

## **International MODIS/AIRS Processing Package (IMAPP) Current Status and Future Prospects**

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The International Moderate Resolution Imaging Spectroradiometer / Atmospheric Infrared Sounder (MODIS/AIRS) Processing Package (IMAPP) provides users with EOS satellite Terra and Aqua direct broadcast system the capability to calibrate and navigate locally received satellite data and, from these data, to create environmental data products of significant regional interest. This software development effort is funded by NASA and is freely distributed to end users by the Cooperative Institute for Meteorological Satellite Studies (CIMSS) at the University of Wisconsin-Madison. IMAPP can be downloaded via anonymous ftp at <http://cimss.ssec.wisc.edu/~gumley/IMAPP/>.

IMAPP continues to evolve by developing and releasing software that meets users' demands for near real-time regional environmental products. Software portability, reliability and usability continue to be the primary requirements driving the project. The number of products within IMAPP continues to grow and currently includes MODIS/AIRS calibrated/navigated radiances, MODIS cloud mask, cloud top properties and cloud phase, retrievals of atmospheric profiles (temperature and moisture), total precipitable water, sea surface temperature and aerosol optical depth. AIRS Level 1 and 2 products include: level 1b, single field of view clear retrievals of temperature and moisture and AMSR-E level 1B/2A processing software. The near term algorithm releases include MODIS/AIRS cloud-cleared radiance and sounding retrieval, and AMSR-E rain rate.

While IMAPP development will continue into the near future, planning for the NPOESS and its Preparatory Project (NPP) is well underway. The processing package for NPP/NPOESS will be built on the foundation laid by IMAPP and the data processing element provided by NPOESS prime contractor and NASA Direct Readout Laboratory (DRL). The RDR/SDR/EDR processing software system known as Field Terminal System (FTS) will then be used by NPP/NPOESS direct broadcast users for the production of Sensor Data Records (SDRs) and Environmental Data Records (EDRs). The proposed International NPOESS/NPP Processing Package (INPP) will support the NPOESS mission application element by developing value added services to 1) support northern American real-time regional users, 2) add value to the mission application products generated including regionally optimized/unique and specialty/synergistic products, 3) provide continuous calibration/validation & evaluation support, and 4) engage the global direct broadcast community in NPP/NPOESS mission.

In summary, in this poster paper we will highlight the current status and future prospects for IMAPP and its successor, INPP. Specifically, we shall address the role these software packages play in bringing to the international polar orbiting direct broadcast community the considerable capabilities of the NOAA series satellites, EOS of NASA, and, into the future, NPOESS of IPO (Integrated Program Office).

# Proceedings of the Fourteenth International TOVS Study Conference

Beijing, China  
25-31 May 2005

