V&V Reference Report
L2 ASCDS Version : 7.6.8

Observation 4308 - L2 Version 3
### Chandra X-Ray Center

L2 Processing Date : Nov 22 2007

## Contents

1 Front

seq_num	290268
obs_id	4308
title	AO4 CALIBRATION OBSERVATIONS TO MONITOR SPATIAL VARIATIONS IN THE HRC-I GAIN
observer	Dr. CXC Calibration
object	ARLAC
ra_targ	332.17
dec_targ	45.742306
ra_nom	331.91980498227
dec_nom	45.895126728828
roll_nom	4.239222895179
revision	3
ontime	1179.7750496268
livetime	1173.3694630075
l2events	35507

2 OBI

2.1 OBI

2.1.1 Images
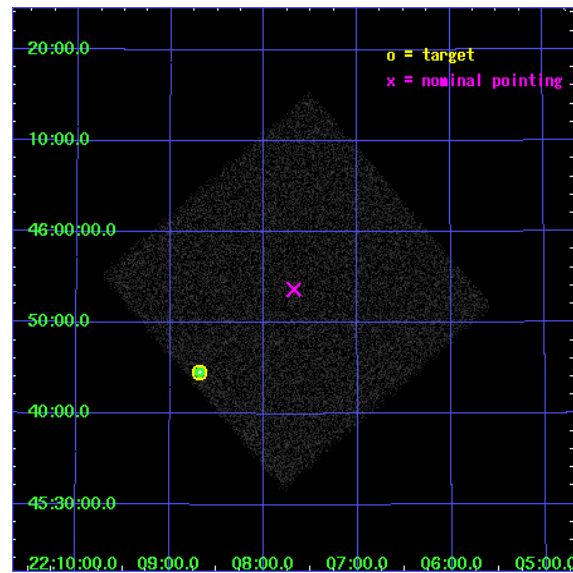
Level 1 Image

Level 1 Bad Events
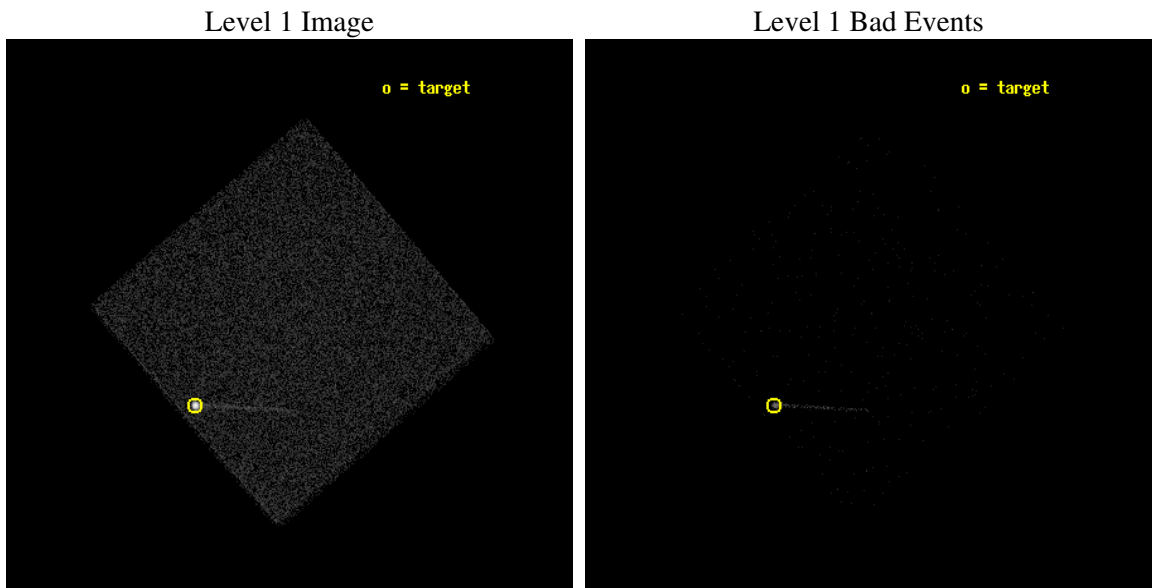
2.1.2 Parameters

obi_num	0
ascdsver	7.6.11.2
caldbver	3.4.1
date	2007-11-22T04:47:57
revision	3

sched_exp_time	1000.000000
ontime	1179.7750496268
l1events	65364

2.1.3 Events

Level 1 Events

	segment 0
level 1 events	65364
rejected events	14348
rejected %	21%

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	331.887819	331.9198049822724
Pointing Dec	45.879081	45.89512672882843
Pointing Roll	4.357696	4.239222895179013
Window start time	161697664.184000	161697664.184000
Window stop time	165412864.184000	165412864.184000
SIM focus pos (mm)	-1.040293	-1.038866356238299
SIM defocus (mm)	0	0.001426264420575141
SIM translation stage pos (mm)	126.985494	126.9854943052878
SIM translation stage offset (mm)	0	-5.413686238853188e-06
Observation start time	162320758.184000	162320381.54568
Observation start date	2003-02-22T17:04:54	2003-02-22T16:59:41
Observation end time	162321758.184000	162321891.88325
Observation end date	2003-02-22T17:21:34	2003-02-22T17:24:51

