

V&V Reference Report

L2 ASCDS Version : 7.6.10

Observation 1800 - L2 Version 5
Chandra X-Ray Center

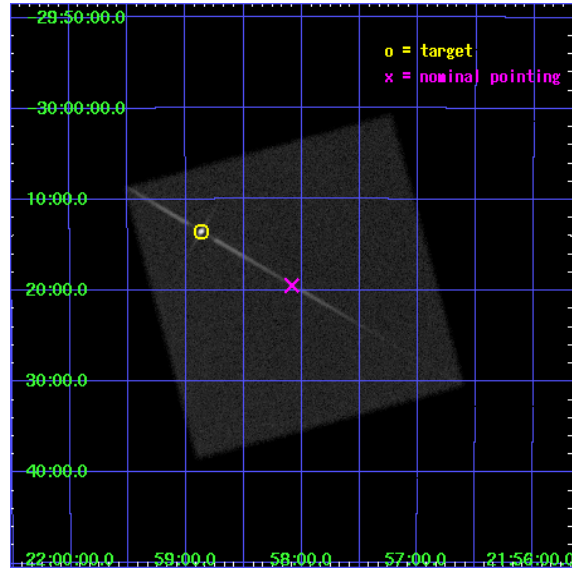
L2 Processing Date : Nov 20 2007

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1 Front

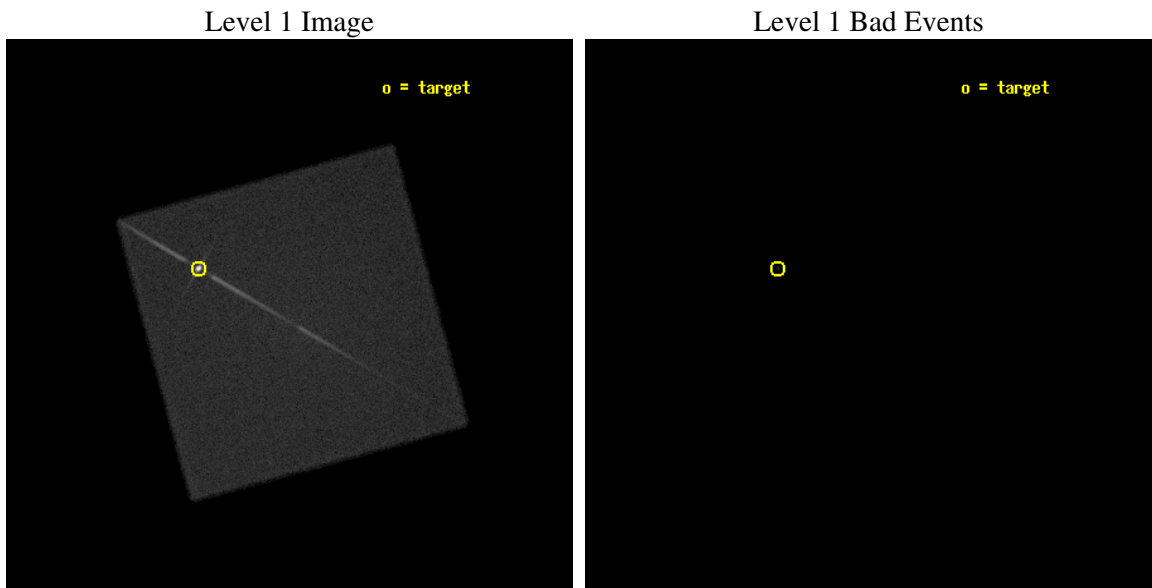
seq_num	390018
obs_id	1800
title	GRATINGS CALIBRATION OBSERVATIONS OF PKS2155-304
observer	Dr. CXC Calibration
object	PKS2155-304
ra_targ	329.716667
dec_targ	-30.225556
ra_nom	329.52126693271
dec_nom	-30.324957453
roll_nom	29.854841550756
revision	5
ontime	19869.881991223
livetime	19783.956626886
l2events	463754



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	2007-11-20T12:51:38
revision	5

sched_exp_time	20000.000000
ontime	19869.881992221
l1events	678778

2.1.3 Events

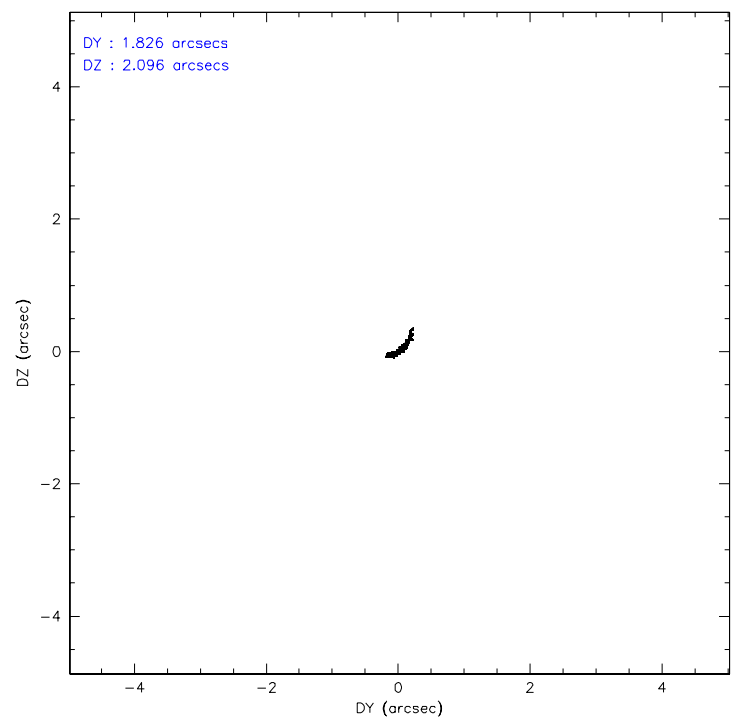
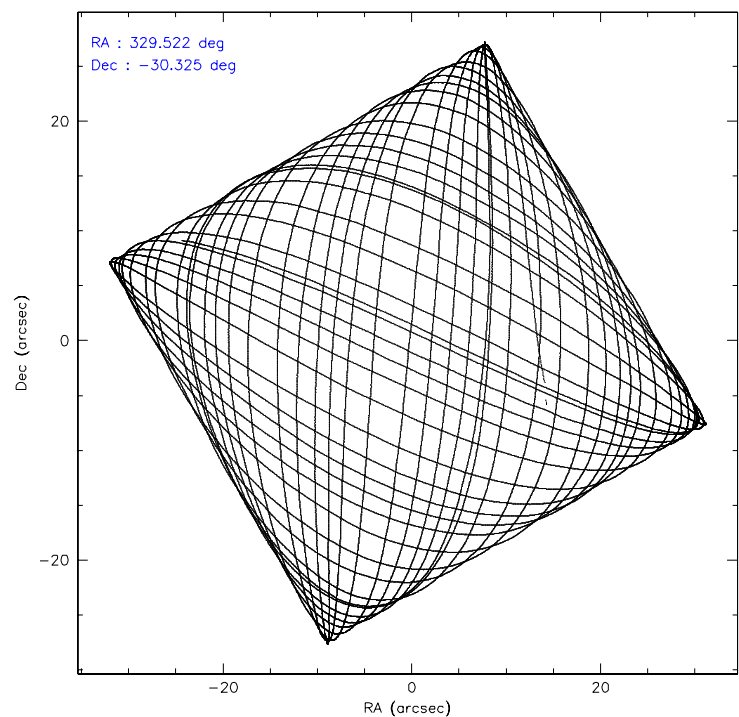
Level 1 Events

