V&V Reference Report
L2 ASCDS Version : 7.6.9

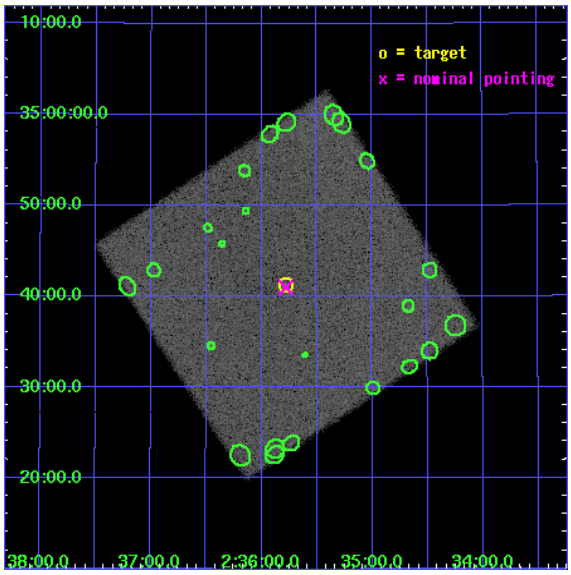
Observation 1870 - L2 Version 5
Chandra X-Ray Center

L2 Processing Date : Nov 21 2007

Contents

1 Front

seq_num	200098
obs_id	1870
title	INTRINSIC X-RAY EMISSION FROM M-TYPE GIANTS
observer	Dr Matthias Huensch
object	HR 750
ra_targ	38.945833
dec_targ	34.687778
ra_nom	38.944827097907
dec_nom	34.68339076168
roll_nom	281.84021841727
revision	5
ontime	2893.8313611597
livetime	2867.5123309707
l2events	219929

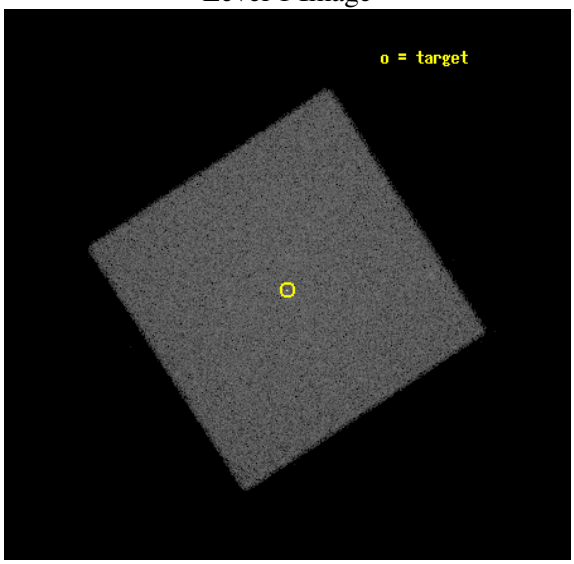


2 OBI

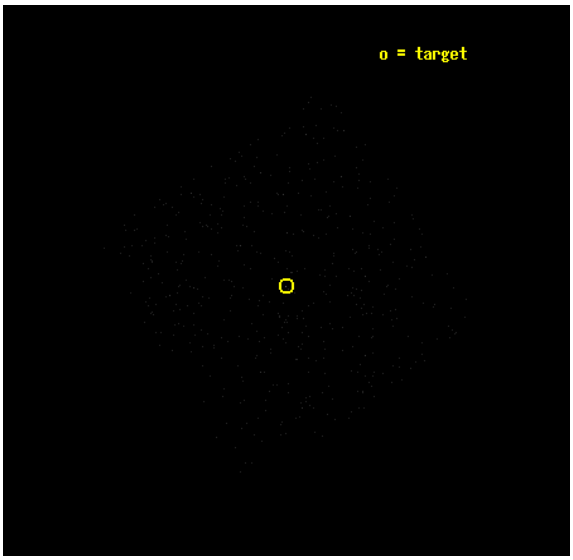
2.1 OBI

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	2007-11-21T07:48:54
revision	4

sched_exp_time	3000.000000
ontime	2893.8313611597
l1events	347982

2.1.3 Events

Level 1 Events

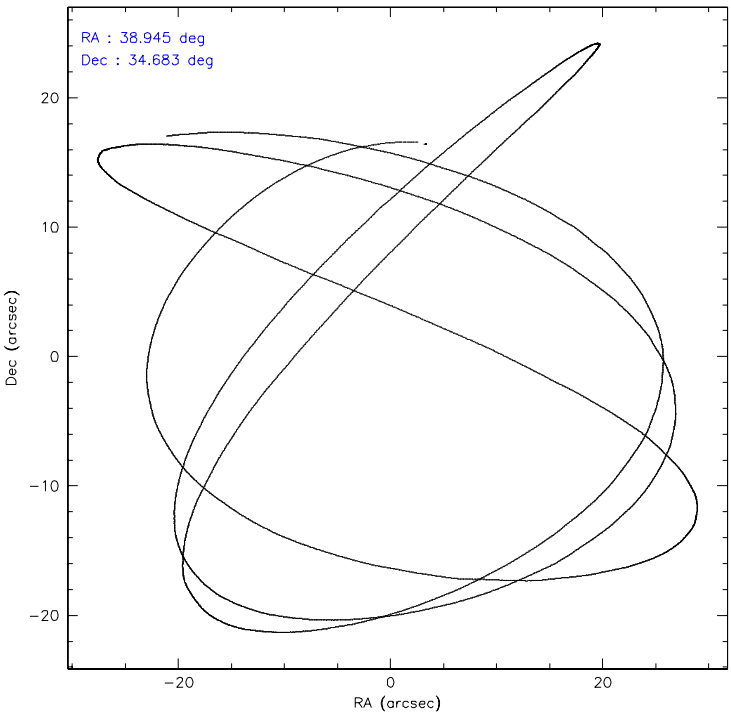
	segment 0
level 1 events	347982
rejected events	54634
rejected %	15%

