

13. Missing Data

Description: Very dark regions of image usually in the form of horizontal bars (in X-direction). Closer examination will show these regions have pixel values of -100 (the default fill value) and are set to 16 in the .q0h data quality files.

Cause: Data lost during transmission from HST to ground station.

Examples: Figure 13.1 shows dark bar encompassing about 45% of WF4.

Impact: Data lost over part of field. Can reduce / eliminate impact by combining multiple frames of same field.

Correction: Mask out (discard) affected region when combining multiple frames of the same field. See Section 14 herein. Image regions with missing data are automatically set to the “fill value” -100 DN during pipeline processing, and so should not require manual masking.

Prevention: None.

Figure 13.1. Mosaicked image showing broad bar of missing data on WF4. Here white indicates bright regions of the image; black indicates low counts. Missing data regions are set to -100 during pipeline processing.

