V&V Reference Report
L2 ASCDS Version : 7.6.8

Observation 3691 - L2 Version 001
Chandra X-Ray Center

L2 Processing Date : Jul 19 2006

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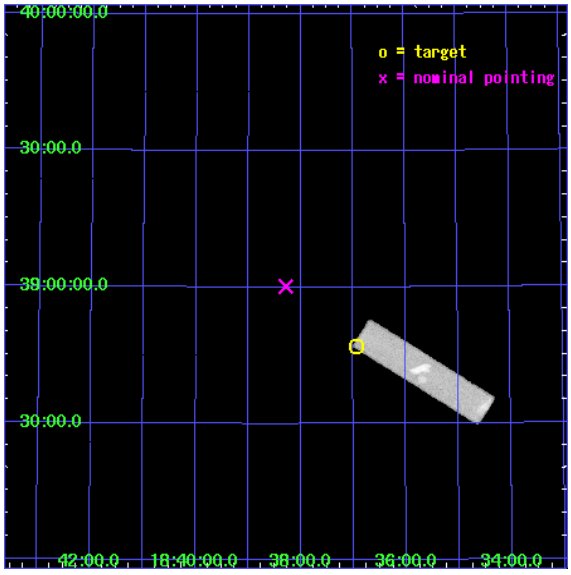
1 Front

seq_num	290245
obs_id	3691
title	AO4 MEASUREMENTS OF THE OPTICAL/UV TRANSMISSION OF THE HRC AND ACIS FILTERS
observer	Dr. CXC Calibration
object	VEGA
ra_targ	279.235
dec_targ	38.783778
ra_nom	279.57084805908
dec_nom	39.003799440521
roll_nom	31.631701567095
revision	2
ontime	2143.5313398838
livetime	2133.4649922668
l2events	72316

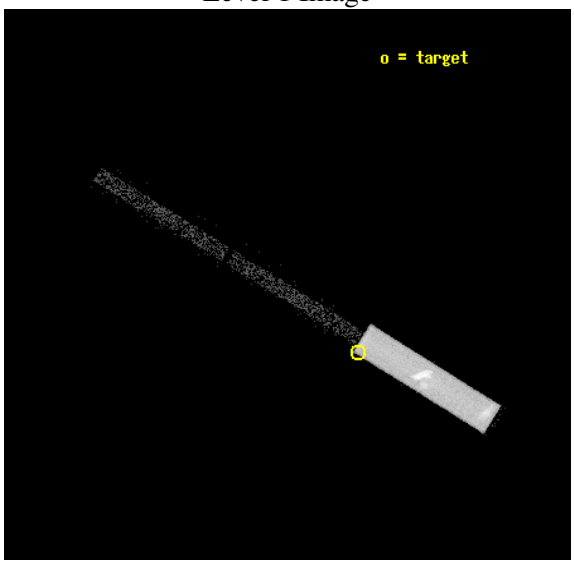


2 OBI

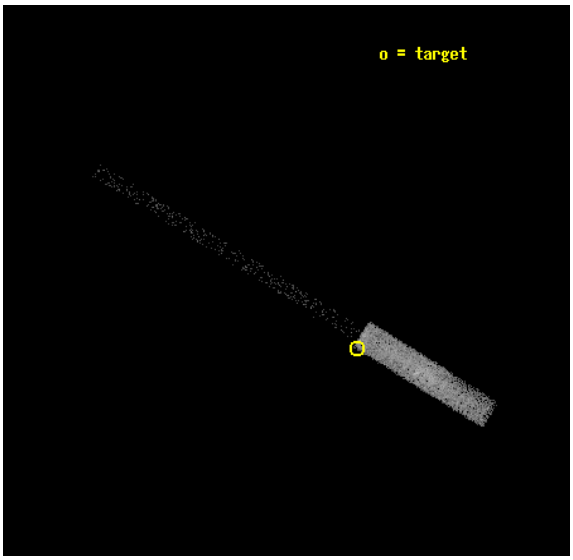
2.1 OBI

2.1.1 Images

Level 1 Image



Level 1 Bad Events



2.1.2 Parameters

obi_num	0
ascdsver	7.6.8
caldbver	3.2.2
date	2006-07-19T13:46:29
revision	2

sched_exp_time	2000.000000
ontime	2187.6063417494
l1events	109031

2.1.3 Events

Level 1 Events

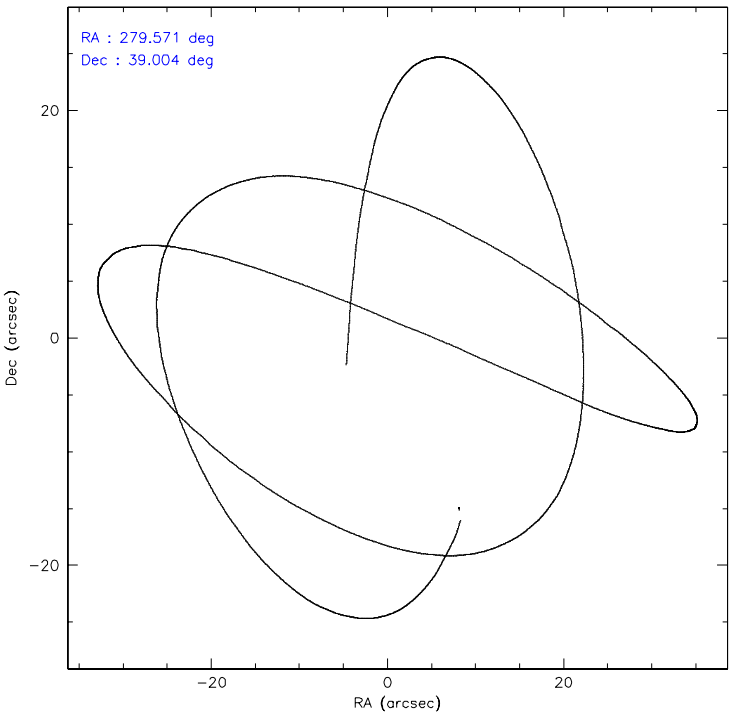
	segment 1	**segment 2**	**segment 3**
level 1 events	106799	1134	1098
rejected events	26485	1110	1098
rejected %	24%	97%	100%

