

22 Years of Hyperspectral Infrared Satellite Observations: Creating Climate Data Records and Examining Trends in Top-of-atmosphere Spectral Radiances, Integrated Nadir Longwave Radiance (INLR), and Outgoing Longwave Radiation (OLR)

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ABSTRACT

Starting with the Atmospheric Infrared Sounder (AIRS) in 2002 and continuing with the Cross-track Infrared Sounders (CrIS) on S-NPP and the JPSS satellites, we now have 22 years of measurements of top-of-atmosphere infrared spectral radiance from the 1330 orbit. This poster will summarize efforts to create and validate the radiance products, focusing on the spectral and radiometric traceability, accuracy and stability needed for climate products and long term studies. Building upon methodologies developed for in-part for IASI, the poster will also present resulting trends in spectral radiances, Integrated Nadir Longwave Radiance (INLR) and Outgoing Longwave Radiation (OLR).