SSEC/CIMSS
Seminar

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CIMSS

Atmospheric Dust Properties in the Sahel

It is well known that airborne dust can have a significant impact on the shortwave radiative flux at the surface and the top of the atmosphere. However, the impact on the infrared radiative flux has not been well investigated. To investigate the radiative properties of atmospheric dust, the Department of Energy deployed its Atmospheric Radiation Measurement (ARM) mobile facility (AMF) to the Niamey, Niger region in 2006. One of the key instruments in the AMF deployment is the Atmospheric Emitted Radiance Interferometer (AERI), which observes downwelling infrared radiance at high spectral resolution. The AERI radiance observations are sensitive to the infrared optical depth, effective radius, and composition of the atmospheric dust. These properties have been retrieved from the AERI observations in cloud-free skies for the 12-month deployment. This presentation will provide an overview of this retrieval technique as well as an initial analysis of the aerosol properties. In particular, differences in the aerosol properties before, during, and after the monsoon will be presented and discussed.

Friday, 11 January 2008
10:00 a.m.
Room AOSS 351