

Updates on Operational Processing for NOAA/NESDIS Sounding Data Products and Services

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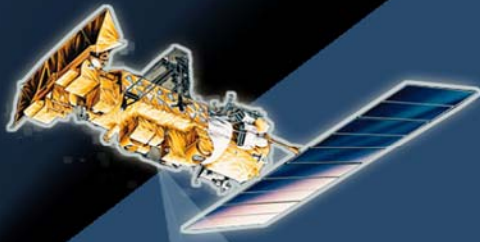
For more than two decades the National Oceanic and Atmospheric Administration, National Environmental Satellite, Data, and Information Services (NOAA/NESDIS) has been producing and distributing atmospheric sounding data products as a part of its operation for operating a fleet of civilian, Polar Orbiting Environmental Satellites (POES) and providing users and researchers a suite of operational atmospheric and environmental data products. A new data distribution technique, Data Distribution Server (DDS), has been employed at the NOAA/NESDIS Environmental Satellites Processing Center (ESPC) for distributing the soundings data. Sounding Data Products are generated from the advanced TIROS Operational Vertical Sounder (ATOVS), and Meteorological Operational Satellite (MetOp-1) and MetOp-2. The ATOVS onboard NOAA-15, NOAA-16, and NOAA-17 consists of three instruments, Advanced Microwave Sounding Units (AMSU), AMSU-A and AMSU-B, and a High-resolution Infrared Radiation Sounders (HIRS) instrument. Currently sounding products have been generated from NOAA-15, 16 and 18 satellites. NOAA-17 sounding products processing was terminated in late October 2003, when AMSU-A instrument failed. NOAA-18 launched in May 2005 contains the Advanced Very High Resolution Radiometer (AVHRR/3), HIRS/4, AMSU-A, and the Microwave Humidity Sounder (MHS) instruments. AMSU-B has been replaced by MHS for deriving the sounding data products on NOAA-18. HIRS/4 on NOAA-18 has not been stable and has encountered numerous problems to prevent using its data in ATOVS processing. This presentation will include the discussion on the improvements of the data quality, pipeline processing and distribution via DDS, and user timeliness requirements envisioned from the upcoming satellites. There have been significant changes in the operational system due to system upgrades, algorithm updates, and value added data products and services. User requirements for ATOVS and Infrared Atmospheric Sounding Interferometer* (*IASI) data products from the upcoming NOAA satellites and the European Organization for the Exploitation of Meteorological (EUMSAT) satellites, MetOp-1 and MetOp-2 will also be discussed.

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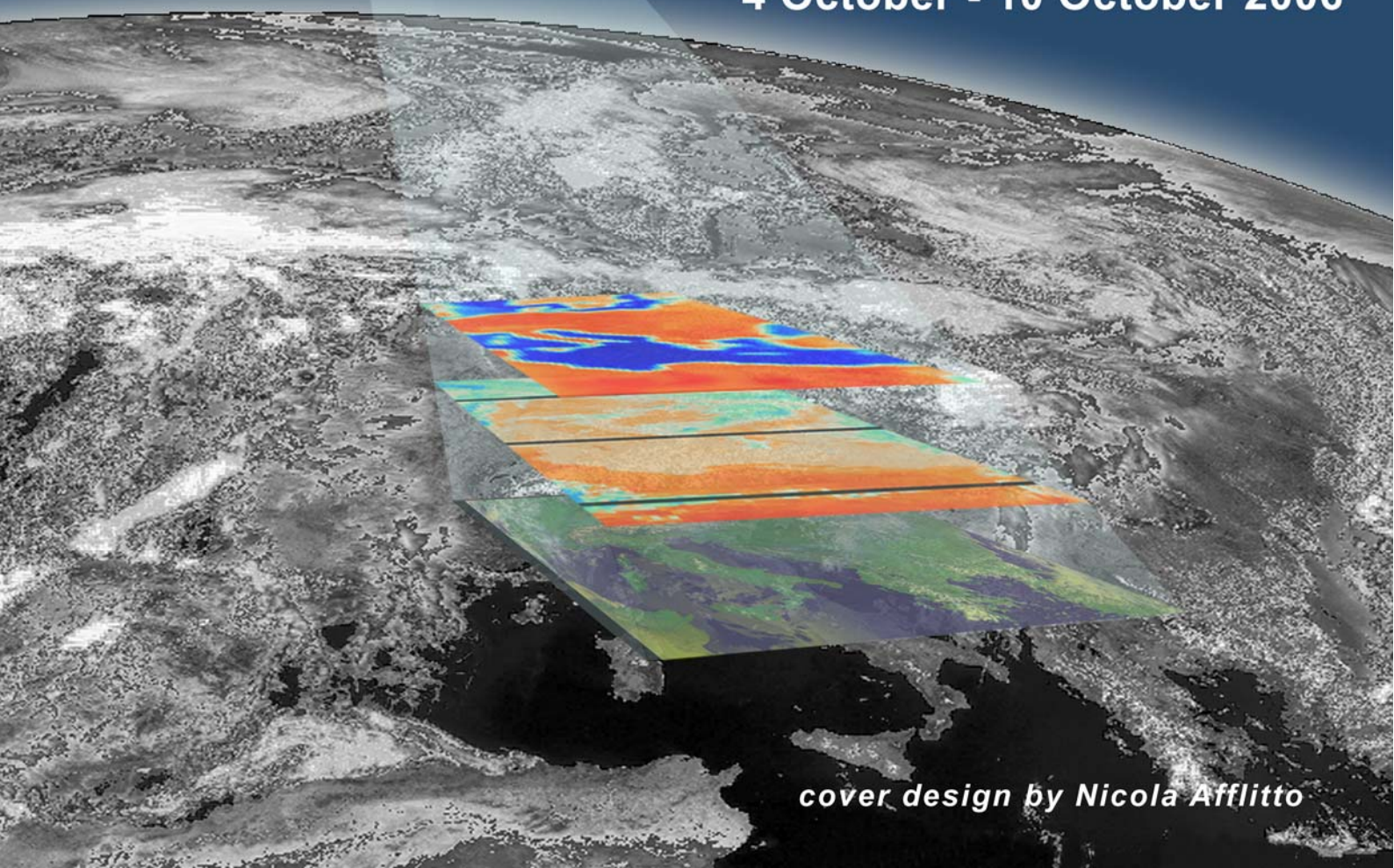
using space-based observations



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