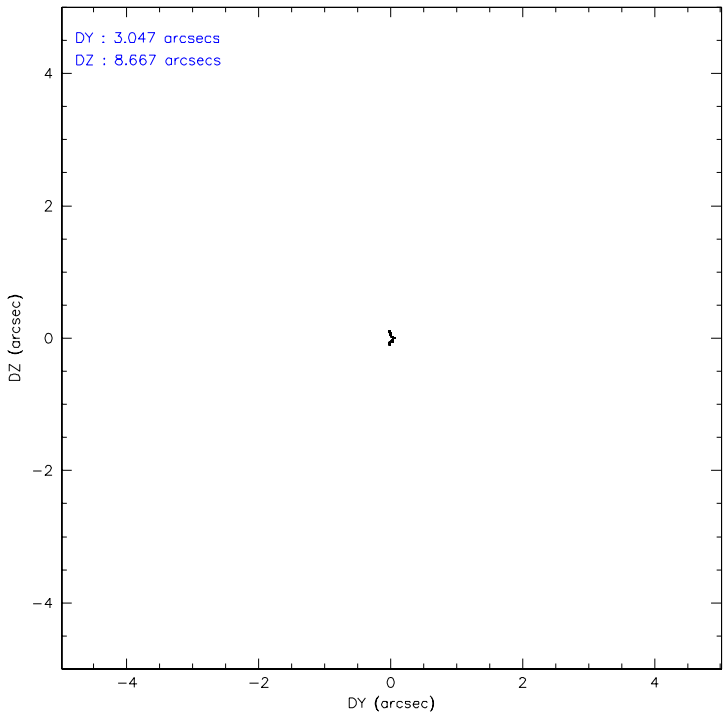
2.2 Compared Parameters

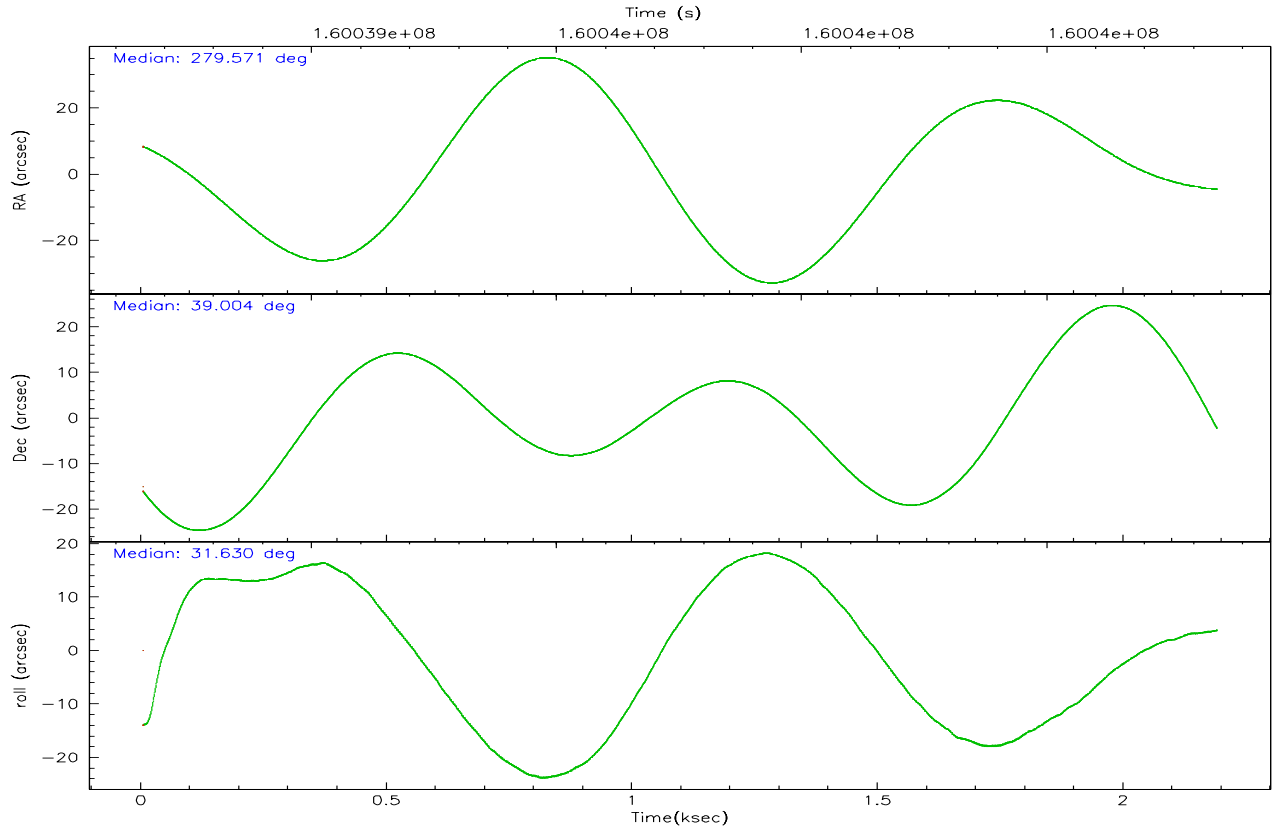
Parameter	Planned	Actual
Instrument	HRC	HRC
Detector	HRC-S	HRC-S
Grating	NONE	NONE
Data mode	OBSERVING	OBSERVING
Observation mode	POINTING	POINTING
Pointing RA	279.555128	279.5708480590782
Pointing Dec	38.977884	39.00379944052081
Pointing Roll	31.574365	31.63170156709537
Window start time	159019264.184000	159019264.184000
Window stop time	161697664.184000	161697664.184000
SIM focus pos (mm)	-1.429586	-1.428180813131781
SIM defocus (mm)	0.1037507710433287	0.1051558262725154
SIM translation stage pos (mm)	250.455976	250.466033080201
SIM translation stage offset (mm)	0	-0.01005468664627074
Observation start time	160038849.184000	160038473.14985
Observation start date	2003-01-27T07:13:05	2003-01-27T07:07:53
Observation end time	160040849.184000	160041103.81246
Observation end date	2003-01-27T07:46:25	2003-01-27T07:51:43

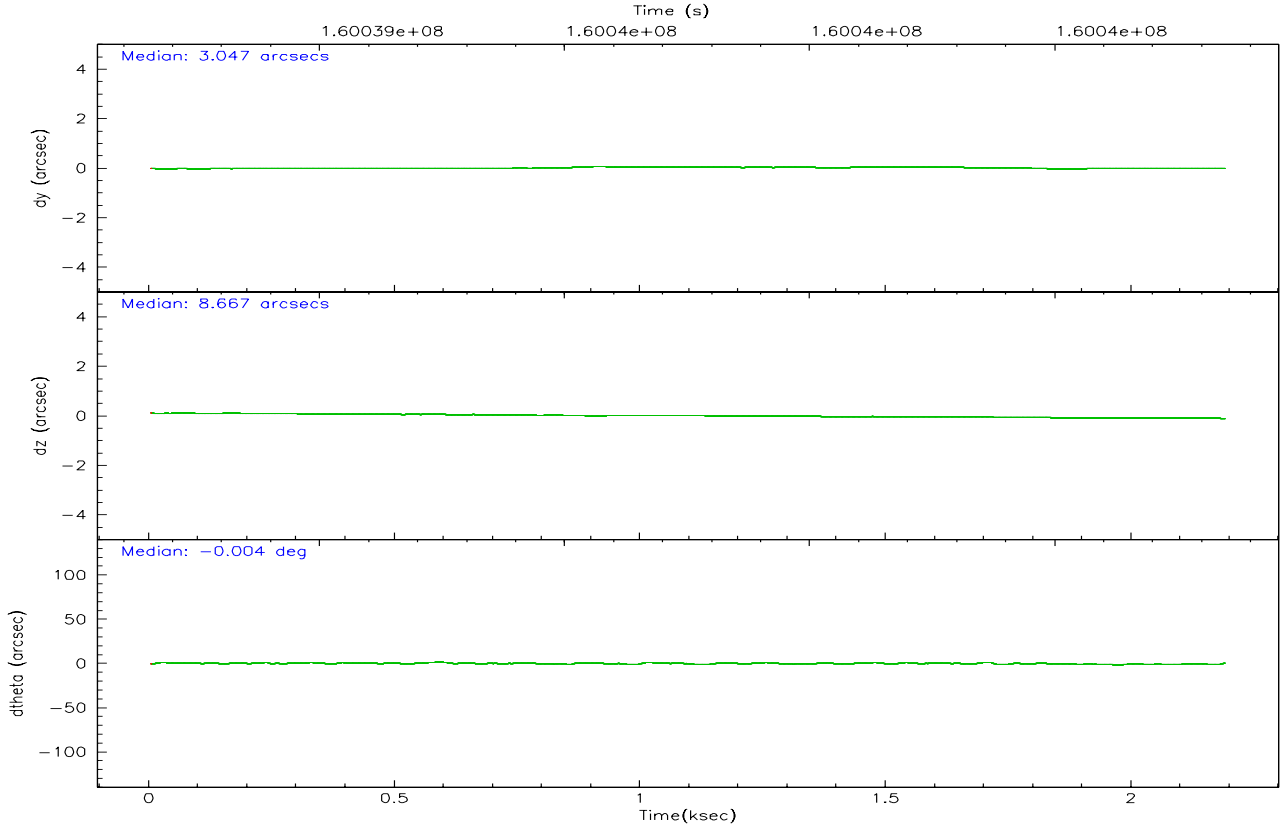
Parameter	Planned	Actual
Obspar format version number	6	6
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED

2.3 Aspect


RA : 279.571 deg
Dec : 39.004 deg
20
0
−20
Dec (arcsec)
−20
0
20
RA (arcsec)


DY : 3.047 arcsecs
DZ : 8.667 arcsecs
4
2
0
−2
−4
DZ (arcsec)
−4
−2
0
2
4
DY (arcsec)


