



Daytime Cloud Optical Microphysical Properties (DCOMP) algorithm

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The Pathfinder Atmospheres Extended (PATMOS-x) project at NOAA is a 30-year climate cloud data set. One of the key retrievals is the Daytime Cloud Optical Microphysical Properties (DCOMP) algorithm. Daytime microphysical parameters Cloud Optical Depth, (COD) Effective Radius (REF) are key cloud parameters. They are also used to derive cloud water content (LWP and IWP)

DCOMP is a retrieval scheme capable to several sensors (MODIS, GOES, AVHRR, SEVIRI, AATSR, GOES-ABI). It consists on one common software code and look-up-table design. It differs only in respect to the exact channel settings of reflectance measurement in visible and near-infrared. This enables us to build a consistent data set that combines advantages of SEVIRI (high temporally and spatially resolved data over MSG disk), GOES (same for the Americas), MODIS and AVHRR (long-term time series, no static observation angles and global view).

DCOMP includes a full error propagation and realistic solution error estimates. In our presentation we will show the most current developments and results from DCOMP.