

V&V Reference Report

L2 ASCDS Version : 7.6.9

Observation 1005 - L2 Version 3
Chandra X-Ray Center

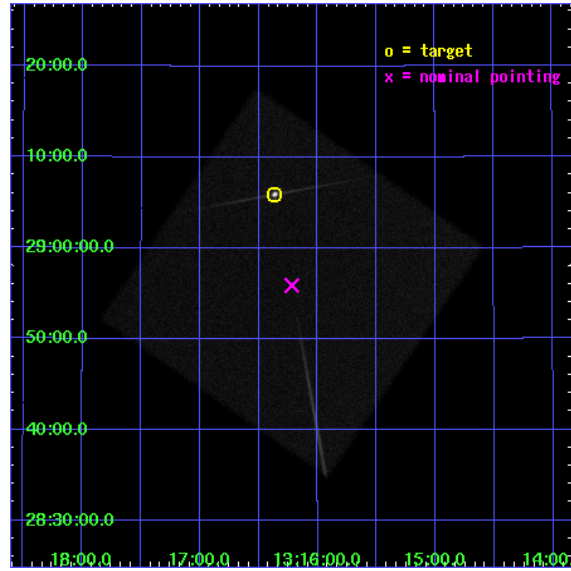
L2 Processing Date : Nov 20 2007

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1 Front

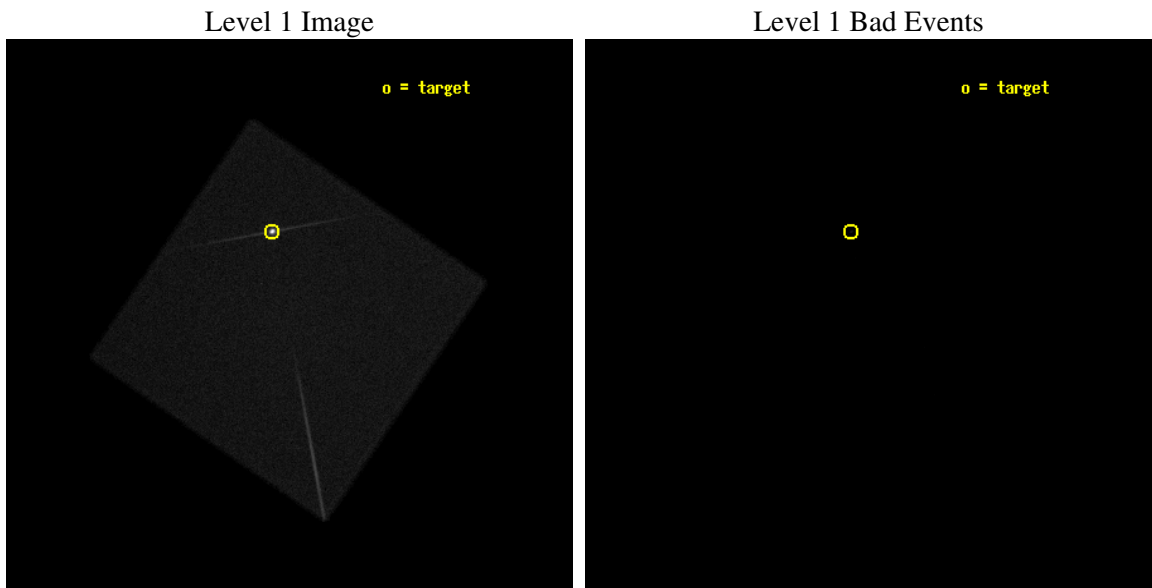
seq_num	290086
obs_id	1005
title	LETG/HRC-I CALIBRATION OBSERVATIONS OF HZ43
observer	Dr. CXC Calibration
object	HZ43
ra_targ	199.092083
dec_targ	29.099
ra_nom	199.05469226297
dec_nom	28.931638816667
roll_nom	259.41824750099
revision	3
ontime	15482.881857932
livetime	15399.284981209
l2events	453018



2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Parameters

obi_num	1
ascdsver	7.6.11.2
caldbver	3.4.1
date	2007-11-20T18:36:22
revision	3

sched_exp_time	15300.000000
ontime	15482.881857932
l1events	664623

2.1.3 Events

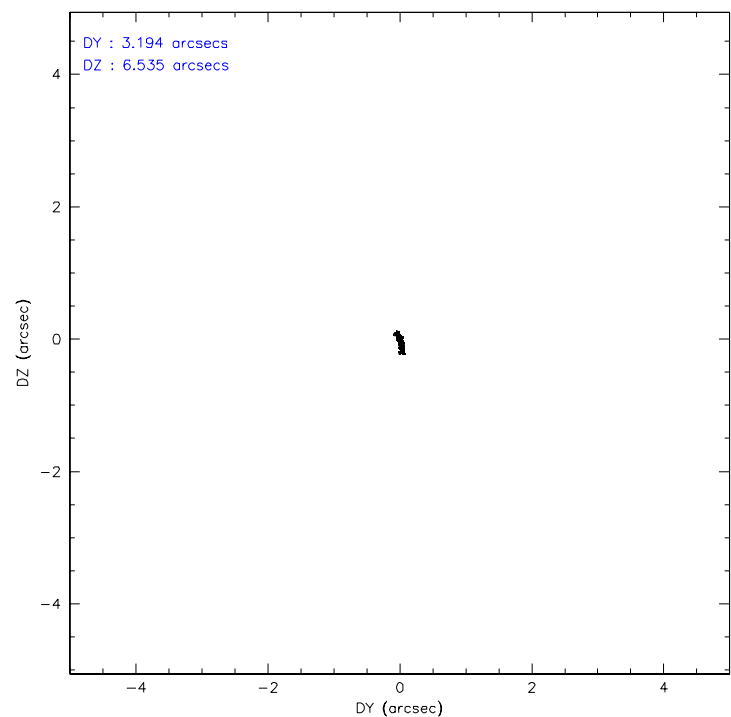
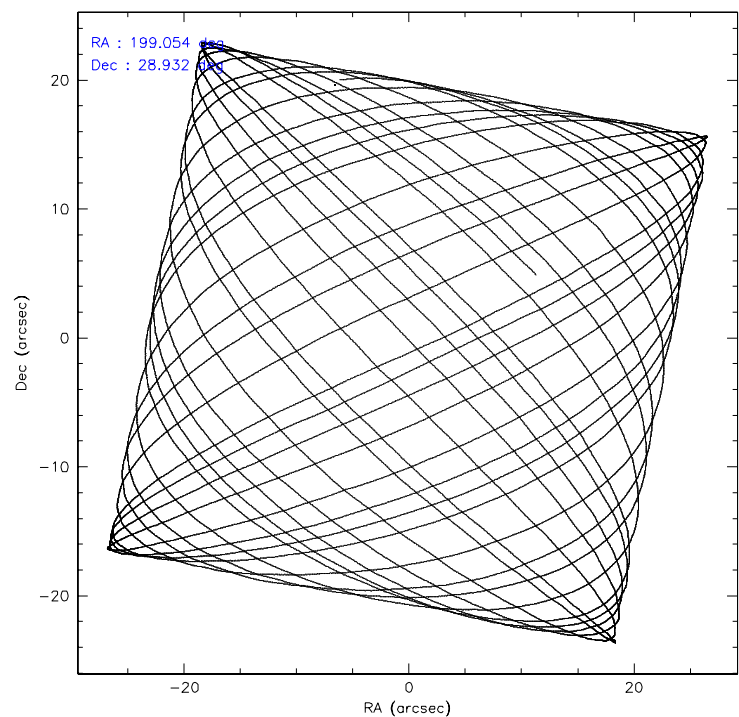
Level 1 Events