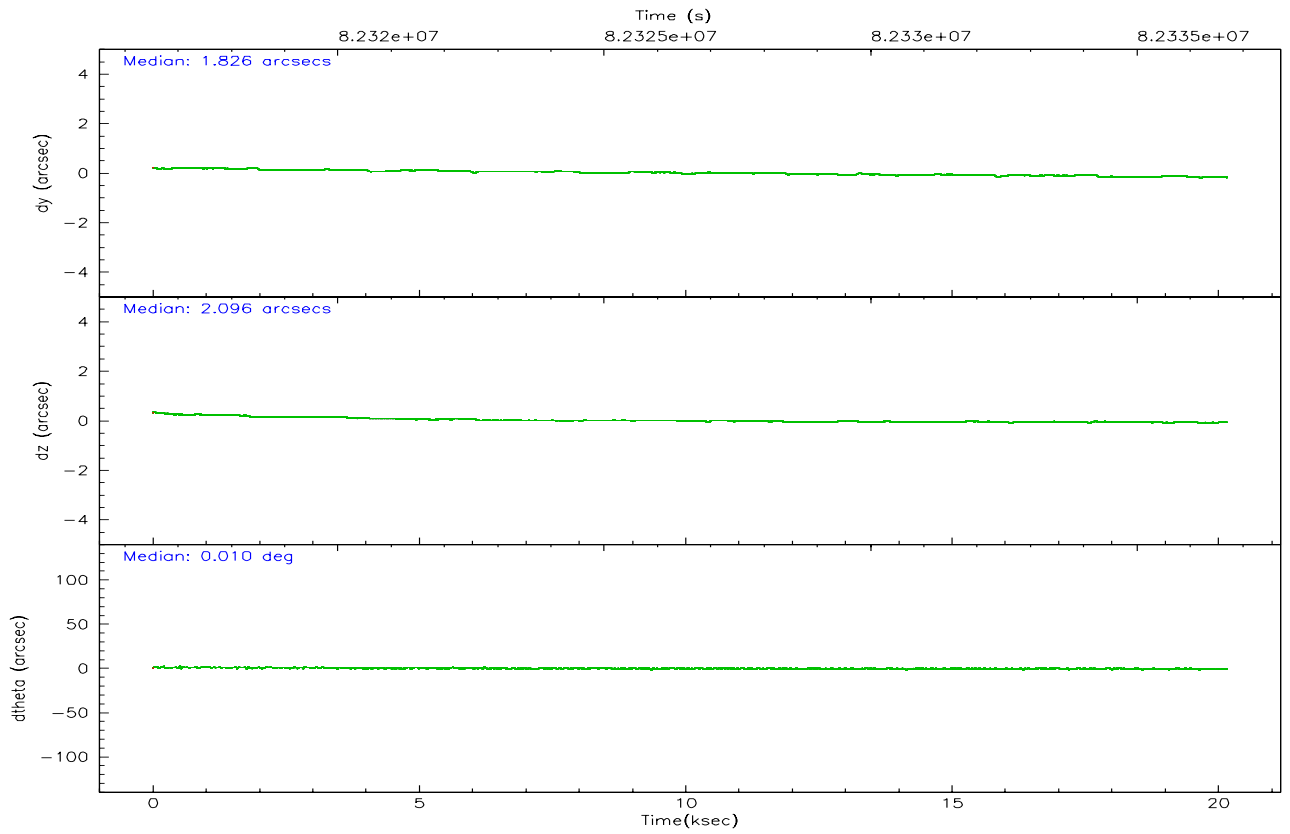
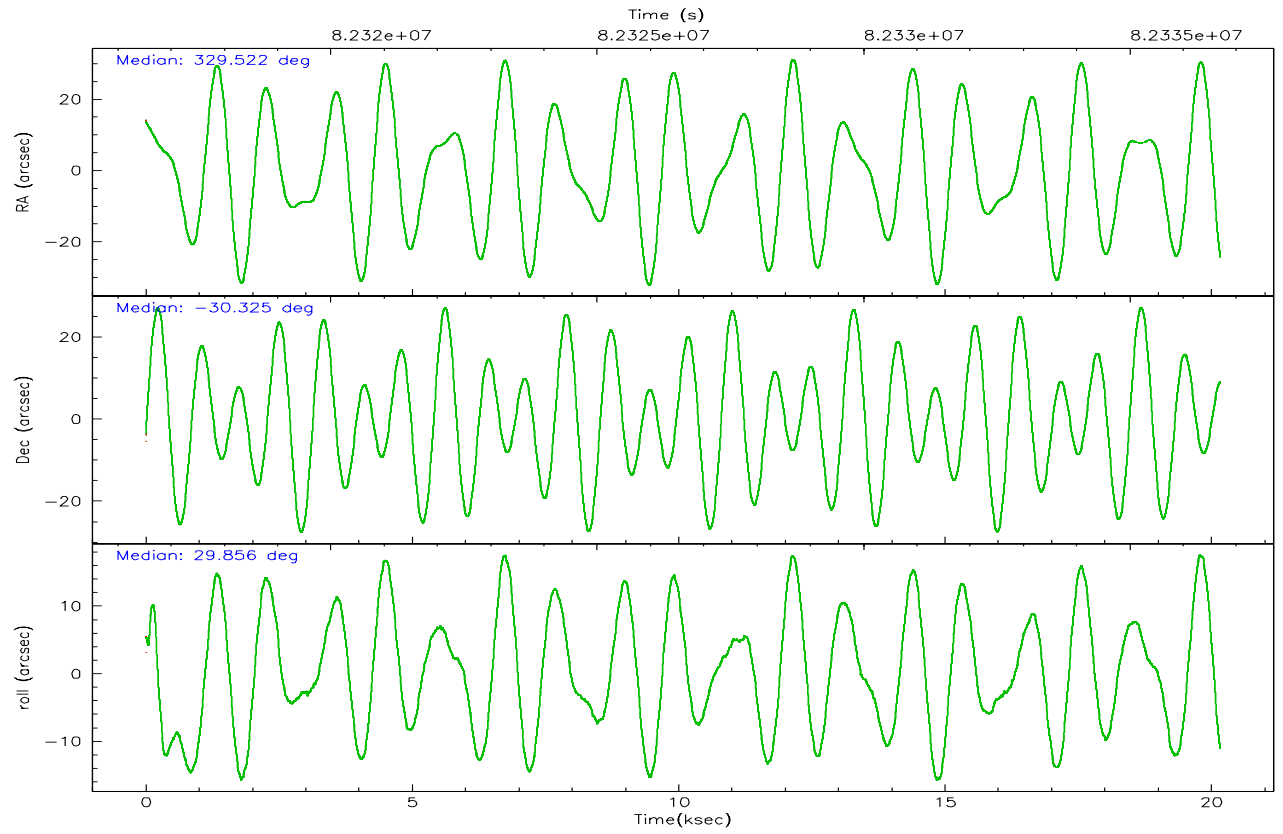
	segment 0
level 1 events	678778
rejected events	2379
rejected %	0%