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

2.3 Aspect

RA : 331.920 deg
Dec : 45.895 deg

DY : 3.021 arcsecs
DZ : 8.586 arcsecs

7
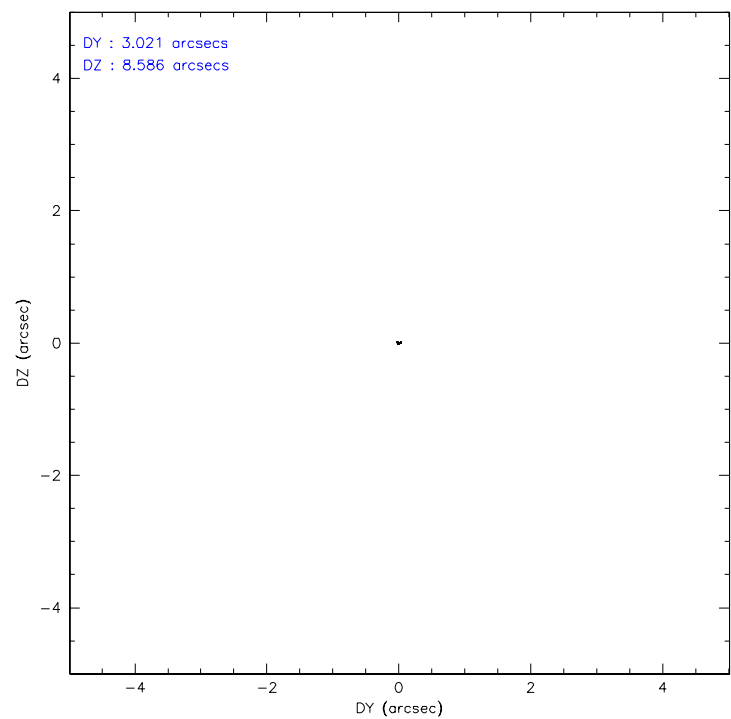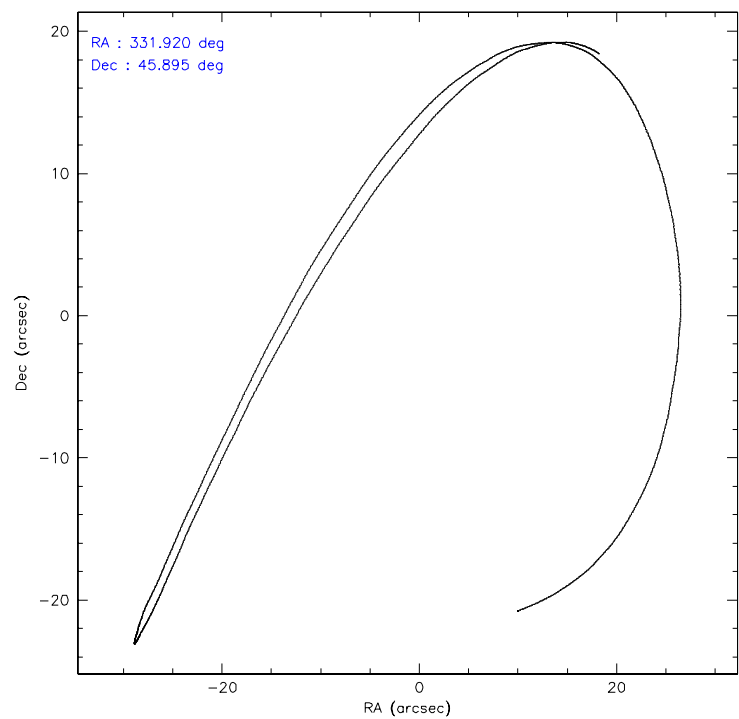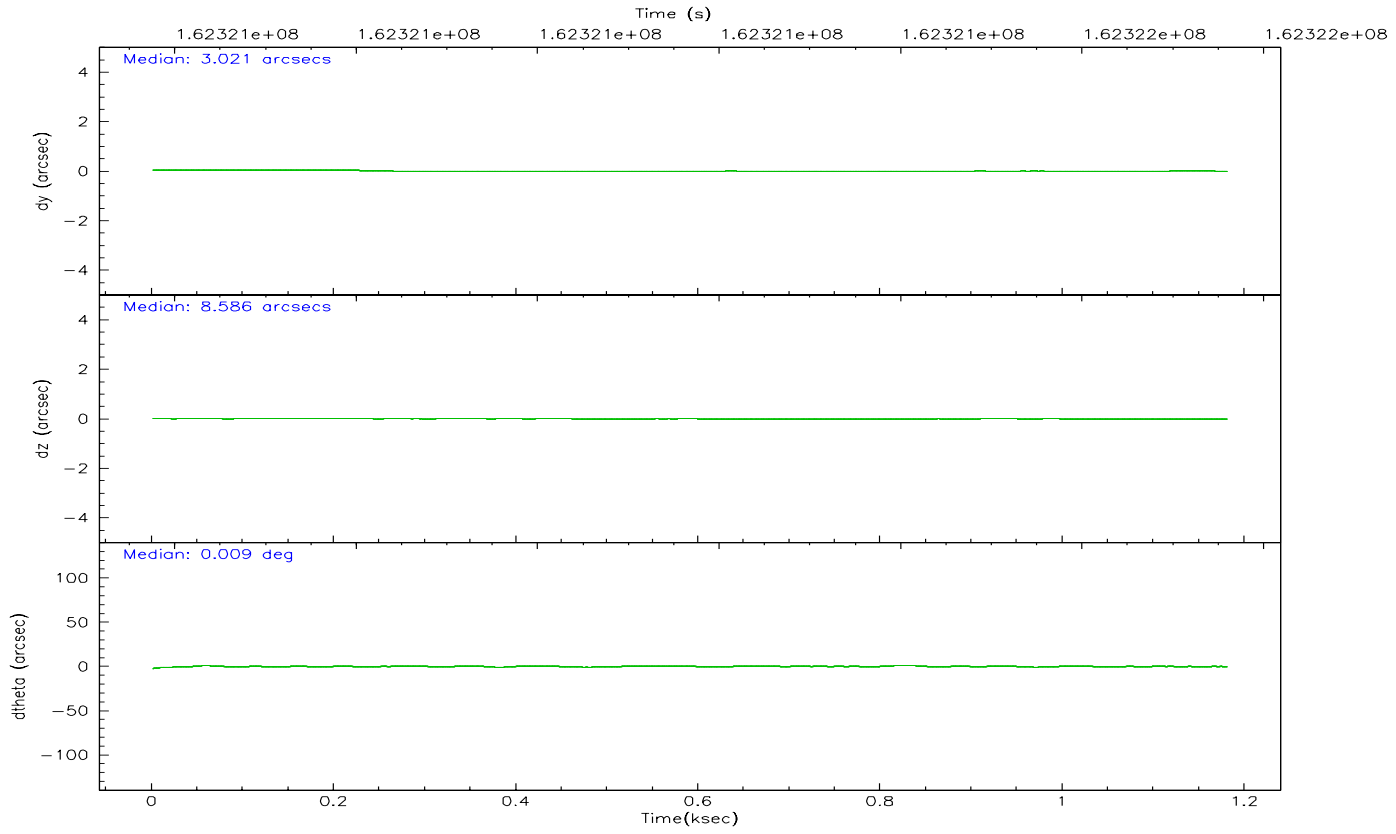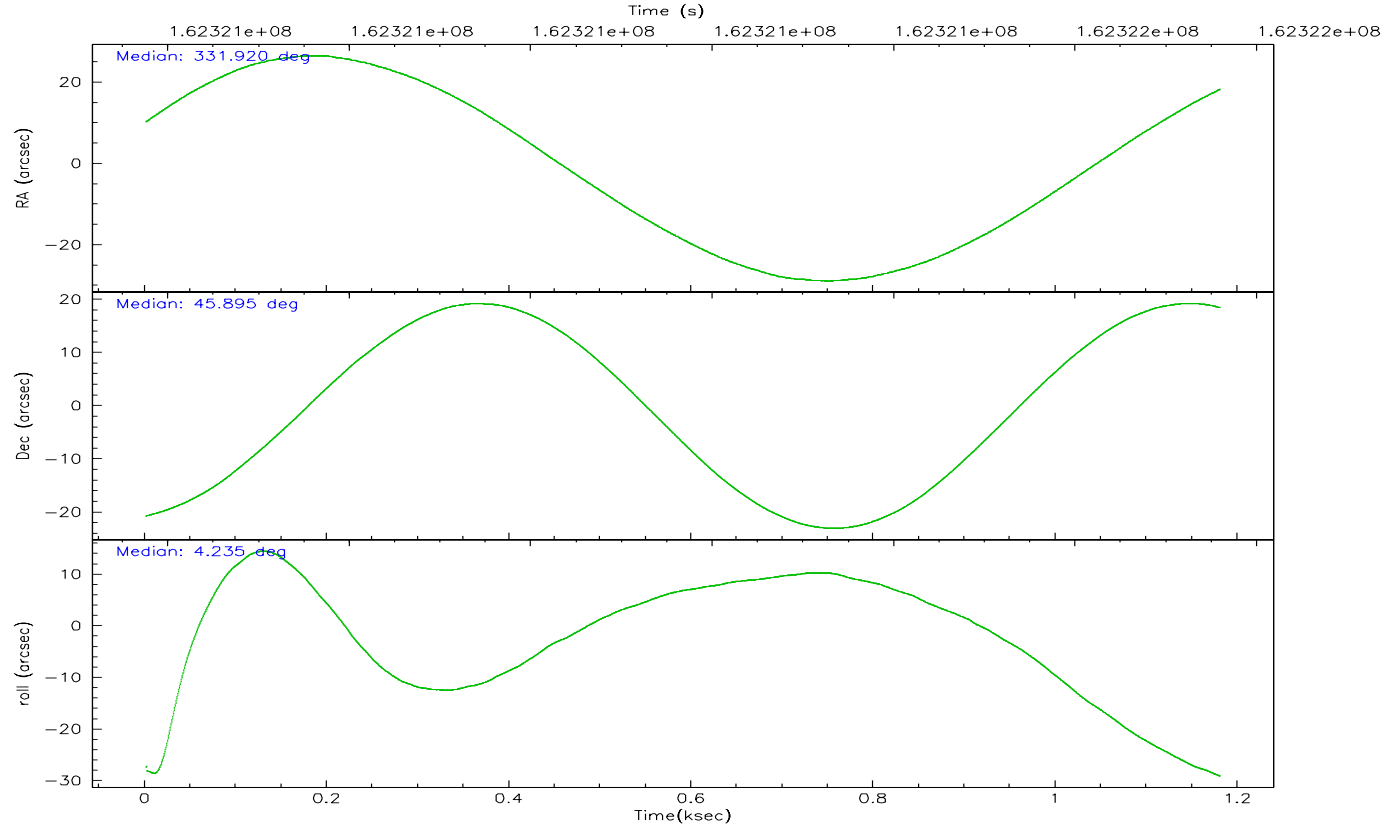
Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	HRC-I-1	6.98	288	0.027	0.065	0.010	0.023	0.000000	0.000000	-758.47	-1296.46
1	FID	HRC-I-2	7.01	288	0.076	-0.077	0.007	0.011	0.000000	0.000000	851.57	-1302.67
2	FID	HRC-I-3	7.06	288	0.016	-0.077	0.008	0.015	0.000000	0.000000	-1184.01	1003.44
3	GUIDE	472523760	8.24	574	-0.082	-0.066	0.072	0.134	331.645363	45.403260	-741.85	-1661.45
4	GUIDE	472535152	9.61	576	-0.008	-0.114	0.124	0.191	331.625800	46.496498	-480.80	2262.86
5	GUIDE	472535400	8.80	577	-0.016	0.027	0.112	0.187	331.047001	46.353888	-1954.23	1877.16
6	GUIDE	472655704	9.47	577	-0.009	0.102	0.122	0.189	332.167195	45.285228	539.26	-2181.60
7	GUIDE	472659832	9.47	576	0.093	0.038	0.139	0.332	332.780399	46.098139	2282.79	625.22