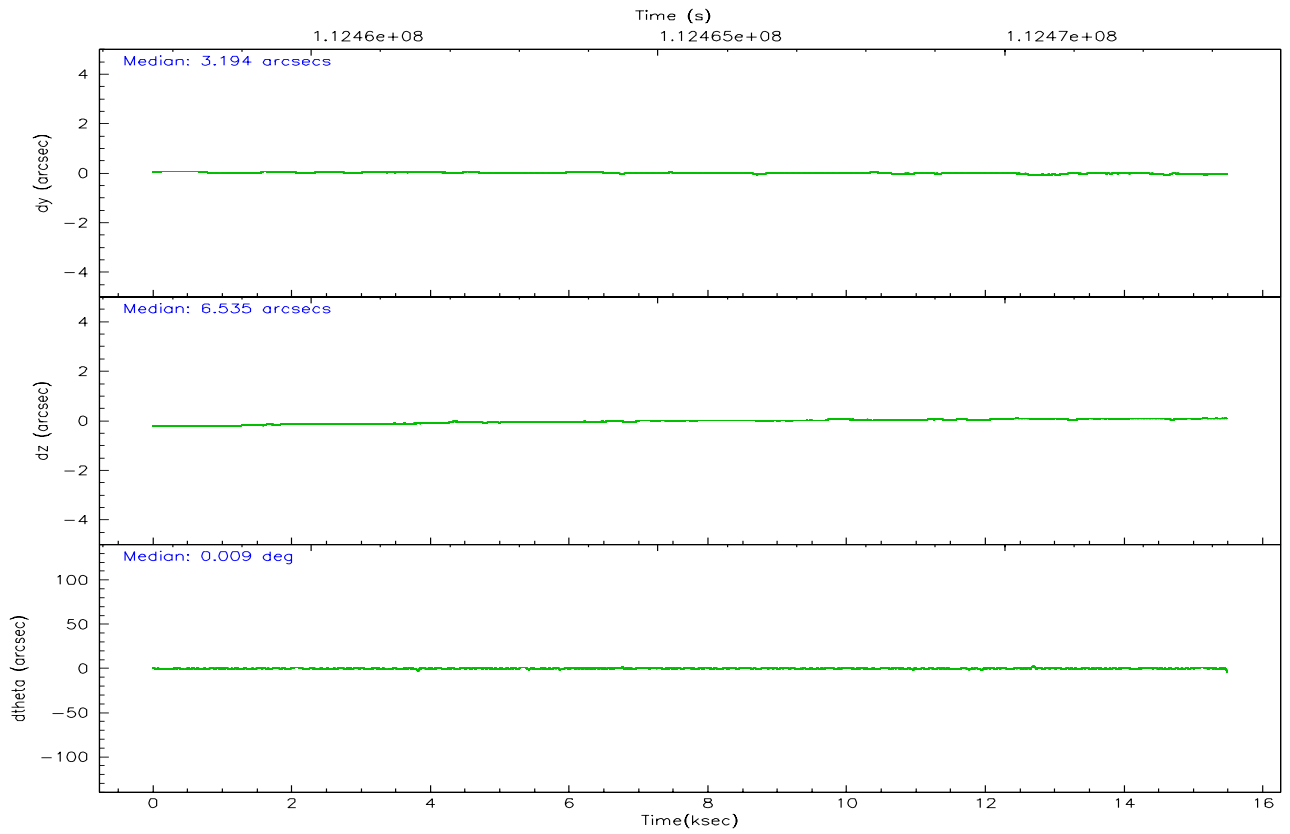
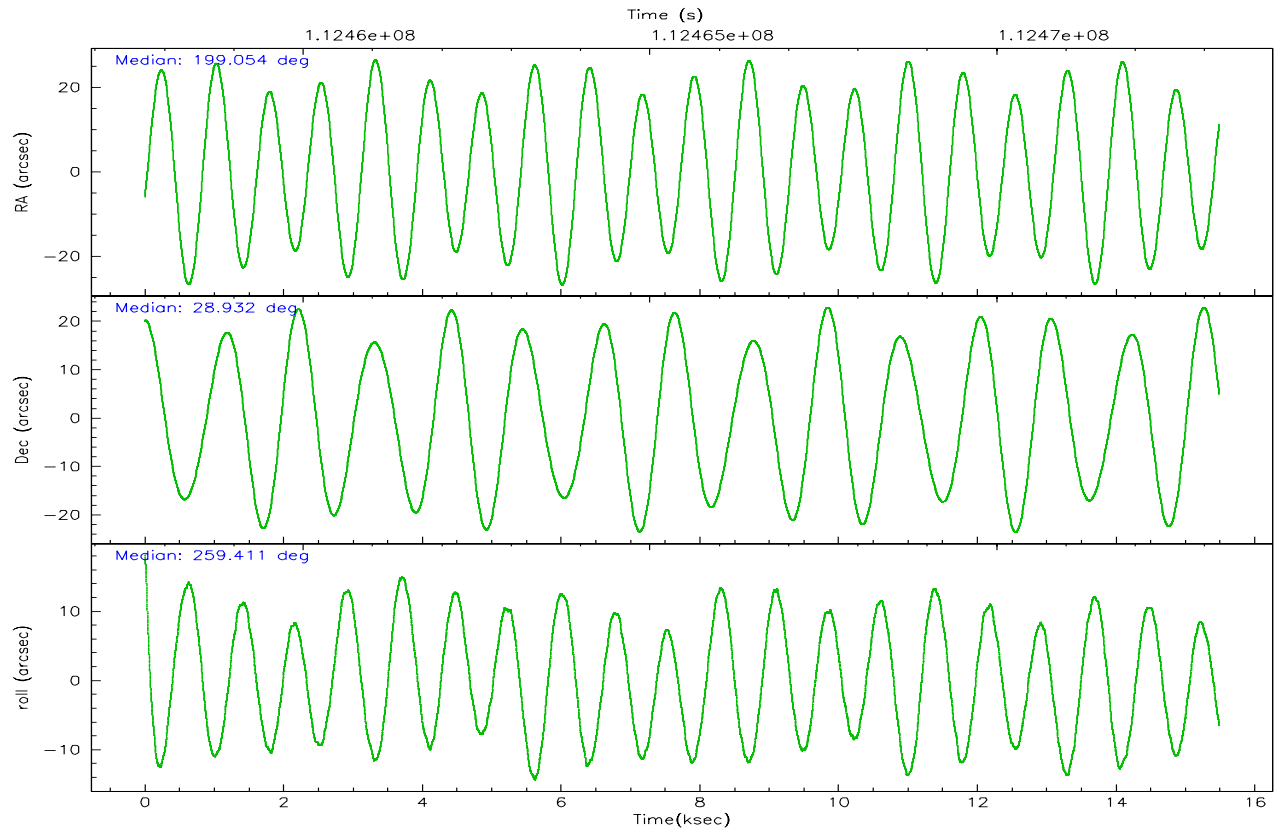
	segment 0
level 1 events	664623
rejected events	10972
rejected %	1%

