

# **THE NPOESS PREPARATORY PROJECT (NPP) CROSS-TRACK INFRARED SCANNER (CRIS) PREDICTED SENSOR PERFORMANCE CALIBRATION AND PRELIMINARY DATA PRODUCT PERFORMANCE**

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## **ABSTRACT**

The U.S. National Polar-orbiting Operational Environmental Satellite System (NPOESS) is a satellite system being developed to monitor global environmental conditions and collect and disseminate data related to weather, atmosphere, oceans, land and near-space environment. The NPOESS Preparatory Project (NPP) mission is a joint effort involving the National Aeronautics and Space Administration (NASA) and the NPOESS Integrated Program Office (IPO). The NPP mission is currently scheduled to launch in 2010. NPP has two objectives: to extend the measurement trends begun by the NASA EOS missions and to validate four of the primary NPOESS sensors. The CrIMSS will provide the atmospheric vertical temperature and moisture profiles, two of the NPOESS key Environmental Data Records (EDRs). Two sensors, the Cross-track Infrared Sounder (CrIS) and the Advanced Technology Microwave Sounder (ATMS) provide the input data to the CrIMSS retrieval algorithm. This talk will detail the calibration and validation program, calibration algorithm development and the expected spectral radiance and retrieval algorithm performance. The discussion will include prelaunch testing with a performance summary, validation planning activities and exercises, and post launch validation plan.

**Keywords:** CrIS, ATMS, NPOESS Preparatory Project, Calibration, Validation

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