Measuring Aerosol Size Distributions During Persistent Cold Air Pools Events

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The Salt Lake Valley have frequent persistent cold air pools (PCAP's) over the course of the winter months, accumulating large amounts of suspended aerosols varying in size. With the use of Scanning Mobility Particle Sizer (SMPS)[TSI.Inc] atop the William Browning Building, University of Utah, the Hallar Air Research Team (HART) group was able to characterize the size distribution of these suspended aerosols ranging from 8 to 333 nm in diameter. Measurements were made during January and February 2019, and were set to record formation and breakup of PCAP events. Observing the concentration of these varying sized particles during PCAP events gives insight into potential daytime and nighttime aerosol formation processes.