

CrIS Radiance Simulations in Preparation for Near Real-Time Data Distribution

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A simulation system is under development to support pre-launch preparations for the Cross-Track Infrared Sounder (CrIS) NOAA Unique near real-time processing and distribution system. CrIS, a Michelson interferometer infrared sounder with over 1305 channels per spectrum, will fly on the NPOESS satellite series that is dedicated to the operational meteorology and climate monitoring. It will replace the AIRS and HIRS as the next generation operational infrared remote sensor to provide improved measurements of the temperature and moisture profiles in the atmosphere. The CrIS simulation system will emulate the instrumental and orbital characteristics of the CrIS instrument on NPOESS. The utilities of this system are: (1) to provide simulated observation radiances that support NOAA Unique product (cloud clearing and trace gases) development and testing, (2) to provide a robust data distribution environment for development and testing of the CrIS data sub-setting system, and (3), most importantly, to allow for a smooth transition of the CrIS NOAA Unique Product processing system from the development environment to the operational environment. Details of the simulation system shall be presented.

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