

Opportunity Title: Atmospheric Aerosol Characterization

Opportunity Reference Code: 0002-NPP-NOV23-LRC-EarthSci

Organization National Aeronautics and Space Administration (NASA)

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Application Deadline 11/1/2023 6:00:59 PM Eastern Time Zone

Description The Langley Aerosol Research Group (LARGE, <http://science.larc.nasa.gov/large/>) is based in the Chemistry and Dynamics Branch of the Science Directorate at NASA's Langley Research Center. We specialize in making in situ aerosol and cloud measurements and conducting research to improve understanding of atmospheric aerosols and their interactions with clouds. We also take part in model and remote sensor validation studies and conduct experiments to characterize aircraft emissions and their effects on air quality and climate. We maintain a large suite of in situ sampling instruments for use in these studies including particle counters and size spectrometers (SMPS, UHSAS, LAS, APS, CAS, FSSP, CPSPD, CPD, CIP) to cover the 0.003 to 1000 nm diameter range; nephelometers, aethelometers (PSAP, TAP, MAAP), extincometers (CAPS PMex) and a photoacoustic spectrometer (PASS-3) to determine aerosol/cloud optical properties; and an Aerosol Mass Spectrometer, Particle-Into-Liquid Samplers (PILS), and Single particle Soot Photometers (SP2) to determine aerosol composition as a function of size. Pressure, flow, and temperature control equipment, trace gas monitors, aerosol/soot generators, combustor-test facilities, an altitude chamber and a large mobile laboratory are also available to support our research. Airborne experiments and large-scale field missions may be conducted on the NASA DC-8, P-3B, C-130, HU-25C, B200 or UC-12 aircraft. Qualified applicants may participate in a number of new and ongoing projects including the North Atlantic Aerosol and Marine Ecosystems Study (NAAMES, <http://naames.larc.nasa.gov/science.html>), the Korean-U.S. Air Quality study (KORUS-AQ, <https://espo.nasa.gov/home/korus-aq/content/KORUS-AQ>) and a variety of experiments being conducted to investigate aircraft particle emissions and their relationships to contrail ice formation (i.e., <http://science.larc.nasa.gov/large/aeronautics.html>). Tasks associated with these efforts include extensive laboratory tests and calibrations; installation and operation of instruments in a mobile laboratory, at fixed surface sites, and onboard NASA aircraft; deployments to domestic and foreign locations; reduction and archiving of data; and analysis and reporting of results. Recent graduates with strong backgrounds in aerosol/cloud physics, instrument development and airborne science are particularly welcome to apply.

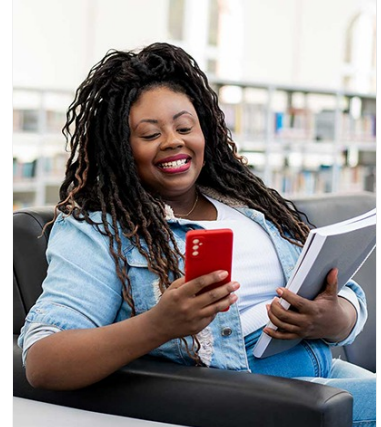
Location:

Langley Research Center
Hampton, Virginia

Field of Science:Earth Science

Advisors:

Richard Moore



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Eligibility is currently open to:

- U.S. Citizens;
- U.S. Lawful Permanent Residents (LPR);
- Foreign Nationals eligible for an Exchange Visitor J-1 visa status; and,
- Applicants for LPR, asylees, or refugees in the U.S. at the time of application with 1) a valid EAD card and 2) I-485 or I-589 forms in pending status

Eligibility Requirements • **Degree:** Doctoral Degree.