

MISR Cloud Results: Global-to-Local Comparison

Abstract

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This poster will describe results from the MISR instrument on Terra that address the diversity of cloud types on a global basis, and how these relate to in situ comparisons. Analysis of multiangle spectral radiances measured by MISR yields a variety of cloud properties, including heights, winds, albedos, and a variety of classifiers, many of which can be compared directly with in situ measurements at ground sites. By analyzing the angular signature and spatial homogeneity of clouds on a global basis, a rough classification of cloud type can be made in terms of the ease with which these cloud properties can be remotely sensed from space. Some types, in particular, make especially good candidates for microphysical retrievals and more detailed comparison with other measurements, whereas some types, especially broken multilayered clouds, pose a far greater challenge.