## V&V Summary Report L2 ASCDS Version: 8.4.5

Observation 2208 - L2 Version 3 Chandra X-Ray Center

L2 Processing Date: Oct 11 2012

See axaff02208N002\_VV001\_vvref2.pdf for the full report

| V&V Scientist              | Joy Nichols |
|----------------------------|-------------|
| V&V Date (YYYY-MM-DD)      | 2012.10.12  |
| V&V Edition                | 1           |
| V&V Disposition and Status | OK          |
| V&V Charge Time            | 9.558       |

## Comments

Standard software processing technique using the tool tgdetect failed to determine an accurate position for the zeroth order for this observation. The source is extended. The position of the zeroth order was chosen to be the position of the brightest emission (sky coordinates x=4119.25, y=4073.75).

Note this is not the same position as used in TGCat. For grating analysis of localized X-ray emission within the extended emission, the investigator will need to extract one or more dispersed spectra using user-defined zeroth order positions for all positions of interest. === The spectral data supplied in this processing are only energy-calibrated for the particular zeroth order position selected. WARNING: there are no standard ciao tools for analysis of grating spectra from extended sources. The shape of an emission 'line' will be the shape of the zero order spatial structure convolved with the instrumental LSF. Grating extractions can be used, but need to be combined with custom spatial-spectral analysis, since wavelength is multi-valued at any particular diffraction angle. === The spectral lines are spatially-broadened and the rmfs are not valid.

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Charge time for this ObsId remains at previous value of  $9.558~\mathrm{ks}$ , although with the current processing the charge time would be  $9.661~\mathrm{ks}$ .

| seq_num  | 800147                                                                            | Sequence number                          |
|----------|-----------------------------------------------------------------------------------|------------------------------------------|
| obs_id   | 2208                                                                              | Observation id                           |
| title    | ACIS-S/HETG OBSERVATIONS OF THE CENTRAL REGION OF THE HYDRA A CLUSTER OF GALAXIES | Proposal title                           |
| observer | Dr. J. Jernigan                                                                   | Principal investigator                   |
| object   | HYDRA A                                                                           | Source name                              |
| dtycycle | 0                                                                                 | <b>&amp;</b> #160                        |
| cycle    | P                                                                                 | events from which exps? Prim/Second/Both |
| ra_targ  | 139.52375                                                                         | Observer's specified target RA [deg]     |
| dec_targ | -12.095833                                                                        | Observer's specified target Dec [deg]    |
| ra_nom   | 139.5267918093                                                                    | Nominal RA [deg]                         |
| dec_nom  | -12.092421500257                                                                  | Nominal Dec [deg]                        |
| roll_nom | 72.320632820649                                                                   | Nominal Roll [deg]                       |
| revision | 3                                                                                 | Processing version of data               |
| ontime   | 9660.8000089824                                                                   | Sum of GTIs [s]                          |
| livetime | 9538.4691422333                                                                   | Livetime [s]                             |
| ontime4  | 9660.8000089824                                                                   | Sum of GTIs [s]                          |
| ontime5  | 9660.8000089824                                                                   | Sum of GTIs [s]                          |
| ontime6  | 9660.8000089824                                                                   | Sum of GTIs [s]                          |
| ontime7  | 9660.8000089824                                                                   | Sum of GTIs [s]                          |
| ontime8  | 9657.5590188056                                                                   | Sum of GTIs [s]                          |
| ontime9  | 9660.8000089824                                                                   | Sum of GTIs [s]                          |
| 12events | 116227                                                                            | Number of level 2 events                 |

