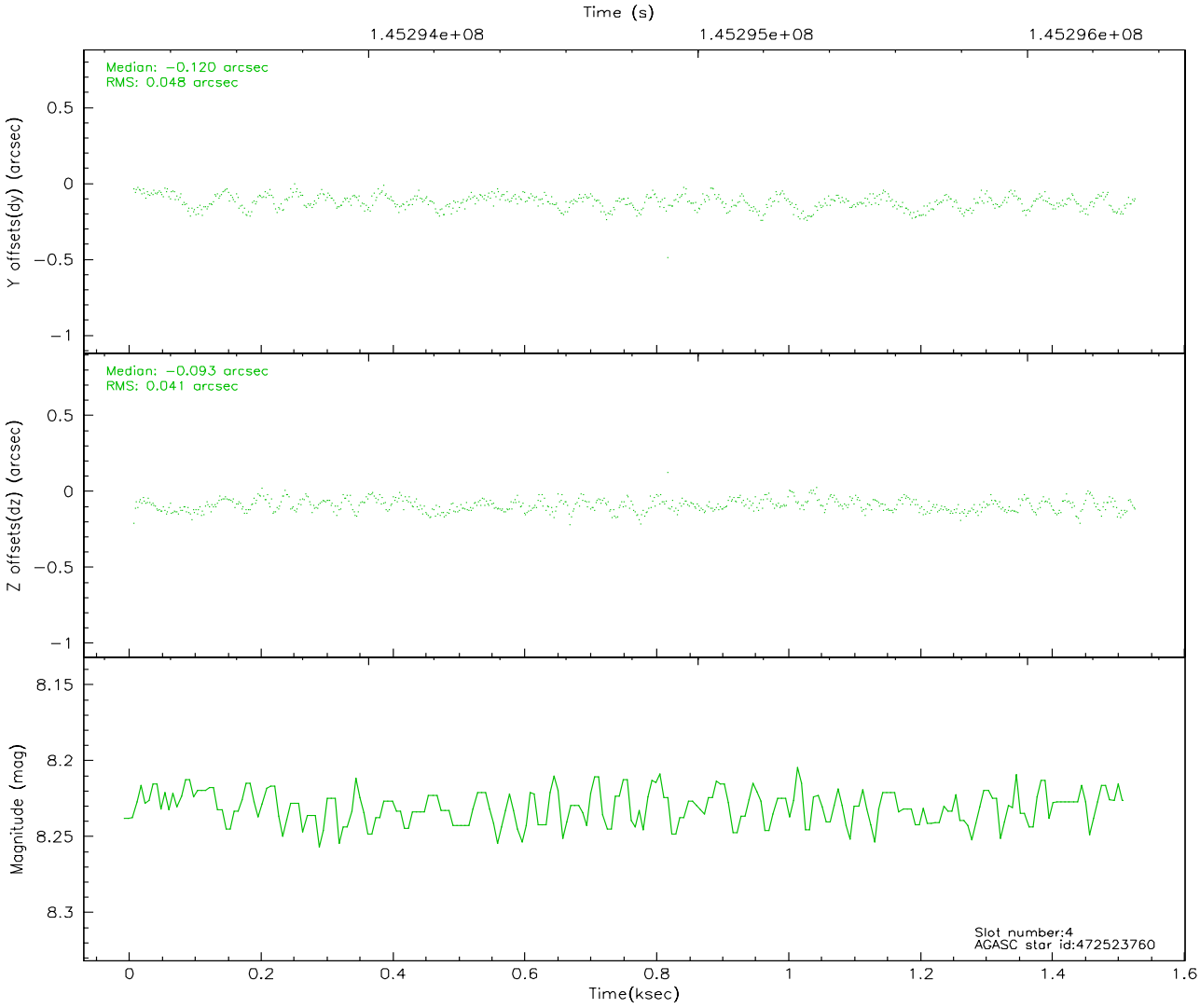




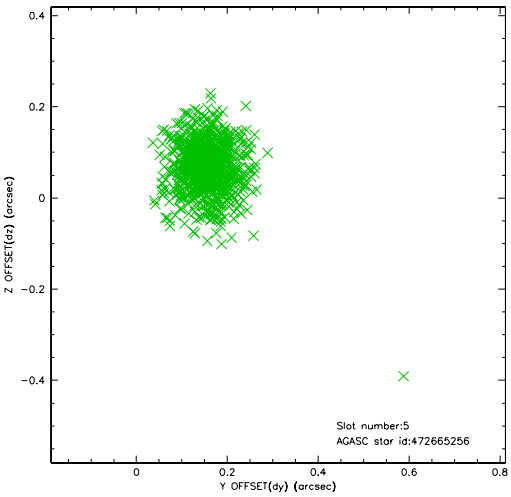
2.4.2 Slot 4

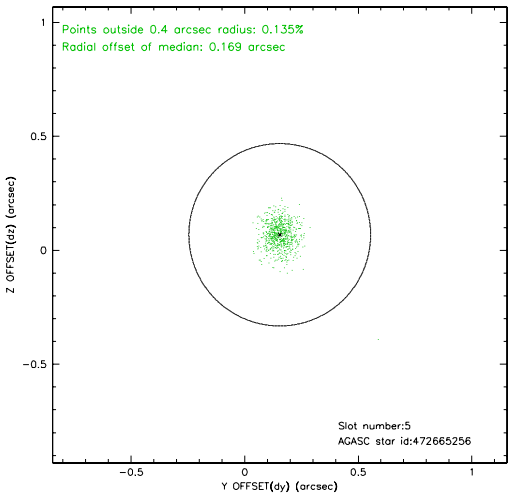

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:4
AGASC star id:472523760

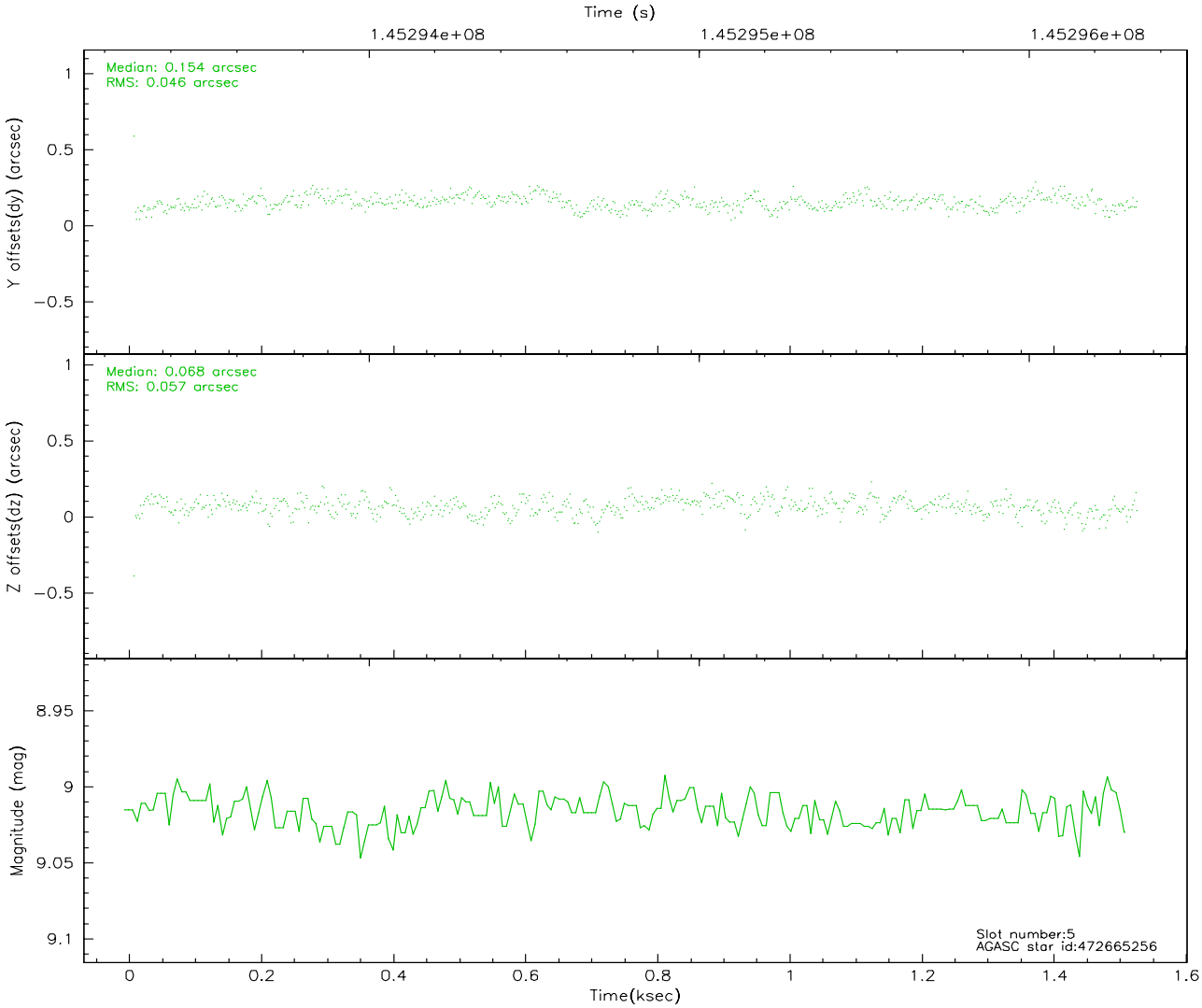

Points outside 0.4 arcsec radius: 0.135%
Radial offset of median: 0.152 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:4
AGASC star id:472523760


Time (s)
1.45294e+08
1.45295e+08
1.45296e+08
Median: −0.120 arcsec
RMS: 0.048 arcsec
Y offsets(dy) (arcsec)
Median: −0.093 arcsec
RMS: 0.041 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:4
AGASC star id:472523760
Time(ksec)

