

Status Update of IMAPP and IPOPP – The End-to-End Processing Package for EOS and future Polar Orbiting Satellite Systems

Hung-Lung Huang, Liam Gumley, Kathleen Strabala, Jun Li, Jun Huang, and Elisabeth Weisz

*Cooperative Institute for Meteorological Satellite Studies
Space Science and Engineering Center
University of Wisconsin-Madison
Madison, WI USA*

The International Moderate Resolution Imaging Spectroradiometer / Atmospheric Infrared Sounder (MODIS/AIRS) Processing Package (IMAPP) provides users with an 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. So far, more than 120 direct broadcast stations are using IMAPP for their daily routine direct broadcast processing from the raw data to the generation of end products and information.

While CIMSS is currently seeking funding to maintain and update IMAPP and to continue to support direct broadcast users, 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 the NPOESS prime contractor, working closely with NASA's Direct Readout Laboratory (DRL). In addition, the proposed International Polar Orbiter Processing Package (IPOPP) will also be extended to include the processing of METOP data. The IPOPP METOP component effort is to leverage EUMETSAT NWP Satellite Application Facility (SAF) located at UK Met office and its Meteo France partner. These SAF team members are jointly developing a new version of AAPP (ATOVS and AVHRR Pre-Processing Package) to allow users to perform level 1 processing on the direct broadcast data for AMSU, MHS, HIRS, AVHRR and IASI (i.e. generate calibrated, geolocated radiances or brightness temperatures). Within IPOPP, specified level 2 retrieval algorithms to individually and/or synergistically process AMSU, MHS, AVHRR and IASI data to produce atmospheric products will also be developed and distributed.

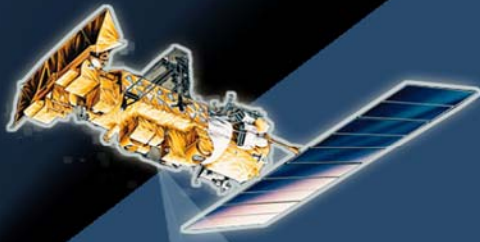
In summary, in this paper we will highlight the current status and future prospects for IMAPP and its successor, IPOPP. Specifically, we shall address the role these software packages play in bringing to the international polar orbiting direct broadcast community the considerable capabilities of EOS of NASA, METOP of EUMETSAT, and, into the future, NPP/NPOESS of NOAA and its partners.

INTERNATIONAL
ATOVS
WORKING GROUP

Sharing ideas, plans and techniques

to study the earth's weather

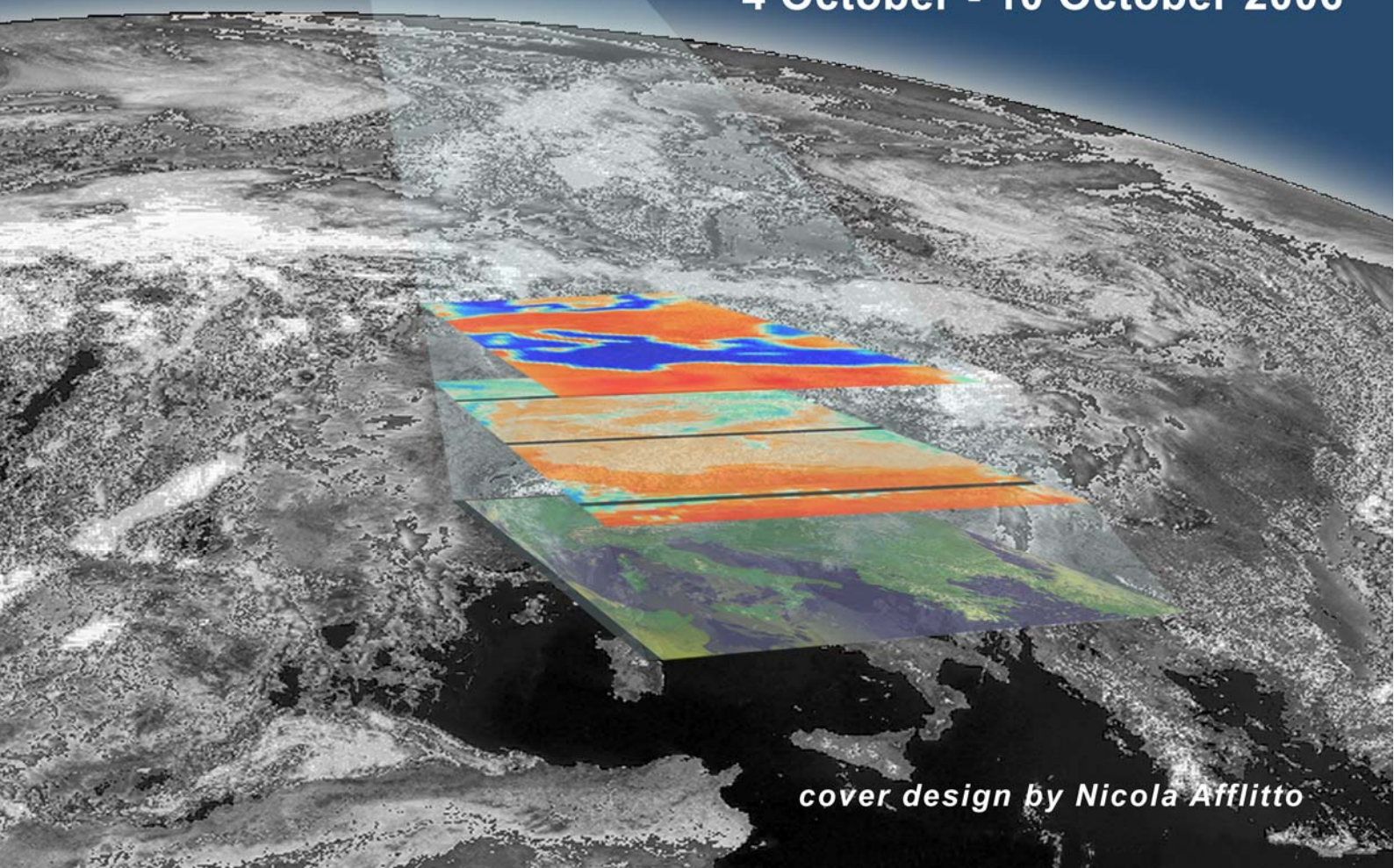
using space-based observations



***Proceedings of the
Fifteenth International
TOVS Study Conference***

Maratea, Italy

4 October - 10 October 2006



cover design by Nicola Afflitto