Geophysical Research Abstracts Vol. 20, EGU2018-10379, 2018 EGU General Assembly 2018 © Author(s) 2018. CC Attribution 4.0 license.



Cloud, Aerosol, and Precipitation Measurements for Atmospheric and Climate Studies

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The U.S. Department of Energy's Atmospheric Radiation Measurement (ARM) program (www.arm.gov) provides ground-based measurements of clouds, aerosols, and precipitation from atmospheric observatories located in important climate regimes for advancing atmospheric and climate research. ARM's capabilities include fixed and mobile ground-based facilities, aerial capabilities including manned and unmanned aerial systems, tethered balloon systems, Value Added Products, high-resolution modeling, and computational resources available to ARM data users. Several of ARM's fixed sites and mobile facility deployments (past and future) provide datasets within Europe and in the climate sensitive northern high-latitude regions. We will present ARM datasets from these locations highlighting the diurnal variability of climate relevant observations. Our goal is to help foster collaboration with the European community and bring awareness to potential opportunities for using ARM capabilities for atmospheric and climate research.