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	199.043779	199.0546922629693			
Pointing Dec	28.956989	28.93163881666733			
Pointing Roll	259.519021	259.418247500987			
Window start time	110332864.184000	110332864.184000			
Window stop time	112838464.184000	112838464.184000			
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	112457908.184000	112457532.5148			
Observation start date	2001-07-25T14:17:24	2001-07-25T14:12:12			
Observation end time	112473208.184000	112473926.36544			
Observation end date	2001-07-25T18:32:24	2001-07-25T18:45:26			

2.3 Aspect



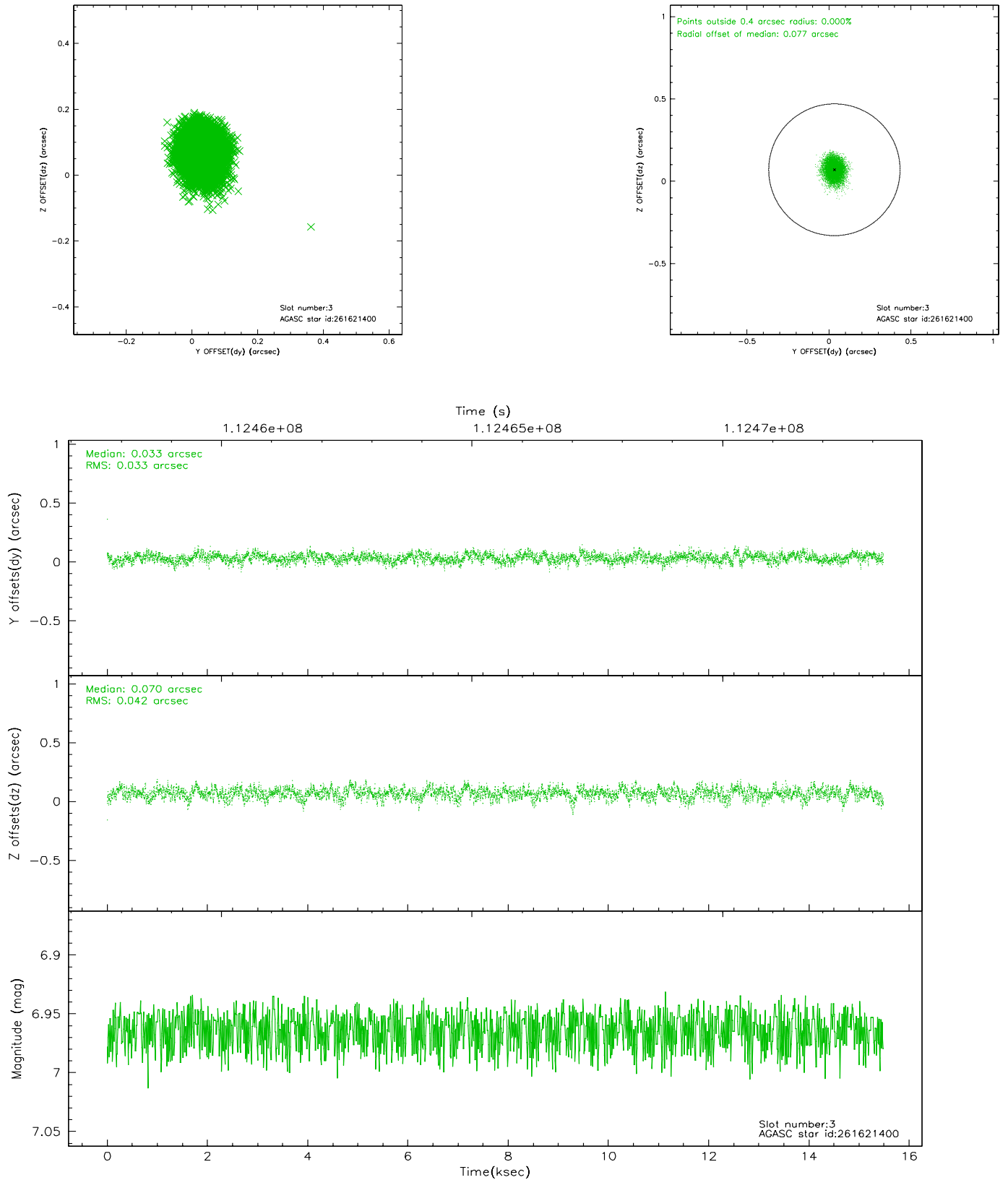


Slot Statistics

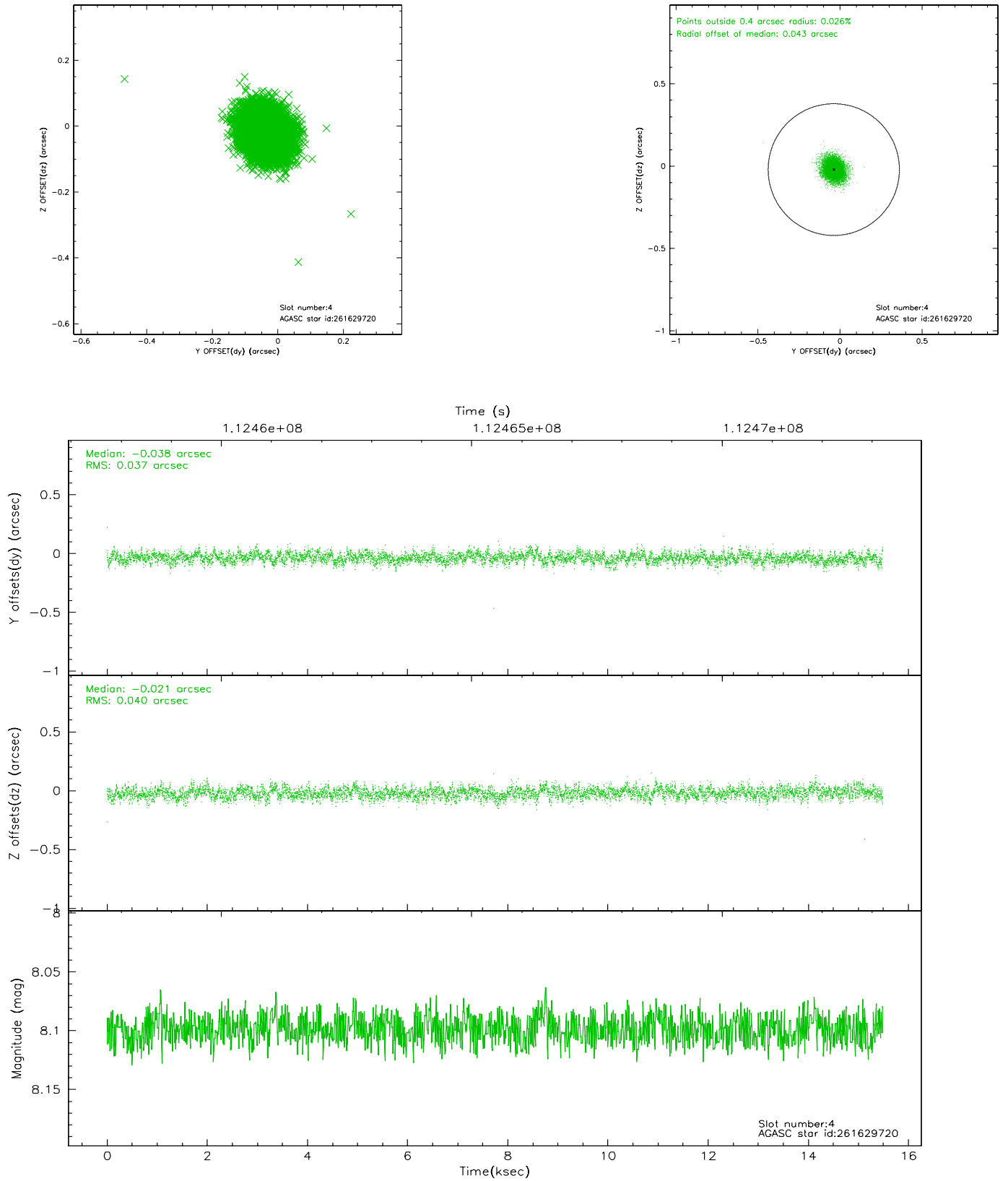
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	HRC-I-1	6.97	3777	0.060	0.032	0.010	0.020	0.000000	0.000000	-758.64	-1294.35
1	FID	HRC-I-3	7.06	3776	0.009	-0.058	0.010	0.016	0.000000	0.000000	-1187.34	1009.79
2	FID	HRC-I-4	7.00	3777	0.045	-0.062	0.009	0.016	0.000000	0.000000	1283.86	1007.96
3	GUIDE	261621400	6.96	7555	0.033	0.070	0.057	0.092	198.901600	28.741982	842.46	-299.26
4	GUIDE	261629720	8.10	7555	-0.038	-0.021	0.058	0.094	199.236176	29.044452	-420.34	539.11
5	GUIDE	261619776	8.80	7553	-0.099	-0.072	0.081	0.128	198.654383	29.401174	-1352.25	-1491.10
6	GUIDE	261619992	9.32	7554	0.036	0.014	0.087	0.141	198.395553	28.647634	1462.16	-1811.07
7	GUIDE	261623624	9.12	7552	0.067	0.011	0.104	0.160	199.611555	28.454113	1448.97	2096.81