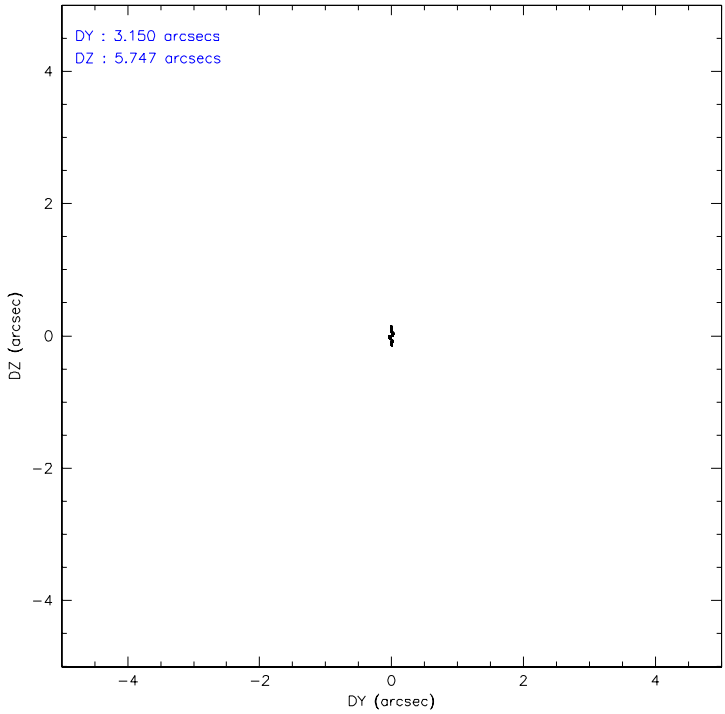
2.2 Compared Parameters

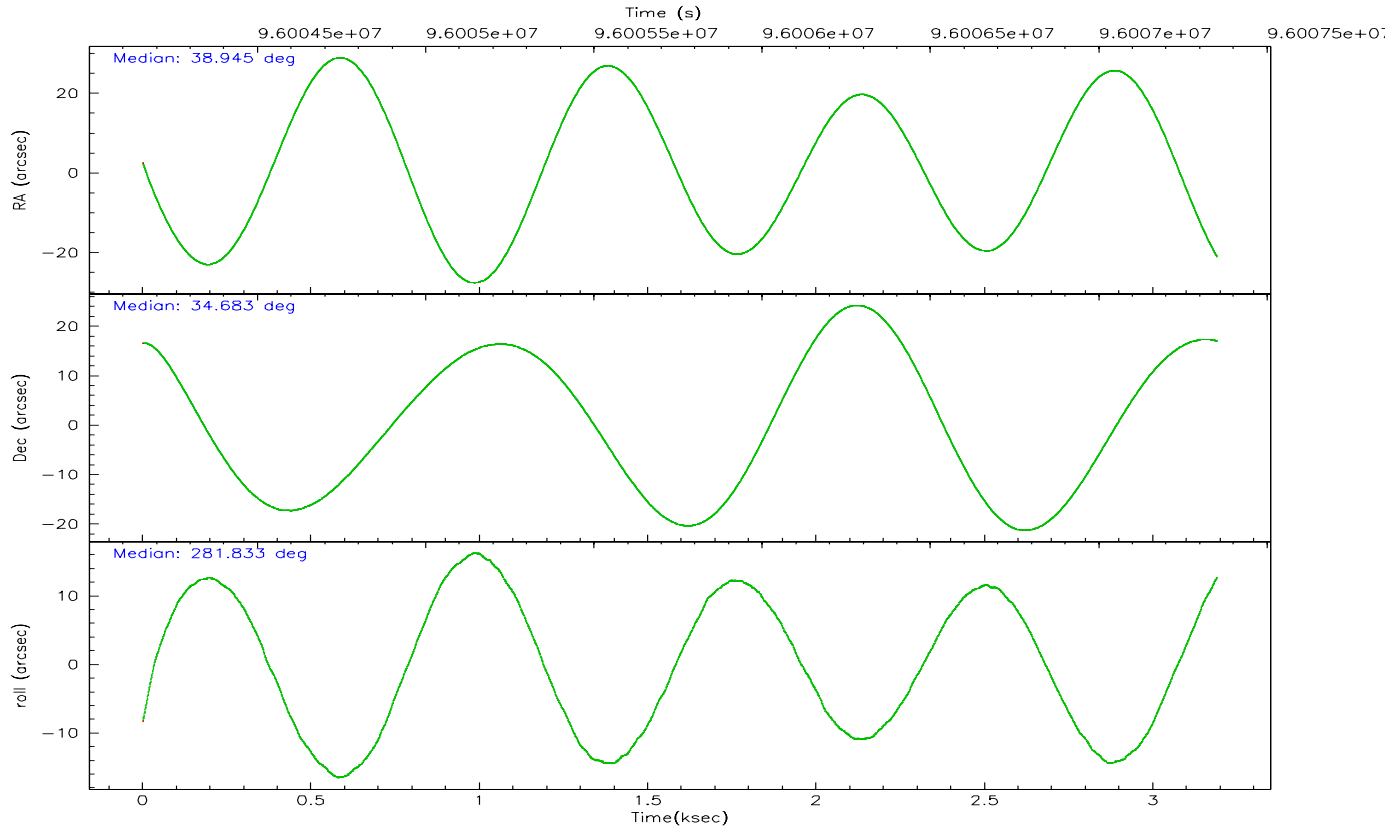
Parameter	Planned	Actual
Instrument	HRC	HRC
Detector	HRC-I	HRC-I
Grating	NONE	NONE
Data mode	OBSERVING	OBSERVING
Observation mode	POINTING	POINTING
Pointing RA	38.922323	38.94482709790705
Pointing Dec	34.703452	34.68339076167991
Pointing Roll	281.948513	281.8402184172677
SIM focus pos (mm)	-1.040293	-1.038866356238299
SIM defocus (mm)	0	0.00142626442057514 1
SIM translation stage pos (mm)	126.985494	126.9854943052878
SIM translation stage offset (mm)	0	-5.413686238853188e-06
Observation start time	96004351.184000	96003793.176498
Observation start date	2001-01-16T03:51:27	2001-01-16T03:43:13
Observation end time	96007351.184000	96007949.039157
Observation end date	2001-01-16T04:41:27	2001-01-16T04:52:29

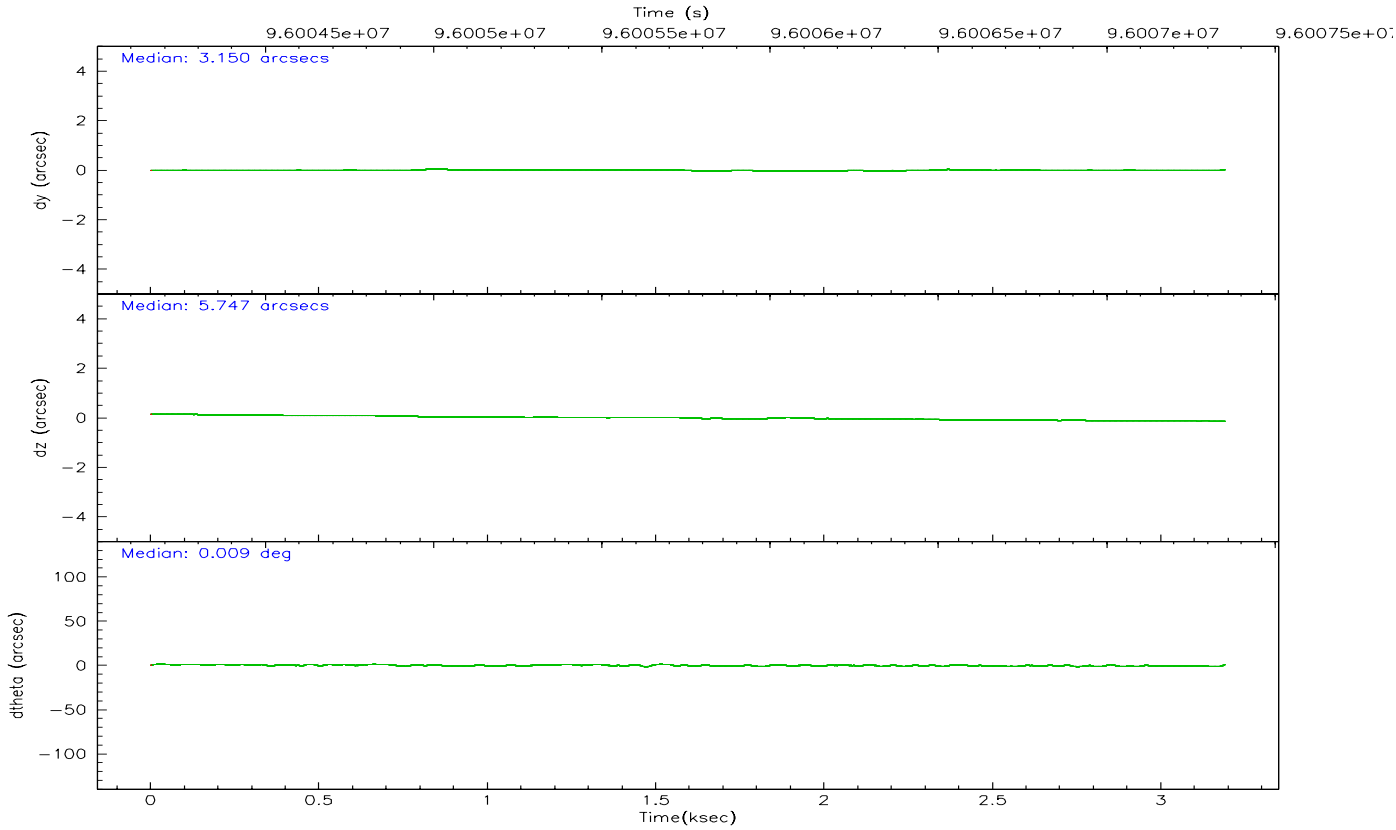
Parameter	Planned	Actual
Obspar format version number	6	6
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED

2.3 Aspect


RA : 38.945 deg
Dec : 34.683 deg
20
10
0
−10
−20
Dec (arcsec)
−20
0
20
RA (arcsec)


DY : 3.150 arcsecs
DZ : 5.747 arcsecs
4
2
0
−2
−4
DZ (arcsec)
−4
−2
0
2
4
DY (arcsec)


