An Overview of the Micro Pulse Lidar Network (MPLNET)

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The NASA Micro Pulse Lidar Network (MPLNET) is a federated network of Micro Pulse Lidar (MPL) systems designed to measure aerosol and cloud vertical structure continuously, day and night, over long time periods required to contribute to climate change studies and provide ground validation for models and satellite sensors in the NASA Earth Observing System (EOS). At present, there are eighteen active sites worldwide, and several more in the planning stage. Numerous temporary sites are deployed in support of various field campaigns. Most MPLNET sites are co-located with sites in the NASA Aerosol Robotic Network (AERONET) to provide both column and vertically resolved aerosol and cloud data. MPLNET data and more information on the project are available at http://mplnet.gsfc.nasa.gov. Here we present a summary of the first ten years of MPLNET, along with an overview of our current status, specifically our version two data products and applications. Future network plans will be presented, with a focus on our activities in South East Asia.