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IDENTIFICATION AND ANALYSIS OF THE 1998 CENTRAL AMERICAN SMOKE EVENT AT THE SGP CART SITE

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ABSTRACT

Drought-stricken areas of Central America and Mexico were victimized by forest and brush fires that burned out of control from mid February into June 1998. Southerly and southwesterly flows at various times during the period helped transport smoke from these fires over the Gulf of Mexico and into the eastern half of the U.S., especially southern and southeastern states. Visibilities were greatly reduced from Texas to south Florida as a result of this smoke and haze. Public health advisories and alerts were issued by agencies such as the National Weather Service in May in Texas and Oklahoma. This smoke event was also detected over the Southern Great Plains CART site by ARM's unique state of the art instrument array and by sensors deployed by the Oklahoma Department of Environmental Quality/Air Quality Division. Preliminary data from these sources suggest elevated levels of aerosol loading and ozone concentrations over the CART site during May 1998. Our poster will depict these data from instruments such as the Raman lidar, Cimel sunphotometer (CSPHOT), aerosol observing system (AOS), solar and infrared radiation stations (SIRS), the absolute solar transmittance interferometer (ASTI), and aircraft CN counters. In particular, Raman lidar analyses will demonstrate a new capability for retrieving aerosol extinction profiles. NASA TOMS (Total Ozone Mapping Spectrometer) aerosol product images and other sources will be used to describe the large-scale context of the event.

http://parker.gcn.ou.edu/~cimms/ARM/smoke.html