

# V&V Reference Report

## L2 ASCDS Version : 7.6.8

Observation 3715 - L2 Version 3  
Chandra X-Ray Center

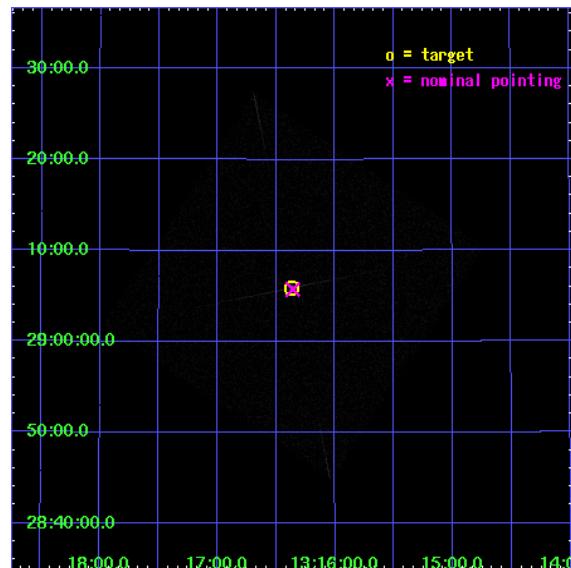
L2 Processing Date : Nov 23 2007

## Contents

<b>1</b>	<b>Front</b>	<b>2</b>
<b>2</b>	<b>OBI</b>	<b>3</b>
2.1	OBI . . . . .	3
2.1.1	Images . . . . .	3
2.1.2	Parameters . . . . .	4
2.1.3	Events . . . . .	4
2.2	Compared Parameters . . . . .	5
2.3	Aspect . . . . .	6
2.4	Star Slots . . . . .	9
2.4.1	Slot 3 . . . . .	9
2.4.2	Slot 4 . . . . .	10
2.4.3	Slot 5 . . . . .	11
2.4.4	Slot 6 . . . . .	12
2.4.5	Slot 7 . . . . .	13
2.5	FID Slots . . . . .	14
2.5.1	Slot 0 . . . . .	14
2.5.2	Slot 1 . . . . .	15
2.5.3	Slot 2 . . . . .	16
<b>3</b>	<b>Gratings</b>	<b>17</b>
3.1	LETG Arm . . . . .	17
<b>A</b>	<b>Summary</b>	<b>19</b>
A.1	Status . . . . .	19
A.2	Comments . . . . .	19

# 1 Front

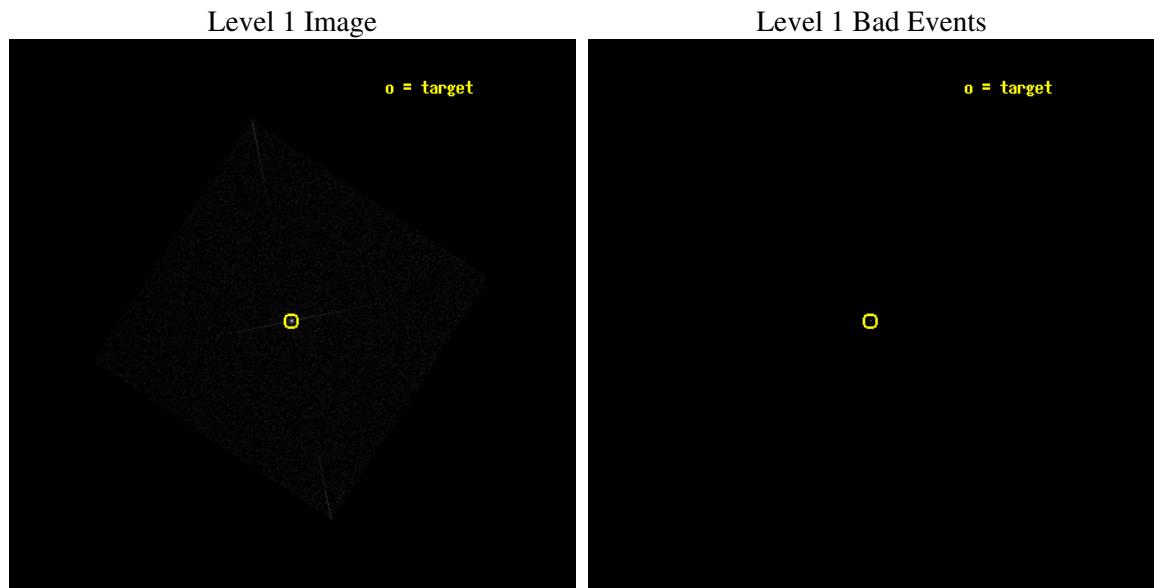
seq_num	290248
obs_id	3715
title	AO4 CALIBRATION OBSERVATIONS TO MONITOR THE HRC LOW ENERGY QE
observer	Dr. CXC Calibration
object	HZ43
ra_targ	199.092083
dec_targ	29.099
ra_nom	199.08952023564
dec_nom	29.095586419149
roll_nom	258.40244322383
revision	3
ontime	1894.2000841796
livetime	1883.8623386827
l2events	58807



## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



## 2.1.2 Parameters

obi_num	0
ascdsver	7.6.11.2
caldbver	3.4.1
date	2007-11-23T19:29:41
revision	3

sched_exp_time	2000.000000
ontime	1895.4813307822
l1events	96847

## 2.1.3 Events

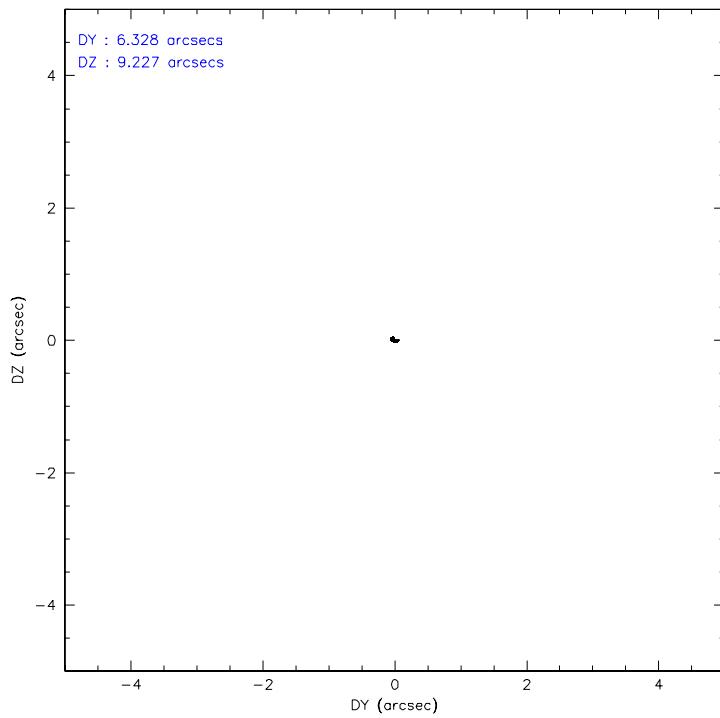
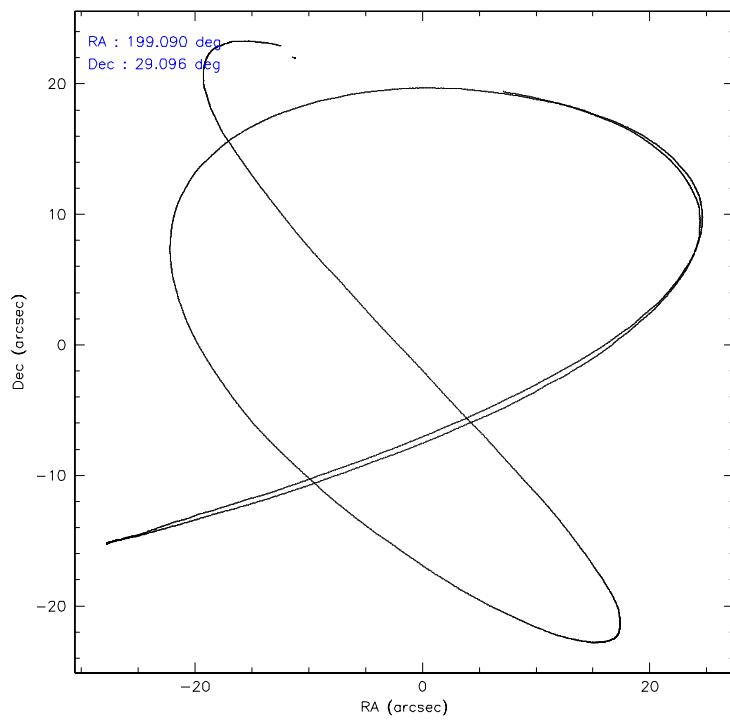
Level 1 Events

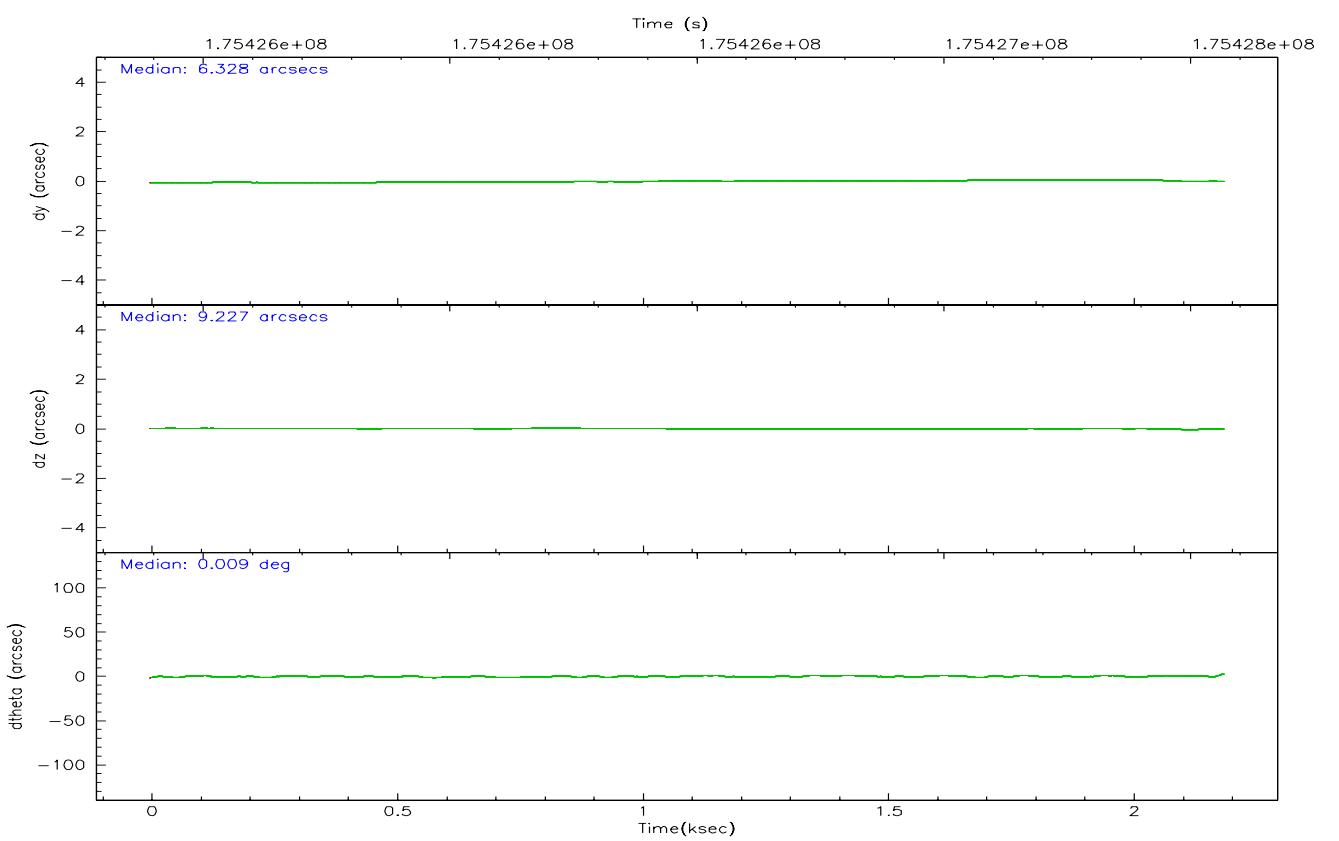
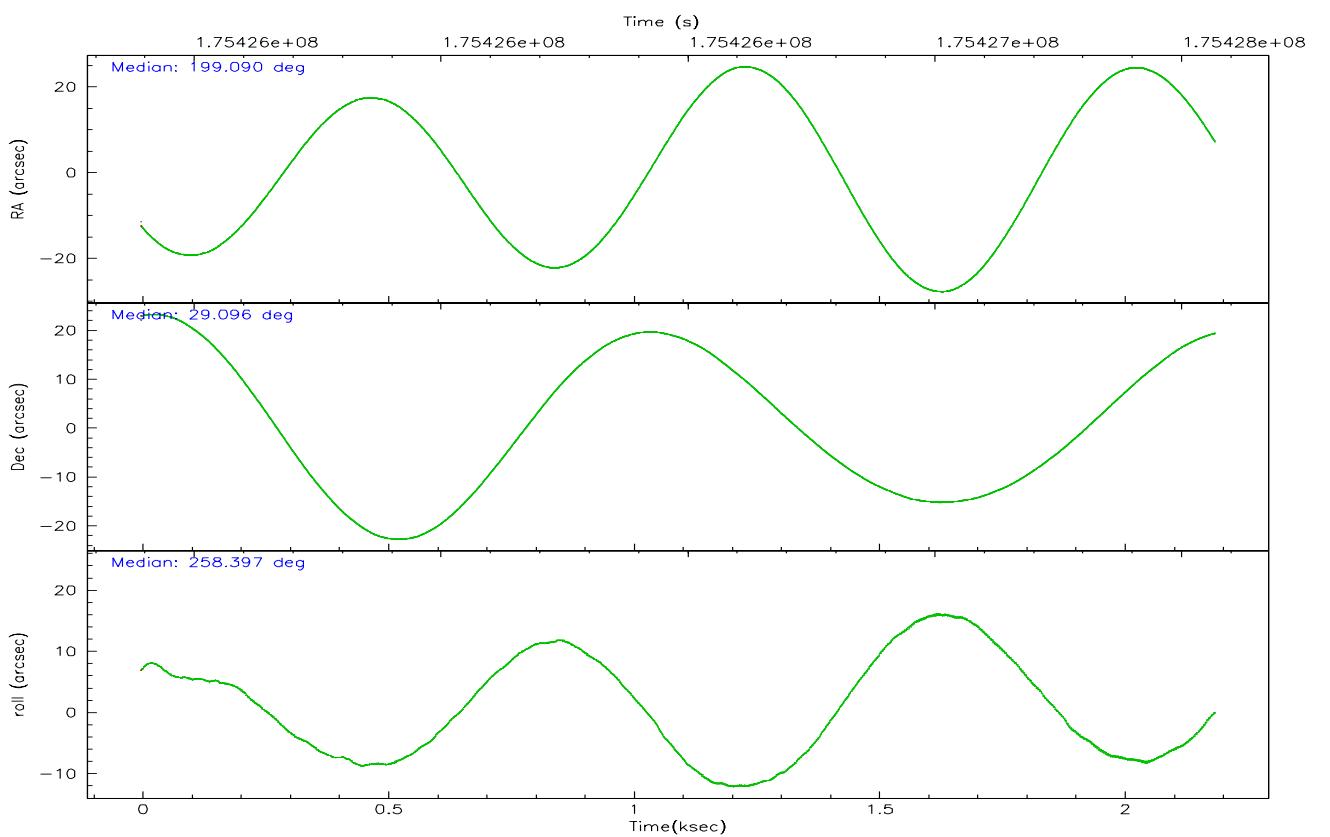
segment 0	
level 1 events	96847
rejected events	13248
rejected %	13%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	HRC	HRC	Obspar format version number	6	6
Detector	HRC-I	HRC-I	Obspar file type	PREDICTED	ACTUAL
Grating	LETG	LETG	Obspar update status	NONE	UPDATED
Data mode	OBSERVING	OBSERVING			
Observation mode	POINTING	POINTING			
Pointing RA	199.078922	199.0895202356445			
Pointing Dec	29.121069	29.09558641914854			
Pointing Roll	258.503111	258.4024432238318			
Window start time	173404864.184000	173404864.184000			
Window stop time	175910464.184000	175910464.184000			
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	175425575.184000	175425163.41293			
Observation start date	2003-07-24T09:18:31	2003-07-24T09:12:43			
Observation end time	175427575.184000	175428510.03808			
Observation end date	2003-07-24T09:51:51	2003-07-24T10:08:30			

