

# **Progress on Reducing Risk of Data Loss for ABI Using Quantitative Image Restoration**

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Loss of image data due to physical instrument damage or transmission error presents a risk of data loss, potentially degrading accuracy in higher-level products. Previously, we had developed a quantitative image restoration algorithm (QIR) that uses statistical correlation across spectral bands to accurately estimate missing data due to detector damage on Aqua MODIS band 6. We will report on our recent progress to adapt the QIR algorithm to work with the visible bands of the ABI simulated data. The restoration implementation can be configured to work with any fixed set of broken detectors within the band to be restored. In addition, we adapted our current algorithm to also operate on infrared and near infrared bands. We have evaluated the restoration by simulating damage to the 0.47 micron visible and 2.1-micron infrared bands. We have performed evaluations by simulating possible damage on MODIS/Terra bands as a proxy for ABI bands. We compared column-interpolation (current NASA band 6 restoration) as well as QIR with the original undamaged Terra granule as ground truth. We will present the current state of the algorithm as well as our evaluations.