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	329.505758	329.5212669327133			
Pointing Dec	-30.348778	-30.32495745300042			
Pointing Roll	29.942491	29.85484155075632			
SIM focus pos (mm)	-1.040293	-1.038866356238299			
SIM defocus (mm)	0	0.001426264420575141			
SIM translation stage pos (mm)	126.985494	126.9829799899862			
SIM translation stage offset (mm)	0	0.002508901615314585			
Observation start time	82316693.184000	82316295.770224			
Observation start date	2000-08-10T17:43:49	2000-08-10T17:38:15			
Observation end time	82336693.184000	82336827.545991			
Observation end date	2000-08-10T23:17:09	2000-08-10T23:20:27			

2.3 Aspect



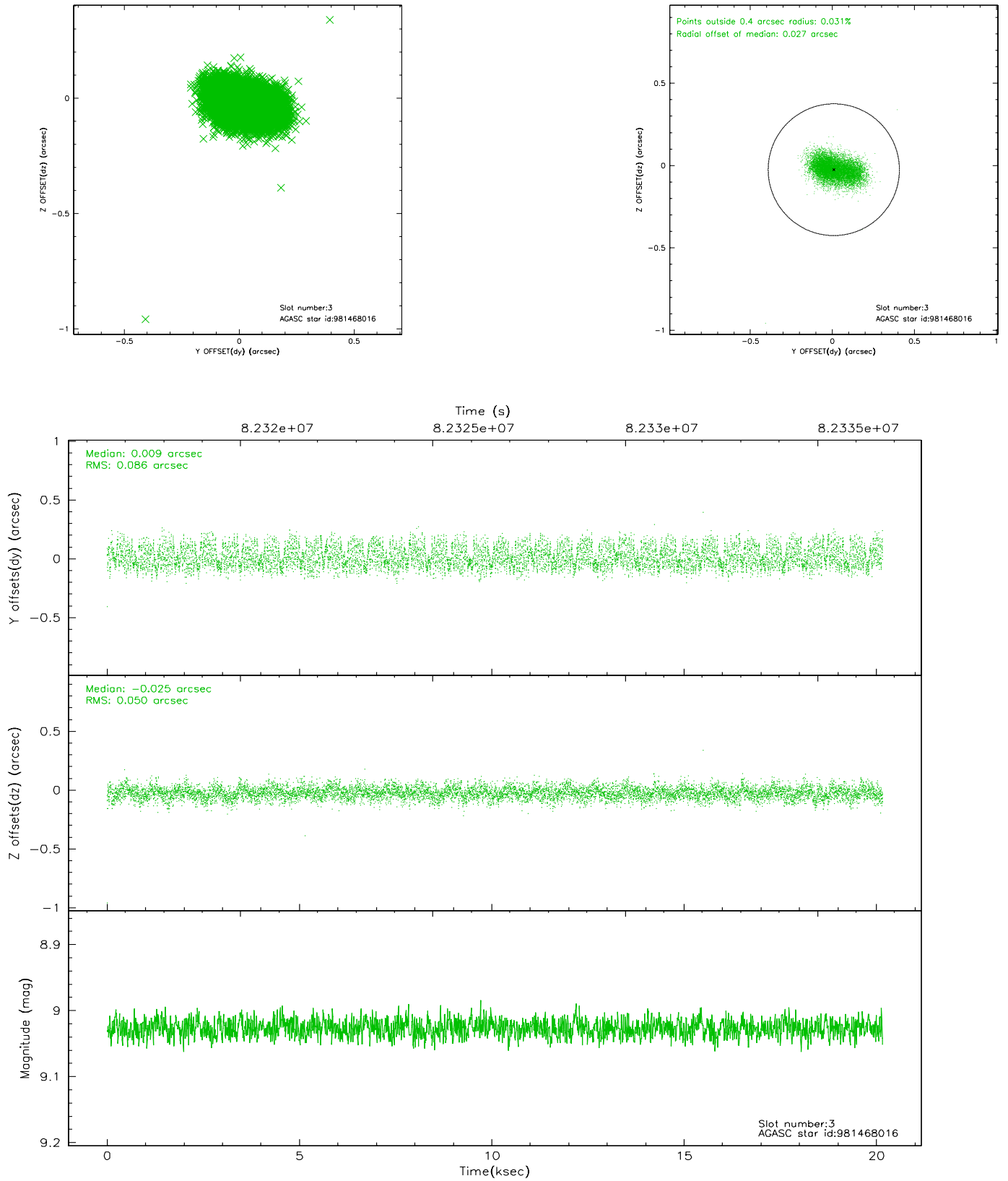


Slot Statistics

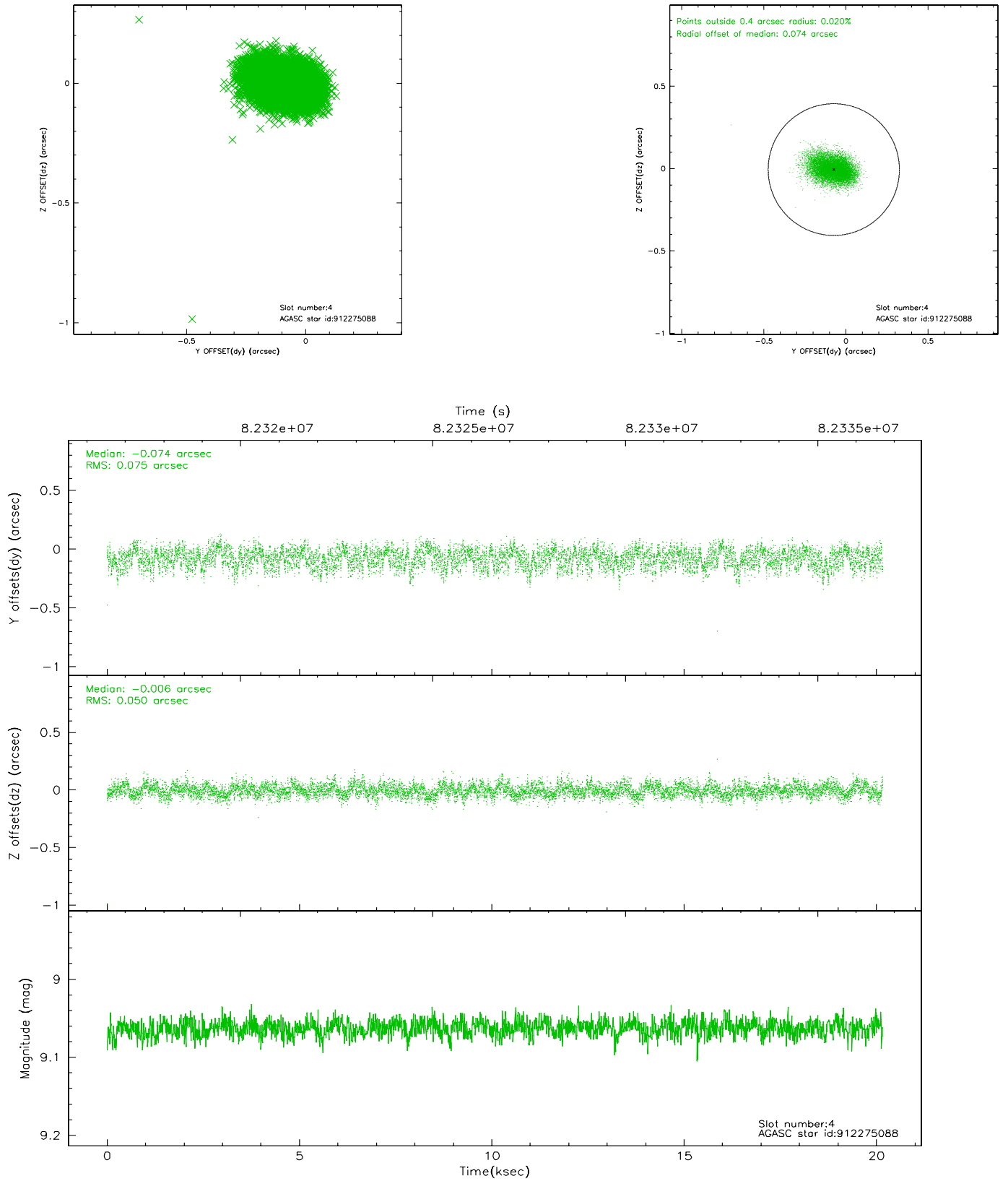
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	HRC-I-1	6.96	4919	0.063	-0.011	0.006	0.011	0.000000	0.000000	-757.25	-1289.82
1	FID	HRC-I-3	7.05	4918	0.028	-0.021	0.007	0.012	0.000000	0.000000	-1185.88	1014.48
2	FID	HRC-I-4	7.00	4918	0.023	-0.057	0.006	0.009	0.000000	0.000000	1285.31	1012.46
3	GUIDE	981468016	9.03	9831	0.009	-0.025	0.106	0.170	328.842457	-30.034984	-1230.86	2006.17
4	GUIDE	912275088	9.06	9837	-0.074	-0.006	0.094	0.154	329.619228	-29.738698	1402.95	1726.82
5	GUIDE	981468288	9.21	9832	0.049	0.022	0.101	0.159	328.608359	-30.257017	-2258.91	1670.36
6	GUIDE	981468128	9.36	9834	0.050	-0.026	0.084	0.140	329.756350	-30.158334	1017.10	204.80
7	GUIDE	981469488	9.60	9834	-0.035	0.032	0.105	0.198	329.261199	-30.045155	-115.55	1327.56