## 2.3 Aspect



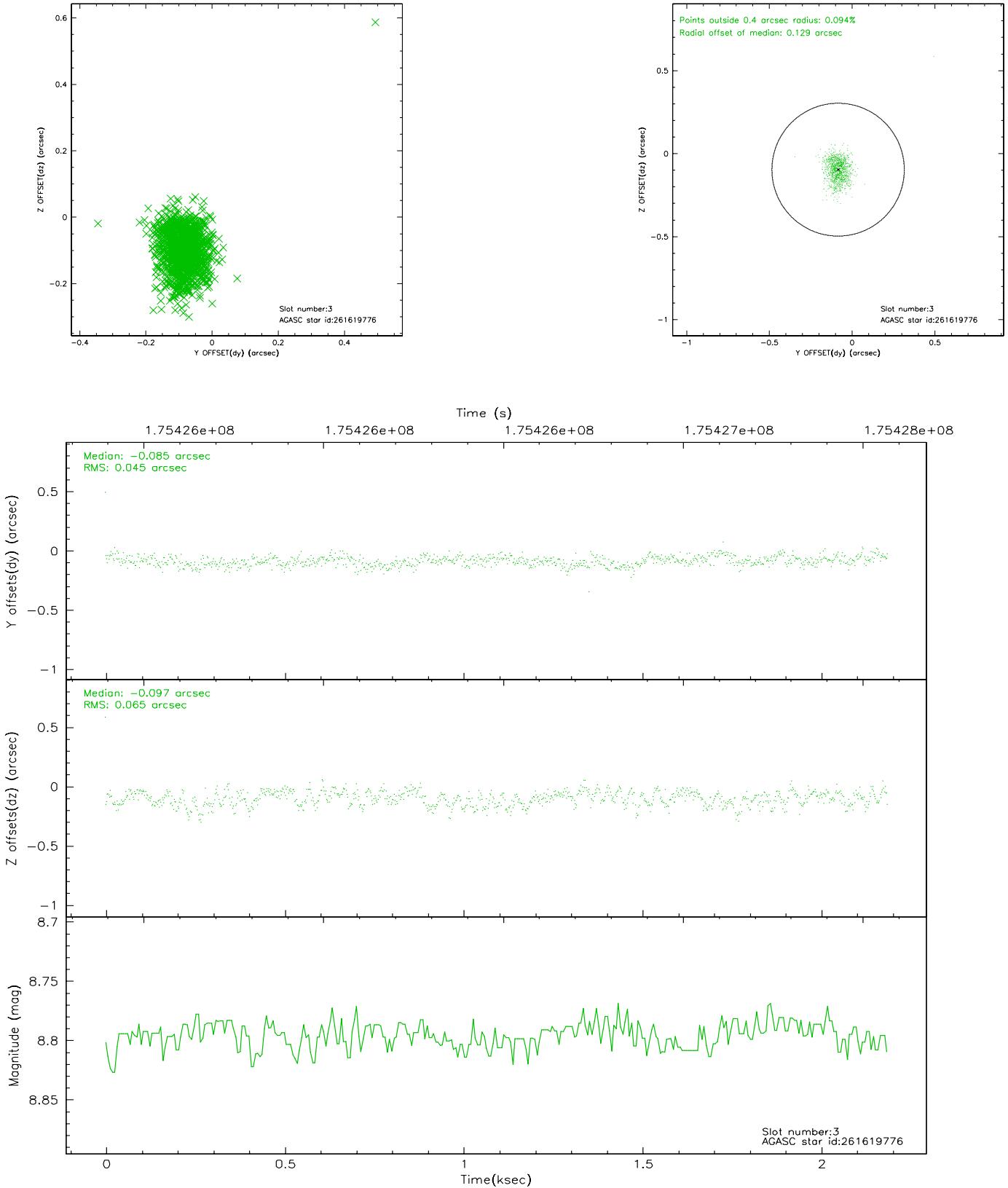


### Slot Statistics

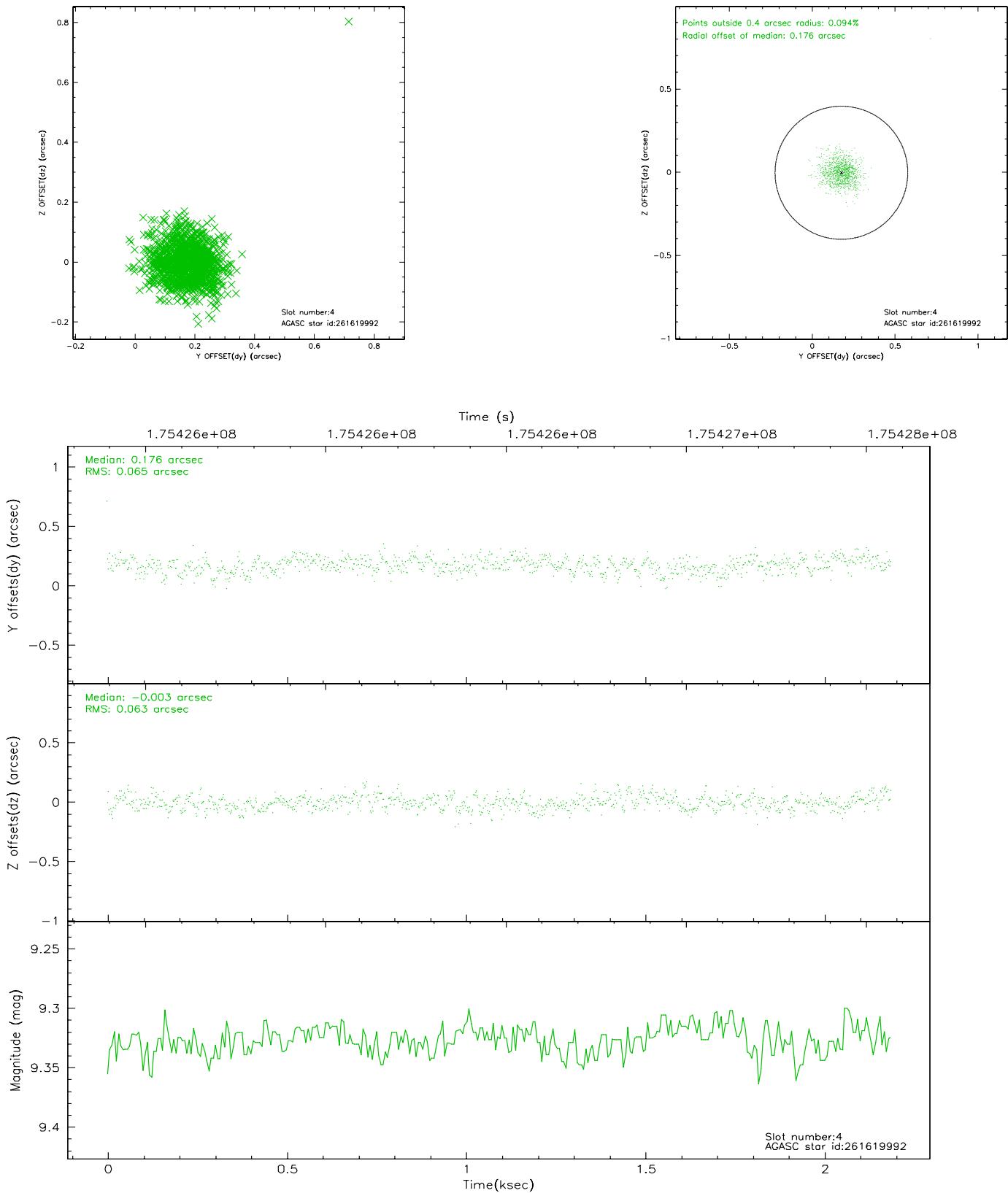
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	HRC-I-1	6.96	534	0.022	0.051	0.007	0.011	0.000000	0.000000	-761.88	-1297.13
1	FID	HRC-I-2	7.00	534	0.080	-0.073	0.006	0.010	0.000000	0.000000	849.38	-1301.27
2	FID	HRC-I-3	7.05	534	0.017	-0.067	0.006	0.011	0.000000	0.000000	-1188.75	1004.88
3	GUIDE	261619776	8.80	1068	-0.085	-0.097	0.078	0.128	198.654383	29.401174	-724.48	-1506.51
4	GUIDE	261619992	9.33	1067	0.176	-0.003	0.092	0.149	198.395553	28.647634	2094.59	-1778.81
5	GUIDE	261623040	9.12	1068	-0.179	-0.008	0.076	0.124	198.792686	29.757643	-2066.08	-1335.82
6	GUIDE	261623624	9.13	1068	0.158	0.134	0.078	0.123	199.611555	28.454113	2011.73	2128.69
7	GUIDE	261629720	8.10	1067	-0.068	-0.024	0.056	0.093	199.236176	29.044452	173.56	541.59