2.4 Star Slots

2.4.1 Slot 3

2.4.2　Slot 4

Points outside 0.4 arcsec radius: 0.000%
Radial offset of median: 0.114 arcsec

Slot number:4
AGASC star id:472535152

Time (s)

Median: −0.008 arcsec
RMS: 0.074 arcsec

Median: −0.114 arcsec
RMS: 0.087 arcsec

Slot number:4
AGASC star id:472535152

2.4.3   Slot 5

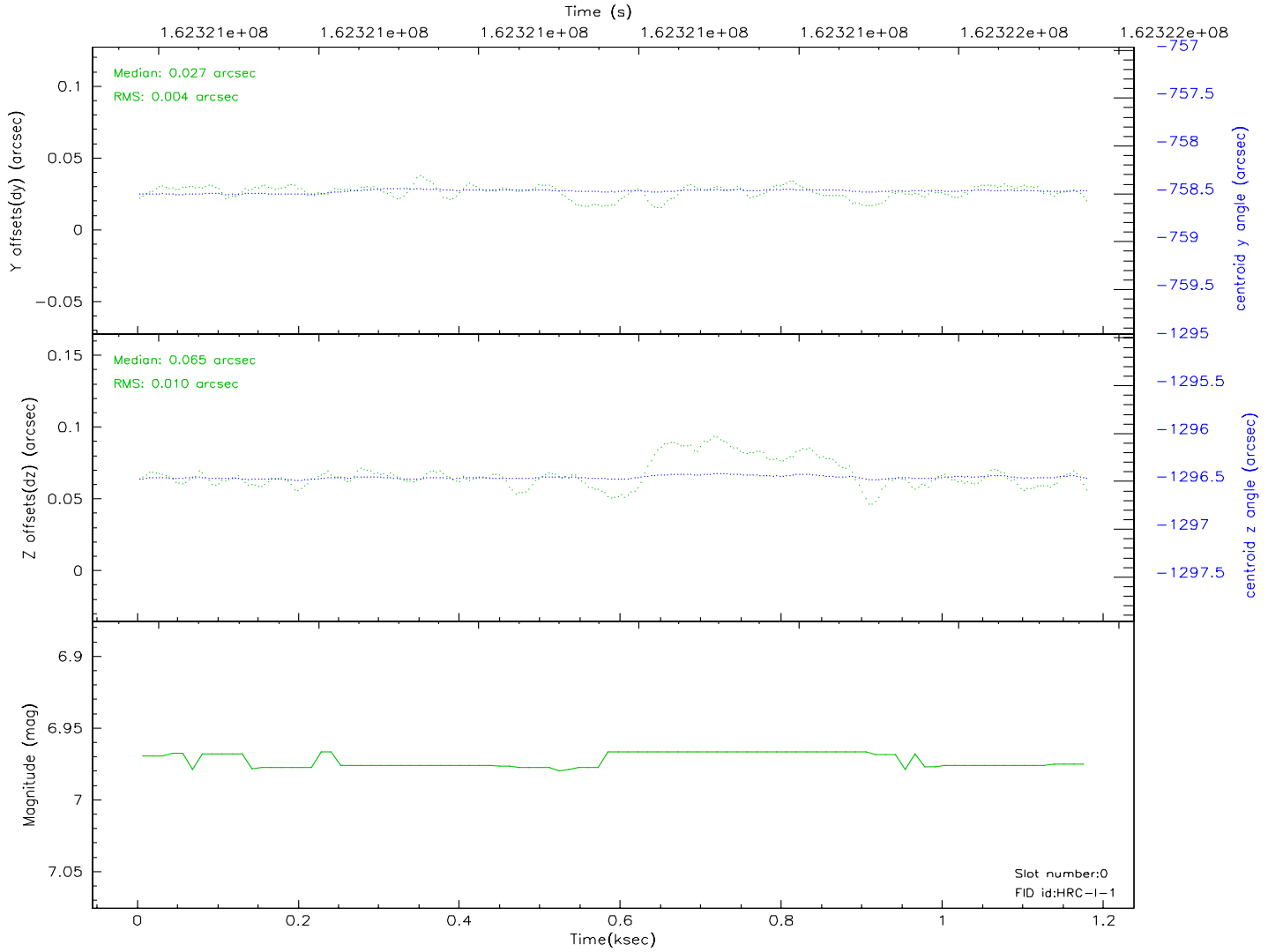## 