2.4 Star Slots

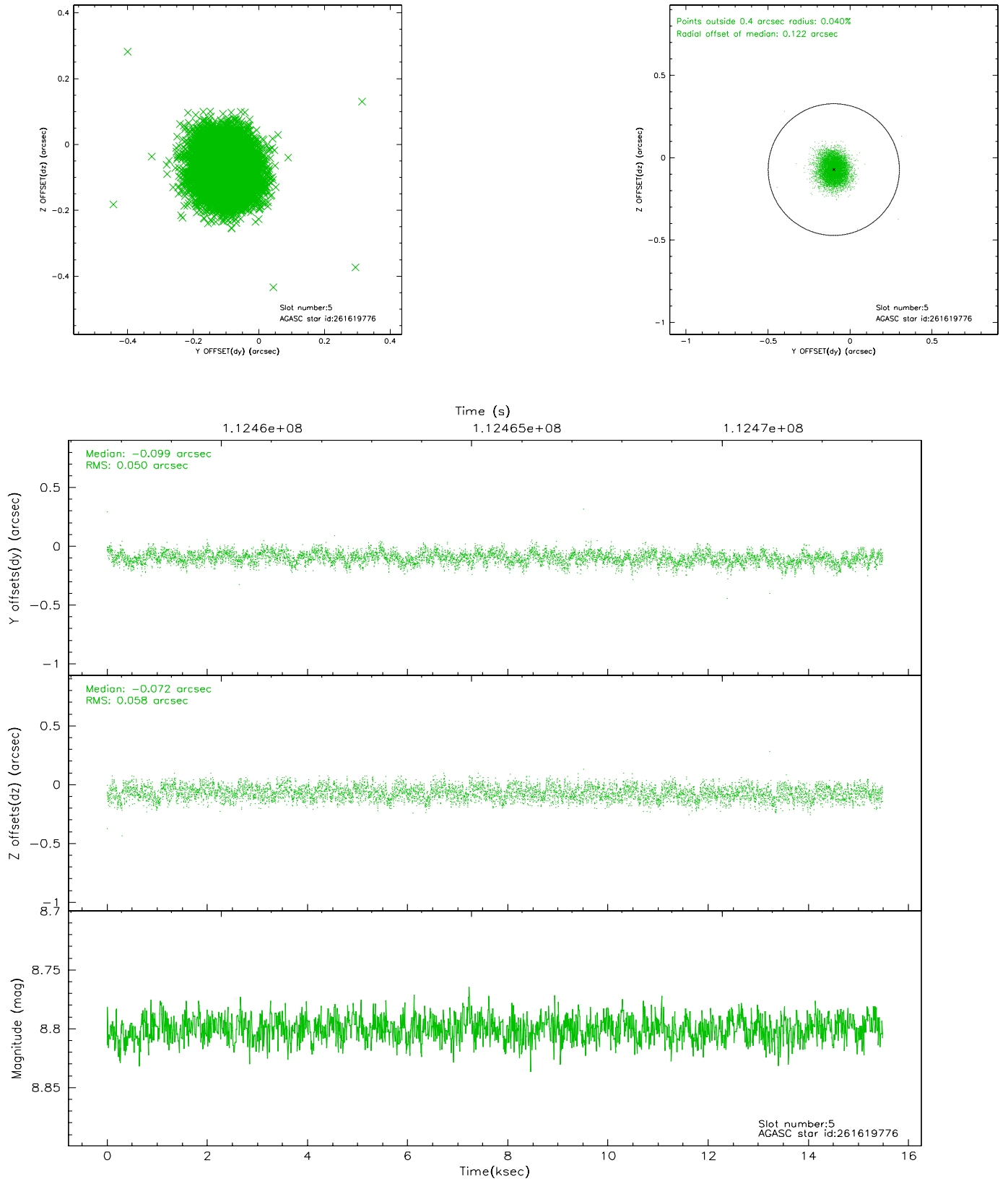
2.4.1 Slot 3



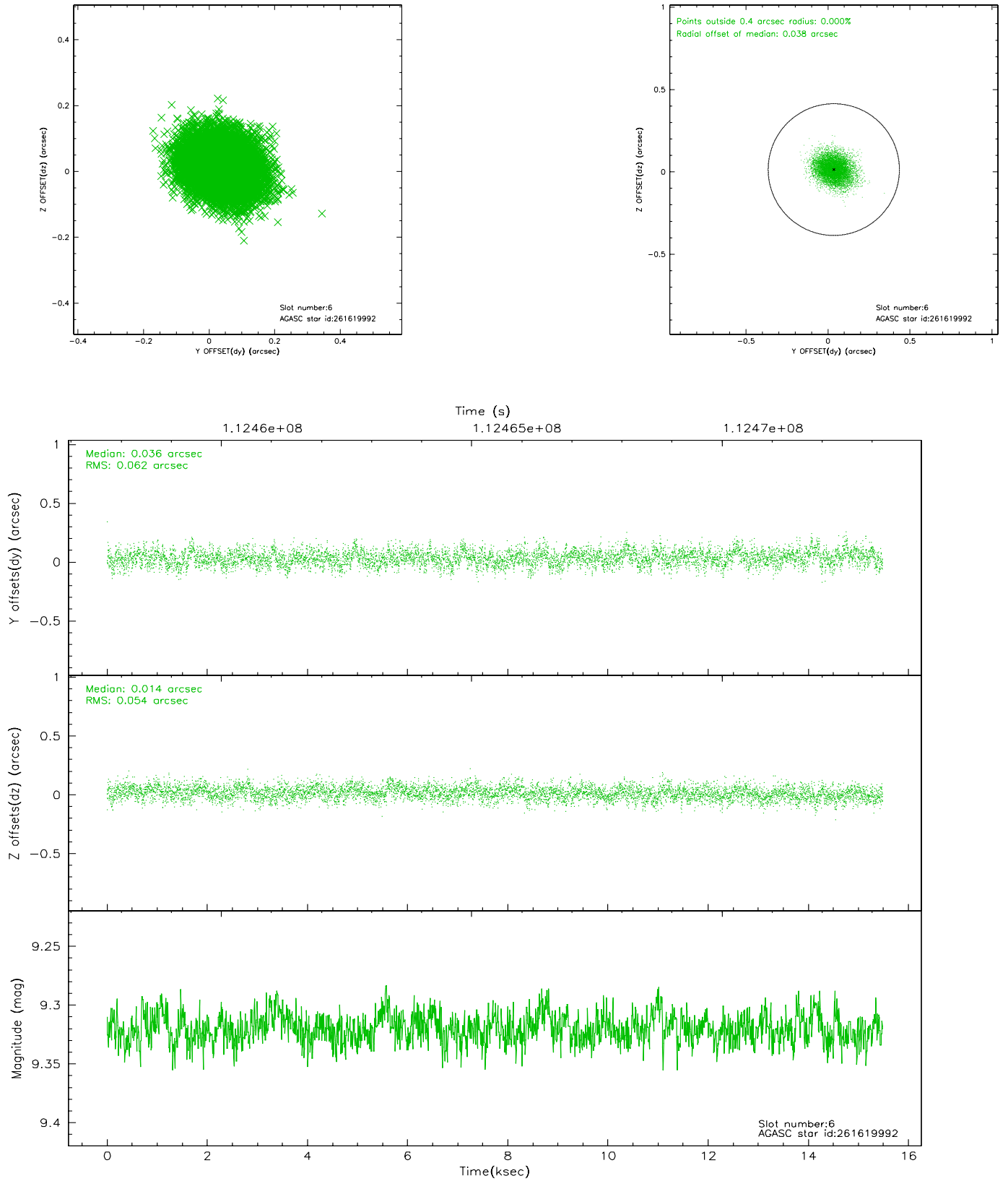