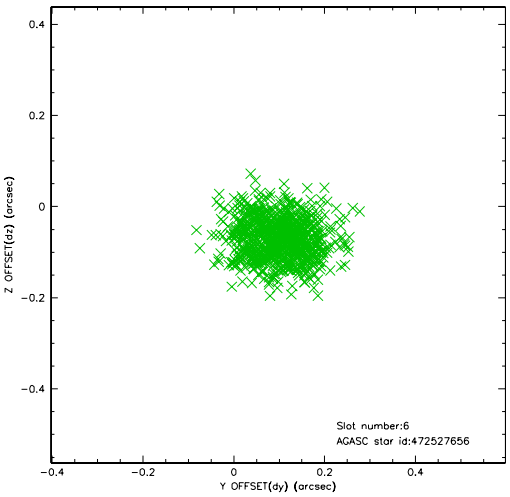
2.4.3 Slot 5

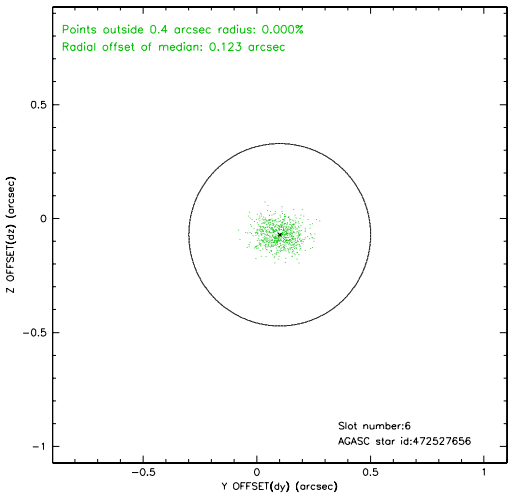

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:5
AGASC star id:472665256

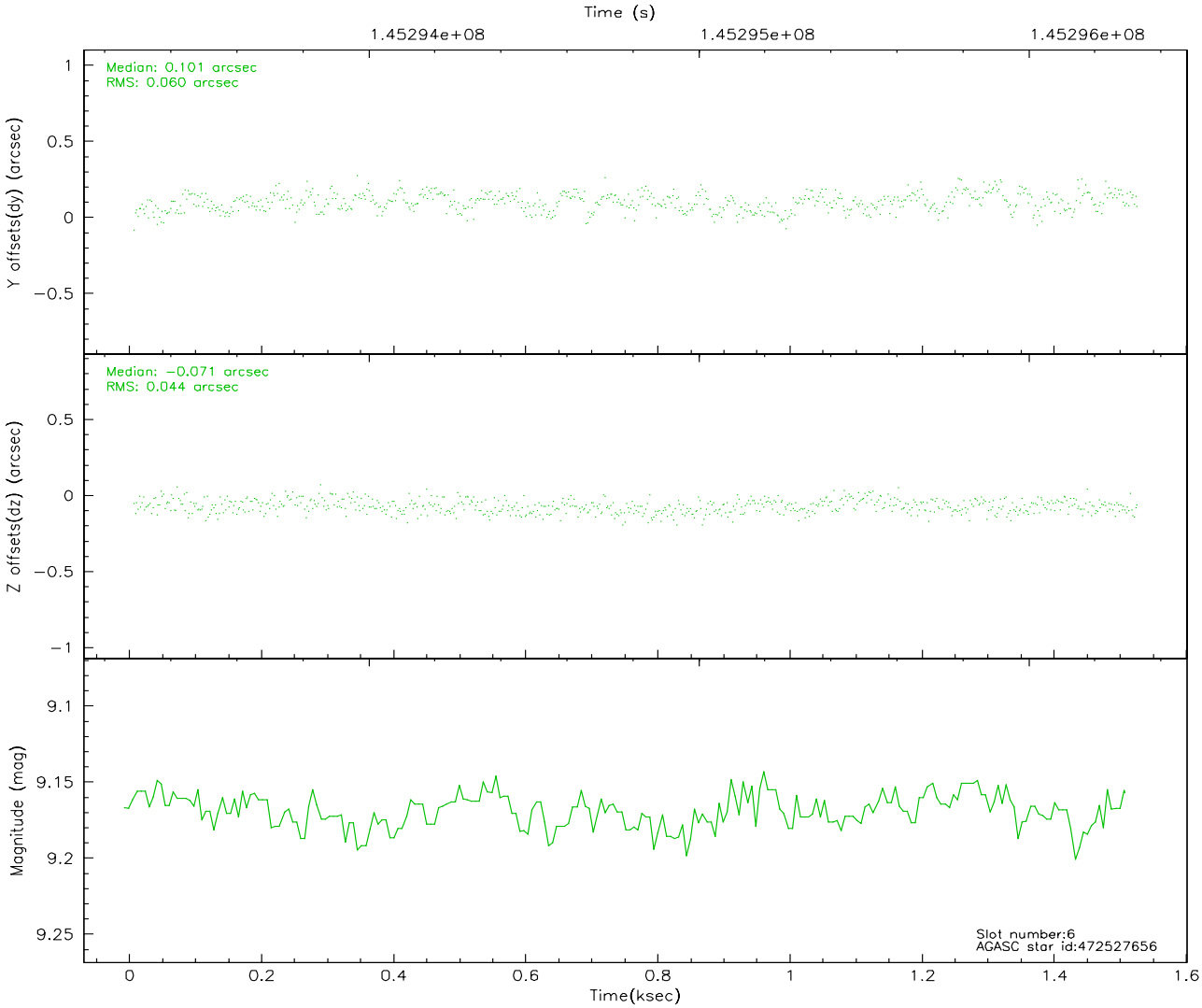

Points outside 0.4 arcsec radius: 0.135%
Radial offset of median: 0.169 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:5
AGASC star id:472665256


