Aerosol Constraints from Multi-angle Imaging That Modelers Can Use

R Kahn and the MISR Team (NASA Goddard Space Flight Center, Greenbelt MD 20771; 301-614-6193; e-mail: ralph.kahn@nasa.gov),

As we continue to develop, refine, and apply the MISR aerosol products to a range of scientific questions, the strengths and limitations of the data content regarding aerosol optical depth (AOD), aerosol type, and plume height mapping have become pretty clear. Optimizing the operational algorithms to take advantage of the multi-angle, multi-spectral radiance information content is challenging in some situations, so we have also developed a number of specialized tools that run only on individual cases. These include the MISR Research Aerosol Retrieval algorithm, the highest-quality aerosol plume heights derived from the MINX software, and MISR-MODIS aerosol transport mapping code.

This presentation will focus on some of the research products we are creating, with emphasis on those that might be most useful for constraining aerosol transport models. As we have acquired more than 11 years of once-weekly global coverage from MISR, discussion with the group will consider where and when having these products would maximize our contribution to AeroCom modeling efforts, in the context of practical limitations on specialized product generation.