2.4.2 Slot 4



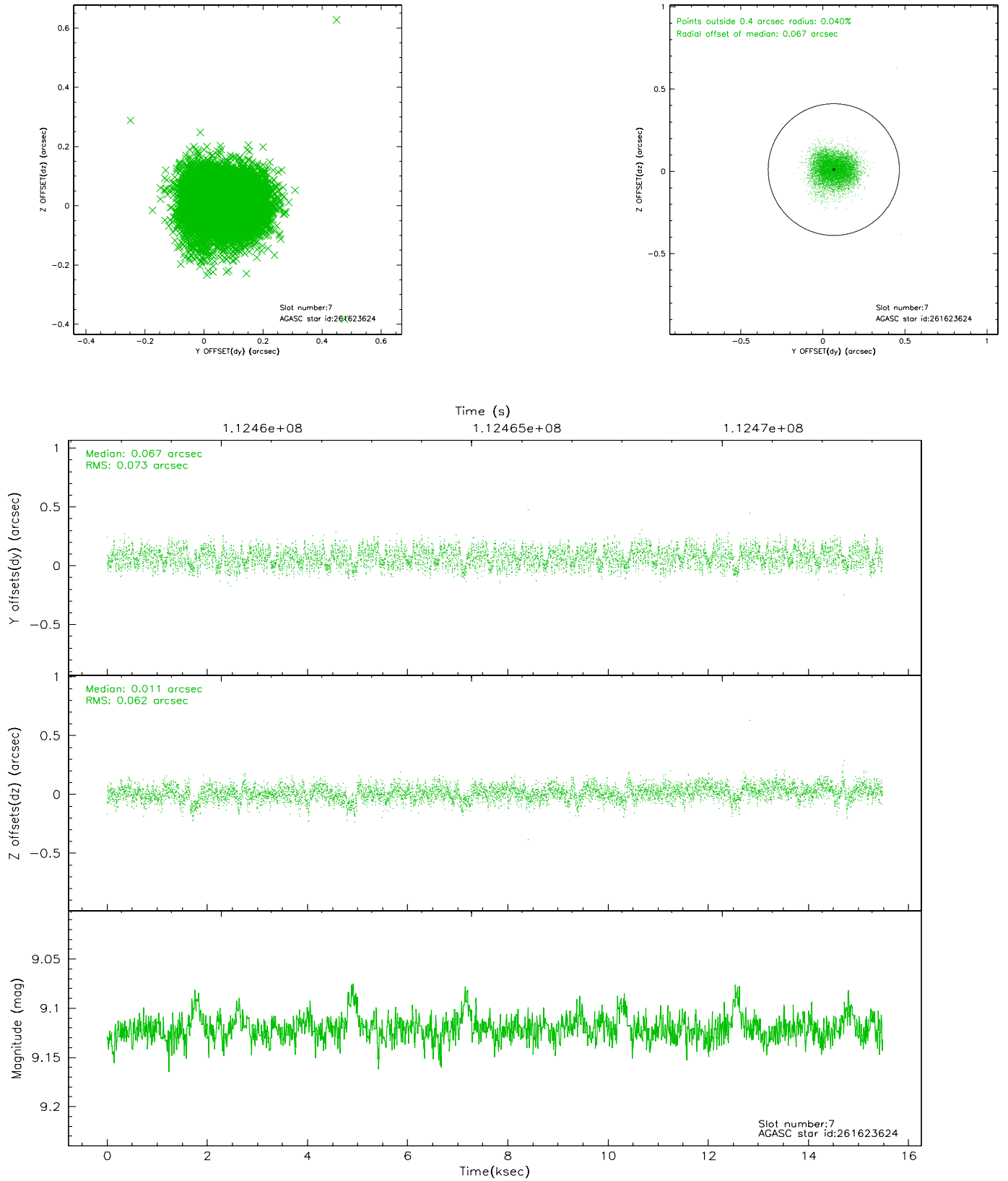
2.4.3 Slot 5



2.4.4 Slot 6