Time (s)
1.45294e+08
1.45295e+08
1.45296e+08
Median: 0.154 arcsec
RMS: 0.046 arcsec
Y offsets(dy) (arcsec)
Median: 0.068 arcsec
RMS: 0.057 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:5
AGASC star id:472665256
Time(ksec)

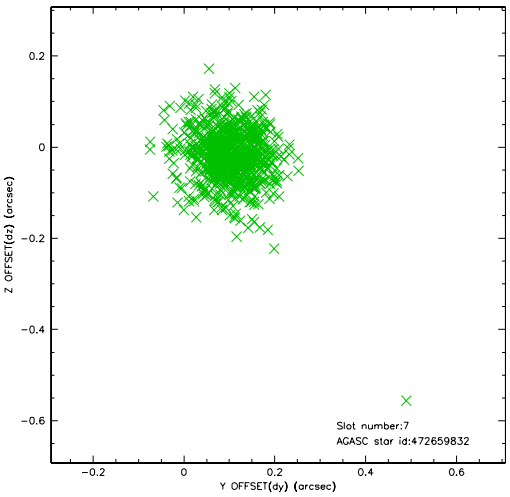
2.4.4 Slot 6

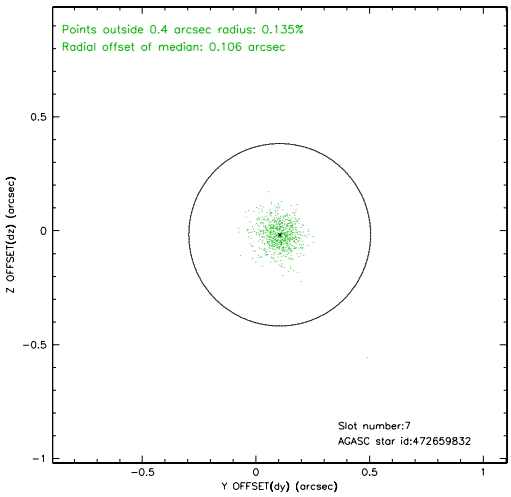

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:6
AGASC star id:472527656

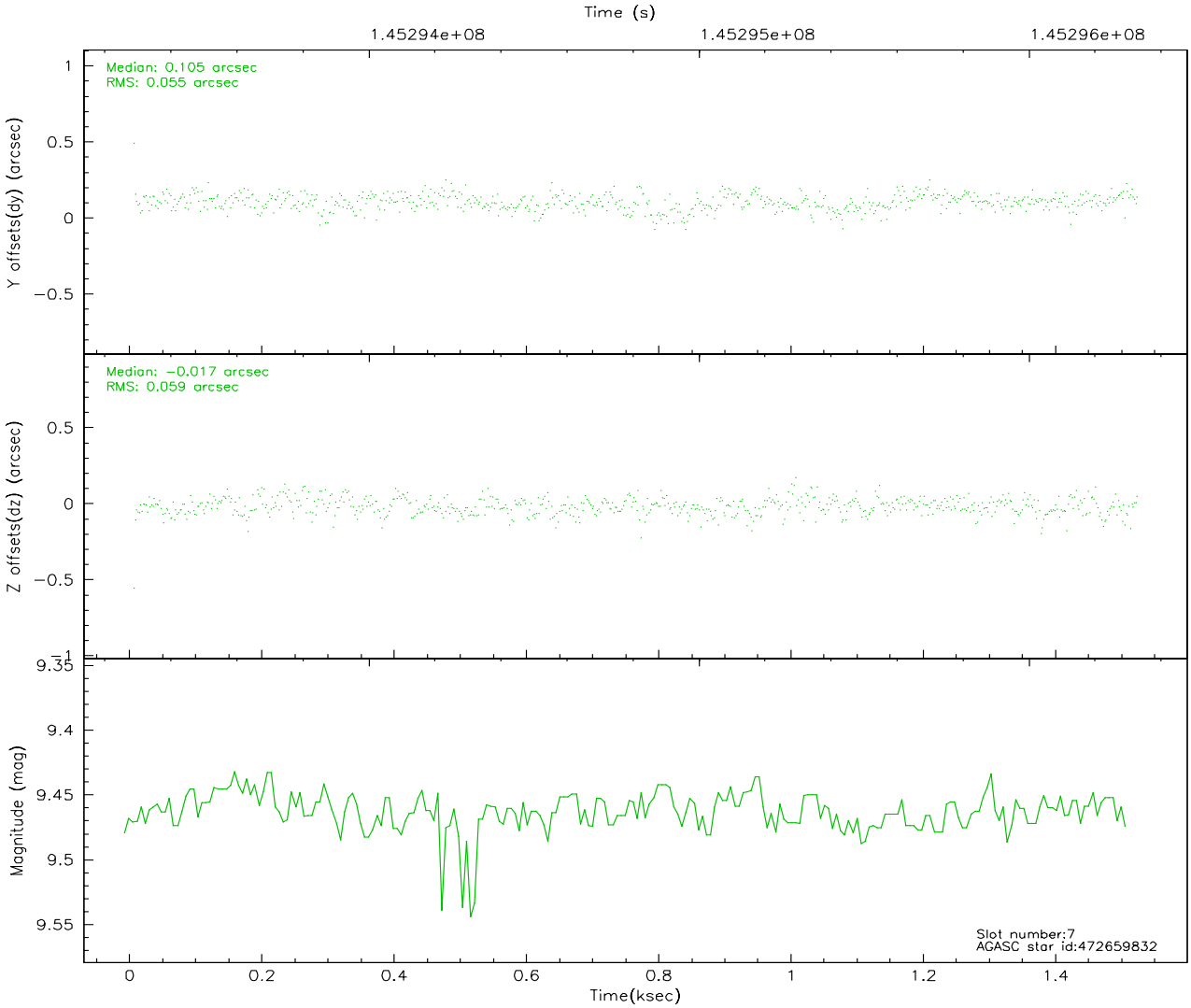

Points outside 0.4 arcsec radius: 0.000%
Radial offset of median: 0.123 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:6
AGASC star id:472527656