Time (s)
9.60045e+07
9.6005e+07
9.60055e+07
9.6006e+07
9.60065e+07
9.6007e+07
9.60075e+07
Median: 38.945 deg
RA (arcsec)
Median: 34.683 deg
Dec (arcsec)
Median: 281.833 deg
roll (arcsec)
Time(ksec)

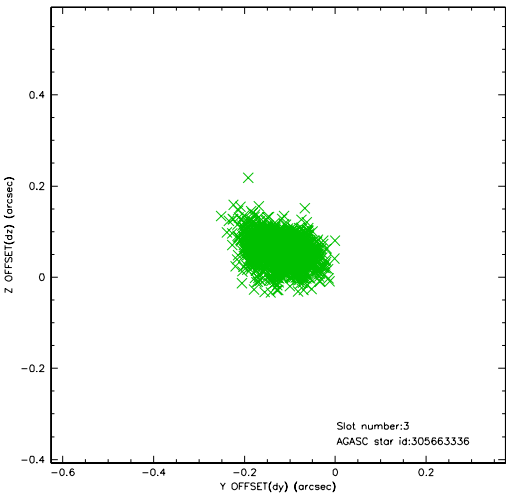

Time (s)
9.60045e+07
9.6005e+07
9.60055e+07
9.6006e+07
9.60065e+07
9.6007e+07
9.60075e+07
Median: 3.150 arcsecs
dy (arcsec)
Median: 5.747 arcsecs
dz (arcsec)
Median: 0.009 deg
dtheta (arcsec)
Time(ksec)

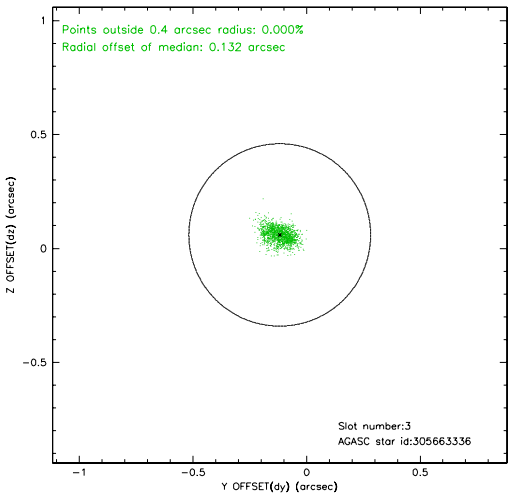
Slot Statistics

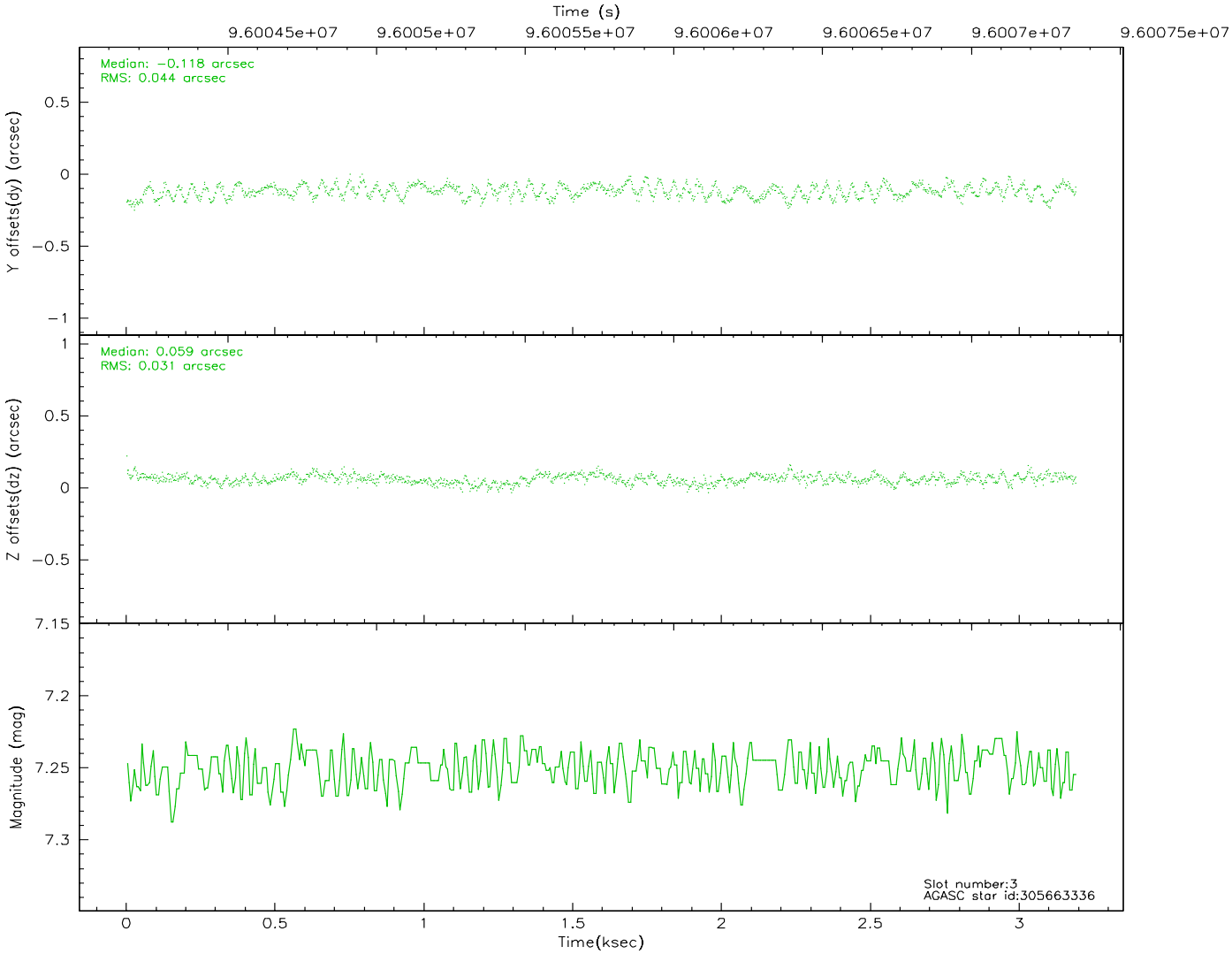
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	HRC-I-1	6.94	779	0.045	0.048	0.006	0.010	0.000000	0.000000	-758.58	-1293.55
1	FID	HRC-I-3	7.03	779	0.036	-0.087	0.007	0.012	0.000000	0.000000	-1188.05	1009.22
2	FID	HRC-I-4	6.98	779	0.034	-0.051	0.005	0.009	0.000000	0.000000	1282.67	1009.81
3	GUIDE	305663336	7.25	1557	-0.118	0.059	0.057	0.091	39.460811	35.160789	-1288.50	1891.34
4	GUIDE	305667080	7.78	1557	-0.181	0.041	0.061	0.095	38.573646	35.150111	-1789.64	-670.64
5	GUIDE	305674744	7.82	1557	0.158	-0.063	0.064	0.105	38.679832	34.084194	2028.28	-1169.77
6	GUIDE	305668336	8.12	1557	0.063	-0.127	0.061	0.101	38.428089	34.341356	967.88	-1708.01
7	GUIDE	305661824	8.18	1556	0.084	0.096	0.066	0.101	39.662786	34.343107	1716.03	1884.79