2.4 Star Slots

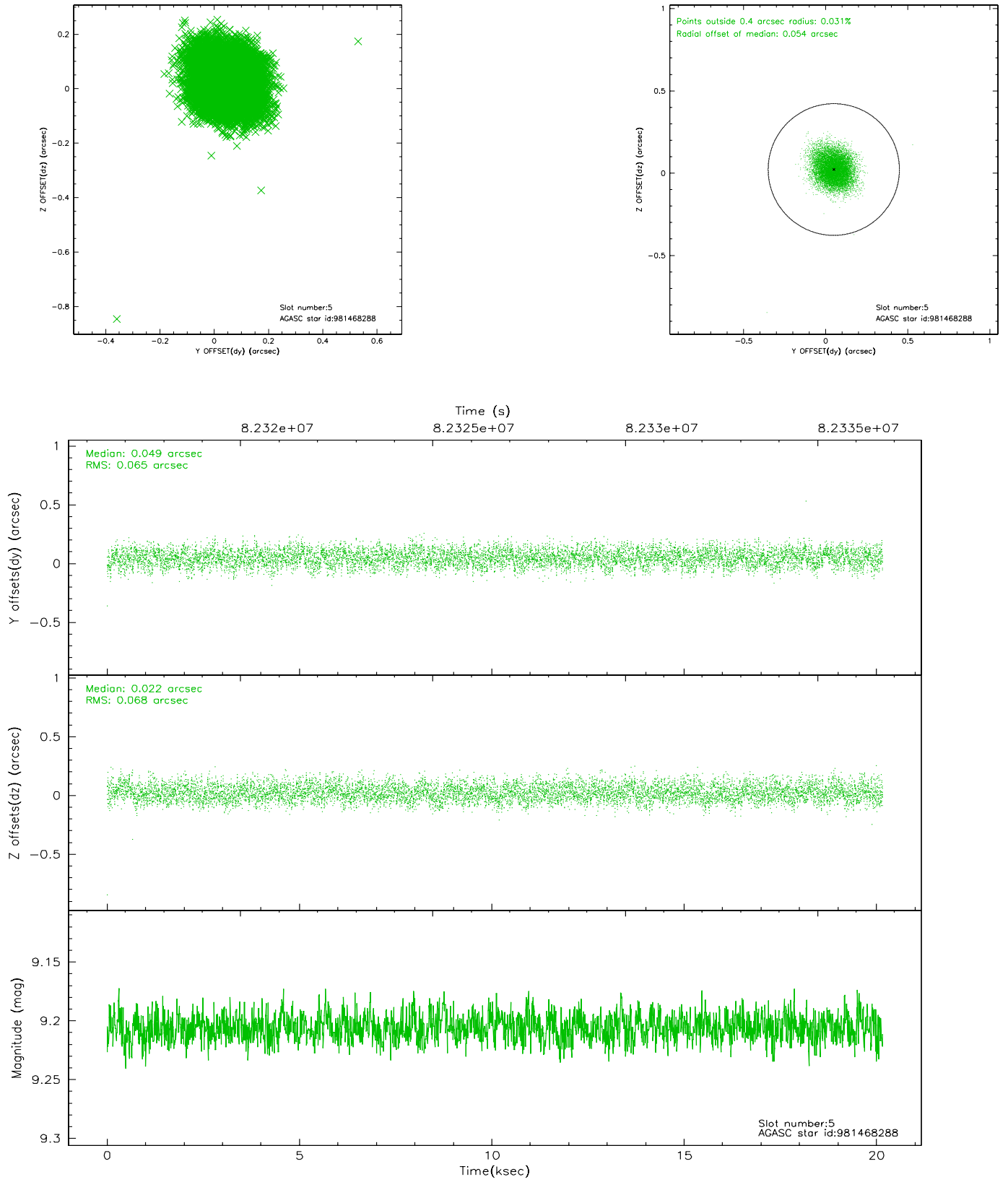
2.4.1 Slot 3



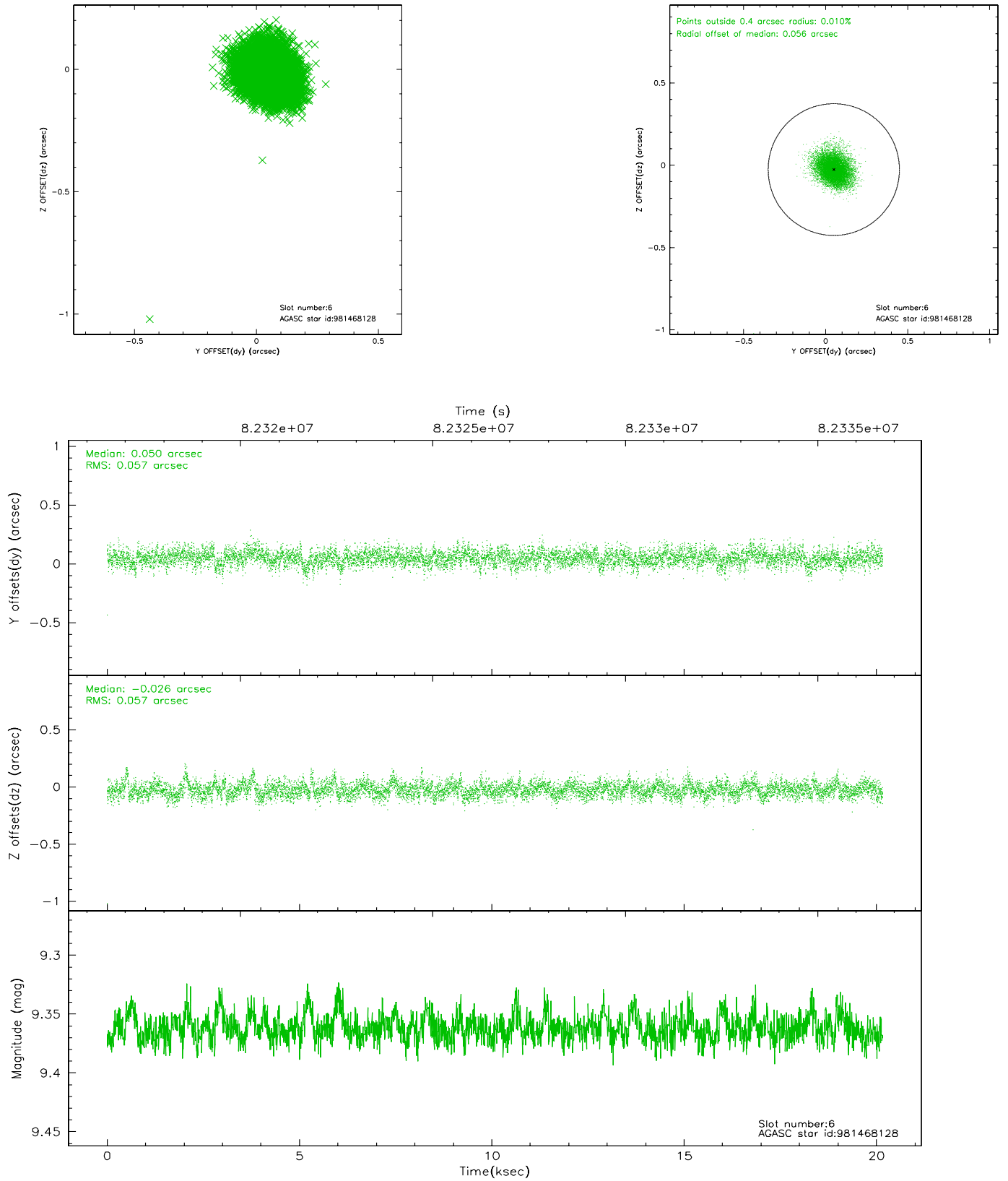
2.4.2 Slot 4



