

V&V Summary Report

L2 ASCDS Version : 10.6.4

Observation 21671 - L2 Version 1
Chandra X-Ray Center

L2 Processing Date : Aug 8 2018

See axaff21671N001_VV002_vvref2.pdf for the full report

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2018.08.08
V&V Edition	2
V&V Disposition and Status	OK
V&V Charge Time	9.7664568296671

Comments

The following is a comment from the Chandra Calibration Team concerning this obsid.

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Just a comment. As we're near solar minimum, we're also near the detector background maximum. I'd estimate the current L1 quiescent rate

as 110 ct/s over the standard 6-tap HRC-S spectroscopy region (see POG Fig 9.21 at

http://cxc.harvard.edu/proposer/POG/html/chap9.html#tth_sEc9.3.6).

> Total Field Count Rate : 60.00000

I'd guess the 60 ct/s is a pretty rough guess, but taking it at face value

that would mean you're getting pretty close to the 183 ct/s telemetry limit, without any background flares (which are fairly rare these days).

Without knowing details of the science goals I can't comment on analysis implications if telem is saturated, but there would be small (likely negligible) degradation of event position accuracy (--> spectral resolution) and some additional uncertainty in true source

rate, which I'd guess is unlikely to matter much.

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The ACA has the capability to devote one or more of the eight image slots to "monitor" particular sky locations. This allows simultaneous optical photometry of one or more targets in the ACA field of view. These optical sources can be slightly fainter than the ACA guide star limit of $m_{ACA} = 10.2$ mag. The bright-end limit for monitor star photometry is $m_{ACA}=6.2$ mag. However, since there are a fixed number of image slots, devoting a slot to photometry instead of tracking a guide star results in a degradation of the image reconstruction and celestial location accuracy (Section 5.4). Using one monitor slot represents a 15 - 25% increase in the aspect image reconstruction RMS diameter, depending on the particular guide star configuration. Two monitor slots would increase the diameter by about 50 - 60%, but this configuration is not operationally allowed under normal circumstances. The photometric accuracy which can be achieved depends primarily on the star magnitude, integration time, CCD dark current, CCD read noise, sky background, and the CCD dark current uncertainty.

seq_num	300461	Sequence number
obs_id	21671	Observation id
title	Target Confirmation for the Great Observatories Accretion Legacy Survey	Proposal title
observer	Christian Knigge	Principal investigator
object	VW Hyi	Source name
ra_targ	62.2975	Observer's specified target RA [deg]
dec_targ	-71.294861	Observer's specified target Dec [deg]
ra_nom	62.27170850495	Nominal RA [deg]
dec_nom	-71.289287337407	Nominal Dec [deg]
roll_nom	109.05444154474	Nominal Roll [deg]
revision	1	Processing version of data
ontime	9766.4568296671	[s]
livetime	9670.3532925982	Ontime multiplied by DTCOR
l2events	866971	Number of level 2 events