2.4 Star Slots

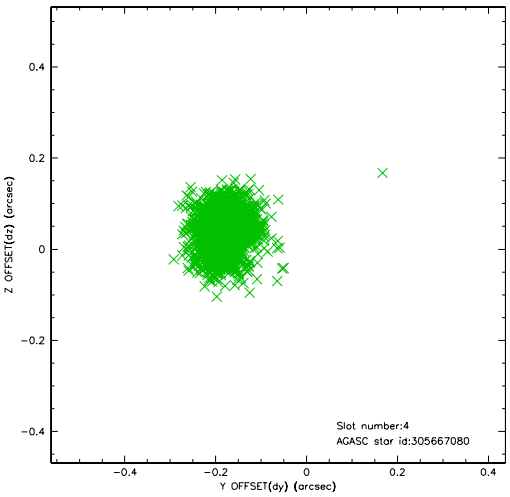
2.4.1 Slot 3

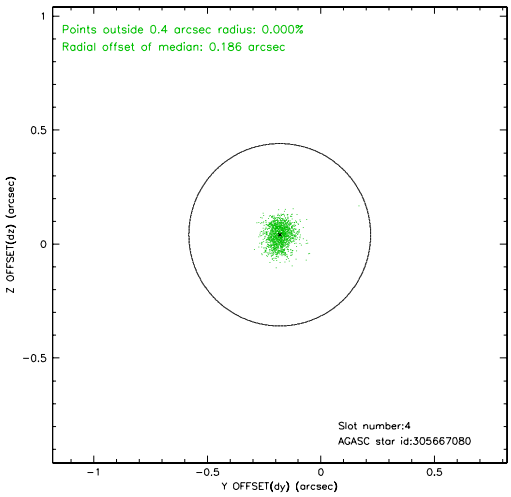


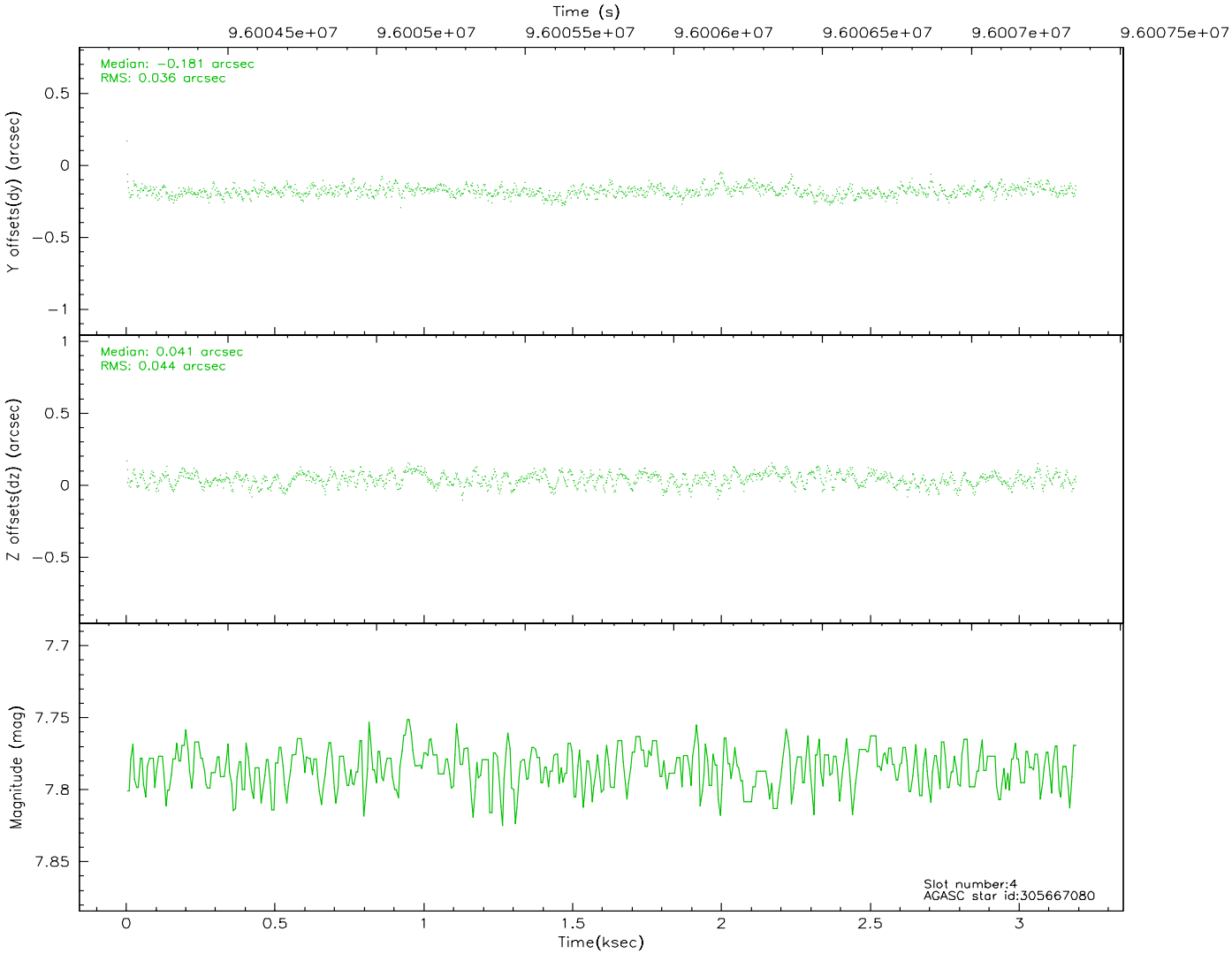




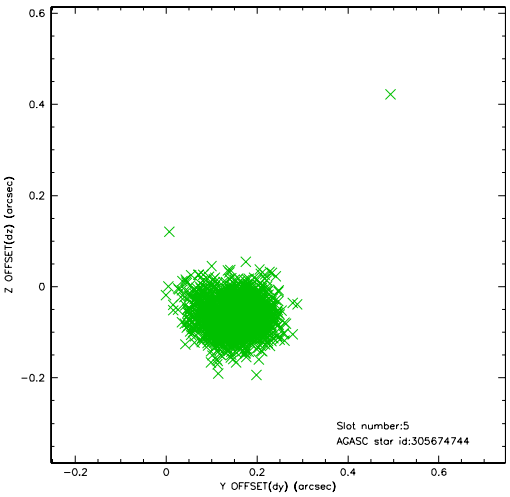
2.4.2 Slot 4

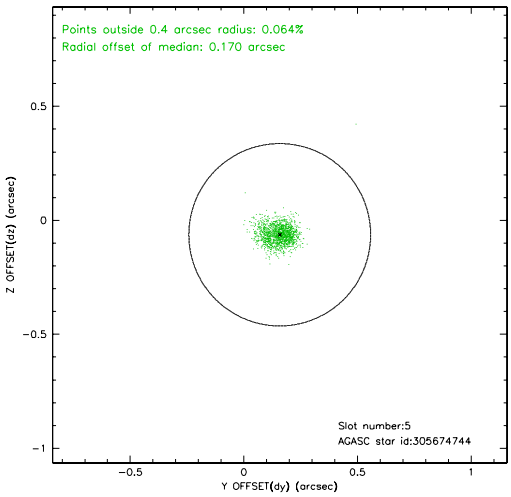

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:4
AGASC star id:305667080

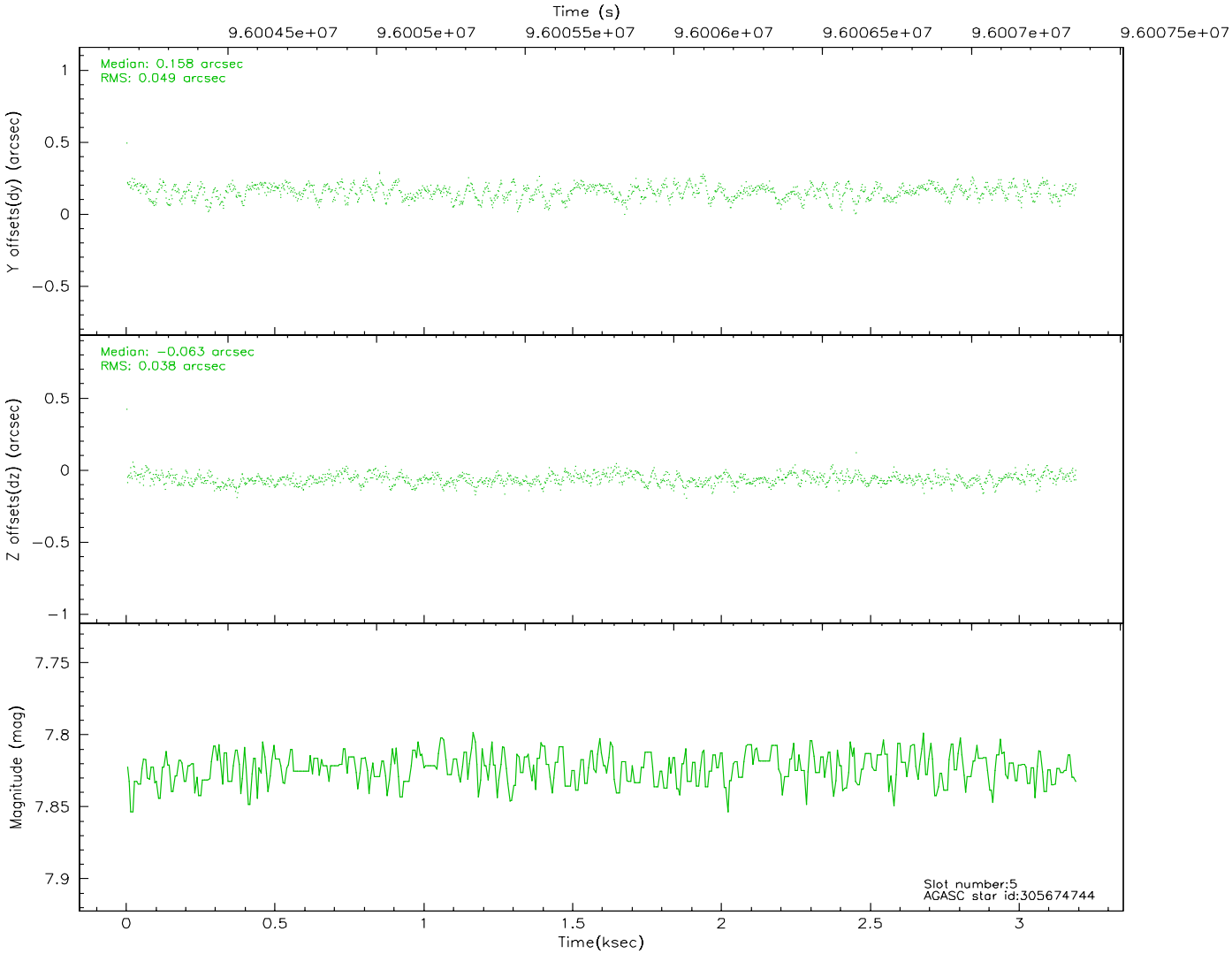

Points outside 0.4 arcsec radius: 0.000%
Radial offset of median: 0.186 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:4
AGASC star id:305667080


Time (s)
9.60045e+07
9.6005e+07
9.60055e+07
9.6006e+07
9.60065e+07
9.6007e+07
9.60075e+07
Median: −0.181 arcsec
RMS: 0.036 arcsec
Y offsets(dy) (arcsec)