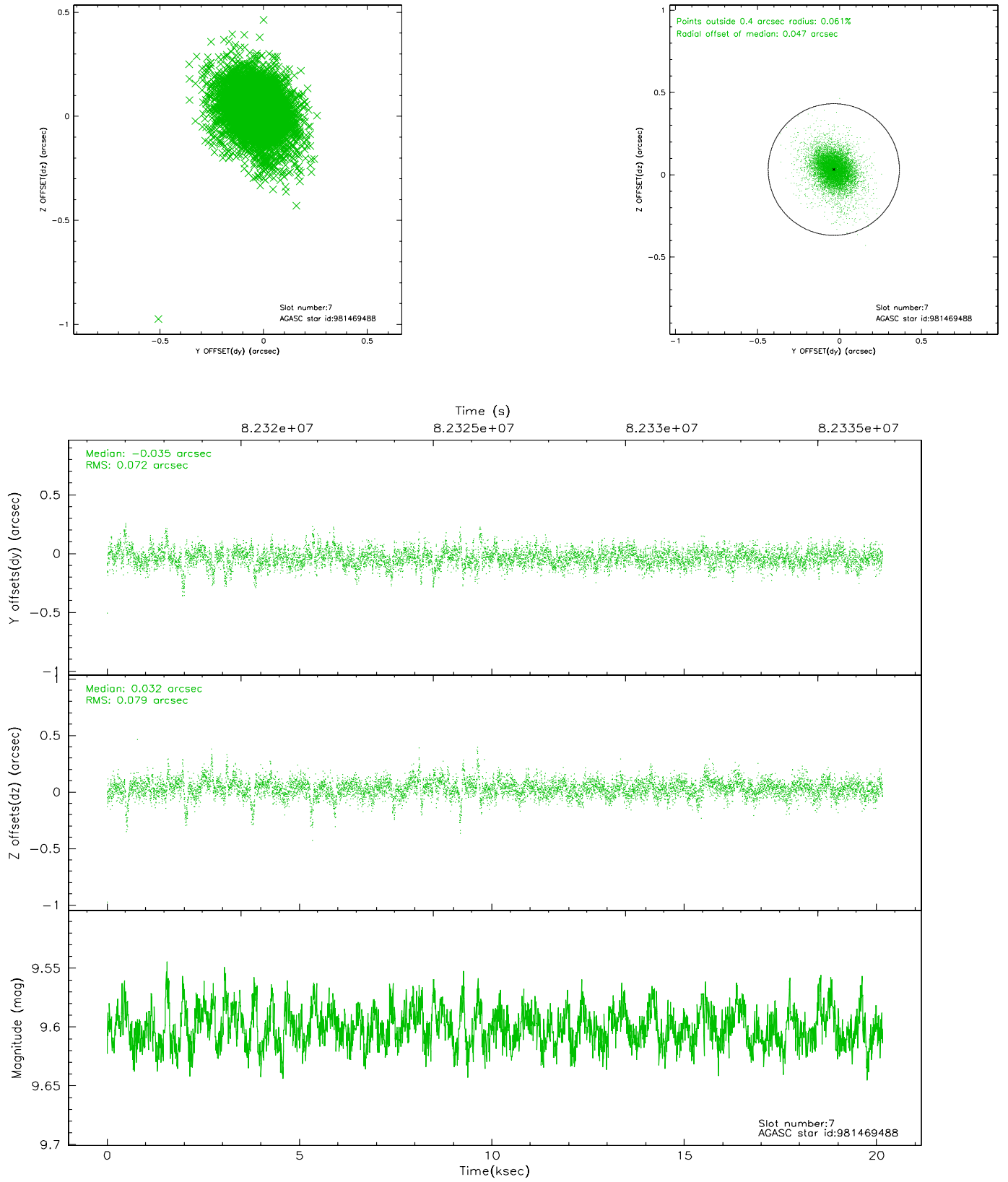
2.4.3 Slot 5



2.4.4 Slot 6

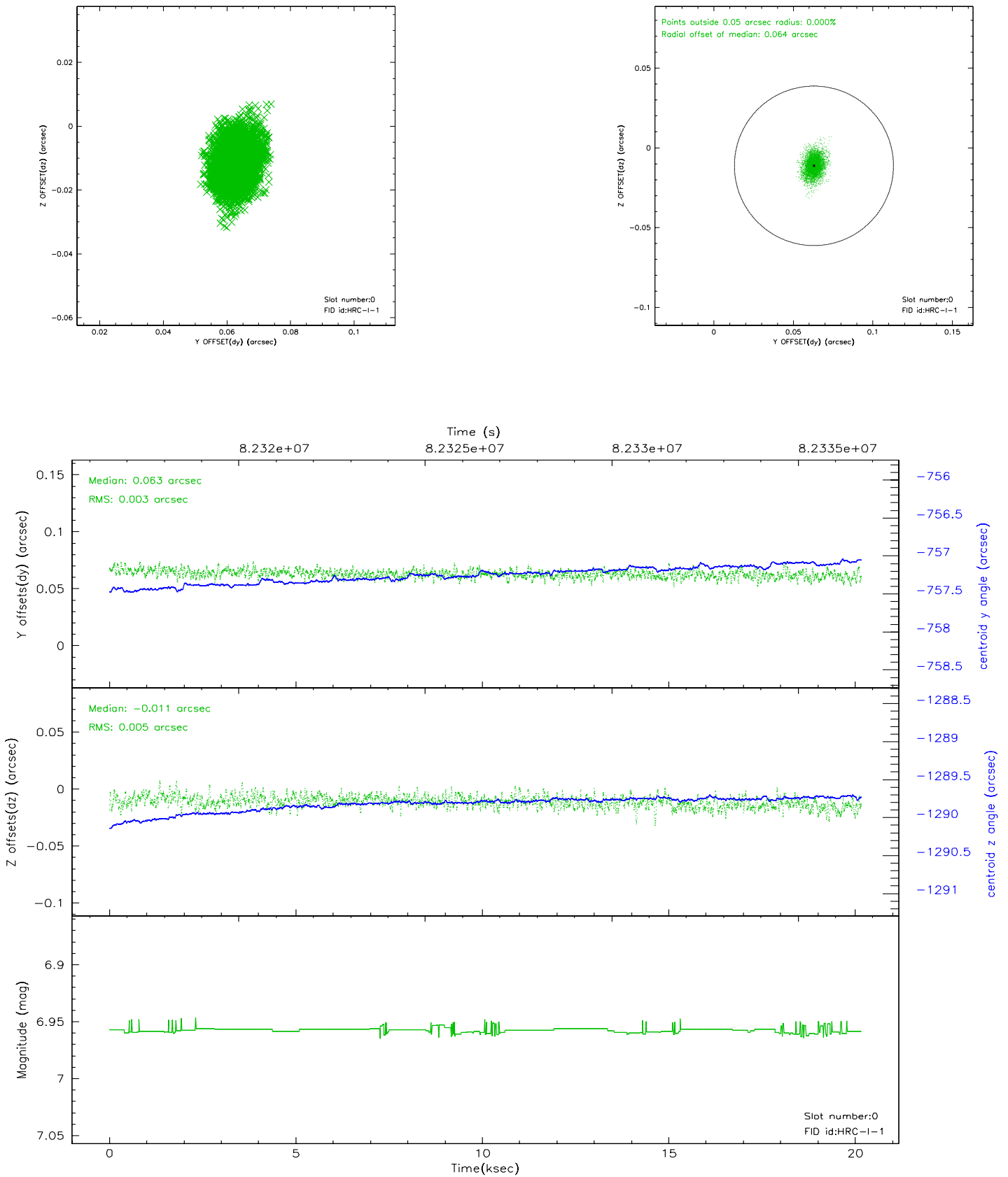


2.4.5 Slot 7

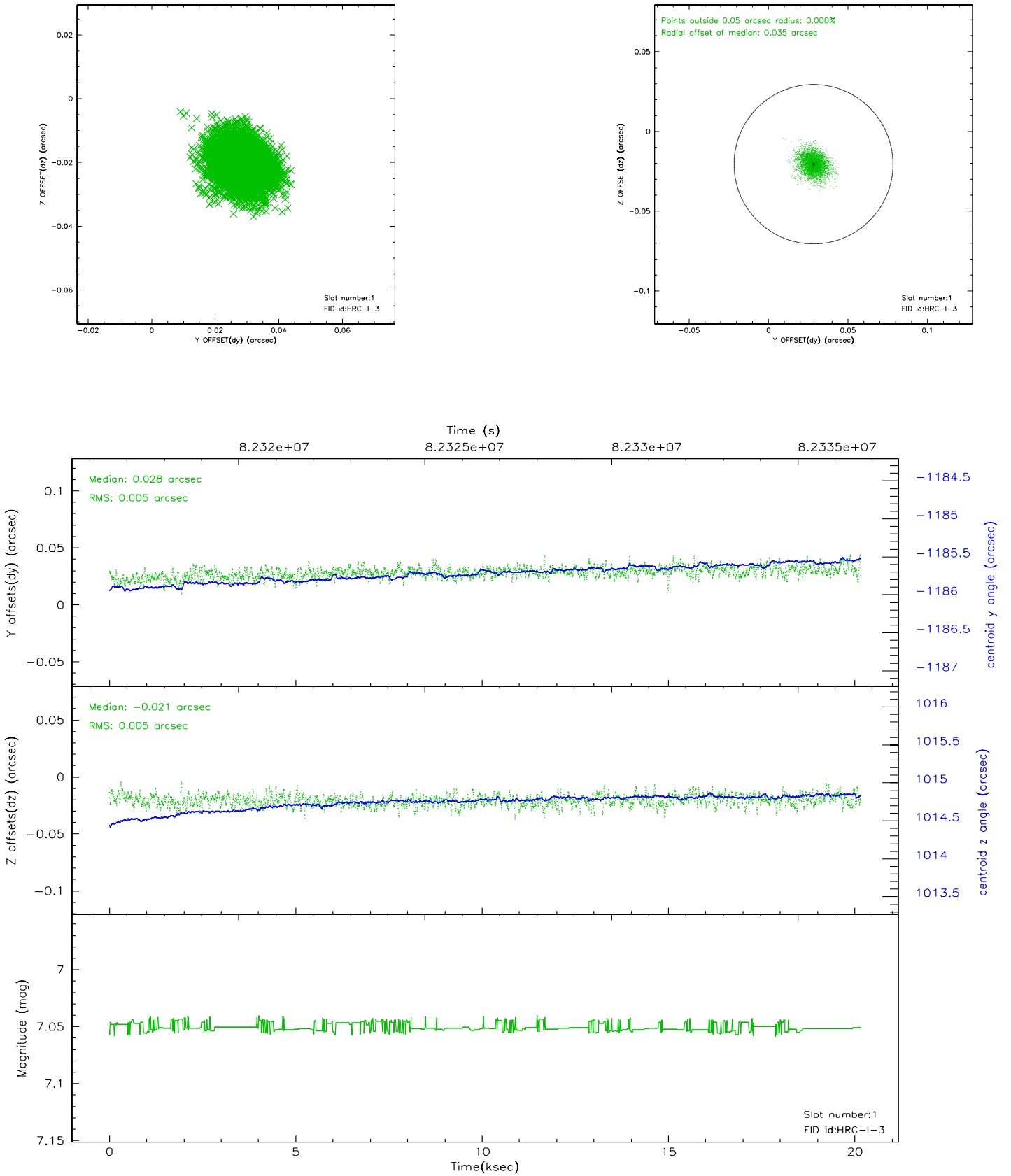


