

LANDSAT CALIBRATION THROUGH GROUND TRUTH AND MODELING. K. Foster, N. Raqueno*, *Chester F. Carlson Center for Imaging Science, Digital Imaging & Remote Sensing Group*, kaf3496@rit.edu, ngrpci@rit.edu.

For over thirty years, the Landsat program has provided researchers in many fields with the imagery necessary for accurate, quantitative investigation of natural and manmade phenomena. Continuous observation of accuracy in the scanners aboard Landsats 5 & 7 is critical for sustained data collection. Through the measurement of water surface temperatures at and around the confluence of the Genesee River and Lake Ontario and modeling efforts with ENVI, MODTRAN, and GIS, ground truth temperatures are compared to image data to generate an accurate look at the degradation of the scanners, as well as to determine appropriate thermal calibration parameters.