Median: 0.041 arcsec
RMS: 0.044 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:4
AGASC star id:305667080
Time(ksec)

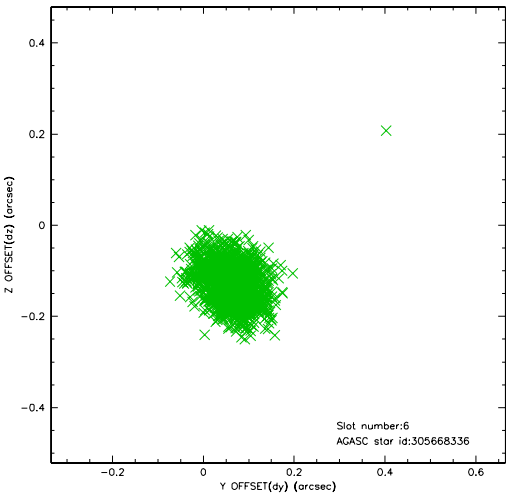
2.4.3 Slot 5

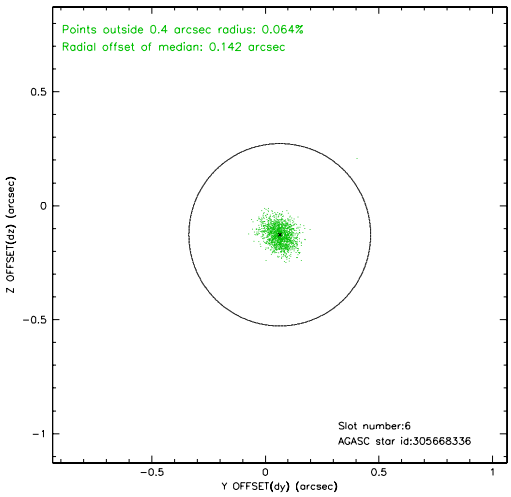

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:5
AGASC star id:305674744

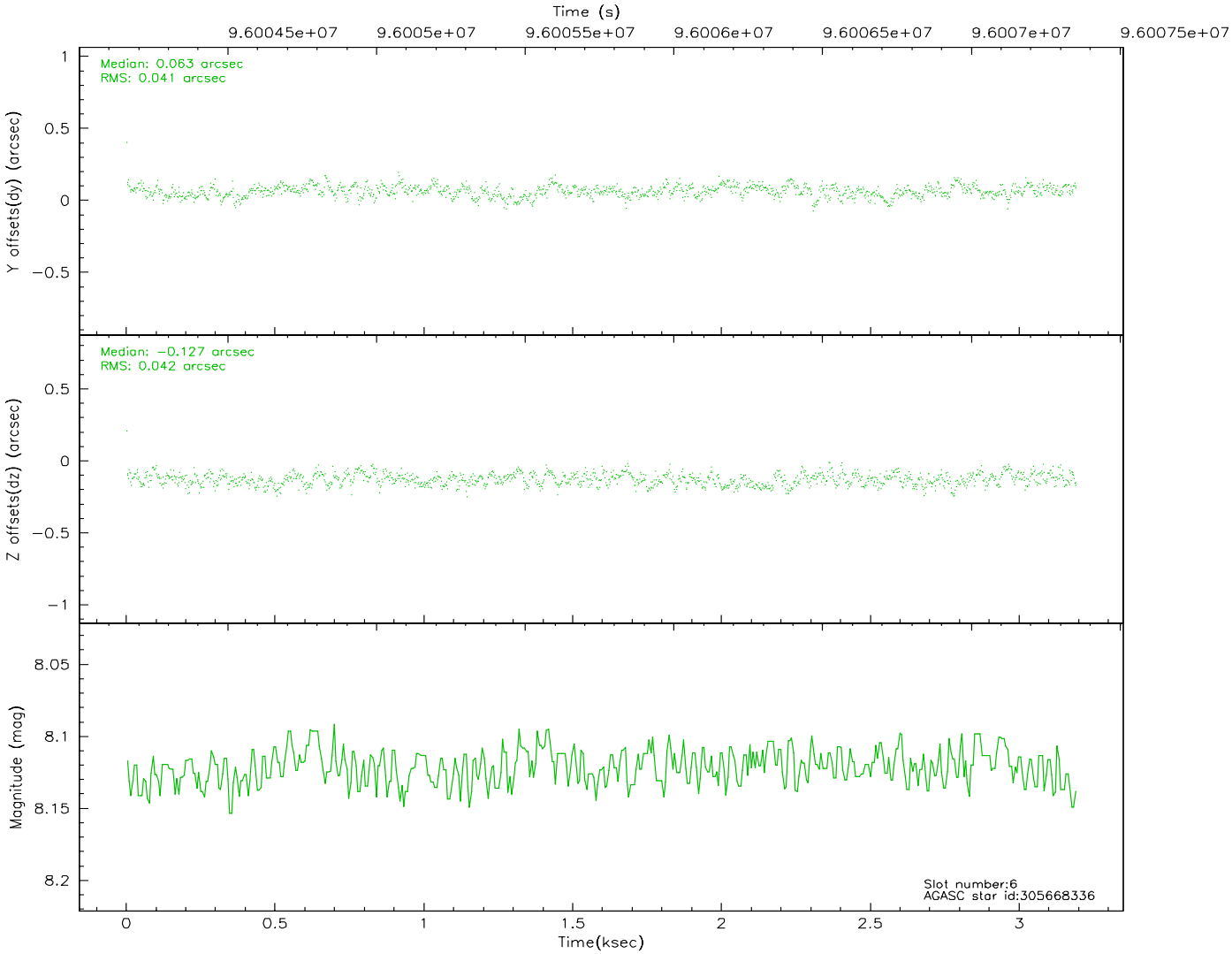

Points outside 0.4 arcsec radius: 0.064%
Radial offset of median: 0.170 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:5
AGASC star id:305674744


Time (s)
Median: 0.158 arcsec
RMS: 0.049 arcsec
Y offsets(dy) (arcsec)
Median: −0.063 arcsec
RMS: 0.038 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:5
AGASC star id:305674744
Time(ksec)