Time (s)
1.60039e+08
1.6004e+08
1.6004e+08
1.6004e+08
Median: 279.571 deg
RA (arcsec)
Median: 39.004 deg
Dec (arcsec)
Median: 31.630 deg
roll (arcsec)
Time(ksec)

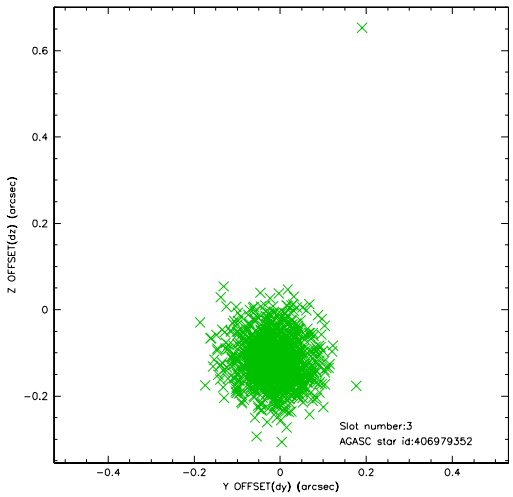

Time (s)
1.60039e+08
1.6004e+08
1.6004e+08
1.6004e+08
Median: 3.047 arcsecs
dy (arcsec)
Median: 8.667 arcsecs
dz (arcsec)
Median: −0.004 deg
dtheta (arcsec)
Time(ksec)

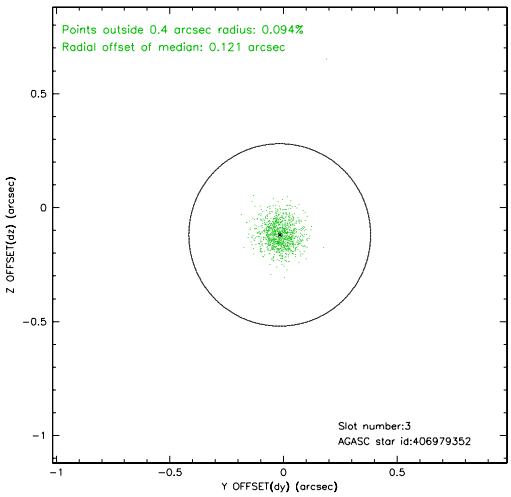
Slot Statistics

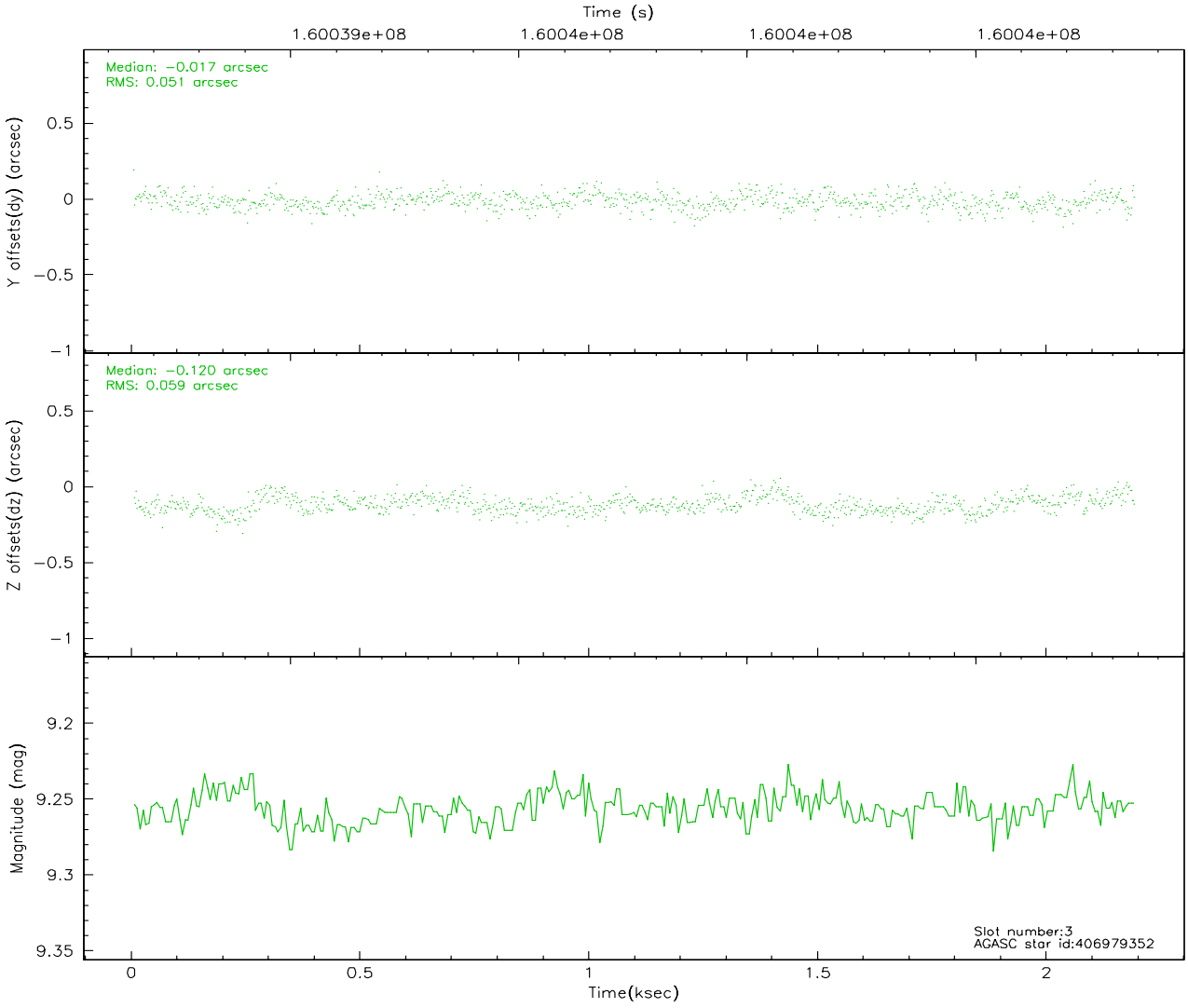
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	HRC-S-1	7.03	534	0.158	-0.132	0.007	0.012	0.000000	0.000000	-1157.06	-457.28
1	FID	HRC-S-2	7.02	534	0.087	-0.094	0.005	0.009	0.000000	0.000000	1240.38	-450.73
2	FID	HRC-S-3	7.05	534	0.145	-0.076	0.008	0.014	0.000000	0.000000	-1157.48	571.46
3	GUIDE	406979352	9.26	1067	-0.017	-0.120	0.078	0.131	279.968297	39.230258	1458.66	172.12
4	GUIDE	406983600	8.91	1065	0.032	0.123	0.066	0.107	279.940957	39.020708	1002.95	-432.13
5	GUIDE	406985120	7.42	1068	-0.010	-0.029	0.073	0.118	278.839732	38.894839	-1859.06	800.69
6	GUIDE	406989616	8.23	1068	0.062	0.083	0.063	0.105	279.202881	38.520843	-1707.27	-880.27
7	GUIDE	407521584	8.95	1061	-0.065	-0.057	0.086	0.131	279.676096	39.795417	1824.73	2331.13

