

# V&V Summary Report

## L2 ASCDS Version : 10.2.1

Observation 16606 - L2 Version 2  
Chandra X-Ray Center

L2 Processing Date : Dec 10 2014

See axaff16606N002\_VV001\_vvref2.pdf for the full report

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2015.10.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	35.08225

## Comments

Aspect solution confirmed by Aspect Team.

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These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.

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For ACIS-S with CC mode and HETG:

For ACIS/CC-mode w/ HETG, at with no SIM-Z offset, there are no MEG even order counts. MEG even orders overlap with HEG orders in energy, but MEG even order efficiencies are very low. Since HEG and MEG cannot be spatially separated, events are preferentially assigned to HEG. (MEG odd orders can be resolved.) For observations with a SIM-Z offset, MEG negative and MEG positive orders will be missing (off the array), and remove some of the ambiguity.

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As of November 1, 2009, events with a flight grade of 66 were added to the telemetry stream for continuous-clocking mode observations because it was found that a significant fraction of real X-ray events have this

flight grade in this mode. To prevent these events from being discarded from Level 2 event files, the CALDB grade file was modified to change the 'ASCA' grade for these events from 7 (a bad grade) to 2 (a good grade). The new grade file has been used in standard pipeline processing for code versions DS 10.3 and later (i.e. 2014 Oct 30 and later). Since the calibration products for continuous-clocking mode observations are appropriate for data that includes flight grade 66 events, data obtained on or after 2009 Nov 1, but that were processed using an earlier version of the pipeline code, should be reprocessed with CIAO using version 4.7 (i.e. 2014 December) or later. Note that it is not possible to fix the data obtained before 2009 Nov 1. Since these earlier continuous-clocking observations are not calibrated at present, spectral analyses of these data may yield inaccurate results.

seq_num	401613	Sequence number
obs_id	16606	Observation id
title	A Harder Look at the Bursting Pulsar	Proposal title
observer	Dr. Jon Miller	Principal investigator
object	GRO J1744-28	Source name
ra_targ	266.137917	Observer's specified target RA [deg]
dec_targ	-28.740833	Observer's specified target Dec [deg]
ra_nom	266.13427240062	Nominal RA [deg]
dec_nom	-28.736547669628	Nominal Dec [deg]
roll_nom	87.354870647732	Nominal Roll [deg]
revision	2	Processing version of data
ontime	35082.25	Sum of GTIs [s]
livetime	34945.209960938	Livetime [s]
ontime4	35082.25	Sum of GTIs [s]
ontime5	35082.25	Sum of GTIs [s]
ontime6	35082.25	Sum of GTIs [s]
ontime7	35082.25	Sum of GTIs [s]
ontime8	35082.25	Sum of GTIs [s]
ontime9	35082.25	Sum of GTIs [s]
l2events	2957649	Number of level 2 events