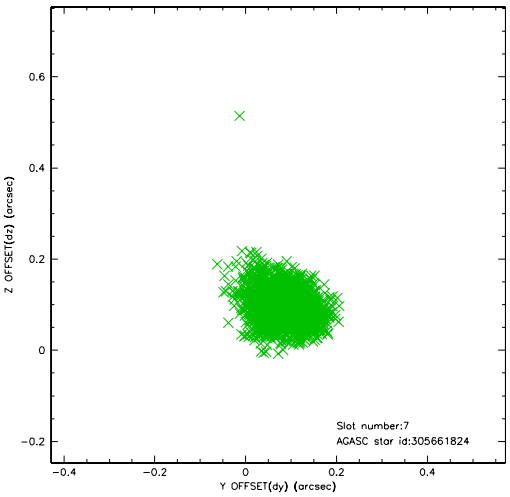
2.4.4 Slot 6

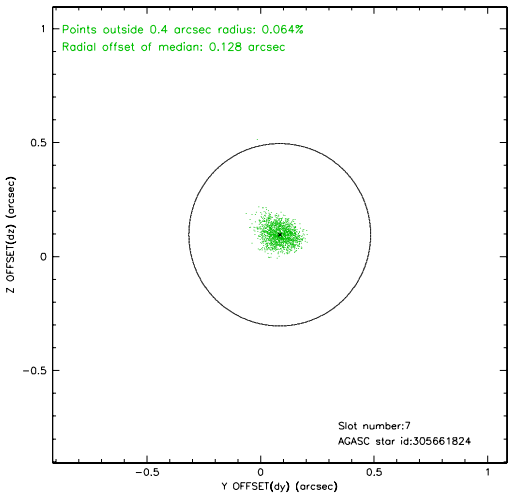

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:6
AGASC star id:305668336

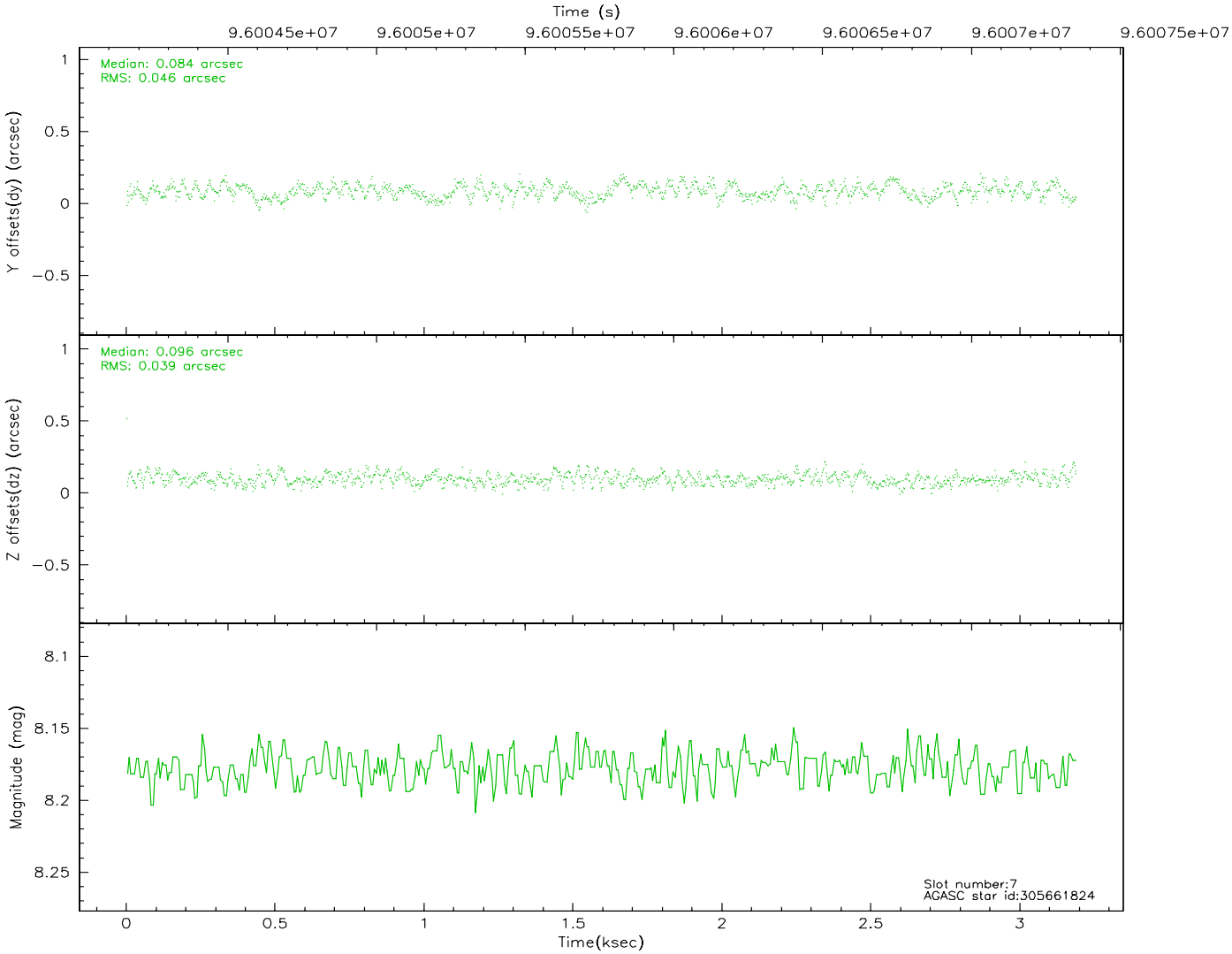

Points outside 0.4 arcsec radius: 0.064%
Radial offset of median: 0.142 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:6
AGASC star id:305668336


Time (s)
9.60045e+07
9.6005e+07
9.60055e+07
9.6006e+07
9.60065e+07
9.6007e+07
9.60075e+07
Median: 0.063 arcsec
RMS: 0.041 arcsec
Y offsets(dy) (arcsec)
Median: −0.127 arcsec
RMS: 0.042 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:6
AGASC star id:305668336
Time(ksec)

2.4.5 Slot 7

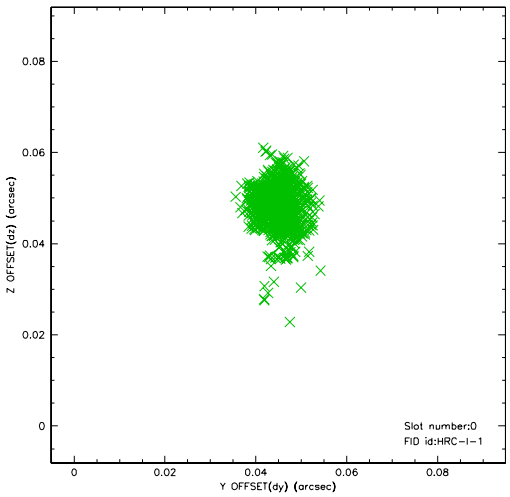

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:7
AGASC star id:305661824

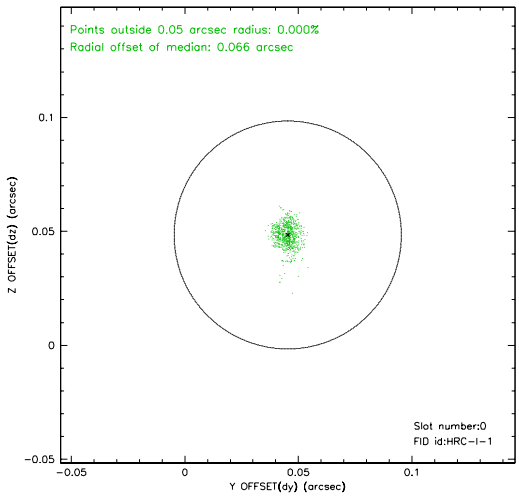

Points outside 0.4 arcsec radius: 0.064%
Radial offset of median: 0.128 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:7
AGASC star id:305661824