2.4.4 Slot 6

Median: −0.009 arcsec
RMS: 0.068 arcsec

Median: 0.102 arcsec
RMS: 0.088 arcsec
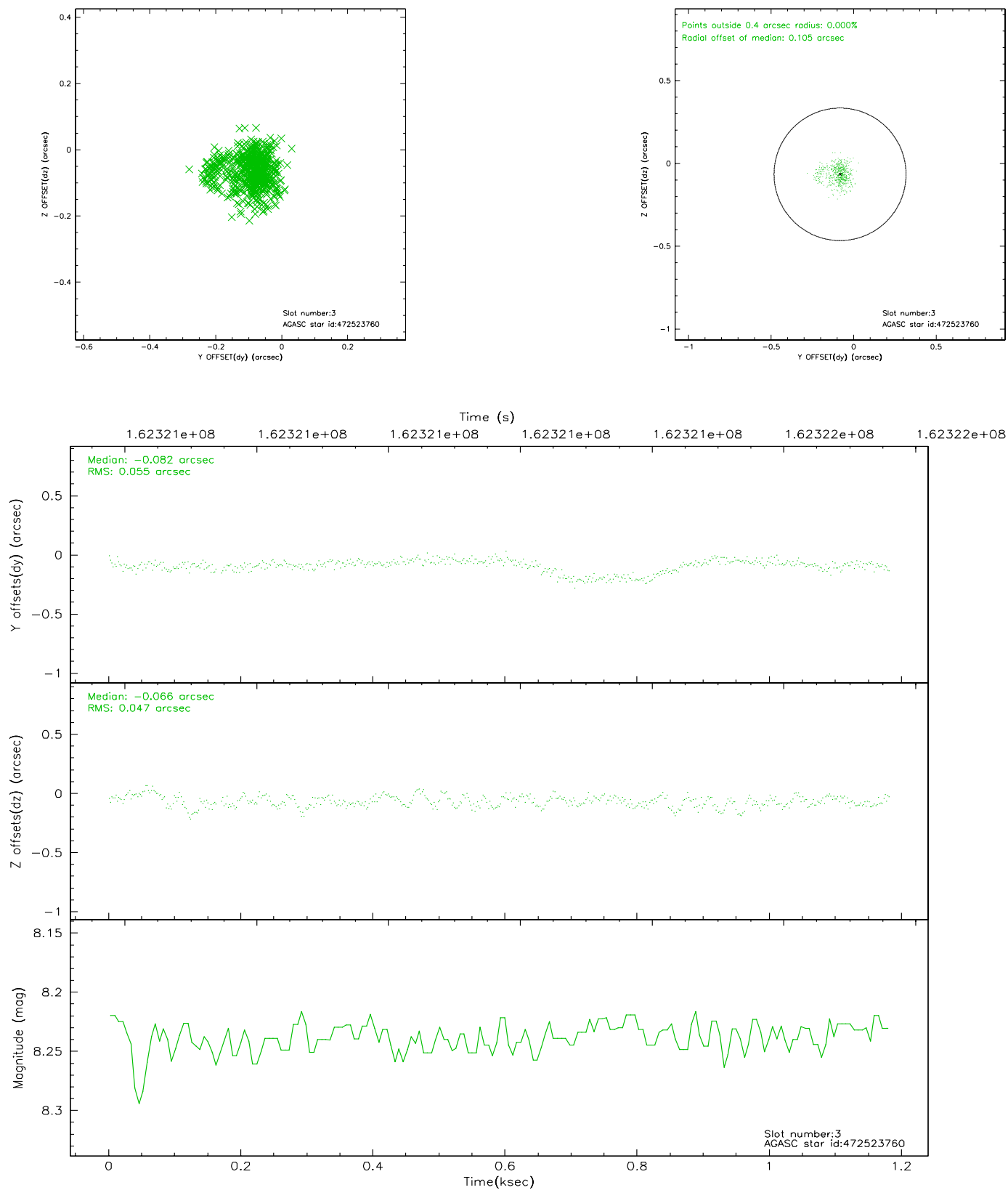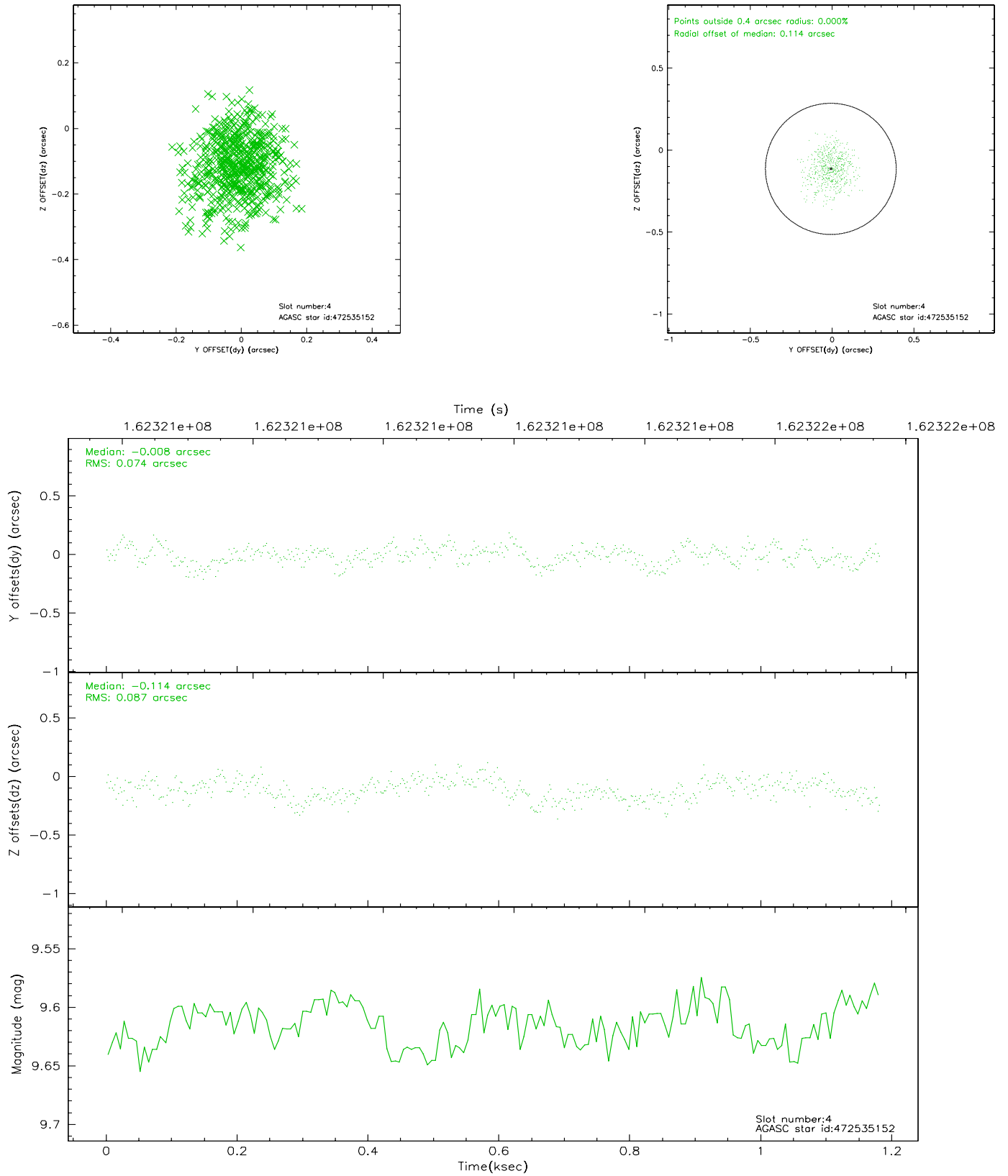