## 2.4 Star Slots

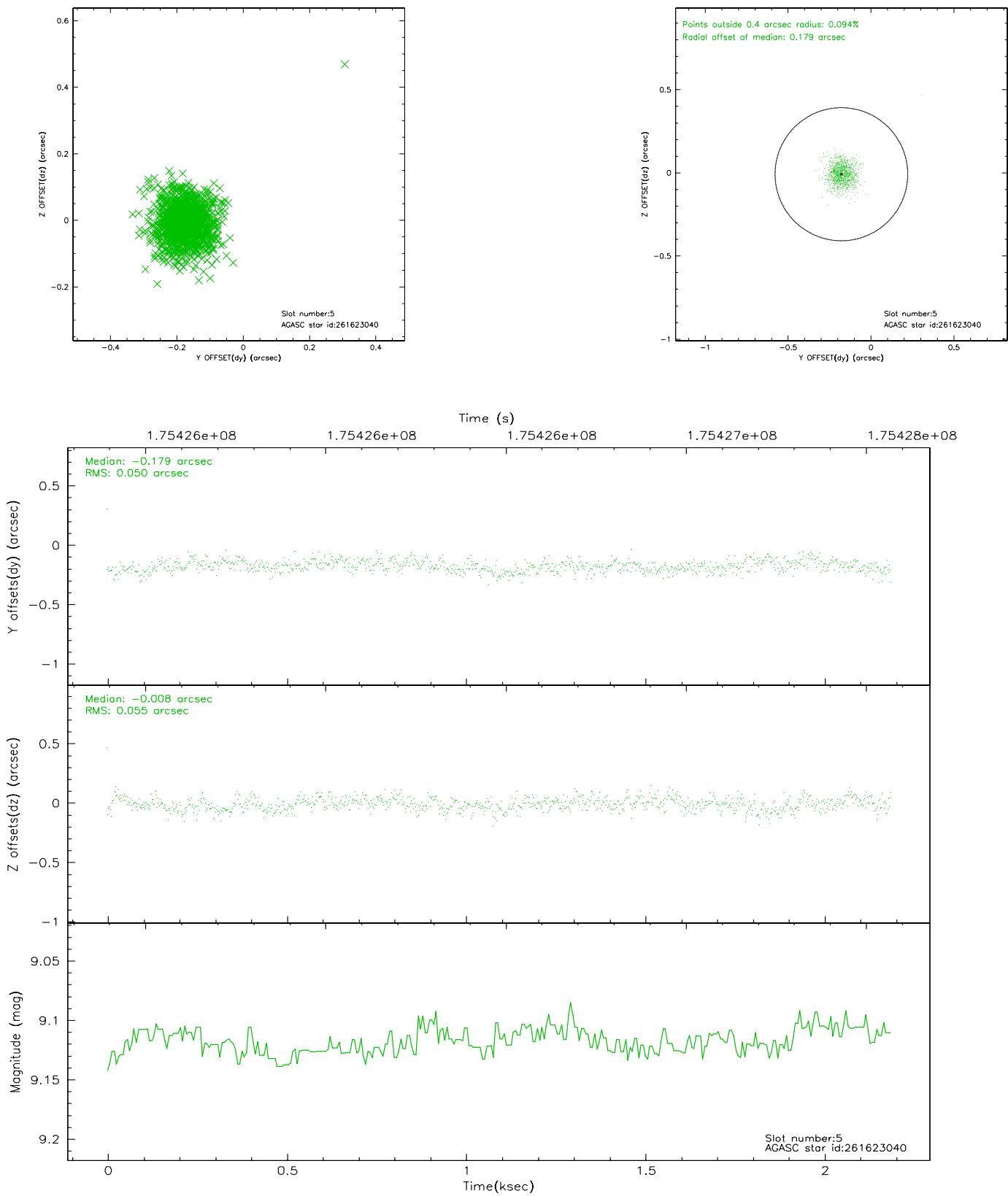
### 2.4.1 Slot 3



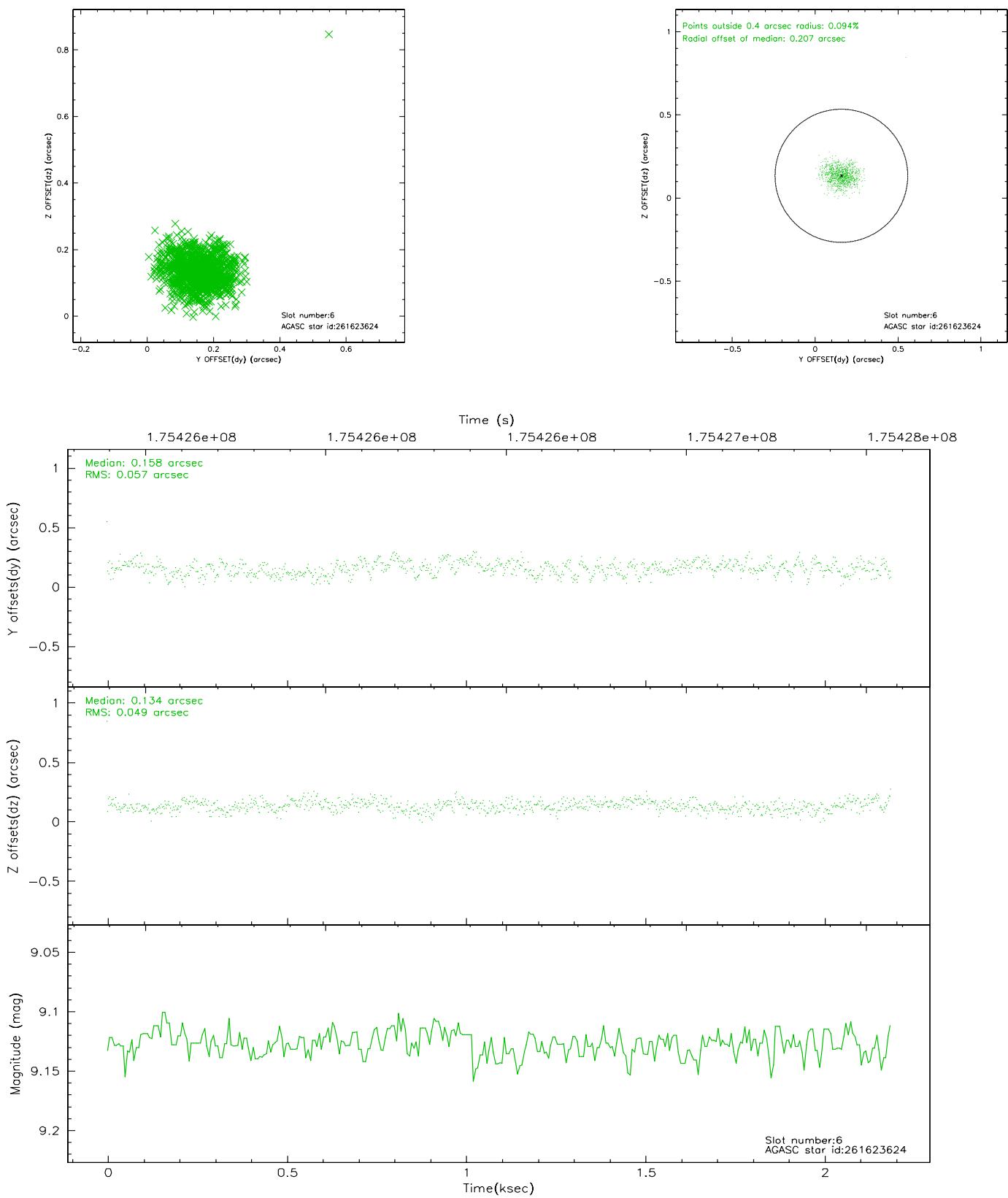
## 2.4.2 Slot 4



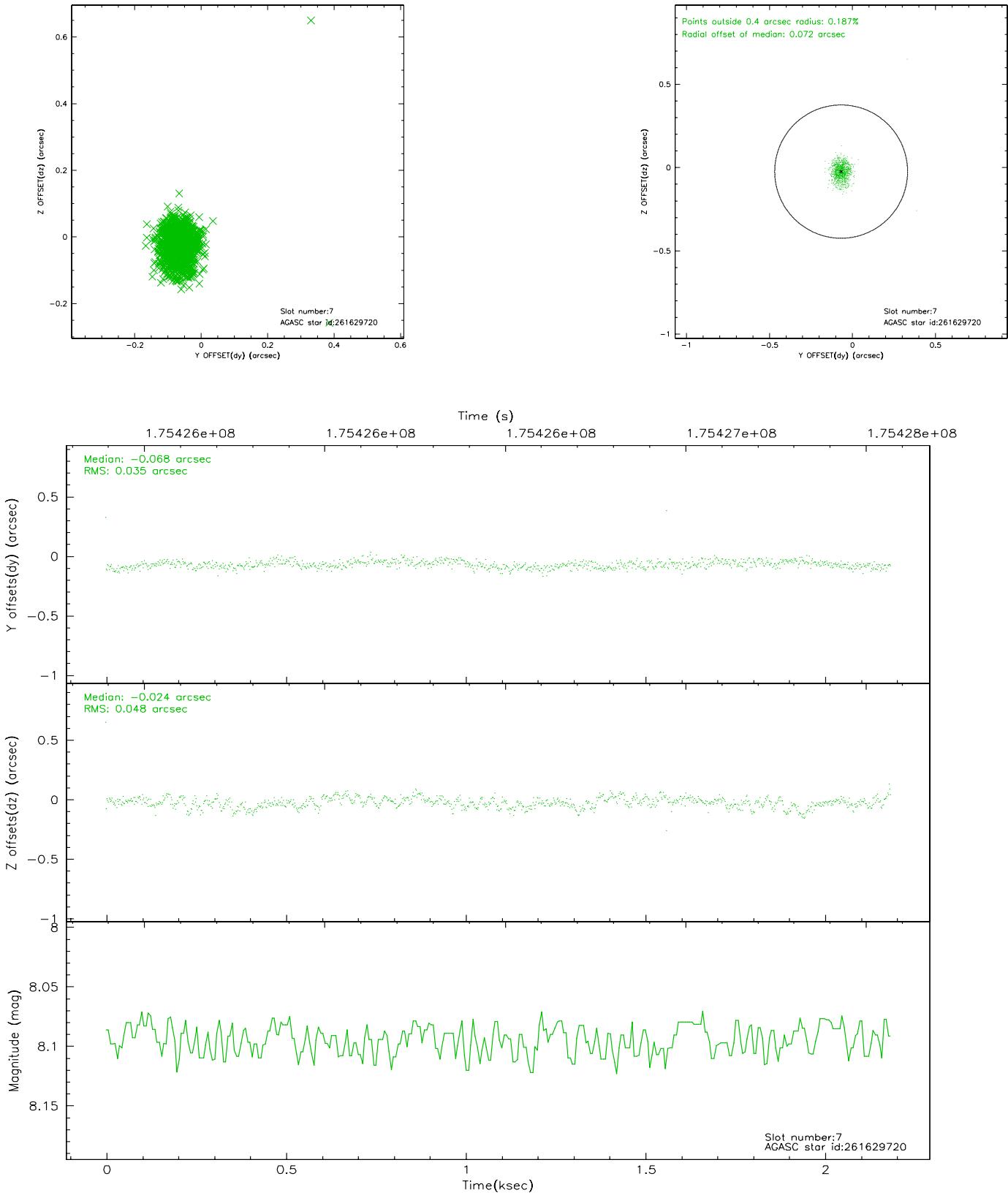
### 2.4.3 Slot 5



## 2.4.4 Slot 6

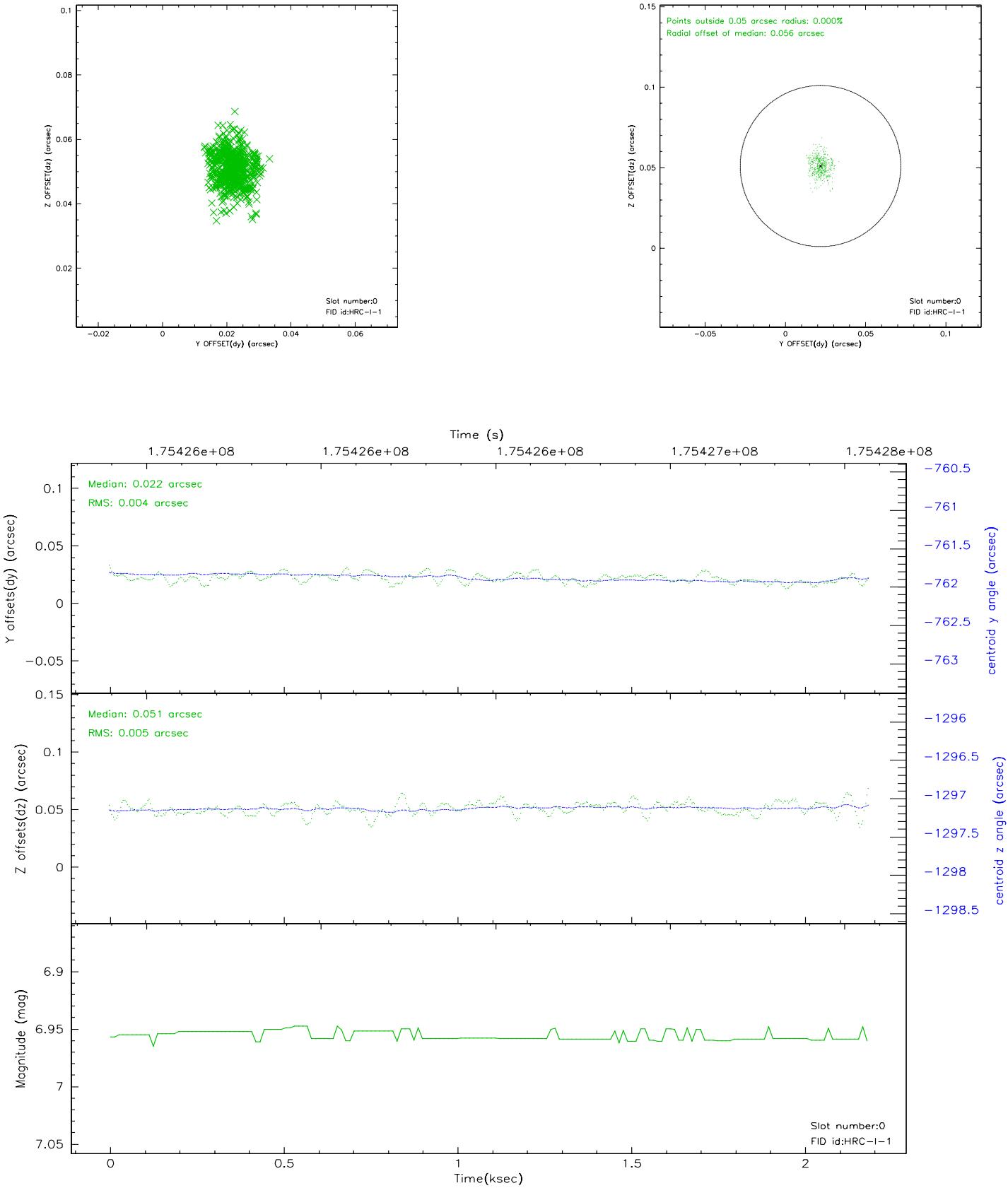