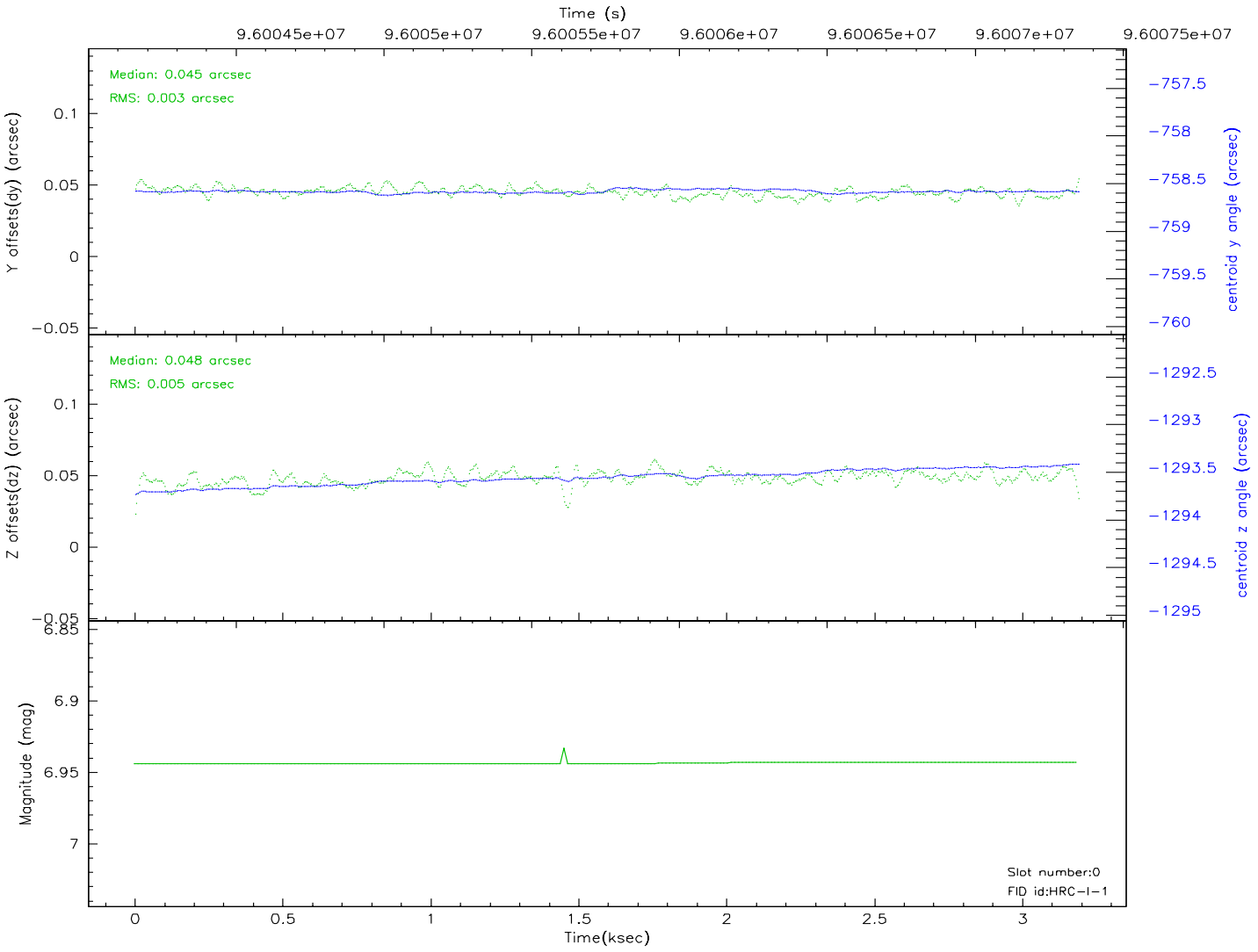

Time (s)
9.60045e+07
9.6005e+07
9.60055e+07
9.6006e+07
9.60065e+07
9.6007e+07
9.60075e+07
Median: 0.084 arcsec
RMS: 0.046 arcsec
Y offsets(dy) (arcsec)
Median: 0.096 arcsec
RMS: 0.039 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number:7
AGASC star id:305661824
Time(ksec)

