

Auxiliary Material

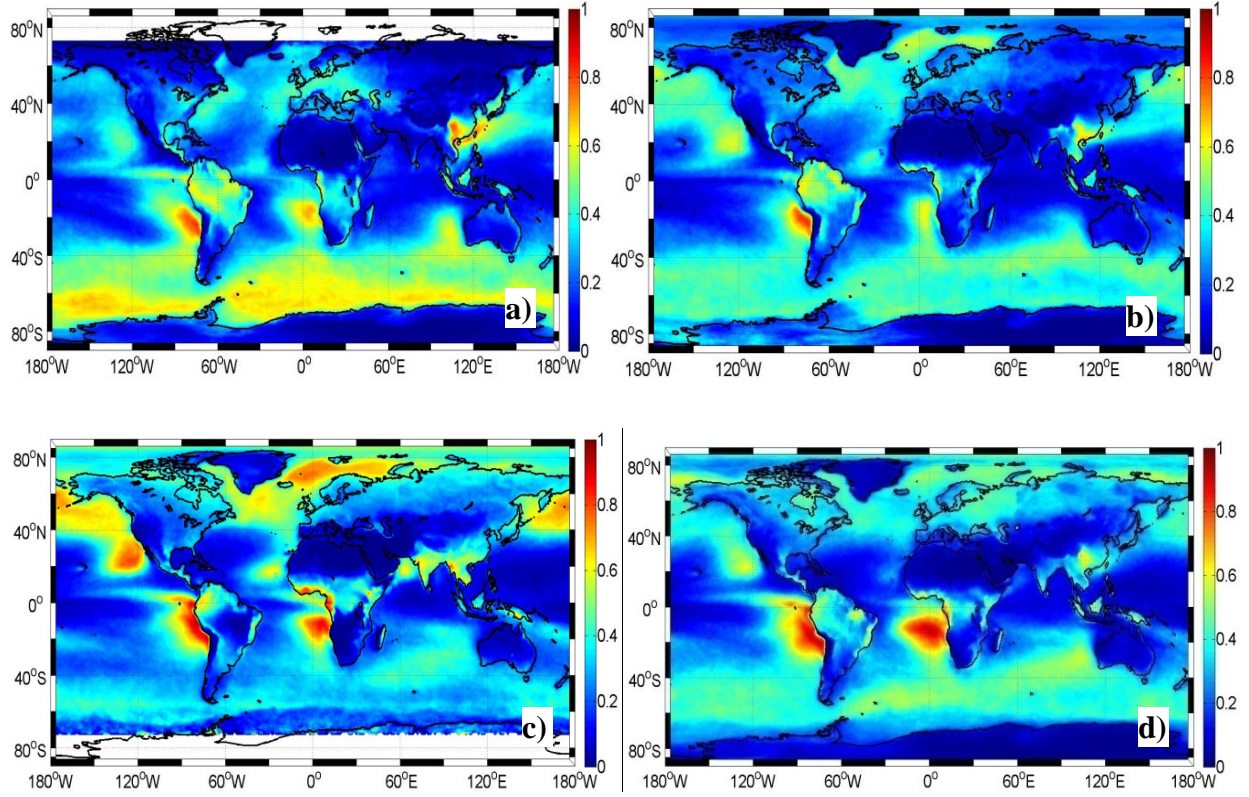


Figure S1. Global distribution of 6-yr averaged values (from *Terra* satellite) for liquid cloud fraction for different seasons: a) December –February; b) March – May; c) June – August; and d) September – November.

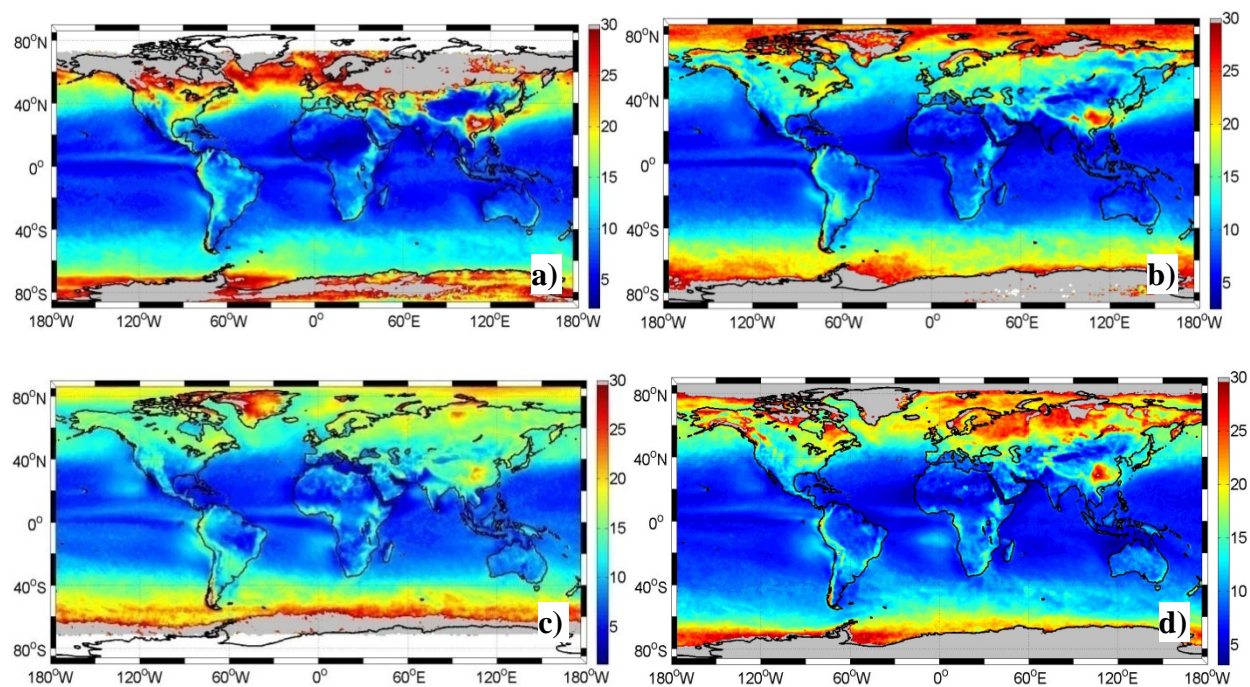


Figure S2. Global distribution of 6-yr averaged morning values (from *Terra* satellite) for liquid cloud optical thickness for different seasons: a) December –February; b) March – May; c) June – August; and d) September – November.

