

New A-Train Satellite Observations of Mediterranean Storms

G. Stephens, T. L'Ecuyer, J. Haynes

Colorado State University (stephens@atmos.colostate.edu / +1 970-491-8166)

On April 28, 2006 a millimeter radar system, designed expressly for vertically profiling of hydrometeors, was launched from Vandenberg Air Force Base. Both Cloudsat, carrying the Cloud Profiling Radar (CPR), and the lidar satellite CALIPSO, were inserted into nearly identical orbits each approximately 1 minute behind the NASA Earth Observing System (EOS) Aqua satellite and in formation with the French PARASOL satellite and the EOS Aura satellite. This created the A-Train satellite constellation. This talk will review several new findings from analysis of CloudSat data after more than a year of operation. The performance of the radar, comparison to other A-Train observations and the value of synergy of the different observations available for studying clouds and precipitation will be underscored in the talk which will focus primarily on the nature of storms observed over the Mediterranean region. New insights on the structure of these storms will be revealed and these results will be contrasted against weather forecast results.