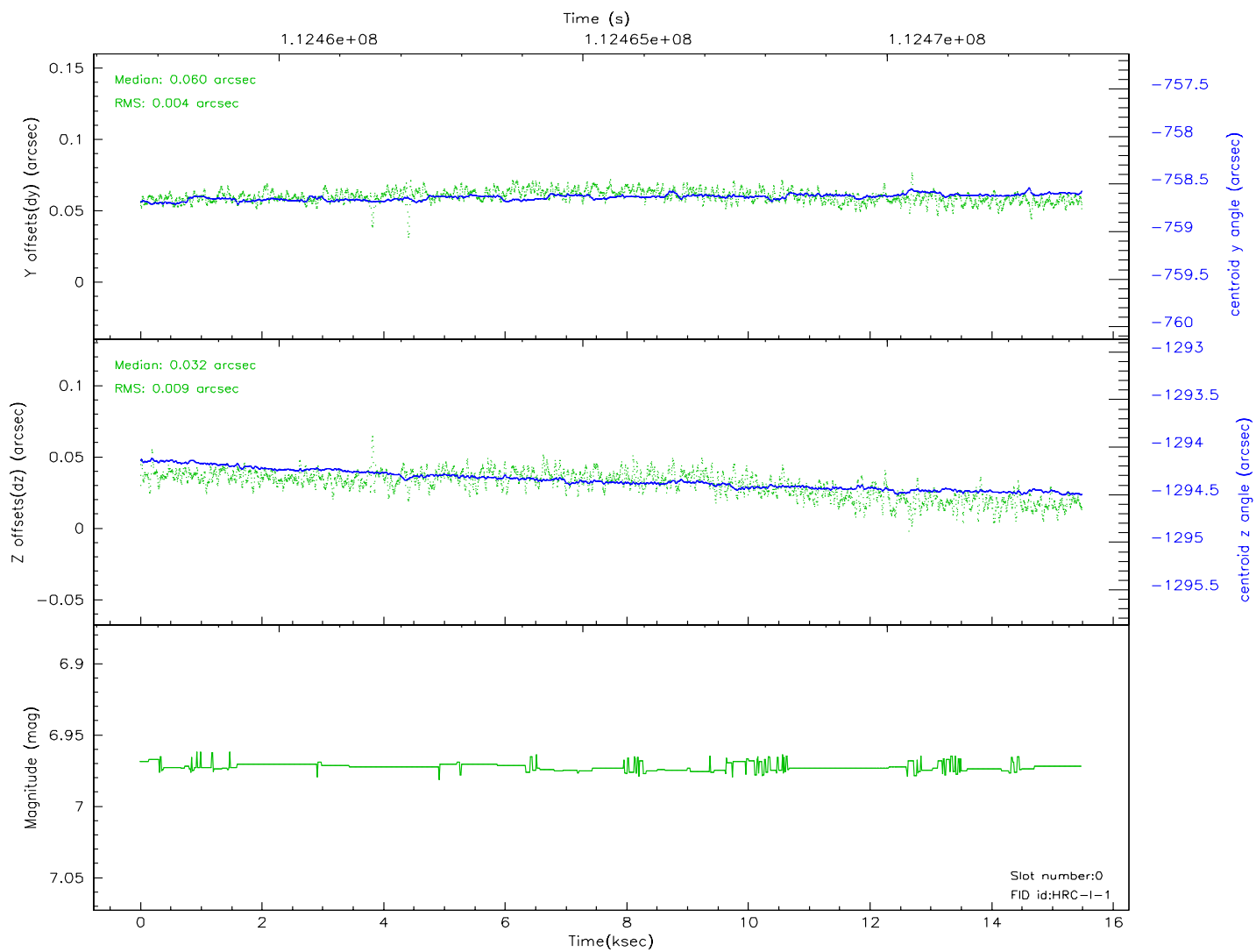
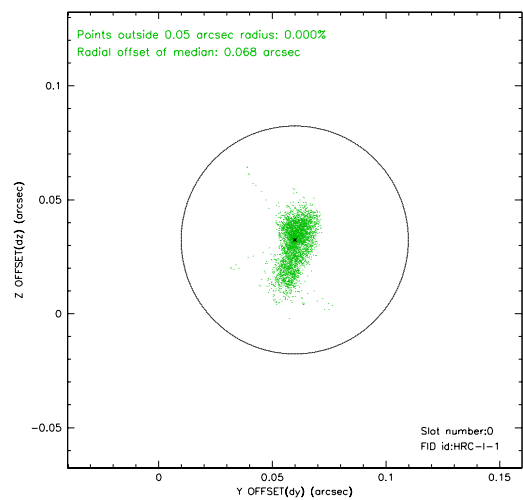
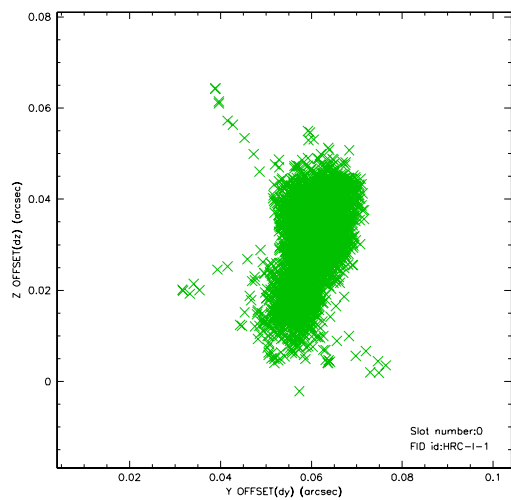


