

# V&V Summary Report

## L2 ASCDS Version : 10.4.3

Observation 16735 - L2 Version 1  
Chandra X-Ray Center

L2 Processing Date : Jan 6 2016

See axaff16735N001\_VV001\_vvref2.pdf for the full report

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2016.01.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	24.004651

## Comments

Zeroth order piled up. The zeroth order sky position was determined using a software tool developed by CXC called findzero, which is available in CIAO as part of the tgdetect2 tool. The tool calculates the point of intersection of the readout streak on the ACIS CCD and the meg or leg dispersed spectral arm, rather than using a centroid position of the source. The findzero results are more accurate than source centroid in this case.

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The charge time is based on the scheduled exposure time. The high count rate in this observation resulted in telemetry saturation and a large number of dropped exposures (events not telemetered to the ground). As a result, each chip has a different ONTIME. Data analysis should take this ONTIME variation into account.

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Chips S6 and S7 have a particularly large number of dropped frames due to telemetry saturation. The effective exposures for the 4 chips range from 14.9-24.1 ks.

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Faint grating spectra can be seen in an image of bad events. This is probably due to pileup in the spectrum, causing migration to bad grades. This should be considered in analysis.

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Phase constraint met.

seq_num	401657	Sequence number
obs_id	16735	Observation id
title	Filling the gap in understanding the wind structure of HDE 226868 /Cyg X-1	Proposal title
observer	Dr. Victoria Grinberg	Principal investigator
object	Cyg X-1	Source name
dtycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	299.590417	Observer's specified target RA [deg]
dec_targ	35.201611	Observer's specified target Dec [deg]
ra_nom	299.59130177472	Nominal RA [deg]
dec_nom	35.203899452833	Nominal Dec [deg]
roll_nom	345.56587506966	Nominal Roll [deg]
revision	1	Processing version of data
ontime	18171.193241	Sum of GTIs [s]
livetime	17570.289345388	Livetime [s]
ontime5	24082.62895	Sum of GTIs [s]
ontime6	14923.437514305	Sum of GTIs [s]
ontime7	18171.193241	Sum of GTIs [s]
ontime8	23653.156262875	Sum of GTIs [s]
l2events	3623293	Number of level 2 events