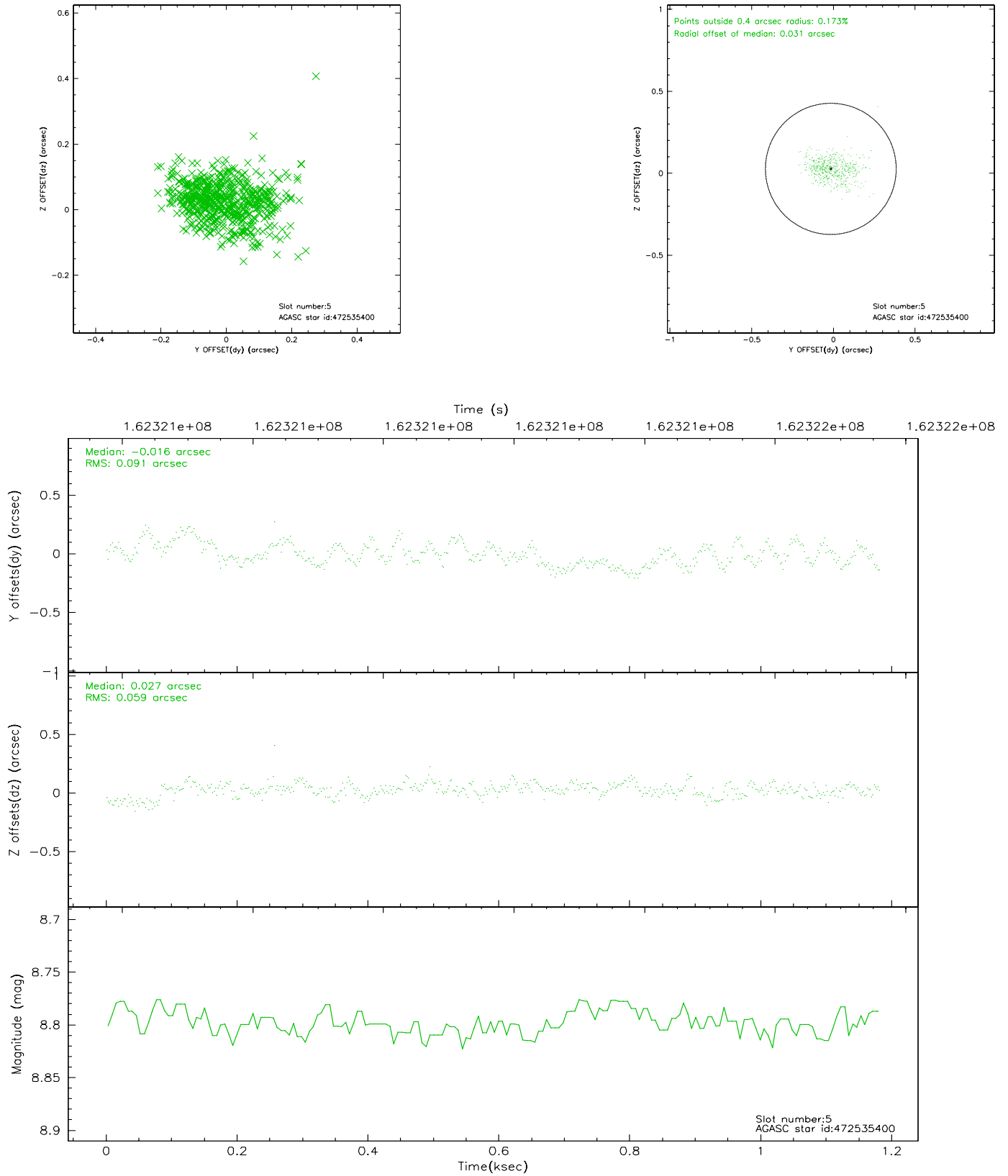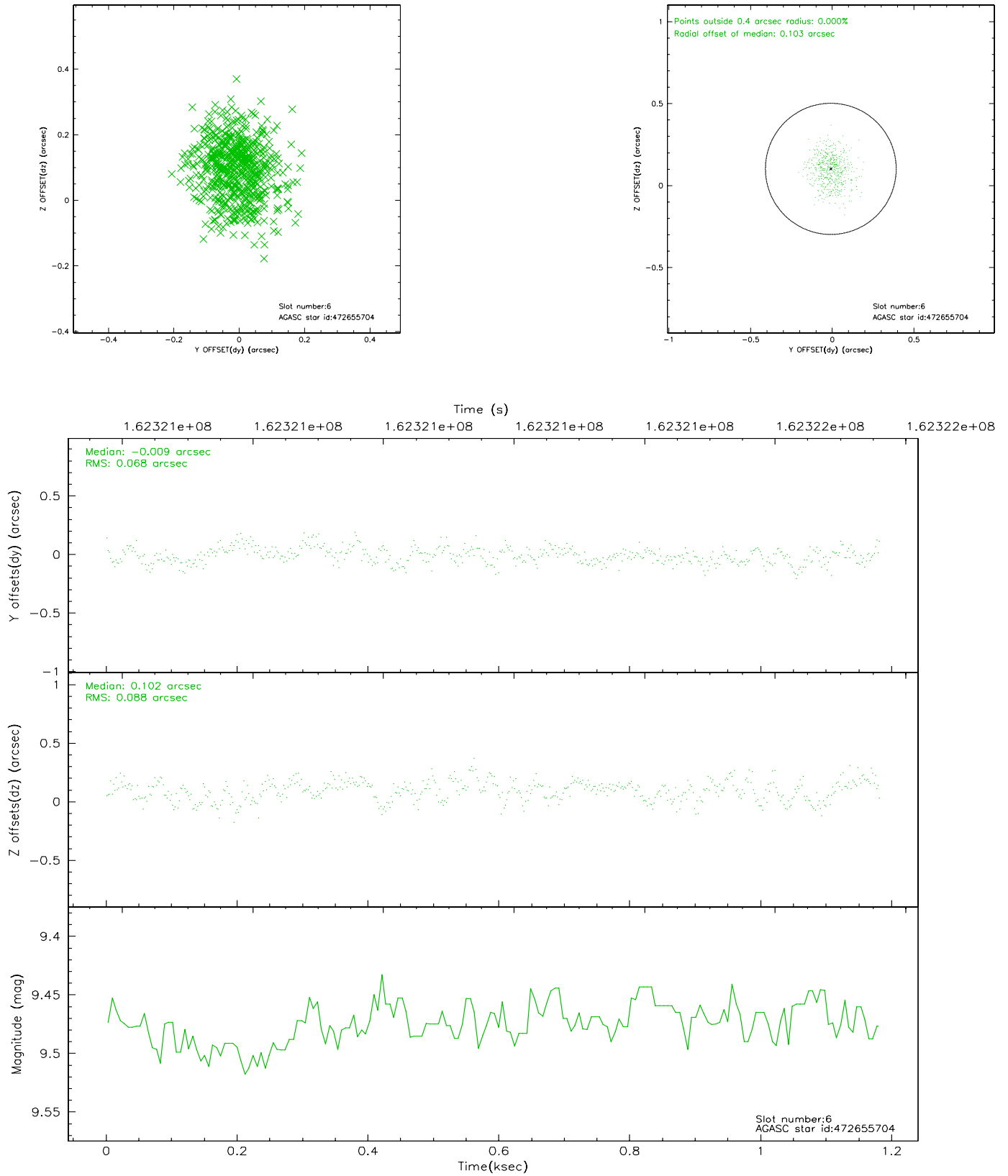
2.4.5   Slot 7
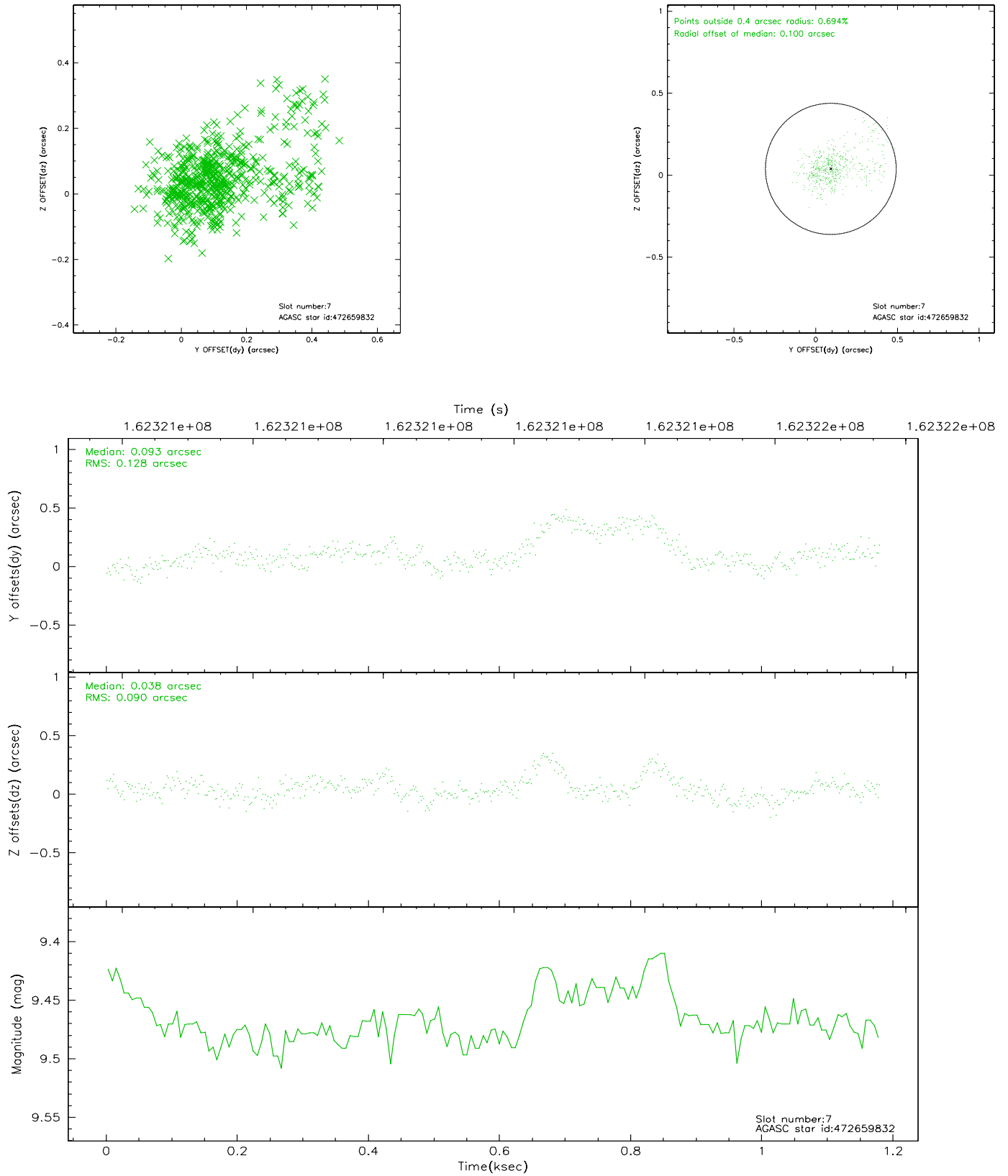
2.5 FID Slots

