

V&V Summary Report

L2 ASCDS Version : 8.3.3

Observation 1431 - L2 Version 5
Chandra X-Ray Center

L2 Processing Date : Nov 16 2010

See axaff01431N002_VV001_vvref2.pdf for the full report

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2010.11.17
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	124.585

Comments

There are 2 separate observations (obis) for this obsid. Obi 0 was performed in VFaint mode and obi 1 was performed in Faint mode. The mismatch in observing modes between the two obis was due to an operational error. In this reprocessing, each obi has been processed through level 1 using the parameters appropriate for the observing mode for that obi. One thing a user can do with VFaint, but not Faint, data is to use an algorithm in `acis_process_events` that searches the outer 16 pixels of the 5x5 event islands for evidence of excess charge in order to reduce the background. Thus, the search can be performed for obi=0 data for this obsid. === It is important to note that both obis have been combined in the level 2 data. Users should consider whether these combined level 2 products are useful for their investigations, or whether they want to work with each obi individually from the level 1 data.=== During obi=0, a very high radiation event 23-28 ksec after the start of the observation caused significant increase in count rate. Most of the affected

time range has been excluded from the GTI, but the user should be cautious.

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For obi=1. the guide star in slot 4 was removed from the aspect solution due to poor data quality. The aspect solution is not expected to be degraded by removing one guide star from the solution.

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The focal plane temperature is approximately -110 C during this observation. This reprocessing of the data applies no CTI correction because none is available for this temperature at present.

The ACIS CTI correction has not been calibrated at this temperature, because it was early in the mission, and ACIS had not yet been lowered to the standard -119.7 C. Both front and back illuminated chips are affected. However a T_GAIN correction has been applied to the BI chips (ACIS-5 and ACIS-7) data included here.

The ACIS spectral response calibration is less accurate at these warmer temperatures than it is at -119.7 C. Users whose science objectives depend on the most accurate spectral response (ie: fitting line-rich spectra) may notice an effect. Users whose science objectives do not depend on the most accurate spectral response should not notice an effect.

seq_num	970381	Sequence number
obs_id	1431	Observation id
title	ULTRA DEEP AXAF OBSERVATION WITH ACIS	Proposal title
observer	PROF. RICCARDO GIACCONI	Principal investigator
object	AXAF Southern Deep Field - ACIS-I	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	53.116667	Observer's specified target RA
dec_targ	-27.808333	Observer's specified target Dec
ra_nom	53.122121616107	Nominal RA
dec_nom	-27.80616703885	Nominal Dec
roll_nom	47.283072138757	Nominal Roll
revision	5	Processing version of data
ontime	124681.74503605	Sum of GTIs [s]
livetime	123102.94970607	Livetime [s]
ontime0	124733.76477899	Sum of GTIs [s]
ontime1	124775.85617197	Sum of GTIs [s]
ontime2	124565.15198963	Sum of GTIs [s]
ontime3	124681.74503605	Sum of GTIs [s]
ontime6	124889.2078989	Sum of GTIs [s]
l2events	640989	Number of level 2 events

