

V&V Summary Report

L2 ASCDS Version : 7.6.8.1

Observation 2741 - L2 Version 001
Chandra X-Ray Center

L2 Processing Date : Sep 26 2006

See [axaff02741N001_VV001_vvref2.pdf](#) for the full report

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2006.09.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.486

Comments

Zeroth order piled up. Standard data processing software did not correctly locate the zeroth order due to pileup. Manual intervention was used in the tool `tg_create_mask` to input the correct sky coordinates: `x=4167.81, y=4093.48`, using the user-supplied coordinate option (see CIAO description of this tool). The zeroth order source position determined by the software in the tool `tgdetect` were not used in this processing, although the `*scl1a.fits` file contains the erroneous coordinates determined by `tgdetect`. The `*evt1a.fits` file has the corrected coordinates, which were used to produce the extracted spectral data.

Charge time for this ObsId remains at original value of 4.486 ks, although with the current processing the charge time would have been 1.912 ksec, due to telemetry saturation and dropped exposures on some chips.

Variation in Chips > 15% threshold.
Low Chip 6, ONTIME=1450.773591 seconds
High Chip 4, ONTIME=4484.483939 seconds

Chip 8, ONTIME=1851.252932 seconds is less than 80% of scheduled
time=5000.000000 seconds

Chip 7, ONTIME=1931.218000 seconds is less than 80% of scheduled
time=5000.000000 seconds

Chip 6, ONTIME=1450.773591 seconds is less than 80% of scheduled
time=5000.000000 seconds

The temperature-dependent gain calibration is applied to this graded
mode observation, although the gain is not well-calibrated for
fron-illuminated chips with no CTI correction applied. Graded mode
observations do not have a CTI correction applied. The result is that
the
order sorting algorithm is not as precise as it is in other modes.

seq_num	400221
obs_id	2741
title	PHASE RESOLVED HIGH ENERGY RESOLUTION SPECTROSCOPY OF THE BLACK HOLE X-RAY BAINARY CYGNUS X-1
observer	Prof. Shuang Nan Zhang
object	CYG X-1
dtcycle	0
cycle	P
ra_targ	299.590417
dec_targ	35.201611
ra_nom	299.60224098141
dec_nom	35.202019215554
roll_nom	12.940152018754
revision	3
ontime	1931.2180001438
livetime	1885.6951019186
ontime4	4484.4839387387
ontime5	4091.020369783
ontime6	1450.7735905796
ontime7	1931.2180001438
ontime8	1851.2529318184
ontime9	4033.5653625429
l2events	1613785

