

Global MODIS Bidirectional Reflectance Distribution Function (BRDF), Albedo, and Nadir BRDF-Adjusted Reflectance (NBAR) products (MCD43) from the NASA Terra and Aqua satellite platforms have been produced since the year 2000. These products now represent a high quality 25-year record of the daily surface energy budget for climate, weather, biogeochemical, and hydrological models and are also extensively used to monitor vegetation extent, phenology, and productivity. Equivalent daily products from Suomi NPP VIIRS (and now the NOAA JPSS VIIRS instruments) have been generated since 2012 (VNP43, VJ143, VJ243) and will be used to provide continuity measures to extend this long-term archive as Terra and Aqua reach the end of their mission lives.

Daily global spectral and broad-band values (and extensive quality information) are provided as gridded 500m (MODIS) and 500m/1km (VIIRS) BRDF models, NBARs, and intrinsic White Sky and Black Sky Albedos (WSA, BSA) on a tiled sinusoidal projection from the NASA/LPDAAC (*Land Processes Distributed Active Archive Center*). In addition, directly retrieved daily 30arc-second gridded products are provided on a global lat/long projection (MCD43D, VNP43D, VJ143D, VJ243D). Daily global gap-filled, snow-free versions of the products (at a 30arc-second resolution - MCD43GF) are also created from temporal fits of the snow-free BRDF parameters. Furthermore, daily near-real-time products (which emphasize the most recently acquired data) are also available through the LANCE (*Land, Atmos NRT Capability for EOS*) facility at NASA/GSFC.

The MODIS and VIIRS BRDF, Albedo, and NBAR products are seasonally evaluated (using CEOS/WGCV/LPV protocols) at spatially representative tower sites located on a variety of surface covers (e.g. the Baseline Surface Radiation Network – BSRN). The MODIS and VIIRS products have now been evaluated to a stage 4 validation status. Forests represent some of the hardest vegetation covers to evaluate as seasonal phenology and deciduous leaf drop, tree species mixtures, stem density and crown health, understory conditions, harvesting practices, and the presence of ephemeral snow all contribute to the overall signal detected from space. Furthermore, tower mounted albedometers capture a much smaller footprint than the effective resolution of the MODIS and VIIRS gridded products, and care must be taken that the tower locations are truly consistent and spatially representative of the larger landscape.

The availability of this long-term, climate-quality archive is due not only to the extraordinarily long life and quality of the Terra and Aqua MODIS instruments but also to the monitoring and rigorous calibration of the various MODIS and VIIRS sensors, the continual evaluation and refinement of the science algorithms, and NASA's dedication to periodic reprocessing of the entire record (currently reprocessing version 6.1 for MODIS and version 2.0 for VIIRS). The demonstrated ability of VIIRS to augment and extend the MODIS archive guarantees the availability of this multi-decadal dataset for some time in the future.