

## **An Integrated Web-based Visualization System for Monitoring and Validation of the Products from Hyper-spectral Instruments**

***L. Zhou<sup>1</sup>, Z. Cheng<sup>1</sup>, X. Liu<sup>1</sup>, Walter Wolf<sup>1</sup>, T. King<sup>1</sup>, S. Qiu<sup>1</sup>, C. Barnett<sup>2</sup>  
and M. Goldberg<sup>2</sup>***

*<sup>1</sup>QSS Group Inc, Lanham, MD, USA*

*<sup>2</sup>NOAA/NESDIS/STAR*

*Camp Springs, MD USA*

A major achievement of NOAA/NESDIS/STAR in recent years has been to operationally process AIRS products and provide them to the NWP centers in near real-time. A very important part of AIRS processing is the monitoring of the instrument performance and the qualities of the products. NOAA/NESDIS/STAR has developed a website for displaying and monitoring the various types of AIRS products. The website supports quick image browsing as well as an interactive display for selected time, channels/levels, and surface type. Daily plots and time series of the estimated noise verses the AIRS calibration noise are available, as well as the comparisons of the AIRS products with the forecast model outputs are available from the website. New features such as displaying and validation of the retrieved AIRS trace gas products, monitoring the SO<sub>2</sub>/volcanic eruptions, and the AIRS co-located MODIS products, have been added recently.

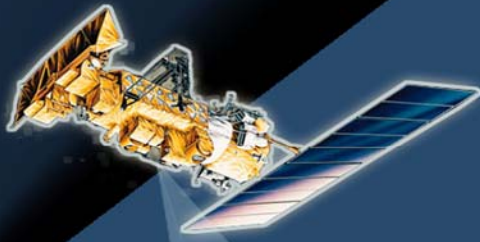
Based on our AIRS experience, a full feature, highly interactive web based visualization system has been developed for IASI to monitor the data processing and to view the most recent data that has been processed. This web site will bring the hyper-spectral observations and the products up close to the users. An offline visualization tool has also been developed for global climatology studies (based on GrADS). This tool enables quick displays and analysis of the hyper-spectral global observation data sets and the products. The integrated visualization system will allow us to continuously monitor the hyper-spectral instruments, such as AIRS, IASI, and CrIS, and support the verification and validation efforts of the products from the different satellite platforms.

INTERNATIONAL  
**A TOVS**  
WORKING GROUP

*Sharing ideas, plans and techniques*

*to study the earth's weather*

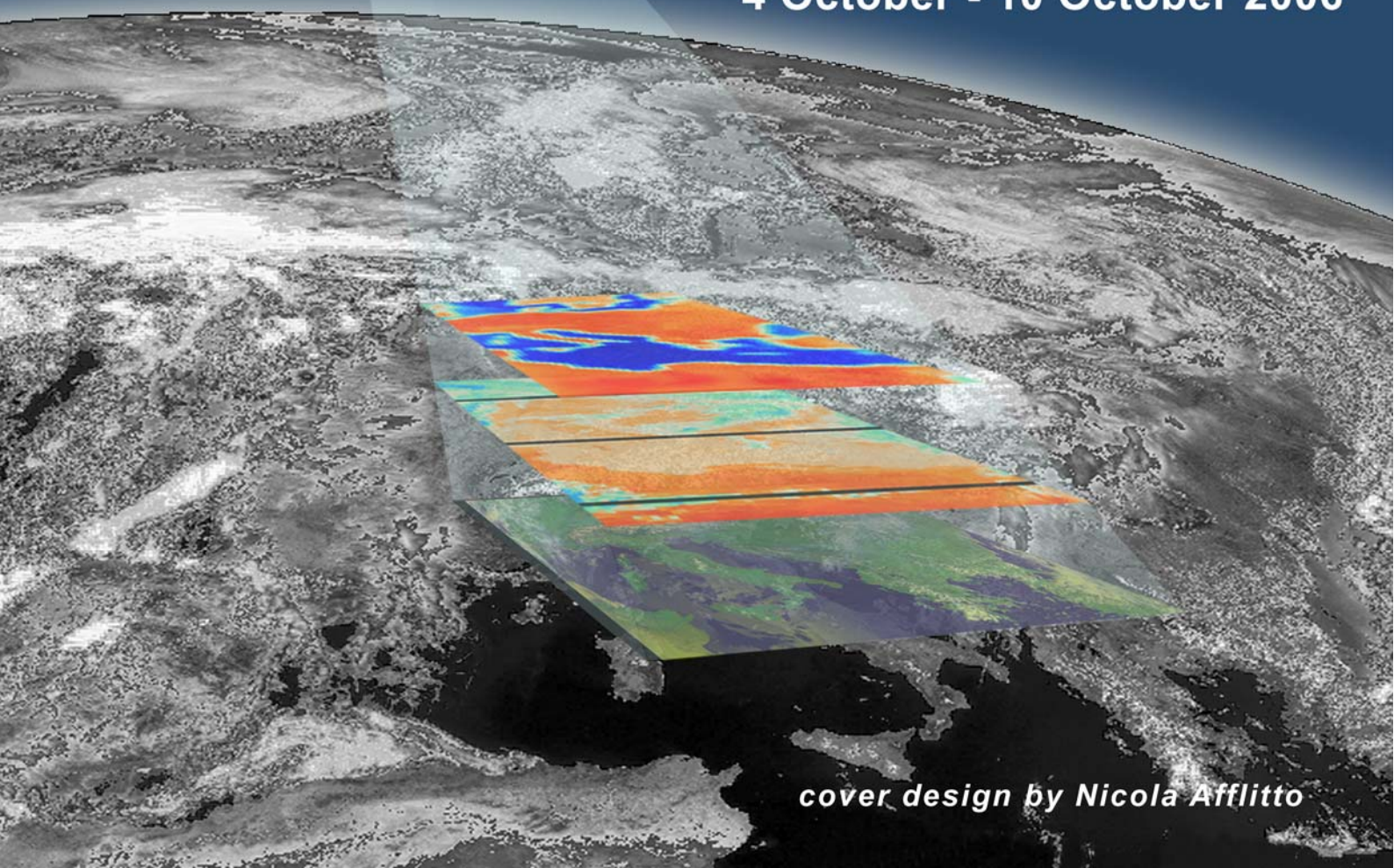
*using space-based observations*



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

**Maratea, Italy**

**4 October - 10 October 2006**



*cover design by Nicola Afflitto*