2.5 FID Slots

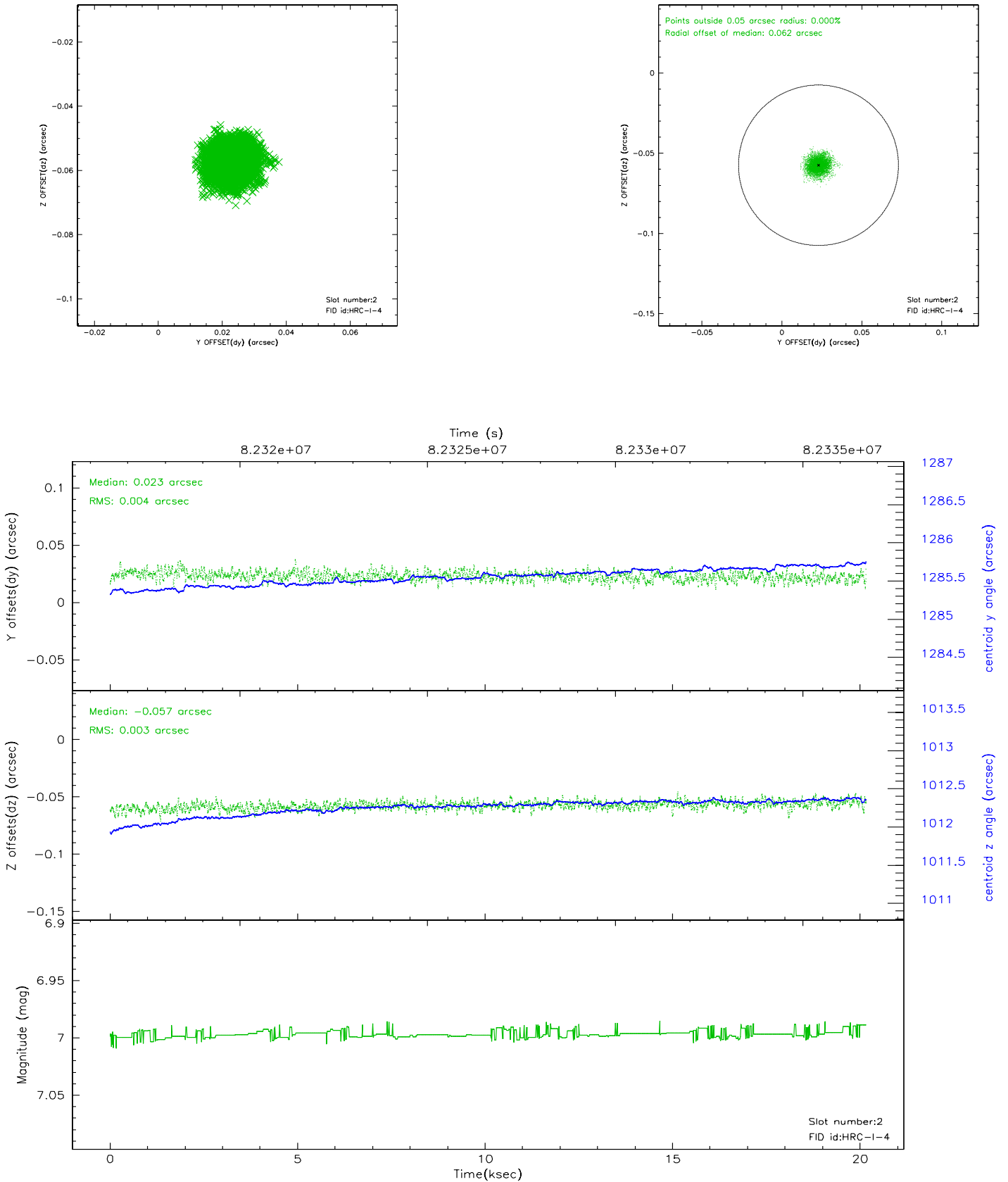
2.5.1 Slot 0



2.5.2 Slot 1

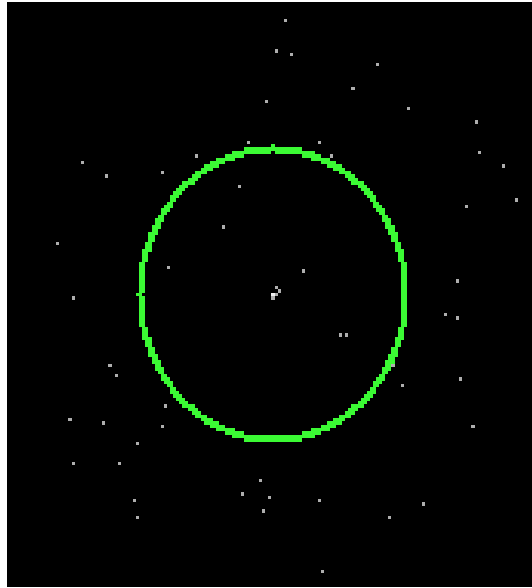