## 2.4.5 Slot 7

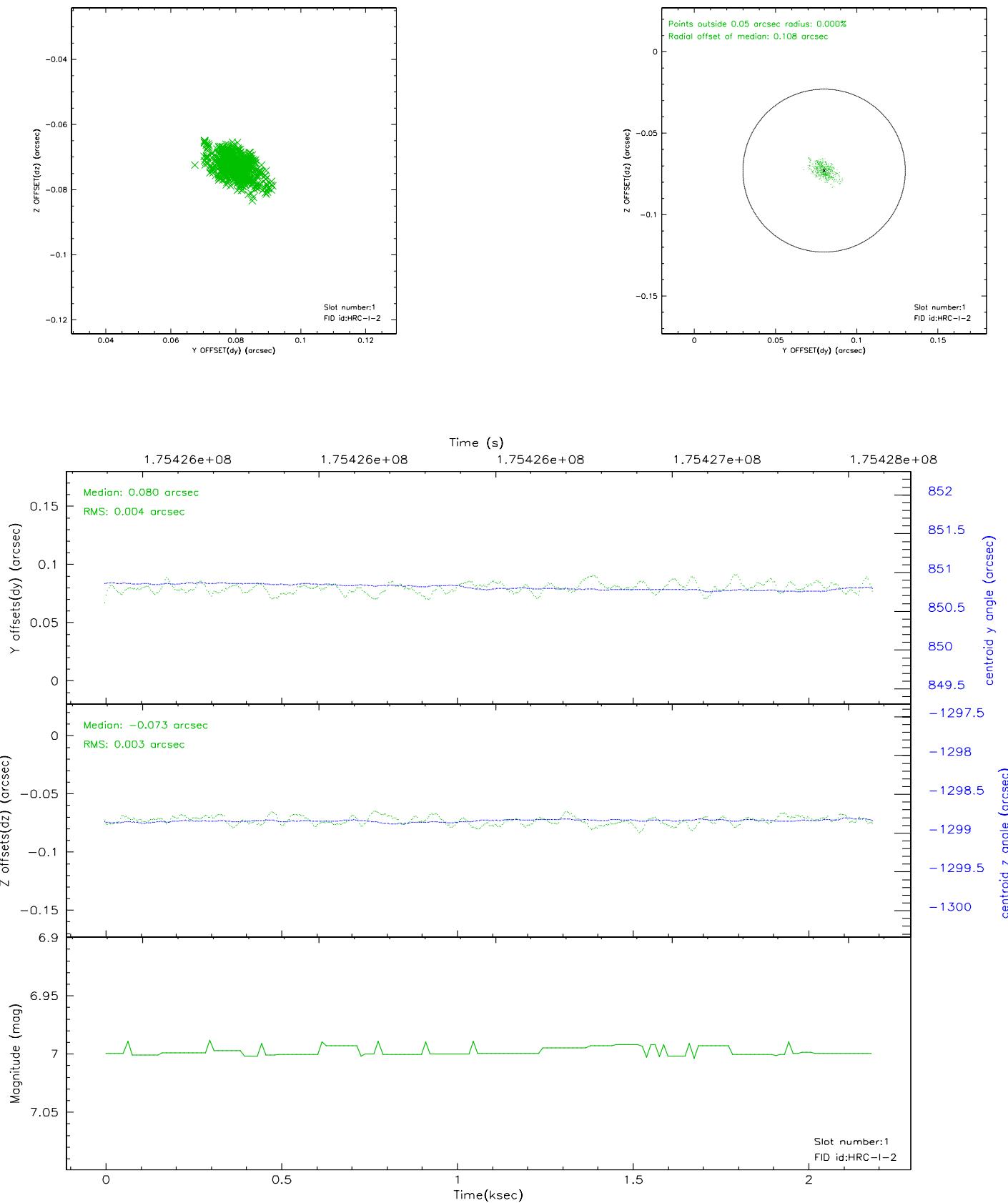


## 2.5 FID Slots

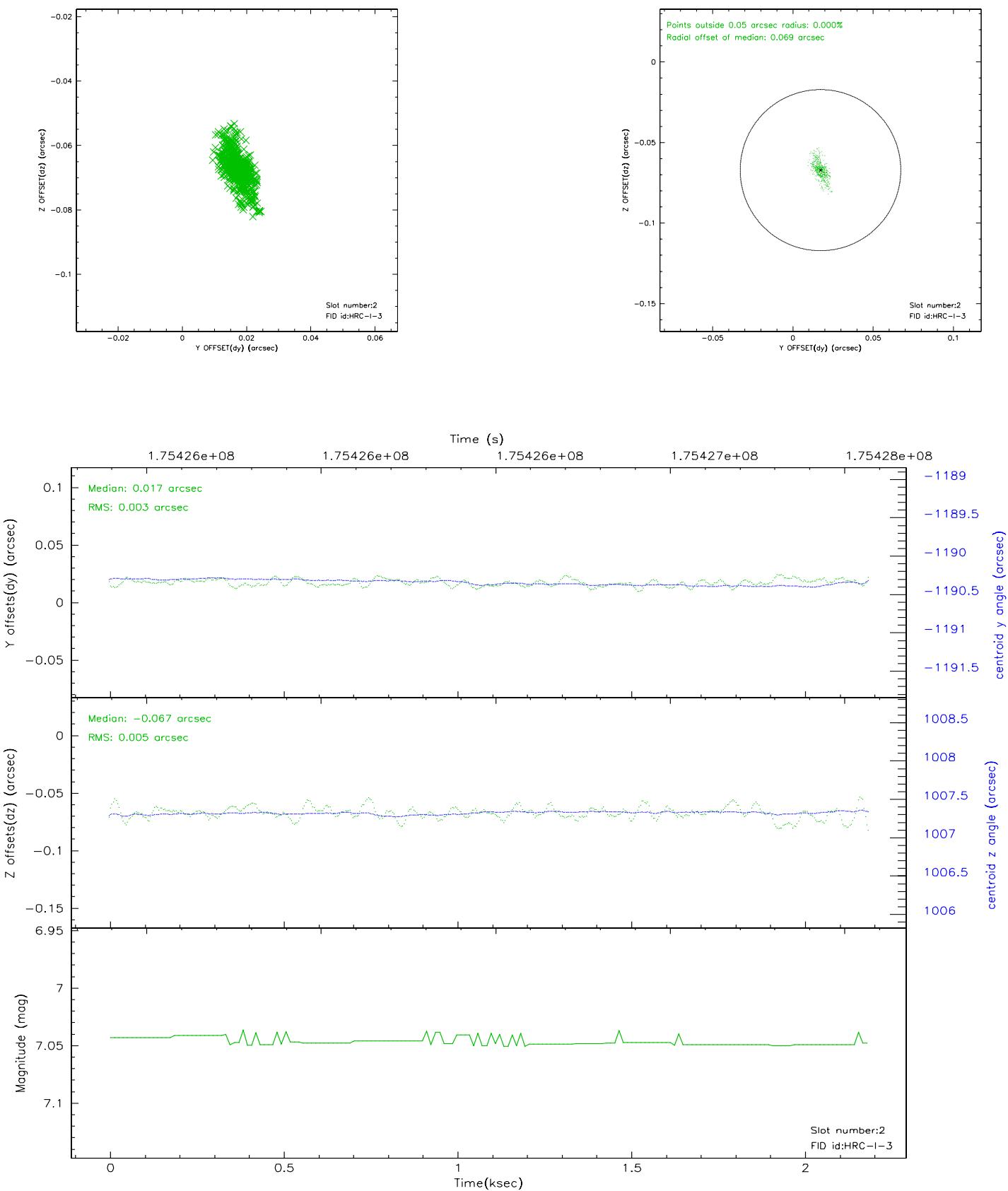
### 2.5.1 Slot 0



## 2.5.2 Slot 1

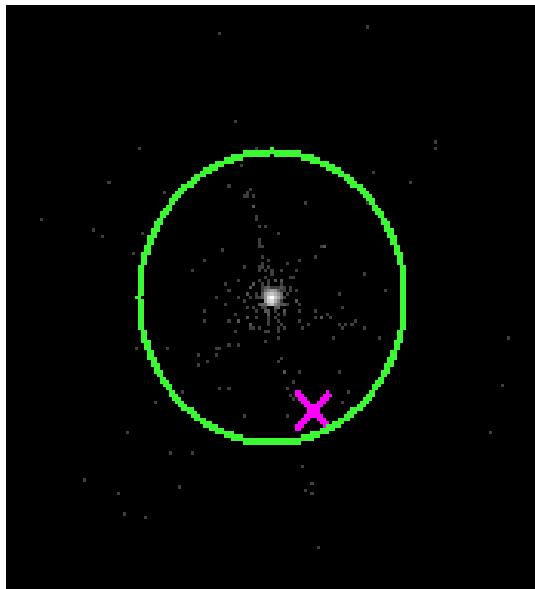


### 2.5.3 Slot 2



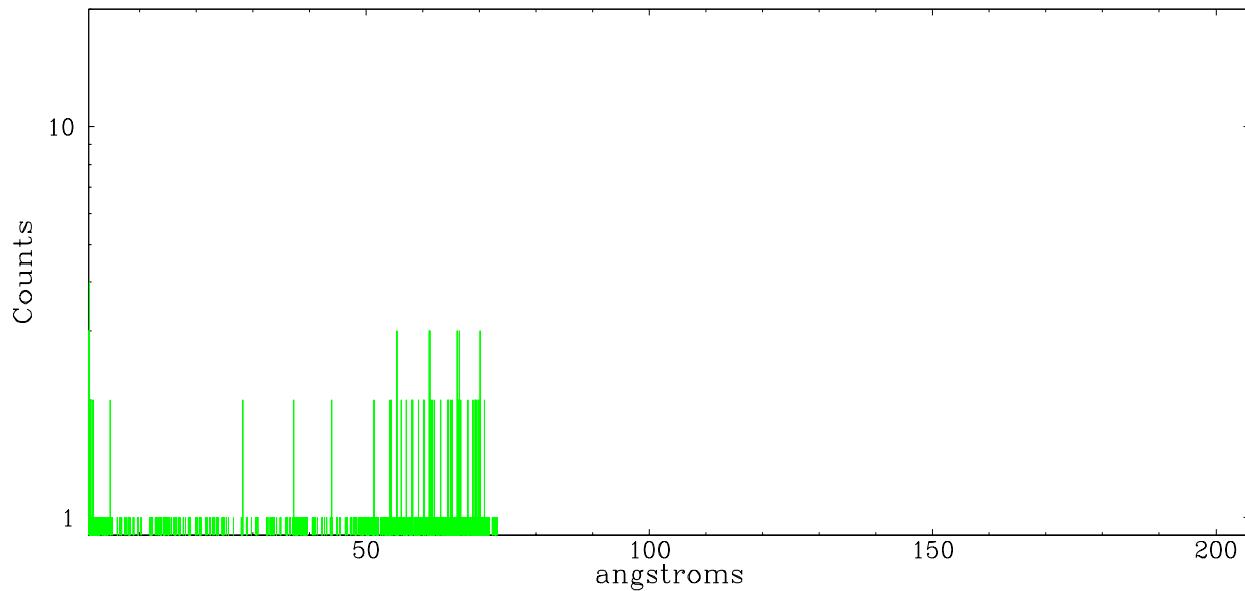