2.4 Star Slots

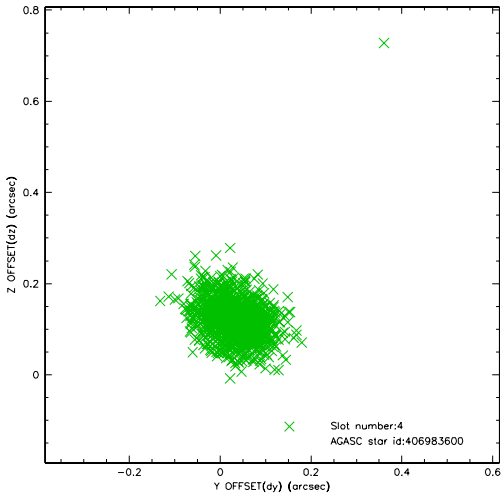
2.4.1 Slot 3

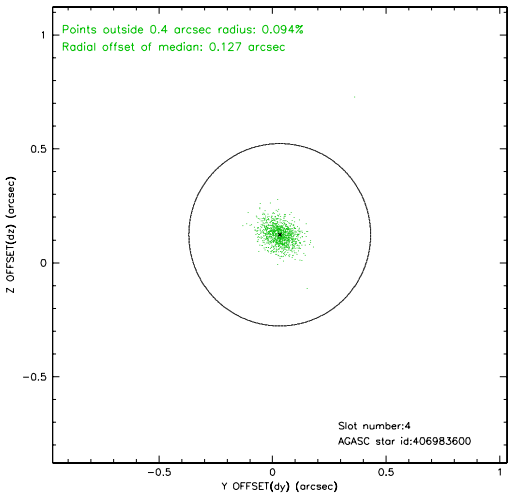


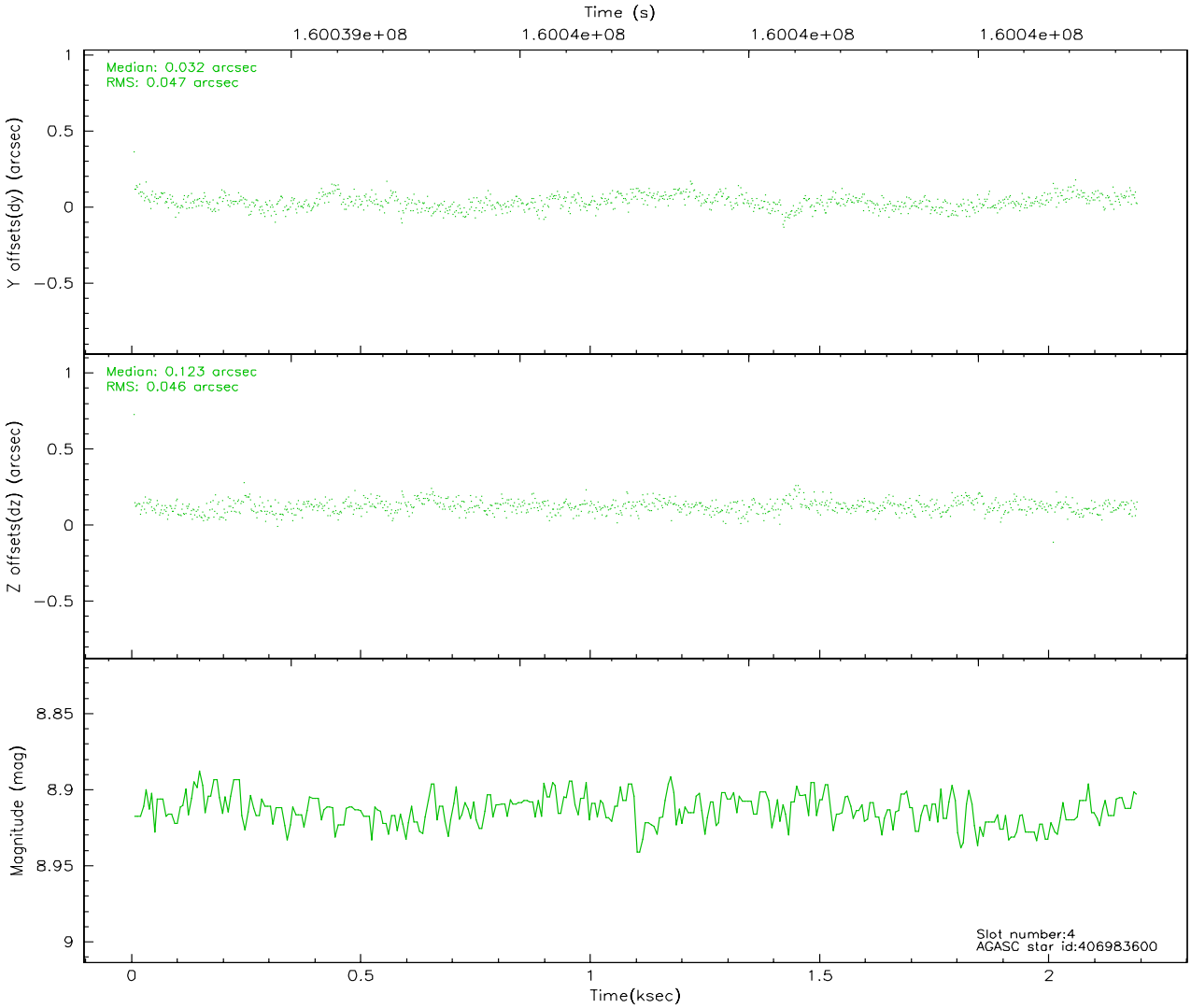




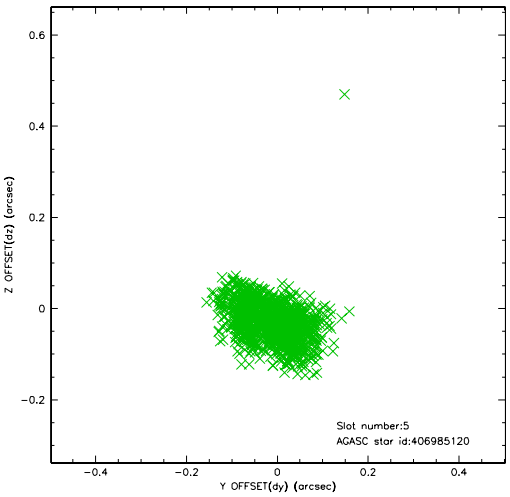
2.4.2 Slot 4

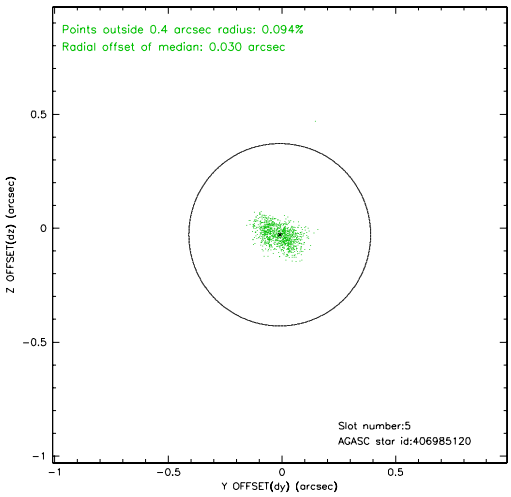

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:4
AGASC star id:406983600

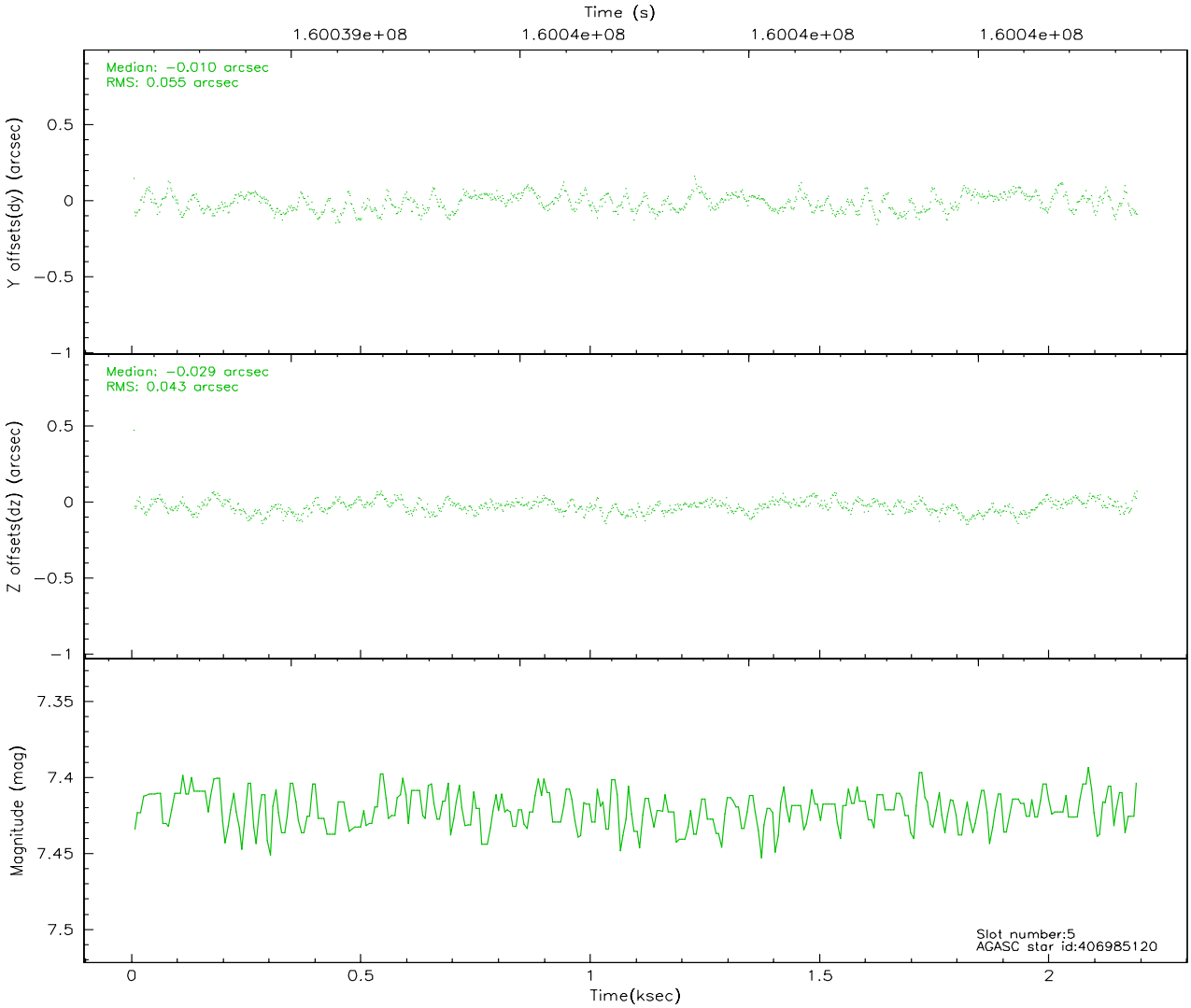

Points outside 0.4 arcsec radius: 0.094%
Radial offset of median: 0.127 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:4
AGASC star id:406983600


Time (s)
1.60039e+08
1.6004e+08
1.6004e+08