Time (s)
1.45294e+08
1.45295e+08
1.45296e+08
Median: 0.101 arcsec
RMS: 0.060 arcsec
Y offsets(dy) (arcsec)
Median: −0.071 arcsec
RMS: 0.044 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:6
AGASC star id:472527656
Time(ksec)

2.4.5 Slot 7

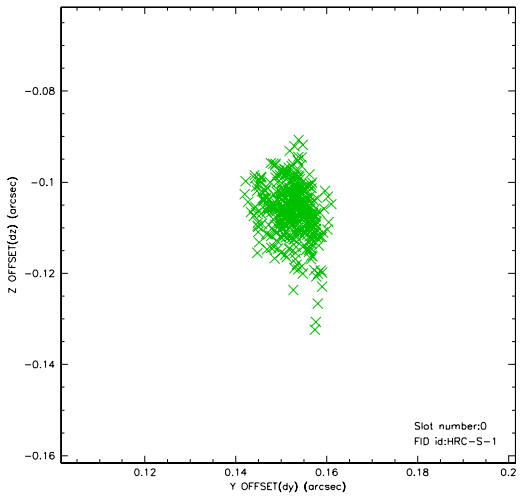

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:7
AGASC star id:472659832

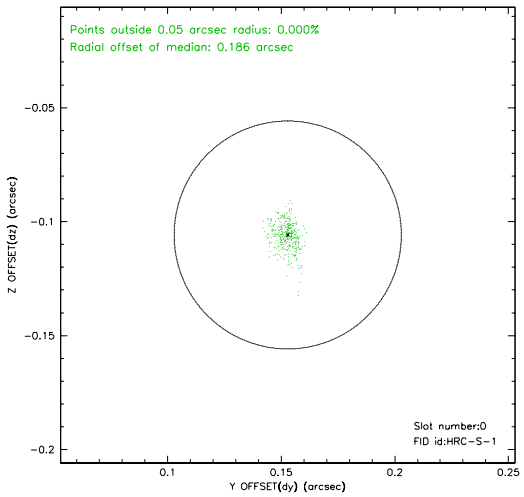

Points outside 0.4 arcsec radius: 0.135%
Radial offset of median: 0.106 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:7
AGASC star id:472659832

