

V&V Summary Report

L2 ASCDS Version : 8.5.1.1

Observation 351 - L2 Version 7
Chandra X-Ray Center

L2 Processing Date : Jan 23 2013

See axaff00351N003_VV001_vvref2.pdf for the full report

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2013.01.29
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.143

Comments

This is an interleave mode observation. The secondary observation is 4 times as long as the primary observation. Obsid 351 suffers from frequent data dropouts and patchy telemetry. The parameters that specify the minimum amount of time the aspect camera must be tracking the fid lights and guide stars (95% by default) were manually adjusted for this processing. There are 2 aspect intervals for this obsid. For the first aspect interval, the parameters were changed as follows:

gs_min_trak=90.0, fid_min_trak=90.0. For the second aspect interval, the parameters were changed as follows: gs_min_trak=88.0, fid_min_trak=88.0. These changes allowed all the fid light data to be used in determining the aspect solution for this observation. =====

The guide star in slot 3 was removed from the aspect solution due to poor data quality. The aspect solution is significantly improved by removing this guide star from the solution.

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Charge time for this ObsId remains at original value of 1.143 ksec, although with the current processing the charge time would have been 1.0507 ksec.

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For the primary exposure (e1), the livetime is about 99.505ms instead of 567.18 s because the use of a 0.1 s frame time for the selection of

chips and rows used during the observation is shorter than the time it takes to read out one frame of data. The frame time must be at least 0.7 s to avoid 'flushing' the detector before each frame of data is collected. The time required to flush the detector is specified on p. 120 of the ACIS Science Instrument Software User's Guide: <http://acis.mit.edu/swuserA/swuser.pdf> Events that occur during such a flush are discarded onboard. The flush time is effectively 'dead time.' For this reason, most of the 567.18 s of the observation was spent flushing the detectors instead of collecting data.

seq_num	700023	Sequence number
obs_id	351	Observation id
title	STUDIES OF RADIO JETS AND THE NARROW LINE REGIONS	Proposal title
observer	Professor Andrew Wilson	Principal investigator
object	M87	Source name
dtcycle	0	
cycle	P	events are from which exps? P[primary] S[econdar
ra_targ	187.705833	Observer's specified target RA [deg]
dec_targ	12.391083	Observer's specified target Dec [deg]
ra_nom	187.69682912537	Nominal RA [deg]
dec_nom	12.385716767091	Nominal Dec [deg]
roll_nom	221.80223060913	Nominal Roll [deg]
revision	7	Processing version of data
ontime	567.18030139804	Sum of GTIs [s]
livetime	99.505316034745	Livetime [s]
ontime7	567.18030139804	Sum of GTIs [s]
l2events	1685	Number of level 2 events