1.6004e+08
Median: 0.032 arcsec
RMS: 0.047 arcsec
Y offsets(dy) (arcsec)
Median: 0.123 arcsec
RMS: 0.046 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:4
AGASC star id:406983600
Time(ksec)

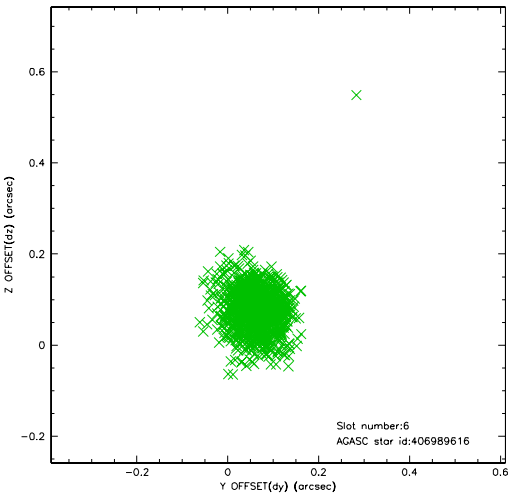
2.4.3 Slot 5

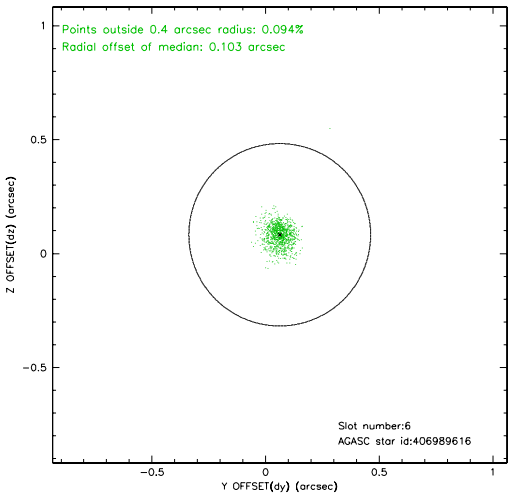

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:5
AGASC star id:406985120

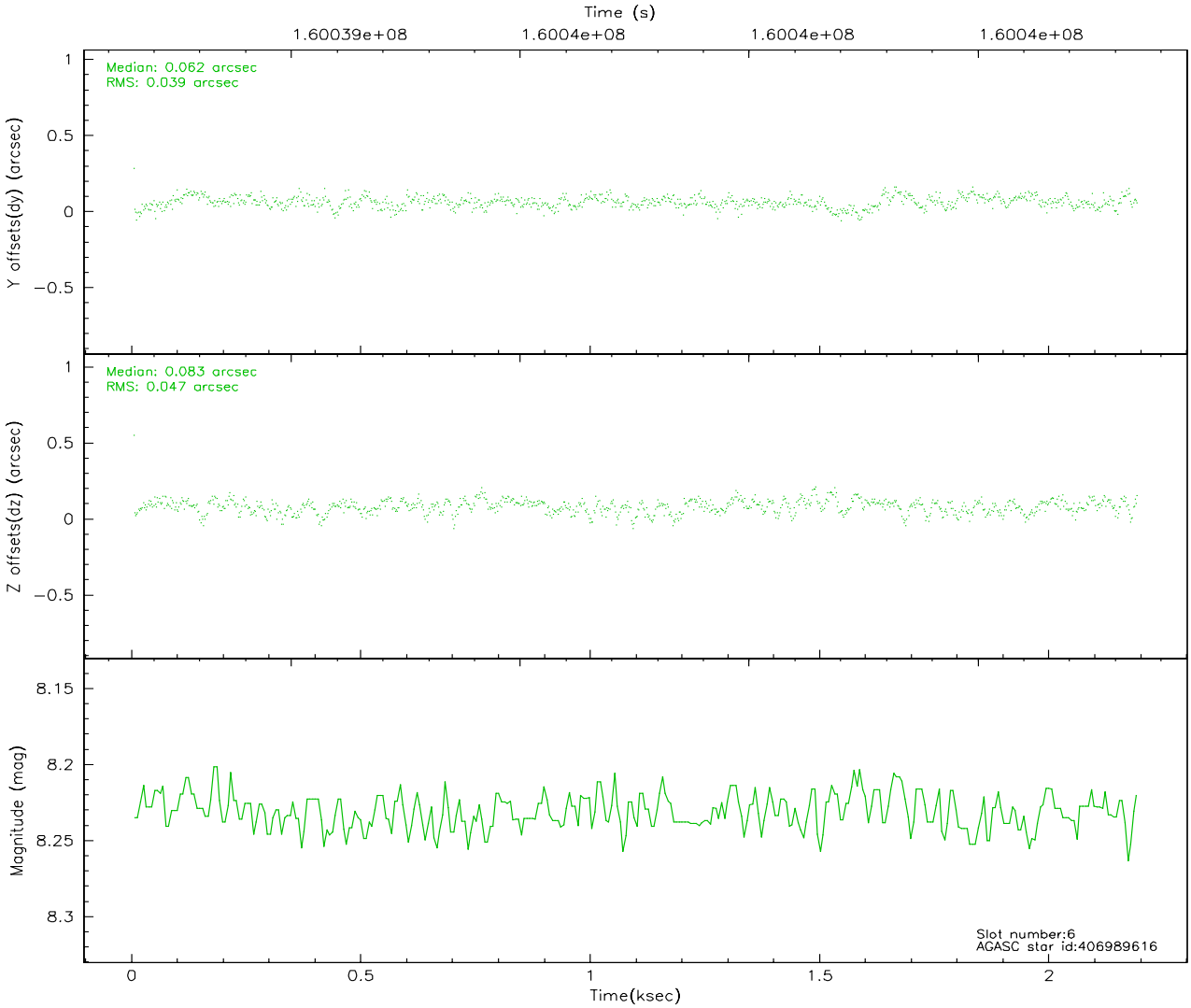

Points outside 0.4 arcsec radius: 0.094%
Radial offset of median: 0.030 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:5
AGASC star id:406985120


