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

Observation 3380 - L2 Version 5 Chandra X-Ray Center

L2 Processing Date : Oct 27 2012

See axaff03380N004\_VV001\_vvref2.pdf for the full report

| V&V Scientist              | Joy Nichols |
|----------------------------|-------------|
| V&V Date (YYYY-MM-DD)      | 2012.11.06  |
| V&V Edition                | 1           |
| V&V Disposition and Status | OK          |
| V&V Charge Time            | 167.446     |

## Comments

An area of artifact emission is present on the plus side of the dispersed spectrum at about 112 A. This artifact emission has 2 apparent diffuse streaks of emission in the cross-dispersion direction, one of which is bisected by a narrow gap in the emission. The source of this artifact emission is believed to be a 5th mag B8 IV star, V686 CrA, within a few arcmin of the

emission streaks. This star is just to the left of the array near the streaks. It is likely the the events from V686 CrA were reflected off of the High Energy Suppression Filter (HESF) mirror flats, which can reflect an off-axis zeroth order across the array. Since there are two HESF flats at different angles, that could also make a doubled reflection

Also, the far-off-axis PSF of V686 CA is not point-like and would have structure, so even a single source off a single flat might have some structure

different from a line.

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It is also possible that the artifact emission streaks are the result of ghost images split due to reflections off of 2 mirror components.

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The fid light in slot 2 was removed from the aspect solution due to poor

data quality. The aspect solution is not expected to be degraded by removing one fid light from the solution.

| seq_num  | 500285  | Sequence number                       |
|----------|---|---------------------------------------|
| obs_id   | 3380  | Observation id                        |
| title    | ARCHIVAL RESEARCH FOR ISOLATED NEUTRON STAR<br>RXJ185635-3754 | Proposa                               |
| observer | Dr. Harvey Tananbaum  | Principal investigator                |
| object   | RXJ1856.5-3754  | Source name                           |
| ra_targ  | 284.147083  | Observer's specified target RA [deg]  |
| dec_targ | -37.909556  | Observer's specified target Dec [deg] |
| ra_nom   | 284.14736349859   | Nominal RA [deg]                      |
| dec_nom  | -37.914296701099  | Nominal Dec [deg]                     |
| roll_nom | 274.4561525378  | Nominal Roll [deg]                    |
| revision | 5   | Processing version of data            |
| ontime   | 167503.71289466   | [s]                                   |
| livetime | 164702.78834143   | Ontime multiplied by DTCOR            |
| 12events | 9295025   | Number of level 2 events              |

