Chandra X-ray Center

Caveat: Zero−exposure Event File

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This data caveat currently affects ObsIds 1413, 1452, 1425, 1414, 1424, 1426, 1409, 862, and 963. It is based on Issue 18 of the Chandra Observations Processing Status; check the issue report for updates to the list of open ObsIDs.

In some observations, the images of aspect fiducial lights (projections of fiducial lights onto the aspect camera detector) were not acquired for part or all of the observation. The reported aspect quality for these observations is bad, which causes empty Good Time Intervals (GTIs). If there is zero good time defined for an observation, all the events are screened out of the final level=2 event file.

The lack of FID lights *is not* a simple matter of absolute coordinates being offset. During many observations, the Science Instrument Module (SIM) drifts by up to an arcsec; without FIDs, this does not get corrected. On account of this, spurious nebulosity, etc., may be revealed when analyzing these datasets. Additionally, combining data from a multi−obi observation affected by this problem may produce double sources in the final event file.

If you are attempting analysis that reveals one of these problems, email the CXC Helpdesk for guidance. To create a new event file for basic analysis procedures, use the provided workaround.

Workaround for both imaging and grating datasets:

Reprocess the level=1 data to create a new level=2 event file, but *DO NOT* apply the pipeline−created GTIs (`flt1.fits` file). For help reprocessing your data, follow the Create a New Level=2 Event file thread, skipping the step in which a GTI filter is used (for example, #2 in the HRC−S Imaging Observations step.

If you would like to then remove the unnecessary columns from the output file, run the dmcopy command without the "`[@obsid_flt1.fits]`" section:

```
unix% dmcopy \
      "hrc_flt_evt1.fits[EVENTS][cols −crsu,−crsv,−amp_sf,−av1,−av2,−av3,−au1,−au2,−au3,−raw,−su
      hrc_evt2.fits
```

Finally, one may create new GTIs to remove background flares by completing the Eliminate High Background Times section of the Filtering Data thread.