Time (s)
1.60039e+08
1.6004e+08
1.6004e+08
1.6004e+08
Median: −0.010 arcsec
RMS: 0.055 arcsec
Y offsets(dy) (arcsec)
Median: −0.029 arcsec
RMS: 0.043 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:5
AGASC star id:406985120
Time(ksec)

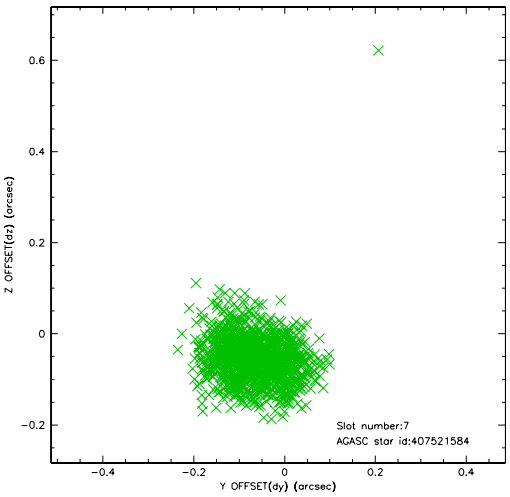
2.4.4 Slot 6

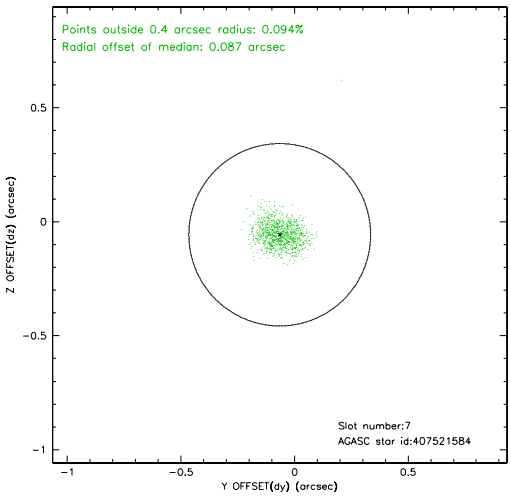

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:6
AGASC star id:406989616

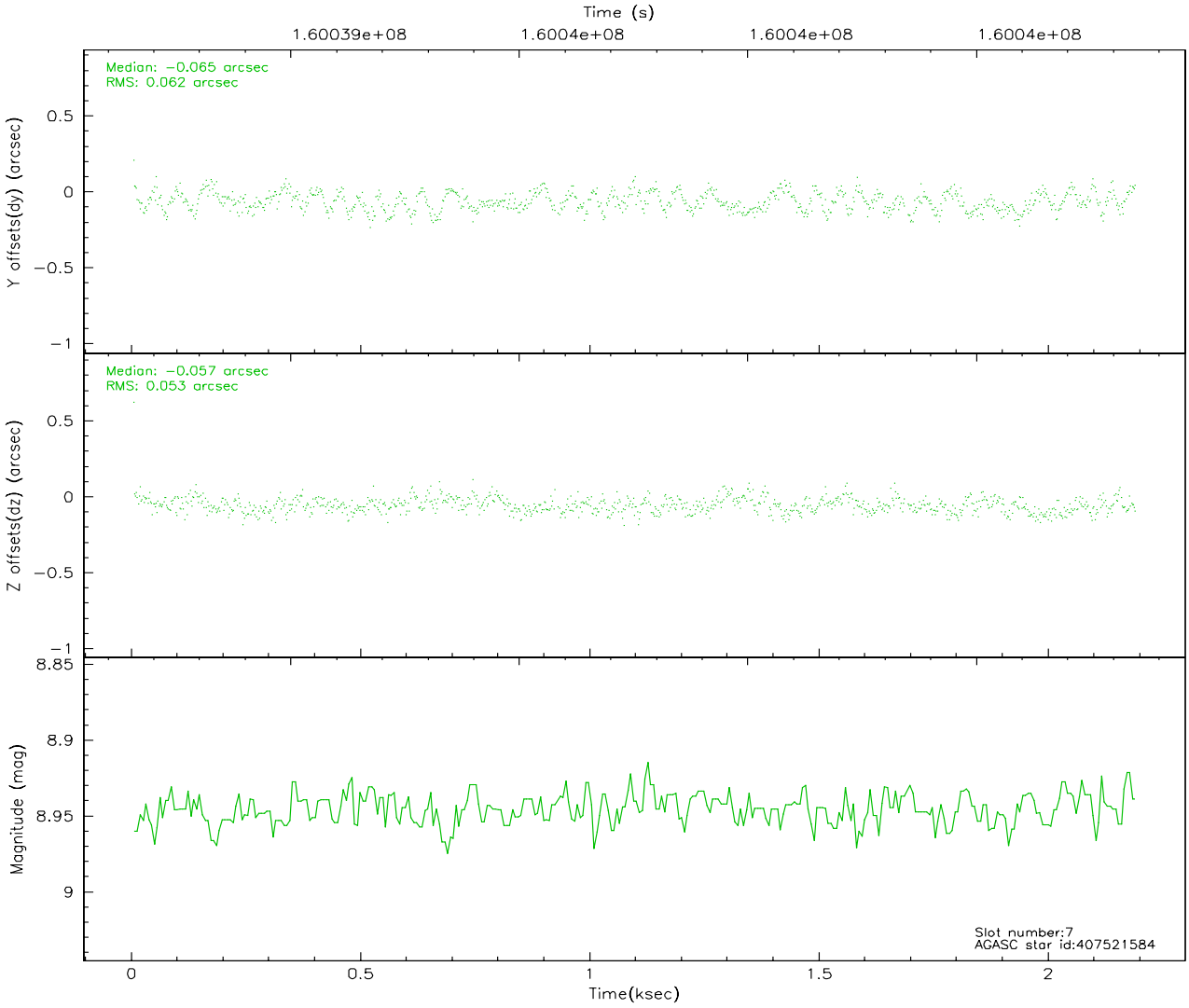

Points outside 0.4 arcsec radius: 0.094%
Radial offset of median: 0.103 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:6
AGASC star id:406989616


Time (s)
1.60039e+08
1.6004e+08
1.6004e+08
1.6004e+08
Median: 0.062 arcsec
RMS: 0.039 arcsec
Y offsets(dy) (arcsec)
Median: 0.083 arcsec
RMS: 0.047 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:6
AGASC star id:406989616
Time(ksec)

2.4.5 Slot 7

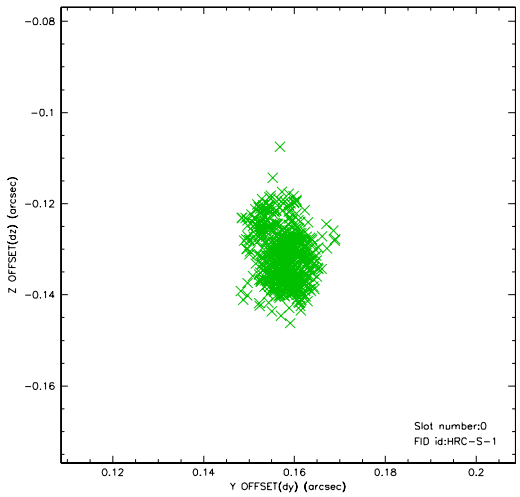

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:7
AGASC star id:407521584

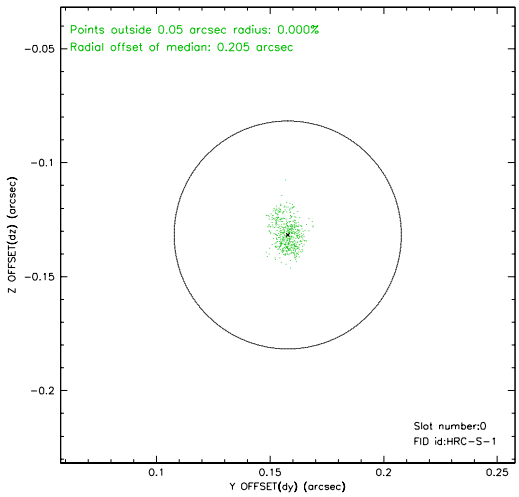

Points outside 0.4 arcsec radius: 0.094%
Radial offset of median: 0.087 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:7
AGASC star id:407521584

