

Title	Transfer Learning to Generate True Color Images from GOES-16
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Abstract	Along with scientific applications, Geostationary imagery is often used to learn about weather patterns through true color visualizations. NOAA/NASA's GOES-R series of satellites uses the advanced baseline imager with 16-bands which, unlike previous generations, does not include the green wavelength (500-565 nm) and hence cannot directly generate true color images. However, Himawari, Japan's geostationary satellite, uses a similar 16-band advanced Himawari imager that does include a green band (but missing cirrus). In this work, we show how transfer learning with convolutional neural networks can be applied across satellites to generate "virtual sensors". We apply this approach to generate a green band for GOES-16 and present near true color images.
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