Abstract Submitted
for the NEF17 Meeting of
The American Physical Society

Investigation of High Altitude, Long-term Aerosol Features Using Laser Radar and Wind Measurements JALAL BUTT, CHRIS OVILLE, NIMMI SHARMA, Department of Physics and Engineering Physics, Central Connecticut State University, JOHN BARNES, Cooperative Institute for Research in Environmental Sciences, CU Boulder; NOAA Earth System Research Laboratory, Global Monitoring Division — Measurements of the atmosphere were taken over several years using a CCD camera Lidar with wide angle optics and laser line filter on Mauna Loa Observatory, a world premier atmospheric baseline station. A 532-nm laser was vertically transmitted and the scatter off clouds, aerosols, and air molecules was detected using the CCD camera. The received signal was normalized to a molecular scattering model and corrected for transmission using an AERONET derived phase-function. Long-term measurements of high altitude aerosols were compiled and studied. A distinct aerosol feature in the long-term aerosol extinction average was observed and studied further with nearby radiosonde wind-direction measurements.

Jalal Butt
Central Connecticut State University

Date submitted: 25 Sep 2017 Electronic form version 1.4