2.5 FID Slots

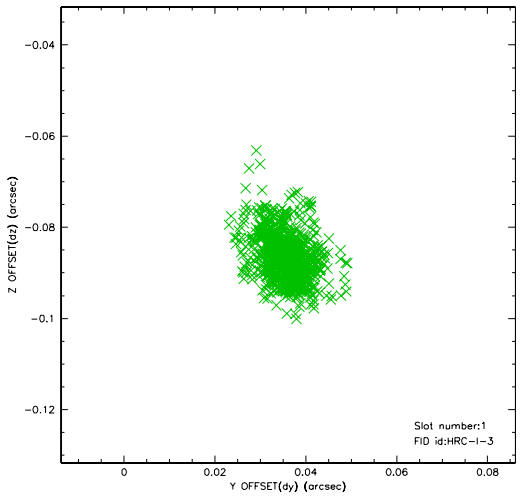
2.5.1 Slot 0

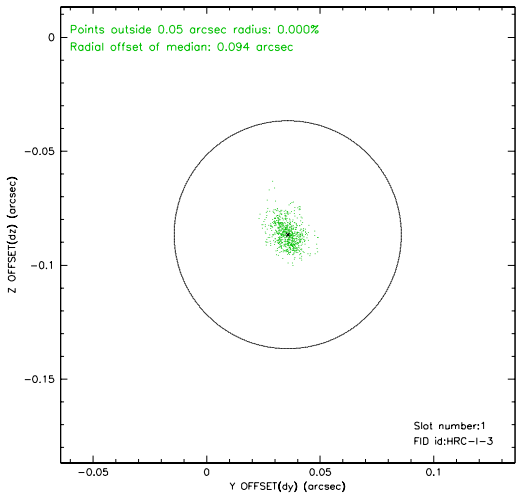


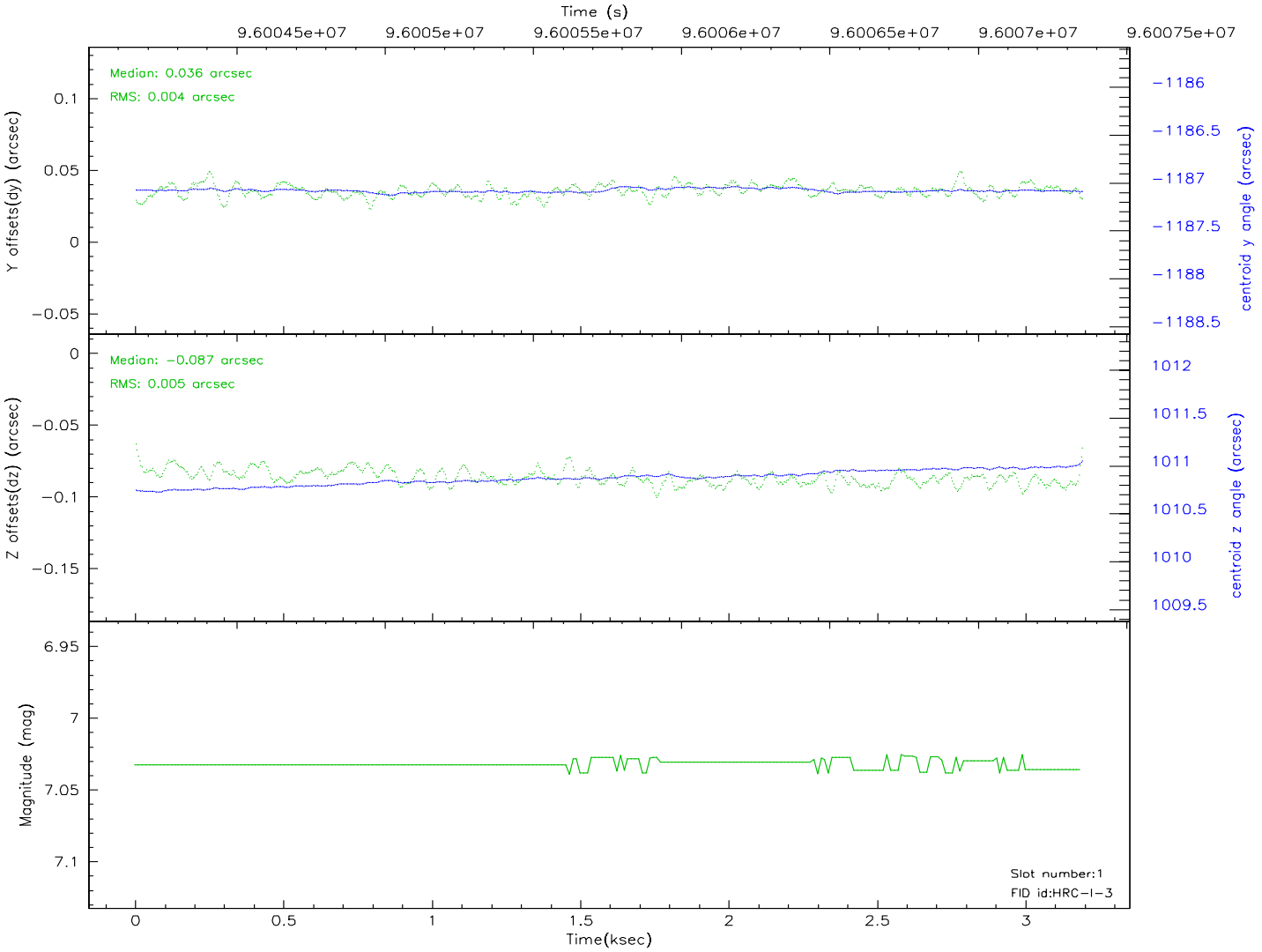




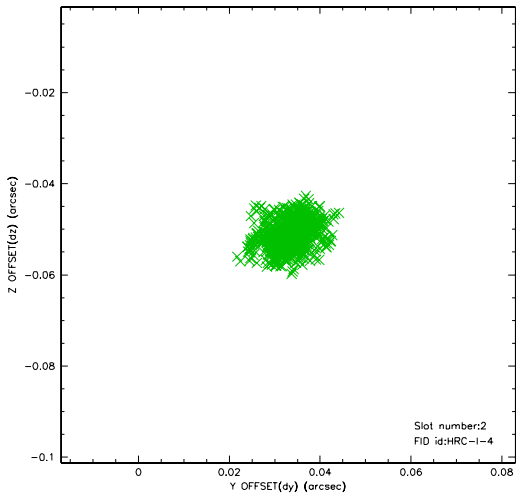
2.5.2 Slot 1

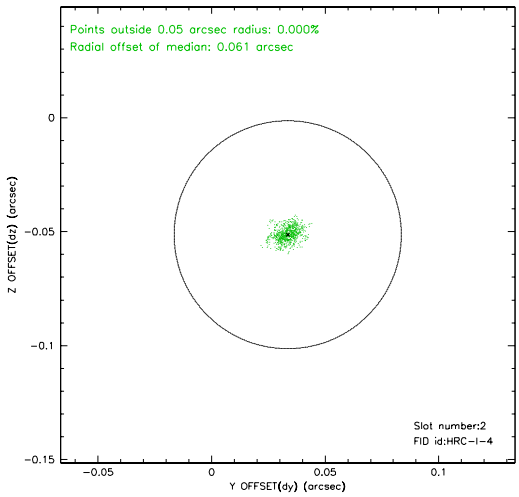

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:1
FID id:HRC-I-3

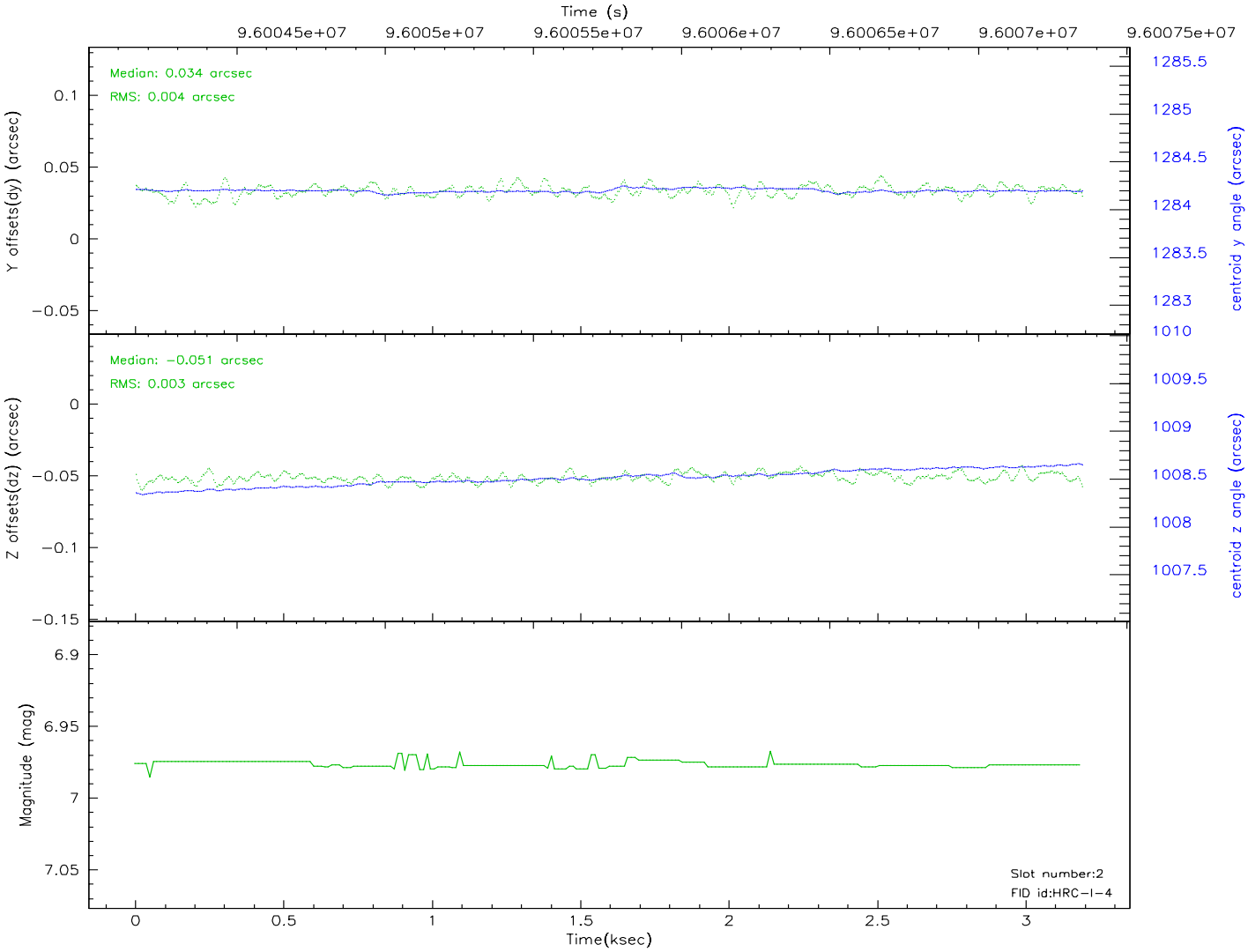

Points outside 0.05 arcsec radius: 0.000%
Radial offset of median: 0.094 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number:1
FID id:HRC-I-3


Time (s)
Median: 0.036 arcsec
RMS: 0.004 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: −0.087 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)

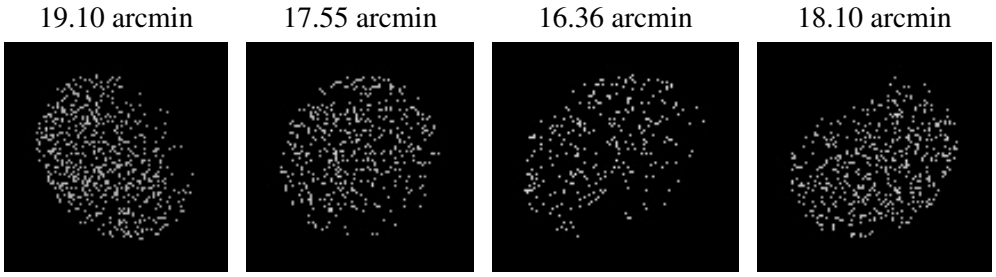
2.5.3 Slot 2


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


Time (s)
Median: 0.034 arcsec
RMS: 0.004 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: −0.051 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



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2007.12.04
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	2.893

A.2 Comments

```
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.
```