2.4.5 Slot 7

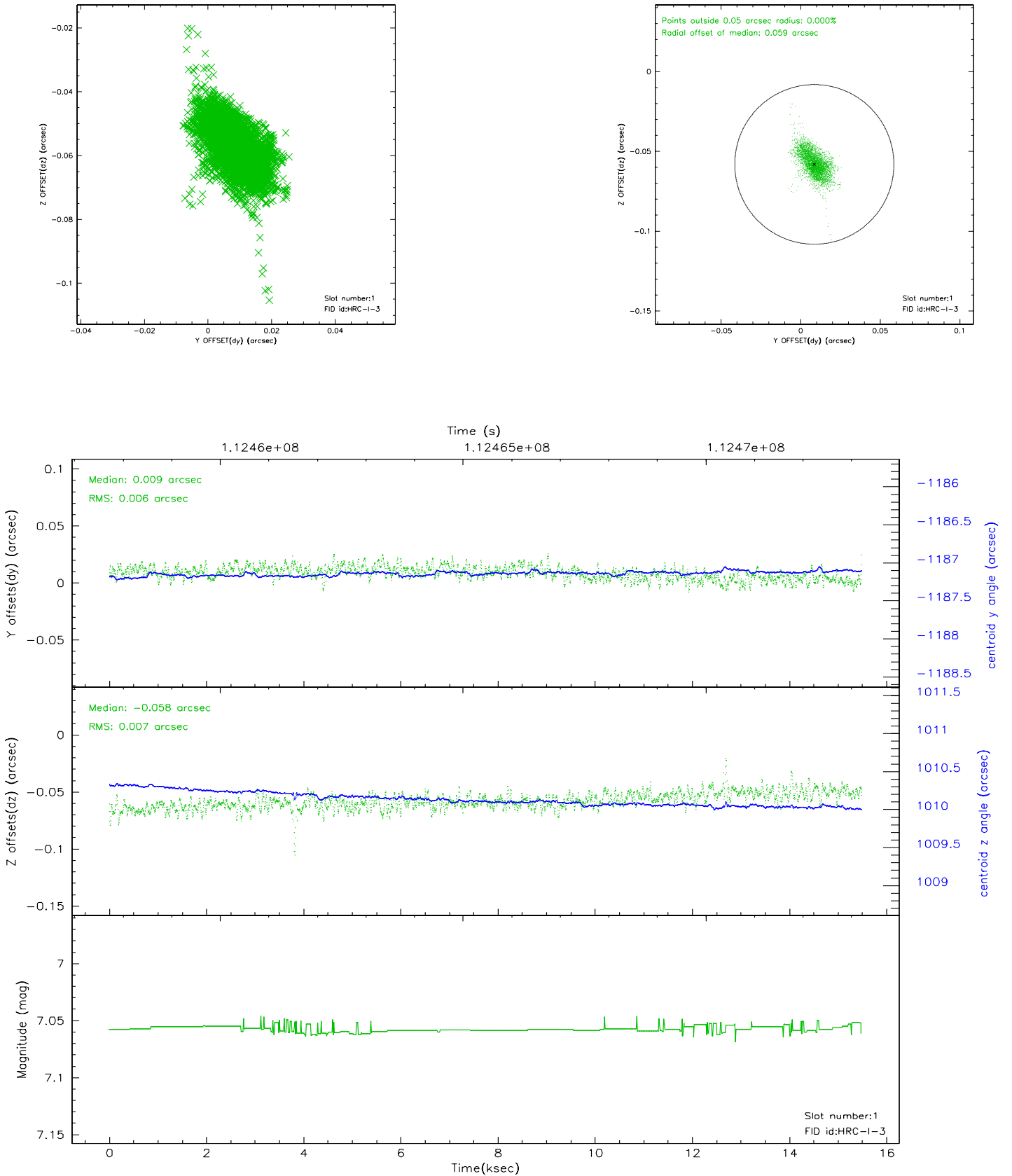


2.5 FID Slots

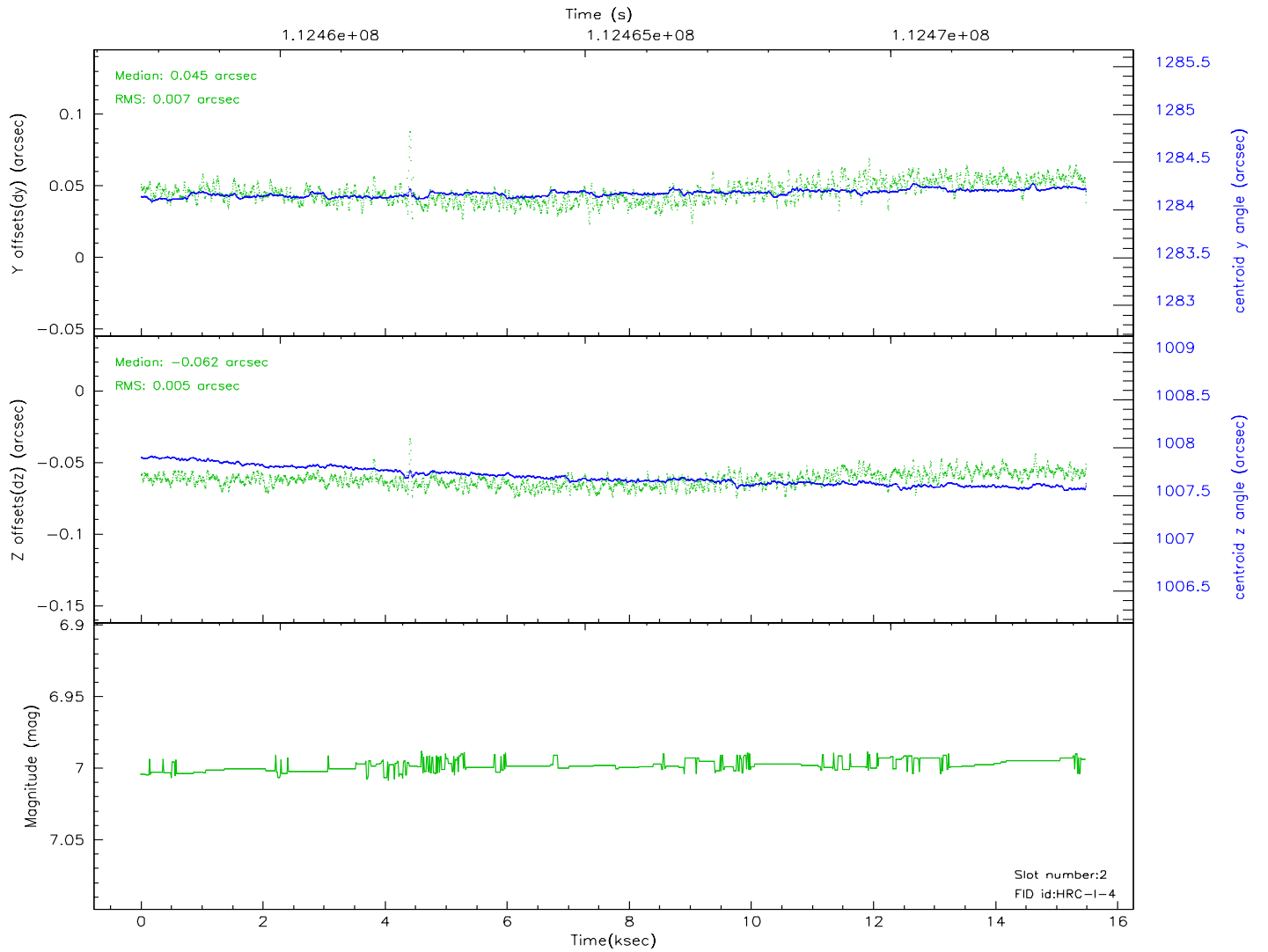
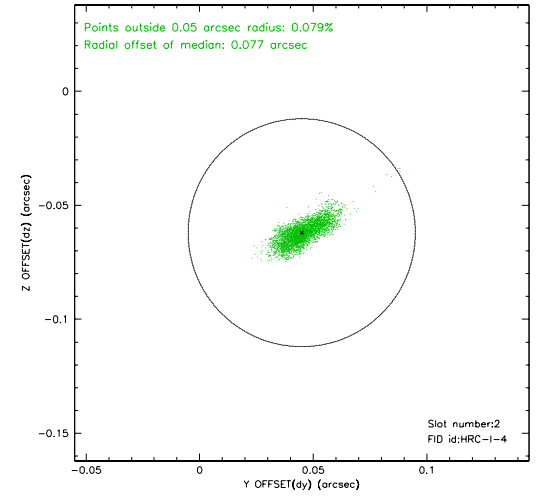
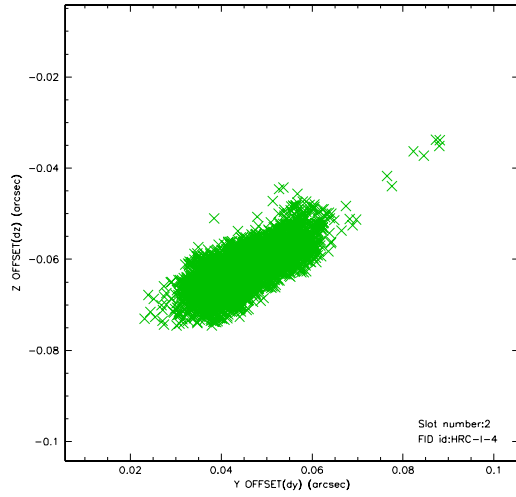
2.5.1 Slot 0