2.5.1 Slot 0

2.5.2 Slot 1

2.5.3   Slot 2

Slot number:2
FID id:HRC-I-3

Points outside 0.05 arcsec radius: 0.000%
Radial offset of median: 0.079 arcsec

Slot number:2
FID id:HRC-I-3

Median: 0.016 arcsec
RMS: 0.003 arcsec

Median: −0.077 arcsec
RMS: 0.008 arcsec

Slot number:2
FID id:HRC-I-3
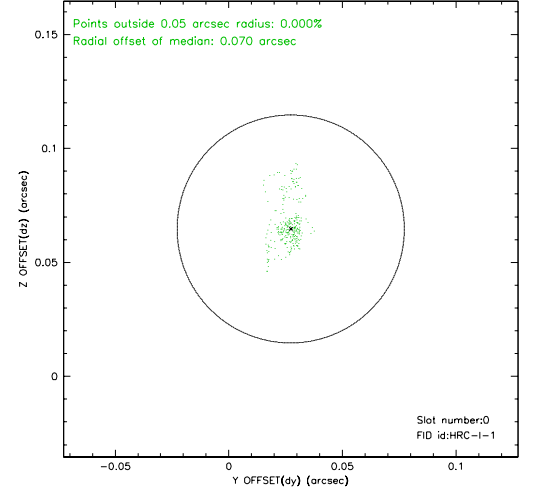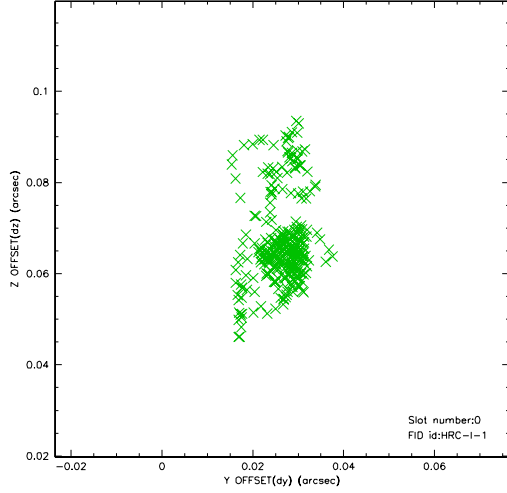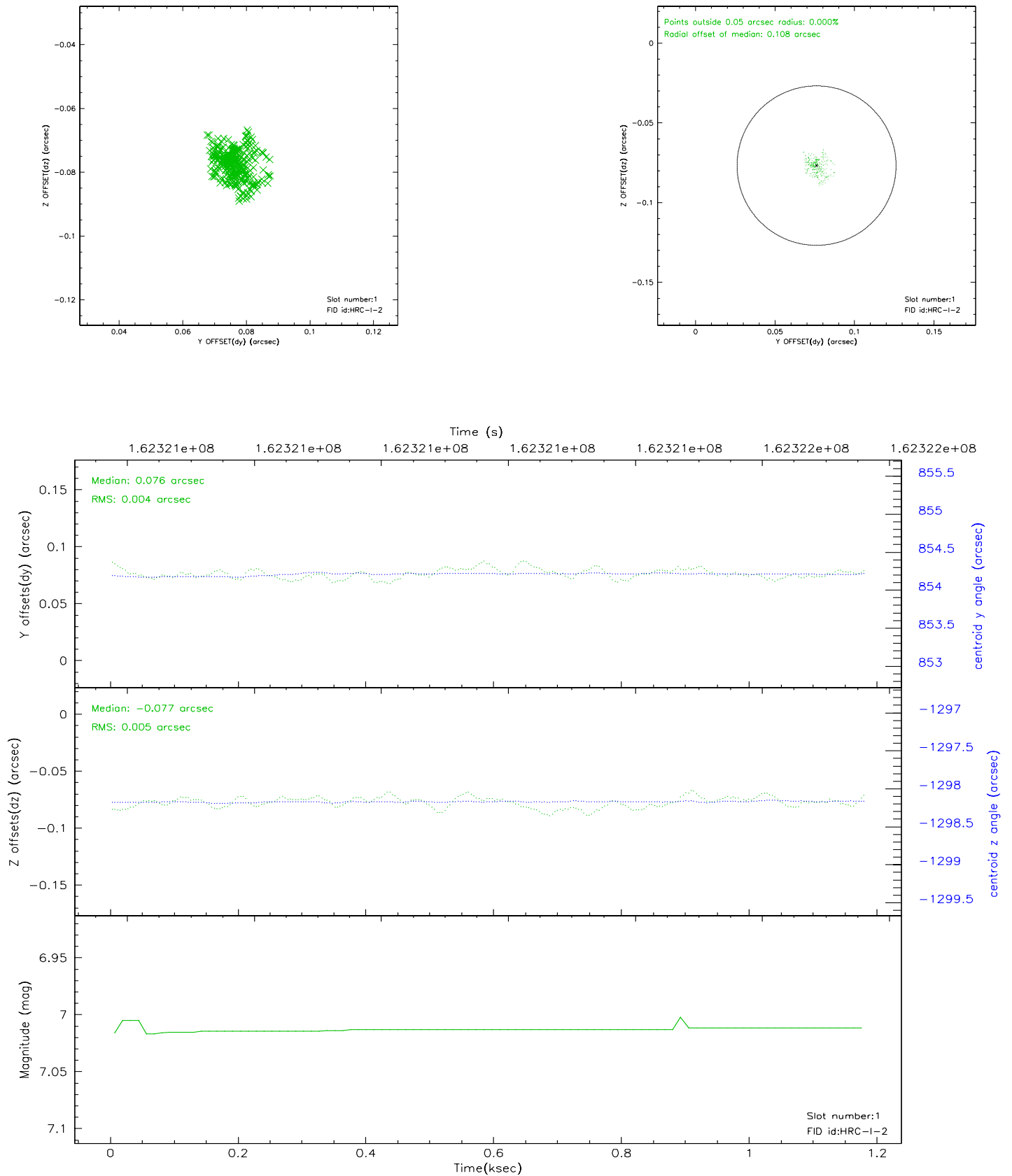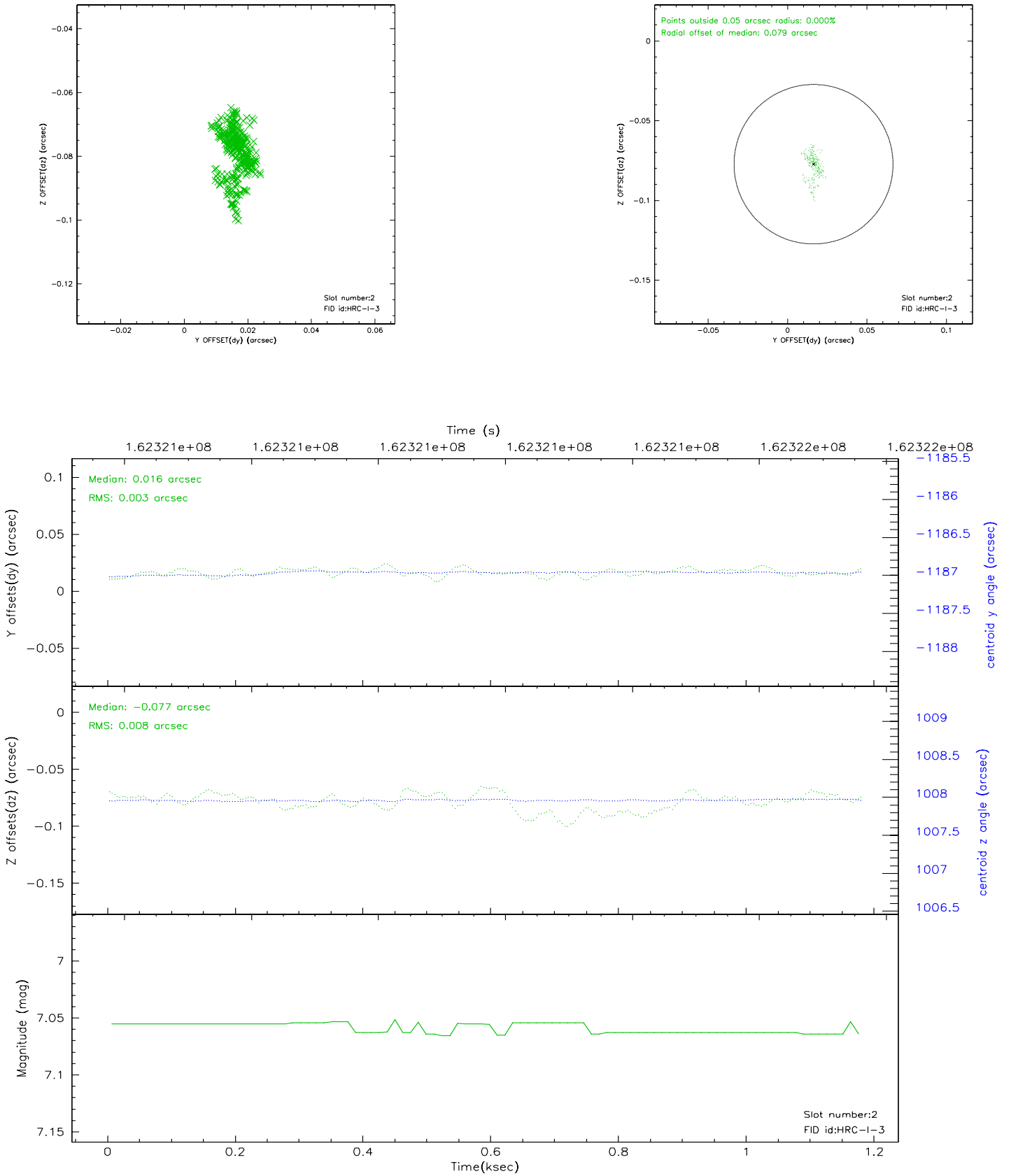
3   Point Sources

13.89 arcmin
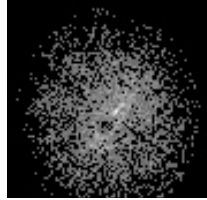
A Summary

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	1.18

A.2 Comments

Window constraint met. The target is off axis, near the edge of the
chip, and is therefore extended and asymmetric.

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.