

NOAA/NESDIS updates for sounding data products and services

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The National Oceanic and Atmospheric Administration, National Environmental Satellite, Data, and Information Services (NOAA/NESDIS) generates and distributes atmospheric sounding 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. Sounding products are generated using the advance TIROS Operational Vertical Sounder (ATOVS) measurements. The current 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/3) instrument. Sounding products have been generated from all three satellites until late October 2003, when AMSU-A on NOAA-17 failed and soundings were terminated from NOAA-17. NOAA-N is planned to be launched in May 2005 will have Advanced Very High Resolution Radiometer (AVHRR/3), HIRS/4, AMSU-A and Microwave Humidity Sounder (MHS) instruments used in deriving the sounding data products. This presentation will include the discussion on the improvements of the data quality and timeliness 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 sounding data products from the upcoming NOAA satellites NOAA-N, and NOAA-N' and the European Organization for the Exploitation of Meteorological (EUMSAT) satellites, Meteorological Operational Satellite (MetOp-1) and MetOp-2 will be discussed.