



## **Aerosol retrieval from SNPP/VIIRS: Analysis of technique and data quality**

Istvan Laszlo and the SNPP/VIIRS Aerosol Cal/Val Team

National Oceanic and Atmospheric Administration, Center for Satellite Applications and Research, Camp Springs, United States (istvan.laszlo@noaa.gov, +1 301 763-8108)

The aerosol environmental data records (EDR) derived from the measurements of the Visible Infrared Imaging Radiometer Suite (VIIRS) onboard the Suomi National Polar-orbiting Partnership (SNPP) satellite are the aerosol optical thickness (AOT), aerosol particle size parameter (APSP, characterized in terms of the Angstrom Exponent, AE), and suspended matter (SM). These EDRs go through various evaluations to assess their level of maturity. This presentation provides an analysis of the VIIRS aerosol retrieval technique in comparison with the MODIS technique and of the work and results the SNPP/JPSS Calibration/Validation Team has performed for these maturity levels up to date. The VIIRS AOT products have been compared with aerosol products derived from MODIS observations onboard the NASA Earth Observing System (EOS) satellite (Aqua), and with AERONET products and observations. All comparisons have been applied to a uniform time sample. Qualitative and quantitative analysis of the VIIRS aerosol EDRs have showed that VIIRS AOT over ocean is comparable to those from MODIS and AERONET. Over land, the VIIRS AOT was initially biased high; this bias has subsequently been reduced significantly by updating the pre-launch values of the spectral surface ratios used in the AOT retrieval.