2.5.3 Slot 2

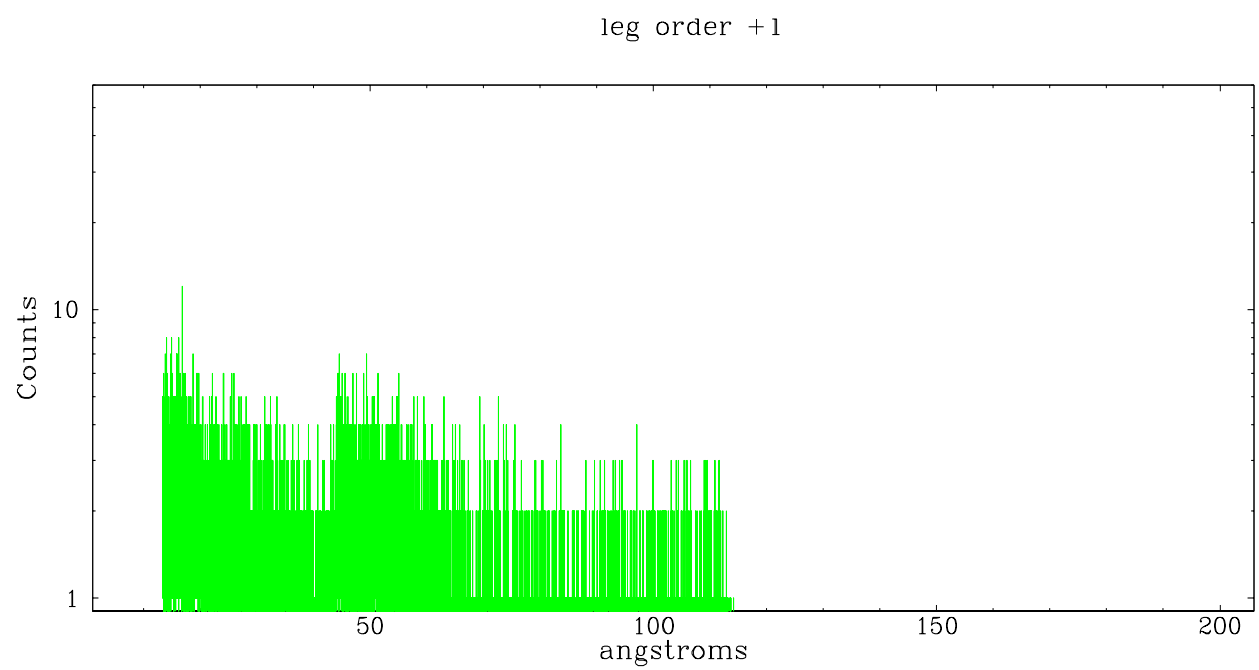
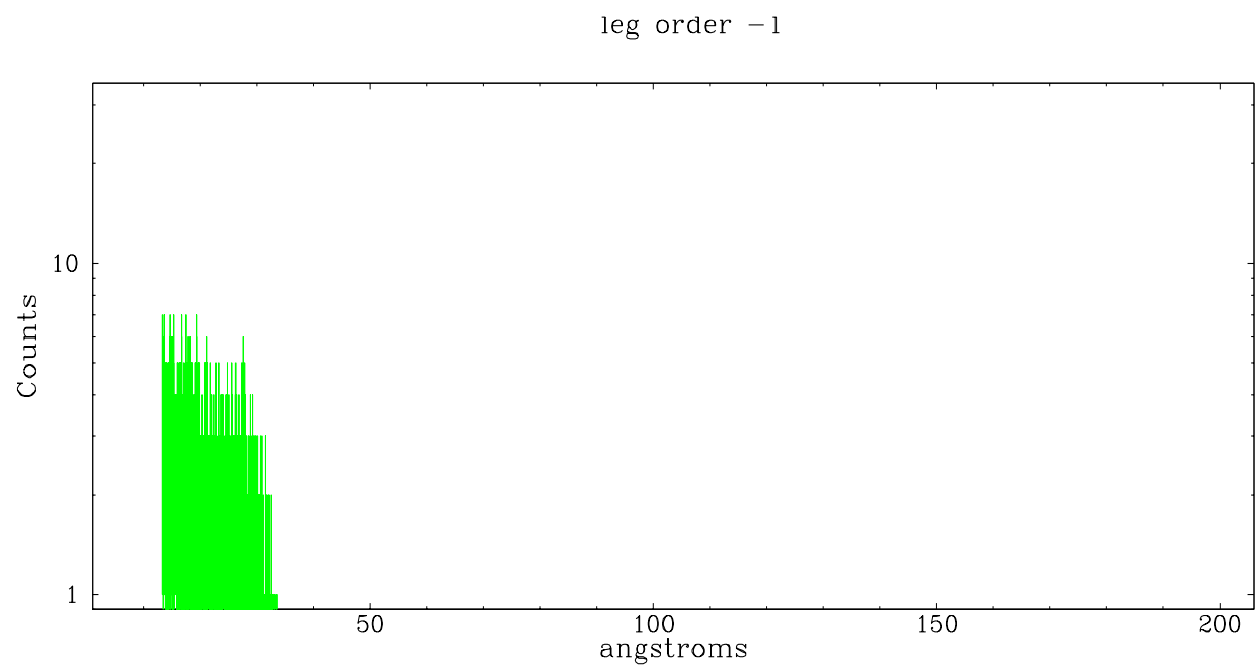


3 Gratings

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	19.863

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 user-supplied coordinates for the zeroth order position.