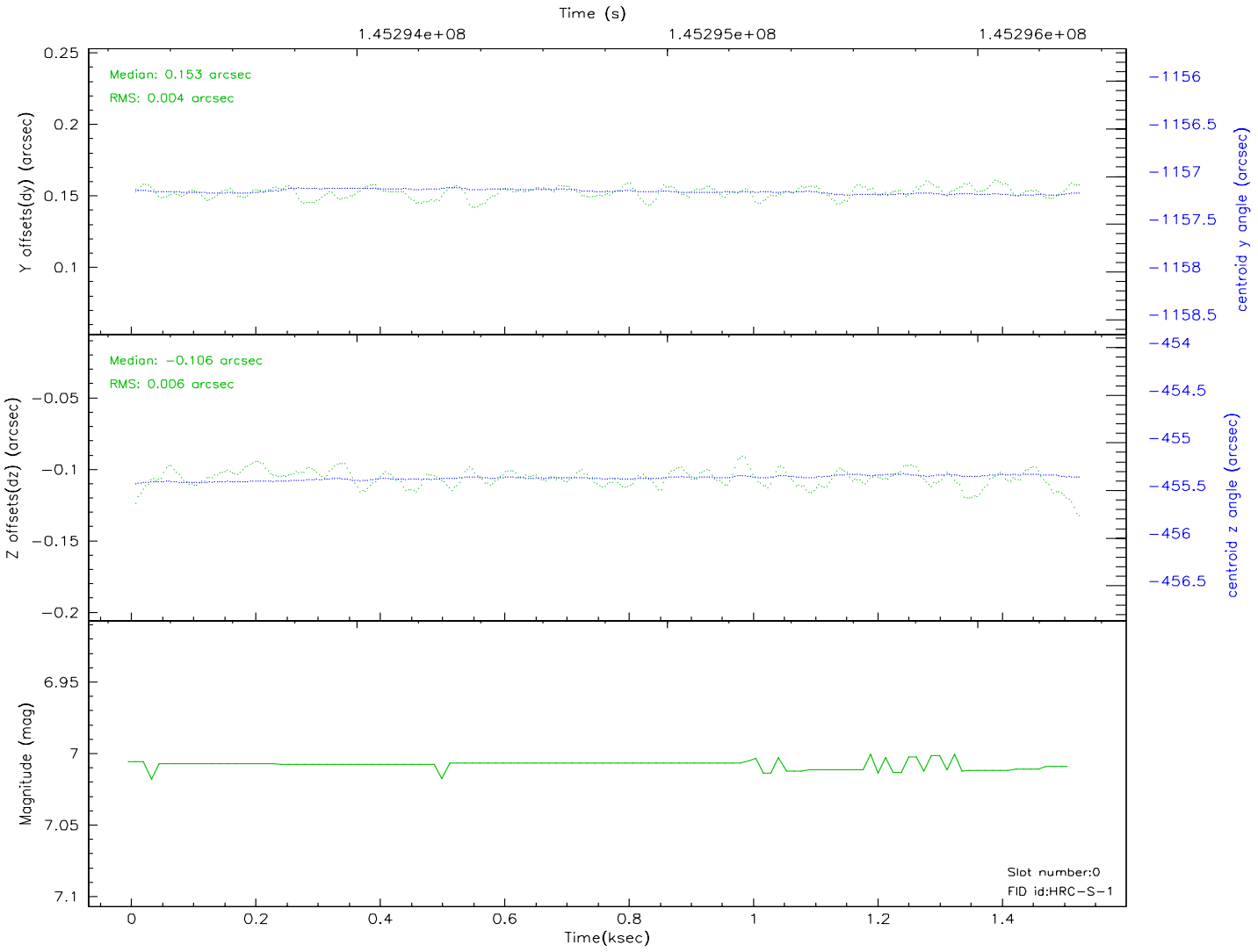

Time (s)
1.45294e+08
1.45295e+08
1.45296e+08
Median: 0.105 arcsec
RMS: 0.055 arcsec
Y offsets(dy) (arcsec)
Median: −0.017 arcsec
RMS: 0.059 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:7
AGASC star id:472659832
Time(ksec)