### 3 Gratings

#### 3.1 LETG Arm

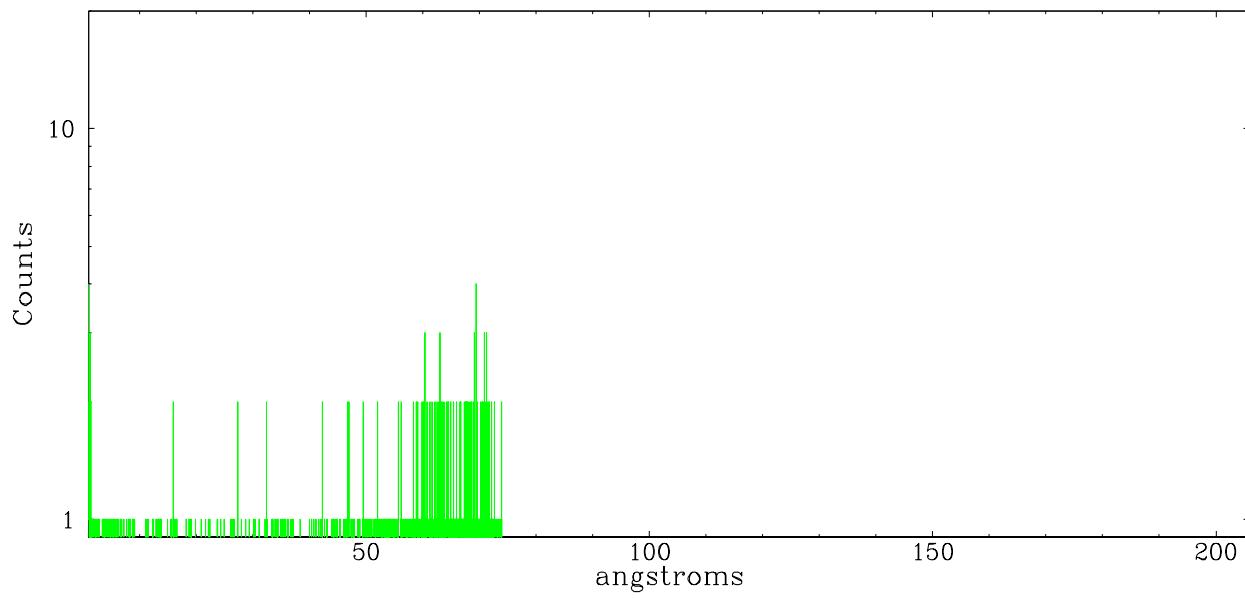


LETG Zero Order

leg order -1



leg order +1



# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2007.12.04
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.894

## A.2 Comments

Window constraint met. First 300 seconds marked as bad time because voltages were not properly configured until 300 seconds into the observation.

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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.