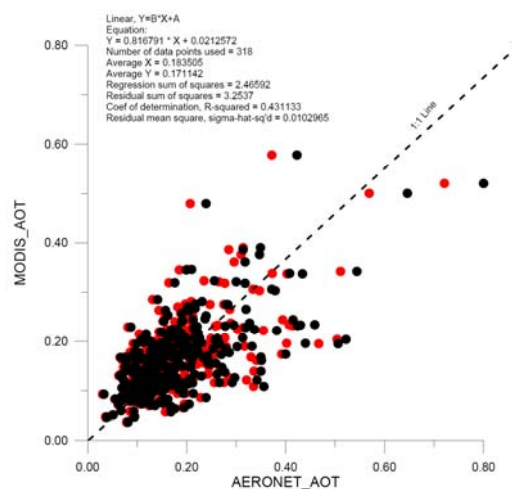
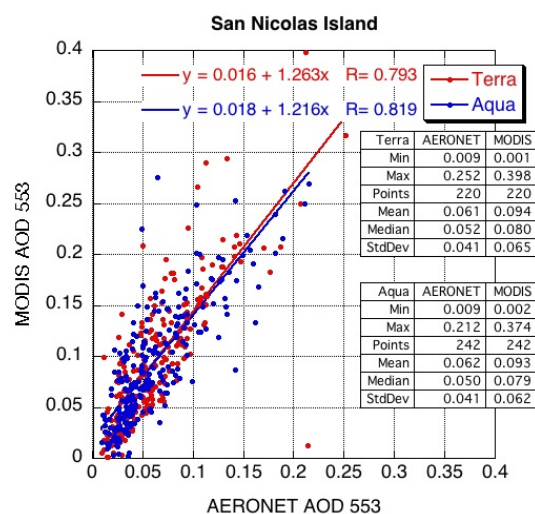


Figure S3. Comparison of co-located MODIS AOD retrievals with automatic Sun/sky radiometers of the Aerosol Robotic Network (AERONET) at two island stations a) San Nicolas Island (119.487W, 33.257N) and b) Ascension Island (14.415E, 7.796S).

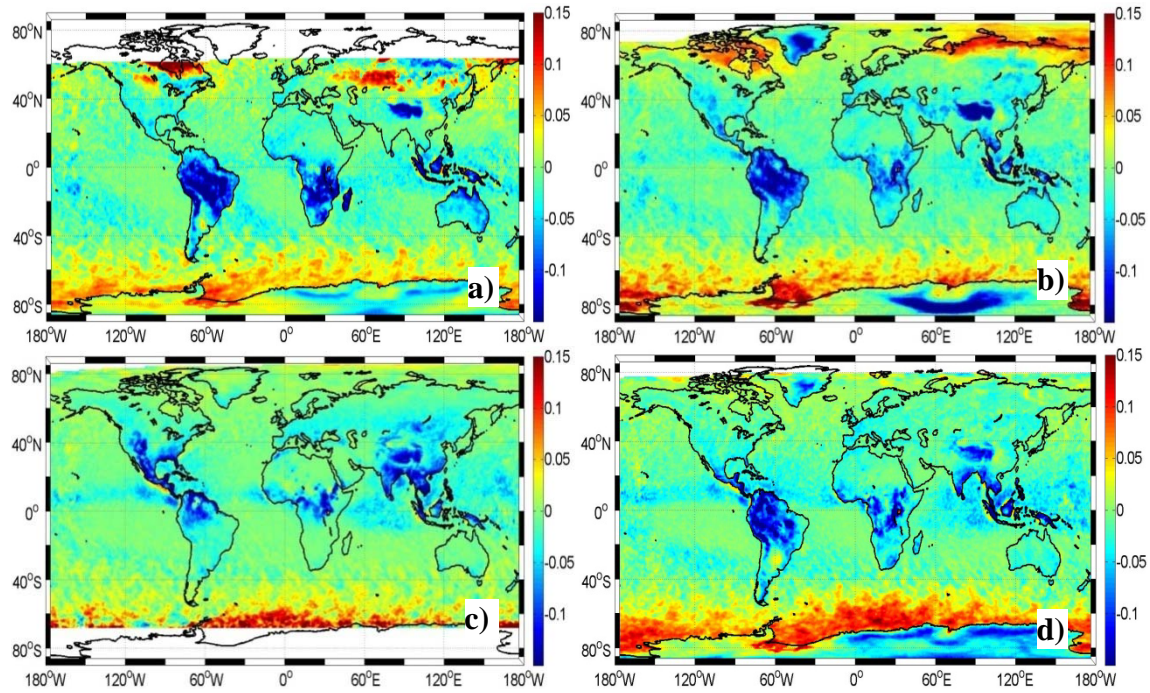


Figure S4. Global distribution of 6-yr averaged morning minus afternoon values for ice cloud fraction (IF) for a) December – February; b) March – May; c) June – August; and d) September – November.