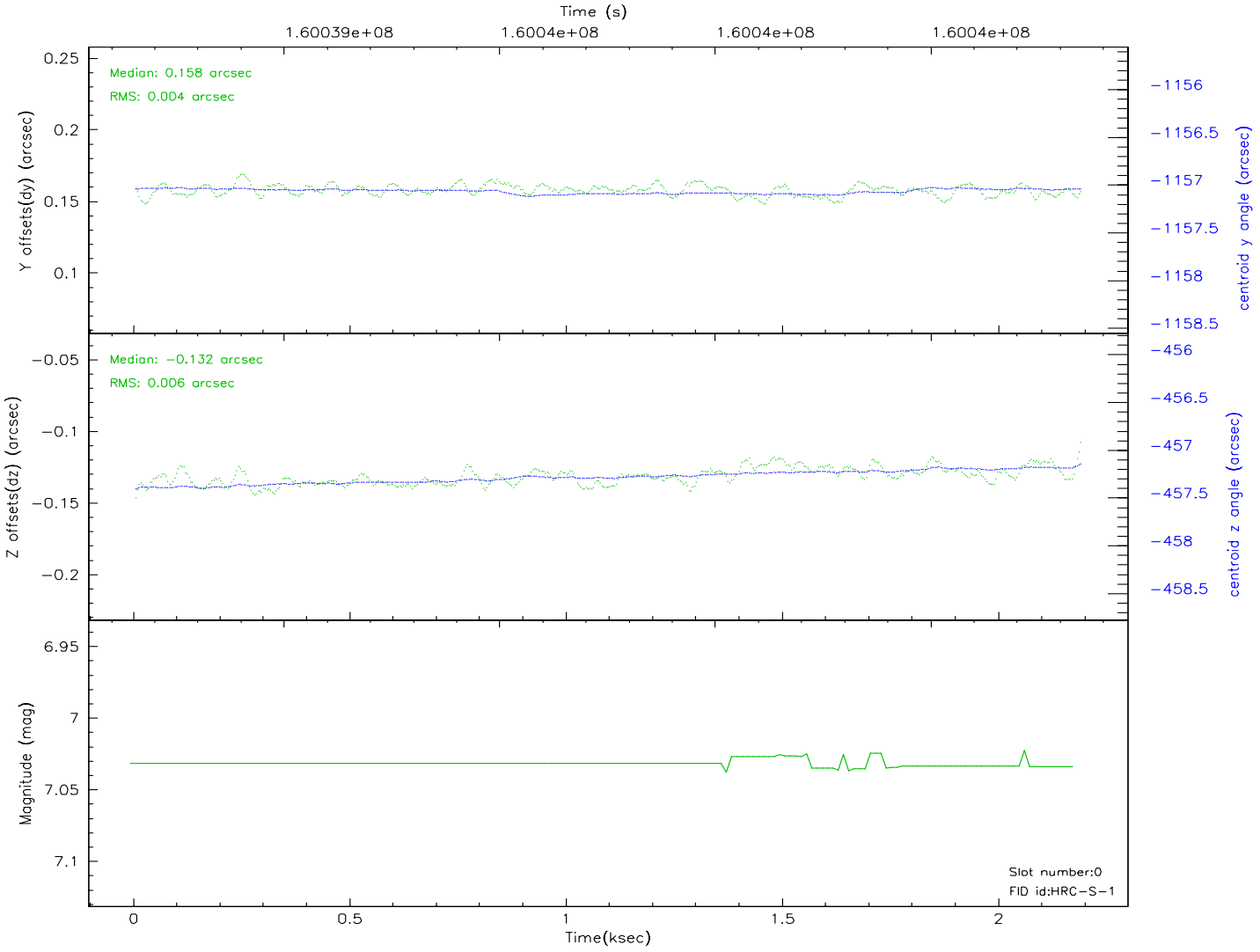

Time (s)
1.60039e+08
1.6004e+08
1.6004e+08
1.6004e+08
Median: −0.065 arcsec
RMS: 0.062 arcsec
Y offsets(dy) (arcsec)
Median: −0.057 arcsec
RMS: 0.053 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:7
AGASC star id:407521584
Time(ksec)