2.5.2 Slot 1

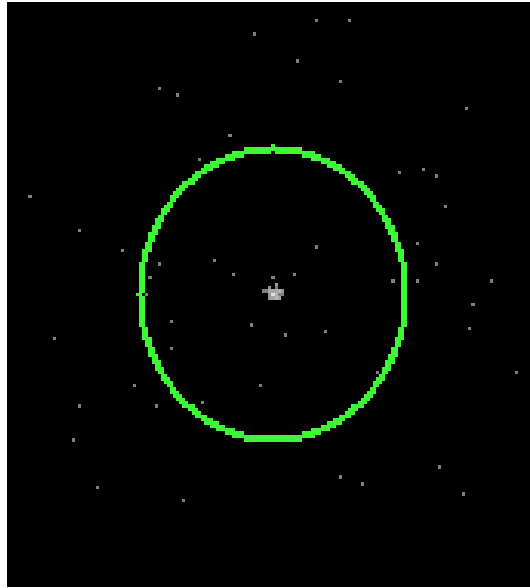


2.5.3 Slot 2

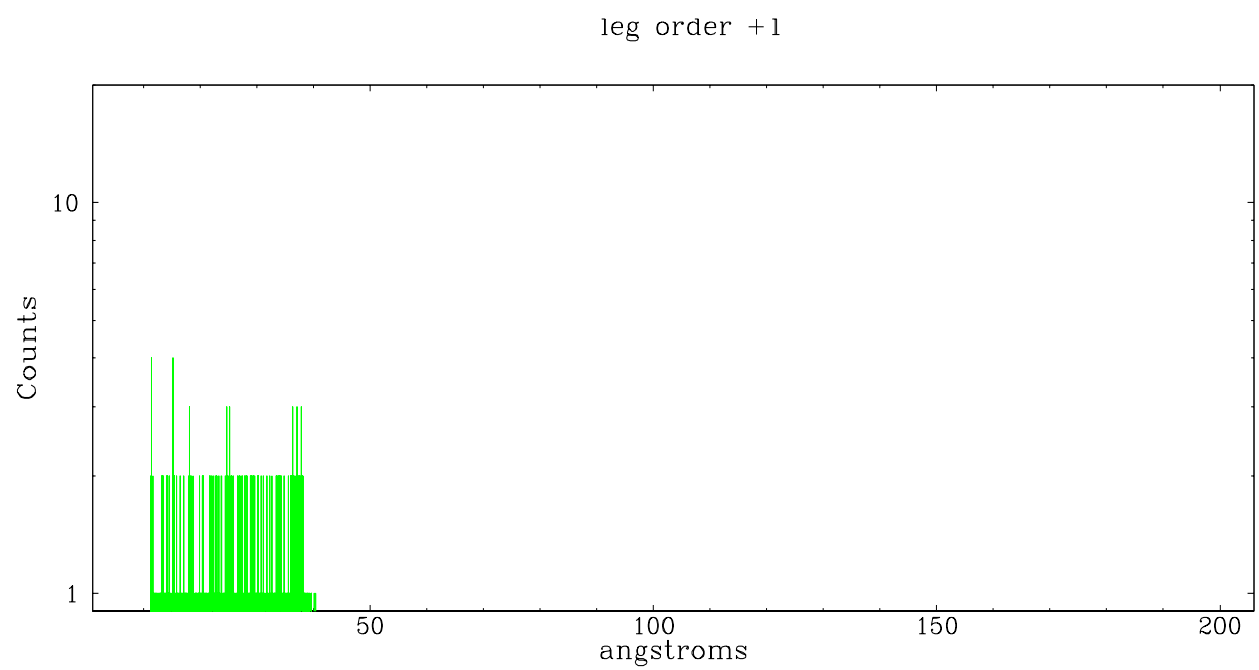
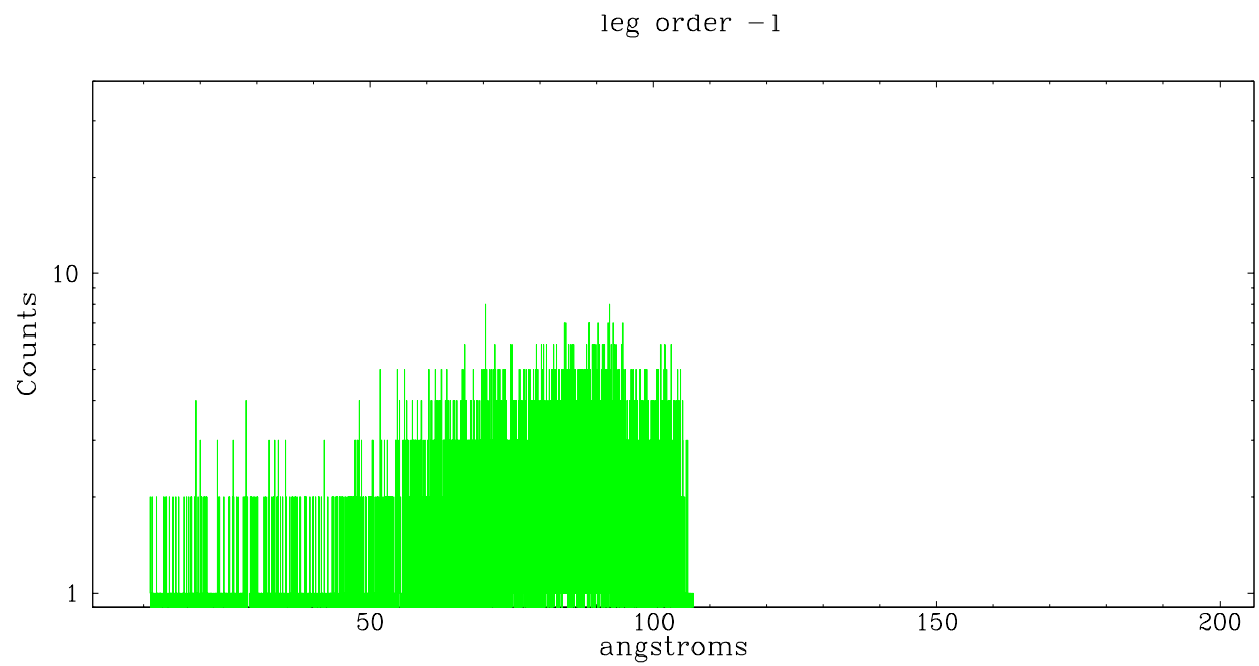


3 Gratings

3.1 LETG Arm



LETG Zero Order



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2007.12.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	15.476

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.

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Source is placed about 12 arcmin off-axis toward the corner of the detector. The point spread function is significantly extended by this off-axis position. Off-axis source gratings observation: WARNING: there are no standard CIAO tools for analysis of grating spectra from extended sources. The shape of an emission 'line' will be the shape of the zero order spatial structure convolved with the instrumental LSF. Grating extractions can be used, but need to be combined with custom spatial-spectral analysis, since wavelength is multi-valued at any particular diffraction angle. WARNING: The user will need to deconvolve the PSF of the off-axis source to get an accurate determination of the zeroth order position, then use software tools such as CIAO to specify the coordinates of the zeroth order before running the tools to resolve the dispersed events. The spectral data supplied in this processing are only energy-calibrated for the results of tgdetect, which uses the source-detection tool celldetect.