2.5 FID Slots

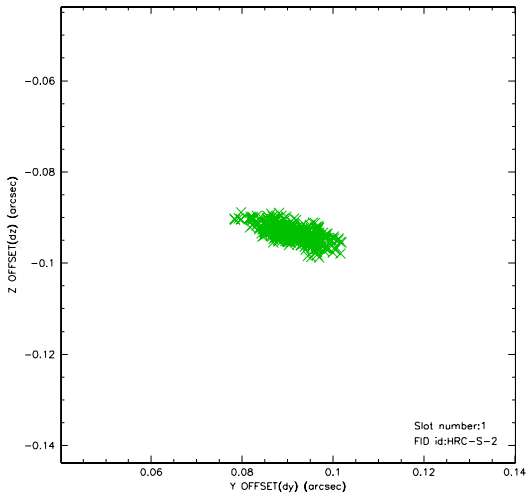
2.5.1 Slot 0

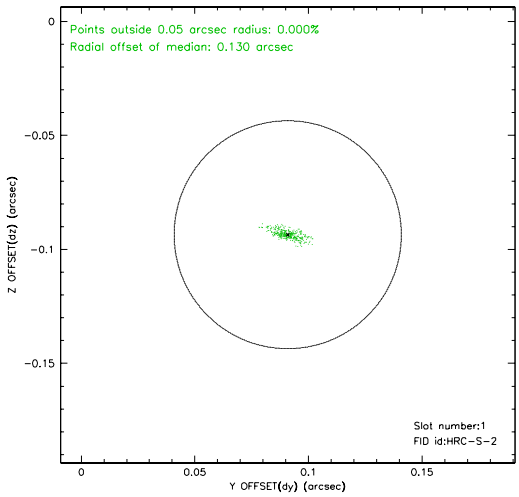


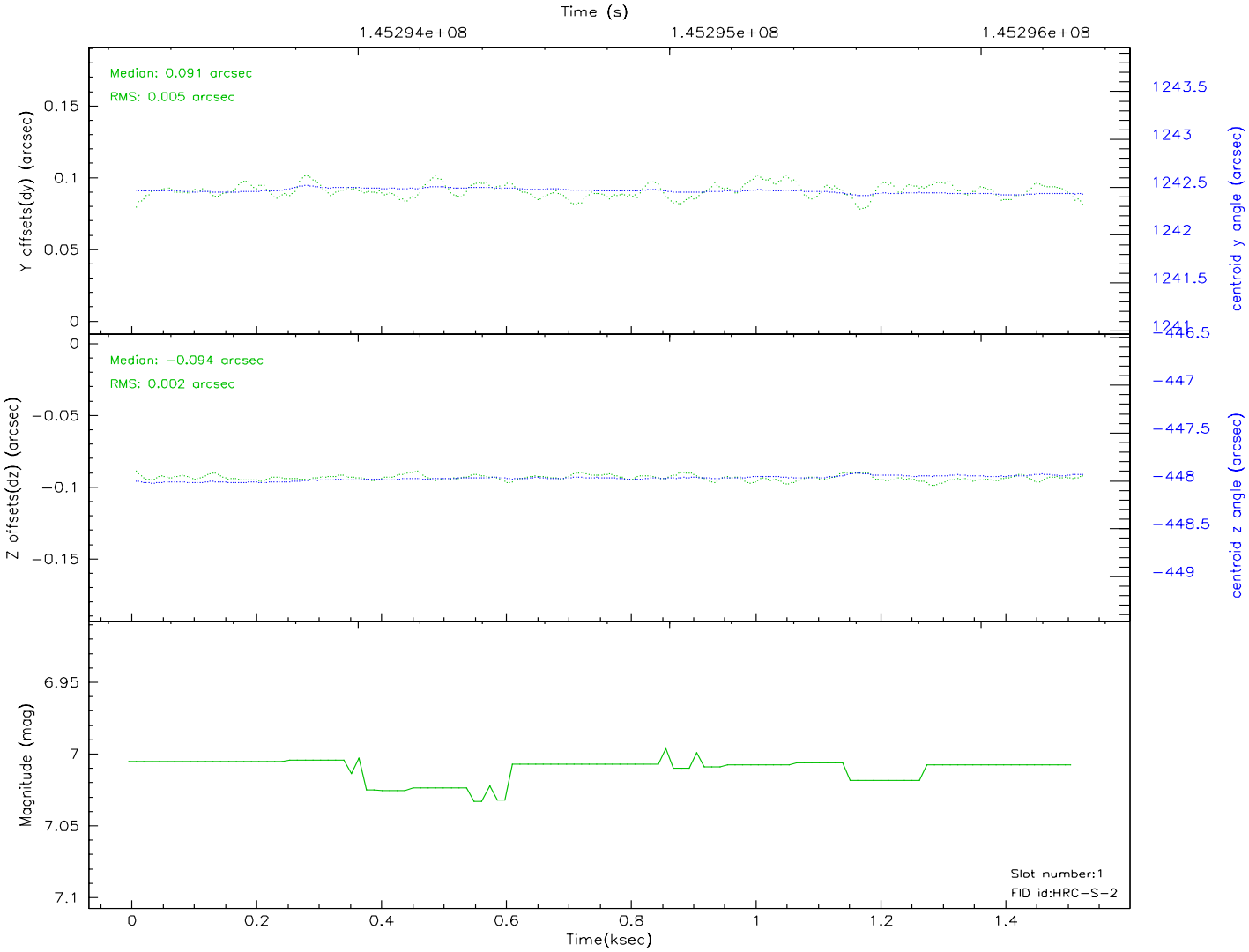




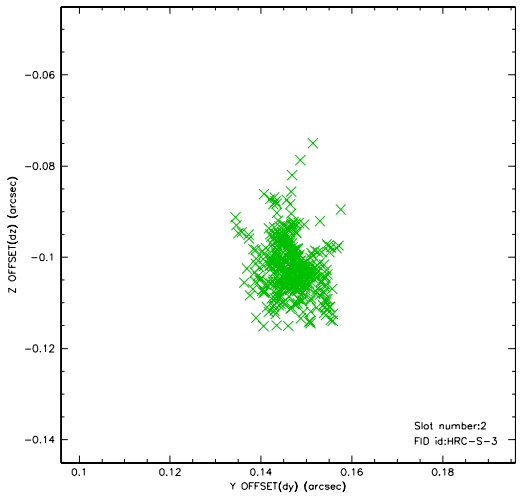
2.5.2 Slot 1

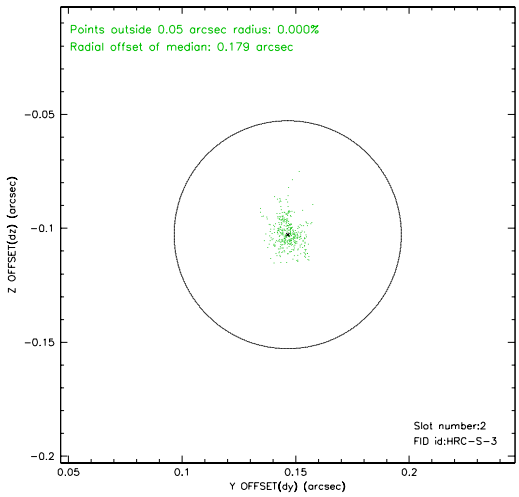

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:1
FID id:HRC-S-2

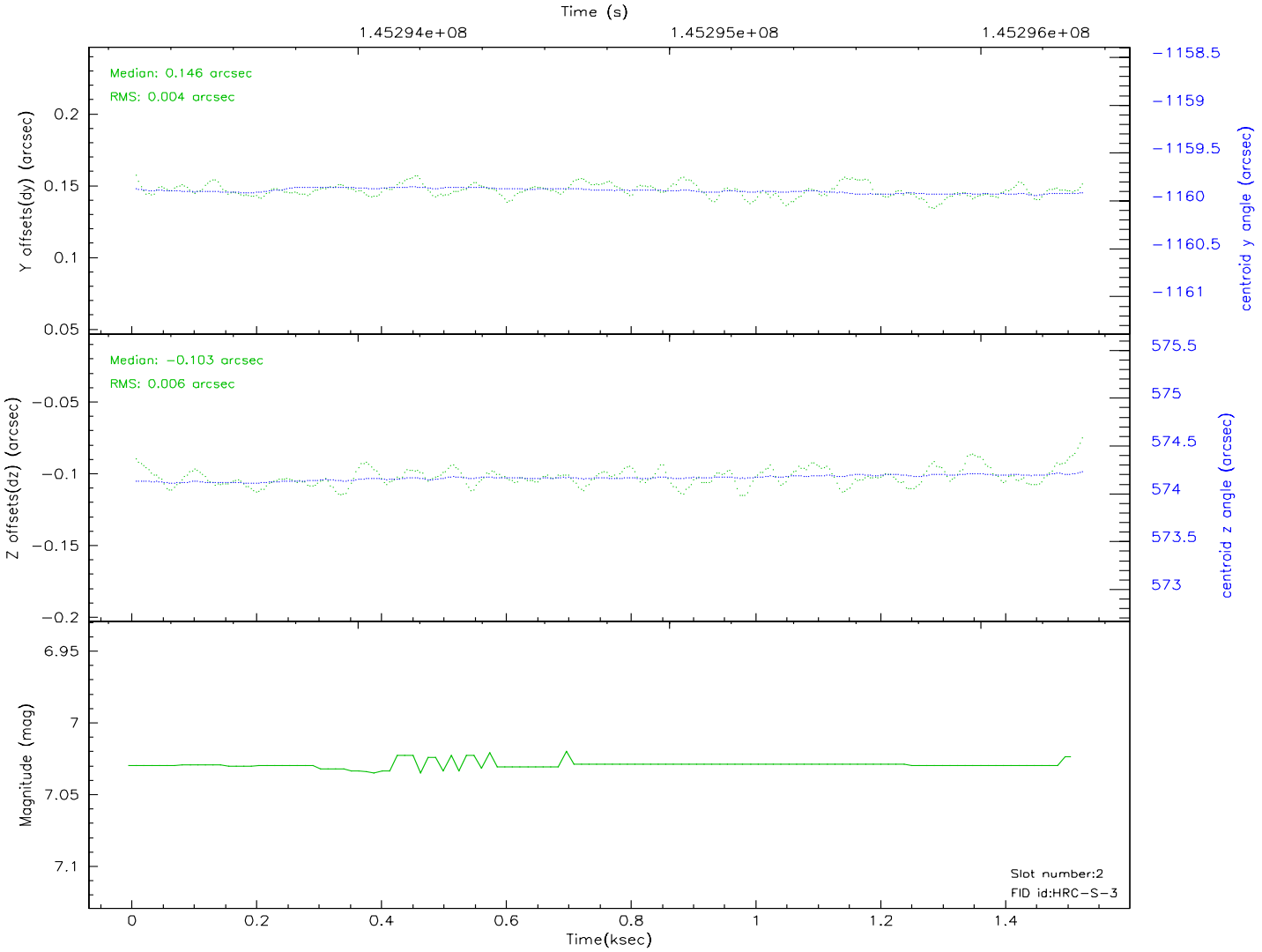

Points outside 0.05 arcsec radius: 0.000%
Radial offset of median: 0.130 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:1
FID id:HRC-S-2


Time (s)
1.45294e+08
1.45295e+08
1.45296e+08
Median: 0.091 arcsec
RMS: 0.005 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: −0.094 arcsec
RMS: 0.002 arcsec
Z offsets(dz) (arcsec)
centroid z angle (arcsec)
Magnitude (mag)
Slot number:1
FID id:HRC-S-2
Time(ksec)

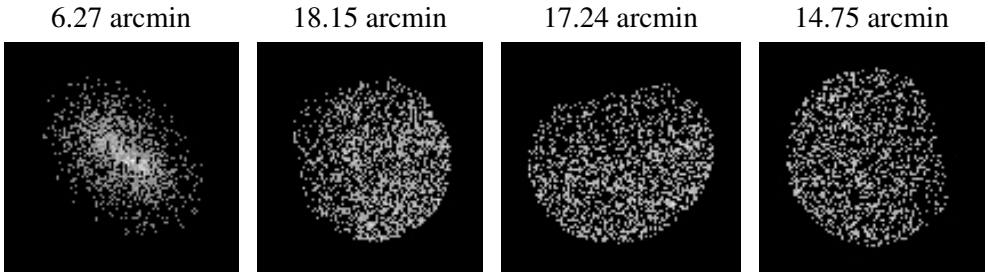
2.5.3 Slot 2


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


Points outside 0.05 arcsec radius: 0.000%
Radial offset of median: 0.179 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:2
FID id:HRC-S-3


Time (s)
1.45294e+08
1.45295e+08
1.45296e+08
Median: 0.146 arcsec
RMS: 0.004 arcsec
Y offsets(dy) (arcsec)
Median: −0.103 arcsec
RMS: 0.006 arcsec
Z offsets(dz) (arcsec)
centroid y angle (arcsec)
centroid z angle (arcsec)
Magnitude (mag)
Slot number:2
FID id:HRC-S-3
Time(ksec)

3 Point Sources



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2009.03.24
V&V Edition	2
V&V Disposition and Status	OK
V&V Charge Time	1.515

A.2 Comments

```
Charge time for this ObsId remains at previous value of 1.515 ksec,
although
with the current processing the charge time would have been 1.44 ksec.
========================================
Monitor constraint satisfied.============================
Aspect Review from Version 2 of the processing: The scheduled end of the
HRC-S observation is 145295271.86. Normally in preparation for RAD zone
entry the SIM would be translated at that time, but since the SIM is
already at HRC-S nothing happens until around 145295670.86 when it
appears the HRC door closed, thus making the fid lights disappear.
Recommend that you set the observation TSTOP to 145295670.86.
Technically however the true TSTOP is 145295271.8
(2002:221:15:46:47.678), satisfying the 0.9 ksec scheduled observation
time.
==========================Override obspar used in this processing to
comply with these instructions.
```