2.5 FID Slots

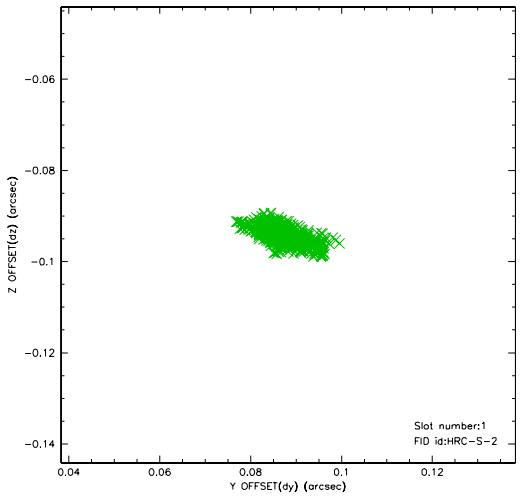
2.5.1 Slot 0

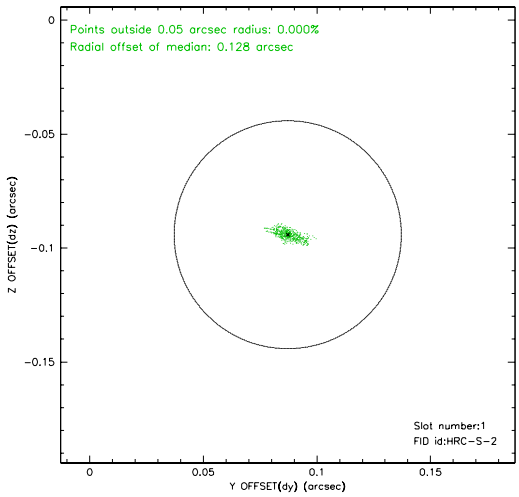


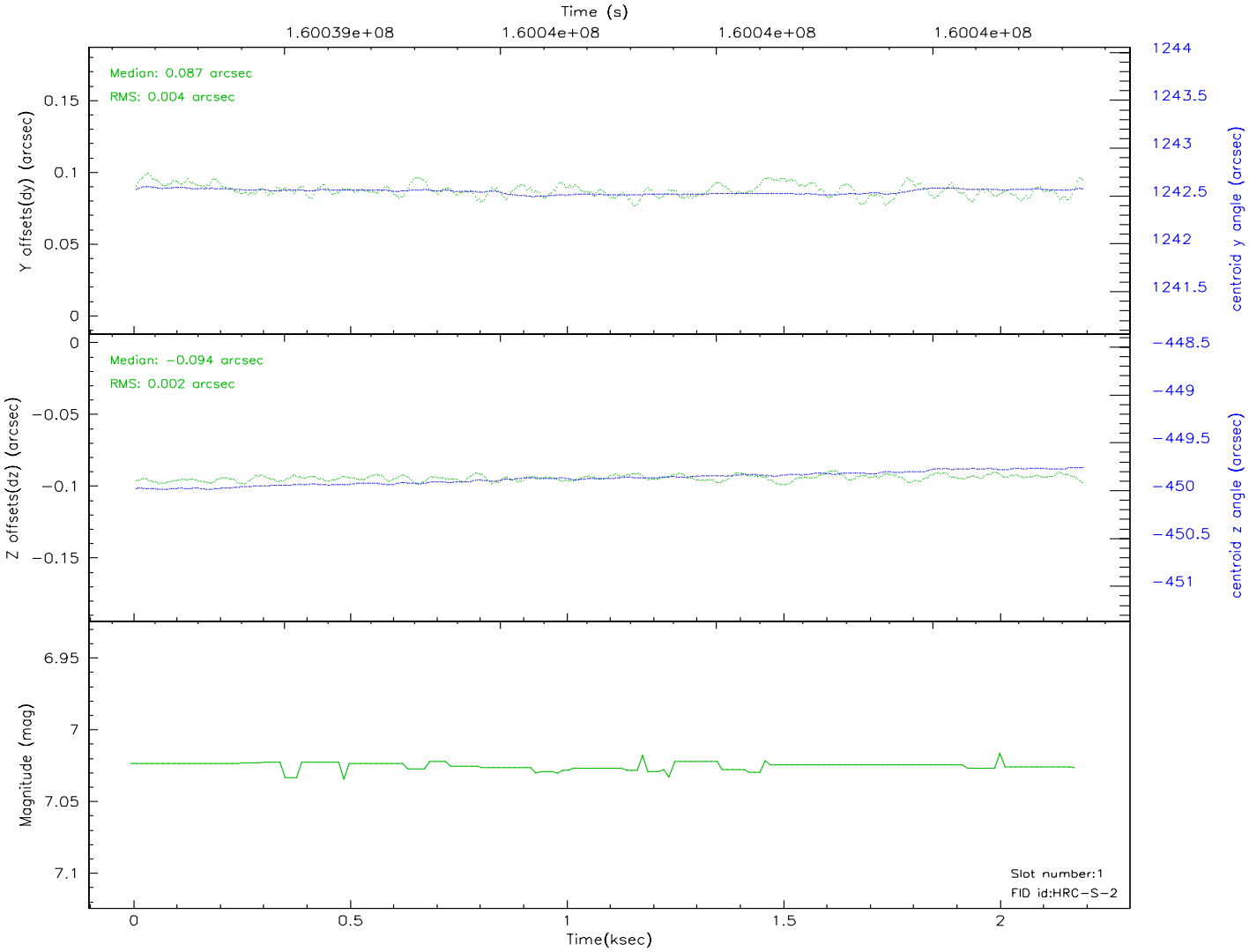




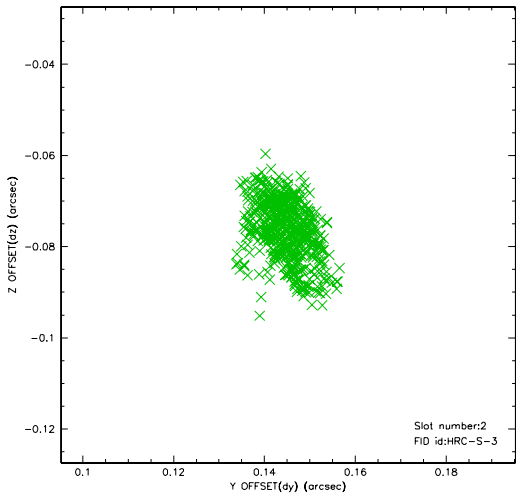
2.5.2 Slot 1

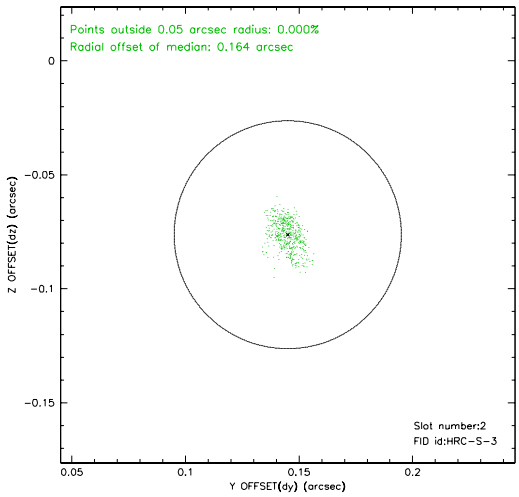

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:1
FID id:HRC-S-2

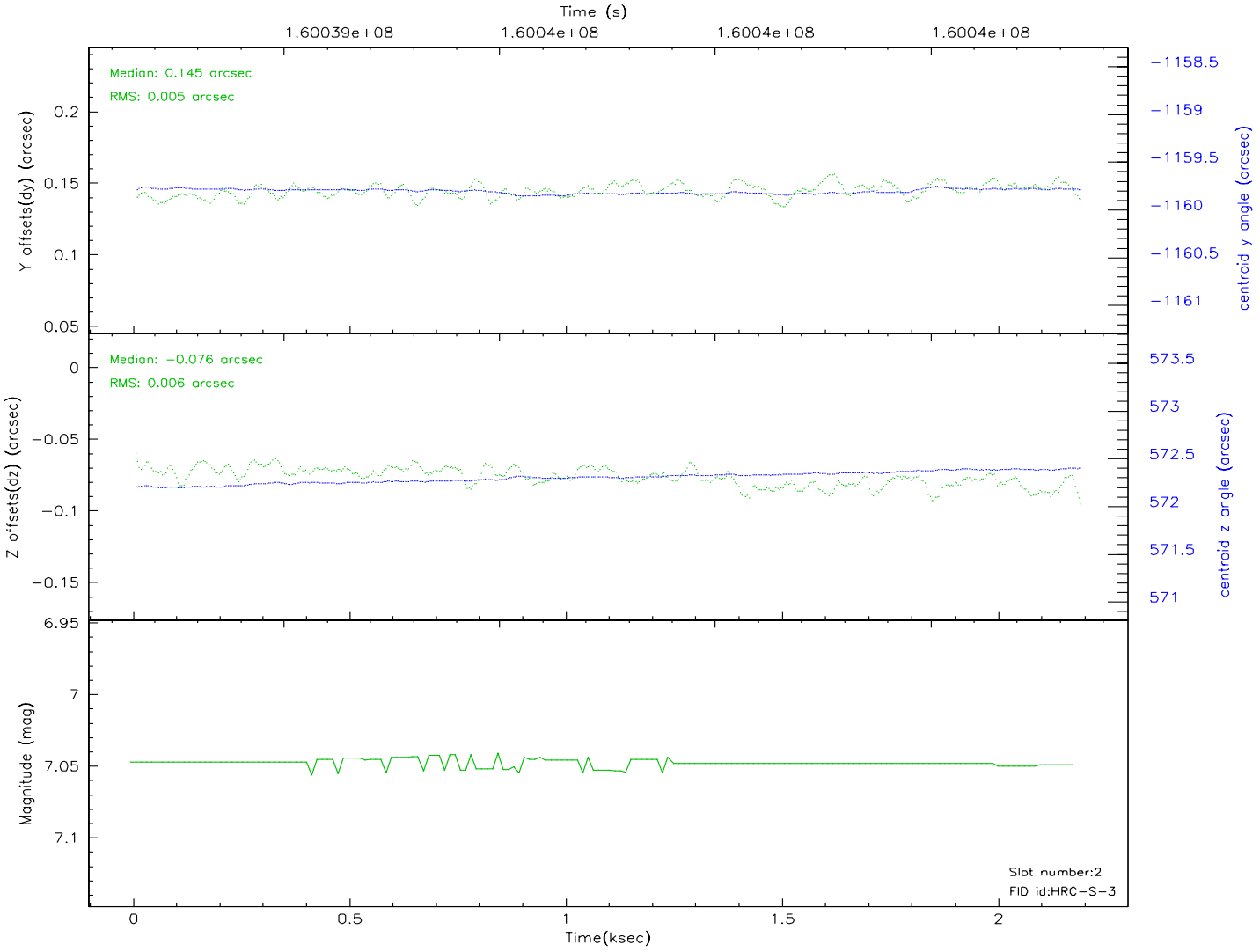

Points outside 0.05 arcsec radius: 0.000%
Radial offset of median: 0.128 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:1
FID id:HRC-S-2


Time (s)
1.60039e+08
1.6004e+08
1.6004e+08
1.6004e+08
Median: 0.087 arcsec
RMS: 0.004 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: 0.164 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:2
FID id:HRC-S-3


Time (s)
1.60039e+08
1.6004e+08
1.6004e+08
1.6004e+08
Median: 0.145 arcsec
RMS: 0.005 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: −0.076 arcsec
RMS: 0.006 arcsec
Z offsets(dz) (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	Jen Lauer
V&V Date (YYYY-MM-DD)	2006.07.19
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	2.143

A.2 Comments

```
Window constraint met.

The detector is far off-axis. The source is also very near the edge of
the chip. Internal reflections from the telescope also fall onto the
chip.
```