

THE ARSCL SUITE OF VAPS

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ABSTRACT

ARSCL, the Active Remote Sensing of CLOUDs value-added product (VAP), is one of the ARM program's most widely used products. We discuss its current status and new, enhanced data sets that will soon be added to it. ARSCL processing is essentially up-to-date at all sites (NSA, SGP, TWP-C1, TWP-C2, and TWP-C3). The new micro-ARSCL VAP is nearly ready to begin production. This product makes use of MMCR Doppler spectra that are now routinely collected at all sites. The micro-ARSCL VAP includes data streams for each MMCR data collection mode at the native time resolution of the mode. Data quality flags and uncertainty estimates are provided for the geophysical parameters generated from each mode. Improved insect masks are available as well as statistics derived from the Doppler spectra, such as the number of spectral peaks and spectra asymmetry information. A new WACR-based ARSCL-like VAP has been developed for the ARM Mobile Facility and SGP site – the two sites where WACRs are located. This product contains cloud boundaries along with hydrometeor reflectivity, velocity and linear depolarization ratio (LDR) using 95-GHz radar, ceilometer and micropulse lidar data as input. Examples are shown for WACR data collected at the ARM Mobile Facility during its deployment to Niamey, Niger.